

Lower Duwamish Waterway

NPDES Inspection Sampling Support 2014/2015

Prepared for



Toxics Cleanup Program
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Appendix M

Puget Sound Coatings

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M-1 Introduction and Background

Facility Name	Puget Sound Coatings
Facility/Site ID	97263627
Address	9220 8 th Avenue S Seattle, WA 98108
NPDES Permit Type	Industrial Stormwater General Permit
NPDES Permit No.	WAR002142
Permit Monitoring Requirements	Turbidity, TSS, pH, oil sheen, total petroleum hydrocarbons (TPH), total zinc, total copper
SIC Code	3479: Metal Coating and Allied Services
Inspection Date	September 9, 2014
Grab Samples	2 water samples, 1 solids sample
Sample ID(s)	PS-TS-01-20140909-W PS-OS-01-20140909-W PS-TS-01-20140909-S
Water Sample Analytes	Total metals, mercury, hexavalent chromium, PCB congeners, SVOCs, dioxins/furans, alkalinity, bicarbonate/carbonate, sulfate, hydroxide, chloride, nitrate, specific conductance, pH, TOC, DOC, TSS
Solids Sample Analytes	Metals, mercury, PCB Aroclors, PCB congeners, dioxins/furans, SVOCs, VOCs, TPH-diesel/motor oil, TPH-gasoline, grain size, TOC
Split Samples with Facility	No

Puget Sound Coatings is located in an industrial area on the west side of the Lower Duwamish Waterway (LDW). According to the facility's Stormwater Pollution Prevention Plan (SWPPP), Puget Sound Coatings provides blasting, coating, wheelabrating, metallization and flame spraying, tape wrapping, and pressure washing services. Product is delivered to the yard via truck, cleaned by pressure and /or shot blasting using either plastic, garnet, glass, aluminum oxide, or steel media. Following cleaning, the product is coated with metal or solvent-based materials or tape wrapped, depending on the customer's request.

The site consists of several buildings and a large paved yard. Work in progress is generally stored outside, on the paved storage yard, both before and after coating applications. The coating and cleaning process has the potential to result in dust, grit, and exposed zinc or other metal products being conveyed to the stormwater conveyance system. The company has installed an Aquip brand modified sand filter to treat runoff before discharge to the public storm drain system. The loading and unloading of grits, solvents, and paints for either use or disposal by vendors represents a significant risk for spills and stormwater pollution. Secondary risks include turbidity increases due to blasting media entering the stormwater system and oil/grease increases due to leaks from forklifts or trucks (Nisqually 2012). A facility map is presented in Figure M-1.

M-1.1 Stormwater Conveyance and Treatment System

The site had two distinct discharge locations that were recently combined into one location. Stormwater is collected in catch basins and conveyed to the treatment system located at the northeast corner of the site. After treatment, the stormwater flows to the public storm drain system and eventually discharges to the LDW via the S 96th Street storm drain outfall.

Due to zinc benchmark exceedances, Puget Sound Coatings installed an ion exchange system at the back end of its stormwater treatment system. The system includes three 45-cubic foot tanks positioned in series that contain a chelating resin, which is selective for copper and zinc. The first two tanks can be placed in a lead-lag configuration; the third tank is always in the last position and acts as a safety backup (Nisqually 2012).

M-1.2 Recent Compliance History

Ecology previously completed a stormwater compliance inspection at Puget Sound Coatings on February 13, 2008. As a result of this inspection, the facility eliminated the discharge of wash water to storm drains by installing a connection to the sanitary sewer. The facility had not completed an adequate SWPPP as required by the permit. Ecology requested the facility to begin stormwater sampling and reporting as required by Permit Conditions S4 and S5, update and enhance the SWPPP as required by Permit Condition S9, and to submit a copy of the updated SWPPP to Ecology. A SWPPP was submitted to Ecology in April 2012.

Based on available Discharge Monitoring Report (DMR) data, Puget Sound Coatings exceeded the permit benchmarks for zinc during the 1st and 2nd quarter of 2011 (Ecology 2015). No recent DMR data are provided in Ecology's Water Quality Permits database.

M-2 Inspection and Sampling

M-2.1 September 2014 Stormwater Compliance Inspection

On September 9, 2014, Ecology conducted a stormwater compliance inspection at Puget Sound Coatings. Leidos assisted Ecology with inspection and sampling of the facility's stormwater conveyance system. The inspection included investigating influent and effluent points at drainage structures, written and photographic documentation, and assessing whether the drainage structures contained sufficient sampleable material. The coordinates of sample locations are plotted on Figure M-2 using geographic information system software. An inspection photographic log and field documentation are presented in Attachments M-1 and M-2, respectively.

The field team inspected the following stormwater conveyance structures at Puget Sound Coatings, as shown on Figure M-2:

- **Bypass manhole (PS-OS-01)**
- **Treatment system influent sump (PS-TS-01)**
- Manhole 01 (PS-MH-01)

Location PS-TS-01 contained sufficient sampleable solid material. Locations PS-OS-01 and PS-TS-01 contained sufficient water to collect a grab water sample. Location PS-TS-01 is labeled as CB2 on Puget Sound Coatings' SWPPP map (Figure M-1).

M-2.2 Stormwater Conveyance System Sampling

Ecology collected two water samples and one solids sample from the stormwater conveyance system at Puget Sound Coatings. Leidos provided split samples of all samples collected to Puget Sound Coatings. Sample locations, analytes, and analytical methods are listed on Table M-1. Water sample results are presented in Tables M-2 through M-6. Solids sample results are presented in Tables M-7 through M-9. Chain of custody forms and laboratory reports are provided as Attachments M-3 and M-4, respectively. Split sample results provided by Puget Sound Coatings are presented in Attachment M-5.

M-2.2.1 Water Sample

Water sample PS-TS-01-20140909-W was collected from the treatment system influent sump, which receives stormwater from all drainage areas at the Puget Sound Coatings facility (Figure M-2). Stormwater is pumped from the sump to an ion exchange stormwater treatment system. After treatment, stormwater is conveyed to the S 96th Street public storm drain system.

Water sample PS-OS-01-20140909-W was collected from a manhole located on the 48-inch bypass drainage line that conveys upgradient groundwater through the Puget Sound Coatings facility (Figure M-2). This manhole is located in the northeast corner of the facility, adjacent to location PS-TS-01. The effluent from the Puget Sound Coatings treatment system reconnects with the effluent drainage line downstream of location PS-OS-01. Water from the treatment system and bypass line is combined and conveyed to the public storm drain line on 10th Avenue S.

M-2.2.2 Solids Sample

Solids sample PS-TS-01-20140909-S was collected from the treatment system influent sump, which receives stormwater from all drainage areas at the PSC facility (Figure M-2). Stormwater is collected in catch basins and conveyed to the sump at PS-TS-01. Stormwater is pumped from the sump to the ion exchange stormwater treatment system (Attachment M-1).

M-3 Results

M-3.1 Chemical Analysis

Ecology collected two water samples and one solids sample during the September 9, 2014 stormwater compliance inspection at Puget Sound Coatings. Analytical methods, chemical results and regulatory criteria are presented in Tables M-1 through M-9.

All chemical results were independently validated by EcoChem, Inc. of Seattle, WA. A compliance-level, U.S. Environmental Protection Agency (EPA) Stage 2A data validation was performed on all chemistry results. Data validation was performed following EPA guidance (EPA 1994, 2008, 2009, 2010). The data validation report is available as Attachment 1 to the NPDES Inspection Sampling Support (2014/2015) Report (Leidos 2015).

Cadmium, copper, zinc, and total PCB congeners were detected in one or more water samples at concentrations above the screening levels (Table M-4). Zinc, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, phenol, benzyl alcohol, gasoline-range hydrocarbons, and motor oil-range hydrocarbons were detected in one or more solids samples at concentrations above the screening levels (Table M-8).

M-3.2 Inspection Results and Permit Compliance Requirements

The Ecology inspection report was not available for review.

M-4 References

Ecology (Washington State Department of Ecology). 2015. Water Quality Permitting and Reporting Information System, Summary Information, Puget Sound Coatings. Online database; accessed April 9, 2015.

EPA (Environmental Protection Agency). 1994. *USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*. EPA 540/R-94/013. Office of Emergency and Remedial Response. February 1994.

EPA. 2008. *USEPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*. EPA-540-R-08-01. Office of Emergency and Remedial Response. June 2008.

EPA. 2009. *Guidance for labeling externally validated laboratory analytical data for Superfund use*. EPA-540-R-08-005. Office of Emergency and Remedial Response. January 2009.

EPA. 2010. *USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*. EPA 540-R-10-011. Office of Emergency and Remedial Response. January 2010.

Leidos. 2015. Lower Duwamish Waterway NPDES Inspection Sampling Support, 2014/2015.. Prepared for Washington State Department of Ecology, Toxics Cleanup Program, Northwest Regional Office. June 2015.

Nisqually Environmental (Nisqually). 2012. Stormwater Pollution Prevention Plan for: Puget Sound Coatings, 9220 8th Ave S, Seattle, WA, 98108. May 2012.

Figures

Appendix B Site Map

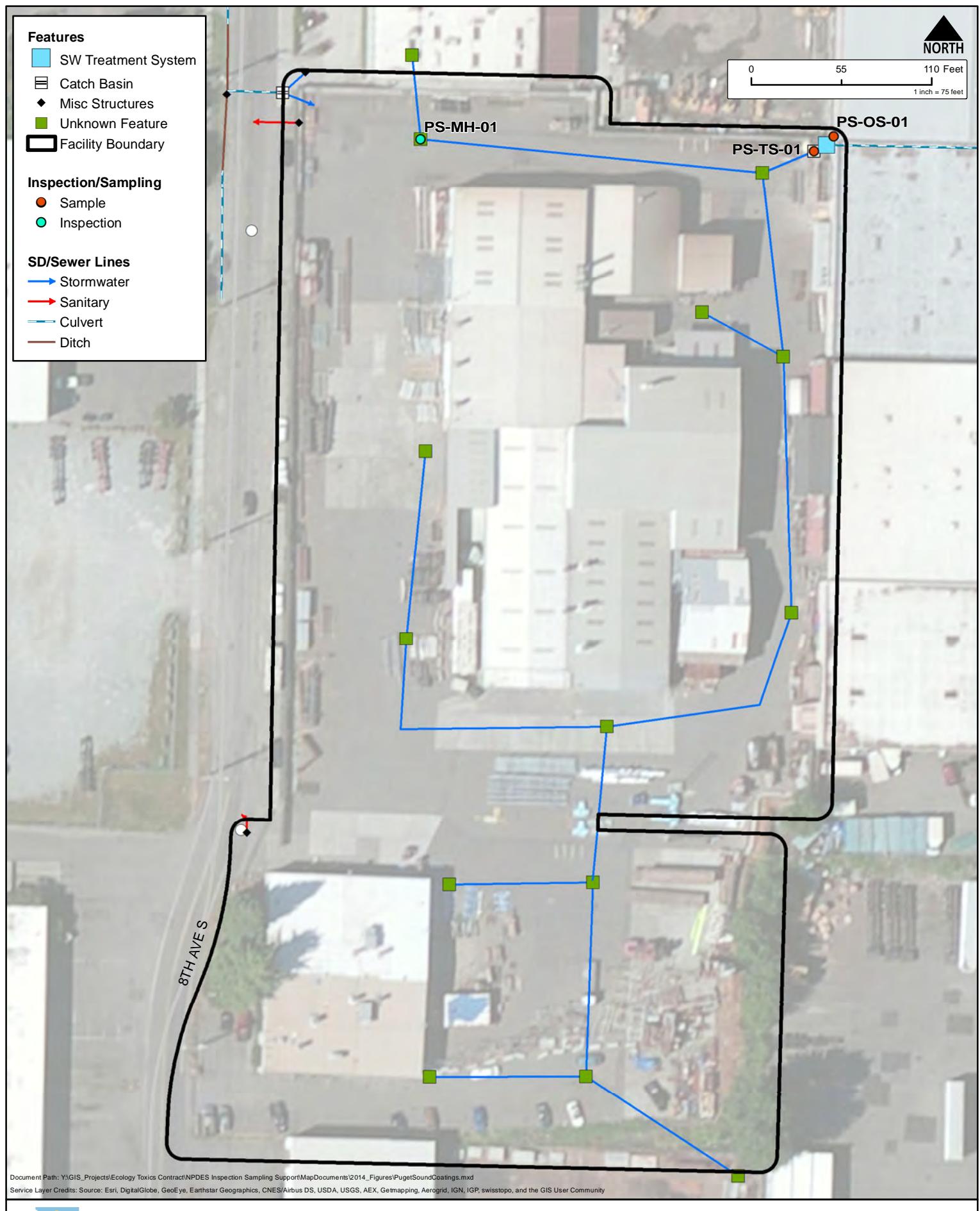


Discharge is to the Seattle storm water system, eventually to the Duwamish River

Trucks enter and leave as indicated by the small font arrows

Storm water from the site is collected and passes through the treatment system before discharge per the WWSWM calculations.

Source: Nisqually Environmental 2012



**Figure M-2. Puget Sound Coatings
Inspection and Sample Locations**

Tables

Acronyms and Abbreviations Used in Tables

<	not detected	ng/kg	nanograms per kilogram
%	percent	NPDES	National Pollutant Discharge Elimination System
2LAET	Second Lowest Apparent Effects Threshold	NR WQC	National Recommended Water Quality Criteria
CaCO ₃	calcium carbonate	NTR WQC	National Toxics Rule Water Quality Criteria
CB	chlorobiphenyl	NTU	Nephelometric Turbidity Units
cPAH	carcinogenic polycyclic aromatic hydrocarbon	OC	organic carbon
CSL	Cleanup Screening Level	ORP	Oxidation Reduction Potential
EF	exceedance factor (sample result / criteria value)	PAH	Polycyclic aromatic hydrocarbon
EMPC	estimated maximum possible concentration	PCB	Polychlorinated biphenyl
EPA	U.S. Environmental Protection Agency	pg/L	picograms per liter
HHO	human health – consumption of organisms only	PSEP	Puget Sound Estuary Program
HPAH	high molecular weight polycyclic aromatic hydrocarbon	R	rejected during data validation review
ICP-MS	Inductively coupled plasma – mass spectrometry	RAL	Remedial Action Level
ISGP	Industrial Stormwater General Permit	RL	reporting limit
J	estimated concentration	SCO	Sediment Cleanup Objective
JN	estimated concentration	SDL	sample detection limit
LAET	Lower Apparent Effects Threshold	SIM	Selected ion monitoring
LDW	Lower Duwamish Waterway	SMS	Washington State Sediment Management Standards
LPAH	low molecular weight polycyclic aromatic hydrocarbon	std units	standard units
MA	marine acute	SVOC	Semivolatile organic compound
MC	marine chronic	SW	Surface water
µg/L	micrograms per liter	TEQ	toxic equivalency
µmhos/cm	micromhos per centimeter	TPH	Total petroleum hydrocarbon
mg/kg	milligrams per kilogram	U	not detected
mg/L	milligrams per liter	U*	Flagged as EMPC by the laboratory; this was changed to U (non-detect) during data validation
mS/cm	millisiemens per centimeter	VOC	volatile organic compound
MTCA	Model Toxics Control Act	WA WQC	Washington State Water Quality Criteria
na	not analyzed	WQC	Water Quality Criteria
nd	not detected		

Table M-1. Sampling Locations and Analytical Methods
Puget Sound Coatings

Analyte	Method	Sample Location / Collection Date	
		PS-OS-01 9/9/2014	PS-TS-01 9/9/2014
Water Samples			
Metals (total)	EPA 200.8	●	●
Mercury (total, dissolved)	SW 7470A	●	●
Chromium, hexavalent	EPA 3500-Cr D	●	●
PCB Congeners	EPA 1668C	●	●
SVOCs	SW 8270D-Low	●	●
Dioxins/furans	EPA 1613B	●	●
Alkalinity/Bicarbonate/Carbonate	SM 2320B	●	●
Nitrogen, Nitrate-Nitrite	EPA 353.2	●	●
Anions (Chloride, Sulfate, Hydroxide)	EPA 300.0	●	●
Specific Conductance	EPA 120.1	●	●
pH	SM 4500H+B	●	●
Total organic carbon	SM 5310B	●	●
Dissolved organic carbon	SM 5310B		●
Total suspended solids	SM 2540D	●	●
Solids Samples			
Metals (total)	SW 6020		●
Mercury	SW7471A		●
PCB Aroclors	EPA 8082		●
PCB Congeners	EPA 1668C		●
Dioxins/furans	EPA 1613B		●
SVOCs	SW 8270D-Low		●
VOCs (a)	SW 8260B-Low		●
TPH-diesel/motor oil	NWTPH-Dx		●
TPH-gasoline	NWTPH-Gx		●
Grain size	PSEP Plumb 1981		●
Total organic carbon	PSEP 9060		●

(a) Sample PS-TS-01 was analyzed for VOCs by both methods SW8260B and SW8260C. The results from the EPA 8260C analysis is reported for the following analytes: 1,2,3-trichlorobenzene, 1,2,3-trichloropropane, 1,2,4-trichlorobenzene, 1,2,4-trimethylbenzene, 1,2-dibromo-3-chloropropane, 1,2-dichlorobenzene, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2-chlorotoluene, 4-chlorotoluene, bromobenzene, bromoform, hexachlorobutadiene, m,p-xylene, naphthalene, n-butylbenzene, n-propylbenzene, 4-isopropyltoluene, sec-butylbenzene, tert-butylbenzene, and trans-1,4-dichloro-2-butene.

Bullet indicates a sample was collected for the listed analyte at the specified location.

Table M-2. Water Quality Data - Field Measurements
Puget Sound Coatings

Location ID		PS-TS-01	PS-OS-01	
Collection Date		9/9/2014	9/9/2014	
Analyte	ISGP Benchmark	Units	Result	Result
Field Parameters				
Flow	--	Yes/No	No	No
pH	5.0 to 9.0	std units	6.7	7.5
Conductivity	--	mS/cm	0.24 a	0.22 a
Temperature	--	degrees C	19.6	19.4
Total Dissolved Solids	--	mg/L	na	na
Turbidity	25	NTU	7.2	342
Oil & Grease	No visible sheen	Yes/No	No	No
Dissolved Oxygen	--	mg/L	8.9	7.4
ORP	--	mV	na	na

Results in **bold** exceed the ISGP benchmark.

a - Field form incorrectly lists units as S/cm; should be mS/cm

Table M-3. Water Sample Results
Puget Sound Coatings

Analyte	ISGP Benchmark	Location ID			PS-OS-01	PS-TS-01
		Collection Date			9/9/2014	9/9/2014
		WA WQC		NTR WQC	NR WQC	Result
		Marine	Chronic	Acute	HHO	
Total Metals (µg/L)						
Antimony	--	--	--	--	--	59
Arsenic	150	36	69	--	--	4.4
Beryllium	--	--	--	--	--	< 0.40 U
Cadmium	2.1	9.4	42	--	--	2.2
Chromium	--	--	--	--	--	2.0
Chromium, hexavalent	--	--	--	--	--	< 12.0 U
Copper	14	3.7	5.8	--	--	7.2
Lead	81.6	8.5	221	--	--	1.1
Mercury	1.4	0.025	2.1	--	--	0.067 J
Nickel	--	8.3	75	--	--	1.7 J
Selenium	5	71	291	--	--	< 1.0 U
Silver	3.8	--	2.2	--	--	< 0.40 U
Thallium	--	--	--	--	--	< 1.0 U
Zinc	117	86	95	--	--	160
PCB Congeners (ug/L)^a						
Total PCB Congeners	--	0.03	10	1.70E-04	6.40E-05	0.012 J
PCB TEQ, nd SDL*0	--	0.03	10	--	--	8.27E-07 J
PCB TEQ, nd SDL*0.5	--	0.03	10	--	--	8.46E-07 J
PCB TEQ, nd SDL*1	--	0.03	10	--	--	8.64E-07 J
Dioxins and Furans (pg/L)^a						
2,3,7,8-TCDD	--	--	--	0.014	0.0051	< 0.943 U
1,2,3,7,8-PeCDD	--	--	--	--	--	< 1.83 U
1,2,3,4,7,8-HxCDD	--	--	--	--	--	3.63 J
1,2,3,6,7,8-HxCDD	--	--	--	--	--	6.04 J
1,2,3,7,8,9-HxCDD	--	--	--	--	--	10.1 J
1,2,3,4,6,7,8-HpCDD	--	--	--	--	--	261
OCDD	--	--	--	--	--	3450
2,3,7,8-TCDF	--	--	--	--	--	< 0.977 U
1,2,3,7,8-PeCDF	--	--	--	--	--	< 1.39 U
2,3,4,7,8-PeCDF	--	--	--	--	--	< 1.42 U
1,2,3,4,7,8-HxCDF	--	--	--	--	--	< 1.36 U
1,2,3,6,7,8-HxCDF	--	--	--	--	--	2.26 J
1,2,3,7,8,9-HxCDF	--	--	--	--	--	< 1.19 U
2,3,4,6,7,8-HxCDF	--	--	--	--	--	< 2.05 U
1,2,3,4,6,7,8-HpCDF	--	--	--	--	--	38.4
1,2,3,4,7,8,9-HpCDF	--	--	--	--	--	< 1.41 U
OCDF	--	--	--	--	--	115
Total TCDD	--	--	--	--	--	< 1.85 U
Total PeCDD	--	--	--	--	--	1.83 J
Total HxCDD	--	--	--	--	--	60.2
Total HpCDD	--	--	--	--	--	600
Total TCDF	--	--	--	--	--	1.17
Total PeCDF	--	--	--	--	--	9.60
Total HxCDF	--	--	--	--	--	33.1 J
Total HpCDF	--	--	--	--	--	83.1
Dioxin/Furan TEQ, nd SDL*0	--	--	--	--	--	6.27 J
Dioxin/Furan TEQ, nd SDL*0.5	--	--	--	--	--	8.17 J
Dioxin/Furan TEQ, nd SDL*1	--	--	--	--	--	10.1 J
PAHs (µg/L)						
1-Methylnaphthalene	--	--	--	--	--	< 0.29 U
2-Chloronaphthalene	--	--	--	--	1,600	< 0.29 U
2-Methylnaphthalene	--	--	--	--	--	< 0.97 U
Acenaphthene	--	--	--	--	990	< 0.49 U
Acenaphthylene	--	--	--	--	--	< 0.39 U
Anthracene	--	--	--	110,000	40,000	< 0.19 U
						< 0.039 U

Table M-3. Water Sample Results
Puget Sound Coatings

Analyte	ISGP Benchmark	Location ID			PS-OS-01	PS-TS-01	
		Collection Date			9/9/2014	9/9/2014	
		WA WQC		NTR WQC	NR WQC	Result	
		Marine	Chronic	Acute	HHO		
Benzo(a)anthracene	--	--	--	--	0.031	0.018	< 0.29 U < 0.058 U
Benzo(a)pyrene	--	--	--	--	0.031	0.018	< 0.19 U < 0.039 U
Benzo(b)fluoranthene	--	--	--	--	0.031	0.018	< 0.39 U < 0.078 U
Benzo(g,h,i)perylene	--	--	--	--	--	--	< 0.29 U < 0.058 U
Benzo(k)fluoranthene	--	--	--	--	0.031	0.018	< 0.29 U < 0.058 U
Chrysene	--	--	--	--	0.031	0.018	< 0.19 U < 0.039 U
Dibenz(a,h)anthracene	--	--	--	--	0.031	0.018	< 0.29 U < 0.058 U
Dibenzofuran	--	--	--	--	--	--	< 1.9 U < 0.39 U
Fluoranthene	--	--	--	--	370	140	< 0.24 U < 0.048 U
Fluorene	--	--	--	--	14,000	5,300	< 0.29 U < 0.058 U
Indeno(1,2,3-cd)pyrene	--	--	--	--	0.031	0.018	< 0.29 U 0.020 J
Naphthalene	--	--	--	--	--	--	< 1.9 U < 0.39 U
Phenanthrene	--	--	--	--	--	--	< 0.39 U < 0.078 U
Pyrene	--	--	--	--	11,000	4,000	< 0.29 U < 0.058 U
Total Benzofluoranthenes	--	--	--	--	--	--	< 0.39 U < 0.078 U
Total HPAHs	--	--	--	--	--	--	< 0.39 U 0.020 J
Total LPAHs	--	--	--	--	--	--	< 1.9 U < 0.39 U
Total PAHs	--	--	--	--	--	--	< 1.9 U 0.020 J
cPAHs, nd RL*0	--	--	--	--	--	--	< 0 U 0.00200 J
cPAHs, nd RL*0.5	--	--	--	--	--	--	< 0.17 U 0.0343 J
cPAHs, nd RL*1	--	--	--	--	--	--	< 0.35 U 0.0666 J
Phthalates (µg/L)							
bis(2-Ethylhexyl)phthalate	--	--	--	--	5.9	2.2	< 15 U < 2.9 U
Butylbenzylphthalate	--	--	--	--	--	1,900	< 2.9 U < 0.58 U
Di-n-Butylphthalate	--	--	--	--	12,000	4,500	< 1.9 U < 0.39 U
Diethylphthalate	--	--	--	--	120,000	44,000	< 1.9 U < 0.39 U
Dimethylphthalate	--	--	--	--	2,900,000	1,100,000	< 1.9 U < 0.39 U
Di-n-Octyl phthalate	--	--	--	--	--	--	< 1.9 U < 0.39 U
Phenols (µg/L)							
2,3,4,6-Tetrachlorophenol	--	--	--	--	--	--	na na
2,4,5-Trichlorophenol	--	--	--	--	--	3,600	< 1.9 U < 0.39 U
2,4,6-Trichlorophenol	--	--	--	--	6.5	2.4	< 2.9 U < 0.58 U
2,4-Dichlorophenol	--	--	--	--	790	290	< 1.9 U < 0.39 U
2,4-Dimethylphenol	--	--	--	--	--	850	< 9.7 U < 1.9 U
2,4-Dinitrophenol	--	--	--	--	14,000	5,300	< 24 U < 4.8 U
2-Chlorophenol	--	--	--	--	--	150	< 1.9 U < 0.39 U
2-Methylphenol	--	--	--	--	--	--	< 1.9 U < 0.39 U
2-Nitrophenol	--	--	--	--	--	--	< 1.9 U < 0.39 U
4,6-Dinitro-2-Methylphenol	--	--	--	--	765	280	< 19 U < 3.9 U
4-Chloro-3-methylphenol	--	--	--	--	--	--	< 1.9 U < 0.39 U
4-Methylphenol	--	--	--	--	--	--	< 3.9 U < 0.78 U
4-Nitrophenol	--	--	--	--	--	--	7.6 J < 2.9 U
Pentachlorophenol	--	7.9	13	8.2	3.0	< 3.4 U	< 0.68 U
Phenol	--	--	--	--	4,600,000	860,000	< 2.9 U < 0.58 U
Other SVOCs (µg/L)							
1,2,4-Trichlorobenzene	--	--	--	--	70	< 1.9 U	< 0.39 U
1,2-Dichlorobenzene	--	--	--	--	17,000	1,300	< 1.9 U < 0.39 U
1,3-Dichlorobenzene	--	--	--	--	2,600	960	< 1.9 U < 0.39 U
1,4-Dichlorobenzene	--	--	--	--	2,600	190	< 1.9 U < 0.39 U
2,4-Dinitrotoluene	--	--	--	--	9.1	3.4	< 1.9 U < 0.39 U
2,6-Dinitrotoluene	--	--	--	--	--	--	< 1.9 U < 0.39 U
2-Nitroaniline	--	--	--	--	--	--	< 1.9 U < 0.39 U
3,3'-Dichlorobenzidine	--	--	--	--	0.077	0.028	R R
3-Nitroaniline	--	--	--	--	--	--	< 1.9 U < 0.39 U
4-Bromophenyl-phenylether	--	--	--	--	--	--	< 1.9 U < 0.39 U
4-Chloroaniline	--	--	--	--	--	< 1.9 UUJ	< 0.39 UUJ
4-Chlorophenyl-phenylether	--	--	--	--	--	< 1.9 U	< 0.39 U

Table M-3. Water Sample Results
Puget Sound Coatings

Analyte	ISGP Benchmark	Location ID			PS-OS-01		PS-TS-01		
		Collection Date			9/9/2014		9/9/2014		
		WA WQC		NTR WQC	NR WQC	Result		Result	
		Marine							
		Chronic	Acute	HHO	HHO				
4-Nitroaniline	--	--	--	--	--	< 2.9	U	< 0.58	U
Benzoic Acid	--	--	--	--	--	3.1	J	0.77	J
Benzyl Alcohol	--	--	--	--	--	< 1.9	U	< 0.39	U
2,2'-Oxybis(1-Chloropropane)	--	--	--	170,000	65,000	< 1.9	U	< 0.39	U
bis(2-Chloroethoxy) Methane	--	--	--	--	--	< 1.9	U	< 0.39	U
Bis-(2-Chloroethyl) Ether	--	--	--	1.4	0.53	< 1.9	U	< 0.39	U
Carbazole	--	--	--	--	--	< 1.9	U	< 0.39	U
Hexachlorobenzene	--	--	--	0.00077	0.00029	< 1.9	U	< 0.39	U
Hexachlorobutadiene	--	--	--	50	18	< 2.9	U	< 0.58	U
Hexachlorocyclopentadiene	--	--	--	17,000	1,100	< 9.7	U	< 1.9	U
Hexachloroethane	--	--	--	8.9	3.3	< 2.9	U	< 0.58	U
Isophorone	--	--	--	600	960	0.58	J	< 0.39	U
Nitrobenzene	--	--	--	1,900	690	< 1.9	U	< 0.39	U
N-Nitrosodimethylamine	--	--	--	8.1	3.0	< 9.7	U	< 1.9	U
N-Nitroso-Di-N-Propylamine	--	--	--	--	0.51	< 1.9	U	< 0.39	U
N-Nitrosodiphenylamine	--	--	--	16	6.0	< 1.9	U	< 0.39	U

Results in **bold** are detections.

Results that are **shaded in gray** exceed one or more criteria.

a - Total PCB congeners and PCB/dioxin/furan TEQs include only congeners that met identification criteria as required by EPA Method 1668C (PCBs) or EPA Method 1613B (dioxins/furans).

PCB and dioxin/furan congeners identified with a U* qualifier were tagged as "estimated maximum possible concentrations" by the laboratory. This was changed to non-detect (U) during data validation.

**Table M-4. Water Sample Results Compared to Criteria
Puget Sound Coatings**

Location ID	PS-OS-01					PS-TS-01				
Collection Date	9/9/2014					9/9/2014				
Analyte	Exceedance Factor					Exceedance Factor				
	ISGP Benchmark	WA Marine Chronic	WA Marine Acute	NTR Human Health - Organisms	NR Human Health - Organisms	ISGP Benchmark	WA Marine Chronic	WA Marine Acute	NTR Human Health - Organisms	NR Human Health - Organisms
Total Metals										
Cadmium	1.0									
Copper		1.9	1.2			1.1	4.0	2.6		
Zinc	1.4	1.9	1.7			30	41	37		
PCB Congeners										
Total PCB Congeners				72	192				5.1	13

Exceedance Factors (EFs) are presented for detected concentrations only. Only chemicals with EFs > 1 are shown.

The EFs are calculated (result divided by criterion) and have no regulatory relevance. They provide an indication of the general magnitude of the concentration relative to the WA, NTR, or NR Water Quality Criteria.

**Table M-5. Water Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-OS-01	PS-TS-01
Collection Date	9/9/2014	9/9/2014
Analyte	Result	Result
Total PCB Congeners (µg/L)	0.0123 J	0.000859 J
Total PCB Congeners (pg/L)	12,300 J	859 J
Total Mono-CB (pg/L)	3.56 J	< 1.75 U
PCB-1	3.56 J	< 1.21 U
PCB-2	< 1.97 U*	< 1.75 U
PCB-3	< 2.99 U*	< 1.49 U
Total Di-CB (pg/L)	312 J	58.6
PCB-4/10	< 5.64 U	< 5.64 U
PCB-5/8	19.5 J	< 3.59 U
PCB-6	< 3.10 U	< 3.10 U
PCB-7/9	< 6.22 U	< 6.22 U
PCB-11	267	58.6
PCB-12/13	< 5.01 U	< 5.01 U
PCB-14	< 3.98 U	< 3.98 U
PCB-15	25.9	< 2.53 U
Total Tri-CB (pg/L)	226 J	43.9 J
PCB-16/32	30.7	8.18 J
PCB-17	13.5	< 3.59 U*
PCB-18	37.7	9.86
PCB-19	5.66	< 1.14 U
PCB-20/21/33	19.3	4.34 J
PCB-22	15.2	3.00 J
PCB-23	< 1.35 U	< 1.00 U
PCB-24/27	< 5.05 U*	< 0.789 U
PCB-25	2.73 J	< 0.979 U
PCB-26	5.97	1.61 J
PCB-28	36.6	7.53
PCB-29	< 1.58 U	< 0.989 U
PCB-30	< 0.721 U	< 0.805 U
PCB-31	26.2	5.63
PCB-34	< 1.66 U	< 1.04 U
PCB-35	7.16	< 1.01 U
PCB-36	< 2.04 U	< 1.01 U
PCB-37	25.4	3.77 J
PCB-38	< 1.56 U	< 1.02 U
PCB-39	< 1.97 U	< 0.976 U
Total Tetra-CB (pg/L)	488 J	89.8 J
PCB-40	6.91	2.38 J
PCB-41/64/71/72	< 1.43 U	9.61 J
PCB-42/59	23.2	2.99 J
PCB-43/49	40.9	7.21 J
PCB-44	66.4	10.2
PCB-45	13.6	1.93 J
PCB-46	6.21	< 1.20 U
PCB-47	15.0	4.48 J
PCB-48/75	9.41 J	2.12 J
PCB-50	< 1.40 U	< 1.02 U
PCB-51	4.42 J	< 0.740 U*
PCB-52/69	83.8	13.9
PCB-53	12.7	1.60 J
PCB-54	< 1.14 U	< 0.827 U
PCB-55	2.96 J	< 0.773 U

**Table M-5. Water Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-OS-01	PS-TS-01
Collection Date	9/9/2014	9/9/2014
Analyte	Result	Result
PCB-56/60	41.2	6.11 J
PCB-57	< 0.857 U	< 0.820 U
PCB-58	< 1.07 U	< 0.829 U
PCB-61/70	82.7	14.0
PCB-62	< 1.45 U	< 0.844 U
PCB-63	< 1.64 U*	< 0.696 U
PCB-65	< 0.953 U	< 0.817 U
PCB-67	54.1	6.72 J
PCB-68	2.50 J	< 0.851 U
PCB-73	< 1.24 U	0.949 J
PCB-74	< 1.40 U	< 0.833 U
PCB-76/66	22.2	3.16 J
PCB-77	< 21.4 U*	2.42 J
PCB-78	< 0.990 U	< 0.766 U
PCB-79	< 3.20 U*	< 0.764 U
PCB-80	< 0.926 U	< 0.672 U
PCB-81	< 1.49 U*	< 0.686 U
Total Penta-CB (pg/L)	2,350 J	217 J
PCB-82	48.3	5.76
PCB-83	< 1.32 U	< 1.30 U
PCB-84/92	161	16.0
PCB-85/116	50.2	< 5.07 U*
PCB-86	< 2.34 U	< 1.94 U
PCB-87/117/125	120	14.3 J
PCB-88/91	55.5	5.40
PCB-89	3.69 J	< 1.78 U
PCB-90/101	352	42.0
PCB-93	< 1.47 U	< 1.47 U
PCB-94	< 2.05 U*	< 1.85 U
PCB-95/98/102	334	28.5
PCB-96	1.86 J	< 1.43 U
PCB-97	94.4	10.8
PCB-99	99.2	14.5
PCB-100	< 2.03 U	< 1.56 U
PCB-103	< 1.82 U*	< 1.67 U
PCB-104	< 0.931 U	< 0.931 U
PCB-105	134	< 12.3 U*
PCB-106/118	301	34.8
PCB-107/109	23.4	< 2.58 U*
PCB-108/112	17.2	< 1.67 U*
PCB-110	500	42.9
PCB-111/115	4.47 J	< 0.768 U
PCB-113	< 1.31 U	1.19 J
PCB-114	7.16	< 1.81 U
PCB-119	5.31	0.829 J
PCB-120	< 1.87 U*	< 1.01 U
PCB-121	< 1.21 U	< 1.07 U
PCB-122	4.04 J	< 1.84 U
PCB-123	5.25	< 1.28 U
PCB-124	20.5	< 1.81 U*
PCB-126	8.10	< 2.05 U
PCB-127	< 0.808 U	< 0.808 U

**Table M-5. Water Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-OS-01	PS-TS-01
Collection Date	9/9/2014	9/9/2014
Analyte	Result	Result
Total Hexa-CB (pg/L)	4,110 J	256 J
PCB-128/162	124	9.43 J
PCB-129	35.1	2.53 J
PCB-130	57.5	< 3.65 U*
PCB-131	< 1.46 U	< 1.46 U
PCB-132/161	239	15.5
PCB-133/142	20.4	1.63 J
PCB-134/143	43.4	2.94 J
PCB-135	125	7.29
PCB-136	129	7.19
PCB-137	28.0	2.67 J
PCB-138/163/164	905	57.9
PCB-139/149	827	48.4
PCB-140	< 3.40 U*	< 1.31 U
PCB-141	201	13.8
PCB-144	44.0	2.97 J
PCB-145	< 1.18 U	< 0.938 U
PCB-146/165	118	7.86 J
PCB-147	11.2	0.771 J
PCB-148	< 1.68 U	< 1.38 U
PCB-150	1.66 J	< 0.963 U
PCB-151	252	13.2
PCB-152	< 1.17 U	< 0.933 U
PCB-153	720	49.8
PCB-154	7.61	< 1.16 U
PCB-155	< 1.13 U	< 0.903 U
PCB-156	66.0	4.98
PCB-157	19.7	< 1.17 U
PCB-158/160	96.5	6.73 J
PCB-159	< 1.20 U	< 1.20 U
PCB-166	2.97 J	< 0.920 U
PCB-167	33.4	< 2.53 U*
PCB-168	< 0.933 U	< 0.933 U
PCB-169	< 1.12 U	< 1.12 U
Total Hepta-CB (pg/L)	3,710 J	159 J
PCB-170	385	18.7
PCB-171	113	4.78 J
PCB-172	81.7	3.87 J
PCB-173	11.0	< 1.18 U
PCB-174	488	20.9
PCB-175	17.8	< 1.01 U
PCB-176	55.5	2.87 J
PCB-177	272	10.8
PCB-178	93.0	4.89
PCB-179	208	8.96
PCB-180	962	42.0
PCB-181	< 1.01 U	< 1.00 U
PCB-182/187	571	27.9
PCB-183	239	10.9
PCB-184	< 1.12 U	< 0.793 U
PCB-185	62.2	< 1.97 U*
PCB-186	< 1.09 U	< 0.769 U

**Table M-5. Water Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-OS-01	PS-TS-01
Collection Date	9/9/2014	9/9/2014
Analyte	Result	Result
PCB-188	< 1.52 U*	< 0.699 U
PCB-189	16.2	< 0.885 U
PCB-190	73.5	2.82 J
PCB-191	16.2	< 0.816 U
PCB-192	< 1.51 U	< 0.894 U
PCB-193	46.2	< 2.02 U*
Total Octa-CB (pg/L)	986 J	27.0 J
PCB-194	246	9.79
PCB-195	98.1	4.11 J
PCB-196/203	263	< 10.5 U*
PCB-197	10.7	< 0.886 U
PCB-198	10.3	< 1.28 U
PCB-199	257	11.2
PCB-200	34.3	< 1.63 U*
PCB-201	< 31.5 U*	1.93 J
PCB-202	55.3	< 3.21 U*
PCB-204	< 1.48 U	< 0.957 U
PCB-205	11.0	< 1.53 U
Total Nona-CB (pg/L)	111 J	7.46 J
PCB-206	97.6	5.70
PCB-207	13.6	< 0.961 U
PCB-208	< 22.4 U*	1.76 J
Deca-CB (pg/L)	< 26.2 U	< 1.86 U
PCB-209	< 26.2 U*	< 1.86 U
PCB TEQ, nd SDL*0	0.827 J	0.00144 J
PCB TEQ, nd SDL*0.5	0.846 J	0.121 J
PCB TEQ, nd SDL*1	0.864 J	0.241 J

Total PCB congeners and total PCB homologs include only congeners that met identification criteria as required by EPA Method 1668C.

Table M-6. Water Sample Results - Conventionals
Puget Sound Coatings

Location ID		PS-OS-01	PS-TS-01	
Collection		9/9/2014	9/9/2014	
Analyte	ISGP Benchmark	Units	Result	Result
Conventionals				
Alkalinity	--	mg/L	87	97
Bicarbonate	--	mg/L CaCO ₃	87	97
Carbonate	--	mg/L CaCO ₃	< 5 U	< 5 U
Chloride	--	mg/L	3.1	3.4
Specific Conductance	--	µhos/cm	210	230
Hydroxide	--	mg/L CaCO ₃	< 5.0 U	< 5.0 U
Nitrate	--	mg/L	1.1	0.57
pH	5-9	std units	7.7 J	7.35 J
Salinity	--	mg/L	na	na
Sulfate	--	mg/L	8.4	7.8
Dissolved Organic Carbon	--	mg/L	na	13 J
Total Organic Carbon	--	mg/L	5.2	13
Total Suspended Solids ^a	30	mg/L	97	< 6.7 U
Turbidity	25	NTU	na	na
Oil & Grease	--	mg/L	na	na
Oil & Grease - Polar	--	mg/L	na	na
Oil & Grease - Silica Gel Treated	--	mg/L	na	na

a - The ISGP benchmark for Total Suspended Solids becomes effective on January 1, 2017.

Shaded results exceed the ISGP benchmark for that parameter.

**Table M-7. Solids Sample Results
Puget Sound Coatings**

		Location ID PS-TS-01	
		Collection Date 9/9/2014	
Analyte	SMS Criteria		Result
	SCO/ LAET^a	CSL/ 2LAET	
Metals (Total) (mg/kg)			
Antimony	--	--	0.89
Arsenic	57	93	5.5
Beryllium	--	--	0.15 J
Cadmium	5.1	6.7	0.93
Chromium	260	270	66
Copper	390	390	270
Lead	450	530	39
Mercury	0.41	0.59	0.28
Nickel	--	--	60
Selenium	--	--	0.5 J
Silver	6.1	6.1	0.27
Thallium	--	--	< 0.51 U
Zinc	410	960	26,000
PCB Aroclors (µg/kg)			
Aroclor 1016	--	--	< 14 U
Aroclor 1221	--	--	< 16 U
Aroclor 1232	--	--	< 16 U
Aroclor 1242	--	--	< 14 U
Aroclor 1248	--	--	< 14 U
Aroclor 1254	--	--	< 14 U
Aroclor 1260	--	--	< 14 U
Total PCB Aroclors	130	1,000	< 14 U
PCB Congeners (ug/kg)^b			
Total PCB Congeners	130	1,000	34.4 J
PCB TEQ, nd SDL*0	--	--	7.4E-05 J
PCB TEQ, nd SDL*0.5	--	--	0.00011 J
PCB TEQ, nd SDL*1	--	--	0.00015 J
Dioxins and Furans (ng/kg)			
2,3,7,8-TCDD	--	--	< 0.205 U*
1,2,3,7,8-PeCDD	--	--	0.97 J
1,2,3,4,7,8-HxCDD	--	--	1.46 J
1,2,3,6,7,8-HxCDD	--	--	5.78
1,2,3,7,8,9-HxCDD	--	--	3.65
1,2,3,4,6,7,8-HpCDD	--	--	187
OCDD	--	--	1,200
2,3,7,8-TCDF	--	--	0.861
1,2,3,7,8-PeCDF	--	--	0.518 J
2,3,4,7,8-PeCDF	--	--	1.34 J
1,2,3,4,7,8-HxCDF	--	--	1.29 J
1,2,3,6,7,8-HxCDF	--	--	1.33 J
1,2,3,7,8,9-HxCDF	--	--	< 0.195 U
2,3,4,6,7,8-HxCDF	--	--	1.52 J
1,2,3,4,6,7,8-HpCDF	--	--	18.5
1,2,3,4,7,8,9-HpCDF	--	--	1.16 J
OCDF	--	--	40.2
Dioxin/Furan TEQ, nd SDL*0	25	--	5.42 J
Dioxin/Furan TEQ, nd SDL*0.5	25	--	5.53 J
Dioxin/Furan TEQ, nd SDL*1	25	--	6.64 J

Table M-7. Solids Sample Results
Puget Sound Coatings

Analyte	Location ID		PS-TS-01	
	Collection Date		9/9/2014	
	SCO/ LAET ^a	CSL/ 2LAET	Result	
Total TCDD	--	--	3.6	J
Total TCDF	--	--	16.3	
Total PeCDD	--	--	9.12	J
Total PeCDF	--	--	16	
Total HxCDD	--	--	59.3	
Total HxCDF	--	--	23.9	
Total HpCDD	--	--	386	
Total HpCDF	--	--	39.2	
PAHs (µg/kg)				
1-Methylnaphthalene	--	--	24	J
2-Chloronaphthalene	--	--	< 60	U
2-Methylnaphthalene	670	1,400	27	J
Acenaphthene	500	730	61	
Acenaphthylene	1,300	1,300	< 60	U
Anthracene	960	4,400	270	
Benzo(a)anthracene	1,300	1,600	600	
Benzo(a)pyrene	1,600	3,000	450	
Benzo(g,h,i)perylene	670	720	250	
Chrysene	1,400	2,800	750	
Dibenz(a,h)anthracene	230	540	44	J
Dibenzofuran	540	700	36	J
Fluoranthene	1,700	2,500	1,200	
Fluorene	540	1,000	88	
Indeno(1,2,3-cd)pyrene	600	690	260	
Naphthalene	2,100	2,400	100	
Phenanthrene	1,500	5,400	1,000	
Pyrene	2,600	3,300	1,100	
Total Benzofluoranthenes	3,200	3,600	930	
Total HPAHs	12,000	17,000	5,600	
Total LPAHs	5,200	13,000	1,500	
cPAHs, nd RL*0	1,000	--	640	
cPAHs, nd RL*0.5	1,000	--	640	
cPAHs, nd RL*1	1,000	--	640	
Phthalates (µg/kg)				
bis(2-Ethylhexyl)phthalate	1,300	1,900	7,200	
Butylbenzylphthalate	63	900	2,800	
Di-n-Butylphthalate	1,400	5,100	340	J
Diethylphthalate	200	1,200	< 100	U
Dimethylphthalate	71	160	< 300	U
Di-n-Octyl phthalate	6,200	--	270	J
Phenols (µg/kg)				
2,4,5-Trichlorophenol	--	--	< 300	U
2,4,6-Trichlorophenol	--	--	< 450	U
2,4-Dichlorophenol	--	--	< 300	U
2,4-Dimethylphenol	29	29	< 300	U
2,4-Dinitrophenol	--	--	< 3,000	U
2-Chlorophenol	--	--	< 300	U
2-Methylphenol	63	63	< 300	U
2-Nitrophenol	--	--	< 300	U

**Table M-7. Solids Sample Results
Puget Sound Coatings**

Analyte	Location ID		PS-TS-01	
	Collection Date		9/9/2014	
	SCO/ LAET ^a	CSL/ 2LAET	Result	
4,6-Dinitro-2-Methylphenol	--	--	< 3,000	U
4-Chloro-3-methylphenol	--	--	< 300	U
4-Methylphenol	670	670	530	J
4-Nitrophenol	--	--	< 3,000	U
Pentachlorophenol	360	690	< 600	U
Phenol	420	1,200	590	
Other SVOCs (µg/kg)				
1,2,4-Trichlorobenzene	31	51	< 150	U
1,2-Dichlorobenzene	35	50	< 160	U
1,3-Dichlorobenzene	--	--	< 150	U
1,4-Dichlorobenzene	110	120	< 150	U
2,4-Dinitrotoluene	--	--	< 300	U
2,6-Dinitrotoluene	--	--	< 300	U
2-Nitroaniline	--	--	< 300	U
3,3'-Dichlorobenzidine	--	--	< 600	U
3-Nitroaniline	--	--	< 300	U
4-Bromophenyl-phenylether	--	--	< 300	U
4-Chloroaniline	--	--	< 300	U
4-Chlorophenyl-phenylether	--	--	< 300	U
4-Nitroaniline	--	--	< 300	U
Benzoic Acid	650	650	< 7,500	U
Benzyl Alcohol	57	73	1,300	
2,2'-Oxybis(1-Chloropropane)	--	--	< 750	U
bis(2-Chloroethoxy) Methane	--	--	< 300	U
Bis-(2-Chloroethyl) Ether	--	--	< 300	U
Carbazole	--	--	76	J
Hexachlorobenzene	22	70	< 150	U
Hexachlorobutadiene	11	120	< 150	U
Hexachlorocyclopentadiene	--	--	< 300	U
Hexachloroethane	--	--	1,200	
Isophorone	--	--	44	J
Nitrobenzene	--	--	120	J
N-Nitrosodimethylamine	--	--	< 3,000	U
N-Nitroso-Di-N-Propylamine	--	--	< 300	U
N-Nitrosodiphenylamine	28	40	< 150	U
VOCs (µg/kg)				
1,1,1,2-Tetrachloroethane	--	--	< 1.5	UJ
1,1,1-Trichloroethane	--	--	< 1.5	UJ
1,1,2,2-Tetrachloroethane	--	--	< 3.1	UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	< 1.5	UJ
1,1,2-Trichloroethane	--	--	< 3.1	UJ
1,1-Dichloroethane	--	--	< 1.5	UJ
1,1-Dichloroethene	--	--	< 7.7	UJ
1,1-Dichloropropene	--	--	< 1.5	UJ
1,2,3-Trichlorobenzene	--	--	< 180	UJ
1,2,3-Trichloropropane	--	--	< 180	UJ
1,2,4-Trimethylbenzene	--	--	16,000	J
1,2-Dibromo-3-chloropropane	--	--	< 880	UJ
1,2-Dibromoethane	--	--	< 1.5	UJ
1,2-Dichloroethane	--	--	< 1.5	UJ

**Table M-7. Solids Sample Results
Puget Sound Coatings**

Analyte	Location ID		PS-TS-01		
	Collection Date		9/9/2014		
	SCO/ LAET ^a	CSL/ 2LAET	Result		
1,2-Dichloropropane	--	--	< 1.5	UJ	
1,3,5-Trimethylbenzene	--	--	13,000	J	
1,3-Dichloropropane	--	--	< 3.1	UJ	
2,2-Dichloropropane	--	--	< 7.7	UJ	
2-Chloroethylvinylether	--	--	< 7.7	UJ	
2-Chlorotoluene	--	--	< 180	UJ	
2-Hexanone	--	--	< 7.7	UJ	
4-Chlorotoluene	--	--	< 180	UJ	
Acetone	--	--	190	J	
Acrolein	--	--	< 46	UJ	
Acrylonitrile	--	--	< 15	UJ	
Benzene	--	--	0.81	J	
Bromobenzene	--	--	< 180	UJ	
Bromochloromethane	--	--	< 3.1	UJ	
Bromoform	--	--	< 180	UJ	
Bromomethane	--	--	< 1.5	UJ	
Carbon Disulfide	--	--	1.0	J	
Carbon Tetrachloride	--	--	< 1.5	UJ	
Chlorobenzene	--	--	< 1.5	UJ	
Dibromochloromethane	--	--	< 1.5	UJ	
Chloroethane	--	--	< 1.5	UJ	
Chloroform	--	--	< 1.5	UJ	
Chloromethane	--	--	< 1.5	UJ	
cis-1,2-Dichloroethene	--	--	< 1.5	UJ	
cis-1,3-Dichloropropene	--	--	< 1.5	UJ	
Dibromomethane	--	--	< 1.5	UJ	
Bromodichloromethane	--	--	< 1.5	UJ	
Dichlorodifluoromethane	--	--	< 1.5	UJ	
Ethylbenzene	--	--	310	J	
Isopropylbenzene	--	--	100	J	
m,p-Xylene	--	--	5,000	J	
2-Butanone	--	--	28	J	
Iodomethane	--	--	< 23	UJ	
4-Methyl-2-Pentanone (MIBK)	--	--	110	J	
Methyl tert-Butyl Ether	--	--	< 1.5	UJ	
Methylene Chloride	--	--	< 23	UJ	
n-Butylbenzene	--	--	2,100	J	
n-Propylbenzene	--	--	1,700	J	
o-Xylene	--	--	7,200		
4-Isopropyltoluene	--	--	510	J	
sec-Butylbenzene	--	--	600	J	
Styrene	--	--	< 3.1	UJ	
tert-Butylbenzene	--	--	< 180	UJ	
Tetrachloroethene	--	--	< 1.5	UJ	
Toluene	--	--	34	J	
Total Xylenes	--	--	12,200	J	
trans-1,2-Dichloroethene	--	--	< 1.5	UJ	
trans-1,3-Dichloropropene	--	--	< 1.5	UJ	
trans-1,4-Dichloro-2-butene	--	--	< 880	UJ	
Trichloroethene	--	--	< 1.5	UJ	

**Table M-7. Solids Sample Results
Puget Sound Coatings**

		Location ID		PS-TS-01			
		Collection Date		9/9/2014			
Analyte	SMS Criteria		Result				
	SCO/ LAET ^a	CSL/ 2LAET					
Trichlorofluoromethane	--	--	< 1.5	UJ			
Vinyl Acetate	--	--	< 7.7	UJ			
Vinyl Chloride	--	--	< 1.5	UJ			
TPH (mg/kg)							
Gasoline-Range Hydrocarbons	30/100	--	330				
Diesel-Range Hydrocarbons	2,000	--	1,300	J			
Motor Oil-Range Hydrocarbons	2,000	--	6,000	J			
Grain size (%)							
Clay	--	--	1.8				
Silt	--	--	33				
Sand	--	--	65				
Gravel	--	--	0.40				
Cobbles	--	--	0.0				
Conventionals (%)							
Total Organic Carbon	--	--	5.0	J			
Total Solids	--	--	66.7				

a - LDW RALs are presented for cPAHs and dioxin/furan TEQs.

MTCA Method A cleanup levels for soil are presented for TPH.

b - Total PCB congeners and PCB/dioxin/furan TEQs include only congeners that met identification criteria as required by EPA Method1668C (PCBs) or EPA Method 1613B (dioxins/furans).

PCB and dioxin/furan congeners identified with a U* qualifier were tagged as "estimated maximum possible concentrations" by the laboratory. This was changed to non-detect (U) during data validation.

Petroleum hydrocarbon results are compared to MTCA Method A cleanup levels. Two cleanup levels are available for TPH-Gasoline under MTCA Method A. The more stringent value (30 mg/kg) is applied for facilities where benzene has been detected.

Results in **bold** are detections.

**Table M-8. Solids Sample Results Compared to Dry Weight Criteria
Puget Sound Coatings**

Location ID	PS-TS-01	
Collection Date	9/9/2014	
Analyte	Exceedance Factor	
	SCO/ LAET	CSL/ 2LAET
Metals (Total)		
Zinc	63	27
Phthalates		
bis(2-Ethylhexyl)phthalate	5.5	3.8
Butylbenzylphthalate	44	3.1
Phenols		
Phenol	1.4	
Other SVOCs		
Benzyl Alcohol	23	18
TPH		
Gasoline-Range Hydrocarbons	11	
Motor Oil-Range Hydrocarbons	3.0	

Exceedance factors are presented for detected concentrations that exceed the SMS/AET criteria, LDW RALs (dioxins/furans and cPAHs), or MTCA Method A cleanup levels for soil (TPH).

The exceedance factors are calculated (result divided by criterion) and have no regulatory relevance. They provide an indication of the general magnitude of the concentration relative to the identified criterion.

**Table M-9. Solids Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-TS-01
Collection Date	9/9/2014
Analyte	Result
Total PCB Congeners (ng/kg) ^a	34,400 J
Total Monochlorobiphenyl (ng/kg)^a	444
PCB-1	273
PCB-2	68.4
PCB-3	103
Total Dichlorobiphenyl (ng/kg)^a	1,970 J
PCB-4/10	127 J
PCB-5/8	290
PCB-6	103
PCB-7/9	97.5 J
PCB-11	1,160
PCB-12/13	65.4 J
PCB-14	< 0.337 U
PCB-15	123
Total Trichlorobiphenyl (ng/kg)^a	863 J
PCB-16/32	101 J
PCB-17	47.3 J
PCB-18	141
PCB-19	< 0.612 U
PCB-20/21/33	106 J
PCB-22	53.5
PCB-23	< 0.543 U
PCB-24/27	15.3 J
PCB-25	< 15.4 U*
PCB-26	< 34.7 U*
PCB-28	125
PCB-29	< 0.949 U
PCB-30	< 0.355 U
PCB-31	141
PCB-34	< 1.57 U
PCB-35	38.5 J
PCB-36	< 0.406 U
PCB-37	94.0
PCB-38	< 0.528 U
PCB-39	< 0.461 U
Total Tetrachlorobiphenyl (ng/kg)^a	2,270 J
PCB-40	74.1
PCB-41/64/71/72	224
PCB-42/59	69.0 J
PCB-43/49	172
PCB-44	275
PCB-45	< 24.5 U*
PCB-46	< 0.537 U
PCB-47	48.7 J
PCB-48/75	37.8 J
PCB-50	< 0.603 U
PCB-51	< 0.789 U
PCB-52/69	326
PCB-53	< 26.0 U*
PCB-54	< 0.275 U
PCB-55	< 0.416 U
PCB-56/60	163

**Table M-9. Solids Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-TS-01
Collection Date	9/9/2014
Analyte	Result
PCB-57	< 0.354 U
PCB-58	< 0.589 U
PCB-61/70	432
PCB-62	< 0.597 U
PCB-63	< 0.524 U
PCB-65	< 0.842 U
PCB-67	205
PCB-68	< 0.486 U
PCB-73	< 0.658 U
PCB-74	< 0.454 U
PCB-76/66	100
PCB-77	127
PCB-78	< 0.385 U
PCB-79	20.0 J
PCB-80	< 0.336 U
PCB-81	< 0.674 U
Total Pentachlorobiphenyl (ng/kg)^a	8,010 J
PCB-82	156
PCB-83	< 0.440 U
PCB-84/92	513
PCB-85/116	195
PCB-86	< 1.79 U
PCB-87/117/125	469
PCB-88/91	131
PCB-89	< 8.48 U*
PCB-90/101	1,570
PCB-93	< 1.42 U
PCB-94	< 0.874 U
PCB-95/98/102	823
PCB-96	< 0.588 U
PCB-97	352
PCB-99	450
PCB-100	< 0.511 U
PCB-103	< 0.428 U
PCB-104	< 0.876 U
PCB-105	472
PCB-106/118	1,220
PCB-107/109	75.5 J
PCB-108/112	65.1 J
PCB-110	1,490
PCB-111/115	< 24.0 U*
PCB-113	< 41.2 U*
PCB-114	< 0.418 U
PCB-119	< 0.383 U
PCB-120	< 0.622 U
PCB-121	< 0.978 U
PCB-122	< 0.619 U
PCB-123	23.7 J
PCB-124	< 52.0 U*
PCB-126	< 0.543 U
PCB-127	< 0.326 U

**Table M-9. Solids Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-TS-01
Collection Date	9/9/2014
Analyte	Result
Total Hexachlorobiphenyl (ng/kg)^a	10,000 J
PCB-128/162	350
PCB-129	101
PCB-130	145
PCB-131	< 0.731 U
PCB-132/161	586
PCB-133/142	83.2 J
PCB-134/143	114
PCB-135	274
PCB-136	251
PCB-137	104
PCB-138/163/164	2,170
PCB-139/149	1,860
PCB-140	< 1.20 U
PCB-141	486
PCB-144	127
PCB-145	< 1.05 U
PCB-146/165	284
PCB-147	< 25.8 U*
PCB-148	< 1.45 U
PCB-150	< 0.801 U
PCB-151	596
PCB-152	< 0.744 U
PCB-153	1,870
PCB-154	28.4 J
PCB-155	< 0.767 U
PCB-156	203
PCB-157	53.2
PCB-158/160	243
PCB-159	< 0.578 U
PCB-166	< 0.425 U
PCB-167	77.0
PCB-168	< 0.502 U
PCB-169	< 0.767 U
Total Heptachlorobiphenyl (ng/kg)^a	7,550 J
PCB-170	698
PCB-171	184
PCB-172	130
PCB-173	< 0.507 U
PCB-174	967
PCB-175	42.2 J
PCB-176	120
PCB-177	526
PCB-178	197
PCB-179	472
PCB-180	2,240
PCB-181	< 1.26 U
PCB-182/187	1,110
PCB-183	492
PCB-184	< 0.597 U
PCB-185	104
PCB-186	< 0.421 U

**Table M-9. Solids Sample Results - PCB Congeners
Puget Sound Coatings**

Location ID	PS-TS-01
Collection Date	9/9/2014
Analyte	Result
PCB-188	< 0.759 U
PCB-189	< 56.3 U*
PCB-190	129
PCB-191	35.8 J
PCB-192	< 0.528 U
PCB-193	106
Total Octachlorobiphenyl (ng/kg)^a	2,650 J
PCB-194	549
PCB-195	206
PCB-196/203	735
PCB-197	39.8 J
PCB-198	< 0.792 U
PCB-199	728
PCB-200	92.2
PCB-201	132
PCB-202	172
PCB-204	< 0.543 U
PCB-205	< 0.471 U
Total Nonachlorobiphenyl (ng/kg)^a	566 J
PCB-206	440
PCB-207	< 54.8 U*
PCB-208	126
Decachlorobiphenyl (ng/kg)	92.2
PCB-209	92.2
PCB TEQ, nd SDL*0	0.074 J
PCB TEQ, nd SDL*0.5	0.114 J
PCB TEQ, nd SDL*1	0.153 J

a - Total PCBs and total PCB homologs include only congeners that met identification criteria as required by EPA Method 1668C.

PCB congeners identified with a U* qualifier were tagged as "estimated maximum possible concentrations" by the laboratory. This was changed to non-detect (U) during data validation.

Attachment M-1

Inspection Photographic Log

Conveyance Structure Information	
Structure Identification Number: PS-TS-01	N↗
Structure Type: Sump	
General Location: Northeast corner of facility	
Characteristics: 12' to bottom of structure, 10' depth to water, ~6" of sediment	
Pump Capacity (gpm): --	
Design Storm: --	
Access: Manhole	
Volume Gauge: --	
Sample ID: PS-TS-01-20140910-W PS-TS-01-20140910-S	
Drainage Information:	
Location TS-01 receives stormwater from all drainage areas at the PSC facility. Stormwater is collected in catch basins and conveyed to the sump in TS-01. Stormwater is pumped from the sump to the ion exchange stormwater treatment system. Following treatment, stormwater is conveyed to the SPU 10 th Avenue S drainage line.	N↖
	

Conveyance Structure Information	
Structure Identification Number: PS-OS-01	N→ 
Structure Type: Manhole	
General Location: Northeast corner of facility	
Characteristics: 12' to bottom of structure, 10' depth to water	
Pump Capacity (gpm): --	
Design Storm: --	
Access: Manhole	
Volume Gauge: --	
Sample ID: PS-OS-01-20140910-W	
Drainage Information:	
Manhole OS-01 is located on the 48-inch bypass drainage line that conveys upgradient groundwater through the PSC facility. Manhole OS-01 is located in the northeast corner of the facility, adjacent to TS-01. The effluent drainage of OS-01 reconnects with the effluent from the treatment system at PSC and commingled water is conveyed to the SPU drainage line on 10 th Avenue S. Location OS-01 was selected for sampling to assess the whether or not the bypass groundwater contained hexavalent chromium.	N→ 

Attachment M-2

Field Documentation

1/4/14

Location Puget Sound Coatings Date 9/9/14
Project / Client NPDES/Ecology

9

Jan
St America
and
sample coolers
notify
1030
drone
de coolers
"co"
equipment
effort
at
reaison
office

- 0640 C wilson departs home and stops to purchase ice
- 0655 C wilson arrives at field office
- 0700 M. Ivancovich arrives at field office
Field team re-bags ice, builds sample bins, and loads field vehicle
- 0630 Leidos departs field office for Puget Sound Coatings
- 0847 Arrive at Puget Sound Coatings
~~- conducted H&S meeting with 09/09/14~~
- Ecology onsite: Bob Wright & Alex White
- Discussed split sampling: confirmed no split sampling
 - Discussed purpose of inspection: to confirm drainage; sampling for LDW source control
- 0925 H&S meeting conducted
- 0930 Leidos inspected manhole representing bypass water possible location for hex chrome sample
- 0940 Leidos inspected manhole along vault. small amount of solids

10

Location Puget Sound Coatings Date 09/09/14
 Project / Client NPDES/Ecology

along edge. 48 inch drainage pipe.

- 0945 Leidos investigates manholes at drainage yard/vault area. Drain to S has 48 inch drainage pipe entering - only onsite water. Representative of all onsite. Good candidate for sediment sampling. Also collect water.
 - Drain to N is both onsite & offsite.
 - Collect water sample possibly from drain immediately N of onsite drain. Drain immediately N is bypass drain.

1000 C. Nancarrow onsite

Leidos Setup to sample at manhole sump pump that pumps water to Stormwater treatment system
 Water Sample is PS-T3-01-20140909-W
 Location receives SW from all drain lines on site

- 1010 PSC representative is discussing with his management whether or not to collect split samples

1045 Collected Hanihni & Chano - large black

11

Location Puget Sound Coatings Date 9/9/14
 Project / Client NPDES/Ecology

1045 Sample QC-EB-02-20140909-w

Setup to collect water sample at CB-2. CB-2 is the influent sump to treatment system

1055 PSC consultant John Allen on site

1115 Begin collecting water sample PS-T3-01-20140909-w at CB-2

1130 Emmanuel from Puget Sound Coatings onsite to take photos

Disconnected equipment and set up to collect water sample PS-OS-01-20140909-W
 Location PS-OS-01 is a manhole that contains bypass water from apparent ground water upstream of site

CW 9/9/14

1220 Collect Sample PS-01-PS-OS-01-20140909-W

Collected all analytes including Hexavalent Chromium At start of sampling water Chrome in drain had low turbidity. As additional grab samples were needed turbidity levels increased

1250 Break for lunch 09/09/14

1305 Began setup at PS-01 for solids sampling. CB-2

12

Location Puget Sound Coatings Date 09/09/14
Project / Client NPDES/Ecology

- 1350 Begin solids sampling at CB-2
Sample ID PS-TS-01-20140909-S
- 1415 completed solids sampling at CB-2.
Begin completing COCs and preparing split samples for transfer to PSC.
- 1425 PSC signs COCs. Split samples transferred to PSC.
- Leidos packs up sampling equipment.
- 1445 Ecology and Leidos offsite.
Leidos mobbed to field office to transfer samples to Test America courier.
- 1500 Leidos relinquished samples to Paco w/ Test America
Leidos de-mobbed at field office and packaged samples to be shipped to Vista via FedEx.
- 1600 C. Wilson delivered samples in a secured cooler to FedEx for shipment to Vista.
- 1605 All personnel offsite

13

Location _____ Date _____
Project / Client _____



Project: NPDES Sampling Support

Facility Name: Puget Sound County

Sampled By: CW/MJ Date: 9/9/2014 Time: 1350

Sediment Collection Form

Location ID: PS-TS-01 (CB-2)

Sample ID: PS-TS-01-20140909-5

Structure Type: Manhole	Dimensions: Standard W _____ L _____	Standing Water: <input checked="" type="checkbox"/> Y/N	Flow: Drip flow <input checked="" type="checkbox"/> Y/N
<p>Conveyance System Sketch</p> <p>X - grab sample locations</p> <p>48" influent</p> <p>Overflow elbow when system exceeds capacity</p> <p>Pump to treatment system</p> <p>Ladle</p> <p>Influent from South yard</p> <p>↑N</p>			
Depth to Bottom: ~12 ft	Depth to Water: ~10 ft	Depth of Sediment: ~6 in	Sampled: <input checked="" type="checkbox"/> Y/N Discrete / Composite (circle one)
Sediment type: Cobble Gravel Sand <input checked="" type="checkbox"/> Silt/clay Organic matter Debris	Sediment color: Drab olive <input checked="" type="checkbox"/> Brown Dark Brown surface Gray Black Tan	Sediment Odor: None Slight <input checked="" type="checkbox"/> Moderate Strong Overwhelming <chem>H2S</chem> <input checked="" type="checkbox"/> Petroleum	Comments: Photo ID(s): Photos Taken GPS ID: No GPS

NOTES: Facility location ID is CB-02. Location receives influent from western and southern drainage lines. SW is pumped from this pump to the western ext system. During large flow, SW may by ^{through} pass 1" PVC elbow located in the NE portion of the pump. Collected bulk a water & solids sample



SURFACE WATER SAMPLING FORM

Client: Department of Ecology

Site: Puget Sound Coatings

Job #: 309382

Sample Date: 09 / 09 /2014

Attachment M-3

Chain of Custody Forms

TestAmerica

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericalinc.com

Rush Short Hold

**Chain of
Custody Record**

THE LEADER IN ENVIRONMENTAL TESTING

DISTRIBUTION: WHITE - Stars with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy



CHAIN OF CUSTODY

FOR LABORATORY USE ONLY

Laboratory Project ID: _____ Yes No
Storage ID _____ Temp _____ °C

Project I.D.: <u>NRDES Sampling Report</u>	P.O.#: <u>101</u>	Sampler: <u>Carey, L. S.</u>
Customer Name: <u>City of Wilkes-Barre</u>	Address: <u>18911 N Creek Plaza</u>	City: <u>Bothell</u>
Invoice to: Name <u>City of Wilkes-Barre</u>	State: <u>WA</u>	Zip: <u>98011</u>
Company: <u>Wilkes-Barre</u>	Rush (surcharge may apply): <input checked="" type="radio"/> 21 Days <input type="radio"/> 14 days <input type="radio"/> 7 days <input type="radio"/> Specify: _____	

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

SHIP TO:	Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 (916) 673-1520 • Fax (916) 673-0106	Method of Shipment: <hr/>	Add Analysis(es) Requested <hr/>	Container(s) <hr/>
				Tracking No.: <hr/>
ATTN: _____				

O = Other _____
P = PUF, T = MMS Train, O= Other _____

PINK-COPY

YELLOW - ARCHIVE

WHITE - ORIGINAL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericalinc.com

- Rush Short Hold

Chain of Custody Record

Client	Lerios		Client Contact	Christine Nakaccaus	Date	24/14	Chain of Custody Number	24944						
Address	18912 N Creek Pkwy Ste 101		Telephone Number (Area Code)/Fax Number	206.220.8144	Lab Number	-	Page	1 of 2						
City	Bethel	State	WA	Zip Code	98011	Sampler	Gaye Wilson	Lab Contact	Kris Allen					
Project Name and Location (State)	NDEs, Sampling Survey / Wa		Billing Contact	-	Analysis (Attach list if more space is needed)				Special Instructions/ Conditions of Receipt					
Contract/Purchase Order/Quote No.			Matrix	Containers & Preservatives										
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	AR	H2O	HNOH	HCl	HNHO3	HNHO4	HNHO3					
QC-FB-02-20140909-W	9/9/14	1045	/	/	/	/	/	/	/					
PS-TS-01-20140909-W	9/9/14	1115	/	6	1	/	/	/	/					
PS-05-01-20140909-W	9/9/14	1120	/	6	1	/	/	/	/					
Comments														
Cooler <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cooler Temp:	Turn Around Time Required (business days)		Possible Hazard Identification		Sample Disposal		Disposal By Lab						
24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 5 Days	<input type="checkbox"/> 10 Days	<input type="checkbox"/> 15 Days	<input type="checkbox"/> Other	<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Archive For	Month(s)	(A fee may be assessed if samples are retained longer than 1 month)
AC Requirements (Specify)										1. Received By Sign/Print	2. Received By Sign/Print	3. Received By Sign/Print	Date	Time
										<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	9/9/14	1500
										Date	Time	Date	Time	
										Date	Time	Date	Time	

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy

TAL-8274-580 (0210)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-5047
Fax 253-922-5047
www.testamericainc.com

- Rush Short Hold

Chain of Custody Record

Client	Client Contact				Date	Chain of Custody Number
Leidos	Christine Nease				9/9/14	24946
Address	Telephone Number (Area Code)/Fax Number				Lab Number	
Region 11 Coop Primary Site No.	506.300.3144				-	Page 2 of 2
City	State	Zip Code	Sampler	Corey Wilson	Lab Contact	
Bethel	WA	97011	Billing Contact	Kris Allen		
Project Name and Location (State)	NIDES Sunbelt S. Port / WA					
Contract/Purchase Order/Quote No.	P5-TS-01-20140909-5					
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix	Containers & Preservatives		
P5-TS-01-20140909-5	9/9/14	10350	Air	UPPER	HORN	HORN
			Sed.	3	3	3
			Aqueous	9/9/14	5	5
			Soil			
			Spds.			
			HOE			
			TRAC/HORN			
			HORN			
			ICD			
			HNO3			
			H2SO4			
			UPPER			
			HOE			
			TRAC/HORN			
			HORN			
			ICD			
			HNO3			
			H2SO4			
			UPPER			
			HOE			
			TRAC/HORN			
			HORN			
			ICD			
			HNO3			
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Attachment M-4

Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle

5755 8th Street East

Tacoma, WA 98424

Tel: (253)922-2310

TestAmerica Job ID: 580-45294-1

Client Project/Site: NPDES Sampling Support/WA

For:

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

Attn: Christine Nancarrow

Kristine D. Allen

Authorized for release by:

9/29/2014 1:50:07 PM

Kristine Allen, Manager of Project Management

(253)248-4970

kristine.allen@testamericainc.com

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Expert

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Job ID: 580-45294-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 9/9/2014 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° C.

GC/MS Semi VOA

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 170329 recovered above the upper control limit for Diethyl phthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCVIS 580-170329/3), (LCSD 580-169357/3-A), (MB 580-169357/1-A), PS-OS-01-20140909-W (580-45294-3), PS-TS-01-20140909-W (580-45294-2).

Method(s) 8270D: The laboratory control sample (LCS) for 169357 recovered outside acceptance limits for 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline, N-Nitrosodiphenylamine and 2,4-Dimethylphenol. (These five failures are over the limit of four marginal exceedances allowed when a full list spike is utilized for this method.) The LCSD was outside control limits for 3,3'-Dichlorobenzidine. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been reported.

Method(s) 8270D: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 169357 recovered outside control limits for the following analytes: 3-Nitroaniline, 4-Chloroaniline, N-Nitrosodiphenylamine, 4-Nitroaniline and 2,4-Dimethylphenol.

Method(s) 8270D: The following samples was diluted due to the nature of the sample matrix: PS-OS-01-20140909-W (580-45294-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) 160.2, SM 2540D: The laboratory control sample (LCS) for batch 169789 recovered outside control limits for the following analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) SM 2540D: The sample duplicate (DUP) precision for batch 169944 using sample 45354-1 was outside control limits. Sample non-homogeneity is suspected because the associated laboratory control sample (LCS) precision was within acceptance limits, as was a second duplicate within the same batch.

Method(s) SM 4500 H+ B: The sample duplicate (DUP) precision for batch 169402 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Leidos, Inc.
Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
*	LCS or LCSD exceeds the control limits
F3	Duplicate RPD exceeds the control limit

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: QC-EB-02-20140909-W

Lab Sample ID: 580-45294-1

Matrix: Water

Date Collected: 09/09/14 10:45

Date Received: 09/09/14 16:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.012	0.0060	mg/L			09/10/14 09:42	1

1

2

3

4

5

6

7

8

9

10

11

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: PS-TS-01-20140909-W

Lab Sample ID: 580-45294-2

Matrix: Water

Date Collected: 09/09/14 11:15

Date Received: 09/09/14 16:15

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		0.58	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Bis(2-chloroethyl)ether	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2-Chlorophenol	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
1,3-Dichlorobenzene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
1,4-Dichlorobenzene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Benzyl alcohol	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
1,2-Dichlorobenzene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2-Methylphenol	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
3 & 4 Methylphenol	ND		0.78	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
N-Nitrosodi-n-propylamine	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Hexachloroethane	ND		0.58	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Nitrobenzene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Isophorone	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2-Nitrophenol	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2,4-Dimethylphenol	ND *		1.9	0.29	ug/L		09/10/14 14:25	09/21/14 03:13	1
Benzoic acid	0.77 J		2.9	0.58	ug/L		09/10/14 14:25	09/21/14 03:13	1
Bis(2-chloroethoxy)methane	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2,4-Dichlorophenol	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
1,2,4-Trichlorobenzene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Naphthalene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
4-Chloroaniline	ND *		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Hexachlorobutadiene	ND		0.58	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
4-Chloro-3-methylphenol	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2-Methylnaphthalene	ND		0.19	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1
1-Methylnaphthalene	ND		0.058	0.029	ug/L		09/10/14 14:25	09/21/14 03:13	1
Hexachlorocyclopentadiene	ND		1.9	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2,4,6-Trichlorophenol	ND		0.58	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2,4,5-Trichlorophenol	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2-Chloronaphthalene	ND		0.058	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1
2-Nitroaniline	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Dimethyl phthalate	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Acenaphthylene	ND		0.078	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1
2,6-Dinitrotoluene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
3-Nitroaniline	ND *		0.39	0.12	ug/L		09/10/14 14:25	09/21/14 03:13	1
Acenaphthene	ND		0.097	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1
2,4-Dinitrophenol	ND		4.8	0.97	ug/L		09/10/14 14:25	09/21/14 03:13	1
4-Nitrophenol	ND		2.9	0.97	ug/L		09/10/14 14:25	09/21/14 03:13	1
Dibenzofuran	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
2,4-Dinitrotoluene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Diethyl phthalate	ND ^		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
4-Chlorophenyl phenyl ether	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Fluorene	ND		0.058	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1
4-Nitroaniline	ND *		0.58	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
4,6-Dinitro-2-methylphenol	ND		3.9	0.97	ug/L		09/10/14 14:25	09/21/14 03:13	1
N-Nitrosodiphenylamine	ND *		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
4-Bromophenyl phenyl ether	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Hexachlorobenzene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Pentachlorophenol	ND		0.68	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1
Phenanthrene	ND		0.078	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: PS-TS-01-20140909-W

Lab Sample ID: 580-45294-2

Matrix: Water

Date Collected: 09/09/14 11:15

Date Received: 09/09/14 16:15

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Anthracene	ND		0.039	0.0097	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Carbazole	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Di-n-butyl phthalate	ND		0.39	0.13	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Fluoranthene	ND		0.048	0.013	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Pyrene	ND		0.058	0.013	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Butyl benzyl phthalate	ND		0.58	0.19	ug/L		09/10/14 14:25	09/21/14 03:13	1	
3,3'-Dichlorobenzidine	ND *		1.9	0.097	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Benzo[a]anthracene	ND		0.058	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Chrysene	ND		0.039	0.013	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Bis(2-ethylhexyl) phthalate	ND		2.9	1.1	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Di-n-octyl phthalate	ND		0.39	0.17	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Benzo[b]fluoranthene	ND		0.078	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Benzo[k]fluoranthene	ND		0.058	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Benzo[a]pyrene	ND		0.039	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Indeno[1,2,3-cd]pyrene	0.020	J		0.058	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1
Dibenz(a,h)anthracene	ND		0.058	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Benzo[g,h,i]perylene	ND		0.058	0.019	ug/L		09/10/14 14:25	09/21/14 03:13	1	
N-Nitrosodimethylamine	ND		1.9	0.19	ug/L		09/10/14 14:25	09/21/14 03:13	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorophenol	75		30 - 134				09/10/14 14:25	09/21/14 03:13	1	
Phenol-d5	83		52 - 120				09/10/14 14:25	09/21/14 03:13	1	
2,4,6-Tribromophenol	99		44 - 125				09/10/14 14:25	09/21/14 03:13	1	
Nitrobenzene-d5	77		59 - 120				09/10/14 14:25	09/21/14 03:13	1	
2-Fluorobiphenyl	74		50 - 120				09/10/14 14:25	09/21/14 03:13	1	
Terphenyl-d14	95		64 - 150				09/10/14 14:25	09/21/14 03:13	1	

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00075	mg/L		09/10/14 14:05	09/10/14 19:11	1
Antimony	0.00095		0.00040	0.000080	mg/L		09/10/14 14:05	09/10/14 19:11	1
Beryllium	ND		0.00040	0.00010	mg/L		09/10/14 14:05	09/10/14 19:11	1
Cadmium	0.00026	J	0.00040	0.000028	mg/L		09/10/14 14:05	09/10/14 19:11	1
Chromium	0.0020		0.00040	0.00027	mg/L		09/10/14 14:05	09/10/14 19:11	1
Copper	0.015		0.0010	0.00011	mg/L		09/10/14 14:05	09/10/14 19:11	1
Lead	0.0010		0.00040	0.000034	mg/L		09/10/14 14:05	09/10/14 19:11	1
Nickel	0.0030		0.0030	0.00040	mg/L		09/10/14 14:05	09/10/14 19:11	1
Selenium	0.00080	J	0.0010	0.00071	mg/L		09/10/14 14:05	09/10/14 19:11	1
Silver	ND		0.00040	0.000030	mg/L		09/10/14 14:05	09/10/14 19:11	1
Thallium	ND		0.0010	0.00028	mg/L		09/10/14 14:05	09/10/14 19:11	1
Zinc	3.5		0.0040	0.0019	mg/L		09/10/14 14:05	09/10/14 19:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000065	J	0.00020	0.000041	mg/L		09/15/14 11:20	09/15/14 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	230		10	10	umhos/cm			09/11/14 15:30	1
Chloride	3.4		0.90	0.30	mg/L			09/10/14 13:24	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: PS-TS-01-20140909-W

Lab Sample ID: 580-45294-2

Matrix: Water

Date Collected: 09/09/14 11:15

Date Received: 09/09/14 16:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	7.8		1.2	0.40	mg/L			09/10/14 13:24	1
Nitrate Nitrite as N	1.1		0.010	0.0050	mg/L			09/10/14 12:12	1
Alkalinity	97		5.0	5.0	mg/L			09/10/14 14:49	1
Bicarbonate Alkalinity as CaCO ₃	97		5.0	5.0	mg/L			09/10/14 14:49	1
Carbonate Alkalinity as CaCO ₃	ND		5.0	5.0	mg/L			09/10/14 14:49	1
Hydroxide Alkalinity as CaCO ₃	ND		5.0	5.0	mg/L			09/10/14 14:49	1
Total Suspended Solids	ND *		6.7	6.7	mg/L			09/15/14 12:32	1
Chromium, hexavalent	ND		0.012	0.0060	mg/L			09/10/14 09:45	1
pH	7.35 HF		0.0100	0.0100	SU			09/11/14 11:49	1
Total Organic Carbon	13		1.0	0.33	mg/L			09/18/14 14:40	1

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: PS-OS-01-20140909-W

Lab Sample ID: 580-45294-3

Matrix: Water

Date Collected: 09/09/14 12:20

Date Received: 09/09/14 16:15

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		2.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Bis(2-chloroethyl)ether	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2-Chlorophenol	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
1,3-Dichlorobenzene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
1,4-Dichlorobenzene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Benzyl alcohol	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
1,2-Dichlorobenzene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2-Methylphenol	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
3 & 4 Methylphenol	ND		3.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
N-Nitrosodi-n-propylamine	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Hexachloroethane	ND		2.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Nitrobenzene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Isophorone	0.58 J		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2-Nitrophenol	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2,4-Dimethylphenol	ND *		9.7	1.5	ug/L		09/10/14 14:25	09/21/14 03:41	5
Benzoic acid	3.1 J		15	2.9	ug/L		09/10/14 14:25	09/21/14 03:41	5
Bis(2-chloroethoxy)methane	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2,4-Dichlorophenol	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
1,2,4-Trichlorobenzene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Naphthalene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
4-Chloroaniline	ND *		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Hexachlorobutadiene	ND		2.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
4-Chloro-3-methylphenol	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2-Methylnaphthalene	ND		0.97	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
1-Methylnaphthalene	ND		0.29	0.15	ug/L		09/10/14 14:25	09/21/14 03:41	5
Hexachlorocyclopentadiene	ND		9.7	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2,4,6-Trichlorophenol	ND		2.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2,4,5-Trichlorophenol	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2-Chloronaphthalene	ND		0.29	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
2-Nitroaniline	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Dimethyl phthalate	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Acenaphthylene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
2,6-Dinitrotoluene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
3-Nitroaniline	ND *		1.9	0.58	ug/L		09/10/14 14:25	09/21/14 03:41	5
Acenaphthene	ND		0.49	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
2,4-Dinitrophenol	ND		24	4.9	ug/L		09/10/14 14:25	09/21/14 03:41	5
4-Nitrophenol	7.6 J		15	4.9	ug/L		09/10/14 14:25	09/21/14 03:41	5
Dibenzofuran	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
2,4-Dinitrotoluene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Diethyl phthalate	ND ^		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
4-Chlorophenyl phenyl ether	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Fluorene	ND		0.29	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
4-Nitroaniline	ND *		2.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
4,6-Dinitro-2-methylphenol	ND		19	4.9	ug/L		09/10/14 14:25	09/21/14 03:41	5
N-Nitrosodiphenylamine	ND *		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
4-Bromophenyl phenyl ether	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Hexachlorobenzene	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Pentachlorophenol	ND		3.4	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Phenanthrene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: PS-OS-01-20140909-W

Lab Sample ID: 580-45294-3

Matrix: Water

Date Collected: 09/09/14 12:20

Date Received: 09/09/14 16:15

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.19	0.049	ug/L		09/10/14 14:25	09/21/14 03:41	5
Carbazole	ND		1.9	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Di-n-butyl phthalate	ND		1.9	0.63	ug/L		09/10/14 14:25	09/21/14 03:41	5
Fluoranthene	ND		0.24	0.063	ug/L		09/10/14 14:25	09/21/14 03:41	5
Pyrene	ND		0.29	0.063	ug/L		09/10/14 14:25	09/21/14 03:41	5
Butyl benzyl phthalate	ND		2.9	0.97	ug/L		09/10/14 14:25	09/21/14 03:41	5
3,3'-Dichlorobenzidine	ND *		9.7	0.49	ug/L		09/10/14 14:25	09/21/14 03:41	5
Benzo[a]anthracene	ND		0.29	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
Chrysene	ND		0.19	0.063	ug/L		09/10/14 14:25	09/21/14 03:41	5
Bis(2-ethylhexyl) phthalate	ND		15	5.7	ug/L		09/10/14 14:25	09/21/14 03:41	5
Di-n-octyl phthalate	ND		1.9	0.88	ug/L		09/10/14 14:25	09/21/14 03:41	5
Benzo[b]fluoranthene	ND		0.39	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
Benzo[k]fluoranthene	ND		0.29	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
Benzo[a]pyrene	ND		0.19	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
Indeno[1,2,3-cd]pyrene	ND		0.29	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
Dibenz(a,h)anthracene	ND		0.29	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
Benzo[g,h,i]perylene	ND		0.29	0.097	ug/L		09/10/14 14:25	09/21/14 03:41	5
N-Nitrosodimethylamine	ND		9.7	0.97	ug/L		09/10/14 14:25	09/21/14 03:41	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	84		30 - 134				09/10/14 14:25	09/21/14 03:41	5
Phenol-d5	87		52 - 120				09/10/14 14:25	09/21/14 03:41	5
2,4,6-Tribromophenol	102		44 - 125				09/10/14 14:25	09/21/14 03:41	5
Nitrobenzene-d5	90		59 - 120				09/10/14 14:25	09/21/14 03:41	5
2-Fluorobiphenyl	80		50 - 120				09/10/14 14:25	09/21/14 03:41	5
Terphenyl-d14	108		64 - 150				09/10/14 14:25	09/21/14 03:41	5

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0044		0.0010	0.00075	mg/L		09/10/14 14:05	09/10/14 19:04	1
Antimony	0.059		0.00040	0.000080	mg/L		09/10/14 14:05	09/10/14 19:04	1
Beryllium	ND		0.00040	0.00010	mg/L		09/10/14 14:05	09/10/14 19:04	1
Cadmium	0.0022		0.00040	0.000028	mg/L		09/10/14 14:05	09/10/14 19:04	1
Chromium	0.0020		0.00040	0.000027	mg/L		09/10/14 14:05	09/10/14 19:04	1
Copper	0.0072		0.0010	0.00011	mg/L		09/10/14 14:05	09/10/14 19:04	1
Lead	0.0011		0.00040	0.000034	mg/L		09/10/14 14:05	09/10/14 19:04	1
Nickel	0.0017 J		0.0030	0.00040	mg/L		09/10/14 14:05	09/10/14 19:04	1
Selenium	ND		0.0010	0.00071	mg/L		09/10/14 14:05	09/10/14 19:04	1
Silver	ND		0.00040	0.000030	mg/L		09/10/14 14:05	09/10/14 19:04	1
Thallium	ND		0.0010	0.00028	mg/L		09/10/14 14:05	09/10/14 19:04	1
Zinc	0.16		0.0040	0.0019	mg/L		09/10/14 14:05	09/10/14 19:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000067 J		0.00020	0.000041	mg/L		09/15/14 11:20	09/15/14 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	210		10	10	umhos/cm			09/11/14 15:30	1
Chloride	3.1		0.90	0.30	mg/L			09/10/14 13:39	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: PS-OS-01-20140909-W

Lab Sample ID: 580-45294-3

Matrix: Water

Date Collected: 09/09/14 12:20

Date Received: 09/09/14 16:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	8.4		1.2	0.40	mg/L			09/10/14 13:39	1
Nitrate Nitrite as N	0.57		0.010	0.0050	mg/L			09/10/14 12:15	1
Alkalinity	87		5.0	5.0	mg/L			09/10/14 14:49	1
Bicarbonate Alkalinity as CaCO ₃	87		5.0	5.0	mg/L			09/10/14 14:49	1
Carbonate Alkalinity as CaCO ₃	ND		5.0	5.0	mg/L			09/10/14 14:49	1
Hydroxide Alkalinity as CaCO ₃	ND		5.0	5.0	mg/L			09/10/14 14:49	1
Total Suspended Solids	98 *		10	10	mg/L			09/15/14 12:32	1
Total Suspended Solids	97		5.0	5.0	mg/L			09/16/14 16:21	1
Chromium, hexavalent	ND		0.012	0.0060	mg/L			09/10/14 09:46	1
pH	7.70 HF		0.0100	0.0100	SU			09/11/14 11:56	1
Total Organic Carbon	5.2		1.0	0.33	mg/L			09/18/14 14:40	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-169357/1-A

Matrix: Water

Analysis Batch: 170329

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169357

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifer									
Phenol	ND				0.60	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Bis(2-chloroethyl)ether	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2-Chlorophenol	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
1,3-Dichlorobenzene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
1,4-Dichlorobenzene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Benzyl alcohol	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
1,2-Dichlorobenzene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2-Methylphenol	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
3 & 4 Methylphenol	ND				0.80	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
N-Nitrosodi-n-propylamine	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Hexachloroethane	ND				0.60	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Nitrobenzene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Isophorone	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2-Nitrophenol	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2,4-Dimethylphenol	ND				2.0	0.30	ug/L		09/10/14 14:25	09/20/14 22:03	1
Benzoic acid	ND				3.0	0.60	ug/L		09/10/14 14:25	09/20/14 22:03	1
Bis(2-chloroethoxy)methane	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2,4-Dichlorophenol	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
1,2,4-Trichlorobenzene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Naphthalene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
4-Chloroaniline	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Hexachlorobutadiene	ND				0.60	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
4-Chloro-3-methylphenol	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2-Methylnaphthalene	ND				0.20	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
1-Methylnaphthalene	ND				0.060	0.030	ug/L		09/10/14 14:25	09/20/14 22:03	1
Hexachlorocyclopentadiene	ND				2.0	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2,4,6-Trichlorophenol	ND				0.60	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2,4,5-Trichlorophenol	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2-Chloronaphthalene	ND				0.060	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
2-Nitroaniline	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Dimethyl phthalate	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Acenaphthylene	ND				0.080	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
2,6-Dinitrotoluene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
3-Nitroaniline	ND				0.40	0.12	ug/L		09/10/14 14:25	09/20/14 22:03	1
Acenaphthene	ND				0.10	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
2,4-Dinitrophenol	ND				5.0	1.0	ug/L		09/10/14 14:25	09/20/14 22:03	1
4-Nitrophenol	ND				3.0	1.0	ug/L		09/10/14 14:25	09/20/14 22:03	1
Dibenzofuran	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
2,4-Dinitrotoluene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Diethyl phthalate	ND ^				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
4-Chlorophenyl phenyl ether	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Fluorene	ND				0.060	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
4-Nitroaniline	ND				0.60	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
4,6-Dinitro-2-methylphenol	ND				4.0	1.0	ug/L		09/10/14 14:25	09/20/14 22:03	1
N-Nitrosodiphenylamine	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
4-Bromophenyl phenyl ether	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Hexachlorobenzene	ND				0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Pentachlorophenol	ND				0.70	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-169357/1-A

Matrix: Water

Analysis Batch: 170329

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169357

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.080	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
Anthracene	ND		0.040	0.010	ug/L		09/10/14 14:25	09/20/14 22:03	1
Carbazole	ND		0.40	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Di-n-butyl phthalate	ND		0.40	0.13	ug/L		09/10/14 14:25	09/20/14 22:03	1
Fluoranthene	ND		0.050	0.013	ug/L		09/10/14 14:25	09/20/14 22:03	1
Pyrene	ND		0.060	0.013	ug/L		09/10/14 14:25	09/20/14 22:03	1
Butyl benzyl phthalate	ND		0.60	0.20	ug/L		09/10/14 14:25	09/20/14 22:03	1
3,3'-Dichlorobenzidine	ND		2.0	0.10	ug/L		09/10/14 14:25	09/20/14 22:03	1
Benzo[a]anthracene	ND		0.060	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
Chrysene	ND		0.040	0.013	ug/L		09/10/14 14:25	09/20/14 22:03	1
Bis(2-ethylhexyl) phthalate	ND		3.0	1.2	ug/L		09/10/14 14:25	09/20/14 22:03	1
Di-n-octyl phthalate	ND		0.40	0.18	ug/L		09/10/14 14:25	09/20/14 22:03	1
Benzo[b]fluoranthene	ND		0.080	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
Benzo[k]fluoranthene	ND		0.060	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
Benzo[a]pyrene	ND		0.040	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
Indeno[1,2,3-cd]pyrene	ND		0.060	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
Dibenz(a,h)anthracene	ND		0.060	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
Benzo[g,h,i]perylene	ND		0.060	0.020	ug/L		09/10/14 14:25	09/20/14 22:03	1
N-Nitrosodimethylamine	ND		2.0	0.20	ug/L		09/10/14 14:25	09/20/14 22:03	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorophenol	72		30 - 134		09/10/14 14:25	09/20/14 22:03	1
Phenol-d5	71		52 - 120		09/10/14 14:25	09/20/14 22:03	1
2,4,6-Tribromophenol	72		44 - 125		09/10/14 14:25	09/20/14 22:03	1
Nitrobenzene-d5	73		59 - 120		09/10/14 14:25	09/20/14 22:03	1
2-Fluorobiphenyl	68		50 - 120		09/10/14 14:25	09/20/14 22:03	1
Terphenyl-d14	93		64 - 150		09/10/14 14:25	09/20/14 22:03	1

Lab Sample ID: LCS 580-169357/2-A

Matrix: Water

Analysis Batch: 170329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169357

Analyte	Spike Added	LCS			D	%Rec	Limits
		Result	Qualifier	Unit			
Phenol	2.00	1.85		ug/L		92	53 - 130
Bis(2-chloroethyl)ether	2.00	1.71		ug/L		85	55 - 125
2-Chlorophenol	2.00	1.76		ug/L		88	57 - 125
1,3-Dichlorobenzene	2.00	1.62		ug/L		81	40 - 125
1,4-Dichlorobenzene	2.00	1.54		ug/L		77	40 - 125
Benzyl alcohol	2.00	1.73		ug/L		87	41 - 144
1,2-Dichlorobenzene	2.00	1.58		ug/L		79	44 - 125
2-Methylphenol	2.00	1.66		ug/L		83	60 - 130
2,2'-oxybis[1-chloropropane]	2.00	1.74		ug/L		87	44 - 130
3 & 4 Methylphenol	2.00	1.79		ug/L		89	60 - 130
N-Nitrosodi-n-propylamine	2.00	1.73		ug/L		87	60 - 120
Hexachloroethane	2.00	1.61		ug/L		81	30 - 125
Nitrobenzene	2.00	1.79		ug/L		89	62 - 125
Isophorone	2.00	1.86		ug/L		93	64 - 125
2-Nitrophenol	2.00	1.82		ug/L		91	55 - 140

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-169357/2-A

Matrix: Water

Analysis Batch: 170329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169357

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
2,4-Dimethylphenol	2.00	0.582	J *	ug/L	29	30 - 135		
Benzoic acid	4.00	5.36		ug/L	134	20 - 144		
Bis(2-chloroethoxy)methane	2.00	1.25		ug/L	63	59 - 125		
2,4-Dichlorophenol	2.00	1.86		ug/L	93	50 - 140		
1,2,4-Trichlorobenzene	2.00	1.63		ug/L	81	40 - 125		
Naphthalene	2.00	1.61		ug/L	80	56 - 125		
4-Chloroaniline	2.00	ND *		ug/L	0.8	20 - 150		
Hexachlorobutadiene	2.00	1.58		ug/L	79	25 - 125		
4-Chloro-3-methylphenol	2.00	1.69		ug/L	84	65 - 145		
2-Methylnaphthalene	2.00	1.75		ug/L	88	56 - 125		
1-Methylnaphthalene	2.00	1.68		ug/L	84	54 - 125		
Hexachlorocyclopentadiene	2.00	1.01 J		ug/L	50	20 - 125		
2,4,6-Trichlorophenol	2.00	1.99		ug/L	100	55 - 140		
2,4,5-Trichlorophenol	2.00	2.20		ug/L	110	66 - 130		
2-Choronaphthalene	2.00	1.78		ug/L	89	55 - 125		
2-Nitroaniline	2.00	1.93		ug/L	96	52 - 140		
Dimethyl phthalate	2.00	2.04		ug/L	102	65 - 155		
Acenaphthylene	2.00	1.46		ug/L	73	62 - 125		
2,6-Dinitrotoluene	2.00	1.79		ug/L	90	67 - 134		
3-Nitroaniline	2.00	0.328 J *		ug/L	16	22 - 124		
Acenaphthene	2.00	1.73		ug/L	86	63 - 125		
2,4-Dinitrophenol	4.00	4.52 J		ug/L	113	24 - 146		
4-Nitrophenol	4.00	3.74		ug/L	93	35 - 153		
Dibenzofuran	2.00	1.86		ug/L	93	60 - 125		
2,4-Dinitrotoluene	2.00	1.95		ug/L	97	73 - 126		
Diethyl phthalate	2.00	2.08		ug/L	104	60 - 150		
4-Chlorophenyl phenyl ether	2.00	1.86		ug/L	93	59 - 125		
Fluorene	2.00	1.87		ug/L	94	69 - 125		
4-Nitroaniline	2.00	1.12		ug/L	56	49 - 125		
4,6-Dinitro-2-methylphenol	4.00	3.62 J		ug/L	91	50 - 136		
N-Nitrosodiphenylamine	2.00	0.628 *		ug/L	31	40 - 135		
4-Bromophenyl phenyl ether	2.00	1.88		ug/L	94	62 - 132		
Hexachlorobenzene	2.00	1.78		ug/L	89	61 - 125		
Pentachlorophenol	4.00	3.53		ug/L	88	20 - 145		
Phenanthrene	2.00	1.95		ug/L	98	70 - 125		
Anthracene	2.00	1.49		ug/L	75	50 - 125		
Carbazole	2.00	1.53		ug/L	76	75 - 142		
Di-n-butyl phthalate	2.00	2.20		ug/L	110	55 - 167		
Fluoranthene	2.00	1.98		ug/L	99	70 - 145		
Pyrene	2.00	1.95		ug/L	98	70 - 133		
Butyl benzyl phthalate	2.00	2.06		ug/L	103	60 - 167		
3,3'-Dichlorobenzidine	4.00	ND *		ug/L	0.5	20 - 175		
Benzo[a]anthracene	2.00	1.85		ug/L	92	65 - 125		
Chrysene	2.00	1.87		ug/L	94	70 - 125		
Bis(2-ethylhexyl) phthalate	2.00	1.99 J		ug/L	100	70 - 185		
Di-n-octyl phthalate	2.00	2.24		ug/L	112	55 - 150		
Benzo[b]fluoranthene	2.00	2.15		ug/L	107	70 - 129		
Benzo[k]fluoranthene	2.00	2.06		ug/L	103	70 - 123		

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-169357/2-A

Matrix: Water

Analysis Batch: 170329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169357

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Benzo[a]pyrene	2.00	1.25		ug/L		63	45 - 125
Indeno[1,2,3-cd]pyrene	2.00	2.00		ug/L		100	70 - 136
Dibenz(a,h)anthracene	2.00	2.19		ug/L		109	69 - 154
Benzo[g,h,i]perylene	2.00	1.98		ug/L		99	65 - 153
N-Nitrosodimethylamine	2.00	1.68	J	ug/L		84	33 - 143

Surrogate	LCS %Recovery	LCS		Limits
		Qualifier		
2-Fluorophenol	83		30 - 134	
Phenol-d5	84		52 - 120	
2,4,6-Tribromophenol	95		44 - 125	
Nitrobenzene-d5	84		59 - 120	
2-Fluorobiphenyl	85		50 - 120	
Terphenyl-d14	106		64 - 150	

Lab Sample ID: LCSD 580-169357/3-A

Matrix: Water

Analysis Batch: 170329

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169357

Analyte	Spike Added	LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Phenol	2.00	1.82		ug/L		91	53 - 130	1	20
Bis(2-chloroethyl)ether	2.00	1.69		ug/L		85	55 - 125	0	20
2-Chlorophenol	2.00	1.85		ug/L		92	57 - 125	5	20
1,3-Dichlorobenzene	2.00	1.63		ug/L		82	40 - 125	1	20
1,4-Dichlorobenzene	2.00	1.57		ug/L		78	40 - 125	2	20
Benzyl alcohol	2.00	1.98		ug/L		99	41 - 144	14	20
1,2-Dichlorobenzene	2.00	1.68		ug/L		84	44 - 125	7	20
2-Methylphenol	2.00	1.88		ug/L		94	60 - 130	13	20
2,2'-oxybis[1-chloropropane]	2.00	1.70		ug/L		85	44 - 130	2	20
3 & 4 Methylphenol	2.00	1.97		ug/L		99	60 - 130	11	20
N-Nitrosodi-n-propylamine	2.00	1.80		ug/L		90	60 - 120	5	20
Hexachloroethane	2.00	1.58		ug/L		79	30 - 125	1	20
Nitrobenzene	2.00	1.70		ug/L		85	62 - 125	5	20
Isophorone	2.00	1.87		ug/L		93	64 - 125	1	20
2-Nitrophenol	2.00	1.70		ug/L		85	55 - 140	6	20
2,4-Dimethylphenol	2.00	1.69	J *	ug/L		85	30 - 135	98	20
Benzoic acid	4.00	5.15		ug/L		129	20 - 144	4	20
Bis(2-chloroethoxy)methane	2.00	1.33		ug/L		67	59 - 125	6	20
2,4-Dichlorophenol	2.00	1.88		ug/L		94	50 - 140	1	20
1,2,4-Trichlorobenzene	2.00	1.55		ug/L		77	40 - 125	5	20
Naphthalene	2.00	1.56		ug/L		78	56 - 125	3	20
4-Chloroaniline	2.00	0.735	*	ug/L		37	20 - 150	191	20
Hexachlorobutadiene	2.00	1.49		ug/L		74	25 - 125	6	20
4-Chloro-3-methylphenol	2.00	1.74		ug/L		87	65 - 145	3	20
2-Methylnaphthalene	2.00	1.68		ug/L		84	56 - 125	4	20
1-Methylnaphthalene	2.00	1.66		ug/L		83	54 - 125	1	20
Hexachlorocyclopentadiene	2.00	0.957	J	ug/L		48	20 - 125	5	20
2,4,6-Trichlorophenol	2.00	1.93		ug/L		96	55 - 140	3	20
2,4,5-Trichlorophenol	2.00	2.00		ug/L		100	66 - 130	9	20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-169357/3-A

Matrix: Water

Analysis Batch: 170329

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169357

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
2-Chloronaphthalene	2.00	1.78		ug/L		89	55 - 125	0	20	
2-Nitroaniline	2.00	1.74		ug/L		87	52 - 140	11	20	
Dimethyl phthalate	2.00	2.02		ug/L		101	65 - 155	1	20	
Acenaphthylene	2.00	1.51		ug/L		75	62 - 125	3	20	
2,6-Dinitrotoluene	2.00	1.78		ug/L		89	67 - 134	0	20	
3-Nitroaniline	2.00	0.946 *		ug/L		47	22 - 124	97	20	
Acenaphthene	2.00	1.71		ug/L		86	63 - 125	1	20	
2,4-Dinitrophenol	4.00	3.96 J		ug/L		99	24 - 146	13	20	
4-Nitrophenol	4.00	3.62		ug/L		90	35 - 153	3	20	
Dibenzofuran	2.00	1.78		ug/L		89	60 - 125	4	20	
2,4-Dinitrotoluene	2.00	1.83		ug/L		92	73 - 126	6	20	
Diethyl phthalate	2.00	2.00 ^		ug/L		100	60 - 150	4	20	
4-Chlorophenyl phenyl ether	2.00	1.82		ug/L		91	59 - 125	2	20	
Fluorene	2.00	1.81		ug/L		90	69 - 125	4	20	
4-Nitroaniline	2.00	1.55 *		ug/L		77	49 - 125	32	20	
4,6-Dinitro-2-methylphenol	4.00	3.49 J		ug/L		87	50 - 136	4	20	
N-Nitrosodiphenylamine	2.00	1.41 *		ug/L		70	40 - 135	77	20	
4-Bromophenyl phenyl ether	2.00	1.78		ug/L		89	62 - 132	5	20	
Hexachlorobenzene	2.00	1.70		ug/L		85	61 - 125	4	20	
Pentachlorophenol	4.00	3.10		ug/L		77	20 - 145	13	20	
Phenanthrene	2.00	1.89		ug/L		95	70 - 125	3	20	
Anthracene	2.00	1.63		ug/L		82	50 - 125	9	20	
Carbazole	2.00	1.69		ug/L		85	75 - 142	10	20	
Di-n-butyl phthalate	2.00	2.11		ug/L		105	55 - 167	4	20	
Fluoranthene	2.00	1.91		ug/L		96	70 - 145	4	20	
Pyrene	2.00	1.87		ug/L		94	70 - 133	4	20	
Butyl benzyl phthalate	2.00	2.11		ug/L		106	60 - 167	3	20	
3,3'-Dichlorobenzidine	4.00	ND *		ug/L		0.6	20 - 175	5	20	
Benzo[a]anthracene	2.00	1.88		ug/L		94	65 - 125	2	20	
Chrysene	2.00	1.87		ug/L		94	70 - 125	0	20	
Bis(2-ethylhexyl) phthalate	2.00	2.05 J		ug/L		102	70 - 185	3	20	
Di-n-octyl phthalate	2.00	2.10		ug/L		105	55 - 150	6	20	
Benzo[b]fluoranthene	2.00	2.09		ug/L		104	70 - 129	3	20	
Benzo[k]fluoranthene	2.00	1.89		ug/L		94	70 - 123	9	20	
Benzo[a]pyrene	2.00	1.49		ug/L		75	45 - 125	17	20	
Indeno[1,2,3-cd]pyrene	2.00	1.82		ug/L		91	70 - 136	10	20	
Dibenz(a,h)anthracene	2.00	1.96		ug/L		98	69 - 154	11	20	
Benzo[g,h,i]perylene	2.00	1.91		ug/L		96	65 - 153	4	20	
N-Nitrosodimethylamine	2.00	1.57 J		ug/L		78	33 - 143	7	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2-Fluorophenol	82		30 - 134
Phenol-d5	85		52 - 120
2,4,6-Tribromophenol	91		44 - 125
Nitrobenzene-d5	89		59 - 120
2-Fluorobiphenyl	80		50 - 120
Terphenyl-d14	101		64 - 150

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-169354/8-A

Matrix: Water

Analysis Batch: 169408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169354

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Arsenic	ND		0.0010		0.00075	mg/L			09/10/14 14:05	09/10/14 19:01	1
Antimony	ND		0.00040		0.000080	mg/L			09/10/14 14:05	09/10/14 19:01	1
Beryllium	ND		0.00040		0.00010	mg/L			09/10/14 14:05	09/10/14 19:01	1
Cadmium	ND		0.00040		0.000028	mg/L			09/10/14 14:05	09/10/14 19:01	1
Chromium	ND		0.00040		0.00027	mg/L			09/10/14 14:05	09/10/14 19:01	1
Copper	ND		0.0010		0.00011	mg/L			09/10/14 14:05	09/10/14 19:01	1
Lead	ND		0.00040		0.000034	mg/L			09/10/14 14:05	09/10/14 19:01	1
Nickel	ND		0.0030		0.00040	mg/L			09/10/14 14:05	09/10/14 19:01	1
Selenium	ND		0.0010		0.00071	mg/L			09/10/14 14:05	09/10/14 19:01	1
Silver	ND		0.00040		0.000030	mg/L			09/10/14 14:05	09/10/14 19:01	1
Thallium	ND		0.0010		0.00028	mg/L			09/10/14 14:05	09/10/14 19:01	1
Zinc	ND		0.0040		0.0019	mg/L			09/10/14 14:05	09/10/14 19:01	1

Lab Sample ID: LCS 580-169354/9-A

Matrix: Water

Analysis Batch: 169408

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169354

Analyte	Spike	LCS		Unit	D	%Rec.		Limits
	Added	Result	Qualifier			%Rec		
Arsenic	0.100	0.113		mg/L		113	80 - 120	
Antimony	0.100	0.117		mg/L		117	80 - 120	
Beryllium	0.100	0.113		mg/L		113	80 - 120	
Cadmium	0.100	0.116		mg/L		116	80 - 120	
Chromium	0.100	0.105		mg/L		105	80 - 120	
Copper	0.100	0.104		mg/L		104	80 - 120	
Lead	0.100	0.111		mg/L		111	80 - 120	
Nickel	0.100	0.104		mg/L		104	80 - 120	
Selenium	0.100	0.120		mg/L		120	80 - 120	
Silver	0.100	0.109		mg/L		109	80 - 120	
Thallium	0.100	0.115		mg/L		115	80 - 120	
Zinc	0.100	0.110		mg/L		110	80 - 120	

Lab Sample ID: LCSD 580-169354/10-A

Matrix: Water

Analysis Batch: 169408

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169354

Analyte	Spike	LCSD		Unit	D	%Rec.		RPD	Limit
	Added	Result	Qualifier			%Rec			
Arsenic	0.100	0.114		mg/L		114	80 - 120	1	20
Antimony	0.100	0.118		mg/L		118	80 - 120	1	20
Beryllium	0.100	0.114		mg/L		114	80 - 120	1	20
Cadmium	0.100	0.117		mg/L		117	80 - 120	1	20
Chromium	0.100	0.106		mg/L		106	80 - 120	1	20
Copper	0.100	0.105		mg/L		105	80 - 120	0	20
Lead	0.100	0.111		mg/L		111	80 - 120	0	20
Nickel	0.100	0.106		mg/L		106	80 - 120	2	20
Selenium	0.100	0.120		mg/L		120	80 - 120	0	20
Silver	0.100	0.111		mg/L		111	80 - 120	2	20
Thallium	0.100	0.114		mg/L		114	80 - 120	1	20
Zinc	0.100	0.111		mg/L		111	80 - 120	1	20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-45294-2 MS

Matrix: Water

Analysis Batch: 169408

Client Sample ID: PS-TS-01-20140909-W

Prep Type: Total/NA

Prep Batch: 169354

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	%Rec.
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	ND		0.100	0.113		mg/L		113	80 - 120	
Antimony	0.00095		0.100	0.117		mg/L		116	80 - 120	
Beryllium	ND		0.100	0.112		mg/L		112	80 - 120	
Cadmium	0.00026	J	0.100	0.114		mg/L		114	80 - 120	
Chromium	0.0020		0.100	0.107		mg/L		105	80 - 120	
Copper	0.015		0.100	0.120		mg/L		105	80 - 120	
Lead	0.0010		0.100	0.112		mg/L		111	80 - 120	
Nickel	0.0030		0.100	0.108		mg/L		105	80 - 120	
Selenium	0.00080	J	0.100	0.118		mg/L		117	80 - 120	
Silver	ND		0.100	0.108		mg/L		108	80 - 120	
Thallium	ND		0.100	0.114		mg/L		114	80 - 120	
Zinc	3.5		0.100	3.67	4	mg/L		152	80 - 120	

Lab Sample ID: 580-45294-2 MSD

Matrix: Water

Analysis Batch: 169408

Client Sample ID: PS-TS-01-20140909-W

Prep Type: Total/NA

Prep Batch: 169354

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier							
Arsenic	ND		0.100	0.112		mg/L		112	80 - 120	0	20	
Antimony	0.00095		0.100	0.117		mg/L		116	80 - 120	0	20	
Beryllium	ND		0.100	0.111		mg/L		111	80 - 120	1	20	
Cadmium	0.00026	J	0.100	0.114		mg/L		113	80 - 120	1	20	
Chromium	0.0020		0.100	0.107		mg/L		105	80 - 120	0	20	
Copper	0.015		0.100	0.120		mg/L		105	80 - 120	0	20	
Lead	0.0010		0.100	0.112		mg/L		111	80 - 120	0	20	
Nickel	0.0030		0.100	0.108		mg/L		105	80 - 120	0	20	
Selenium	0.00080	J	0.100	0.118		mg/L		117	80 - 120	0	20	
Silver	ND		0.100	0.109		mg/L		109	80 - 120	0	20	
Thallium	ND		0.100	0.114		mg/L		114	80 - 120	1	20	
Zinc	3.5		0.100	3.74	4	mg/L		222	80 - 120	2	20	

Lab Sample ID: 580-45294-2 DU

Matrix: Water

Analysis Batch: 169408

Client Sample ID: PS-TS-01-20140909-W

Prep Type: Total/NA

Prep Batch: 169354

Analyte	Sample	Sample	Spike	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				
Arsenic	ND			ND		mg/L		NC	20
Antimony	0.00095			0.000876		mg/L		8	20
Beryllium	ND			ND		mg/L		NC	20
Cadmium	0.00026	J		0.000275	J	mg/L		4	20
Chromium	0.0020			0.00193		mg/L		1	20
Copper	0.015			0.0151		mg/L		2	20
Lead	0.0010			0.00105		mg/L		0.6	20
Nickel	0.0030			0.00291	J	mg/L		4	20
Selenium	0.00080	J		0.000712	J	mg/L		12	20
Silver	ND			ND		mg/L		NC	20
Thallium	ND			ND		mg/L		NC	20
Zinc	3.5			3.52		mg/L		0.09	20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 580-169782/23-A Matrix: Water Analysis Batch: 169844						Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 169782					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	ND		0.00020	0.000041	mg/L		09/15/14 11:20	09/15/14 13:32			1
Lab Sample ID: LCS 580-169782/24-A Matrix: Water Analysis Batch: 169844						Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 169782					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits				
Mercury		0.00200	0.00197	mg/L		98	80 - 120				
Lab Sample ID: LCSD 580-169782/25-A Matrix: Water Analysis Batch: 169844						Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 169782					
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	Limit		
Mercury		0.00200	0.00186	mg/L		93	80 - 120	5	20		
Lab Sample ID: LCSSRM 580-169782/26-A Matrix: Water Analysis Batch: 169844						Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 169782					
Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec.	Limits				
Mercury		0.00200	0.00206	mg/L		103	75 - 125				

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 580-169481/1 Matrix: Water Analysis Batch: 169481						Client Sample ID: Method Blank Prep Type: Total/NA					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Specific Conductance	ND		10	10	umhos/cm			09/11/14 15:30			1
Lab Sample ID: LCS 580-169481/2 Matrix: Water Analysis Batch: 169481						Client Sample ID: Lab Control Sample Prep Type: Total/NA					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits				
Specific Conductance		100	107	umhos/cm		107	90 - 110				
Lab Sample ID: 580-45294-3 DU Matrix: Water Analysis Batch: 169481						Client Sample ID: PS-OS-01-20140909-W Prep Type: Total/NA					
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D		RPD	Limit		
Specific Conductance	210		210		umhos/cm			0.5	20		

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-169436/3

Matrix: Water

Analysis Batch: 169436

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.90	0.30	mg/L			09/10/14 11:00	1
Sulfate	ND		1.2	0.40	mg/L			09/10/14 11:00	1

Lab Sample ID: LCS 580-169436/4

Matrix: Water

Analysis Batch: 169436

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits	
Chloride		9.00	9.16		mg/L		102	90 - 110	
Sulfate		12.0	12.2		mg/L		101	90 - 110	

Lab Sample ID: LCSD 580-169436/5

Matrix: Water

Analysis Batch: 169436

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	Limit
Chloride		9.00	9.16		mg/L		102	90 - 110	0	15
Sulfate		12.0	12.2		mg/L		101	90 - 110	0	15

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 580-169346/14

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169346

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.010	0.0050	mg/L			09/10/14 11:59	1

Lab Sample ID: LCS 580-169346/15

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169346

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits	
Nitrate Nitrite as N		1.00	0.997		mg/L		100	90 - 110	

Lab Sample ID: LCSD 580-169346/16

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169346

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	Limit
Nitrate Nitrite as N		1.00	0.991		mg/L		99	90 - 110	1	20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 580-169360/2

Matrix: Water

Analysis Batch: 169360

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec.	Limits
		Result	Qualifier			105	
Alkalinity	100	105		mg/L			

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-169789/1

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169789

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Suspended Solids	ND		2.0	2.0	mg/L			09/15/14 12:32	1

Lab Sample ID: LCS 580-169789/2

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169789

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier			127	
Total Suspended Solids	30.0	38.0	*	mg/L			

Lab Sample ID: 580-45294-2 DU

Client Sample ID: PS-TS-01-20140909-W

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169789

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	
	Result	Qualifier	Result	Qualifier				
Total Suspended Solids	ND	*	ND	*	mg/L		NC	20

Lab Sample ID: MB 580-169944/1

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169944

Analyte	MB	MB	DU	DU	Unit	D	RPD	
	Result	Qualifier	Result	Qualifier				
Total Suspended Solids	ND		2.0	2.0	mg/L		NC	1

Lab Sample ID: LCS 580-169944/2

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169944

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier			103	
Total Suspended Solids	30.0	30.8	*	mg/L			

Lab Sample ID: 580-45294-3 DU

Client Sample ID: PS-OS-01-20140909-W

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 169944

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	
	Result	Qualifier	Result	Qualifier				
Total Suspended Solids	97		109		mg/L		12	20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-1

Project/Site: NPDES Sampling Support/WA

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 580-169323/1

Client Sample ID: Method Blank
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 169323

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chromium, hexavalent	ND									

Lab Sample ID: LCS 580-169323/2

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 169323

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Chromium, hexavalent	Added	0.200	0.190	mg/L	95	90 - 110			

Lab Sample ID: 580-45294-1 MS

Client Sample ID: QC-EB-02-20140909-W
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 169323

Analyte	Sample	Sample	Spike	MS	MS	Result	Qualifier	Unit	D	%Rec	Limits
	Chromium, hexavalent	ND	Added	0.200	0.181	mg/L	91	85 - 115			

Lab Sample ID: 580-45294-1 DU

Client Sample ID: QC-EB-02-20140909-W
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 169323

Analyte	Sample	Sample	Spike	DU	DU	Result	Qualifier	Unit	D	RPD	Limit
	Chromium, hexavalent	ND	Added	0.200	0.181	mg/L	91	85 - 115	NC	25	

Method: SM 4500 H+ B - pH

Lab Sample ID: 580-45294-2 DU

Client Sample ID: PS-TS-01-20140909-W
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 169402

Analyte	Sample	Sample	Spike	DU	DU	Result	Qualifier	Unit	D	RPD	Limit
	pH	ND	HF	7.35	F3	7.610	SU			41	1

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-170221/1

Client Sample ID: Method Blank
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 170221

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Total Organic Carbon	ND	0.33	mg/L							

Lab Sample ID: LCS 580-170221/2

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 170221

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits
	Total Organic Carbon	Added	15.0	15.7	mg/L	105	85 - 115		

TestAmerica Seattle

Lab Chronicle

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: QC-EB-02-20140909-W

Lab Sample ID: 580-45294-1

Matrix: Water

Date Collected: 09/09/14 10:45

Date Received: 09/09/14 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR D		1	169323	09/10/14 09:42	RSB	TAL SEA

Client Sample ID: PS-TS-01-20140909-W

Lab Sample ID: 580-45294-2

Matrix: Water

Date Collected: 09/09/14 11:15

Date Received: 09/09/14 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			169357	09/10/14 14:25	CLH	TAL SEA
Total/NA	Analysis	8270D		1	170329	09/21/14 03:13	ERB	TAL SEA
Total/NA	Prep	200.8			169354	09/10/14 14:05	KJV	TAL SEA
Total/NA	Analysis	200.8		1	169408	09/10/14 19:11	FCW	TAL SEA
Total/NA	Prep	7470A			169782	09/15/14 11:20	PAB	TAL SEA
Total/NA	Analysis	7470A		1	169844	09/15/14 14:15	FCW	TAL SEA
Total/NA	Analysis	120.1		1	169481	09/11/14 15:30	JLS	TAL SEA
Total/NA	Analysis	300.0		1	169436	09/10/14 13:24	RSB	TAL SEA
Total/NA	Analysis	353.2		1	169346	09/10/14 12:12	TAA	TAL SEA
Total/NA	Analysis	SM 2320B		1	169360	09/10/14 14:49	TAA	TAL SEA
Total/NA	Analysis	SM 2540D		1	169789	09/15/14 12:32	JLS	TAL SEA
Total/NA	Analysis	SM 3500 CR D		1	169323	09/10/14 09:45	RSB	TAL SEA
Total/NA	Analysis	SM 4500 H+ B		1	169402	09/11/14 11:49	TAA	TAL SEA
Total/NA	Analysis	SM 5310B		1	170221	09/18/14 14:40	RSB	TAL SEA

Client Sample ID: PS-OS-01-20140909-W

Lab Sample ID: 580-45294-3

Matrix: Water

Date Collected: 09/09/14 12:20

Date Received: 09/09/14 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			169357	09/10/14 14:25	CLH	TAL SEA
Total/NA	Analysis	8270D		5	170329	09/21/14 03:41	ERB	TAL SEA
Total/NA	Prep	200.8			169354	09/10/14 14:05	KJV	TAL SEA
Total/NA	Analysis	200.8		1	169408	09/10/14 19:04	FCW	TAL SEA
Total/NA	Prep	7470A			169782	09/15/14 11:20	PAB	TAL SEA
Total/NA	Analysis	7470A		1	169844	09/15/14 14:17	FCW	TAL SEA
Total/NA	Analysis	120.1		1	169481	09/11/14 15:30	JLS	TAL SEA
Total/NA	Analysis	300.0		1	169436	09/10/14 13:39	RSB	TAL SEA
Total/NA	Analysis	353.2		1	169346	09/10/14 12:15	TAA	TAL SEA
Total/NA	Analysis	SM 2320B		1	169360	09/10/14 14:49	TAA	TAL SEA
Total/NA	Analysis	SM 2540D		1	169789	09/15/14 12:32	JLS	TAL SEA
Total/NA	Analysis	SM 2540D		1	169944	09/16/14 16:21	JLS	TAL SEA
Total/NA	Analysis	SM 3500 CR D		1	169323	09/10/14 09:46	RSB	TAL SEA
Total/NA	Analysis	SM 4500 H+ B		1	169402	09/11/14 11:56	TAA	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Client Sample ID: PS-OS-01-20140909-W

Lab Sample ID: 580-45294-3

Matrix: Water

Date Collected: 09/09/14 12:20

Date Received: 09/09/14 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310B		1	170221	09/18/14 14:40	RSB	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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TestAmerica Seattle

Certification Summary

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-113	07-25-15
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

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TestAmerica Seattle

Sample Summary

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-45294-1	QC-EB-02-20140909-W	Water	09/09/14 10:45	09/09/14 16:15
580-45294-2	PS-TS-01-20140909-W	Water	09/09/14 11:15	09/09/14 16:15
580-45294-3	PS-OS-01-20140909-W	Water	09/09/14 12:20	09/09/14 16:15

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TestAmerica Seattle



T-3 America Seattle
5755 8th Street E.

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THE LEADER IN ENVIRONMENTAL TESTING

Fax 233-9222-3041

Short
 Rush

Chain of Custody Record

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 580-45294-1

Login Number: 45294

List Source: TestAmerica Seattle

List Number: 1

Creator: McDaniel, Ronald T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle

5755 8th Street East

Tacoma, WA 98424

Tel: (253)922-2310

TestAmerica Job ID: 580-45294-2

Client Project/Site: NPDES Sampling Support/WA

For:

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

Attn: Christine Nancarrow

Kristine D. Allen

Authorized for release by:

10/22/2014 4:33:43 PM

Kristine Allen, Manager of Project Management

(253)248-4970

kristine.allen@testamericainc.com

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The
Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Leidos, Inc.
Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-2

Job ID: 580-45294-2

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-45294-2

Comments

No additional comments.

Receipt

The samples were received on 9/9/2014 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-2

Client Sample ID: PS-TS-01-20140909-W

Lab Sample ID: 580-45294-2

Matrix: Water

Date Collected: 09/09/14 11:15

Date Received: 09/09/14 16:15

General Chemistry - Dissolved

Analyst	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	13		1.0	0.33	mg/L			10/21/14 09:10	1

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TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-2

Project/Site: NPDES Sampling Support/WA

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-173201/1

Matrix: Water

Analysis Batch: 173201

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.33	mg/L	-		10/20/14 11:41	1

Lab Sample ID: LCS 580-173201/2

Matrix: Water

Analysis Batch: 173201

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Total Organic Carbon	15.0	16.6		mg/L	111	85 - 115	

Lab Chronicle

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-2

Client Sample ID: PS-TS-01-20140909-W

Lab Sample ID: 580-45294-2

Matrix: Water

Date Collected: 09/09/14 11:15

Date Received: 09/09/14 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	SM 5310B		1	173201	10/21/14 09:10	JLS	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Certification Summary

Client: Leidos, Inc.

TestAmerica Job ID: 580-45294-2

Project/Site: NPDES Sampling Support/WA

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-15
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

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TestAmerica Seattle

Sample Summary

Client: Leidos, Inc.

Project/Site: NPDES Sampling Support/WA

TestAmerica Job ID: 580-45294-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-45294-2	PS-TS-01-20140909-W	Water	09/09/14 11:15	09/09/14 16:15

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TestAmerica Seattle



T-3 America Seattle
5755 8th Street E.

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THE LEADER IN ENVIRONMENTAL TESTING

TACOMA ENVIRONMENTAL
THE LEADER IN ENVIRONMENTAL TESTING
Ta~~c~~oma, WA 98442
Tel. 253-922-2310
Fax 253-922-5047

Short Hold

Chain of Custody Record

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 580-45294-2

Login Number: 45294

List Source: TestAmerica Seattle

List Number: 1

Creator: McDaniel, Ronald T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle

5755 8th Street East

Tacoma, WA 98424

Tel: (253)922-2310

TestAmerica Job ID: 580-45295-1

Client Project/Site: NPDES Supply Support/WA

Revision: 2

For:

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

Attn: Christine Nancarrow

Kristine D. Allen

Authorized for release by:

12/22/2014 5:37:02 PM

Kristine Allen, Manager of Project Management

(253)248-4970

kristine.allen@testamericainc.com

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The
Expert

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Job ID: 580-45295-1

Laboratory: TestAmerica Seattle

Narrative

Report was revised 12-22-14 to include results for 2,2'oxybis1-chloropropane and additional VOC results.

Receipt

The sample was received on 9/9/2014 4:15 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 14.5° C.

GC/MS VOA

Method(s) 8260C: The method blank for batch 170500 contained analytes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 5035: Less than required amount of soil is present in the 10mL of methanol vial for the following sample:
PS-TS-01-20140909-S (580-45295-1)

Method(s) 8260B: The target analytes 1,3,5-Trimethylbenzene, 1,2,4-Trimethylbenzene, m-Xylene & p-Xylene, N-Propylbenzene, and o-Xylene were flagged (E) due to recoveries outside the calibration range for direct sparge soils. The samples were re-analyzed using the MeOH vials and reported.

Method(s) 8260B: The Internal standard 1,4-Dichlorobenzene-d5 (IS group 51) responses were outside of lower acceptance limits for the following sample(s): PS-TS-01-20140909-S (580-45295-1). The sample(s) was originally analyze in analytical batch 169727 with similar low recoveries therefore the failure is attributed to a matrix interference.

Method(s) 8260B: The surrogate(s) Toluene-d8 and 4-Bromofluorobenzene recovery for the following sample(s) was outside control limits: PS-TS-01-20140909-S (580-45295-1). Evidence of matrix interference is present from high levels of target and non target analyte: see chromatogram; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C, 8270D: The method blank for batch 169198 contained analytes above the method detection limit. The concentrations of these common laboratory contaminants were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8270C, 8270D: In analysis batch 170329, the continuing calibration verification (CCV) associated with the batch QC samples for preparation batch 169198 recovered above the upper control limit for Diethyl phthalate. The method blank (MB) associated with this CCV was non-detect for the affected analyte and the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were not adversely affected by the high system bias; therefore, the data have been qualified and reported. The following samples are impacted: (CCVIS 580-170329/3), (LCS 580-169198/2-A), (LCSD 580-169198/3-A), (MB 580-169198/1-A).

Method(s) 8270C, 8270D: The MB, LCS and LCSD for preparation batch 169198 was originally run with the client samples on 9/19/14. Because of limited final extract volume (2mL FV) an aliquot of the QC was placed in autosampler (AS) vials with an insert. There was incomplete mixing of internal standard (IS) with the QC aliquots prior to the original run, which biased all results. (Mixing was not a problem with the client samples in this run because sample matrix required a 20X dilution so a full 1mL of dilute extract was used; complete IS mixing is more easily accomplished when an AS insert is not used.) Client samples were not re-run with the QC to minimize the degradation of the analytical column due to challenging matrix in these sample extracts. (LCS 580-169198/2-A), (LCSD 580-169198/3-A), (MB 580-169198/1-A)

Method(s) 8270C, 8270D: The following samples were diluted due to the nature of the sample matrix: PS-TS-01-20140909-S (580-45295-1). A 20X dilution was the minimum dilution that allowed the samples in analytical batch 169198 to report without interference to the Perylene-d12 internal standard. Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) NWTPH-Dx: In analytical batch 169857, for the following sample(s) from preparation batch 169589: (580-45295-1 DU), PS-TS-01-20140909-S (580-45295-1), the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) range(s) are due to what

Case Narrative

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Job ID: 580-45295-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

most closely resembles a complex mixture of a weathered gasoline product, weathered/degraded diesel fuel, and motor oil range products. The affected analyte range(s) have been Y qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6020: The method blank for batch 168408 contained lead above the method detection limit. The concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method(s) 9060_PSEP: Due to instrumentation issues, the following samples were not run within the allotted hold time:
PS-TS-01-20140909-S (580-45295-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Geotechnical

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
E	Result exceeded calibration range.
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Client Sample ID: PS-TS-01-20140909-S

Lab Sample ID: 580-45295-1

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Percent Solids: 66.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,1,1-Trichloroethane	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,1,2,2-Tetrachloroethane	ND		3.1	1.4	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,1,2-Trichloroethane	ND		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,1-Dichloroethane	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,1-Dichloroethene	ND		7.7	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,1-Dichloropropene	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2,3-Trichlorobenzene	ND *		3.1	0.92	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2,3-Trichloropropane	ND *		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2,4-Trichlorobenzene	ND *		3.1	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2,4-Trimethylbenzene	NQ *		3.1	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2-Dibromo-3-Chloropropane	ND *		3.1	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2-Dibromoethane	ND		1.5	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2-Dichlorobenzene	ND *		3.1	0.92	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2-Dichloroethane	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,2-Dichloropropane	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,3,5-Trimethylbenzene	1900 E *		7.7	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,3-Dichlorobenzene	ND *		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,3-Dichloropropane	ND		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
1,4-Dichlorobenzene	ND *		1.5	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
2,2-Dichloropropane	ND		7.7	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
2-Butanone	28		15	4.6	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
2-Chloroethyl vinyl ether	ND		7.7	2.2	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
2-Chlorotoluene	ND *		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
2-Hexanone	ND		7.7	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
4-Chlorotoluene	ND *		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
4-Isopropyltoluene	48 *		3.1	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
4-Methyl-2-pentanone	110		7.7	2.3	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Acetone	190		23	3.7	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Acrolein	ND		46	13	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Acrylonitrile	ND		15	4.3	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Benzene	0.81 J		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Bromobenzene	ND *		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Bromochloromethane	ND		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Bromodichloromethane	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Bromoform	ND *		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Bromomethane	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Carbon disulfide	1.0 J		1.5	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Carbon tetrachloride	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Chlorobenzene	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Chlorodibromomethane	ND		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Chloroethane	ND		1.5	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Chloroform	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Chloromethane	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
cis-1,2-Dichloroethene	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
cis-1,3-Dichloropropene	ND		1.5	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Dibromomethane	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Dichlorodifluoromethane	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Client Sample ID: PS-TS-01-20140909-S

Lab Sample ID: 580-45295-1

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Percent Solids: 66.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	310		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Hexachloro-1,3-butadiene	ND	*	3.1	0.92	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Iodomethane	ND		23	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Isopropylbenzene	100		3.1	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Methyl tert-butyl ether	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Methylene Chloride	ND		23	4.6	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
m-Xylene & p-Xylene	1600	E	3.1	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Naphthalene	8.7	*	7.7	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
n-Butylbenzene	160	*	3.1	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
N-Propylbenzene	520	E*	3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
o-Xylene	NQ		3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
sec-Butylbenzene	44	*	3.1	0.77	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Styrene	ND		3.1	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
tert-Butylbenzene	2.1	J*	3.1	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Tetrachloroethene	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Toluene	34		3.1	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
trans-1,2-Dichloroethene	ND		1.5	0.62	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
trans-1,3-Dichloropropene	ND		1.5	0.31	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
trans-1,4-Dichloro-2-butene	ND	*	7.7	2.6	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Trichloroethene	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Trichlorofluoromethane	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Vinyl acetate	ND		7.7	0.92	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Vinyl chloride	ND		1.5	0.46	ug/Kg	⊗	09/09/14 15:30	09/22/14 19:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	125	X	80 - 120				09/09/14 15:30	09/22/14 19:05	1
4-Bromofluorobenzene (Surr)	151	X *	70 - 120				09/09/14 15:30	09/22/14 19:05	1
Dibromofluoromethane (Surr)	88		75 - 132				09/09/14 15:30	09/22/14 19:05	1
Trifluorotoluene (Surr)	84		65 - 140				09/09/14 15:30	09/22/14 19:05	1
1,2-Dichloroethane-d4 (Surr)	116		71 - 136				09/09/14 15:30	09/22/14 19:05	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		180	4.8	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,1,1-Trichloroethane	ND		180	25	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,1,2,2-Tetrachloroethane	ND		44	10	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		180	30	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,1,2-Trichloroethane	ND		53	12	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,1-Dichloroethane	ND		180	19	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,1-Dichloroethene	ND		88	39	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,1-Dichloropropene	ND		180	23	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2,3-Trichlorobenzene	ND		180	34	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2,3-Trichloropropane	ND		180	17	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2,4-Trichlorobenzene	ND		180	17	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2,4-Trimethylbenzene	16000		180	15	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
BBC 12	ND		880	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2-Dibromoethane	ND		71	15	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2-Dichlorobenzene	ND		180	14	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2-Dichloroethane	ND		71	15	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,2-Dichloropropane	ND		53	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Client Sample ID: PS-TS-01-20140909-S

Lab Sample ID: 580-45295-1

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Percent Solids: 66.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	13000		180	13	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,3-Dichlorobenzene	ND		180	14	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,3-Dichloropropane	ND		180	10	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
1,4-Dichlorobenzene	ND		180	8.8	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
2,2-Dichloropropane	ND		180	21	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
2-Butanone	ND		1800	82	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
2-Chloroethyl vinyl ether	ND		880	27	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
2-Chlorotoluene	ND		180	15	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
2-Hexanone	ND		880	51	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
4-Chlorotoluene	ND		180	13	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
4-Isopropyltoluene	510		180	12	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
4-Methyl-2-pentanone	1300		880	36	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Acetone	1300	J	1800	770	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Acrylonitrile	ND		880	420	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Benzene	ND		71	15	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Bromobenzene	ND		180	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Bromochloromethane	ND		180	20	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Bromodichloromethane	ND		180	6.2	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Bromoform	ND		180	9.7	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Bromomethane	ND		620	59	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Carbon disulfide	ND		180	19	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Carbon tetrachloride	ND		88	17	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Chlorobenzene	ND		180	9.3	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Chlorodibromomethane	ND		88	4.4	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Chloroethane	ND		1800	70	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Chloroform	ND		180	19	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Chloromethane	ND		440	45	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
cis-1,2-Dichloroethene	ND		180	22	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
cis-1,3-Dichloropropene	ND		71	7.9	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Dibromomethane	ND		180	18	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Dichlorodifluoromethane	ND		180	29	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Ethylbenzene	860		180	8.8	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Hexachloro-1,3-butadiene	ND		180	15	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Iodomethane	ND		880	28	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Isopropylbenzene	1000		180	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Methyl tert-butyl ether	ND		180	26	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Methylene Chloride	110		110	51	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
m-Xylene & p-Xylene	5000		180	13	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Naphthalene	80	J B	180	26	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
n-Butylbenzene	2100		180	15	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
N-Propylbenzene	1700		180	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
o-Xylene	7200		180	13	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
sec-Butylbenzene	600		180	12	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Styrene	ND		180	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
tert-Butylbenzene	ND		180	14	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Tetrachloroethene	ND		88	5.7	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
Toluene	150	J	180	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
trans-1,2-Dichloroethene	ND		180	27	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1
trans-1,3-Dichloropropene	ND		71	11	ug/Kg	⊗	09/23/14 08:06	09/23/14 17:43	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Client Sample ID: PS-TS-01-20140909-S

Lab Sample ID: 580-45295-1

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Percent Solids: 66.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		880	71	ug/Kg	☀	09/23/14 08:06	09/23/14 17:43	1
Trichloroethene	ND		71	14	ug/Kg	☀	09/23/14 08:06	09/23/14 17:43	1
Trichlorofluoromethane	32 J		180	26	ug/Kg	☀	09/23/14 08:06	09/23/14 17:43	1
Vinyl acetate	ND		880	49	ug/Kg	☀	09/23/14 08:06	09/23/14 17:43	1
Vinyl chloride	ND		71	31	ug/Kg	☀	09/23/14 08:06	09/23/14 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	108		65 - 140				09/23/14 08:06	09/23/14 17:43	1
Toluene-d8 (Surr)	103		80 - 120				09/23/14 08:06	09/23/14 17:43	1
1,2-Dichloroethane-d4 (Surr)	91		71 - 136				09/23/14 08:06	09/23/14 17:43	1
4-Bromofluorobenzene (Surr)	98		70 - 120				09/23/14 08:06	09/23/14 17:43	1
Dibromofluoromethane (Surr)	95		75 - 132				09/23/14 08:06	09/23/14 17:43	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	590		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Bis(2-chloroethyl)ether	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2-Chlorophenol	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
1,3-Dichlorobenzene	ND		150	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
1,4-Dichlorobenzene	ND		150	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Benzyl alcohol	1300		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
1,2-Dichlorobenzene	ND		160	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2-Methylphenol	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2,2'-oxybis[1-chloropropane]	ND		750	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
3 & 4 Methylphenol	530 J		600	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
N-Nitrosodi-n-propylamine	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Hexachloroethane	1200		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Nitrobenzene	120 J		300	100	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Isophorone	44 J		300	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2-Nitrophenol	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2,4-Dimethylphenol	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Benzoic acid	ND		7500	2200	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Bis(2-chloroethoxy)methane	ND		300	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2,4-Dichlorophenol	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
1,2,4-Trichlorobenzene	ND		150	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Naphthalene	100		60	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
4-Chloroaniline	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Hexachlorobutadiene	ND		150	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
4-Chloro-3-methylphenol	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2-Methylnaphthalene	27 J		60	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
1-Methylnaphthalene	24 J		90	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Hexachlorocyclopentadiene	ND		300	30	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2,4,6-Trichlorophenol	ND		450	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2,4,5-Trichlorophenol	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2-Chloronaphthalene	ND		60	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2-Nitroaniline	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Dimethyl phthalate	ND		300	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
Acenaphthylene	ND		60	15	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
2,6-Dinitrotoluene	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20
3-Nitroaniline	ND		300	45	ug/Kg	☀	09/12/14 11:00	09/19/14 20:33	20

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Client Sample ID: PS-TS-01-20140909-S**Lab Sample ID: 580-45295-1**

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Percent Solids: 66.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	61		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
2,4-Dinitrophenol	ND		3000	600	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
4-Nitrophenol	ND		3000	750	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Dibenzofuran	36 J		300	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
2,4-Dinitrotoluene	ND		300	45	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Diethyl phthalate	100 J B		600	45	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
4-Chlorophenyl phenyl ether	ND		300	45	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Fluorene	88		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
4-Nitroaniline	ND		300	60	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
4,6-Dinitro-2-methylphenol	ND		3000	300	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
N-Nitrosodiphenylamine	ND		150	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
4-Bromophenyl phenyl ether	ND		300	45	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Hexachlorobenzene	ND		150	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Pentachlorophenol	ND		600	60	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Phenanthrene	1000		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Anthracene	270		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Carbazole	76 J		300	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Di-n-butyl phthalate	340 J		1500	150	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Fluoranthene	1200		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Pyrene	1100		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Butyl benzyl phthalate	2800		600	150	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
3,3'-Dichlorobenzidine	ND		600	90	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Benzo[a]anthracene	600		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Chrysene	750		75	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Bis(2-ethylhexyl) phthalate	7200 B		1800	150	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Di-n-octyl phthalate	270 J		1500	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Benzo[b]fluoranthene	710		60	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Benzo[k]fluoranthene	220		75	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Benzo[a]pyrene	450		90	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Indeno[1,2,3-cd]pyrene	260		120	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Dibenz(a,h)anthracene	44 J		120	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Benzo[g,h,i]perylene	250		75	15	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
N-Nitrosodimethylamine	ND		3000	750	ug/Kg	⊗	09/12/14 11:00	09/19/14 20:33	20
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
2-Fluorophenol	62				36 - 145				
Phenol-d5	83				38 - 149				
2,4,6-Tribromophenol	44				28 - 143				
Nitrobenzene-d5	72				38 - 141				
2-Fluorobiphenyl	62				42 - 140				
Terphenyl-d14	84				42 - 151				

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	330		18	2.2	mg/Kg	⊗	09/12/14 09:10	09/12/14 22:50	1
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116				50 - 150				

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Client Sample ID: PS-TS-01-20140909-S

Lab Sample ID: 580-45295-1

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Percent Solids: 66.7

Method: 8082 - PCBs

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arochlor 1016	ND		0.014	0.0046	mg/Kg	⊗	09/15/14 13:42	09/16/14 18:58	1
Arochlor 1221	ND		0.016	0.011	mg/Kg	⊗	09/15/14 13:42	09/16/14 18:58	1
Arochlor 1232	ND		0.016	0.010	mg/Kg	⊗	09/15/14 13:42	09/16/14 18:58	1
Arochlor 1242	ND		0.014	0.0030	mg/Kg	⊗	09/15/14 13:42	09/16/14 18:58	1
Arochlor 1248	ND		0.014	0.0043	mg/Kg	⊗	09/15/14 13:42	09/16/14 18:58	1
Arochlor 1254	ND		0.014	0.0030	mg/Kg	⊗	09/15/14 13:42	09/16/14 18:58	1
Arochlor 1260	ND		0.014	0.0043	mg/Kg	⊗	09/15/14 13:42	09/16/14 18:58	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		73		45 - 135			09/15/14 13:42	09/16/14 18:58	1
DCB Decachlorobiphenyl		75		50 - 140			09/15/14 13:42	09/16/14 18:58	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	1300	Y	36	8.3	mg/Kg	⊗	09/12/14 13:02	09/16/14 11:46	1
Motor Oil (>C24-C36)	6000	Y	73	13	mg/Kg	⊗	09/12/14 13:02	09/16/14 11:46	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-Terphenyl		99		50 - 150			09/12/14 13:02	09/16/14 11:46	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.5		0.51	0.18	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Lead	39	B	0.20	0.013	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Antimony	0.89		0.20	0.043	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Beryllium	0.15	J	0.20	0.036	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Cadmium	0.93		0.20	0.0082	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Chromium	66		0.20	0.12	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Copper	270		0.41	0.10	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Nickel	60		0.51	0.083	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Selenium	0.45	J	0.71	0.21	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Silver	0.27		0.20	0.012	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Thallium	ND		0.51	0.13	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:28	10
Zinc	26000		200	110	mg/Kg	⊗	09/10/14 07:45	09/10/14 15:41	1000

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28		0.018	0.0056	mg/Kg	⊗	09/17/14 15:58	09/18/14 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	50000	H	2000	250	mg/Kg			09/24/14 16:33	1
Percent Solids	67		0.10	0.10	%			09/11/14 09:16	1
Percent Moisture	33		0.10	0.10	%			09/11/14 09:16	1
Total Solids	57		0.012	0.012	%			09/11/14 08:54	1

Method: PSEP Plumb 1981 - Grain Size (PSEP Plumb 1981)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobbles	0.00			%				09/16/14 14:25	1
Gravel	0.40			%				09/16/14 14:25	1
Sand	65			%				09/16/14 14:25	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Client Sample ID: PS-TS-01-20140909-S

Lab Sample ID: 580-45295-1

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Method: PSEP Plumb 1981 - Grain Size (PSEP Plumb 1981) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	33				%			09/16/14 14:25	1
Clay	1.8				%			09/16/14 14:25	1

QC Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-170378/1-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 170378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.90	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.20	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,1,2-Trichloroethane	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,1-Dichloroethane	ND		1.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,1-Dichloroethene	ND		5.0	0.20	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,1-Dichloropropene	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2,3-Trichlorobenzene	ND		2.0	0.60	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2,3-Trichloropropane	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2,4-Trichlorobenzene	ND		2.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2,4-Trimethylbenzene	ND		2.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2-Dibromoethane	ND		1.0	0.20	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2-Dichlorobenzene	ND		2.0	0.60	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2-Dichloroethane	ND		1.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,2-Dichloropropene	ND		1.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,3-Dichlorobenzene	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,3-Dichloropropane	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
1,4-Dichlorobenzene	ND		1.0	0.20	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
2,2-Dichloropropane	ND		5.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
2-Butanone	ND		10	3.0	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
2-Chloroethyl vinyl ether	ND		5.0	1.4	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
2-Chlorotoluene	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
2-Hexanone	ND		5.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
4-Chlorotoluene	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
4-Isopropyltoluene	ND		2.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
4-Methyl-2-pentanone	ND		5.0	1.5	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Acetone	ND		15	2.4	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Acrolein	ND		30	8.2	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Acrylonitrile	ND		10	2.8	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Benzene	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Bromobenzene	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Bromochloromethane	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Bromodichloromethane	ND		1.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Bromoform	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Bromomethane	ND		1.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Carbon disulfide	ND		1.0	0.20	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Chlorobenzene	ND		1.0	0.40	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Chlorodibromomethane	ND		2.0	0.50	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Chloroethane	ND		1.0	0.20	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Chloroform	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Chloromethane	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1
Dibromomethane	ND		1.0	0.30	ug/Kg	09/22/14 08:22	09/22/14 09:03	09/22/14 09:03	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-170378/1-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 170378

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND				1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Ethylbenzene	ND				1.0	0.40	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Hexachloro-1,3-butadiene	ND				2.0	0.60	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Iodomethane	ND				15	0.20	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Isopropylbenzene	ND				2.0	0.20	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Methyl tert-butyl ether	ND				1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Methylene Chloride	ND				15	3.0	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
m-Xylene & p-Xylene	ND				2.0	0.20	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Naphthalene	ND				5.0	0.50	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
n-Butylbenzene	ND				2.0	0.20	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
N-Propylbenzene	ND				2.0	0.50	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
o-Xylene	ND				2.0	0.50	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
sec-Butylbenzene	ND				2.0	0.50	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Styrene	ND				2.0	0.20	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
tert-Butylbenzene	ND				2.0	0.20	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Tetrachloroethene	ND				1.0	0.40	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Toluene	ND				2.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
trans-1,2-Dichloroethene	ND				1.0	0.40	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
trans-1,3-Dichloropropene	ND				1.0	0.20	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
trans-1,4-Dichloro-2-butene	ND				5.0	1.7	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Trichloroethene	ND				1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Trichlorofluoromethane	ND				1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Vinyl acetate	ND				5.0	0.60	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Vinyl chloride	ND				1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Toluene-d8 (Surr)	101		80 - 120			09/22/14 08:22	09/22/14 09:03	1
4-Bromofluorobenzene (Surr)	96		70 - 120			09/22/14 08:22	09/22/14 09:03	1
Dibromofluoromethane (Surr)	101		75 - 132			09/22/14 08:22	09/22/14 09:03	1
Trifluorotoluene (Surr)	98		65 - 140			09/22/14 08:22	09/22/14 09:03	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 136			09/22/14 08:22	09/22/14 09:03	1

Lab Sample ID: LCS 580-170378/2-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170378

Analyte	Spike Added	LCS			D	%Rec	Limits
		Result	Qualifier	Unit			
1,1,1,2-Tetrachloroethane	30.0	29.8		ug/Kg		99	72 - 123
1,1,1-Trichloroethane	30.0	29.2		ug/Kg		97	63 - 135
1,1,2,2-Tetrachloroethane	30.0	30.8		ug/Kg		103	73 - 125
1,1,2-Trichloro-1,2,2-trifluoroetha ne	30.0	27.2		ug/Kg		91	66 - 163
1,1,2-Trichloroethane	30.0	30.5		ug/Kg		102	77 - 124
1,1-Dichloroethane	30.0	29.6		ug/Kg		99	70 - 128
1,1-Dichloroethene	30.0	27.1		ug/Kg		90	70 - 133
1,1-Dichloropropene	30.0	31.6		ug/Kg		105	77 - 125
1,2,3-Trichlorobenzene	30.0	29.0		ug/Kg		97	61 - 130
1,2,3-Trichloropropane	30.0	30.1		ug/Kg		100	77 - 123

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-170378/2-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170378

Analyte	Spike	LCS		Unit	D	%Rec	Limits
	Added	Result	Qualifier				
1,2,4-Trichlorobenzene	30.0	28.3		ug/Kg		94	61 - 130
1,2,4-Trimethylbenzene	30.0	23.8		ug/Kg		79	79 - 124
1,2-Dibromo-3-Chloropropane	30.0	31.5		ug/Kg		105	53 - 132
1,2-Dibromoethane	30.0	29.2		ug/Kg		97	69 - 126
1,2-Dichlorobenzene	30.0	27.9		ug/Kg		93	79 - 117
1,2-Dichloroethane	30.0	29.5		ug/Kg		98	71 - 128
1,2-Dichloropropane	30.0	31.0		ug/Kg		103	76 - 161
1,3,5-Trimethylbenzene	30.0	25.0		ug/Kg		83	80 - 125
1,3-Dichlorobenzene	30.0	26.8		ug/Kg		89	79 - 119
1,3-Dichloropropane	30.0	29.1		ug/Kg		97	77 - 123
1,4-Dichlorobenzene	30.0	26.4		ug/Kg		88	79 - 117
2,2-Dichloropropane	30.0	27.8		ug/Kg		93	56 - 144
2-Butanone	120	121		ug/Kg		101	30 - 160
2-Chloroethyl vinyl ether	30.0	29.4		ug/Kg		98	60 - 150
2-Chlorotoluene	30.0	26.8		ug/Kg		89	79 - 122
2-Hexanone	120	112		ug/Kg		93	45 - 145
4-Chlorotoluene	30.0	27.9		ug/Kg		93	80 - 122
4-Isopropyltoluene	30.0	26.0		ug/Kg		87	78 - 126
4-Methyl-2-pentanone	120	132		ug/Kg		110	45 - 145
Acetone	120	124		ug/Kg		103	20 - 160
Acrolein	178	182		ug/Kg		102	10 - 125
Acrylonitrile	300	305		ug/Kg		102	74 - 117
Benzene	30.0	30.2		ug/Kg		101	70 - 128
Bromobenzene	30.0	27.5		ug/Kg		92	80 - 120
Bromochloromethane	30.0	31.5		ug/Kg		105	78 - 123
Bromodichloromethane	30.0	30.8		ug/Kg		103	58 - 133
Bromoform	30.0	27.9		ug/Kg		93	50 - 124
Bromomethane	30.0	26.8		ug/Kg		89	57 - 148
Carbon disulfide	30.0	28.5		ug/Kg		95	45 - 160
Carbon tetrachloride	30.0	29.1		ug/Kg		97	59 - 145
Chlorobenzene	30.0	27.9		ug/Kg		93	75 - 120
Chlorodibromomethane	30.0	30.1		ug/Kg		100	42 - 129
Chloroethane	30.0	26.8		ug/Kg		89	48 - 167
Chloroform	30.0	30.2		ug/Kg		101	78 - 125
Chloromethane	30.0	25.3		ug/Kg		84	55 - 136
cis-1,2-Dichloroethene	30.0	31.2		ug/Kg		104	70 - 130
cis-1,3-Dichloropropene	30.0	28.1		ug/Kg		94	69 - 129
Dibromomethane	30.0	32.3		ug/Kg		108	78 - 126
Dichlorodifluoromethane	30.0	22.9		ug/Kg		76	38 - 150
Ethylbenzene	30.0	30.2		ug/Kg		101	78 - 126
Hexachloro-1,3-butadiene	30.0	25.2		ug/Kg		84	68 - 134
Iodomethane	30.0	30.7		ug/Kg		102	44 - 148
Isopropylbenzene	30.0	24.6		ug/Kg		82	79 - 127
Methyl tert-butyl ether	30.0	34.3		ug/Kg		114	65 - 125
Methylene Chloride	30.0	25.3		ug/Kg		84	57 - 146
m-Xylene & p-Xylene	30.0	28.3		ug/Kg		94	78 - 126
Naphthalene	30.0	26.9		ug/Kg		90	14 - 170
n-Butylbenzene	30.0	25.4		ug/Kg		85	78 - 128

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-170378/2-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170378

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
N-Propylbenzene	30.0	26.1		ug/Kg		87	81 - 127
o-Xylene	30.0	28.5		ug/Kg		95	77 - 127
sec-Butylbenzene	30.0	24.3		ug/Kg		81	78 - 128
Styrene	30.0	26.5		ug/Kg		88	79 - 127
tert-Butylbenzene	30.0	22.6		ug/Kg		75	71 - 136
Tetrachloroethene	30.0	26.2		ug/Kg		87	56 - 155
Toluene	30.0	28.8		ug/Kg		96	75 - 126
trans-1,2-Dichloroethene	30.0	30.2		ug/Kg		101	76 - 131
trans-1,3-Dichloropropene	30.0	25.5		ug/Kg		85	72 - 129
trans-1,4-Dichloro-2-butene	30.0	23.7		ug/Kg		79	42 - 160
Trichloroethene	30.0	31.3		ug/Kg		104	83 - 124
Trichlorofluoromethane	30.0	26.8		ug/Kg		89	47 - 165
Vinyl acetate	60.1	58.3		ug/Kg		97	19 - 144
Vinyl chloride	30.0	25.6		ug/Kg		85	67 - 131

Surrogate	LCS		Limits
	LCS	%Recovery	Qualifier
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	98		70 - 120
Dibromofluoromethane (Surr)	104		75 - 132
Trifluorotoluene (Surr)	99		65 - 140
1,2-Dichloroethane-d4 (Surr)	102		71 - 136

Lab Sample ID: LCSD 580-170378/3-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170378

Analyte	Spike Added	LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
1,1,1,2-Tetrachloroethane	30.0	30.4		ug/Kg		101	72 - 123	2	20
1,1,1-Trichloroethane	30.0	28.9		ug/Kg		96	63 - 135	1	20
1,1,2,2-Tetrachloroethane	30.0	31.8		ug/Kg		106	73 - 125	3	22
1,1,2-Trichloro-1,2,2-trifluoroethane	30.0	25.6		ug/Kg		85	66 - 163	6	30
1,1,2-Trichloroethane	30.0	32.8		ug/Kg		109	77 - 124	7	18
1,1-Dichloroethane	30.0	30.2		ug/Kg		101	70 - 128	2	21
1,1-Dichloroethene	30.0	26.5		ug/Kg		88	70 - 133	2	23
1,1-Dichloropropene	30.0	32.2		ug/Kg		107	77 - 125	2	16
1,2,3-Trichlorobenzene	30.0	30.0		ug/Kg		100	61 - 130	4	23
1,2,3-Trichloropropane	30.0	32.5		ug/Kg		108	77 - 123	8	23
1,2,4-Trichlorobenzene	30.0	29.8		ug/Kg		99	61 - 130	5	22
1,2,4-Trimethylbenzene	30.0	25.5		ug/Kg		85	79 - 124	7	18
1,2-Dibromo-3-Chloropropane	30.0	33.6		ug/Kg		112	53 - 132	7	27
1,2-Dibromoethane	30.0	33.1		ug/Kg		110	69 - 126	13	21
1,2-Dichlorobenzene	30.0	30.4		ug/Kg		101	79 - 117	9	17
1,2-Dichloroethane	30.0	30.6		ug/Kg		102	71 - 128	4	18
1,2-Dichloropropane	30.0	31.6		ug/Kg		105	76 - 161	2	15
1,3,5-Trimethylbenzene	30.0	26.7		ug/Kg		89	80 - 125	6	18
1,3-Dichlorobenzene	30.0	29.7		ug/Kg		99	79 - 119	10	17
1,3-Dichloropropane	30.0	32.2		ug/Kg		107	77 - 123	10	19

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-170378/3-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170378

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
1,4-Dichlorobenzene	30.0	29.5		ug/Kg		98	79 - 117	11		18
2,2-Dichloropropane	30.0	26.5		ug/Kg		88	56 - 144	5		21
2-Butanone	120	123		ug/Kg		102	30 - 160	1		30
2-Chloroethyl vinyl ether	30.0	34.0		ug/Kg		113	60 - 150	15		30
2-Chlorotoluene	30.0	29.3		ug/Kg		98	79 - 122	9		18
2-Hexanone	120	124		ug/Kg		103	45 - 145	10		30
4-Chlorotoluene	30.0	31.3		ug/Kg		104	80 - 122	12		18
4-Isopropyltoluene	30.0	27.3		ug/Kg		91	78 - 126	5		18
4-Methyl-2-pentanone	120	136		ug/Kg		114	45 - 145	3		30
Acetone	120	124		ug/Kg		103	20 - 160	0		30
Acrolein	178	190		ug/Kg		107	10 - 125	4		30
Acrylonitrile	300	299		ug/Kg		100	74 - 117	2		30
Benzene	30.0	30.9		ug/Kg		103	70 - 128	3		19
Bromobenzene	30.0	31.4		ug/Kg		105	80 - 120	13		19
Bromochloromethane	30.0	32.5		ug/Kg		108	78 - 123	3		19
Bromodichloromethane	30.0	32.5		ug/Kg		108	58 - 133	5		19
Bromoform	30.0	32.4		ug/Kg		108	50 - 124	15		25
Bromomethane	30.0	25.0		ug/Kg		83	57 - 148	7		29
Carbon disulfide	30.0	27.4		ug/Kg		91	45 - 160	4		30
Carbon tetrachloride	30.0	28.3		ug/Kg		94	59 - 145	3		19
Chlorobenzene	30.0	29.8		ug/Kg		99	75 - 120	7		21
Chlorodibromomethane	30.0	32.7		ug/Kg		109	42 - 129	8		23
Chloroethane	30.0	25.3		ug/Kg		84	48 - 167	6		53
Chloroform	30.0	30.9		ug/Kg		103	78 - 125	2		17
Chloromethane	30.0	23.3		ug/Kg		78	55 - 136	8		26
cis-1,2-Dichloroethene	30.0	30.9		ug/Kg		103	70 - 130	1		19
cis-1,3-Dichloropropene	30.0	30.8		ug/Kg		103	69 - 129	9		19
Dibromomethane	30.0	33.3		ug/Kg		111	78 - 126	3		18
Dichlorodifluoromethane	30.0	20.6		ug/Kg		69	38 - 150	11		26
Ethylbenzene	30.0	31.5		ug/Kg		105	78 - 126	4		23
Hexachloro-1,3-butadiene	30.0	25.4		ug/Kg		85	68 - 134	1		21
Iodomethane	30.0	29.5		ug/Kg		98	44 - 148	4		30
Isopropylbenzene	30.0	24.7		ug/Kg		82	79 - 127	0		20
Methyl tert-butyl ether	30.0	34.4		ug/Kg		115	65 - 125	0		30
Methylene Chloride	30.0	23.8		ug/Kg		79	57 - 146	6		21
m-Xylene & p-Xylene	30.0	29.5		ug/Kg		98	78 - 126	4		23
Naphthalene	30.0	29.1		ug/Kg		97	14 - 170	8		50
n-Butylbenzene	30.0	26.2		ug/Kg		87	78 - 128	3		17
N-Propylbenzene	30.0	28.2		ug/Kg		94	81 - 127	8		20
o-Xylene	30.0	29.1		ug/Kg		97	77 - 127	2		22
sec-Butylbenzene	30.0	25.0		ug/Kg		83	78 - 128	3		17
Styrene	30.0	29.1		ug/Kg		97	79 - 127	9		21
tert-Butylbenzene	30.0	24.2		ug/Kg		81	71 - 136	7		27
Tetrachloroethene	30.0	26.8		ug/Kg		89	56 - 155	2		27
Toluene	30.0	30.5		ug/Kg		102	75 - 126	6		19
trans-1,2-Dichloroethene	30.0	29.9		ug/Kg		100	76 - 131	1		18
trans-1,3-Dichloropropene	30.0	28.7		ug/Kg		96	72 - 129	12		20
trans-1,4-Dichloro-2-butene	30.0	28.4		ug/Kg		95	42 - 160	18		30

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-170378/3-A

Matrix: Solid

Analysis Batch: 170368

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170378

Analyte	Spike Added	LCSD		Unit	D	%Rec.		RPD	Limit
		Result	Qualifier			%Rec.	Limits		
Trichloroethene	30.0	31.9		ug/Kg		106	83 - 124	2	17
Trichlorofluoromethane	30.0	25.0		ug/Kg		83	47 - 165	7	54
Vinyl acetate	60.1	60.0		ug/Kg		100	19 - 144	3	30
Vinyl chloride	30.0	23.7		ug/Kg		79	67 - 131	8	22

Surrogate	LCSD		Limits
	LCSD	%Recovery	Qualifier
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	101		70 - 120
Dibromofluoromethane (Surr)	103		75 - 132
Trifluorotoluene (Surr)	94		65 - 140
1,2-Dichloroethane-d4 (Surr)	104		71 - 136

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-170481/1-A

Matrix: Solid

Analysis Batch: 170500

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 170481

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
							Prepared	Analyzed		
1,1,1,2-Tetrachloroethane	ND		40	1.1	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,1,1-Trichloroethane	ND		40	5.6	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,1,2,2-Tetrachloroethane	ND		10	2.3	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	6.8	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,1,2-Trichloroethane	ND		12	2.8	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,1-Dichloroethane	ND		40	4.2	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,1-Dichloroethene	ND		20	8.8	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,1-Dichloropropene	ND		40	5.3	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2,3-Trichlorobenzene	ND		40	7.8	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2,3-Trichloropropane	ND		40	3.8	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2,4-Trichlorobenzene	ND		40	3.9	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2,4-Trimethylbenzene	ND		40	3.3	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
BBC 12	ND		200	2.6	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2-Dibromoethane	ND		16	3.4	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2-Dichlorobenzene	ND		40	3.2	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2-Dichloroethane	ND		16	3.3	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,2-Dichloropropane	ND		12	2.4	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,3,5-Trimethylbenzene	ND		40	2.9	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,3-Dichlorobenzene	ND		40	3.1	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,3-Dichloropropane	ND		40	2.3	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
1,4-Dichlorobenzene	ND		40	2.0	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
2,2-Dichloropropane	ND		40	4.8	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
2-Butanone	ND		400	19	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
2-Chloroethyl vinyl ether	ND		200	6.2	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
2-Chlorotoluene	ND		40	3.4	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
2-Hexanone	ND		200	12	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
4-Chlorotoluene	ND		40	3.0	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
4-Isopropyltoluene	ND		40	2.8	ug/Kg		09/23/14 08:06	09/23/14 09:24		1
4-Methyl-2-pentanone	ND		200	8.2	ug/Kg		09/23/14 08:06	09/23/14 09:24		1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-170481/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 170500

Prep Batch: 170481

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		400	170	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Acrylonitrile	ND		200	96	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Benzene	ND		16	3.5	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Bromobenzene	ND		40	2.4	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Bromoform	ND		40	4.6	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Bromochloromethane	ND		40	1.4	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Bromodichloromethane	ND		40	2.2	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Bromoform	ND		140	13	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Bromomethane	ND		40	4.4	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Carbon disulfide	ND		20	3.8	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Carbon tetrachloride	ND		40	2.1	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Chlorobenzene	ND		20	1.0	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Chlorodibromomethane	ND		400	16	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Chloroethane	ND		40	4.2	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Chloroform	ND		100	10	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Chloromethane	ND		40	4.9	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
cis-1,2-Dichloroethene	ND		16	1.8	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
cis-1,3-Dichloropropene	ND		40	4.1	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Dibromomethane	ND		40	6.5	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Ethylbenzene	ND		40	2.0	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Hexachloro-1,3-butadiene	5.18	J	40	3.3	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Iodomethane	ND		200	6.3	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Isopropylbenzene	ND		40	2.6	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Methyl tert-butyl ether	ND		40	6.0	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Methylene Chloride	ND		25	12	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
m-Xylene & p-Xylene	ND		40	3.0	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Naphthalene	7.12	J	40	6.0	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
n-Butylbenzene	ND		40	3.5	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
N-Propylbenzene	ND		40	2.6	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
o-Xylene	ND		40	3.0	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
sec-Butylbenzene	ND		40	2.8	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Styrene	ND		40	2.4	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
tert-Butylbenzene	ND		40	3.1	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Tetrachloroethene	1.58	J	20	1.3	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Toluene	ND		40	2.6	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
trans-1,2-Dichloroethene	ND		40	6.1	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
trans-1,3-Dichloropropene	ND		16	2.4	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
trans-1,4-Dichloro-2-butene	ND		200	16	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Trichloroethene	ND		16	3.1	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Trichlorofluoromethane	ND		40	5.9	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Vinyl acetate	ND		200	11	ug/Kg		09/23/14 08:06	09/23/14 09:24	1
Vinyl chloride	ND		16	7.1	ug/Kg		09/23/14 08:06	09/23/14 09:24	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	109		65 - 140	09/23/14 08:06	09/23/14 09:24	1
Toluene-d8 (Surr)	103		80 - 120	09/23/14 08:06	09/23/14 09:24	1
1,2-Dichloroethane-d4 (Surr)	94		71 - 136	09/23/14 08:06	09/23/14 09:24	1
4-Bromofluorobenzene (Surr)	101		70 - 120	09/23/14 08:06	09/23/14 09:24	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-170481/1-A

Matrix: Solid

Analysis Batch: 170500

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 170481

Surrogate	MB	MB	%Recovery	Qualifier	Limits
	%Recovery	Qualifier			
Dibromofluoromethane (Surr)	97				75 - 132

Prepared 09/23/14 08:06 **Analyzed** 09/23/14 09:24 **Dil Fac** 1

Lab Sample ID: LCS 580-170481/2-A

Matrix: Solid

Analysis Batch: 170500

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170481

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier					
1,1,1,2-Tetrachloroethane	800	768		ug/Kg		96	72 - 123	
1,1,1-Trichloroethane	800	779		ug/Kg		97	63 - 135	
1,1,2,2-Tetrachloroethane	800	752		ug/Kg		94	73 - 125	
1,1,2-Trichloro-1,2,2-trifluoroethane	800	828		ug/Kg		103	66 - 163	
1,1,2-Trichloroethane	800	745		ug/Kg		93	77 - 124	
1,1-Dichloroethane	800	745		ug/Kg		93	70 - 128	
1,1-Dichloroethene	800	774		ug/Kg		97	70 - 133	
1,1-Dichloropropene	800	780		ug/Kg		97	77 - 125	
1,2,3-Trichlorobenzene	800	727		ug/Kg		91	61 - 130	
1,2,3-Trichloropropane	800	727		ug/Kg		91	77 - 123	
1,2,4-Trichlorobenzene	800	752		ug/Kg		94	61 - 130	
1,2,4-Trimethylbenzene	800	781		ug/Kg		98	79 - 124	
BBC 12	800	728		ug/Kg		91	53 - 132	
1,2-Dibromoethane	800	747		ug/Kg		93	69 - 126	
1,2-Dichlorobenzene	800	748		ug/Kg		94	79 - 117	
1,2-Dichloroethane	800	701		ug/Kg		88	71 - 128	
1,2-Dichloropropane	800	719		ug/Kg		90	76 - 161	
1,3,5-Trimethylbenzene	800	776		ug/Kg		97	80 - 125	
1,3-Dichlorobenzene	800	759		ug/Kg		95	79 - 119	
1,3-Dichloropropane	800	750		ug/Kg		94	77 - 123	
1,4-Dichlorobenzene	800	734		ug/Kg		92	79 - 117	
2,2-Dichloropropane	800	738		ug/Kg		92	56 - 144	
2-Butanone	3200	3060		ug/Kg		96	30 - 160	
2-Chloroethyl vinyl ether	800	711		ug/Kg		89	60 - 150	
2-Chlorotoluene	800	764		ug/Kg		95	79 - 122	
2-Hexanone	3200	2920		ug/Kg		91	45 - 145	
4-Chlorotoluene	800	757		ug/Kg		95	80 - 122	
4-Isopropyltoluene	800	799		ug/Kg		100	78 - 126	
4-Methyl-2-pentanone	3200	3090		ug/Kg		97	45 - 145	
Acetone	3200	2790		ug/Kg		87	20 - 160	
Acrylonitrile	8000	7080		ug/Kg		89	74 - 117	
Benzene	800	739		ug/Kg		92	70 - 128	
Bromobenzene	800	746		ug/Kg		93	80 - 120	
Bromochloromethane	800	742		ug/Kg		93	78 - 123	
Bromodichloromethane	800	773		ug/Kg		97	58 - 133	
Bromoform	800	772		ug/Kg		96	50 - 124	
Bromomethane	800	669		ug/Kg		84	57 - 148	
Carbon disulfide	800	790		ug/Kg		99	45 - 160	
Carbon tetrachloride	800	798		ug/Kg		100	59 - 145	
Chlorobenzene	800	760		ug/Kg		95	75 - 120	

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 580-170481/2-A

Matrix: Solid

Analysis Batch: 170500

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170481

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Chlorodibromomethane	800	786		ug/Kg		98	42 - 129
Chloroethane	800	692		ug/Kg		87	48 - 167
Chloroform	800	753		ug/Kg		94	78 - 125
Chloromethane	800	660		ug/Kg		82	55 - 136
cis-1,2-Dichloroethene	800	721		ug/Kg		90	70 - 130
cis-1,3-Dichloropropene	800	759		ug/Kg		95	69 - 129
Dibromomethane	800	735		ug/Kg		92	78 - 126
Dichlorodifluoromethane	800	682		ug/Kg		85	38 - 150
Ethylbenzene	800	771		ug/Kg		96	78 - 126
Hexachloro-1,3-butadiene	800	798		ug/Kg		100	68 - 134
Iodomethane	800	735		ug/Kg		92	44 - 148
Isopropylbenzene	800	798		ug/Kg		100	79 - 127
Methyl tert-butyl ether	800	710		ug/Kg		89	65 - 125
Methylene Chloride	800	677		ug/Kg		85	57 - 146
m-Xylene & p-Xylene	800	781		ug/Kg		98	78 - 126
Naphthalene	800	738		ug/Kg		92	14 - 170
n-Butylbenzene	800	804		ug/Kg		100	78 - 128
N-Propylbenzene	800	786		ug/Kg		98	81 - 127
o-Xylene	800	768		ug/Kg		96	77 - 127
sec-Butylbenzene	800	811		ug/Kg		101	78 - 128
Styrene	800	777		ug/Kg		97	79 - 127
tert-Butylbenzene	800	793		ug/Kg		99	71 - 136
Tetrachloroethene	800	738		ug/Kg		92	56 - 155
Toluene	800	751		ug/Kg		94	75 - 126
trans-1,2-Dichloroethene	800	709		ug/Kg		89	76 - 131
trans-1,3-Dichloropropene	800	767		ug/Kg		96	72 - 129
trans-1,4-Dichloro-2-butene	800	716		ug/Kg		89	42 - 160
Trichloroethene	800	751		ug/Kg		94	83 - 124
Trichlorofluoromethane	800	766		ug/Kg		96	47 - 165
Vinyl acetate	1600	1310		ug/Kg		82	19 - 144
Vinyl chloride	800	700		ug/Kg		88	67 - 131

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Trifluorotoluene (Surr)	103		65 - 140
Toluene-d8 (Surr)	101		80 - 120
1,2-Dichloroethane-d4 (Surr)	96		71 - 136
4-Bromofluorobenzene (Surr)	101		70 - 120
Dibromofluoromethane (Surr)	100		75 - 132

Lab Sample ID: LCSD 580-170481/3-A

Matrix: Solid

Analysis Batch: 170500

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170481

Analyte	Spike Added	LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
1,1,1,2-Tetrachloroethane	800	795		ug/Kg		99	72 - 123	3	20
1,1,1-Trichloroethane	800	796		ug/Kg		99	63 - 135	2	20
1,1,2,2-Tetrachloroethane	800	780		ug/Kg		98	73 - 125	4	22

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-170481/3-A

Matrix: Solid

Analysis Batch: 170500

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170481

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	RPD	Limit
	Added	Result	Qualifier				Limits				
1,1,2-Trichloro-1,2,2-trifluoroethane	800	856		ug/Kg	107	66 - 163		3	30		
1,1,2-Trichloroethane	800	774		ug/Kg	97	77 - 124		4	18		
1,1-Dichloroethane	800	752		ug/Kg	94	70 - 128		1	21		
1,1-Dichloroethene	800	791		ug/Kg	99	70 - 133		2	23		
1,1-Dichloropropene	800	796		ug/Kg	100	77 - 125		2	16		
1,2,3-Trichlorobenzene	800	728		ug/Kg	91	61 - 130		0	23		
1,2,3-Trichloropropane	800	757		ug/Kg	95	77 - 123		4	23		
1,2,4-Trichlorobenzene	800	745		ug/Kg	93	61 - 130		1	22		
1,2,4-Trimethylbenzene	800	785		ug/Kg	98	79 - 124		1	18		
BBC 12	800	745		ug/Kg	93	53 - 132		2	27		
1,2-Dibromoethane	800	766		ug/Kg	96	69 - 126		3	21		
1,2-Dichlorobenzene	800	754		ug/Kg	94	79 - 117		1	17		
1,2-Dichloroethane	800	722		ug/Kg	90	71 - 128		3	18		
1,2-Dichloropropene	800	727		ug/Kg	91	76 - 161		1	15		
1,3,5-Trimethylbenzene	800	780		ug/Kg	97	80 - 125		0	18		
1,3-Dichlorobenzene	800	760		ug/Kg	95	79 - 119		0	17		
1,3-Dichloropropane	800	766		ug/Kg	96	77 - 123		2	19		
1,4-Dichlorobenzene	800	739		ug/Kg	92	79 - 117		1	18		
2,2-Dichloropropene	800	759		ug/Kg	95	56 - 144		3	21		
2-Butanone	3200	2990		ug/Kg	93	30 - 160		2	30		
2-Chloroethyl vinyl ether	800	723		ug/Kg	90	60 - 150		2	30		
2-Chlorotoluene	800	766		ug/Kg	96	79 - 122		0	18		
2-Hexanone	3200	3010		ug/Kg	94	45 - 145		3	30		
4-Chlorotoluene	800	763		ug/Kg	95	80 - 122		1	18		
4-Isopropyltoluene	800	798		ug/Kg	100	78 - 126		0	18		
4-Methyl-2-pentanone	3200	3190		ug/Kg	100	45 - 145		3	30		
Acetone	3200	2830		ug/Kg	88	20 - 160		1	30		
Acrylonitrile	8000	7210		ug/Kg	90	74 - 117		2	30		
Benzene	800	745		ug/Kg	93	70 - 128		1	19		
Bromobenzene	800	752		ug/Kg	94	80 - 120		1	19		
Bromochloromethane	800	759		ug/Kg	95	78 - 123		2	19		
Bromodichloromethane	800	795		ug/Kg	99	58 - 133		3	19		
Bromoform	800	790		ug/Kg	99	50 - 124		2	25		
Bromomethane	800	679		ug/Kg	85	57 - 148		2	29		
Carbon disulfide	800	805		ug/Kg	101	45 - 160		2	30		
Carbon tetrachloride	800	821		ug/Kg	103	59 - 145		3	19		
Chlorobenzene	800	779		ug/Kg	97	75 - 120		2	21		
Chlorodibromomethane	800	799		ug/Kg	100	42 - 129		2	23		
Chloroethane	800	708		ug/Kg	88	48 - 167		2	53		
Chloroform	800	768		ug/Kg	96	78 - 125		2	17		
Chloromethane	800	665		ug/Kg	83	55 - 136		1	26		
cis-1,2-Dichloroethene	800	760		ug/Kg	95	70 - 130		5	19		
cis-1,3-Dichloropropene	800	786		ug/Kg	98	69 - 129		3	19		
Dibromomethane	800	754		ug/Kg	94	78 - 126		3	18		
Dichlorodifluoromethane	800	654		ug/Kg	82	38 - 150		4	26		
Ethylbenzene	800	787		ug/Kg	98	78 - 126		2	23		
Hexachloro-1,3-butadiene	800	823		ug/Kg	103	68 - 134		3	21		

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-170481/3-A

Matrix: Solid

Analysis Batch: 170500

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170481

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
Iodomethane	800	760		ug/Kg		95	44 - 148	3	30	
Isopropylbenzene	800	818		ug/Kg		102	79 - 127	3	20	
Methyl tert-butyl ether	800	743		ug/Kg		93	65 - 125	5	30	
Methylene Chloride	800	694		ug/Kg		87	57 - 146	2	21	
m-Xylene & p-Xylene	800	799		ug/Kg		100	78 - 126	2	23	
Naphthalene	800	739		ug/Kg		92	14 - 170	0	50	
n-Butylbenzene	800	810		ug/Kg		101	78 - 128	1	17	
N-Propylbenzene	800	793		ug/Kg		99	81 - 127	1	20	
o-Xylene	800	778		ug/Kg		97	77 - 127	1	22	
sec-Butylbenzene	800	816		ug/Kg		102	78 - 128	1	17	
Styrene	800	790		ug/Kg		99	79 - 127	2	21	
tert-Butylbenzene	800	796		ug/Kg		99	71 - 136	0	27	
Tetrachloroethene	800	801		ug/Kg		100	56 - 155	8	27	
Toluene	800	772		ug/Kg		97	75 - 126	3	19	
trans-1,2-Dichloroethene	800	775		ug/Kg		97	76 - 131	9	18	
trans-1,3-Dichloropropene	800	794		ug/Kg		99	72 - 129	3	20	
trans-1,4-Dichloro-2-butene	800	723		ug/Kg		90	42 - 160	1	30	
Trichloroethene	800	768		ug/Kg		96	83 - 124	2	17	
Trichlorofluoromethane	800	779		ug/Kg		97	47 - 165	2	54	
Vinyl acetate	1600	1320		ug/Kg		82	19 - 144	0	30	
Vinyl chloride	800	682		ug/Kg		85	67 - 131	3	22	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Trifluorotoluene (Surr)	104		65 - 140
Toluene-d8 (Surr)	103		80 - 120
1,2-Dichloroethane-d4 (Surr)	96		71 - 136
4-Bromofluorobenzene (Surr)	102		70 - 120
Dibromofluoromethane (Surr)	100		75 - 132

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-169198/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 170329

Prep Batch: 169198

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Bis(2-chloroethyl)ether	ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2-Chlorophenol	ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
1,3-Dichlorobenzene	ND		5.0	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
1,4-Dichlorobenzene	ND		5.0	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Benzyl alcohol	ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
1,2-Dichlorobenzene	ND		5.5	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2-Methylphenol	ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,2'-oxybis[1-chloropropane]	ND		25	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
3 & 4 Methylphenol	ND		20	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
N-Nitrosodi-n-propylamine	ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Hexachloroethane	ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-169198/1-A

Matrix: Solid

Analysis Batch: 170329

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169198

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND	ND									
Nitrobenzene			ND		10	3.4	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Isophorone			ND		10	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2-Nitrophenol			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,4-Dimethylphenol			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Benzoic acid			ND		250	75	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Bis(2-chloroethoxy)methane			ND		10	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,4-Dichlorophenol			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
1,2,4-Trichlorobenzene			ND		5.0	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Naphthalene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
4-Chloroaniline			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Hexachlorobutadiene			ND		5.0	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
4-Chloro-3-methylphenol			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2-Methylnaphthalene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
1-Methylnaphthalene			ND		3.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Hexachlorocyclopentadiene			ND		10	1.0	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,4,6-Trichlorophenol			ND		15	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,4,5-Trichlorophenol			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2-Chloronaphthalene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2-Nitroaniline			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Dimethyl phthalate	1.77	J			10	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Acenaphthylene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,6-Dinitrotoluene			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
3-Nitroaniline			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Acenaphthene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,4-Dinitrophenol			ND		100	20	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
4-Nitrophenol			ND		100	25	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Dibenzofuran			ND		10	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
2,4-Dinitrotoluene			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Diethyl phthalate	14.6	J ^			20	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
4-Chlorophenyl phenyl ether			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Fluorene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
4-Nitroaniline			ND		10	2.0	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
4,6-Dinitro-2-methylphenol			ND		100	10	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
N-Nitrosodiphenylamine			ND		5.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
4-Bromophenyl phenyl ether			ND		10	1.5	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Hexachlorobenzene			ND		5.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Pentachlorophenol			ND		20	2.0	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Phenanthrene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Anthracene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Carbazole			ND		10	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Di-n-butyl phthalate			ND		50	5.0	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Fluoranthene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Pyrene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Butyl benzyl phthalate			ND		20	5.0	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
3,3'-Dichlorobenzidine			ND		20	3.0	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Benzo[a]anthracene			ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Chrysene			ND		2.5	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Bis(2-ethylhexyl) phthalate	7.66	J			60	5.0	ug/Kg		09/12/14 11:00	09/20/14 17:49	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-169198/1-A

Matrix: Solid

Analysis Batch: 170329

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169198

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		50	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Benzo[b]fluoranthene	ND		2.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Benzo[k]fluoranthene	ND		2.5	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Benzo[a]pyrene	ND		3.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Indeno[1,2,3-cd]pyrene	ND		4.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Dibenz(a,h)anthracene	ND		4.0	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
Benzo[g,h,i]perylene	ND		2.5	0.50	ug/Kg		09/12/14 11:00	09/20/14 17:49	1
N-Nitrosodimethylamine	ND		100	25	ug/Kg		09/12/14 11:00	09/20/14 17:49	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	91		36 - 145	09/12/14 11:00	09/20/14 17:49	1
Phenol-d5	85		38 - 149	09/12/14 11:00	09/20/14 17:49	1
2,4,6-Tribromophenol	77		28 - 143	09/12/14 11:00	09/20/14 17:49	1
Nitrobenzene-d5	75		38 - 141	09/12/14 11:00	09/20/14 17:49	1
2-Fluorobiphenyl	73		42 - 140	09/12/14 11:00	09/20/14 17:49	1
Terphenyl-d14	91		42 - 151	09/12/14 11:00	09/20/14 17:49	1

Lab Sample ID: LCS 580-169198/2-A

Matrix: Solid

Analysis Batch: 170329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limts
Phenol	100	96.1		ug/Kg		96	63 - 111
Bis(2-chloroethyl)ether	100	69.3		ug/Kg		69	62 - 110
2-Chlorophenol	100	82.4		ug/Kg		82	68 - 117
1,3-Dichlorobenzene	100	80.4		ug/Kg		80	64 - 111
1,4-Dichlorobenzene	100	73.6		ug/Kg		74	65 - 110
Benzyl alcohol	100	94.1		ug/Kg		94	55 - 123
1,2-Dichlorobenzene	100	75.9		ug/Kg		76	64 - 112
2-Methylphenol	100	89.5		ug/Kg		89	71 - 116
2,2'-oxybis[1-chloropropane]	100	75.1		ug/Kg		75	41 - 126
3 & 4 Methylphenol	100	94.5		ug/Kg		94	70 - 116
N-Nitrosodi-n-propylamine	100	78.1		ug/Kg		78	62 - 116
Hexachloroethane	100	74.3		ug/Kg		74	62 - 120
Nitrobenzene	100	73.8		ug/Kg		74	64 - 118
Isophorone	100	83.6		ug/Kg		84	67 - 119
2-Nitrophenol	100	79.9		ug/Kg		80	67 - 127
2,4-Dimethylphenol	100	56.8		ug/Kg		57	54 - 139
Benzoic acid	200	199 J		ug/Kg		99	29 - 158
Bis(2-chloroethoxy)methane	100	84.6		ug/Kg		85	69 - 107
2,4-Dichlorophenol	100	88.4		ug/Kg		88	68 - 125
1,2,4-Trichlorobenzene	100	84.1		ug/Kg		84	66 - 115
Naphthalene	100	76.4		ug/Kg		76	62 - 112
4-Chloroaniline	100	41.4		ug/Kg		41	20 - 103
Hexachlorobutadiene	100	72.9		ug/Kg		73	65 - 116
4-Chloro-3-methylphenol	100	83.8		ug/Kg		84	69 - 121
2-Methylnaphthalene	100	80.1		ug/Kg		80	64 - 119
1-Methylnaphthalene	100	79.2		ug/Kg		79	62 - 118

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-169198/2-A

Matrix: Solid

Analysis Batch: 170329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169198

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Hexachlorocyclopentadiene	100	82.2		ug/Kg		82	46 - 131
2,4,6-Trichlorophenol	100	95.8		ug/Kg		96	62 - 133
2,4,5-Trichlorophenol	100	97.7		ug/Kg		98	57 - 133
2-Chloronaphthalene	100	82.8		ug/Kg		83	68 - 112
2-Nitroaniline	100	82.7		ug/Kg		83	64 - 112
Dimethyl phthalate	100	98.4		ug/Kg		98	78 - 117
Acenaphthylene	100	81.5		ug/Kg		81	68 - 120
2,6-Dinitrotoluene	100	86.8		ug/Kg		87	66 - 123
3-Nitroaniline	100	65.1		ug/Kg		65	27 - 103
Acenaphthene	100	81.5		ug/Kg		82	68 - 116
2,4-Dinitrophenol	200	178		ug/Kg		89	20 - 141
4-Nitrophenol	200	178		ug/Kg		89	20 - 165
Dibenzofuran	100	80.4		ug/Kg		80	72 - 109
2,4-Dinitrotoluene	100	88.6		ug/Kg		89	68 - 121
Diethyl phthalate	100	110 ^		ug/Kg		110	73 - 116
4-Chlorophenyl phenyl ether	100	84.6		ug/Kg		85	75 - 108
Fluorene	100	86.5		ug/Kg		87	70 - 121
4-Nitroaniline	100	73.9		ug/Kg		74	58 - 108
4,6-Dinitro-2-methylphenol	200	169		ug/Kg		85	48 - 130
N-Nitrosodiphenylamine	100	84.9		ug/Kg		85	73 - 115
4-Bromophenyl phenyl ether	100	85.2		ug/Kg		85	68 - 122
Hexachlorobenzene	100	86.3		ug/Kg		86	66 - 117
Pentachlorophenol	200	158		ug/Kg		79	45 - 117
Phenanthrone	100	89.9		ug/Kg		90	73 - 106
Anthracene	100	89.4		ug/Kg		89	73 - 116
Carbazole	100	105		ug/Kg		105	76 - 135
Di-n-butyl phthalate	100	112		ug/Kg		112	66 - 140
Fluoranthene	100	99.1		ug/Kg		99	73 - 125
Pyrene	100	99.1		ug/Kg		99	70 - 120
Butyl benzyl phthalate	100	112		ug/Kg		112	69 - 142
3,3'-Dichlorobenzidine	200	125		ug/Kg		62	20 - 103
Benzo[a]anthracene	100	101		ug/Kg		101	76 - 119
Chrysene	100	95.4		ug/Kg		95	75 - 114
Bis(2-ethylhexyl) phthalate	100	111		ug/Kg		111	62 - 144
Di-n-octyl phthalate	100	110		ug/Kg		110	65 - 141
Benzo[b]fluoranthene	100	95.0		ug/Kg		95	63 - 132
Benzo[k]fluoranthene	100	82.9		ug/Kg		83	63 - 119
Benzo[a]pyrene	100	90.3		ug/Kg		90	72 - 117
Indeno[1,2,3-cd]pyrene	100	85.3		ug/Kg		85	56 - 127
Dibenz(a,h)anthracene	100	94.7		ug/Kg		95	56 - 134
Benzo[g,h,i]perylene	100	94.4		ug/Kg		94	55 - 139
N-Nitrosodimethylamine	100	71.3 J		ug/Kg		71	38 - 133

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	100		36 - 145
Phenol-d5	94		38 - 149
2,4,6-Tribromophenol	90		28 - 143
Nitrobenzene-d5	80		38 - 141

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-169198/2-A

Matrix: Solid

Analysis Batch: 170329

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169198

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	80		42 - 140
Terphenyl-d14	106		42 - 151

Lab Sample ID: LCSD 580-169198/3-A

Matrix: Solid

Analysis Batch: 170329

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169198

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
		Added	Result	Qualifier						
Phenol		100	91.3		ug/Kg	91	63 - 111	5	26	
Bis(2-chloroethyl)ether		100	73.7		ug/Kg	74	62 - 110	6	22	
2-Chlorophenol		100	82.0		ug/Kg	82	68 - 117	0	27	
1,3-Dichlorobenzene		100	79.4		ug/Kg	79	64 - 111	1	30	
1,4-Dichlorobenzene		100	76.8		ug/Kg	77	65 - 110	4	30	
Benzyl alcohol		100	90.3		ug/Kg	90	55 - 123	4	60	
1,2-Dichlorobenzene		100	77.5		ug/Kg	78	64 - 112	2	30	
2-Methylphenol		100	90.4		ug/Kg	90	71 - 116	1	25	
2,2'-oxybis[1-chloropropane]		100	73.0		ug/Kg	73	41 - 126	3	57	
3 & 4 Methylphenol		100	91.4		ug/Kg	91	70 - 116	3	27	
N-Nitrosodi-n-propylamine		100	78.1		ug/Kg	78	62 - 116	0	28	
Hexachloroethane		100	77.7		ug/Kg	78	62 - 120	4	30	
Nitrobenzene		100	77.4		ug/Kg	77	64 - 118	5	30	
Isophorone		100	76.7		ug/Kg	77	67 - 119	9	30	
2-Nitrophenol		100	80.4		ug/Kg	80	67 - 127	1	30	
2,4-Dimethylphenol		100	71.6		ug/Kg	72	54 - 139	23	30	
Benzoic acid		200	178 J		ug/Kg	89	29 - 158	11	28	
Bis(2-chloroethoxy)methane		100	73.8		ug/Kg	74	69 - 107	14	30	
2,4-Dichlorophenol		100	87.4		ug/Kg	87	68 - 125	1	30	
1,2,4-Trichlorobenzene		100	78.0		ug/Kg	78	66 - 115	7	28	
Naphthalene		100	72.2		ug/Kg	72	62 - 112	6	26	
4-Chloroaniline		100	39.8		ug/Kg	40	20 - 103	4	60	
Hexachlorobutadiene		100	77.8		ug/Kg	78	65 - 116	6	30	
4-Chloro-3-methylphenol		100	82.6		ug/Kg	83	69 - 121	1	27	
2-Methylnaphthalene		100	79.3		ug/Kg	79	64 - 119	1	27	
1-Methylnaphthalene		100	76.4		ug/Kg	76	62 - 118	4	30	
Hexachlorocyclopentadiene		100	81.2		ug/Kg	81	46 - 131	1	29	
2,4,6-Trichlorophenol		100	91.3		ug/Kg	91	62 - 133	5	30	
2,4,5-Trichlorophenol		100	90.1		ug/Kg	90	57 - 133	8	30	
2-Chloronaphthalene		100	79.2		ug/Kg	79	68 - 112	4	25	
2-Nitroaniline		100	77.2		ug/Kg	77	64 - 112	7	22	
Dimethyl phthalate		100	89.9		ug/Kg	90	78 - 117	9	30	
Acenaphthylene		100	78.2		ug/Kg	78	68 - 120	4	28	
2,6-Dinitrotoluene		100	79.7		ug/Kg	80	66 - 123	9	30	
3-Nitroaniline		100	60.3		ug/Kg	60	27 - 103	8	33	
Acenaphthene		100	76.1		ug/Kg	76	68 - 116	7	27	
2,4-Dinitrophenol		200	166		ug/Kg	83	20 - 141	7	36	
4-Nitrophenol		200	186		ug/Kg	93	20 - 165	4	30	
Dibenzofuran		100	77.3		ug/Kg	77	72 - 109	4	30	
2,4-Dinitrotoluene		100	82.5		ug/Kg	83	68 - 121	7	30	

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-169198/3-A

Matrix: Solid

Analysis Batch: 170329

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169198

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec.		RPD	RPD Limit
		Result	Qualifier				Limits	RPD		
Diethyl phthalate	100	98.4	^	ug/Kg		98	73 - 116	11	26	
4-Chlorophenyl phenyl ether	100	76.2		ug/Kg		76	75 - 108	10	30	
Fluorene	100	79.6		ug/Kg		80	70 - 121	8	30	
4-Nitroaniline	100	74.3		ug/Kg		74	58 - 108	1	32	
4,6-Dinitro-2-methylphenol	200	157		ug/Kg		79	48 - 130	7	22	
N-Nitrosodiphenylamine	100	78.9		ug/Kg		79	73 - 115	7	30	
4-Bromophenyl phenyl ether	100	87.1		ug/Kg		87	68 - 122	2	30	
Hexachlorobenzene	100	83.4		ug/Kg		83	66 - 117	3	30	
Pentachlorophenol	200	140		ug/Kg		70	45 - 117	12	23	
Phenanthrene	100	88.1		ug/Kg		88	73 - 106	2	28	
Anthracene	100	85.7		ug/Kg		86	73 - 116	4	27	
Carbazole	100	102		ug/Kg		102	76 - 135	3	30	
Di-n-butyl phthalate	100	107		ug/Kg		107	66 - 140	5	30	
Fluoranthene	100	93.8		ug/Kg		94	73 - 125	6	30	
Pyrene	100	94.7		ug/Kg		95	70 - 120	5	30	
Butyl benzyl phthalate	100	120		ug/Kg		120	69 - 142	6	30	
3,3'-Dichlorobenzidine	200	119		ug/Kg		60	20 - 103	5	60	
Benzo[a]anthracene	100	96.9		ug/Kg		97	76 - 119	4	27	
Chrysene	100	90.2		ug/Kg		90	75 - 114	6	26	
Bis(2-ethylhexyl) phthalate	100	115		ug/Kg		115	62 - 144	4	30	
Di-n-octyl phthalate	100	108		ug/Kg		108	65 - 141	2	30	
Benzo[b]fluoranthene	100	94.1		ug/Kg		94	63 - 132	1	30	
Benzo[k]fluoranthene	100	87.1		ug/Kg		87	63 - 119	5	30	
Benzo[a]pyrene	100	85.7		ug/Kg		86	72 - 117	5	30	
Indeno[1,2,3-cd]pyrene	100	89.6		ug/Kg		90	56 - 127	5	29	
Dibenz(a,h)anthracene	100	93.6		ug/Kg		94	56 - 134	1	30	
Benzo[g,h,i]perylene	100	93.1		ug/Kg		93	55 - 139	1	28	
N-Nitrosodimethylamine	100	73.3	J	ug/Kg		73	38 - 133	3	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol	101		36 - 145
Phenol-d5	93		38 - 149
2,4,6-Tribromophenol	90		28 - 143
Nitrobenzene-d5	80		38 - 141
2-Fluorobiphenyl	79		42 - 140
Terphenyl-d14	105		42 - 151

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-169531/1-A

Matrix: Solid

Analysis Batch: 169626

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169531

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline	ND		4.0	0.50	mg/Kg		09/12/14 09:10	09/12/14 19:33	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: MB 580-169531/1-A

Matrix: Solid

Analysis Batch: 169626

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169531

Surrogate	MB	MB	%Recovery	Qualifier	Limits
	%Recovery	Qualifier			
4-Bromofluorobenzene (Surr)	99				50 - 150

Prepared 09/12/14 09:10 **Analyzed** 09/12/14 19:33 **Dil Fac** 1

Lab Sample ID: LCS 580-169531/2-A

Matrix: Solid

Analysis Batch: 169626

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169531

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
	%Recovery	Qualifier							
Gasoline			40.0	38.8		mg/Kg		97	68 - 120
Surrogate	LCS	LCS							
4-Bromofluorobenzene (Surr)	%Recovery	Qualifier		Limits					
	106			50 - 150					

Lab Sample ID: LCSD 580-169531/3-A

Matrix: Solid

Analysis Batch: 169626

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169531

Analyte	MB	MB	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD
	%Recovery	Qualifier									
Gasoline			40.0	40.0		mg/Kg		100	68 - 120	3	25
Surrogate	LCS	LCS									
4-Bromofluorobenzene (Surr)	%Recovery	Qualifier		Limits							
	105			50 - 150							

Method: 8082 - PCBs

Lab Sample ID: MB 580-169804/1-A

Matrix: Solid

Analysis Batch: 169887

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169804

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier									
Arochlor 1016		ND			0.010	0.0032	mg/Kg		09/15/14 13:42	09/16/14 15:42	1
Arochlor 1221		ND			0.011	0.0080	mg/Kg		09/15/14 13:42	09/16/14 15:42	1
Arochlor 1232		ND			0.011	0.0070	mg/Kg		09/15/14 13:42	09/16/14 15:42	1
Arochlor 1242		ND			0.010	0.0021	mg/Kg		09/15/14 13:42	09/16/14 15:42	1
Arochlor 1248		ND			0.010	0.0030	mg/Kg		09/15/14 13:42	09/16/14 15:42	1
Arochlor 1254		ND			0.010	0.0021	mg/Kg		09/15/14 13:42	09/16/14 15:42	1
Arochlor 1260		ND			0.010	0.0030	mg/Kg		09/15/14 13:42	09/16/14 15:42	1
Surrogate	MB	MB							Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	%Recovery	Qualifier		Limits					09/15/14 13:42	09/16/14 15:42	1
DCB Decachlorobiphenyl	88			45 - 135					09/15/14 13:42	09/16/14 15:42	1
	102			50 - 140					09/15/14 13:42	09/16/14 15:42	1

Lab Sample ID: LCS 580-169804/4-A

Matrix: Solid

Analysis Batch: 169887

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169804

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
	%Recovery	Qualifier							
Arochlor 1016		0.100		0.103		mg/Kg		103	40 - 140

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 8082 - PCBs (Continued)

Lab Sample ID: LCS 580-169804/4-A

Matrix: Solid

Analysis Batch: 169887

Analyte		Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Added	Result	Qualifier				
Arochlor 1260		0.100	0.109		mg/Kg		109	60 - 130
Surrogate								
Surrogate		LCS	LCS	Limits	Unit	D	%Rec.	RPD
		%Recovery	Qualifier					
Tetrachloro-m-xylene		93		45 - 135				
DCB Decachlorobiphenyl		108		50 - 140				

Lab Sample ID: LCSD 580-169804/5-A

Matrix: Solid

Analysis Batch: 169887

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.
		Added	Result	Qualifier				
Arochlor 1016		0.100	0.104		mg/Kg		104	40 - 140
Arochlor 1260		0.100	0.109		mg/Kg		109	60 - 130
Surrogate								
Surrogate		LCSD	LCSD	Limits	Unit	D	%Rec.	RPD
		%Recovery	Qualifier					
Tetrachloro-m-xylene		93		45 - 135				
DCB Decachlorobiphenyl		108		50 - 140				

Lab Sample ID: 580-45295-1 MS

Matrix: Solid

Analysis Batch: 169887

Analyte		Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
		Result	Qualifier	Added	Result	Qualifier				
Arochlor 1016		ND		0.145	0.117		mg/Kg	⊗	81	40 - 140
Arochlor 1260		ND		0.145	0.138		mg/Kg	⊗	95	60 - 130
Surrogate										
Surrogate		MS	MS	Limits	Unit	D	%Rec	RPD	Limit	Limit
		%Recovery	Qualifier							
Tetrachloro-m-xylene		78		45 - 135						
DCB Decachlorobiphenyl		77		50 - 140						

Lab Sample ID: 580-45295-1 MSD

Matrix: Solid

Analysis Batch: 169887

Analyte		Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
		Result	Qualifier	Added	Result	Qualifier				
Arochlor 1016		ND		0.147	0.120		mg/Kg	⊗	82	40 - 140
Arochlor 1260		ND		0.147	0.135		mg/Kg	⊗	92	60 - 130
Surrogate										
Surrogate		MSD	MSD	Limits	Unit	D	%Rec	RPD	Limit	Limit
		%Recovery	Qualifier							
Tetrachloro-m-xylene		70		45 - 135						
DCB Decachlorobiphenyl		73		50 - 140						

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-169589/1-A

Matrix: Solid

Analysis Batch: 169857

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169589

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		25	5.7	mg/Kg		09/12/14 13:02	09/16/14 10:52	1
Motor Oil (>C24-C36)	ND		50	9.1	mg/Kg		09/12/14 13:02	09/16/14 10:52	1
Surrogate									
<i>o-Terphenyl</i>	102			50 - 150			09/12/14 13:02	09/16/14 10:52	1

Lab Sample ID: LCS 580-169589/2-A

Matrix: Solid

Analysis Batch: 169857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169589

Analyte	Spike		LCS	LCS	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.	RPD
#2 Diesel (C10-C24)	500	527		mg/Kg		105	70 - 125		
Motor Oil (>C24-C36)	502	528		mg/Kg		105	64 - 127		
Surrogate									
<i>o-Terphenyl</i>	105		50 - 150						

Lab Sample ID: LCSD 580-169589/3-A

Matrix: Solid

Analysis Batch: 169857

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169589

Analyte	Spike		LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
#2 Diesel (C10-C24)	500	525		mg/Kg		105	70 - 125	0	16	
Motor Oil (>C24-C36)	502	524		mg/Kg		104	64 - 127	1	17	
Surrogate										
<i>o-Terphenyl</i>	105		50 - 150							

Lab Sample ID: 580-45295-1 DU

Matrix: Solid

Analysis Batch: 169857

Client Sample ID: PS-TS-01-20140909-S

Prep Type: Total/NA

Prep Batch: 169589

Analyte	Sample		DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
#2 Diesel (C10-C24)	1300	Y	1220	Y	mg/Kg	⊗	4	35
Motor Oil (>C24-C36)	6000	Y	5930	Y	mg/Kg	⊗	1	35
Surrogate								
<i>o-Terphenyl</i>	105		50 - 150					

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-169254/24-A

Matrix: Solid

Analysis Batch: 169408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169254

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.10	0.036	mg/Kg		09/10/14 07:45	09/10/14 14:21	2

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 580-169254/24-A **Client Sample ID: Method Blank**
Prep Type: Total/NA
Prep Batch: 169254
Matrix: Solid
Analysis Batch: 169408

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Lead	0.00268	J			0.040	0.0026	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Antimony	ND				0.040	0.0084	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Beryllium	ND				0.040	0.0070	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Cadmium	ND				0.040	0.0016	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Chromium	ND				0.040	0.023	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Copper	ND				0.080	0.020	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Nickel	ND				0.10	0.016	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Selenium	ND				0.14	0.040	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Silver	ND				0.040	0.0024	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Thallium	ND				0.10	0.026	mg/Kg		09/10/14 07:45	09/10/14 14:21	2
Zinc	ND				0.40	0.22	mg/Kg		09/10/14 07:45	09/10/14 14:21	2

Lab Sample ID: LCS 580-169254/25-A **Client Sample ID: Lab Control Sample**
Prep Type: Total/NA
Prep Batch: 169254
Matrix: Solid
Analysis Batch: 169408

Analyte	Spike Added	LC	LC	Result	Qualifier	Unit	D	%Rec	%Rec.	
		Spike	LC						Limits	
Arsenic	200		209			mg/Kg		105	80 - 120	
Lead	50.0		52.3			mg/Kg		105	80 - 120	
Antimony	150		161			mg/Kg		107	80 - 120	
Beryllium	5.00		5.28			mg/Kg		106	80 - 120	
Cadmium	5.00		5.53			mg/Kg		111	80 - 120	
Chromium	20.0		20.1			mg/Kg		101	80 - 120	
Copper	25.0		25.5			mg/Kg		102	80 - 120	
Nickel	50.0		50.8			mg/Kg		102	80 - 120	
Selenium	200		216			mg/Kg		108	80 - 120	
Silver	30.0		32.1			mg/Kg		107	80 - 120	
Thallium	200		205			mg/Kg		102	80 - 120	
Zinc	200		209			mg/Kg		104	80 - 120	

Lab Sample ID: LCSD 580-169254/26-A **Client Sample ID: Lab Control Sample Dup**
Prep Type: Total/NA
Prep Batch: 169254
Matrix: Solid
Analysis Batch: 169408

Analyte	Spike Added	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	%Rec.	
		Spike	LCSD						Limits	RPD
Arsenic	200		208			mg/Kg		104	80 - 120	0 20
Lead	50.0		51.8			mg/Kg		104	80 - 120	1 20
Antimony	150		161			mg/Kg		107	80 - 120	0 20
Beryllium	5.00		5.20			mg/Kg		104	80 - 120	2 20
Cadmium	5.00		5.49			mg/Kg		110	80 - 120	1 20
Chromium	20.0		20.1			mg/Kg		101	80 - 120	0 20
Copper	25.0		24.8			mg/Kg		99	80 - 120	3 20
Nickel	50.0		49.8			mg/Kg		100	80 - 120	2 20
Selenium	200		214			mg/Kg		107	80 - 120	1 20
Silver	30.0		31.9			mg/Kg		106	80 - 120	1 20
Thallium	200		204			mg/Kg		102	80 - 120	0 20
Zinc	200		206			mg/Kg		103	80 - 120	1 20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 580-169254/27-A

Matrix: Solid

Analysis Batch: 169408

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169254

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits
Arsenic	139	136		mg/Kg		97.7	70.4 - 140. 3
Lead	133	129		mg/Kg		96.6	72.9 - 127. 8
Antimony	88.8	156		mg/Kg		175.7	22.0 - 259. 0
Beryllium	96.1	93.8		mg/Kg		97.6	74.5 - 125. 9
Cadmium	96.0	93.4		mg/Kg		97.3	73.2 - 127. 1
Chromium	136	130		mg/Kg		95.9	69.9 - 129. 4
Copper	168	158		mg/Kg		93.8	75.6 - 125. 0
Nickel	123	115		mg/Kg		93.5	73.1 - 128. 5
Selenium	177	176		mg/Kg		99.3	67.8 - 131. 6
Silver	40.2	39.6		mg/Kg		98.4	66.2 - 134. 1
Thallium	138	133		mg/Kg		96.5	68.1 - 131. 9
Zinc	189	182		mg/Kg		96.4	69.8 - 130. 7

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-170055/21-A

Matrix: Solid

Analysis Batch: 170151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 170055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017	0.0053	mg/Kg		09/17/14 15:58	09/18/14 10:13	1

Lab Sample ID: LCS 580-170055/22-A

Matrix: Solid

Analysis Batch: 170151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.143		mg/Kg		86	80 - 120

Lab Sample ID: LCSD 580-170055/23-A

Matrix: Solid

Analysis Batch: 170151

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170055

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD
Mercury	0.167	0.143		mg/Kg		86	80 - 120 0 20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.

TestAmerica Job ID: 580-45295-1

Project/Site: NPDES Supply Support/WA

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 580-170055/24-A ^10

Matrix: Solid

Analysis Batch: 170151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170055

Analyte	Spike	LCSSRM	LCSSRM	Unit	D	%Rec.	Limits
	Added	Result	Qualifier			%Rec	
Mercury	12.9	13.4		mg/Kg		104.2	51.2 - 148.

1

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-170721/3

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 170721

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Organic Carbon	ND		2000	250	mg/Kg			09/24/14 14:53	1

2

Lab Sample ID: LCS 580-170721/4

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 170721

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier			%Rec	
Total Organic Carbon	2850	3590		mg/Kg		126	27.8 - 170

3

Lab Sample ID: LCSD 580-170721/5

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 170721

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	RPD	Limit
	Added	Result	Qualifier			%Rec		
Total Organic Carbon	2850	3610		mg/Kg		127	27.8 - 170	1 35

4

Method: SM 2540B - Solids, Total

Lab Sample ID: 580-45295-1 DU

Client Sample ID: PS-TS-01-20140909-S

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 169407

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier						
Total Solids	57		57.9		%		2	20

5

Lab Chronicle

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Client Sample ID: PS-TS-01-20140909-S

Lab Sample ID: 580-45295-1

Date Collected: 09/09/14 13:50

Matrix: Solid

Date Received: 09/09/14 16:15

Percent Solids: 66.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			170378	09/09/14 15:30	JMB	TAL SEA
Total/NA	Analysis	8260B		1	170368	09/22/14 19:05	AS	TAL SEA
Total/NA	Prep	5035			170481	09/23/14 08:06	CRH	TAL SEA
Total/NA	Analysis	8260C		1	170500	09/23/14 17:43	PS1	TAL SEA
Total/NA	Prep	3550B			169198	09/12/14 11:00	ALL	TAL SEA
Total/NA	Analysis	8270D		20	170249	09/19/14 20:33	ERB	TAL SEA
Total/NA	Prep	5035			169531	09/12/14 09:10	CRH	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	169626	09/12/14 22:50	IWH	TAL SEA
Total/NA	Prep	3550B			169804	09/15/14 13:42	ALL	TAL SEA
Total/NA	Analysis	8082		1	169887	09/16/14 18:58	ALC	TAL SEA
Total/NA	Prep	3546			169589	09/12/14 13:02	CTC	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	169857	09/16/14 11:46	JJP	TAL SEA
Total/NA	Prep	3050B			169254	09/10/14 07:45	KJV	TAL SEA
Total/NA	Analysis	6020		10	169408	09/10/14 15:28	FCW	TAL SEA
Total/NA	Prep	3050B			169254	09/10/14 07:45	KJV	TAL SEA
Total/NA	Analysis	6020		1000	169408	09/10/14 15:41	FCW	TAL SEA
Total/NA	Prep	7471A			170055	09/17/14 15:58	PAB	TAL SEA
Total/NA	Analysis	7471A		1	170151	09/18/14 11:18	FCW	TAL SEA
Total/NA	Analysis	9060_PSEP		1	170721	09/24/14 16:33	JLS	TAL SEA
Total/NA	Analysis	D 2216		1	169410	09/11/14 09:16	KJV	TAL SEA
Total/NA	Analysis	SM 2540B		1	169407	09/11/14 08:54	TAA	TAL SEA
Total/NA	Analysis	PSEP Plumb 1981		1	169920	09/16/14 14:25	HJM	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Seattle

Certification Summary

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-15
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

1

2

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11

TestAmerica Seattle

Sample Summary

Client: Leidos, Inc.

Project/Site: NPDES Supply Support/WA

TestAmerica Job ID: 580-45295-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-45295-1	PS-TS-01-20140909-S	Solid	09/09/14 13:50	09/09/14 16:15

1

2

3

4

5

6

7

8

9

10

11

TestAmerica Seattle

Short Hold

Chain of Custody Record

Client
Leides

Address

1891n N Creek Rd Ste 101

City
Bellingham

State
WA

Zip Code
98201

Project Name and Location (State)
NADFS Supply Support, WA

Contract/Purchase Order/Quote No.

Client Contact
Christine Nevacano

Telephone Number (Area Code)/Fax Number
509.320.2144

Date
9/9/14

Lab Number
45295

Date
9/9/14

Page
2 of 2

Sample I.D. and Location/Description
(Containers for each sample may be combined on one line)

Date
9/9/14

Time
1350

Air
✓

Aqueous
✓

Sed.
✓

Soil
✓

Unpres.
✓

H2SO4
✓

HN03
✓

HCl
✓

NaOH
✓

ZnAc/
NaOH
✓

MEOH
✓

8082
✓

8270D/8270D
✓

NWTPH-DX
✓

EPA 206.8
✓

EPA 7444A
✓

SM2540B
✓

NWTPH-Gx
✓

EPA 8260C
✓

Plumb 1981/9060
✓

PSEP-PS
✓

Analysis (Attach list if
more space is needed)

Billing Contact

Christine Nevacano

Lab Contact
Kris Allen

Matrix

Containers &
Preservatives

Special Instructions/
Conditions of Receipt

Cooler/TB OG/IR cor 14.5 unc 14.8
Cooler Dsc 14.5 1615
WePacks Packing Bubble

W/CS H2



580-45295 Chain of Custody

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Order

Yes No Cooler Temp:

Non-Hazard Flammable Skin Irritant Poison B

Unknown Return to Client Archive For

QC Requirements (Specify)
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days)

24 Hours 48 Hours 5 Days 10 Days 15 Days Other

1. Relinquished By Sign/Print
Signature: *Francisco Lujan, Jr.*

Date
9/9/14

Time
1500

2. Relinquished By Sign/Print

Date
9/9/14

Time
1500

3. Relinquished By Sign/Print

Date
9/9/14

Time
1500

Comments

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 580-45295-1

Login Number: 45295

List Source: TestAmerica Seattle

List Number: 1

Creator: McDaniel, Ronald T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



September 26, 2014

Vista Project I.D.: 1400659

Ms. Christine Nancarrow
Leidos
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

Dear Ms. Nancarrow,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on September 10, 2014. This sample set was analyzed on a standard turn-around time, under your Project Name 'NPDES Sampling Support'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1400659**Case Narrative****Sample Condition on Receipt:**

Two aqueous samples and one sediment sample were received within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The jar of sample "PS-TS-01-20140909-S" was received broken. The sample was contained and, as instructed, was transferred to a new jar.

Analytical Notes:**EPA Method 1613**

These samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1613 using a ZB-5MS GC column.

Holding Times

These samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with each preparation batch. No analytes were detected above the quantitation limits in the Method Blanks. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

EPA Method 1668C

These samples were extracted and analyzed for 209 PCB congeners by EPA Method 1668C using a ZB-1 GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with each preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1400659-01	PS-TS-01-20140909-W	09-Sep-14 11:15	10-Sep-14 09:29	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1400659-02	PS-OS-01-20140909-W	09-Sep-14 12:20	10-Sep-14 09:29	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1400659-03	PS-TS-01-20140909-S	09-Sep-14 13:50	10-Sep-14 09:29	Amber Glass, 250mL

ANALYTICAL RESULTS

Sample ID: Method Blank							EPA Method 1613B			
Matrix:	Aqueous <th>QC Batch:</th> <td data-cs="3" data-kind="parent">B4I0066</td> <td data-kind="ghost"></td> <td data-kind="ghost"></td> <th>Lab Sample:</th> <td data-cs="3" data-kind="parent">B4I0066-BLK1</td> <td data-kind="ghost"></td> <td data-kind="ghost"></td>	QC Batch:	B4I0066			Lab Sample:	B4I0066-BLK1			
Sample Size:	1.00 L	Date Extracted:	19-Sep-2014 8:01			Date Analyzed :	22-Sep-14 17:34 Column: ZB-5MS Analyst: MAS			
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	5.00	1.20		0.943		IS 13C-2,3,7,8-TCDD	83.4	25 - 164	
1,2,3,7,8-PeCDD	ND	25.0	1.37		4.51		13C-1,2,3,7,8-PeCDD	84.2	25 - 181	
1,2,3,4,7,8-HxCDD	ND	25.0	1.05		2.21		13C-1,2,3,4,7,8-HxCDD	83.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	25.0	1.11		1.93		13C-1,2,3,6,7,8-HxCDD	81.1	28 - 130	
1,2,3,7,8,9-HxCDD	ND	25.0	1.08		2.02		13C-1,2,3,7,8,9-HxCDD	79.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	25.0	2.29		2.98		13C-1,2,3,4,6,7,8-HpCDD	71.2	23 - 140	
OCDD	ND	50.0	4.53		3.57		13C-OCDD	72.1	17 - 157	
2,3,7,8-TCDF	ND	5.00	0.950		0.984		13C-2,3,7,8-TCDF	85.4	24 - 169	
1,2,3,7,8-PeCDF	ND	25.0	0.768		2.50		13C-1,2,3,7,8-PeCDF	80.9	24 - 185	
2,3,4,7,8-PeCDF	ND	25.0	0.793		1.73		13C-2,3,4,7,8-PeCDF	80.7	21 - 178	
1,2,3,4,7,8-HxCDF	ND	25.0	0.690		1.36		13C-1,2,3,4,7,8-HxCDF	84.5	26 - 152	
1,2,3,6,7,8-HxCDF	ND	25.0	0.710		1.56		13C-1,2,3,6,7,8-HxCDF	70.5	26 - 123	
2,3,4,6,7,8-HxCDF	ND	25.0	0.438		2.05		13C-2,3,4,6,7,8-HxCDF	75.9	28 - 136	
1,2,3,7,8,9-HxCDF	ND	25.0	0.634		1.34		13C-1,2,3,7,8,9-HxCDF	73.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	25.0	1.54		1.46		13C-1,2,3,4,6,7,8-HpCDF	71.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	25.0	0.755		1.75		13C-1,2,3,4,7,8,9-HpCDF	72.6	26 - 138	
OCDF	ND	50.0	2.48		2.98		13C-OCDF	62.8	17 - 157	
						CRS	37Cl-2,3,7,8-TCDD	92.1	35 - 197	
							Toxic Equivalent Quotient (TEQ) Data			
							TEQMinWHO2005Dioxin	0.00		
TOTALS										
Total TCDD	ND	1.20								
Total PeCDD	ND	1.37								
Total HxCDD	ND	1.82								
Total HpCDD	ND	2.29								
Total TCDF	ND	0.950								
Total PeCDF	ND	1.50								
Total HxCDF	ND	0.839								
Total HpCDF	ND	1.53								

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

RL - Reporting limit

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

Sample ID: OPR					EPA Method 1613B			
Matrix:	Aqueous <th>QC Batch:</th> <td>B4I0066</td> <th>Lab Sample:</th> <td>B4I0066-BS1</td> <th data-cs="2" data-kind="parent"></th> <th data-kind="ghost"></th>	QC Batch:	B4I0066	Lab Sample:	B4I0066-BS1			
Sample Size:	1.00 L	Date Extracted:	19-Sep-2014 8:01 <th>Date Analyzed:</th> <td>22-Sep-14 15:09</td> <th>Column:</th> <td>ZB-5MS Analyst: MAS</td>	Date Analyzed:	22-Sep-14 15:09	Column:	ZB-5MS Analyst: MAS	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
2,3,7,8-TCDD	198	200	99.1	67 - 158	IS	13C-2,3,7,8-TCDD	80.1	20 - 175
1,2,3,7,8-PeCDD	994	1000	99.4	70 - 142		13C-1,2,3,7,8-PeCDD	84.4	21 - 227
1,2,3,4,7,8-HxCDD	970	1000	97.0	70 - 164		13C-1,2,3,4,7,8-HxCDD	76.5	21 - 193
1,2,3,6,7,8-HxCDD	1010	1000	101	76 - 134		13C-1,2,3,6,7,8-HxCDD	76.7	25 - 163
1,2,3,7,8,9-HxCDD	982	1000	98.2	64 - 162		13C-1,2,3,7,8,9-HxCDD	74.6	21 - 193
1,2,3,4,6,7,8-HpCDD	1030	1000	103	70 - 140		13C-1,2,3,4,6,7,8-HpCDD	67.4	26 - 166
OCDD	1930	2000	96.5	78 - 144		13C-OCDD	68.3	13 - 199
2,3,7,8-TCDF	206	200	103	75 - 158		13C-2,3,7,8-TCDF	84.4	22 - 152
1,2,3,7,8-PeCDF	1020	1000	102	80 - 134		13C-1,2,3,7,8-PeCDF	84.4	21 - 192
2,3,4,7,8-PeCDF	1060	1000	106	68 - 160		13C-2,3,4,7,8-PeCDF	83.0	13 - 328
1,2,3,4,7,8-HxCDF	959	1000	95.9	72 - 134		13C-1,2,3,4,7,8-HxCDF	84.2	19 - 202
1,2,3,6,7,8-HxCDF	1000	1000	100	84 - 130		13C-1,2,3,6,7,8-HxCDF	69.7	21 - 159
2,3,4,6,7,8-HxCDF	962	1000	96.2	70 - 156		13C-2,3,4,6,7,8-HxCDF	74.4	22 - 176
1,2,3,7,8,9-HxCDF	970	1000	97.0	78 - 130		13C-1,2,3,7,8,9-HxCDF	73.1	17 - 205
1,2,3,4,6,7,8-HpCDF	891	1000	89.1	82 - 122		13C-1,2,3,4,6,7,8-HpCDF	70.8	21 - 158
1,2,3,4,7,8,9-HpCDF	909	1000	90.9	78 - 138		13C-1,2,3,4,7,8,9-HpCDF	71.3	20 - 186
OCDF	2040	2000	102	63 - 170		13C-OCDF	60.2	13 - 199
					CRS	37Cl-2,3,7,8-TCDD	93.5	31 - 191

LCL-UCL - Lower control limit - upper control limit

Sample ID: PS-TS-01-20140909-W							EPA Method 1613B			
Client Data		Sample Data			Laboratory Data					
Name:	Leidos	Matrix:	Aqueous			Lab Sample:	1400659-01	Date Received:	10-Sep-2014 9:29	
Project:	NPDES Sampling Support	Sample Size:	1.01 L			QC Batch:	B4I0066	Date Extracted:	19-Sep-2014 8:01	
Date Collected:	09-Sep-2014 11:15					Date Analyzed :	22-Sep-14 21:36	Column:	ZB-5MS	Analyst: MAS
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	4.96	1.13		0.943		IS 13C-2,3,7,8-TCDD	68.9	25 - 164	
1,2,3,7,8-PeCDD	ND	24.8	1.27		4.51		13C-1,2,3,7,8-PeCDD	73.7	25 - 181	
1,2,3,4,7,8-HxCDD	ND	24.8	1.68		2.21		13C-1,2,3,4,7,8-HxCDD	67.6	32 - 141	
1,2,3,6,7,8-HxCDD	ND	24.8	1.74		1.93		13C-1,2,3,6,7,8-HxCDD	65.6	28 - 130	
1,2,3,7,8,9-HxCDD	ND	24.8	1.67		2.02		13C-1,2,3,7,8,9-HxCDD	67.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	2.15		24.8		2.98	J	13C-1,2,3,4,6,7,8-HpCDD	60.9	23 - 140	
OCDD	10.9	49.6			3.57	J	13C-OCDD	72.8	17 - 157	
2,3,7,8-TCDF	ND	4.96	1.20		0.984		13C-2,3,7,8-TCDF	72.2	24 - 169	
1,2,3,7,8-PeCDF	ND	24.8	0.894		2.50		13C-1,2,3,7,8-PeCDF	65.8	24 - 185	
2,3,4,7,8-PeCDF	ND	24.8	0.842		1.73		13C-2,3,4,7,8-PeCDF	65.3	21 - 178	
1,2,3,4,7,8-HxCDF	ND	24.8	1.52		1.36		13C-1,2,3,4,7,8-HxCDF	68.4	26 - 152	
1,2,3,6,7,8-HxCDF	ND	24.8	1.44		1.56		13C-1,2,3,6,7,8-HxCDF	59.5	26 - 123	
2,3,4,6,7,8-HxCDF	ND	24.8	0.768		2.05		13C-2,3,4,6,7,8-HxCDF	62.4	28 - 136	
1,2,3,7,8,9-HxCDF	ND	24.8	0.988		1.34		13C-1,2,3,7,8,9-HxCDF	64.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	24.8	1.07		1.46		13C-1,2,3,4,6,7,8-HpCDF	64.6	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	24.8	0.401		1.75		13C-1,2,3,4,7,8,9-HpCDF	64.0	26 - 138	
OCDF	ND	49.6	2.14		2.98		13C-OCDF	64.0	17 - 157	
							CRS 37Cl-2,3,7,8-TCDD	95.2	35 - 197	
							Toxic Equivalent Quotient (TEQ) Data			
							TEQMinWHO2005Dioxin	0.0248		
TOTALS										
Total TCDD	ND		1.13							
Total PeCDD	ND		2.76							
Total HxCDD	ND		2.84							
Total HpCDD	2.15			5.02						
Total TCDF	ND		1.20							
Total PeCDF	ND		1.61							
Total HxCDF	ND		1.65							
Total HpCDF	ND		1.12							

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

RL - Reporting limit

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

Sample ID: PS-OS-01-20140909-W							EPA Method 1613B			
Client Data		Sample Data			Laboratory Data					
Name:	Leidos	Matrix:	Aqueous		Lab Sample:	1400659-02	Date Received:	10-Sep-2014	9:29	
Project:	NPDES Sampling Support	Sample Size:	1.02 L		QC Batch:	B4I0066	Date Extracted:	19-Sep-2014	8:01	
Date Collected:	09-Sep-2014 12:20	Date Analyzed :	22-Sep-14 22:25		Column:	ZB-5MS	Analyst:	MAS		
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	4.89	1.58		0.943		IS 13C-2,3,7,8-TCDD	72.2	25 - 164	
1,2,3,7,8-PeCDD	ND	24.4		1.83	4.51		13C-1,2,3,7,8-PeCDD	79.2	25 - 181	
1,2,3,4,7,8-HxCDD	3.63	24.4			2.21	J	13C-1,2,3,4,7,8-HxCDD	70.7	32 - 141	
1,2,3,6,7,8-HxCDD	6.04	24.4			1.93	J	13C-1,2,3,6,7,8-HxCDD	71.3	28 - 130	
1,2,3,7,8,9-HxCDD	10.1	24.4			2.02	J	13C-1,2,3,7,8,9-HxCDD	70.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	261	24.4			2.98		13C-1,2,3,4,6,7,8-HpCDD	62.8	23 - 140	
OCDD	3450	48.9			3.57		13C-OCDD	77.4	17 - 157	
2,3,7,8-TCDF	ND	4.89	0.977		0.984		13C-2,3,7,8-TCDF	75.5	24 - 169	
1,2,3,7,8-PeCDF	ND	24.4	1.39		2.50		13C-1,2,3,7,8-PeCDF	72.9	24 - 185	
2,3,4,7,8-PeCDF	ND	24.4	1.42		1.73		13C-2,3,4,7,8-PeCDF	73.4	21 - 178	
1,2,3,4,7,8-HxCDF	ND	24.4		1.56	1.36		13C-1,2,3,4,7,8-HxCDF	75.0	26 - 152	
1,2,3,6,7,8-HxCDF	2.26	24.4			1.56	J	13C-1,2,3,6,7,8-HxCDF	60.6	26 - 123	
2,3,4,6,7,8-HxCDF	ND	24.4		2.37	2.05		13C-2,3,4,6,7,8-HxCDF	65.5	28 - 136	
1,2,3,7,8,9-HxCDF	ND	24.4	1.19		1.34		13C-1,2,3,7,8,9-HxCDF	66.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	38.4	24.4			1.46		13C-1,2,3,4,6,7,8-HpCDF	65.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	24.4	1.41		1.75		13C-1,2,3,4,7,8,9-HpCDF	67.8	26 - 138	
OCDF	115	48.9			2.98		13C-OCDF	66.5	17 - 157	
							CRS 37Cl-2,3,7,8-TCDD	88.2	35 - 197	
							Toxic Equivalent Quotient (TEQ) Data			
							TEQMinWHO2005Dioxin	6.27		
TOTALS										
Total TCDD	ND		1.85							
Total PeCDD	ND			1.83						
Total HxCDD	60.2									
Total HpCDD	600									
Total TCDF	1.17									
Total PeCDF	9.60									
Total HxCDF	33.1			37.1						
Total HpCDF	83.1									

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

RL - Reporting limit

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

Sample ID: Method Blank							EPA Method 1613B					
Matrix:	Solid	QC Batch:	B4I0053	Date Extracted:	15-Sep-2014 15:17	Lab Sample:	B4I0053-BLK1					
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers		
2,3,7,8-TCDD	ND	0.500	0.0418		0.0778		IS 13C-2,3,7,8-TCDD	89.0	25 - 164			
1,2,3,7,8-PeCDD	ND	2.50	0.0860		0.230		13C-1,2,3,7,8-PeCDD	104	25 - 181			
1,2,3,4,7,8-HxCDD	ND	2.50	0.0736		0.231		13C-1,2,3,4,7,8-HxCDD	96.1	32 - 141			
1,2,3,6,7,8-HxCDD	ND	2.50	0.0750		0.126		13C-1,2,3,6,7,8-HxCDD	95.2	28 - 130			
1,2,3,7,8,9-HxCDD	ND	2.50	0.0796		0.173		13C-1,2,3,7,8,9-HxCDD	94.2	32 - 141			
1,2,3,4,6,7,8-HpCDD	ND	2.50	0.263		0.263		13C-1,2,3,4,6,7,8-HpCDD	88.8	23 - 140			
OCDD	0.222	5.00			0.167	J	13C-OCDD	91.6	17 - 157			
2,3,7,8-TCDF	ND	0.500	0.0820		0.0289		13C-2,3,7,8-TCDF	89.9	24 - 169			
1,2,3,7,8-PeCDF	ND	2.50	0.0379		0.254		13C-1,2,3,7,8-PeCDF	94.2	24 - 185			
2,3,4,7,8-PeCDF	ND	2.50	0.0344		0.211		13C-2,3,4,7,8-PeCDF	99.3	21 - 178			
1,2,3,4,7,8-HxCDF	ND	2.50	0.0285		0.154		13C-1,2,3,4,7,8-HxCDF	108	26 - 152			
1,2,3,6,7,8-HxCDF	ND	2.50	0.0345		0.195		13C-1,2,3,6,7,8-HxCDF	86.2	26 - 123			
2,3,4,6,7,8-HxCDF	ND	2.50	0.0252		0.0805		13C-2,3,4,6,7,8-HxCDF	92.6	28 - 136			
1,2,3,7,8,9-HxCDF	ND	2.50	0.0337		0.195		13C-1,2,3,7,8,9-HxCDF	96.2	29 - 147			
1,2,3,4,6,7,8-HpCDF	ND	2.50	0.0672		0.230		13C-1,2,3,4,6,7,8-HpCDF	97.7	28 - 143			
1,2,3,4,7,8,9-HpCDF	ND	2.50	0.0339		0.211		13C-1,2,3,4,7,8,9-HpCDF	106	26 - 138			
OCDF	ND	5.00	0.244		0.470		13C-OCDF	92.9	17 - 157			
							CRS 37Cl-2,3,7,8-TCDD	87.9	35 - 197			
							Toxic Equivalent Quotient (TEQ) Data					
							TEQMinWHO2005Dioxin	0.0000666				
TOTALS												
Total TCDD	ND	0.0418										
Total PeCDD	ND	0.149										
Total HxCDD	ND	0.116										
Total HpCDD	0.0942											
Total TCDF	ND	0.0820										
Total PeCDF	ND	0.0505										
Total HxCDF	ND	0.0366										
Total HpCDF	ND	0.0657										

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

RL - Reporting limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

Sample ID: OPR					EPA Method 1613B			
Matrix:	Solid	QC Batch:	B4I0053	Lab Sample:	B4I0053-BS1			
Sample Size:	10.0 g	Date Extracted:	15-Sep-2014 15:17	Date Analyzed:	17-Sep-14 16:25	Column:	ZB-5MS Analyst: MAS	
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard		%R	LCL-UCL
2,3,7,8-TCDD	19.3	20.0	96.6	67 - 158	IS	13C-2,3,7,8-TCDD	54.2	20 - 175
1,2,3,7,8-PeCDD	96.0	100	96.0	70 - 142		13C-1,2,3,7,8-PeCDD	63.8	21 - 227
1,2,3,4,7,8-HxCDD	92.5	100	92.5	70 - 164		13C-1,2,3,4,7,8-HxCDD	57.3	21 - 193
1,2,3,6,7,8-HxCDD	91.3	100	91.3	76 - 134		13C-1,2,3,6,7,8-HxCDD	59.8	25 - 163
1,2,3,7,8,9-HxCDD	91.0	100	91.0	64 - 162		13C-1,2,3,7,8,9-HxCDD	57.8	21 - 193
1,2,3,4,6,7,8-HpCDD	99.1	100	99.1	70 - 140		13C-1,2,3,4,6,7,8-HpCDD	53.2	26 - 166
OCDD	180	200	89.8	78 - 144		13C-OCDD	54.4	13 - 199
2,3,7,8-TCDF	19.0	20.0	94.8	75 - 158		13C-2,3,7,8-TCDF	52.2	22 - 152
1,2,3,7,8-PeCDF	96.2	100	96.2	80 - 134		13C-1,2,3,7,8-PeCDF	55.5	21 - 192
2,3,4,7,8-PeCDF	96.6	100	96.6	68 - 160		13C-2,3,4,7,8-PeCDF	58.1	13 - 328
1,2,3,4,7,8-HxCDF	92.8	100	92.8	72 - 134		13C-1,2,3,4,7,8-HxCDF	63.9	19 - 202
1,2,3,6,7,8-HxCDF	92.8	100	92.8	84 - 130		13C-1,2,3,6,7,8-HxCDF	53.3	21 - 159
2,3,4,6,7,8-HxCDF	91.1	100	91.1	70 - 156		13C-2,3,4,6,7,8-HxCDF	55.2	22 - 176
1,2,3,7,8,9-HxCDF	93.0	100	93.0	78 - 130		13C-1,2,3,7,8,9-HxCDF	55.5	17 - 205
1,2,3,4,6,7,8-HpCDF	88.2	100	88.2	82 - 122		13C-1,2,3,4,6,7,8-HpCDF	57.5	21 - 158
1,2,3,4,7,8,9-HpCDF	85.6	100	85.6	78 - 138		13C-1,2,3,4,7,8,9-HpCDF	60.0	20 - 186
OCDF	186	200	93.2	63 - 170		13C-OCDF	53.8	13 - 199
					CRS	37Cl-2,3,7,8-TCDD	56.3	31 - 191

LCL-UCL - Lower control limit - upper control limit

Sample ID: PS-TS-01-20140909-S							EPA Method 1613B			
Client Data		Sample Data			Laboratory Data					
Name:	Leidos	Matrix:	Sediment			Lab Sample:	1400659-03	Date Received:	10-Sep-2014 9:29	
Project:	NPDES Sampling Support	Sample Size:	13.4 g			QC Batch:	B4I0053	Date Extracted:	15-Sep-2014 15:17	
Date Collected:	09-Sep-2014 13:50	% Solids:	75.4			Date Analyzed :	17-Sep-14 20:26	Column:	ZB-5MS	Analyst: MAS
							18-Sep-14 13:45	Column:	DB-225	Analyst: MAS
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.496		0.205	0.0778		IS 13C-2,3,7,8-TCDD	90.3	25 - 164	
1,2,3,7,8-PeCDD	0.970	2.48		0.230	J		13C-1,2,3,7,8-PeCDD	116	25 - 181	
1,2,3,4,7,8-HxCDD	1.46	2.48		0.231	J		13C-1,2,3,4,7,8-HxCDD	92.3	32 - 141	
1,2,3,6,7,8-HxCDD	5.78	2.48		0.126			13C-1,2,3,6,7,8-HxCDD	95.9	28 - 130	
1,2,3,7,8,9-HxCDD	3.65	2.48		0.173			13C-1,2,3,7,8,9-HxCDD	90.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	187	2.48		0.263			13C-1,2,3,4,6,7,8-HpCDD	85.8	23 - 140	
OCDD	1200	4.96		0.167	B		13C-OCDD	91.3	17 - 157	
2,3,7,8-TCDF	0.861	0.496		0.0289			13C-2,3,7,8-TCDF	90.7	24 - 169	
1,2,3,7,8-PeCDF	0.518	2.48		0.254	J		13C-1,2,3,7,8-PeCDF	98.4	24 - 185	
2,3,4,7,8-PeCDF	1.34	2.48		0.211	J		13C-2,3,4,7,8-PeCDF	105	21 - 178	
1,2,3,4,7,8-HxCDF	1.29	2.48		0.154	J		13C-1,2,3,4,7,8-HxCDF	105	26 - 152	
1,2,3,6,7,8-HxCDF	1.33	2.48		0.195	J		13C-1,2,3,6,7,8-HxCDF	82.5	26 - 123	
2,3,4,6,7,8-HxCDF	1.52	2.48		0.0805	J		13C-2,3,4,6,7,8-HxCDF	91.3	28 - 136	
1,2,3,7,8,9-HxCDF	ND	2.48	0.205	0.195			13C-1,2,3,7,8,9-HxCDF	92.1	29 - 147	
1,2,3,4,6,7,8-HpCDF	18.5	2.48		0.230			13C-1,2,3,4,6,7,8-HpCDF	92.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	1.16	2.48		0.211	J		13C-1,2,3,4,7,8,9-HpCDF	101	26 - 138	
OCDF	40.2	4.96		0.470			13C-OCDF	87.2	17 - 157	
						CRS	37Cl-2,3,7,8-TCDD	91.9	35 - 197	
							Toxic Equivalent Quotient (TEQ) Data			
							TEQMinWHO2005Dioxin	5.42		
TOTALS										
Total TCDD	3.60		4.70							
Total PeCDD	9.12		9.30							
Total HxCDD	59.3									
Total HpCDD	386				B					
Total TCDF	16.3									
Total PeCDF	16.0									
Total HxCDF	23.9									
Total HpCDF	39.2									

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

RL - Reporting limit

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

Sample ID: Method Blank							EPA Method 1668C						
Matrix: Aqueous Sample Size: 1.00 L		QC Batch: B4I0047 Date Extracted: 15-Sep-2014 8:46				Lab Sample: B4I0047-BLK1 Date Analyzed: 19-Sep-14 13:50 Column: ZB-1 Analyst: DMS							
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers
PCB-1	ND	5.00	2.28		1.21		PCB-43/49	ND	10.0	0.933		3.38	
PCB-2	ND	5.00	2.76		1.75		PCB-44	ND	5.00	1.07		2.48	
PCB-3	ND	5.00	2.68		1.49		PCB-45	ND	5.00	1.08		1.96	
PCB-4/10	ND	20.0	11.8		5.64		PCB-46	ND	5.00	1.09		2.49	
PCB-5/8	ND	20.0	9.91		3.59		PCB-47	ND	5.00	0.884		4.42	
PCB-6	ND	10.0	9.70		3.10		PCB-48/75	ND	10.0	0.768		2.09	
PCB-7/9	ND	20.0	9.63		6.22		PCB-50	ND	5.00	0.884		1.40	
PCB-11	ND	10.0		9.13	3.86		PCB-51	ND	5.00	0.901		1.42	
PCB-12/13	ND	20.0	9.37		5.01		PCB-52/69	ND	10.0	0.812		3.64	
PCB-14	ND	10.0	8.36		3.98		PCB-53	ND	5.00	0.874		1.12	
PCB-15	ND	10.0	8.53		2.53		PCB-54	ND	5.00	0.713		1.51	
PCB-16/32	ND	10.0	0.712		2.87		PCB-55	ND	5.00	0.632		1.19	
PCB-17	ND	5.00	0.814		1.37		PCB-56/60	ND	10.0	0.645		2.19	
PCB-18	ND	5.00		1.18	2.57		PCB-57	ND	5.00	0.625		0.857	
PCB-19	ND	5.00	0.929		2.38		PCB-58	ND	5.00	0.633		1.81	
PCB-20/21/33	ND	15.0	0.845		10.3		PCB-61/70	ND	10.0	0.645		2.40	
PCB-22	ND	5.00	0.838		3.17		PCB-62	ND	5.00	0.775		1.46	
PCB-23	ND	5.00	0.845		1.35		PCB-63	ND	5.00	0.624		0.696	
PCB-24/27	ND	10.0	0.623		3.16		PCB-65	ND	5.00	0.750		0.953	
PCB-25	ND	5.00	0.825		3.34		PCB-66/76	ND	10.0	0.613		2.82	
PCB-26	ND	5.00	0.858		2.19		PCB-67	ND	5.00	0.649		1.22	
PCB-28	ND	5.00	0.804		2.90		PCB-68	ND	5.00	0.674		1.24	
PCB-29	ND	5.00	0.834		1.60		PCB-73	ND	5.00	0.757		1.56	
PCB-30	ND	5.00	0.658		2.09		PCB-74	ND	5.00	0.579		1.53	
PCB-31	ND	5.00	0.781		4.29		PCB-77	ND	5.00	0.676		1.34	
PCB-34	ND	5.00	0.879		2.34		PCB-78	ND	5.00	0.694		0.990	
PCB-35	ND	5.00	0.774		1.65		PCB-79	ND	5.00	0.624		1.60	
PCB-36	ND	5.00	0.774		2.69		PCB-80	ND	5.00	0.549		1.98	
PCB-37	ND	5.00	0.766		1.92		PCB-81	ND	5.00	0.621		2.34	
PCB-38	ND	5.00	0.787		1.56		PCB-82	ND	5.00	1.76		1.69	
PCB-39	ND	5.00	0.751		2.60		PCB-83	ND	5.00	1.17		1.32	
PCB-40	ND	5.00	1.22		3.08		PCB-84/92	ND	10.0	1.59		3.38	
PCB-41/64/71/72	ND	20.0	0.763		5.57		PCB-85/116	ND	10.0	1.37		2.83	
PCB-42/59	ND	10.0	0.823		2.84		PCB-86	ND	5.00	1.74		2.34	

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

Sample ID: Method Blank							EPA Method 1668C						
Matrix: Aqueous Sample Size: 1.00 L		QC Batch: B4I0047 Date Extracted: 15-Sep-2014 8:46				Lab Sample: B4I0047-BLK1 Date Analyzed: 19-Sep-14 13:50 Column: ZB-1 Analyst: DMS							
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers
PCB-87/117/125	ND	15.0	1.14		3.79		PCB-133/142	ND	10.0	0.626		2.19	
PCB-88/91	ND	5.00	1.73		3.25		PCB-134/143	ND	10.0	0.638		2.40	
PCB-89	ND	5.00	1.64		1.84		PCB-135	ND	5.00	1.46		2.90	
PCB-90/101	ND	10.0	1.40		1.92		PCB-136	ND	5.00	1.05		2.89	
PCB-93	ND	5.00	1.56		1.47		PCB-137	ND	5.00	0.548		2.08	
PCB-94	ND	5.00	1.59		1.91		PCB-138/163/164	ND	15.0	0.484		2.68	
PCB-95/98/102	ND	15.0	1.45		6.58		PCB-139/149	ND	10.0	1.35		7.87	
PCB-96	ND	5.00	1.29		2.16		PCB-140	ND	5.00	1.45		3.52	
PCB-97	ND	5.00	1.43		1.24		PCB-141	ND	5.00	0.602		1.15	
PCB-99	ND	5.00	1.29		1.94		PCB-144	ND	5.00	1.39		3.22	
PCB-100	ND	5.00	1.40		2.03		PCB-145	ND	5.00	1.04		1.73	
PCB-103	ND	5.00	1.51		2.28		PCB-146/165	ND	10.0	0.511		1.91	
PCB-104	ND	5.00	1.12		0.931		PCB-147	ND	5.00	1.37		3.62	
PCB-105	ND	5.00	1.24		2.21		PCB-148	ND	5.00	1.54		1.68	
PCB-106/118	ND	10.0	1.06		2.44		PCB-150	ND	5.00	1.07		1.14	
PCB-107/109	ND	10.0	1.07		1.98		PCB-151	ND	5.00	1.41		3.59	
PCB-108/112	ND	10.0	1.38		1.86		PCB-152	ND	5.00	1.04		1.82	
PCB-110	ND	5.00	1.06		1.94		PCB-153	ND	5.00	0.502		1.83	
PCB-111/115	ND	10.0	1.02		0.768		PCB-154	ND	5.00	1.29		2.78	
PCB-113	ND	5.00	1.23		1.31		PCB-155	ND	5.00	1.00		1.45	
PCB-114	ND	5.00	1.14		1.81		PCB-156	ND	5.00	0.440		1.74	
PCB-119	ND	5.00	1.04		0.949		PCB-157	ND	5.00	0.466		1.17	
PCB-120	ND	5.00	1.00		1.01		PCB-158/160	ND	10.0	0.460		1.99	
PCB-121	ND	5.00	0.927		1.94		PCB-159	ND	5.00	0.473		1.20	
PCB-122	ND	5.00	1.25		1.84		PCB-166	ND	5.00	0.494		0.920	
PCB-123	ND	5.00	1.07		1.35		PCB-167	ND	5.00	0.476		1.65	
PCB-124	ND	5.00	0.985		1.79		PCB-168	ND	5.00	0.432		0.933	
PCB-126	ND	5.00	1.35		2.05		PCB-169	ND	5.00	0.487		1.12	
PCB-127	ND	5.00	1.20		0.808		PCB-170	ND	5.00	0.557		1.38	
PCB-128/162	ND	10.0	0.541		1.68		PCB-171	ND	5.00	0.585		1.61	
PCB-129	ND	5.00	0.641		1.11		PCB-172	ND	5.00	0.628		1.46	
PCB-130	ND	5.00	0.692		2.21		PCB-173	ND	5.00	0.662		1.49	
PCB-131	ND	5.00	0.647		1.46		PCB-174	ND	5.00	0.574		1.42	
PCB-132/161	ND	10.0	0.531		2.34		PCB-175	ND	5.00	0.642		3.15	

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

Sample ID: Method Blank							EPA Method 1668C						
Matrix:	Aqueous	QC Batch: B4I0047 Date Extracted: 15-Sep-2014 8:46				Lab Sample: B4I0047-BLK1 Date Analyzed: 19-Sep-14 13:50 Column: ZB-1 Analyst: DMS							
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers
PCB-176	ND	5.00	0.456		2.17		Total triCB	ND	5.00		1.18		
PCB-177	ND	5.00	0.619		1.34		Total tetraCB	ND	5.00	1.22			
PCB-178	ND	5.00	0.664		2.25		Total pentaCB	ND	5.00	1.76			
PCB-179	ND	5.00	0.477		1.57		Total hexaCB	ND	5.00	1.54			
PCB-180	ND	5.00	0.538		0.610		Total heptaCB	ND	5.00	0.664			
PCB-181	ND	5.00	0.564		1.01		Total octaCB	ND	5.00	1.04			
PCB-182/187	ND	10.0	0.613		6.20		Total nonaCB	ND	5.00	0.953			
PCB-183	ND	5.00	0.575		3.29		DecaCB	ND	5.00	0.897			
PCB-184	ND	5.00	0.503		1.25		Total PCB	ND	10.0	2.76			
PCB-185	ND	5.00	0.572		1.47								
PCB-186	ND	5.00	0.487		2.43								
PCB-188	ND	5.00	0.443		1.08								
PCB-189	ND	5.00	0.405		1.49								
PCB-190	ND	5.00	0.414		1.70								
PCB-191	ND	5.00	0.459		1.96								
PCB-192	ND	5.00	0.503		1.69								
PCB-193	ND	5.00	0.464		1.46								
PCB-194	ND	5.00	0.679		1.71								
PCB-195	ND	5.00	0.705		1.47								
PCB-196/203	ND	10.0	0.980		6.35								
PCB-197	ND	5.00	0.706		1.80								
PCB-198	ND	5.00	1.02		3.78								
PCB-199	ND	5.00	1.04		4.05								
PCB-200	ND	5.00	0.744		1.75								
PCB-201	ND	5.00	0.687		1.02								
PCB-202	ND	5.00	0.728		1.55								
PCB-204	ND	5.00	0.762		1.48								
PCB-205	ND	5.00	0.599		1.53								
PCB-206	ND	5.00	0.953		1.32								
PCB-207	ND	5.00	0.525		1.51								
PCB-208	ND	5.00	0.501		1.34								
PCB-209	ND	5.00	0.897		1.86								
Total monoCB	ND	5.00	2.76										
Total diCB	ND	10.0	9.13										

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

Sample ID: Method Blank				EPA Method 1668C			
Matrix: Aqueous Sample Size: 1.00 L		QC Batch: B4I0047 Date Extracted: 15-Sep-2014 8:46		Lab Sample: B4I0047-BLK1 Date Analyzed: 19-Sep-14 13:50 Column: ZB-1 Analyst: DMS			
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	59.5	5-145		13C-PCB-157	87.1	10-145	
13C-PCB-3	56.1	5-145		13C-PCB-159	81.9	10-145	
13C-PCB-4	68.6	5-145		13C-PCB-167	81.9	10-145	
13C-PCB-11	77.1	5-145		13C-PCB-169	82.0	10-145	
13C-PCB-9	69.0	5-145		13C-PCB-170	92.3	10-145	
13C-PCB-19	61.4	5-145		13C-PCB-180	91.0	10-145	
13C-PCB-28	72.2	5-145		13C-PCB-188	78.2	10-145	
13C-PCB-32	69.7	5-145		13C-PCB-189	86.6	10-145	
13C-PCB-37	84.8	5-145		13C-PCB-194	89.6	10-145	
13C-PCB-47	76.0	5-145		13C-PCB-202	92.6	10-145	
13C-PCB-52	75.9	5-145		13C-PCB-206	87.2	10-145	
13C-PCB-54	78.1	5-145		13C-PCB-208	92.5	10-145	
13C-PCB-70	86.6	5-145		13C-PCB-209	83.2	10-145	
13C-PCB-77	81.7	10-145		CRS 13C-PCB-79	90.9	10-145	
13C-PCB-80	87.9	10-145		13C-PCB-178	98.8	10-145	
13C-PCB-81	83.7	10-145					
13C-PCB-95	81.9	10-145					
13C-PCB-97	86.9	10-145					
13C-PCB-101	82.4	10-145					
13C-PCB-104	75.0	10-145					
13C-PCB-105	66.6	10-145					
13C-PCB-114	70.3	10-145					
13C-PCB-118	87.7	10-145					
13C-PCB-123	87.7	10-145					
13C-PCB-126	67.5	10-145					
13C-PCB-127	70.3	10-145					
13C-PCB-138	86.6	10-145					
13C-PCB-141	86.1	10-145					
13C-PCB-153	82.5	10-145					
13C-PCB-155	81.4	10-145					
13C-PCB-156	85.2	10-145					

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B4I0047</td> <th></th> <th>Lab Sample:</th> <td>B4I0047-BS1</td> <th></th> <th></th>	QC Batch:	B4I0047		Lab Sample:	B4I0047-BS1		
Sample Size:	1.00 L	Date Extracted:	15-Sep-2014 8:46		Date Analyzed:	19-Sep-14 10:37 Column: ZB-1 Analyst: DMS		
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
PCB-1	1050	1000	105	60 - 135	IS 13C-PCB-1	69.2	15 - 145	
PCB-3	1070	1000	107	60 - 135	IS 13C-PCB-3	68.8	15 - 145	
PCB-4/10	4310	4000	108	60 - 135	IS 13C-PCB-4	73.8	15 - 145	
PCB-15	2090	2000	104	60 - 135	IS 13C-PCB-11	81.8	15 - 145	
PCB-19	1170	1000	117	60 - 135	IS 13C-PCB-9	73.9	15 - 145	
PCB-37	810	1000	81.0	60 - 135	IS 13C-PCB-19	72.2	15 - 145	
PCB-54	927	1000	92.7	60 - 135	IS 13C-PCB-28	83.1	15 - 145	
PCB-77	969	1000	96.9	60 - 135	IS 13C-PCB-32	77.6	15 - 145	
PCB-81	942	1000	94.2	60 - 135	IS 13C-PCB-37	86.0	15 - 145	
PCB-104	1070	1000	107	60 - 135	IS 13C-PCB-47	83.5	15 - 145	
PCB-105	1010	1000	101	60 - 135	IS 13C-PCB-52	84.4	15 - 145	
PCB-106/118	2100	2000	105	60 - 135	IS 13C-PCB-54	89.1	15 - 145	
PCB-114	1020	1000	102	60 - 135	IS 13C-PCB-70	85.1	15 - 145	
PCB-123	1050	1000	105	60 - 135	IS 13C-PCB-77	90.5	40 - 145	
PCB-126	1010	1000	101	60 - 135	IS 13C-PCB-80	91.3	40 - 145	
PCB-155	1080	1000	108	60 - 135	IS 13C-PCB-81	87.3	40 - 145	
PCB-156	1030	1000	103	60 - 135	IS 13C-PCB-95	85.8	40 - 145	
PCB-157	1030	1000	103	60 - 135	IS 13C-PCB-97	88.8	40 - 145	
PCB-167	1000	1000	100	60 - 135	IS 13C-PCB-101	86.5	40 - 145	
PCB-169	1040	1000	104	60 - 135	IS 13C-PCB-104	78.7	40 - 145	
PCB-188	1070	1000	107	60 - 135	IS 13C-PCB-105	69.3	40 - 145	
PCB-189	1060	1000	106	60 - 135	IS 13C-PCB-114	72.2	40 - 145	
PCB-202	1020	1000	102	60 - 135	IS 13C-PCB-118	88.4	40 - 145	
PCB-205	1010	1000	101	60 - 135	IS 13C-PCB-123	87.4	40 - 145	
PCB-206	1030	1000	103	60 - 135	IS 13C-PCB-126	67.9	40 - 145	
PCB-208	1050	1000	105	60 - 135	IS 13C-PCB-127	71.9	40 - 145	
PCB-209	1060	1000	106	60 - 135	IS 13C-PCB-138	87.5	40 - 145	
					IS 13C-PCB-141	88.4	40 - 145	
					IS 13C-PCB-153	85.6	40 - 145	
					IS 13C-PCB-155	82.0	40 - 145	
					IS 13C-PCB-156	85.9	40 - 145	
					IS 13C-PCB-157	87.0	40 - 145	
					IS 13C-PCB-159	83.8	40 - 145	
					IS 13C-PCB-167	86.5	40 - 145	
					IS 13C-PCB-169	85.7	40 - 145	
					IS 13C-PCB-170	95.7	40 - 145	
					IS 13C-PCB-180	94.2	40 - 145	
					IS 13C-PCB-188	82.1	40 - 145	
					IS 13C-PCB-189	87.5	40 - 145	
					IS 13C-PCB-194	98.4	40 - 145	

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B4I0047<th>Lab Sample:</th><td>B4I0047-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th><th data-kind="ghost"></th></td></td>	QC Batch:	B4I0047 <th>Lab Sample:</th> <td>B4I0047-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th><th data-kind="ghost"></th></td>	Lab Sample:	B4I0047-BS1 <th data-cs="2" data-kind="parent"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th>			
Sample Size:	1.00 L	Date Extracted:	15-Sep-2014 8:46	Date Analyzed:	19-Sep-14 10:37	Column:	ZB-1 Analyst: DMS	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
					IS 13C-PCB-202	97.9	40 - 145	
					IS 13C-PCB-206	95.4	40 - 145	
					IS 13C-PCB-208	97.3	40 - 145	
					IS 13C-PCB-209	92.4	40 - 145	
					CRS 13C-PCB-79	103	40 - 145	
					CRS 13C-PCB-178	110	40 - 145	

LCL-UCL - Lower control limit - upper control limit

Sample ID: PS-TS-01-20140909-W

EPA Method 1668C

Client Data							Sample Data							Laboratory Data							
Name:	Leidos						Matrix:	Aqueous						Lab Sample:	1400659-01			Date Received:	10-Sep-2014 9:29		
Project:	NPDES Sampling Support						Sample Size:	1.03 L						QC Batch:	B4I0047			Date Extracted:	15-Sep-2014 8:46		
Date Collected:	09-Sep-2014 11:15						Date Analyzed : 19-Sep-14 15:59 Column: ZB-1 Analyst: DMS														
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	
PCB-1	ND	4.88	2.17		1.21		PCB-44	10.2	4.88			2.48		PCB-45	1.93	4.88			1.96	J	
PCB-2	ND	4.88	2.42		1.75		PCB-46	ND	4.88	1.20		2.49		PCB-47	4.48	4.88			4.42	J	
PCB-3	ND	4.88	2.35		1.49		PCB-48/75	2.12	9.75			2.09	J	PCB-50	ND	4.88	1.02		1.40		
PCB-4/10	ND	19.5	8.67		5.64		PCB-51	ND	4.88		0.740	1.42		PCB-52/69	13.9	9.75			3.64		
PCB-5/8	ND	19.5	7.42		3.59		PCB-53	1.60	4.88			1.12	J	PCB-54	ND	4.88	0.827		1.51		
PCB-6	ND	9.75	7.26		3.10		PCB-55	ND	4.88	0.773		1.19		PCB-56/60	6.11	9.75			2.19	J	
PCB-7/9	ND	19.5	7.23		6.22		PCB-57	ND	4.88	0.820		0.857		PCB-58	ND	4.88	0.829		1.81		
PCB-11	58.6	9.75			3.86		PCB-61/70	14.0	9.75			2.40		PCB-62	ND	4.88	0.844		1.46		
PCB-12/13	ND	19.5	7.07		5.01		PCB-63	ND	4.88	0.818		0.696		PCB-65	ND	4.88	0.817		0.953		
PCB-14	ND	9.75	6.31		3.98		PCB-66/76	6.72	9.75			2.82	J	PCB-67	ND	4.88	0.851		1.22		
PCB-15	ND	9.75	6.43		2.53		PCB-68	0.949	4.88			1.24	J	PCB-73	ND	4.88	0.833		1.56		
PCB-16/32	8.18	9.75			2.87	J	PCB-74	3.16	4.88			1.53	J	PCB-77	2.42	4.88			1.34	J	
PCB-17	ND	4.88		3.59	1.37		PCB-78	ND	4.88	0.766		0.990		PCB-79	ND	4.88	0.764		1.60		
PCB-18	9.86	4.88			2.57		PCB-80	ND	4.88	0.672		1.98		PCB-81	ND	4.88	0.686		2.34		
PCB-19	ND	4.88	1.14		2.38		PCB-82	5.76	4.88			1.69		PCB-83	ND	4.88	1.30		1.32		
PCB-20/21/33	4.34	14.6			10.3	J	PCB-84/92	16.0	9.75			3.38		PCB-85/116	ND	9.75	5.07	2.83			
PCB-22	3.00	4.88			3.17	J	PCB-86	ND	4.88	1.94		2.34		PCB-87/117/125	14.3	14.6			3.79	J	
PCB-23	ND	4.88	1.00		1.35		PCB-88/91	5.40	4.88			3.25		PCB-88/91	ND	4.88					
PCB-24/27	ND	9.75	0.789		3.16																
PCB-25	ND	4.88	0.979		3.34																
PCB-26	1.61	4.88			2.19	J															
PCB-28	7.53	4.88			2.90																
PCB-29	ND	4.88	0.989		1.60																
PCB-30	ND	4.88	0.805		2.09																
PCB-31	5.63	4.88			4.29																
PCB-34	ND	4.88	1.04		2.34																
PCB-35	ND	4.88	1.01		1.65																
PCB-36	ND	4.88	1.01		2.69																
PCB-37	3.77	4.88			1.92	J															
PCB-38	ND	4.88	1.02		1.56																
PCB-39	ND	4.88	0.976		2.60																
PCB-40	2.38	4.88			3.08	J															
PCB-41/64/71/72	9.61	19.5			5.57	J															
PCB-42/59	2.99	9.75			2.84	J															
PCB-43/49	7.21	9.75			3.38	J															

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: PS-TS-01-20140909-W

EPA Method 1668C

Client Data							Sample Data							Laboratory Data						
Name:	Leidos			Matrix:	Aqueous			Lab Sample:	1400659-01			Date Received:	10-Sep-2014 9:29							
Project:	NPDES Sampling Support			Sample Size:	1.03 L			QC Batch:	B4I0047			Date Extracted:	15-Sep-2014 8:46							
Date Collected:	09-Sep-2014 11:15																			
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers							
PCB-89	ND	4.88	1.78		1.84		PCB-136	7.19	4.88			2.89								
PCB-90/101	42.0	9.75			1.92		PCB-137	2.67	4.88			2.08	J							
PCB-93	ND	4.88	1.81		1.47		PCB-138/163/164	57.9	14.6			2.68								
PCB-94	ND	4.88	1.85		1.91		PCB-139/149	48.4	9.75			7.87								
PCB-95/98/102	28.5	14.6			6.58		PCB-140	ND	4.88	1.31		3.52								
PCB-96	ND	4.88	1.43		2.16		PCB-141	13.8	4.88			1.15								
PCB-97	10.8	4.88			1.24		PCB-144	2.97	4.88			3.22	J							
PCB-99	14.5	4.88			1.94		PCB-145	ND	4.88	0.938		1.73								
PCB-100	ND	4.88	1.56		2.03		PCB-146/165	7.86	9.75			1.91	J							
PCB-103	ND	4.88	1.67		2.28		PCB-147	0.771	4.88			3.62	J							
PCB-104	ND	4.88	1.24		0.931		PCB-148	ND	4.88	1.38		1.68								
PCB-105	ND	4.88		12.3	2.21		PCB-150	ND	4.88	0.963		1.14								
PCB-106/118	34.8	9.75			2.44		PCB-151	13.2	4.88			3.59								
PCB-107/109	ND	9.75		2.58	1.98		PCB-152	ND	4.88	0.933		1.82								
PCB-108/112	ND	9.75		1.67	1.86		PCB-153	49.8	4.88			1.83								
PCB-110	42.9	4.88			1.94		PCB-154	ND	4.88	1.16		2.78								
PCB-111/115	ND	9.75	1.13		0.768		PCB-155	ND	4.88	0.903		1.45								
PCB-113	1.19	4.88			1.31	J	PCB-156	4.98	4.88			1.74								
PCB-114	ND	4.88	2.27		1.81		PCB-157	ND	4.88	1.77		1.17								
PCB-119	0.829	4.88			0.949	J	PCB-158/160	6.73	9.75			1.99	J							
PCB-120	ND	4.88	1.11		1.01		PCB-159	ND	4.88	1.70		1.20								
PCB-121	ND	4.88	1.07		1.94		PCB-166	ND	4.88	1.77		0.920								
PCB-122	ND	4.88	2.49		1.84		PCB-167	ND	4.88		2.53	1.65								
PCB-123	ND	4.88	1.28		1.35		PCB-168	ND	4.88	1.55		0.933								
PCB-124	ND	4.88		1.81	1.79		PCB-169	ND	4.88	1.96		1.12								
PCB-126	ND	4.88	2.76		2.05		PCB-170	18.7	4.88			1.38								
PCB-127	ND	4.88	2.41		0.808		PCB-171	4.78	4.88			1.61	J							
PCB-128/162	9.43	9.75			1.68	J	PCB-172	3.87	4.88			1.46	J							
PCB-129	2.53	4.88			1.11	J	PCB-173	ND	4.88	1.18		1.49								
PCB-130	ND	4.88		3.65	2.21		PCB-174	20.9	4.88			1.42								
PCB-131	ND	4.88	2.33		1.46		PCB-175	ND	4.88	1.01		3.15								
PCB-132/161	15.5	9.75			2.34		PCB-176	2.87	4.88			2.17	J							
PCB-133/142	1.63	9.75			2.19	J	PCB-177	10.8	4.88			1.34								
PCB-134/143	2.94	9.75			2.40	J	PCB-178	4.89	4.88			2.25								
PCB-135	7.29	4.88			2.90		PCB-179	8.96	4.88			1.57								

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: PS-TS-01-20140909-W**EPA Method 1668C**

Client Data							Sample Data							Laboratory Data							
Name:	Leidos						Matrix:	Aqueous						Lab Sample:	1400659-01			Date Received:	10-Sep-2014 9:29		
Project:	NPDES Sampling Support						Sample Size:	1.03 L						QC Batch:	B4I0047			Date Extracted:	15-Sep-2014 8:46		
Date Collected:	09-Sep-2014 11:15						Date Analyzed : 19-Sep-14 15:59 Column: ZB-1 Analyst: DMS														
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers								
PCB-180	42.0	4.88			0.610		Total octaCB	27.0	4.88			42.4									
PCB-181	ND	4.88	1.00		1.01		Total nonaCB	7.46	4.88												
PCB-182/187	27.9	9.75			6.20		DecaCB	ND	4.88	4.07											
PCB-183	10.9	4.88			3.29		Total PCB	859	9.75												
PCB-184	ND	4.88	0.793		1.25																
PCB-185	ND	4.88		1.97	1.47																
PCB-186	ND	4.88	0.769		2.43																
PCB-188	ND	4.88	0.699		1.08																
PCB-189	ND	4.88	0.885		1.49																
PCB-190	2.82	4.88			1.70	J															
PCB-191	ND	4.88	0.816		1.96																
PCB-192	ND	4.88	0.894		1.69																
PCB-193	ND	4.88		2.02	1.46																
PCB-194	9.79	4.88			1.71																
PCB-195	4.11	4.88			1.47	J															
PCB-196/203	ND	9.75		10.5	6.35																
PCB-197	ND	4.88	0.886		1.80																
PCB-198	ND	4.88	1.28		3.78																
PCB-199	11.2	4.88			4.05																
PCB-200	ND	4.88		1.63	1.75																
PCB-201	1.93	4.88			1.02	J															
PCB-202	ND	4.88		3.21	1.55																
PCB-204	ND	4.88	0.957		1.48																
PCB-205	ND	4.88	1.62		1.53																
PCB-206	5.70	4.88			1.32																
PCB-207	ND	4.88	0.961		1.51																
PCB-208	1.76	4.88			1.34	J															
PCB-209	ND	4.88	4.07		1.86																
Total monoCB	ND	4.88	2.42																		
Total diCB	58.6	9.75																			
Total triCB	43.9	4.88		47.5																	
Total tetraCB	89.8	4.88		90.5																	
Total pentaCB	217	4.88		240																	
Total hexaCB	255	4.88		262																	
Total heptaCB	159	4.88		163																	

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: PS-TS-01-20140909-W**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:		Leidos		Matrix:		Aqueous		Lab Sample:		Date Received:	
Project:		NPDES Sampling Support		Sample Size:		1.03 L		QC Batch:		10-Sep-2014 9:29	
Date Collected:		09-Sep-2014 11:15		Date Analyzed :		19-Sep-14 15:59		Column:		Analyst: DMS	
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	65.1	5 -145		13C-PCB-170	87.7	10 -145					
13C-PCB-3	63.2	5 -145		13C-PCB-180	90.1	10 -145					
13C-PCB-4	76.5	5 -145		13C-PCB-188	89.8	10 -145					
13C-PCB-11	83.4	5 -145		13C-PCB-189	70.4	10 -145					
13C-PCB-9	76.2	5 -145		13C-PCB-194	98.7	10 -145					
13C-PCB-19	67.2	5 -145		13C-PCB-202	99.3	10 -145					
13C-PCB-28	90.6	5 -145		13C-PCB-206	88.5	10 -145					
13C-PCB-32	75.9	5 -145		13C-PCB-208	97.1	10 -145					
13C-PCB-37	93.8	5 -145		13C-PCB-209	82.7	10 -145					
13C-PCB-47	78.2	5 -145		CRS 13C-PCB-79	97.5	10 -145					
13C-PCB-52	77.9	5 -145		13C-PCB-178	110	10 -145					
13C-PCB-54	75.0	5 -145									
13C-PCB-70	79.8	5 -145									
13C-PCB-77	84.0	10 -145									
13C-PCB-80	85.8	10 -145									
13C-PCB-81	87.8	10 -145									
13C-PCB-95	81.5	10 -145									
13C-PCB-97	89.6	10 -145									
13C-PCB-101	87.5	10 -145									
13C-PCB-104	79.1	10 -145									
13C-PCB-105	69.3	10 -145									
13C-PCB-114	71.9	10 -145									
13C-PCB-118	83.2	10 -145									
13C-PCB-123	84.8	10 -145									
13C-PCB-126	67.5	10 -145									
13C-PCB-127	71.3	10 -145									
13C-PCB-138	87.9	10 -145									
13C-PCB-141	88.5	10 -145									
13C-PCB-153	87.2	10 -145									
13C-PCB-155	90.9	10 -145									
13C-PCB-156	84.8	10 -145									
13C-PCB-157	86.0	10 -145									
13C-PCB-159	87.3	10 -145									
13C-PCB-167	88.0	10 -145									
13C-PCB-169	73.3	10 -145									

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: PS-OS-01-20140909-W

EPA Method 1668C

Client Data							Sample Data							Laboratory Data						
Name:	Leidos			Matrix:	Aqueous			Lab Sample:	1400659-02			Date Received:	10-Sep-2014 9:29							
Project:	NPDES Sampling Support			Sample Size:	1.01 L			QC Batch:	B4I0047			Date Extracted:	15-Sep-2014 8:46							
Date Collected: 09-Sep-2014 12:20																				
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers							
PCB-1	3.56	4.94			1.21	J	PCB-44	66.4	4.94			2.48								
PCB-2	ND	4.94		1.97	1.75		PCB-45	13.6	4.94			1.96								
PCB-3	ND	4.94		2.99	1.49		PCB-46	6.21	4.94			2.49								
PCB-4/10	ND	19.8	18.5		5.64		PCB-47	15.0	4.94			4.42								
PCB-5/8	19.5	19.8			3.59	J	PCB-48/75	9.41	9.88			2.09	J							
PCB-6	ND	9.88	15.3		3.10		PCB-50	ND	4.94	1.41		1.40								
PCB-7/9	ND	19.8	15.2		6.22		PCB-51	4.42	4.94			1.42	J							
PCB-11	267	9.88			3.86		PCB-52/69	83.8	9.88			3.64								
PCB-12/13	ND	19.8	14.5		5.01		PCB-53	12.7	4.94			1.12								
PCB-14	ND	9.88	12.9		3.98		PCB-54	ND	4.94	1.14		1.51								
PCB-15	25.9	9.88			2.53		PCB-55	2.96	4.94			1.19	J							
PCB-16/32	30.7	9.88			2.87		PCB-56/60	41.2	9.88			2.19								
PCB-17	13.5	4.94			1.37		PCB-57	ND	4.94	1.06		0.857								
PCB-18	37.7	4.94			2.57		PCB-58	ND	4.94	1.07		1.81								
PCB-19	5.66	4.94			2.38		PCB-61/70	82.7	9.88			2.40								
PCB-20/21/33	19.3	14.8			10.3		PCB-62	ND	4.94	1.45		1.46								
PCB-22	15.2	4.94			3.17		PCB-63	ND	4.94		1.64	0.696								
PCB-23	ND	4.94	1.60		1.35		PCB-65	ND	4.94	1.41		0.953								
PCB-24/27	ND	9.88		5.05	3.16		PCB-66/76	54.1	9.88			2.82								
PCB-25	2.73	4.94			3.34	J	PCB-67	2.50	4.94			1.22	J							
PCB-26	5.97	4.94			2.19		PCB-68	ND	4.94	1.26		1.24								
PCB-28	36.6	4.94			2.90		PCB-73	ND	4.94	1.40		1.56								
PCB-29	ND	4.94	1.58		1.60		PCB-74	22.2	4.94			1.53								
PCB-30	ND	4.94	0.721		2.09		PCB-77	ND	4.94		21.4	1.34								
PCB-31	26.2	4.94			4.29		PCB-78	ND	4.94	1.17		0.990								
PCB-34	ND	4.94	1.66		2.34		PCB-79	ND	4.94		3.20	1.60								
PCB-35	7.16	4.94			1.65		PCB-80	ND	4.94	0.926		1.98								
PCB-36	ND	4.94	2.04		2.69		PCB-81	ND	4.94		1.49	2.34								
PCB-37	25.4	4.94			1.92		PCB-82	48.3	4.94			1.69								
PCB-38	ND	4.94	2.07		1.56		PCB-83	ND	4.94	1.63		1.32								
PCB-39	ND	4.94	1.97		2.60		PCB-84/92	161	9.88			3.38								
PCB-40	6.91	4.94			3.08		PCB-85/116	50.2	9.88			2.83								
PCB-41/64/71/72	ND	19.8	1.43		5.57		PCB-86	ND	4.94	2.43		2.34								
PCB-42/59	23.2	9.88			2.84		PCB-87/117/125	120	14.8			3.79								
PCB-43/49	40.9	9.88			3.38		PCB-88/91	55.5	4.94			3.25								

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: PS-OS-01-20140909-W

EPA Method 1668C

Client Data							Sample Data							Laboratory Data						
Name:	Leidos			Matrix:	Aqueous			Lab Sample:	1400659-02			Date Received:	10-Sep-2014 9:29							
Project:	NPDES Sampling Support			Sample Size:	1.01 L			QC Batch:	B4I0047			Date Extracted:	15-Sep-2014 8:46							
Date Collected:	09-Sep-2014 12:20			Date Analyzed :	19-Sep-14 17:03 Column: ZB-1 Analyst: DMS			23-Sep-14 19:22 Column: ZB-1 Analyst: DMS												
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers							
PCB-89	3.69	4.94			1.84	J	PCB-136	129	4.94			2.89								
PCB-90/101	352	9.88			1.92		PCB-137	28.0	4.94			2.08								
PCB-93	ND	4.94	2.04		1.47		PCB-138/163/164	905	14.8			2.68								
PCB-94	ND	4.94		2.05	1.91		PCB-139/149	827	9.88			7.87								
PCB-95/98/102	334	14.8			6.58		PCB-140	ND	4.94		3.40	3.52								
PCB-96	1.86	4.94			2.16	J	PCB-141	201	4.94			1.15								
PCB-97	94.4	4.94			1.24		PCB-144	44.0	4.94			3.22								
PCB-99	99.2	4.94			1.94		PCB-145	ND	4.94	1.18		1.73								
PCB-100	ND	4.94	2.18		2.03		PCB-146/165	118	9.88			1.91								
PCB-103	ND	4.94		1.82	2.28		PCB-147	11.2	4.94			3.62								
PCB-104	ND	4.94	1.74		0.931		PCB-148	ND	4.94	1.73		1.68								
PCB-105	134	4.94			2.21		PCB-150	1.66	4.94			1.14	J							
PCB-106/118	301	9.88			2.44		PCB-151	252	4.94			3.59								
PCB-107/109	23.4	9.88			1.98		PCB-152	ND	4.94	1.17		1.82								
PCB-108/112	17.2	9.88			1.86		PCB-153	720	4.94			1.83								
PCB-110	500	4.94			1.94		PCB-154	7.61	4.94			2.78								
PCB-111/115	4.47	9.88			0.768	J	PCB-155	ND	4.94	1.13		1.45								
PCB-113	ND	4.94	1.62		1.31		PCB-156	66.0	4.94			1.74								
PCB-114	7.16	4.94			1.81		PCB-157	19.7	4.94			1.17								
PCB-119	5.31	4.94			0.949		PCB-158/160	96.5	9.88			1.99								
PCB-120	ND	4.94		1.87	1.01		PCB-159	ND	4.94	3.37		1.20								
PCB-121	ND	4.94	1.21		1.94		PCB-166	2.97	4.94			0.920	J							
PCB-122	4.04	4.94			1.84	J	PCB-167	33.4	4.94			1.65								
PCB-123	5.25	4.94			1.35		PCB-168	ND	4.94	2.79		0.933								
PCB-124	20.5	4.94			1.79		PCB-169	ND	4.94	4.10		1.12								
PCB-126	8.10	4.94			2.05		PCB-170	385	4.94			1.38								
PCB-127	ND	4.94	7.47		0.808		PCB-171	113	4.94			1.61								
PCB-128/162	124	9.88			1.68		PCB-172	81.7	4.94			1.46								
PCB-129	35.1	4.94			1.11		PCB-173	11.0	4.94			1.49								
PCB-130	57.5	4.94			2.21		PCB-174	488	4.94			1.42								
PCB-131	ND	4.94	4.19		1.46		PCB-175	17.8	4.94			3.15								
PCB-132/161	239	9.88			2.34		PCB-176	55.5	4.94			2.17								
PCB-133/142	20.4	9.88			2.19		PCB-177	272	4.94			1.34								
PCB-134/143	43.4	9.88			2.40		PCB-178	93.0	4.94			2.25								
PCB-135	125	4.94			2.90		PCB-179	208	4.94			1.57								

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: PS-OS-01-20140909-W

EPA Method 1668C

Client Data							Sample Data							Laboratory Data							
Name:	Leidos						Matrix:	Aqueous						Lab Sample:	1400659-02			Date Received:	10-Sep-2014 9:29		
Project:	NPDES Sampling Support						Sample Size:	1.01 L						QC Batch:	B4I0047			Date Extracted:	15-Sep-2014 8:46		
Date Collected: 09-Sep-2014 12:20															Date Analyzed : 19-Sep-14 17:03 Column: ZB-1 Analyst: DMS						
Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers								
PCB-180	962	4.94			0.610		Total octaCB	986	4.94			1020									
PCB-181	ND	4.94	1.69		1.01		Total nonaCB	111	4.94			134									
PCB-182/187	571	9.88			6.20		DecaCB	ND	4.94			26.2									
PCB-183	239	4.94			3.29		Total PCB	12300	9.88												
PCB-184	ND	4.94	1.12		1.25																
PCB-185	62.2	4.94			1.47																
PCB-186	ND	4.94	1.09		2.43																
PCB-188	ND	4.94		1.52	1.08																
PCB-189	16.2	4.94			1.49																
PCB-190	73.5	4.94			1.70																
PCB-191	16.2	4.94			1.96																
PCB-192	ND	4.94	1.51		1.69																
PCB-193	46.2	4.94			1.46																
PCB-194	246	4.94			1.71																
PCB-195	98.1	4.94			1.47																
PCB-196/203	263	9.88			6.35																
PCB-197	10.7	4.94			1.80																
PCB-198	10.3	4.94			3.78																
PCB-199	257	4.94			4.05																
PCB-200	34.3	4.94			1.75																
PCB-201	ND	4.94	31.5		1.02																
PCB-202	55.3	4.94			1.55																
PCB-204	ND	4.94	1.67		1.48																
PCB-205	11.0	4.94			1.53																
PCB-206	97.6	4.94			1.32																
PCB-207	13.6	4.94			1.51																
PCB-208	ND	4.94	22.4		1.34																
PCB-209	ND	4.94	26.2		1.86																
Total monoCB	3.56	4.94			8.53																
Total diCB	313	9.88																			
Total triCB	226	4.94			231																
Total tetraCB	488	4.94			516																
Total pentaCB	2350	4.94			2360																
Total hexaCB	4110	4.94																			
Total heptaCB	3710	4.94																			

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: PS-OS-01-20140909-W**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:		Leidos		Matrix:		Aqueous		Lab Sample:		Date Received:	
Project:		NPDES Sampling Support		Sample Size:		1.01 L		QC Batch:		10-Sep-2014 9:29	
Date Collected:		09-Sep-2014 12:20		Date Analyzed :		19-Sep-14 17:03 Column: ZB-1 Analyst: DMS		Date Extracted:		15-Sep-2014 8:46	
23-Sep-14 19:22 Column: ZB-1 Analyst: DMS											
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	69.7	5 -145		13C-PCB-170	76.5	10 -145					
13C-PCB-3	64.3	5 -145		13C-PCB-180	80.2	10 -145					
13C-PCB-4	72.8	5 -145		13C-PCB-188	89.8	10 -145					
13C-PCB-11	81.7	5 -145		13C-PCB-189	48.1	10 -145					
13C-PCB-9	73.8	5 -145		13C-PCB-194	92.6	10 -145					
13C-PCB-19	67.0	5 -145		13C-PCB-202	89.0	10 -145					
13C-PCB-28	81.9	5 -145		13C-PCB-206	89.9	10 -145					
13C-PCB-32	69.1	5 -145		13C-PCB-208	96.9	10 -145					
13C-PCB-37	84.9	5 -145		13C-PCB-209	94.4	10 -145					
13C-PCB-47	78.2	5 -145		CRS 13C-PCB-79	96.7	10 -145					
13C-PCB-52	76.1	5 -145		13C-PCB-178	108	10 -145					
13C-PCB-54	78.6	5 -145									
13C-PCB-70	83.1	5 -145									
13C-PCB-77	78.2	10 -145									
13C-PCB-80	86.1	10 -145									
13C-PCB-81	82.4	10 -145									
13C-PCB-95	80.7	10 -145									
13C-PCB-97	83.7	10 -145									
13C-PCB-101	83.2	10 -145									
13C-PCB-104	77.6	10 -145									
13C-PCB-105	69.8	10 -145									
13C-PCB-114	71.3	10 -145									
13C-PCB-118	77.9	10 -145									
13C-PCB-123	78.8	10 -145									
13C-PCB-126	67.3	10 -145									
13C-PCB-127	71.3	10 -145									
13C-PCB-138	86.9	10 -145									
13C-PCB-141	90.1	10 -145									
13C-PCB-153	88.8	10 -145									
13C-PCB-155	87.1	10 -145									
13C-PCB-156	77.1	10 -145									
13C-PCB-157	77.6	10 -145									
13C-PCB-159	83.3	10 -145									
13C-PCB-167	79.4	10 -145									
13C-PCB-169	66.7	10 -145									

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

Sample ID: Method Blank							EPA Method 1668C						
Matrix:	Solid	QC Batch: B4I0061 Date Extracted: 16-Sep-2014 13:26				Lab Sample: B4I0061-BLK1 Date Analyzed: 20-Sep-14 05:05 Column: ZB-1 Analyst: MAS							
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers
PCB-1	ND	2.50	0.794		0.320		PCB-43/49	ND	5.00	0.552		0.879	
PCB-2	ND	2.50	0.833		0.240		PCB-44	ND	2.50	0.583		0.745	
PCB-3	ND	2.50	0.692		0.323		PCB-45	ND	2.50	0.636		0.402	
PCB-4/10	ND	10.0	3.61		1.14		PCB-46	ND	2.50	0.650		0.537	
PCB-5/8	ND	10.0	3.24		1.76		PCB-47	ND	2.50	0.473		2.19	
PCB-6	ND	5.00	2.85		1.00		PCB-48/75	ND	5.00	0.408		0.983	
PCB-7/9	ND	10.0	3.07		1.34		PCB-50	ND	2.50	0.517		0.603	
PCB-11	ND	5.00	3.32		3.48		PCB-51	ND	2.50	0.554		0.789	
PCB-12/13	ND	10.0	3.02		1.37		PCB-52/69	ND	5.00	0.428		0.722	
PCB-14	ND	5.00	3.25		0.337		PCB-53	ND	2.50	0.516		0.331	
PCB-15	ND	5.00	2.81		0.634		PCB-54	ND	2.50	0.413		0.275	
PCB-16/32	ND	10.0	0.355		0.430		PCB-55	ND	2.50	0.373		0.416	
PCB-17	ND	2.50	0.362		0.658		PCB-56/60	ND	5.00	0.384		0.825	
PCB-18	ND	2.50	0.455		0.696		PCB-57	ND	2.50	0.406		0.354	
PCB-19	ND	2.50	0.480		0.612		PCB-58	ND	2.50	0.428		0.589	
PCB-20/21/33	ND	7.50	0.391		2.47		PCB-61/70	ND	5.00	0.417		1.20	
PCB-22	ND	2.50	0.350		0.964		PCB-62	ND	2.50	0.410		0.597	
PCB-23	ND	2.50	0.317		0.543		PCB-63	ND	2.50	0.417		0.524	
PCB-24/27	ND	5.00	0.281		0.742		PCB-65	ND	2.50	0.409		0.842	
PCB-25	ND	2.50	0.322		0.768		PCB-66/76	ND	5.00	0.380		1.31	
PCB-26	ND	2.50	0.336		0.766		PCB-67	ND	2.50	0.359		0.486	
PCB-28	ND	2.50	0.200		1.12		PCB-68	ND	2.50	0.372		0.658	
PCB-29	ND	2.50	0.376		0.949		PCB-73	ND	2.50	0.406		0.454	
PCB-30	ND	2.50	0.293		0.355		PCB-74	ND	2.50	0.319		0.781	
PCB-31	ND	2.50	0.267		0.809		PCB-77	ND	2.50	0.377		0.748	
PCB-34	ND	2.50	0.357		1.57		PCB-78	ND	2.50	0.339		0.385	
PCB-35	ND	2.50	0.367		0.565		PCB-79	ND	2.50	0.359		0.633	
PCB-36	ND	2.50	0.396		0.406		PCB-80	ND	2.50	0.325		0.336	
PCB-37	ND	2.50	0.367		0.389		PCB-81	ND	2.50	0.323		0.674	
PCB-38	ND	2.50	0.377		0.528		PCB-82	ND	2.50	0.966		0.981	
PCB-39	ND	2.50	0.405		0.461		PCB-83	ND	2.50	0.632		0.440	
PCB-40	ND	2.50	0.715		0.927		PCB-84/92	ND	5.00	0.870		1.01	
PCB-41/64/71/72	ND	10.0	0.415		1.70		PCB-85/116	ND	5.00	0.737		1.64	
PCB-42/59	ND	5.00	0.441		0.899		PCB-86	ND	2.50	1.14		1.79	

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Sample ID: Method Blank							EPA Method 1668C								
Matrix:	Solid	QC Batch: B4I0061			Lab Sample: B4I0061-BLK1			Sample Size:	10.0 g <th data-cs="3" data-kind="parent">Date Extracted: 16-Sep-2014 13:26</th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-cs="3" data-kind="parent">Date Analyzed: 20-Sep-14 05:05 Column: ZB-1 Analyst: MAS</th> <th data-kind="ghost"></th> <th data-kind="ghost"></th>	Date Extracted: 16-Sep-2014 13:26			Date Analyzed: 20-Sep-14 05:05 Column: ZB-1 Analyst: MAS		
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers		
PCB-87/117/125	ND	7.50	0.620		0.880		PCB-133/142	ND	5.00	0.842		1.04			
PCB-88/91	ND	5.00	0.921		1.25		PCB-134/143	ND	5.00	0.752		1.05			
PCB-89	ND	2.50	0.805		1.22		PCB-135	ND	2.50	0.595		1.47			
PCB-90/101	ND	5.00	0.827		1.19		PCB-136	ND	2.50	0.400		0.776			
PCB-93	ND	2.50	1.22		1.42		PCB-137	ND	2.50	0.730		0.541			
PCB-94	ND	2.50	0.973		0.874		PCB-138/163/164	ND	7.50	0.550		0.809			
PCB-95/98/102	ND	7.50	0.840		1.38		PCB-139/149	ND	2.50	0.619		1.49			
PCB-96	ND	2.50	0.676		0.588		PCB-140	ND	2.50	0.653		1.20			
PCB-97	ND	2.50	0.812		0.675		PCB-141	ND	2.50	0.714		0.678			
PCB-99	ND	2.50	0.681		0.474		PCB-144	ND	2.50	0.619		1.38			
PCB-100	ND	2.50	0.821		0.511		PCB-145	ND	2.50	0.392		1.05			
PCB-103	ND	2.50	0.804		0.428		PCB-146/165	ND	5.00	0.553		0.792			
PCB-104	ND	2.50	0.650		0.876		PCB-147	ND	2.50	0.575		1.65			
PCB-105	ND	2.50	0.738		0.462		PCB-148	ND	2.50	0.633		1.45			
PCB-106/118	ND	5.00	0.633		0.728		PCB-150	ND	2.50	0.472		0.801			
PCB-107/109	ND	5.00	0.555		0.631		PCB-151	ND	2.50	0.631		1.16			
PCB-108/112	ND	5.00	0.750		0.844		PCB-152	ND	2.50	0.423		0.744			
PCB-110	ND	2.50	0.617		0.555		PCB-153	ND	2.50	0.552		0.484			
PCB-111/115	ND	5.00	0.588		1.24		PCB-154	ND	2.50	0.550		0.837			
PCB-113	ND	2.50	0.645		0.495		PCB-155	ND	2.50	0.423		0.767			
PCB-114	ND	2.50	0.775		0.418		PCB-156	ND	2.50	0.546		0.534			
PCB-119	ND	2.50	0.627		0.383		PCB-157	ND	2.50	0.517		0.485			
PCB-120	ND	2.50	0.573		0.622		PCB-158/160	ND	5.00	0.530		0.915			
PCB-121	ND	2.50	0.637		0.978		PCB-159	ND	2.50	0.577		0.578			
PCB-122	ND	2.50	0.897		0.619		PCB-166	ND	2.50	0.541		0.425			
PCB-123	ND	2.50	0.628		0.494		PCB-167	ND	2.50	0.482		0.653			
PCB-124	ND	2.50	0.499		0.813		PCB-168	ND	2.50	0.476		0.502			
PCB-126	ND	2.50	0.886		0.543		PCB-169	ND	2.50	0.560		0.767			
PCB-127	ND	2.50	0.687		0.326		PCB-170	ND	2.50	0.410		0.758			
PCB-128/162	ND	5.00	0.613		1.08		PCB-171	ND	2.50	0.364		0.372			
PCB-129	ND	2.50	0.834		0.567		PCB-172	ND	2.50	0.352		0.857			
PCB-130	ND	2.50	0.803		0.798		PCB-173	ND	2.50	0.519		0.507			
PCB-131	ND	2.50	0.760		0.731		PCB-174	ND	2.50	0.418		0.797			
PCB-132/161	ND	5.00	0.624		1.05		PCB-175	ND	2.50	0.429		0.679			

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Sample ID: Method Blank							EPA Method 1668C								
Matrix:	Solid	QC Batch: B4I0061			Lab Sample: B4I0061-BLK1			Sample Size:	10.0 g <th data-cs="3" data-kind="parent">Date Extracted: 16-Sep-2014 13:26</th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-cs="3" data-kind="parent">Date Analyzed: 20-Sep-14 05:05 Column: ZB-1 Analyst: MAS</th> <th data-kind="ghost"></th> <th data-kind="ghost"></th>	Date Extracted: 16-Sep-2014 13:26			Date Analyzed: 20-Sep-14 05:05 Column: ZB-1 Analyst: MAS		
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers		
PCB-176	ND	2.50	0.294		0.729		Total triCB	ND	2.50	0.480					
PCB-177	ND	2.50	0.459		0.404		Total tetraCB	ND	2.50	0.715					
PCB-178	ND	2.50	0.420		0.610		Total pentaCB	ND	2.50	1.22					
PCB-179	ND	2.50	0.333		0.418		Total hexaCB	ND	2.50	0.842					
PCB-180	ND	2.50	0.428		0.420		Total heptaCB	ND	2.50	0.519					
PCB-181	ND	2.50	0.417		1.26		Total octaCB	ND	2.50	0.658					
PCB-182/187	ND	5.00	0.347		1.33		Total nonaCB	ND	2.50	0.610					
PCB-183	ND	2.50	0.359		0.638		DecaCB	ND	2.50	0.485					
PCB-184	ND	2.50	0.266		0.597		Total PCB	ND	5.00	3.61					
PCB-185	ND	2.50	0.320		0.557										
PCB-186	ND	2.50	0.299		0.421										
PCB-188	ND	2.50	0.275		0.759										
PCB-189	ND	2.50	0.329		0.483										
PCB-190	ND	2.50	0.297		0.686										
PCB-191	ND	2.50	0.340		0.447										
PCB-192	ND	2.50	0.331		0.528										
PCB-193	ND	2.50	0.336		0.836										
PCB-194	ND	2.50	0.502		0.645										
PCB-195	ND	2.50	0.496		0.722										
PCB-196/203	ND	5.00	0.620		0.983										
PCB-197	ND	2.50	0.462		0.794										
PCB-198	ND	2.50	0.658		0.792										
PCB-199	ND	2.50	0.623		0.615										
PCB-200	ND	2.50	0.467		0.795										
PCB-201	ND	2.50	0.432		0.317										
PCB-202	ND	2.50	0.459		0.759										
PCB-204	ND	2.50	0.436		0.543										
PCB-205	ND	2.50	0.394		0.471										
PCB-206	ND	2.50	0.610		0.852										
PCB-207	ND	2.50	0.260		0.402										
PCB-208	ND	2.50	0.303		0.441										
PCB-209	ND	2.50	0.485		1.10										
Total monoCB	ND	2.50	0.833												
Total diCB	ND	5.00	3.61												

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Sample ID: Method Blank				EPA Method 1668C					
Matrix: Solid Sample Size: 10.0 g		QC Batch: B4I0061 Date Extracted: 16-Sep-2014 13:26		Lab Sample: B4I0061-BLK1 Date Analyzed: 20-Sep-14 05:05 Column: ZB-1 Analyst: MAS					
Labeled Standard		%R	LCL-UCL	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	90.7	5-145			13C-PCB-157	80.6	10-145	
	13C-PCB-3	93.4	5-145			13C-PCB-159	78.7	10-145	
	13C-PCB-4	64.6	5-145			13C-PCB-167	79.4	10-145	
	13C-PCB-11	69.6	5-145			13C-PCB-169	76.3	10-145	
	13C-PCB-9	66.2	5-145			13C-PCB-170	89.2	10-145	
	13C-PCB-19	82.6	5-145			13C-PCB-180	87.2	10-145	
	13C-PCB-28	68.6	5-145			13C-PCB-188	83.8	10-145	
	13C-PCB-32	86.0	5-145			13C-PCB-189	83.3	10-145	
	13C-PCB-37	76.2	5-145			13C-PCB-194	85.0	10-145	
	13C-PCB-47	71.7	5-145			13C-PCB-202	99.6	10-145	
	13C-PCB-52	70.5	5-145			13C-PCB-206	86.8	10-145	
	13C-PCB-54	65.1	5-145			13C-PCB-208	86.6	10-145	
	13C-PCB-70	75.7	5-145			13C-PCB-209	93.8	10-145	
	13C-PCB-77	78.1	10-145			CRS	13C-PCB-79	80.0	10-145
	13C-PCB-80	77.4	10-145				13C-PCB-178	90.8	10-145
	13C-PCB-81	78.7	10-145						
	13C-PCB-95	73.2	10-145						
	13C-PCB-97	80.2	10-145						
	13C-PCB-101	76.5	10-145						
	13C-PCB-104	69.5	10-145						
	13C-PCB-105	66.6	10-145						
	13C-PCB-114	66.9	10-145						
	13C-PCB-118	79.7	10-145						
	13C-PCB-123	82.8	10-145						
	13C-PCB-126	66.4	10-145						
	13C-PCB-127	66.4	10-145						
	13C-PCB-138	78.6	10-145						
	13C-PCB-141	77.5	10-145						
	13C-PCB-153	77.6	10-145						
	13C-PCB-155	85.4	10-145						
	13C-PCB-156	77.8	10-145						

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Sample ID: OPR					EPA Method 1668C			
Matrix:	Solid Sample Size: 10.0 g	QC Batch: B4I0061 Date Extracted: 16-Sep-2014 13:26			Lab Sample: B4I0061-BS1 Date Analyzed: 20-Sep-14 01:51 Column: ZB-1 Analyst: MAS			
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits		Labeled Standard	%R	LCL-UCL
PCB-1	407	500	81.3	60 - 135	IS	13C-PCB-1	89.1	15 - 145
PCB-3	407	500	81.3	60 - 135	IS	13C-PCB-3	94.1	15 - 145
PCB-4/10	2110	2000	106	60 - 135	IS	13C-PCB-4	65.1	15 - 145
PCB-15	1050	1000	105	60 - 135	IS	13C-PCB-11	72.9	15 - 145
PCB-19	480	500	96.0	60 - 135	IS	13C-PCB-9	67.7	15 - 145
PCB-37	546	500	109	60 - 135	IS	13C-PCB-19	86.1	15 - 145
PCB-54	498	500	99.7	60 - 135	IS	13C-PCB-28	75.0	15 - 145
PCB-77	525	500	105	60 - 135	IS	13C-PCB-32	90.6	15 - 145
PCB-81	497	500	99.3	60 - 135	IS	13C-PCB-37	82.2	15 - 145
PCB-104	530	500	106	60 - 135	IS	13C-PCB-47	71.6	15 - 145
PCB-105	516	500	103	60 - 135	IS	13C-PCB-52	70.0	15 - 145
PCB-106/118	1050	1000	105	60 - 135	IS	13C-PCB-54	63.3	15 - 145
PCB-114	512	500	102	60 - 135	IS	13C-PCB-70	73.0	15 - 145
PCB-123	514	500	103	60 - 135	IS	13C-PCB-77	85.1	40 - 145
PCB-126	529	500	106	60 - 135	IS	13C-PCB-80	74.7	40 - 145
PCB-155	497	500	99.5	60 - 135	IS	13C-PCB-81	84.6	40 - 145
PCB-156	489	500	97.7	60 - 135	IS	13C-PCB-95	71.3	40 - 145
PCB-157	473	500	94.6	60 - 135	IS	13C-PCB-97	82.9	40 - 145
PCB-167	484	500	96.8	60 - 135	IS	13C-PCB-101	80.0	40 - 145
PCB-169	472	500	94.4	60 - 135	IS	13C-PCB-104	68.1	40 - 145
PCB-188	498	500	99.5	60 - 135	IS	13C-PCB-105	68.8	40 - 145
PCB-189	488	500	97.5	60 - 135	IS	13C-PCB-114	68.5	40 - 145
PCB-202	489	500	97.8	60 - 135	IS	13C-PCB-118	84.2	40 - 145
PCB-205	482	500	96.5	60 - 135	IS	13C-PCB-123	85.7	40 - 145
PCB-206	522	500	104	60 - 135	IS	13C-PCB-126	69.4	40 - 145
PCB-208	513	500	103	60 - 135	IS	13C-PCB-127	69.5	40 - 145
PCB-209	507	500	101	60 - 135	IS	13C-PCB-138	80.6	40 - 145
					IS	13C-PCB-141	78.6	40 - 145
					IS	13C-PCB-153	79.7	40 - 145
					IS	13C-PCB-155	85.7	40 - 145
					IS	13C-PCB-156	81.3	40 - 145
					IS	13C-PCB-157	82.3	40 - 145
					IS	13C-PCB-159	81.5	40 - 145
					IS	13C-PCB-167	81.3	40 - 145
					IS	13C-PCB-169	82.2	40 - 145
					IS	13C-PCB-170	92.4	40 - 145
					IS	13C-PCB-180	90.4	40 - 145
					IS	13C-PCB-188	84.2	40 - 145
					IS	13C-PCB-189	89.8	40 - 145
					IS	13C-PCB-194	87.2	40 - 145

Sample ID: OPR					EPA Method 1668C			
Matrix:	Solid	QC Batch:	B4I0061	Lab Sample:	B4I0061-BS1			
Sample Size:	10.0 g	Date Extracted:	16-Sep-2014 13:26	Date Analyzed:	20-Sep-14 01:51	Column:	ZB-1	Analyst: MAS
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
					IS 13C-PCB-202	101	40 - 145	
					IS 13C-PCB-206	85.5	40 - 145	
					IS 13C-PCB-208	85.8	40 - 145	
					IS 13C-PCB-209	93.7	40 - 145	
					CRS 13C-PCB-79	84.9	40 - 145	
					CRS 13C-PCB-178	90.5	40 - 145	

LCL-UCL - Lower control limit - upper control limit

Sample ID: PS-TS-01-20140909-S

EPA Method 1668C

Client Data							Sample Data							Laboratory Data						
Name:	Leidos			Matrix:	Sediment			Lab Sample:	1400659-03			Date Received:	10-Sep-2014 9:29							
Project:	NPDES Sampling Support			Sample Size:	13.4 g			QC Batch:	B4I0061			Date Extracted:	16-Sep-2014 13:26							
Date Collected:	09-Sep-2014 13:50			% Solids:	75.4			Date Analyzed :	20-Sep-14 07:13 Column: ZB-1 Analyst: DMS			24-Sep-14 17:35 Column: ZB-1 Analyst: DMS								
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers							
PCB-1	273	49.4			0.320	D	PCB-44	275	49.4			0.745	D							
PCB-2	68.4	49.4			0.240	D	PCB-45	ND	49.4			24.5	0.402	D						
PCB-3	103	49.4			0.323	D	PCB-46	ND	49.4	22.7			0.537	D						
PCB-4/10	127	198			1.14	J, D	PCB-47	48.7	49.4				2.19	J, D						
PCB-5/8	290	198			1.76	D	PCB-48/75	37.8	98.9				0.983	J, D						
PCB-6	103	98.9			1.00	D	PCB-50	ND	49.4	18.3			0.603	D						
PCB-7/9	97.5	198			1.34	J, D	PCB-51	ND	49.4	19.4			0.789	D						
PCB-11	1160	98.9			3.48	D	PCB-52/69	326	98.9				0.722	D						
PCB-12/13	65.4	198			1.37	J, D	PCB-53	ND	49.4			26.0	0.331	D						
PCB-14	ND	98.9	47.9		0.337	D	PCB-54	ND	49.4	14.6			0.275	D						
PCB-15	123	98.9			0.634	D	PCB-55	ND	49.4	19.3			0.416	D						
PCB-16/32	101	198			0.430	J, D	PCB-56/60	163	98.9				0.825	D						
PCB-17	47.3	49.4			0.658	J, D	PCB-57	ND	49.4	23.7			0.354	D						
PCB-18	141	49.4			0.696	D	PCB-58	ND	49.4	25.0			0.589	D						
PCB-19	ND	49.4	11.5		0.612	D	PCB-61/70	432	98.9				1.20	D						
PCB-20/21/33	106	148			2.47	J, D	PCB-62	ND	49.4	22.2			0.597	D						
PCB-22	53.5	49.4			0.964	D	PCB-63	ND	49.4	24.3			0.524	D						
PCB-23	ND	49.4	10.4		0.543	D	PCB-65	ND	49.4	22.1			0.842	D						
PCB-24/27	15.3	98.9			0.742	J, D	PCB-66/76	205	98.9				1.31	D						
PCB-25	ND	49.4		15.4	0.768	D	PCB-67	ND	49.4	20.9			0.486	D						
PCB-26	ND	49.4		34.7	0.766	D	PCB-68	ND	49.4	20.1			0.658	D						
PCB-28	125	49.4			1.12	D	PCB-73	ND	49.4	18.7			0.454	D						
PCB-29	ND	49.4	12.3		0.949	D	PCB-74	100	49.4				0.781	D						
PCB-30	ND	49.4	7.04		0.355	D	PCB-77	127	49.4				0.748	D						
PCB-31	141	49.4			0.809	D	PCB-78	ND	49.4	19.9			0.385	D						
PCB-34	ND	49.4	11.7		1.57	D	PCB-79	20.0	49.4				0.633	J, D						
PCB-35	38.5	49.4			0.565	J, D	PCB-80	ND	49.4	16.9			0.336	D						
PCB-36	ND	49.4	13.9		0.406	D	PCB-81	ND	49.4	19.0			0.674	D						
PCB-37	94.0	49.4			0.389	D	PCB-82	156	49.4				0.981	D						
PCB-38	ND	49.4	13.2		0.528	D	PCB-83	ND	49.4	21.7			0.440	D						
PCB-39	ND	49.4	14.2		0.461	D	PCB-84/92	513	98.9				1.01	D						
PCB-40	74.1	49.4			0.927	D	PCB-85/116	195	98.9				1.64	D						
PCB-41/64/71/72	224	198			1.70	D	PCB-86	ND	49.4	39.1			1.79	D						
PCB-42/59	69.0	98.9			0.899	J, D	PCB-87/117/125	469	148				0.880	D						
PCB-43/49	172	98.9			0.879	D	PCB-88/91	131	98.9				1.25	D						

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

The results are reported in dry weight. The sample size is reported in wet weight.

Sample ID: PS-TS-01-20140909-S

EPA Method 1668C

Client Data							Sample Data							Laboratory Data							
Name:	Leidos						Matrix:	Sediment						Lab Sample:	1400659-03			Date Received:	10-Sep-2014 9:29		
Project:	NPDES Sampling Support						Sample Size:	13.4 g						QC Batch:	B4I0061			Date Extracted:	16-Sep-2014 13:26		
Date Collected:	09-Sep-2014 13:50						% Solids:	75.4						Date Analyzed :	20-Sep-14 07:13 Column: ZB-1 Analyst: DMS			24-Sep-14 17:35 Column: ZB-1 Analyst: DMS			
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	
PCB-89	ND	49.4		8.48	1.22	D	PCB-136	251	49.4				0.776	PCB-136	251	49.4		0.776	D		
PCB-90/101	1570	98.9			1.19	D	PCB-137	104	49.4				0.541	PCB-137	104	49.4		0.541	D		
PCB-93	ND	49.4	39.1		1.42	D	PCB-138/163/164	2170	148				0.809	PCB-138/163/164	2170	148		0.809	D		
PCB-94	ND	49.4	31.2		0.874	D	PCB-139/149	1860	49.4				1.49	PCB-139/149	1860	49.4		1.49	D		
PCB-95/98/102	823	148			1.38	D	PCB-140	ND	49.4	25.6			1.20	PCB-140	ND	49.4	25.6	1.20	D		
PCB-96	ND	49.4	23.0		0.588	D	PCB-141	486	49.4				0.678	PCB-141	486	49.4		0.678	D		
PCB-97	352	49.4			0.675	D	PCB-144	127	49.4				1.38	PCB-144	127	49.4		1.38	D		
PCB-99	450	49.4			0.474	D	PCB-145	ND	49.4	15.4			1.05	PCB-145	ND	49.4	15.4	1.05	D		
PCB-100	ND	49.4	27.9		0.511	D	PCB-146/165	284	98.9				0.792	PCB-146/165	284	98.9		0.792	D		
PCB-103	ND	49.4	27.4		0.428	D	PCB-147	ND	49.4		25.8		1.65	PCB-147	ND	49.4		25.8	1.65	D	
PCB-104	ND	49.4	22.1		0.876	D	PCB-148	ND	49.4	24.9			1.45	PCB-148	ND	49.4	24.9	1.45	D		
PCB-105	472	49.4			0.462	D	PCB-150	ND	49.4	18.5			0.801	PCB-150	ND	49.4	18.5	0.801	D		
PCB-106/118	1220	98.9			0.728	D	PCB-151	596	49.4				1.16	PCB-151	596	49.4		1.16	D		
PCB-107/109	75.5	98.9			0.631	J, D	PCB-152	ND	49.4	16.6			0.744	PCB-152	ND	49.4	16.6	0.744	D		
PCB-108/112	65.1	98.9			0.844	J, D	PCB-153	1870	49.4				0.484	PCB-153	1870	49.4		0.484	D		
PCB-110	1490	49.4			0.555	D	PCB-154	28.4	49.4				0.837	PCB-154	28.4	49.4		0.837	J, D		
PCB-111/115	ND	98.9		24.0	1.24	D	PCB-155	ND	49.4	16.6			0.767	PCB-155	ND	49.4	16.6	0.767	D		
PCB-113	ND	49.4		41.2	0.495	D	PCB-156	203	49.4				0.534	PCB-156	203	49.4		0.534	D		
PCB-114	ND	49.4	54.6		0.418	D	PCB-157	53.2	49.4				0.485	PCB-157	53.2	49.4		0.485	D		
PCB-119	ND	49.4	21.5		0.383	D	PCB-158/160	243	98.9				0.915	PCB-158/160	243	98.9		0.915	D		
PCB-120	ND	49.4	19.7		0.622	D	PCB-159	ND	49.4	33.3			0.578	PCB-159	ND	49.4	33.3	0.578	D		
PCB-121	ND	49.4	20.4		0.978	D	PCB-166	ND	49.4	31.2			0.425	PCB-166	ND	49.4	31.2	0.425	D		
PCB-122	ND	49.4	63.1		0.619	D	PCB-167	77.0	49.4				0.653	PCB-167	77.0	49.4		0.653	D		
PCB-123	23.7	49.4			0.494	J, D	PCB-168	ND	49.4	23.6			0.502	PCB-168	ND	49.4	23.6	0.502	D		
PCB-124	ND	49.4		52.0	0.813	D	PCB-169	ND	49.4	36.1			0.767	PCB-169	ND	49.4	36.1	0.767	D		
PCB-126	ND	49.4	78.3		0.543	D	PCB-170	698	49.4				0.758	PCB-170	698	49.4		0.758	D		
PCB-127	ND	49.4	53.3		0.326	D	PCB-171	184	49.4				0.372	PCB-171	184	49.4		0.372	D		
PCB-128/162	350	98.9			1.08	D	PCB-172	130	49.4				0.857	PCB-172	130	49.4		0.857	D		
PCB-129	101	49.4			0.567	D	PCB-173	ND	49.4	29.9			0.507	PCB-173	ND	49.4	29.9	0.507	D		
PCB-130	145	49.4			0.798	D	PCB-174	967	49.4				0.797	PCB-174	967	49.4		0.797	D		
PCB-131	ND	49.4	37.6		0.731	D	PCB-175	42.2	49.4				0.679	PCB-175	42.2	49.4		0.679	J, D		
PCB-132/161	586	98.9			1.05	D	PCB-176	120	49.4				0.729	PCB-176	120	49.4		0.729	D		
PCB-133/142	83.2	98.9			1.04	J, D	PCB-177	526	49.4				0.404	PCB-177	526	49.4		0.404	D		
PCB-134/143	114	98.9			1.05	D	PCB-178	197	49.4				0.610	PCB-178	197	49.4		0.610	D		
PCB-135	274	49.4			1.47	D	PCB-179	472	49.4				0.418	PCB-179	472	49.4		0.418	D		

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

The results are reported in dry weight. The sample size is reported in wet weight.

Sample ID: PS-TS-01-20140909-S

EPA Method 1668C

Client Data							Sample Data							Laboratory Data						
Name:	Leidos			Matrix:	Sediment			Lab Sample:	1400659-03			Date Received:	10-Sep-2014 9:29							
Project:	NPDES Sampling Support			Sample Size:	13.4 g			QC Batch:	B4I0061			Date Extracted:	16-Sep-2014 13:26							
Date Collected:	09-Sep-2014 13:50				% Solids:	75.4			Date Analyzed :	20-Sep-14 07:13 Column: ZB-1 Analyst: DMS				24-Sep-14 17:35 Column: ZB-1 Analyst: DMS						
Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers							
PCB-180	2240	49.4			0.420	D	Total octaCB	2650	49.4											
PCB-181	ND	49.4	24.1		1.26	D	Total nonaCB	566	49.4			621								
PCB-182/187	1110	98.9			1.33	D	DecaCB	92.2	49.4											
PCB-183	492	49.4			0.638	D	Total PCB	34400	98.9											
PCB-184	ND	49.4	14.0		0.597	D														
PCB-185	104	49.4			0.557	D														
PCB-186	ND	49.4	15.8		0.421	D														
PCB-188	ND	49.4	14.5		0.759	D														
PCB-189	ND	49.4		56.3	0.483	D														
PCB-190	129	49.4			0.686	D														
PCB-191	35.8	49.4			0.447	J, D														
PCB-192	ND	49.4	19.1		0.528	D														
PCB-193	106	49.4			0.836	D														
PCB-194	549	49.4			0.645	D														
PCB-195	206	49.4			0.722	D														
PCB-196/203	735	98.9			0.983	D														
PCB-197	39.8	49.4			0.794	J, D														
PCB-198	ND	49.4	42.7		0.792	D														
PCB-199	728	49.4			0.615	D														
PCB-200	92.2	49.4			0.795	D														
PCB-201	132	49.4			0.317	D														
PCB-202	172	49.4			0.759	D														
PCB-204	ND	49.4	28.3		0.543	D														
PCB-205	ND	49.4	38.6		0.471	D														
PCB-206	440	49.4			0.852	D														
PCB-207	ND	49.4		54.8	0.402	D														
PCB-208	126	49.4			0.441	D														
PCB-209	92.2	49.4			1.10	D														
Total monoCB	444	49.4																		
Total diCB	1960	98.9																		
Total triCB	863	49.4		913																
Total tetraCB	2270	49.4		2320																
Total pentaCB	8000	49.4		8130																
Total hexaCB	10000	49.4																		
Total heptaCB	7550	49.4		7600																

RL - Reporting limit

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

MDL - Method detection limit

The results are reported in dry weight. The sample size is reported in wet weight.

Sample ID: PS-TS-01-20140909-S

EPA Method 1668C

Client Data				Sample Data				Laboratory Data			
Name:	Leidos	Matrix:	Sediment	Lab Sample:	1400659-03	Date Received:	10-Sep-2014 9:29				
Project:	NPDES Sampling Support	Sample Size:	13.4 g	QC Batch:	B4I0061	Date Extracted:	16-Sep-2014 13:26				
Date Collected:	09-Sep-2014 13:50 <th>% Solids:</th> <td>75.4<th>Date Analyzed :</th><td>20-Sep-14 07:13 Column: ZB-1 Analyst: DMS 24-Sep-14 17:35 Column: ZB-1 Analyst: DMS</td><th></th><th></th></td>	% Solids:	75.4 <th>Date Analyzed :</th> <td>20-Sep-14 07:13 Column: ZB-1 Analyst: DMS 24-Sep-14 17:35 Column: ZB-1 Analyst: DMS</td> <th></th> <th></th>	Date Analyzed :	20-Sep-14 07:13 Column: ZB-1 Analyst: DMS 24-Sep-14 17:35 Column: ZB-1 Analyst: DMS						
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	118	5 -145	D	13C-PCB-170	79.8	10 -145	D				
13C-PCB-3	117	5 -145	D	13C-PCB-180	83.7	10 -145	D				
13C-PCB-4	85.4	5 -145	D	13C-PCB-188	90.8	10 -145	D				
13C-PCB-11	89.6	5 -145	D	13C-PCB-189	65.5	10 -145	D				
13C-PCB-9	86.2	5 -145	D	13C-PCB-194	98.5	10 -145	D				
13C-PCB-19	109	5 -145	D	13C-PCB-202	89.9	10 -145	D				
13C-PCB-28	98.1	5 -145	D	13C-PCB-206	82.3	10 -145	D				
13C-PCB-32	110	5 -145	D	13C-PCB-208	91.7	10 -145	D				
13C-PCB-37	105	5 -145	D	13C-PCB-209	83.8	10 -145	D				
13C-PCB-47	88.0	5 -145	D	CRS 13C-PCB-79	95.3	10 -145	D				
13C-PCB-52	91.7	5 -145	D	13C-PCB-178	97.7	10 -145	D				
13C-PCB-54	88.5	5 -145	D								
13C-PCB-70	90.9	5 -145	D								
13C-PCB-77	84.4	10 -145	D								
13C-PCB-80	91.1	10 -145	D								
13C-PCB-81	87.2	10 -145	D								
13C-PCB-95	91.9	10 -145	D								
13C-PCB-97	93.1	10 -145	D								
13C-PCB-101	91.8	10 -145	D								
13C-PCB-104	93.1	10 -145	D								
13C-PCB-105	82.9	10 -145	D								
13C-PCB-114	88.4	10 -145	D								
13C-PCB-118	90.0	10 -145	D								
13C-PCB-123	92.6	10 -145	D								
13C-PCB-126	77.5	10 -145	D								
13C-PCB-127	83.3	10 -145	D								
13C-PCB-138	89.1	10 -145	D								
13C-PCB-141	91.4	10 -145	D								
13C-PCB-153	94.9	10 -145	D								
13C-PCB-155	104	10 -145	D								
13C-PCB-156	80.9	10 -145	D								
13C-PCB-157	88.5	10 -145	D								
13C-PCB-159	81.7	10 -145	D								
13C-PCB-167	83.3	10 -145	D								
13C-PCB-169	70.6	10 -145	D								

RL - Reporting limit

EMPC - Estimated maximum possible concentration

DL - Sample specific estimated detection limit

MDL - Method detection limit

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The amount detected is above the High Calibration Limit.
H	Recovery was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Low Calibration Limit.
P	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	Method Detection Limit as determined by 40 CFR 136, Appendix B.
EMPC	Estimated Maximum Possible Concentration
M	Estimated Maximum Possible Concentration (CA Region 2)
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alabama Department of Environmental Management	41610
California Department of Health – ELAP	2892
Connecticut Department of Public Health	PH-0182
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Michigan Department of Natural Resources	9932
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
North Carolina Department of Health & Human Services	06700
Oregon Laboratory Accreditation Program	4042-002
Pennsylvania Department of Environmental Protection	011
South Carolina Department of Health	87002001
Tennessee Department of Environment & Conservation	TN02996
Texas Commission on Environmental Quality	T104704189-14-5
Virginia Department of General Services	3138
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160



CHAIN OF CUSTODY

FOR LABORATORY USE ONLY

Storage Secured

Yes No

47

Temp 4.4 °C

Project I.D.: NPDES Sampling Report P.O.# - Sampler: Corey Wilson
Corey Wilson Leidos 18912 N Creek Pkwy Bothell ^(Name) WA 98011
Invoice to: Name Company Address City State Zip Ph#

Relinquished by: (Signature and Printed Name) Corey Wilson Date: 9/9/14 Time: 1530 Received by: (Signature and Printed Name) Bethia Benedict B.Benedict Date: 09/10/14 Time: 0937
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

See “**Sample Log-in Checklist**” for additional sample information.

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: _____

Tracking No.: _____

Special Instructions/Comments: Please contact Leidos PM prior to disposal of any samples. Refer to contract agreement for confirmation of all analysis.

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUE, T = MM5 Train, O= Other

*Bottle Preservative Type: T = Thiosulfate,
O = Other

SEND
DOCUMENTATION
AND RESULTS TO:

Name: Christine Nancarrow
Company: Leidos
Address: 18912 N Creek Plwy, Ste 101
City: Bethel State: WA Zip: 98011
Phone: 206.300.2144 Fax: _____
Email: nancarrow.c@leidos.com
Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,
SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum
AQ = Aqueous, O = Other

SAMPLE LOG-IN CHECKLIST

Vista Project #: 1400659TAT Std.

Samples Arrival:	Date/Time <u>09/10/14</u> <u>0929</u>	Initials: <u>CBB</u>	Location: <u>WR-2</u>			
Logged In:	Date/Time <u>09/10/14</u> <u>1303</u>	Initials: <u>CBB</u>	Location: <u>WR-2</u> Shelf/Rack: <u>B4/F3</u>			
Delivered By:	FedEx	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	<u>Ice</u>	<u>Blue Ice</u>		<u>Dry Ice</u>	None	
Temp °C: <u>4.6</u>	(uncorrected)	Time: <u>0938</u>			Thermometer ID: IR-2	
Temp °C: <u>4.7</u>	(corrected)					

	YES	NO	NA		
Adequate Sample Volume Received?	✓				
Holding Time Acceptable?	✓				
Shipping Container(s) Intact?	✓				
Shipping Custody Seals Intact?	✓				
Shipping Documentation Present?	✓				
Airbill	Trk # <u>8746 1313 0451</u>	✓	/		
Sample Container Intact?		✓			
Sample Custody Seals Intact?					
Chain of Custody / Sample Documentation Present?	✓				
COC Anomaly/Sample Acceptance Form completed?	✓				
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓		
Na ₂ S ₂ O ₃ Preservation Documented? <u>NA</u>	COC	Sample Container	None		
Shipping Container	<u>Vista</u>	Client	<u>Retain</u>	Return	Dispose

Comments:

Sample: PS-TS-01-20140909-S rec'd broken
see images

Chain of Custody Anomaly/Sample Acceptance Form



Client: Leidos
 Contact: Christine Nancarrow
 Email: christine.f.nancarrow@leidos.com
 Phone:

Workorder Number: 1400659
 Date Received: 10-Sep-14 09:29
 Documented by/date: B.Benedict 09/10/2014

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank you,

Martha Maier
 mmaier@vista-analytical.com
 916-673-1520

The following information or item is needed to proceed with analysis:

<input type="checkbox"/> Complete Chain-of-Custody	<input type="checkbox"/> Preservative	<input type="checkbox"/> Collector's Name
<input type="checkbox"/> Test Method Requested	<input type="checkbox"/> Sample Identification	<input type="checkbox"/> Sample Type
<input type="checkbox"/> Analyte List Requested	<input type="checkbox"/> Sample Collection Date and/or Time	<input type="checkbox"/> Sample Location
<input type="checkbox"/> Other:		

The following anomalies were noted. Authorization is needed to proceed with analysis.

<input type="checkbox"/> Temperature outside < 6°C Range	Samples Affected: _____
Temperature _____ °C	Ice Present? Yes No Melted
<input type="checkbox"/> Sample ID Discrepancy	<input type="checkbox"/> Insufficient Sample Size
<input type="checkbox"/> Sample Holding Time Missed	<input checked="" type="checkbox"/> Sample Container(s) Broken: PS-TS-01-20140909-S
<input type="checkbox"/> Custody Seals Broken	<input type="checkbox"/> Incorrect Container Type

Comments:

Client Authorization

Proceed with Analysis: YES NO

Signature and Date Mm 9/25/14

Client Comments/Instructions sample transferred to new jar

EXTRACTION INFORMATION

Process Sheet

Workorder: **1400659**

Prep Expiration: 09/09/2015

Client: Leidos

Workorder Due: 01-Oct-14 00:00

TAT: 21

Method: **1613 Full List**Matrix: **Aqueous**

Client Matrix: Aqueous

Also run: **Percent Solids**

Prep Batch:

B4100669/22/14 es 9/22/14

Prep Data Entered:

9/22/14 es

Date and Initials

Initial Sequence:

S410040

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400659-01 <u>✓</u>	<input checked="" type="checkbox"/>	PS-TS-01-20140909-W	10-Sep-14 09:29	WR-2 B-4	
1400659-02 <u>✓</u>	<input checked="" type="checkbox"/>	PS-OS-01-20140909-W	10-Sep-14 09:29	WR-2 B-4	

Vista PM:Martha Maier

Vial Box ID: CampingSample Reconciled By: B-Smith 9/17/14

Page 1 of 4

Percent Moisture/ Percent Solids

D2216-90

BATCH ID

R410064

Analyst: B. Smith

Test Code: %Moist/%Solid

Analyte:

Units: %

Dried at 110°C +/- 5°C

INST HRMS-4

HRMS-4

Date/Time IN: Date/Time OUT
9/17/14 0939 9/20/14 1536

Percent Moisture / Percent Solids

D2216-90

BATCH ID

B4|0064

Analyst: B. Smith

Test Code: %Moist/%Solids

Analyte:

Dried at 110°C +/- 5°C

Units: %

INST HRMS-4

HRMS-4

Date/Time IN: Date/Time OUT

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 1613 Full List

Method: 1613 TCDD Only

B4I0066

Chemist: A. Clarke

Prep Date/Time: 17-Sep-14 08:29
19 08:01

Prepared using: HRMS - SPE Extraction

C	VISTA Sample ID	Bottle + Sample (L)	Bottle Only (L)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ WIT DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	B4I0066-BLK1	MA	MA	(1.000)	BMS 9/17/14	BMS 9/20/14 MA	MA	BMS 9/20/14	BMS 9/20/14	ES 9/21/14	ES M.T. 9/21/14
<input type="checkbox"/>	B4I0066-BS1	L	L	L							
<input type="checkbox"/>	1400659-01	1511.05	502.95	1.00810							
<input type="checkbox"/>	1400659-02	1524.48	501.38	1.02310							
<input type="checkbox"/>	1400665-04	1524.38	503.07	1.02131							
<input type="checkbox"/>	1400666-01 (A)	1534.64	505.71	1.02893							
<input type="checkbox"/>	1400668-01	1503.28	503.09	1.00019							
<input type="checkbox"/>	1400668-02	1500.63	503.46	0.99717							

(A) Required the use of 2 sets of SPE Filters. AC 9/19/14

IS Name PCDD/F 1330101 10 μ L	NS Name PCDD/F 13L1101 10 μ L	CRS Name PCDD/F 1330103 10 μ L	RS Name PCDD/F 1330703 10 μ L	Cycle Time Start Date/Time 9/19/14 18:40	APP: SEFUN SOX SDS SOLV: T01 Other SPE	Check Out: BMS 9/17/14 Chemist/Date:
PCB _____	PCB _____	PCB _____	PCB _____	Stop Date/Time 9/20/14 10:41	Final Volume(s) 20 μ L C14	Check In: Empty Chemist/Date:
PAH _____	PAH _____	PAH _____	PAH _____	Comments:	Balance ID: Hems-4	

Process Sheet

Workorder: **1400659**

Prep Expiration: 09/09/2015

Client: Leidos

Workorder Due: 01-Oct-14 00:00

TAT: 21

Method: **1613 Full List**Matrix: **Solid**

Client Matrix: Sediment

Also run: **Percent Solids**Prep Batch: **B410053**Prep Data Entered: **9/17/14 ej**
Date and InitialsInitial Sequence: **S410031**

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400659-03	<input checked="" type="checkbox"/>	PS-TS-01-20140909-S	10-Sep-14 09:29	WR-2 F-3	

(A) Jar broken upon arrival. Homogenized in secondary container and placed in a new jar. BMS 9/12/14

Vista PM:Martha Maier

Vial Box ID: AtreyuSample Reconciled By: b-smith 9/12/14

Page 3 of 4

Solids estimate

Batch: B4I0044

Lab ID	Analysis	% Solids	Entered	Target weight	Weigh this much
1400659-03	Percent Solids	75.43		10.00	13.26
1400661-01	Percent Solids	29.40		10.00	34.01

Percent Moisture/ Percent Solids

D2216-90

BATCH ID

B4|0044

Analyst: B. Smith

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C +/- 5°C

INST HRMS-2

Date/Time IN: Date/Time OUT
9/12/14 13:30 9/15/14 9:20

Percent Moisture/ Percent Solids

D2216-90

BATCH ID

B4I0044

Analyst: B. Smith

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C +/- 5°C

Date/Time IN: Date/Time OUT

9/12/14 1330 9/15/14 9:120

INST **HRMS-2**

PREPARATION BENCH SHEET

Matrix: Solid

B4I0053

Chemist: M.T

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 15-Sep-14 15:17

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	C4I0068	C4I0069	C4I0069	C4I0070	RS CHEM/WIT DATE
						AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	
<input type="checkbox"/>	B4I0053-BLK1②	10.00	(10.00)	M.T 28 9/16/14	28 SEP 9/17/14	28 9/17/14	28 9/17/14	28 9/17/14	28 9/17/14	28 SEP 9/17/14
<input type="checkbox"/>	B4I0053-BS1③	↓	↓	T						
<input type="checkbox"/>	1400659-03	13.26	13.37							
<input type="checkbox"/>	1400665-01	15.51	15.58							
<input type="checkbox"/>	1400665-02④	28.64	28.77							
<input type="checkbox"/>	1400665-03⑤	28.06	28.27							
<input type="checkbox"/>	1400668-01⑥	23.55	23.69	↓	↓	↓	↓	↓	↓	↓

② Petroleum smell - 28 9/17/14

③ Second acid partition performed. 28 9/17/14

IS Name <input checked="" type="checkbox"/> V1	NS Name <input checked="" type="checkbox"/> V14	CRS Name <input checked="" type="checkbox"/> V3	RS Name <input checked="" type="checkbox"/> V2	Cycle Time	APP: SEFUN SOX SDS	Check Out: Chemist/Date: M.T 9/16/14
PCDD/F 13J0101, 10μl	PCDD/F 13L1101, 10μl	PCDD/F 13J0103, 10μl	PCDD/F 13J0103, 10μl	Start Date/Time 9/16/14 16:05	SOLV: TOL	Check In: Chemist/Date: M.T 9/16/14
PCB _____	PCB _____	PCB _____	PCB _____	Other NA	Final Volume(s) 20ml	Balance ID: HRMS-2
PAH _____	PAH _____	PAH _____	PAH _____	Stop Date/Time 9/17/14 8:07	C14	

Comments:

Process Sheet

Workorder: **1400659**

Prep Expiration: 09/09/2015

Client: Leidos

Workorder Due: 01-Oct-14 00:00

TAT: 21

Method: **1668C Full List**Matrix: **Aqueous**

Client Matrix: Aqueous

Also run: **Percent Solids**Prep Batch: B4I0047Prep Data Entered: M.T 9/16/14
Date and InitialsInitial Sequence: S41D027E

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400659-01	<input checked="" type="checkbox"/>	PS-TS-01-20140909-W "B"	10-Sep-14 09:29	WR-2 B-4	
1400659-02	<input checked="" type="checkbox"/>	PS-OS-01-20140909-W "B"	10-Sep-14 09:29	WR-2 B-4	

Vista PM:Martha Maier

Vial Box ID: SVATCHSample Reconciled By: _____ M.T 9/15/14

Analyst: MJT

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C +/- 5°C

INST HRMS-4

Date/Time IN: Date/Time OUT
9/15/14 0:00 11.T9/16/14 10:40
10:40

(A) Acid was added in drops. M.T 9/15/14

Analyst: M.J.T

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C +/- 5°C

INST HRMS-4

Date/Time IN: 9/15/14 10:00 **Date/Time OUT:** 9/16/14 10:40

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 1668C Full List

B4I0047

Chemist: M.T.

Prep Date/Time: 15-Sep-14 08:46

Prepared using: HRMS - Separatory Funnel

C	VISTA Sample ID	Bottle + Sample	Bottle Only	Sample Amt. (L)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	PS NA	C4I0059	NA	NA	RS CHEM/WIT DATE
		25mL	25mL	(1.00)	M.T 9/15/14	M.T 9/15/14	NA	M.T 9/15/14	NA	NA	M.T 9/16/14
	B4I0047-BLK1	NA	NA	(1.00)	M.T 9/15/14	M.T 9/15/14	NA	M.T 9/15/14	NA	NA	M.T 9/16/14
	B4I0047-BS1	↓	↓	↓	↑	↑	↑	↑	↑	↑	↑
	1400659-01	1528.73	503.29	1.02544	↓	↓	↓	↓	↓	↓	↓
	1400659-02	1511.68	499.35	1.01233	↓	↓	↓	↓	↓	↓	↓
	1400665-04	1529.83	503.54	1.02629	↓	↓	↓	↓	↓	↓	↓

IS Name PCDD/F PCB	NS Name PCDD/F PCB	CPS Name PCDD/F PCB	RS Name PCDD/F PCB	Cycle Time Start Date/Time Stop Date/Time	APP: SEFUN SOX SDS SOLV: DCM Other NA Final Volume(s) 20ml Balance ID: HRMS-4	Check Out: Chemist/Date: M.T. 9/15/14 Check In: Chemist/Date: Empty
14A3001,10ml	13I2503,10ml	14A3002,10ml	14A3003,10ml	NA	NA	
PAH	PAH	PAH	PAH	NA	29	

Comments:

Process Sheet

Workorder: 1400659

Prep Expiration: 09/09/2015

Client: Leidos

Workorder Due: 01-Oct-14 00:00

TAT: 21

Method: **1668C Full List**
Matrix: **Solid**

Client Matrix: Sediment

Also run: **Percent Solids**Prep Batch: B410061Prep Data Entered: 9/18/14 08
Date and Initials

Initial Sequence: _____

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400659-03	<input checked="" type="checkbox"/>	PS-TS-01-20140909-S	10-Sep-14 09:29	WR-2 F-3	

(A) Jar broken upon arrival. Homogenized in secondary container and placed in new jar. BMS 9/12/14

Vista PM:Martha Maier

Vial Box ID: SNATCHSample Reconciled By: B. Smith 9/12/14

Solids estimate

Batch: B4I0044

Lab ID	Analysis	% Solids	Entered	Target weight	Weigh this much
1400659-03	Percent Solids	75.43		10.00	13.26
1400661-01	Percent Solids	29.40		10.00	34.01

Percent Moisture/Percent Solids

D2216-90

BATCH ID

B4|0044

Analyst: B. Smith

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C +/- 5°C

Date/Time IN: Date/Time OUT

9/12/14 1330 9/15/14 9:20

INST **HRMS-2**

Analyst: B. Smith

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C +/- 5°C

Date/Time IN: Date/Time OUT
9/12/14 13:30 9/15/14 9:20

INST **HRMS-2**

PREPARATION BENCH SHEET

Matrix: Solid

B4I0061

Chemist: Gallardo
 Prep Date/Time: 9/17/14 14:40
16 Sep 14 13:26 Cb 9/17/14

Method: 1668C Full List

Prepared using: HRMS - Soxhlet

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	B4I0061-BLK1②	(10.00)	(10.00)	cb 9/17/14	es 8R 9/18/14	es 9/17/14	es 9/17/14	N/A	N/A	es 11.7 9/19/14
<input type="checkbox"/>	B4I0061-BS1④	↓	↓	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400659-03⑤ E⑥ F	13.26	13.41	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-01③ D⑥ G	15.51	15.66	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-02④ C⑥ H⑦ I	28.06 ⁶⁴	28.04 ⁵⁸	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-03⑤ B⑥ E	28.06 ⁹¹⁰⁰⁴	28.20 ⁹¹⁰⁰⁴	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400668-03⑤ E⑥ G	23.55	24.02	↓	↓	↓	↓	↓	↓	↓

- Ⓐ Second acid partition performed. es 9/18/14.
- Ⓑ Precipitate formed at final volume. es 9/19/14
- Ⓒ Cloudy at final volume es 9/19/14
- Ⓓ Crystals at final volume es 9/19/14
- Ⓔ 1:10 dilution made per request. es 9/19/14
- Ⓕ 1:20 dilution made per request. es 9/19/14
- Ⓖ FV of about 180 mL. es 9/19/14
- Ⓗ FV of about 200 mL. es 9/19/14
- Ⓘ FV of about 650 mL. es 9/19/14

IS Name PCDD/F PCB 14D2901, 10mL	NS Name PCDD/F PCB 14F1301, 10mL	P ⁹ CRS Name PCDD/F PCB 14D2903, 10mL	RS Name PCDD/F PCB 14D2904, 10mL	Cycle Time Start Date/Time 9/17/14 15:25	APP: SEFUN SOX SDS SOLV: T01. Other N/A Stop Date/Time 9/18/14 07:30 Final Volume(s) 100mL Cg	Check Out: Chemist/Date: cb 9/17/14 Check In: Chemist/Date: ↓ Balance ID: HRMS-2
--	--	--	--	--	---	--

Comments:

SAMPLE DATA

EPA Method 1613

Client ID: Method Blank
 Lab ID: B4I0066-BLK1

Filename: 140922D1 S:6 Acq:22-SEP-14 17:34:58
 GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol: 1.000

ConCal: ST140922D1-1
 EndCAL: NA

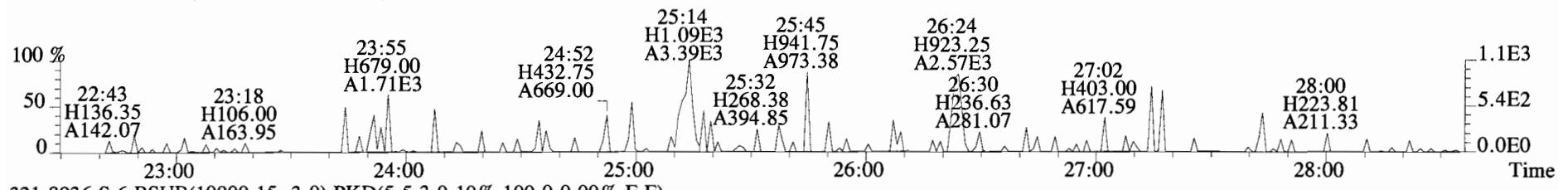
Page 5 of 5

Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	*	* n	1.03	NotF ₇	*	*		681	2.5	1.20	Total Tetra-Dioxins	*	*		681	1.20
1,2,3,7,8-PeCDD	*	* n	0.84	NotF ₇	*	*		856	2.5	1.37	Total Penta-Dioxins	*	*		856	1.37
1,2,3,4,7,8-HxCDD	*	* n	1.05	NotF ₇	*	*		325	2.5	1.05	Total Hexa-Dioxins	*	*		547	1.82
1,2,3,6,7,8-HxCDD	*	* n	1.04	NotF ₇	*	*		325	2.5	1.11	Total Hepta-Dioxins	*	*		639	2.29
1,2,3,7,8,9-HxCDD	*	* n	0.90	NotF ₇	*	*		325	2.5	1.08	Total Tetra-Furans	*	*		599	0.950
1,2,3,4,6,7,8-HpCDD	*	* n	1.01	NotF ₇	*	*		639	2.5	2.29	Total Penta-Furans	0.0000	0.0000		859	1.50
OCDD	*	* n	1.04	NotF ₇	*	*		2420	1.0	4.53	Total Hexa-Furans	*	*		576	0.839
											Total Hepta-Furans	*	*		792	1.53
2,3,7,8-TCDF	*	* n	0.91	NotF ₇	*	*		599	2.5	0.950						
1,2,3,7,8-PeCDF	*	* n	0.97	NotF ₇	*	*		446	2.5	0.768						
2,3,4,7,8-PeCDF	*	* n	0.94	NotF ₇	*	*		446	2.5	0.793						
1,2,3,4,7,8-HxCDF	*	* n	1.32	NotF ₇	*	*		576	2.5	0.690						
1,2,3,6,7,8-HxCDF	*	* n	1.18	NotF ₇	*	*		576	2.5	0.710						
2,3,4,6,7,8-HxCDF	*	* n	1.23	NotF ₇	*	*		300	2.5	0.438						
1,2,3,7,8,9-HxCDF	*	* n	1.13	NotF ₇	*	*		300	2.5	0.634						
1,2,3,4,6,7,8-HpCDF	*	* n	1.57	NotF ₇	*	*		792	2.5	1.54						
1,2,3,4,7,8,9-HpCDF	*	* n	1.50	NotF ₇	*	*		391	2.5	0.755						
OCDF	*	* n	1.05	NotF ₇	*	*		583	2.5	2.48						
											Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.76e+07	0.78 y	1.06	27:10	1.021	1667.3				83.4					
IS	13C-1,2,3,7,8-PeCDD	1.81e+07	0.63 y	1.08	31:37	1.188	1683.3				84.2					
IS	13C-1,2,3,4,7,8-HxCDD	1.24e+07	1.26 y	0.74	34:58	1.014	1669.3				83.5					
IS	13C-1,2,3,6,7,8-HxCDD	1.21e+07	1.25 y	0.75	35:05	1.017	1622.2				81.1					
IS	13C-1,2,3,7,8,9-HxCDD	1.41e+07	1.27 y	0.89	35:23	1.026	1584.0				79.2					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.00e+07	1.06 y	0.70	38:49	1.126	1424.7				71.2					
IS	13C-OCDD	1.70e+07	0.89 y	0.59	42:11	1.223	2882.3				72.1					
IS	13C-2,3,7,8-TCDF	2.37e+07	0.78 y	0.97	26:25	0.992	1708.3				85.4					
IS	13C-1,2,3,7,8-PeCDF	2.29e+07	1.59 y	0.99	30:27	1.144	1617.7				80.9					
IS	13C-2,3,4,7,8-PeCDF	2.33e+07	1.61 y	1.01	31:21	1.178	1614.4				80.7					
IS	13C-1,2,3,4,7,8-HxCDF	1.59e+07	0.51 y	0.94	34:04	0.988	1690.0				84.5					
IS	13C-1,2,3,6,7,8-HxCDF	1.73e+07	0.51 y	1.23	34:11	0.992	1410.0				70.5					
IS	13C-2,3,4,6,7,8-HxCDF	1.57e+07	0.52 y	1.03	34:48	1.009	1517.3				75.9					
IS	13C-1,2,3,7,8,9-HxCDF	1.29e+07	0.52 y	0.89	35:47	1.038	1464.1				73.2					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.01e+07	0.44 y	0.71	37:39	1.092	1436.9				71.8					
IS	13C-1,2,3,4,7,8,9-HpCDF	9.32e+06	0.45 y	0.64	39:22	1.142	1452.2				72.6					
IS	13C-OCDF	1.90e+07	0.91 y	0.76	42:25	1.230	2512.7				62.8					
C/Up	37Cl-2,3,7,8-TCDD	7.65e+06		1.04	27:12	1.022	737.00				92.1	Integrations by Analyst:	M	Reviewed by Analyst:	M	
RS/RT	13C-1,2,3,4-TCDD	1.99e+07	0.79 y	1.00	26:37	*	2000.0									
RS	13C-1,2,3,4-TCDF	2.86e+07	0.76 y	1.00	25:13	*	2000.0									
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.00e+07	0.51 y	1.00	34:29	*	2000.0									

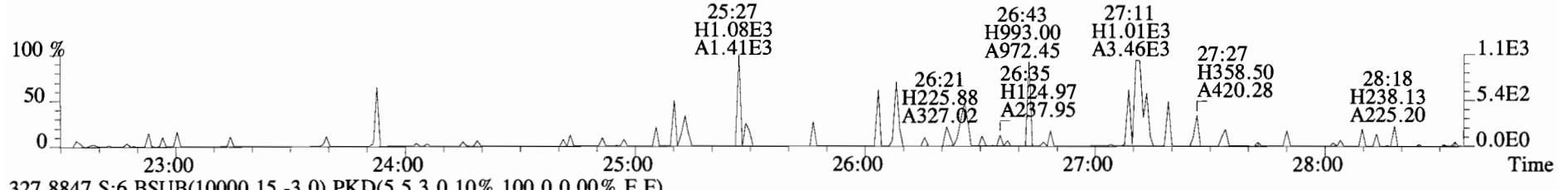
Date: 9/23/14

Date: 9/23/14

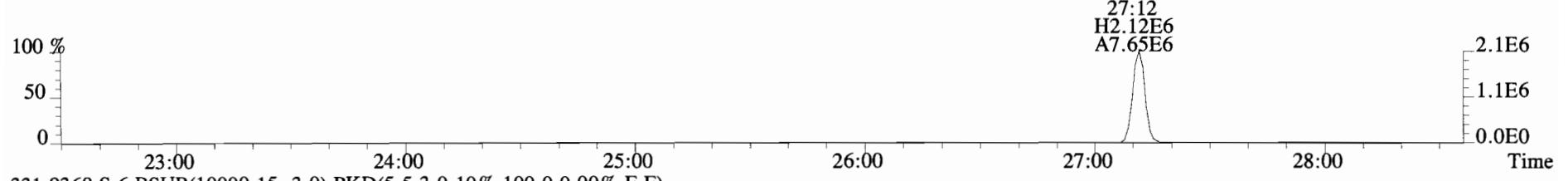
File:140922D1 #1-551 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



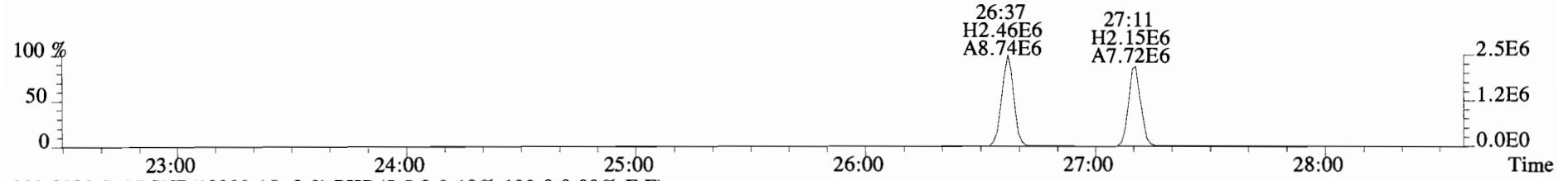
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



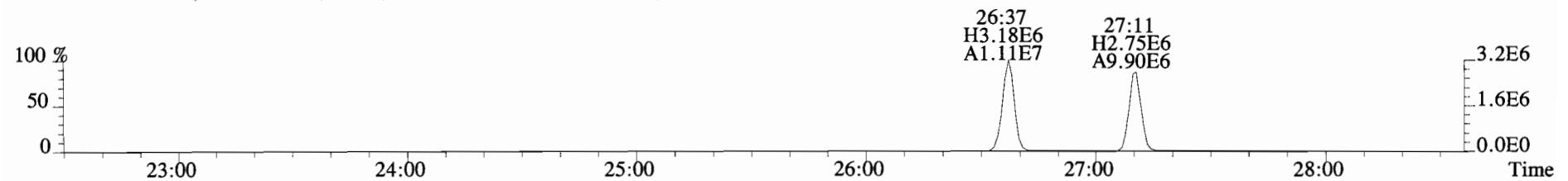
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



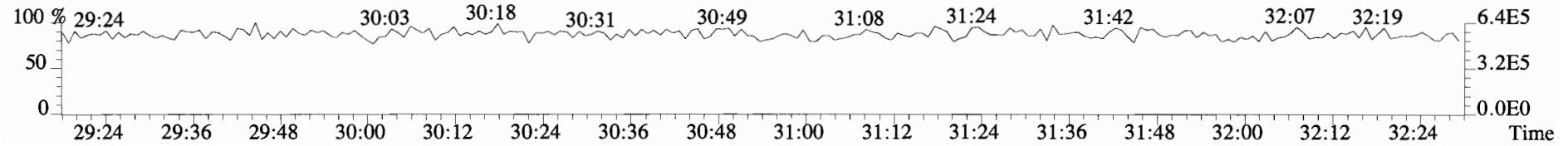
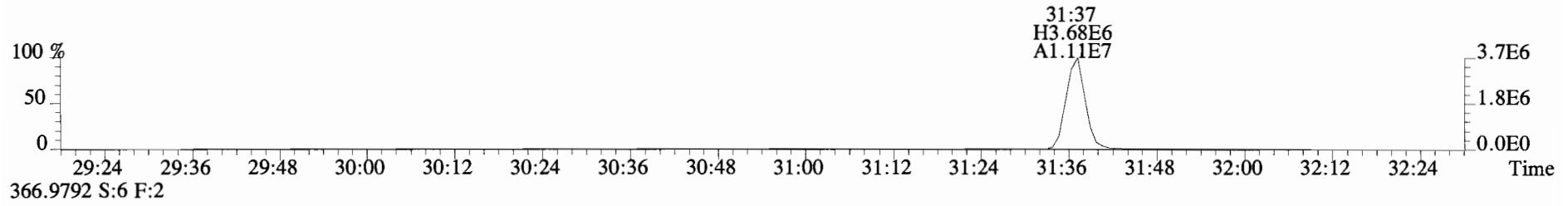
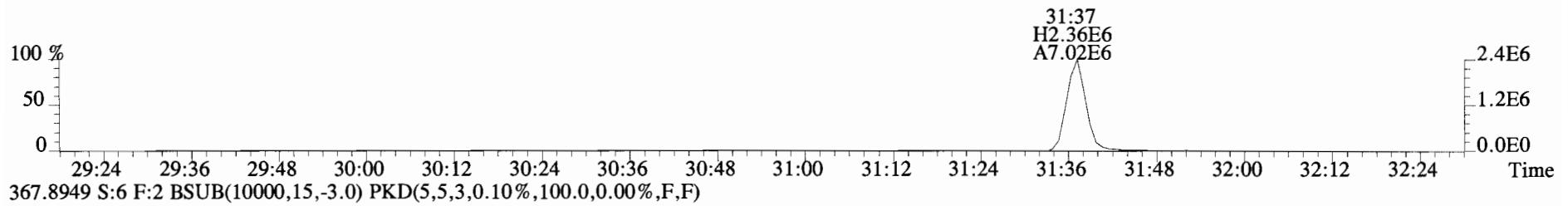
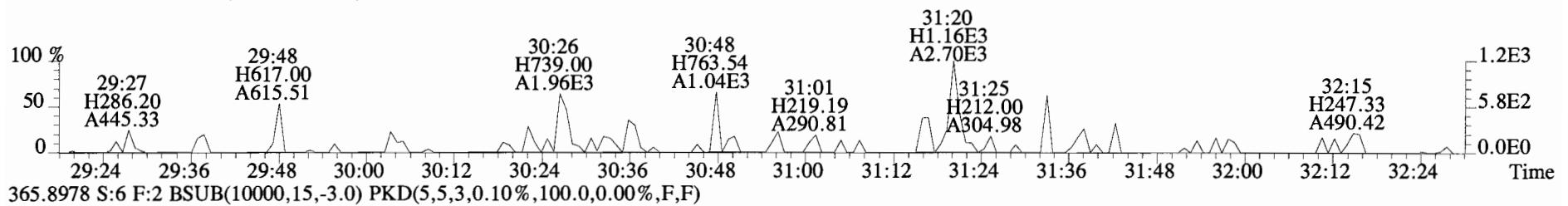
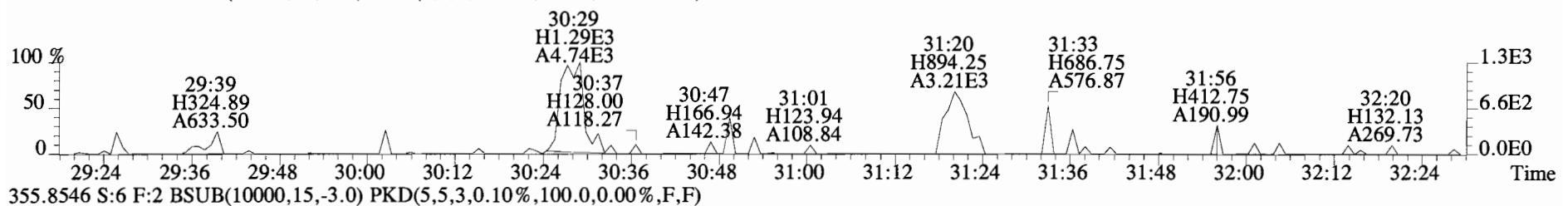
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



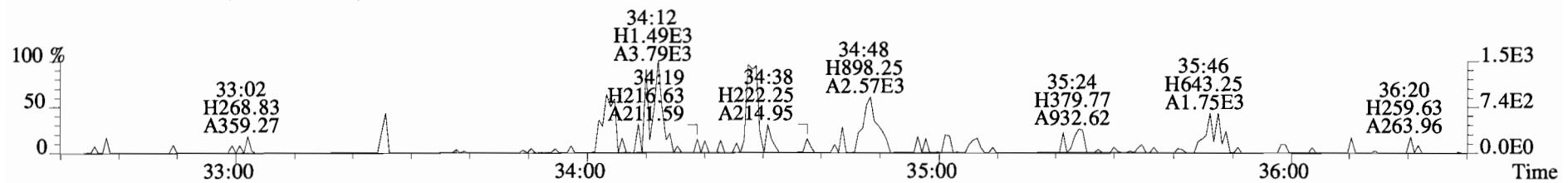
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



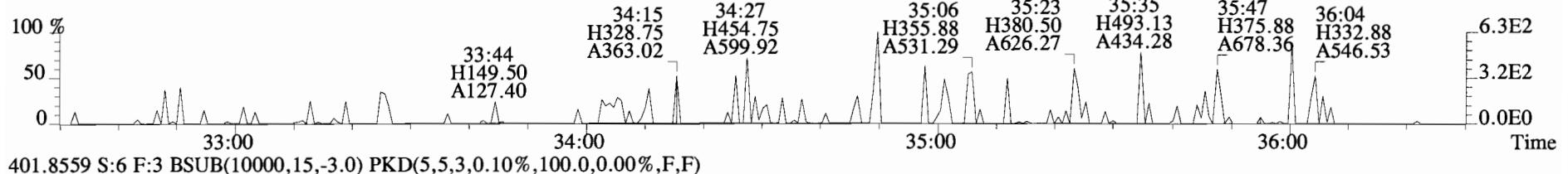
File:140922D1 #1-256 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 353.8576 S:6 F:2 BSL(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



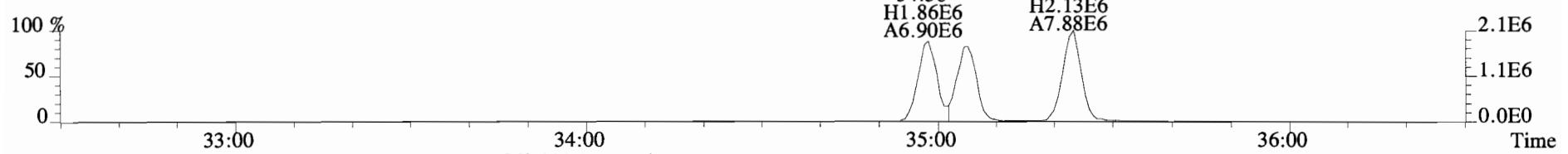
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 389.8156 S:6 F:3 BSL(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



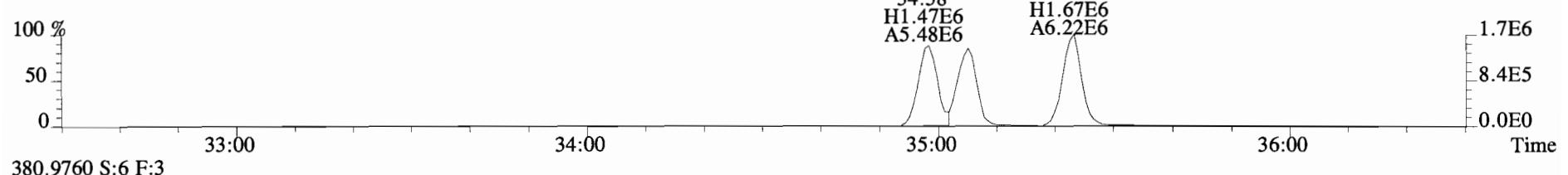
391.8127 S:6 F:3 BSL(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



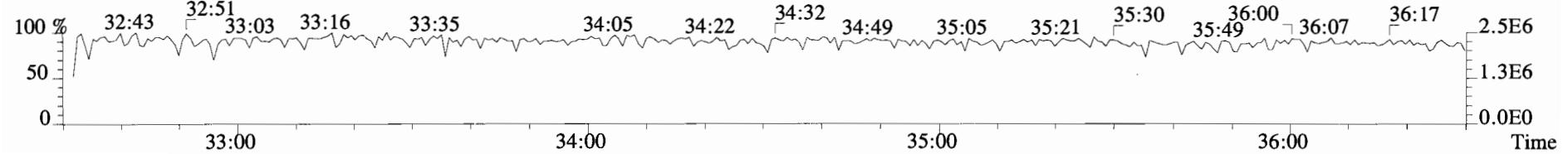
401.8559 S:6 F:3 BSL(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



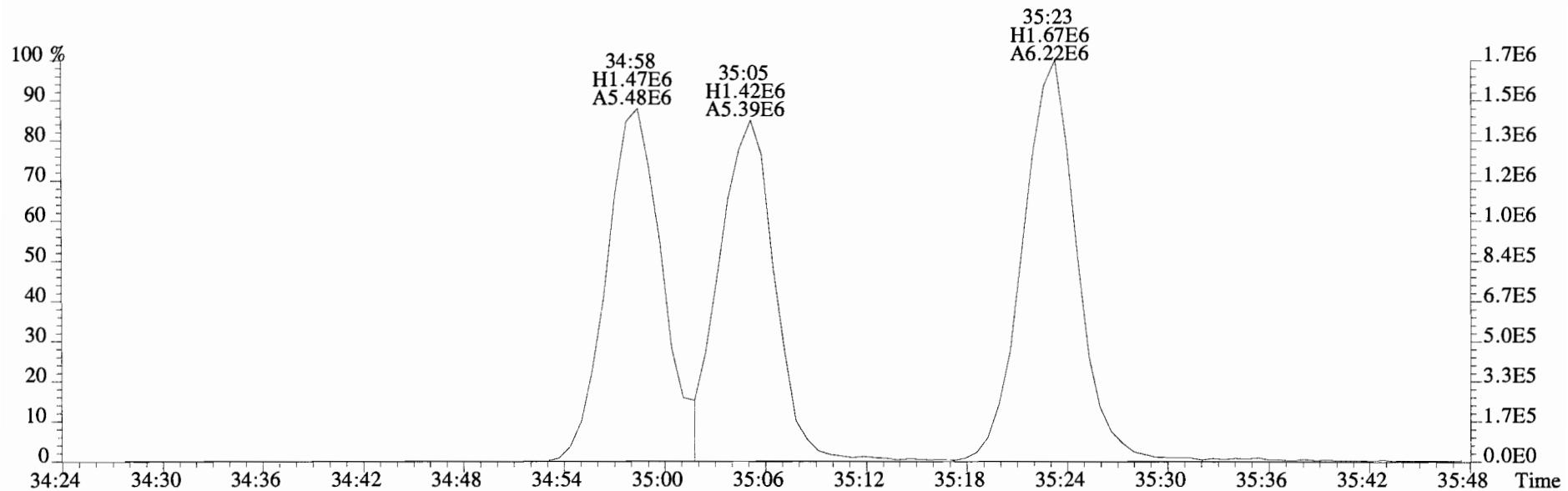
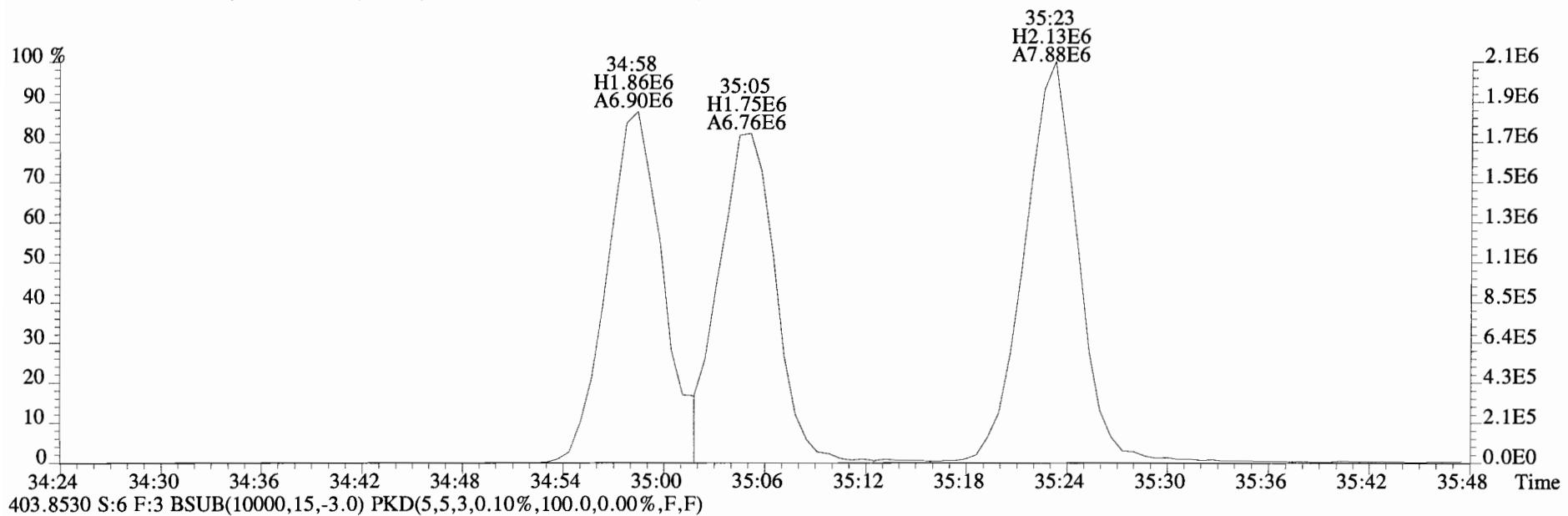
403.8530 S:6 F:3 BSL(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



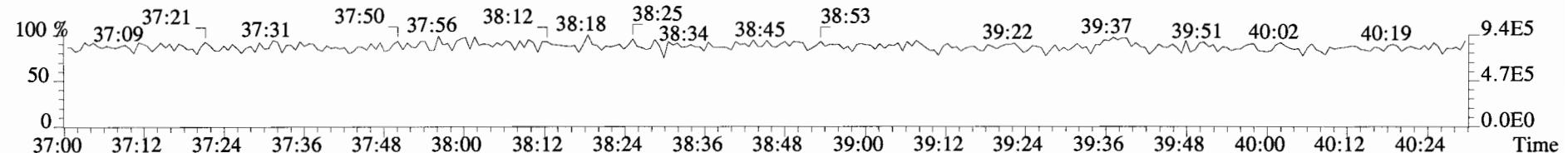
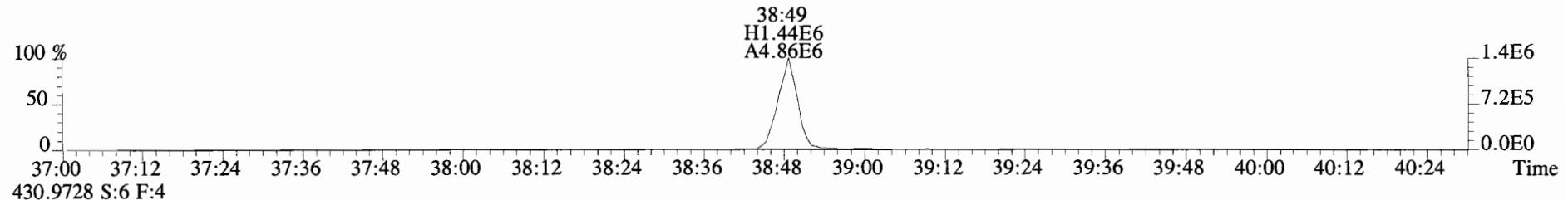
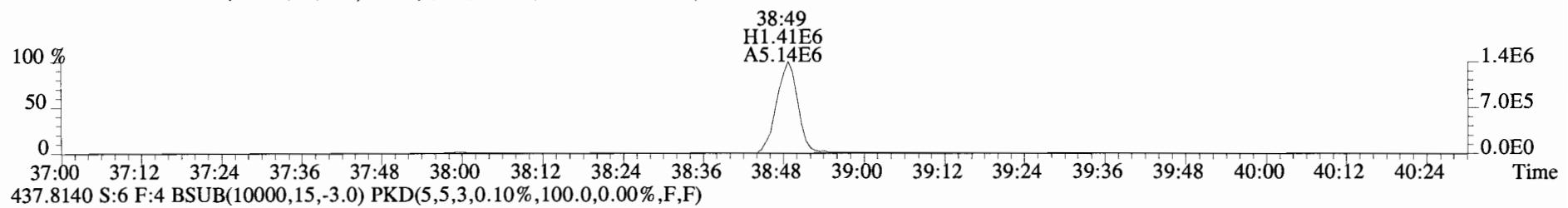
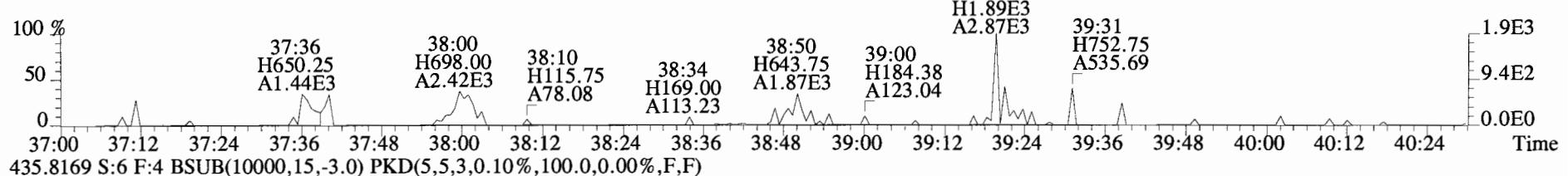
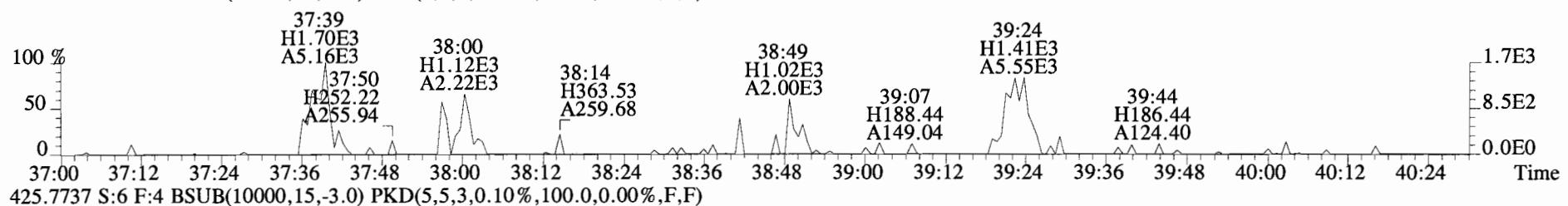
380.9760 S:6 F:3



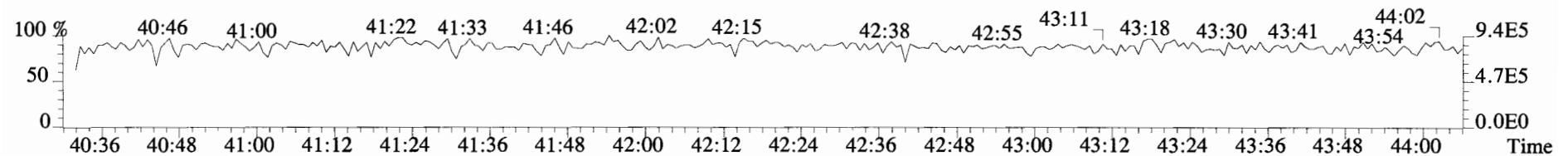
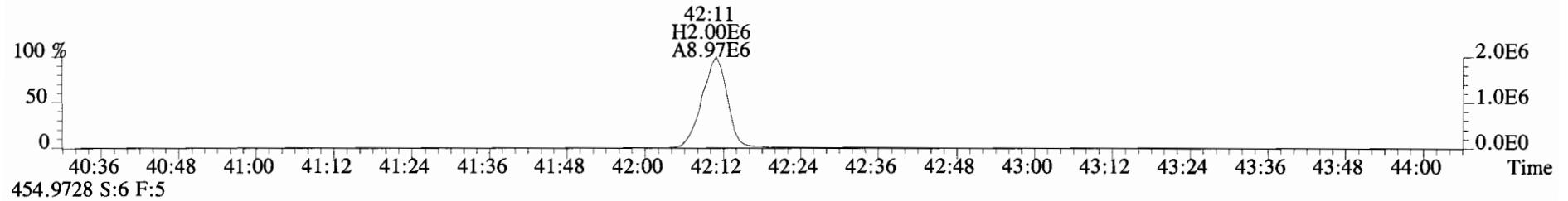
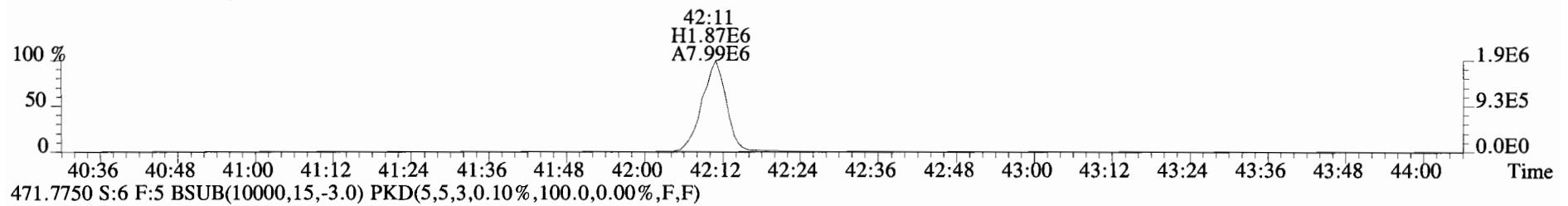
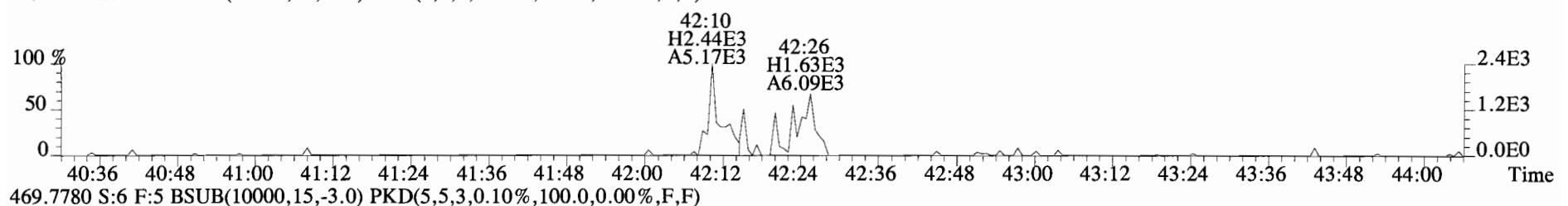
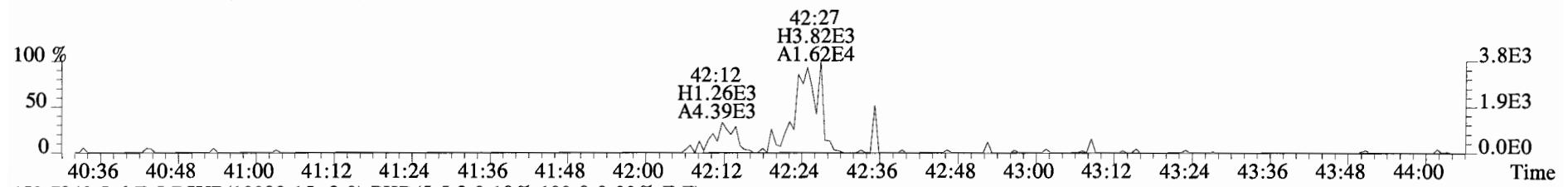
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
401.8559 S:6 F:3 BSB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



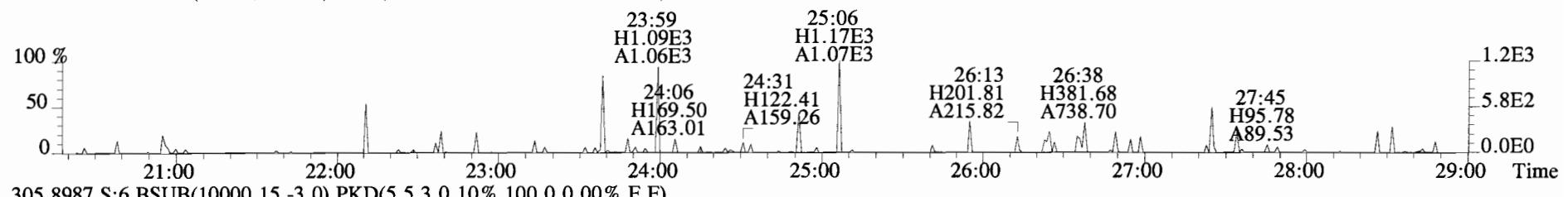
File:140922D1 #1-326 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



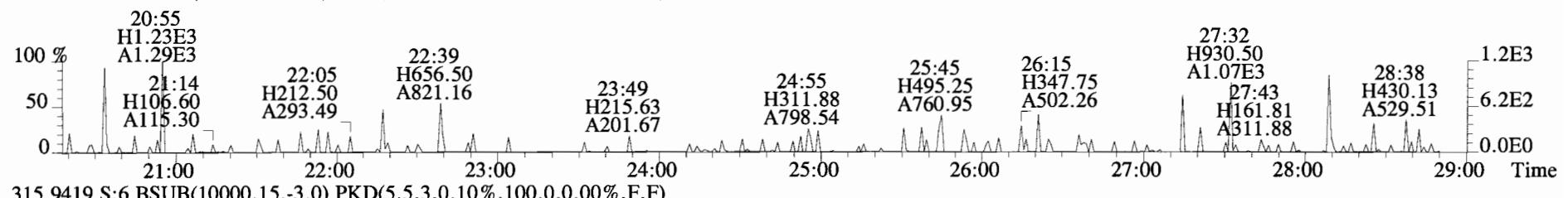
File:140922D1 #1-389 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



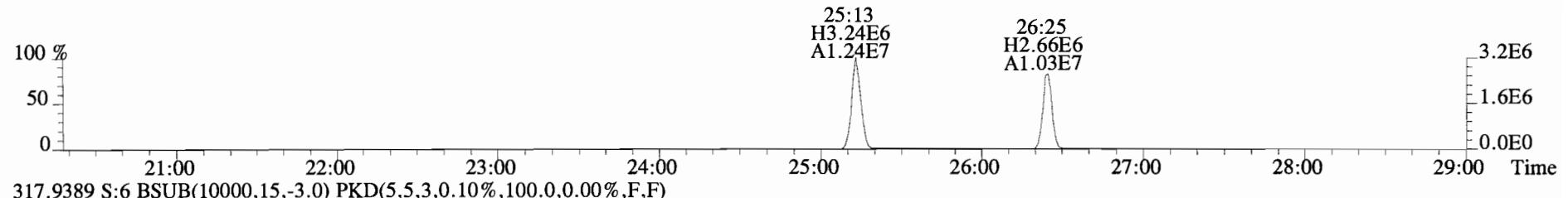
File:140922D1 #1-551 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



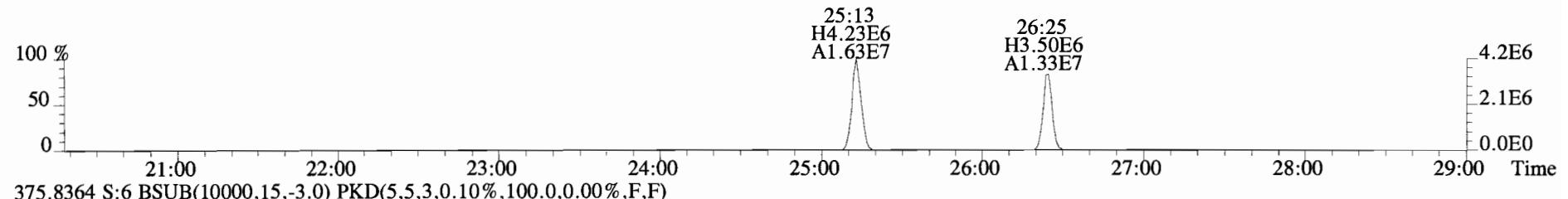
305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



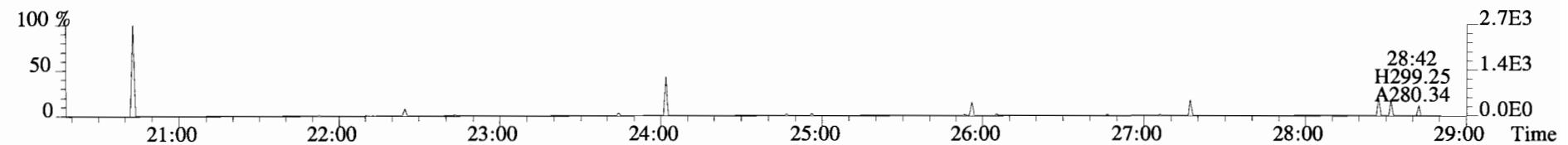
315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



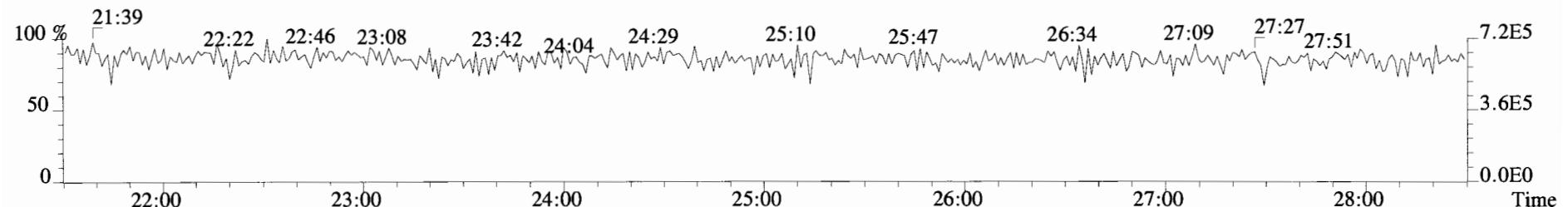
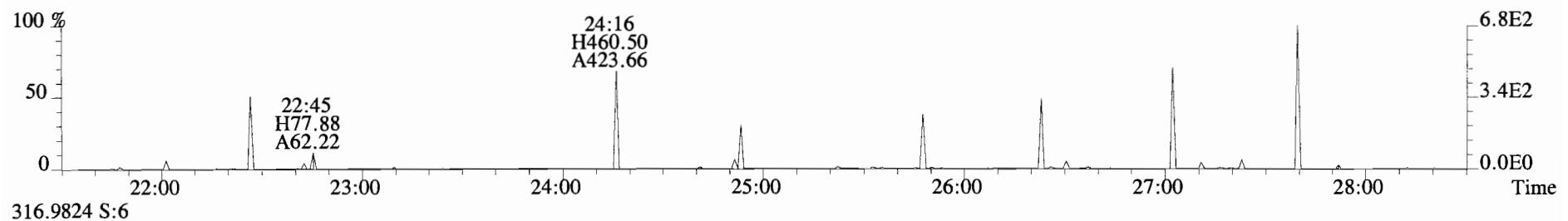
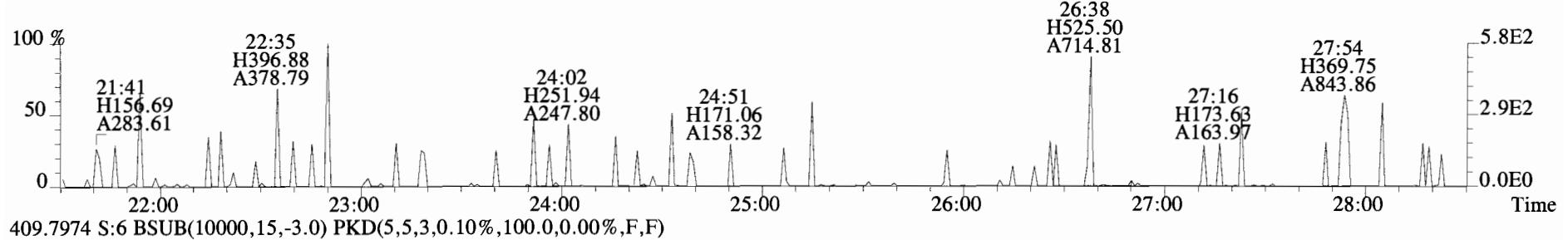
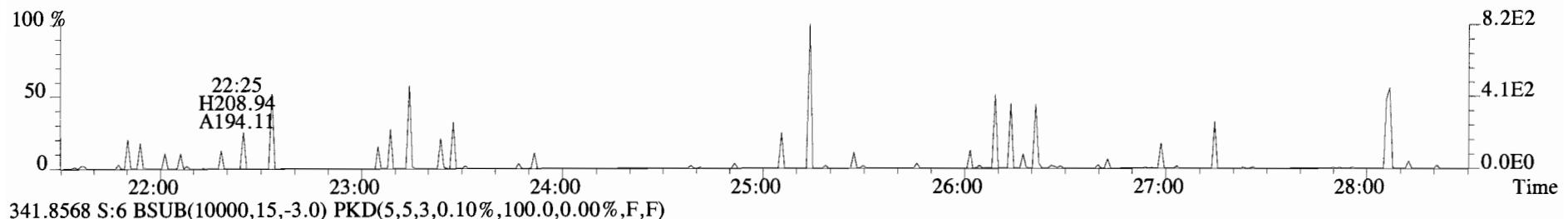
317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



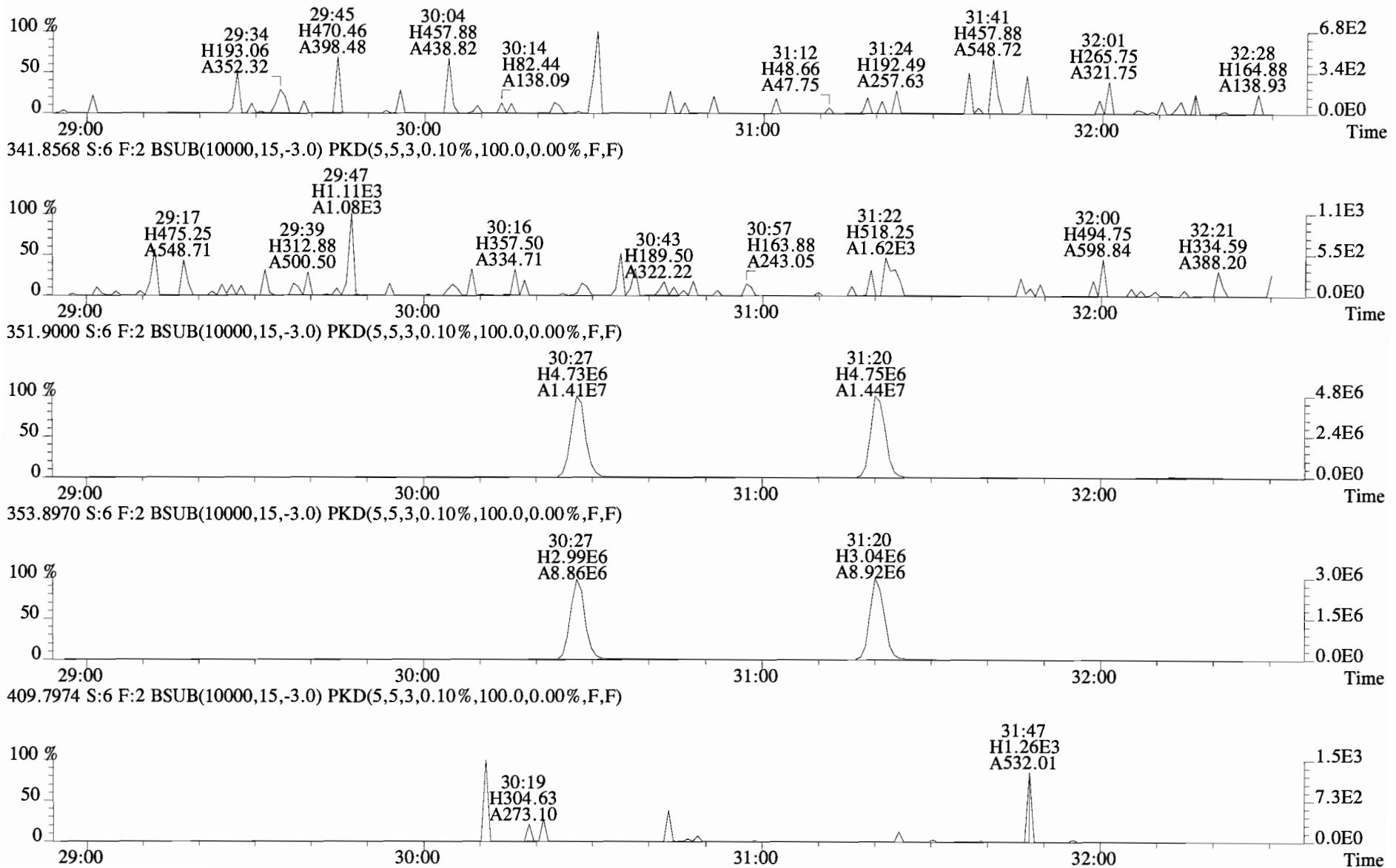
375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



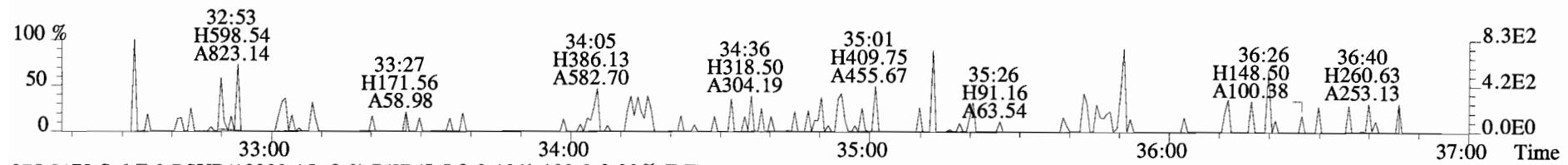
File:140922D1 #1-551 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



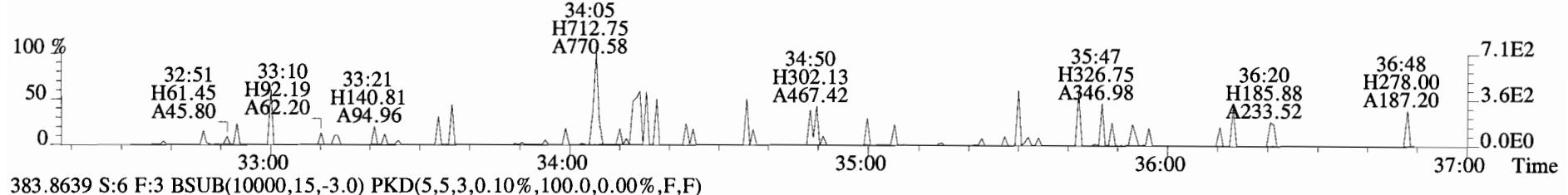
File:140922D1 #1-256 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 339.8597 S:6 F:2 BSL(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



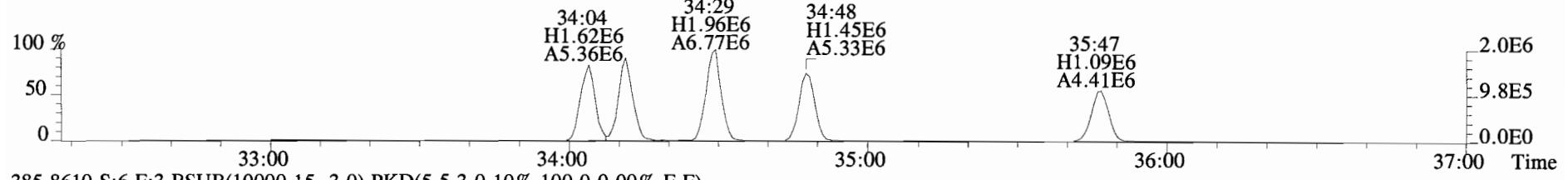
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
 373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



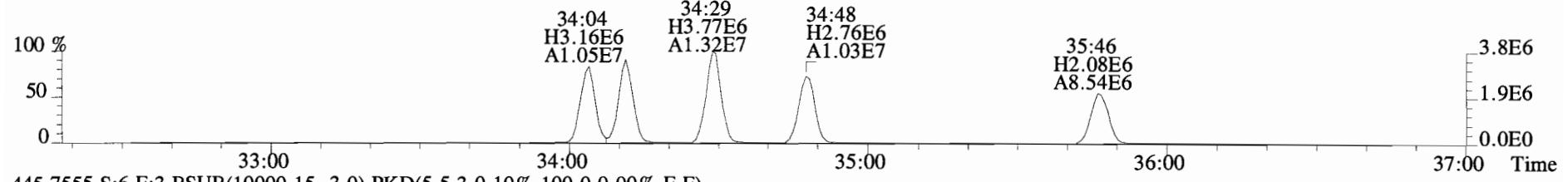
375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



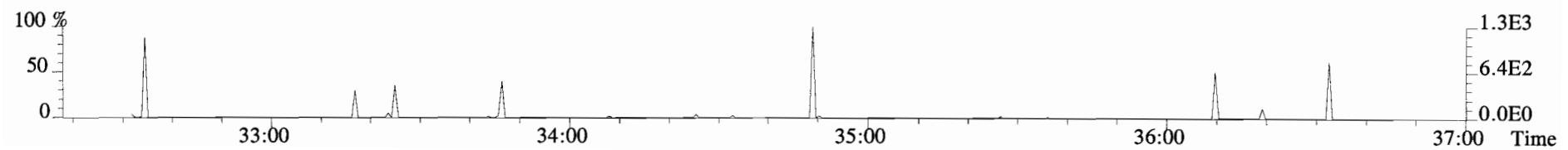
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



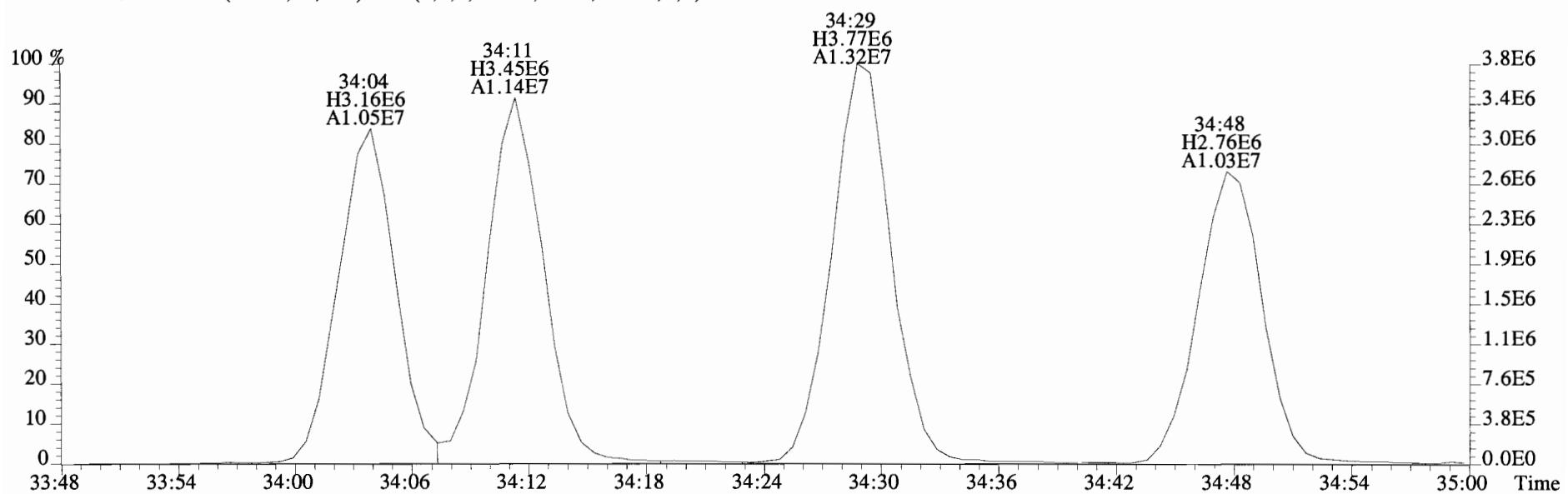
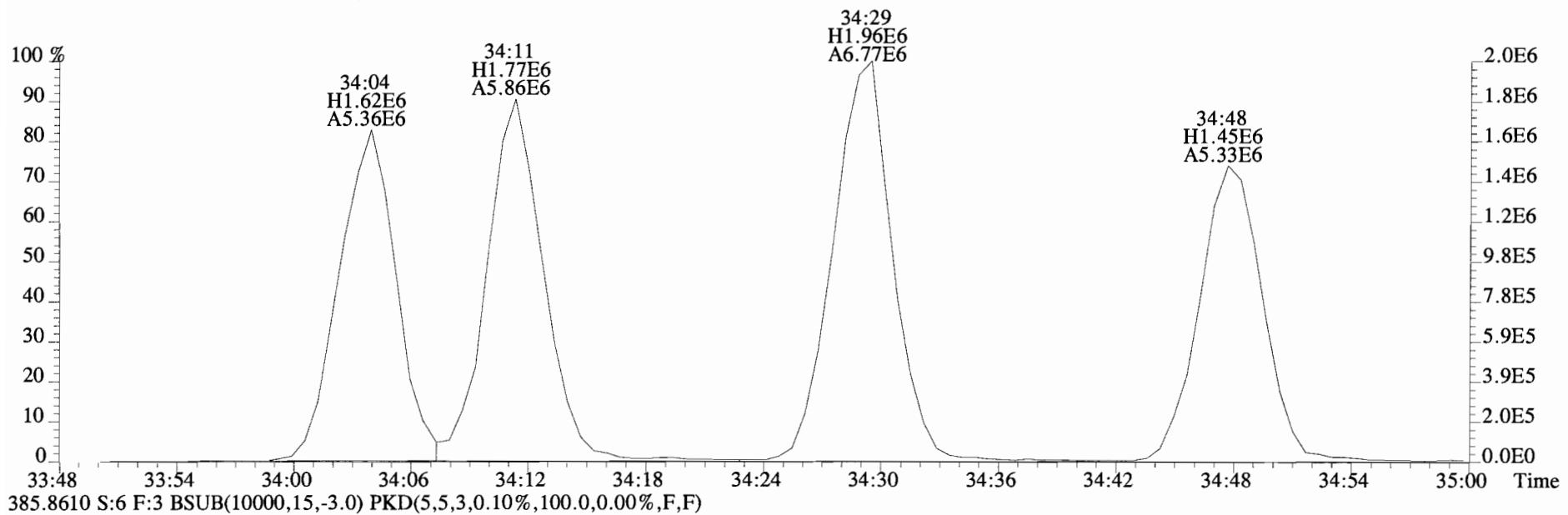
385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



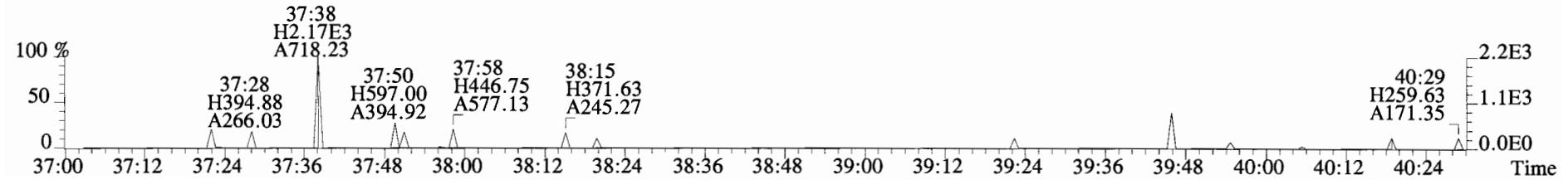
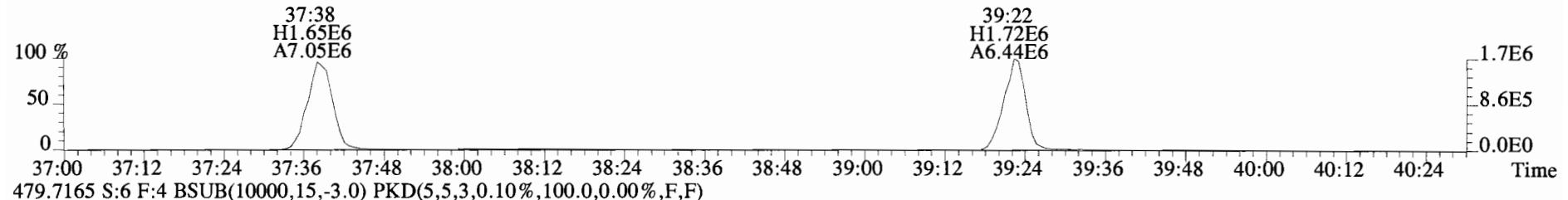
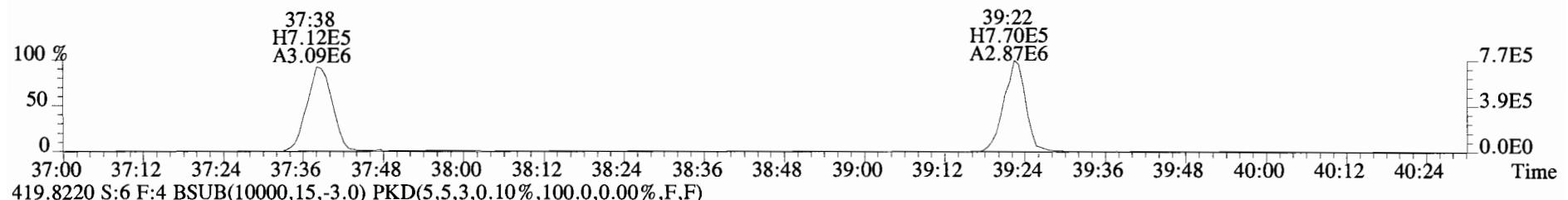
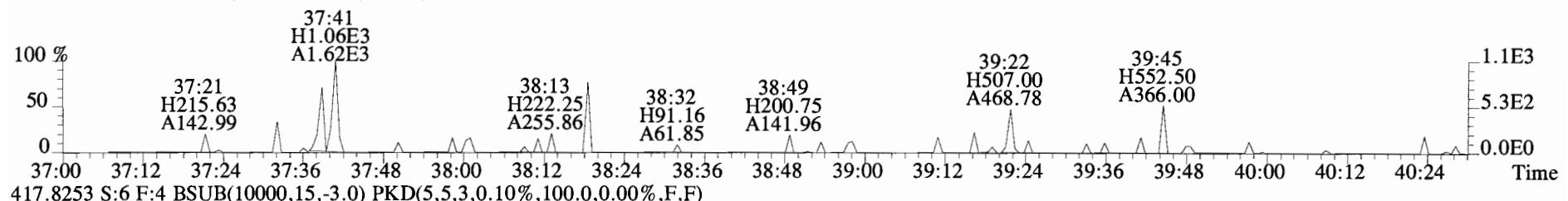
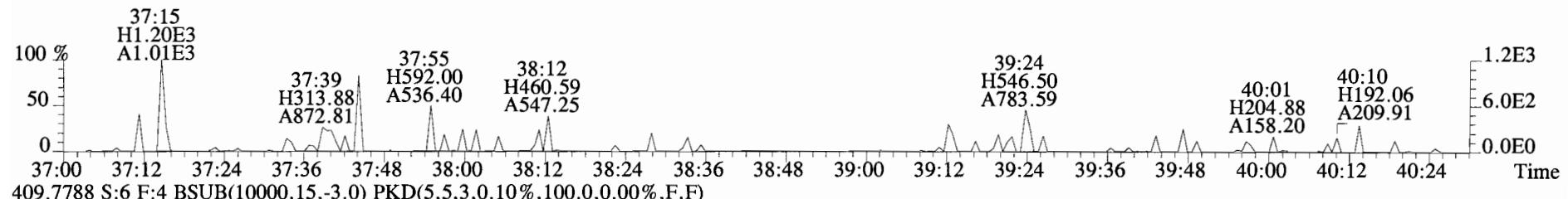
445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



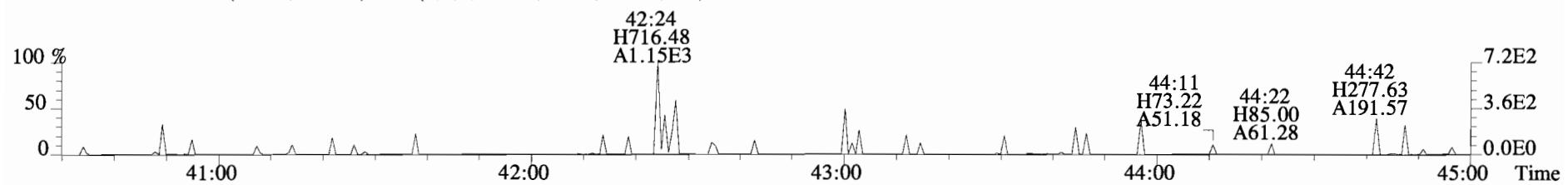
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



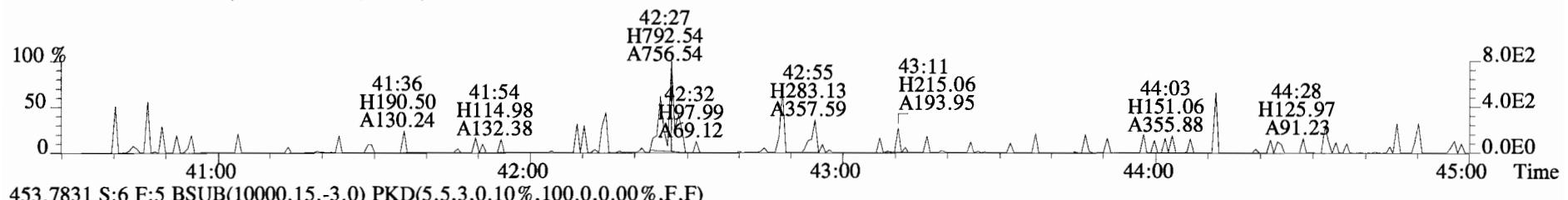
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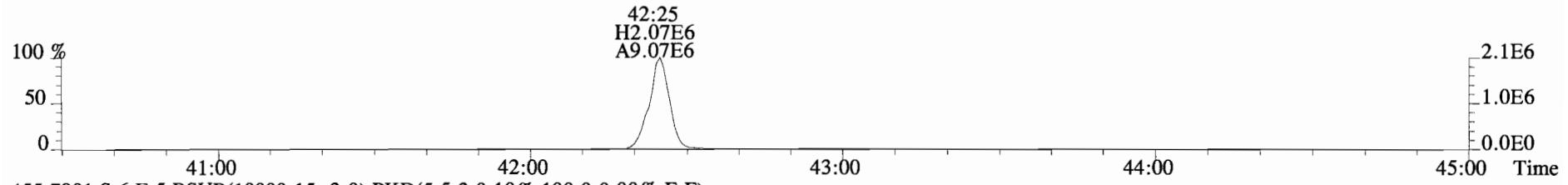
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441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



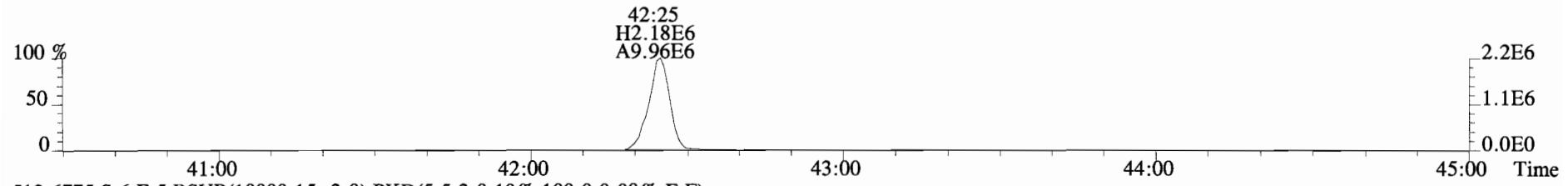
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



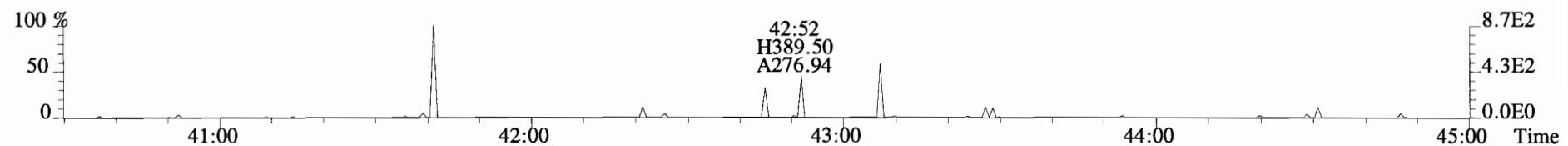
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



FORM 8A
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Vista Analytical Laboratory Extraction Batch: B4I0066-BS1

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS OPR Data Filename: 140922D1-3

Ext. Date: 9-19-14 Shift: Day Analysis Date: 22-SEP-14 Time: 15:09:53

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)	
2,3,7,8-TCDD	10	9.91	6.7 - 15.8 7.3 - 14.6 (2)	(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94
1,2,3,7,8-PeCDD	50	49.7	35.0 - 71.0	(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94
1,2,3,4,7,8-HxCDD	50	48.5	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50	50.6	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	50	49.1	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50	51.4	35.0 - 70.0	
OCDD	100	96.5	78.0 - 144.0	
2,3,7,8-TCDF	10	10.3	7.5 - 15.8 8.0 - 14.7 (2)	
1,2,3,7,8-PeCDF	50	51.1	40.0 - 67.0	
2,3,4,7,8-PeCDF	50	53.0	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50	48.0	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50	50.0	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	50	48.1	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50	48.5	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	50	44.6	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	50	45.5	39.0 - 69.0	
OCDF	100	102	63.0 - 170.0	

Analyst: MJ

Date: 9/23/14

FORM 8B
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Vista Analytical Laboratory Extraction Batch: B4I0066-BS1

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS OPR Data Filename: 140922D1-3

Ext. Date: 9-19-14 Shift: Day Analysis Date: 22-SEP-14 Time: 15:09:53

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

LABELED COMPOUNDS	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)	
13C-2,3,7,8-TCDD	100	80.1	20.0 - 175.0 25.0 - 141.0 (2)	(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94
13C-1,2,3,7,8-PeCDD	100	84.4	21.0 - 227.0	
13C-1,2,3,4,7,8-HxCDD	100	76.5	21.0 - 193.0	(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94
13C-1,2,3,6,7,8-HxCDD	100	76.7	25.0 - 163.0	
13C-1,2,3,7,8,9-HxCDD	100	74.6	21.0 - 193.0	
13C-1,2,3,4,6,7,8-HpCDD	100	67.4	26.0 - 166.0	
13C-OCDD	200	137	26.0 - 397.0	
13C-2,3,7,8-TCDF	100	84.4	22.0 - 152.0 26.0 - 126.0 (2)	
13C-1,2,3,7,8-PeCDF	100	84.4	21.0 - 192.0	
13C-2,3,4,7,8-PeCDF	100	83.0	13.0 - 328.0	
13C-1,2,3,4,7,8-HxCDF	100	84.2	19.0 - 202.0	
13C-1,2,3,6,7,8-HxCDF	100	69.7	21.0 - 159.0	
13C-2,3,4,6,7,8-HxCDF	100	74.4	22.0 - 176.0	
13C-1,2,3,7,8,9-HxCDF	100	73.1	17.0 - 205.0	
13C-1,2,3,4,6,7,8-HpCDF	100	70.8	21.0 - 158.0	
13C-1,2,3,4,7,8,9-HpCDF	100	71.3	20.0 - 186.0	
13C-OCDF	200	120	26.0 - 397.0	
CLEANUP STANDARD				
37Cl-2,3,7,8-TCDD	40	37.4	12.4 - 76.4	

Analyst: MJ

Date: 9/23/14

Client ID: OPR Filename: 140922D1 S:3 Acq:22-SEP-14 15:09:53
Lab ID: B4I0066-BS1 GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol: 1.000

ConCal: ST140922D1-1

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EndCAL: NA

	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	1.70e+06	0.74 y	1.03	27:12	1.001	9.9104	*	2.5	*		Total Tetra-Dioxins	10.2	10.3	*	*	
	1,2,3,7,8-PeCDD	7.45e+06	0.59 y	0.84	31:39	1.000	49.680	*	2.5	*		Total Penta-Dioxins	49.9	50.1	*	*	
	1,2,3,4,7,8-HxCDD	5.63e+06	1.25 y	1.05	34:59	1.000	48.513	*	2.5	*		Total Hexa-Dioxins	148	149	*	*	
	1,2,3,6,7,8-HxCDD	5.87e+06	1.23 y	1.04	35:06	1.000	50.568	*	2.5	*		Total Hepta-Dioxins	52.0	53.0	*	*	
	1,2,3,7,8,9-HxCDD	5.69e+06	1.24 y	0.90	35:24	1.000	49.111	*	2.5	*		Total Tetra-Furans	10.4	10.7	*	*	
	1,2,3,4,6,7,8-HpCDD	4.78e+06	1.06 y	1.01	38:50	1.000	51.374	*	2.5	*		Total Penta-Furans	104.67	106.19	*	*	
	OCDD	7.88e+06	0.89 y	1.04	42:12	1.000	96.533	*	2.5	*		Total Hexa-Furans	195	195	*	*	
												Total Hepta-Furans	90.1	91.4	*	*	
	2,3,7,8-TCDF	2.10e+06	0.79 y	0.91	26:26	1.001	10.321	*	2.5	*							
	1,2,3,7,8-PeCDF	1.13e+07	1.64 y	0.97	30:29	1.000	51.111	*	2.5	*							
	2,3,4,7,8-PeCDF	1.14e+07	1.57 y	0.94	31:22	1.000	53.019	*	2.5	*							
	1,2,3,4,7,8-HxCDF	9.74e+06	1.29 y	1.32	34:05	1.000	47.961	*	2.5	*							
	1,2,3,6,7,8-HxCDF	9.79e+06	1.27 y	1.18	34:13	1.000	50.025	*	2.5	*							
	2,3,4,6,7,8-HxCDF	8.84e+06	1.28 y	1.23	34:49	1.000	48.116	*	2.5	*							
	1,2,3,7,8,9-HxCDF	6.90e+06	1.28 y	1.13	35:48	1.001	48.520	*	2.5	*							
	1,2,3,4,6,7,8-HpCDF	6.82e+06	1.05 y	1.57	37:39	1.000	44.559	*	2.5	*							
	1,2,3,4,7,8,9-HpCDF	6.08e+06	1.10 y	1.50	39:24	1.000	45.456	*	2.5	*							
	OCDF	9.55e+06	0.92 y	1.05	42:26	1.000	102.07	*	2.5	*							
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.66e+07	0.81 y	1.06	27:11	1.021	80.103					80.1					
IS	13C-1,2,3,7,8-PeCDD	1.78e+07	0.63 y	1.08	31:38	1.188	84.354					84.4					
IS	13C-1,2,3,4,7,8-HxCDD	1.10e+07	1.24 y	0.74	34:58	1.014	76.534					76.5					
IS	13C-1,2,3,6,7,8-HxCDD	1.12e+07	1.25 y	0.75	35:05	1.017	76.681					76.7					
IS	13C-1,2,3,7,8,9-HxCDD	1.29e+07	1.28 y	0.89	35:23	1.026	74.628					74.6					
IS	13C-1,2,3,4,6,7,8-HpCDD	9.21e+06	1.03 y	0.70	38:49	1.125	67.376					67.4					
IS	13C-OCDD	1.57e+07	0.87 y	0.59	42:11	1.223	136.63					68.3					
IS	13C-2,3,7,8-TCDF	2.23e+07	0.75 y	0.97	26:25	0.992	84.426					84.4					
IS	13C-1,2,3,7,8-PeCDF	2.28e+07	1.60 y	0.99	30:28	1.144	84.355					84.4					
IS	13C-2,3,4,7,8-PeCDF	2.28e+07	1.58 y	1.01	31:21	1.177	83.000					83.0					
IS	13C-1,2,3,4,7,8-HxCDF	1.54e+07	0.50 y	0.94	34:04	0.988	84.215					84.2					
IS	13C-1,2,3,6,7,8-HxCDF	1.67e+07	0.53 y	1.23	34:12	0.991	69.707					69.7					
IS	13C-2,3,4,6,7,8-HxCDF	1.50e+07	0.53 y	1.03	34:48	1.009	74.429					74.4					
IS	13C-1,2,3,7,8,9-HxCDF	1.26e+07	0.52 y	0.89	35:47	1.037	73.118					73.1					
IS	13C-1,2,3,4,6,7,8-HpCDF	9.73e+06	0.44 y	0.71	37:39	1.091	70.842					70.8					
IS	13C-1,2,3,4,7,8,9-HpCDF	8.91e+06	0.44 y	0.64	39:23	1.142	71.289					71.3					
IS	13C-OCDF	1.77e+07	0.91 y	0.76	42:25	1.230	120.37					60.2					

C/Up 37Cl-2,3,7,8-TCDD 7.61e+06 1.04 27:12 1.021 37.409 93.5 Integrations by Analyst: M) Reviewed by Analyst: EF
RS/RT 13C-1,2,3,4-TCDD 1.95e+07 0.78 y 1.00 26:37 * 100.00 Date: 9/23/14
RS 13C-1,2,3,4-TCDF 2.73e+07 0.75 y 1.00 25:14 * 100.00 Date: 9/23/14
RS/RT 13C-1,2,3,4,6,9-HxCDF 1.94e+07 0.52 y 1.00 34:29 * 100.00 Date: 9/23/14

Client ID: OPR
 Lab ID: B4I0066-BS1

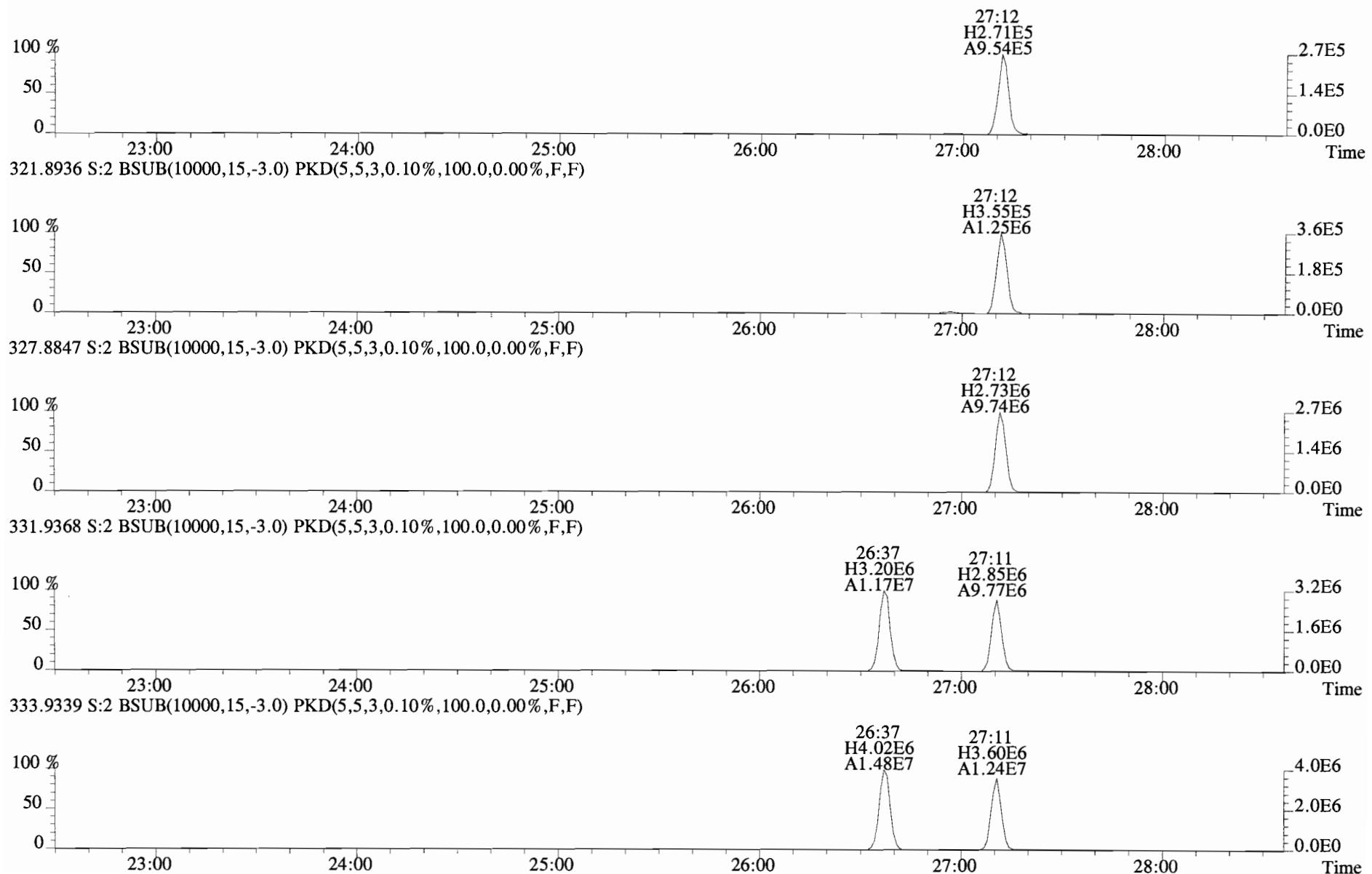
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ConCal: ST140922D1-1
 EndCAL: NA

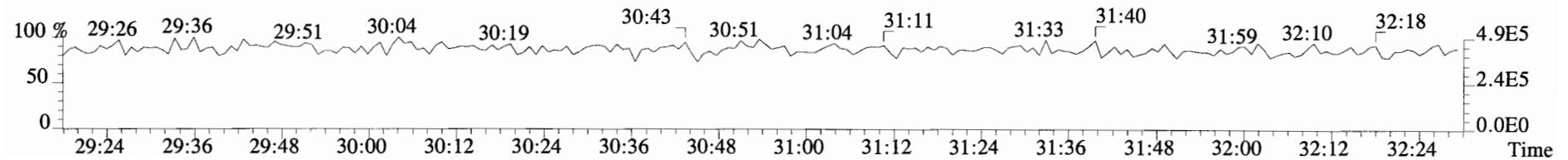
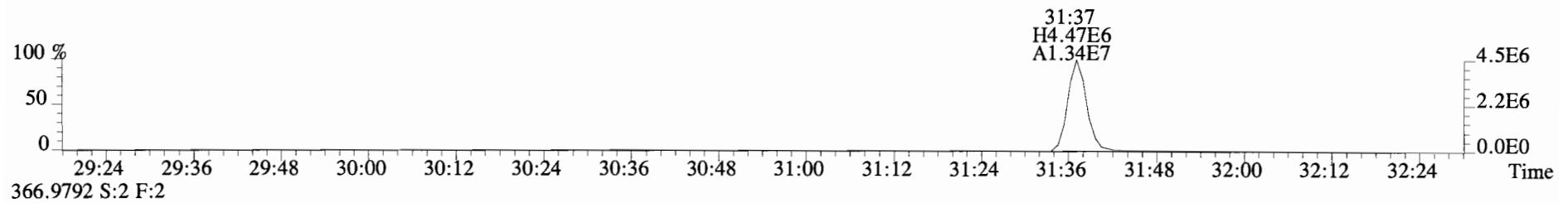
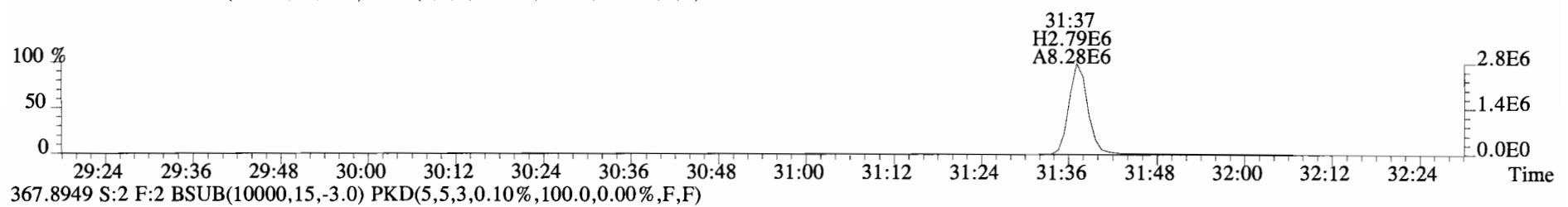
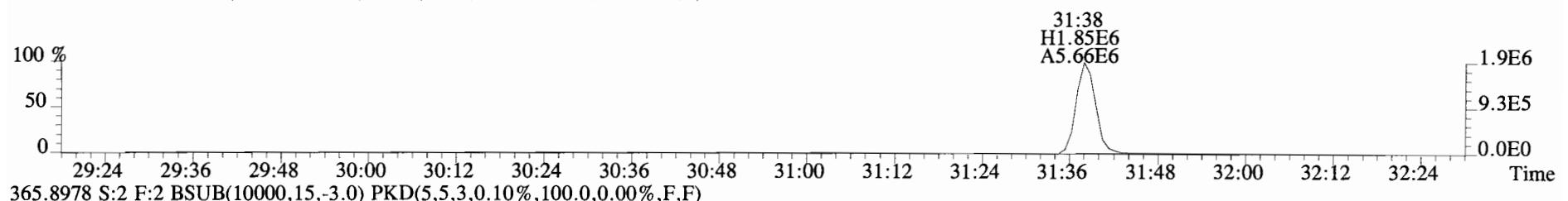
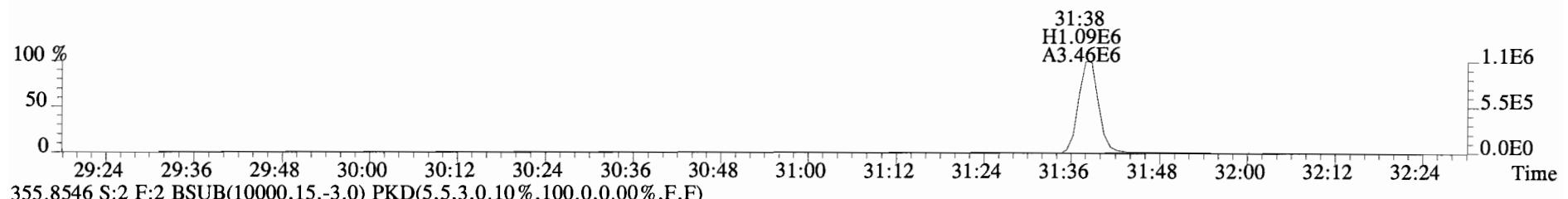
Page 3 of 4

	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	1.70e+06	0.74	y	1.03	27:12	1.001	198.21	*	2.5	*	Total Tetra-Dioxins	203	205	*	*	
	1,2,3,7,8-PeCDD	7.45e+06	0.59	y	0.84	31:39	1.000	993.60	*	2.5	*	Total Penta-Dioxins	998	1000	*	*	
	1,2,3,4,7,8-HxCDD	5.63e+06	1.25	y	1.05	34:59	1.000	970.26	*	2.5	*	Total Hexa-Dioxins	2970	2980	*	*	
	1,2,3,6,7,8-HxCDD	5.87e+06	1.23	y	1.04	35:06	1.000	1011.4	*	2.5	*	Total Hepta-Dioxins	1040	1060	*	*	
	1,2,3,7,8,9-HxCDD	5.69e+06	1.24	y	0.90	35:24	1.000	982.22	*	2.5	*	Total Tetra-Furans	208	213	*	*	
	1,2,3,4,6,7,8-HpCDD	4.78e+06	1.06	y	1.01	38:50	1.000	1027.5	*	2.5	*	Total Penta-Furans	2093.4	2123.8	*	*	
	OCDD	7.88e+06	0.89	y	1.04	42:12	1.000	1930.7	*	2.5	*	Total Hexa-Furans	3890	3910	*	*	
												Total Hepta-Furans	1800	1830	*	*	
	2,3,7,8-TCDF	2.10e+06	0.79	y	0.91	26:26	1.001	206.43	*	2.5	*						
	1,2,3,7,8-PeCDF	1.13e+07	1.64	y	0.97	30:29	1.000	1022.2	*	2.5	*						
	2,3,4,7,8-PeCDF	1.14e+07	1.57	y	0.94	31:22	1.000	1060.4	*	2.5	*						
	1,2,3,4,7,8-HxCDF	9.74e+06	1.29	y	1.32	34:05	1.000	959.22	*	2.5	*						
	1,2,3,6,7,8-HxCDF	9.79e+06	1.27	y	1.18	34:13	1.000	1000.5	*	2.5	*						
	2,3,4,6,7,8-HxCDF	8.84e+06	1.28	y	1.23	34:49	1.000	962.32	*	2.5	*						
	1,2,3,7,8,9-HxCDF	6.90e+06	1.28	y	1.13	35:48	1.001	970.39	*	2.5	*						
	1,2,3,4,6,7,8-HpCDF	6.82e+06	1.05	y	1.57	37:39	1.000	891.18	*	2.5	*						
	1,2,3,4,7,8,9-HpCDF	6.08e+06	1.10	y	1.50	39:24	1.000	909.13	*	2.5	*						
	OCDF	9.55e+06	0.92	y	1.05	42:26	1.000	2041.5	*	2.5	*						
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.66e+07	0.81	y	1.06	27:11	1.021	1602.1				80.1					
IS	13C-1,2,3,7,8-PeCDD	1.78e+07	0.63	y	1.08	31:38	1.188	1687.1				84.4					
IS	13C-1,2,3,4,7,8-HxCDD	1.10e+07	1.24	y	0.74	34:58	1.014	1530.7				76.5					
IS	13C-1,2,3,6,7,8-HxCDD	1.12e+07	1.25	y	0.75	35:05	1.017	1533.6				76.7					
IS	13C-1,2,3,7,8,9-HxCDD	1.29e+07	1.28	y	0.89	35:23	1.026	1492.6				74.6					
IS	13C-1,2,3,4,6,7,8-HpCDD	9.21e+06	1.03	y	0.70	38:49	1.125	1347.5				67.4					
IS	13C-OCDD	1.57e+07	0.87	y	0.59	42:11	1.223	2732.6				68.3					
IS	13C-2,3,7,8-TCDF	2.23e+07	0.75	y	0.97	26:25	0.992	1688.5				84.4					
IS	13C-1,2,3,7,8-PeCDF	2.28e+07	1.60	y	0.99	30:28	1.144	1687.1				84.4					
IS	13C-2,3,4,7,8-PeCDF	2.28e+07	1.58	y	1.01	31:21	1.177	1660.0				83.0					
IS	13C-1,2,3,4,7,8-HxCDF	1.54e+07	0.50	y	0.94	34:04	0.988	1684.3				84.2					
IS	13C-1,2,3,6,7,8-HxCDF	1.67e+07	0.53	y	1.23	34:12	0.991	1394.1				69.7					
IS	13C-2,3,4,6,7,8-HxCDF	1.50e+07	0.53	y	1.03	34:48	1.009	1488.6				74.4					
IS	13C-1,2,3,7,8,9-HxCDF	1.26e+07	0.52	y	0.89	35:47	1.037	1462.4				73.1					
IS	13C-1,2,3,4,6,7,8-HpCDF	9.73e+06	0.44	y	0.71	37:39	1.091	1416.8				70.8					
IS	13C-1,2,3,4,7,8,9-HpCDF	8.91e+06	0.44	y	0.64	39:23	1.142	1425.8				71.3					
IS	13C-OCDF	1.77e+07	0.91	y	0.76	42:25	1.230	2407.3				60.2					
C/Up	37Cl-2,3,7,8-TCDD	7.61e+06			1.04	27:12	1.021	748.18				93.5	Integrations by Analyst:	M	Reviewed by		
RS/RT	13C-1,2,3,4-TCDD	1.95e+07	0.78	y	1.00	26:37	*	2000.0							Analyst:	Z/Z	
RS	13C-1,2,3,4-TCDF	2.73e+07	0.75	y	1.00	25:14	*	2000.0							Date:	9/23/14	
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.94e+07	0.52	y	1.00	34:29	*	2000.0							Date:	9/23/14	

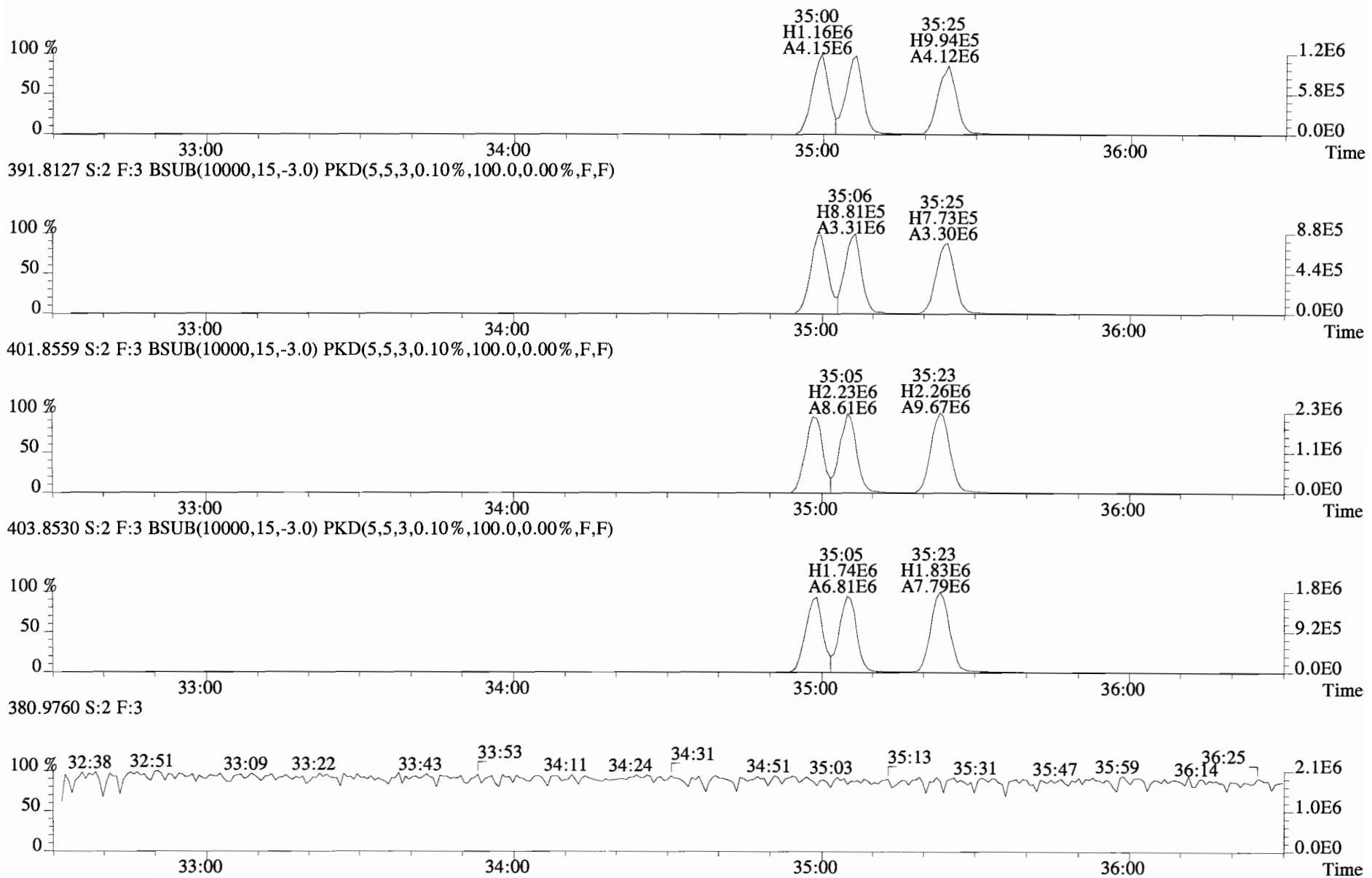
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319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



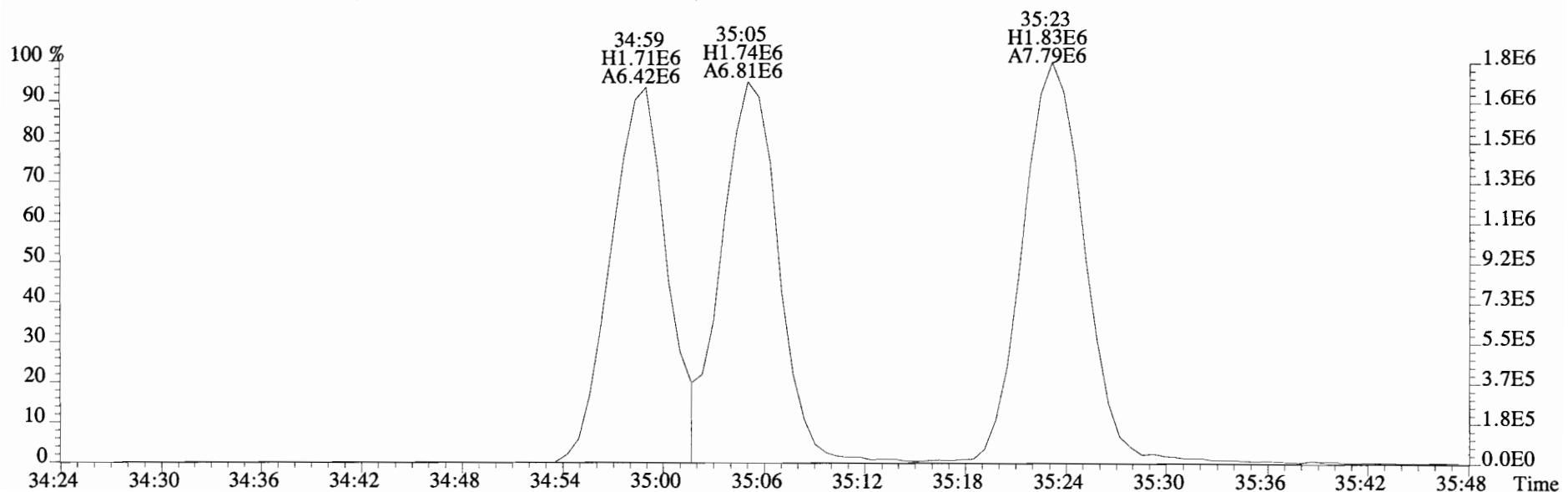
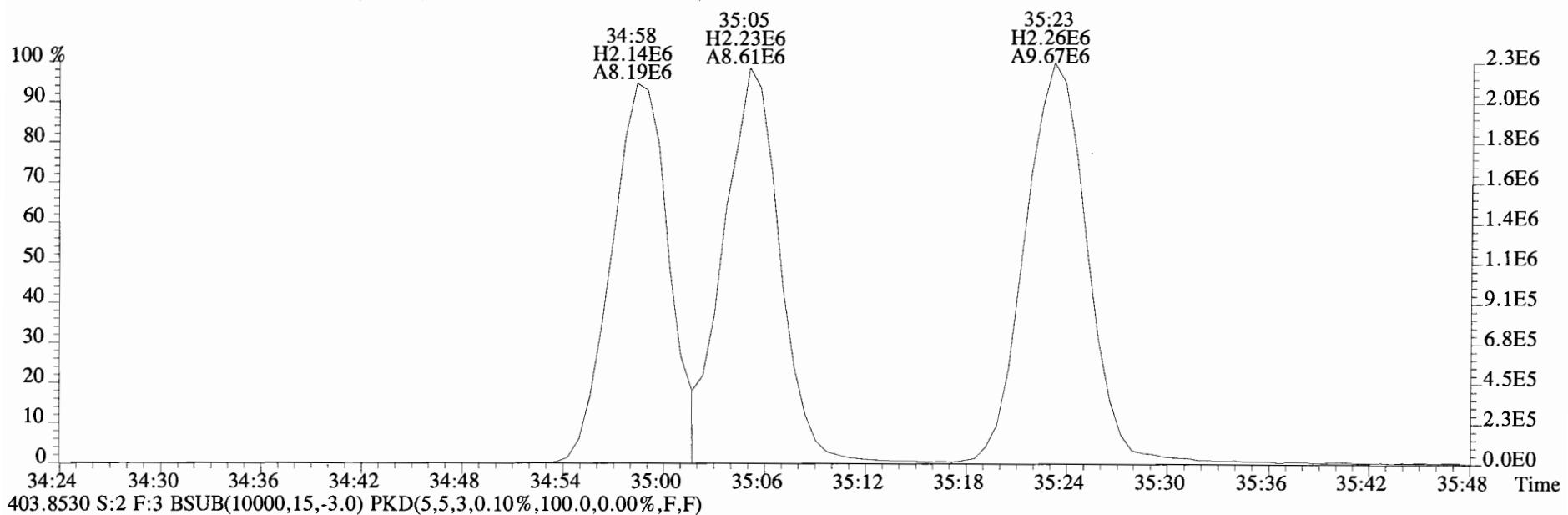
File:140922D1 #1-256 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
 353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



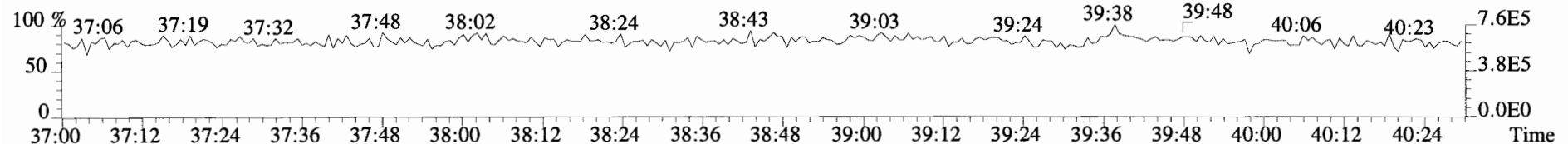
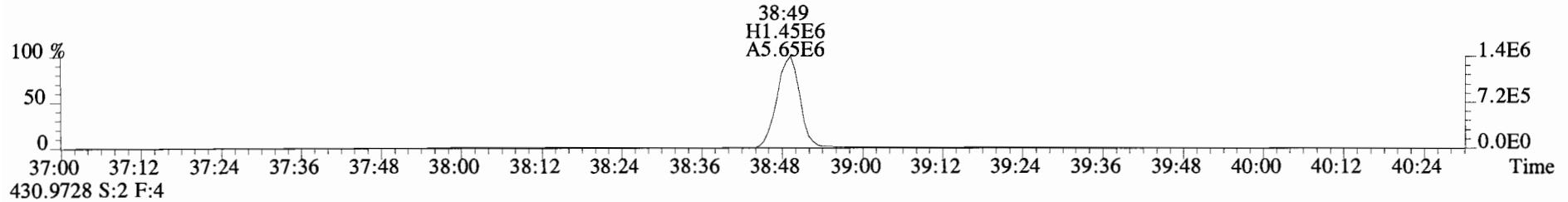
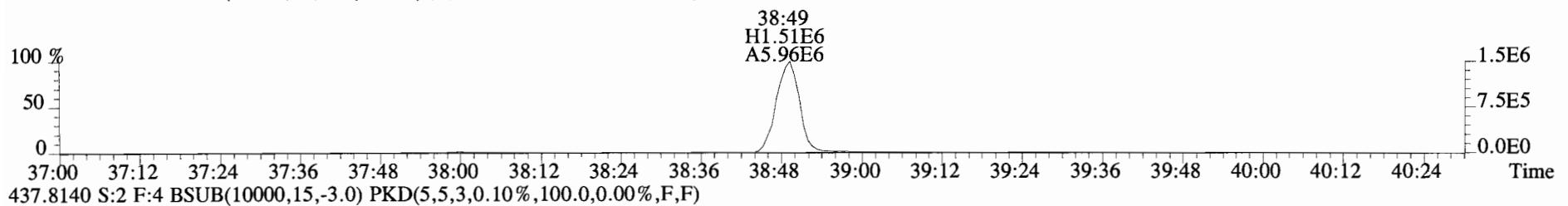
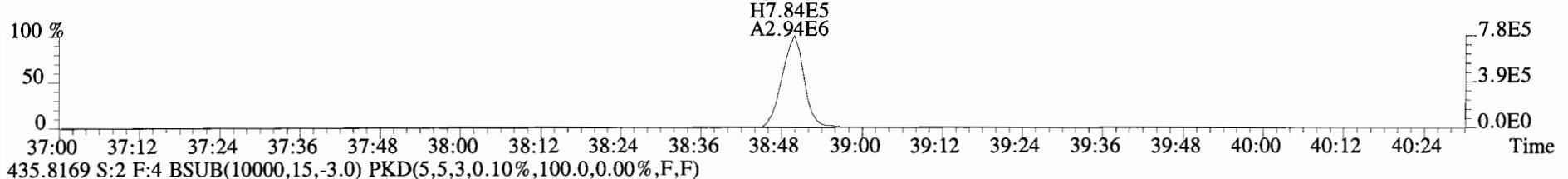
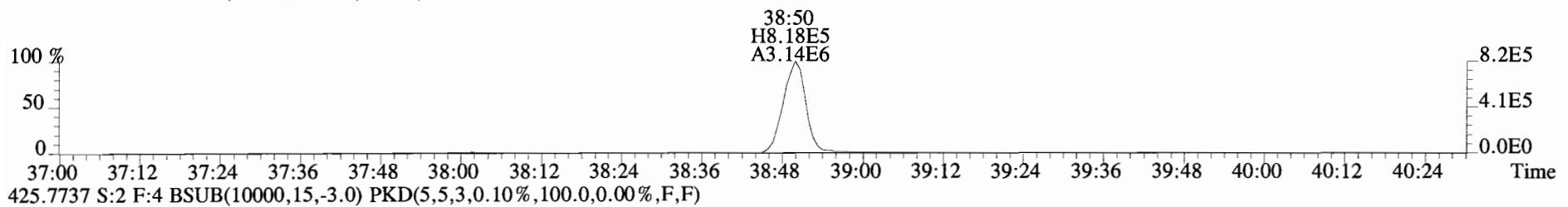
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



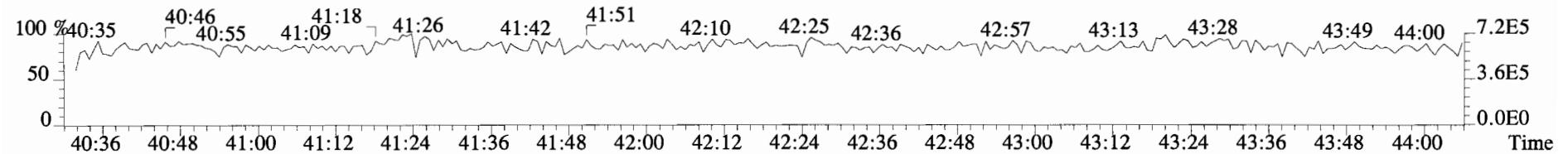
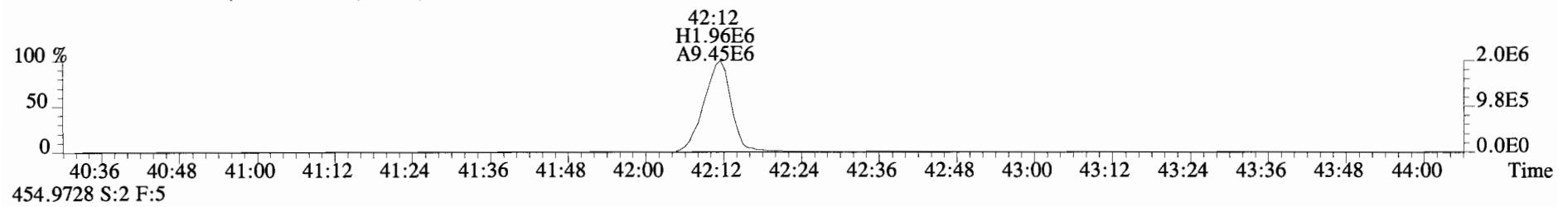
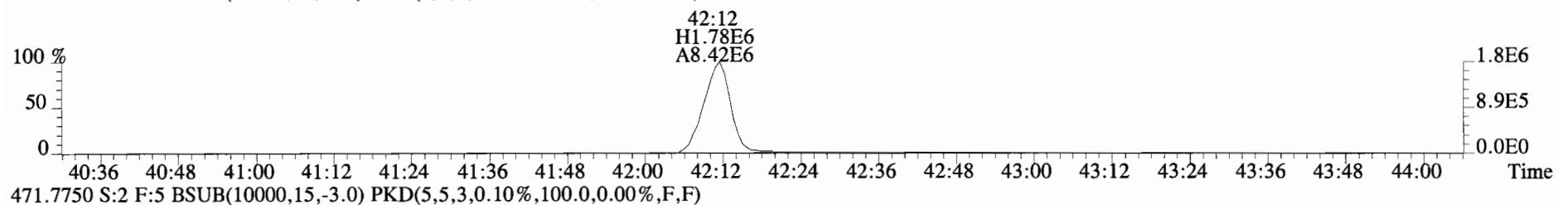
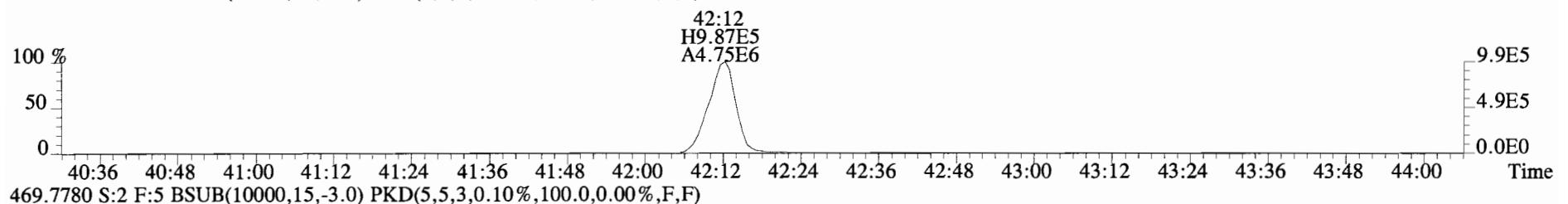
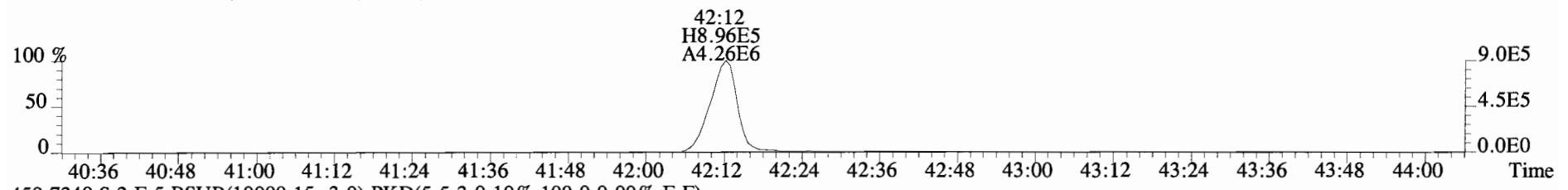
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



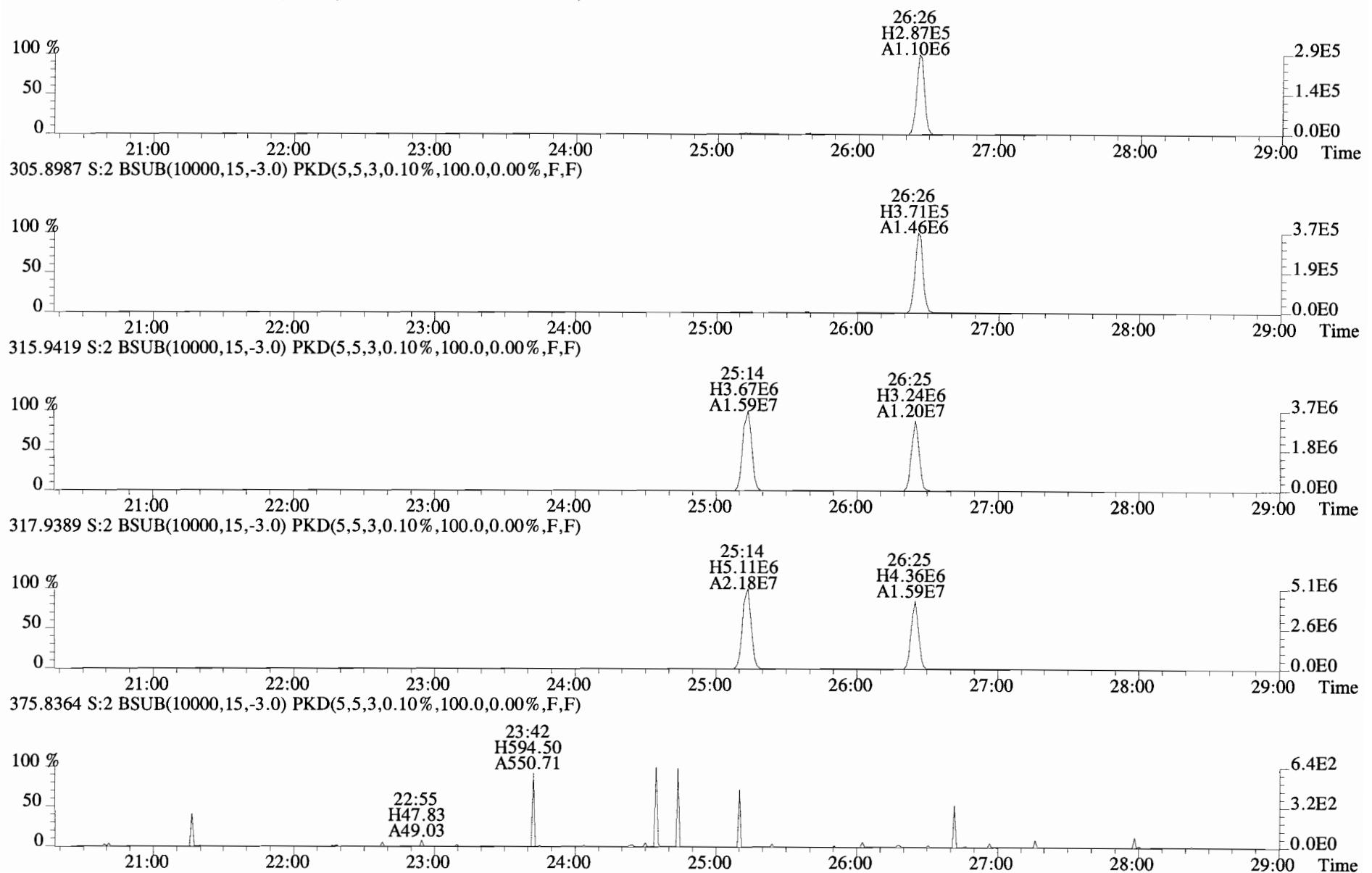
File:140922D1 #1-325 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
423.7767 S:2 F:4 BSL(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



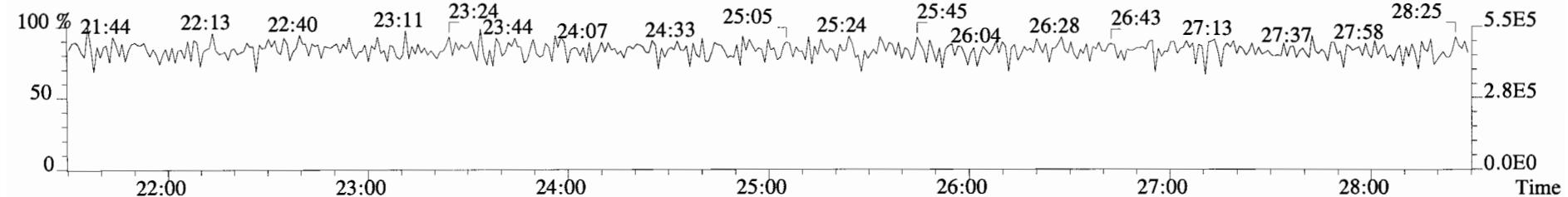
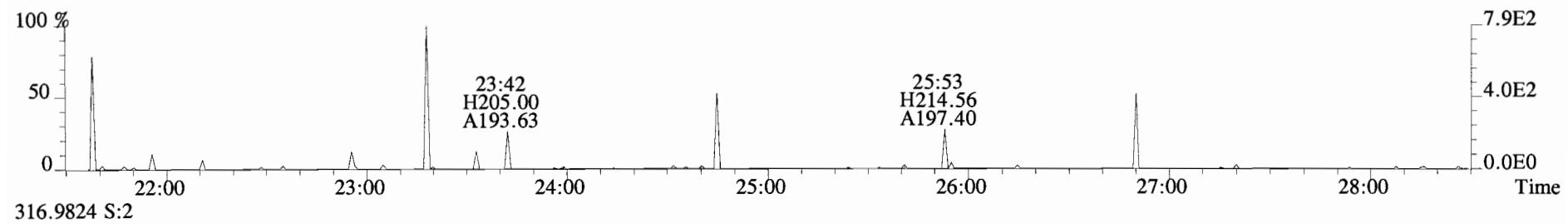
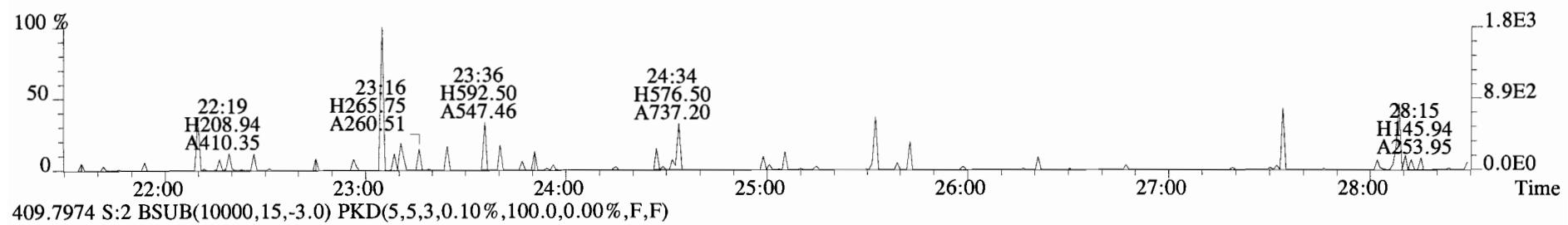
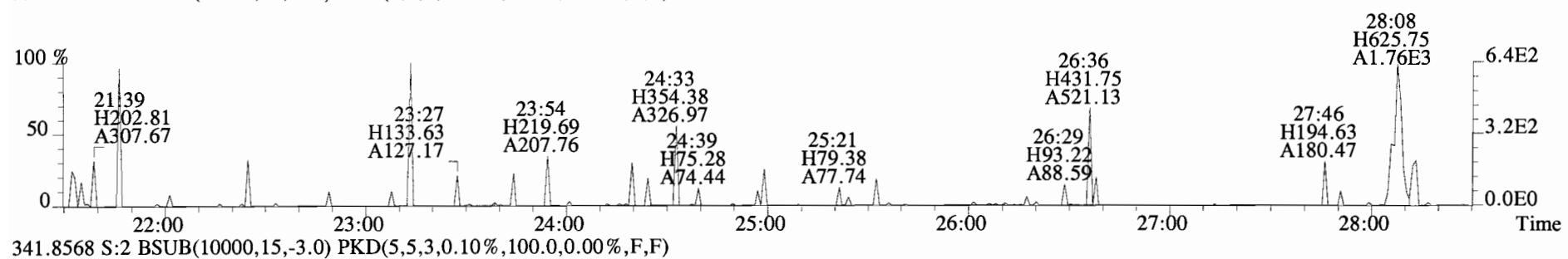
File:140922D1 #1-389 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
 457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



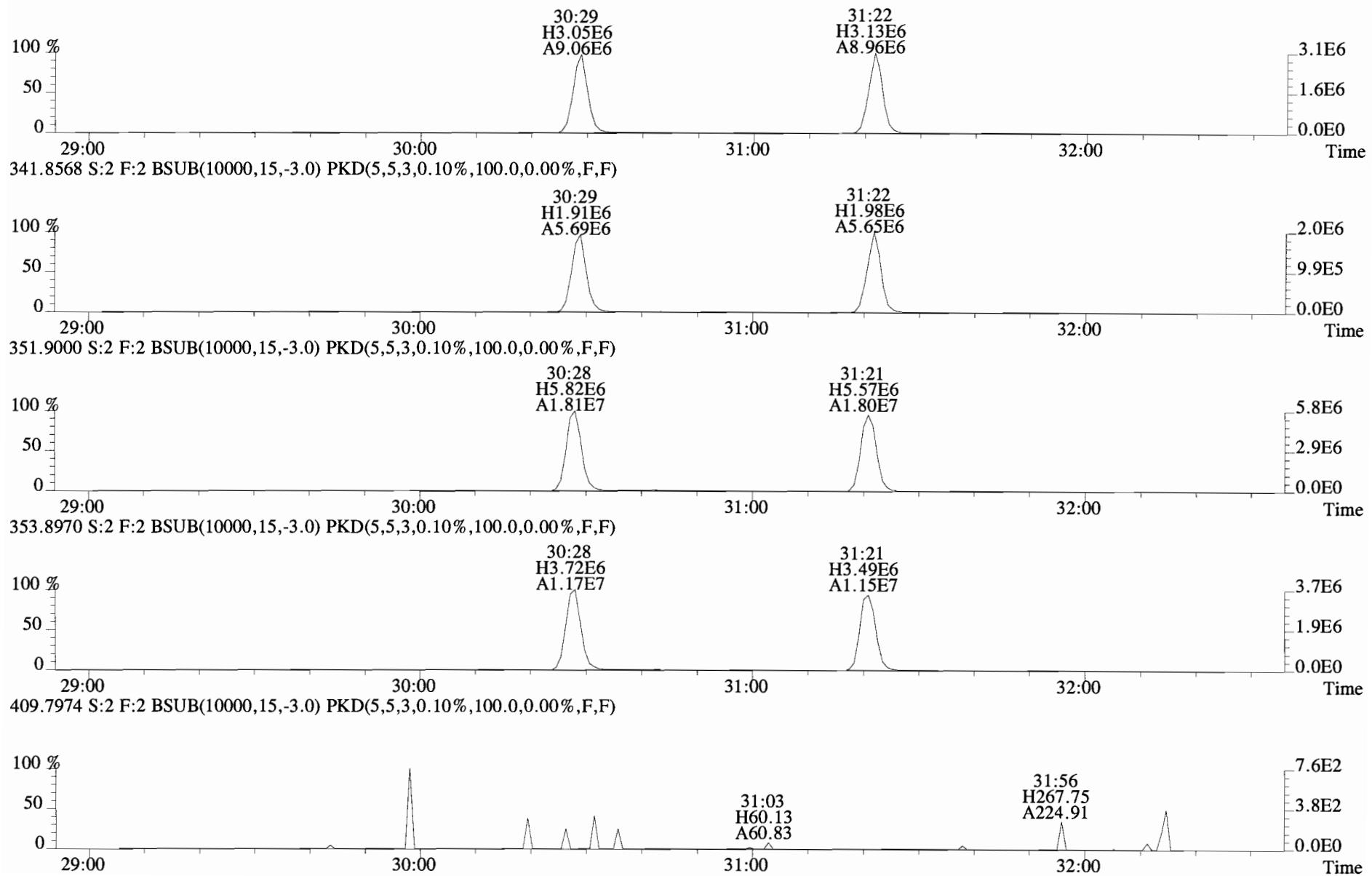
File:140922D1 #1-551 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



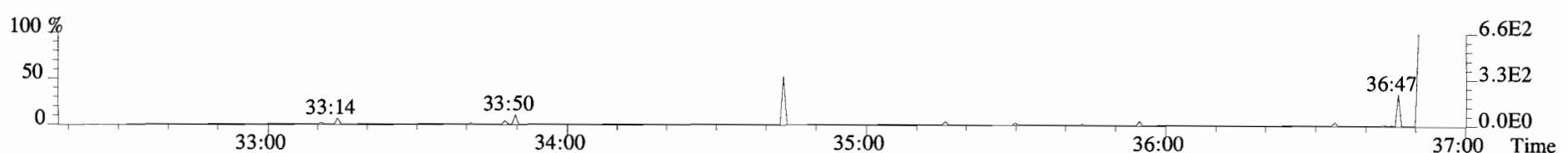
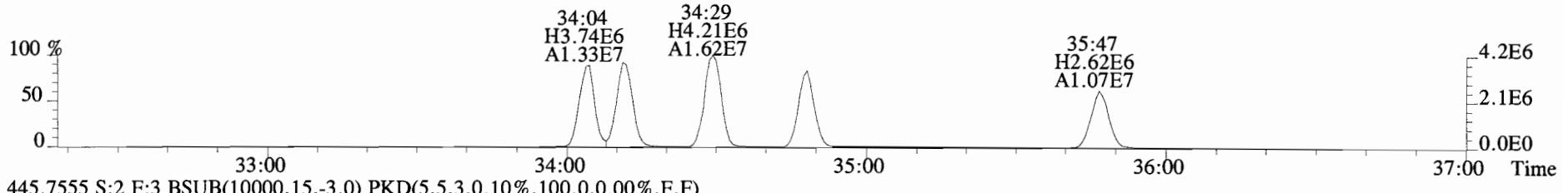
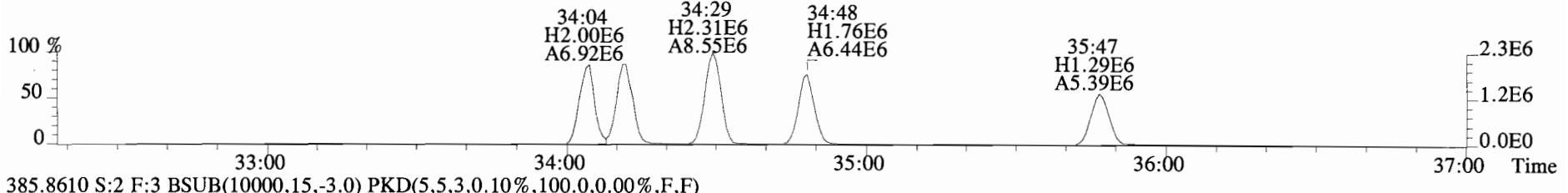
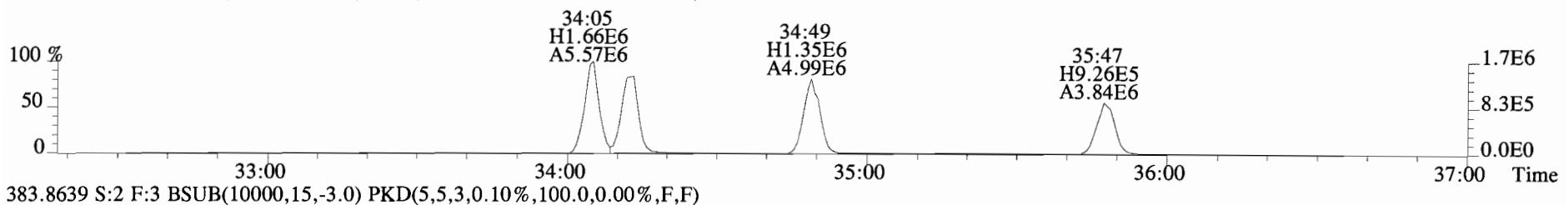
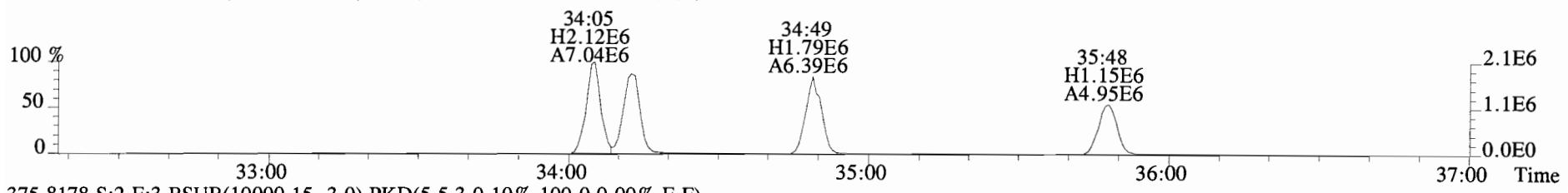
File:140922D1 #1-551 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



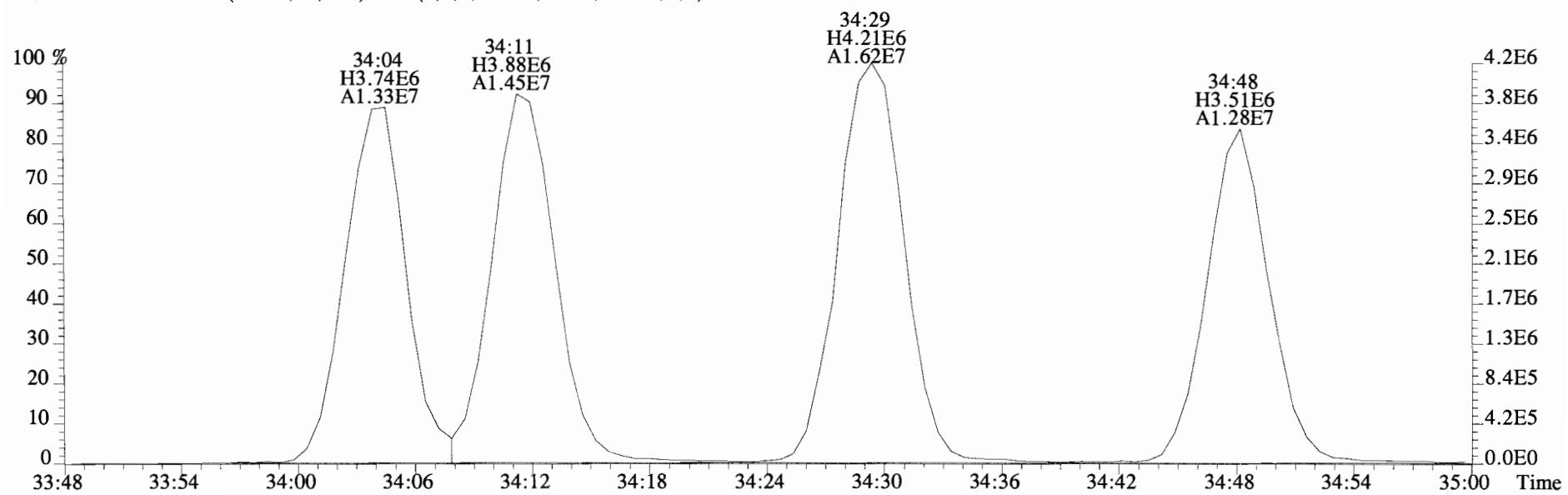
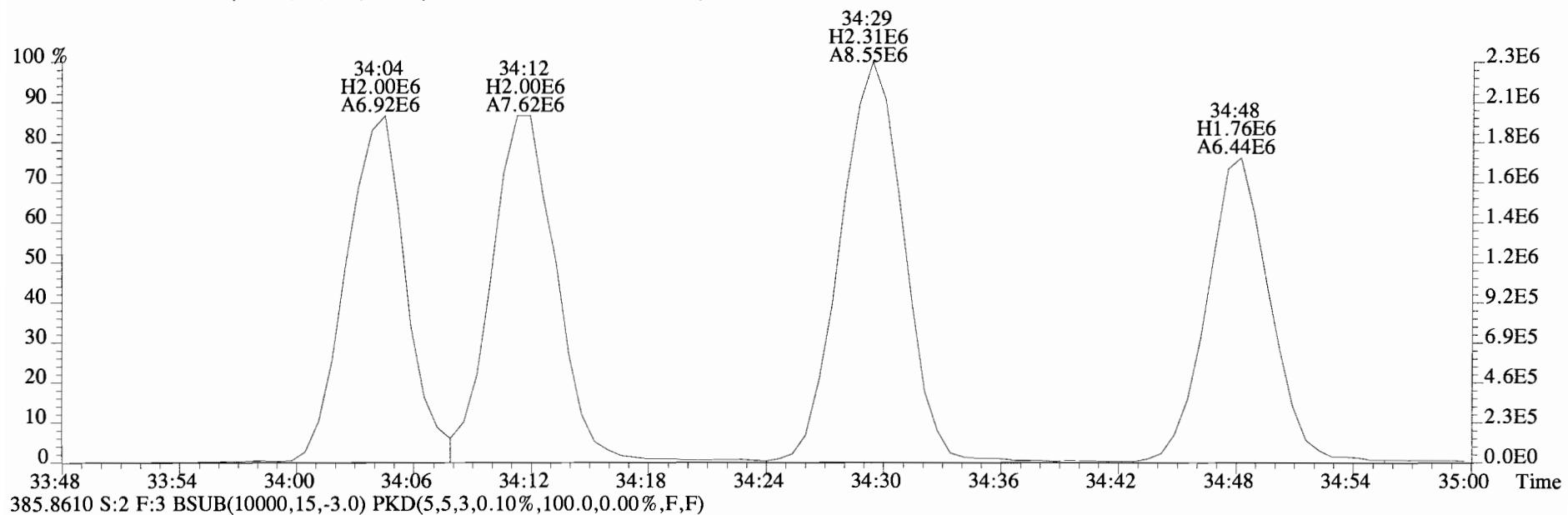
File:140922D1 #1-256 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



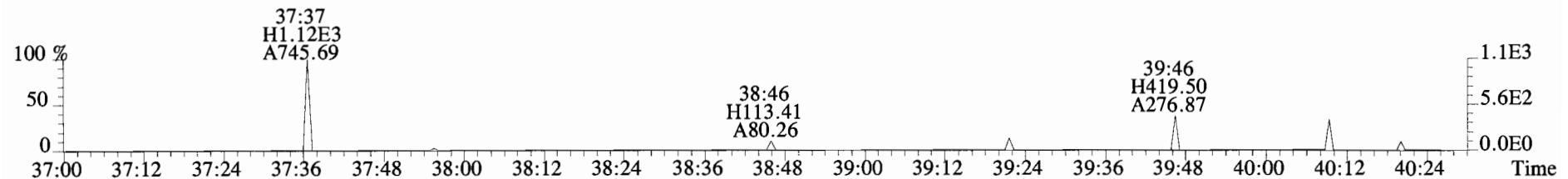
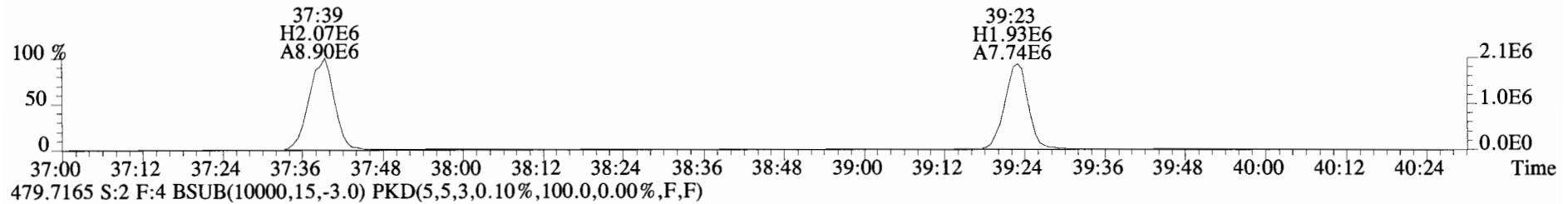
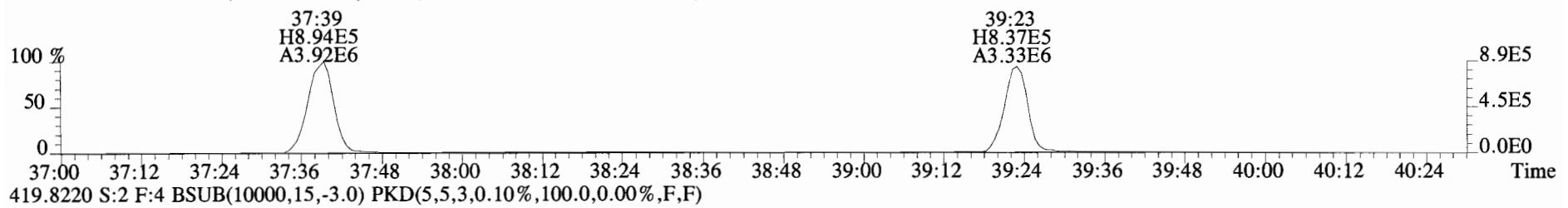
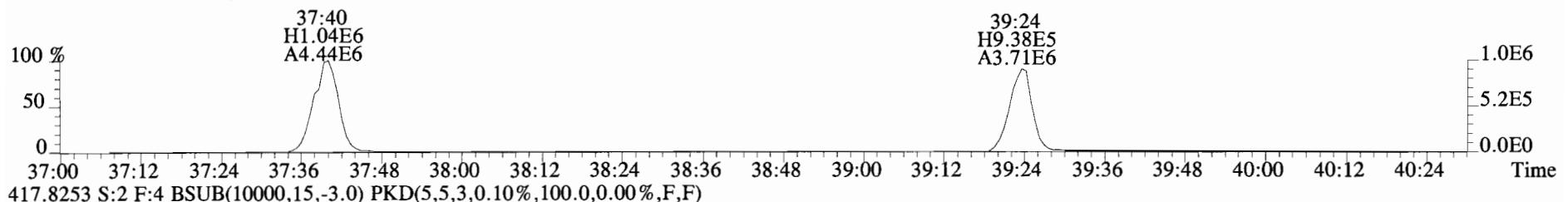
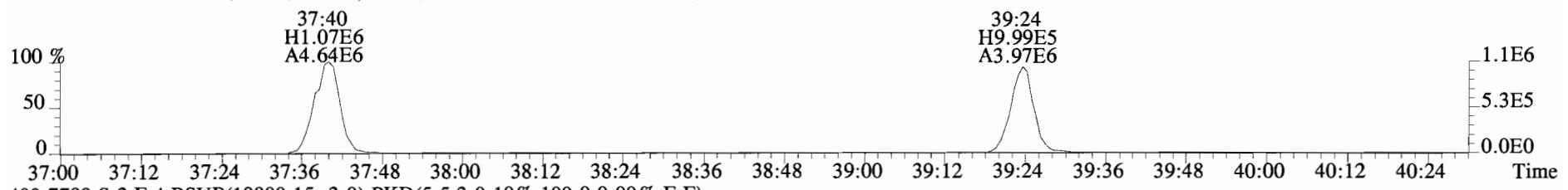
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



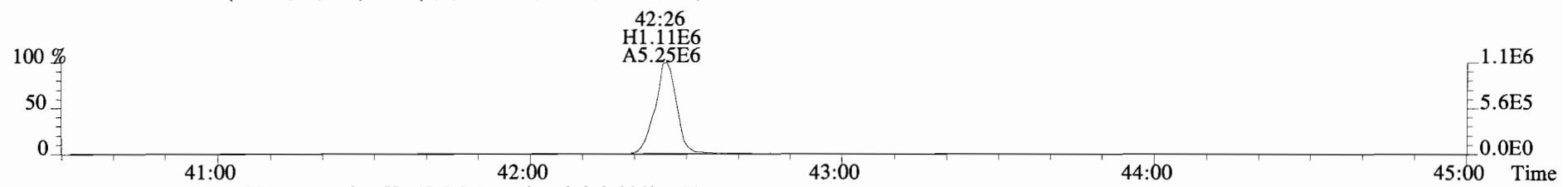
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



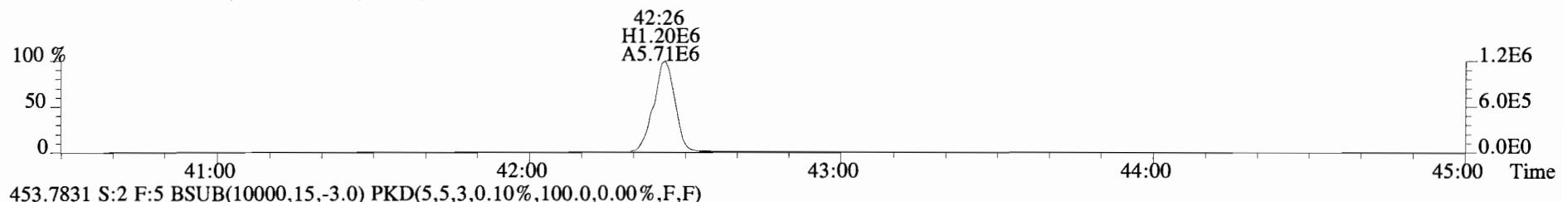
File:140922D1 #1-325 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
 407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



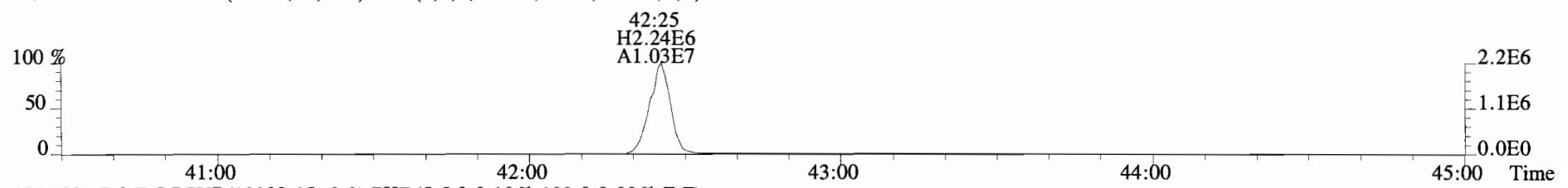
File:140922D1 #1-389 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
441.7428 S:2 F:5 BSBUS(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



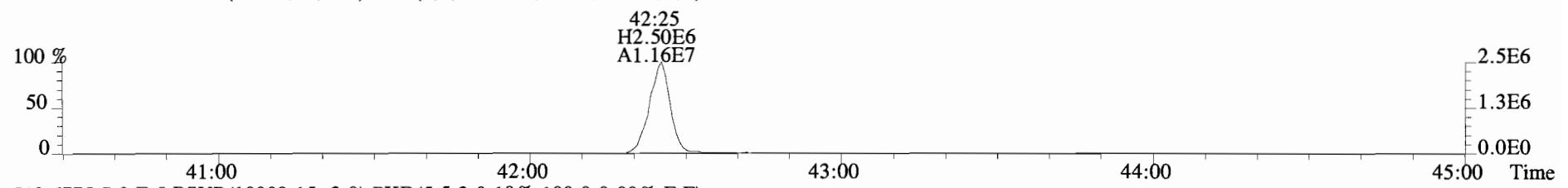
443.7398 S:2 F:5 BSBUS(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



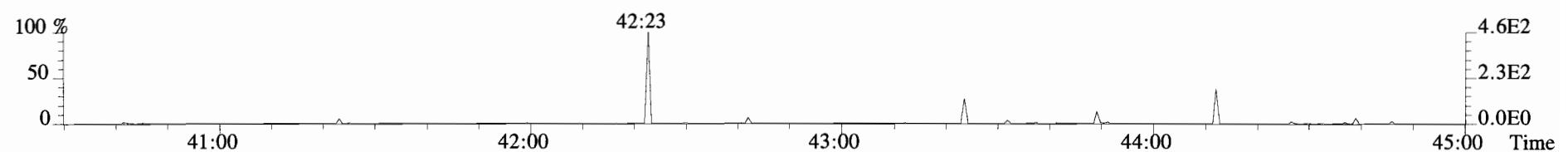
453.7831 S:2 F:5 BSBUS(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:2 F:5 BSBUS(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:2 F:5 BSBUS(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: PS-TS-01-20140909-W
 Lab ID: 1400659-01

Filename: 140922D1 S:11 Acq:22-SEP-14 21:36:44
 GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol: 1.008

ConCal: ST140922D1-1
 EndCAL: NA

Page 10 of 10

	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	*	* n	1.03	Not F _q	*	*		498	2.5	1.13	Total Tetra-Dioxins	*	*	498	1.13	
	1,2,3,7,8-PeCDD	*	* n	0.84	Not F _q	*	*		690	2.5	1.27	Total Penta-Dioxins	*	*	1500	2.76	
	1,2,3,4,7,8-HxCDD	*	* n	1.05	Not F _q	*	*		411	2.5	1.68	Total Hexa-Dioxins	*	*	689	2.84	
	1,2,3,6,7,8-HxCDD	*	* n	1.04	Not F _q	*	*		411	2.5	1.74	Total Hepta-Dioxins	2.15	5.02	*	*	
	1,2,3,7,8,9-HxCDD	*	* n	0.90	Not F _q	*	*		411	2.5	1.67	Total Tetra-Furans	*	*	627	1.20	
	1,2,3,4,6,7,8-HpCDD	9.08e+03	1.10 y	1.01	38:50	1.001	2.1476		*	2.5	*	Total Penta-Furans	0.0000	0.0000	721	1.61	
	OCDD	4.78e+04	0.92 y	1.04	42:11	1.000	10.927		*	2.5	*	Total Hexa-Furans	*	*	885	1.65	
												Total Hepta-Furans	*	*	516	1.12	
	2,3,7,8-TCDF	*	* n	0.91	Not F _q	*	*		627	2.5	1.20						
	1,2,3,7,8-PeCDF	*	* n	0.97	Not F _q	*	*		390	2.5	0.894						
	2,3,4,7,8-PeCDF	*	* n	0.94	Not F _q	*	*		390	2.5	0.842						
	1,2,3,4,7,8-HxCDF	*	* n	1.32	Not F _q	*	*		885	2.5	1.52						
	1,2,3,6,7,8-HxCDF	*	* n	1.18	Not F _q	*	*		885	2.5	1.44						
	2,3,4,6,7,8-HxCDF	*	* n	1.23	Not F _q	*	*		417	2.5	0.768						
	1,2,3,7,8,9-HxCDF	*	* n	1.13	Not F _q	*	*		417	2.5	0.988						
	1,2,3,4,6,7,8-HpCDF	*	* n	1.57	Not F _q	*	*		516	2.5	1.07						
	1,2,3,4,7,8,9-HpCDF	*	* n	1.50	Not F _q	*	*		175	2.5	0.401						
	OCDF	*	* n	1.05	Not F _q	*	*		1360	1.0	2.14						
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.36e+07	0.80 y	1.06	27:10	1.021	1367.5					68.9					
IS	13C-1,2,3,7,8-PeCDD	1.48e+07	0.63 y	1.08	31:37	1.188	1461.5					73.7					
IS	13C-1,2,3,4,7,8-HxCDD	9.74e+06	1.26 y	0.74	34:58	1.014	1340.8					67.6					
IS	13C-1,2,3,6,7,8-HxCDD	9.55e+06	1.27 y	0.75	35:05	1.017	1301.2					65.6					
IS	13C-1,2,3,7,8,9-HxCDD	1.16e+07	1.24 y	0.89	35:23	1.026	1332.4					67.2					
IS	13C-1,2,3,4,6,7,8-HpCDD	8.31e+06	1.07 y	0.70	38:49	1.126	1208.2					60.9					
IS	13C-OCDD	1.67e+07	0.89 y	0.59	42:10	1.223	2888.1					72.8					
IS	13C-2,3,7,8-TCDF	1.90e+07	0.76 y	0.97	26:24	0.992	1432.8					72.2					
IS	13C-1,2,3,7,8-PeCDF	1.77e+07	1.62 y	0.99	30:27	1.145	1305.7					65.8					
IS	13C-2,3,4,7,8-PeCDF	1.79e+07	1.60 y	1.01	31:20	1.178	1295.2					65.3					
IS	13C-1,2,3,4,7,8-HxCDF	1.25e+07	0.52 y	0.94	34:03	0.988	1356.9					68.4					
IS	13C-1,2,3,6,7,8-HxCDF	1.42e+07	0.53 y	1.23	34:11	0.991	1179.5					59.5					
IS	13C-2,3,4,6,7,8-HxCDF	1.25e+07	0.51 y	1.03	34:48	1.009	1238.0					62.4					
IS	13C-1,2,3,7,8,9-HxCDF	1.10e+07	0.50 y	0.89	35:46	1.037	1273.5					64.2					
IS	13C-1,2,3,4,6,7,8-HpCDF	8.86e+06	0.44 y	0.71	37:38	1.092	1281.9					64.6					
IS	13C-1,2,3,4,7,8,9-HpCDF	7.99e+06	0.45 y	0.64	39:22	1.142	1270.3					64.0					
IS	13C-OCDF	1.88e+07	0.90 y	0.76	42:24	1.230	2539.4					64.0					
C/Up	37Cl-2,3,7,8-TCDD	7.37e+06		1.04	27:11	1.022	755.67					95.2	Integrations by Analyst:	M)	Reviewed by		
RS/RT	13C-1,2,3,4-TCDD	1.85e+07	0.80 y	1.00	26:36	*	1983.9										
RS	13C-1,2,3,4-TCDF	2.72e+07	0.76 y	1.00	25:12	*	1983.9										
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.94e+07	0.52 y	1.00	34:29	*	1983.9										
													Date: 9/29/14		Date: 9/23/14		

Totals class: HpCDD EMPC

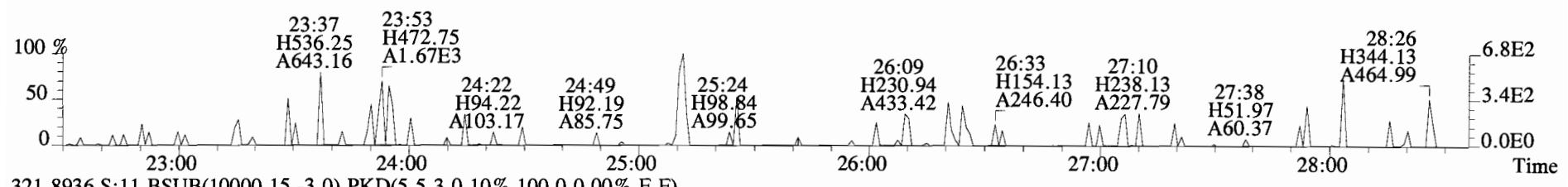
Entry #: 25

Run: 16 File: 140922D1 S: 11 I: 1 F: 4
Acquired: 22-SEP-14 21:36:44 Processed: 23-SEP-14 08:24:16

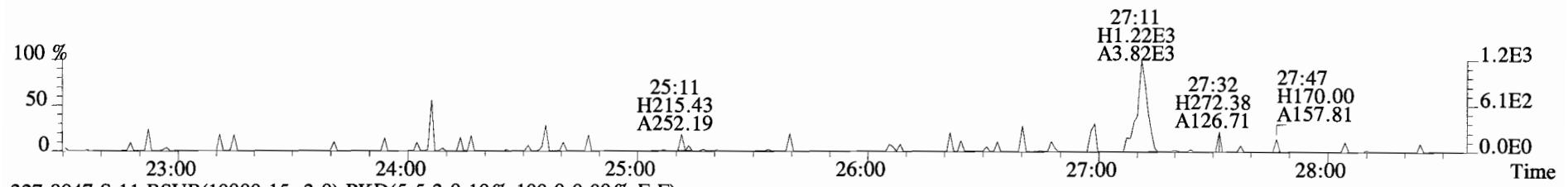
Total Concentration: 5.0171 Unnamed Concentration: 2.870

RT	m1	Resp	m2	Resp	RA		Resp	Concentration	Name
38:00	6.184e+03	7.809e+03	0.79	n	1.213e+04		2.8696		
38:50	4.759e+03	4.320e+03	1.10	y	9.079e+03		2.1476		1,2,3,4,6,7,8-HpCDD

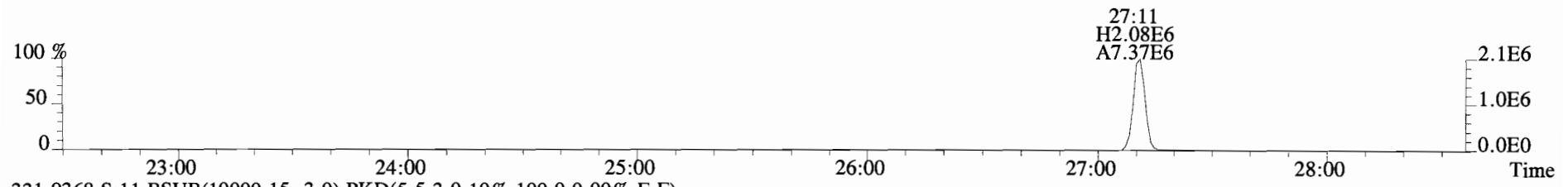
File:140922D1 #1-551 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 319.8965 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



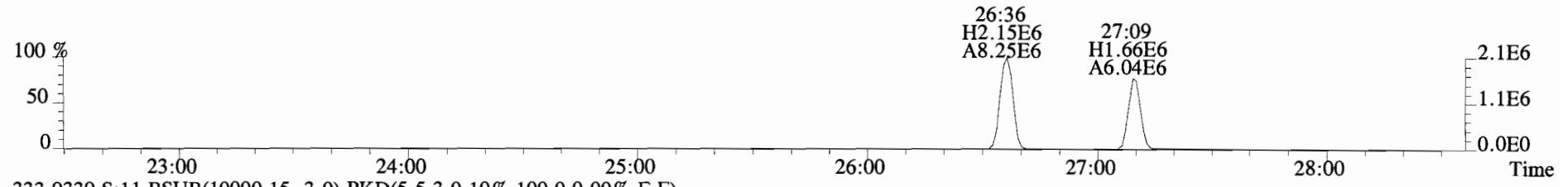
321.8936 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



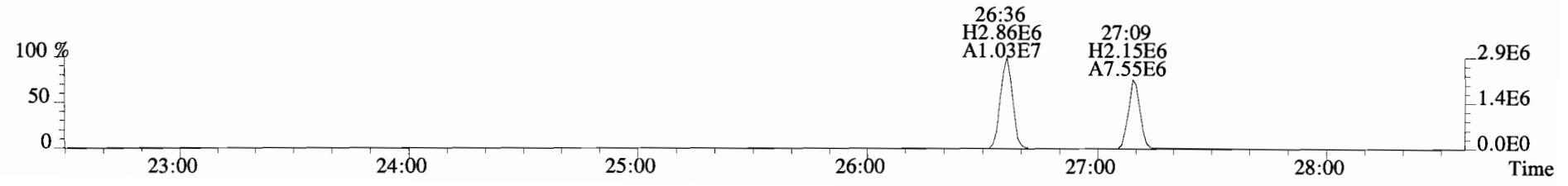
327.8847 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



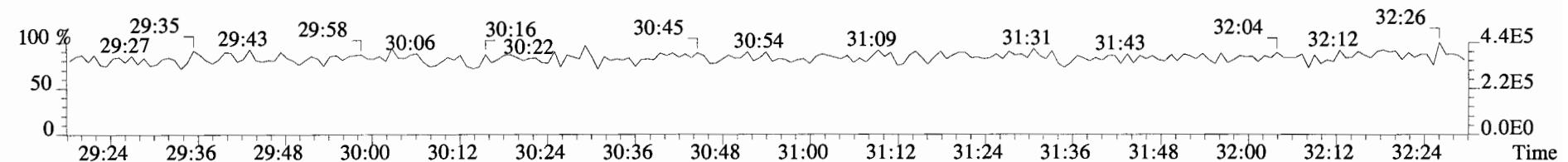
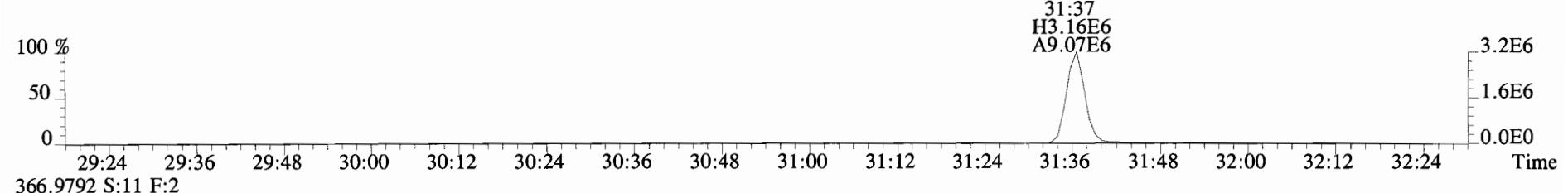
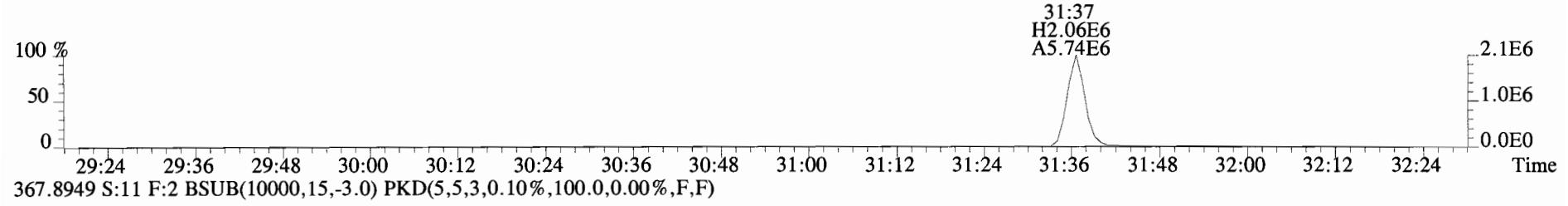
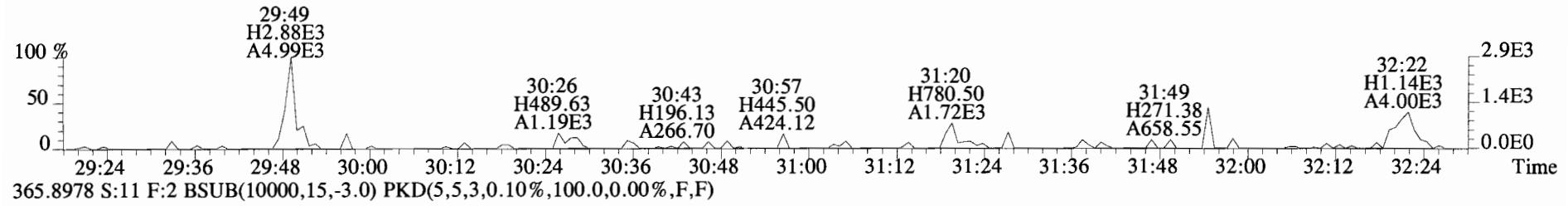
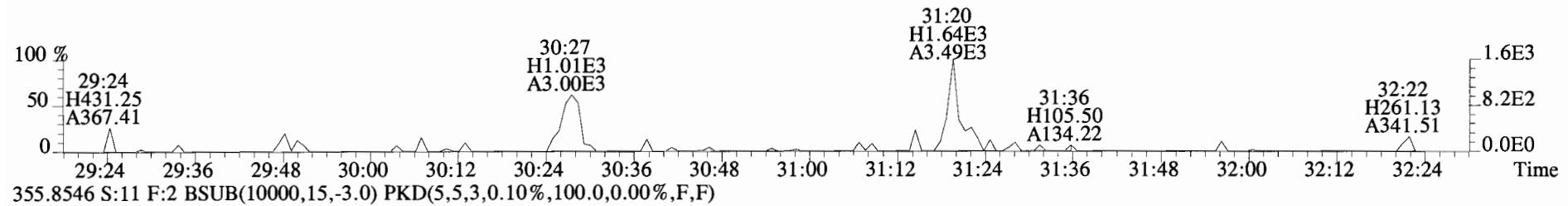
331.9368 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



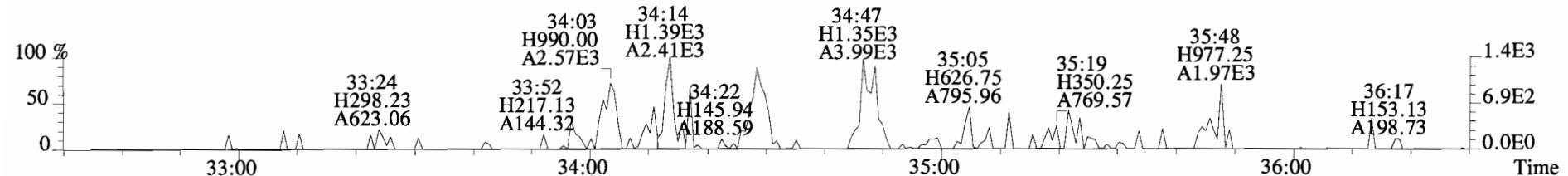
333.9339 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



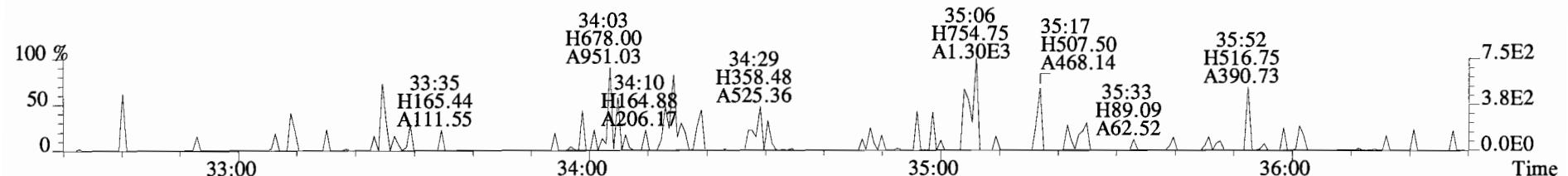
File:140922D1 #1-257 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 353.8576 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



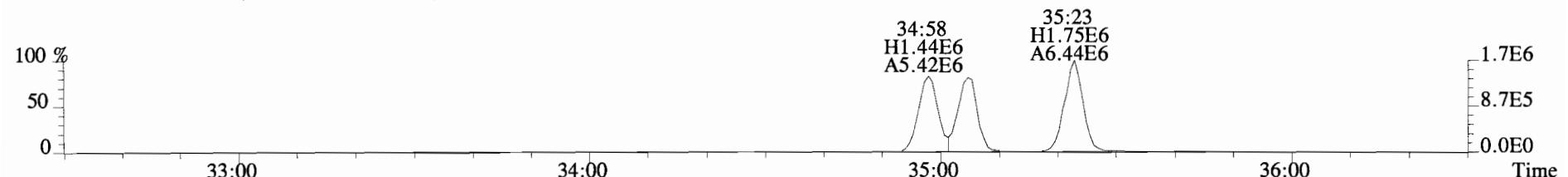
File:140922D1 #1-385 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 389.8156 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



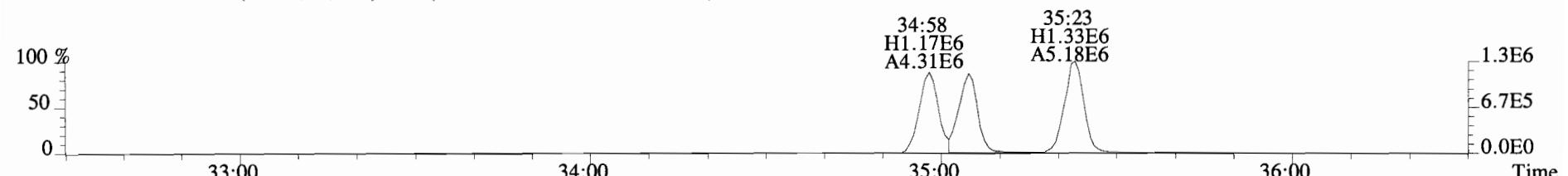
391.8127 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



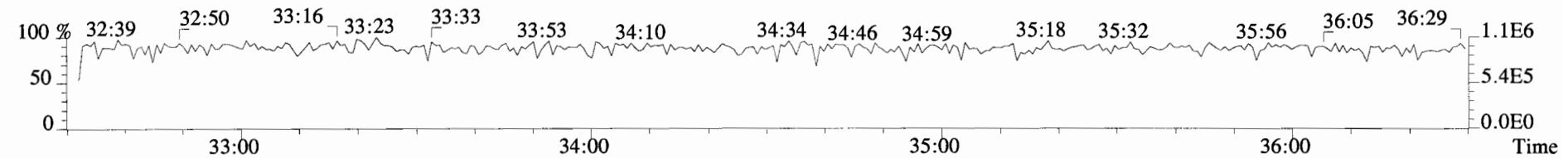
401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



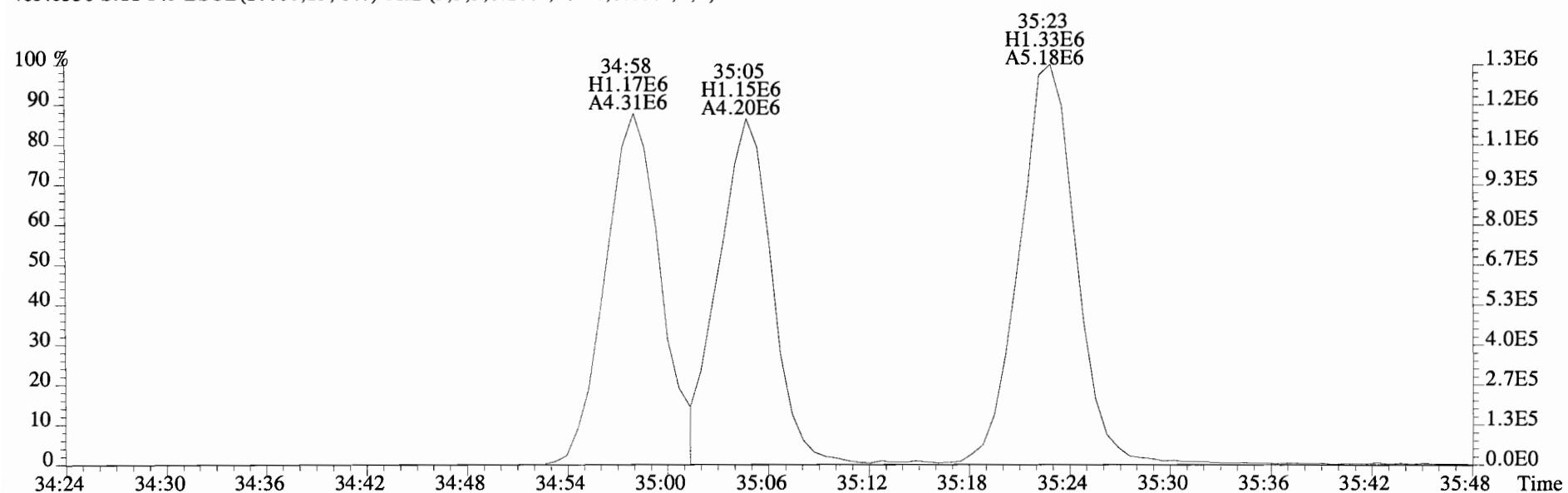
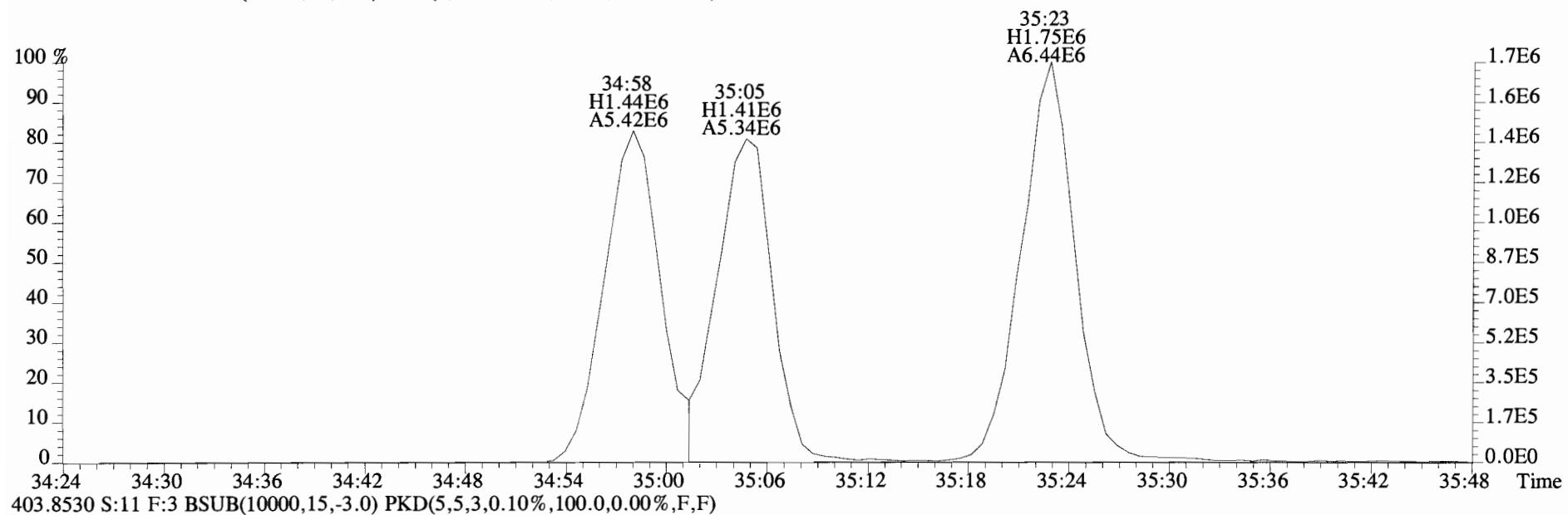
403.8530 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



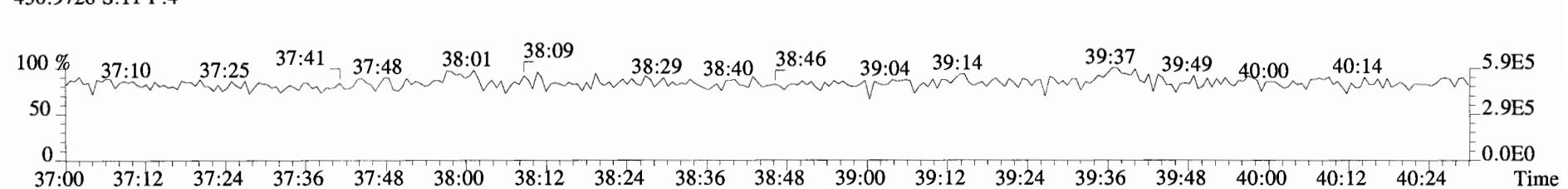
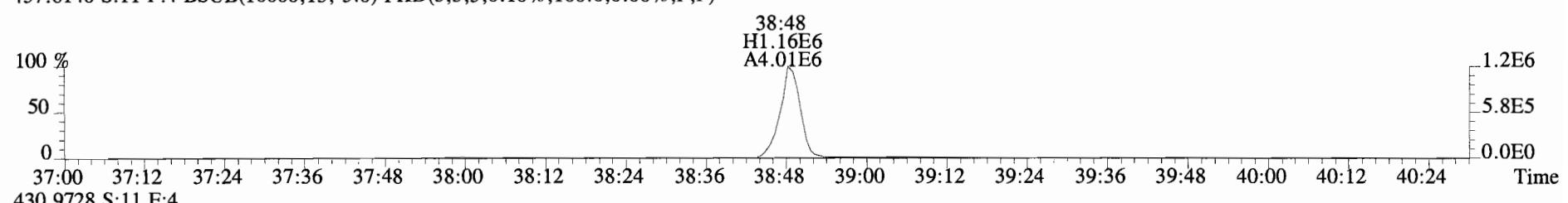
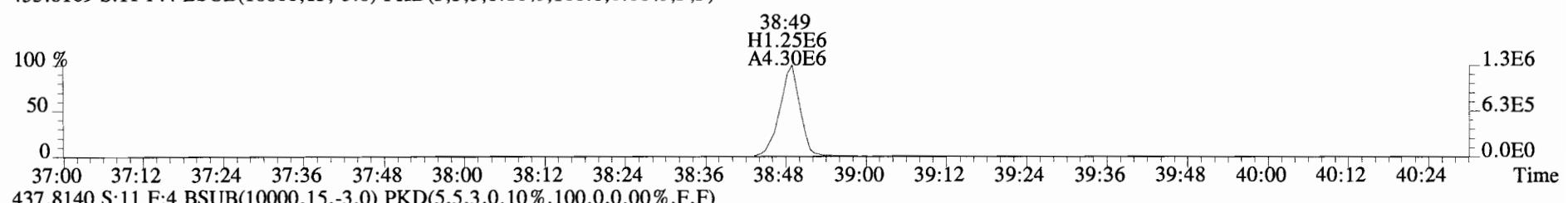
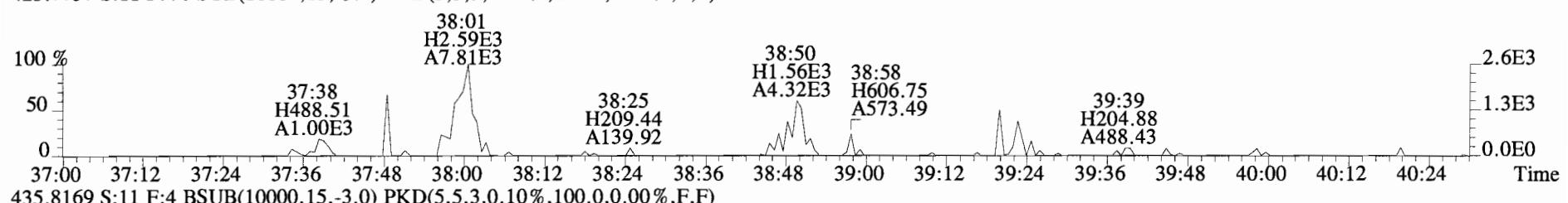
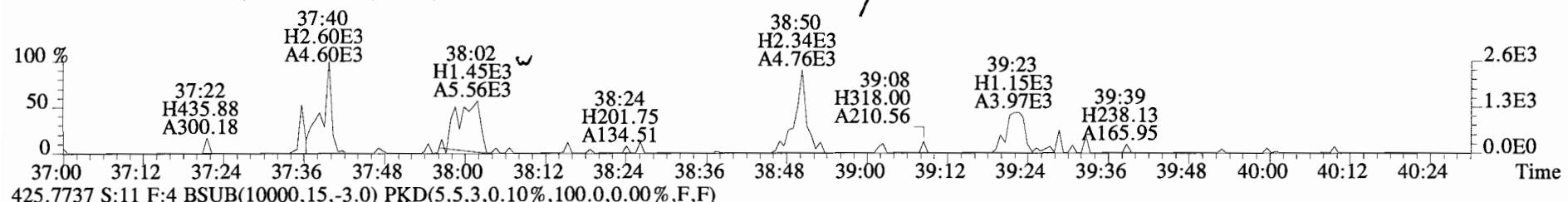
380.9760 S:11 F:3



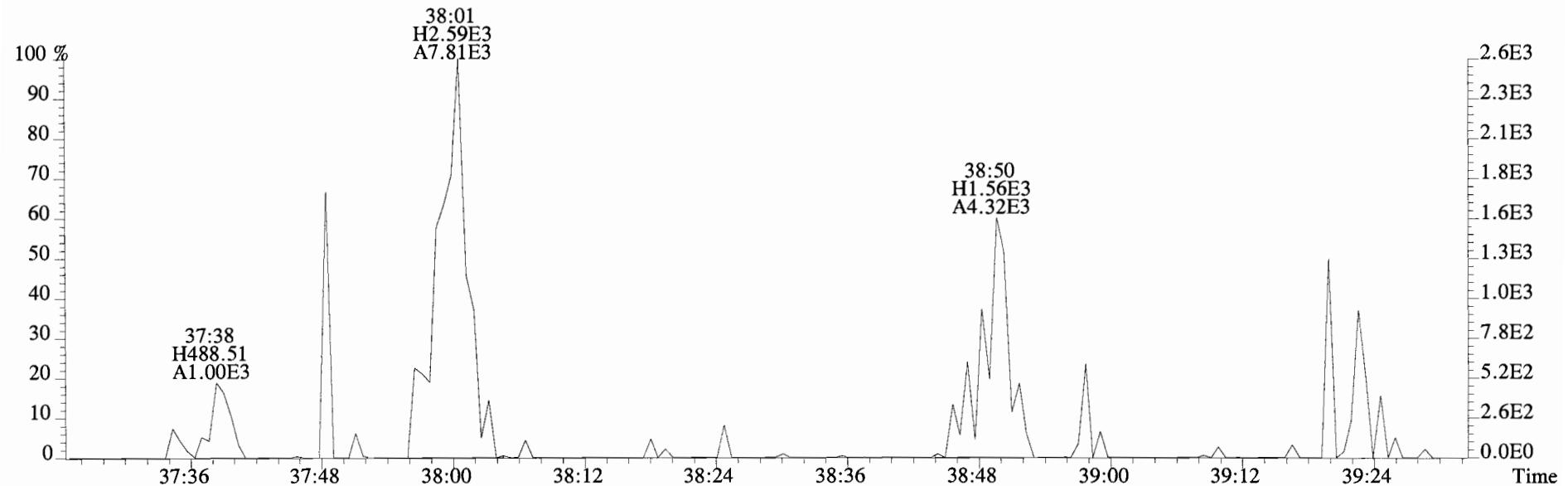
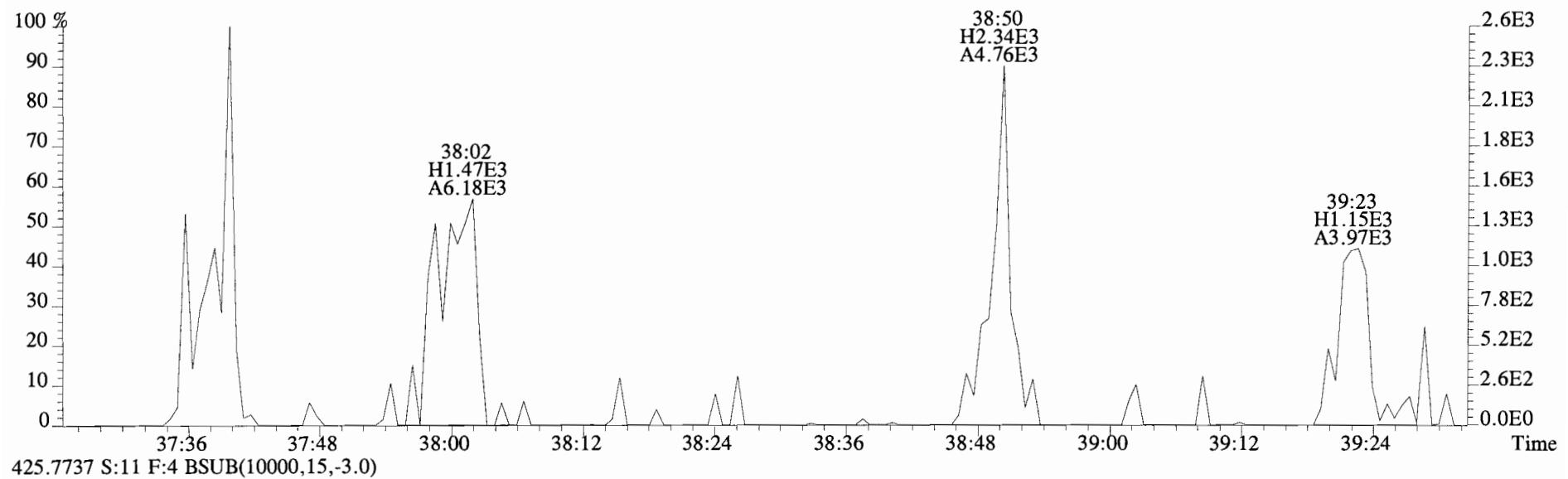
File:140922D1 #1-385 Acq:22-SEP-2014 21:36:44 GC EI + Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



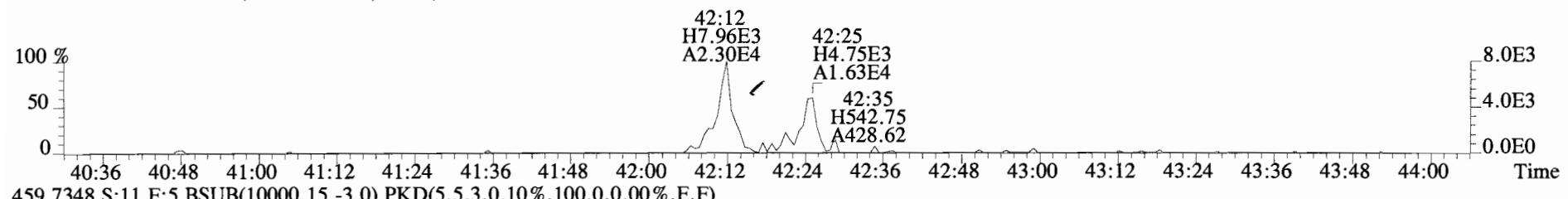
File:140922D1 #1-326 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



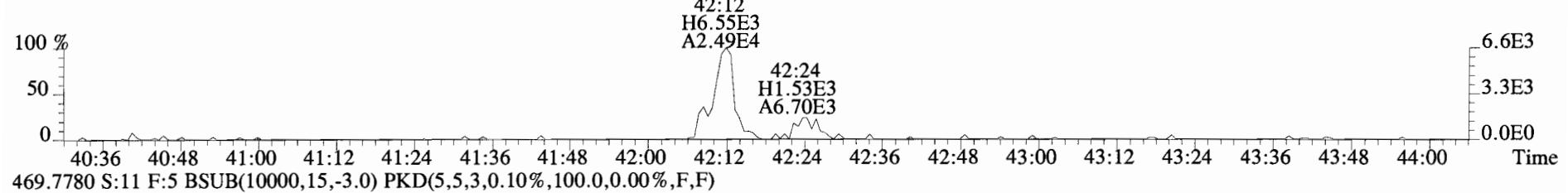
File:140922D1 #1-326 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
423.7767 S:11 F:4 BSUB(10000,15,-3.0)



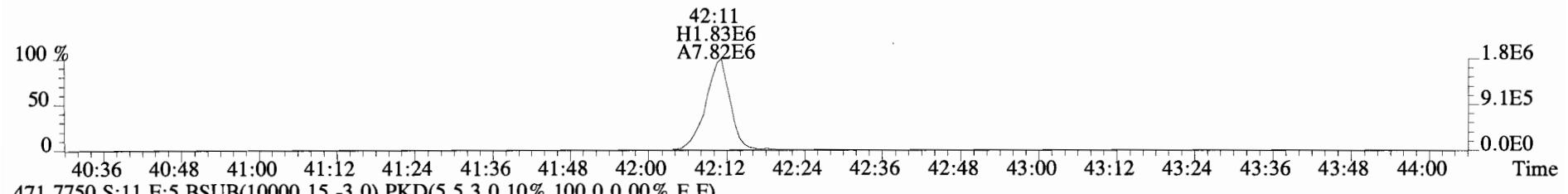
File:140922D1 #1-388 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



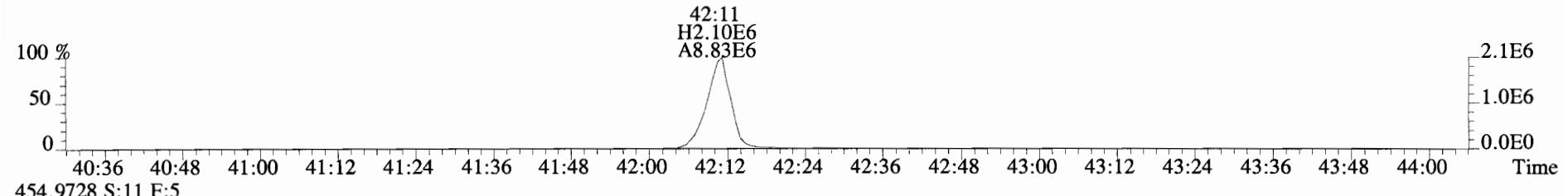
459.7348 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



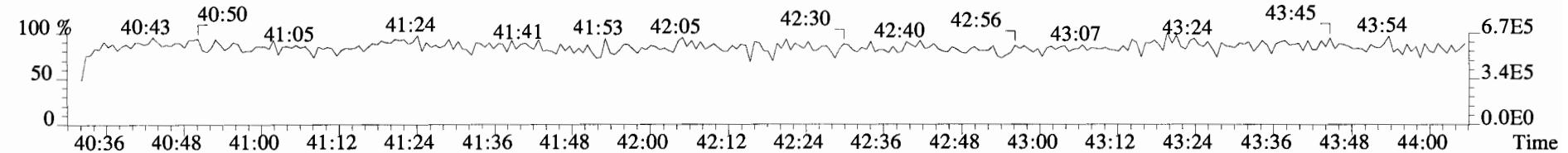
469.7780 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



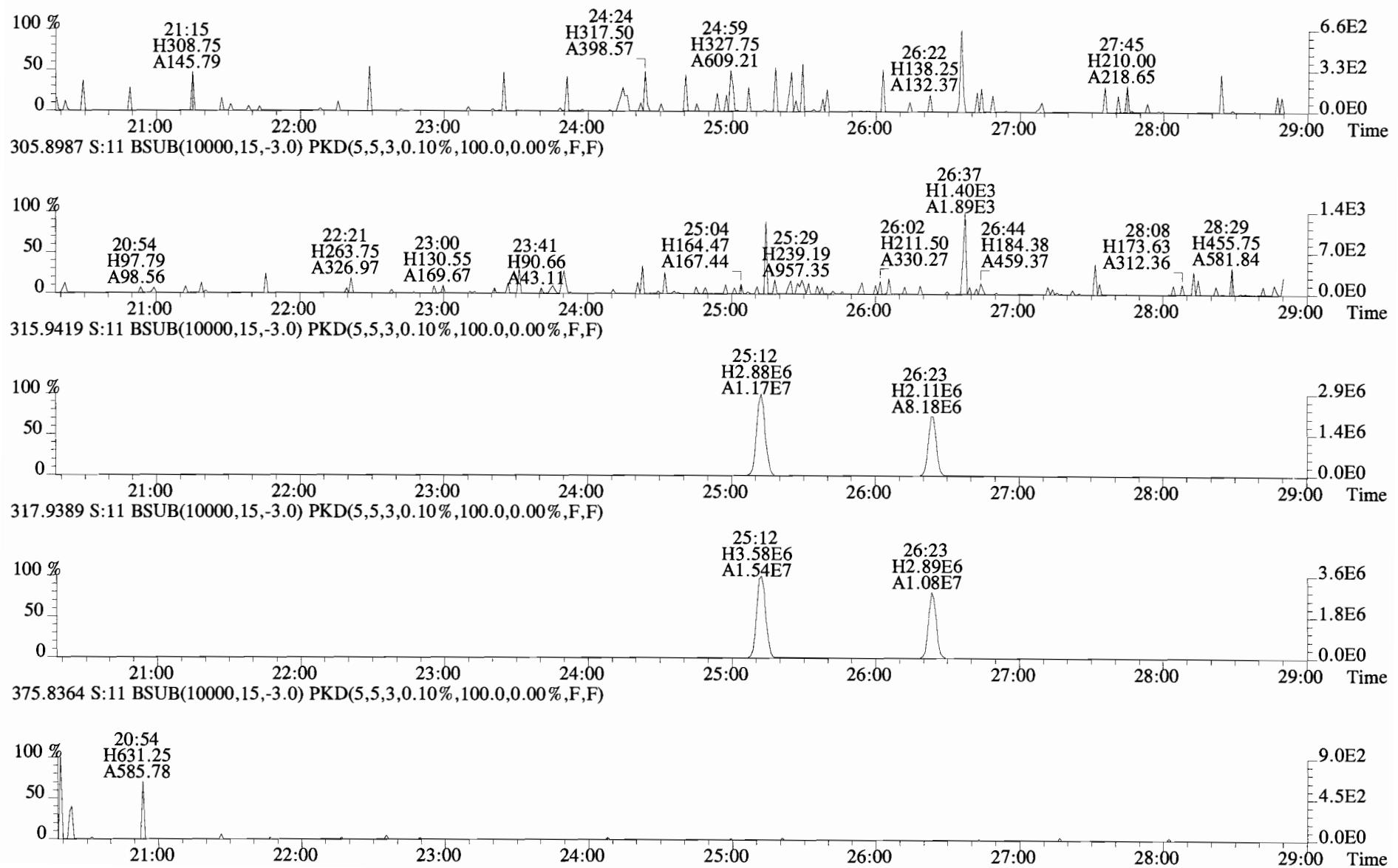
471.7750 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



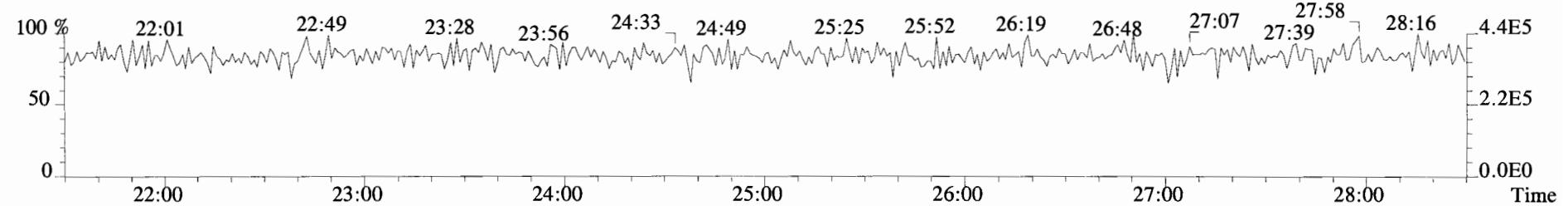
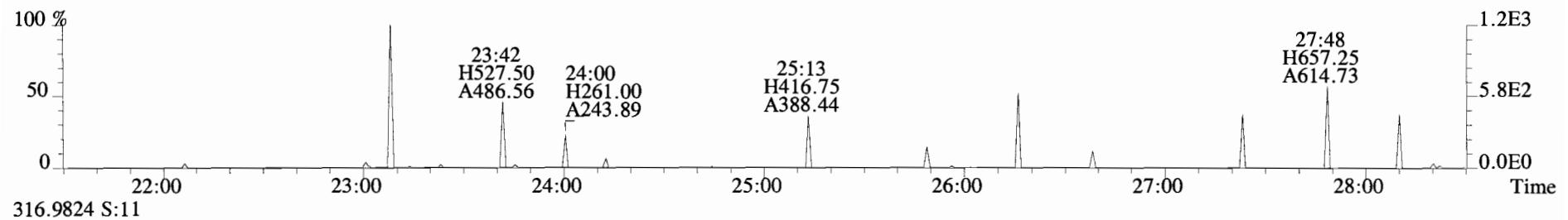
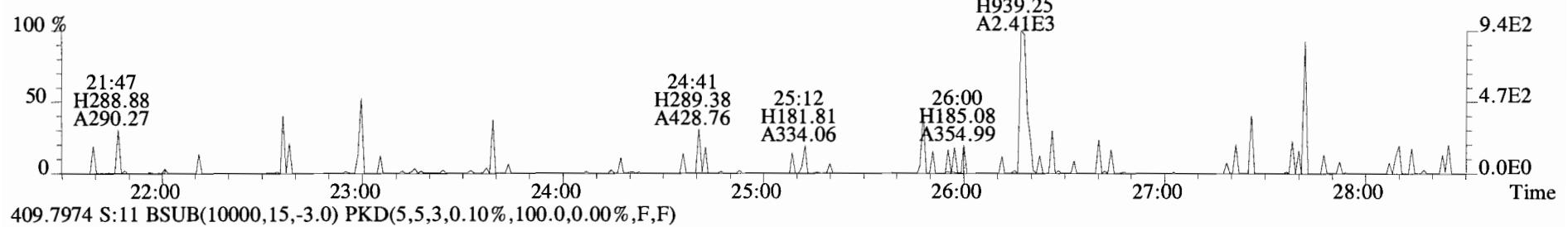
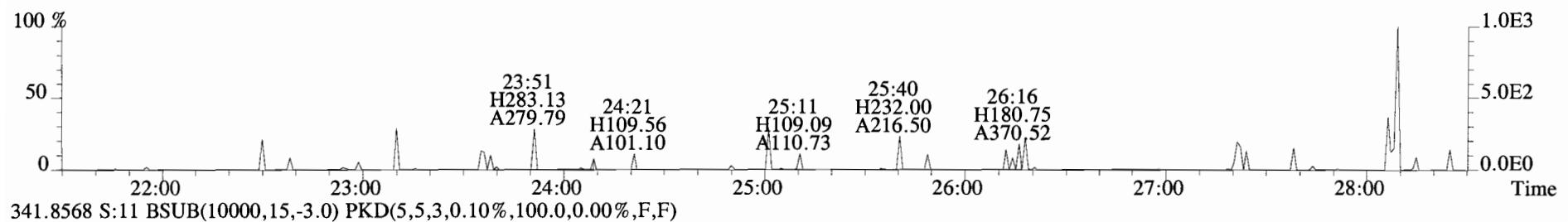
454.9728 S:11 F:5



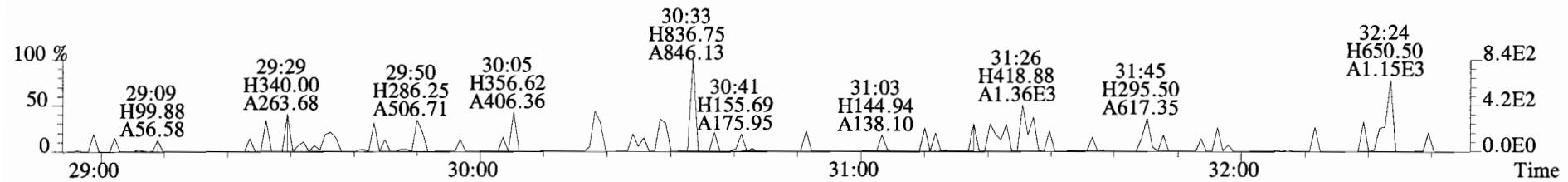
File:140922D1 #1-551 Acq:22-SEP-2014 21:36:44 GC EI + Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
303.9016 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



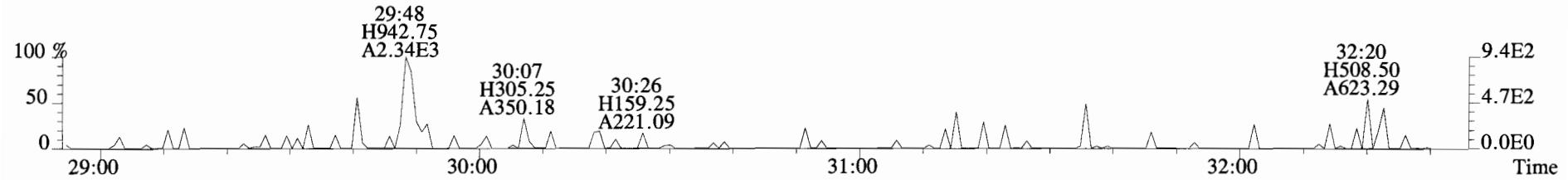
File:140922D1 #1-551 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
339.8597 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



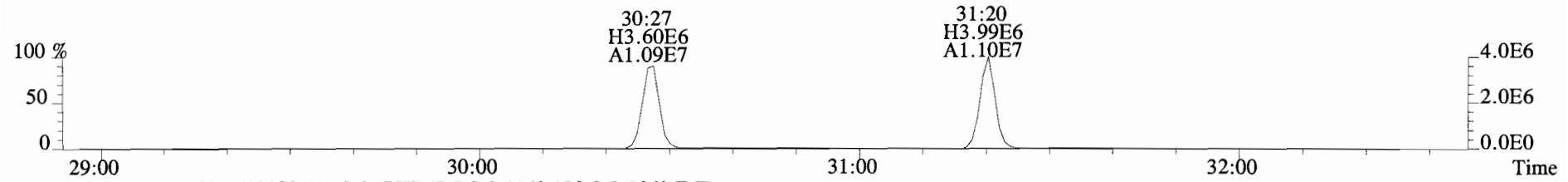
File:140922D1 #1-257 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 339.8597 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



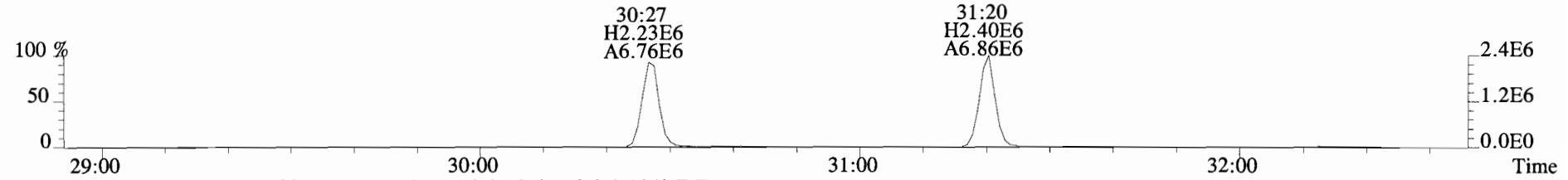
341.8568 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



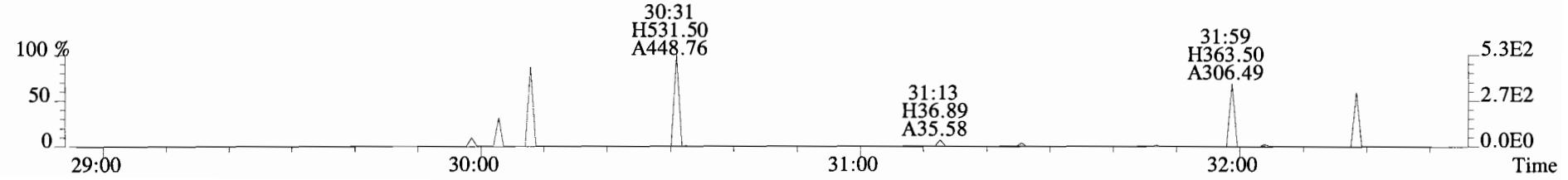
351.9000 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



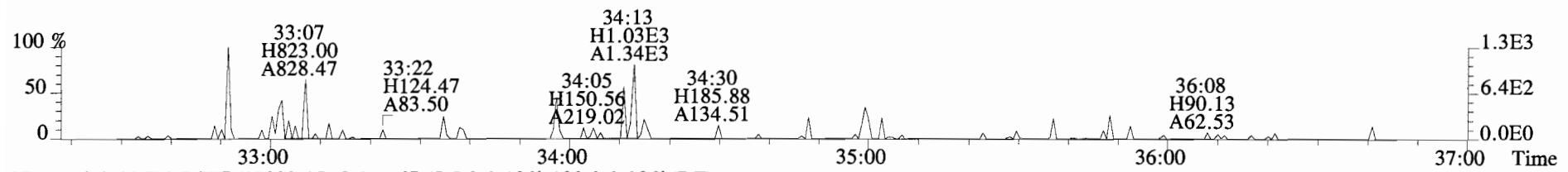
353.8970 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



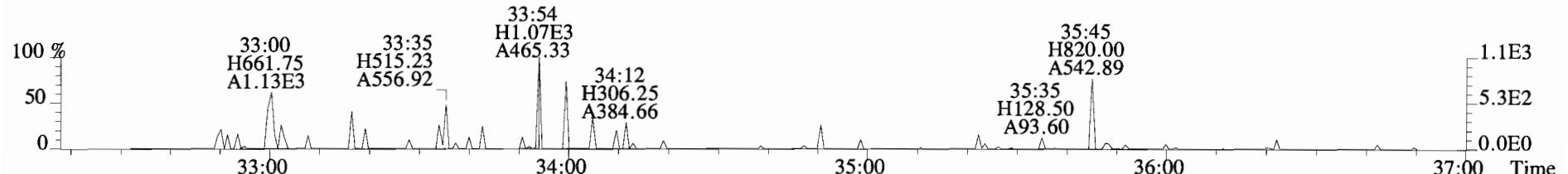
409.7974 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



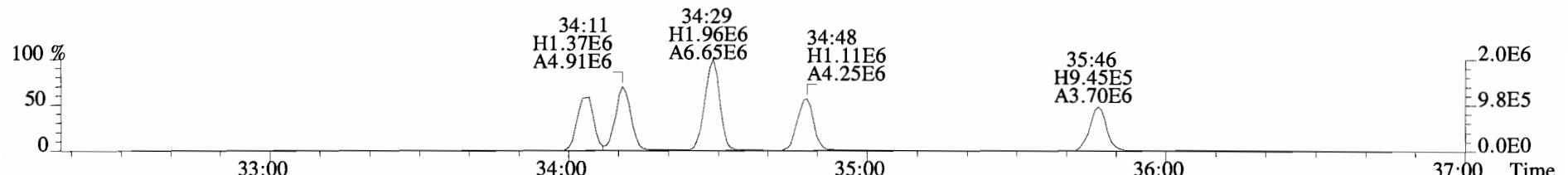
File:140922D1 #1-385 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 373.8207 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



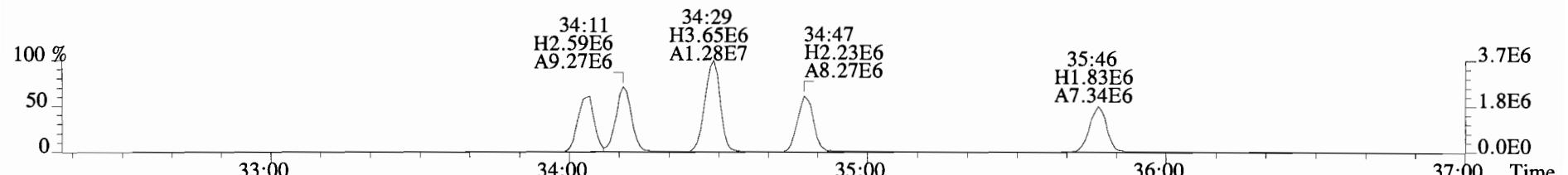
375.8178 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



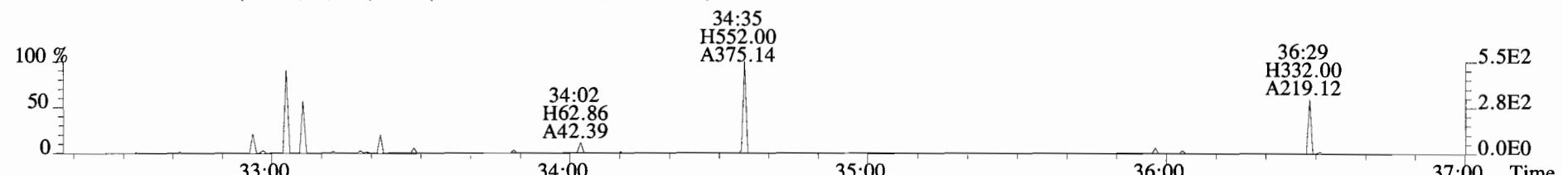
383.8639 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



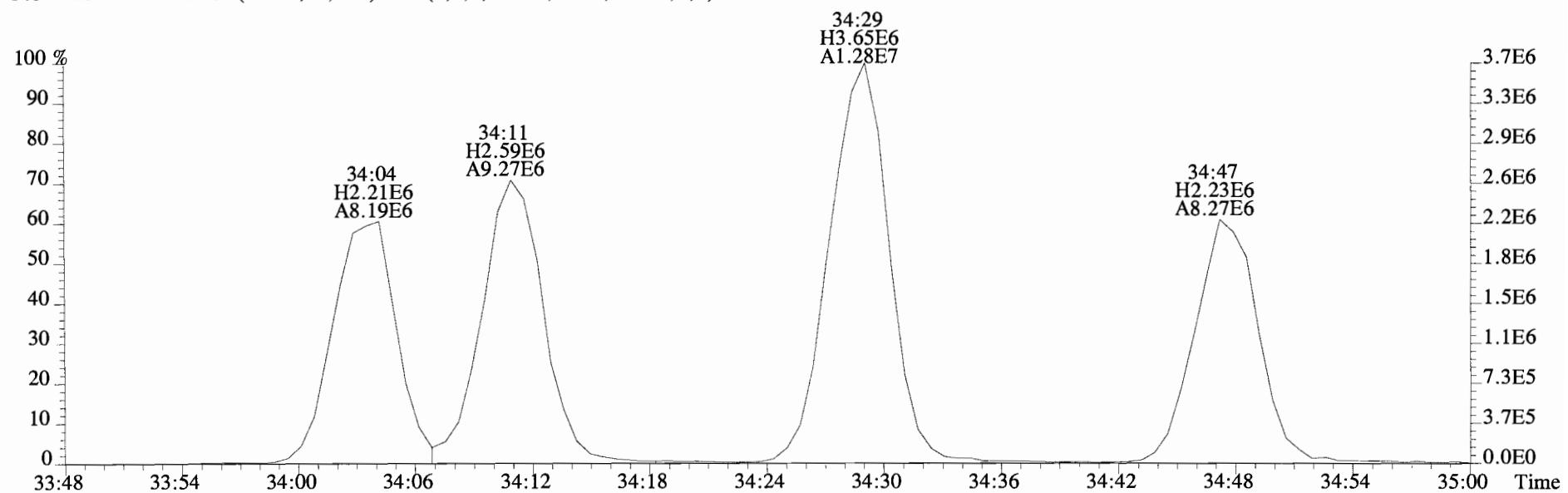
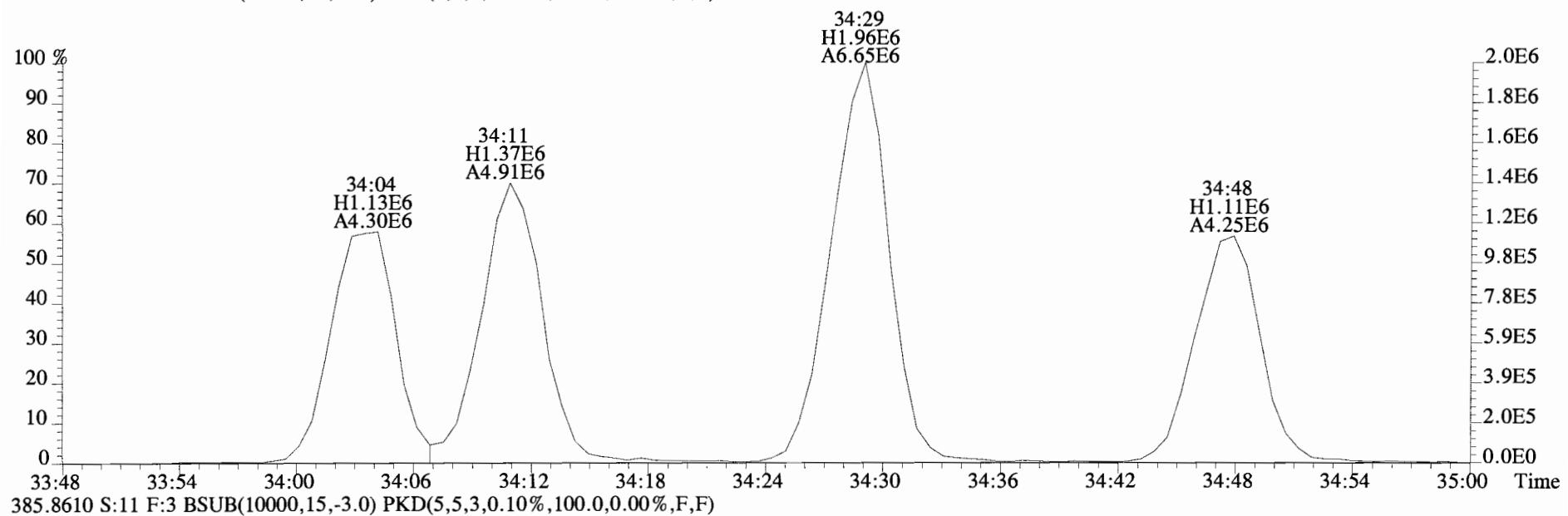
385.8610 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



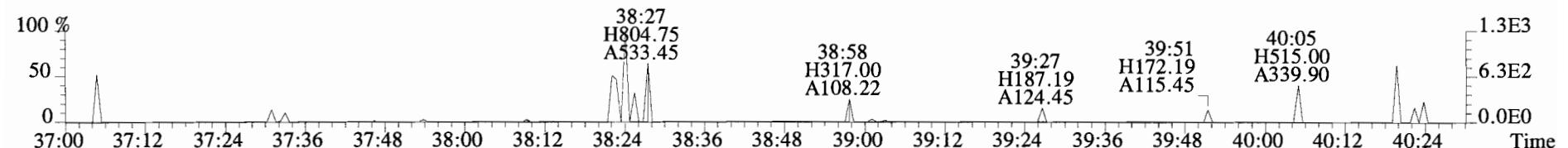
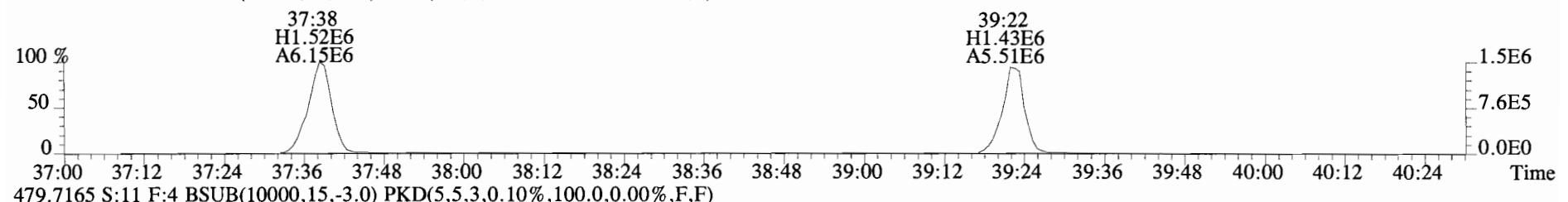
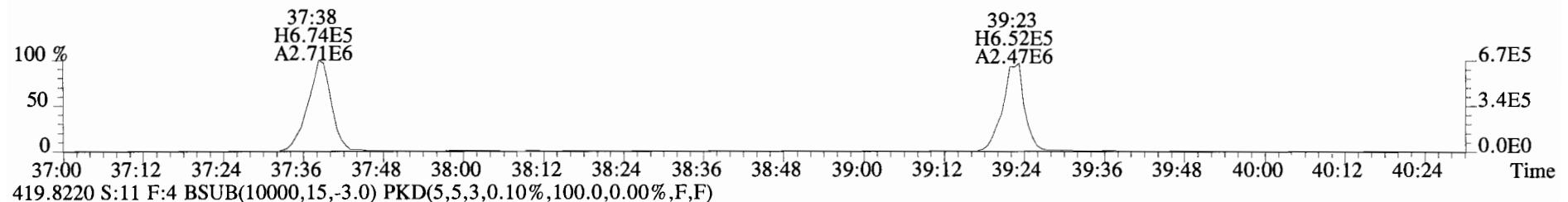
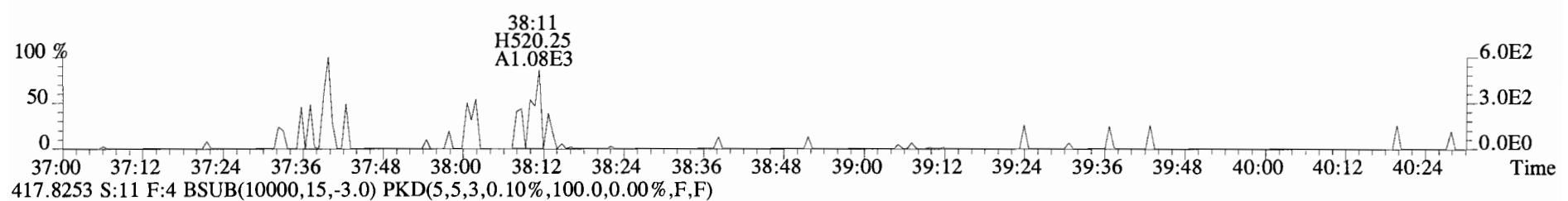
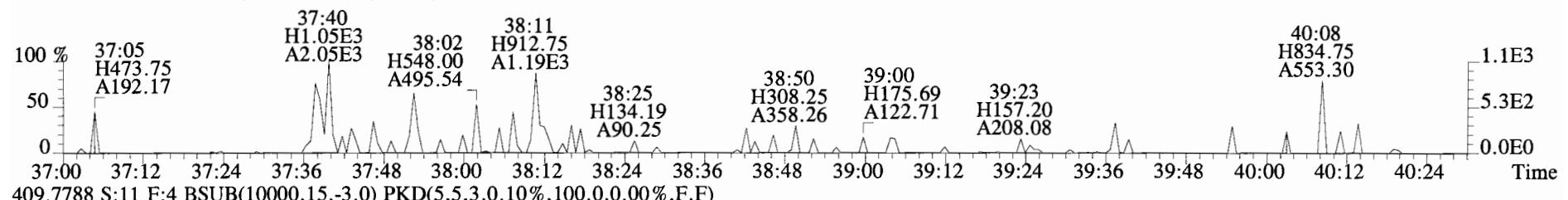
445.7555 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



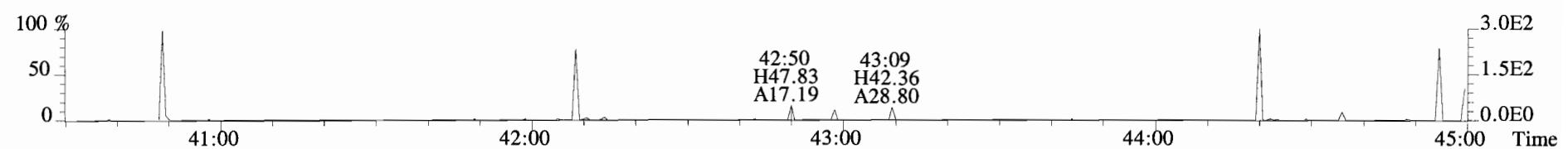
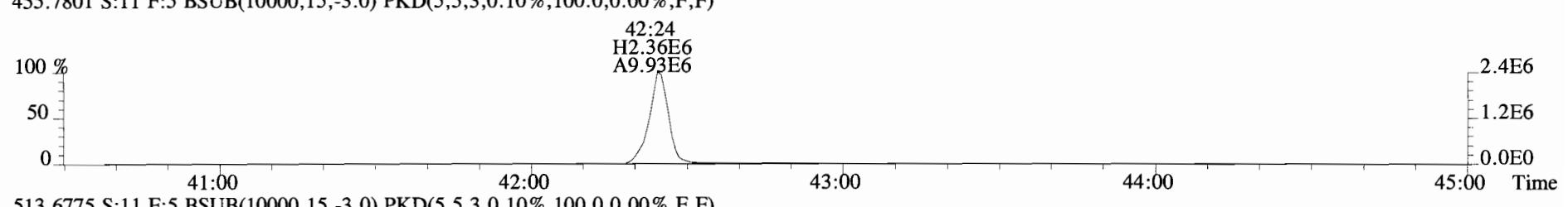
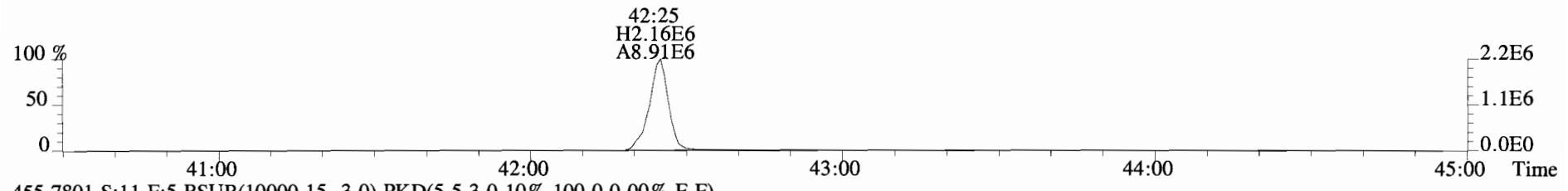
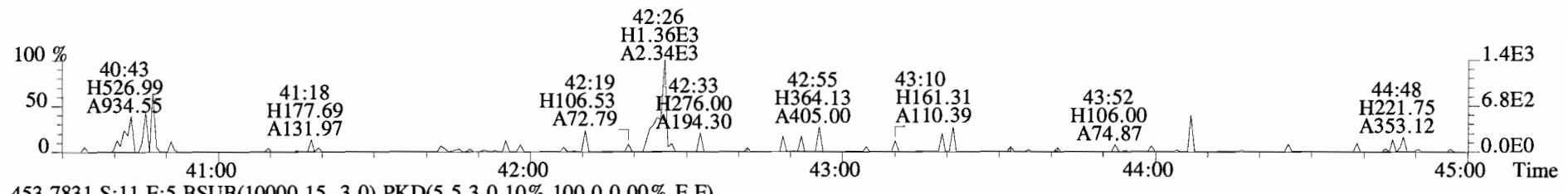
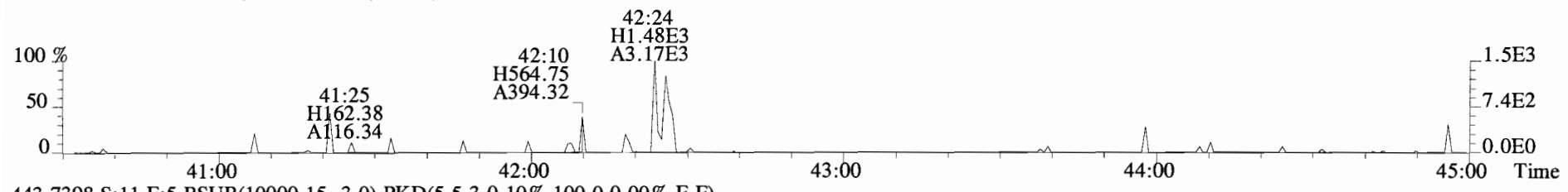
File:140922D1 #1-385 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
383.8639 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140922D1 #1-326 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 407.7818 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140922D1 #1-388 Acq:22-SEP-2014 21:36:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-7 Text:1400659-01 PS-TS-01-20140909-W 1.0081 Exp:OCDD_DB5
 441.7428 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: PS-OS-01-20140909-W
 Lab ID: 1400659-02

Filename: 140922D1 S:12 Acq:22-SEP-14 22:25:04
 GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol: 1.023

ConCal: ST140922D1-1
 EndCAL: NA

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	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	*	* n	1.03	Not F _q	*	*	799	2.5	1.58		Total Tetra-Dioxins	*	*	937	1.85	
	1,2,3,7,8-PeCDD	1.31e+04	0.91 n	0.84	31:37	1.000	1.8300	*	2.5	*		Total Penta-Dioxins	*	1.83	*	*	
	1,2,3,4,7,8-HxCDD	2.07e+04	1.41 y	1.05	34:56	0.999	3.6343	*	2.5	*		Total Hexa-Dioxins	60.2	60.2	*	*	
	1,2,3,6,7,8-HxCDD	3.47e+04	1.33 y	1.04	35:05	1.000	6.0435	*	2.5	*		Total Hepta-Dioxins	600	600	*	*	
	1,2,3,7,8,9-HxCDD	5.81e+04	1.13 y	0.90	35:23	1.000	10.069	*	2.5	*		Total Tetra-Furans	1.17	1.17	*	*	
	1,2,3,4,6,7,8-HpCDD	1.20e+06	1.02 y	1.01	38:49	1.000	261.27	*	2.5	*		Total Penta-Furans	9.5987	9.5987	*	*	
	OCDD	1.70e+07	0.88 y	1.04	42:11	1.000	3452.5	*	2.5	*		Total Hexa-Furans	33.1	37.1	*	*	
												Total Hepta-Furans	83.1	83.1	*	*	
	2,3,7,8-TCDF	*	* n	0.91	Not F _q	*	*	561	2.5	0.977							
	1,2,3,7,8-PeCDF	*	* n	0.97	Not F _q	*	*	725	2.5	1.39							
	2,3,4,7,8-PeCDF	*	* n	0.94	Not F _q	*	*	725	2.5	1.42							
	1,2,3,4,7,8-HxCDF	1.50e+04	1.02 n	1.32	34:03	1.000	1.5583	*	2.5	*							
	1,2,3,6,7,8-HxCDF	2.04e+04	1.41 y	1.18	34:12	1.001	2.2601	*	2.5	*							
	2,3,4,6,7,8-HxCDF	2.04e+04	1.02 n	1.23	34:47	1.000	2.3714	*	2.5	*							
	1,2,3,7,8,9-HxCDF	*	* n	1.13	Not F _q	*	*	536	2.5	1.19							
	1,2,3,4,6,7,8-HpCDF	2.87e+05	1.06 y	1.57	37:38	1.000	38.442	*	2.5	*							
	1,2,3,4,7,8,9-HpCDF	*	* n	1.50	Not F _q	*	*	1770	1.0	1.41							
	OCDF	6.30e+05	0.92 y	1.05	42:25	1.000	114.69	*	2.5	*							
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.48e+07	0.78 y	1.06	27:09	1.021	1411.3					72.2					
IS	13C-1,2,3,7,8-PeCDD	1.66e+07	0.64 y	1.08	31:37	1.188	1548.8					79.2					
IS	13C-1,2,3,4,7,8-HxCDD	1.06e+07	1.27 y	0.74	34:57	1.014	1381.4					70.7					
IS	13C-1,2,3,6,7,8-HxCDD	1.08e+07	1.27 y	0.75	35:04	1.017	1394.0					71.3					
IS	13C-1,2,3,7,8,9-HxCDD	1.26e+07	1.26 y	0.89	35:22	1.026	1368.9					70.0					
IS	13C-1,2,3,4,6,7,8-HpCDD	8.92e+06	1.06 y	0.70	38:48	1.126	1227.5					62.8					
IS	13C-OCDD	1.84e+07	0.90 y	0.59	42:10	1.223	3025.3					77.4					
IS	13C-2,3,7,8-TCDF	2.00e+07	0.78 y	0.97	26:23	0.992	1475.8					75.5					
IS	13C-1,2,3,7,8-PeCDF	1.97e+07	1.56 y	0.99	30:27	1.144	1425.3					72.9					
IS	13C-2,3,4,7,8-PeCDF	2.02e+07	1.58 y	1.01	31:20	1.178	1434.1					73.4					
IS	13C-1,2,3,4,7,8-HxCDF	1.43e+07	0.51 y	0.94	34:03	0.988	1466.8					75.0					
IS	13C-1,2,3,6,7,8-HxCDF	1.50e+07	0.51 y	1.23	34:11	0.991	1184.3					60.6					
IS	13C-2,3,4,6,7,8-HxCDF	1.37e+07	0.51 y	1.03	34:47	1.009	1279.6					65.5					
IS	13C-1,2,3,7,8,9-HxCDF	1.20e+07	0.52 y	0.89	35:46	1.037	1307.5					66.9					
IS	13C-1,2,3,4,6,7,8-HpCDF	9.29e+06	0.44 y	0.71	37:38	1.092	1272.9					65.1					
IS	13C-1,2,3,4,7,8,9-HpCDF	8.79e+06	0.43 y	0.64	39:22	1.142	1324.7					67.8					
IS	13C-OCDF	2.04e+07	0.89 y	0.76	42:24	1.230	2598.3					66.5					
C/Up	37C1-2,3,7,8-TCDD	7.11e+06		1.04	27:11	1.022	689.43					88.2	Integrations by Analyst:	M)	Reviewed by		
RS/RT	13C-1,2,3,4-TCDD	1.93e+07	0.81 y	1.00	26:36	*	1954.8										
RS	13C-1,2,3,4-TCDF	2.73e+07	0.74 y	1.00	25:12	*	1954.8										
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.02e+07	0.52 y	1.00	34:28	*	1954.8						Date:	9/20/14	Date:	9/23/14	

Totals class: PeCDD EMPC

Entry #: 21

Run: 17 File: 140922D1 S: 12 I: 1 F: 2
Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

Total Concentration: 1.8300 Unnamed Concentration: *

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
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31.37	7.316e+03	8.019e+03	0.91 n	1.307e+04	1.8300	1,2,3,7,8-PeCDD
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Totals class: HxCDD EMPC

Entry #: 23

Run: 17 File: 140922D1 S: 12 I: 1 F: 3
Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

Total Concentration: 60.170 Unnamed Concentration: 40.423

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
33:24	4.090e+04	3.448e+04	1.19	y	7.537e+04		13.155	
33:59	1.396e+04	1.073e+04	1.30	y	2.468e+04		4.3080	
34:14	7.366e+04	5.790e+04	1.27	y	1.316e+05		22.960	
34:56	1.208e+04	8.597e+03	1.41	y	2.068e+04	3.6343	1,2,3,4,7,8-HxCDD	
35:05	1.978e+04	1.488e+04	1.33	y	3.466e+04	6.0435	1,2,3,6,7,8-HxCDD	
35:23	3.089e+04	2.724e+04	1.13	y	5.813e+04	10.069	1,2,3,7,8,9-HxCDD	

Totals class: HpCDD EMPC

Entry #: 25

Run: 17 File: 140922D1 S: 12 I: 1 F: 4
Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

Total Concentration: 600.36 Unnamed Concentration: 339.088

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
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37:59	7.824e+05	7.785e+05	1.00	y	1.561e+06		339.09	
38:49	6.079e+05	5.948e+05	1.02	y	1.203e+06		261.27	1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 17 File: 140922D1 S: 12 I: 1 F: 1

Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

Total Concentration: 1.1730 Unnamed Concentration: 1.173

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
----	----	------	----	------	----	------	---------------	------

22:58	4.522e+03	6.394e+03	0.71	y	1.092e+04		1.1730	
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Totals class: 1st Func. PeCDF EMPC Entry #: 29

Run: 17 File: 140922D1 S: 12 I: 1 F: 1
Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

Total Concentration: 6.1450 Unnamed Concentration: 6.145

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
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28:08	3.590e+04	2.401e+04	1.50	y	5.991e+04	6.1450
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Totals class: PeCDF EMPC

Entry #: 31

Run: 17 File: 140922D1 S: 12 I: 1 F: 2

Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

Total Concentration: 3.4536 Unnamed Concentration: 3.454

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
----	----	------	----	------	----	------	---------------	------

29.33	2.137e+04		1.231e+04	1.74	y	3.367e+04	3.4536	
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Totals class: HxCDF EMPC

Entry #: 33

Run: 17 File: 140922D1 S: 12 I: 1 F: 3
 Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

Total Concentration: 37.068 Unnamed Concentration: 30.878

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
32:51	2.881e+04		2.241e+04	1.29	y	5.123e+04	6.0189	
33:01	8.537e+04		6.730e+04	1.27	y	1.527e+05	17.938	
33:34	3.320e+04		2.571e+04	1.29	y	5.891e+04	6.9211	
34:03	8.297e+03		8.133e+03	1.02	n	1.499e+04	1.5583	1,2,3,4,7,8-HxCDF
34:12	1.196e+04		8.462e+03	1.41	y	2.042e+04	2.2601	1,2,3,6,7,8-HxCDF
34:47	1.128e+04		1.105e+04	1.02	n	2.037e+04	2.3714	2,3,4,6,7,8-HxCDF

Totals class: HpCDF EMPC

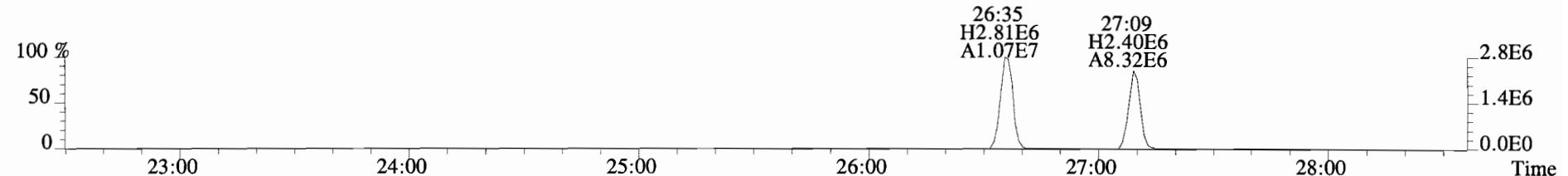
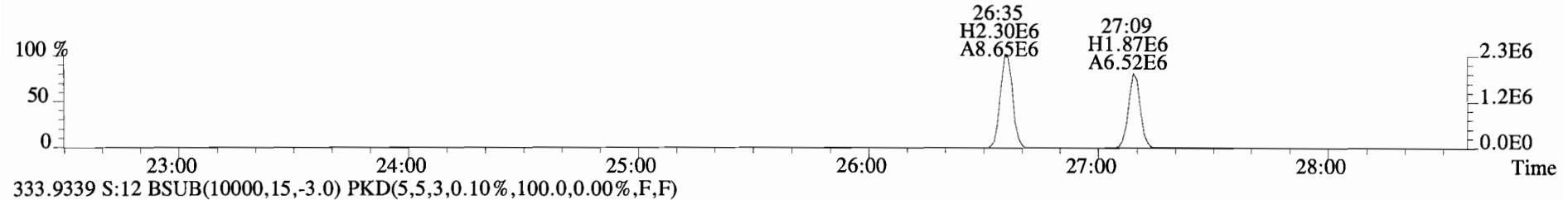
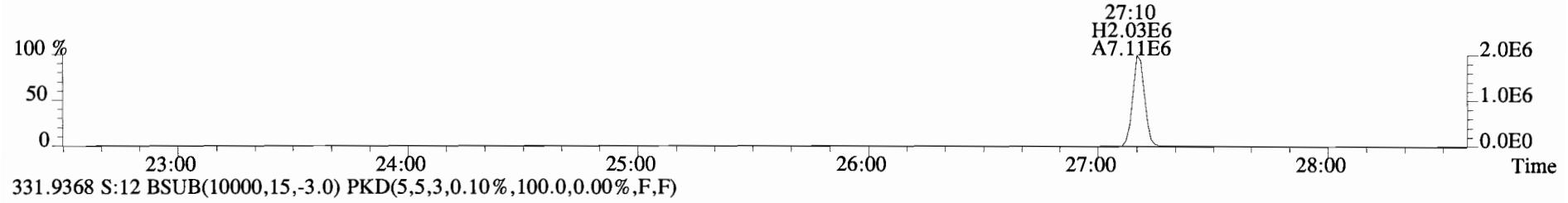
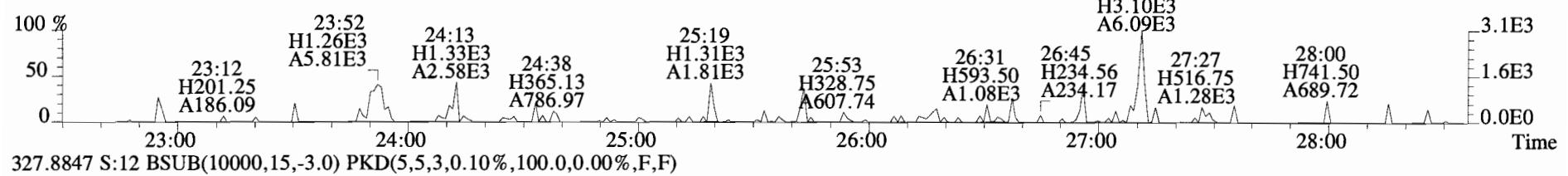
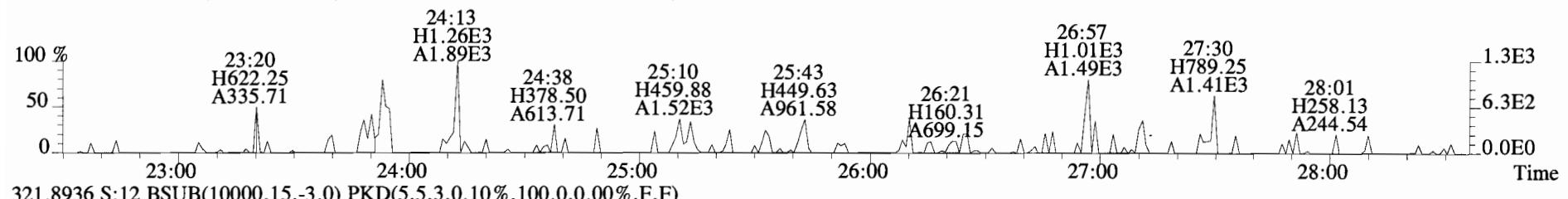
Entry #: 35

Run: 17 File: 140922D1 S: 12 I: 1 F: 4
Acquired: 22-SEP-14 22:25:04 Processed: 23-SEP-14 08:24:19

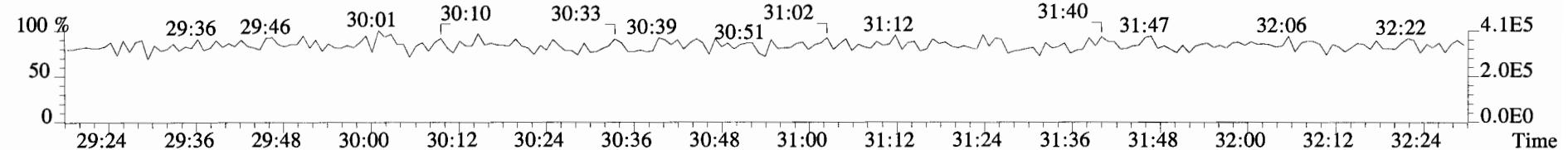
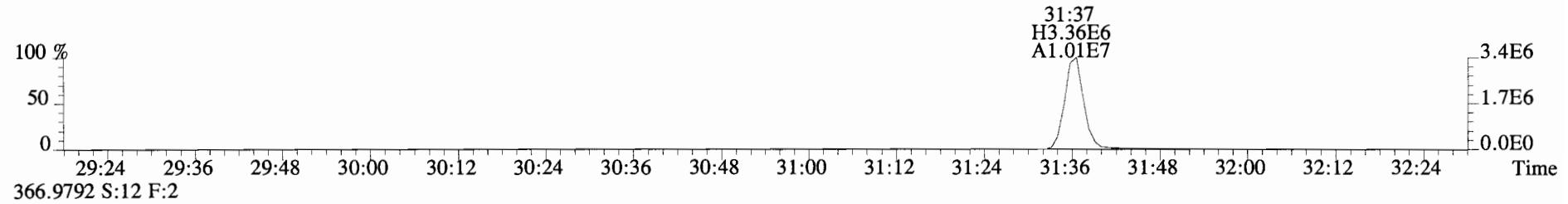
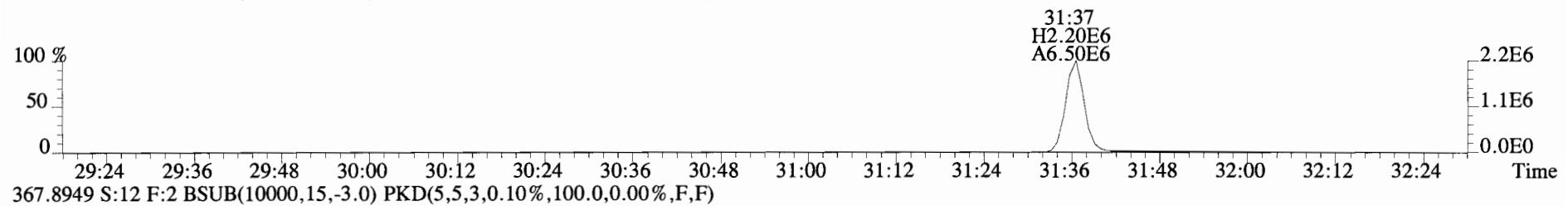
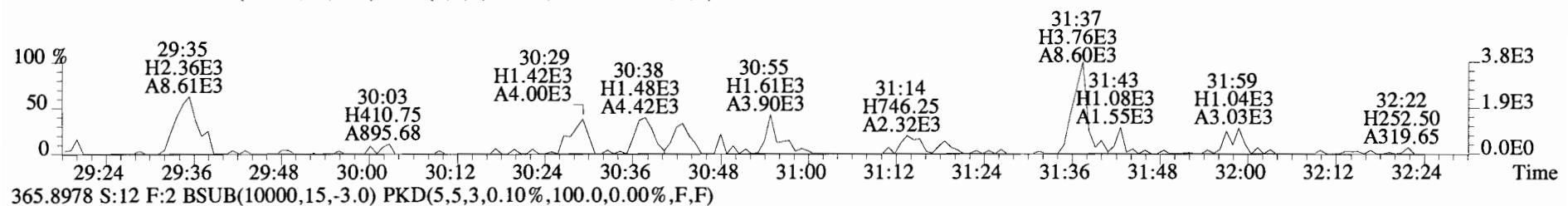
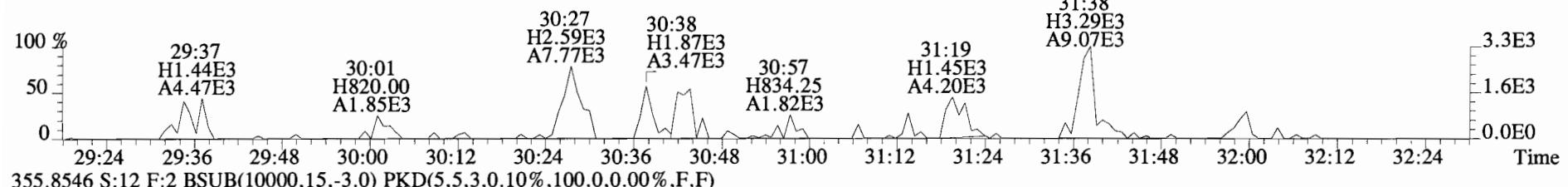
Total Concentration: 83.081 Unnamed Concentration: 44.639

RT	m1	Resp	m2	Resp	RA		Resp	Concentration	Name
37:38	1.476e+05		1.398e+05	1.06	y	2.874e+05		38.442	1,2,3,4,6,7,8-HpCDF
38:11	1.581e+05		1.598e+05	0.99	y	3.179e+05		44.639	

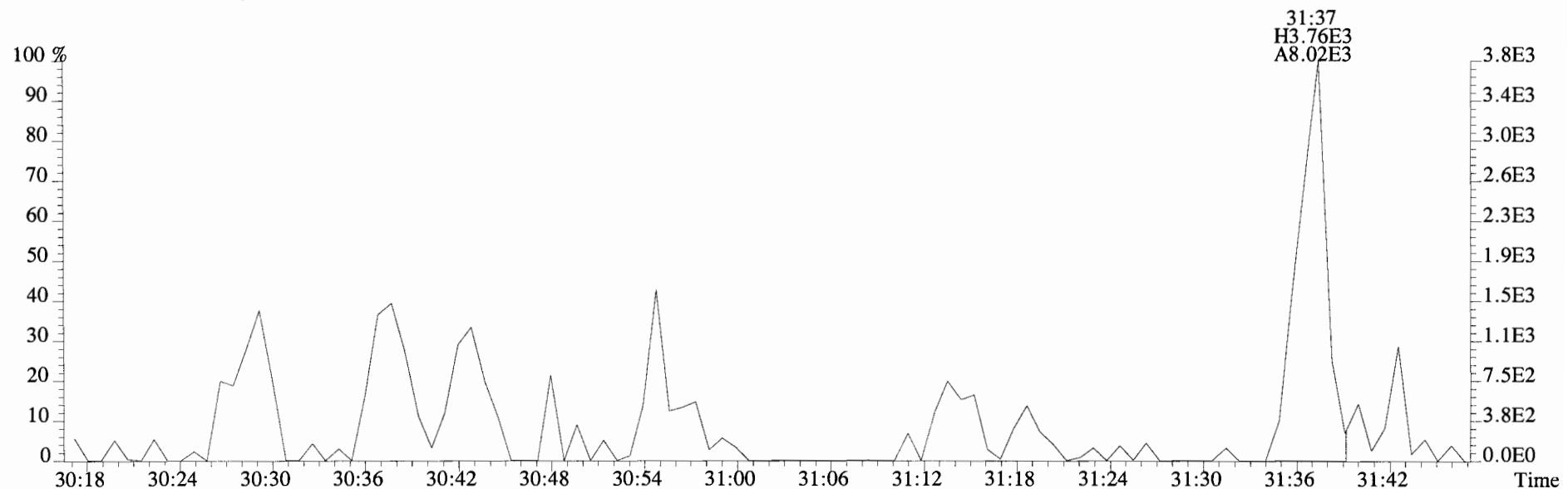
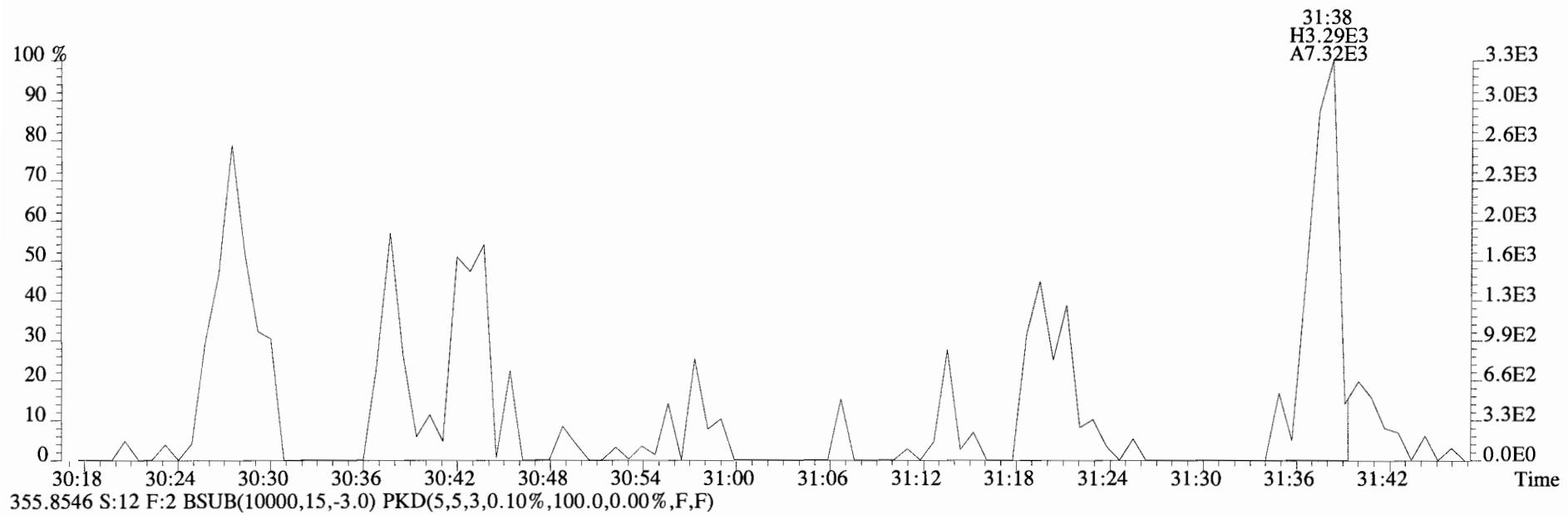
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 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 319.8965 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



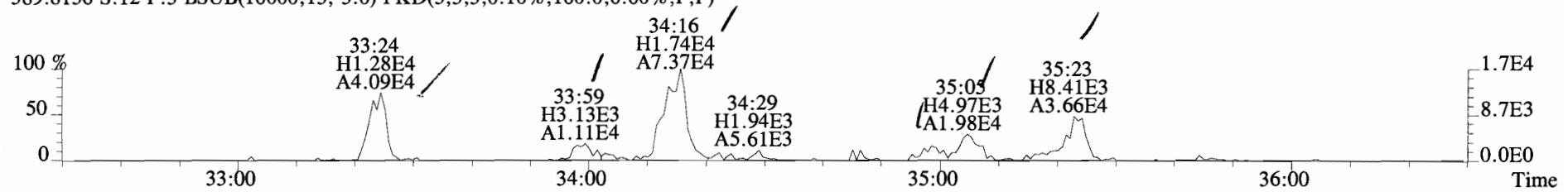
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 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 353.8576 S:12 F:2 BSBUS(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



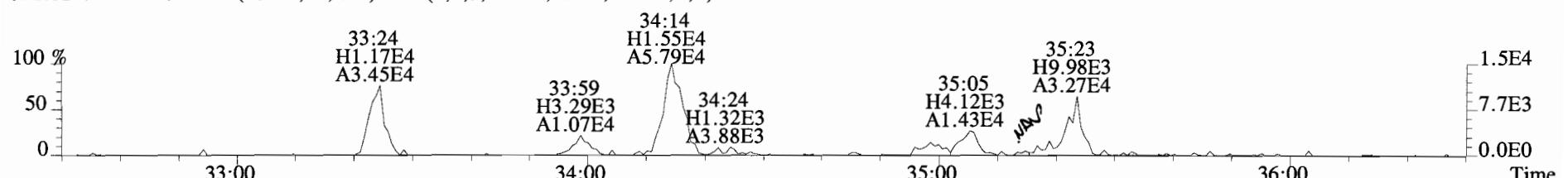
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353.8576 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



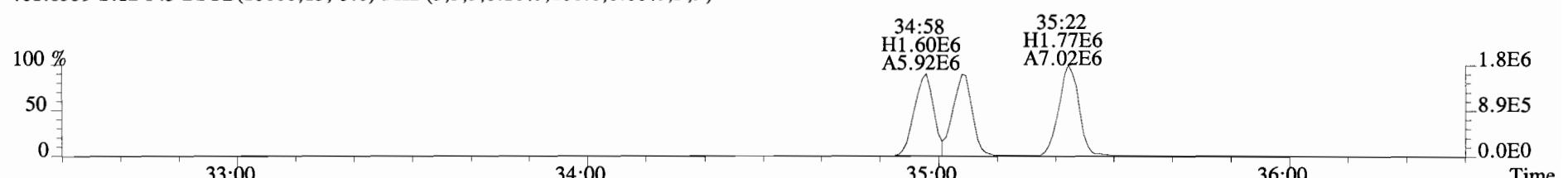
File:140922D1 #1-385 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 389.8156 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



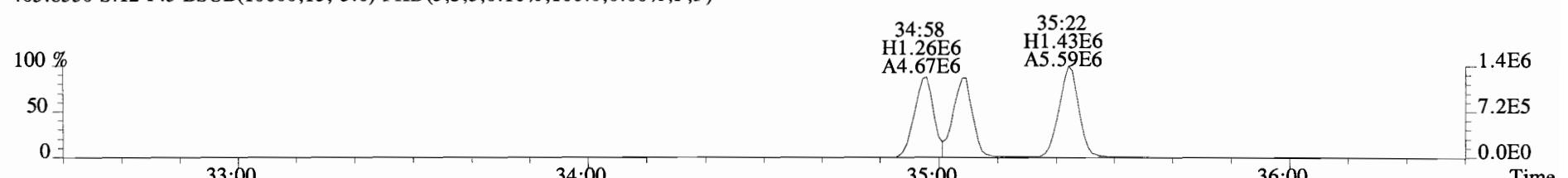
391.8127 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



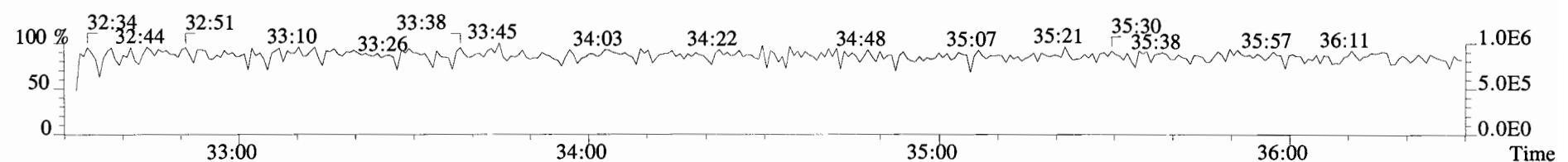
401.8559 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



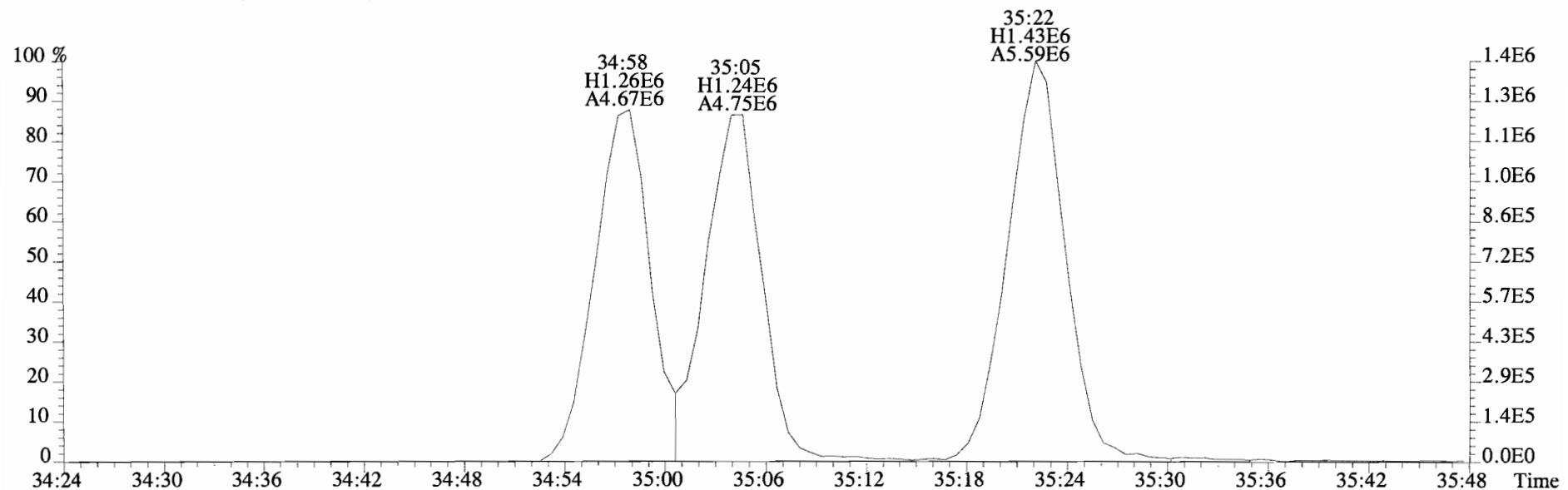
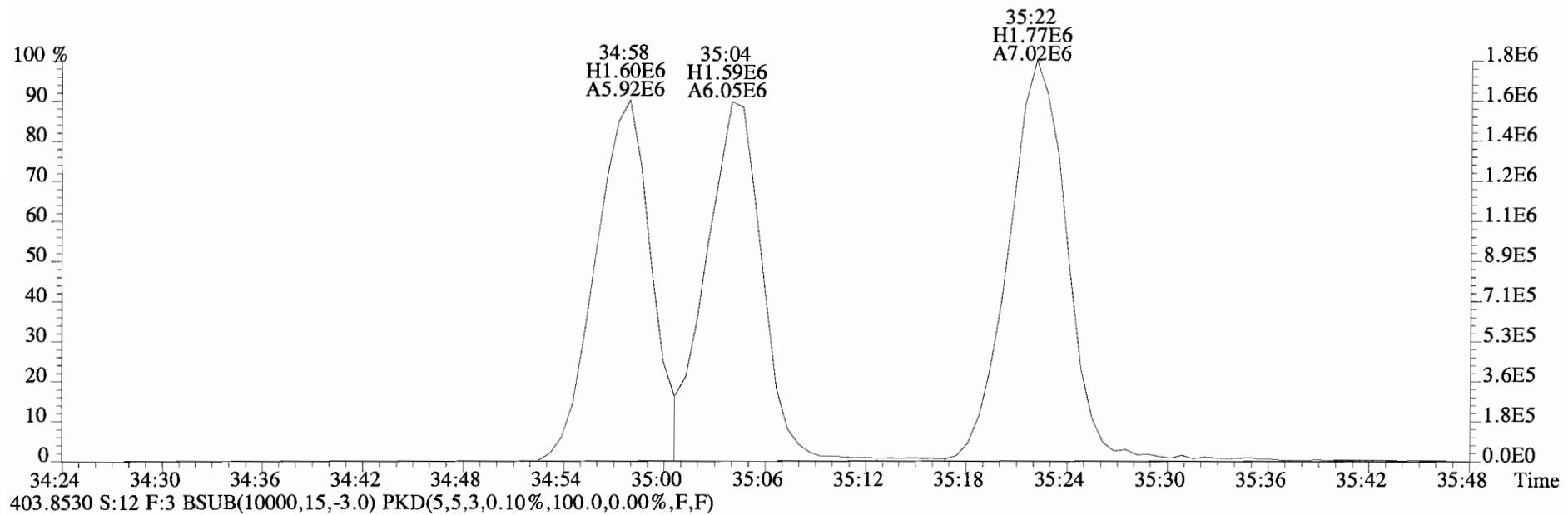
403.8530 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



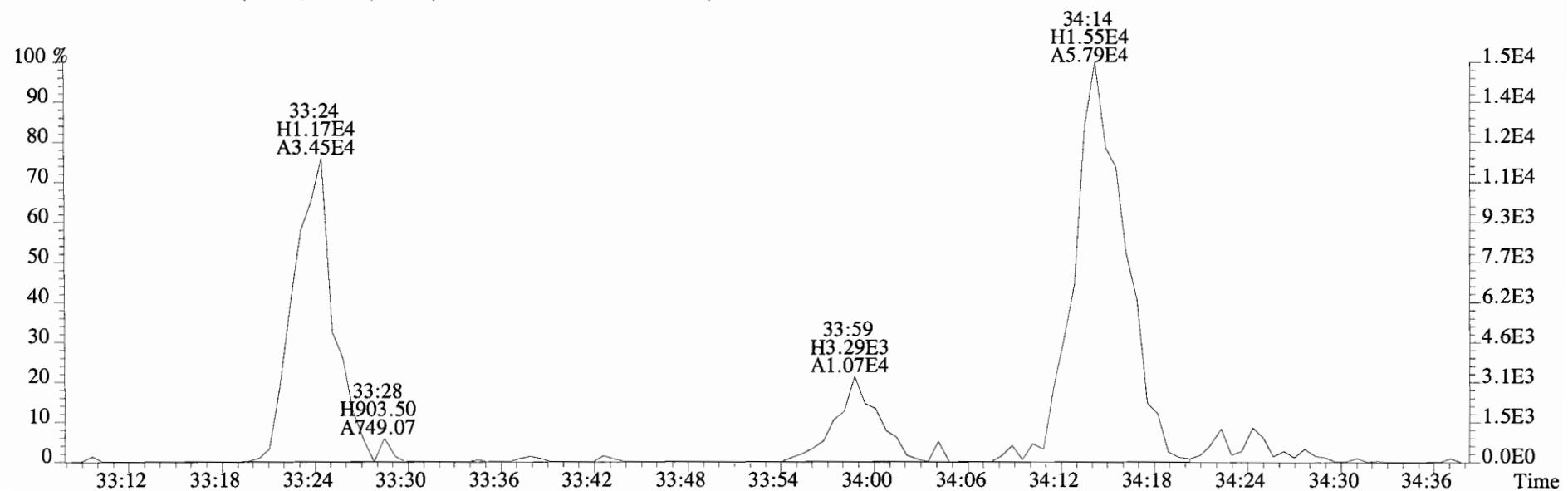
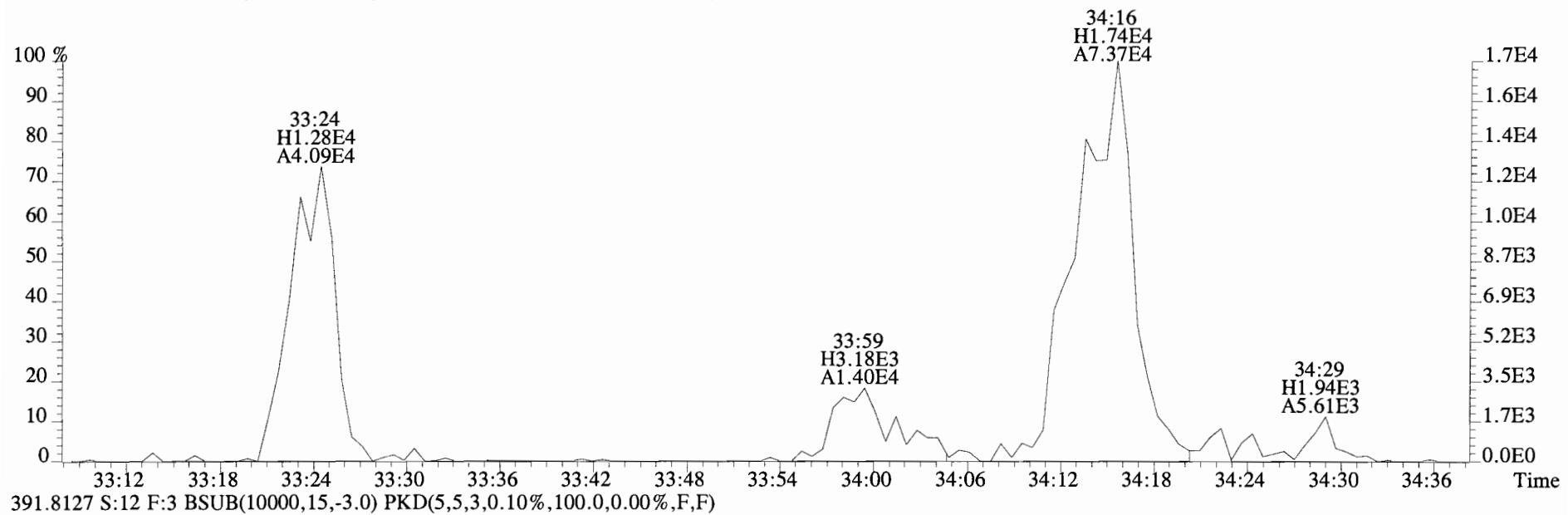
380.9760 S:12 F:3



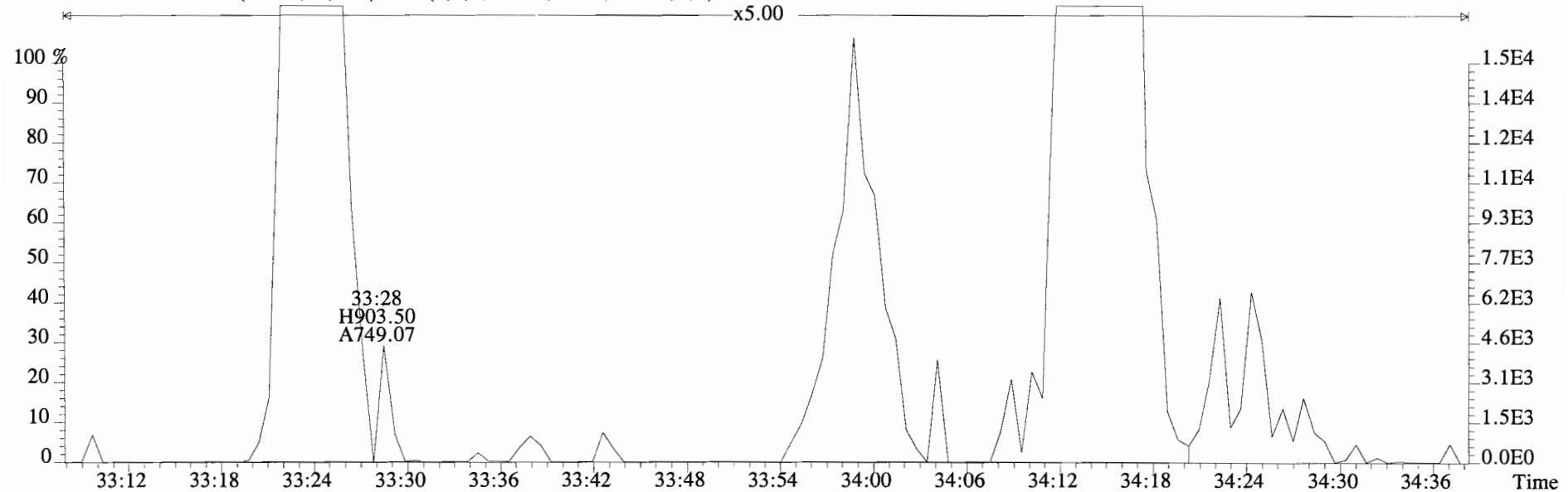
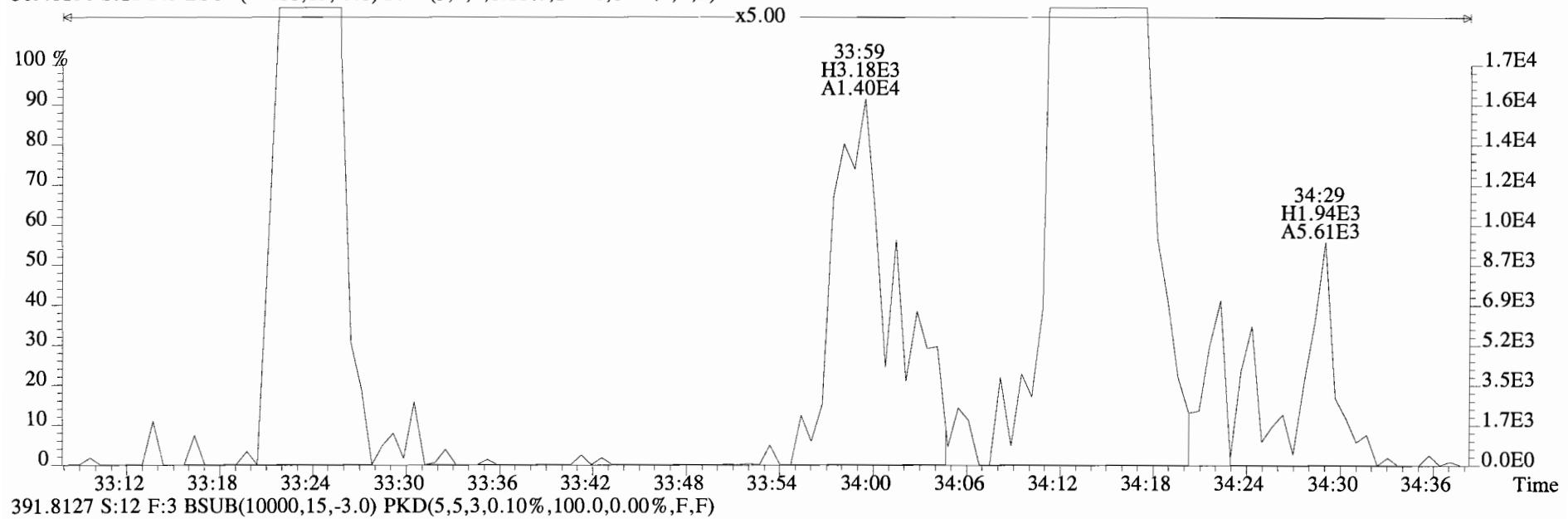
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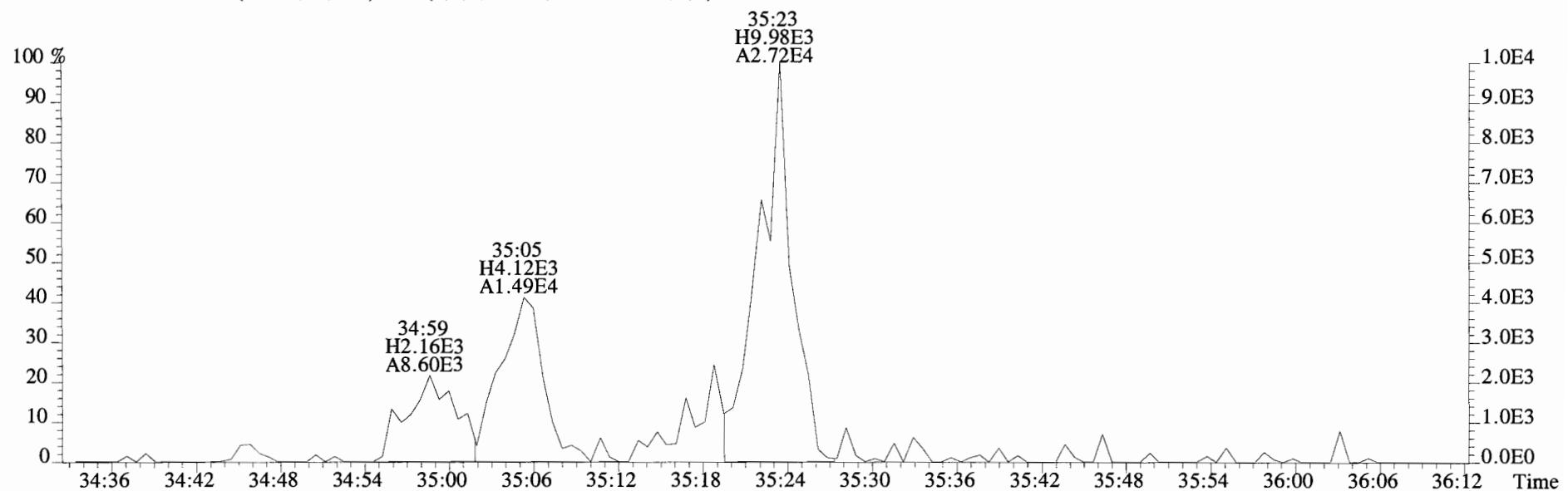
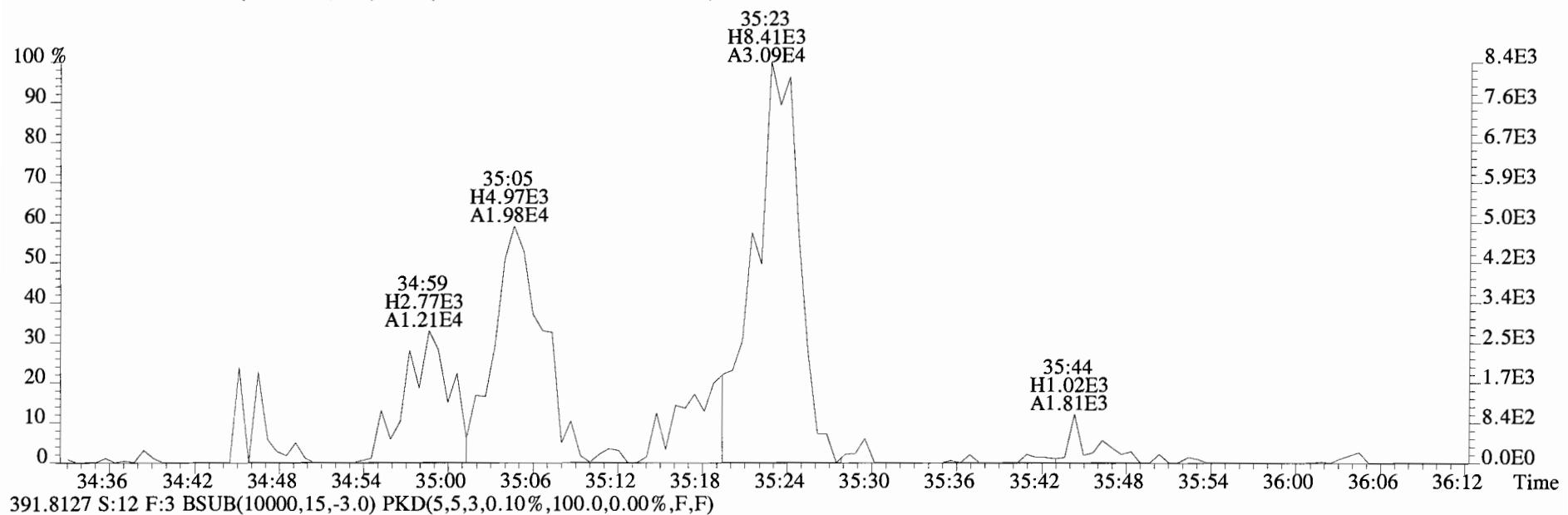
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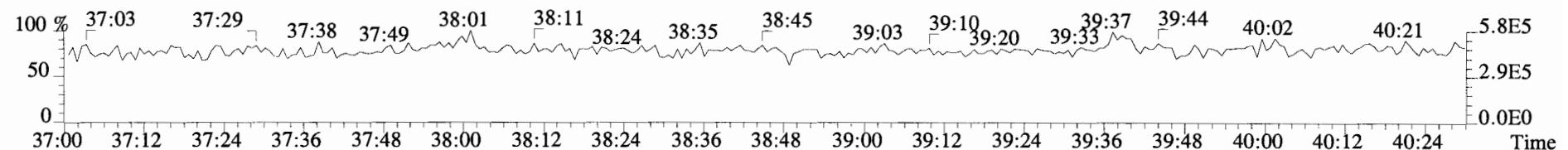
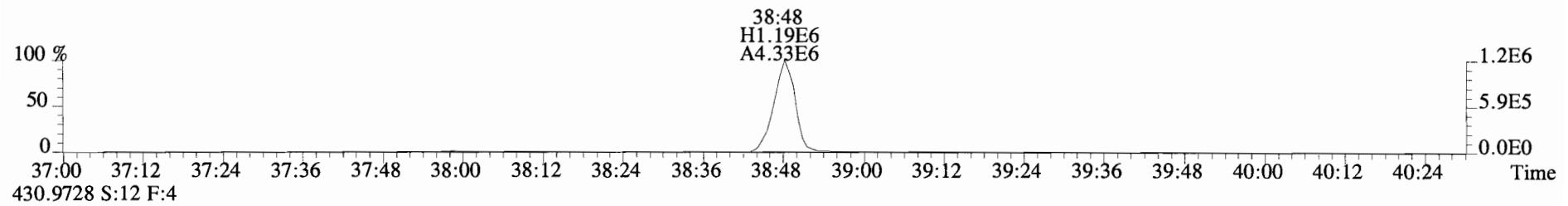
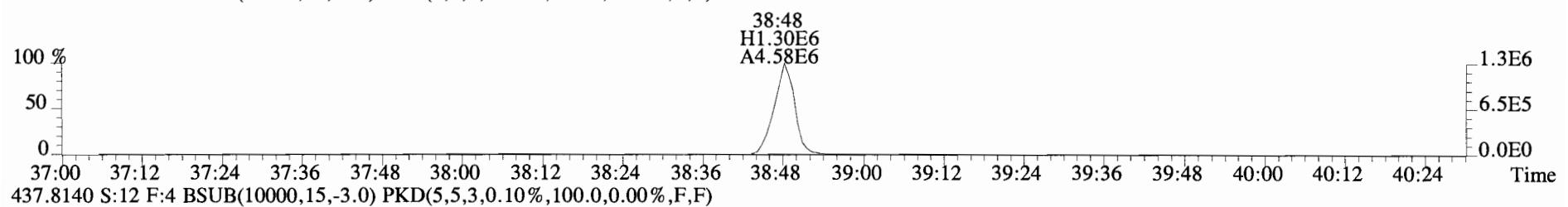
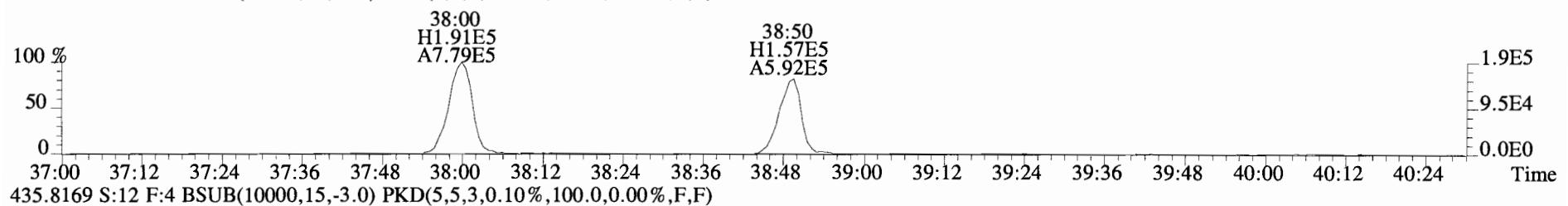
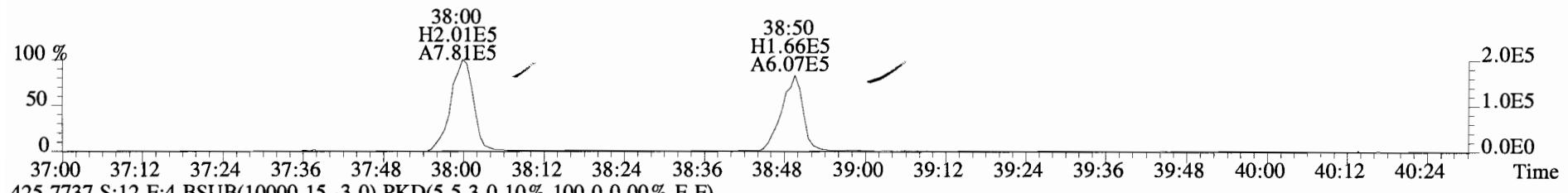
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Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
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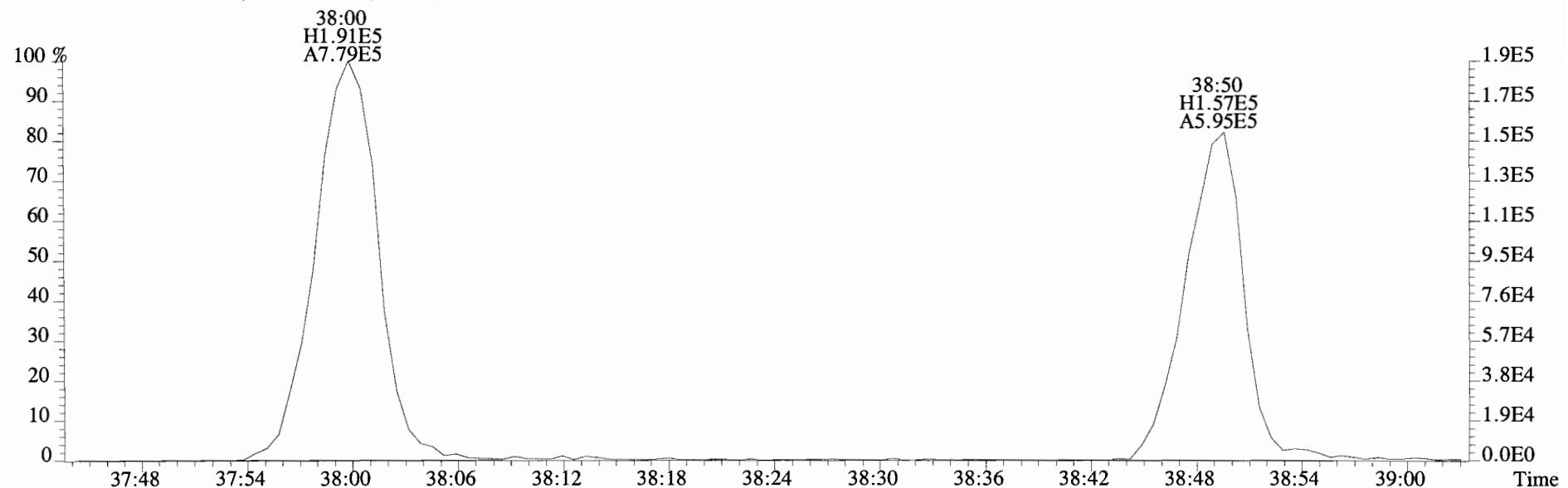
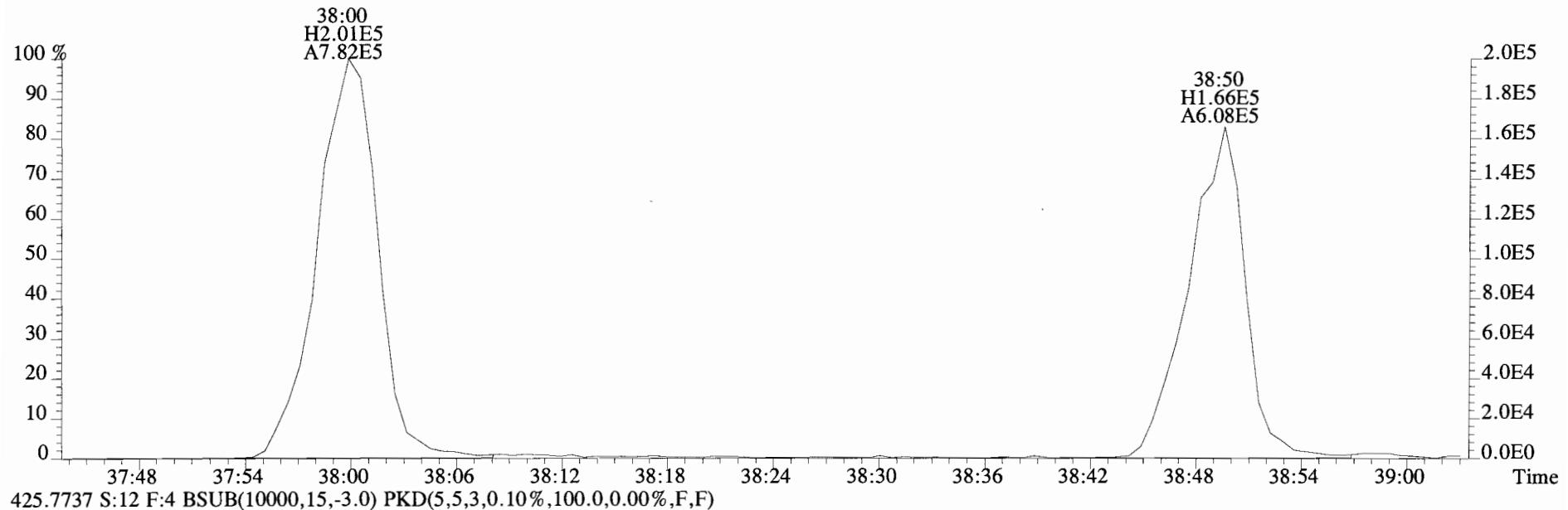
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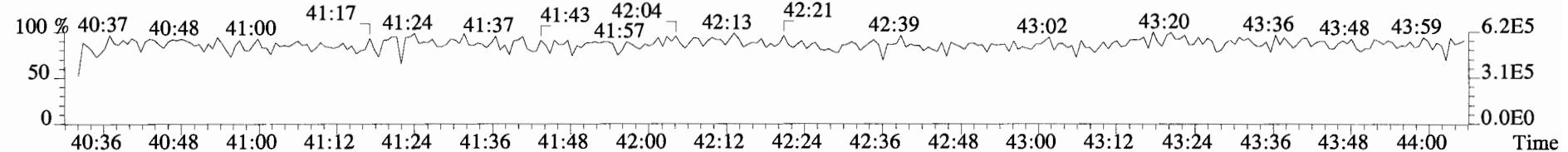
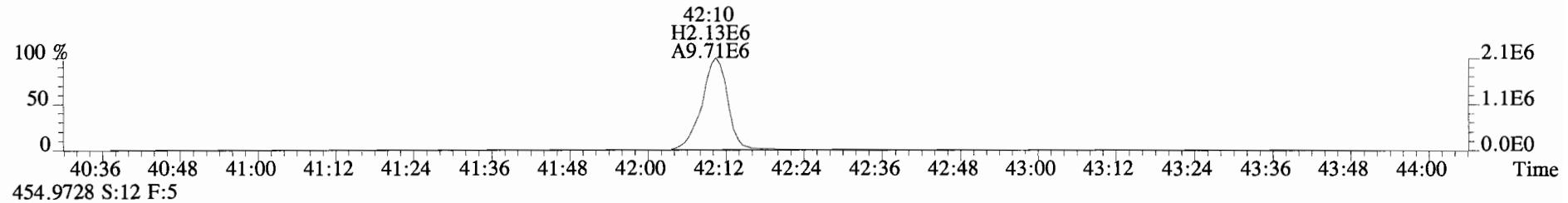
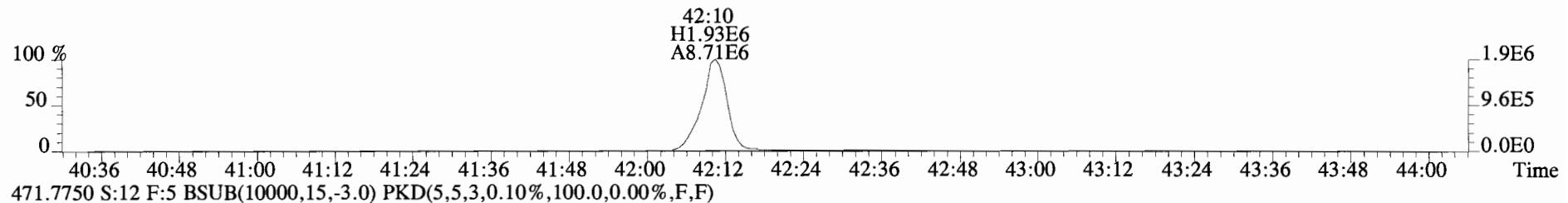
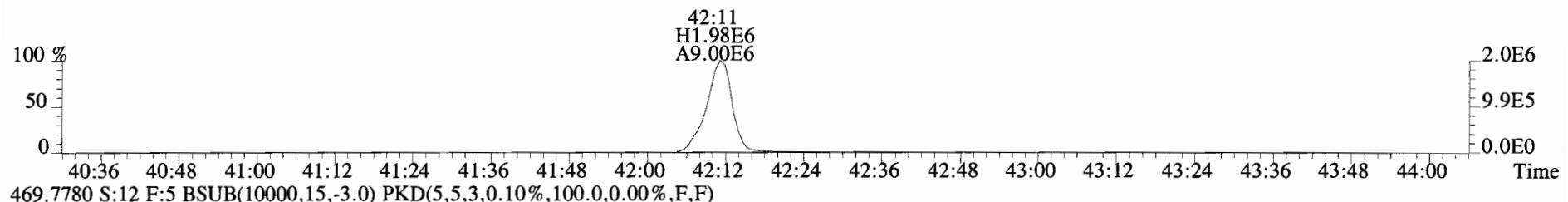
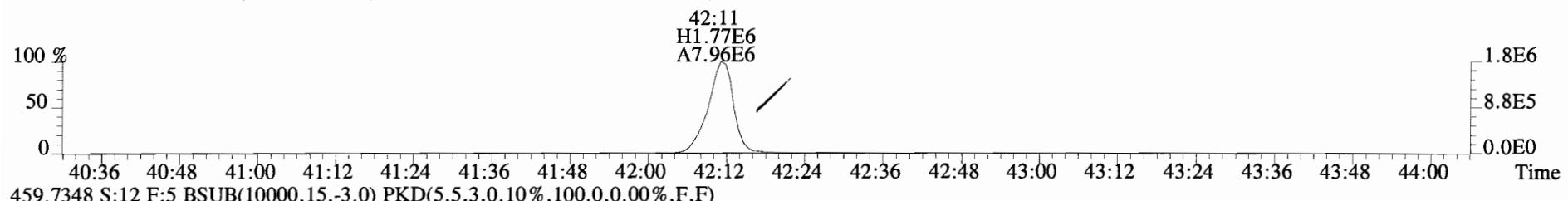
File:140922D1 #1-326 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 423.7767 S:12 F:4 BSBUS(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



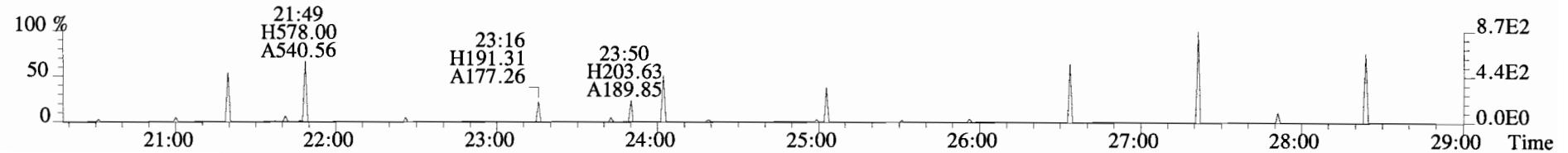
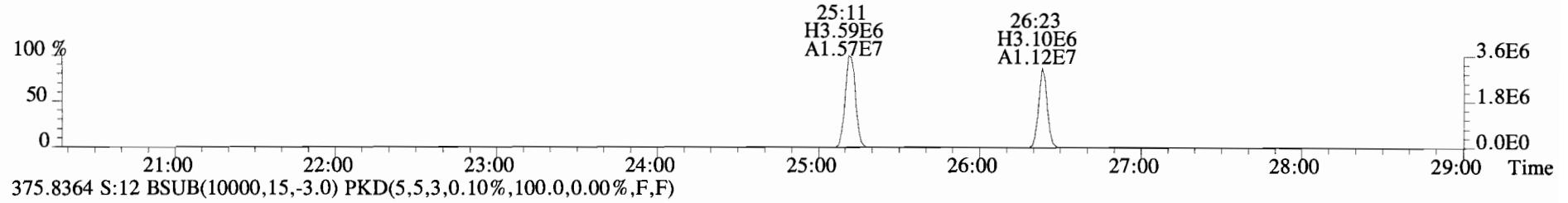
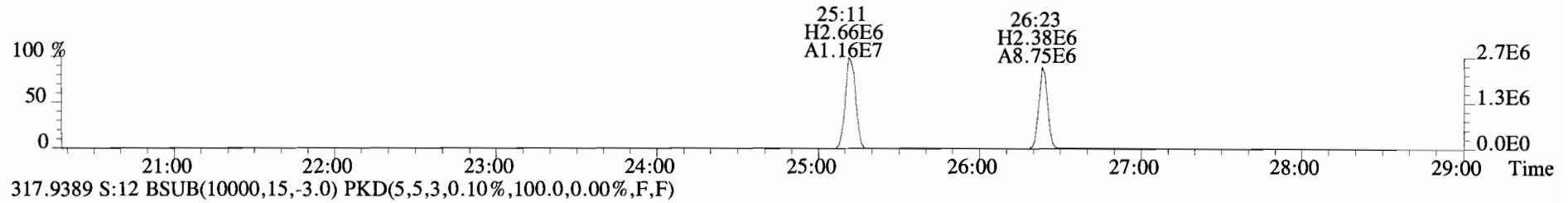
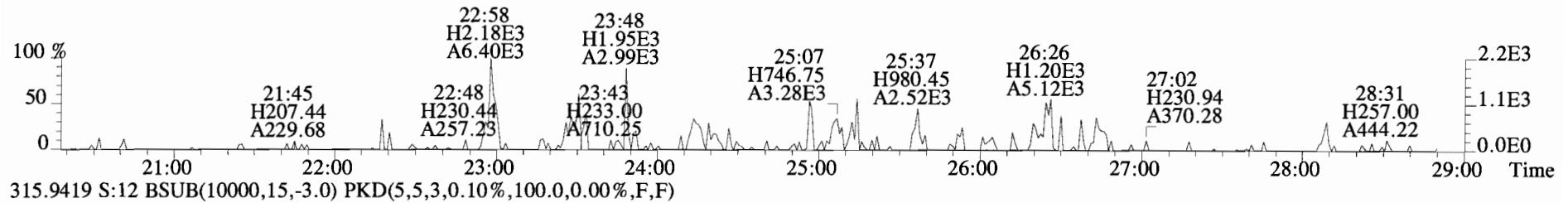
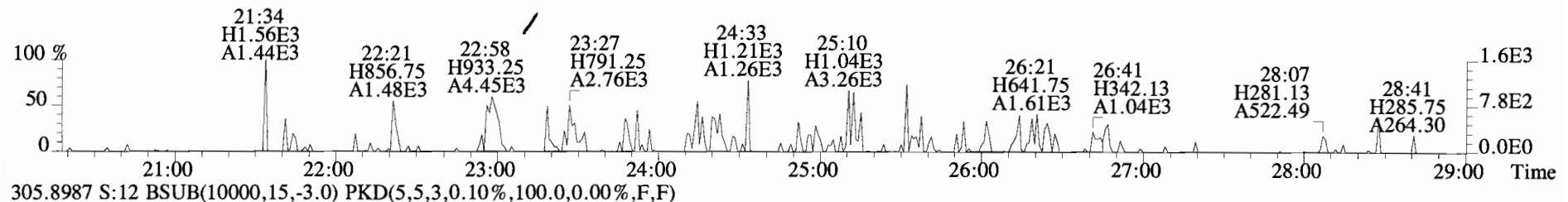
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423.7767 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



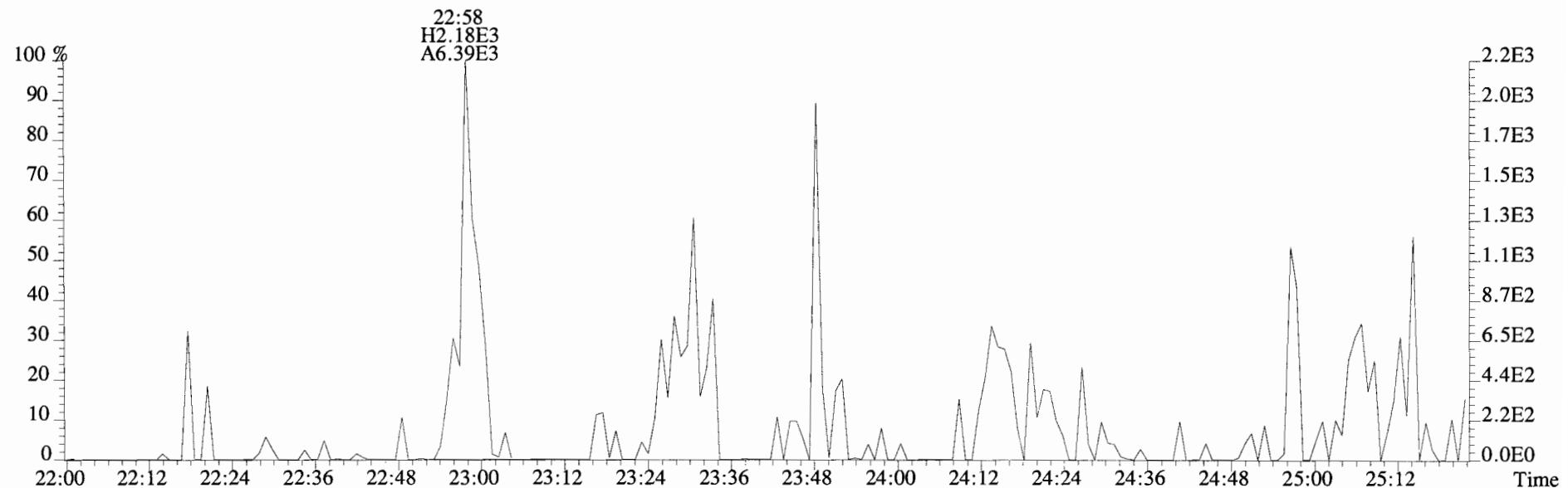
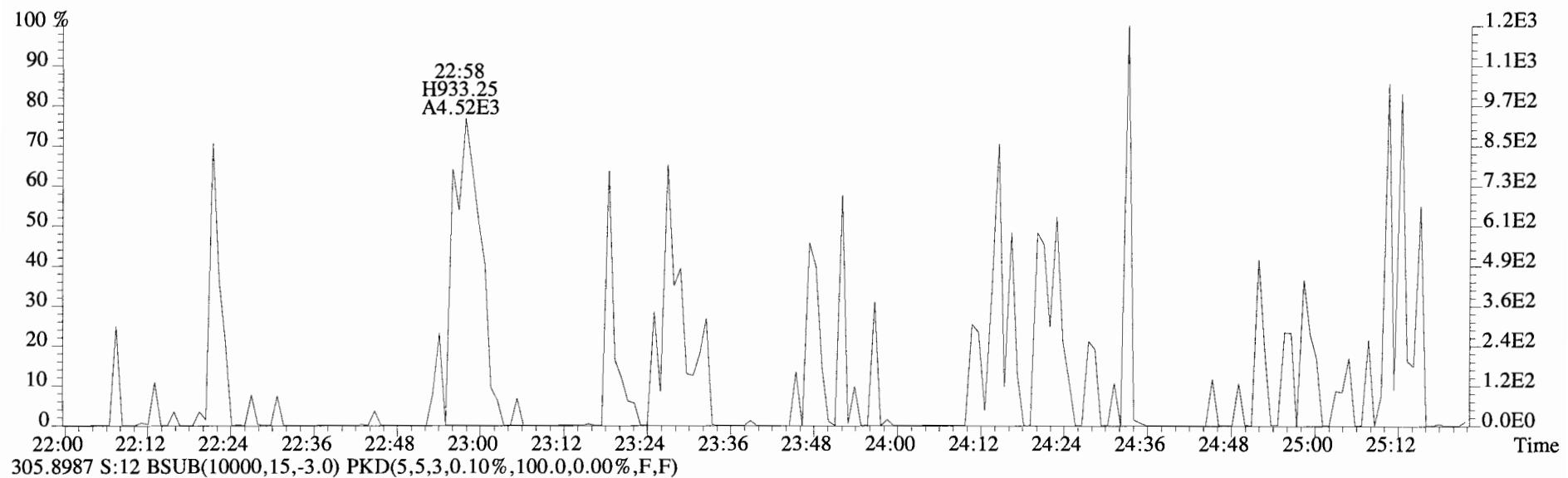
File:140922D1 #1-388 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 457.7377 S:12 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



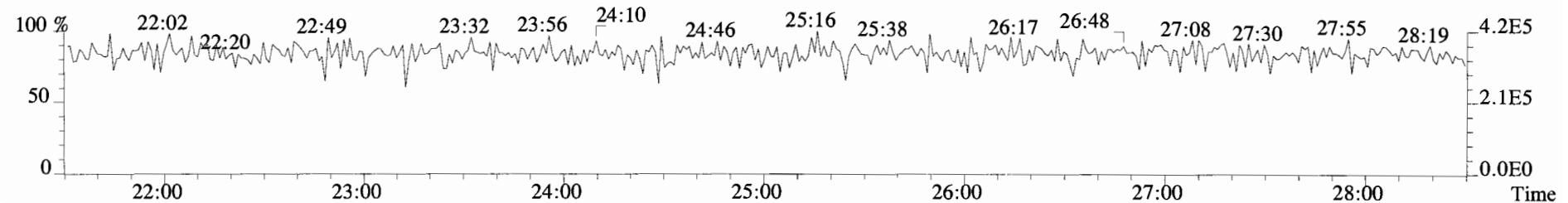
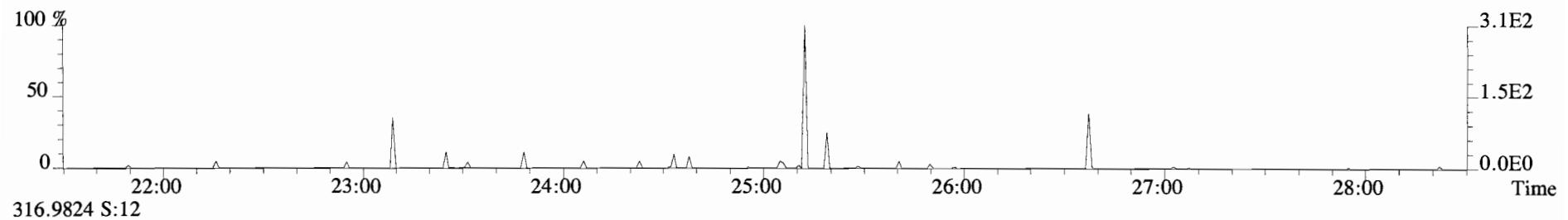
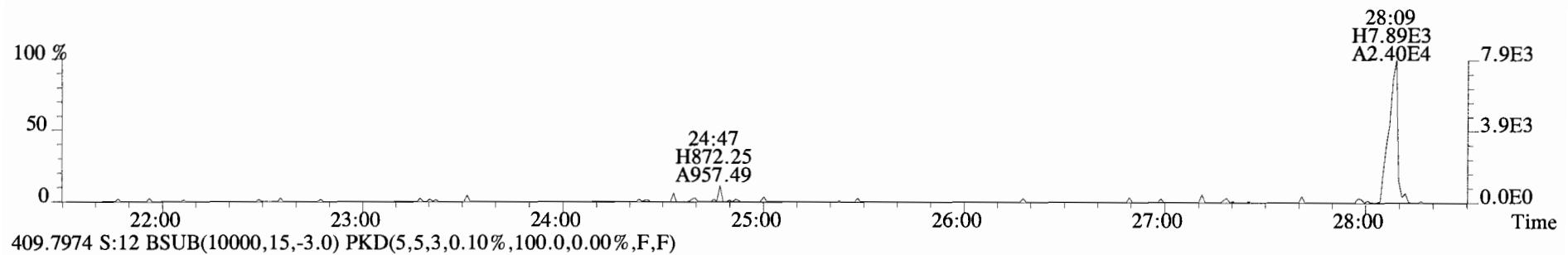
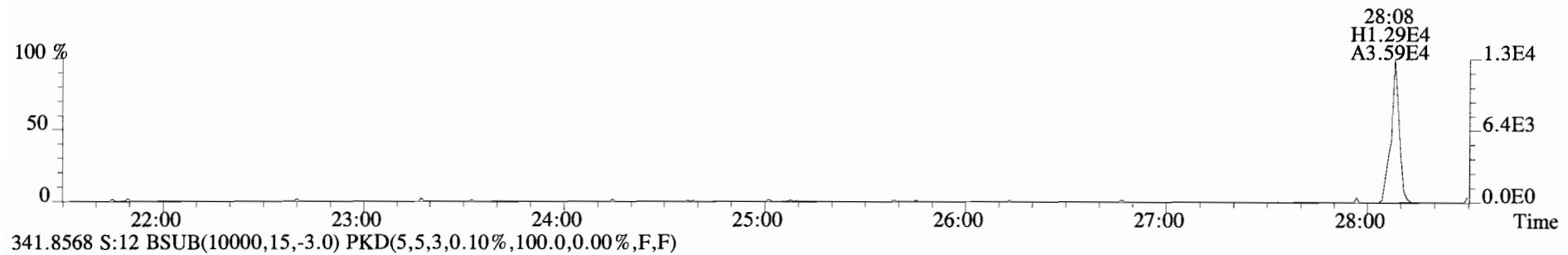
File:140922D1 #1-551 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



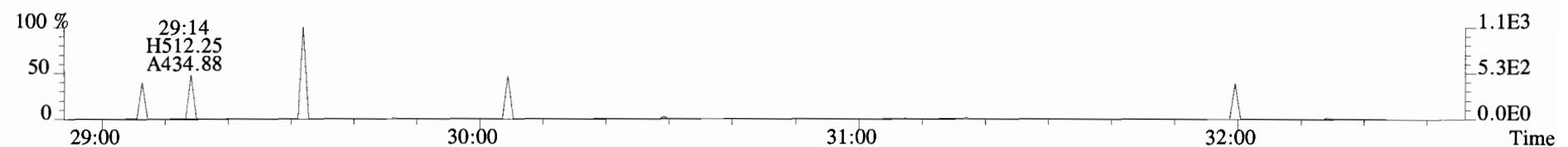
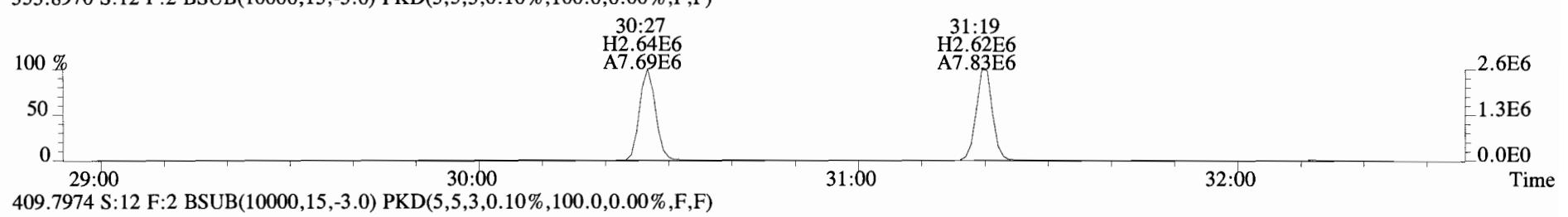
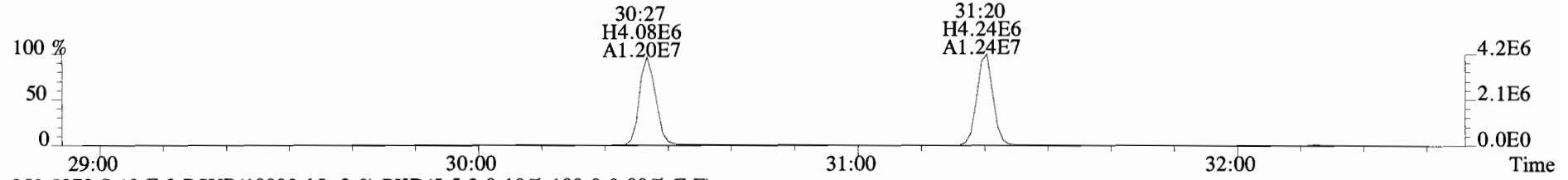
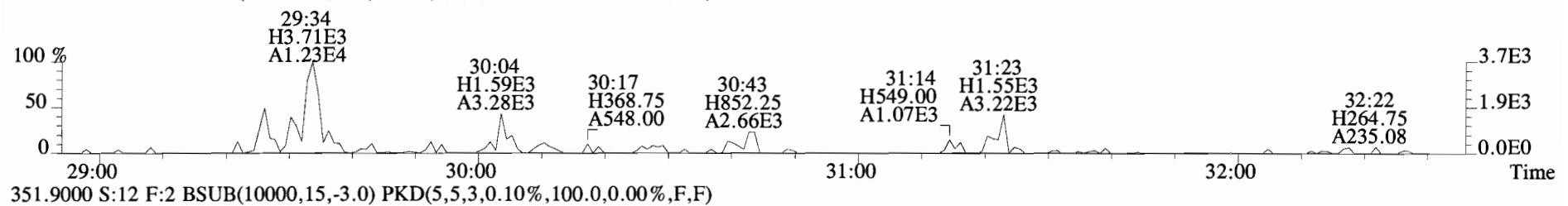
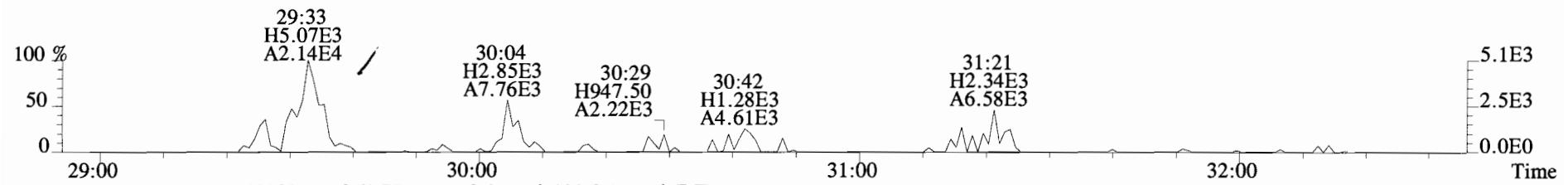
File:140922D1 #1-551 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
303.9016 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



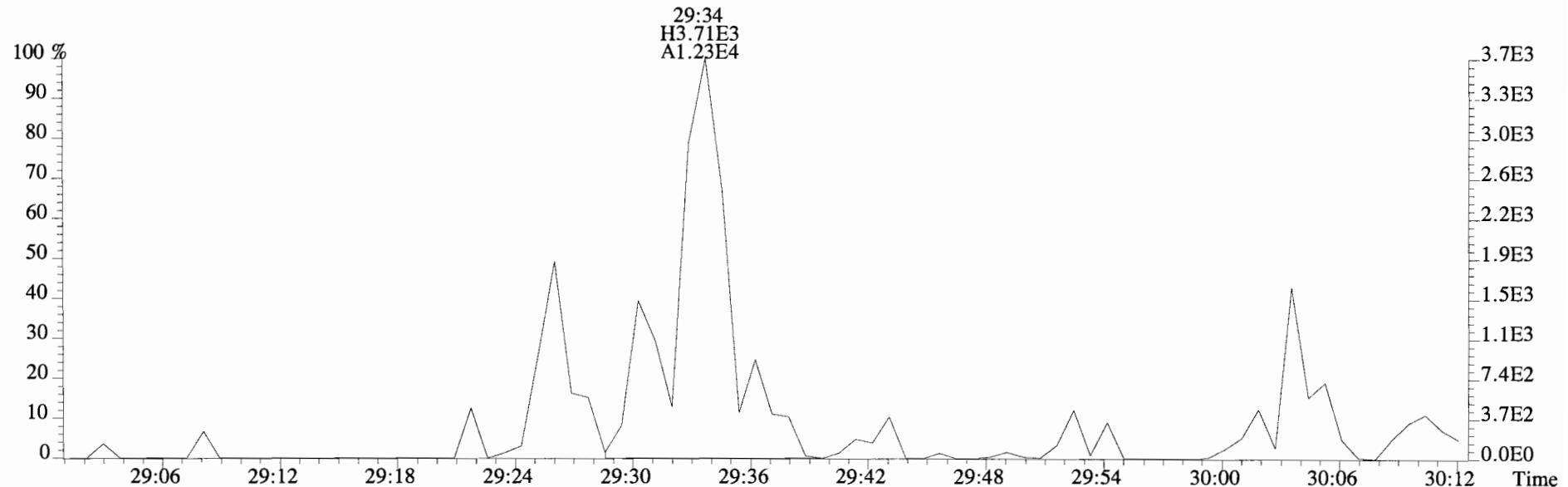
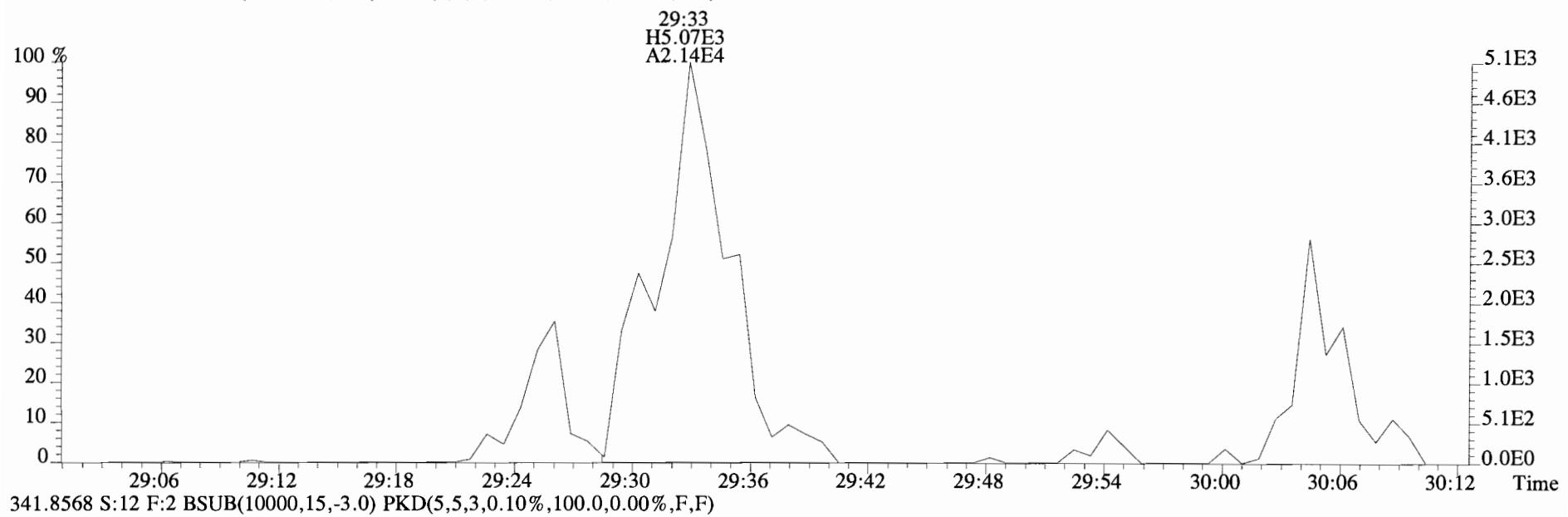
File:140922D1 #1-551 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
339.8597 S:12 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



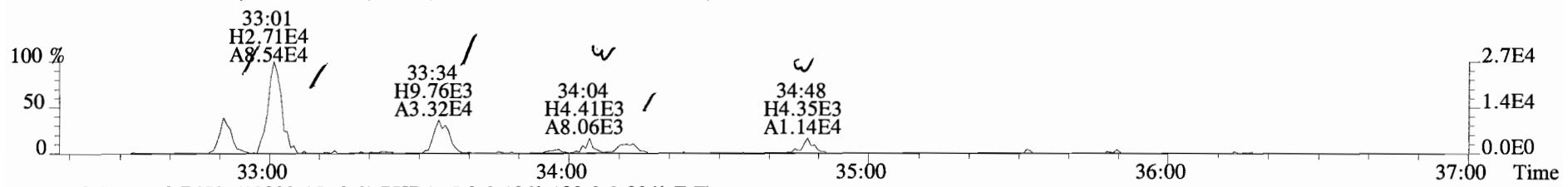
File:140922D1 #1-257 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
339.8597 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



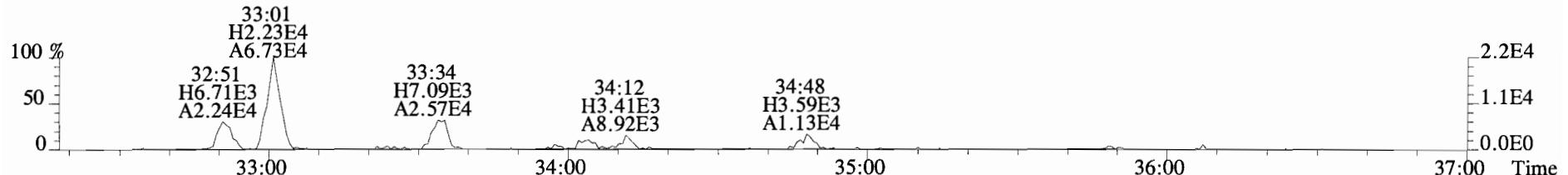
File:140922D1 #1-257 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
339.8597 S:12 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



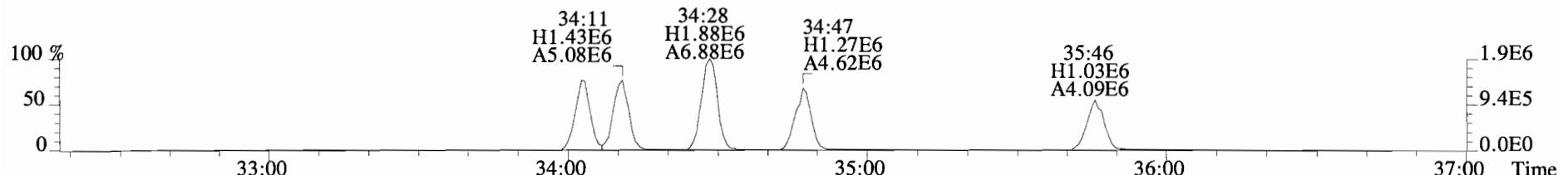
File:140922D1 #1-385 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 373.8207 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



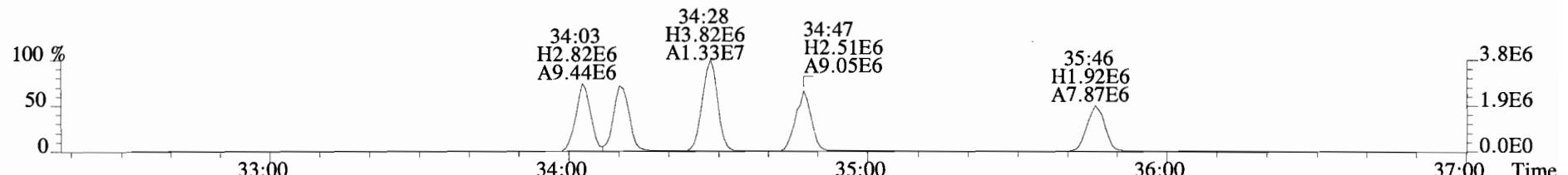
375.8178 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



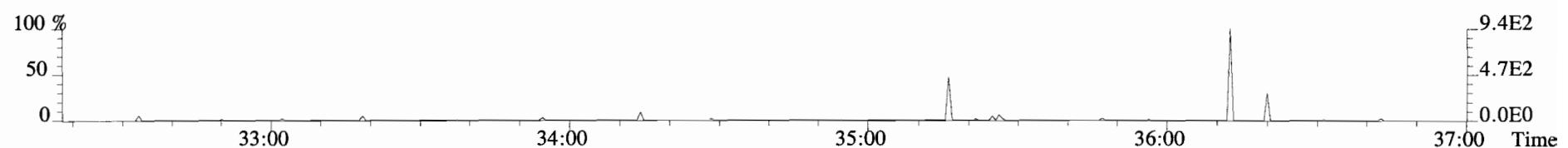
383.8639 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



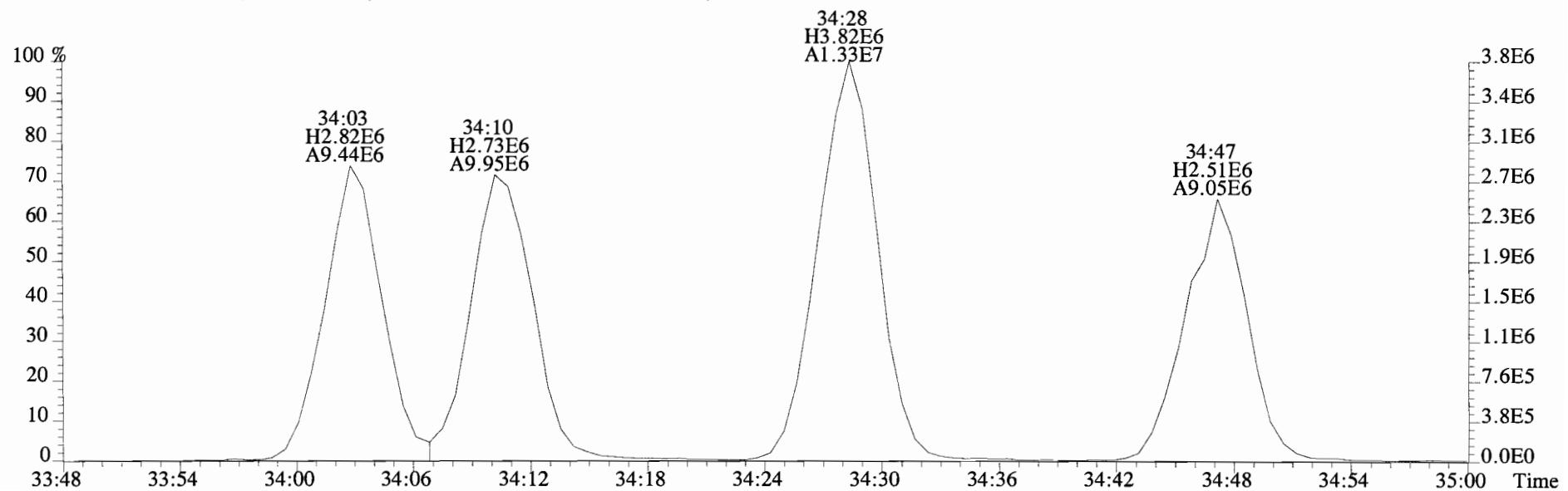
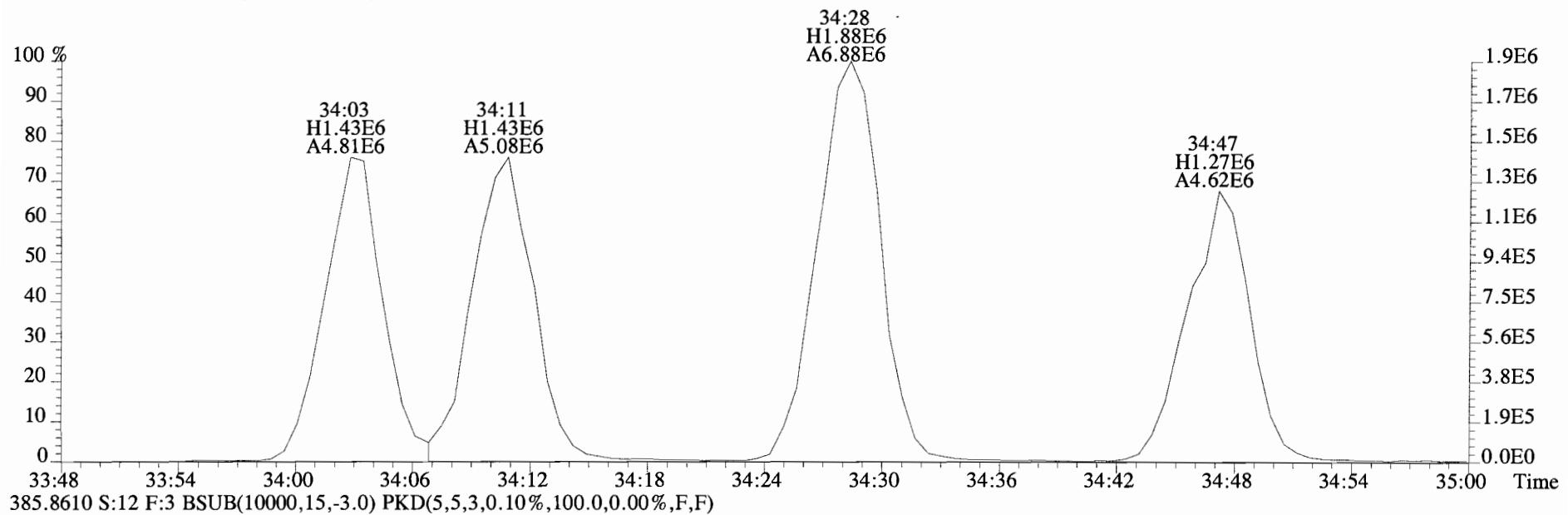
385.8610 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



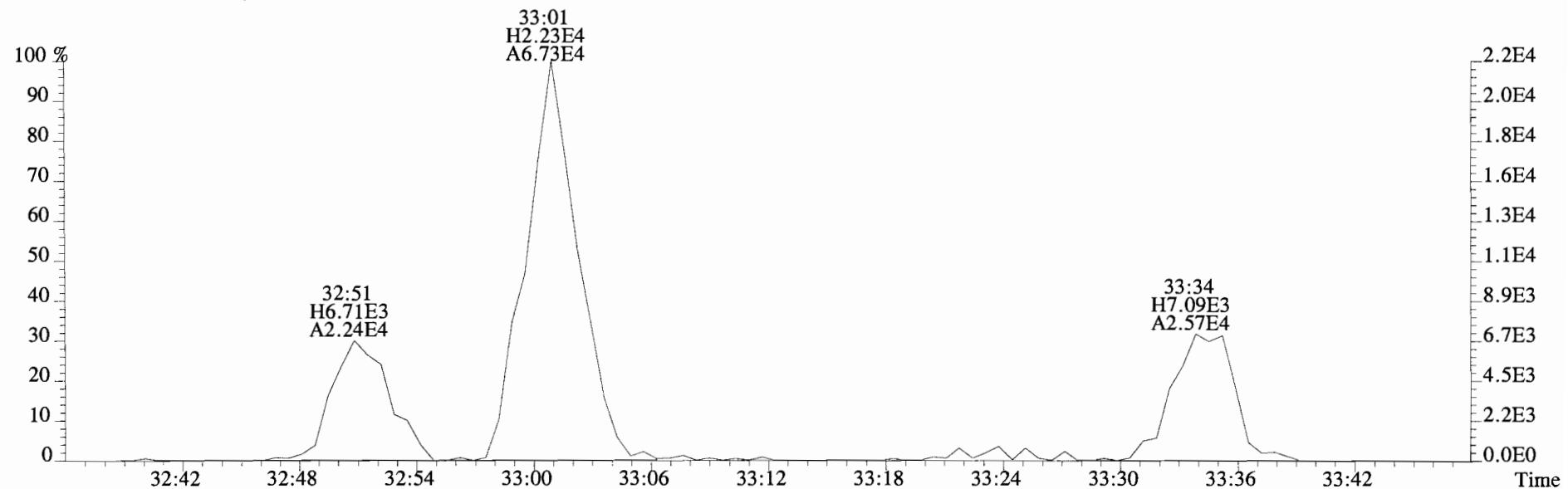
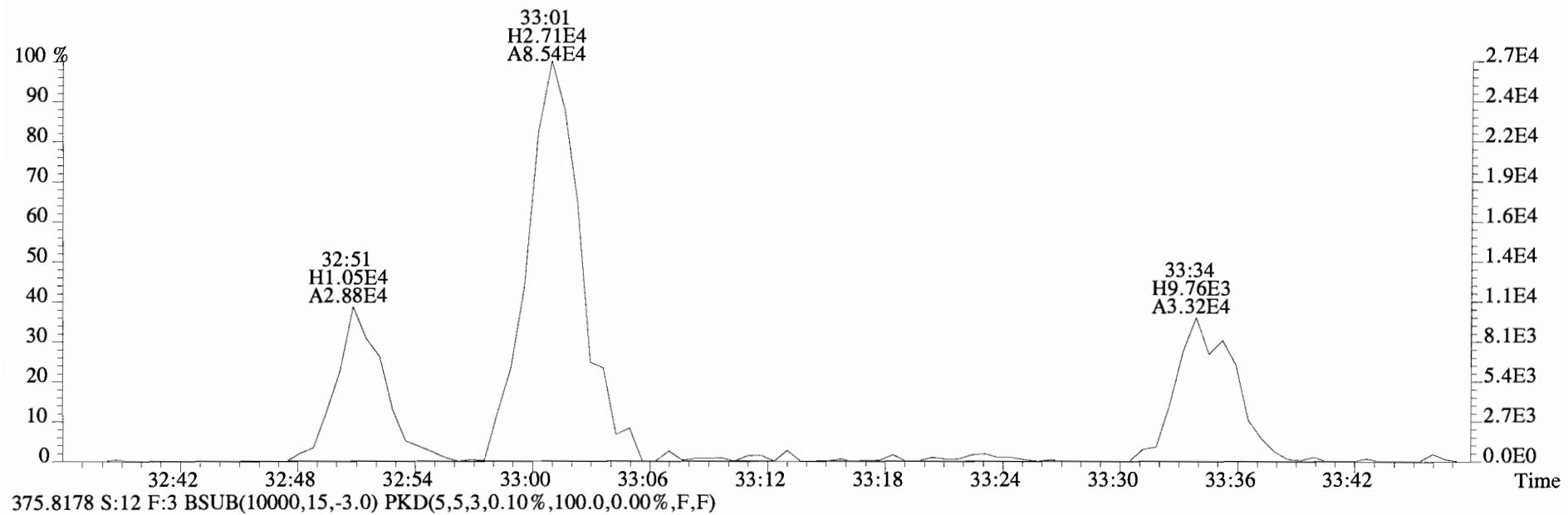
445.7555 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



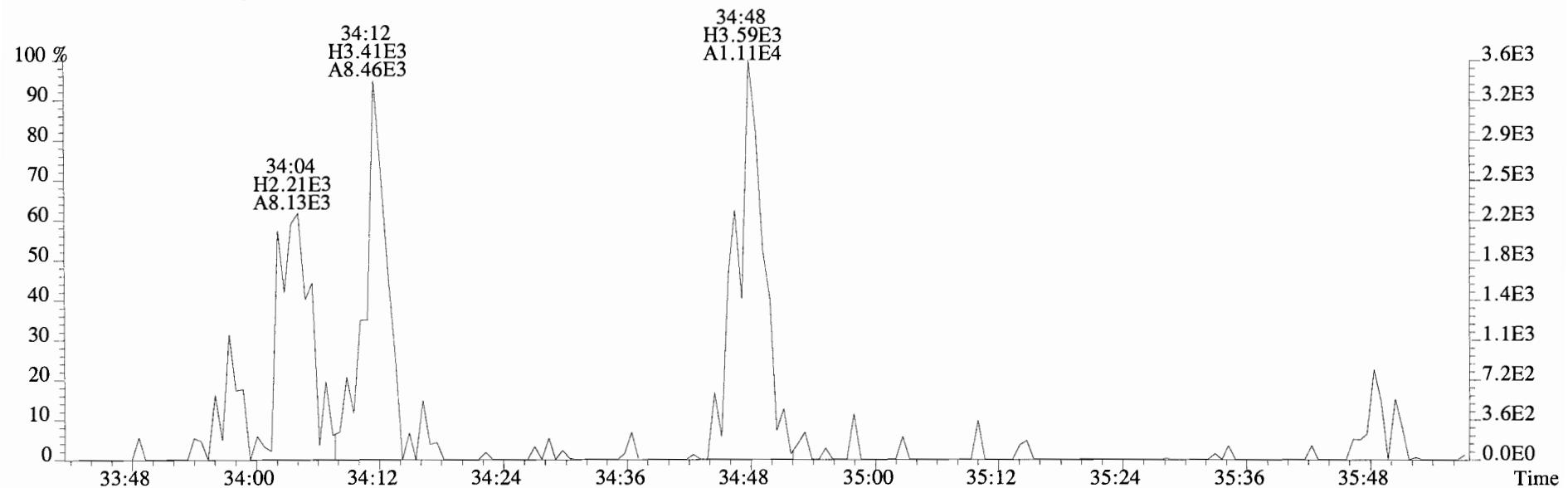
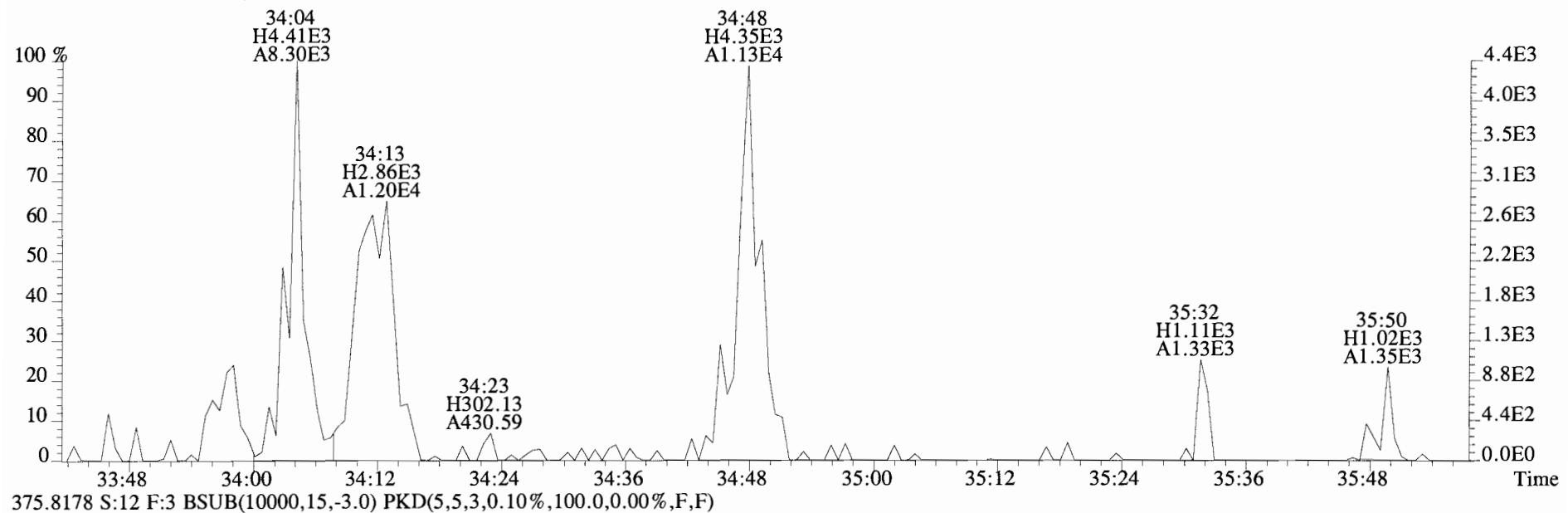
File:140922D1 #1-385 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
383.8639 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



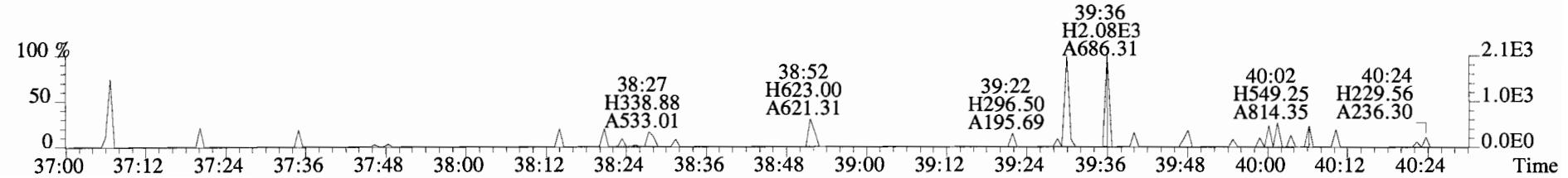
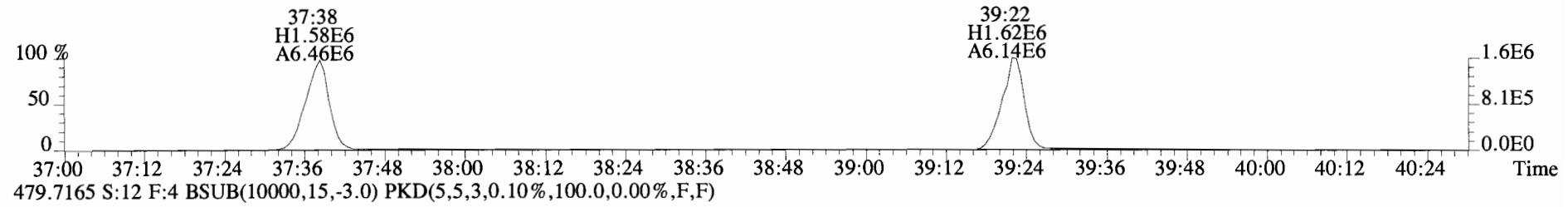
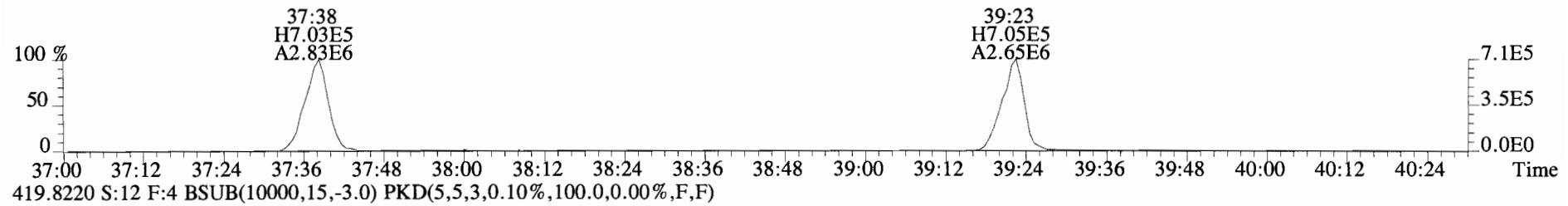
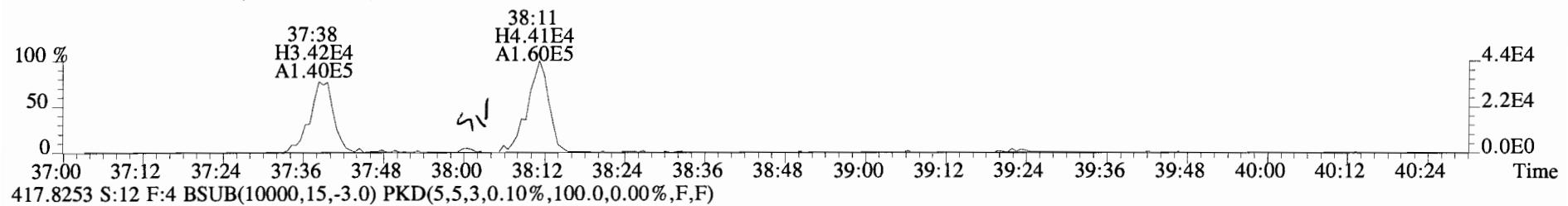
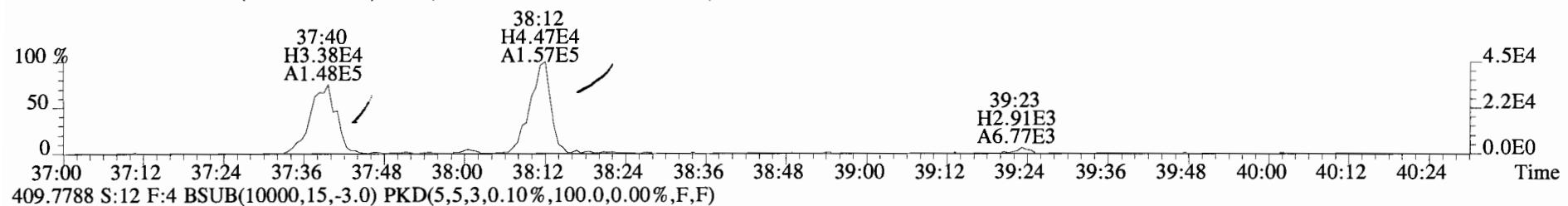
File:140922D1 #1-385 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
373.8207 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



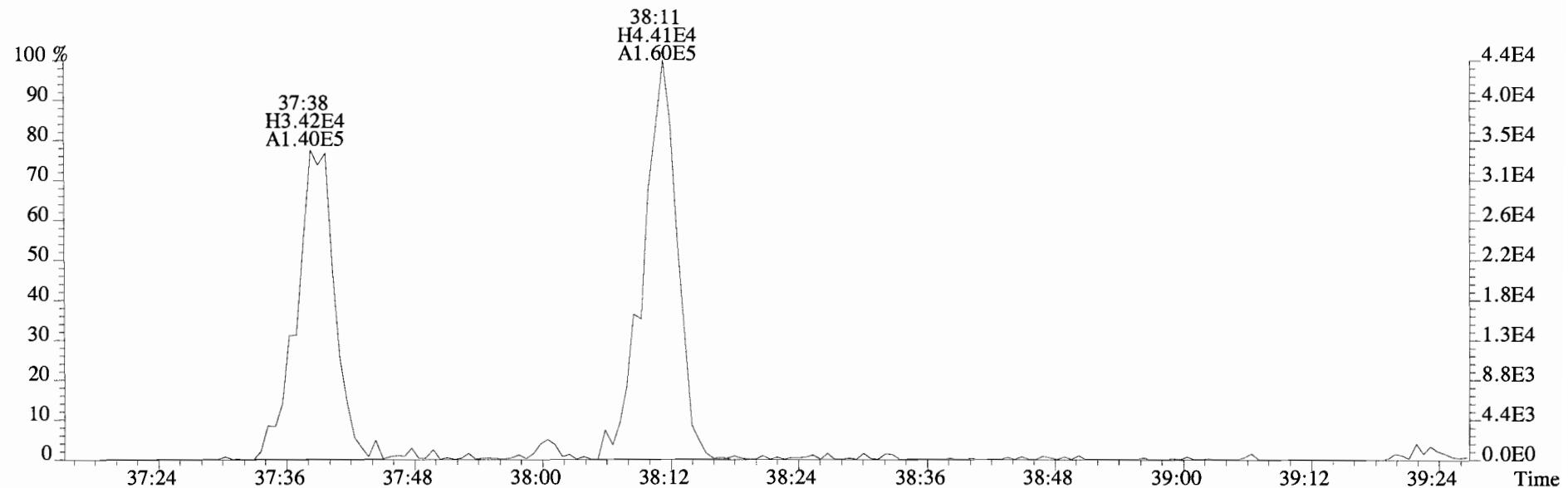
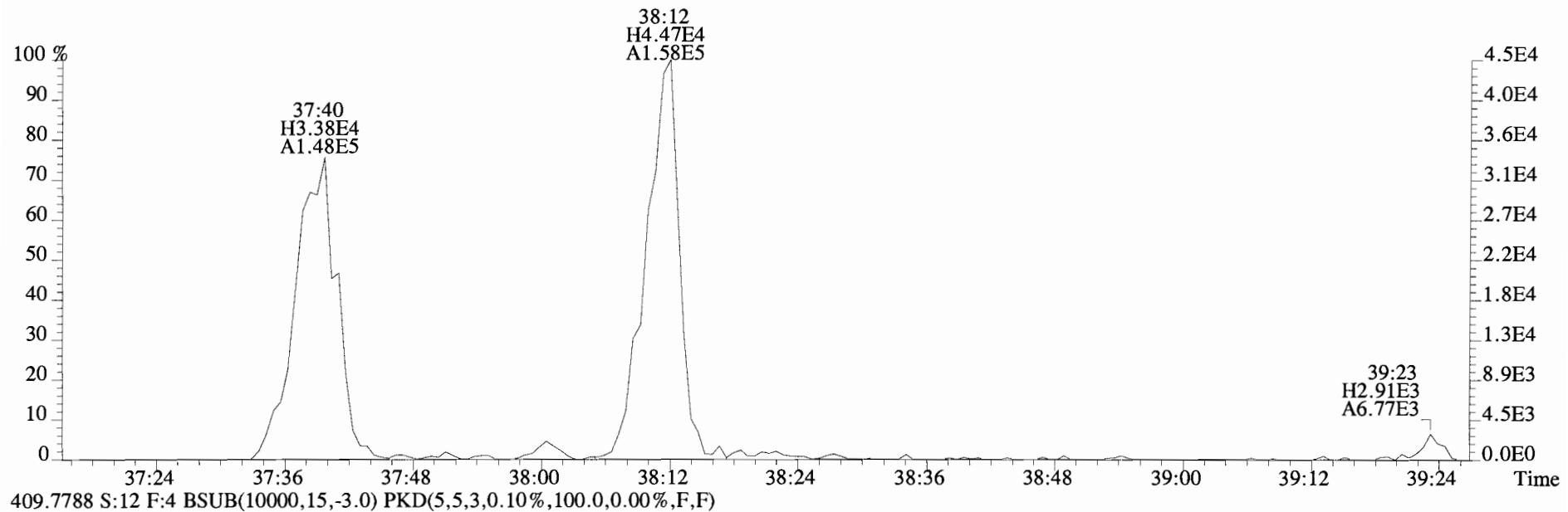
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Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
373.8207 S:12 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



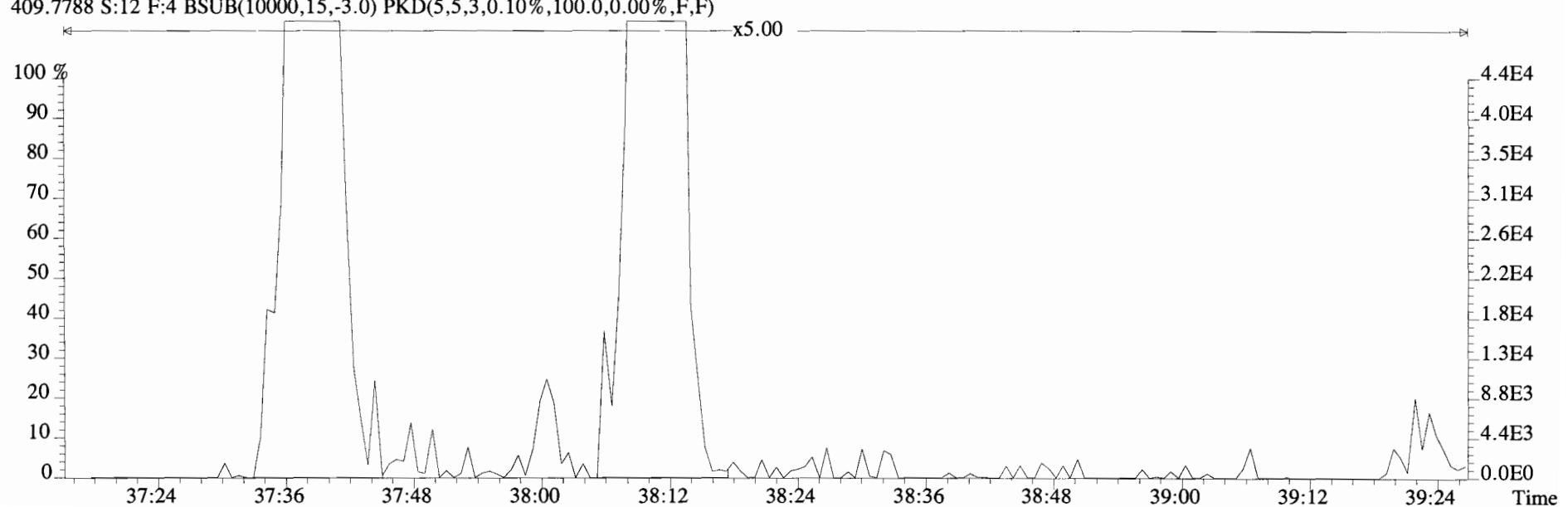
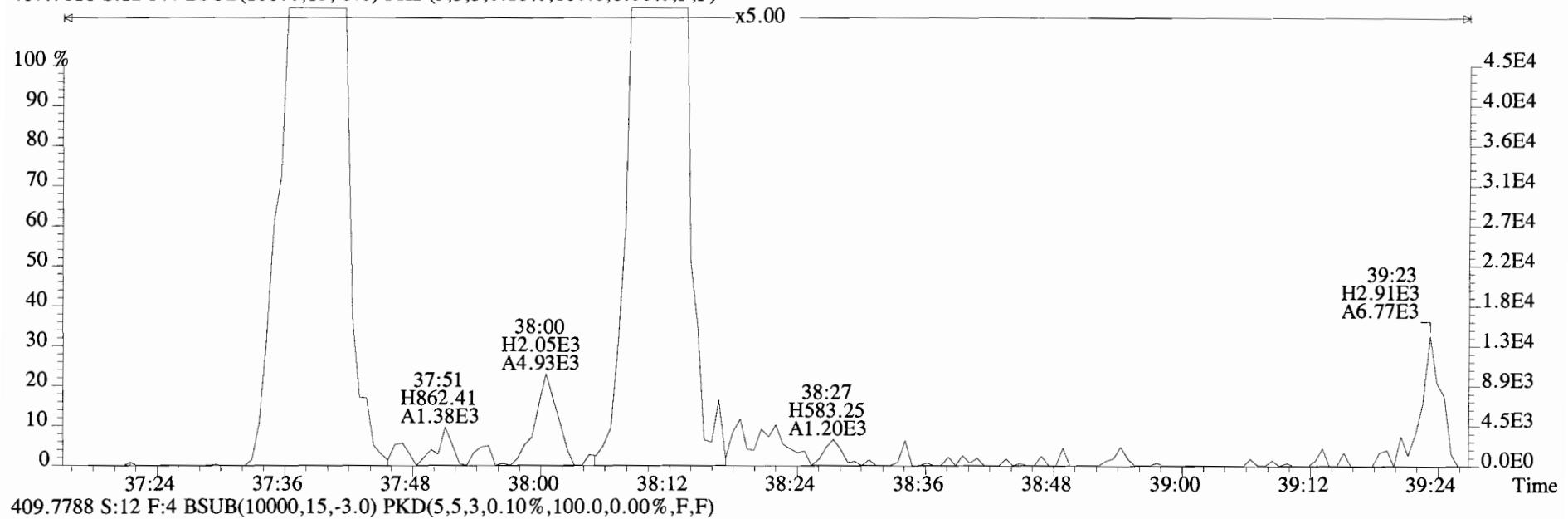
File:140922D1 #1-326 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
 407.7818 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



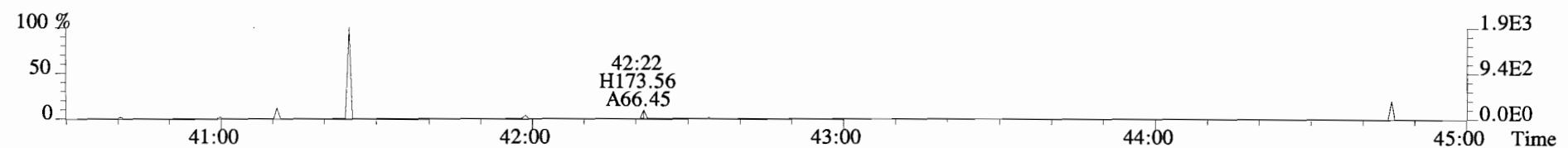
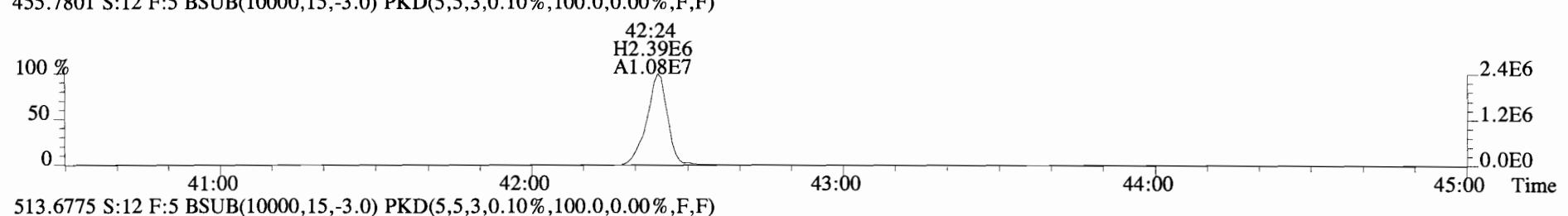
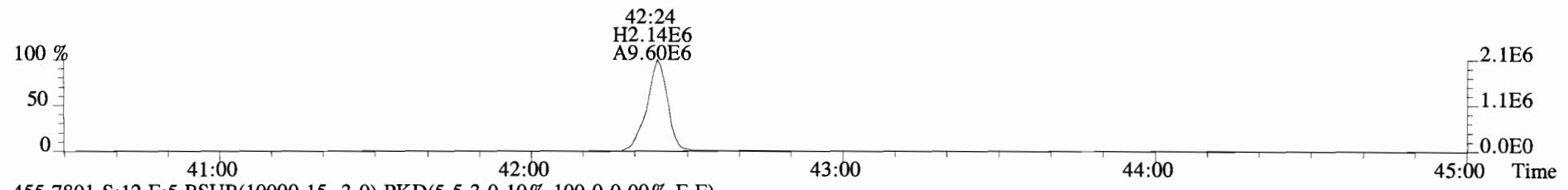
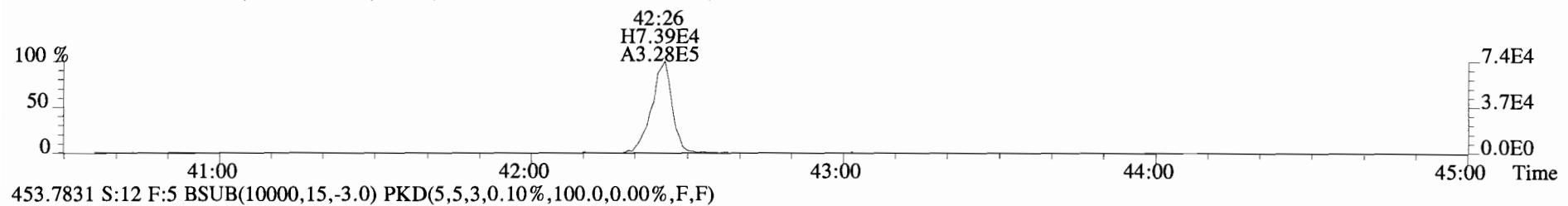
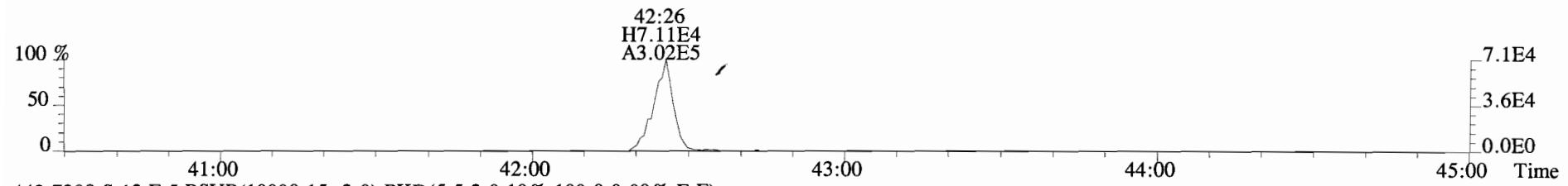
File:140922D1 #1-326 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
407.7818 S:12 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140922D1 #1-326 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text: Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
407.7818 S:12 F:4 BSB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140922D1 #1-388 Acq:22-SEP-2014 22:25:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#12 File Text:Vista Analytical Laboratory VG-7 Text:1400659-02 PS-OS-01-20140909-W 1.0231 Exp:OCDD_DB5
441.7428 S:12 F:5 BSB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: Method Blank
Lab ID: B4I0053-BLK1

Filename: 140917D1 S:8 Acq:17-SEP-14 18:50:05
GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol:10.000
ConCal: ST140917D1-1
EndCAL: NA

Page 5 of 5

Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	*	* n	1.03	NotF _q	*	*		295	2.5	0.0418	Total Tetra-Dioxins	*	*		295	0.0418
1,2,3,7,8-PeCDD	*	* n	0.84	NotF _q	*	*		788	2.5	0.0860	Total Penta-Dioxins	*	*		1370	0.149
1,2,3,4,7,8-HxCDD	*	* n	1.05	NotF _q	*	*		359	2.5	0.0736	Total Hexa-Dioxins	*	*		549	0.116
1,2,3,6,7,8-HxCDD	*	* n	1.04	NotF _q	*	*		359	2.5	0.0750	Total Hepta-Dioxins	0.0942	0.0942	*	*	
1,2,3,7,8,9-HxCDD	*	* n	0.90	NotF _q	*	*		359	2.5	0.0796	Total Tetra-Furans	*	*		651	0.0820
1,2,3,4,6,7,8-HpCDD	*	* n	1.01	NotF _q	*	*		1130	2.5	0.263	Total Penta-Furans	0.0000	0.0000		452	0.0505
OCDD	1.65e+04	0.77 y	1.04	42:07	1.000	0.22215	*	2.5	*		Total Hexa-Furans	*	*		424	0.0366
											Total Hepta-Furans	*	*		654	0.0657
2,3,7,8-TCDF	*	* n	0.91	NotF _q	*	*		651	2.5	0.0820						
1,2,3,7,8-PeCDF	*	* n	0.97	NotF _q	*	*		323	2.5	0.0379						
2,3,4,7,8-PeCDF	*	* n	0.94	NotF _q	*	*		323	2.5	0.0344						
1,2,3,4,7,8-HxCDF	*	* n	1.32	NotF _q	*	*		424	2.5	0.0285						
1,2,3,6,7,8-HxCDF	*	* n	1.18	NotF _q	*	*		424	2.5	0.0345						
2,3,4,6,7,8-HxCDF	*	* n	1.23	NotF _q	*	*		289	2.5	0.0252						
1,2,3,7,8,9-HxCDF	*	* n	1.13	NotF _q	*	*		289	2.5	0.0337						
1,2,3,4,6,7,8-HpCDF	*	* n	1.57	NotF _q	*	*		654	2.5	0.0672						
1,2,3,4,7,8,9-HpCDF	*	* n	1.50	NotF _q	*	*		345	2.5	0.0339						
OCDF	*	* n	1.05	NotF _q	*	*		1120	2.5	0.244						
											Rec	Qual				
IS	13C-2,3,7,8-TCDD	2.20e+07	0.81 y	1.06	27:03	1.021	177.92				89.0					
IS	13C-1,2,3,7,8-PeCDD	2.63e+07	0.63 y	1.08	31:32	1.190	208.76				104					
IS	13C-1,2,3,4,7,8-HxCDD	1.88e+07	1.28 y	0.74	34:53	1.014	192.29				96.1					
IS	13C-1,2,3,6,7,8-HxCDD	1.88e+07	1.29 y	0.75	34:60	1.017	190.33				95.2					
IS	13C-1,2,3,7,8,9-HxCDD	2.21e+07	1.29 y	0.89	35:18	1.026	188.41				94.2					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.65e+07	1.07 y	0.70	38:45	1.126	177.68				88.8					
IS	13C-OCDD	2.85e+07	0.89 y	0.59	42:06	1.224	366.29				91.6					
IS	13C-2,3,7,8-TCDF	3.09e+07	0.76 y	0.97	26:17	0.992	179.82				89.9					
IS	13C-1,2,3,7,8-PeCDF	3.31e+07	1.56 y	0.99	30:22	1.146	188.45				94.2					
IS	13C-2,3,4,7,8-PeCDF	3.56e+07	1.57 y	1.01	31:15	1.179	198.70				99.3					
IS	13C-1,2,3,4,7,8-HxCDF	2.69e+07	0.52 y	0.94	33:59	0.988	216.70				108					
IS	13C-1,2,3,6,7,8-HxCDF	2.79e+07	0.51 y	1.23	34:07	0.991	172.46				86.2					
IS	13C-2,3,4,6,7,8-HxCDF	2.52e+07	0.52 y	1.03	34:43	1.009	185.23				92.6					
IS	13C-1,2,3,7,8,9-HxCDF	2.25e+07	0.52 y	0.89	35:41	1.037	192.35				96.2					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.82e+07	0.44 y	0.71	37:34	1.092	195.37				97.7					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.80e+07	0.43 y	0.64	39:18	1.142	211.97				106					
IS	13C-OCDF	3.72e+07	0.89 y	0.76	42:20	1.230	371.65				92.9					
C/Up	37Cl-2,3,7,8-TCDD	8.53e+06		1.04	27:05	1.021	70.316				87.9	Integrations by		Reviewed by		
RS/RT	13C-1,2,3,4-TCDD	2.32e+07	0.79 y	1.00	26:31	*	200.00					Analyst: <u>MJ</u>				
RS	13C-1,2,3,4-TCDF	3.55e+07	0.76 y	1.00	25:06	*	200.00									
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.64e+07	0.53 y	1.00	34:24	*	200.00					Date: <u>9/18/14</u>		Date: <u>8/9/19</u>		

Totals class: HpCDD EMPC

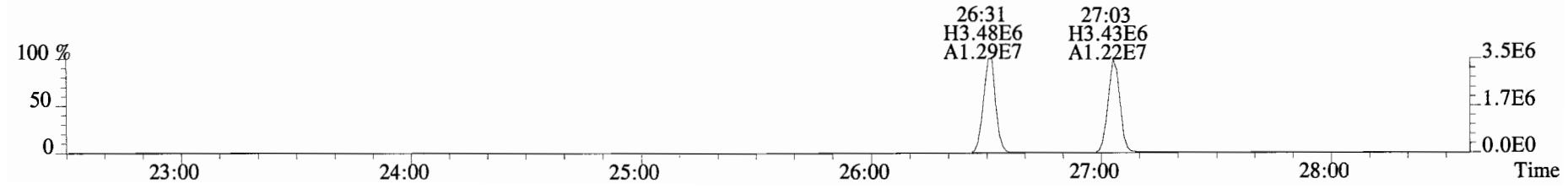
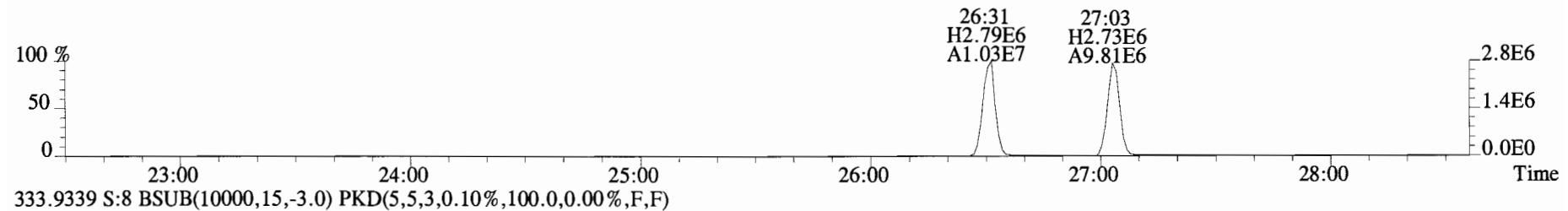
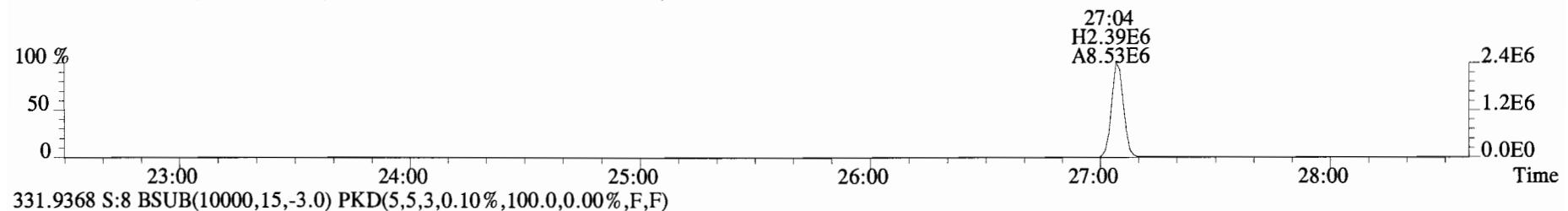
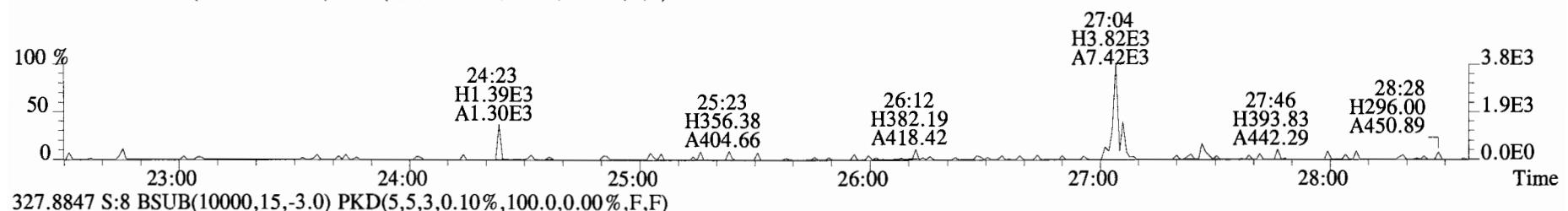
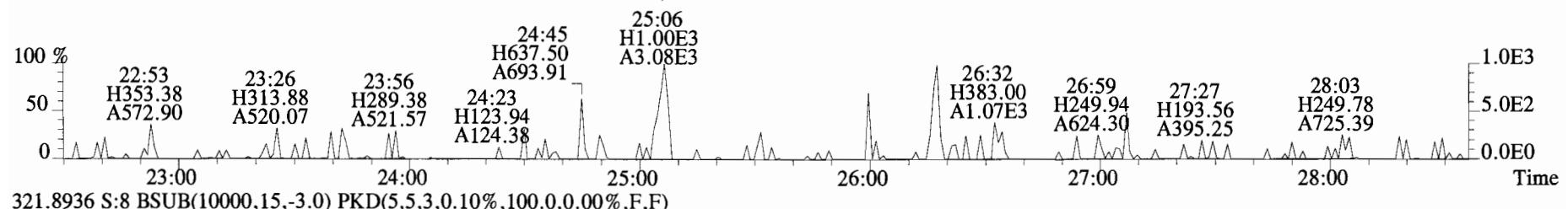
Entry #: 25

Run: 11 File: 140917D1 S: 8 I: 1 F: 4
Acquired: 17-SEP-14 18:50:05 Processed: 18-SEP-14 09:39:42

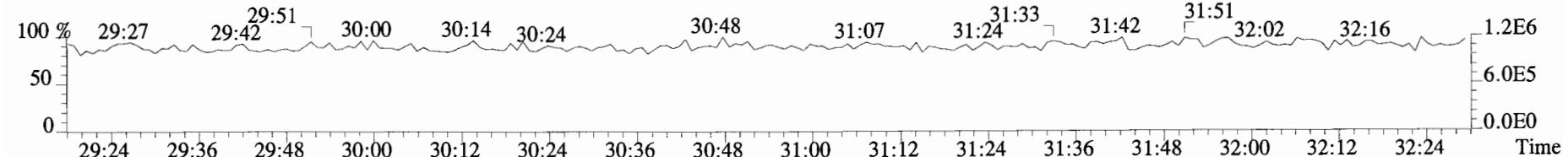
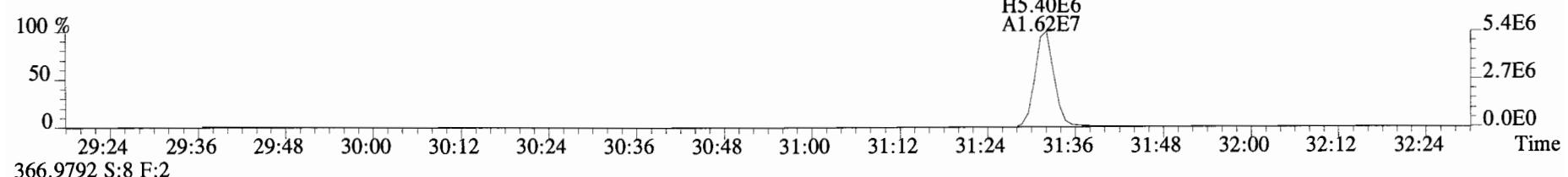
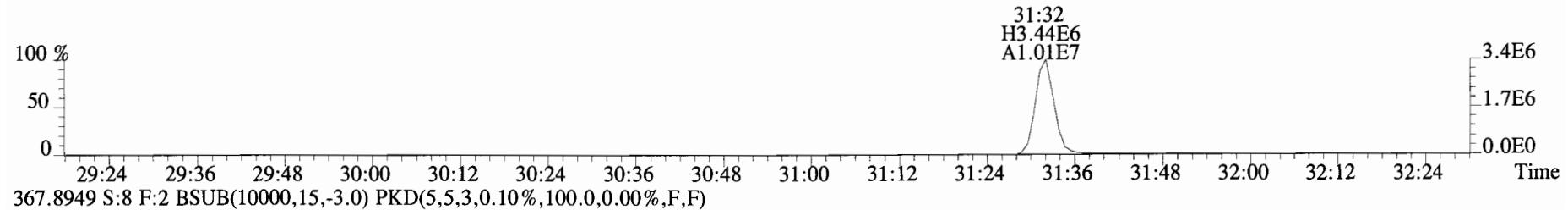
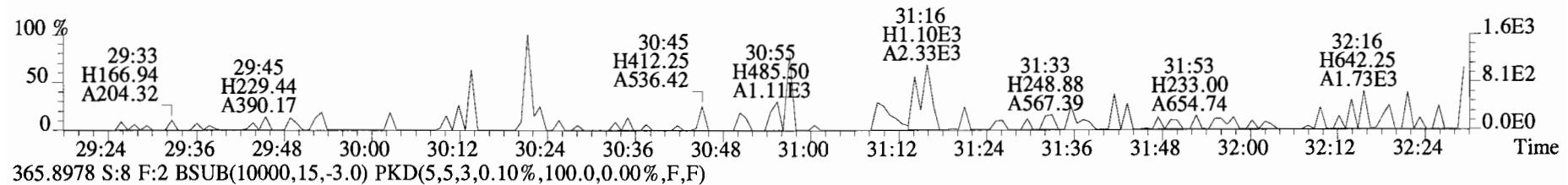
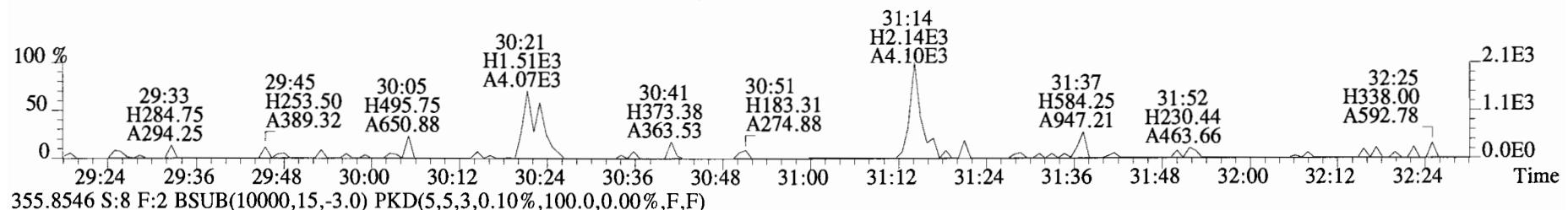
Total Concentration: 0.094243 Unnamed Concentration: 0.094

RT	m1 Resp	m2 Resp RA	Resp Concentration	Name
37:56	4.101e+03	3.730e+03 1.10 y	7.831e+03	0.094243

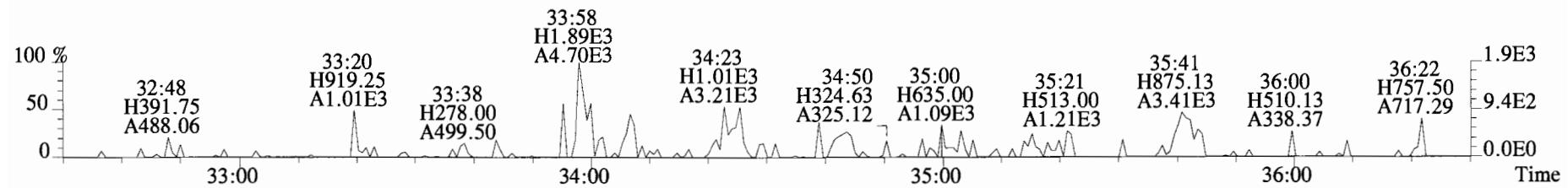
File:140917D1 #1-551 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



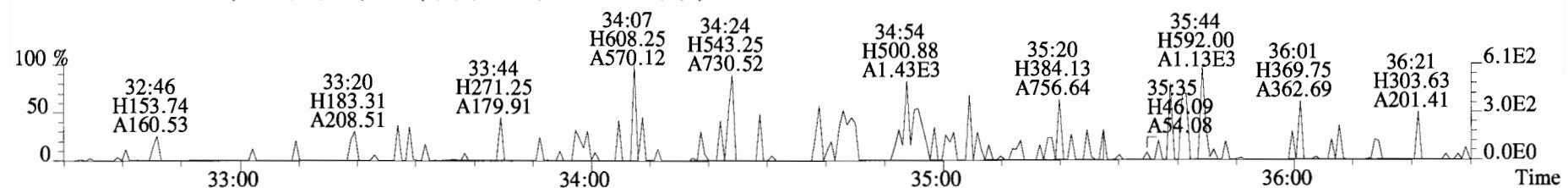
File:140917D1 #1-256 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
 353.8576 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



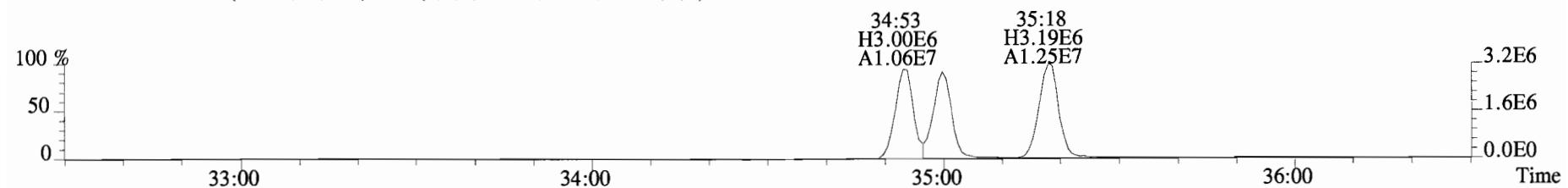
File:140917D1 #1-385 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
 389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



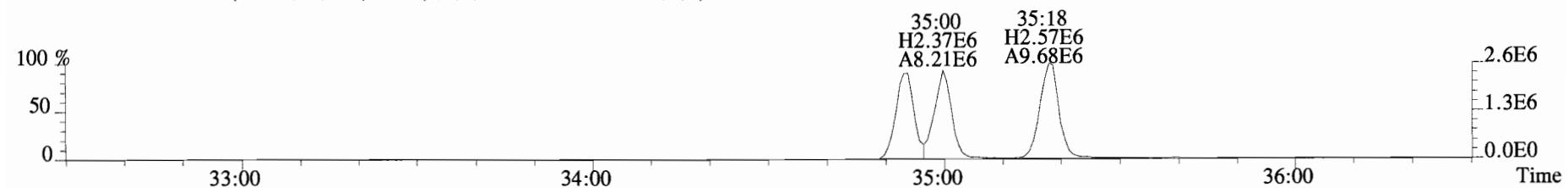
391.8127 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



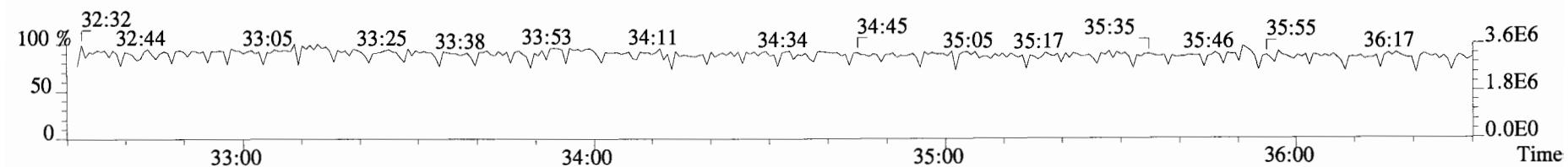
401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



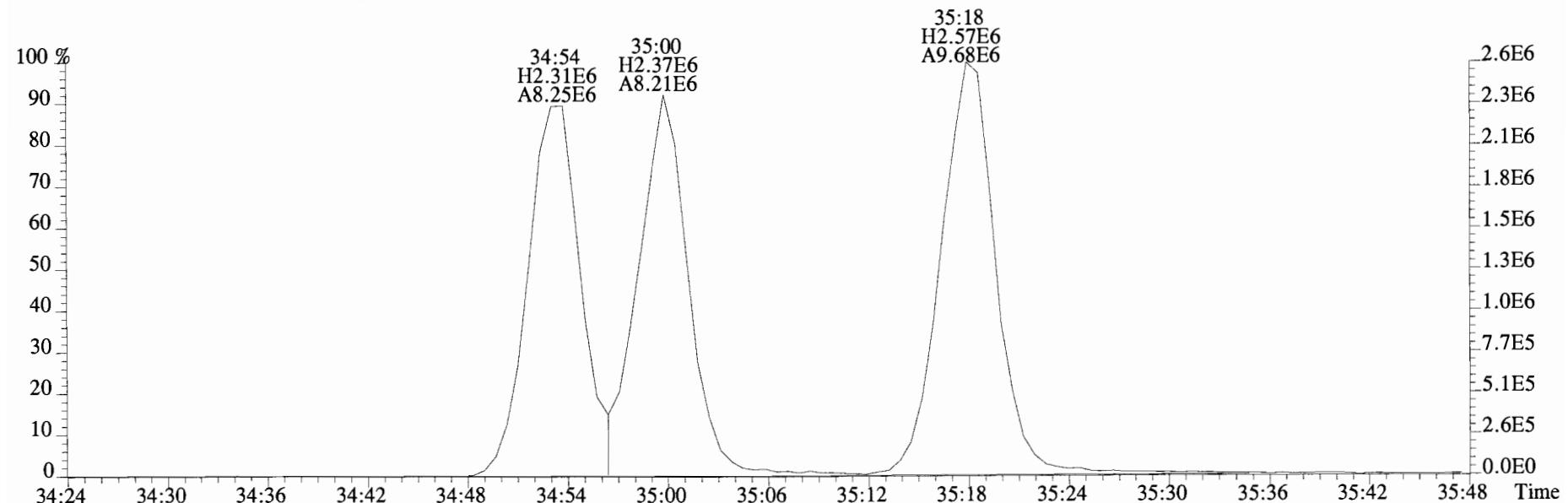
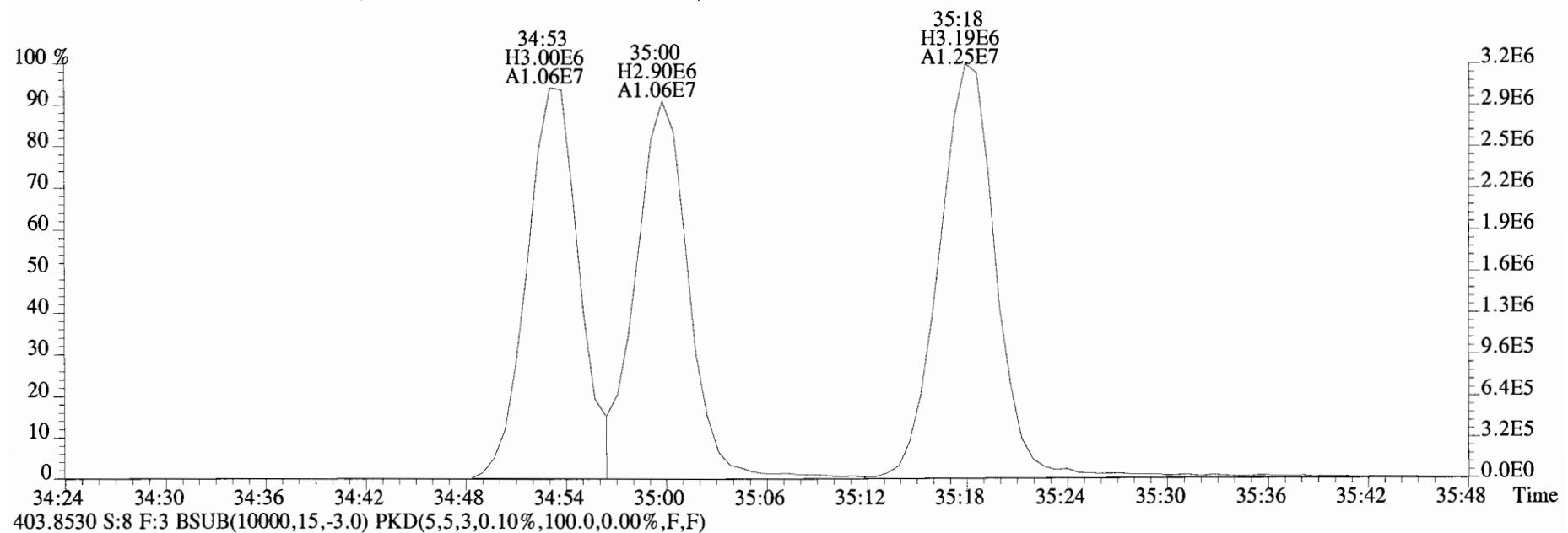
403.8530 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



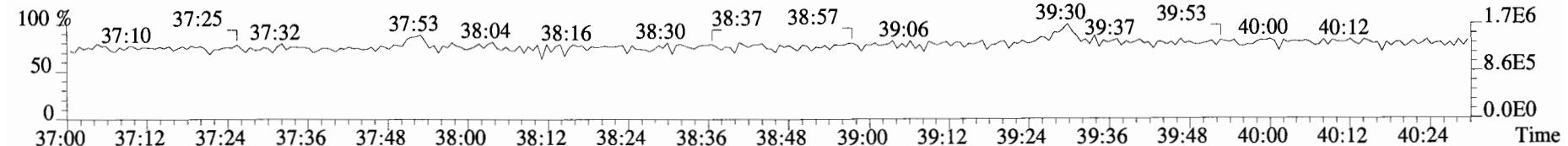
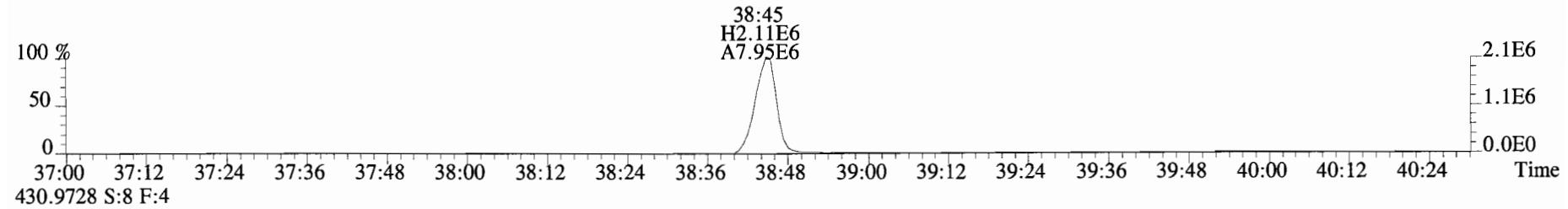
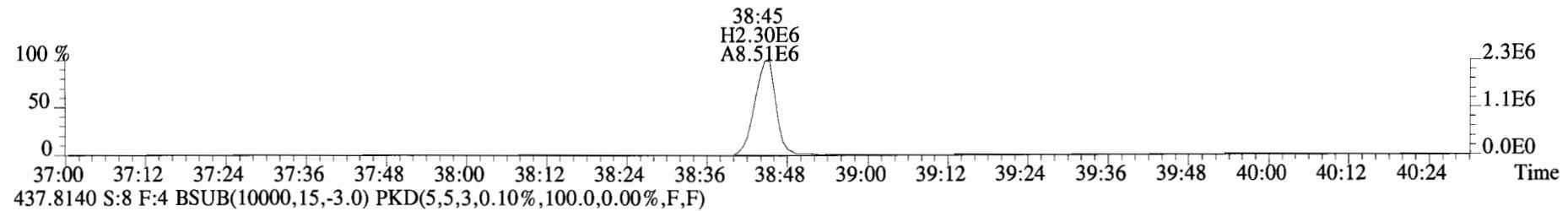
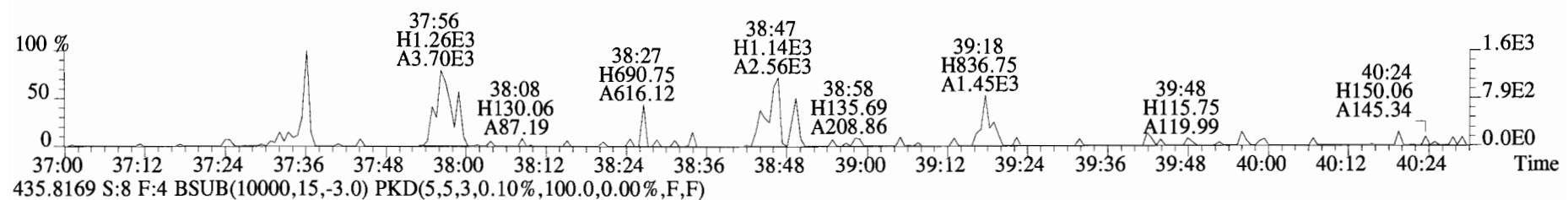
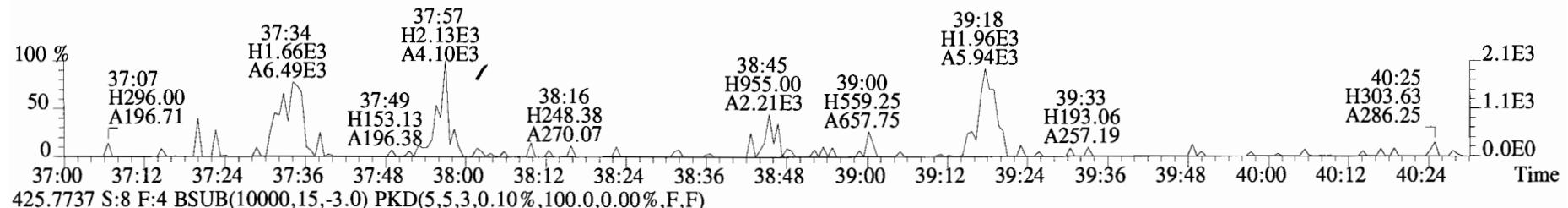
380.9760 S:8 F:3



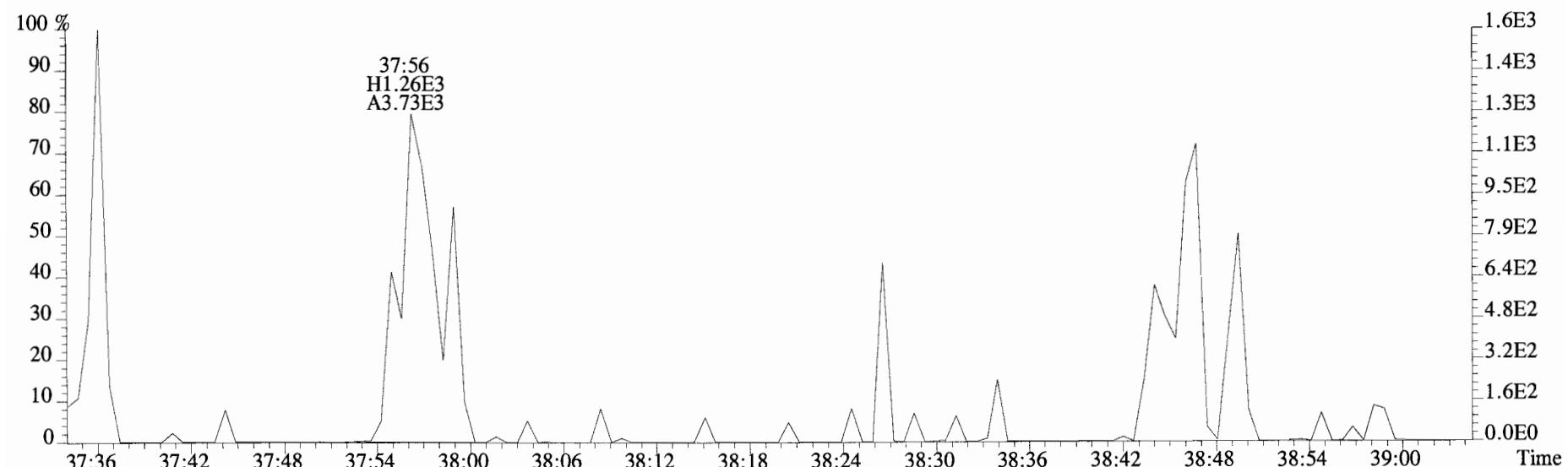
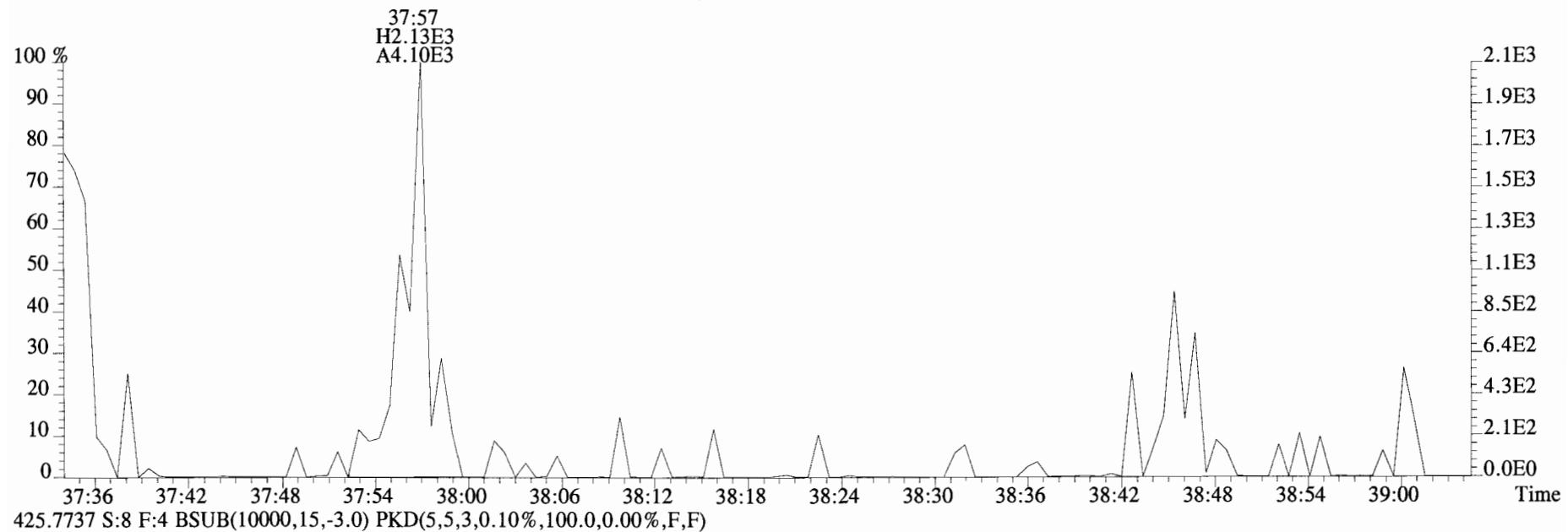
File:140917D1 #1-385 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



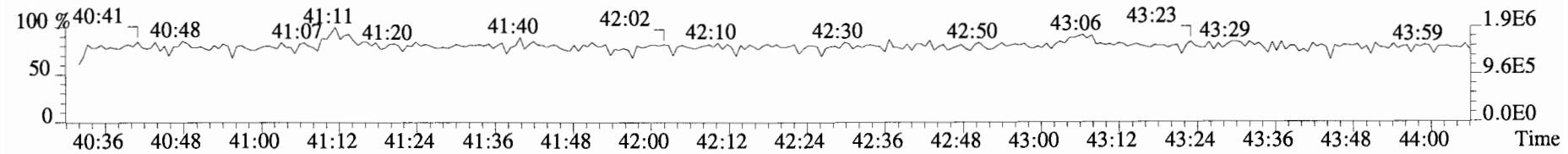
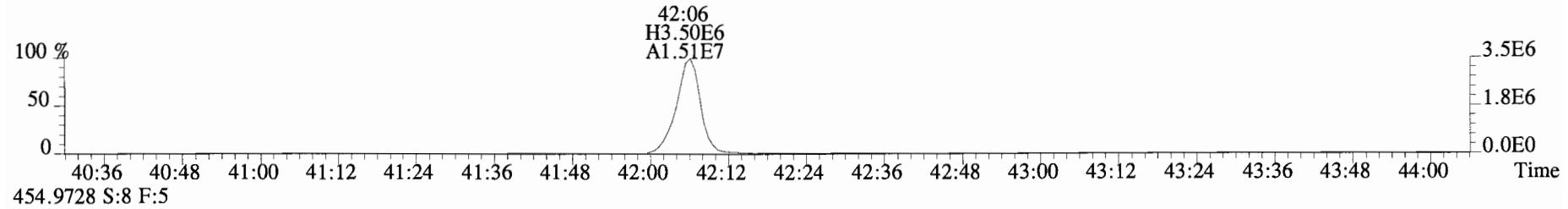
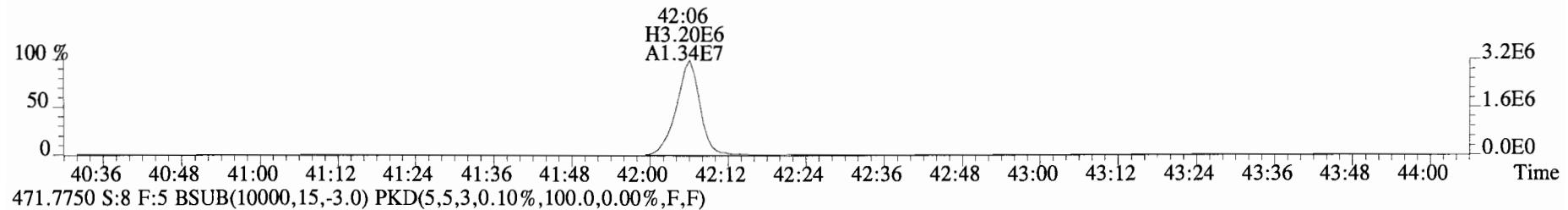
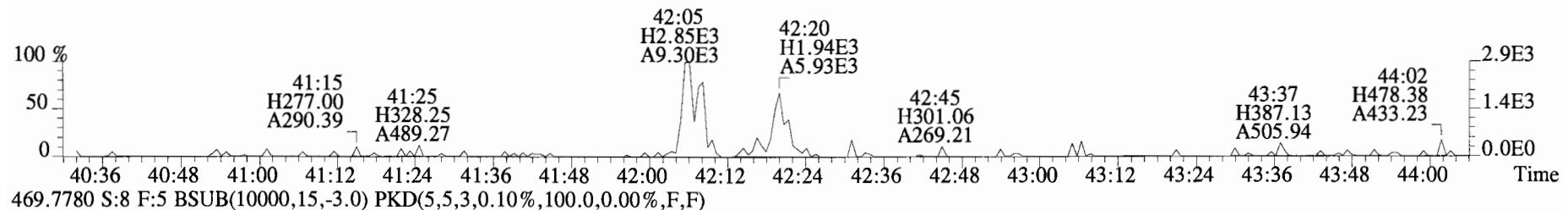
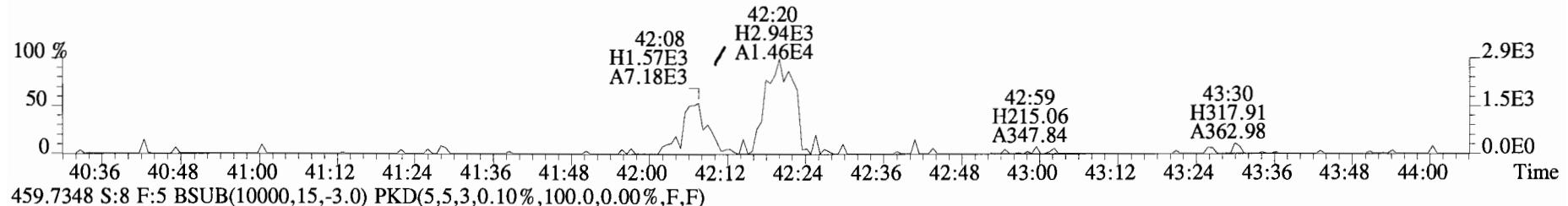
File:140917D1 #1-326 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
 423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



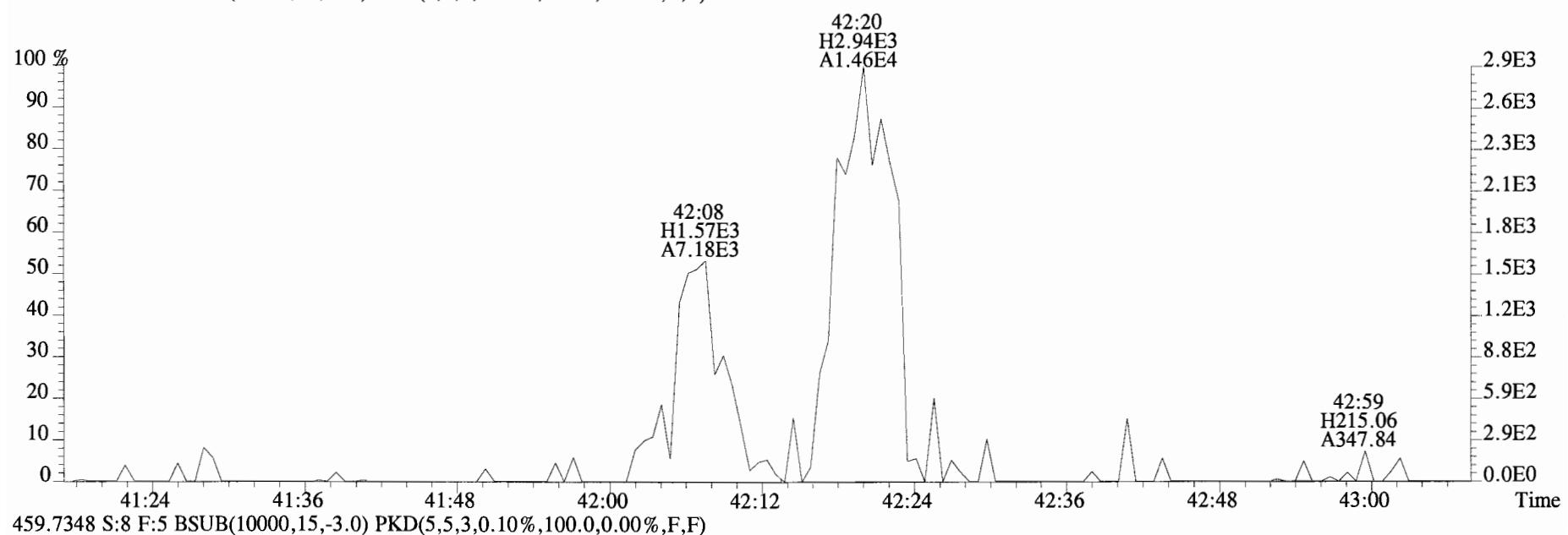
File:140917D1 #1-326 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



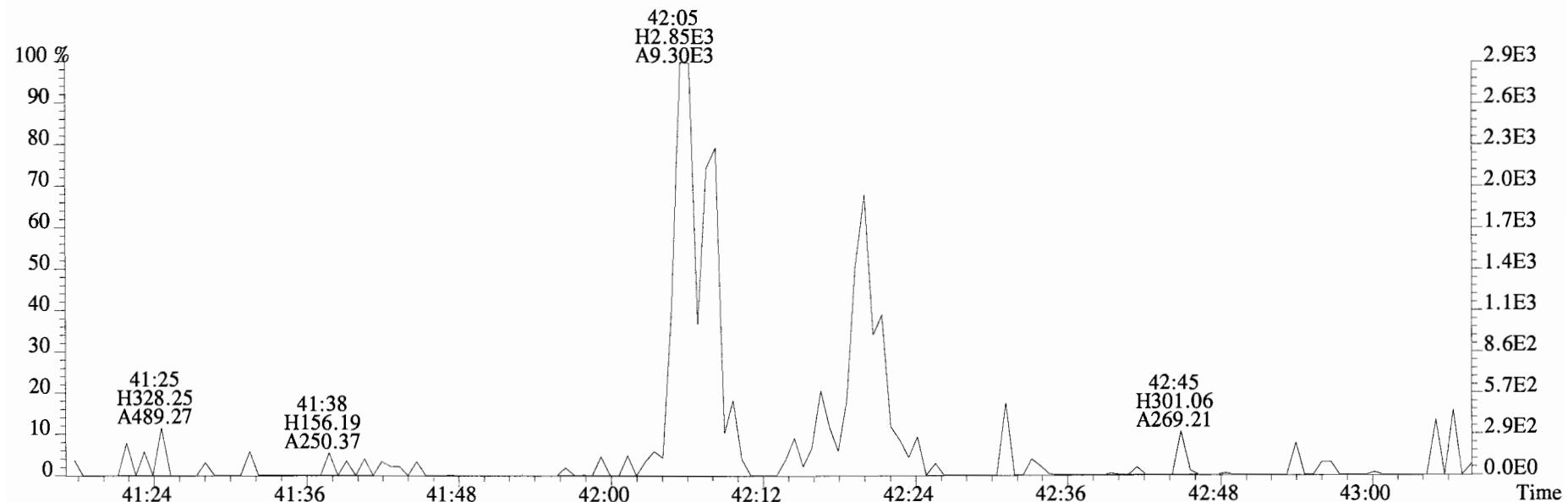
File:140917D1 #1-389 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
 457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



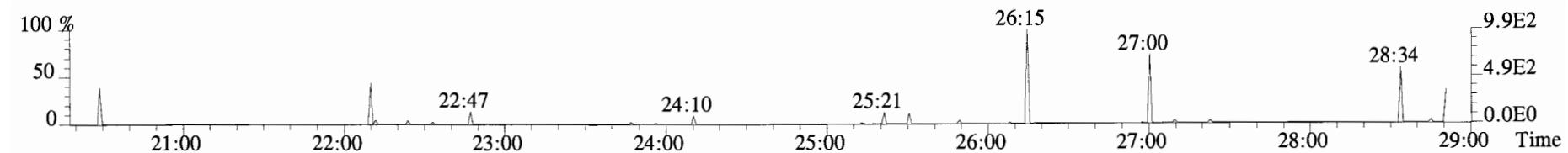
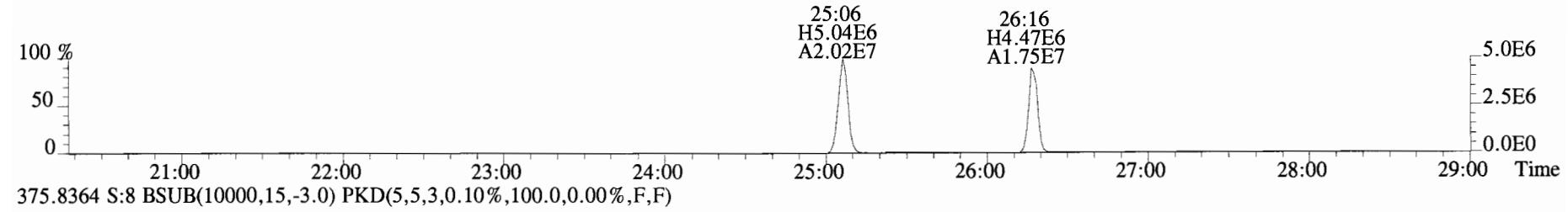
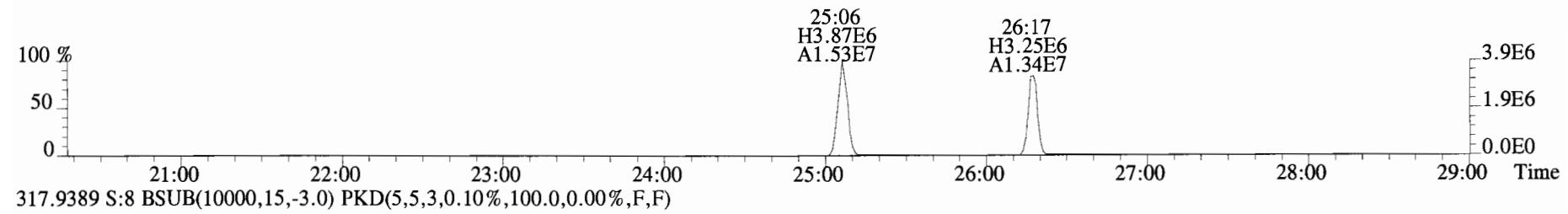
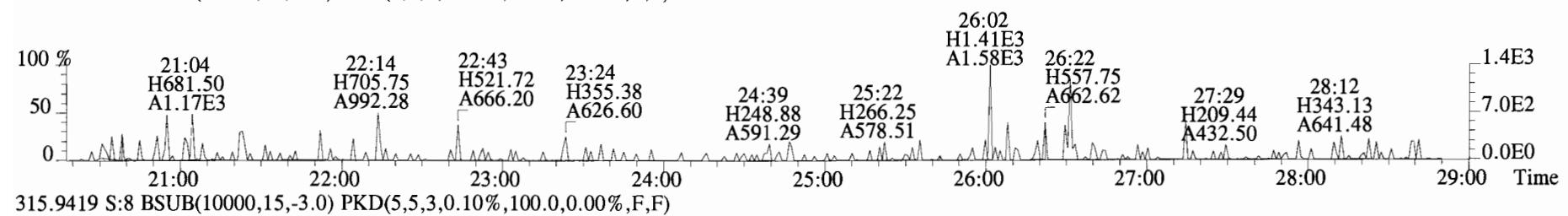
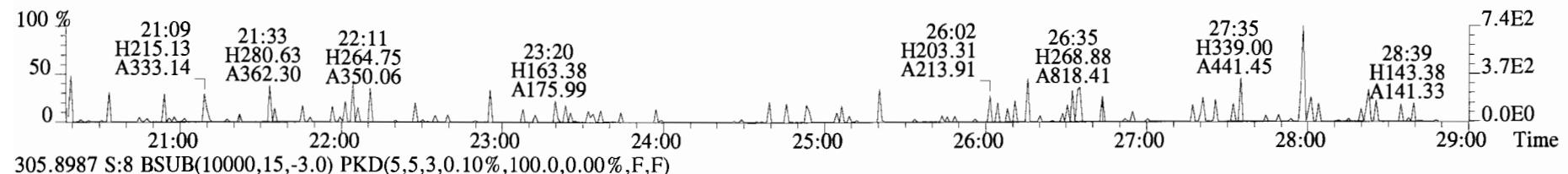
File:140917D1 #1-389 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
 457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



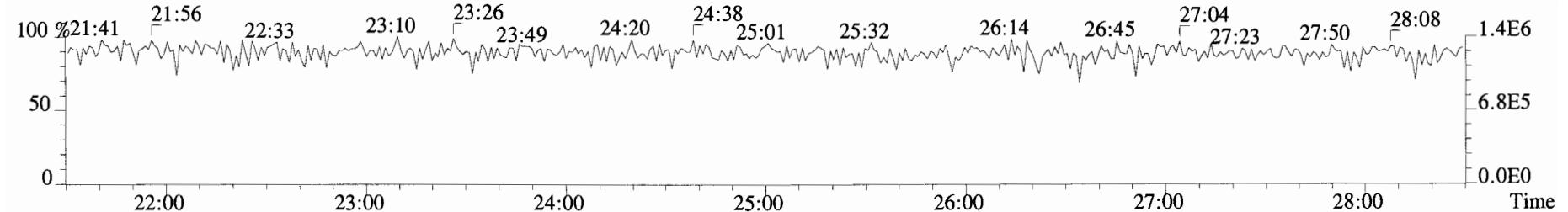
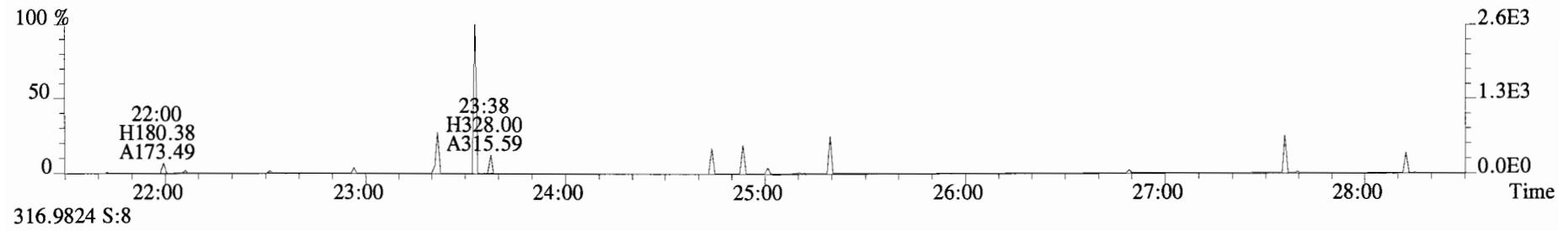
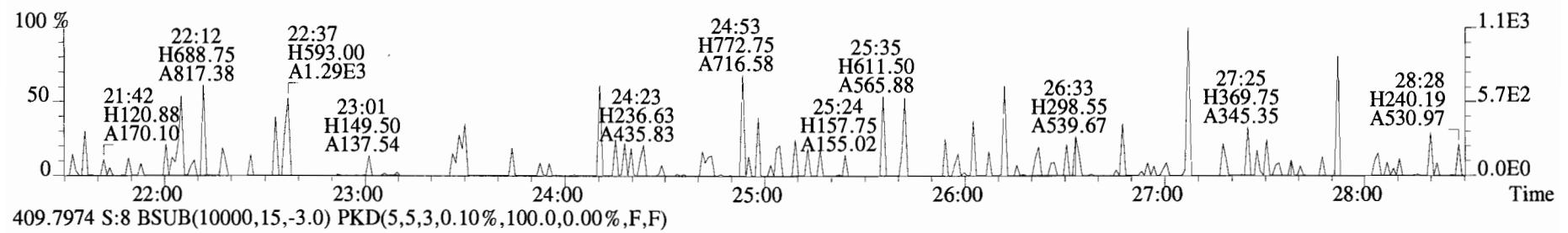
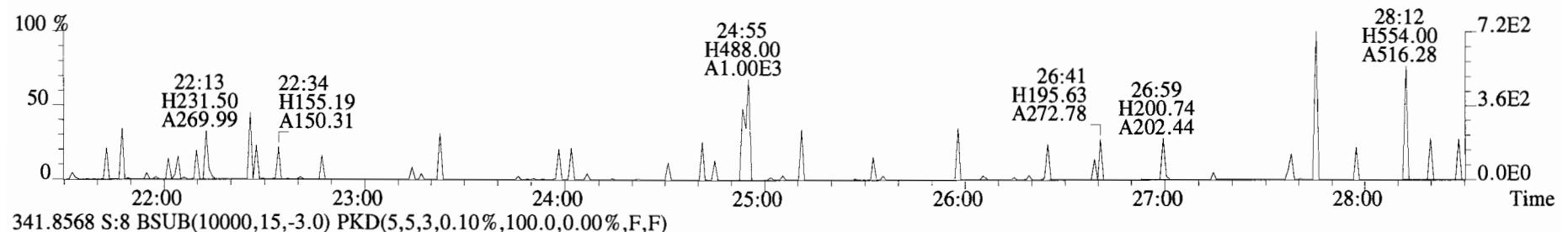
459.7348 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



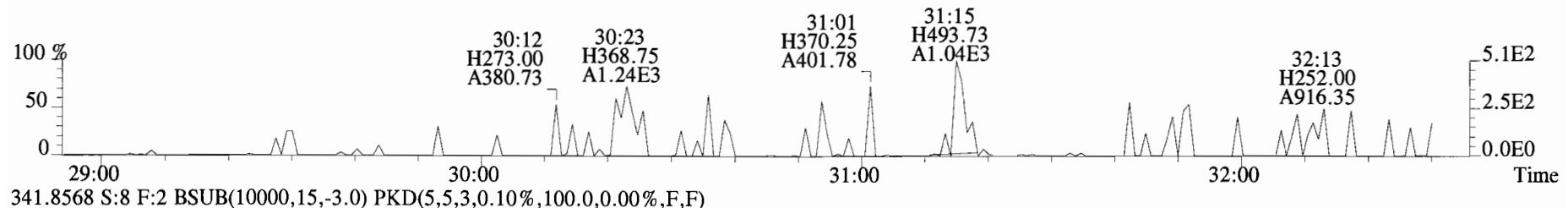
File:140917D1 #1-551 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



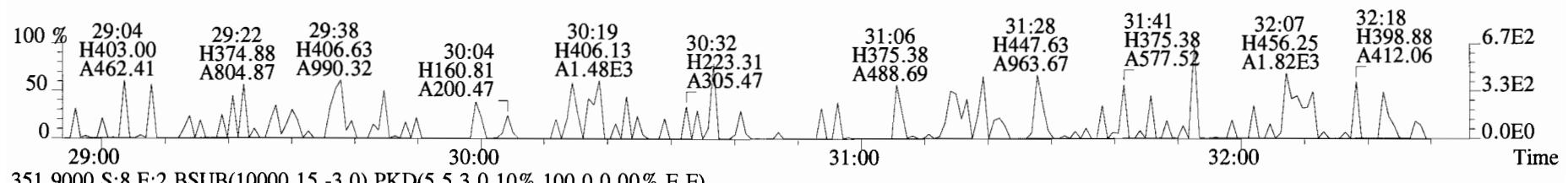
File:140917D1 #1-551 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
 339.8597 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



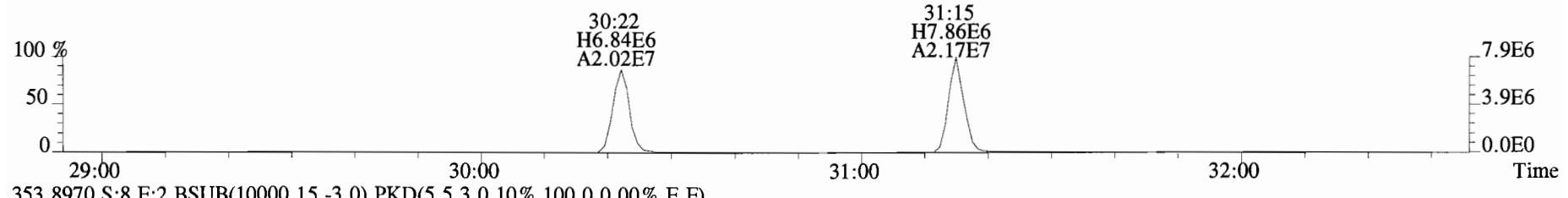
File:140917D1 #1-256 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



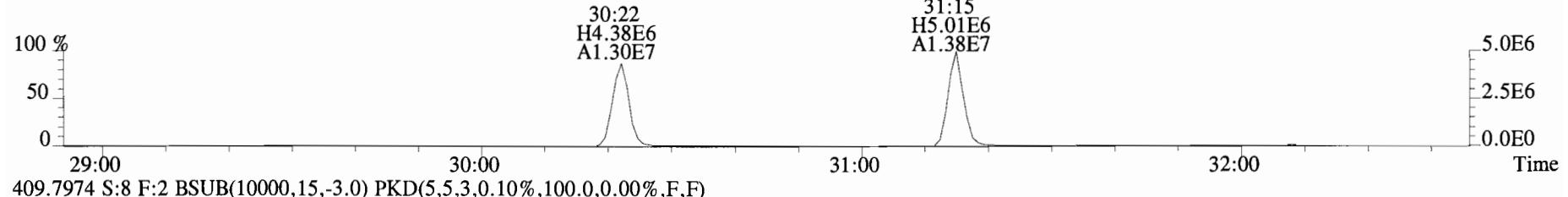
341.8568 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



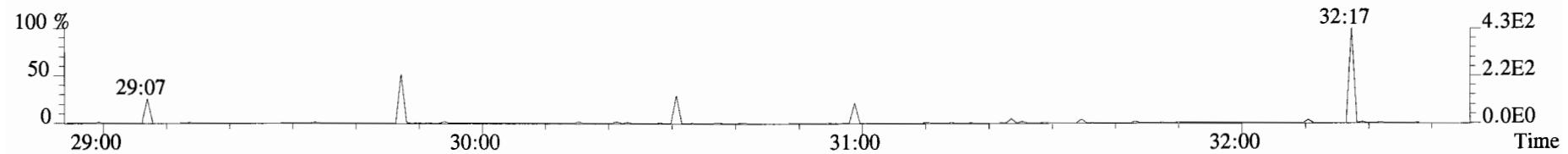
351.9000 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



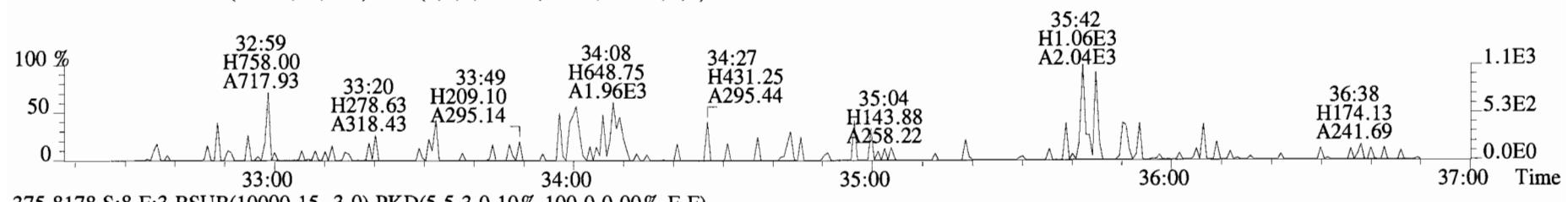
353.8970 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



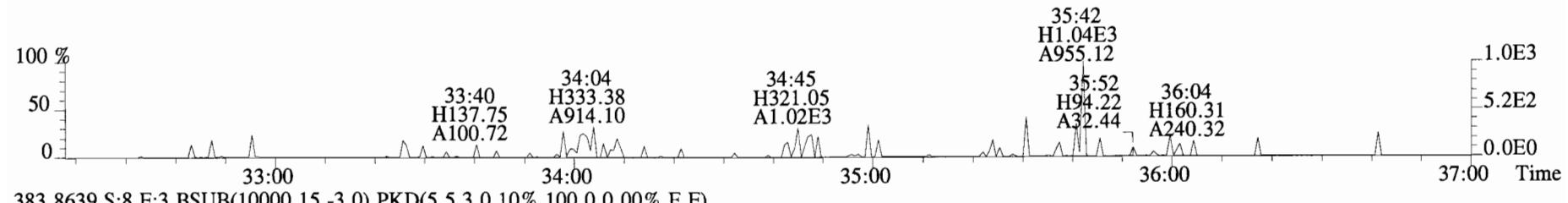
409.7974 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



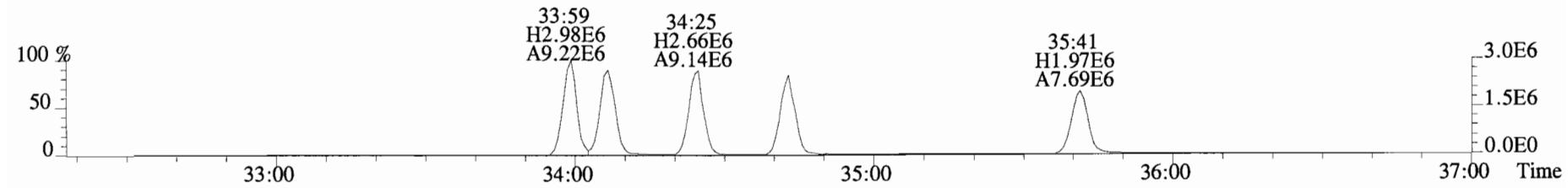
File:140917D1 #1-385 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



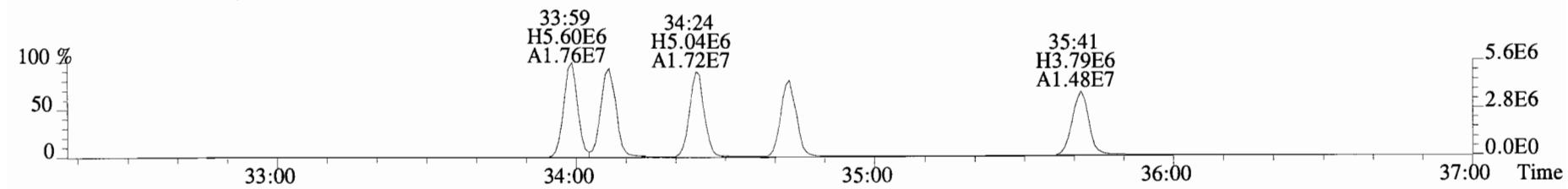
375.8178 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



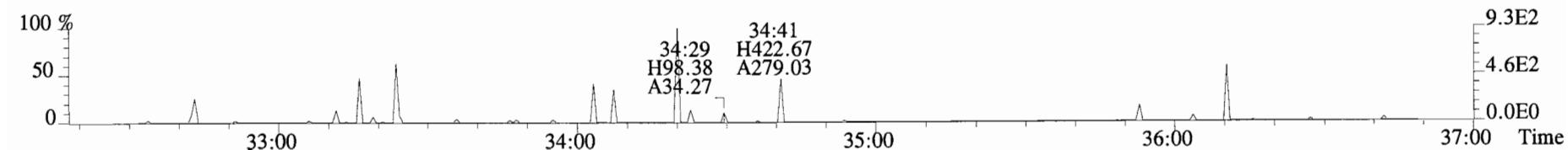
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



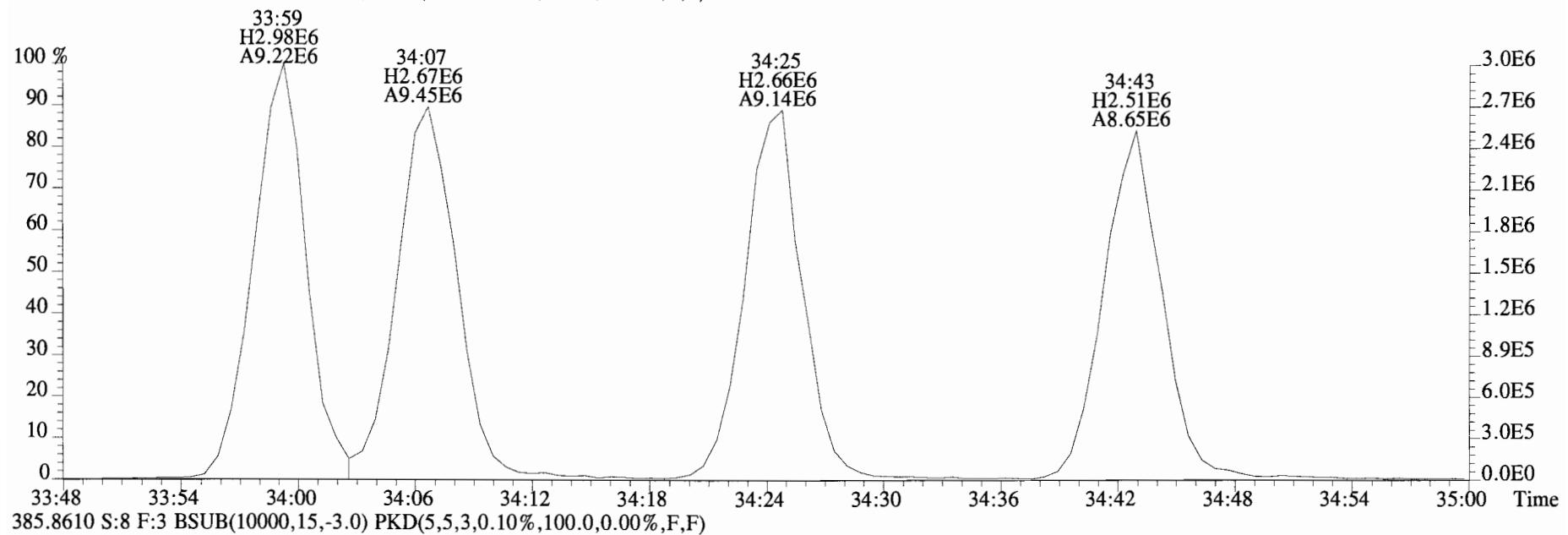
385.8610 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



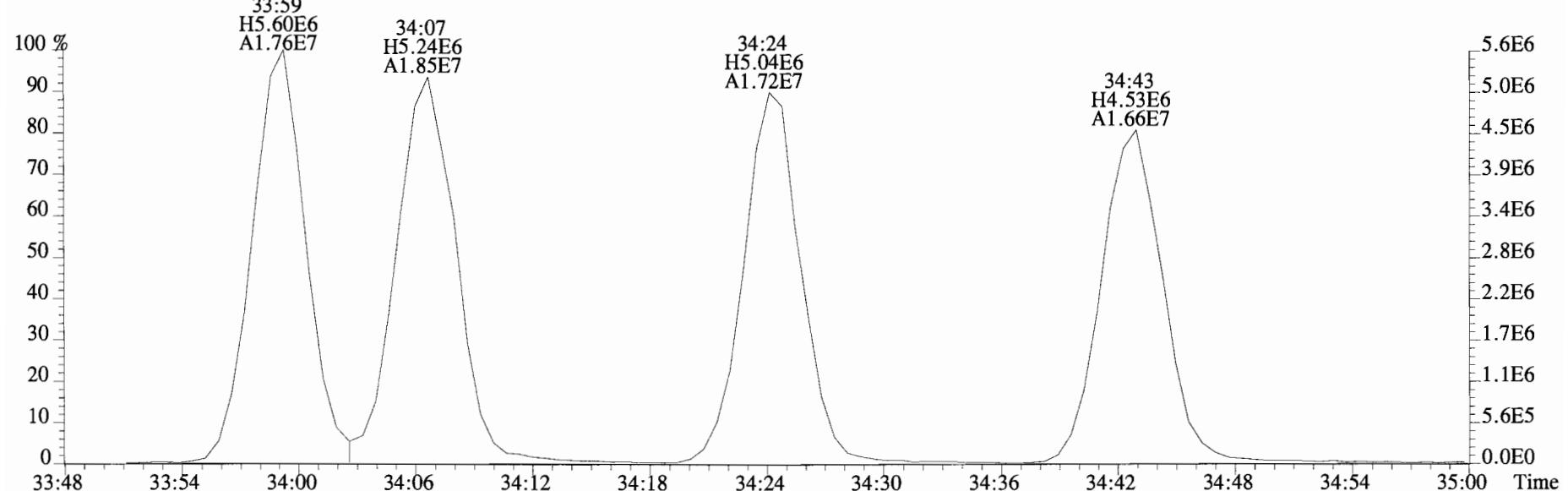
445.7555 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



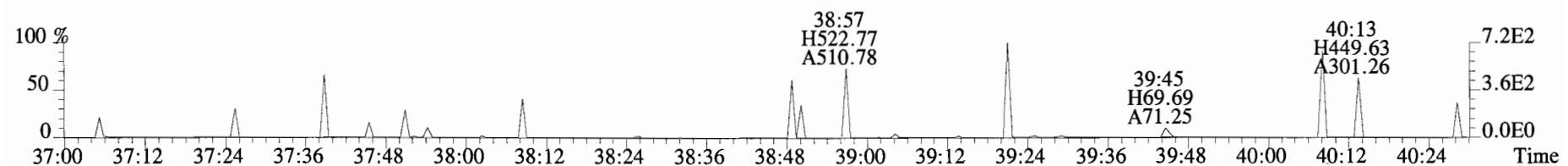
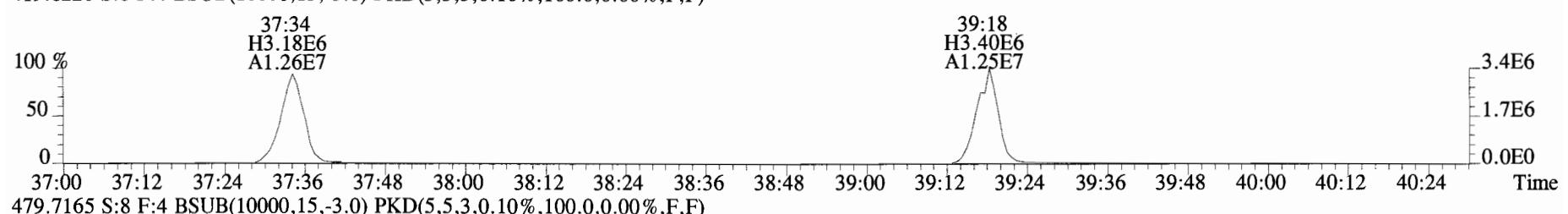
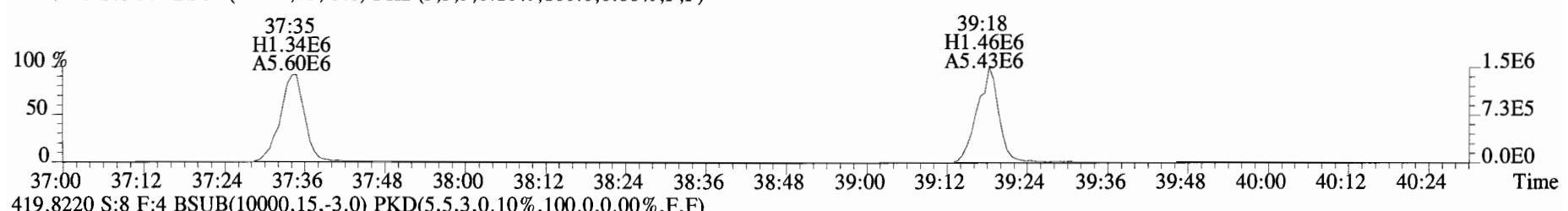
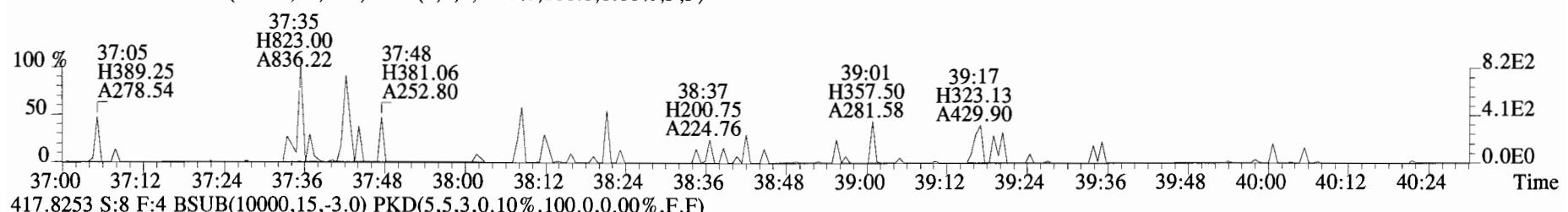
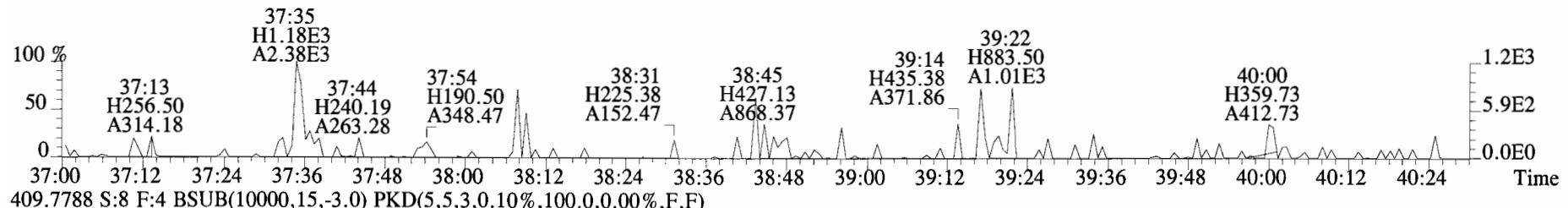
File:140917D1 #1-385 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



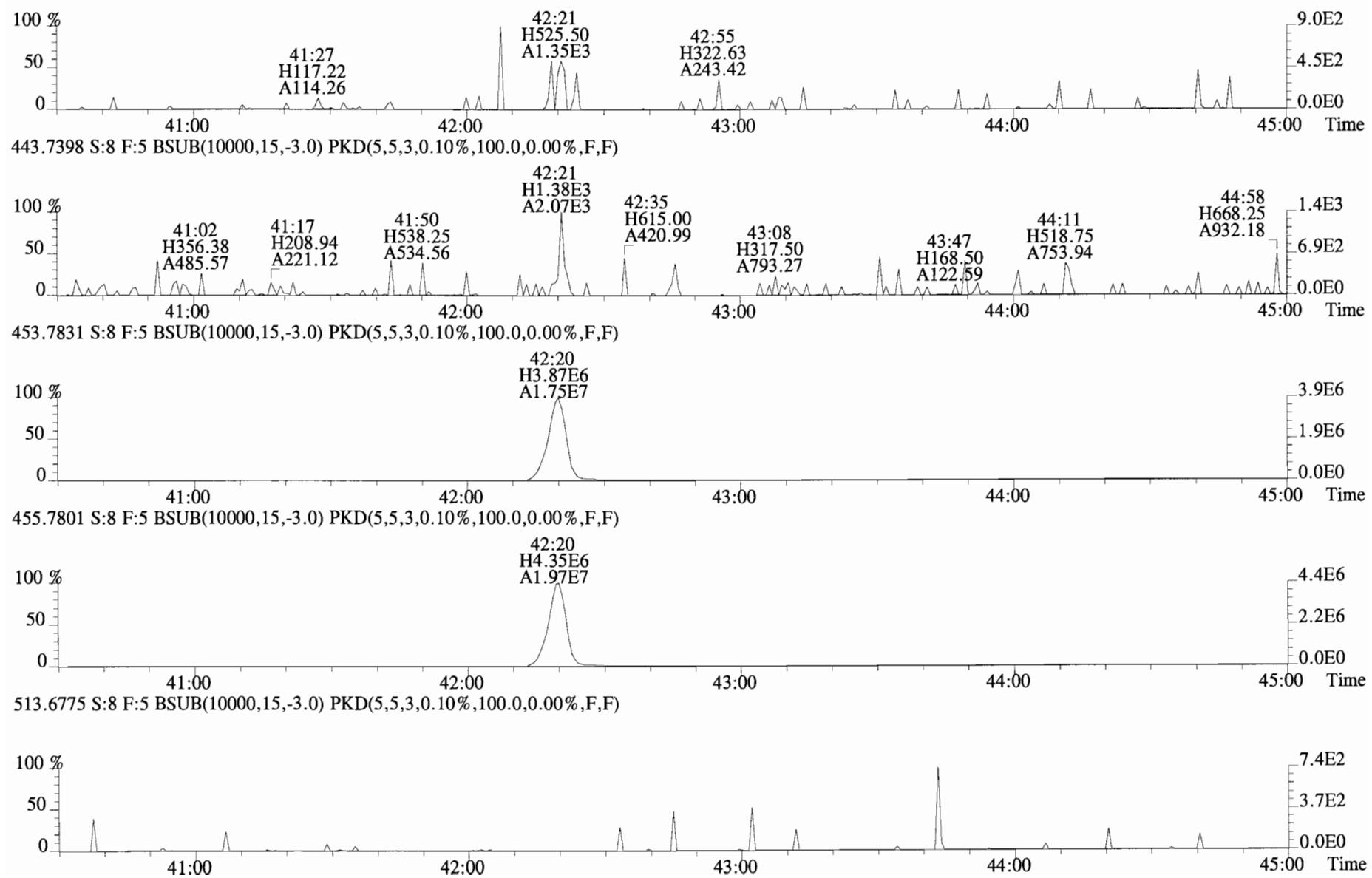
385.8610 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140917D1 #1-326 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
 407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140917D1 #1-389 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



FORM 8A
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Vista Analytical Laboratory Extraction Batch: B4I0053-BS1

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): SOLID OPR Data Filename: 140917D1-5

Ext. Date: 9-16-14 Shift: Day Analysis Date: 17-SEP-14 Time: 16:25:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)	
2,3,7,8-TCDD	10	9.66	6.7 - 15.8 7.3 - 14.6 (2)	(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94
1,2,3,7,8-PeCDD	50	48.0	35.0 - 71.0	(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94
1,2,3,4,7,8-HxCDD	50	46.2	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	50	45.6	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	50	45.5	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	50	49.6	35.0 - 70.0	
OCDD	100	89.8	78.0 - 144.0	
2,3,7,8-TCDF	10	9.48	7.5 - 15.8 8.0 - 14.7 (2)	
1,2,3,7,8-PeCDF	50	48.1	40.0 - 67.0	
2,3,4,7,8-PeCDF	50	48.3	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50	46.4	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50	46.4	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	50	45.6	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	50	46.5	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	50	44.1	41.0 - 61.0	Analyst: <u>MJ</u>
1,2,3,4,7,8,9-HpCDF	50	42.8	39.0 - 69.0	
OCDF	100	93.2	63.0 - 170.0	Date: <u>9/18/14</u>

FORM 8B
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Vista Analytical Laboratory Extraction Batch: B4I0053-BS1

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): SOLID OPR Data Filename: 140917D1-5

Ext. Date: 9-16-14 Shift: Day Analysis Date: 17-SEP-14 Time: 16:25:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

LABELED COMPOUNDS	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)	
13C-2,3,7,8-TCDD	100	54.2	20.0 - 175.0 25.0 - 141.0 (2)	(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94
13C-1,2,3,7,8-PeCDD	100	63.8	21.0 - 227.0	
13C-1,2,3,4,7,8-HxCDD	100	57.3	21.0 - 193.0	(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94
13C-1,2,3,6,7,8-HxCDD	100	59.8	25.0 - 163.0	
13C-1,2,3,7,8,9-HxCDD	100	57.8	21.0 - 193.0	
13C-1,2,3,4,6,7,8-HpCDD	100	53.2	26.0 - 166.0	
13C-OCDD	200	109	26.0 - 397.0	
13C-2,3,7,8-TCDF	100	52.2	22.0 - 152.0 26.0 - 126.0 (2)	
13C-1,2,3,7,8-PeCDF	100	55.5	21.0 - 192.0	
13C-2,3,4,7,8-PeCDF	100	58.1	13.0 - 328.0	
13C-1,2,3,4,7,8-HxCDF	100	63.9	19.0 - 202.0	
13C-1,2,3,6,7,8-HxCDF	100	53.3	21.0 - 159.0	
13C-2,3,4,6,7,8-HxCDF	100	55.2	22.0 - 176.0	
13C-1,2,3,7,8,9-HxCDF	100	55.5	17.0 - 205.0	
13C-1,2,3,4,6,7,8-HpCDF	100	57.5	21.0 - 158.0	
13C-1,2,3,4,7,8,9-HpCDF	100	60.0	20.0 - 186.0	
13C-OCDF	200	108	26.0 - 397.0	
CLEANUP STANDARD				Analyst: <u>MJ</u>
37Cl-2,3,7,8-TCDD	40	22.5	12.4 - 76.4	Date: <u>9/18/14</u>

Client ID: OPR
Lab ID: B4I0053-BS1

Filename: 140917D1 S:5 Acq:17-SEP-14 16:25:00
GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol: 1.000

ConCal: ST140917D1-1
EndCAL: NA

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	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	1.37e+06	0.81 Y	1.03	27:06	1.001	9.6591	*	2.5	*		Total Tetra-Dioxins	9.94	10.1	*	*	
	1,2,3,7,8-PeCDD	6.66e+06	0.62 Y	0.84	31:34	1.000	48.020	*	2.5	*		Total Penta-Dioxins	48.0	48.4	*	*	
	1,2,3,4,7,8-HxCDD	5.44e+06	1.29 Y	1.05	34:55	1.000	46.247	*	2.5	*		Total Hexa-Dioxins	137	138	*	*	
	1,2,3,6,7,8-HxCDD	5.59e+06	1.21 Y	1.04	35:02	1.001	45.639	*	2.5	*		Total Hepta-Dioxins	50.3	51.1	*	*	
	1,2,3,7,8,9-HxCDD	5.53e+06	1.26 Y	0.90	35:20	1.000	45.497	*	2.5	*		Total Tetra-Furans	9.60	9.76	*	*	
	1,2,3,4,6,7,8-HpCDD	4.93e+06	1.06 Y	1.01	38:46	1.000	49.570	*	2.5	*		Total Penta-Furans	98.422	98.592	*	*	
	OCDD	7.90e+06	0.92 Y	1.04	42:08	1.000	89.822	*	2.5	*		Total Hexa-Furans	185	186	*	*	
												Total Hepta-Furans	87.5	89.1	*	*	
	2,3,7,8-TCDF	1.65e+06	0.78 Y	0.91	26:19	1.001	9.4763	*	2.5	*							
	1,2,3,7,8-PeCDF	9.70e+06	1.61 Y	0.97	30:24	1.000	48.082	*	2.5	*							
	2,3,4,7,8-PeCDF	1.00e+07	1.61 Y	0.94	31:17	1.000	48.316	*	2.5	*							
	1,2,3,4,7,8-HxCDF	9.68e+06	1.28 Y	1.32	34:01	1.000	46.390	*	2.5	*							
	1,2,3,6,7,8-HxCDF	9.40e+06	1.28 Y	1.18	34:09	1.000	46.384	*	2.5	*							
	2,3,4,6,7,8-HxCDF	8.41e+06	1.29 Y	1.23	34:45	1.001	45.566	*	2.5	*							
	1,2,3,7,8,9-HxCDF	6.79e+06	1.25 Y	1.13	35:43	1.001	46.486	*	2.5	*							
	1,2,3,4,6,7,8-HpCDF	7.42e+06	1.07 Y	1.57	37:36	1.000	44.089	*	2.5	*							
	1,2,3,4,7,8,9-HpCDF	6.52e+06	1.08 Y	1.50	39:20	1.000	42.808	*	2.5	*							
	OCDF	1.06e+07	0.92 Y	1.05	42:21	1.000	93.229	*	2.5	*							
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.38e+07	0.82 Y	1.06	27:05	1.021	54.245					54.2					
IS	13C-1,2,3,7,8-PeCDD	1.65e+07	0.62 Y	1.08	31:33	1.189	63.780					63.8					
IS	13C-1,2,3,4,7,8-HxCDD	1.12e+07	1.28 Y	0.74	34:54	1.014	57.328					57.3					
IS	13C-1,2,3,6,7,8-HxCDD	1.18e+07	1.28 Y	0.75	35:01	1.017	59.782					59.8					
IS	13C-1,2,3,7,8,9-HxCDD	1.36e+07	1.25 Y	0.89	35:19	1.026	57.834					57.8					
IS	13C-1,2,3,4,6,7,8-HpCDD	9.85e+06	1.07 Y	0.70	38:45	1.126	53.247					53.2					
IS	13C-OCDD	1.69e+07	0.90 Y	0.59	42:07	1.223	108.70					54.4					
IS	13C-2,3,7,8-TCDF	1.91e+07	0.75 Y	0.97	26:18	0.991	52.241					52.2					
IS	13C-1,2,3,7,8-PeCDF	2.08e+07	1.54 Y	0.99	30:23	1.145	55.491					55.5					
IS	13C-2,3,4,7,8-PeCDF	2.21e+07	1.58 Y	1.01	31:16	1.179	58.068					58.1					
IS	13C-1,2,3,4,7,8-HxCDF	1.58e+07	0.52 Y	0.94	33:60	0.988	63.909					63.9					
IS	13C-1,2,3,6,7,8-HxCDF	1.73e+07	0.51 Y	1.23	34:08	0.991	53.349					53.3					
IS	13C-2,3,4,6,7,8-HxCDF	1.50e+07	0.52 Y	1.03	34:44	1.009	55.224					55.2					
IS	13C-1,2,3,7,8,9-HxCDF	1.29e+07	0.52 Y	0.89	35:42	1.037	55.476					55.5					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.07e+07	0.45 Y	0.71	37:35	1.092	57.544					57.5					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.01e+07	0.45 Y	0.64	39:19	1.142	59.969					60.0					
IS	13C-OCDF	2.15e+07	0.90 Y	0.76	42:21	1.230	107.61					53.8					
C/Up	37Cl-2,3,7,8-TCDD	5.60e+06		1.04	27:06	1.021	22.503					56.3	Integrations by Analyst:	M	Reviewed by Analyst:	M	
RS/RT	13C-1,2,3,4-TCDD	2.38e+07	0.81 Y	1.00	26:32	*	100.00										
RS	13C-1,2,3,4-TCDF	3.78e+07	0.75 Y	1.00	25:07	*	100.00										
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.63e+07	0.54 Y	1.00	34:25	*	100.00						Date:	9/14/14	Date:	9/19/14	

Client ID: OPR
Lab ID: B4I0053-BS1

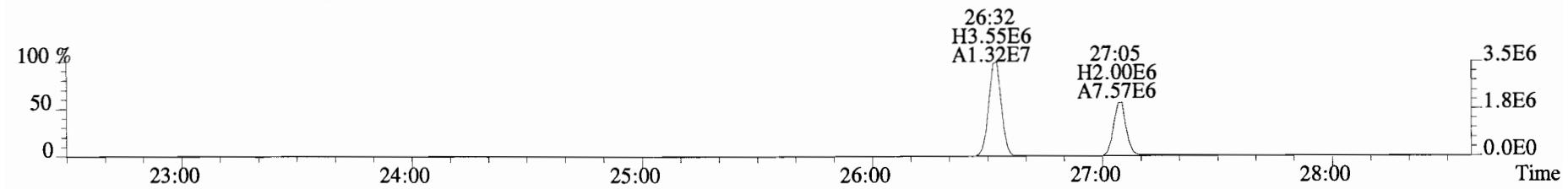
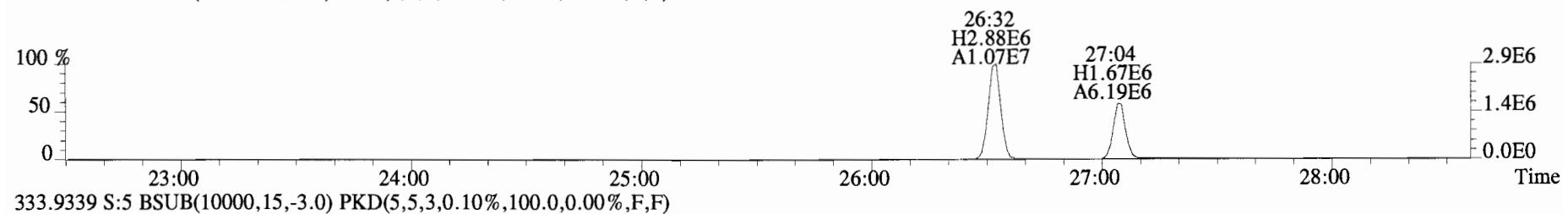
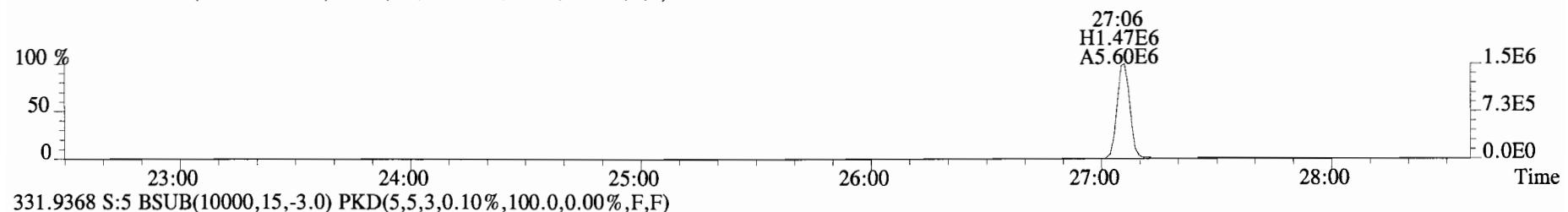
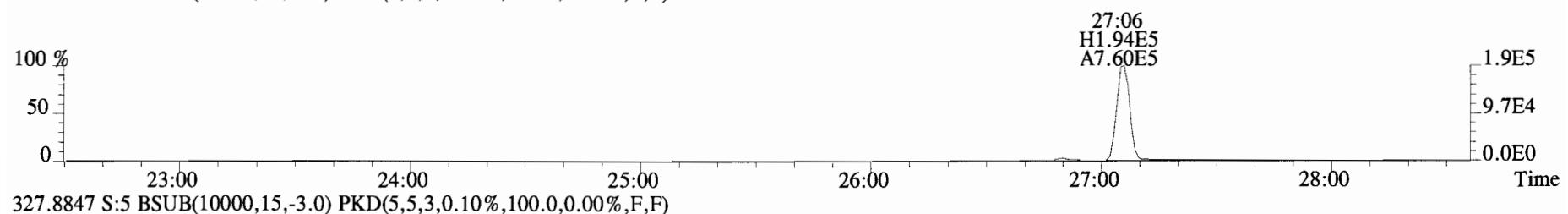
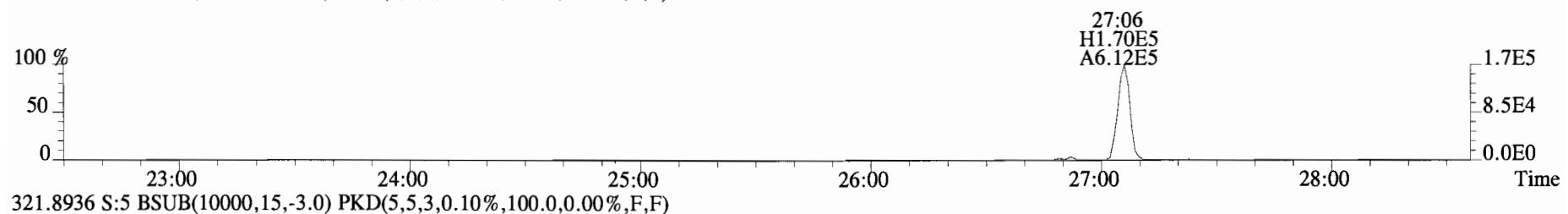
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ConCal: ST140917D1-1
EndCAL: NA

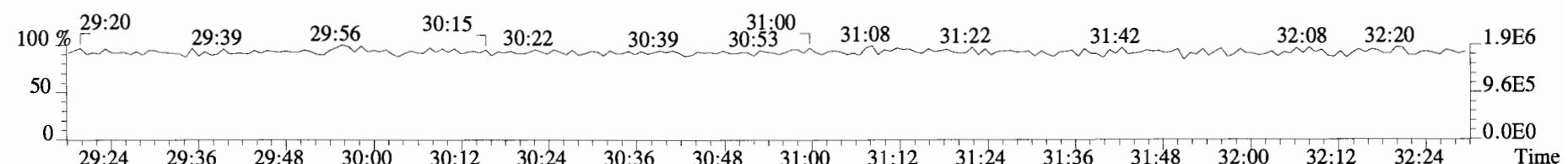
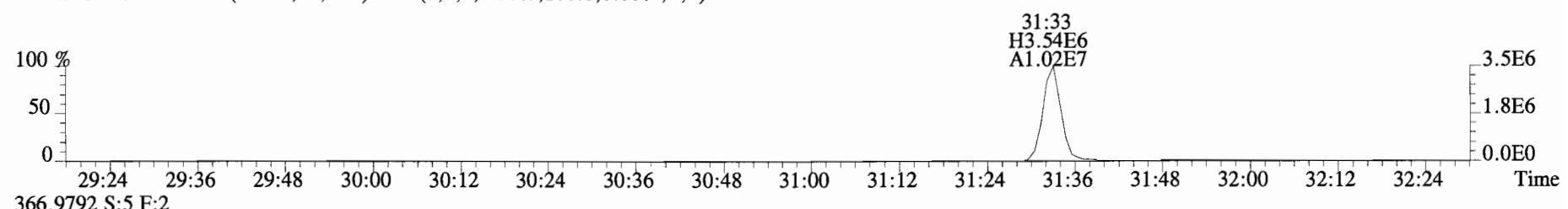
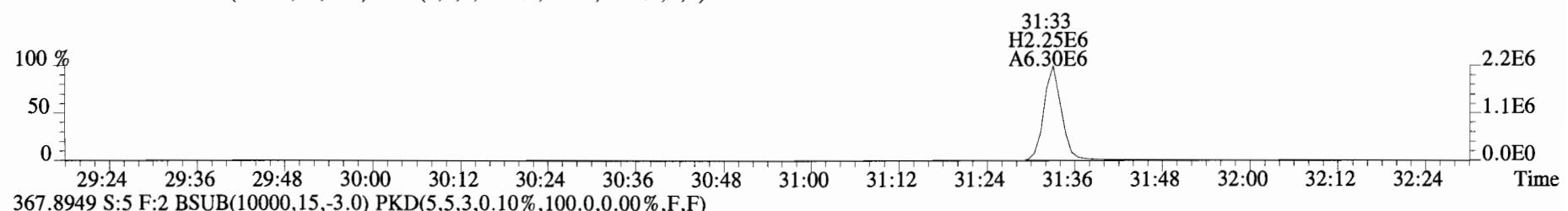
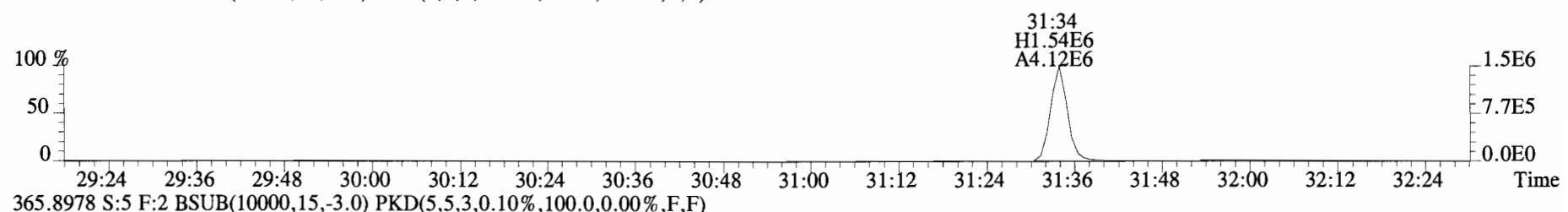
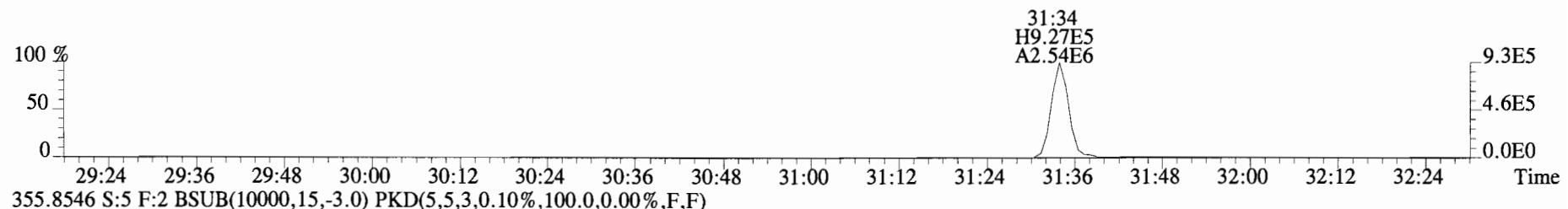
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	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	1.37e+06	0.81 y	1.03	27:06	1.001	19.318	*	2.5	*		Total Tetra-Dioxins	19.9	20.1	*	*	
	1,2,3,7,8-PeCDD	6.66e+06	0.62 y	0.84	31:34	1.000	96.040	*	2.5	*		Total Penta-Dioxins	96.0	96.8	*	*	
	1,2,3,4,7,8-HxCDD	5.44e+06	1.29 y	1.05	34:55	1.000	92.494	*	2.5	*		Total Hexa-Dioxins	275	276	*	*	
	1,2,3,6,7,8-HxCDD	5.59e+06	1.21 y	1.04	35:02	1.001	91.278	*	2.5	*		Total Hepta-Dioxins	101	102	*	*	
	1,2,3,7,8,9-HxCDD	5.53e+06	1.26 y	0.90	35:20	1.000	90.993	*	2.5	*		Total Tetra-Furans	19.2	19.5	*	*	
	1,2,3,4,6,7,8-HpCDD	4.93e+06	1.06 y	1.01	38:46	1.000	99.139	*	2.5	*		Total Penta-Furans	196.84	197.18	*	*	
	OCDD	7.90e+06	0.92 y	1.04	42:08	1.000	179.64	*	2.5	*		Total Hexa-Furans	370	371	*	*	
												Total Hepta-Furans	175	178	*	*	
	2,3,7,8-TCDF	1.65e+06	0.78 y	0.91	26:19	1.001	18.953	*	2.5	*							
	1,2,3,7,8-PeCDF	9.70e+06	1.61 y	0.97	30:24	1.000	96.163	*	2.5	*							
	2,3,4,7,8-PeCDF	1.00e+07	1.61 y	0.94	31:17	1.000	96.633	*	2.5	*							
	1,2,3,4,7,8-HxCDF	9.68e+06	1.28 y	1.32	34:01	1.000	92.780	*	2.5	*							
	1,2,3,6,7,8-HxCDF	9.40e+06	1.28 y	1.18	34:09	1.000	92.768	*	2.5	*							
	2,3,4,6,7,8-HxCDF	8.41e+06	1.29 y	1.23	34:45	1.001	91.132	*	2.5	*							
	1,2,3,7,8,9-HxCDF	6.79e+06	1.25 y	1.13	35:43	1.001	92.973	*	2.5	*							
	1,2,3,4,6,7,8-HpCDF	7.42e+06	1.07 y	1.57	37:36	1.000	88.179	*	2.5	*							
	1,2,3,4,7,8,9-HpCDF	6.52e+06	1.08 y	1.50	39:20	1.000	85.615	*	2.5	*							
	OCDF	1.06e+07	0.92 y	1.05	42:21	1.000	186.46	*	2.5	*							
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.38e+07	0.82 y	1.06	27:05	1.021	108.49					54.2					
IS	13C-1,2,3,7,8-PeCDD	1.65e+07	0.62 y	1.08	31:33	1.189	127.56					63.8					
IS	13C-1,2,3,4,7,8-HxCDD	1.12e+07	1.28 y	0.74	34:54	1.014	114.66					57.3					
IS	13C-1,2,3,6,7,8-HxCDD	1.18e+07	1.28 y	0.75	35:01	1.017	119.56					59.8					
IS	13C-1,2,3,7,8,9-HxCDD	1.36e+07	1.25 y	0.89	35:19	1.026	115.67					57.8					
IS	13C-1,2,3,4,6,7,8-HpCDD	9.85e+06	1.07 y	0.70	38:45	1.126	106.49					53.2					
IS	13C-OCDD	1.69e+07	0.90 y	0.59	42:07	1.223	217.41					54.4					
IS	13C-2,3,7,8-TCDF	1.91e+07	0.75 y	0.97	26:18	0.991	104.48					52.2					
IS	13C-1,2,3,7,8-PeCDF	2.08e+07	1.54 y	0.99	30:23	1.145	110.98					55.5					
IS	13C-2,3,4,7,8-PeCDF	2.21e+07	1.58 y	1.01	31:16	1.179	116.14					58.1					
IS	13C-1,2,3,4,7,8-HxCDF	1.58e+07	0.52 y	0.94	33:60	0.988	127.82					63.9					
IS	13C-1,2,3,6,7,8-HxCDF	1.73e+07	0.51 y	1.23	34:08	0.991	106.70					53.3					
IS	13C-2,3,4,6,7,8-HxCDF	1.50e+07	0.52 y	1.03	34:44	1.009	110.45					55.2					
IS	13C-1,2,3,7,8,9-HxCDF	1.29e+07	0.52 y	0.89	35:42	1.037	110.95					55.5					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.07e+07	0.45 y	0.71	37:35	1.092	115.09					57.5					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.01e+07	0.45 y	0.64	39:19	1.142	119.94					60.0					
IS	13C-OCDF	2.15e+07	0.90 y	0.76	42:21	1.230	215.21					53.8					
C/Up	37Cl-2,3,7,8-TCDD	5.60e+06		1.04	27:06	1.021	45.007					56.3	Integrations by		Reviewed by		
RS/RT	13C-1,2,3,4-TCDD	2.38e+07	0.81 y	1.00	26:32	*	200.00						Analyst: <u>MJ</u>		Analyst: _____		
RS	13C-1,2,3,4-TCDF	3.78e+07	0.75 y	1.00	25:07	*	200.00										
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.63e+07	0.54 y	1.00	34:25	*	200.00						Date: <u>9/18/14</u>		Date: _____		

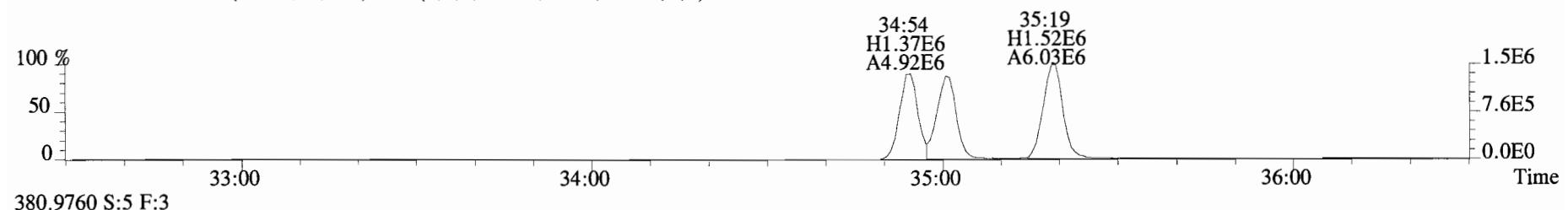
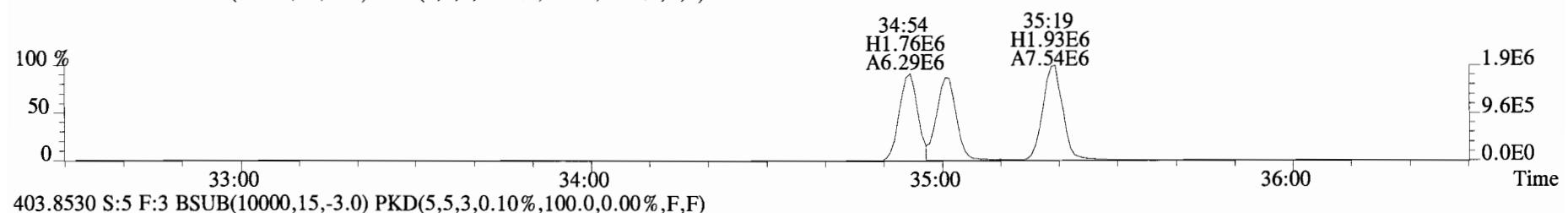
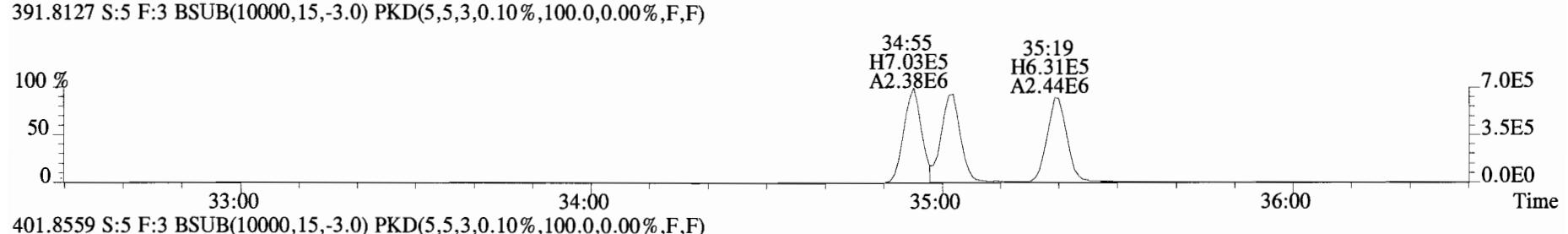
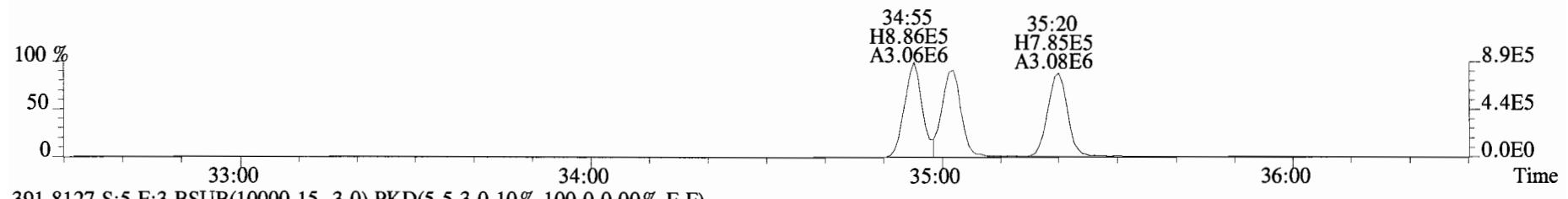
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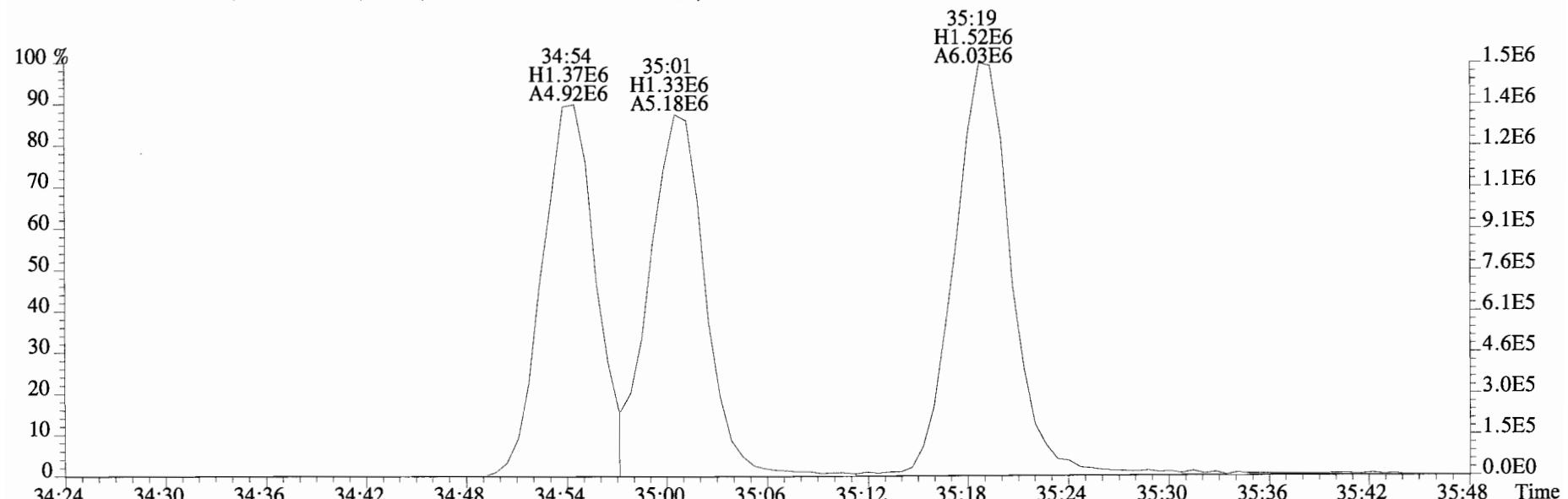
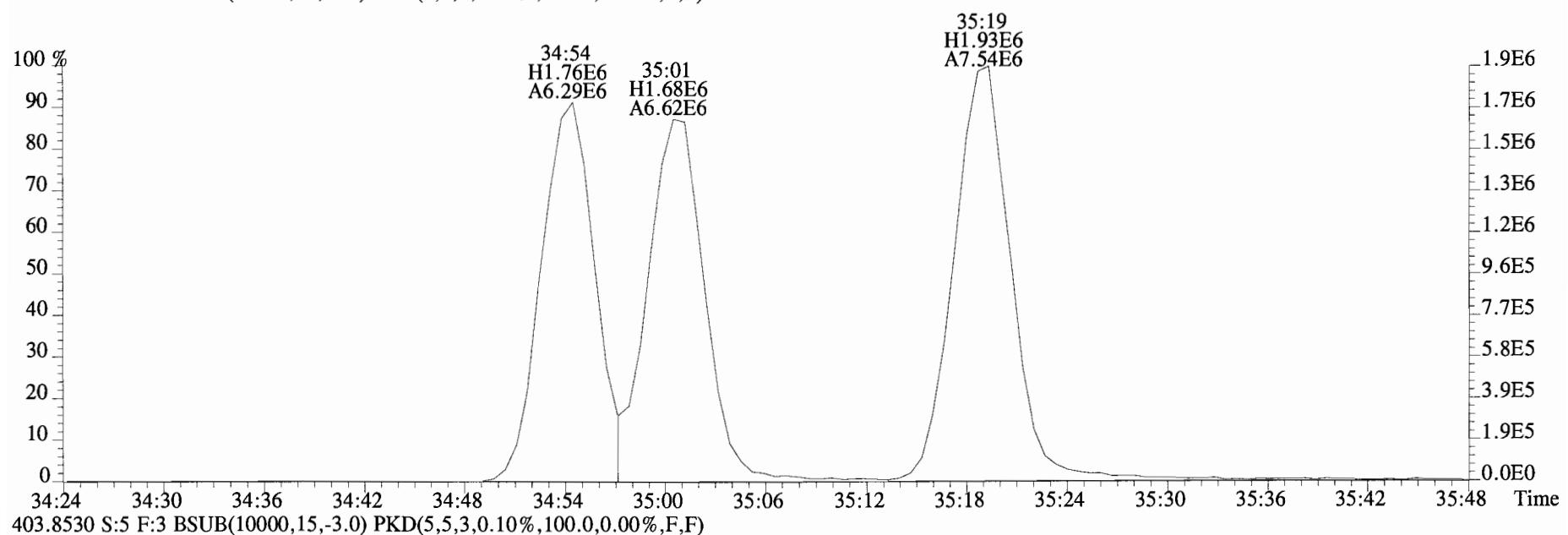
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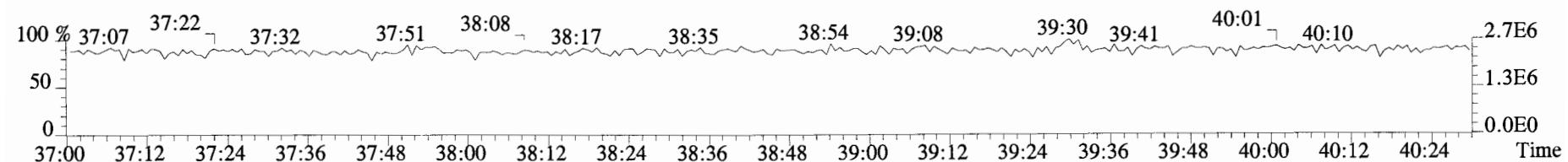
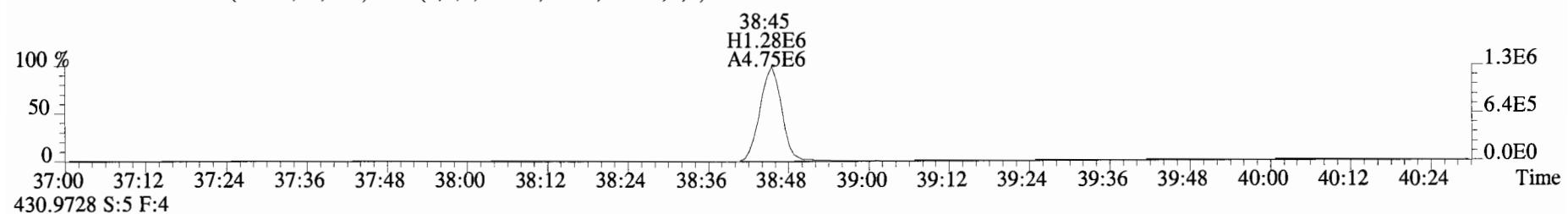
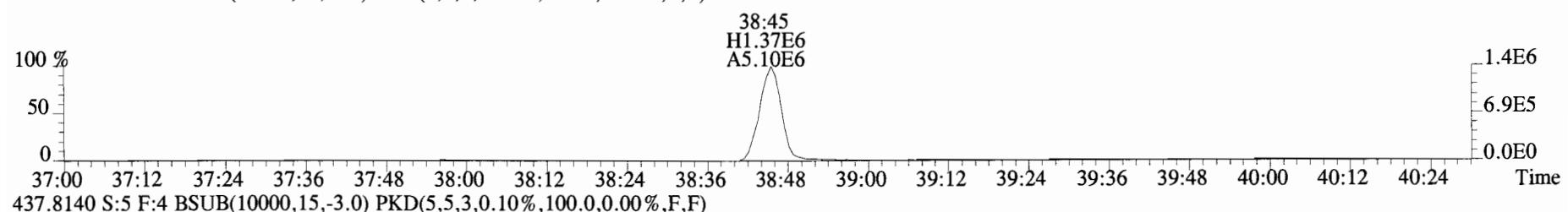
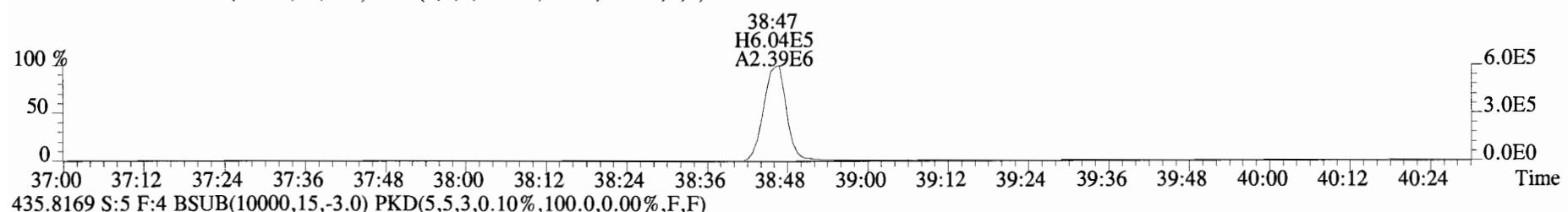
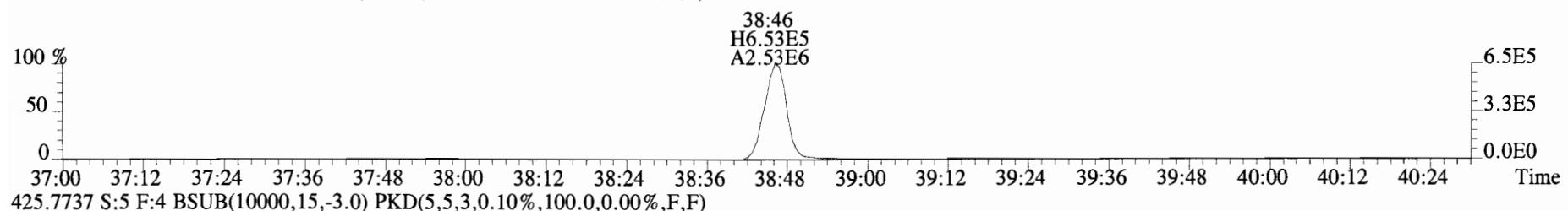
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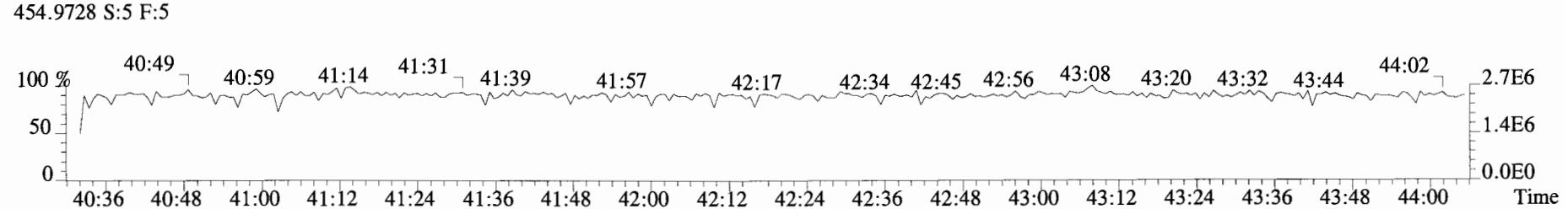
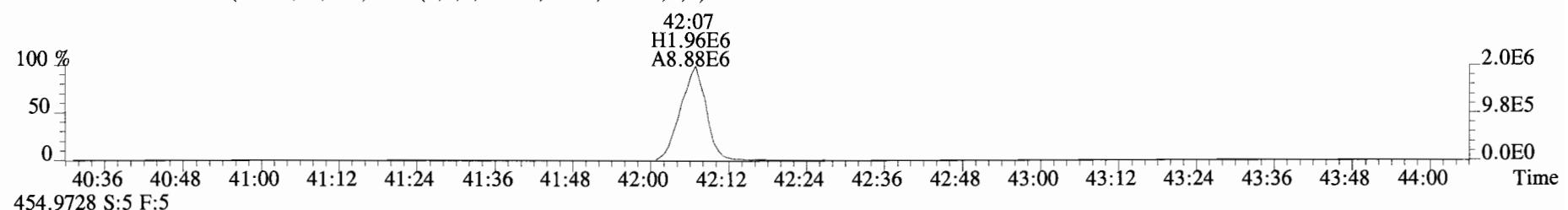
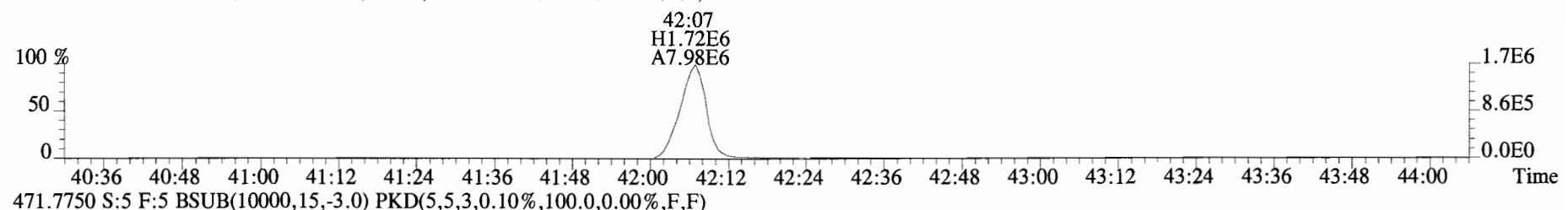
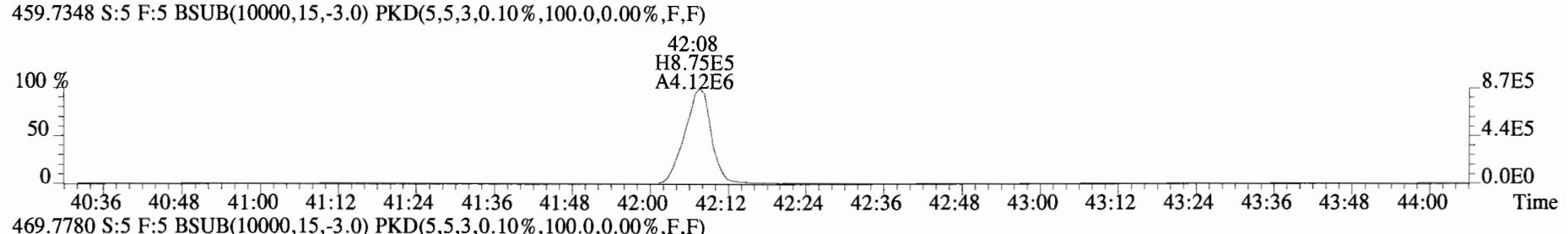
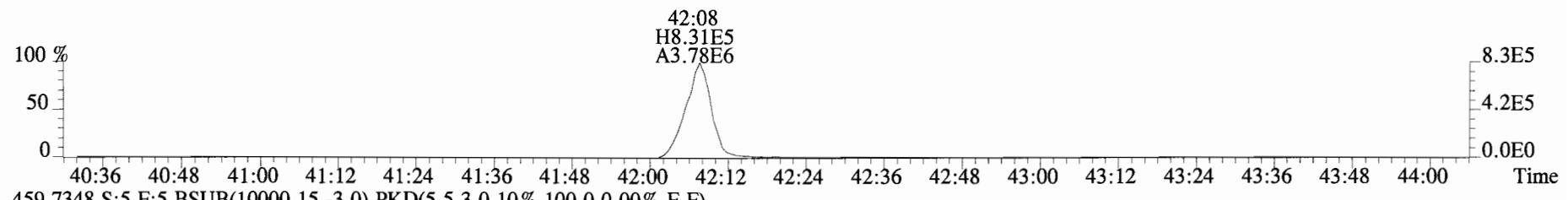
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Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



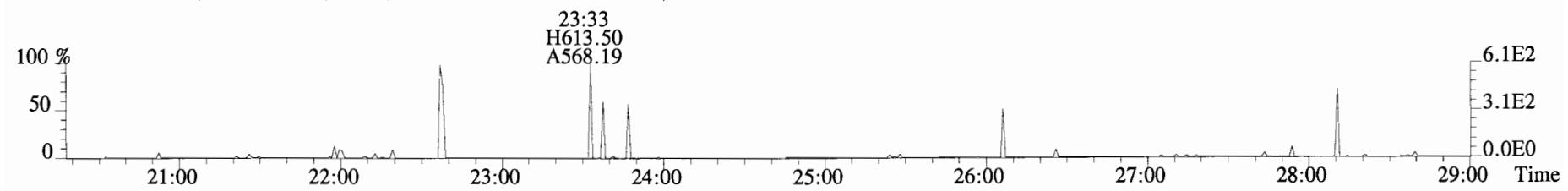
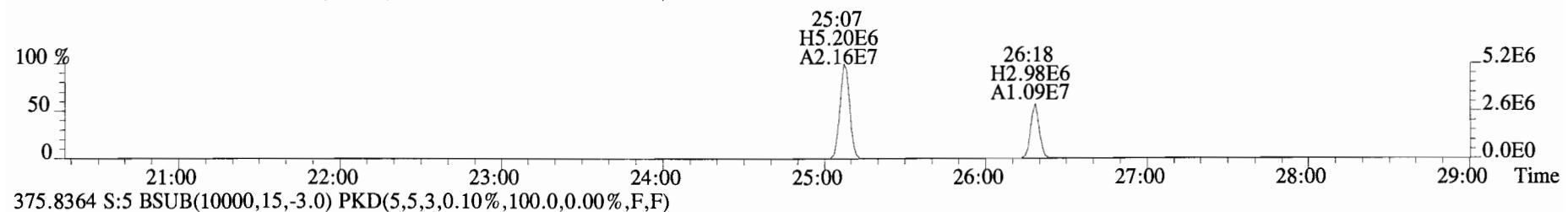
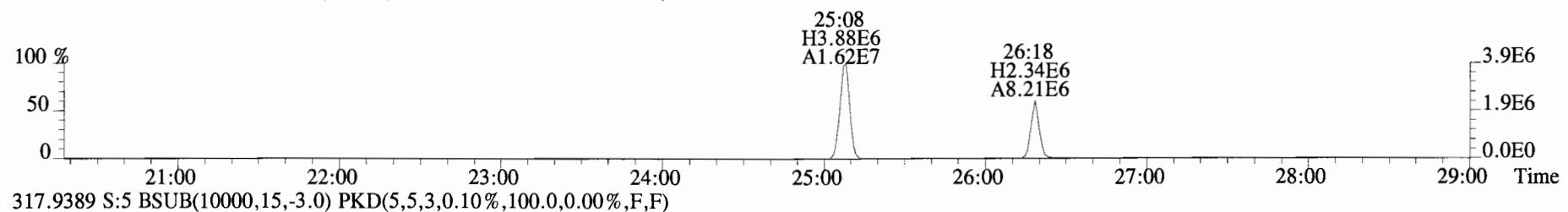
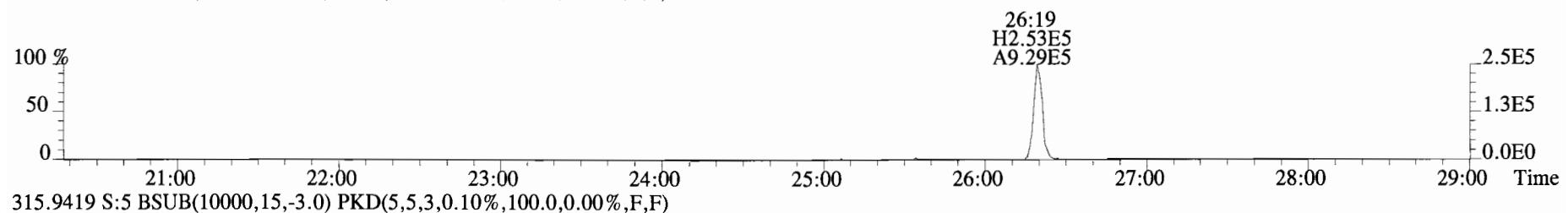
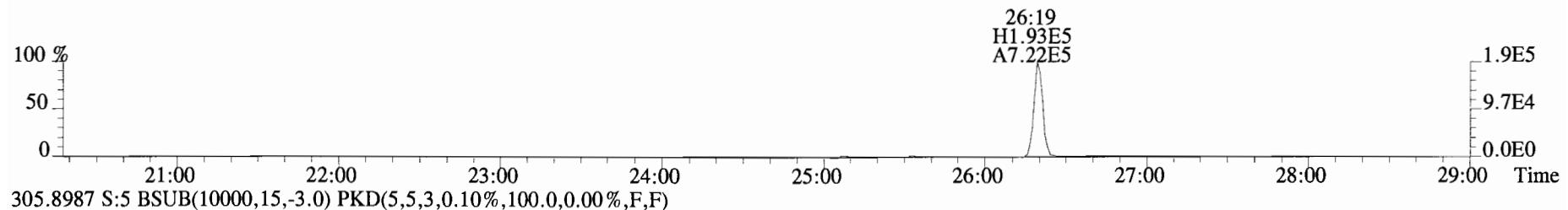
File:140917D1 #1-326 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
 423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



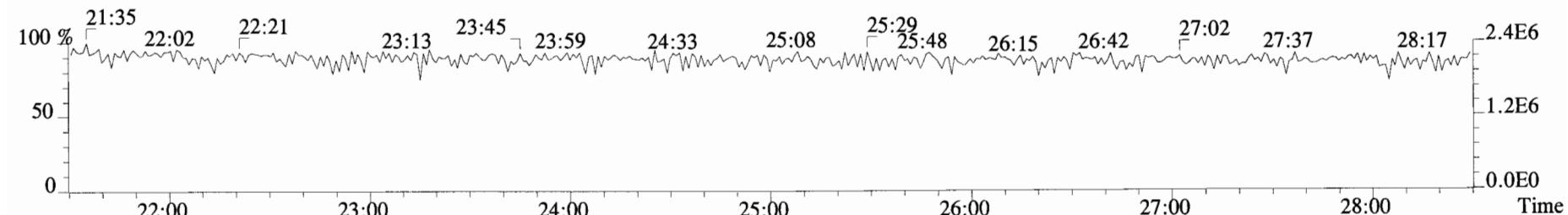
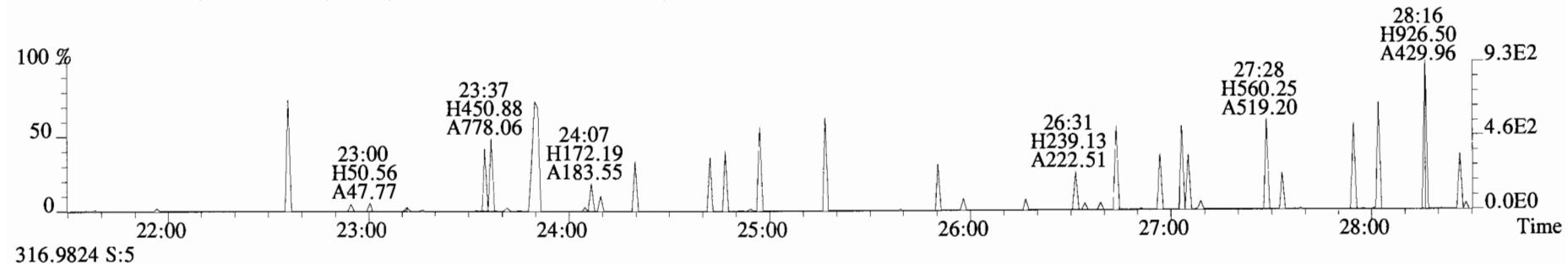
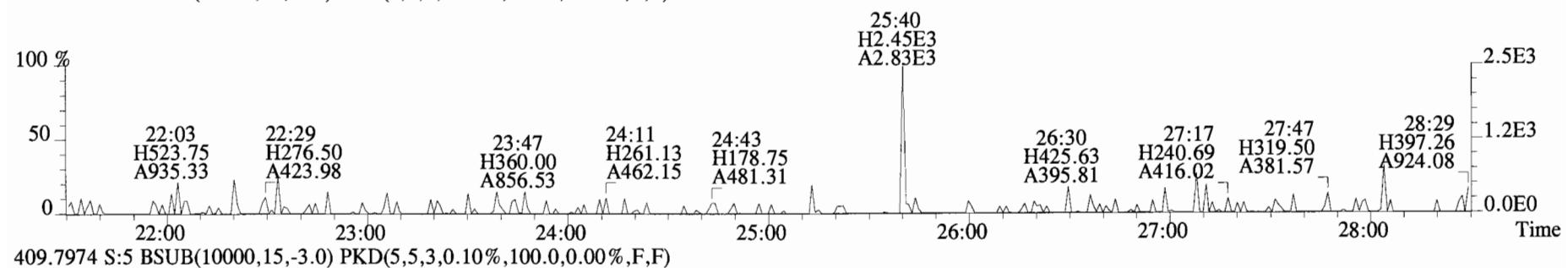
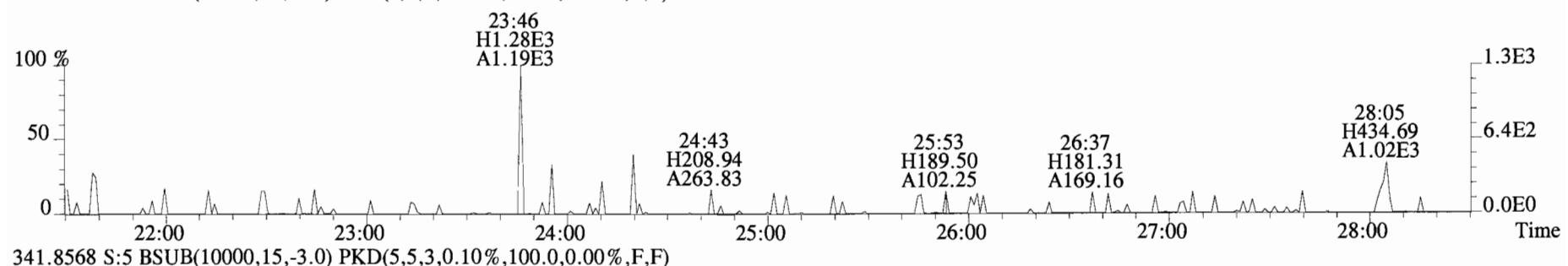
File:140917D1 #1-388 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



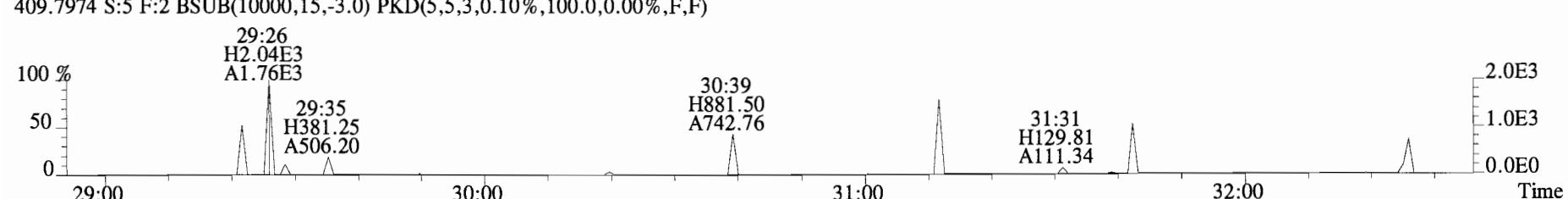
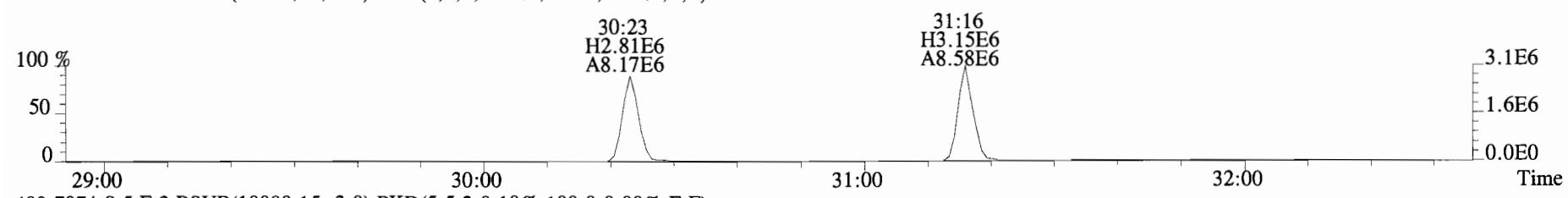
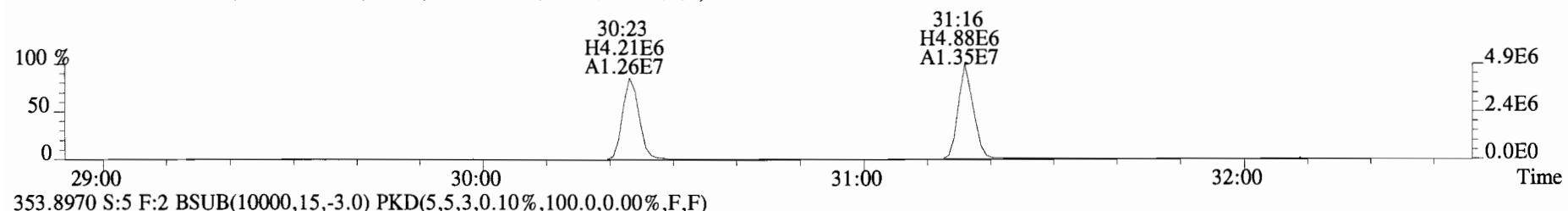
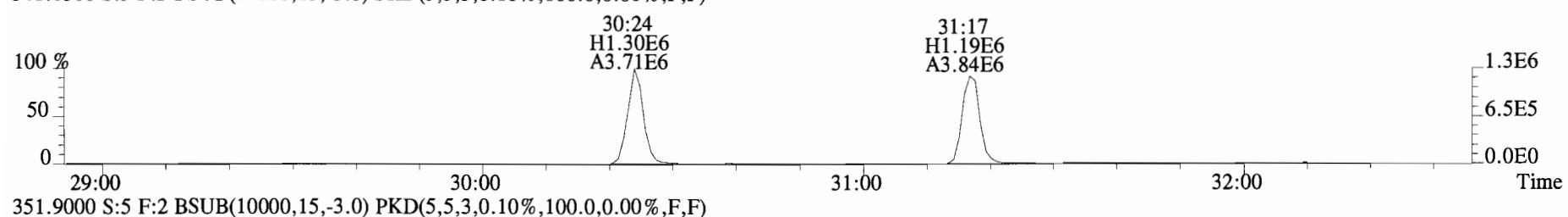
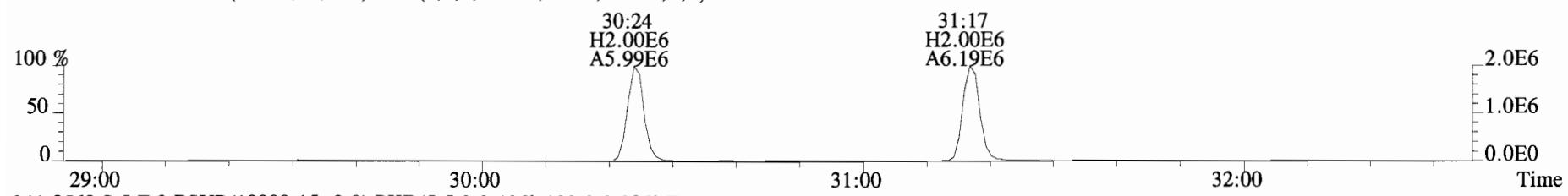
File:140917D1 #1-551 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



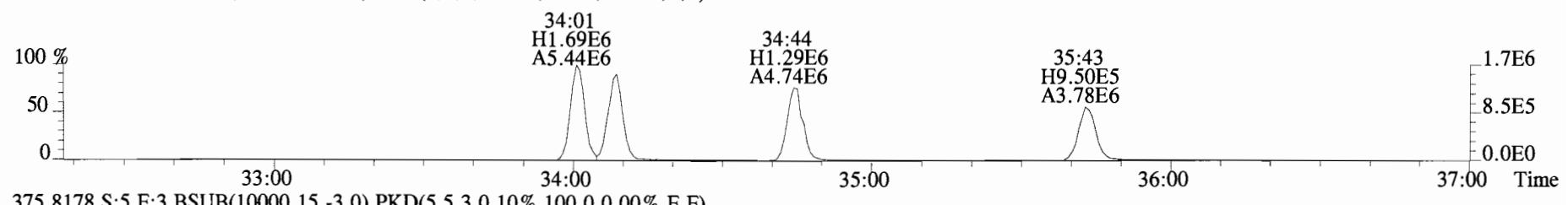
File:140917D1 #1-551 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B410053-BS1 OPR 10 Exp:OCDD_DB5
 339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



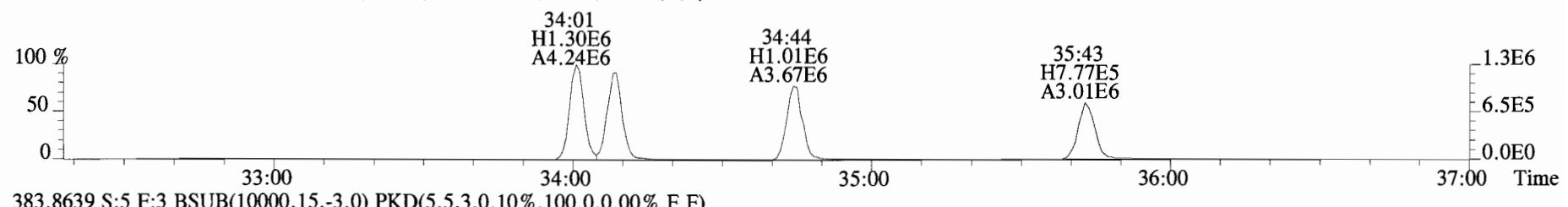
File:140917D1 #1-256 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



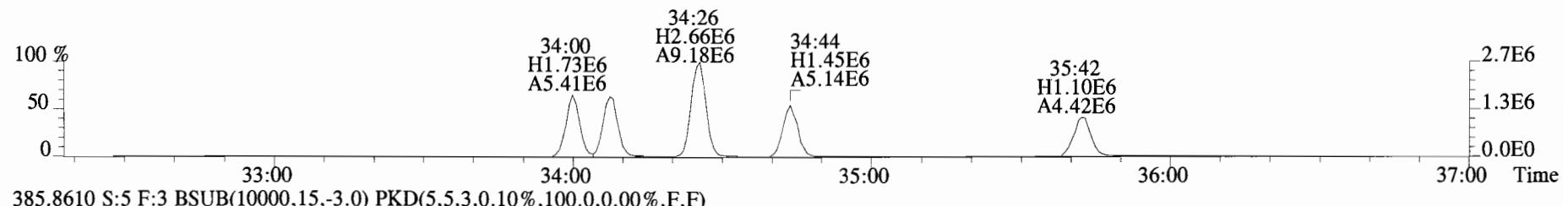
File:140917D1 #1-385 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR '10 Exp:OCDD_DB5
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



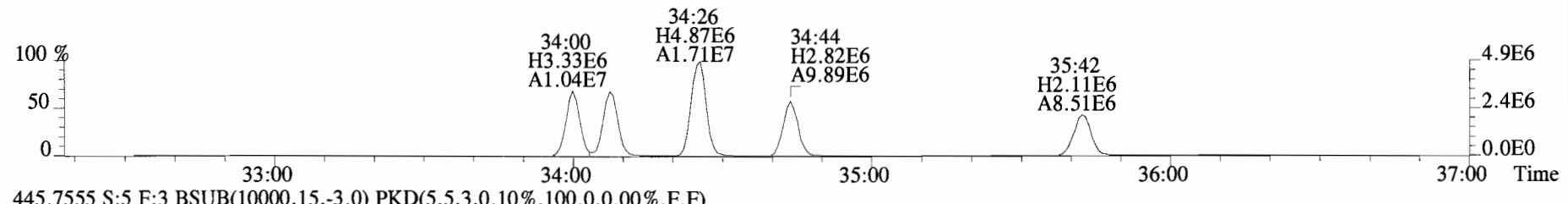
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



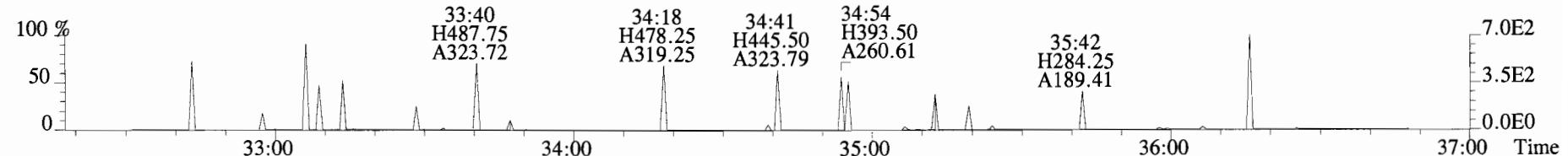
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



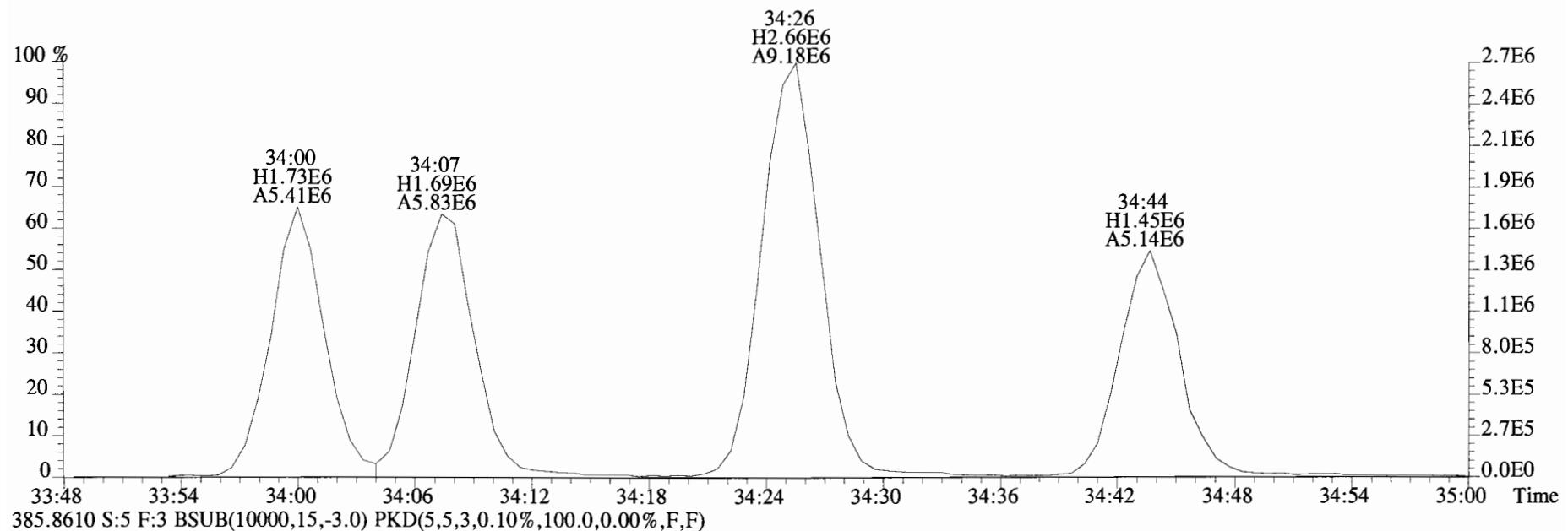
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



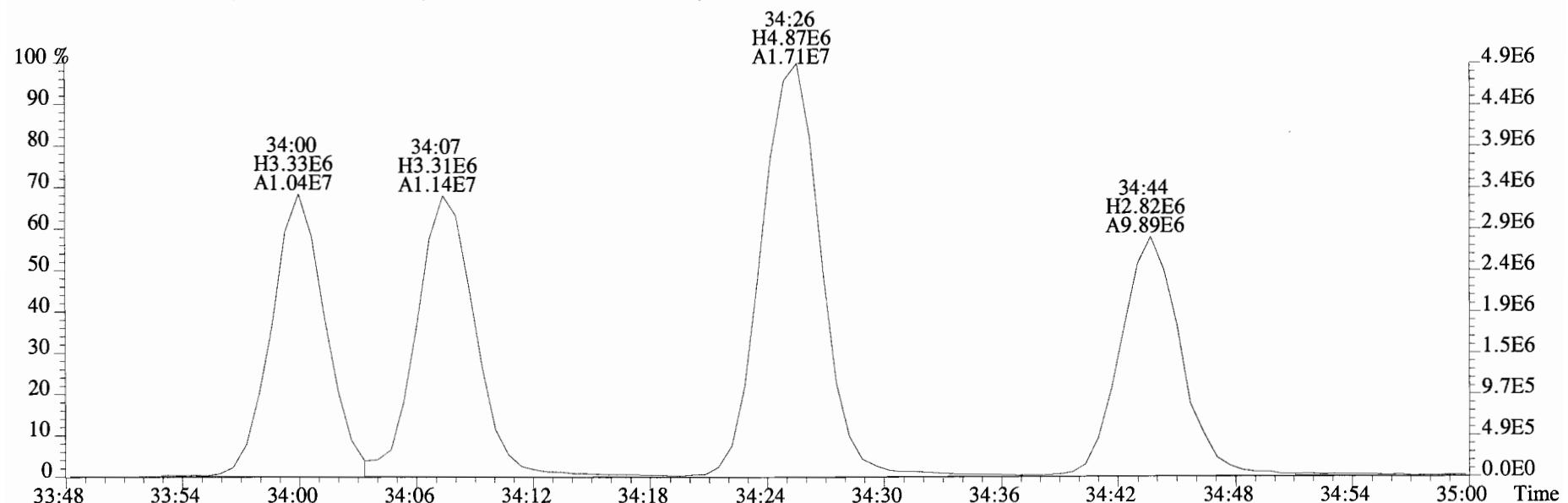
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



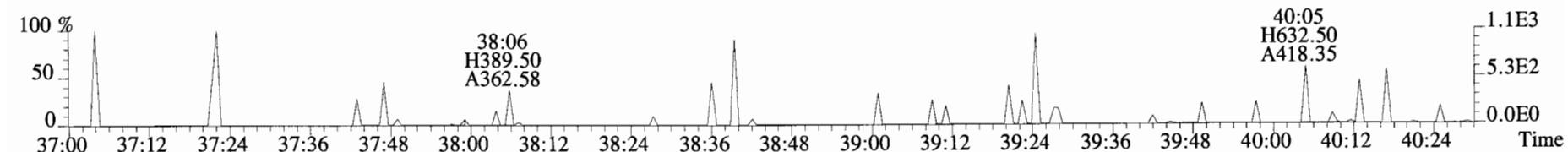
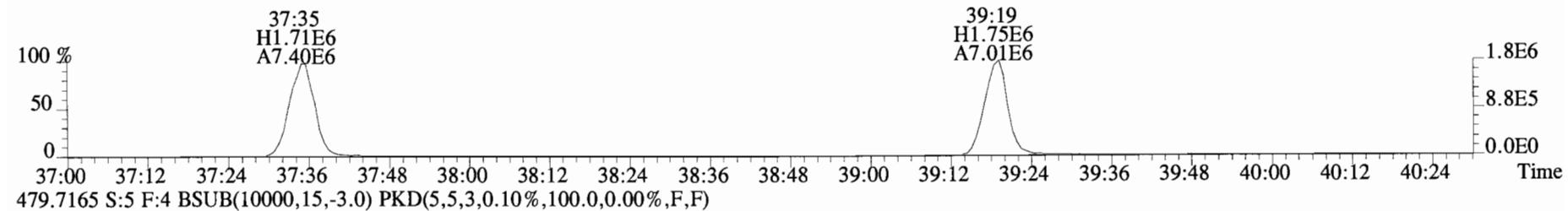
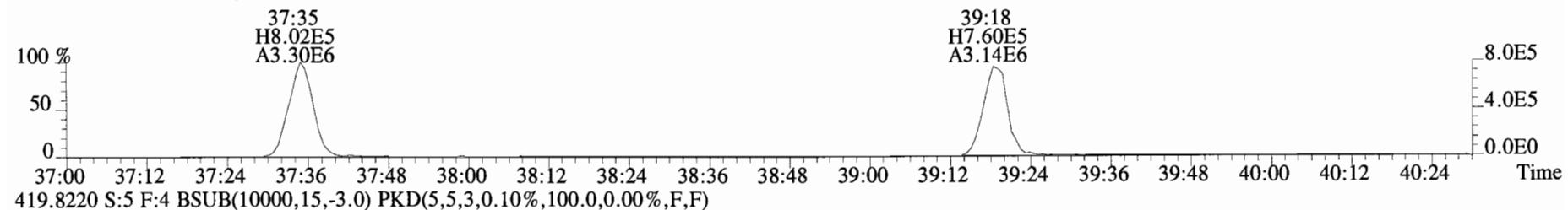
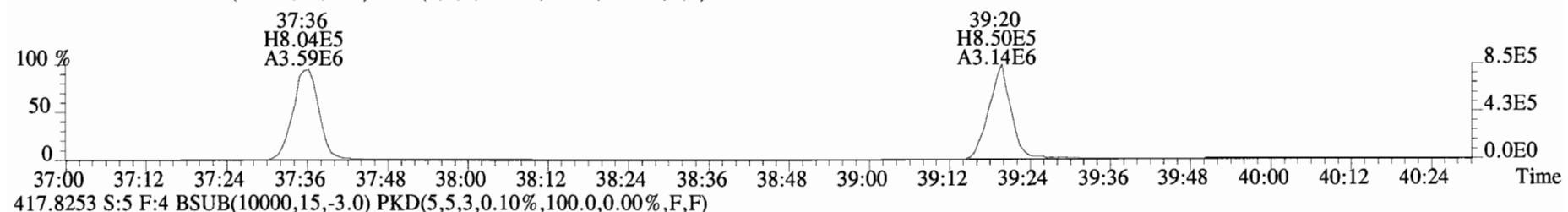
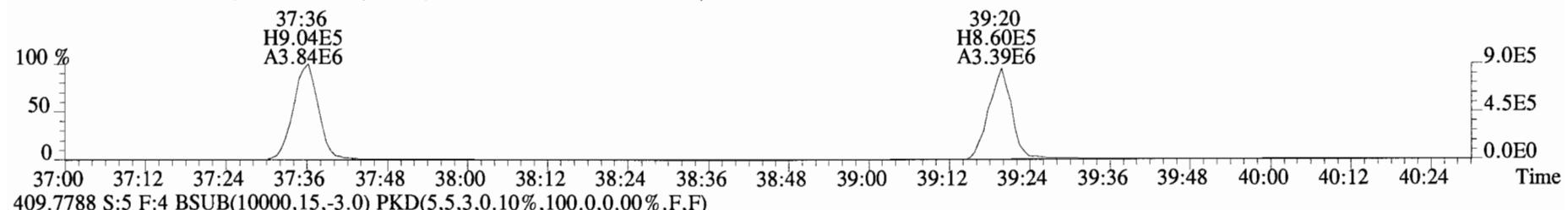
File:140917D1 #1-385 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



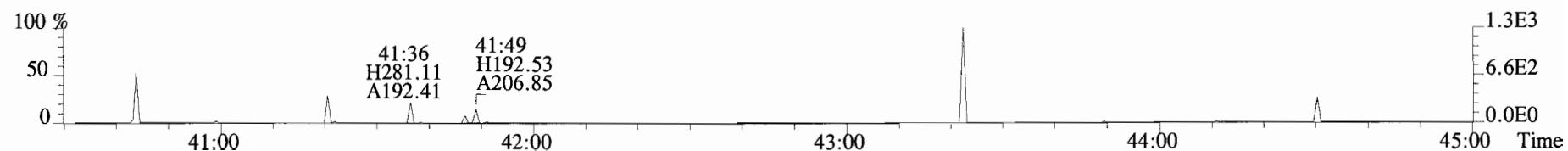
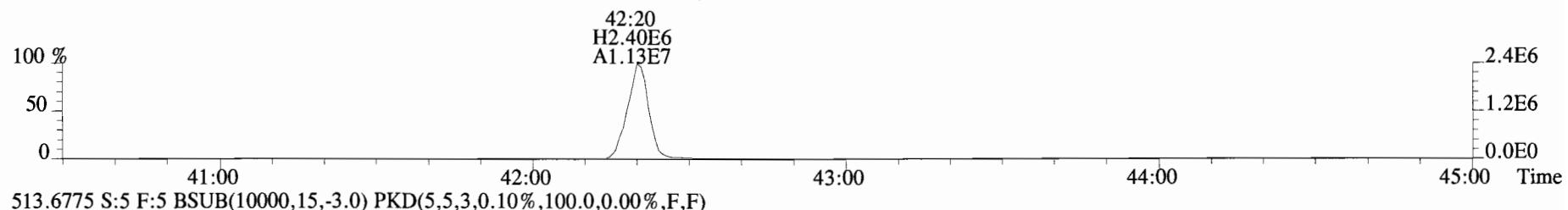
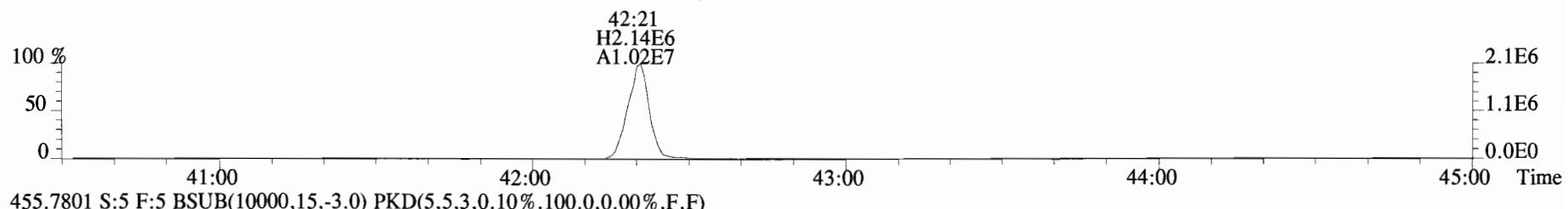
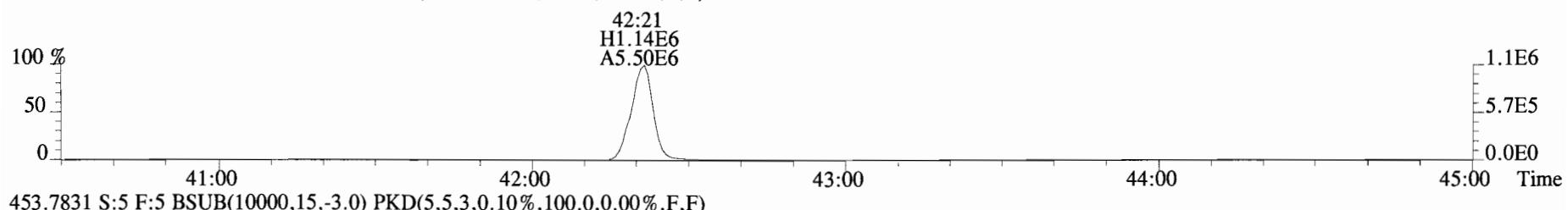
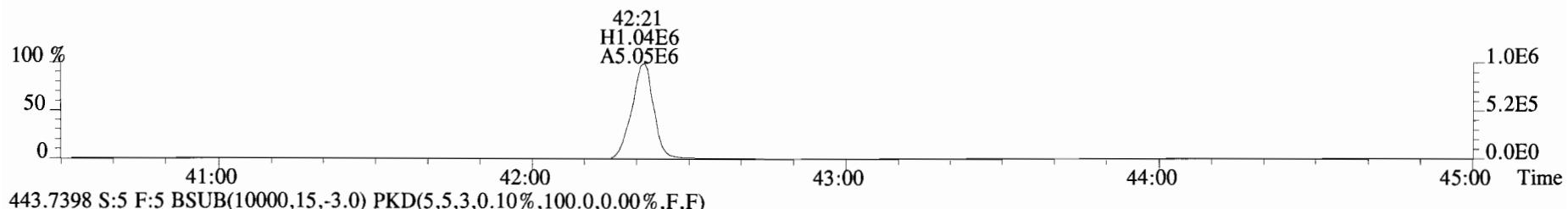
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140917D1 #1-326 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
 407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140917D1 #1-388 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	2.11e+04	0.56 n	1.03	27:03	1.000	0.20487	*	2.5	*		Total Tetra-Dioxins	3.60	4.70	*	*	
	1,2,3,7,8-PeCDD	1.06e+05	0.55 y	0.84	31:32	1.000	0.96951	*	2.5	*		Total Penta-Dioxins	9.12	9.30	*	*	
	1,2,3,4,7,8-HxCDD	1.39e+05	1.13 y	1.05	34:53	1.000	1.4569	*	2.5	*		Total Hexa-Dioxins	59.3	59.3	*	*	
	1,2,3,6,7,8-HxCDD	5.71e+05	1.33 y	1.04	34:59	1.000	5.7788	*	2.5	*		Total Hepta-Dioxins	386	386	*	*	
	1,2,3,7,8,9-HxCDD	3.50e+05	1.35 y	0.90	35:18	1.000	3.6485	*	2.5	*		Total Tetra-Furans	16.3	16.3	*	*	
	1,2,3,4,6,7,8-HpCDD	1.51e+07	1.03 y	1.01	38:44	1.000	186.85	*	2.5	*		Total Penta-Furans	16.006	16.006	*	*	
	OCDD	8.94e+07	0.90 y	1.04	42:06	1.000	1202.3	*	2.5	*		Total Hexa-Furans	23.9	23.9	*	*	
												Total Hepta-Furans	39.2	39.2	*	*	
	2,3,7,8-TCDF	1.34e+05	0.77 y	0.91	26:17	1.001	0.99076 (0.861)	*	2.5	*							
	1,2,3,7,8-PeCDF	8.26e+04	1.72 y	0.97	30:22	1.000	0.51810	*	2.5	*							
	2,3,4,7,8-PeCDF	2.24e+05	1.60 y	0.94	31:14	1.000	1.3354	*	2.5	*							
	1,2,3,4,7,8-HxCDF	2.22e+05	1.25 y	1.32	33:59	1.000	1.2862	*	2.5	*							
	1,2,3,6,7,8-HxCDF	2.10e+05	1.23 y	1.18	34:06	1.000	1.3275	*	2.5	*							
	2,3,4,6,7,8-HxCDF	2.34e+05	1.23 y	1.23	34:43	1.001	1.5233	*	2.5	*							
	1,2,3,7,8,9-HxCDF	*	*	n	1.13	Not F _T	*	*	4180	1.0	0.205						
	1,2,3,4,6,7,8-HpCDF	2.52e+06	1.08 y	1.57	37:34	1.000	18.464	*	2.5	*							
	1,2,3,4,7,8,9-HpCDF	1.51e+05	1.05 y	1.50	39:17	1.000	1.1631	*	2.5	*							
	OCDF	3.71e+06	0.88 y	1.05	42:19	1.000	40.165	*	2.5	*							
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.98e+07	0.83 y	1.06	27:02	1.021	179.14					90.3					
IS	13C-1,2,3,7,8-PeCDD	2.59e+07	0.63 y	1.08	31:31	1.190	229.79					116					
IS	13C-1,2,3,4,7,8-HxCDD	1.80e+07	1.28 y	0.74	34:52	1.014	183.08					92.3					
IS	13C-1,2,3,6,7,8-HxCDD	1.89e+07	1.27 y	0.75	34:59	1.017	190.10					95.9					
IS	13C-1,2,3,7,8,9-HxCDD	2.13e+07	1.24 y	0.89	35:17	1.026	179.99					90.8					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.59e+07	1.03 y	0.70	38:44	1.126	170.15					85.8					
IS	13C-OCDD	2.83e+07	0.89 y	0.59	42:05	1.224	362.19					91.3					
IS	13C-2,3,7,8-TCDF	2.93e+07	0.76 y	0.97	26:16	0.991	179.88					90.7					
IS	13C-1,2,3,7,8-PeCDF	3.26e+07	1.56 y	0.99	30:21	1.146	195.14					98.4					
IS	13C-2,3,4,7,8-PeCDF	3.54e+07	1.57 y	1.01	31:14	1.179	208.53					105					
IS	13C-1,2,3,4,7,8-HxCDF	2.60e+07	0.50 y	0.94	33:58	0.988	208.58					105					
IS	13C-1,2,3,6,7,8-HxCDF	2.66e+07	0.53 y	1.23	34:06	0.991	163.69					82.5					
IS	13C-2,3,4,6,7,8-HxCDF	2.48e+07	0.52 y	1.03	34:42	1.009	181.15					91.3					
IS	13C-1,2,3,7,8,9-HxCDF	2.14e+07	0.51 y	0.89	35:40	1.037	182.62					92.1					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.72e+07	0.43 y	0.71	37:33	1.092	183.85					92.7					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.71e+07	0.44 y	0.64	39:17	1.142	200.63					101					
IS	13C-OCDF	3.47e+07	0.90 y	0.76	42:19	1.230	345.69					87.2					
C/Up	37Cl-2,3,7,8-TCDD	7.90e+06		1.04	27:04	1.021	72.903					91.9	Integrations by Analyst:	M	Reviewed by		
RS/RT	13C-1,2,3,4-TCDD	2.06e+07	0.81 y	1.00	26:30	*	198.31										
RS	13C-1,2,3,4-TCDF	3.34e+07	0.76 y	1.00	25:05	*	198.31										
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.63e+07	0.52 y	1.00	34:24	*	198.31						Date: 9/13/14		Date: 9/20/14		

Totals class: TCDD EMPC

Entry #: 19

Run: 13 File: 140917D1 S: 10 I: 1 F: 1
 Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 4.6990 Unnamed Concentration: 4.494

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
23:44	6.640e+04		8.615e+04	0.77	y	1.525e+05	1.4807	
24:05	3.645e+04		4.551e+04	0.80	y	8.196e+04	0.79556	
24:29	1.059e+04		9.088e+03	1.17	n	1.609e+04	0.15614	
25:26	1.835e+04		2.649e+04	0.69	y	4.484e+04	0.43520	
25:36	1.631e+04		2.032e+04	0.80	y	3.662e+04	0.35550	
25:45	7.337e+03		1.341e+04	0.55	n	1.686e+04	0.16370	
25:59	5.806e+03		4.202e+03	1.38	n	7.438e+03	0.072198	
26:09	9.483e+03		9.883e+03	0.96	n	1.749e+04	0.16980	
26:31	1.666e+04		1.581e+04	1.05	n	2.798e+04	0.27157	
26:49	1.396e+04		1.967e+04	0.71	y	3.363e+04	0.32642	
27:03	9.182e+03		1.649e+04	0.56	n	2.111e+04	0.20487	2,3,7,8-TCDD
27:20	9.081e+03		1.224e+04	0.74	y	2.132e+04	0.20692	
27:55	3.479e+03		3.520e+03	0.99	n	6.230e+03	0.060473	

Totals class: PeCDD EMPC

Entry #: 21

Run: 13 File: 140917D1 S: 10 I: 1 F: 2
 Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 9.2987 Unnamed Concentration: 8.329

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
29:30	1.025e+05		1.565e+05	0.65	y	2.590e+05	2.3597	
29:57	2.627e+04		4.366e+04	0.60	y	6.993e+04	0.63717	
30:22	5.129e+04		7.305e+04	0.70	y	1.243e+05	1.1329	
30:32	4.340e+04		6.876e+04	0.63	y	1.122e+05	1.0220	
30:38	3.534e+04		6.067e+04	0.58	y	9.601e+04	0.87476	
30:51	4.964e+04		8.962e+04	0.55	y	1.393e+05	1.2688	
31:09	1.978e+04		3.314e+04	0.60	y	5.292e+04	0.48214	
31:32	3.792e+04		6.848e+04	0.55	y	1.064e+05	0.96951	1,2,3,7,8-PeCDD
31:37	7.520e+03		1.450e+04	0.52	n	1.946e+04	0.17729	
31:54	1.461e+04		2.648e+04	0.55	y	4.110e+04	0.37444	

Totals class: HxCDD EMPC

Entry #: 23

Run: 13 File: 140917D1 S: 10 I: 1 F: 3
Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 59.319 Unnamed Concentration: 48.435

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
33:19	8.028e+05		6.310e+05	1.27	y	1.434e+06	14.841	
33:54	2.686e+05		2.267e+05	1.18	y	4.953e+05	5.1264	
34:10	1.395e+06		1.099e+06	1.27	y	2.495e+06	25.822	
34:18	8.646e+04		6.167e+04	1.40	y	1.481e+05	1.5332	
34:53	7.381e+04		6.510e+04	1.13	y	1.389e+05	1.4569	1,2,3,4,7,8-HxCDD
34:59	3.265e+05		2.449e+05	1.33	y	5.714e+05	5.7788	1,2,3,6,7,8-HxCDD
35:11	5.842e+04		4.904e+04	1.19	y	1.075e+05	1.1123	
35:18	2.014e+05		1.488e+05	1.35	y	3.502e+05	3.6485	1,2,3,7,8,9-HxCDD

Totals class: HpCDD EMPC

Entry #: 25

Run: 13 File: 140917D1 S: 10 I: 1 F: 4
Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 385.64 Unnamed Concentration: 198.792

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
37:55	8.187e+06		7.850e+06	1.04	y	1.604e+07	198.79	
38:44	7.656e+06		7.418e+06	1.03	y	1.507e+07	186.85	1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 13 File: 140917D1 S: 10 I: 1 F: 1
 Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 16.252 Unnamed Concentration: 15.261

RT	m1	Resp	m2	Resp	RA	Resp	Concentration	Name
21:37	1.945e+04		2.690e+04	0.72	y	4.635e+04	0.34377	
22:12	2.694e+04		3.808e+04	0.71	y	6.501e+04	0.48220	
22:49	8.308e+04		1.115e+05	0.75	y	1.945e+05	1.4430	
23:19	9.835e+04		1.286e+05	0.76	y	2.270e+05	1.6834	
23:42	7.119e+04		1.033e+05	0.69	y	1.745e+05	1.2945	
24:07	5.716e+04		7.174e+04	0.80	y	1.289e+05	0.95604	
24:14	3.091e+04		4.426e+04	0.70	y	7.517e+04	0.55751	
24:23	3.139e+04		4.219e+04	0.74	y	7.358e+04	0.54574	
24:44	1.732e+04		2.238e+04	0.77	y	3.970e+04	0.29443	
24:51	4.183e+04		4.732e+04	0.88	y	8.916e+04	0.66127	
24:58	6.640e+04		7.805e+04	0.85	y	1.445e+05	1.0714	
25:06	8.523e+04		1.101e+05	0.77	y	1.954e+05	1.4490	
25:30	6.533e+04		7.443e+04	0.88	y	1.398e+05	1.0366	
25:45	2.908e+04		3.723e+04	0.78	y	6.631e+04	0.49180	
25:55	2.954e+04		4.044e+04	0.73	y	6.998e+04	0.51903	
26:06	2.248e+04		3.317e+04	0.68	y	5.565e+04	0.41274	
26:11	2.180e+04		3.097e+04	0.70	y	5.277e+04	0.39137	
26:17	5.819e+04		7.539e+04	0.77	y	1.336e+05	0.99076	2,3,7,8-TCDF
26:37	8.740e+04		1.139e+05	0.77	y	2.013e+05	1.4934	
28:02	8.302e+03		9.735e+03	0.85	y	1.804e+04	0.13378	

Totals class: 1st Func. PeCDF EMPC Entry #: 29

Run: 13 File: 140917D1 S: 10 I: 1 F: 1
Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 4.2749 Unnamed Concentration: 4.275

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
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28:02	4.243e+05	2.754e+05	1.54	y	6.997e+05	4.2749
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Totals class: PeCDF EMPC

Entry #: 31

Run: 13 File: 140917D1 S: 10 I: 1 F: 2
 Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 11.731 Unnamed Concentration: 9.878

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
29:19	1.405e+05	8.361e+04	1.68 y	2.241e+05	1.3694
29:28	3.932e+05	2.658e+05	1.48 y	6.590e+05	4.0268
29:48	2.089e+04	1.464e+04	1.43 y	3.553e+04	0.21711
29:59	1.875e+05	1.231e+05	1.52 y	3.107e+05	1.8981
30:12	2.361e+04	1.725e+04	1.37 y	4.086e+04	0.24968
30:22	5.224e+04	3.041e+04	1.72 y	8.265e+04	0.51810 1,2,3,7,8-PeCDF
30:36	9.196e+04	5.916e+04	1.55 y	1.511e+05	0.92336
31:09	8.299e+04	4.674e+04	1.78 y	1.297e+05	0.79267
31:14	1.376e+05	8.622e+04	1.60 y	2.239e+05	1.3354 2,3,4,7,8-PeCDF
31:18	3.994e+04	2.563e+04	1.56 y	6.557e+04	0.40064

Totals class: HxCDF EMPC

Entry #: 33

Run: 13 File: 140917D1 S: 10 I: 1 F: 3
 Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

Total Concentration: 23.895 Unnamed Concentration: 19.758

RT	m1	Resp	m2	Resp	RA	Resp Concentration	Name
32:47	2.683e+05	2.057e+05	1.30	y	4.740e+05	3.1371	
32:56	9.379e+05	7.552e+05	1.24	y	1.693e+06	11.206	
33:30	3.723e+05	3.109e+05	1.20	y	6.832e+05	4.5222	
33:53	7.741e+04	5.745e+04	1.35	y	1.349e+05	0.89258	
33:59	1.236e+05	9.880e+04	1.25	y	2.224e+05	1.2862	1,2,3,4,7,8-HxCDF
34:06	1.157e+05	9.396e+04	1.23	y	2.096e+05	1.3275	1,2,3,6,7,8-HxCDF
34:43	1.291e+05	1.051e+05	1.23	y	2.342e+05	1.5233	2,3,4,6,7,8-HxCDF

Totals class: HpCDF EMPC

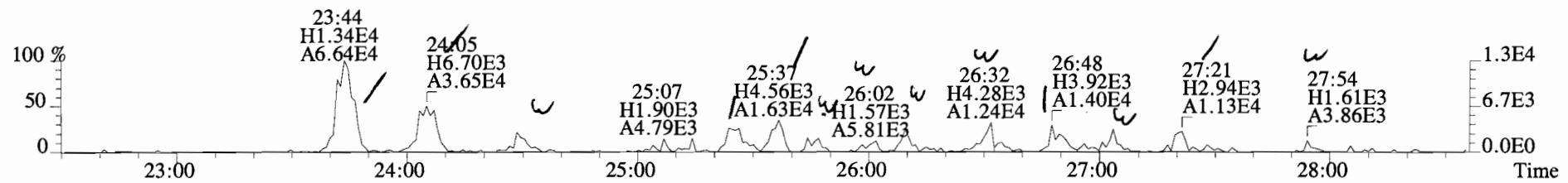
Entry #: 35

Run: 13 File: 140917D1 S: 10 I: 1 F: 4
Acquired: 17-SEP-14 20:26:43 Processed: 18-SEP-14 09:39:51

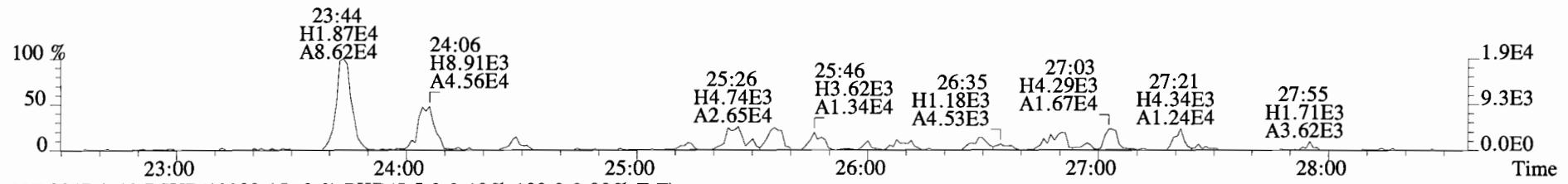
Total Concentration: 39.240 Unnamed Concentration: 19.613

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
37:34	1.306e+06	1.215e+06	1.08	y	2.521e+06	18.464 1,2,3,4,6,7,8-HpCDF
37:55	5.977e+04	5.604e+04	1.07	y	1.158e+05	0.86986
38:07	1.306e+06	1.190e+06	1.10	y	2.495e+06	18.743
39:17	7.698e+04	7.360e+04	1.05	y	1.506e+05	1.1631 1,2,3,4,7,8,9-HpCDF

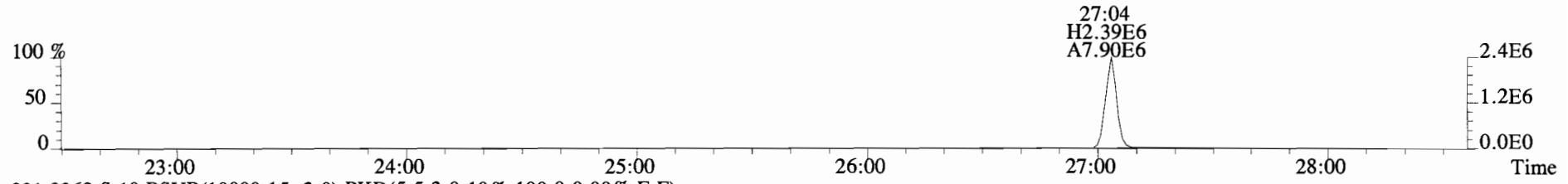
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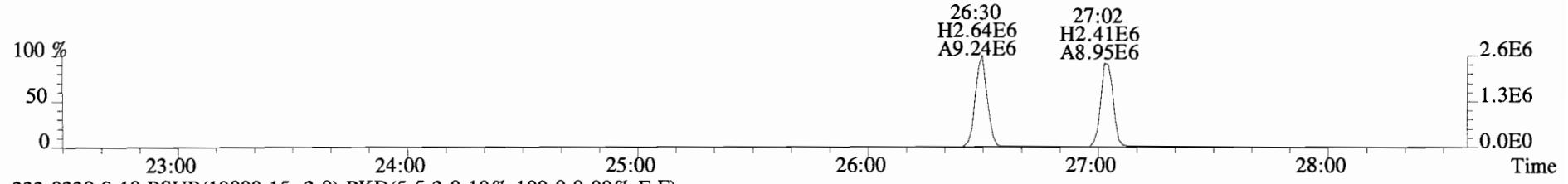
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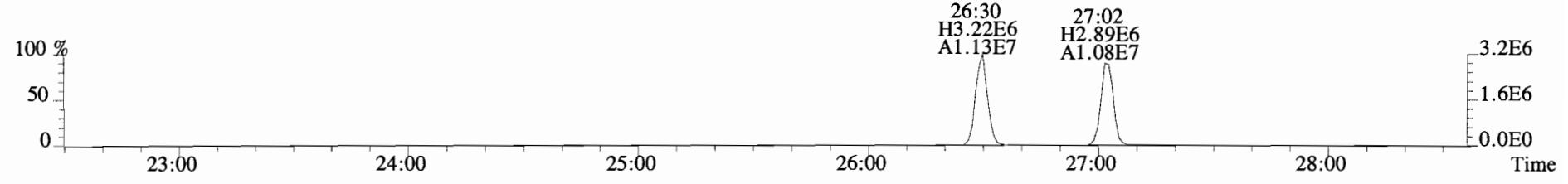
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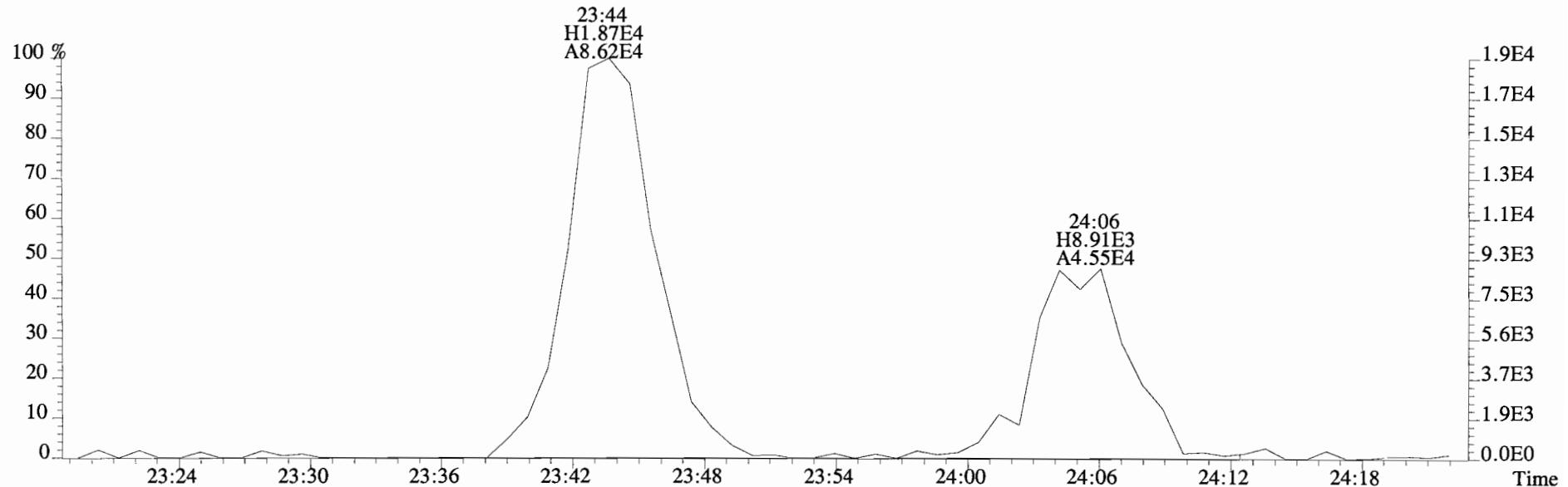
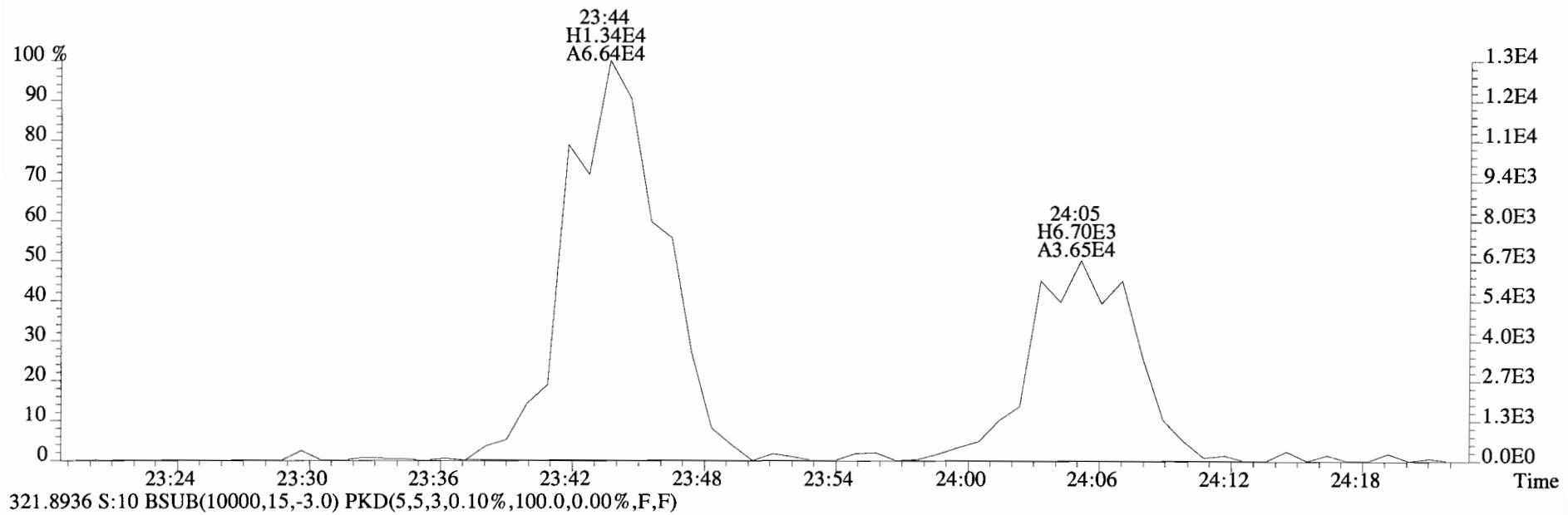
331.9368 S:10 BSB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



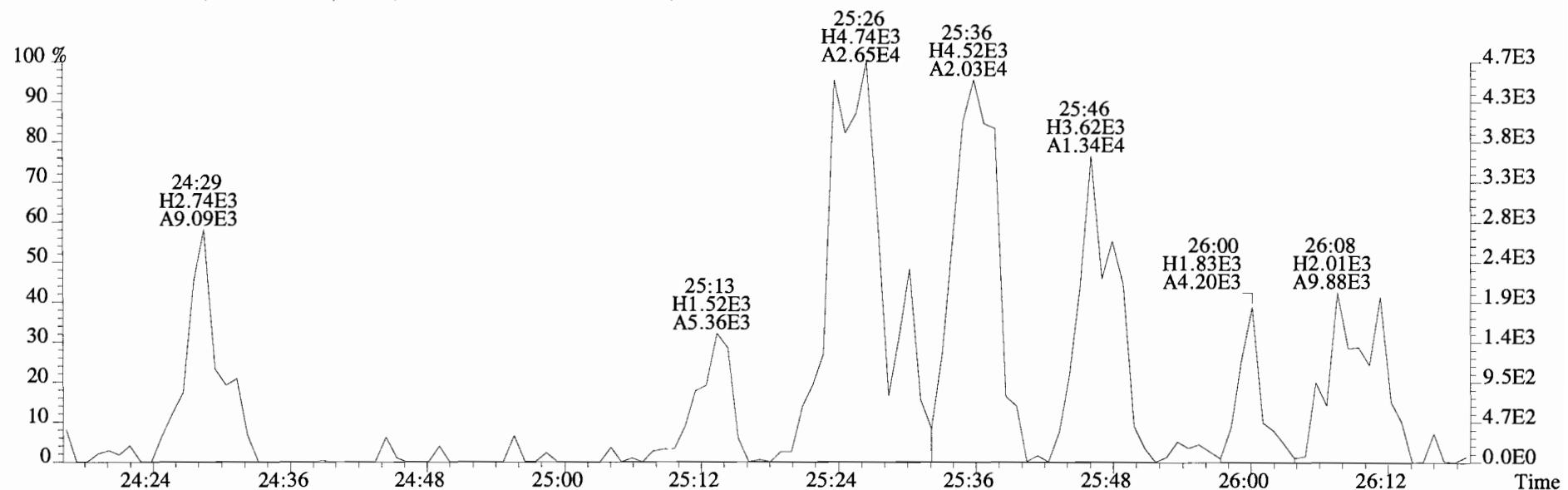
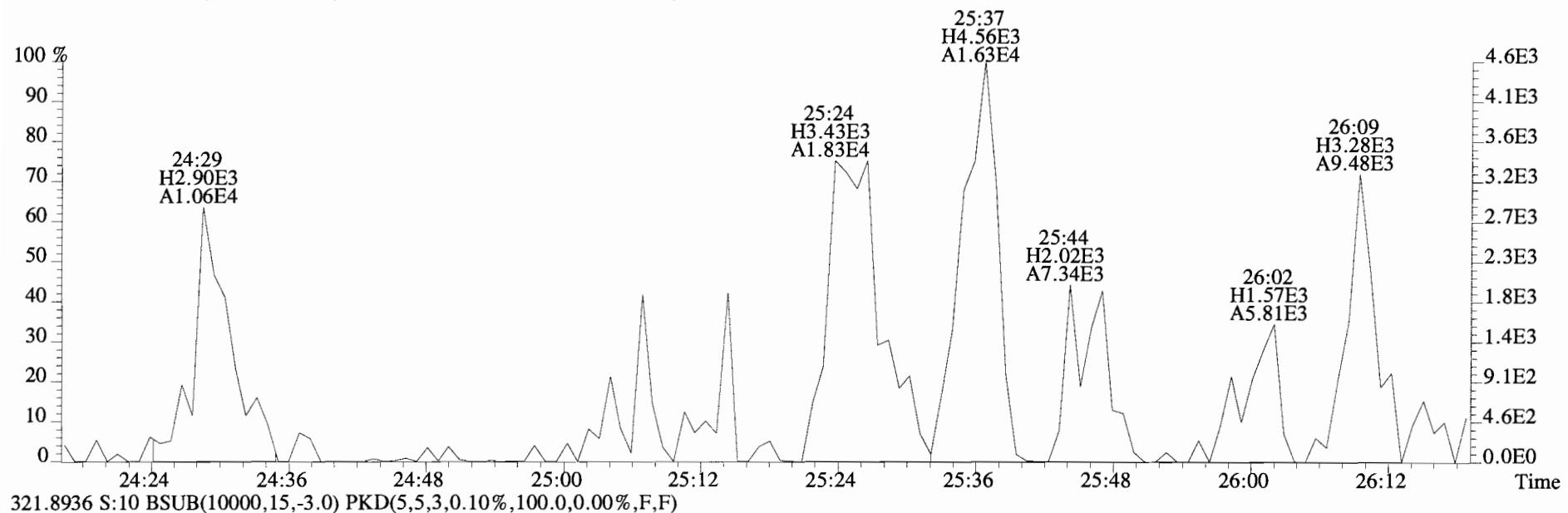
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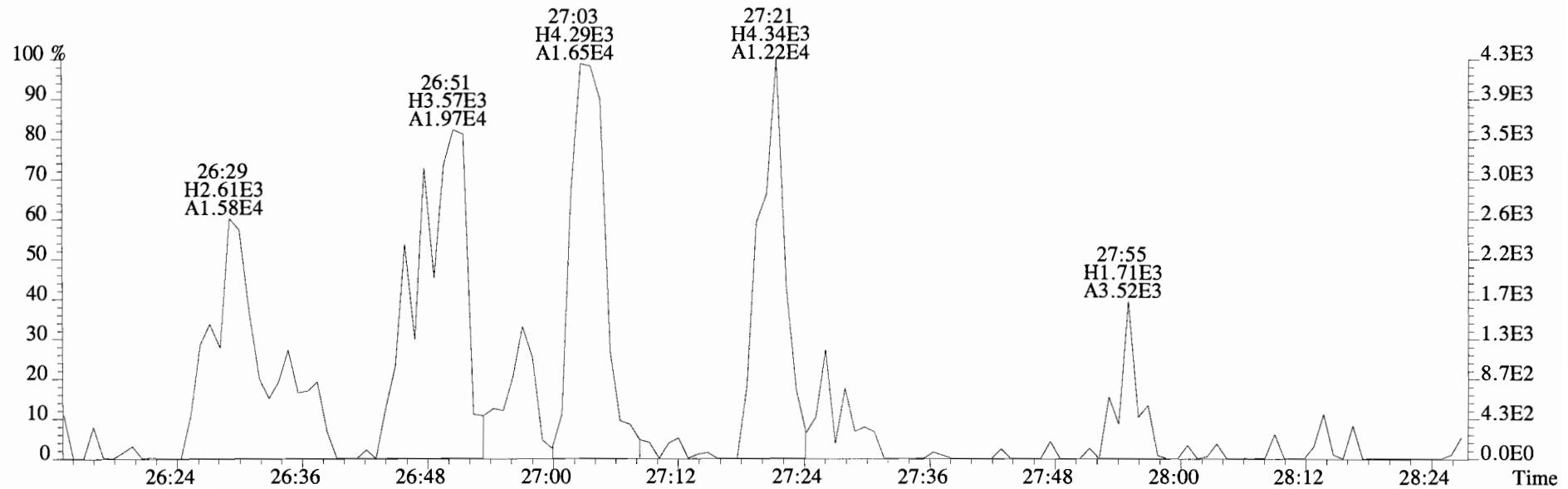
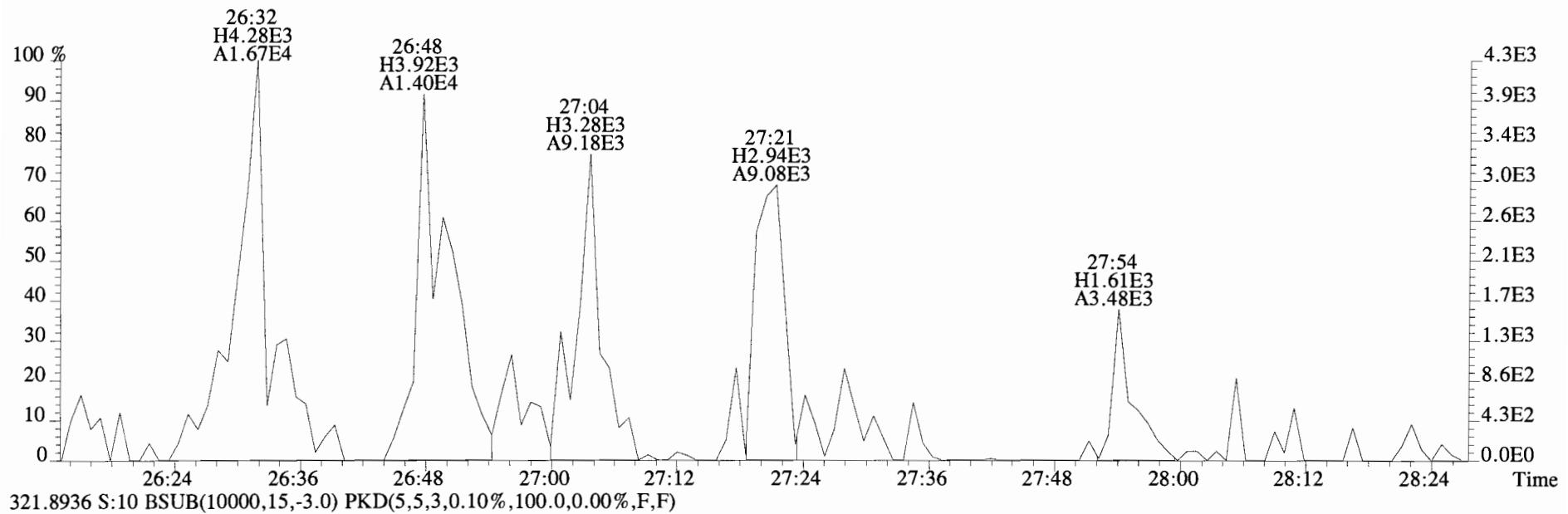
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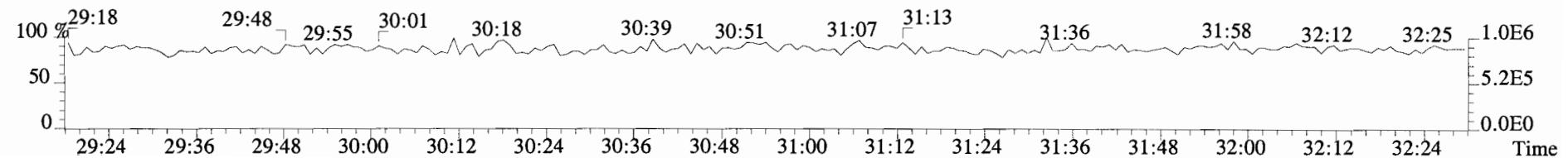
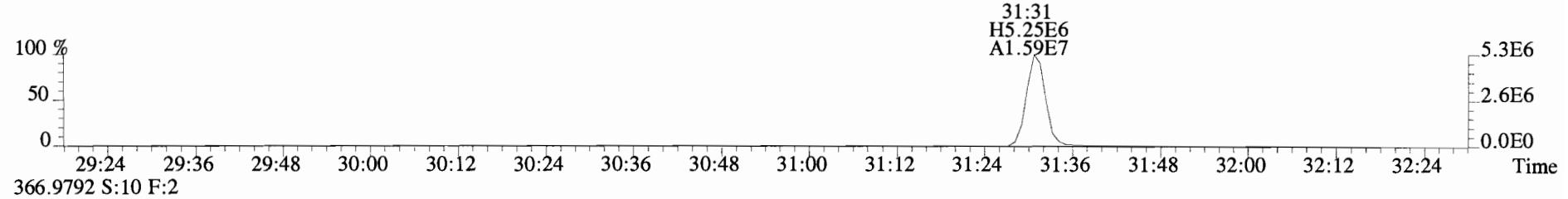
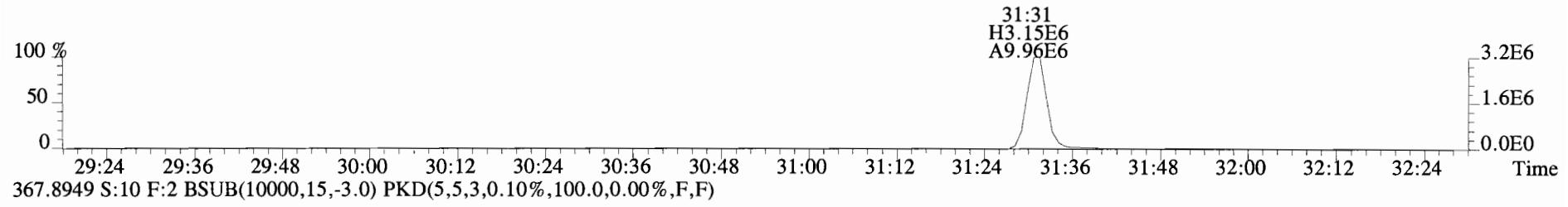
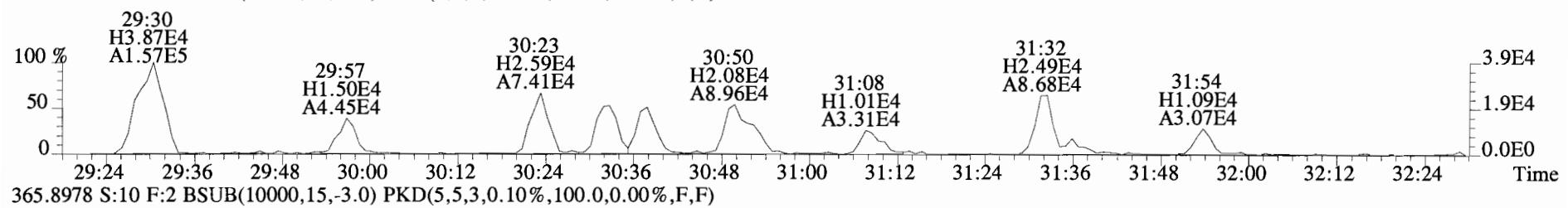
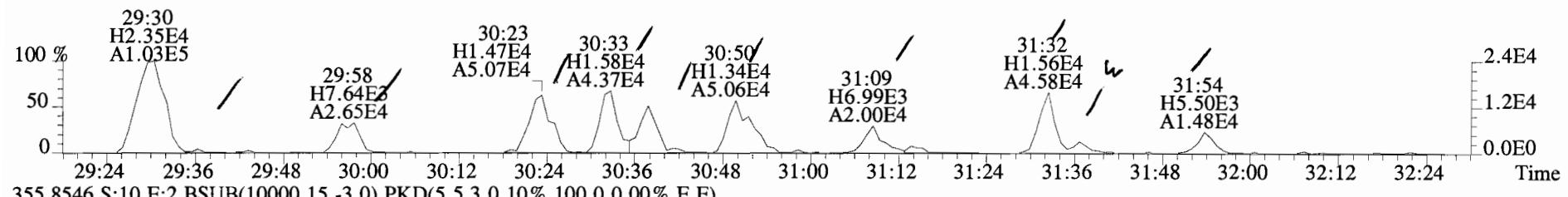
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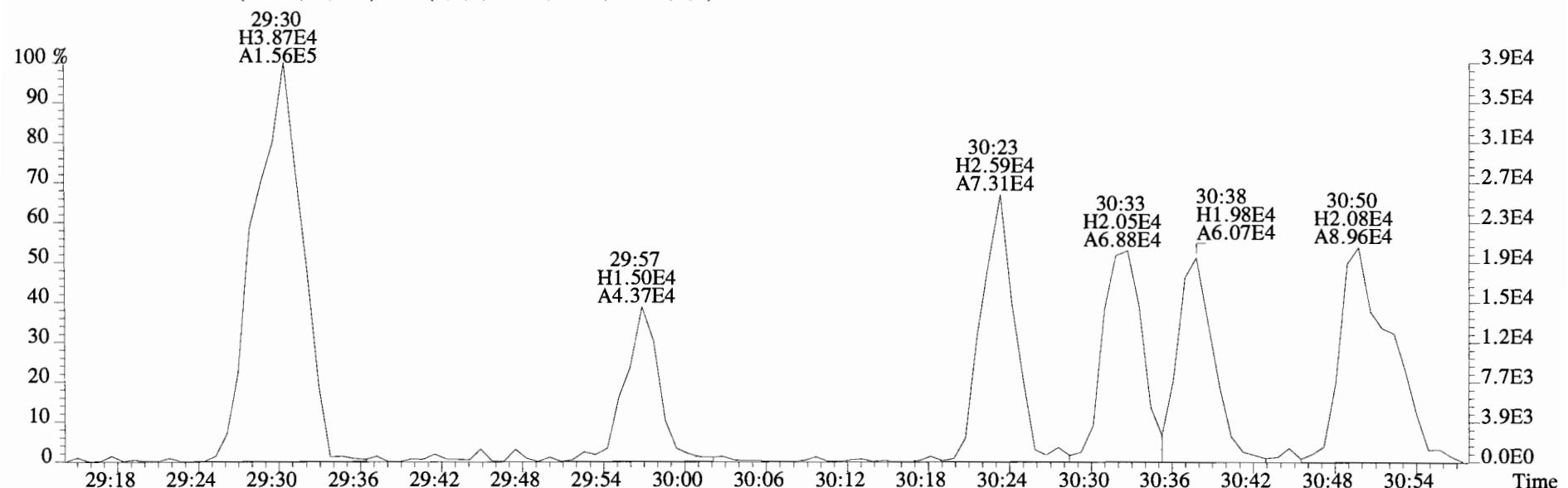
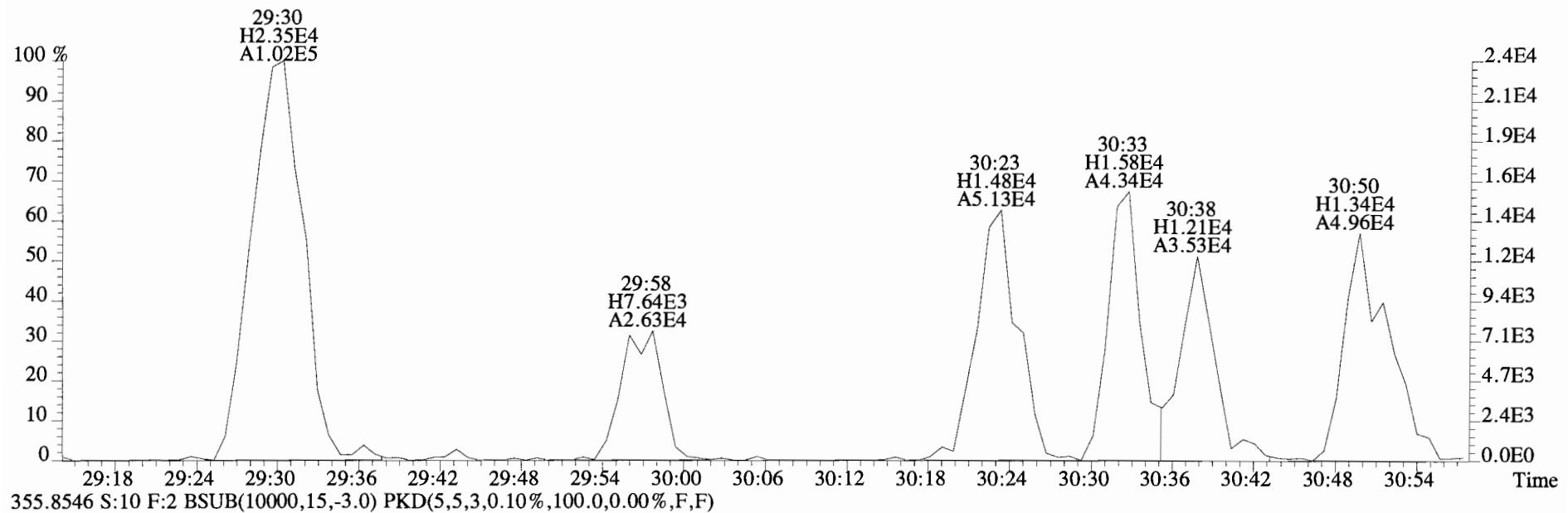
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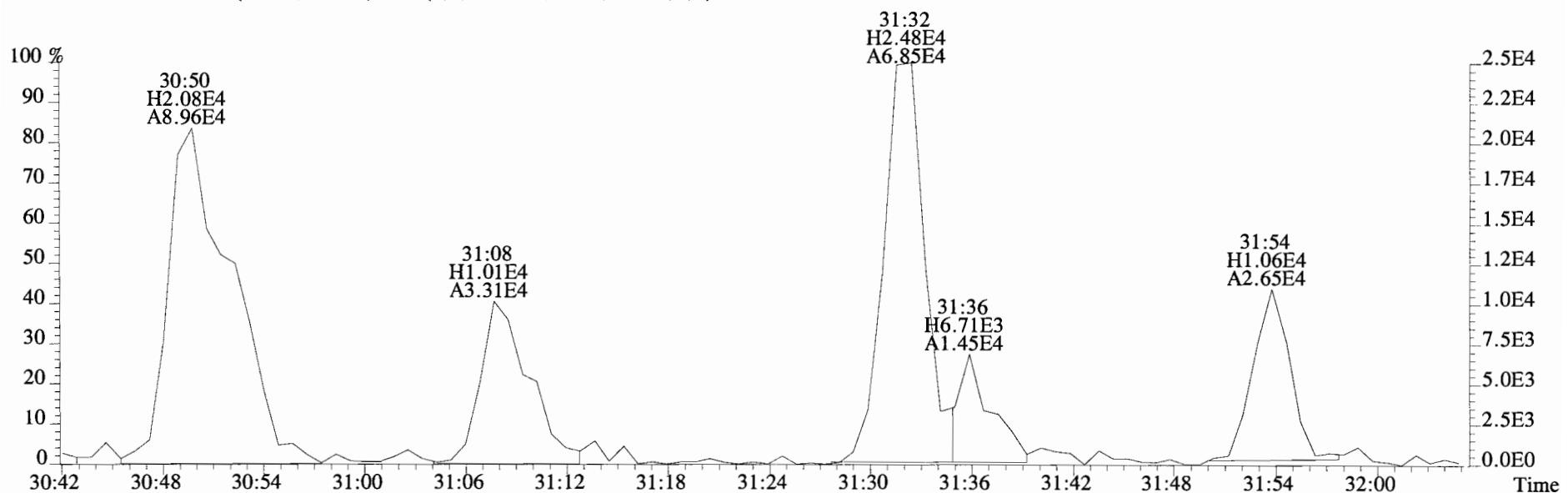
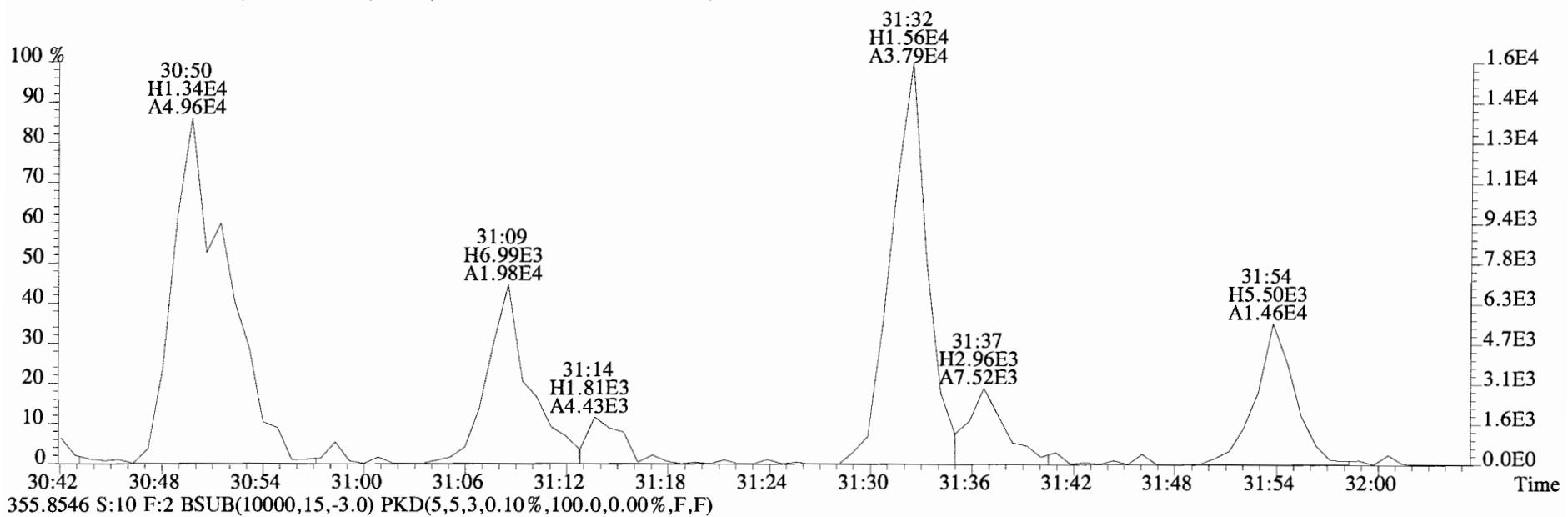
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 353.8576 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



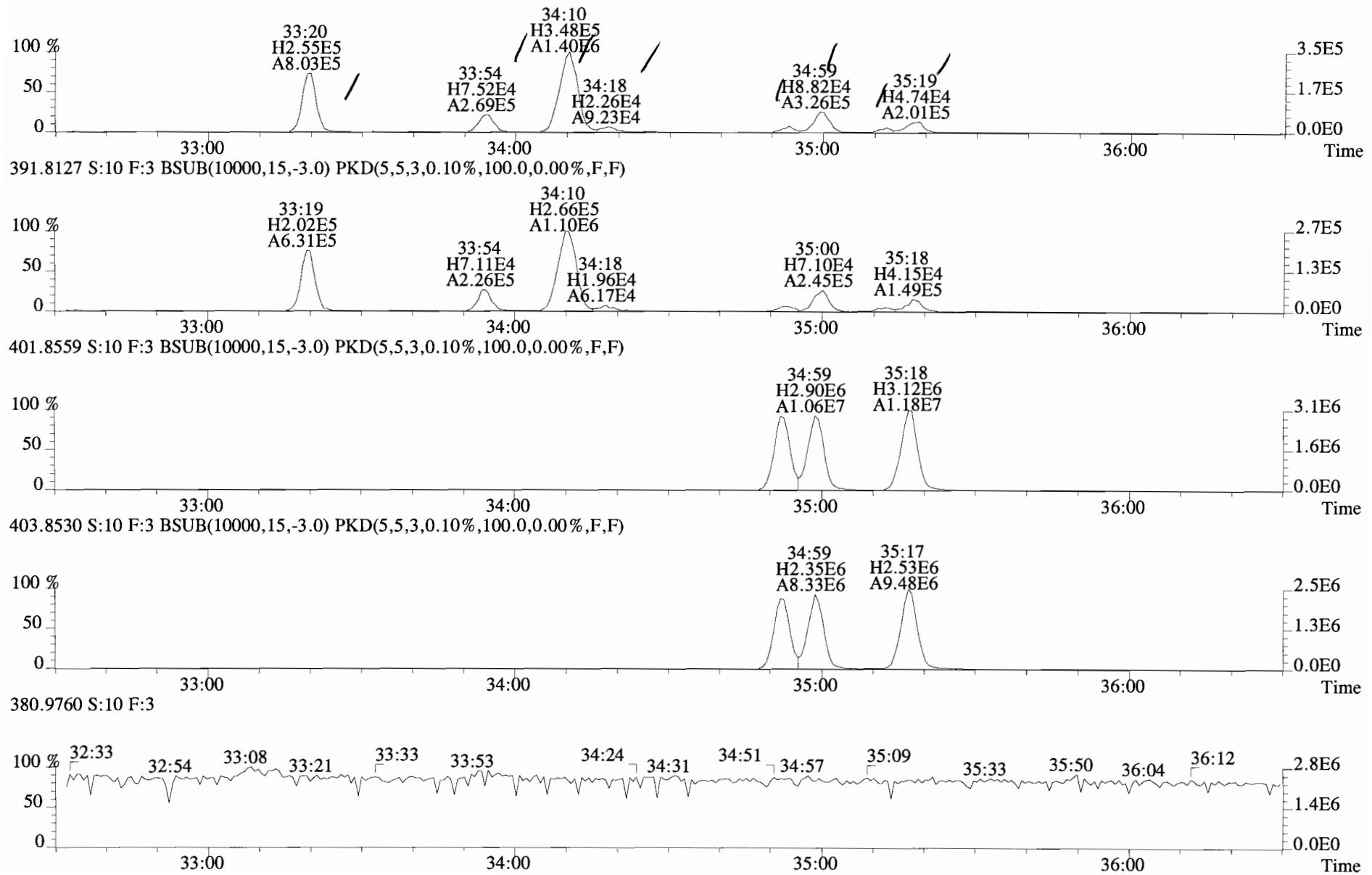
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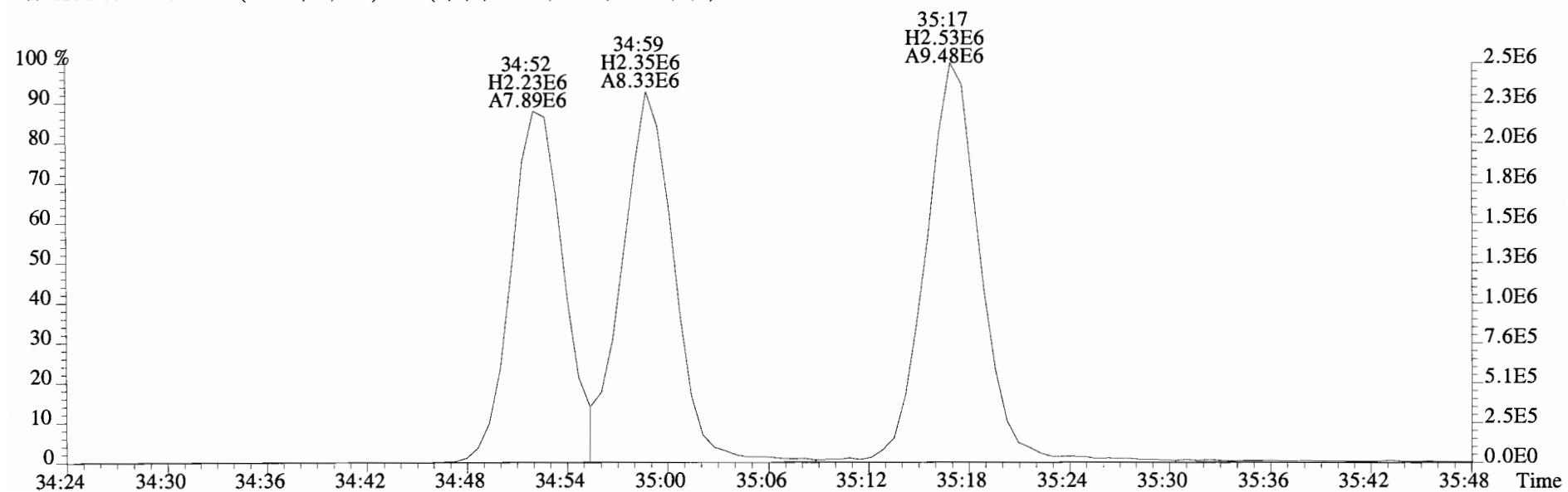
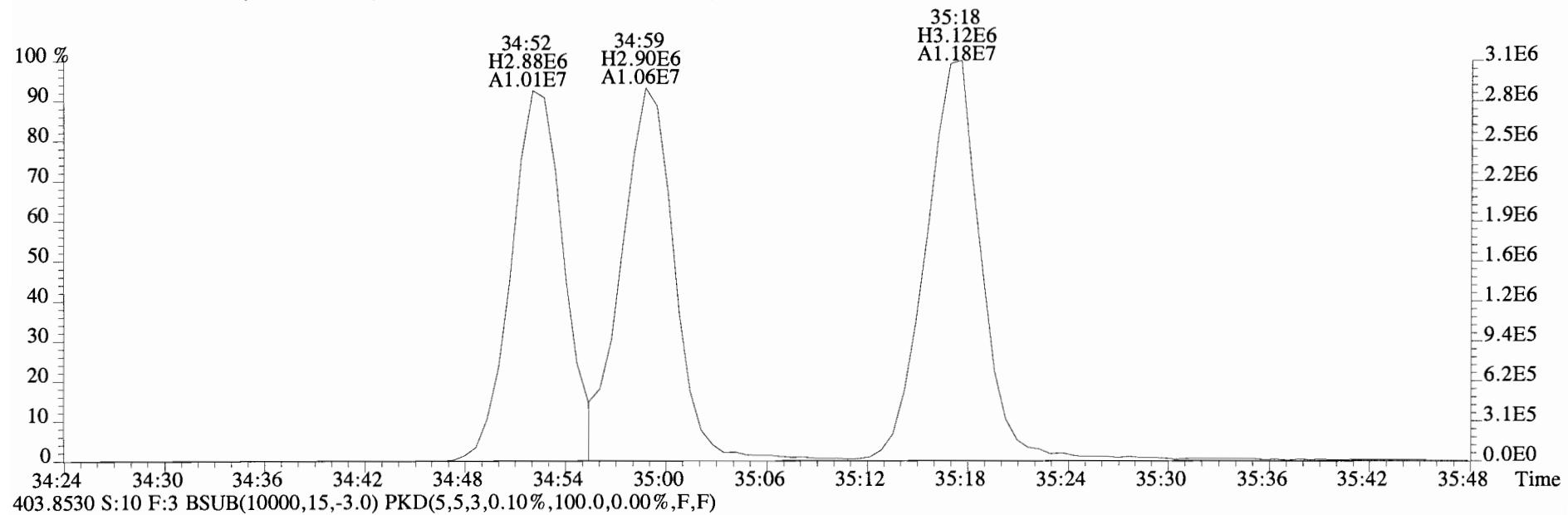
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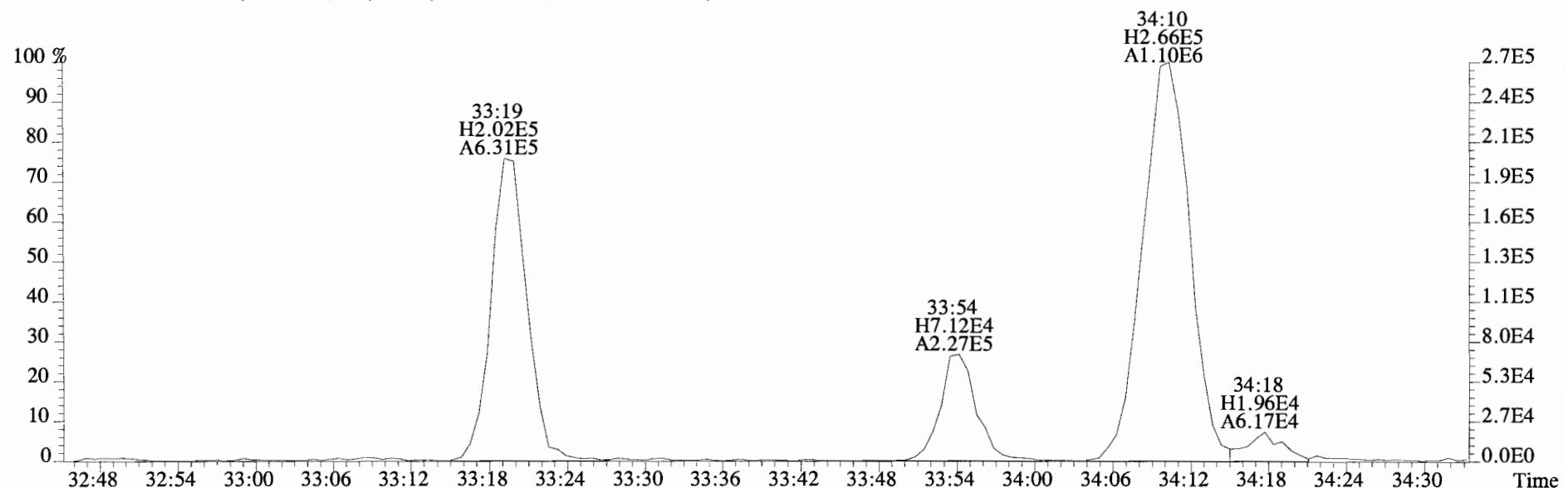
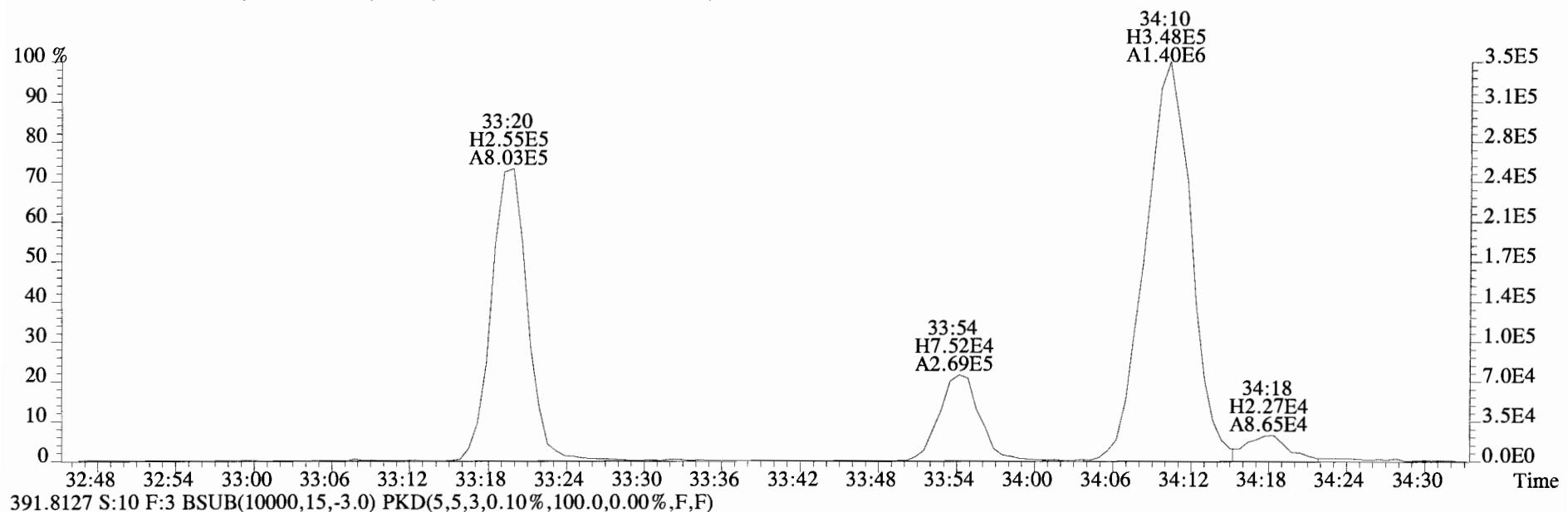
File:140917D1 #1-385 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



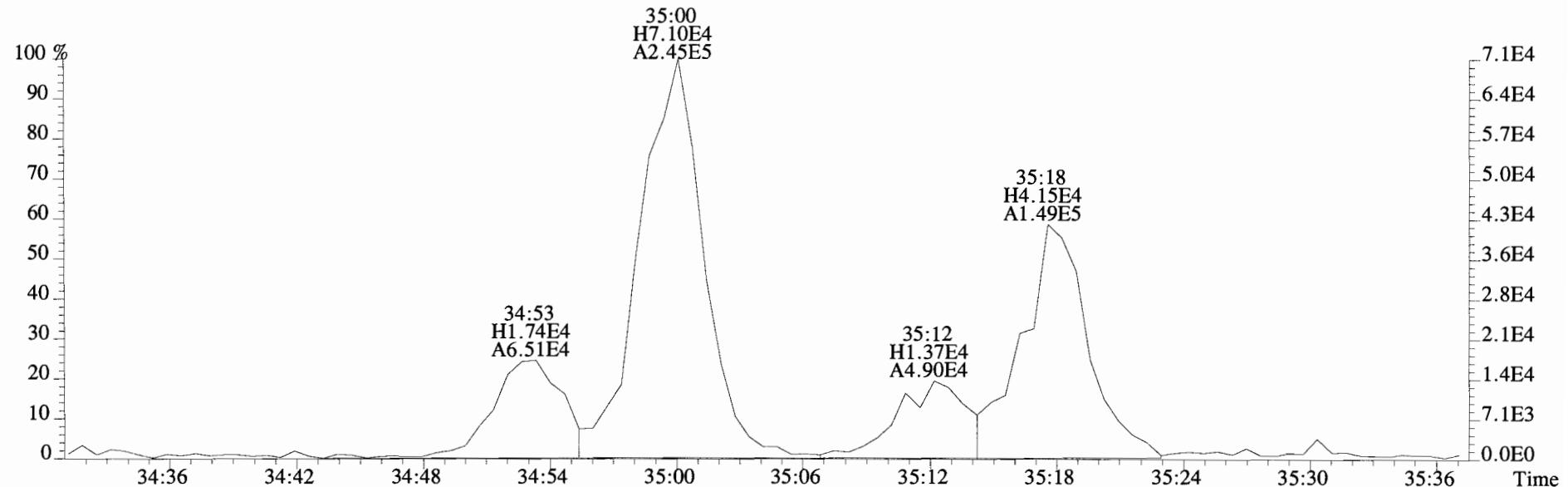
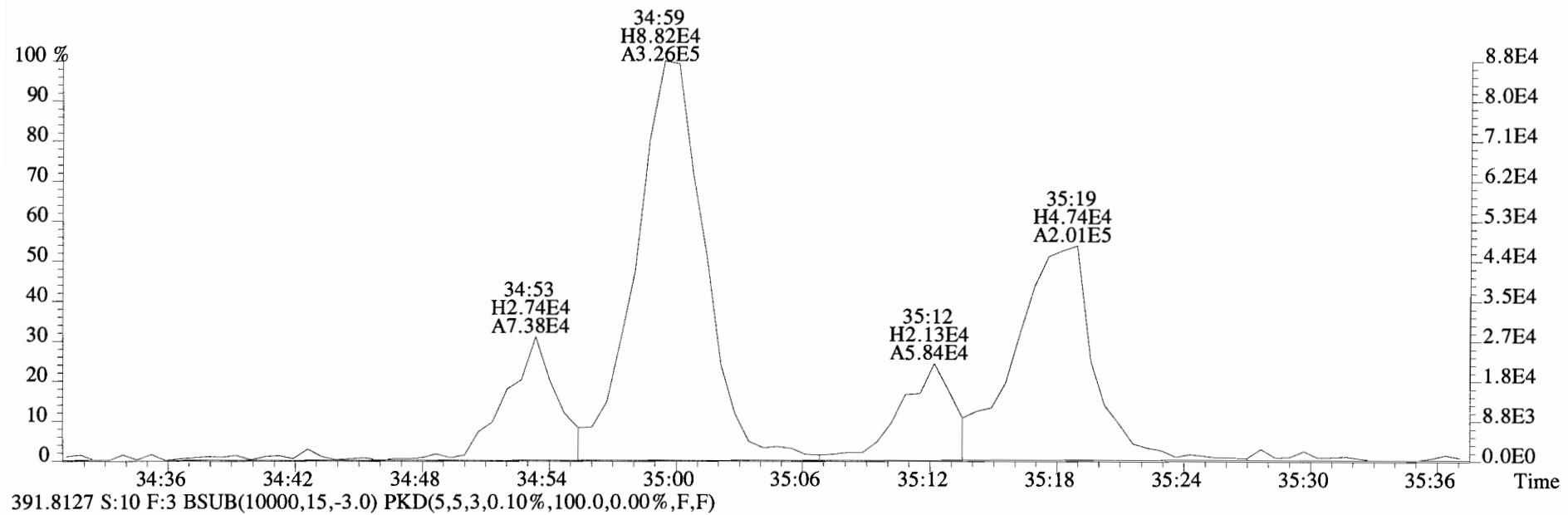
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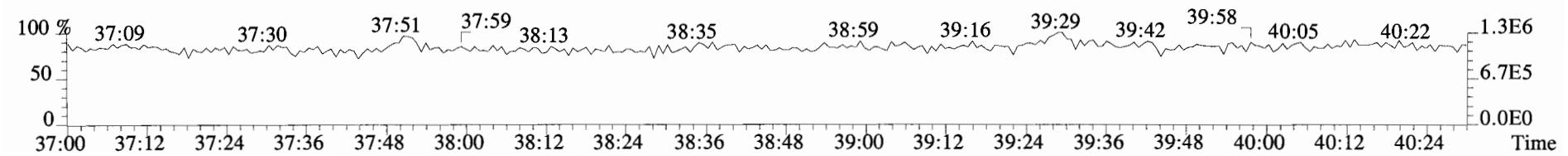
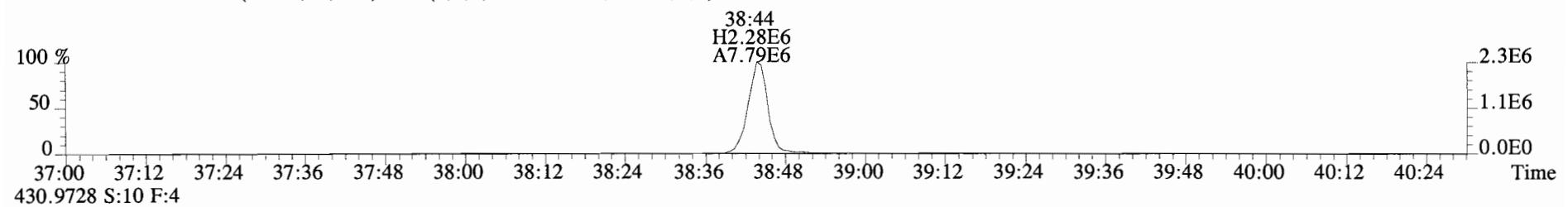
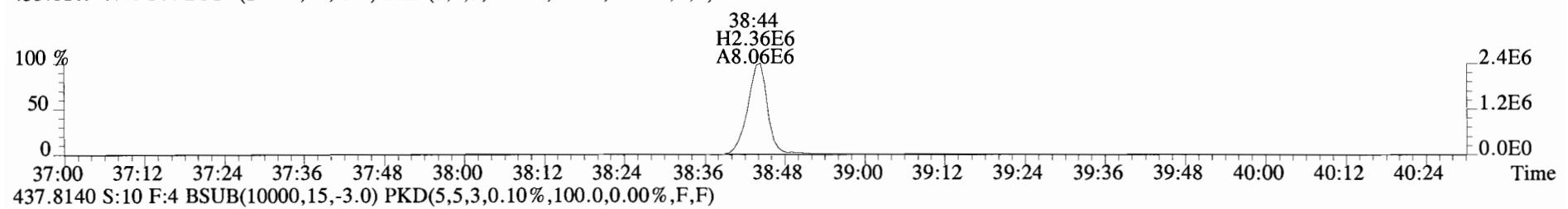
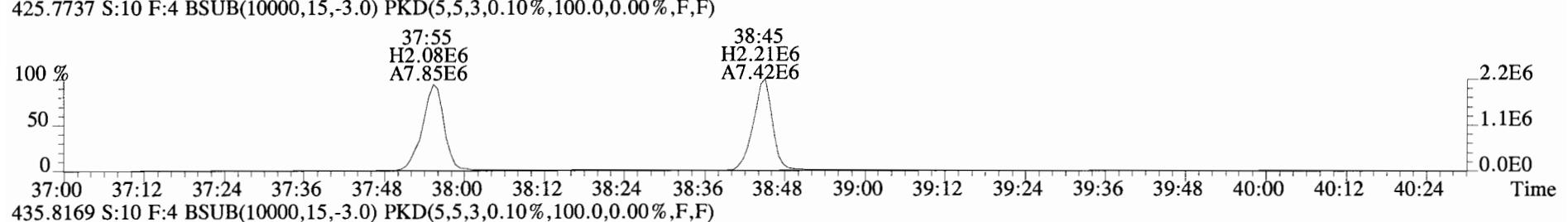
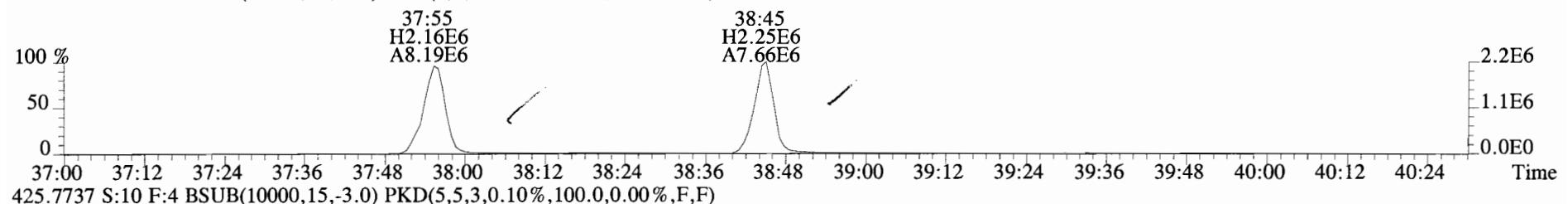
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Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
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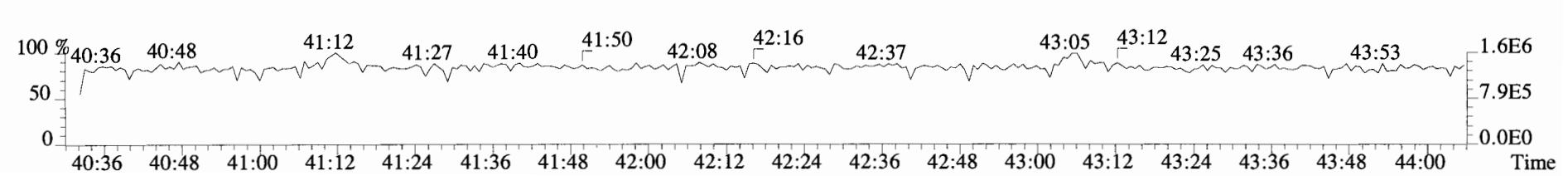
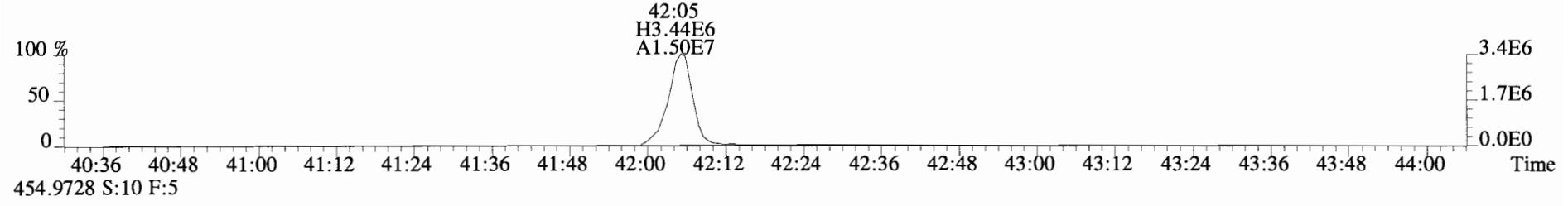
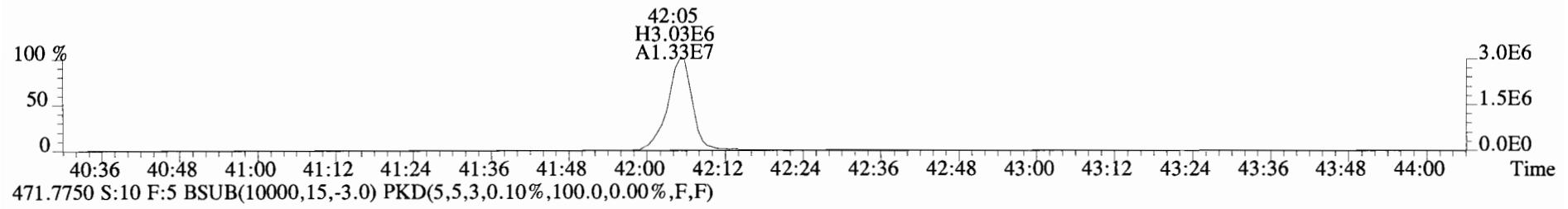
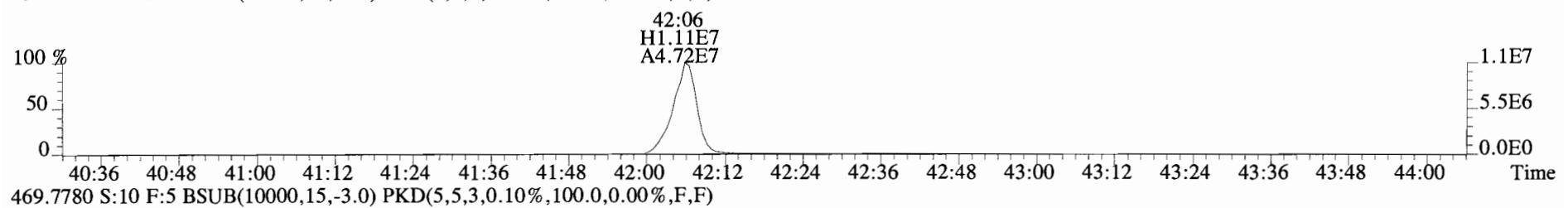
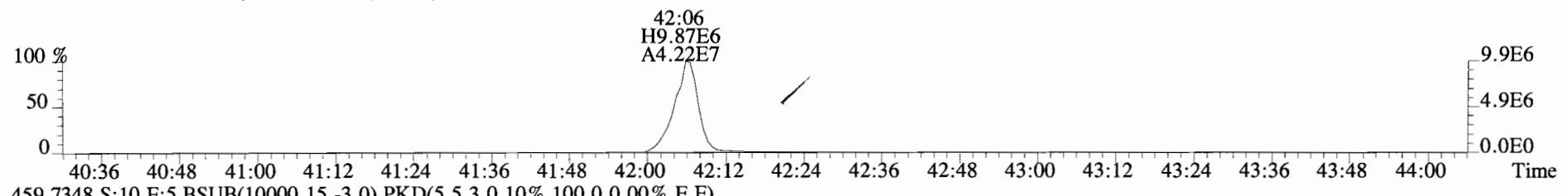
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Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
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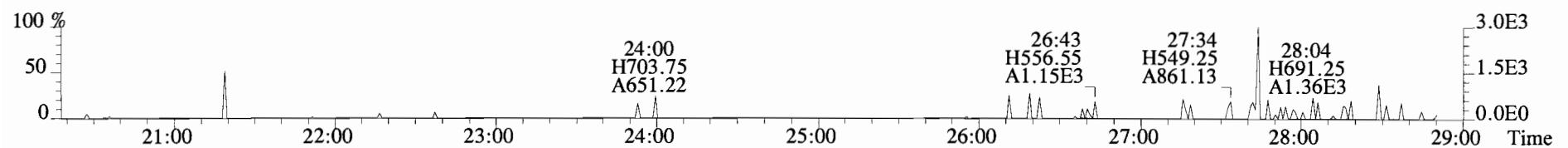
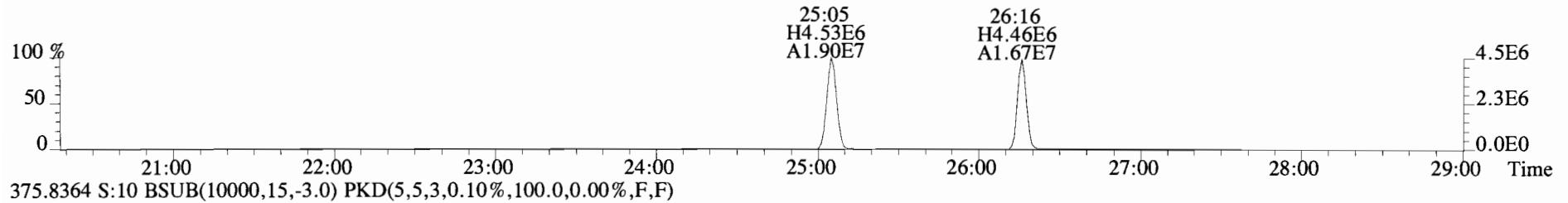
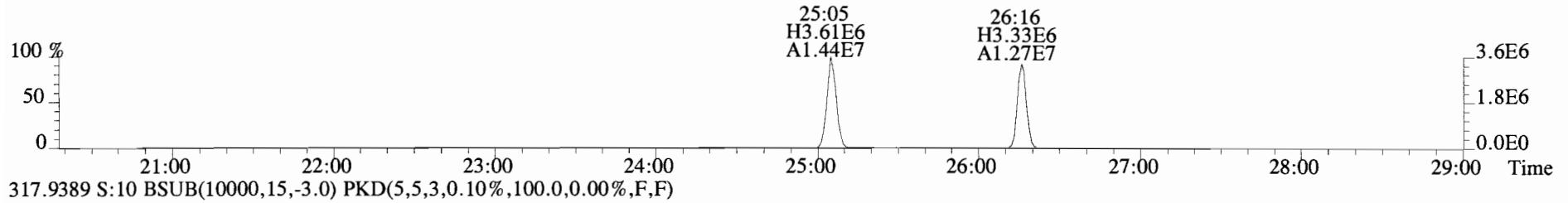
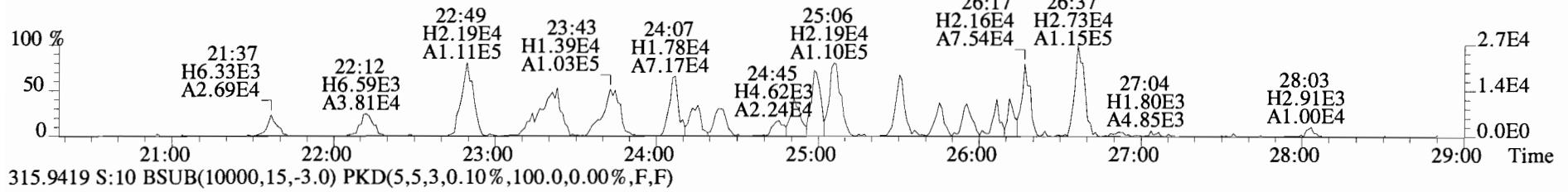
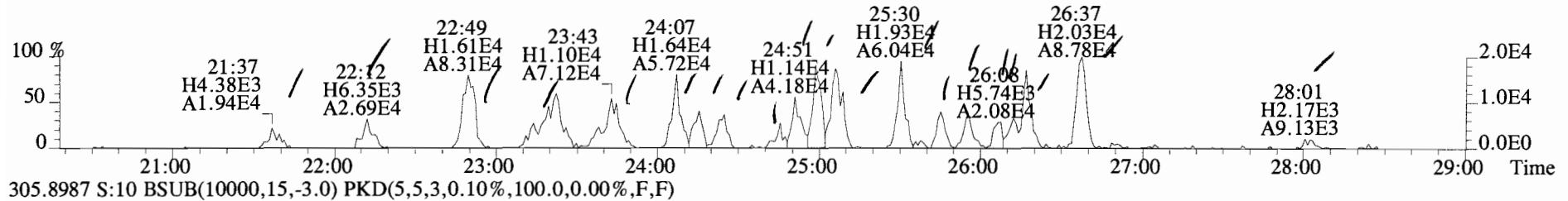
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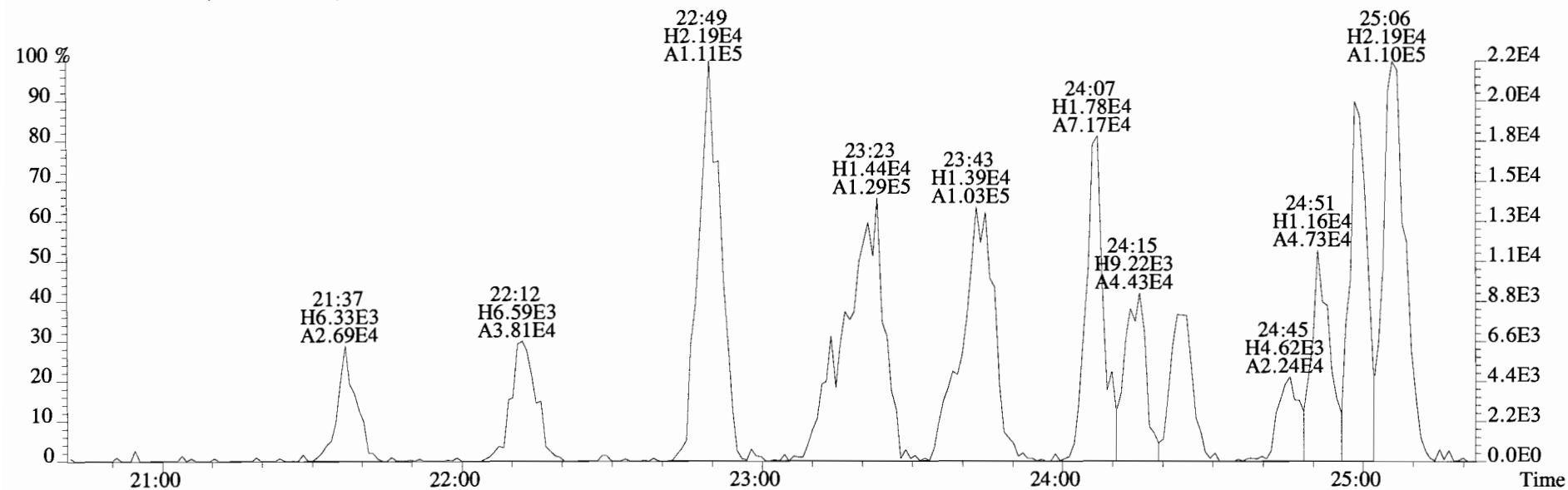
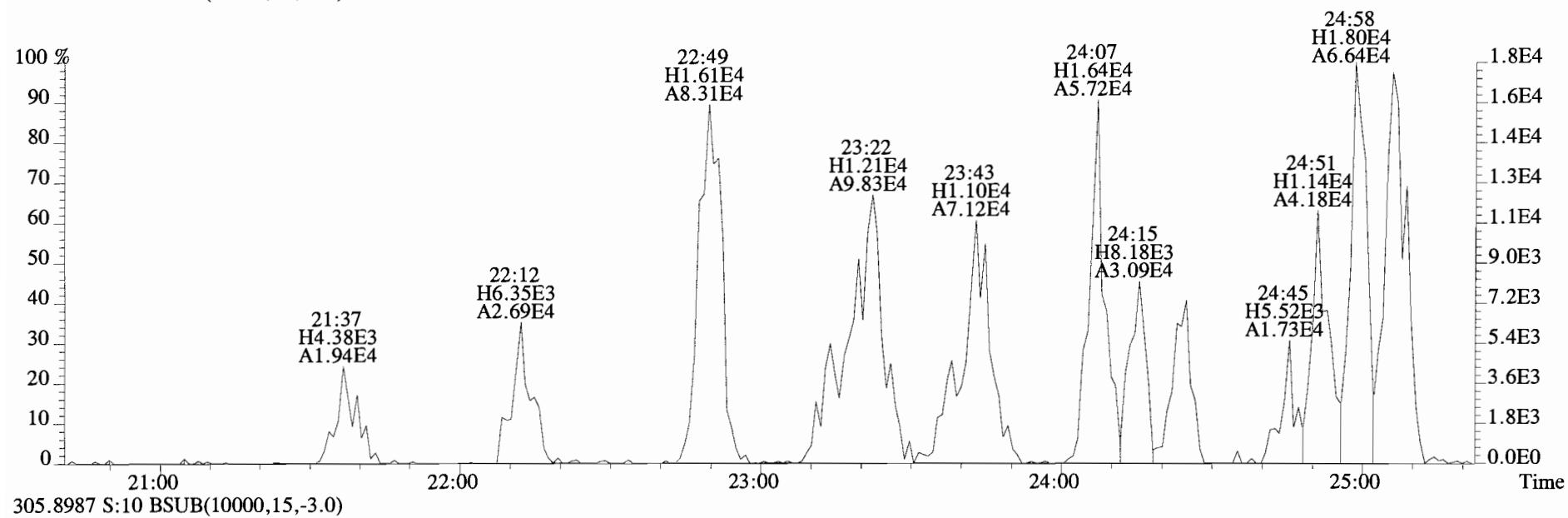
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 457.7377 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



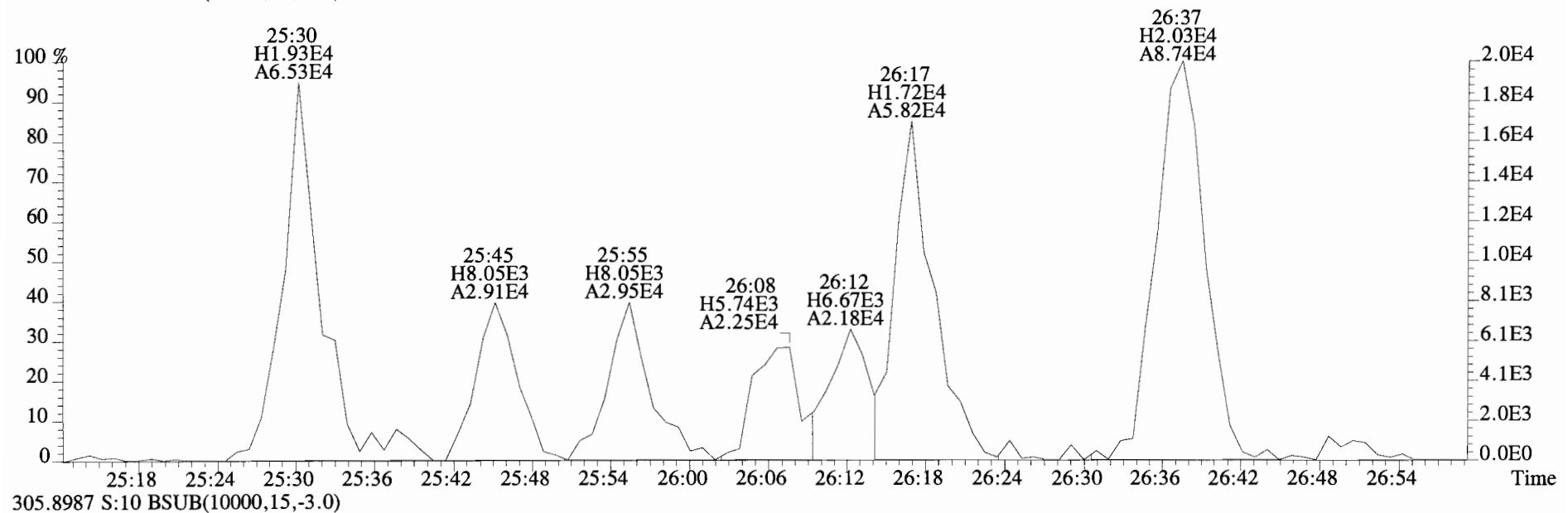
File:140917D1 #1-551 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 303.9016 S:10 BSB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



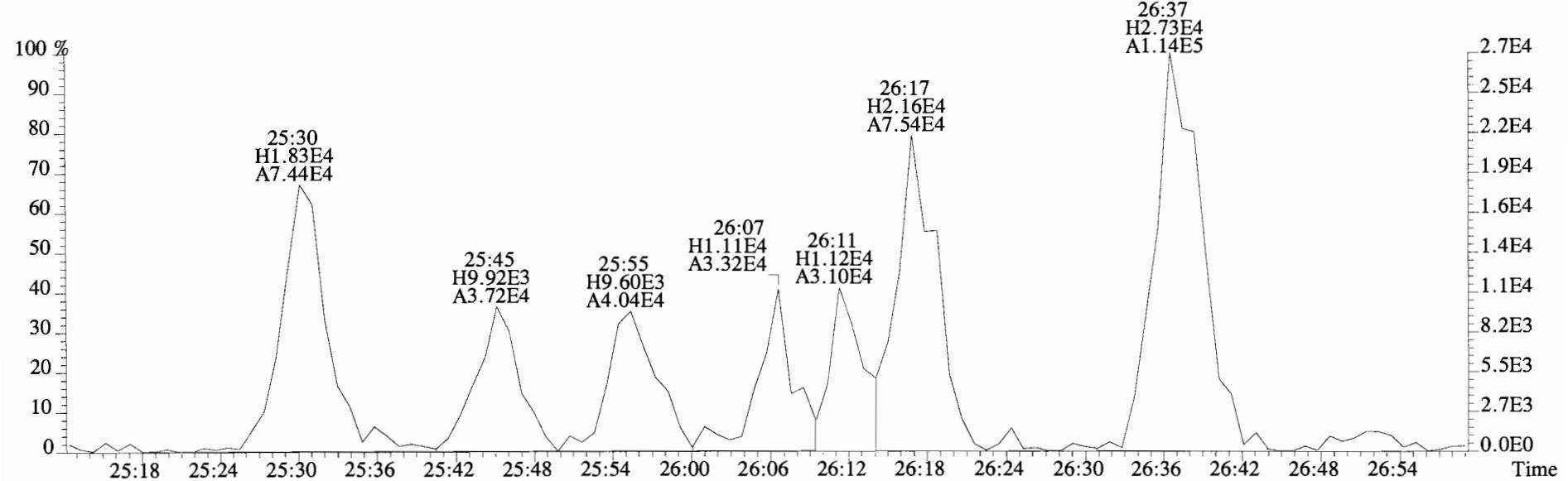
File:140917D1 #1-551 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
303.9016 S:10 BSUB(10000,15,-3.0)



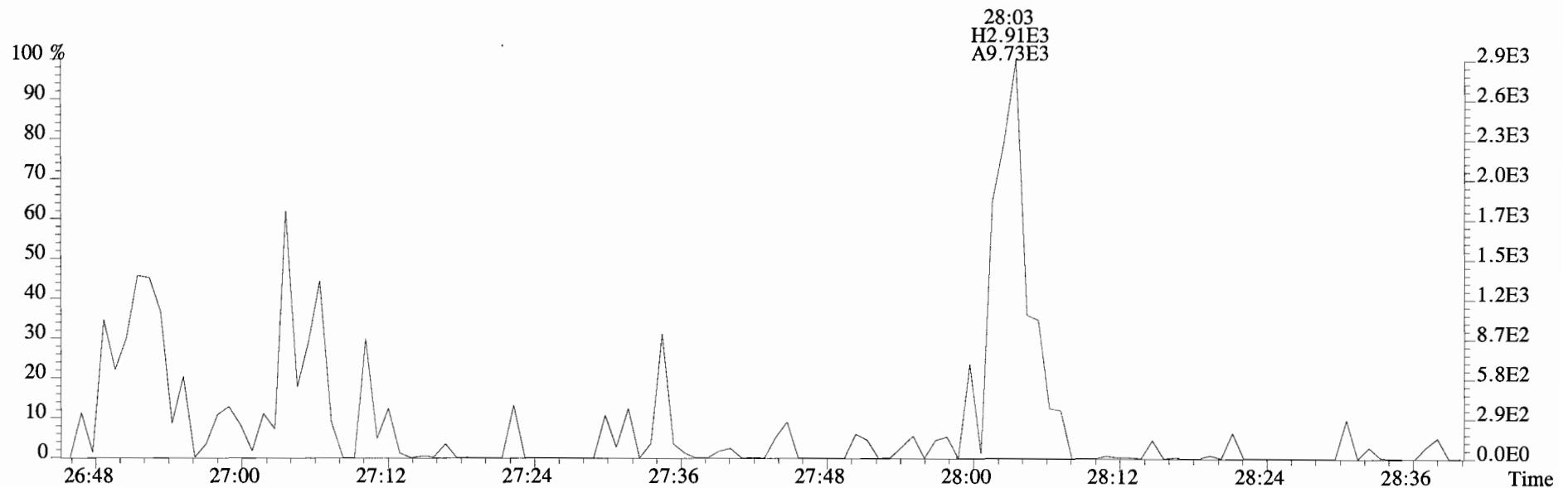
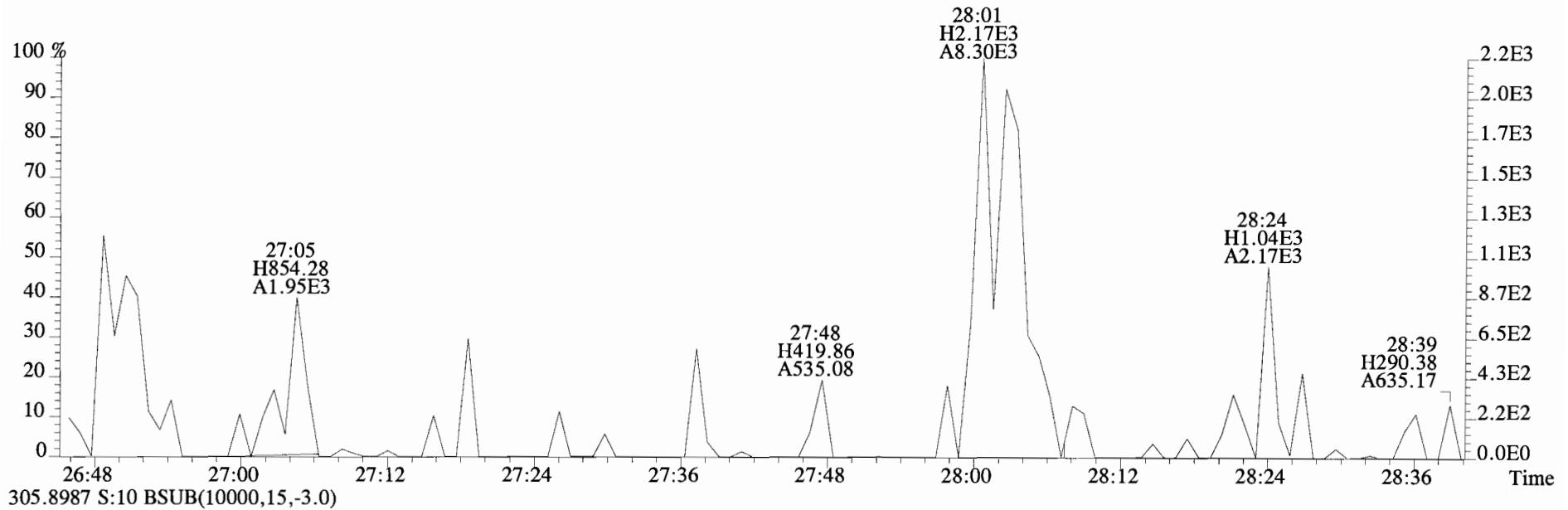
File:140917D1 #1-551 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
303.9016 S:10 BSUB(10000,15,-3.0)



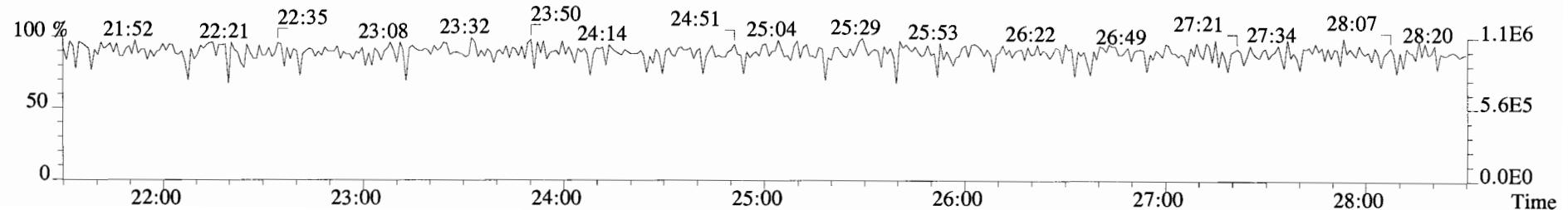
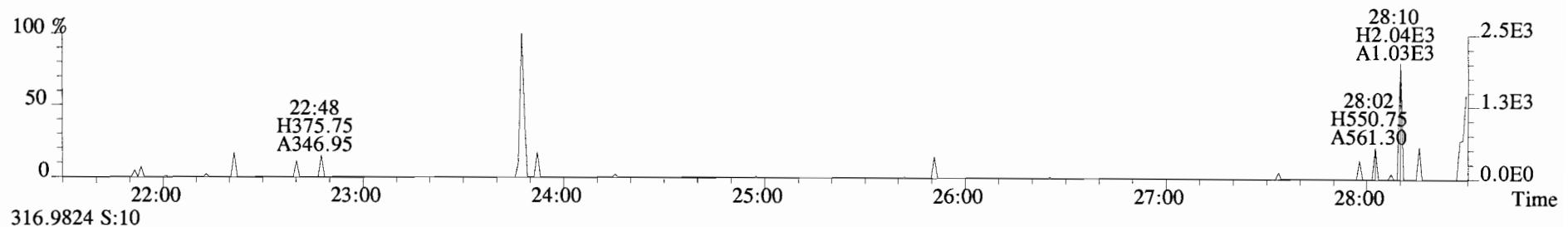
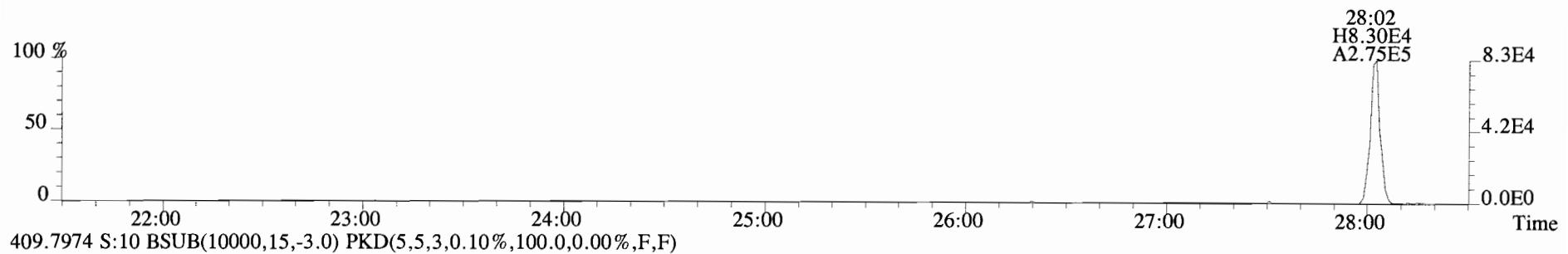
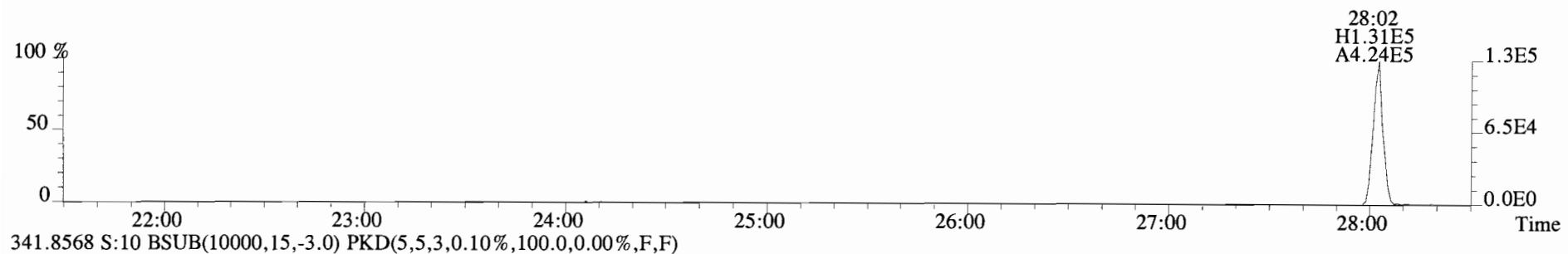
305.8987 S:10 BSUB(10000,15,-3.0)



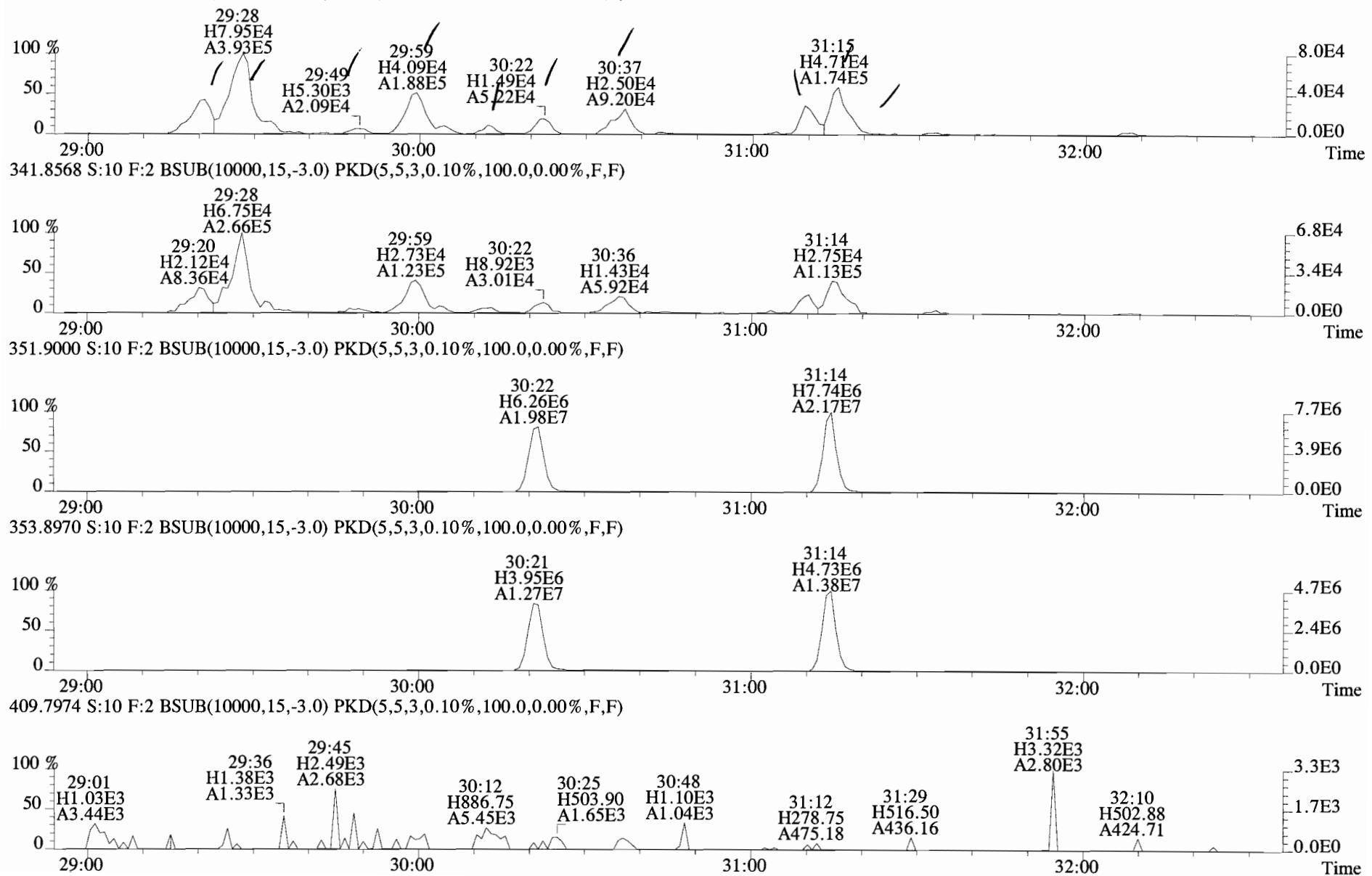
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Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
303.9016 S:10 BSUB(10000,15,-3.0)



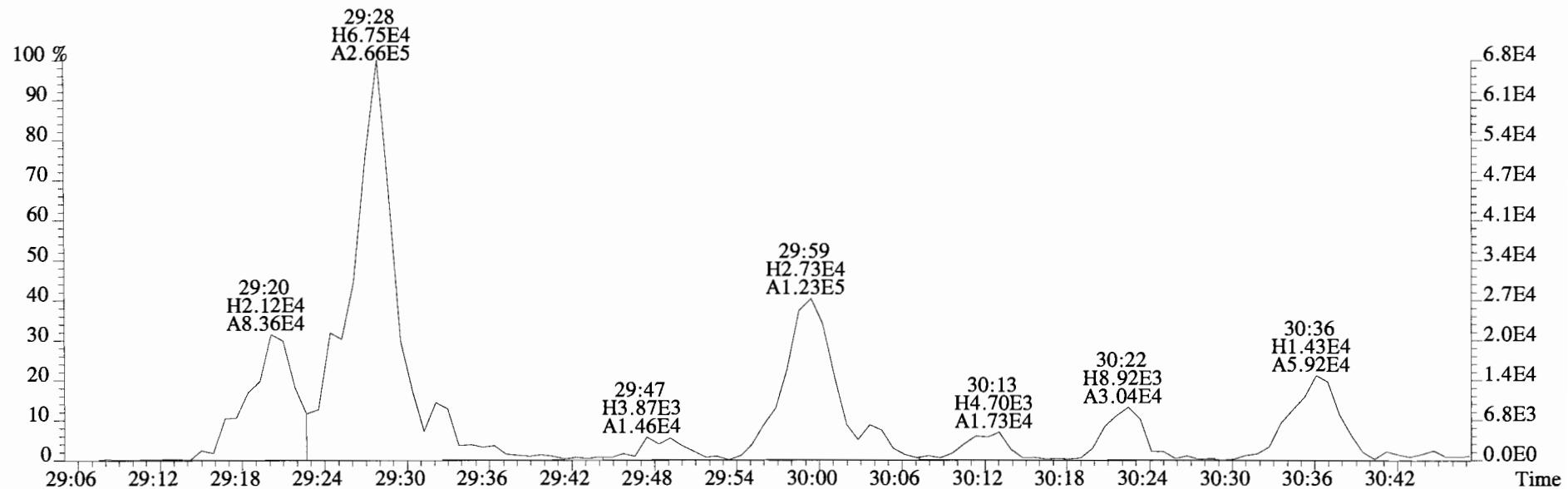
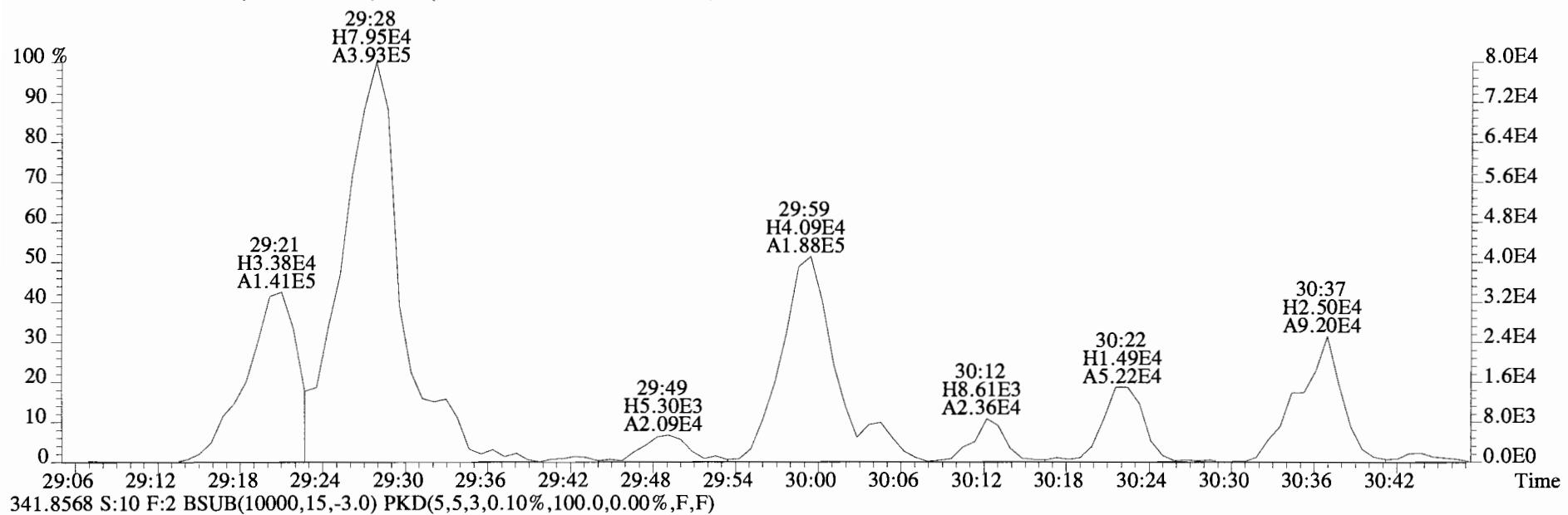
File:140917D1 #1-551 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
339.8597 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



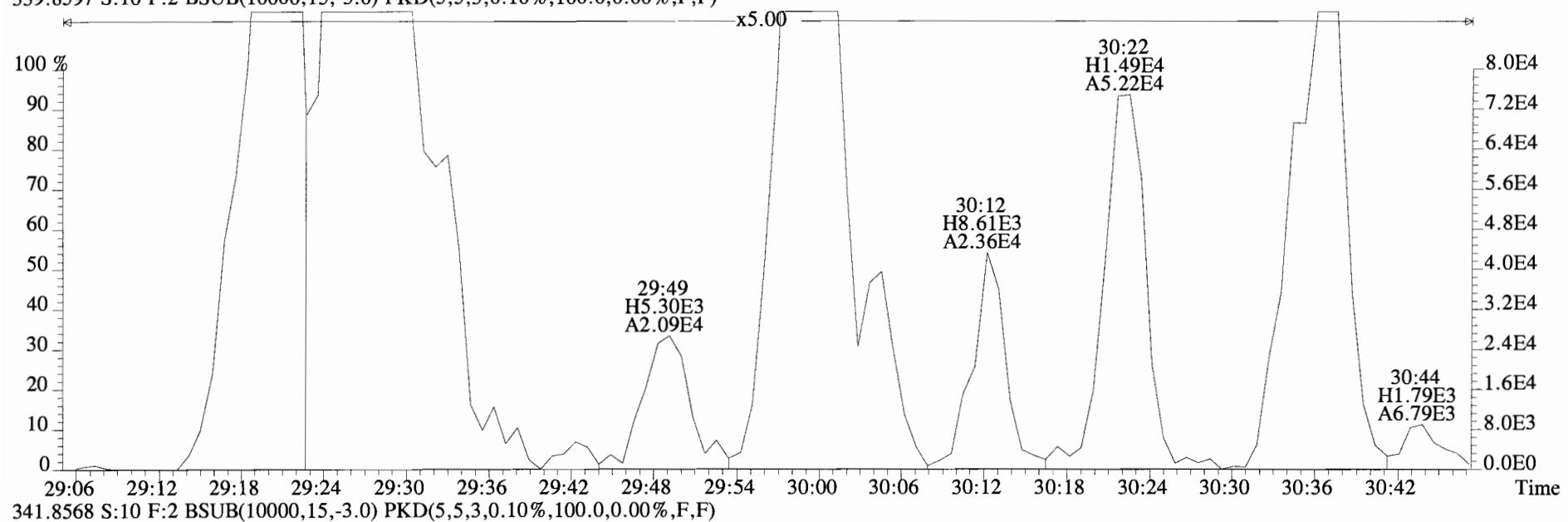
File:140917D1 #1-257 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



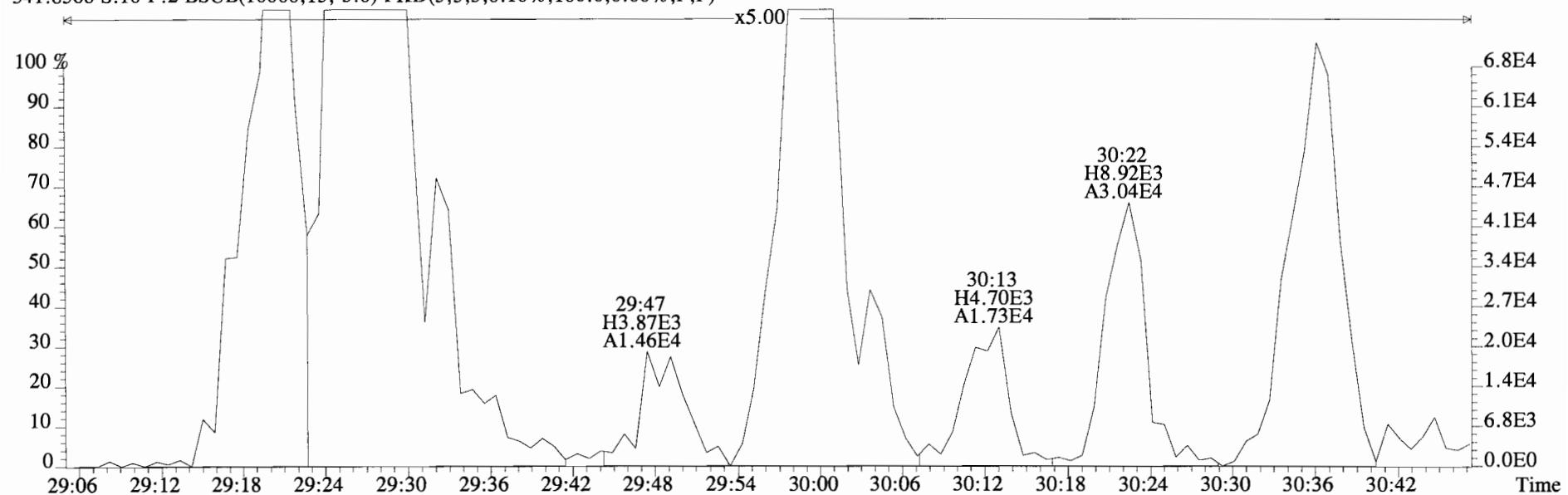
File:140917D1 #1-257 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



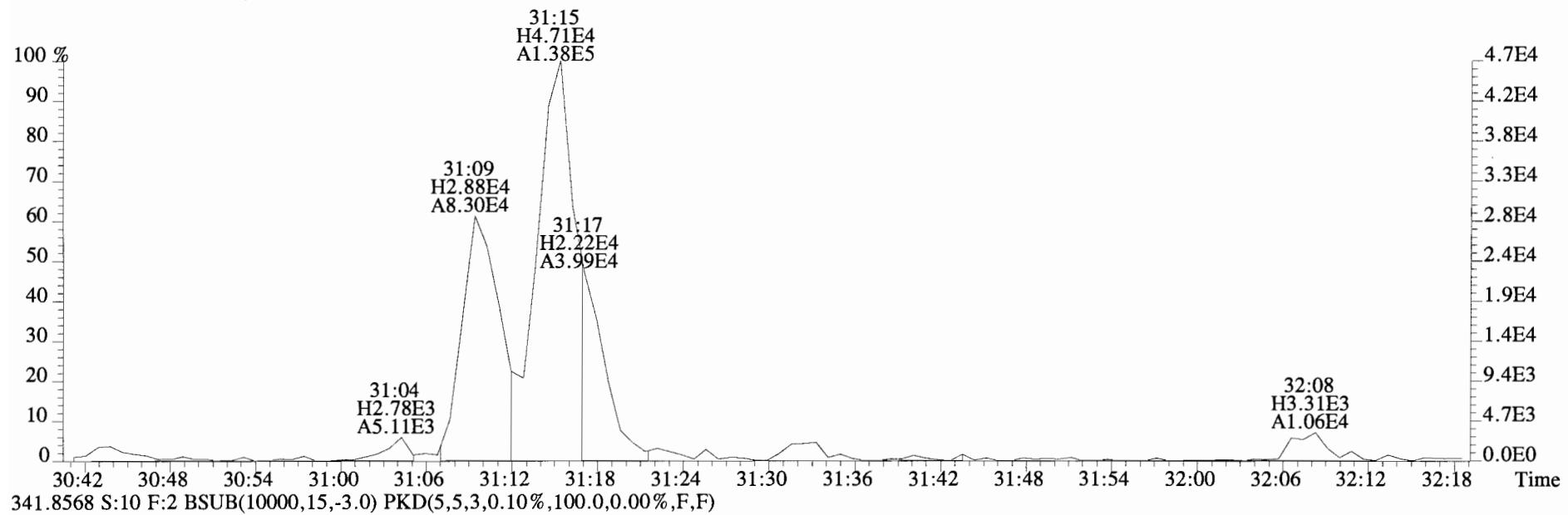
File:140917D1 #1-257 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



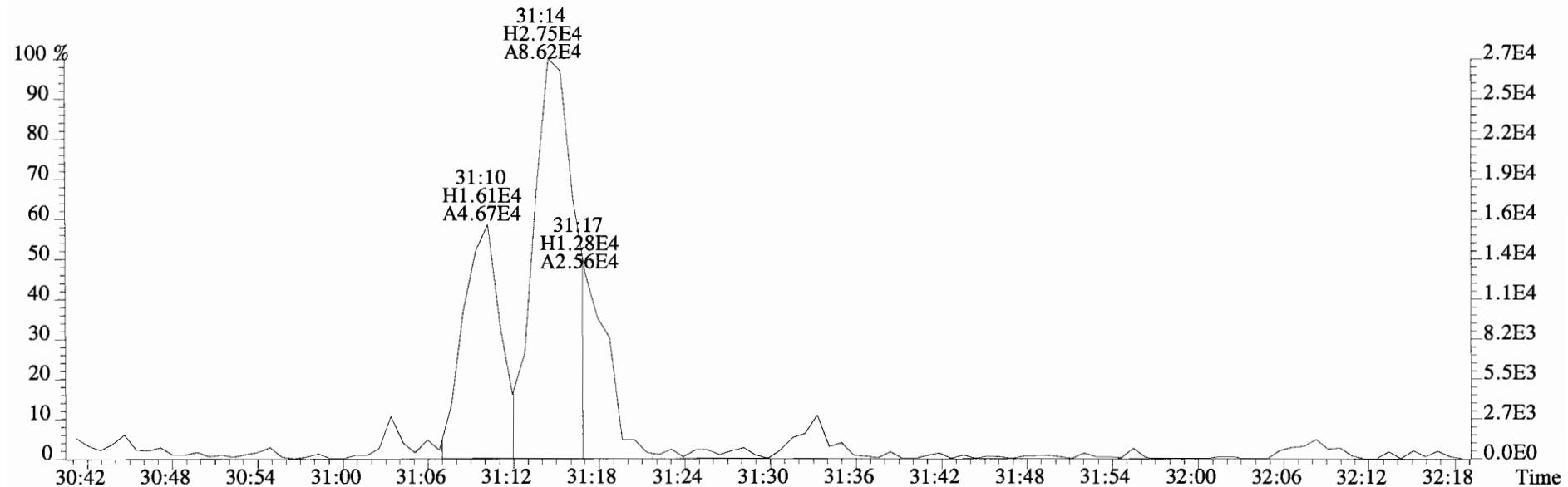
341.8568 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



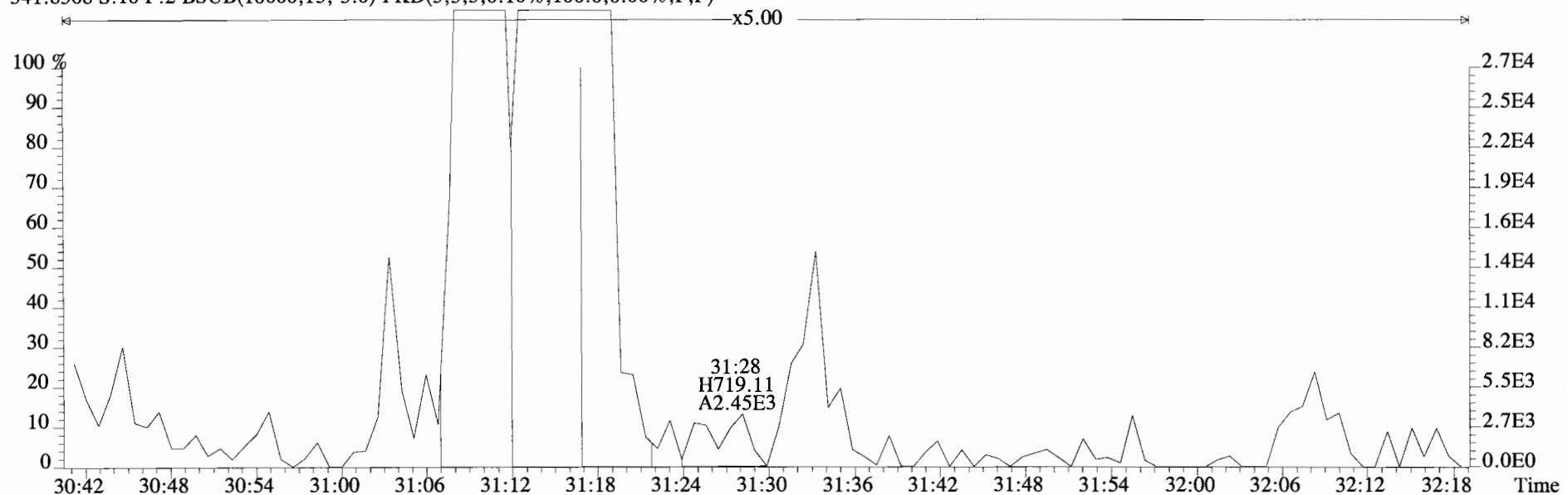
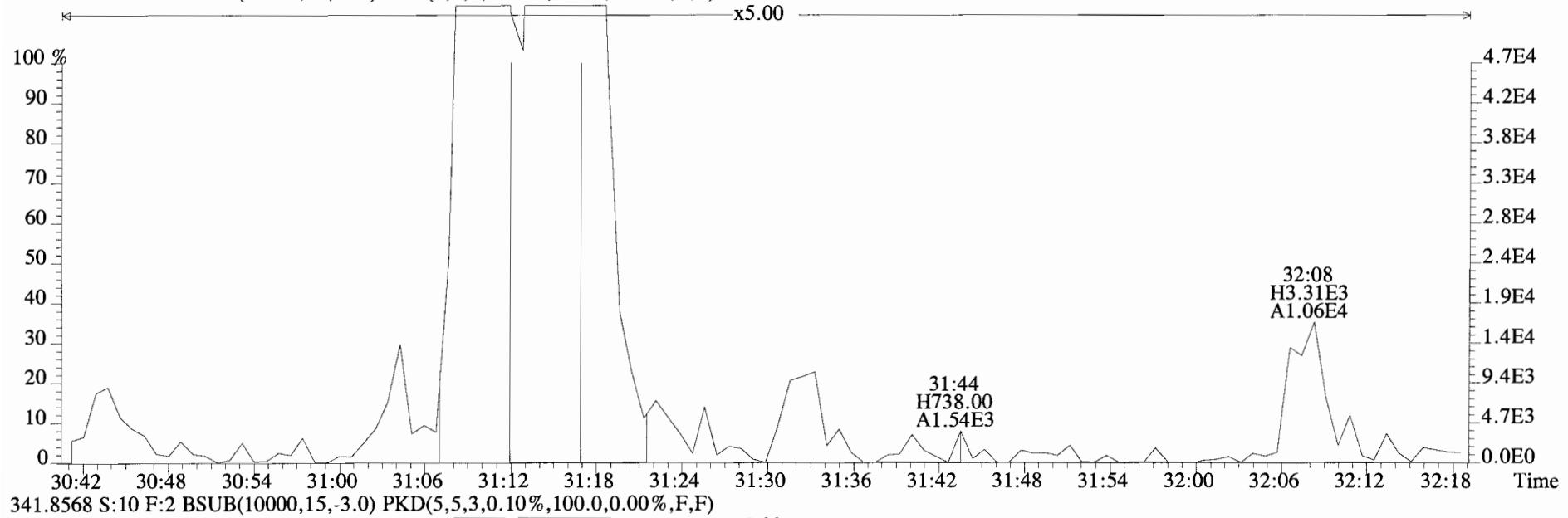
File:140917D1 #1-257 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



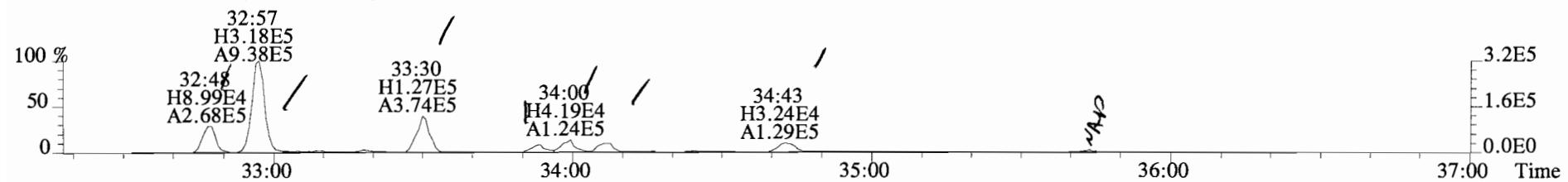
341.8568 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



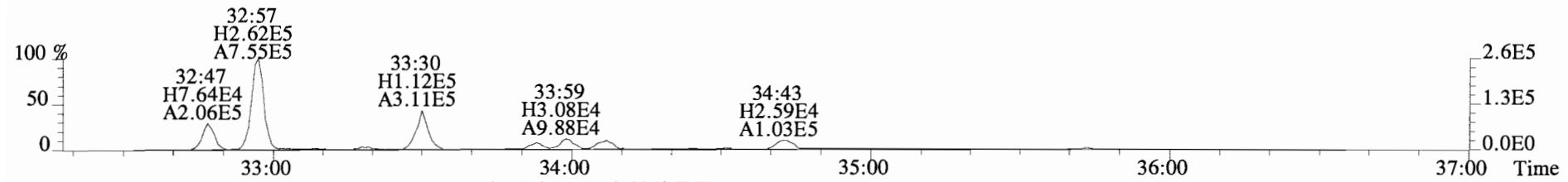
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Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



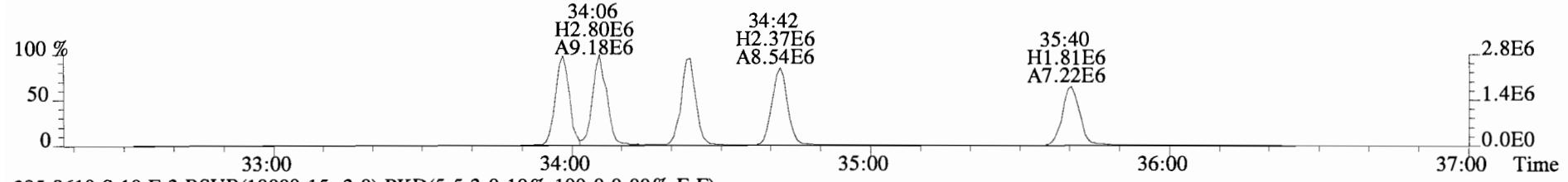
File:140917D1 #1-385 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



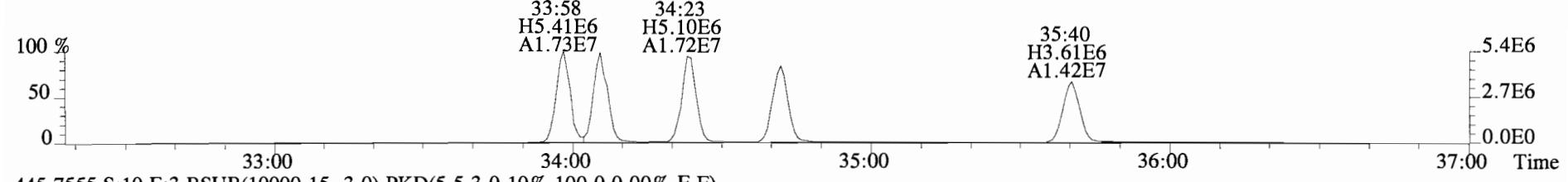
375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



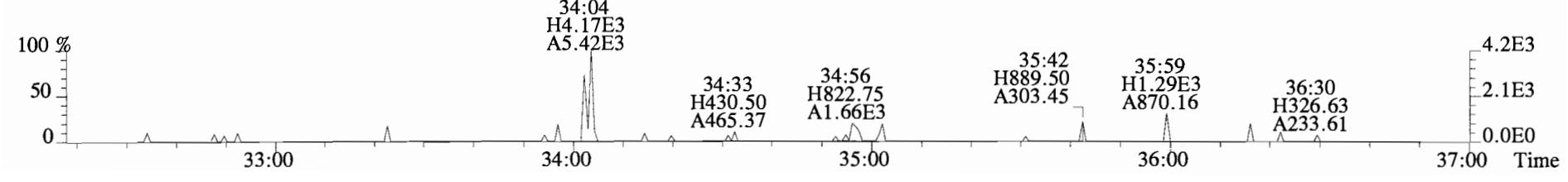
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



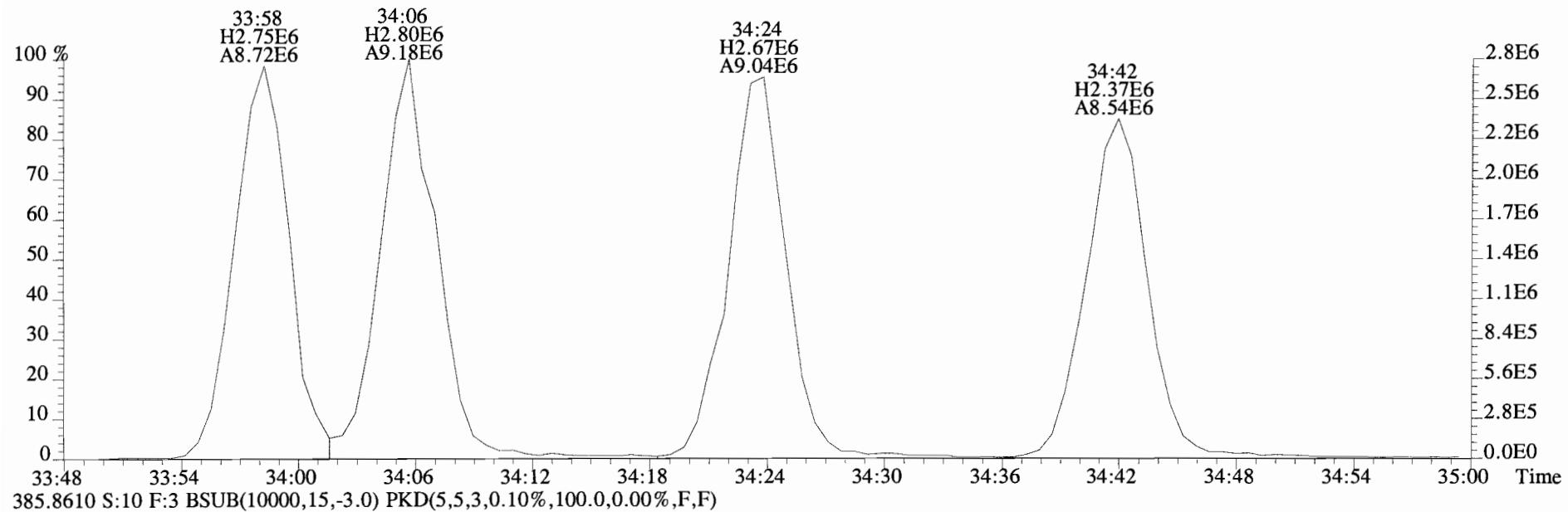
385.8610 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



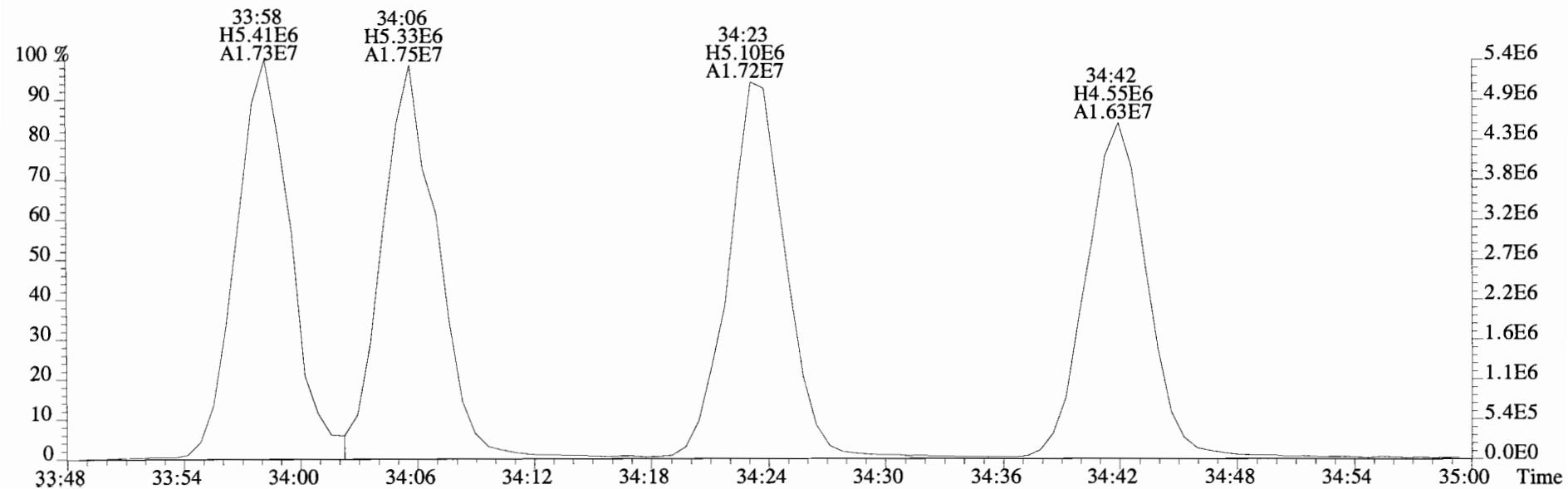
445.7555 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



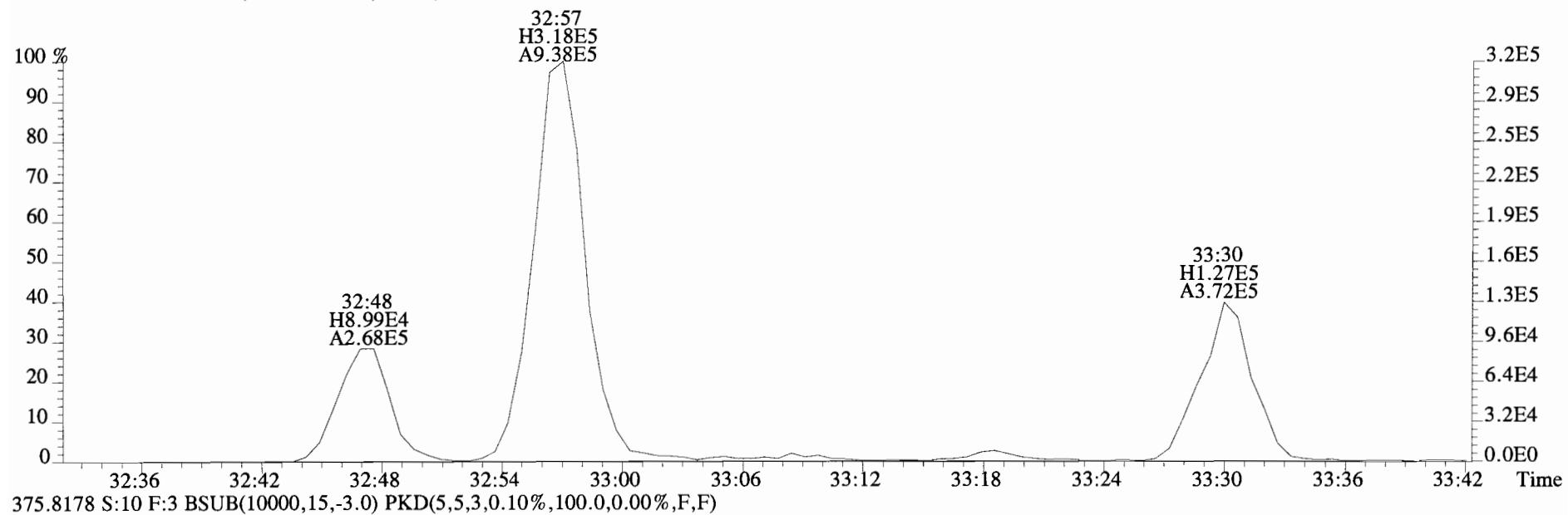
File:140917D1 #1-385 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



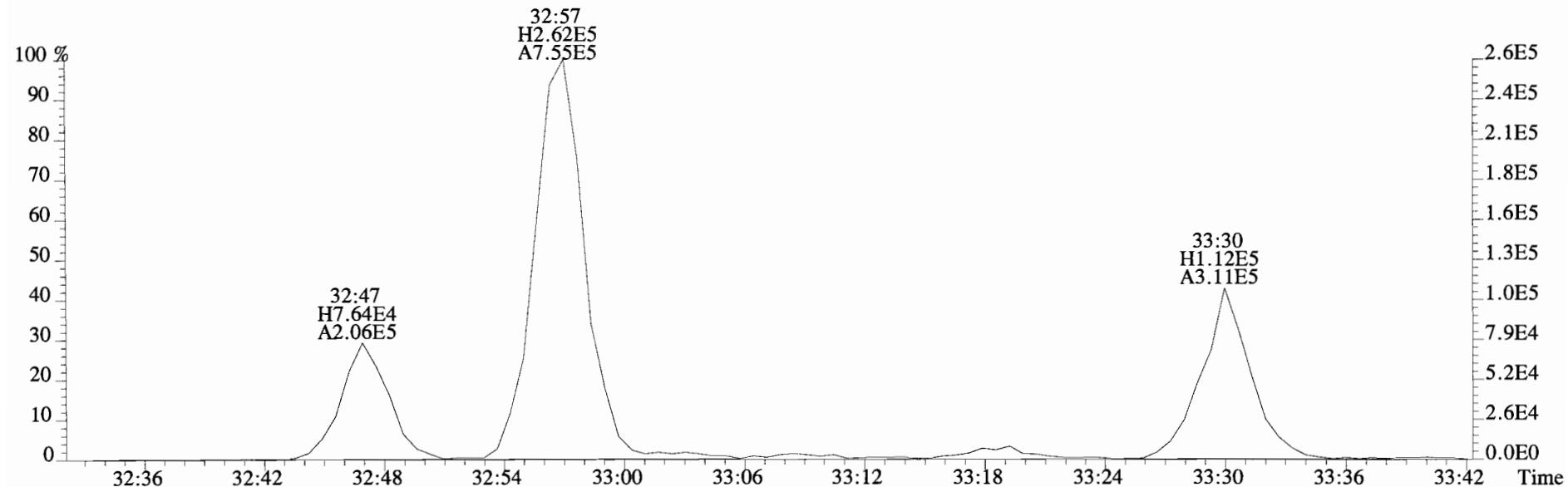
385.8610 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



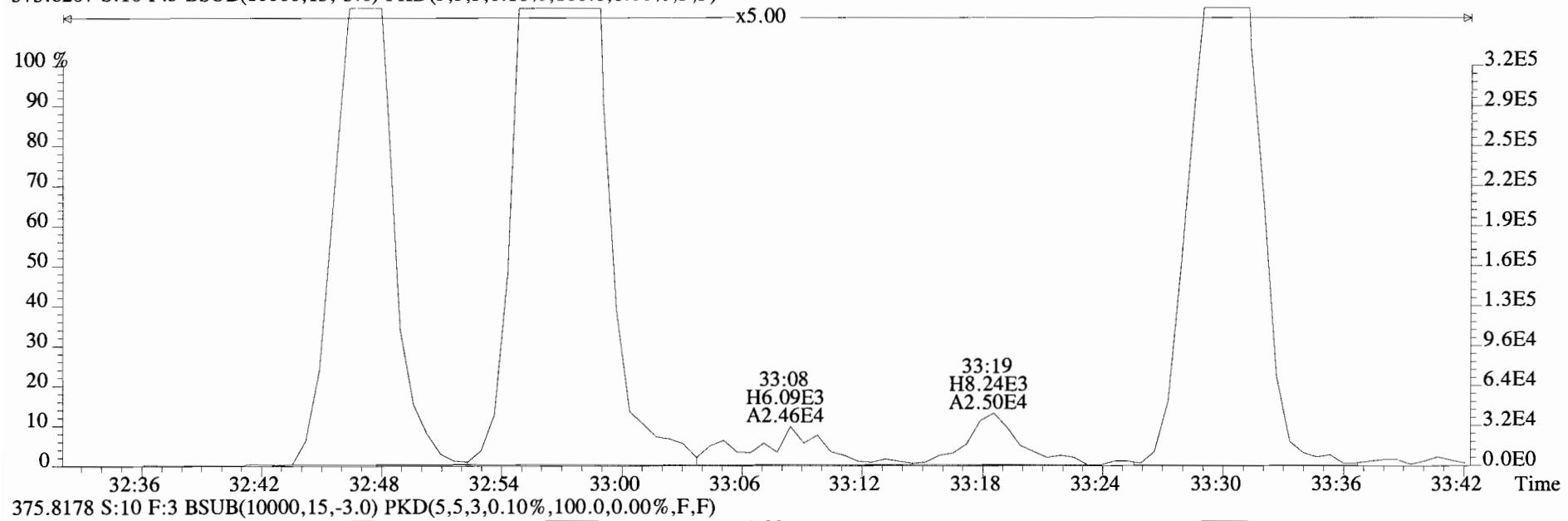
File:140917D1 #1-385 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



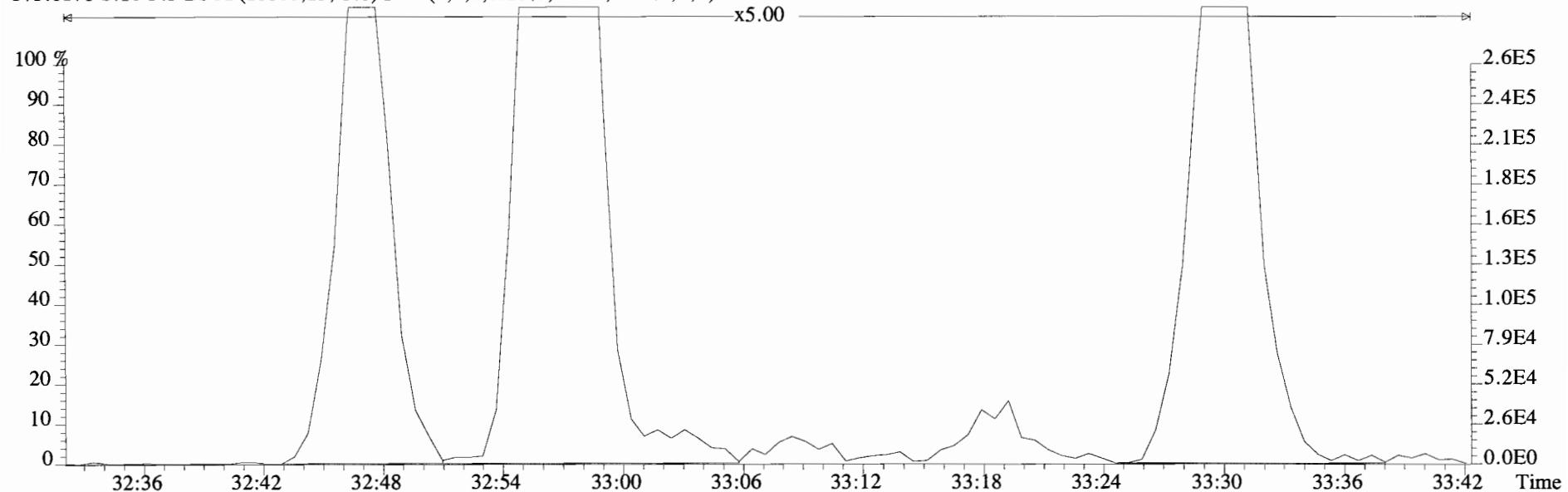
375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



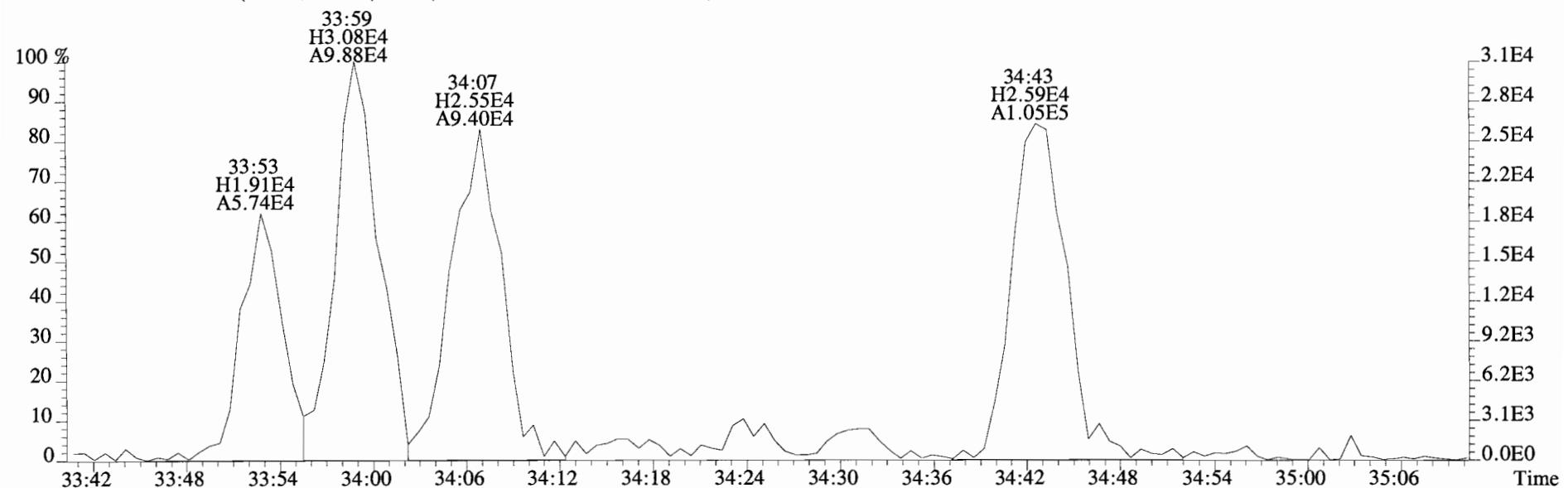
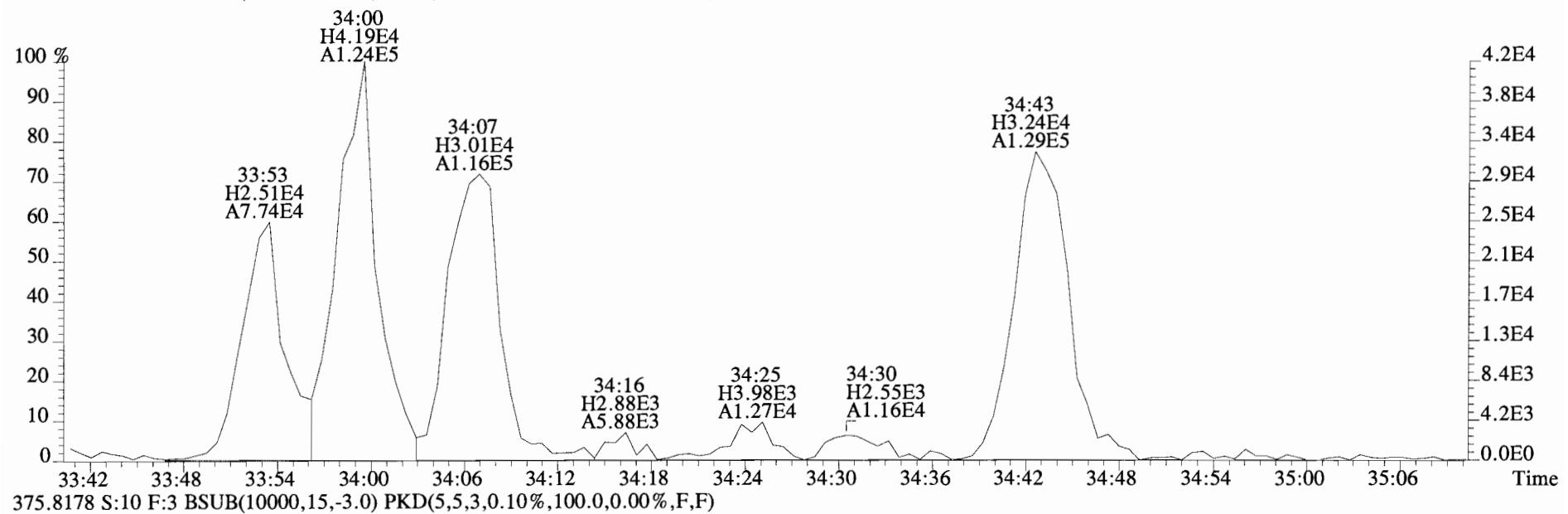
File:140917D1 #1-385 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



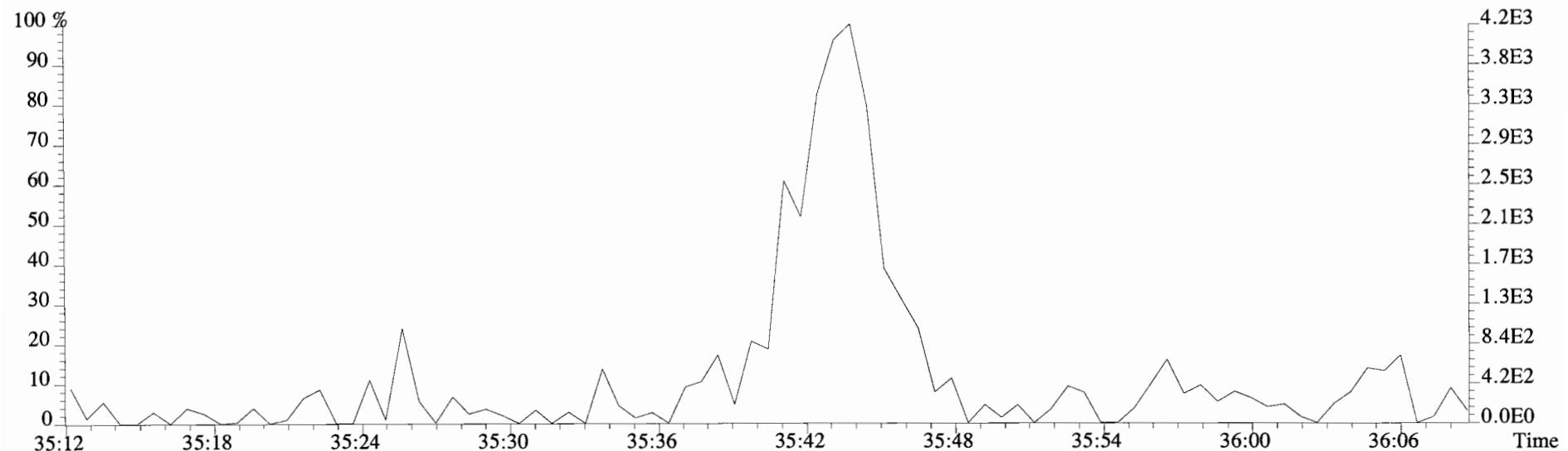
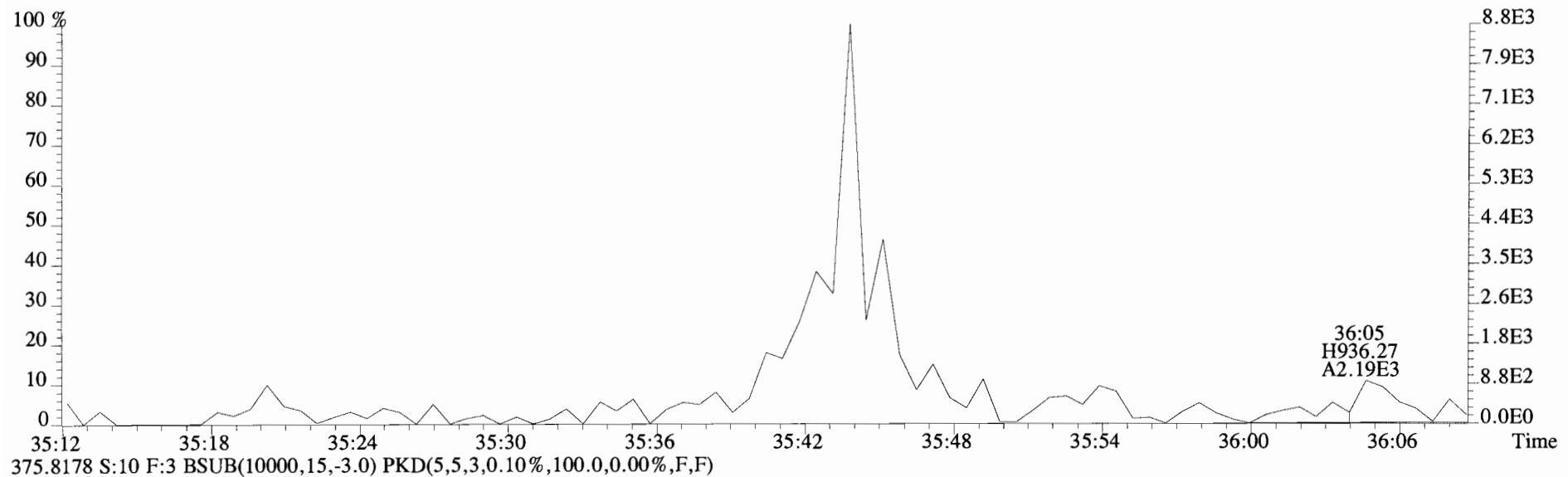
375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



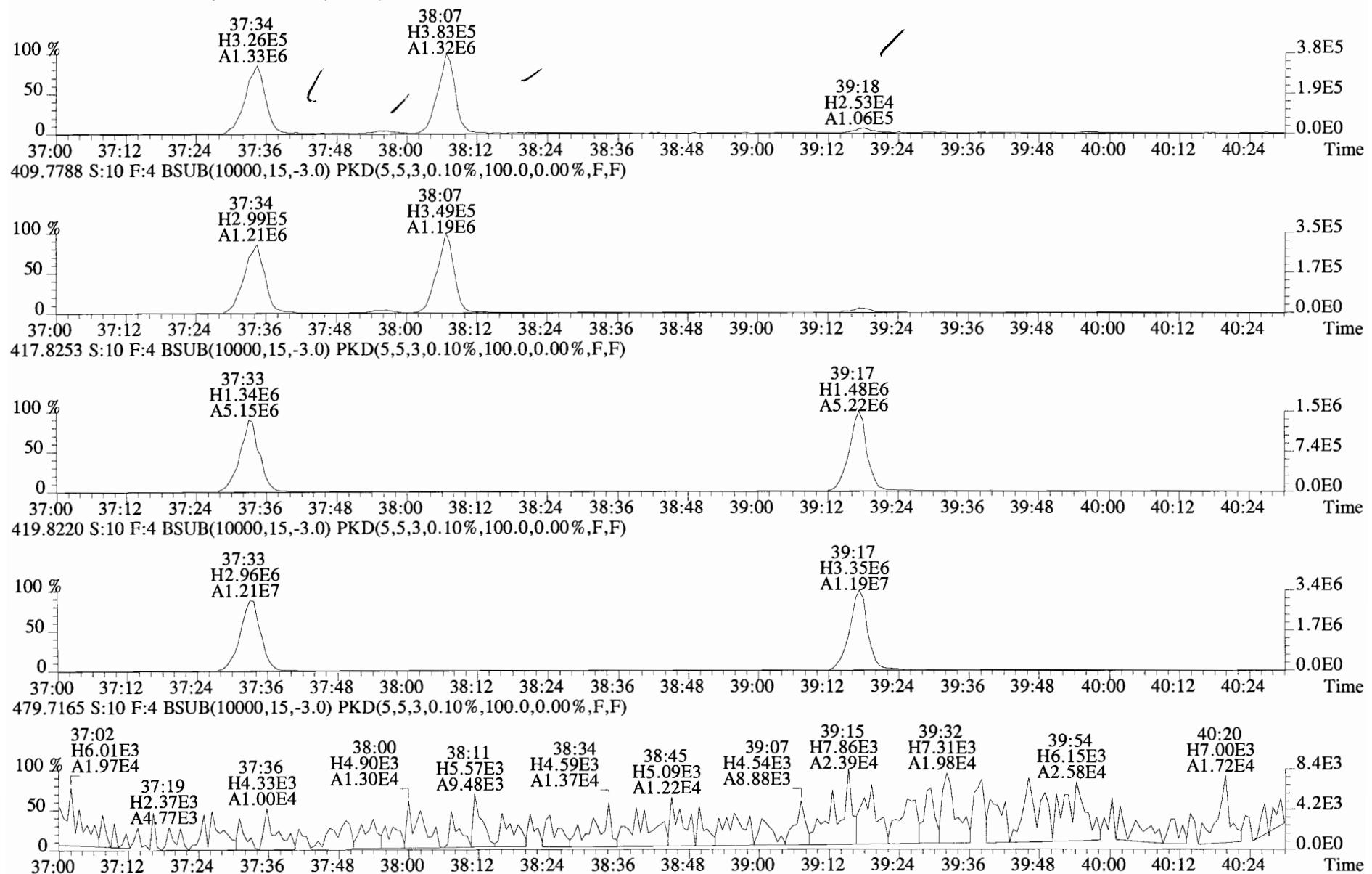
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Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



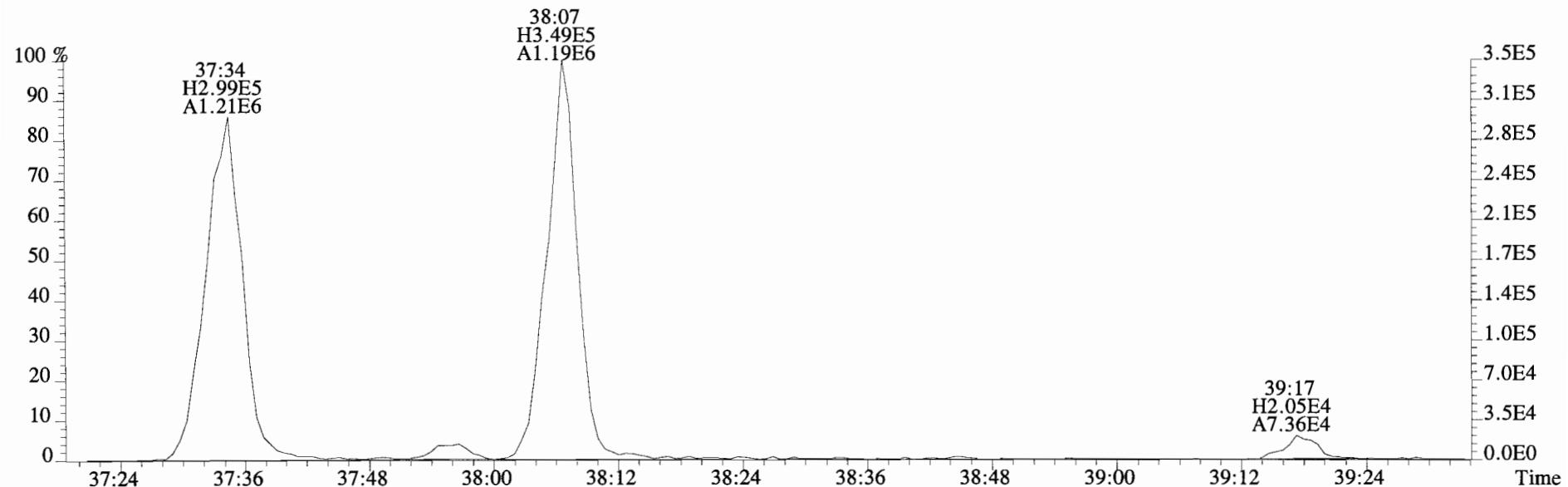
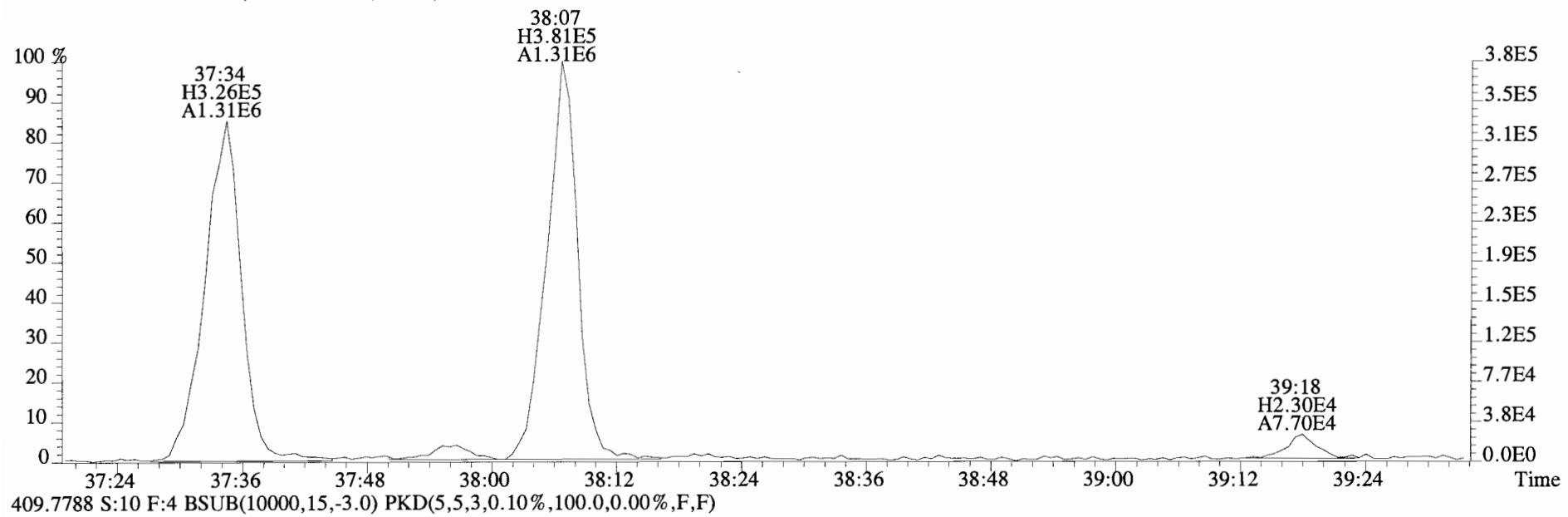
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Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



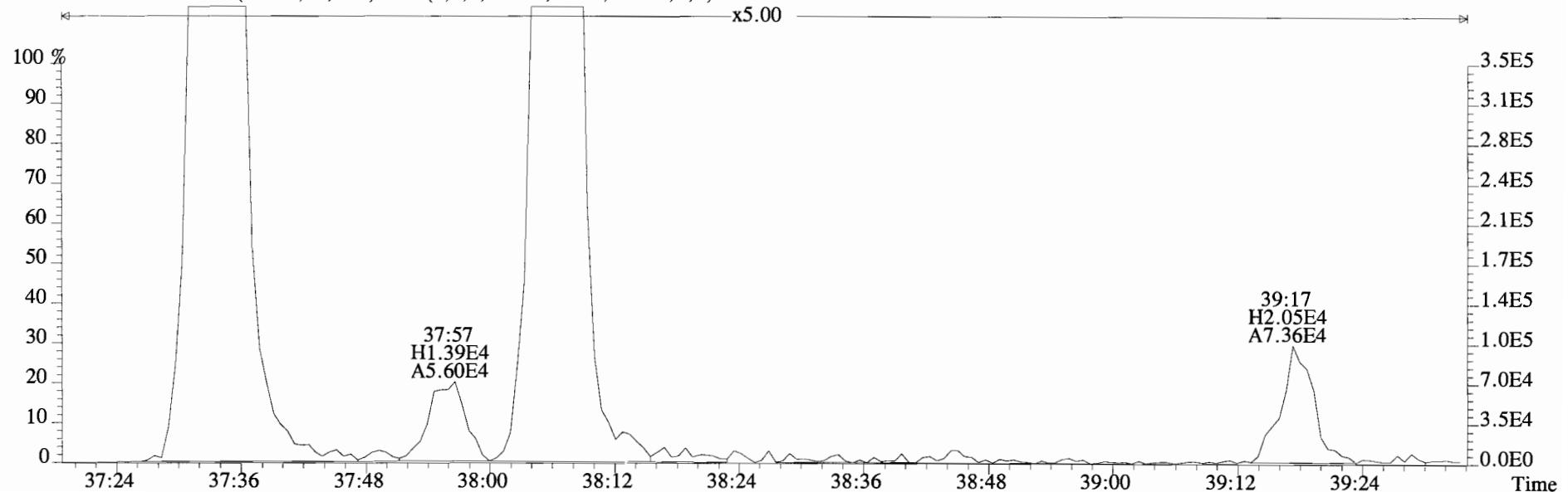
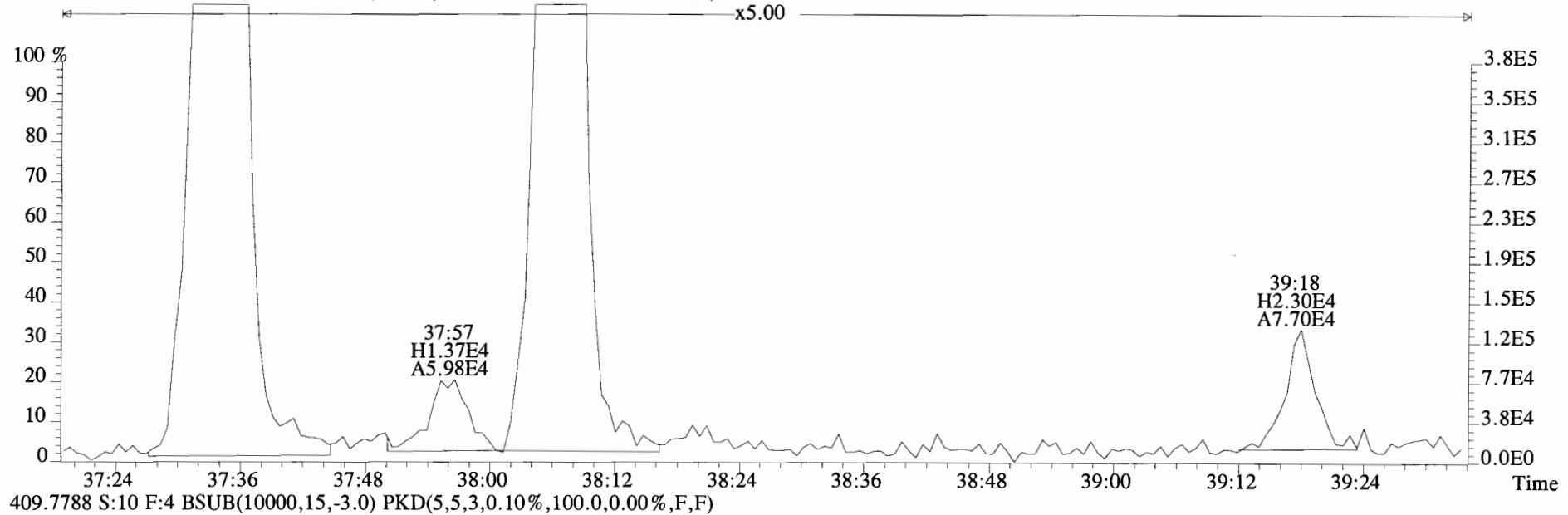
File:140917D1 #1-326 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
 407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



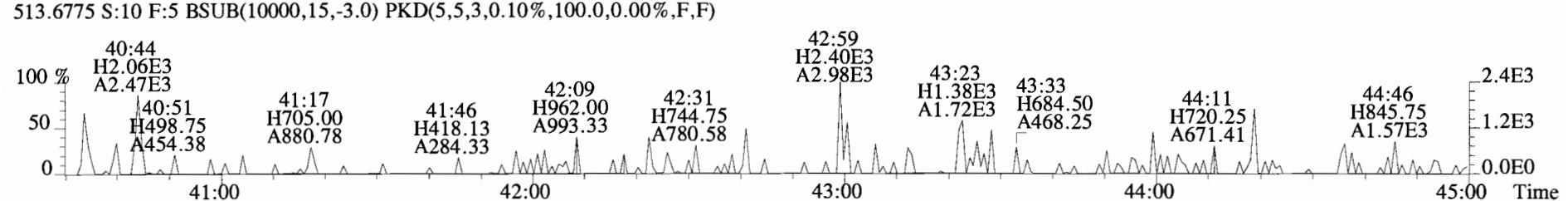
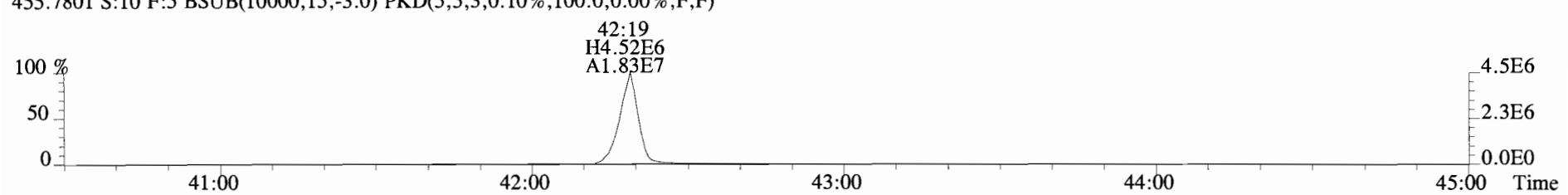
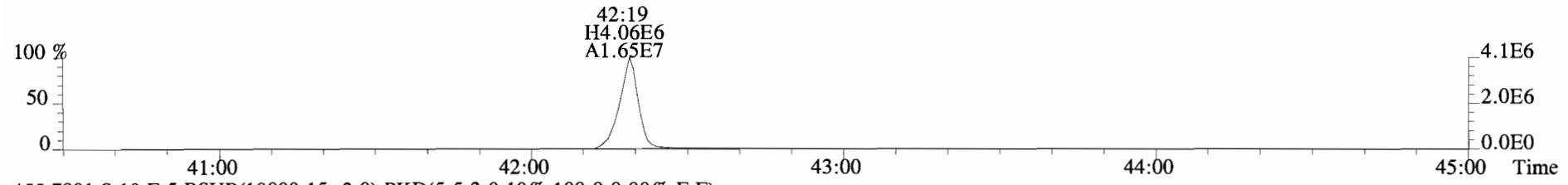
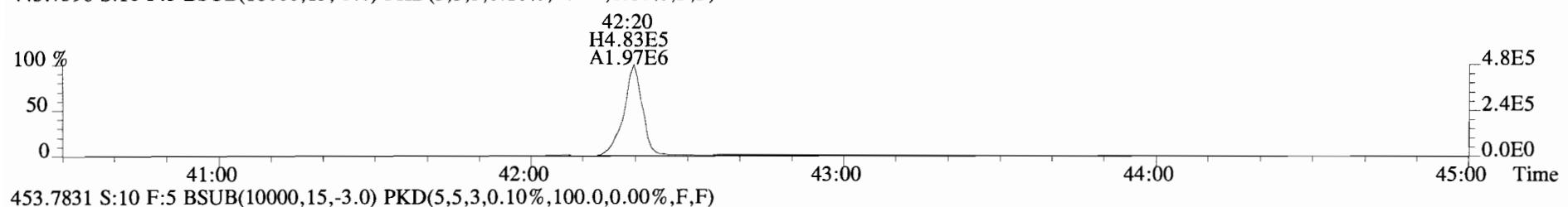
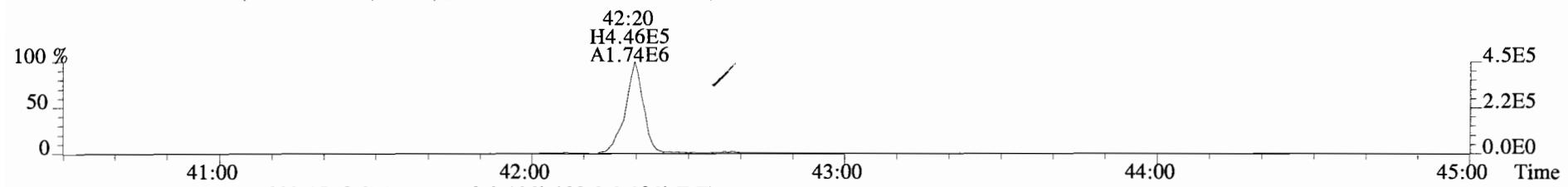
File:140917D1 #1-326 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140917D1 #1-326 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140917D1 #1-388 Acq:17-SEP-2014 20:26:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03 PS-TS-01-20140909-S 13.37 Exp:OCDD_DB5
441.7428 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



SAMPLE DATA

EPA Method 1668C

Client ID: Method Blank
 Lab ID: B4I0047-BLK1

Filename: 140919E1 S:5 Acq:19-SEP-14 13:50:37
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.00000
 ConCal: ST140919E1-1
 EndCAL: NA

Page 5 of

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	*	*	n NotFq	1.25	*		4090	2.5	2.28	*	0.996-1.006	
Mono	PCB-2	*	*	n NotFq	1.18	*		4090	2.5	2.76	*	0.983-0.993	
Mono	PCB-3	*	*	n NotFq	1.22	*		4090	2.5	2.68	*	0.996-1.006	
Di	PCB-4/10	*	*	n NotFq	1.55	*		28100	2.5	11.8	*	0.998-1.008	
Di	PCB-7/9	*	*	n NotFq	1.27	*		28100	2.5	9.63	*	0.865-0.873	
Di	PCB-6	*	*	n NotFq	1.26	*		28100	2.5	9.70	*	0.890-0.899	
Di	PCB-5/8	*	*	n NotFq	1.23	*		28100	2.5	9.91	*	0.906-0.916	
Di	PCB-14	*	*	n NotFq	1.23	*		28100	2.5	8.36	*	0.949-0.959	
Di	PCB-11	7.23e+05	1.23	n 25:27	1.16	9.13	R	*	2.5	*	1.001	0.996-1.006	
Di	PCB-12/13	*	*	n NotFq	1.10	*		28100	2.5	9.37	*	1.010-1.020	
Di	PCB-15	*	*	n NotFq	1.21	*		28100	2.5	8.53	*	1.024-1.034	
Tri	PCB-19	*	*	n NotFq	1.30	*		1820	2.5	0.929	*	0.996-1.006	
Tri	PCB-30	*	*	n NotFq	1.83	*		1820	2.5	0.658	*	1.032-1.042	
Tri	PCB-18	5.42e+04	1.75	n 26:05	0.86	1.18	R	*	2.5	*	0.954	0.949-0.959	
Tri	PCB-17	*	*	n NotFq	0.90	*		1820	2.5	0.814	*	0.955-0.965	
Tri	PCB-24/27	*	*	n NotFq	1.18	*		1820	2.5	0.623	*	0.976-0.986	
Tri	PCB-16/32	*	*	n NotFq	1.03	*		1820	2.5	0.712	*	0.995-1.005	
Tri	PCB-34	*	*	n NotFq	1.26	*		1630	2.5	0.879	*	0.956-0.966	
Tri	PCB-23	*	*	n NotFq	1.31	*		1630	2.5	0.845	*	0.959-0.969	
Tri	PCB-29	*	*	n NotFq	1.33	*		1630	2.5	0.834	*	0.967-0.977	
Tri	PCB-26	*	*	n NotFq	1.29	*		1630	2.5	0.858	*	0.974-0.984	
Tri	PCB-25	*	*	n NotFq	1.34	*		1630	2.5	0.825	*	0.980-0.990	
Tri	PCB-31	*	*	n NotFq	1.42	*		1630	2.5	0.781	*	0.992-1.002	
Tri	PCB-28	*	*	n NotFq	1.38	*		1630	2.5	0.804	*	0.996-1.006	
Tri	PCB-20/21/33	*	*	n NotFq	1.31	*		1630	2.5	0.845	*	1.017-1.027	
Tri	PCB-22	*	*	n NotFq	1.32	*		1630	2.5	0.838	*	1.032-1.042	
Tri	PCB-36	*	*	n NotFq	1.38	*		1630	2.5	0.774	*	0.929-0.939	
Tri	PCB-39	*	*	n NotFq	1.42	*		1630	2.5	0.751	*	0.943-0.953	
Tri	PCB-38	*	*	n NotFq	1.35	*		1630	2.5	0.787	*	0.967-0.976	
Tri	PCB-35	*	*	n NotFq	1.38	*		1630	2.5	0.774	*	0.982-0.992	
Tri	PCB-37	*	*	n NotFq	1.39	*		1630	2.5	0.766	*	0.996-1.006	
Tetra	PCB-54	*	*	n NotFq	1.20	*		1910	2.5	0.713	*	0.996-1.006	
Tetra	PCB-50	*	*	n NotFq	0.97	*		1910	2.5	0.884	*	1.037-1.047	
Tetra	PCB-53	*	*	n NotFq	1.19	*		1910	2.5	0.874	*	0.941-0.951	
Tetra	PCB-51	*	*	n NotFq	1.15	*		1910	2.5	0.901	*	0.952-0.962	
Tetra	PCB-45	*	*	n NotFq	0.97	*		1910	2.5	1.08	*	0.966-0.976	
Tetra	PCB-46	*	*	n NotFq	0.95	*		1910	2.5	1.09	*	0.982-0.992	

Integrations by:

Analyst: DMS

Date: 9/23/14

Reviewed by: M2

Date: 9/27/14

Client ID: Method Blank
 Lab ID: B4I0047-BLK1

Filename: 140919E1 S:5 Acq:19-SEP-14 13:50:37
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000
 ConCal: ST140919E1-1
 EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	*	*	n NotF _q	1.28	*		1910	2.5	0.812	*	0.996-1.006	
Tetra	PCB-73	*	*	n NotF _q	1.37	*		1910	2.5	0.757	*	1.000-1.010	
Tetra	PCB-43/49	*	*	n NotF _q	1.11	*		1910	2.5	0.933	*	1.005-1.015	
Tetra	PCB-47	*	*	n NotF _q	1.13	*		1910	2.5	0.884	*	0.996-1.006	
Tetra	PCB-48/75	*	*	n NotF _q	1.30	*		1910	2.5	0.768	*	0.999-1.009	
Tetra	PCB-65	*	*	n NotF _q	1.33	*		1910	2.5	0.750	*	1.007-1.017	
Tetra	PCB-62	*	*	n NotF _q	1.29	*		1910	2.5	0.775	*	1.011-1.021	
Tetra	PCB-44	*	*	n NotF _q	0.94	*		1910	2.5	1.07	*	1.020-1.030	
Tetra	PCB-42/59	*	*	n NotF _q	1.22	*		1910	2.5	0.823	*	1.028-1.038	
Tetra	PCB-41/64/71/72	*	*	n NotF _q	1.31	*		1910	2.5	0.763	*	1.046-1.056	
Tetra	PCB-68	*	*	n NotF _q	1.49	*		1910	2.5	0.674	*	1.054-1.064	
Tetra	PCB-40	*	*	n NotF _q	0.82	*		1910	2.5	1.22	*	1.061-1.071	
Tetra	PCB-57	*	*	n NotF _q	1.11	*		1910	2.5	0.625	*	0.965-0.975	
Tetra	PCB-67	*	*	n NotF _q	1.07	*		1910	2.5	0.649	*	0.974-0.984	
Tetra	PCB-58	*	*	n NotF _q	1.10	*		1910	2.5	0.633	*	0.977-0.987	
Tetra	PCB-63	*	*	n NotF _q	1.12	*		1910	2.5	0.624	*	0.982-0.992	
Tetra	PCB-74	*	*	n NotF _q	1.20	*		1910	2.5	0.579	*	0.990-1.000	
Tetra	PCB-61/70	*	*	n NotF _q	1.08	*		1910	2.5	0.645	*	0.994-1.004	
Tetra	PCB-76/66	*	*	n NotF _q	1.14	*		1910	2.5	0.613	*	1.001-1.011	
Tetra	PCB-80	*	*	n NotF _q	1.28	*		1910	2.5	0.549	*	0.996-1.006	
Tetra	PCB-55	*	*	n NotF _q	1.11	*		1910	2.5	0.632	*	1.005-1.015	
Tetra	PCB-56/60	*	*	n NotF _q	1.09	*		1910	2.5	0.645	*	1.018-1.028	
Tetra	PCB-79	*	*	n NotF _q	1.12	*		1910	2.5	0.624	*	1.048-1.058	
Tetra	PCB-78	*	*	n NotF _q	1.24	*		1910	2.5	0.694	*	0.982-0.992	
Tetra	PCB-81	*	*	n NotF _q	1.38	*		1910	2.5	0.621	*	0.995-1.005	
Tetra	PCB-77	*	*	n NotF _q	1.21	*		1910	2.5	0.676	*	0.995-1.005	
Penta	PCB-104	*	*	n NotF _q	1.26	*		2020	2.5	1.12	*	0.996-1.006	
Penta	PCB-96	*	*	n NotF _q	1.09	*		2020	2.5	1.29	*	1.034-1.044	
Penta	PCB-103	*	*	n NotF _q	0.93	*		2020	2.5	1.51	*	1.050-1.060	
Penta	PCB-100	*	*	n NotF _q	1.00	*		2020	2.5	1.40	*	1.061-1.071	
Penta	PCB-94	*	*	n NotF _q	1.11	*		2020	2.5	1.59	*	0.981-0.991	
Penta	PCB-95/98/102	*	*	n NotF _q	1.21	*		2020	2.5	1.45	*	0.994-1.004	
Penta	PCB-93	*	*	n NotF _q	1.13	*		2020	2.5	1.56	*	0.998-1.008	
Penta	PCB-88/91	*	*	n NotF _q	1.02	*		2020	2.5	1.73	*	1.006-1.016	
Penta	PCB-121	*	*	n NotF _q	1.90	*		2020	2.5	0.927	*	1.009-1.019	
Penta	PCB-84/92	*	*	n NotF _q	1.05	*		2020	2.5	1.59	*	0.986-0.996	
Penta	PCB-89	*	*	n NotF _q	1.02	*		2020	2.5	1.64	*	0.991-1.001	

Analyst: Dms

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0047-BLK1

Filename: 140919E1 S:5 Acq:19-SEP-14 13:50:37
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000

ConCal: ST140919E1-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	*	*	n Not Fq	1.19	*	*	2020	2.5	1.40	*	0.996-1.006	
Penta	PCB-113	*	*	n Not Fq	1.35	*	*	2020	2.5	1.23	*	1.002-1.012	
Penta	PCB-99	*	*	n Not Fq	1.29	*	*	2020	2.5	1.29	*	1.005-1.015	
Penta	PCB-119	*	*	n Not Fq	1.72	*	*	2020	2.5	1.04	*	0.982-0.992	
Penta	PCB-108/112	*	*	n Not Fq	1.29	*	*	2020	2.5	1.38	*	0.986-0.996	
Penta	PCB-83	*	*	n Not Fq	1.52	*	*	2020	2.5	1.17	*	0.991-1.001	
Penta	PCB-97	*	*	n Not Fq	1.25	*	*	2020	2.5	1.43	*	0.996-1.006	
Penta	PCB-86	*	*	n Not Fq	1.02	*	*	2020	2.5	1.74	*	1.000-1.010	
Penta	PCB-87/117/125	*	*	n Not Fq	1.56	*	*	2020	2.5	1.14	*	1.002-1.012	
Penta	PCB-111/115	*	*	n Not Fq	1.75	*	*	2020	2.5	1.02	*	1.007-1.017	
Penta	PCB-85/116	*	*	n Not Fq	1.30	*	*	2020	2.5	1.37	*	1.010-1.020	
Penta	PCB-120	*	*	n Not Fq	1.78	*	*	2020	2.5	1.00	*	1.016-1.026	
Penta	PCB-110	*	*	n Not Fq	1.68	*	*	2020	2.5	1.06	*	1.020-1.030	
Penta	PCB-82	*	*	n Not Fq	0.74	*	*	2020	2.5	1.76	*	0.972-0.982	
Penta	PCB-124	*	*	n Not Fq	1.32	*	*	2020	2.5	0.985	*	0.988-0.998	
Penta	PCB-107/109	*	*	n Not Fq	1.22	*	*	2020	2.5	1.07	*	0.991-1.001	
Penta	PCB-123	*	*	n Not Fq	1.22	*	*	2020	2.5	1.07	*	0.995-1.005	
Penta	PCB-106/118	*	*	n Not Fq	1.22	*	*	2020	2.5	1.06	*	0.996-1.006	
Penta	PCB-114	*	*	n Not Fq	1.36	*	*	2100	2.5	1.14	*	0.995-1.005	
Penta	PCB-122	*	*	n Not Fq	1.24	*	*	2100	2.5	1.25	*	0.999-1.009	
Penta	PCB-105	*	*	n Not Fq	1.28	*	*	2100	2.5	1.24	*	0.995-1.005	
Penta	PCB-127	*	*	n Not Fq	1.14	*	*	2100	2.5	1.20	*	0.995-1.005	
Penta	PCB-126	*	*	n Not Fq	1.28	*	*	2100	2.5	1.35	*	0.995-1.005	
Hexa	PCB-155	*	*	n Not Fq	1.14	*	*	1640	2.5	1.00	*	0.966-1.006	
Hexa	PCB-150	*	*	n Not Fq	1.06	*	*	1640	2.5	1.07	*	1.030-1.040	
Hexa	PCB-152	*	*	n Not Fq	1.10	*	*	1640	2.5	1.04	*	1.043-1.053	
Hexa	PCB-145	*	*	n Not Fq	1.09	*	*	1640	2.5	1.04	*	1.055-1.065	
Hexa	PCB-136	*	*	n Not Fq	1.08	*	*	1640	2.5	1.05	*	1.064-1.074	
Hexa	PCB-148	*	*	n Not Fq	0.74	*	*	1640	2.5	1.54	*	1.066-1.076	
Hexa	PCB-154	*	*	n Not Fq	0.88	*	*	1640	2.5	1.29	*	1.079-1.089	
Hexa	PCB-151	*	*	n Not Fq	0.81	*	*	1640	2.5	1.41	*	1.097-1.107	
Hexa	PCB-135	*	*	n Not Fq	0.78	*	*	1640	2.5	1.46	*	1.101-1.113	
Hexa	PCB-144	*	*	n Not Fq	0.82	*	*	1640	2.5	1.39	*	1.105-1.116	
Hexa	PCB-147	*	*	n Not Fq	0.83	*	*	1640	2.5	1.37	*	1.011-1.120	
Hexa	PCB-139/149	*	*	n Not Fq	0.84	*	*	1640	2.5	1.35	*	1.115-1.127	
Hexa	PCB-140	*	*	n Not Fq	0.79	*	*	1640	2.5	1.45	*	1.120-1.132	
Hexa	PCB-134/143	*	*	n Not Fq	0.93	*	*	1010	2.5	0.638	*	0.970-0.980	

Analyst: DMS

Date: 9/23/14

Client ID: Method Blank
 Lab ID: B4I0047-BLK1

Filename: 140919E1 S:5 Acq:19-SEP-14 13:50:37
 GC Column ID: ZB-1 ICAL: PCBVG8-6-20-14 wt/vol:1.0000
 ConCal: ST140919E1-1
 EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	*	*	n NotF _q	0.95	*	*	1010	2.5	0.626	*	0.977-0.987	
Hexa	PCB-131	*	*	n NotF _q	0.91	*	*	1010	2.5	0.647	*	0.981-0.991	
Hexa	PCB-146/165	*	*	n NotF _q	1.16	*	*	1010	2.5	0.511	*	0.986-0.996	
Hexa	PCB-132/161	*	*	n NotF _q	1.11	*	*	1010	2.5	0.531	*	0.992-1.002	
Hexa	PCB-153	*	*	n NotF _q	1.18	*	*	1010	2.5	0.502	*	0.995-1.005	
Hexa	PCB-168	*	*	n NotF _q	1.37	*	*	1010	2.5	0.432	*	1.000-1.010	
Hexa	PCB-141	*	*	n NotF _q	0.97	*	*	1010	2.5	0.602	*	0.996-1.005	
Hexa	PCB-137	*	*	n NotF _q	1.07	*	*	1010	2.5	0.548	*	1.004-1.014	
Hexa	PCB-130	*	*	n NotF _q	0.85	*	*	1010	2.5	0.692	*	1.007-1.017	
Hexa	PCB-138/163/164	*	*	n NotF _q	1.23	*	*	1010	2.5	0.484	*	0.996-1.006	
Hexa	PCB-158/160	*	*	n NotF _q	1.29	*	*	1010	2.5	0.460	*	1.001-1.011	
Hexa	PCB-129	*	*	n NotF _q	0.92	*	*	1010	2.5	0.641	*	1.007-1.017	
Hexa	PCB-166	*	*	n NotF _q	1.12	*	*	1010	2.5	0.494	*	0.988-0.998	
Hexa	PCB-159	*	*	n NotF _q	1.16	*	*	1010	2.5	0.473	*	0.995-1.005	
Hexa	PCB-128/162	*	*	n NotF _q	1.02	*	*	1010	2.5	0.541	*	1.002-1.012	
Hexa	PCB-167	*	*	n NotF _q	1.06	*	*	1010	2.5	0.476	*	0.995-1.005	
Hexa	PCB-156	*	*	n NotF _q	1.18	*	*	1010	2.5	0.440	*	0.995-1.005	
Hexa	PCB-157	*	*	n NotF _q	1.08	*	*	1010	2.5	0.466	*	0.995-1.005	
Hexa	PCB-169	*	*	n NotF _q	1.11	*	*	1010	2.5	0.487	*	0.995-1.005	
Hepta	PCB-188	*	*	n NotF _q	1.40	*	*	1340	2.5	0.443	*	0.995-1.005	
Hepta	PCB-184	*	*	n NotF _q	1.24	*	*	1340	2.5	0.503	*	1.006-1.016	
Hepta	PCB-179	*	*	n NotF _q	1.30	*	*	1340	2.5	0.477	*	1.024-1.034	
Hepta	PCB-176	*	*	n NotF _q	1.36	*	*	1340	2.5	0.456	*	1.035-1.045	
Hepta	PCB-186	*	*	n NotF _q	1.28	*	*	1340	2.5	0.487	*	1.049-1.059	
Hepta	PCB-178	*	*	n NotF _q	0.94	*	*	1340	2.5	0.664	*	1.061-1.071	
Hepta	PCB-175	*	*	n NotF _q	0.97	*	*	1340	2.5	0.642	*	1.069-1.079	
Hepta	PCB-182/187	*	*	n NotF _q	1.01	*	*	1340	2.5	0.613	*	1.073-1.083	
Hepta	PCB-183	*	*	n NotF _q	1.08	*	*	1340	2.5	0.575	*	1.080-1.090	
Hepta	PCB-185	*	*	n NotF _q	1.34	*	*	1340	2.5	0.572	*	0.951-0.961	
Hepta	PCB-174	*	*	n NotF _q	1.34	*	*	1340	2.5	0.574	*	0.958-0.968	
Hepta	PCB-181	*	*	n NotF _q	1.36	*	*	1340	2.5	0.564	*	0.961-0.971	
Hepta	PCB-177	*	*	n NotF _q	1.24	*	*	1340	2.5	0.619	*	0.964-0.974	
Hepta	PCB-171	*	*	n NotF _q	1.31	*	*	1340	2.5	0.585	*	0.970-0.980	
Hepta	PCB-173	*	*	n NotF _q	1.16	*	*	1340	2.5	0.662	*	0.979-0.989	
Hepta	PCB-172	*	*	n NotF _q	1.22	*	*	1340	2.5	0.628	*	0.988-0.998	
Hepta	PCB-192	*	*	n NotF _q	1.53	*	*	1340	2.5	0.503	*	0.991-1.001	
Hepta	PCB-180	*	*	n NotF _q	1.43	*	*	1340	2.5	0.538	*	0.995-1.005	

Analyst: DMS

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0047-BLK1

Filename: 140919E1 S:5 Acq:19-SEP-14 13:50:37
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000

ConCal: ST140919E1-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	*	n NotFq	1.65	*		1340	2.5	0.464	*	0.999-1.009	
Hepta	PCB-191	*	*	n NotFq	1.67	*		1340	2.5	0.459	*	1.004-1.014	
Hepta	PCB-170	*	*	n NotFq	1.50	*		1340	2.5	0.557	*	0.995-1.005	
Hepta	PCB-190	*	*	n NotFq	2.02	*		1340	2.5	0.414	*	0.998-1.008	
Hepta	PCB-189	*	*	n NotFq	1.54	*		1340	2.5	0.405	*	0.995-1.005	
Octa	PCB-202	*	*	n NotFq	1.04	*		1320	2.5	0.728	*	0.995-1.005	
Octa	PCB-201	*	*	n NotFq	1.10	*		1320	2.5	0.687	*	1.006-1.016	
Octa	PCB-204	*	*	n NotFq	0.99	*		1320	2.5	0.762	*	1.009-1.019	
Octa	PCB-197	*	*	n NotFq	1.07	*		1320	2.5	0.706	*	1.015-1.025	
Octa	PCB-200	*	*	n NotFq	1.02	*		1320	2.5	0.744	*	1.032-1.044	
Octa	PCB-198	*	*	n NotFq	0.74	*		1320	2.5	1.02	*	1.058-1.068	
Octa	PCB-199	*	*	n NotFq	0.73	*		1320	2.5	1.04	*	1.060-1.070	
Octa	PCB-196/203	*	*	n NotFq	0.77	*		1320	2.5	0.980	*	1.066-1.076	
Octa	PCB-195	*	*	n NotFq	1.20	*		1480	2.5	0.705	*	0.979-0.989	
Octa	PCB-194	*	*	n NotFq	1.25	*		1480	2.5	0.679	*	0.995-1.005	
Octa	PCB-205	*	*	n NotFq	1.41	*		1480	2.5	0.599	*	1.001-1.011	
Nona	PCB-208	*	*	n NotFq	0.96	*		1330	2.5	0.501	*	0.995-1.005	
Nona	PCB-207	*	*	n NotFq	0.92	*		1330	2.5	0.525	*	1.001-1.011	
Nona	PCB-206	*	*	n NotFq	1.03	*		1330	2.5	0.953	*	0.995-1.005	
Deca	PCB-209	*	*	n NotFq	1.18	*		1070	2.5	0.897	*	0.995-1.005	

Analyst: DMS

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0047-BLK1

Filename: 140919E1 S:5 Acq:19-SEP-14 13:50:37 ConCal: ST140919E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	*	* n	NotFnd	1.22	*
Total Di-PCB	*	* n	NotFnd	1.21	*
Total Tri-PCB	*	* n	NotFnd	1.16	*
Total Tri-PCB	*	* n	NotFnd	1.35	* Sum:0.00000
Total Tetra-PCB	*	* n	NotFnd	1.17	*
Total Penta-PCB	*	* n	NotFnd	1.21	*
Total Penta-PCB	*	* n	NotFnd	1.26	* Sum:0.00000
Total Hexa-PCB	*	* n	NotFnd	0.92	*
Total Hexa-PCB	*	* n	NotFnd	1.08	* Sum:0.00000
Total Hepta-PCB	*	* n	NotFnd	1.27	*
Total Octa-PCB	*	* n	NotFnd	0.92	*
Total Octa-PCB	*	* n	NotFnd	1.29	* Sum:0.00000
Total Nona-PCB	*	* n	NotFnd	0.96	*
Total Deca-PCB	*	* n	NotFnd	1.18	*

Total PCB Conc:10.3087350000

Integrations
by
Analyst: DMS
Date: 9/23/14

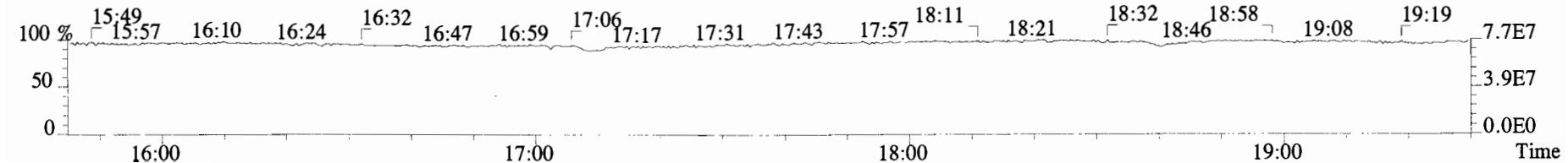
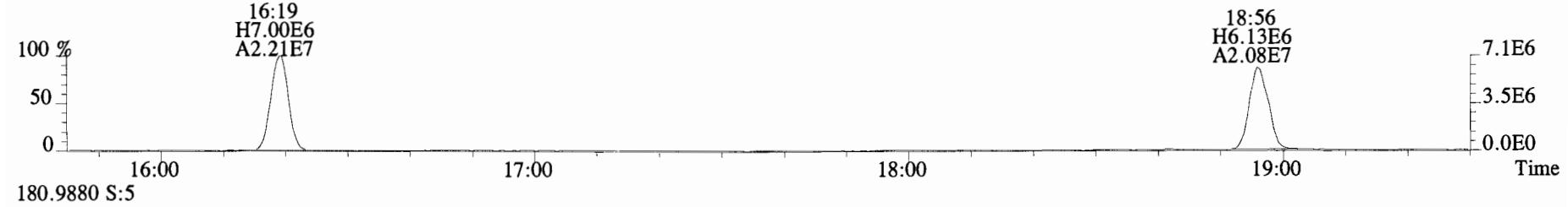
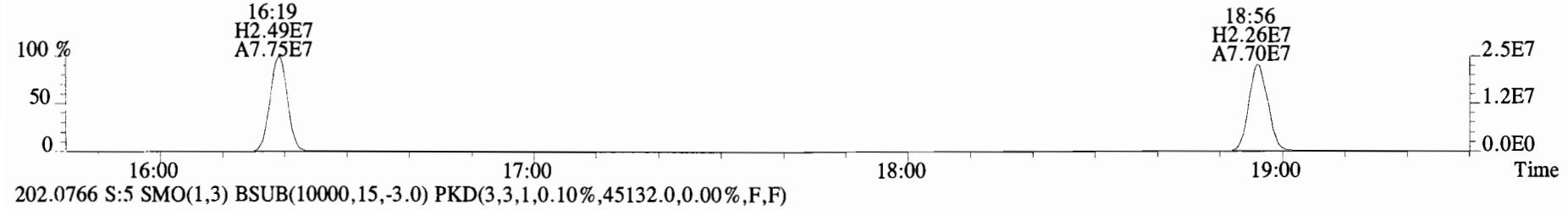
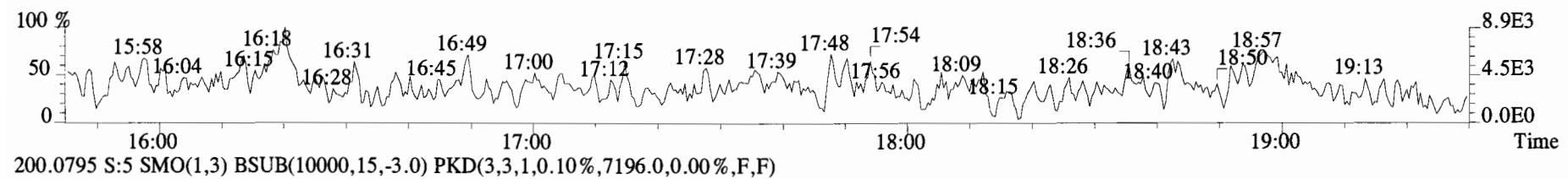
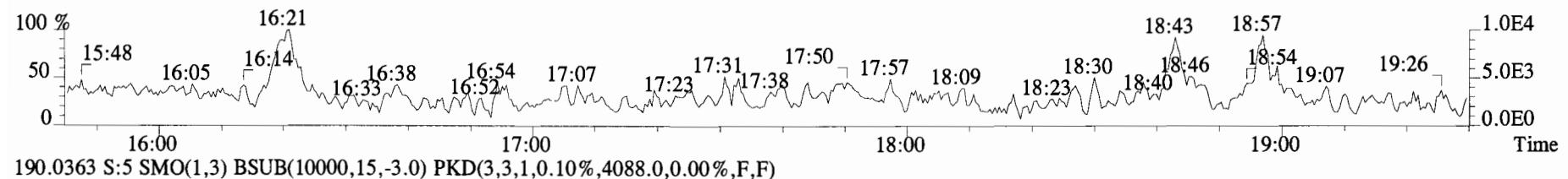
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 Lab ID: B4I0047-BLK1

Filename: 140919E1 S:5 Acq:19-SEP-14 13:50:37
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000
 ConCal: ST140919E1-1 EndCAL: NA

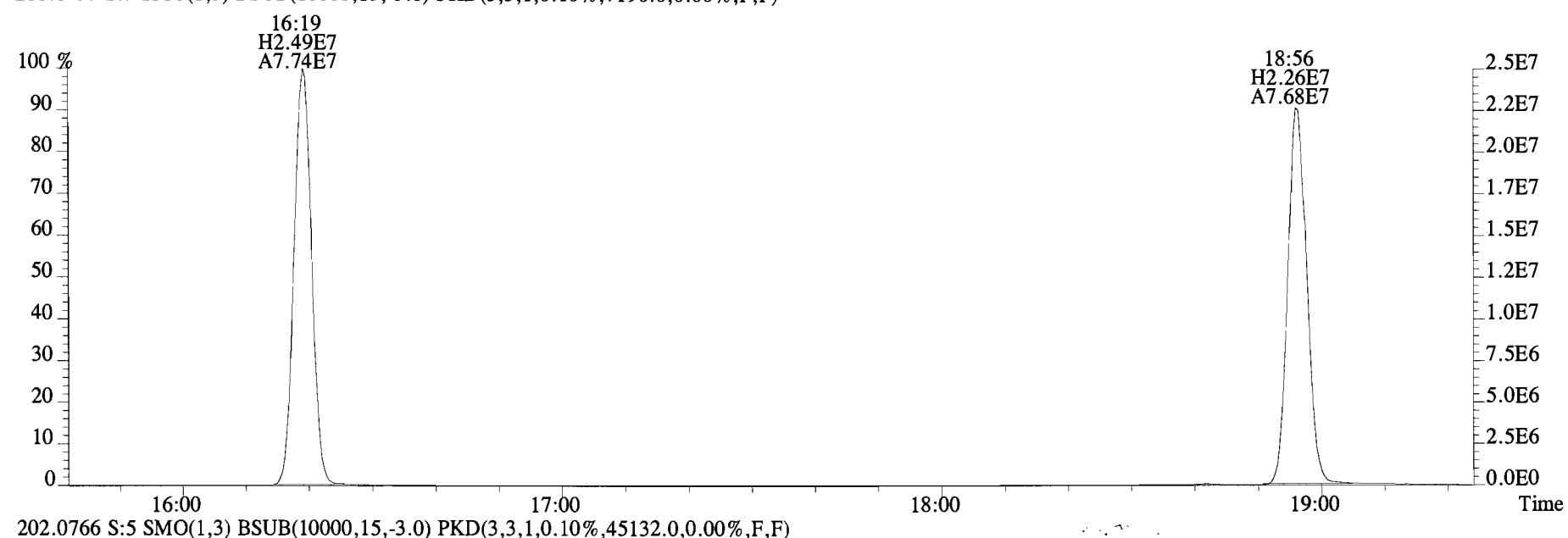
Page 5 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec								
13C-PCB-1	1.00e+08	3.43	y	0.89	16:19	0.624	0.622-0.628	1190	59.5	13C-PCB-79	1.30e+08	0.79	y	1.01	38:01	1.029	1.023-1.033	1820	90.9										
13C-PCB-3	9.83e+07	3.57	y	0.93	18:56	0.724	0.721-0.729	1120	56.1	13C-PCB-178	6.43e+07	0.47	y	0.63	45:50	0.985	0.979-0.989	1980	98.8										
13C-PCB-4	7.10e+07	1.58	y	0.55	20:16	0.775	0.772-0.780	1370	68.6	13C-PCB-11	1.37e+08	0.94	25:26	0.973	0.968-0.978	1540	77.1	PS vs. IS											
13C-PCB-9	1.08e+08	1.59	y	0.83	22:03	0.843	0.840-0.848	1380	69.0	13C-PCB-19	6.19e+07	1.15	y	0.53	24:26	0.934	0.929-0.939	1230	61.4	13C-PCB-79	1.30e+08	0.79	y	1.20	38:01	0.969	0.963-0.973	2170	109
13C-PCB-11	1.37e+08	1.57	y	0.94	25:26	0.973	0.968-0.978	1540	77.1	13C-PCB-28	7.01e+07	1.12	y	0.89	29:18	1.004	0.999-1.009	1440	72.2	13C-PCB-178	6.43e+07	0.47	y	0.94	45:50	0.925	0.920-0.930	2170	108
13C-PCB-19	6.19e+07	1.15	y	0.53	24:26	0.934	0.929-0.939	1230	61.4	13C-PCB-32	1.07e+08	1.14	y	0.81	27:20	1.045	1.041-1.051	1390	69.7	13C-PCB-47	8.06e+07	0.80	y	0.74	32:12	0.871	0.867-0.875	1520	76.0
13C-PCB-28	7.01e+07	1.12	y	0.89	29:18	1.004	0.999-1.009	1440	72.2	13C-PCB-37	7.71e+07	1.10	y	0.83	33:10	1.136	1.131-1.143	1700	84.8	13C-PCB-52	7.66e+07	0.80	y	0.71	31:42	0.858	0.853-0.861	1520	75.9
13C-PCB-32	1.07e+08	1.14	y	0.81	27:20	1.045	1.041-1.051	1390	69.7	13C-PCB-70	1.17e+08	0.80	y	0.94	35:43	0.967	0.961-0.971	1730	86.6	13C-PCB-54	9.45e+07	0.81	y	0.85	28:11	0.763	0.758-0.766	1560	78.1
13C-PCB-37	7.71e+07	1.10	y	0.83	33:10	1.136	1.131-1.143	1700	84.8	13C-PCB-77	1.04e+08	0.80	y	0.89	39:50	1.078	1.073-1.083	1630	81.7	13C-PCB-80	1.20e+08	0.82	y	0.96	36:07	0.977	0.972-0.982	1760	87.9
13C-PCB-70	1.17e+08	0.80	y	0.94	35:43	0.967	0.961-0.971	1730	86.6	13C-PCB-81	1.00e+08	0.80	y	0.84	39:15	1.062	1.057-1.067	1670	83.7	13C-PCB-85	6.99e+07	1.57	y	0.74	36:01	0.914	0.908-0.918	1640	81.9
13C-PCB-77	1.04e+08	0.80	y	0.89	39:50	1.078	1.073-1.083	1630	81.7	13C-PCB-85	6.99e+07	1.57	y	0.74	36:01	0.914	0.908-0.918	1640	81.9	RS									
13C-PCB-80	1.20e+08	0.82	y	0.96	36:07	0.977	0.972-0.982	1760	87.9	13C-PCB-97	6.87e+07	1.58	y	0.69	39:00	0.989	0.984-0.994	1740	86.9	13C-PCB-101	7.43e+07	1.59	y	0.79	37:42	0.956	0.951-0.961	1650	82.4
13C-PCB-81	1.00e+08	0.80	y	0.84	39:15	1.062	1.057-1.067	1670	83.7	13C-PCB-101	7.43e+07	1.59	y	0.79	37:42	0.956	0.951-0.961	1650	82.4	13C-PCB-104	8.57e+07	1.59	y	1.00	32:52	0.834	0.829-0.837	1500	75.0
13C-PCB-85	6.99e+07	1.57	y	0.74	36:01	0.914	0.908-0.918	1640	81.9	13C-PCB-104	8.57e+07	1.59	y	1.00	32:52	0.834	0.829-0.837	1500	75.0	13C-PCB-105	8.51e+07	1.64	y	1.24	43:16	0.929	0.924-0.934	1330	66.6
13C-PCB-97	6.87e+07	1.58	y	0.69	39:00	0.989	0.984-0.994	1740	86.9	13C-PCB-105	8.51e+07	1.64	y	1.24	43:16	0.929	0.924-0.934	1330	66.6	13C-PCB-114	8.75e+07	1.65	y	1.21	42:24	0.911	0.905-0.915	1410	70.3
13C-PCB-101	7.43e+07	1.59	y	0.79	37:42	0.956	0.951-0.961	1650	82.4	13C-PCB-114	8.75e+07	1.65	y	1.21	42:24	0.911	0.905-0.915	1410	70.3	13C-PCB-118	9.91e+07	1.60	y	0.98	41:45	1.059	1.054-1.064	1750	87.7
13C-PCB-104	8.57e+07	1.59	y	1.00	32:52	0.834	0.829-0.837	1500	75.0	13C-PCB-118	9.91e+07	1.60	y	0.98	41:45	1.059	1.054-1.064	1750	87.7	13C-PCB-123	9.56e+07	1.58	y	0.95	41:34	1.055	1.049-1.059	1750	87.7
13C-PCB-105	8.51e+07	1.64	y	1.24	43:16	0.929	0.924-0.934	1330	66.6	13C-PCB-123	9.56e+07	1.58	y	0.95	41:34	1.055	1.049-1.059	1750	87.7	13C-PCB-126	8.09e+07	1.64	y	1.16	45:30	0.977	0.972-0.982	1350	67.5
13C-PCB-114	8.75e+07	1.65	y	1.21	42:24	0.911	0.905-0.915	1410	70.3	13C-PCB-126	8.09e+07	1.64	y	1.16	45:30	0.977	0.972-0.982	1350	67.5	13C-PCB-127	9.74e+07	1.63	y	1.34	43:35	0.936	0.931-0.941	1410	70.3
13C-PCB-118	9.91e+07	1.60	y	0.98	41:45	1.059	1.054-1.064	1750	87.7	13C-PCB-127	9.74e+07	1.63	y	1.34	43:35	0.936	0.931-0.941	1410	70.3	13C-PCB-138	9.32e+07	1.30	y	1.04	45:00	0.967	0.961-0.971	1730	86.6
13C-PCB-123	9.56e+07	1.58	y	0.95	41:34	1.055	1.049-1.059	1750	87.7	13C-PCB-138	9.32e+07	1.30	y	1.04	45:00	0.967	0.961-0.971	1730	86.6	13C-PCB-141	9.52e+07	1.30	y	1.07	44:09	0.948	0.943-0.953	1720	86.1
13C-PCB-126	8.09e+07	1.64	y	1.16	45:30	0.977	0.972-0.982	1350	67.5	13C-PCB-141	9.52e+07	1.30	y	1.07	44:09	0.948	0.943-0.953	1720	86.1	13C-PCB-153	9.48e+07	1.30	y	1.11	43:25	0.933	0.927-0.937	1650	82.5
13C-PCB-127	9.74e+07	1.63	y	1.34	43:35	0.936	0.931-0.941	1410	70.3	13C-PCB-153	9.48e+07	1.30	y	1.11	43:25	0.933	0.927-0.937	1650	82.5	13C-PCB-155	7.77e+07	1.30	y	0.83	37:14	0.945	0.939-0.949	1630	81.4
13C-PCB-138	9.32e+07	1.30	y	1.04	45:00	0.967	0.961-0.971	1730	86.6	13C-PCB-155	7.77e+07	1.30	y	0.83	37:14	0.945	0.939-0.949	1630	81.4	13C-PCB-156	1.09e+08	1.29	y	1.24	48:15	1.037	1.032-1.042	1700	85.2
13C-PCB-141	9.52e+07	1.30	y	1.07	44:09	0.948	0.943-0.953	1720	86.1	13C-PCB-156	1.09e+08	1.29	y	1.24	48:15	1.037	1.032-1.042	1700	85.2	13C-PCB-157	1.18e+08	1.34	y	1.31	48:31	1.042	1.037-1.047	1740	87.1
13C-PCB-153	9.48e+07	1.30	y	1.11	43:25	0.933	0.927-0.937	1650	82.5	13C-PCB-157	1.18e+08	1.34	y	1.31	48:31	1.042	1.037-1.047	1740	87.1	13C-PCB-159	1.01e+08	1.32	y	1.20	46:16	0.994	0.989-0.999	1640	81.9
13C-PCB-155	7.77e+07	1.30	y	0.83	37:14	0.945	0.939-0.949	1630	81.4	13C-PCB-159	1.01e+08	1.32	y	1.20	46:16	0.994	0.989-0.999	1640	81.9	13C-PCB-167	1.12e+08	1.27	y	1.32	46:57	1.009	1.004-1.014	1640	81.9
13C-PCB-156	1.09e+08	1.29	y	1.24	48:15	1.037	1.032-1.042	1700	85.2	13C-PCB-167	1.12e+08	1.27	y	1.32	46:57	1.009	1.004-1.014	1640	81.9	13C-PCB-169	1.03e+08	1.28	y	1.22	50:39	1.088	1.082-1.092	1640	82.0
13C-PCB-157	1.18e+08	1.34	y	1.31	48:31	1.042	1.037-1.047	1740	87.1	13C-PCB-169	1.03e+08	1.28	y	1.22	50:39	1.088	1.082-1.092	1640	82.0	13C-PCB-170	5.10e+07	0.46	y	0.54	51:00	1.096	1.089-1.101	1850	92.3
13C-PCB-159	1.01e+08	1.32	y	1.20	46:16	0.994	0.989-0.999	1640	81.9	13C-PCB-170	5.10e+07	0.46	y	0.54	51:00	1.096	1.089-1.101	1850	91.0	13C-PCB-180	6.33e+07	0.46	y	0.67	49:32	1.064	1.059-1.069	1820	91.0
13C-PCB-167	1.12e+08	1.27	y	1.32	46:57	1.009	1.004-1.014	1640	81.9	13C-PCB-180	6.33e+07	0.46	y	0.67	49:32	1.064	1.059-1.069	1820	91.0	13C-PCB-188	7.55e+07	0.47	y	0.94	43:03	0.925	0.919-0.929	1560	78.2
13C-PCB-169	1.03e+08	1.28	y	1.22	50:39	1.088	1.082-1.092	1640	82.0	13C-PCB-188	7.55e+07	0.47	y	0.94	43:03	0.925	0.919-0.929	1560	78.2	13C-PCB-189	6.39e+07	0.46	y	0.72	52:28	1.127	1.120-1.132	1730	86.6
13C-PCB-170	5.10e+07	0.46	y	0.54	51:00	1.096	1.089-1.101	1850	92.3	13C-PCB-189	6.39e+07	0.46	y	0.72	52:28	1.127	1.120-1.132	1730	86.6	13C-PCB-194	5.80e+07	0.92	y	0.81	53:58	0.995	0.990-1.000	1790	89.6
13C-PCB-180	6.33e+07	0.46	y	0.67	49:32	1.064	1.059-1.069	1820	91.0	13C-PCB-194	5.80e+07	0.92	y	0.81	53:58	0.995	0.990-1.000	1790	89.6	13C-PCB-202	7.95e+07	0.91	y	0.83	48:28	1.041	1.036-1.046	1850	92.6
13C-PCB-188	7.55e+07	0.47	y	0.94	43:03	0.925	0.919-0.929	1560	78.2	13C-PCB-194	5.80e+07	0.92	y	0.81	53:58	0.995	0.990-1.000	1790	89.6	13C-PCB-206									

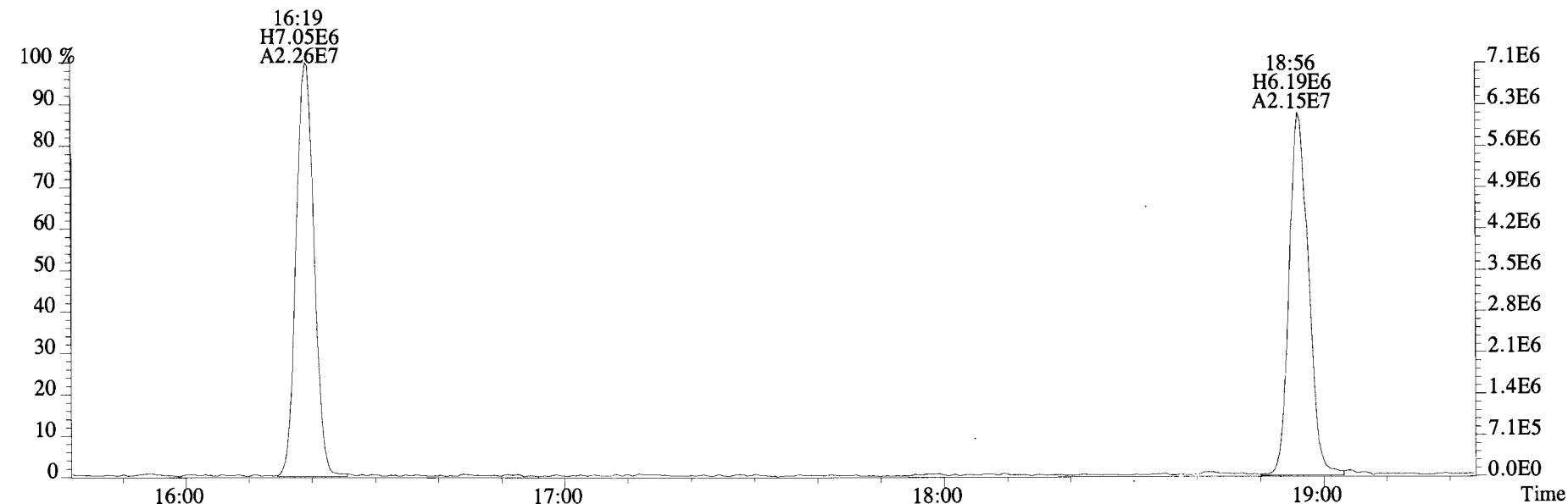
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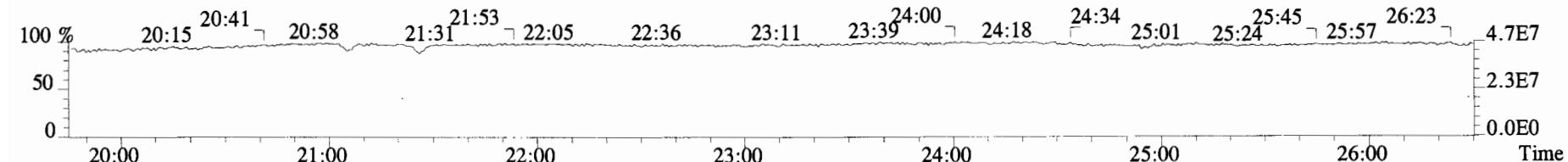
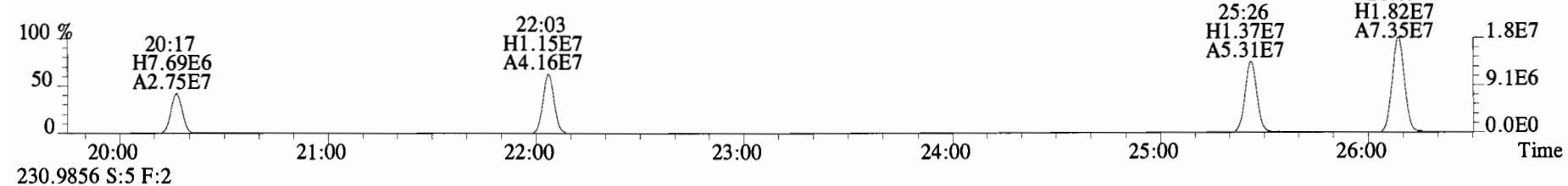
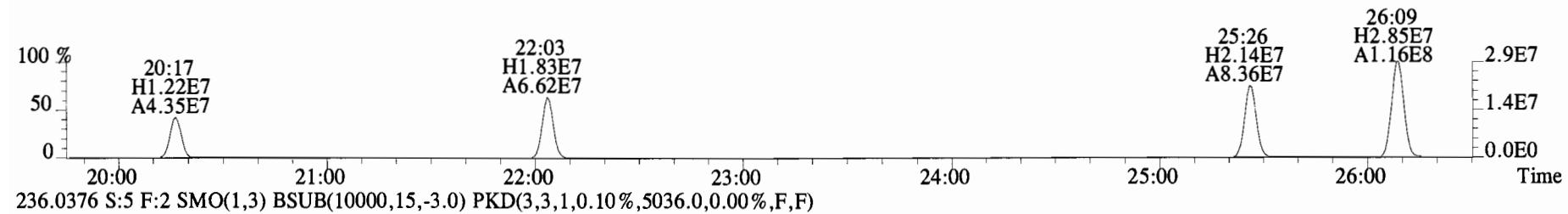
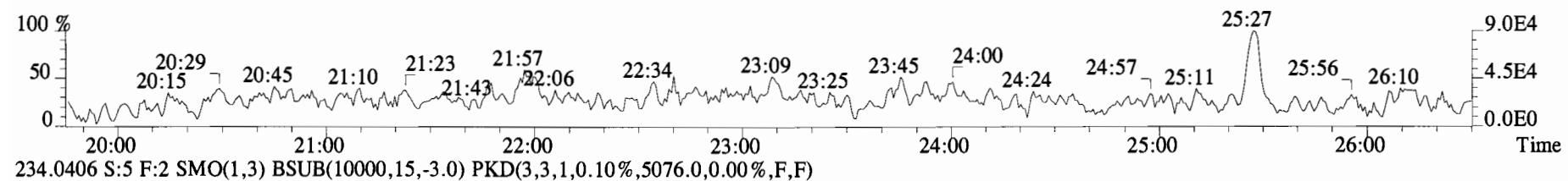
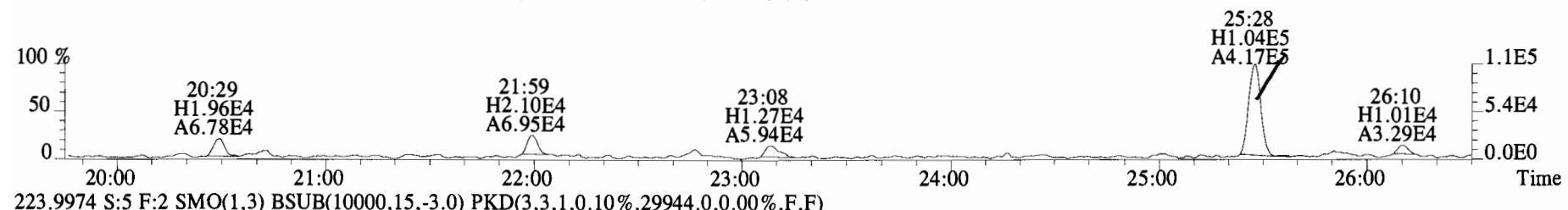
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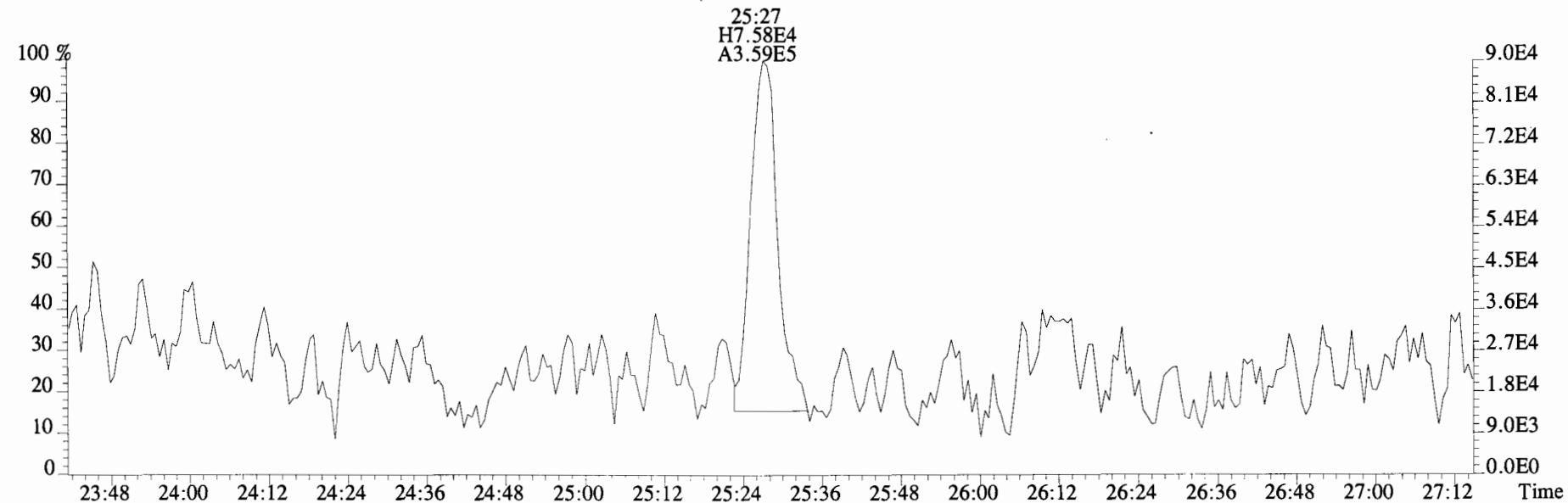
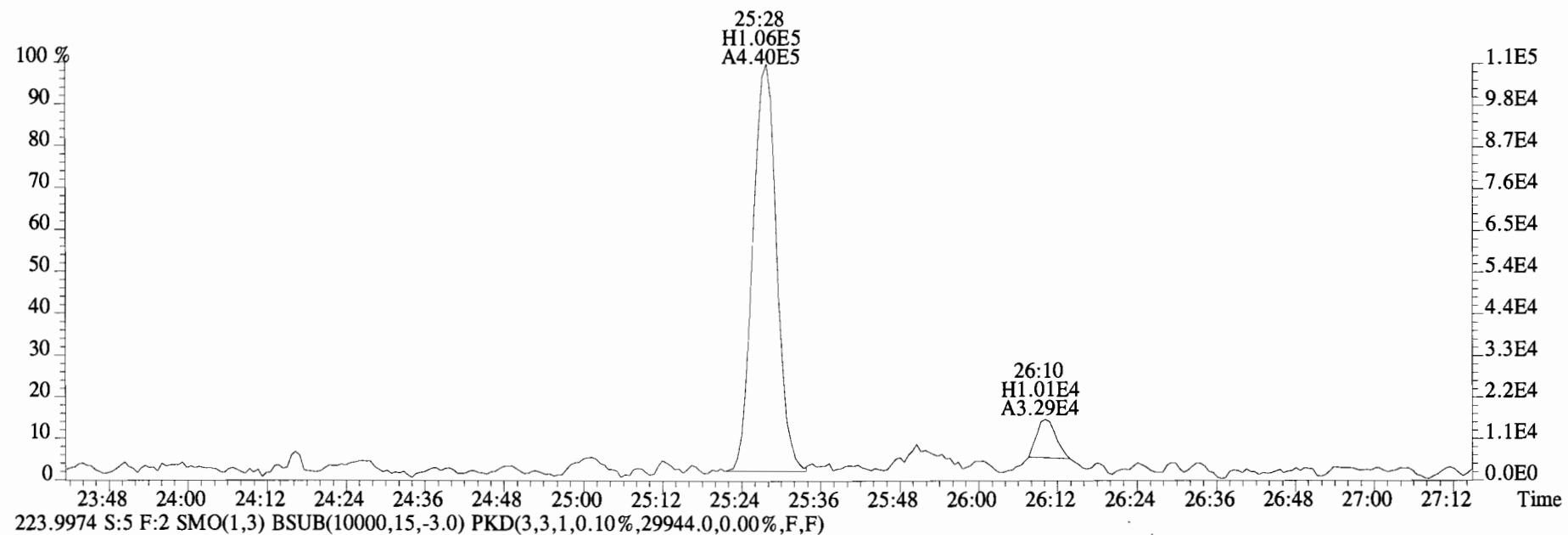
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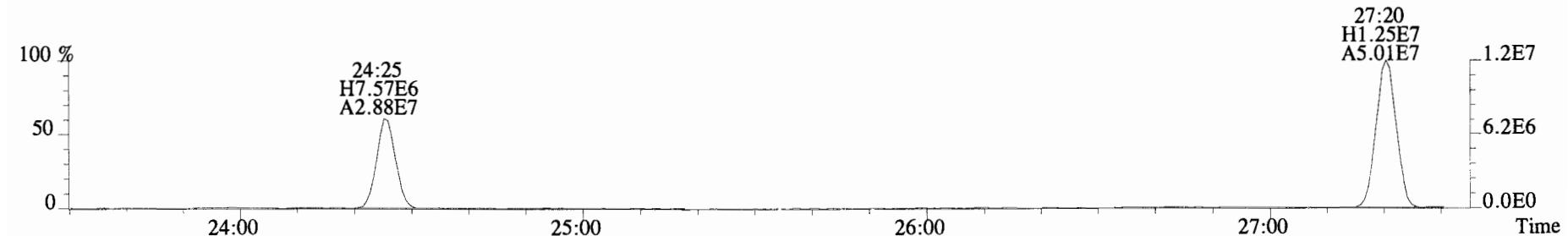
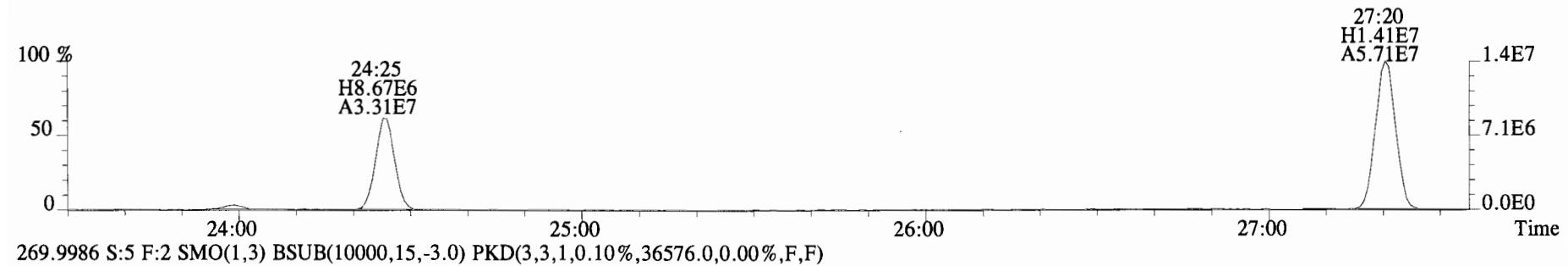
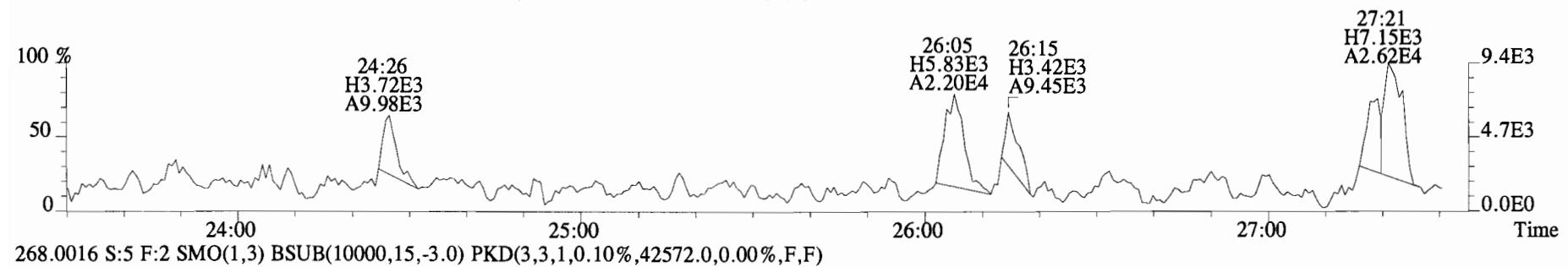
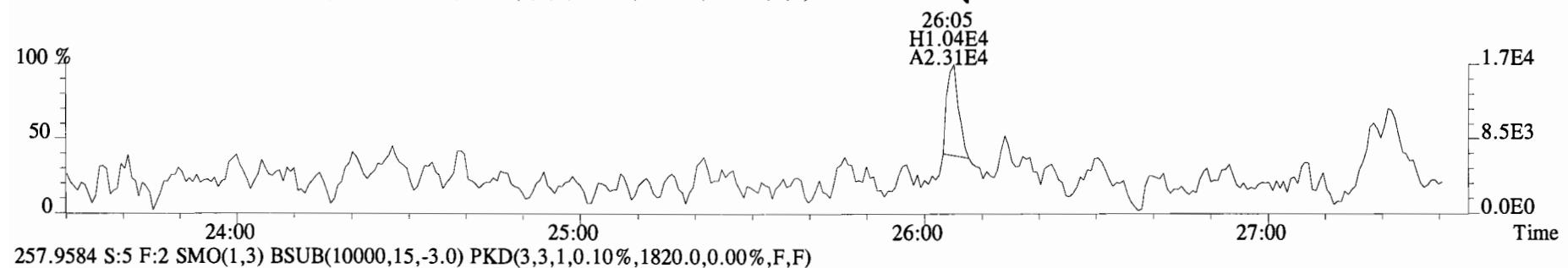
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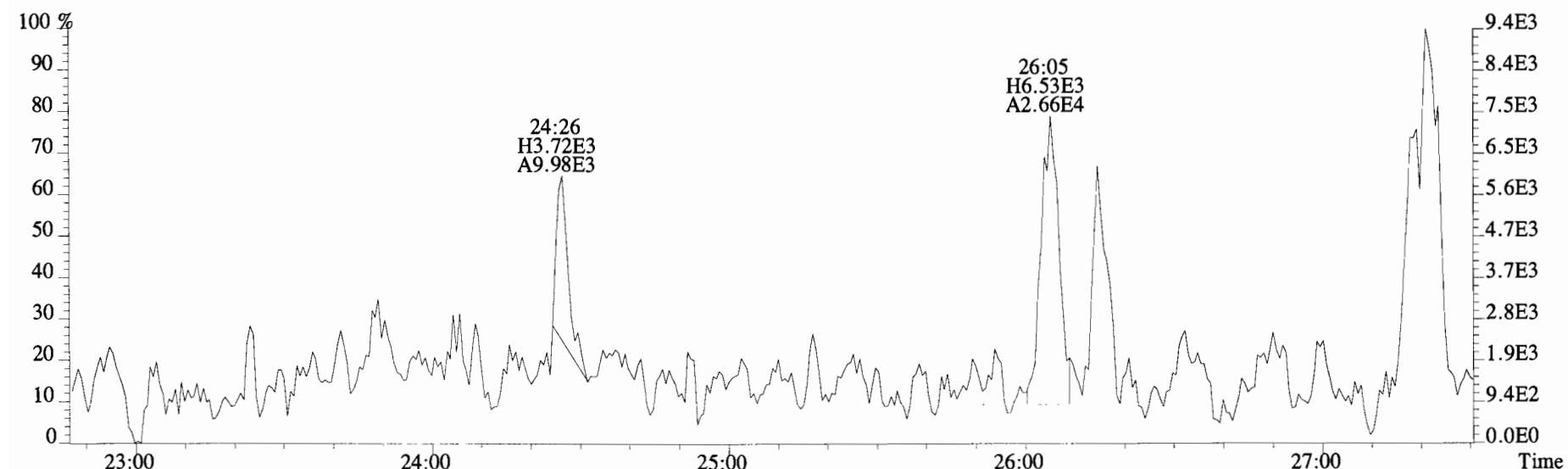
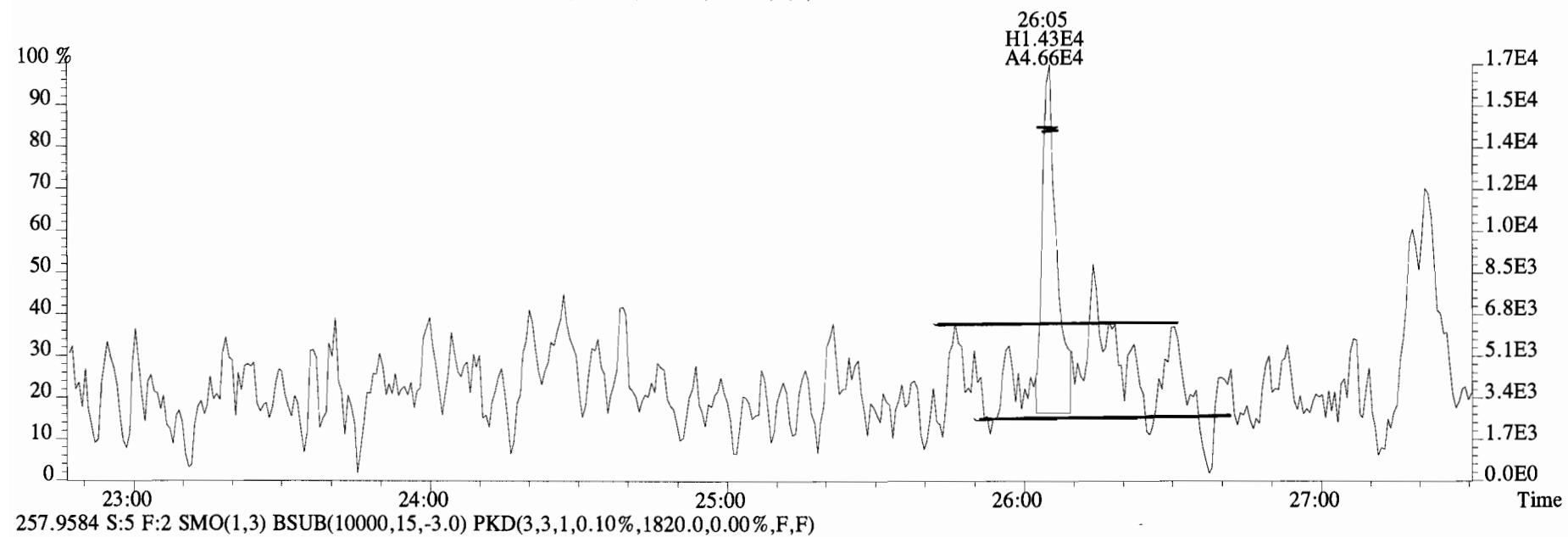
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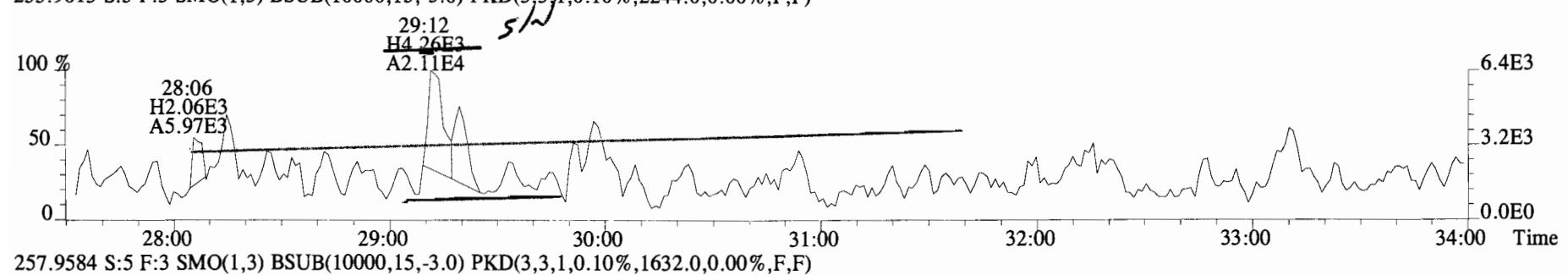
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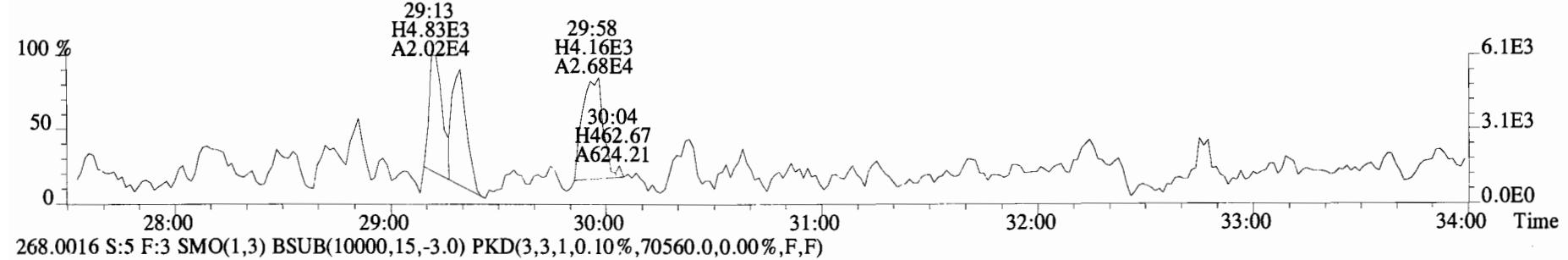
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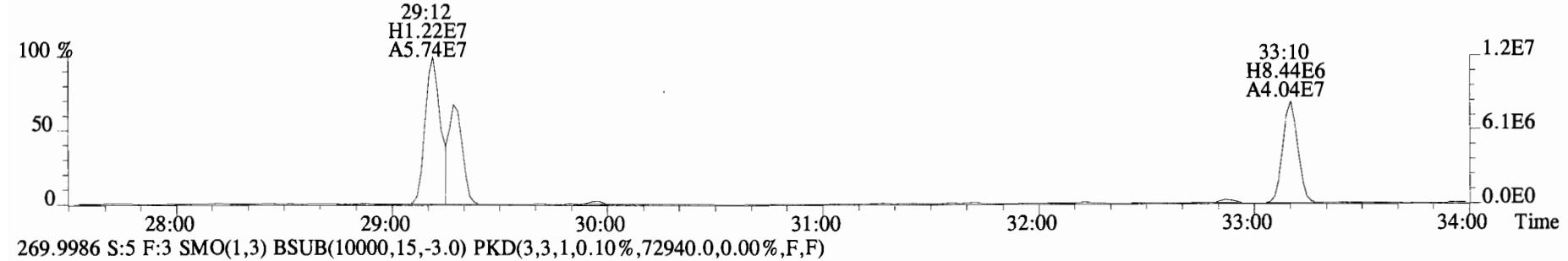
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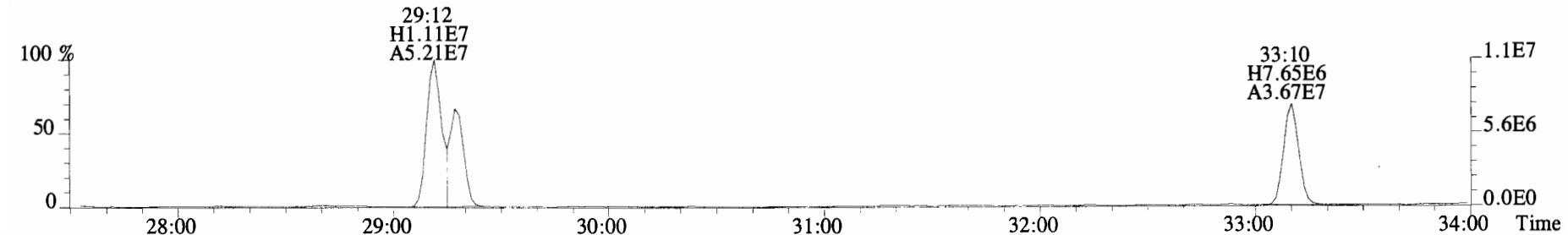
257.9584 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1632.0,0.00%,F,F)



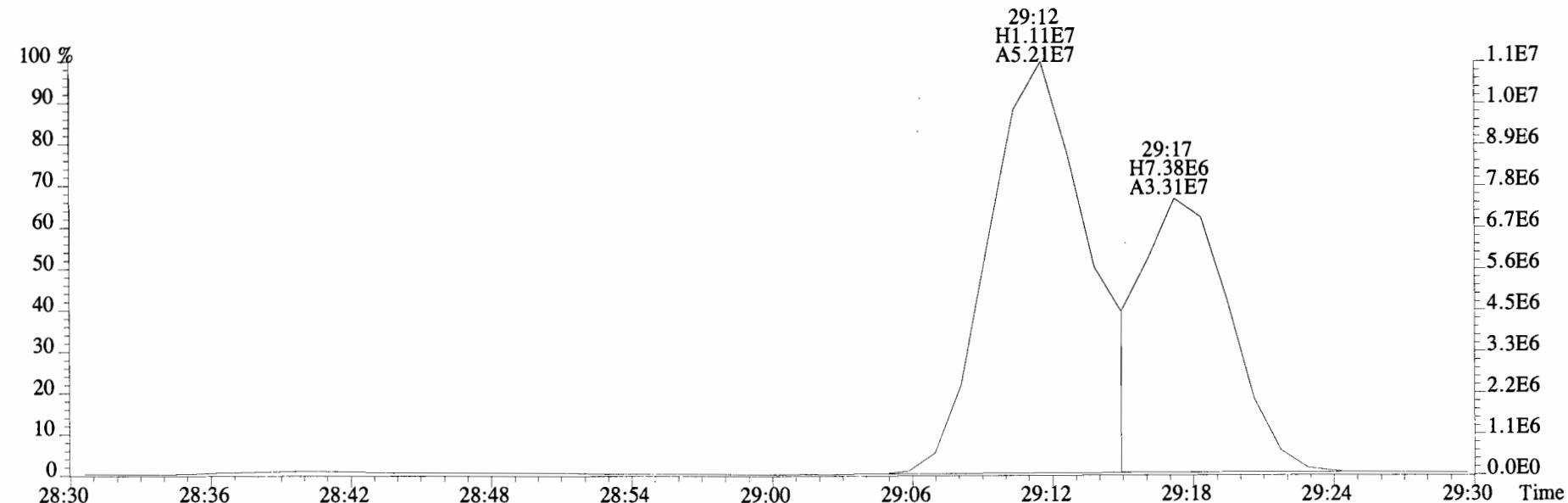
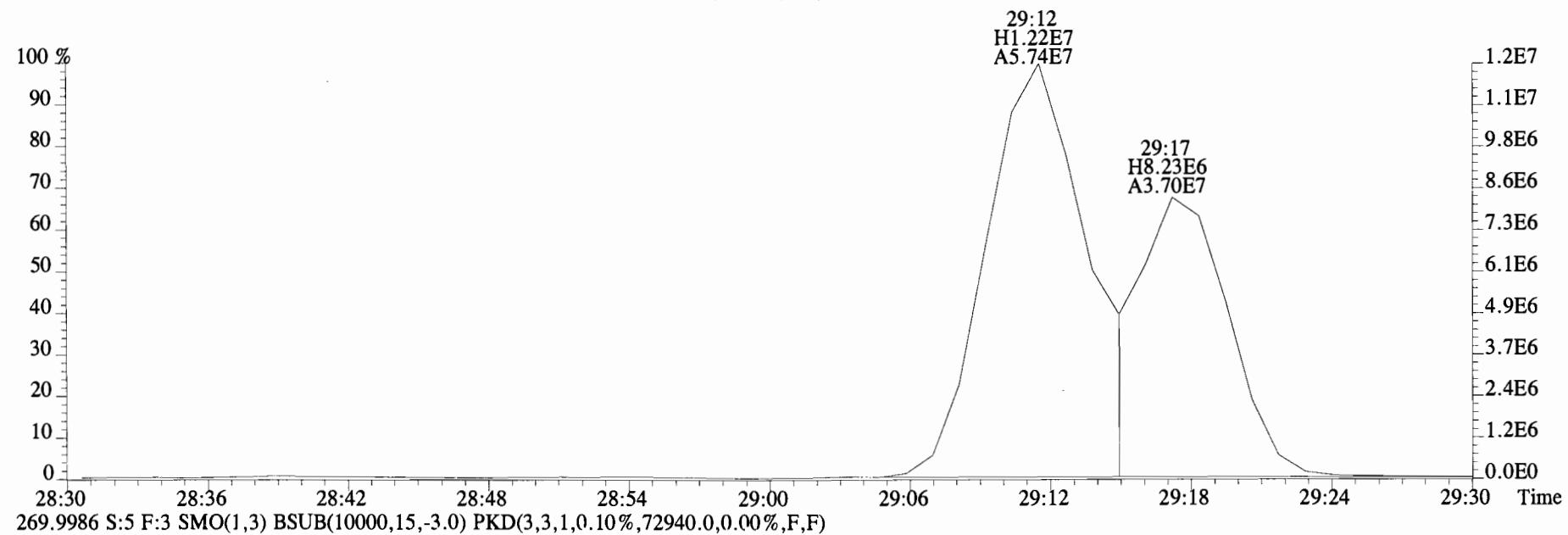
268.0016 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,70560.0,0.00%,F,F)



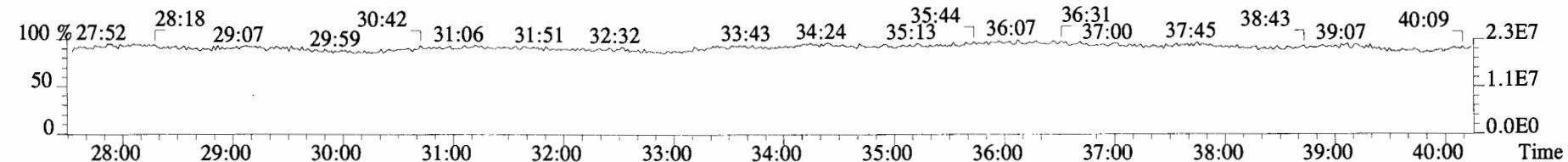
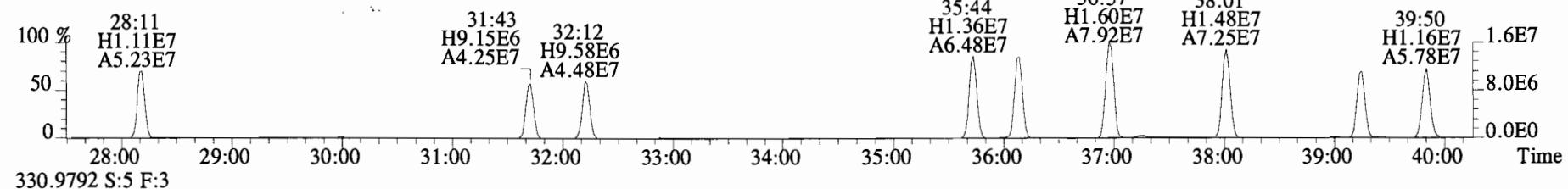
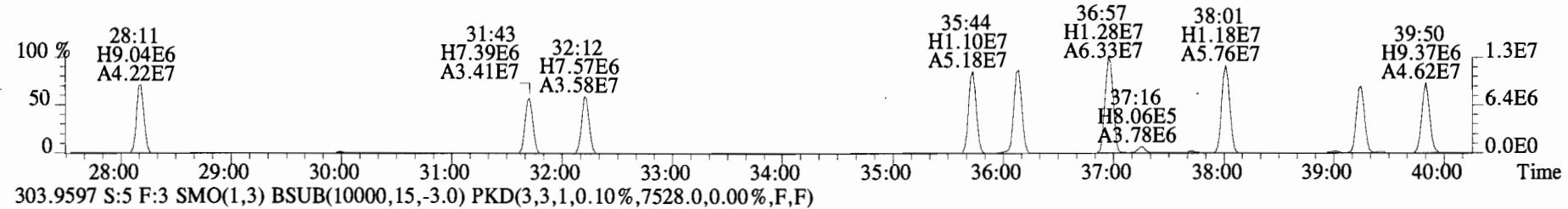
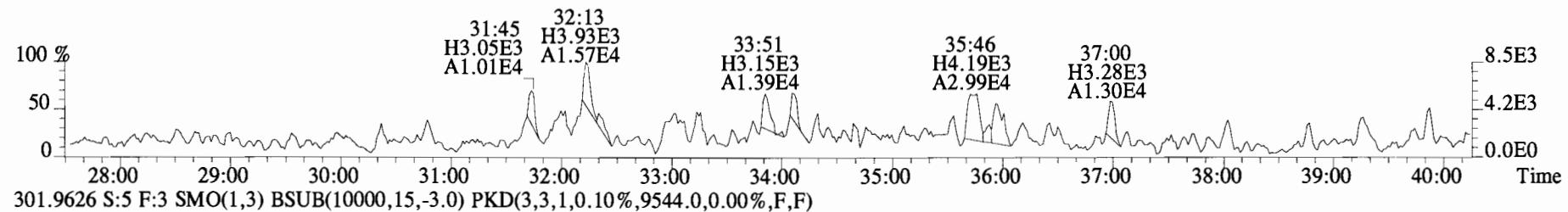
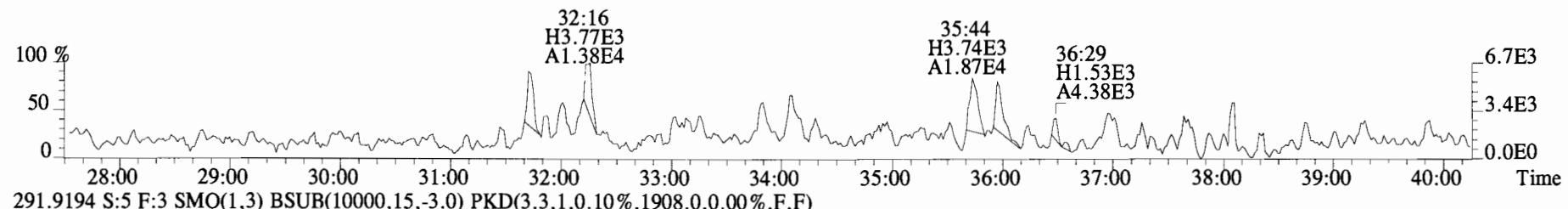
269.9986 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,72940.0,0.00%,F,F)



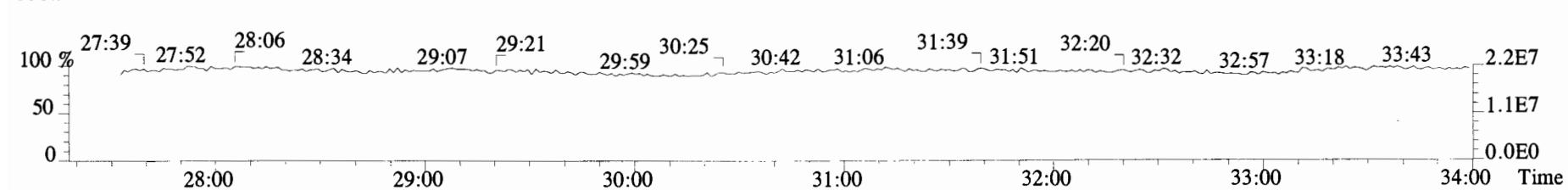
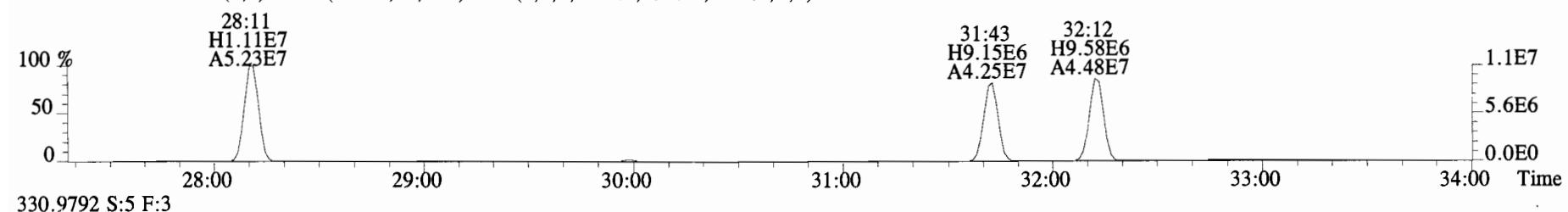
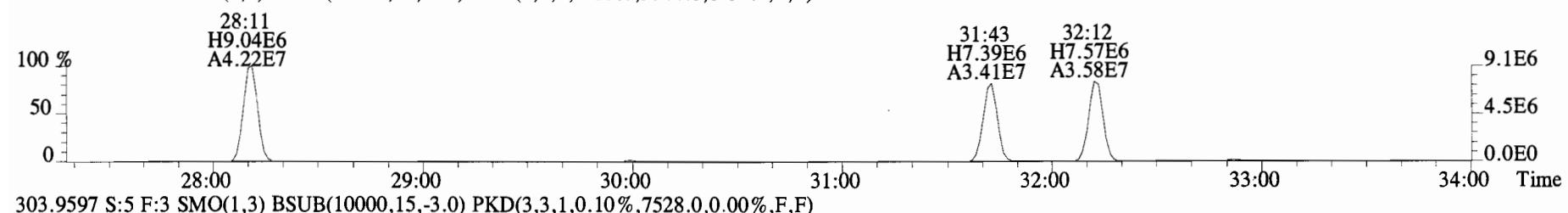
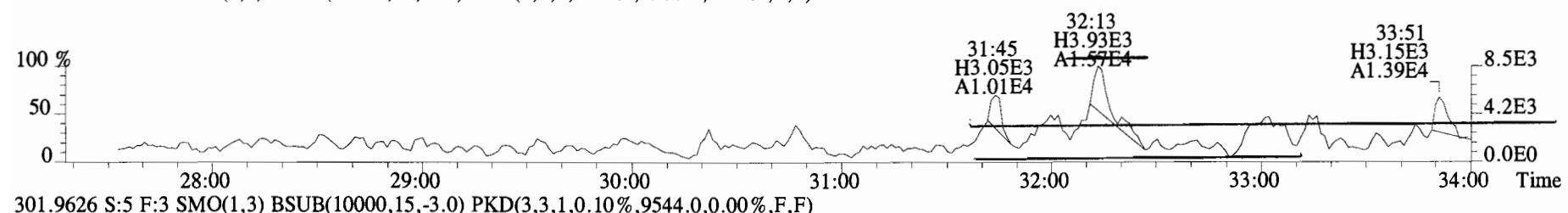
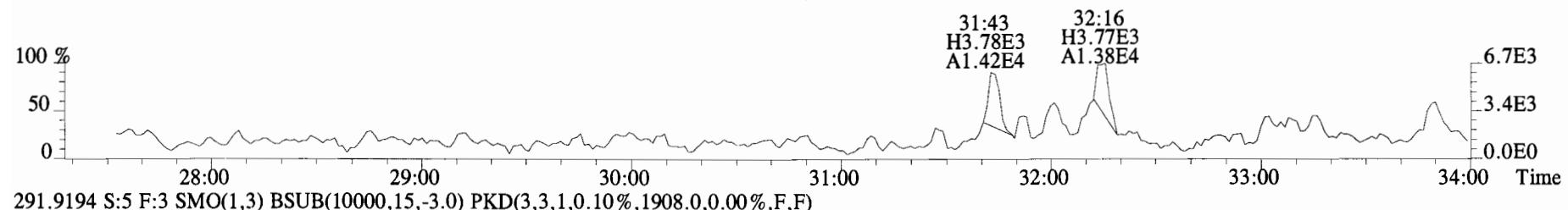
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
268.0016 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,70560.0,0.00%,F,F)



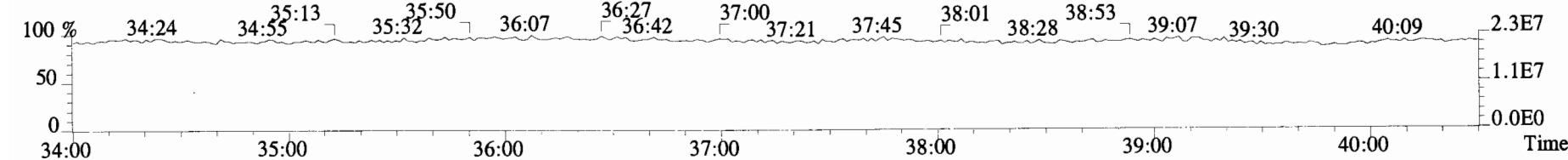
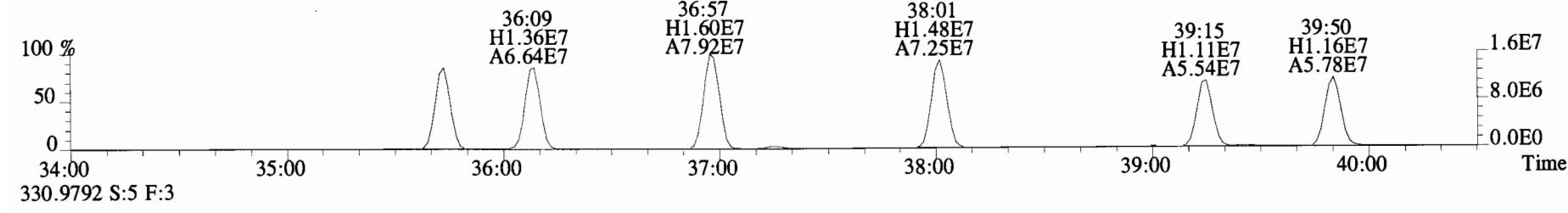
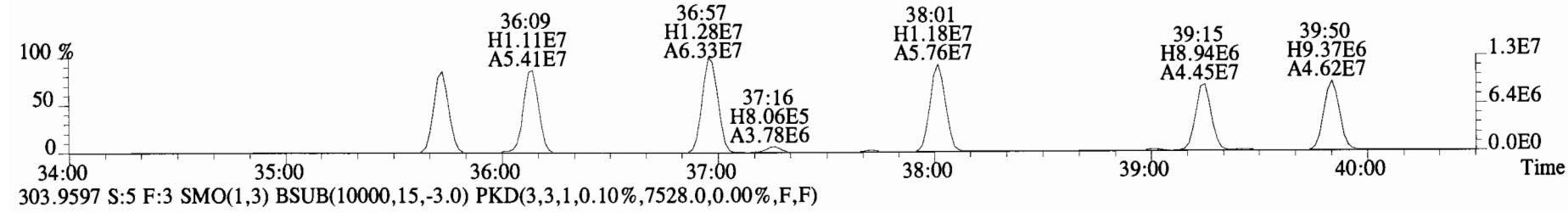
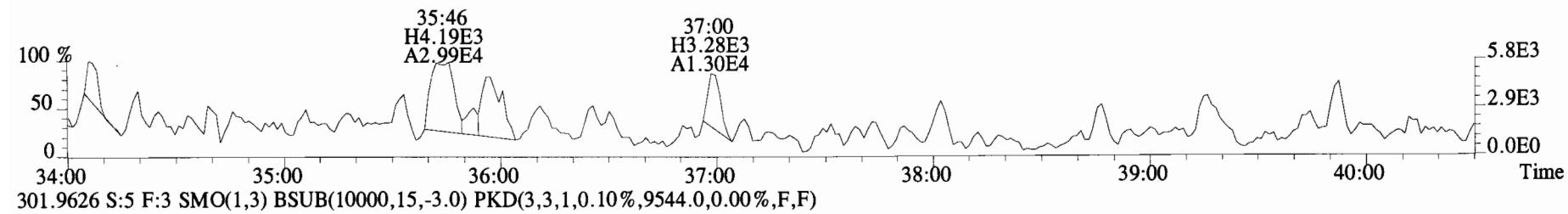
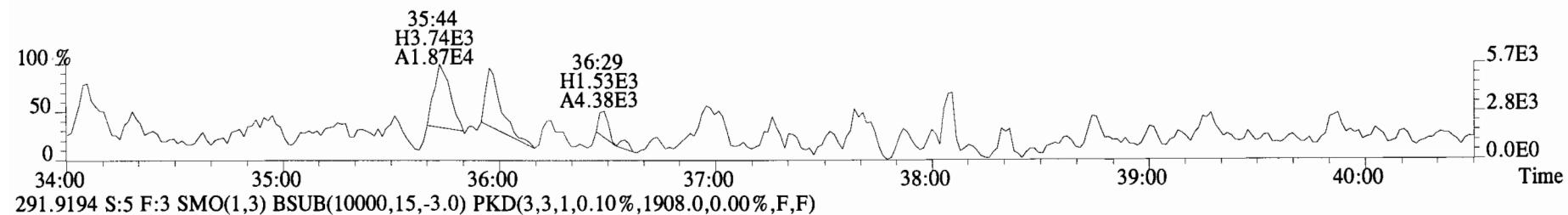
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI + Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 289.9224 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1672.0,0.00%,F,F)



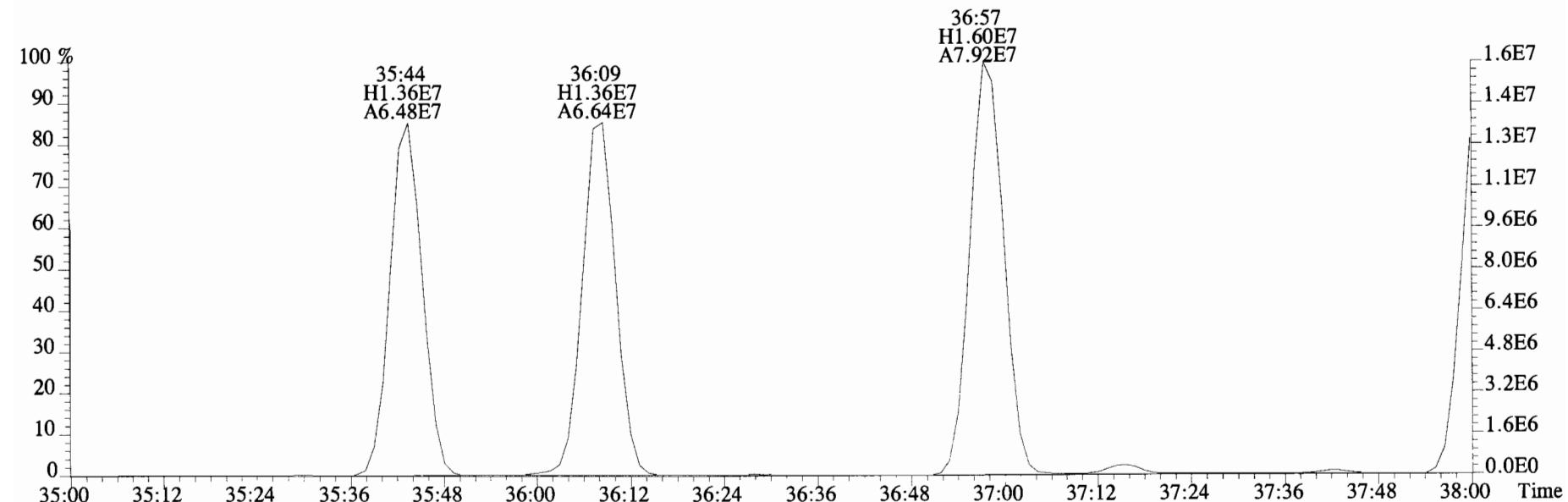
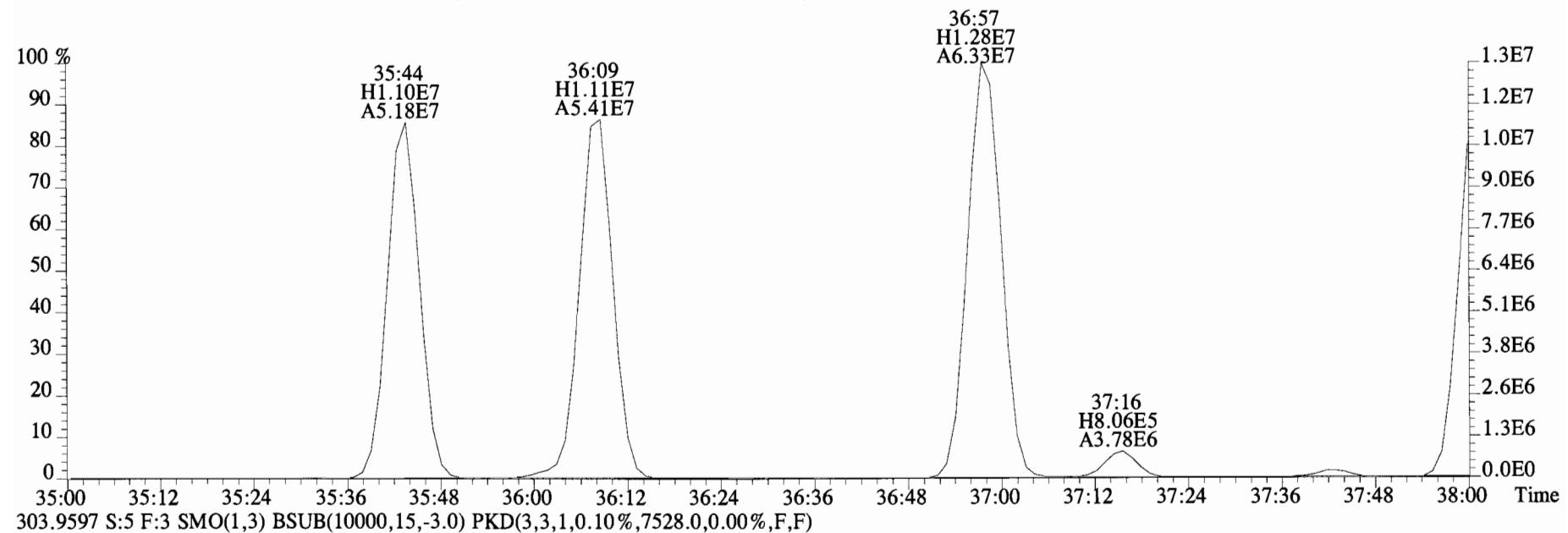
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 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 289.9224 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1672.0,0.00%,F,F)



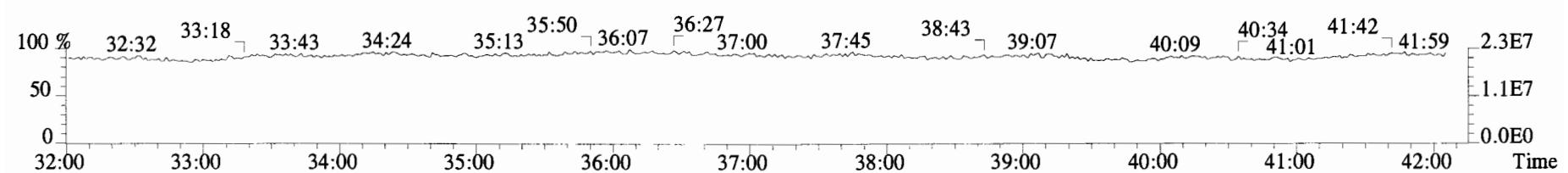
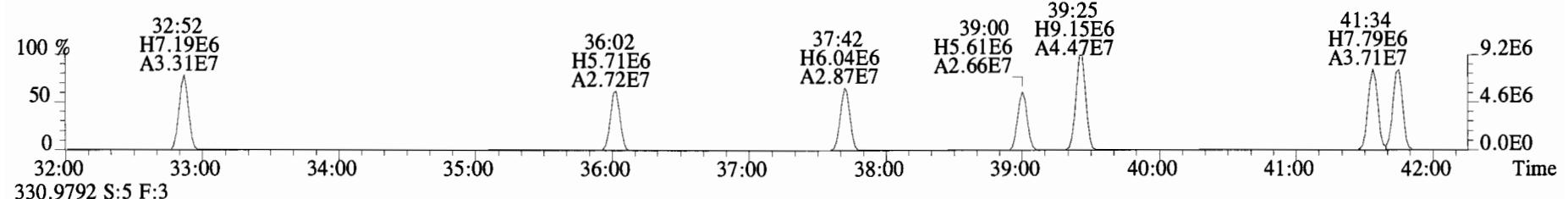
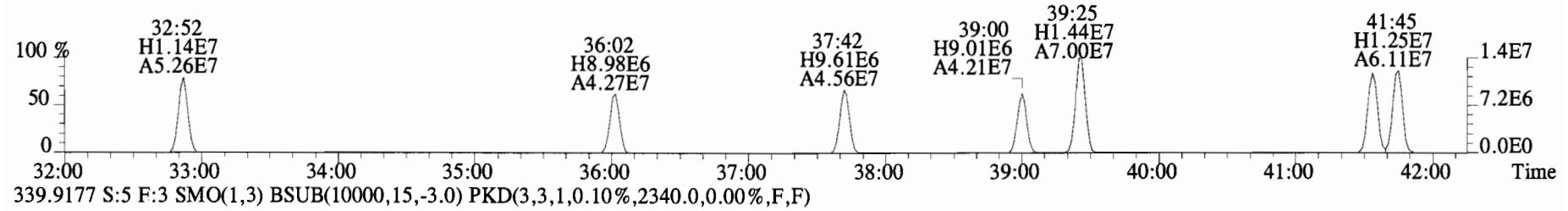
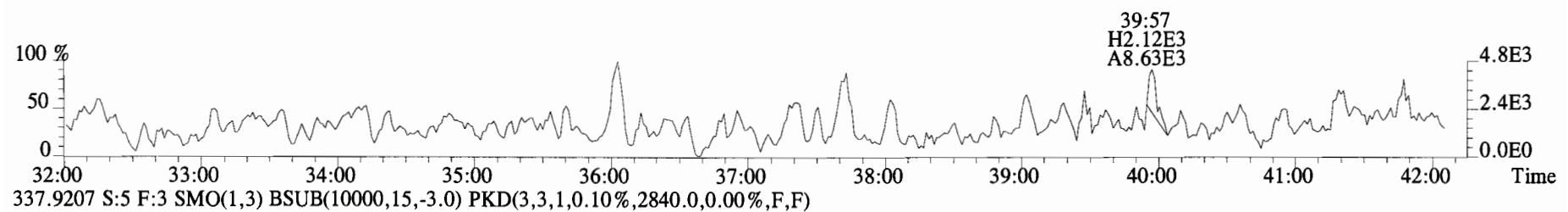
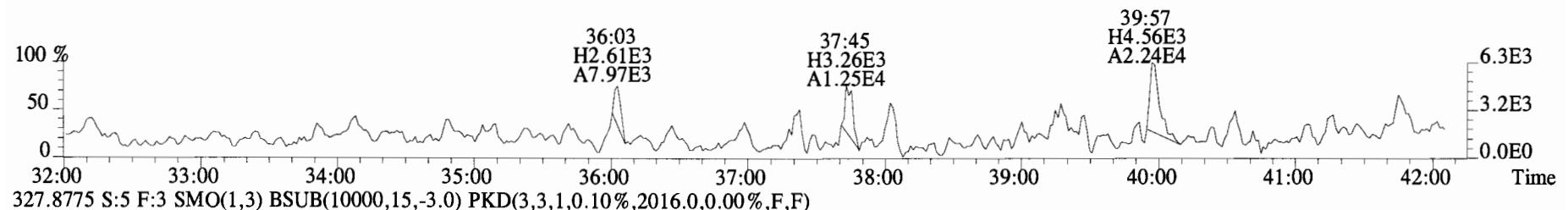
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 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
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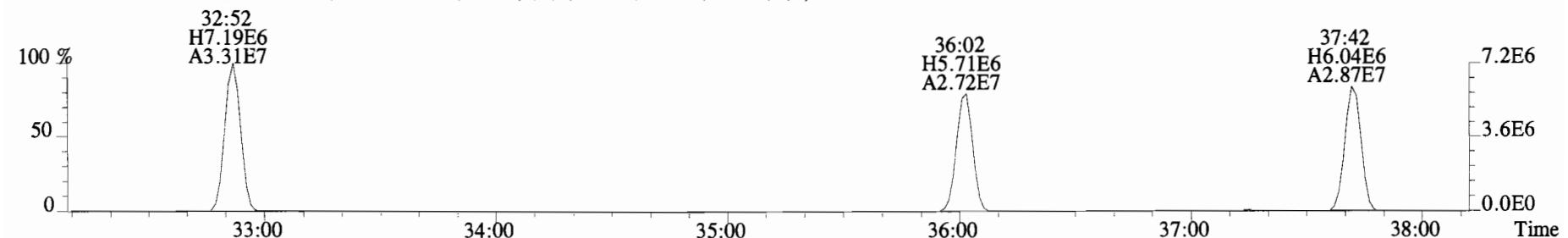
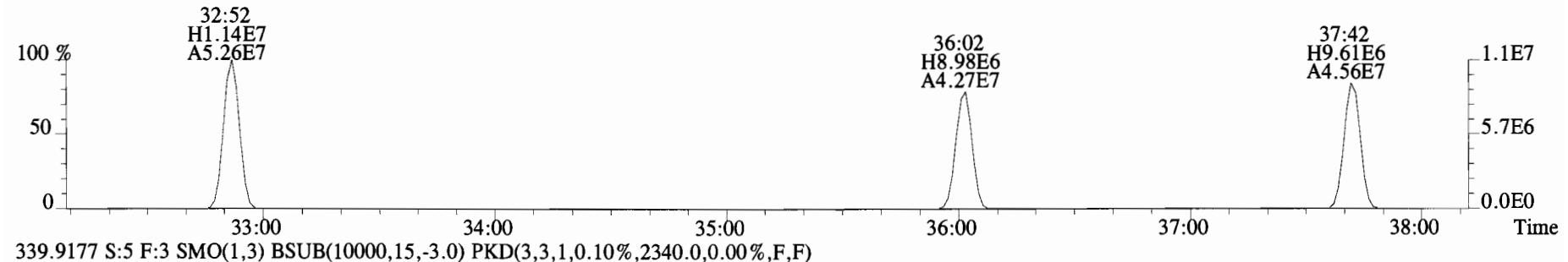
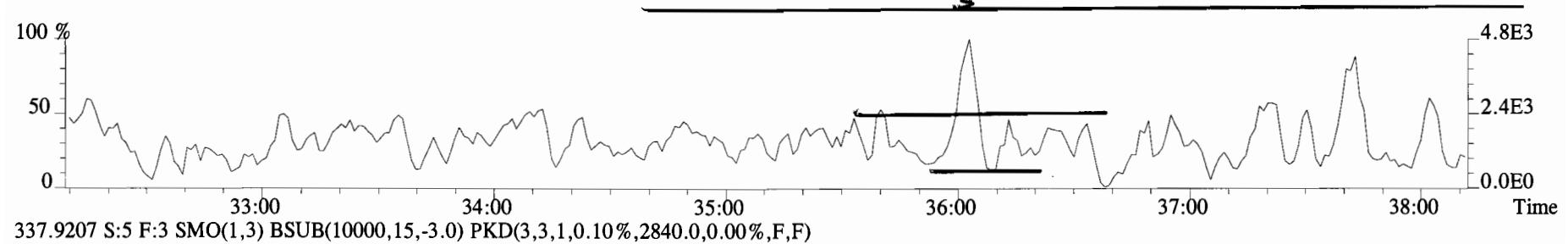
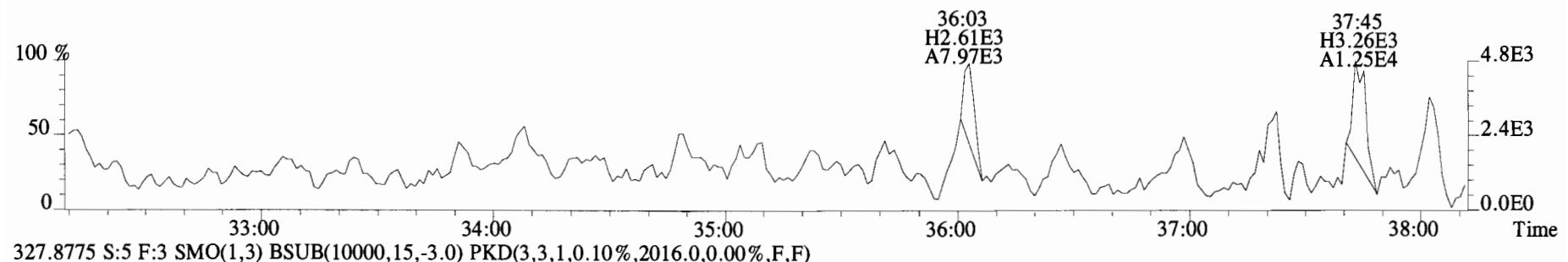
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
301.9626 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9544.0,0.00%,F,F)



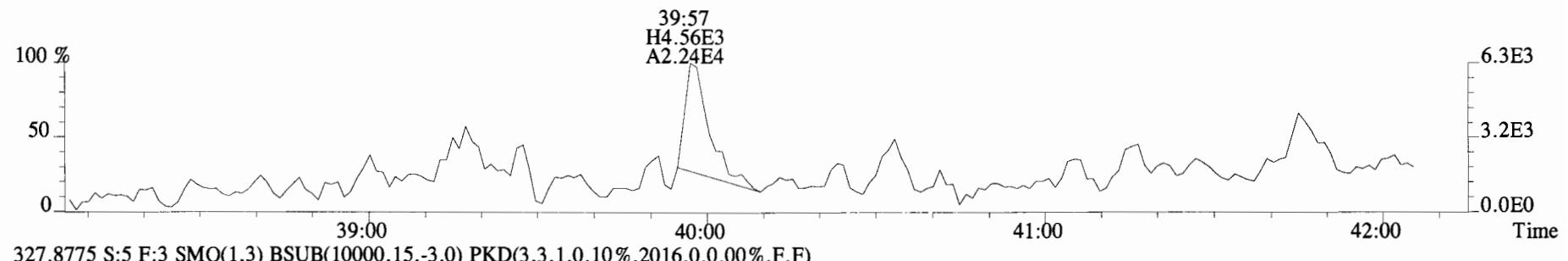
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 325.8804 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1648.0,0.00%,F,F)



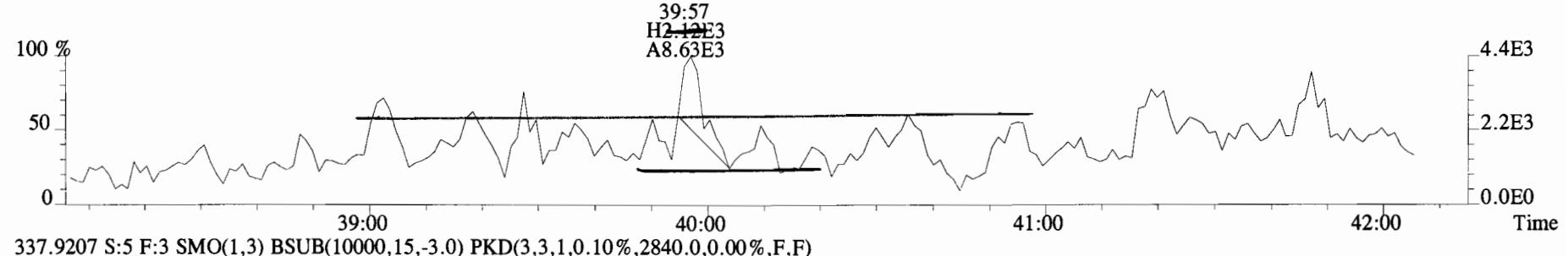
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
325.8804 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1648.0,0.00%,F,F)



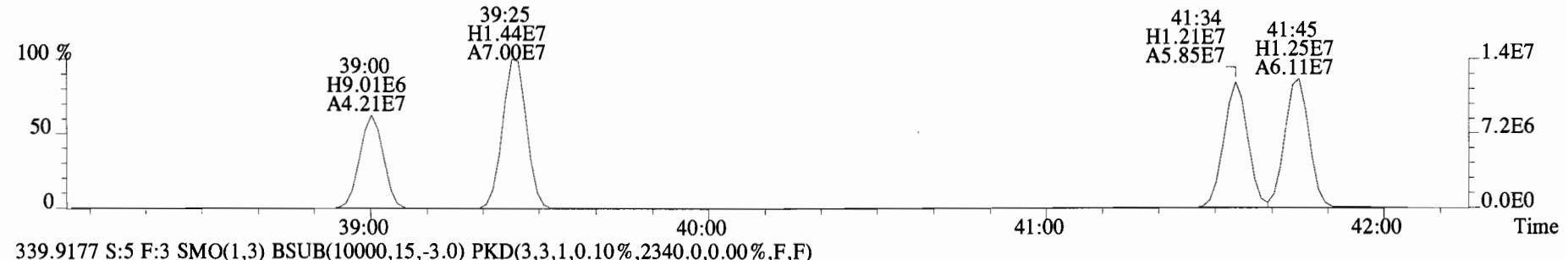
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI + Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 325.8804 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1648.0,0.00%,F,F)



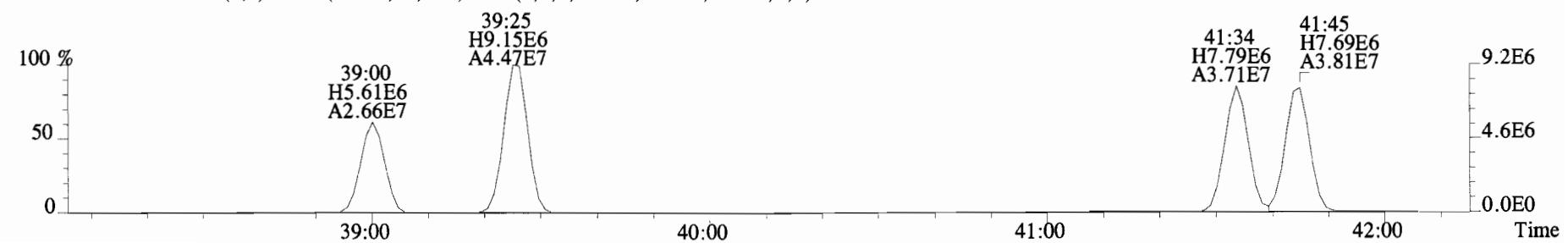
327.8775 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2016.0,0.00%,F,F)



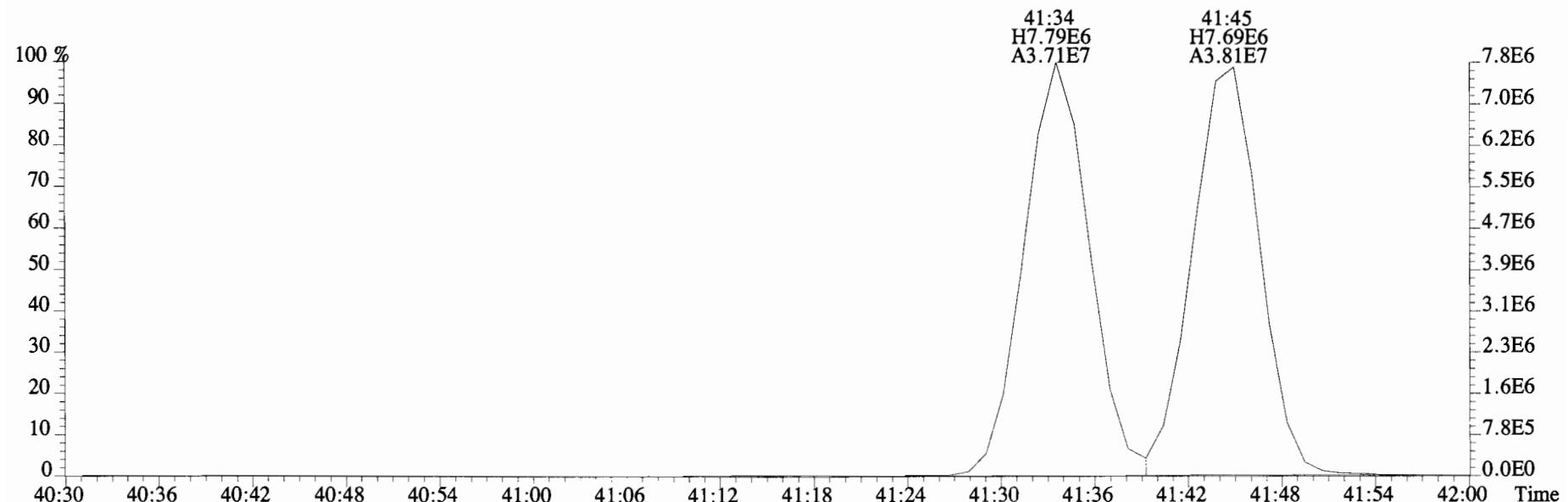
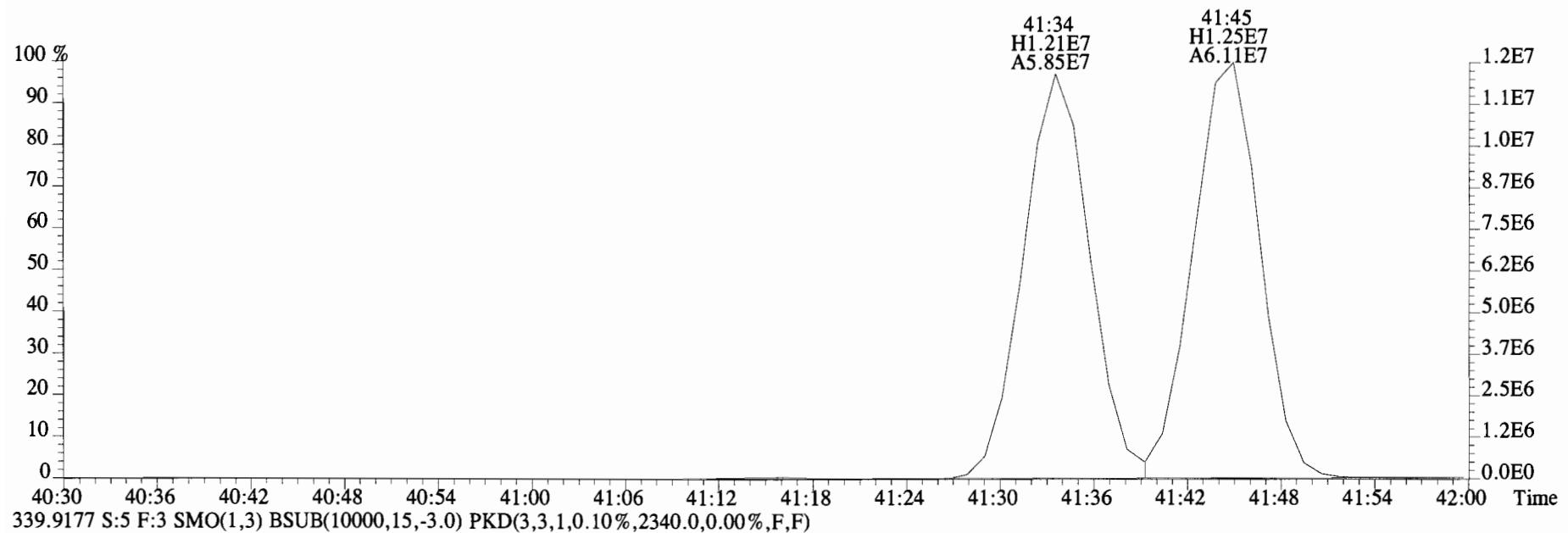
337.9207 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2840.0,0.00%,F,F)



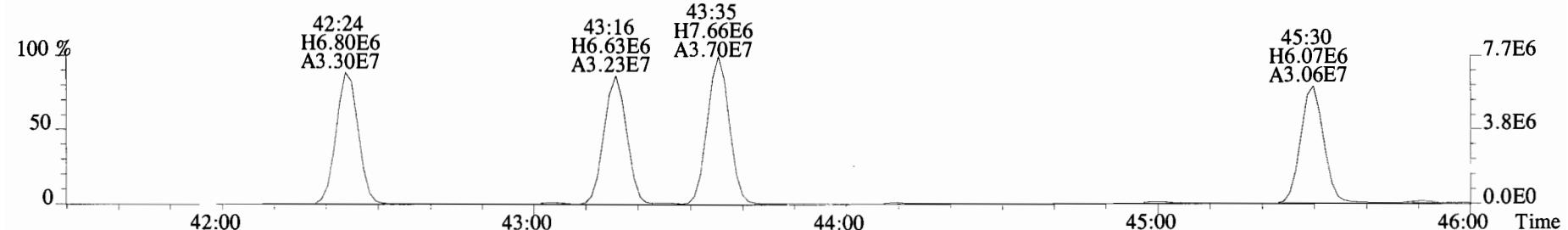
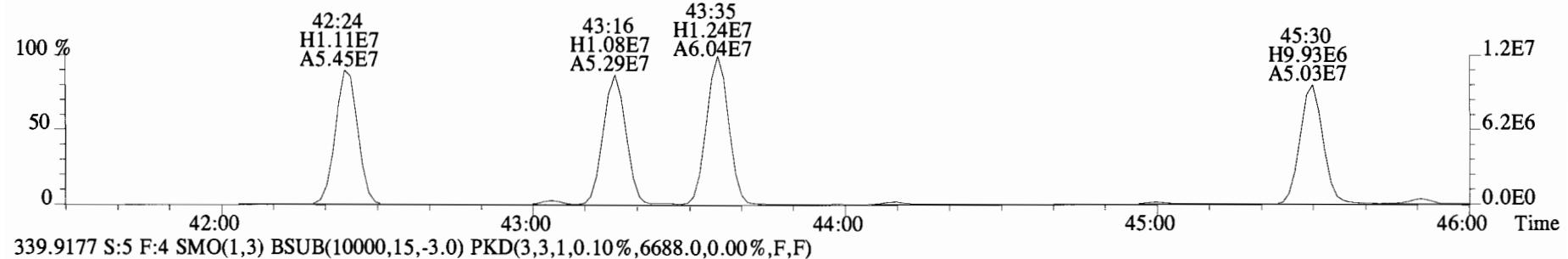
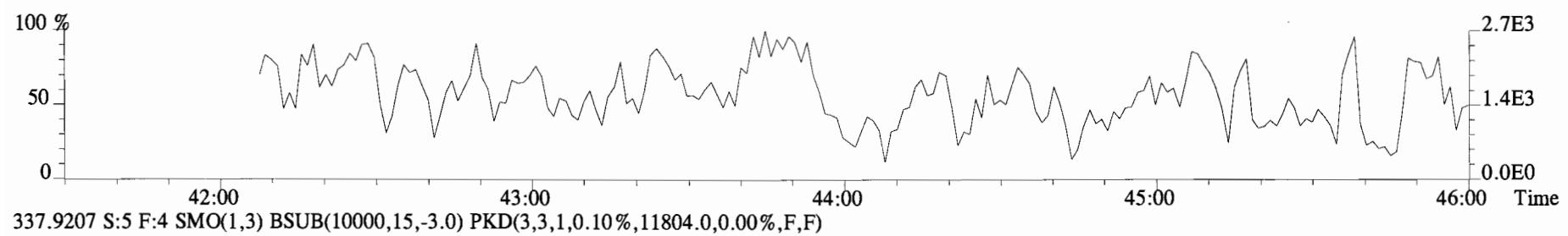
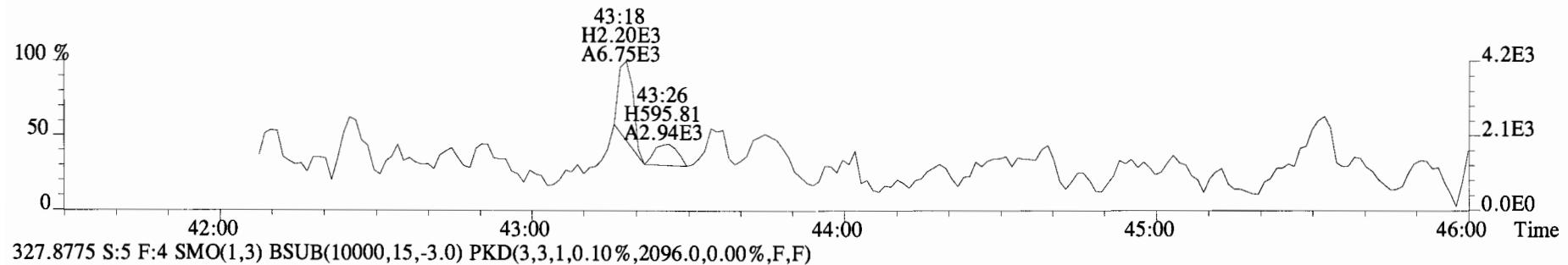
339.9177 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2340.0,0.00%,F,F)



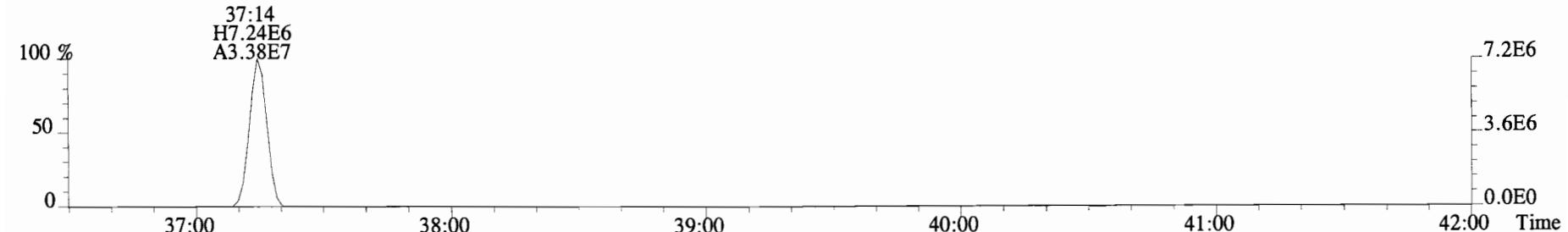
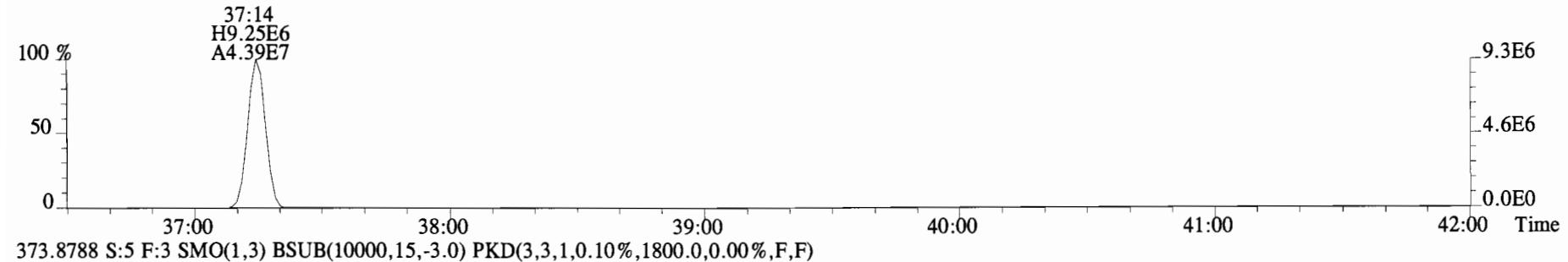
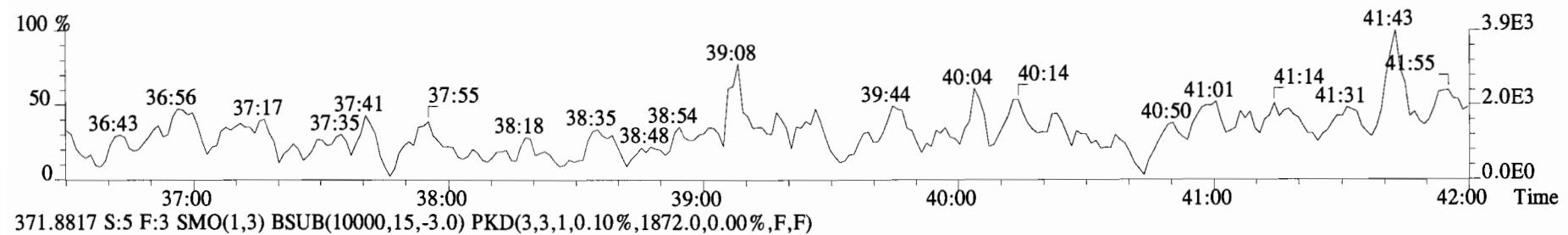
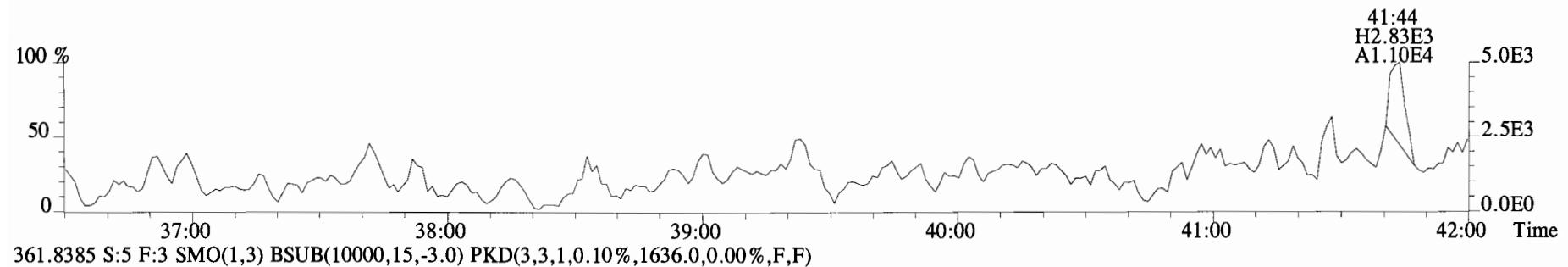
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
337.9207 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2840.0,0.00%,F,F)



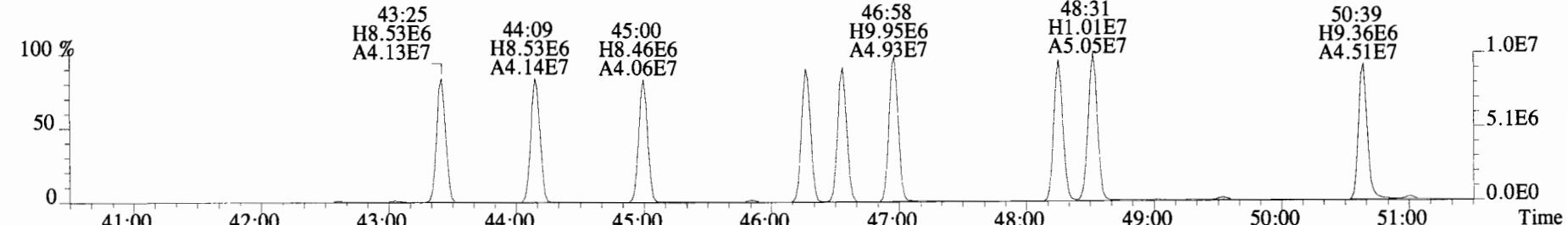
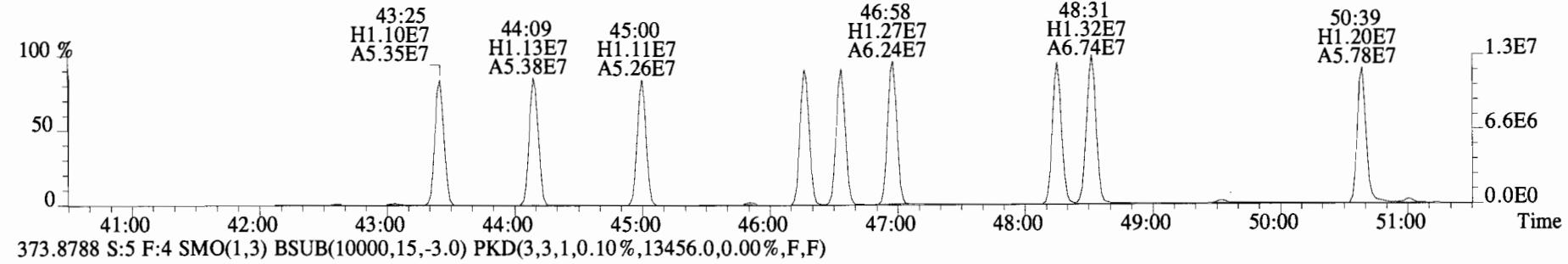
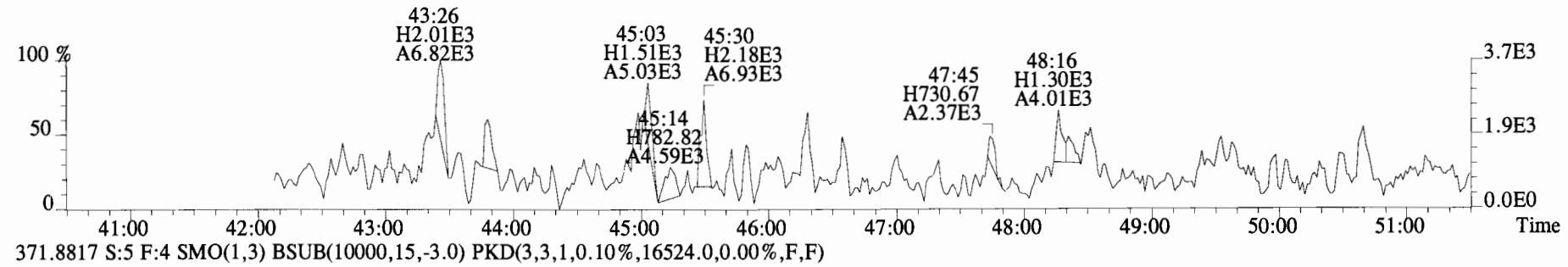
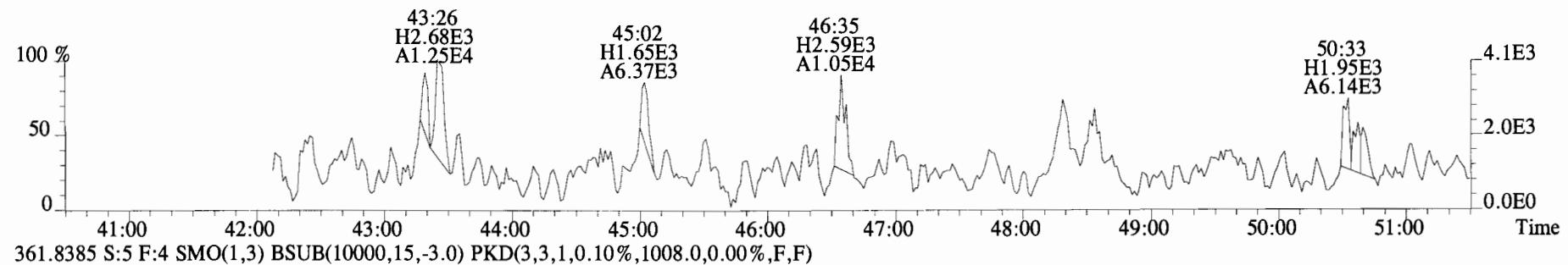
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
325.8804 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1644.0,0.00%,F,F)



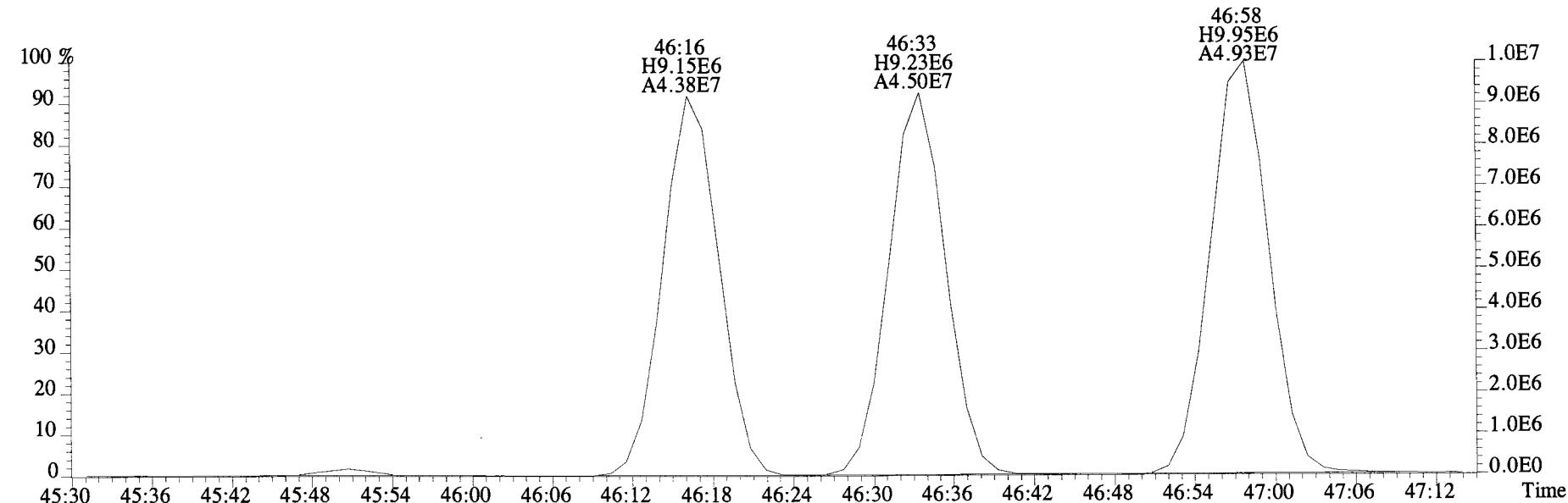
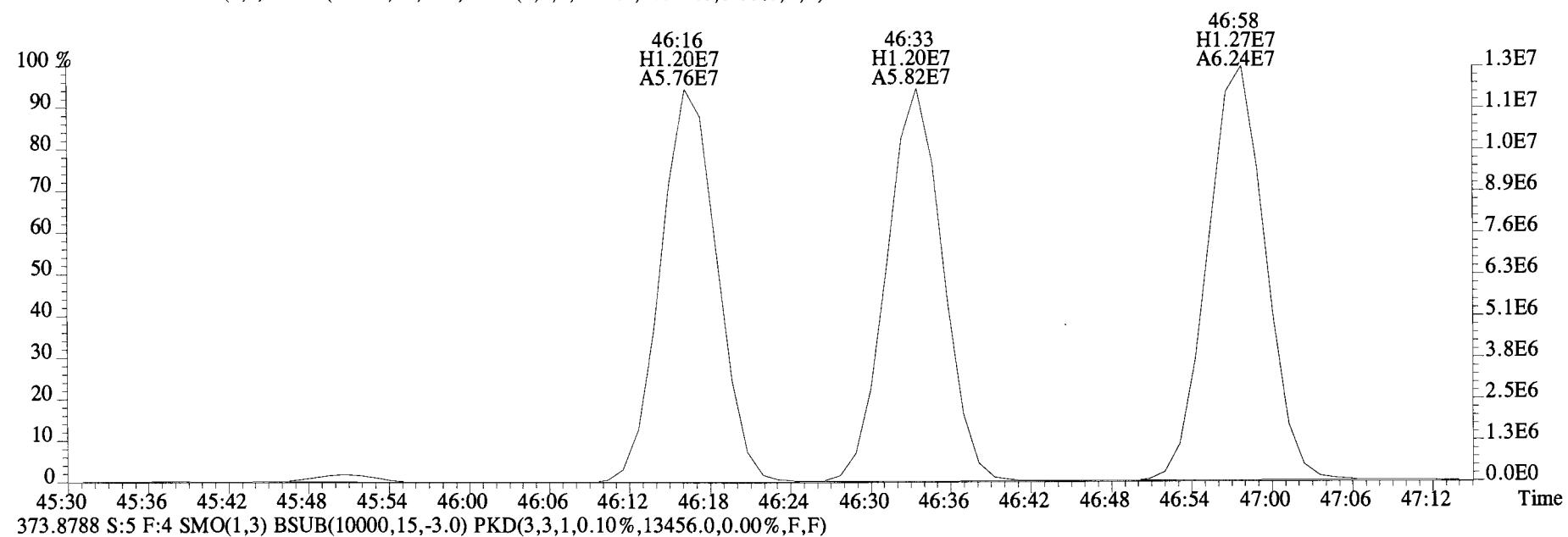
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
359.8415 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1752.0,0.00%,F,F)



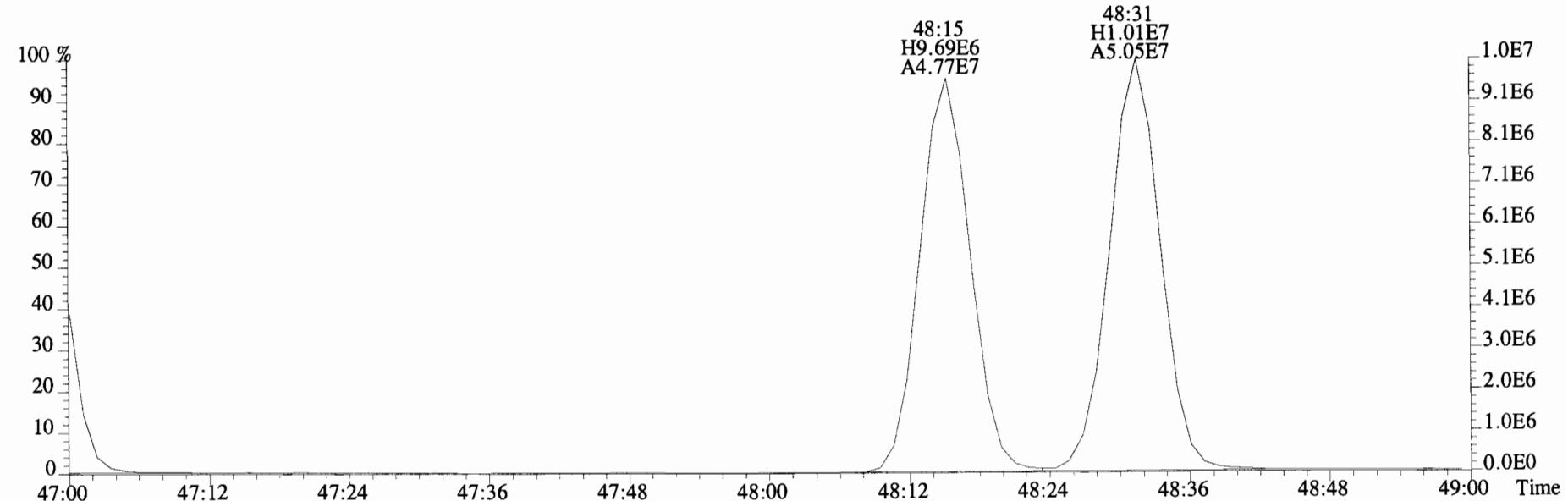
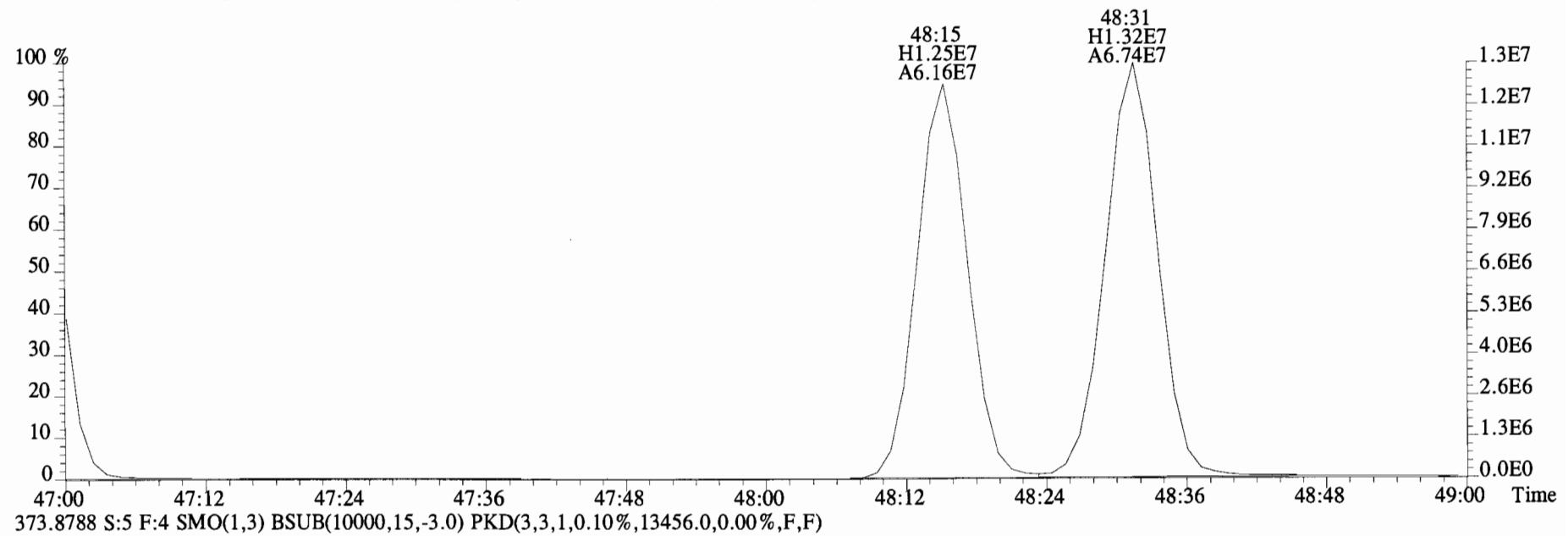
File:140919E1 #1-544 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 359.8415 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1380.0,0.00%,F,F)



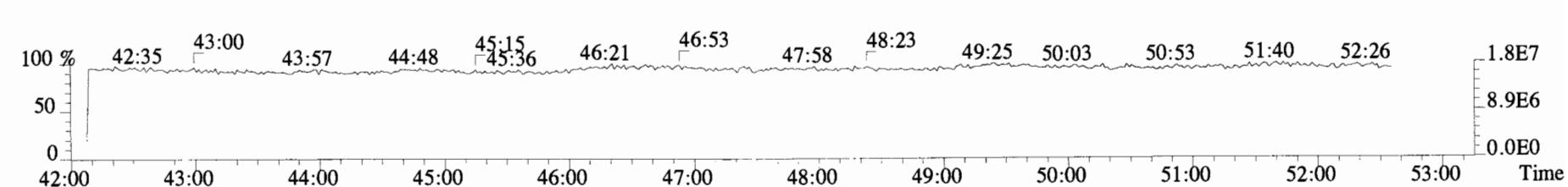
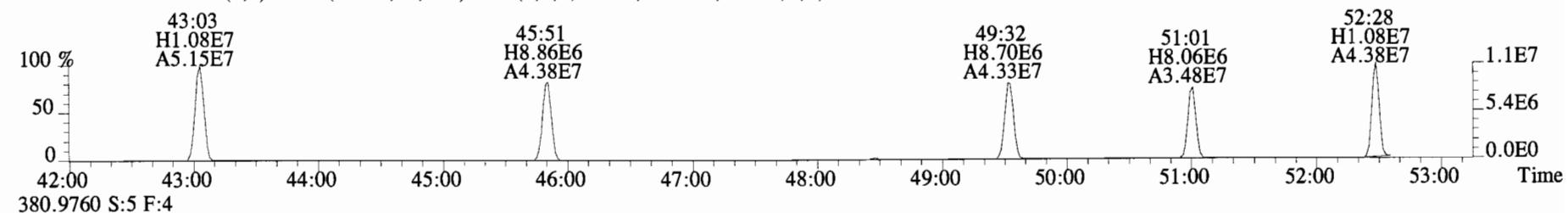
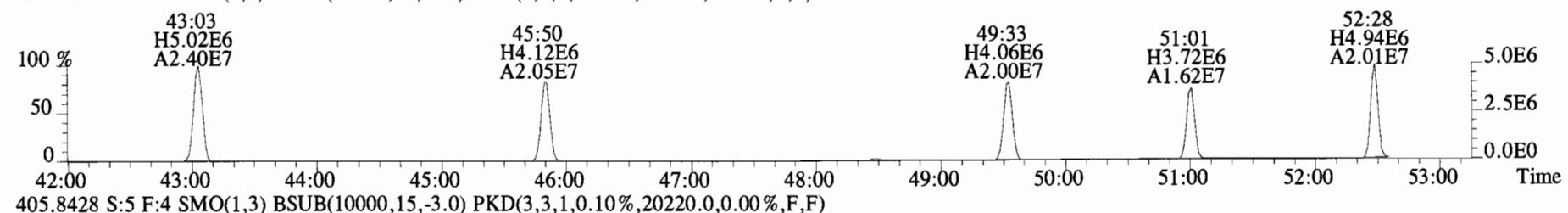
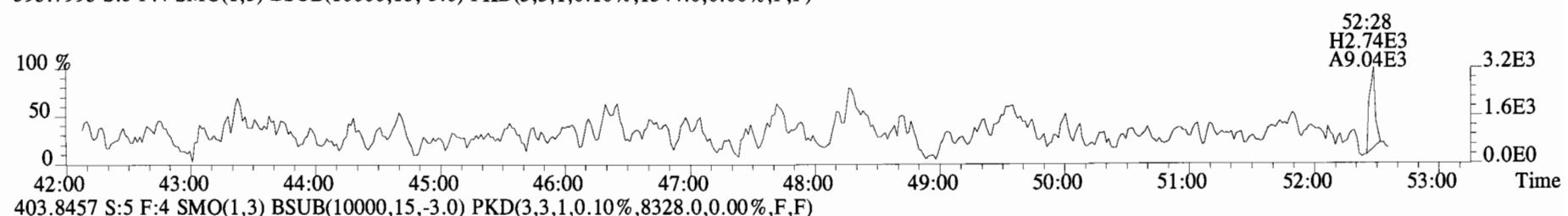
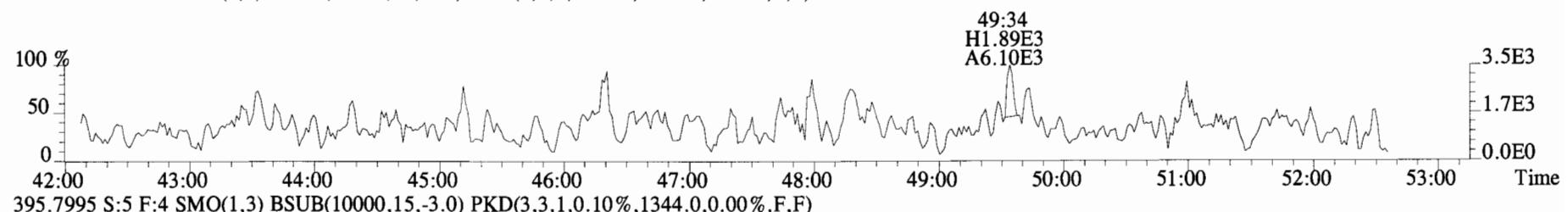
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
371.8817 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,16524.0,0.00%,F,F)



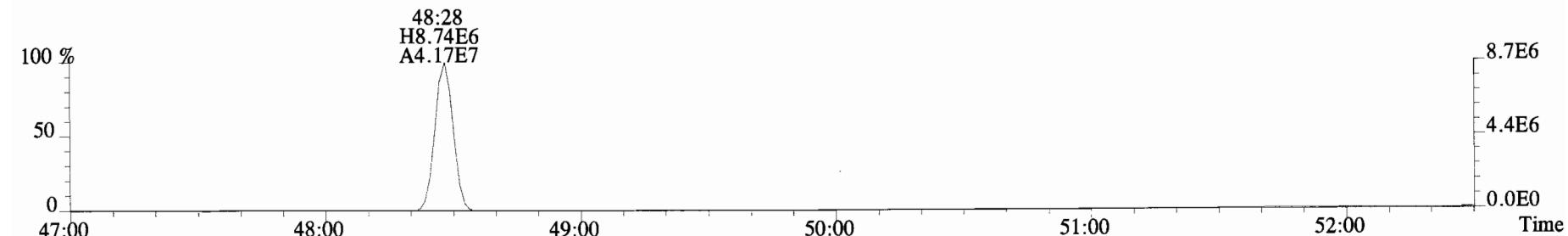
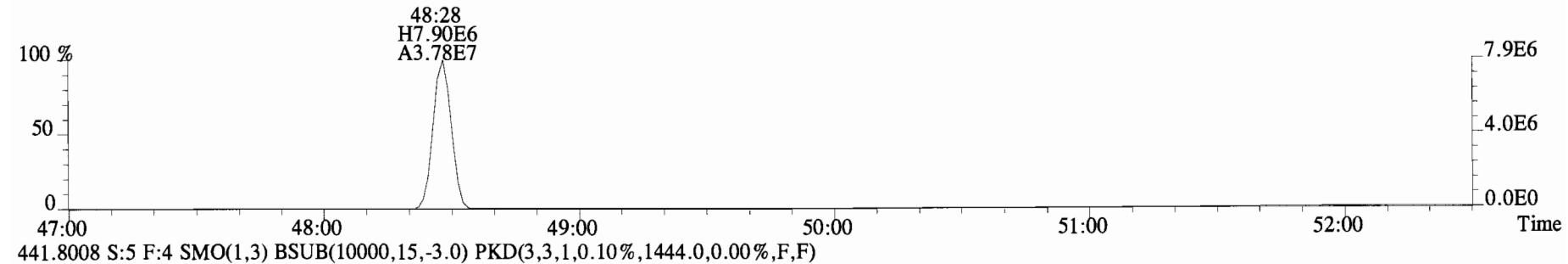
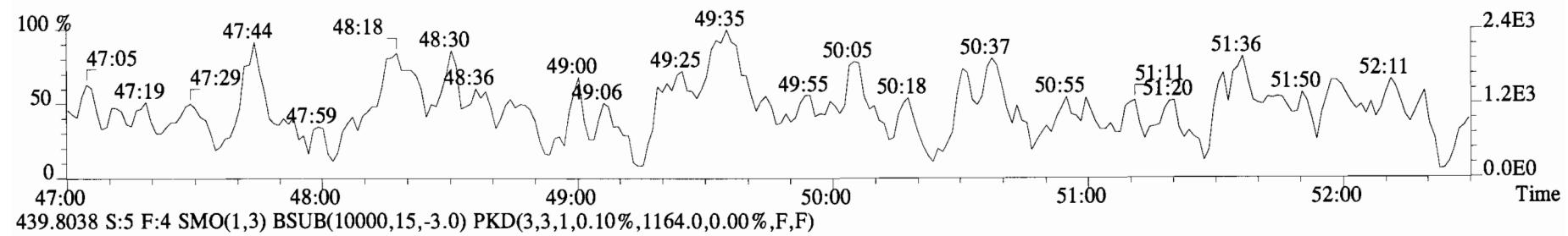
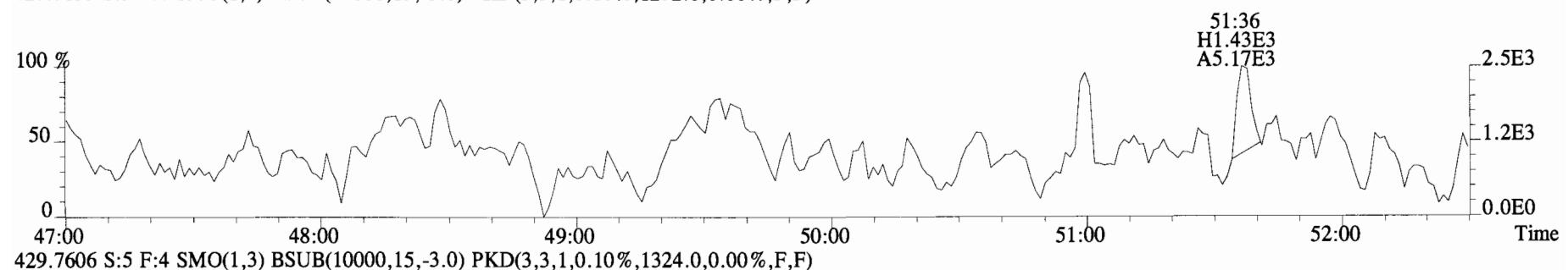
File:140919E1 #1-544 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
371.8817 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,16524.0,0.00%,F,F)



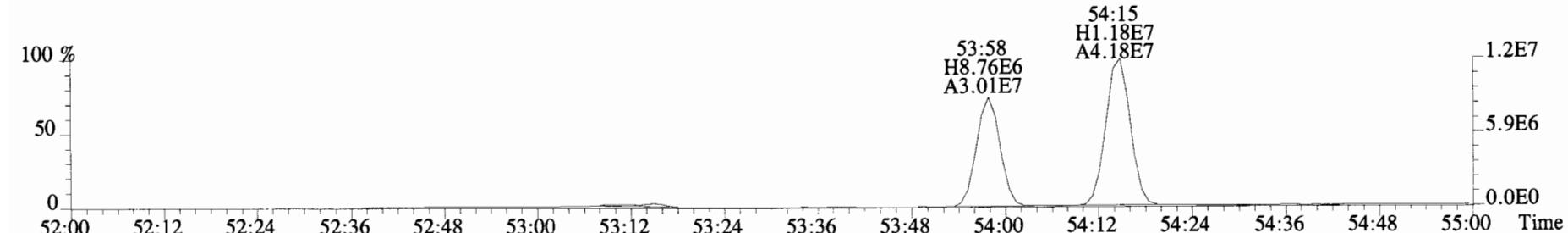
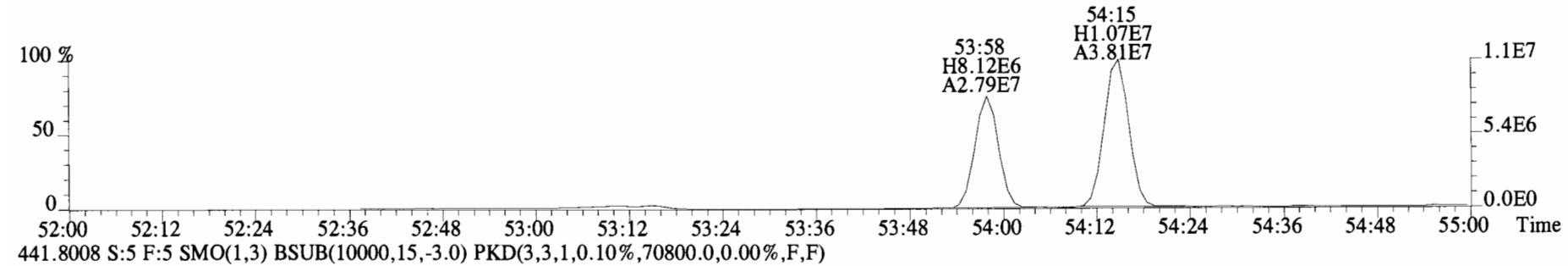
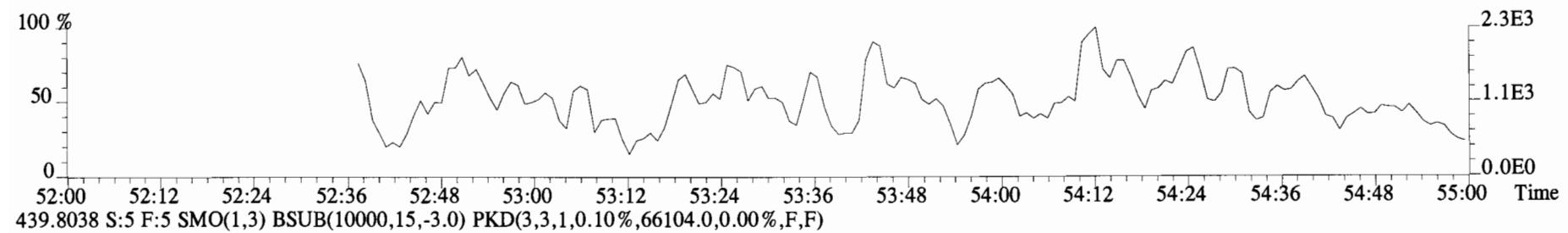
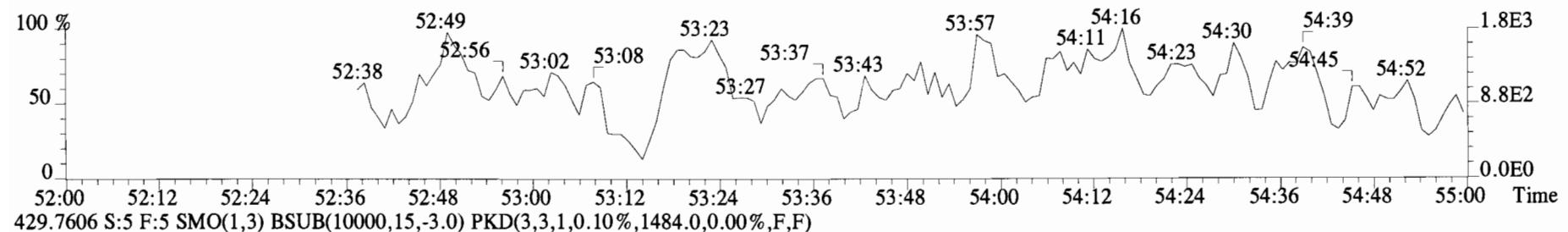
File:140919E1 #1-544 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 393.8025 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1540.0,0.00%,F,F)



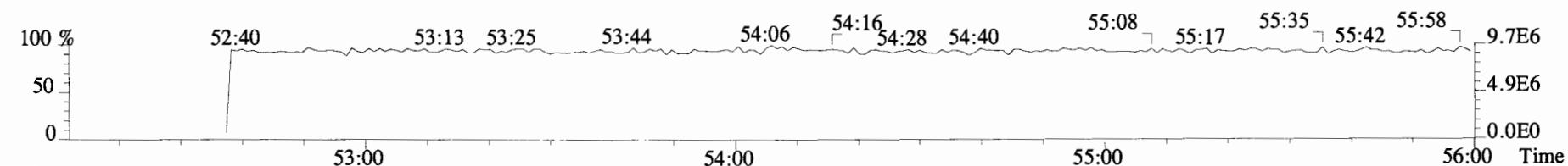
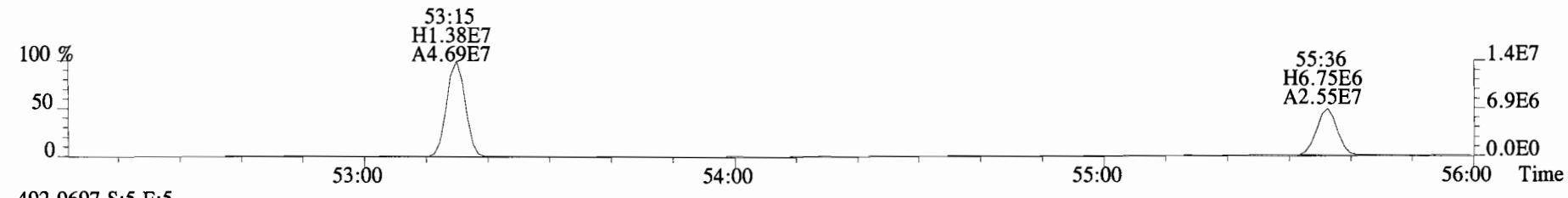
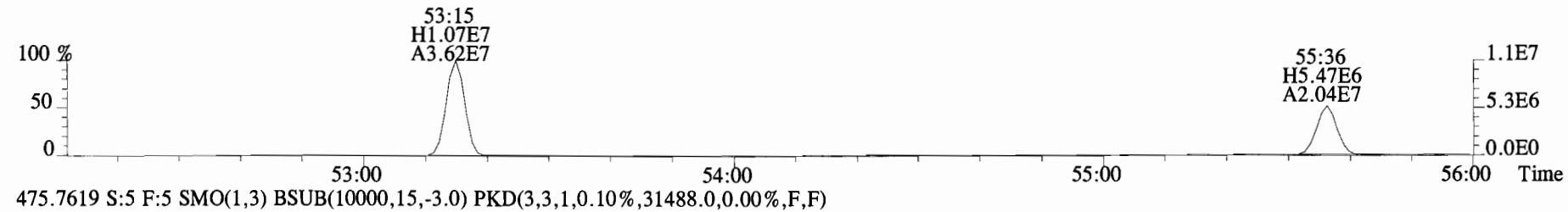
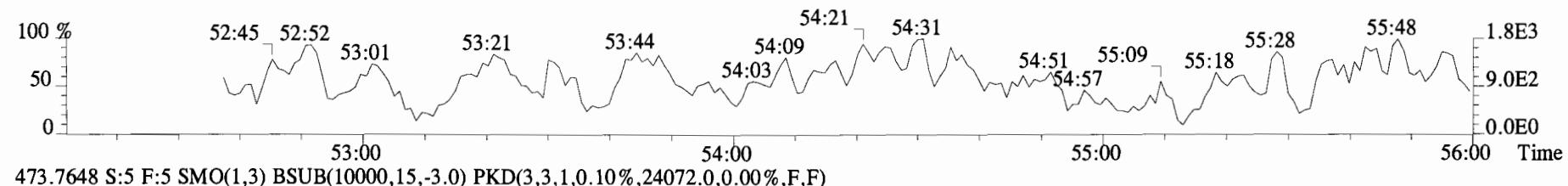
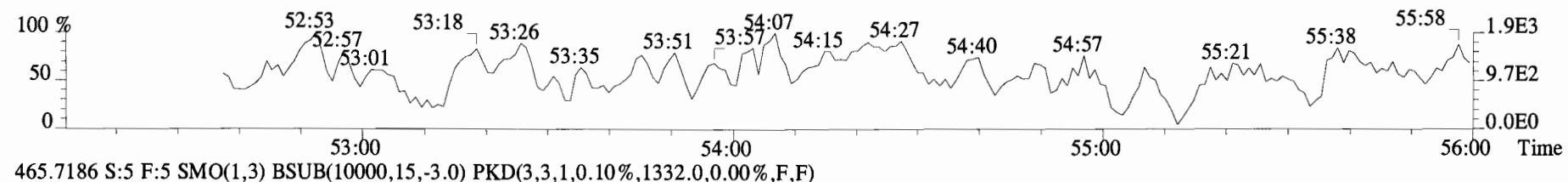
File:140919E1 #1-544 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
427.7635 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1232.0,0.00%,F,F)



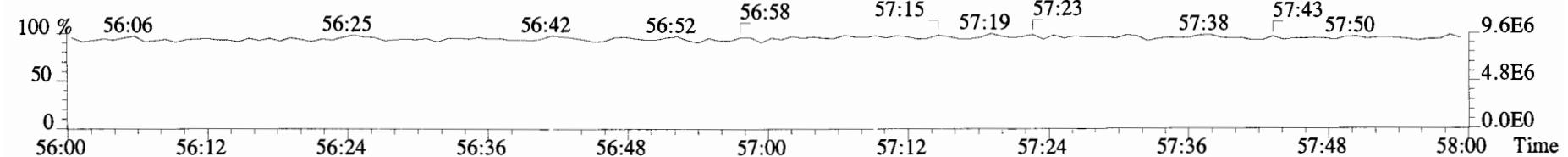
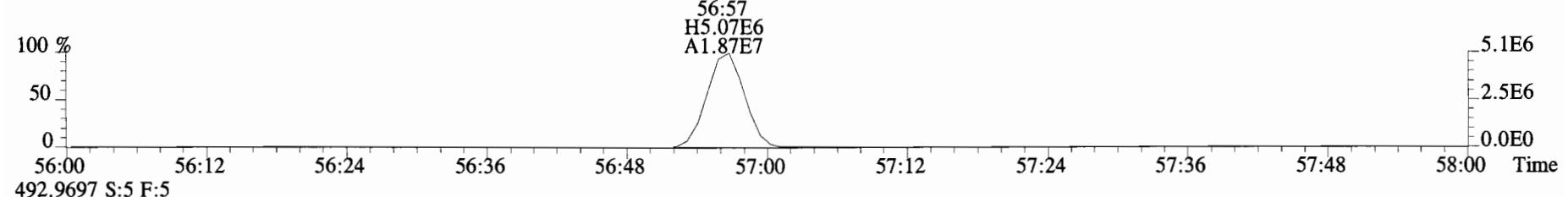
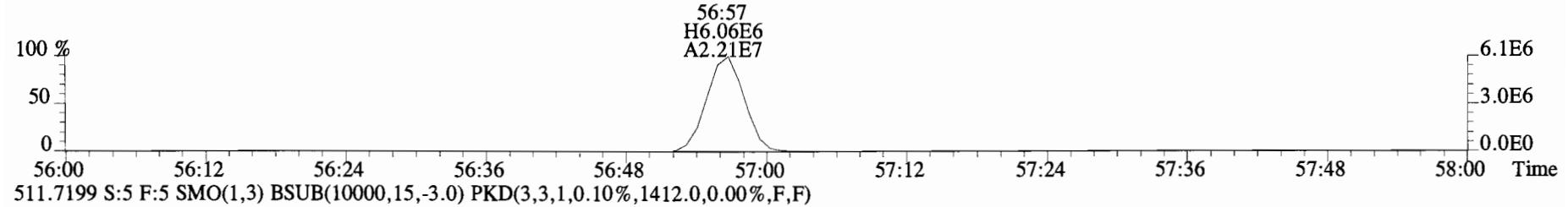
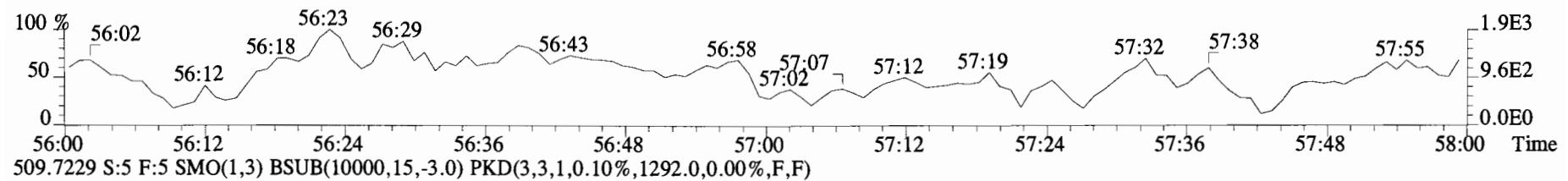
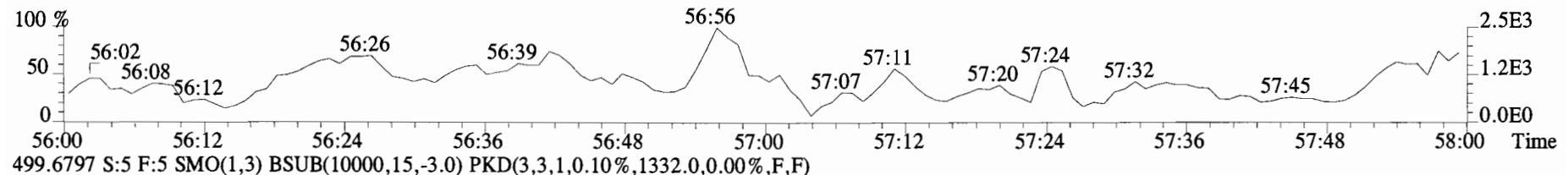
File:140919E1 #1-429 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 427.7635 S:5 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1400.0,0.00%,F,F)



File:140919E1 #1-429 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
463.7216 S:5 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1508.0,0.00%,F,F)



File:140919E1 #1-429 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 497.6826 S:5 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1268.0,0.00%,F,F)



Lab Name: Vista Analytical Laboratory OPR Data Filename: B4I0047-BS1

Matrix : AQUEOUS Ext. Date: 9-15-14 Analysis Date: 19-SEP-14 Time: 10:37:25

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	LABELED COMPOUNDS	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	CLEAN UP STANDARD (ng/mL)	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)
	CONC. (ng/mL)	FOUND (ng/mL)	LIMITS (ng/mL)		CONC. (ng/mL)	FOUND (ng/mL)	LIMITS (ng/mL)		CONC. (ng/mL)	FOUND (ng/mL)	LIMITS (ng/mL)
PCB-1	50	52.3	30.0-67.5	13C-PCB-1	100	69.2	15-145	13C-PCB-79	100	102.7	40-145
PCB-3	50	53.3	30.0-67.5	13C-PCB-3	100	68.8	15-145	13C-PCB-178	100	109.9	40-145
PCB-4/10	200	215.5	120-270	13C-PCB-4	100	73.8	15-145				
PCB-15	100	104.3	60.0-135	13C-PCB-11	100	81.8	15-145				
PCB-19	50	58.6	30.0-67.5	13C-PCB-19	100	72.2	15-145				
PCB-37	50	40.5	30.0-67.5	13C-PCB-37	100	86.0	15-145				
PCB-54	50	46.4	30.0-67.5	13C-PCB-54	100	89.1	15-145				
PCB-81	50	47.1	30.0-67.5	13C-PCB-81	100	87.3	40-145				
PCB-77	50	48.5	30.0-67.5	13C-PCB-77	100	90.5	40-145				
PCB-104	50	53.4	30.0-67.5	13C-PCB-104	100	78.7	40-145				
PCB-123	50	52.3	30.0-67.5	13C-PCB-123	100	87.4	40-145				
PCB-106/118	100	105.0	60.0-135	13C-PCB-118	100	88.4	40-145				
PCB-114	50	51.0	30.0-67.5	13C-PCB-114	100	72.2	40-145				
PCB-105	50	50.6	30.0-67.5	13C-PCB-105	100	69.3	40-145				
PCB-126	50	50.5	30.0-67.5	13C-PCB-126	100	67.9	40-145				
PCB-155	50	54.2	30.0-67.5	13C-PCB-155	100	82.0	40-145				
PCB-167	50	50.0	30.0-67.5	13C-PCB-167	100	86.5	40-145				
PCB-156	50	51.5	30.0-67.5	13C-PCB-156	100	85.9	40-145				
PCB-157	50	51.3	30.0-67.5	13C-PCB-157	100	87.0	40-145				
PCB-169	50	52.0	30.0-67.5	13C-PCB-169	100	85.7	40-145				
PCB-188	50	53.5	30.0-67.5	13C-PCB-188	100	82.1	40-145				
PCB-189	50	52.9	30.0-67.5	13C-PCB-189	100	87.5	40-145				
PCB-202	50	51.1	30.0-67.5	13C-PCB-202	100	97.9	40-145				
PCB-205	50	50.6	30.0-67.5	13C-PCB-194	100	98.4	40-145				
PCB-208	50	52.4	30.0-67.5	13C-PCB-208	100	97.3	40-145				
PCB-206	50	51.6	30.0-67.5	13C-PCB-206	100	95.4	40-145				
PCB-209	50	52.8	30.0-67.5	13C-PCB-209	100	92.4	40-145				

Analyst: DmsDate: 9/23/14

Client ID: OPR
Lab ID: B4I0047-BS1

Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25 ConCal: ST140919E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	6.19e+07	2.95	y	1.25	16:20	1.001	0.996-1.006	52.3027	PCB-52/69	8.19e+07	0.80	y	1.28	31:44	1.001	0.996-1.006	87.0620
PCB-2	6.72e+07	3.02	y	1.18	18:43	0.989	0.983-0.993	58.1880	PCB-73	4.93e+07	0.80	y	1.37	31:51	1.005	1.000-1.010	48.8308
PCB-3	6.35e+07	3.00	y	1.22	18:57	1.001	0.996-1.006	53.2798	PCB-43/49	7.80e+07	0.79	y	1.11	32:01	1.010	1.005-1.015	95.2395
PCB-4/10	2.07e+08	1.64	y	1.55	20:19	1.002	0.998-1.008	215.497	PCB-47	3.76e+07	0.80	y	1.13	32:14	1.001	0.996-1.006	43.3782
PCB-7/9	2.53e+08	1.63	y	1.27	22:06	0.869	0.865-0.873	213.263	PCB-48/75	9.15e+07	0.81	y	1.30	32:21	1.004	0.999-1.009	91.7202
PCB-6	1.28e+08	1.64	y	1.26	22:45	0.894	0.890-0.899	108.566	PCB-65	5.09e+07	0.78	y	1.33	32:37	1.012	1.007-1.017	49.9041
PCB-5/8	2.62e+08	1.64	y	1.23	23:10	0.911	0.906-0.916	226.961	PCB-62	4.61e+07	0.80	y	1.29	32:43	1.016	1.011-1.021	46.6700
PCB-14	1.45e+08	1.66	y	1.23	24:15	0.953	0.949-0.959	100.426	PCB-44	3.59e+07	0.80	y	0.94	33:02	1.025	1.020-1.030	49.9568
PCB-11	1.45e+08	1.68	y	1.16	25:27	1.001	0.996-1.006	106.797	PCB-42/59	9.02e+07	0.80	y	1.22	33:15	1.032	1.028-1.038	96.9976
PCB-12/13	2.76e+08	1.65	y	1.10	25:51	1.016	1.010-1.020	214.074	PCB-41/64/71/72	1.99e+08	0.80	y	1.31	33:50	1.050	1.046-1.056	198.271
PCB-15	1.48e+08	1.66	y	1.21	26:10	1.029	1.024-1.034	104.319	PCB-68	5.43e+07	0.79	y	1.49	34:05	1.058	1.054-1.064	47.8428
PCB-19	4.47e+07	1.08	y	1.30	24:27	1.001	0.996-1.006	58.5924	PCB-40	3.08e+07	0.80	y	0.82	34:19	1.065	1.061-1.071	49.2334
PCB-30	6.37e+07	1.10	y	1.83	25:20	1.038	1.032-1.042	59.0876	PCB-57	5.11e+07	0.80	y	1.11	34:40	0.971	0.965-0.975	46.3438
PCB-18	4.94e+07	1.09	y	0.86	26:05	0.954	0.949-0.959	59.4388	PCB-67	5.32e+07	0.79	y	1.07	34:58	0.979	0.974-0.984	50.0149
PCB-17	5.11e+07	1.10	y	0.90	26:16	0.961	0.955-0.965	58.7672	PCB-58	4.83e+07	0.81	y	1.10	35:06	0.983	0.977-0.987	44.2360
PCB-24/27	1.41e+08	1.09	y	1.18	26:50	0.982	0.976-0.986	123.638	PCB-63	5.06e+07	0.81	y	1.12	35:15	0.987	0.982-0.992	45.7099
- PCB-16/32	1.20e+08	1.09	y	1.03	27:20	1.000	0.995-1.005	120.807	PCB-74	5.53e+07	0.81	y	1.20	35:32	0.995	0.990-1.000	46.3599
- PCB-34	4.53e+07	0.95	y	1.26	28:09	0.961	0.956-0.966	49.9262	PCB-61/70	9.64e+07	0.80	y	1.08	35:42	1.000	0.994-1.004	90.1245
PCB-23	3.58e+07	0.97	y	1.31	28:14	0.964	0.959-0.969	37.9239	PCB-76/66	1.12e+08	0.81	y	1.14	35:56	1.006	1.001-1.011	99.7892
PCB-29	4.15e+07	0.99	y	1.33	28:28	0.972	0.967-0.977	43.3498	PCB-80	6.31e+07	0.81	y	1.28	36:09	1.000	0.996-1.006	45.6549
PCB-26	3.85e+07	0.97	y	1.29	28:42	0.980	0.974-0.984	41.3539	PCB-55	5.87e+07	0.79	y	1.11	36:29	1.010	1.005-1.015	48.8886
PCB-25	3.85e+07	0.97	y	1.34	28:51	0.985	0.980-0.990	39.8236	PCB-56/60	1.01e+08	0.80	y	1.09	36:58	1.023	1.018-1.028	86.3246
PCB-31	3.78e+07	0.94	y	1.42	29:12	0.997	0.992-1.002	36.9634	PCB-79	5.44e+07	0.81	y	1.12	38:02	1.053	1.048-1.058	44.7498
PCB-28	4.22e+07	0.96	y	1.38	29:19	1.001	0.996-1.006	42.5158	PCB-78	5.46e+07	0.82	y	1.24	38:44	0.987	0.982-0.992	48.9384
PCB-20/21/33	1.15e+08	0.96	y	1.31	29:55	1.021	1.017-1.027	121.714	PCB-81	5.86e+07	0.80	y	1.38	39:16	1.000	0.995-1.005	47.0957
PCB-22	4.04e+07	0.96	y	1.32	30:22	1.036	1.032-1.042	42.4961	PCB-77	5.83e+07	0.85	y	1.21	39:51	1.000	0.995-1.005	48.4582
PCB-36	3.78e+07	0.95	y	1.38	30:58	0.934	0.929-0.939	39.3759	PCB-104	5.17e+07	1.61	y	1.26	32:53	1.001	0.996-1.006	53.4359
PCB-39	3.75e+07	0.95	y	1.42	31:26	0.948	0.943-0.953	37.8753	PCB-96	4.83e+07	1.62	y	1.09	34:09	1.039	1.034-1.044	57.5162
PCB-38	3.80e+07	0.97	y	1.35	32:13	0.971	0.967-0.976	40.1741	PCB-103	4.03e+07	1.63	y	0.93	34:41	1.055	1.050-1.060	56.1265
PCB-35	4.00e+07	0.99	y	1.38	32:45	0.987	0.982-0.992	41.6374	PCB-100	4.25e+07	1.63	y	1.00	35:01	1.065	1.061-1.071	55.1384
PCB-37	3.94e+07	0.97	y	1.39	33:11	1.001	0.996-1.006	40.5221	PCB-94	3.69e+07	1.62	y	1.11	35:30	0.986	0.981-0.991	53.1505
PCB-54	5.17e+07	0.79	y	1.20	28:12	1.001	0.996-1.006	46.3647	PCB-95/98/102	1.19e+08	1.64	y	1.21	35:59	0.999	0.994-1.004	156.733
PCB-50	3.89e+07	0.82	y	0.97	29:21	1.041	1.037-1.047	43.2387	PCB-93	3.97e+07	1.61	y	1.13	36:07	1.003	0.998-1.008	56.0169
PCB-53	3.99e+07	0.81	y	1.19	30:00	0.946	0.941-0.951	45.6744	PCB-88/91	7.69e+07	1.61	y	1.02	36:24	1.011	1.006-1.016	120.374
PCB-51	4.08e+07	0.79	y	1.15	30:20	0.957	0.952-0.962	48.1142	PCB-121	5.28e+07	1.65	y	1.90	36:31	1.014	1.009-1.019	44.2465
PCB-45	3.44e+07	0.80	y	0.97	30:47	0.971	0.966-0.976	48.4457	PCB-84/92	7.55e+07	1.63	y	1.05	37:20	0.990	0.986-0.996	107.746
PCB-46	3.33e+07	0.79	y	0.95	31:16	0.986	0.982-0.992	47.6048	PCB-89	3.82e+07	1.62	y	1.02	37:31	0.995	0.991-1.001	56.2870

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations
by
Analyst: Dms
Date: 9/23/14

Reviewed
by
Analyst: mp
Date: 9/24/14

Client ID: OPR
Lab ID: B4I0047-BS1

Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25 ConCal: ST140919E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	8.29e+07	1.63	y	1.19	37:43	1.000	0.996-1.006	104.488	PCB-133/142	7.39e+07	1.28	y	0.95	42:38	0.982	0.977-0.987	99.9438
PCB-113	5.20e+07	1.61	y	1.35	37:57	1.007	1.002-1.012	57.6908	PCB-131	3.46e+07	1.28	y	0.91	42:48	0.986	0.981-0.991	48.3378
PCB-99	4.10e+07	1.66	y	1.29	38:03	1.009	1.005-1.015	47.6784	PCB-146/165	9.08e+07	1.27	y	1.16	43:00	0.990	0.986-0.996	100.385
PCB-119	5.31e+07	1.60	y	1.72	38:30	0.987	0.982-0.992	51.3106	PCB-132/161	8.70e+07	1.27	y	1.11	43:15	0.996	0.992-1.002	99.8495
PCB-108/112	8.36e+07	1.62	y	1.29	38:39	0.991	0.986-0.996	108.031	PCB-153	4.68e+07	1.26	y	1.18	43:26	1.000	0.995-1.005	50.7274
PCB-83	4.93e+07	1.65	y	1.52	38:50	0.996	0.991-1.001	53.9908	PCB-168	5.27e+07	1.26	y	1.37	43:39	1.005	1.000-1.010	49.1601
PCB-97	4.04e+07	1.65	y	1.25	39:01	1.000	0.996-1.006	53.8620	PCB-141	3.82e+07	1.28	y	0.97	44:10	1.000	0.996-1.005	50.3891
PCB-86	3.00e+07	1.58	y	1.02	39:10	1.004	1.000-1.010	48.9068	PCB-137	4.14e+07	1.25	y	1.07	44:33	1.009	1.004-1.014	49.6906
B-87/117/125	1.48e+08	1.62	y	1.56	39:17	1.007	1.002-1.012	157.748	PCB-130	3.88e+07	1.28	y	0.85	44:39	1.011	1.007-1.017	58.8281
PCB-111/115	1.10e+08	1.62	y	1.75	39:27	1.012	1.007-1.017	104.894	PCB-138/163/164	1.41e+08	1.28	y	1.23	45:02	1.001	0.996-1.006	153.699
PCB-85/116	8.04e+07	1.61	y	1.30	39:35	1.015	1.010-1.020	102.801	PCB-158/160	9.80e+07	1.27	y	1.29	45:17	1.007	1.001-1.011	101.317
PCB-120	5.43e+07	1.61	y	1.78	39:49	1.021	1.016-1.026	50.6900	PCB-129	3.48e+07	1.26	y	0.92	45:31	1.012	1.007-1.017	50.2351
PCB-110	5.55e+07	1.63	y	1.68	39:58	1.025	1.020-1.030	54.9896	PCB-166	4.75e+07	1.27	y	1.12	45:58	0.993	0.988-0.998	51.5408
PCB-82	3.29e+07	1.62	y	0.74	40:35	0.977	0.972-0.982	54.7354	PCB-159	4.80e+07	1.27	y	1.16	46:17	1.000	0.995-1.005	49.9350
PCB-124	5.57e+07	1.61	y	1.32	41:15	0.993	0.988-0.998	51.7261	PCB-128/162	9.06e+07	1.27	y	1.02	46:34	1.006	1.002-1.012	107.646
PCB-107/109	1.13e+08	1.62	y	1.22	41:24	0.996	0.991-1.001	113.966	PCB-167	4.99e+07	1.29	y	1.06	46:59	1.001	0.995-1.005	50.0422
PCB-123	5.19e+07	1.60	y	1.22	41:34	1.000	0.995-1.005	52.3385	PCB-156	5.35e+07	1.26	y	1.18	48:16	1.000	0.995-1.005	51.4667
- PCB-106/118	1.10e+08	1.62	y	1.22	41:47	1.001	0.996-1.006	105.045	PCB-157	5.21e+07	1.30	y	1.08	48:32	1.000	0.995-1.005	51.3067
- PCB-114	4.95e+07	1.60	y	1.36	42:25	1.000	0.995-1.005	50.9803	PCB-169	4.93e+07	1.32	y	1.11	50:39	1.000	0.995-1.005	52.0110
PCB-122	4.54e+07	1.64	y	1.24	42:33	1.004	0.999-1.009	51.2427	PCB-188	4.75e+07	1.07	y	1.40	43:04	1.000	0.995-1.005	53.5472
PCB-105	4.57e+07	1.61	y	1.28	43:17	1.001	0.995-1.005	50.5938	PCB-184	4.37e+07	1.05	y	1.24	43:31	1.011	1.006-1.016	55.9756
PCB-127	4.51e+07	1.61	y	1.14	43:36	1.000	0.995-1.005	49.8350	PCB-179	4.76e+07	1.08	y	1.30	44:18	1.029	1.024-1.034	57.7956
PCB-126	4.20e+07	1.55	y	1.28	45:31	1.000	0.995-1.005	50.5071	PCB-176	4.99e+07	1.08	y	1.36	44:46	1.040	1.035-1.045	58.0028
PCB-155	4.12e+07	1.30	y	1.14	37:16	1.001	0.966-1.006	54.1922	PCB-186	4.61e+07	1.05	y	1.28	45:22	1.054	1.049-1.059	57.2582
PCB-150	4.14e+07	1.26	y	1.06	38:31	1.034	1.030-1.040	58.0336	PCB-178	3.47e+07	1.05	y	0.94	45:51	1.065	1.061-1.071	58.6415
PCB-152	4.25e+07	1.28	y	1.10	39:01	1.048	1.043-1.053	57.6582	PCB-175	3.61e+07	1.07	y	0.97	46:12	1.073	1.069-1.079	59.0839
PCB-145	4.10e+07	1.28	y	1.09	39:27	1.060	1.055-1.065	56.0268	PCB-182/187	7.67e+07	1.07	y	1.01	46:23	1.077	1.073-1.083	119.707
PCB-136	4.32e+07	1.27	y	1.08	39:46	1.068	1.064-1.074	59.4469	PCB-183	4.02e+07	1.07	y	1.08	46:41	1.084	1.080-1.090	58.7899
PCB-148	3.07e+07	1.30	y	0.74	39:52	1.071	1.066-1.076	61.9104	PCB-185	3.54e+07	1.08	y	1.34	47:21	0.956	0.951-0.961	50.5651
PCB-154	3.51e+07	1.29	y	0.88	40:22	1.084	1.079-1.089	59.2051	PCB-174	3.78e+07	1.07	y	1.34	47:43	0.963	0.958-0.968	54.0856
PCB-151	3.21e+07	1.29	y	0.81	41:00	1.101	1.097-1.107	59.2314	PCB-181	3.87e+07	1.07	y	1.36	47:49	0.965	0.961-0.971	54.4788
PCB-135	3.03e+07	1.24	y	0.78	41:13	1.107	1.101-1.113	58.0885	PCB-177	3.60e+07	1.05	y	1.24	48:00	0.969	0.964-0.974	55.6567
PCB-144	3.52e+07	1.28	y	0.82	41:20	1.110	1.105-1.116	64.0994	PCB-171	3.63e+07	1.05	y	1.31	48:17	0.975	0.970-0.980	52.9357
PCB-147	3.41e+07	1.30	y	0.83	41:28	1.114	1.011-1.120	61.4810	PCB-173	3.30e+07	1.06	y	1.16	48:43	0.984	0.979-0.989	54.4858
PCB-139/149	6.90e+07	1.30	y	0.84	41:43	1.120	1.115-1.127	121.947	PCB-172	3.50e+07	1.07	y	1.22	49:09	0.992	0.988-0.998	54.8192
- PCB-140	3.21e+07	1.29	y	0.79	41:55	1.126	1.120-1.132	60.9400	PCB-192	4.21e+07	1.09	y	1.53	49:21	0.996	0.991-1.001	52.8445
- PCB-134/143	7.47e+07	1.28	y	0.93	42:21	0.975	0.970-0.980	102.907	PCB-180	3.83e+07	1.08	y	1.43	49:33	1.000	0.995-1.005	51.3148

Integrations
by Analyst Dms

RL: MONO, TRI - DECA: _____ Date: 9/23/14

Client ID: OPR
Lab ID: B4I0047-BS1

Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25 ConCal: ST140919E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

Page 3 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	4.53e+07	1.04	y	1.65	49:45	1.004	0.999-1.009	52.5231
PCB-191	4.50e+07	1.08	y	1.67	50:00	1.009	1.004-1.014	51.6124
PCB-170	3.32e+07	1.05	y	1.50	51:01	1.000	0.995-1.005	52.5823
PCB-190	4.44e+07	1.07	y	2.02	51:12	1.004	0.998-1.008	52.3285
PCB-189	4.20e+07	1.05	y	1.54	52:29	1.000	0.995-1.005	52.9342
PCB-202	3.56e+07	0.92	y	1.04	48:29	1.000	0.995-1.005	51.0837
PCB-201	3.94e+07	0.95	y	1.10	48:58	1.010	1.006-1.016	53.3154
PCB-204	3.55e+07	0.90	y	0.99	49:07	1.013	1.009-1.019	53.3616
PCB-197	3.90e+07	0.94	y	1.07	49:25	1.020	1.015-1.025	54.1968
PCB-200	3.87e+07	0.92	y	1.02	50:18	1.038	1.032-1.044	56.6606
PCB-198	2.61e+07	0.91	y	0.74	51:36	1.065	1.058-1.068	52.3449
PCB-199	2.79e+07	0.94	y	0.73	51:43	1.067	1.060-1.070	57.0615
- PCB-196/203	5.63e+07	0.93	y	0.77	51:58	1.072	1.066-1.076	108.763
- PCB-195	2.86e+07	0.91	y	1.20	53:08	0.985	0.979-0.989	53.7840
PCB-194	2.93e+07	0.90	y	1.25	53:59	1.000	0.995-1.005	52.9938
PCB-205	3.18e+07	0.91	y	1.41	54:16	1.006	1.001-1.011	50.6395
PCB-208	3.07e+07	1.37	y	0.96	53:16	1.000	0.995-1.005	52.3953
PCB-207	3.15e+07	1.38	y	0.92	53:35	1.006	1.001-1.011	56.5297
PCB-206	1.85e+07	1.36	y	1.03	55:38	1.000	0.995-1.005	51.5588
PCB-209	1.96e+07	1.21	y	1.18	56:59	1.000	0.995-1.005	52.8413

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	1.93e+08	2.95	y	16:20	1.22
Total Di-PCB	1.56e+09	1.64	y	20:19	1.21
Total Tri-PCB	4.70e+08	1.08	y	24:27	1.16
Total Tetra-PCB	6.40e+08	0.95	y	28:09	1.35
Total Penta-PCB	2.02e+09	0.79	y	28:12	1.17
Total Hepta-PCB	1.87e+09	1.61	y	32:53	2.21
Total Octa-PCB	2.52e+08	1.60	y	42:25	2.26
Total Hexa-PCB	5.08e+08	1.30	y	37:16	0.92
Total Nona-PCB	1.26e+09	1.28	y	42:21	1.08
Total Deca-PCB	9.76e+08	1.07	y	43:04	1.27
Total Octa-PCB	2.99e+08	0.92	y	48:29	0.92
Total Nona-PCB	9.26e+07	0.91	y	53:08	1.29
Total Deca-PCB	8.12e+07	1.37	y	53:16	0.96
Total PCB Conc:	1.96e+07	1.21	y	56:59	1.18

Total PCB Conc:11452.8898950

Integrations
by
Analyst: DMS
Date: 9/23/14

Client ID: OPR
Lab ID: B4I0047-BS1

Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25
GC Column ID: ZB-1 ICal: PCVG8-6-20-14 wt/vol:1.0000
ConCal: ST140919E1-1
EndCAL: NA

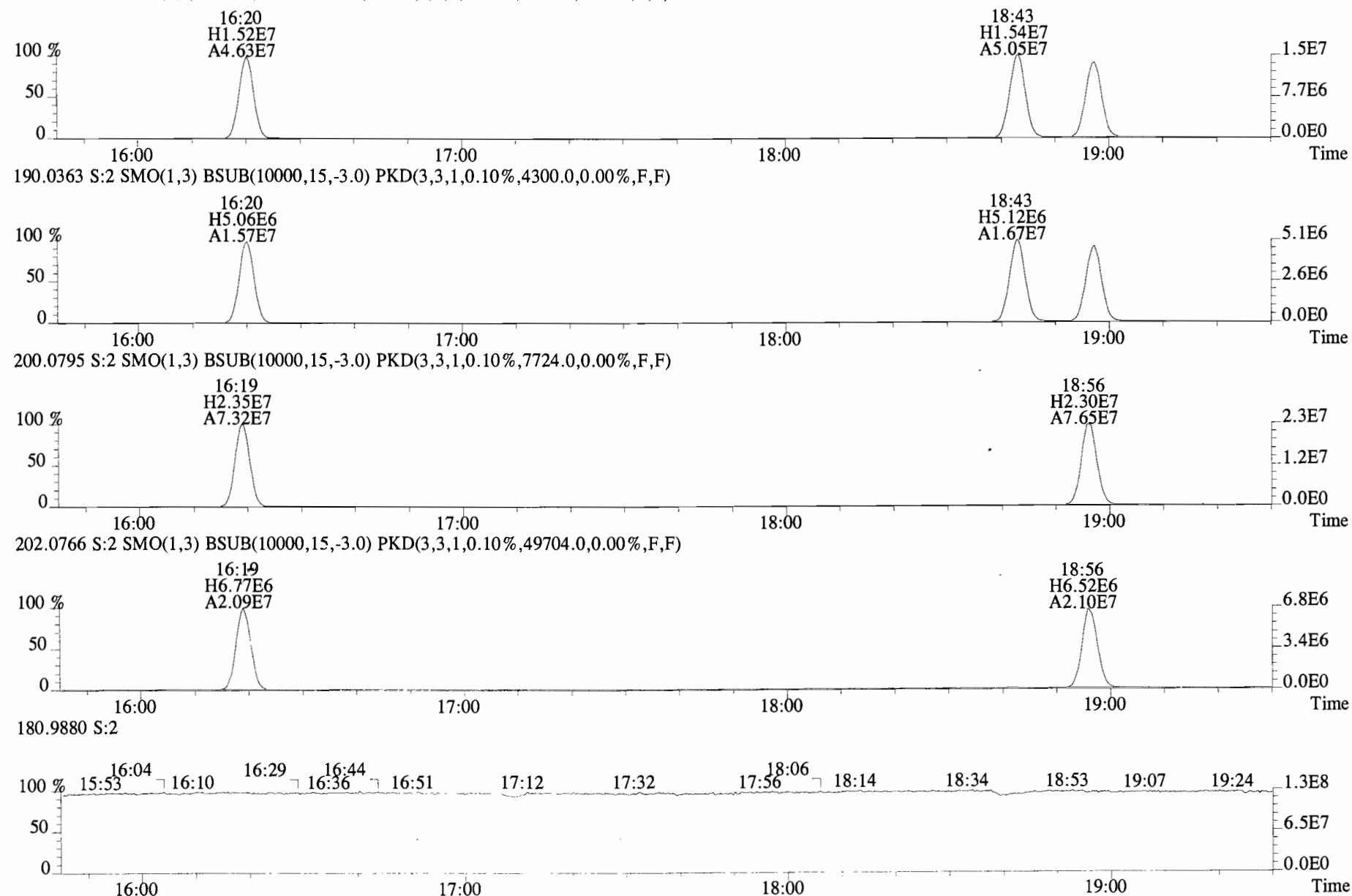
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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec								
13C-PCB-1	9.44e+07	3.46	y	0.89	16:19	0.624	0.622-0.628	69.2	69.2	13C-PCB-79	1.27e+08	0.80	y	1.01	38:01	1.028	1.023-1.033	103	103										
13C-PCB-3	9.77e+07	3.53	y	0.93	18:56	0.724	0.721-0.729	68.8	68.8	13C-PCB-178	5.70e+07	0.45	y	0.63	45:50	0.985	0.979-0.989	110	110										
13C-PCB-4	6.19e+07	1.56	y	0.55	20:16	0.775	0.772-0.780	73.8	73.8	13C-PCB-11	1.17e+08	0.94	25:26	0.973	0.968-0.978	81.8	81.8	PS vs. IS											
13C-PCB-9	9.36e+07	1.56	y	0.83	22:04	0.844	0.840-0.848	73.9	73.9	13C-PCB-19	5.89e+07	1.16	y	0.53	24:25	0.934	0.929-0.939	72.2	72.2	13C-PCB-79	1.27e+08	0.80	y	1.01	38:01	1.028	1.023-1.033	103	103
13C-PCB-11	1.17e+08	1.56	y	0.94	25:26	0.973	0.968-0.978	81.8	81.8	13C-PCB-28	7.20e+07	1.06	y	0.89	29:18	1.004	0.999-1.009	83.1	83.1	13C-PCB-178	5.70e+07	0.45	y	0.63	45:50	0.985	0.979-0.989	110	110
13C-PCB-19	5.89e+07	1.16	y	0.53	24:25	0.934	0.929-0.939	72.2	72.2	13C-PCB-32	9.67e+07	1.16	y	0.81	27:20	1.045	1.041-1.051	77.6	77.6	13C-PCB-37	6.98e+07	1.12	y	0.83	33:10	1.136	1.131-1.143	86.0	86.0
13C-PCB-28	7.20e+07	1.06	y	0.89	29:18	1.004	0.999-1.009	83.1	83.1	13C-PCB-47	7.64e+07	0.79	y	0.74	32:13	0.872	0.867-0.875	83.5	83.5	13C-PCB-52	7.36e+07	0.81	y	0.71	31:42	0.858	0.853-0.861	84.4	84.4
13C-PCB-32	9.67e+07	1.16	y	0.81	27:20	1.045	1.041-1.051	77.6	77.6	13C-PCB-70	9.90e+07	0.80	y	0.94	35:43	0.966	0.961-0.971	85.1	85.1	13C-PCB-77	9.95e+07	0.81	y	0.89	39:50	1.078	1.073-1.083	90.5	90.5
13C-PCB-37	6.98e+07	1.12	y	0.83	33:10	1.136	1.131-1.143	86.0	86.0	13C-PCB-80	1.08e+08	0.83	y	0.96	36:08	0.977	0.972-0.982	91.3	91.3	13C-PCB-81	9.01e+07	0.81	y	0.84	39:15	1.062	1.057-1.067	87.3	87.3
13C-PCB-47	7.64e+07	0.79	y	0.74	32:13	0.872	0.867-0.875	83.5	83.5	13C-PCB-85	6.26e+07	1.60	y	0.74	36:01	0.913	0.908-0.918	85.8	85.8	13C-PCB-97	6.01e+07	1.59	y	0.69	39:00	0.989	0.984-0.994	88.8	88.8
13C-PCB-52	7.36e+07	0.81	y	0.71	31:42	0.956	0.951-0.961	86.5	86.5	13C-PCB-99	6.48e+07	1.65	y	1.16	45:30	0.977	0.972-0.982	67.9	67.9	13C-PCB-101	6.67e+07	1.59	y	0.79	37:42	0.956	0.951-0.961	86.5	86.5
13C-PCB-70	9.90e+07	0.80	y	0.94	35:43	0.966	0.961-0.971	85.1	85.1	13C-PCB-104	7.69e+07	1.58	y	1.00	32:52	0.833	0.829-0.837	78.7	78.7	13C-PCB-105	7.05e+07	1.64	y	1.24	43:15	0.929	0.924-0.934	69.3	69.3
13C-PCB-77	9.95e+07	0.81	y	0.89	39:50	1.078	1.073-1.083	90.5	90.5	13C-PCB-114	7.16e+07	1.69	y	1.21	42:24	0.911	0.905-0.915	72.2	72.2	13C-PCB-118	8.54e+07	1.61	y	0.98	41:45	1.059	1.054-1.064	88.4	88.4
13C-PCB-80	1.08e+08	0.83	y	0.96	36:08	0.977	0.972-0.982	91.3	91.3	13C-PCB-123	8.15e+07	1.59	y	0.95	41:33	1.054	1.049-1.059	87.4	87.4	13C-PCB-126	6.48e+07	1.65	y	1.16	45:30	0.977	0.972-0.982	67.9	67.9
13C-PCB-81	9.01e+07	0.81	y	0.84	39:15	1.062	1.057-1.067	87.3	87.3	13C-PCB-127	7.93e+07	1.62	y	1.34	43:35	0.936	0.931-0.941	71.9	71.9	13C-PCB-138	7.50e+07	1.29	y	1.04	44:59	0.966	0.961-0.971	87.5	87.5
13C-PCB-85	6.26e+07	1.60	y	0.74	36:01	0.913	0.908-0.918	85.8	85.8	13C-PCB-141	7.79e+07	1.33	y	1.07	44:09	0.948	0.943-0.953	88.4	88.4	13C-PCB-153	7.83e+07	1.33	y	1.11	43:25	0.933	0.927-0.937	85.6	85.6
13C-PCB-97	6.01e+07	1.59	y	0.69	39:00	0.989	0.984-0.994	88.8	88.8	13C-PCB-155	6.70e+07	1.26	y	0.83	37:14	0.944	0.939-0.949	82.0	82.0	13C-PCB-156	8.79e+07	1.31	y	1.24	48:15	1.037	1.032-1.042	85.9	85.9
13C-PCB-99	6.48e+07	1.65	y	1.16	45:30	0.977	0.972-0.982	67.9	67.9	13C-PCB-159	8.26e+07	1.30	y	1.20	46:17	0.994	0.989-0.999	83.8	83.8	13C-PCB-167	9.39e+07	1.28	y	1.32	46:57	1.009	1.004-1.014	86.5	86.5
13C-PCB-101	6.67e+07	1.59	y	0.79	37:42	0.956	0.951-0.961	86.5	86.5	13C-PCB-169	8.55e+07	1.32	y	1.22	50:39	1.088	1.082-1.092	85.7	85.7	13C-PCB-170	4.21e+07	0.46	y	0.54	51:00	1.096	1.089-1.101	95.7	95.7
13C-PCB-104	7.69e+07	1.58	y	1.00	32:52	0.833	0.829-0.837	78.7	78.7	13C-PCB-178	6.31e+07	0.45	y	0.94	43:03	0.925	0.919-0.929	82.1	82.1	13C-PCB-188	4.44e+07	0.92	y	0.81	53:58	0.995	0.990-1.000	98.4	98.4
13C-PCB-105	7.05e+07	1.64	y	1.24	43:15	0.929	0.924-0.934	69.3	69.3	13C-PCB-189	5.15e+07	0.46	y	0.72	52:29	1.127	1.120-1.132	87.5	87.5	13C-PCB-194	4.44e+07	0.92	y	0.81	53:58	0.995	0.990-1.000	98.4	98.4
13C-PCB-114	7.16e+07	1.69	y	1.21	42:24	0.911	0.905-0.915	72.2	72.2	13C-PCB-194	4.44e+07	0.92	y	0.81	53:58	0.995	0.990-1.000	97.9	97.9	13C-PCB-202	6.70e+07	0.91	y	0.83	48:28	1.041	1.036-1.046	95.4	95.4
13C-PCB-118	8.54e+07	1.61	y	0.98	41:45	1.059	1.054-1.064	88.4	88.4	13C-PCB-202	6.70e+07	0.91	y	0.83	48:28	1.041	1.036-1.046	97.9	97.9	13C-PCB-206	3.50e+07	0.81	y	0.66	55:38	1.025	1.021-1.031	95.4	95.4
13C-PCB-123	8.15e+07	1.59	y	0.95	41:33	1.054	1.049-1.059	87.4	87.4	13C-PCB-206	6.09e+07	0.78	y	1.12	53:15	0.982	0.976-0.986	97.3	97.3	13C-PCB-208	6.09e+07	0.78	y	1.12	53:15	0.982	0.976-0.986	97.3	97.3
13C-PCB-126	6.48e+07	1.65	y	1.16	45:30	0.977	0.972-0.982	67.9	67.9	13C-PCB-209	3.16e+07	1.16	y	0.61	56:58	1.050	1.044-1.054	92.4	92.4	13C-PCB-209	3.16e+07	1.16	y	0.61	56:58	1.050	1.044-1.054	92.4	92.4

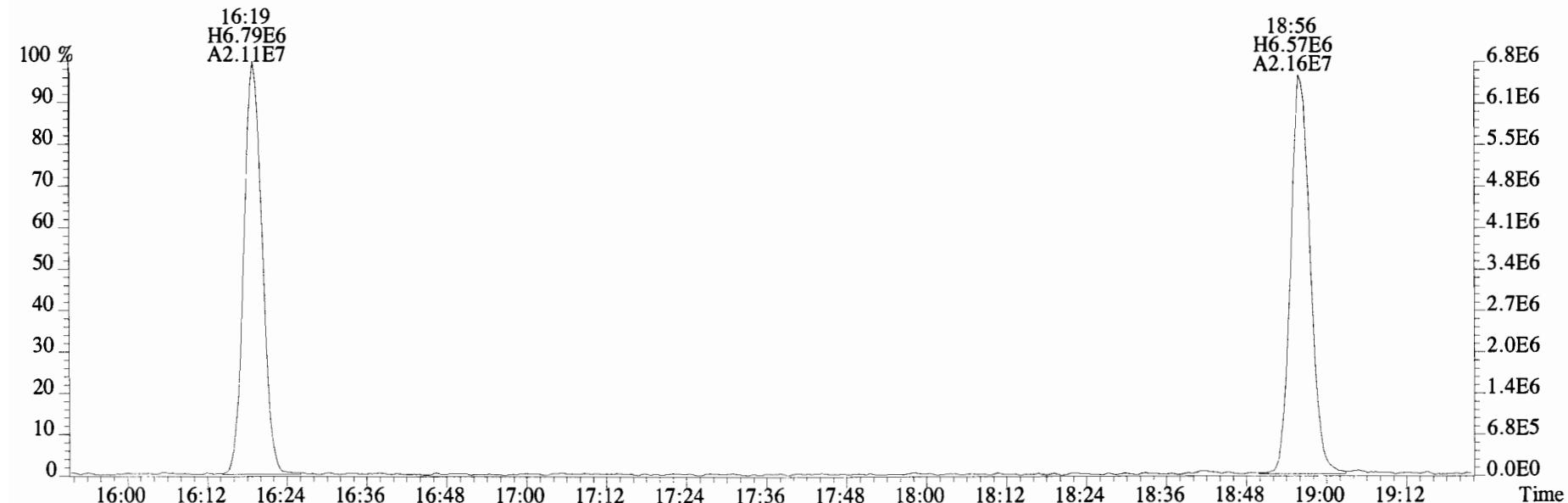
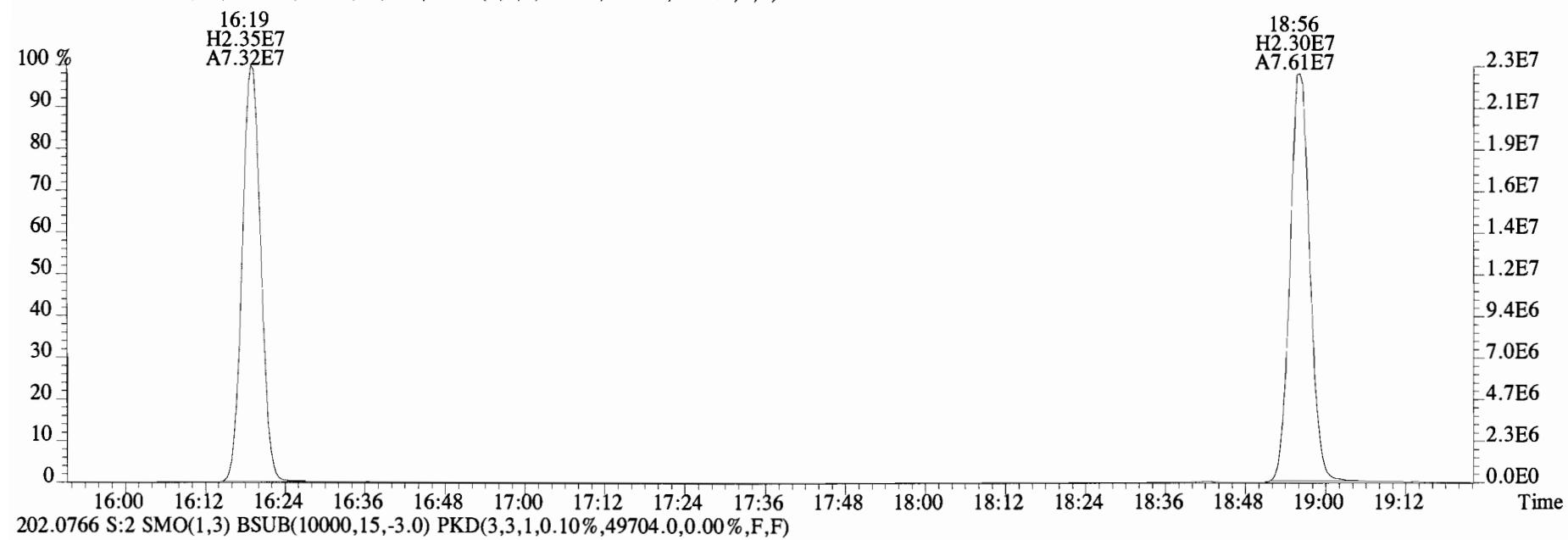
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Date: 9/23/14

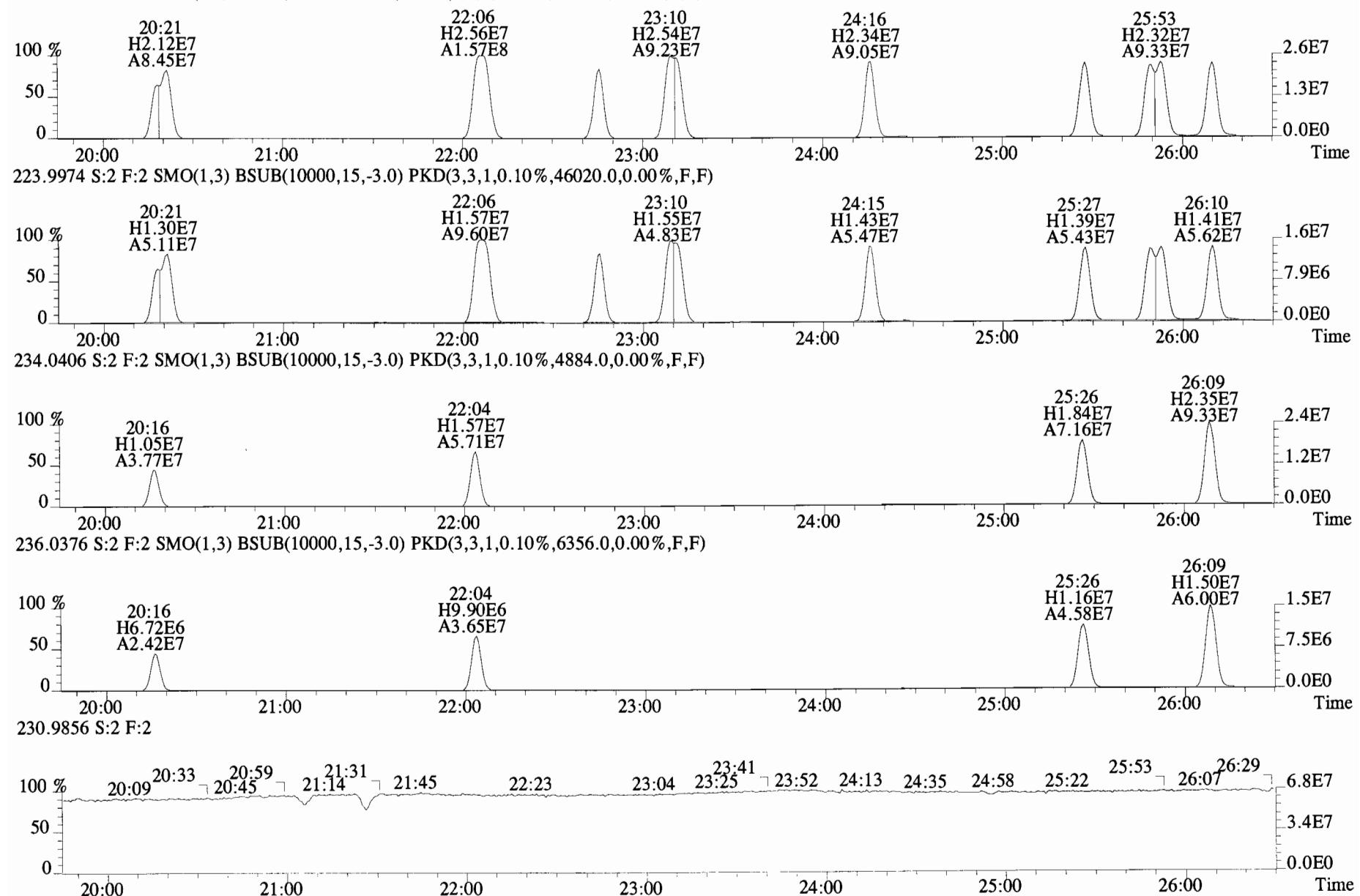
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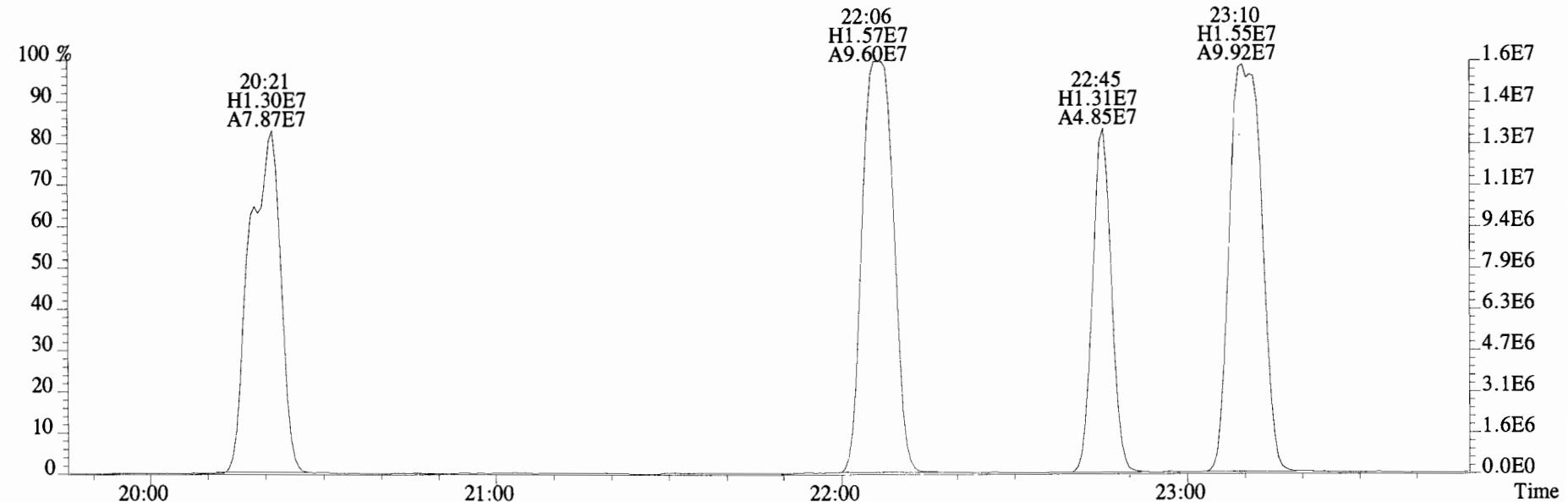
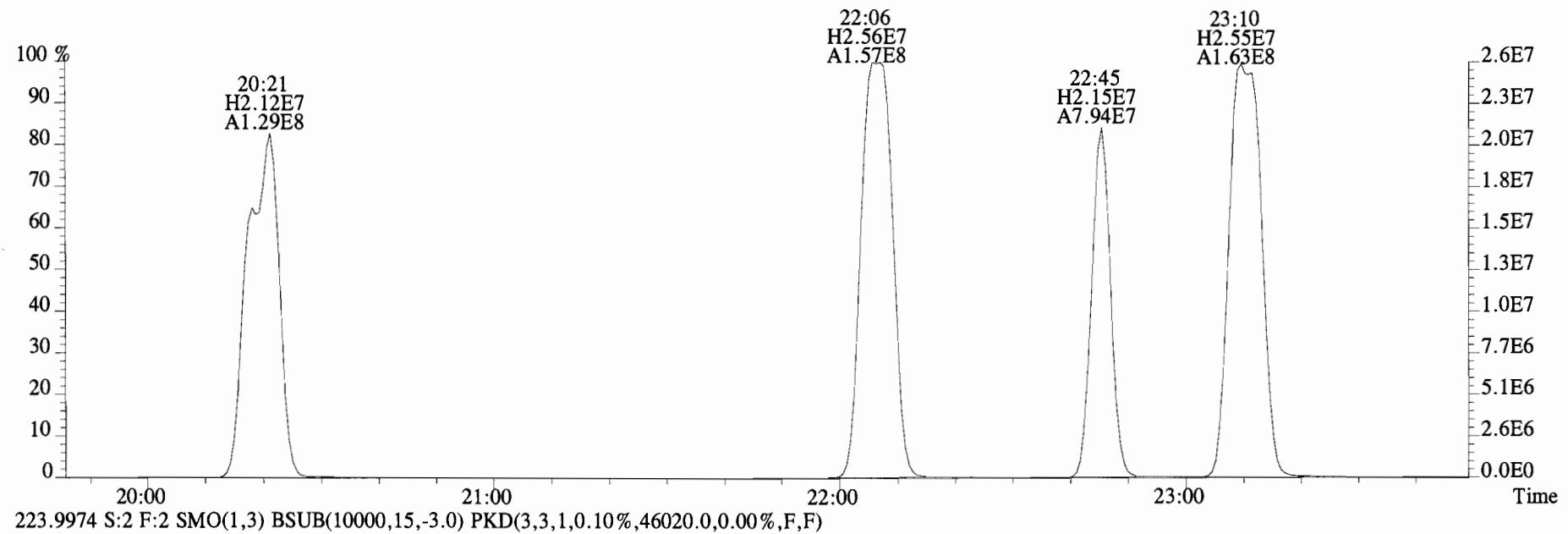
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Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25
GC Column ID: ZB-1 ICal: PCVG8-6-20-14 wt/vol:1.0000
ConCal: ST140919E1-1 EndCAL: NA

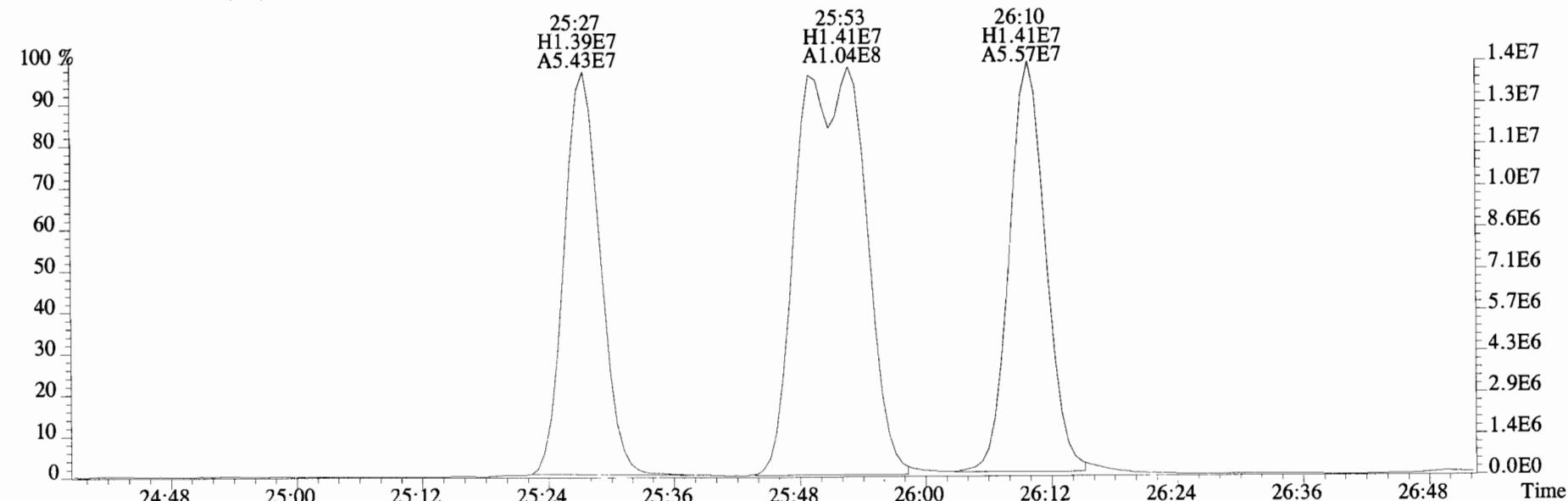
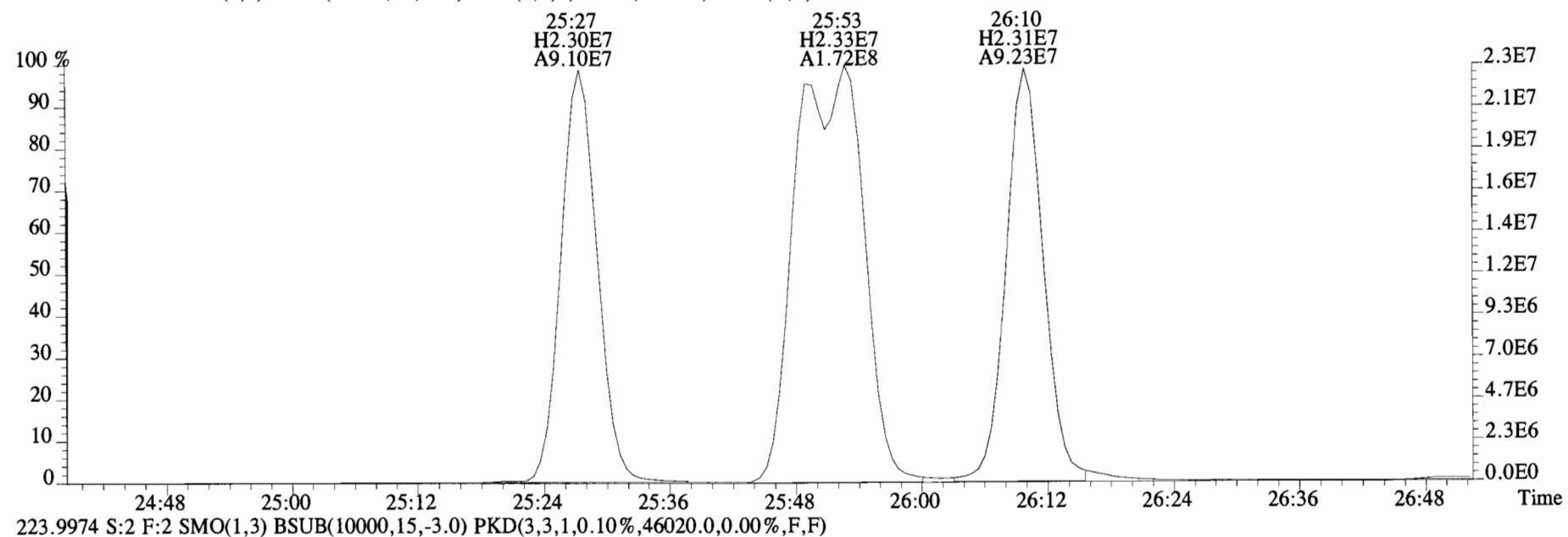
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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	9.44e+07	3.46	y	0.89	16:19	0.624	0.622-0.628	69.2	69.2	13C-PCB-79	1.27e+08	0.80	y	1.01	38:01	1.028	1.023-1.033	103	103		
13C-PCB-3	9.77e+07	3.53	y	0.93	18:56	0.724	0.721-0.729	68.8	68.8	13C-PCB-178	5.70e+07	0.45	y	0.63	45:50	0.985	0.979-0.989	110	110		
13C-PCB-4	6.19e+07	1.56	y	0.55	20:16	0.775	0.772-0.780	73.8	73.8	13C-PCB-178	5.70e+07	0.45	y	0.63	45:50	0.985	0.979-0.989	110	110		
13C-PCB-9	9.36e+07	1.56	y	0.83	22:04	0.844	0.840-0.848	73.9	73.9	13C-PCB-178	5.70e+07	0.45	y	0.63	45:50	0.985	0.979-0.989	110	110		
13C-PCB-11	1.17e+08	1.56	y	0.94	25:26	0.973	0.968-0.978	81.8	81.8	PS vs. IS											
13C-PCB-19	5.89e+07	1.16	y	0.53	24:25	0.934	0.929-0.939	72.2	72.2	13C-PCB-79	1.27e+08	0.80	y	1.20	38:01	0.969	0.963-0.973	118	118		
13C-PCB-28	7.20e+07	1.06	y	0.89	29:18	1.004	0.999-1.009	83.1	83.1	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-32	9.67e+07	1.16	y	0.81	27:20	1.045	1.041-1.051	77.6	77.6	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-37	6.98e+07	1.12	y	0.83	33:10	1.136	1.131-1.143	86.0	86.0	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-47	7.64e+07	0.79	y	0.74	32:13	0.872	0.867-0.875	83.5	83.5	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-52	7.36e+07	0.81	y	0.71	31:42	0.858	0.853-0.861	84.4	84.4	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-54	9.32e+07	0.81	y	0.85	28:11	0.762	0.758-0.766	89.1	89.1	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-70	9.90e+07	0.80	y	0.94	35:43	0.966	0.961-0.971	85.1	85.1	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-77	9.95e+07	0.81	y	0.89	39:50	1.078	1.073-1.083	90.5	90.5	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-80	1.08e+08	0.83	y	0.96	36:08	0.977	0.972-0.982	91.3	91.3	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-81	9.01e+07	0.81	y	0.84	39:15	1.062	1.057-1.067	87.3	87.3	13C-PCB-178	5.70e+07	0.45	y	0.94	45:50	0.925	0.920-0.930	117	117		
13C-PCB-95	6.26e+07	1.60	y	0.74	36:01	0.913	0.908-0.918	85.8	85.8	RS											
13C-PCB-97	6.01e+07	1.59	y	0.69	39:00	0.989	0.984-0.994	88.8	88.8	13C-PCB-15	1.53e+08	1.56	y	1.00	26:09	100	100	100	100		
13C-PCB-101	6.67e+07	1.59	y	0.79	37:42	0.956	0.951-0.961	86.5	86.5	13C-PCB-31	9.76e+07	1.07	y	1.00	29:11	100	100	100	100		
13C-PCB-104	7.69e+07	1.58	y	1.00	32:52	0.833	0.829-0.837	78.7	78.7	13C-PCB-60	1.23e+08	0.80	y	1.00	36:58	100	100	100	100		
13C-PCB-105	7.05e+07	1.64	y	1.24	43:15	0.929	0.924-0.934	69.3	69.3	13C-PCB-111	9.82e+07	1.60	.y	1.00	39:26	100	100	100	100		
13C-PCB-114	7.16e+07	1.69	y	1.21	42:24	0.911	0.905-0.915	72.2	72.2	13C-PCB-128	8.22e+07	1.31	y	1.00	46:33	100	100	100	100		
13C-PCB-118	8.54e+07	1.61	y	0.98	41:45	1.059	1.054-1.064	88.4	88.4	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-123	8.15e+07	1.59	y	0.95	41:33	1.054	1.049-1.059	87.4	87.4	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-126	6.48e+07	1.65	y	1.16	45:30	0.977	0.972-0.982	67.9	67.9	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-127	7.93e+07	1.62	y	1.34	43:35	0.936	0.931-0.941	71.9	71.9	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-138	7.50e+07	1.29	y	1.04	44:59	0.966	0.961-0.971	87.5	87.5	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-141	7.79e+07	1.33	y	1.07	44:09	0.948	0.943-0.953	88.4	88.4	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-153	7.83e+07	1.33	y	1.11	43:25	0.933	0.927-0.937	85.6	85.6	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-155	6.70e+07	1.26	y	0.83	37:14	0.944	0.939-0.949	82.0	82.0	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-156	8.79e+07	1.31	y	1.24	48:15	1.037	1.032-1.042	85.9	85.9	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-157	9.38e+07	1.34	y	1.31	48:31	1.042	1.037-1.047	87.0	87.0	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-159	8.26e+07	1.30	y	1.20	46:17	0.994	0.989-0.999	83.8	83.8	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-167	9.39e+07	1.28	y	1.32	46:57	1.009	1.004-1.014	86.5	86.5	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-169	8.55e+07	1.32	y	1.22	50:39	1.088	1.082-1.092	85.7	85.7	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-170	4.21e+07	0.46	y	0.54	51:00	1.096	1.089-1.101	95.7	95.7	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-180	5.22e+07	0.46	y	0.67	49:32	1.064	1.059-1.069	94.2	94.2	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-188	6.31e+07	0.45	y	0.94	43:03	0.925	0.919-0.929	82.1	82.1	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-189	5.15e+07	0.46	y	0.72	52:29	1.127	1.120-1.132	87.5	87.5	13C-PCB-205	5.57e+07	0.92	y	1.00	54:15	100	100	100	100		
13C-PCB-194	4.44e+07	0.92	y	0.81	53:58	0.995	0.990-1.000	98.4	98.4	Analyst:											
13C-PCB-202	6.70e+07	0.91	y	0.83	48:28	1.041	1.036-1.046	97.9	97.9	Date:											
13C-PCB-206	3.50e+07	0.81	y	0.66	55:38	1.025	1.021-1.031	95.4	95.4												
13C-PCB-208	6.09e+07	0.78	y	1.12	53:15	0.982	0.976-0.986	97.3	97.3												
13C-PCB-209	3.16e+07	1.16	y	0.61	56:58	1.050	1.044-1.054	92.4	92.4												

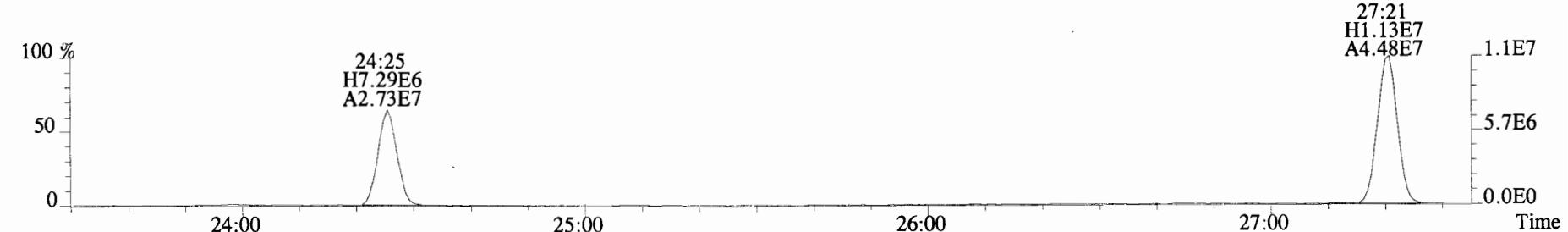
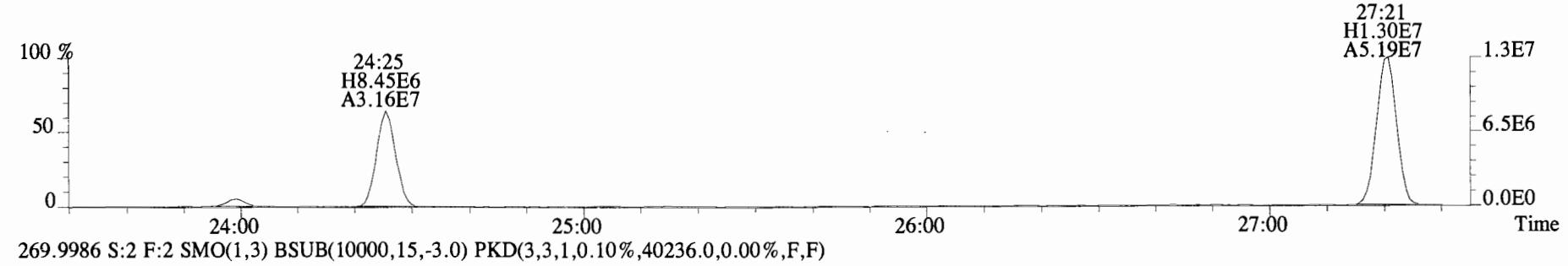
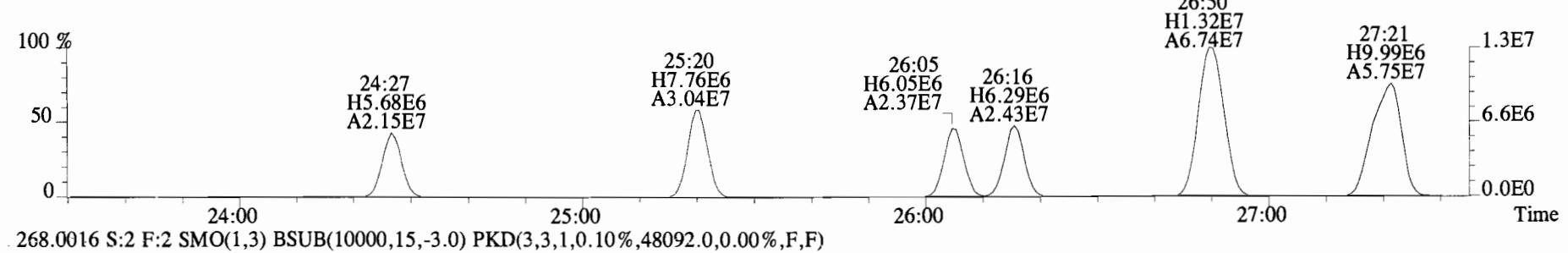
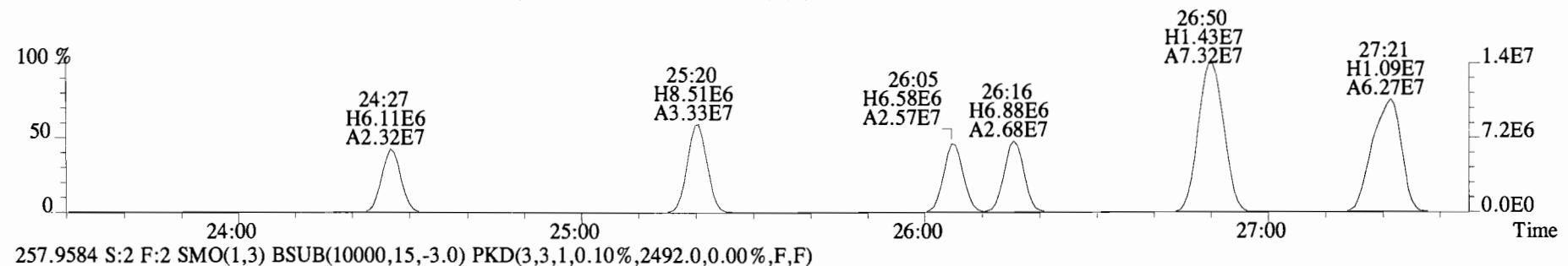
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222.0003 S:2 F:2 SMO(1,3) B\$UB(10000,15,-3.0) PKD(3,3,1,0.10%,7336.0,0.00%,F,F)



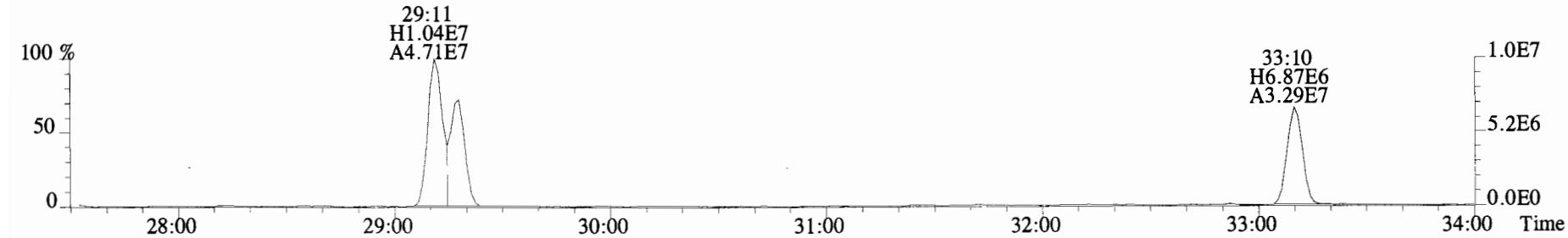
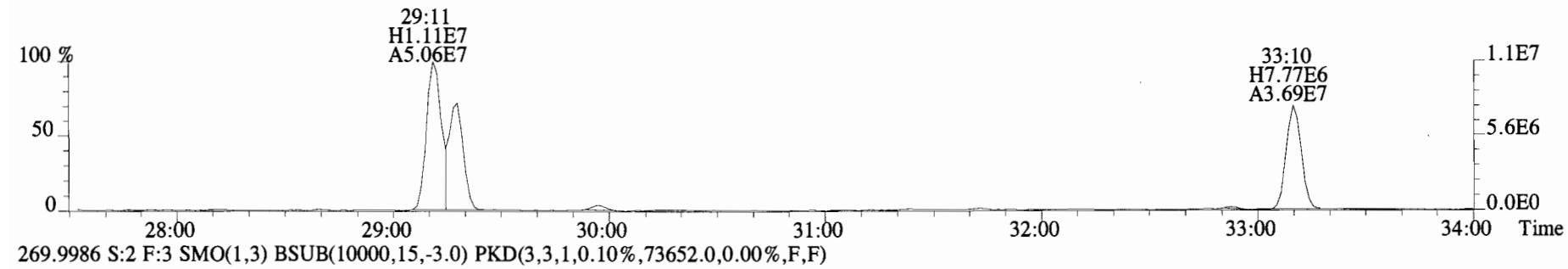
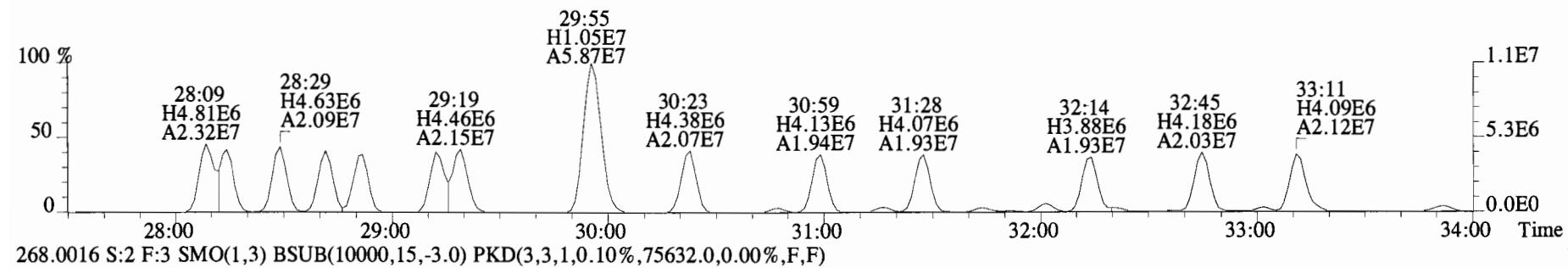
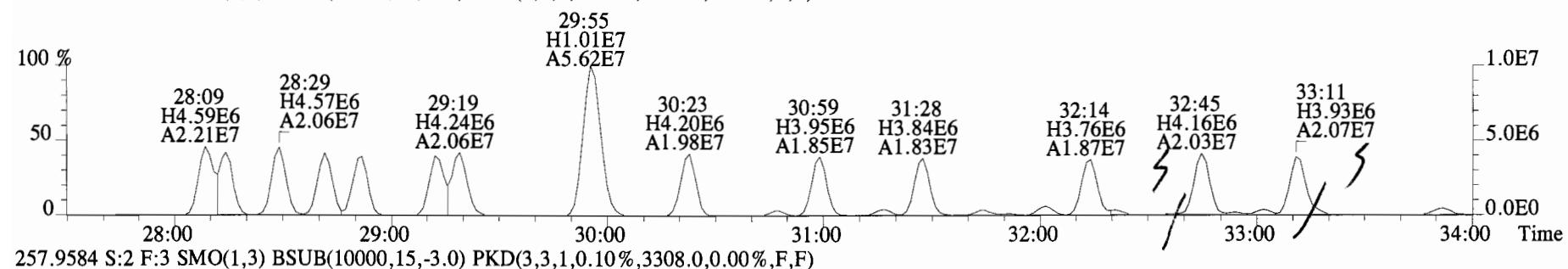
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
222.0003 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7336.0,0.00%,F,F)



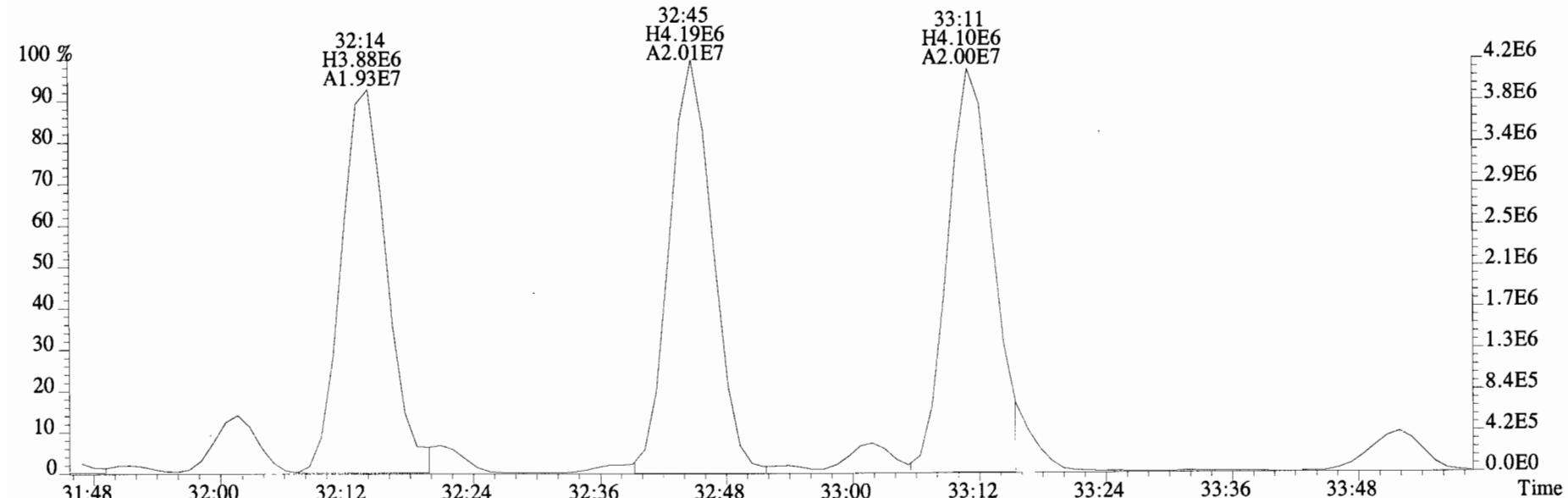
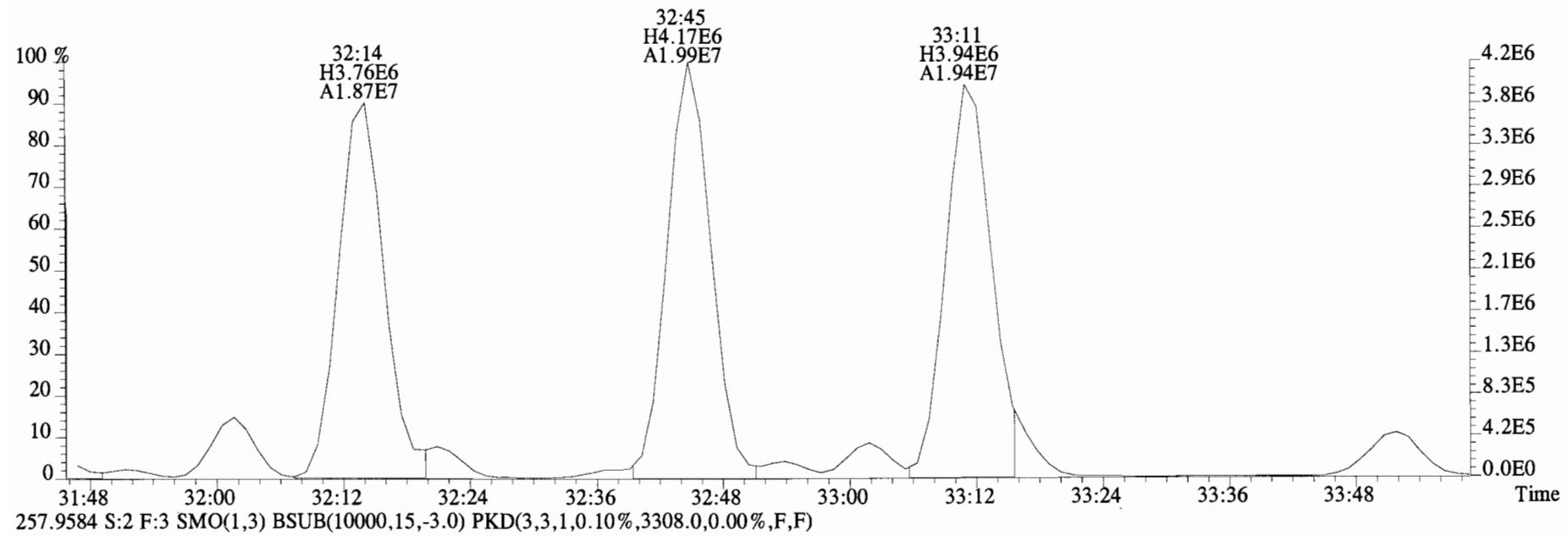
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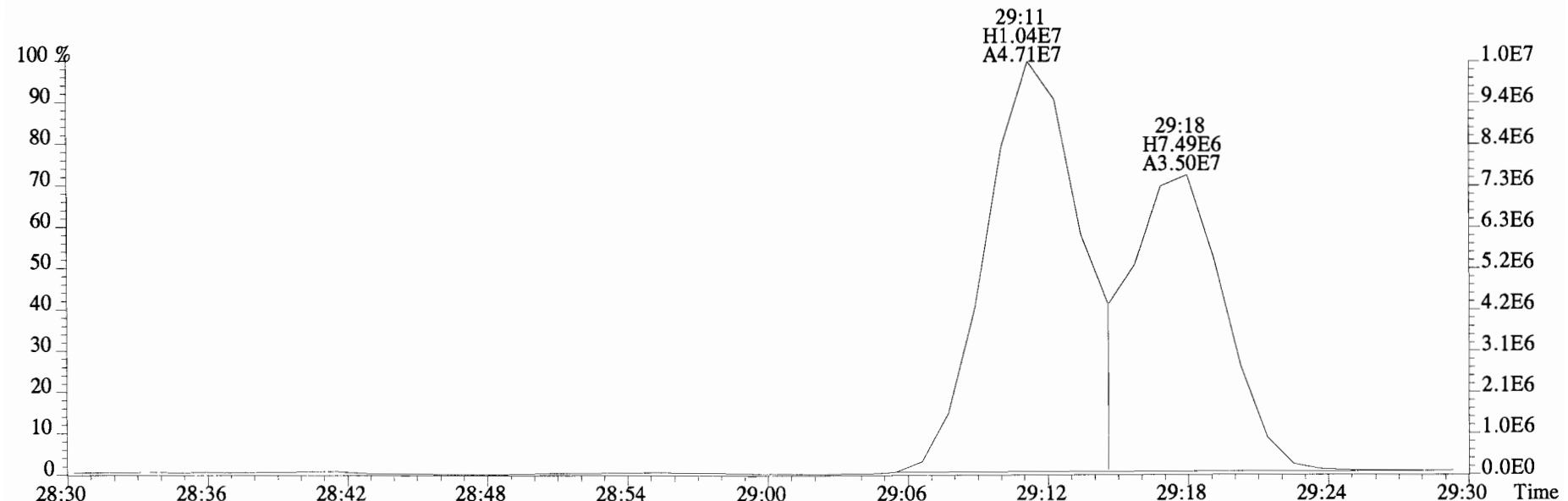
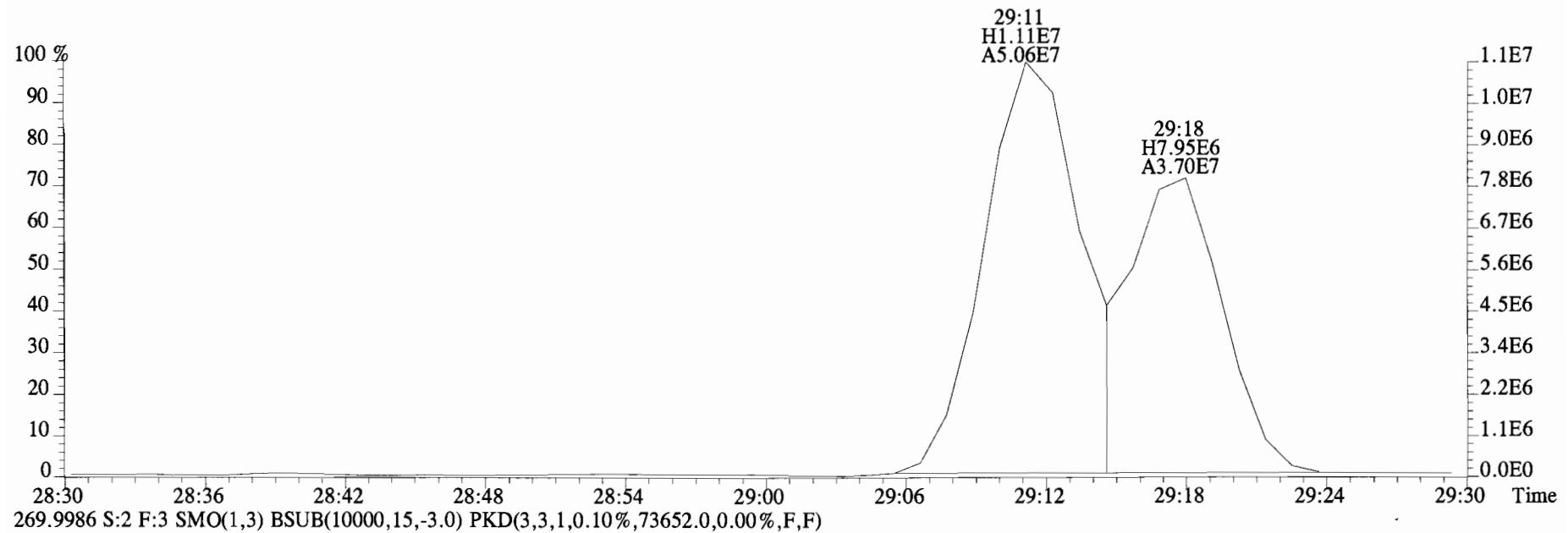
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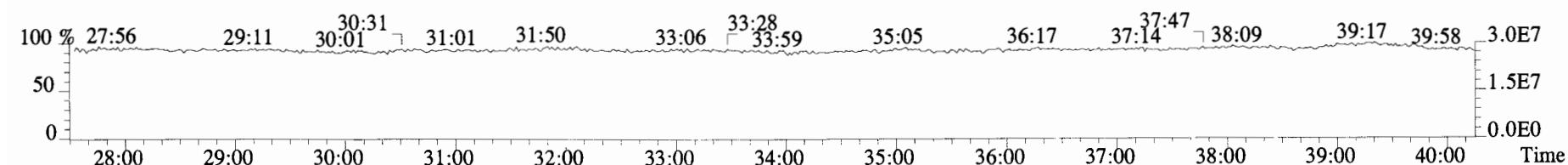
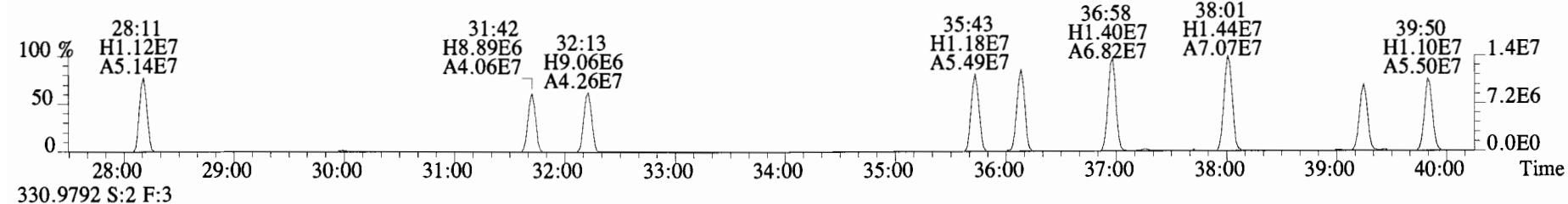
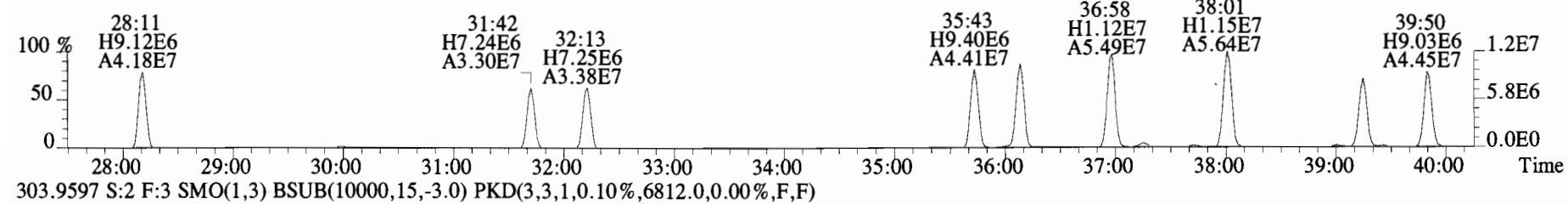
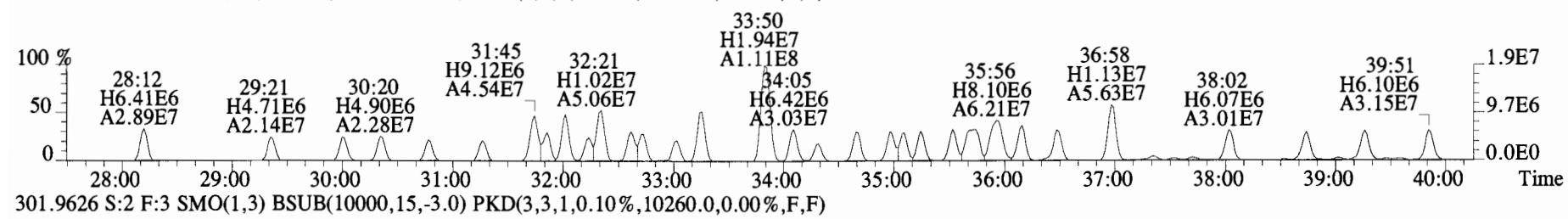
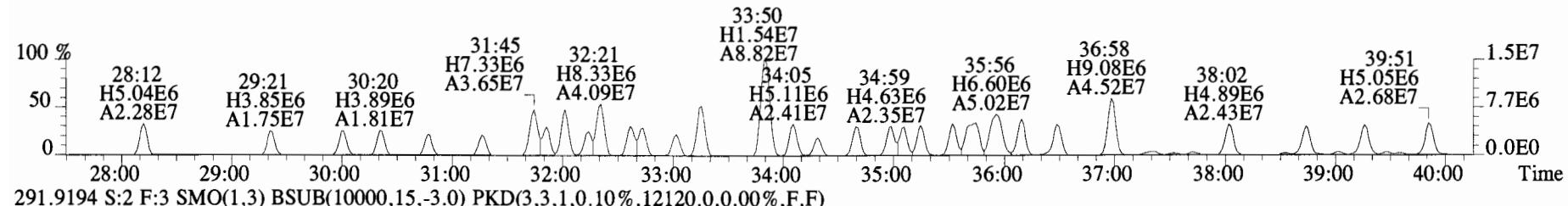
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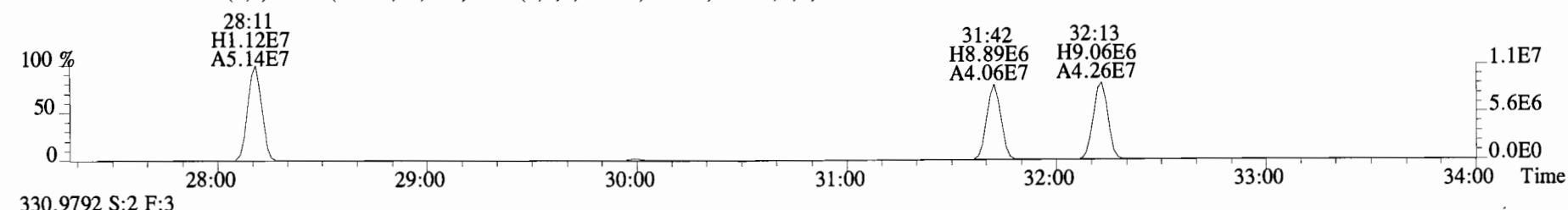
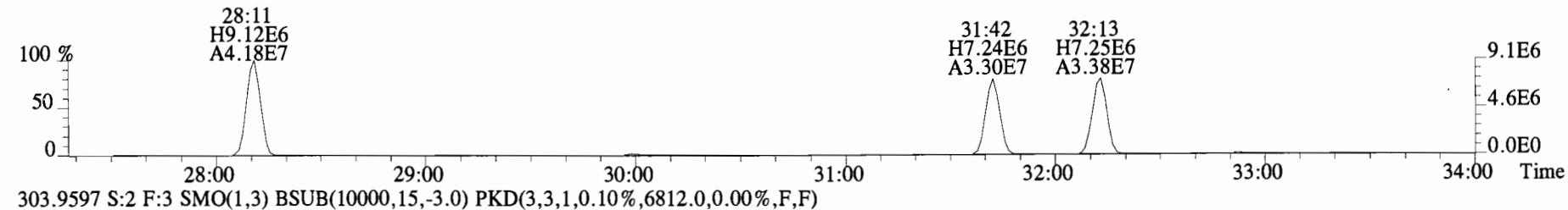
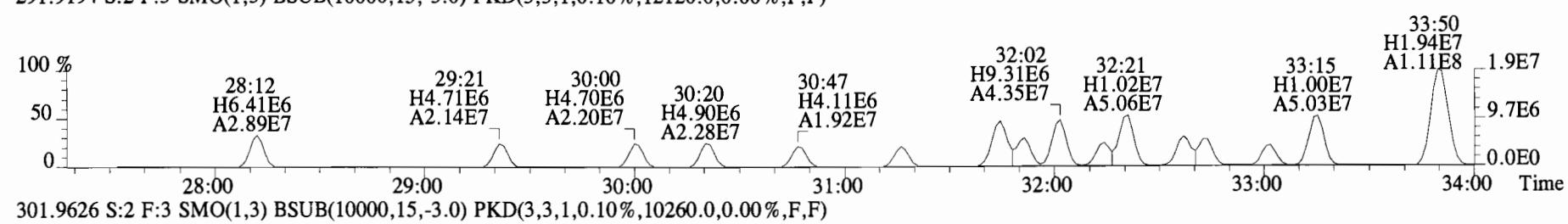
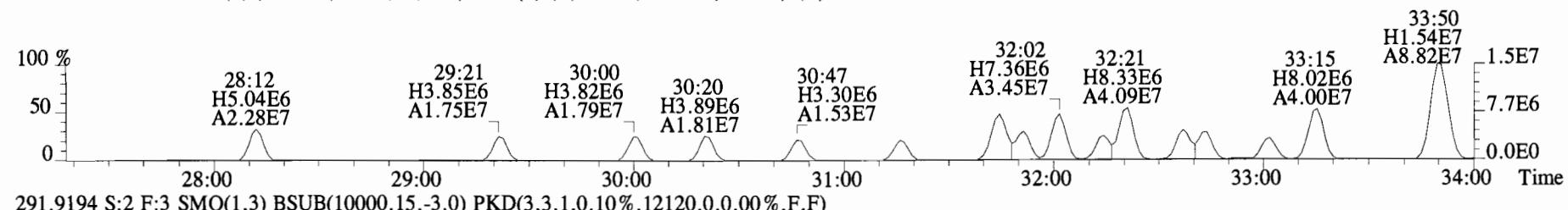
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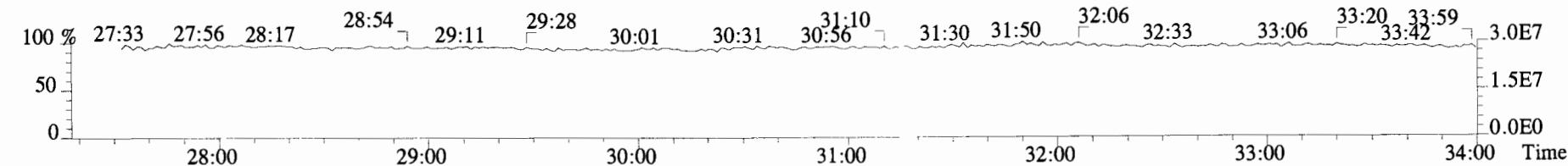
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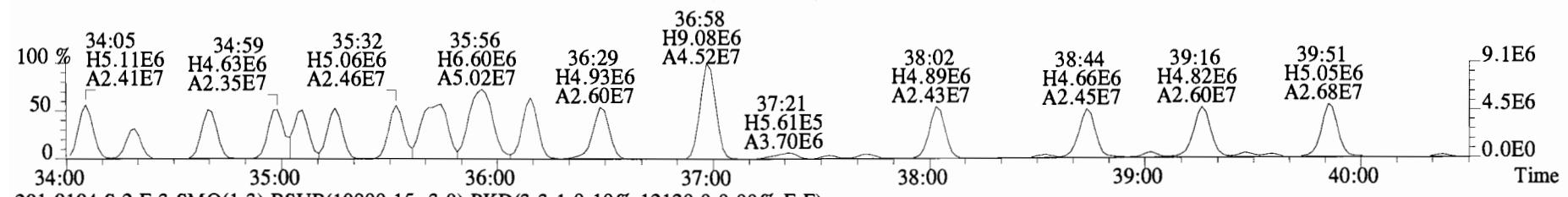
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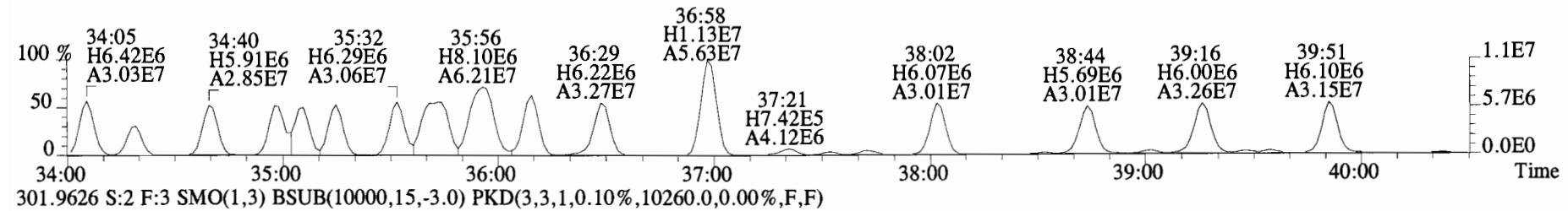
330.9792 S:2 F:3



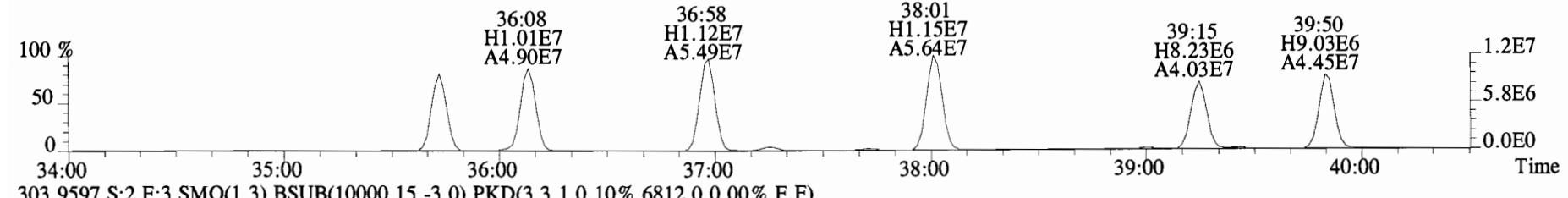
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 289.9224 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10372.0,0.00%,F,F)



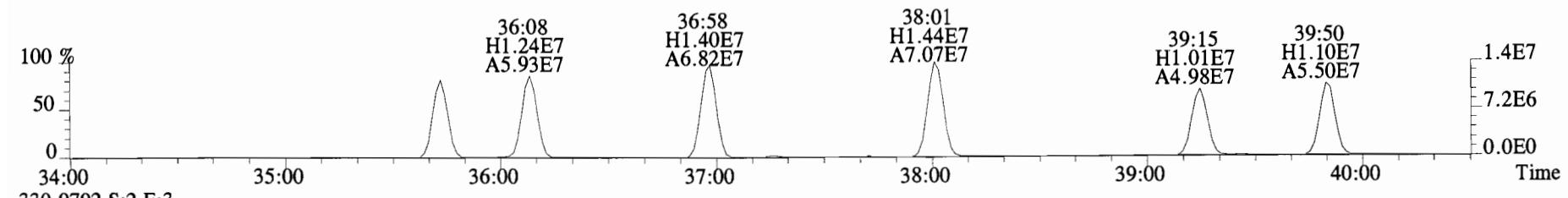
291.9194 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12120.0,0.00%,F,F)



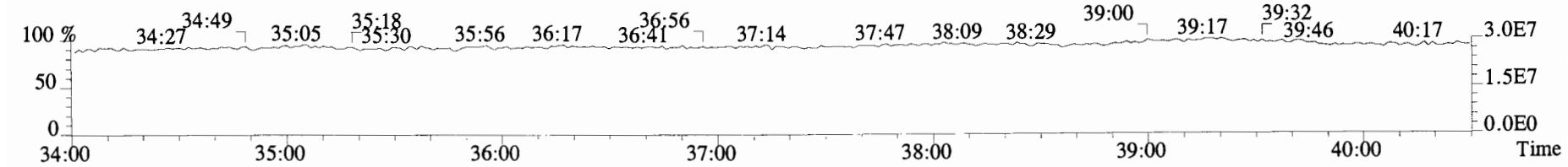
301.9626 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10260.0,0.00%,F,F)



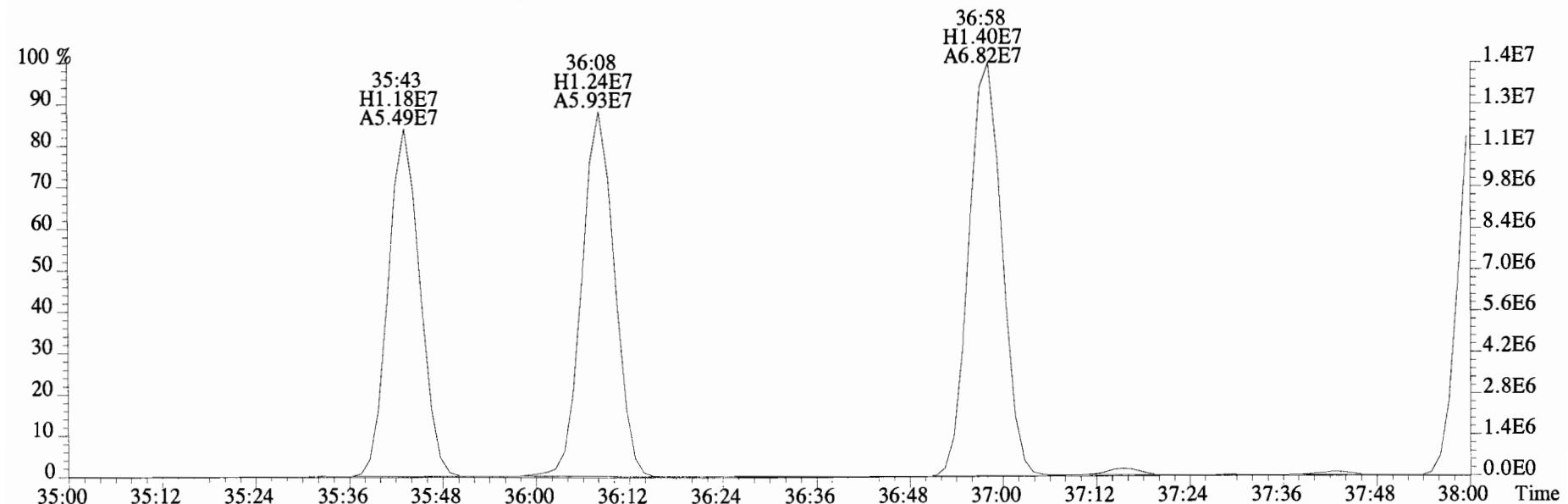
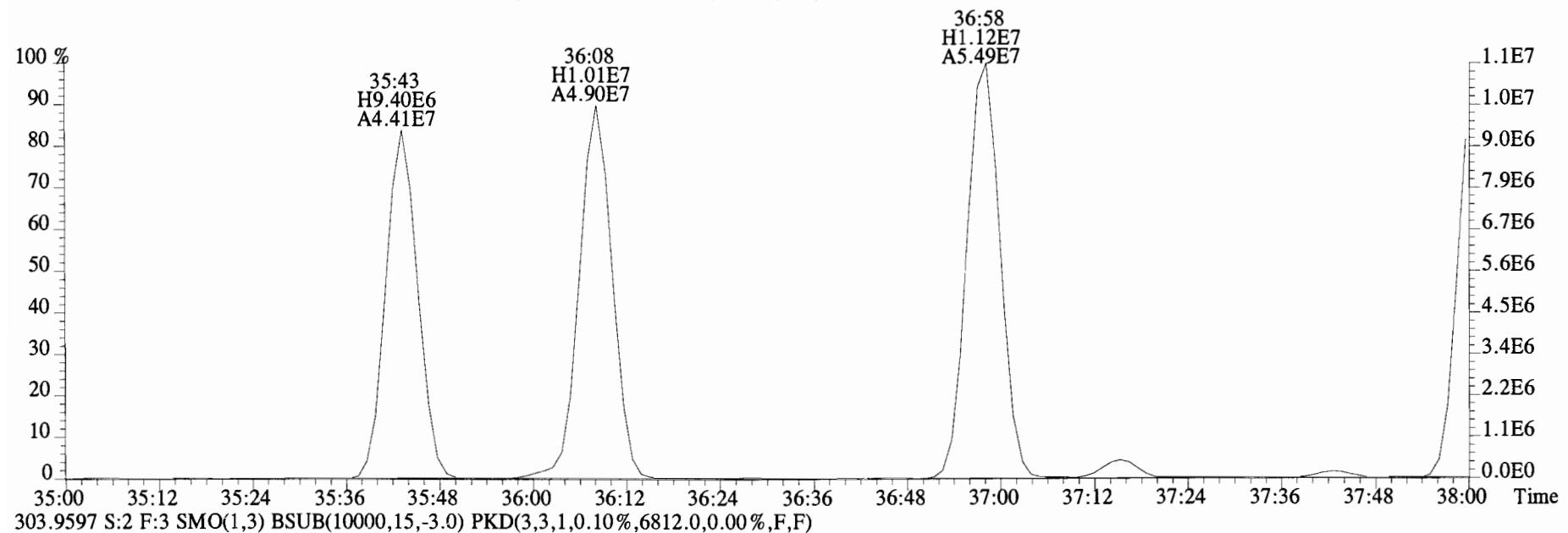
303.9597 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6812.0,0.00%,F,F)



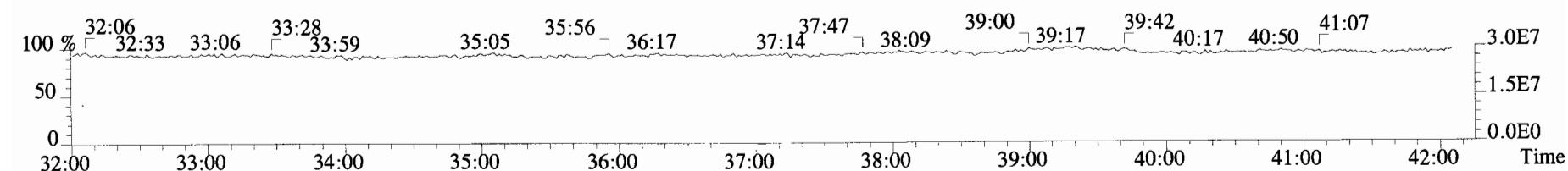
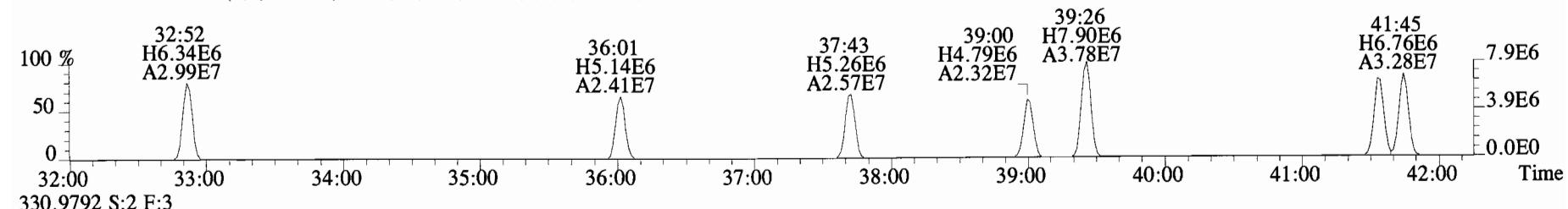
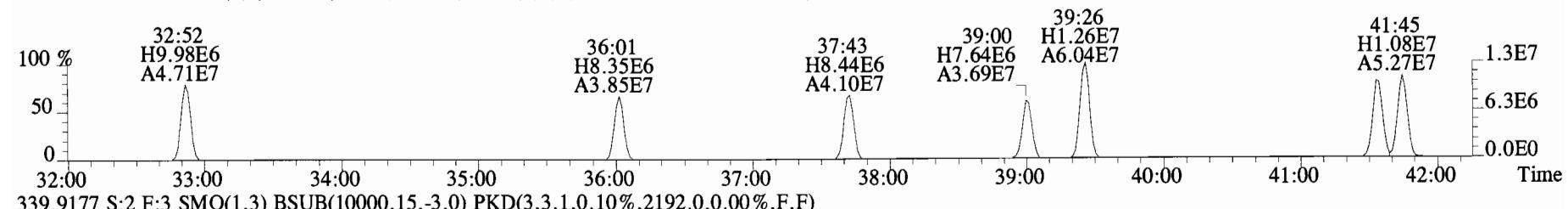
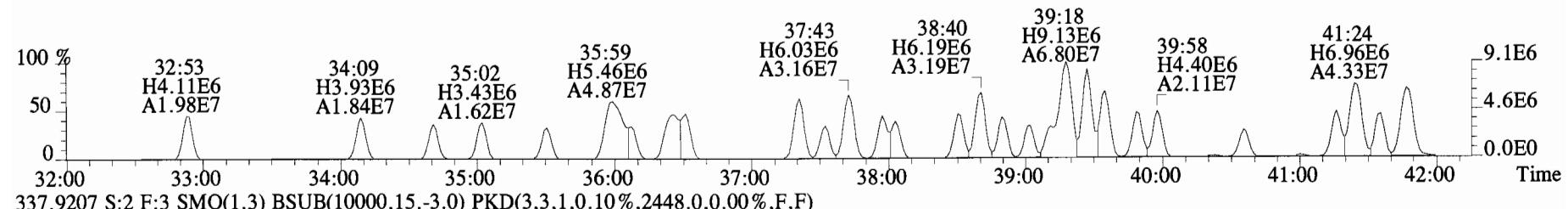
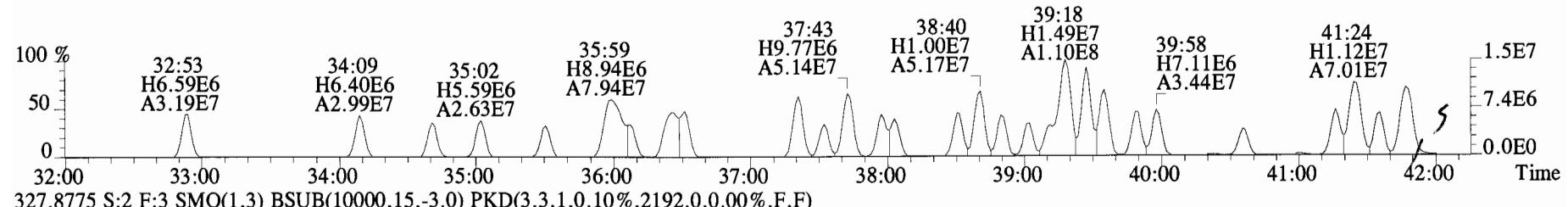
330.9792 S:2 F:3



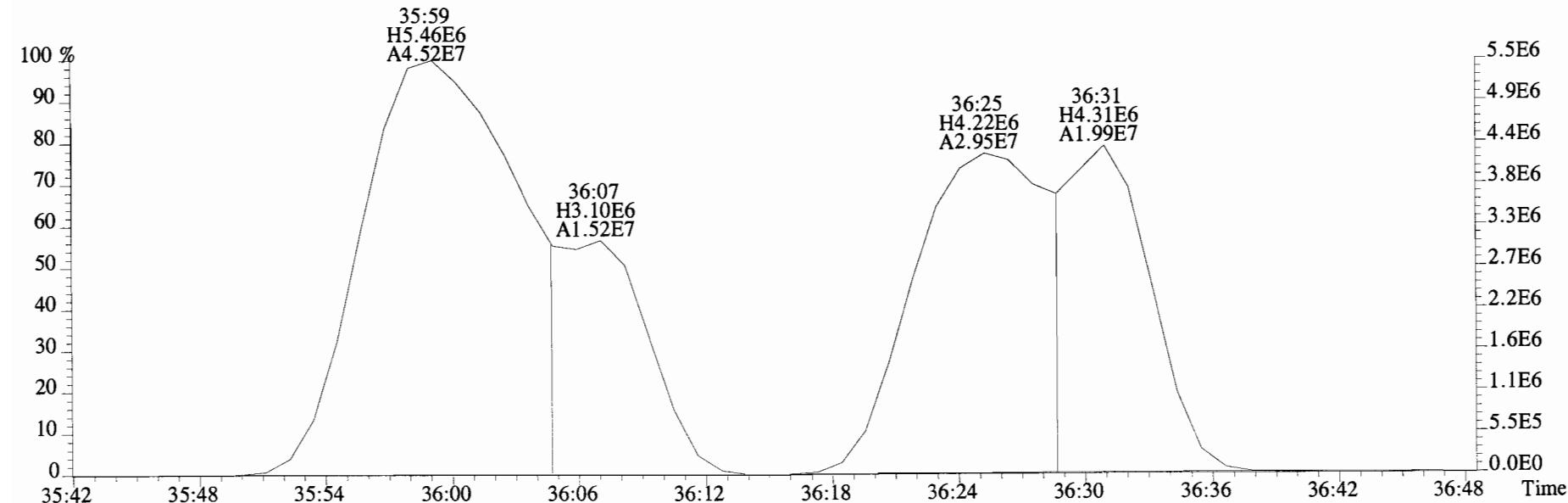
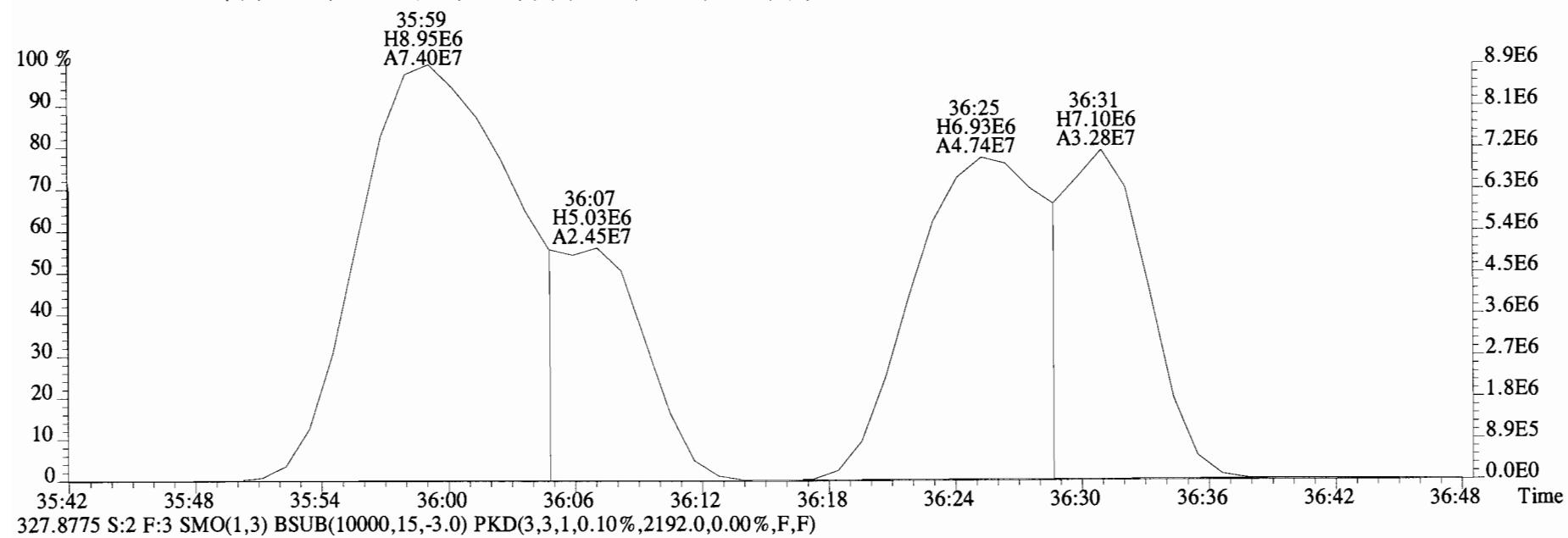
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
301.9626 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10260.0,0.00%,F,F)



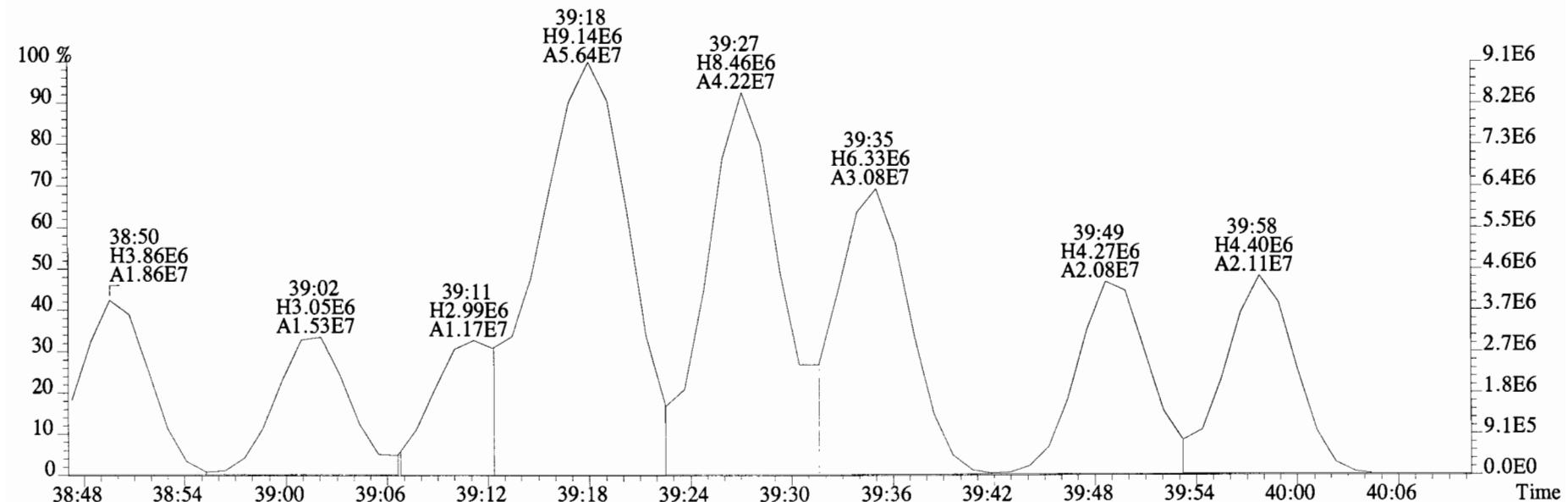
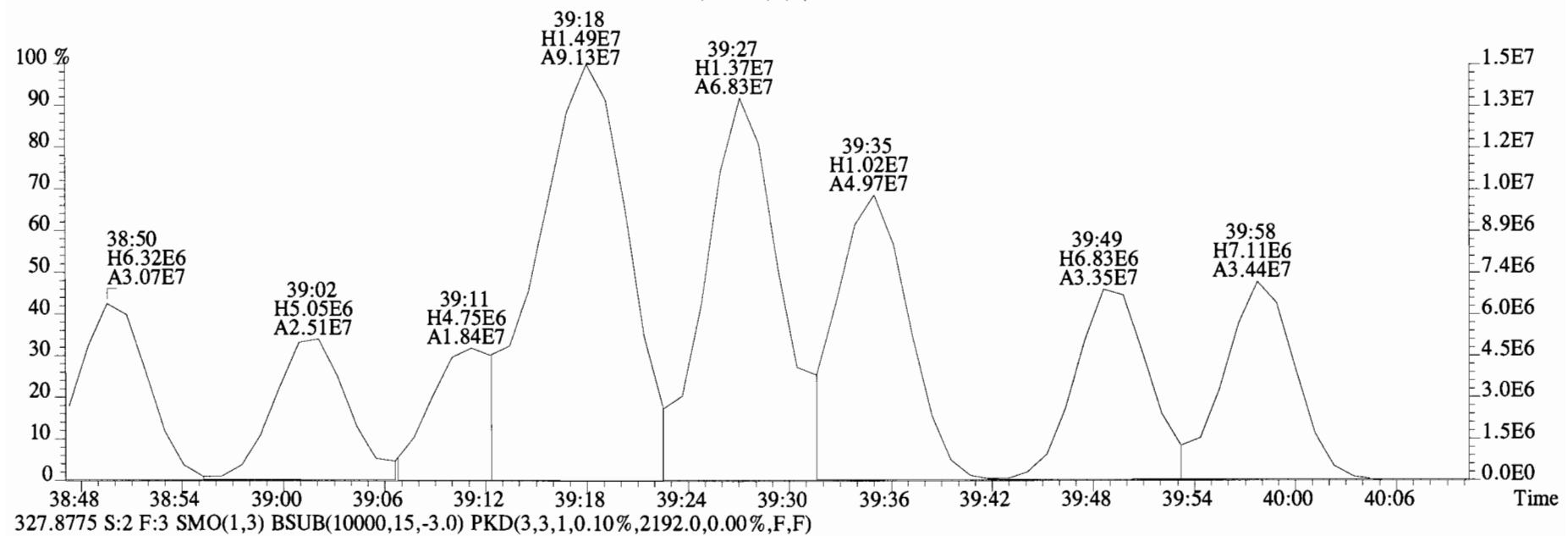
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 Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 325.8804 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2568.0,0.00%,F,F)



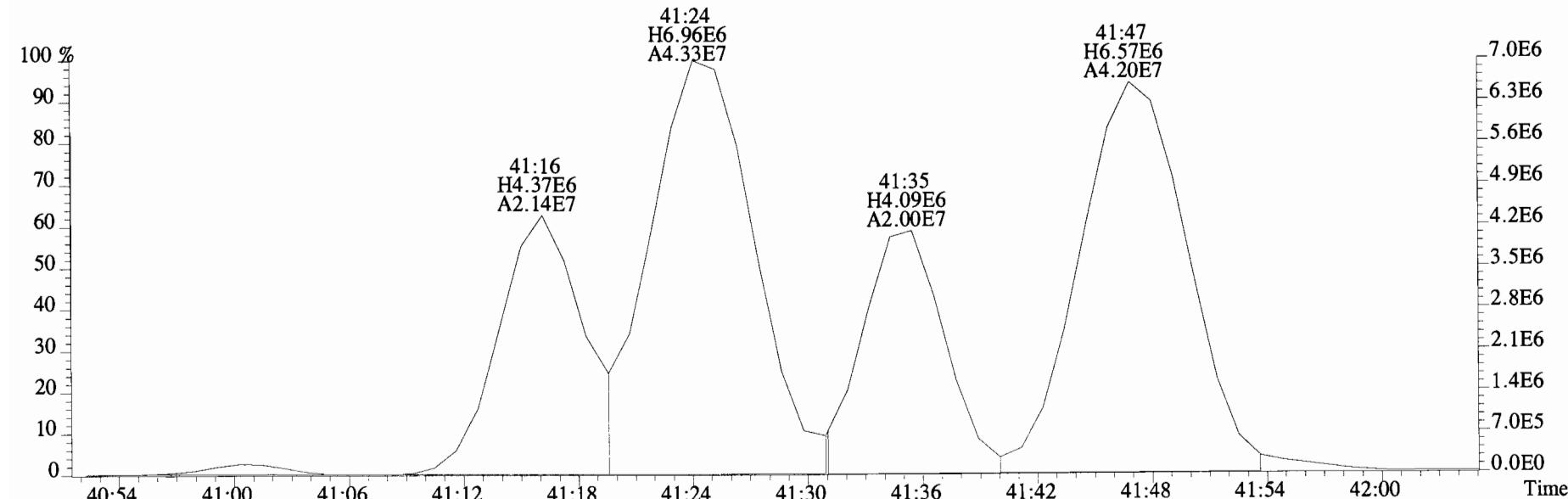
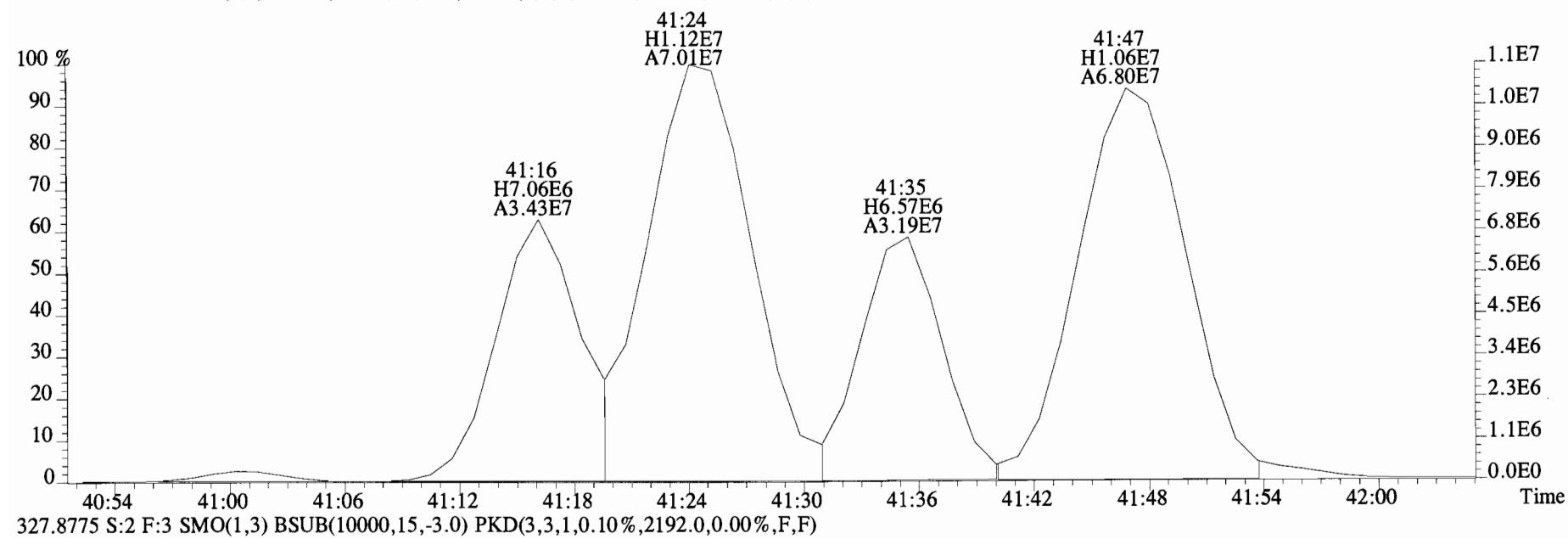
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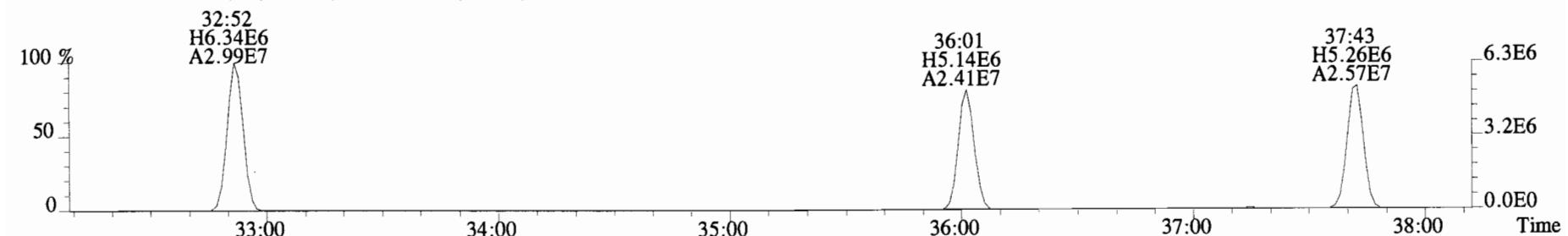
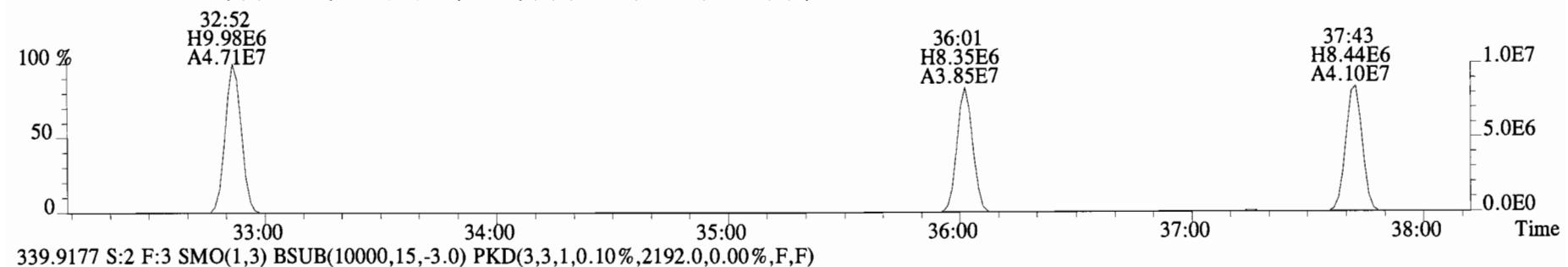
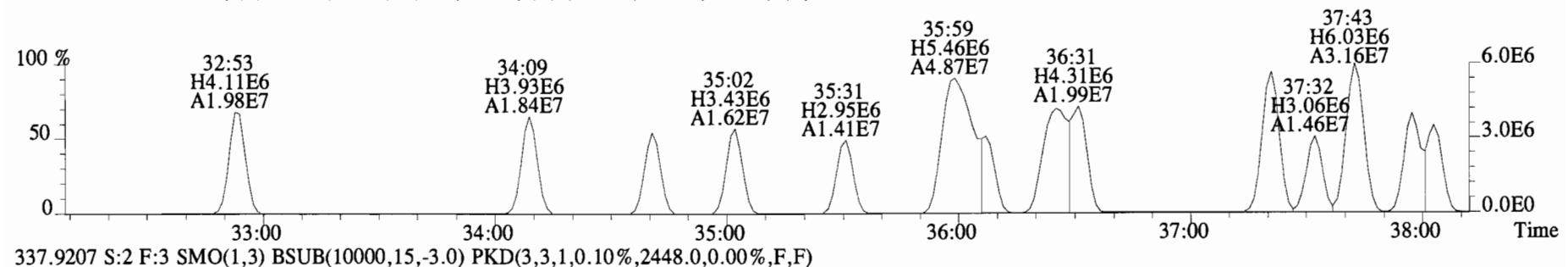
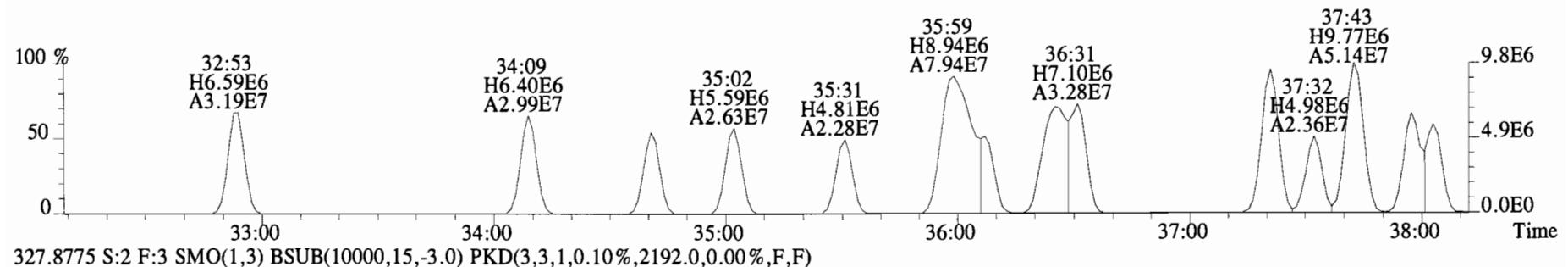
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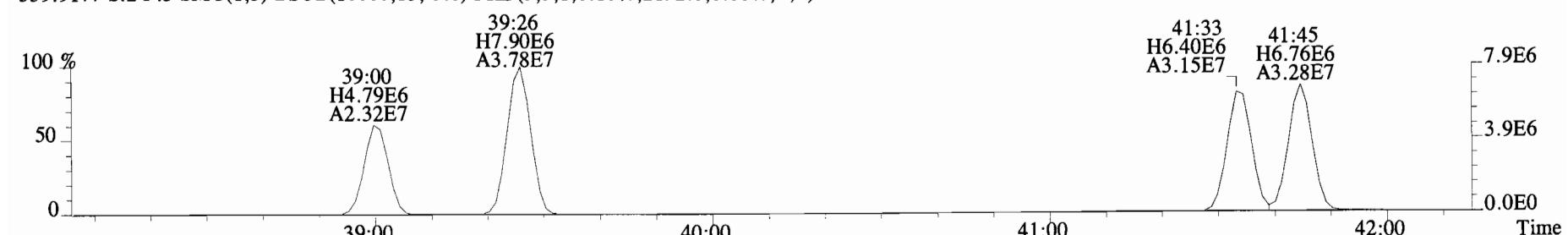
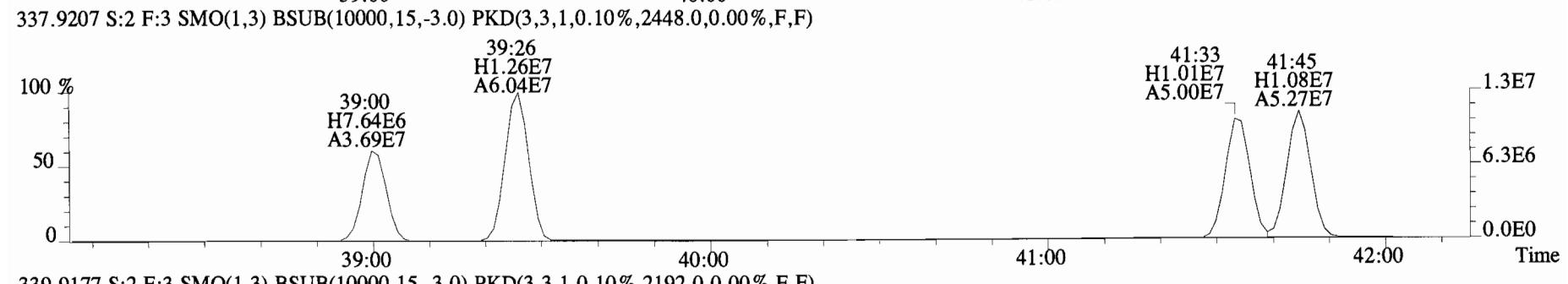
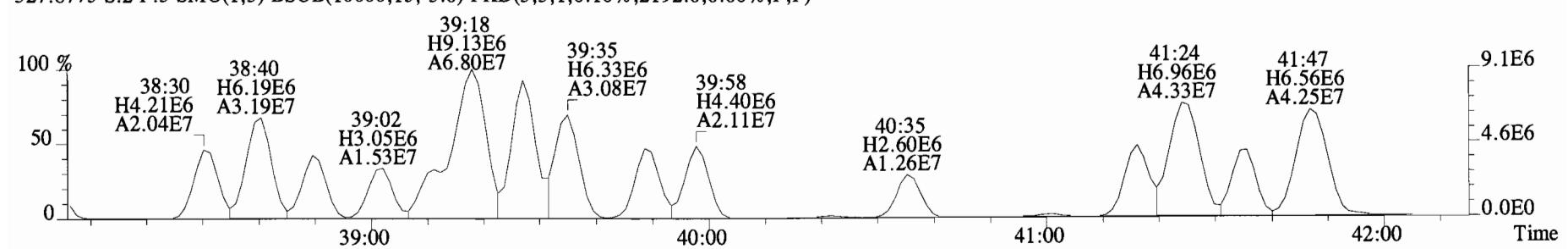
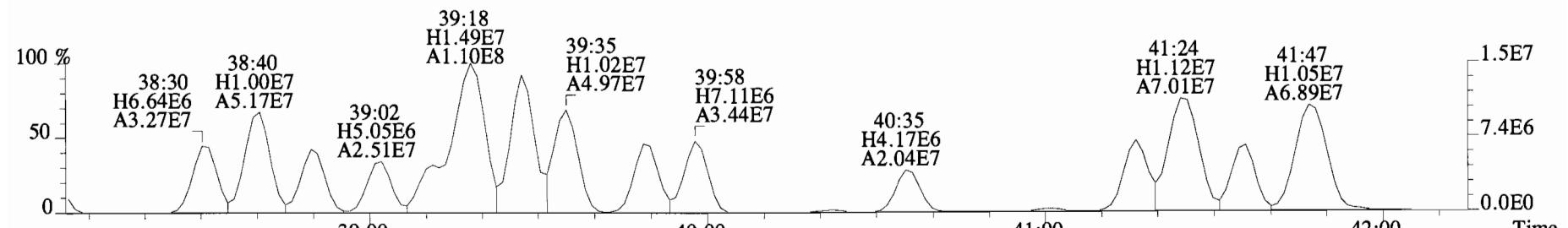
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
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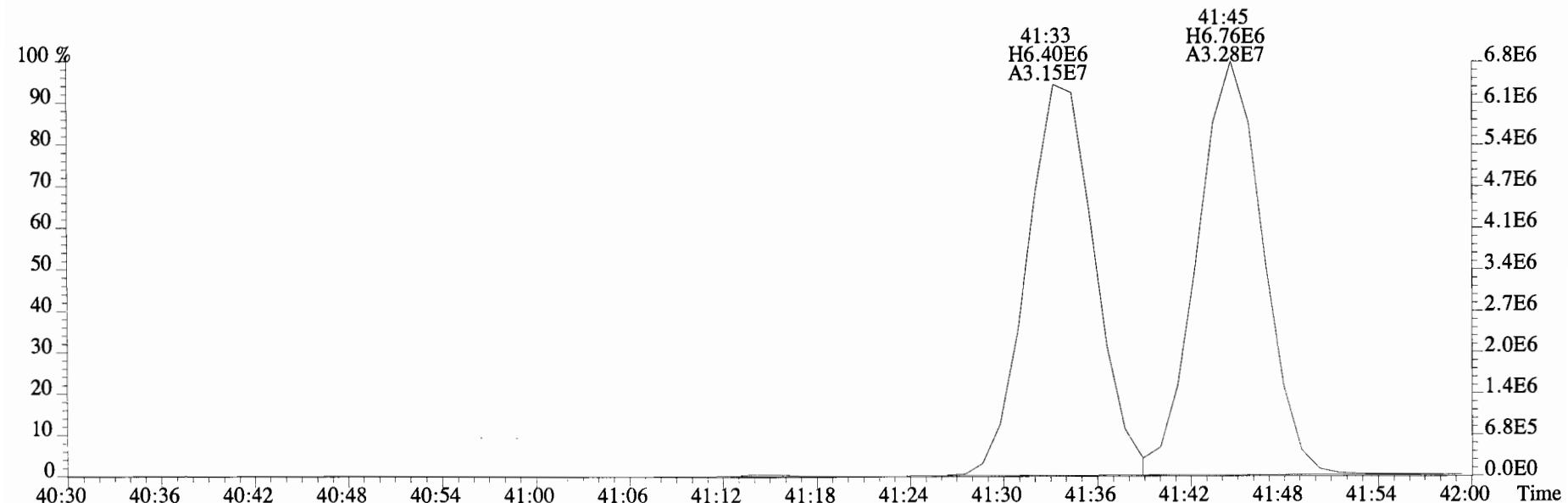
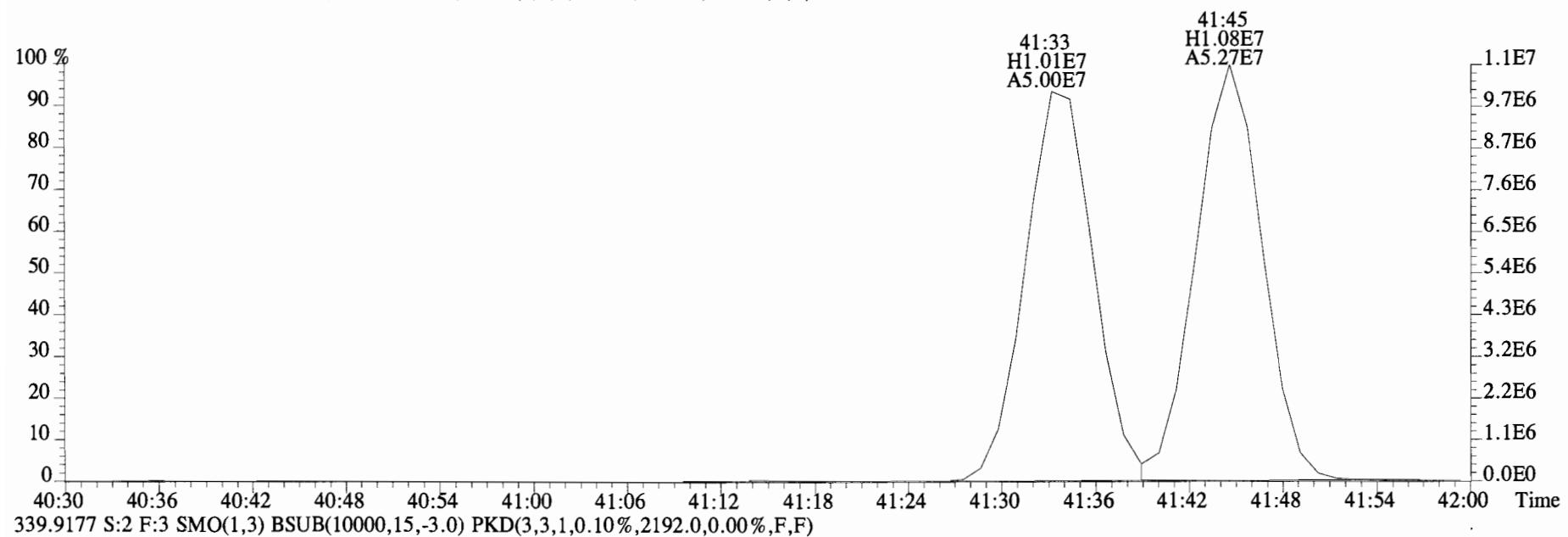
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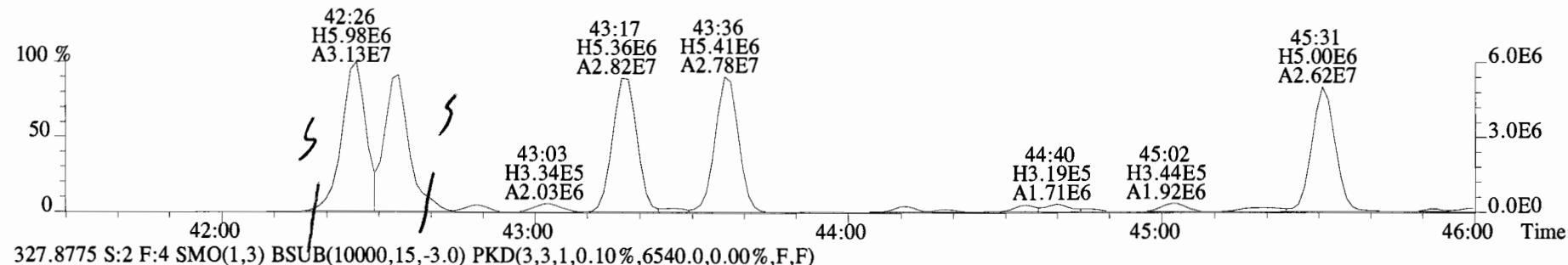
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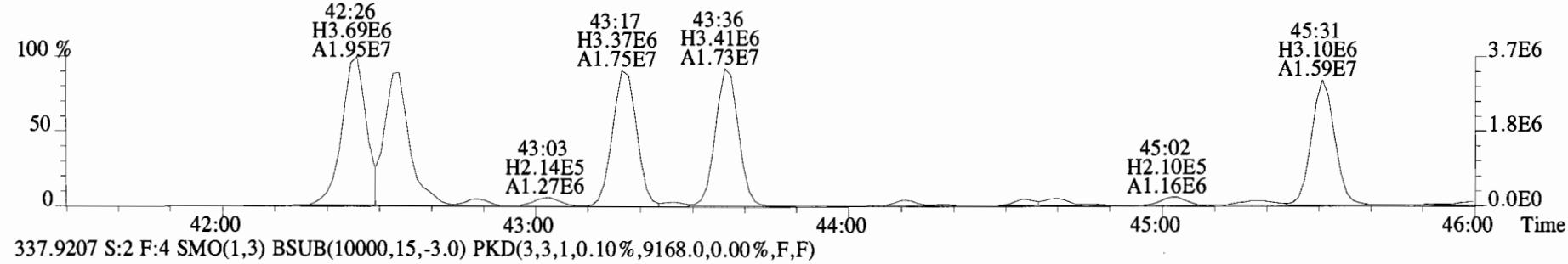
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
337.9207 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2448.0,0.00%,F,F)



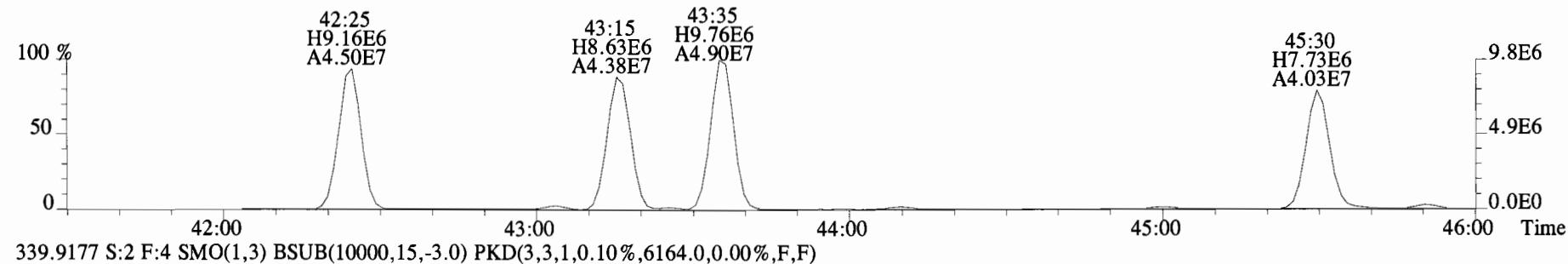
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 Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 325.8804 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12308.0,0.00%,F,F)



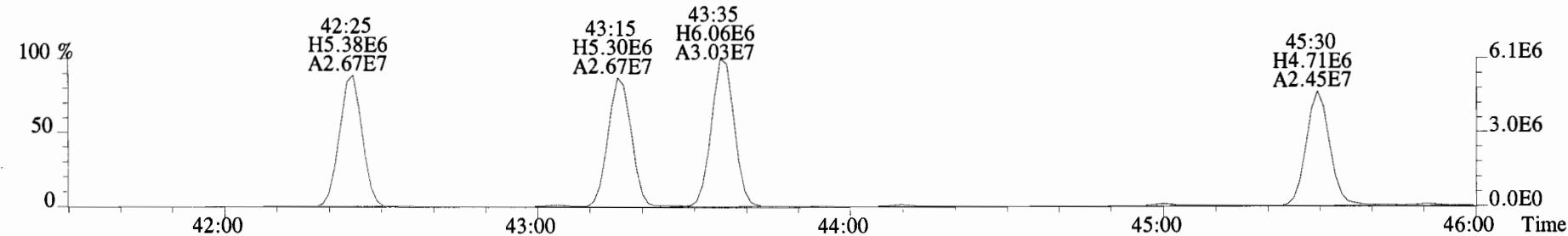
327.8775 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6540.0,0.00%,F,F)



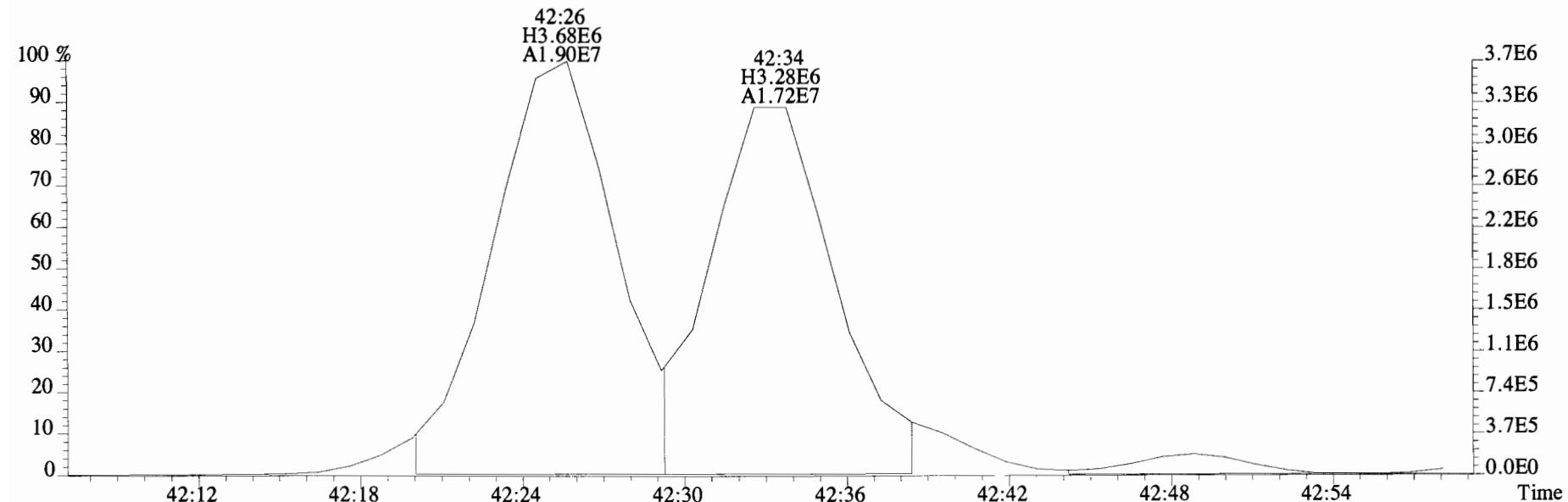
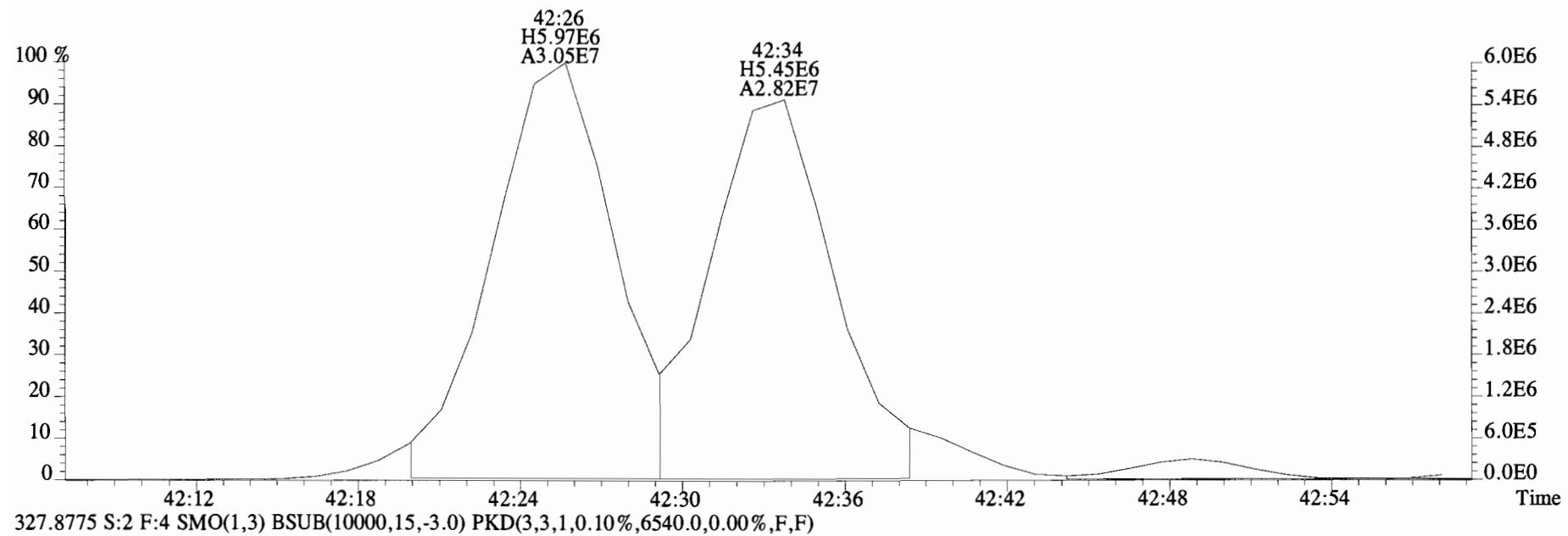
337.9207 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9168.0,0.00%,F,F)



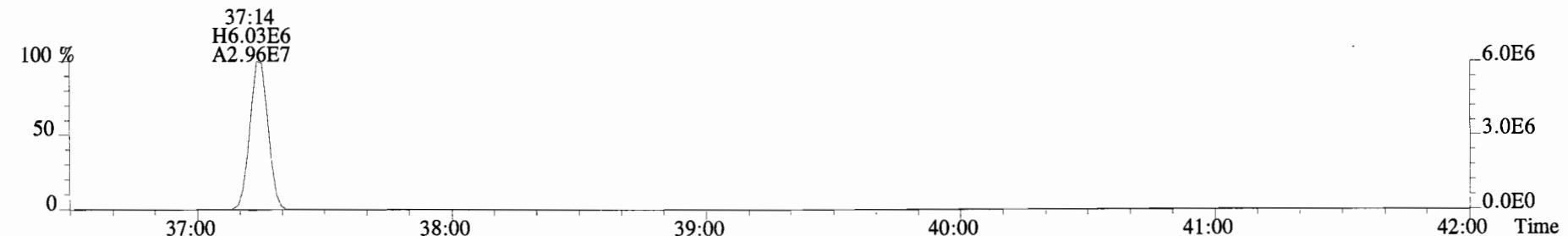
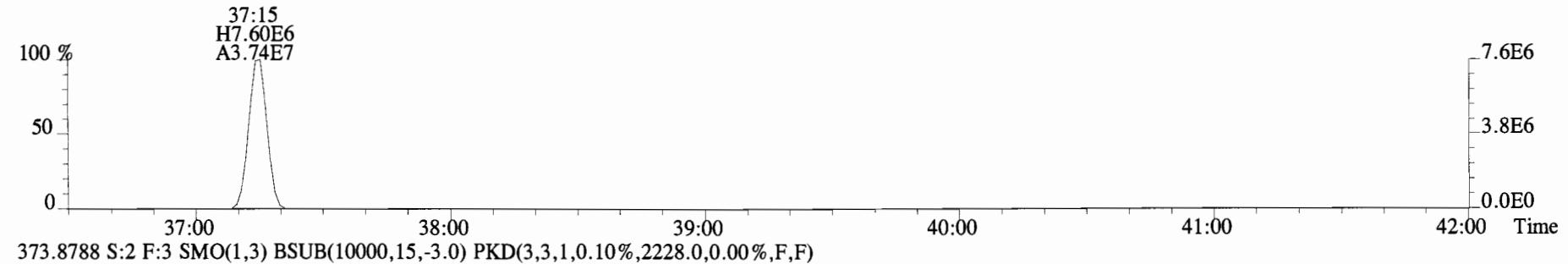
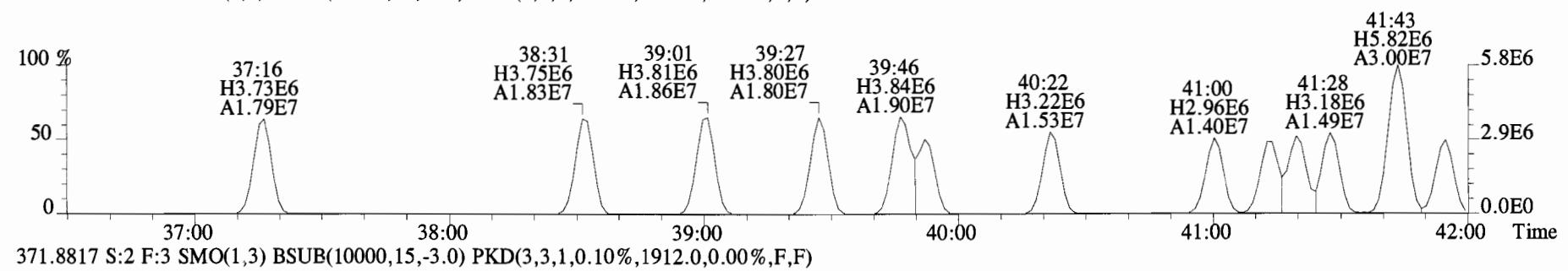
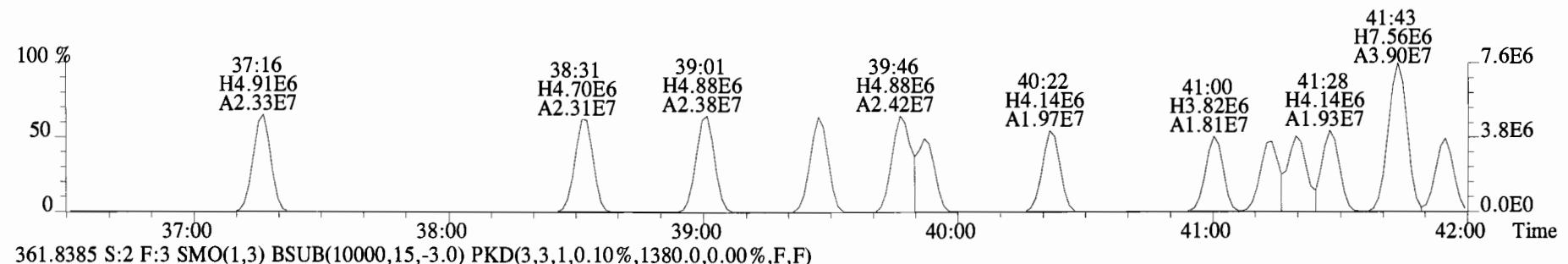
339.9177 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6164.0,0.00%,F,F)



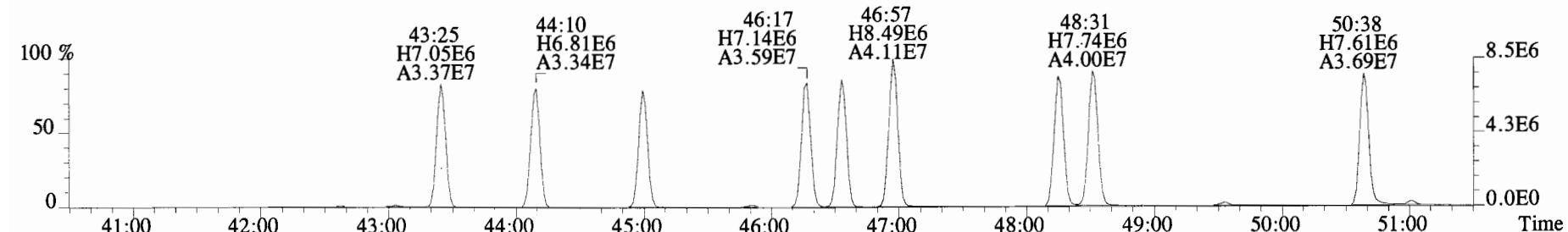
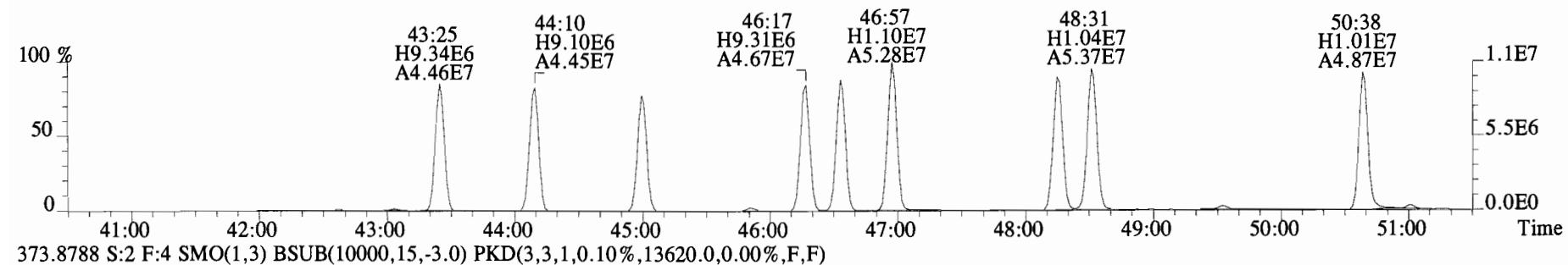
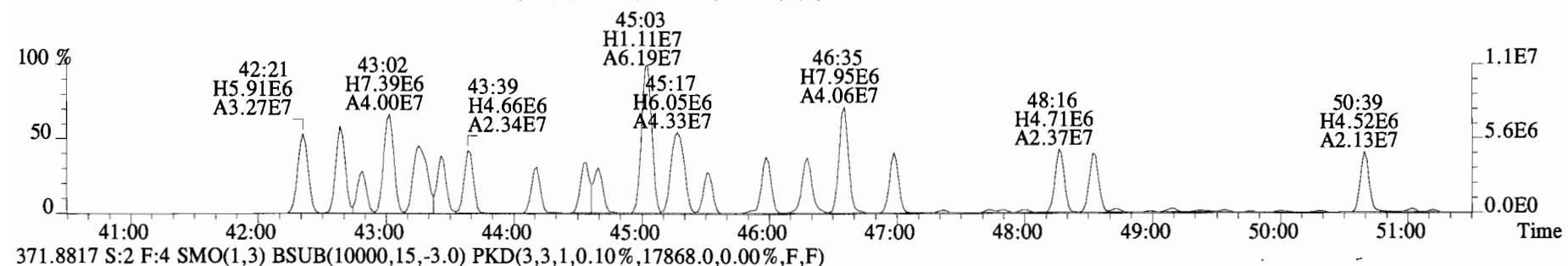
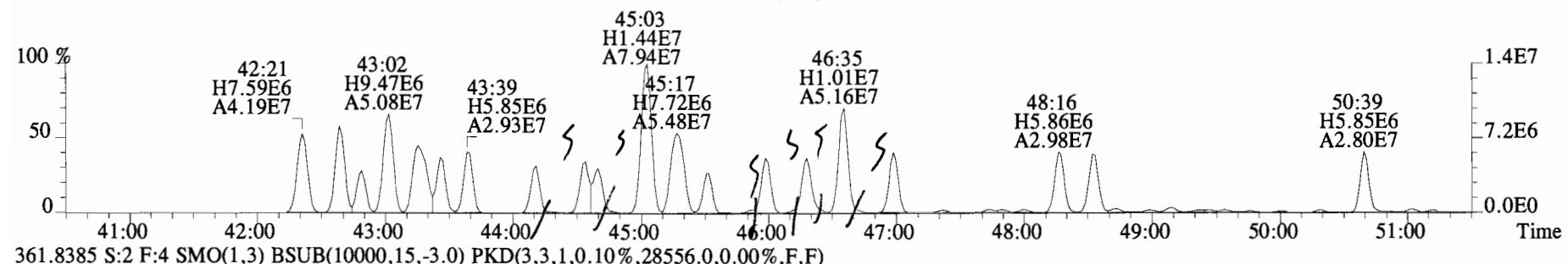
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
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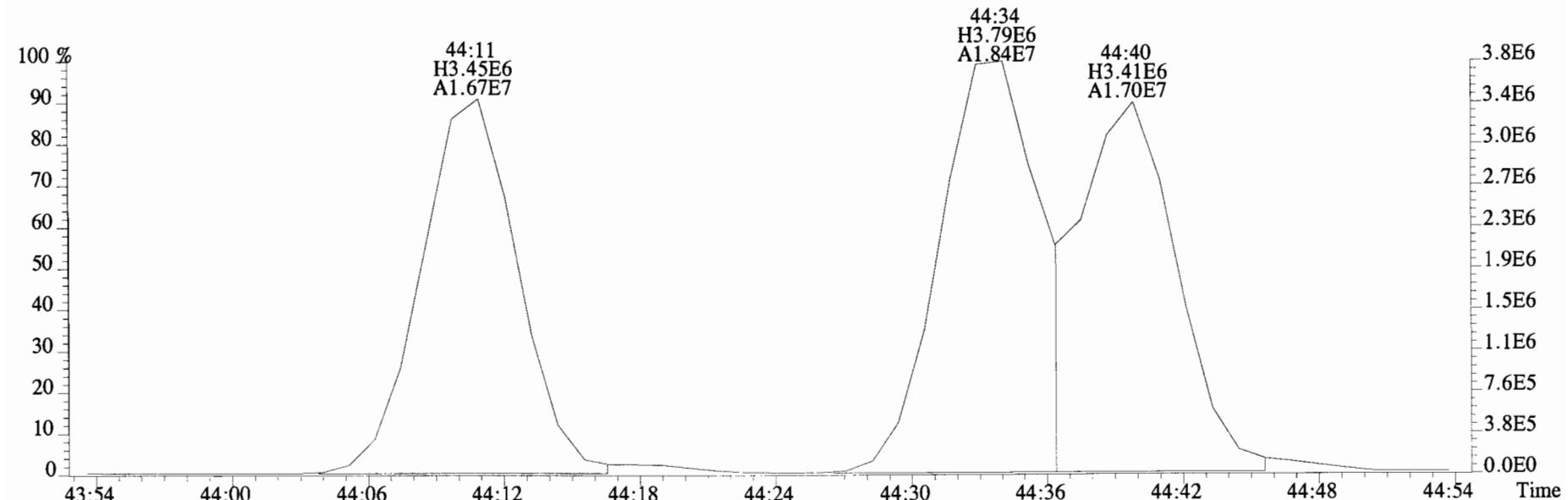
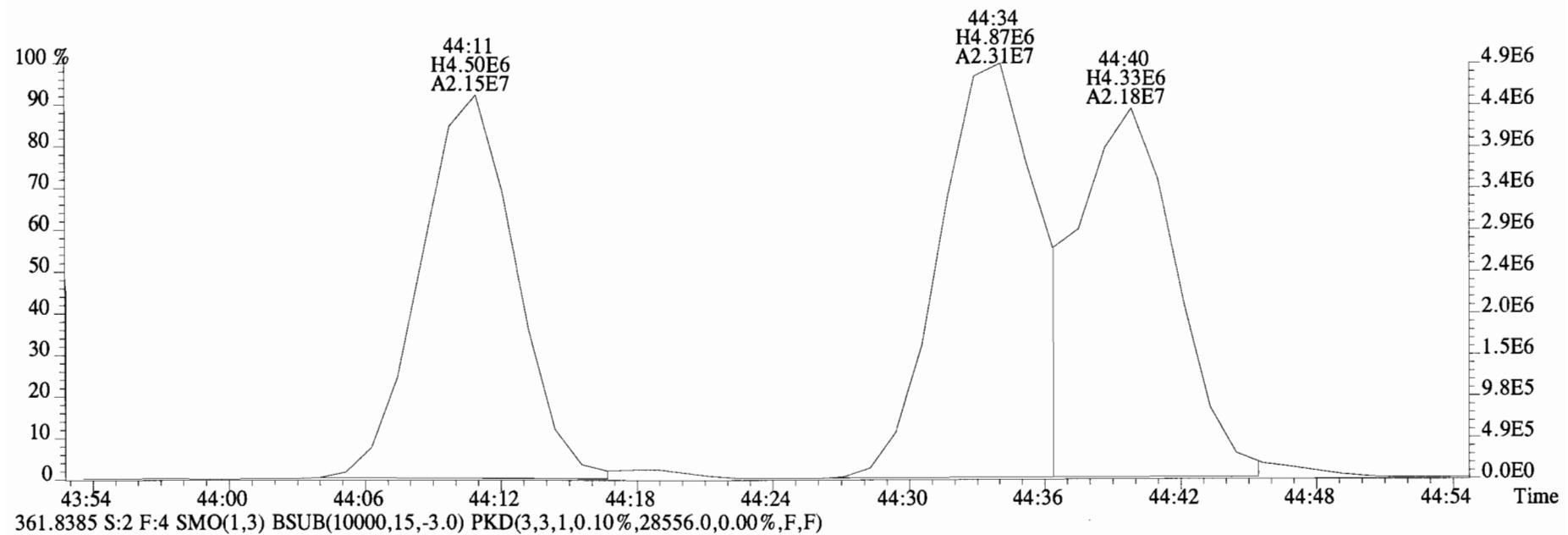
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359.8415 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1460.0,0.00%,F,F)



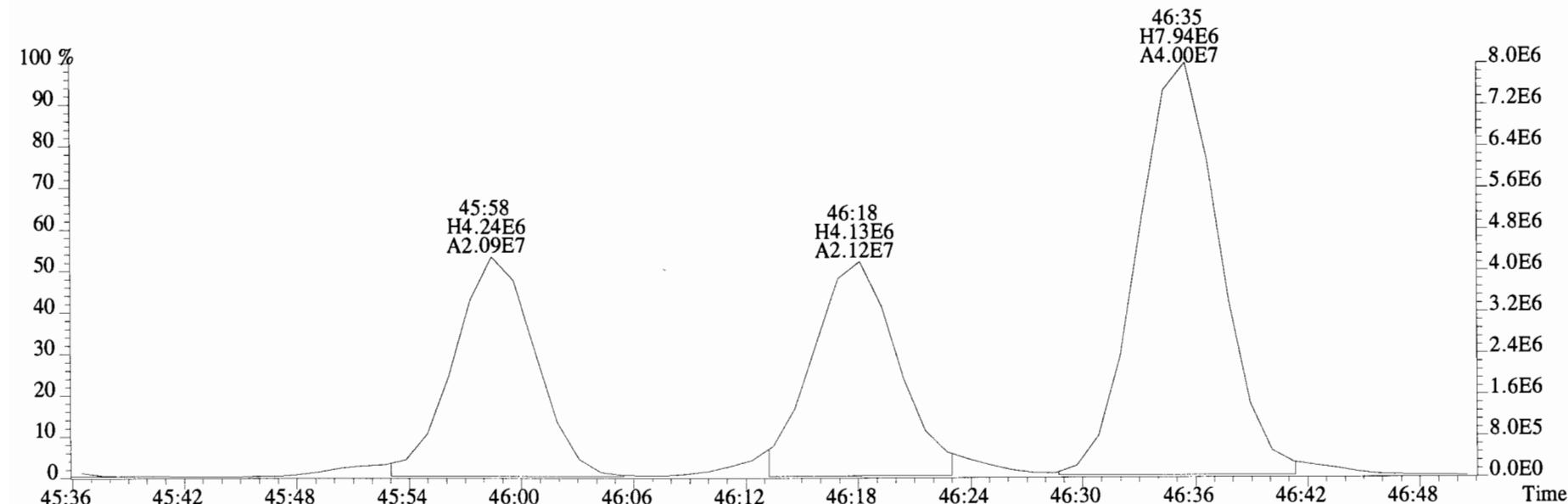
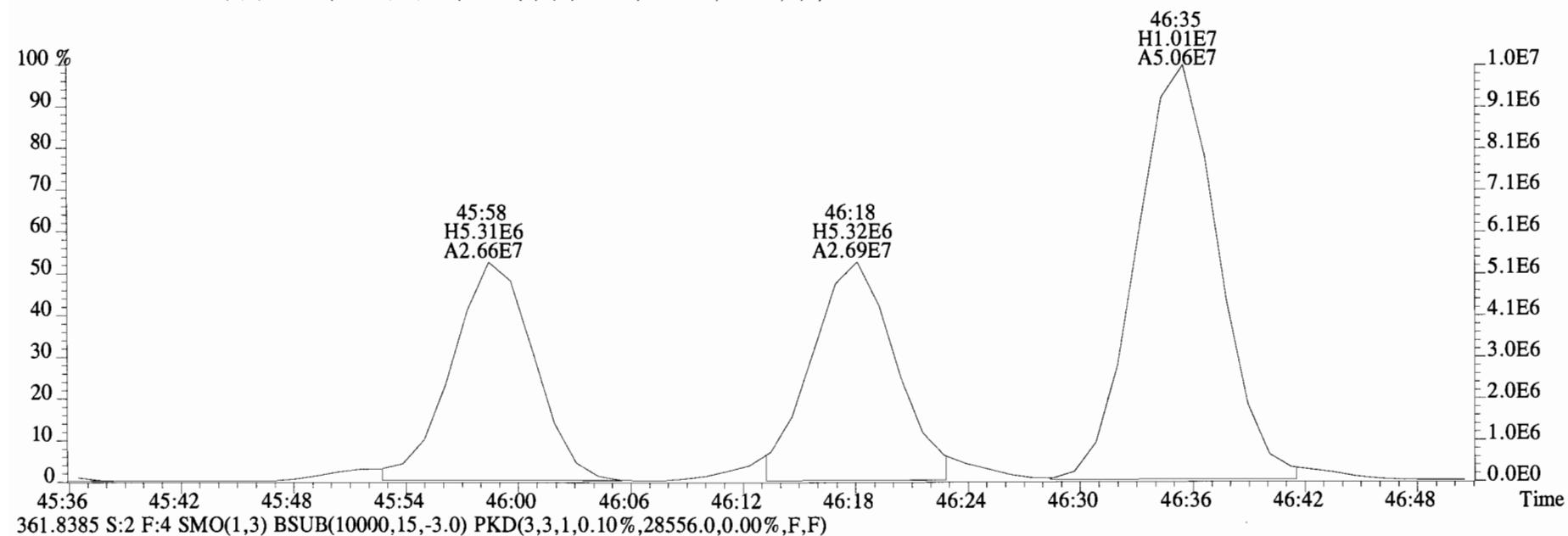
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 Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 359.8415 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15832.0,0.00%,F,F)



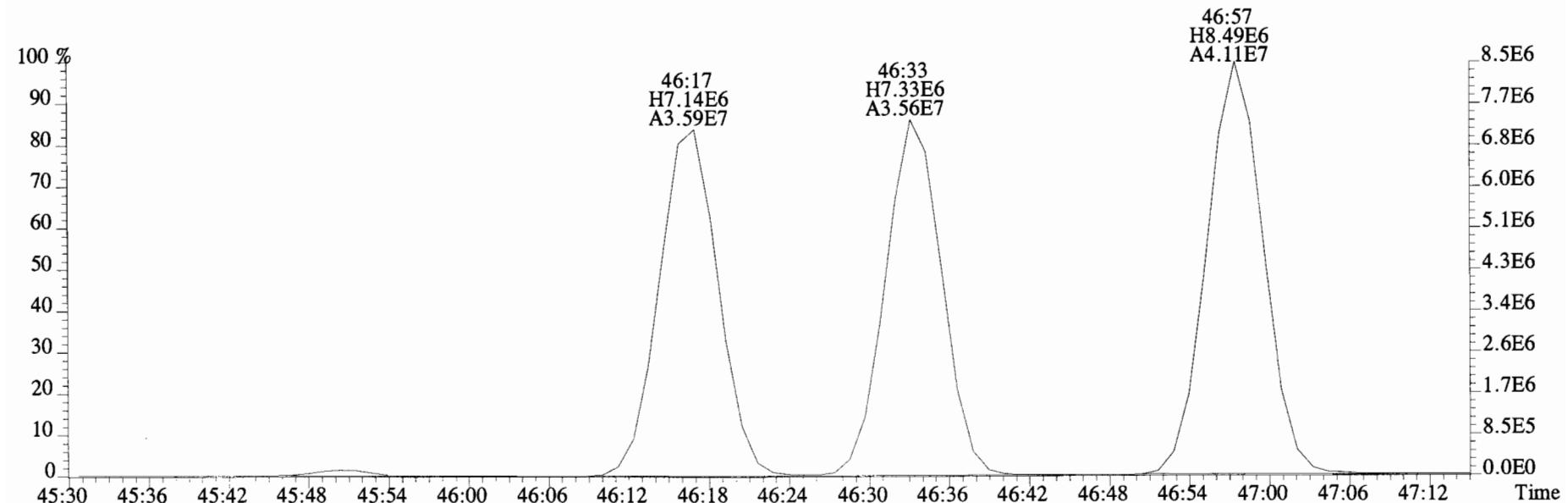
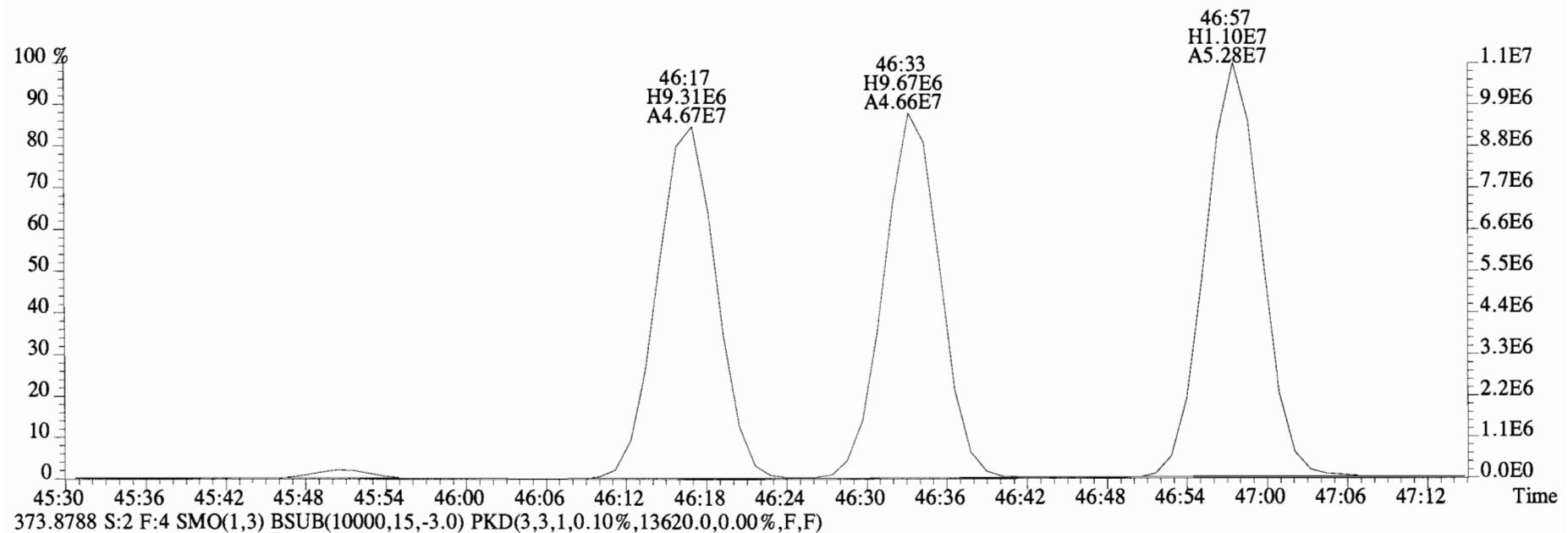
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
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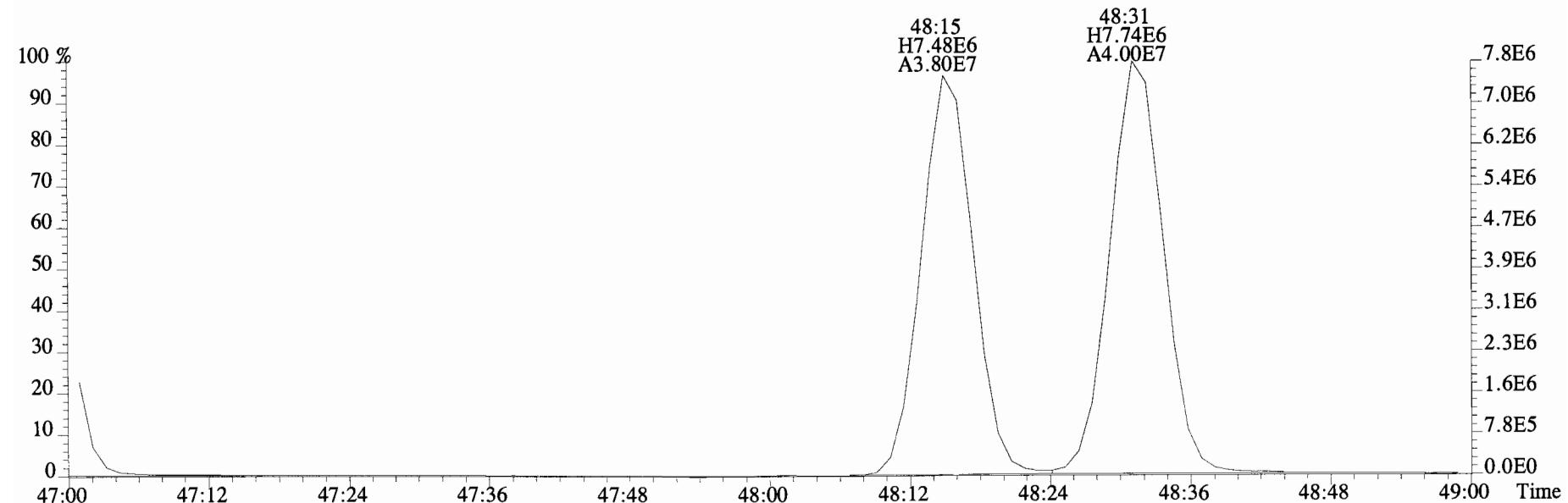
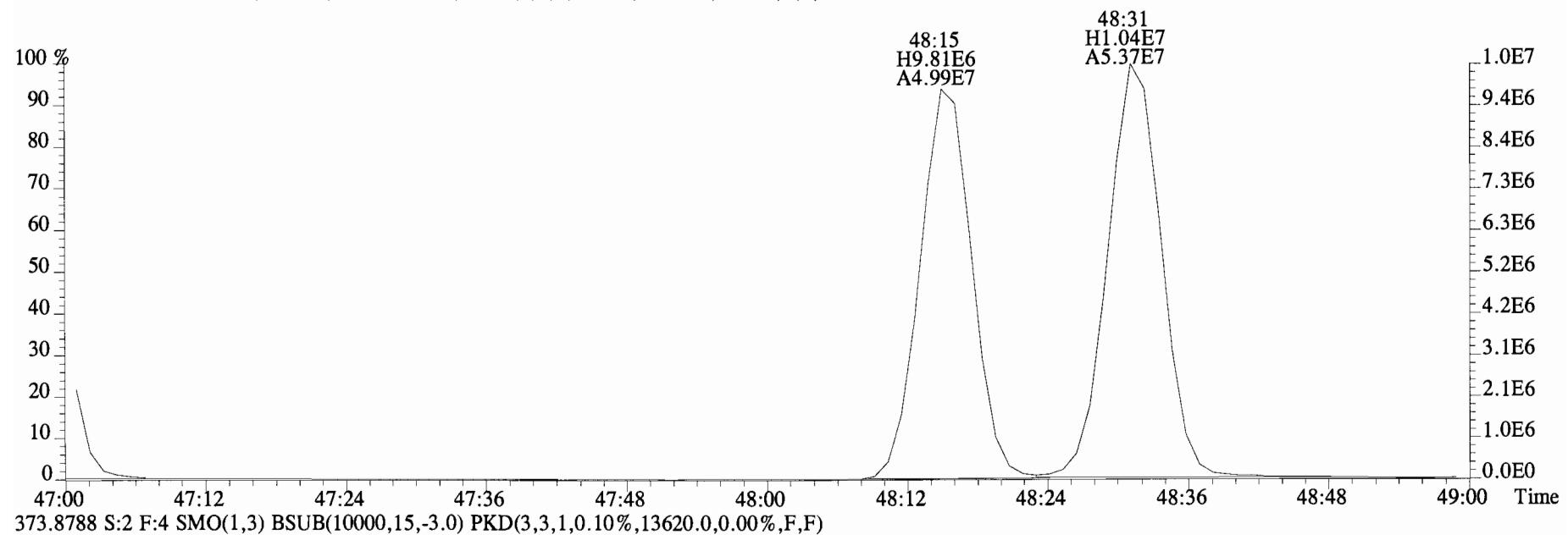
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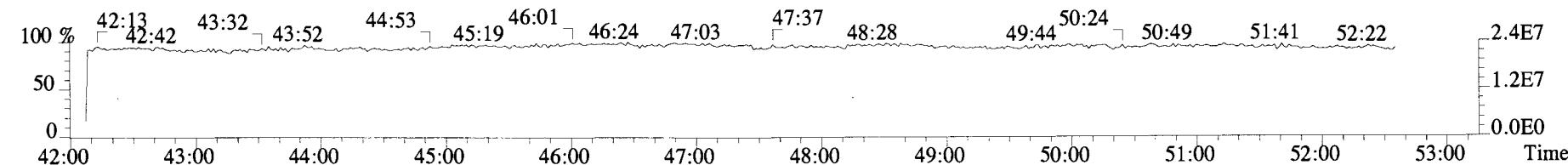
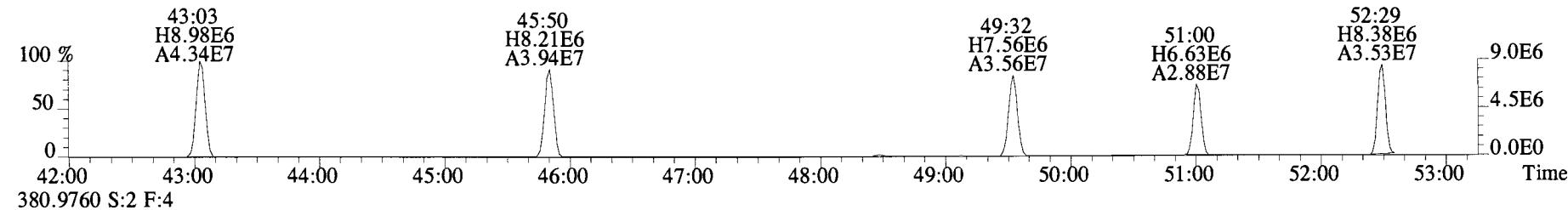
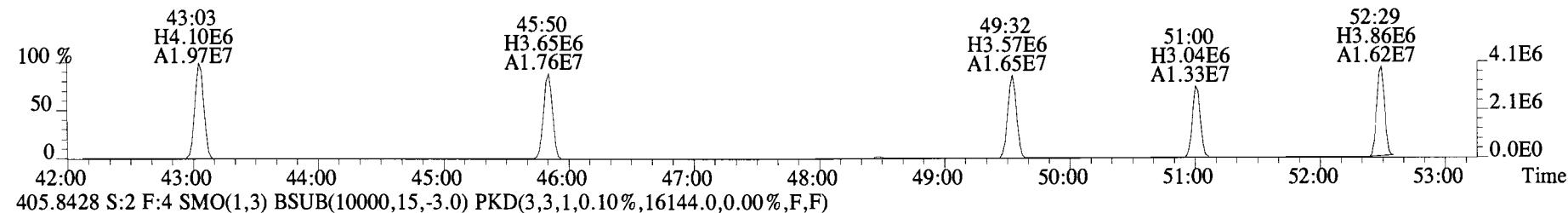
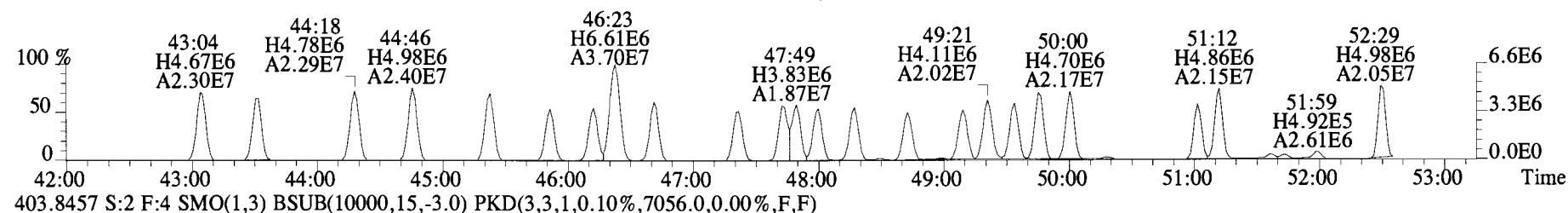
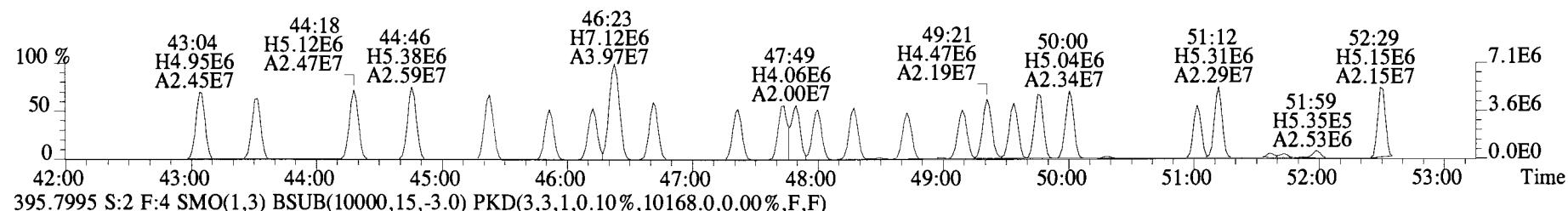
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
371.8817 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,17868.0,0.00%,F,F)



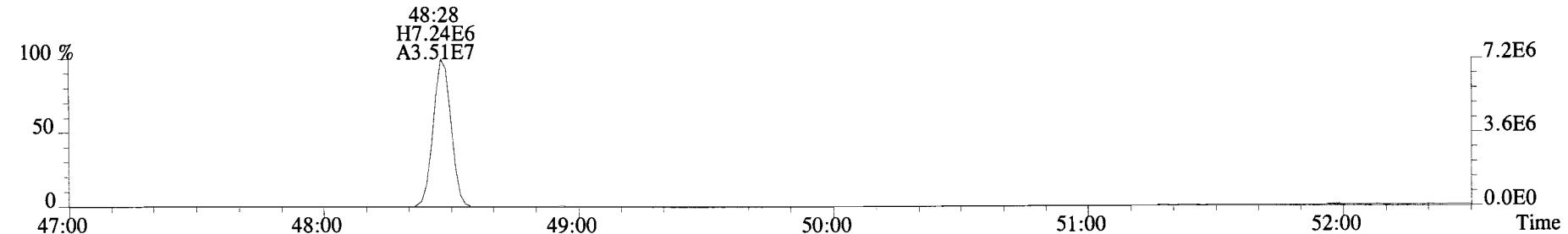
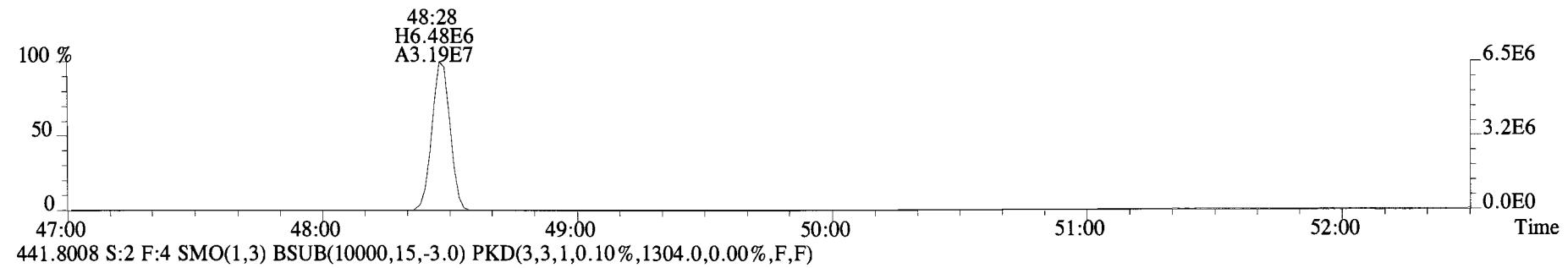
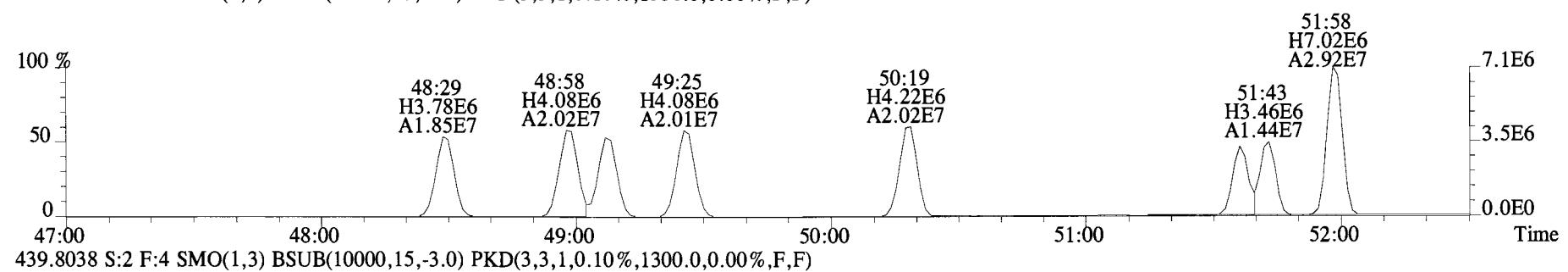
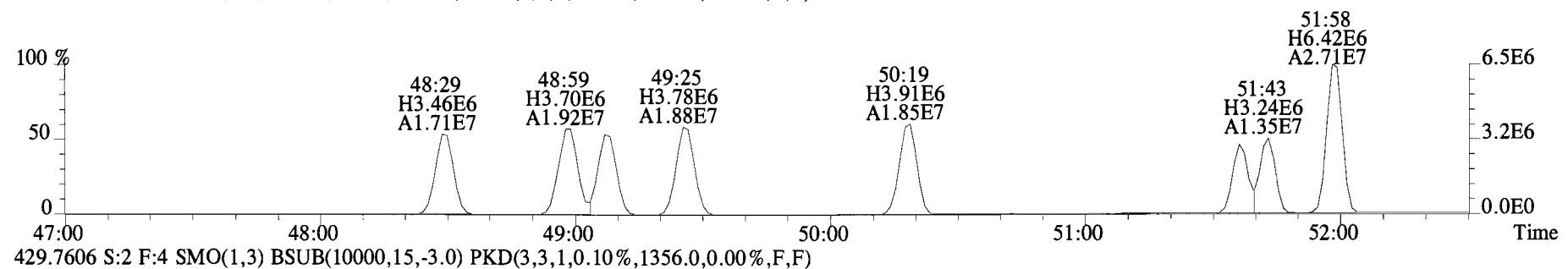
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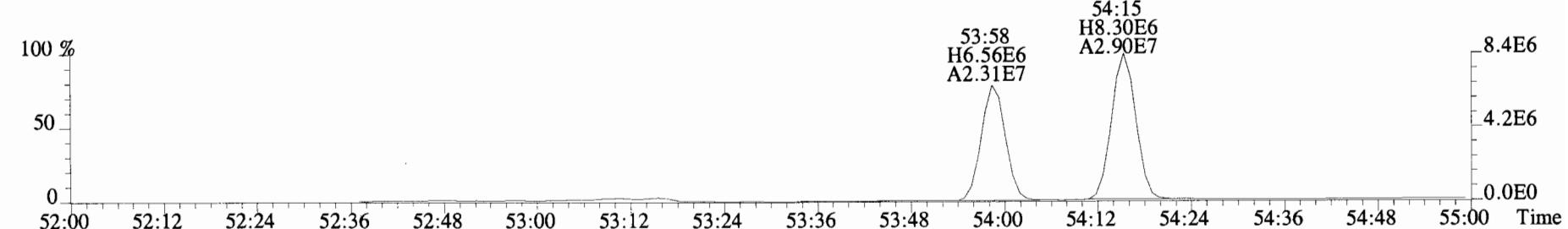
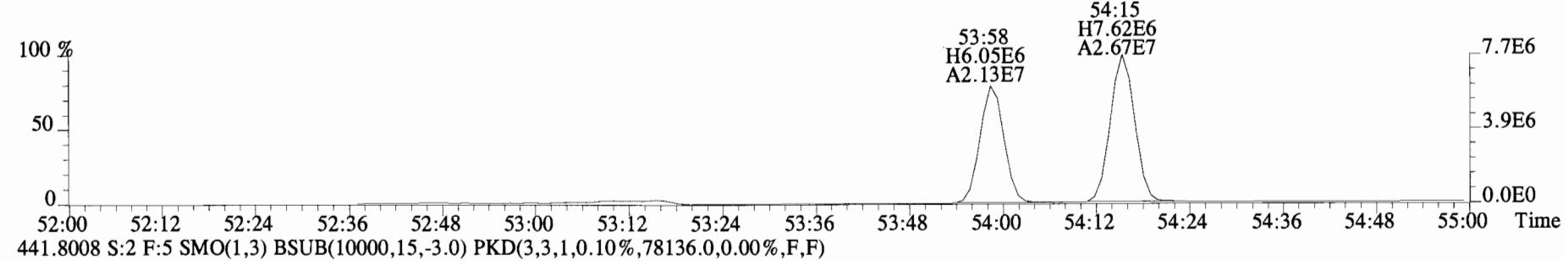
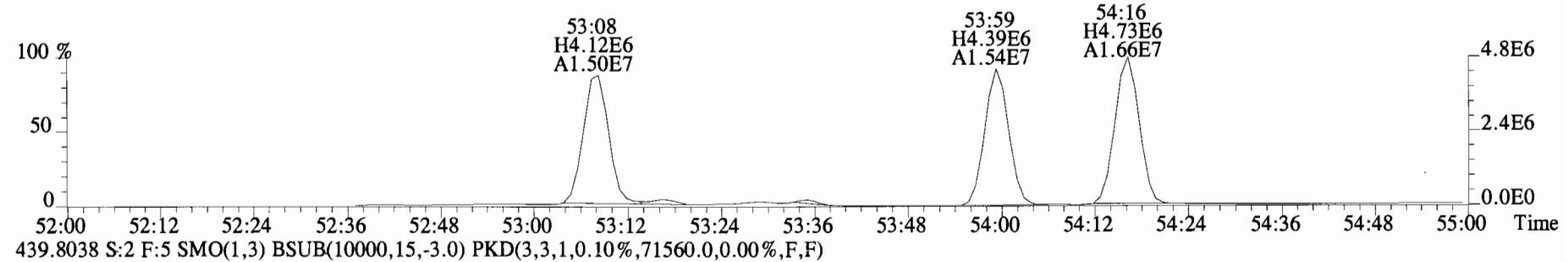
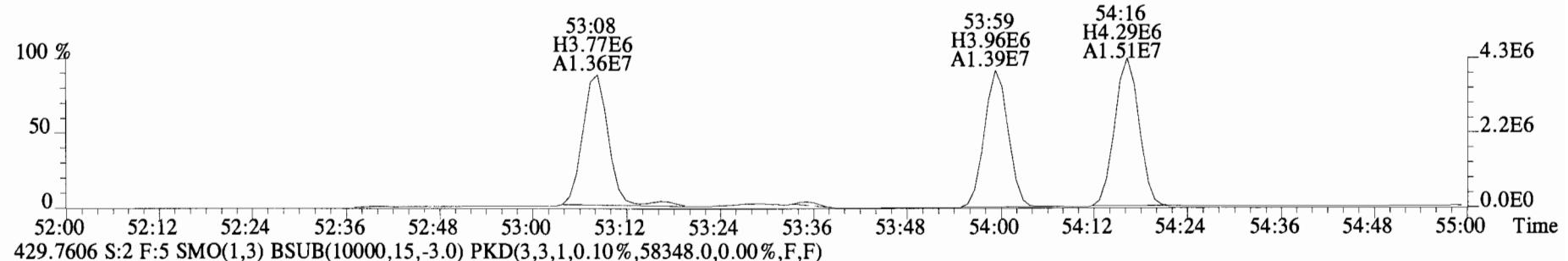
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 Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 393.8025 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10980.0,0.00%,F,F)



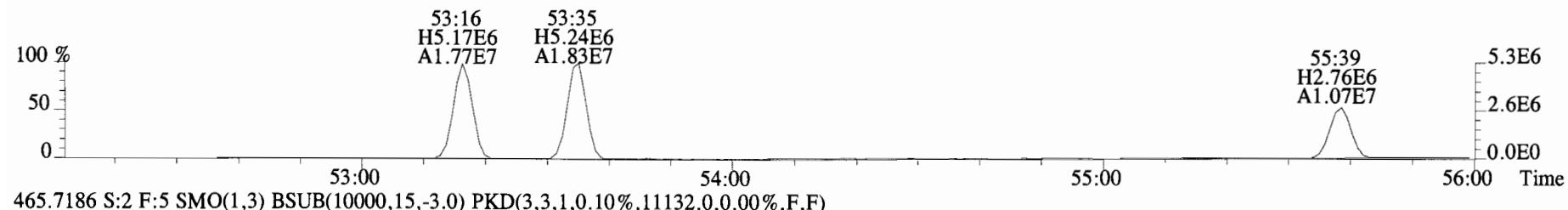
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB ZB1
427.7635 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1356.0,0.00%,F,F)



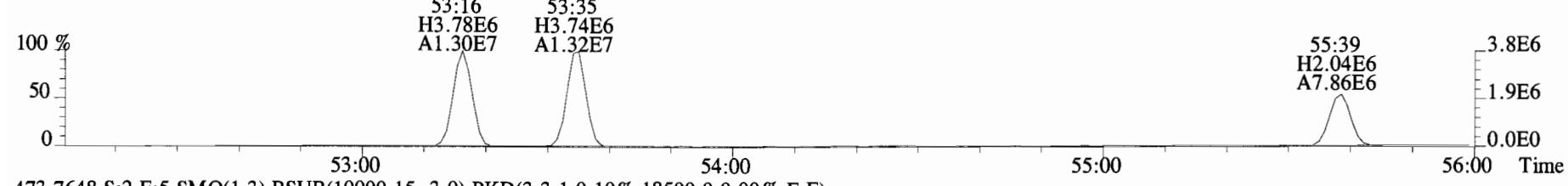
File:140919E1 #1-430 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
427.7635 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,52796.0,0.00%,F,F)



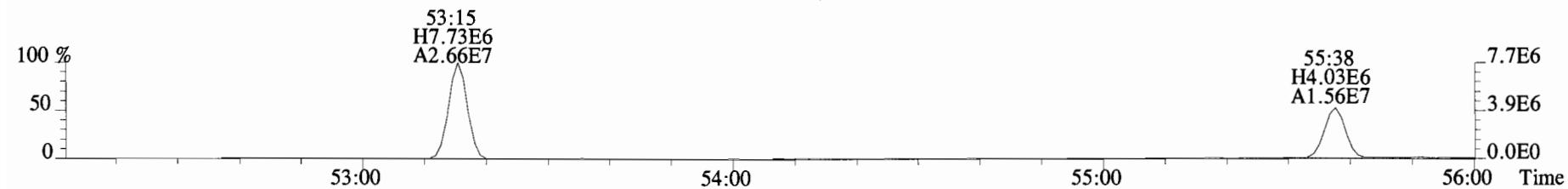
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
463.7216 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,16708.0,0.00%,F,F)



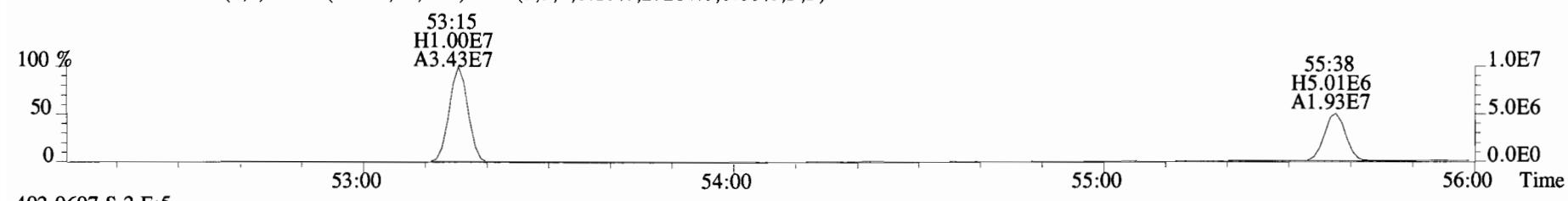
465.7186 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11132.0,0.00%,F,F)



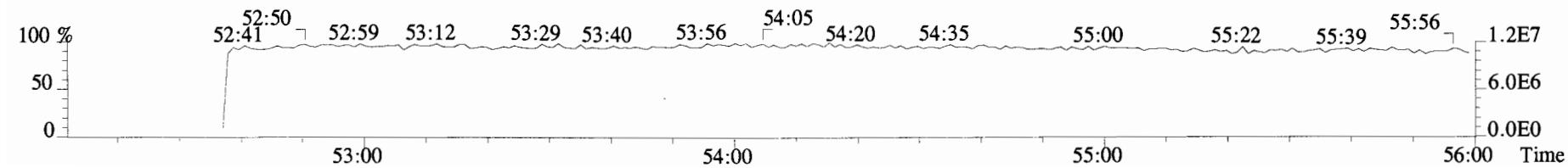
473.7648 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,18500.0,0.00%,F,F)



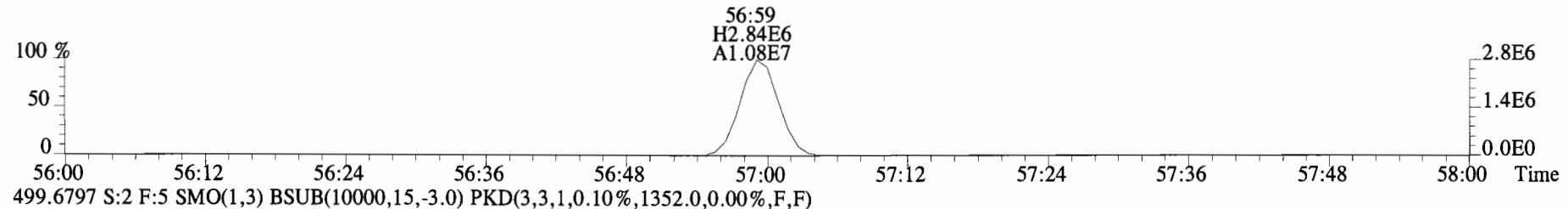
475.7619 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,25284.0,0.00%,F,F)



492.9697 S:2 F:5



File:140919E1 #1-430 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
497.6826 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1568.0,0.00%,F,F)



Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	*	*	n NotFq	1.25	*		3980	2.5	2.17	*	0.996-1.006	
Mono	PCB-2	*	*	n NotFq	1.18	*		3980	2.5	2.42	*	0.983-0.993	
Mono	PCB-3	*	*	n NotFq	1.22	*		3980	2.5	2.35	*	0.996-1.006	
Di	PCB-4/10	*	*	n NotFq	1.55	*		21000	2.5	8.67	*	0.998-1.008	
Di	PCB-7/9	*	*	n NotFq	1.27	*		21000	2.5	7.23	*	0.865-0.873	
Di	PCB-6	*	*	n NotFq	1.26	*		21000	2.5	7.26	*	0.890-0.899	
Di	PCB-5/8	*	*	n NotFq	1.23	*		21000	2.5	7.42	*	0.906-0.916	
Di	PCB-14	*	*	n NotFq	1.23	*		21000	2.5	6.31	*	0.949-0.959	
Di	PCB-11	4.61e+06	1.60	y 25:27	1.16	58.6		*	2.5	*	1.001	0.996-1.006	
Di	PCB-12/13	*	*	n NotFq	1.10	*		21000	2.5	7.07	*	1.010-1.020	
Di	PCB-15	*	*	n NotFq	1.21	*		21000	2.5	6.43	*	1.024-1.034	
Tri	PCB-19	*	*	n NotFq	1.30	*		2250	2.5	1.14	*	0.996-1.006	
Tri	PCB-30	*	*	n NotFq	1.83	*		2250	2.5	0.805	*	1.032-1.042	
Tri	PCB-18	4.55e+05	1.14	y 26:05	0.86	9.86		*	2.5	*	0.954	0.949-0.959	
Tri	PCB-17	1.73e+05	1.24	n 26:15	0.90	3.59	R	*	2.5	*	0.960	0.955-0.965	
Tri	PCB-24/27	*	*	n NotFq	1.18	*		2250	2.5	0.789	*	0.976-0.986	
Tri	PCB-16/32	4.52e+05	1.09	y 27:19	1.03	8.18		*	2.5	*	0.999	0.995-1.005	
Tri	PCB-34	*	*	n NotFq	1.26	*		1860	2.5	1.04	*	0.956-0.966	
Tri	PCB-23	*	*	n NotFq	1.31	*		1860	2.5	1.00	*	0.959-0.969	
Tri	PCB-29	*	*	n NotFq	1.33	*		1860	2.5	0.989	*	0.967-0.977	
Tri	PCB-26	7.66e+04	0.92	y 28:42	1.29	1.61		*	2.5	*	0.980	0.974-0.984	
Tri	PCB-25	*	*	n NotFq	1.34	*		1860	2.5	0.979	*	0.980-0.990	
Tri	PCB-31	2.94e+05	0.89	y 29:12	1.42	5.63		*	2.5	*	0.997	0.992-1.002	
Tri	PCB-28	3.82e+05	0.97	y 29:19	1.38	7.53		*	2.5	*	1.001	0.996-1.006	
Tri	PCB-20/21/33	2.09e+05	0.97	y 29:57	1.31	4.34		*	2.5	*	1.022	1.017-1.027	
Tri	PCB-22	1.46e+05	1.19	y 30:23	1.32	3.00		*	2.5	*	1.037	1.032-1.042	
Tri	PCB-36	*	*	n NotFq	1.38	*		1860	2.5	1.01	*	0.929-0.939	
Tri	PCB-39	*	*	n NotFq	1.42	*		1860	2.5	0.976	*	0.943-0.953	
Tri	PCB-38	*	*	n NotFq	1.35	*		1860	2.5	1.02	*	0.967-0.976	
Tri	PCB-35	*	*	n NotFq	1.38	*		1860	2.5	1.01	*	0.982-0.992	
Tri	PCB-37	1.87e+05	0.91	y 33:11	1.39	3.77		*	2.5	*	1.001	0.996-1.006	
Tetra	PCB-54	*	*	n NotFq	1.20	*		2120	2.5	0.827	*	0.996-1.006	
Tetra	PCB-50	*	*	n NotFq	0.97	*		2120	2.5	1.02	*	1.037-1.047	
Tetra	PCB-53	7.52e+04	0.75	y 30:00	1.19	1.60		*	2.5	*	0.946	0.941-0.951	
Tetra	PCB-51	3.37e+04	0.48	n 30:21	1.15	0.740	R	*	2.5	*	0.957	0.952-0.962	
Tetra	PCB-45	7.38e+04	0.86	y 30:47	0.97	1.93		*	2.5	*	0.971	0.966-0.976	
Tetra	PCB-46	*	*	n NotFq	0.95	*		2120	2.5	1.20	*	0.982-0.992	

Integrations by:

Analyst: DMSDate: 9/24/14Reviewed by: MPDate: 9/24/14

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	7.00e+05	0.70	y 31:43	1.28	13.9	*	2.5	*	1.001	0.996-1.006		
Tetra	PCB-73	*	*	n NotFq	1.37	*	2120	2.5	0.833	*	1.000-1.010		
Tetra	PCB-43/49	3.17e+05	0.85	y 32:02	1.11	7.21	*	2.5	*	1.011	1.005-1.015		
Tetra	PCB-47	2.12e+05	0.82	y 32:14	1.13	4.48	*	2.5	*	1.001	0.996-1.006		
Tetra	PCB-48/75	1.15e+05	0.72	y 32:21	1.30	2.12	*	2.5	*	1.004	0.999-1.009		
Tetra	PCB-65	*	*	n NotFq	1.33	*	2120	2.5	0.817	*	1.007-1.017		
Tetra	PCB-62	*	*	n NotFq	1.29	*	2120	2.5	0.844	*	1.011-1.021		
Tetra	PCB-44	4.01e+05	0.74	y 33:02	0.94	10.2	*	2.5	*	1.025	1.020-1.030		
Tetra	PCB-42/59	1.52e+05	0.83	y 33:16	1.22	2.99	*	2.5	*	1.033	1.028-1.038		
Tetra	PCB-41/64/71/72	5.26e+05	0.82	y 33:51	1.31	9.61	*	2.5	*	1.051	1.046-1.056		
Tetra	PCB-68	5.88e+04	0.79	y 34:04	1.49	0.949	*	2.5	*	1.057	1.054-1.064		
Tetra	PCB-40	8.14e+04	0.75	y 34:18	0.82	2.38	*	2.5	*	1.065	1.061-1.071		
Tetra	PCB-57	*	*	n NotFq	1.11	*	2120	2.5	0.820	*	0.965-0.975		
Tetra	PCB-67	*	*	n NotFq	1.07	*	2120	2.5	0.851	*	0.974-0.984		
Tetra	PCB-58	*	*	n NotFq	1.10	*	2120	2.5	0.829	*	0.977-0.987		
Tetra	PCB-63	*	*	n NotFq	1.12	*	2120	2.5	0.818	*	0.982-0.992		
Tetra	PCB-74	2.06e+05	0.84	y 35:32	1.20	3.16	*	2.5	*	0.995	0.990-1.000		
Tetra	PCB-61/70	8.18e+05	0.75	y 35:44	1.08	14.0	*	2.5	*	1.000	0.994-1.004		
Tetra	PCB-76/66	4.12e+05	0.77	y 35:57	1.14	6.72	*	2.5	*	1.007	1.001-1.011		
Tetra	PCB-80	*	*	n NotFq	1.28	*	2120	2.5	0.672	*	0.996-1.006		
Tetra	PCB-55	*	*	n NotFq	1.11	*	2120	2.5	0.773	*	1.005-1.015		
Tetra	PCB-56/60	3.93e+05	0.79	y 36:58	1.09	6.11	*	2.5	*	1.023	1.018-1.028		
Tetra	PCB-79	*	*	n NotFq	1.12	*	2120	2.5	0.764	*	1.048-1.058		
Tetra	PCB-78	*	*	n NotFq	1.24	*	2120	2.5	0.766	*	0.982-0.992		
Tetra	PCB-81	*	*	n NotFq	1.38	*	2120	2.5	0.686	*	0.995-1.005		
Tetra	PCB-77	1.57e+05	0.83	y 39:52	1.21	2.42	*	2.5	*	1.000	0.995-1.005		
Penta	PCB-104	*	*	n NotFq	1.26	*	2120	2.5	1.24	*	0.996-1.006		
Penta	PCB-96	*	*	n NotFq	1.09	*	2120	2.5	1.43	*	1.034-1.044		
Penta	PCB-103	*	*	n NotFq	0.93	*	2120	2.5	1.67	*	1.050-1.060		
Penta	PCB-100	*	*	n NotFq	1.00	*	2120	2.5	1.56	*	1.061-1.071		
Penta	PCB-94	*	*	n NotFq	1.11	*	2120	2.5	1.85	*	0.981-0.991		
Penta	PCB-95/98/102	1.18e+06	1.54	y 36:03	1.21	28.5	*	2.5	*	1.001	0.994-1.004		
Penta	PCB-93	*	*	n NotFq	1.13	*	2120	2.5	1.81	*	0.998-1.008		
Penta	PCB-88/91	1.87e+05	1.73	y 36:26	1.02	5.40	*	2.5	*	1.012	1.006-1.016		
Penta	PCB-121	*	*	n NotFq	1.90	*	2120	2.5	1.07	*	1.009-1.019		
Penta	PCB-84/92	6.47e+05	1.69	y 37:21	1.05	16.0	*	2.5	*	0.990	0.986-0.996		
Penta	PCB-89	*	*	n NotFq	1.02	*	2120	2.5	1.78	*	0.991-1.001		

Analyst: DMSDate: 9/24/14

Client ID: PS-TS-01-20140909-W
 Lab ID: 1400659-01

Filename: 140919E1 S:7 Acq:19-SEP-14 15:59:24
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0254

ConCal: ST140919E1-1
 EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	1.93e+06	1.63	y 37:44	1.19	42.0		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-113	6.22e+04	1.63	y 37:55	1.35	1.19		*	2.5	*	1.005	1.002-1.012	
Penta	PCB-99	7.21e+05	1.73	y 38:03	1.29	14.5		*	2.5	*	1.009	1.005-1.015	
Penta	PCB-119	4.94e+04	1.39	y 38:30	1.72	0.829		*	2.5	*	0.987	0.982-0.992	
Penta	PCB-108/112	7.46e+04	1.30	n 38:41	1.29	1.67	R	*	2.5	*	0.991	0.986-0.996	
Penta	PCB-83	*	*	n NotFq	1.52	*		2120	2.5	1.30	*	0.991-1.001	
Penta	PCB-97	4.67e+05	1.58	y 39:02	1.25	10.8		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-86	*	*	n NotFq	1.02	*		2120	2.5	1.94	*	1.000-1.010	
Penta	PCB-87/117/125	7.73e+05	1.77	y 39:18	1.56	14.3		*	2.5	*	1.007	1.002-1.012	
Penta	PCB-111/115	*	*	n NotFq	1.75	*		2120	2.5	1.13	*	1.007-1.017	
Penta	PCB-85/116	2.29e+05	1.92	n 39:35	1.30	5.07	R	*	2.5	*	1.015	1.010-1.020	
Penta	PCB-120	*	*	n NotFq	1.78	*		2120	2.5	1.11	*	1.016-1.026	
Penta	PCB-110	2.50e+06	1.63	y 39:58	1.68	42.9		*	2.5	*	1.024	1.020-1.030	
Penta	PCB-82	1.92e+05	1.48	y 40:35	0.74	5.76		*	2.5	*	0.976	0.972-0.982	
Penta	PCB-124	1.08e+05	1.93	n 41:17	1.32	1.81	R	*	2.5	*	0.993	0.988-0.998	
Penta	PCB-107/109	1.42e+05	1.18	n 41:26	1.22	2.58	R	*	2.5	*	0.997	0.991-1.001	
Penta	PCB-123	*	*	n NotFq	1.22	*		2120	2.5	1.28	*	0.995-1.005	
Penta	PCB-106/118	1.96e+06	1.56	y 41:46	1.22	34.8		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-114	*	*	n NotFq	1.36	*		3380	2.5	2.27	*	0.995-1.005	
Penta	PCB-122	*	*	n NotFq	1.24	*		3380	2.5	2.49	*	0.999-1.009	
Penta	PCB-105	6.08e+05	1.89	n 43:18	1.28	12.3	R	*	2.5	*	1.000	0.995-1.005	
Penta	PCB-127	*	*	n NotFq	1.14	*		3380	2.5	2.41	*	0.995-1.005	
Penta	PCB-126	*	*	n NotFq	1.28	*		3380	2.5	2.76	*	0.995-1.005	
Hexa	PCB-155	*	*	n NotFq	1.14	*		1540	2.5	0.903	*	0.966-1.006	
Hexa	PCB-150	*	*	n NotFq	1.06	*		1540	2.5	0.963	*	1.030-1.040	
Hexa	PCB-152	*	*	n NotFq	1.10	*		1540	2.5	0.933	*	1.043-1.053	
Hexa	PCB-145	*	*	n NotFq	1.09	*		1540	2.5	0.938	*	1.055-1.065	
Hexa	PCB-136	3.31e+05	1.09	y 39:46	1.08	7.19		*	2.5	*	1.068	1.064-1.074	
Hexa	PCB-148	*	*	n NotFq	0.74	*		1540	2.5	1.38	*	1.066-1.076	
Hexa	PCB-154	*	*	n NotFq	0.88	*		1540	2.5	1.16	*	1.079-1.089	
Hexa	PCB-151	4.52e+05	1.31	y 41:00	0.81	13.2		*	2.5	*	1.101	1.097-1.107	
Hexa	PCB-135	2.41e+05	1.37	y 41:14	0.78	7.29		*	2.5	*	1.107	1.101-1.113	
Hexa	PCB-144	1.03e+05	1.08	y 41:21	0.82	2.97		*	2.5	*	1.110	1.105-1.116	
Hexa	PCB-147	2.71e+04	1.06	y 41:29	0.83	0.771		*	2.5	*	1.114	1.011-1.120	
Hexa	PCB-139/149	1.73e+06	1.26	y 41:43	0.84	48.4		*	2.5	*	1.120	1.115-1.127	
Hexa	PCB-140	*	*	n NotFq	0.79	*		1540	2.5	1.31	*	1.120-1.132	
Hexa	PCB-134/143	1.19e+05	1.08	y 42:22	0.93	2.94		*	2.5	*	0.975	0.970-0.980	

Analyst: *DMS*

Date: *9/24/14*

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	6.71e+04	1.34	y 42:40	0.95	1.63	R	*	2.5	*	0.982	0.977-0.987	
Hexa	PCB-131	*	*	n NotFq	0.91	*		3000	2.5	2.33	*	0.981-0.991	
Hexa	PCB-146/165	3.97e+05	1.41	y 43:03	1.16	7.86		*	2.5	*	0.991	0.986-0.996	
Hexa	PCB-132/161	7.51e+05	1.38	y 43:19	1.11	15.5		*	2.5	*	0.997	0.992-1.002	
Hexa	PCB-153	2.56e+06	1.25	y 43:27	1.18	49.8		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-168	*	*	n NotFq	1.37	*		3000	2.5	1.55	*	1.000-1.010	
Hexa	PCB-141	5.73e+05	1.12	y 44:11	0.97	13.8		*	2.5	*	1.000	0.996-1.005	
Hexa	PCB-137	1.22e+05	1.23	y 44:34	1.07	2.67		*	2.5	*	1.009	1.004-1.014	
Hexa	PCB-130	1.32e+05	1.80	n 44:41	0.85	3.65	R	*	2.5	*	1.011	1.007-1.017	
Hexa	PCB-138/163/164	2.93e+06	1.27	y 45:03	1.23	57.9		*	2.5	*	1.001	0.996-1.006	
Hexa	PCB-158/160	3.59e+05	1.26	y 45:17	1.29	6.73		*	2.5	*	1.006	1.001-1.011	
Hexa	PCB-129	9.66e+04	1.15	y 45:32	0.92	2.53		*	2.5	*	1.011	1.007-1.017	
Hexa	PCB-166	*	*	n NotFq	1.12	*		3000	2.5	1.77	*	0.988-0.998	
Hexa	PCB-159	*	*	n NotFq	1.16	*		3000	2.5	1.70	*	0.995-1.005	
Hexa	PCB-128/162	4.53e+05	1.19	y 46:35	1.02	9.43		*	2.5	*	1.006	1.002-1.012	
Hexa	PCB-167	1.41e+05	0.92	n 47:01	1.06	2.53	R	*	2.5	*	1.001	0.995-1.005	
Hexa	PCB-156	2.80e+05	1.30	y 48:18	1.18	4.98		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-157	*	*	n NotFq	1.08	*		3000	2.5	1.77	*	0.995-1.005	
Hexa	PCB-169	*	*	n NotFq	1.11	*		3000	2.5	1.96	*	0.995-1.005	
Hepta	PCB-188	*	*	n NotFq	1.40	*		1970	2.5	0.699	*	0.995-1.005	
Hepta	PCB-184	*	*	n NotFq	1.24	*		1970	2.5	0.793	*	1.006-1.016	
Hepta	PCB-179	4.42e+05	1.06	y 44:19	1.30	8.96		*	2.5	*	1.029	1.024-1.034	
Hepta	PCB-176	1.48e+05	1.12	y 44:46	1.36	2.87		*	2.5	*	1.039	1.035-1.045	
Hepta	PCB-186	*	*	n NotFq	1.28	*		1970	2.5	0.769	*	1.049-1.059	
Hepta	PCB-178	1.73e+05	1.14	y 45:53	0.94	4.89		*	2.5	*	1.065	1.061-1.071	
Hepta	PCB-175	*	*	n NotFq	0.97	*		1970	2.5	1.01	*	1.069-1.079	
Hepta	PCB-182/187	1.07e+06	1.12	y 46:23	1.01	27.9		*	2.5	*	1.077	1.073-1.083	
Hepta	PCB-183	4.48e+05	1.14	y 46:42	1.08	10.9		*	2.5	*	1.084	1.080-1.090	
Hepta	PCB-185	7.21e+04	1.39	n 47:22	1.34	1.97	R	*	2.5	*	0.956	0.951-0.961	
Hepta	PCB-174	7.64e+05	1.15	y 47:44	1.34	20.9		*	2.5	*	0.963	0.958-0.968	
Hepta	PCB-181	*	*	n NotFq	1.36	*		1970	2.5	1.00	*	0.961-0.971	
Hepta	PCB-177	3.66e+05	1.14	y 48:01	1.24	10.8		*	2.5	*	0.969	0.964-0.974	
Hepta	PCB-171	1.71e+05	1.03	y 48:18	1.31	4.78		*	2.5	*	0.974	0.970-0.980	
Hepta	PCB-173	*	*	n NotFq	1.16	*		1970	2.5	1.18	*	0.979-0.989	
Hepta	PCB-172	1.29e+05	1.09	y 49:10	1.22	3.87		*	2.5	*	0.992	0.988-0.998	
Hepta	PCB-192	*	*	n NotFq	1.53	*		1970	2.5	0.894	*	0.991-1.001	
Hepta	PCB-180	1.64e+06	1.09	y 49:35	1.43	42.0		*	2.5	*	1.000	0.995-1.005	

Analyst: DMSDate: 9/24/14

Client ID: PS-TS-01-20140909-W
Lab ID: 1400659-01

Filename: 140919E1 S:7 Acq:19-SEP-14 15:59:24
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0254

ConCal: ST140919E1-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	9.12e+04	0.78	n 49:47	1.65	2.02	R	*	2.5	*	1.004	0.999-1.009	
Hepta	PCB-191	*	*	n NotFq	1.67	*		1970	2.5	0.816	*	1.004-1.014	
Hepta	PCB-170	5.93e+05	1.03	y 51:03	1.50	18.7		*	2.5	*	1.001	0.995-1.005	
Hepta	PCB-190	1.20e+05	0.95	y 51:13	2.02	2.82		*	2.5	*	1.004	0.998-1.008	
Hepta	PCB-189	*	*	n NotFq	1.54	*		2010	2.5	0.885	*	0.995-1.005	
Octa	PCB-202	1.24e+05	1.13	n 48:30	1.04	3.21	R	*	2.5	*	1.000	0.995-1.005	
Octa	PCB-201	7.93e+04	0.92	y 48:59	1.10	1.93		*	2.5	*	1.010	1.006-1.016	
Octa	PCB-204	*	*	n NotFq	0.99	*		1440	2.5	0.957	*	1.009-1.019	
Octa	PCB-197	*	*	n NotFq	1.07	*		1440	2.5	0.886	*	1.015-1.025	
Octa	PCB-200	6.20e+04	1.13	n 50:19	1.02	1.63	R	*	2.5	*	1.038	1.032-1.044	
Octa	PCB-198	*	*	n NotFq	0.74	*		1440	2.5	1.28	*	1.058-1.068	
Octa	PCB-199	3.03e+05	0.84	y 51:43	0.73	11.2		*	2.5	*	1.067	1.060-1.070	
Octa	PCB-196/203	3.03e+05	1.05	n 51:59	0.77	10.5	R	*	2.5	*	1.072	1.066-1.076	
Octa	PCB-195	9.67e+04	1.01	y 53:09	1.20	4.11		*	2.5	*	0.984	0.979-0.989	
Octa	PCB-194	2.39e+05	0.93	y 54:00	1.25	9.79		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-205	*	*	n NotFq	1.41	*		2490	2.5	1.62	*	1.001-1.011	
Nonna	PCB-208	4.54e+04	1.43	y 53:17	0.96	1.76		*	2.5	*	1.000	0.995-1.005	
Nonna	PCB-207	*	*	n NotFq	0.92	*		1420	2.5	0.961	*	1.001-1.011	
Nonna	PCB-206	8.37e+04	1.43	y 55:39	1.03	5.70		*	2.5	*	1.000	0.995-1.005	
Deca	PCB-209	*	*	n NotFq	1.18	*		2780	2.5	4.07	*	0.995-1.005	

Analyst: DMS

Date: 9/24/14

Client ID: PS-TS-01-20140909-W
Lab ID: 1400659-01

Filename: 140919E1 S:7 Acq:19-SEP-14 15:59:24
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0254 ConCal: ST140919E1-1
EndCAL: NA

Page 7 of

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	*	* n	NotFnd	1.22	*
Total Di-PCB	4.61e+06	1.60	y	25:27	1.21 58.6069
Total Tri-PCB	9.06e+05	1.14	y	26:05	1.16 18.0401
Total Tri-PCB	1.30e+06	0.92	y	28:42	1.35 25.8827 Sum:43.9228
Total Tetra-PCB	4.70e+06	0.75	y	30:00	1.17 89.8078
Total Penta-PCB	1.07e+07	1.54	y	36:03	1.21 217.002
Total Penta-PCB	*	* n	NotFnd	1.26	* Sum:217.002
Total Hexa-PCB	2.89e+06	1.09	y	39:46	0.92 79.8214
Total Hexa-PCB	8.71e+06	1.08	y	42:22	1.08 175.640 Sum:255.462
Total Hepta-PCB	6.06e+06	1.06	y	44:19	1.27 159.355
Total Octa-PCB	3.82e+05	0.92	y	48:59	0.92 13.0888
Total Octa-PCB	3.36e+05	1.01	y	53:09	1.29 13.8983 Sum:26.9871
Total Nona-PCB	1.29e+05	1.43	y	53:17	0.96 7.46303
Total Deca-PCB	*	* n	NotFnd	1.18	*

Total PCB Conc:~~911.88~~7429000

859

Integrations

by

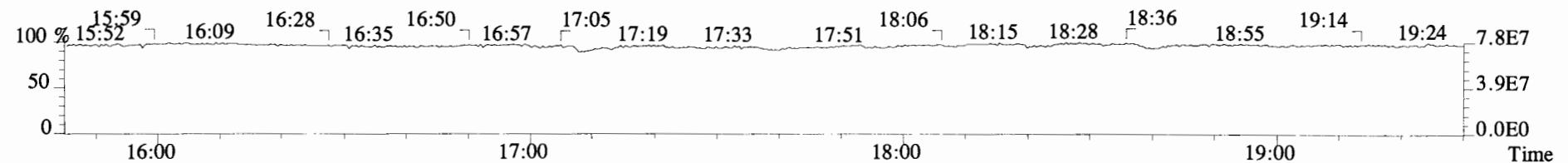
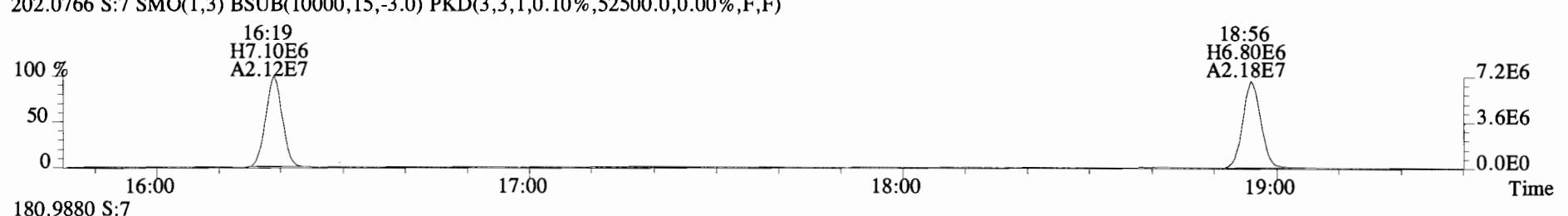
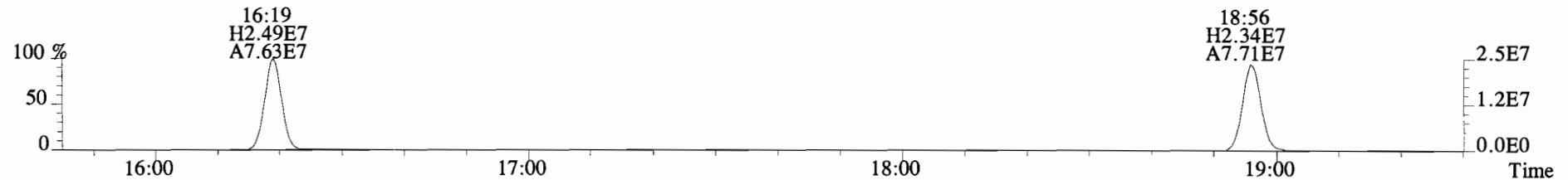
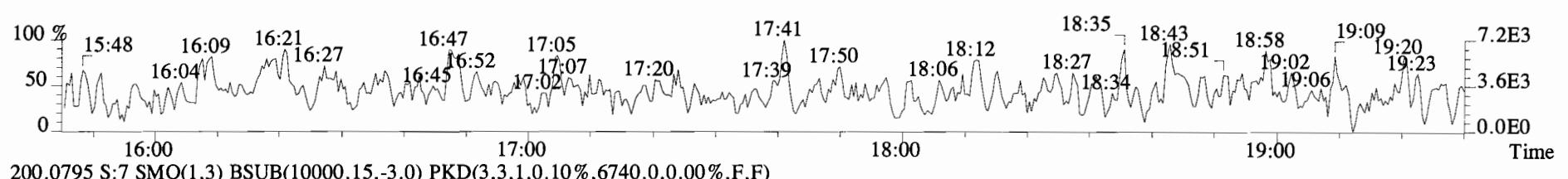
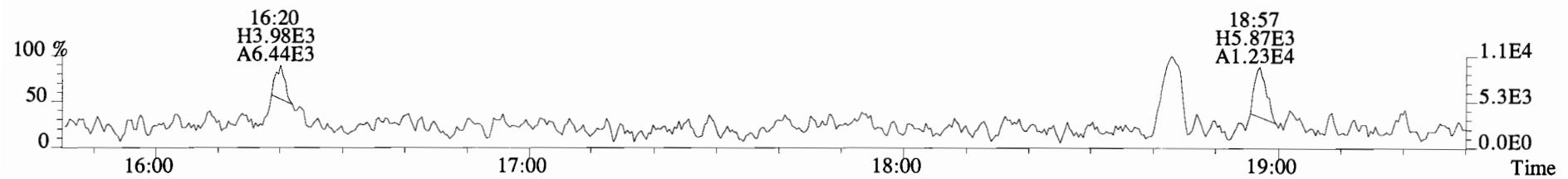
Analyst: DMS

Date: 9/24/14

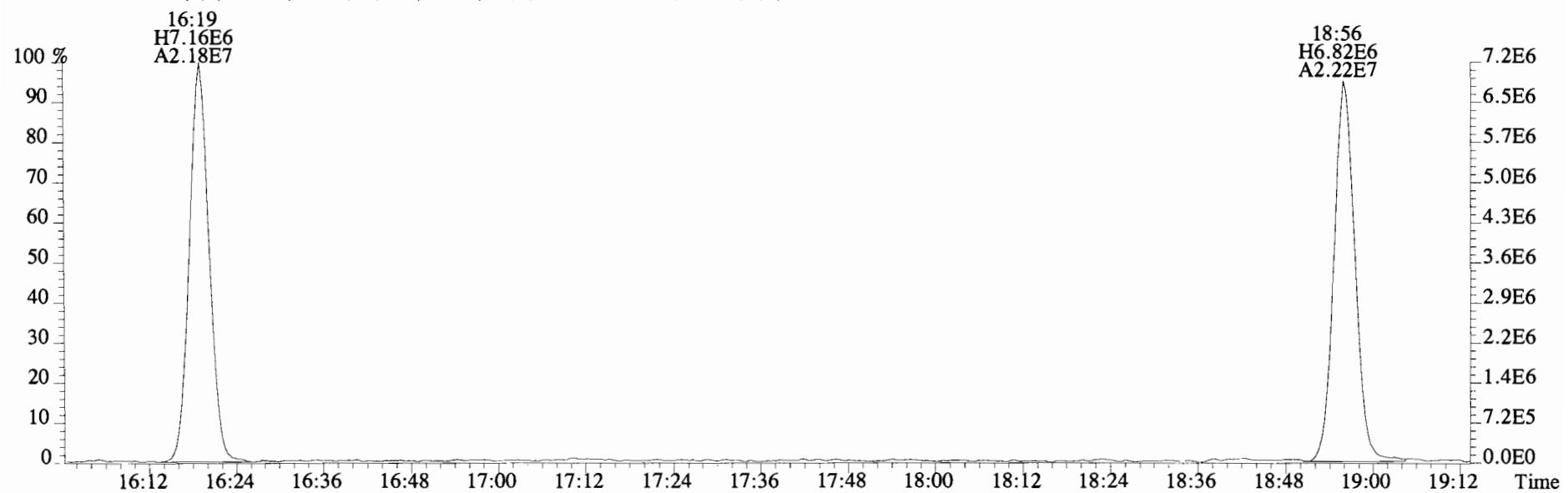
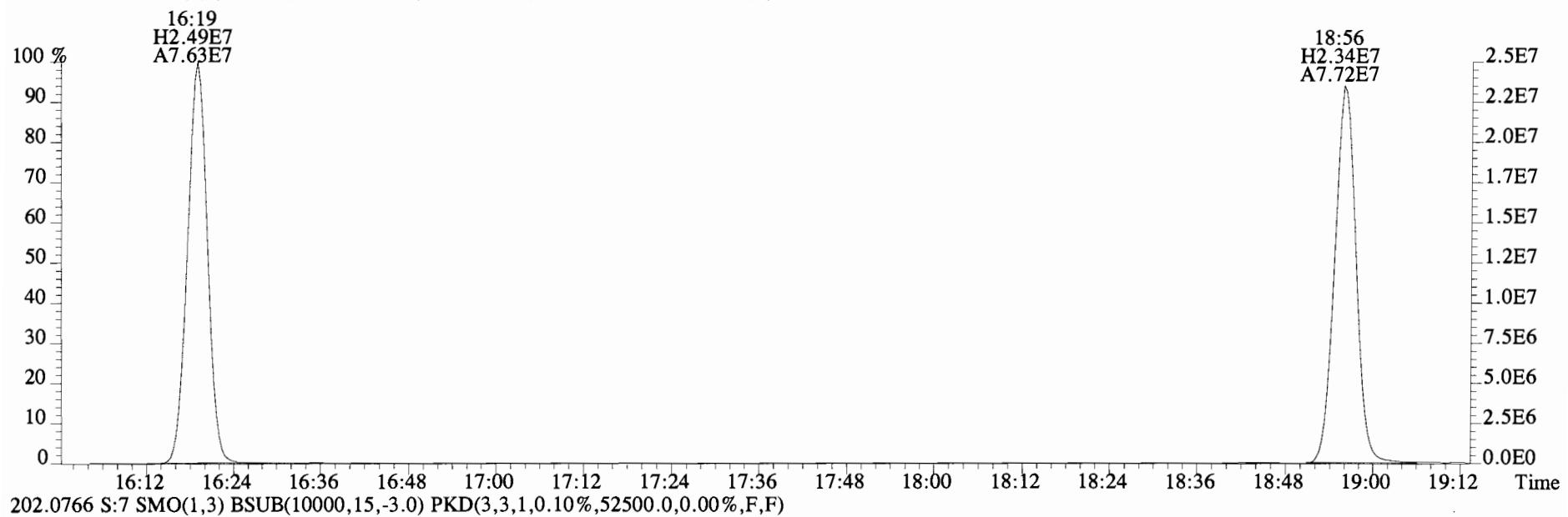
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13C-PCB-1	9.81e+07	3.50	y	0.89	16:19	0.624	0.622-0.628	1270	65.1	13C-PCB-79	1.37e+08	0.80	y	1.01	38:02	1.029	1.023-1.033	1900	97.5		
13C-PCB-3	9.93e+07	3.48	y	0.93	18:56	0.724	0.721-0.729	1230	63.2	13C-PCB-178	6.07e+07	0.46	y	0.63	45:52	0.985	0.979-0.989	2140	110		
13C-PCB-4	7.10e+07	1.59	y	0.55	20:16	0.775	0.772-0.780	1490	76.5	13C-PCB-11	1.33e+08	0.94	25:26	0.973	0.968-0.978	1630	83.4	PS vs. IS			
13C-PCB-9	1.07e+08	1.57	y	0.83	22:04	0.844	0.840-0.848	1490	76.2	13C-PCB-19	6.07e+07	1.12	y	0.53	24:26	0.934	0.929-0.939	1310	67.2		
13C-PCB-11	1.33e+08	1.59	y	0.94	25:26	0.973	0.968-0.978	1630	83.4	13C-PCB-28	7.18e+07	1.14	y	0.89	29:18	1.004	0.999-1.009	1770	90.6		
13C-PCB-19	6.07e+07	1.12	y	0.53	24:26	0.934	0.929-0.939	1310	67.2	13C-PCB-32	1.05e+08	1.17	y	0.81	27:21	1.046	1.041-1.051	1480	75.9		
13C-PCB-28	7.18e+07	1.14	y	0.89	29:18	1.004	0.999-1.009	1770	90.6	13C-PCB-37	6.96e+07	1.10	y	0.83	33:10	1.136	1.131-1.143	1830	93.8		
13C-PCB-32	1.05e+08	1.17	y	0.81	27:21	1.046	1.041-1.051	1480	75.9	13C-PCB-47	8.13e+07	0.81	y	0.74	32:13	0.872	0.867-0.875	1530	78.2		
13C-PCB-37	6.96e+07	1.10	y	0.83	33:10	1.136	1.131-1.143	1830	93.8	13C-PCB-52	7.71e+07	0.82	y	0.71	31:42	0.858	0.853-0.861	1520	77.9		
13C-PCB-47	8.13e+07	0.81	y	0.74	32:13	0.872	0.867-0.875	1530	78.2	13C-PCB-54	8.91e+07	0.82	y	0.85	28:11	0.762	0.758-0.766	1460	75.0		
13C-PCB-52	7.71e+07	0.82	y	0.71	31:42	0.858	0.853-0.861	1520	77.9	13C-PCB-70	1.05e+08	0.81	y	0.94	35:43	0.966	0.961-0.971	1560	79.8		
13C-PCB-54	8.91e+07	0.82	y	0.85	28:11	0.762	0.758-0.766	1460	75.0	13C-PCB-77	1.05e+08	0.83	y	0.89	39:51	1.078	1.073-1.083	1640	84.0		
13C-PCB-70	1.05e+08	0.81	y	0.94	35:43	0.966	0.961-0.971	1560	79.8	13C-PCB-80	1.15e+08	0.82	y	0.96	36:08	0.977	0.972-0.982	1670	85.8		
13C-PCB-77	1.05e+08	0.83	y	0.89	39:51	1.078	1.073-1.083	1640	84.0	13C-PCB-81	1.03e+08	0.81	y	0.84	39:15	1.062	1.057-1.067	1710	87.8		
13C-PCB-80	1.15e+08	0.82	y	0.96	36:08	0.977	0.972-0.982	1670	85.8	13C-PCB-95	6.63e+07	1.61	y	0.74	36:01	0.913	0.908-0.918	1590	81.5		
13C-PCB-81	1.03e+08	0.81	y	0.84	39:15	1.062	1.057-1.067	1710	87.8	13C-PCB-95	6.63e+07	1.61	y	0.74	36:01	0.913	0.908-0.918	1590	81.5		
13C-PCB-95	6.63e+07	1.61	y	0.74	36:01	0.913	0.908-0.918	1590	81.5	RS											
13C-PCB-97	6.76e+07	1.61	y	0.69	39:01	0.989	0.984-0.994	1750	89.6	13C-PCB-97	6.76e+07	1.61	y	0.69	39:01	0.989	0.984-0.994	1750	89.6		
13C-PCB-101	7.52e+07	1.61	y	0.79	37:43	0.956	0.951-0.961	1710	87.5	13C-PCB-101	7.52e+07	1.61	y	0.79	37:43	0.956	0.951-0.961	1710	87.5		
13C-PCB-104	8.62e+07	1.60	y	1.00	32:52	0.833	0.829-0.837	1540	79.1	13C-PCB-104	8.62e+07	1.60	y	1.00	32:52	0.833	0.829-0.837	1540	79.1		
13C-PCB-105	7.53e+07	1.68	y	1.24	43:17	0.929	0.924-0.934	1350	69.3	13C-PCB-105	7.53e+07	1.68	y	1.24	43:17	0.929	0.924-0.934	1350	69.3		
13C-PCB-114	7.62e+07	1.67	y	1.21	42:25	0.911	0.905-0.915	1400	71.9	13C-PCB-114	7.62e+07	1.67	y	1.21	42:25	0.911	0.905-0.915	1400	71.9		
13C-PCB-118	8.97e+07	1.61	y	0.98	41:46	1.059	1.054-1.064	1620	83.2	13C-PCB-118	8.97e+07	1.61	y	0.98	41:46	1.059	1.049-1.059	1650	84.8		
13C-PCB-123	8.81e+07	1.60	y	0.95	41:34	1.054	1.049-1.059	1650	84.8	13C-PCB-123	8.81e+07	1.60	y	0.95	41:34	1.054	1.049-1.059	1650	84.8		
13C-PCB-126	6.89e+07	1.68	y	1.16	45:31	0.977	0.972-0.982	1320	67.5	13C-PCB-126	6.89e+07	1.68	y	1.16	45:31	0.977	0.972-0.982	1320	67.5		
13C-PCB-127	8.40e+07	1.64	y	1.34	43:37	0.937	0.931-0.941	1390	71.3	13C-PCB-127	8.40e+07	1.64	y	1.34	43:37	0.937	0.931-0.941	1390	71.3		
13C-PCB-138	8.06e+07	1.32	y	1.04	45:01	0.967	0.961-0.971	1720	87.9	13C-PCB-138	8.06e+07	1.32	y	1.04	45:01	0.967	0.961-0.971	1720	87.9		
13C-PCB-141	8.32e+07	1.30	y	1.07	44:11	0.949	0.943-0.953	1730	88.5	13C-PCB-141	8.32e+07	1.30	y	1.07	44:11	0.949	0.943-0.953	1730	88.5		
13C-PCB-153	8.52e+07	1.33	y	1.11	43:26	0.933	0.927-0.937	1700	87.2	13C-PCB-153	8.52e+07	1.33	y	1.11	43:26	0.933	0.927-0.937	1700	87.2		
13C-PCB-155	8.27e+07	1.29	y	0.83	37:15	0.944	0.939-0.949	1770	90.9	13C-PCB-155	8.27e+07	1.29	y	0.83	37:15	0.944	0.939-0.949	1770	90.9		
13C-PCB-156	9.27e+07	1.31	y	1.24	48:17	1.037	1.032-1.042	1650	84.8	13C-PCB-156	9.27e+07	1.31	y	1.24	48:17	1.037	1.032-1.042	1650	84.8		
13C-PCB-157	9.91e+07	1.35	y	1.31	48:33	1.043	1.037-1.047	1680	86.0	13C-PCB-157	9.91e+07	1.35	y	1.31	48:33	1.043	1.037-1.047	1680	86.0		
13C-PCB-159	9.20e+07	1.32	y	1.20	46:18	0.994	0.989-0.999	1700	87.3	13C-PCB-159	9.20e+07	1.32	y	1.20	46:18	0.994	0.989-0.999	1700	87.3		
13C-PCB-167	1.02e+08	1.33	y	1.32	46:59	1.009	1.004-1.014	1720	88.0	13C-PCB-167	1.02e+08	1.33	y	1.32	46:59	1.009	1.004-1.014	1720	88.0		
13C-PCB-169	7.82e+07	1.32	y	1.22	50:41	1.088	1.082-1.092	1430	73.3	13C-PCB-169	7.82e+07	1.32	y	1.22	50:41	1.088	1.082-1.092	1430	73.3		
13C-PCB-170	4.13e+07	0.47	y	0.54	51:01	1.096	1.089-1.101	1710	87.7	13C-PCB-170	4.13e+07	0.47	y	0.54	51:01	1.096	1.089-1.101	1710	87.7		
13C-PCB-180	5.33e+07	0.46	y	0.67	49:34	1.064	1.059-1.069	1760	90.1	13C-PCB-180	5.33e+07	0.46	y	0.67	49:34	1.064	1.059-1.069	1760	90.1		
13C-PCB-188	7.38e+07	0.45	y	0.94	43:04	0.925	0.919-0.929	1750	89.8	13C-PCB-188	7.38e+07	0.45	y	0.94	43:04	0.925	0.919-0.929	1750	89.8		
13C-PCB-189	4.42e+07	0.47	y	0.72	52:30	1.127	1.120-1.132	1370	70.4	13C-PCB-189	4.42e+07	0.47	y	0.72	52:30	1.127	1.120-1.132	1370	70.4		
13C-PCB-194	3.83e+07	0.95	y	0.81	54:00	0.995	0.990-1.000	1920	98.7	13C-PCB-194	3.83e+07	0.95	y	0.81	54:00	0.995	0.990-1.000	1920	98.7		
13C-PCB-202	7.26e+07	0.91	y	0.83	48:29	1.041	1.036-1.046	1940	99.3	13C-PCB-202	7.26e+07	0.91	y	0.83	48:29	1.041	1.036-1.046	1940	99.3		
13C-PCB-206	2.79e+07	0.78	y	0.66	55:38	1.025	1.021-1.031	1730	88.5	13C-PCB-206	2.79e+07	0.78	y	0.66	55:38	1.025	1.021-1.031	1730	88.5		
13C-PCB-208	5.22e+07	0.78	y	1.12	53:16	0.981	0.976-0.986	1890	97.1	13C-PCB-208	5.22e+07	0.78	y	1.12	53:16	0.981	0.976-0.986	1890	97.1		
13C-PCB-209	2.43e+07	1.21	y	0.61	56:58	1.049	1.044-1.054	1610	82.7	13C-PCB-209	2.43e+07	1.21	y	0.61	56:58	1.049	1.044-1.054	1610	82.7		

Analyst: DMS
Date: 9/23/14

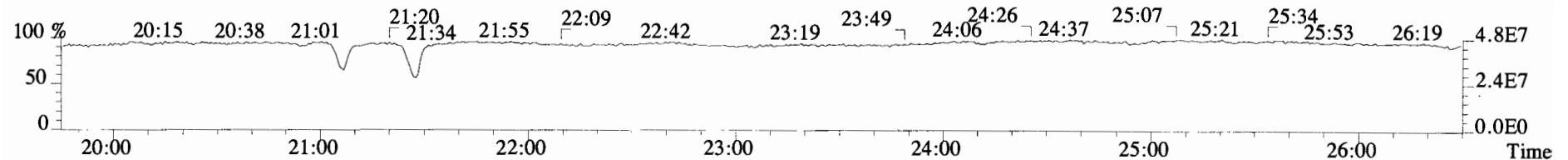
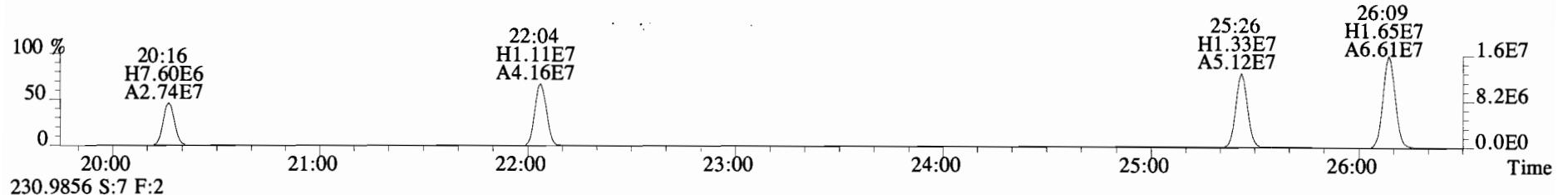
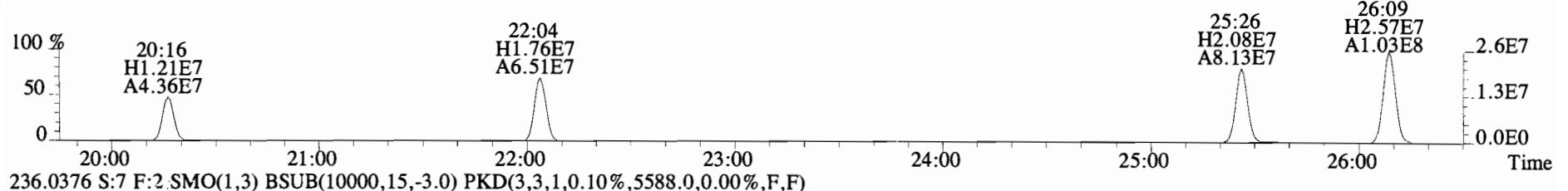
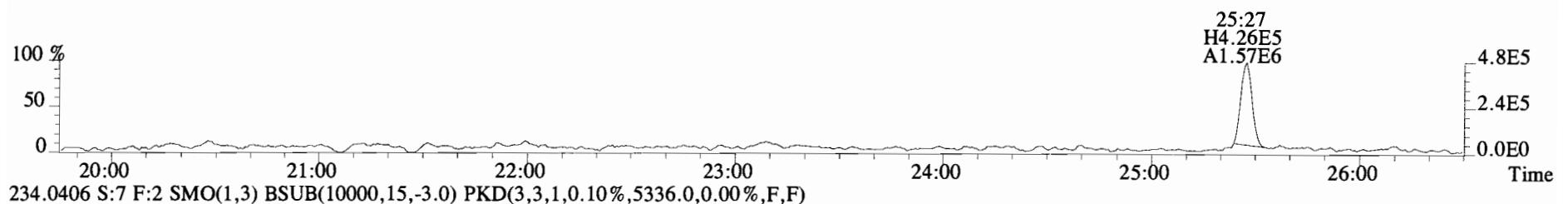
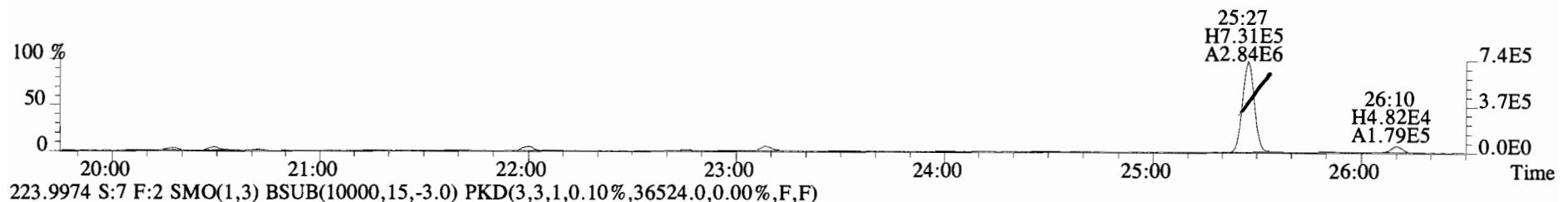
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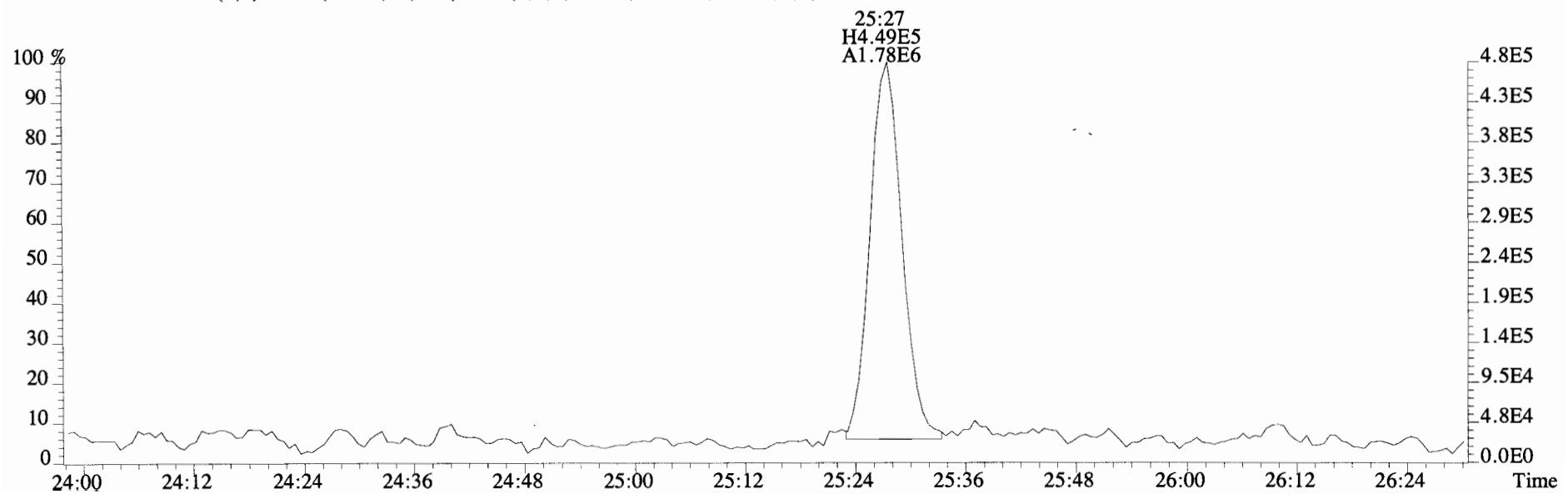
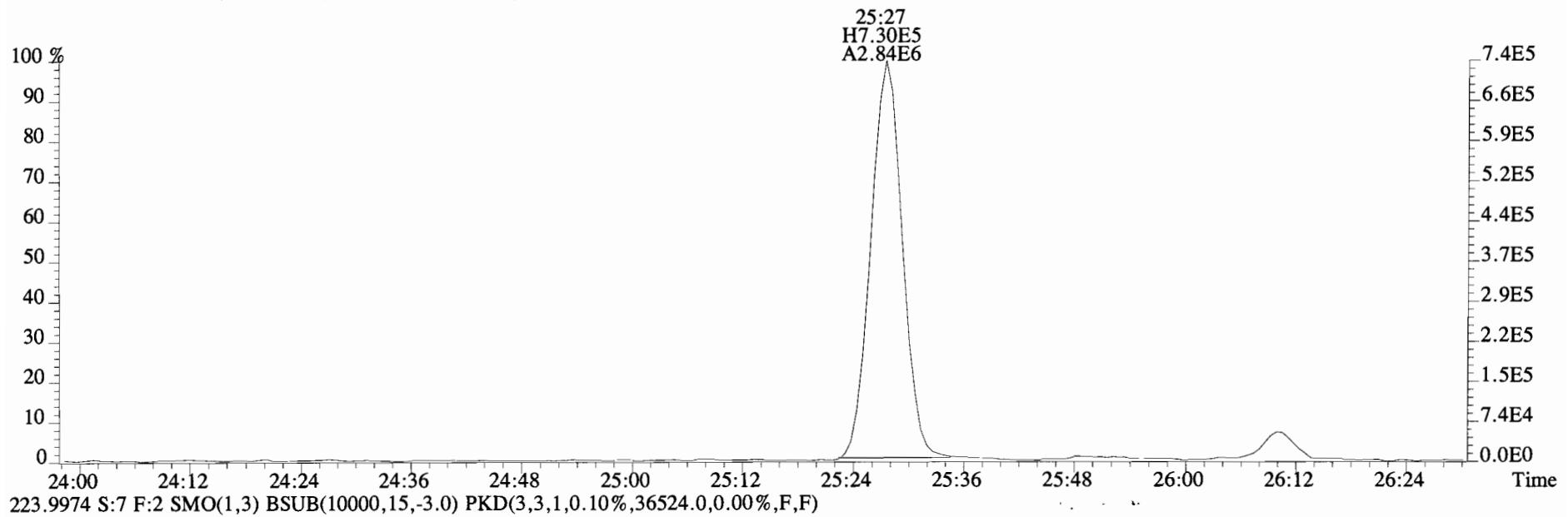
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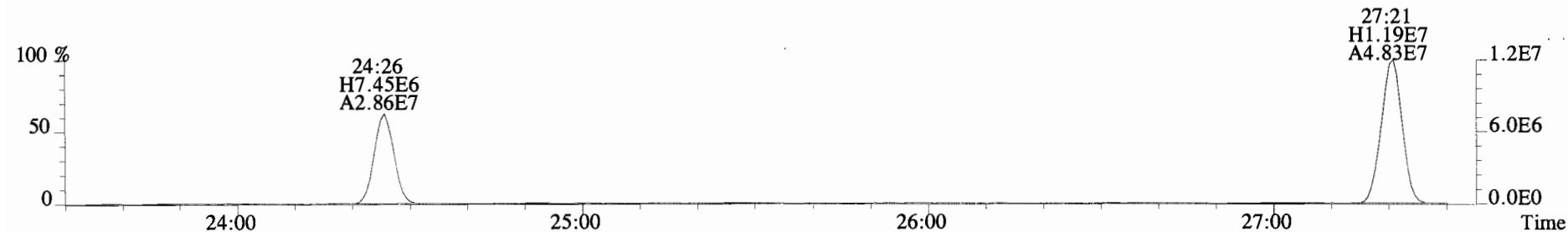
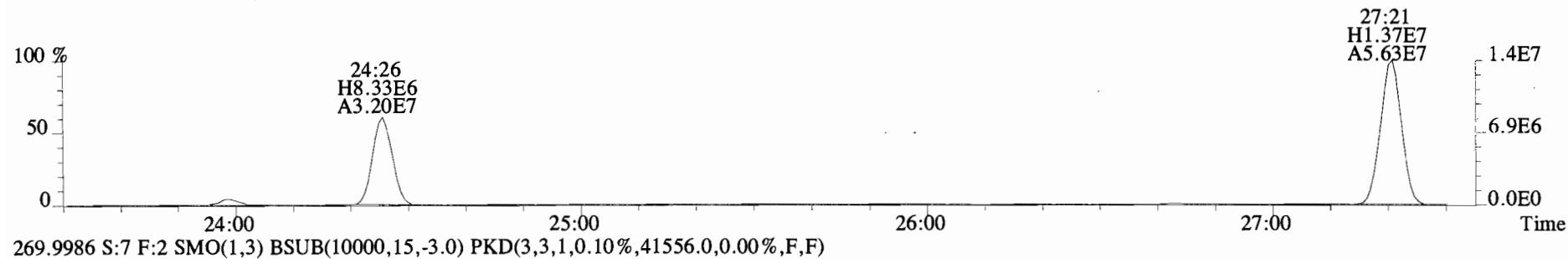
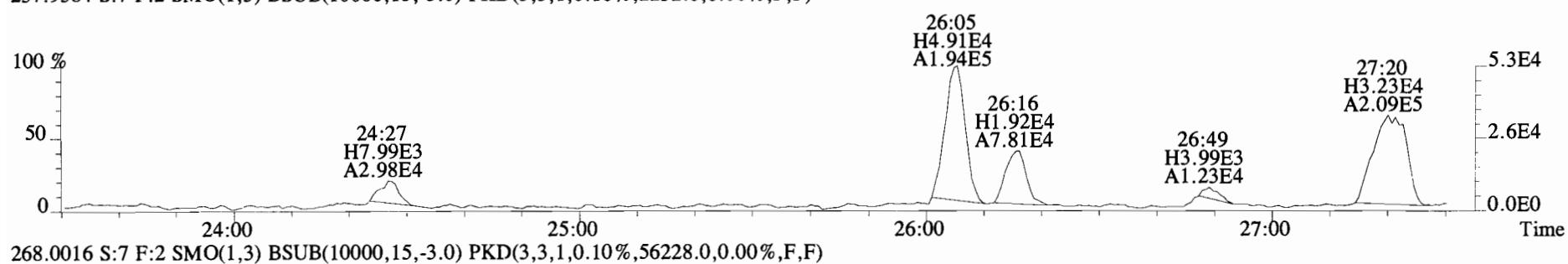
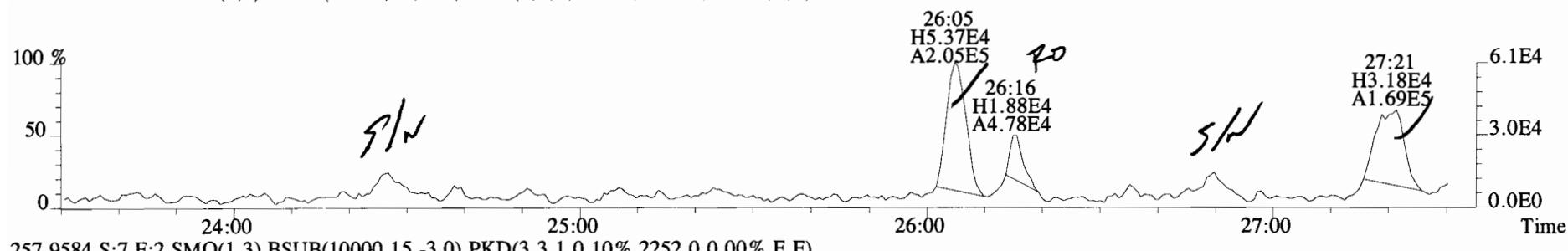
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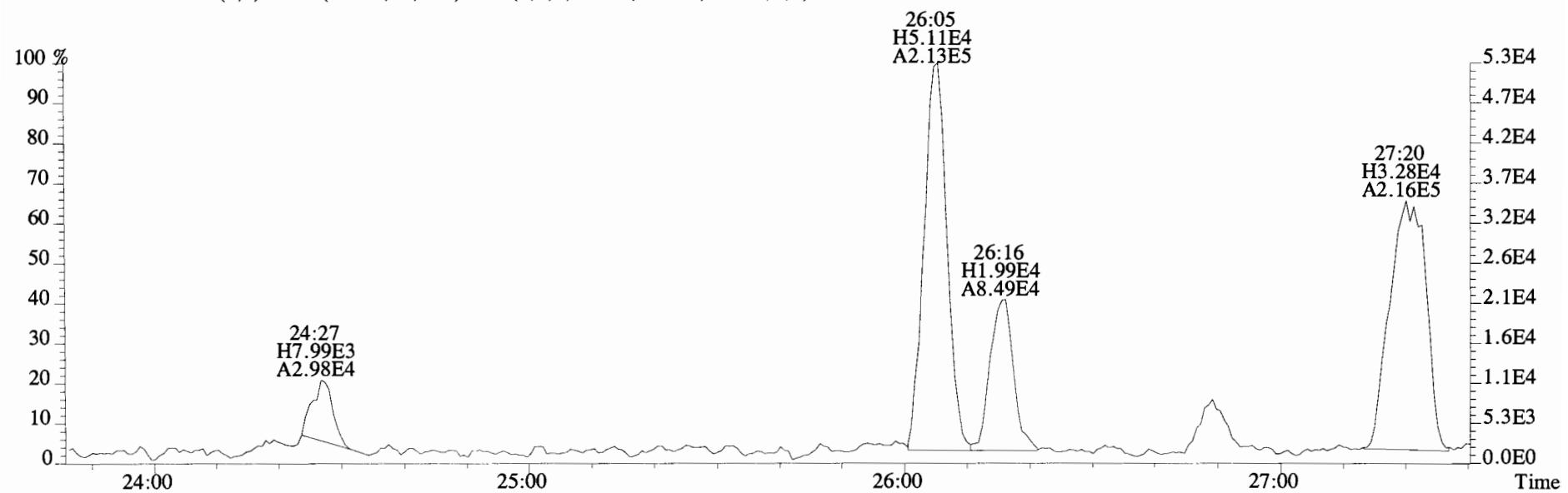
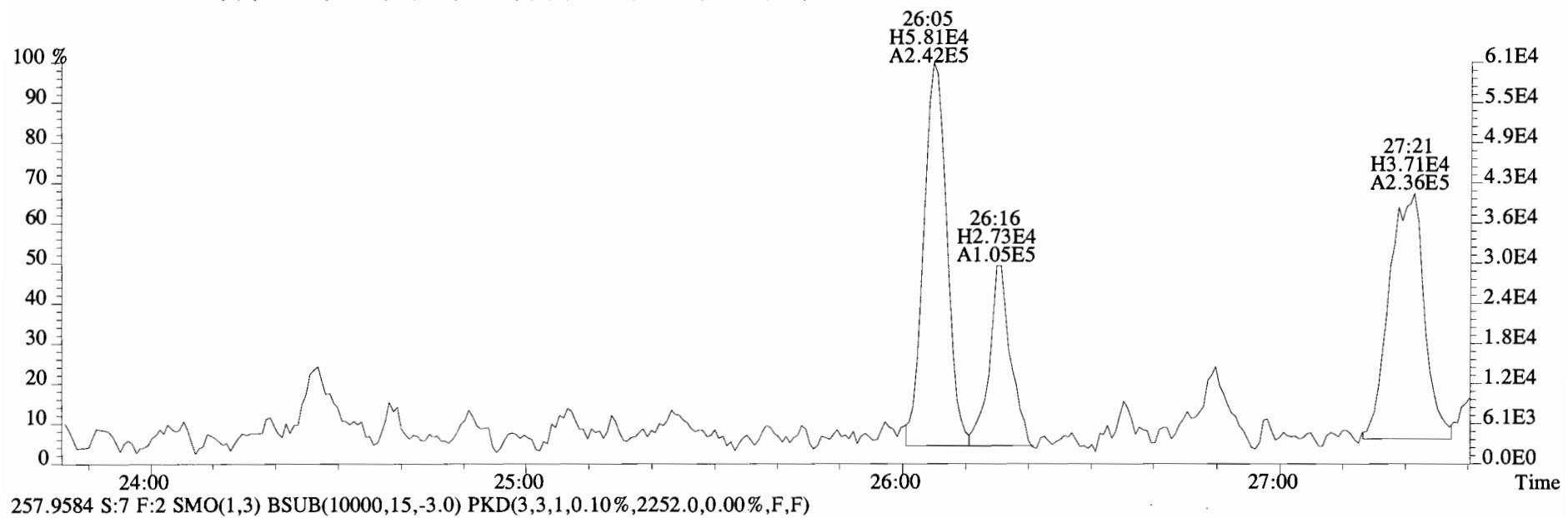
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
222.0003 S:7 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3948.0,0.00%,F,F)



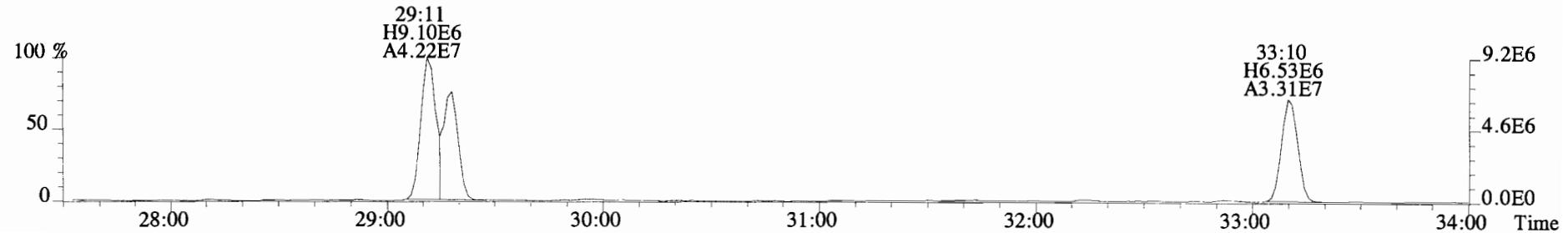
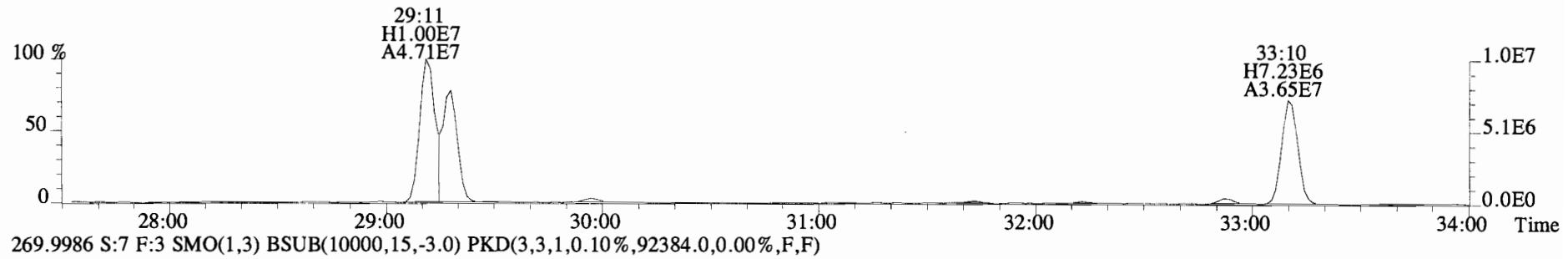
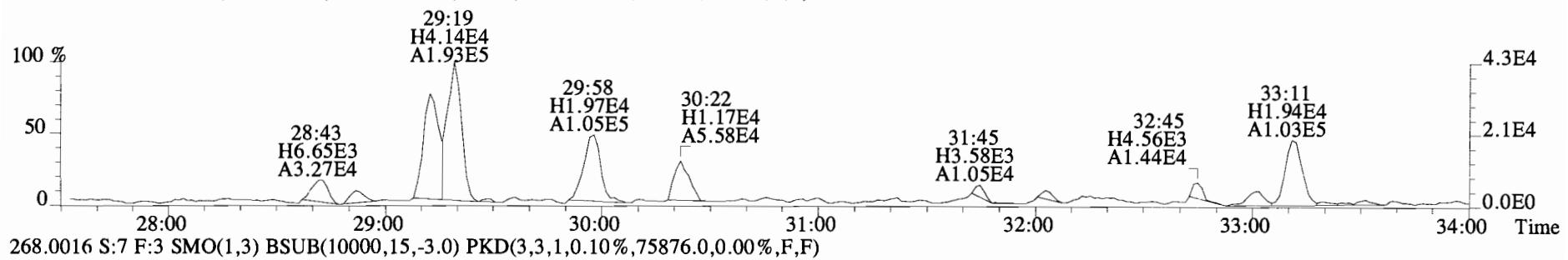
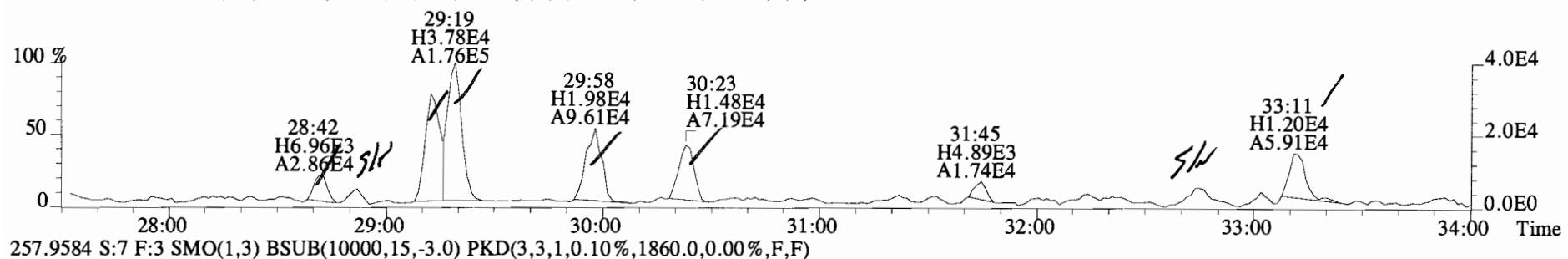
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 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 255.9613 S:7 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5780.0,0.00%,F,F)



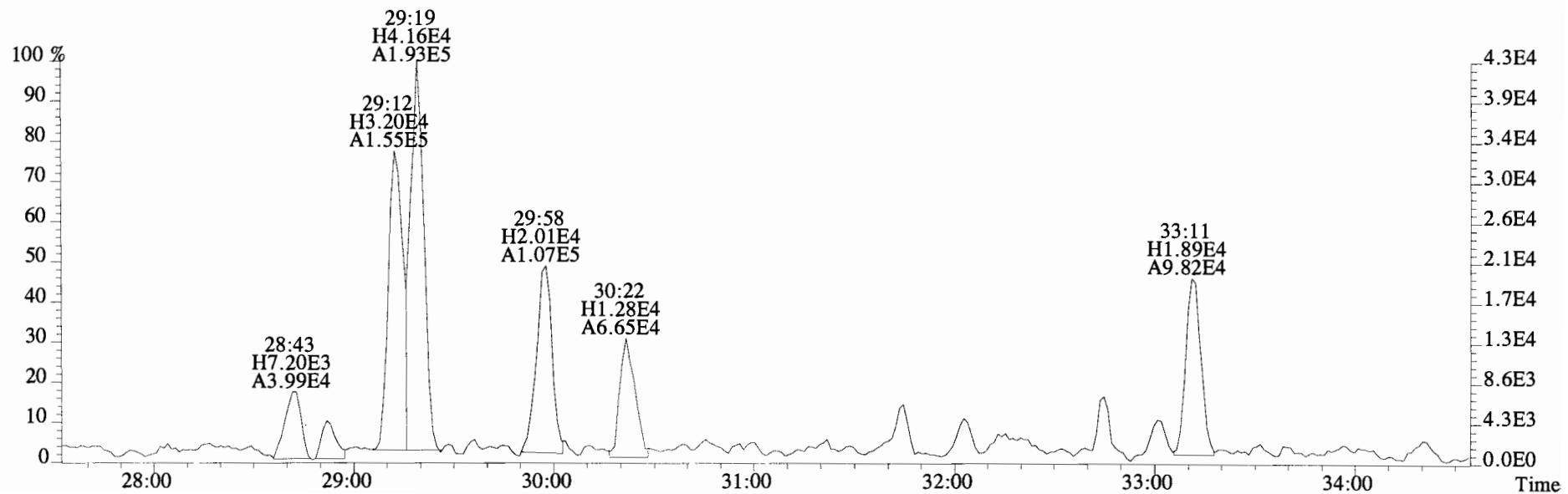
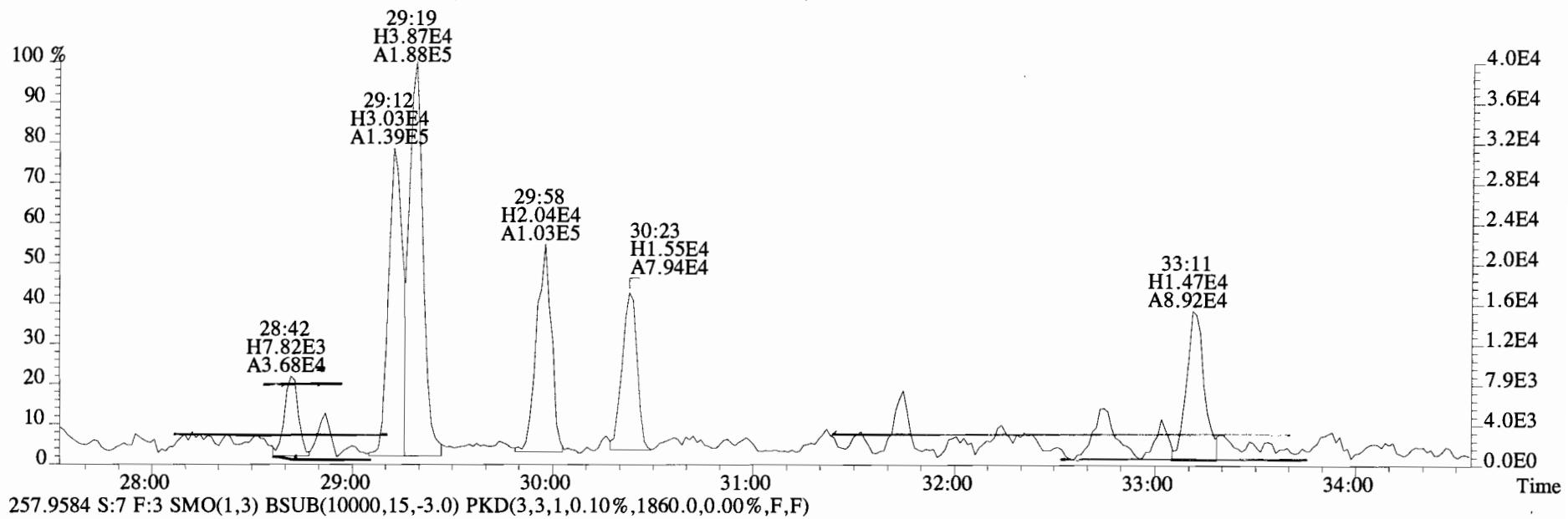
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
255.9613 S:7 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5780.0,0.00%,F,F)



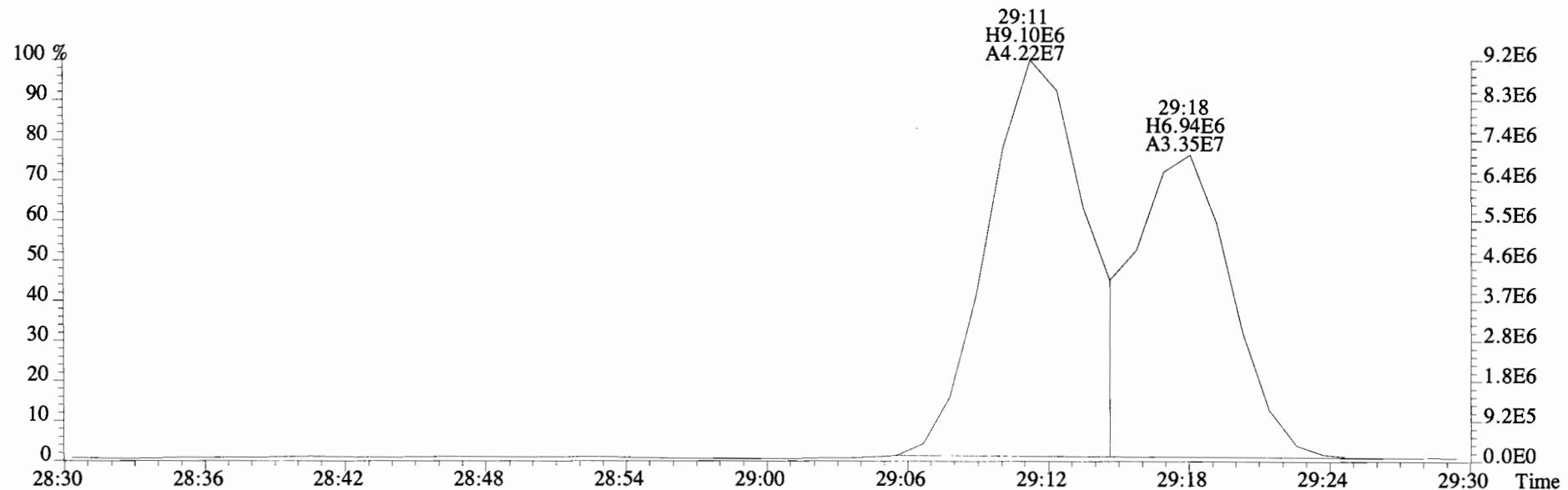
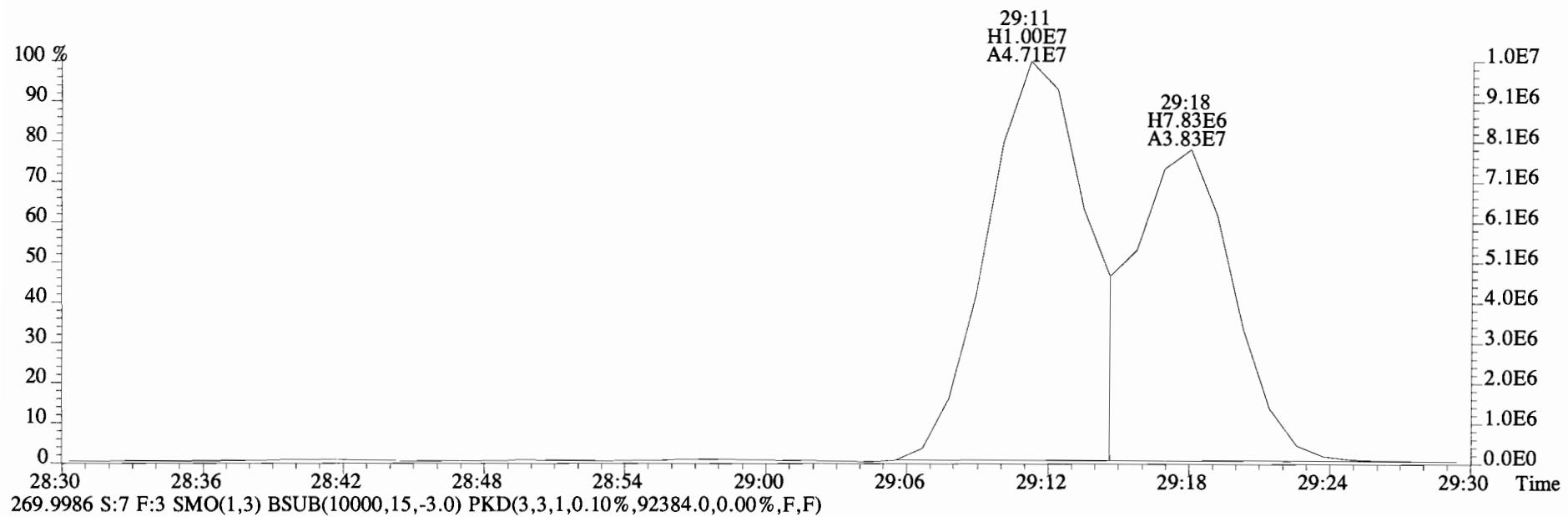
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 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 255.9613 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2468.0,0.00%,F,F)



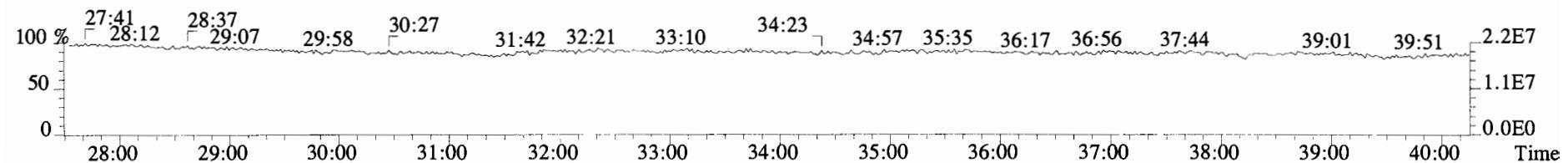
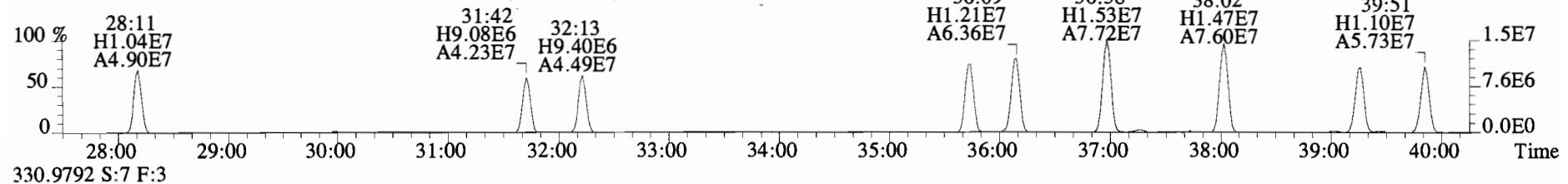
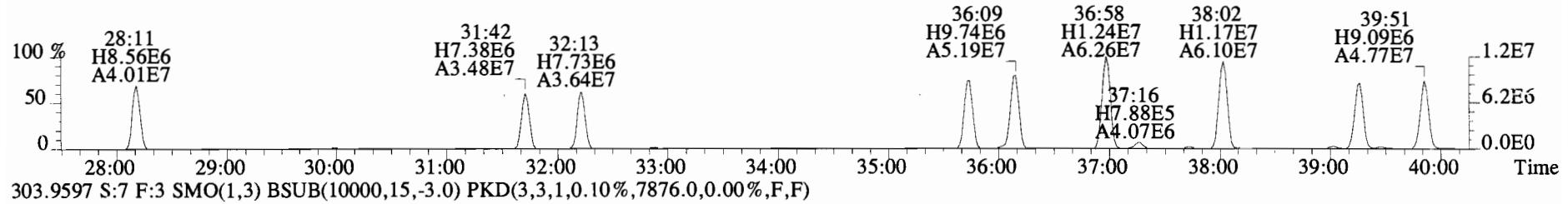
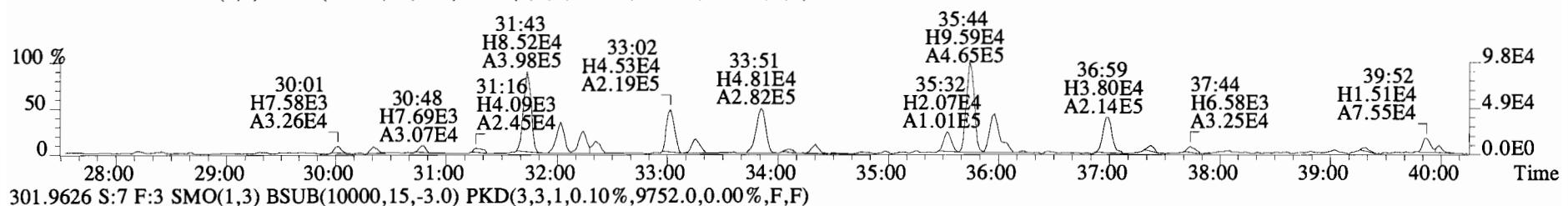
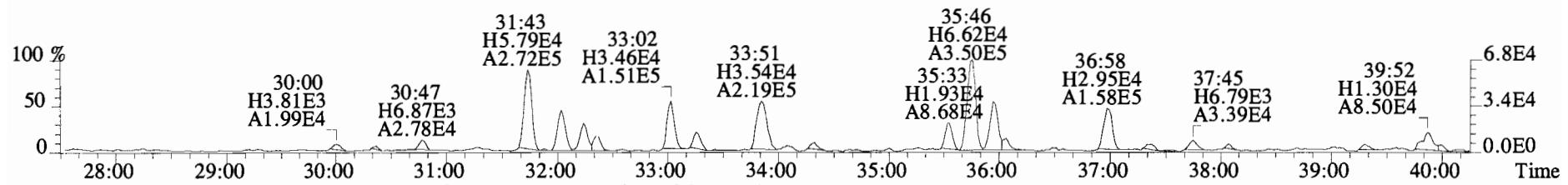
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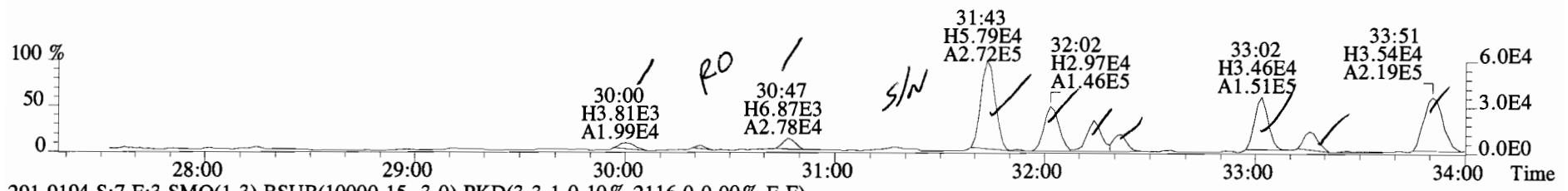
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268.0016 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,75876.0,0.00%,F,F)



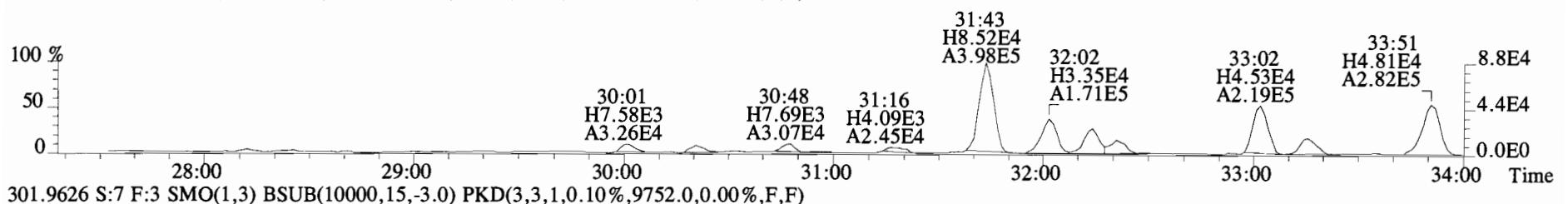
File:140919E1 #1-769 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
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 289.9224 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1956.0,0.00%,F,F)



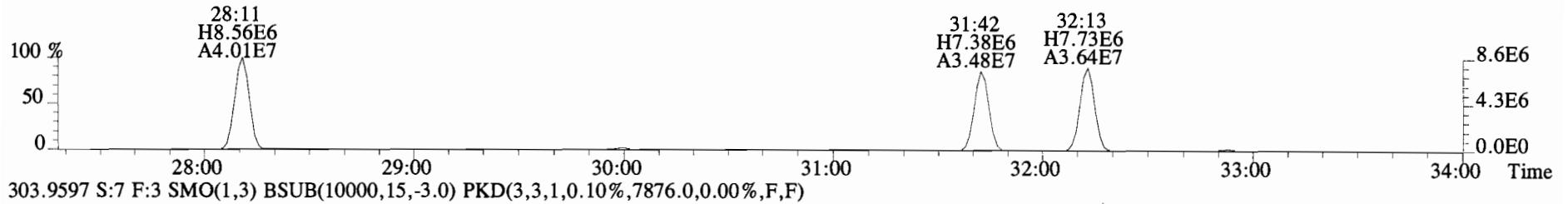
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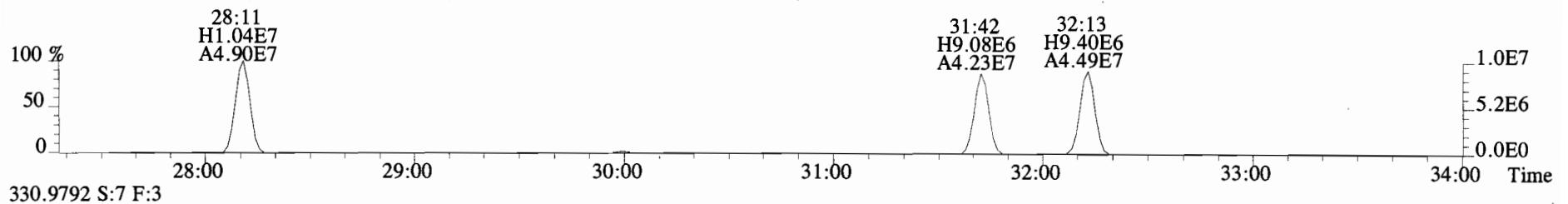
291.9194 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2116.0,0.00%,F,F)



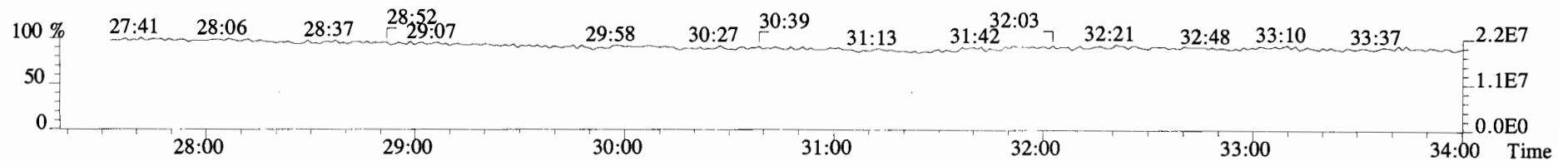
301.9626 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9752.0,0.00%,F,F)



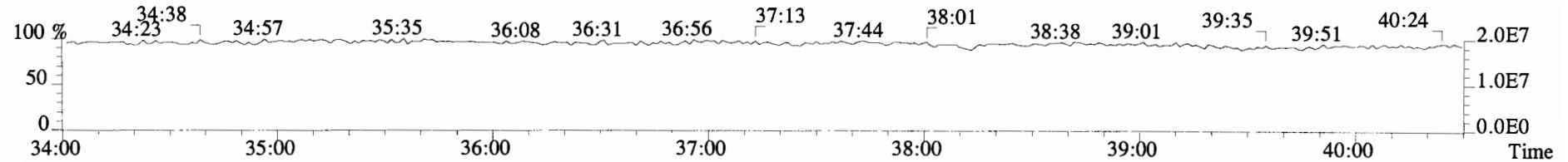
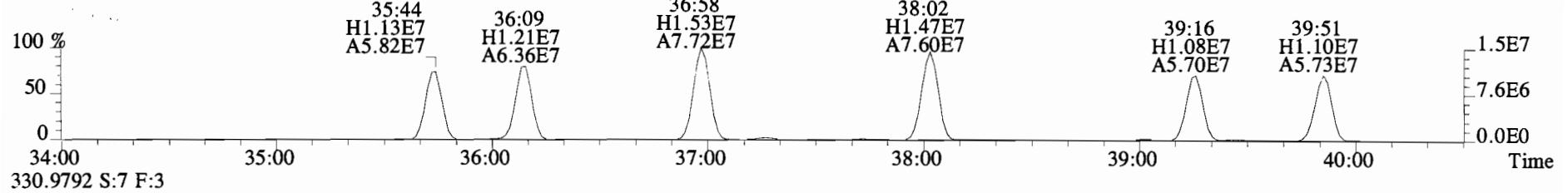
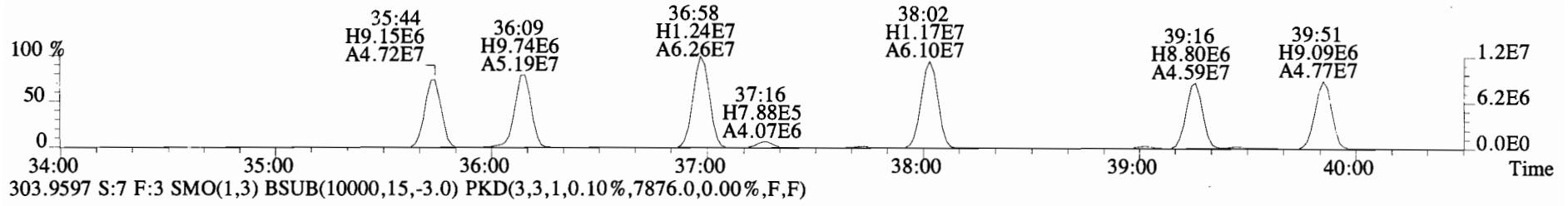
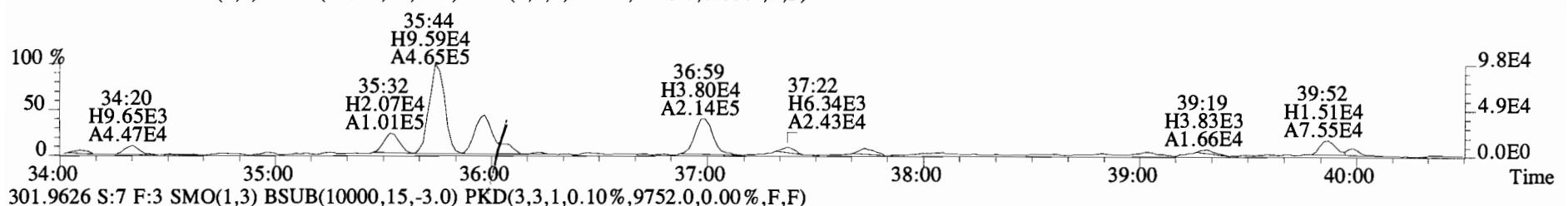
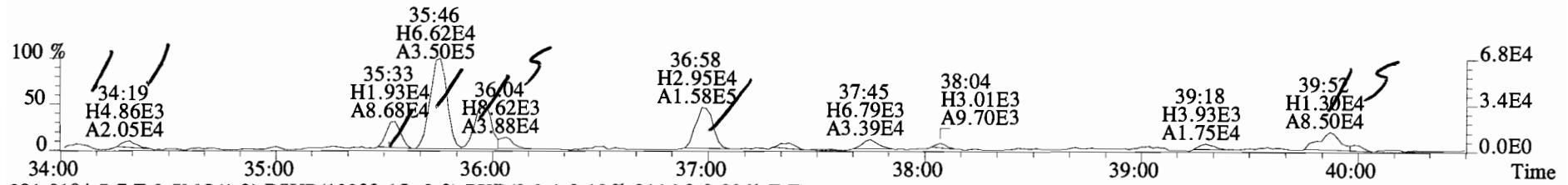
303.9597 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7876.0,0.00%,F,F)



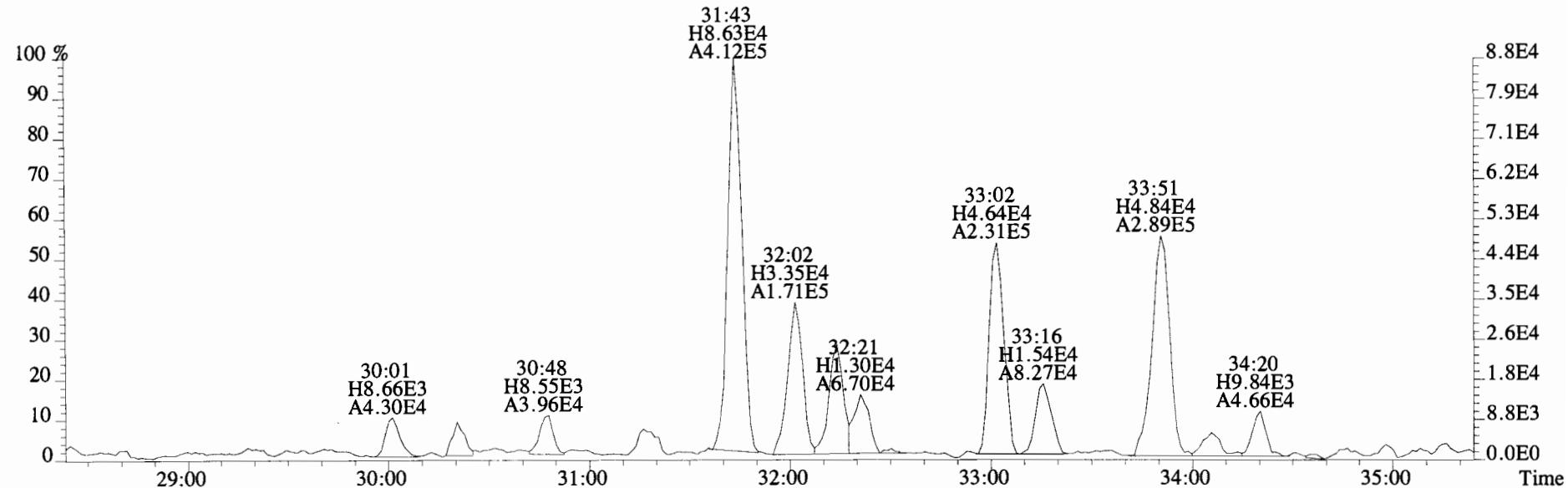
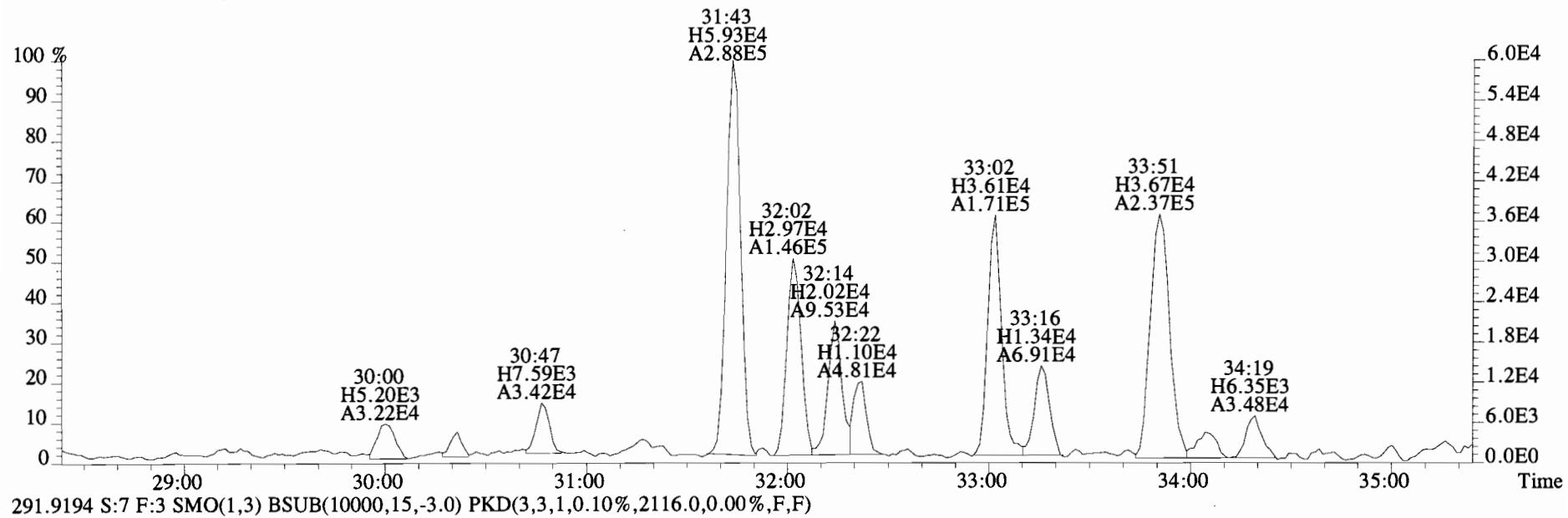
330.9792 S:7 F:3



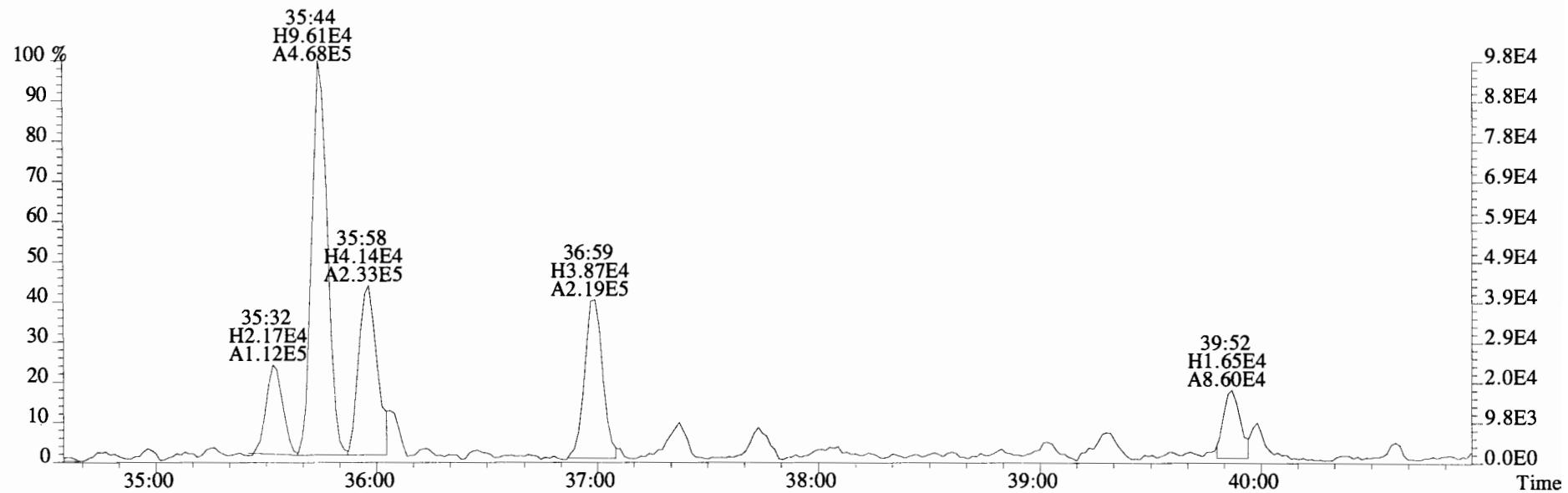
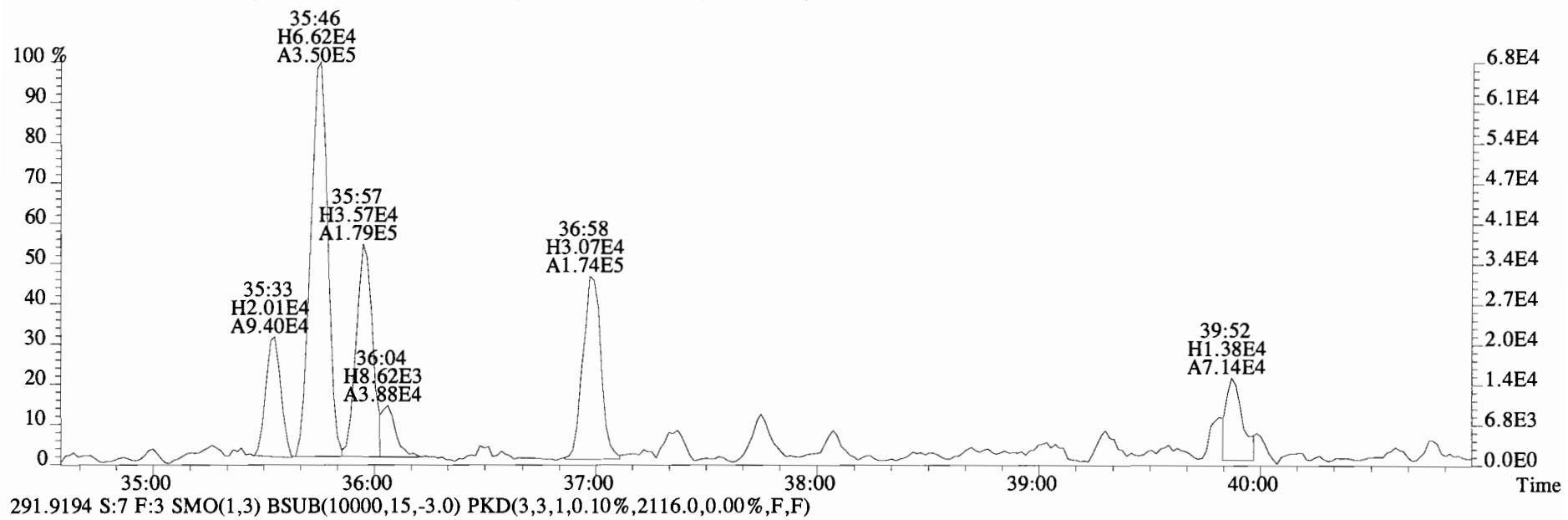
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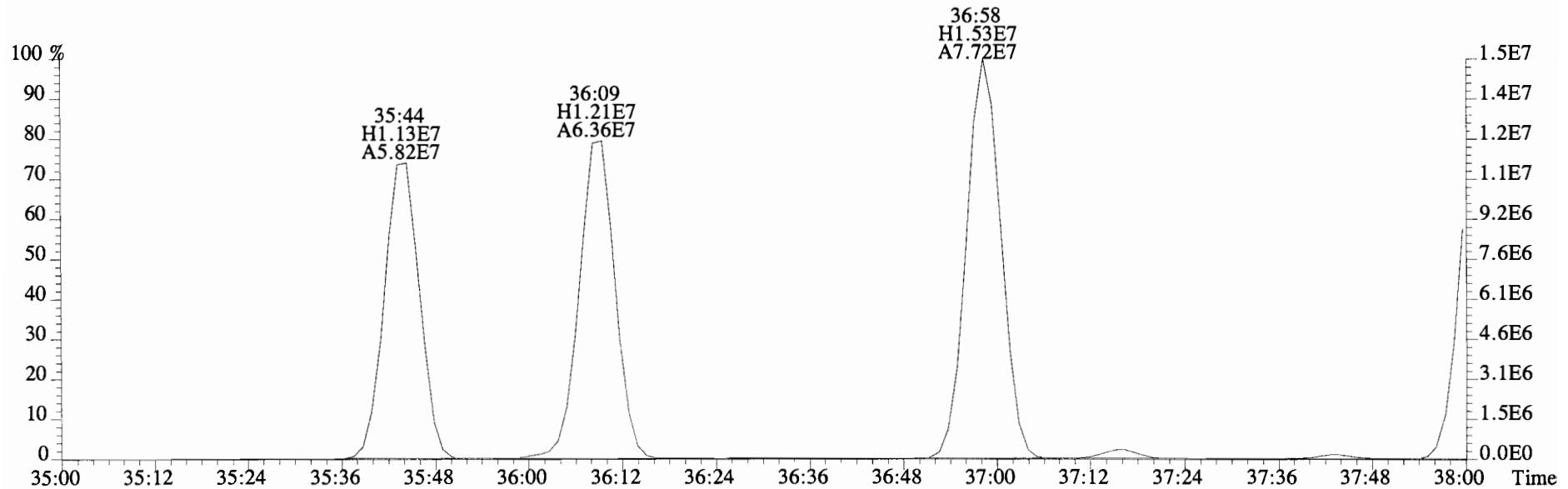
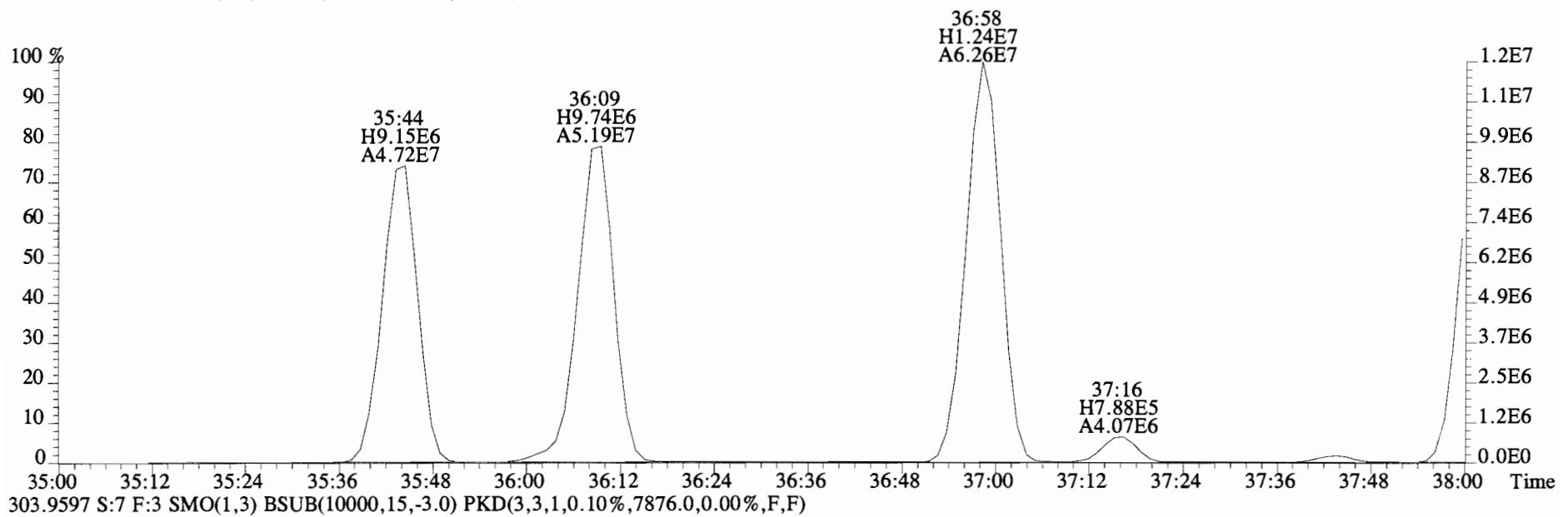
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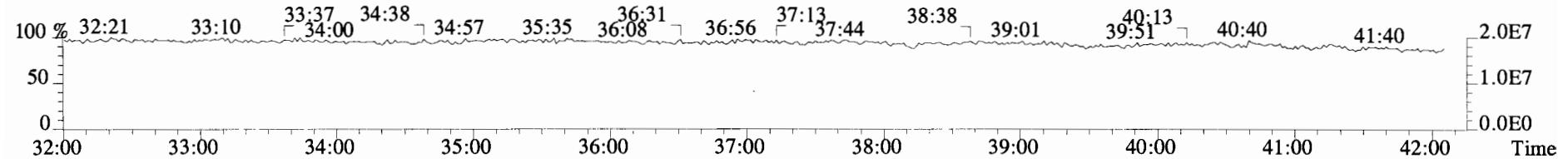
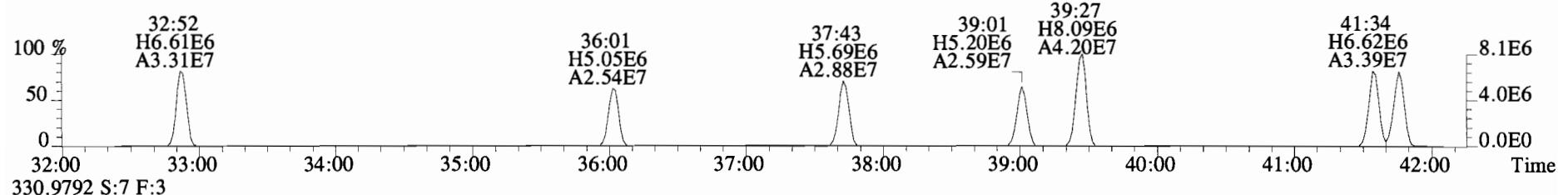
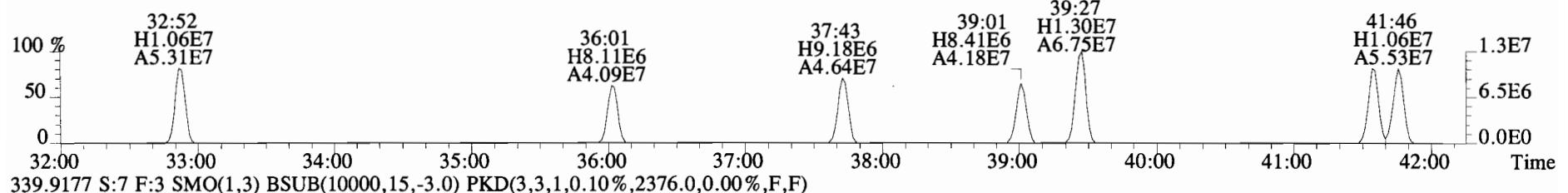
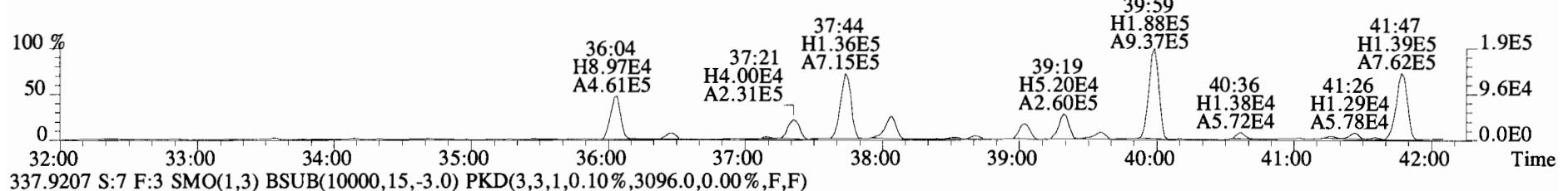
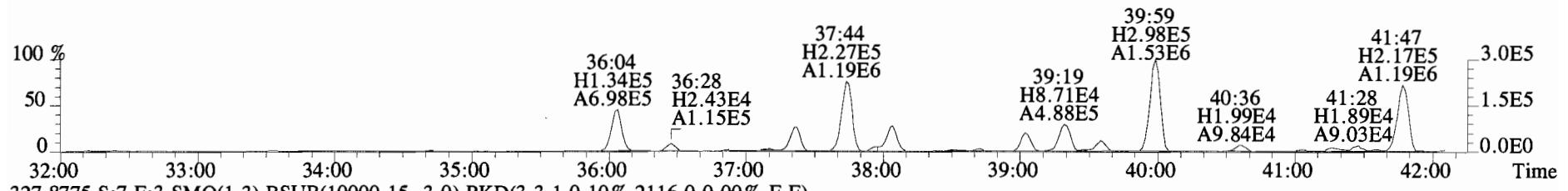
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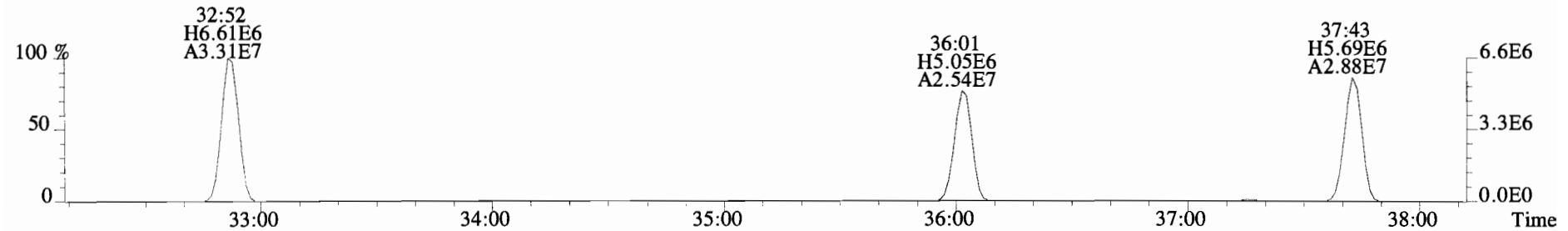
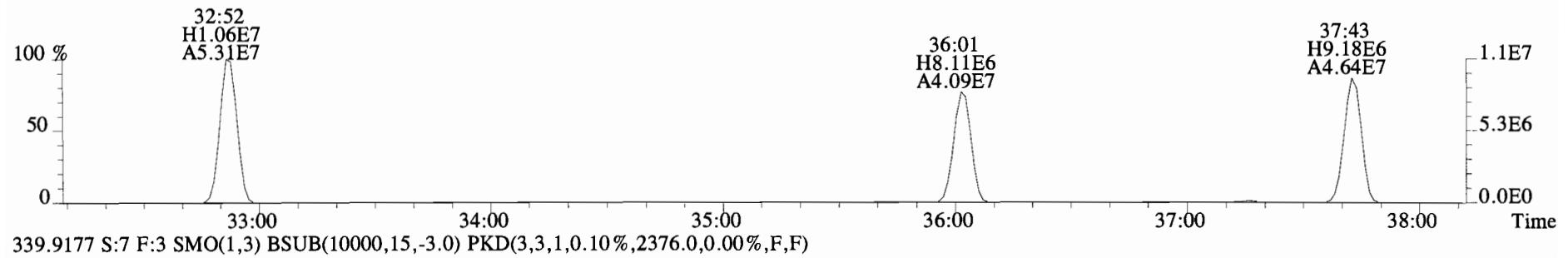
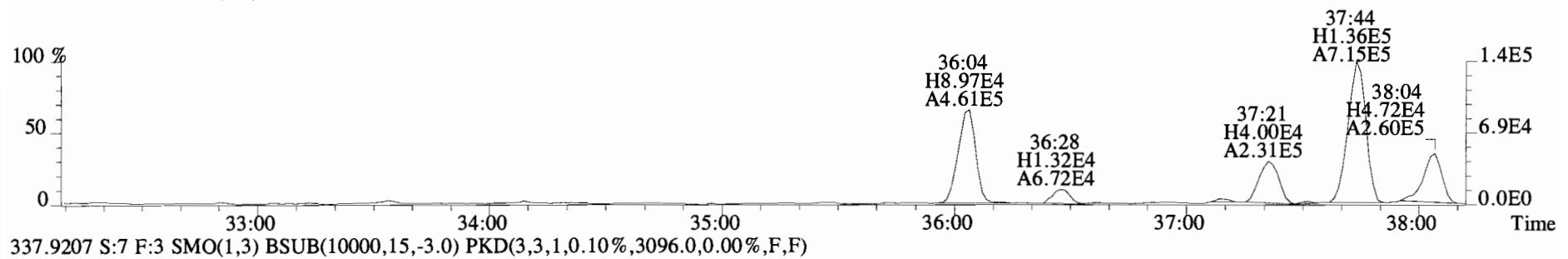
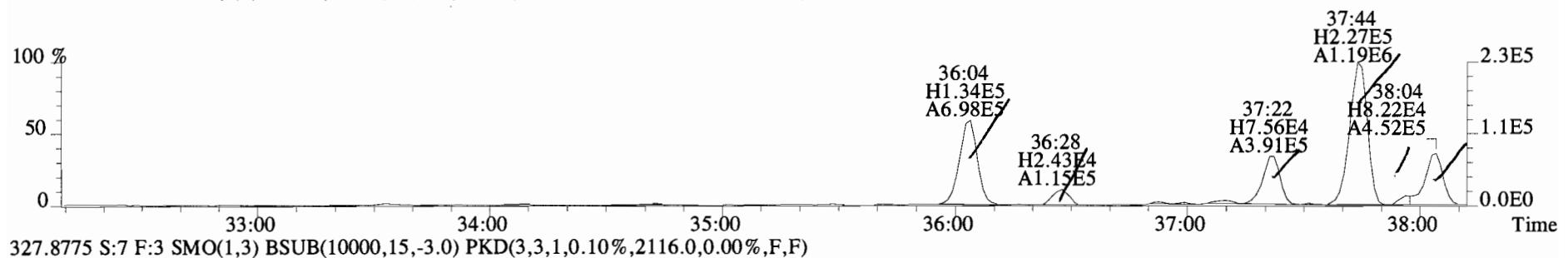
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301.9626 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9752.0,0.00%,F,F)



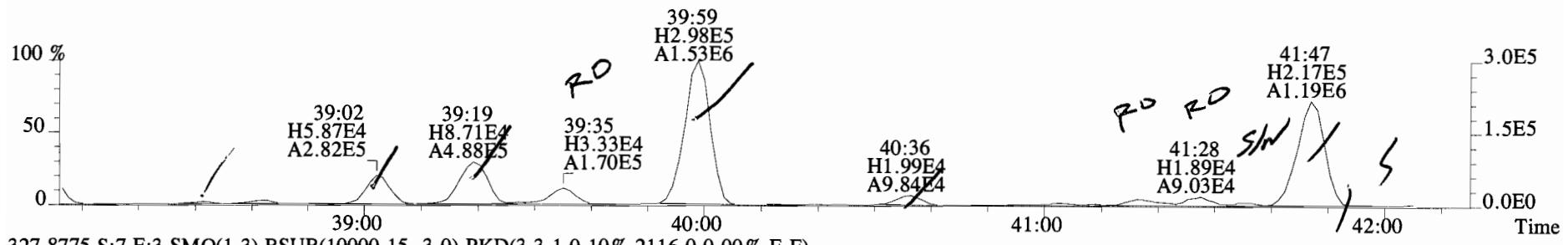
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 325.8804 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1860.0,0.00%,F,F)



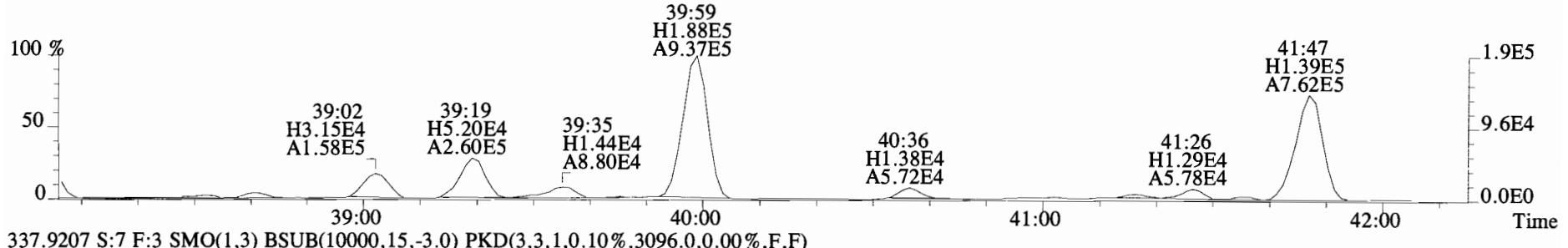
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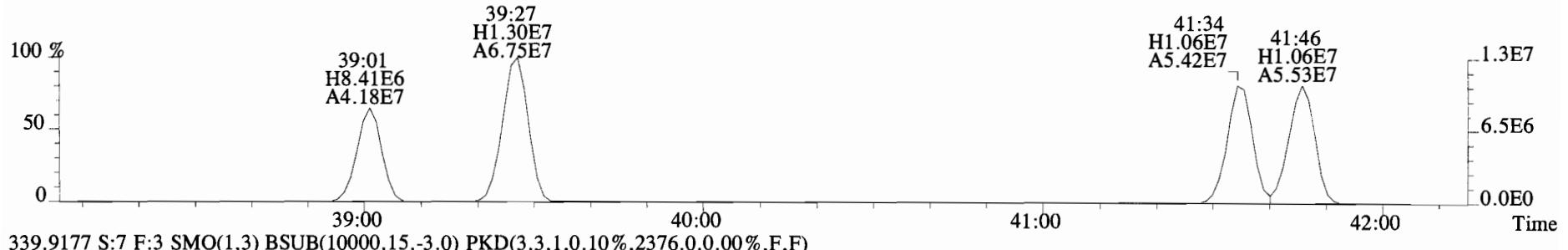
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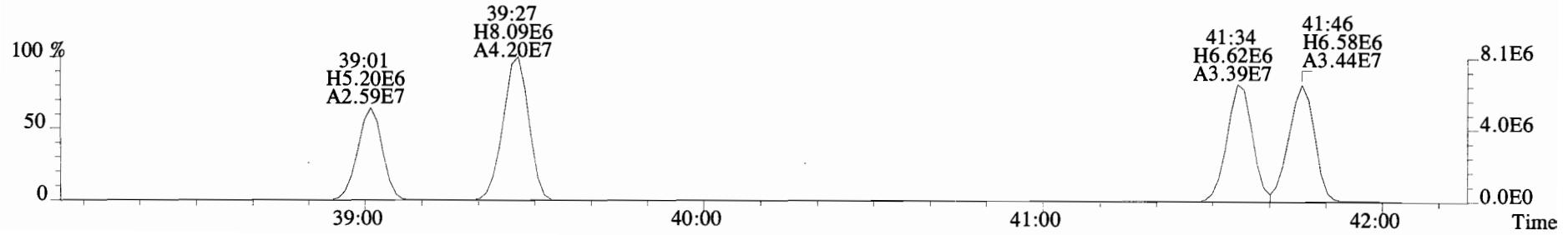
327.8775 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2116.0,0.00%,F,F)



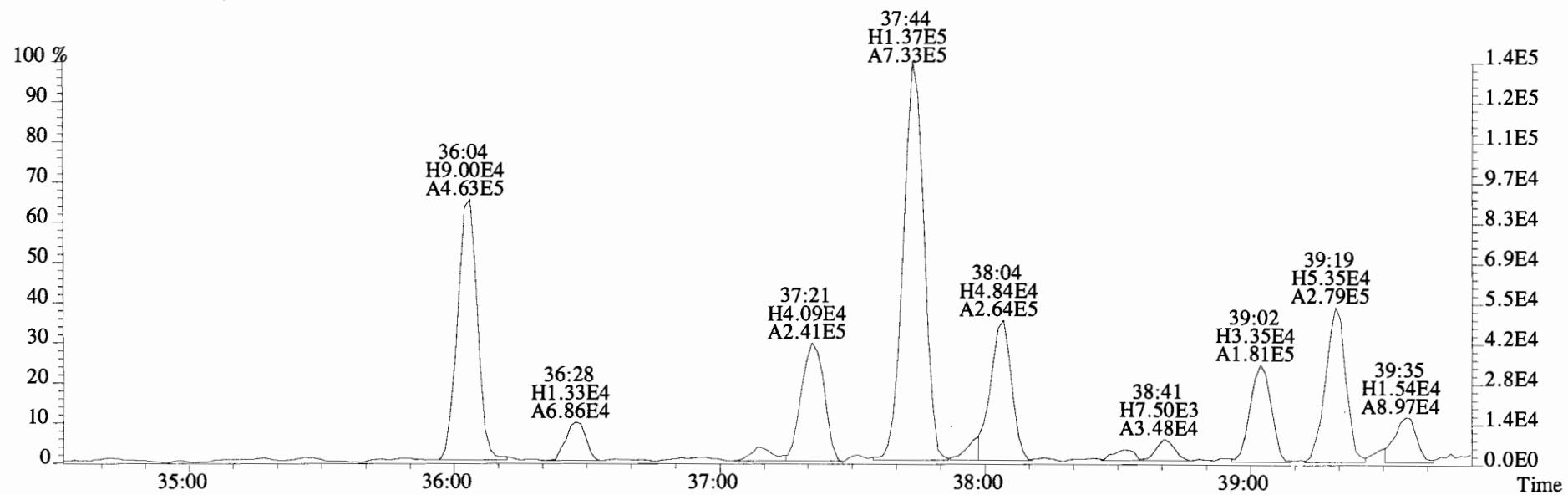
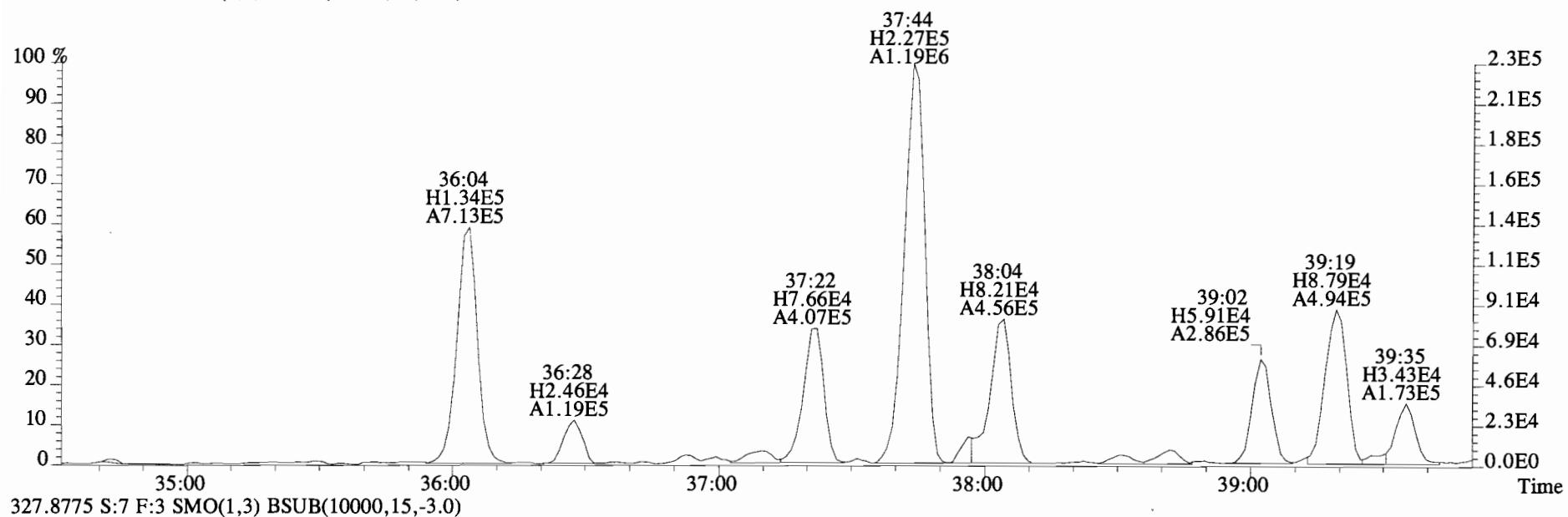
337.9207 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3096.0,0.00%,F,F)



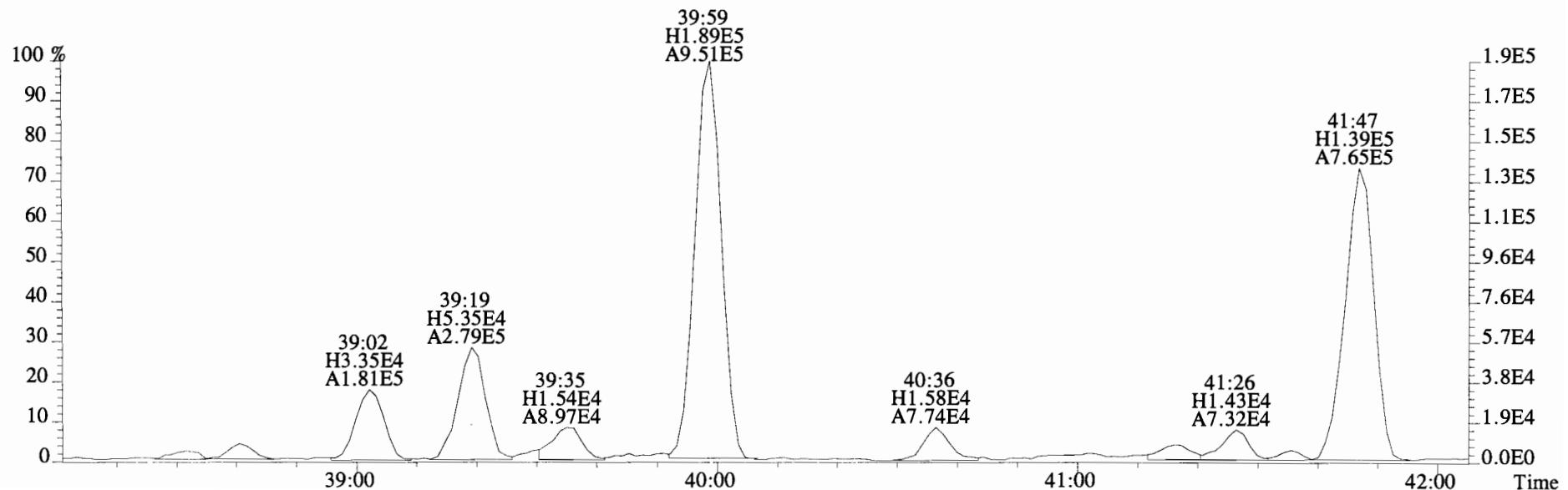
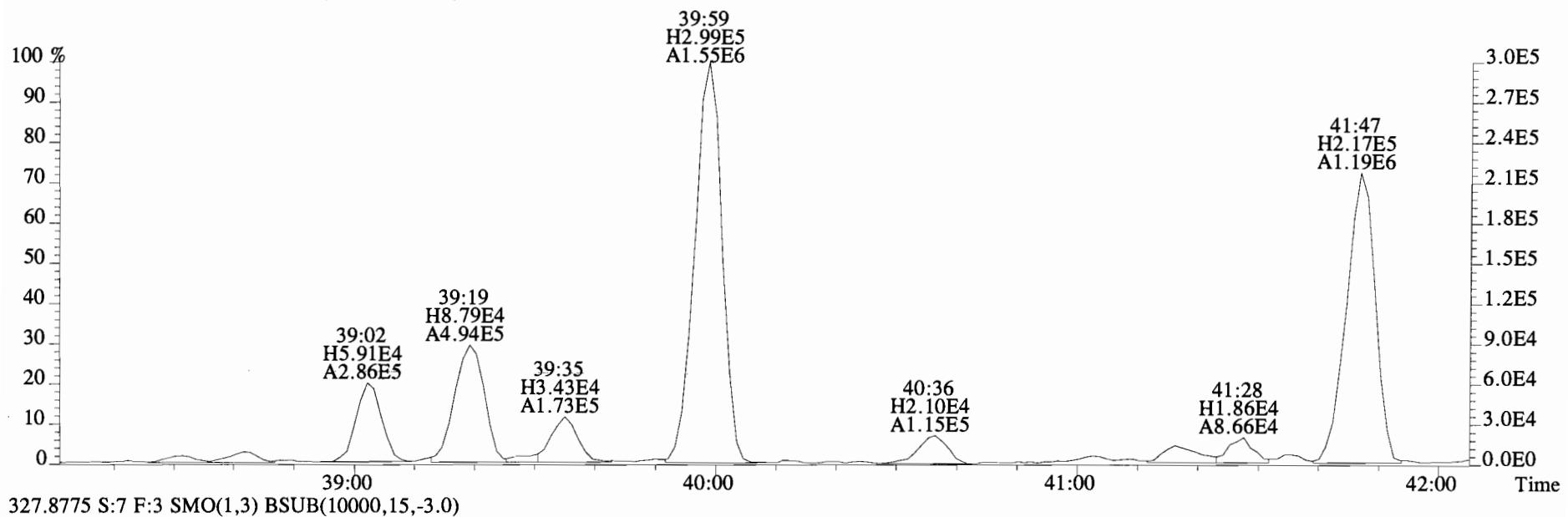
339.9177 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2376.0,0.00%,F,F)



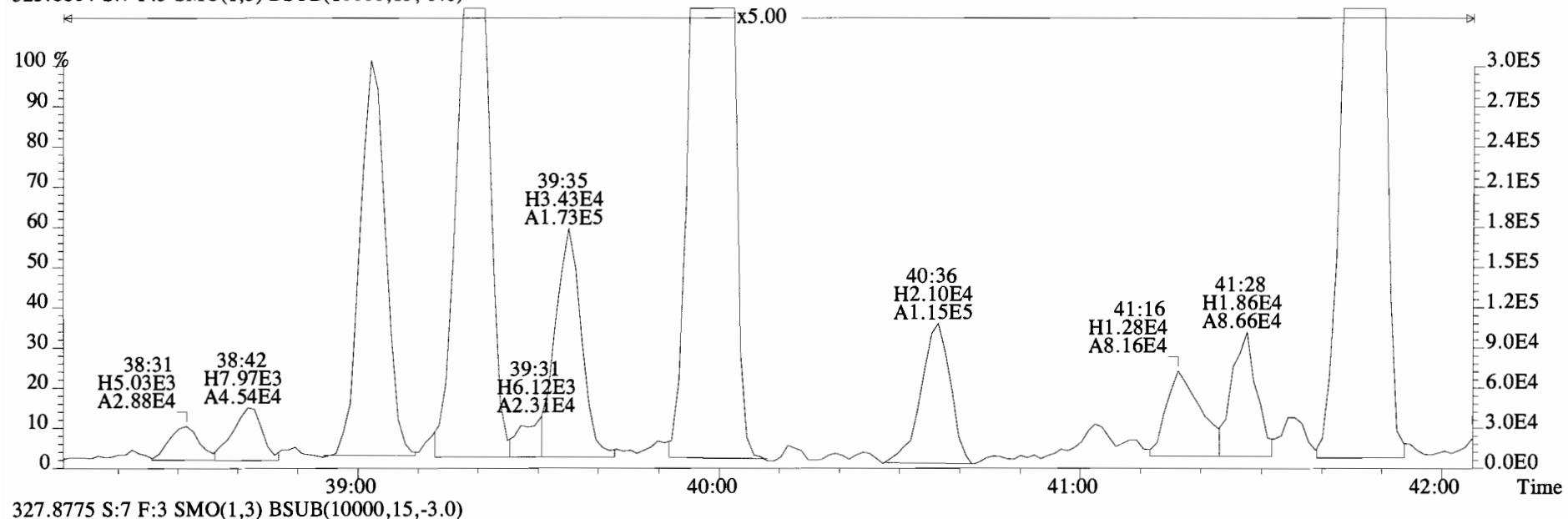
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
325.8804 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0)



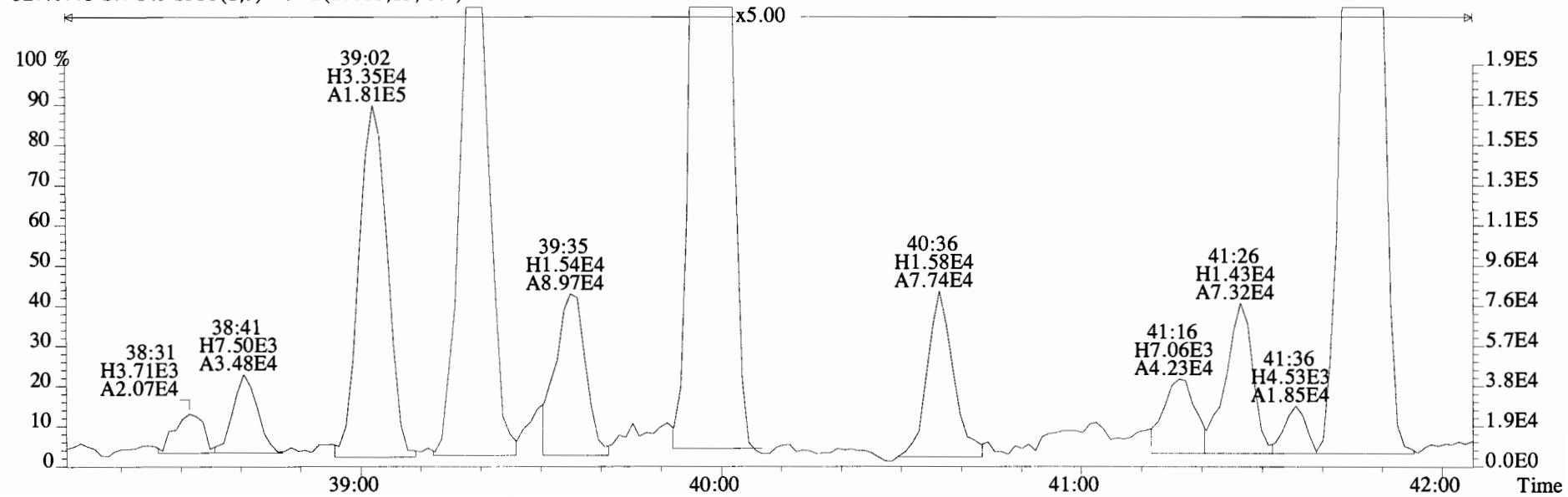
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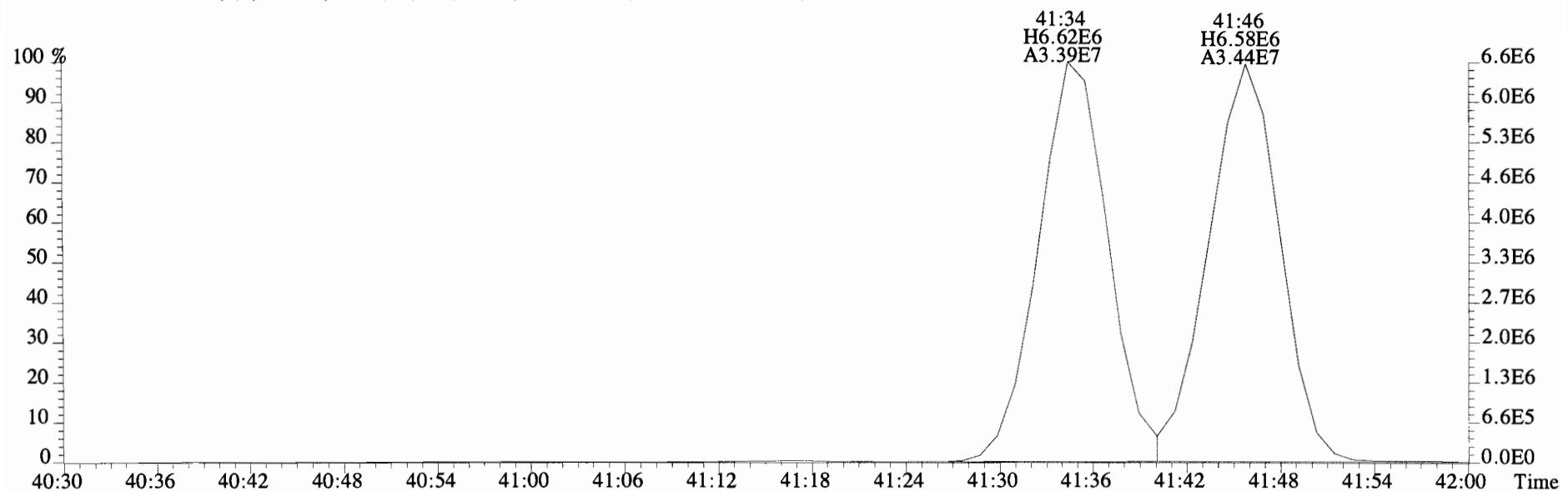
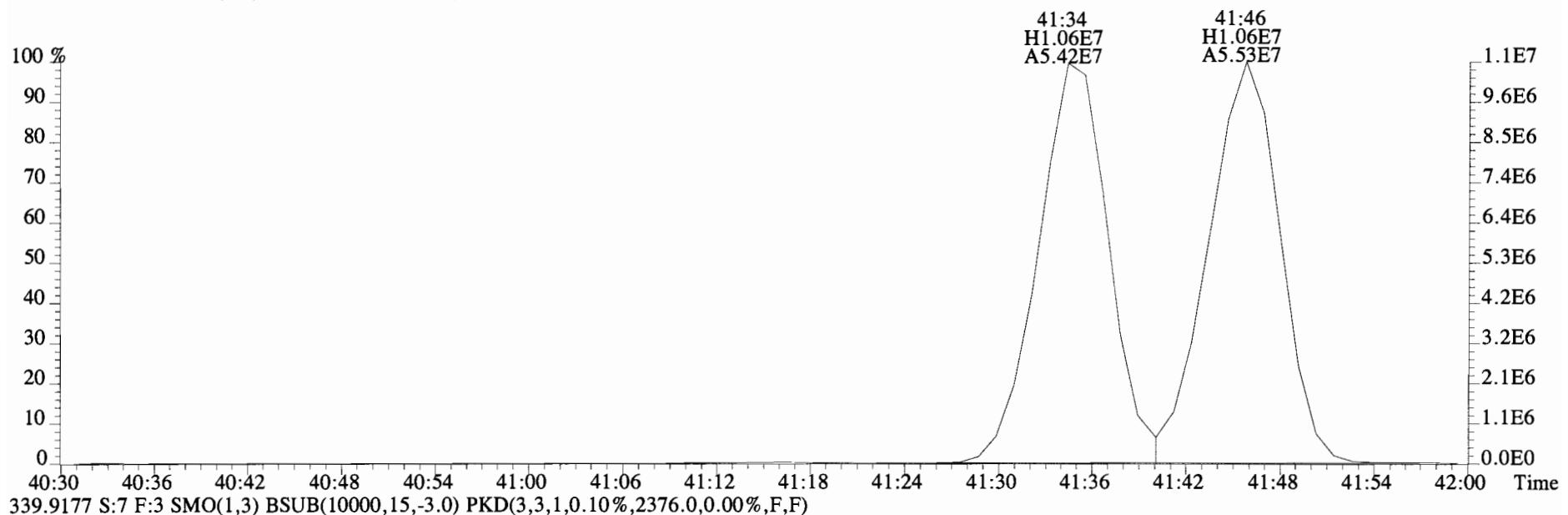
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 325.8804 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0)



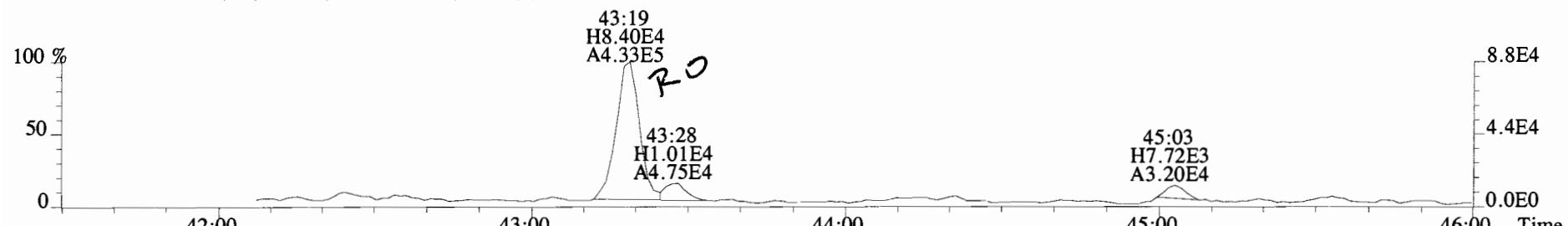
327.8775 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0)



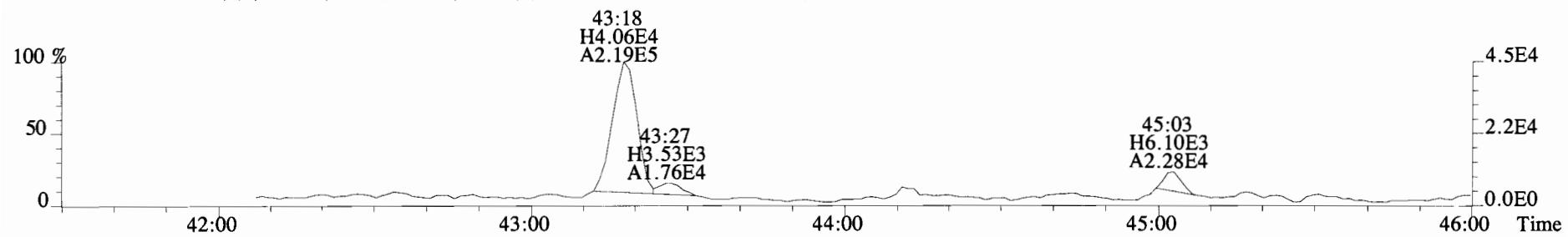
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
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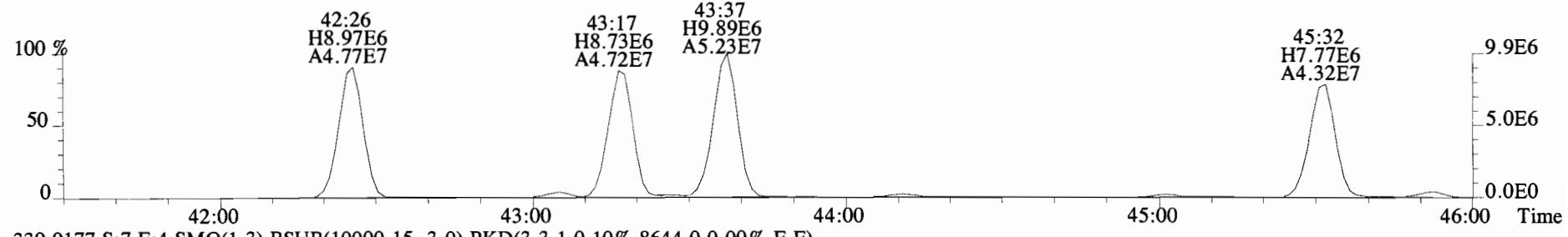
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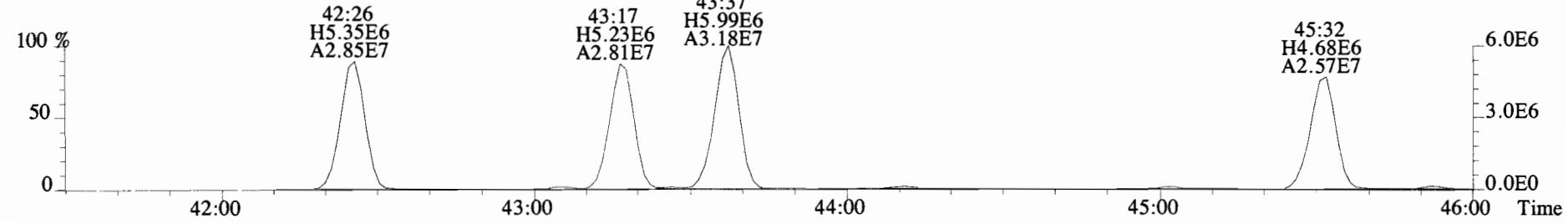
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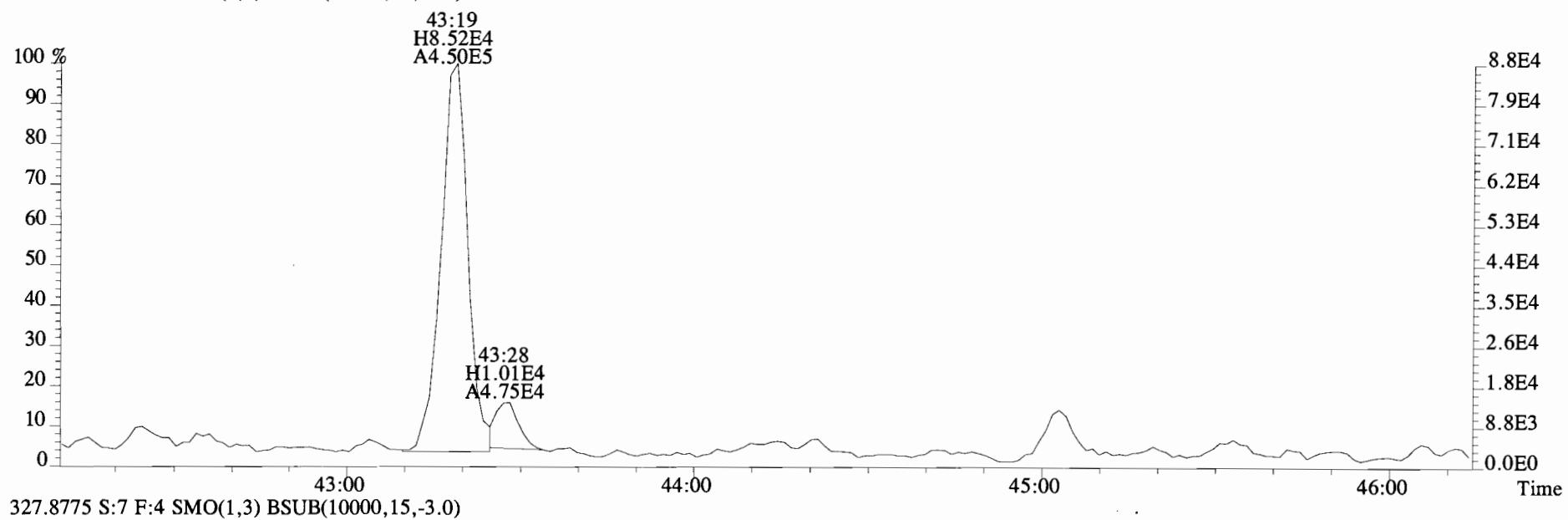
337.9207 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8248.0,0.00%,F,F)



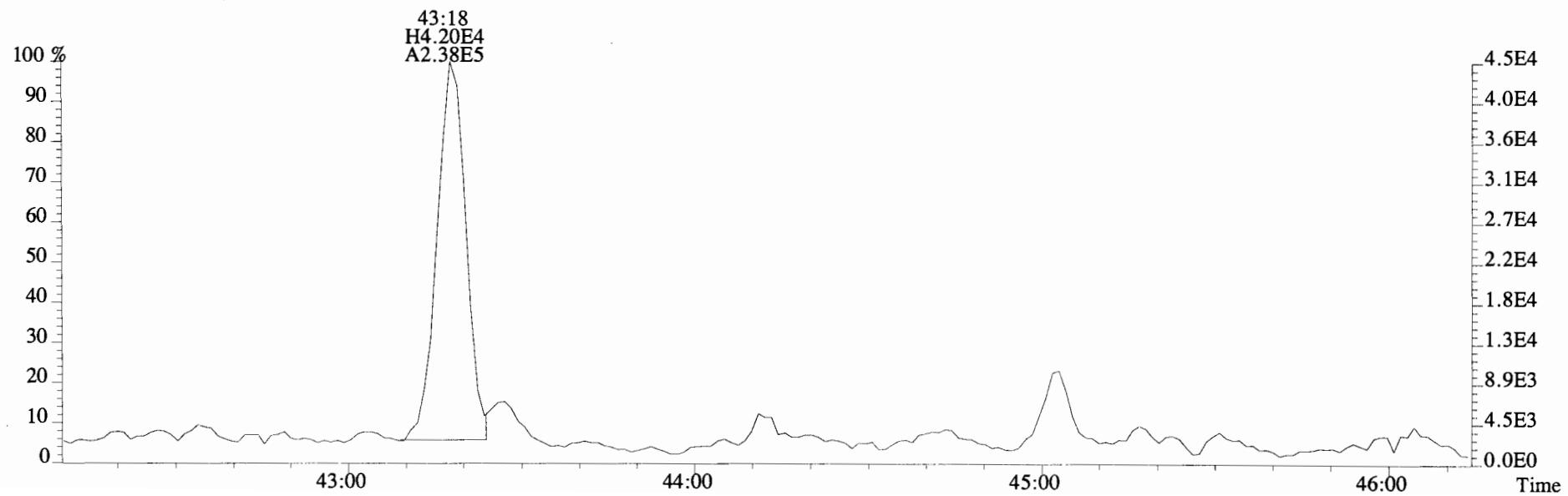
339.9177 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8644.0,0.00%,F,F)



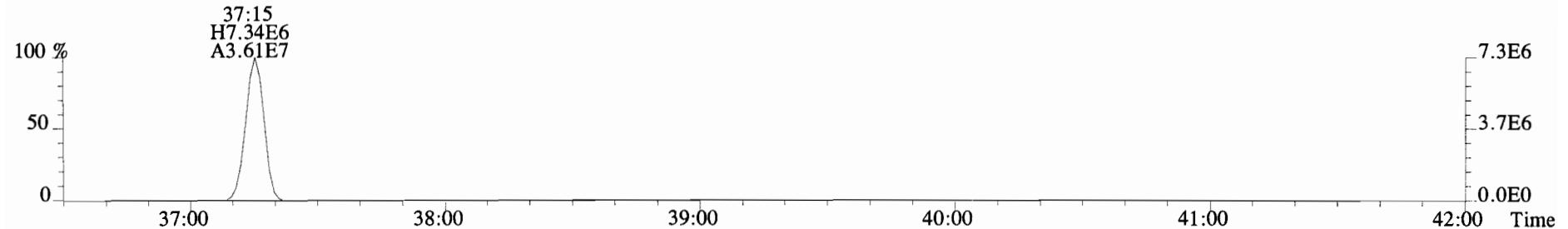
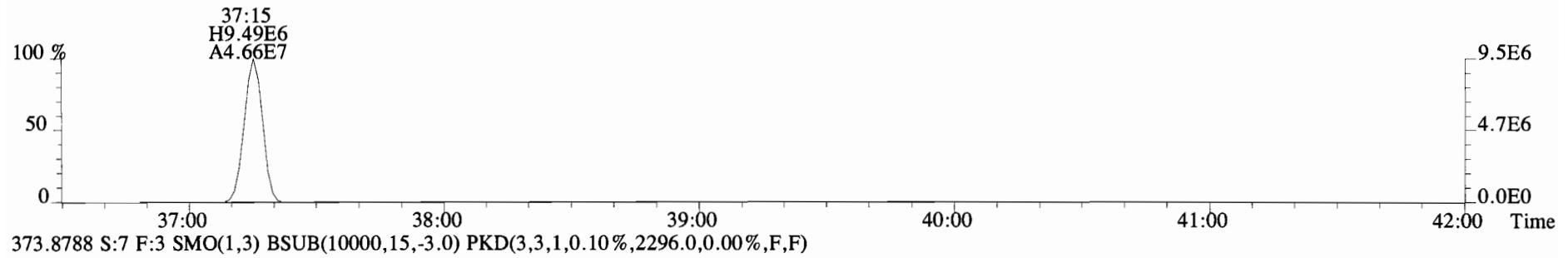
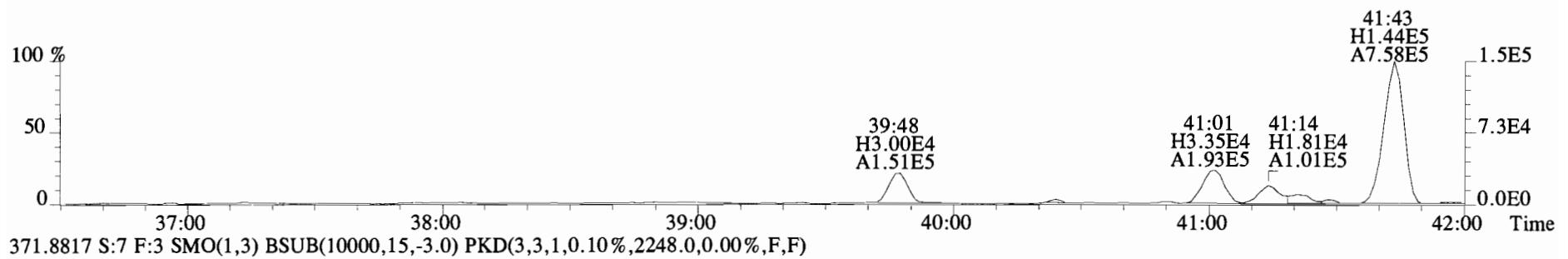
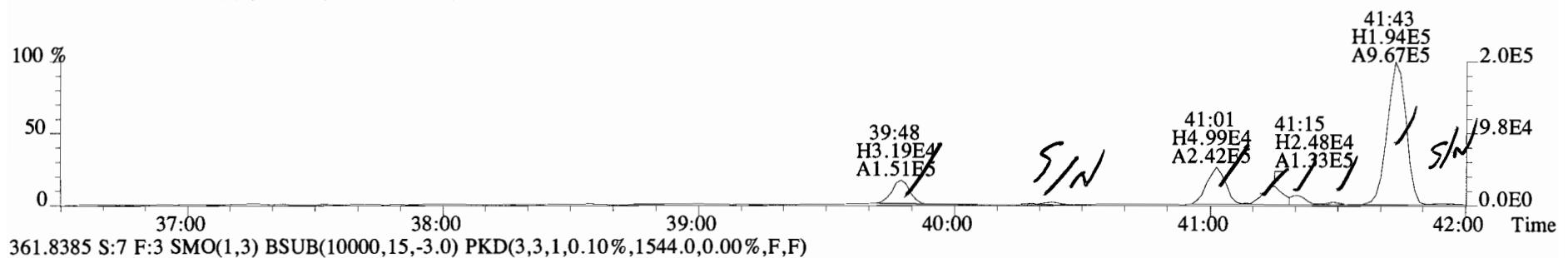
File:140919E1 #1-544 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
325.8804 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0)



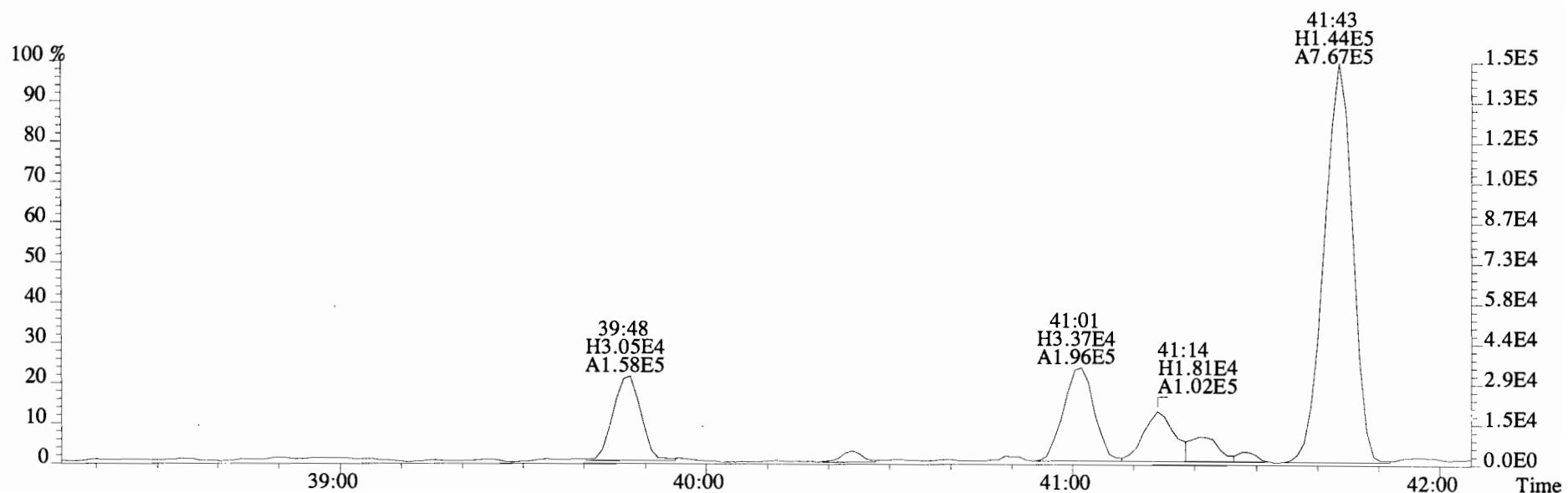
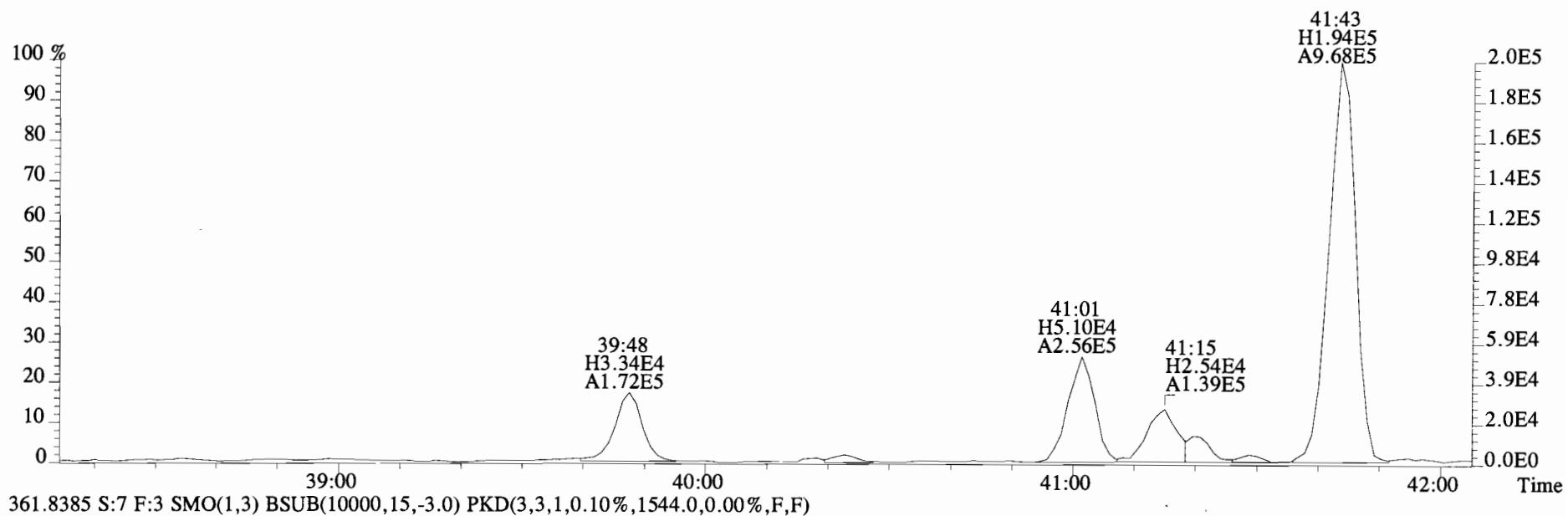
327.8775 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0)



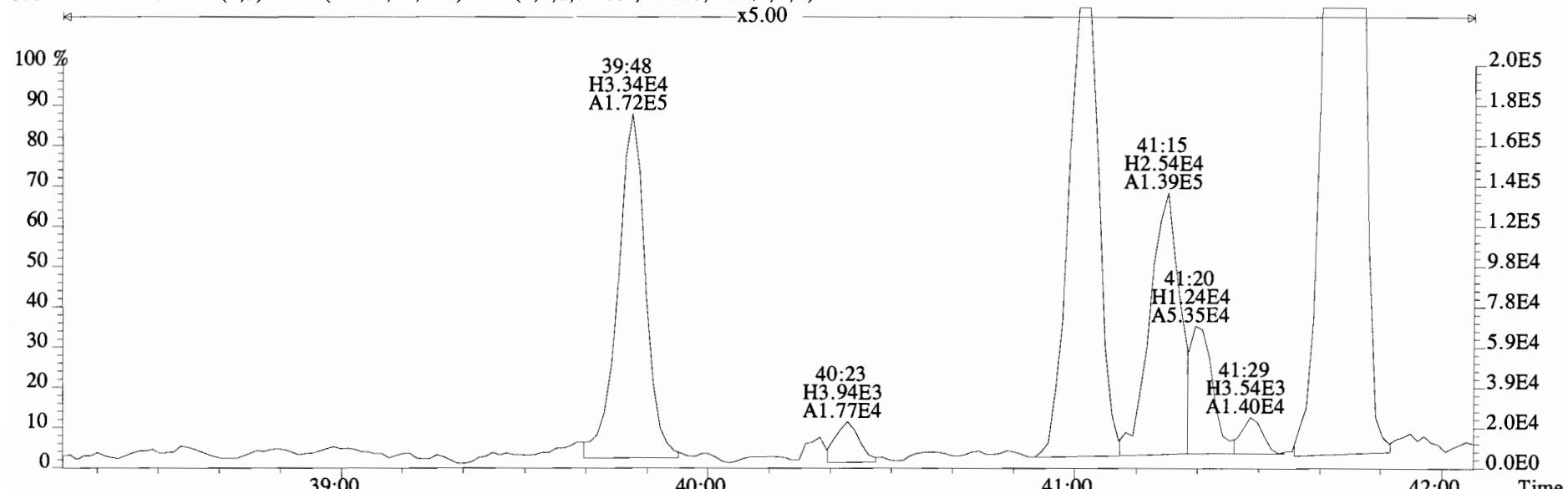
File:140919E1 #1-769 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
359.8415 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1572.0,0.00%,F,F)



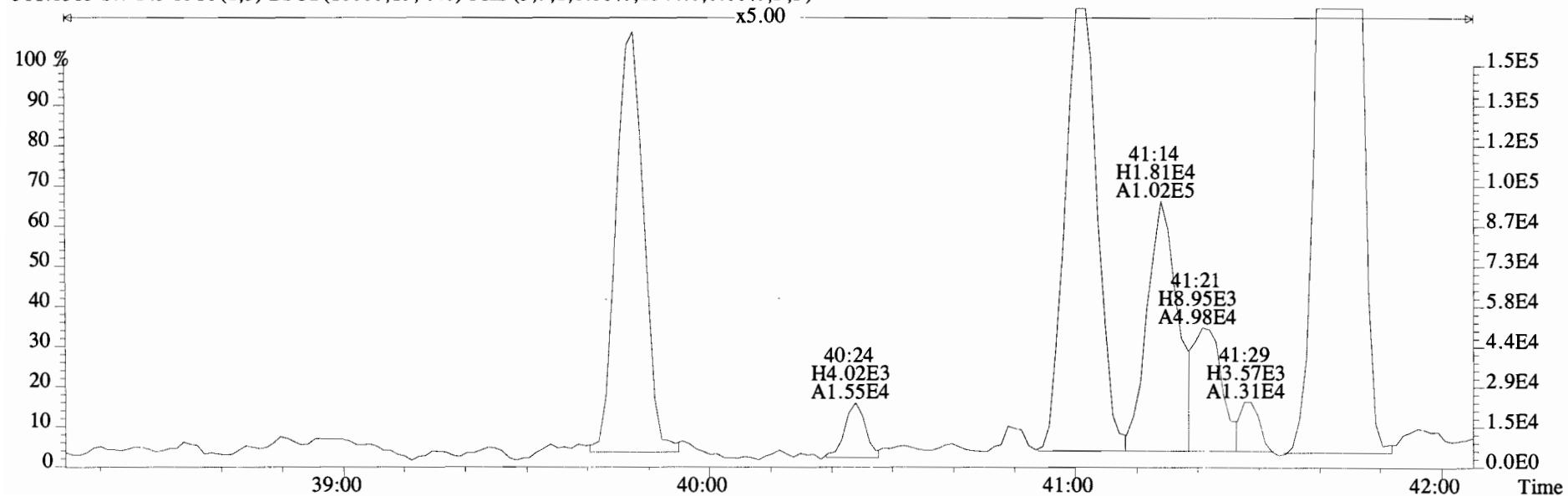
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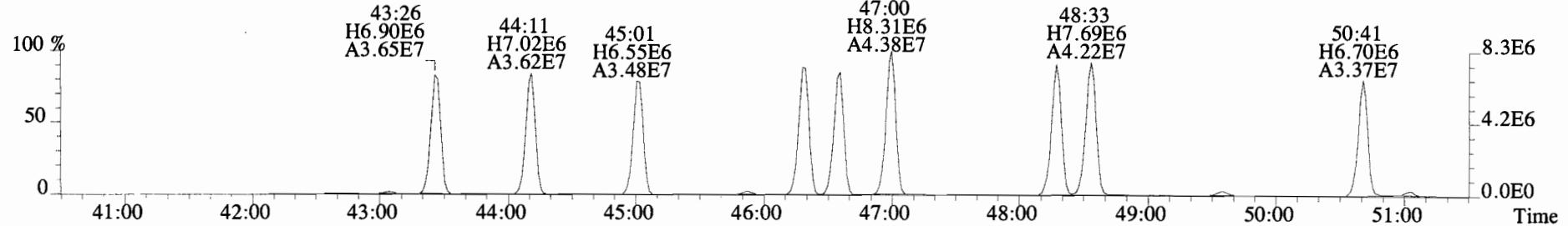
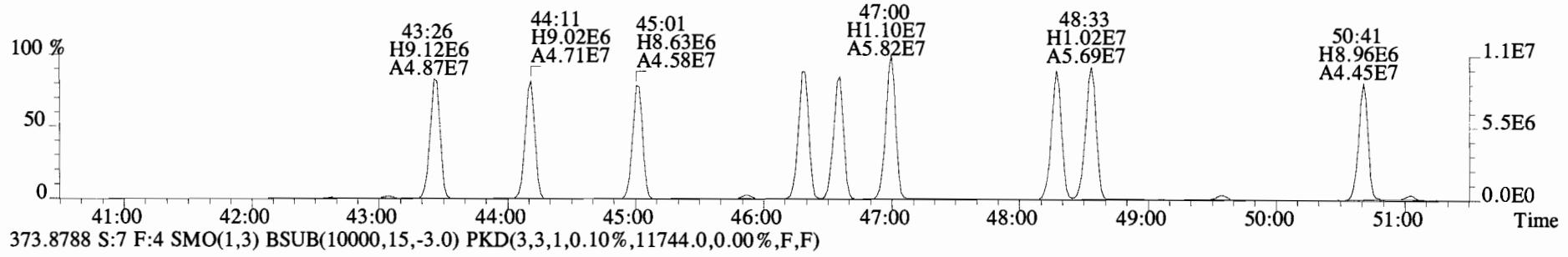
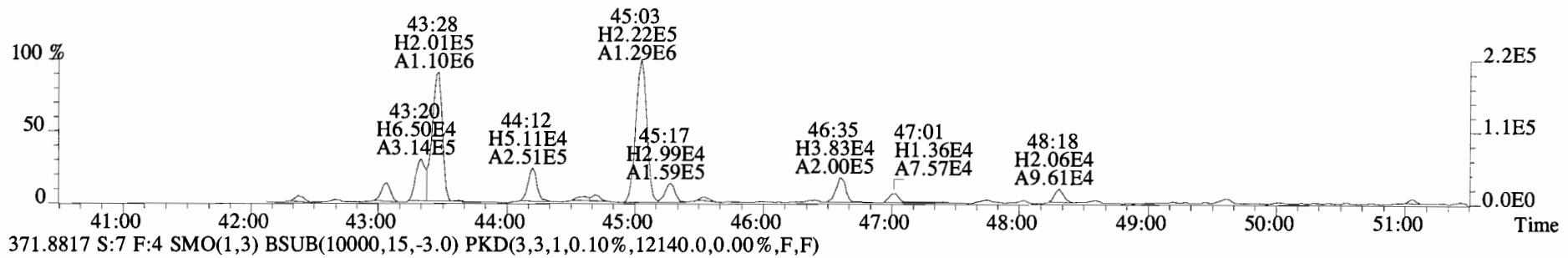
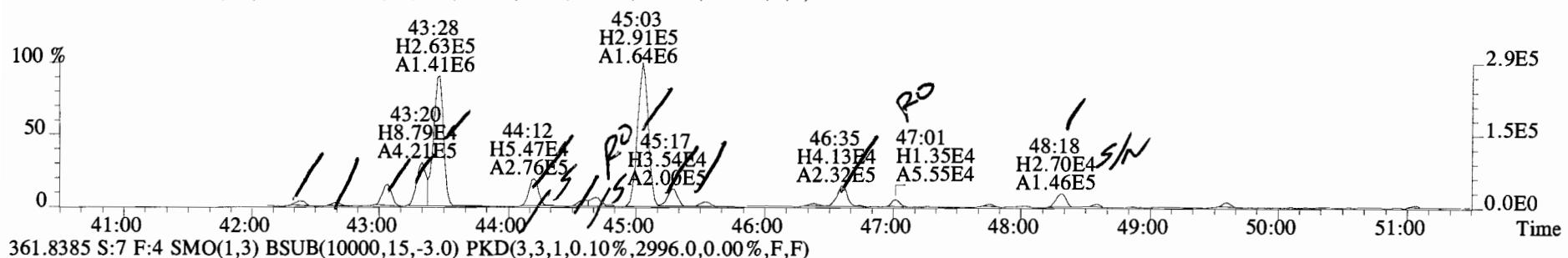
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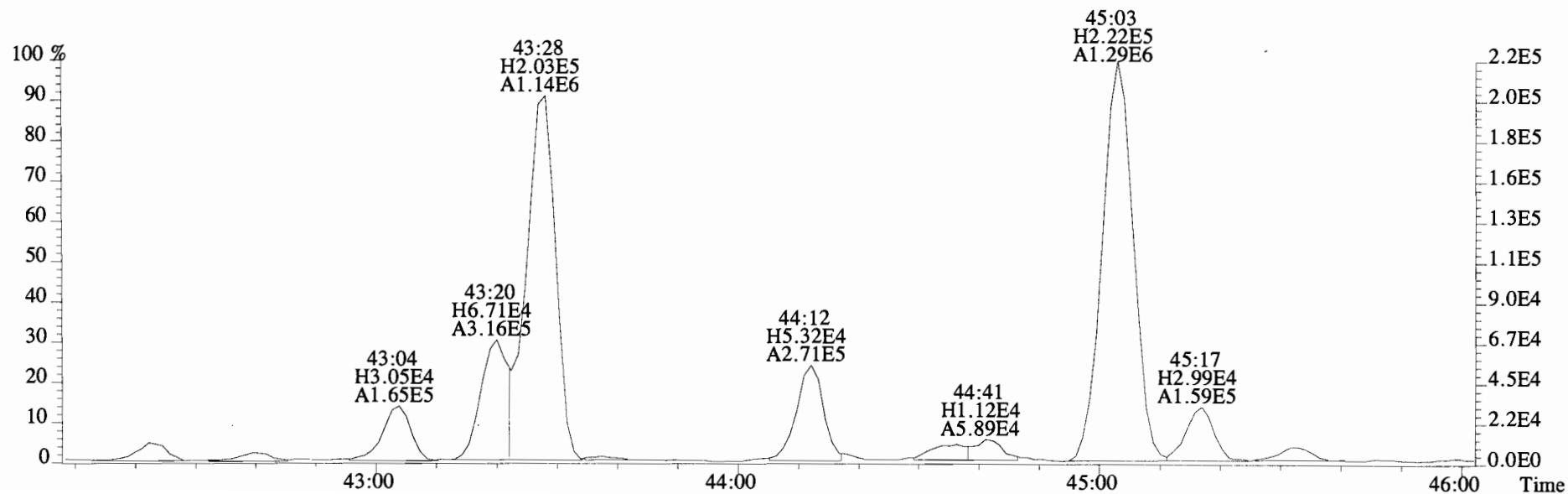
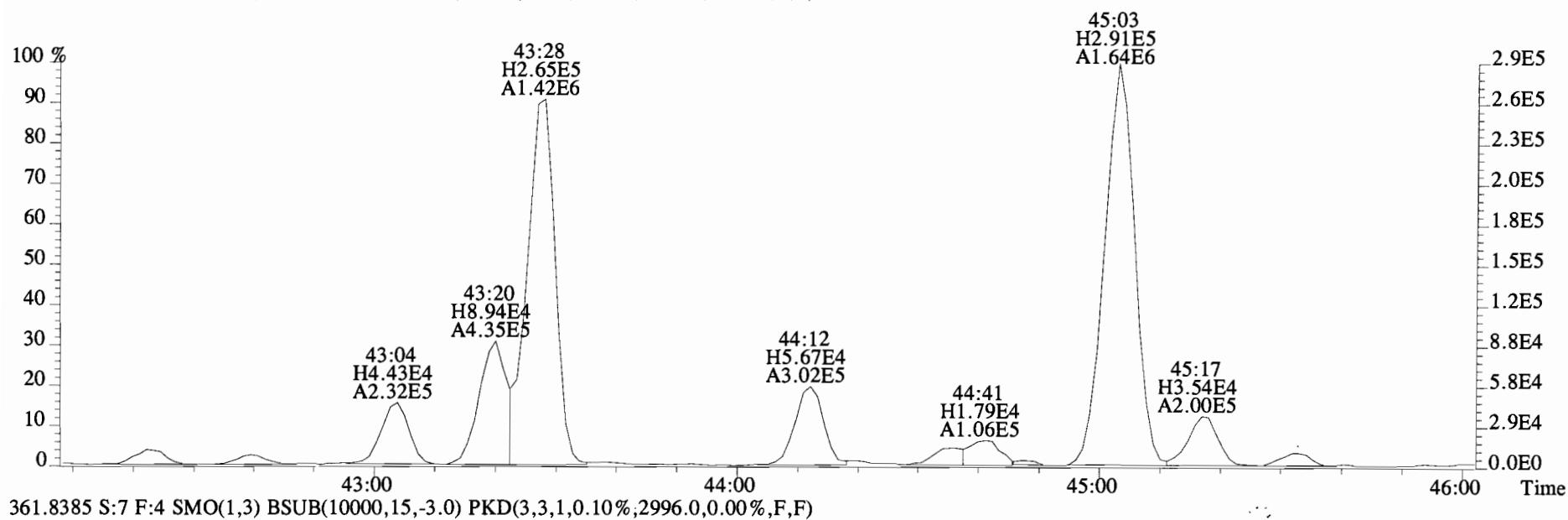
361.8385 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1544.0,0.00%,F,F)



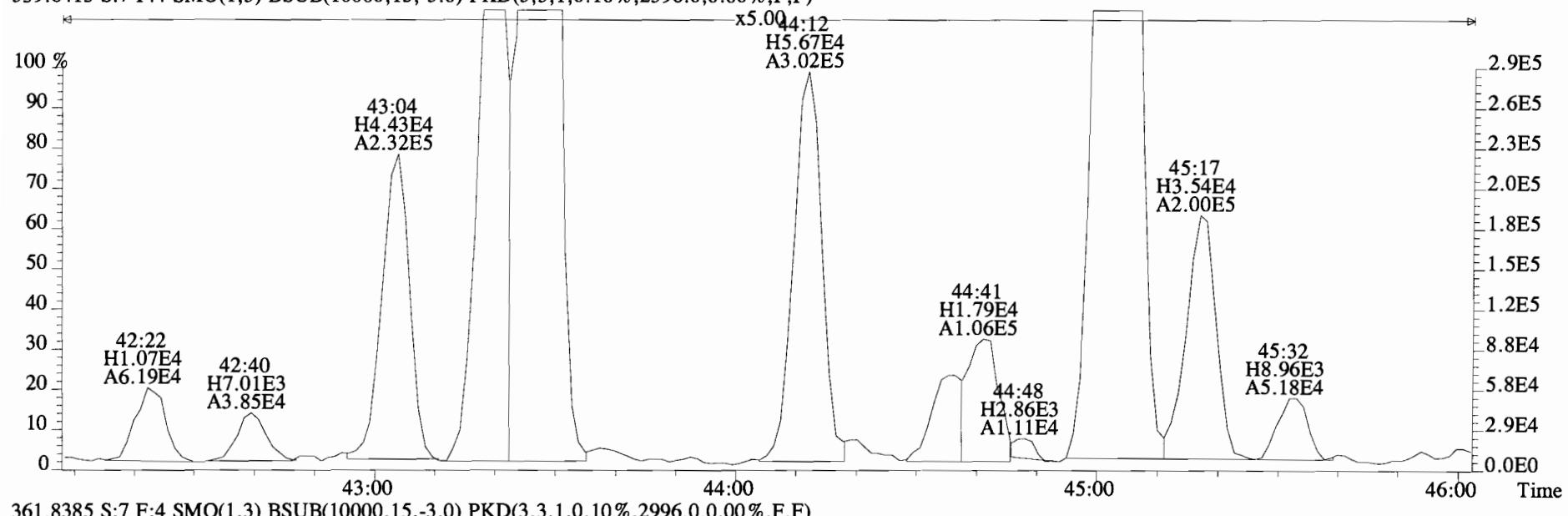
File:140919E1 #1-544 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 359.8415 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2396.0,0.00%,F,F)



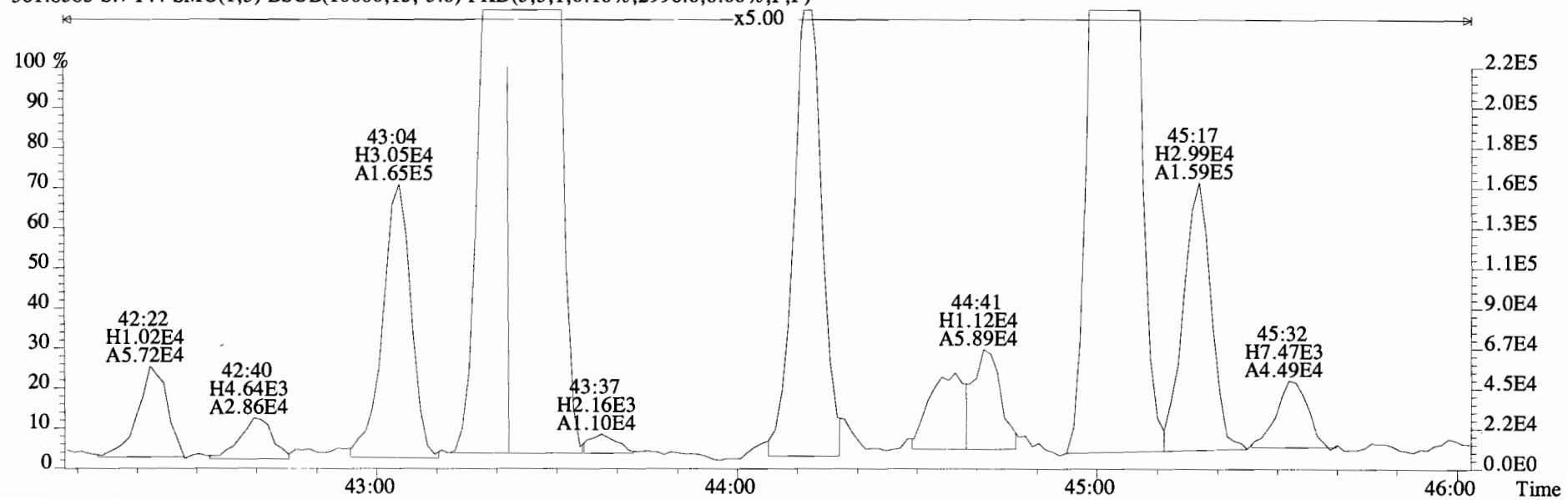
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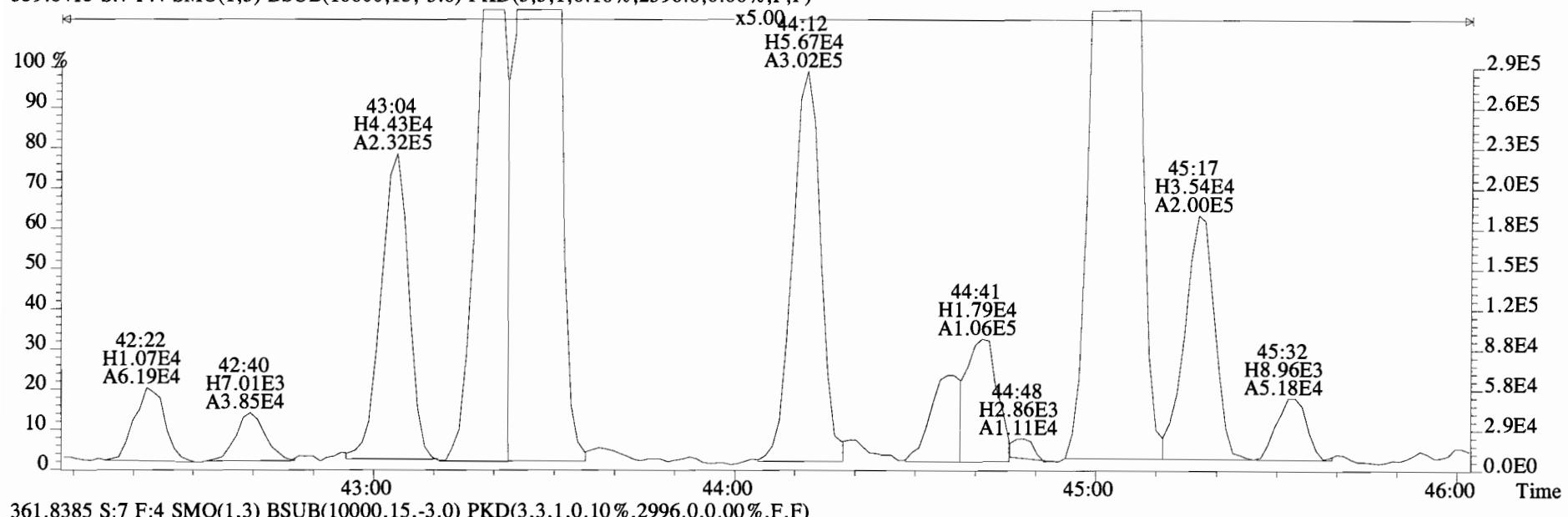
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 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 359.8415 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2396.0,0.00%,F,F)



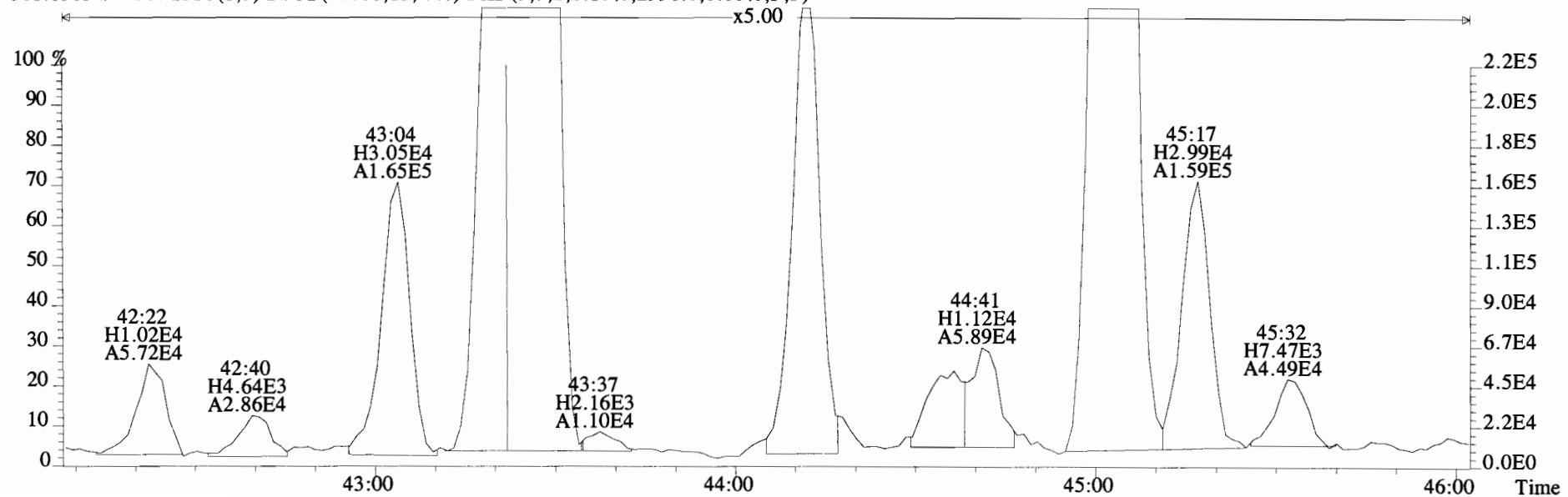
361.8385 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2996.0,0.00%,F,F)



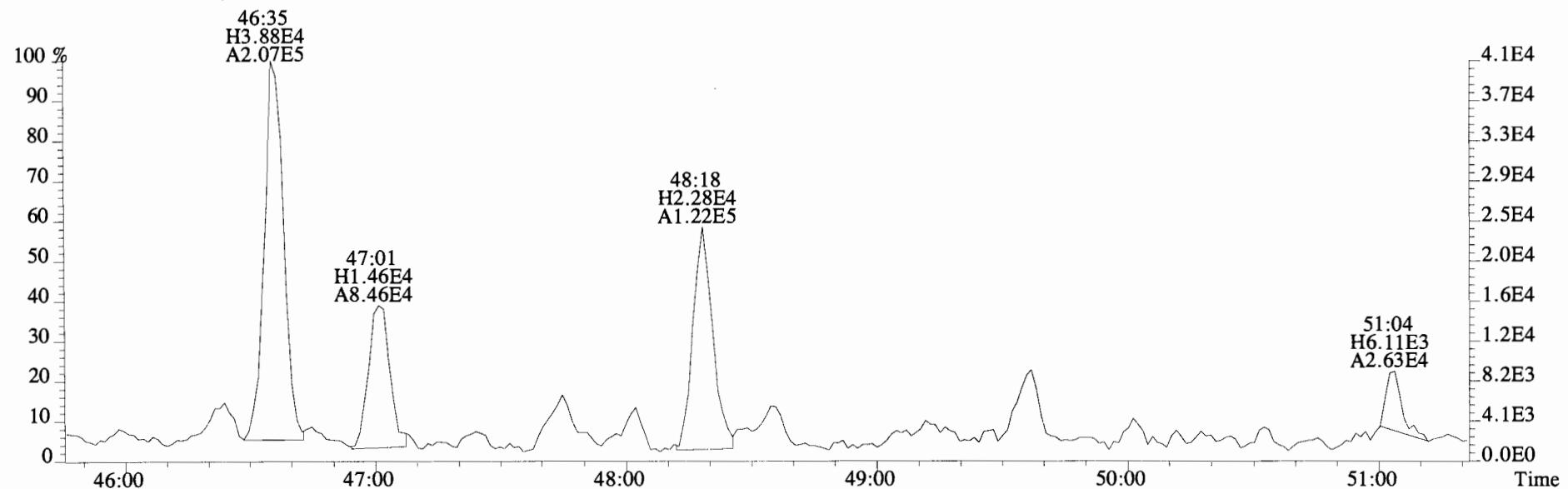
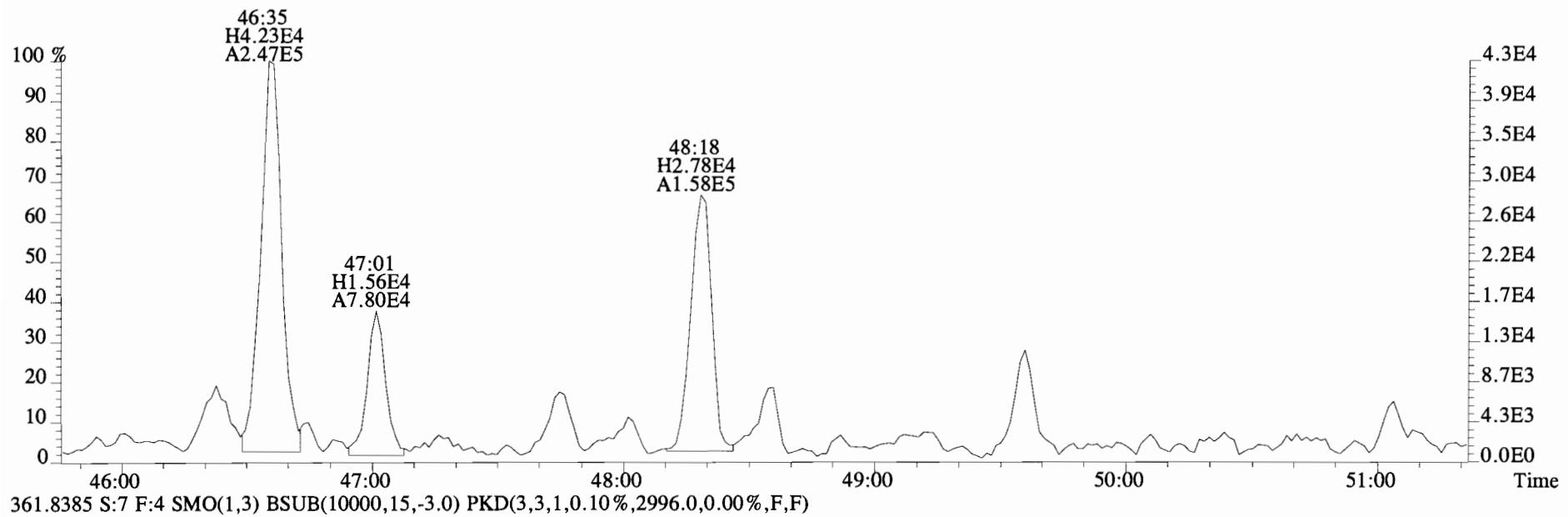
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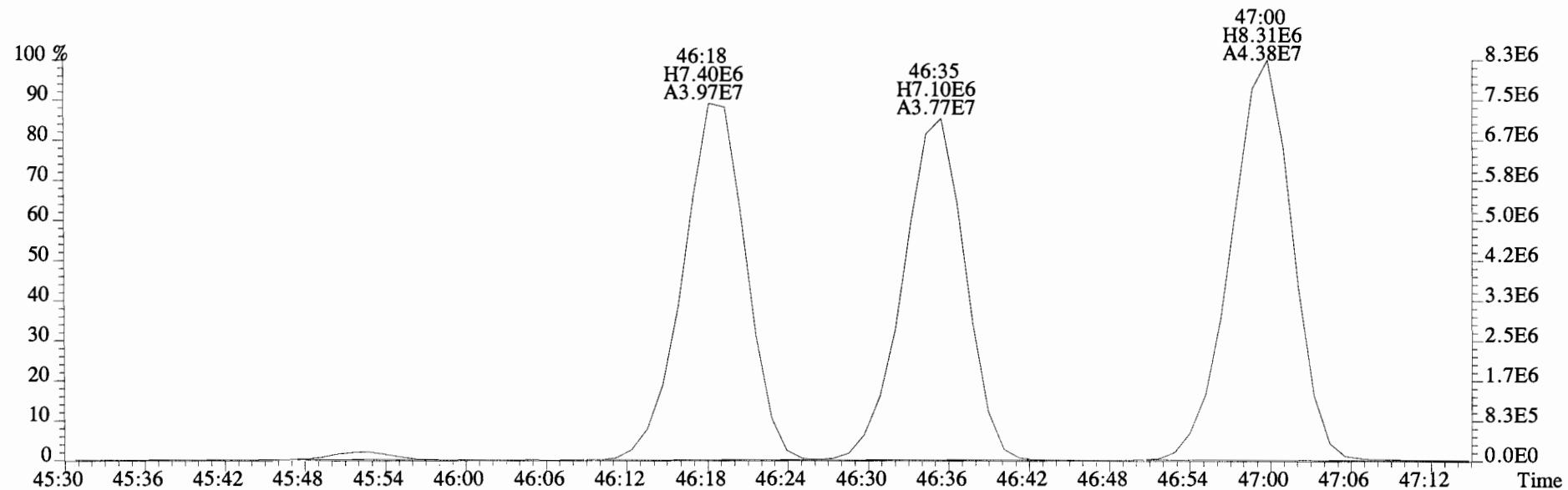
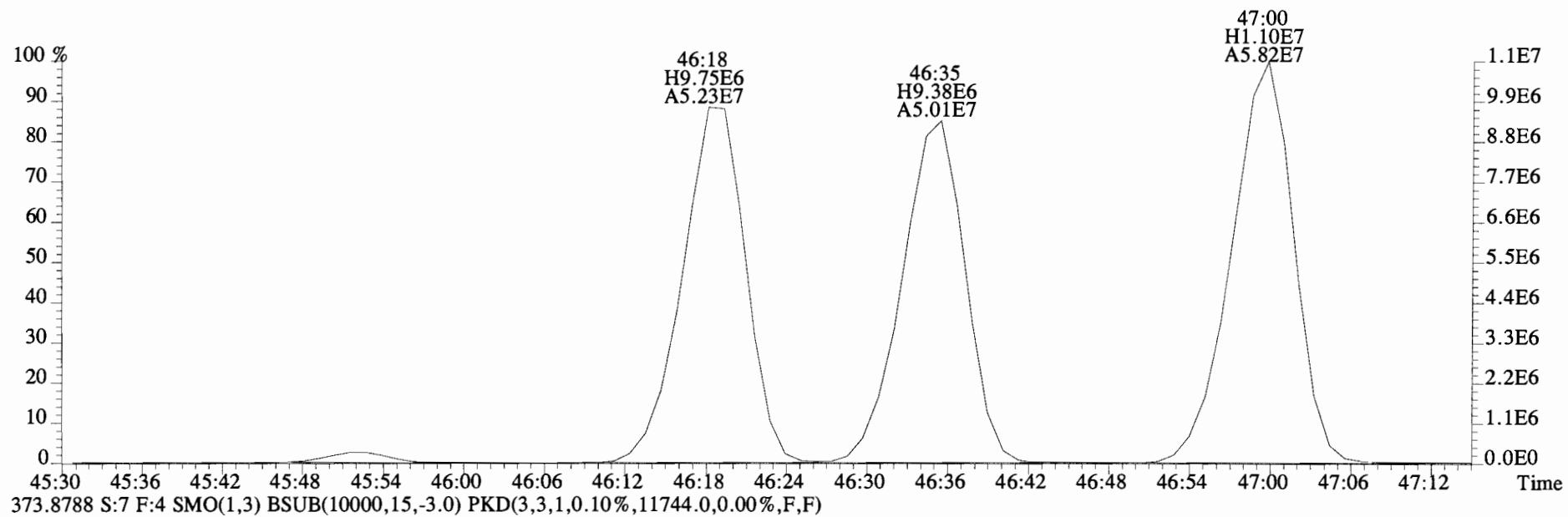
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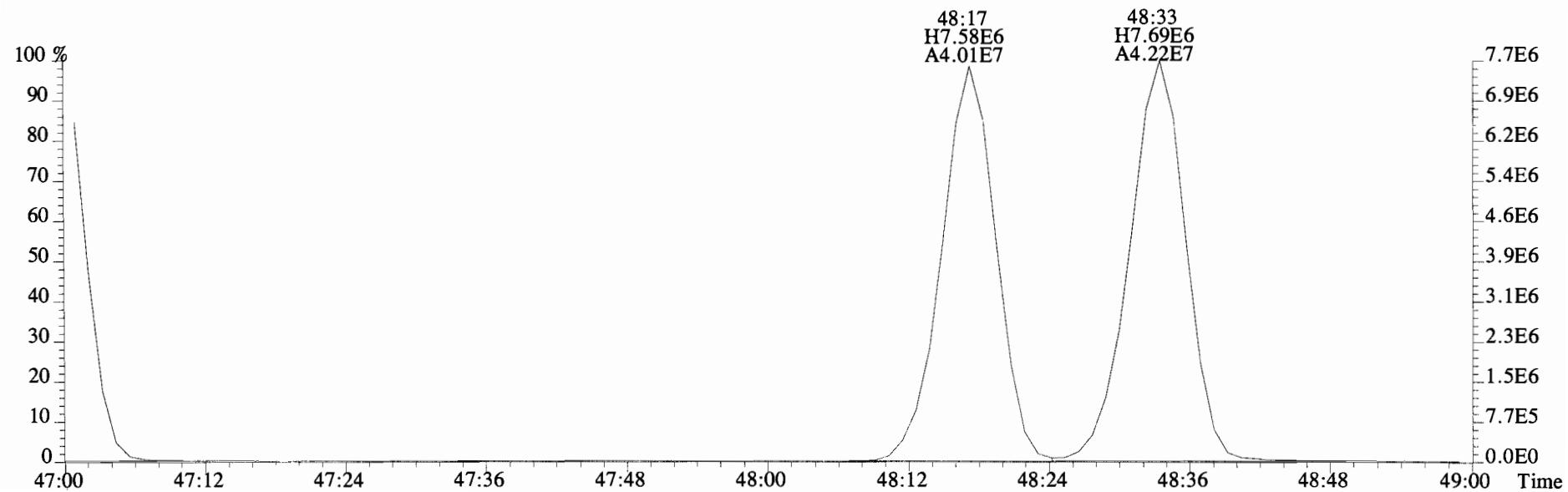
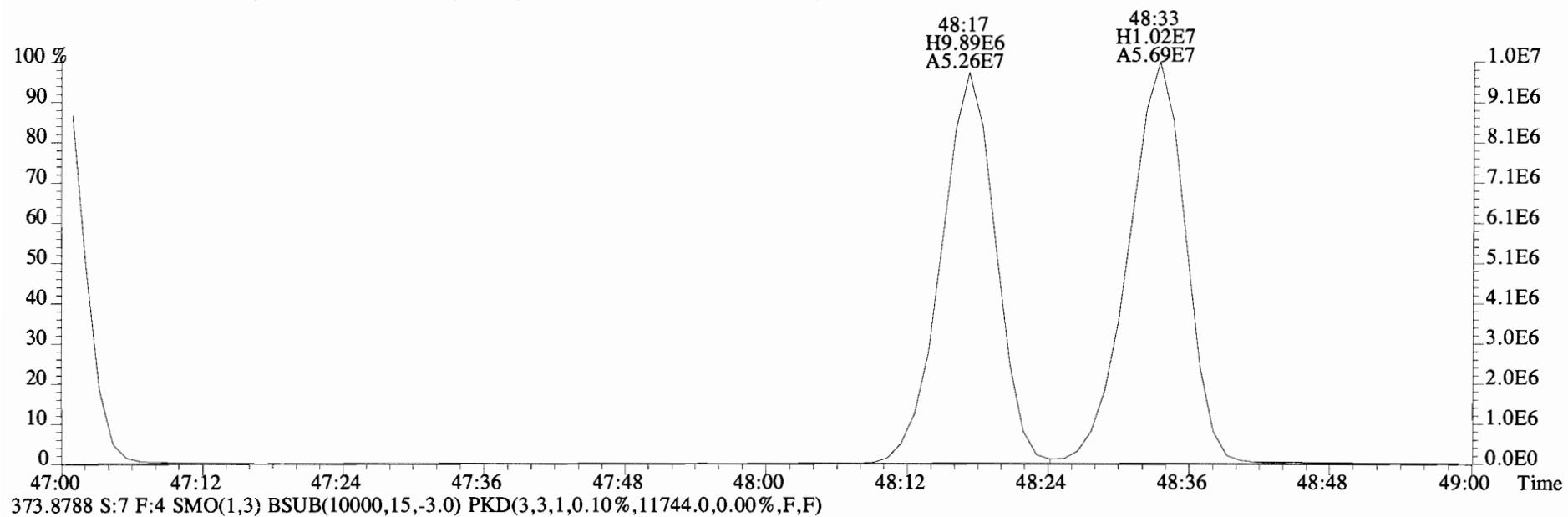
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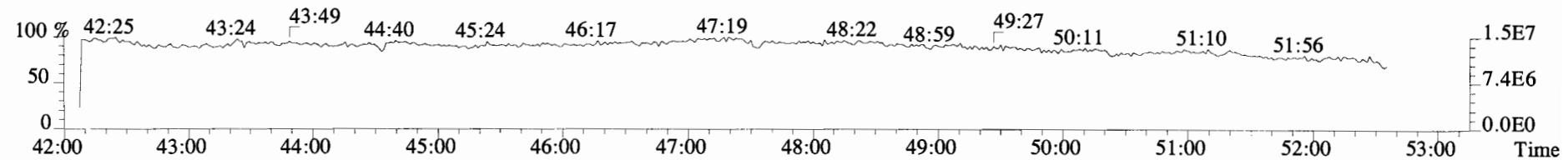
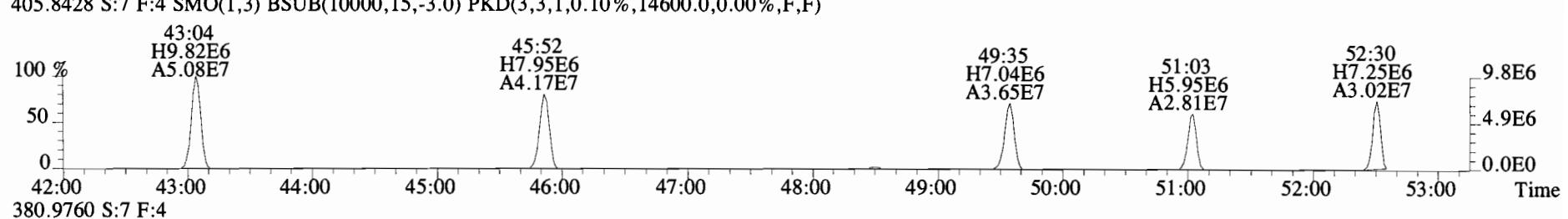
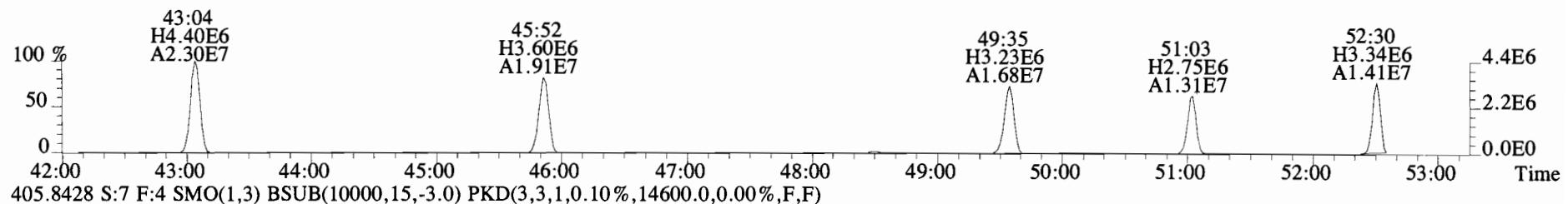
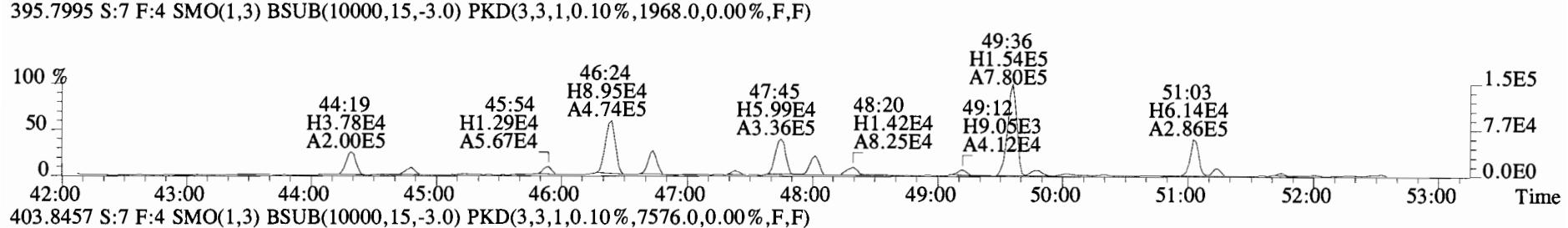
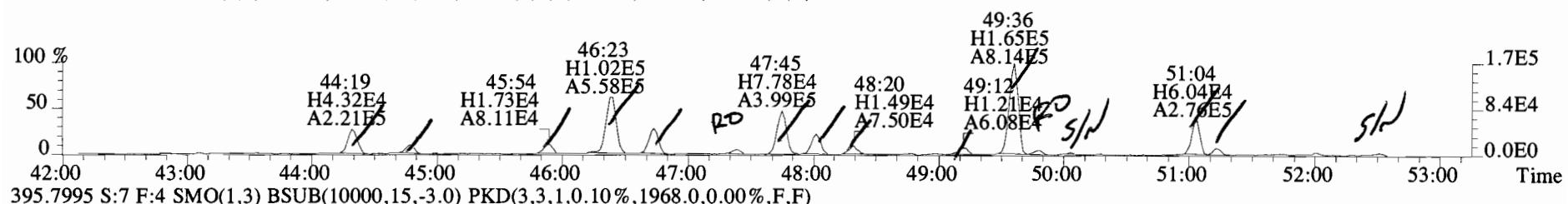
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
371.8817 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12140.0,0.00%,F,F)



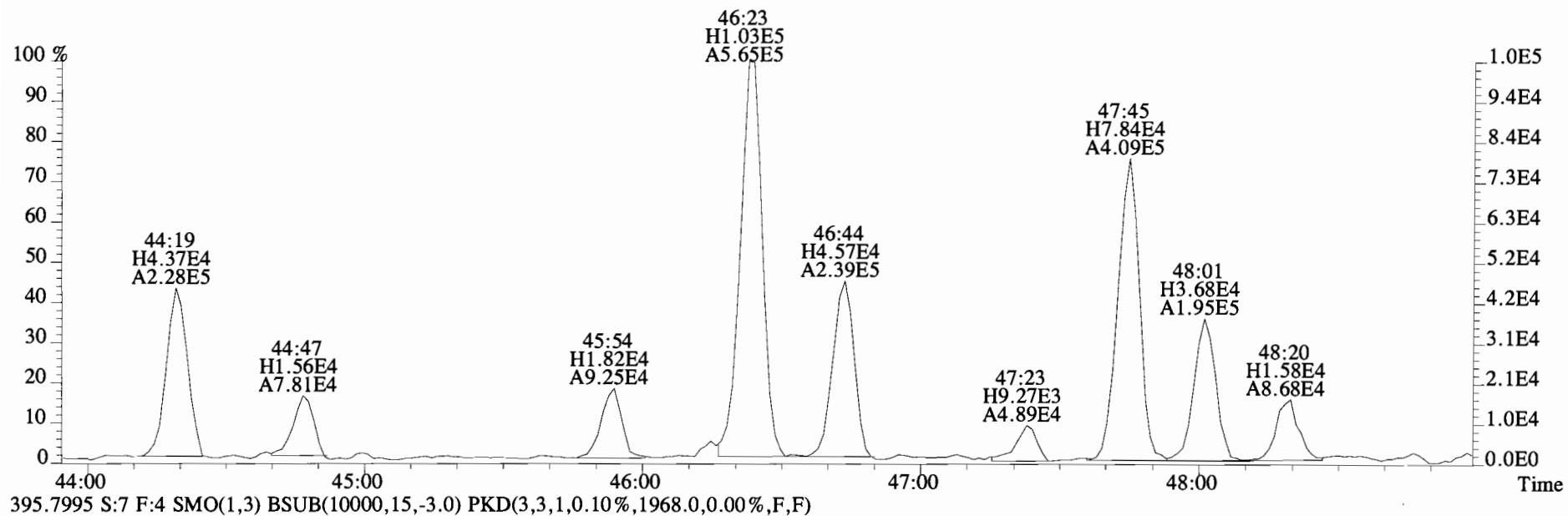
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
371.8817 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12140.0,0.00%,F,F)



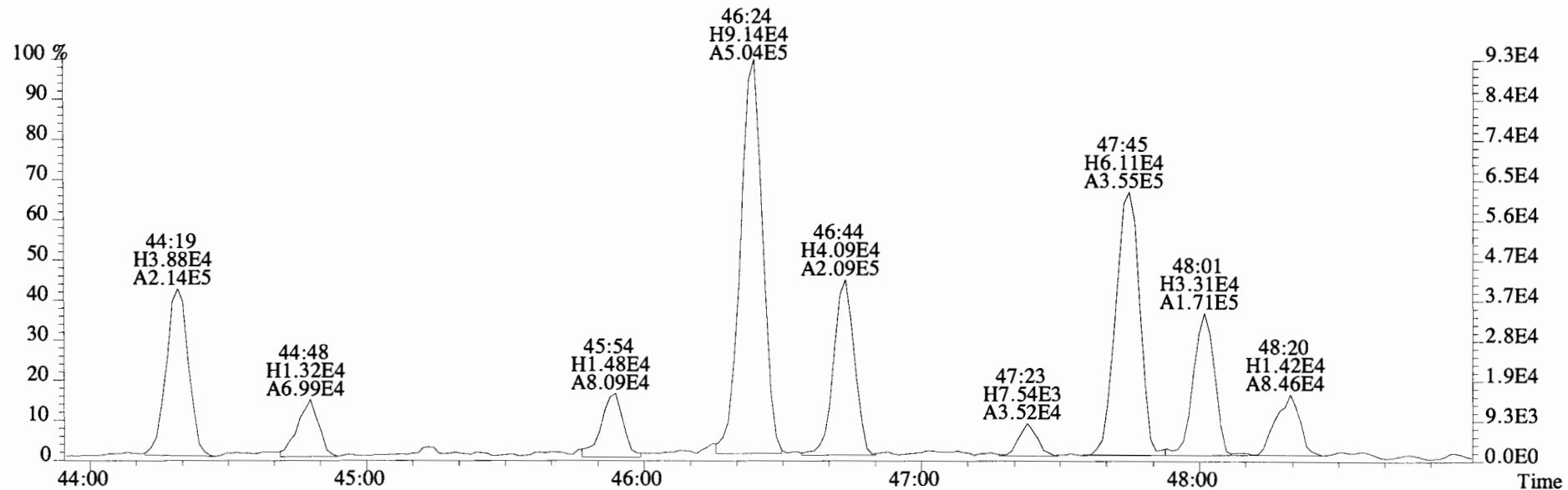
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 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 393.8025 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2104.0,0.00%,F,F)



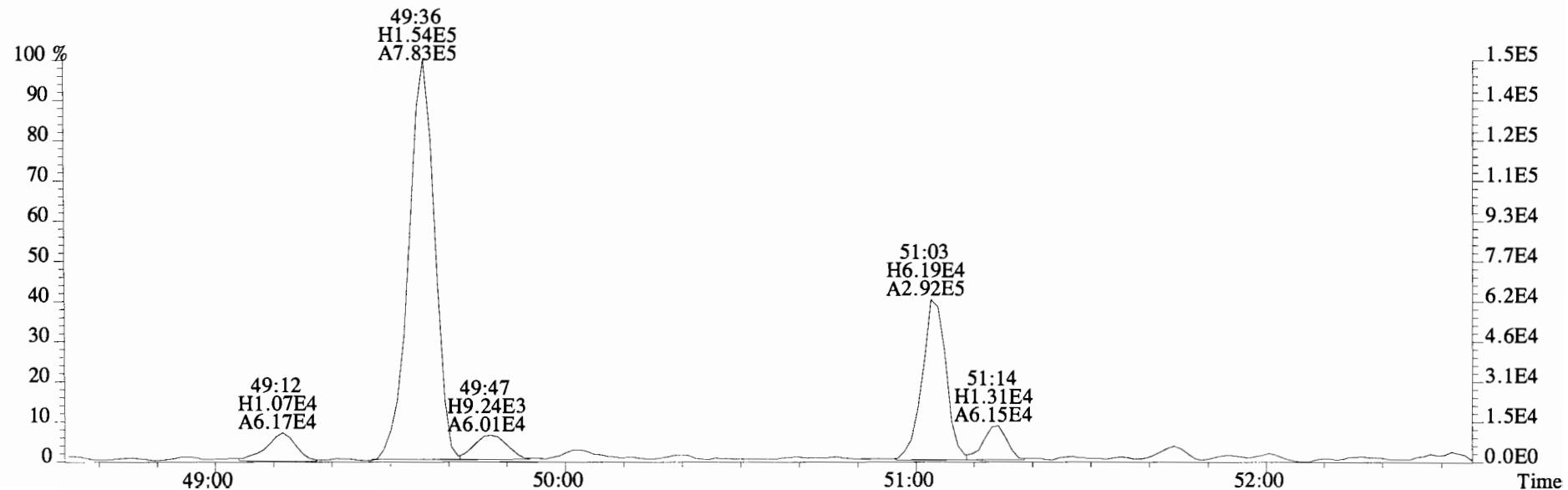
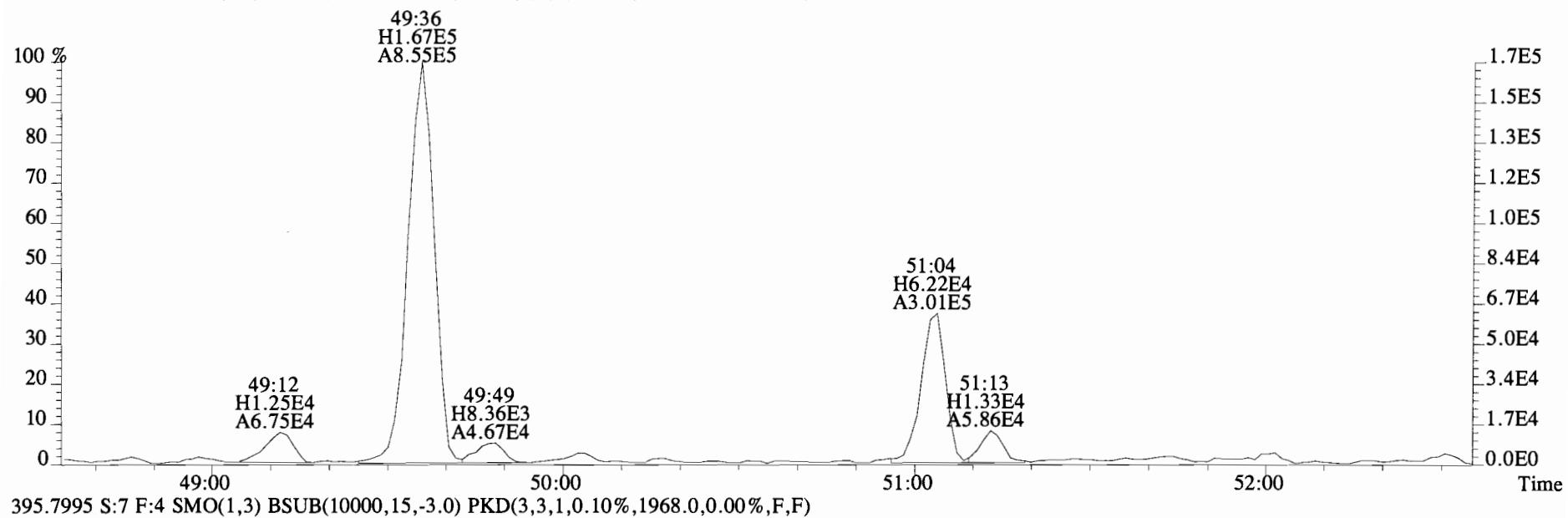
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 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 393.8025 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2104.0,0.00%,F,F)



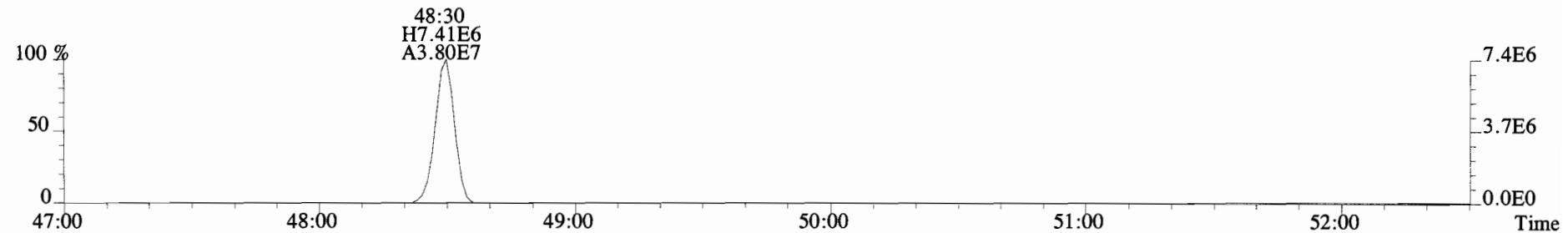
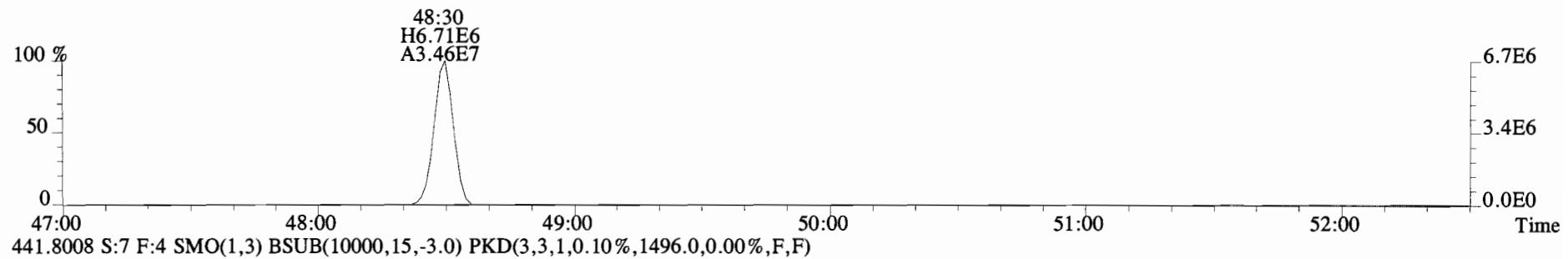
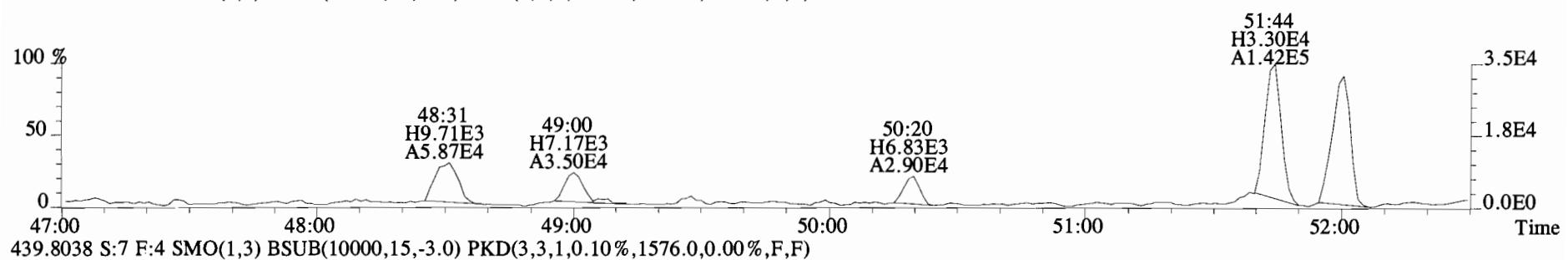
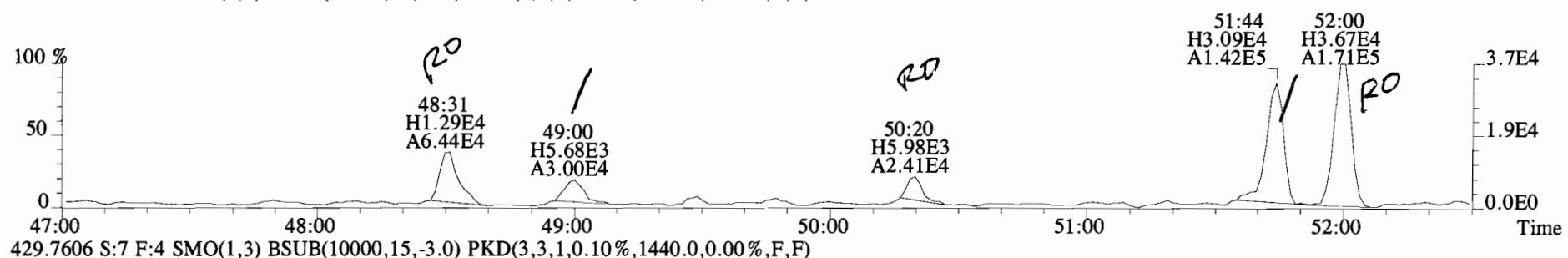
395.7995 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1968.0,0.00%,F,F)



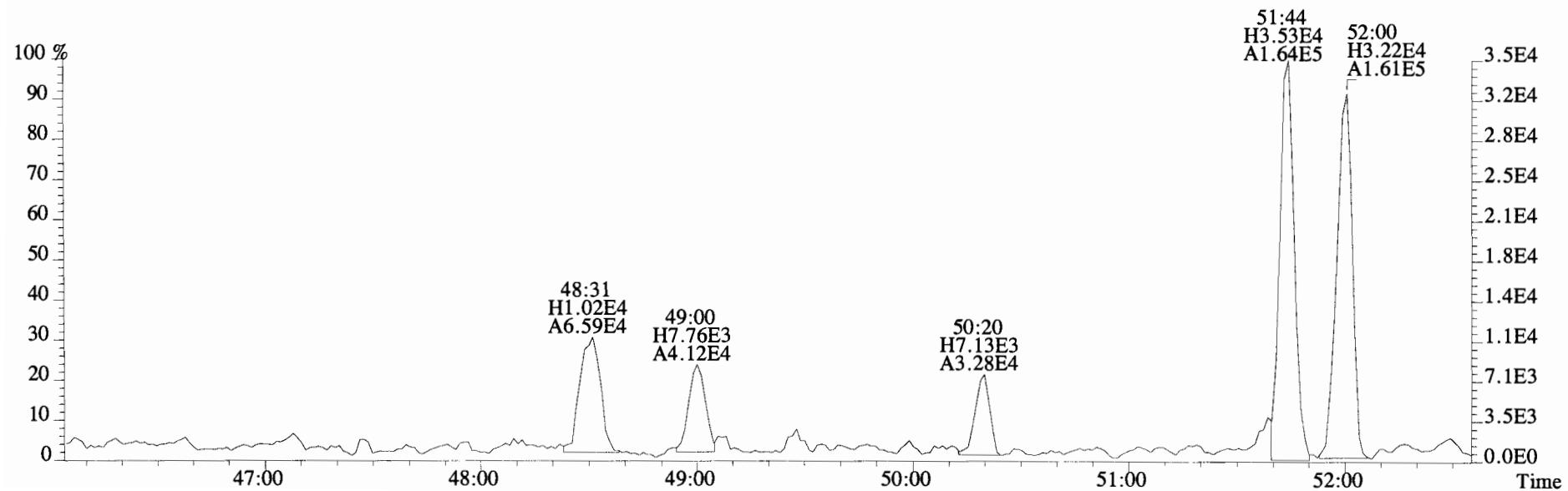
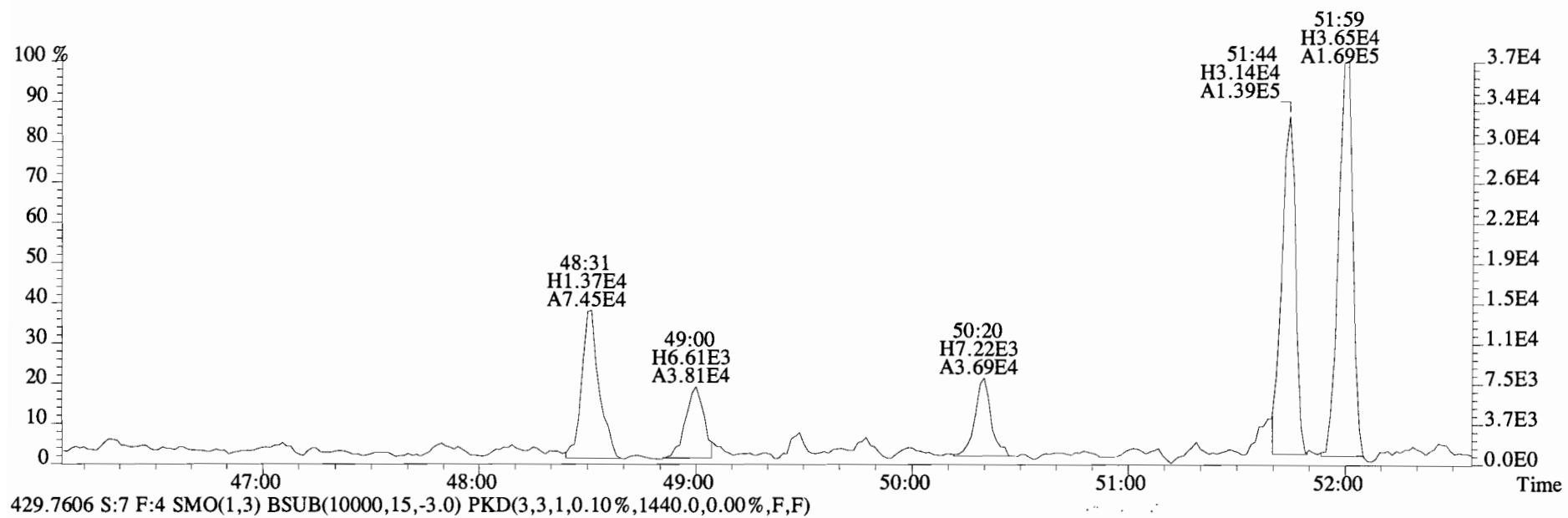
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
393.8025 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2104.0,0.00%,F,F)



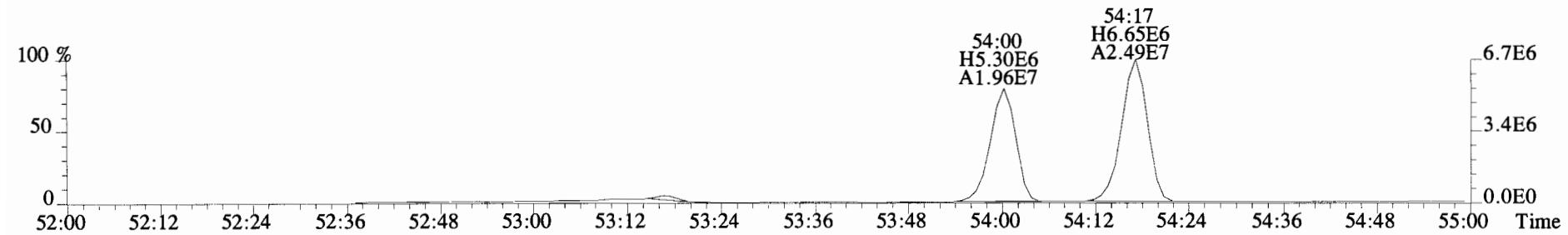
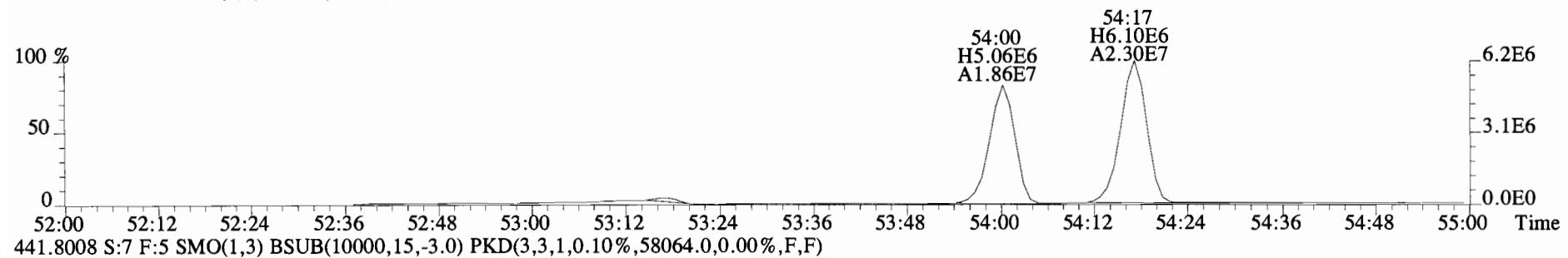
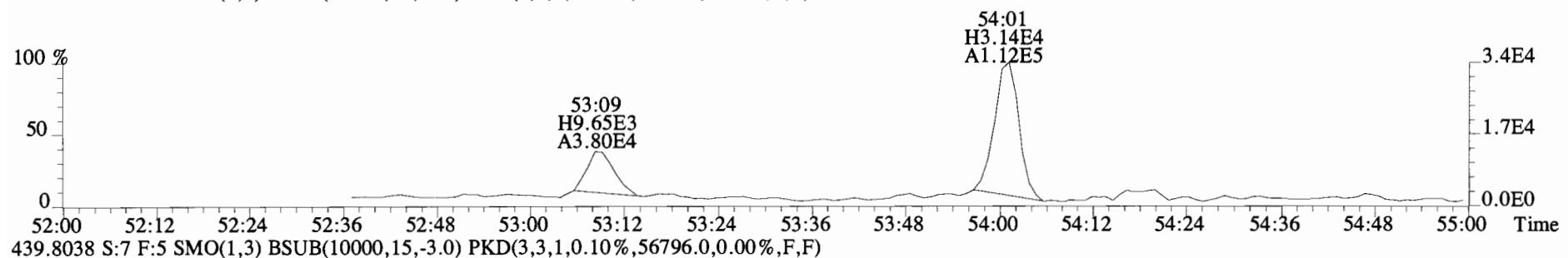
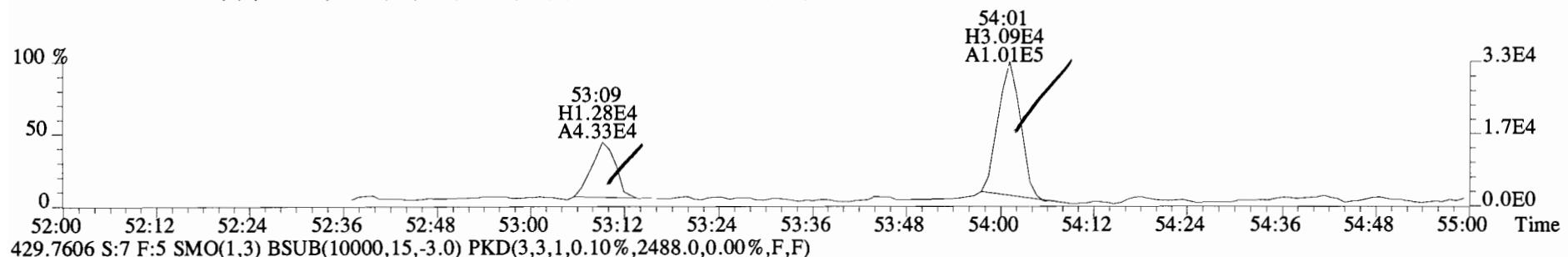
File:140919E1 #1-544 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 427.7635 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1520.0,0.00%,F,F)



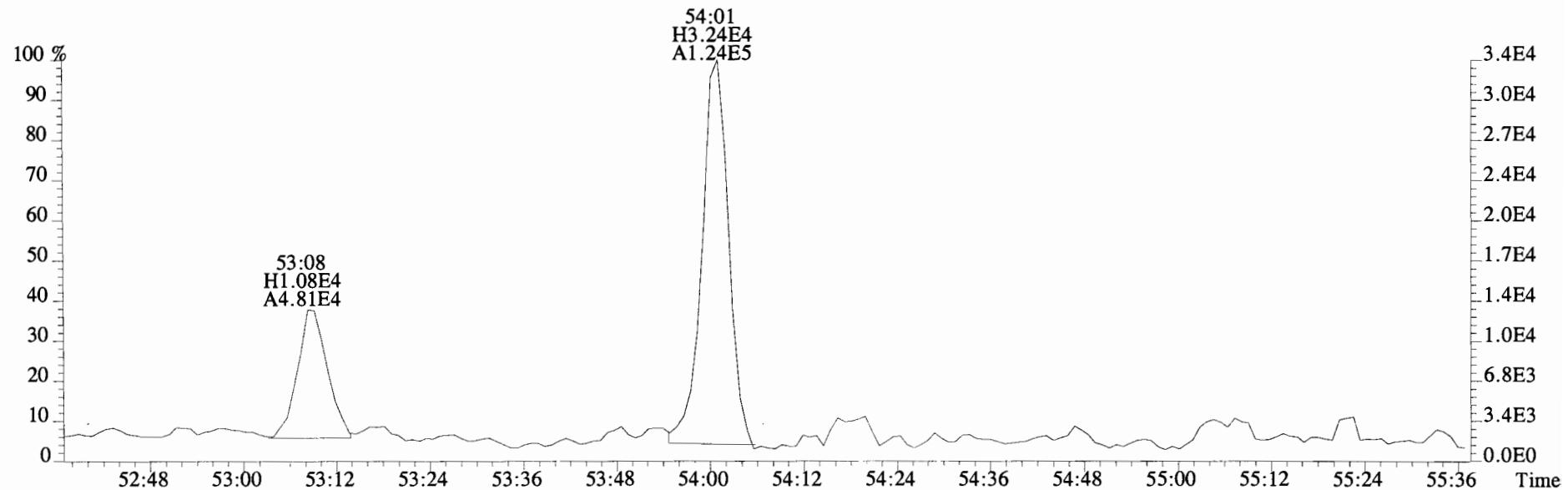
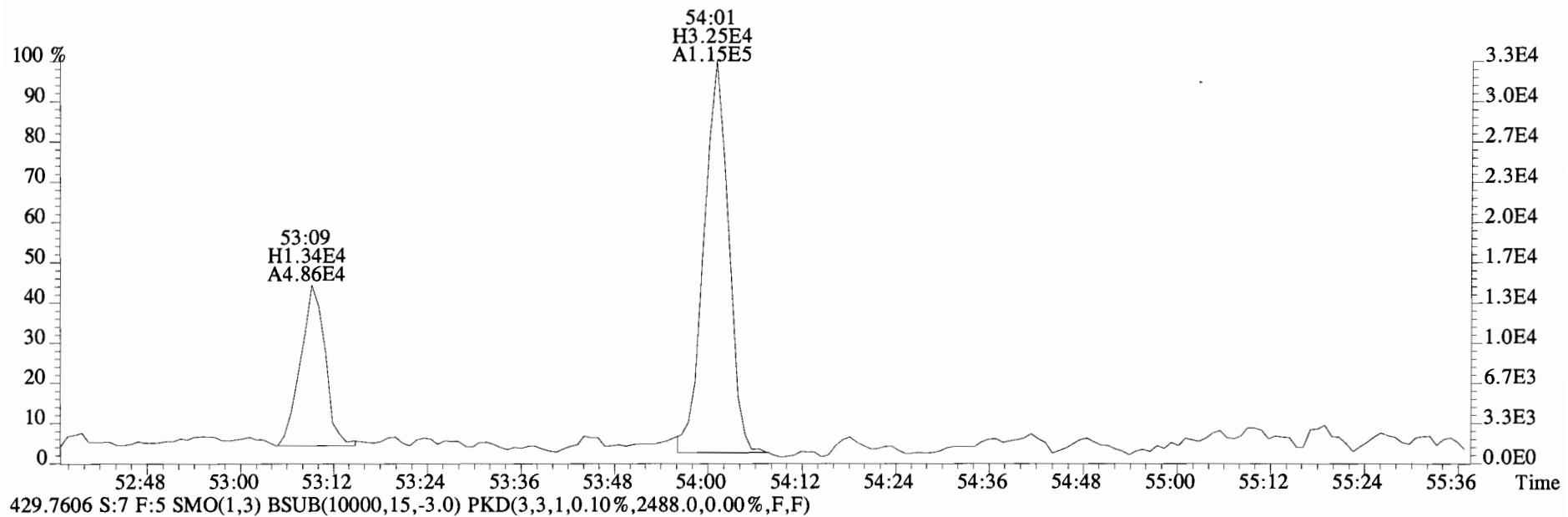
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
427.7635 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1520.0,0.00%,F,F)



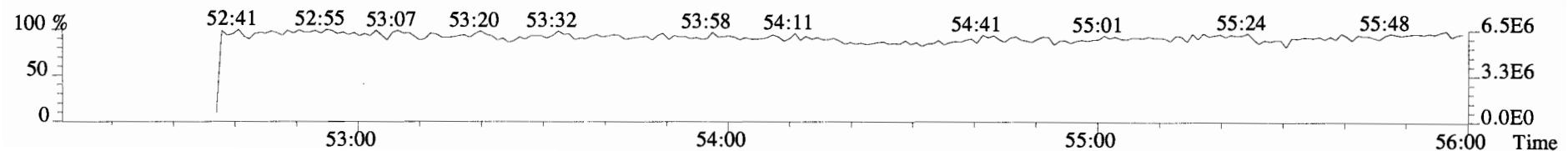
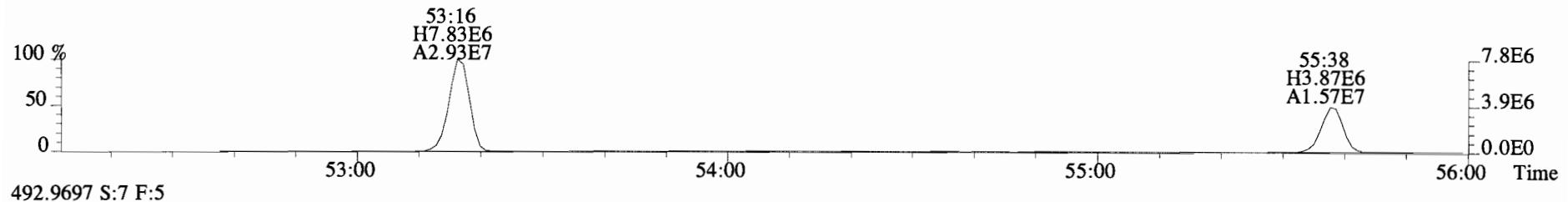
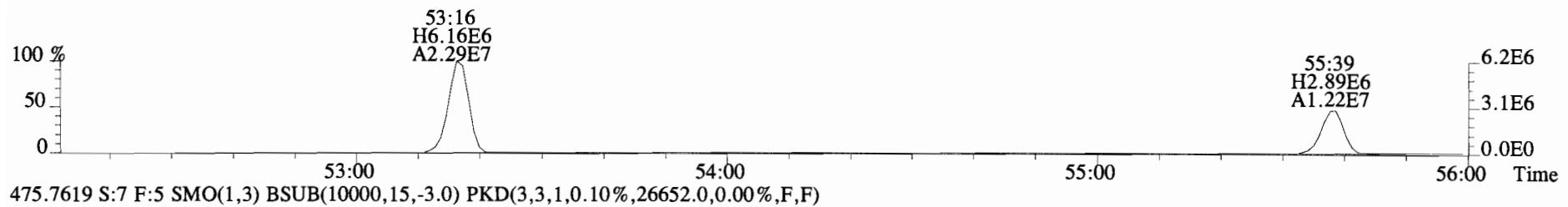
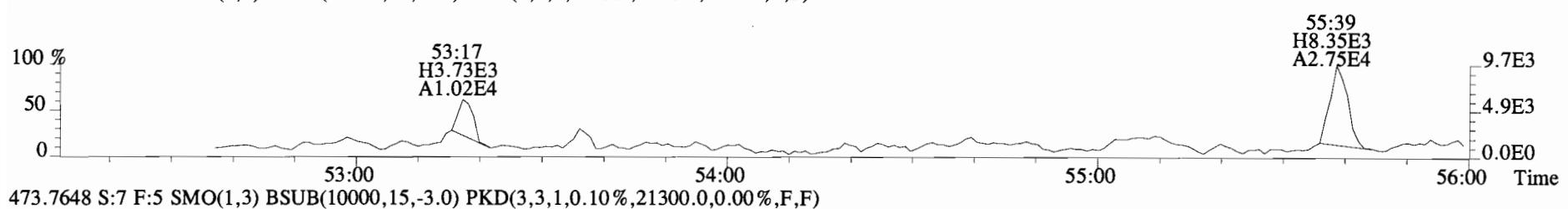
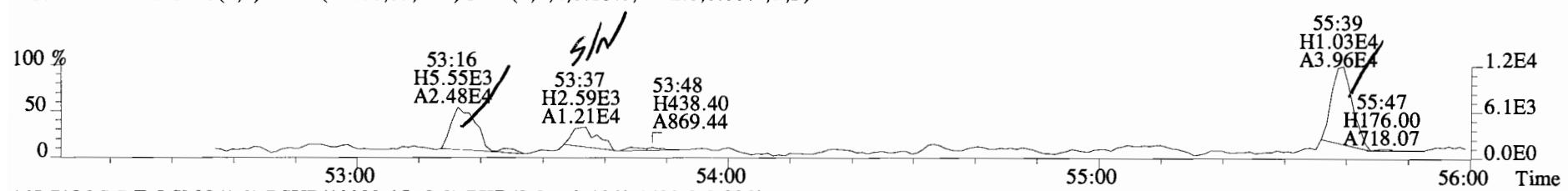
File:140919E1 #1-430 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 427.7635 S:7 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2144.0,0.00%,F,F)



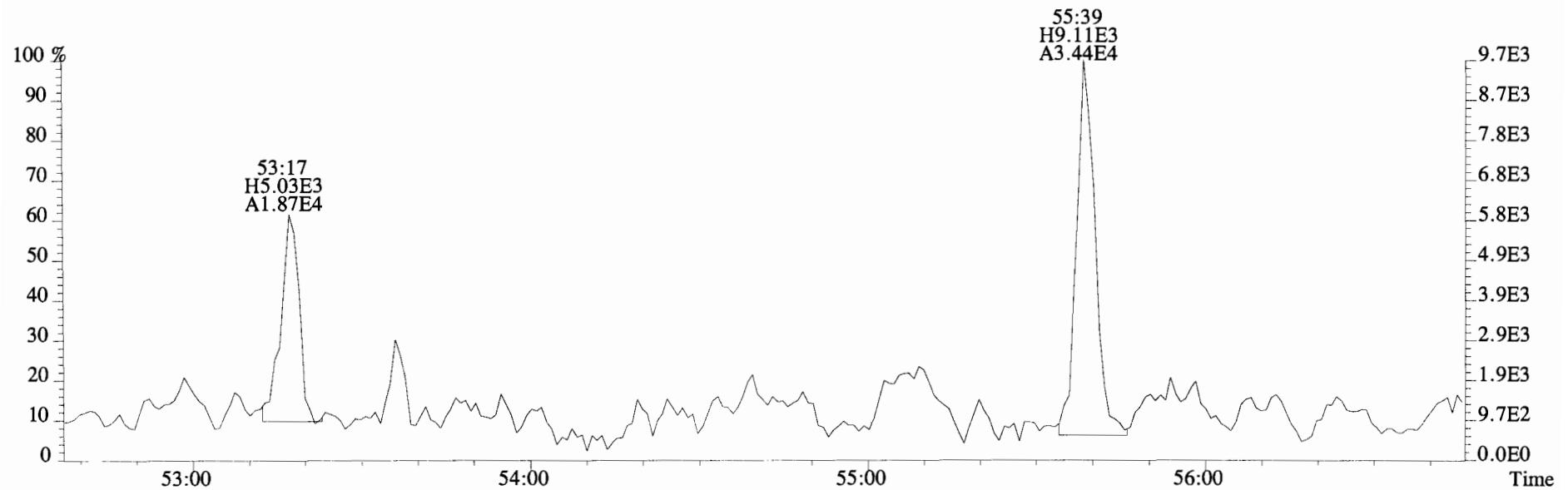
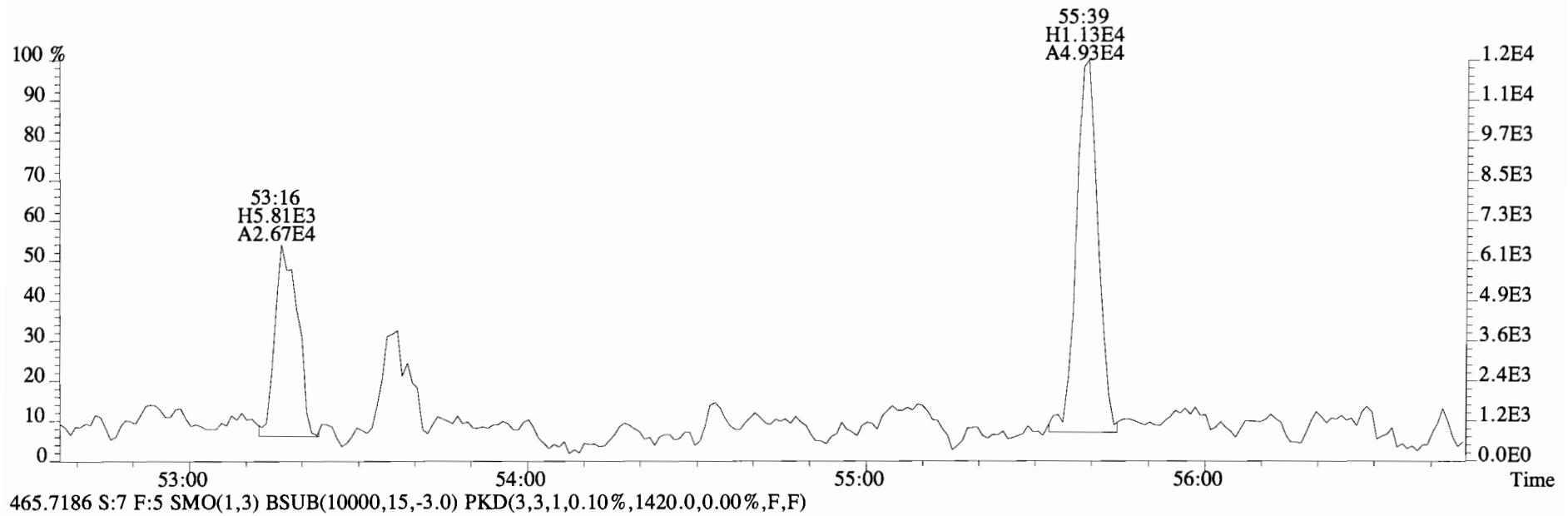
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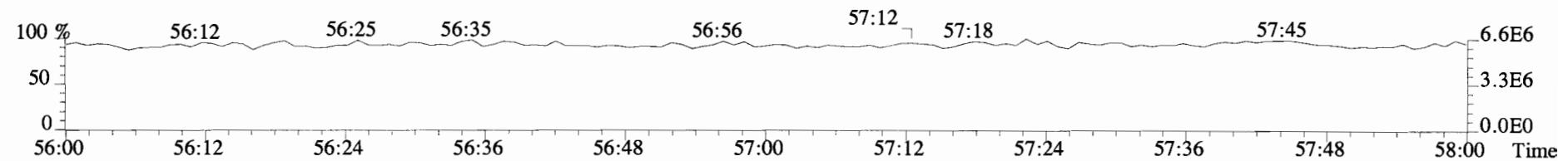
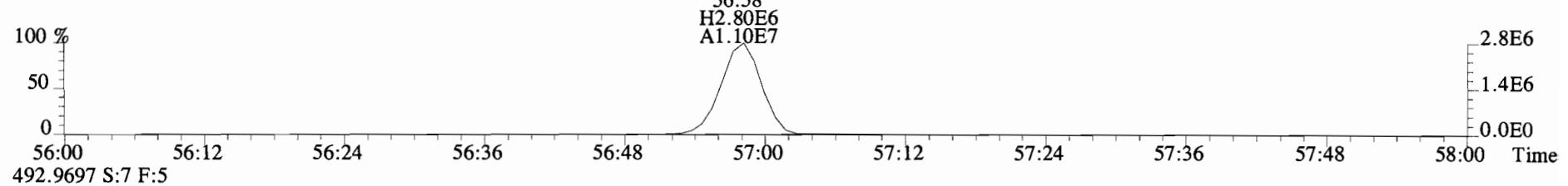
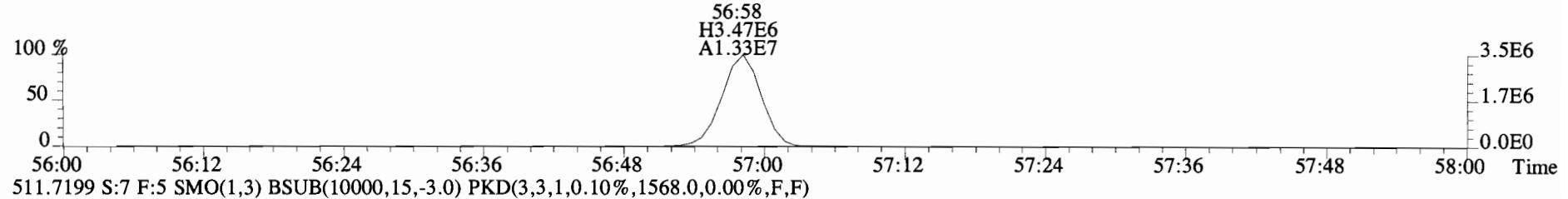
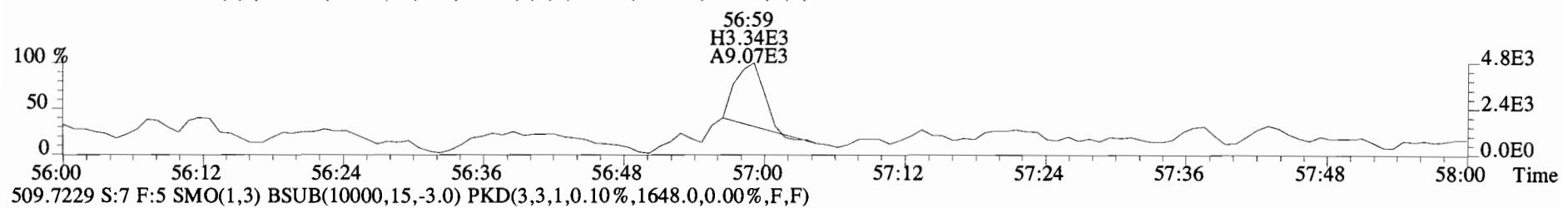
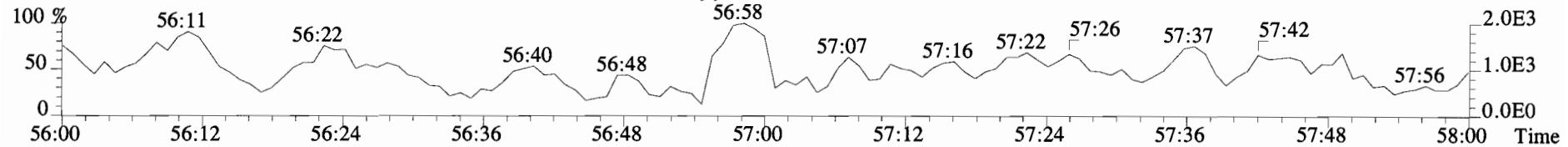
File:140919E1 #1-430 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 463.7216 S:7 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1372.0,0.00%,F,F)



File:140919E1 #1-430 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
463.7216 S:7 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1372.0,0.00%,F,F)



File:140919E1 #1-430 Acq:19-SEP-2014 15:59:24 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-01 PS-TS-01-20140909-W 1 Exp:PCB_ZB1
 497.6826 S:7 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1460.0,0.00%,F,F)



Client ID: PS-OS-01-20140909-W
 Lab ID: 1400659-02

Filename: 140919E1 S:8 Acq:19-SEP-14 17:03:47
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.01230 / ConCal: ST140919E1-1
 EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	2.42e+05	2.70	y 16:22	1.25	3.56		*	2.5	*	1.002	0.996-1.006	
Mono	PCB-2	1.21e+05	2.48	n 18:44	1.18	1.97	R	*	*	*	0.989	0.983-0.993	
Mono	PCB-3	1.90e+05	2.17	n 18:58	1.22	2.99	R	*	2.5	*	1.001	0.996-1.006	
Di	PCB-4/10	*	*	n NotFq	1.55	*		42000	2.5	18.5	*	0.998-1.008	
Di	PCB-7/9	*	*	n NotFq	1.27	*		42000	2.5	15.2	*	0.865-0.873	
Di	PCB-6	*	*	n NotFq	1.26	*		42000	2.5	15.3	*	0.890-0.899	
Di	PCB-5/8	1.28e+06	1.69	y 23:10	1.23	19.5		*	2.5	*	0.909	0.906-0.916	
Di	PCB-14	*	*	n NotFq	1.23	*		42000	2.5	12.9	*	0.949-0.959	
Di	PCB-11	2.07e+07	1.63	y 25:30	1.16	267		*	2.5	*	1.001	0.996-1.006	
Di	PCB-12/13	*	*	n NotFq	1.10	*		42000	2.5	14.5	*	1.010-1.020	
Di	PCB-15	2.09e+06	1.73	y 26:12	1.21	25.9		*	2.5	*	1.028	1.024-1.034	
Tri	PCB-19	2.28e+05	1.18	y 24:29	1.30	5.66		*	2.5	*	1.001	0.996-1.006	
Tri	PCB-30	*	*	n NotFq	1.83	*		1960	2.5	0.721	*	1.032-1.042	
Tri	PCB-18	1.59e+06	1.07	y 26:07	0.86	37.7		*	2.5	*	0.954	0.949-0.959	
Tri	PCB-17	5.95e+05	1.16	y 26:17	0.90	13.5		*	2.5	*	0.960	0.955-0.965	
Tri	PCB-24/27	2.91e+05	1.25	n 26:51	1.18	5.05	R	*	2.5	*	0.981	0.976-0.986	
Tri	PCB-16/32	1.55e+06	1.15	y 27:22	1.03	30.7		*	2.5	*	1.000	0.995-1.005	
Tri	PCB-34	*	*	n NotFq	1.26	*		2920	2.5	1.66	*	0.956-0.966	
Tri	PCB-23	*	*	n NotFq	1.31	*		2920	2.5	1.60	*	0.959-0.969	
Tri	PCB-29	*	*	n NotFq	1.33	*		2920	2.5	1.58	*	0.967-0.977	
Tri	PCB-26	2.74e+05	1.05	y 28:43	1.29	5.97		*	2.5	*	0.979	0.974-0.984	
Tri	PCB-25	1.31e+05	1.06	y 28:53	1.34	2.73		*	2.5	*	0.985	0.980-0.990	
Tri	PCB-31	1.32e+06	0.97	y 29:15	1.42	26.2		*	2.5	*	0.997	0.992-1.002	
Tri	PCB-28	1.80e+06	0.92	y 29:21	1.38	36.6		*	2.5	*	1.001	0.996-1.006	
Tri	PCB-20/21/33	8.99e+05	0.92	y 29:59	1.31	19.3		*	2.5	*	1.022	1.017-1.027	
Tri	PCB-22	7.14e+05	1.17	y 30:24	1.32	15.2		*	2.5	*	1.036	1.032-1.042	
Tri	PCB-36	*	*	n NotFq	1.38	*		2920	2.5	2.04	*	0.929-0.939	
Tri	PCB-39	*	*	n NotFq	1.42	*		2920	2.5	1.97	*	0.943-0.953	
Tri	PCB-38	*	*	n NotFq	1.35	*		2920	2.5	2.07	*	0.967-0.976	
Tri	PCB-35	3.40e+05	0.98	y 32:52	1.38	7.16		*	2.5	*	0.986	0.982-0.992	
Tri	PCB-37	1.22e+06	1.01	y 33:21	1.39	25.4		*	2.5	*	1.000	0.996-1.006	
Tetra	PCB-54	*	*	n NotFq	1.20	*		2740	2.5	1.14	*	0.996-1.006	
Tetra	PCB-50	*	*	n NotFq	0.97	*		2740	2.5	1.41	*	1.037-1.047	
Tetra	PCB-53	5.32e+05	0.85	y 30:02	1.19	12.7		*	2.5	*	0.945	0.941-0.951	
Tetra	PCB-51	1.79e+05	0.83	y 30:23	1.15	4.42		*	2.5	*	0.956	0.952-0.962	
Tetra	PCB-45	4.63e+05	0.74	y 30:49	0.97	13.6		*	2.5	*	0.970	0.966-0.976	
Tetra	PCB-46	2.08e+05	0.85	y 31:18	0.95	6.21		*	2.5	*	0.985	0.982-0.992	

Integrations by:

Analyst: DMS

Date: 9/24/14

Reviewed by: AP

Date: 9/24/14

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	3.77e+06	0.83	y 31:47	1.28	83.8	*	2.5	*	1.001	0.996-1.006		
Tetra	PCB-73	*	*	n NotF _g	1.37	*	2740	2.5	1.40	*	1.000-1.010		
Tetra	PCB-43/49	1.60e+06	0.81	y 32:05	1.11	40.9	*	2.5	*	1.010	1.005-1.015		
Tetra	PCB-47	6.48e+05	0.76	y 32:17	1.13	15.0	*	2.5	*	1.000	0.996-1.006		
Tetra	PCB-48/75	4.67e+05	0.79	y 32:25	1.30	9.41	*	2.5	*	1.004	0.999-1.009		
Tetra	PCB-65	*	*	n NotF _g	1.33	*	2740	2.5	1.41	*	1.007-1.017		
Tetra	PCB-62	*	*	n NotF _g	1.29	*	2740	2.5	1.45	*	1.011-1.021		
Tetra	PCB-44	2.37e+06	0.78	y 33:10	0.94	66.4	*	2.5	*	1.027	1.020-1.030		
Tetra	PCB-42/59	1.07e+06	0.84	y 33:25	1.22	23.2	*	2.5	*	1.035	1.028-1.038		
Tetra	PCB-41/64/71/72	*	*	n NotF _g	1.31	*	2740	0.5	1.43 w/ ²		1.046-1.056		
Tetra	PCB-68	*	*	n NotF _g	1.49	*	2740	2.5	1.26	*	1.054-1.064		
Tetra	PCB-40	2.15e+05	0.77	y 34:22	0.82	6.91	*	2.5	*	1.065	1.061-1.071		
Tetra	PCB-57	*	*	n NotF _g	1.11	*	2740	2.5	1.06	*	0.965-0.975		
Tetra	PCB-67	1.38e+05	0.72	y 35:01	1.07	2.50	*	2.5	*	0.979	0.974-0.984		
Tetra	PCB-58	*	*	n NotF _g	1.10	*	2740	2.5	1.07	*	0.977-0.987		
Tetra	PCB-63	9.40e+04	0.96	n 35:17	1.12	1.64	R	*	2.5	*	0.986	0.982-0.992	
Tetra	PCB-74	1.37e+06	0.81	y 35:35	1.20	22.2		*	2.5	*	0.995	0.990-1.000	
Tetra	PCB-61/70	4.58e+06	0.80	y 35:48	1.08	82.7		*	2.5	*	1.001	0.994-1.004	
Tetra	PCB-76/66	3.16e+06	0.83	y 36:00	1.14	54.1		*	2.5	*	1.007	1.001-1.011	
Tetra	PCB-80	*	*	n NotF _g	1.28	*	2740	2.5	0.926	*	0.996-1.006		
Tetra	PCB-55	1.77e+05	0.87	y 36:30	1.11	2.96		*	2.5	*	1.009	1.005-1.015	
Tetra	PCB-56/60	2.42e+06	0.81	y 37:00	1.09	41.2		*	2.5	*	1.023	1.018-1.028	
Tetra	PCB-79	1.95e+05	0.97	n 38:05	1.12	3.20	R	*	2.5	*	1.053	1.048-1.058	
Tetra	PCB-78	*	*	n NotF _g	1.24	*	2740	2.5	1.17	*	0.982-0.992		
Tetra	PCB-81	9.32e+04	0.97	n 39:18	1.38	1.49	R	*	2.5	*	1.000	0.995-1.005	
Tetra	PCB-77	1.18e+06	0.92	n 39:53	1.21	21.4	R	*	2.5	*	1.000	0.995-1.005	
Penta	PCB-104	*	*	n NotF _g	1.26	*	2210	2.5	1.74	*	0.996-1.006		
Penta	PCB-96	8.02e+04	1.50	y 34:15	1.09	1.86		*	2.5	*	1.039	1.034-1.044	
Penta	PCB-103	6.72e+04	1.84	n 34:44	0.93	1.82	R	*	2.5	*	1.054	1.050-1.060	
Penta	PCB-100	*	*	n NotF _g	1.00	*	2210	2.5	2.18	*	1.061-1.071		
Penta	PCB-94	7.00e+04	1.85	n 35:33	1.11	2.05	R	*	2.5	*	0.986	0.981-0.991	
Penta	PCB-95/98/102	1.25e+07	1.61	y 36:05	1.21	334		*	2.5	*	1.000	0.994-1.004	
Penta	PCB-93	*	*	n NotF _g	1.13	*	2210	2.5	2.04	*	0.998-1.008		
Penta	PCB-88/91	1.74e+06	1.54	y 36:29	1.02	55.5		*	2.5	*	1.012	1.006-1.016	
Penta	PCB-121	*	*	n NotF _g	1.90	*	2210	2.5	1.21	*	1.009-1.019		
Penta	PCB-84/92	5.68e+06	1.61	y 37:23	1.05	161		*	2.5	*	0.990	0.986-0.996	
Penta	PCB-89	1.26e+05	1.60	y 37:35	1.02	3.69		*	2.5	*	0.996	0.991-1.001	

Analyst: DMSDate: 9/24/14

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	1.40e+07	1.65	y 37:46	1.19	352		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-113	*	*	n NotFq	1.35		*	2210	2.5	1.62	*	1.002-1.012	
Penta	PCB-99	4.28e+06	1.67	y 38:05	1.29	99.2		*	2.5	*	1.009	1.005-1.015	
Penta	PCB-119	2.71e+05	1.67	y 38:34	1.72	5.31		*	2.5	*	0.988	0.982-0.992	
Penta	PCB-108/112	6.56e+05	1.55	y 38:43	1.29	17.2		*	2.5	*	0.991	0.986-0.996	
Penta	PCB-83	*	*	n NotFq	1.52		*	2210	2.5	1.63	*	0.991-1.001	
Penta	PCB-97	3.49e+06	1.60	y 39:04	1.25	94.4		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-86	*	*	n NotFq	1.02		*	2210	2.5	2.43	*	1.000-1.010	
Penta	PCB-87/117/125	5.53e+06	1.75	y 39:21	1.56	120		*	2.5	*	1.008	1.002-1.012	
Penta	PCB-111/115	2.32e+05	1.48	y 39:29	1.75	4.47		*	2.5	*	1.011	1.007-1.017	
Penta	PCB-85/116	1.93e+06	1.56	y 39:36	1.30	50.2		*	2.5	*	1.014	1.010-1.020	
Penta	PCB-120	9.86e+04	2.42	n 39:50	1.78	1.87	R	*	2.5	*	1.020	1.016-1.026	
Penta	PCB-110	2.49e+07	1.64	y 40:00	1.68	500		*	2.5	*	1.024	1.020-1.030	
Penta	PCB-82	1.37e+06	1.54	y 40:37	0.74	48.3		*	2.5	*	0.976	0.972-0.982	
Penta	PCB-124	1.04e+06	1.37	y 41:18	1.32	20.5		*	2.5	*	0.992	0.988-0.998	
Penta	PCB-107/109	1.09e+06	1.76	y 41:29	1.22	23.4		*	2.5	*	0.997	0.991-1.001	
Penta	PCB-123	2.46e+05	1.69	y 41:38	1.22	5.25		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-106/118	1.45e+07	1.62	y 41:48	1.22	301		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-114	3.14e+05	1.67	y 42:27	1.36	7.16		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-122	1.62e+05	1.63	y 42:36	1.24	4.04		*	2.5	*	1.004	0.999-1.009	
Penta	PCB-105	5.57e+06	1.57	y 43:20	1.28	134		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-127	*	*	n NotFq	1.14		*	8590	2.5	7.47	*	0.995-1.005	
Penta	PCB-126	3.06e+05	1.61	y 45:34	1.28	8.10		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-155	*	*	n NotFq	1.14	*		1690	2.5	1.13	*	0.966-1.006	
Hexa	PCB-150	6.58e+04	1.35	y 38:34	1.06	1.66		*	2.5	*	1.034	1.030-1.040	
Hexa	PCB-152	*	*	n NotFq	1.10		*	1690	2.5	1.17	*	1.043-1.053	
Hexa	PCB-145	*	*	n NotFq	1.09		*	1690	2.5	1.18	*	1.055-1.065	
Hexa	PCB-136	5.21e+06	1.29	y 39:49	1.08	129		*	2.5	*	1.068	1.064-1.074	
Hexa	PCB-148	*	*	n NotFq	0.74	*		1690	2.5	1.73	*	1.066-1.076	
Hexa	PCB-154	2.50e+05	1.32	y 40:24	0.88	7.61		*	2.5	*	1.084	1.079-1.089	
Hexa	PCB-151	7.58e+06	1.33	y 41:02	0.81	252		*	2.5	*	1.101	1.097-1.107	
Hexa	PCB-135	3.62e+06	1.37	y 41:16	0.78	125		*	2.5	*	1.107	1.101-1.113	
Hexa	PCB-144	1.34e+06	1.25	y 41:23	0.82	44.0		*	2.5	*	1.110	1.105-1.116	
Hexa	PCB-147	3.44e+05	1.10	y 41:31	0.83	11.2		*	2.5	*	1.114	1.011-1.120	
Hexa	PCB-139/149	2.60e+07	1.30	y 41:46	0.84	827		*	2.5	*	1.120	1.115-1.127	
Hexa	PCB-140	9.91e+04	1.70	n 41:57	0.79	3.40	R	*	2.5	*	1.125	1.120-1.132	
Hexa	PCB-134/143	1.49e+06	1.28	y 42:24	0.93	43.4		*	2.5	*	0.975	0.970-0.980	

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	7.16e+05	1.33	y 42:41	0.95	20.4	*	2.5	*	0.982	0.977-0.987		
Hexa	PCB-131	*	*	n NotF _¶	0.91	*	4640	2.5	4.19	*	0.981-0.991		
Hexa	PCB-146/165	5.06e+06	1.23	y 43:05	1.16	118	*	2.5	*	0.991	0.986-0.996		
Hexa	PCB-132/161	9.89e+06	1.29	y 43:21	1.11	239	*	2.5	*	0.997	0.992-1.002		
Hexa	PCB-153	3.15e+07	1.24	y 43:29	1.18	720	*	2.5	*	1.000	0.995-1.005		
Hexa	PCB-168	*	*	n NotF _¶	1.37	*	4640	2.5	2.79	*	1.000-1.010		
Hexa	PCB-141	7.12e+06	1.29	y 44:13	0.97	201	*	2.5	*	1.000	0.996-1.005		
Hexa	PCB-137	1.09e+06	1.22	y 44:36	1.07	28.0	*	2.5	*	1.009	1.004-1.014		
Hexa	PCB-130	1.77e+06	1.32	y 44:43	0.85	57.5	*	2.5	*	1.012	1.007-1.017		
Hexa	PCB-138/163/164	3.78e+07	1.31	y 45:05	1.23	905	*	2.5	*	1.001	0.996-1.006		
Hexa	PCB-158/160	4.25e+06	1.25	y 45:18	1.29	96.5	*	2.5	*	1.006	1.001-1.011		
Hexa	PCB-129	1.11e+06	1.24	y 45:34	0.92	35.1	*	2.5	*	1.011	1.007-1.017		
Hexa	PCB-166	1.25e+05	1.29	y 46:02	1.12	2.97	*	2.5	*	0.994	0.988-0.998		
Hexa	PCB-159	*	*	n NotF _¶	1.16	*	4640	2.5	3.37	*	0.995-1.005		
Hexa	PCB-128/162	4.73e+06	1.40	y 46:38	1.02	124	*	2.5	*	1.006	1.002-1.012		
Hexa	PCB-167	1.40e+06	1.24	y 47:02	1.06	33.4	*	2.5	*	1.000	0.995-1.005		
Hexa	PCB-156	2.81e+06	1.24	y 48:19	1.18	66.0	*	2.5	*	1.000	0.995-1.005		
Hexa	PCB-157	8.17e+05	1.38	y 48:36	1.08	19.7	*	2.5	*	1.000	0.995-1.005		
Hexa	PCB-169	*	*	n NotF _¶	1.11	*	4640	2.5	4.10	*	0.995-1.005		
Hepta	PCB-188	6.75e+04	1.31	n 43:07	1.40	1.52	R	*	2.5	*	1.000	0.995-1.005	
Hepta	PCB-184	*	*	n NotF _¶	1.24	*	2380	2.5	1.12	*	1.006-1.016		
Hepta	PCB-179	8.55e+06	1.05	y 44:20	1.30	208	*	2.5	*	1.029	1.024-1.034		
Hepta	PCB-176	2.39e+06	1.11	y 44:48	1.36	55.5	*	2.5	*	1.039	1.035-1.045		
Hepta	PCB-186	*	*	n NotF _¶	1.28	*	2380	2.5	1.09	*	1.049-1.059		
Hepta	PCB-178	2.75e+06	1.08	y 45:55	0.94	93.0	*	2.5	*	1.065	1.061-1.071		
Hepta	PCB-175	5.46e+05	0.99	y 46:15	0.97	17.8	*	2.5	*	1.073	1.069-1.079		
Hepta	PCB-182/187	1.83e+07	1.08	y 46:25	1.01	571	*	2.5	*	1.077	1.073-1.083		
Hepta	PCB-183	8.19e+06	1.02	y 46:45	1.08	239	*	2.5	*	1.085	1.080-1.090		
Hepta	PCB-185	1.70e+06	1.04	y 47:24	1.34	62.2	*	2.5	*	0.956	0.951-0.961		
Hepta	PCB-174	1.33e+07	1.07	y 47:46	1.34	488	*	2.5	*	0.963	0.958-0.968		
Hepta	PCB-181	*	*	n NotF _¶	1.36	*	2380	2.5	1.69	*	0.961-0.971		
Hepta	PCB-177	6.86e+06	1.01	y 48:02	1.24	272	*	2.5	*	0.968	0.964-0.974		
Hepta	PCB-171	3.01e+06	1.05	y 48:19	1.31	113	*	2.5	*	0.974	0.970-0.980		
Hepta	PCB-173	2.60e+05	0.90	y 48:46	1.16	11.0	*	2.5	*	0.983	0.979-0.989		
Hepta	PCB-172	2.03e+06	1.05	y 49:13	1.22	81.7	*	2.5	*	0.992	0.988-0.998		
Hepta	PCB-192	*	*	n NotF _¶	1.53	*	2380	2.5	1.51	*	0.991-1.001		
Hepta	PCB-180	2.79e+07	1.07	y 49:37	1.43	962	*	2.5	*	1.000	0.995-1.005		

Analyst: DMSDate: 9/24/14

Client ID: PS-OS-01-20140909-W
Lab ID: 1400659-02

Filename: 140919E1 S:8 Acq:19-SEP-14 17:03:47
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0123

ConCal: ST140919E1-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	1.55e+06	1.05	y 49:50	1.65	46.2		*	2.5	*	1.005	0.999-1.009	
Hepta	PCB-191	5.50e+05	1.10	y 50:04	1.67	16.2		*	2.5	*	1.009	1.004-1.014	
Hepta	PCB-170	8.91e+06	1.06	y 51:05	1.50	385		/*	2.5	*	1.000	0.995-1.005	
Hepta	PCB-190	2.29e+06	1.08	y 51:14	2.02	73.5		*	2.5	*	1.003	0.998-1.008	
Hepta	PCB-189	*	*	n NotF _H	1.54	16.146 <i>* see PCB RI</i>	2380	2.5		1.58	*	0.995-1.005	
Octa	PCB-202	1.60e+06	0.91	y 48:32	1.04	55.3		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-201	9.68e+05	1.08	n 49:01	1.10	31.5	R	*	2.5	*	1.010	1.006-1.016	
Octa	PCB-204	*	*	n NotF _H	0.99	*		1800	2.5	1.67	*	1.009-1.019	
Octa	PCB-197	3.20e+05	0.77	y 49:29	1.07	10.7		*	2.5	*	1.020	1.015-1.025	
Octa	PCB-200	9.74e+05	0.93	y 50:21	1.02	34.3		*	2.5	*	1.038	1.032-1.044	
Octa	PCB-198	2.14e+05	0.90	y 51:38	0.74	10.3		*	2.5	*	1.064	1.058-1.068	
Octa	PCB-199	5.22e+06	0.95	y 51:45	0.73	257		*	2.5	*	1.067	1.060-1.070	
Octa	PCB-196/203	5.68e+06	0.91	y 52:01	0.77	263		*	2.5	*	1.072	1.066-1.076	
Octa	PCB-195	1.65e+06	0.87	y 53:10	1.20	98.1		*	2.5	*	0.984	0.979-0.989	
Octa	PCB-194	4.30e+06	0.94	y 54:02	1.25	246		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-205	2.17e+05	0.84	y 54:19	1.41	11.0		*	2.5	*	1.005	1.001-1.011	
Nonna	PCB-208	4.39e+05	1.72	n 53:18	0.96	22.4	R	*	2.5	*	1.000	0.995-1.005	
Nonna	PCB-207	2.54e+05	1.29	y 53:37	0.92	13.6		*	2.5	*	1.006	1.001-1.011	
Nonna	PCB-206	1.11e+06	1.43	y 55:41	1.03	97.6		*	2.5	*	1.000	0.995-1.005	
Deca	PCB-209	3.33e+05	1.36	n 57:02	1.18	26.2	R	*	2.5	*	1.000	0.995-1.005	

Analyst: DMS

Date: 9/24/14

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	2.42e+05	2.70	y	16:22	1.22	3.56369
Total Di-PCB	2.40e+07	1.69	y	23:10	1.21	312.689
Total Tri-PCB	3.96e+06	1.18	y	24:29	1.16	87.4992
Total Tri-PCB	6.70e+06	1.05	y	28:43	1.35	138.591 Sum:226.090
Total Tetra-PCB	2.34e+07	0.85	y	30:02	1.17	488.291
Total Penta-PCB	9.37e+07	1.50	y	34:15	1.21	2196.92
Total Penta-PCB	6.35e+06	1.67	y	42:27	1.26	152.821 Sum:2349.74
Total Hexa-PCB	4.44e+07	1.35	y	38:34	0.92	1398.18
Total Hexa-PCB	1.12e+08	1.28	y	42:24	1.08	2708.98 Sum:4107.17
Total Hepta-PCB	1.09e+08	1.05	y	44:20	1.27	3695.34 + 16.146 = 3711.49
Total Octa-PCB	1.40e+07	0.91	y	48:32	0.92	630.876
Total Octa-PCB	6.16e+06	0.87	y	53:10	1.29	355.036 Sum:985.911
Total Nona-PCB	1.36e+06	1.29	y	53:37	0.96	111.197
Total Deca-PCB	3.33e+05	1.36	n	57:02	1.18	26.1593

Total PCB Conc:12408.4549720 + 16.146 = 12424.6
12300

Integrations
by
Analyst: DMS
Date: 9/24/14

Client ID: PS-OS-01-20140909-W
Lab ID: 1400659-02

Filename: 140919E1 S:8 Acq:19-SEP-14 17:03:47 ConCal: ST140919E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0123 EndCAL: NA

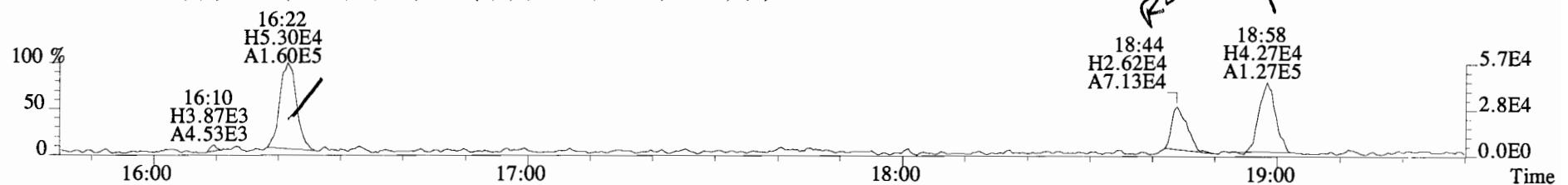
Page 8 of

76.5
80.2
89.8
(53.4) 48.1 * Sec. "REIRI"

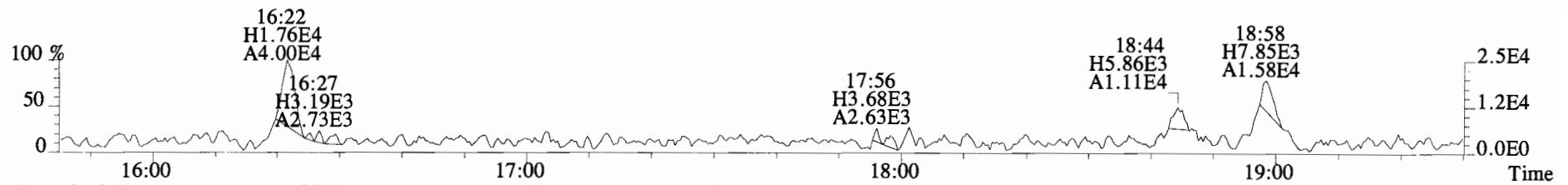
Analyst: DMS

Date: 9/24/14

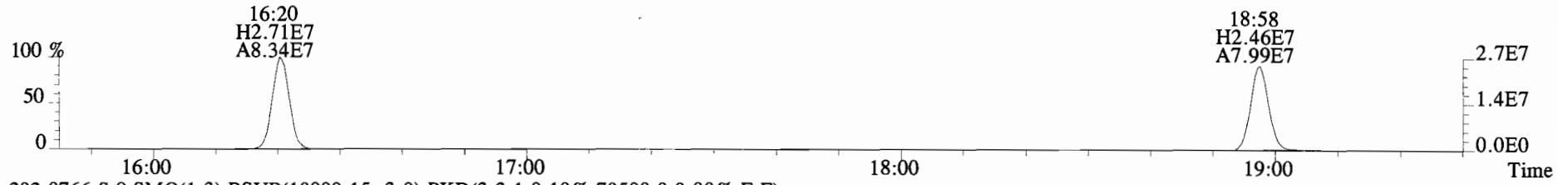
File:140919E1 #1-729 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 188.0393 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2880.0,0.00%,F,F)



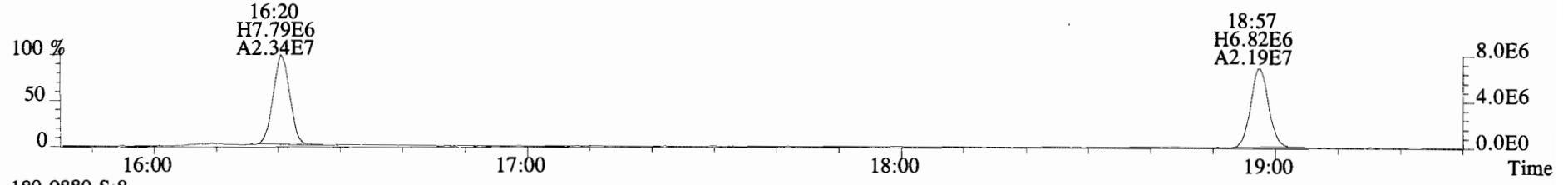
190.0363 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3996.0,0.00%,F,F)



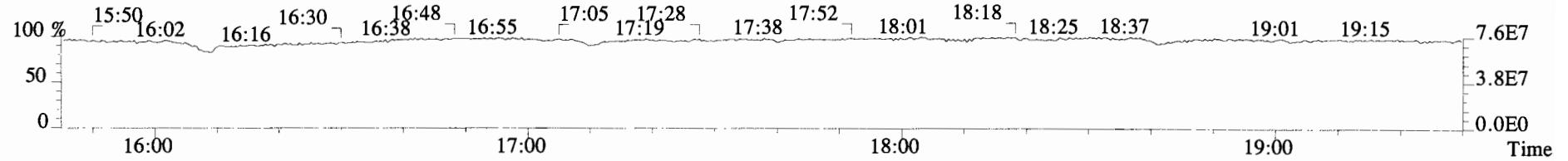
200.0795 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7492.0,0.00%,F,F)



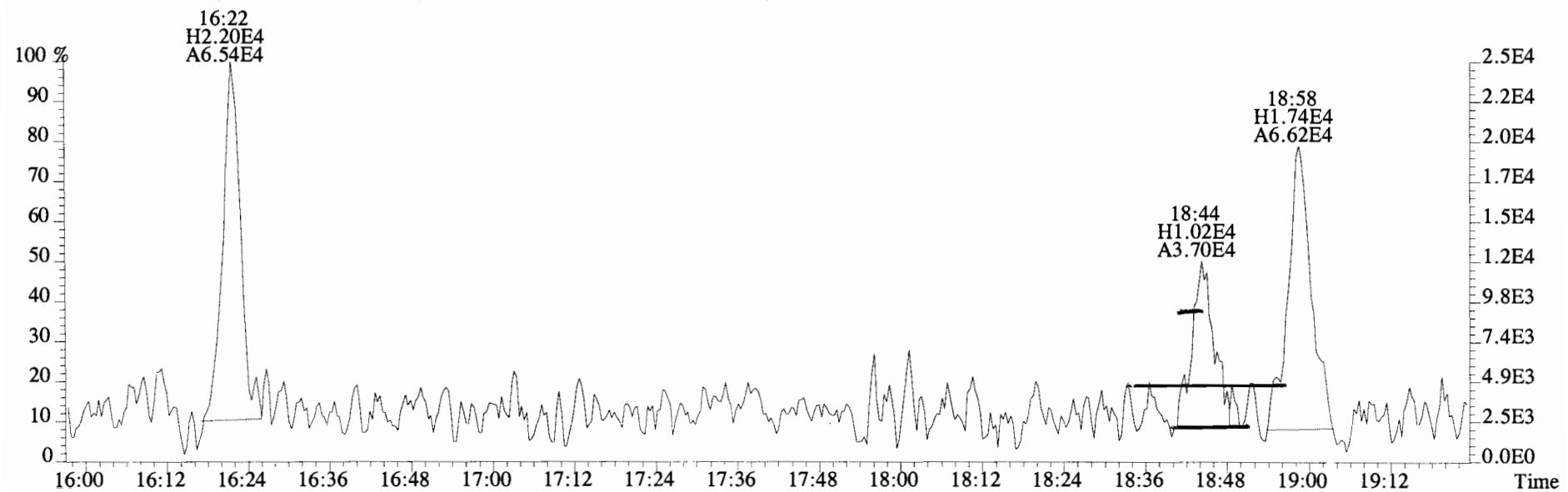
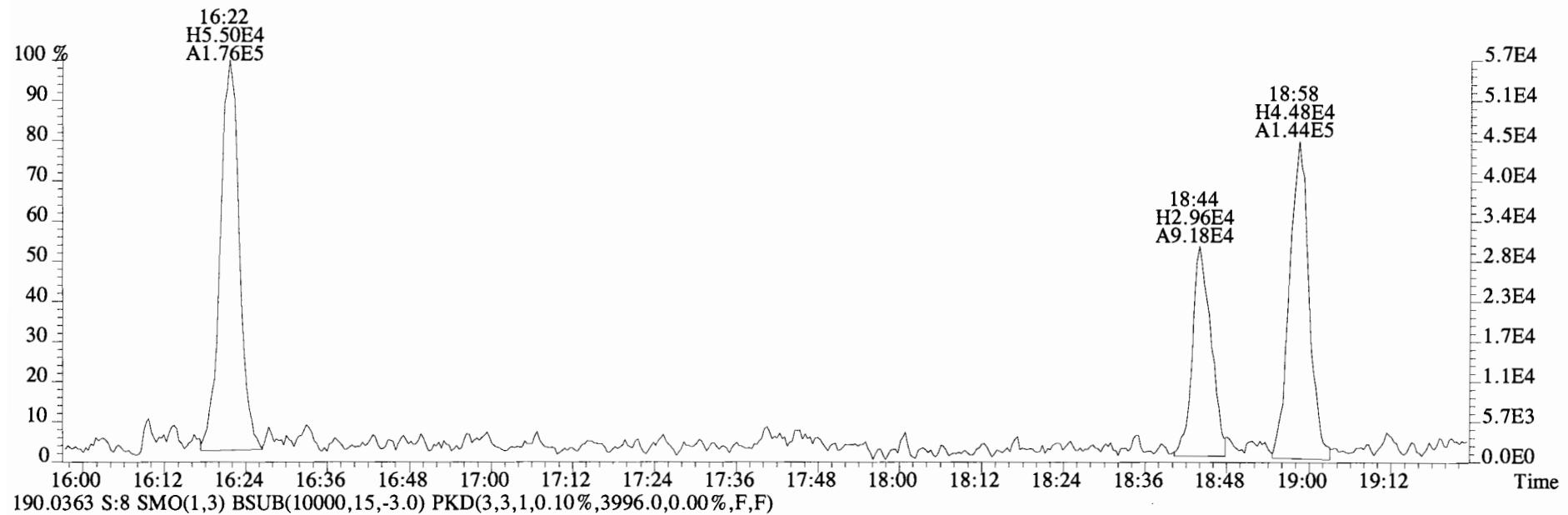
202.0766 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,70500.0,0.00%,F,F)



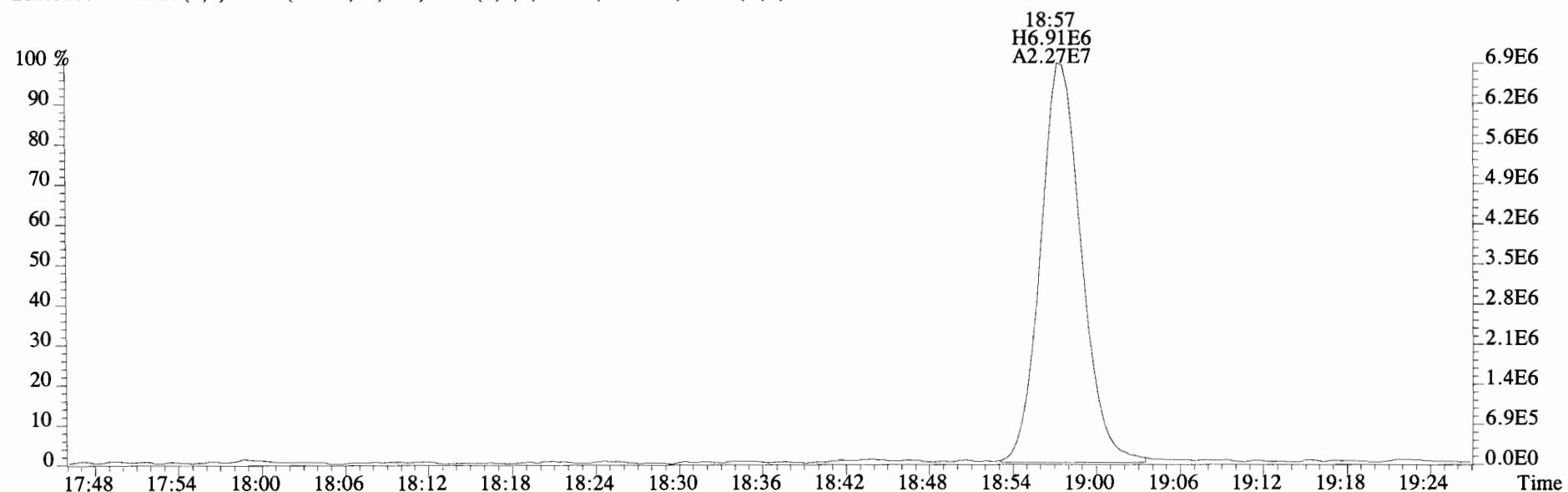
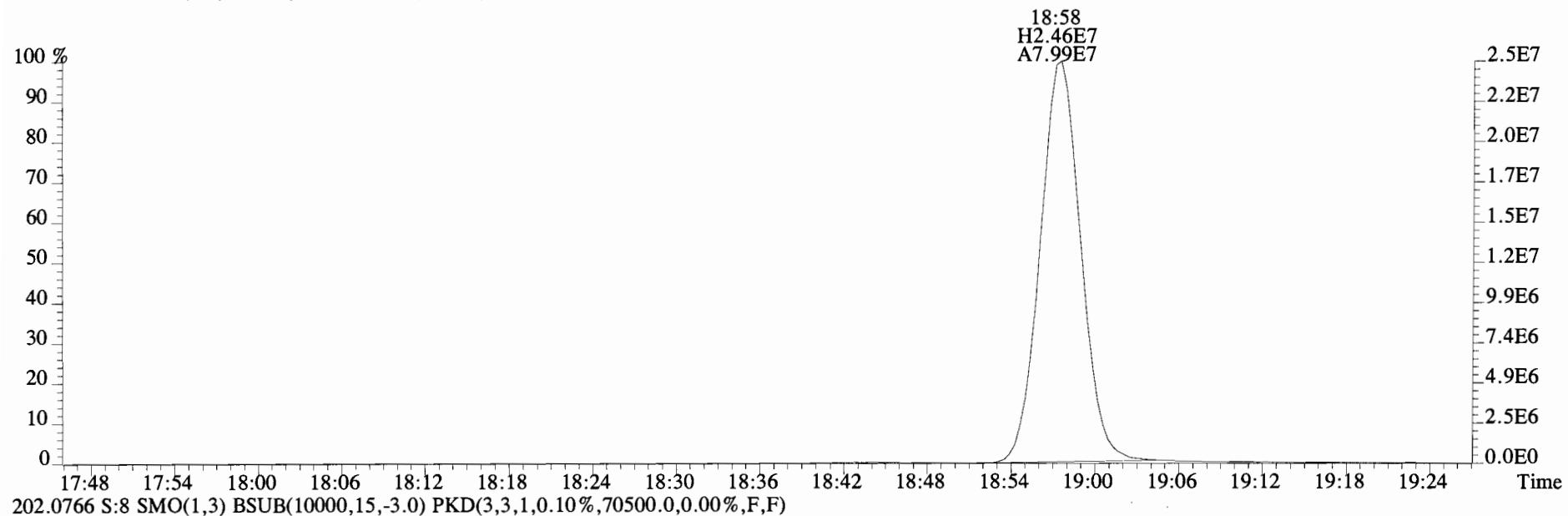
180.9880 S:8



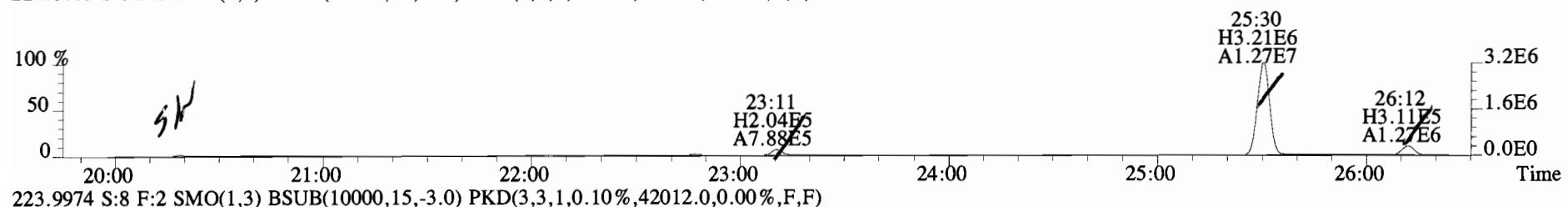
File:140919E1 #1-729 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 188.0393 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2880.0,0.00%,F,F)



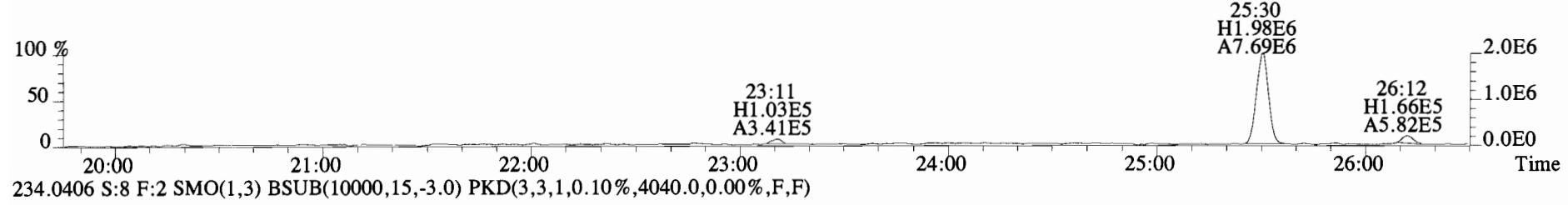
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
200.0795 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7492.0,0.00%,F,F)



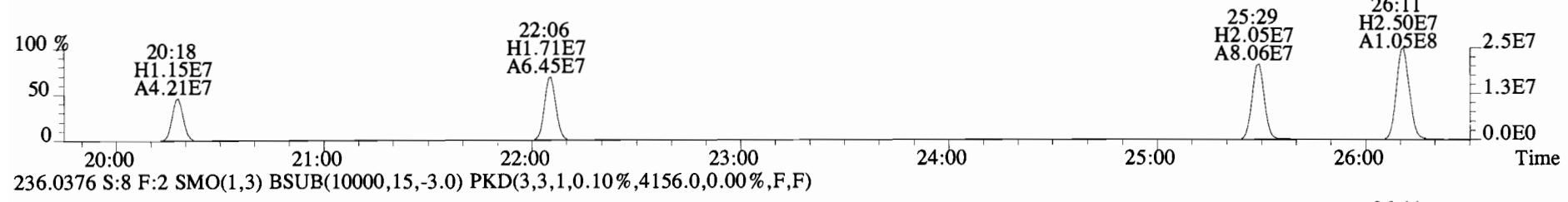
File:140919E1 #1-757 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 222.0003 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4144.0,0.00%,F,F)



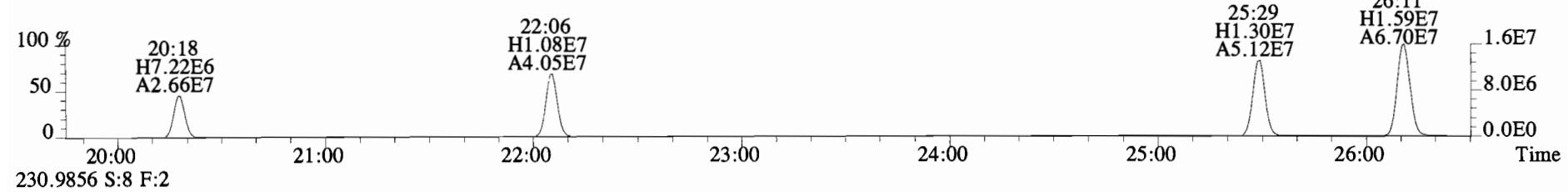
223.9974 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,42012.0,0.00%,F,F)



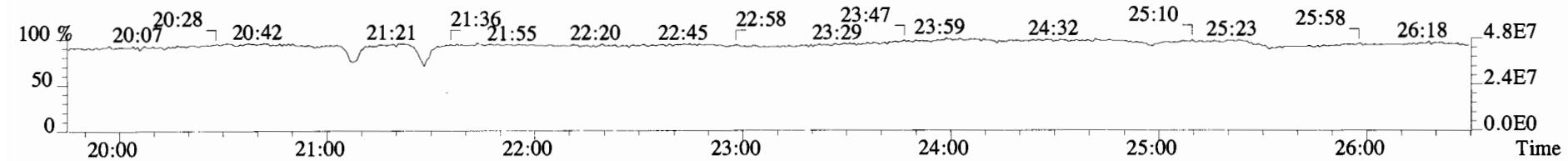
234.0406 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4040.0,0.00%,F,F)



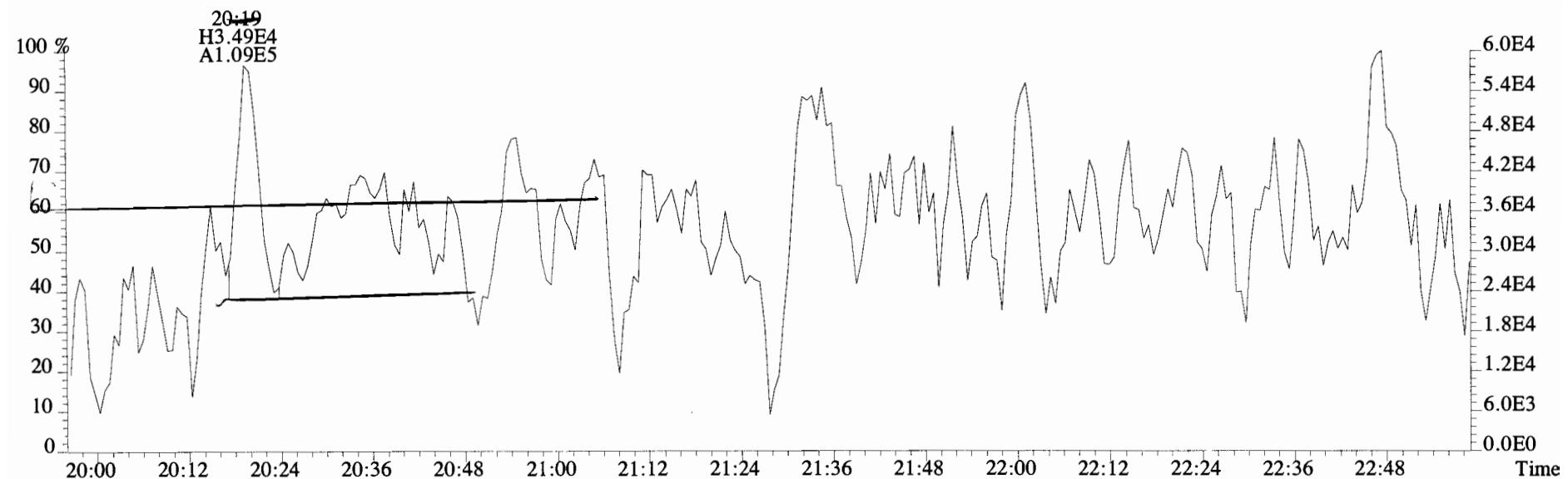
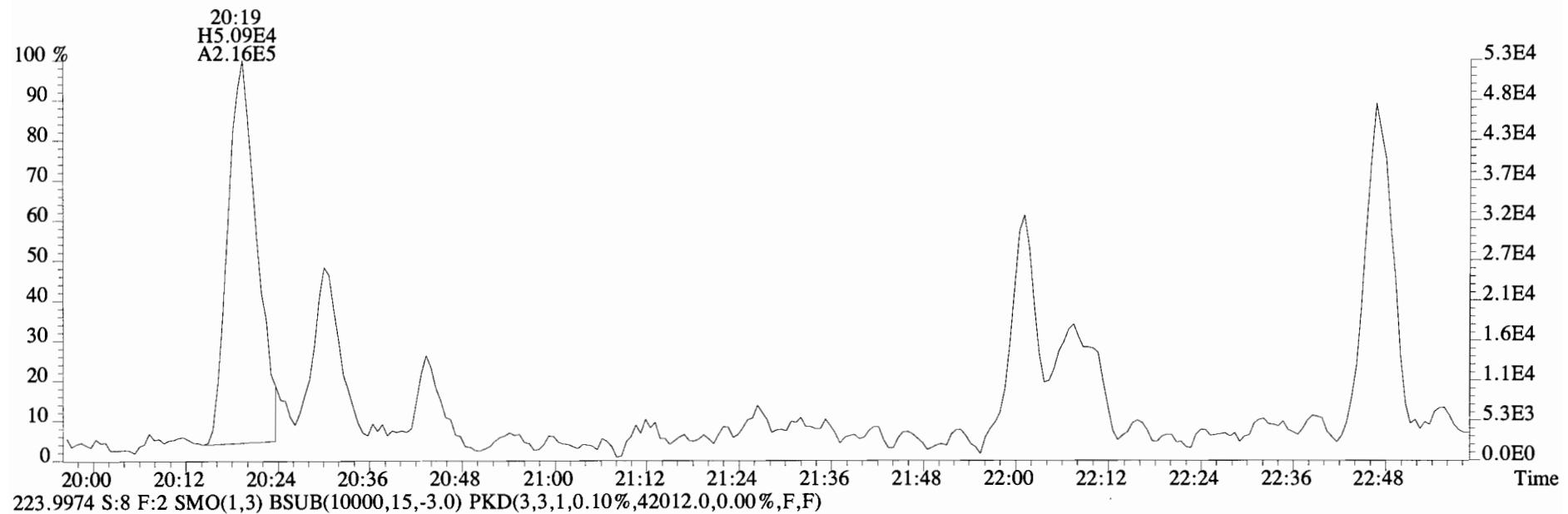
236.0376 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4156.0,0.00%,F,F)



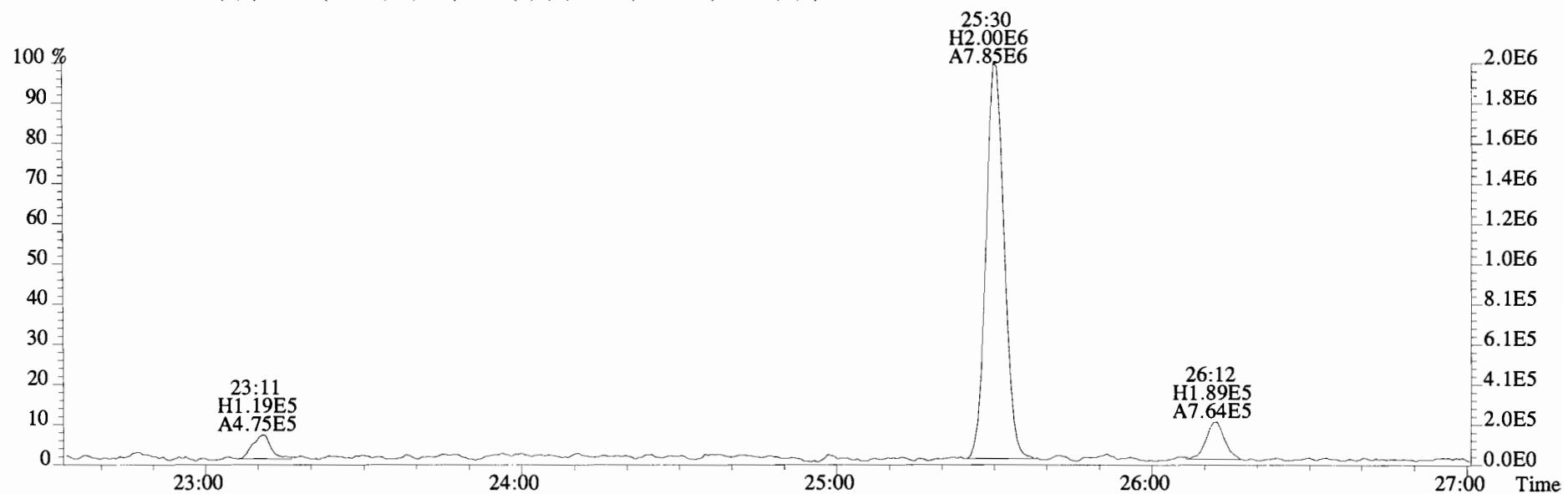
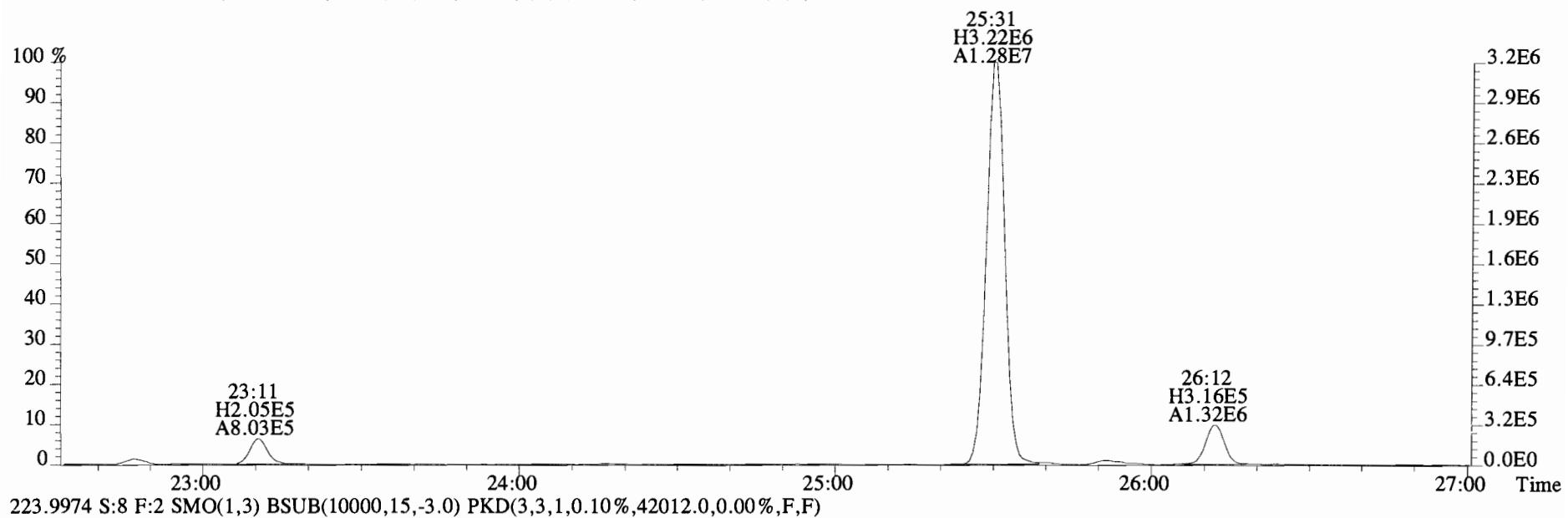
230.9856 S:8 F:2



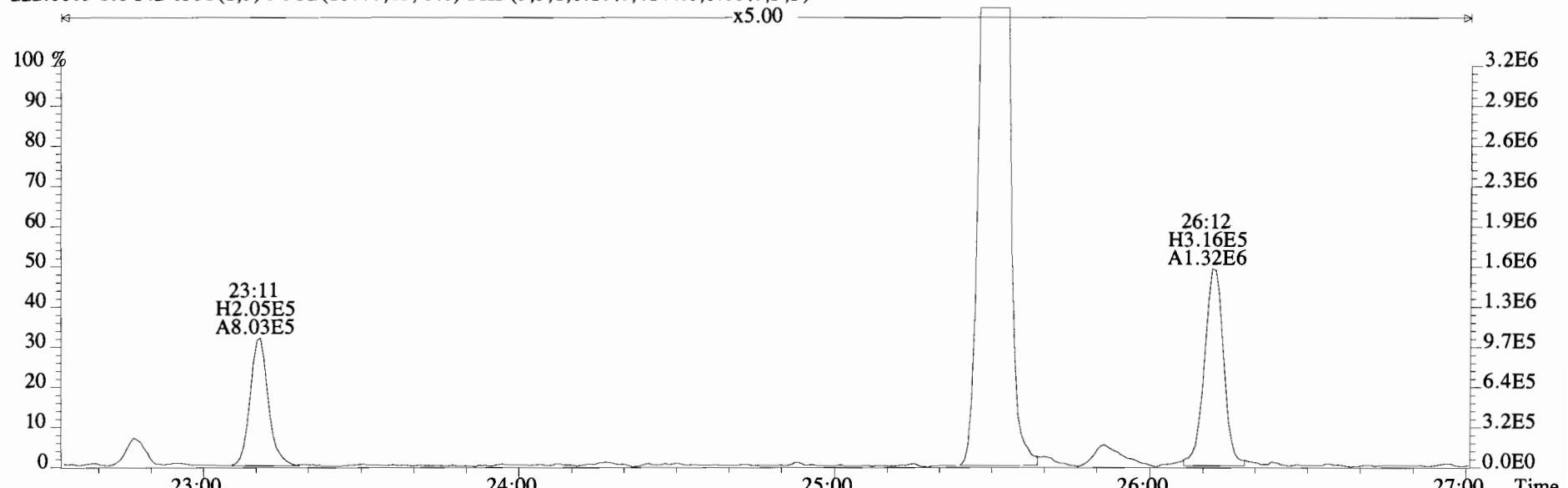
File:140919E1 #1-757 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 222.0003 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4144.0,0.00%,F,F)



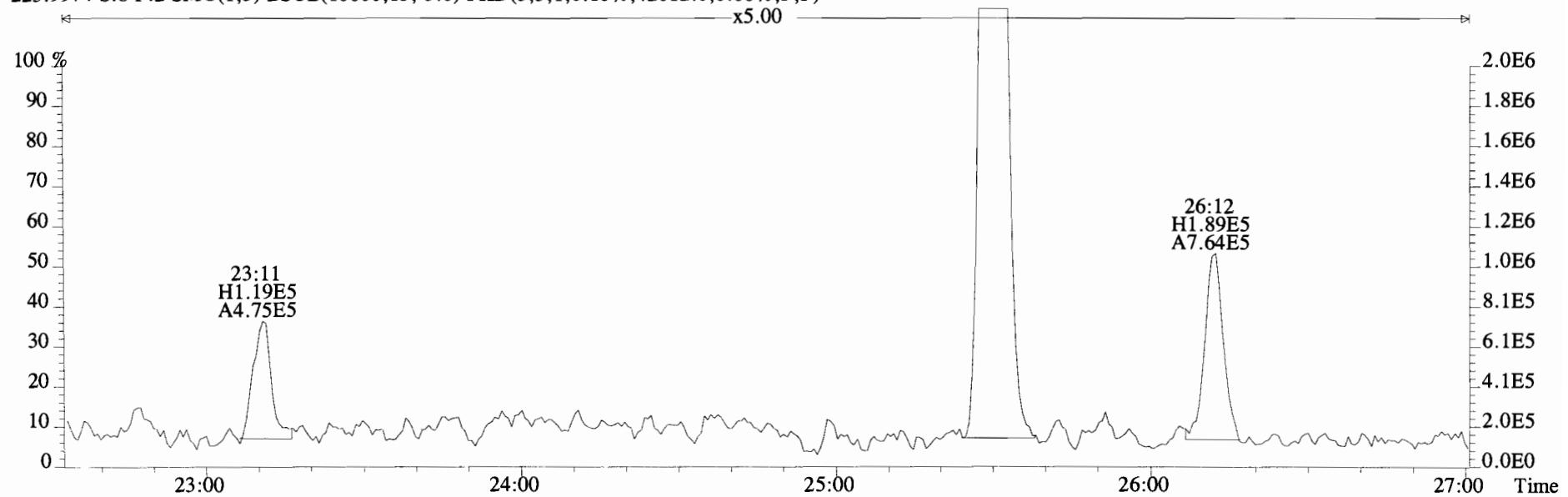
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
222.0003 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4144.0,0.00%,F,F)



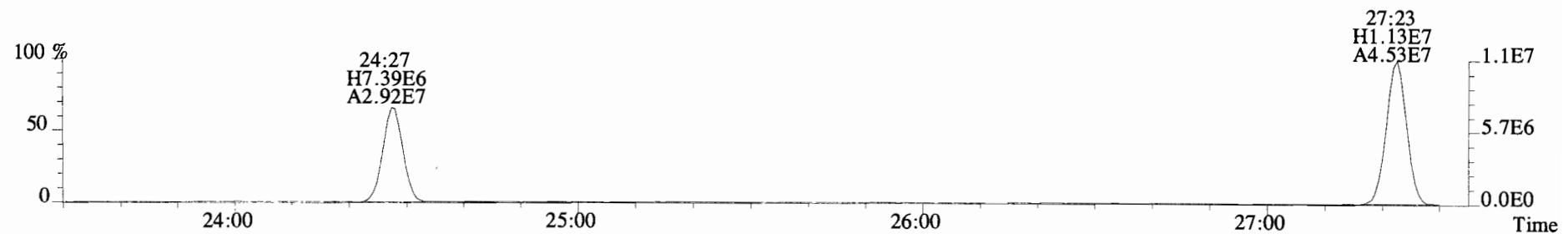
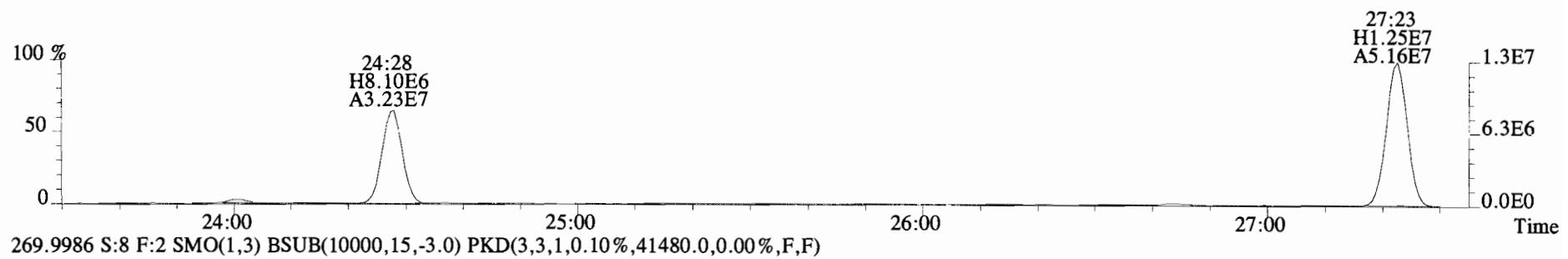
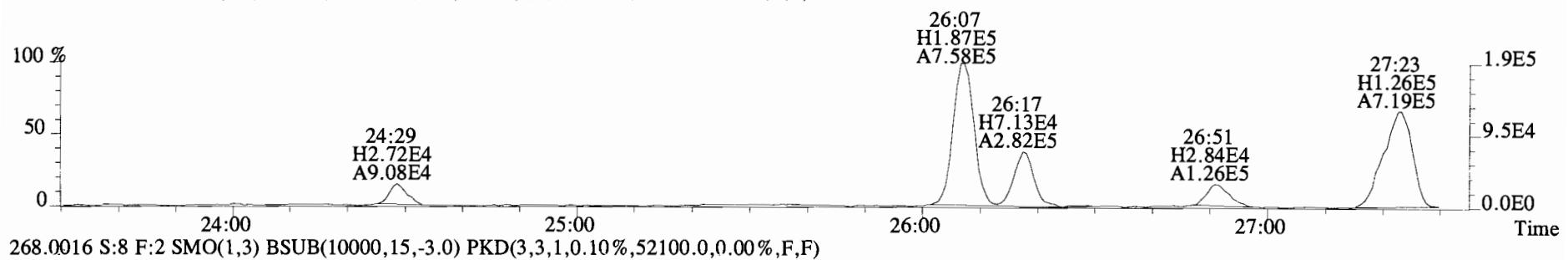
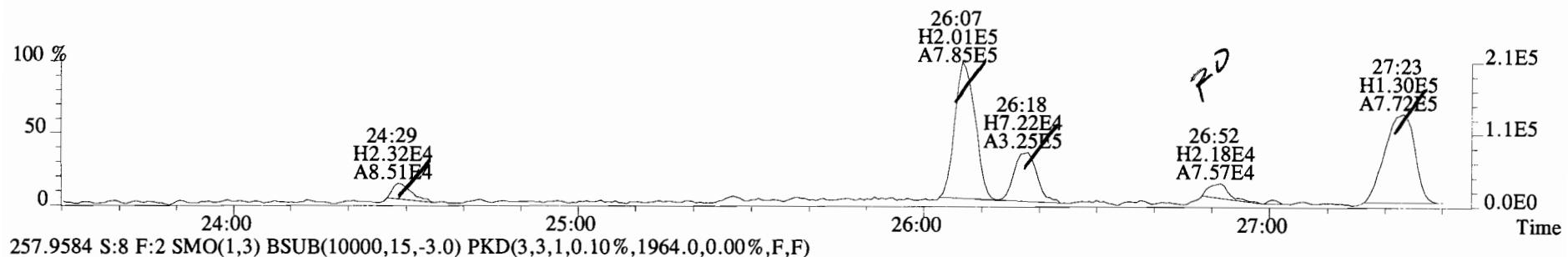
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
222.0003 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4144.0,0.00%,F,F)



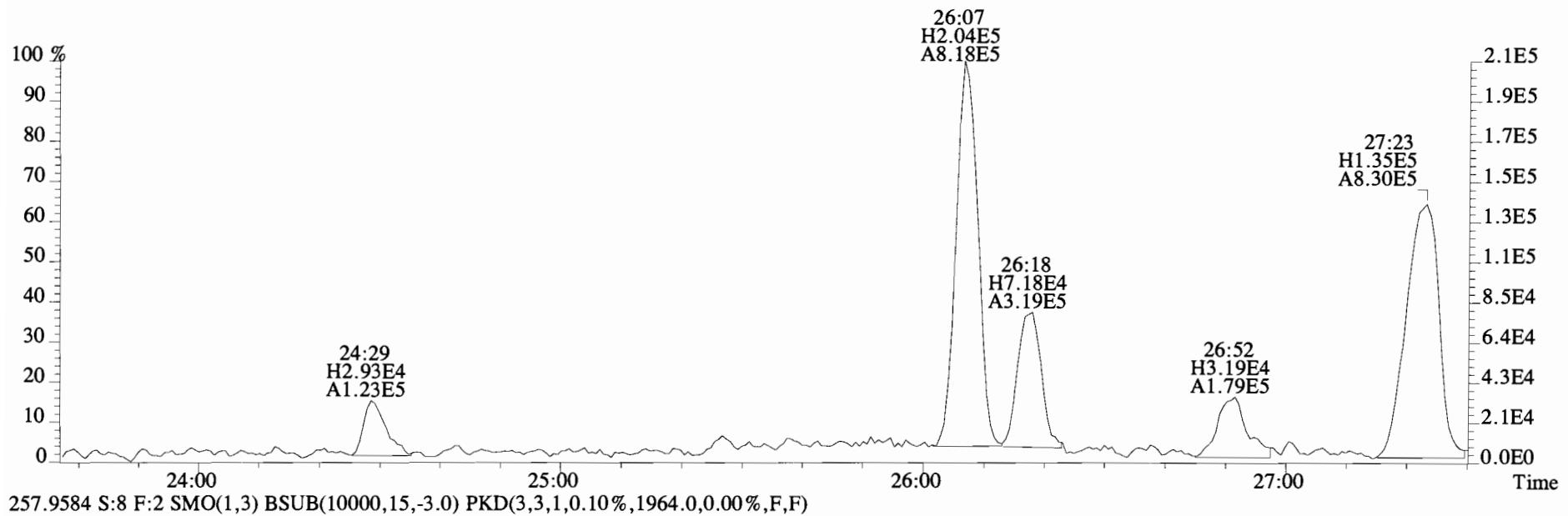
223.9974 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,42012.0,0.00%,F,F)



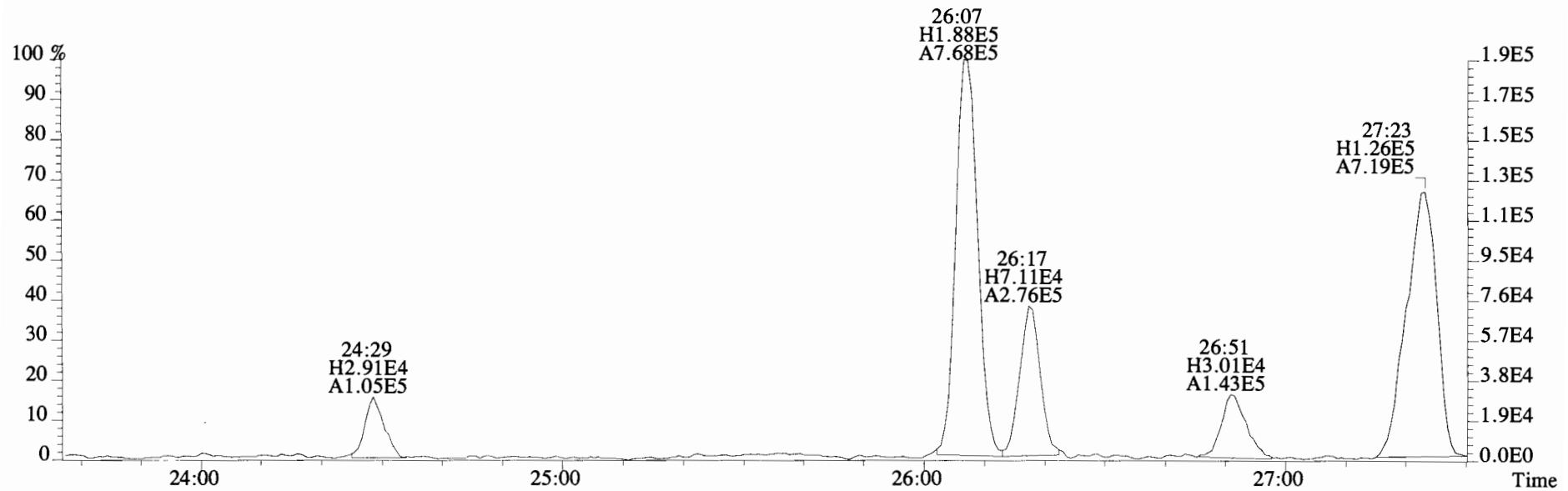
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 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 255.9613 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7420.0,0.00%,F,F)



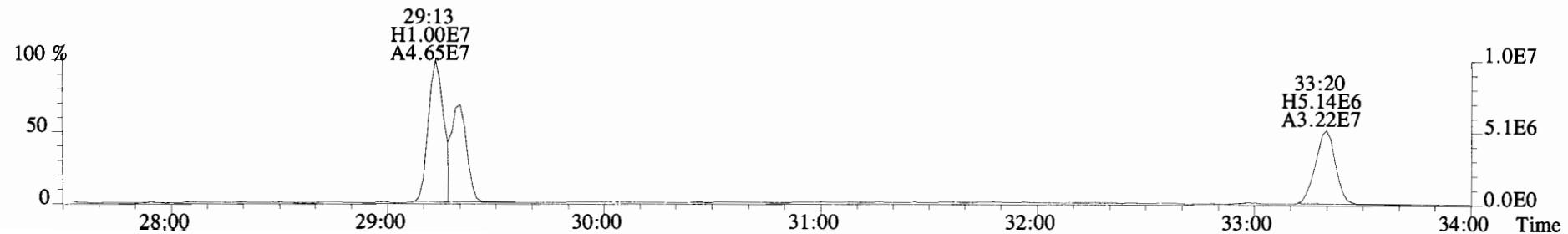
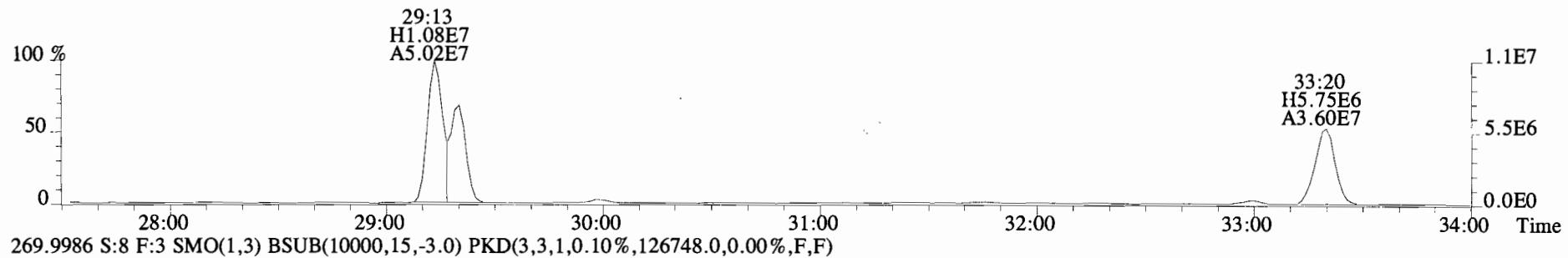
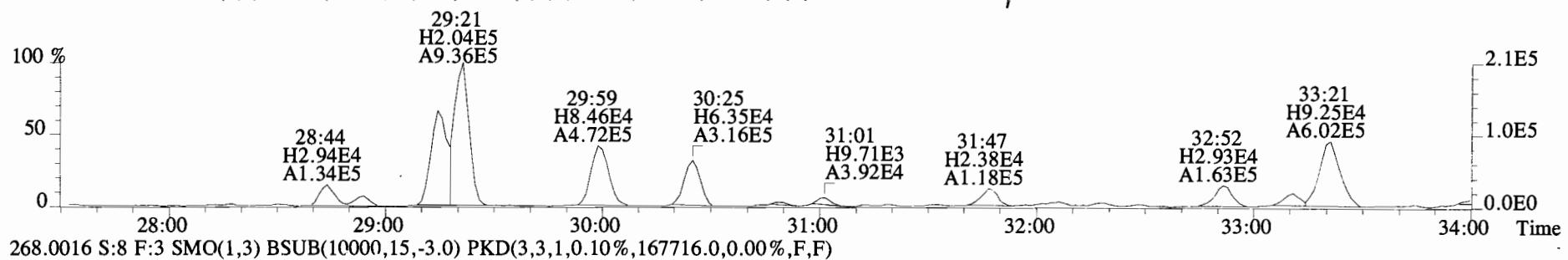
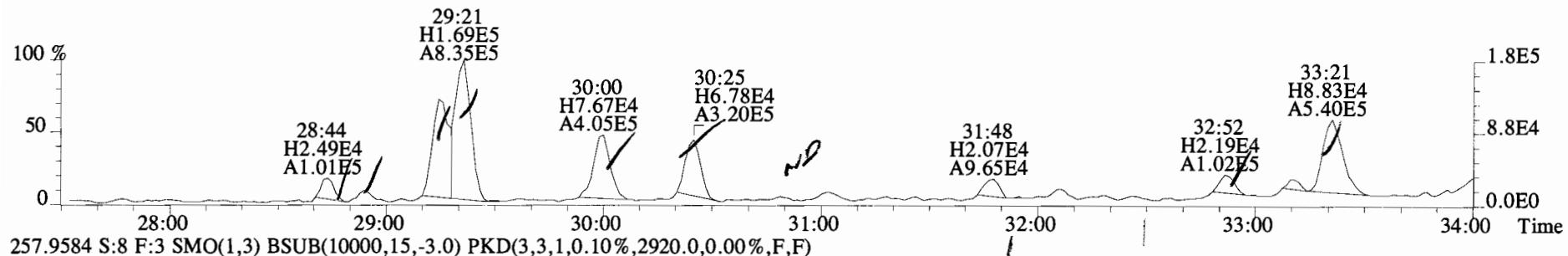
File:140919E1 #1-757 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
255.9613 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7420.0,0.00%,F,F)



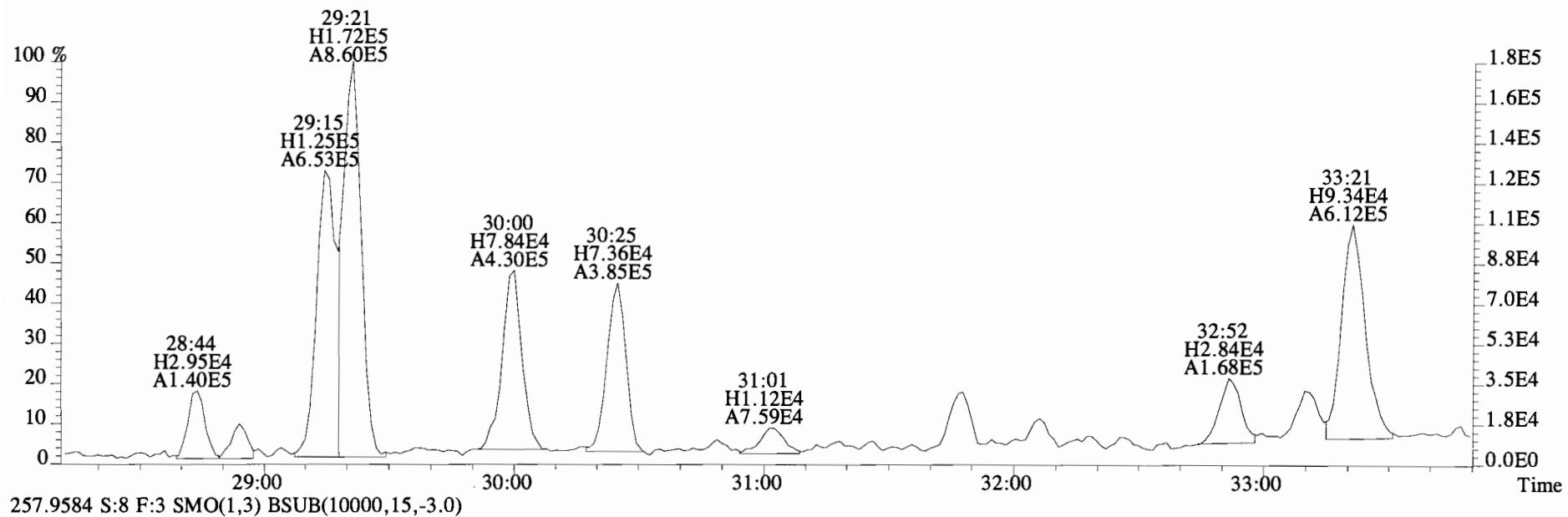
257.9584 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1964.0,0.00%,F,F)



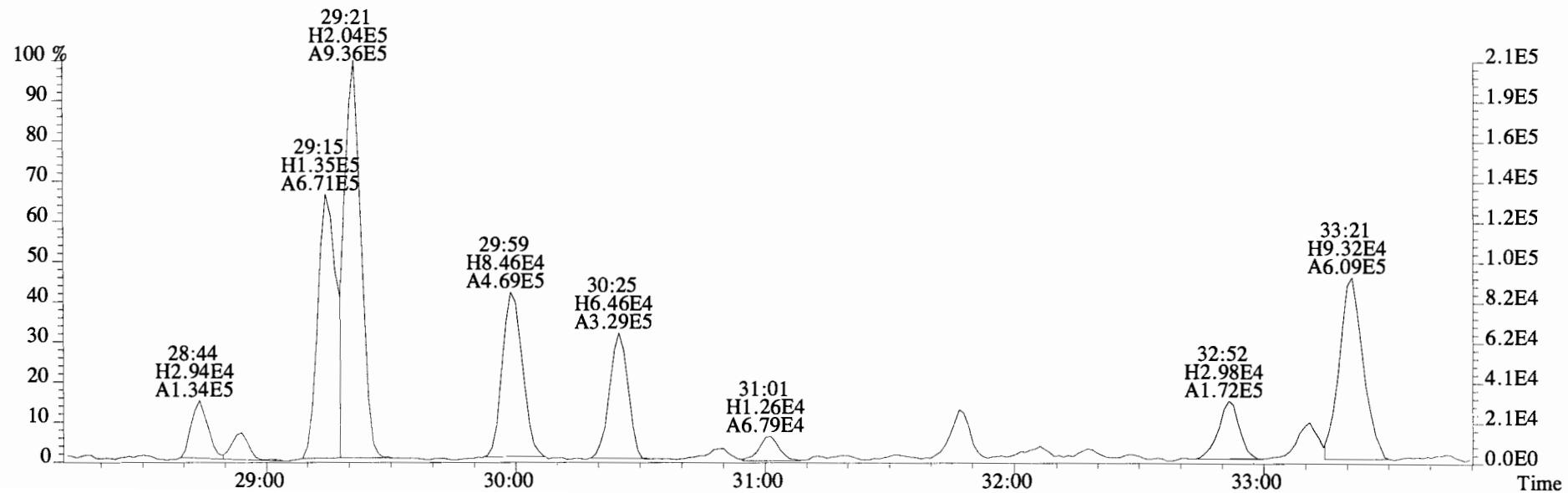
File:140919E1 #1-770 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 255.9613 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8744.0,0.00%,F,F)



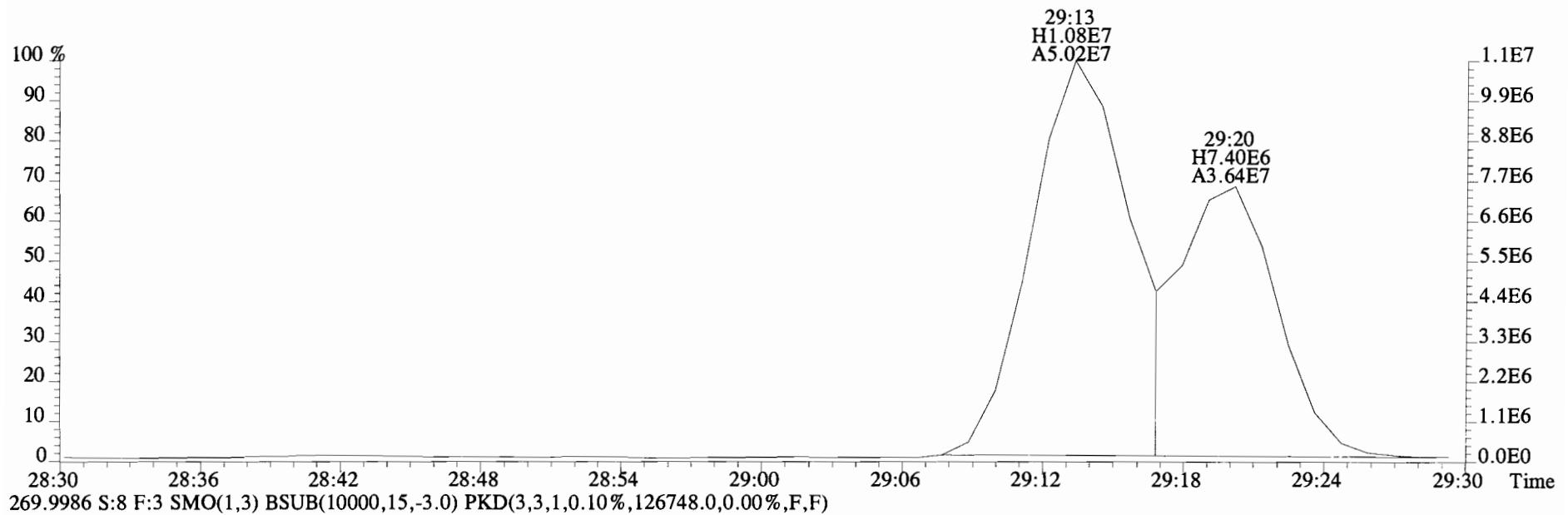
File:140919E1 #1-770 Acq:19-SEP-2014 17:03:47 GC EI + Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 255.9613 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0)



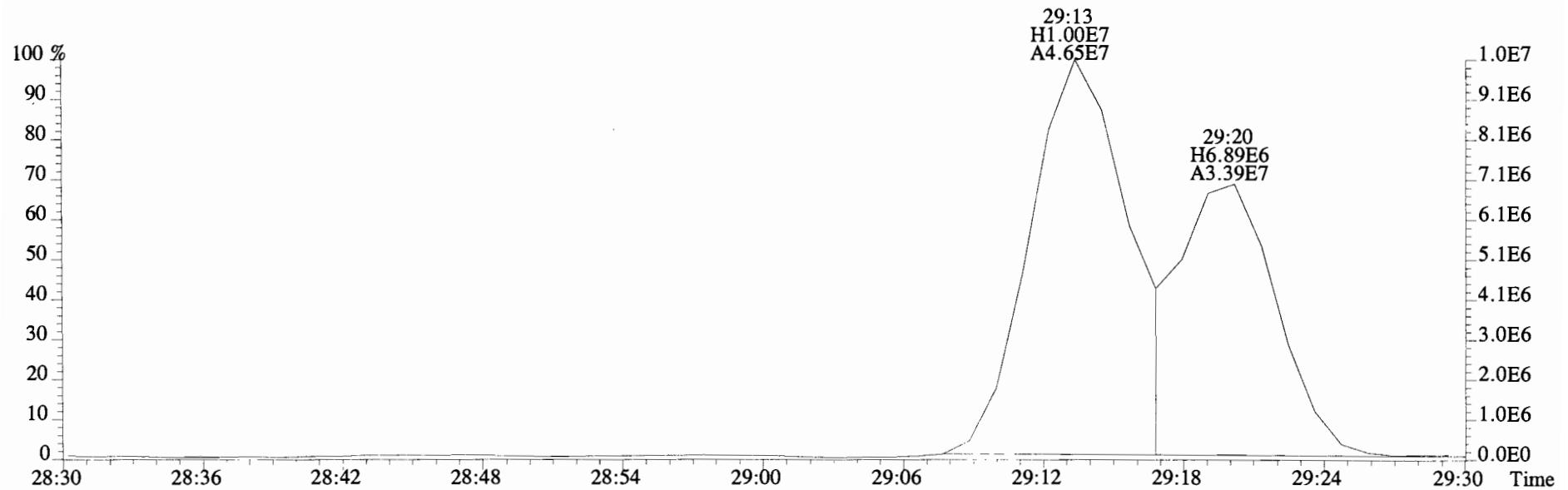
257.9584 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0)



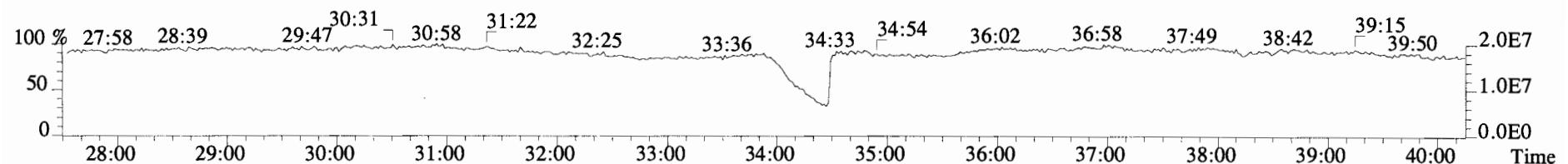
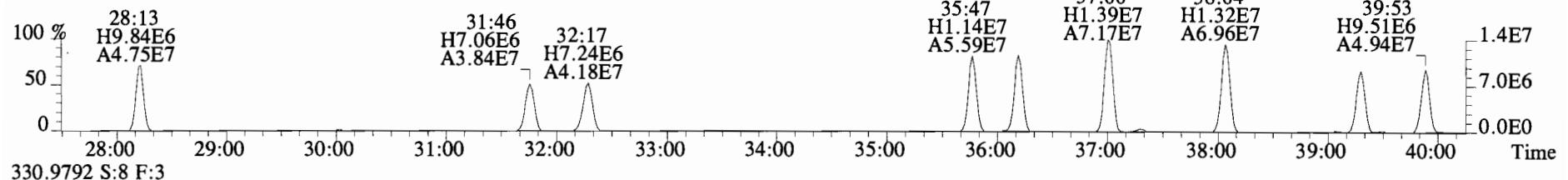
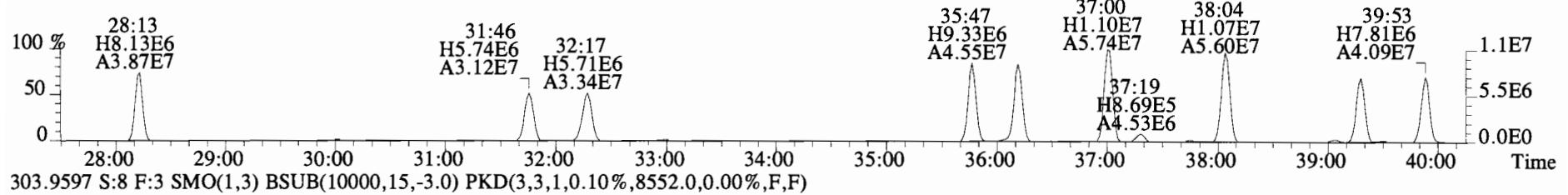
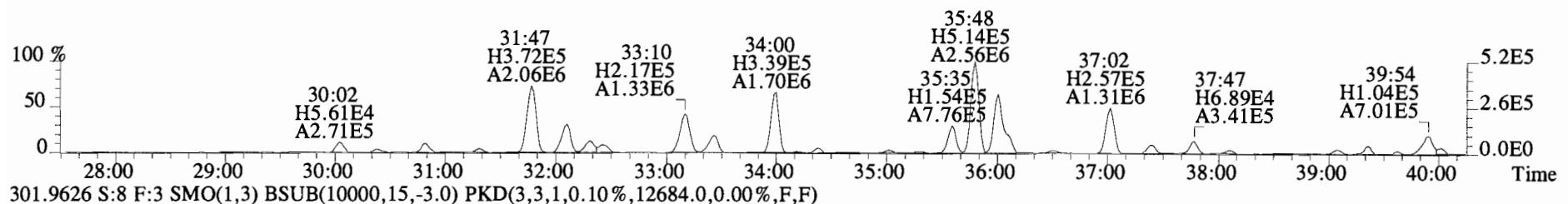
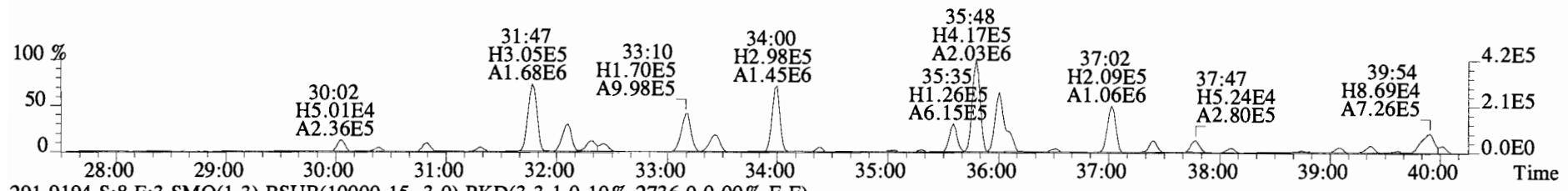
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268.0016 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,167716.0,0.00%,F,F)



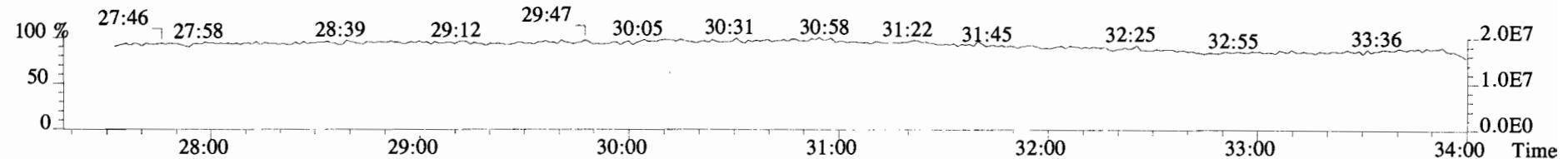
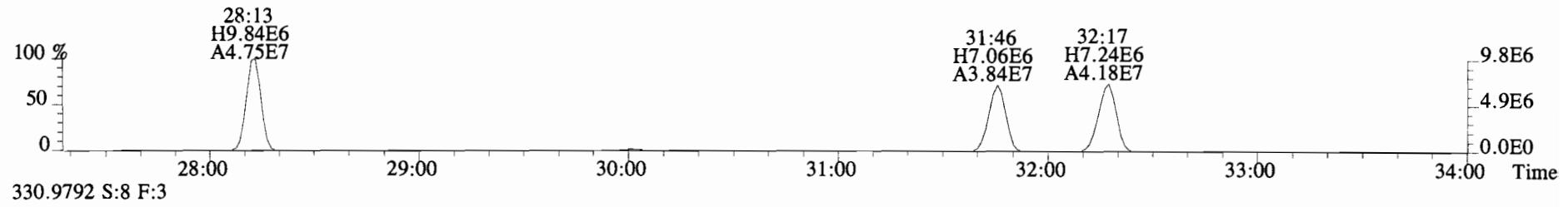
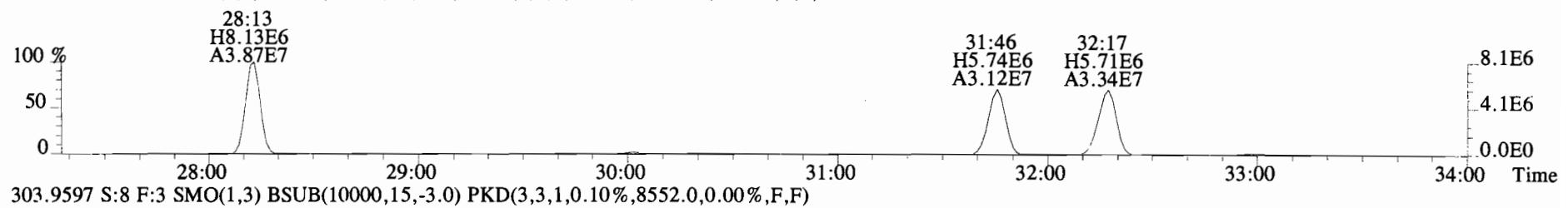
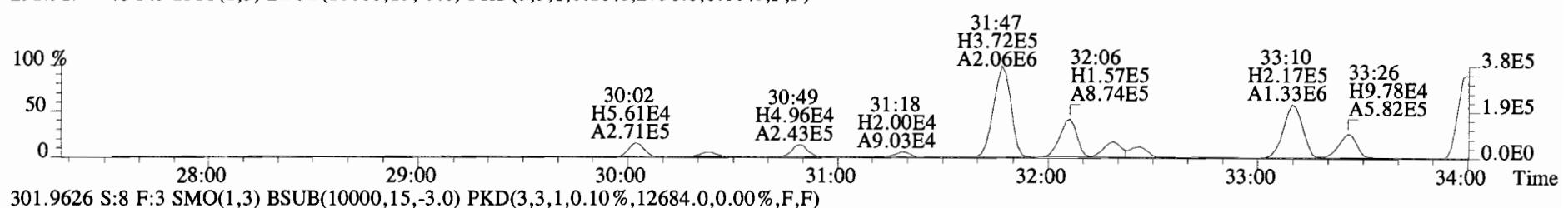
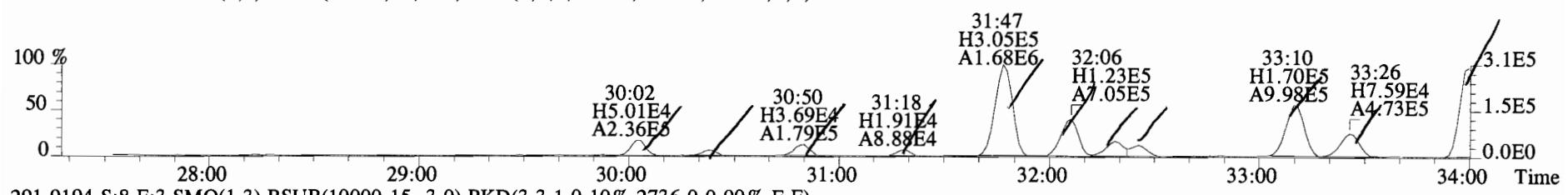
269.9986 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,126748.0,0.00%,F,F)



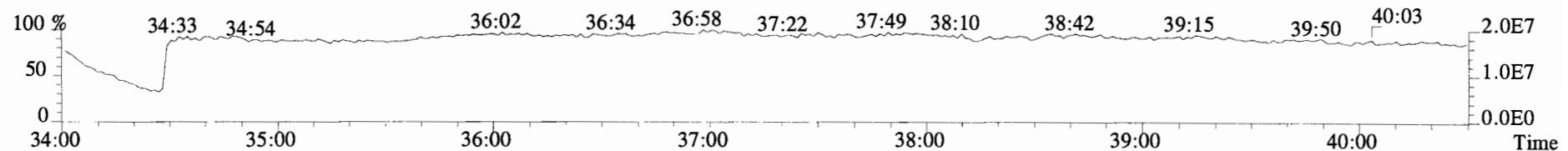
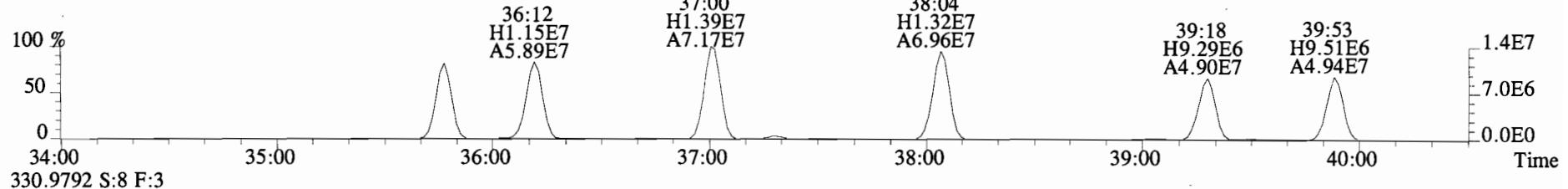
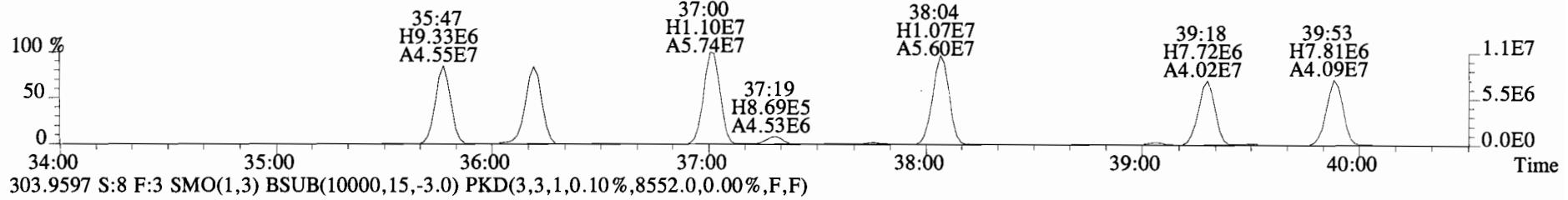
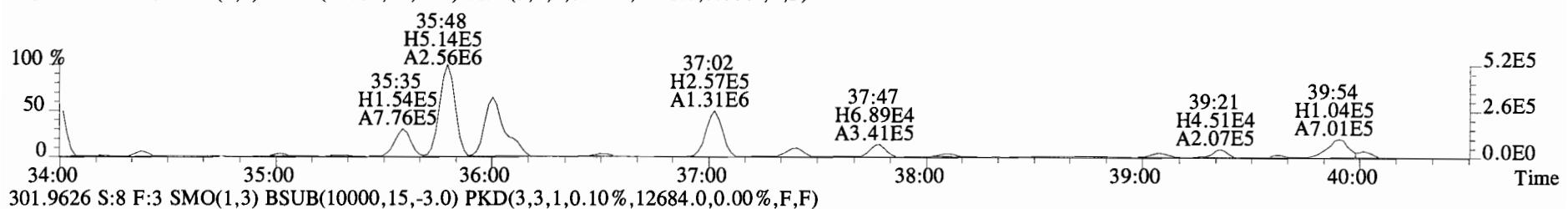
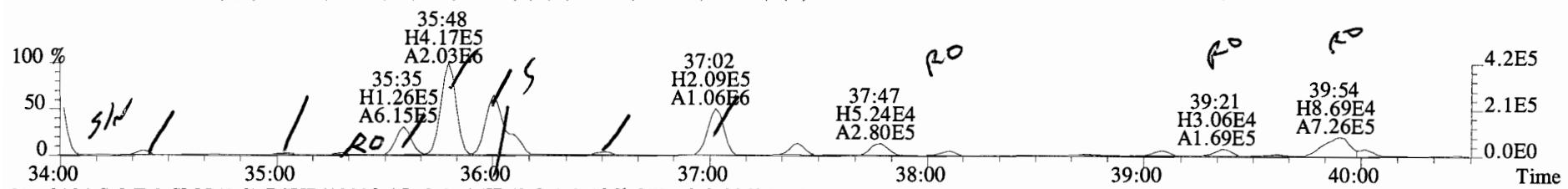
File:140919E1 #1-770 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 289.9224 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2808.0,0.00%,F,F)



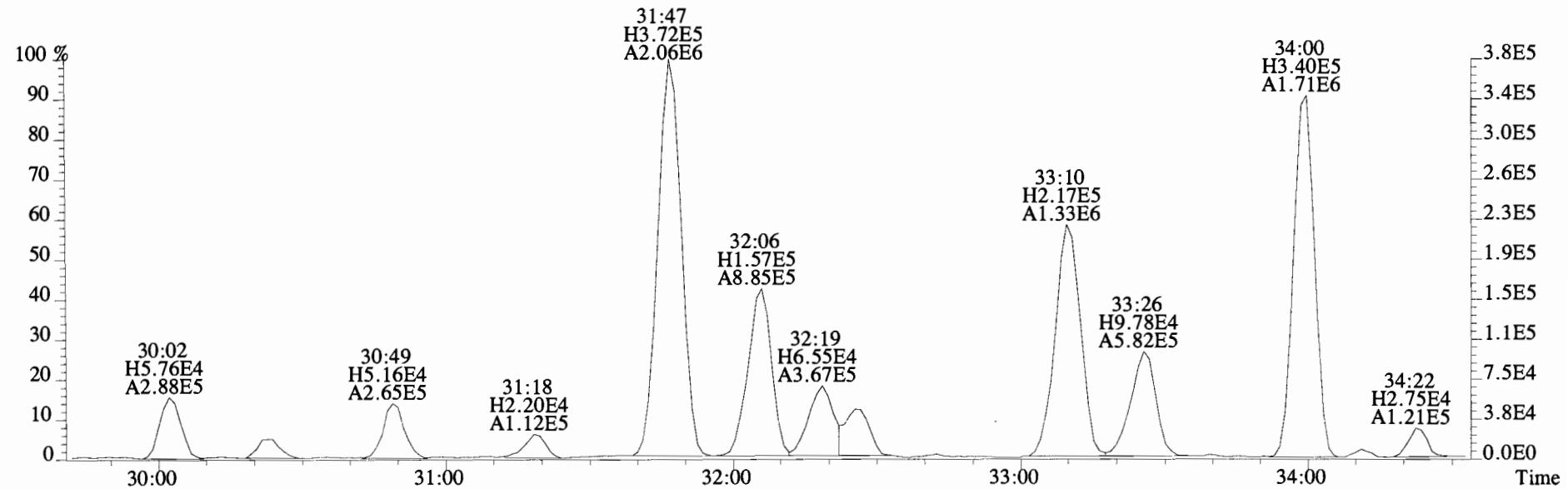
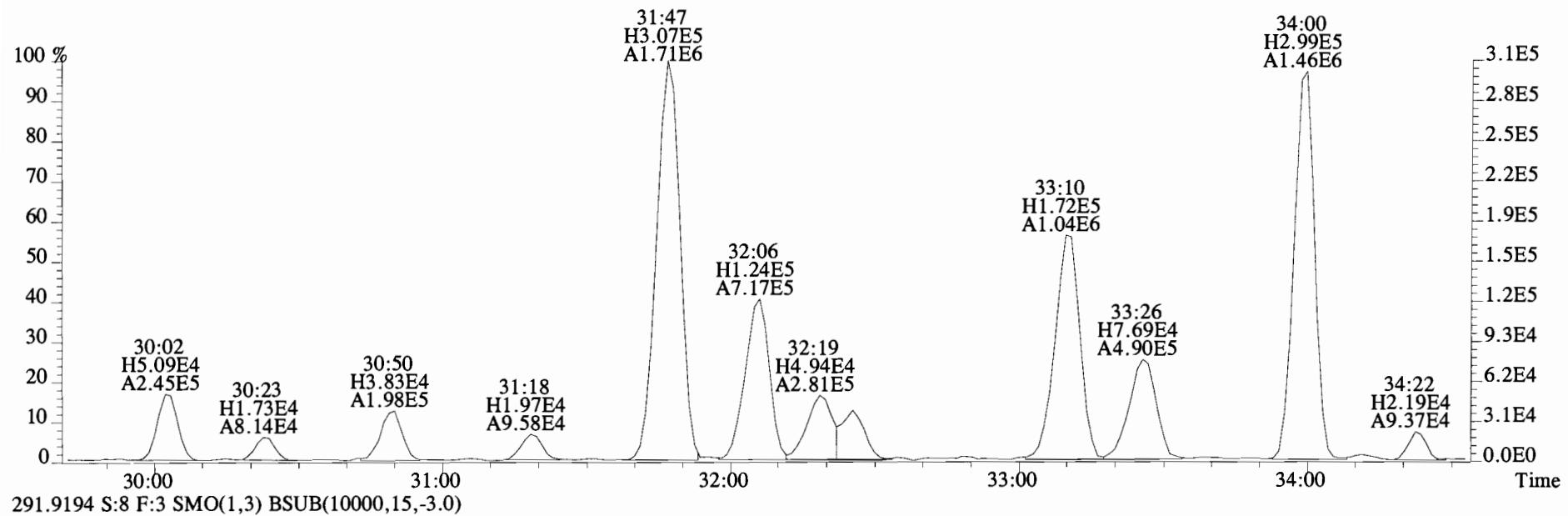
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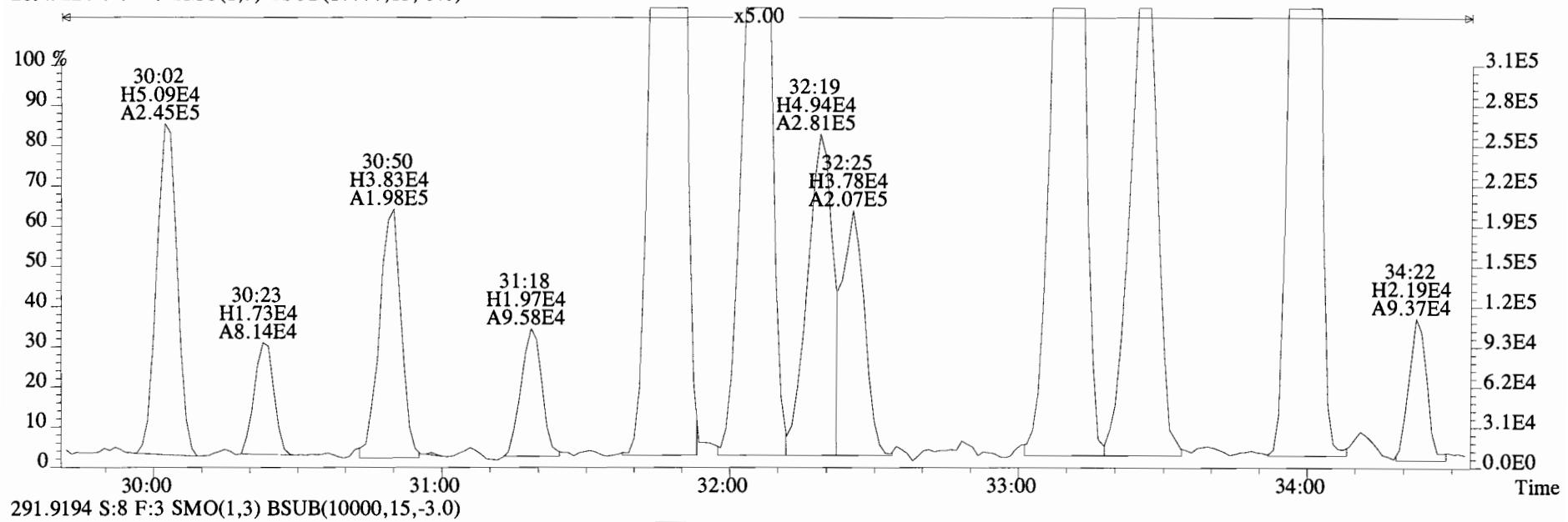
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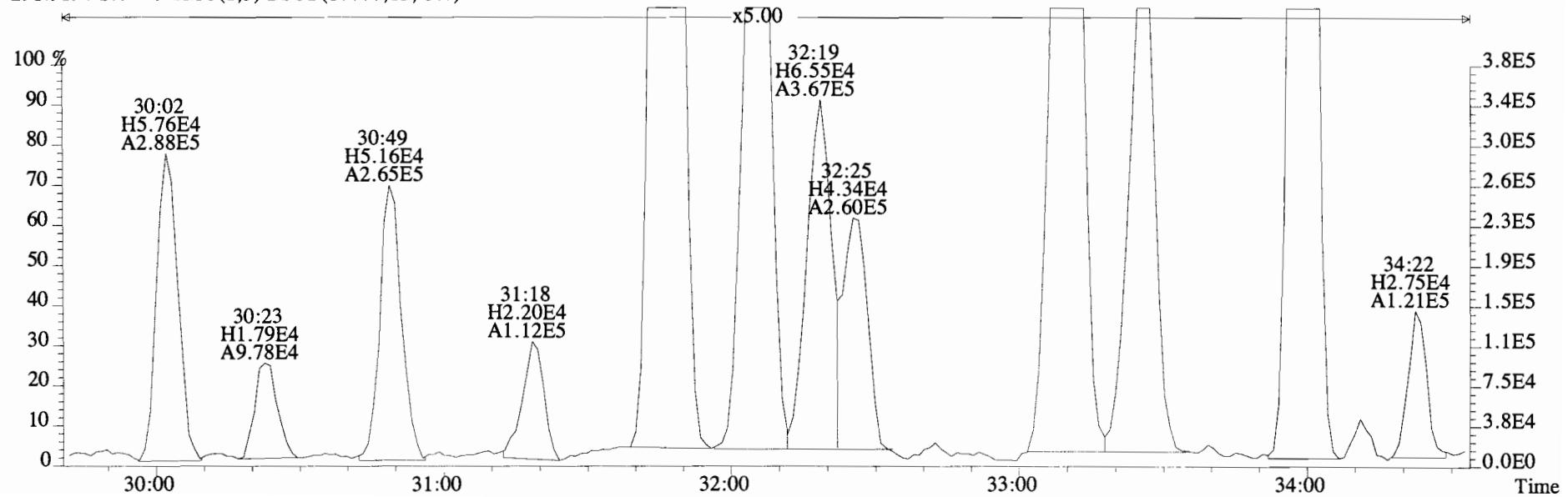
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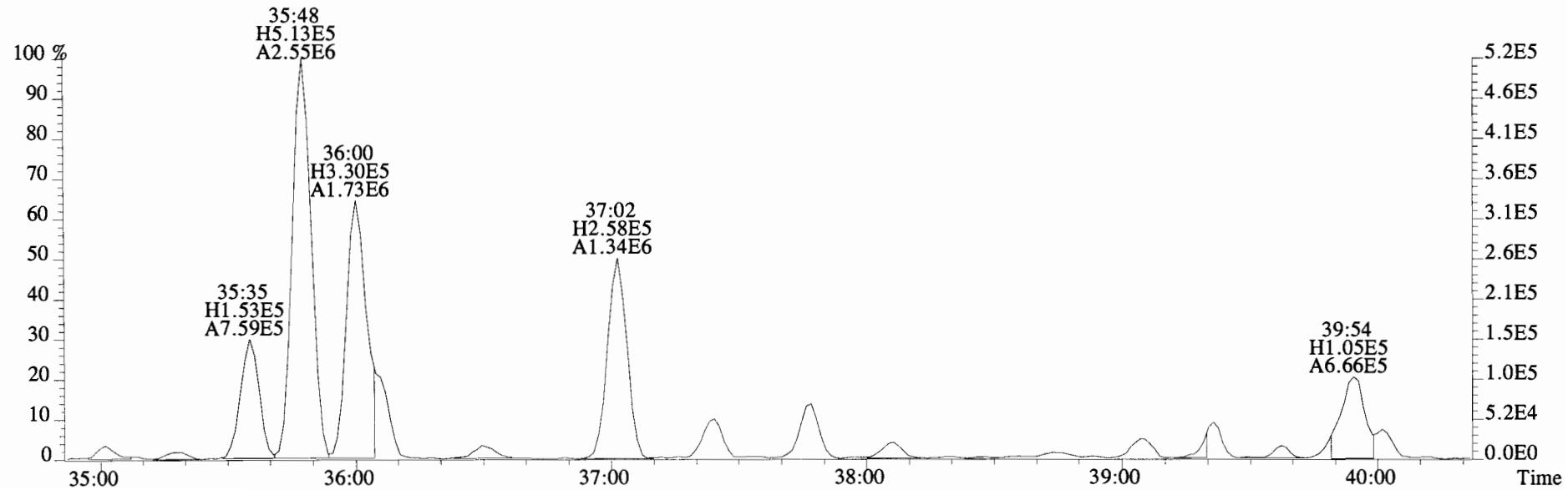
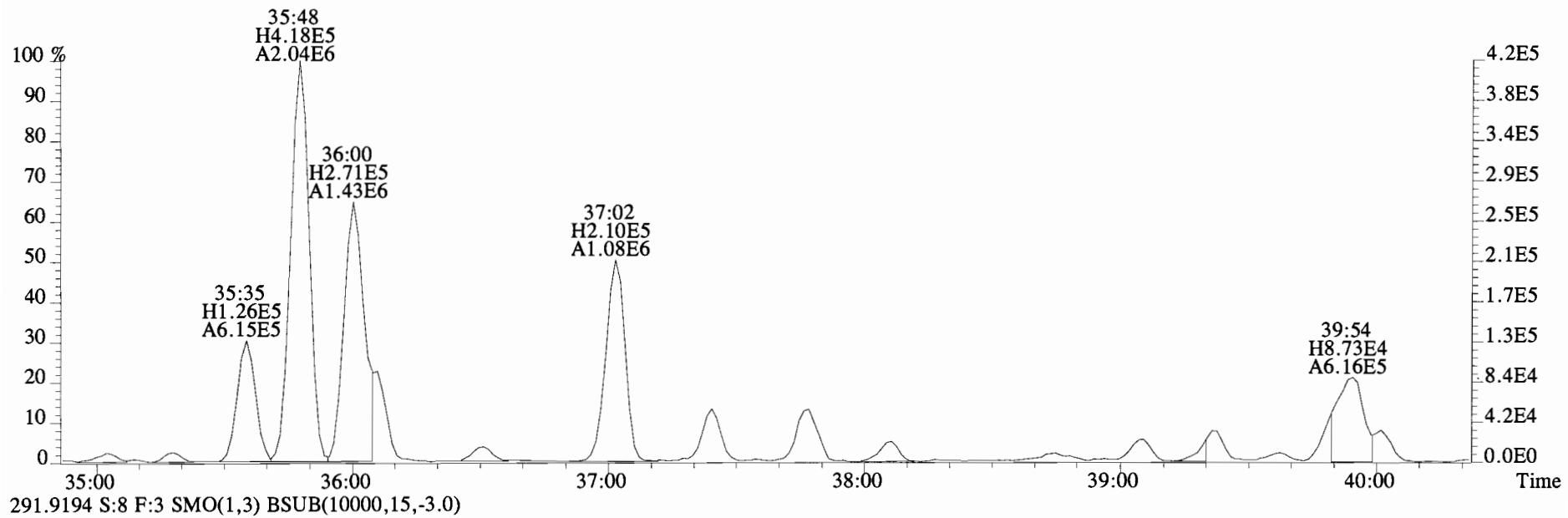
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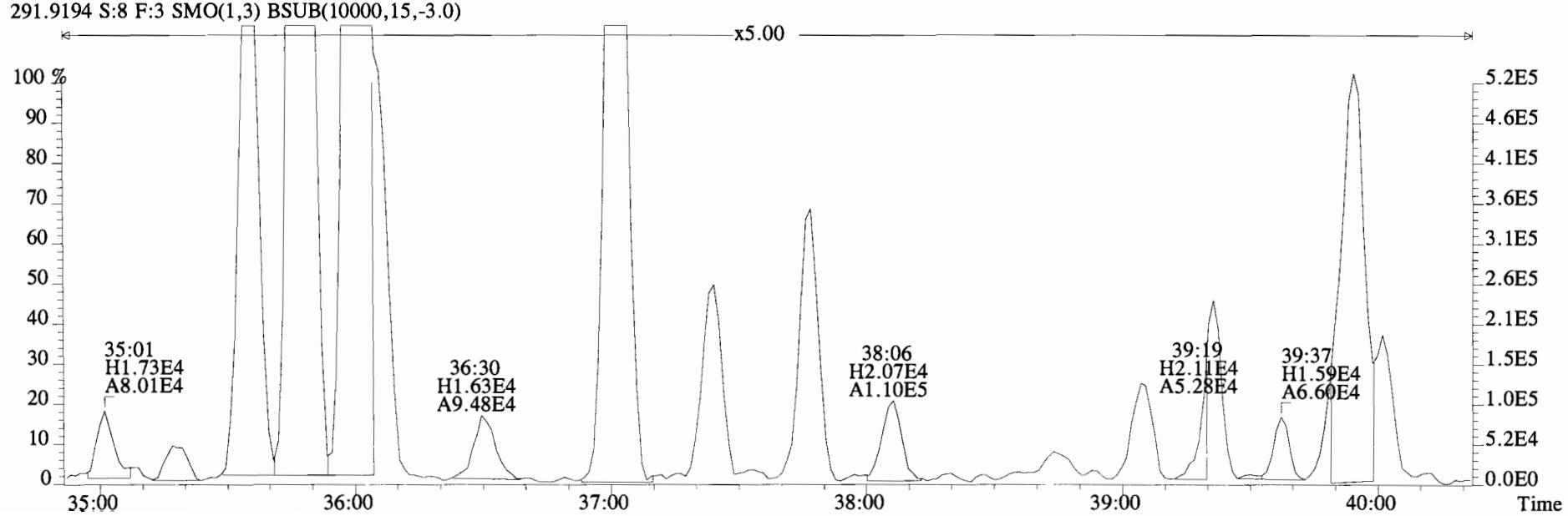
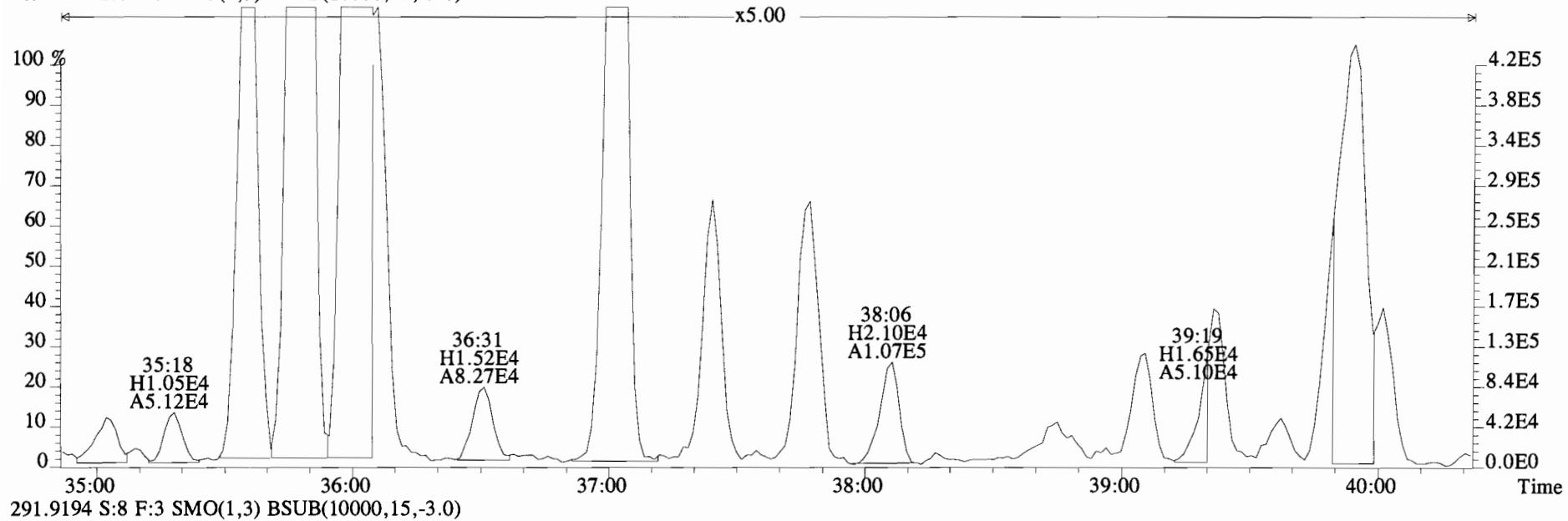
291.9194 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0)



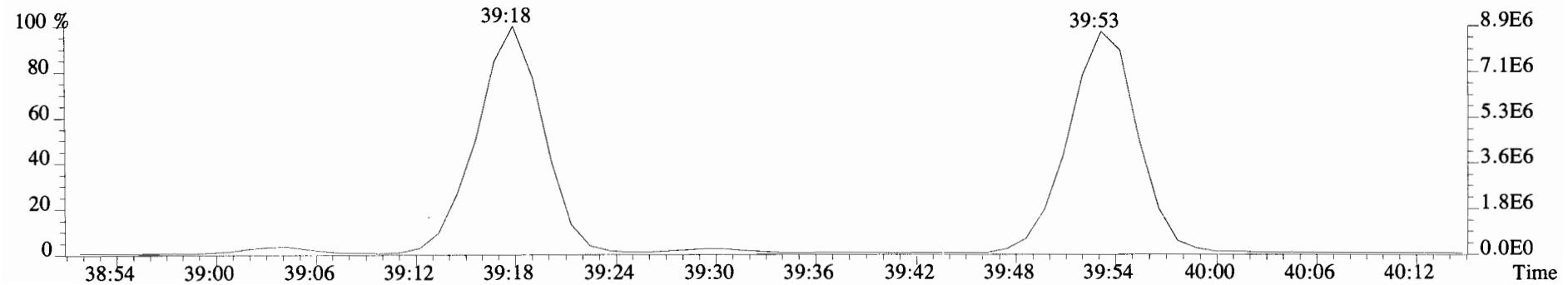
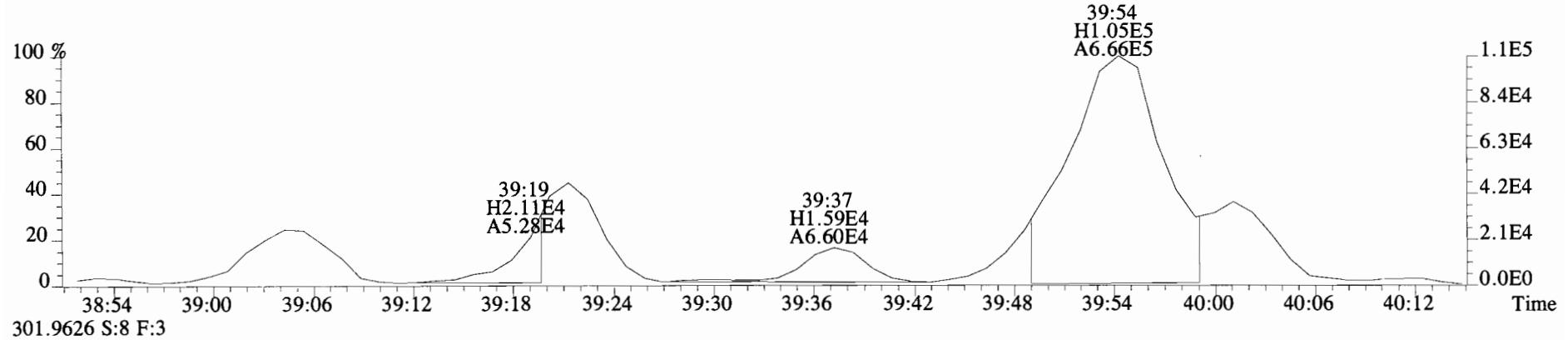
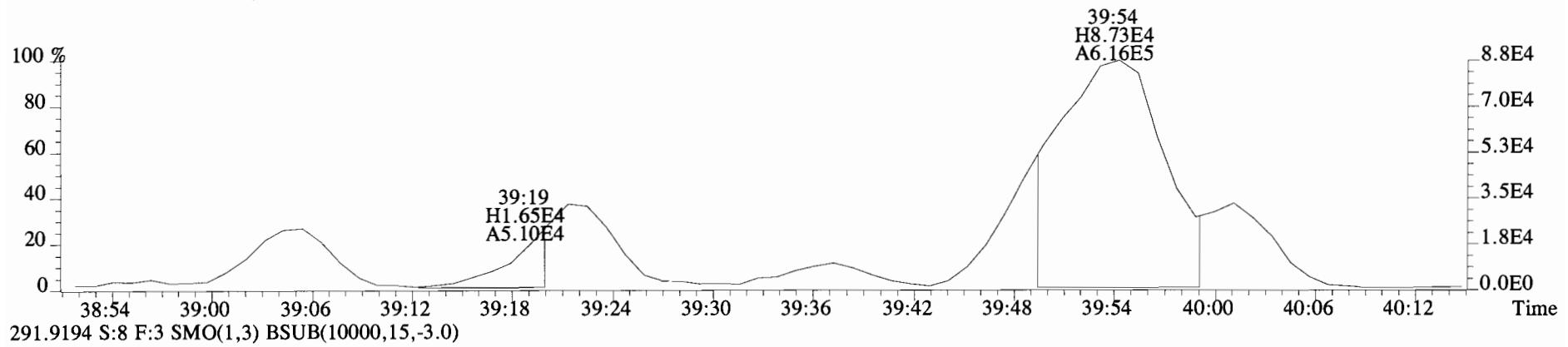
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289.9224 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0)



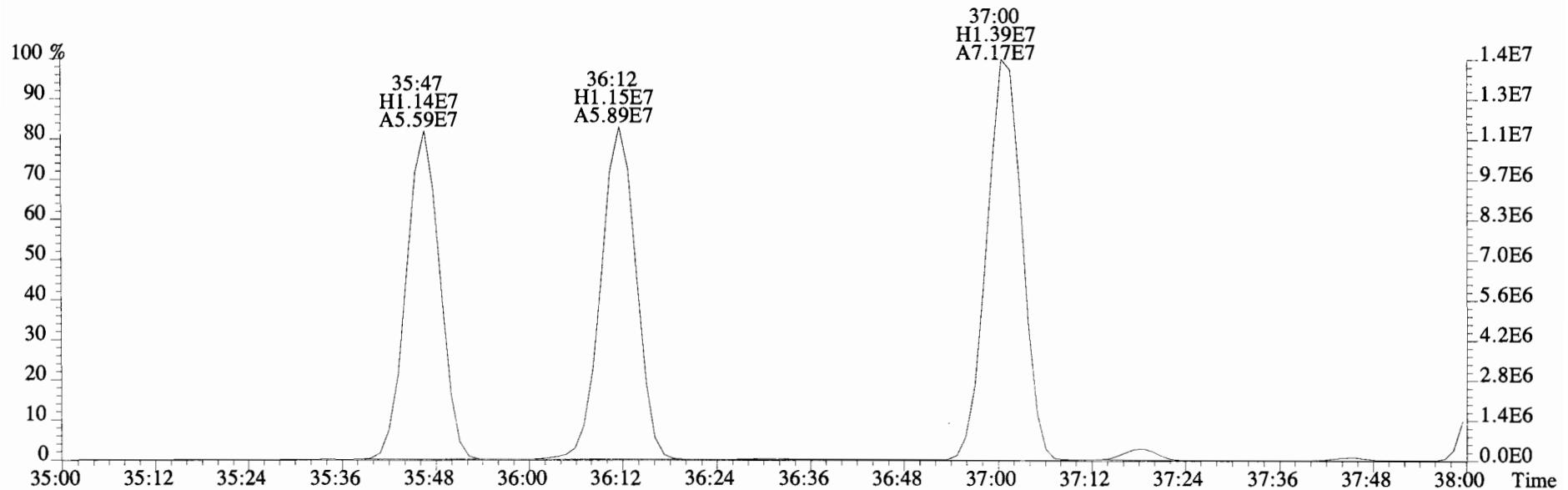
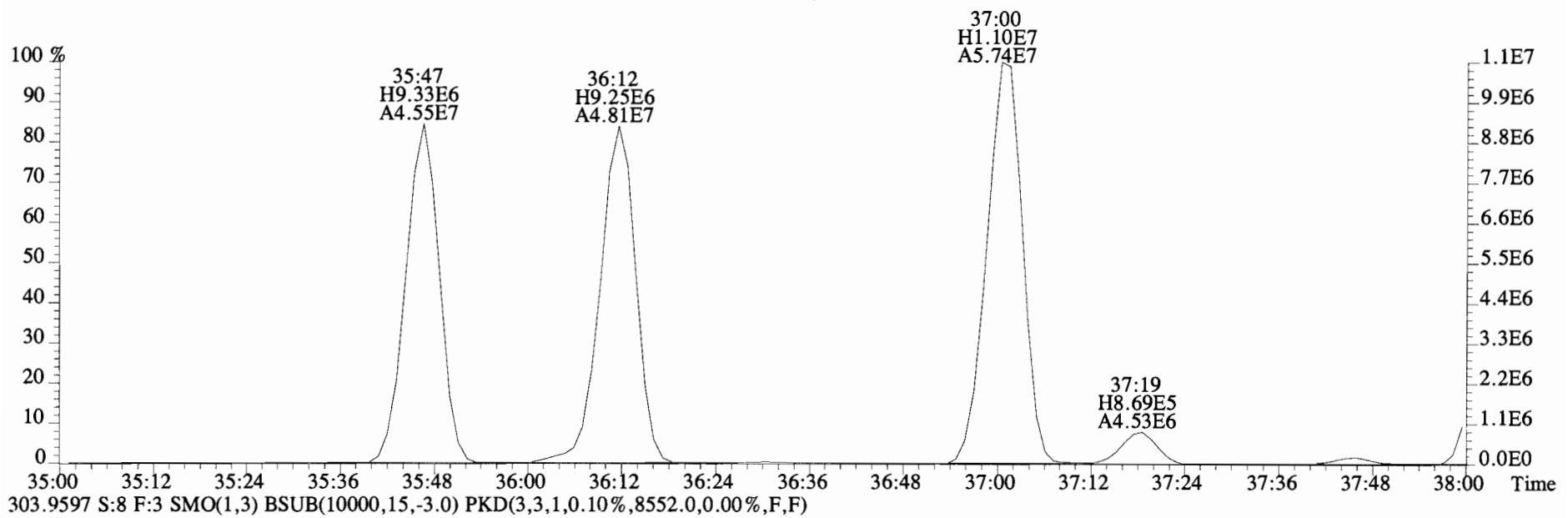
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289.9224 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0)



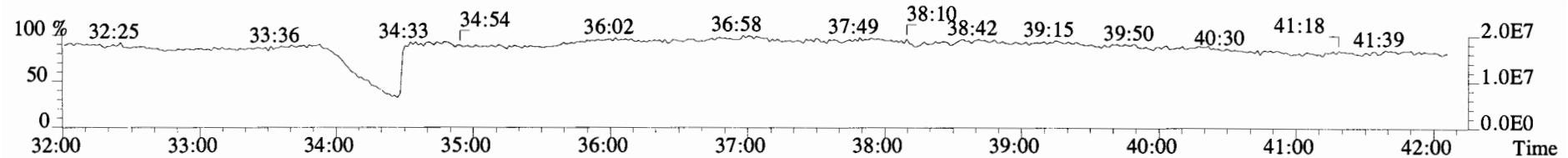
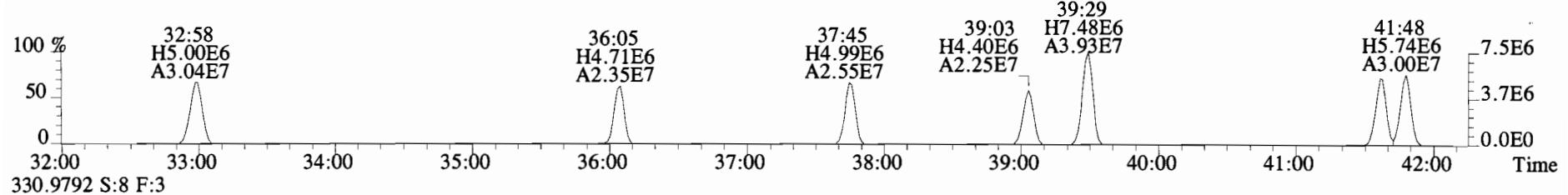
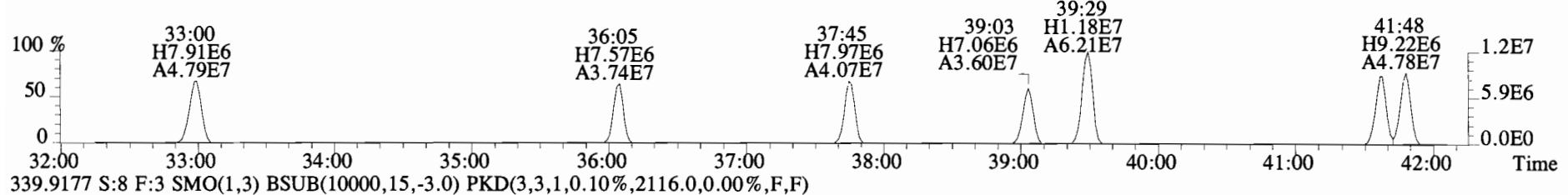
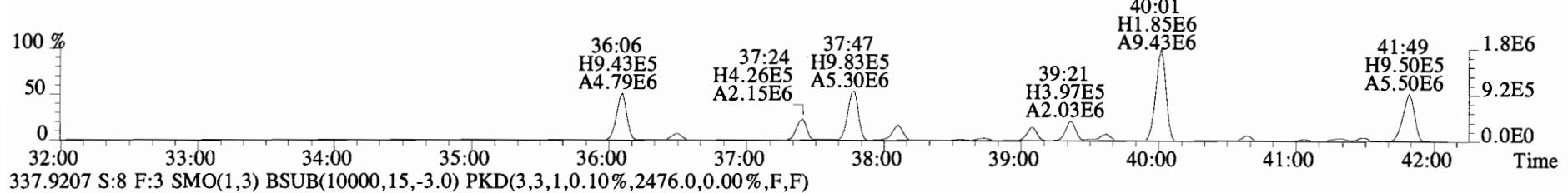
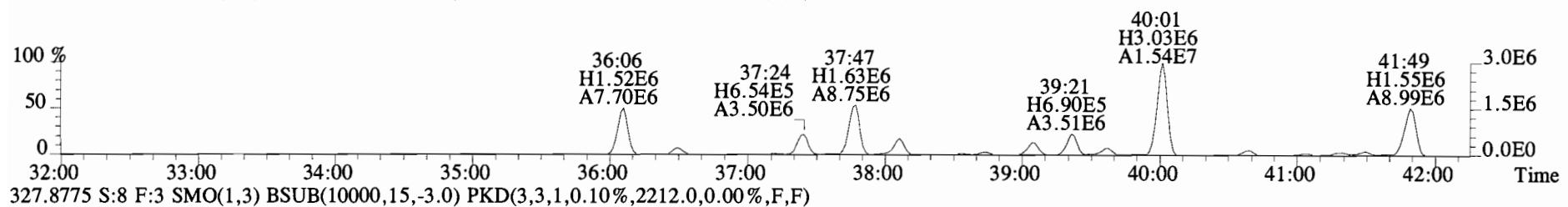
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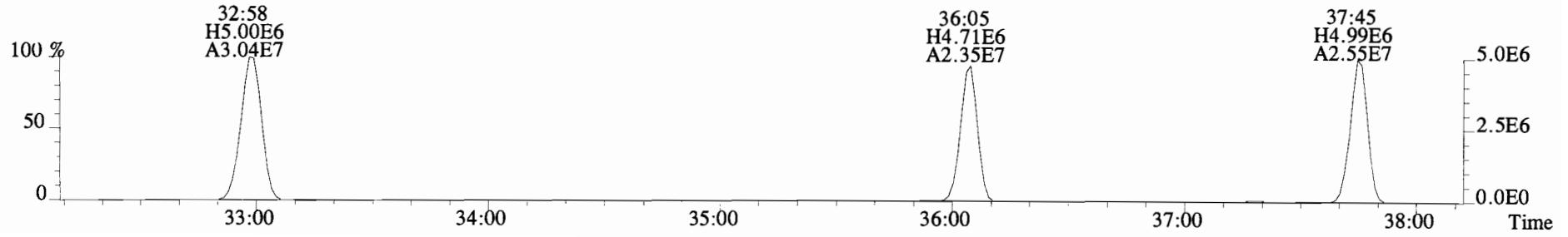
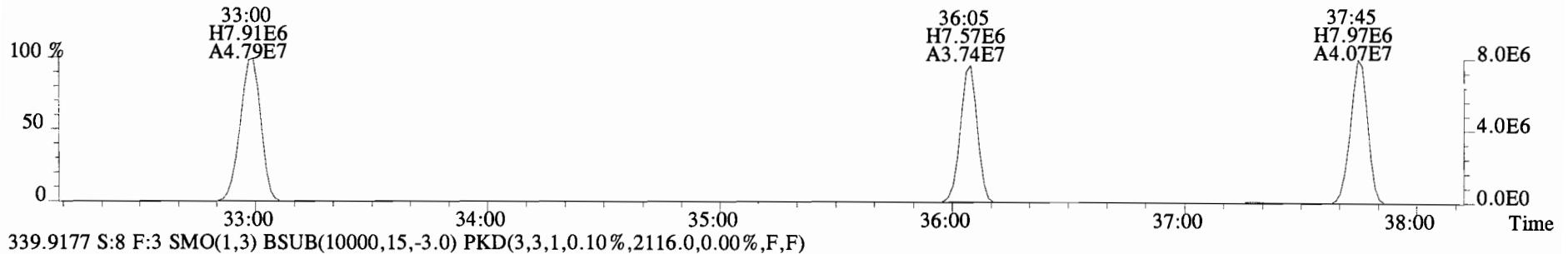
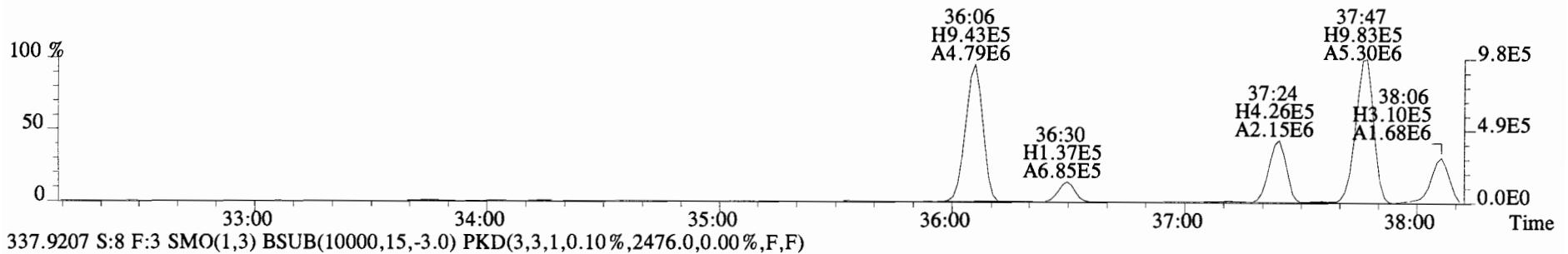
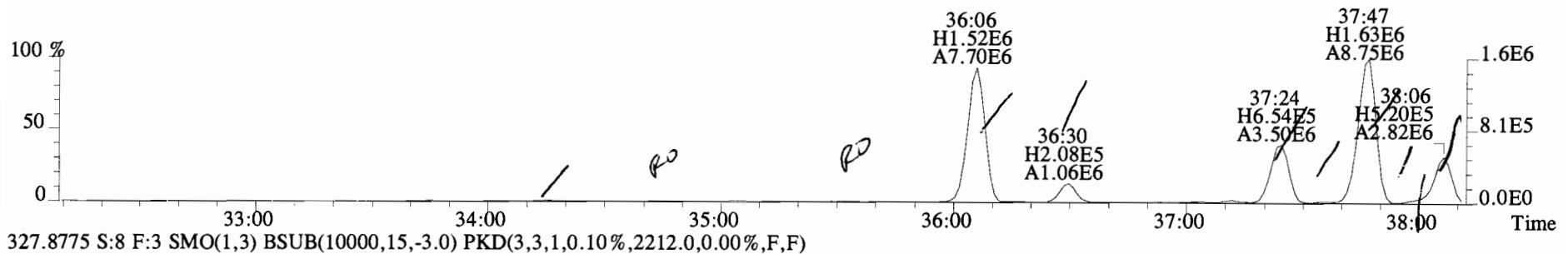
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301.9626 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12684.0,0.00%,F,F)



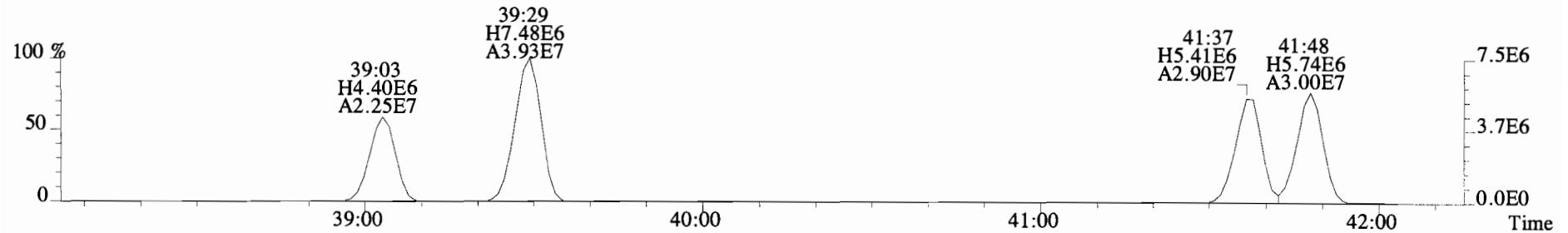
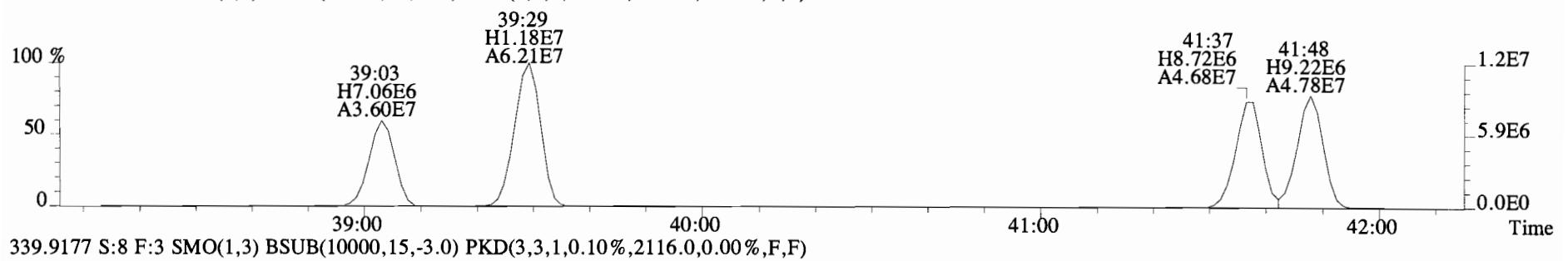
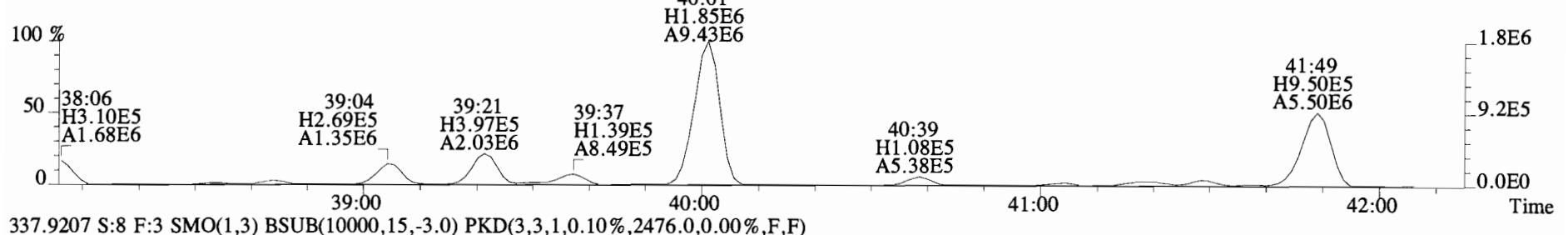
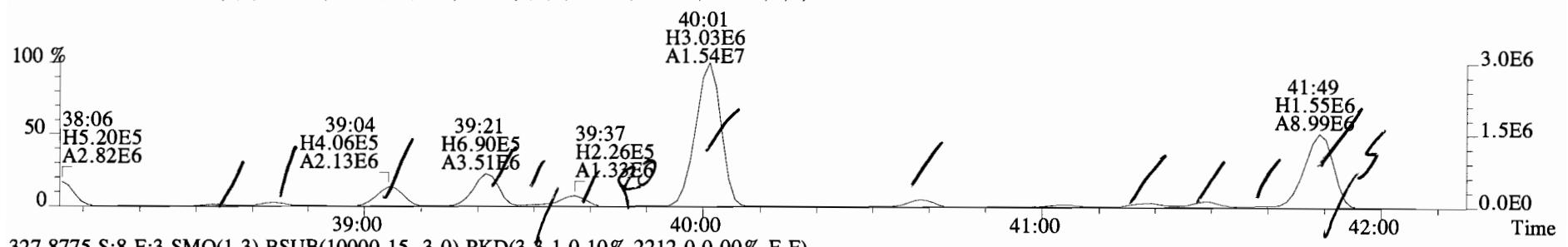
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 325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1884.0,0.00%,F,F)



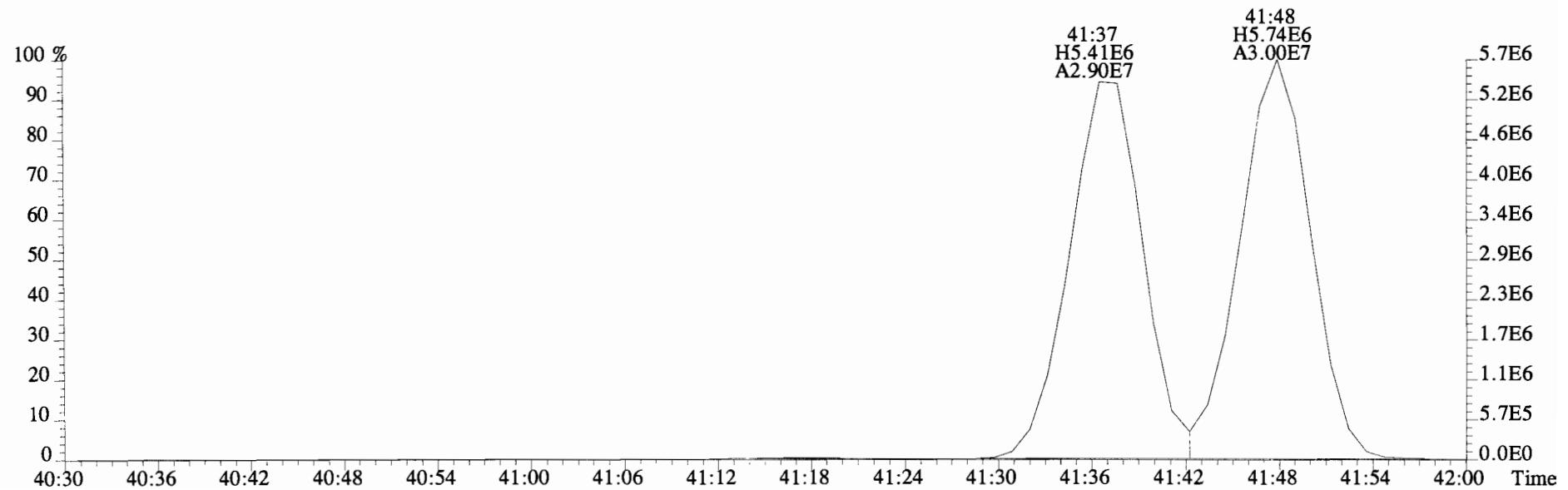
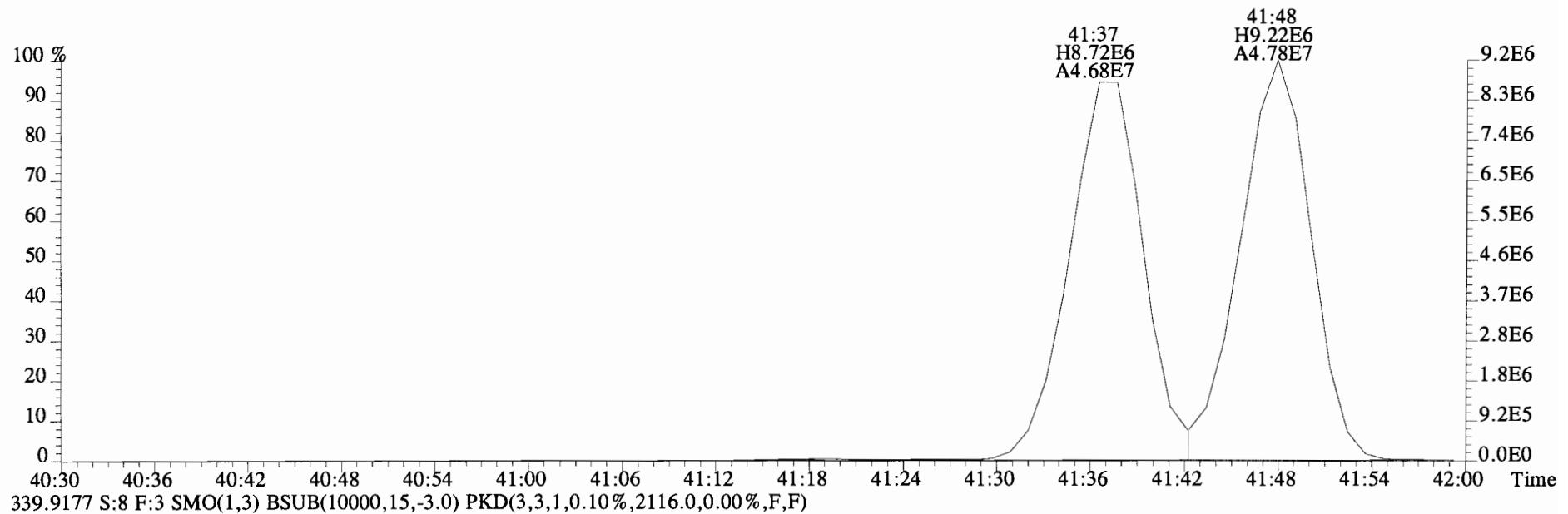
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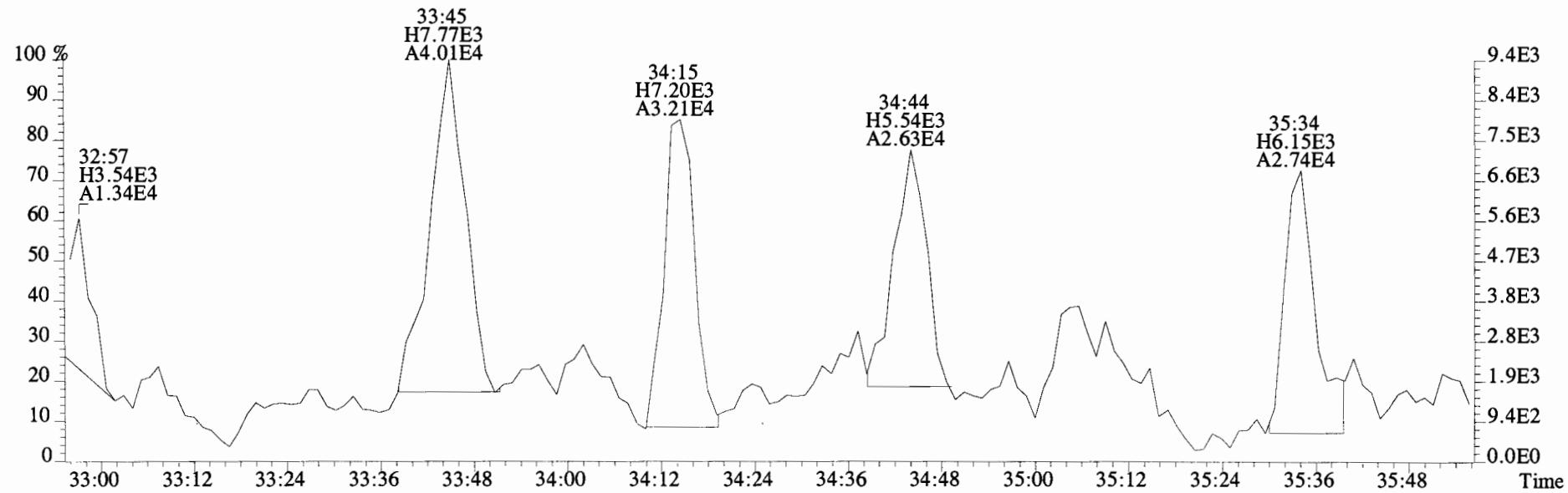
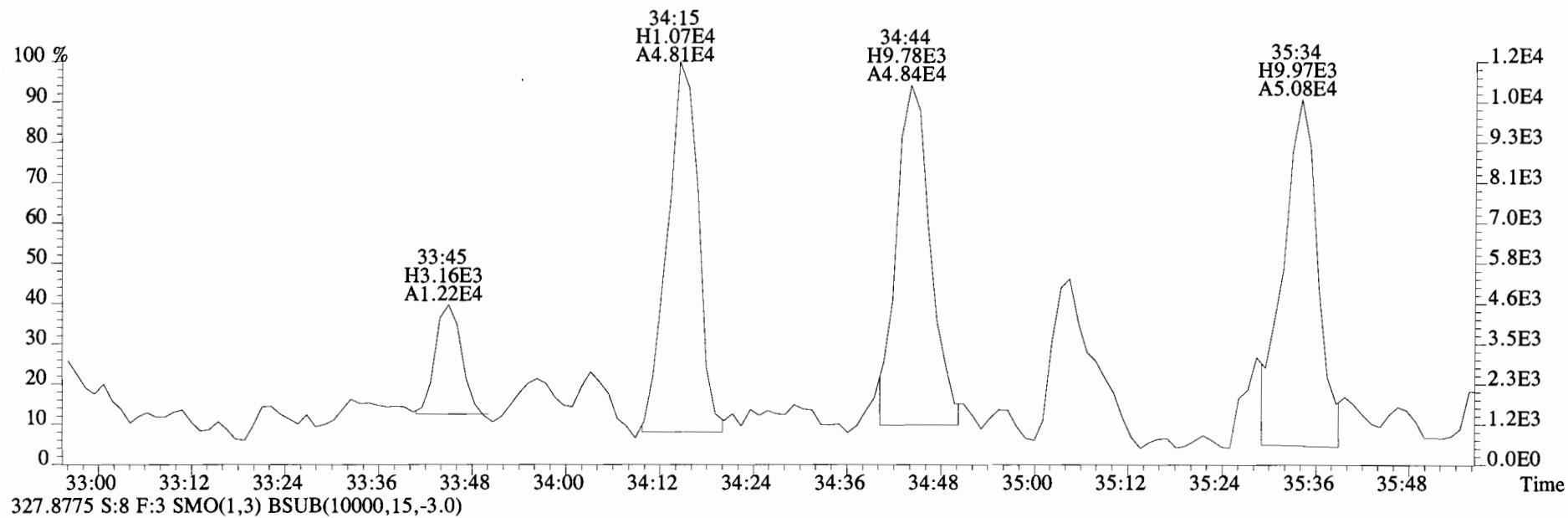
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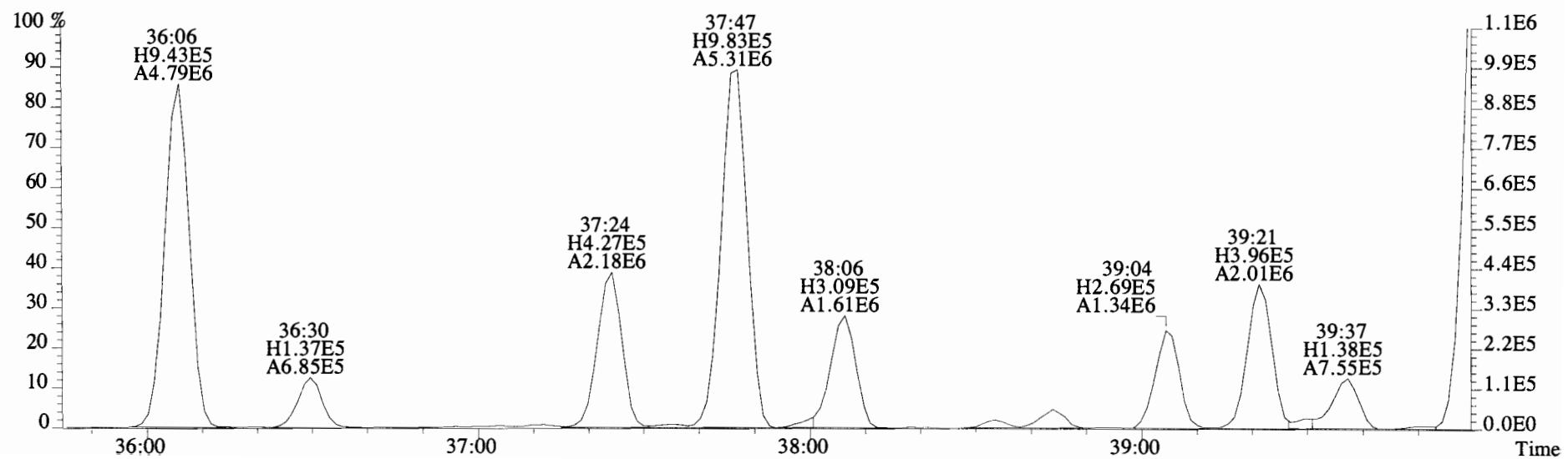
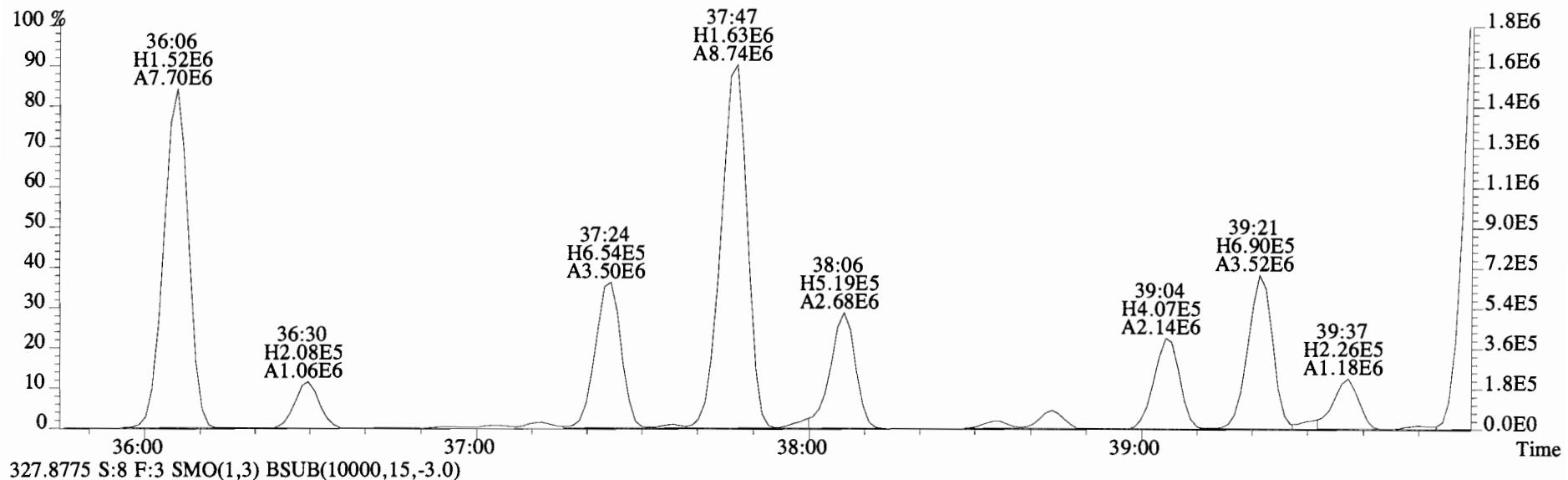
File:140919E1 #1-770 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
337.9207 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2476.0,0.00%,F,F)



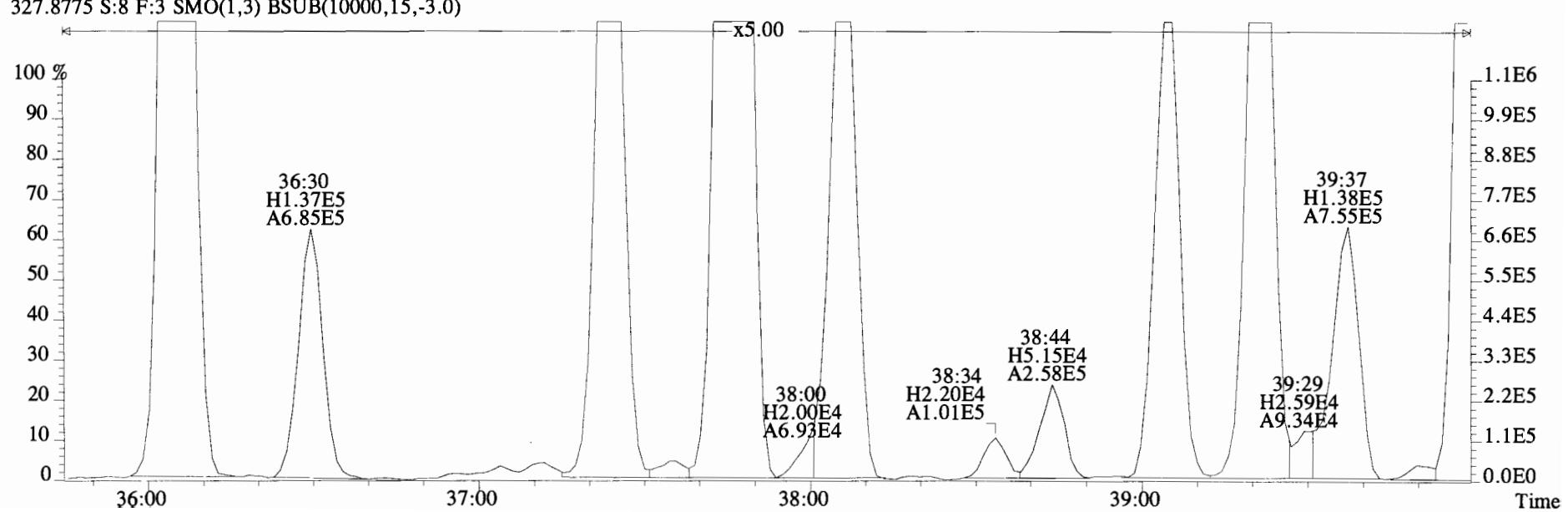
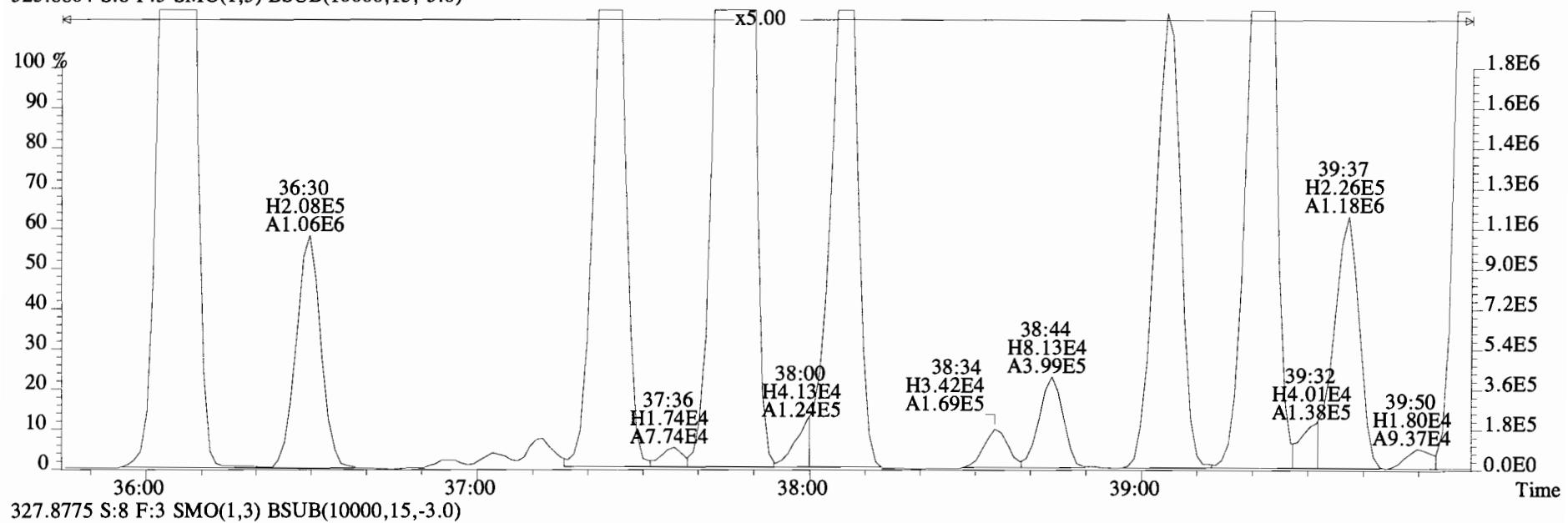
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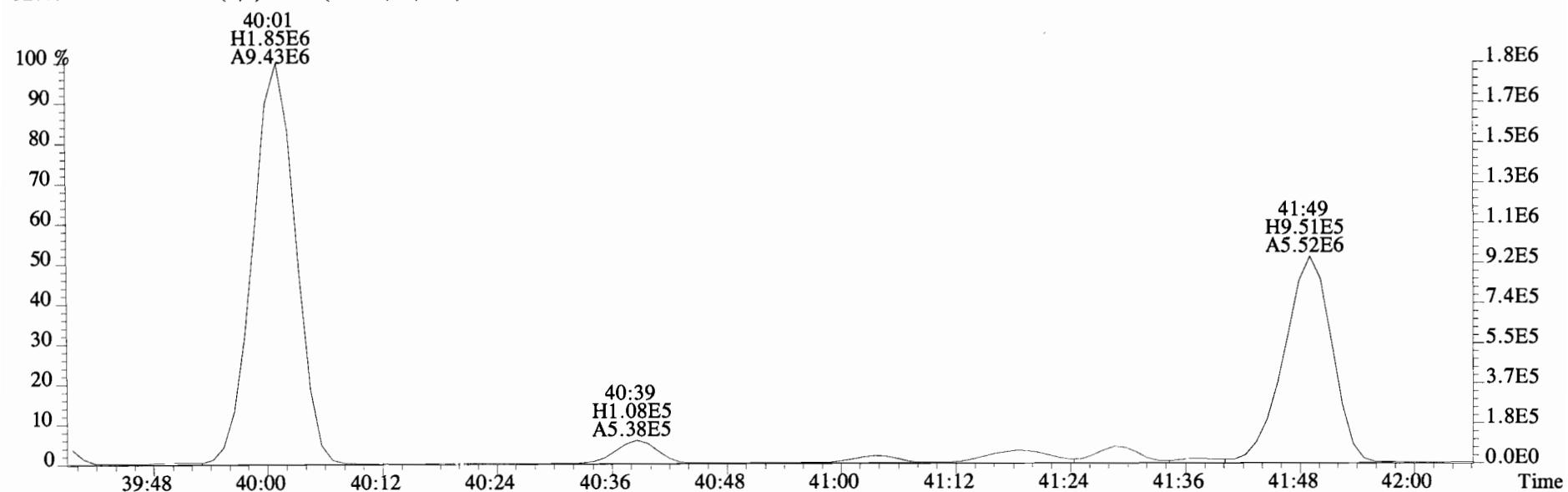
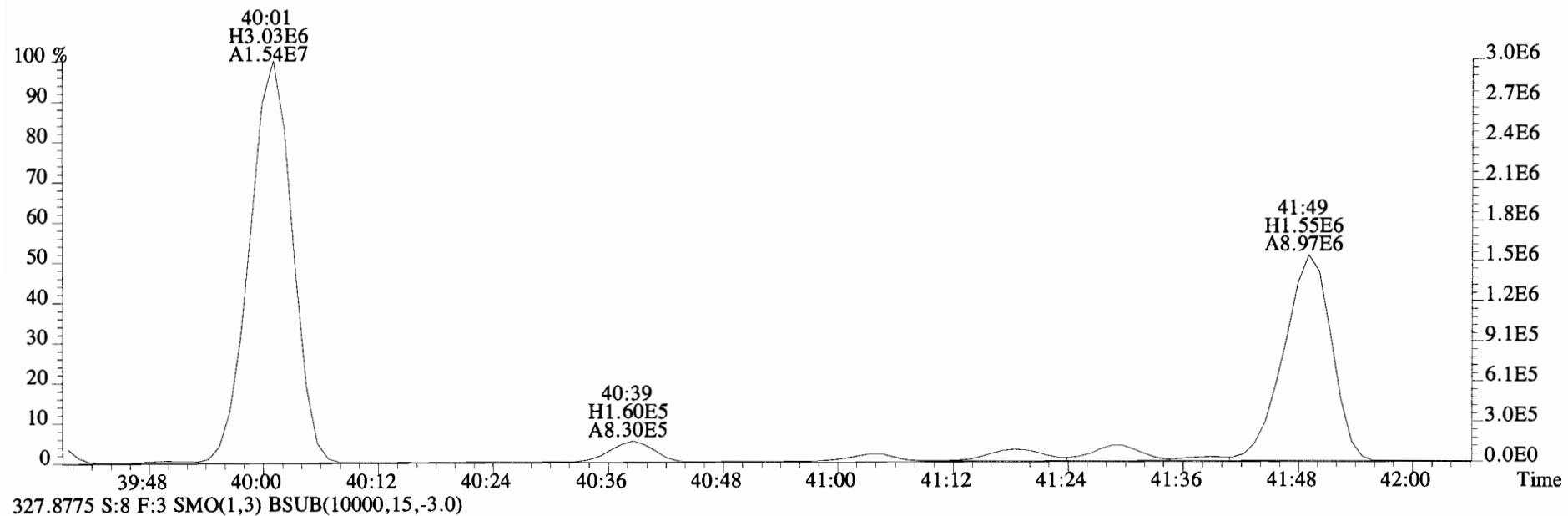
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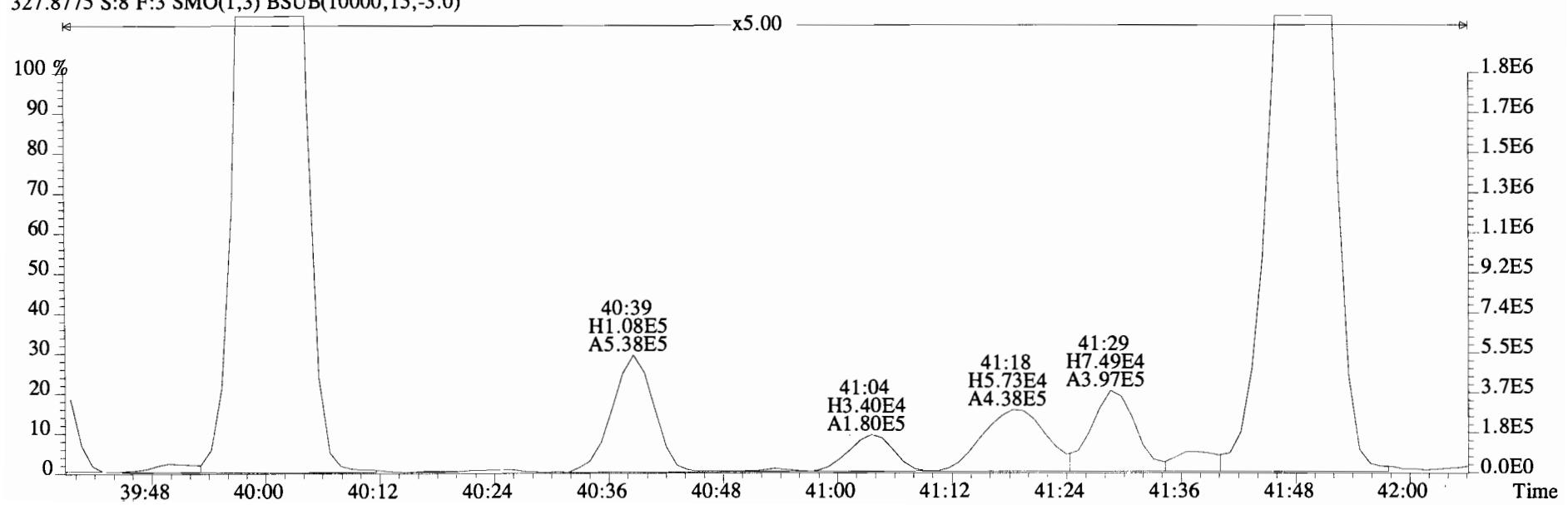
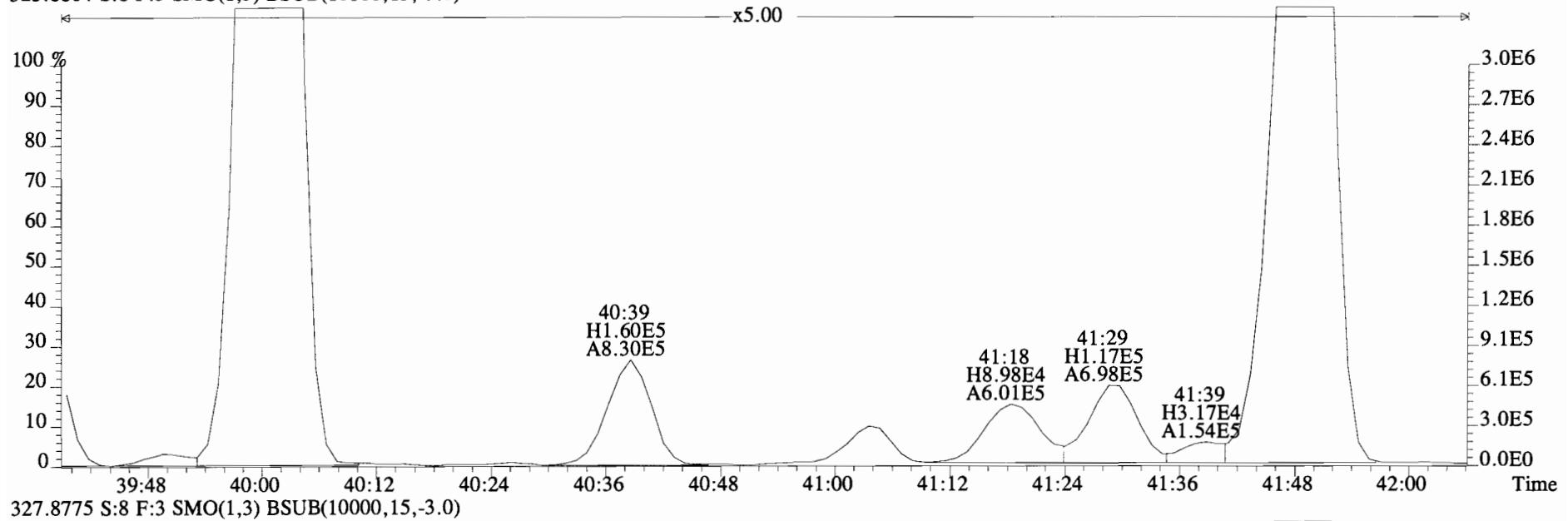
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0)



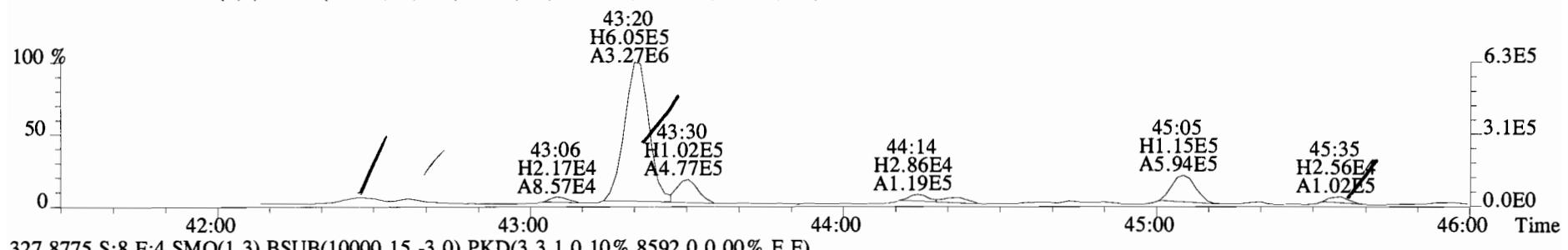
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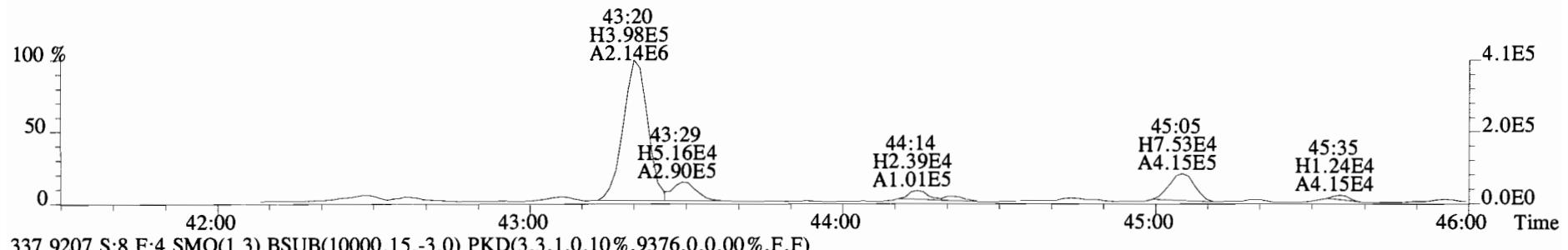
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0)



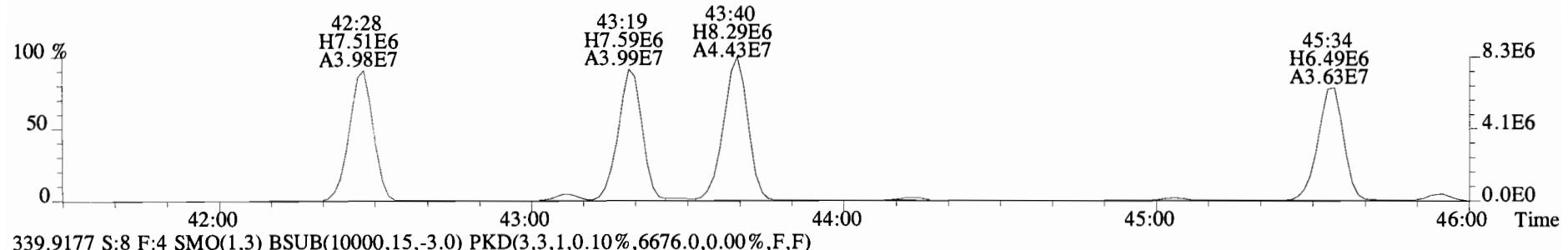
File:140919E1 #1-544 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
 325.8804 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15816.0,0.00%,F,F)



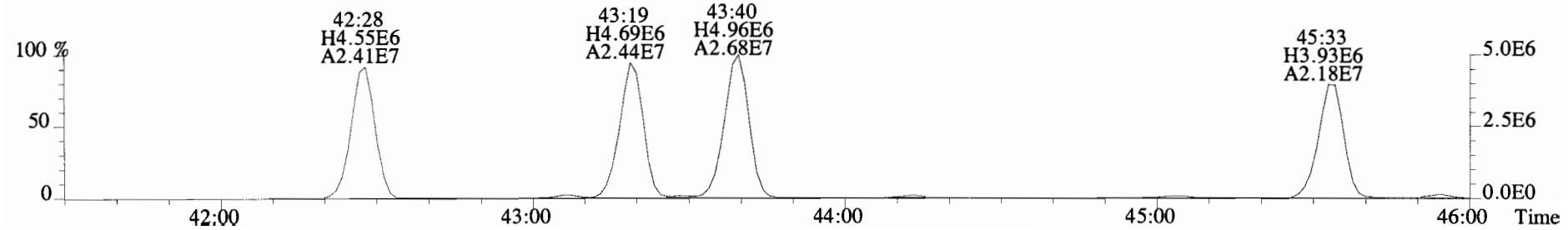
327.8775 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8592.0,0.00%,F,F)



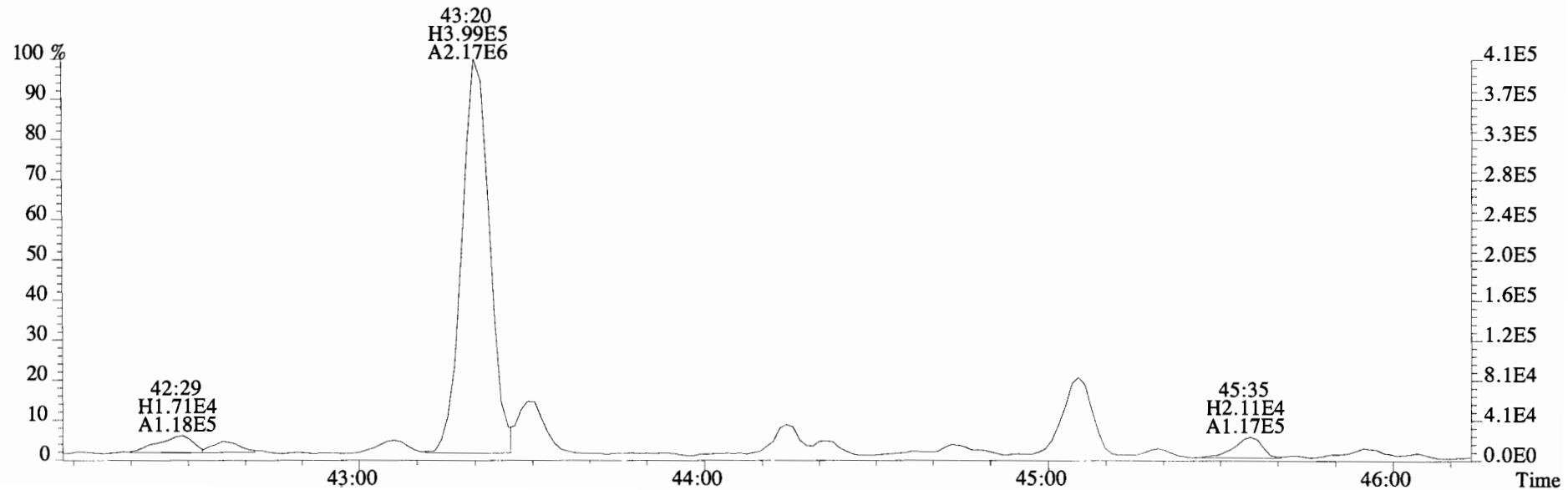
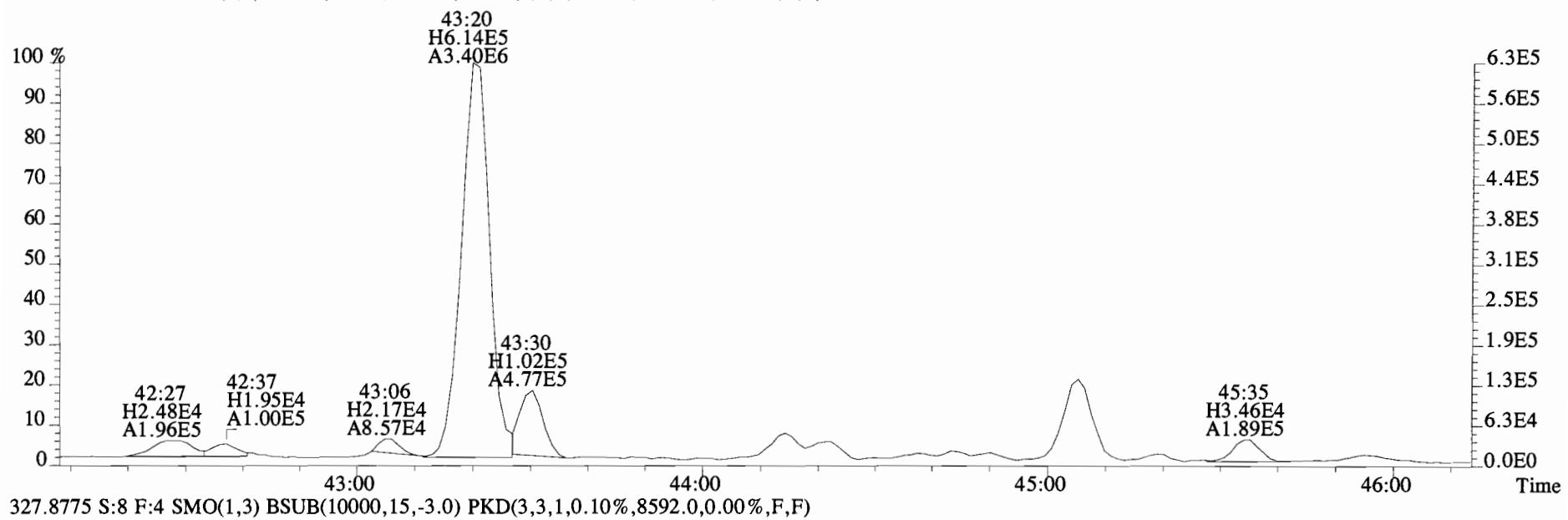
337.9207 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9376.0,0.00%,F,F)



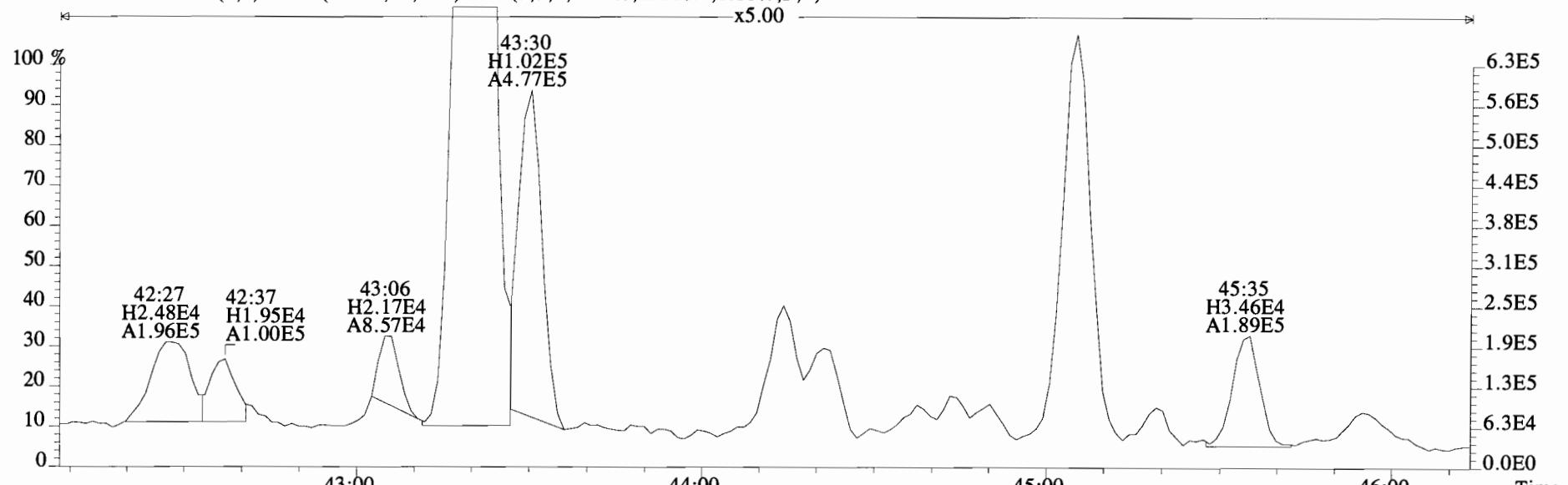
339.9177 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6676.0,0.00%,F,F)



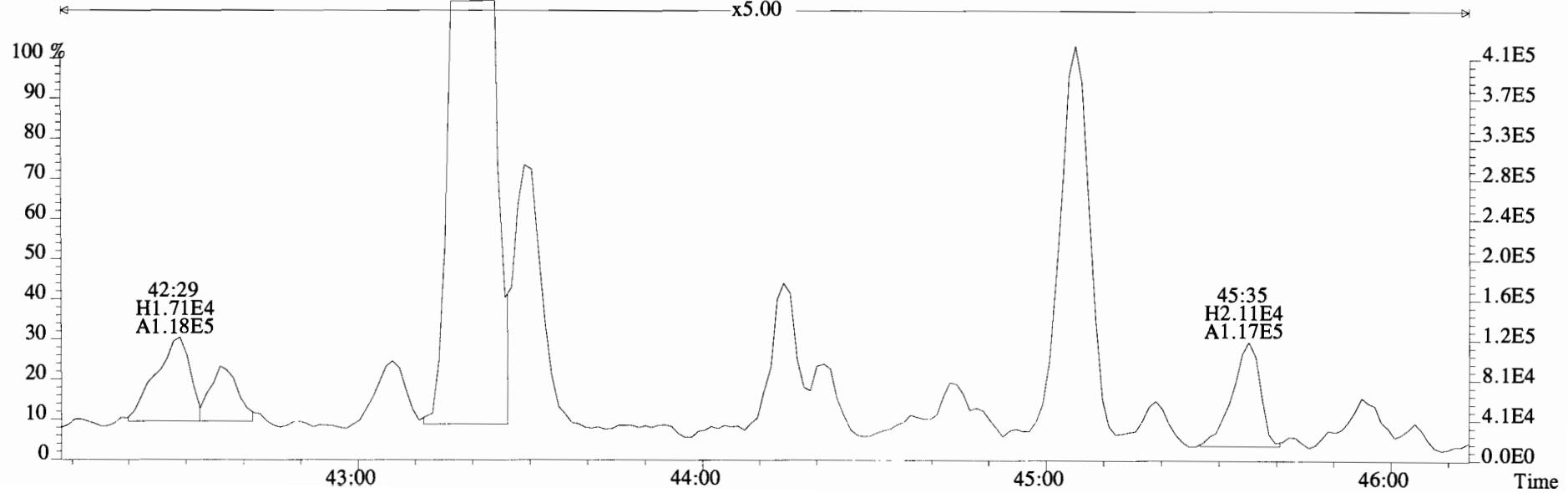
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
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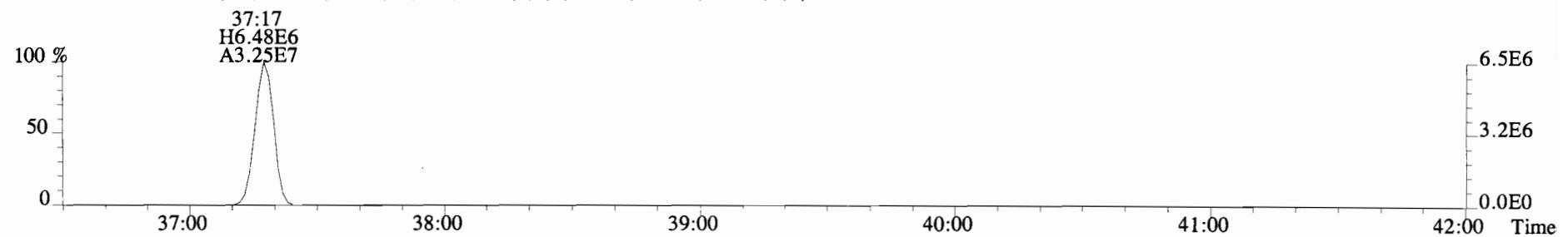
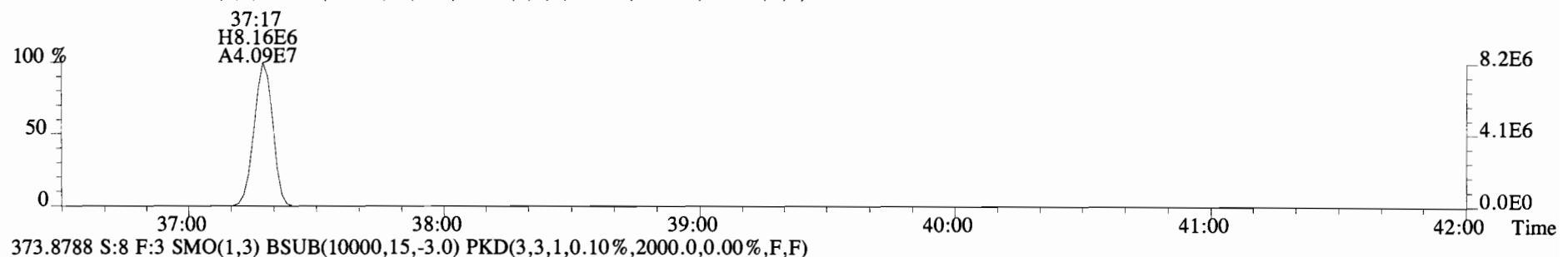
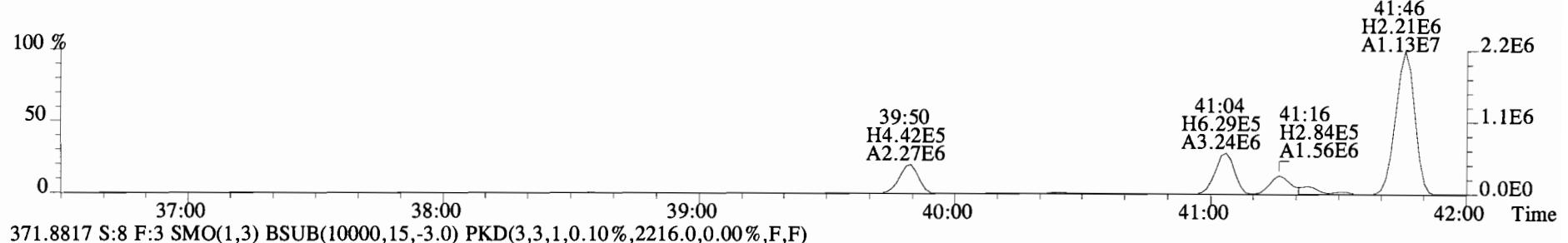
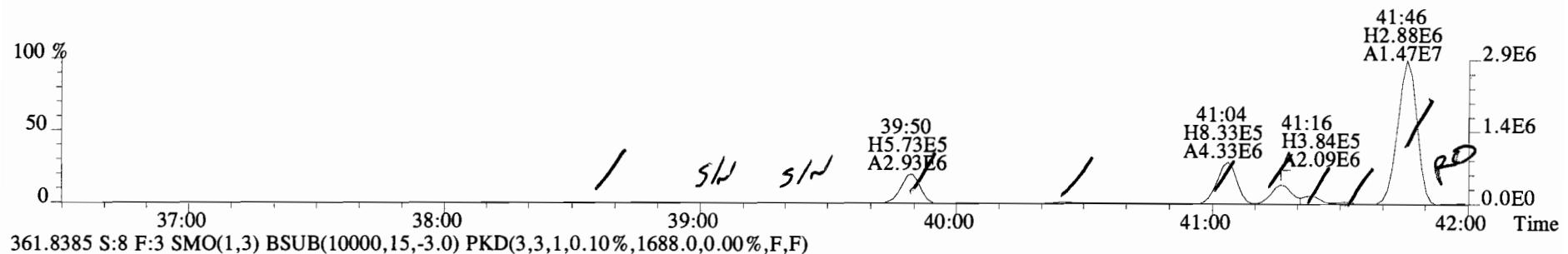
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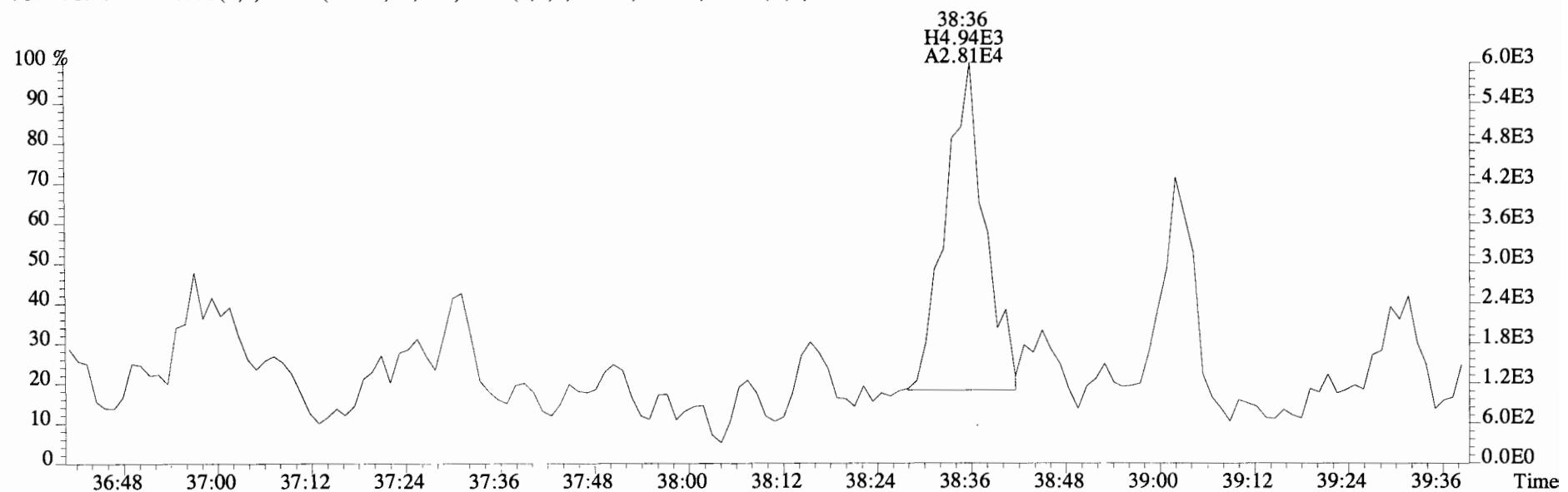
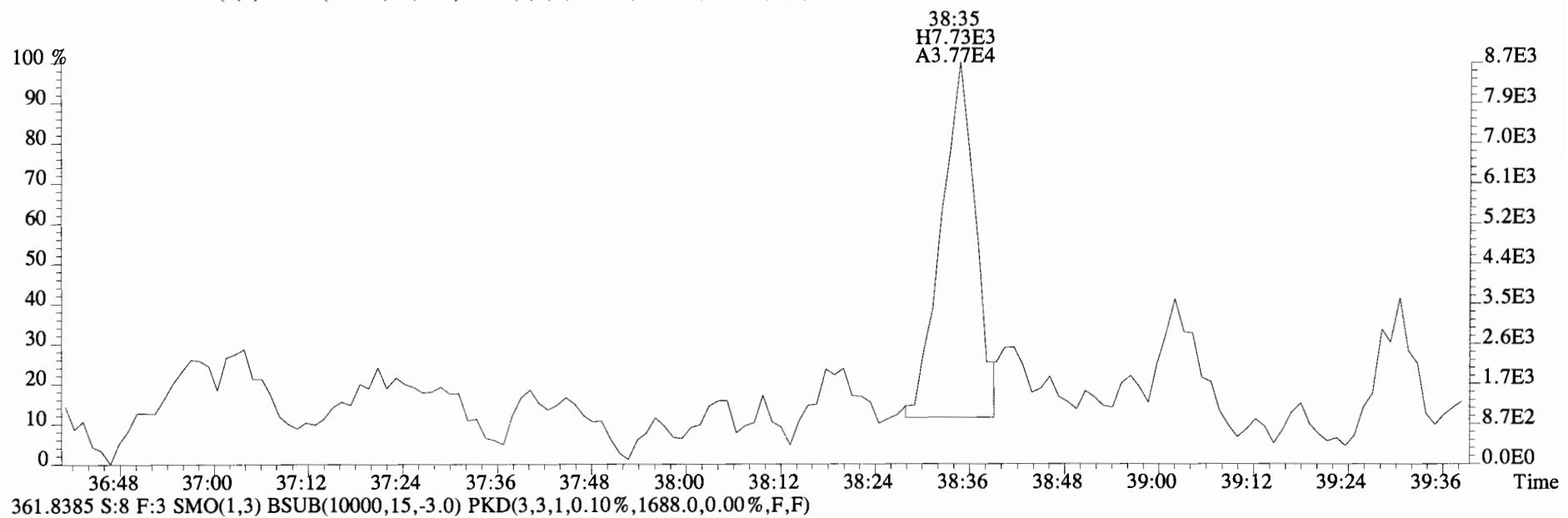
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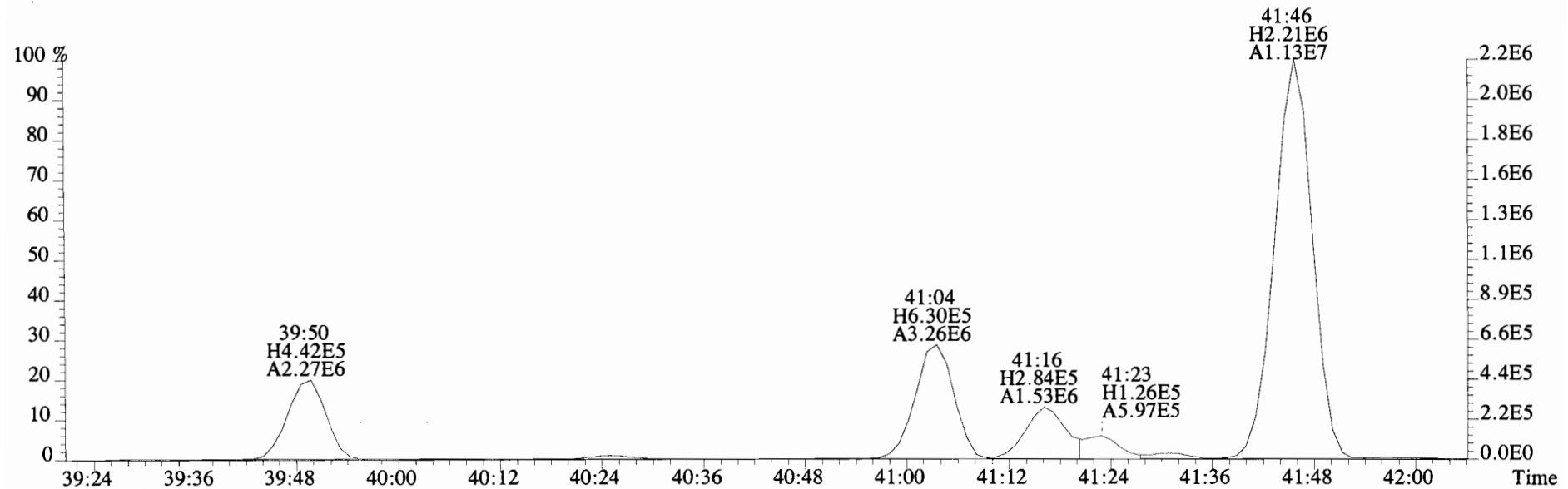
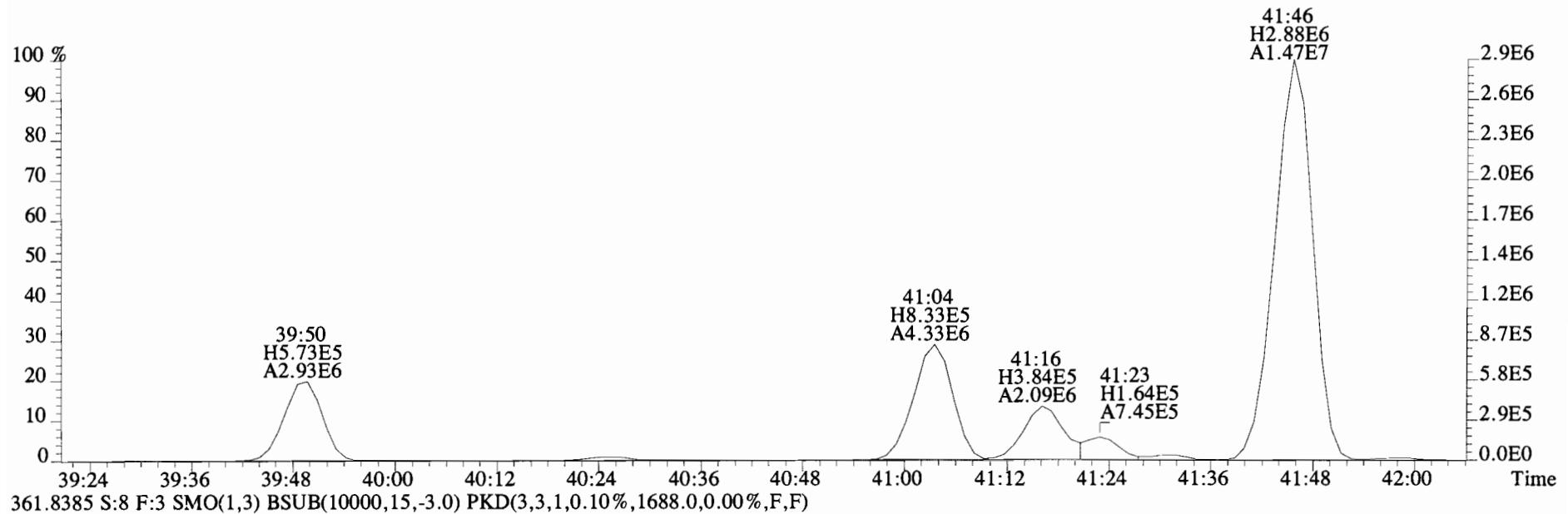
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
359.8415 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1688.0,0.00%,F,F)



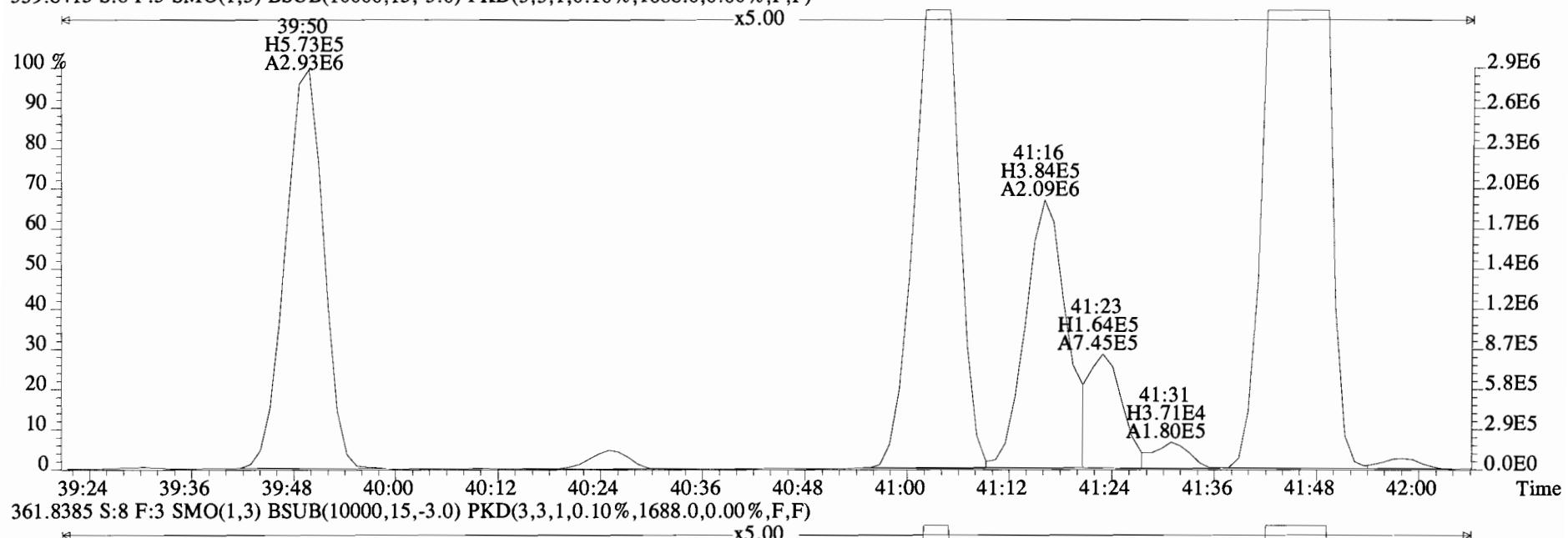
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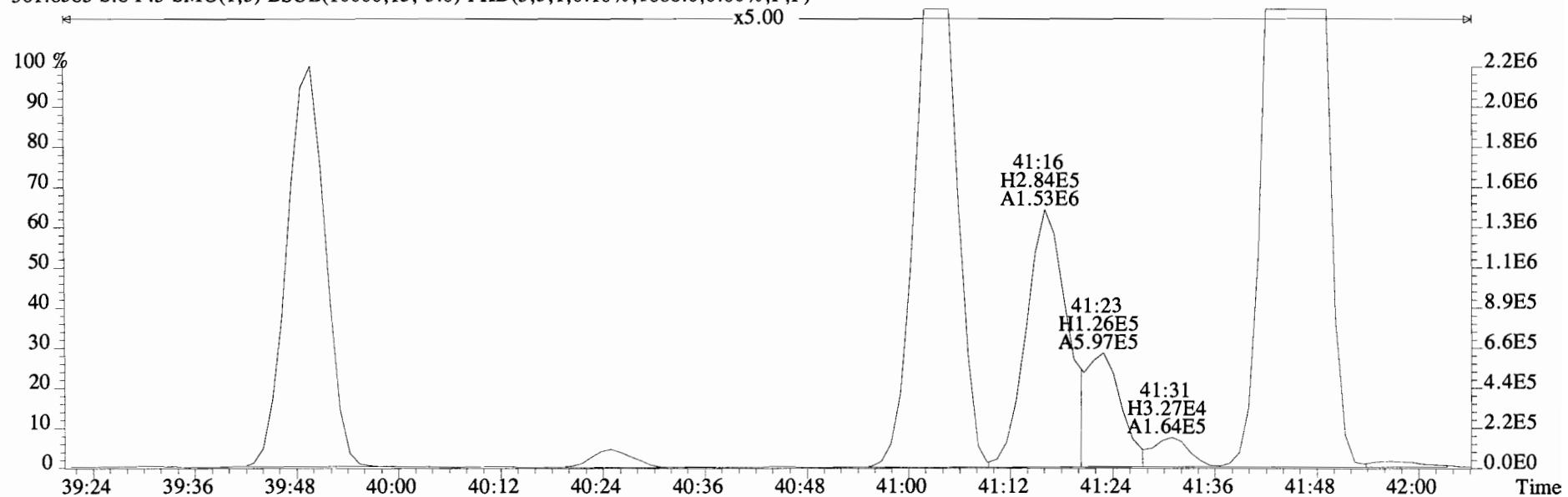
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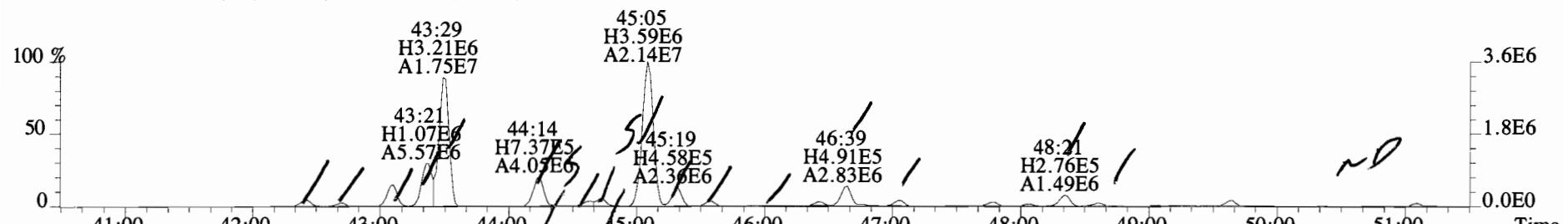
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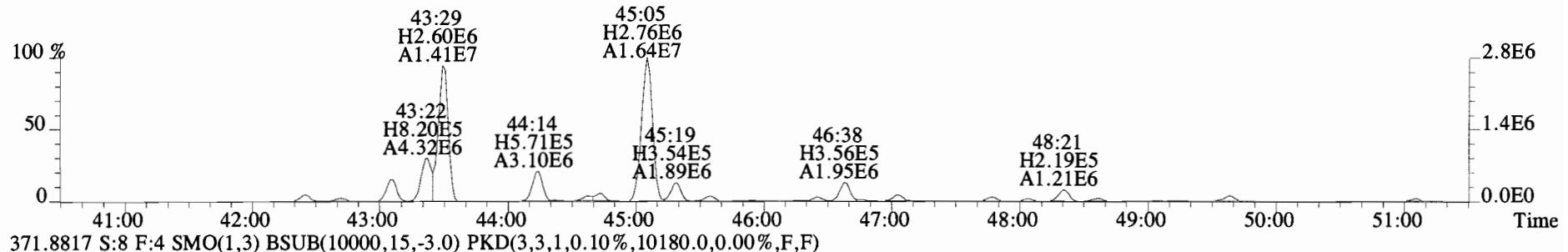
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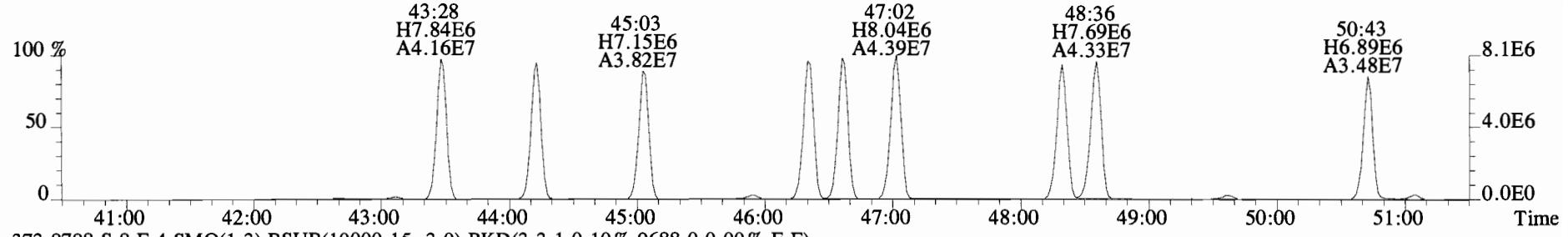
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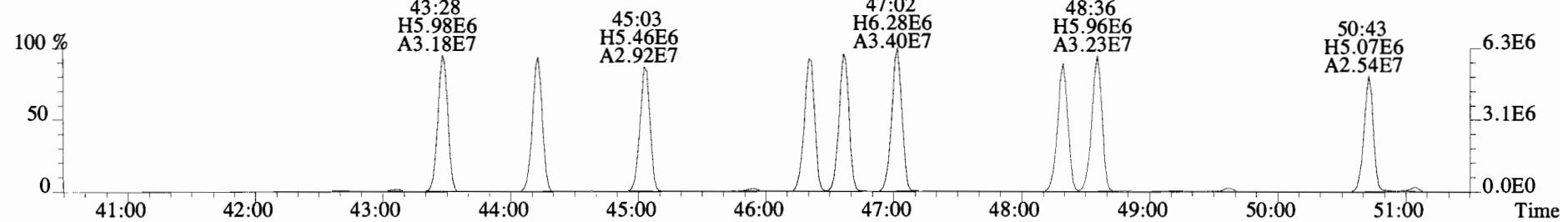
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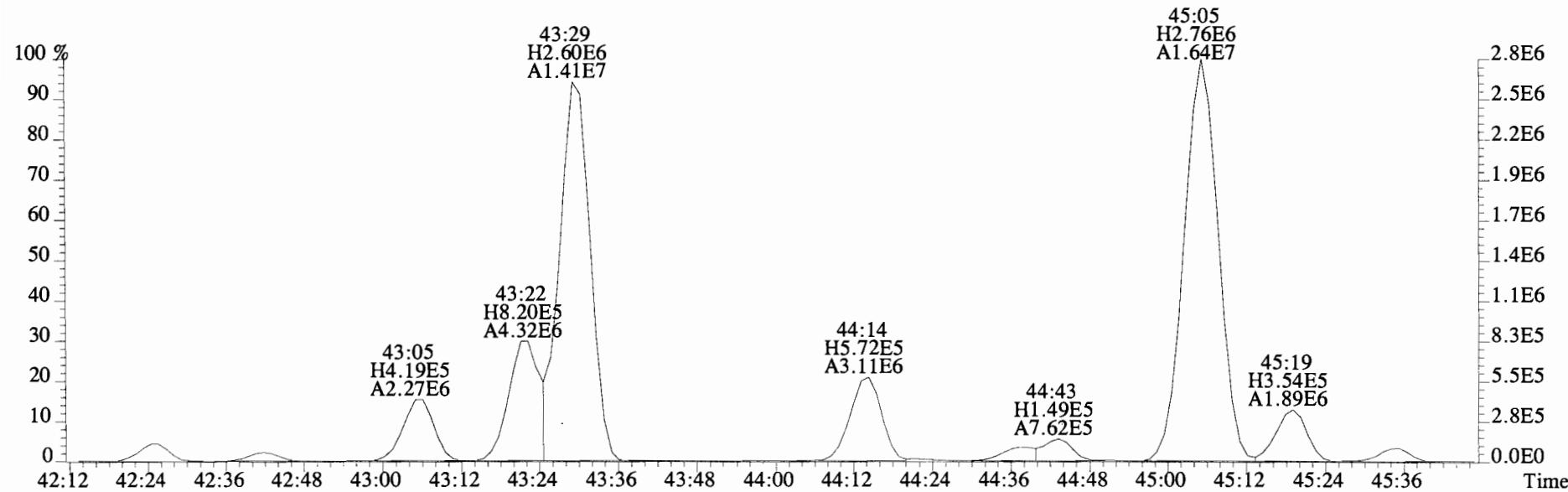
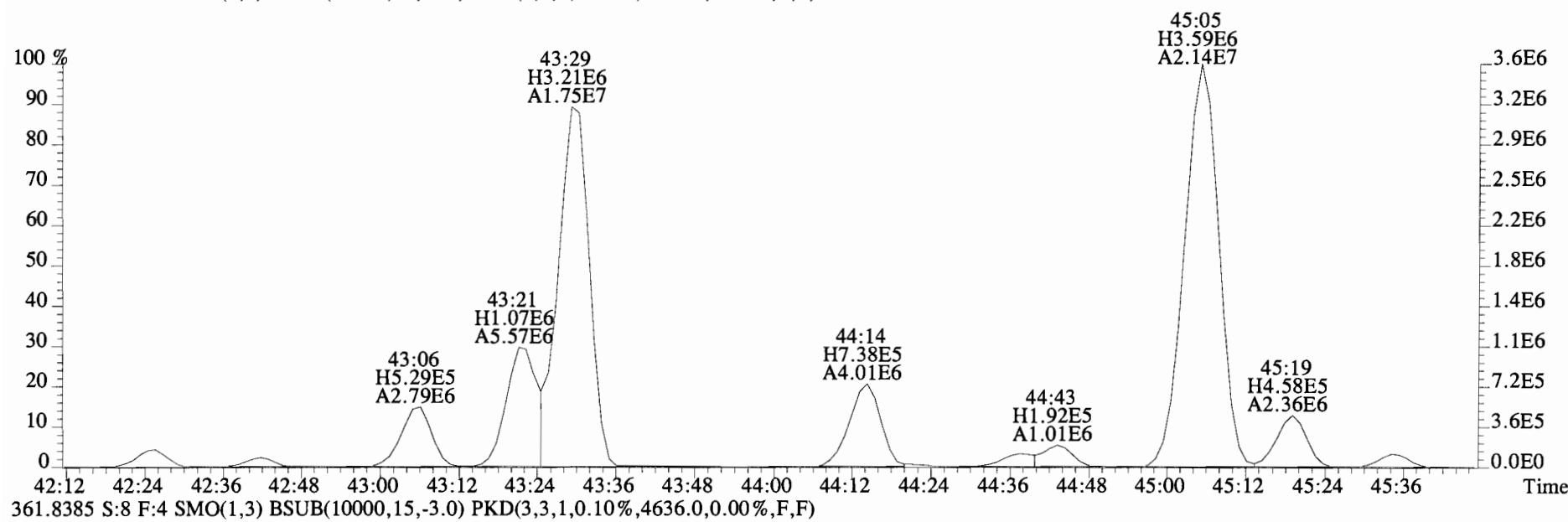
371.8817 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10180.0,0.00%,F,F)



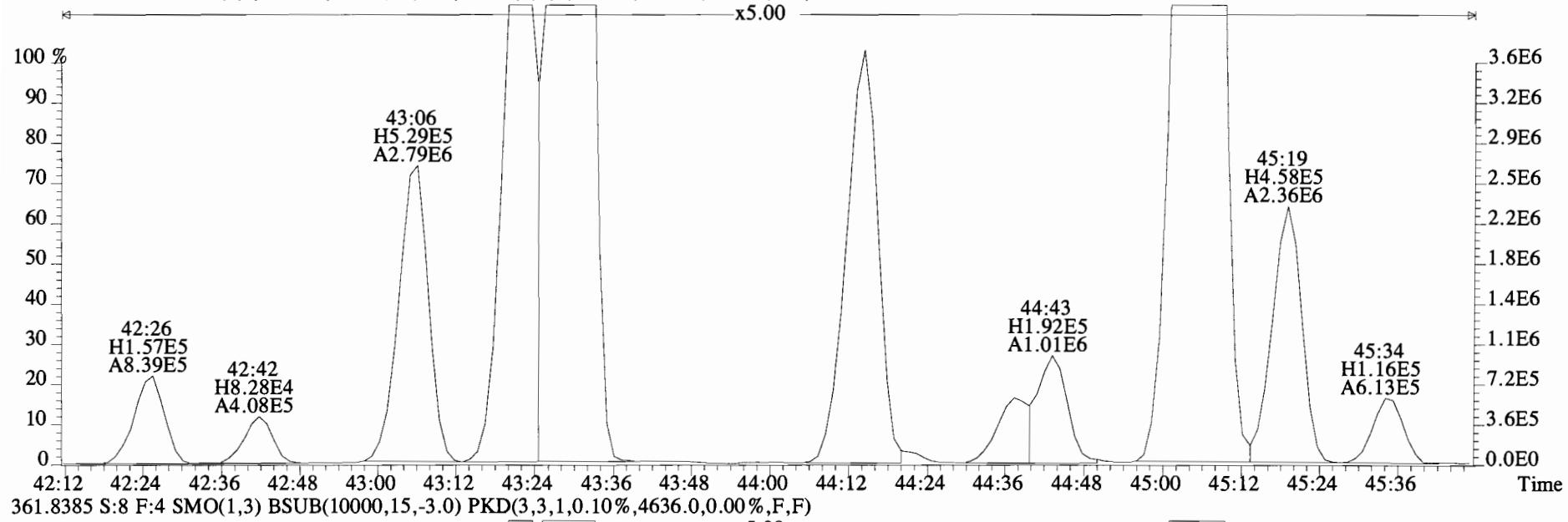
373.8788 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9688.0,0.00%,F,F)



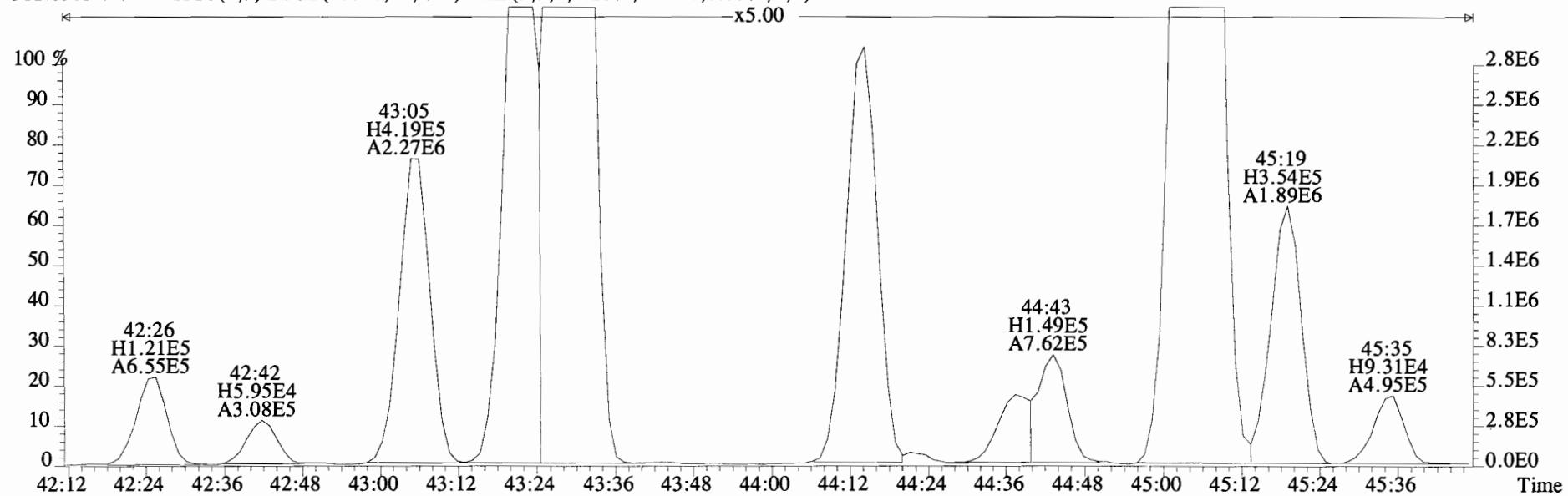
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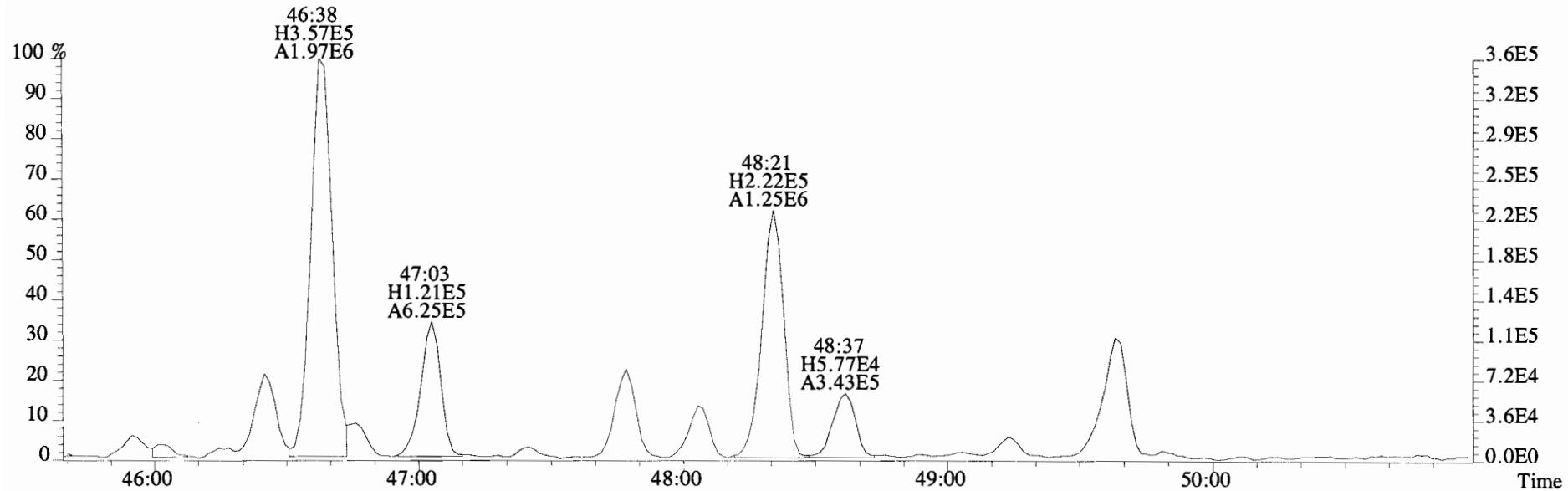
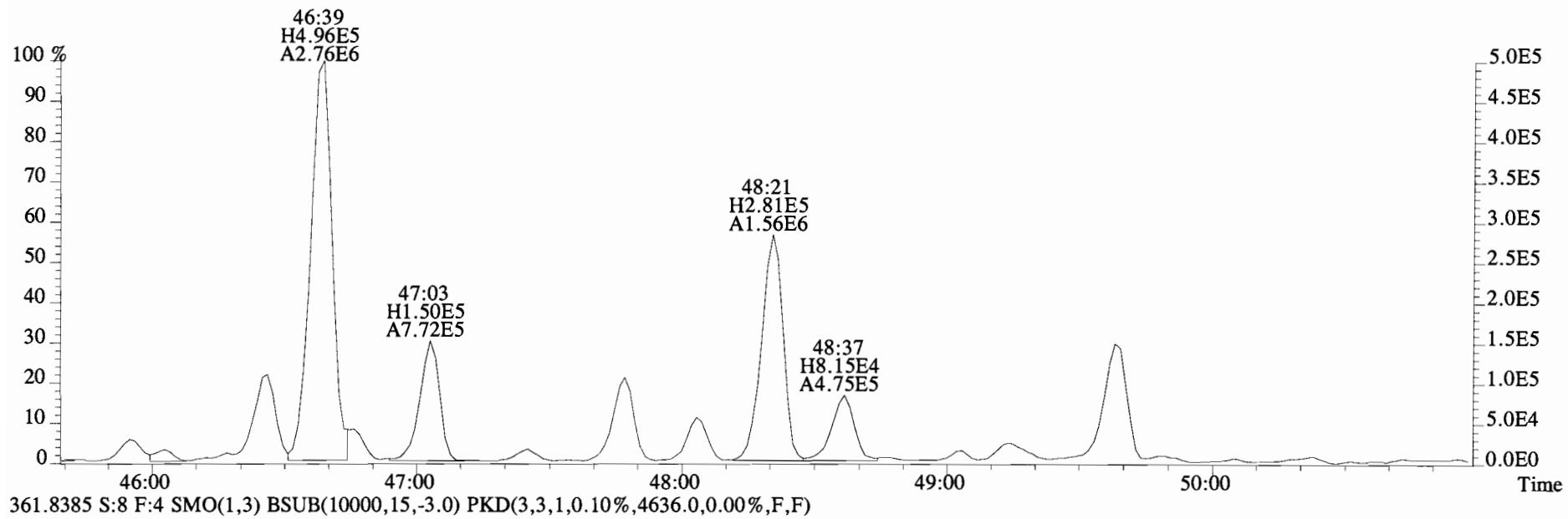
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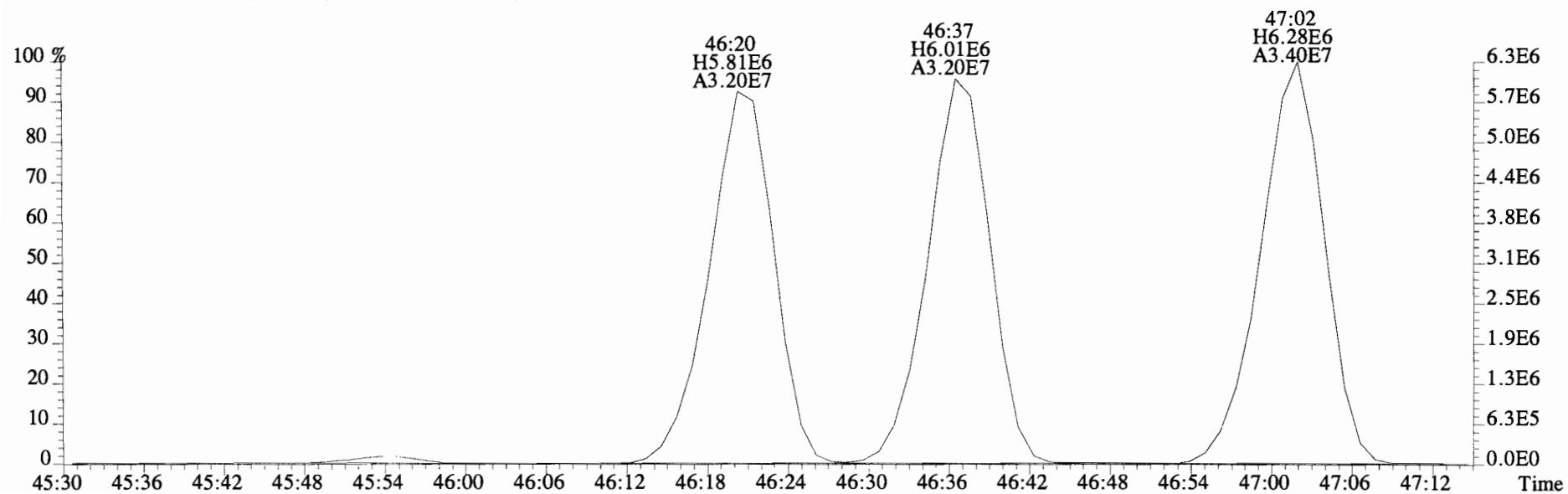
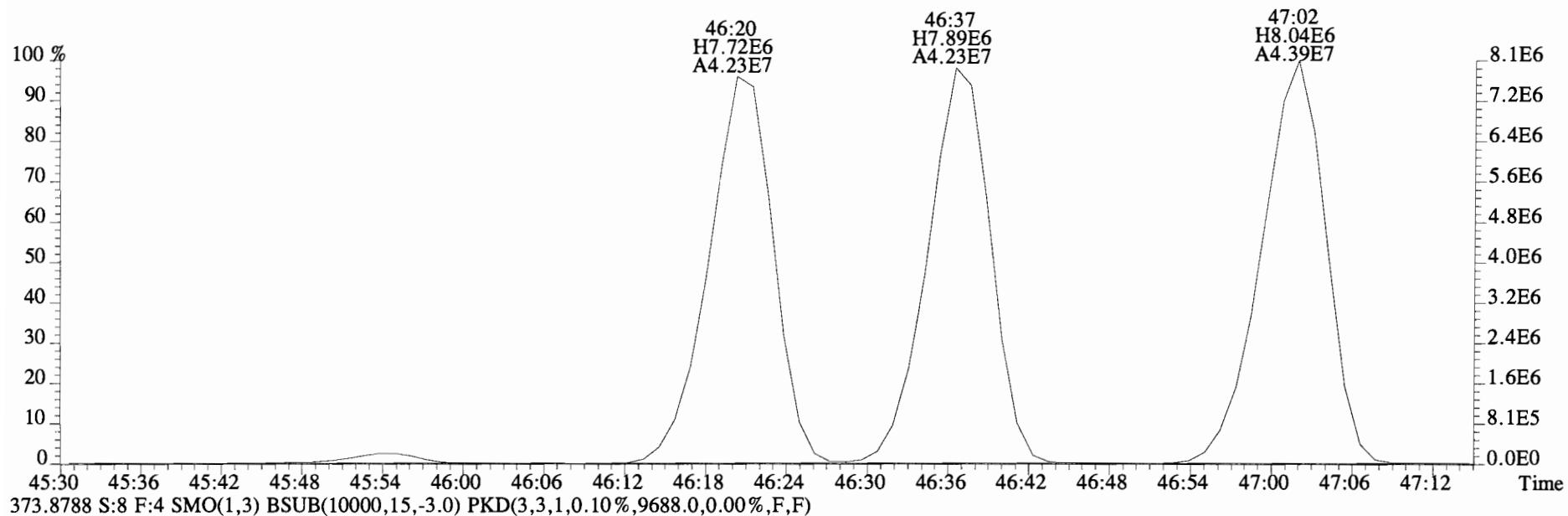
361.8385 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4636.0,0.00%,F,F)



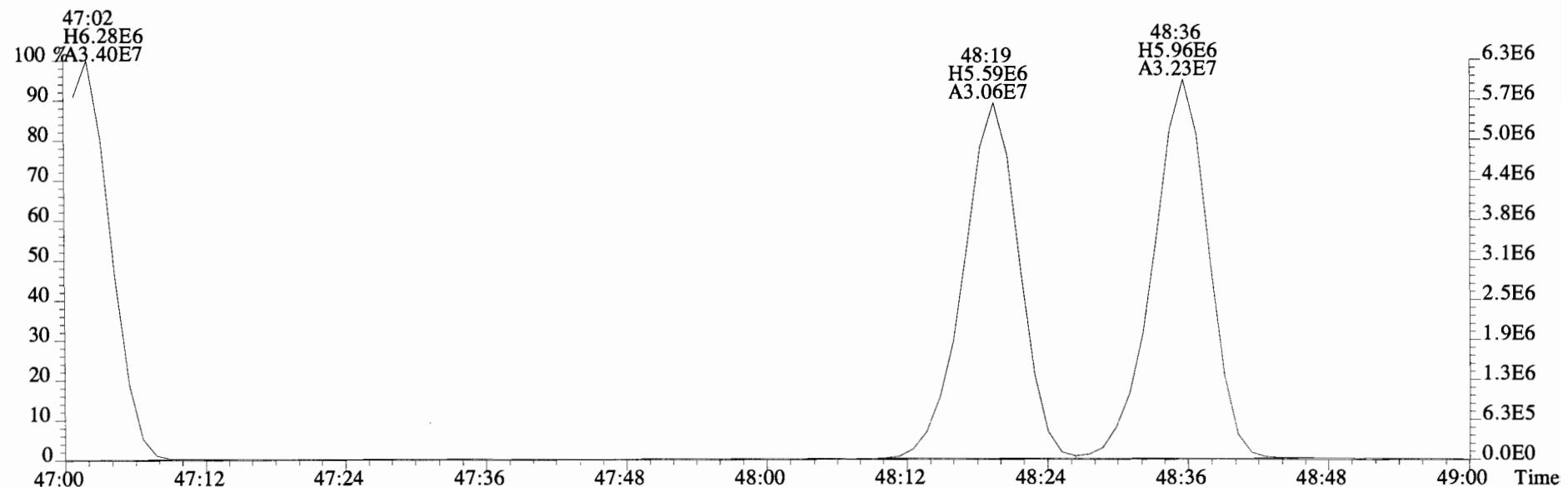
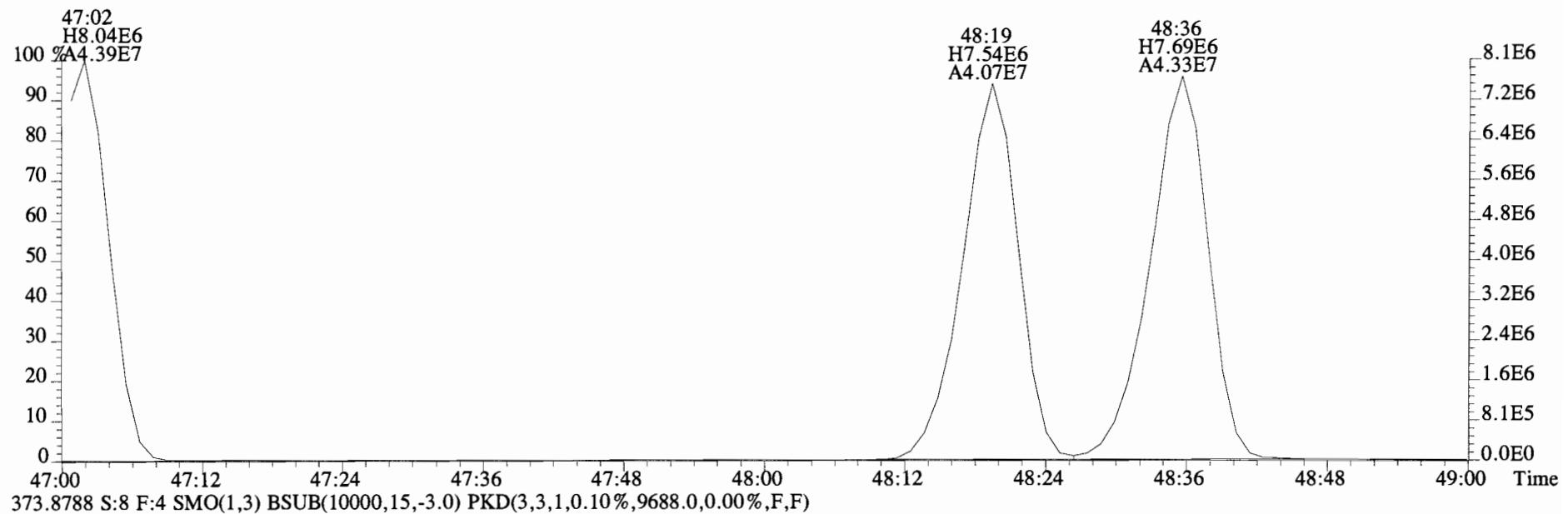
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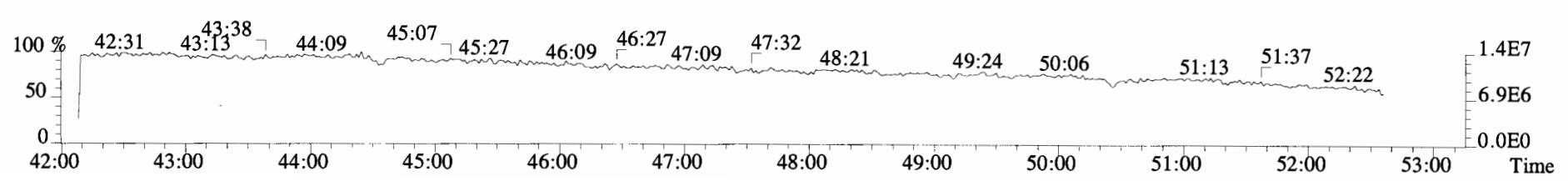
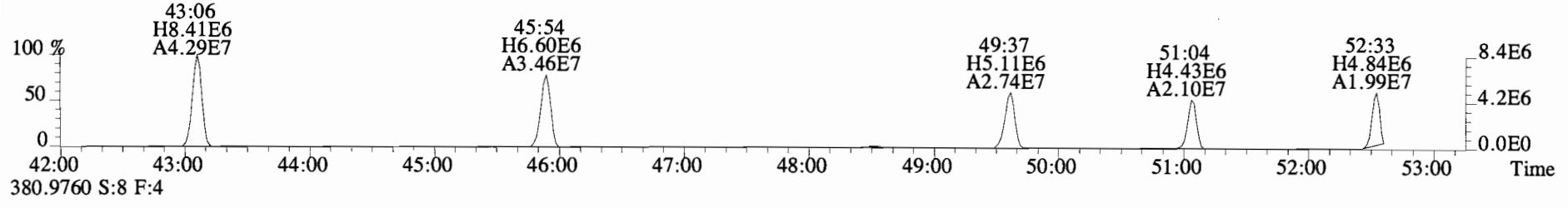
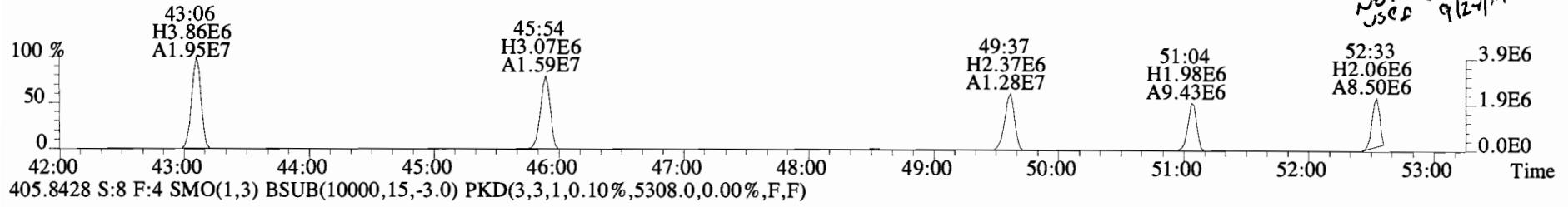
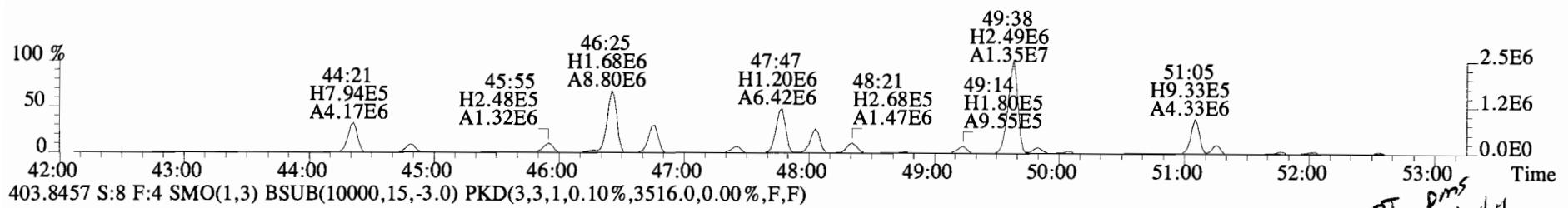
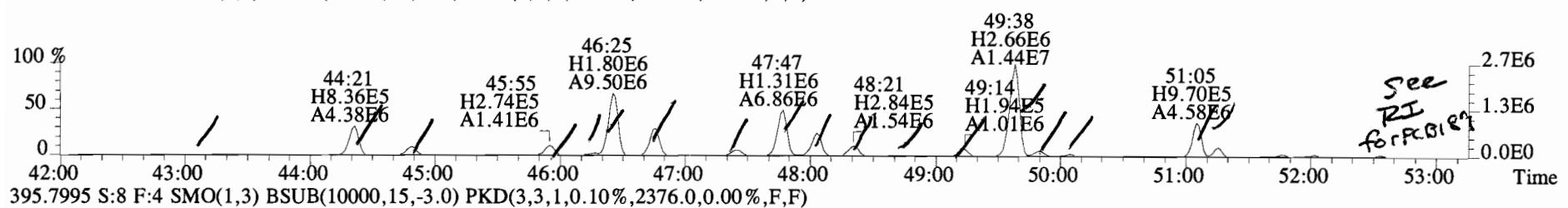
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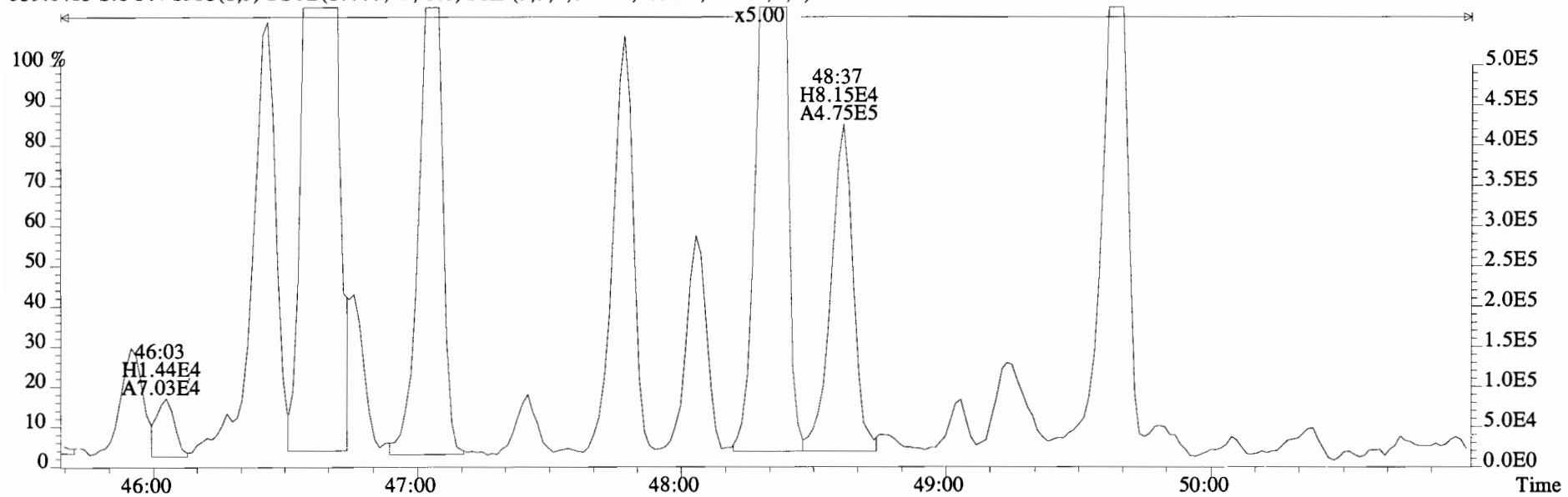
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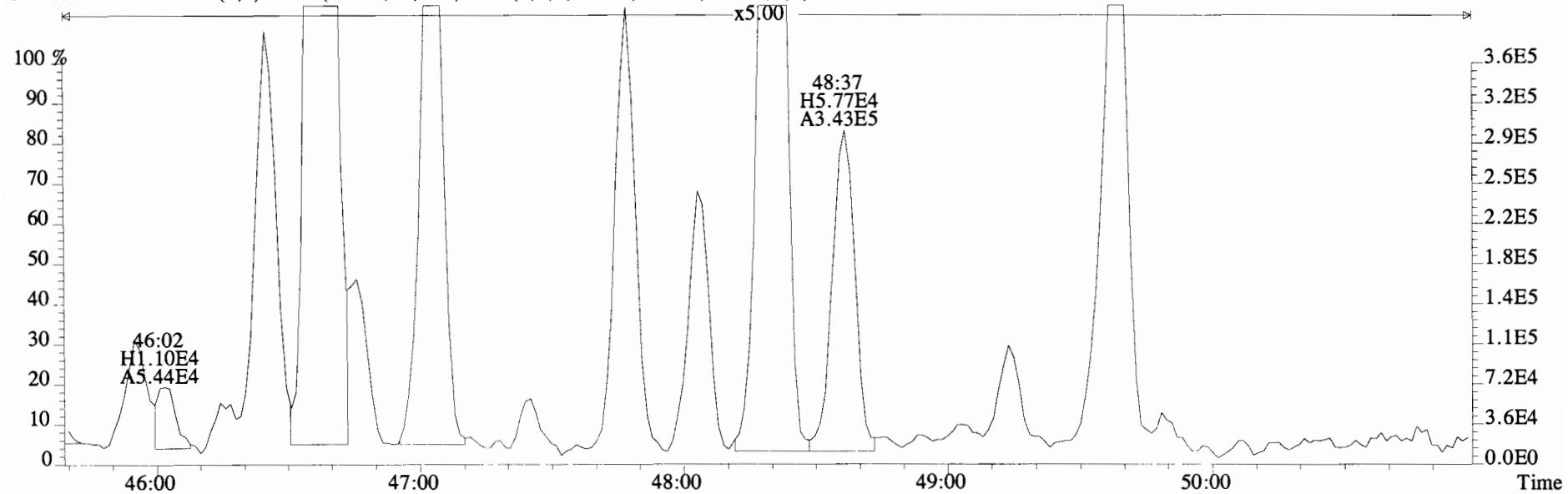
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 393.8025 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2824.0,0.00%,F,F)



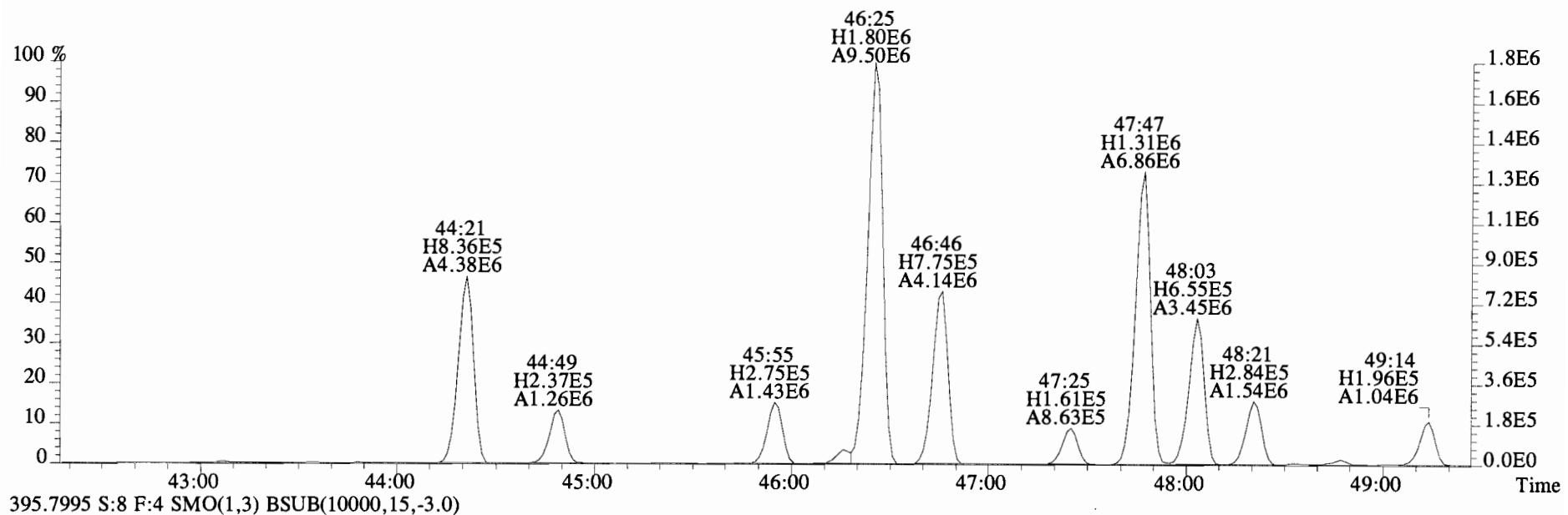
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
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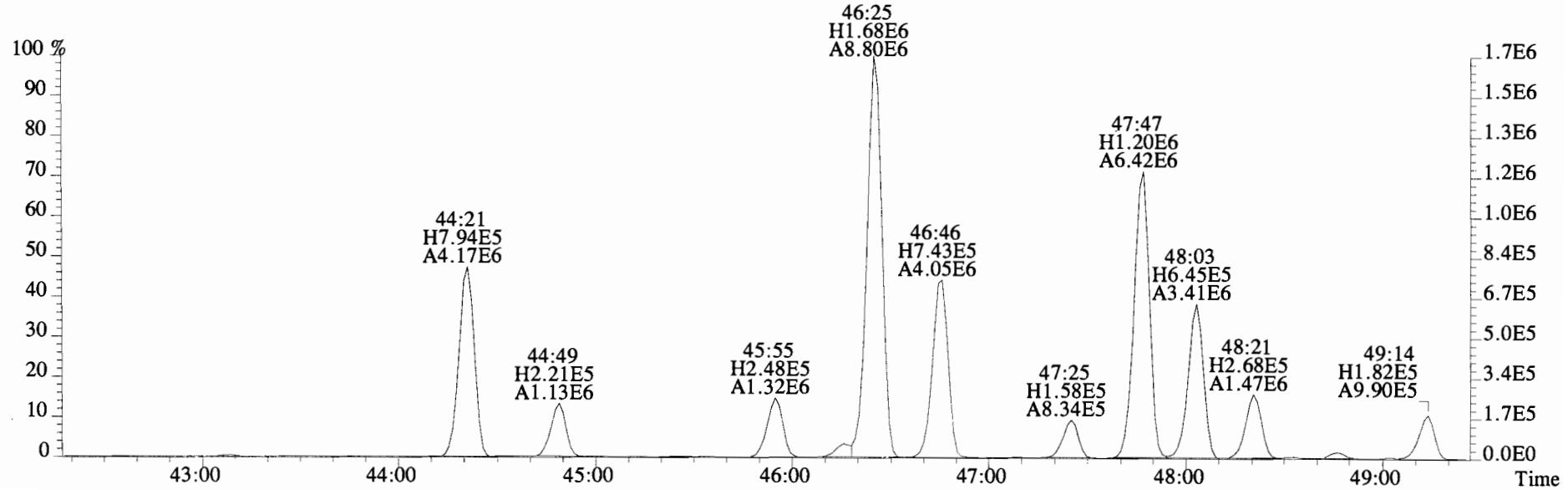
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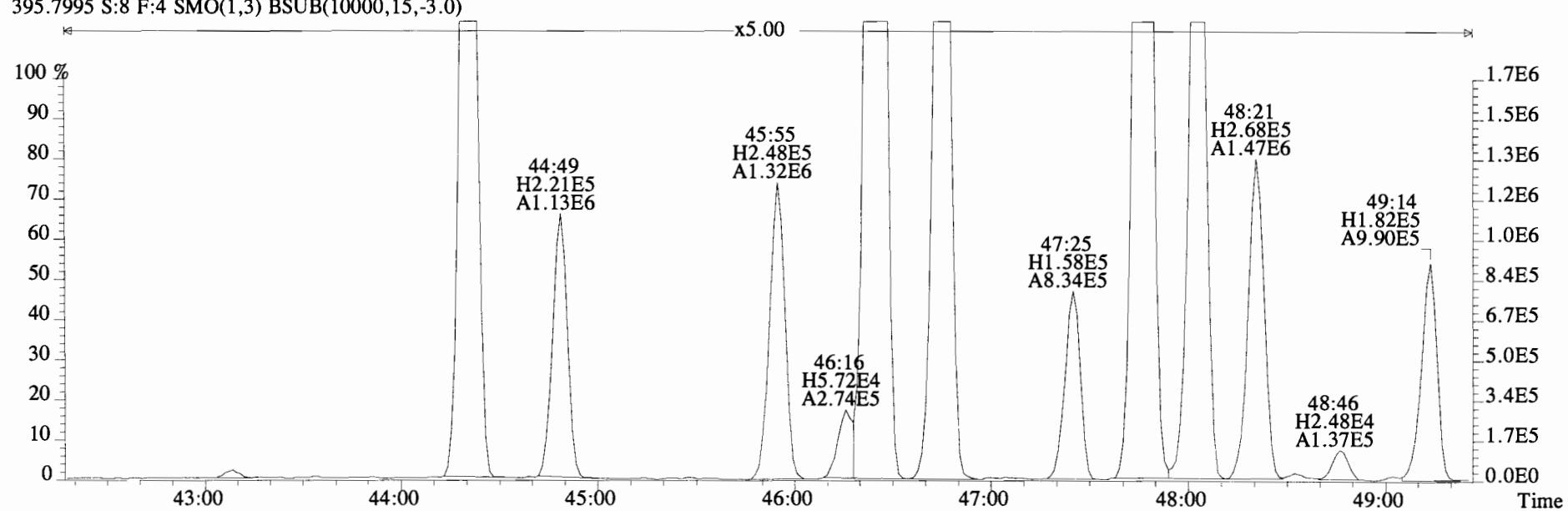
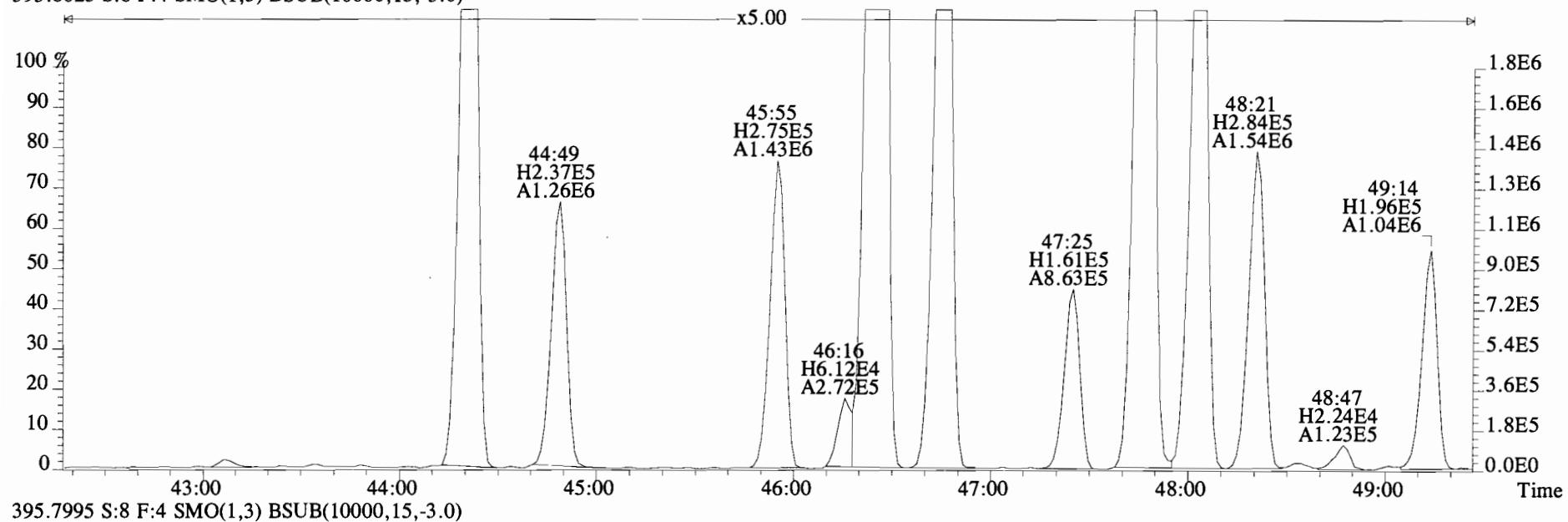
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
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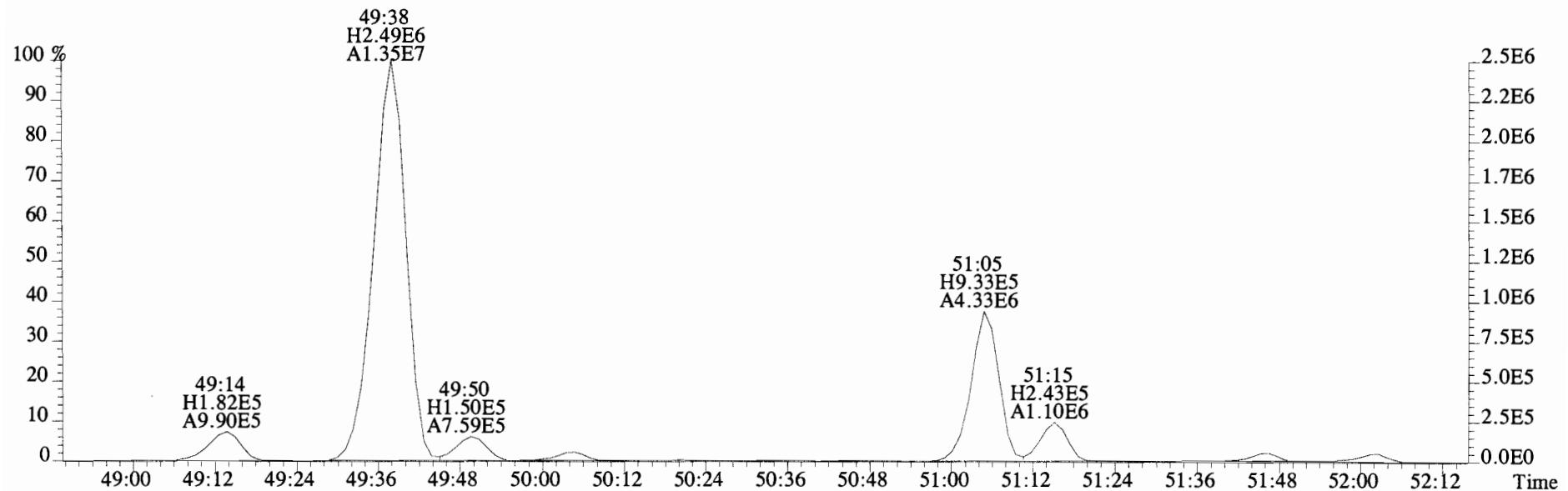
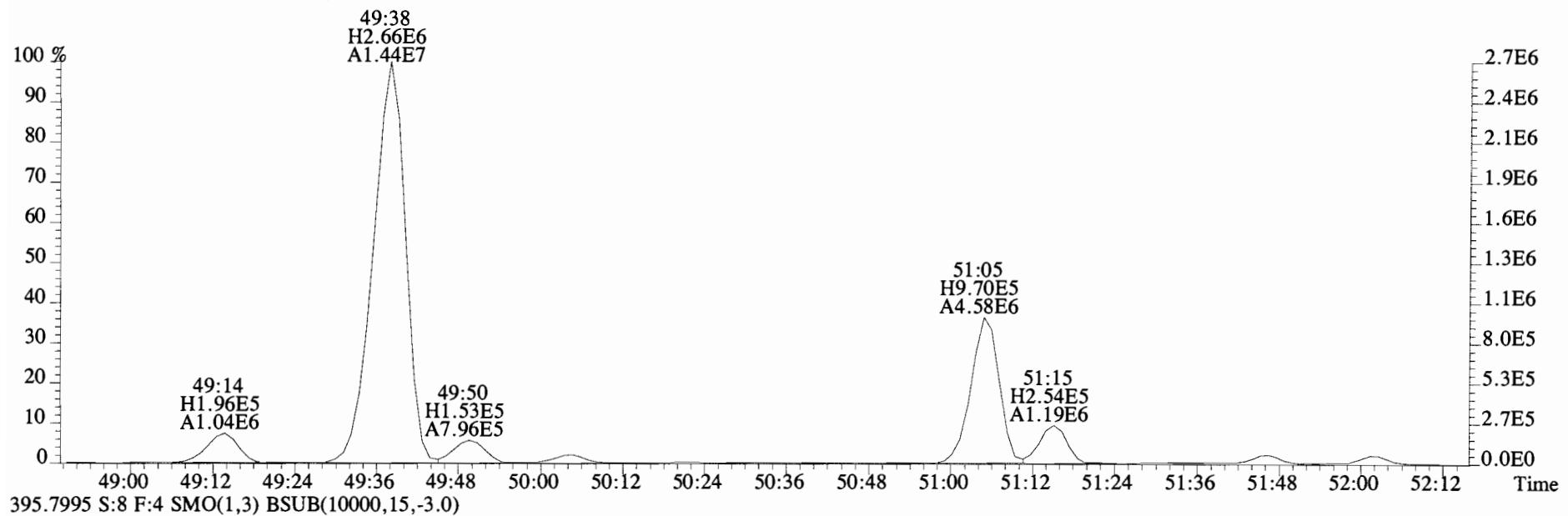
395.7995 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0)



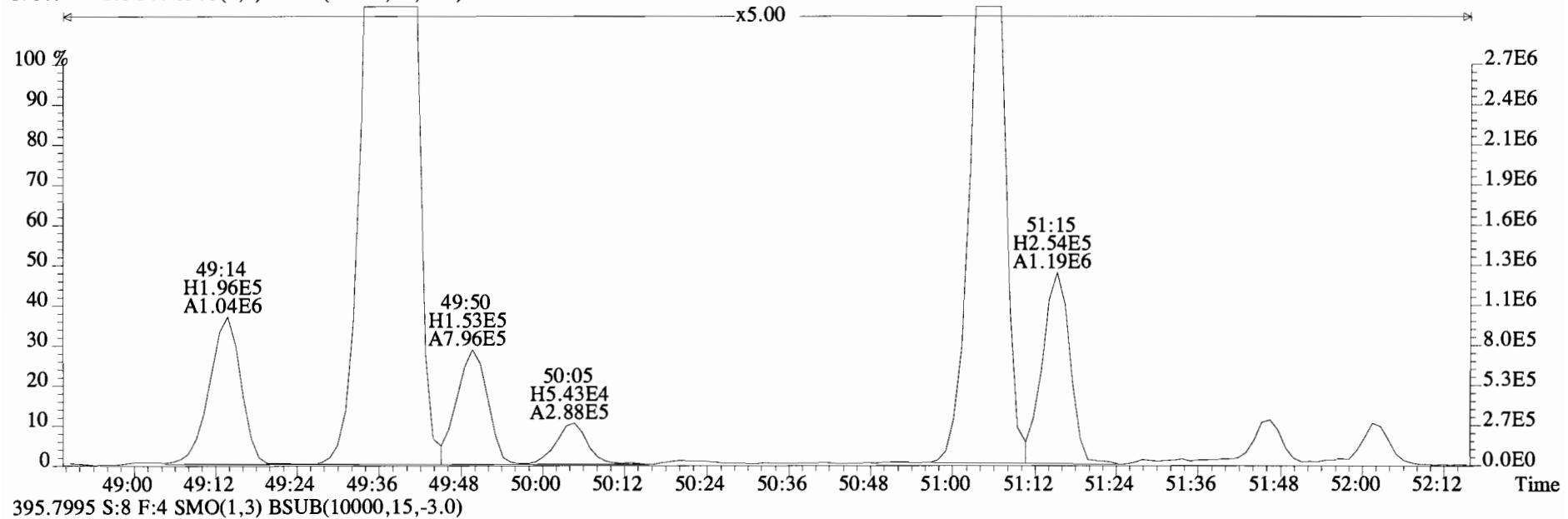
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
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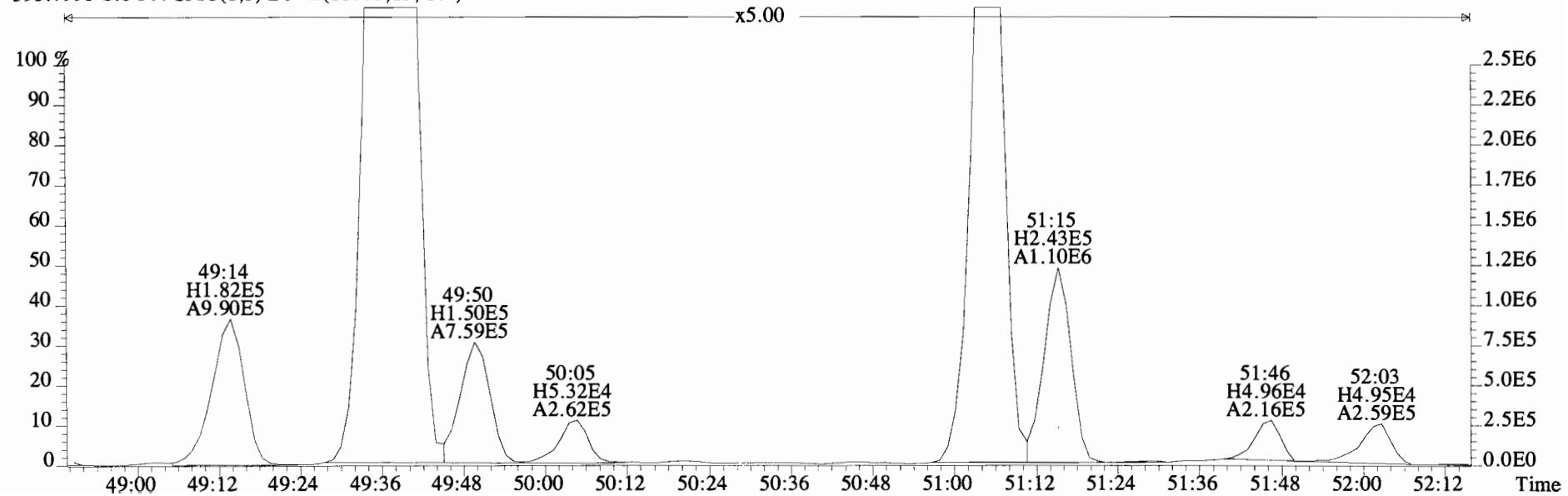
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393.8025 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0)



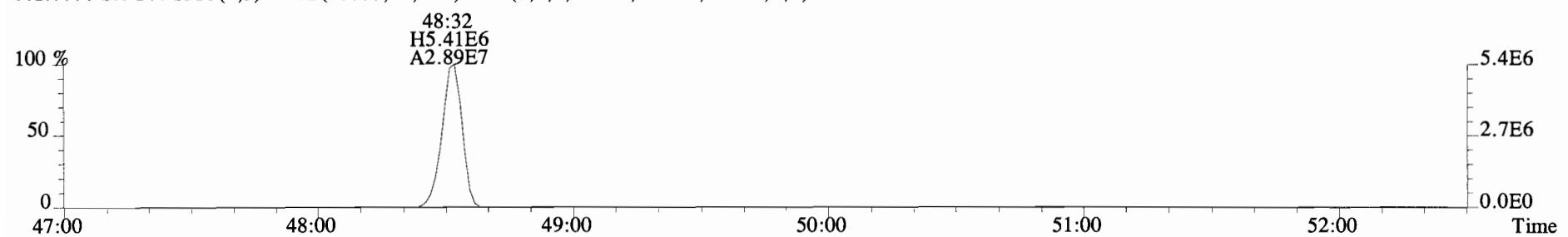
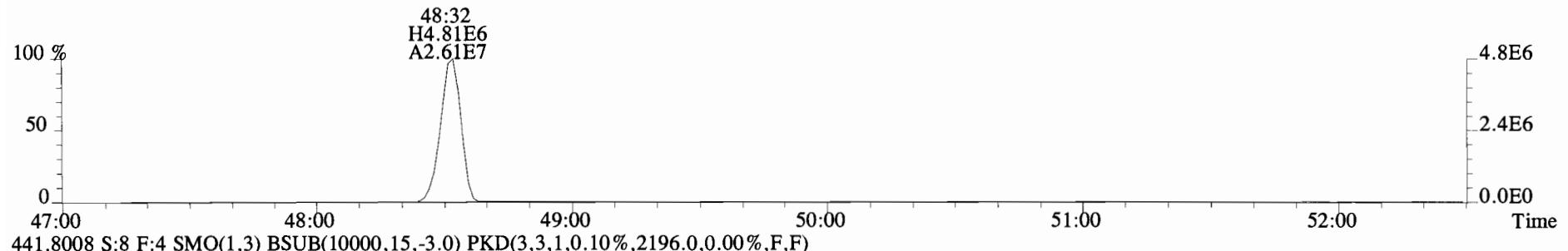
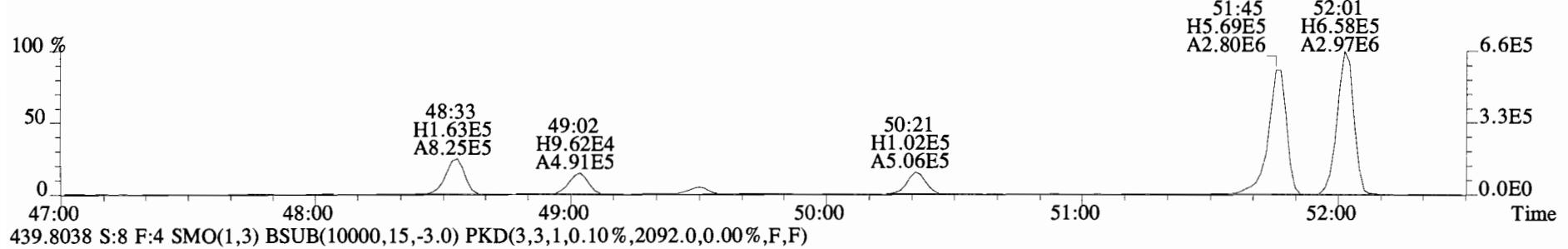
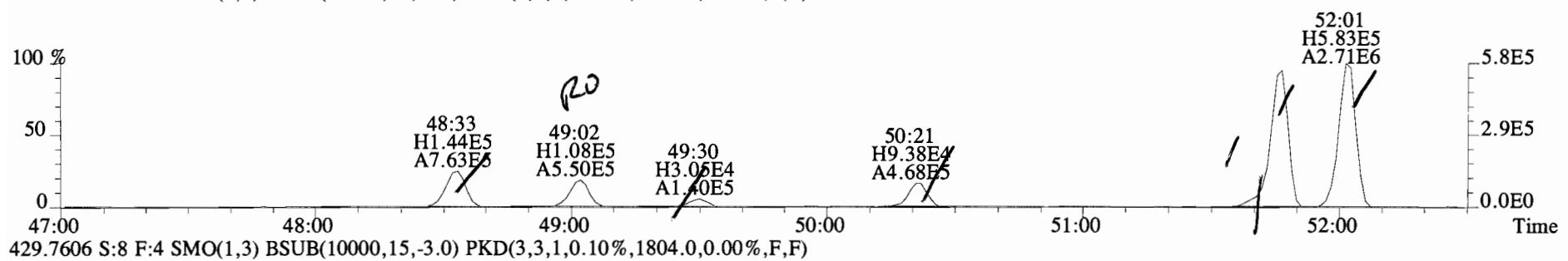
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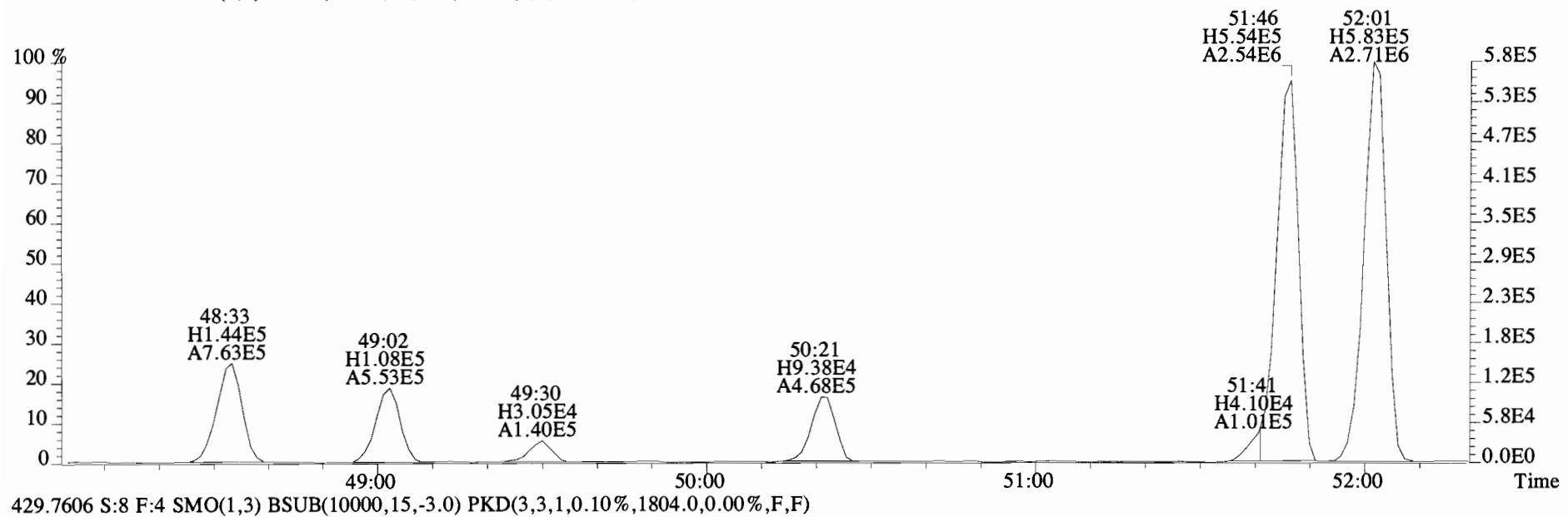
395.7995 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0)



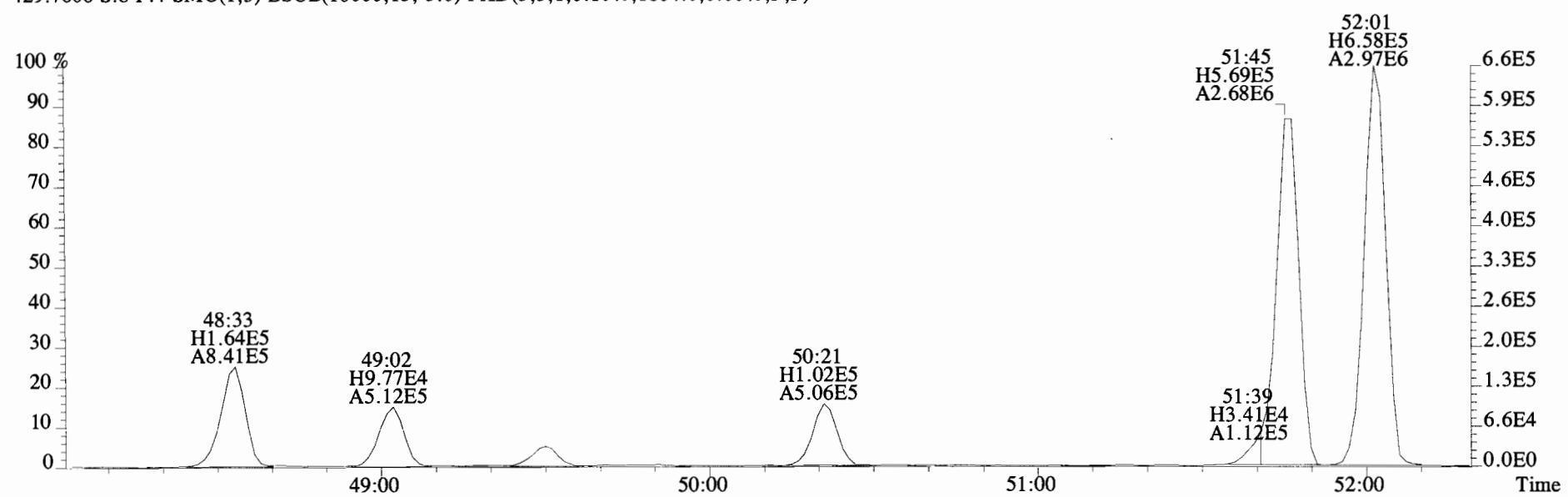
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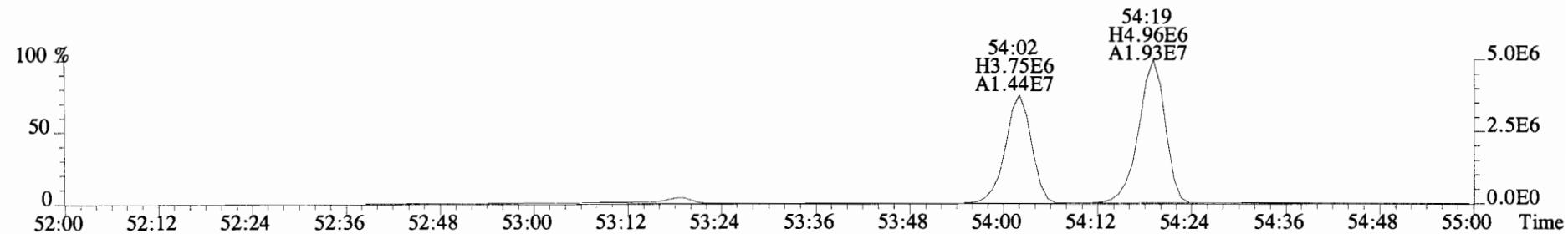
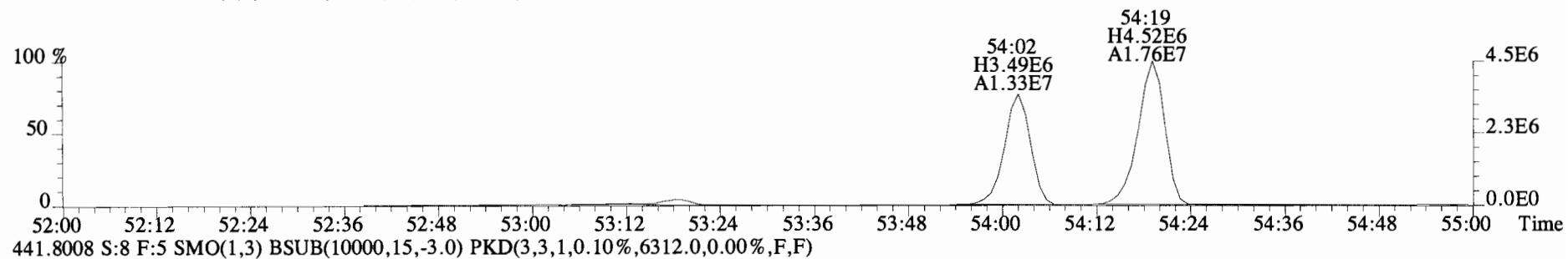
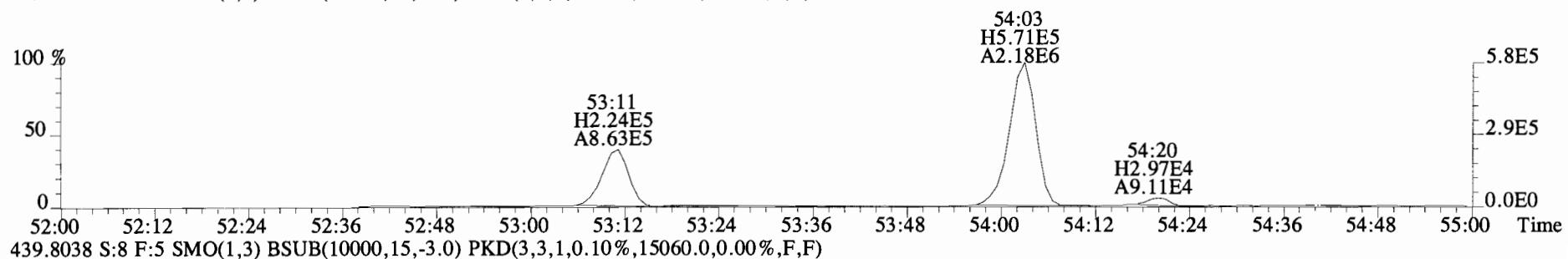
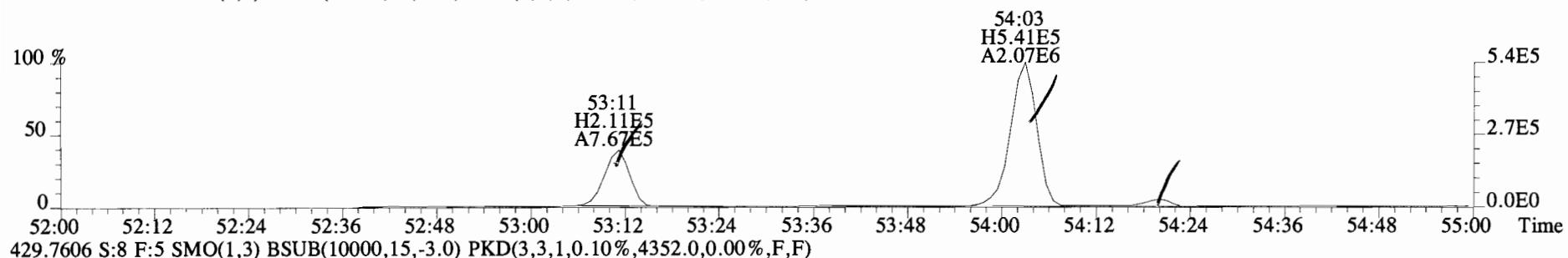
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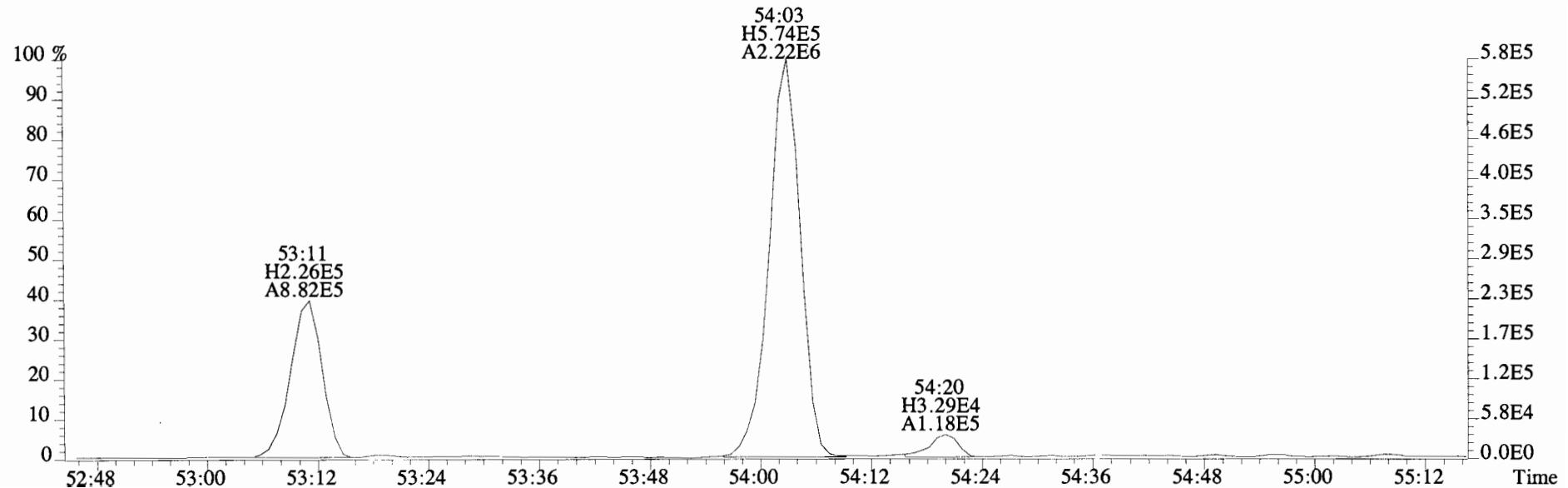
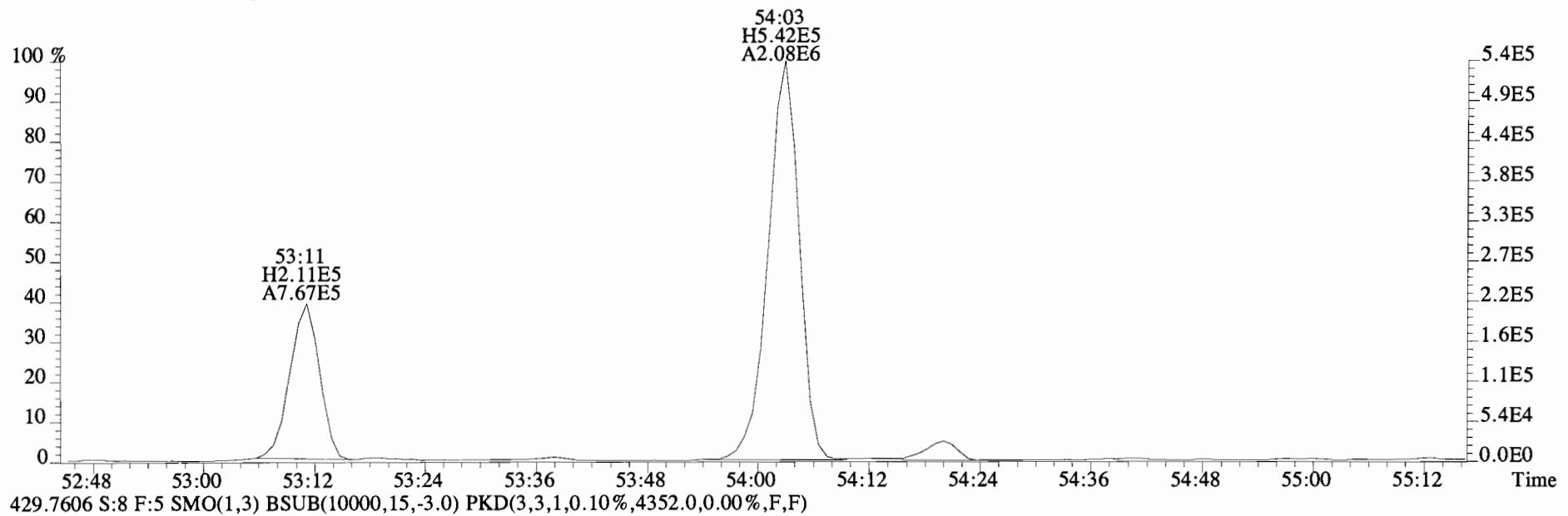
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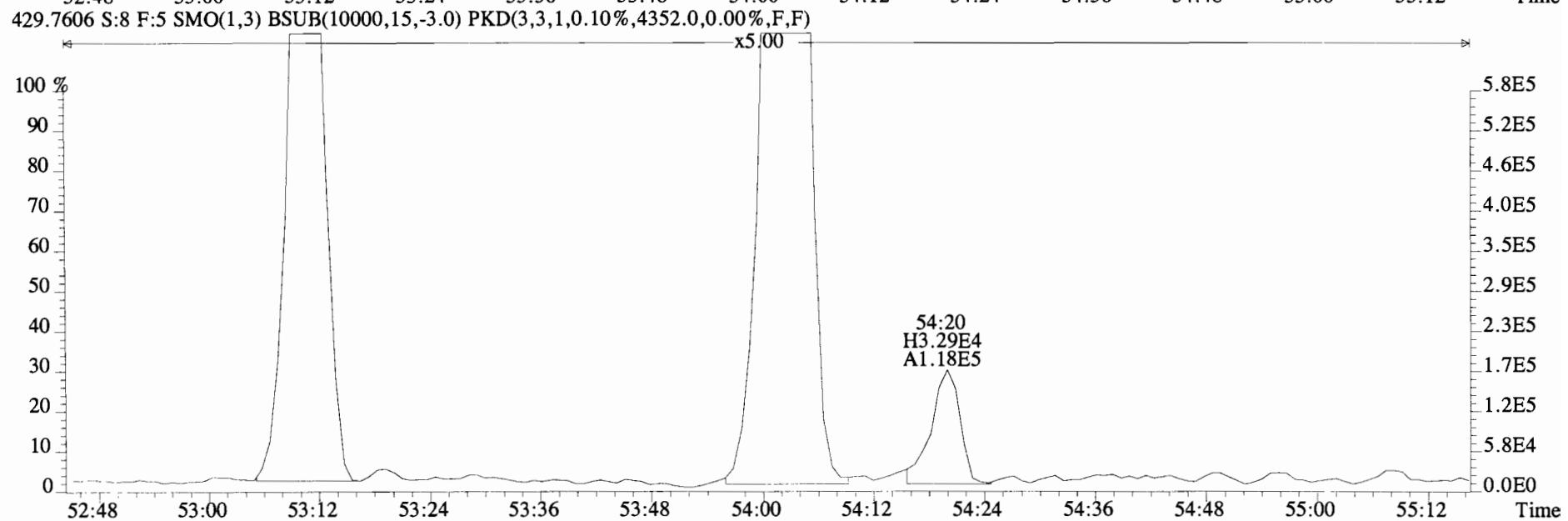
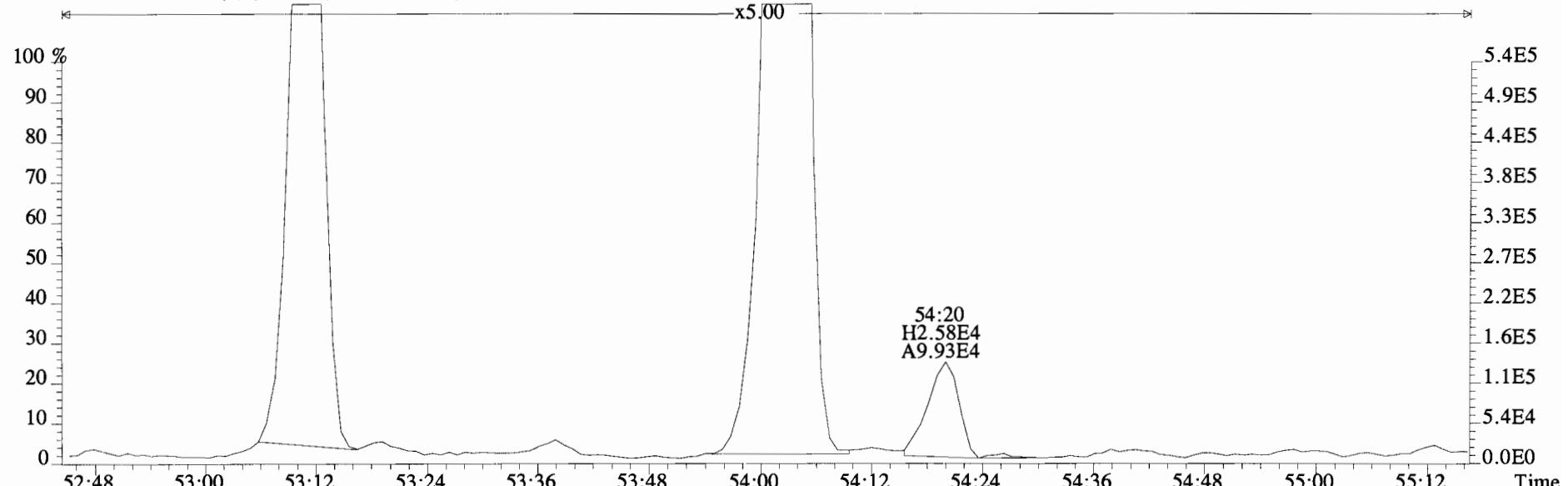
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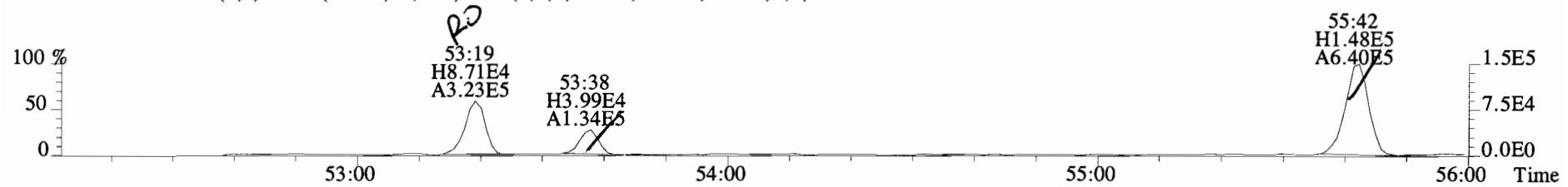
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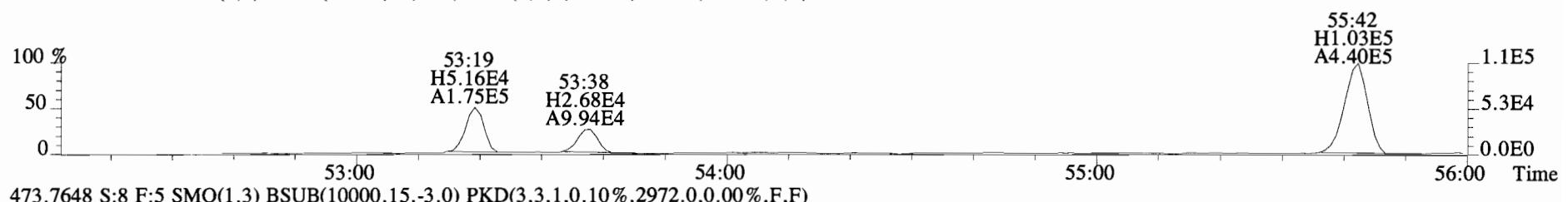
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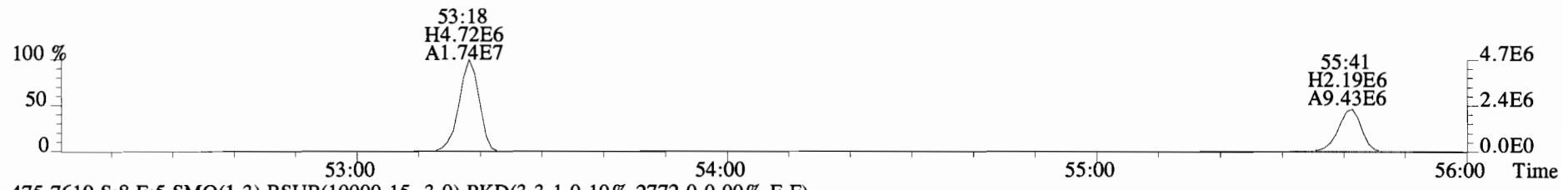
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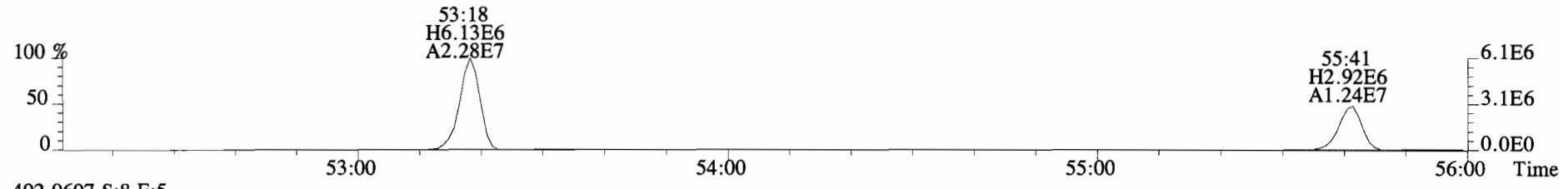
465.7186 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1880.0,0.00%,F,F)



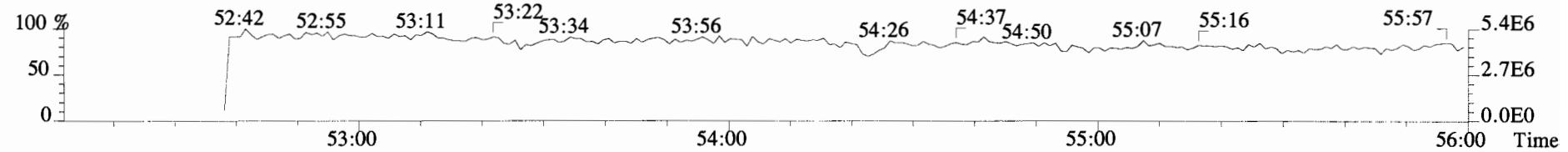
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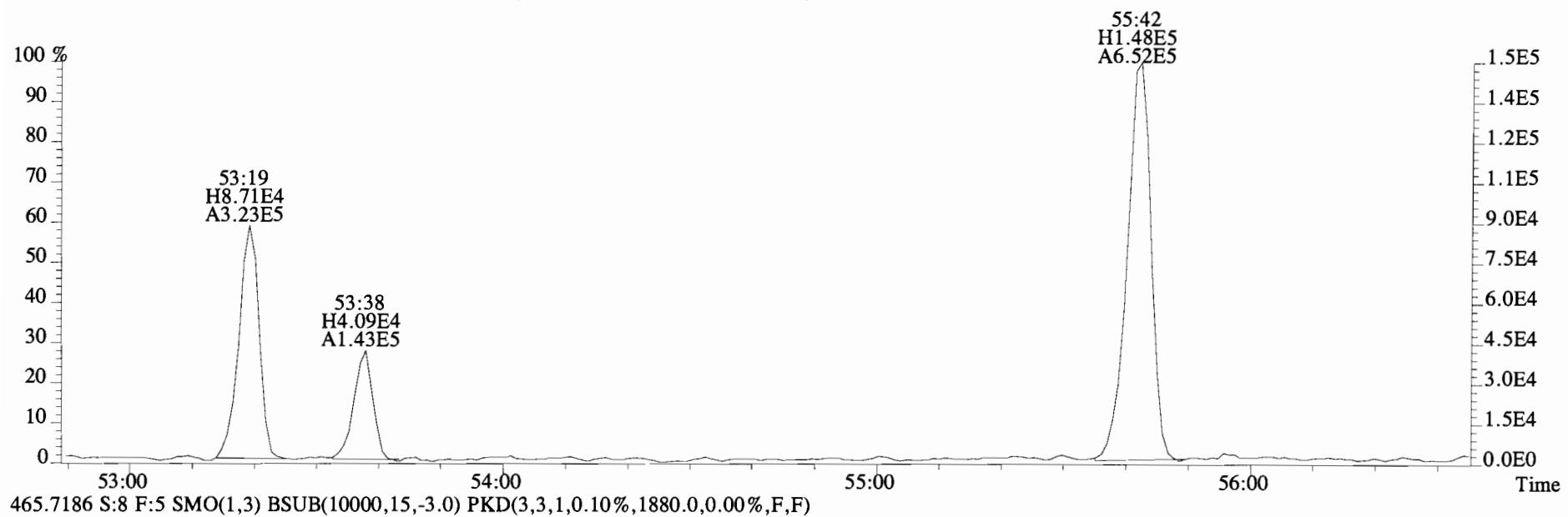
475.7619 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2772.0,0.00%,F,F)



492.9697 S:8 F:5



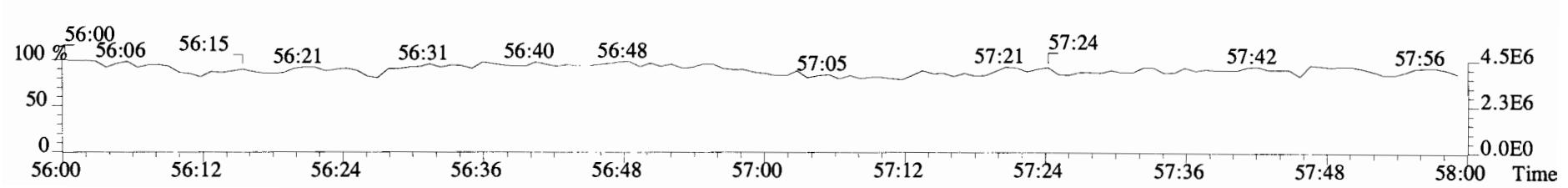
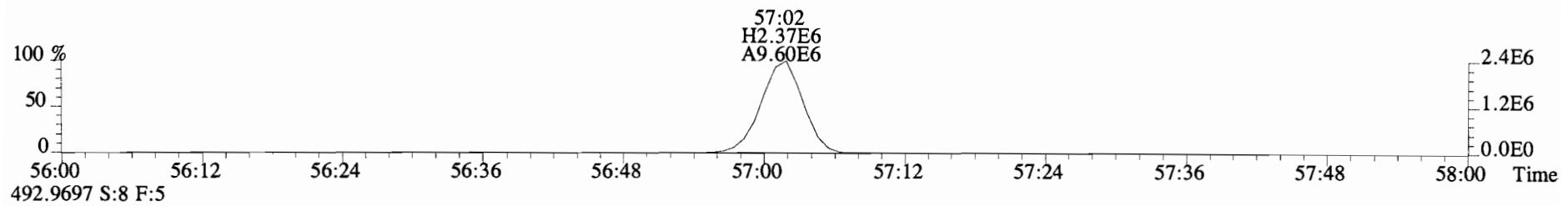
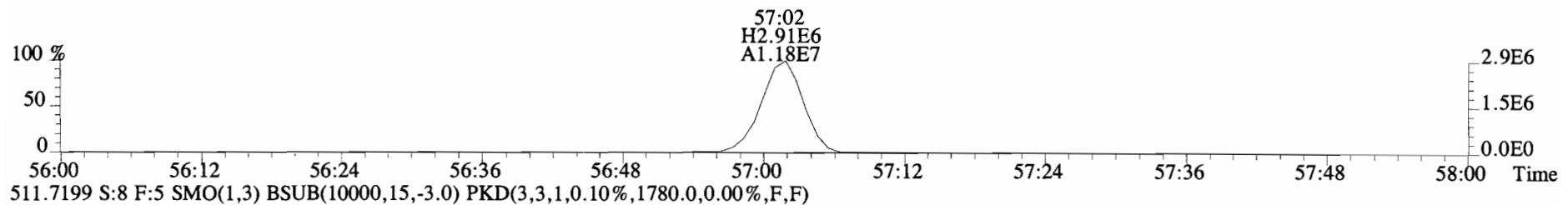
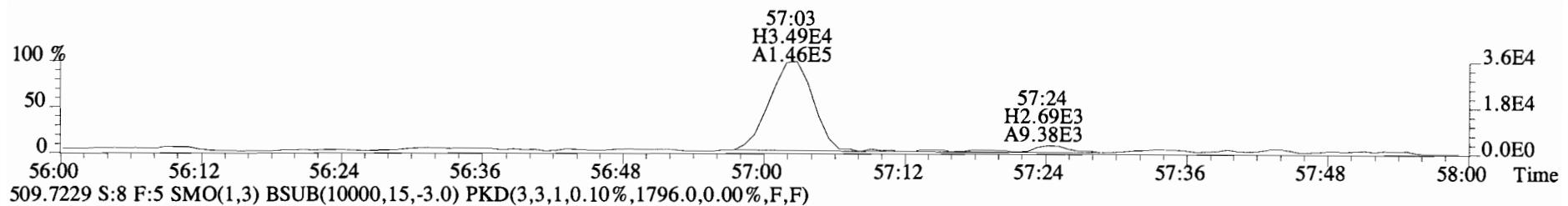
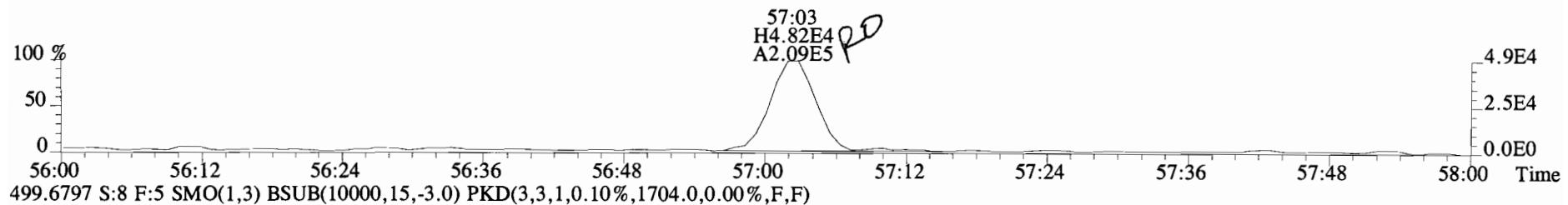
File:140919E1 #1-429 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
463.7216 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2444.0,0.00%,F,F)



465.7186 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1880.0,0.00%,F,F)



File:140919E1 #1-429 Acq:19-SEP-2014 17:03:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02 PS-OS-01-20140909-W 1 Exp:PCB_ZB1
497.6826 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1592.0,0.00%,F,F)



Client ID: PS-OS-01-20140909-W
Lab ID: 1400659-02RE1 RI

Filename: 140923E1 S:6 Acq:23-SEP-14 19:22:06
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0123

ConCal: ST140923E1-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	*	n NotF ₇	1.65	*	*	*	2.5	*	*	0.999-1.009	
Hepta	PCB-191	*	*	n NotF ₇	1.67	*	*	*	2.5	*	*	1.004-1.014	
Hepta	PCB-170	*	*	n NotF ₇	1.50	*	*	*	2.5	*	*	0.995-1.005	
Hepta	PCB-190	*	*	n NotF ₇	2.02	*	*	*	2.5	*	*	0.998-1.008	
Hepta	PCB-189	4.26e+05	1.02	y	52:29	1.54	16.1	*	2.5	*	1.000	0.995-1.005	
Octa	PCB-202	*	*	n NotF ₈	1.04	*	*	*	2.5	*	*	0.995-1.005	
Octa	PCB-201	*	*	n NotF ₈	1.10	*	*	*	2.5	*	*	1.006-1.016	
Octa	PCB-204	*	*	n NotF ₈	0.99	*	*	*	2.5	*	*	1.009-1.019	
Octa	PCB-197	*	*	n NotF ₈	1.07	*	*	*	2.5	*	*	1.015-1.025	
Octa	PCB-200	*	*	n NotF ₈	1.02	*	*	*	2.5	*	*	1.032-1.044	
Octa	PCB-198	*	*	n NotF ₈	0.74	*	*	*	2.5	*	*	1.058-1.068	
Octa	PCB-199	*	*	n NotF ₈	0.73	*	*	*	2.5	*	*	1.060-1.070	
Octa	PCB-196/203	*	*	n NotF ₈	0.77	*	*	*	2.5	*	*	1.066-1.076	
Octa	PCB-195	*	*	n NotF ₈	1.20	*	*	*	2.5	*	*	0.979-0.989	
Octa	PCB-194	*	*	n NotF ₈	1.25	*	*	*	2.5	*	*	0.995-1.005	
Octa	PCB-205	*	*	n NotF ₈	1.41	*	*	*	2.5	*	*	1.001-1.011	
Nonna	PCB-208	*	*	n NotF ₉	0.96	*	*	*	2.5	*	*	0.995-1.005	
Nonna	PCB-207	*	*	n NotF ₉	0.92	*	*	*	2.5	*	*	1.001-1.011	
Nonna	PCB-206	*	*	n NotF ₉	1.03	*	*	*	2.5	*	*	0.995-1.005	
Deca	PCB-209	*	*	n NotF ₁₀	1.18	*	*	*	2.5	*	*	0.995-1.005	

Analyst: DMS

Date: 9/24/14

MJ
9/24/14

Client ID: PS-OS-01-20140909-W
Lab ID: 1400659-02RE1 RI

Filename: 140923E1 S:6 Acq:23-SEP-14 19:22:06 ConCal: ST140923E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0123 EndCAL: NA

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Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	*	*	n	NotFnd	1.22 *
Total Di-PCB	*	*	n	NotFnd	1.21 *
Total Tri-PCB	*	*	n	NotFnd	1.16 *
Total Tri-PCB	*	*	n	NotFnd	1.35 * Sum:0.00000
Total Tetra-PCB	*	*	n	NotFnd	1.17 *
Total Penta-PCB	*	*	n	NotFnd	1.21 *
Total Penta-PCB	*	*	n	NotFnd	1.26 * Sum:0.00000
Total Hexa-PCB	*	*	n	NotFnd	0.92 *
Total Hexa-PCB	*	*	n	NotFnd	1.08 * Sum:0.00000
Total Hepta-PCB	4.26e+05	1.02	y	52:29	1.27 16.1464
Total Octa-PCB	*	*	n	NotFnd	0.92 *
Total Octa-PCB	*	*	n	NotFnd	1.29 * Sum:0.00000
Total Nona-PCB	*	*	n	NotFnd	0.96 *
Total Deca-PCB	*	*	n	NotFnd	1.18 *

Total PCB Conc:16.1463980000

Integrations
by
Analyst: DMS
Date: 9/24/14

Client ID: PS-OS-01-20140909-W
 Lab ID: 1400659-02RE1 RI

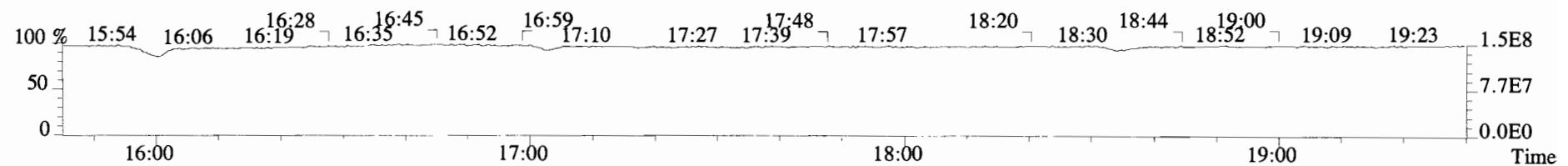
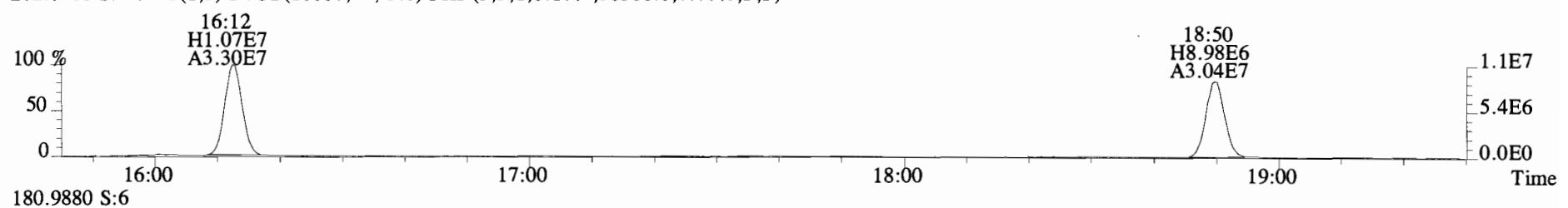
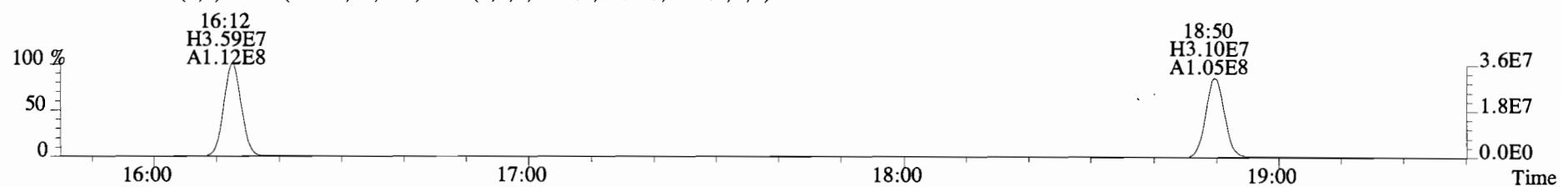
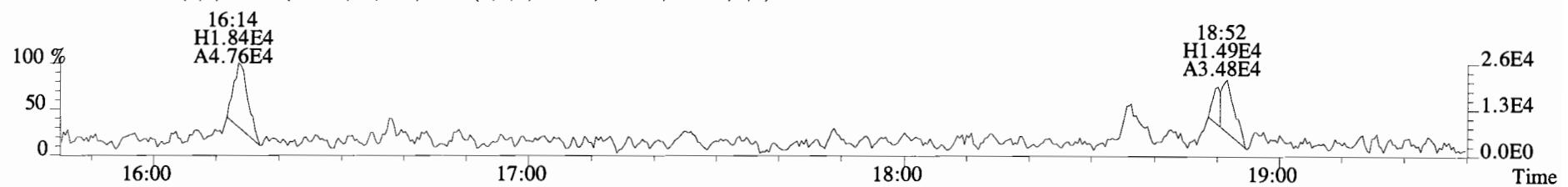
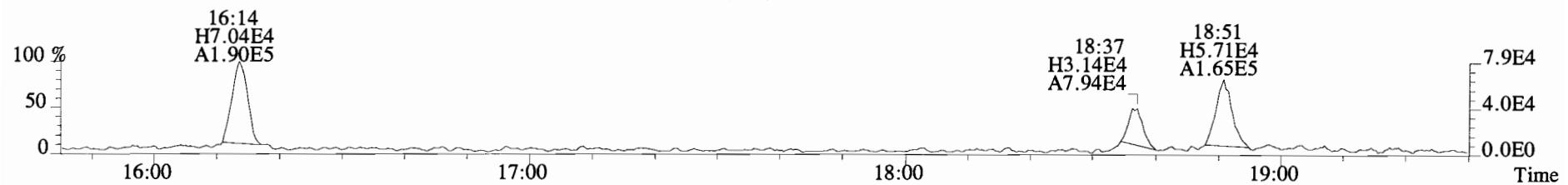
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 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0123
 ConCal: ST140923E1-1 EndCAL: NA

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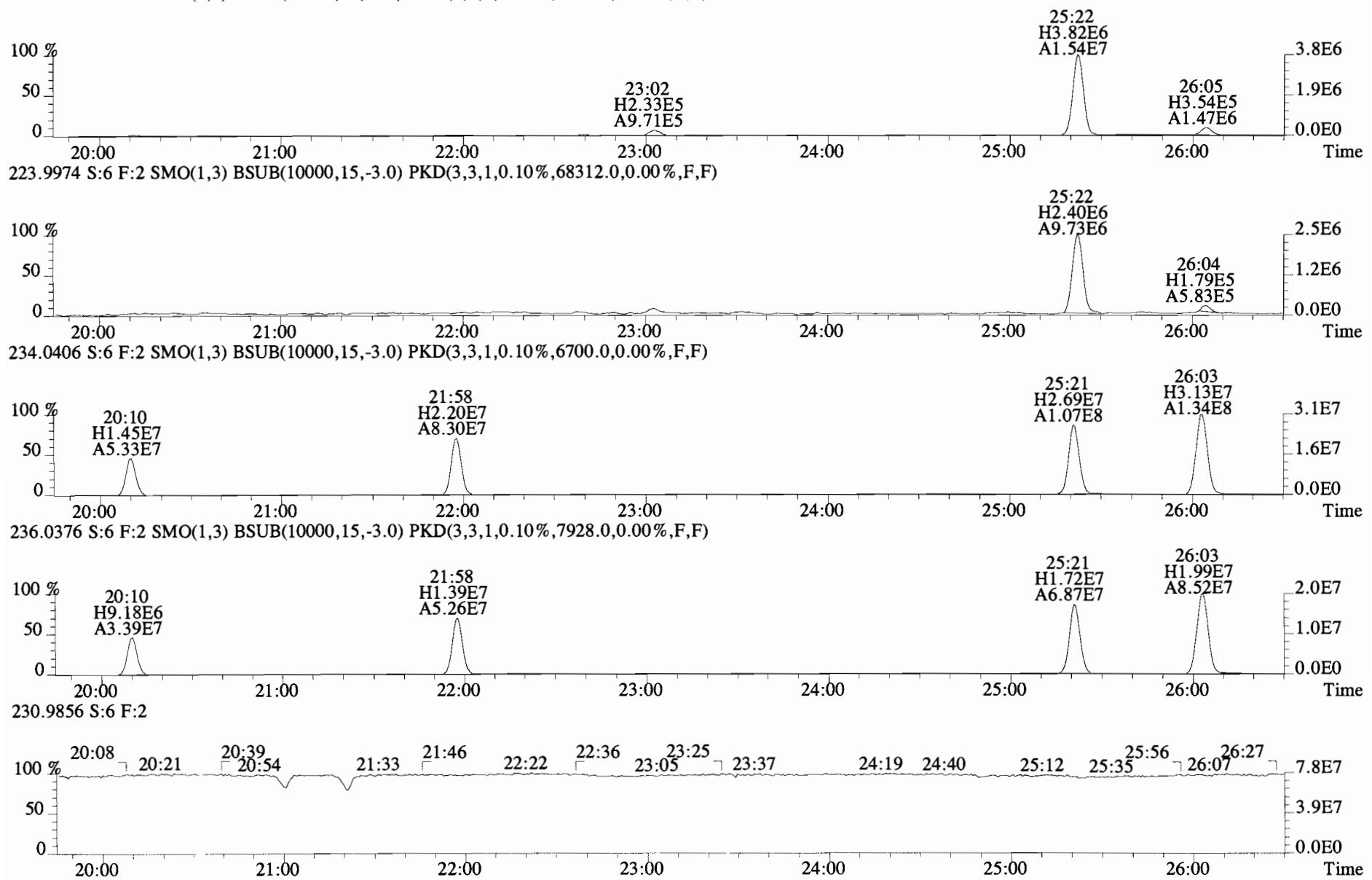
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13C-PCB-1	1.45e+08	3.38	y	0.89	16:12	0.622	0.622-0.628	1470	74.3	13C-PCB-79	1.89e+08	0.78	y	1.01	37:57	1.028	1.023-1.033	1960	99.3		
13C-PCB-3	1.36e+08	3.46	y	0.93	18:50	0.723	0.721-0.729	1320	66.8	13C-PCB-178	5.90e+07	0.47	y	0.63	45:47	0.985	0.979-0.989	1880	95.4		
13C-PCB-4	8.72e+07	1.57	y	0.55	20:10	0.774	0.772-0.780	1440	72.7												
13C-PCB-9	1.36e+08	1.58	y	0.83	21:58	0.843	0.840-0.848	1480	74.9												
13C-PCB-11	1.76e+08	1.56	y	0.94	25:21	0.973	0.968-0.978	1690	85.6	PS vs. IS											
13C-PCB-19	8.61e+07	1.12	y	0.53	24:20	0.934	0.929-0.939	1460	73.8	13C-PCB-79	1.89e+08	0.78	y	1.20	37:57	0.969	0.963-0.973	2390	121		
13C-PCB-28	1.32e+08	1.05	y	0.89	29:12	1.003	0.999-1.009	1530	77.3	13C-PCB-178	5.90e+07	0.47	y	0.94	45:47	0.925	0.920-0.930	2710	137		
13C-PCB-32	1.36e+08	1.12	y	0.81	27:15	1.046	1.041-1.051	1500	76.1												
13C-PCB-37	1.38e+08	1.03	y	0.83	33:13	1.141	1.131-1.143	1700	86.0												
13C-PCB-47	1.19e+08	0.78	y	0.74	32:10	0.872	0.867-0.875	1670	84.6												
13C-PCB-52	1.12e+08	0.78	y	0.71	31:38	0.857	0.853-0.861	1650	83.3												
13C-PCB-54	1.23e+08	0.80	y	0.85	28:05	0.761	0.758-0.766	1510	76.6												
13C-PCB-70	1.56e+08	0.79	y	0.94	35:39	0.966	0.961-0.971	1720	87.2												
13C-PCB-77	1.33e+08	0.79	y	0.89	39:47	1.078	1.073-1.083	1560	79.0												
13C-PCB-80	1.57e+08	0.80	y	0.96	36:04	0.977	0.972-0.982	1700	86.2												
13C-PCB-81	1.30e+08	0.78	y	0.84	39:10	1.061	1.057-1.067	1620	82.0												
13C-PCB-95	6.14e+07	1.59	y	0.74	35:57	0.913	0.908-0.918	1670	84.5	RS											
13C-PCB-97	5.77e+07	1.64	y	0.69	38:56	0.989	0.984-0.994	1690	85.5												
13C-PCB-101	6.59e+07	1.61	y	0.79	37:38	0.956	0.951-0.961	1690	85.8	13C-PCB-15	2.19e+08	1.57	y	1.00	26:03	1980					
13C-PCB-104	8.08e+07	1.62	y	1.00	32:52	0.835	0.829-0.837	1640	83.0	13C-PCB-31	1.93e+08	1.04	y	1.00	29:06	1980					
13C-PCB-105	1.07e+08	1.59	y	1.24	43:13	0.929	0.924-0.934	1740	88.2	13C-PCB-60	1.89e+08	0.79	y	1.00	36:54	1980					
13C-PCB-114	1.04e+08	1.62	y	1.21	42:20	0.910	0.905-0.915	1740	88.1	13C-PCB-111	9.78e+07	1.61	y	1.00	39:22	1980					
13C-PCB-118	7.03e+07	1.62	y	0.98	41:41	1.059	1.054-1.064	1440	73.0	13C-PCB-128	9.81e+07	1.27	y	1.00	46:30	1980					
13C-PCB-123	7.04e+07	1.59	y	0.95	41:30	1.054	1.049-1.059	1500	75.7	13C-PCB-205	5.24e+07	0.90	y	1.00	54:16	1980					
13C-PCB-126	9.45e+07	1.60	y	1.16	45:27	0.977	0.972-0.982	1640	82.8												
13C-PCB-127	1.18e+08	1.61	y	1.34	43:33	0.937	0.931-0.941	1760	89.3												
13C-PCB-138	9.28e+07	1.29	y	1.04	44:57	0.967	0.961-0.971	1790	90.6												
13C-PCB-141	9.41e+07	1.28	y	1.07	44:06	0.948	0.943-0.953	1770	89.4												
13C-PCB-153	9.85e+07	1.24	y	1.11	43:22	0.933	0.927-0.937	1780	90.2												
13C-PCB-155	4.93e+07	1.32	y	0.83	37:11	0.945	0.939-0.949	1200	60.6												
13C-PCB-156	9.56e+07	1.26	y	1.24	48:13	1.037	1.032-1.042	1550	78.2												
13C-PCB-157	1.03e+08	1.32	y	1.31	48:29	1.043	1.037-1.047	1580	80.2												
13C-PCB-159	9.97e+07	1.27	y	1.20	46:15	0.995	0.989-0.999	1670	84.7												
13C-PCB-167	1.05e+08	1.27	y	1.32	46:56	1.009	1.004-1.014	1600	81.1												
13C-PCB-169	7.42e+07	1.26	y	1.22	50:38	1.089	1.082-1.092	1230	62.2												
13C-PCB-170	3.26e+07	0.47	y	0.54	50:59	1.096	1.089-1.101	1230	62.1												
13C-PCB-180	4.60e+07	0.48	y	0.67	49:31	1.065	1.059-1.069	1380	69.6												
13C-PCB-188	7.23e+07	0.47	y	0.94	42:59	0.924	0.919-0.929	1560	78.8												
13C-PCB-189	3.38e+07	0.46	y	0.72	52:29	1.129	1.120-1.132	950	48.1												
13C-PCB-194	3.83e+07	0.90	y	0.81	53:59	0.995	0.990-1.000	1780	90.3												
13C-PCB-202	4.14e+07	0.92	y	0.83	48:26	1.042	1.036-1.046	1000	50.7												
13C-PCB-206	2.75e+07	0.79	y	0.66	55:38	1.025	1.021-1.031	1580	79.8												
13C-PCB-208	5.23e+07	0.77	y	1.12	53:15	0.981	0.976-0.986	1760	88.9												
13C-PCB-209	2.59e+07	1.19	y	0.61	56:58	1.050	1.044-1.054	1590	80.6												

Analyst: DMS
 Date: 9/24/14

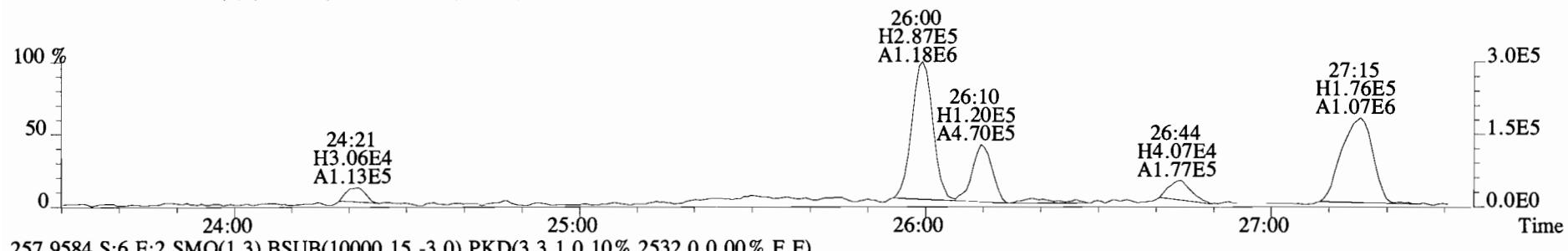
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 188.0393 S:6 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5104.0,0.00%,F,F)



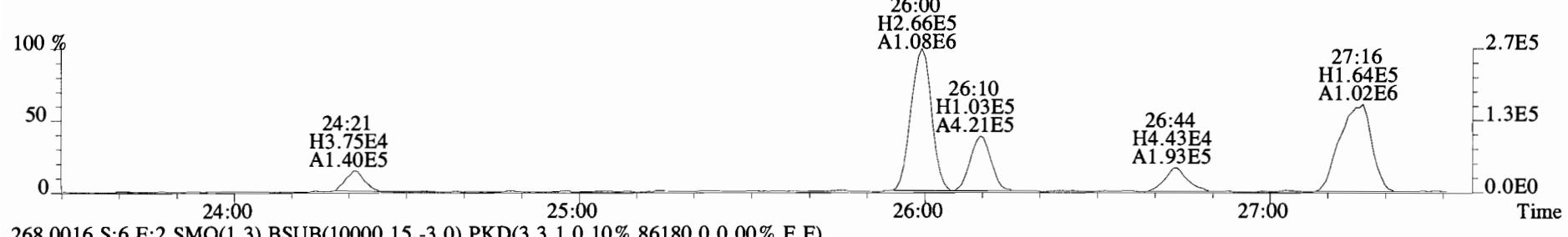
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 222.0003 S:6 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6852.0,0.00%,F,F)



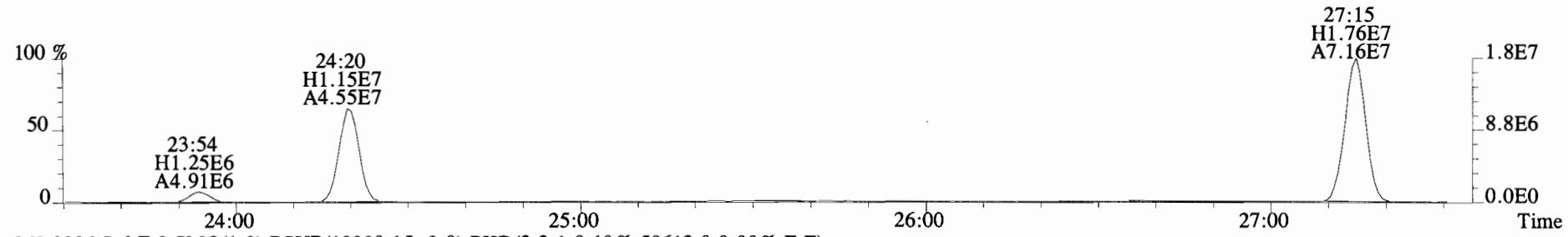
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
255.9613 S:6 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8364.0,0.00%,F,F)



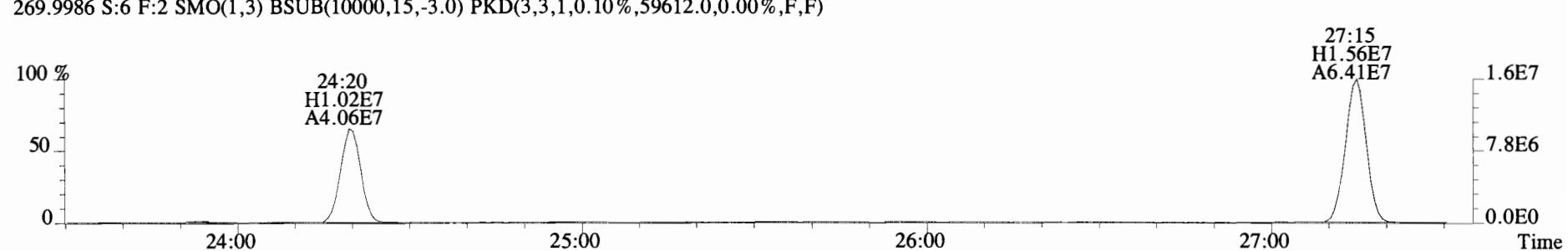
257.9584 S:6 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2532.0,0.00%,F,F)



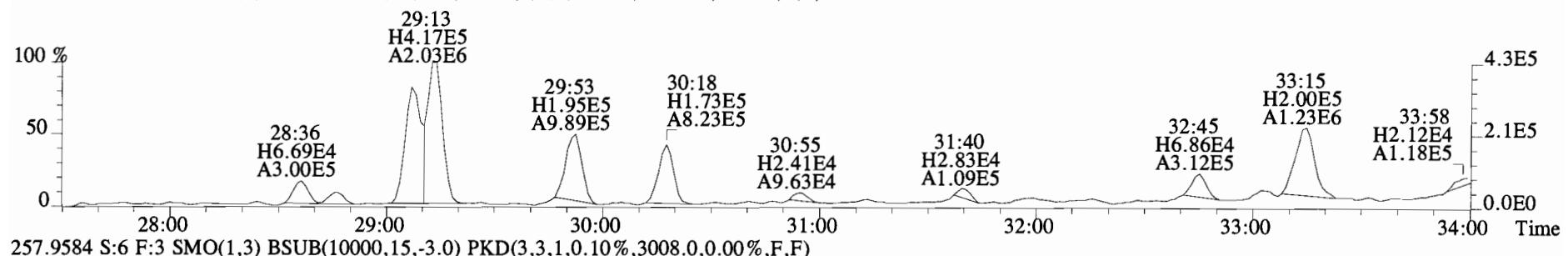
268.0016 S:6 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,86180.0,0.00%,F,F)



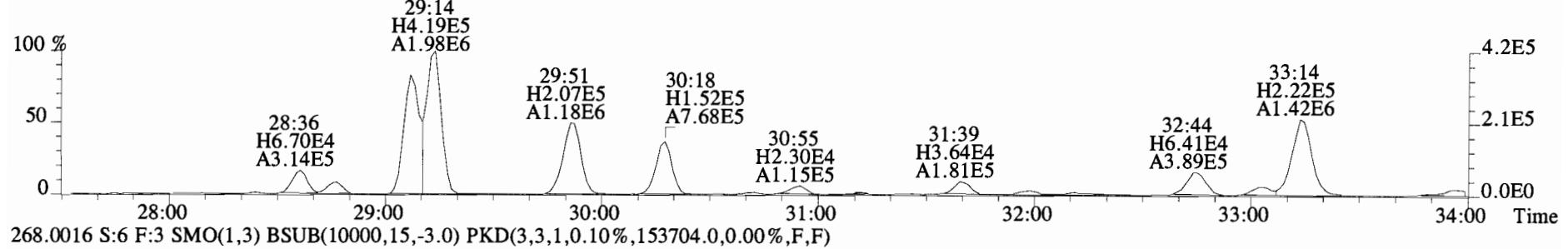
269.9986 S:6 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,59612.0,0.00%,F,F)



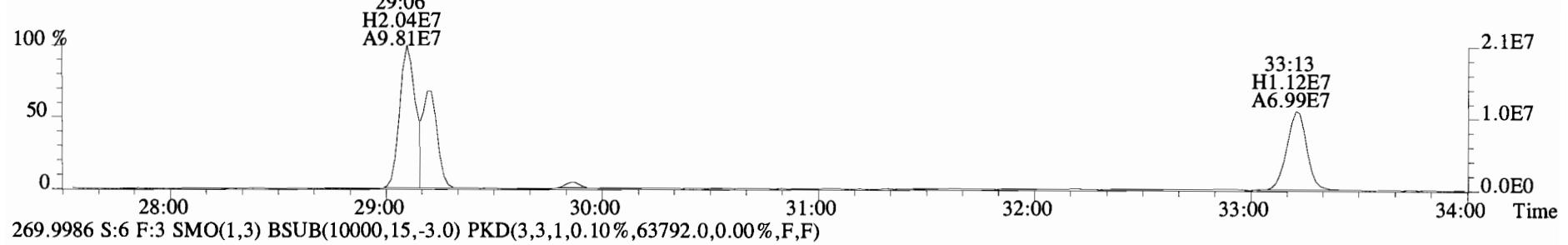
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 255.9613 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15316.0,0.00%,F,F)



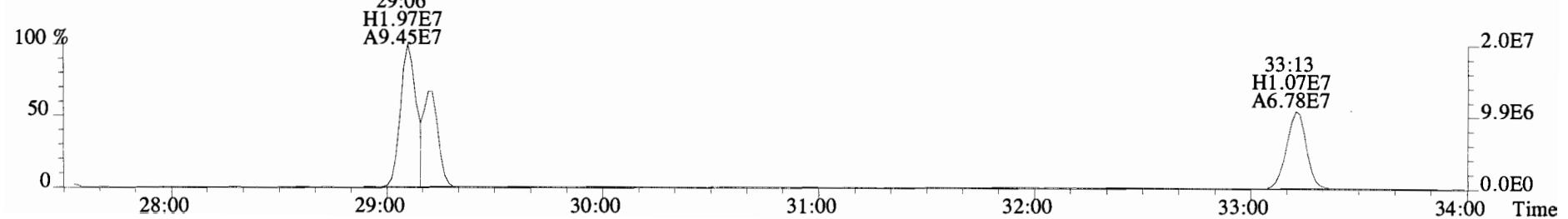
257.9584 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3008.0,0.00%,F,F)



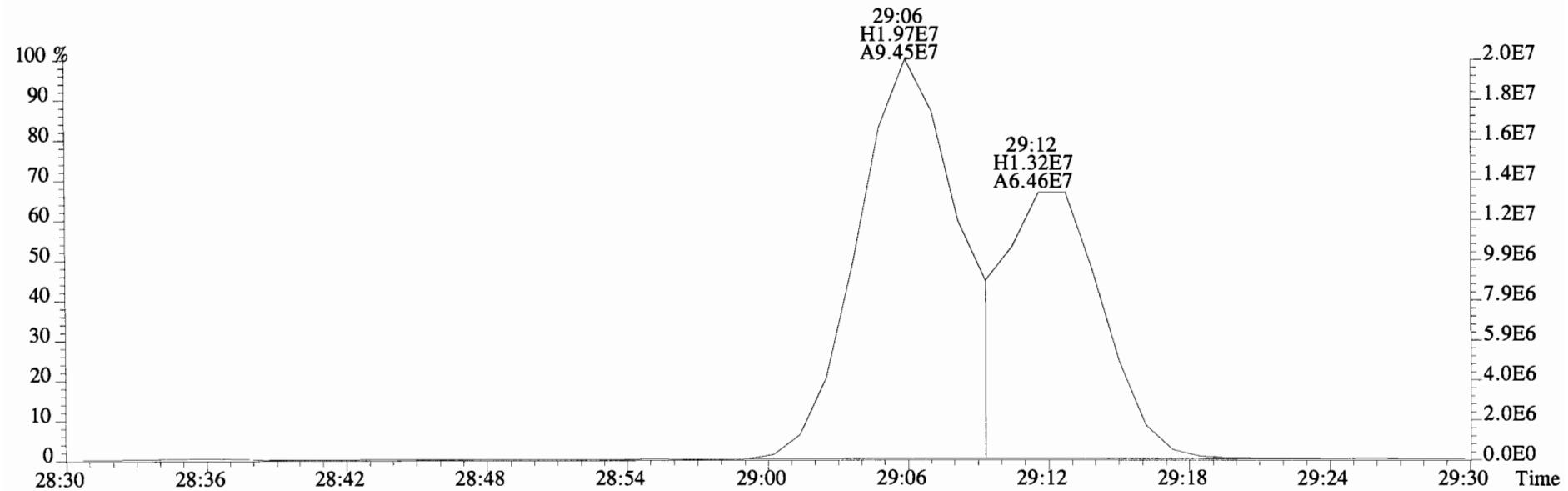
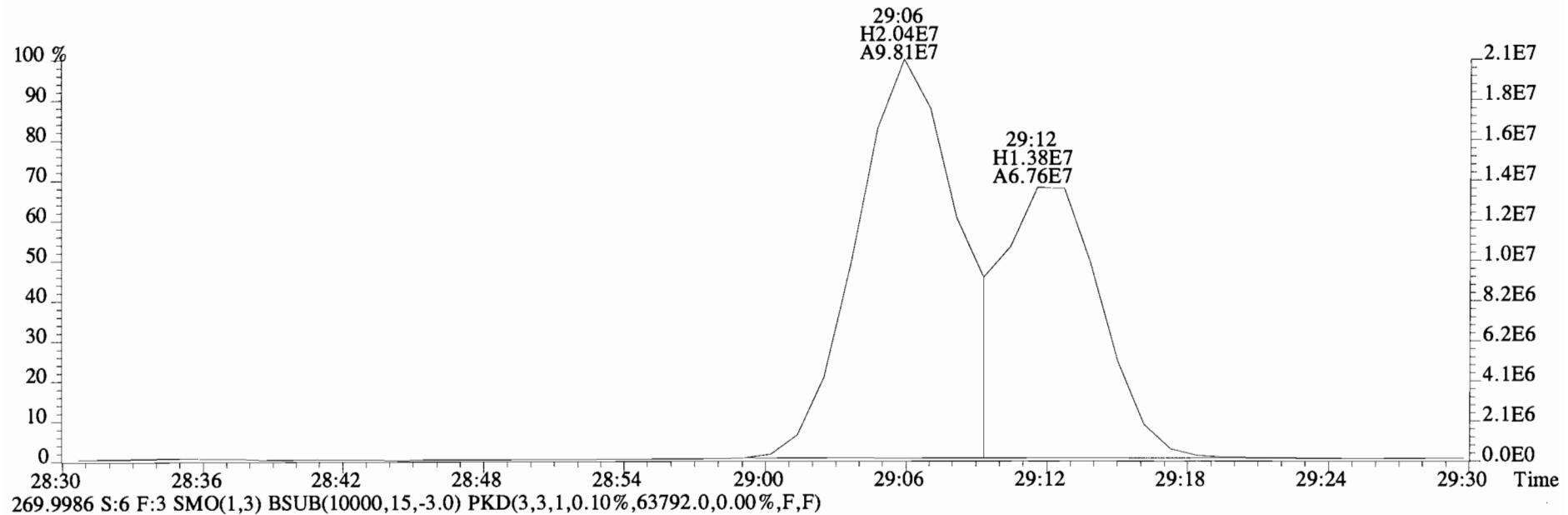
268.0016 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,153704.0,0.00%,F,F)



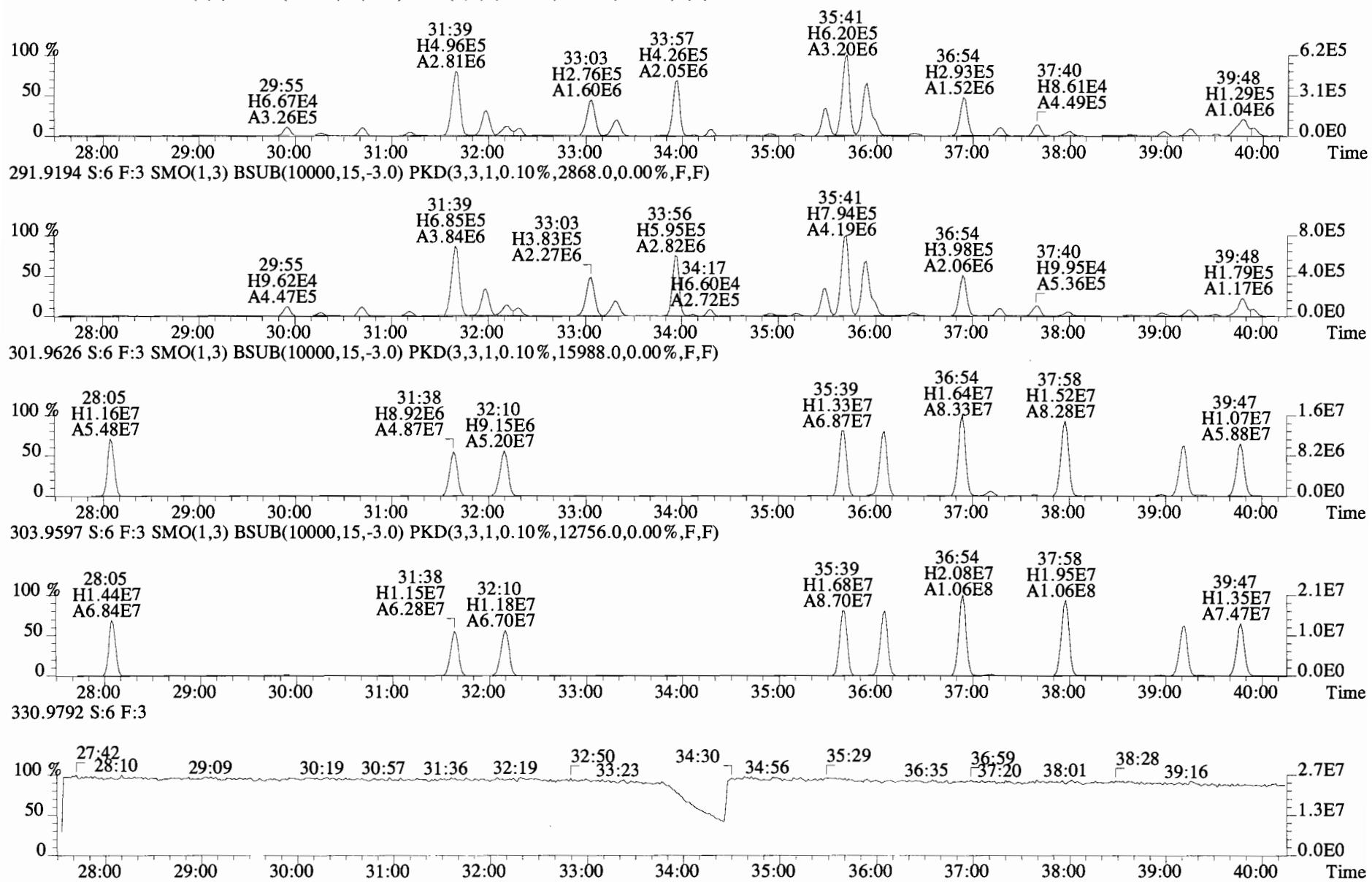
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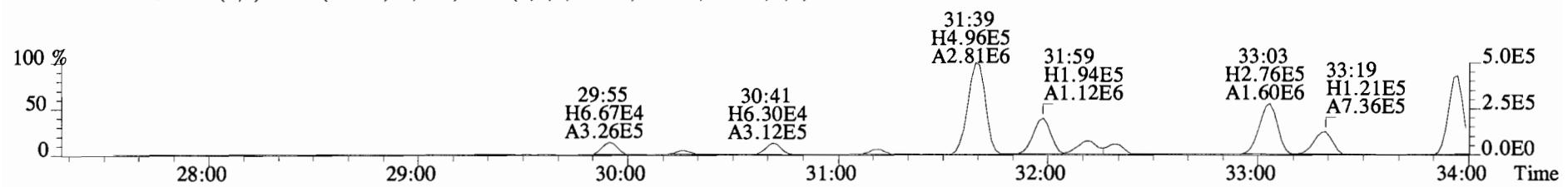
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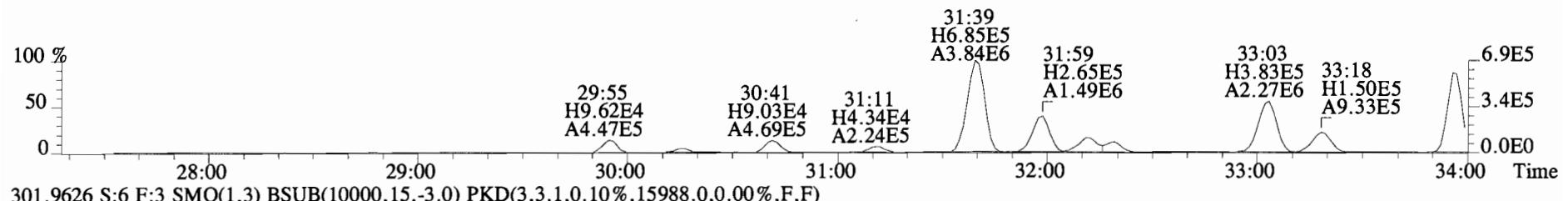
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 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
 289.9224 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2968.0,0.00%,F,F)



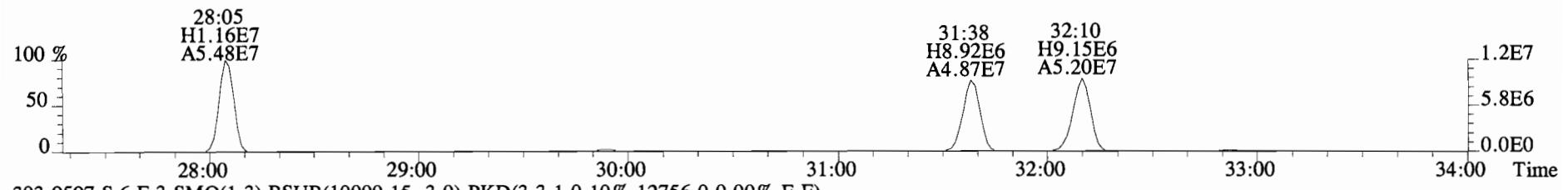
File:140923E1 #1-761 Acq:23-SEP-2014 19:22:06 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
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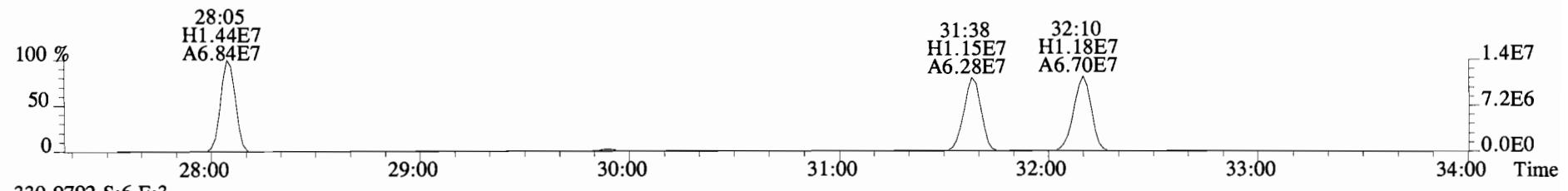
291.9194 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2868.0,0.00%,F,F)



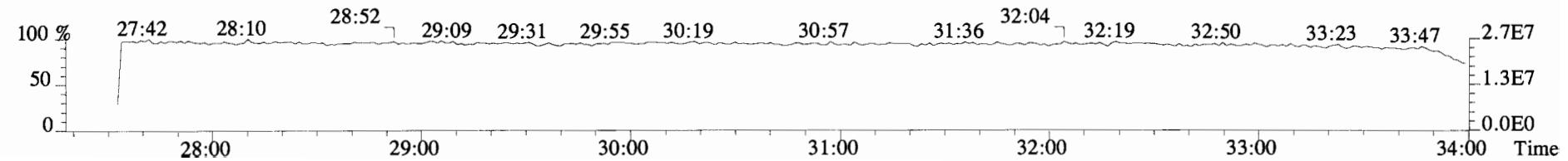
301.9626 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15988.0,0.00%,F,F)



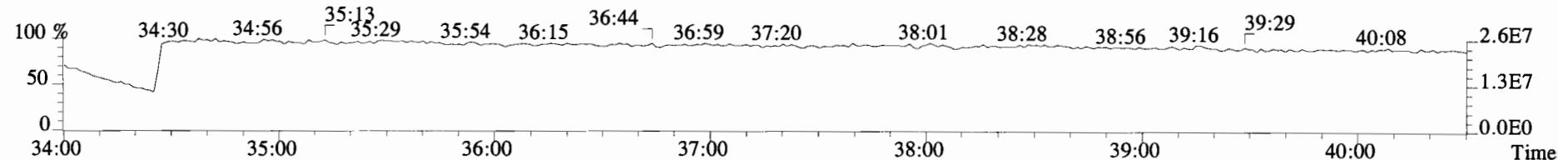
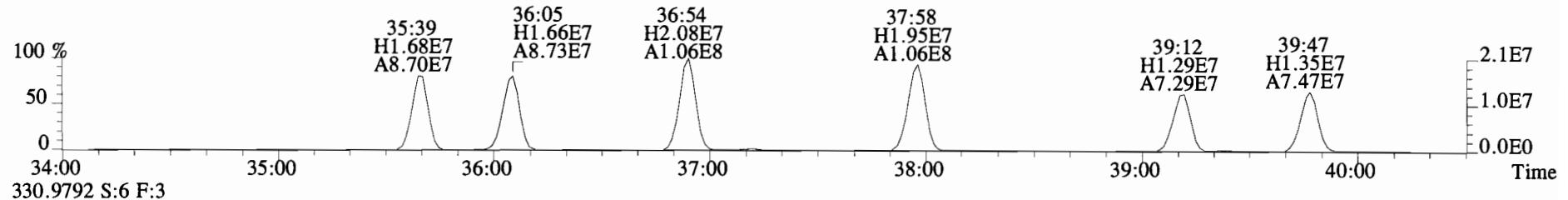
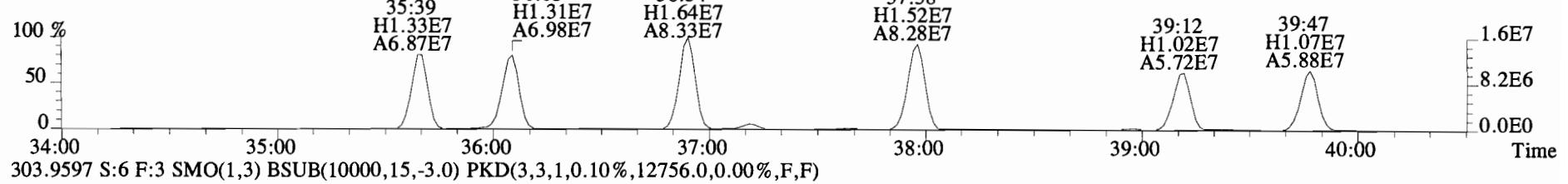
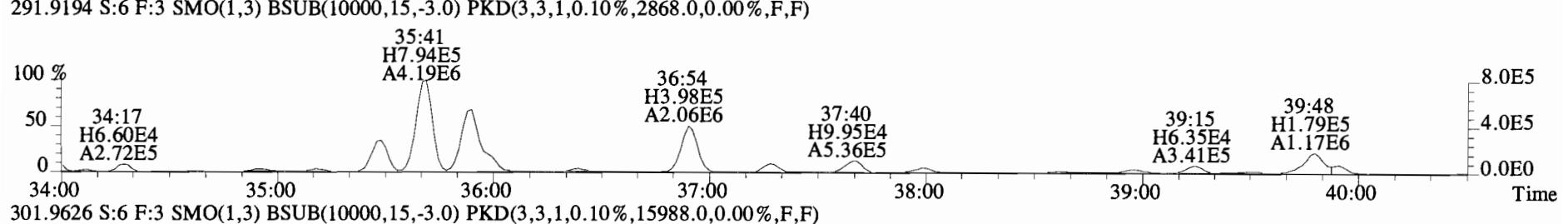
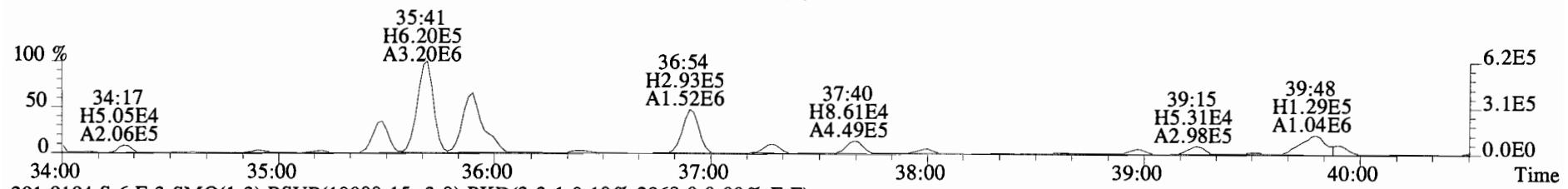
303.9597 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12756.0,0.00%,F,F)



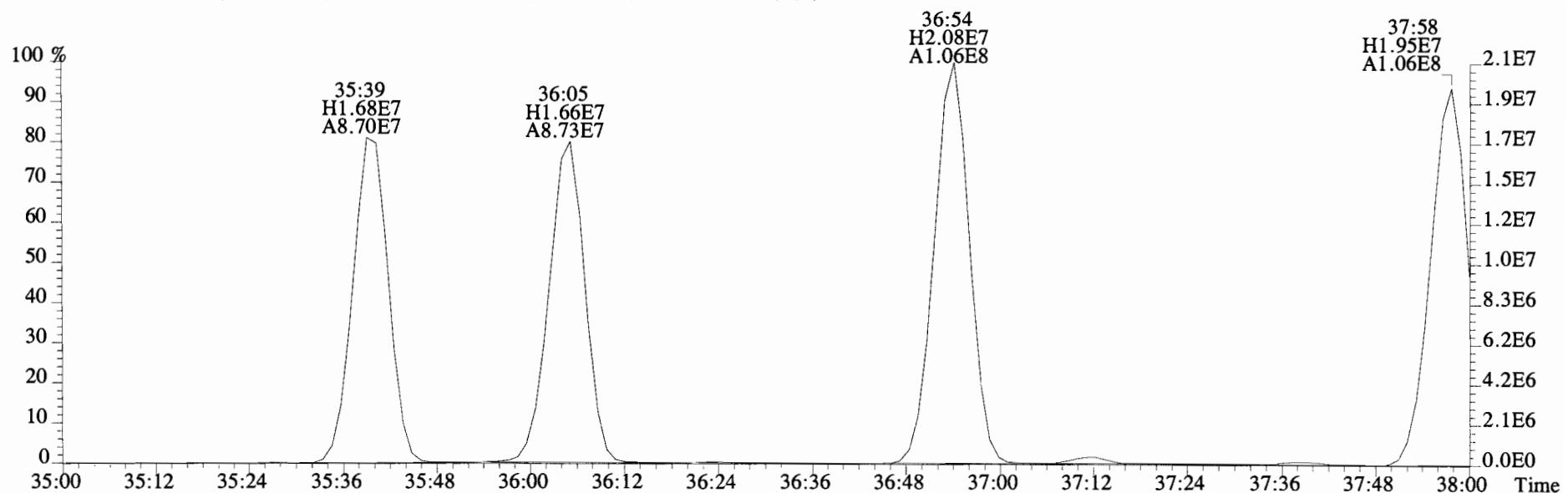
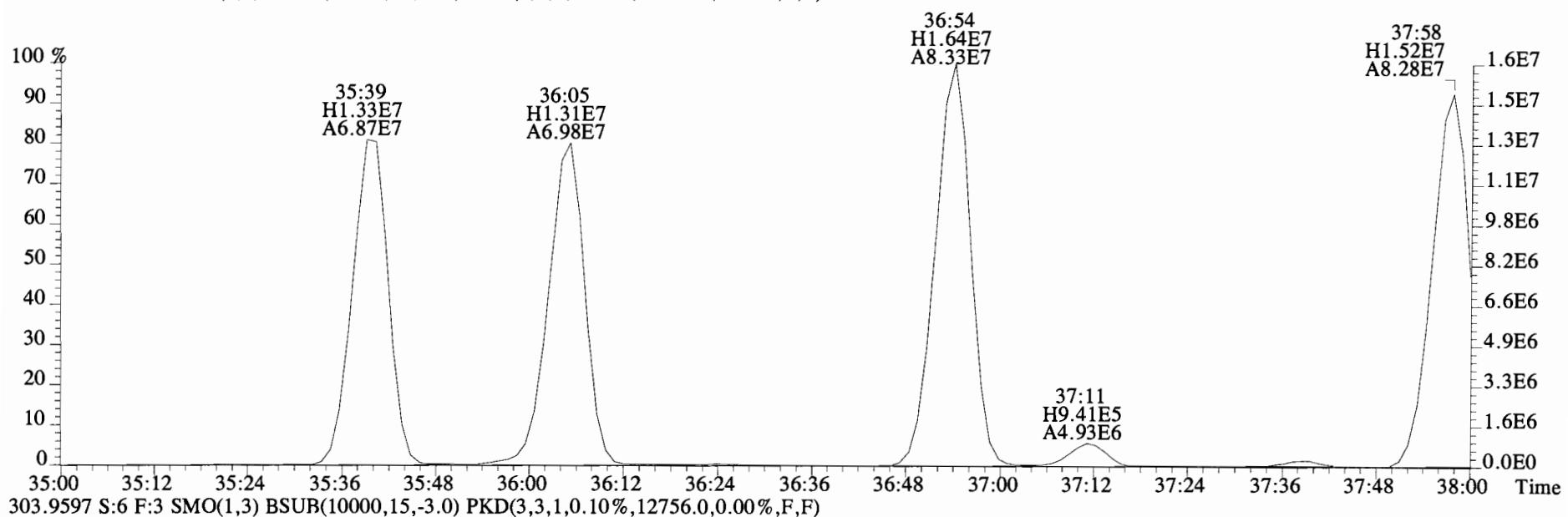
330.9792 S:6 F:3



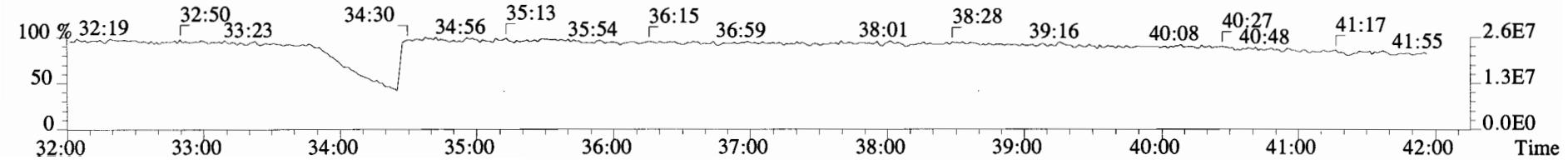
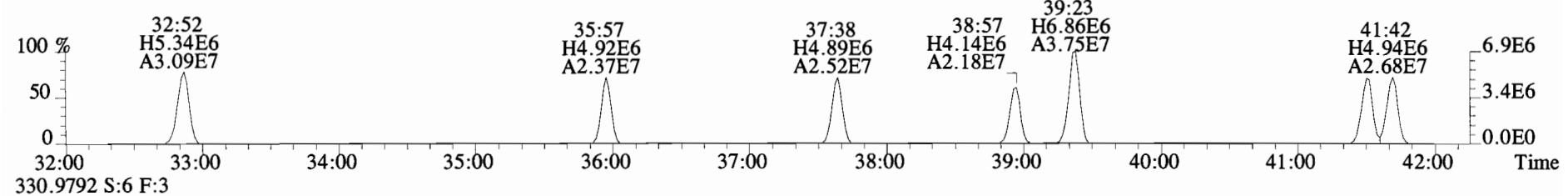
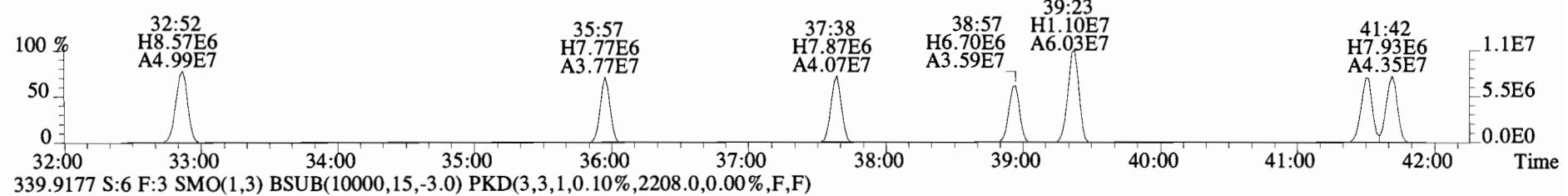
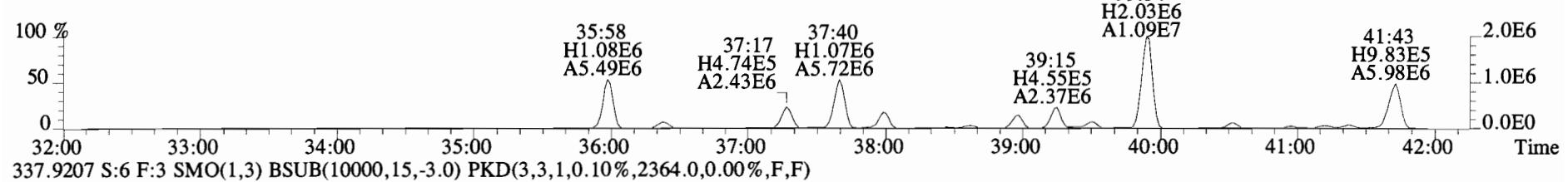
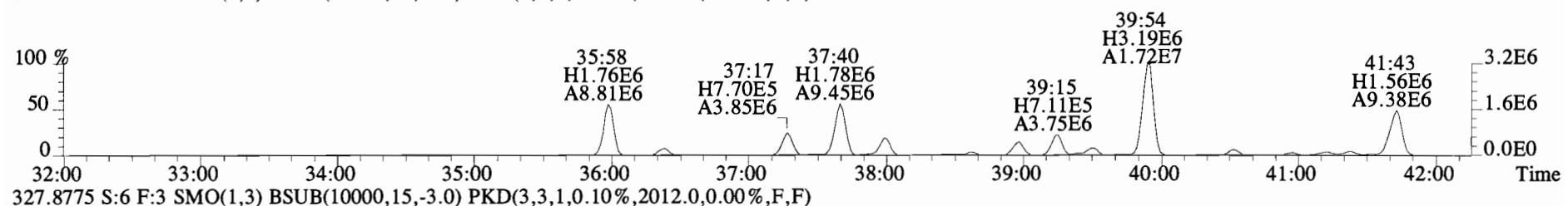
File:140923E1 #1-761 Acq:23-SEP-2014 19:22:06 GC EI + Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
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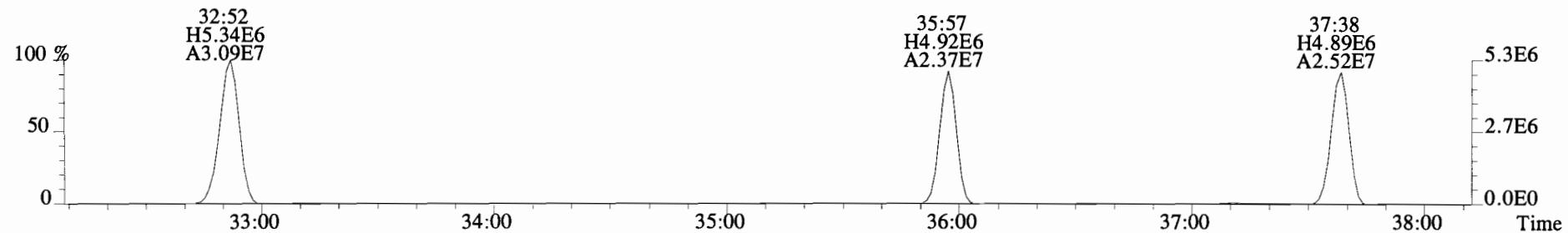
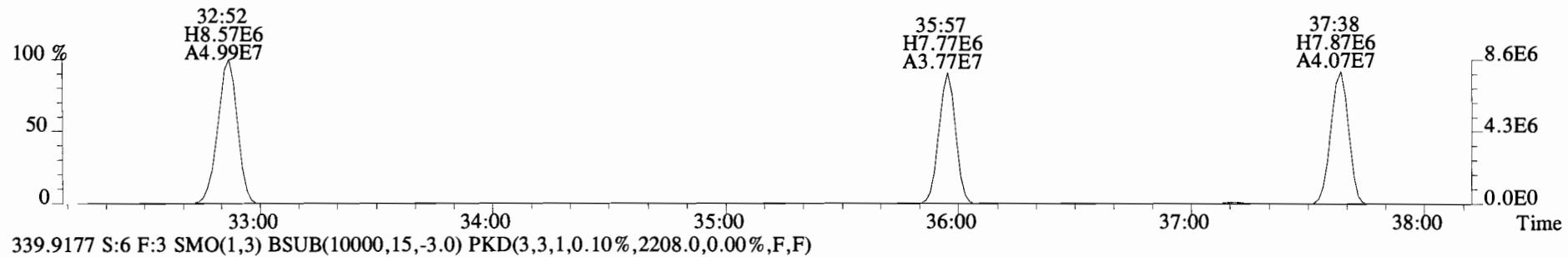
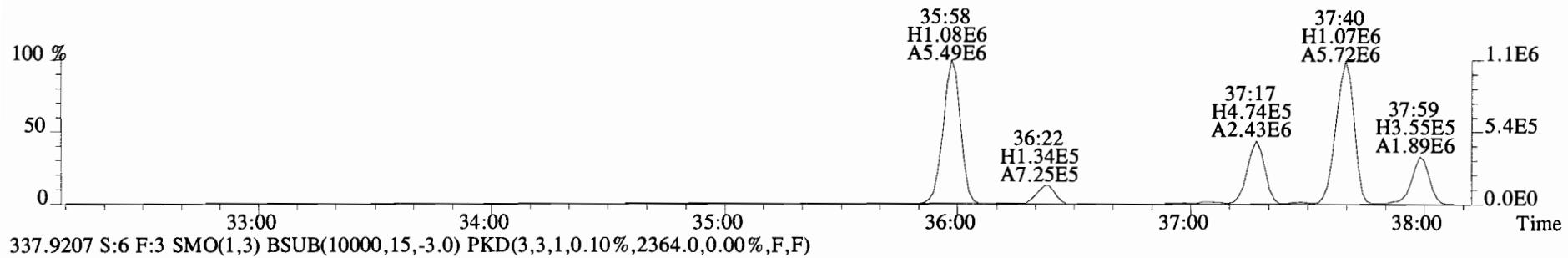
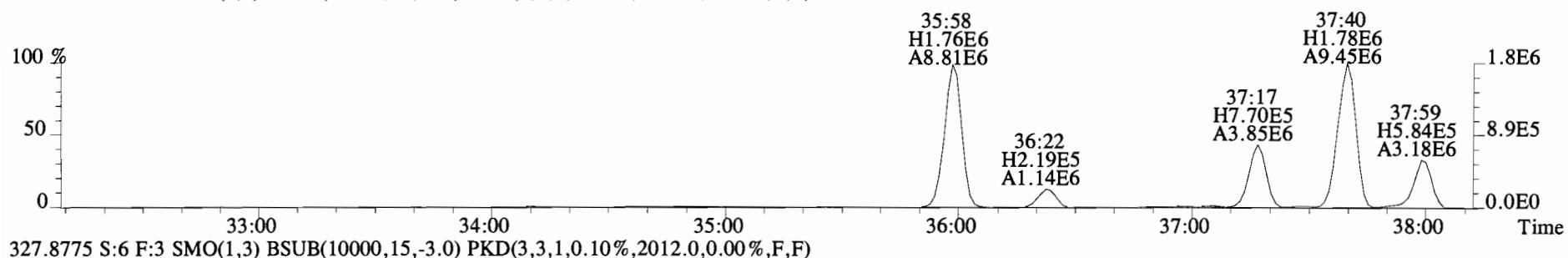
File:140923E1 #1-761 Acq:23-SEP-2014 19:22:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
301.9626 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15988.0,0.00%,F,F)



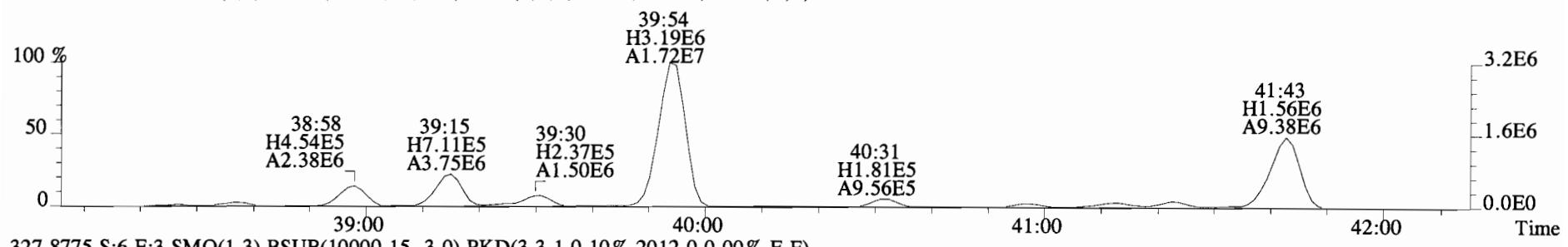
File:140923E1 #1-761 Acq:23-SEP-2014 19:22:06 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
 325.8804 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1640.0,0.00%,F,F)



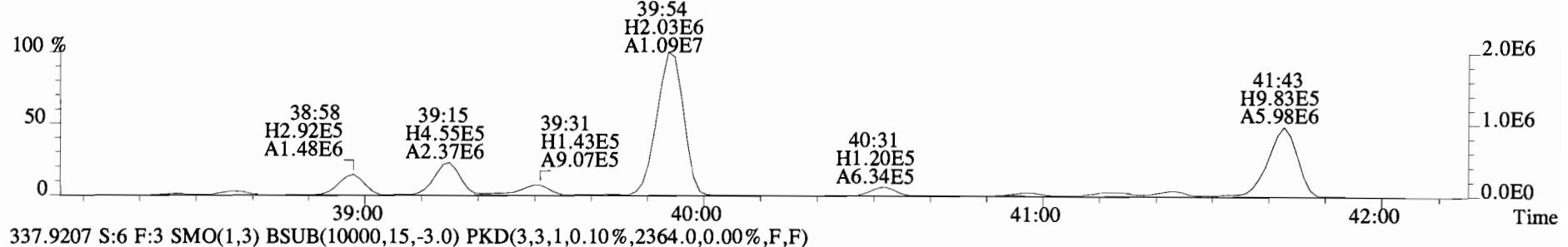
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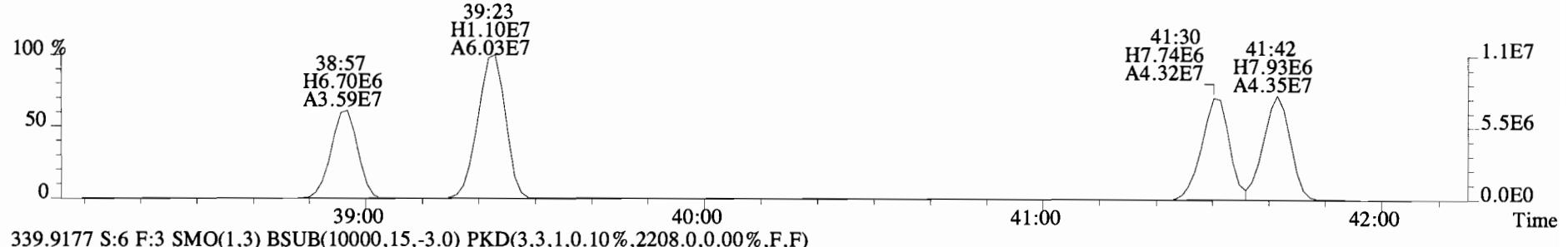
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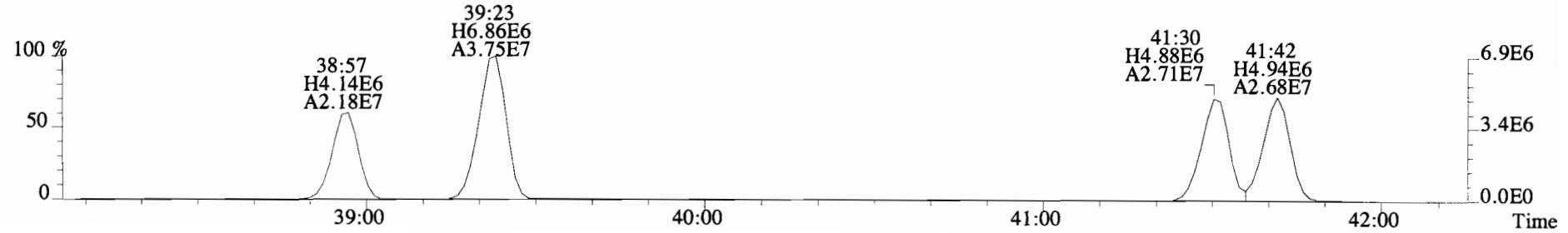
327.8775 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2012.0,0.00%,F,F)



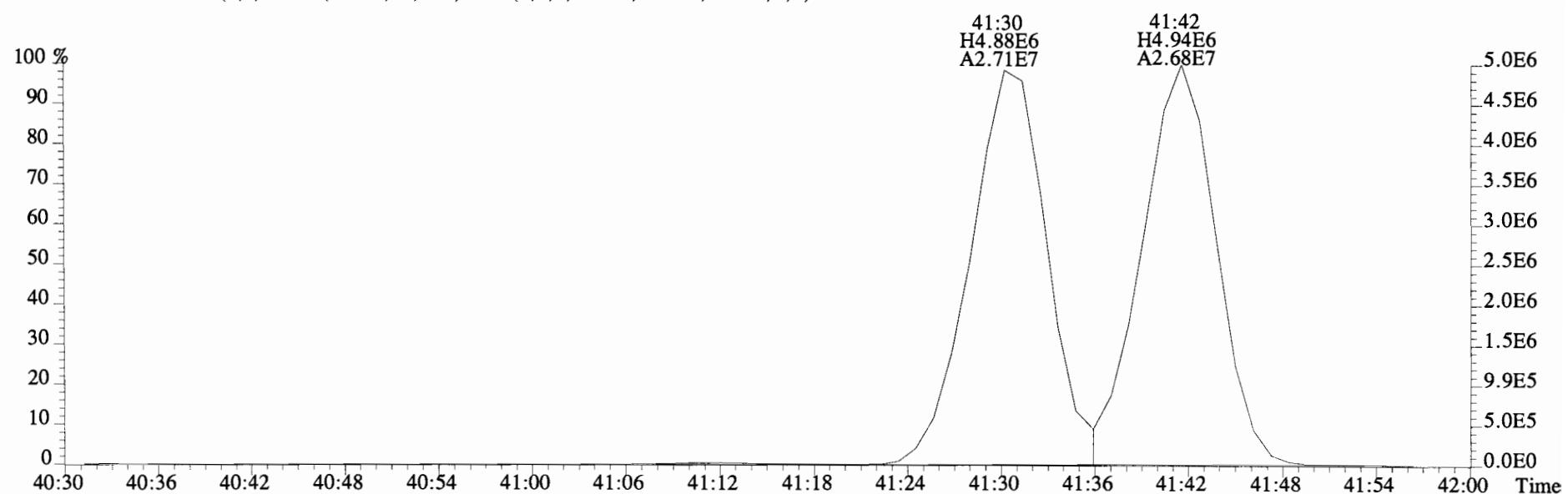
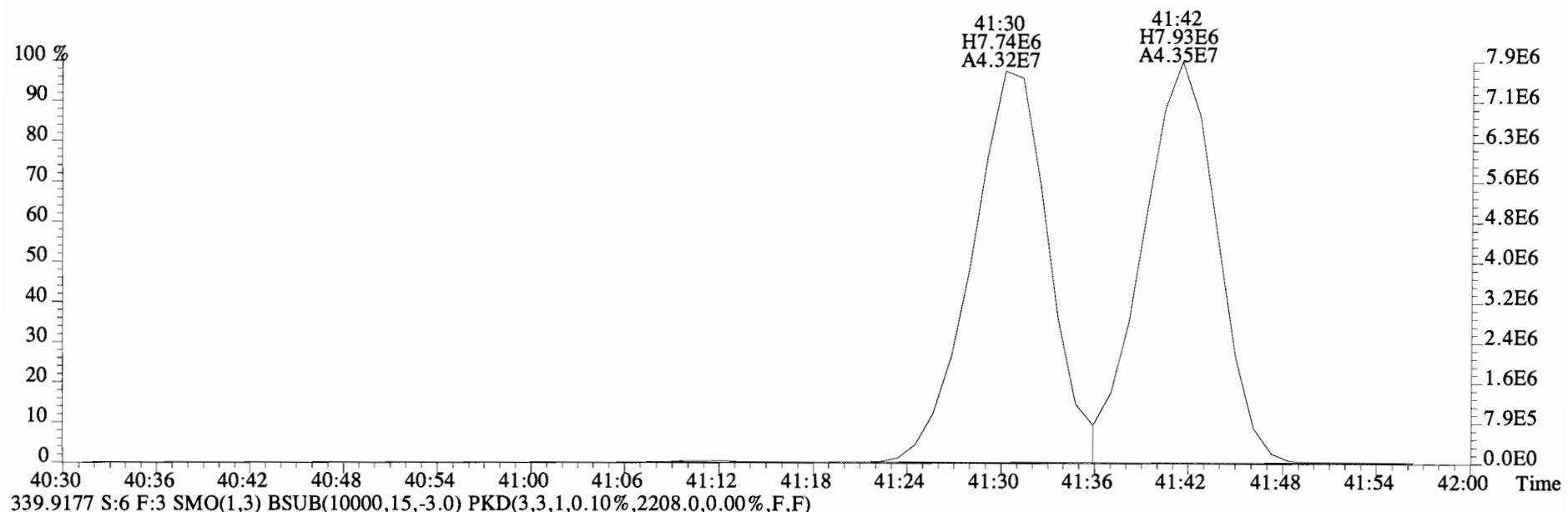
337.9207 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2364.0,0.00%,F,F)



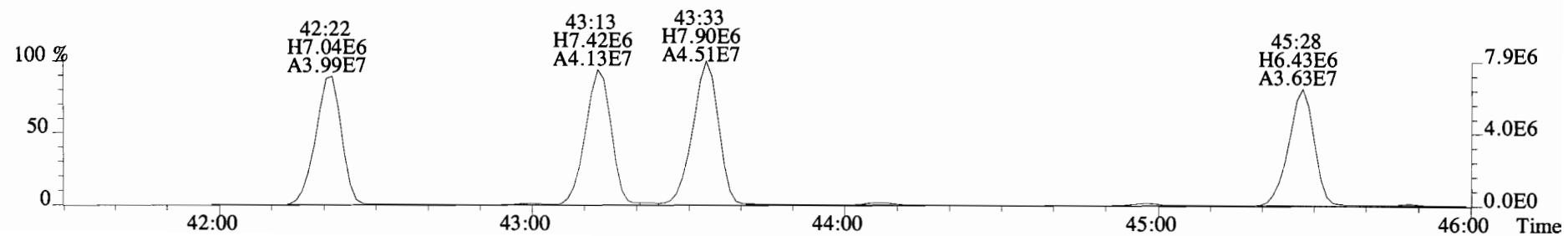
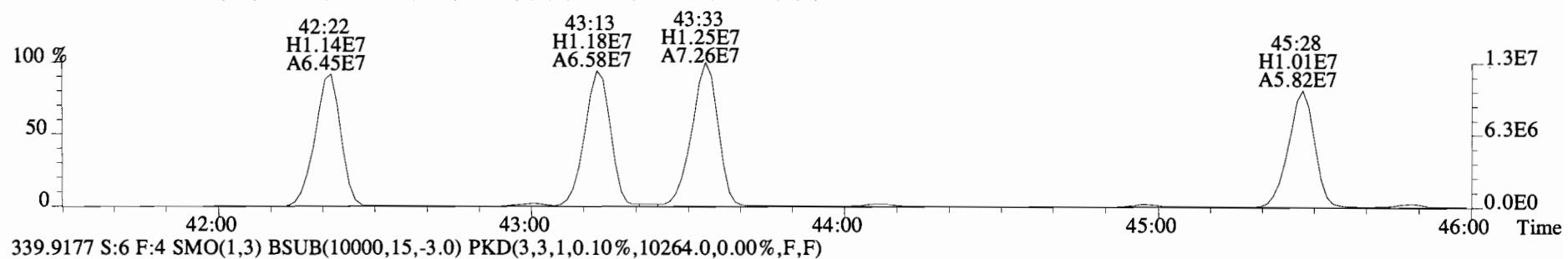
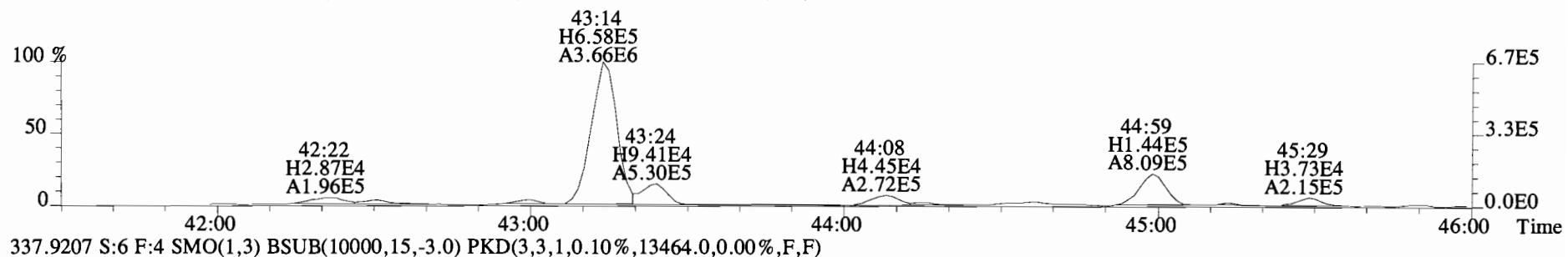
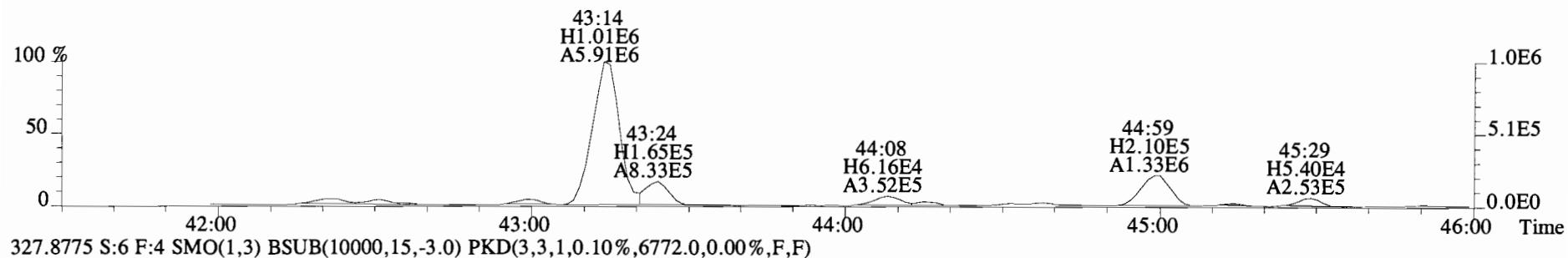
339.9177 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2208.0,0.00%,F,F)



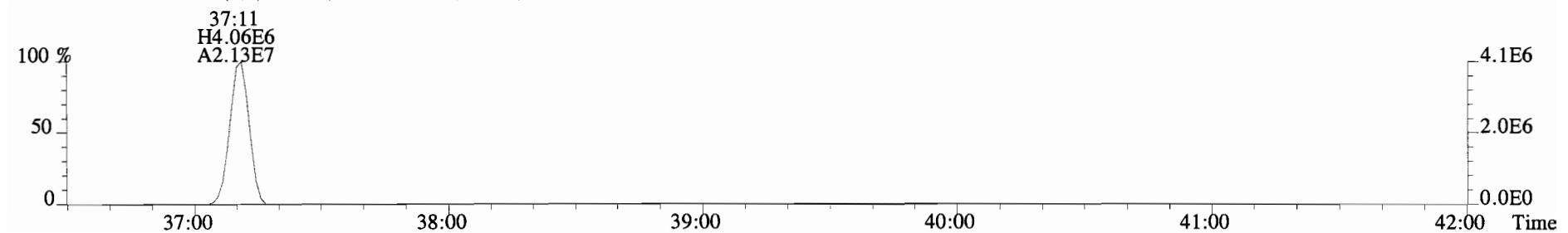
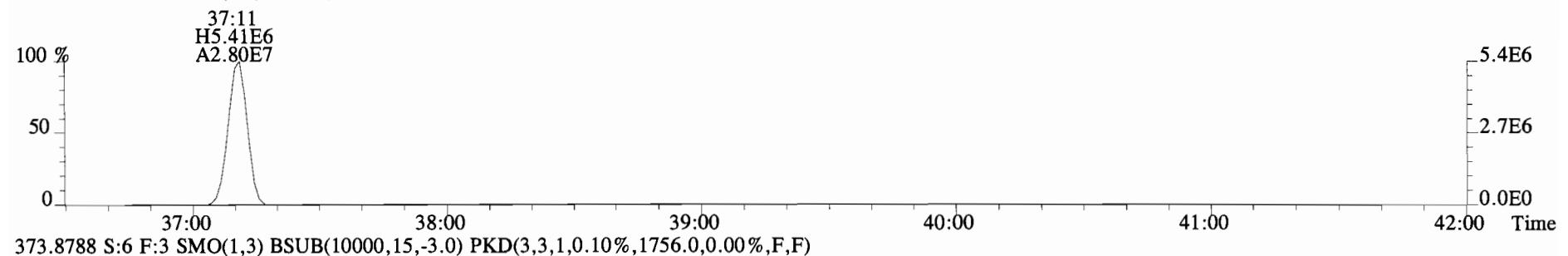
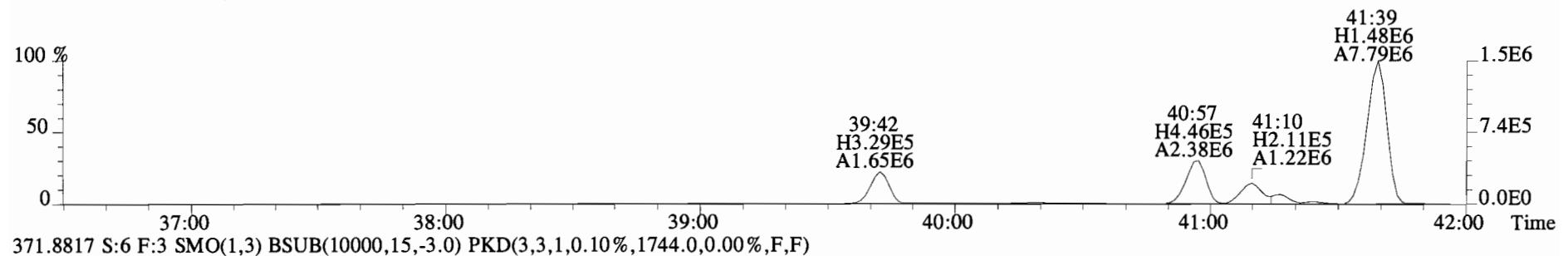
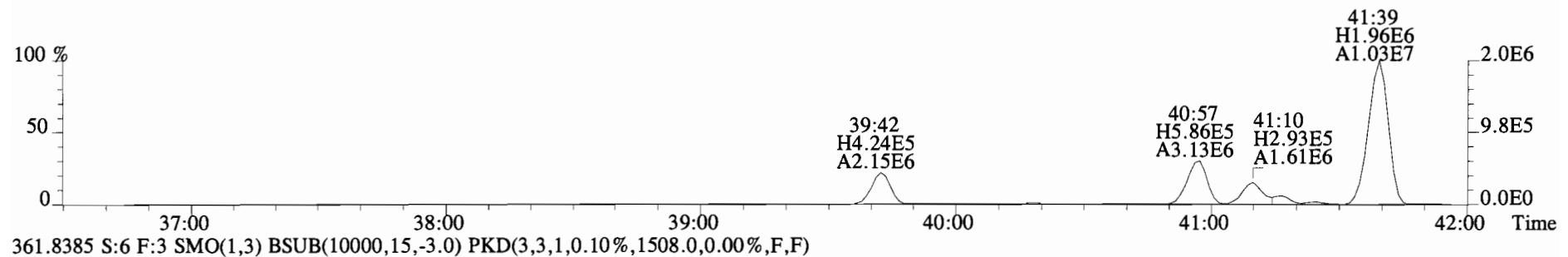
File:140923E1 #1-761 Acq:23-SEP-2014 19:22:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
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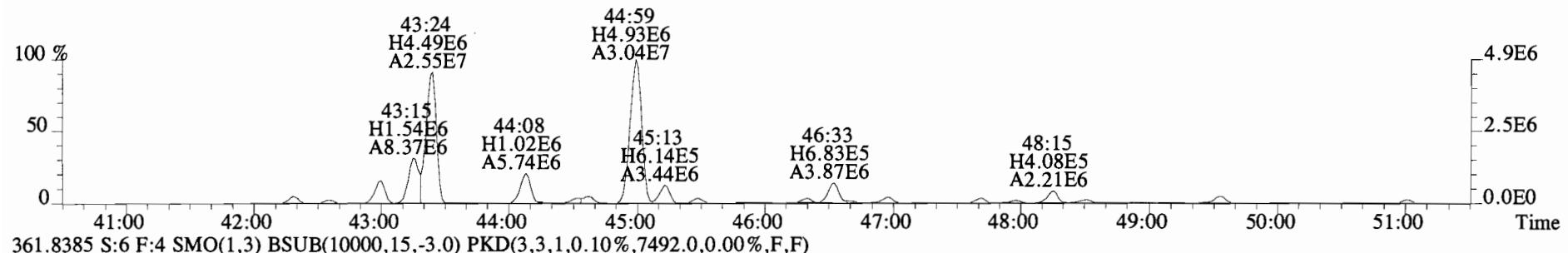
File:140923E1 #1-561 Acq:23-SEP-2014 19:22:06 GC EI + Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
 325.8804 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9460.0,0.00%,F,F)



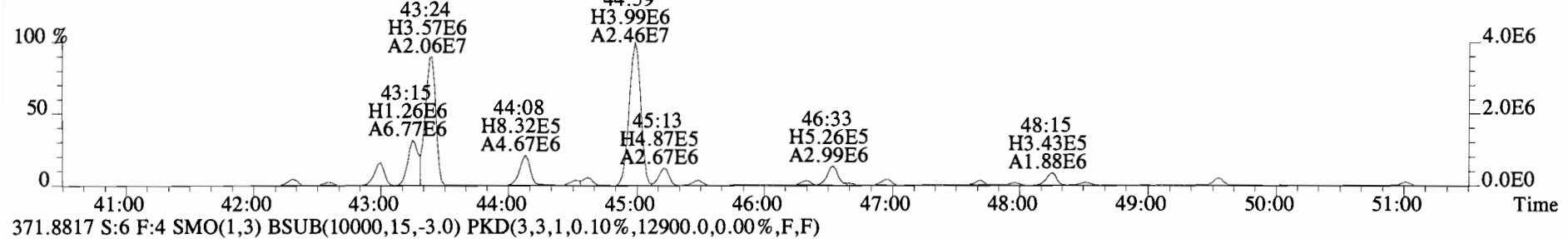
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
359.8415 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1452.0,0.00%,F,F)



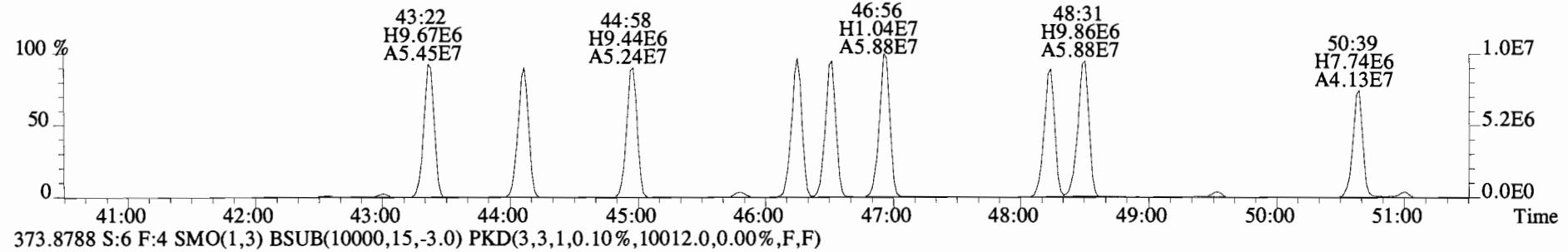
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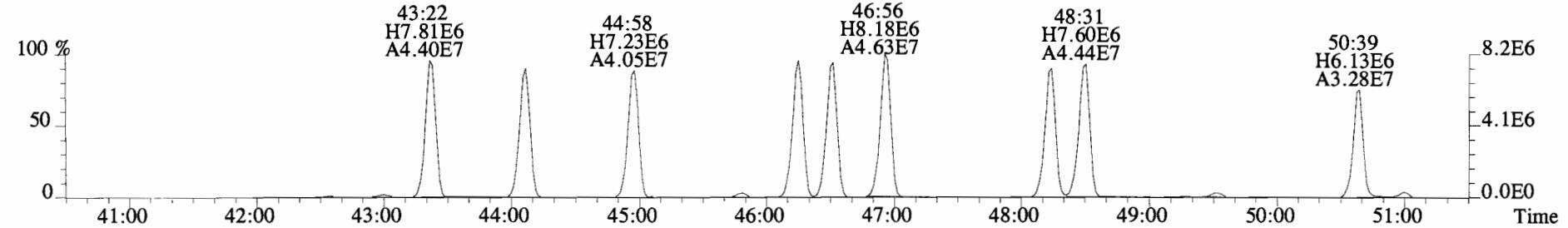
361.8385 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7492.0,0.00%,F,F)



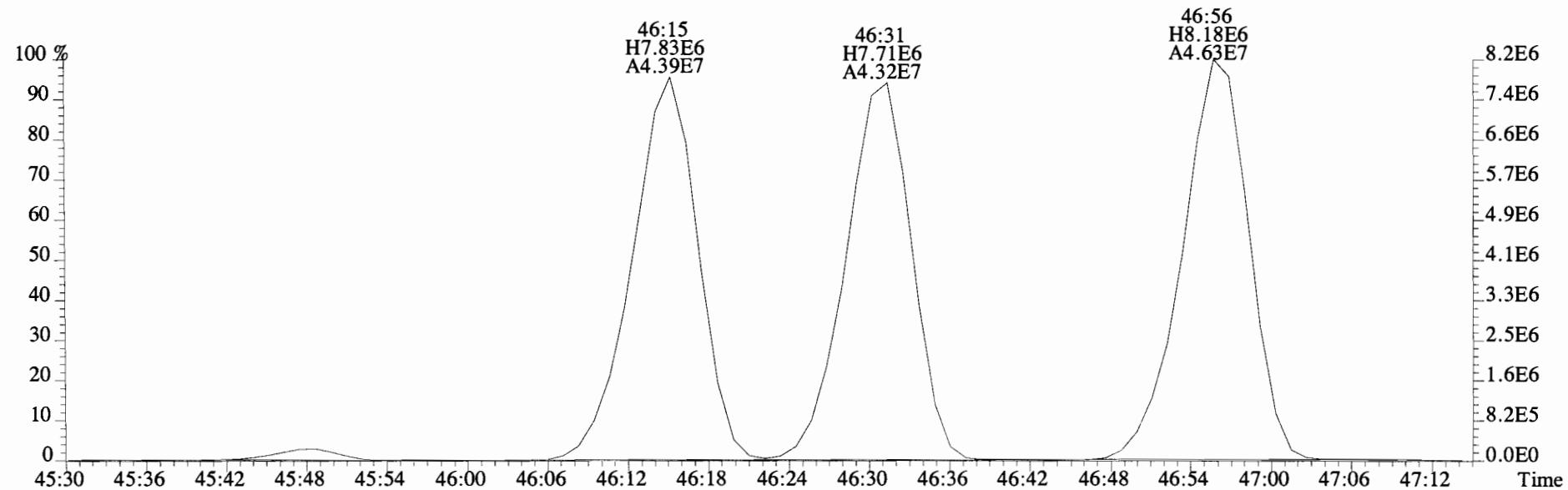
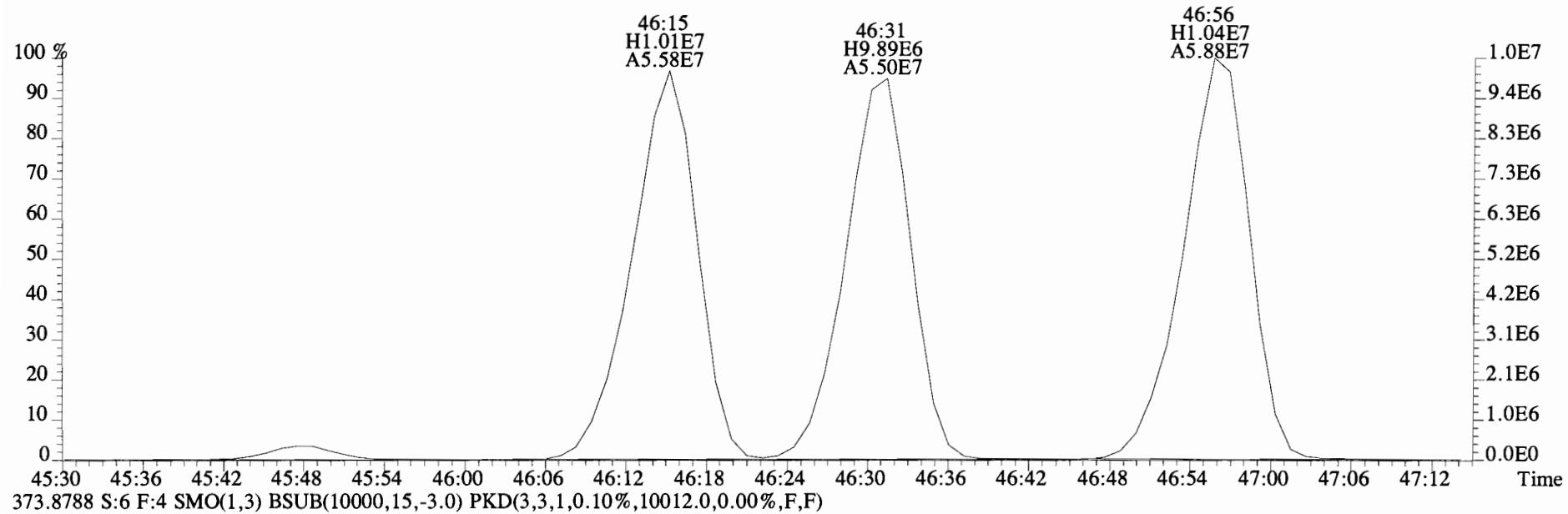
371.8817 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12900.0,0.00%,F,F)



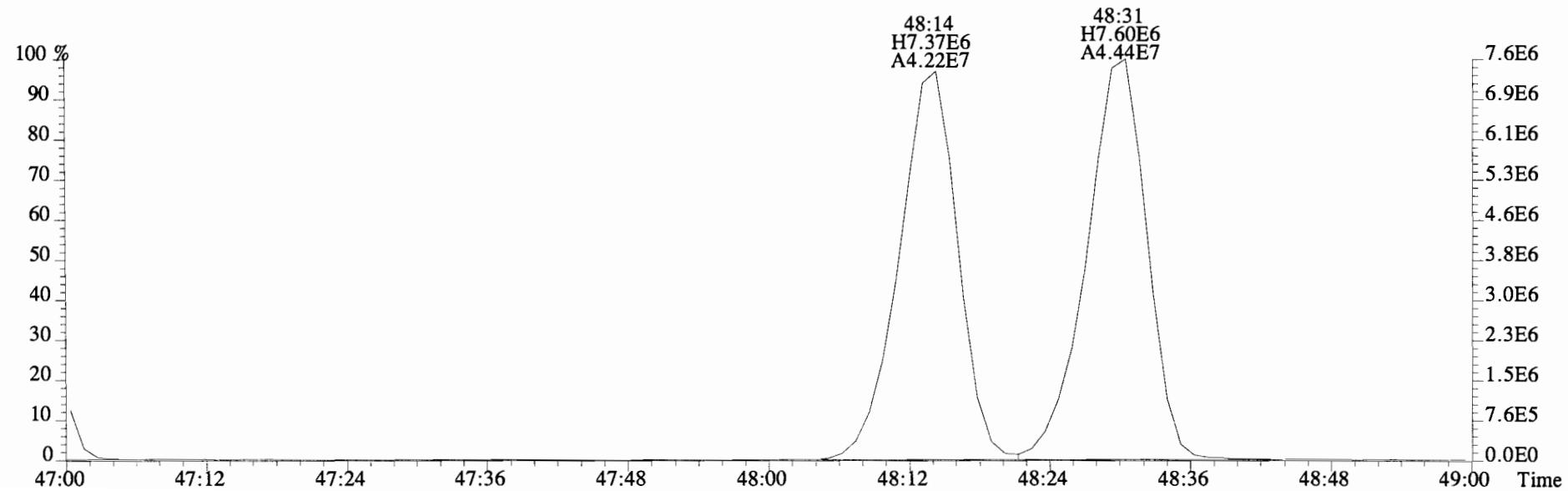
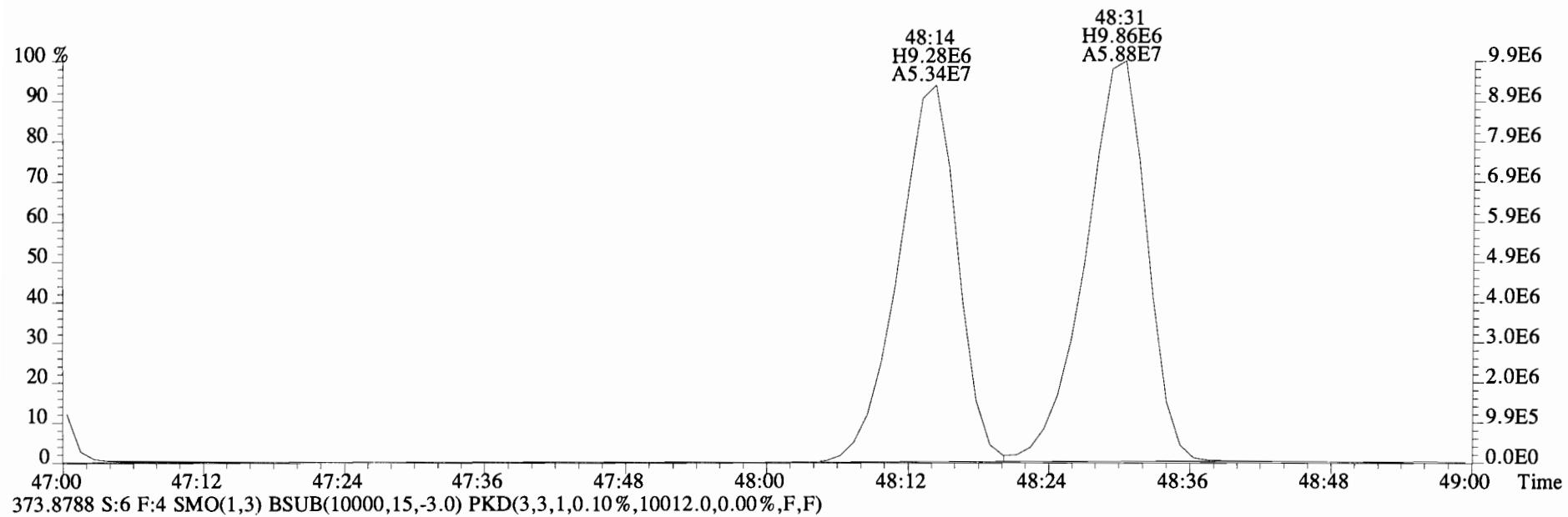
373.8788 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10012.0,0.00%,F,F)



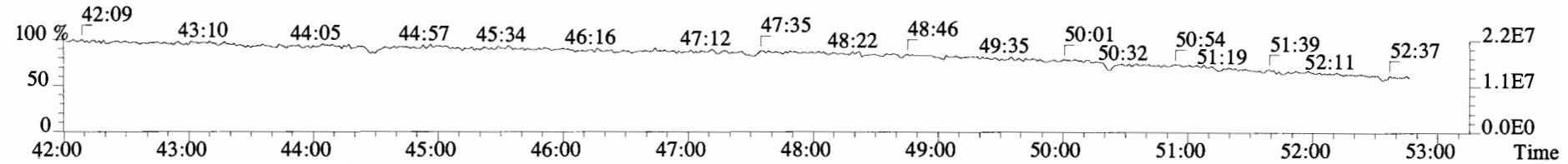
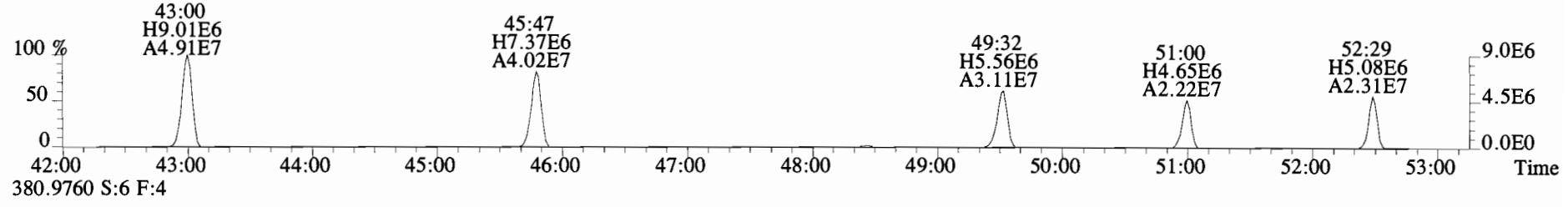
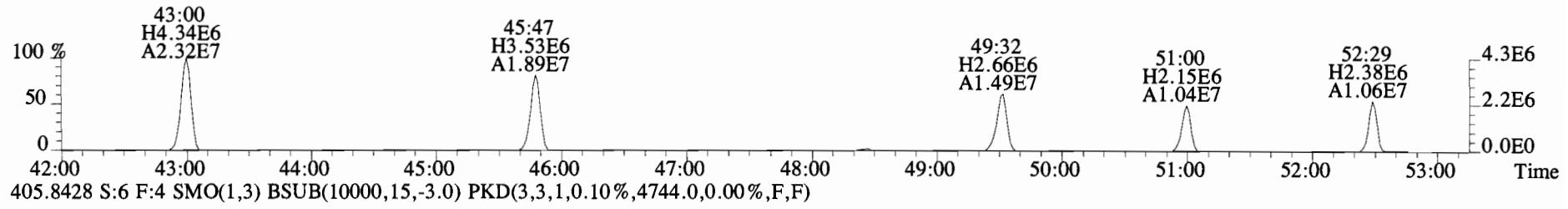
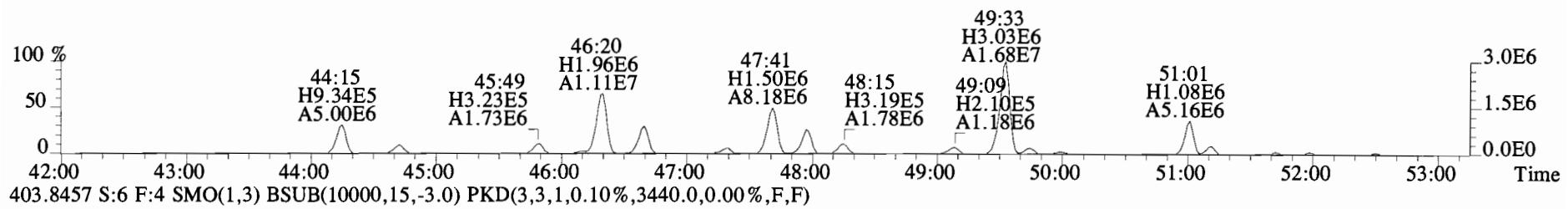
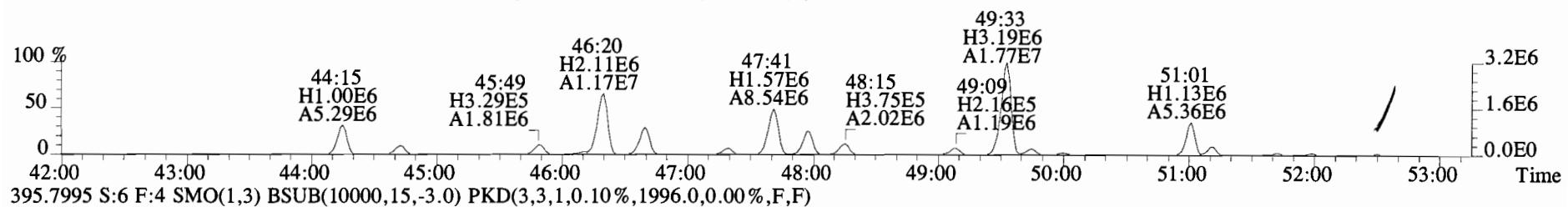
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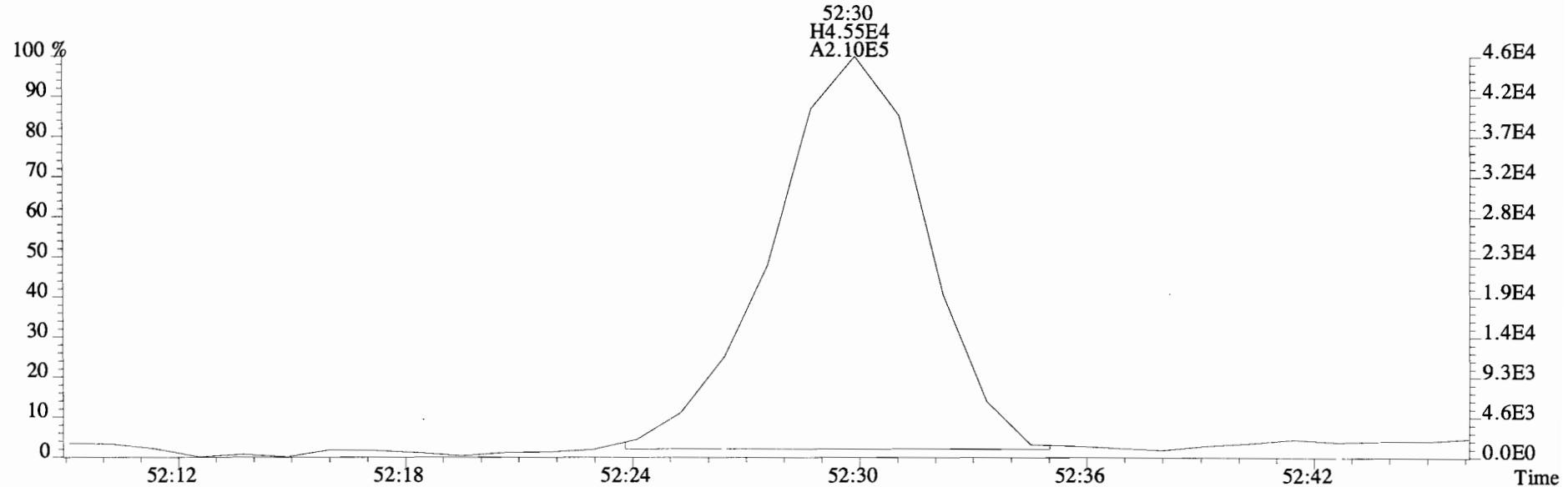
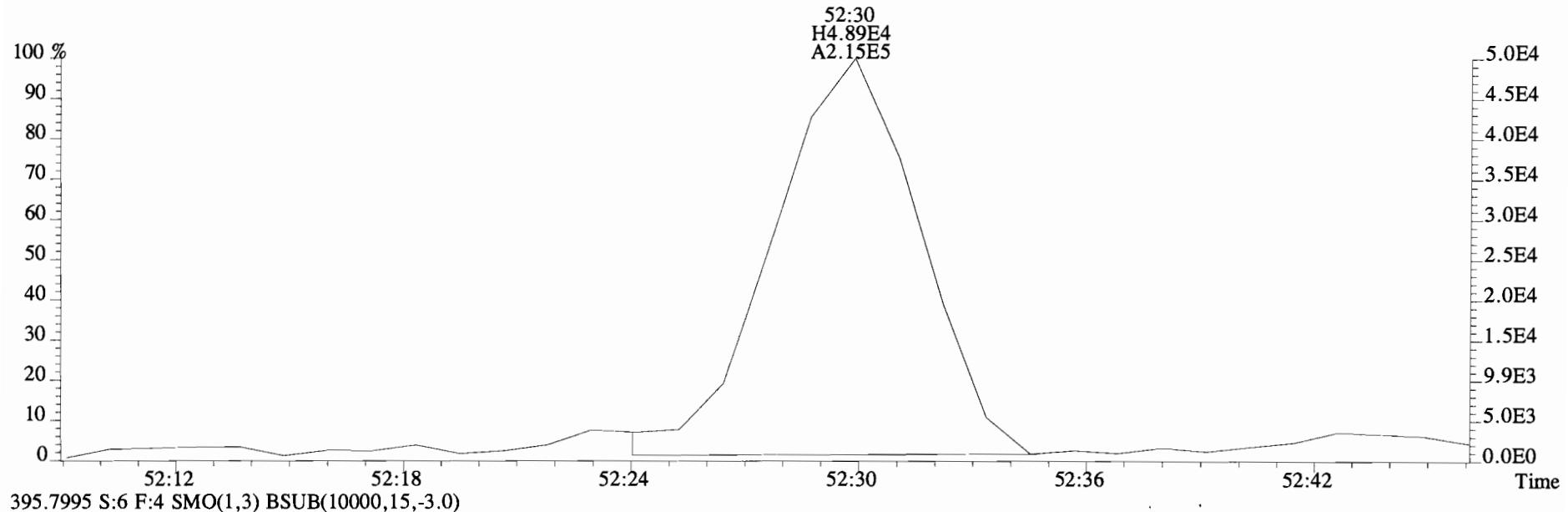
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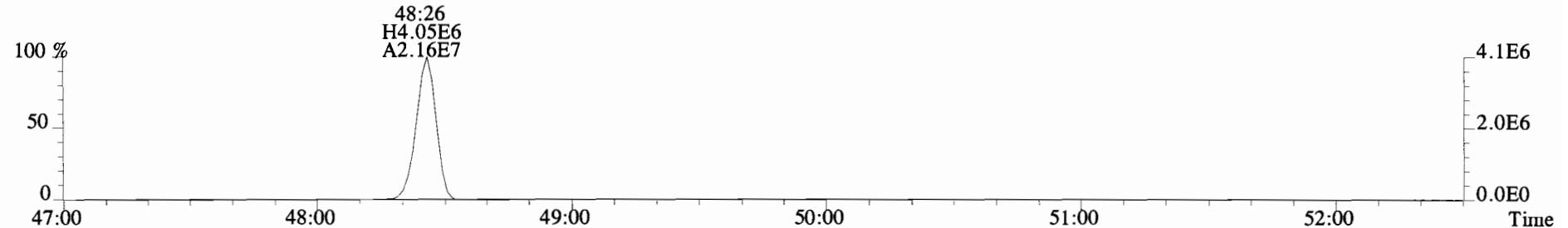
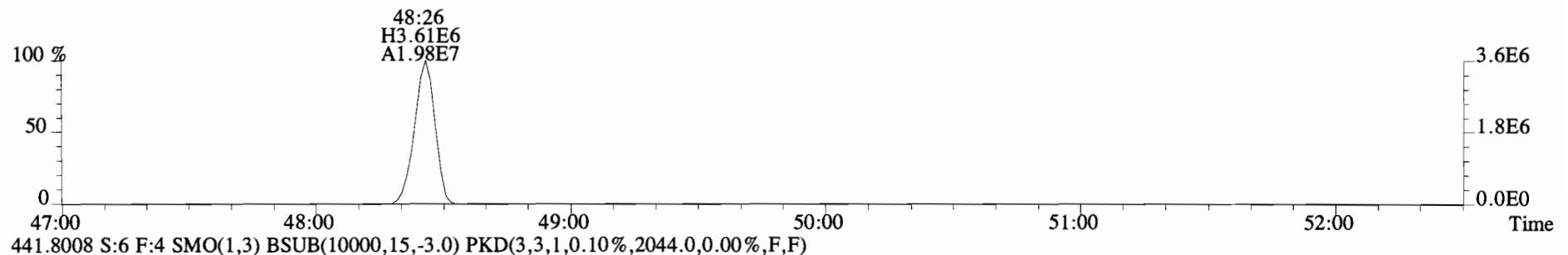
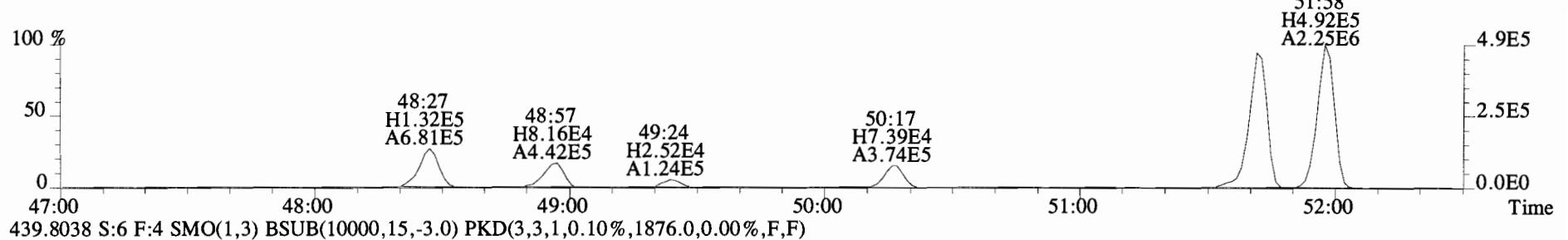
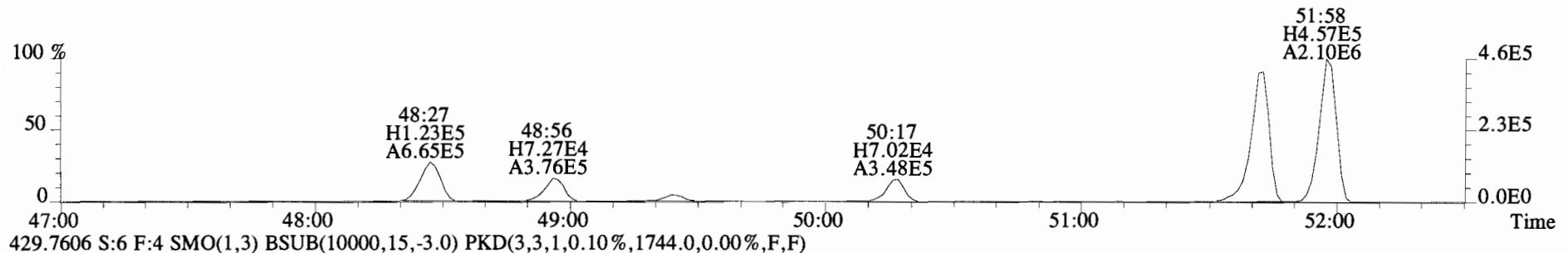
File:140923E1 #1-561 Acq:23-SEP-2014 19:22:06 GC EI+ Voltage SIR Autospec-UltimaE
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 393.8025 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2724.0,0.00%,F,F)



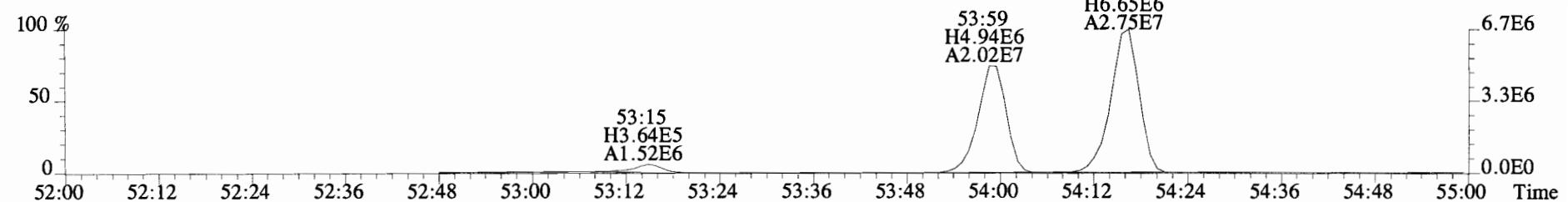
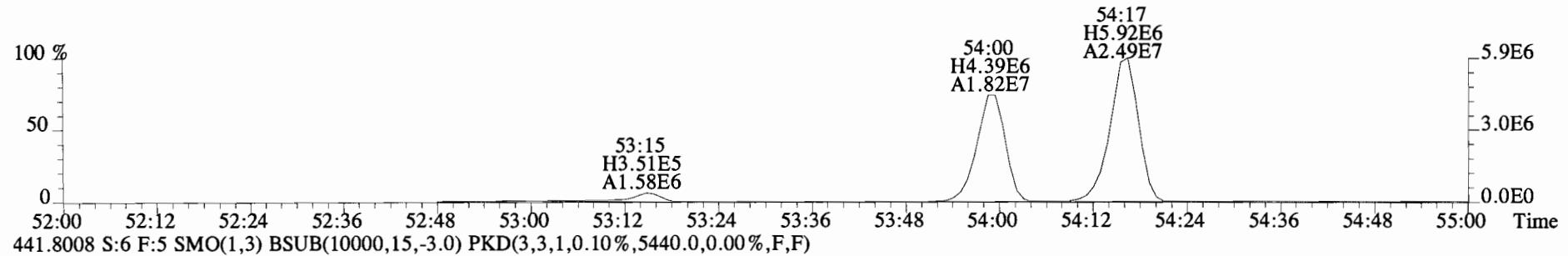
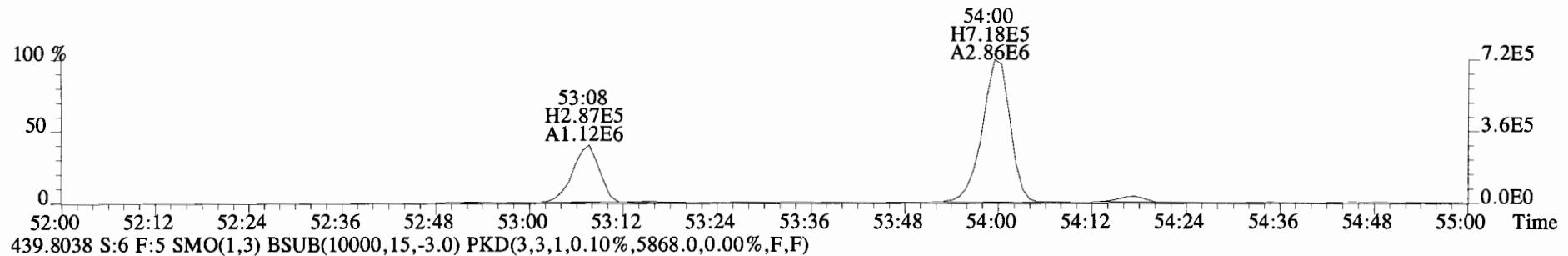
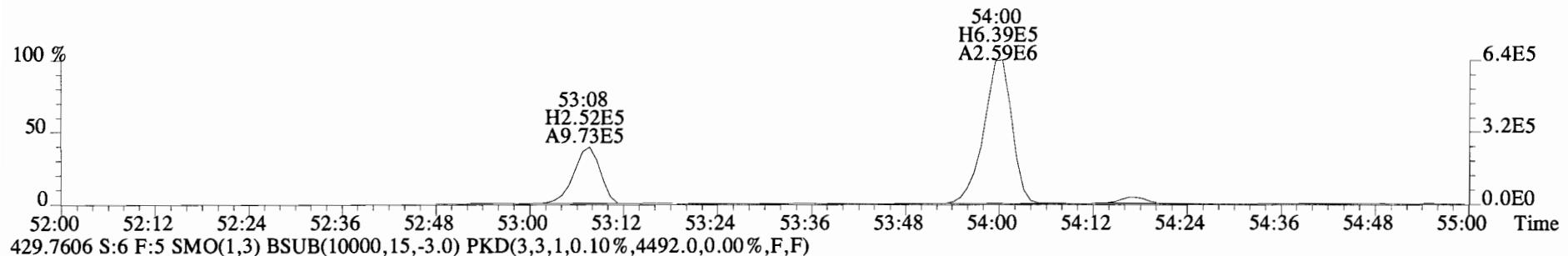
File:140923E1 #1-561 Acq:23-SEP-2014 19:22:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-TS-01-20140909-W Exp:PCB_ZB1
393.8025 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0)



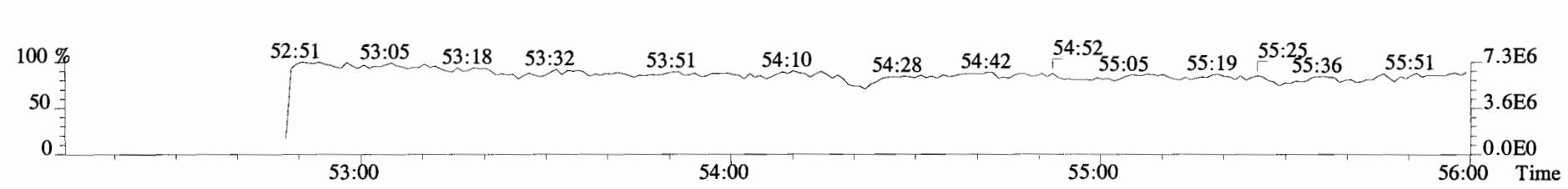
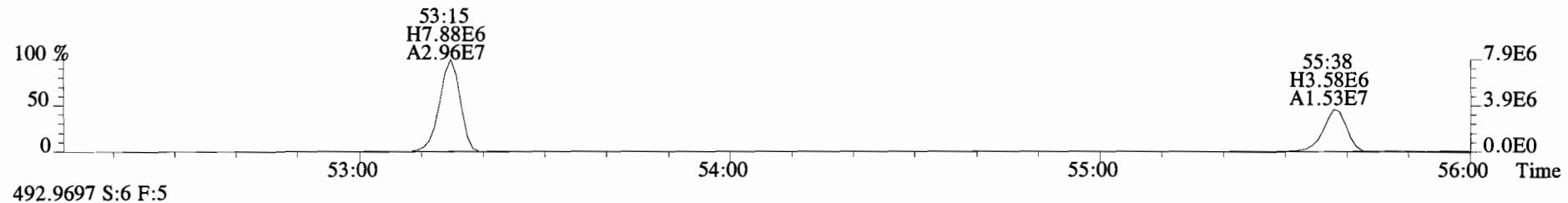
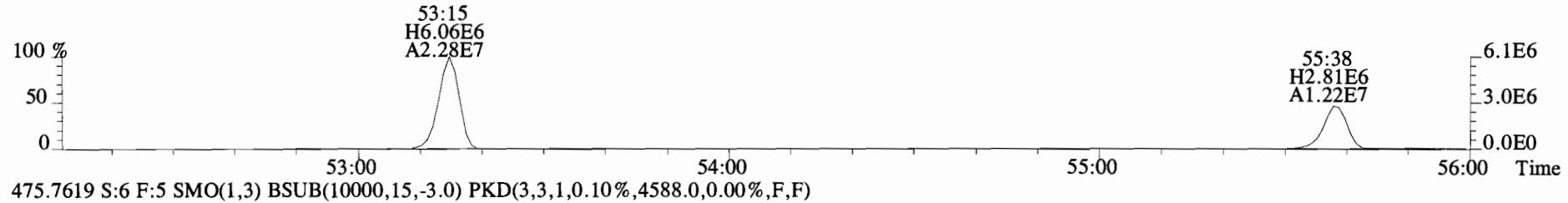
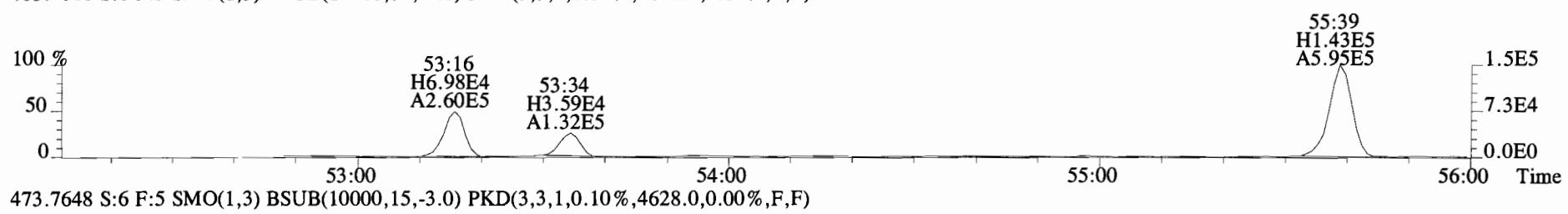
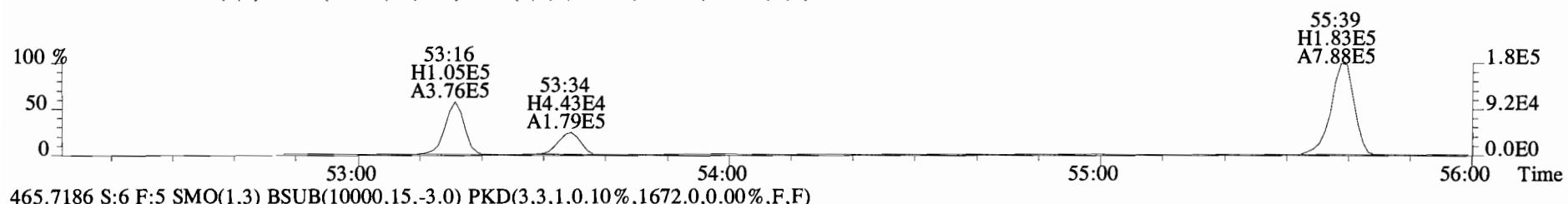
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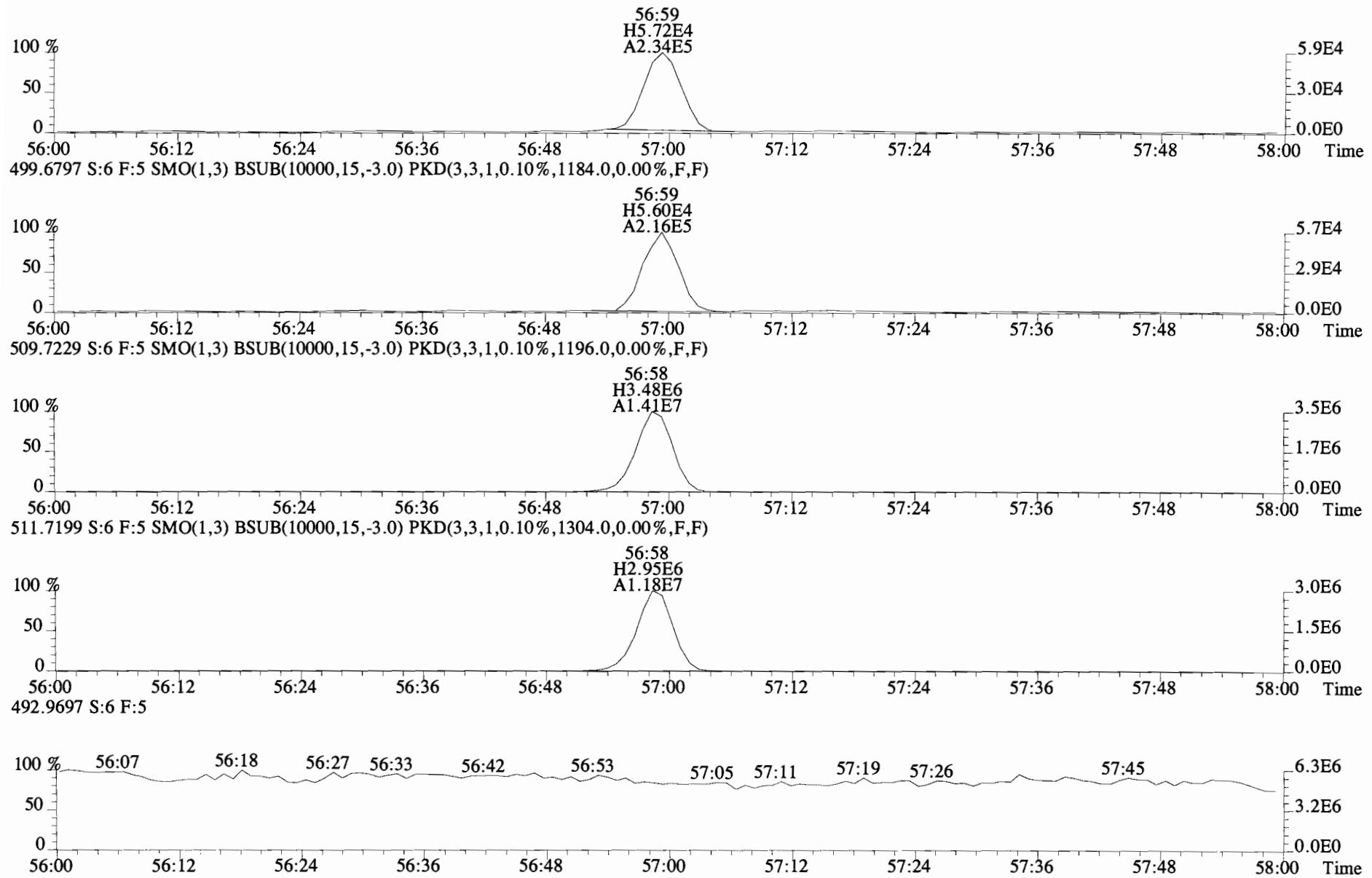
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
427.7635 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3544.0,0.00%,F,F)



File:140923E1 #1-417 Acq:23-SEP-2014 19:22:06 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
 463.7216 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1612.0,0.00%,F,F)



File:140923E1 #1-417 Acq:23-SEP-2014 19:22:06 GC EI + Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:1400659-02RE1 RI PS-OS-01-20140909-W Exp:PCB_ZB1
497.6826 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1288.0,0.00%,F,F)



Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2 S:6 Acq:20-SEP-14 05:05:04
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 10.000 ConCal: ST140919E2-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	*	*	n Not F ₁	1.19	*		3600	2.5	0.794	*	0.996-1.006	
Mono	PCB-2	*	*	n Not F ₁	1.18	*		3600	2.5	0.833	*	0.984-0.994	
Mono	PCB-3	*	*	n Not F ₁	1.43	*		3600	2.5	0.692	*	0.996-1.006	
Di	PCB-4/10	*	*	n Not F ₁	1.57	*		15000	2.5	3.61	*	0.997-1.007	
Di	PCB-7/9	*	*	n Not F ₁	1.21	*		15000	2.5	3.07	*	0.866-0.874	
Di	PCB-6	*	*	n Not F ₁	1.30	*		15000	2.5	2.85	*	0.890-0.899	
Di	PCB-5/8	*	*	n Not F ₁	1.15	*		15000	2.5	3.24	*	0.907-0.917	
Di	PCB-14	*	*	n Not F ₁	1.11	*		15000	2.5	3.25	*	0.949-0.959	
Di	PCB-11	*	*	n Not F ₁	1.09	*		15000	2.5	3.32	*	0.995-1.005	
Di	PCB-12/13	*	*	n Not F ₁	1.19	*		15000	2.5	3.02	*	1.011-1.021	
Di	PCB-15	*	*	n Not F ₁	1.28	*		15000	2.5	2.81	*	1.023-1.033	
Tri	PCB-19	*	*	n Not F ₁	1.04	*		1770	2.5	0.480	*	0.996-1.006	
Tri	PCB-30	*	*	n Not F ₁	1.71	*		1770	2.5	0.293	*	1.032-1.042	
Tri	PCB-18	*	*	n Not F ₁	0.78	*		4710	1.0	0.455	*	0.949-0.959	
Tri	PCB-17	*	*	n Not F ₁	0.92	*		1770	2.5	0.362	*	0.956-0.966	
Tri	PCB-24/27	*	*	n Not F ₁	1.19	*		1770	2.5	0.281	*	0.977-0.987	
Tri	PCB-16/32	*	*	n Not F ₁	0.94	*		1770	2.5	0.355	*	0.995-1.005	
Tri	PCB-34	*	*	n Not F ₁	1.14	*		1610	2.5	0.357	*	0.955-0.965	
Tri	PCB-23	*	*	n Not F ₁	1.28	*		1610	2.5	0.317	*	0.959-0.969	
Tri	PCB-29	*	*	n Not F ₁	1.08	*		1610	2.5	0.376	*	0.967-0.977	
Tri	PCB-26	*	*	n Not F ₁	1.21	*		1610	2.5	0.336	*	0.974-0.984	
Tri	PCB-25	*	*	n Not F ₁	1.26	*		1610	2.5	0.322	*	0.979-0.989	
Tri	PCB-31	*	*	n Not F ₁	1.28	*		3400	1.0	0.267	*	0.992-1.002	
Tri	PCB-28	*	*	n Not F ₁	1.71	*		3400	1.0	0.200	*	0.995-1.005	
Tri	PCB-20/21/33	*	*	n Not F ₁	1.08	*		4200	1.0	0.391	*	1.017-1.027	
Tri	PCB-22	*	*	n Not F ₁	1.21	*		4200	1.0	0.350	*	1.032-1.042	
Tri	PCB-36	*	*	n Not F ₁	1.14	*		1610	2.5	0.396	*	0.928-0.938	
Tri	PCB-39	*	*	n Not F ₁	1.12	*		1610	2.5	0.405	*	0.943-0.953	
Tri	PCB-38	*	*	n Not F ₁	1.20	*		1610	2.5	0.377	*	0.966-0.976	
Tri	PCB-35	*	*	n Not F ₁	1.23	*		1610	2.5	0.367	*	0.982-0.992	
Tri	PCB-37	*	*	n Not F ₁	1.23	*		1610	2.5	0.367	*	0.995-1.005	
Tetra	PCB-54	*	*	n Not F ₁	1.10	*		1850	2.5	0.413	*	0.996-1.006	
Tetra	PCB-50	*	*	n Not F ₁	0.88	*		1850	2.5	0.517	*	1.037-1.047	
Tetra	PCB-53	*	*	n Not F ₁	1.06	*		1850	2.5	0.516	*	0.942-0.952	
Tetra	PCB-51	*	*	n Not F ₁	0.99	*		1850	2.5	0.554	*	0.952-0.962	
Tetra	PCB-45	*	*	n Not F ₁	0.86	*		1850	2.5	0.636	*	0.966-0.976	
Tetra	PCB-46	*	*	n Not F ₁	0.85	*		1850	2.5	0.650	*	0.981-0.991	

Integrations by:

Analyst: MS

Date: 9/23/14

Reviewed by: 1/2

Date: 9/26/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2 S:6 Acq:20-SEP-14 05:05:04
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.000 ConCal: ST140919E2-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	*	*	n Not F ₁	1.28	*		1850	2.5	0.428	*	0.996-1.006	
Tetra	PCB-73	*	*	n Not F ₁	1.35	*		1850	2.5	0.406	*	1.000-1.010	
Tetra	PCB-43/49	*	*	n Not F ₁	0.99	*		1850	2.5	0.552	*	1.005-1.015	
Tetra	PCB-47	*	*	n Not F ₁	1.06	*		1850	2.5	0.473	*	0.996-1.006	
Tetra	PCB-48/75	*	*	n Not F ₁	1.23	*		1850	2.5	0.408	*	0.999-1.009	
Tetra	PCB-65	*	*	n Not F ₁	1.22	*		1850	2.5	0.409	*	1.008-1.018	
Tetra	PCB-62	*	*	n Not F ₁	1.22	*		1850	2.5	0.410	*	1.011-1.021	
Tetra	PCB-44	*	*	n Not F ₁	0.86	*		1850	2.5	0.583	*	1.021-1.031	
Tetra	PCB-42/59	*	*	n Not F ₁	1.14	*		1850	2.5	0.441	*	1.028-1.038	
Tetra	PCB-41/64/71/72	*	*	n Not F ₁	1.21	*		1850	2.5	0.415	*	1.046-1.056	
Tetra	PCB-68	*	*	n Not F ₁	1.35	*		1850	2.5	0.372	*	1.054-1.064	
Tetra	PCB-40	*	*	n Not F ₁	0.70	*		1850	2.5	0.715	*	1.061-1.071	
Tetra	PCB-57	*	*	n Not F ₁	0.98	*		1850	2.5	0.406	*	0.965-0.975	
Tetra	PCB-67	*	*	n Not F ₁	1.11	*		1850	2.5	0.359	*	0.974-0.984	
Tetra	PCB-58	*	*	n Not F ₁	0.93	*		1850	2.5	0.428	*	0.977-0.987	
Tetra	PCB-63	*	*	n Not F ₁	0.95	*		1850	2.5	0.417	*	0.982-0.992	
Tetra	PCB-74	*	*	n Not F ₁	1.24	*		1850	2.5	0.319	*	0.990-1.000	
Tetra	PCB-61/70	*	*	n Not F ₁	0.95	*		1850	2.5	0.417	*	0.995-1.005	
Tetra	PCB-76/66	*	*	n Not F ₁	1.04	*		1850	2.5	0.380	*	1.001-1.011	
Tetra	PCB-80	*	*	n Not F ₁	1.19	*		1850	2.5	0.325	*	0.996-1.006	
Tetra	PCB-55	*	*	n Not F ₁	1.04	*		1850	2.5	0.373	*	1.005-1.015	
Tetra	PCB-56/60	*	*	n Not F ₁	1.01	*		1850	2.5	0.384	*	1.019-1.029	
Tetra	PCB-79	*	*	n Not F ₁	1.08	*		1850	2.5	0.359	*	1.048-1.058	
Tetra	PCB-78	*	*	n Not F ₁	1.27	*		1850	2.5	0.339	*	0.982-0.992	
Tetra	PCB-81	*	*	n Not F ₁	1.33	*		1850	2.5	0.323	*	0.995-1.005	
Tetra	PCB-77	*	*	n Not F ₁	1.10	*		1850	2.5	0.377	*	0.995-1.005	
Penta	PCB-104	*	*	n Not F ₁	1.18	*		1760	2.5	0.650	*	0.996-1.006	
Penta	PCB-96	*	*	n Not F ₁	1.14	*		1760	2.5	0.676	*	1.034-1.044	
Penta	PCB-103	*	*	n Not F ₁	0.96	*		1760	2.5	0.804	*	1.050-1.060	
Penta	PCB-100	*	*	n Not F ₁	0.94	*		1760	2.5	0.821	*	1.061-1.071	
Penta	PCB-94	*	*	n Not F ₁	1.06	*		1760	2.5	0.973	*	0.980-0.990	
Penta	PCB-95/98/102	*	*	n Not F ₁	1.22	*		1760	2.5	0.840	*	0.995-1.005	
Penta	PCB-93	*	*	n Not F ₁	0.84	*		1760	2.5	1.22	*	0.997-1.007	
Penta	PCB-88/91	*	*	n Not F ₁	1.12	*		1760	2.5	0.921	*	1.005-1.015	
Penta	PCB-121	*	*	n Not F ₁	1.62	*		1760	2.5	0.637	*	1.009-1.019	
Penta	PCB-84/92	*	*	n Not F ₁	1.05	*		1760	2.5	0.870	*	0.985-0.995	
Penta	PCB-89	*	*	n Not F ₁	1.13	*		1760	2.5	0.805	*	0.991-1.001	

Analyst: M)

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2 S:6 Acq:20-SEP-14 05:05:04
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.000
ConCal: ST140919E2-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	*	*	n Not F ₇	1.10	*	*	1760	2.5	0.827	*	0.995-1.005	
Penta	PCB-113	*	*	n Not F ₇	1.41	*	*	1760	2.5	0.645	*	1.002-1.012	
Penta	PCB-99	*	*	n Not F ₇	1.34	*	*	1760	2.5	0.681	*	1.004-1.014	
Penta	PCB-119	*	*	n Not F ₇	1.53	*	*	1760	2.5	0.627	*	0.982-0.992	
Penta	PCB-108/112	*	*	n Not F ₇	1.28	*	*	1760	2.5	0.750	*	0.986-0.996	
Penta	PCB-83	*	*	n Not F ₇	1.52	*	*	1760	2.5	0.632	*	0.990-1.000	
Penta	PCB-97	*	*	n Not F ₇	1.18	*	*	1760	2.5	0.812	*	0.995-1.005	
Penta	PCB-86	*	*	n Not F ₇	0.84	*	*	1760	2.5	1.14	*	0.999-1.009	
Penta	PCB-87/117/125	*	*	n Not F ₇	1.55	*	*	1760	2.5	0.620	*	1.002-1.012	
Penta	PCB-111/115	*	*	n Not F ₇	1.63	*	*	1760	2.5	0.588	*	1.006-1.016	
Penta	PCB-85/116	*	*	n Not F ₇	1.30	*	*	1760	2.5	0.737	*	1.010-1.020	
Penta	PCB-120	*	*	n Not F ₇	1.68	*	*	1760	2.5	0.573	*	1.016-1.026	
Penta	PCB-110	*	*	n Not F ₇	1.56	*	*	1760	2.5	0.617	*	1.020-1.030	
Penta	PCB-82	*	*	n Not F ₇	0.76	*	*	1760	2.5	0.966	*	0.971-0.981	
Penta	PCB-124	*	*	n Not F ₇	1.47	*	*	1760	2.5	0.499	*	0.988-0.998	
Penta	PCB-107/109	*	*	n Not F ₇	1.32	*	*	1760	2.5	0.555	*	0.991-1.001	
Penta	PCB-123	*	*	n Not F ₇	1.17	*	*	1760	2.5	0.628	*	0.996-1.006	
Penta	PCB-106/118	*	*	n Not F ₇	1.17	*	*	1760	2.5	0.633	*	0.996-1.006	
Penta	PCB-114	*	*	n Not F ₇	1.30	*	*	2360	2.5	0.775	*	0.995-1.005	
Penta	PCB-122	*	*	n Not F ₇	1.12	*	*	2360	2.5	0.897	*	0.999-1.009	
Penta	PCB-105	*	*	n Not F ₇	1.30	*	*	2360	2.5	0.738	*	0.995-1.005	
Penta	PCB-127	*	*	n Not F ₇	1.33	*	*	2360	2.5	0.687	*	0.996-1.006	
Penta	PCB-126	*	*	n Not F ₇	1.18	*	*	2360	2.5	0.886	*	0.995-1.005	
Hexa	PCB-155	*	*	n Not F ₇	1.11	*	*	1270	2.5	0.423	*	0.966-1.006	
Hexa	PCB-150	*	*	n Not F ₇	1.00	*	*	1270	2.5	0.472	*	1.030-1.040	
Hexa	PCB-152	*	*	n Not F ₇	1.12	*	*	1270	2.5	0.423	*	1.043-1.053	
Hexa	PCB-145	*	*	n Not F ₇	1.20	*	*	1270	2.5	0.392	*	1.055-1.065	
Hexa	PCB-136	*	*	n Not F ₇	1.18	*	*	1270	2.5	0.400	*	1.064-1.074	
Hexa	PCB-148	*	*	n Not F ₇	0.74	*	*	1270	2.5	0.633	*	1.066-1.076	
Hexa	PCB-154	*	*	n Not F ₇	0.86	*	*	1270	2.5	0.550	*	1.080-1.090	
Hexa	PCB-151	*	*	n Not F ₇	0.75	*	*	1270	2.5	0.631	*	1.097-1.107	
Hexa	PCB-135	*	*	n Not F ₇	0.79	*	*	1270	2.5	0.595	*	1.103-1.113	
Hexa	PCB-144	*	*	n Not F ₇	0.76	*	*	1270	2.5	0.619	*	1.105-1.117	
Hexa	PCB-147	*	*	n Not F ₇	0.82	*	*	1270	2.5	0.575	*	1.109-1.121	
Hexa	PCB-139/149	*	*	n Not F ₇	0.76	*	*	1270	2.5	0.619	*	1.116-1.128	
Hexa	PCB-140	*	*	n Not F ₇	0.72	*	*	1270	2.5	0.653	*	1.121-1.133	
Hexa	PCB-134/143	*	*	n Not F ₇	0.92	*	*	1900	2.5	0.752	*	0.970-0.980	

Analyst: M

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2 S:6 Acq:20-SEP-14 05:05:04
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.000
ConCal: ST140919E2-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	*	*	n Not F ₇	0.82	*		1900	2.5	0.842	*	0.977-0.987	
Hexa	PCB-131	*	*	n Not F ₇	0.91	*		1900	2.5	0.760	*	0.981-0.991	
Hexa	PCB-146/165	*	*	n Not F ₇	1.25	*		1900	2.5	0.553	*	0.986-0.996	
Hexa	PCB-132/161	*	*	n Not F ₇	1.10	*		1900	2.5	0.624	*	0.992-1.002	
Hexa	PCB-153	*	*	n Not F ₇	1.25	*		1900	2.5	0.552	*	0.995-1.005	
Hexa	PCB-168	*	*	n Not F ₇	1.45	*		1900	2.5	0.476	*	1.001-1.011	
Hexa	PCB-141	*	*	n Not F ₇	1.09	*		1900	2.5	0.714	*	0.995-1.005	
Hexa	PCB-137	*	*	n Not F ₇	1.06	*		1900	2.5	0.730	*	1.004-1.014	
Hexa	PCB-130	*	*	n Not F ₇	0.96	*		1900	2.5	0.803	*	1.006-1.016	
Hexa	PCB-138/163/164	*	*	n Not F ₇	1.29	*		1900	2.5	0.550	*	0.996-1.006	
Hexa	PCB-158/160	*	*	n Not F ₇	1.34	*		1900	2.5	0.530	*	1.001-1.011	
Hexa	PCB-129	*	*	n Not F ₇	0.85	*		1900	2.5	0.834	*	1.007-1.017	
Hexa	PCB-166	*	*	n Not F ₇	1.19	*		1900	2.5	0.541	*	0.988-0.998	
Hexa	PCB-159	*	*	n Not F ₇	1.11	*		1900	2.5	0.577	*	0.996-1.006	
Hexa	PCB-128/162	*	*	n Not F ₇	1.05	*		1900	2.5	0.613	*	1.002-1.012	
Hexa	PCB-167	*	*	n Not F ₇	1.20	*		1900	2.5	0.482	*	0.995-1.005	
Hexa	PCB-156	*	*	n Not F ₇	1.14	*		1900	2.5	0.546	*	0.996-1.006	
Hexa	PCB-157	*	*	n Not F ₇	1.16	*		1900	2.5	0.517	*	0.995-1.005	
Hexa	PCB-169	*	*	n Not F ₇	1.12	*		1900	2.5	0.560	*	0.995-1.005	
Hepta	PCB-188	*	*	n Not F ₇	1.58	*		1660	2.5	0.275	*	0.996-1.006	
Hepta	PCB-184	*	*	n Not F ₇	1.63	*		1660	2.5	0.266	*	1.006-1.016	
Hepta	PCB-179	*	*	n Not F ₇	1.30	*		1660	2.5	0.333	*	1.024-1.034	
Hepta	PCB-176	*	*	n Not F ₇	1.48	*		1660	2.5	0.294	*	1.035-1.045	
Hepta	PCB-186	*	*	n Not F ₇	1.45	*		1660	2.5	0.299	*	1.050-1.060	
Hepta	PCB-178	*	*	n Not F ₇	1.03	*		1660	2.5	0.420	*	1.061-1.071	
Hepta	PCB-175	*	*	n Not F ₇	1.01	*		1660	2.5	0.429	*	1.069-1.079	
Hepta	PCB-182/187	*	*	n Not F ₇	1.25	*		1660	2.5	0.347	*	1.073-1.083	
Hepta	PCB-183	*	*	n Not F ₇	1.21	*		1660	2.5	0.359	*	1.081-1.091	
Hepta	PCB-185	*	*	n Not F ₇	1.80	*		1660	2.5	0.320	*	0.951-0.961	
Hepta	PCB-174	*	*	n Not F ₇	1.38	*		1660	2.5	0.418	*	0.958-0.968	
Hepta	PCB-181	*	*	n Not F ₇	1.38	*		1660	2.5	0.417	*	0.960-0.970	
Hepta	PCB-177	*	*	n Not F ₇	1.26	*		1660	2.5	0.459	*	0.963-0.973	
Hepta	PCB-171	*	*	n Not F ₇	1.58	*		1660	2.5	0.364	*	0.970-0.980	
Hepta	PCB-173	*	*	n Not F ₇	1.11	*		1660	2.5	0.519	*	0.978-0.988	
Hepta	PCB-172	*	*	n Not F ₇	1.63	*		1660	2.5	0.352	*	0.987-0.997	
Hepta	PCB-192	*	*	n Not F ₇	1.74	*		1660	2.5	0.331	*	0.991-1.001	
Hepta	PCB-180	*	*	n Not F ₇	1.34	*		1660	2.5	0.428	*	0.995-1.005	

Analyst: M

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2 S:6 Acq:20-SEP-14 05:05:04
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.000
ConCal: ST140919E2-1
EndCAL: NA

Page 3 of

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	*	n Not F ₁	1.72	*	*	1660	2.5	0.336	*	0.999-1.009	
Hepta	PCB-191	*	*	n Not F ₁	1.69	*	*	1660	2.5	0.340	*	1.004-1.014	
Hepta	PCB-170	*	*	n Not F ₁	1.60	*	*	1660	2.5	0.410	*	0.995-1.005	
Hepta	PCB-190	*	*	n Not F ₁	2.21	*	*	1660	2.5	0.297	*	0.998-1.008	
Hepta	PCB-189	*	*	n Not F ₁	1.55	*	*	1660	2.5	0.329	*	0.995-1.005	
Octa	PCB-202	*	*	n Not F ₁	1.08	*	*	1510	2.5	0.459	*	0.995-1.005	
Octa	PCB-201	*	*	n Not F ₁	1.15	*	*	1510	2.5	0.432	*	1.005-1.015	
Octa	PCB-204	*	*	n Not F ₁	1.14	*	*	1510	2.5	0.436	*	1.008-1.018	
Octa	PCB-197	*	*	n Not F ₁	1.07	*	*	1510	2.5	0.462	*	1.015-1.025	
Octa	PCB-200	*	*	n Not F ₁	1.06	*	*	1510	2.5	0.467	*	1.032-1.044	
Octa	PCB-198	*	*	n Not F ₁	0.76	*	*	1510	2.5	0.658	*	1.059-1.069	
Octa	PCB-199	*	*	n Not F ₁	0.80	*	*	1510	2.5	0.623	*	1.061-1.071	
Octa	PCB-196/203	*	*	n Not F ₁	0.80	*	*	1510	2.5	0.620	*	1.066-1.076	
Octa	PCB-195	*	*	n Not F ₁	1.23	*	*	1480	2.5	0.496	*	0.979-0.989	
Octa	PCB-194	*	*	n Not F ₁	1.21	*	*	1480	2.5	0.502	*	0.995-1.005	
Octa	PCB-205	*	*	n Not F ₁	1.54	*	*	1480	2.5	0.394	*	1.001-1.011	
Nona	PCB-208	*	*	n Not F ₁	0.93	*	*	1160	2.5	0.303	*	0.995-1.005	
Nona	PCB-207	*	*	n Not F ₁	1.08	*	*	1160	2.5	0.260	*	1.001-1.011	
Nona	PCB-206	*	*	n Not F ₁	1.02	*	*	1160	2.5	0.610	*	0.995-1.005	
Deca	PCB-209	*	*	n Not F ₁	1.17	*	*	2100	1.0	0.485	*	0.995-1.005	

Analyst: M)
Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2 S:6 Acq:20-SEP-14 05:05:04 ConCal: ST140919E2-1
GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol: 10.0000 EndCAL: NA

Page 3 of

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	*	*	n	NotFnd	1.27	*
Total Di-PCB	*	*	n	NotFnd	1.21	*
Total Tri-PCB	*	*	n	NotFnd	1.10	*
Total Tri-PCB	*	*	n	NotFnd	1.21	*
Total Tetra-PCB	*	*	n	NotFnd	1.09	*
Total Penta-PCB	*	*	n	NotFnd	1.18	*
Total Penta-PCB	*	*	n	NotFnd	1.25	*
Total Hexa-PCB	*	*	n	NotFnd	0.90	*
Total Hexa-PCB	*	*	n	NotFnd	1.11	*
Total Hepta-PCB	*	*	n	NotFnd	1.42	*
Total Octa-PCB	*	*	n	NotFnd	0.96	*
Total Octa-PCB	*	*	n	NotFnd	1.33	*
Total Nona-PCB	*	*	n	NotFnd	1.01	*
Total Deca-PCB	*	*	n	NotFnd	1.17	*

Total PCB Conc:0.00000000000

Integrations
by _____
Analyst: MJ
Date: 9/23/14

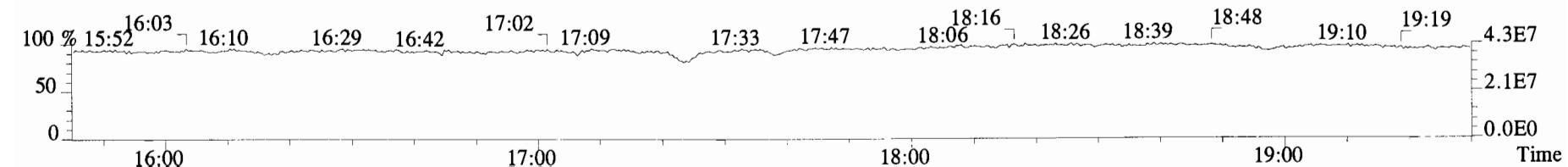
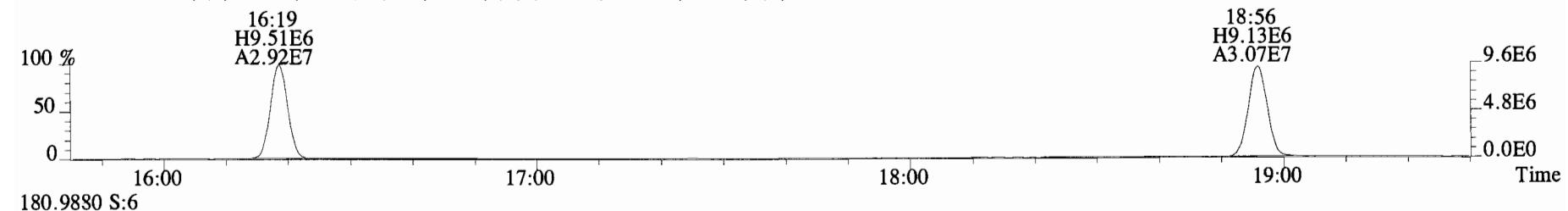
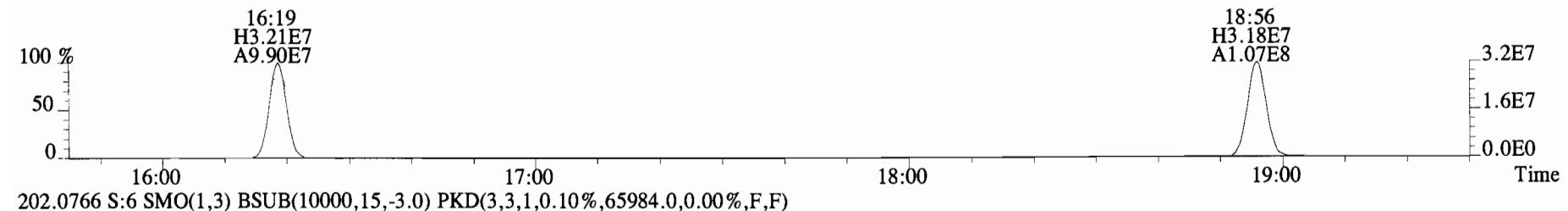
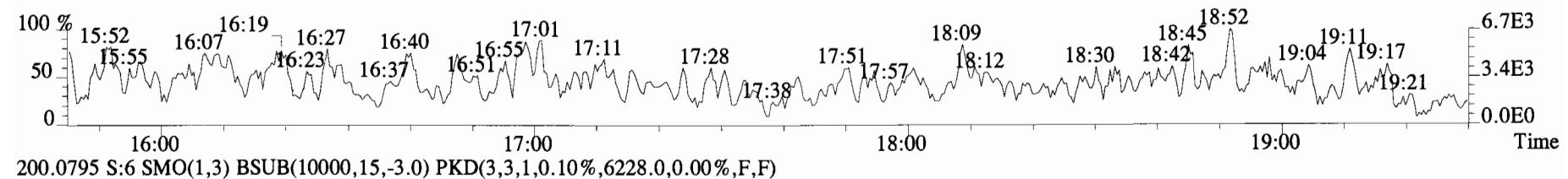
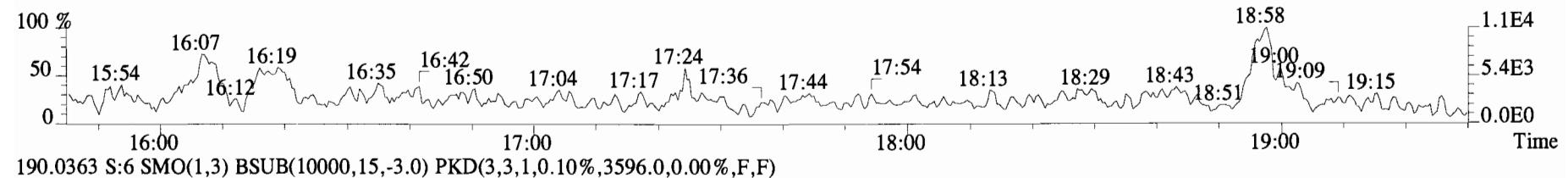
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Lab ID: B4I0061-BLK1

Filename: 140919E2 S:6 Acq:20-SEP-14 05:05:04
GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol:10.000
ConCal: ST140919E2-1 EndCAL: NA

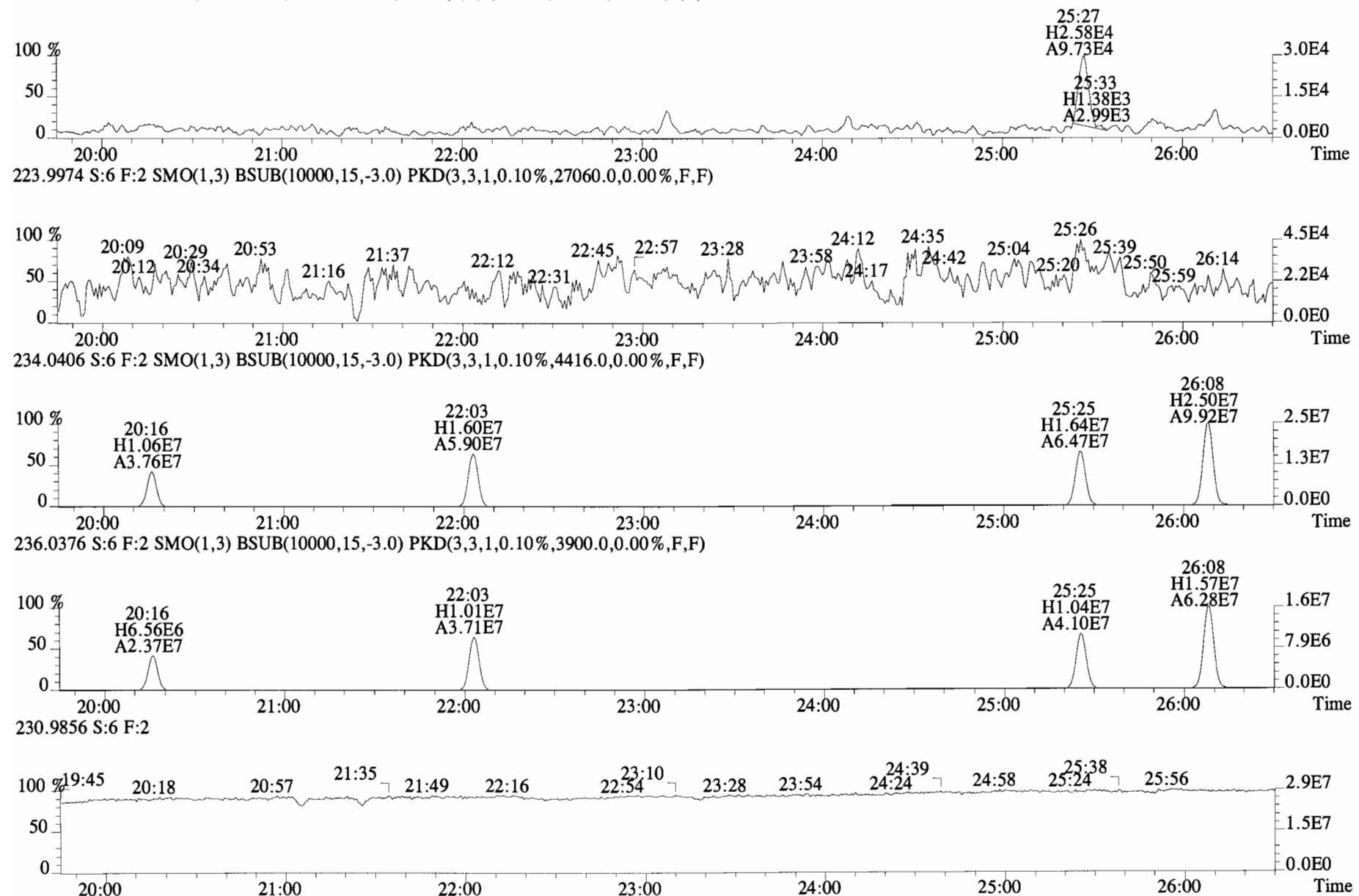
Page 3 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	1.28e+08	3.39	y	0.87	16:19	0.624	• 0.629-0.635	907	90.7	13C-PCB-79	1.12e+08	0.85	y	1.02	38:00	1.028	1.023-1.034	800	80.0		
13C-PCB-3	1.38e+08	3.50	y	0.91	18:56	0.724	• 0.725-0.733	934	93.4	13C-PCB-178	4.88e+07	0.47	y	0.61	45:50	0.985	0.979-0.990	908	90.8		
13C-PCB-4	6.14e+07	1.59	y	0.59	20:16	0.776	• 0.775-0.783	646	64.6	PS vs. IS											
13C-PCB-9	9.62e+07	1.59	y	0.90	22:03	0.844	• 0.842-0.850	662	66.2												
13C-PCB-11	1.06e+08	1.58	y	0.94	25:26	0.973	0.968-0.978	696	69.6												
13C-PCB-32	1.11e+08	1.12	y	0.80	27:20	1.046	1.040-1.050	860	86.0												
13C-PCB-19	7.12e+07	1.11	y	0.53	24:25	0.934	0.930-0.940	826	82.6	13C-PCB-79	1.12e+08	0.85	y	1.10	38:00	0.969	0.964-0.974	1020	102		
13C-PCB-28	9.16e+07	1.11	y	0.93	29:17	1.003	0.999-1.009	686	68.6	13C-PCB-178	4.88e+07	0.47	y	0.90	45:50	0.925	0.920-0.930	1040	104		
13C-PCB-52	7.47e+07	0.85	y	0.77	31:42	0.858	0.853-0.861	705	70.5												
13C-PCB-54	8.68e+07	0.85	y	0.97	28:10	0.762	0.758-0.766	651	65.1												
13C-PCB-37	9.17e+07	1.14	y	0.84	33:10	1.136	1.131-1.143	762	76.2												
13C-PCB-47	8.00e+07	0.84	y	0.81	32:12	0.871	0.866-0.874	717	71.7												
13C-PCB-81	9.96e+07	0.85	y	0.92	39:14	1.062	1.057-1.067	787	78.7												
13C-PCB-70	1.04e+08	0.85	y	1.00	35:43	0.967	0.961-0.971	757	75.7												
13C-PCB-80	1.10e+08	0.85	y	1.03	36:07	0.977	0.972-0.982	774	77.4												
13C-PCB-104	7.09e+07	1.63	y	1.00	32:51	0.833	0.828-0.836	695	69.5												
13C-PCB-101	6.10e+07	1.64	y	0.78	37:41	0.956	0.951-0.961	765	76.5	RS											
13C-PCB-95	5.52e+07	1.62	y	0.74	36:01	0.914	0.908-0.918	732	73.2												
13C-PCB-77	1.01e+08	0.84	y	0.94	39:50	1.078	1.073-1.083	781	78.1	13C-PCB-15	1.62e+08	1.58	y	1.00	26:08	1000					
13C-PCB-114	7.99e+07	1.71	y	1.36	42:23	0.910	0.905-0.915	669	66.9	13C-PCB-31	1.43e+08	1.09	y	1.00	29:11	1000					
13C-PCB-118	7.78e+07	1.65	y	0.96	41:44	1.059	1.054-1.064	797	79.7	13C-PCB-60	1.37e+08	0.85	y	1.00	36:57	1000					
13C-PCB-123	7.54e+07	1.59	y	0.89	41:33	1.054	1.050-1.060	828	82.8	13C-PCB-111	1.02e+08	1.63	y	1.00	39:25	1000					
13C-PCB-97	5.75e+07	1.63	y	0.70	39:00	0.989	0.984-0.994	802	80.2	13C-PCB-128	8.76e+07	1.32	y	1.00	46:33	1000					
13C-PCB-127	8.57e+07	1.68	y	1.47	43:35	0.936	0.931-0.941	664	66.4	13C-PCB-205	7.41e+07	0.91	y	1.00	54:16	1000					
13C-PCB-105	7.97e+07	1.66	y	1.37	43:15	0.929	0.924-0.934	666	66.6												
13C-PCB-141	7.29e+07	1.33	y	1.07	44:08	0.948	0.943-0.953	775	77.5												
13C-PCB-153	7.80e+07	1.34	y	1.15	43:24	0.932	0.927-0.937	776	77.6												
13C-PCB-155	7.30e+07	1.28	y	0.84	37:14	0.945	0.939-0.949	854	85.4												
13C-PCB-126	7.60e+07	1.67	y	1.31	45:29	0.977	0.972-0.982	664	66.4												
13C-PCB-167	9.40e+07	1.32	y	1.35	46:57	1.009	1.004-1.014	794	79.4												
13C-PCB-156	8.84e+07	1.32	y	1.30	48:15	1.037	1.032-1.042	778	77.8												
13C-PCB-138	7.57e+07	1.30	y	1.10	44:59	0.966	0.961-0.971	786	78.6												
13C-PCB-159	8.61e+07	1.31	y	1.25	46:16	0.994	0.989-0.999	787	78.7												
13C-PCB-157	9.59e+07	1.35	y	1.36	48:31	1.042	1.038-1.048	806	80.6												
13C-PCB-180	5.22e+07	0.46	y	0.68	49:32	1.064	1.060-1.070	872	87.2												
13C-PCB-188	6.74e+07	0.46	y	0.92	43:03	0.925	0.919-0.929	838	83.8												
13C-PCB-169	8.60e+07	1.31	y	1.29	50:39	1.088	1.083-1.093	763	76.3												
13C-PCB-170	4.24e+07	0.47	y	0.54	51:00	1.096	1.089-1.101	892	89.2												
13C-PCB-202	7.31e+07	0.93	y	0.84	48:27	1.041	1.036-1.046	996	99.6												
13C-PCB-189	5.23e+07	0.47	y	0.72	52:29	1.127	1.120-1.132	833	83.3	Analyst:	m)										
13C-PCB-208	6.93e+07	0.77	y	1.08	53:16	0.982	0.976-0.986	866	86.6	Date:	9/23/14										
13C-PCB-194	5.02e+07	0.94	y	0.80	53:59	0.995	0.990-1.000	850	85.0												
13C-PCB-206	4.18e+07	0.79	y	0.65	55:38	1.025	1.021-1.031	868	86.8												
13C-PCB-209	4.24e+07	1.20	y	0.61	56:59	1.050	1.045-1.055	938	93.8												

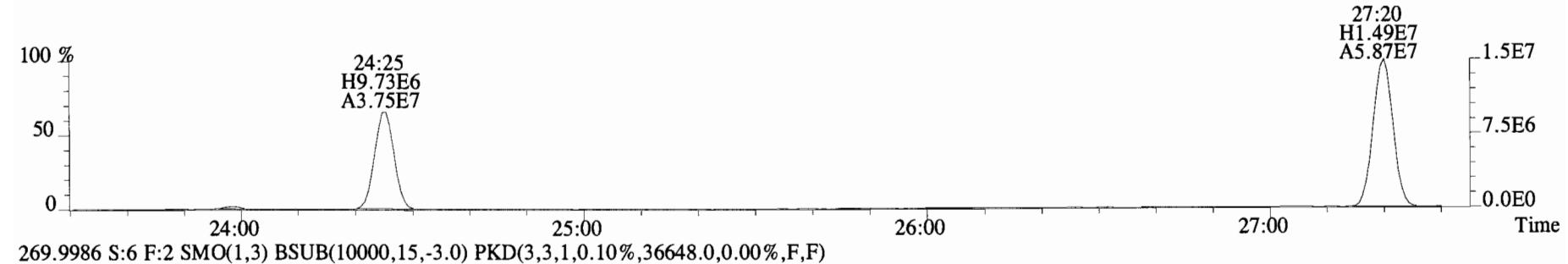
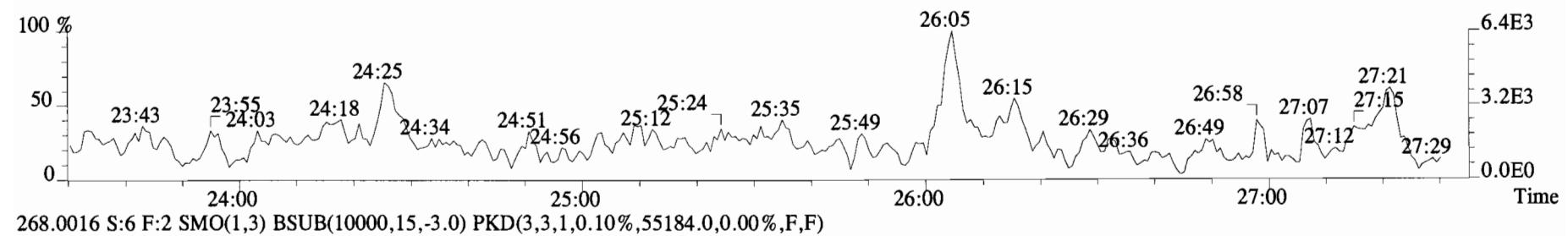
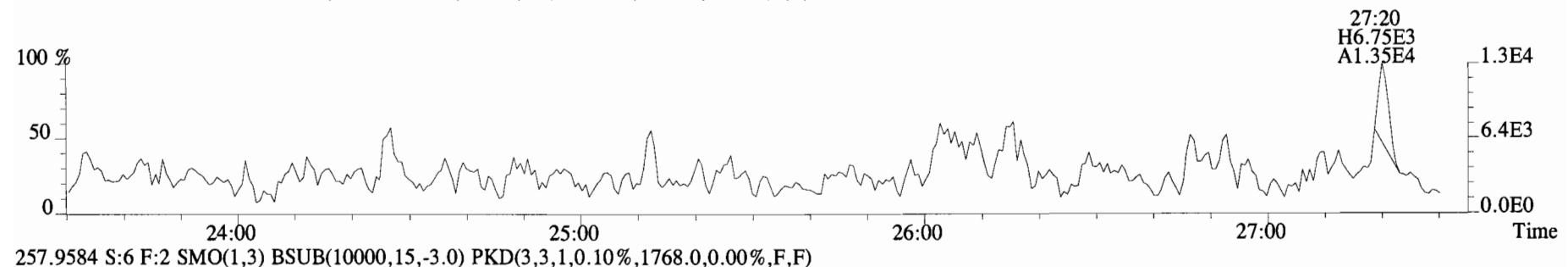
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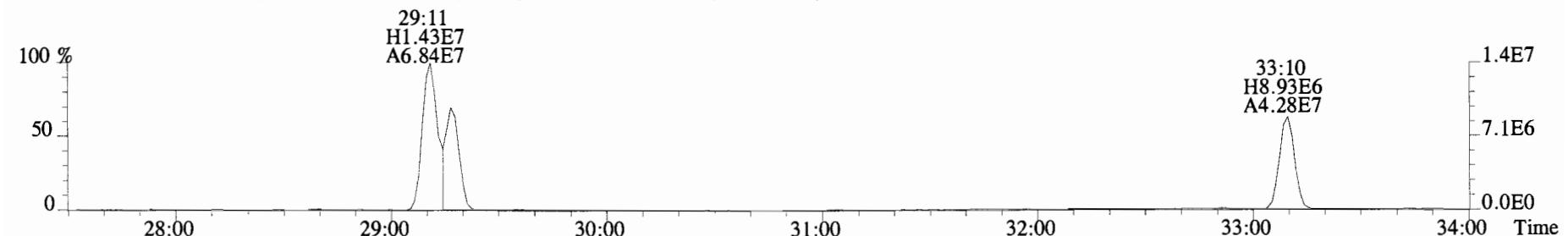
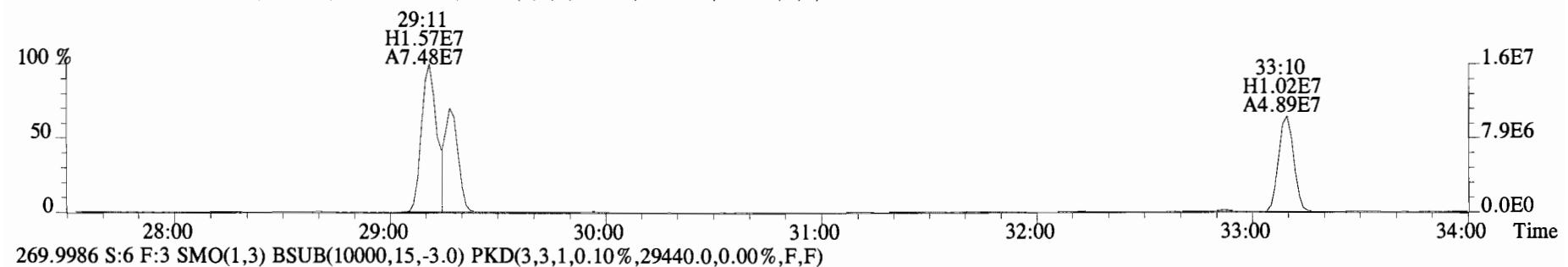
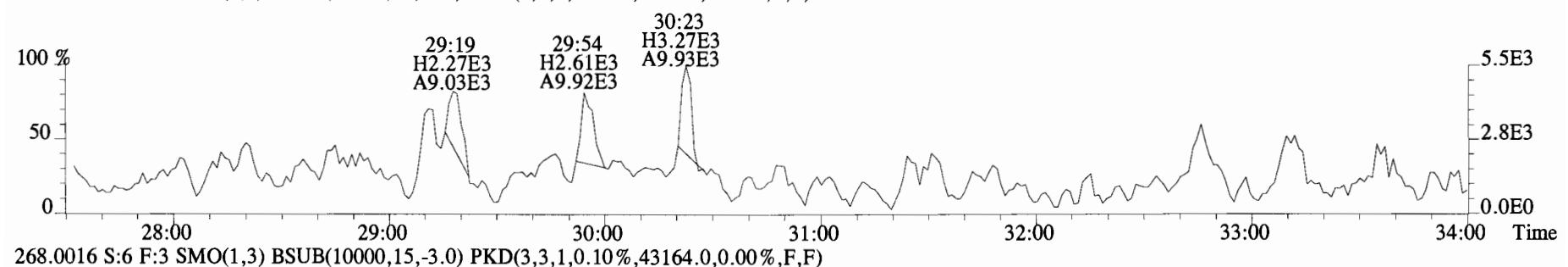
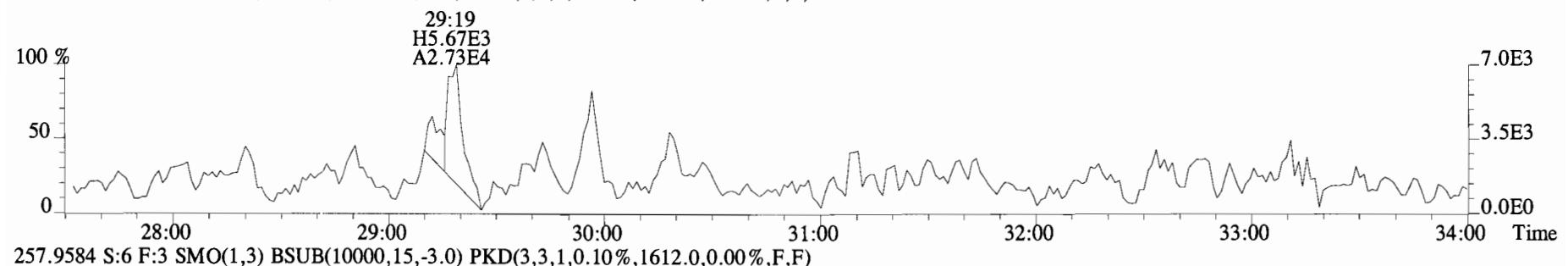
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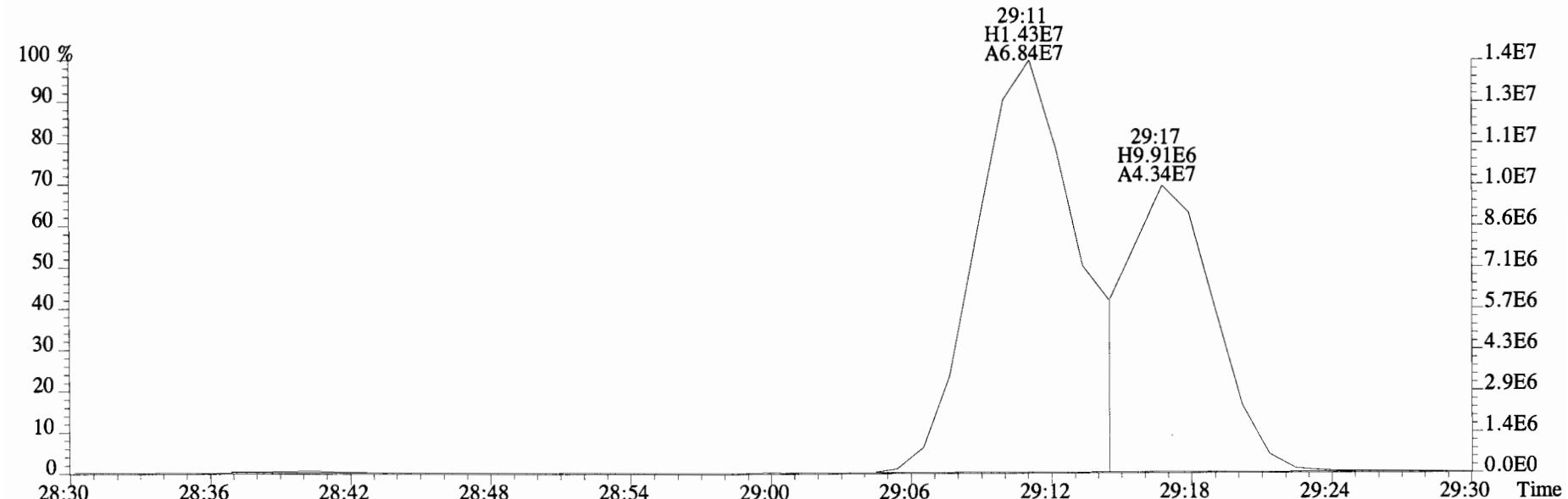
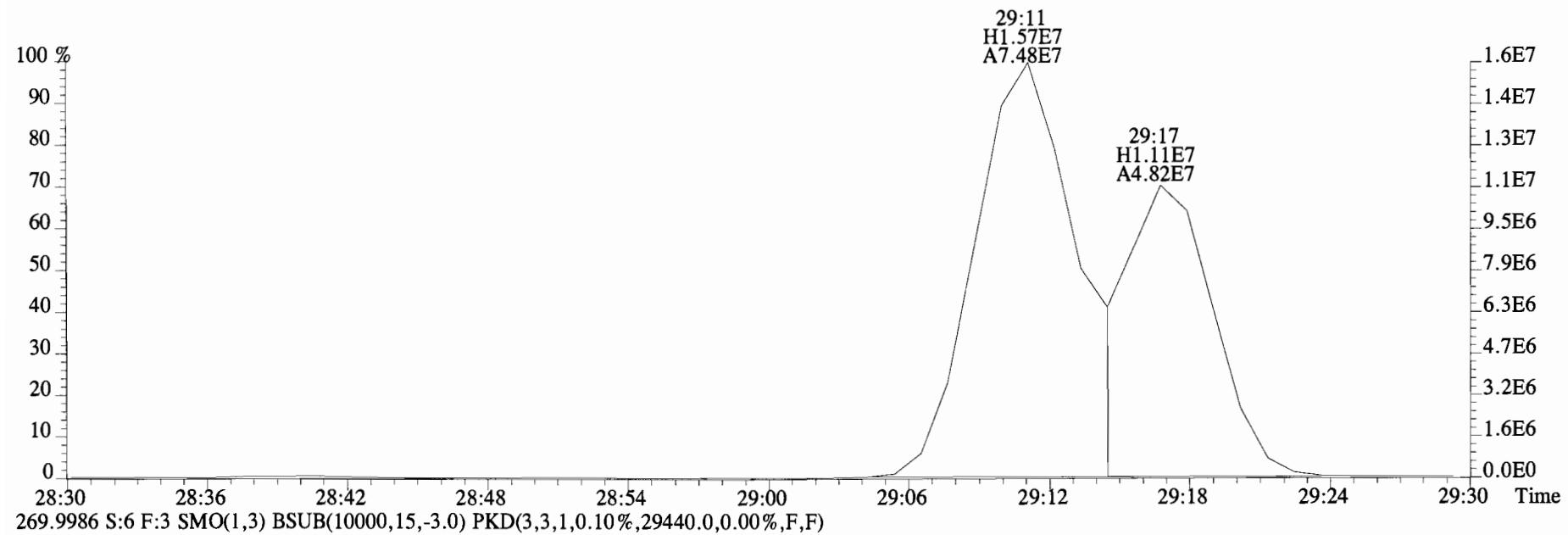
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255.9613 S:6 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4012.0,0.00%,F,F)



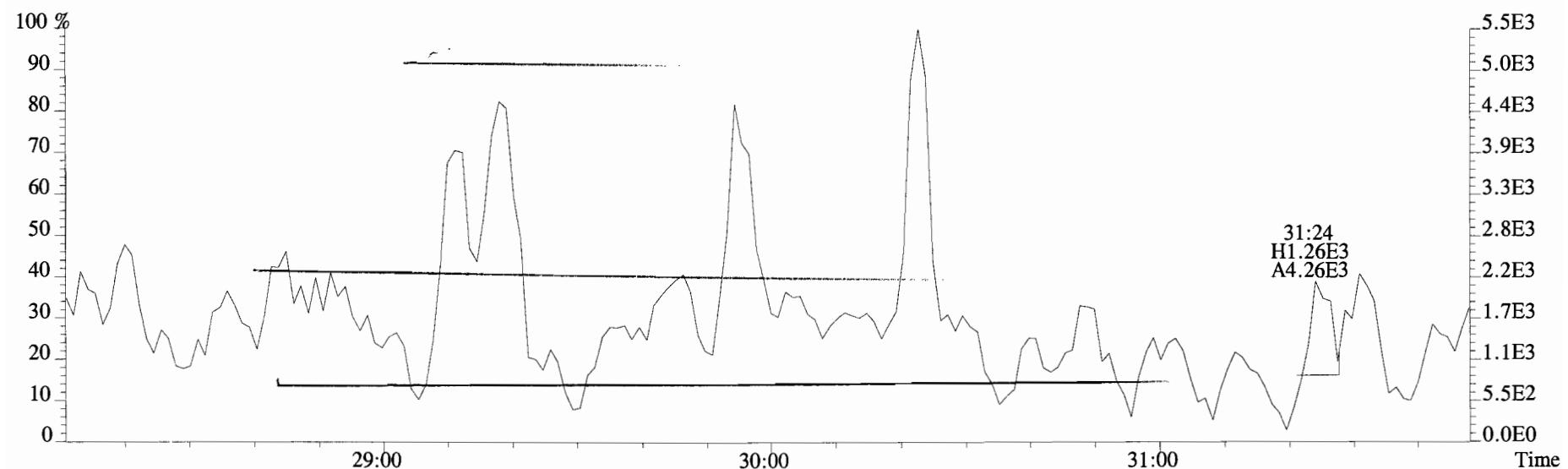
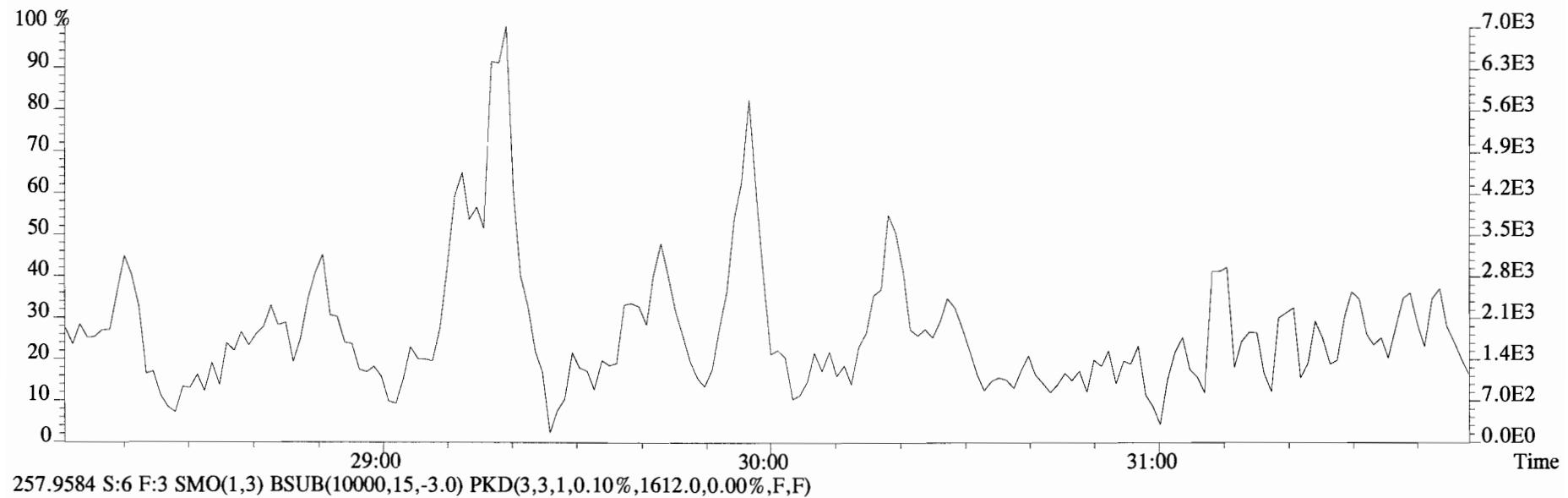
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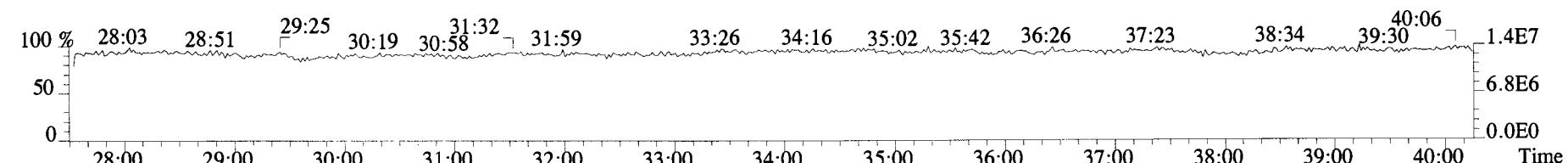
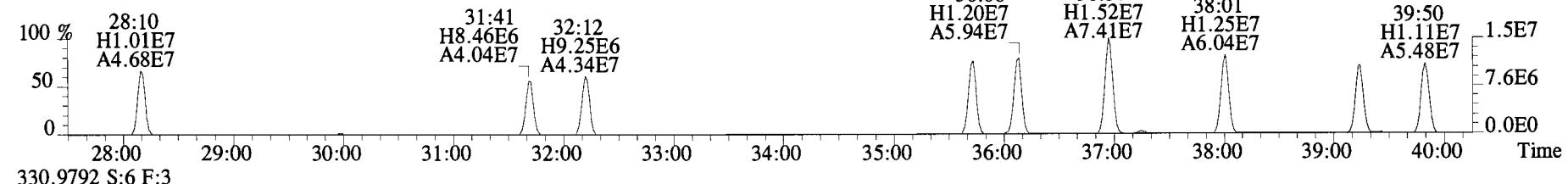
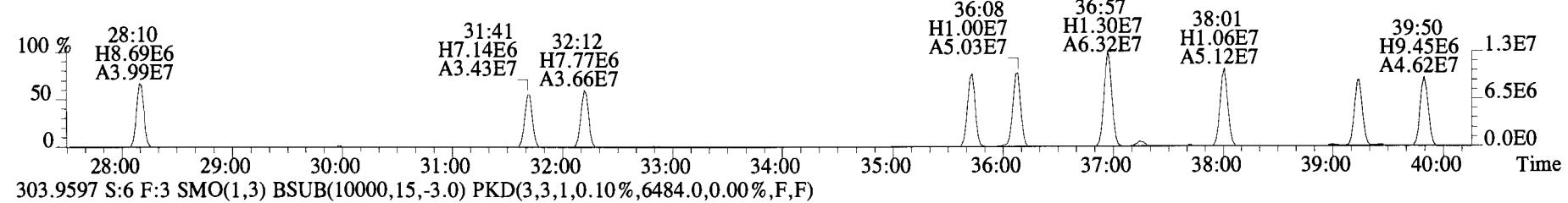
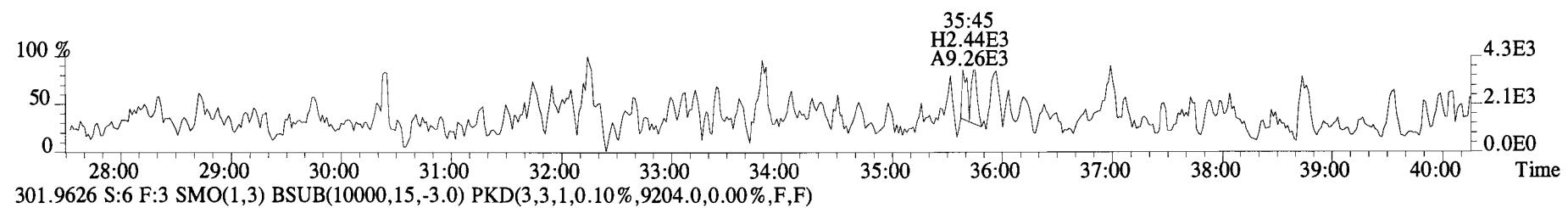
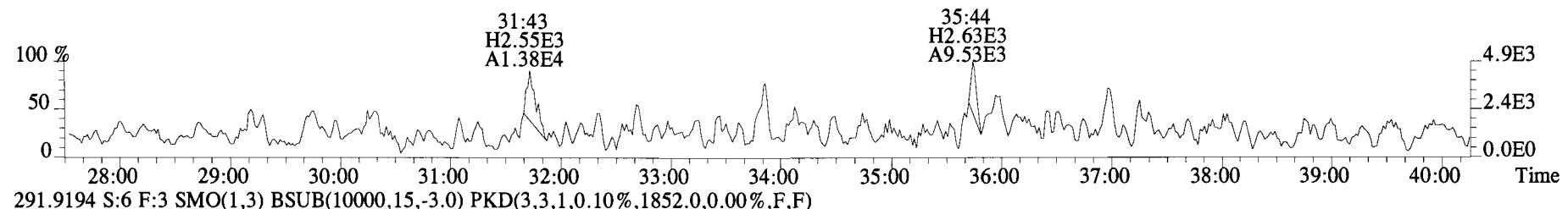
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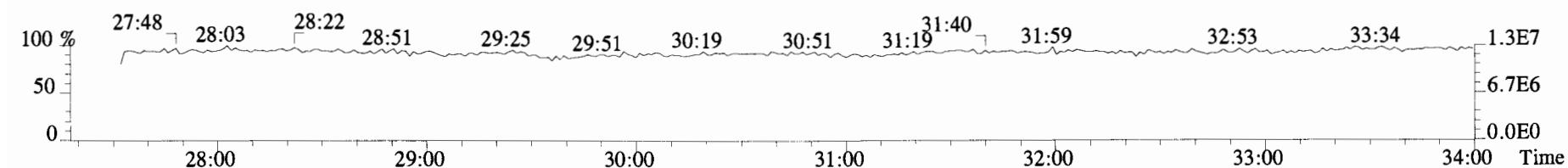
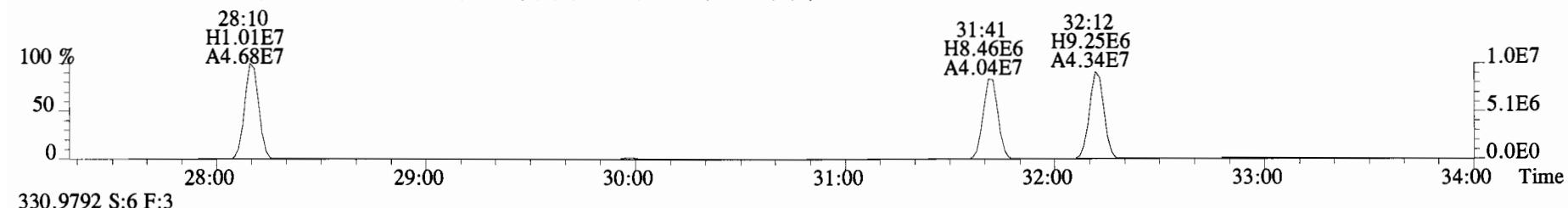
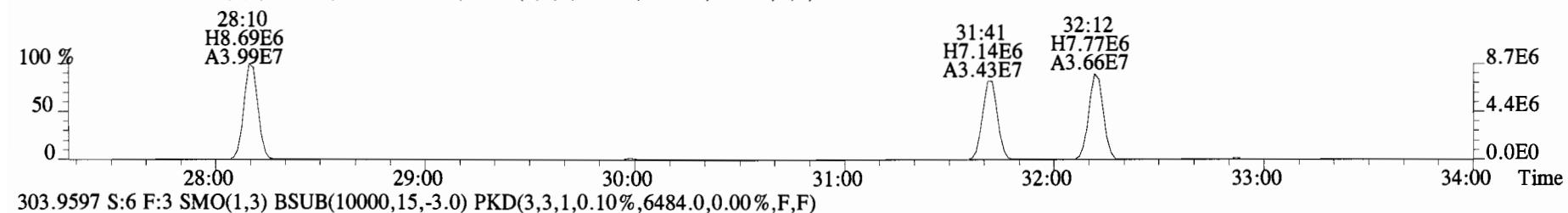
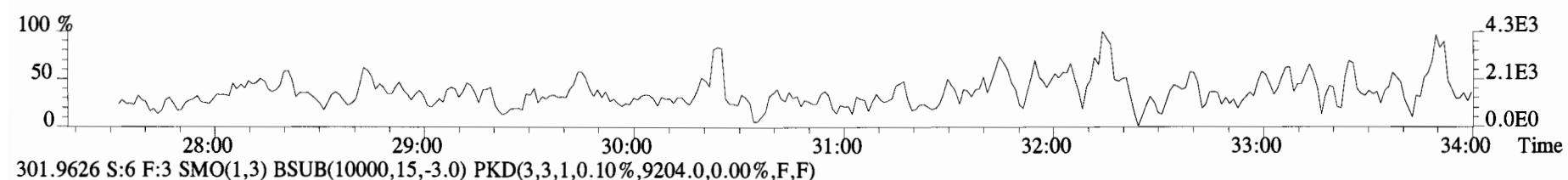
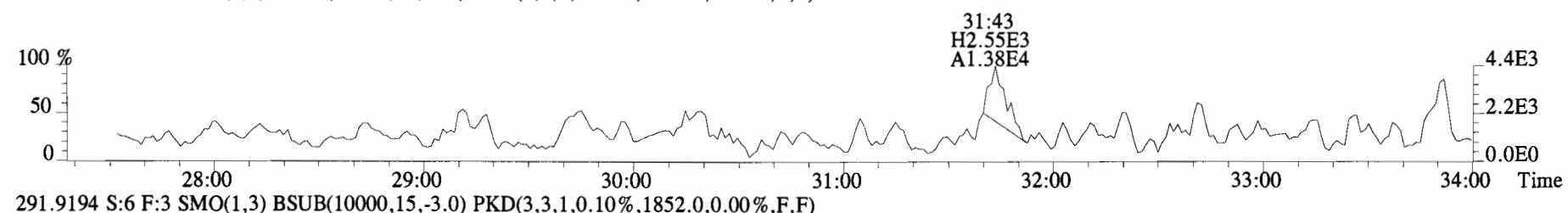
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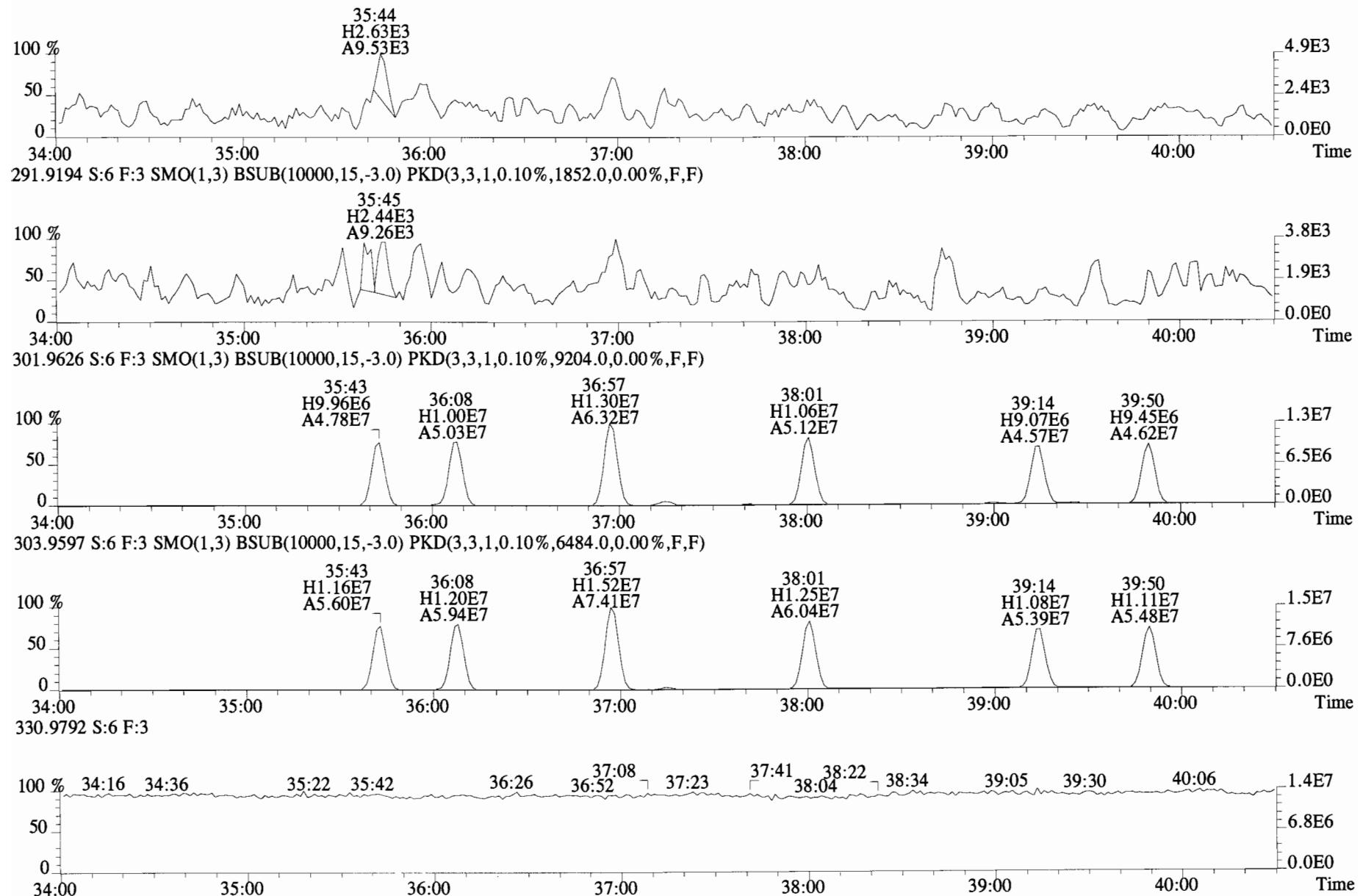
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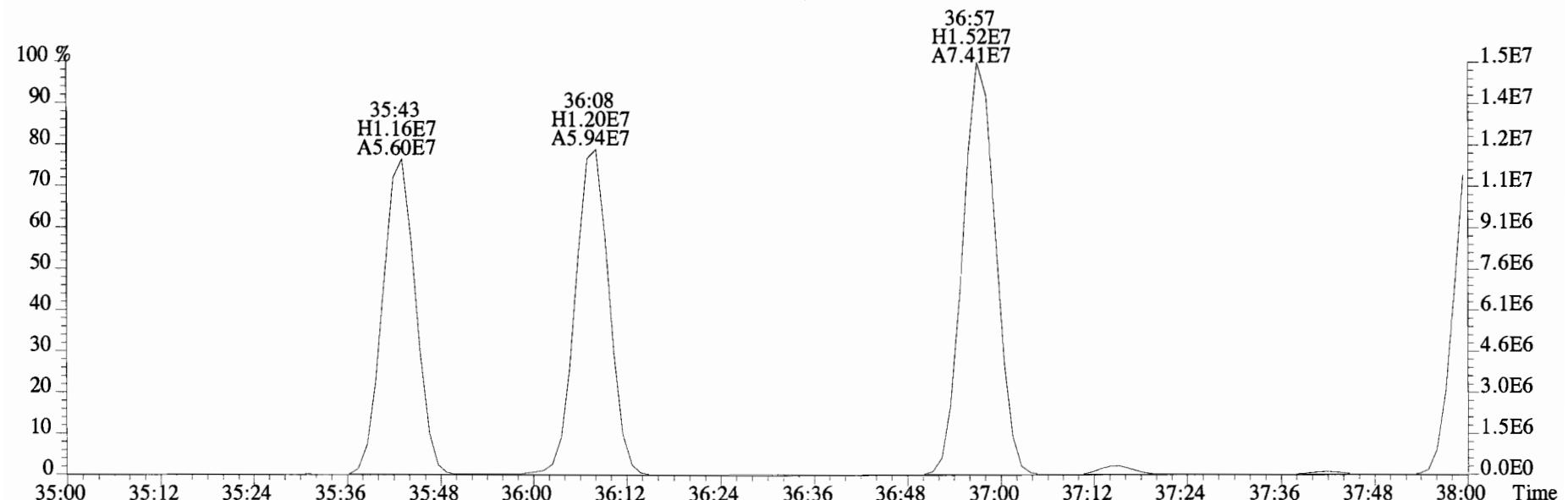
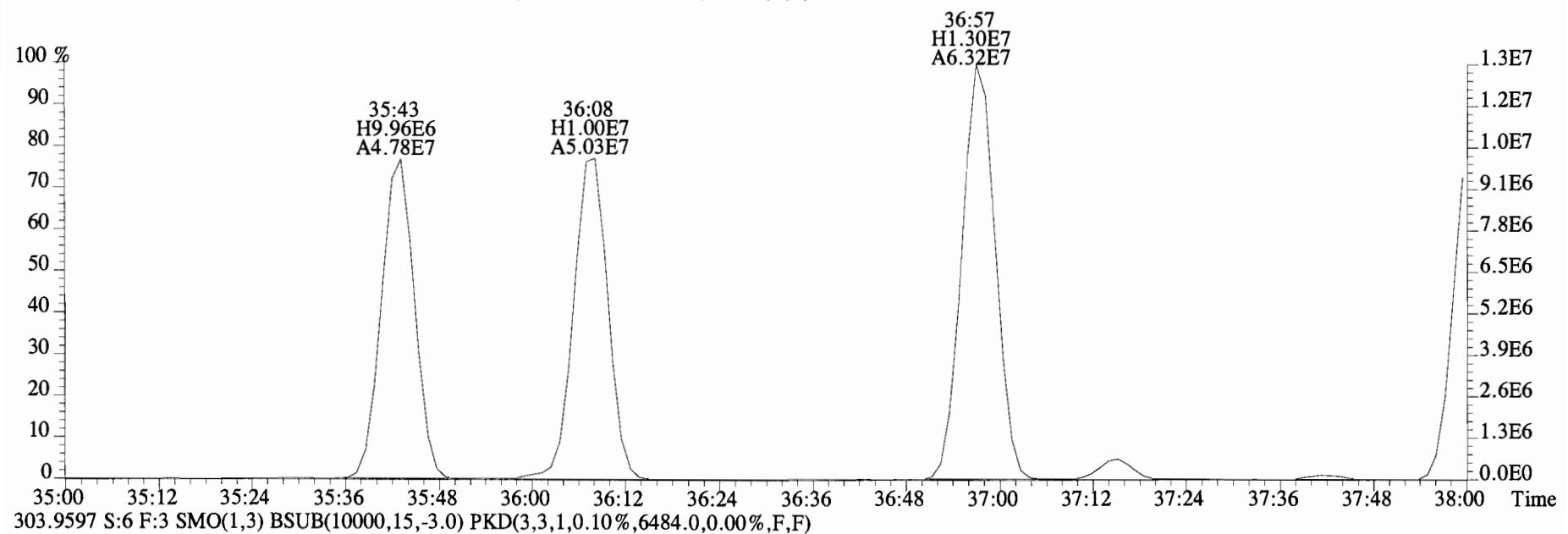
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289.9224 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1524.0,0.00%,F,F)



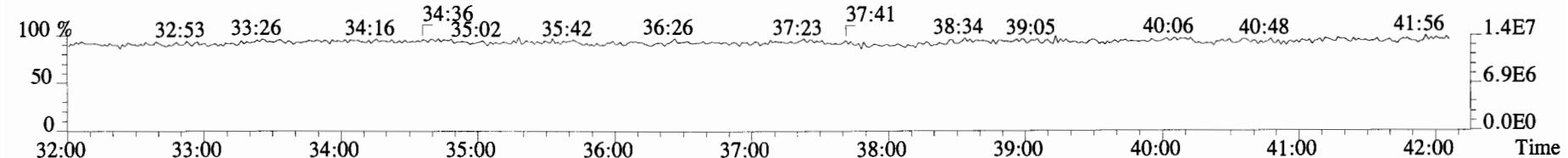
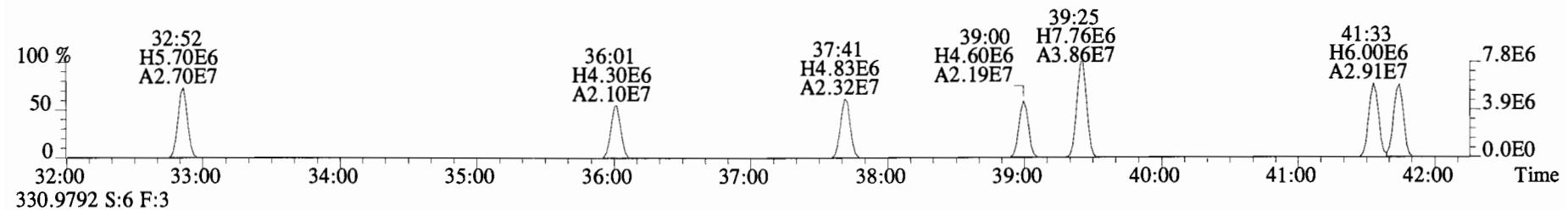
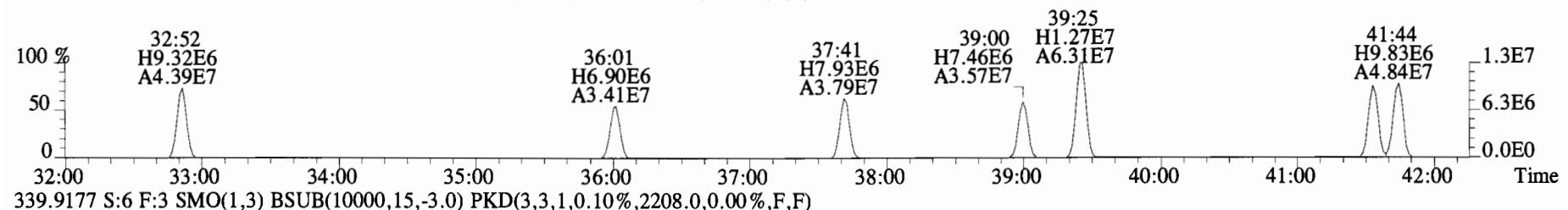
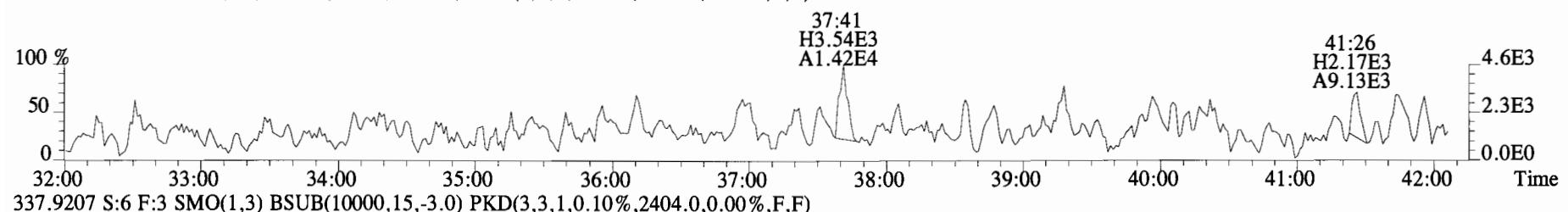
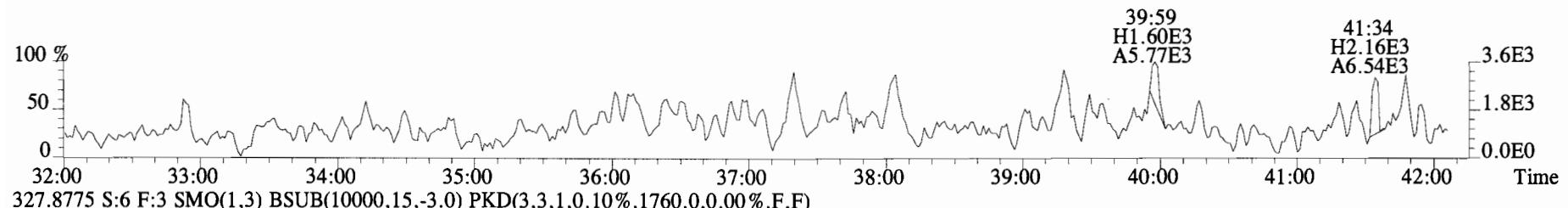
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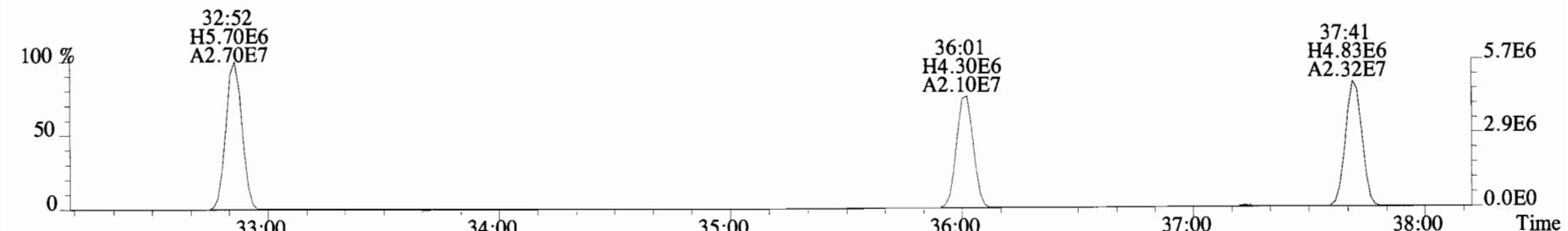
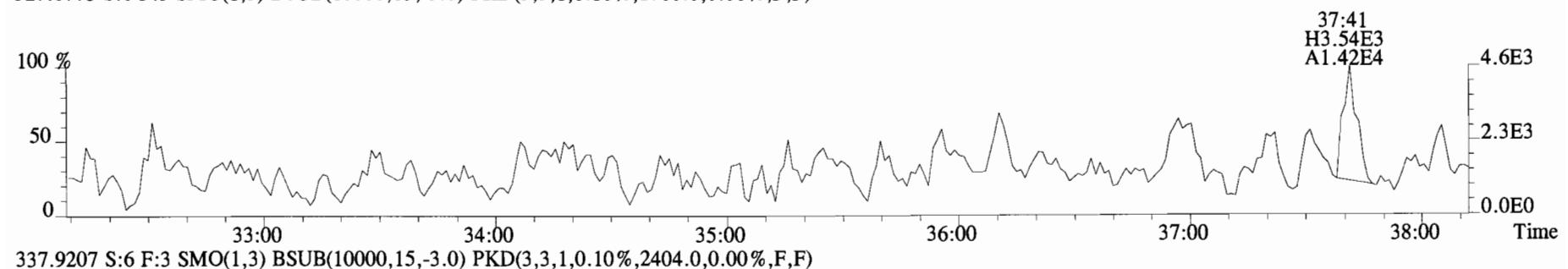
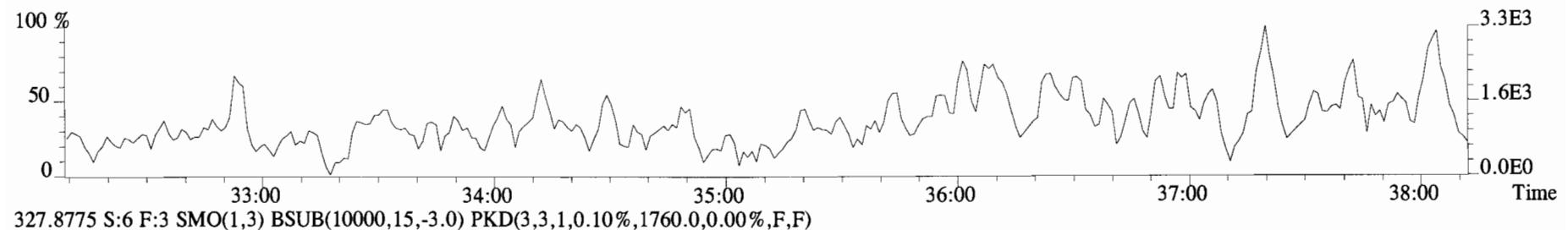
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
301.9626 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9204.0,0.00%,F,F)



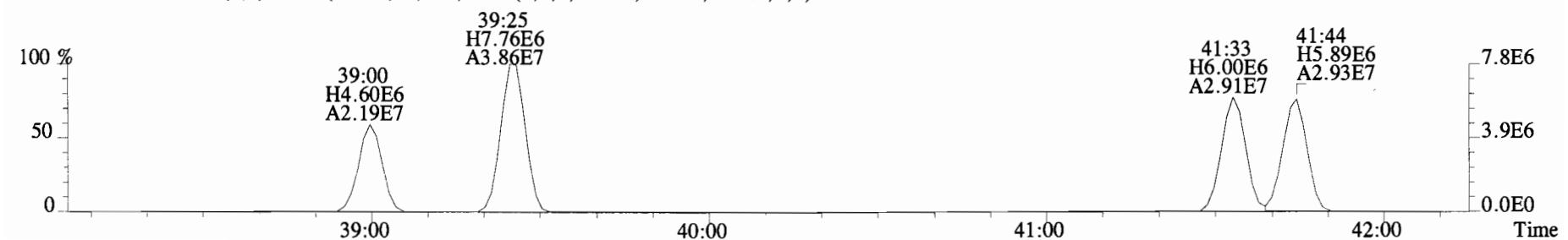
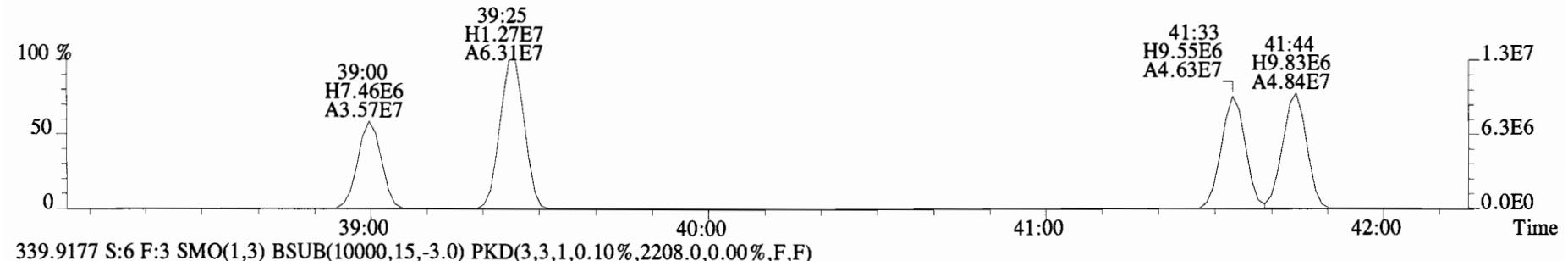
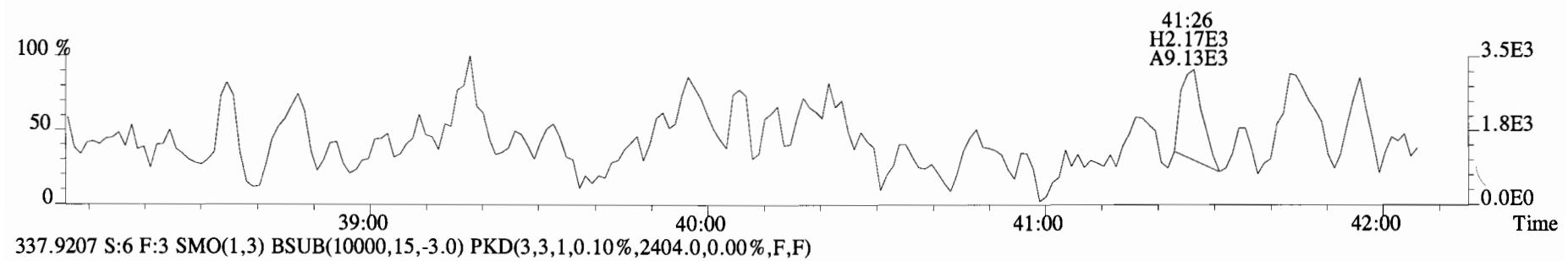
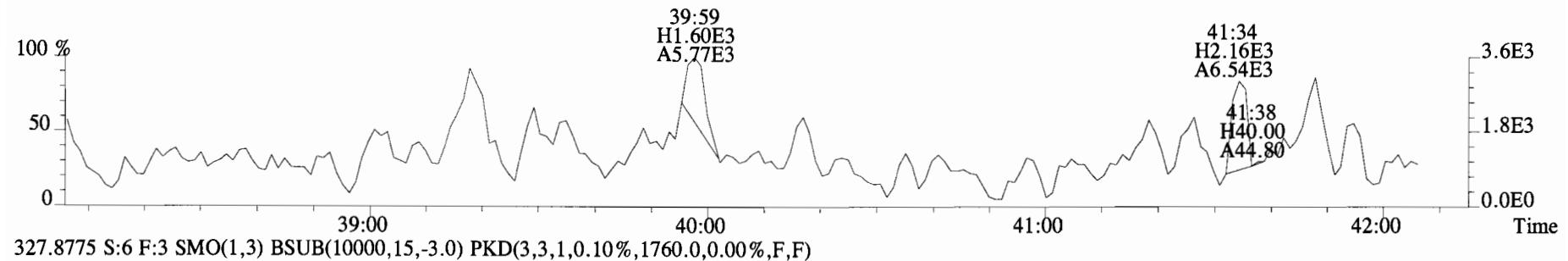
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
 325.8804 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1452.0,0.00%,F,F)



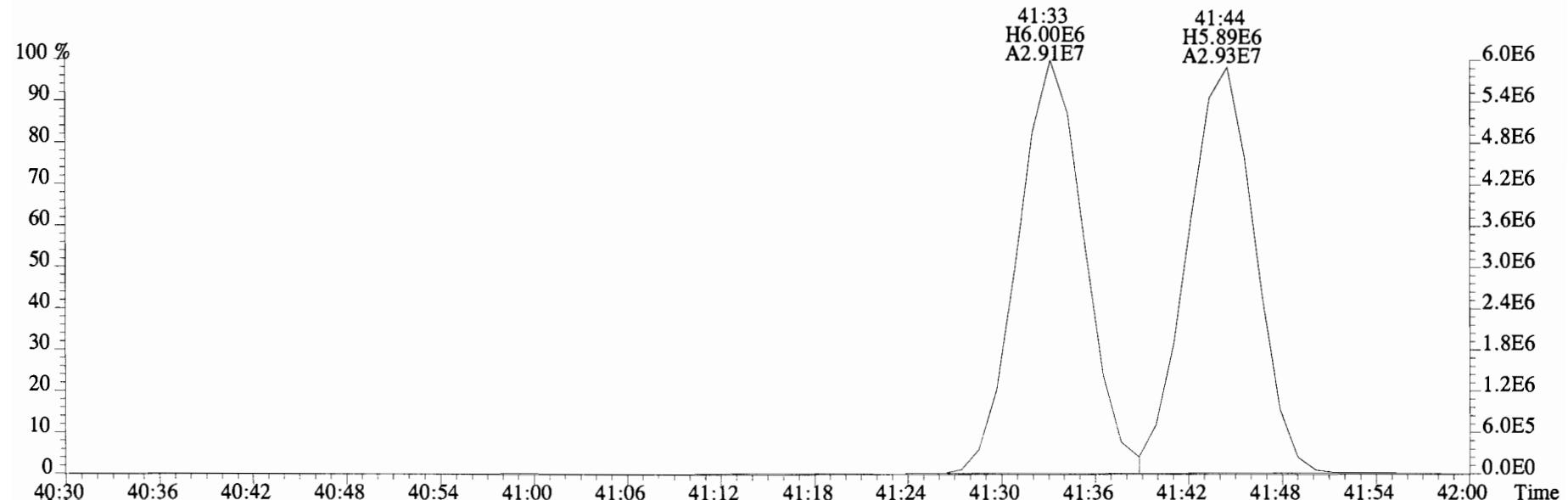
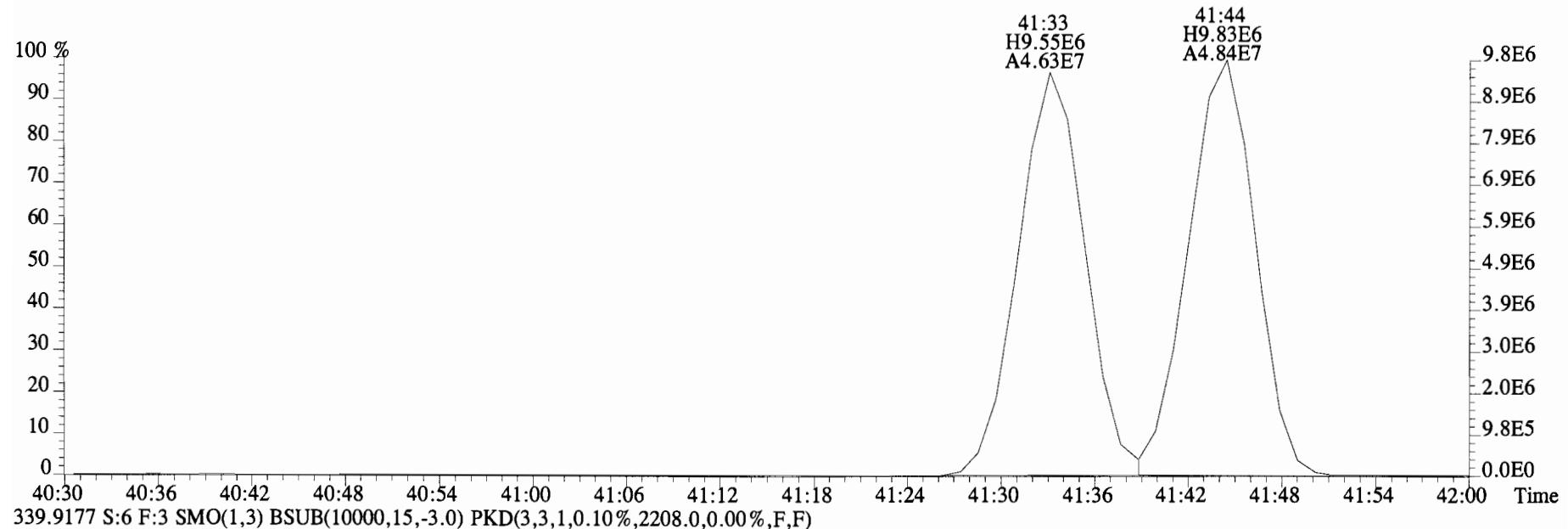
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
325.8804 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1452.0,0.00%,F,F)



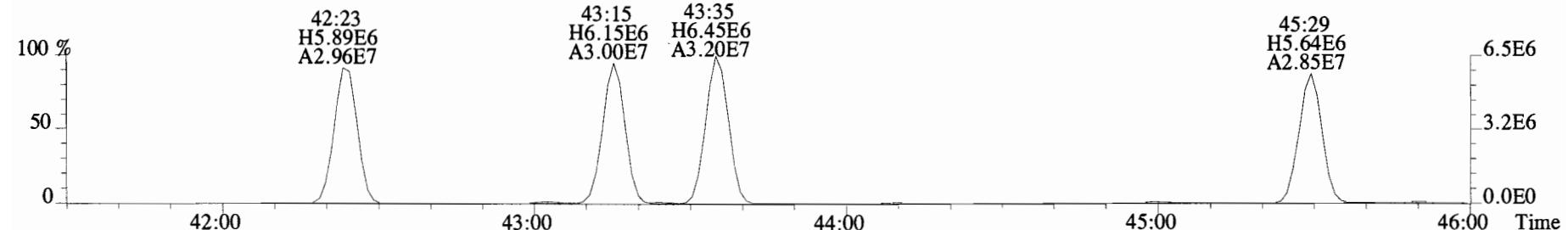
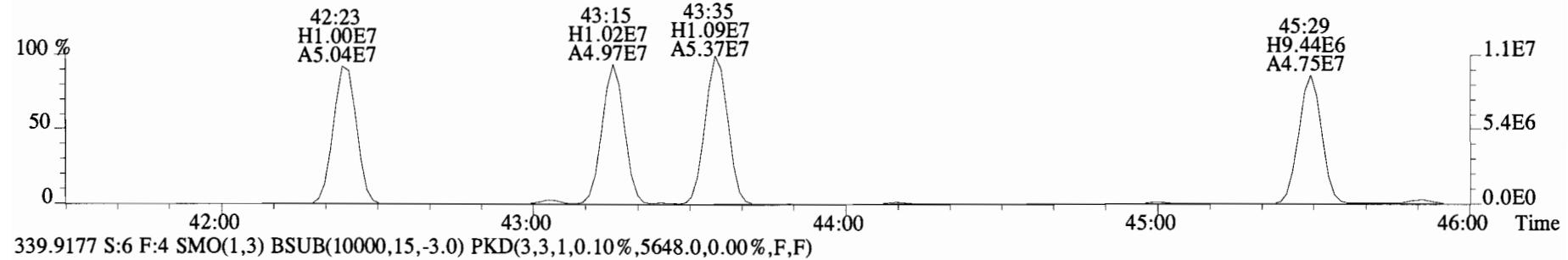
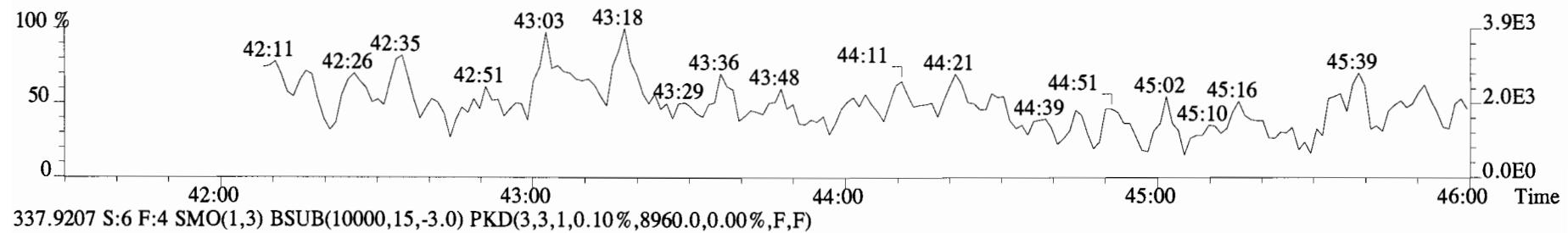
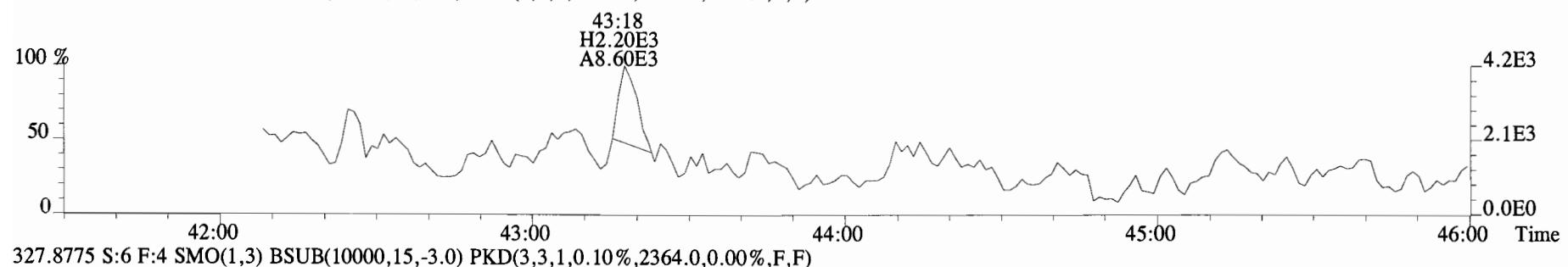
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
 325.8804 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1452.0,0.00%,F,F)



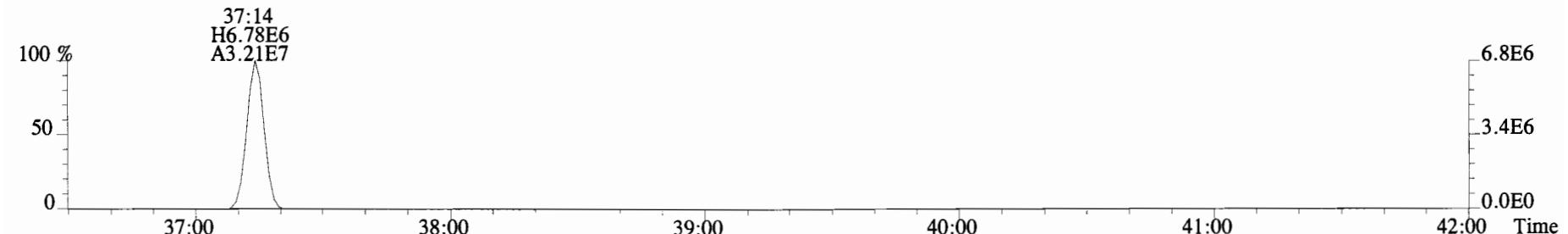
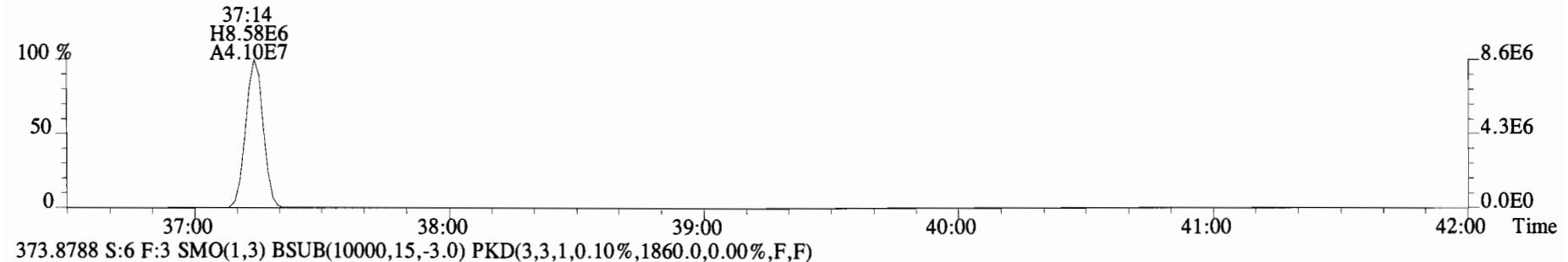
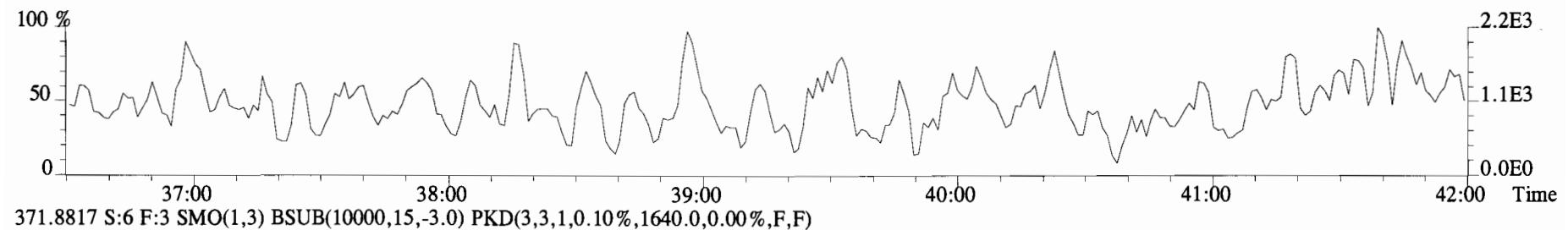
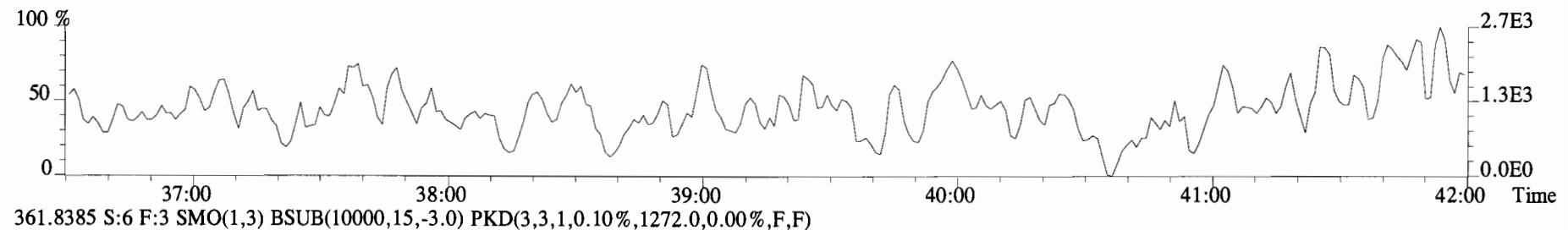
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
337.9207 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2404.0,0.00%,F,F)



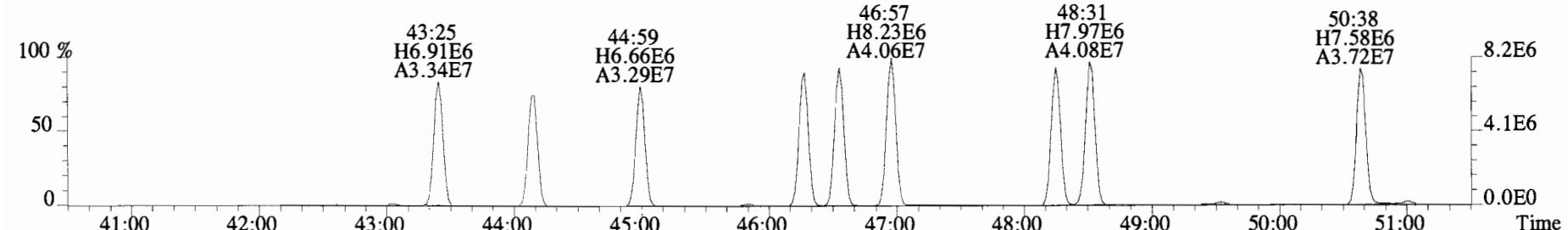
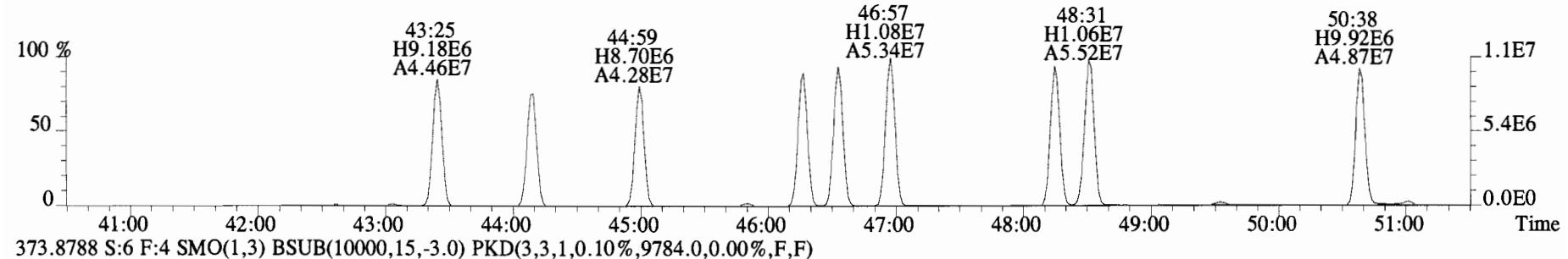
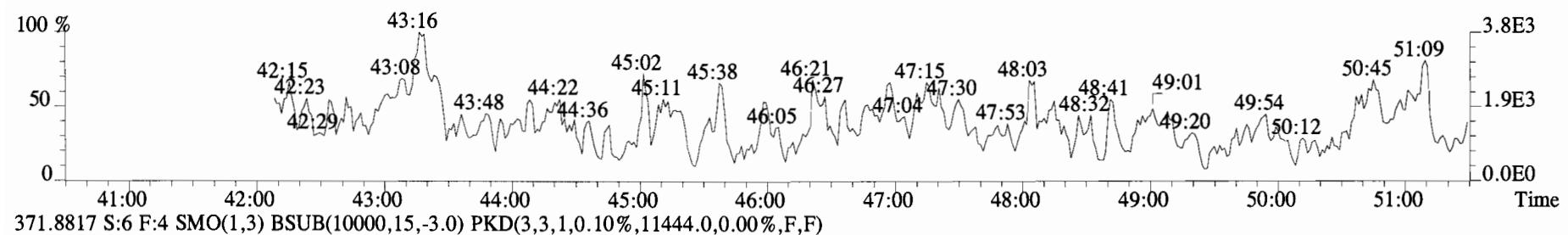
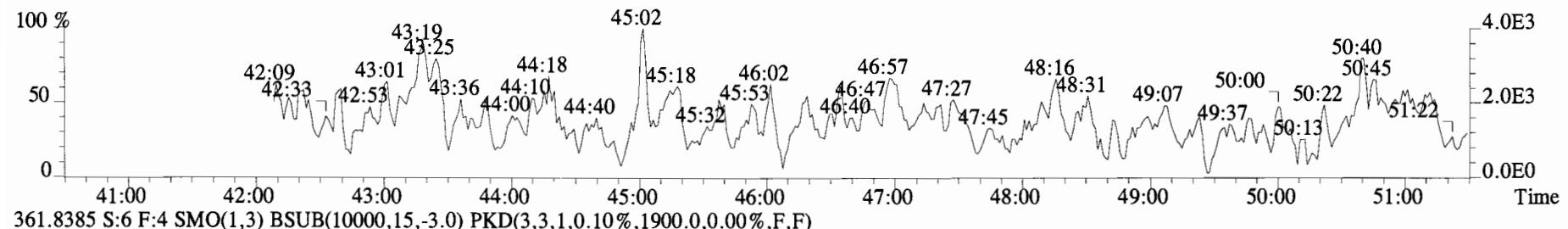
File:140919E2 #1-544 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
 325.8804 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1716.0,0.00%,F,F)



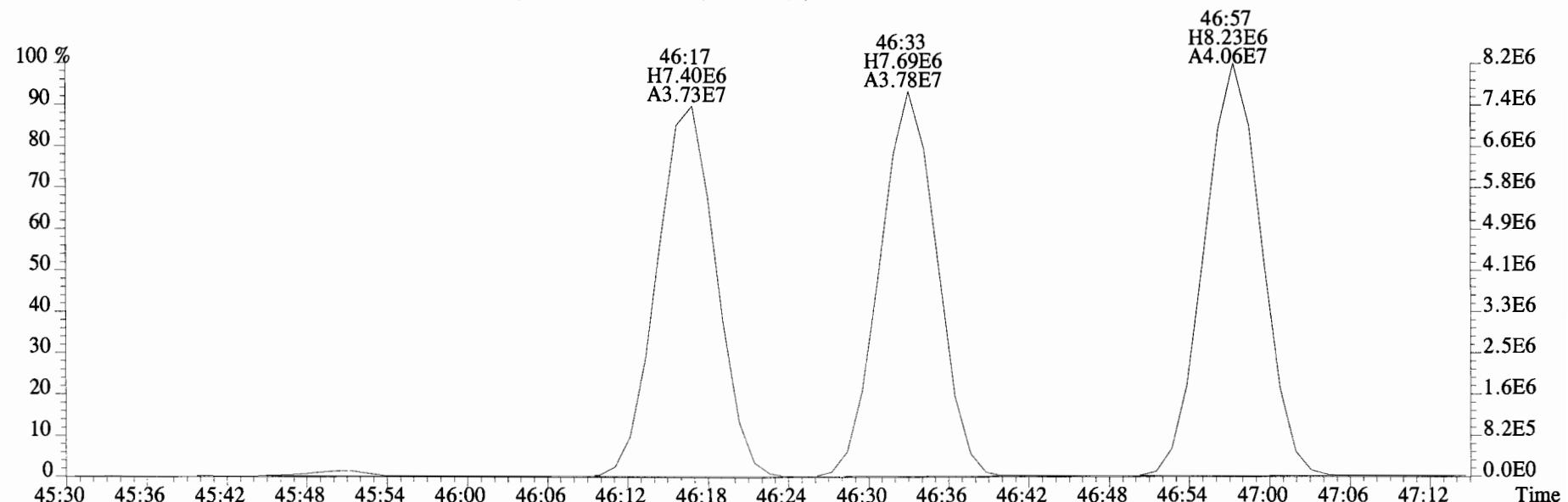
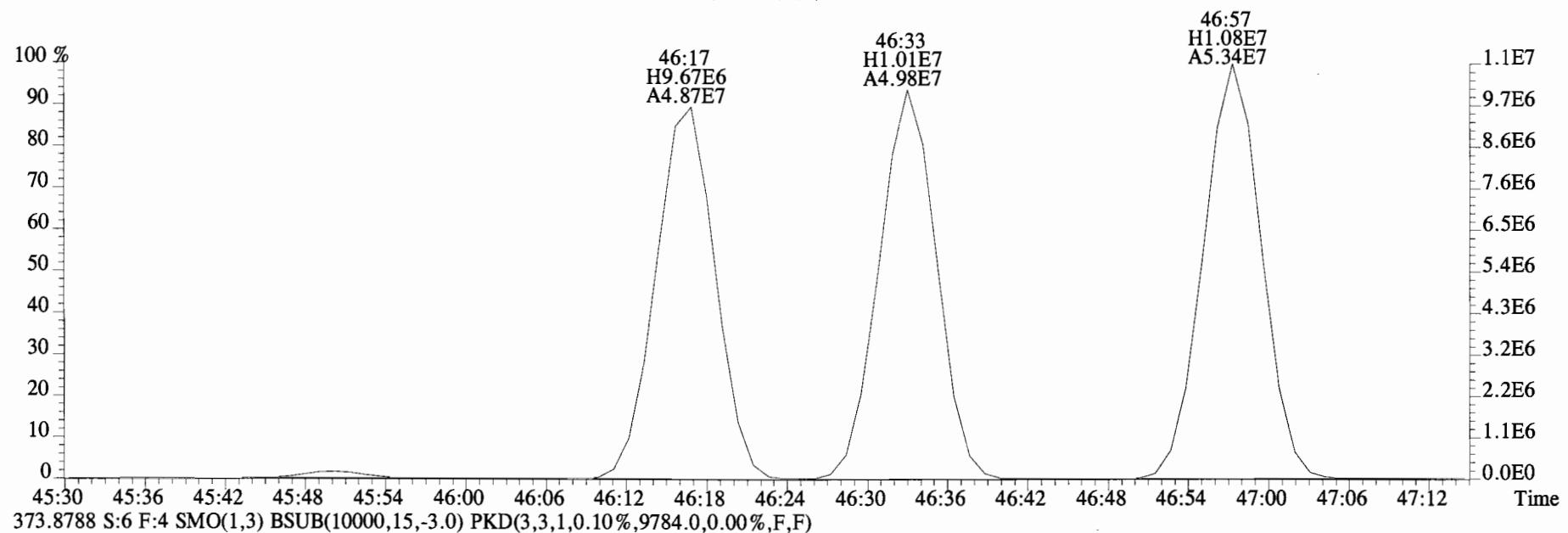
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
359.8415 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1496.0,0.00%,F,F)



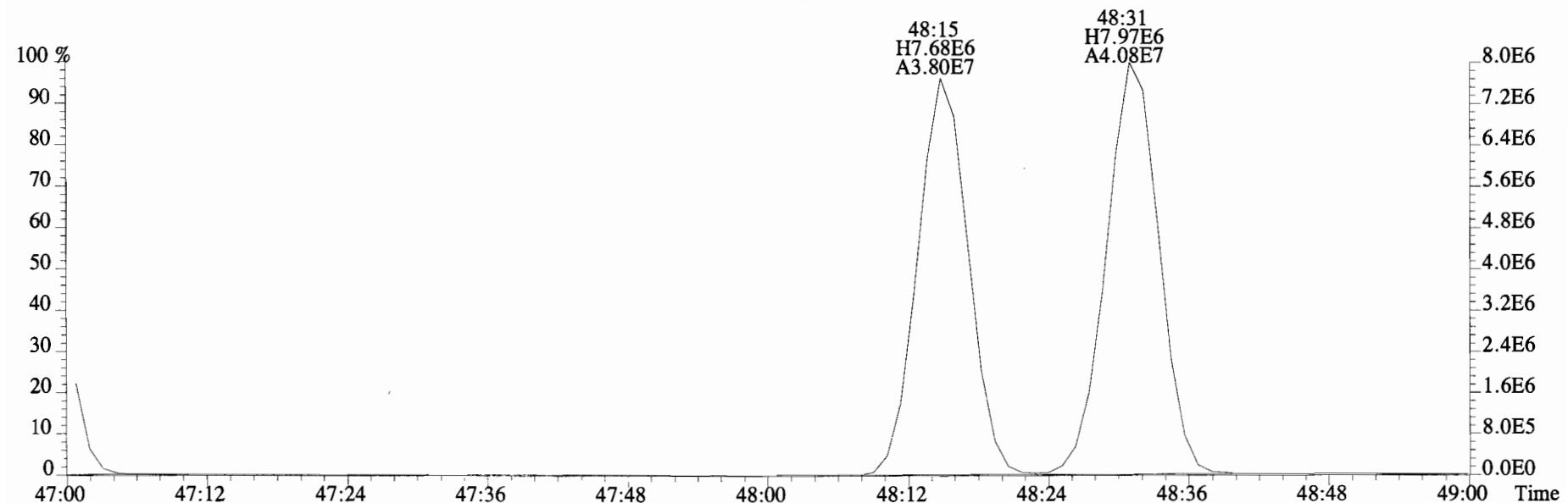
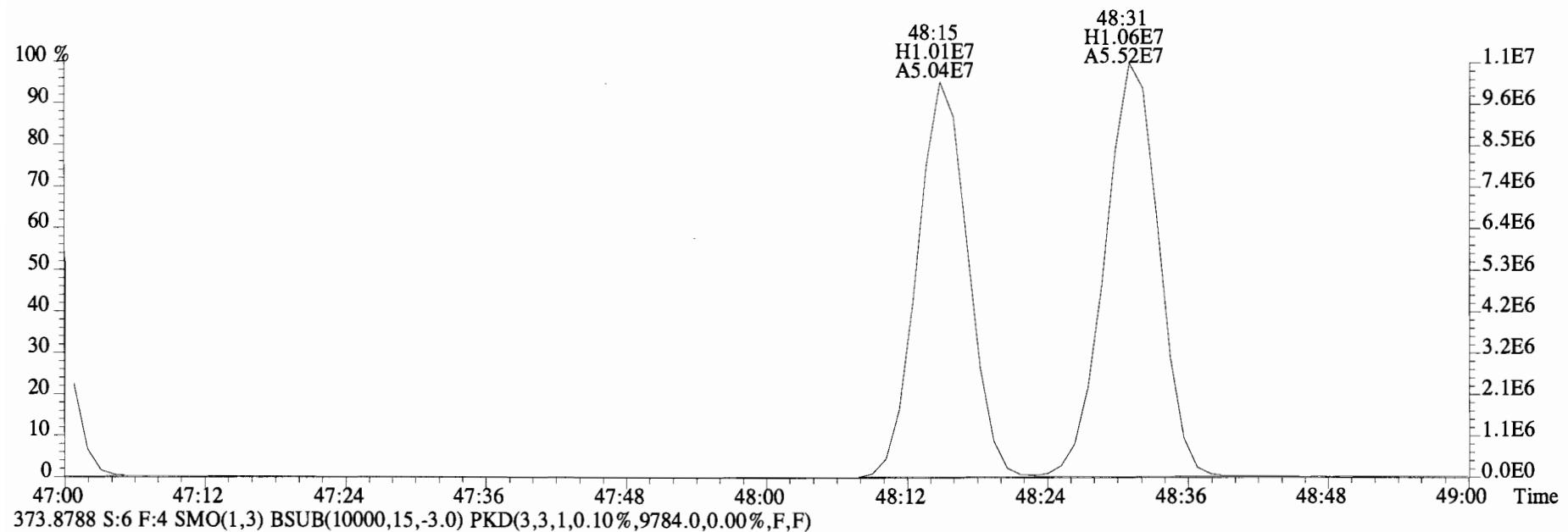
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 Sample#6 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
 359.8415 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1972.0,0.00%,F,F)



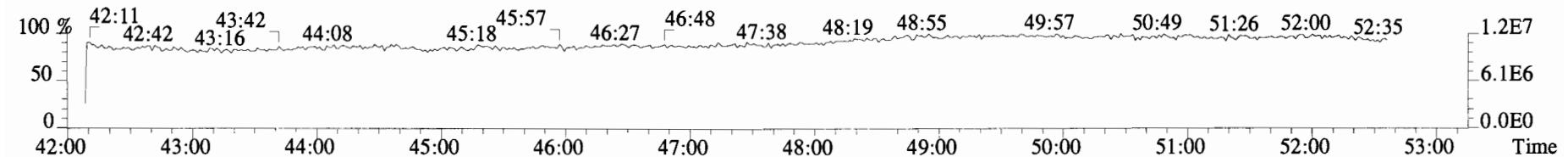
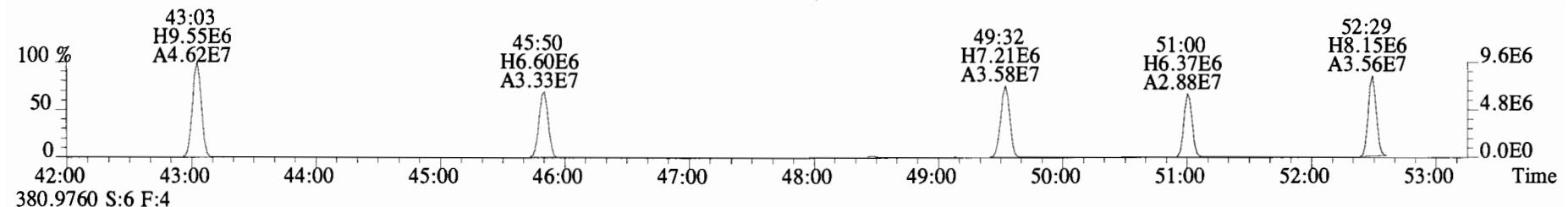
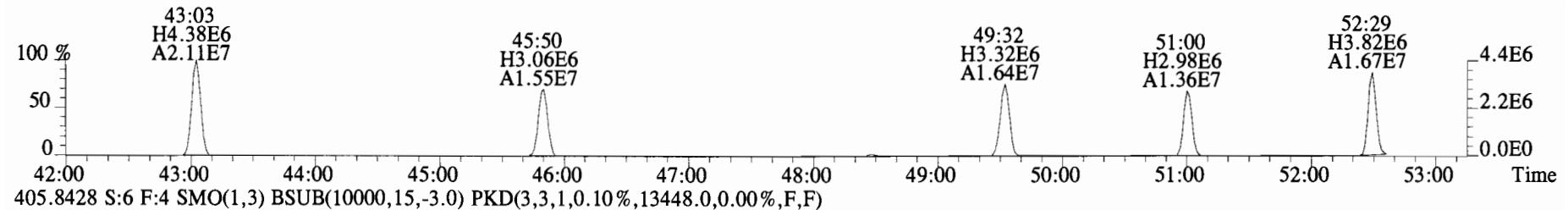
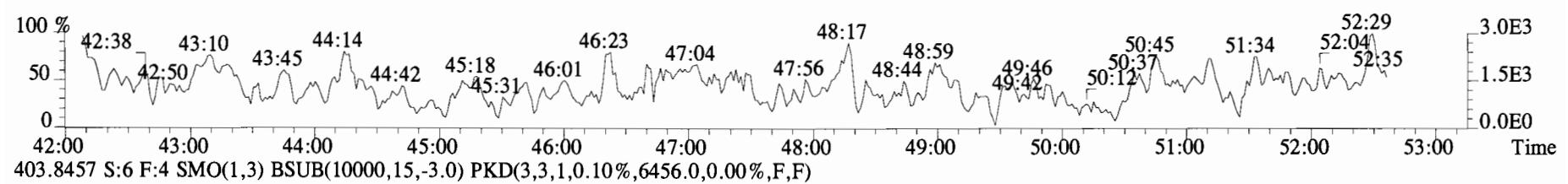
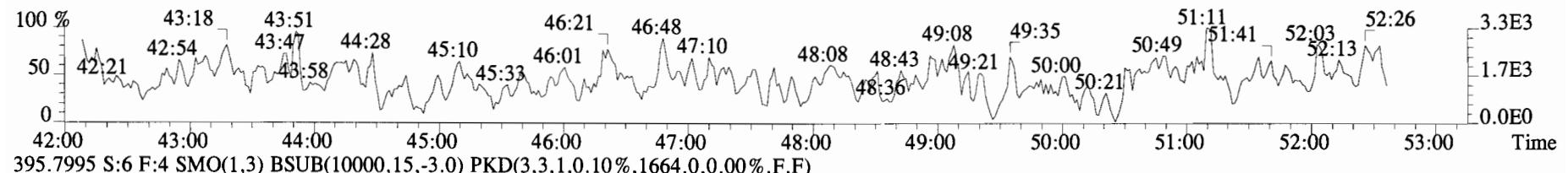
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
371.8817 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11444.0,0.00%,F,F)



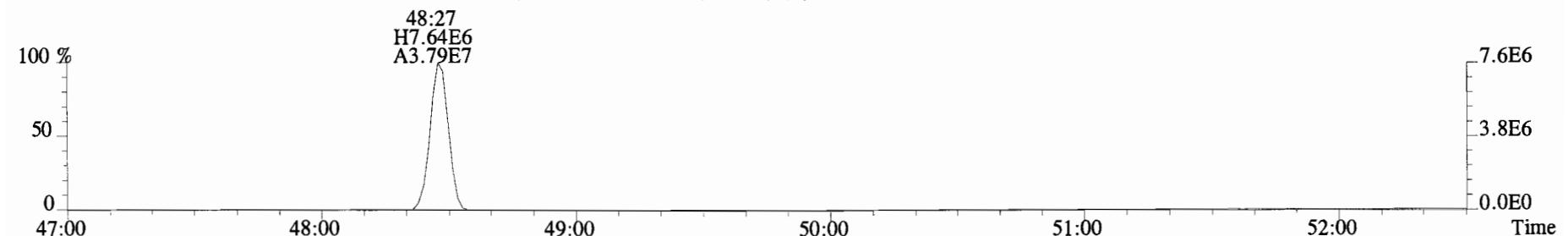
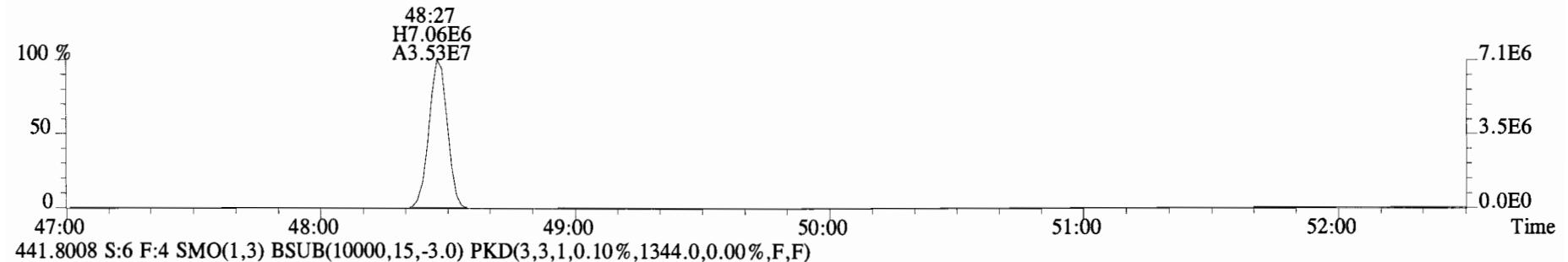
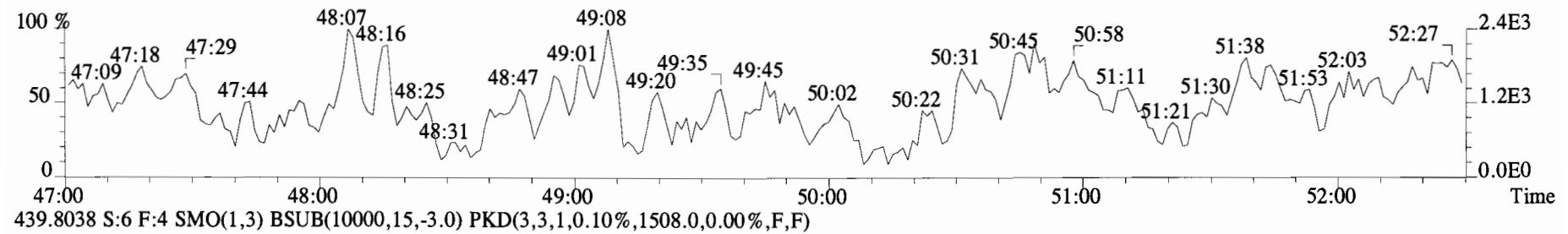
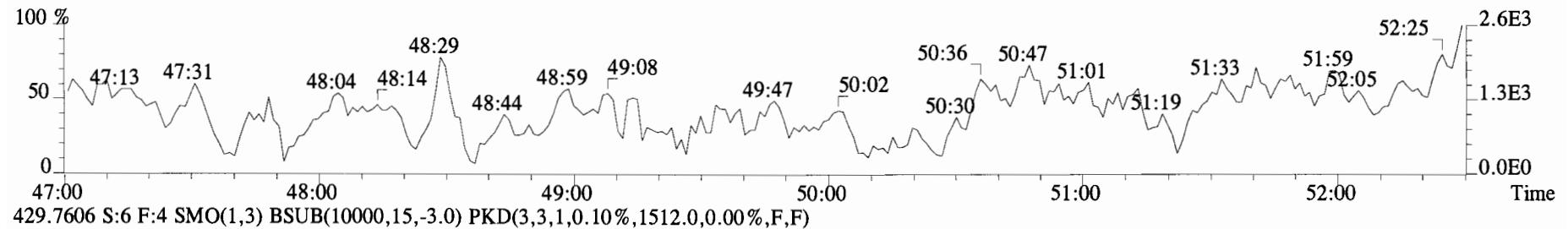
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
371.8817 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11444.0,0.00%,F,F)



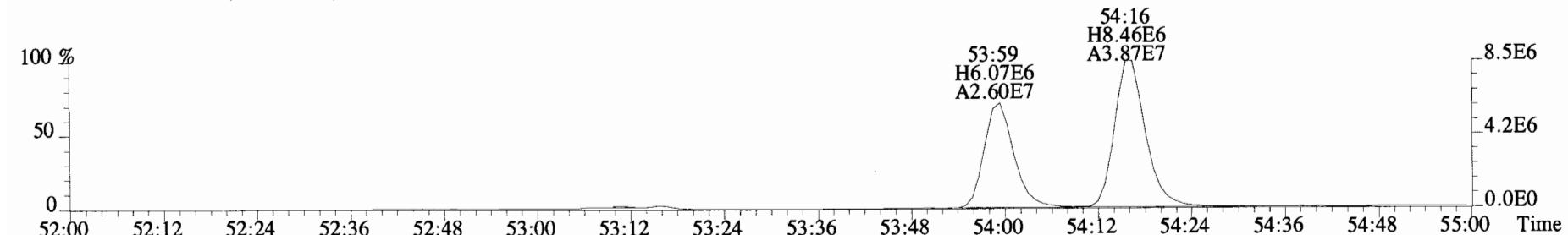
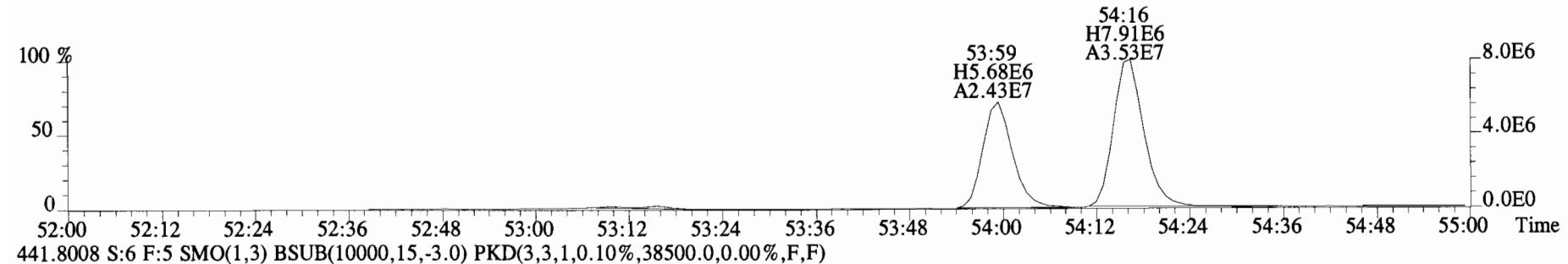
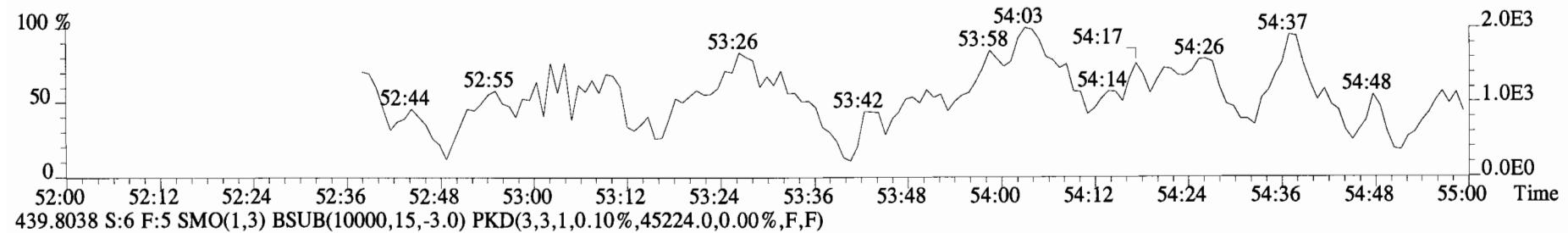
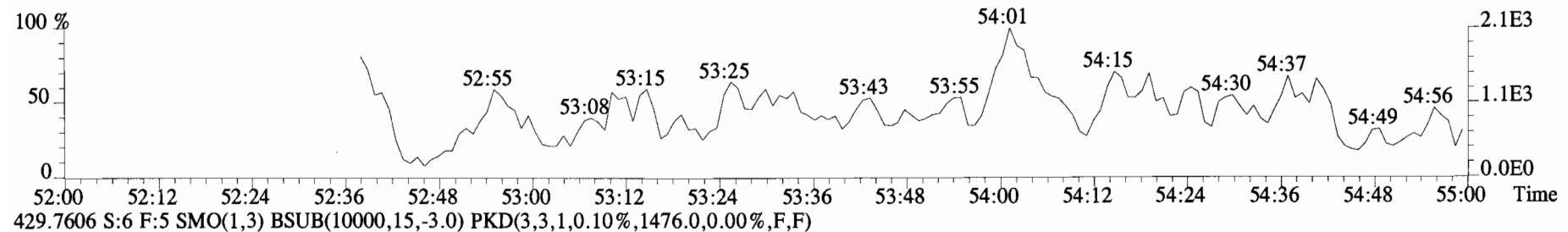
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 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
 393.8025 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1980.0,0.00%,F,F)



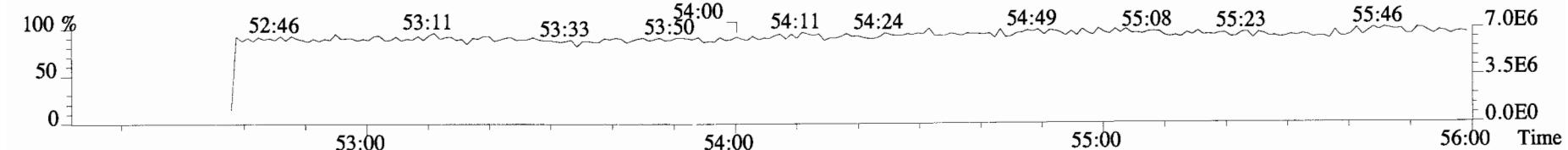
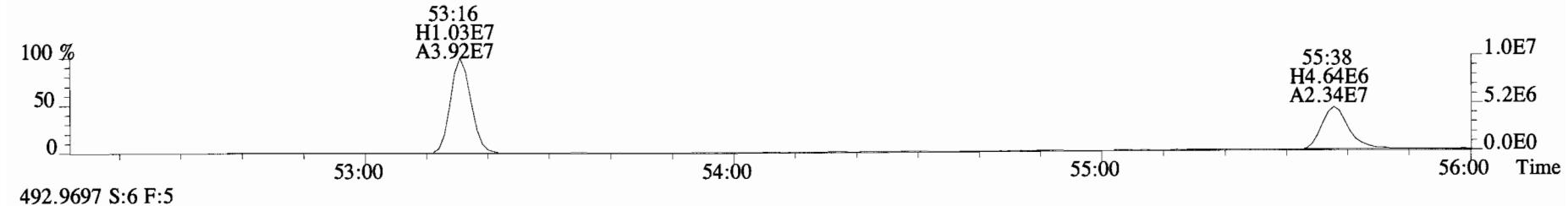
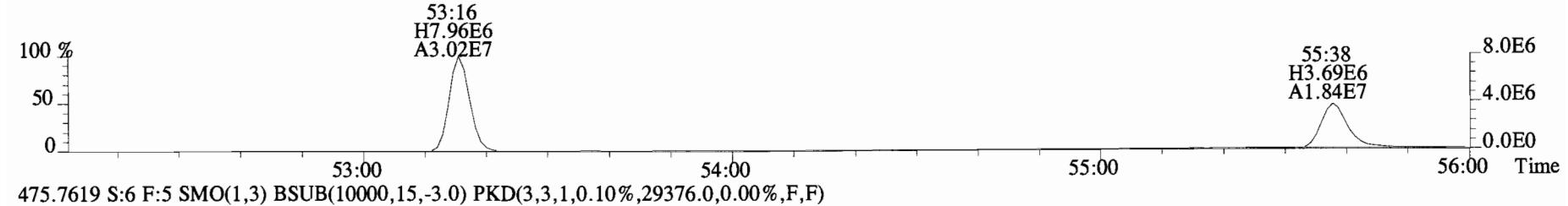
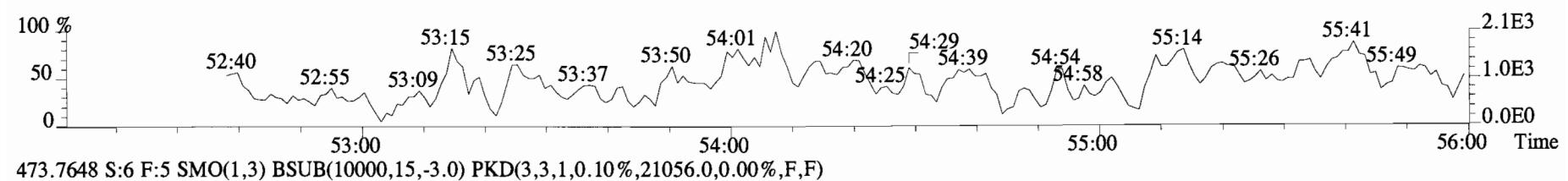
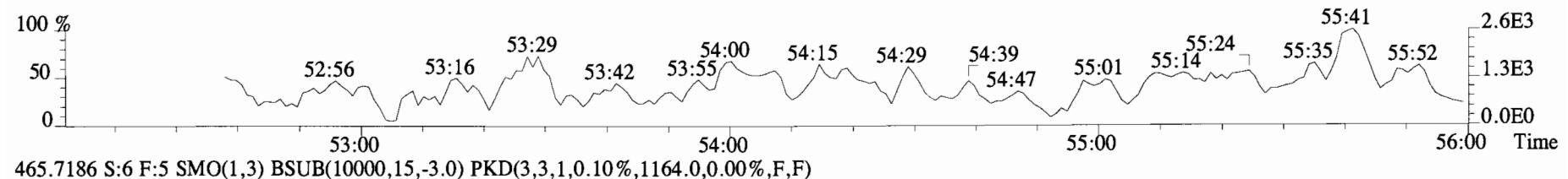
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
427.7635 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1428.0,0.00%,F,F)



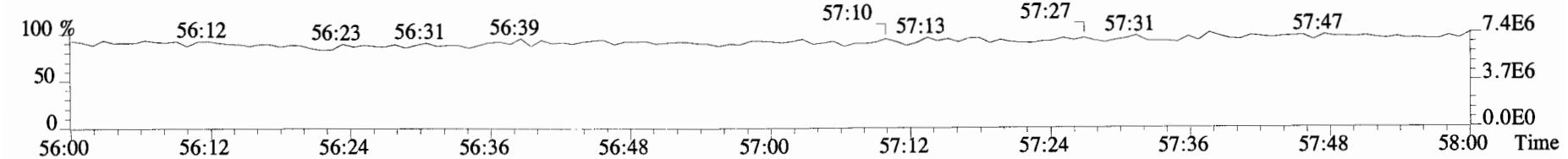
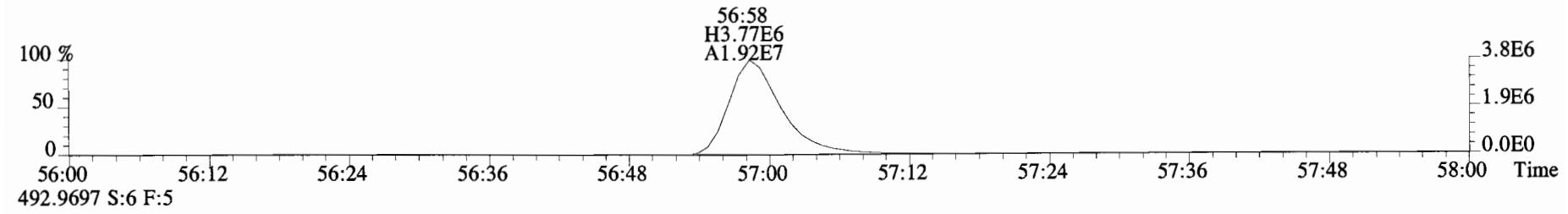
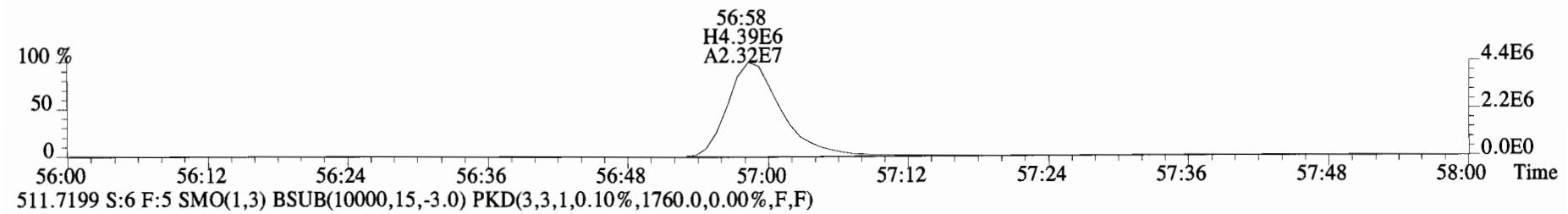
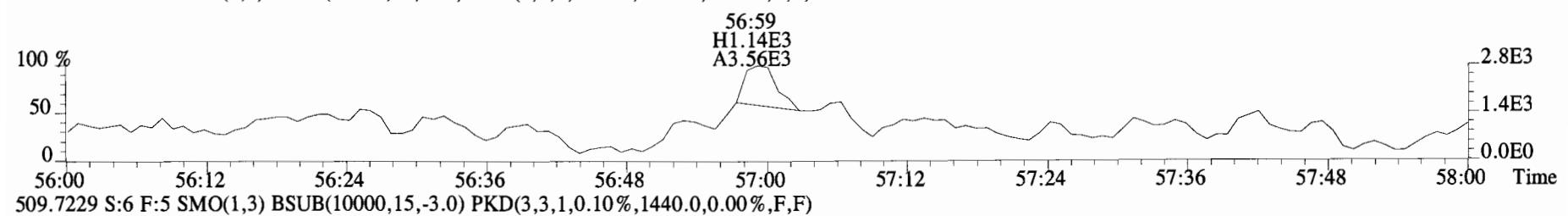
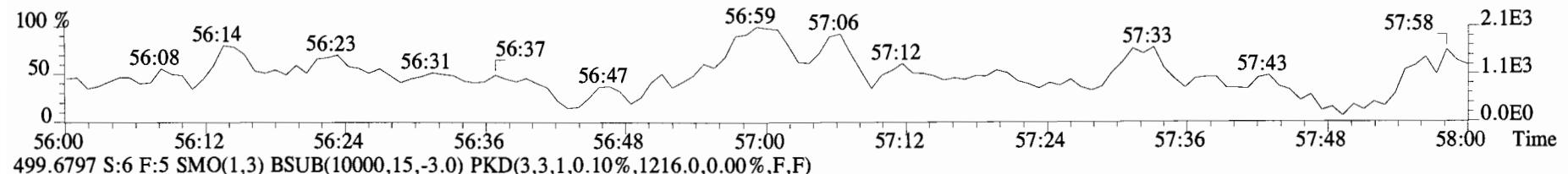
File:140919E2 #1-429 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
427.7635 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1240.0,0.00%,F,F)



File:140919E2 #1-429 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
463.7216 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1340.0,0.00%,F,F)



File:140919E2 #1-429 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
 497.6826 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1256.0,0.00%,F,F)



Lab Name: Vista Analytical Laboratory OPR Data Filename: B4I0061-BS1

Matrix : SOLID Ext. Date: 9-17-14 Analysis Date: 20-SEP-14 Time: 01:51:50

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE	CONC.	OPR CONC.	LABELED COMPOUNDS	SPIKE	CONC.	OPR CONC.	CLEAN UP STANDARD	SPIKE	CONC.	OPR CONC.
	CONC.	FOUND	LIMITS		CONC.	FOUND	LIMITS		CONC.	FOUND	LIMITS
	(ng/mL)	(ng/mL)	(ng/mL)		(ng/mL)	(ng/mL)	(ng/mL)		(ng/mL)	(ng/mL)	(ng/mL)
PCB-1	50	40.7	30.0-67.5	13C-PCB-1	100	89.1	15-145	13C-PCB-79	100	84.9	40-145
PCB-3	50	40.7	30.0-67.5	13C-PCB-3	100	94.1	15-145	13C-PCB-178	100	90.5	40-145
PCB-4/10	200	211.2	120-270	13C-PCB-4	100	65.1	15-145				
PCB-15	100	105.4	60.0-135	13C-PCB-11	100	72.9	15-145				
PCB-19	50	48.0	30.0-67.5	13C-PCB-19	100	86.1	15-145				
PCB-37	50	54.6	30.0-67.5	13C-PCB-37	100	82.2	15-145				
PCB-54	50	49.8	30.0-67.5	13C-PCB-54	100	63.3	15-145				
PCB-81	50	49.7	30.0-67.5	13C-PCB-81	100	84.6	40-145				
PCB-77	50	52.5	30.0-67.5	13C-PCB-77	100	85.1	40-145				
PCB-104	50	53.0	30.0-67.5	13C-PCB-104	100	68.1	40-145				
PCB-123	50	51.4	30.0-67.5	13C-PCB-123	100	85.7	40-145				
PCB-106/118	100	104.7	60.0-135	13C-PCB-118	100	84.1	40-145				
PCB-114	50	51.2	30.0-67.5	13C-PCB-114	100	68.5	40-145				
PCB-105	50	51.6	30.0-67.5	13C-PCB-105	100	68.8	40-145				
PCB-126	50	52.9	30.0-67.5	13C-PCB-126	100	69.4	40-145				
PCB-155	50	49.7	30.0-67.5	13C-PCB-155	100	85.7	40-145				
PCB-167	50	48.4	30.0-67.5	13C-PCB-167	100	81.3	40-145				
PCB-156	50	48.9	30.0-67.5	13C-PCB-156	100	81.3	40-145				
PCB-157	50	47.3	30.0-67.5	13C-PCB-157	100	82.3	40-145				
PCB-169	50	47.2	30.0-67.5	13C-PCB-169	100	82.2	40-145				
PCB-188	50	49.8	30.0-67.5	13C-PCB-188	100	84.2	40-145				
PCB-189	50	48.8	30.0-67.5	13C-PCB-189	100	89.8	40-145				
PCB-202	50	48.9	30.0-67.5	13C-PCB-202	100	100.7	40-145				
PCB-205	50	48.2	30.0-67.5	13C-PCB-194	100	87.2	40-145				
PCB-208	50	51.3	30.0-67.5	13C-PCB-208	100	85.8	40-145				
PCB-206	50	52.2	30.0-67.5	13C-PCB-206	100	85.5	40-145				
PCB-209	50	50.7	30.0-67.5	13C-PCB-209	100	93.7	40-145				

Analyst: MDate: 9/23/14

Client ID: OPR
Lab ID: B4I0061-BS1

Filename: 140919E2 S:3 Acq:20-SEP-14 01:51:50 ConCal: ST140919E2-1
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	5.75e+07	3.13	y	1.19	16:19	1.001	0.996-1.006	40.6716	PCB-52/69	9.59e+07	0.81	y	1.28	31:43	1.001	0.996-1.006	100.746
PCB-2	6.31e+07	3.13	y	1.18	18:42	0.989	0.984-0.994	40.7620	PCB-73	5.48e+07	0.83	y	1.35	31:50	1.004	1.000-1.010	54.5226
PCB-3	7.58e+07	3.11	y	1.43	18:56	1.001	0.996-1.006	40.6544	PCB-43/49	7.64e+07	0.81	y	0.99	32:00	1.009	1.005-1.015	103.414
PCB-4/10	1.93e+08	1.63	y	1.57	20:19	1.002	0.997-1.007	211.231	PCB-47	4.24e+07	0.80	y	1.06	32:13	1.001	0.996-1.006	50.1173
PCB-7/9	2.37e+08	1.65	y	1.21	22:06	0.869	0.866-0.874	211.842	PCB-48/75	1.00e+08	0.81	y	1.23	32:20	1.004	0.999-1.009	102.194
PCB-6	1.26e+08	1.66	y	1.30	22:45	0.894	0.890-0.899	104.090	PCB-65	5.36e+07	0.81	y	1.22	32:36	1.012	1.008-1.018	54.7305
PCB-5/8	2.32e+08	1.65	y	1.15	23:10	0.911	0.907-0.917	218.242	PCB-62	4.79e+07	0.82	y	1.22	32:43	1.016	1.011-1.021	49.0365
PCB-14	1.23e+08	1.67	y	1.11	24:15	0.953	0.949-0.959	106.549	PCB-44	3.63e+07	0.82	y	0.86	33:01	1.025	1.021-1.031	52.7637
PCB-11	1.21e+08	1.67	y	1.09	25:27	1.001	0.995-1.005	107.270	PCB-42/59	9.13e+07	0.81	y	1.14	33:14	1.032	1.028-1.038	100.393
PCB-12/13	2.68e+08	1.66	y	1.19	25:50	1.016	1.011-1.021	215.504	PCB-41/64/71/72	1.98e+08	0.81	y	1.21	33:50	1.051	1.046-1.056	205.562
PCB-15	1.41e+08	1.68	y	1.28	26:09	1.028	1.023-1.033	105.419	PCB-68	5.73e+07	0.80	y	1.35	34:04	1.058	1.054-1.064	53.1908
PCB-19	3.49e+07	1.10	y	1.04	24:26	1.001	0.996-1.006	47.9902	PCB-40	3.09e+07	0.81	y	0.70	34:18	1.065	1.061-1.071	55.0327
PCB-30	5.88e+07	1.10	y	1.71	25:20	1.038	1.032-1.042	49.2482	PCB-57	5.14e+07	0.81	y	0.98	34:40	0.971	0.965-0.975	52.4147
PCB-18	4.20e+07	1.10	y	0.78	26:05	0.954	0.949-0.959	48.8701	PCB-67	5.82e+07	0.83	y	1.11	34:58	0.979	0.974-0.984	52.5142
PCB-17	4.88e+07	1.09	y	0.92	26:15	0.960	0.956-0.966	48.1642	PCB-58	4.87e+07	0.80	y	0.93	35:05	0.982	0.977-0.987	52.4138
PCB-24/27	1.26e+08	1.10	y	1.19	26:50	0.982	0.977-0.987	96.4522	PCB-63	4.83e+07	0.82	y	0.95	35:14	0.986	0.982-0.992	50.6722
- PCB-16/32	1.00e+08	1.09	y	0.94	27:20	1.000	0.995-1.005	97.0333	PCB-74	6.40e+07	0.81	y	1.24	35:31	0.994	0.990-1.000	51.3664
- PCB-34	5.78e+07	1.05	y	1.14	28:08	0.960	0.955-0.965	55.6233	PCB-61/70	9.92e+07	0.82	y	0.95	35:42	1.000	0.995-1.005	103.883
PCB-23	6.26e+07	1.05	y	1.28	28:13	0.963	0.959-0.969	53.5016	PCB-76/66	1.08e+08	0.81	y	1.04	35:55	1.006	1.001-1.011	103.682
PCB-29	5.55e+07	1.04	y	1.08	28:28	0.972	0.967-0.977	56.1613	PCB-80	6.52e+07	0.83	y	1.19	36:08	1.000	0.996-1.006	51.5475
PCB-26	6.03e+07	1.05	y	1.21	28:40	0.978	0.974-0.984	54.6161	PCB-55	5.80e+07	0.81	y	1.04	36:29	1.010	1.005-1.015	52.5284
PCB-25	6.90e+07	1.07	y	1.26	28:51	0.985	0.979-0.989	59.8166	PCB-56/60	1.20e+08	0.81	y	1.01	36:58	1.023	1.019-1.029	112.327
PCB-31	6.54e+07	1.04	y	1.28	29:12	0.997	0.992-1.002	55.6443	PCB-79	6.50e+07	0.80	y	1.08	38:02	1.053	1.048-1.058	56.7348
PCB-28	8.45e+07	1.05	y	1.71	29:18	1.000	0.995-1.005	53.9571	PCB-78	6.88e+07	0.80	y	1.27	38:43	0.987	0.982-0.992	50.5071
PCB-20/21/33	1.71e+08	1.05	y	1.08	29:55	1.021	1.017-1.027	173.338	PCB-81	7.09e+07	0.80	y	1.33	39:15	1.000	0.995-1.005	49.6595
PCB-22	6.54e+07	1.05	y	1.21	30:22	1.036	1.032-1.042	59.1472	PCB-77	6.37e+07	0.85	y	1.10	39:51	1.000	0.995-1.005	52.4693
PCB-36	5.66e+07	1.04	y	1.14	30:58	0.934	0.928-0.938	54.8786	PCB-104	4.48e+07	1.67	y	1.18	32:53	1.001	0.996-1.006	53.0041
PCB-39	5.71e+07	1.04	y	1.12	31:26	0.948	0.943-0.953	56.6468	PCB-96	4.32e+07	1.64	y	1.14	34:08	1.039	1.034-1.044	53.1753
PCB-38	5.82e+07	1.06	y	1.20	32:13	0.971	0.966-0.976	53.7533	PCB-103	3.55e+07	1.65	y	0.96	34:40	1.055	1.050-1.060	52.0140
PCB-35	6.77e+07	1.06	y	1.23	32:44	0.987	0.982-0.992	60.8574	PCB-100	3.60e+07	1.65	y	0.94	35:01	1.065	1.061-1.071	53.8457
PCB-37	6.07e+07	1.06	y	1.23	33:11	1.001	0.995-1.005	54.6410	PCB-94	2.95e+07	1.68	y	1.06	35:30	0.986	0.980-0.990	50.5325
PCB-54	4.64e+07	0.82	y	1.10	28:11	1.001	0.996-1.006	49.8313	PCB-95/98/102	1.02e+08	1.64	y	1.22	35:59	0.999	0.995-1.005	150.215
PCB-50	3.89e+07	0.82	y	0.88	29:21	1.042	1.037-1.047	52.3244	PCB-93	2.98e+07	1.57	y	0.84	36:07	1.003	0.997-1.007	64.0063
PCB-53	3.84e+07	0.83	y	1.06	30:00	0.946	0.942-0.952	48.6192	PCB-88/91	6.89e+07	1.62	y	1.12	36:24	1.011	1.005-1.015	111.726
PCB-51	3.70e+07	0.82	y	0.99	30:20	0.957	0.952-0.962	50.3463	PCB-121	4.58e+07	1.65	y	1.62	36:31	1.014	1.009-1.019	51.2862
PCB-45	3.21e+07	0.79	y	0.86	30:47	0.971	0.966-0.976	50.0324	PCB-84/92	7.07e+07	1.63	y	1.05	37:20	0.991	0.985-0.995	103.083
PCB-46	3.22e+07	0.82	y	0.85	31:15	0.986	0.981-0.991	51.2460	PCB-89	3.86e+07	1.67	y	1.13	37:31	0.996	0.991-1.001	52.1485

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations
by
Analyst: M)

Date: 9/23/14

Reviewed
by
Analyst: SP

Date: 9/25/14

Client ID: OPR
Lab ID: B4I0061-BS1

Filename: 140919E2 S:3 Acq:20-SEP-14 01:51:50
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.000
ConCal: ST140919E2-1 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	7.56e+07	1.62	y	1.10	37:41	1.000	0.995-1.005	104.846	PCB-133/142	6.54e+07	1.32	y	0.82	42:38	0.982	0.977-0.987	97.0267
PCB-113	4.55e+07	1.64	y	1.41	37:56	1.007	1.002-1.012	49.1997	PCB-131	3.60e+07	1.25	y	0.91	42:48	0.986	0.981-0.991	48.1830
PCB-99	5.01e+07	1.65	y	1.34	38:02	1.009	1.004-1.014	57.1995	PCB-146/165	9.71e+07	1.29	y	1.25	43:00	0.990	0.986-0.996	94.6624
PCB-119	4.87e+07	1.63	y	1.53	38:30	0.987	0.982-0.992	52.0030	PCB-132/161	8.77e+07	1.29	y	1.10	43:15	0.996	0.992-1.002	96.3339
PCB-108/112	8.14e+07	1.62	y	1.28	38:39	0.991	0.986-0.996	104.073	PCB-153	4.84e+07	1.29	y	1.25	43:26	1.000	0.995-1.005	47.0726
PCB-83	4.71e+07	1.65	y	1.52	38:50	0.996	0.990-1.000	50.8518	PCB-168	5.77e+07	1.29	y	1.45	43:39	1.005	1.001-1.011	48.3530
PCB-97	3.74e+07	1.64	y	1.18	39:01	1.000	0.995-1.005	51.7637	PCB-141	3.94e+07	1.30	y	1.09	44:10	1.000	0.995-1.005	47.6792
PCB-86	2.97e+07	1.67	y	0.84	39:09	1.004	0.999-1.009	57.6712	PCB-137	4.06e+07	1.30	y	1.06	44:33	1.009	1.004-1.014	50.1546
B-87/117/125	1.48e+08	1.65	y	1.55	39:17	1.007	1.002-1.012	155.978	PCB-130	3.70e+07	1.28	y	0.96	44:39	1.011	1.006-1.016	50.3740
PCB-111/115	1.00e+08	1.63	y	1.63	39:26	1.011	1.006-1.016	100.354	PCB-138/163/164	1.46e+08	1.29	y	1.29	45:02	1.001	0.996-1.006	141.255
PCB-85/116	8.77e+07	1.63	y	1.30	39:34	1.015	1.010-1.020	110.321	PCB-158/160	1.03e+08	1.29	y	1.34	45:17	1.007	1.001-1.011	96.2405
PCB-120	5.33e+07	1.65	y	1.68	39:49	1.021	1.016-1.026	52.0722	PCB-129	3.36e+07	1.30	y	0.85	45:31	1.012	1.007-1.017	49.2889
PCB-110	5.00e+07	1.63	y	1.56	39:57	1.024	1.020-1.030	52.5770	PCB-166	5.22e+07	1.28	y	1.19	45:58	0.993	0.988-0.998	48.0574
PCB-82	3.29e+07	1.62	y	0.76	40:35	0.977	0.971-0.981	54.0916	PCB-159	4.99e+07	1.31	y	1.11	46:17	1.000	0.996-1.006	48.9218
PCB-124	6.15e+07	1.64	y	1.47	41:15	0.993	0.988-0.998	52.2719	PCB-128/162	9.15e+07	1.28	y	1.05	46:34	1.006	1.002-1.012	95.2665
PCB-107/109	1.09e+08	1.67	y	1.32	41:24	0.996	0.991-1.001	102.971	PCB-167	5.75e+07	1.27	y	1.20	46:59	1.001	0.995-1.005	48.3899
PCB-123	4.81e+07	1.59	y	1.17	41:34	1.000	0.996-1.006	51.4161	PCB-156	5.27e+07	1.26	y	1.14	48:16	1.000	0.996-1.006	48.8627
- PCB-106/118	1.04e+08	1.63	y	1.17	41:47	1.001	0.996-1.006	104.673	PCB-157	5.54e+07	1.28	y	1.16	48:32	1.000	0.995-1.005	47.2954
- PCB-114	5.58e+07	1.62	y	1.30	42:25	1.001	0.995-1.005	51.1618	PCB-169	5.03e+07	1.30	y	1.12	50:39	1.000	0.995-1.005	47.1971
PCB-122	5.05e+07	1.62	y	1.12	42:33	1.004	0.999-1.009	53.5936	PCB-188	5.48e+07	1.06	y	1.58	43:04	1.000	0.996-1.006	49.7710
PCB-105	5.67e+07	1.62	y	1.30	43:17	1.001	0.995-1.005	51.5744	PCB-184	5.77e+07	1.09	y	1.63	43:30	1.010	1.006-1.016	50.8032
PCB-127	6.28e+07	1.61	y	1.33	43:36	1.000	0.996-1.006	51.0295	PCB-179	4.55e+07	1.08	y	1.30	44:18	1.029	1.024-1.034	50.1281
PCB-126	5.11e+07	1.62	y	1.18	45:30	1.000	0.995-1.005	52.8724	PCB-176	5.21e+07	1.08	y	1.48	44:46	1.040	1.035-1.045	50.6552
PCB-155	4.17e+07	1.28	y	1.11	37:16	1.001	0.966-1.006	49.7461	PCB-186	5.15e+07	1.08	y	1.45	45:22	1.054	1.050-1.060	50.8863
PCB-150	4.07e+07	1.29	y	1.00	38:31	1.034	1.030-1.040	54.1882	PCB-178	3.74e+07	1.06	y	1.03	45:51	1.065	1.061-1.071	51.9068
PCB-152	4.35e+07	1.30	y	1.12	39:00	1.047	1.043-1.053	51.7889	PCB-175	3.76e+07	1.08	y	1.01	46:12	1.073	1.069-1.079	53.3562
PCB-145	4.75e+07	1.30	y	1.20	39:27	1.060	1.055-1.065	52.5681	PCB-182/187	9.00e+07	1.08	y	1.25	46:23	1.077	1.073-1.083	103.287
PCB-136	4.84e+07	1.30	y	1.18	39:46	1.068	1.064-1.074	54.5518	PCB-183	4.29e+07	1.06	y	1.21	46:41	1.084	1.081-1.091	50.9700
PCB-148	2.88e+07	1.34	y	0.74	39:52	1.071	1.066-1.076	51.3740	PCB-185	4.85e+07	1.06	y	1.80	47:21	0.956	0.951-0.961	48.3014
PCB-154	3.64e+07	1.27	y	0.86	40:22	1.084	1.080-1.090	56.4621	PCB-174	3.81e+07	1.06	y	1.38	47:42	0.963	0.958-0.968	49.5977
PCB-151	3.12e+07	1.30	y	0.75	41:00	1.101	1.097-1.107	55.4734	PCB-181	3.96e+07	1.09	y	1.38	47:49	0.965	0.960-0.970	51.4107
PCB-135	3.26e+07	1.28	y	0.79	41:13	1.107	1.103-1.113	54.7418	PCB-177	3.57e+07	1.05	y	1.26	47:59	0.969	0.963-0.973	50.9625
PCB-144	3.22e+07	1.30	y	0.76	41:19	1.110	1.105-1.117	56.1450	PCB-171	4.43e+07	1.05	y	1.58	48:17	0.975	0.970-0.980	50.2364
PCB-147	3.63e+07	1.30	y	0.82	41:27	1.113	1.109-1.121	58.8287	PCB-173	3.21e+07	1.05	y	1.11	48:43	0.984	0.978-0.988	51.8023
PCB-139/149	6.43e+07	1.30	y	0.76	41:43	1.120	1.116-1.128	112.078	PCB-172	4.69e+07	1.06	y	1.63	49:09	0.992	0.987-0.997	51.4659
- PCB-140	3.13e+07	1.26	y	0.72	41:54	1.125	1.121-1.133	57.5300	PCB-192	4.92e+07	1.06	y	1.74	49:21	0.996	0.991-1.001	50.7073
- PCB-134/143	7.33e+07	1.28	y	0.92	42:20	0.975	0.970-0.980	97.0765	PCB-180	3.79e+07	1.05	y	1.34	49:34	1.001	0.995-1.005	50.5069

Integrations

by

Analyst: M

Date: 9/27/14

Client ID: OPR
Lab ID: B4I0061-BS1

Filename: 140919E2 S:3 Acq:20-SEP-14 01:51:50 ConCal: ST140919E2-1
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RT	RRF	Conc	
PCB-193	4.67e+07	1.07	y	1.72	49:45	1.004	0.999-1.009	48.7929	Total Mono-PCB	1.96e+08	3.13	y	16:19	1.27	122.088
PCB-191	4.66e+07	1.06	y	1.69	50:00	1.009	1.004-1.014	49.3506	Total Di-PCB	1.44e+09	1.63	y	20:19	1.21	1281.73
PCB-170	3.69e+07	1.07	y	1.60	51:01	1.000	0.995-1.005	51.0845	Total Tri-PCB	4.11e+08	1.10	y	24:26	1.10	387.758
PCB-190	4.87e+07	1.06	y	2.21	51:12	1.004	0.998-1.008	48.8343	Total Tri-PCB	1.01e+09	1.05	y	28:08	1.21	914.789 Sum:1302.55
PCB-189	4.38e+07	1.06	y	1.55	52:29	1.000	0.995-1.005	48.7701	Total Tetra-PCB	2.11e+09	0.82	y	28:11	1.09	2187.94
PCB-202	4.03e+07	0.95	y	1.08	48:29	1.000	0.995-1.005	48.8873	Total Penta-PCB	1.76e+09	1.67	y	32:53	1.18	2163.77
PCB-201	4.39e+07	0.95	y	1.15	48:58	1.010	1.005-1.015	50.1897	Total Penta-PCB	2.92e+08	1.62	y	42:25	1.25	274.275 Sum:2438.04
PCB-204	4.26e+07	0.90	y	1.14	49:08	1.014	1.008-1.018	49.1810	Total Hexa-PCB	5.15e+08	1.28	y	37:16	0.90	765.476
PCB-197	4.06e+07	0.93	y	1.07	49:25	1.020	1.015-1.025	49.6837	Total Hexa-PCB	1.29e+09	1.28	y	42:20	1.11	1361.69 Sum:2127.17
PCB-200	4.02e+07	0.93	y	1.06	50:17	1.037	1.032-1.044	49.7118	Total Hepta-PCB	1.07e+09	1.06	y	43:04	1.42	1222.02
PCB-198	2.97e+07	0.91	y	0.76	51:36	1.065	1.059-1.069	51.6059	Total Octa-PCB	3.34e+08	0.95	y	48:29	0.96	458.624
PCB-199	3.26e+07	0.94	y	0.80	51:43	1.067	1.061-1.071	53.6516	Total Octa-PCB	1.10e+08	0.92	y	53:08	1.33	149.941 Sum:608.565
- PCB-196/203	6.45e+07	0.92	y	0.80	51:59	1.073	1.066-1.076	105.713	Total Nona-PCB	1.02e+08	1.37	y	53:16	1.01	157.124
- PCB-195	3.38e+07	0.92	y	1.23	53:08	0.984	0.979-0.989	49.5293	Total Deca-PCB	2.71e+07	1.18	y	57:00	1.17	50.6692
PCB-194	3.30e+07	0.93	y	1.21	54:00	1.000	0.995-1.005	49.0128							
PCB-205	4.13e+07	0.90	y	1.54	54:16	1.005	1.001-1.011	48.2262						Total PCB Conc:11427.9322610	
PCB-208	3.54e+07	1.37	y	0.93	53:16	1.000	0.995-1.005	51.3490							
PCB-207	4.22e+07	1.38	y	1.08	53:35	1.006	1.001-1.011	52.5534							
PCB-206	2.38e+07	1.38	y	1.02	55:39	1.000	0.995-1.005	52.2110							
PCB-209	2.71e+07	1.18	y	1.17	57:00	1.000	0.995-1.005	50.6692							

RL: MONO, TRI - DECA: _____

Integrations
by _____
Analyst: M/M
Date: 9/23/14

Client ID: OPR
Lab ID: B4I0061-BS1

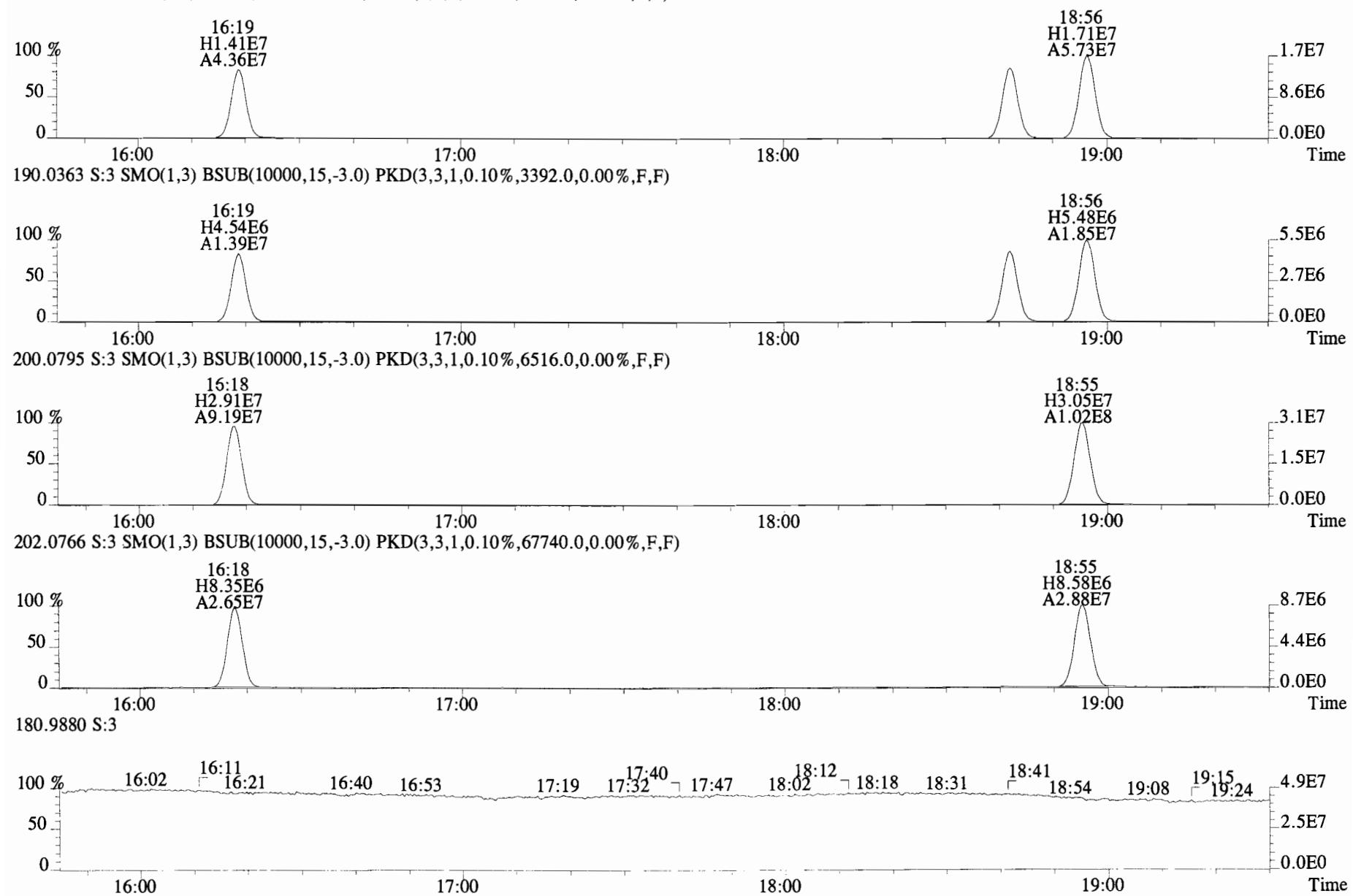
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ConCal: ST140919E2-1
EndCAL: NA

Page 4 of

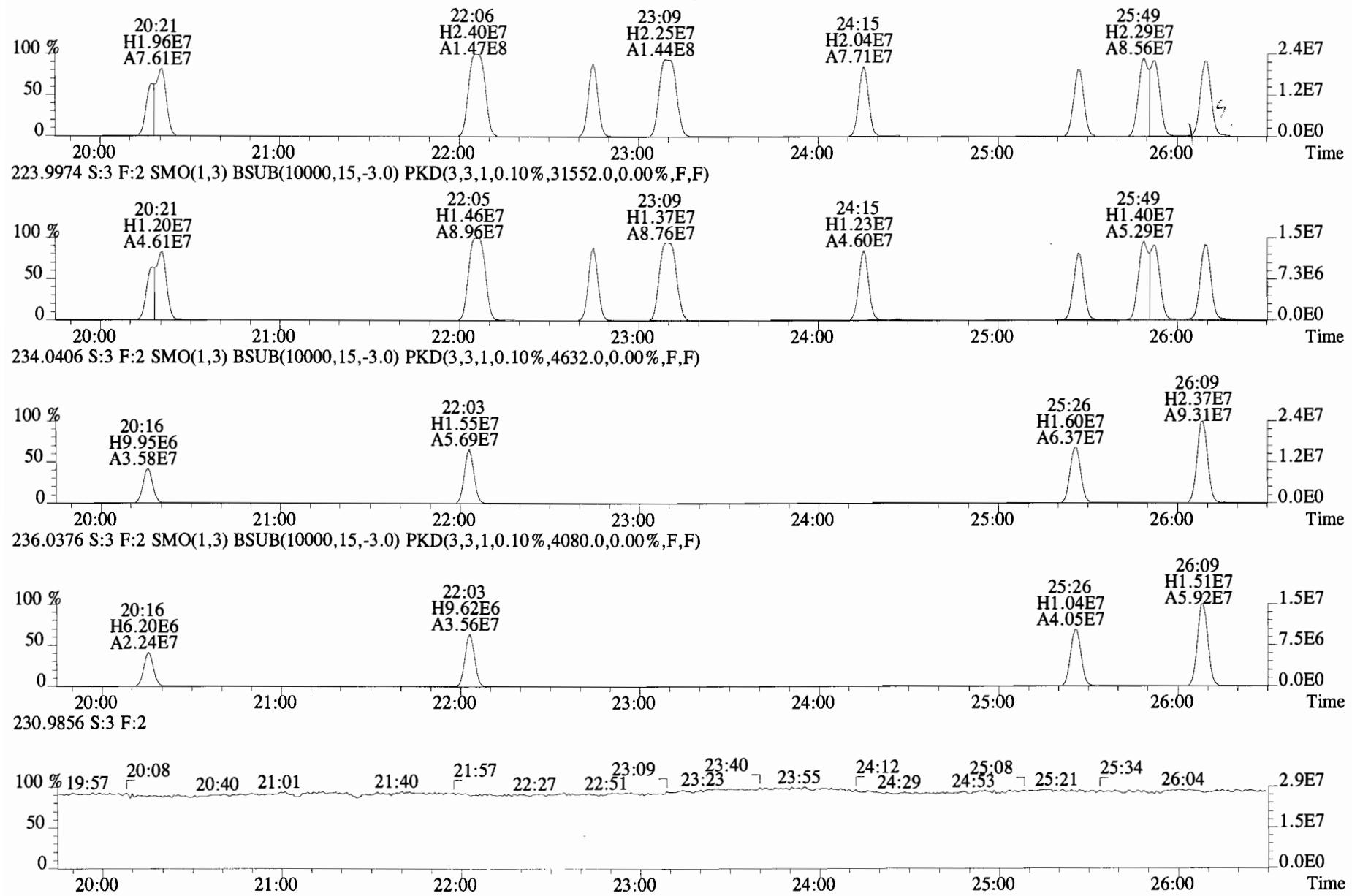
Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	1.18e+08	3.47	y	0.87	16:18	0.624	, 0.629-0.635	89.1	89.1	13C-PCB-79	1.19e+08	0.83	y	1.02	38:01	1.029	1.023-1.034	84.9	84.9		
13C-PCB-3	1.31e+08	3.54	y	0.91	18:55	0.724	, 0.725-0.733	94.1	94.1	13C-PCB-178	5.01e+07	0.46	y	0.61	45:50	0.985	0.979-0.990	90.5	90.5		
13C-PCB-4	5.82e+07	1.60	y	0.59	20:16	0.776	, 0.775-0.783	65.1	65.1												
13C-PCB-9	9.25e+07	1.60	y	0.90	22:03	0.844	, 0.842-0.850	67.7	67.7												
13C-PCB-11	1.04e+08	1.57	y	0.94	25:26	0.973	0.968-0.978	72.9	72.9	PS vs. IS											
13C-PCB-32	1.10e+08	1.14	y	0.80	27:20	1.046	1.040-1.050	90.6	90.6	13C-PCB-79	1.19e+08	0.83	y	1.10	38:01	0.969	0.964-0.974	100	100		
13C-PCB-19	6.98e+07	1.12	y	0.53	24:25	0.934	0.930-0.940	86.1	86.1	13C-PCB-178	5.01e+07	0.46	y	0.90	45:50	0.925	0.920-0.930	100	100		
13C-PCB-28	9.15e+07	1.10	y	0.93	29:18	1.004	0.999-1.009	75.0	75.0												
13C-PCB-52	7.42e+07	0.86	y	0.77	31:42	0.858	0.853-0.861	70.0	70.0												
13C-PCB-54	8.44e+07	0.85	y	0.97	28:10	0.762	0.758-0.766	63.3	63.3												
13C-PCB-37	9.03e+07	1.15	y	0.84	33:10	1.136	1.131-1.143	82.2	82.2												
13C-PCB-47	7.99e+07	0.86	y	0.81	32:12	0.871	0.866-0.874	71.6	71.6												
13C-PCB-81	1.07e+08	0.84	y	0.92	39:14	1.062	1.057-1.067	84.6	84.6												
13C-PCB-70	1.00e+08	0.87	y	1.00	35:43	0.967	0.961-0.971	73.0	73.0												
13C-PCB-80	1.06e+08	0.86	y	1.03	36:08	0.978	0.972-0.982	74.7	74.7												
13C-PCB-104	7.13e+07	1.63	y	1.00	32:52	0.833	0.828-0.836	68.1	68.1												
13C-PCB-101	6.56e+07	1.61	y	0.78	37:41	0.956	0.951-0.961	80.0	80.0	RS											
13C-PCB-95	5.53e+07	1.58	y	0.74	36:01	0.913	0.908-0.918	71.3	71.3	13C-PCB-15	1.52e+08	1.57	y	1.00	26:08	100					
13C-PCB-77	1.10e+08	0.85	y	0.94	39:50	1.078	1.073-1.083	85.1	85.1	13C-PCB-31	1.31e+08	1.10	y	1.00	29:11	100					
13C-PCB-114	8.42e+07	1.68	y	1.36	42:23	0.910	0.905-0.915	68.5	68.5	13C-PCB-60	1.37e+08	0.82	y	1.00	36:57	100					
13C-PCB-118	8.44e+07	1.61	y	0.96	41:44	1.058	1.054-1.064	84.1	84.2	13C-PCB-111	1.05e+08	1.59	y	1.00	39:26	100					
13C-PCB-123	8.01e+07	1.64	y	0.89	41:33	1.054	1.050-1.060	85.7	85.7	13C-PCB-128	9.02e+07	1.31	y	1.00	46:33	100					
13C-PCB-97	6.11e+07	1.62	y	0.70	39:00	0.989	0.984-0.994	82.9	82.9	13C-PCB-205	8.00e+07	0.93	y	1.00	54:16	100					
13C-PCB-127	9.24e+07	1.68	y	1.47	43:35	0.936	0.931-0.941	69.5	69.5												
13C-PCB-105	8.47e+07	1.69	y	1.37	43:15	0.929	0.924-0.934	68.8	68.8												
13C-PCB-141	7.62e+07	1.32	y	1.07	44:09	0.948	0.943-0.953	78.6	78.6												
13C-PCB-153	8.24e+07	1.33	y	1.15	43:25	0.933	0.927-0.937	79.7	79.7												
13C-PCB-155	7.53e+07	1.27	y	0.84	37:14	0.944	0.939-0.949	85.7	85.7												
13C-PCB-126	8.18e+07	1.70	y	1.31	45:29	0.977	0.972-0.982	69.4	69.4												
13C-PCB-167	9.91e+07	1.34	y	1.35	46:57	1.009	1.004-1.014	81.3	81.3												
13C-PCB-156	9.50e+07	1.33	y	1.30	48:15	1.037	1.032-1.042	81.3	81.3												
13C-PCB-138	8.00e+07	1.31	y	1.10	44:59	0.966	0.961-0.971	80.6	80.6												
13C-PCB-159	9.17e+07	1.30	y	1.25	46:17	0.994	0.989-0.999	81.5	81.5												
13C-PCB-157	1.01e+08	1.35	y	1.36	48:31	1.042	1.038-1.048	82.3	82.3												
13C-PCB-180	5.58e+07	0.47	y	0.68	49:32	1.064	1.060-1.070	90.4	90.4												
13C-PCB-188	6.96e+07	0.45	y	0.92	43:03	0.925	0.919-0.929	84.2	84.2												
13C-PCB-169	9.53e+07	1.31	y	1.29	50:38	1.088	1.083-1.093	82.2	82.2												
13C-PCB-170	4.52e+07	0.45	y	0.54	51:00	1.096	1.089-1.101	92.4	92.4												
13C-PCB-202	7.61e+07	0.89	y	0.84	48:28	1.041	1.036-1.046	101	101												
13C-PCB-189	5.80e+07	0.46	y	0.72	52:29	1.127	1.120-1.132	89.8	89.8												
13C-PCB-208	7.42e+07	0.78	y	1.08	53:15	0.981	0.976-0.986	85.8	85.8												
13C-PCB-194	5.56e+07	0.95	y	0.80	53:59	0.995	0.990-1.000	87.2	87.2												
13C-PCB-206	4.44e+07	0.79	y	0.65	55:38	1.025	1.021-1.031	85.5	85.5												
13C-PCB-209	4.58e+07	1.19	y	0.61	56:59	1.050	1.045-1.055	93.7	93.7												

Analyst: M
Date: 9/23/14

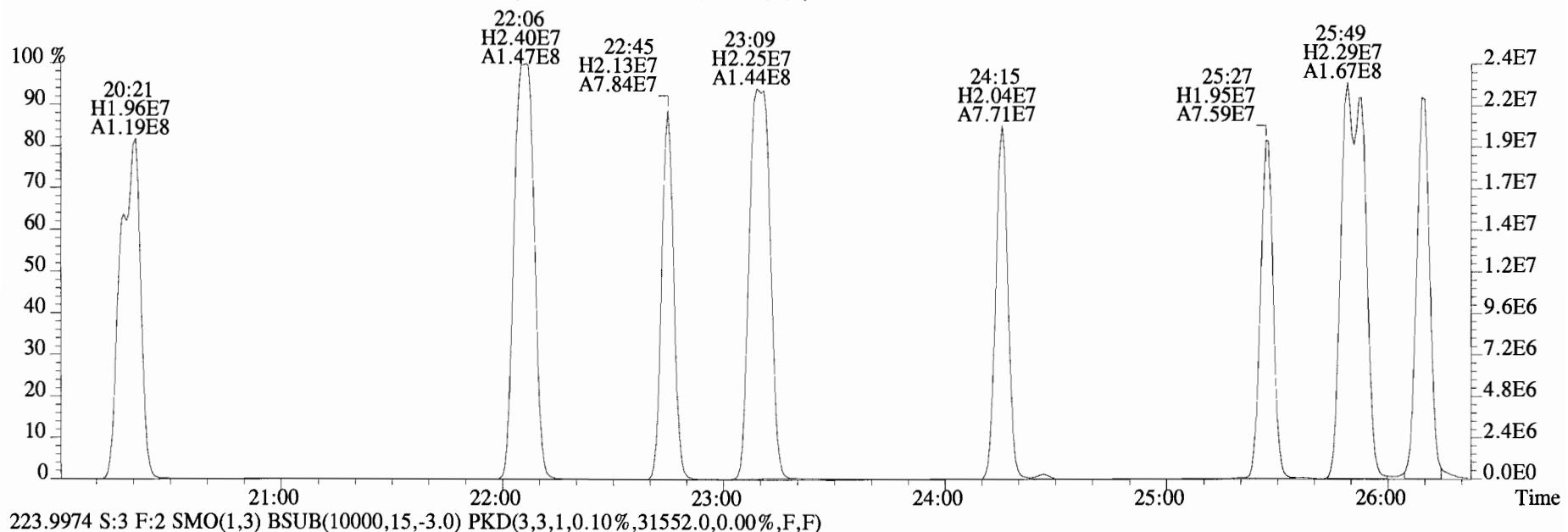
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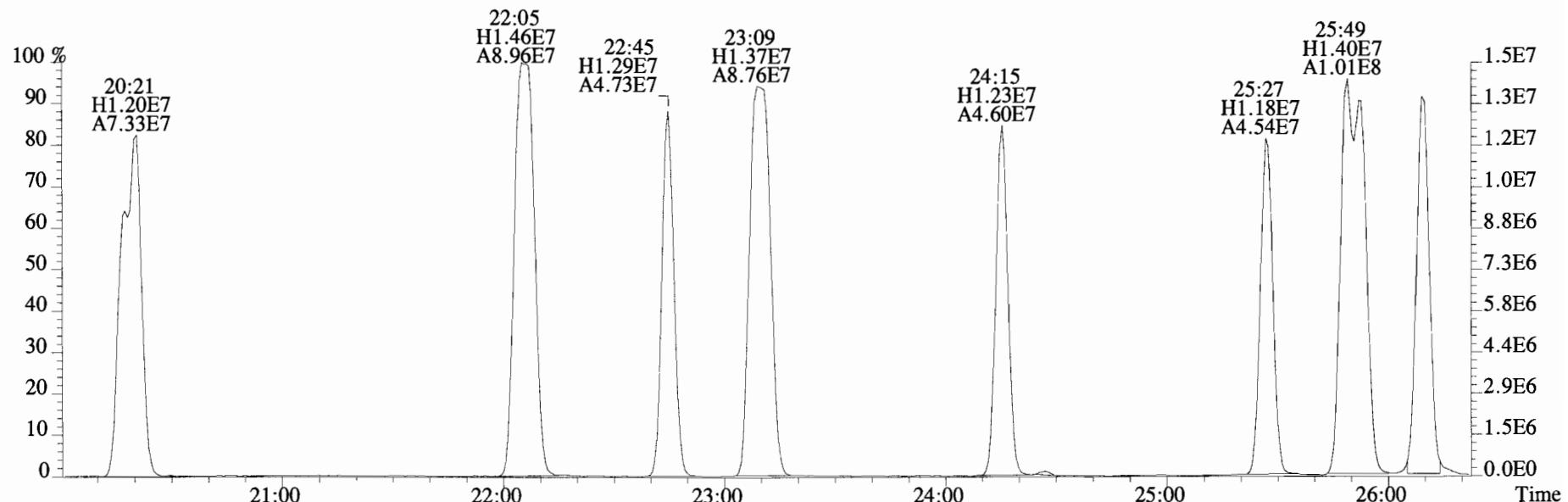
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 222.0003 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6288.0,0.00%,F,F)



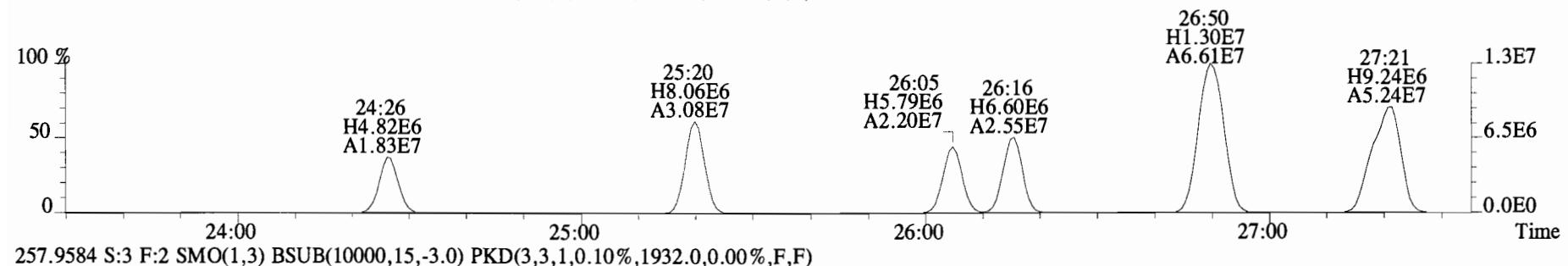
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222.0003 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6292.0,0.00%,F,F)



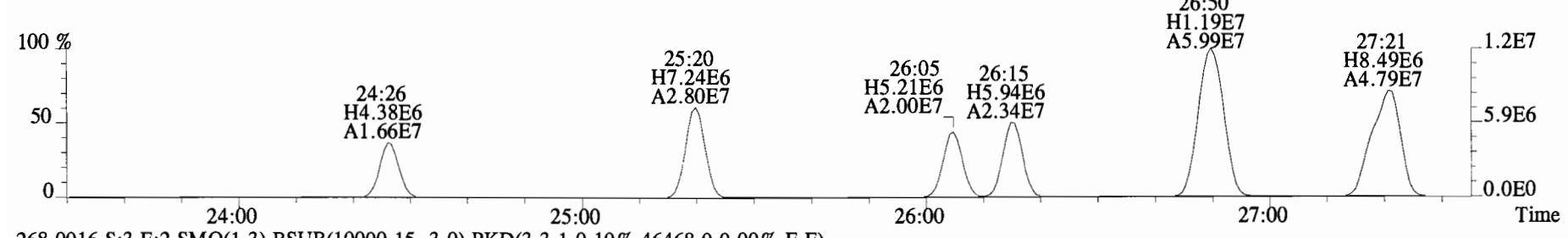
223.9974 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,31552.0,0.00%,F,F)



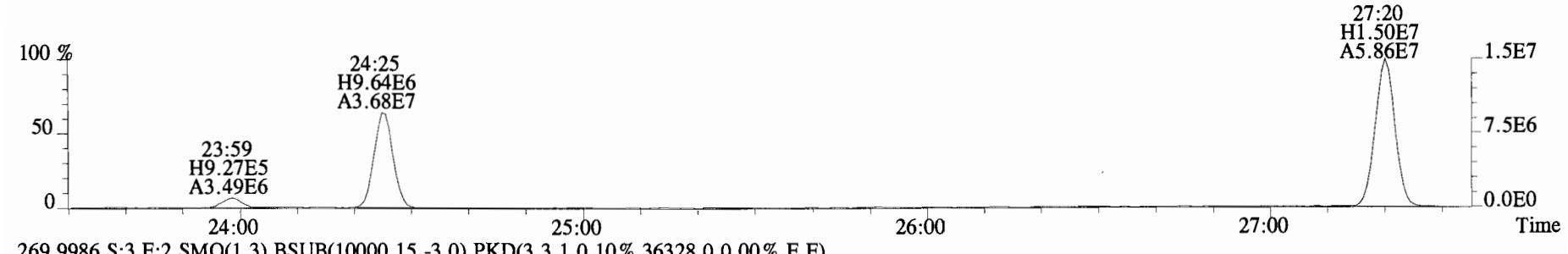
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 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 255.9613 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4492.0,0.00%,F,F)



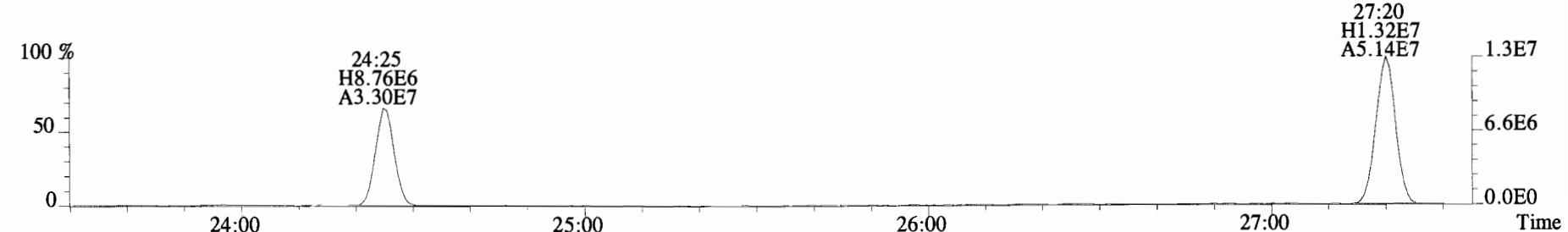
257.9584 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1932.0,0.00%,F,F)



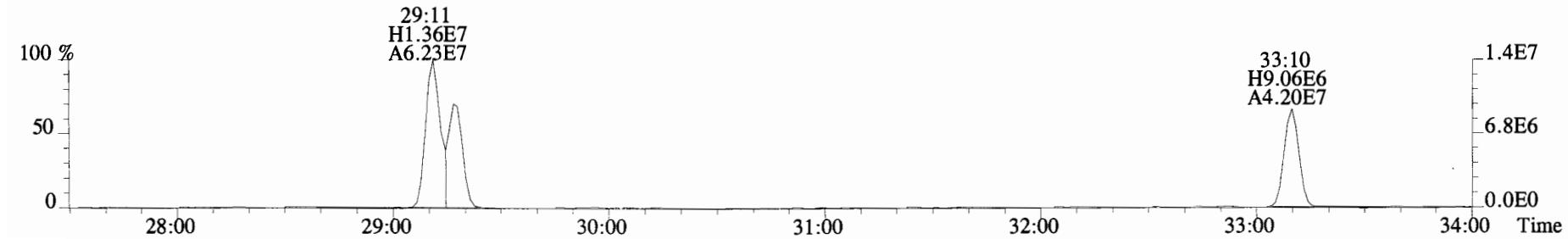
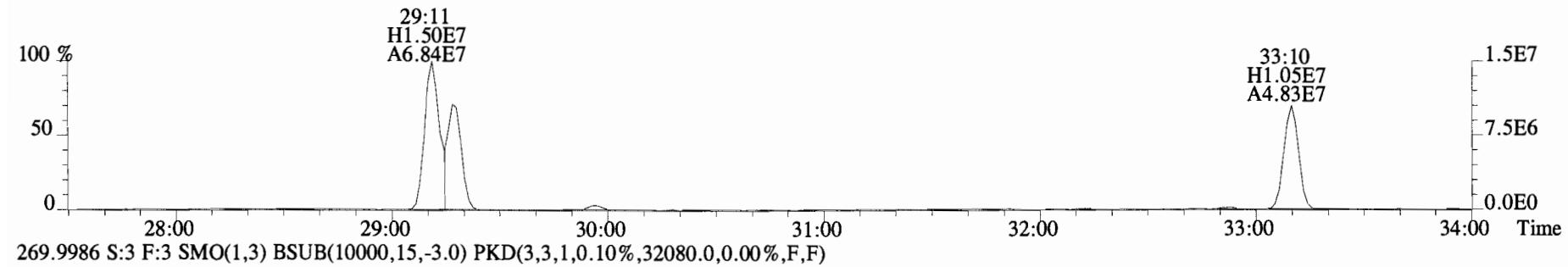
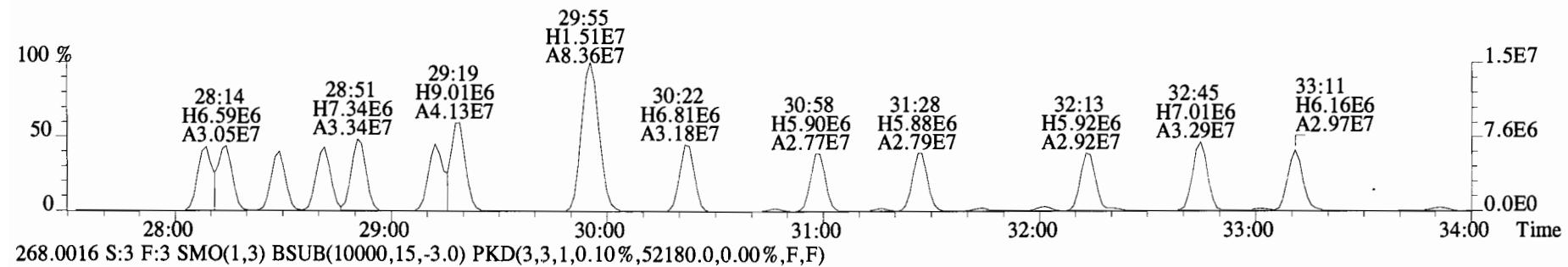
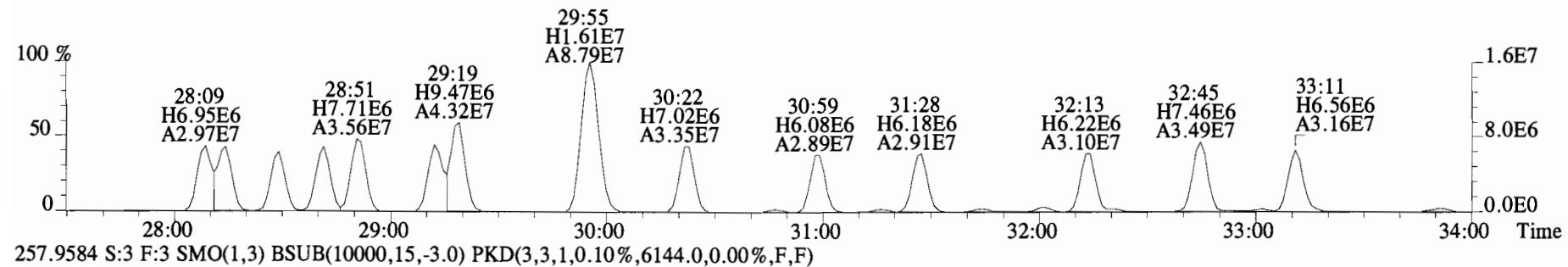
268.0016 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,46468.0,0.00%,F,F)



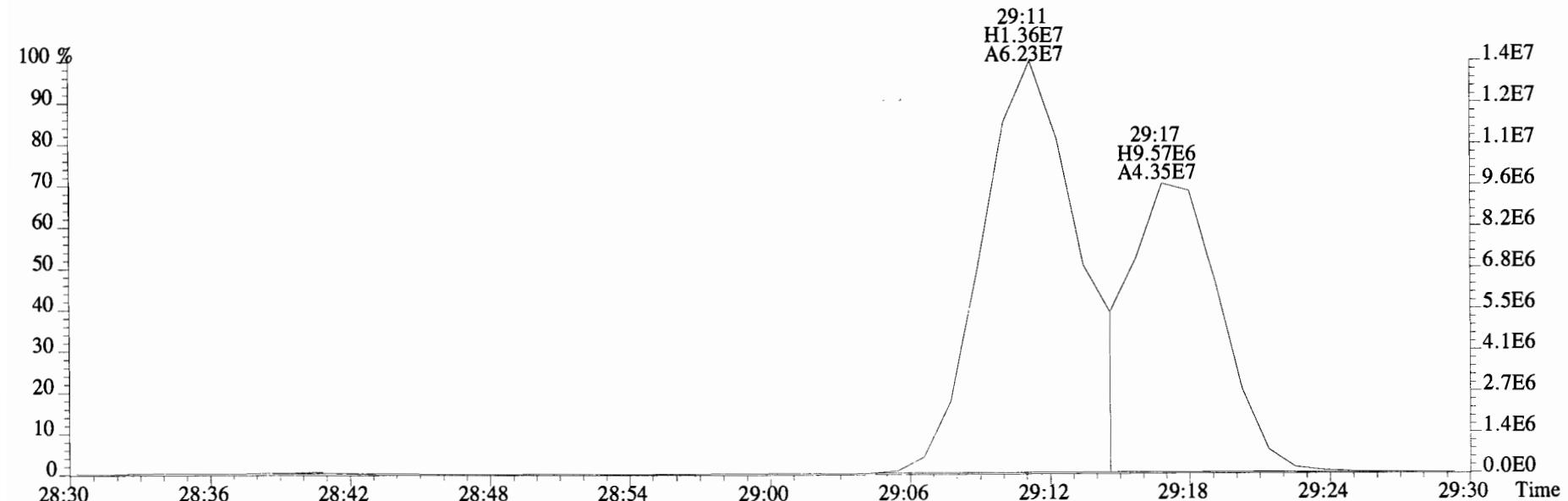
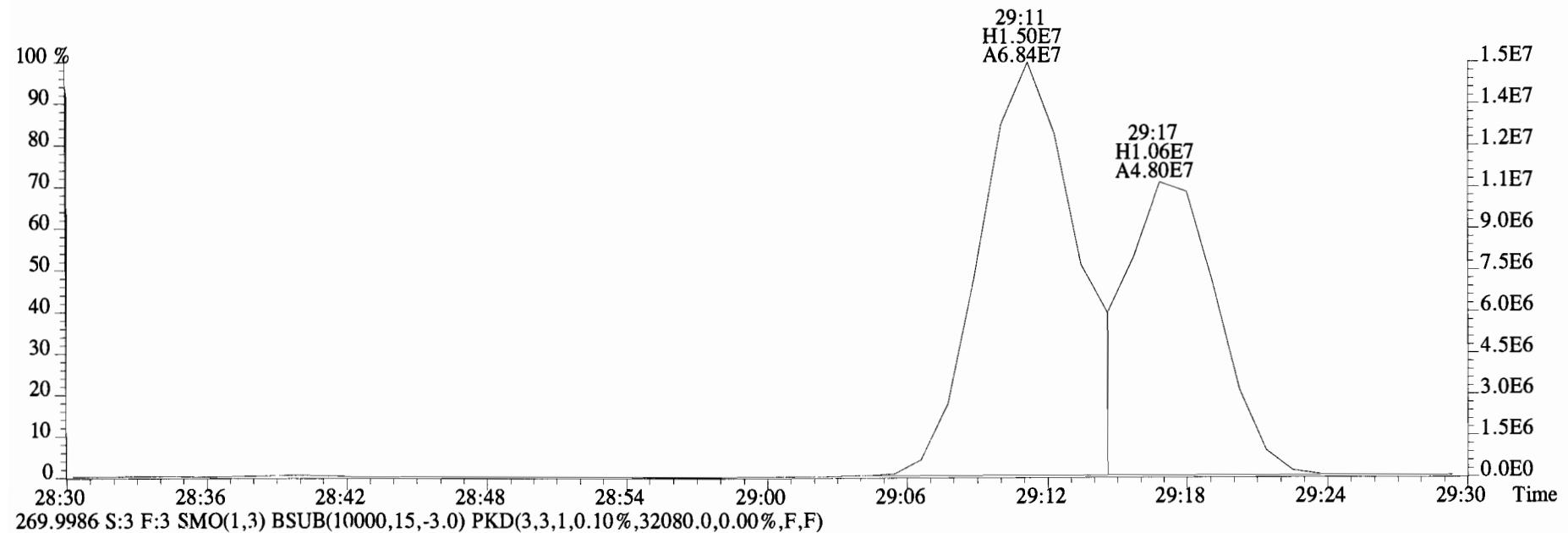
269.9986 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,36328.0,0.00%,F,F)



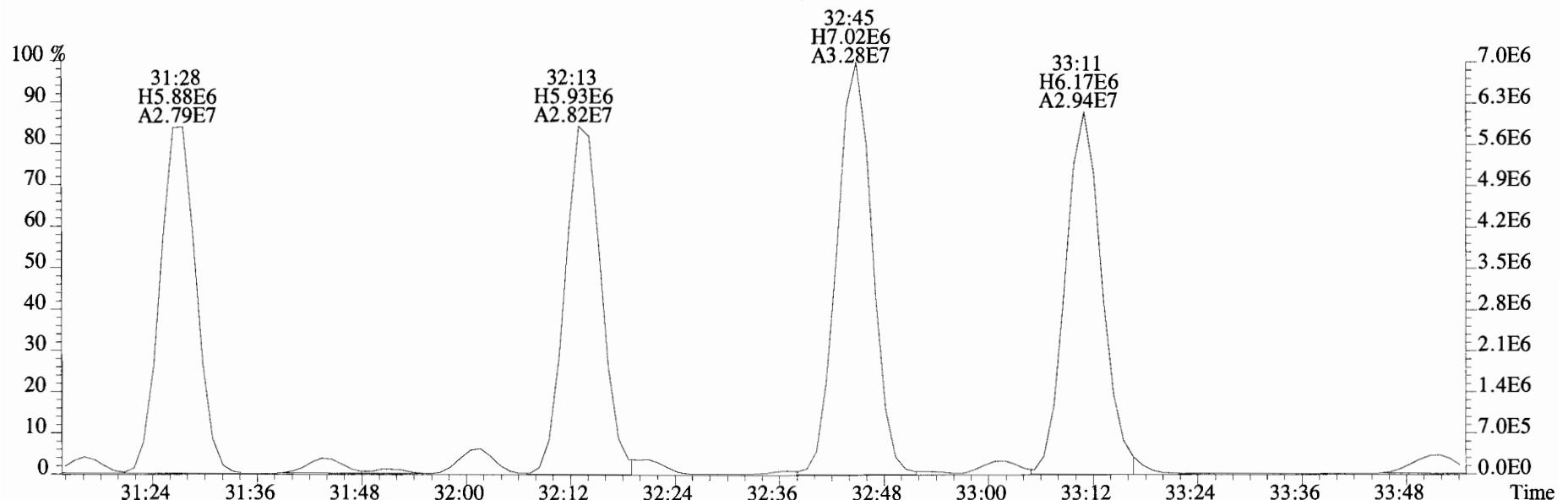
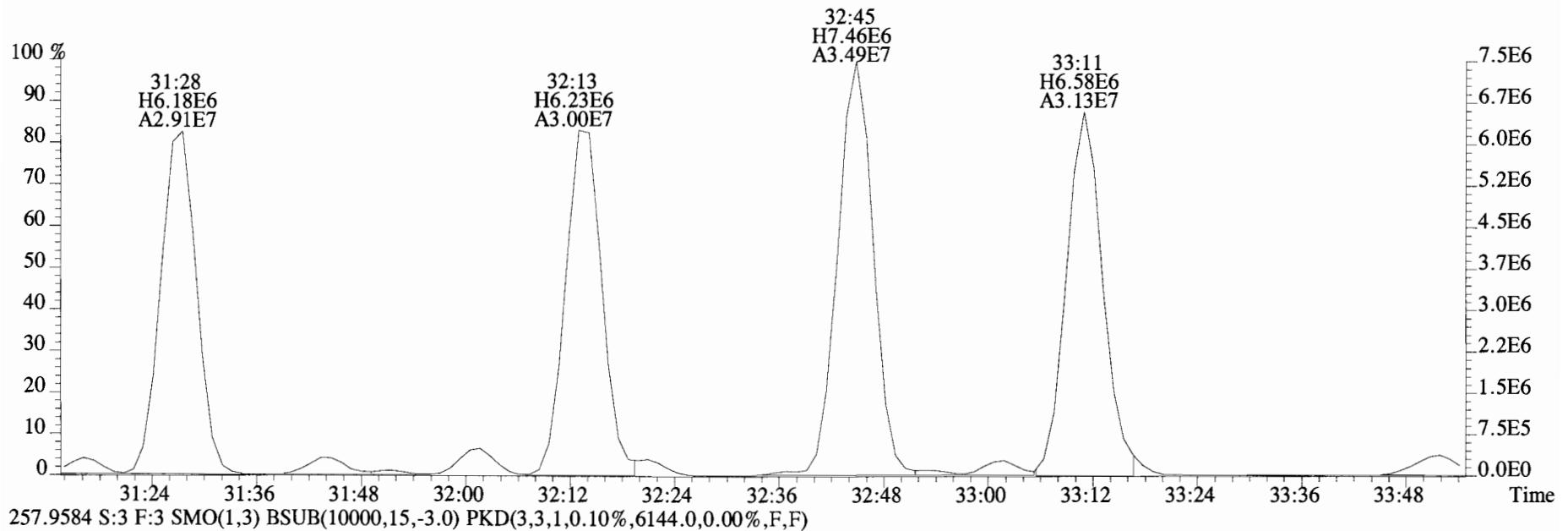
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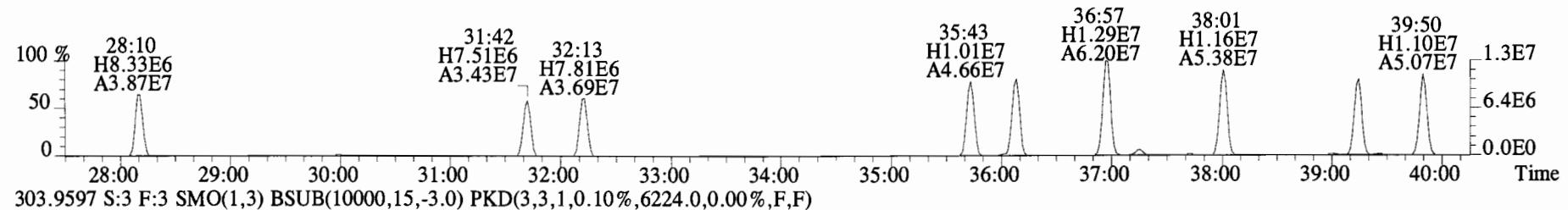
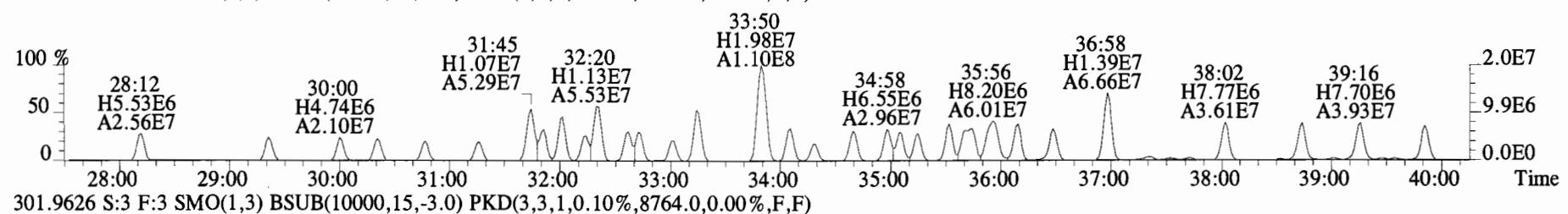
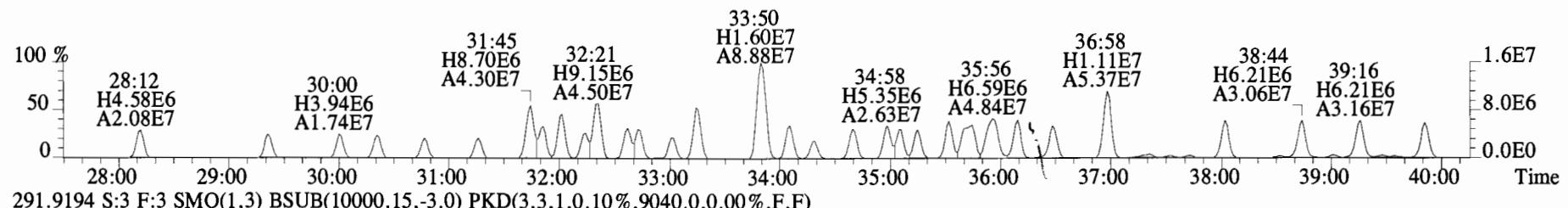
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Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
268.0016 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,52180.0,0.00%,F,F)



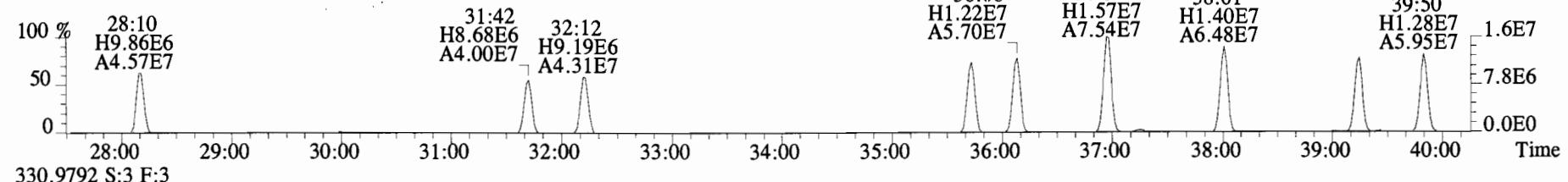
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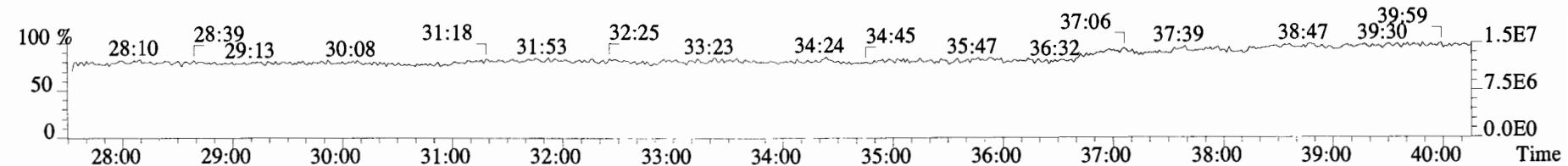
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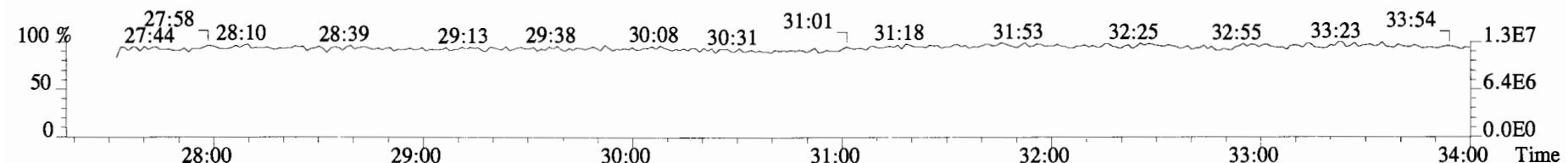
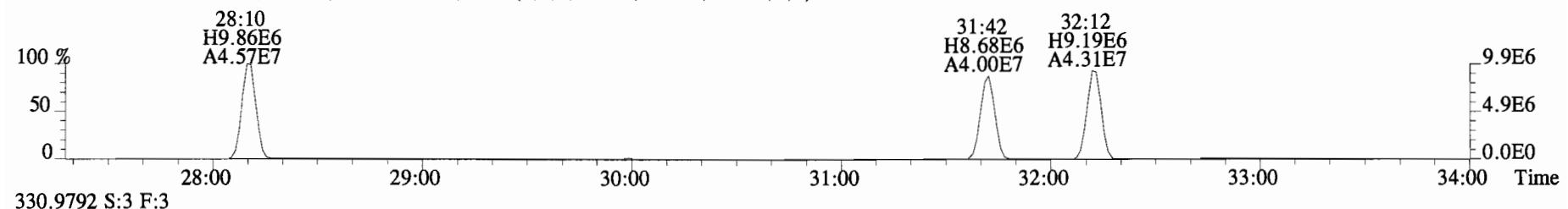
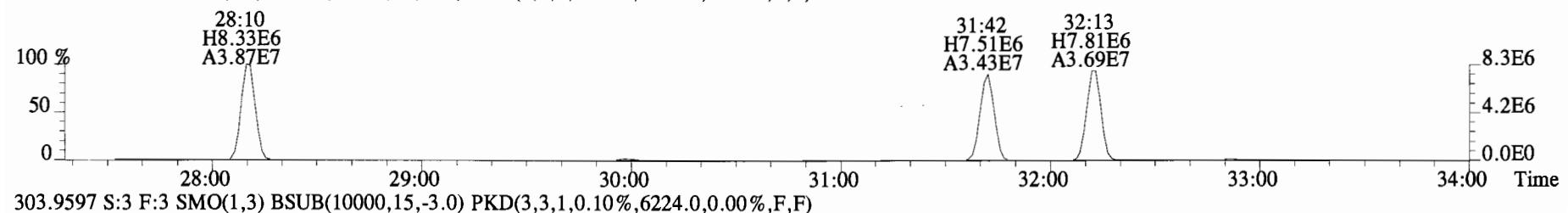
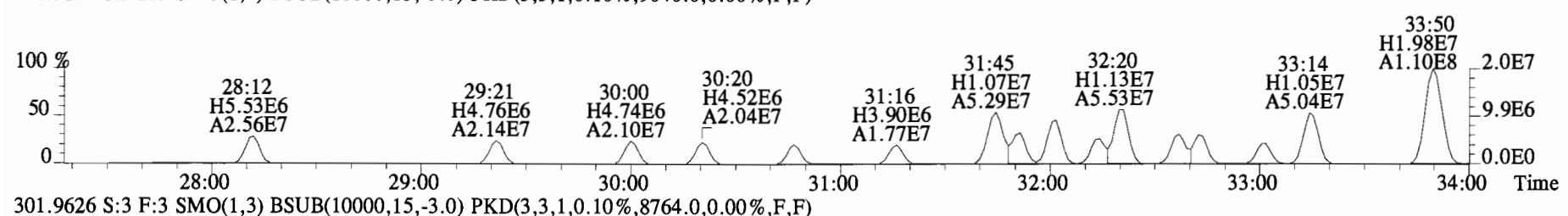
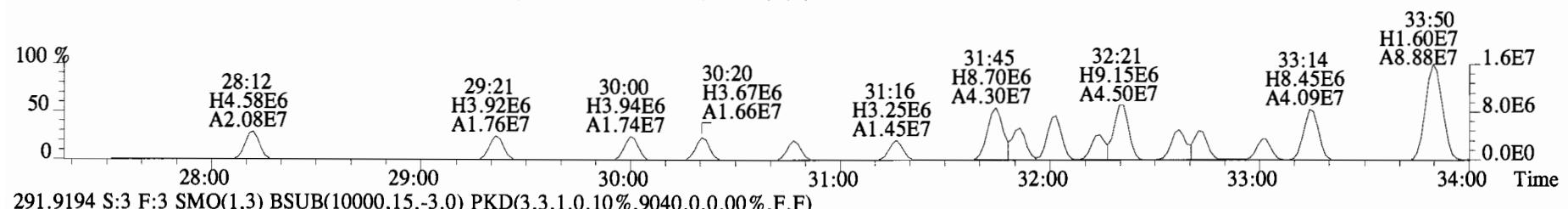
303.9597 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6224.0,0.00%,F,F)



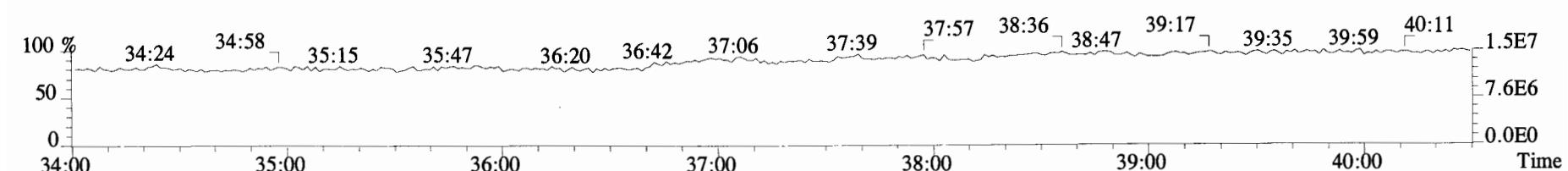
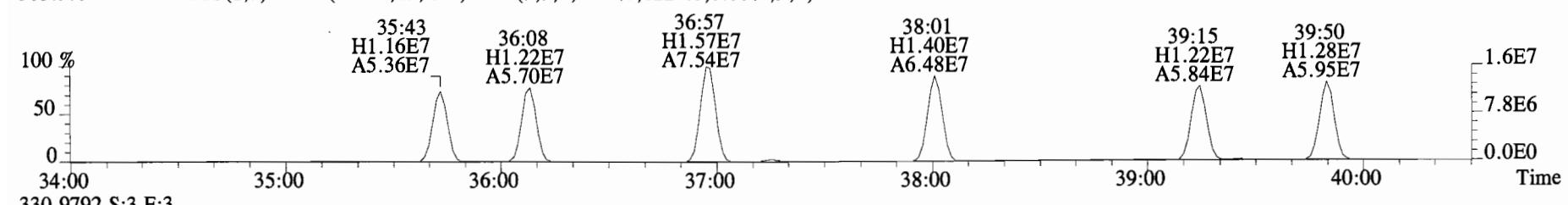
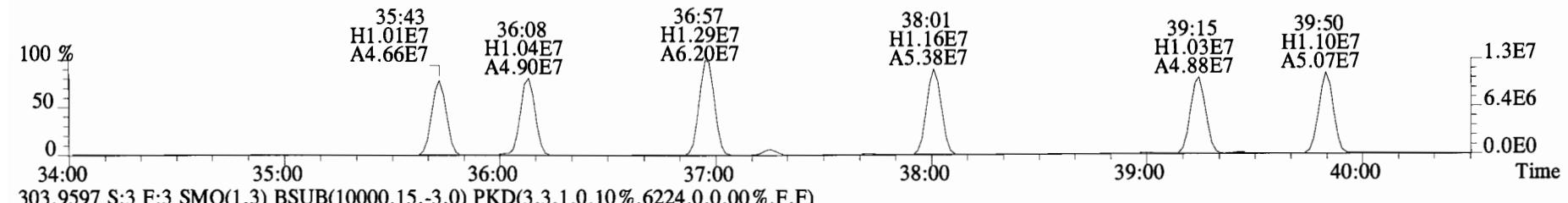
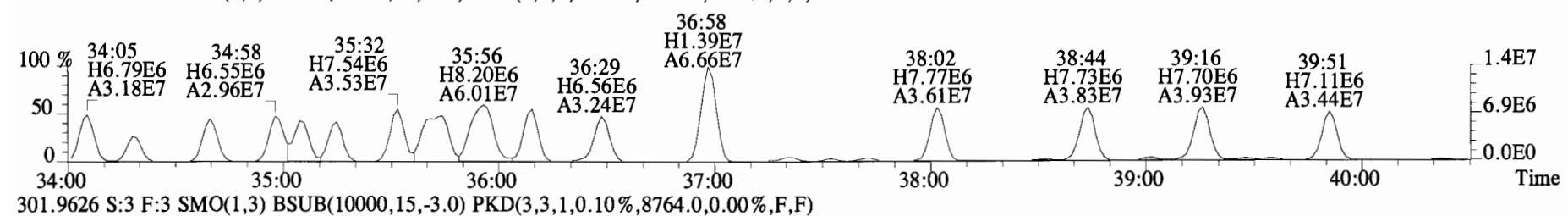
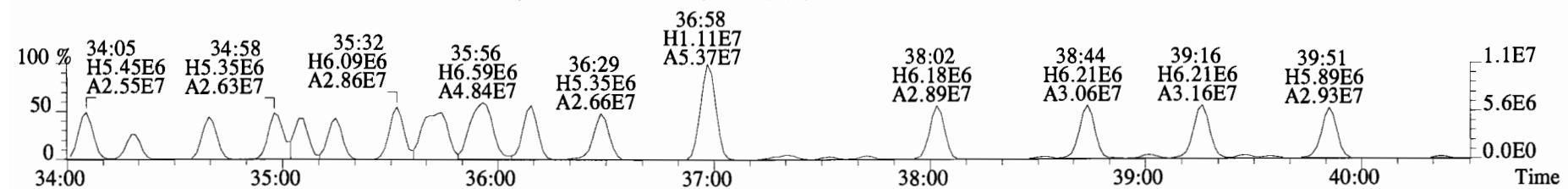
330.9792 S:3 F:3



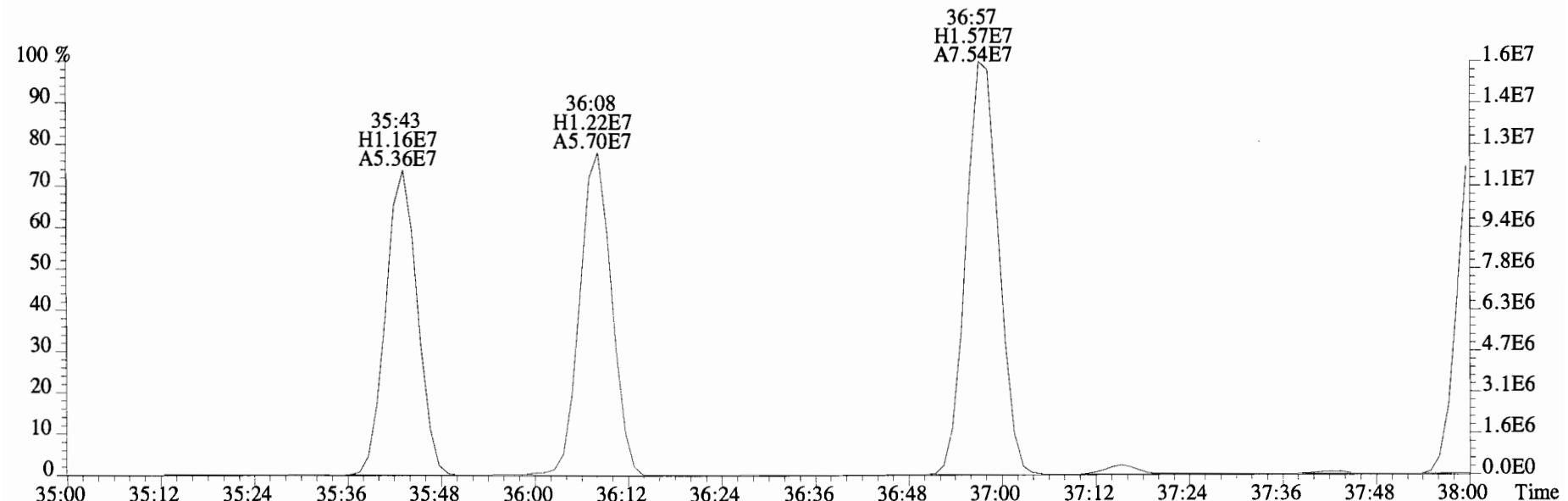
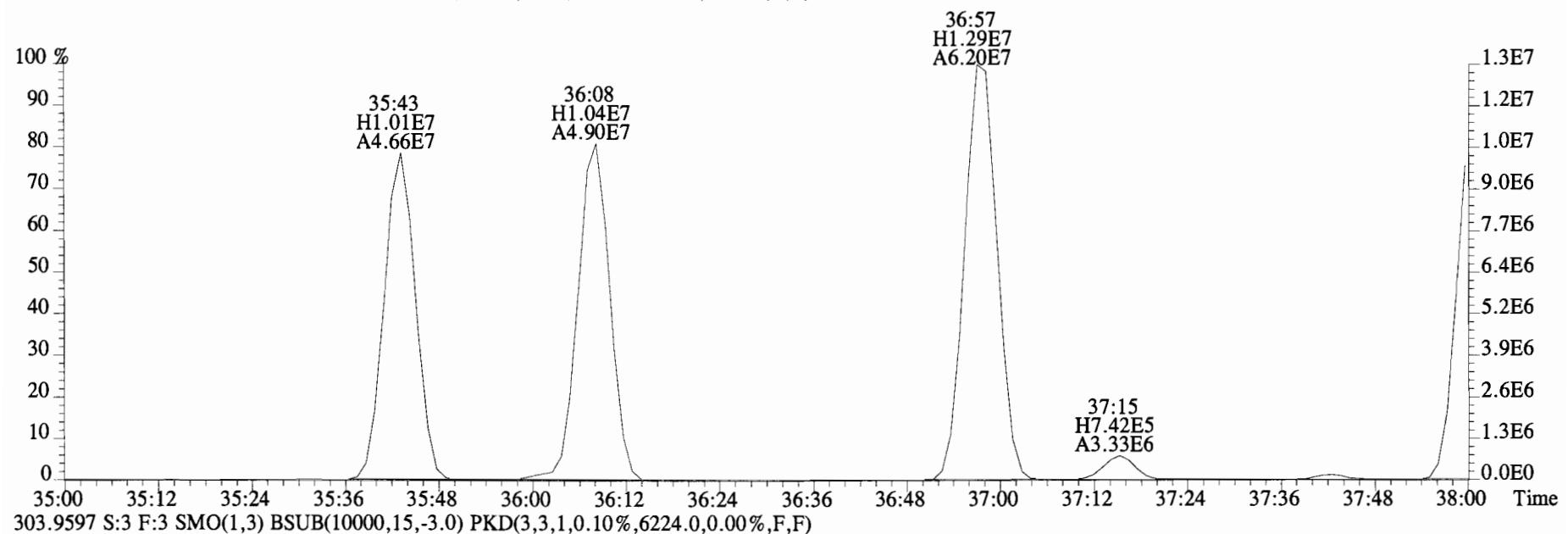
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 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
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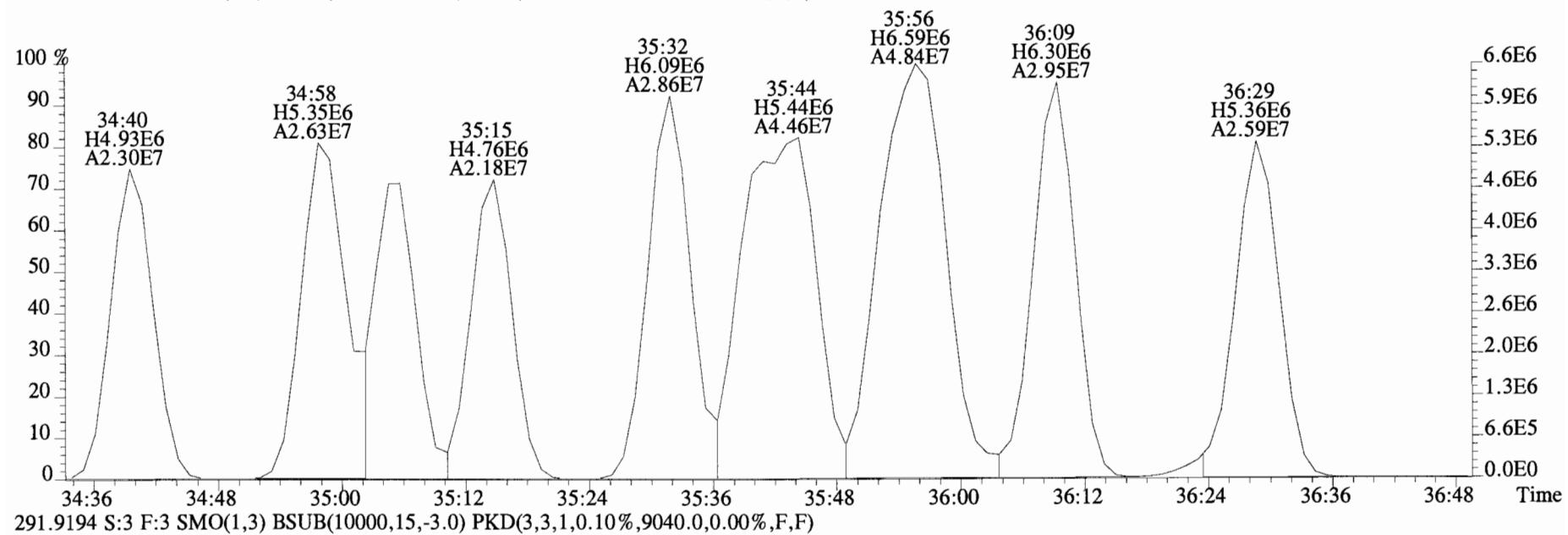
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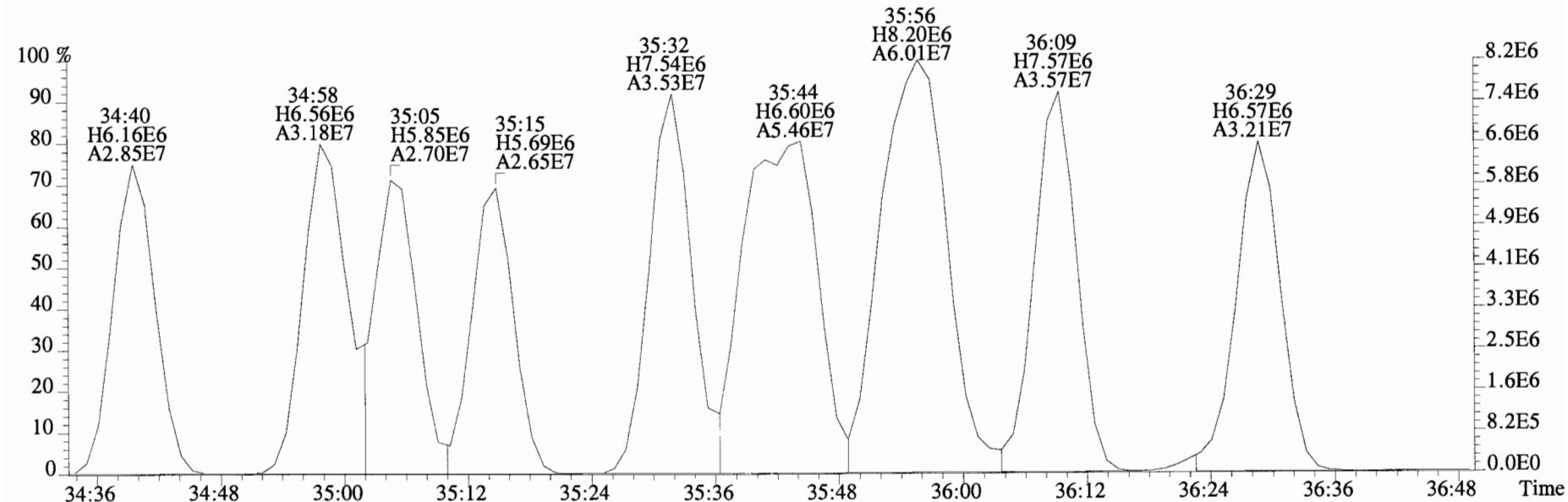
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
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301.9626 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8764.0,0.00%,F,F)



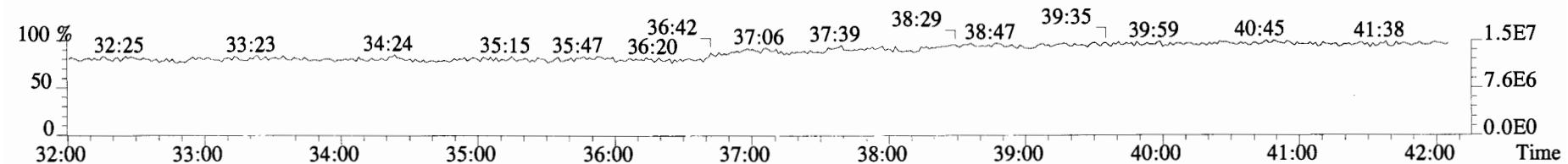
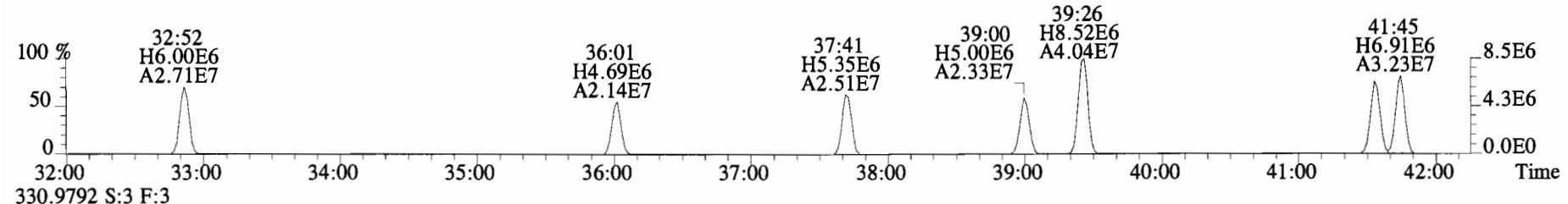
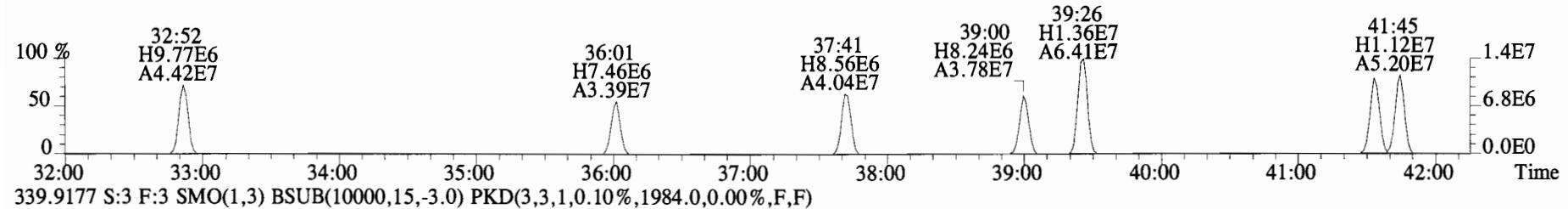
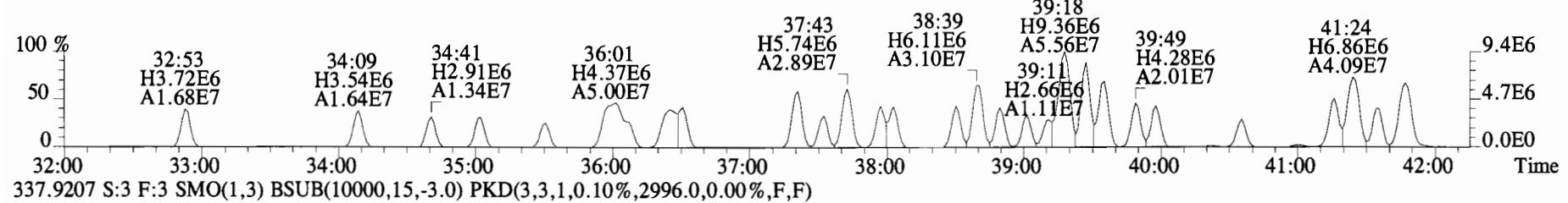
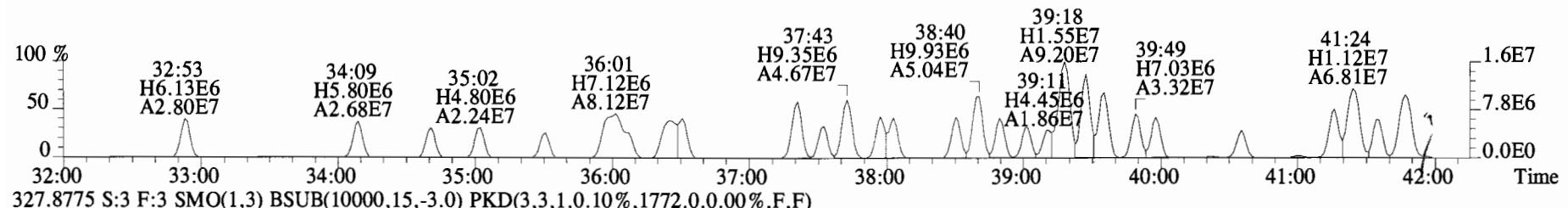
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
289.9224 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8508.0,0.00%,F,F)



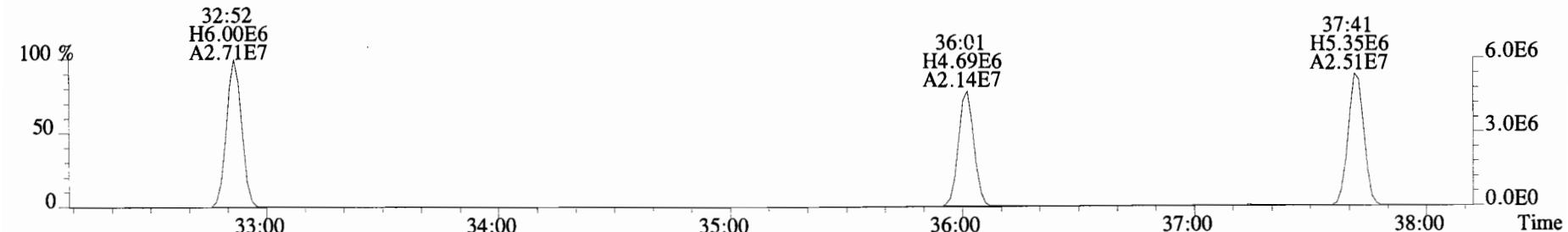
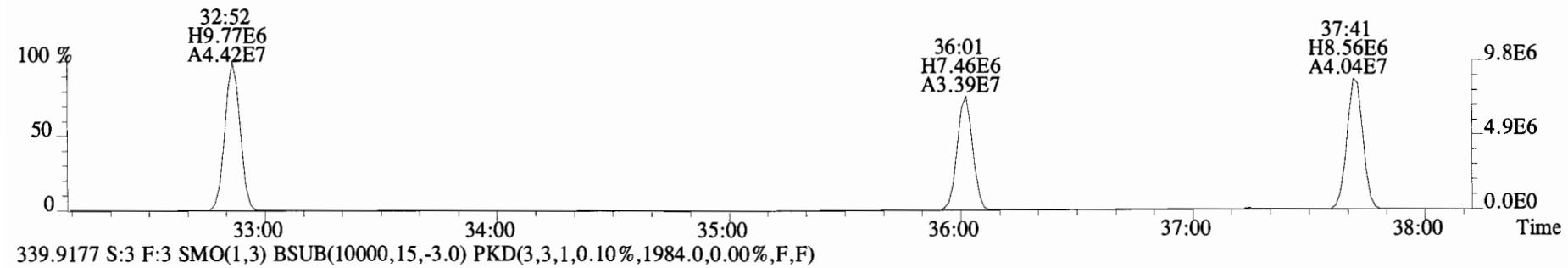
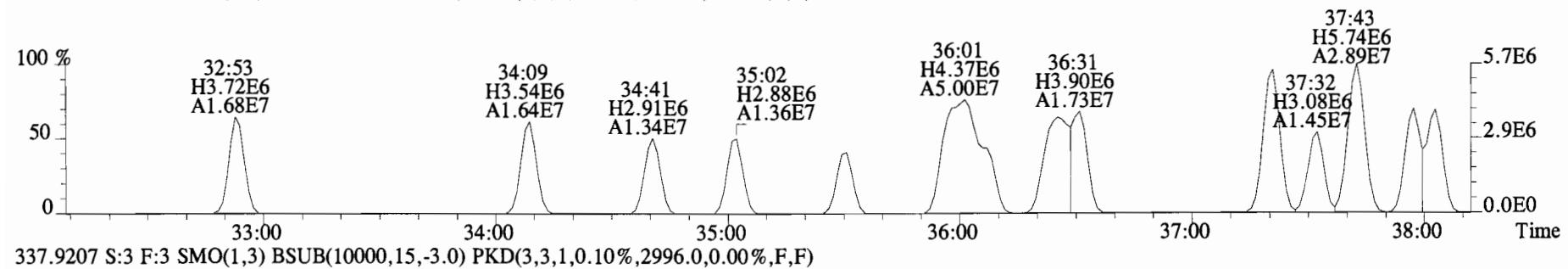
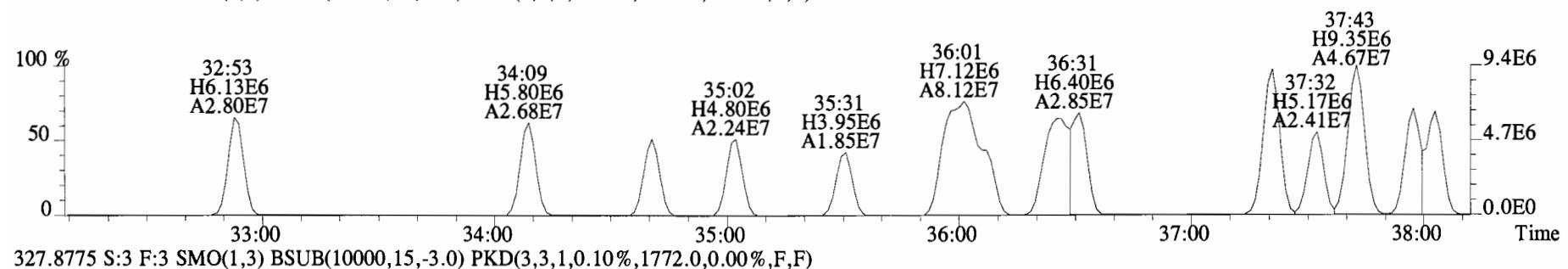
291.9194 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9040.0,0.00%,F,F)



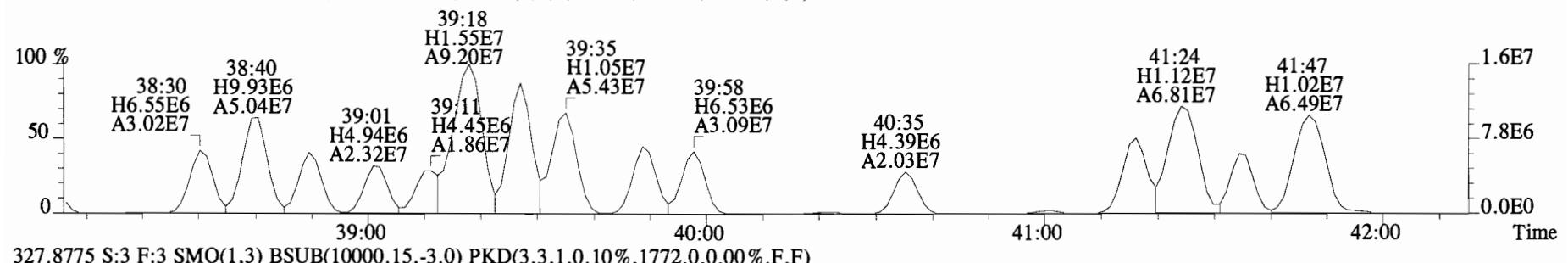
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB ZB1
 325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



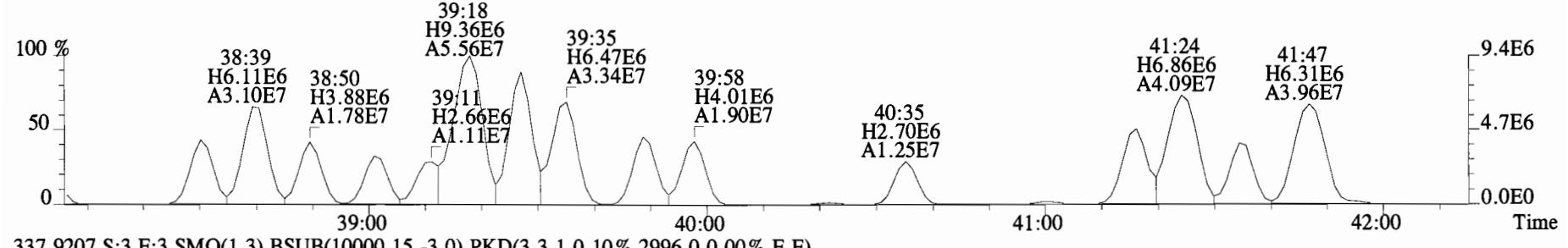
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI + Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



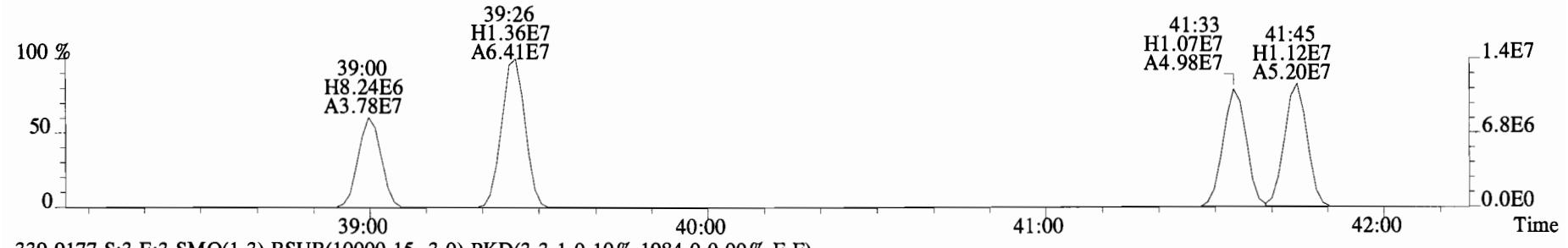
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 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



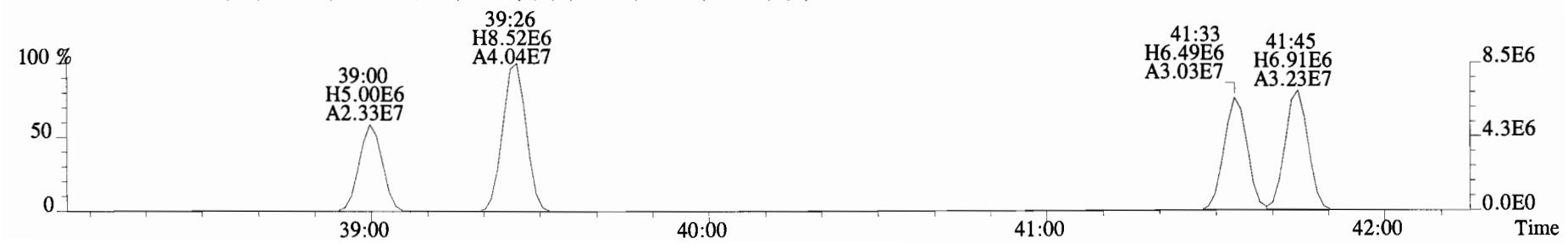
327.8775 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1772.0,0.00%,F,F)



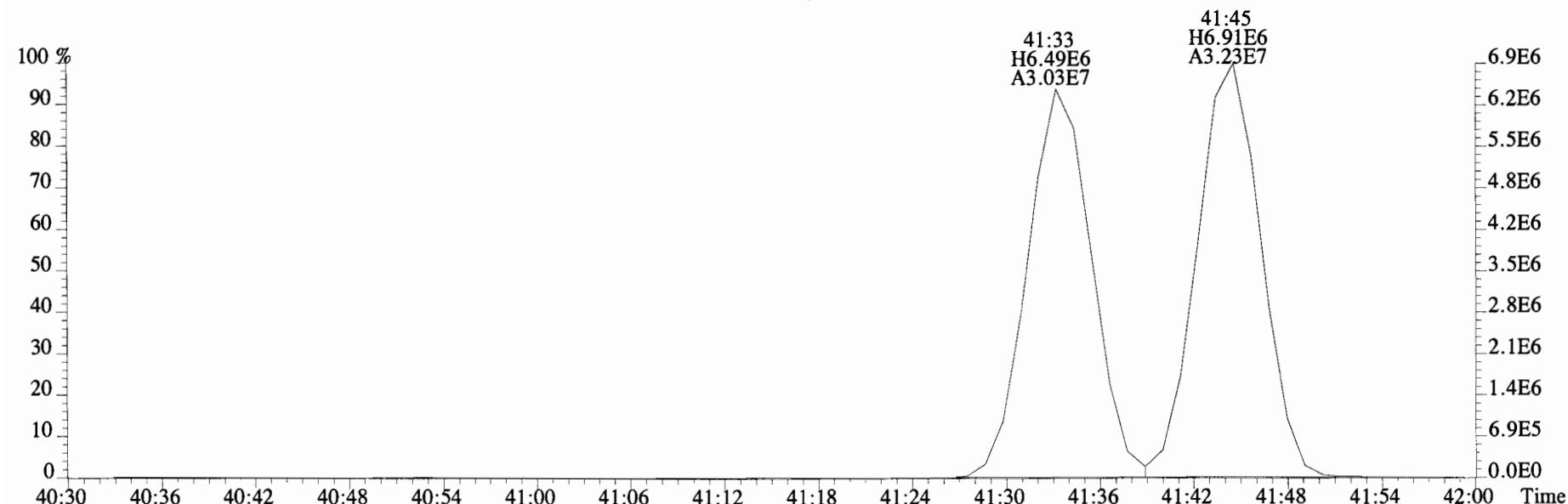
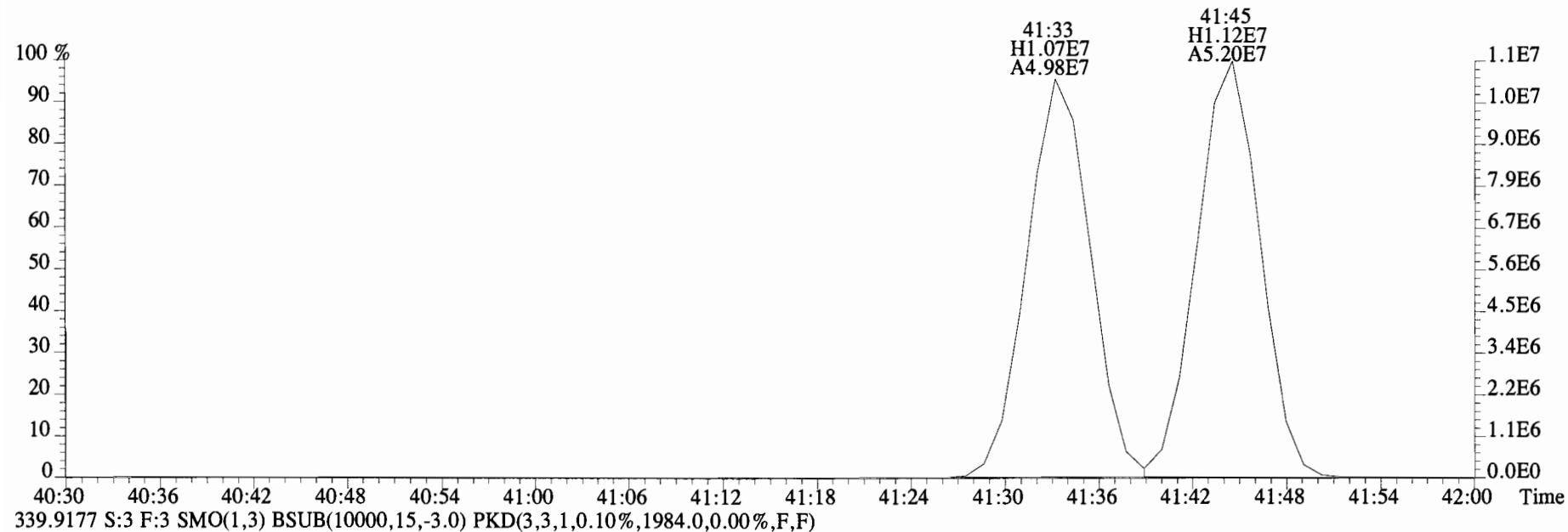
337.9207 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2996.0,0.00%,F,F)



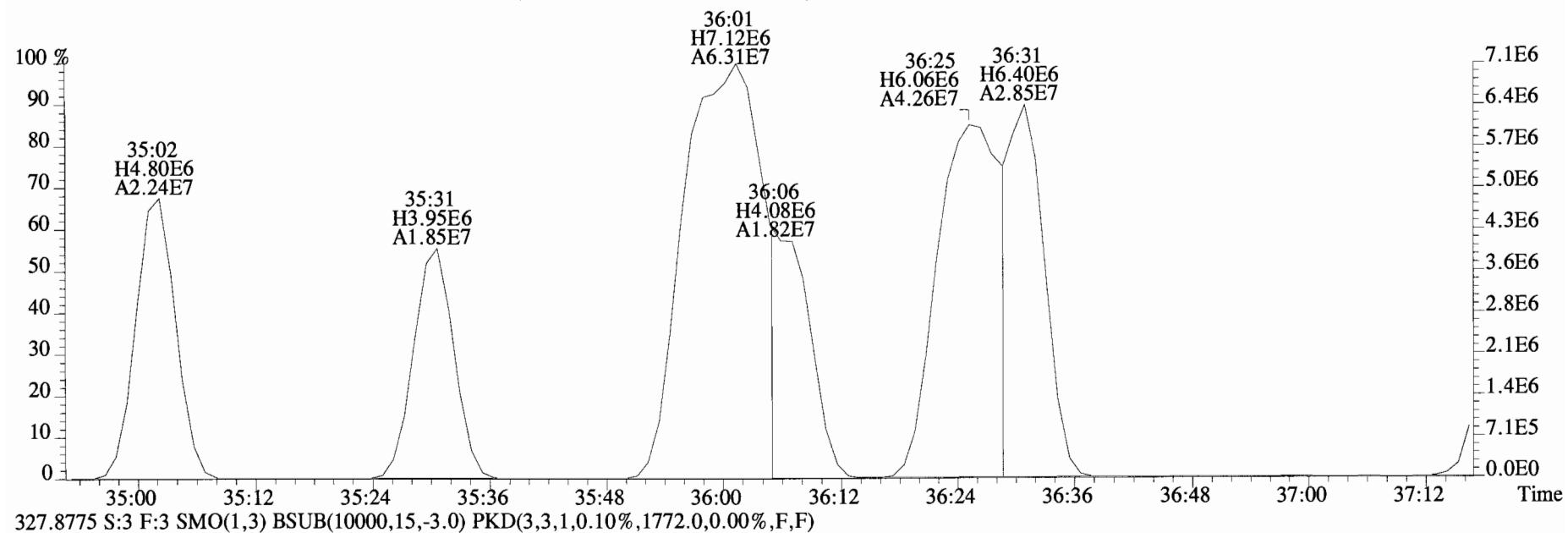
339.9177 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1984.0,0.00%,F,F)



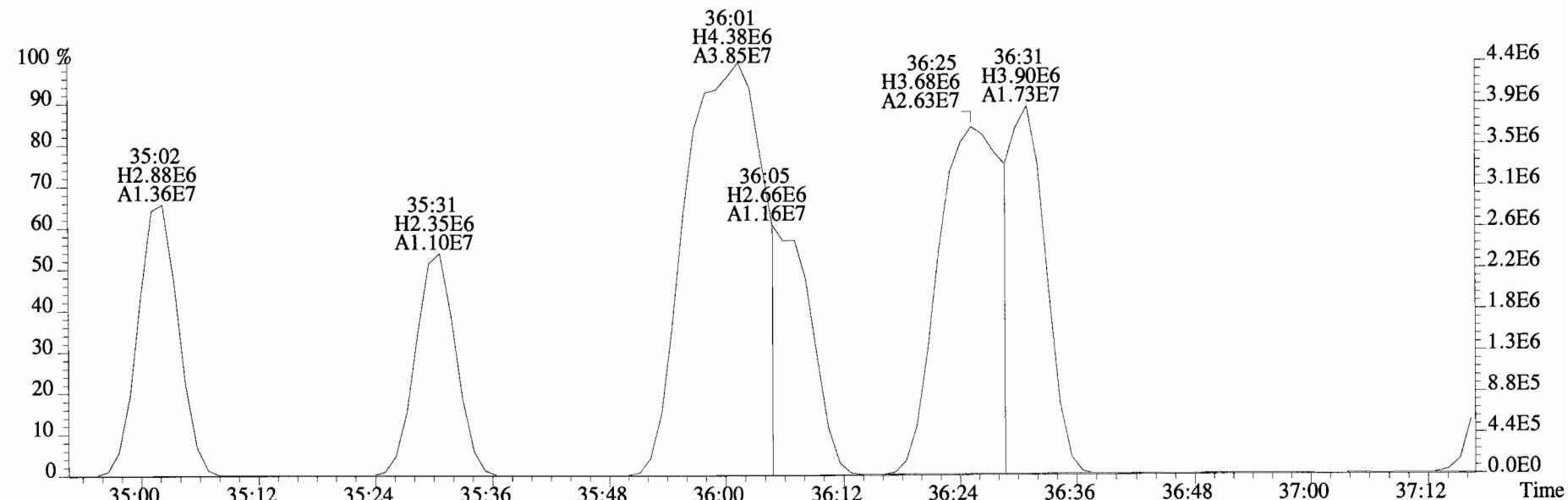
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
337.9207 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2996.0,0.00%,F,F)



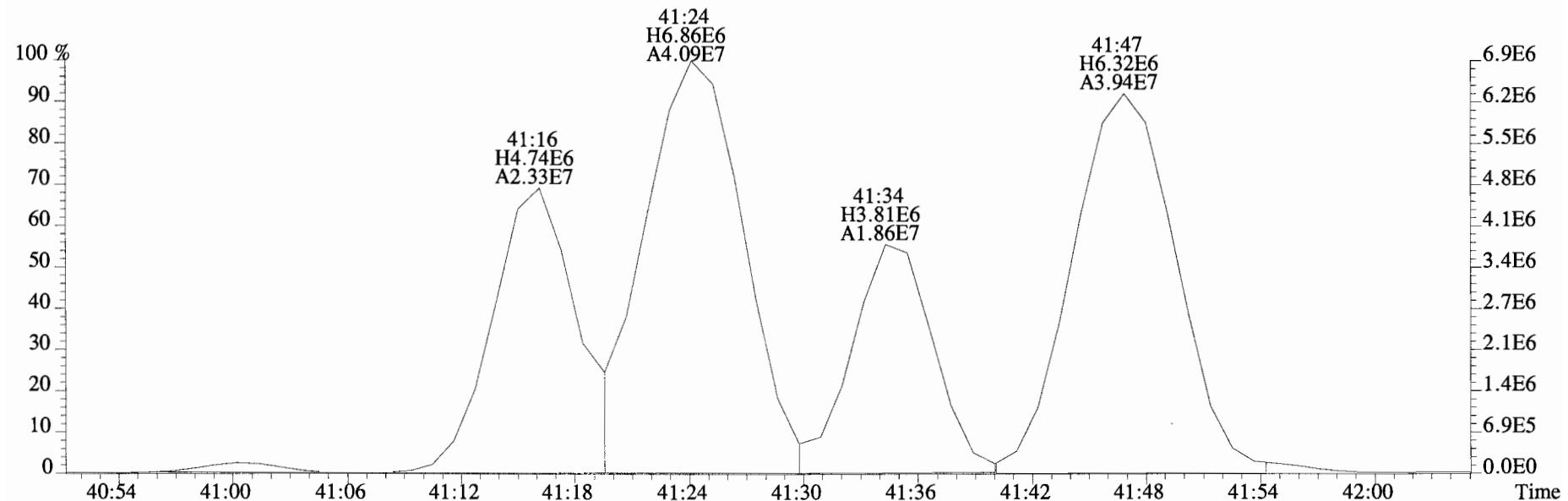
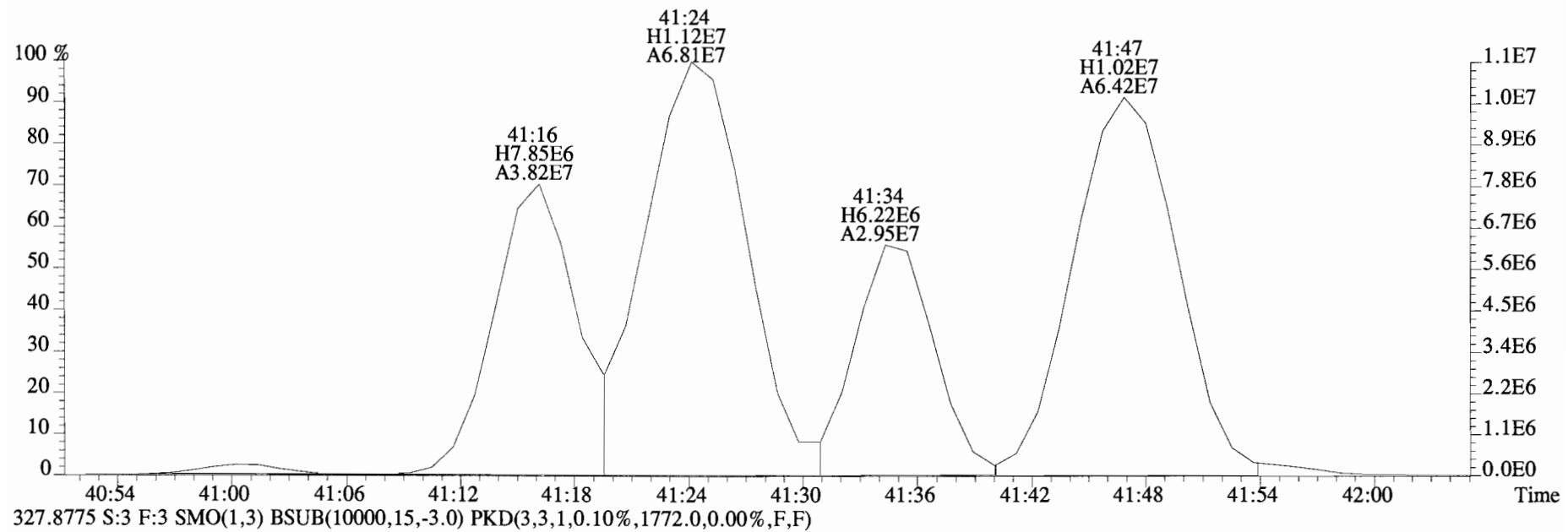
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



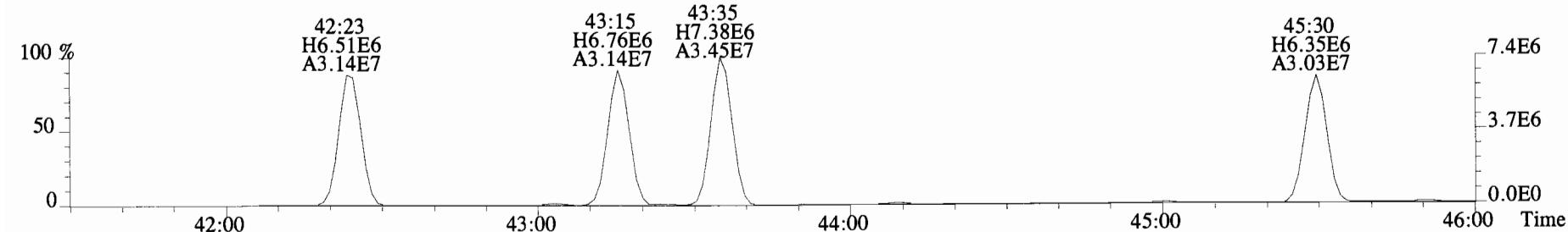
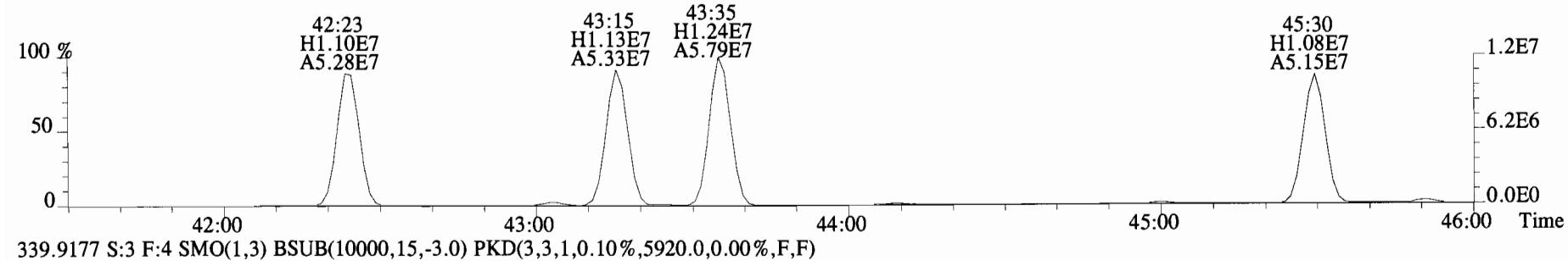
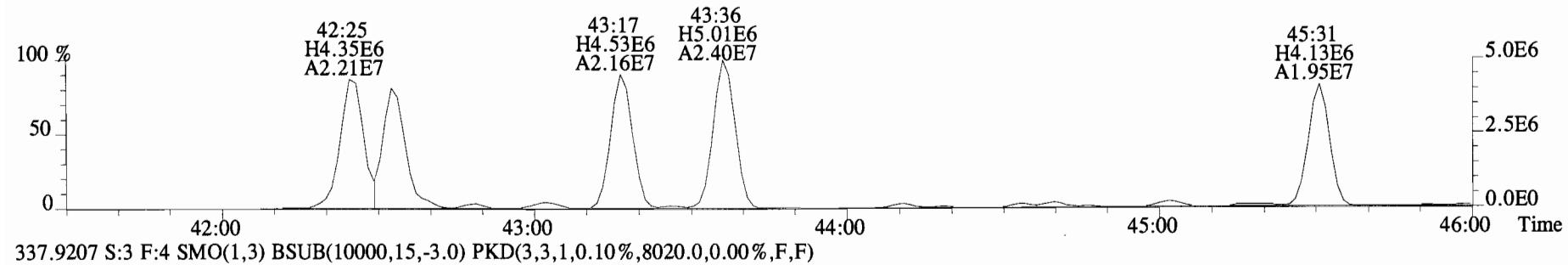
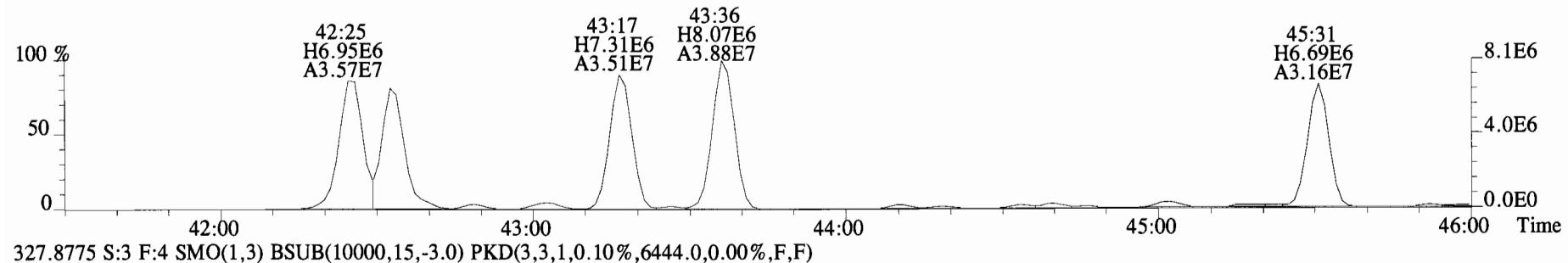
327.8775 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1772.0,0.00%,F,F)



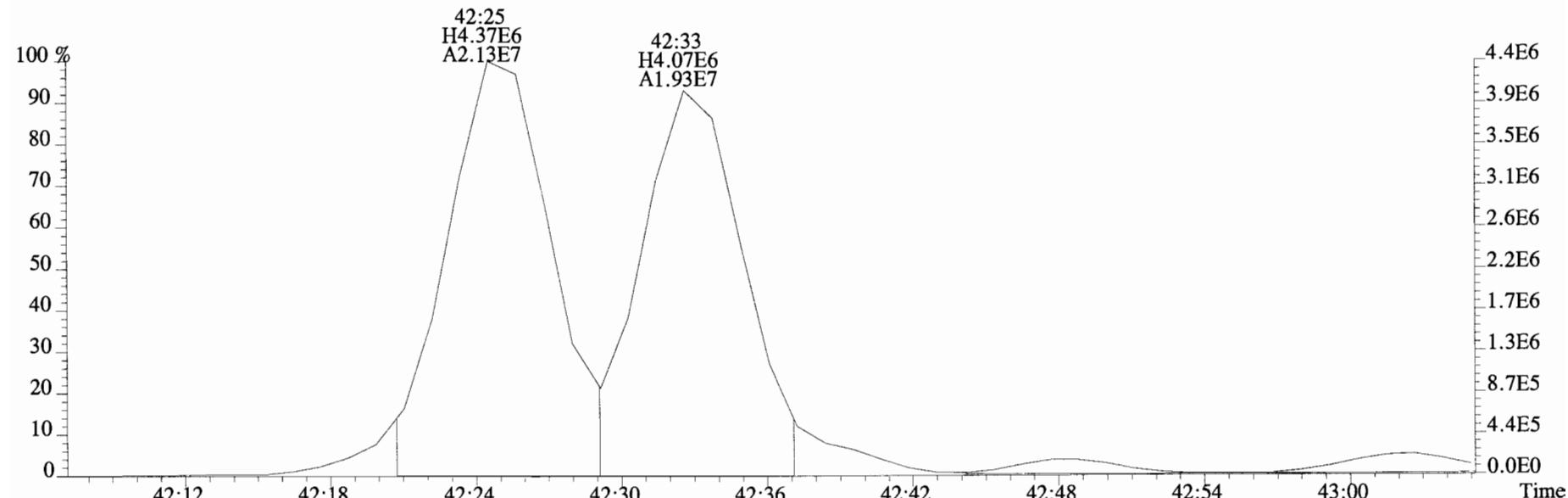
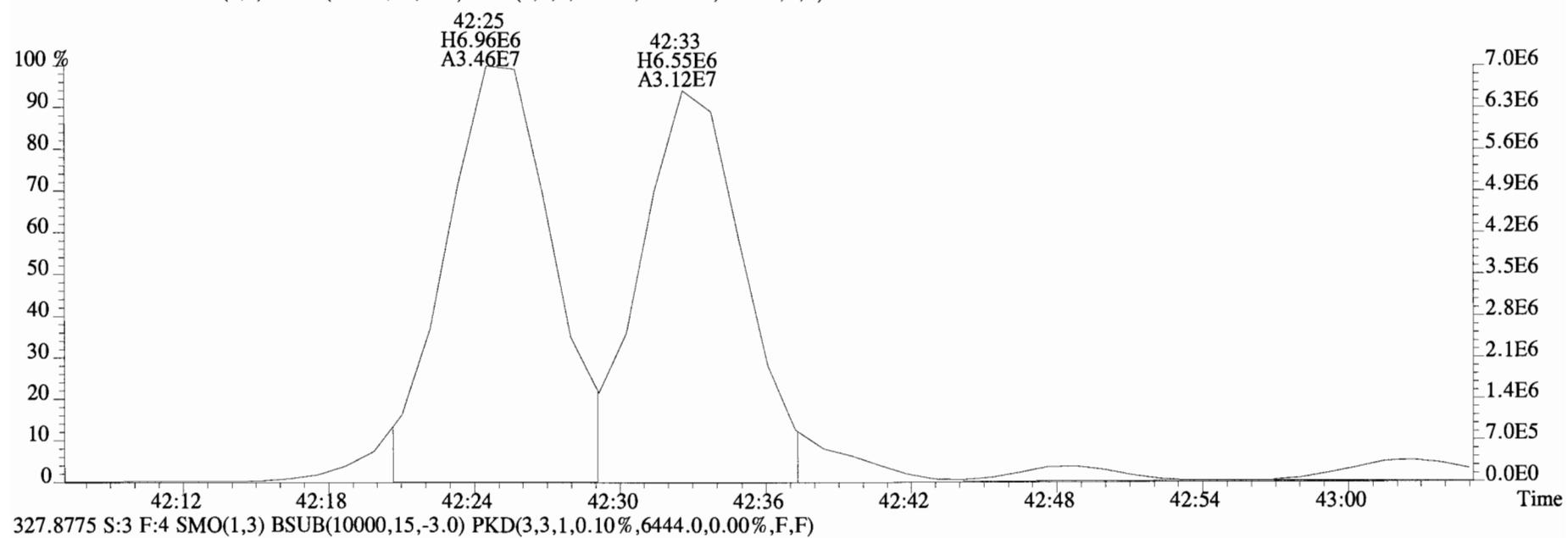
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



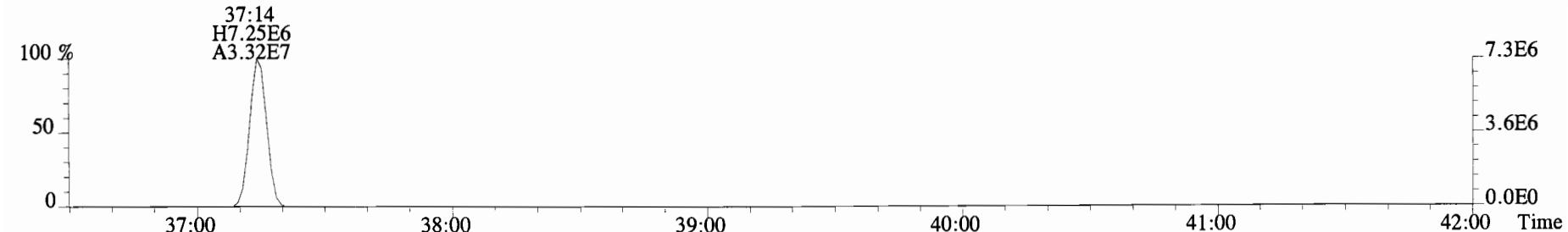
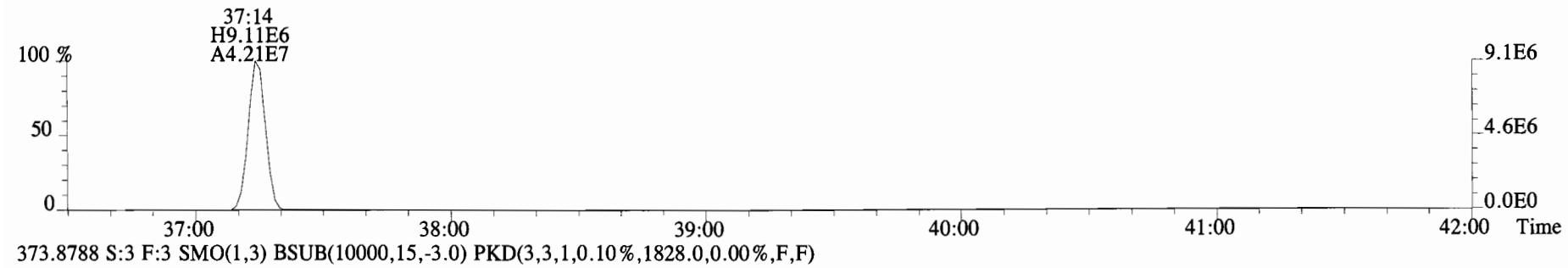
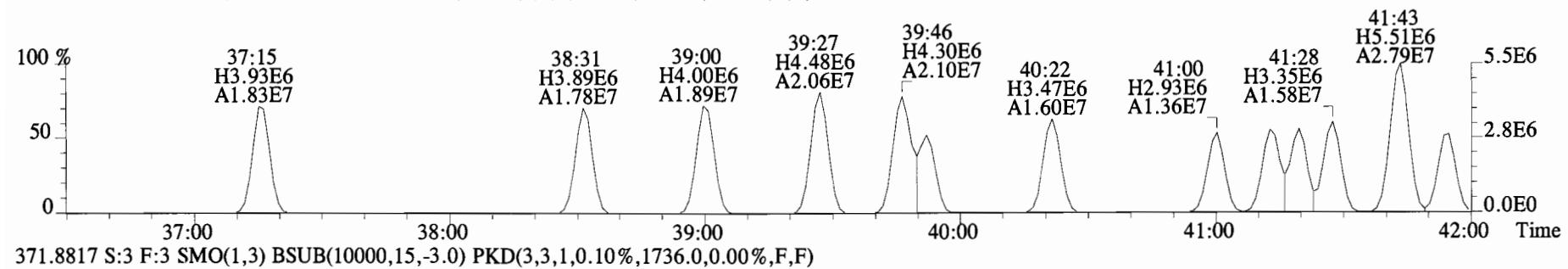
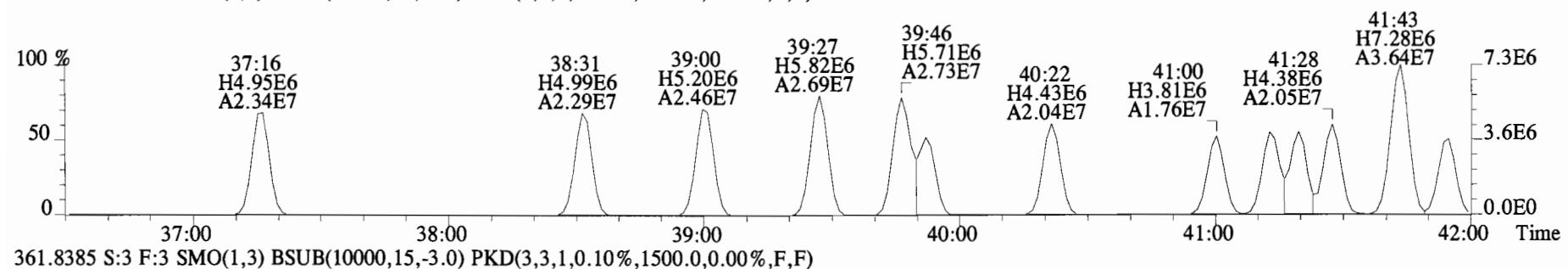
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 325.8804 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,14912.0,0.00%,F,F)



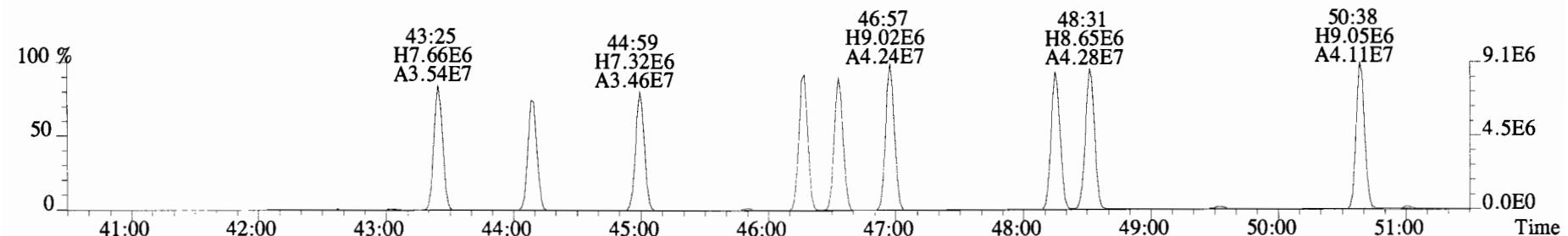
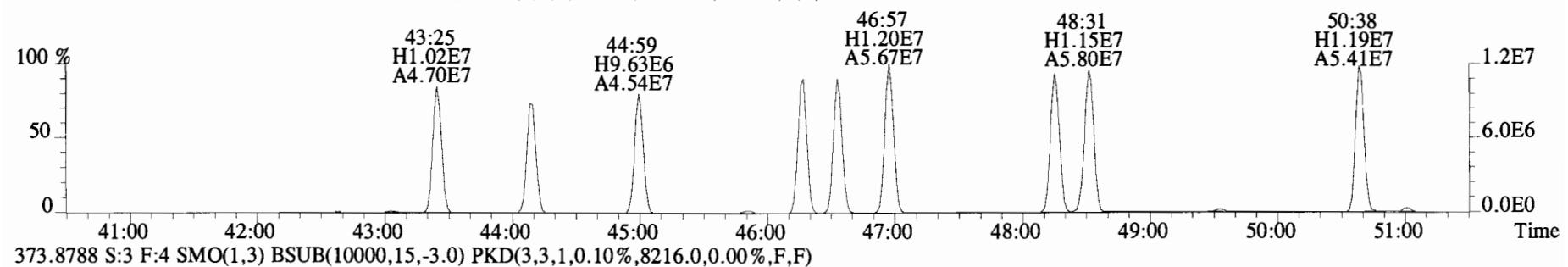
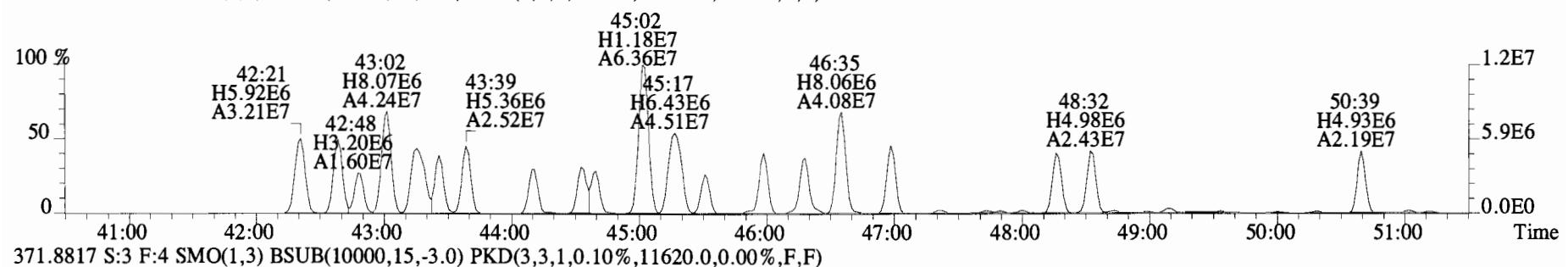
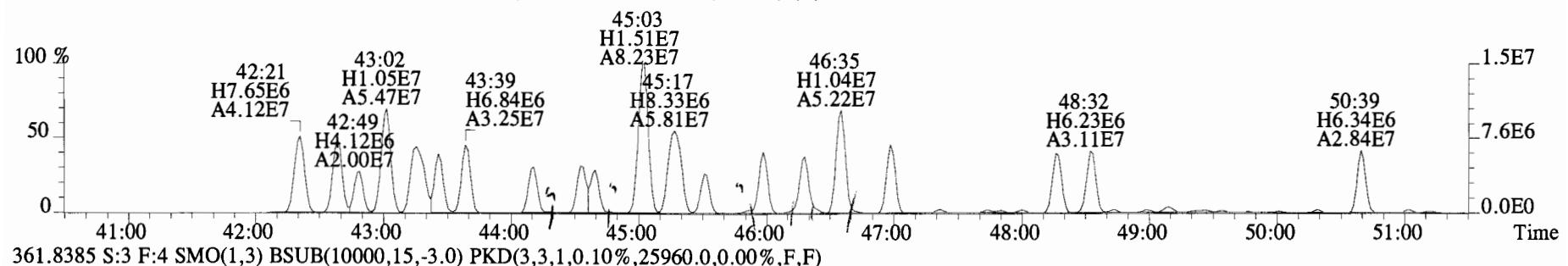
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,14912.0,0.00%,F,F)



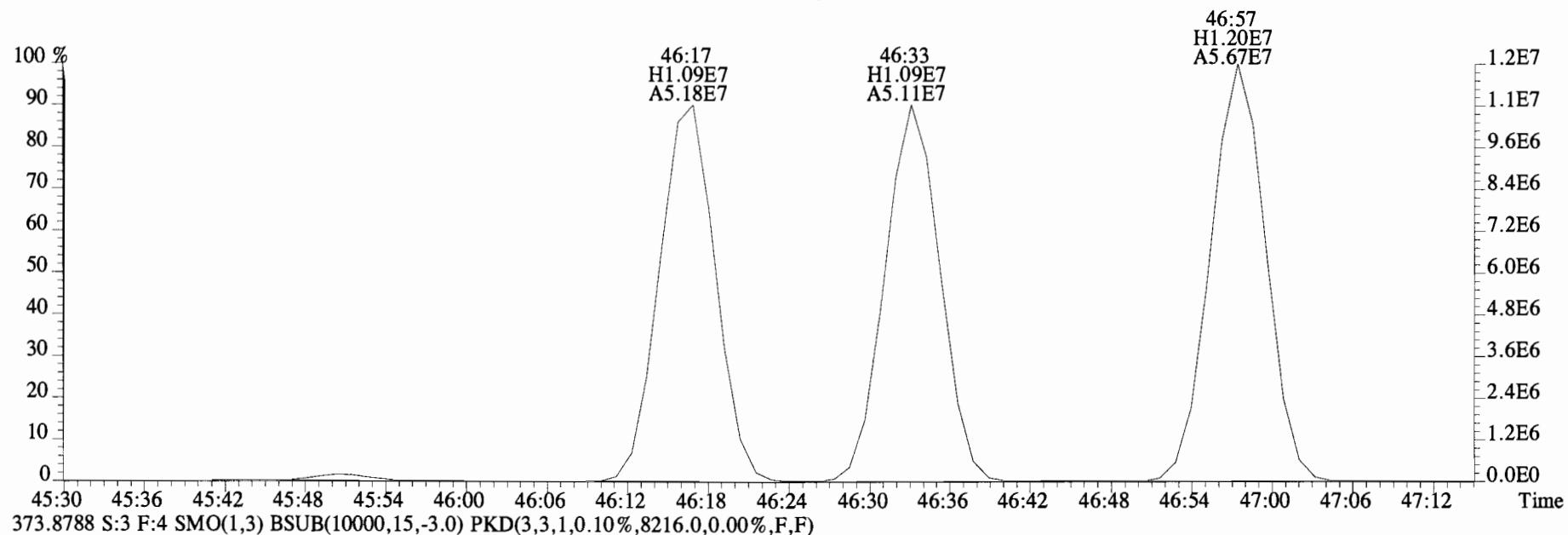
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
359.8415 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1552.0,0.00%,F,F)



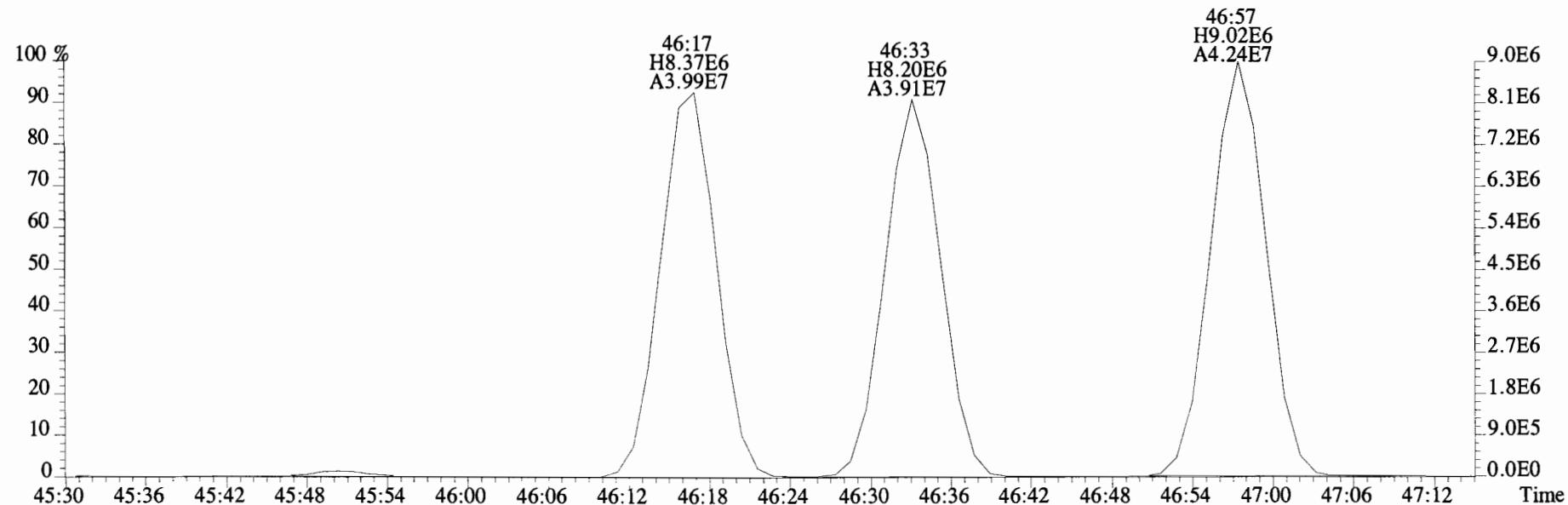
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 359.8415 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,45176.0,0.00%,F,F)



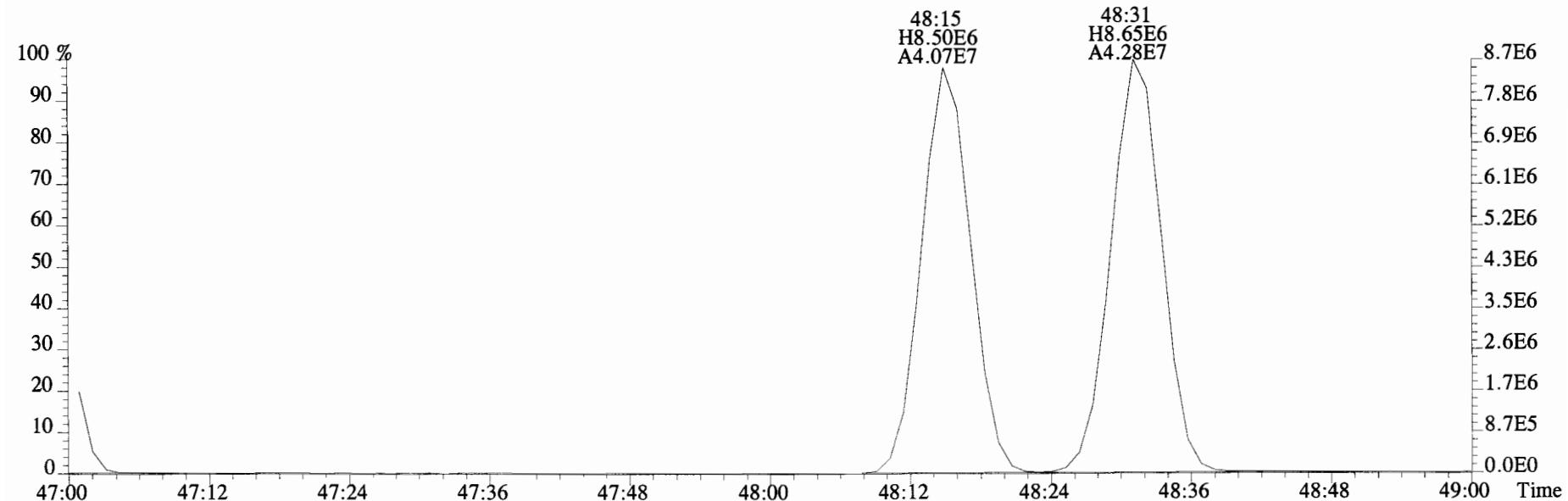
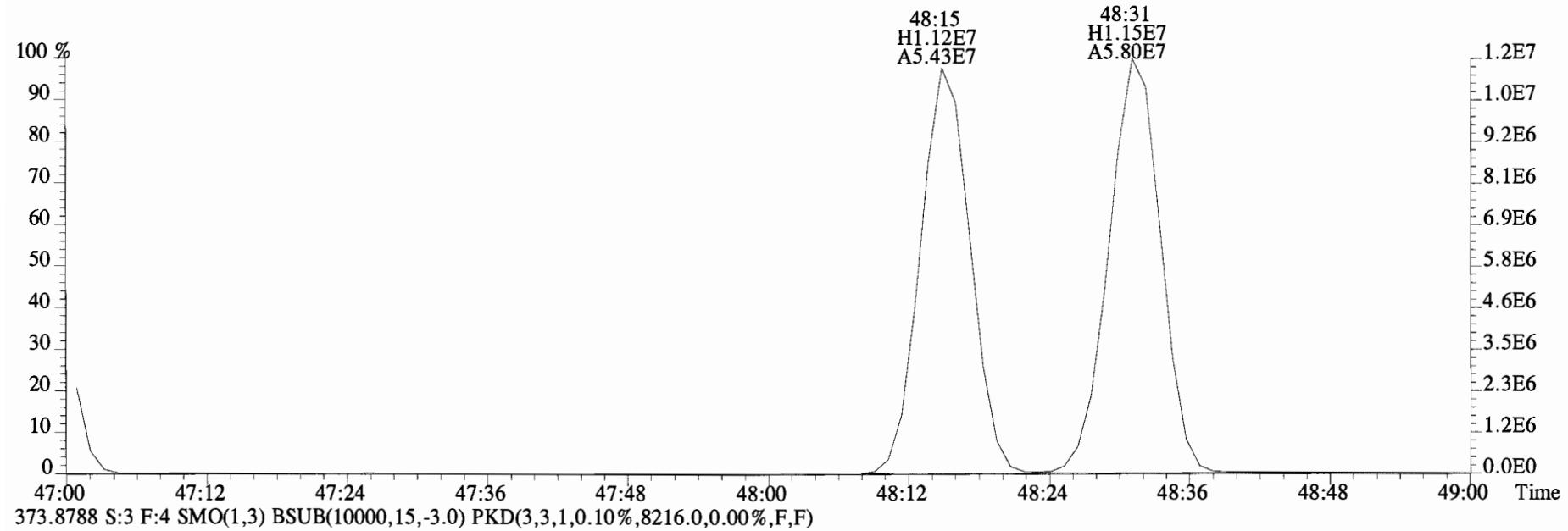
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Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
371.8817 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11620.0,0.00%,F,F)



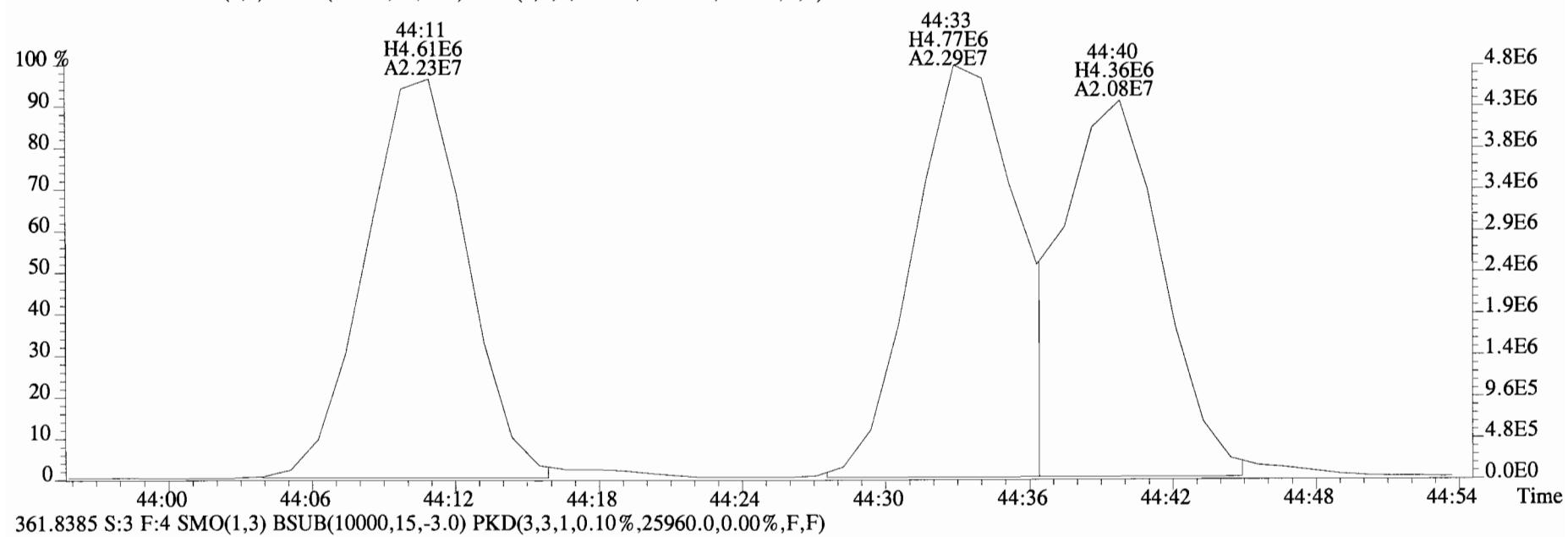
373.8788 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8216.0,0.00%,F,F)



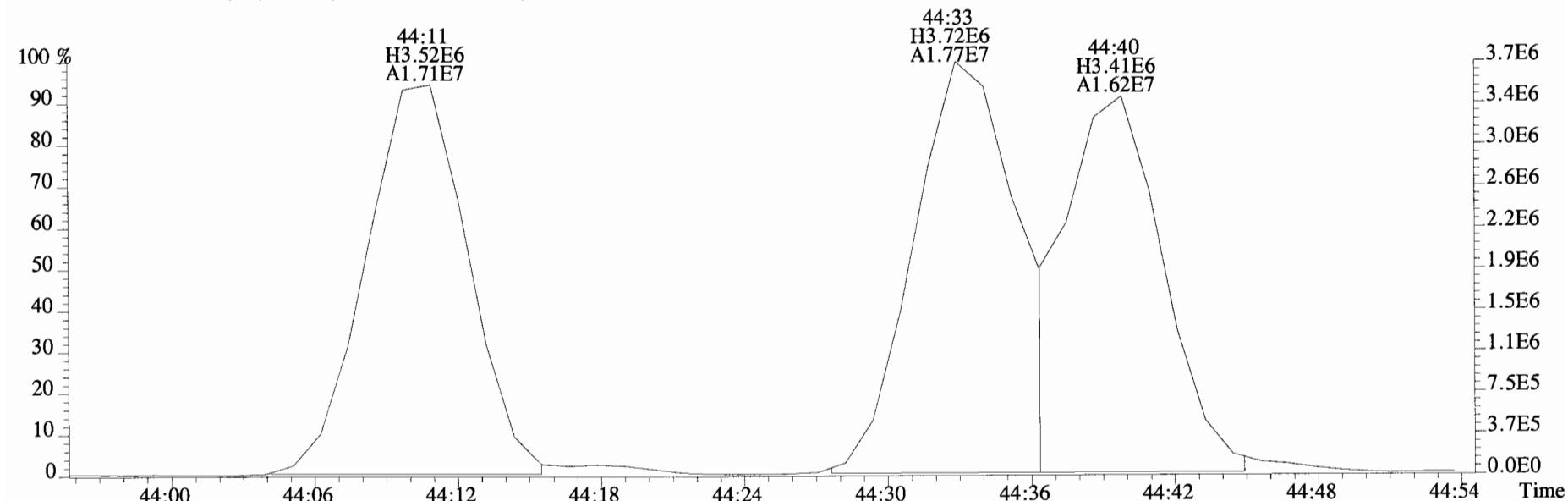
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Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
371.8817 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11620.0,0.00%,F,F)



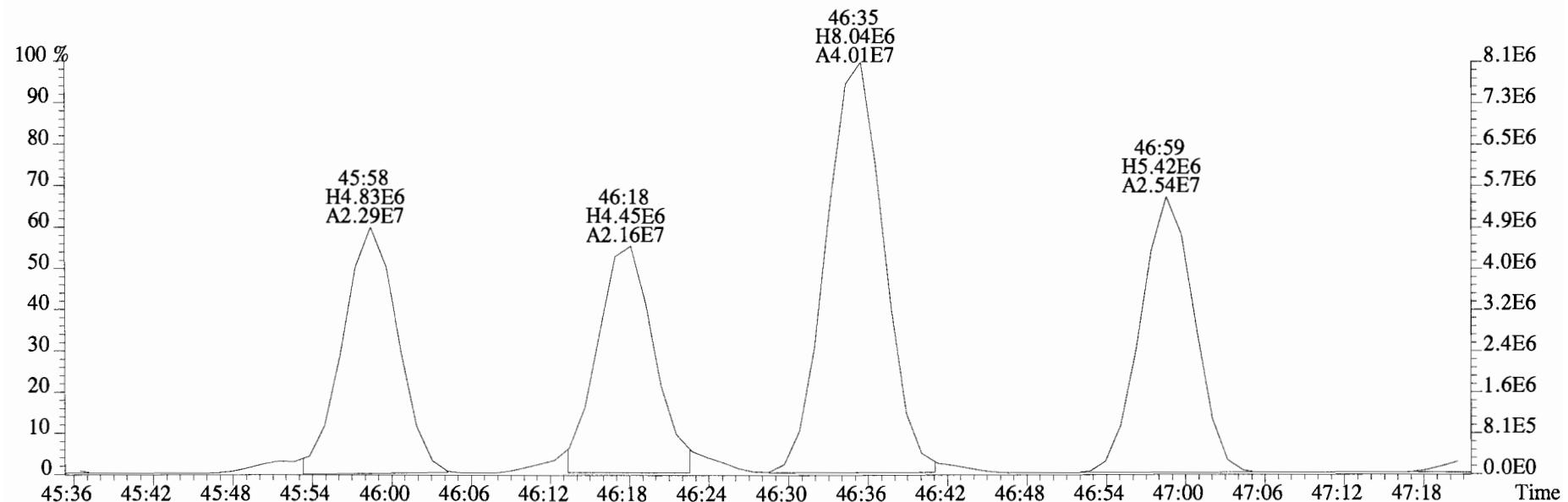
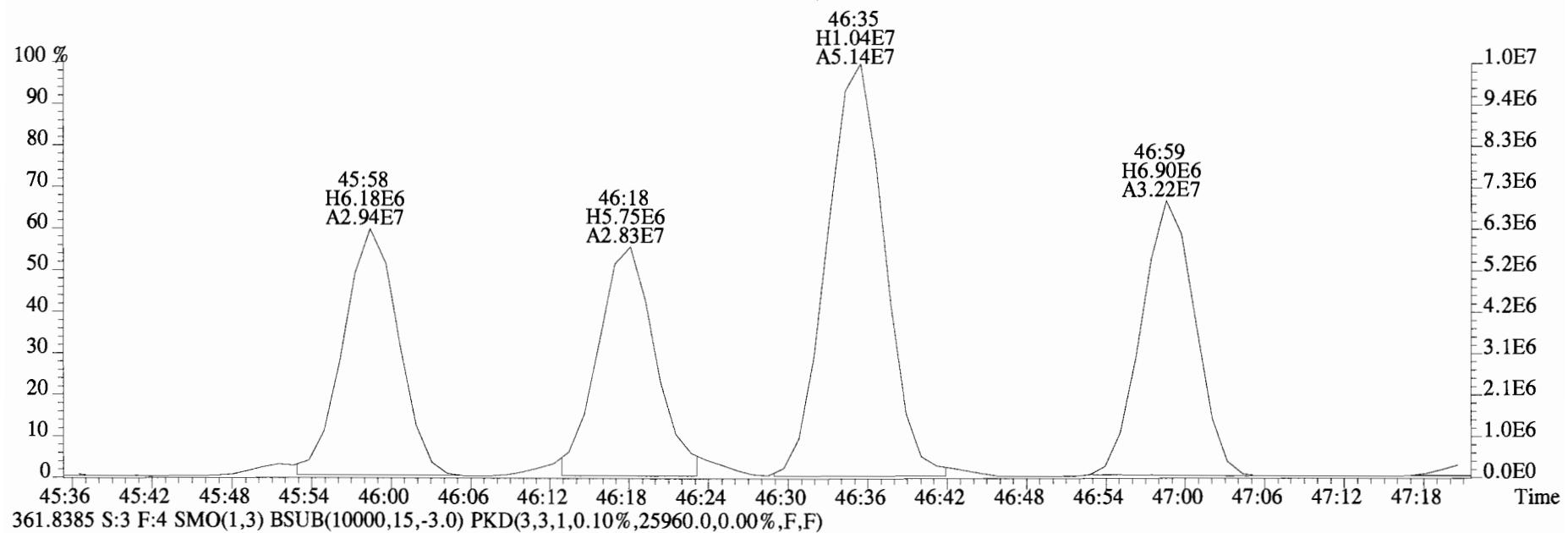
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Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
359.8415 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,45176.0,0.00%,F,F)



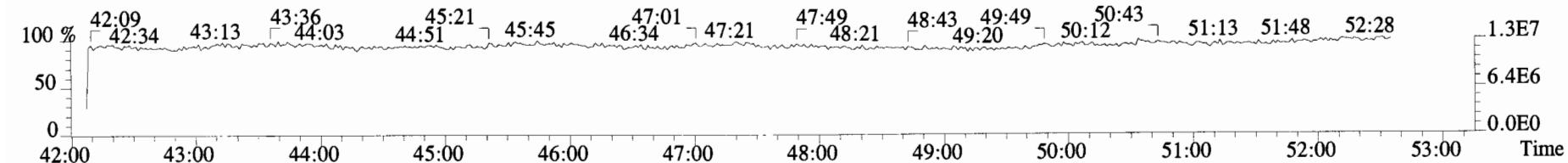
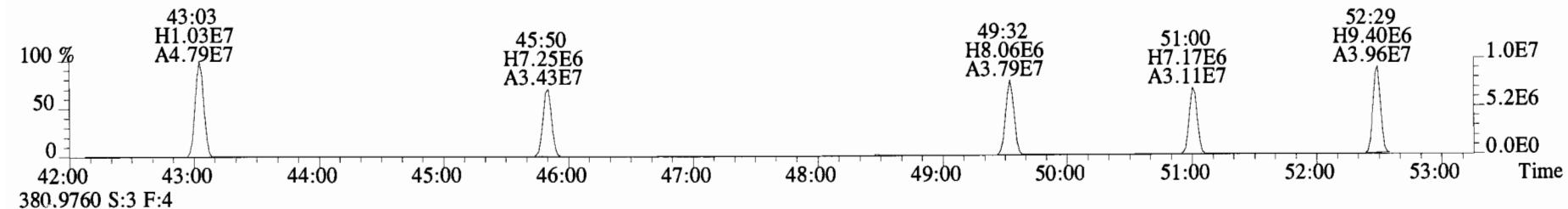
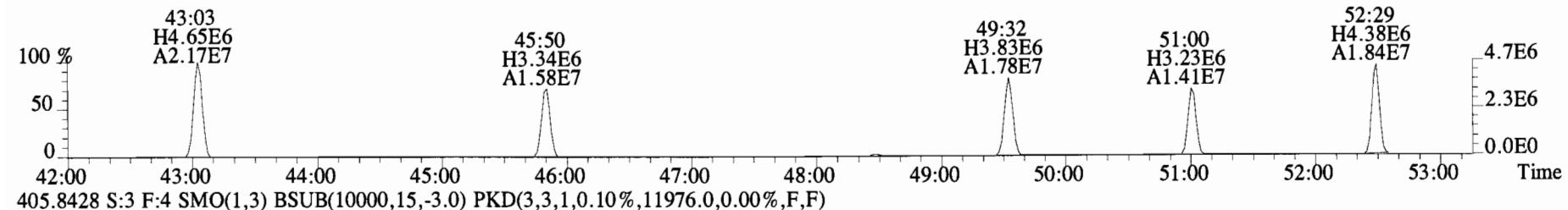
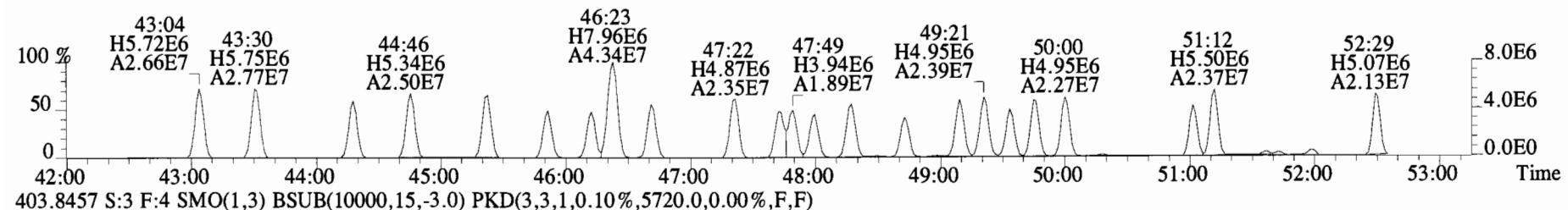
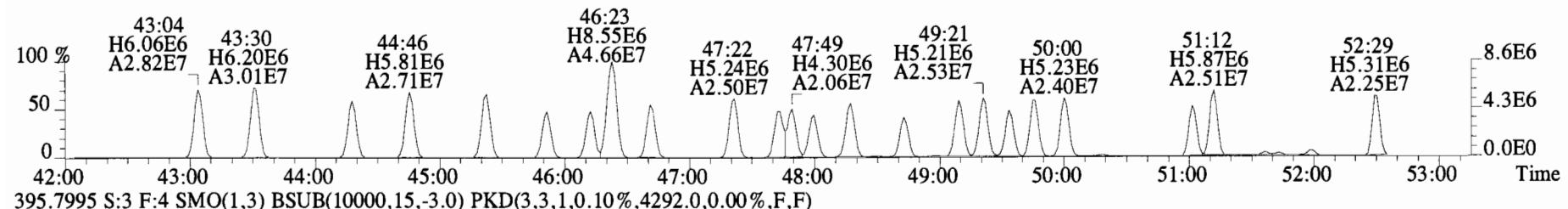
361.8385 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,25960.0,0.00%,F,F)



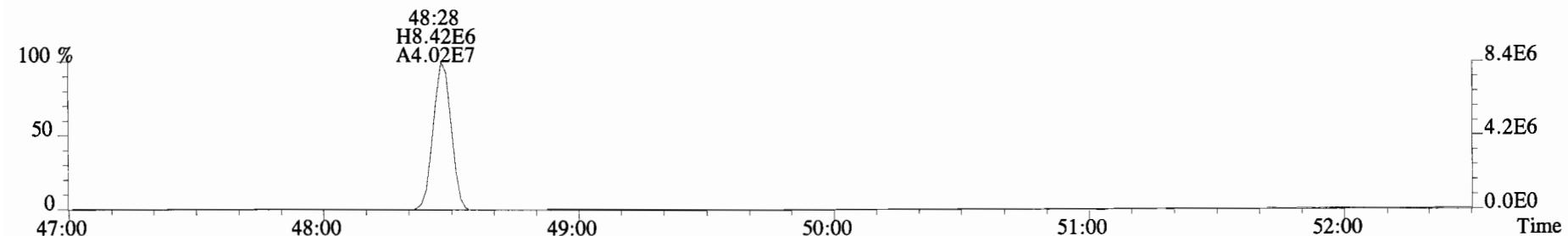
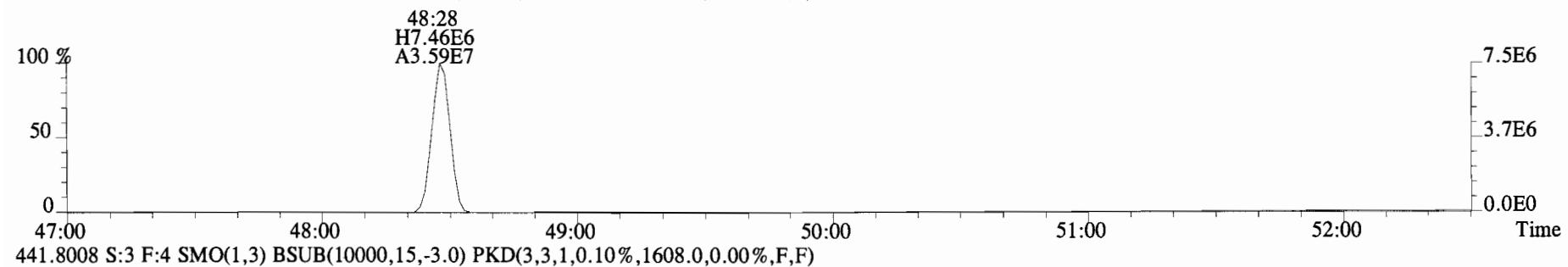
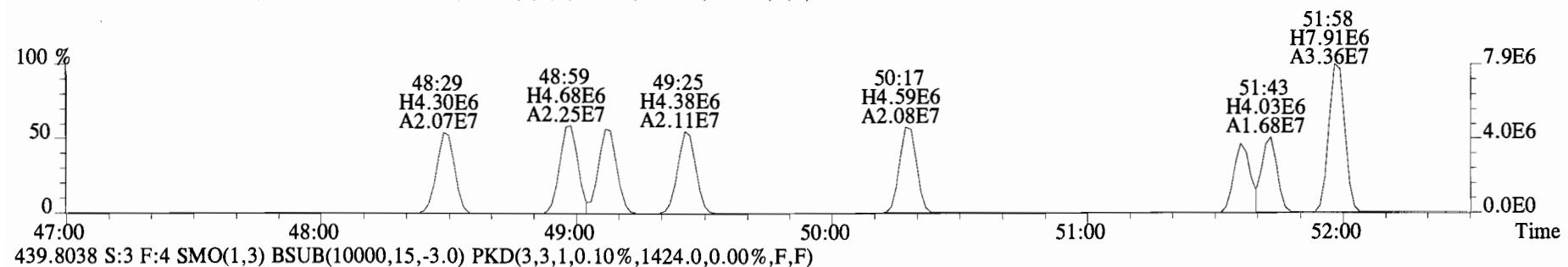
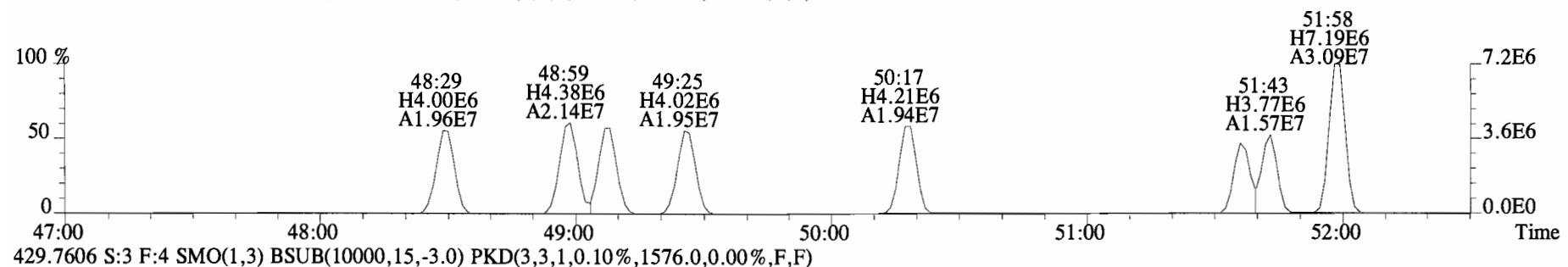
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
359.8415 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,45176.0,0.00%,F,F)



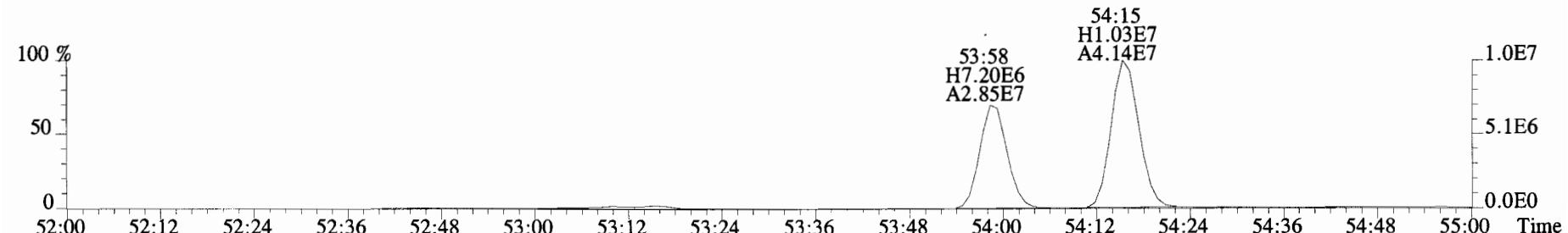
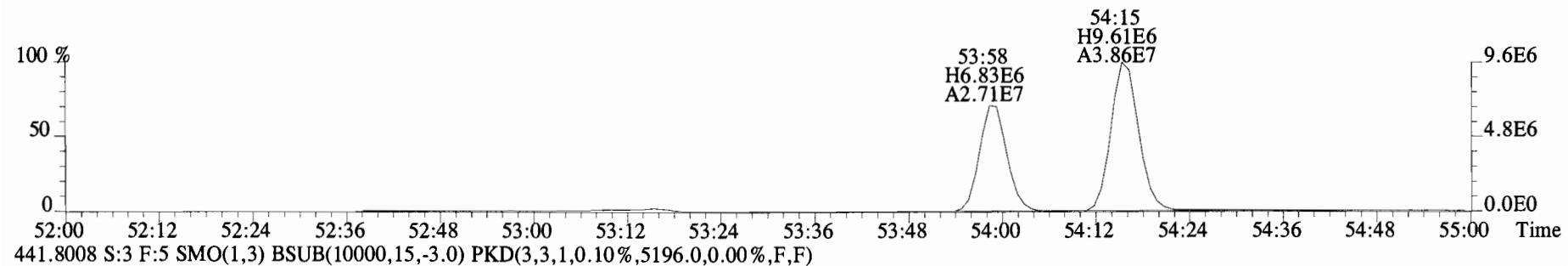
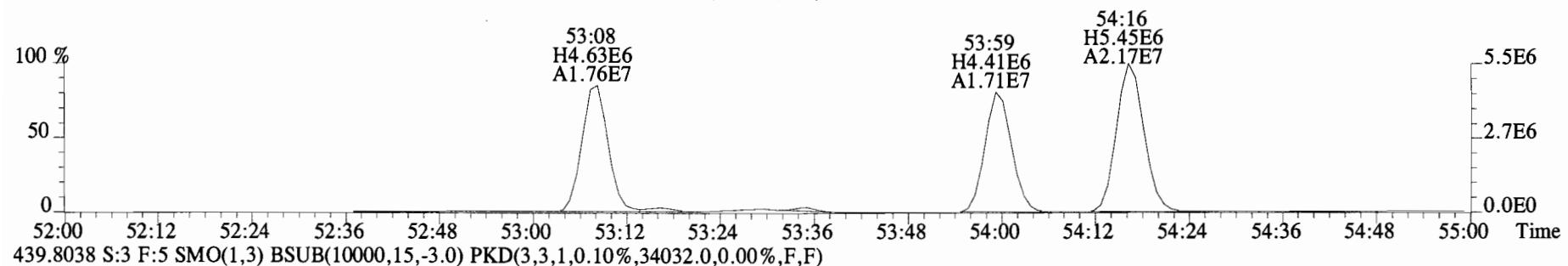
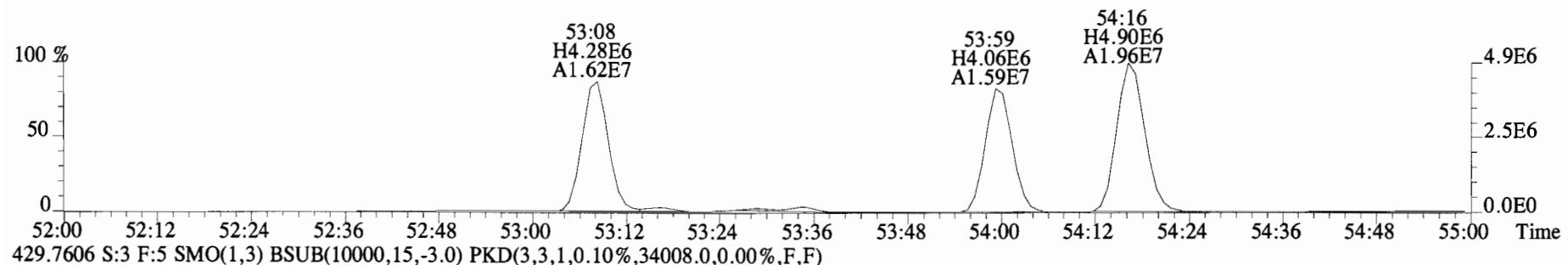
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 393.8025 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,25676.0,0.00%,F,F)



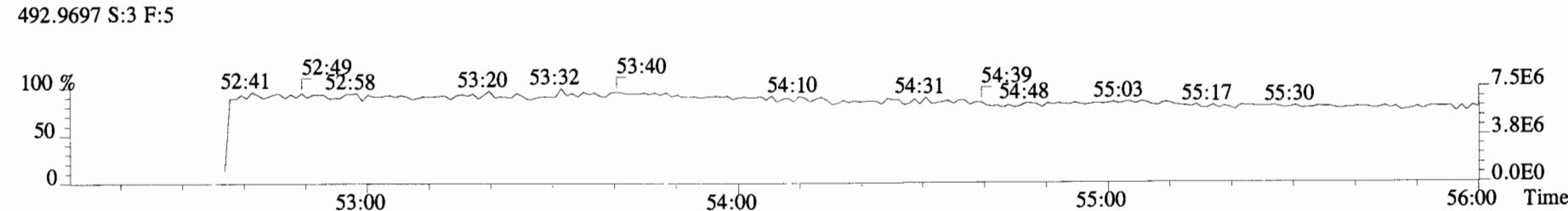
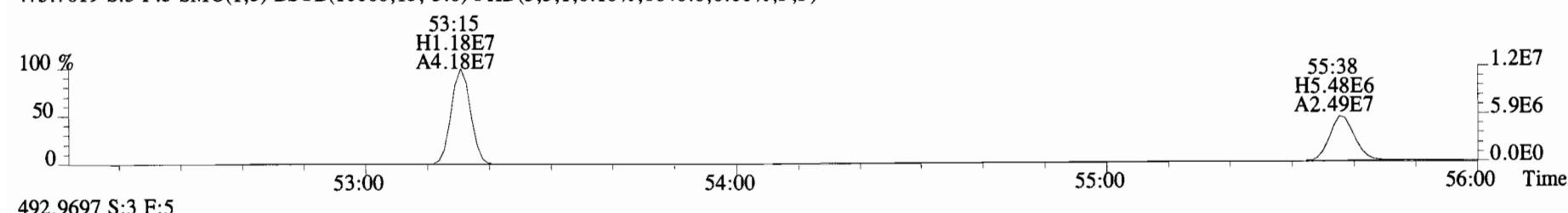
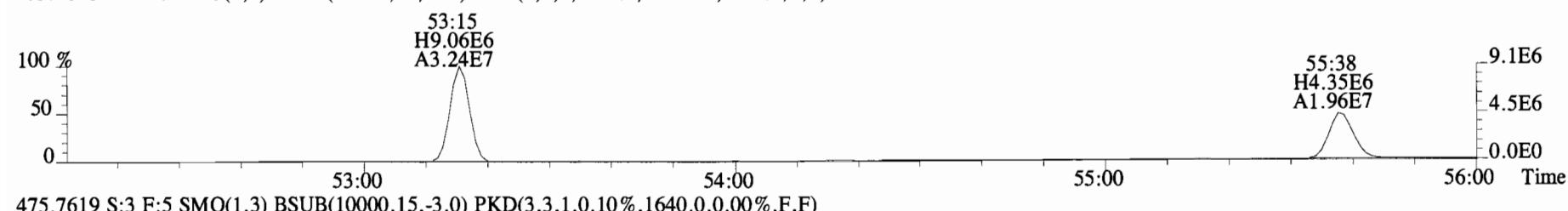
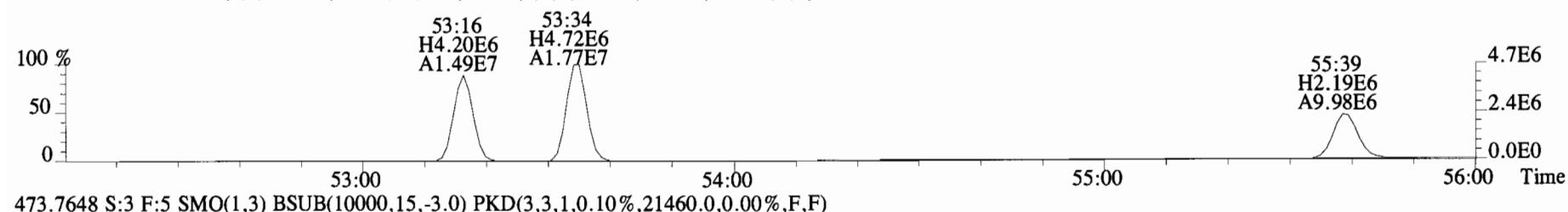
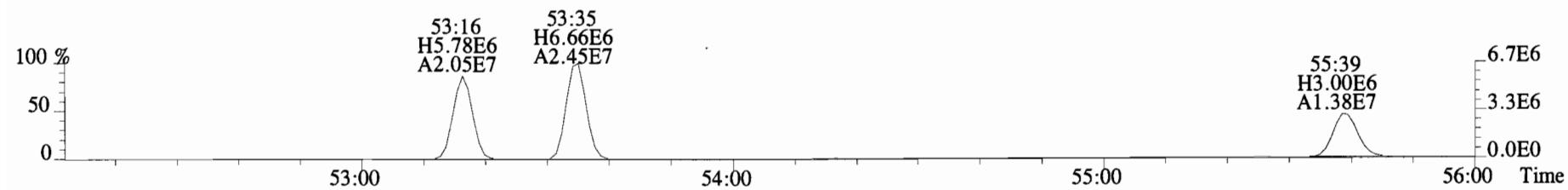
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
427.7635 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1344.0,0.00%,F,F)



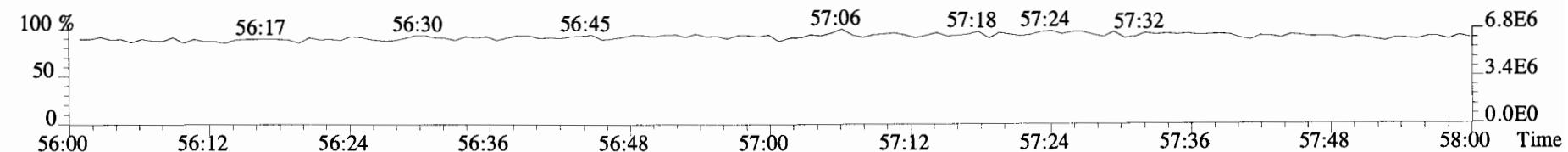
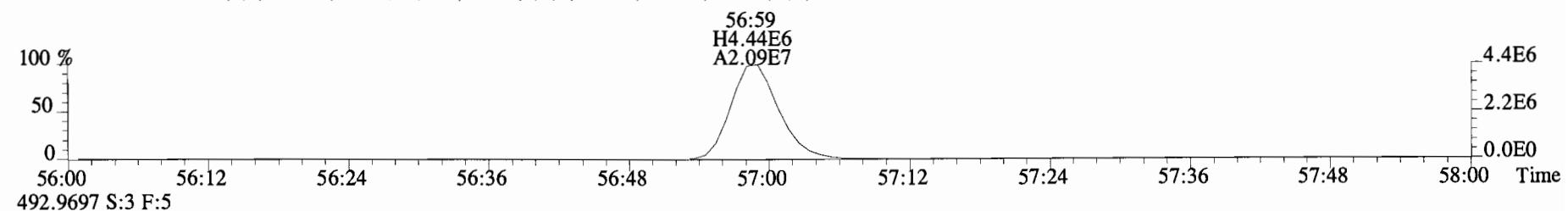
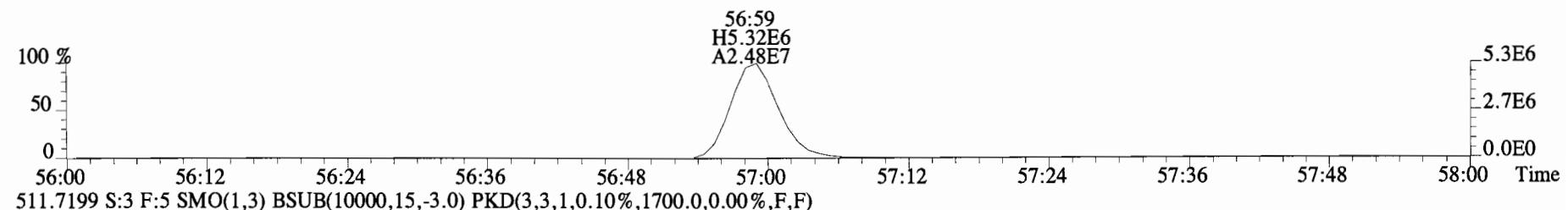
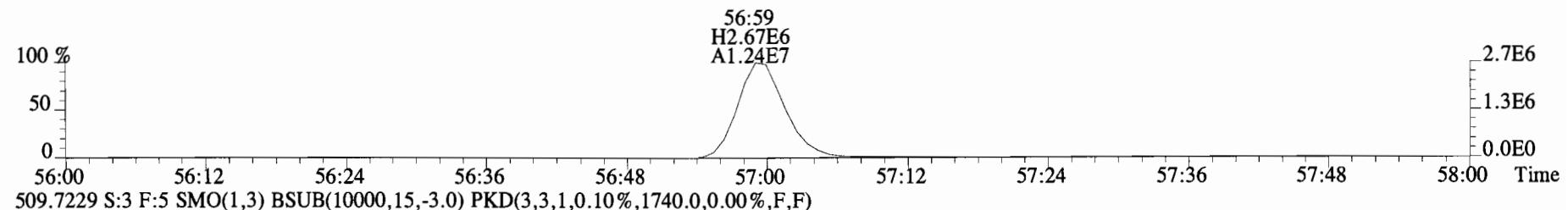
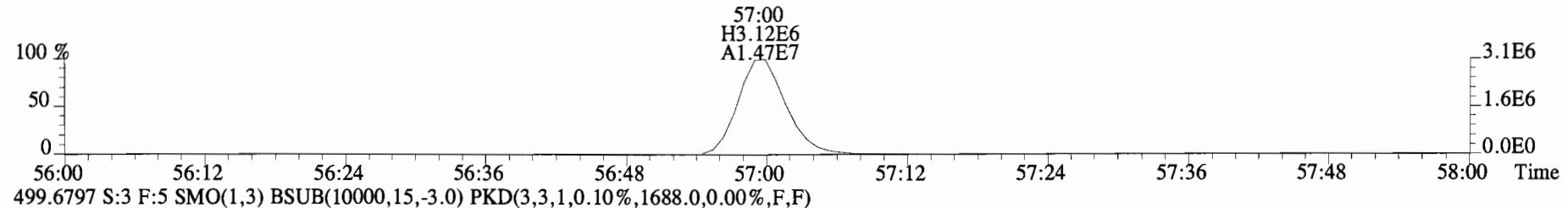
File:140919E2 #1-430 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
427.7635 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,31528.0,0.00%,F,F)



File:140919E2 #1-430 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
463.7216 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1760.0,0.00%,F,F)



File:140919E2 #1-430 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
497.6826 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1516.0,0.00%,F,F)



Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	1.89e+06	3.00	y 16:21	1.19	273	*	2.5	*	1.002	0.996-1.006		
Mono	PCB-2	4.90e+05	3.24	y 18:44	1.18	68.4	*	2.5	*	0.989	0.984-0.994		
Mono	PCB-3	8.89e+05	2.97	y 18:58	1.43	103	*	2.5	*	1.001	0.996-1.006		
Di	PCB-4/10	5.65e+05	1.53	y 20:18	1.57	127	*	2.5	*	1.001	0.997-1.007		
Di	PCB-7/9	5.16e+05	1.34	y 22:07	1.21	97.5	*	2.5	*	0.869	0.866-0.874		
Di	PCB-6	5.90e+05	1.53	y 22:46	1.30	103	*	2.5	*	0.895	0.890-0.899		
Di	PCB-5/8	1.46e+06	1.62	y 23:10	1.15	290	*	2.5	*	0.910	0.907-0.917		
Di	PCB-14	*	*	n NotF _g	1.11	*	9500	2.5	47.9	*	0.949-0.959		
Di	PCB-11	5.97e+06	1.63	y 25:29	1.09	1160	*	2.5	*	1.001	0.995-1.005		
Di	PCB-12/13	3.71e+05	1.33	y 25:51	1.19	65.4	*	2.5	*	1.016	1.011-1.021		
Di	PCB-15	7.47e+05	1.37	y 26:11	1.28	123	*	2.5	*	1.029	1.023-1.033		
Tri	PCB-19	*	*	n NotF _g	1.04	*	1870	2.5	11.5	*	0.996-1.006		
Tri	PCB-30	*	*	n NotF _g	1.71	*	1870	2.5	7.04	*	1.032-1.042		
Tri	PCB-18	5.45e+05	1.01	y 26:06	0.78	141	*	2.5	*	0.954	0.949-0.959		
Tri	PCB-17	2.16e+05	0.95	y 26:16	0.92	47.3	*	2.5	*	0.960	0.956-0.966		
Tri	PCB-24/27	8.98e+04	1.00	y 26:50	1.19	15.3	*	2.5	*	0.981	0.977-0.987		
Tri	PCB-16/32	4.72e+05	1.12	y 27:21	0.94	101	*	2.5	*	1.000	0.995-1.005		
Tri	PCB-34	*	*	n NotF _g	1.14	*	2220	2.5	11.7	*	0.955-0.965		
Tri	PCB-23	*	*	n NotF _g	1.28	*	2220	2.5	10.4	*	0.959-0.969		
Tri	PCB-29	*	*	n NotF _g	1.08	*	2220	2.5	12.3	*	0.967-0.977		
Tri	PCB-26	1.69e+05	0.83	n 28:42	1.21	34.7	R	*	2.5	*	0.980	0.974-0.984	
Tri	PCB-25	7.80e+04	1.26	n 28:52	1.26	15.4	R	*	2.5	*	0.985	0.979-0.989	
Tri	PCB-31	7.29e+05	1.08	y 29:13	1.28	141	*	2.5	*	0.997	0.992-1.002		
Tri	PCB-28	8.62e+05	1.19	y 29:20	1.71	125	*	2.5	*	1.001	0.995-1.005		
Tri	PCB-20/21/33	4.61e+05	0.91	y 29:58	1.08	106	*	2.5	*	1.023	1.017-1.027		
Tri	PCB-22	2.60e+05	0.99	y 30:23	1.21	53.5	*	2.5	*	1.037	1.032-1.042		
Tri	PCB-36	*	*	n NotF _g	1.14	*	2220	2.5	13.9	*	0.928-0.938		
Tri	PCB-39	*	*	n NotF _g	1.12	*	2220	2.5	14.2	*	0.943-0.953		
Tri	PCB-38	*	*	n NotF _g	1.20	*	2220	2.5	13.2	*	0.966-0.976		
Tri	PCB-35	1.84e+05	1.06	y 32:46	1.23	38.5	*	2.5	*	0.987	0.982-0.992		
Tri	PCB-37	4.47e+05	1.10	y 33:13	1.23	94.0	*	2.5	*	1.001	0.995-1.005		
Tetra	PCB-54	*	*	n NotF _g	1.10	*	*	2.5	*	*	0.996-1.006	Integrations by:	
Tetra	PCB-50	*	*	n NotF _g	0.88	*	*	2.5	*	*	1.037-1.047		
Tetra	PCB-53	*	*	n NotF _g	1.06	*	*	2.5	*	*	0.942-0.952	Analyst: DMS	
Tetra	PCB-51	*	*	n NotF _g	0.99	*	*	2.5	*	*	0.952-0.962		
Tetra	PCB-45	*	*	n NotF _g	0.86	*	*	2.5	*	*	0.966-0.976		
Tetra	PCB-46	*	*	n NotF _g	0.85	*	*	2.5	*	*	0.981-0.991	Date: 9/26/14	

X = see Reinjection

Reviewed by: JLR Date: 9/26/14

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	*	*	n NotF ₁	1.28	*	*	*	2.5	*	*	0.996-1.006	
Tetra	PCB-73	*	*	n NotF ₁	1.35	*	*	*	2.5	*	*	1.000-1.010	
Tetra	PCB-43/49	*	*	n NotF ₁	0.99	*	*	*	2.5	*	*	1.005-1.015	
Tetra	PCB-47	*	*	n NotF ₁	1.06	*	*	*	2.5	*	*	0.996-1.006	
Tetra	PCB-48/75	*	*	n NotF ₁	1.23	*	*	*	2.5	*	*	0.999-1.009	
Tetra	PCB-65	*	*	n NotF ₁	1.22	*	*	*	2.5	*	*	1.008-1.018	
Tetra	PCB-62	*	*	n NotF ₁	1.22	*	*	*	2.5	*	*	1.011-1.021	
Tetra	PCB-44	*	*	n NotF ₁	0.86	*	*	*	2.5	*	*	1.021-1.031	
Tetra	PCB-42/59	*	*	n NotF ₁	1.14	*	*	*	2.5	*	*	1.028-1.038	
Tetra	PCB-41/64/71/72	*	*	n NotF ₁	1.21	*	*	*	2.5	*	*	1.046-1.056	
Tetra	PCB-68	*	*	n NotF ₁	1.35	*	*	*	2.5	*	*	1.054-1.064	
Tetra	PCB-40	*	*	n NotF ₁	0.70	*	*	*	2.5	*	*	1.061-1.071	
Tetra	PCB-57	*	*	n NotF ₁	0.98	*	*	*	2.5	*	*	0.965-0.975	
Tetra	PCB-67	*	*	n NotF ₁	1.11	*	*	*	2.5	*	*	0.974-0.984	
Tetra	PCB-58	*	*	n NotF ₁	0.93	*	*	*	2.5	*	*	0.977-0.987	
Tetra	PCB-63	*	*	n NotF ₁	0.95	*	*	*	2.5	*	*	0.982-0.992	
Tetra	PCB-74	*	*	n NotF ₁	1.24	*	*	*	2.5	*	*	0.990-1.000	
Tetra	PCB-61/70	*	*	n NotF ₁	0.95	*	*	*	2.5	*	*	0.995-1.005	
Tetra	PCB-76/66	*	*	n NotF ₁	1.04	*	*	*	2.5	*	*	1.001-1.011	
Tetra	PCB-80	*	*	n NotF ₁	1.19	*	*	*	2.5	*	*	0.996-1.006	
Tetra	PCB-55	*	*	n NotF ₁	1.04	*	*	*	2.5	*	*	1.005-1.015	
Tetra	PCB-56/60	*	*	n NotF ₁	1.01	*	*	*	2.5	*	*	1.019-1.029	
Tetra	PCB-79	*	*	n NotF ₁	1.08	*	*	*	2.5	*	*	1.048-1.058	
Tetra	PCB-78	*	*	n NotF ₁	1.27	*	*	*	2.5	*	*	0.982-0.992	
Tetra	PCB-81	*	*	n NotF ₁	1.33	*	*	*	2.5	*	*	0.995-1.005	
Tetra	PCB-77	*	*	n NotF ₁	1.10	*	*	*	2.5	*	*	0.995-1.005	
Penta	PCB-104	*	*	n NotF ₁	1.18	*	2130	2.5	22.1	*	0.996-1.006		
Penta	PCB-96	*	*	n NotF ₁	1.14	*	2130	2.5	23.0	*	1.034-1.044		
Penta	PCB-103	*	*	n NotF ₁	0.96	*	2130	2.5	27.4	*	1.050-1.060		
Penta	PCB-100	*	*	n NotF ₁	0.94	*	2130	2.5	27.9	*	1.061-1.071		
Penta	PCB-94	*	*	n NotF ₁	1.06	*	2130	2.5	31.2	*	0.980-0.990		
Penta	PCB-95/98/102	2.05e+06	1.69	y 36:04	1.22	823	*	2.5	*	1.001	0.995-1.005		
Penta	PCB-93	*	*	n NotF ₁	0.84	*	2130	2.5	39.1	*	0.997-1.007		
Penta	PCB-88/91	2.97e+05	1.73	y 36:27	1.12	131	*	2.5	*	1.012	1.005-1.015		
Penta	PCB-121	*	*	n NotF ₁	1.62	*	2130	2.5	20.4	*	1.009-1.019		
Penta	PCB-84/92	1.15e+06	1.77	y 37:22	1.05	513	*	2.5	*	0.990	0.985-0.995		
Penta	PCB-89	2.06e+04	1.14	n 37:33	1.13	8.48	*	2.5	*	0.995	0.991-1.001		

* = sec Rejection

Analyst: DMS

Date: 9/26/14

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	3.71e+06	1.78	y 37:45	1.10	1570		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-113	1.25e+05	1.86	n 37:56	1.41	41.2	R	*	2.5	*	1.005	1.002-1.012	
Penta	PCB-99	1.29e+06	1.72	y 38:04	1.34	450		*	2.5	*	1.009	1.004-1.014	
Penta	PCB-119	*	*	n NotFq	1.53	*		2130	2.5	21.5	*	0.982-0.992	
Penta	PCB-108/112	1.63e+05	1.40	y 38:43	1.28	65.1		*	2.5	*	0.992	0.986-0.996	
Penta	PCB-83	*	*	n NotFq	1.52	*		2130	2.5	21.7	*	0.990-1.000	
Penta	PCB-97	8.14e+05	1.65	y 39:03	1.18	352		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-86	*	*	n NotFq	0.84	*		2130	2.5	39.1	*	0.999-1.009	
Penta	PCB-87/117/125	1.42e+06	1.70	y 39:20	1.55	469		*	2.5	*	1.008	1.002-1.012	
Penta	PCB-111/115	7.69e+04	1.11	n 39:29	1.63	24.0	R	*	2.5	*	1.012	1.006-1.016	
Penta	PCB-85/116	4.98e+05	1.75	y 39:36	1.30	195		*	2.5	*	1.015	1.010-1.020	
Penta	PCB-120	*	*	n NotFq	1.68	*		2130	2.5	19.7	*	1.016-1.026	
Penta	PCB-110	4.54e+06	1.72	y 39:59	1.56	1490		*	2.5	*	1.024	1.020-1.030	
Penta	PCB-82	2.93e+05	1.47	y 40:37	0.76	156		*	2.5	*	0.977	0.971-0.981	
Penta	PCB-124	1.89e+05	1.88	n 41:18	1.47	52.0	R	*	2.5	*	0.993	0.988-0.998	
Penta	PCB-107/109	2.47e+05	1.32	y 41:27	1.32	75.5		*	2.5	*	0.997	0.991-1.001	
Penta	PCB-123	6.85e+04	1.39	y 41:37	1.17	23.7		*	2.5	*	1.001	0.996-1.006	
Penta	PCB-106/118	3.67e+06	1.77	y 41:48	1.17	1220		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-114	*	*	n NotFq	1.30	*		5580	2.5	54.6	*	0.995-1.005	
Penta	PCB-122	*	*	n NotFq	1.12	*		5580	2.5	63.1	*	0.999-1.009	
Penta	PCB-105	1.61e+06	1.61	y 43:19	1.30	472		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-127	*	*	n NotFq	1.33	*		5580	2.5	53.3	*	0.996-1.006	
Penta	PCB-126	*	*	n NotFq	1.18	*		5580	2.5	78.3	*	0.995-1.005	
Hexa	PCB-155	*	*	n NotFq	1.11	*		1630	2.5	16.6	*	0.966-1.006	
Hexa	PCB-150	*	*	n NotFq	1.00	*		1630	2.5	18.5	*	1.030-1.040	
Hexa	PCB-152	*	*	n NotFq	1.12	*		1630	2.5	16.6	*	1.043-1.053	
Hexa	PCB-145	*	*	n NotFq	1.20	*		1630	2.5	15.4	*	1.055-1.065	
Hexa	PCB-136	7.68e+05	1.41	y 39:47	1.18	251		*	2.5	*	1.068	1.064-1.074	
Hexa	PCB-148	*	*	n NotFq	0.74	*		1630	2.5	24.9	*	1.066-1.076	
Hexa	PCB-154	6.33e+04	1.31	y 40:24	0.86	28.4		*	2.5	*	1.084	1.080-1.090	
Hexa	PCB-151	1.15e+06	1.21	y 41:02	0.75	596		*	2.5	*	1.101	1.097-1.107	
Hexa	PCB-135	5.63e+05	1.37	y 41:15	0.79	274		*	2.5	*	1.107	1.103-1.113	
Hexa	PCB-144	2.52e+05	1.20	y 41:22	0.76	127		*	2.5	*	1.110	1.105-1.117	
Hexa	PCB-147	5.48e+04	0.97	n 41:30	0.82	25.8	R	*	2.5	*	1.114	1.109-1.121	
Hexa	PCB-139/149	3.67e+06	1.27	y 41:45	0.76	1860		*	2.5	*	1.120	1.116-1.128	
Hexa	PCB-140	*	*	n NotFq	0.72	*		1630	2.5	25.6	*	1.121-1.133	
Hexa	PCB-134/143	2.65e+05	1.40	y 42:23	0.92	114		*	2.5	*	0.975	0.970-0.980	

Analyst: DmsDate: 9/26/14

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	1.72e+05	1.34	y 42:41	0.82	83.2	*	2.5	*	0.982	0.977-0.987		
Hexa	PCB-131	*	*	n NotF ₁₁	0.91	*	2970	2.5	37.6	*	0.981-0.991		
Hexa	PCB-146/165	8.93e+05	1.42	y 43:05	1.25	284	*	2.5	*	0.992	0.986-0.996		
Hexa	PCB-132/161	1.64e+06	1.27	y 43:20	1.10	586	*	2.5	*	0.997	0.992-1.002		
Hexa	PCB-153	5.91e+06	1.24	y 43:28	1.25	1870	*	2.5	*	1.000	0.995-1.005		
Hexa	PCB-168	*	*	n NotF ₁₁	1.45	*	2970	2.5	23.6	*	1.001-1.011		
Hexa	PCB-141	1.20e+06	1.31	y 44:13	1.09	486	*	2.5	*	1.000	0.995-1.005		
Hexa	PCB-137	2.51e+05	1.24	y 44:36	1.06	104	*	2.5	*	1.009	1.004-1.014		
Hexa	PCB-130	3.18e+05	1.30	y 44:42	0.96	145	*	2.5	*	1.011	1.006-1.016		
Hexa	PCB-138/163/164	6.38e+06	1.33	y 45:04	1.29	2170	*	2.5	*	1.001	0.996-1.006		
Hexa	PCB-158/160	7.41e+05	1.12	y 45:18	1.34	243	*	2.5	*	1.006	1.001-1.011		
Hexa	PCB-129	1.95e+05	1.27	y 45:33	0.85	101	*	2.5	*	1.011	1.007-1.017		
Hexa	PCB-166	*	*	n NotF ₁₁	1.19	*	2970	2.5	31.2	*	0.988-0.998		
Hexa	PCB-159	*	*	n NotF ₁₁	1.11	*	2970	2.5	33.3	*	0.996-1.006		
Hexa	PCB-128/162	8.67e+05	1.40	y 46:37	1.05	350	*	2.5	*	1.006	1.002-1.012		
Hexa	PCB-167	*	*	n NotF ₁₁	1.20	7.0 * <i>see re-injection</i>	*	2.5	*	*	0.995-1.005		
Hexa	PCB-156	5.61e+05	1.41	y 48:19	1.14	203	*	2.5	*	1.000	0.996-1.006		
Hexa	PCB-157	1.73e+05	1.30	y 48:36	1.16	53.2	*	2.5	*	1.001	0.995-1.005		
Hexa	PCB-169	*	*	n NotF ₁₁	1.12	*	2970	2.5	36.1	*	0.995-1.005		
Hepta	PCB-188	*	*	n NotF ₁₁	1.58	*	2240	2.5	14.5	*	0.996-1.006		
Hepta	PCB-184	*	*	n NotF ₁₁	1.63	*	2240	2.5	14.0	*	1.006-1.016		
Hepta	PCB-179	1.19e+06	1.15	y 44:20	1.30	472	*	2.5	*	1.029	1.024-1.034		
Hepta	PCB-176	3.41e+05	0.95	y 44:48	1.48	120	*	2.5	*	1.040	1.035-1.045		
Hepta	PCB-186	*	*	n NotF ₁₁	1.45	*	2240	2.5	15.8	*	1.050-1.060		
Hepta	PCB-178	3.95e+05	1.10	y 45:54	1.03	197	*	2.5	*	1.065	1.061-1.071		
Hepta	PCB-175	8.26e+04	1.17	y 46:13	1.01	42.2	*	2.5	*	1.073	1.069-1.079		
Hepta	PCB-182/187	2.68e+06	1.13	y 46:24	1.25	1110	*	2.5	*	1.077	1.073-1.083		
Hepta	PCB-183	1.15e+06	1.10	y 46:45	1.21	492	*	2.5	*	1.085	1.081-1.091		
Hepta	PCB-185	2.49e+05	1.19	y 47:24	1.80	104	*	2.5	*	0.956	0.951-0.961		
Hepta	PCB-174	1.77e+06	1.13	y 47:46	1.38	967	*	2.5	*	0.963	0.958-0.968		
Hepta	PCB-181	*	*	n NotF ₁₁	1.38	*	2240	2.5	24.1	*	0.960-0.970		
Hepta	PCB-177	8.77e+05	1.16	y 48:02	1.26	526	*	2.5	*	0.968	0.963-0.973		
Hepta	PCB-171	3.87e+05	1.17	y 48:19	1.58	184	*	2.5	*	0.974	0.970-0.980		
Hepta	PCB-173	*	*	n NotF ₁₁	1.11	*	2240	2.5	29.9	*	0.978-0.988		
Hepta	PCB-172	2.83e+05	0.96	y 49:13	1.63	130	*	2.5	*	0.992	0.987-0.997		
Hepta	PCB-192	*	*	n NotF ₁₁	1.74	*	2240	2.5	19.1	*	0.991-1.001		
Hepta	PCB-180	4.00e+06	1.12	y 49:37	1.34	2240	*	2.5	*	1.000	0.995-1.005		

Analyst: *DMS*

Date: *9/26/14*

Client ID: PS-TS-01-20140909-S
Lab ID: 1400659-03RE1 DL 1:20

Filename: 140919E2 S:8 Acq:20-SEP-14 07:13:59
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.115

ConCal: ST140919E2-1
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	2.41e+05	1.17	y 49:48	1.72	106		*	2.5	*	1.004	0.999-1.009	
Hepta	PCB-191	8.06e+04	1.14	y 50:04	1.69	35.8		*	2.5	*	1.009	1.004-1.014	
Hepta	PCB-170	1.12e+06	1.07	y 51:05	1.60	698		*	2.5	*	1.000	0.995-1.005	
Hepta	PCB-190	2.86e+05	1.09	y 51:15	2.21	129	*	*	2.5	*	1.004	0.998-1.008	
Hepta	PCB-189	*	*	n NotFq	1.55	56.3 * <i>See Reinq.</i>	*	*	2.5	*	*	0.995-1.005	
Octa	PCB-202	3.26e+05	1.02	y 48:32	1.08	172		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-201	2.65e+05	0.99	y 49:01	1.15	132		*	2.5	*	1.010	1.005-1.015	
Octa	PCB-204	*	*	n NotFq	1.14	*	2340	2.5	28.3	*	1.008-1.018		
Octa	PCB-197	7.47e+04	0.79	y 49:29	1.07	39.8		*	2.5	*	1.020	1.015-1.025	
Octa	PCB-200	1.71e+05	0.82	y 50:21	1.06	92.2		*	2.5	*	1.038	1.032-1.044	
Octa	PCB-198	*	*	n NotFq	0.76	*	2340	2.5	42.7	*	1.059-1.069		
Octa	PCB-199	1.02e+06	0.95	y 51:45	0.80	728		*	2.5	*	1.067	1.061-1.071	
Octa	PCB-196/203	1.03e+06	0.96	y 52:01	0.80	735		*	2.5	*	1.072	1.066-1.076	
Octa	PCB-195	2.76e+05	0.99	y 53:11	1.23	206		8.00	2.5	0.117	0.984	0.979-0.989	
Octa	PCB-194	7.24e+05	0.89	y 54:04	1.21	549		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-205	*	*	n NotFq	1.54	*	3330	2.5	38.6	*	1.001-1.011		
NonA	PCB-208	1.61e+05	1.48	y 53:19	0.93	126		*	2.5	*	1.000	0.995-1.005	
NonA	PCB-207	8.16e+04	1.06	n 53:38	1.08	54.8	R	*	2.5	*	1.006	1.001-1.011	
NonA	PCB-206	3.34e+05	1.54	y 55:45	1.02	440		*	2.5	*	1.000	0.995-1.005	
Deca	PCB-209	7.66e+04	1.07	y 57:06	1.17	92.2		*	2.5	*	1.000	0.995-1.005	

Analyst: *Dmj*

Date: 9/26/14

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	3.27e+06	3.00	y	16:21	1.27 444.336
Total Di-PCB	1.02e+07	1.53	y	20:18	1.21 1961.03
Total Tri-PCB	1.32e+06	1.01	y	26:06	1.10 304.728
Total Tri-PCB	2.94e+06	1.08	y	29:13	1.21 557.946 Sum:862.674
Total Tetra-PCB	*	*	n	NotFnd	1.09 2274.75*
Total Penta-PCB	2.02e+07	1.69	y	36:04	1.18 7528.42
Total Penta-PCB	1.61e+06	1.61	y	43:19	1.25 471.968 Sum:8000.39
Total Hexa-PCB	6.47e+06	1.41	y	39:47	0.90 3134.65
Total Hexa-PCB	1.96e+07	1.40	y	42:23	1.11 6795.51 Sum:9930.16
Total Hepta-PCB	1.51e+07	1.15	y	44:20	1.42 7548.27
Total Octa-PCB	2.88e+06	1.02	y	48:32	0.96 1899.08
Total Octa-PCB	9.99e+05	0.99	y	53:11	1.33 754.929 Sum:2654.01
Total Nona-PCB	4.95e+05	1.48	y	53:19	1.01 565.713
Total Deca-PCB	7.66e+04	1.07	y	57:06	1.17 92.2482

Total PCB Conc:32315.1693770 + 2458.688 = 34773.9
34400

** Reintroduction
* = See original
DMS 9/26/14*

Integrations
by
Analyst: DMS
Date: 9/26/14

Client ID: PS-TS-01-20140909-S
Lab ID: 1400659-03RE1 DL 1:20

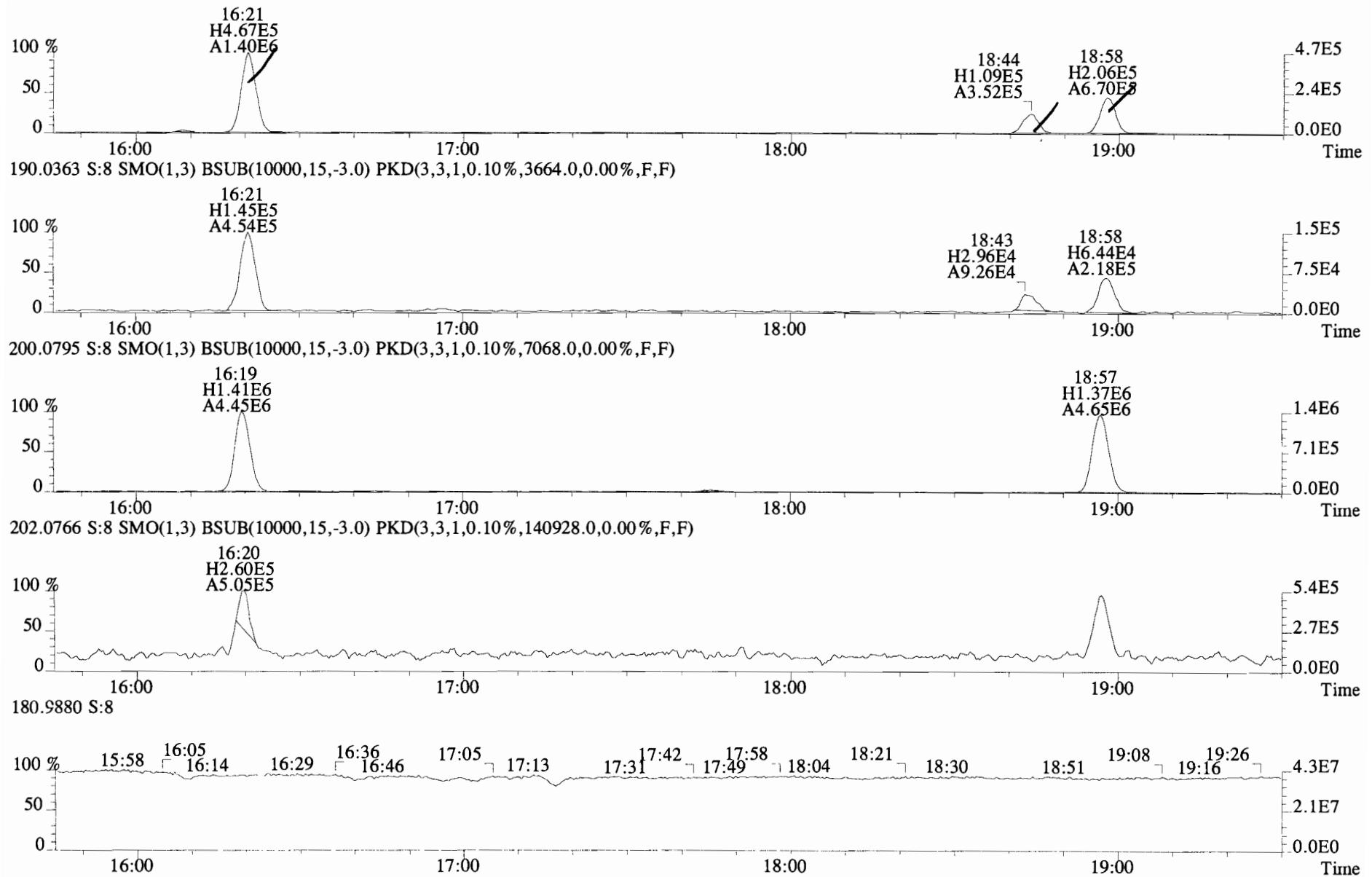
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GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.11
ConCal: ST140919E2-1
EndCAL: NA

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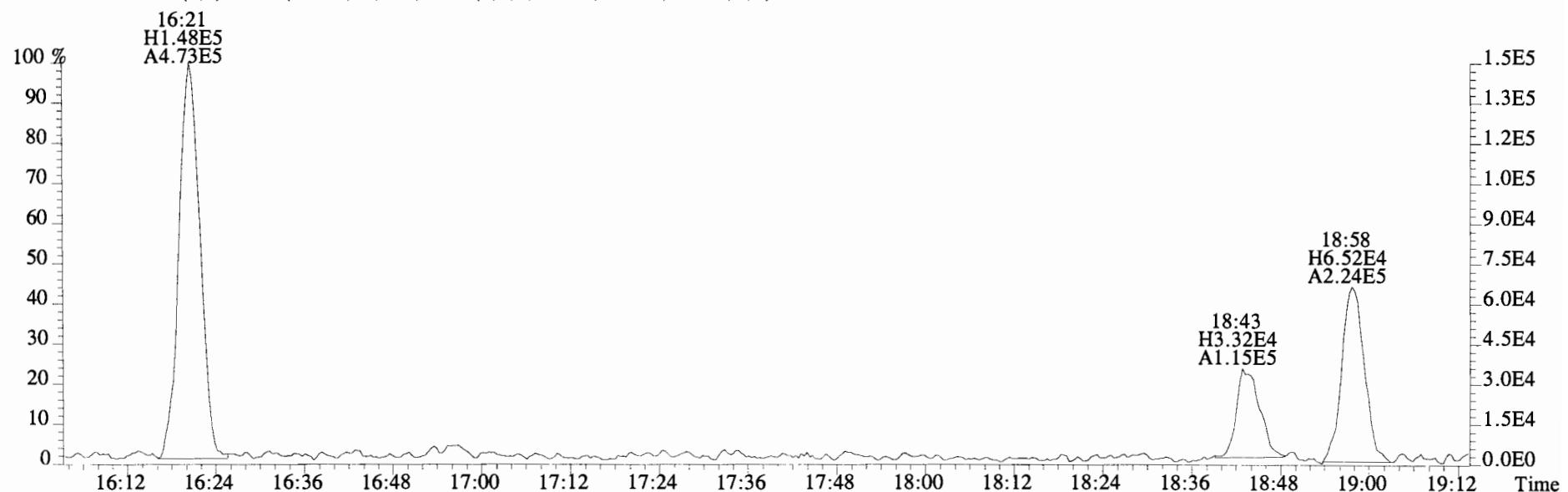
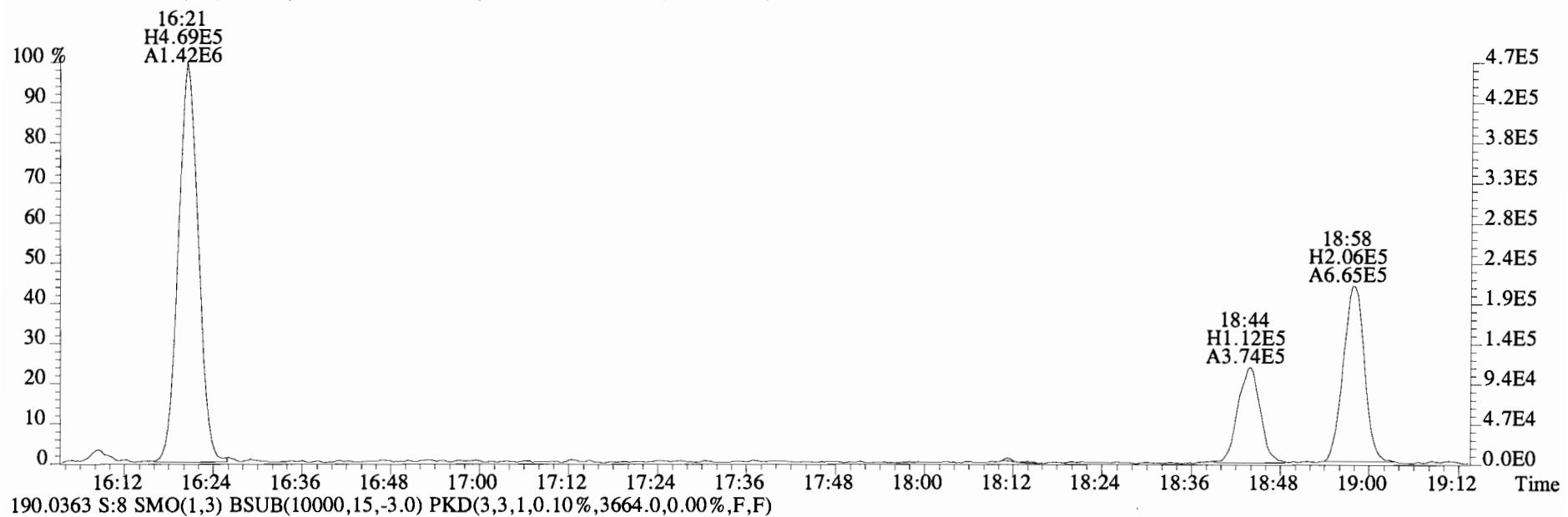
Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	5.74e+06	3.28	y	0.87	16:19	0.624	0.629-0.635	1160	118		13C-PCB-79	4.20e+06	0.84	y	1.02	38:03	1.029	1.023-1.034	1020	104 95.3
13C-PCB-3	5.97e+06	3.52	y	0.91	18:57	0.724	0.725-0.733	1160	117		13C-PCB-178	1.38e+06	0.42	y	0.61	45:53	0.985	0.979-0.990	966	97.7
13C-PCB-4	2.81e+06	1.63	y	0.59	20:17	0.775	0.775-0.783	845	85.4		13C-PCB-178	1.38e+06	0.42	y	0.61	45:53	0.985	0.979-0.990	966	97.7
13C-PCB-9	4.33e+06	1.59	y	0.90	22:04	0.843	0.842-0.850	853	86.2											
13C-PCB-11	4.70e+06	1.60	y	0.94	25:27	0.973	0.968-0.978	885	89.6	PS vs. IS										
13C-PCB-19	3.23e+06	1.07	y	0.53	24:26	0.934	0.930-0.940	1070	109		13C-PCB-79	4.20e+06	0.84	y	1.10	38:03	0.969	0.964-0.974	1110	113
13C-PCB-28	3.98e+06	1.03	y	0.93	29:18	1.003	0.999-1.009	970	98.1		13C-PCB-178	1.38e+06	0.42	y	0.90	45:53	0.925	0.920-0.930	1150	117
13C-PCB-32	4.90e+06	1.15	y	0.80	27:21	1.045	1.040-1.050	1090	110											
13C-PCB-37	3.83e+06	1.06	y	0.84	33:11	1.136	1.131-1.143	1040	105											
13C-PCB-47	3.13e+06	0.85	y	0.81	32:14	0.872	0.866-0.874	957	96.8	88.0										
13C-PCB-52	3.06e+06	0.84	y	0.77	31:43	0.858	0.853-0.861	983	99.4	91.7										
13C-PCB-54	3.68e+06	0.83	y	0.97	28:11	0.762	0.758-0.766	942	95.3	88.5										
13C-PCB-70	3.79e+06	0.82	y	1.00	35:44	0.966	0.961-0.971	942	95.2	90.9										
13C-PCB-77	3.53e+06	0.87	y	0.94	39:52	1.078	1.073-1.083	931	94.2	84.4										
13C-PCB-80	3.93e+06	0.88	y	1.03	36:09	0.977	0.972-0.982	945	95.6	91.1										
13C-PCB-81	3.38e+06	0.88	y	0.92	39:17	1.062	1.057-1.067	910	93.1	87.2										
13C-PCB-95	2.01e+06	1.46	y	0.74	36:02	0.913	0.908-0.918	909	91.9	RS										
13C-PCB-97	1.94e+06	1.47	y	0.70	39:02	0.989	0.984-0.994	921	93.1		13C-PCB-15	5.60e+06	1.59	y	1.00	26:10	989			
13C-PCB-101	2.12e+06	1.73	y	0.78	37:44	0.956	0.951-0.961	908	91.8		13C-PCB-31	4.35e+06	1.10	y	1.00	29:12	989			
13C-PCB-104	2.75e+06	1.77	y	1.00	32:53	0.834	0.828-0.836	920	93.1		13C-PCB-60	3.98e+06	0.93	n	1.00	36:59	989			
13C-PCB-105	2.60e+06	1.67	y	1.37	43:18	0.930	0.924-0.934	819	82.9		13C-PCB-111	2.95e+06	1.62	y	1.00	39:27	989			
13C-PCB-114	2.77e+06	1.77	y	1.36	42:27	0.911	0.905-0.915	874	88.4		13C-PCB-128	2.29e+06	1.35	y	1.00	46:35	989			
13C-PCB-118	2.55e+06	1.54	y	0.96	41:47	1.059	1.054-1.064	890	90.0		13C-PCB-205	1.37e+06	0.85	y	1.00	54:21	989			
13C-PCB-123	2.44e+06	1.64	y	0.89	41:35	1.054	1.050-1.060	916	92.6											
13C-PCB-126	2.32e+06	1.75	y	1.31	45:33	0.978	0.972-0.982	766	77.5											
13C-PCB-127	2.82e+06	1.61	y	1.47	43:38	0.937	0.931-0.941	824	83.3											
13C-PCB-138	2.25e+06	1.38	y	1.10	45:02	0.967	0.961-0.971	881	89.1											
13C-PCB-141	2.25e+06	1.42	y	1.07	44:12	0.949	0.943-0.953	904	91.4											
13C-PCB-153	2.50e+06	1.24	y	1.15	43:27	0.933	0.927-0.937	938	94.9											
13C-PCB-155	2.57e+06	1.25	y	0.84	37:16	0.945	0.939-0.949	1020	104											
13C-PCB-156	2.41e+06	1.42	y	1.30	48:18	1.037	1.032-1.042	800	80.9											
13C-PCB-157	2.76e+06	1.39	y	1.36	48:34	1.043	1.038-1.048	875	88.5											
13C-PCB-159	2.34e+06	1.24	y	1.25	46:20	0.995	0.989-0.999	808	81.7											
13C-PCB-167	2.29e+06	1.53	n	1.35	47:01	1.009	1.004-1.014	730	73.8	83.3 *										
13C-PCB-169	2.08e+06	1.38	y	1.29	50:42	1.088	1.083-1.093	698	70.6											
13C-PCB-170	9.94e+05	0.49	y	0.54	51:04	1.096	1.089-1.101	789	79.8											
13C-PCB-180	1.31e+06	0.43	y	0.68	49:36	1.065	1.060-1.070	827	83.7											
13C-PCB-188	1.91e+06	0.47	y	0.92	43:05	0.925	0.919-0.929	897	90.8											
13C-PCB-189	8.25e+05	0.52	y	0.72	52:33	1.128	1.120-1.132	496	50.2	GS.5 *										
13C-PCB-194	1.08e+06	0.84	y	0.80	54:04	0.995	0.990-1.000	974	98.5											
13C-PCB-202	1.73e+06	0.86	y	0.84	48:31	1.042	1.036-1.046	889	89.9											
13C-PCB-206	7.33e+05	0.79	y	0.65	55:44	1.025	1.021-1.031	814	82.3											
13C-PCB-208	1.36e+06	0.83	y	1.08	53:18	0.981	0.976-0.986	906	91.7											
13C-PCB-209	7.01e+05	1.17	y	0.61	57:07	1.051	1.045-1.055	829	83.8											

Analyst: DMS
Date: 9/26/14

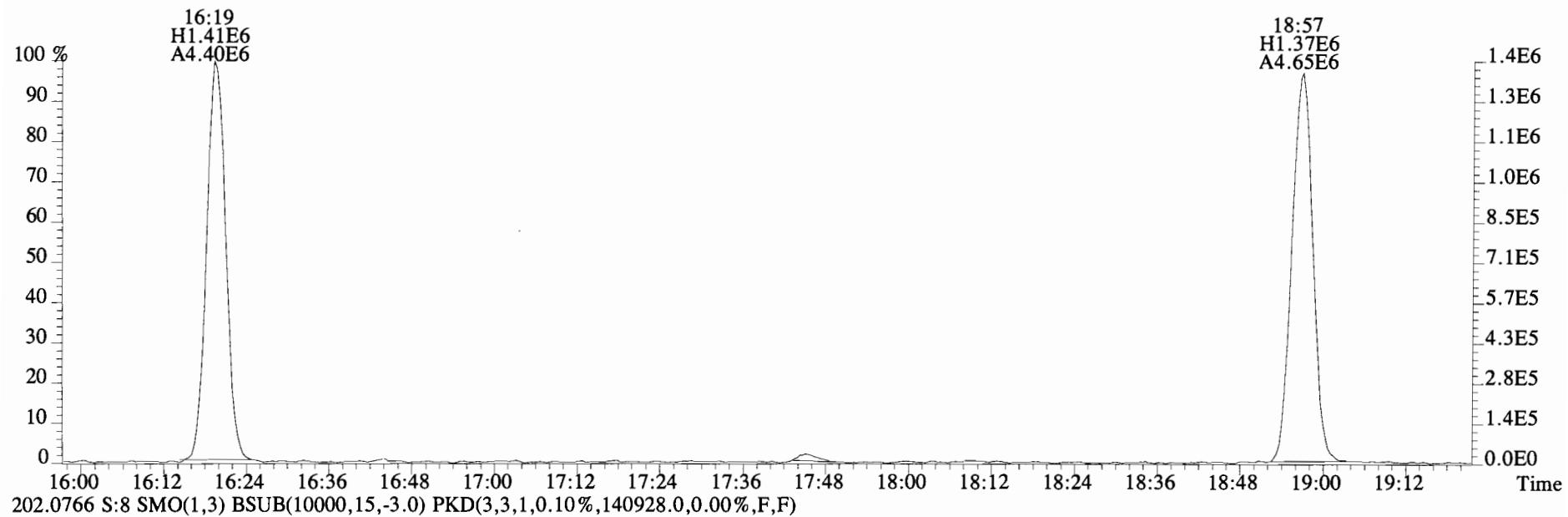
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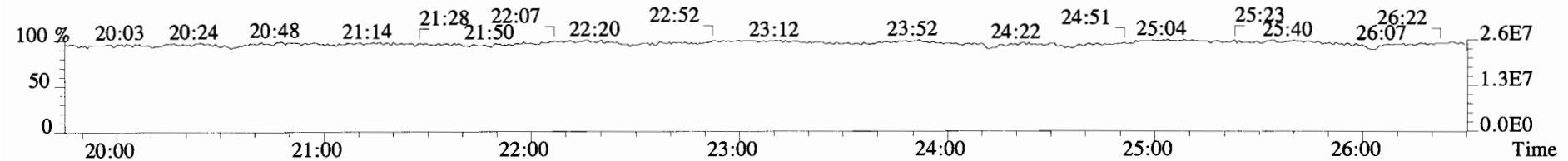
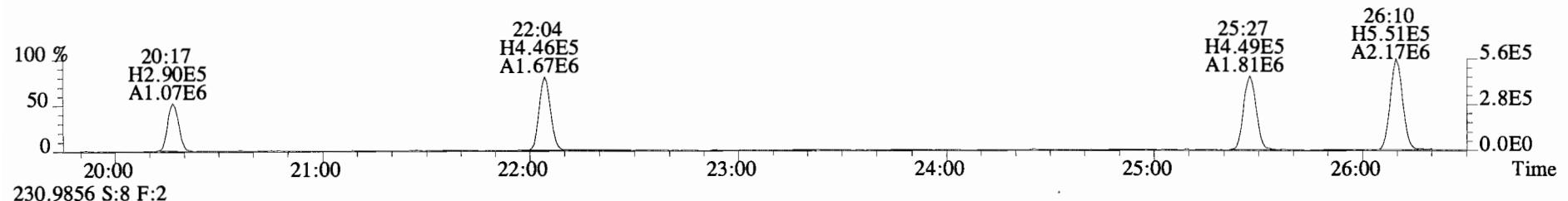
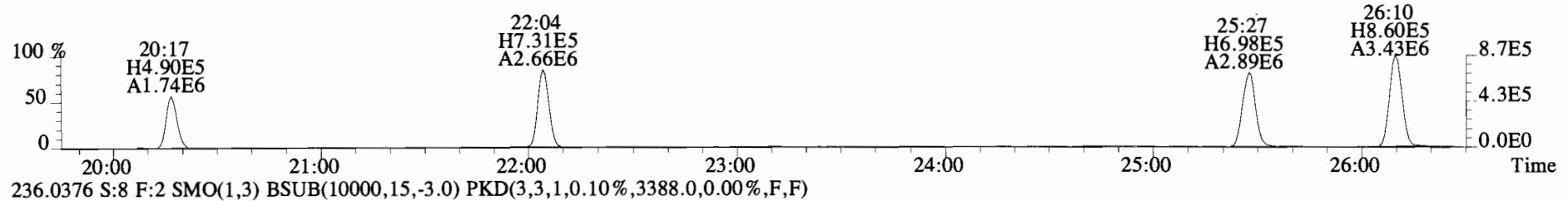
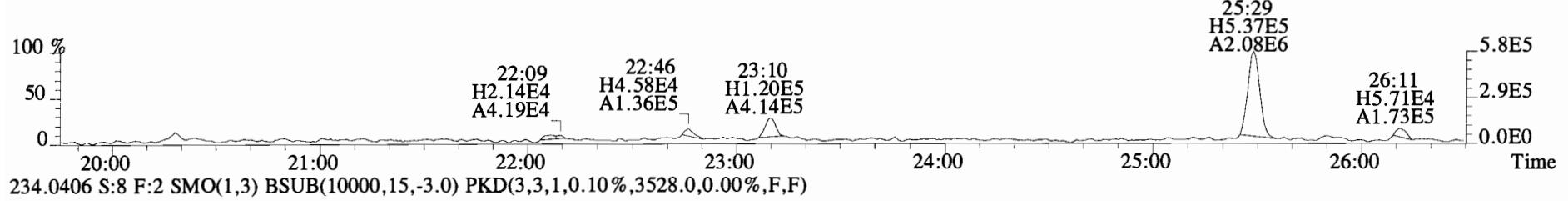
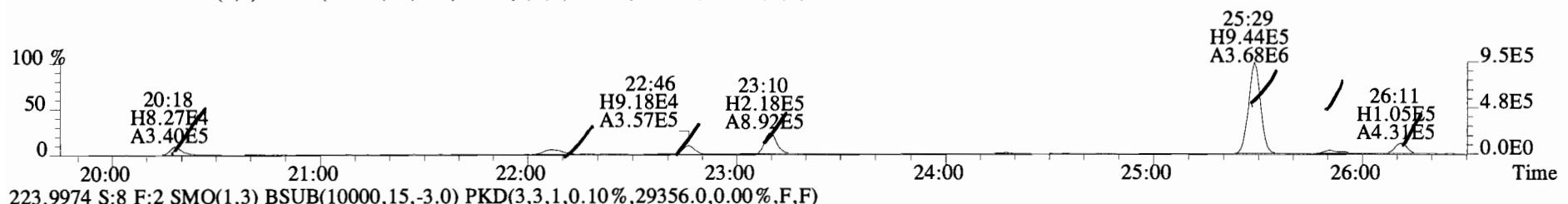
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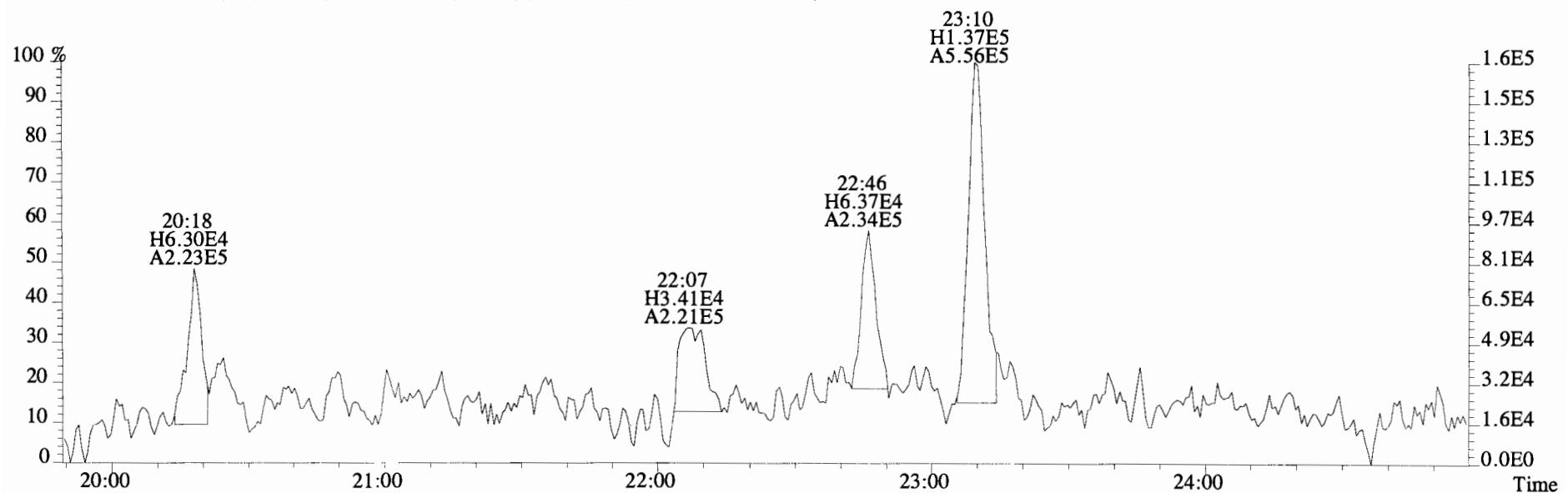
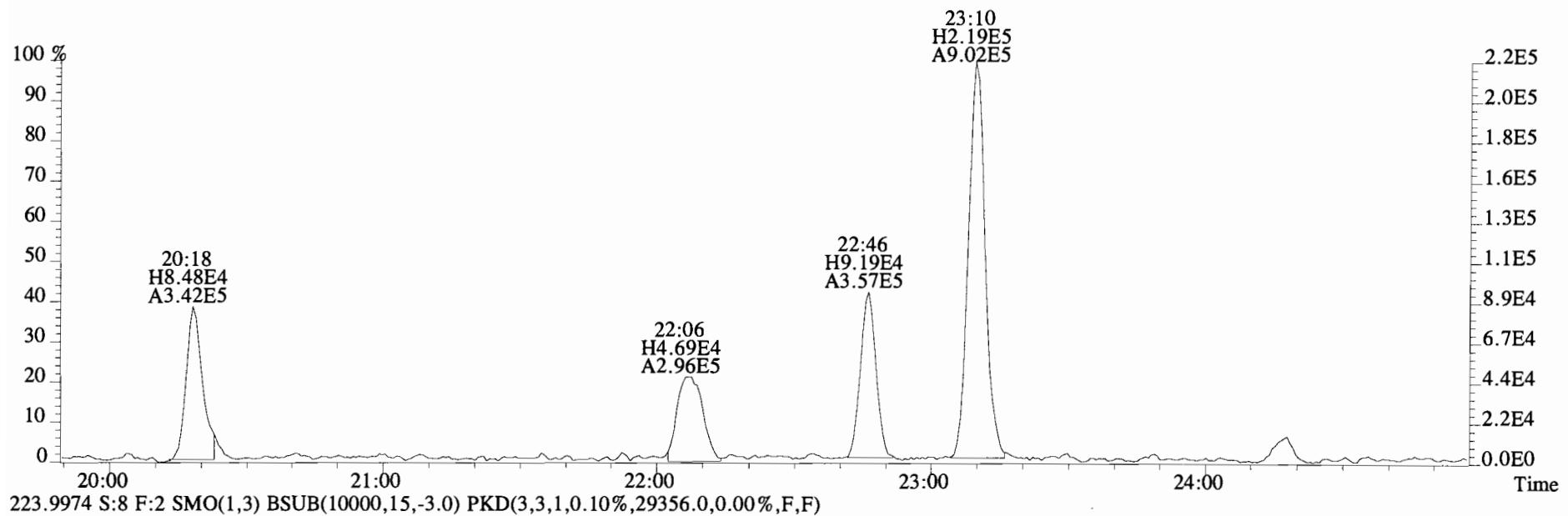
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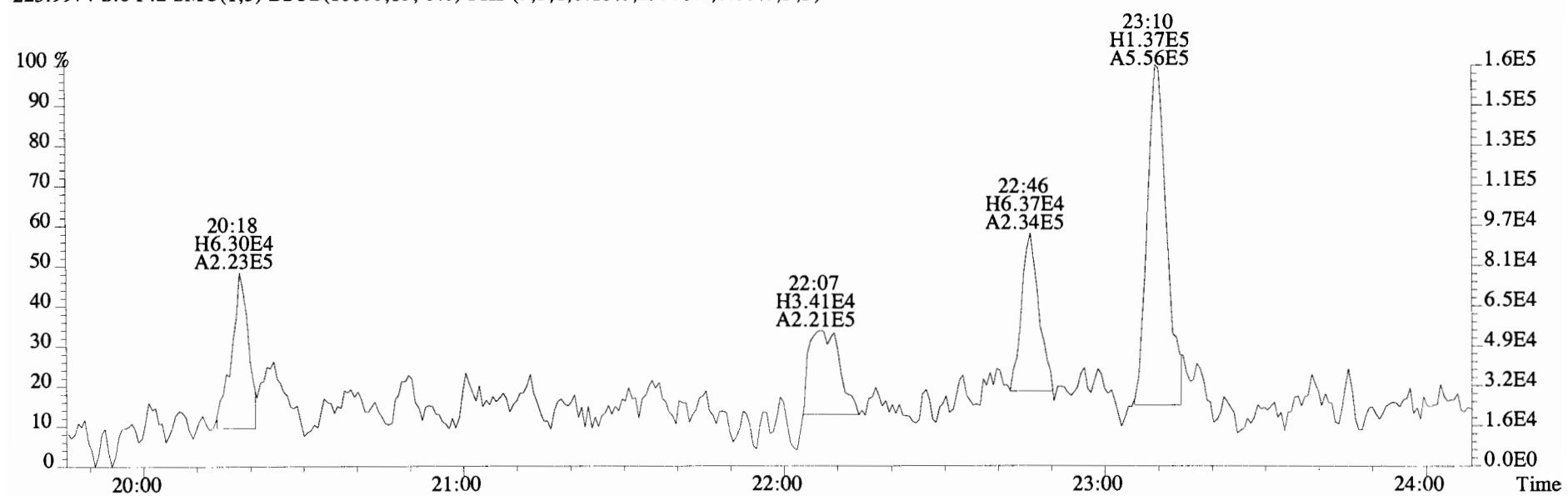
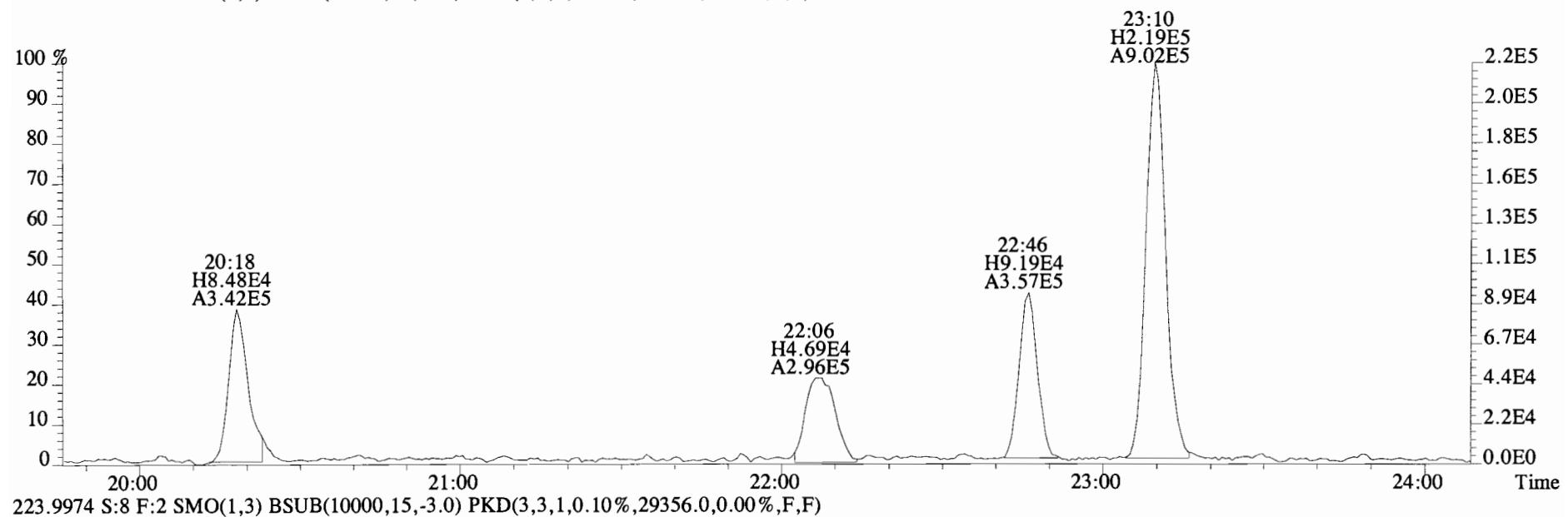
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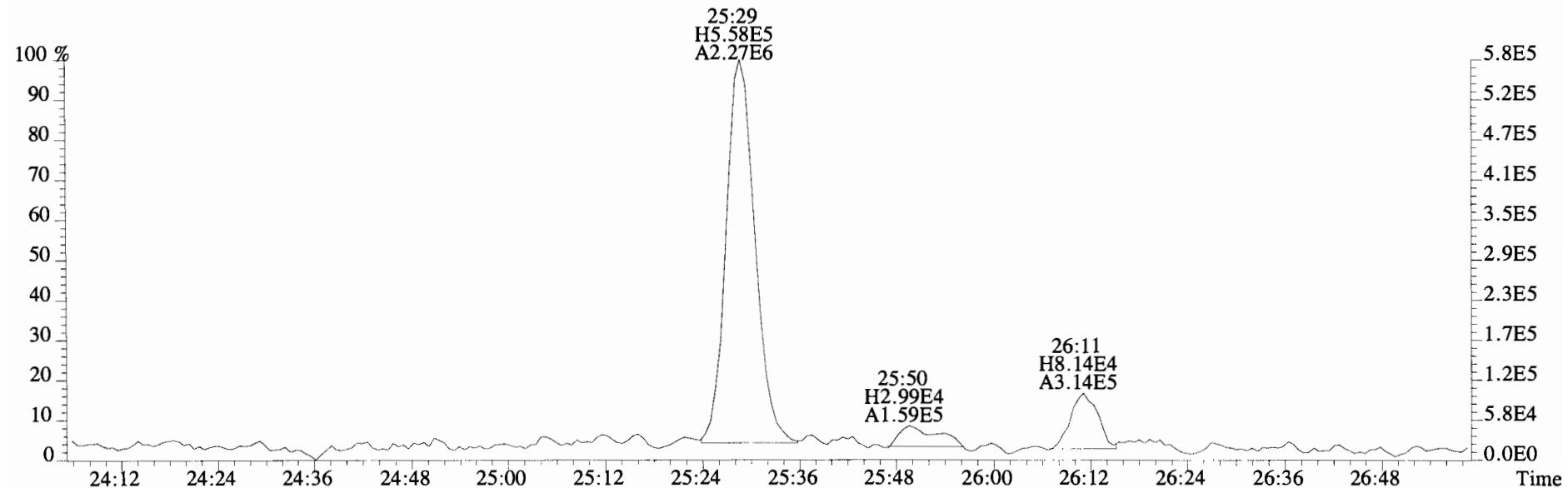
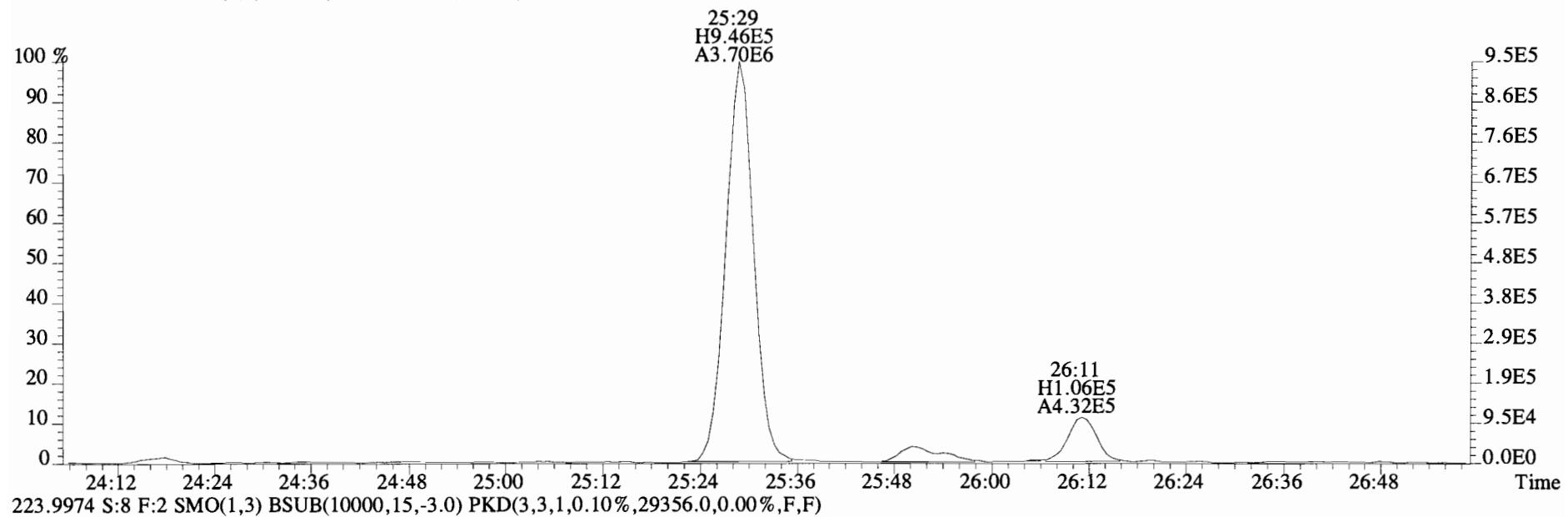
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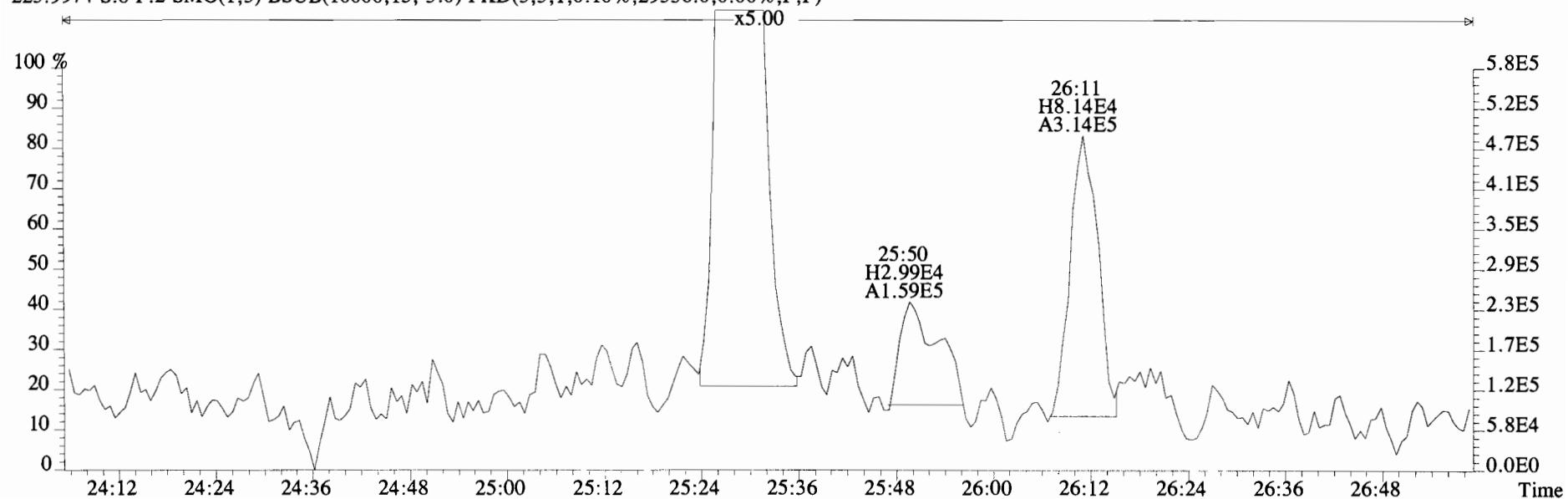
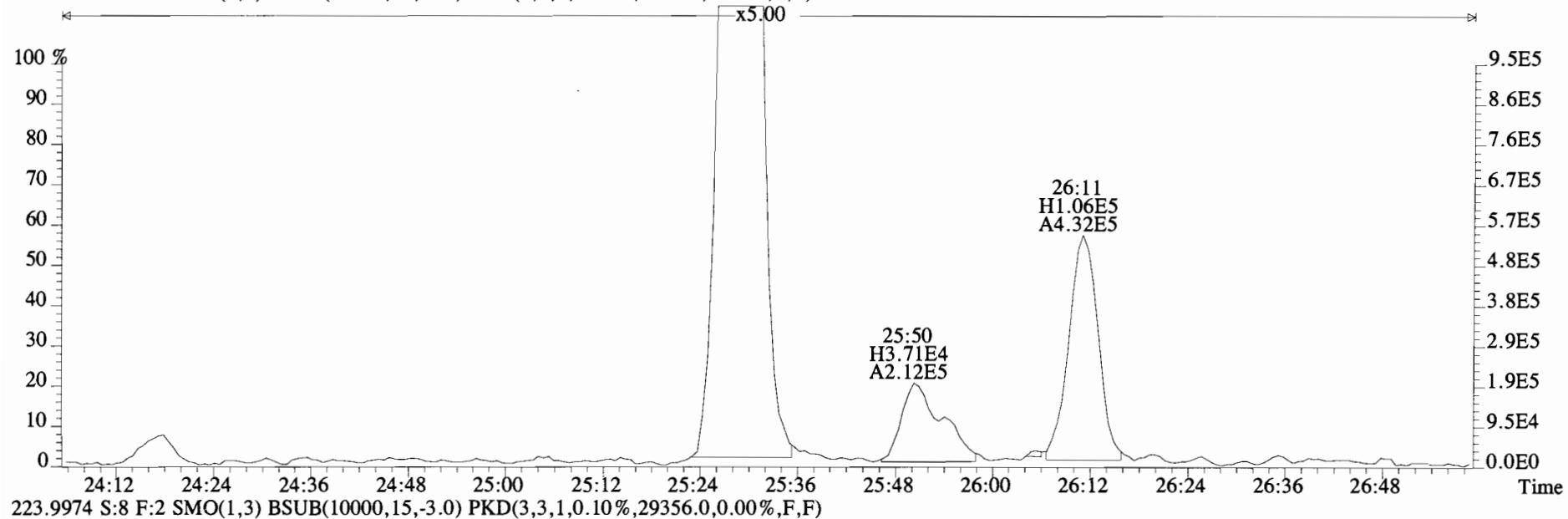
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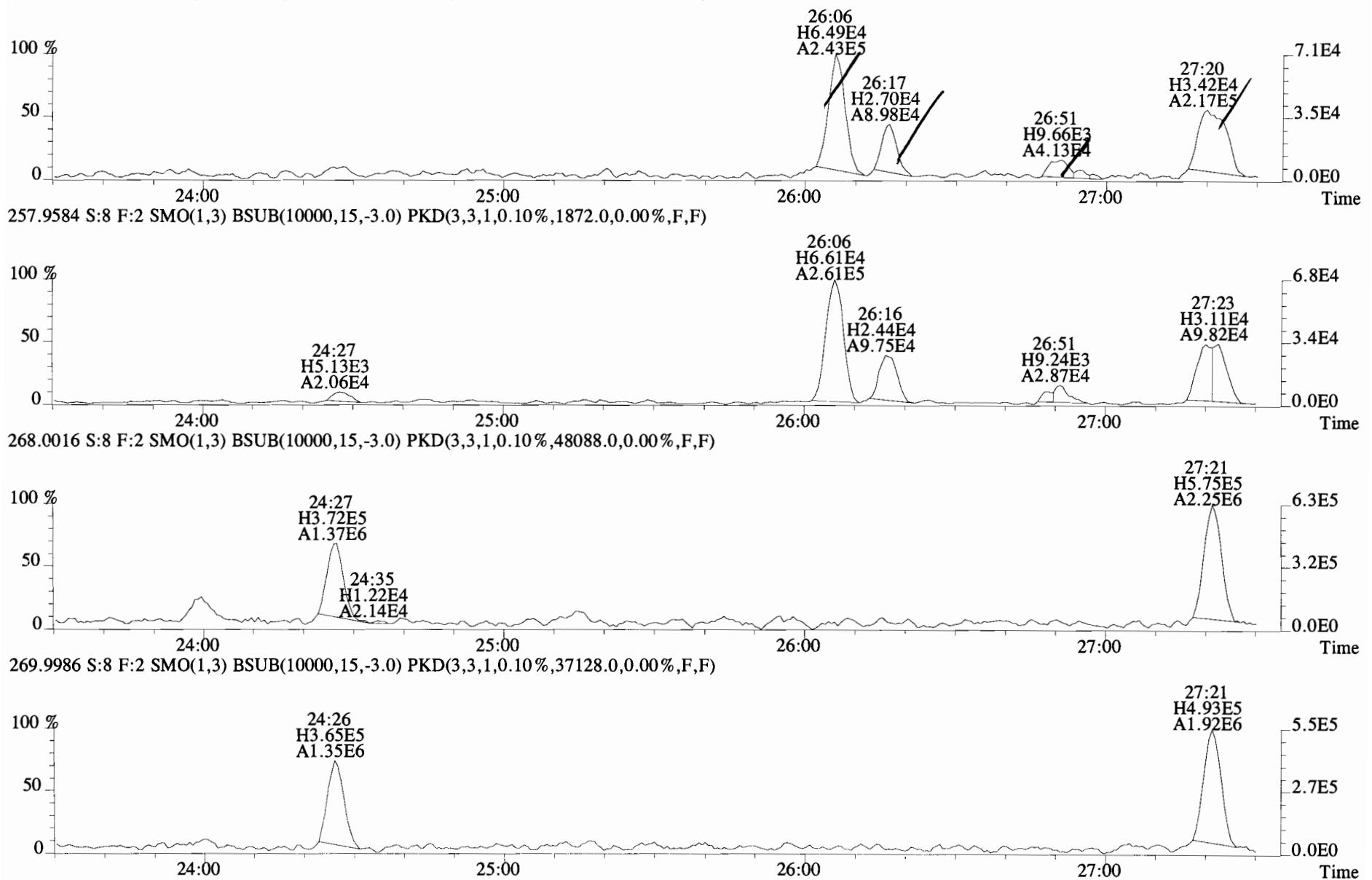
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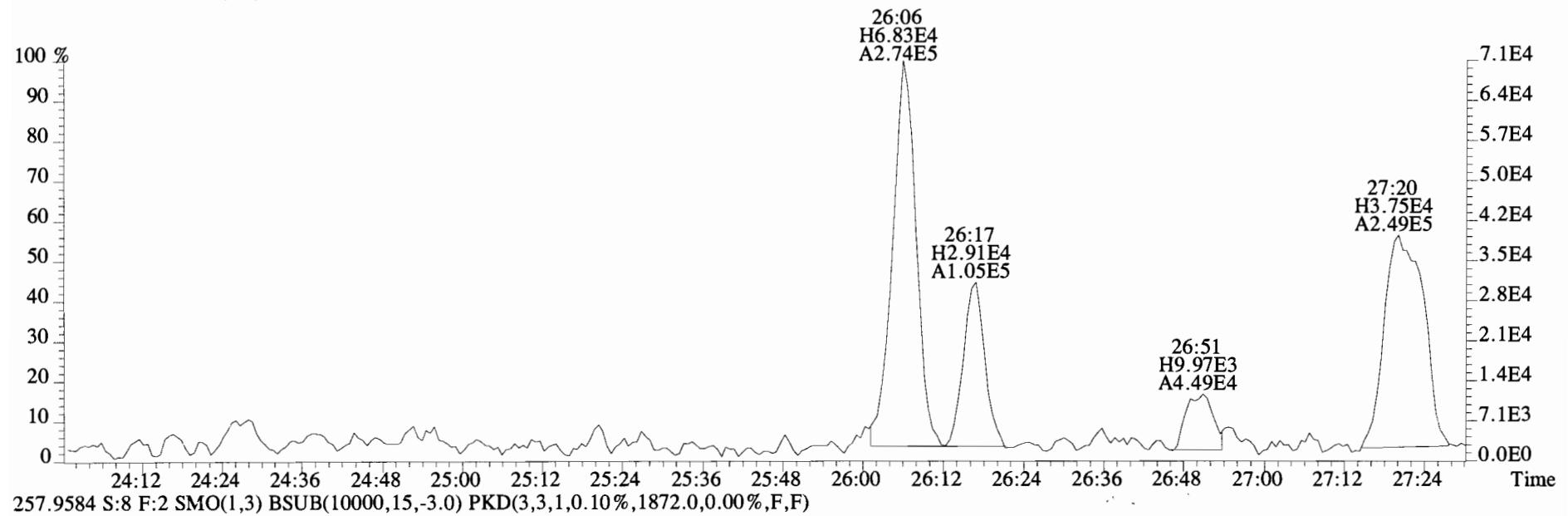
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
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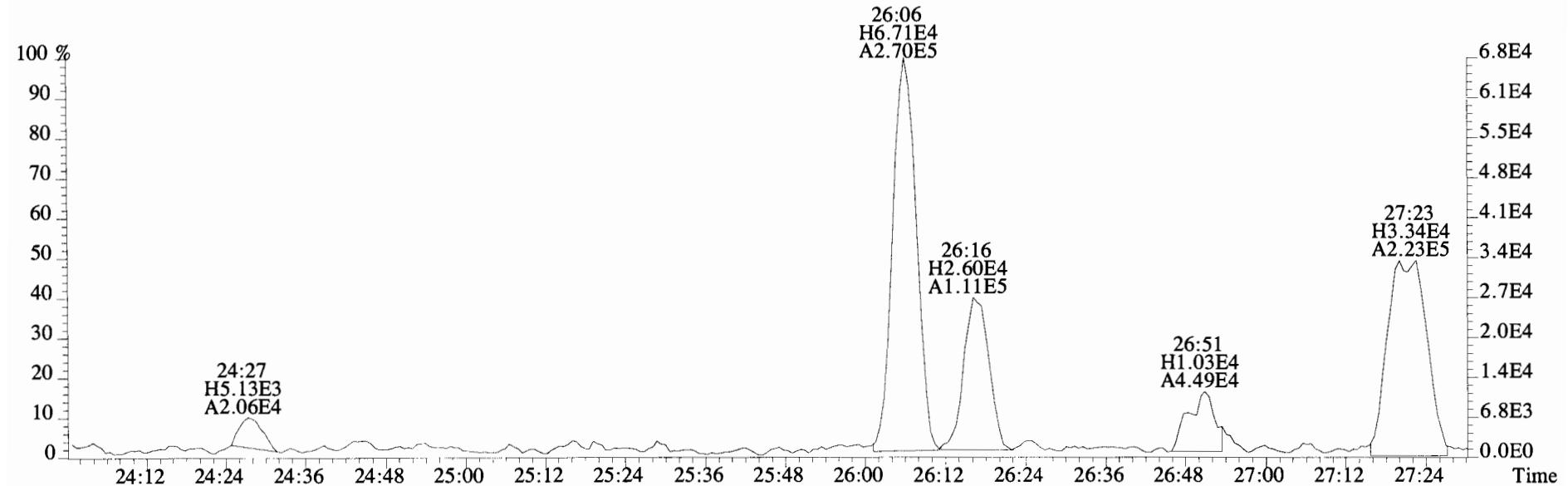
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 255.9613 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3760.0,0.00%,F,F)



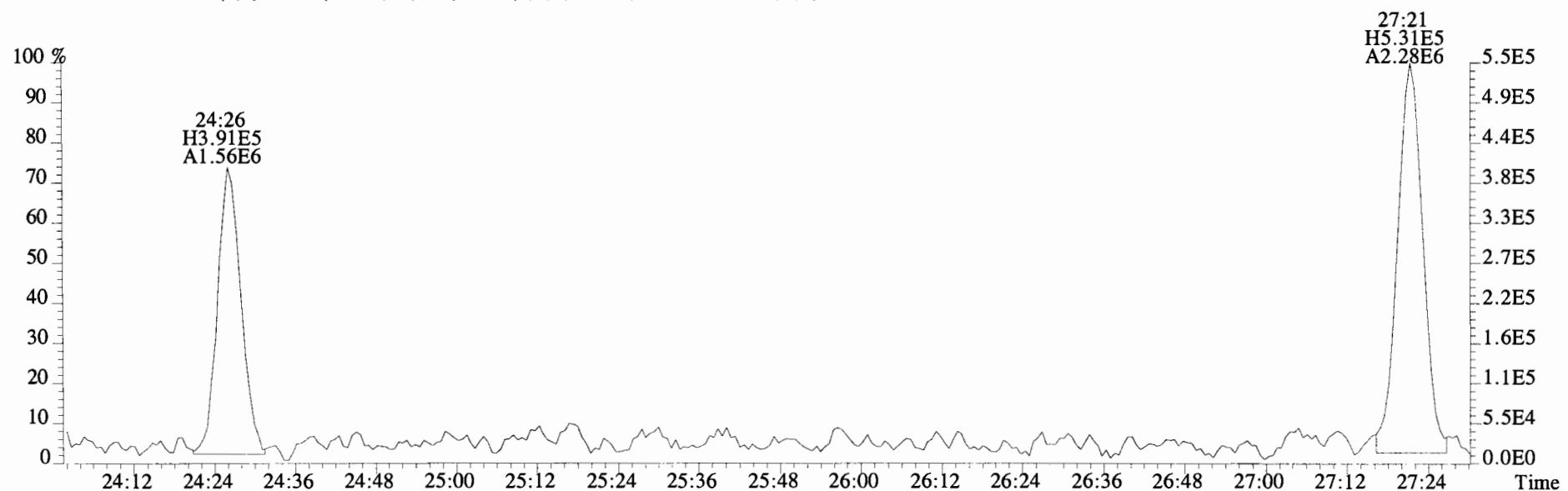
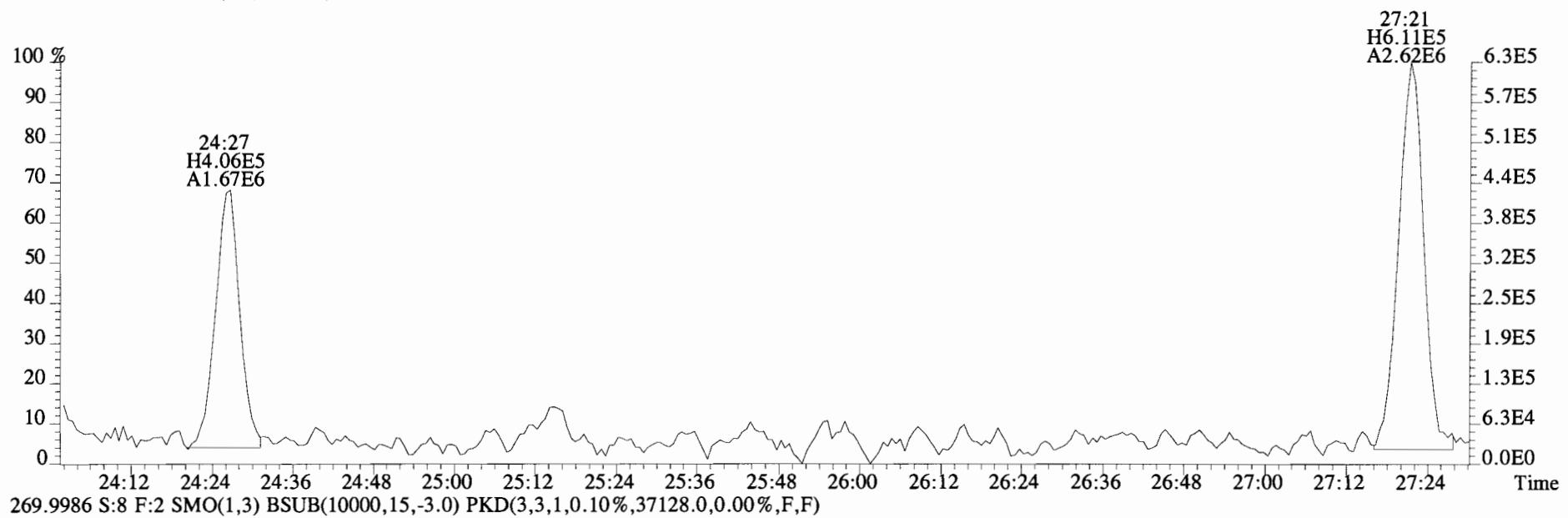
File:140919E2 #1-757 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 255.9613 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3760.0,0.00%,F,F)



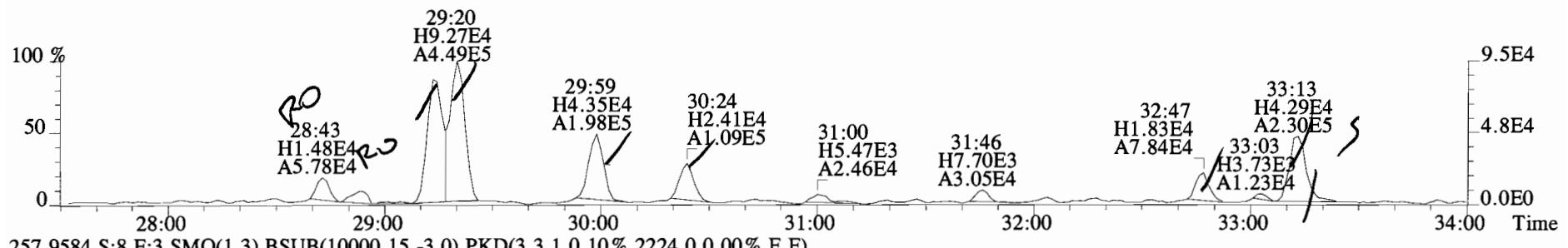
257.9584 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1872.0,0.00%,F,F)



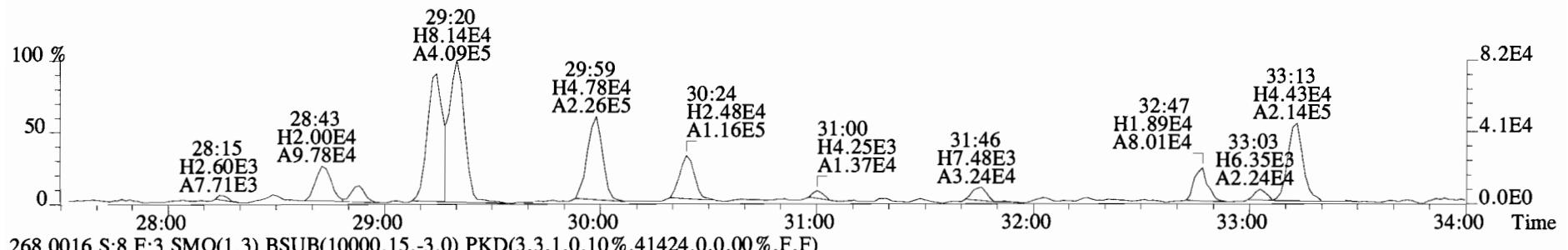
File:140919E2 #1-757 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
268.0016 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,48088.0,0.00%,F,F)



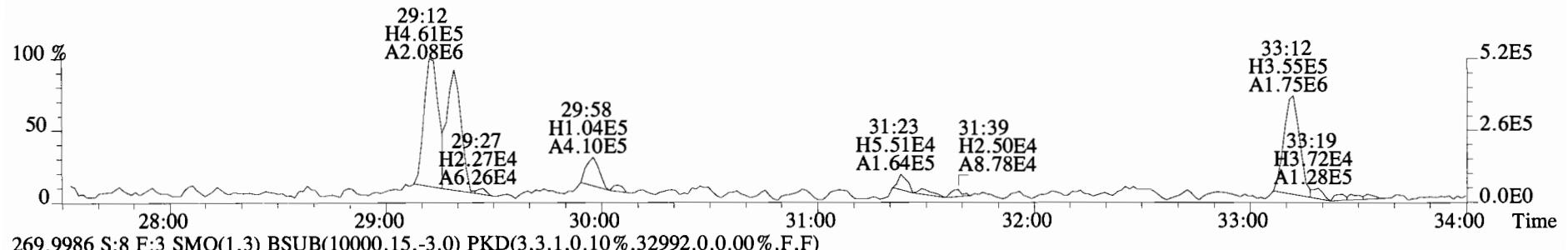
File:140919E2 #1-770 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 255.9613 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2448.0,0.00%,F,F)



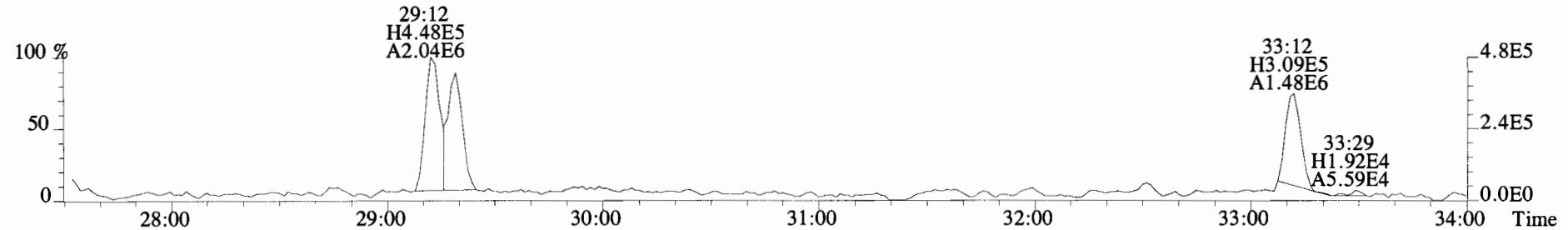
257.9584 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2224.0,0.00%,F,F)



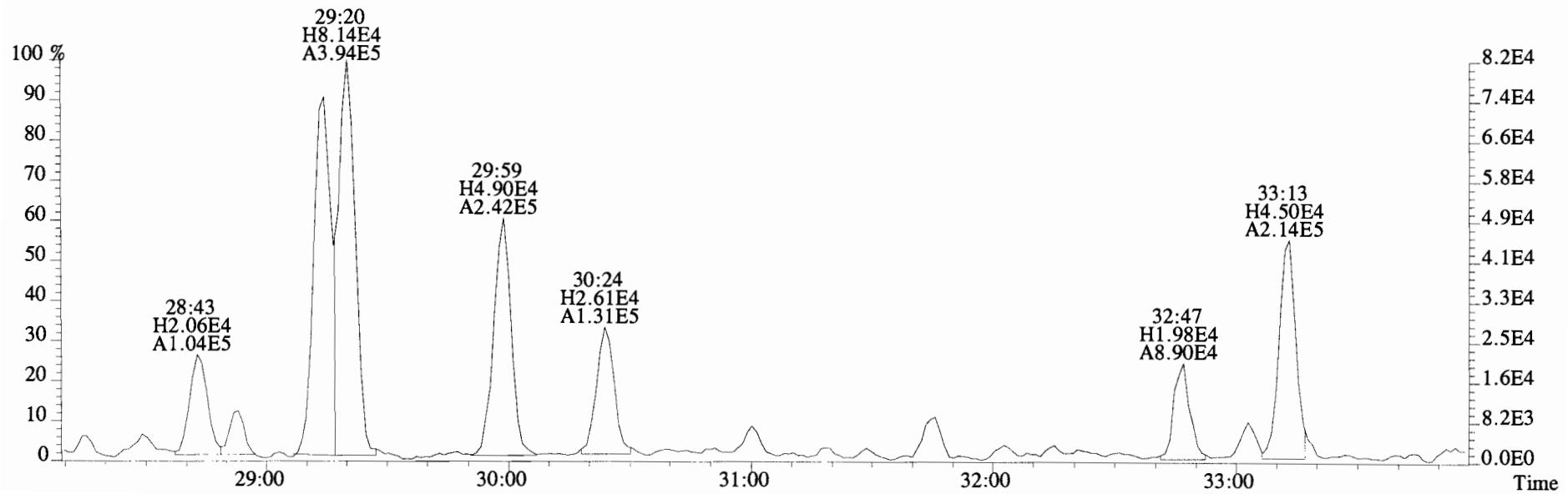
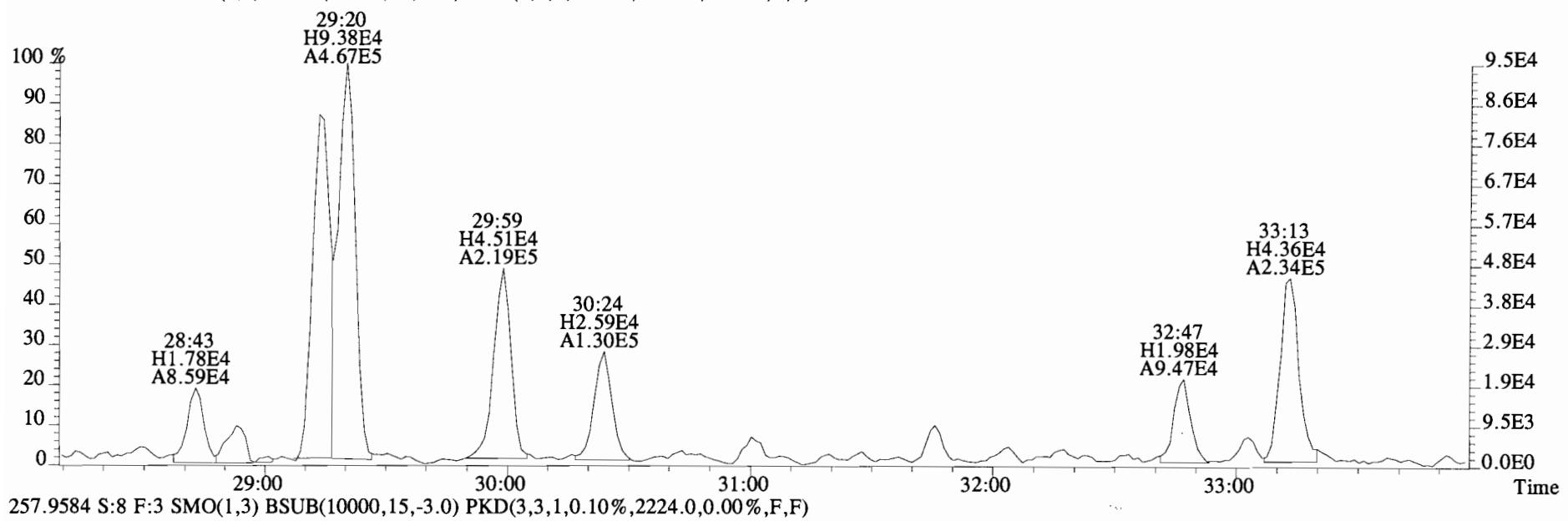
268.0016 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,41424.0,0.00%,F,F)



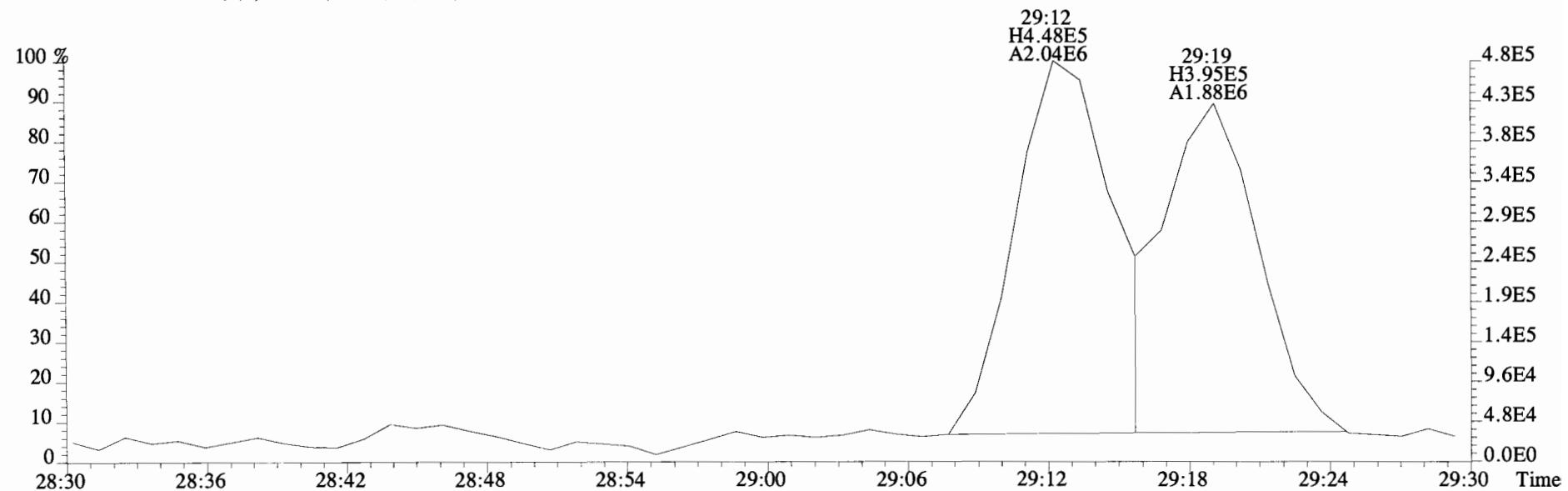
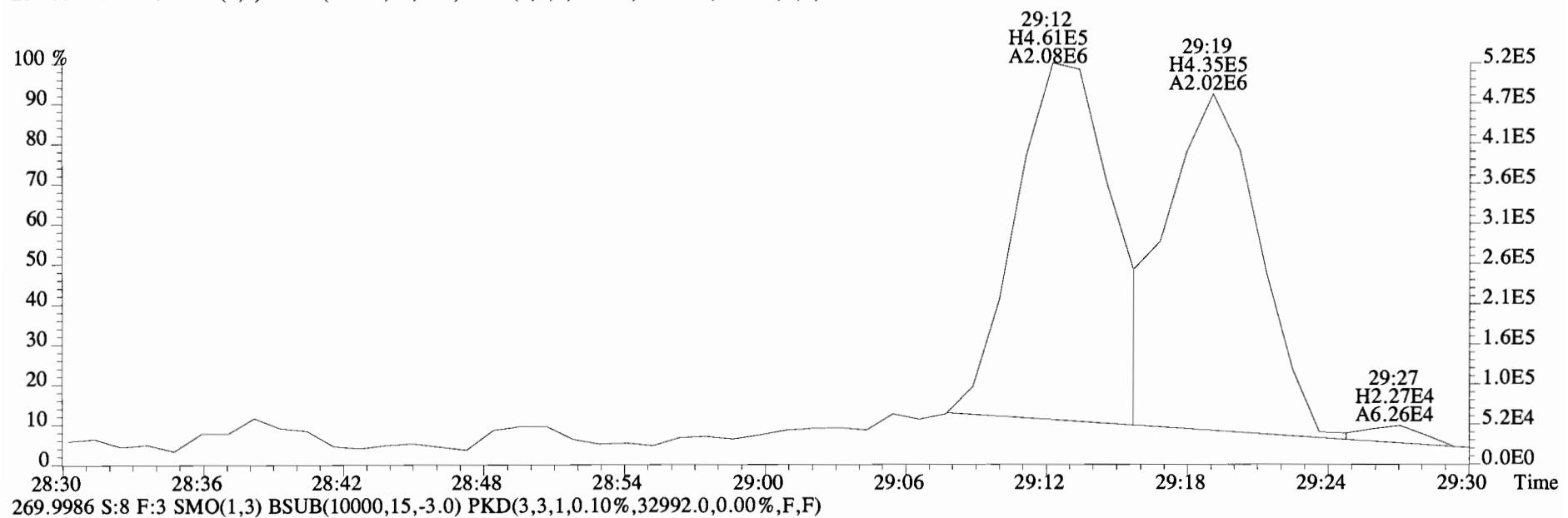
269.9986 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,32992.0,0.00%,F,F)



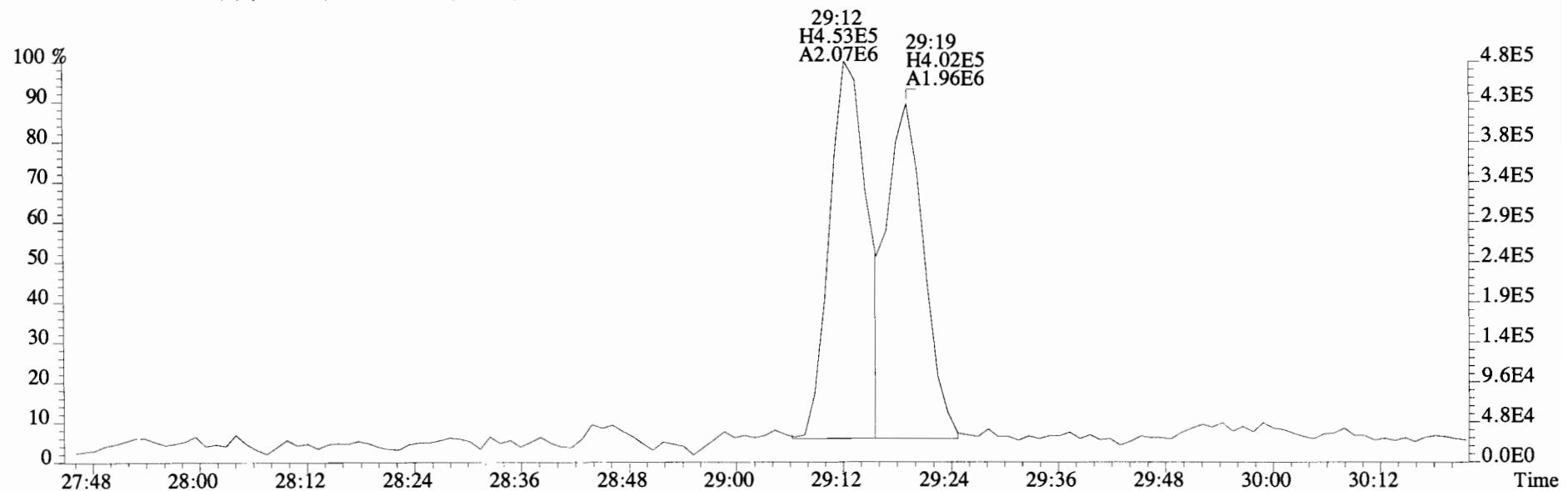
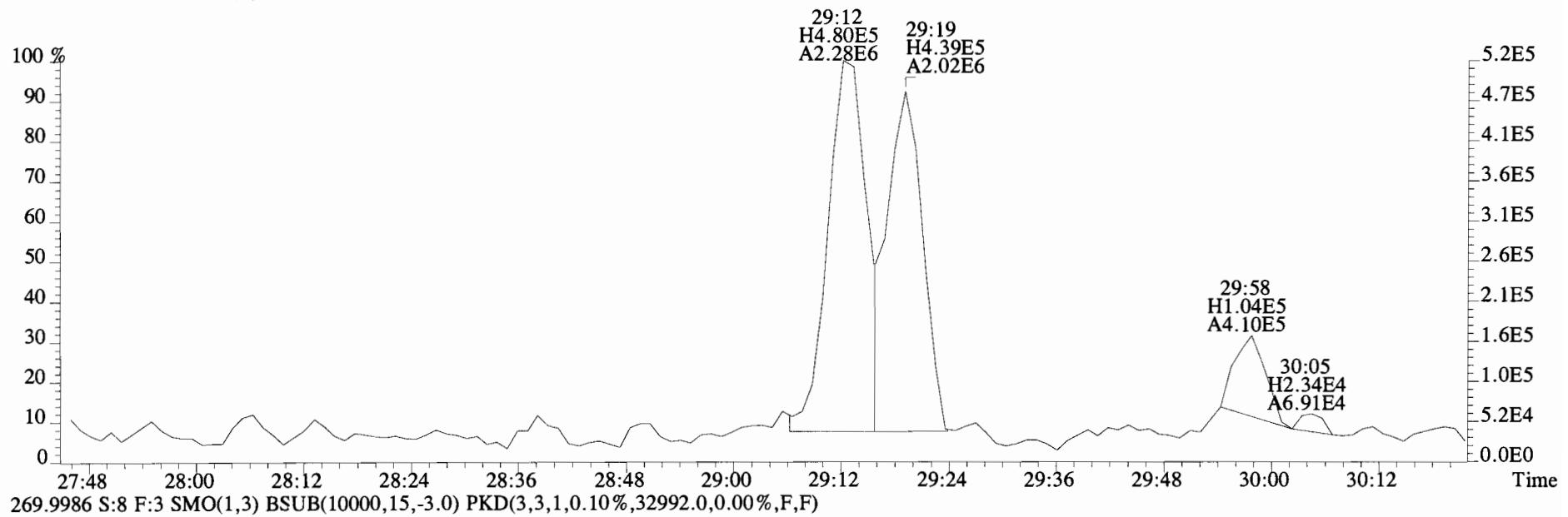
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 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
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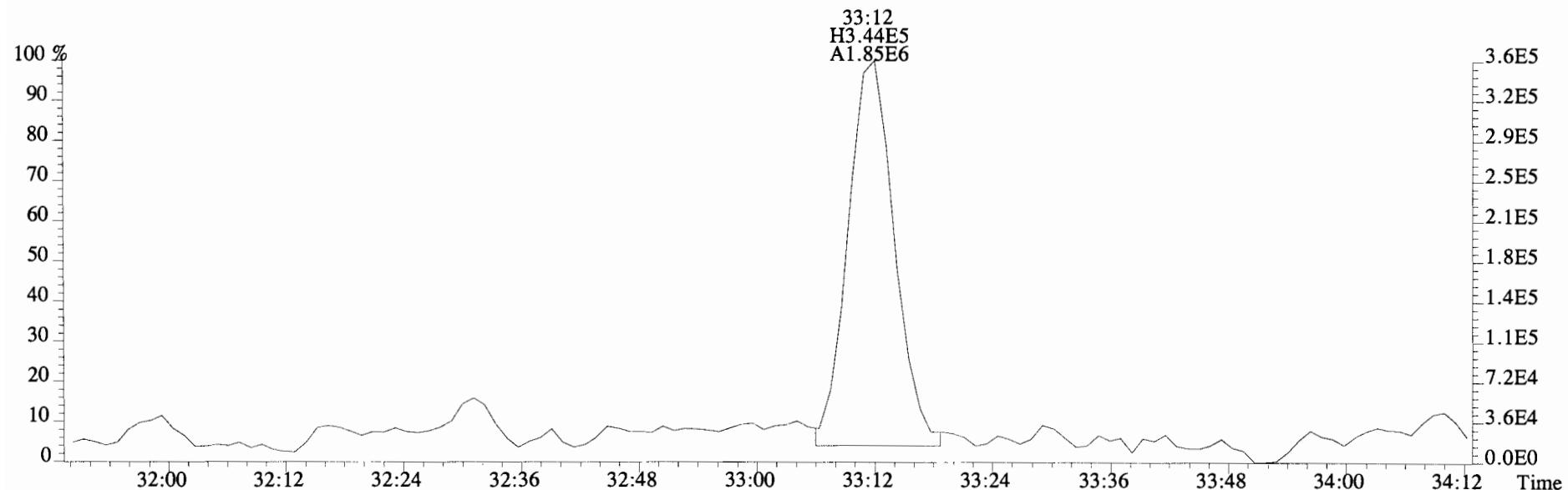
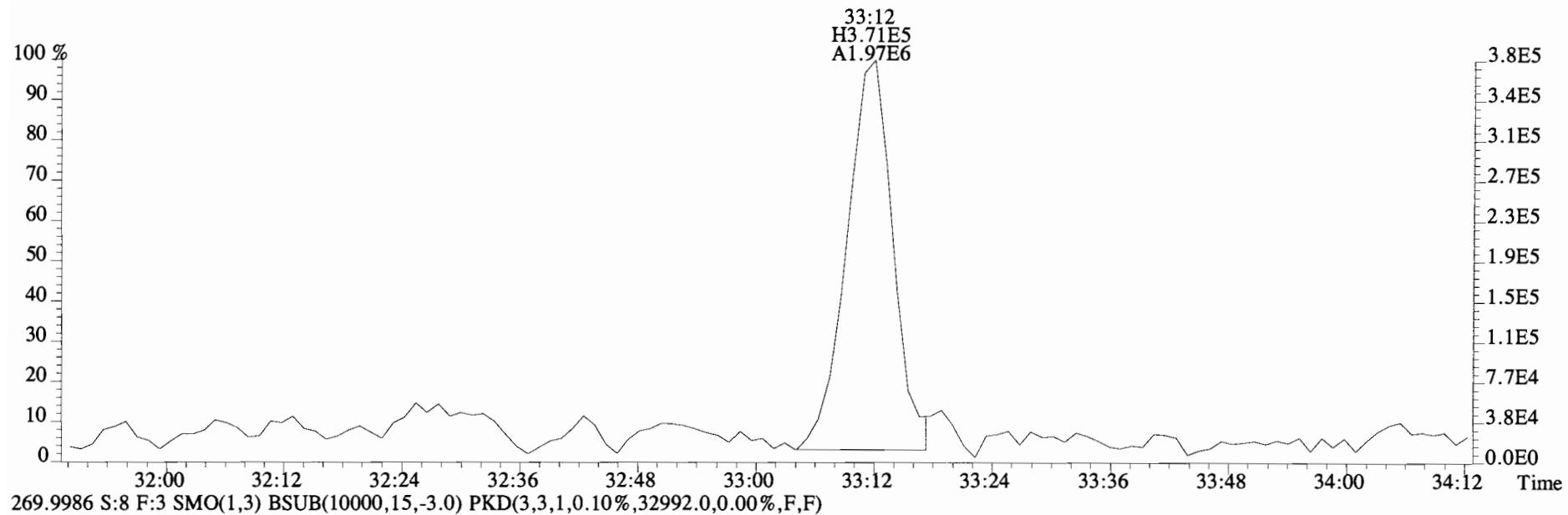
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
268.0016 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,41424.0,0.00%,F,F)



File:140919E2 #1-770 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 268.0016 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,41424.0,0.00%,F,F)

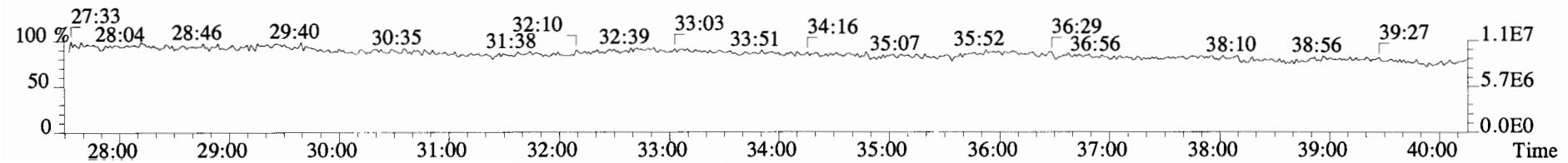
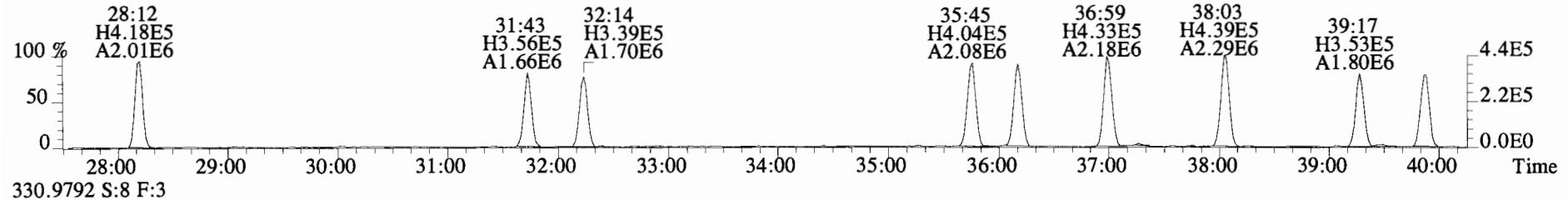
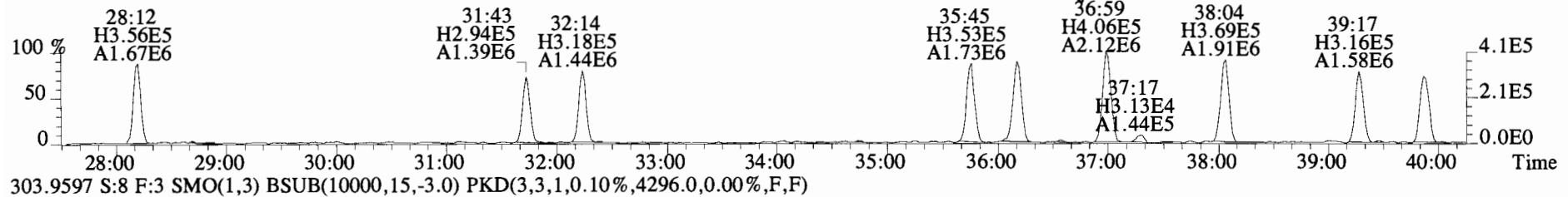
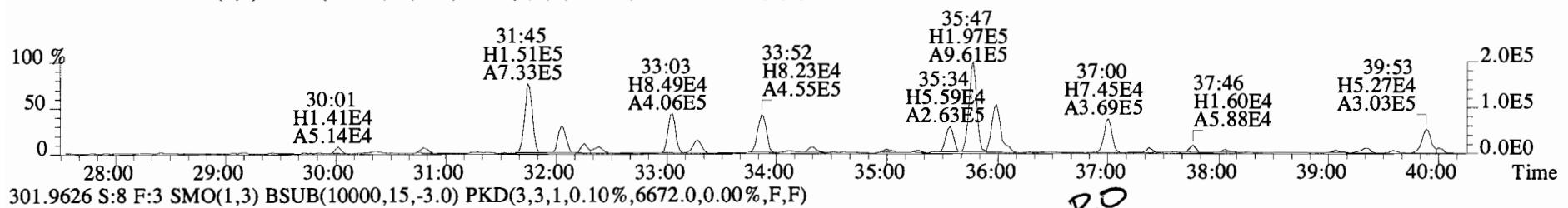
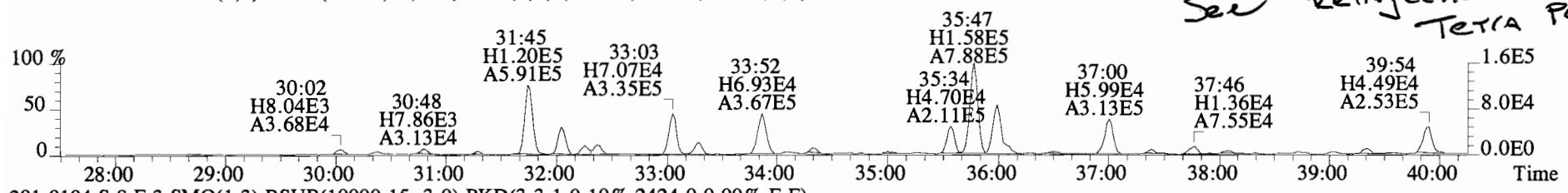


File:140919E2 #1-770 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
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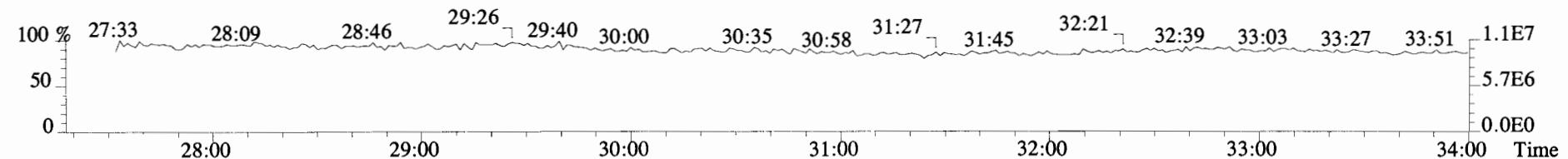
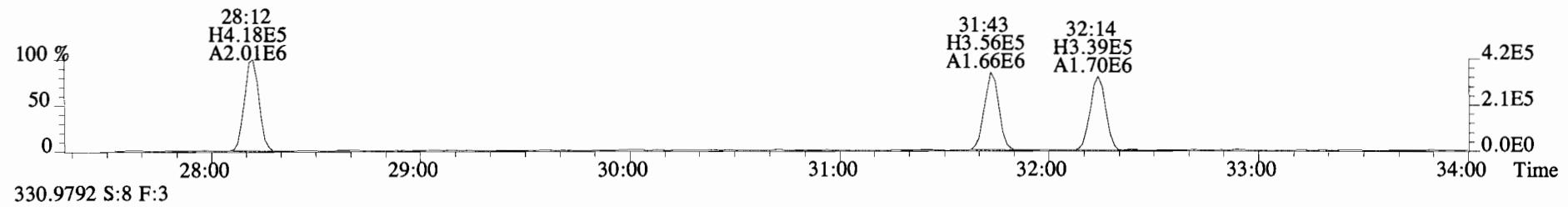
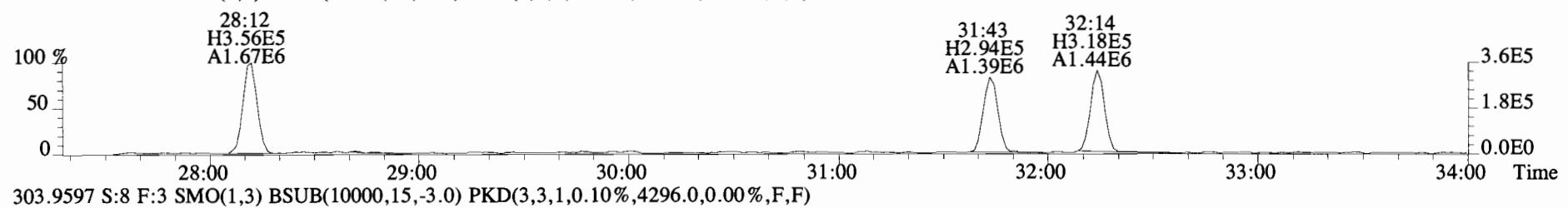
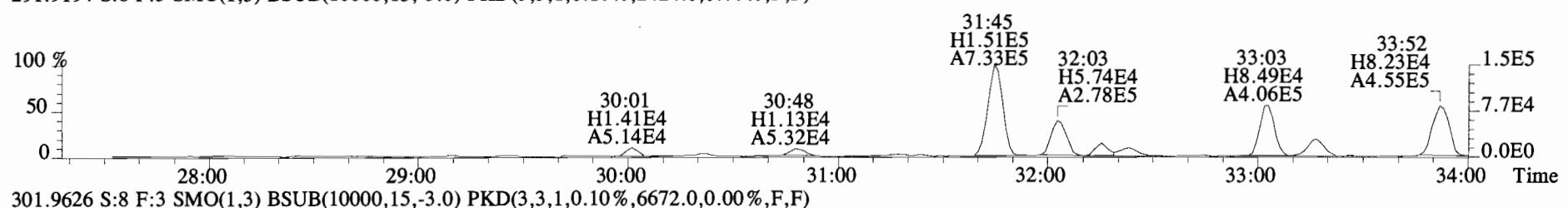
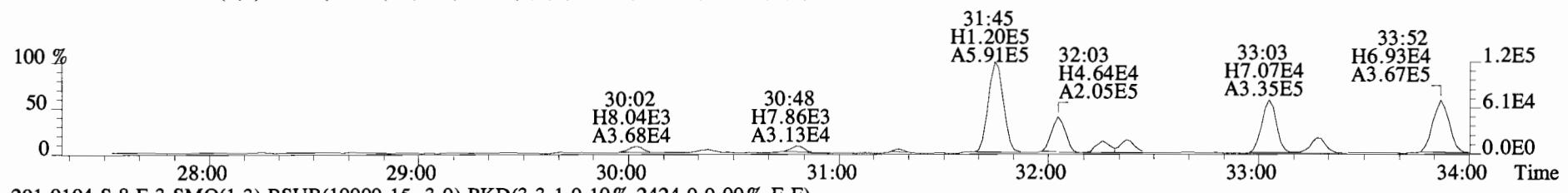


File:140919E2 #1-770 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 289.9224 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2320.0,0.00%,F,F)

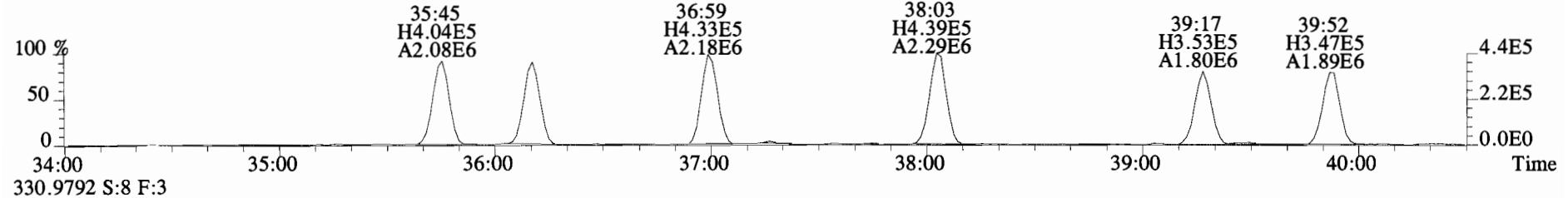
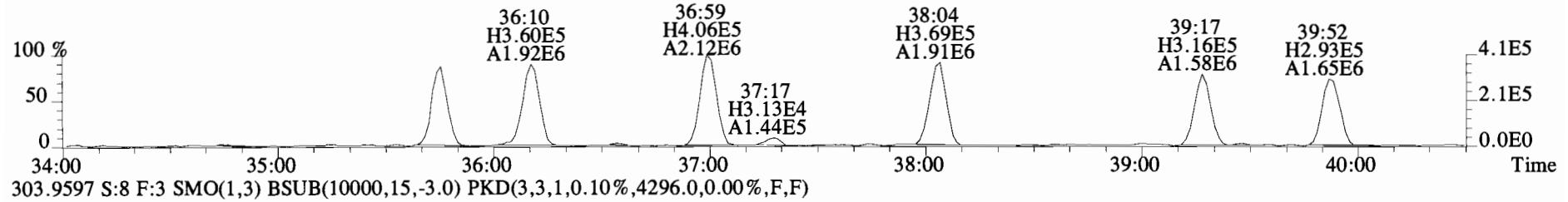
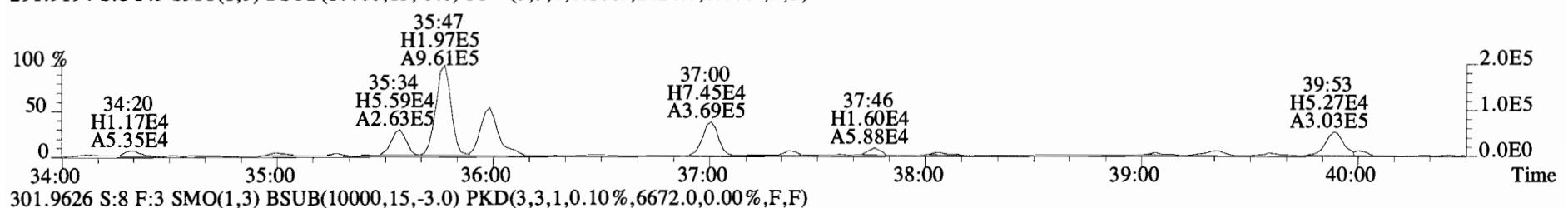
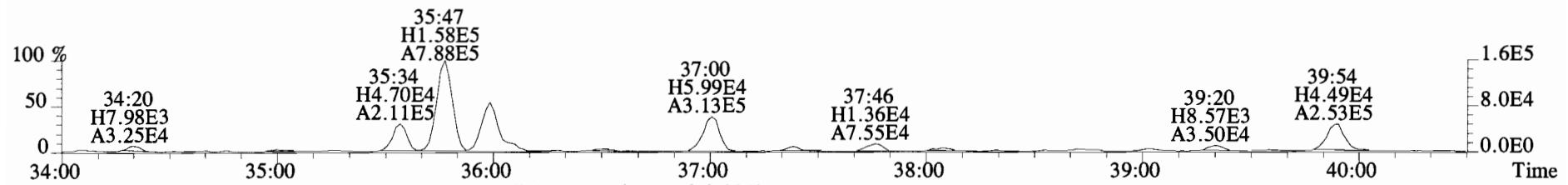
See re-injection for TETRA PCB 15



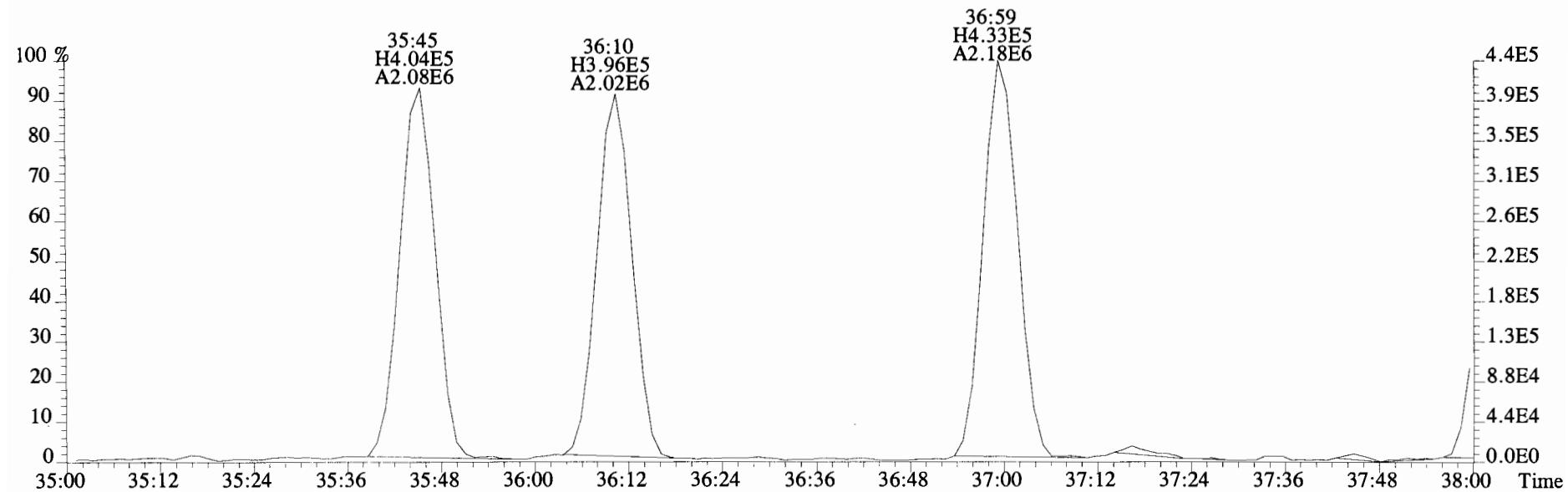
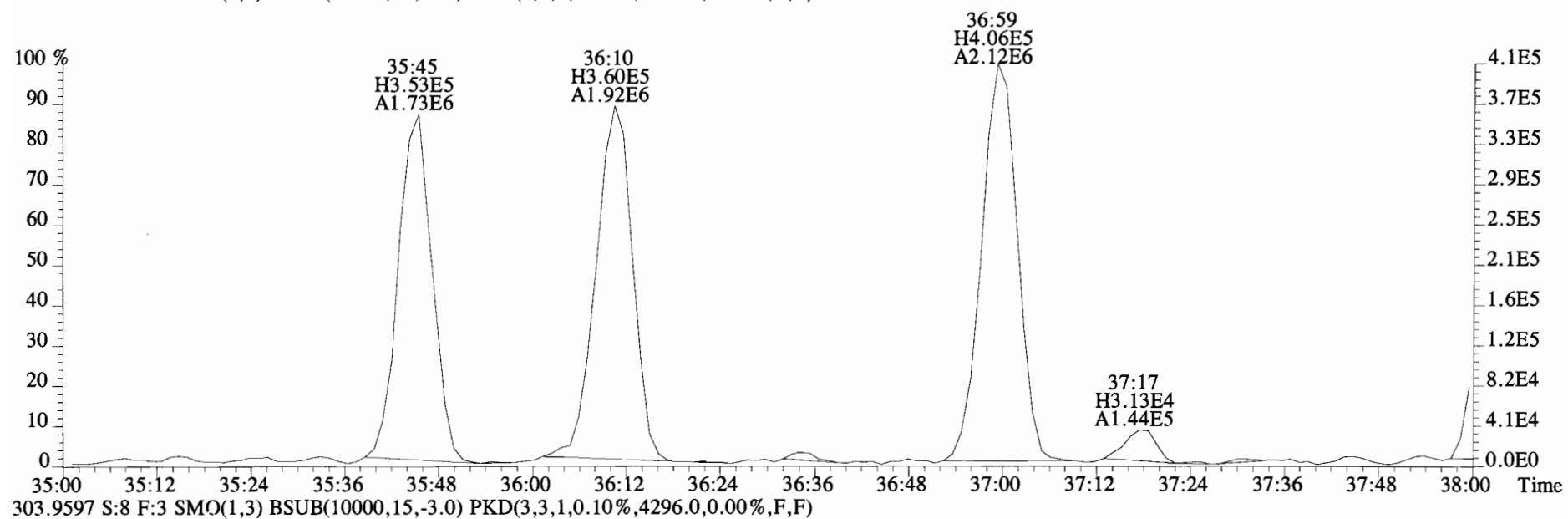
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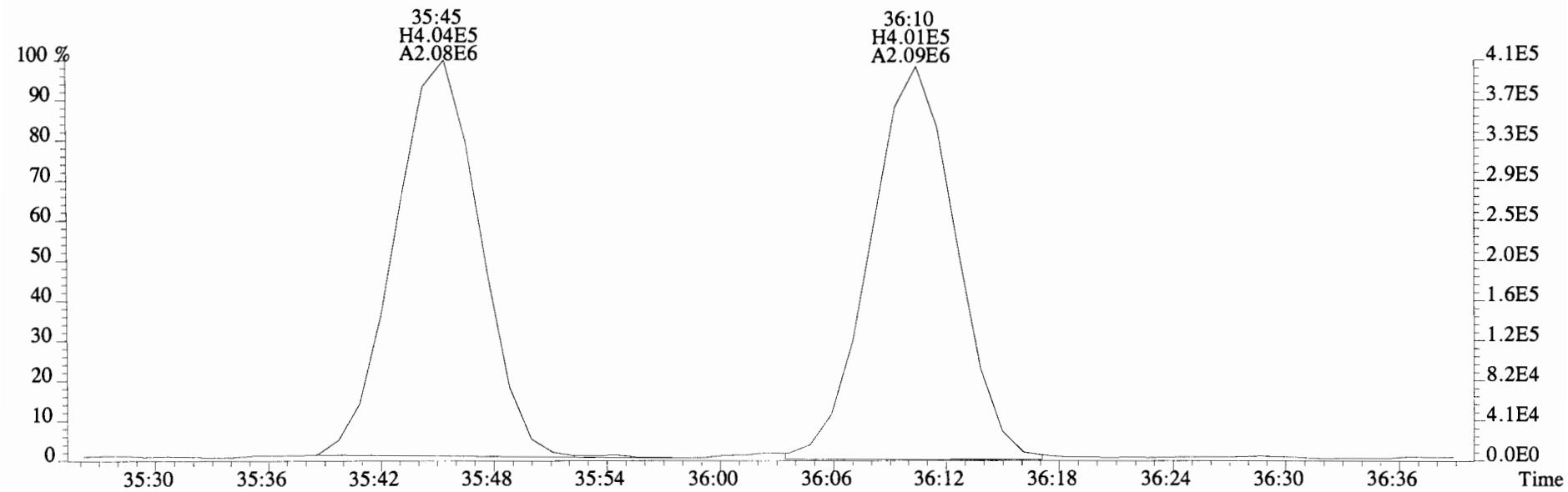
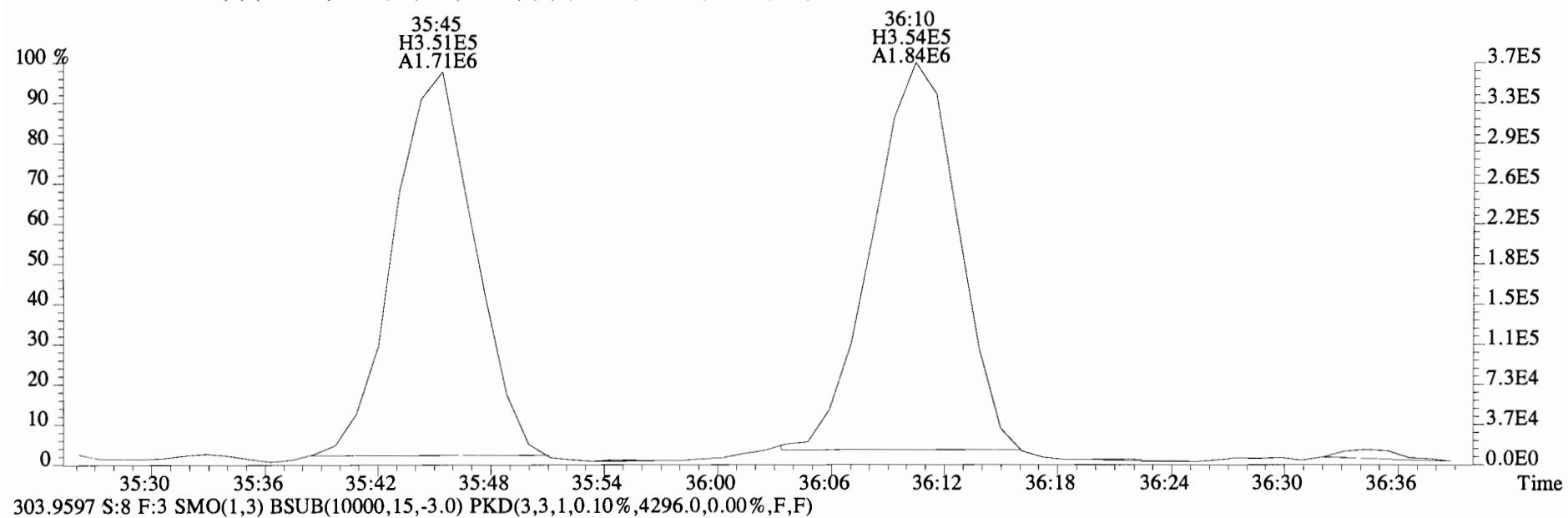
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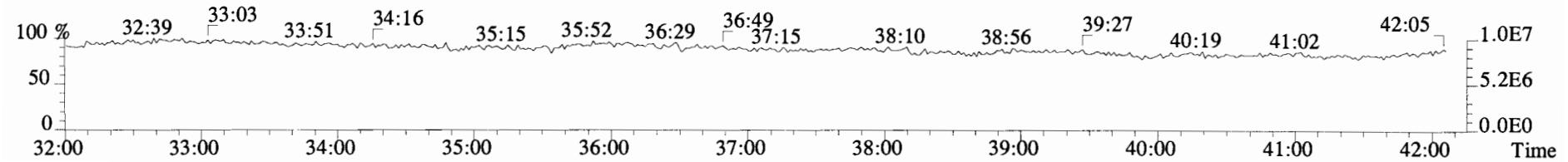
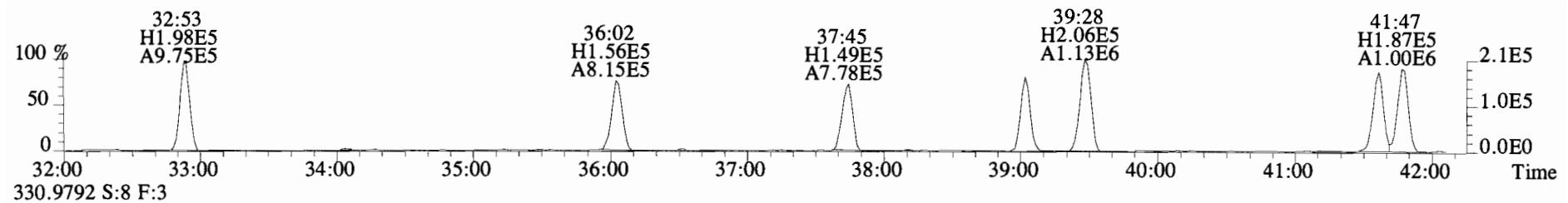
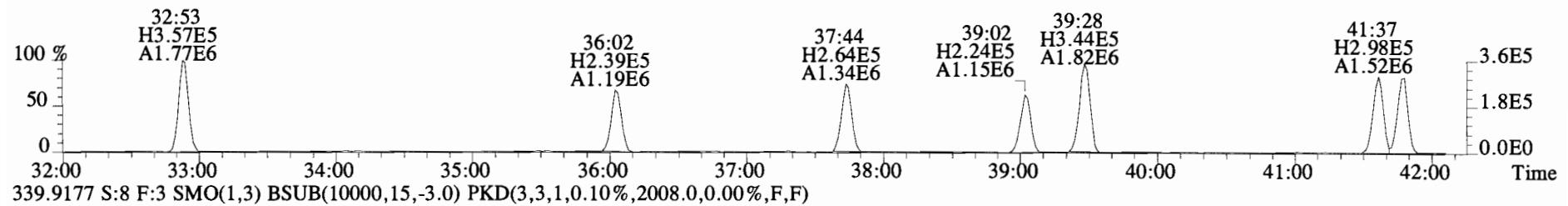
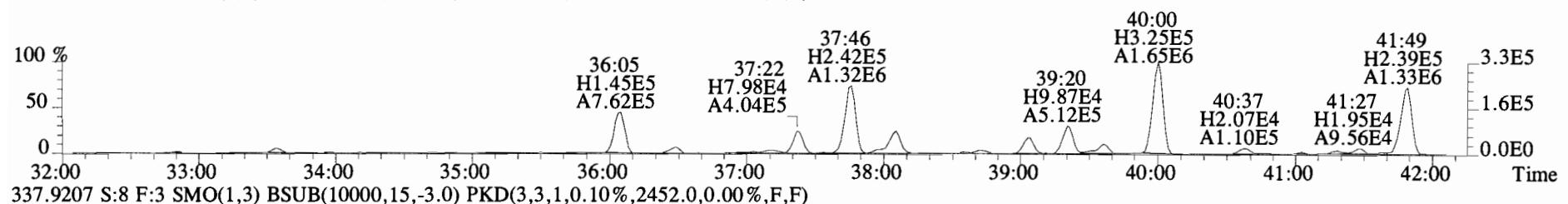
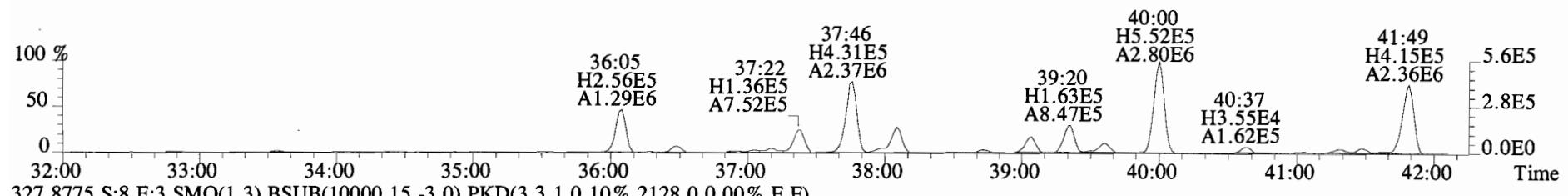
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
301.9626 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6672.0,0.00%,F,F)



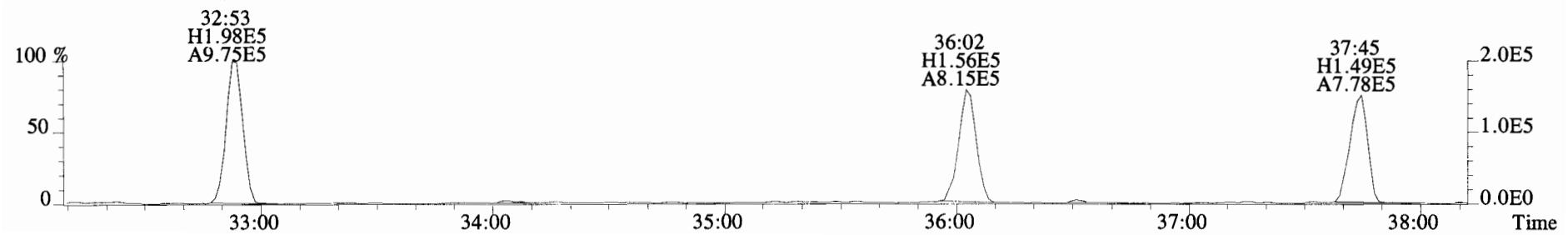
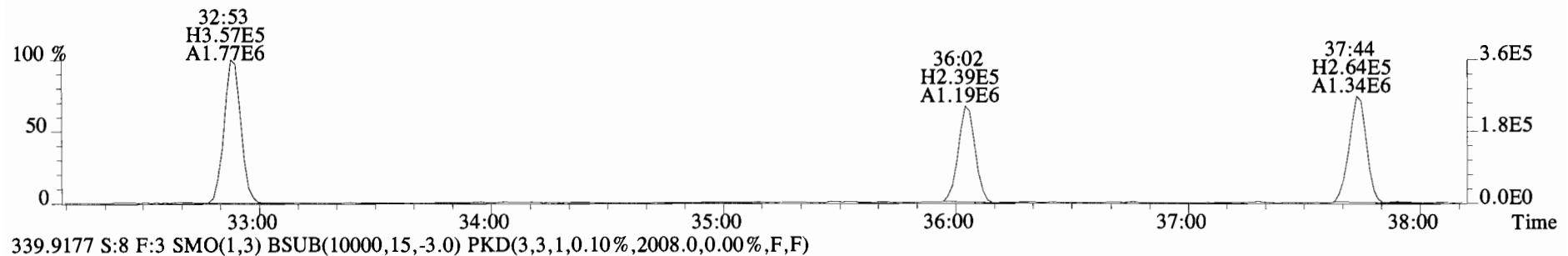
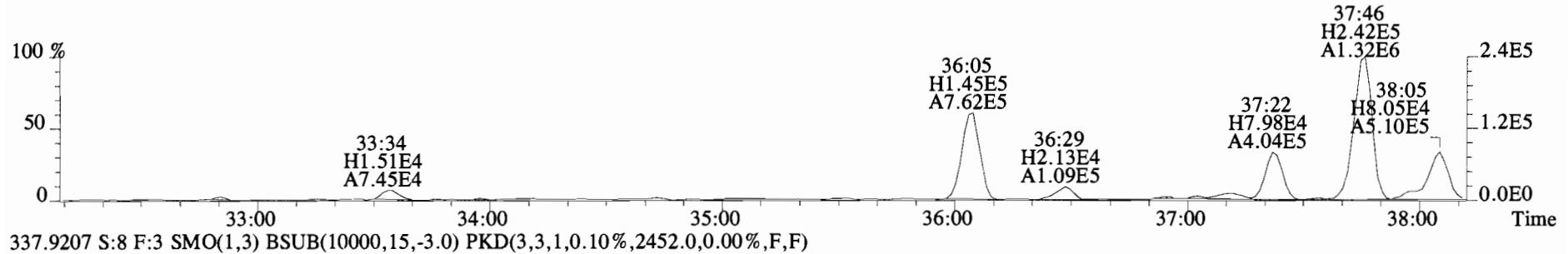
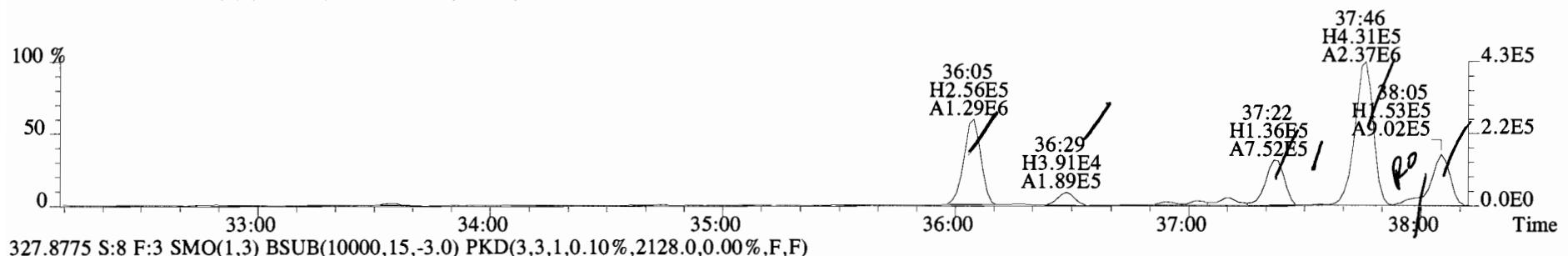
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
301.9626 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6672.0,0.00%,F,F)



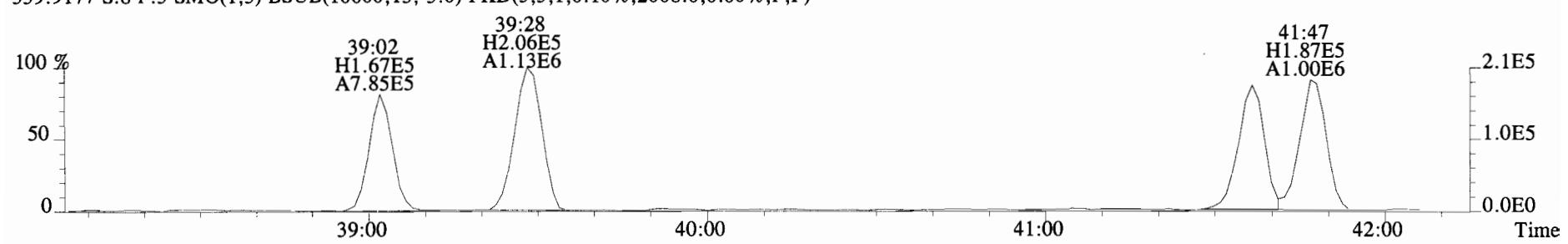
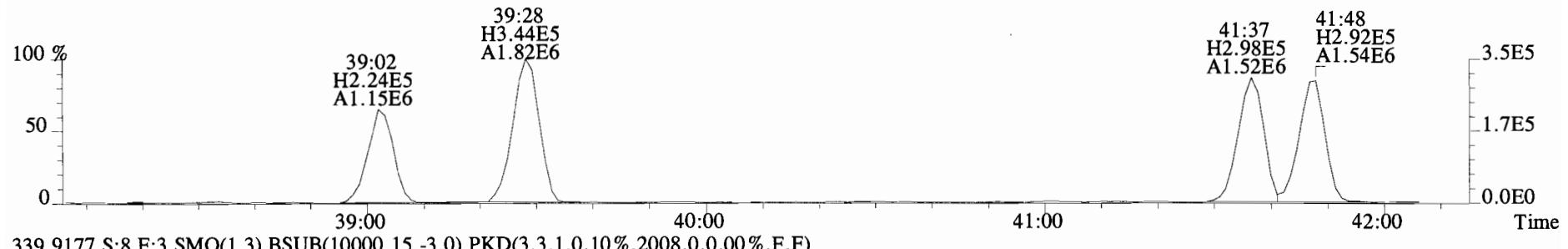
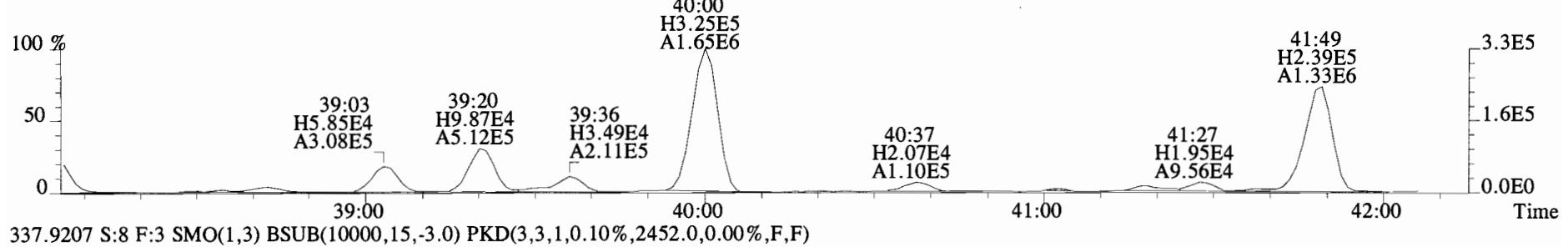
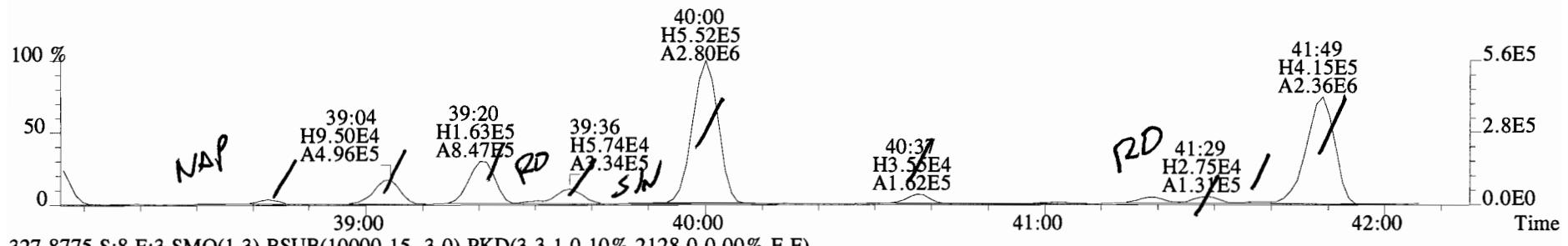
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 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2432.0,0.00%,F,F)



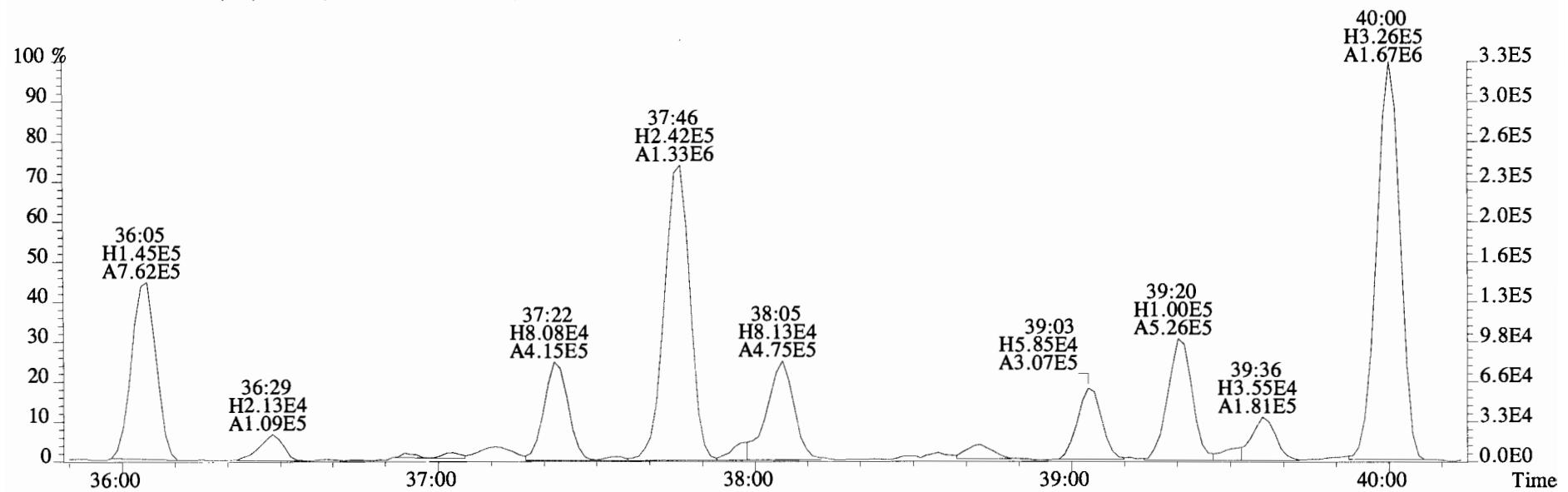
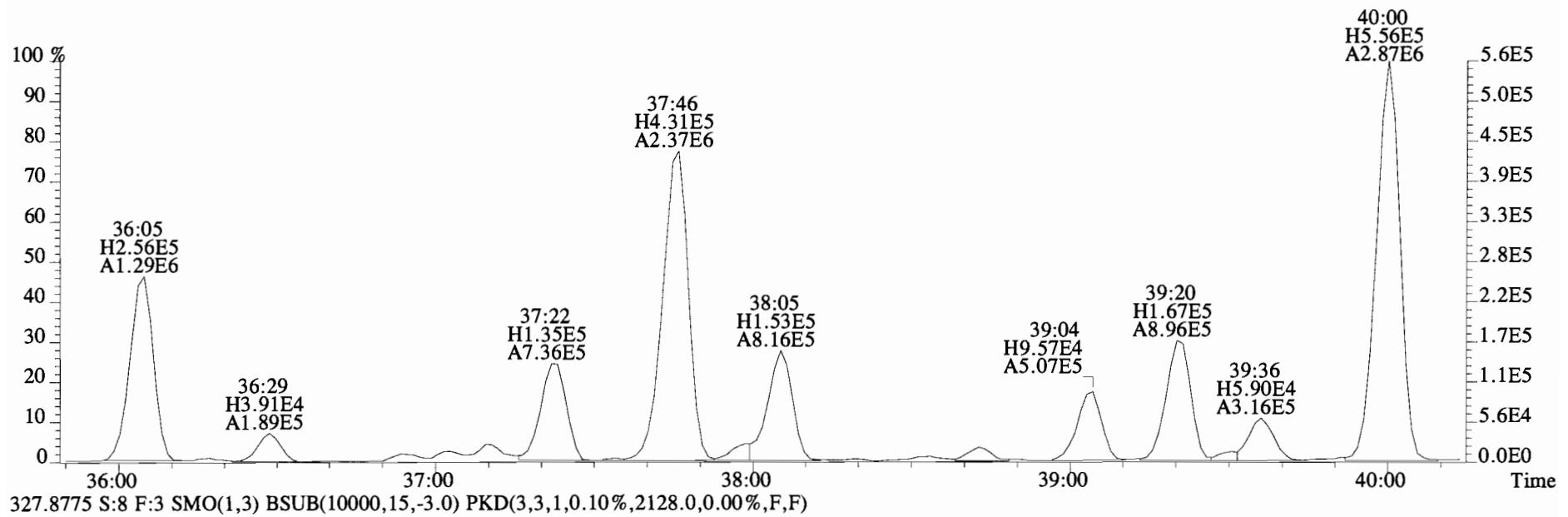
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 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2432.0,0.00%,F,F)



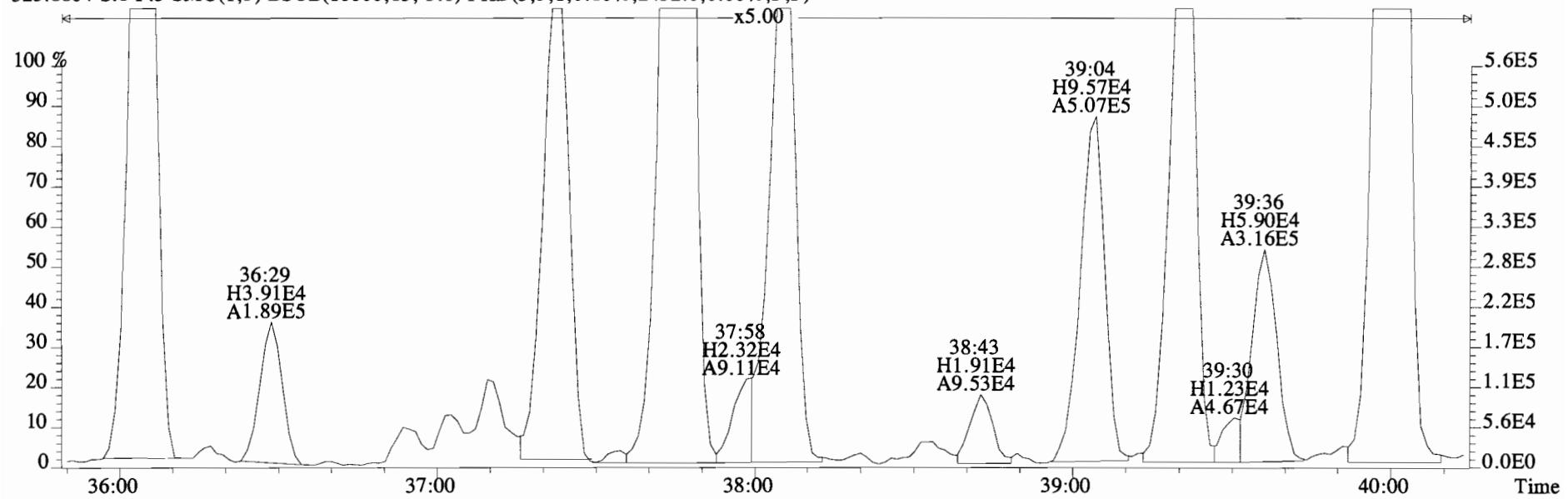
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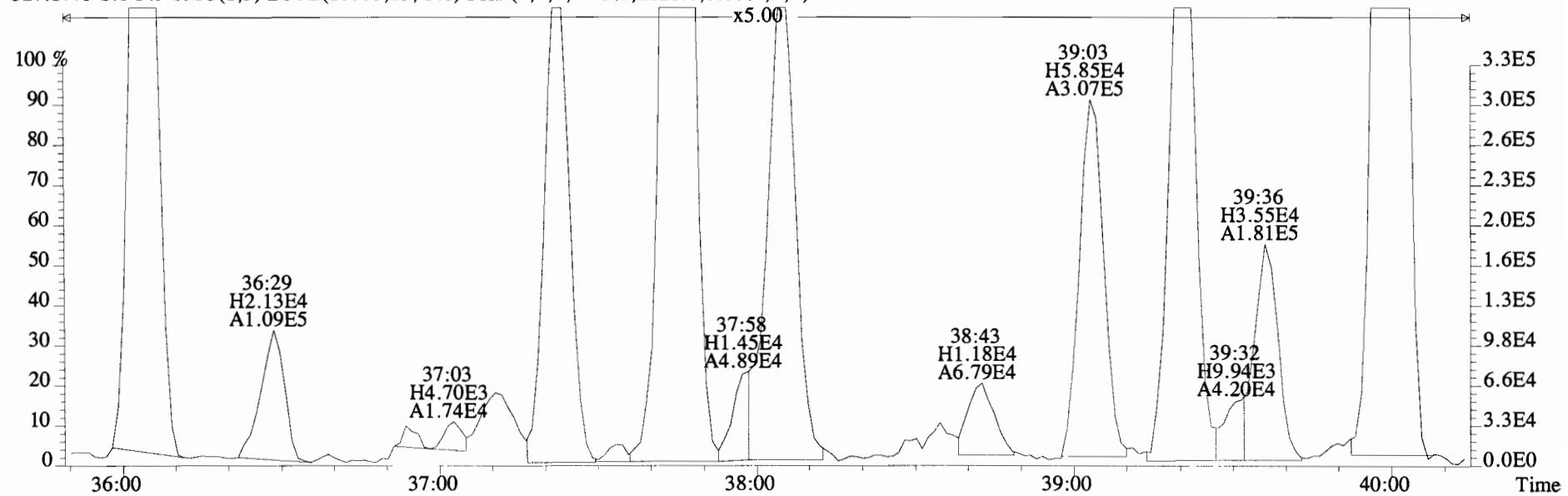
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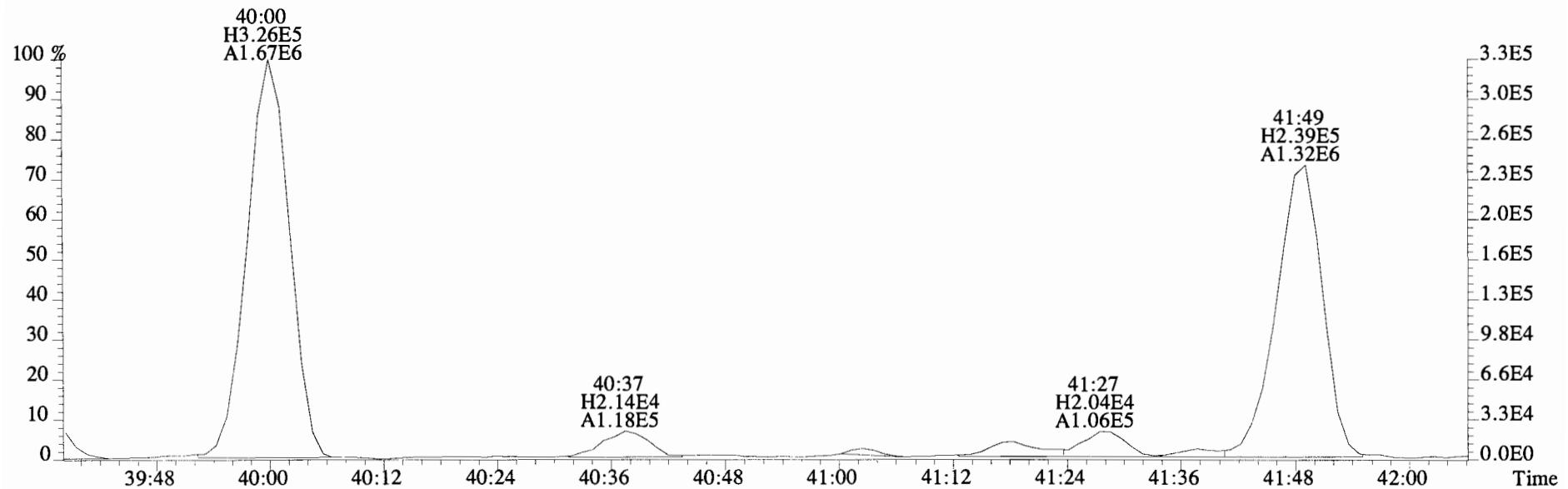
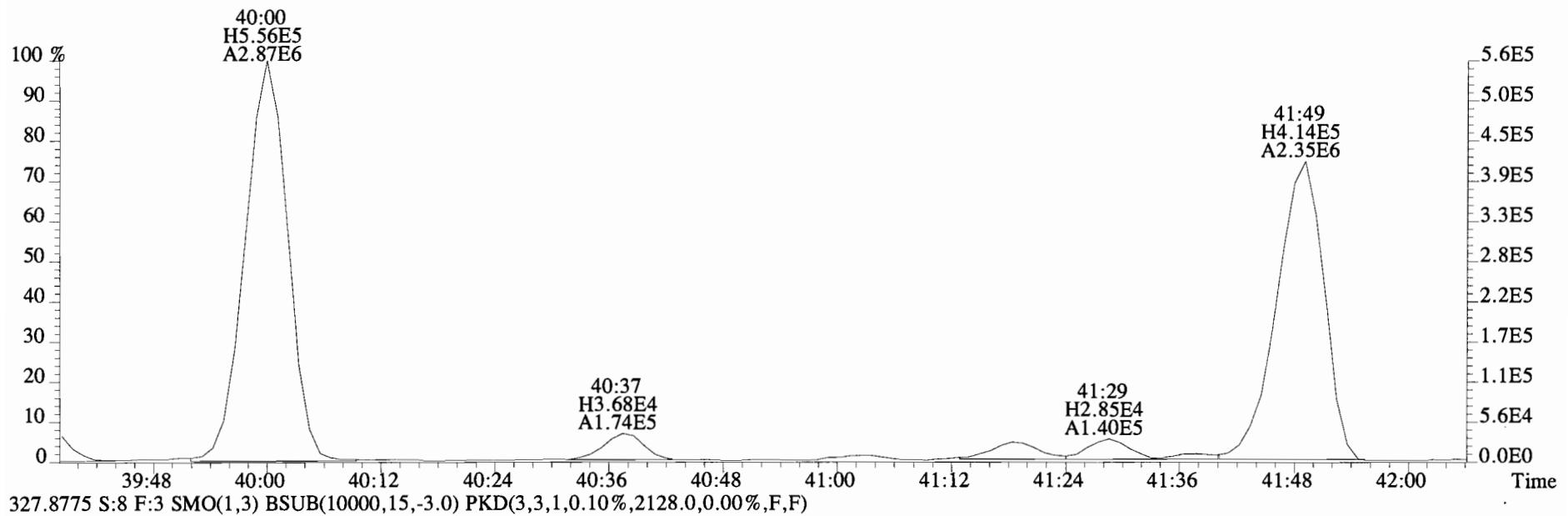
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2432.0,0.00%,F,F)



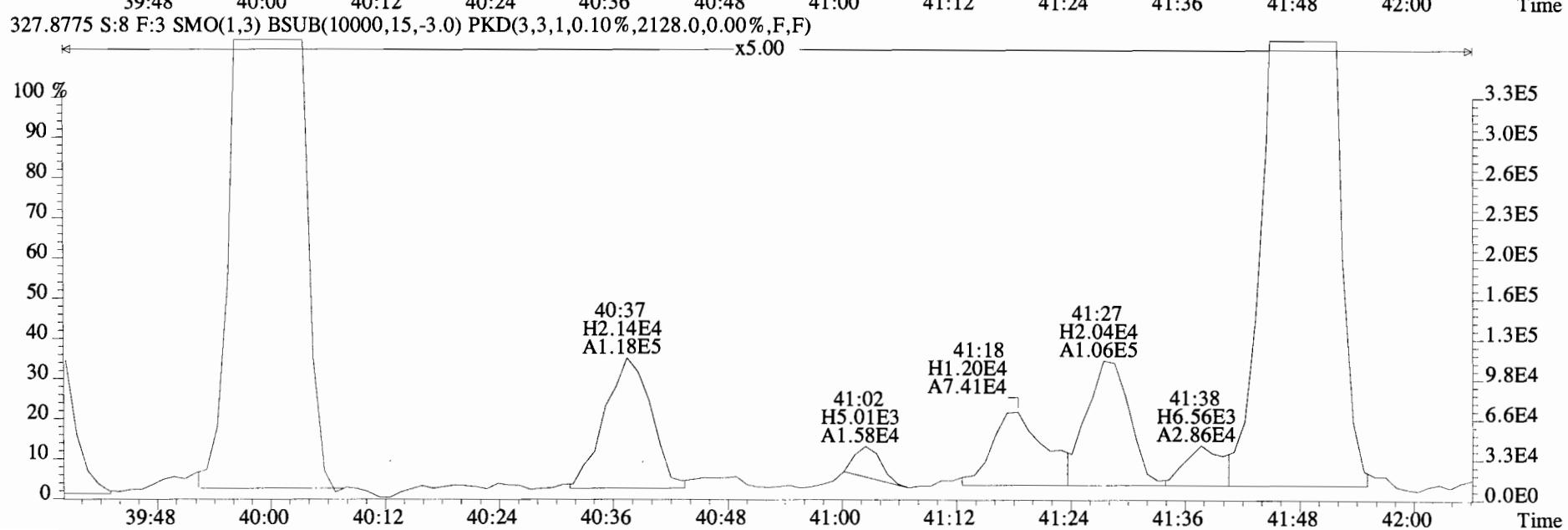
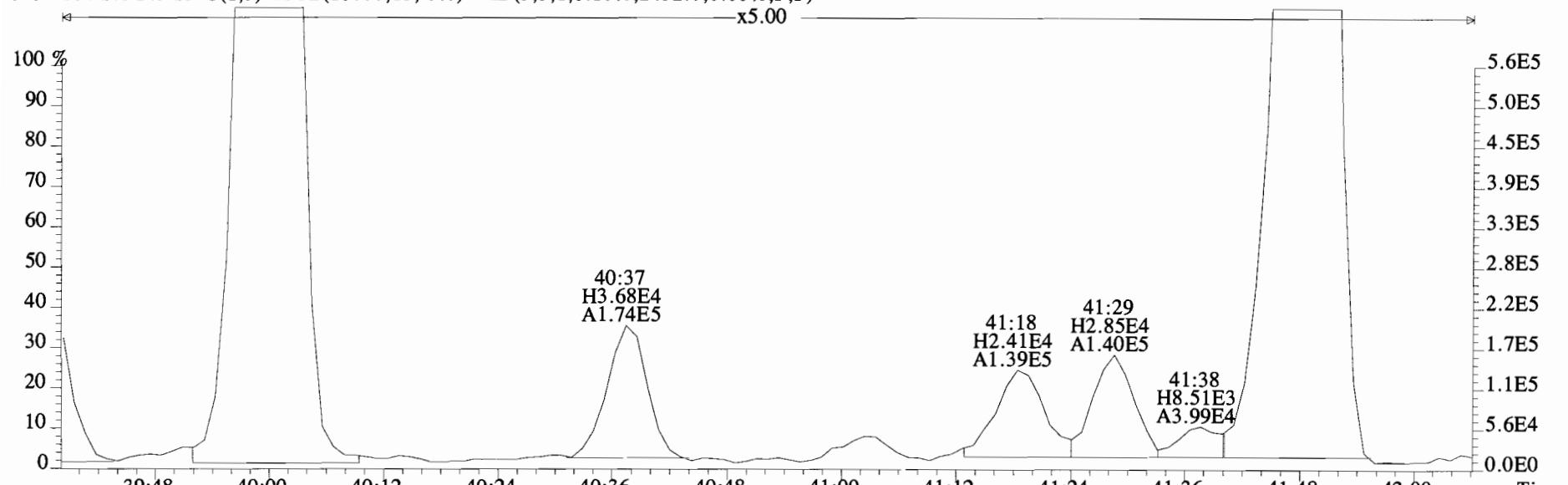
327.8775 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2128.0,0.00%,F,F)



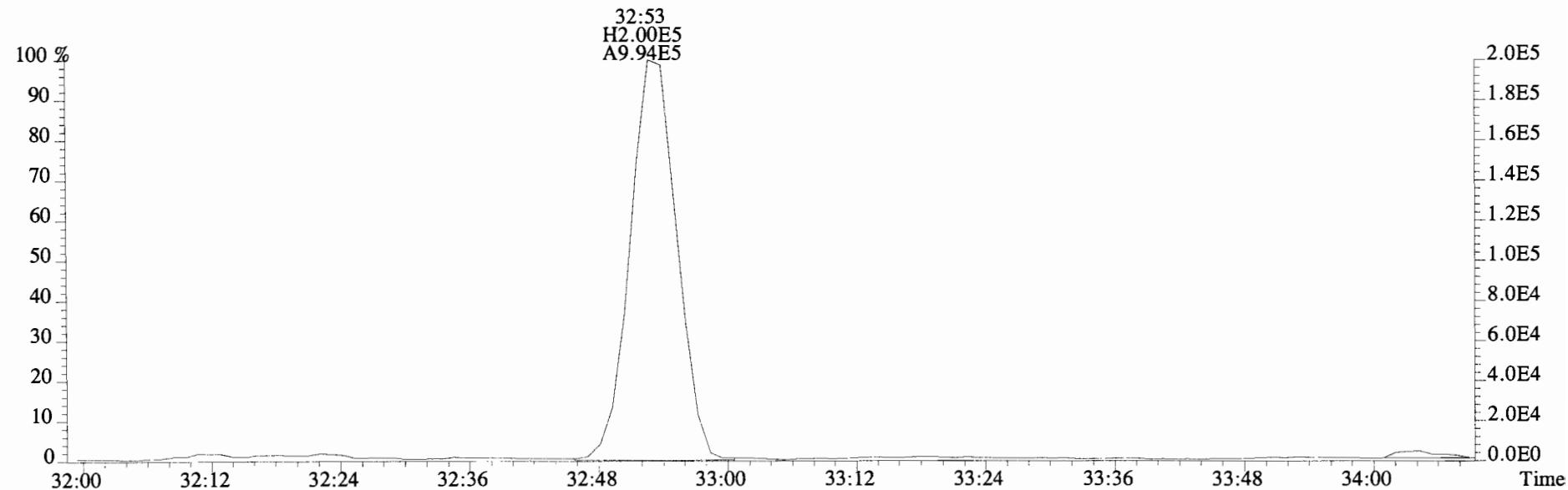
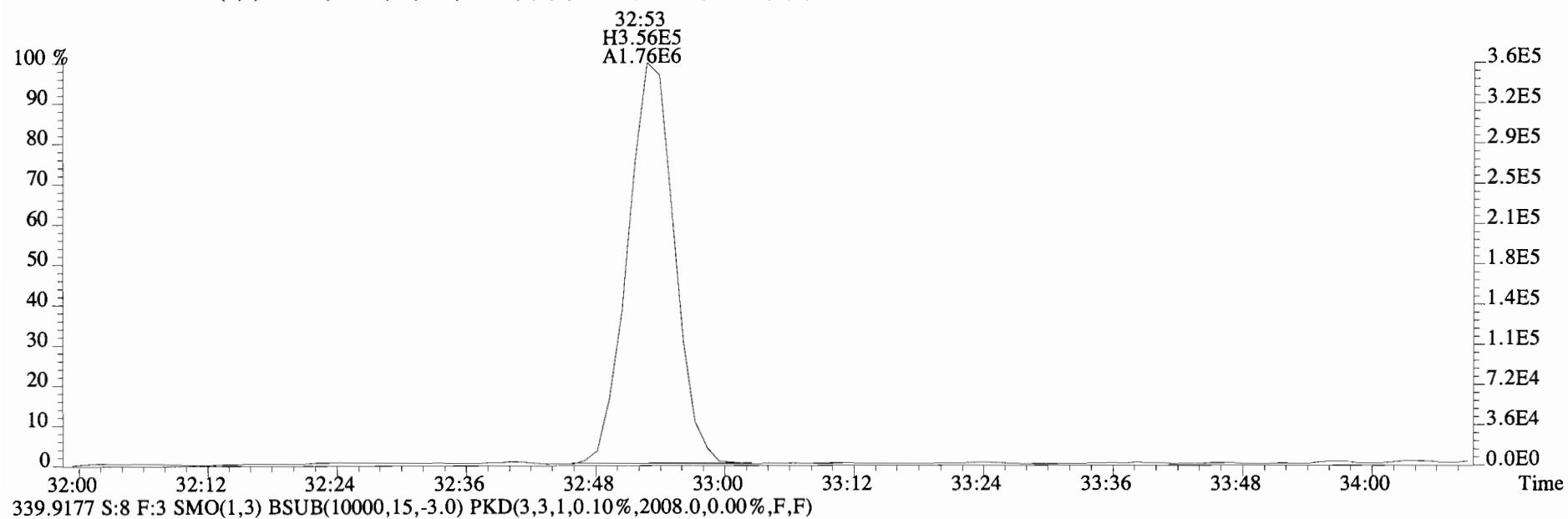
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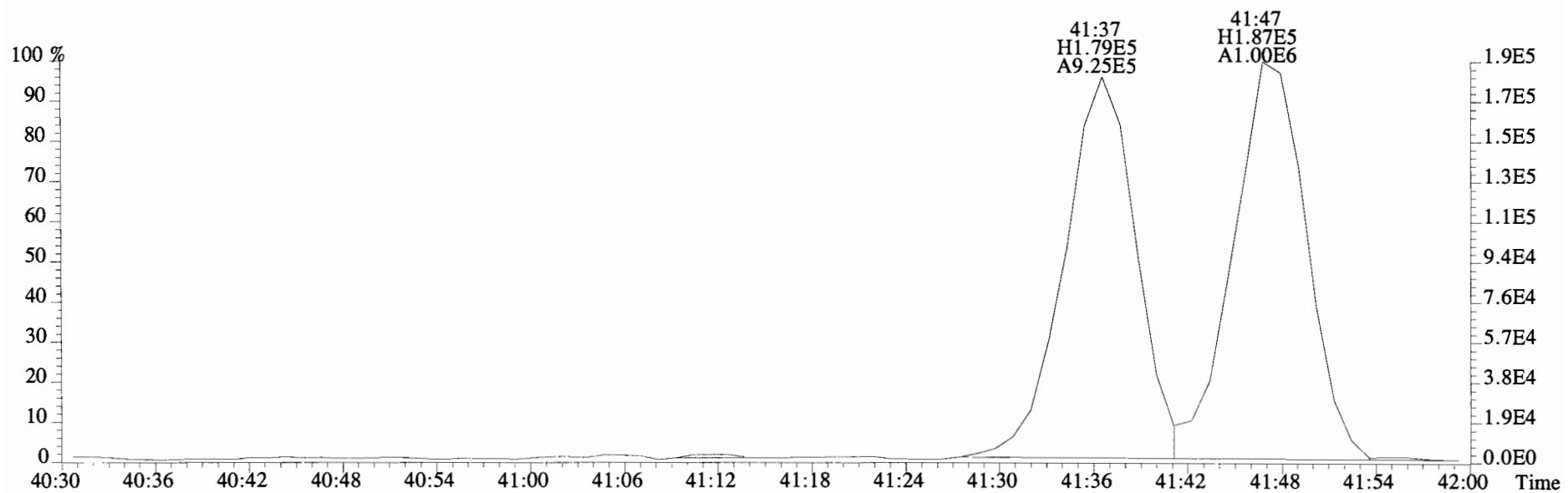
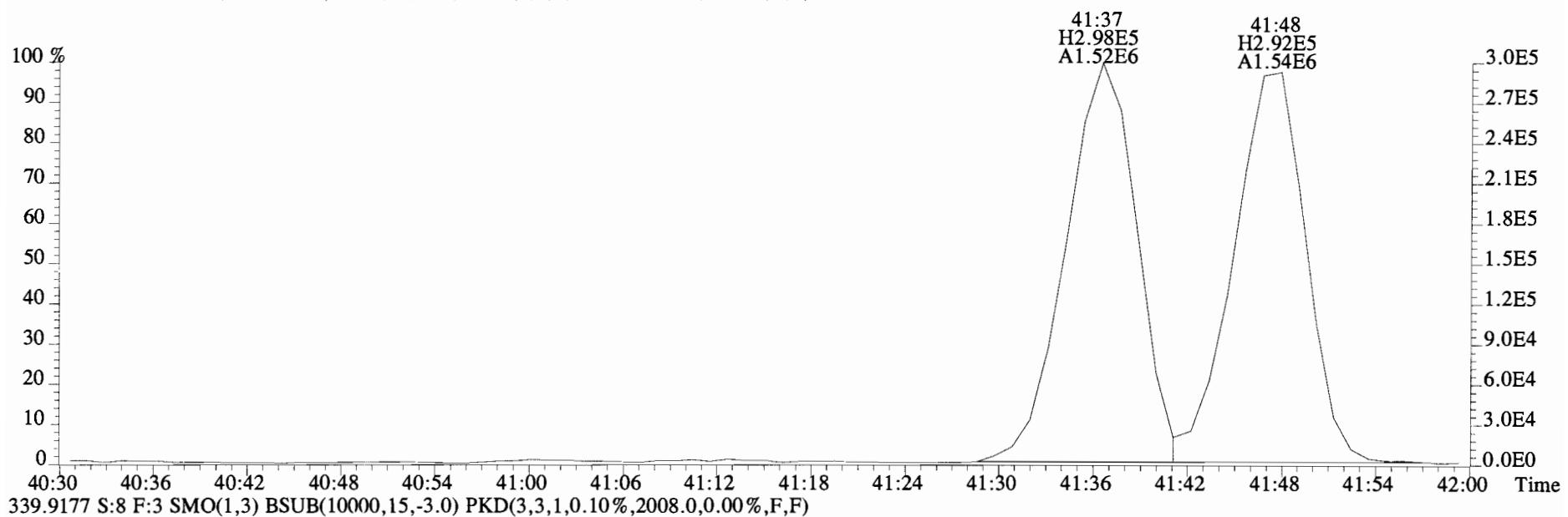
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2432.0,0.00%,F,F)



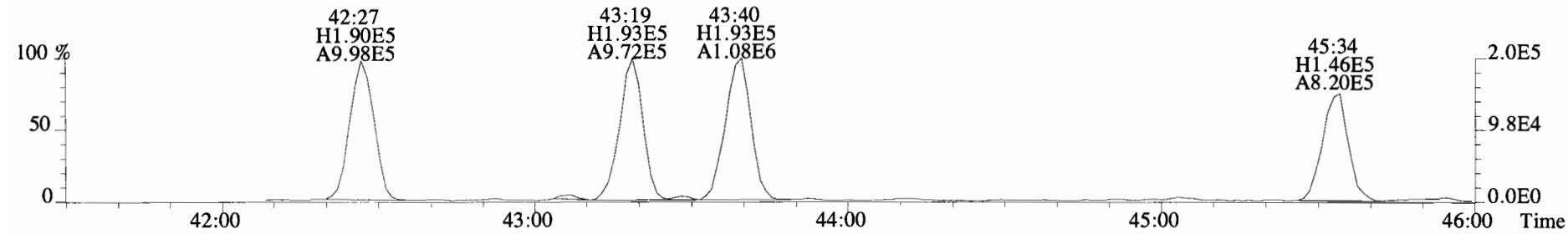
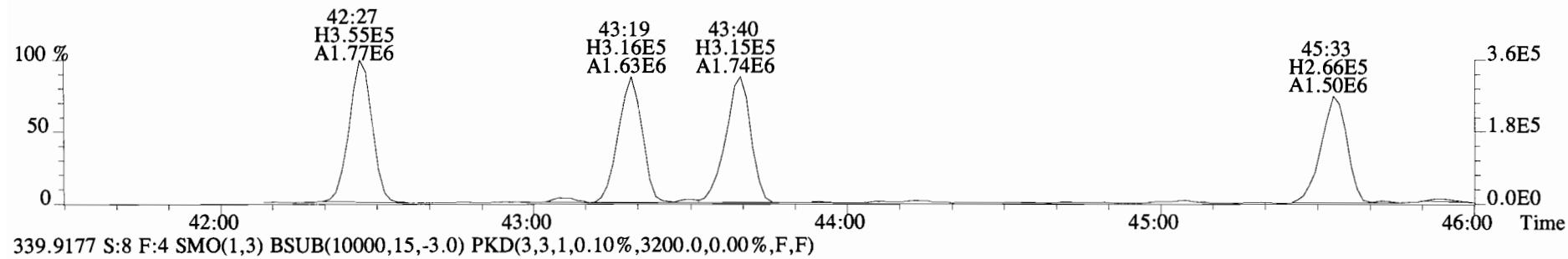
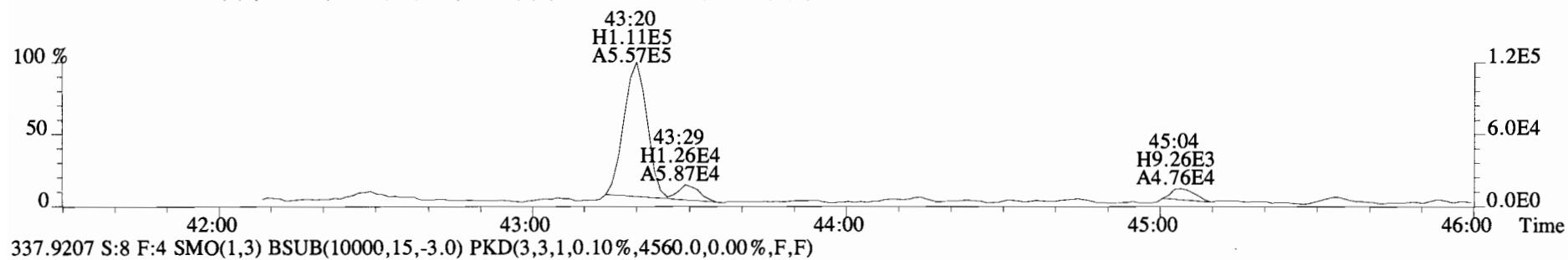
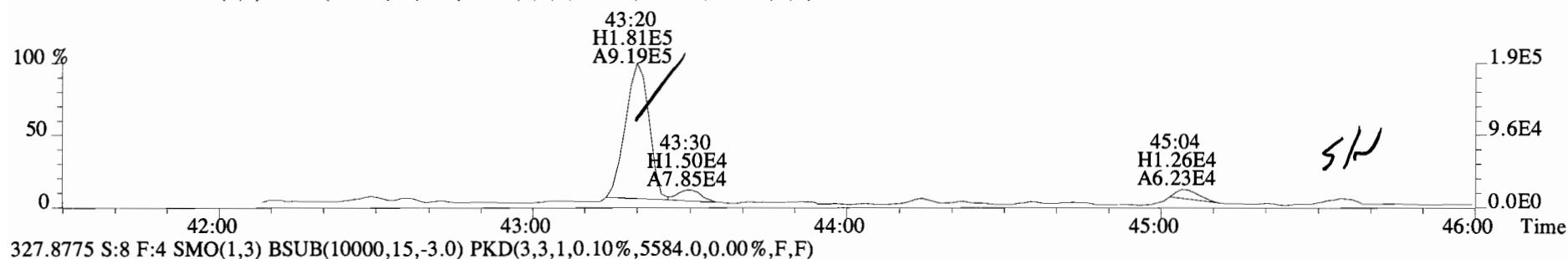
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
337.9207 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2452.0,0.00%,F,F)



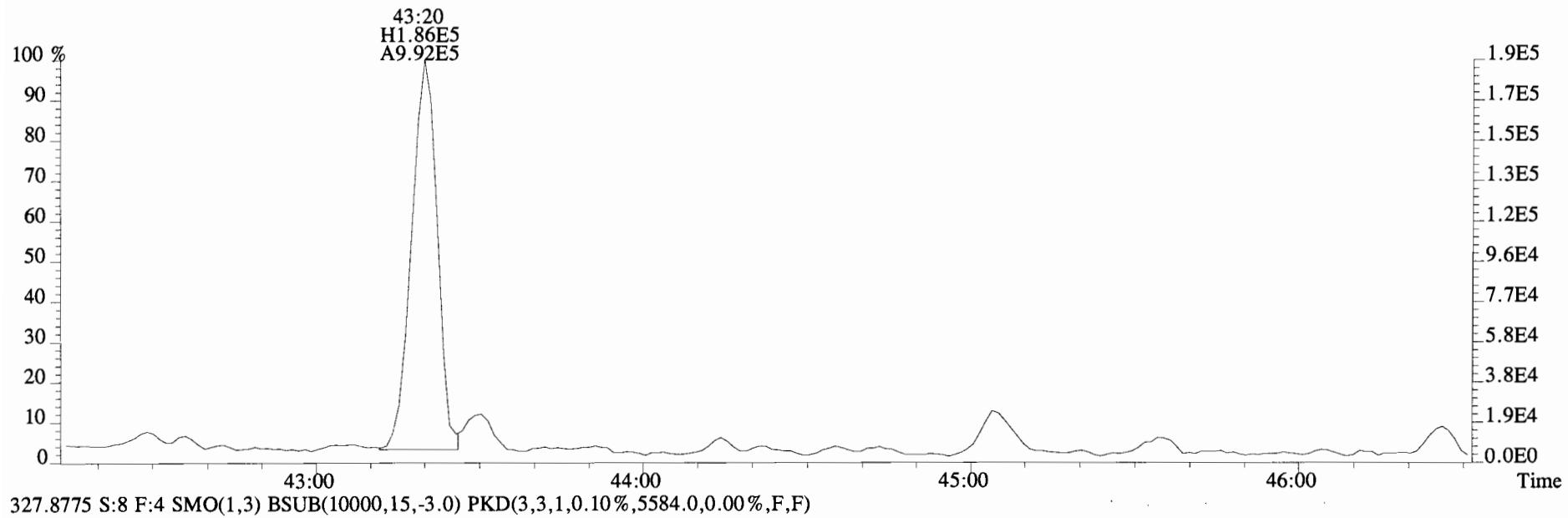
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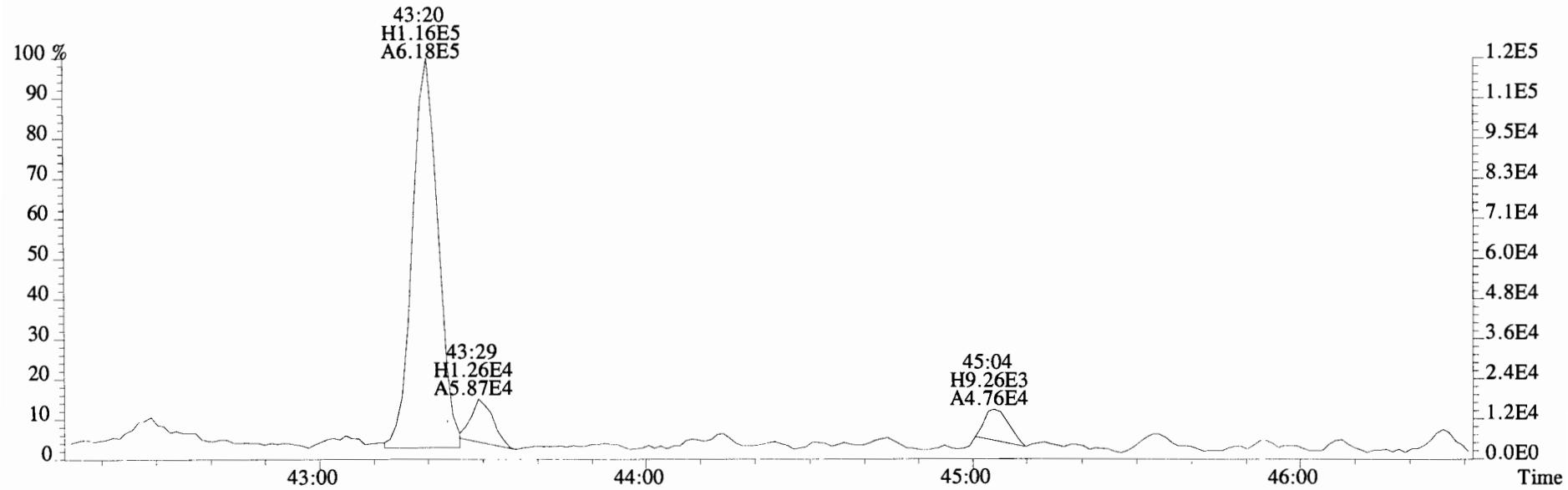
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 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 325.8804 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8044.0,0.00%,F,F)



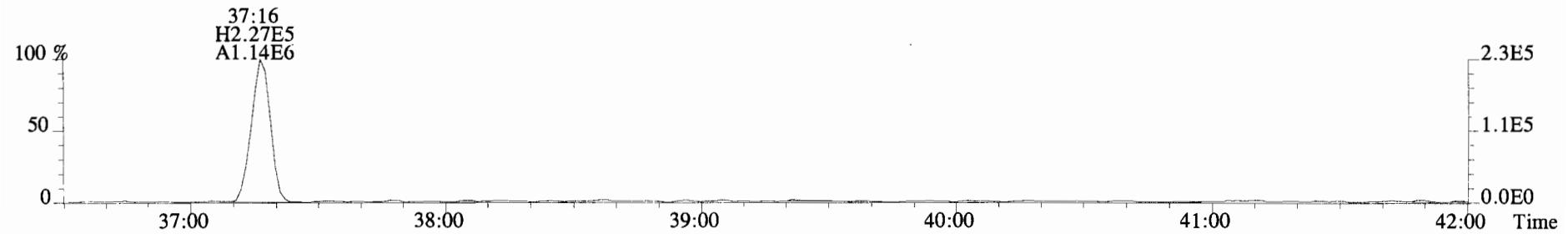
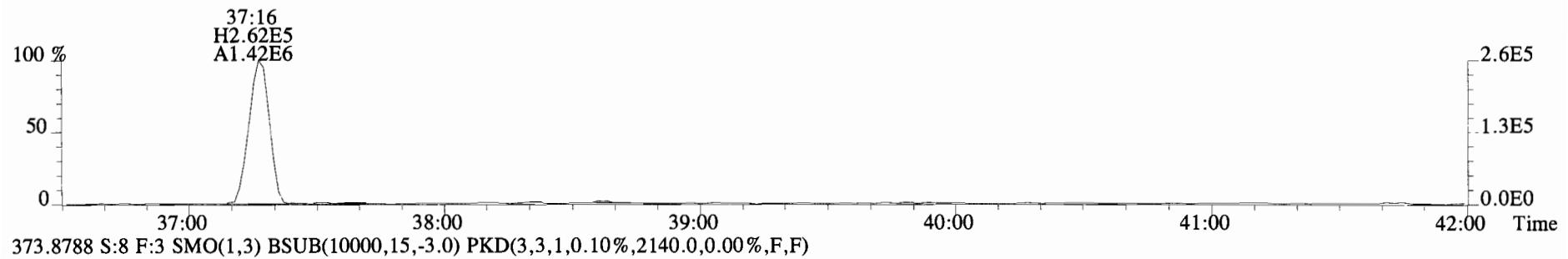
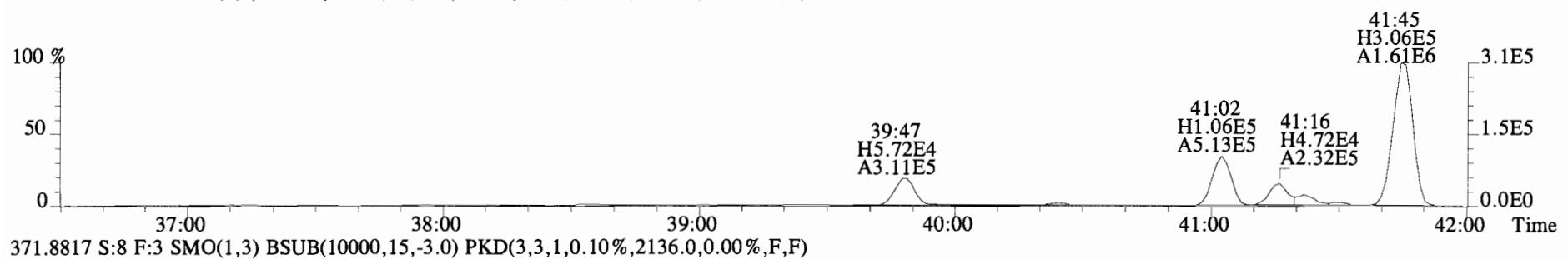
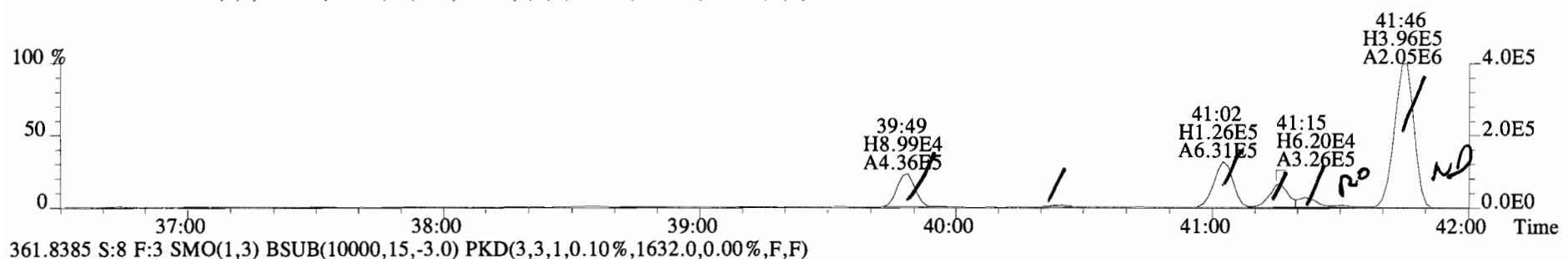
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
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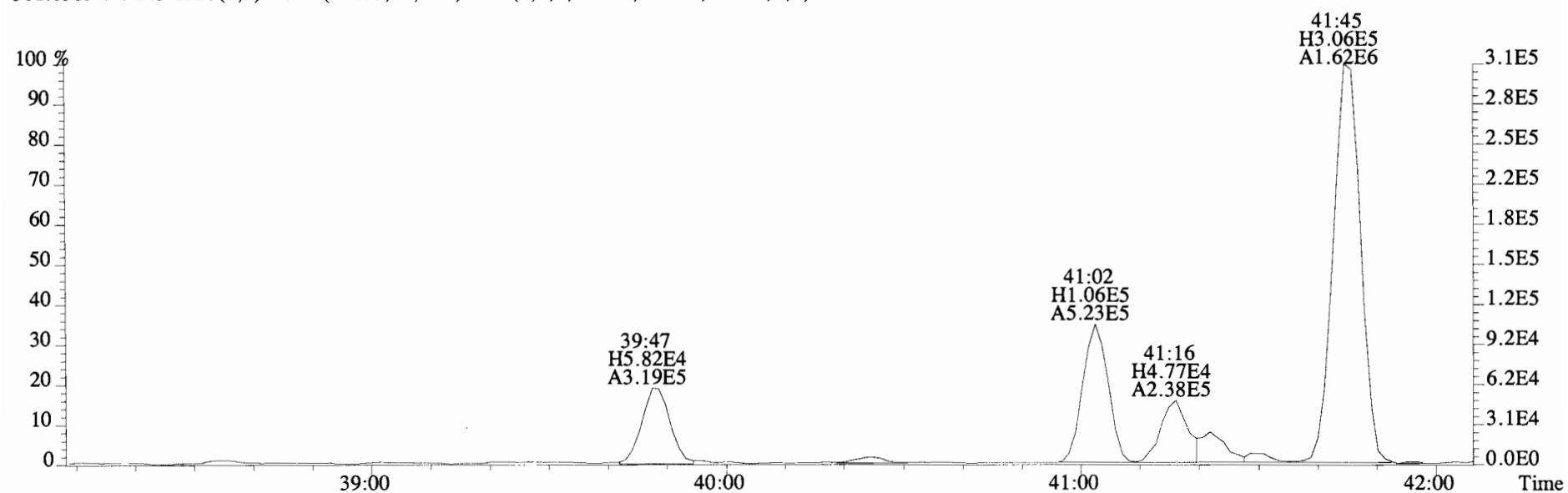
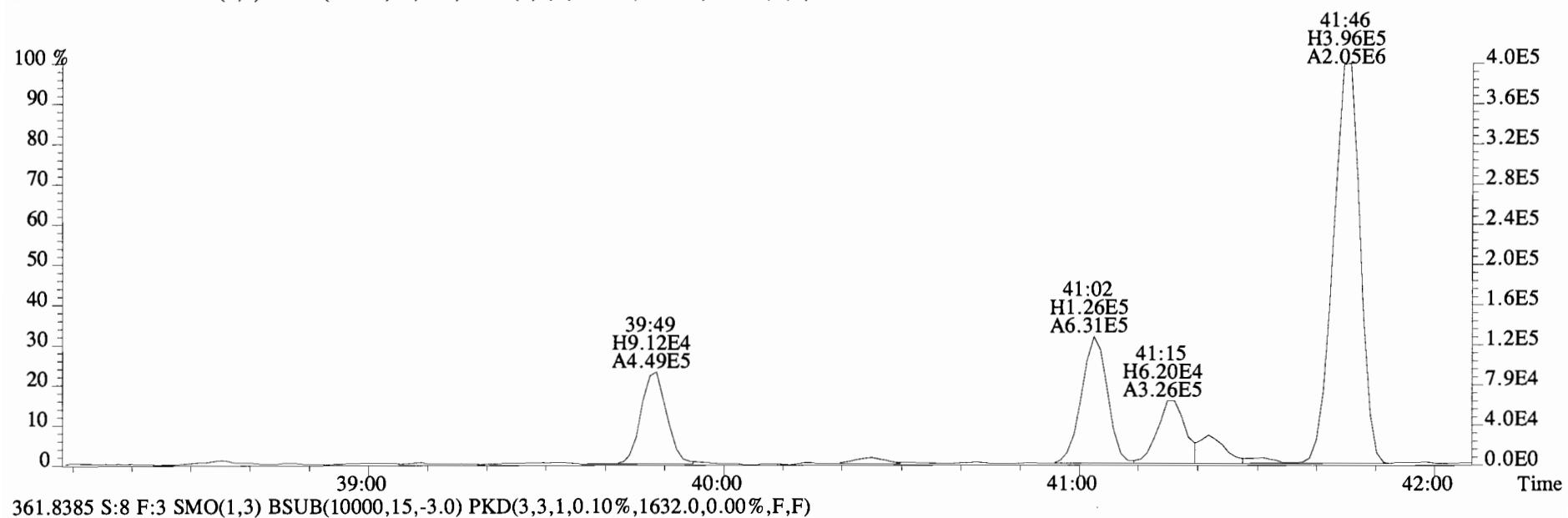
327.8775 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5584.0,0.00%,F,F)



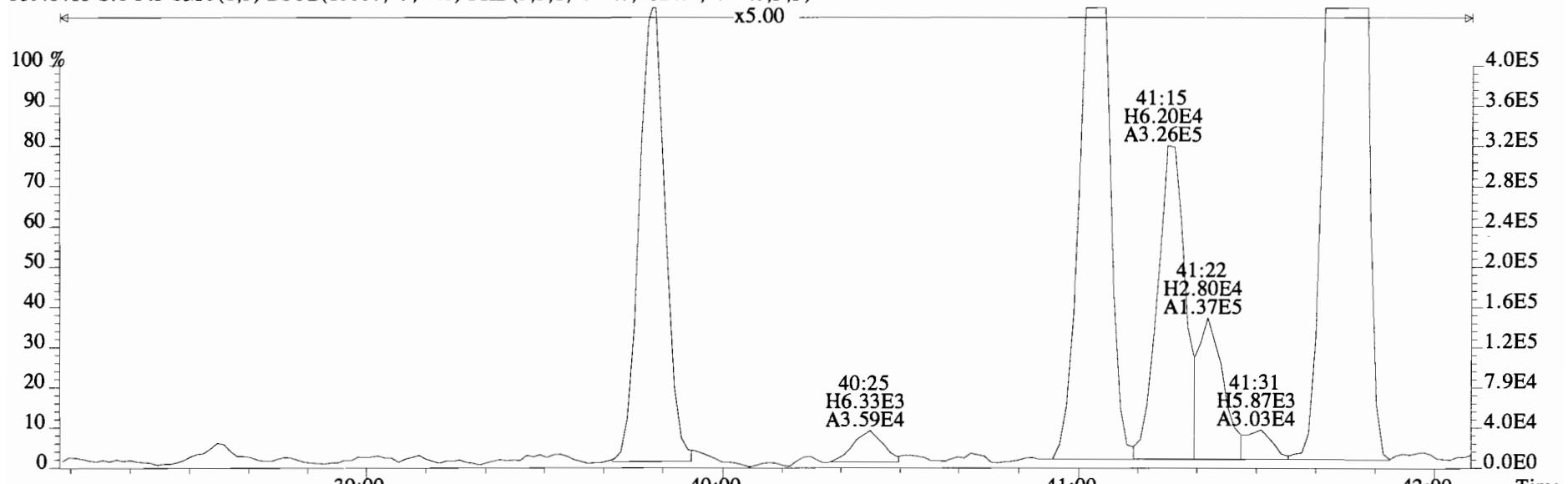
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 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 359.8415 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1824.0,0.00%,F,F)



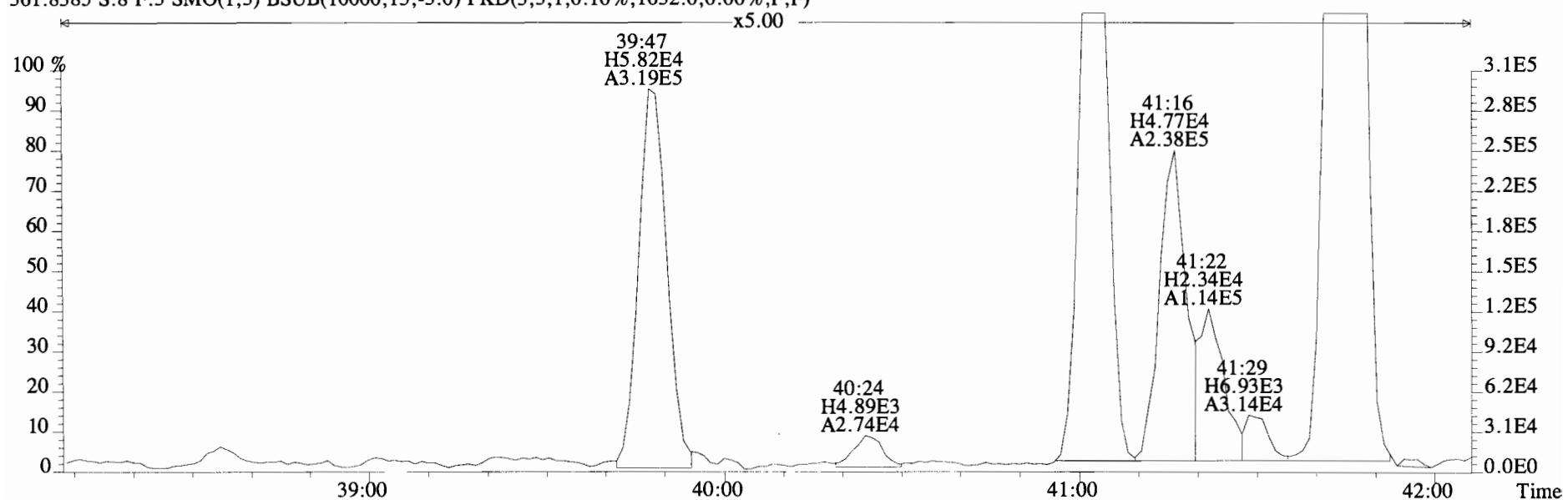
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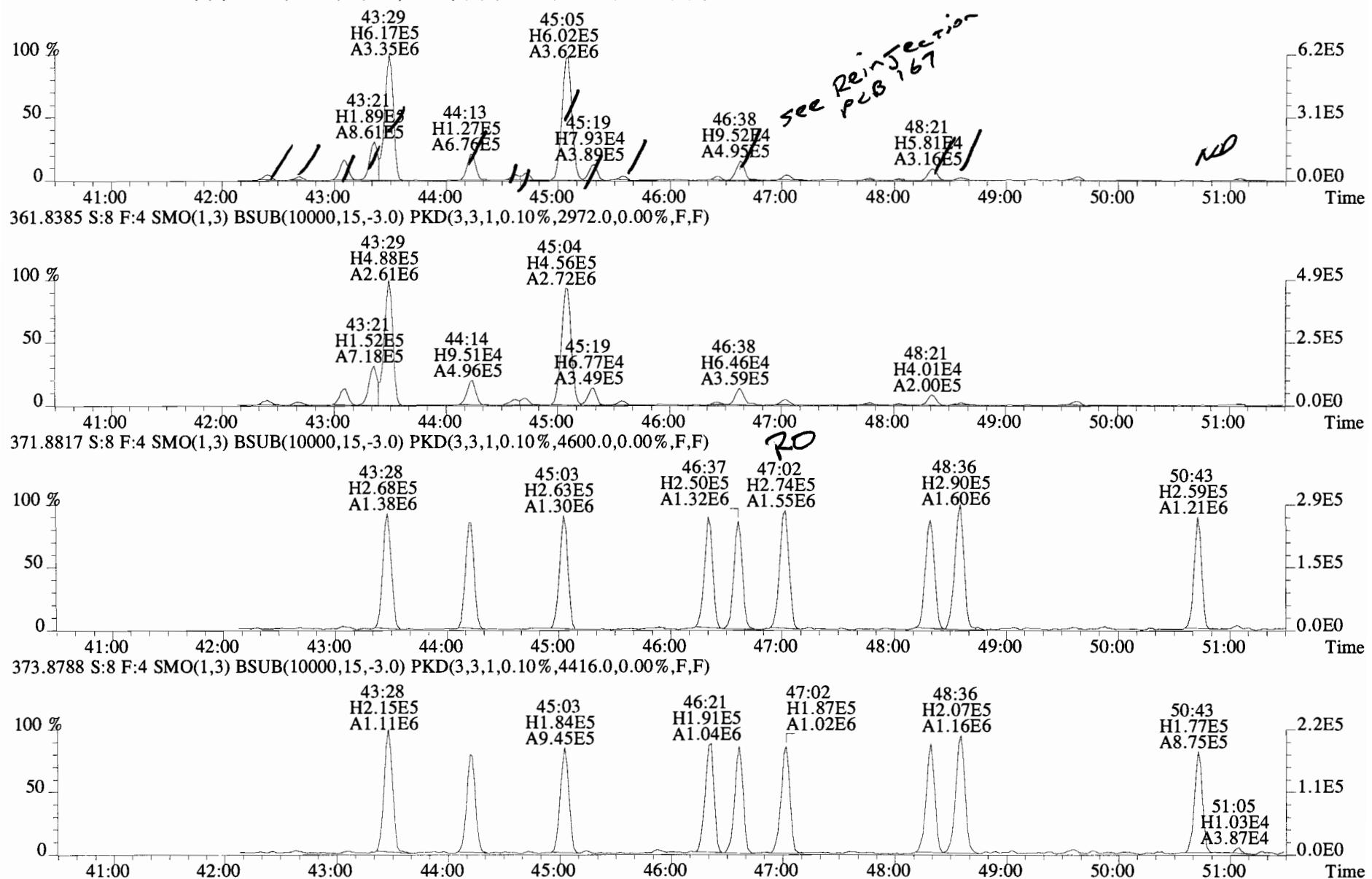
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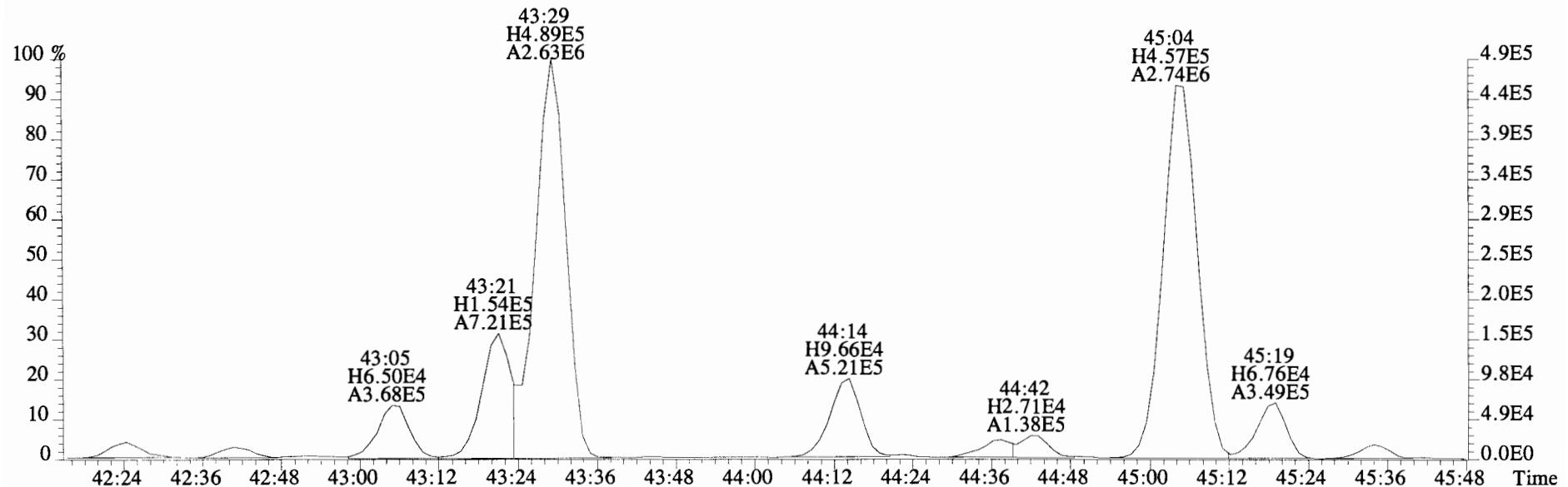
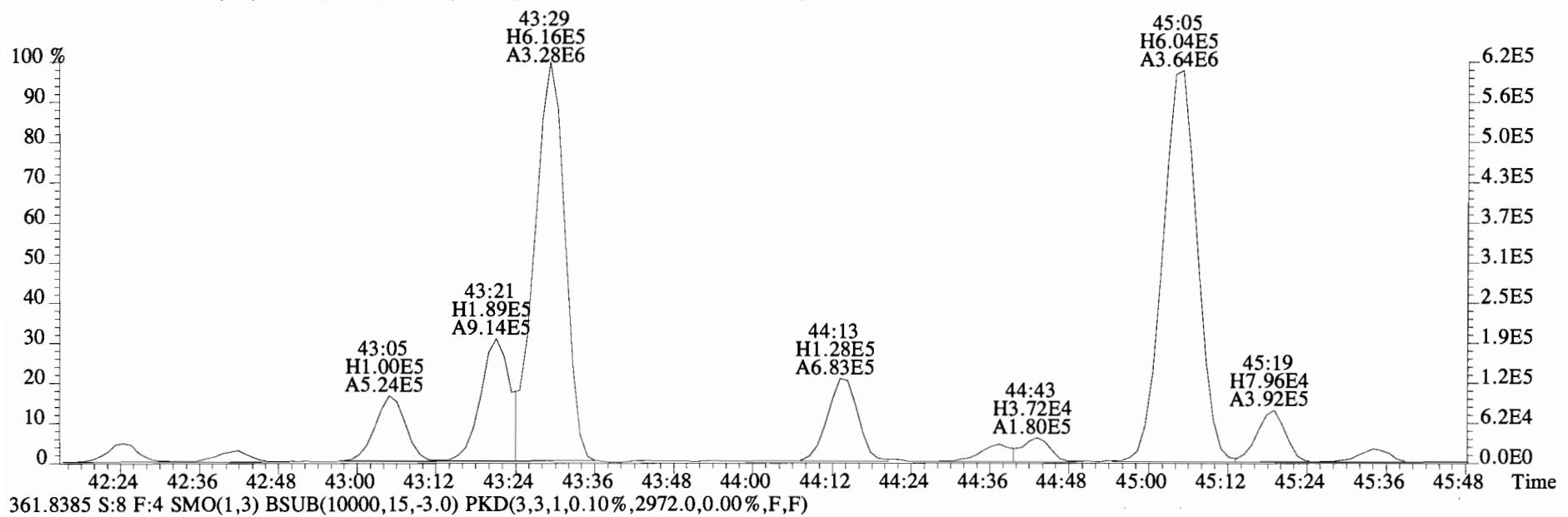
361.8385 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1632.0,0.00%,F,F)



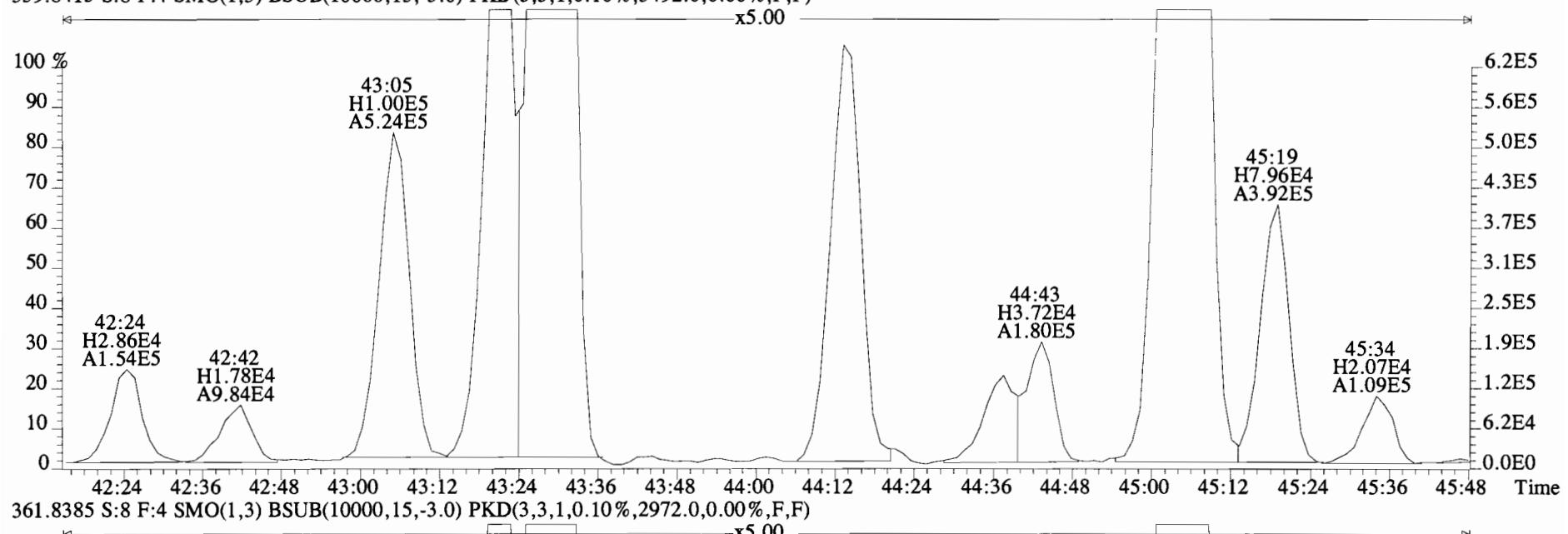
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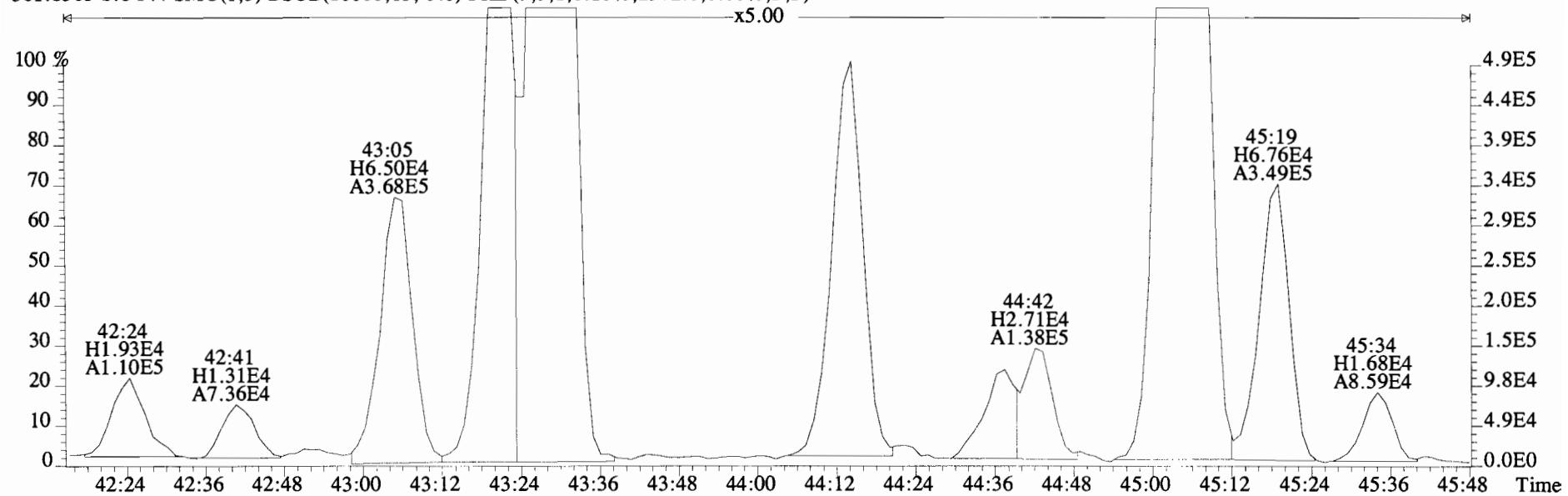
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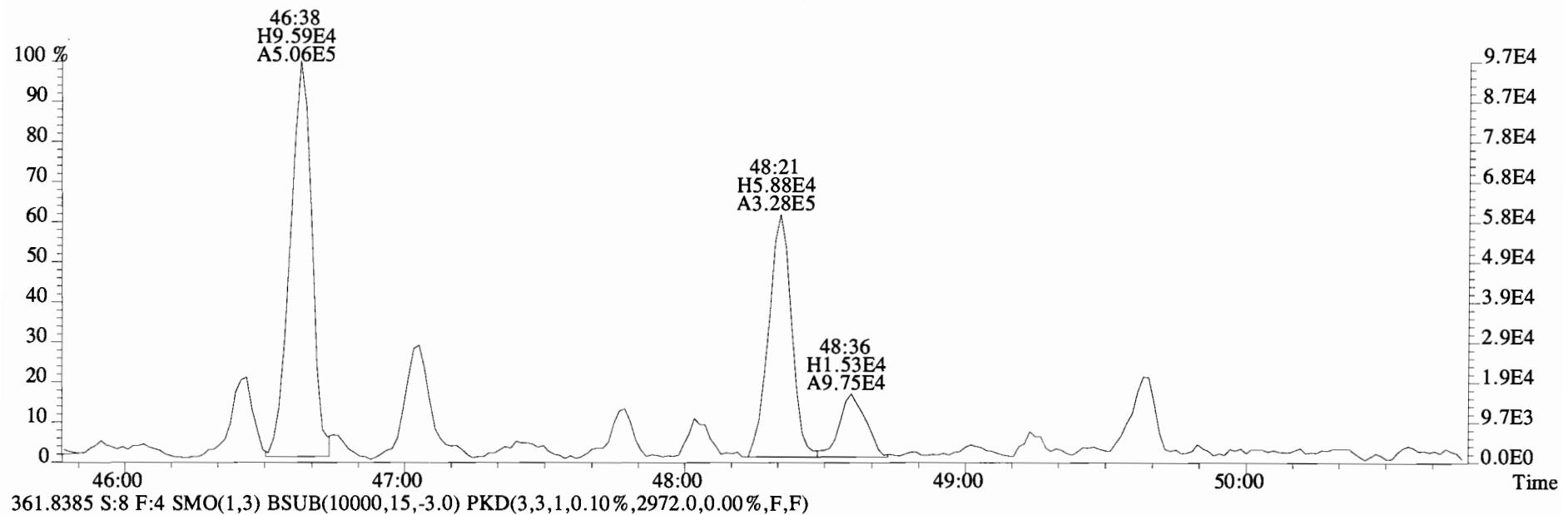
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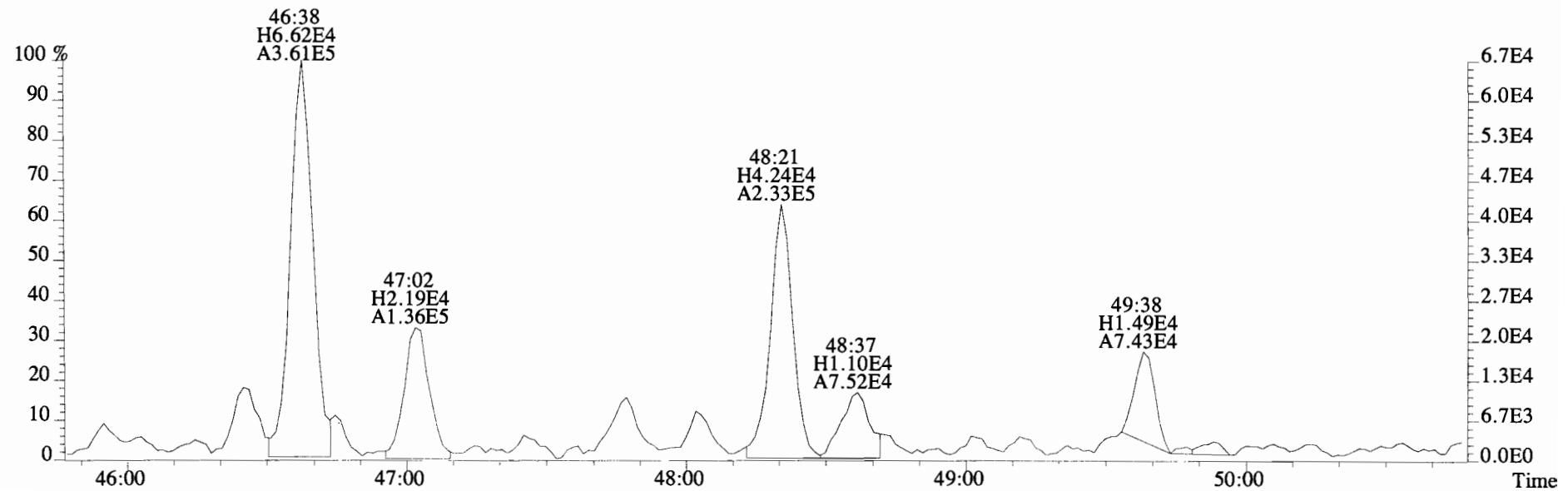
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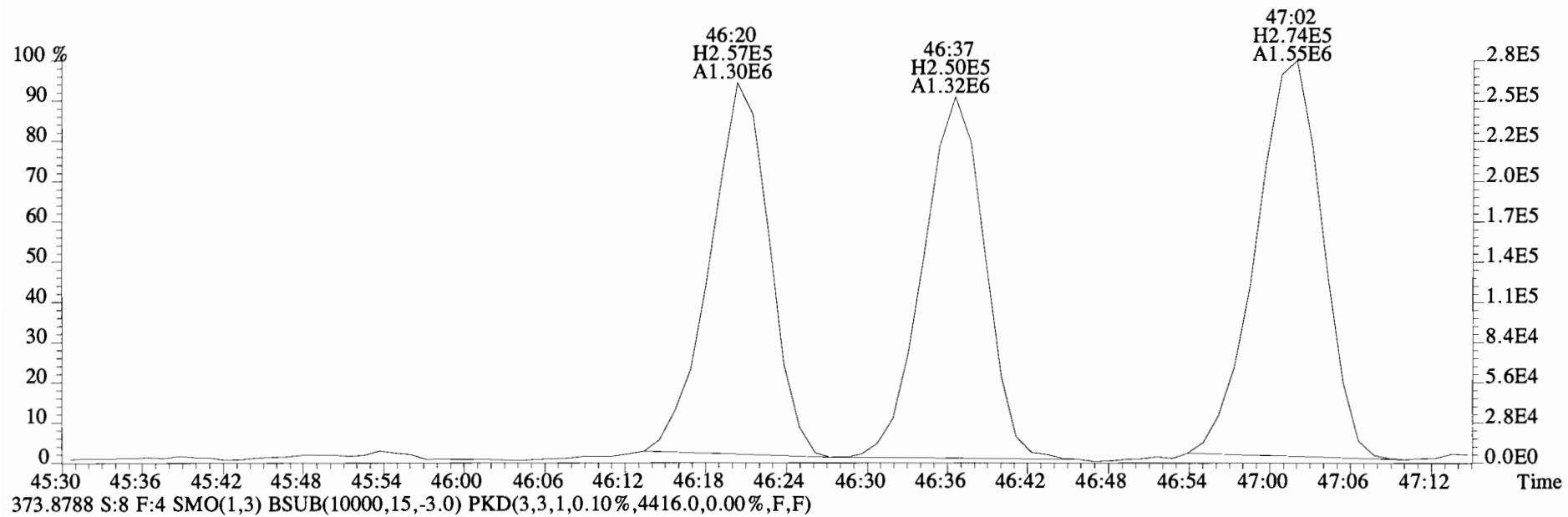
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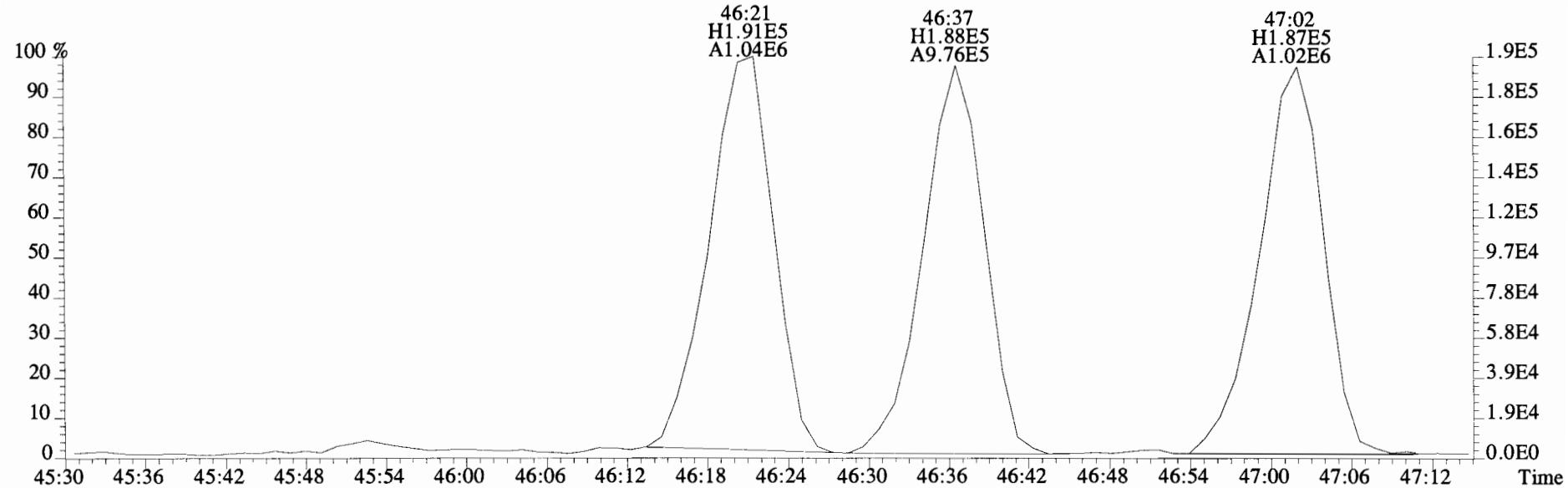
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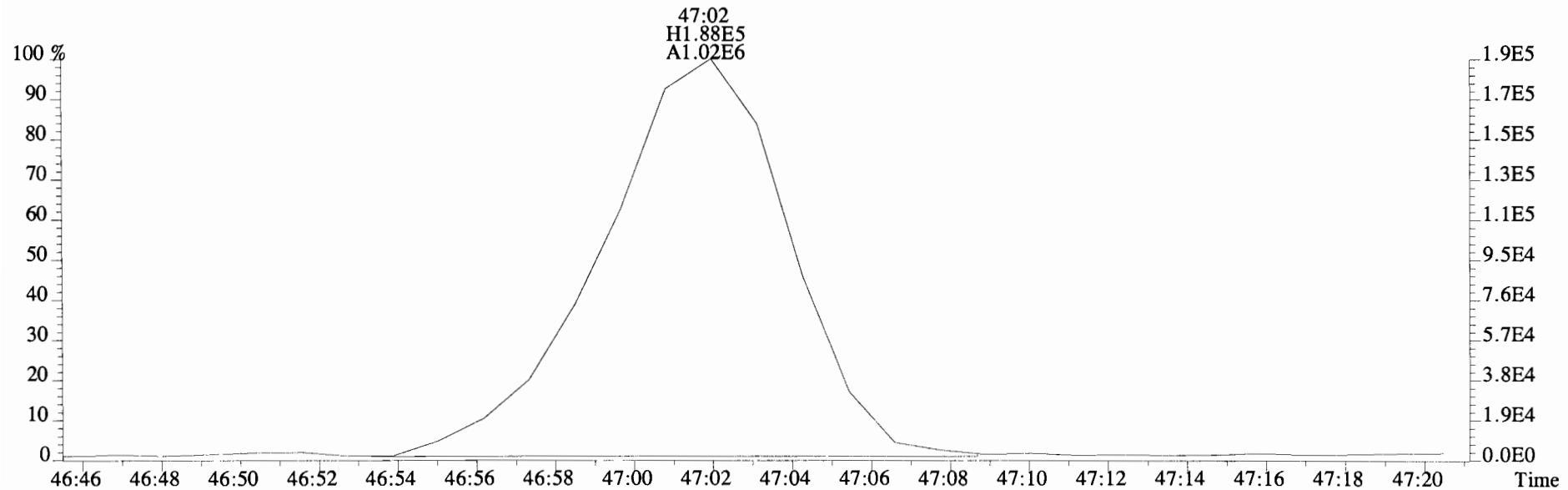
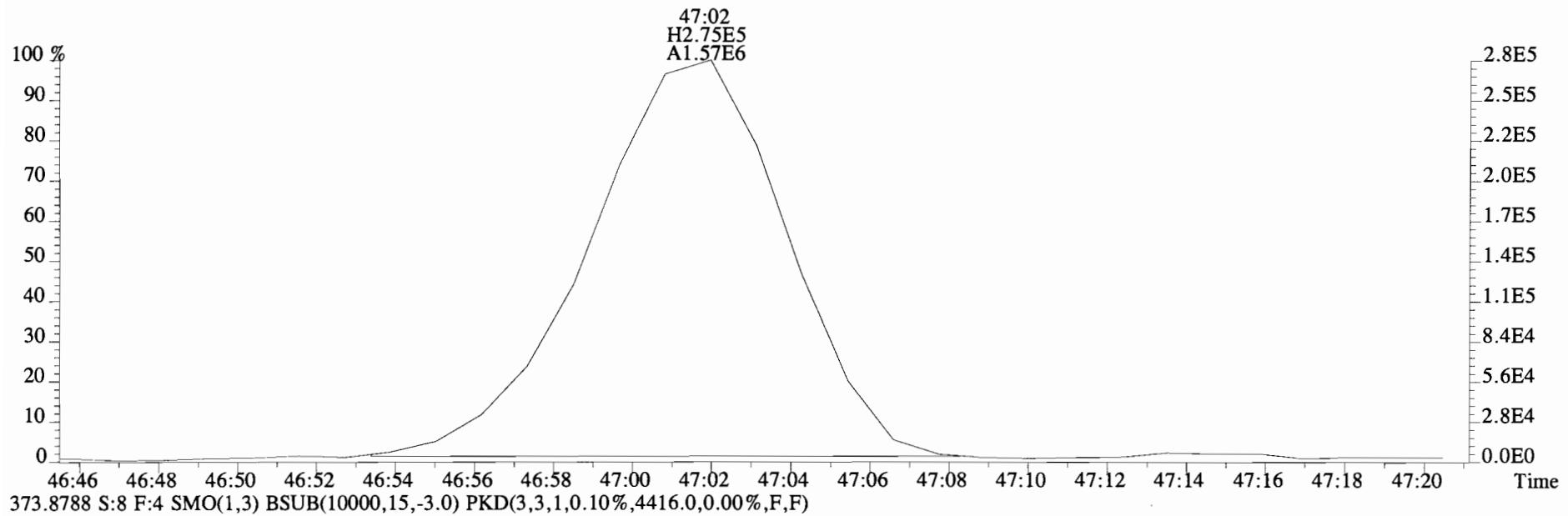
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371.8817 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4600.0,0.00%,F,F)



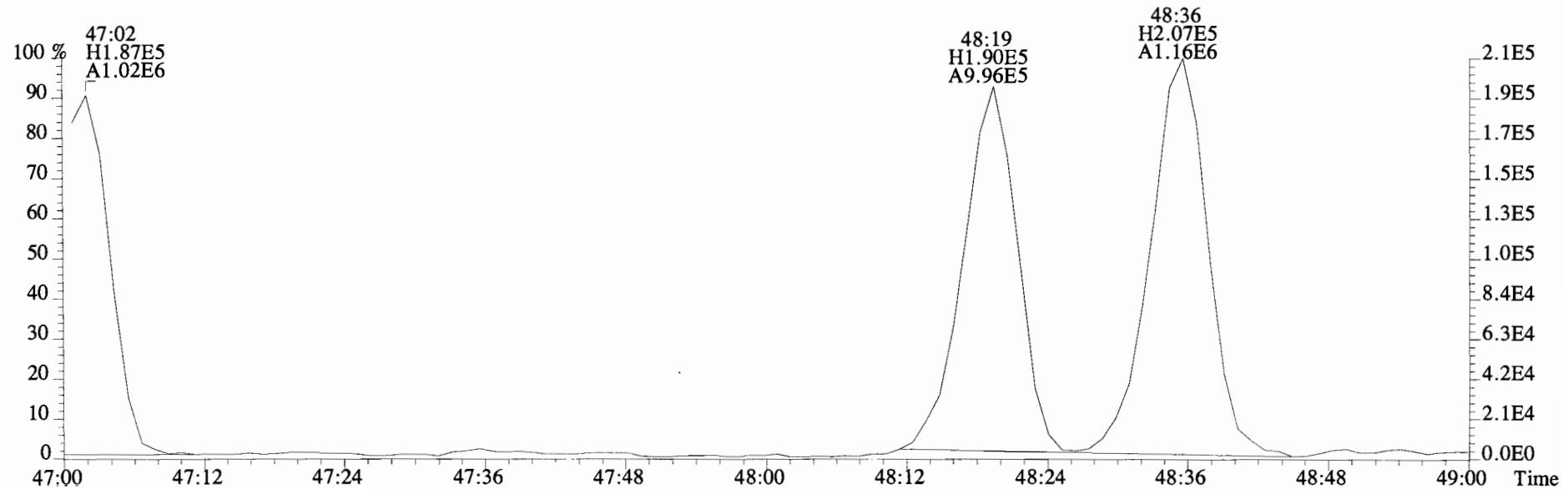
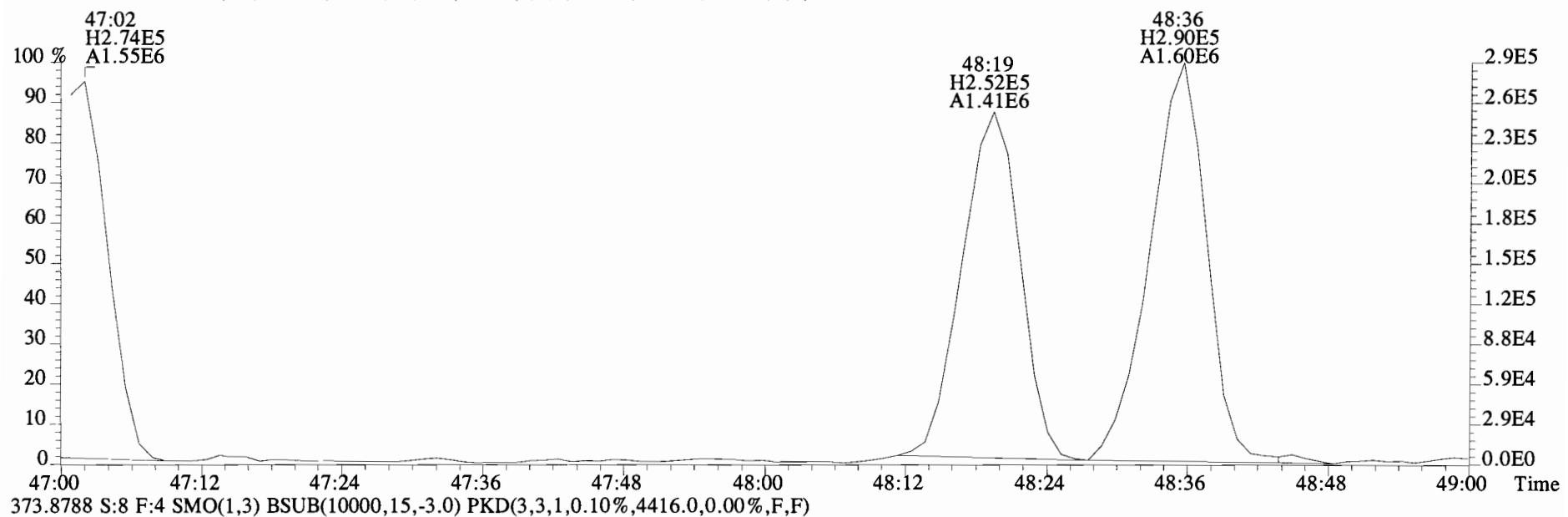
373.8788 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4416.0,0.00%,F,F)



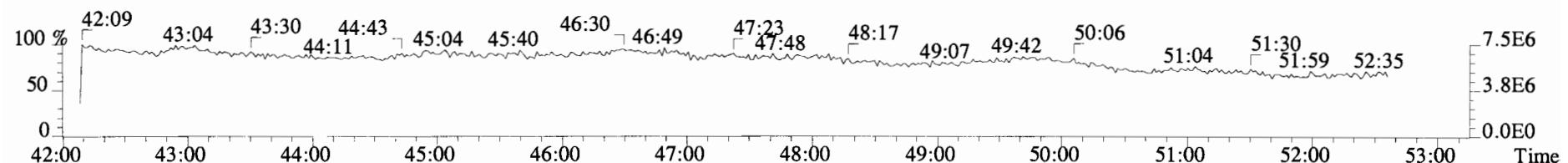
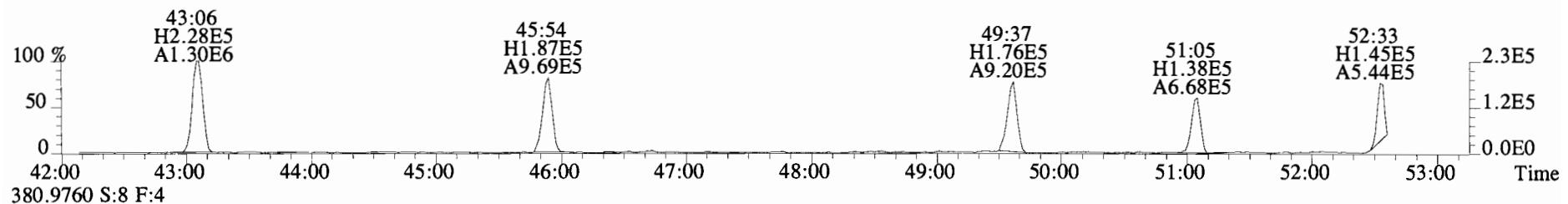
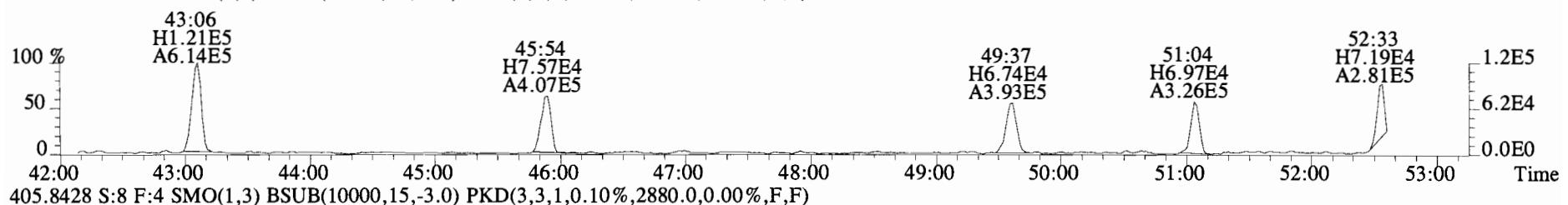
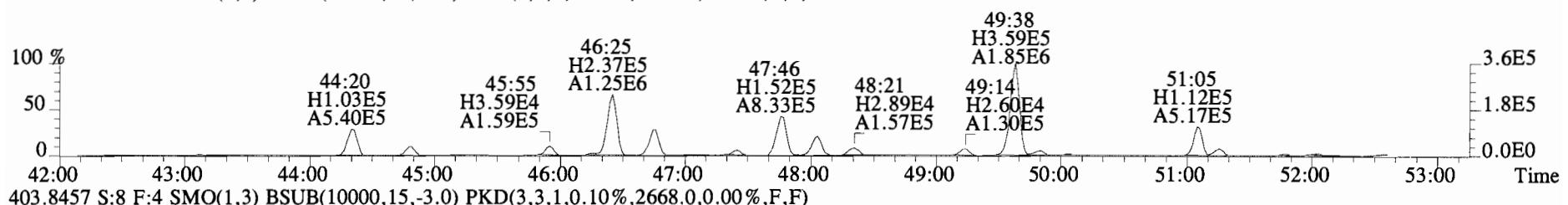
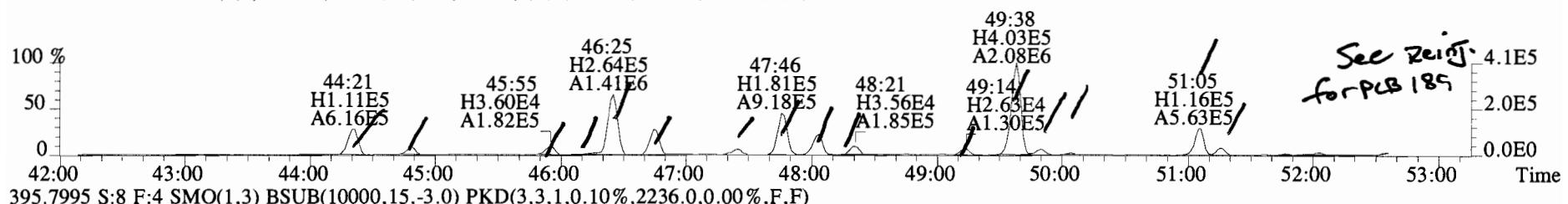
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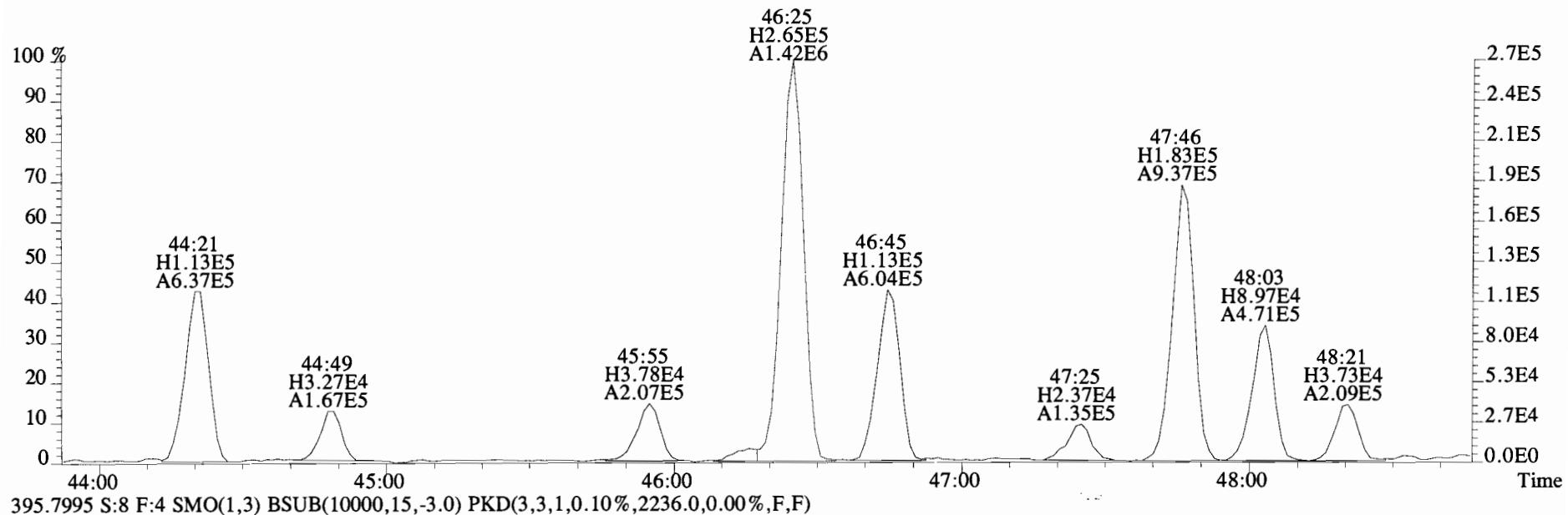
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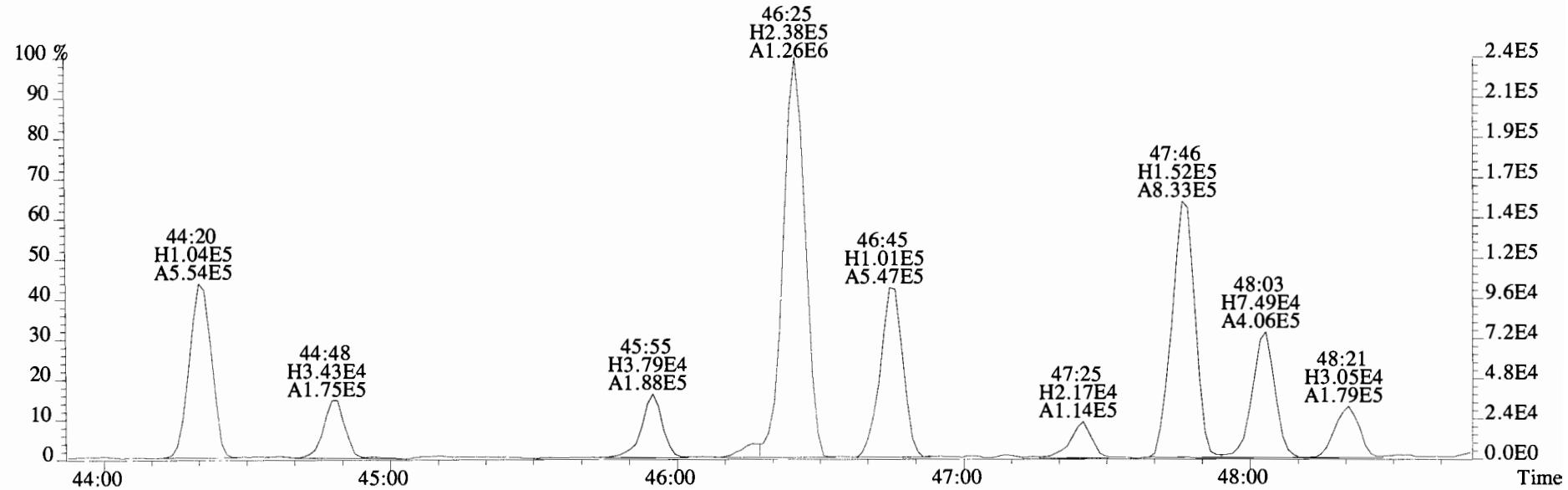
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 393.8025 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2520.0,0.00%,F,F)



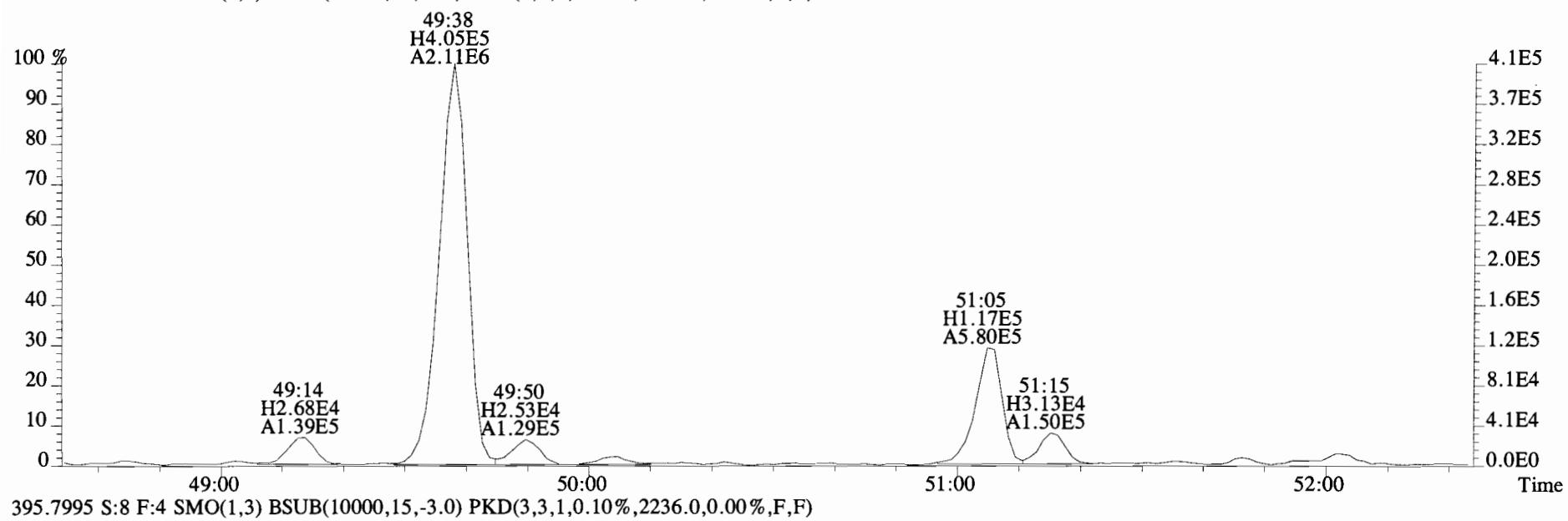
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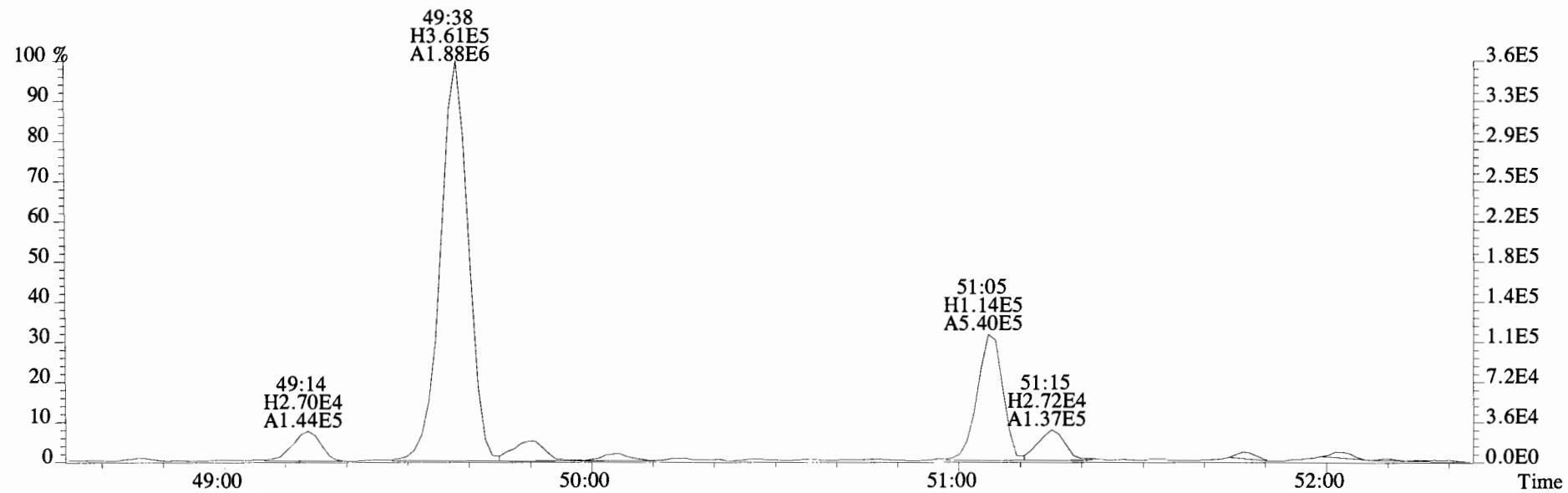
395.7995 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2236.0,0.00%,F,F)



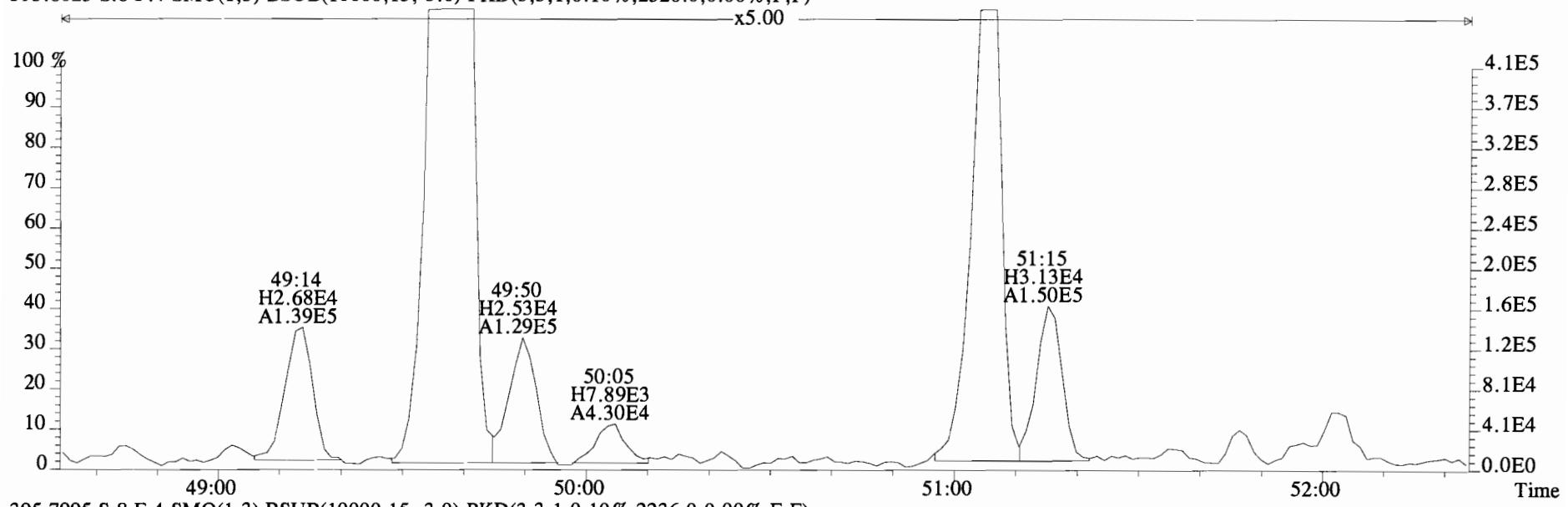
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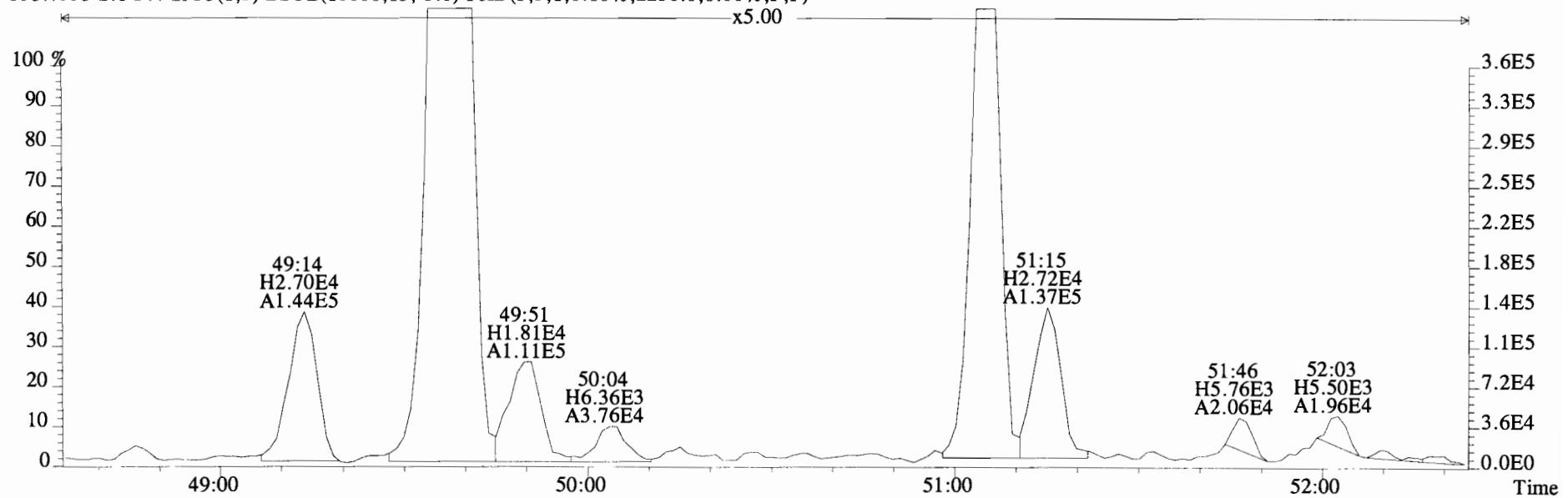
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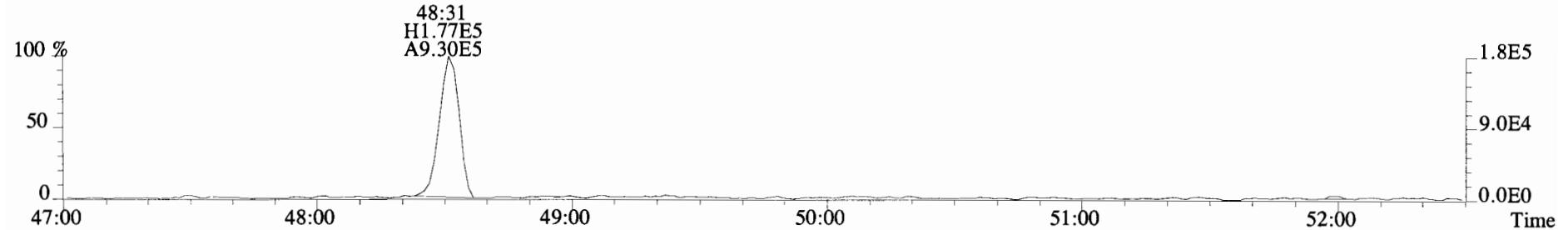
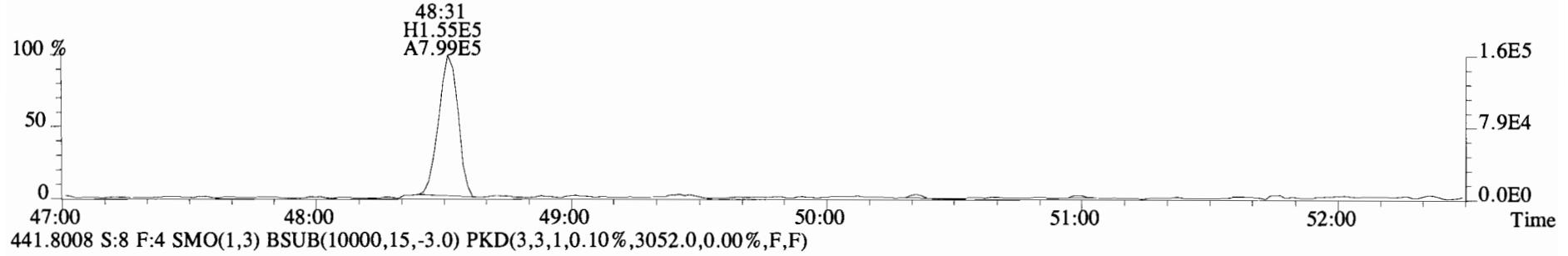
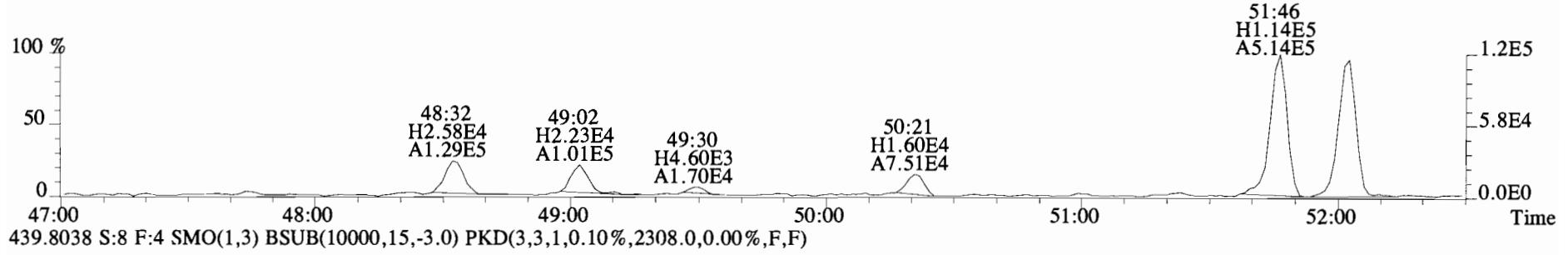
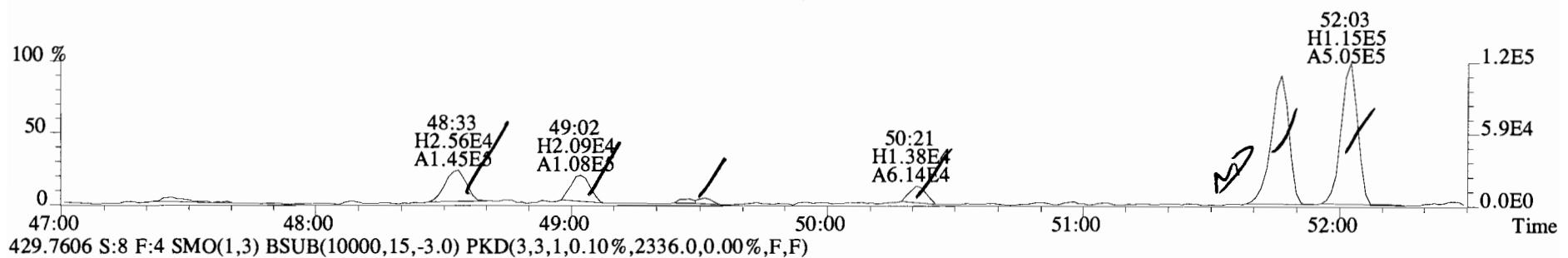
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
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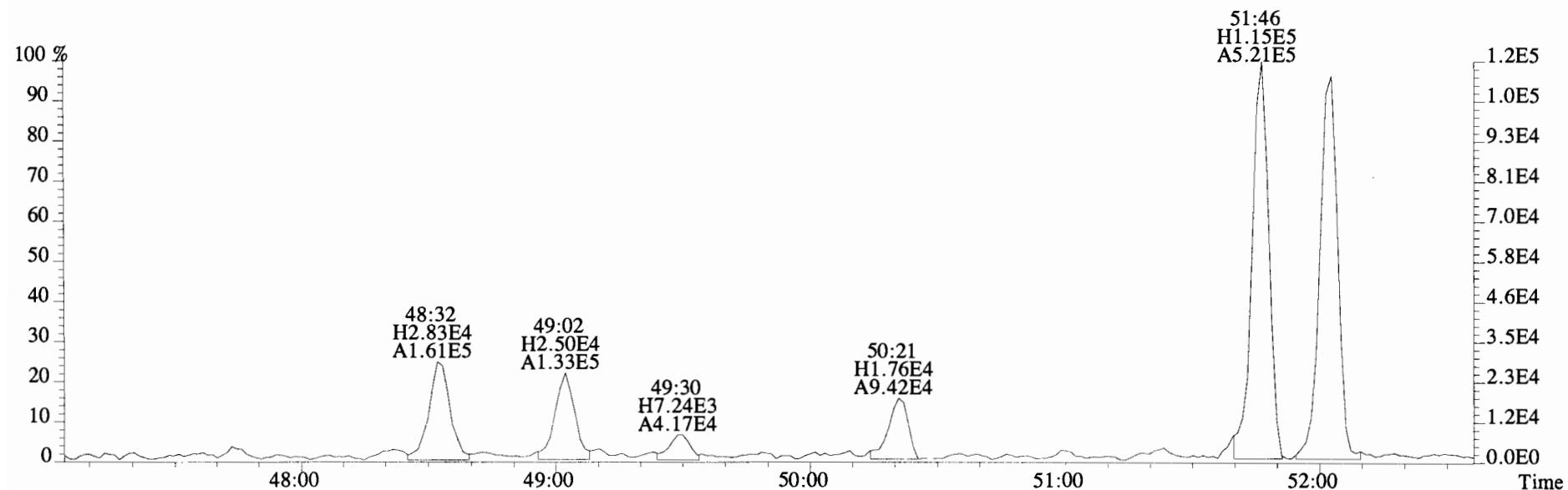
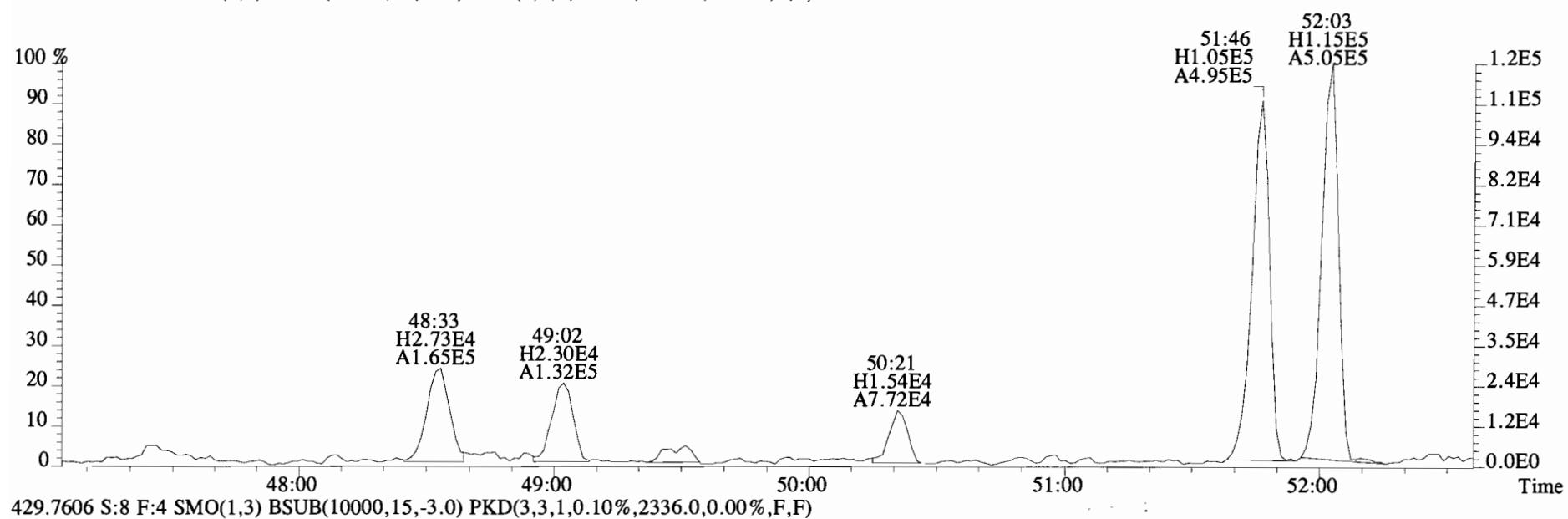
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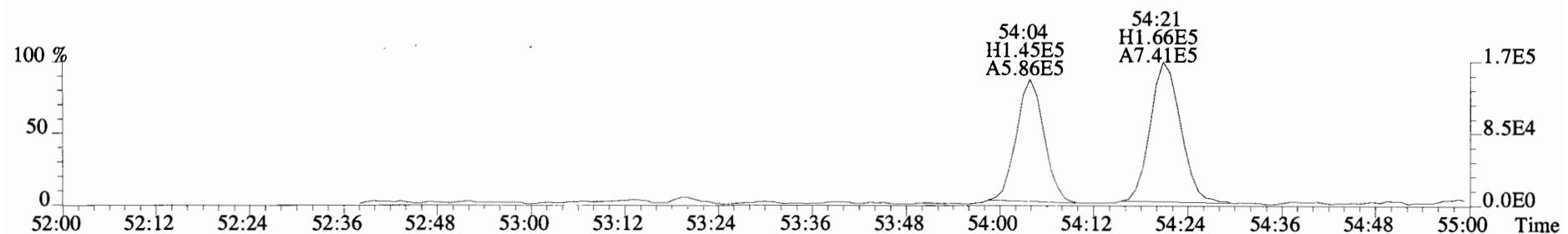
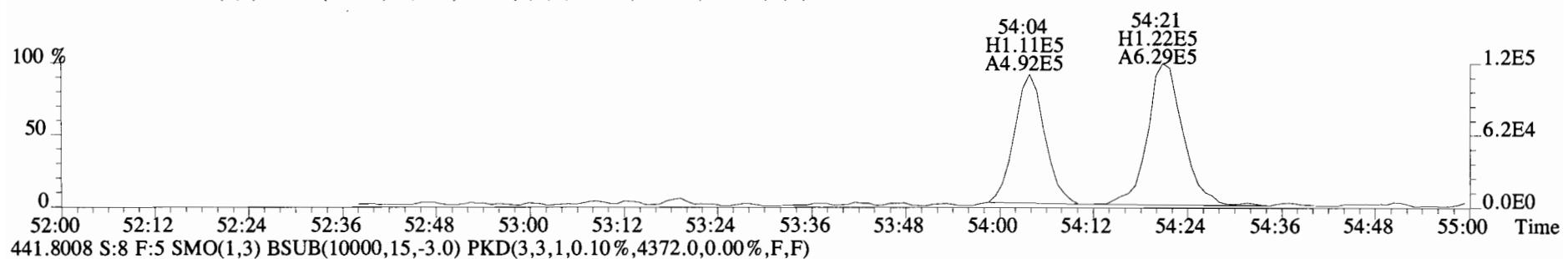
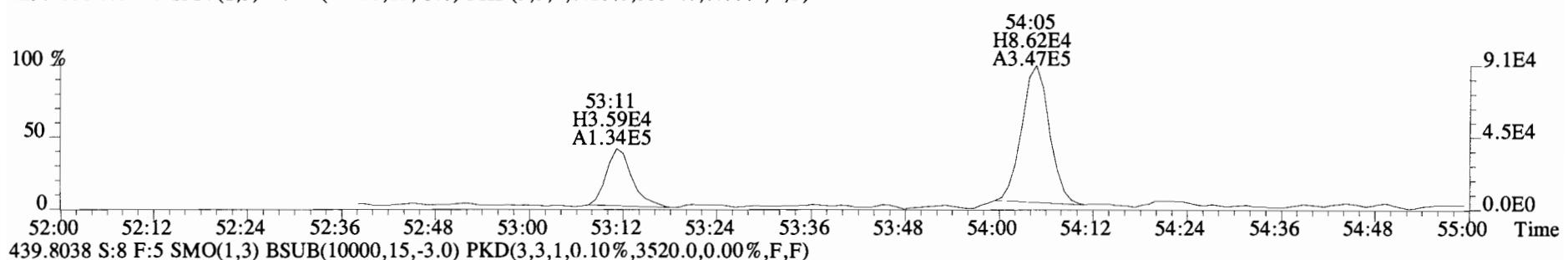
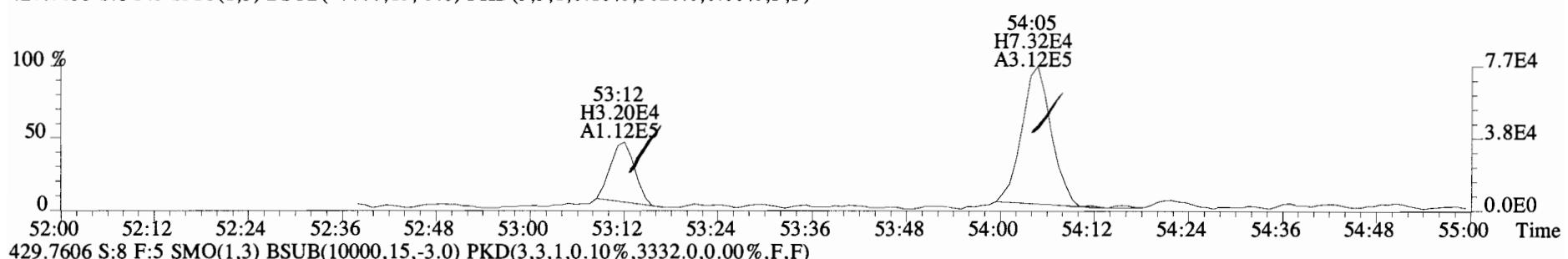
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
427.7635 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2160.0,0.00%,F,F)



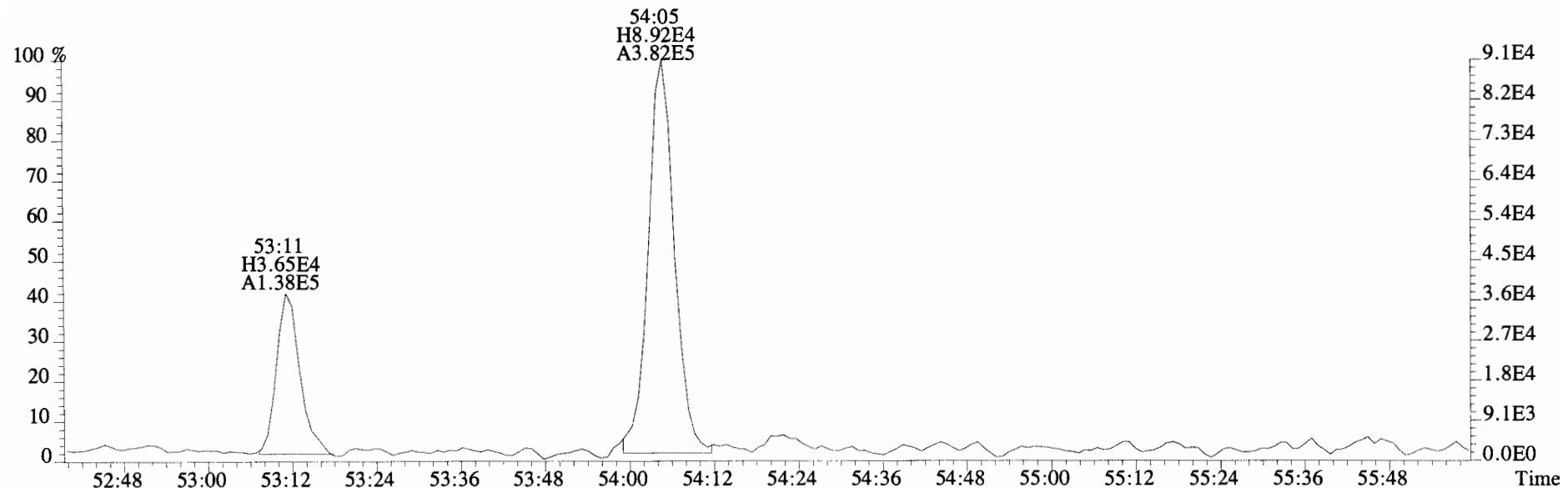
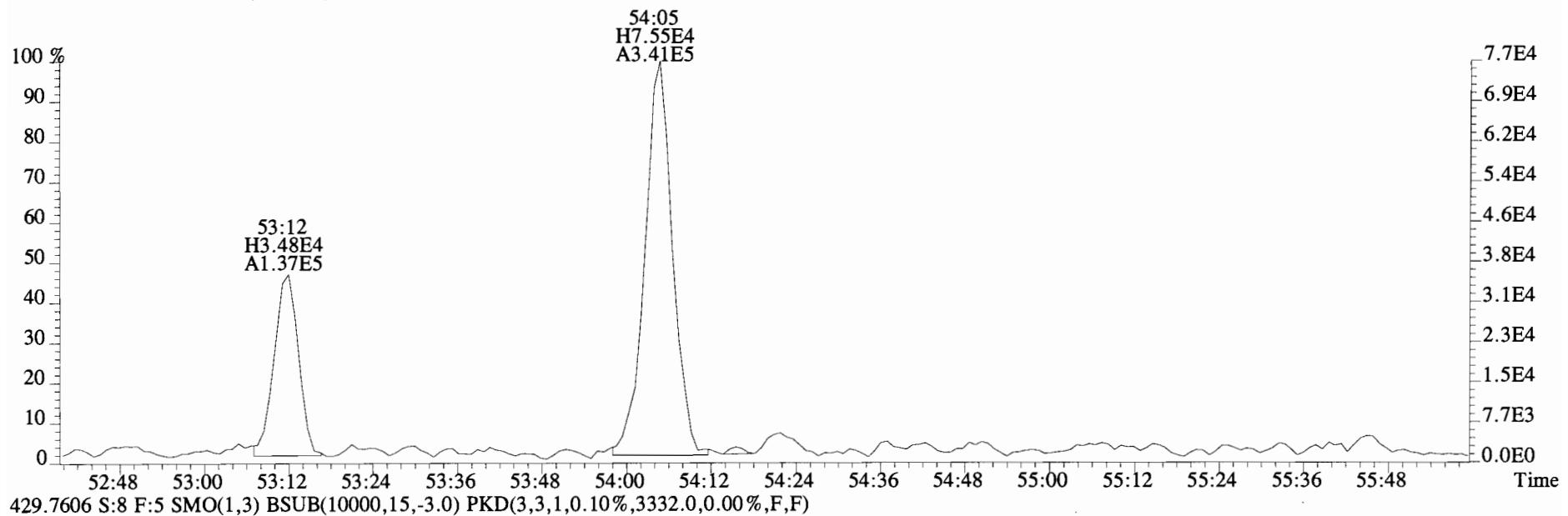
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
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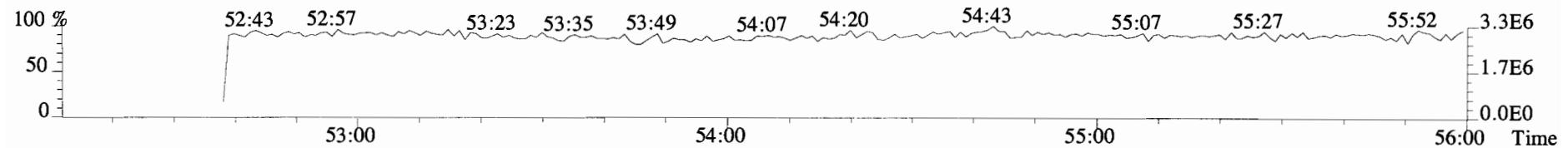
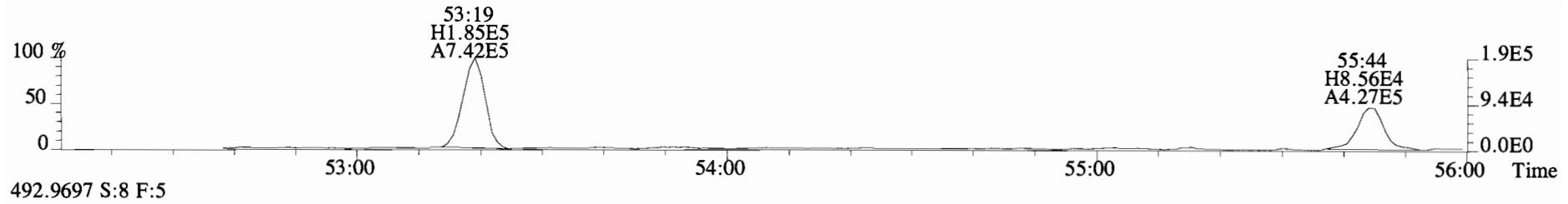
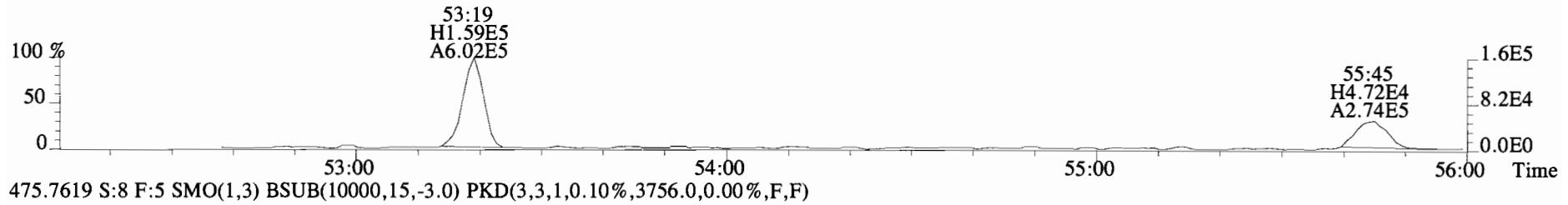
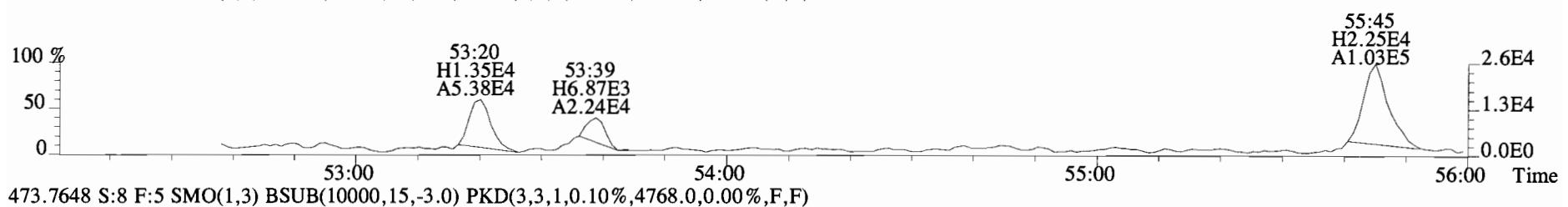
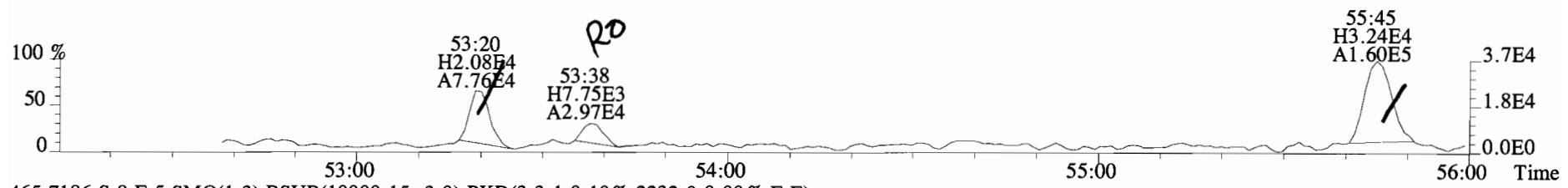
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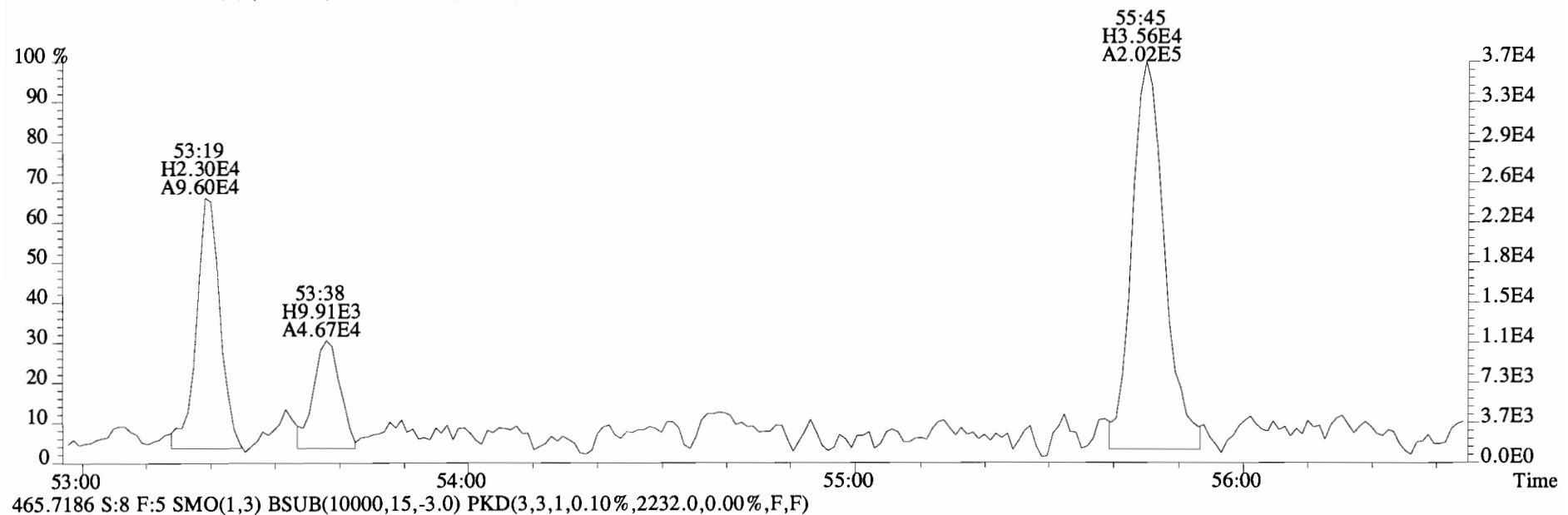
File:140919E2 #1-429 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
427.7635 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3020.0,0.00%,F,F)



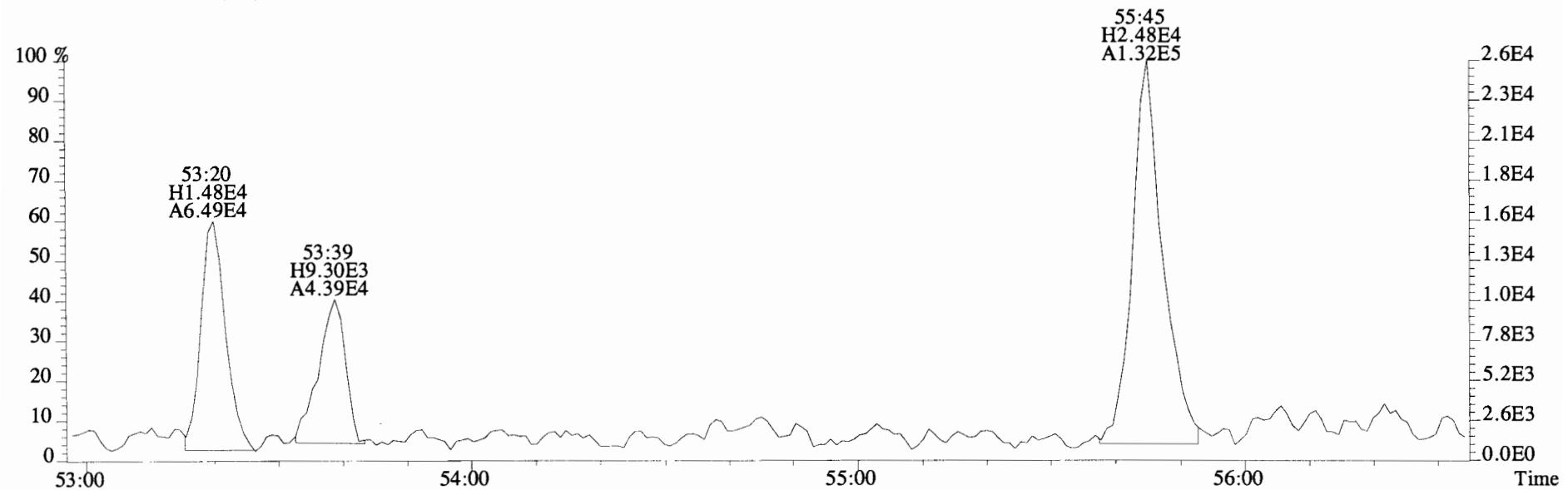
File:140919E2 #1-429 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 463.7216 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3544.0,0.00%,F,F)



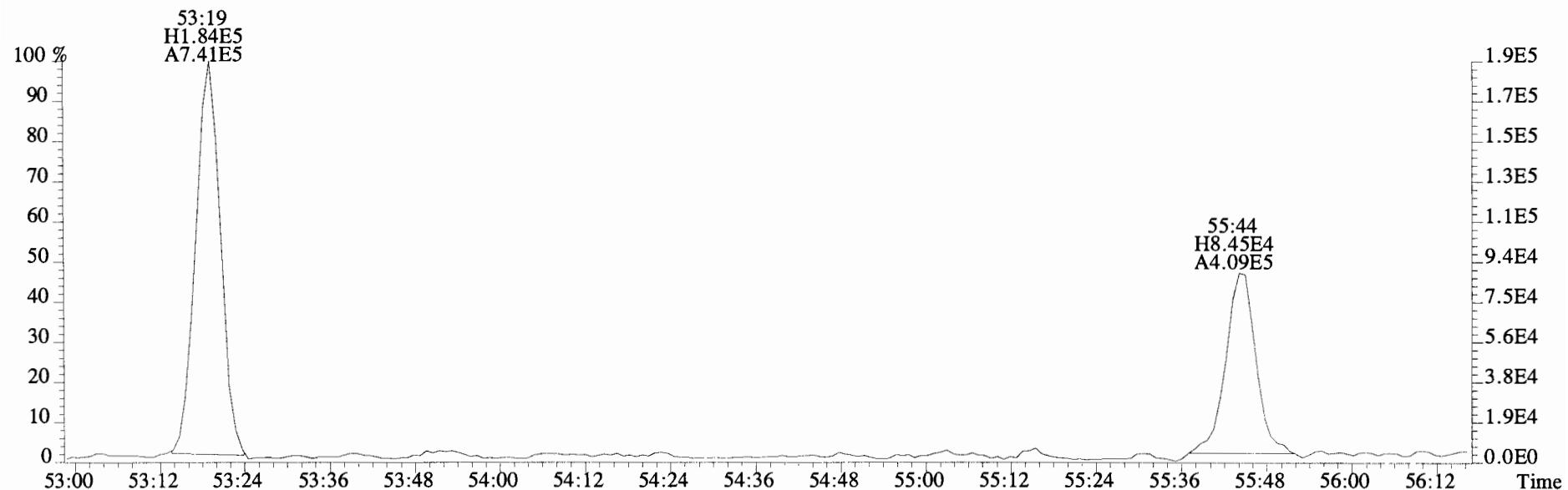
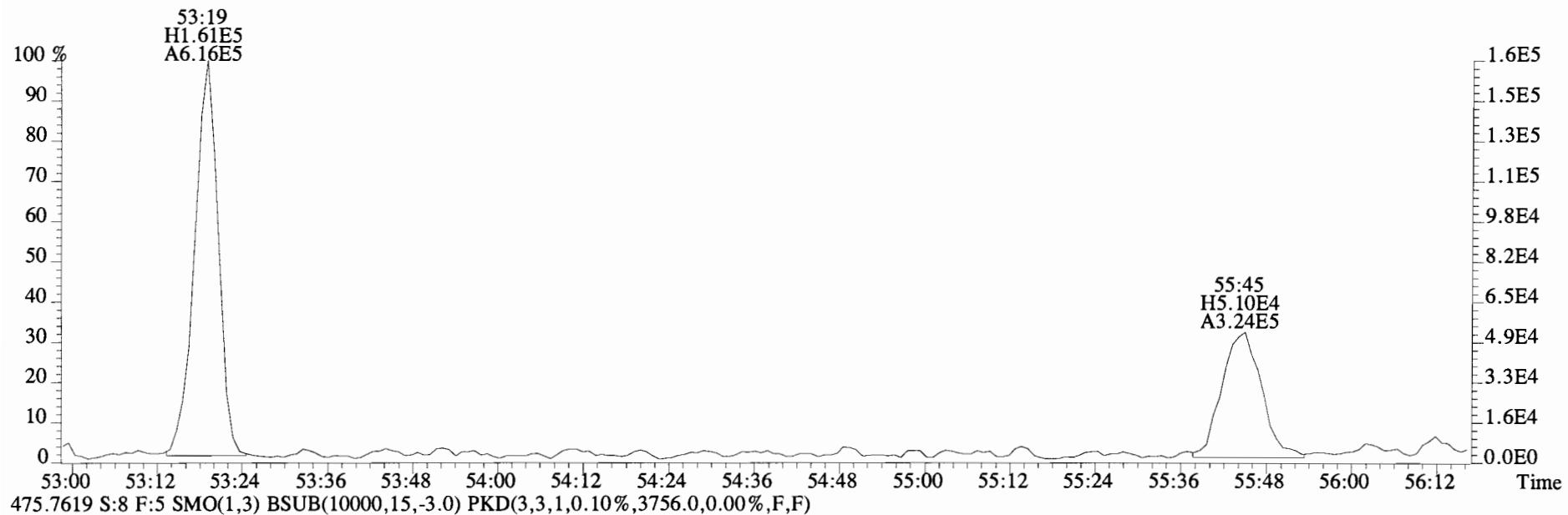
File:140919E2 #1-429 Acq:20-SEP-2014 07:13:59 GC EI + Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
463.7216 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3544.0,0.00%,F,F)



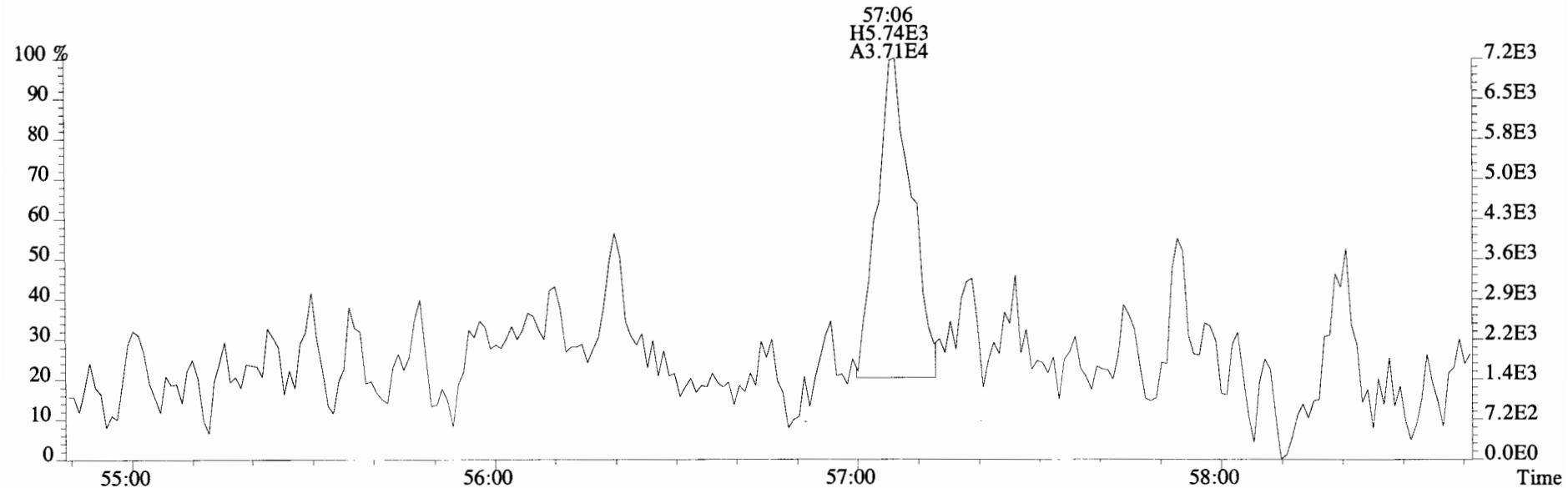
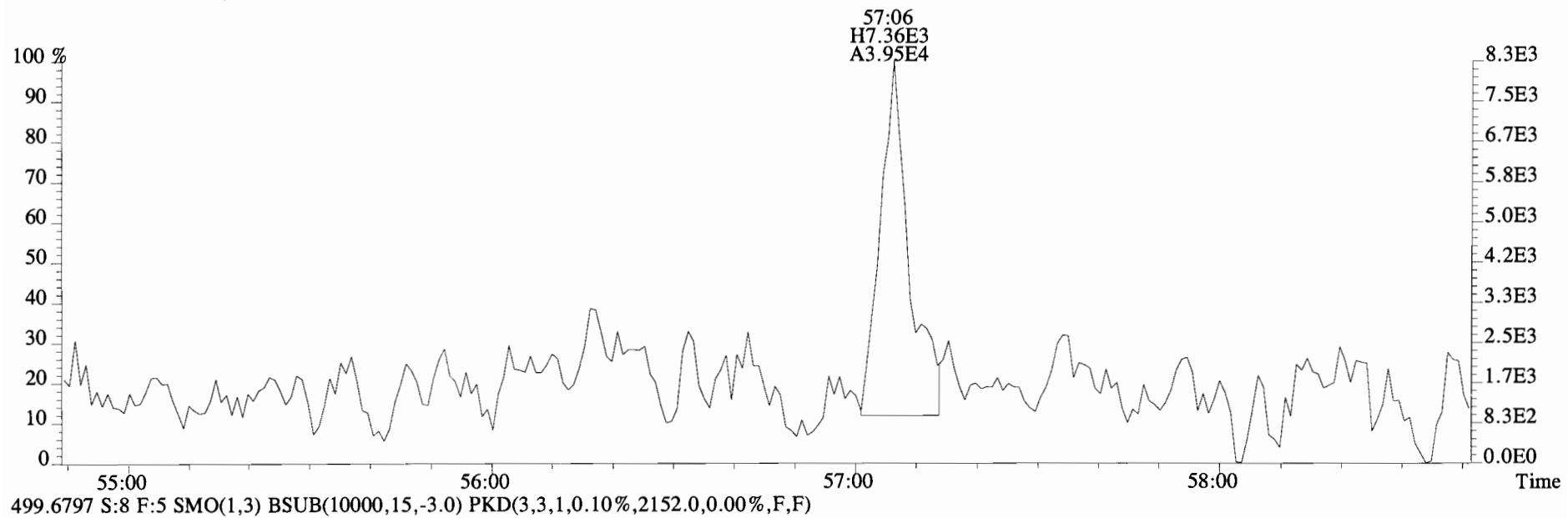
465.7186 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2232.0,0.00%,F,F)



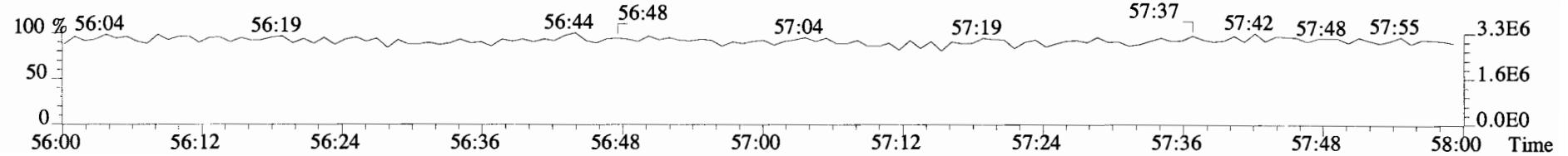
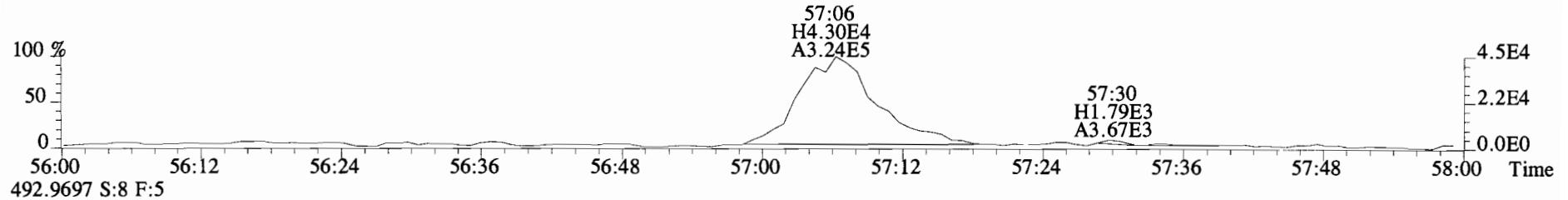
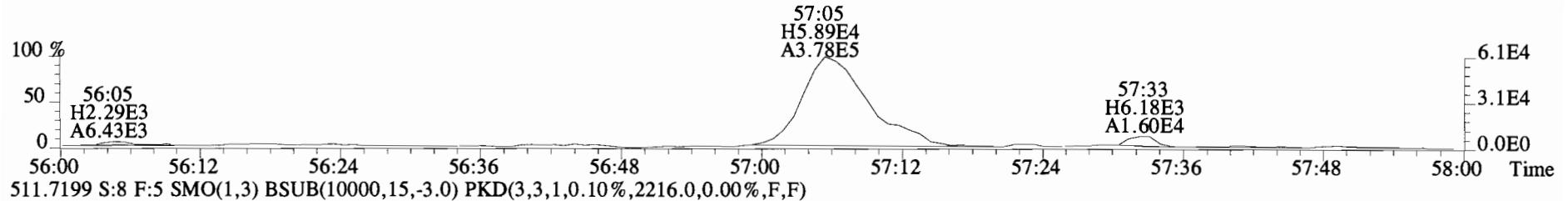
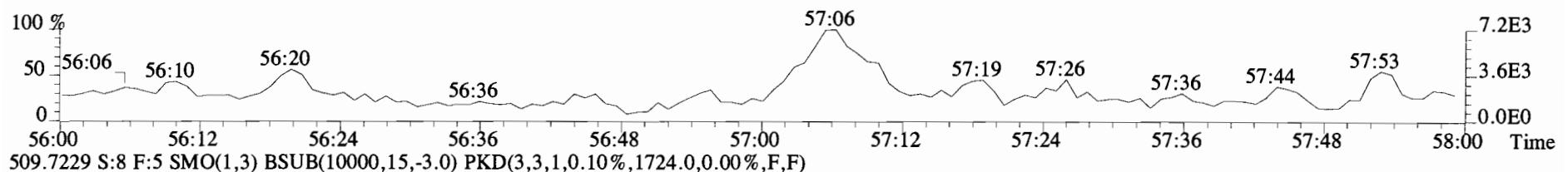
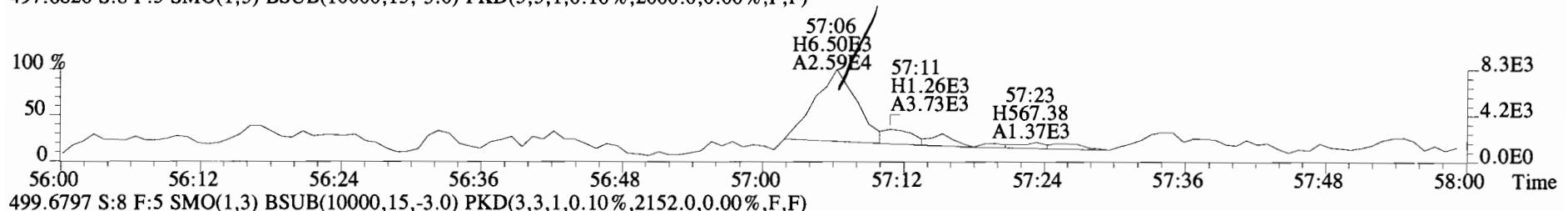
File:140919E2 #1-429 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
473.7648 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4768.0,0.00%,F,F)



File:140919E2 #1-429 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
497.6826 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2000.0,0.00%,F,F)



File:140919E2 #1-429 Acq:20-SEP-2014 07:13:59 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 PS-TS-01-20140909-S 13.41 Exp:PCB_ZB1
 497.6826 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2000.0,0.00%,F,F)



Client ID: PS-TS-01-20140909-S
 Lab ID: 1400659-03RE1 DL 1:20

Filename: 140924E1 S:7 Acq:24-SEP-14 17:35:34
 GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 10.115

ConCal: ST140924E1-2
 EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	*	*	n NotF ₂₁	1.19	*		*	2.5	*	*	0.996-1.006	
Mono	PCB-2	*	*	n NotF ₂₁	1.18	*		*	2.5	*	*	0.984-0.994	
Mono	PCB-3	*	*	n NotF ₂₁	1.43	*		*	2.5	*	*	0.996-1.006	
Di	PCB-4/10	*	*	n NotF ₂₁	1.57	*		*	2.5	*	*	0.997-1.007	
Di	PCB-7/9	*	*	n NotF ₂₁	1.21	*		*	2.5	*	*	0.866-0.874	
Di	PCB-6	*	*	n NotF ₂₁	1.30	*		*	2.5	*	*	0.890-0.899	
Di	PCB-5/8	*	*	n NotF ₂₁	1.15	*		*	2.5	*	*	0.907-0.917	
Di	PCB-14	*	*	n NotF ₂₁	1.11	*		*	2.5	*	*	0.949-0.959	
Di	PCB-11	*	*	n NotF ₂₁	1.09	*		*	2.5	*	*	0.995-1.005	
Di	PCB-12/13	*	*	n NotF ₂₁	1.19	*		*	2.5	*	*	1.011-1.021	
Di	PCB-15	*	*	n NotF ₂₁	1.28	*		*	2.5	*	*	1.023-1.033	
Tri	PCB-19	*	*	n NotF ₂₁	1.04	*		*	2.5	*	*	0.996-1.006	
Tri	PCB-30	*	*	n NotF ₂₁	1.71	*		*	2.5	*	*	1.032-1.042	
Tri	PCB-18	*	*	n NotF ₂₁	0.78	*		*	2.5	*	*	0.949-0.959	
Tri	PCB-17	*	*	n NotF ₂₁	0.92	*		*	2.5	*	*	0.956-0.966	
Tri	PCB-24/27	*	*	n NotF ₂₁	1.19	*		*	2.5	*	*	0.977-0.987	
Tri	PCB-16/32	*	*	n NotF ₂₁	0.94	*		*	2.5	*	*	0.995-1.005	
Tri	PCB-34	*	*	n NotF ₂₁	1.14	*		*	2.5	*	*	0.955-0.965	
Tri	PCB-23	*	*	n NotF ₂₁	1.28	*		*	2.5	*	*	0.959-0.969	
Tri	PCB-29	*	*	n NotF ₂₁	1.08	*		*	2.5	*	*	0.967-0.977	
Tri	PCB-26	*	*	n NotF ₂₁	1.21	*		*	2.5	*	*	0.974-0.984	
Tri	PCB-25	*	*	n NotF ₂₁	1.26	*		*	2.5	*	*	0.979-0.989	
Tri	PCB-31	*	*	n NotF ₂₁	1.28	*		*	2.5	*	*	0.992-1.002	
Tri	PCB-28	*	*	n NotF ₂₁	1.71	*		*	2.5	*	*	0.995-1.005	
Tri	PCB-20/21/33	*	*	n NotF ₂₁	1.08	*		*	2.5	*	*	1.017-1.027	
Tri	PCB-22	*	*	n NotF ₂₁	1.21	*		*	2.5	*	*	1.032-1.042	
Tri	PCB-36	*	*	n NotF ₂₁	1.14	*		*	2.5	*	*	0.928-0.938	
Tri	PCB-39	*	*	n NotF ₂₁	1.12	*		*	2.5	*	*	0.943-0.953	
Tri	PCB-38	*	*	n NotF ₂₁	1.20	*		*	2.5	*	*	0.966-0.976	
Tri	PCB-35	*	*	n NotF ₂₁	1.23	*		*	2.5	*	*	0.982-0.992	
Tri	PCB-37	*	*	n NotF ₂₁	1.23	*		*	2.5	*	*	0.995-1.005	
Tetra	PCB-54	*	*	n NotF ₂₁	1.10	*	x	2000	2.5	14.6	*	0.996-1.006	
Tetra	PCB-50	*	*	n NotF ₂₁	0.88	*		2000	2.5	18.3	*	1.037-1.047	
Tetra	PCB-53	5.87e+04	0.97	n 29:56	1.06	26.0		*	2.5	*	0.946	0.942-0.952	
Tetra	PCB-51	*	*	n NotF ₂₁	0.99	*		2000	2.5	19.4	*	0.952-0.962	
Tetra	PCB-45	4.49e+04	1.18	n 30:42	0.86	24.5		*	2.5	*	0.970	0.966-0.976	
Tetra	PCB-46	*	*	n NotF ₂₁	0.85	*		2000	2.5	22.7	*	0.981-0.991	

x = used only
 R = reference

Integrations by:

Analyst: Dms

Date: 9/26/14

Reviewed by: MP

Date: 9/26/14

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	8.85e+05	0.71	y 31:39	1.28	326	X	*	2.5	*	1.001	0.996-1.006	
Tetra	PCB-73	*	*	n NotFq	1.35	*		2640	2.5	18.7	*	1.000-1.010	
Tetra	PCB-43/49	3.63e+05	0.77	y 31:57	0.99	172		*	2.5	*	1.010	1.005-1.015	
Tetra	PCB-47	1.10e+05	0.79	y 32:10	1.06	48.7		*	2.5	*	1.002	0.996-1.006	
Tetra	PCB-48/75	9.92e+04	0.76	y 32:16	1.23	37.8		*	2.5	*	1.005	0.999-1.009	
Tetra	PCB-65	*	*	n NotFq	1.22	*		2640	2.5	22.1	*	1.008-1.018	
Tetra	PCB-62	*	*	n NotFq	1.22	*		2640	2.5	22.2	*	1.011-1.021	
Tetra	PCB-44	5.07e+05	0.71	y 32:56	0.86	275		*	2.5	*	1.025	1.021-1.031	
Tetra	PCB-42/59	1.68e+05	0.82	y 33:10	1.14	69.0		*	2.5	*	1.033	1.028-1.038	
Tetra	PCB-41/64/71/72	5.79e+05	0.69	y 33:46	1.21	224		*	2.5	*	1.051	1.046-1.056	
Tetra	PCB-68	*	*	n NotFq	1.35	*		2640	2.5	20.1	*	1.054-1.064	
Tetra	PCB-40	1.11e+05	0.86	y 34:13	0.70	74.1		*	2.5	*	1.065	1.061-1.071	
Tetra	PCB-57	*	*	n NotFq	0.98	*		2640	2.5	23.7	*	0.965-0.975	
Tetra	PCB-67	*	*	n NotFq	1.11	*		2640	2.5	20.9	*	0.974-0.984	
Tetra	PCB-58	*	*	n NotFq	0.93	*		2640	2.5	25.0	*	0.977-0.987	
Tetra	PCB-63	*	*	n NotFq	0.95	*		2640	2.5	24.3	*	0.982-0.992	
Tetra	PCB-74	3.39e+05	0.72	y 35:27	1.24	100		*	2.5	*	0.994	0.990-1.000	
Tetra	PCB-61/70	1.12e+06	0.74	y 35:40	0.95	432		*	2.5	*	1.000	0.995-1.005	
Tetra	PCB-76/66	5.84e+05	0.78	y 35:52	1.04	205		*	2.5	*	1.006	1.001-1.011	
Tetra	PCB-80	*	*	n NotFq	1.19	*		2640	2.5	16.9	*	0.996-1.006	
Tetra	PCB-55	*	*	n NotFq	1.04	*		2640	2.5	19.3	*	1.005-1.015	
Tetra	PCB-56/60	4.64e+05	0.72	y 36:55	1.01	163		*	2.5	*	1.024	1.019-1.029	
Tetra	PCB-79	6.09e+04	0.84	y 37:58	1.08	20.0		*	2.5	*	1.053	1.048-1.058	
Tetra	PCB-78	*	*	n NotFq	1.27	*		2640	2.5	19.9	*	0.982-0.992	
Tetra	PCB-81	*	*	n NotFq	1.33	*		2640	2.5	19.0	*	0.995-1.005	
Tetra	PCB-77	3.33e+05	0.84	y 39:48	1.10	127		*	2.5	*	1.001	0.995-1.005	
Penta	PCB-104	*	*	n NotFq	1.18	*		*	2.5	*	*	0.996-1.006	
Penta	PCB-96	*	*	n NotFq	1.14	*		*	2.5	*	*	1.034-1.044	
Penta	PCB-103	*	*	n NotFq	0.96	*		*	2.5	*	*	1.050-1.060	
Penta	PCB-100	*	*	n NotFq	0.94	*		*	2.5	*	*	1.061-1.071	
Penta	PCB-94	*	*	n NotFq	1.06	*		*	2.5	*	*	0.980-0.990	
Penta	PCB-95/98/102	*	*	n NotFq	1.22	*		*	2.5	*	*	0.995-1.005	
Penta	PCB-93	*	*	n NotFq	0.84	*		*	2.5	*	*	0.997-1.007	
Penta	PCB-88/91	*	*	n NotFq	1.12	*		*	2.5	*	*	1.005-1.015	
Penta	PCB-121	*	*	n NotFq	1.62	*		*	2.5	*	*	1.009-1.019	
Penta	PCB-84/92	*	*	n NotFq	1.05	*		*	2.5	*	*	0.985-0.995	
Penta	PCB-89	*	*	n NotFq	1.13	*		*	2.5	*	*	0.991-1.001	

* = used only

Analyst: DMS

Date: 9/26/14

Client ID: PS-TS-01-20140909-S
Lab ID: 1400659-03RE1 DL 1:20

Filename: 140924E1 S:7 Acq:24-SEP-14 17:35:34
GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol:10.115

ConCal: ST140924E1-2
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	*	*	n NotF ₁₁	0.82	*	*	*	2.5	*	*	0.977-0.987	
Hexa	PCB-131	*	*	n NotF ₁₁	0.91	*	*	*	2.5	*	*	0.981-0.991	
Hexa	PCB-146/165	*	*	n NotF ₁₁	1.25	*	*	*	2.5	*	*	0.986-0.996	
Hexa	PCB-132/161	*	*	n NotF ₁₁	1.10	*	*	*	2.5	*	*	0.992-1.002	
Hexa	PCB-153	*	*	n NotF ₁₁	1.25	*	*	*	2.5	*	*	0.995-1.005	
Hexa	PCB-168	*	*	n NotF ₁₁	1.45	*	*	*	2.5	*	*	1.001-1.011	
Hexa	PCB-141	*	*	n NotF ₁₁	1.09	*	*	*	2.5	*	*	0.995-1.005	
Hexa	PCB-137	*	*	n NotF ₁₁	1.06	*	*	*	2.5	*	*	1.004-1.014	
Hexa	PCB-130	*	*	n NotF ₁₁	0.96	*	*	*	2.5	*	*	1.006-1.016	
Hexa	PCB-138/163/164	*	*	n NotF ₁₁	1.29	*	*	*	2.5	*	*	0.996-1.006	
Hexa	PCB-158/160	*	*	n NotF ₁₁	1.34	*	*	*	2.5	*	*	1.001-1.011	
Hexa	PCB-129	*	*	n NotF ₁₁	0.85	*	*	*	2.5	*	*	1.007-1.017	
Hexa	PCB-166	*	*	n NotF ₁₁	1.19	*	*	*	2.5	*	*	0.988-0.998	
Hexa	PCB-159	*	*	n NotF ₁₁	1.11	*	*	*	2.5	*	*	0.996-1.006	
Hexa	PCB-128/162	*	*	n NotF ₁₁	1.05	*	*	*	2.5	*	*	1.002-1.012	
Hexa	PCB-167	1.73e+05	1.12	y 46:58	1.20	77.0	<i>* used only</i>	*	2.5	*	1.001	0.995-1.005	
Hexa	PCB-156	*	*	n NotF ₁₁	1.14	*	*	*	2.5	*	*	0.996-1.006	
Hexa	PCB-157	*	*	n NotF ₁₁	1.16	*	*	*	2.5	*	*	0.995-1.005	
Hexa	PCB-169	*	*	n NotF ₁₁	1.12	*	*	*	2.5	*	*	0.995-1.005	
Hepta	PCB-188	*	*	n NotF ₁₁	1.58	*	*	*	2.5	*	*	0.996-1.006	
Hepta	PCB-184	*	*	n NotF ₁₁	1.63	*	*	*	2.5	*	*	1.006-1.016	
Hepta	PCB-179	*	*	n NotF ₁₁	1.30	*	*	*	2.5	*	*	1.024-1.034	
Hepta	PCB-176	*	*	n NotF ₁₁	1.48	*	*	*	2.5	*	*	1.035-1.045	
Hepta	PCB-186	*	*	n NotF ₁₁	1.45	*	*	*	2.5	*	*	1.050-1.060	
Hepta	PCB-178	*	*	n NotF ₁₁	1.03	*	*	*	2.5	*	*	1.061-1.071	
Hepta	PCB-175	*	*	n NotF ₁₁	1.01	*	*	*	2.5	*	*	1.069-1.079	
Hepta	PCB-182/187	*	*	n NotF ₁₁	1.25	*	*	*	2.5	*	*	1.073-1.083	
Hepta	PCB-183	*	*	n NotF ₁₁	1.21	*	*	*	2.5	*	*	1.081-1.091	
Hepta	PCB-185	*	*	n NotF ₁₁	1.80	*	*	*	2.5	*	*	0.951-0.961	
Hepta	PCB-174	*	*	n NotF ₁₁	1.38	*	*	*	2.5	*	*	0.958-0.968	
Hepta	PCB-181	*	*	n NotF ₁₁	1.38	*	*	*	2.5	*	*	0.960-0.970	
Hepta	PCB-177	*	*	n NotF ₁₁	1.26	*	*	*	2.5	*	*	0.963-0.973	
Hepta	PCB-171	*	*	n NotF ₁₁	1.58	*	*	*	2.5	*	*	0.970-0.980	
Hepta	PCB-173	*	*	n NotF ₁₁	1.11	*	*	*	2.5	*	*	0.978-0.988	
Hepta	PCB-172	*	*	n NotF ₁₁	1.63	*	*	*	2.5	*	*	0.987-0.997	
Hepta	PCB-192	*	*	n NotF ₁₁	1.74	*	*	*	2.5	*	*	0.991-1.001	
Hepta	PCB-180	*	*	n NotF ₁₁	1.34	*	*	*	2.5	*	*	0.995-1.005	

Analyst: DMS

Date: 9/26/14

Client ID: PS-TS-01-20140909-S
Lab ID: 1400659-03RE1 DL 1:20

Filename: 140924E1 S:7 Acq:24-SEP-14 17:35:34
GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol:10.115

ConCal: ST140924E1-2
EndCAL: NA

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Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	*	n NotF ₇	1.72	*	*	*	2.5	*	*	0.999-1.009	
Hepta	PCB-191	*	*	n NotF ₇	1.69	*	*	*	2.5	*	*	1.004-1.014	
Hepta	PCB-170	*	*	n NotF ₇	1.60	*	*	*	2.5	*	*	0.995-1.005	
Hepta	PCB-190	*	*	n NotF ₇	2.21	*	*	*	2.5	*	*	0.998-1.008	
Hepta	PCB-189	6.81e+04	1.28	n 52:29	1.55	56.3	R	X	* 2.5 <i>use only</i>	*	1.000	0.995-1.005	
Octa	PCB-202	*	*	n NotF ₈	1.08	*	*	*	2.5	*	*	0.995-1.005	
Octa	PCB-201	*	*	n NotF ₈	1.15	*	*	*	2.5	*	*	1.005-1.015	
Octa	PCB-204	*	*	n NotF ₈	1.14	*	*	*	2.5	*	*	1.008-1.018	
Octa	PCB-197	*	*	n NotF ₈	1.07	*	*	*	2.5	*	*	1.015-1.025	
Octa	PCB-200	*	*	n NotF ₈	1.06	*	*	*	2.5	*	*	1.032-1.044	
Octa	PCB-198	*	*	n NotF ₈	0.76	*	*	*	2.5	*	*	1.059-1.069	
Octa	PCB-199	*	*	n NotF ₈	0.80	*	*	*	2.5	*	*	1.061-1.071	
Octa	PCB-196/203	*	*	n NotF ₈	0.80	*	*	*	2.5	*	*	1.066-1.076	
Octa	PCB-195	*	*	n NotF ₈	1.23	*	*	*	2.5	*	*	0.979-0.989	
Octa	PCB-194	*	*	n NotF ₈	1.21	*	*	*	2.5	*	*	0.995-1.005	
Octa	PCB-205	*	*	n NotF ₈	1.54	*	*	*	2.5	*	*	1.001-1.011	
Nonna	PCB-208	*	*	n NotF ₉	0.93	*	*	*	2.5	*	*	0.995-1.005	
Nonna	PCB-207	*	*	n NotF ₉	1.08	*	*	*	2.5	*	*	1.001-1.011	
Nonna	PCB-206	*	*	n NotF ₉	1.02	*	*	*	2.5	*	*	0.995-1.005	
Deca	PCB-209	*	*	n NotF ₁₀	1.17	*	*	*	2.5	*	*	0.995-1.005	

Analyst: DMS

Date: 9/26/14

Client ID: PS-TS-01-20140909-S
Lab ID: 1400659-03RE1 DL 1:20

Filename: 140924E1 S:7 Acq:24-SEP-14 17:35:34 ConCal: ST140924E1-2
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 10.1152 EndCAL: NA

Page 8 of

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	*	*	n	NotFnd	1.27 *
Total Di-PCB	*	*	n	NotFnd	1.21 *
Total Tri-PCB	*	*	n	NotFnd	1.10 *
Total Tri-PCB	*	*	n	NotFnd	1.21 * Sum:0.00000
Total Tetra-PCB	5.72e+06	0.71	y	31:39	1.09 2274.75
Total Penta-PCB	*	*	n	NotFnd	1.18 *
Total Penta-PCB	*	*	n	NotFnd	1.25 * Sum:0.00000
Total Hexa-PCB	*	*	n	NotFnd	0.90 *
Total Hexa-PCB	1.73e+05	1.12	y	46:58	1.11 77.0334 Sum:77.0334
Total Hepta-PCB	*	*	n	NotFnd	1.42 *
Total Octa-PCB	*	*	n	NotFnd	0.96 *
Total Octa-PCB	*	*	n	NotFnd	1.33 * Sum:0.00000
Total Nona-PCB	*	*	n	NotFnd	1.01 *
Total Deca-PCB	*	*	n	NotFnd	1.17 *

Total PCB Conc:2458.68790300

Integrations
by
Analyst: DMS
Date: 9/26/14

Client ID: PS-TS-01-20140909-S
 Lab ID: 1400659-03RE1 DL 1:20

Filename: 140924E1 S:7 Acq:24-SEP-14 17:35:34
 GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.11%
 ConCal: ST140924E1-2 EndCAL: NA

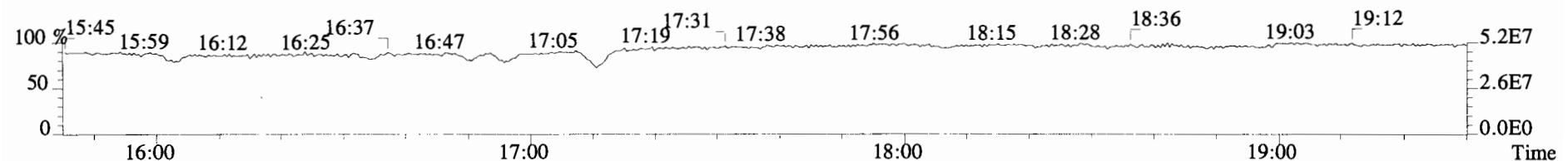
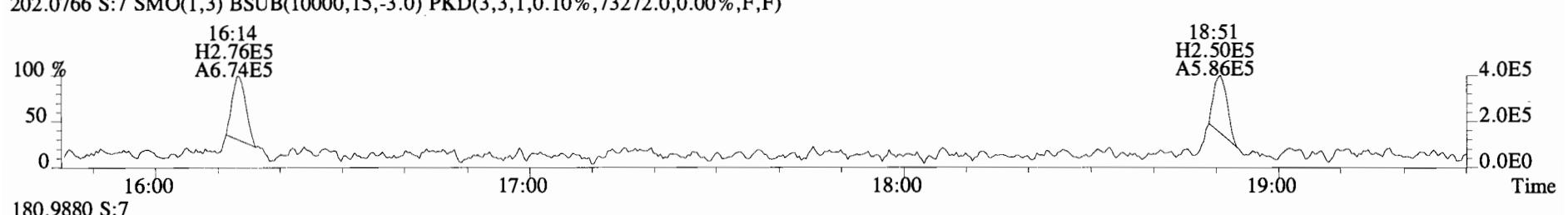
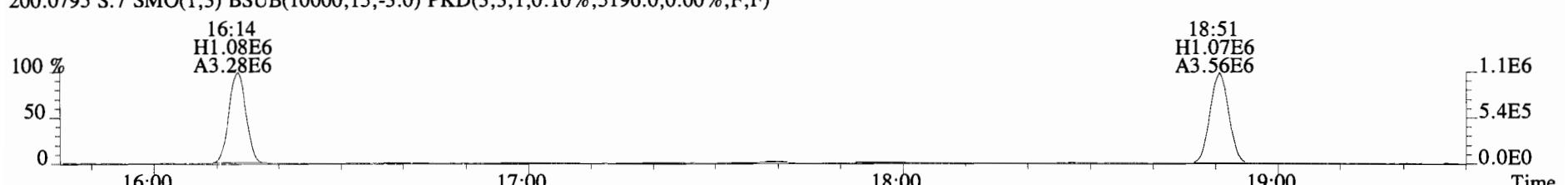
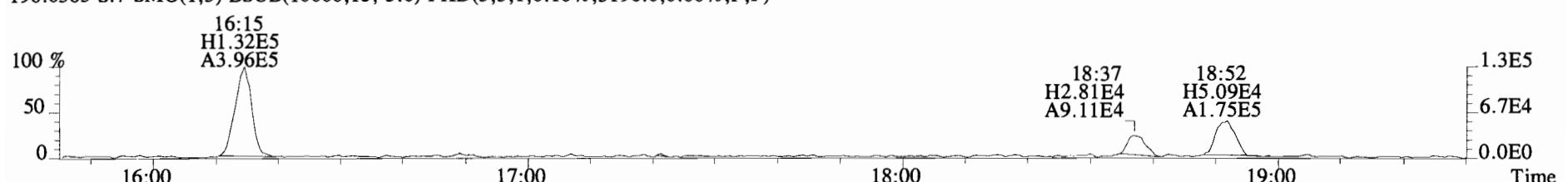
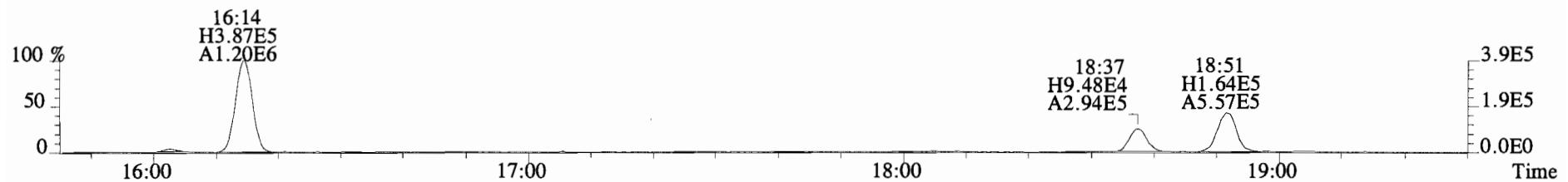
Page 8 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	
13C-PCB-1	2.79e+06	4.87	n	0.87	16:13	0.623	0.629-0.635	695	70.3	13C-PCB-79	2.87e+06	0.73	y	1.02	37:57	1.028	1.023-1.034	942	95.3			
13C-PCB-3	2.42e+06	6.07	n	0.91	18:51	0.723	0.725-0.733	578	58.5	13C-PCB-178	9.15e+05	0.43	y	0.61	45:48	0.985	0.979-0.990	897	90.7			
13C-PCB-4	2.36e+06	1.62	y	0.59	20:11	0.774	0.775-0.783	877	88.7	PS vs. IS		Name		Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-9	3.75e+06	1.67	y	0.90	21:58	0.843	0.842-0.850	910	92.0	13C-PCB-178	9.15e+05	0.43	y	0.61	45:48	0.985	0.979-0.990	897	90.7			
13C-PCB-11	3.89e+06	1.63	y	0.94	25:21	0.973	0.968-0.978	902	91.3	Name		Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec		
13C-PCB-19	2.22e+06	0.97	y	0.53	24:20	0.934	0.930-0.940	908	91.8	13C-PCB-79	2.87e+06	0.73	y	1.10	37:57	0.969	0.964-0.974	1080	109			
13C-PCB-28	2.79e+06	0.97	y	0.93	29:12	1.003	0.999-1.009	868	87.8	13C-PCB-178	9.15e+05	0.43	y	0.90	45:48	0.925	0.920-0.930	1020	103			
13C-PCB-32	3.35e+06	1.07	y	0.80	27:16	1.046	1.040-1.050	915	92.6	PS vs. IS		Name		Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-37	2.81e+06	1.10	y	0.84	33:05	1.137	1.131-1.143	970	98.1	13C-PCB-79	2.87e+06	0.73	y	1.10	37:57	0.969	0.964-0.974	1080	109			
13C-PCB-47	2.12e+06	0.81	y	0.81	32:07	0.870	0.866-0.874	870	88.0	13C-PCB-178	9.15e+05	0.43	y	0.90	45:48	0.925	0.920-0.930	1020	103			
13C-PCB-52	2.09e+06	0.71	y	0.77	31:38	0.857	0.853-0.861	906	91.7	Name		Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec		
13C-PCB-54	2.54e+06	0.80	y	0.97	28:05	0.761	0.758-0.766	875	88.5	13C-PCB-79	2.87e+06	0.73	y	1.10	37:57	0.969	0.964-0.974	1080	109			
13C-PCB-70	2.69e+06	0.87	y	1.00	35:39	0.966	0.961-0.971	899	90.9	13C-PCB-178	9.15e+05	0.43	y	0.90	45:48	0.925	0.920-0.930	1020	103			
13C-PCB-77	2.36e+06	0.73	y	0.94	39:46	1.078	1.073-1.083	835	84.4	RS		Name		Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-80	2.78e+06	0.72	y	1.03	36:04	0.977	0.972-0.982	901	91.1	13C-PCB-79	2.87e+06	0.73	y	1.10	37:57	0.969	0.964-0.974	1080	109			
13C-PCB-81	2.38e+06	0.74	y	0.92	39:11	1.062	1.057-1.067	862	87.2	13C-PCB-178	9.15e+05	0.43	y	0.90	45:48	0.925	0.920-0.930	1020	103			
13C-PCB-95	1.38e+06	1.65	y	0.74	35:57	0.913	0.908-0.918	869	87.9	13C-PCB-79	2.87e+06	0.73	y	1.10	37:57	0.969	0.964-0.974	1080	109			
13C-PCB-97	1.32e+06	1.43	y	0.70	38:56	0.989	0.984-0.994	876	88.6	13C-PCB-178	9.15e+05	0.43	y	0.90	45:48	0.925	0.920-0.930	1020	103			
13C-PCB-101	1.48e+06	1.75	y	0.78	37:38	0.956	0.951-0.961	885	89.5	13C-PCB-15	4.54e+06	1.52	y	1.00	26:04	989	989	989	989			
13C-PCB-104	2.03e+06	1.63	y	1.00	32:47	0.833	0.828-0.836	949	96.0	13C-PCB-31	3.41e+06	1.08	y	1.00	29:06	989	989	989	989			
13C-PCB-105	1.61e+06	1.69	y	1.37	43:13	0.929	0.924-0.934	708	71.6	13C-PCB-60	2.96e+06	0.82	y	1.00	36:54	989	989	989	989			
13C-PCB-114	1.69e+06	1.73	y	1.36	42:21	0.910	0.905-0.915	744	75.2	13C-PCB-111	2.11e+06	1.59	y	1.00	39:23	989	989	989	989			
13C-PCB-118	1.62e+06	1.54	y	0.96	41:42	1.059	1.054-1.064	791	80.0	13C-PCB-128	1.64e+06	1.22	y	1.00	46:31	989	989	989	989			
13C-PCB-123	1.71e+06	1.48	y	0.89	41:31	1.054	1.050-1.060	895	90.5	13C-PCB-205	9.76e+05	0.90	y	1.00	54:19	989	989	989	989			
13C-PCB-126	1.43e+06	1.47	y	1.31	45:28	0.978	0.972-0.982	659	66.6	RS		Name		Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-127	1.73e+06	1.56	y	1.47	43:34	0.937	0.931-0.941	707	71.5	13C-PCB-15	4.54e+06	1.52	y	1.00	26:04	989	989	989	989			
13C-PCB-138	1.54e+06	1.32	y	1.10	44:57	0.966	0.961-0.971	842	85.2	13C-PCB-31	3.41e+06	1.08	y	1.00	29:06	989	989	989	989			
13C-PCB-141	1.52e+06	1.19	y	1.07	44:06	0.948	0.943-0.953	850	86.0	13C-PCB-60	2.96e+06	0.82	y	1.00	36:54	989	989	989	989			
13C-PCB-153	1.67e+06	1.33	y	1.15	43:22	0.932	0.927-0.937	876	88.6	13C-PCB-111	2.11e+06	1.59	y	1.00	39:23	989	989	989	989			
13C-PCB-155	1.64e+06	1.18	y	0.84	37:11	0.944	0.939-0.949	915	92.5	13C-PCB-128	1.64e+06	1.22	y	1.00	46:31	989	989	989	989			
13C-PCB-156	1.79e+06	1.18	y	1.30	48:14	1.037	1.032-1.042	828	83.7	13C-PCB-205	9.76e+05	0.90	y	1.00	54:19	989	989	989	989			
13C-PCB-157	1.84e+06	1.38	y	1.36	48:30	1.043	1.038-1.048	816	82.6	Analyst: Dms		RS		Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-159	1.71e+06	1.21	y	1.25	46:15	0.994	0.989-0.999	827	83.6	13C-PCB-15	4.54e+06	1.52	y	1.00	26:04	989	989	989	989			
13C-PCB-167	1.85e+06	1.42	y	1.35	46:56	1.009	1.004-1.014	823	83.3	13C-PCB-31	3.41e+06	1.08	y	1.00	29:06	989	989	989	989			
13C-PCB-169	1.58e+06	1.40	y	1.29	50:38	1.088	1.083-1.093	738	74.7	13C-PCB-60	2.96e+06	0.82	y	1.00	36:54	989	989	989	989			
13C-PCB-170	7.26e+05	0.47	y	0.54	51:00	1.096	1.089-1.101	805	81.5	13C-PCB-111	2.11e+06	1.59	y	1.00	39:23	989	989	989	989			
13C-PCB-180	9.89e+05	0.49	y	0.68	49:31	1.064	1.060-1.070	869	87.9	13C-PCB-128	1.64e+06	1.22	y	1.00	46:31	989	989	989	989			
13C-PCB-188	1.27e+06	0.54	n	0.92	42:59	0.924	0.919-0.929	834	84.4	13C-PCB-205	9.76e+05	0.90	y	1.00	54:19	989	989	989	989			
13C-PCB-189	7.71e+05	0.51	y	0.72	52:29	1.128	1.120-1.132	648	65.5	13C-PCB-15	4.54e+06	1.52	y	1.00	26:04	989	989	989	989			
13C-PCB-194	6.66e+05	1.03	n	0.80	54:02	0.995	0.990-1.000	845	85.5	13C-PCB-31	3.41e+06	1.08	y	1.00	29:06	989	989	989	989			
13C-PCB-202	1.31e+06	0.77	y	0.84	48:27	1.041	1.036-1.046	940	95.1	13C-PCB-60	2.96e+06	0.82	y	1.00	36:54	989	989	989	989			
13C-PCB-206	7.53e+05	0.76	y	0.65	55:45	1.026	1.021-1.031	1170	119	13C-PCB-111	2.11e+06	1.59	y	1.00	39:23	989	989	989	989			
13C-PCB-208	1.14e+06	0.79	y	1.08	53:16	0.981	0.976-0.986	1070	108	13C-PCB-128	1.64e+06	1.22	y	1.00	46:31	989	989	989	989			
13C-PCB-209	7.99e+05	1.11	y	0.61	57:08	1.052	1.045-1.055	1330	134	13C-PCB-205	9.76e+05	0.90	y	1.00	54:19	989	989	989	989			

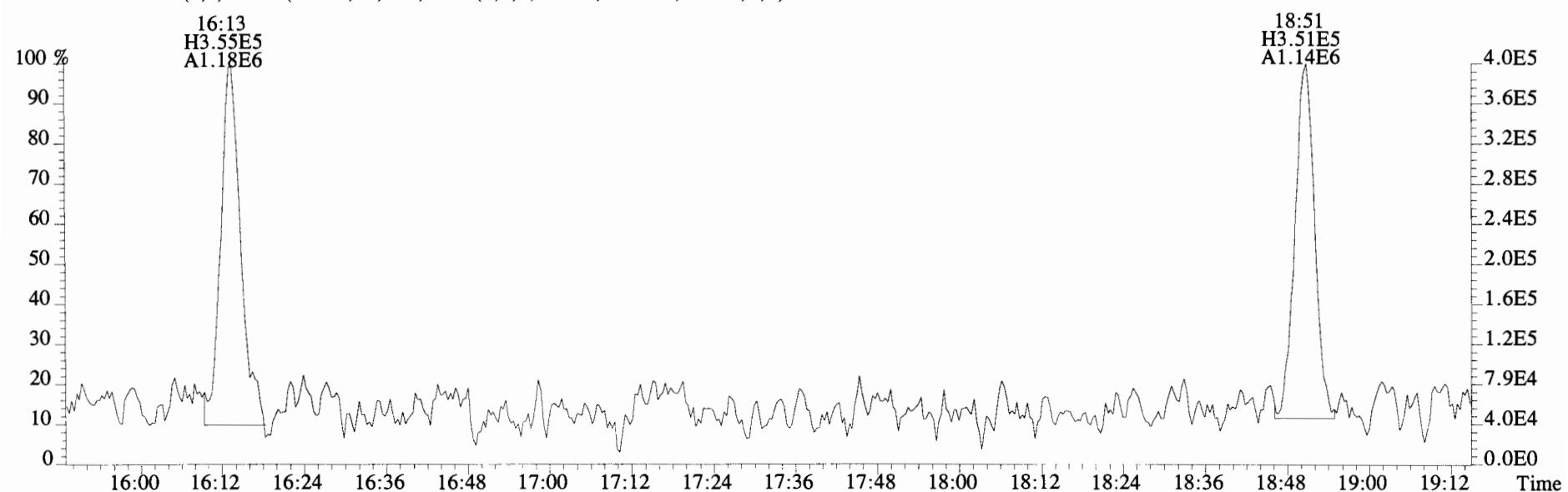
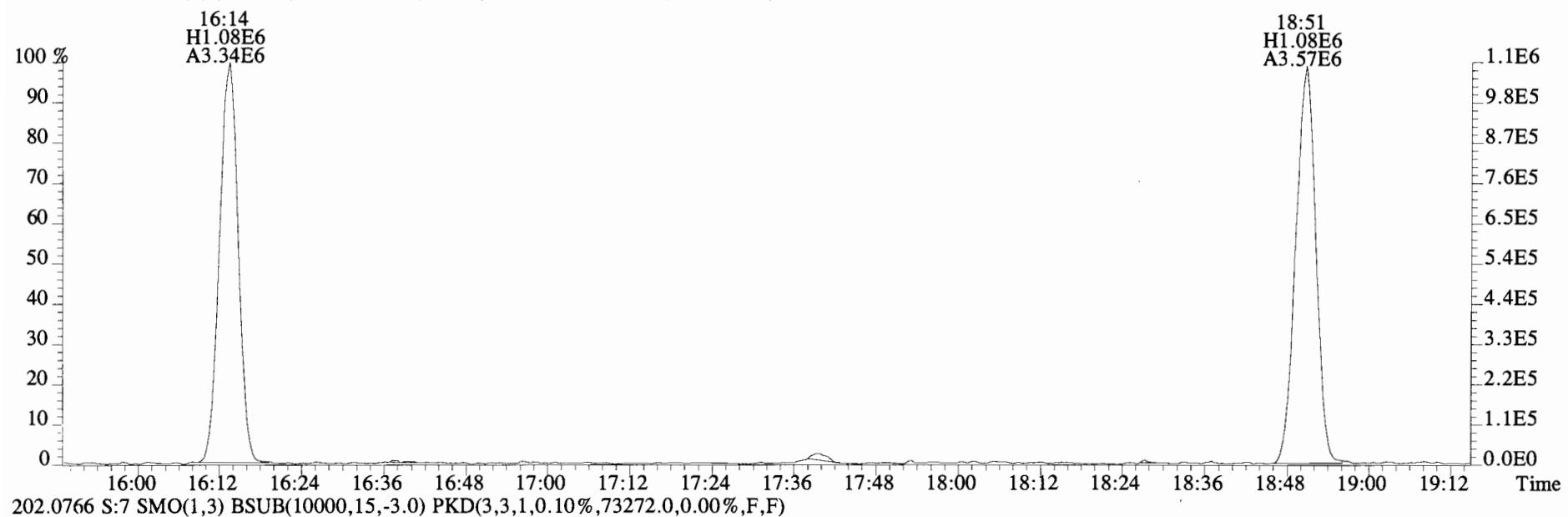
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Date: 9/26/14

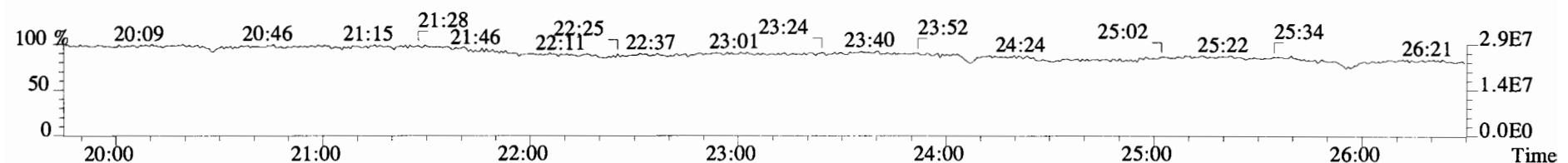
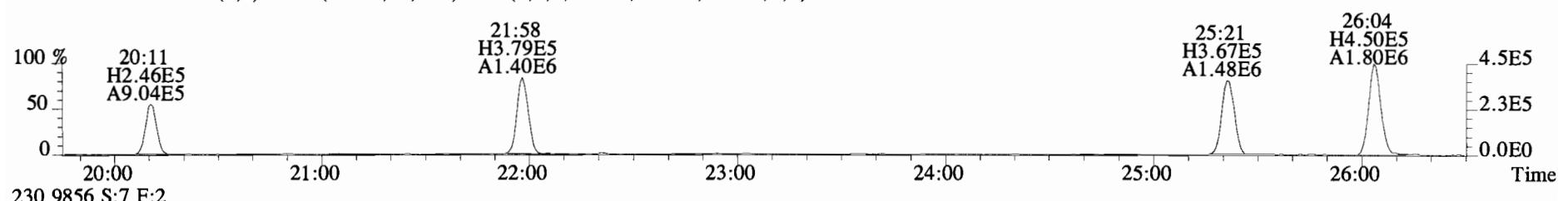
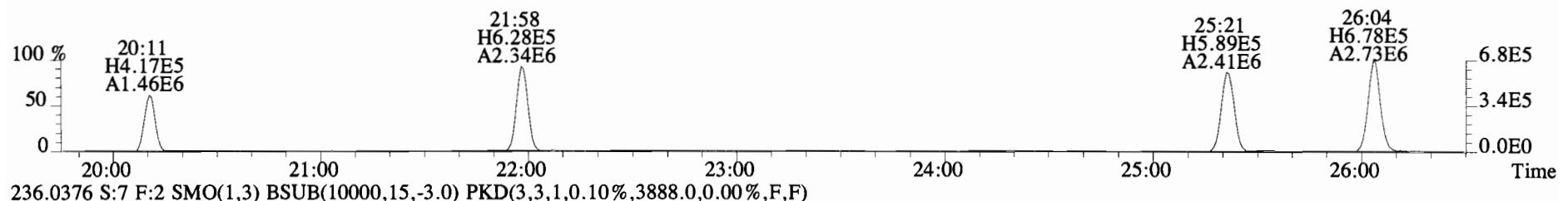
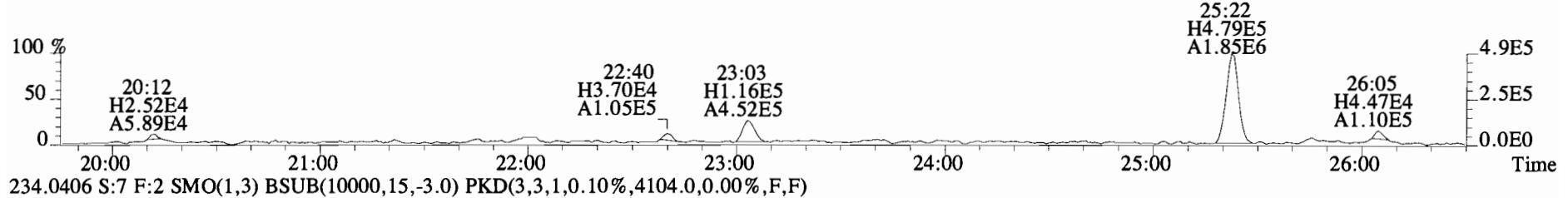
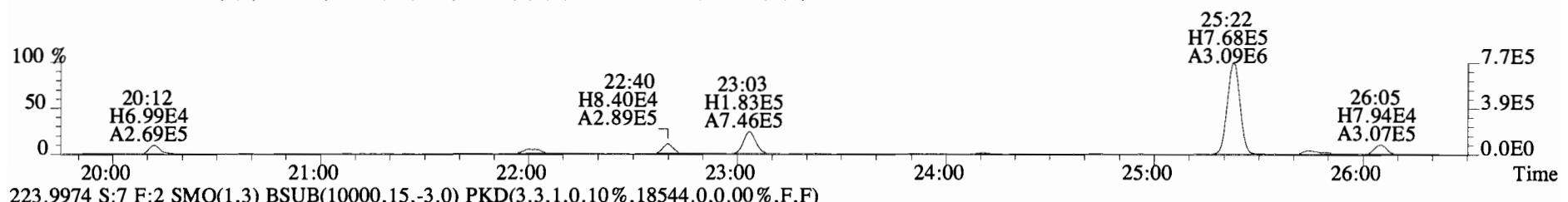
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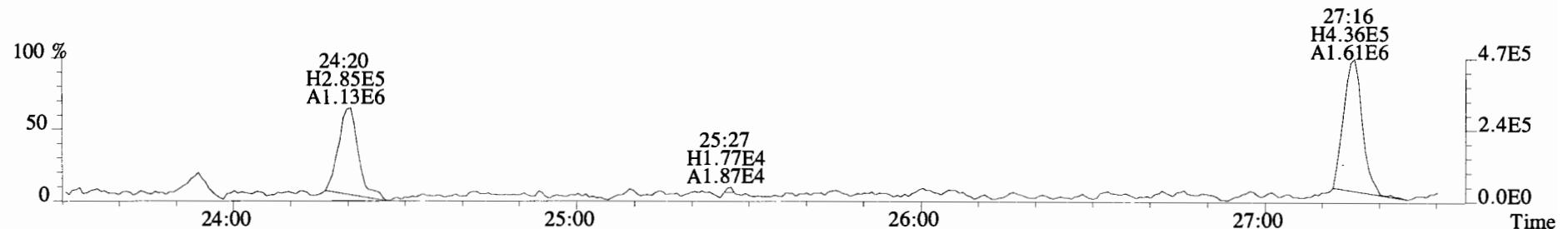
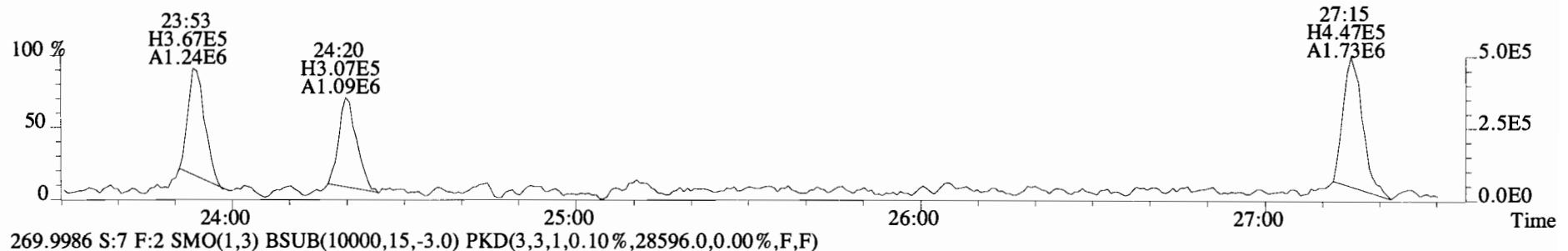
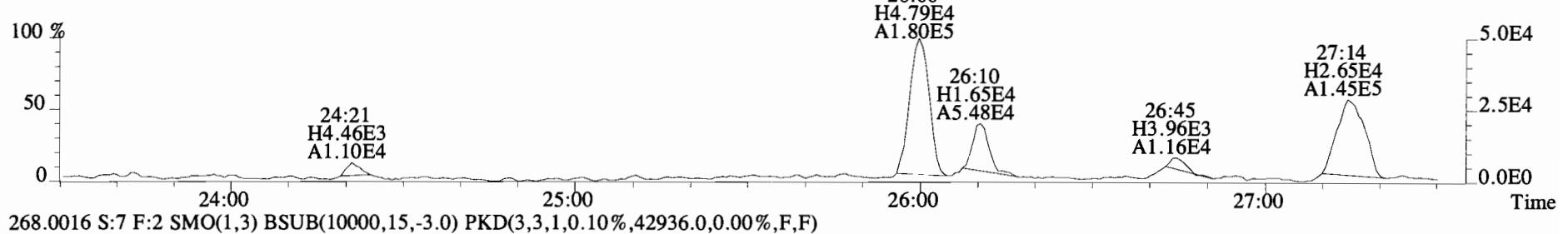
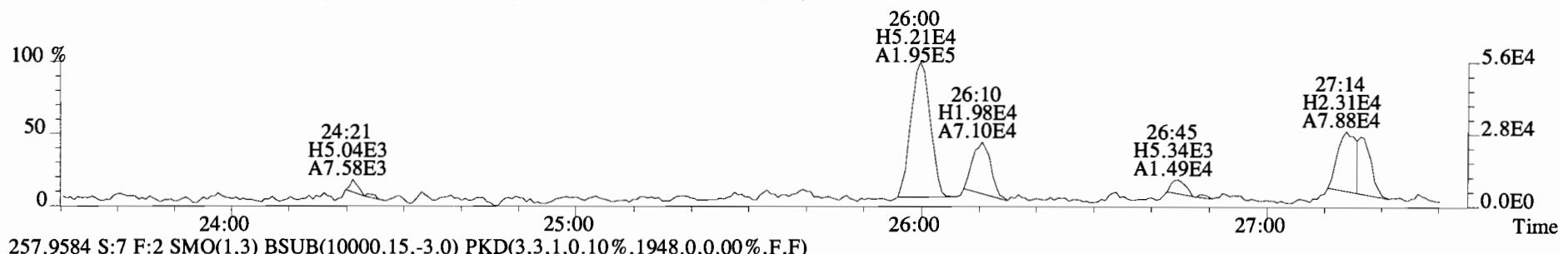
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
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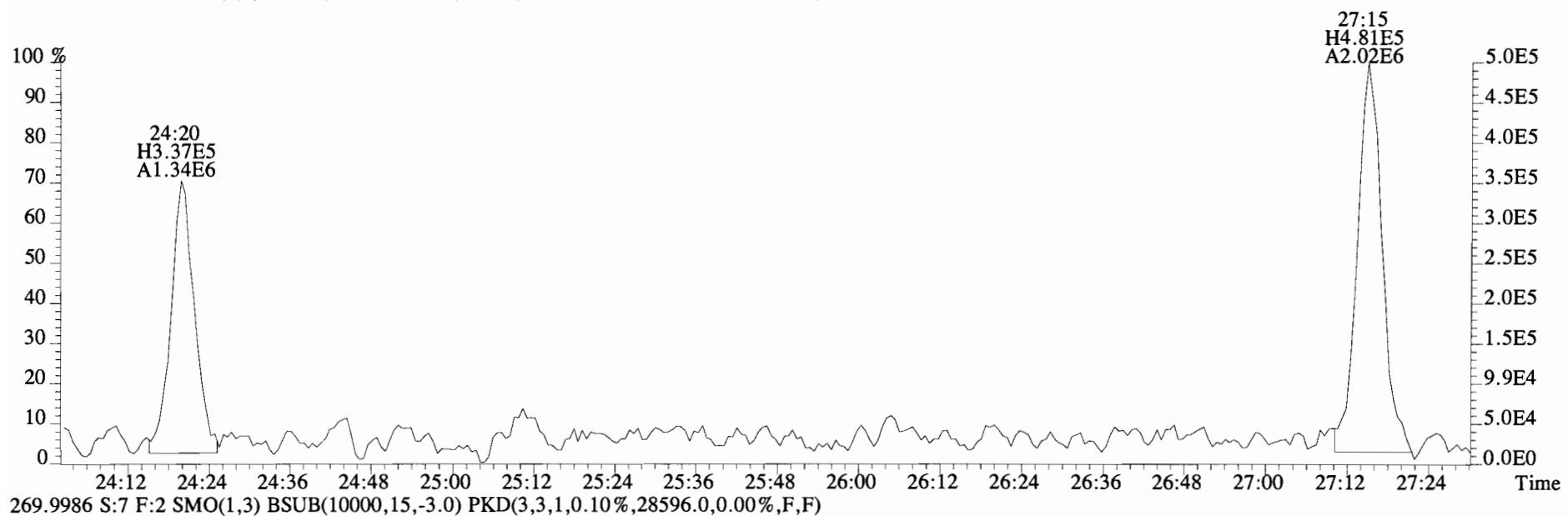
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 222.0003 S:7 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3460.0,0.00%,F,F)



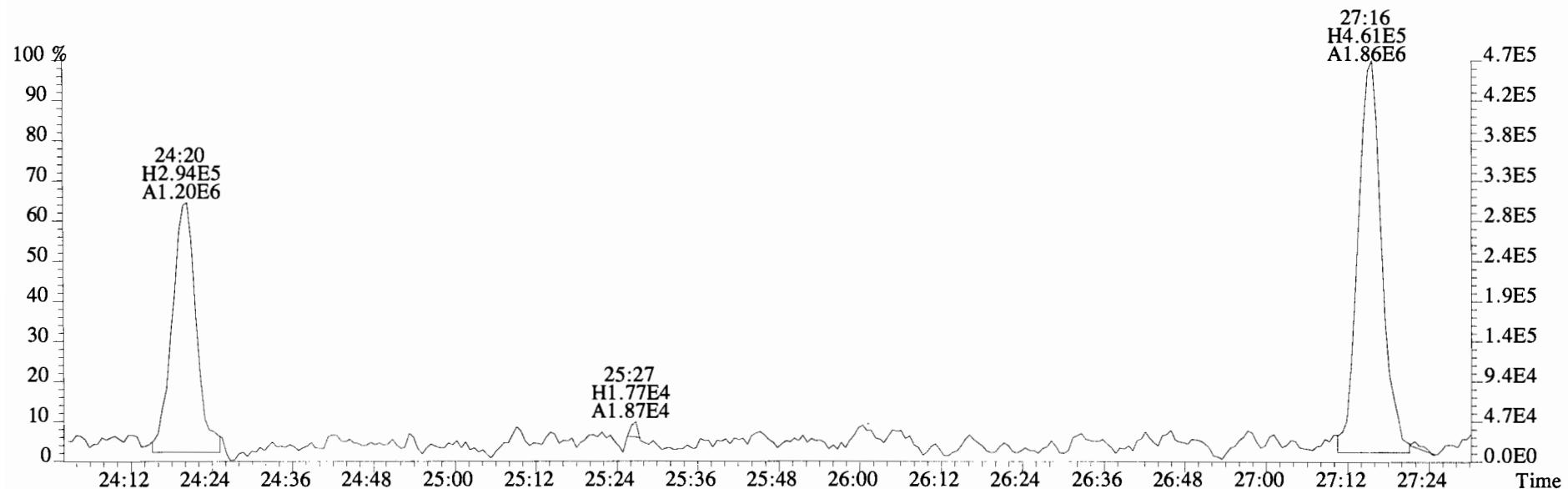
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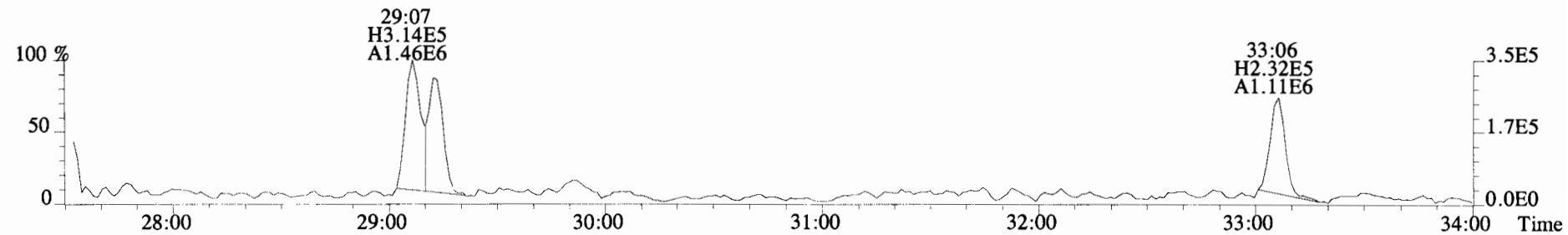
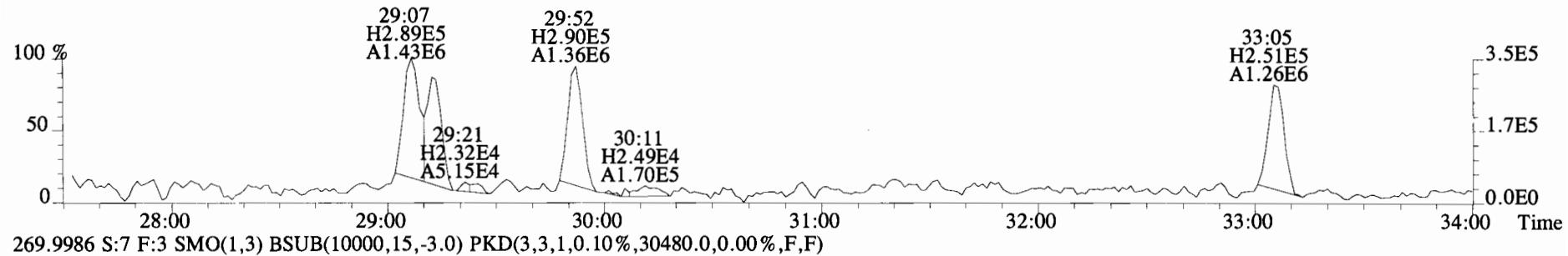
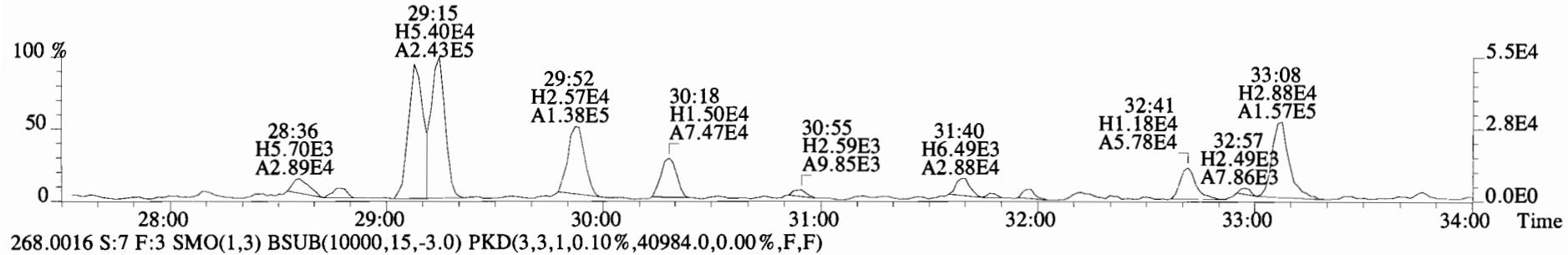
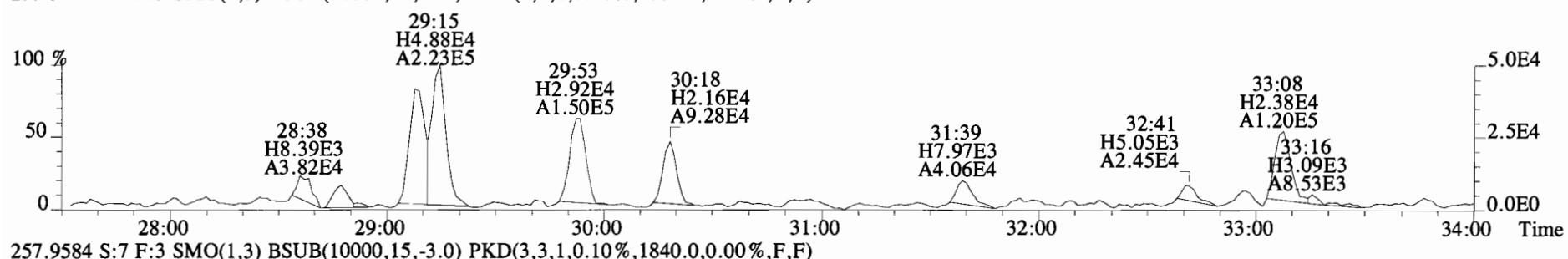
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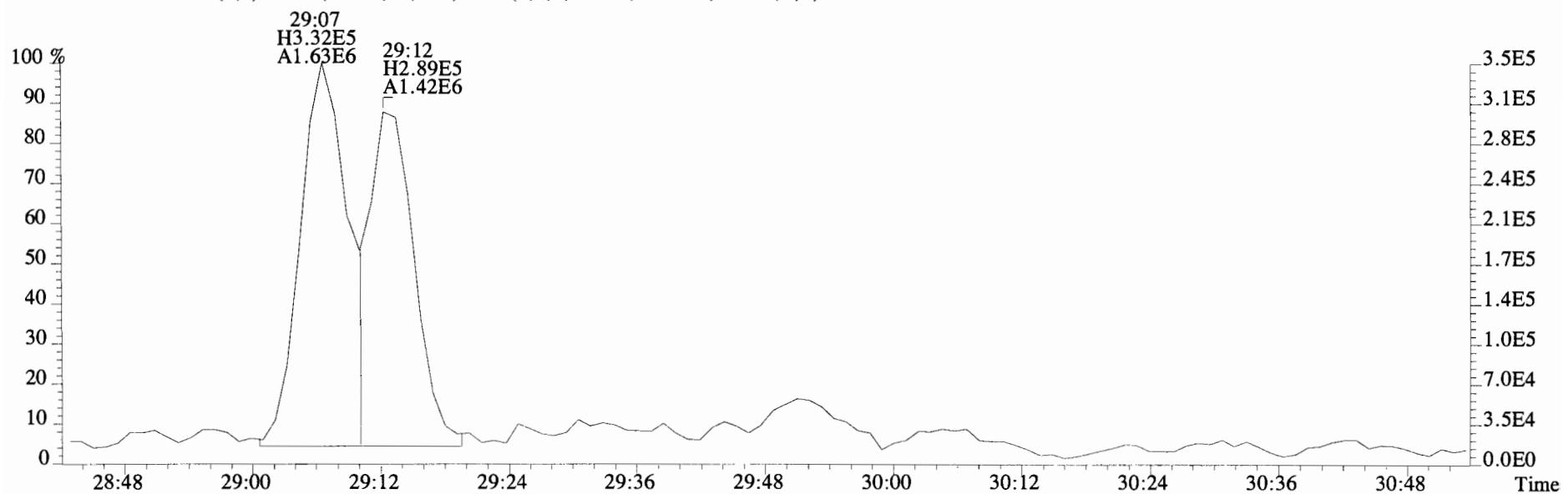
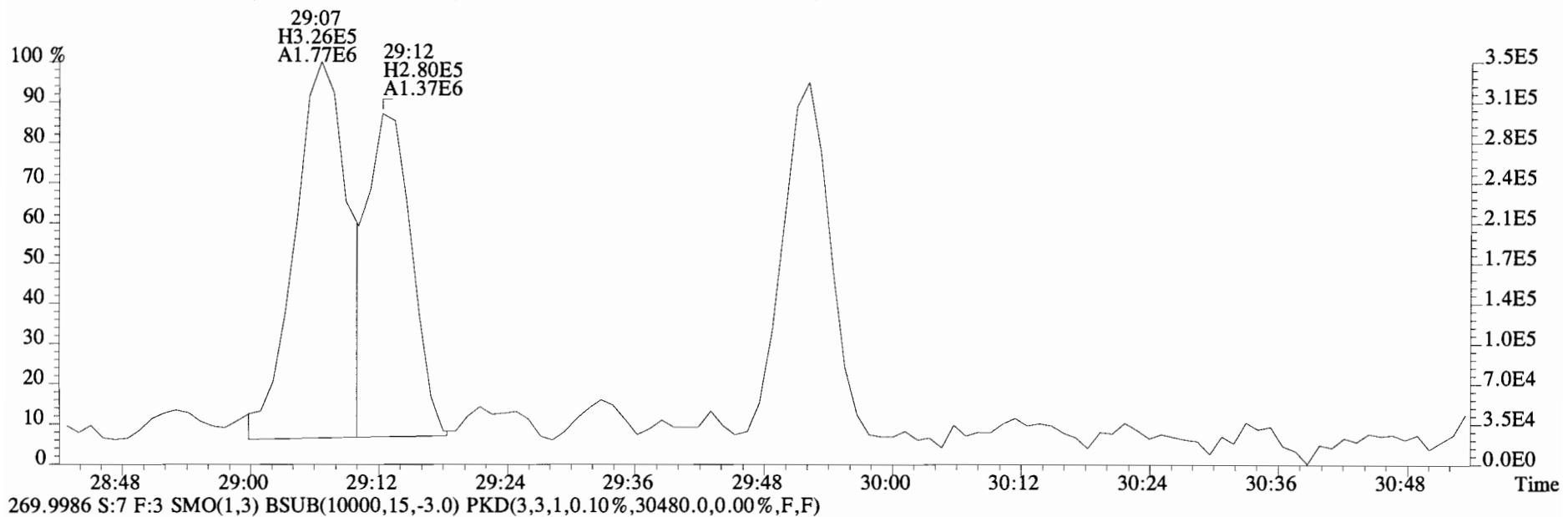
269.9986 S:7 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,28596.0,0.00%,F,F)



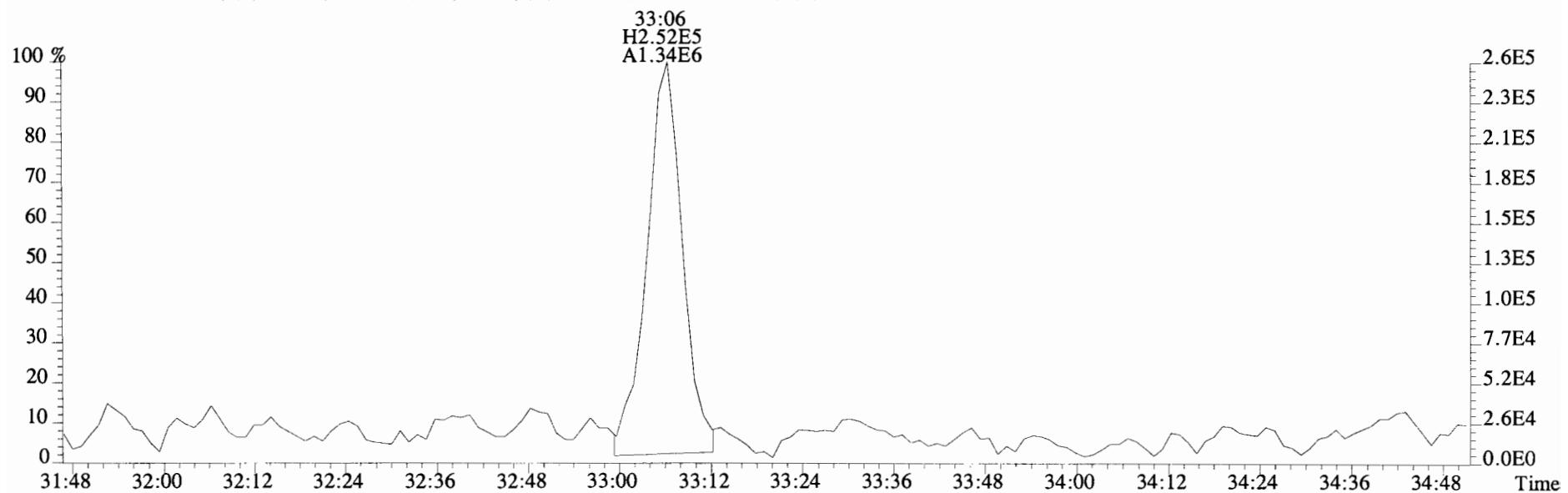
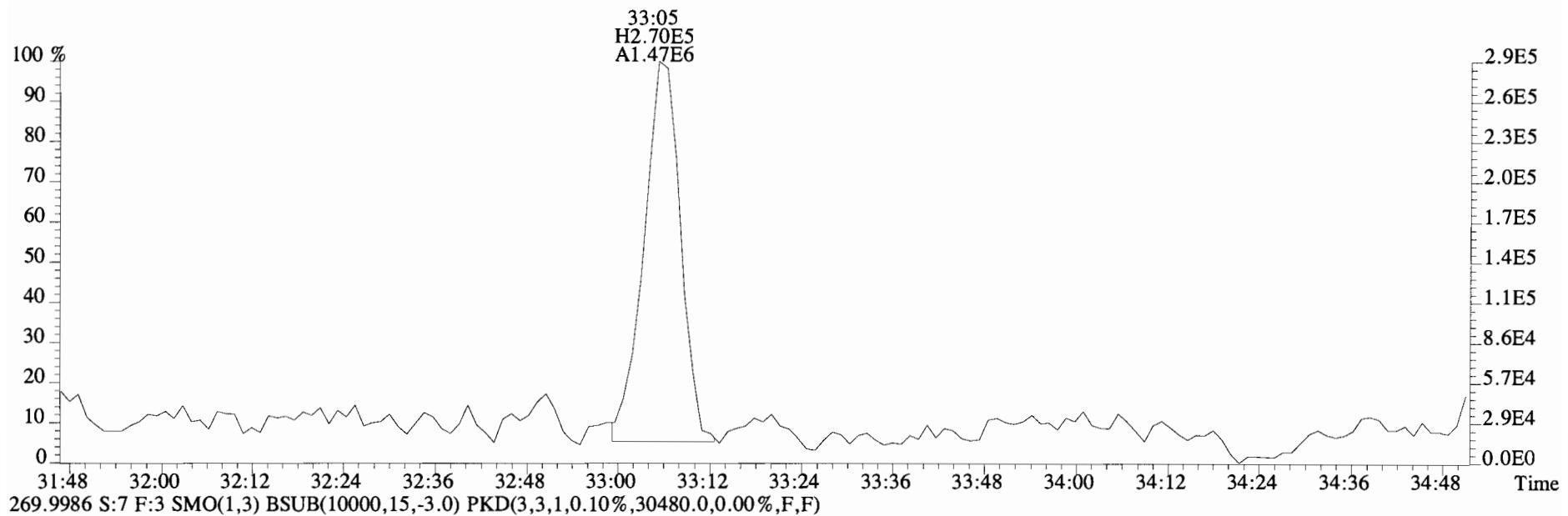
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 Sample#7 File Text: Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 255.9613 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2536.0,0.00%,F,F)



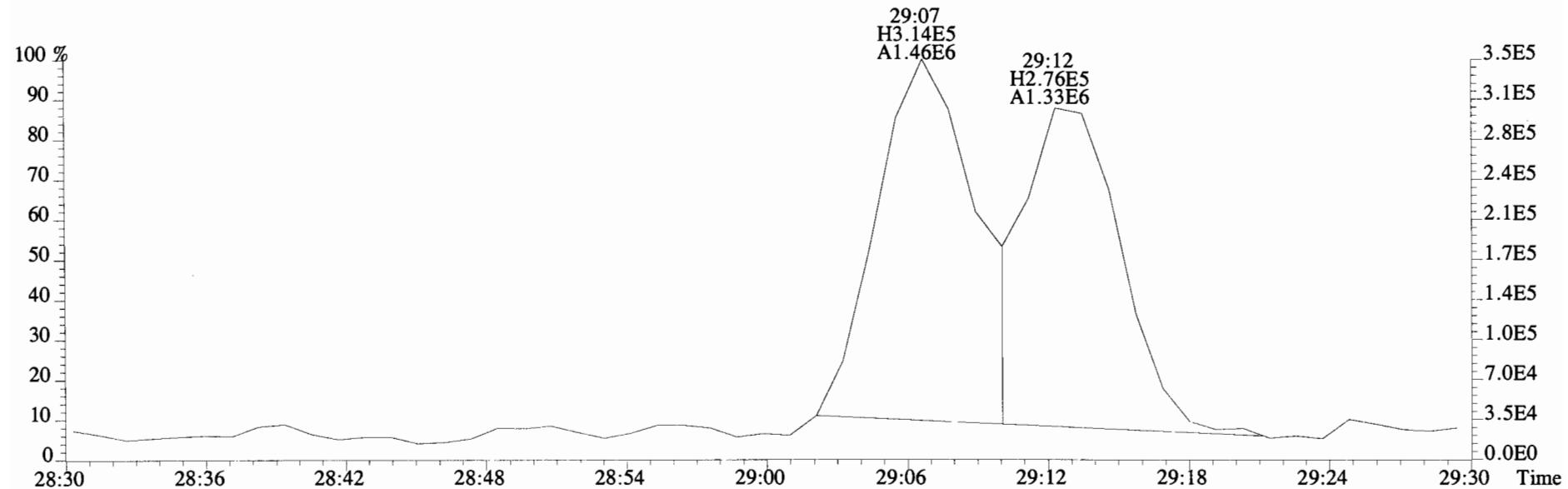
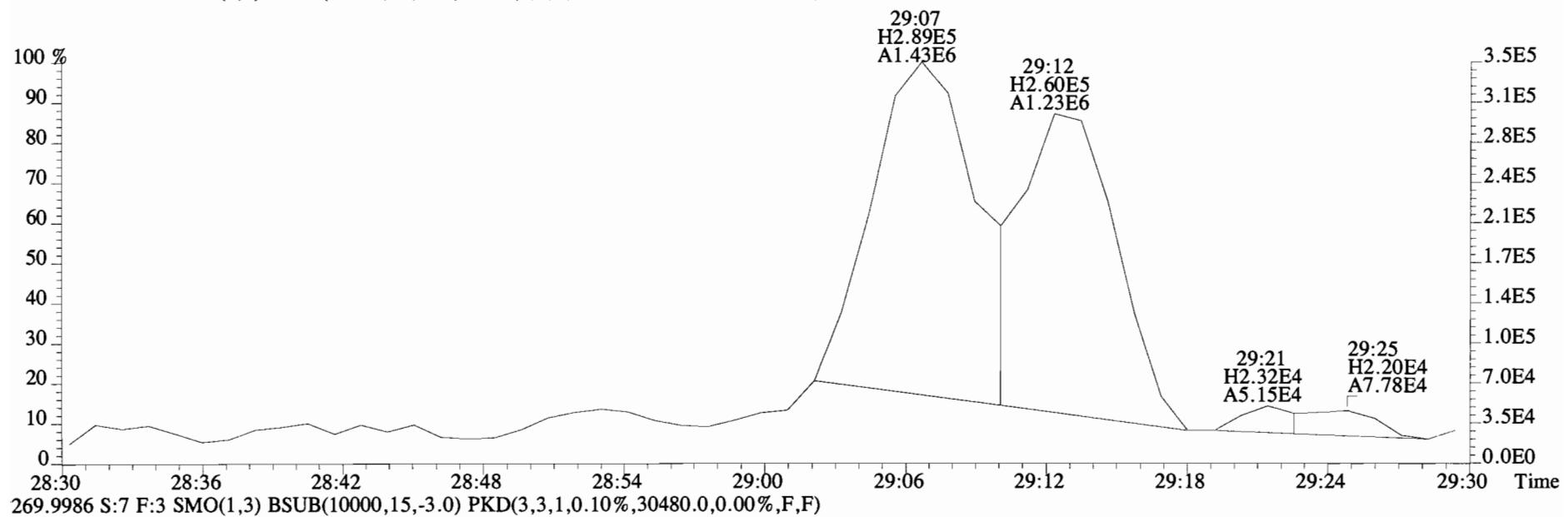
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
268.0016 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,40984.0,0.00%,F,F)



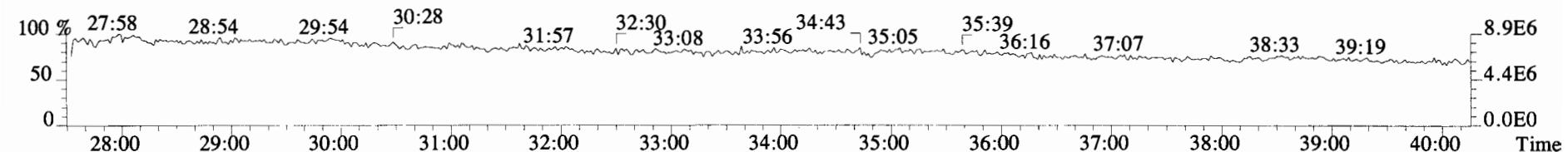
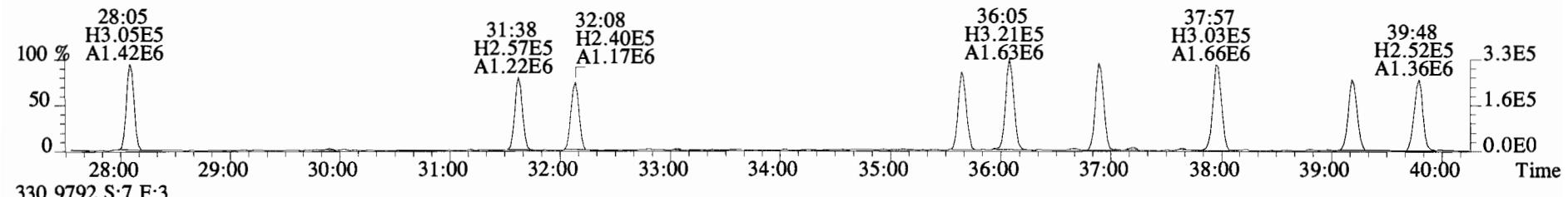
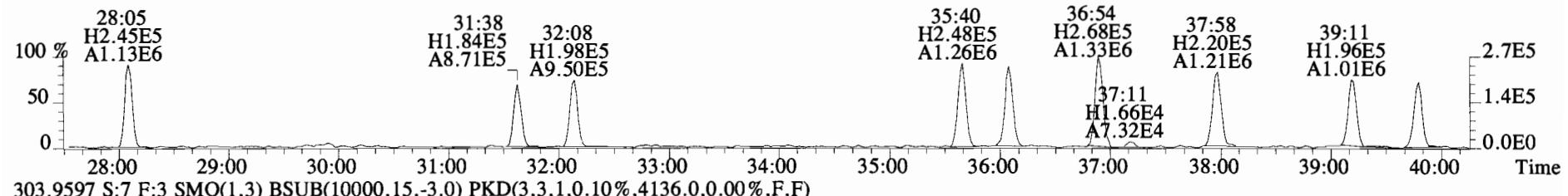
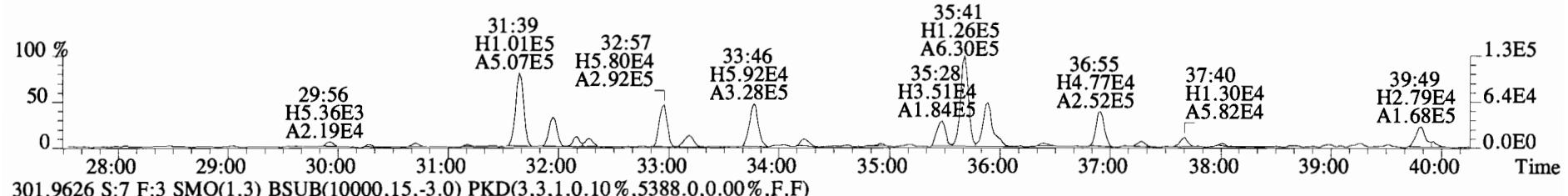
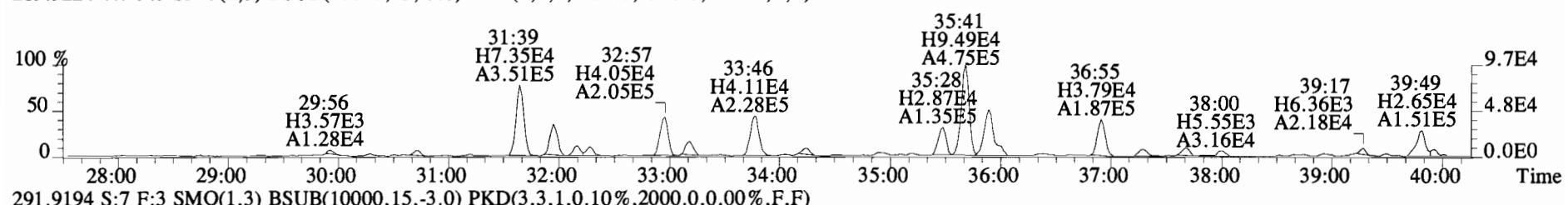
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
268.0016 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,40984.0,0.00%,F,F)



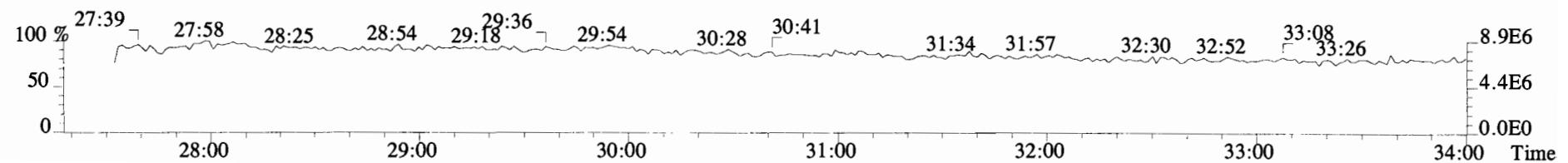
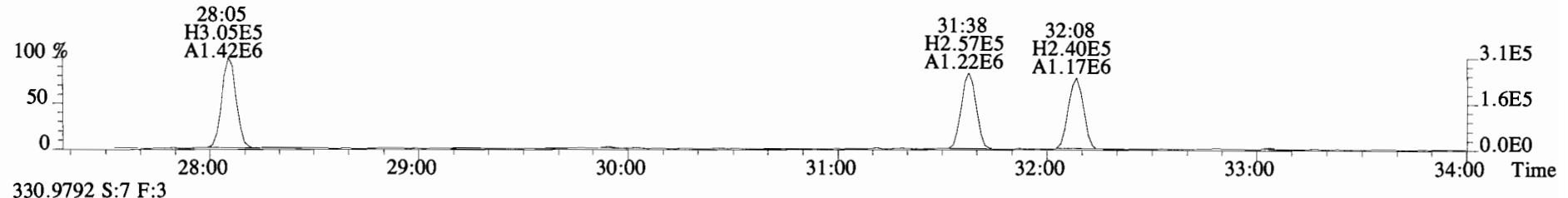
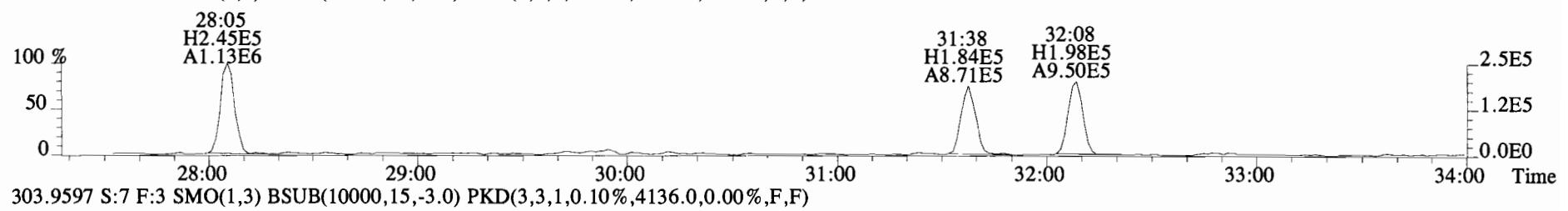
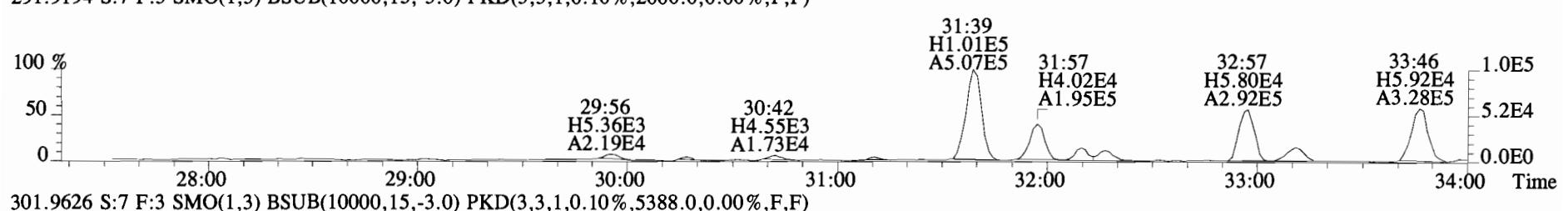
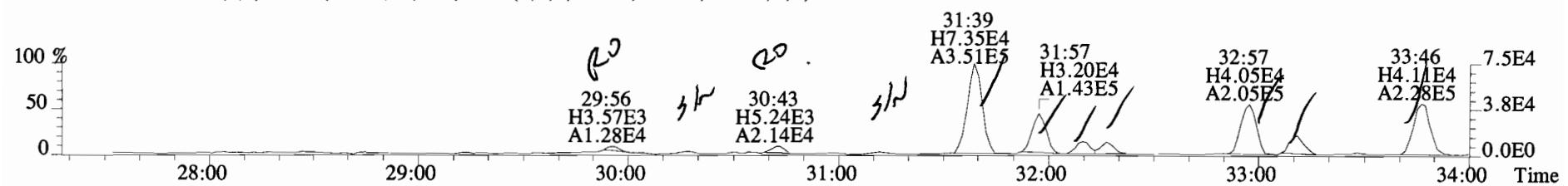
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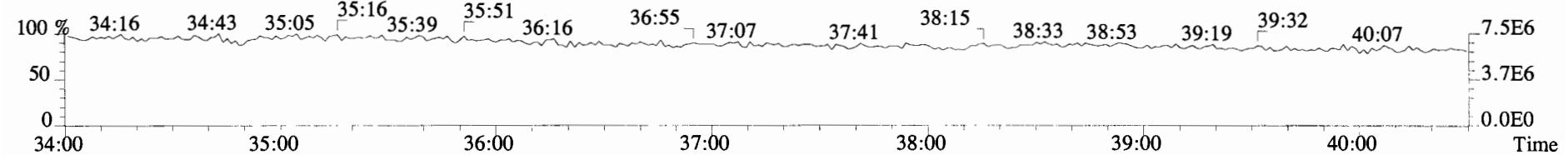
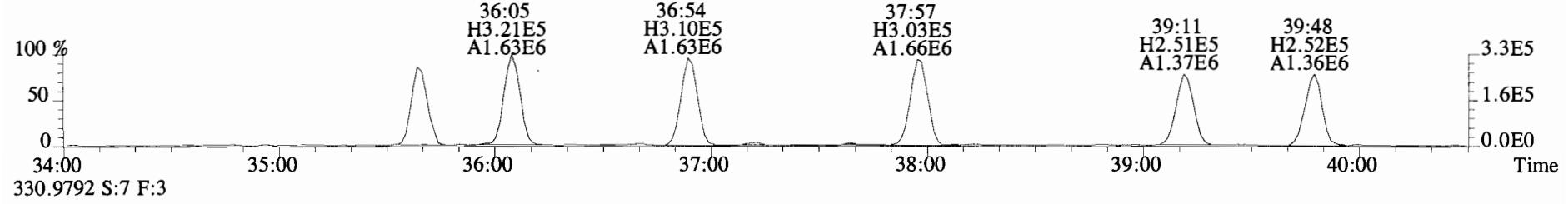
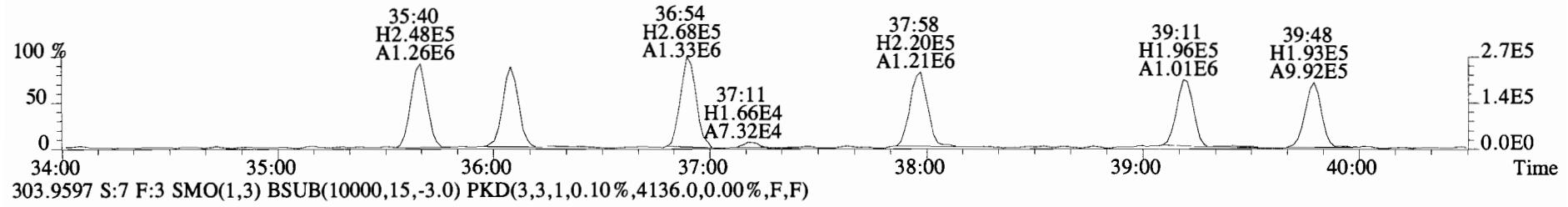
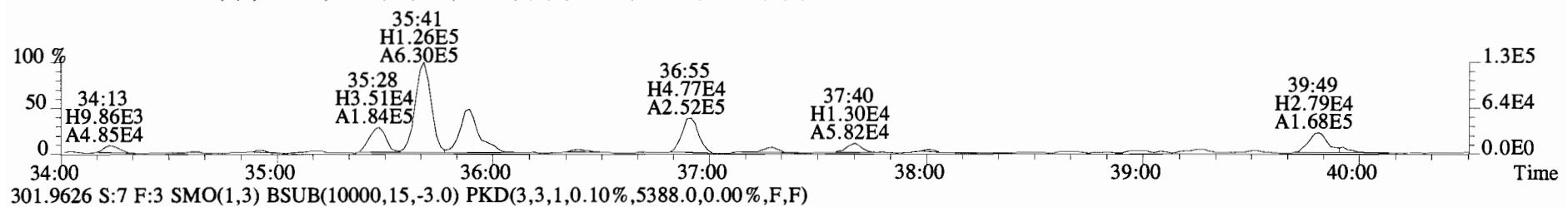
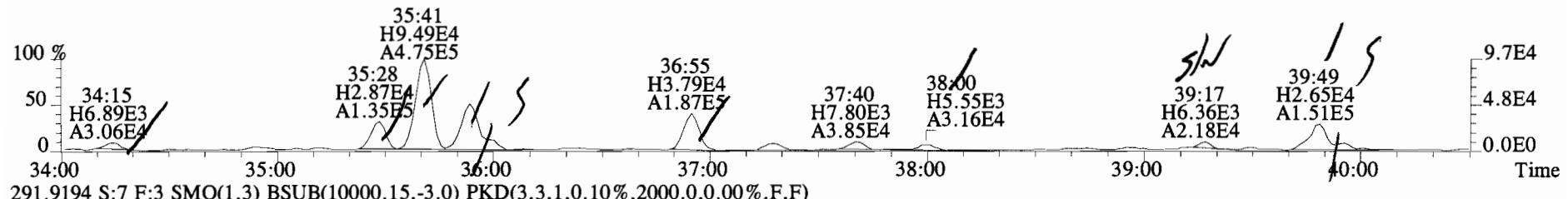
File:140924E1 #1-762 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 289.9224 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1920.0,0.00%,F,F)



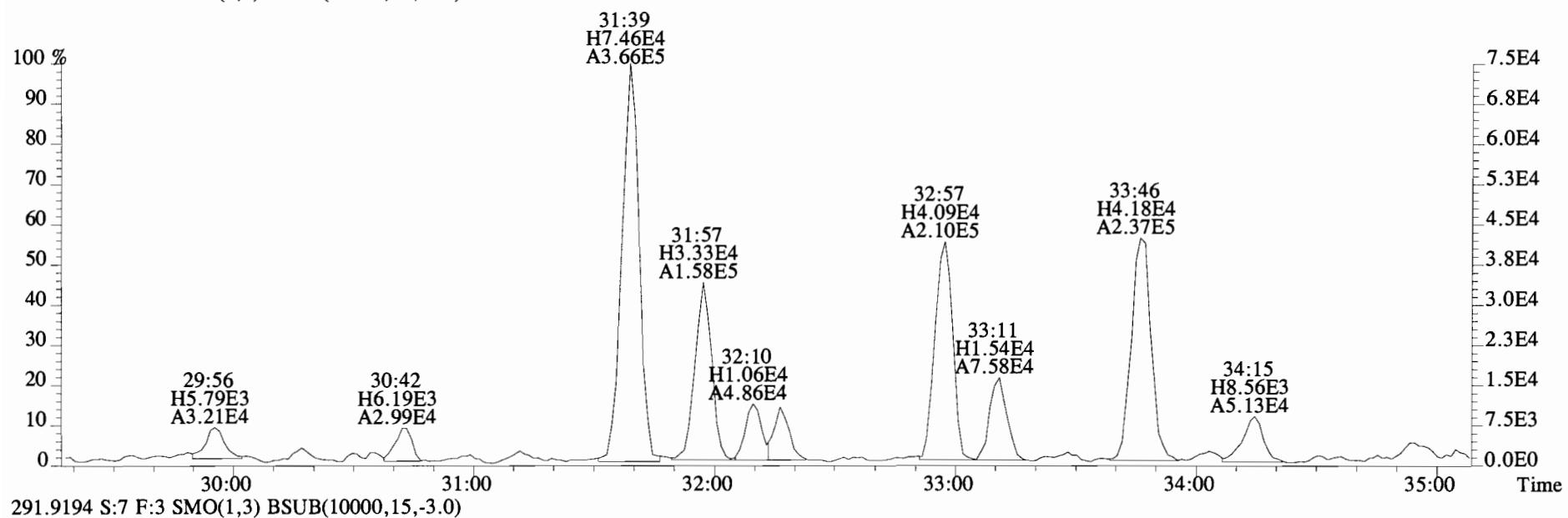
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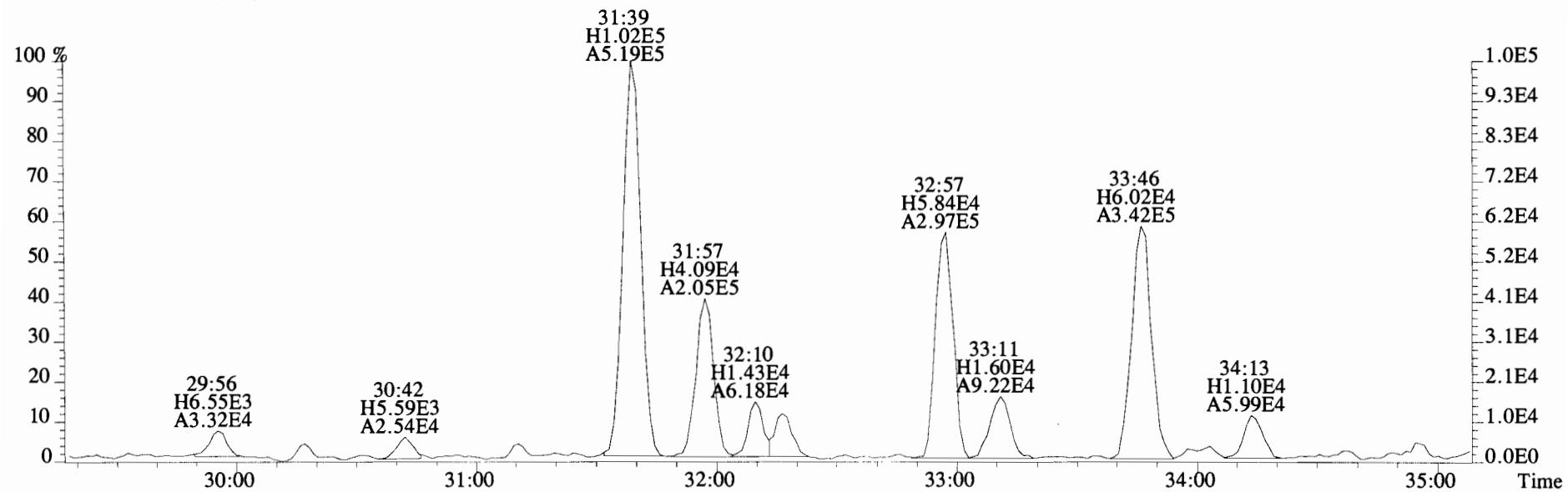
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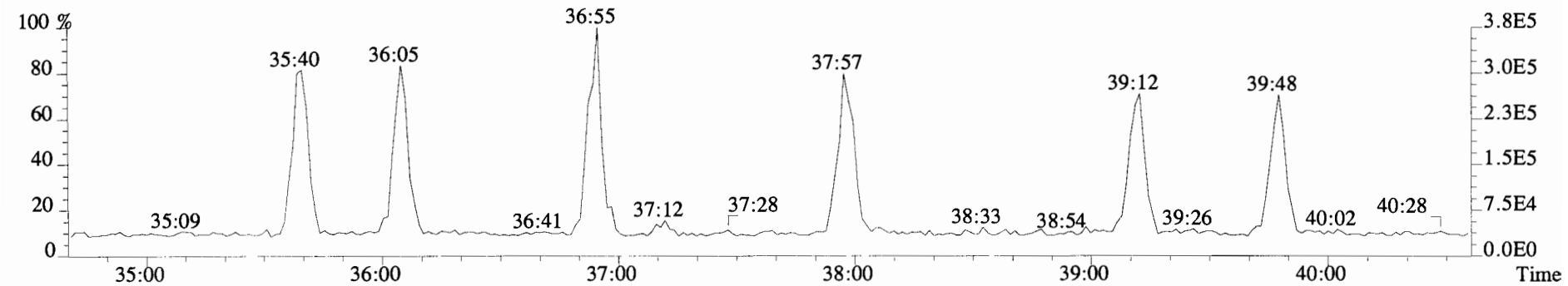
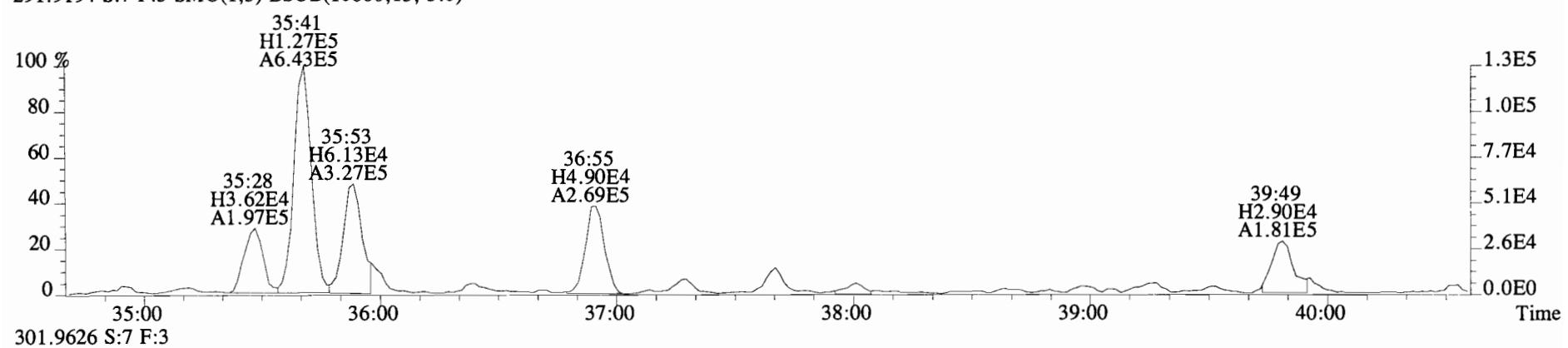
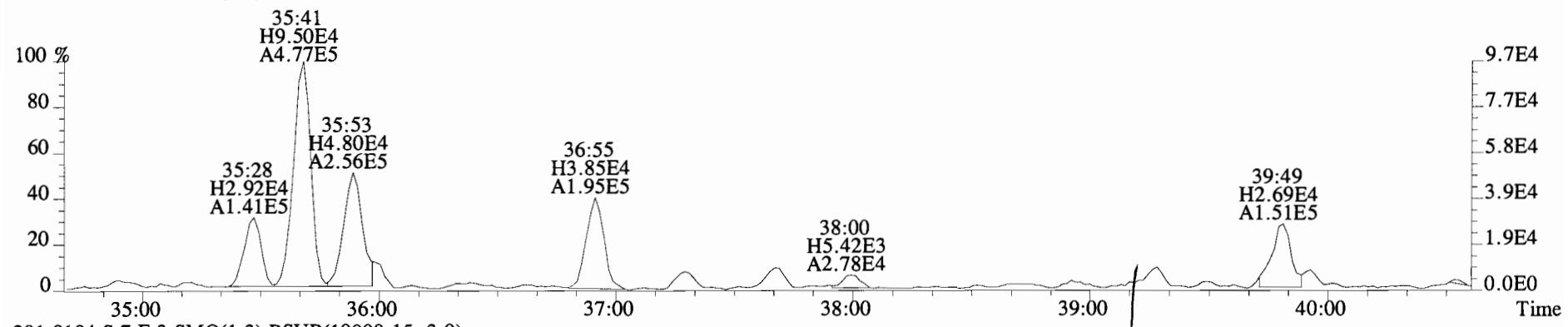
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
289.9224 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0)



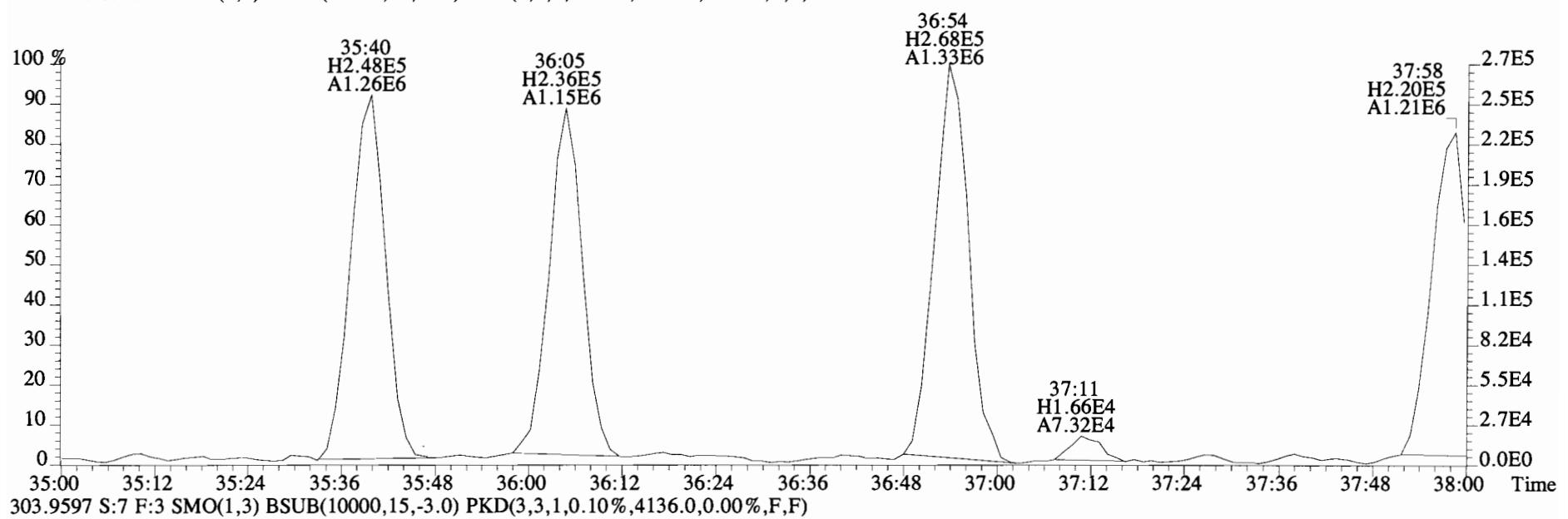
291.9194 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0)



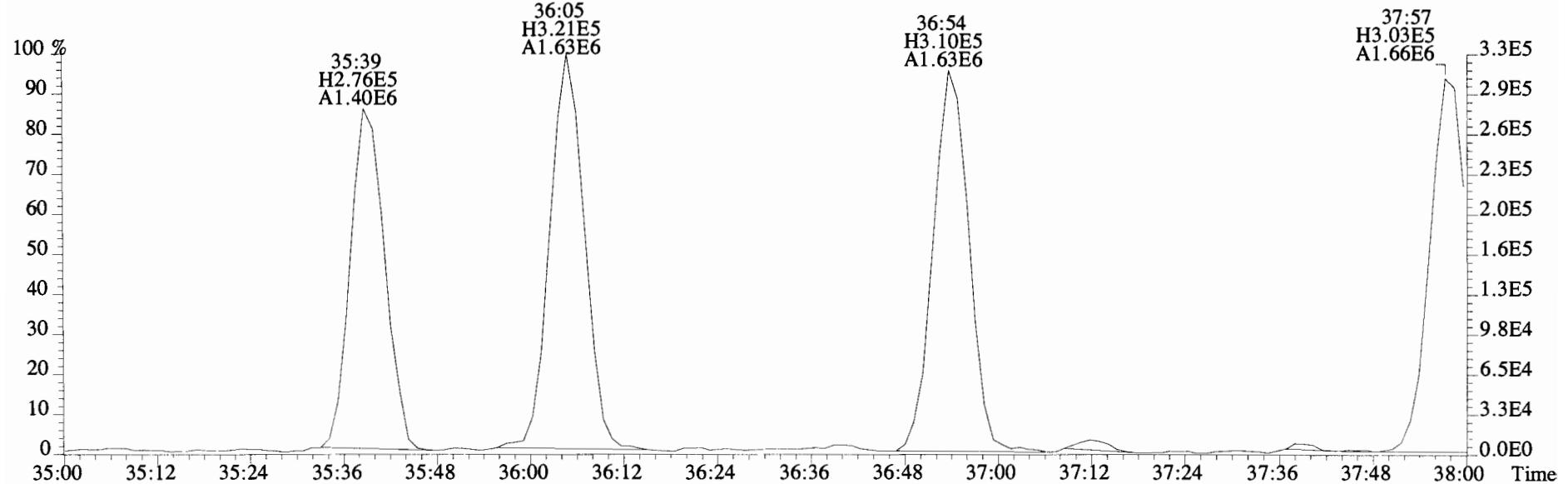
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289.9224 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0)



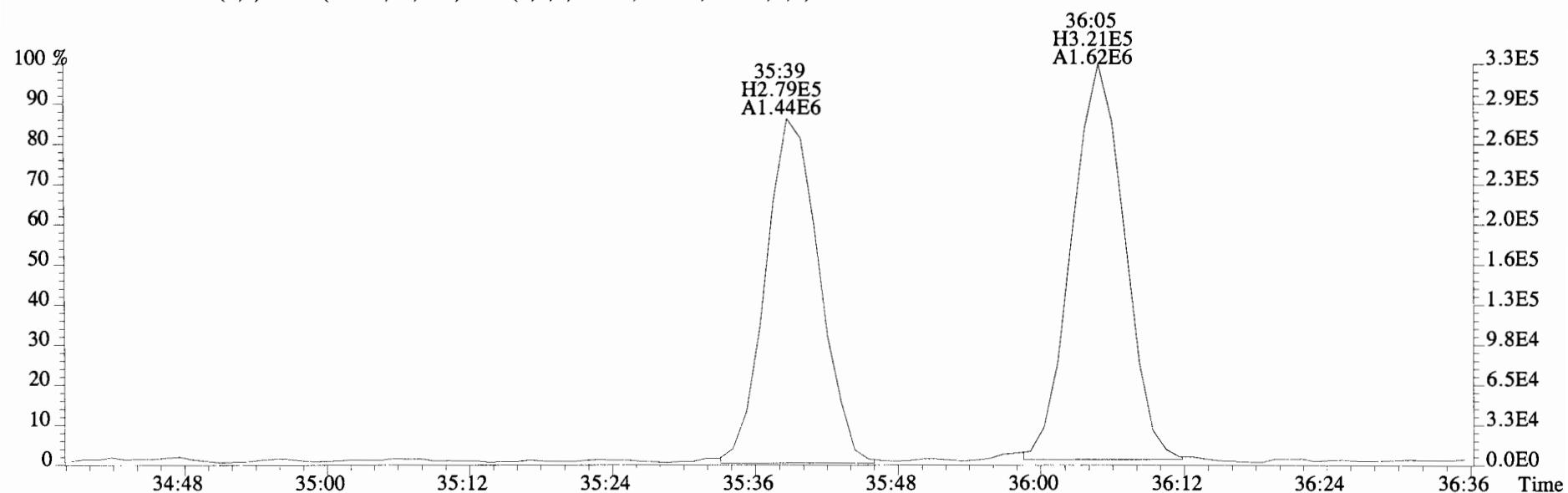
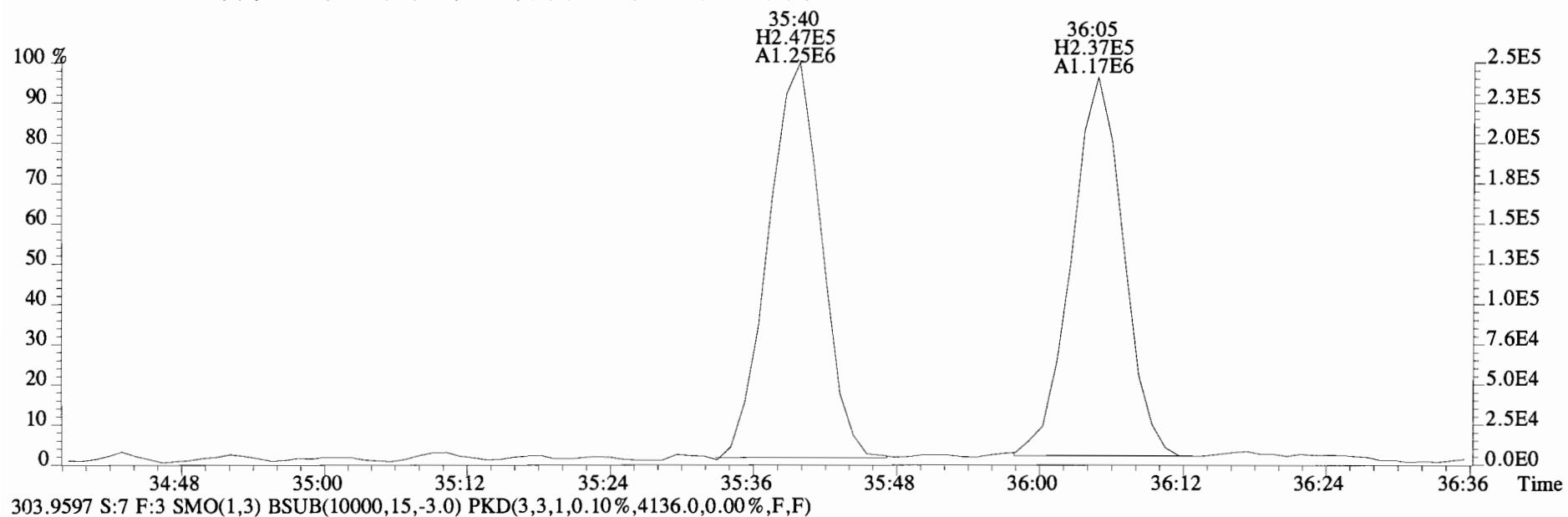
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
301.9626 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5388.0,0.00%,F,F)



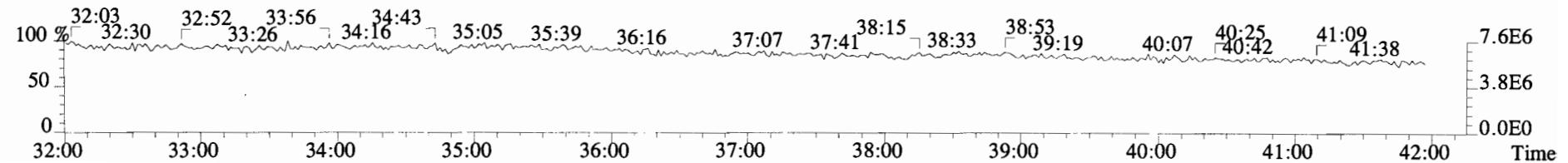
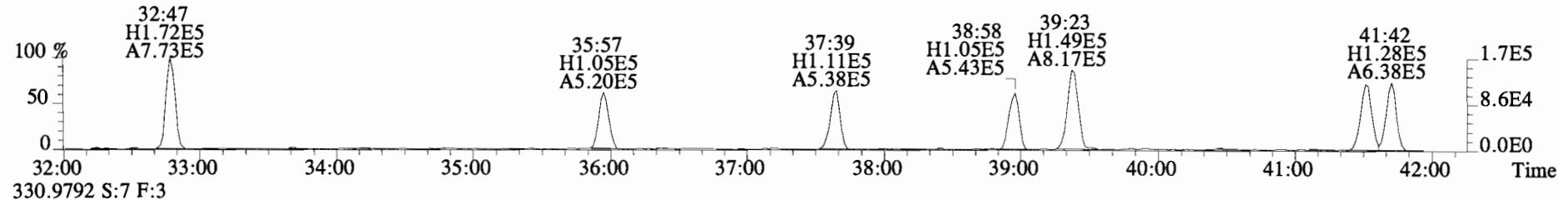
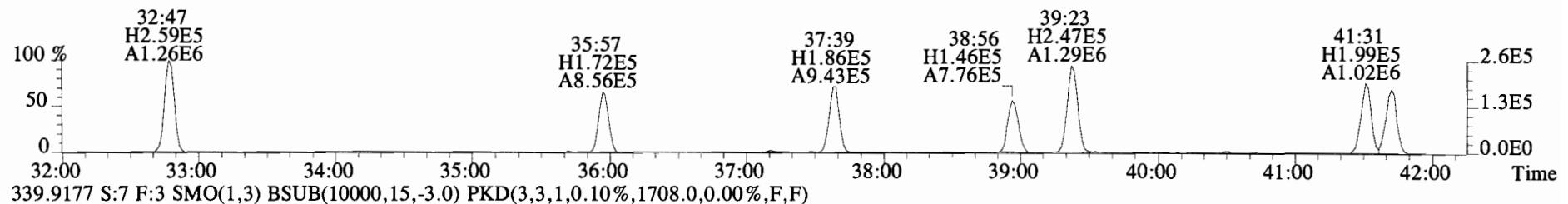
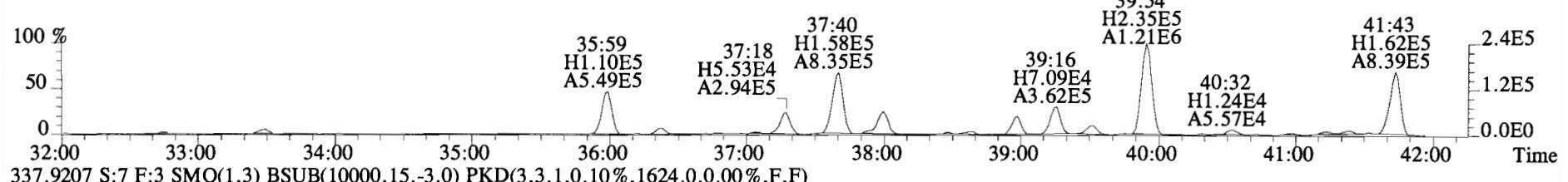
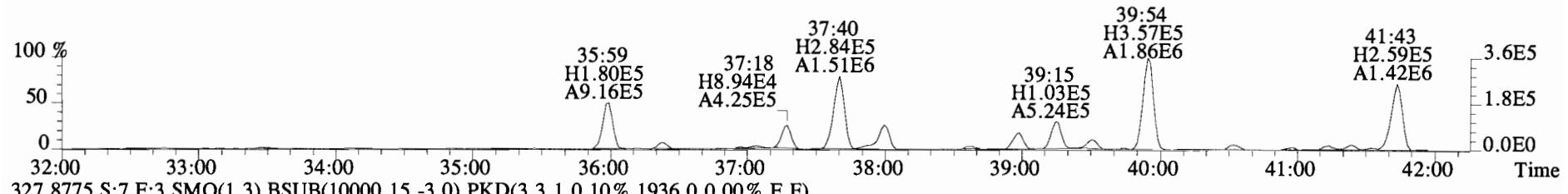
303.9597 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4136.0,0.00%,F,F)



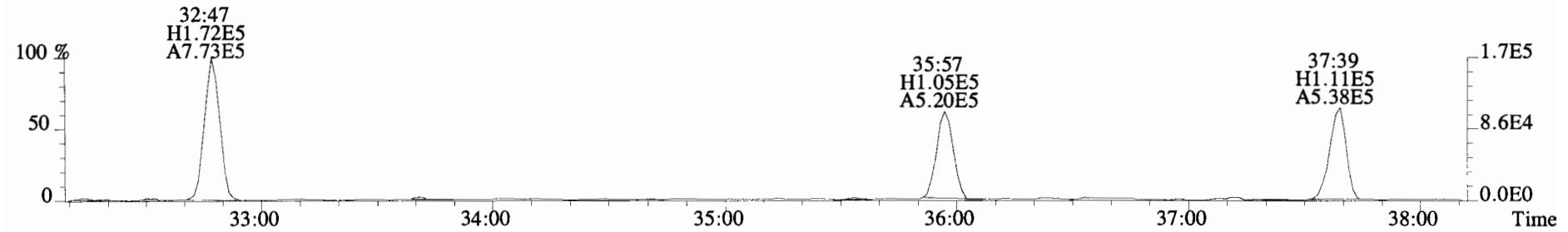
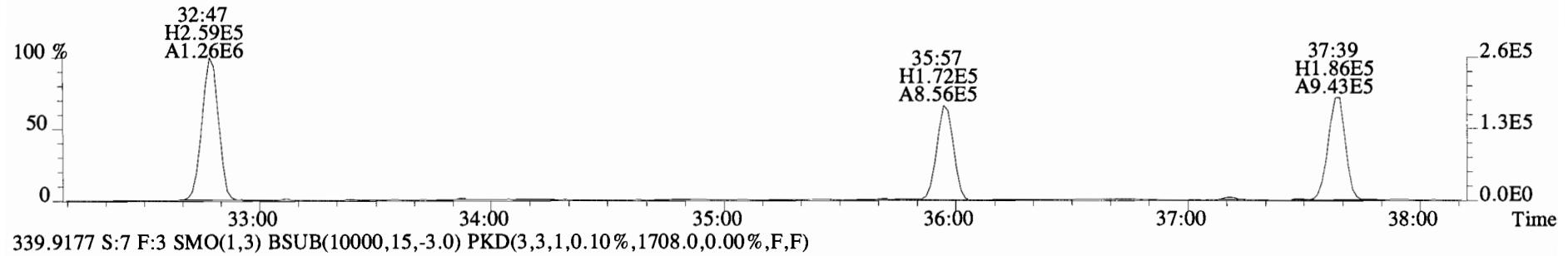
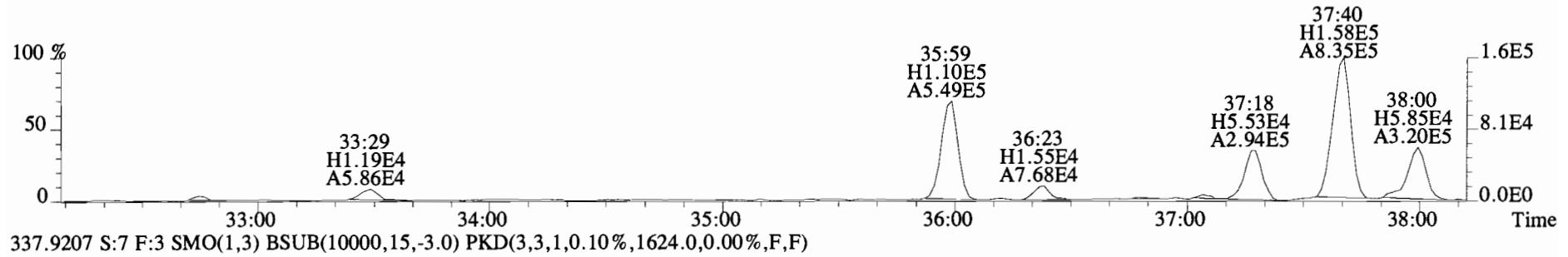
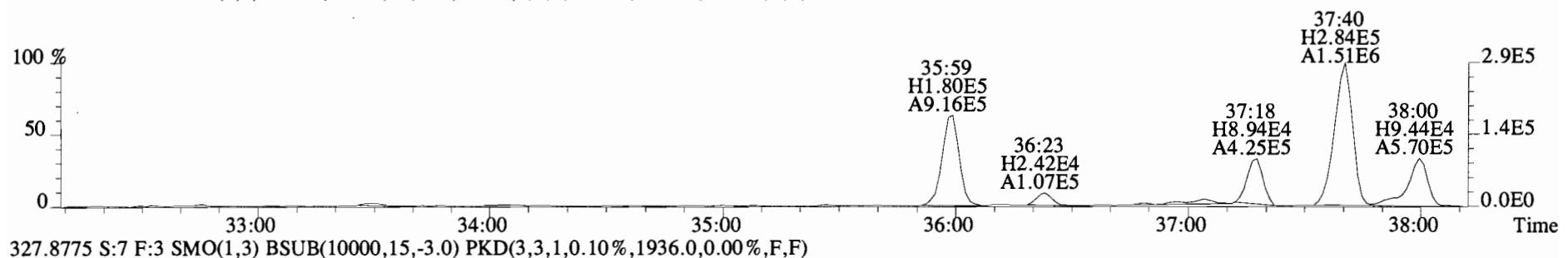
File:140924E1 #1-762 Acq:24-SEP-2014 17:35:34 GC EI + Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
301.9626 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5388.0,0.00%,F,F)



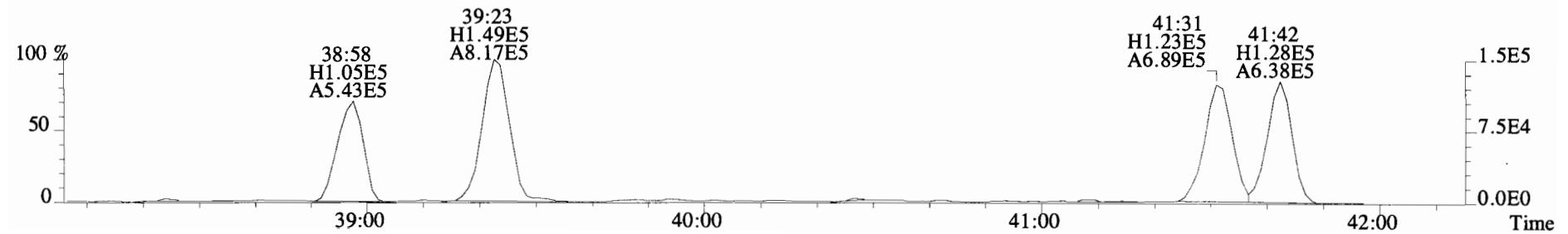
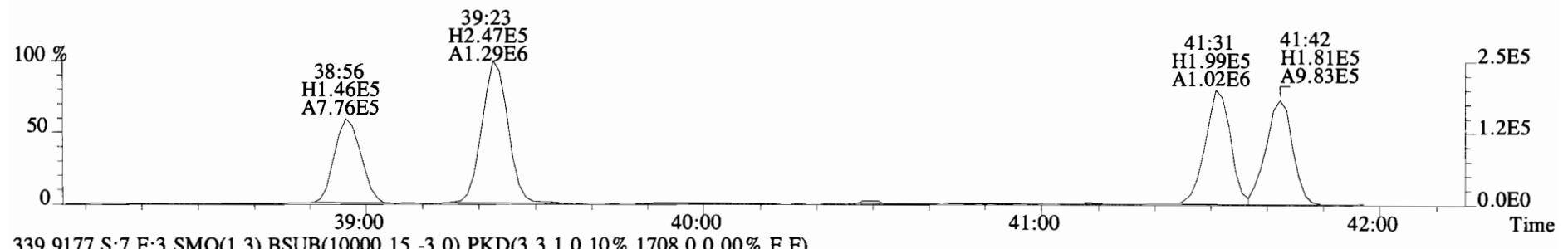
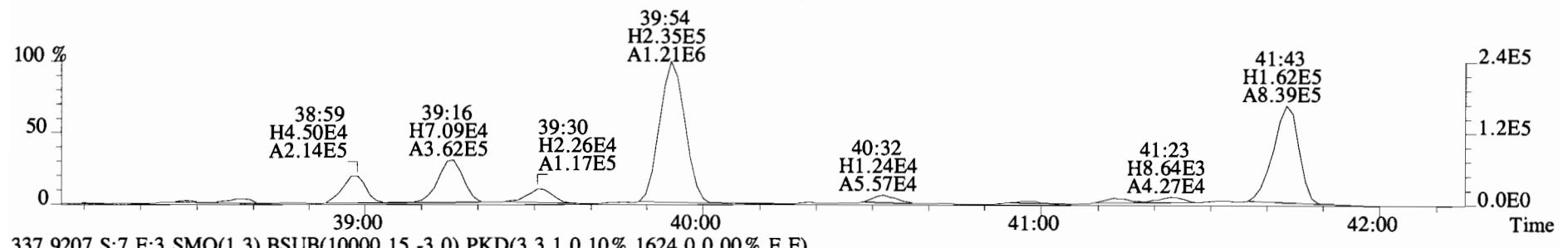
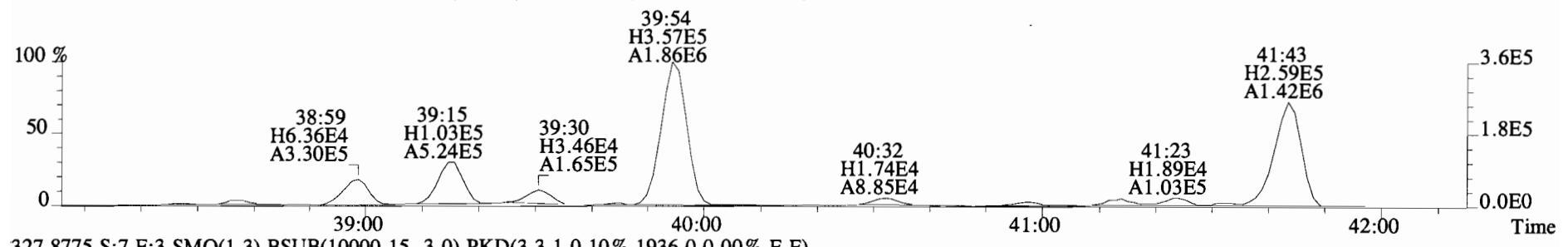
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 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 325.8804 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2232.0,0.00%,F,F)



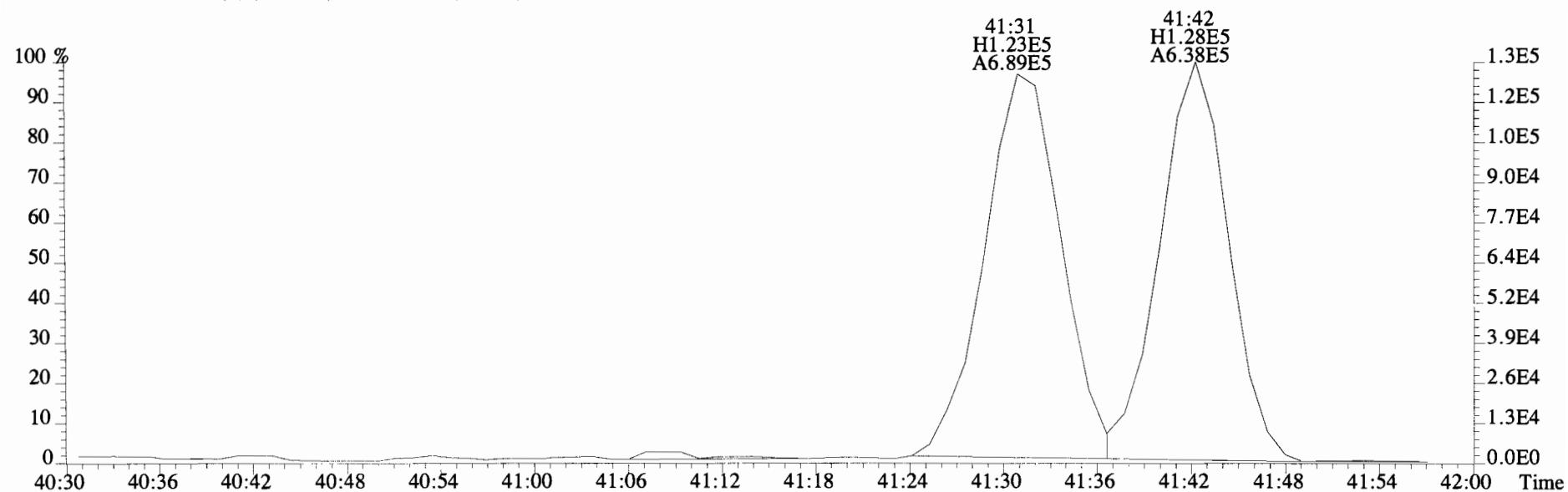
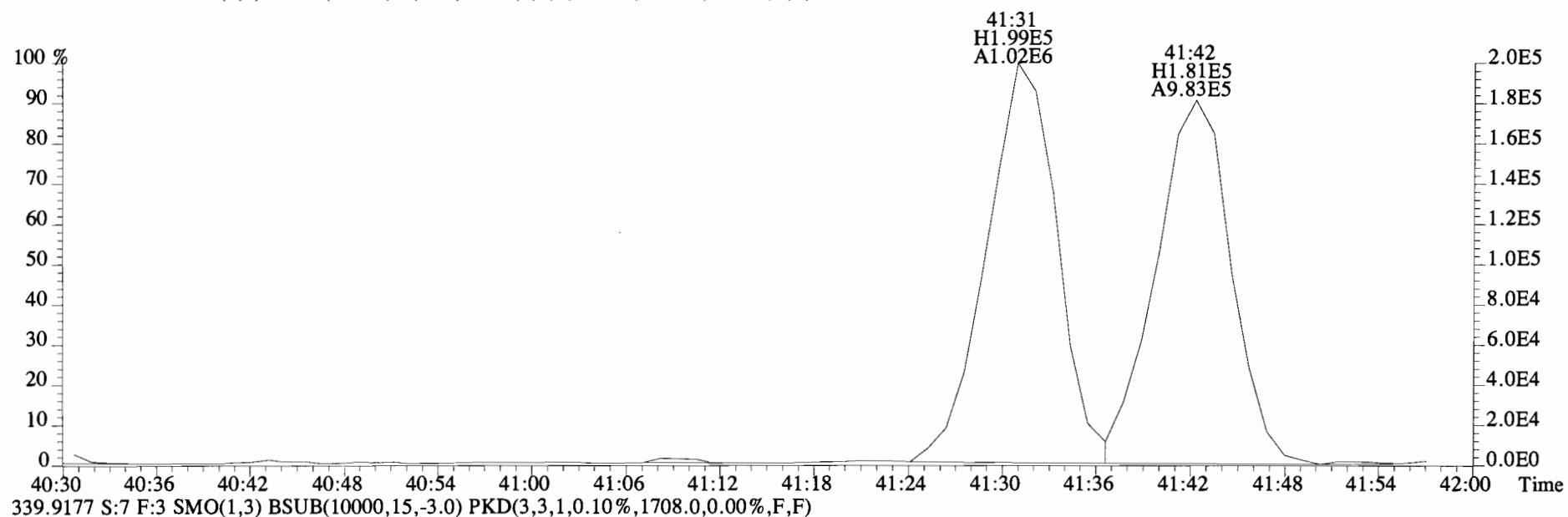
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
325.8804 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2232.0,0.00%,F,F)



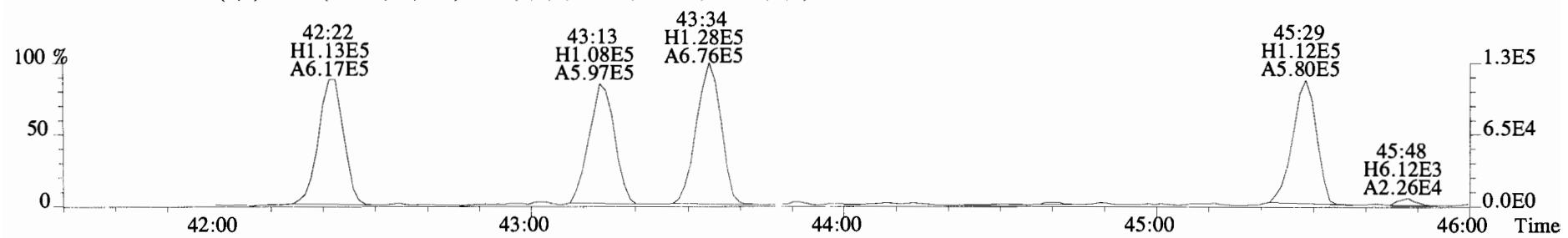
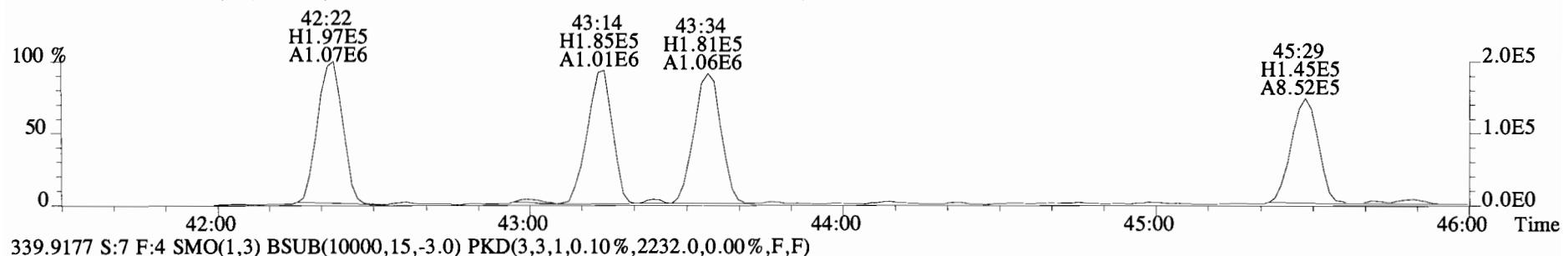
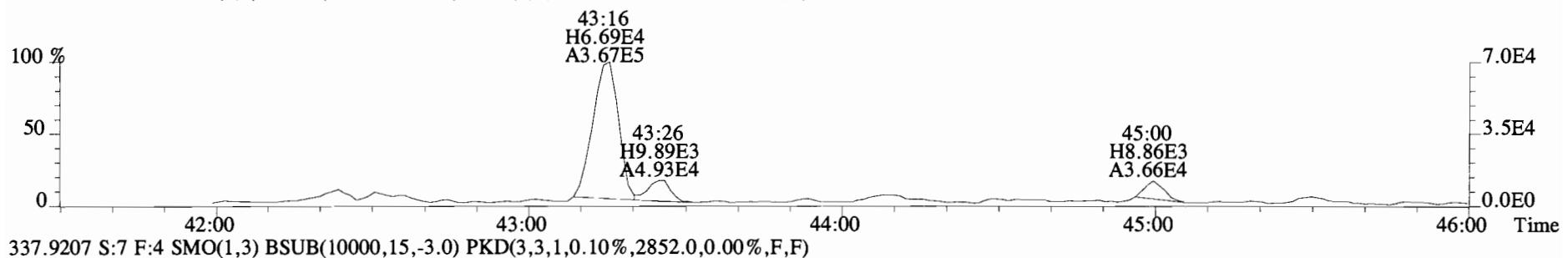
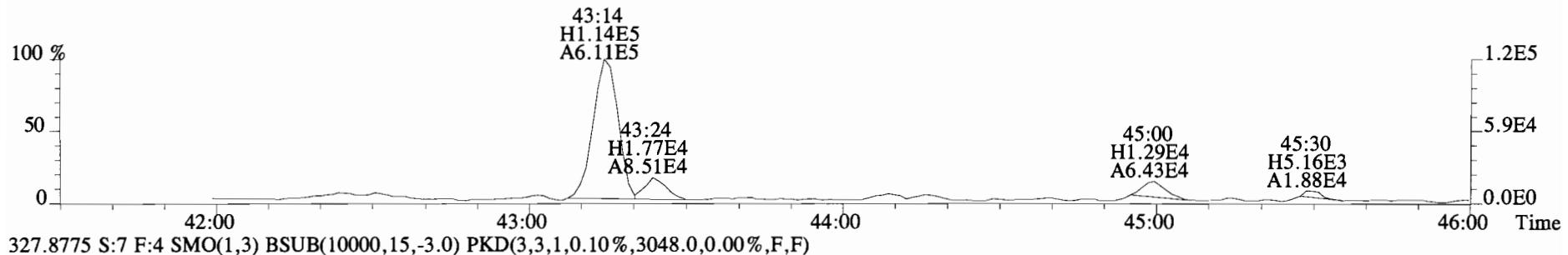
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 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
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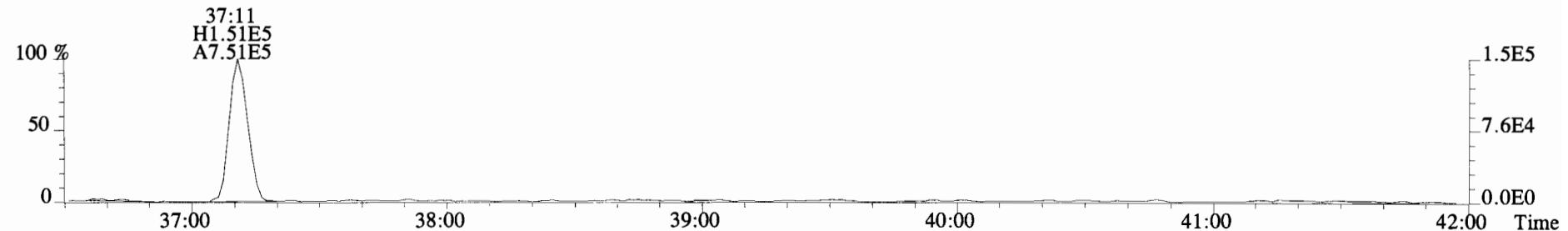
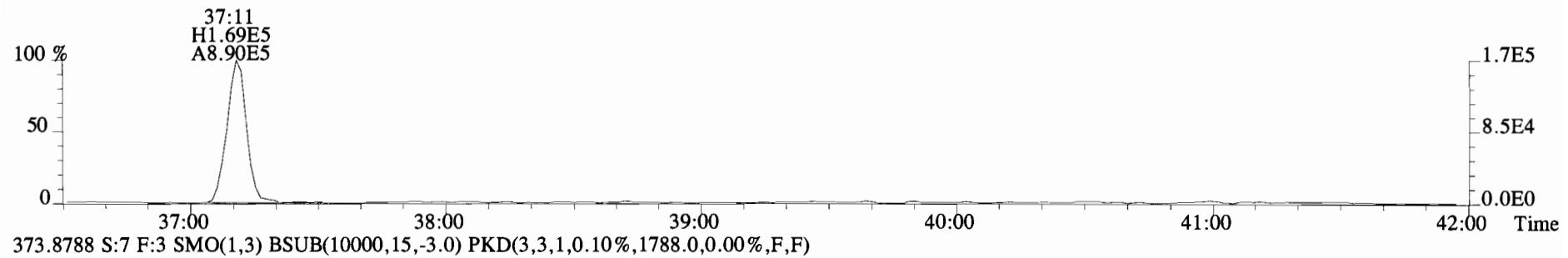
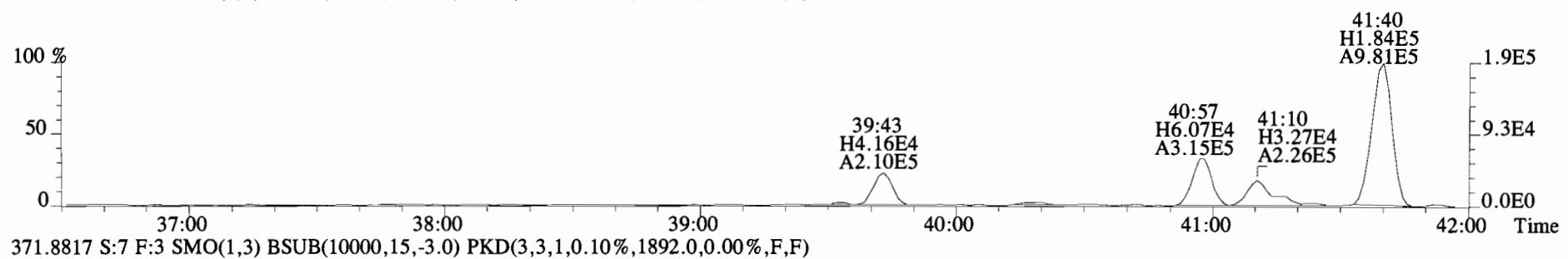
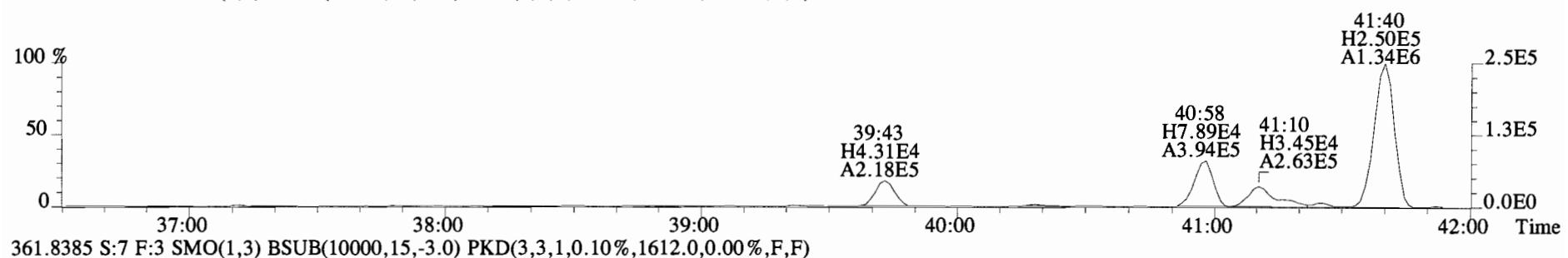
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
337.9207 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1624.0,0.00%,F,F)



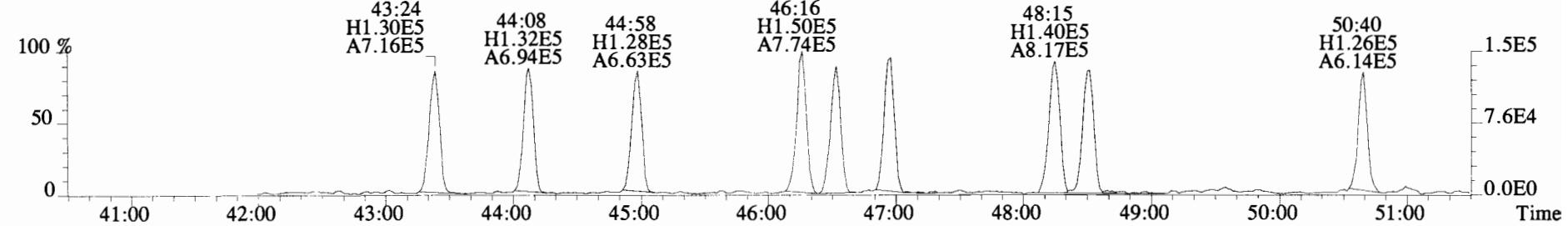
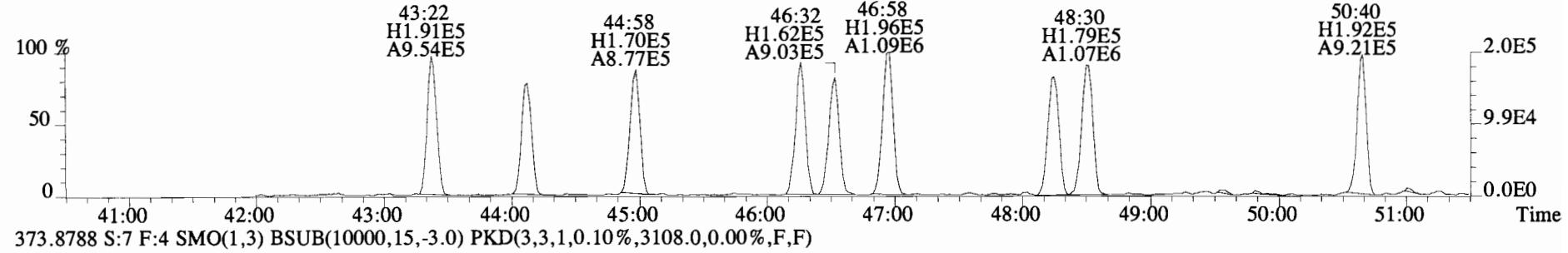
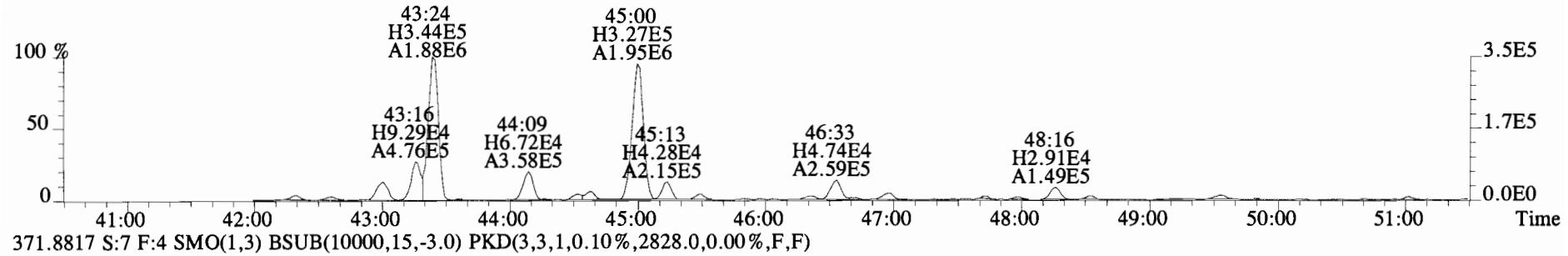
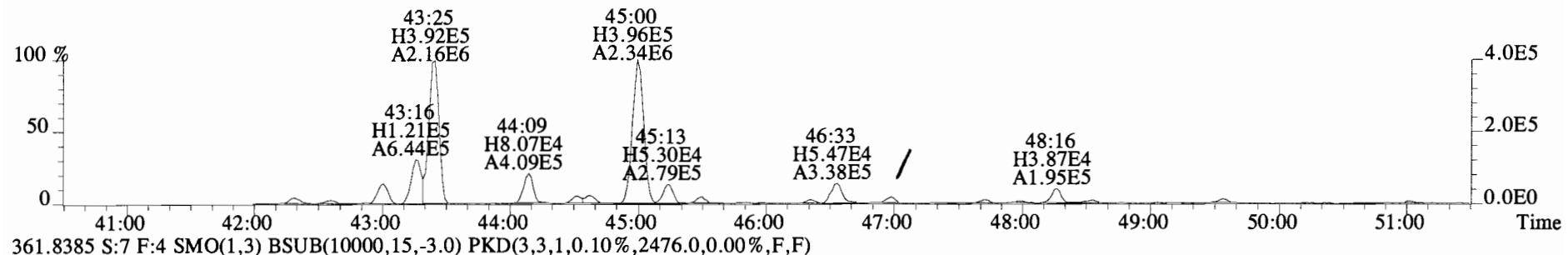
File:140924E1 #1-560 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 325.8804 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4384.0,0.00%,F,F)



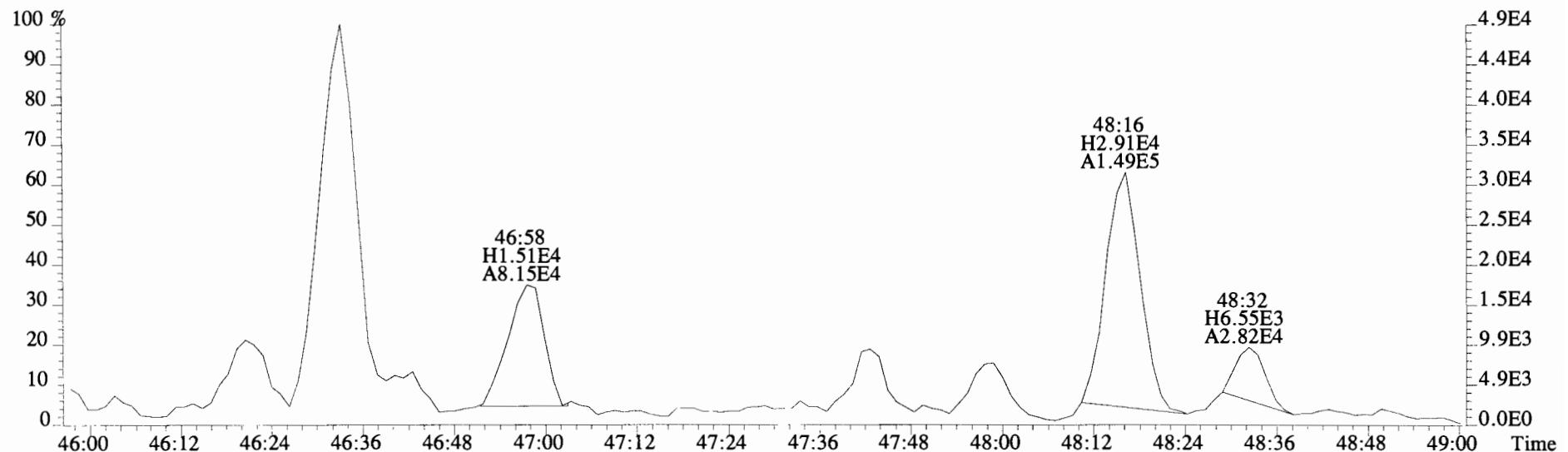
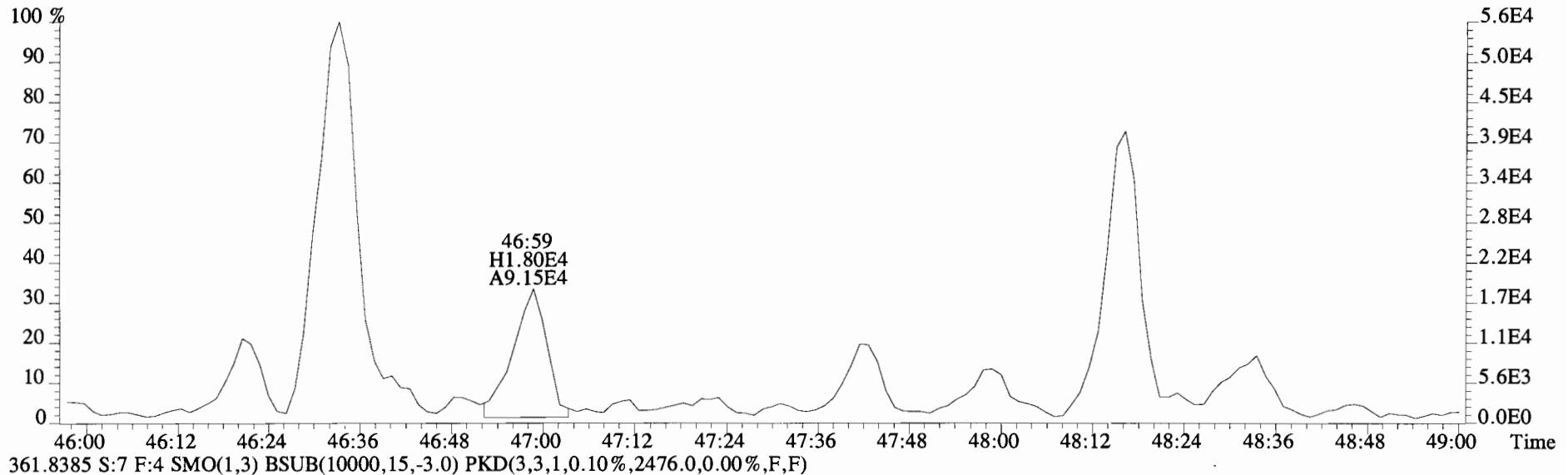
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
359.8415 S:7 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1616.0,0.00%,F,F)



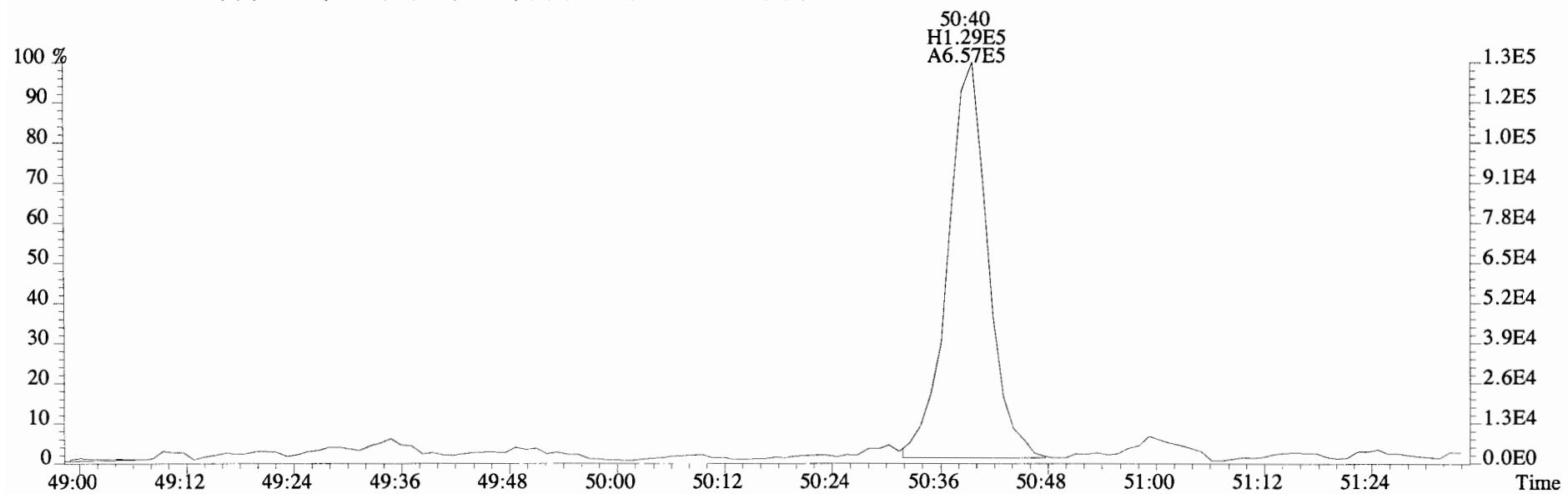
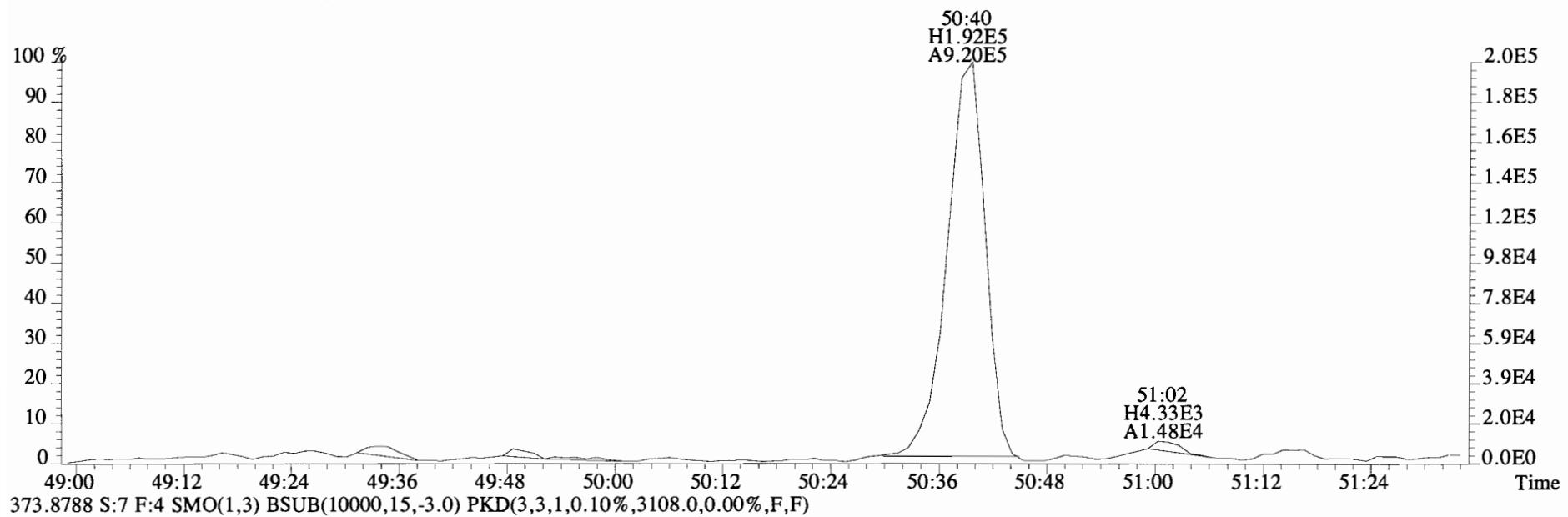
File:140924E1 #1-560 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
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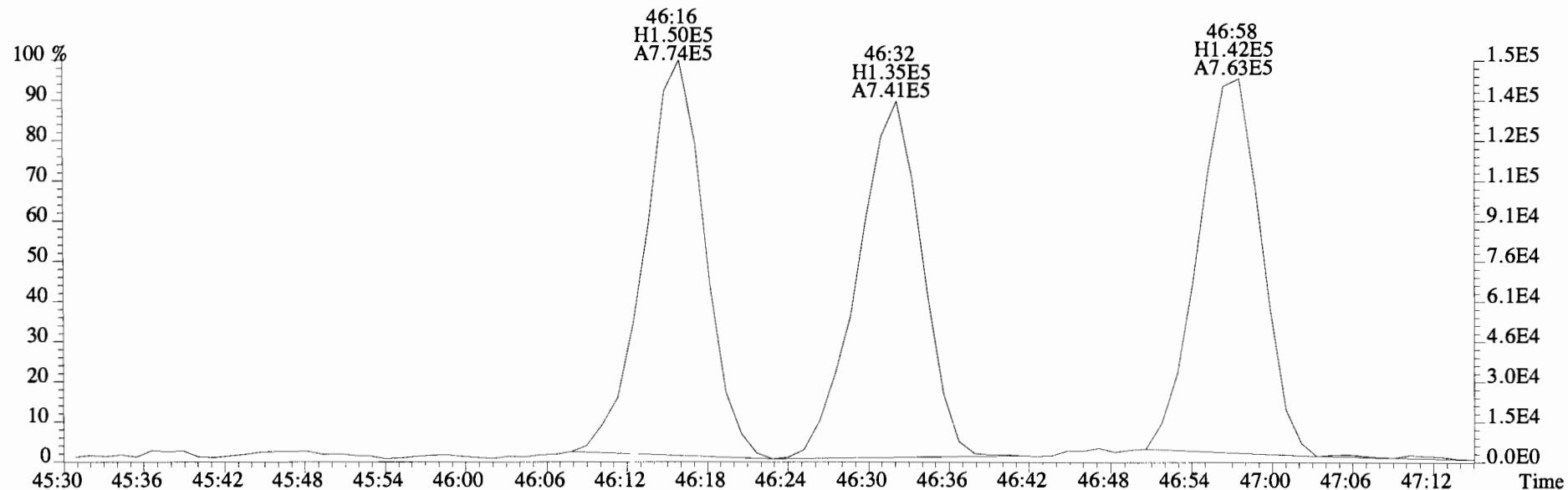
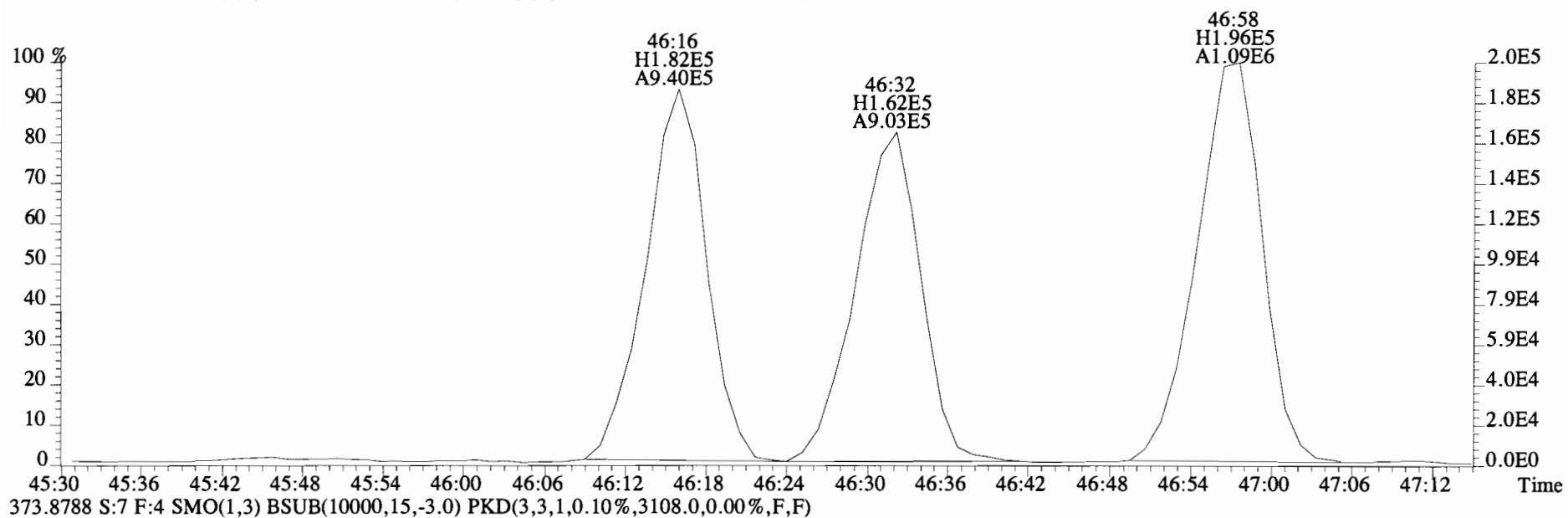
File:140924E1 #1-560 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
359.8415 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2608.0,0.00%,F,F)



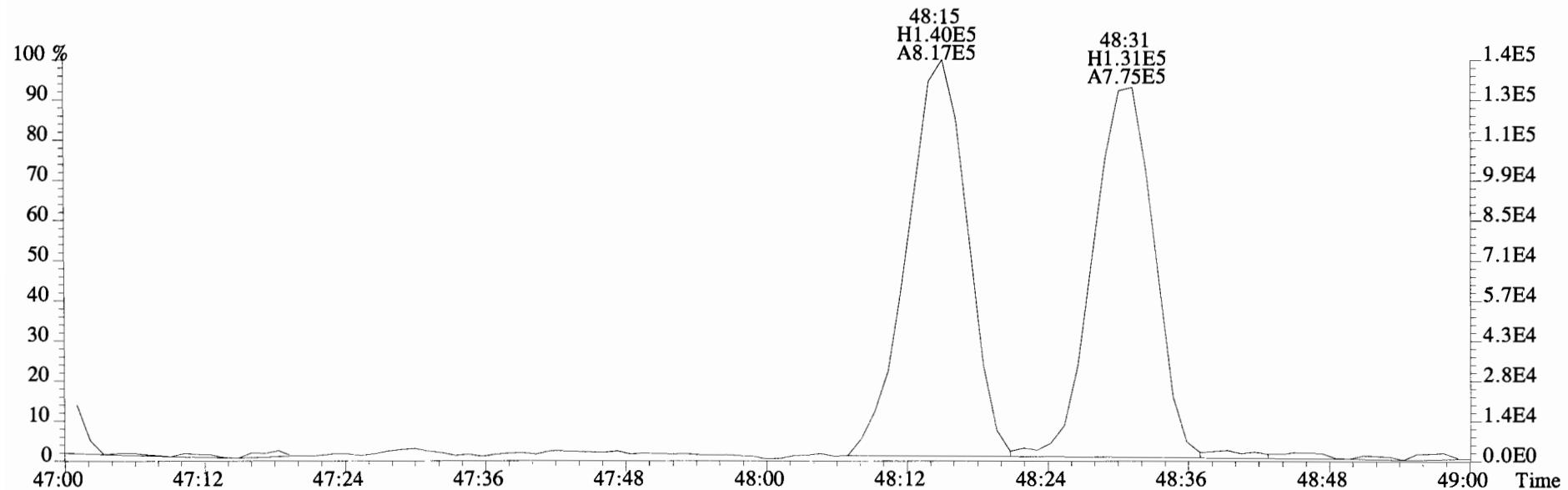
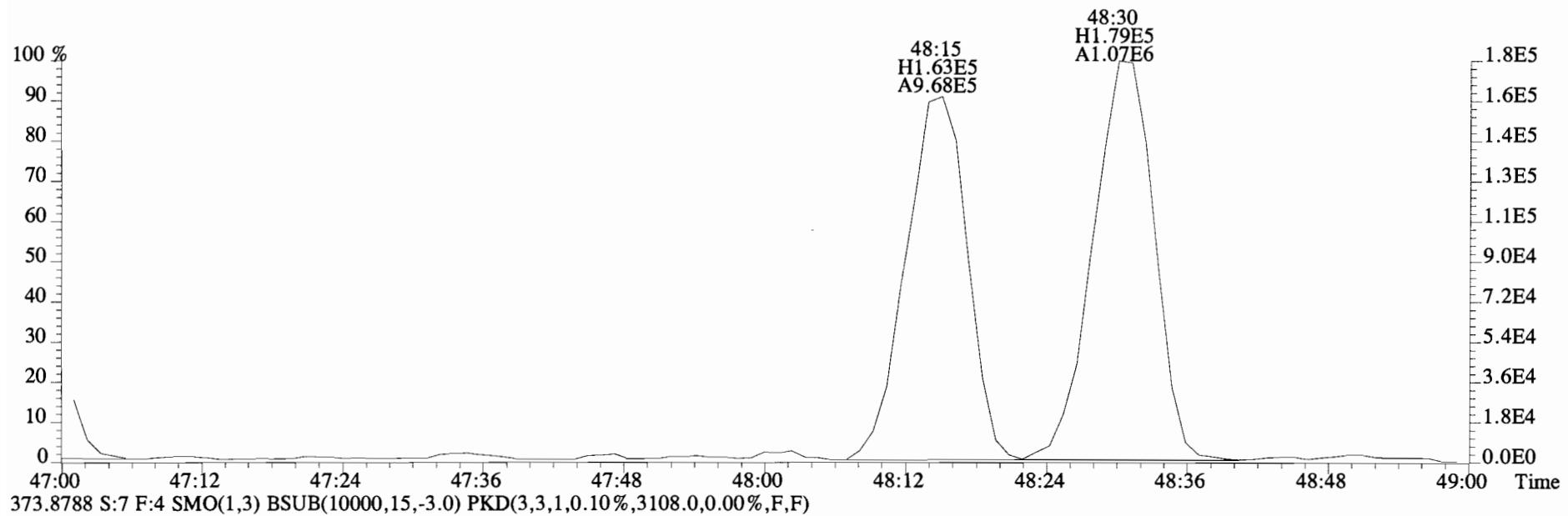
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
371.8817 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2828.0,0.00%,F,F)



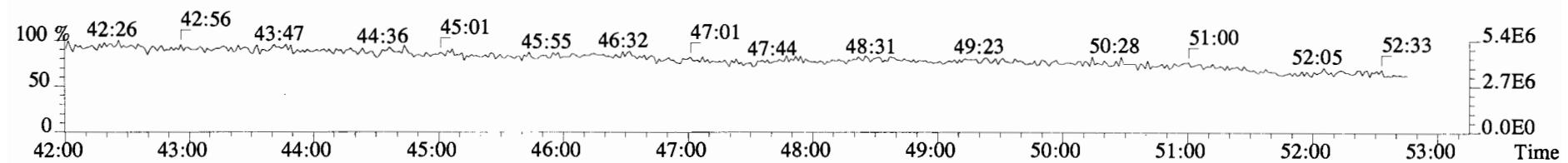
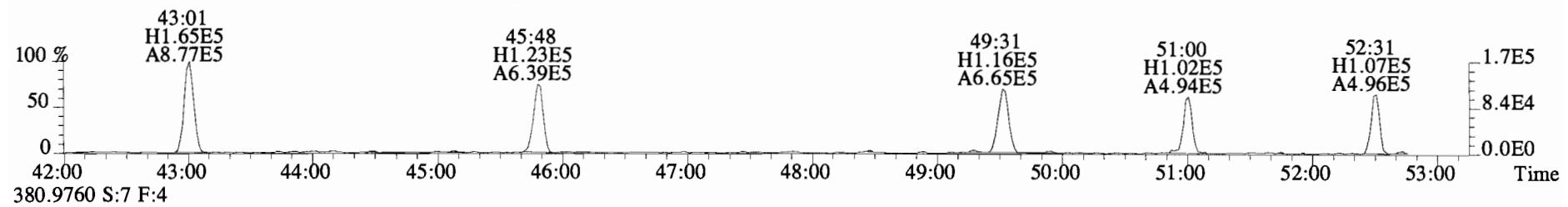
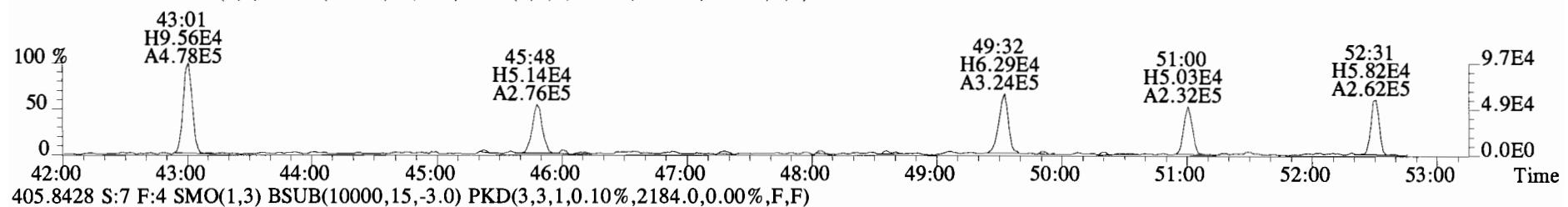
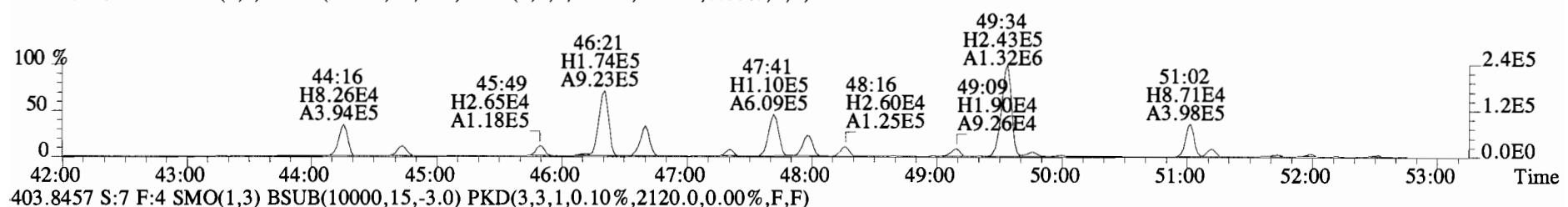
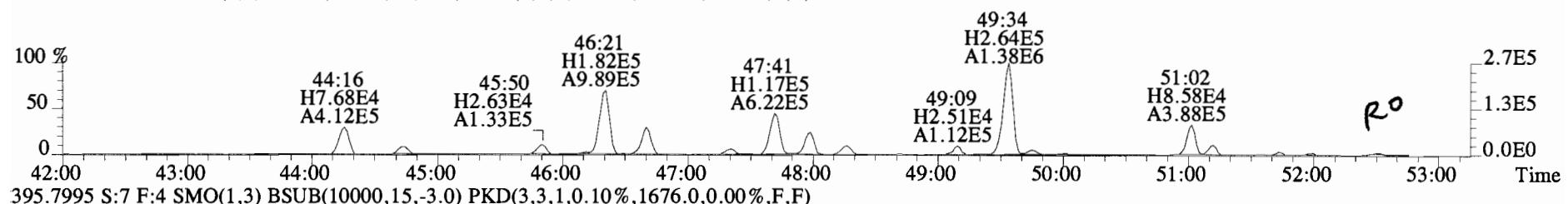
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
371.8817 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2828.0,0.00%,F,F)



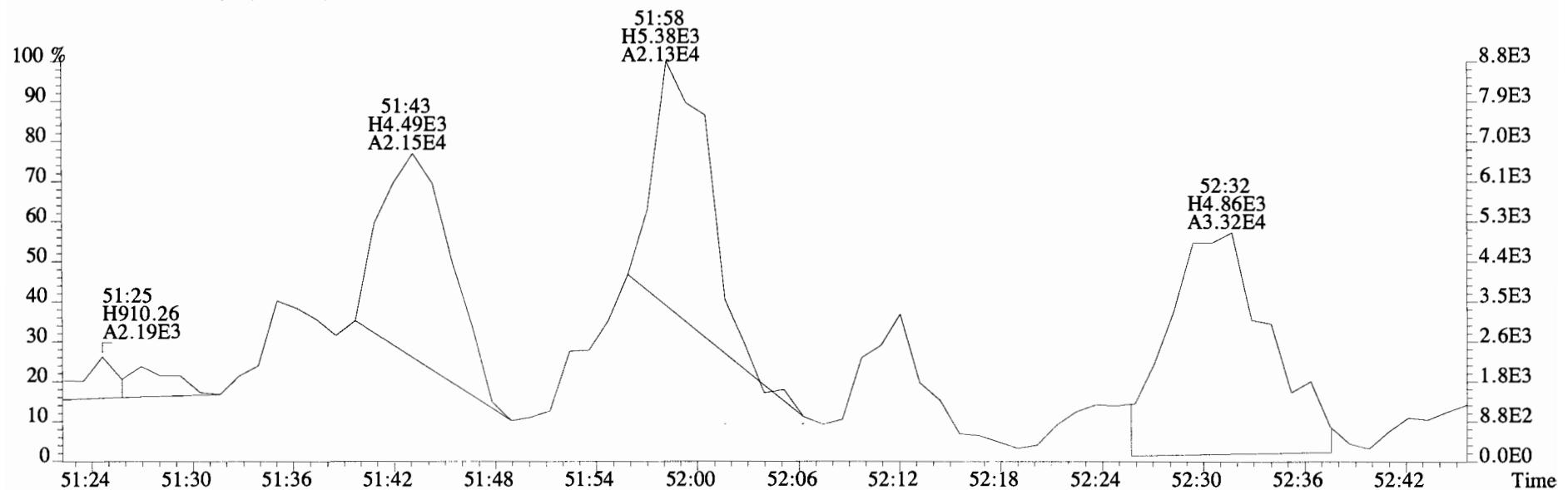
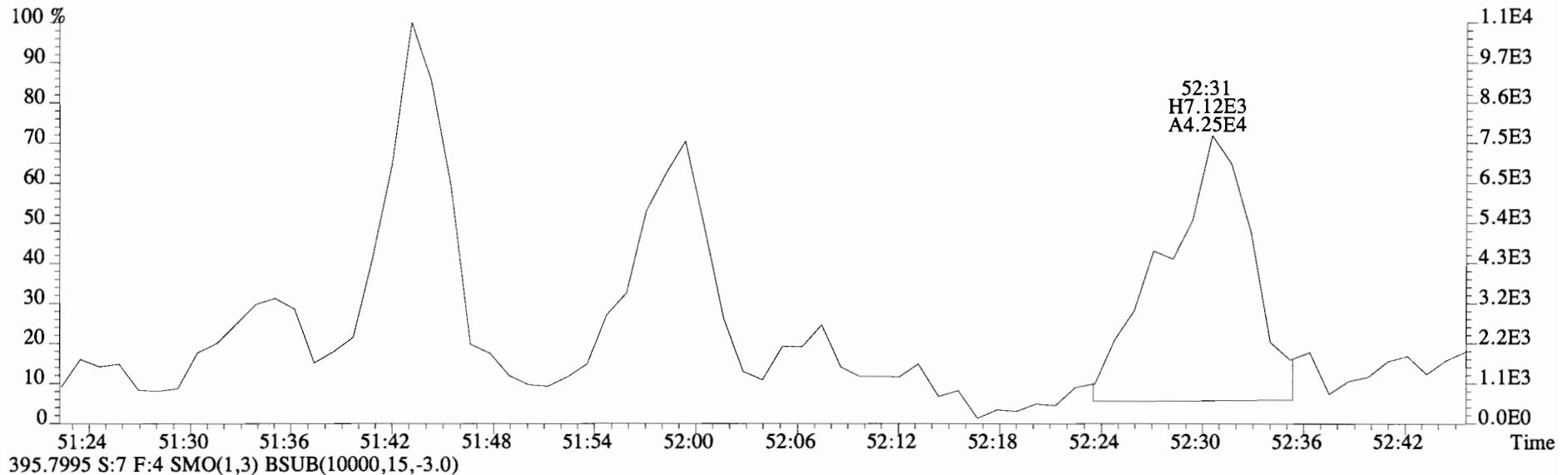
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
371.8817 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2828.0,0.00%,F,F)



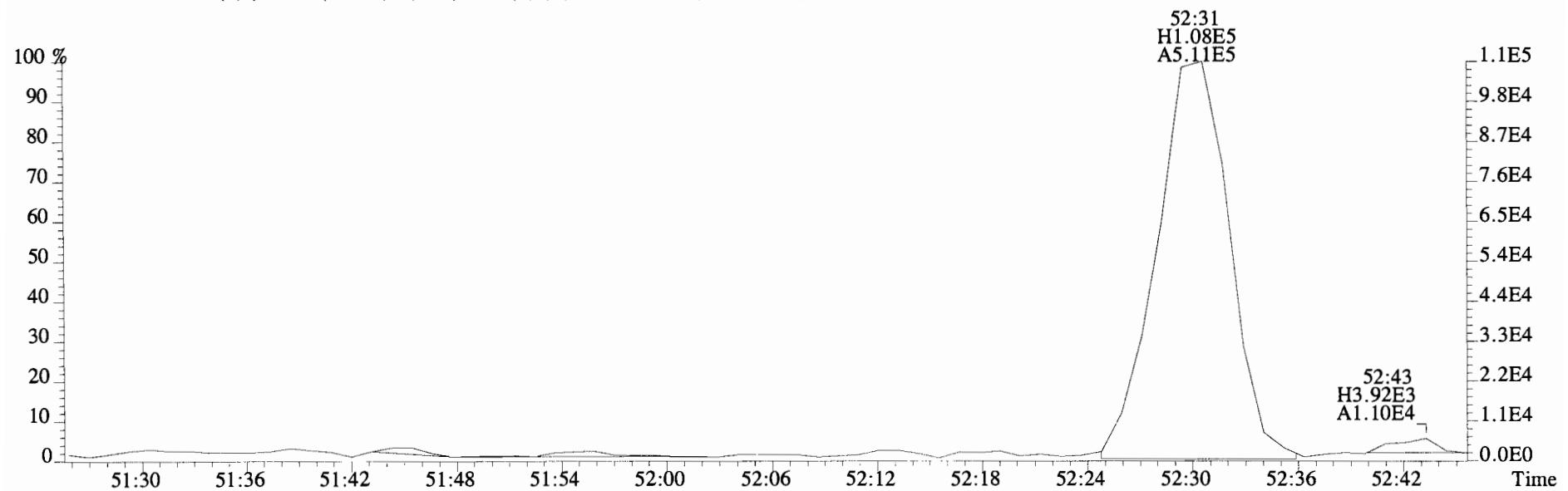
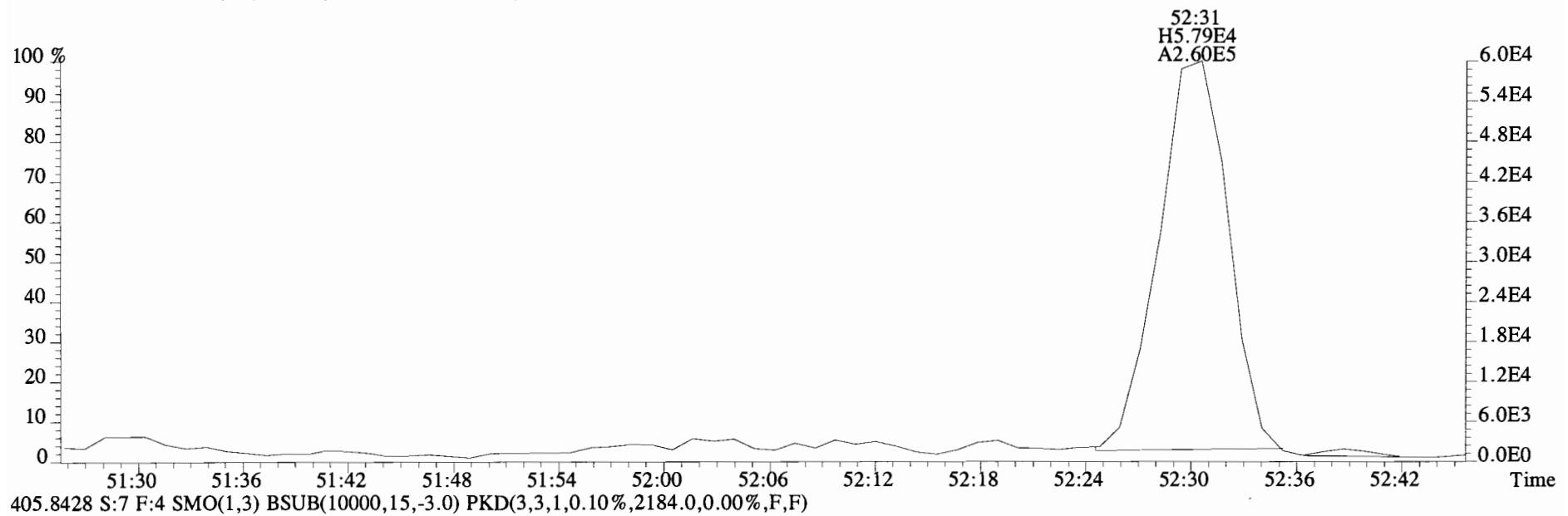
File:140924E1 #1-560 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text: Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 393.8025 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1964.0,0.00%,F,F)



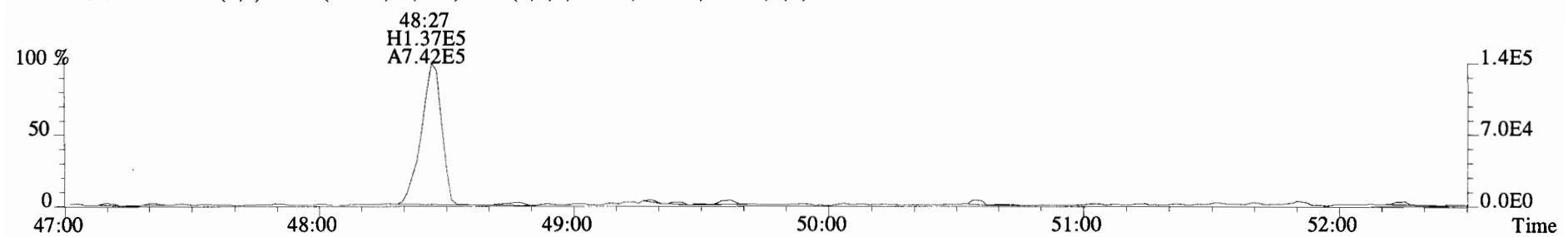
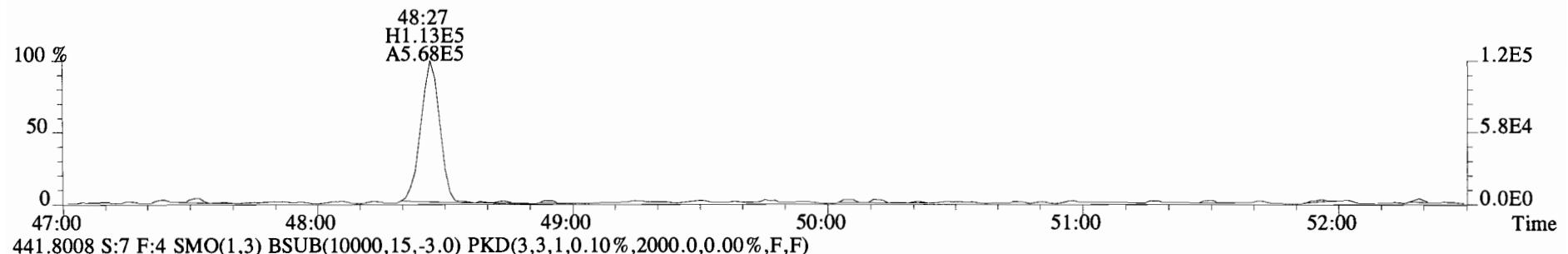
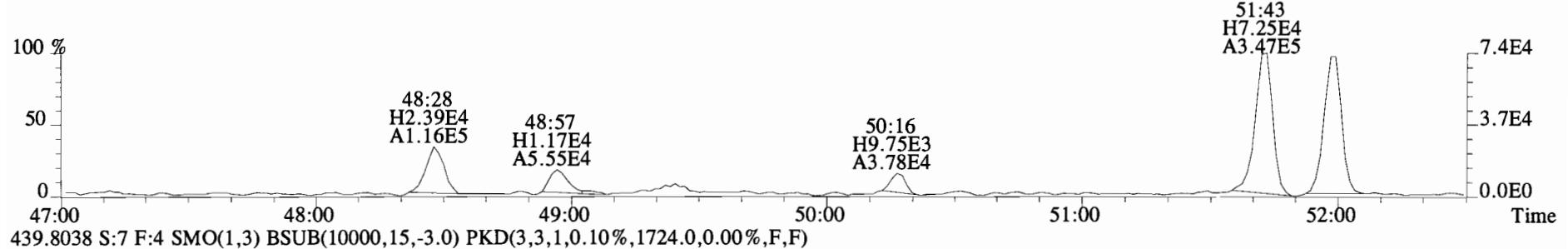
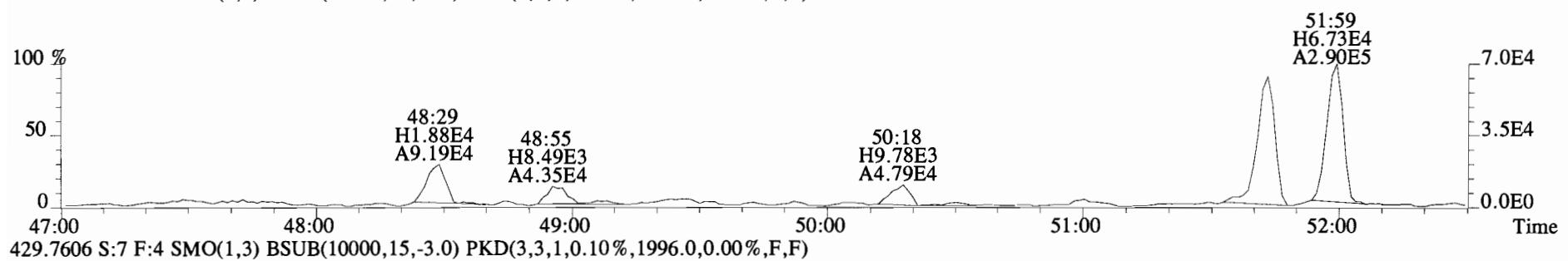
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Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
393.8025 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0)



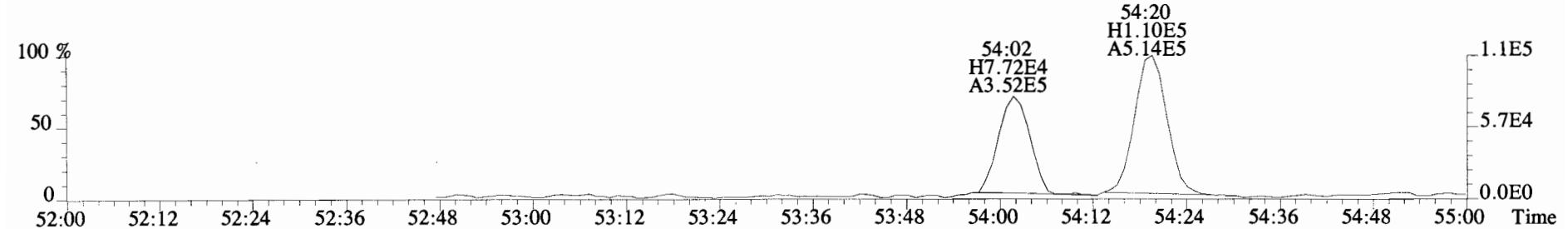
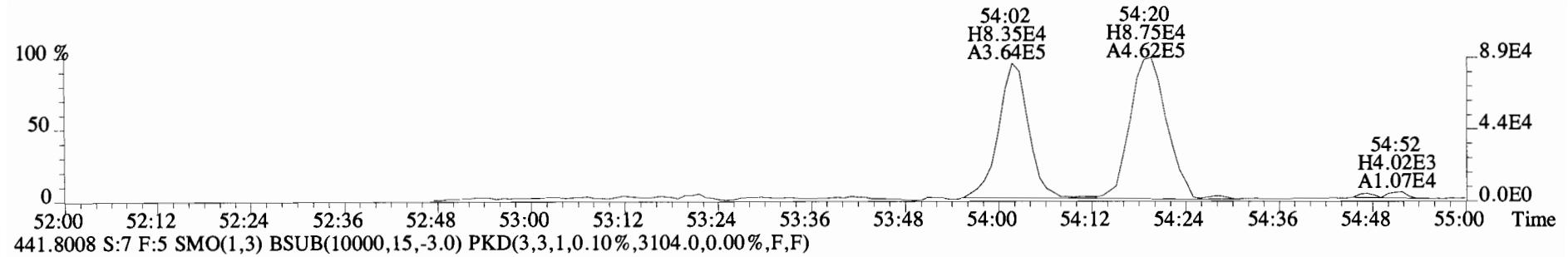
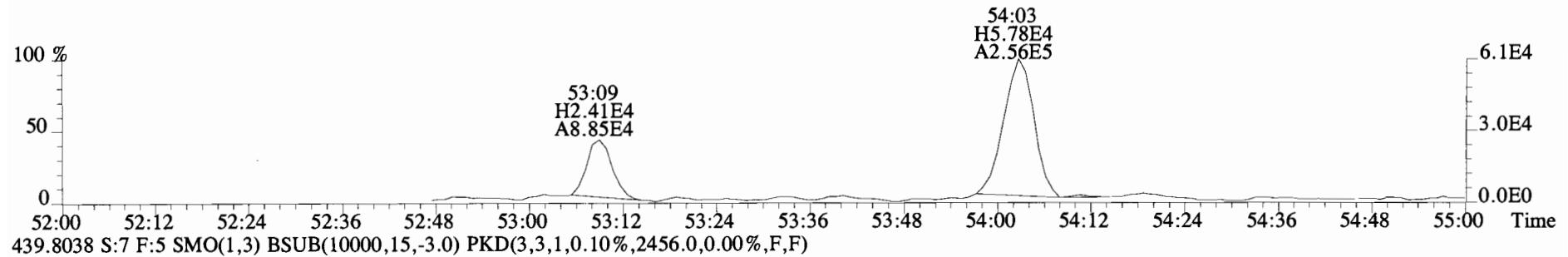
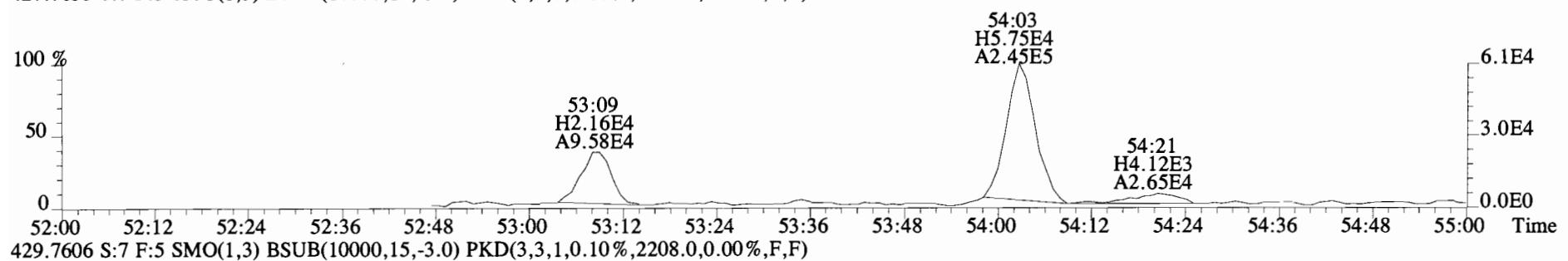
File:140924E1 #1-560 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
403.8457 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2120.0,0.00%,F,F)



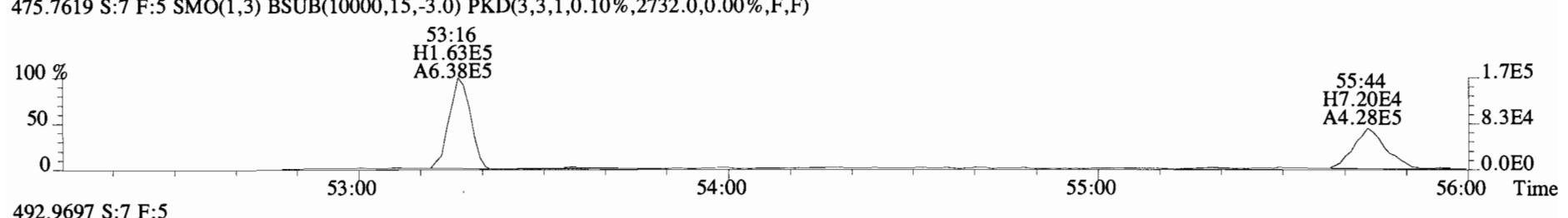
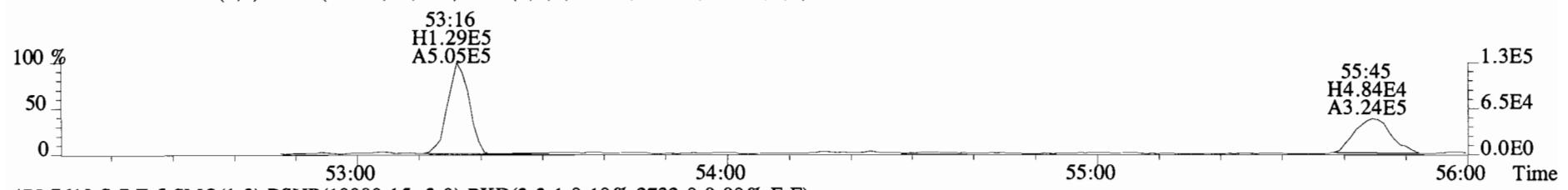
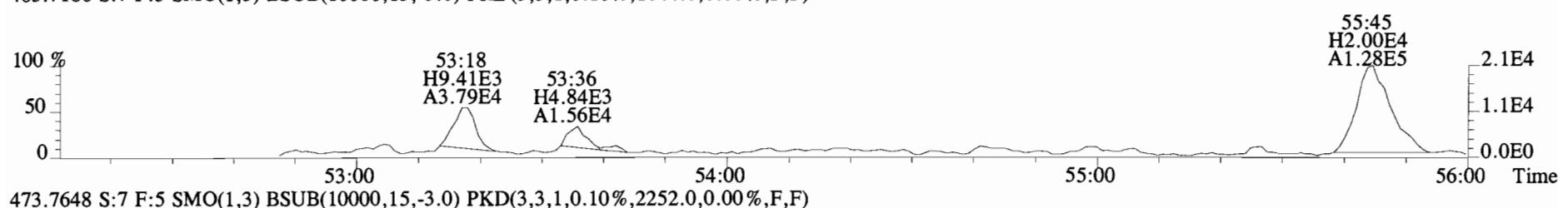
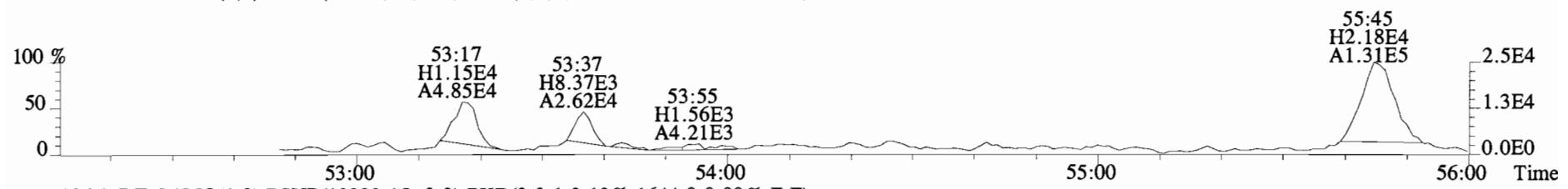
File:140924E1 #1-560 Acq:24-SEP-2014 17:35:34 GC EI + Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
427.7635 S:7 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1900.0,0.00%,F,F)



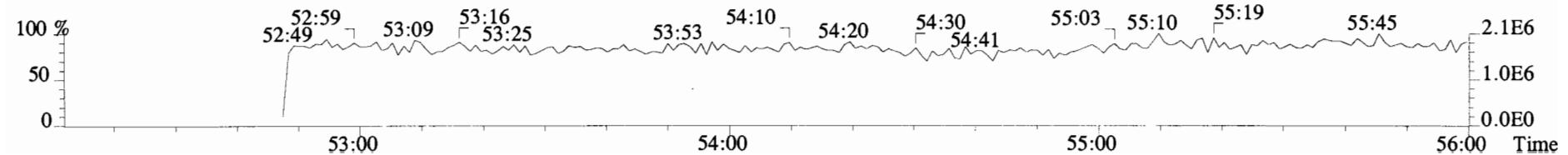
File:140924E1 #1-418 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 427.7635 S:7 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2272.0,0.00%,F,F)



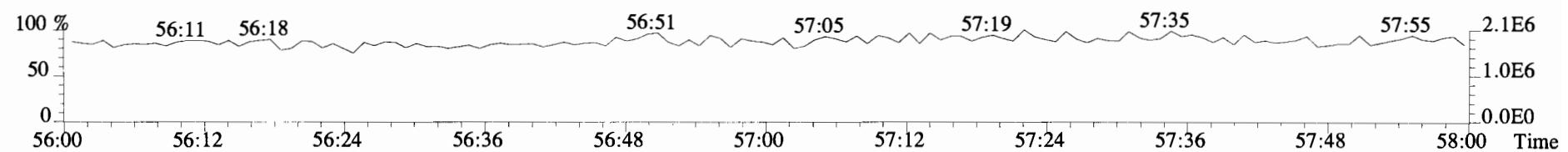
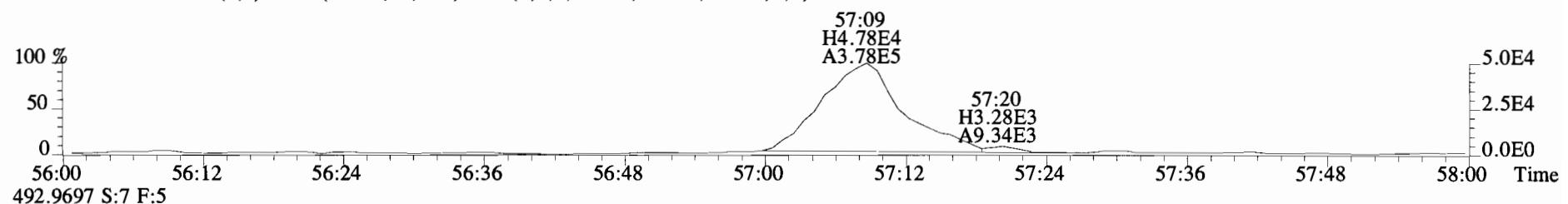
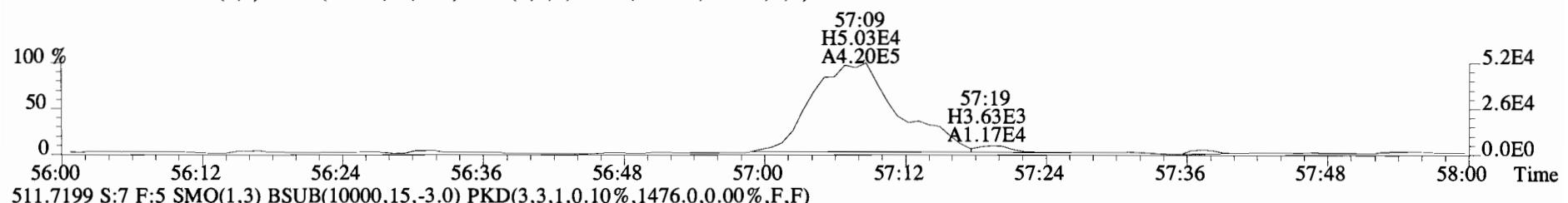
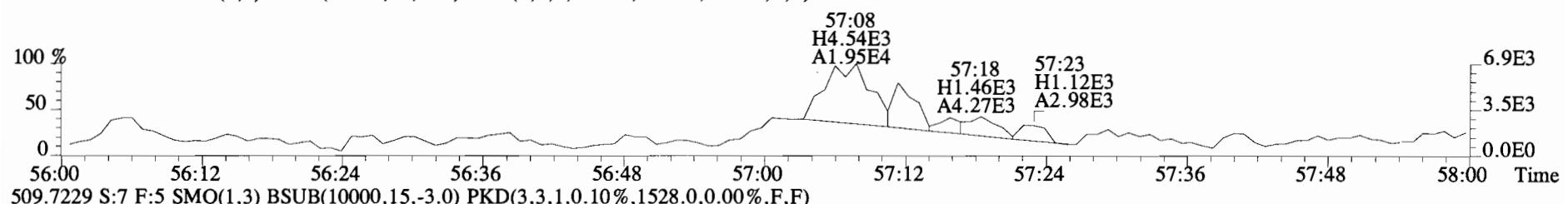
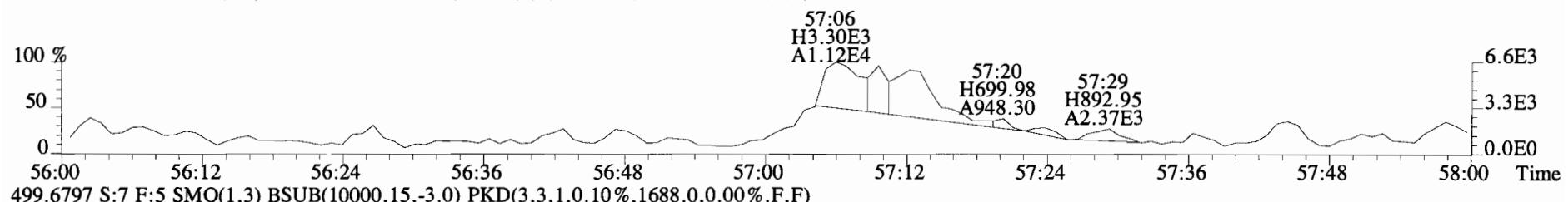
File:140924E1 #1-418 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 463.7216 S:7 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2288.0,0.00%,F,F)



492.9697 S:7 F:5



File:140924E1 #1-418 Acq:24-SEP-2014 17:35:34 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 File Text:Vista Analytical Laboratory VG-8 Text:1400659-03RE1 DL 1:20 PS-TS-01-20140909-S Exp:PCB_ZB1
 497.6826 S:7 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1424.0,0.00%,F,F)



CONFIRMATION

Client ID: PS-TS-01-20140909-S
Lab ID: 1400659-03RE1

Filename: 140918D1 S:4 Acq:18-SEP-14 13:45:53
GC Column ID: DB-225 ICal: 1613TCDFV7-3-10-14 wt/vol:10.085
ConCal: ST140918D1-1 EndCAL: NA

Page 2 of 7

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	3.54e+07	0.79	y	15:27	1.00	198.3
13C-2,3,7,8-TCDF	3.12e+07	0.79	y	17:46	0.93	188.3
2,3,7,8-TCDF	1.57e+05	0.83	y	17:47	1.16	0.8611

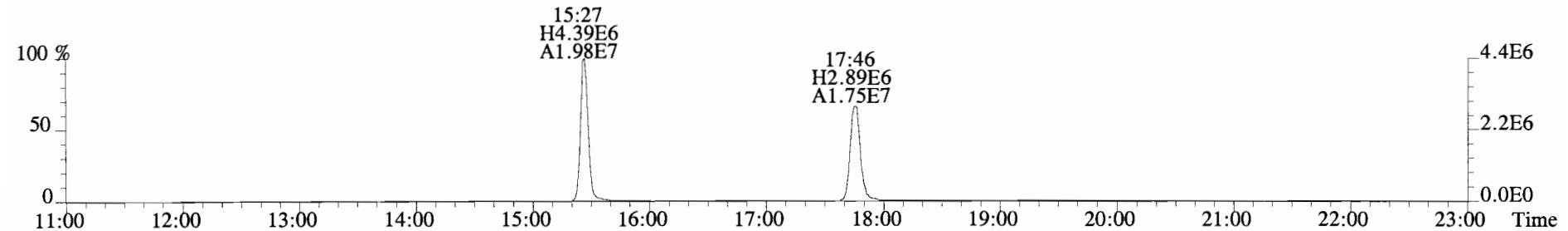
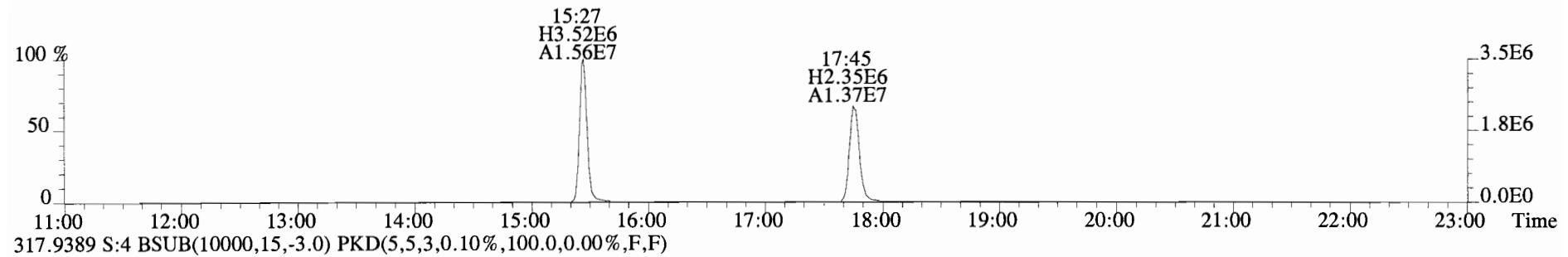
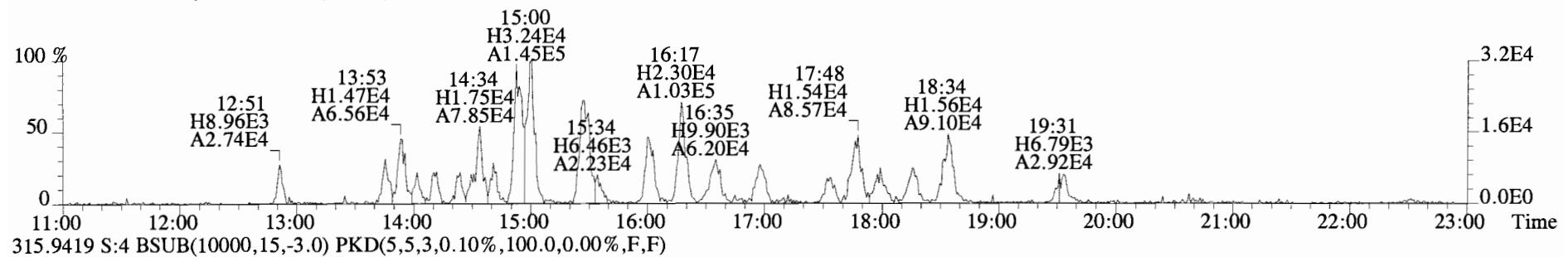
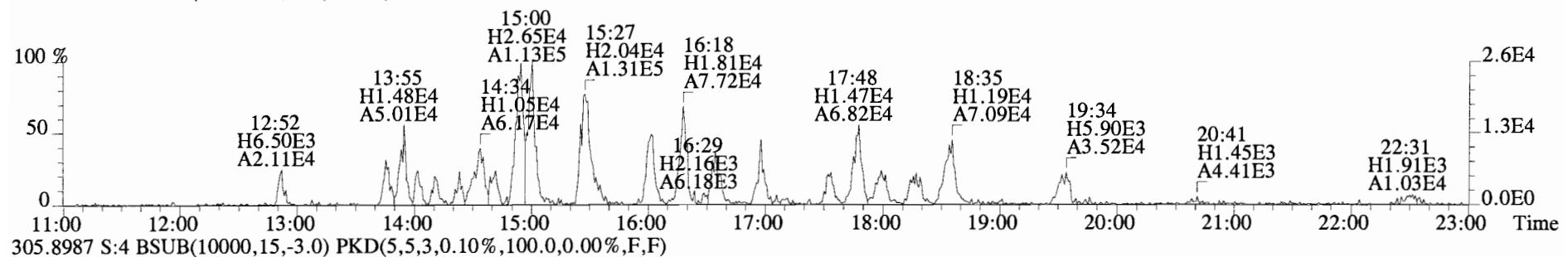
Integrations
by _____
Analyst: mj

Date: 9/19/14

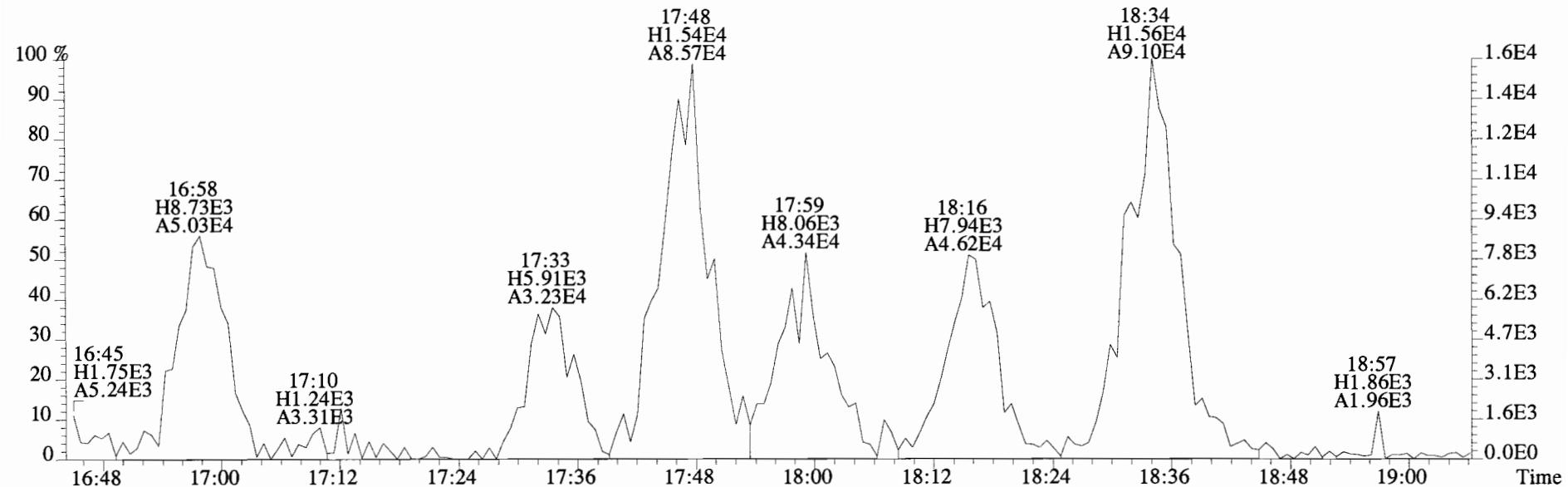
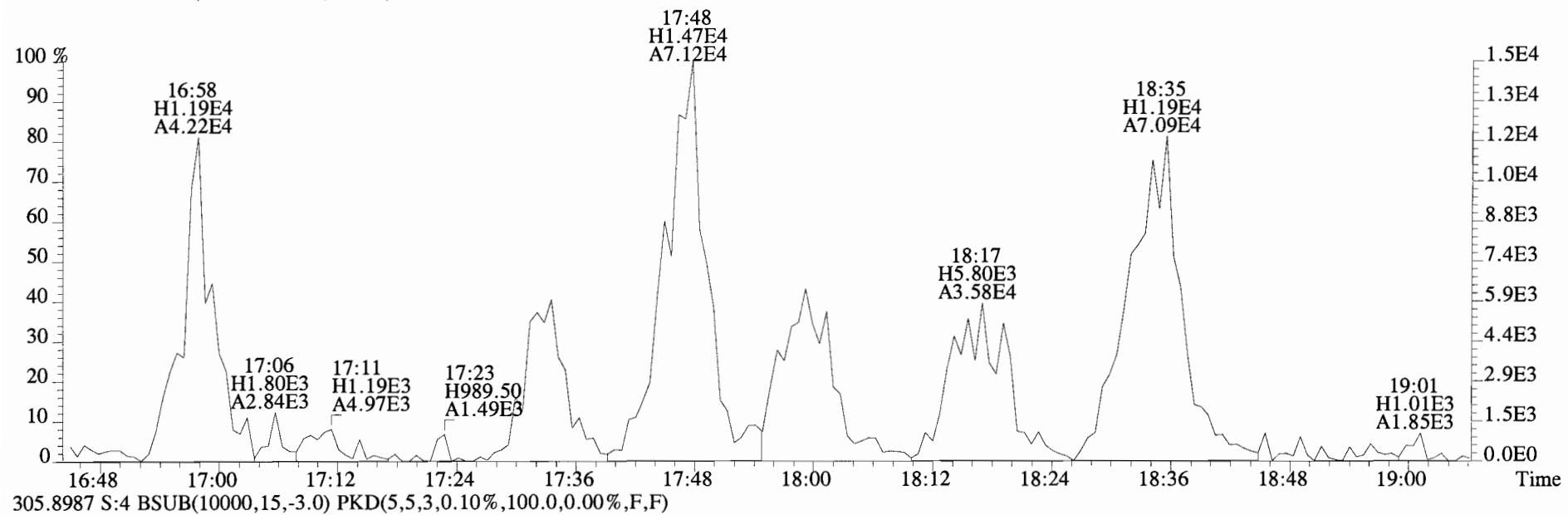
Reviewed
by _____
Analyst: ek

Date: 9/19/14

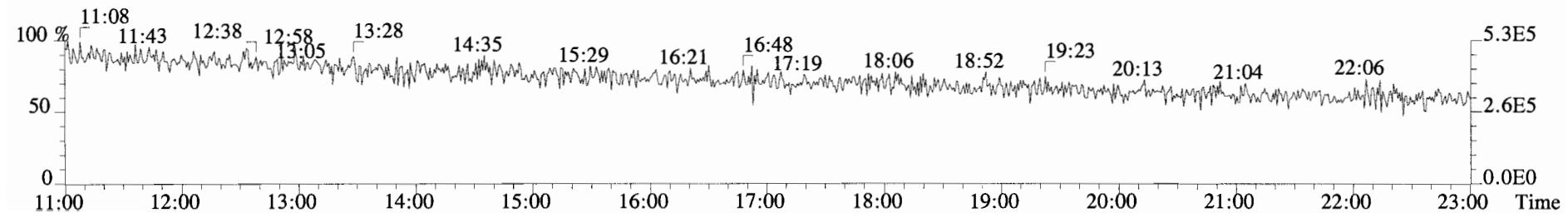
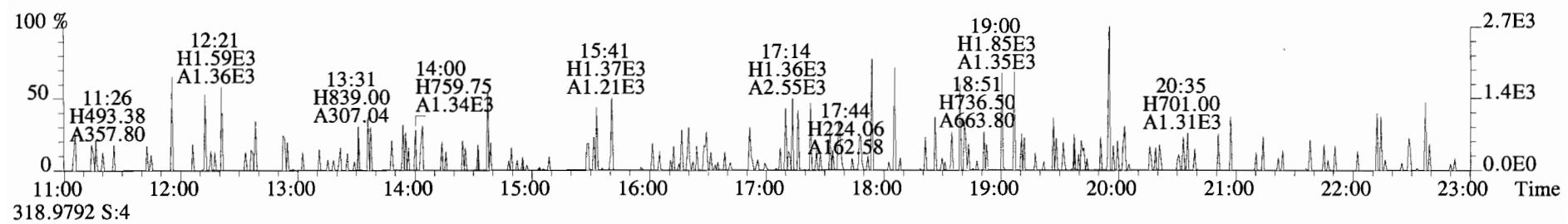
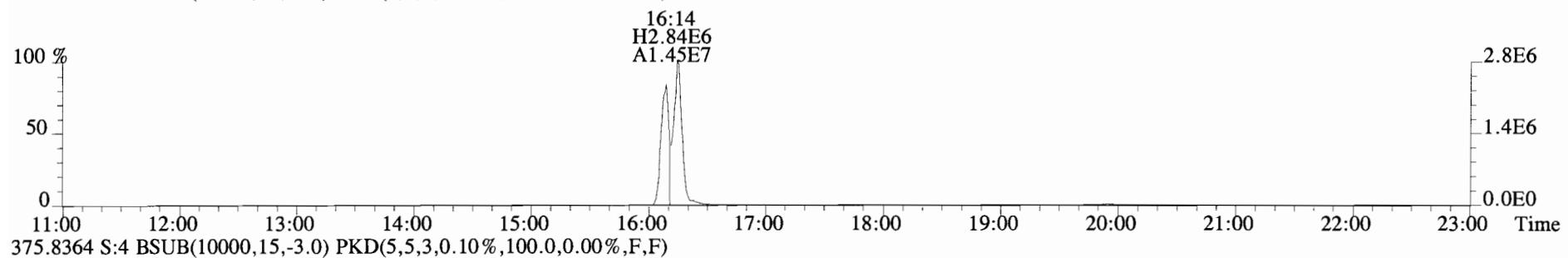
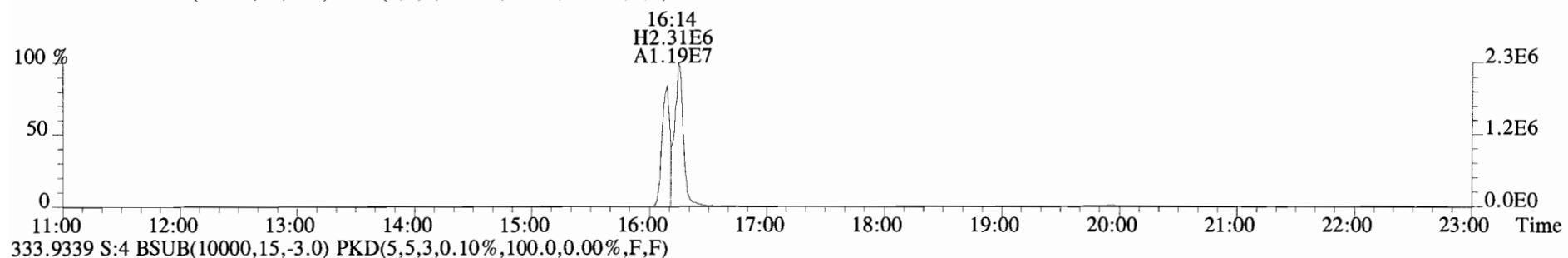
File:140918D1 #1-1684 Acq:18-SEP-2014 13:45:53 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03RE1 PS-TS-01-20140909-S C 13.37 Exp:TCDF_DB225
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140918D1 #1-1684 Acq:18-SEP-2014 13:45:53 GC EI + Voltage SIR Autospec-UltimaE
 Sample#4 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03RE1 PS-TS-01-20140909-S C 13.37 Exp:TCDF_DB225
 303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140918D1 #1-1684 Acq:18-SEP-2014 13:45:53 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 File Text:Vista Analytical Laboratory VG-7 Text:1400659-03RE1 PS-TS-01-20140909-S C 13.37 Exp:TCDF_DB225
 331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



CONTINUING CALIBRATION

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

CCAL ID: ST140917D1-1

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140917D1 S#1 Analysis Date: 17-SEP-14 Time: 13:11:35

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. CONC. FOUND	RANGE (3) (ng/mL)	
NATIVE ANALYTES							
2,3,7,8-TCDD	M/M+2	0.76	0.65-0.89	y	9.79	7.8 - 12.9 8.2 - 12.3 (4)	(1) See Table 8, Method 1613, for m/z specifications.
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	y	53.1	39.0 - 65.0	(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	49.8	39.0 - 64.0	(3) Contract-required concentration range as specified in Table 6, Method 1613.
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	49.3	39.0 - 64.0	
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	48.5	41.0 - 61.0	
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	51.4	43.0 - 58.0	(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.
OCDD	M+2/M+4	0.89	0.76-1.02	y	94.2	79.0 - 126.0	
2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	y	9.85	8.4 - 12.0 8.6 - 11.6 (4)	
1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	52.3	41.0 - 60.0	
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	52.4	41.0 - 61.0	
1,2,3,4,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	y	47.9	45.0 - 56.0	
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	y	49.4	44.0 - 57.0	
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	y	48.8	44.0 - 57.0	
1,2,3,7,8,9-HxCDF	M+2/M+4	1.29	1.05-1.43	y	48.1	45.0 - 56.0	
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.08	0.88-1.20	y	47.0	45.0 - 55.0	Analyst: <u>m</u>
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.09	0.88-1.20	y	47.1	43.0 - 58.0	Date: <u>9/17/14</u>
OCDF	M+2/M+4	0.93	0.76-1.02	y	99.3	63.0 - 159.0	

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140917D1 S#1 Analysis Date: 17-SEP-14 Time: 13:11:35

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	RANGE (ng/mL)	
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	97.5	82.0 - 121.0	(1) See Table 8, Method 1613, for m/z specifications.
13C-1,2,3,7,8-PeCDD	M/M+2	0.64	0.54-0.72	y	94.6	62.0 - 160.0	(2) Ion Abundance Ratio Control Limits as specified
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	99.8	85.0 - 117.0	
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	113	85.0 - 118.0	(3) No ion abundance ratio; report concentration found.
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	117	85.0 - 118.0	
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	96.1	72.0 - 138.0	
13C-OCDD	M/M+2	0.88	0.76-1.02	y	210	96.0 - 415.0	
13C-2,3,7,8-TCDF	M+2/M+4	0.77	0.65-0.89	y	103	71.0 - 140.0	
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	y	95.4	76.0 - 130.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	98.4	77.0 - 130.0	
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	105	76.0 - 131.0	
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	85.9	70.0 - 143.0	
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	96.0	73.0 - 137.0	
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	101	74.0 - 135.0	
13C-1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.43	0.37-0.51	y	103	78.0 - 129.0	
13C-1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.44	0.37-0.51	y	107	77.0 - 129.0	
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	204	96.0 - 415.0	
CLEANUP STANDARD (3)							
37Cl-2,3,7,8-TCDD					10.4	7.9 - 12.7	

Analyst: m

Date: 9/17/14

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-7 Initial Calibration Date: 4-17-14

RT Window Data Filename: 140917D1 S#1 Analysis Date: 17-SEP-14 Time: 13:11:35

ZB-5MS IS Data Filename: 140917D1 S#1 Analysis Date: 17-SEP-14 Time: 13:11:35

DB_225 IS Data Filename: Analysis Date: Time:

ZB-5MS RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:42	1,3,6,8-TCDF (F)	21:35
1,2,8,9-TCDD (L)	27:54	1,2,8,9-TCDF (L)	28:03
1,2,4,7,9-PeCDD (F)	29:30	1,3,4,6,8-PeCDF (F)	28:00
1,2,3,8,9-PeCDD (L)	31:54	1,2,3,8,9-PeCDF (L)	32:08
1,2,4,6,7,9-HxCDD (F)	33:20	1,2,3,4,6,8-HxCDF (F)	32:47
1,2,3,7,8,9-HxCDD (L)	35:18	1,2,3,7,8,9-HxCDF (L)	35:41
1,2,3,4,6,7,9-HpCDD (F)	37:55	1,2,3,4,6,7,8-HpCDF (F)	37:34
1,2,3,4,6,7,8-HpCDD (L)	38:45	1,2,3,4,7,8,9-HpCDF (L)	39:18

(F) = First eluting isomer (ZB-5MS); (L) = Last eluting isomer (ZB-5MS).

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

Analyst: M

Date: 9/18/14

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140917D1 S#1 Analysis Date: 17-SEP-14 Time: 13:11:35

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT		(1)
	REFERENCE	RR _T	QC LIMITS	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002	
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002	
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003	
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002	
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002	

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.021	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.190	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.991	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.146	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.180	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.021	0.989-1.052

Analyst: M,
Date: 9/17/14

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140917D1 S#1 Analysis Date: 17-SEP-14 Time: 13:11:35

NATIVE ANALYTES	RETENTION TIME	RRT	
	REFERENCE	RRT	QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.998-1.004
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975-1.001
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.037	1.002-1.072
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014-1.038
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.092	1.069-1.111
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.142	1.098-1.192
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.126	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.224	1.085-1.365
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.230	1.091-1.371

Analyst: M

Date: 9/17/14

Client ID: 1613 CS3 14F1201
 Lab ID: ST140917D1-1

Filename: 140917D1 S:1 Acq:17-SEP-14 13:11:35
 GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol: 1.000

ConCal: ST140917D1-1
 EndCAL: NA

Page 2 of 2

	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	1.97e+06	0.76 y	1.03	27:03	1.001	9.7878	*	2.5	*		Total Tetra-Dioxins	56.6	56.8	*	*	
	1,2,3,7,8-PeCDD	8.60e+06	0.61 y	0.84	31:32	1.001	53.097	*	2.5	*		Total Penta-Dioxins	169	169	*	*	
	1,2,3,4,7,8-HxCDD	7.85e+06	1.26 y	1.05	34:53	1.001	49.837	*	2.5	*		Total Hexa-Dioxins	188	189	*	*	
	1,2,3,6,7,8-HxCDD	8.78e+06	1.26 y	1.04	34:60	1.000	49.324	*	2.5	*		Total Hepta-Dioxins	126	127	*	*	
	1,2,3,7,8,9-HxCDD	9.20e+06	1.24 y	0.90	35:18	1.000	48.477	*	2.5	*		Total Tetra-Furans	30.9	31.3	*	*	
	1,2,3,4,6,7,8-HpCDD	7.11e+06	1.03 y	1.01	38:45	1.000	51.438	*	2.5	*		Total Penta-Furans	212.19	212.63	*	*	
	OCDD	1.23e+07	0.89 y	1.04	42:06	1.000	94.163	*	2.5	*		Total Hexa-Furans	244	245	*	*	
	2,3,7,8-TCDF	2.56e+06	0.78 y	0.91	26:16	1.001	9.8475	*	2.5	*		Total Hepta-Furans	94.2	95.3	*	*	
	1,2,3,7,8-PeCDF	1.37e+07	1.58 y	0.97	30:22	1.000	52.251	*	2.5	*							
	2,3,4,7,8-PeCDF	1.40e+07	1.58 y	0.94	31:15	1.000	52.426	*	2.5	*							
	1,2,3,4,7,8-HxCDF	1.27e+07	1.27 y	1.32	33:59	1.000	47.901	*	2.5	*							
	1,2,3,6,7,8-HxCDF	1.24e+07	1.26 y	1.18	34:07	1.000	49.406	*	2.5	*							
	2,3,4,6,7,8-HxCDF	1.21e+07	1.26 y	1.23	34:43	1.001	48.764	*	2.5	*							
	1,2,3,7,8,9-HxCDF	9.89e+06	1.29 y	1.13	35:41	1.001	48.124	*	2.5	*							
	1,2,3,4,6,7,8-HpCDF	1.09e+07	1.08 y	1.57	37:34	1.001	46.969	*	2.5	*							
	1,2,3,4,7,8,9-HpCDF	9.89e+06	1.09 y	1.50	39:18	1.000	47.108	*	2.5	*							
	OCDF	1.64e+07	0.93 y	1.05	42:20	1.000	99.276	*	2.5	*							
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.95e+07	0.79 y	1.06	27:02	1.021	97.486					97.5					
IS	13C-1,2,3,7,8-PeCDD	1.93e+07	0.64 y	1.08	31:31	1.190	94.599					94.6					
IS	13C-1,2,3,4,7,8-HxCDD	1.50e+07	1.25 y	0.74	34:52	1.014	99.761					99.8					
IS	13C-1,2,3,6,7,8-HxCDD	1.72e+07	1.26 y	0.75	34:59	1.017	112.87					113					
IS	13C-1,2,3,7,8,9-HxCDD	2.12e+07	1.24 y	0.89	35:17	1.026	117.32					117					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.37e+07	1.05 y	0.70	38:44	1.126	96.076					96.1					
IS	13C-OCDD	2.51e+07	0.88 y	0.59	42:05	1.224	209.93					105					
IS	13C-2,3,7,8-TCDF	2.86e+07	0.77 y	0.97	26:15	0.991	103.10					103					
IS	13C-1,2,3,7,8-PeCDF	2.71e+07	1.60 y	0.99	30:21	1.146	95.439					95.4					
IS	13C-2,3,4,7,8-PeCDF	2.84e+07	1.58 y	1.01	31:14	1.180	98.449					98.4					
IS	13C-1,2,3,4,7,8-HxCDF	2.01e+07	0.51 y	0.94	33:58	0.988	105.29					105					
IS	13C-1,2,3,6,7,8-HxCDF	2.14e+07	0.51 y	1.23	34:06	0.991	85.908					85.9					
IS	13C-2,3,4,6,7,8-HxCDF	2.01e+07	0.52 y	1.03	34:42	1.009	95.998					96.0					
IS	13C-1,2,3,7,8,9-HxCDF	1.82e+07	0.50 y	0.89	35:40	1.037	101.39					101					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.48e+07	0.43 y	0.71	37:33	1.092	103.33					103					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.40e+07	0.44 y	0.64	39:17	1.142	107.22					107					
IS	13C-OCDF	3.13e+07	0.90 y	0.76	42:19	1.230	203.93					102					
C/Up	37Cl-2,3,7,8-TCDD	2.05e+06		1.04	27:03	1.021	10.437					26.1	Integrations				
RS/RT	13C-1,2,3,4-TCDD	1.88e+07	0.80 y	1.00	26:29	*	100.00					Analyst:	MJ				
RS	13C-1,2,3,4-TCDF	2.86e+07	0.75 y	1.00	25:04	*	100.00					Analyst:	GR				
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.03e+07	0.52 y	1.00	34:24	*	100.00					Date:	9/17/14				

Vista Analytical Laboratory - Injection Log Run file: 140917D1 Instrument ID: VG-7 GC Column ID: ZB-5MS

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140917D1	1	ST140917D1-1	MAS	17-SEP-14	13:11:35	ST140917D1-1	NA
140917D1	2	SOLVENT BLANK	MAS	17-SEP-14	13:59:55	ST140917D1-1	NA
140917D1	3	SOLVENT BLANK	MAS	17-SEP-14	14:48:18	ST140917D1-1	NA
140917D1	4	SOLVENT BLANK	MAS	17-SEP-14	15:36:39	ST140917D1-1	NA
140917D1	5	B4I0053-BS1	MAS	17-SEP-14	16:25:00	ST140917D1-1	NA
140917D1	6	B4I0062-BS1	MAS	17-SEP-14	17:13:22	ST140917D1-1	NA
140917D1	7	SOLVENT BLANK	MAS	17-SEP-14	18:01:43	ST140917D1-1	NA
140917D1	8	B4I0053-BLK1	MAS	17-SEP-14	18:50:05	ST140917D1-1	NA
140917D1	9	B4I0062-BLK1	MAS	17-SEP-14	19:38:26	ST140917D1-1	NA
140917D1	10	1400659-03	MAS	17-SEP-14	20:26:43	ST140917D1-1	NA
140917D1	11	1400668-03	MAS	17-SEP-14	21:15:00	ST140917D1-1	NA
140917D1	12	1400667-01	MAS	17-SEP-14	22:03:21	ST140917D1-1	NA
140917D1	13	1400665-01	MAS	17-SEP-14	22:51:37	ST140917D1-1	NA
140917D1	14	1400665-02	MAS	17-SEP-14	23:39:58	ST140917D1-1	NA
140917D1	15	1400665-03	MAS	18-SEP-14	00:28:17	ST140917D1-1	NA
140917D1	16	SOLVENT BLANK	MAS	18-SEP-14	01:16:38	ST140917D1-1	NA
140917D1	17	SOLVENT BLANK	MAS	18-SEP-14	02:04:58	ST140917D1-1	NA

CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST140917 D1-1

End Calibration ID: NA

Ion abundance within QC limits?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/> NA

Concentration within range?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

First and last eluters present?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Retention Times within criteria?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Verification Std. named correctly?
(ST-Year-Month-Day-VG ID)

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Forms signed and dated?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Correct ICAL referenced?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Run Log:

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

-Data file matches Conc Cal ID?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

-Correct instrument listed?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

-Samples within 12-hour clock?

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

(y) n

Reviewed by: rmh 9/18/14
Initials & Date

Mass resolution > 10,000?

- Method 1614 > 5,000; CARB 429 > 8,000

TCDD/TCDF valleys < 25%?

Peaks integrated correctly?

Manual integrations included?

8280 CS1 Ending Standard

-Ratios within limits

-S/N > 2.5:1

-CS1 within 12-hour clock

Beg. End

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/> NA

<u>Beg.</u>	<u>End</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Beg.</u>	<u>End</u>
-------------	------------

Comments:

* Ending standard criteria applicable to 8290 only.

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

CCAL ID: ST140922D1-1

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140922D1 S#1 Analysis Date: 22-SEP-14 Time: 13:33:10

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. CONC. FOUND	CONC. RANGE (3) (ng/mL)	
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89 Y	9.85	7.8 - 12.9 8.2 - 12.3 (4)	(1) See Table 8, Method 1613, for m/z specifications.
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72 Y	49.7	39.0 - 65.0	(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43 Y	51.3	39.0 - 64.0	(3) Contract-required concentration range as specified in Table 6, Method 1613.
1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43 Y	52.3	39.0 - 64.0	
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43 Y	51.9	41.0 - 61.0	
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20 Y	51.3	43.0 - 58.0	(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.
OCDD	M+2/M+4	0.87	0.76-1.02 Y	97.4	79.0 - 126.0	
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89 Y	10.2	8.4 - 12.0 8.6 - 11.6 (4)	
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78 Y	51.7	41.0 - 60.0	
2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78 Y	52.4	41.0 - 61.0	
1,2,3,4,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43 Y	47.8	45.0 - 56.0	
1,2,3,6,7,8-HxCDF	M+2/M+4	1.30	1.05-1.43 Y	48.4	44.0 - 57.0	
2,3,4,6,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43 Y	48.6	44.0 - 57.0	
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.05-1.43 Y	47.6	45.0 - 56.0	
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.08	0.88-1.20 Y	46.0	45.0 - 55.0	Analyst: <u>M</u>
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20 Y	44.8	43.0 - 58.0	Date: <u>9/22/14</u>
OCDF	M+2/M+4	0.91	0.76-1.02 Y	97.3	63.0 - 159.0	

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140922D1 S#1 Analysis Date: 22-SEP-14 Time: 13:33:10

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	RANGE (ng/mL)	
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	96.5	82.0 - 121.0	(1) See Table 8, Method 1613, for m/z specifications.
13C-1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	87.0	62.0 - 160.0	(2) Ion Abundance Ratio Control Limits as specified
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	96.4	85.0 - 117.0	
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	97.9	85.0 - 118.0	(3) No ion abundance ratio; report concentration found.
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.20	1.05-1.43	y	94.0	85.0 - 118.0	
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	91.4	72.0 - 138.0	
13C-OCDD	M/M+2	0.91	0.76-1.02	y	182	96.0 - 415.0	
13C-2,3,7,8-TCDF	M+2/M+4	0.78	0.65-0.89	y	103	71.0 - 140.0	
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	93.6	76.0 - 130.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	89.2	77.0 - 130.0	
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	103	76.0 - 131.0	
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	93.0	70.0 - 143.0	
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	96.2	73.0 - 137.0	
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	99.1	74.0 - 135.0	
13C-1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.44	0.37-0.51	y	104	78.0 - 129.0	
13C-1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.44	0.37-0.51	y	96.5	77.0 - 129.0	
13C-OCDF	M+2/M+4	0.92	0.76-1.02	y	178	96.0 - 415.0	
CLEANUP STANDARD (3)							
37Cl-2,3,7,8-TCDD					10.5	7.9 - 12.7	

Analyst: m

Date: 9/22/14

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-7 Initial Calibration Date: 4-17-14

RT Window Data Filename: 140922D1 S#1 Analysis Date: 22-SEP-14 Time: 13:33:10

ZB-5MS IS Data Filename: 140922D1 S#1 Analysis Date: 22-SEP-14 Time: 13:33:10

DB_225 IS Data Filename: Analysis Date: Time:

ZB-5MS RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:48	1,3,6,8-TCDF (F)	21:41
1,2,8,9-TCDD (L)	27:59	1,2,8,9-TCDF (L)	28:08
1,2,4,7,9-PeCDD (F)	29:34	1,3,4,6,8-PeCDF (F)	28:05
1,2,3,8,9-PeCDD (L)	31:58	1,2,3,8,9-PeCDF (L)	32:12
1,2,4,6,7,9-HxCDD (F)	33:23	1,2,3,4,6,8-HxCDF (F)	32:50
1,2,3,7,8,9-HxCDD (L)	35:23	1,2,3,7,8,9-HxCDF (L)	35:46
1,2,3,4,6,7,9-HpCDD (F)	37:59	1,2,3,4,6,7,8-HpCDF (F)	37:38
1,2,3,4,6,7,8-HpCDD (L)	38:49	1,2,3,4,7,8,9-HpCDF (L)	39:22

(F) = First eluting isomer (ZB-5MS); (L) = Last eluting isomer (ZB-5MS).

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: M

Date: 9/22/14

FORM 6A

Lab Name: Vista Analytical Laboratory Episode No.: 1

Contract No.: SAS No.:

Episode No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140922D1 S#1 Analysis Date: 22-SEP-14 Time: 13:33:10

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT	
	REFERENCE	RRT	QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.021	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.190	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.146	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.179	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052

Analyst: ✓(n)

Date: 9/22/14

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140922D1 S#1 Analysis Date: 22-SEP-14 Time: 13:33:10

NATIVE ANALYTES	RETENTION TIME	RRT	
	REFERENCE	RRT	QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.998-1.004
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975-1.001
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.037	1.002-1.072
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014-1.038
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.092	1.069-1.111
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.142	1.098-1.192
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.126	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.224	1.085-1.365
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.230	1.091-1.371

Analyst: M)

Date: 9/22/14

Client ID: 1613 CS3 14F1201
 Lab ID: ST140922D1-1

Filename: 140922D1 S:1 Acq:22-SEP-14 13:33:10
 GC Column ID: ZB-5MS ICAL: 1613VG7-4-17-14 wt/vol: 1.000

ConCal: ST140922D1-1
 EndCAL: NA

Page 1 of 1

	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	1.91e+06	0.75 y	1.03	27:09	1.001	9.8472	*	2.5	*		Total Tetra-Dioxins	56.9	57.1	*	*	
	1,2,3,7,8-PeCDD	7.22e+06	0.61 y	0.84	31:37	1.001	49.741	*	2.5	*		Total Penta-Dioxins	165	166	*	*	
	1,2,3,4,7,8-HxCDD	6.57e+06	1.25 y	1.05	34:57	1.000	51.301	*	2.5	*		Total Hexa-Dioxins	205	205	*	*	
	1,2,3,6,7,8-HxCDD	6.78e+06	1.28 y	1.04	35:04	1.001	52.257	*	2.5	*		Total Hepta-Dioxins	128	129	*	*	
	1,2,3,7,8,9-HxCDD	6.63e+06	1.25 y	0.90	35:23	1.001	51.851	*	2.5	*		Total Tetra-Furans	31.6	31.8	*	*	
	1,2,3,4,6,7,8-HpCDD	5.67e+06	1.05 y	1.01	38:49	1.000	51.295	*	2.5	*		Total Penta-Furans	208.45	209.64	*	*	
	OCDD	9.26e+06	0.87 y	1.04	42:10	1.000	97.359	*	2.5	*		Total Hexa-Furans	242	242	*	*	
												Total Hepta-Furans	90.8	92.0	*	*	
	2,3,7,8-TCDF	2.41e+06	0.76 y	0.91	26:22	1.001	10.181	*	2.5	*							
	1,2,3,7,8-PeCDF	1.21e+07	1.57 y	0.97	30:27	1.000	51.730	*	2.5	*							
	2,3,4,7,8-PeCDF	1.15e+07	1.59 y	0.94	31:19	1.000	52.375	*	2.5	*							
	1,2,3,4,7,8-HxCDF	1.04e+07	1.26 y	1.32	34:03	1.000	47.844	*	2.5	*							
	1,2,3,6,7,8-HxCDF	1.11e+07	1.30 y	1.18	34:11	1.000	48.428	*	2.5	*							
	2,3,4,6,7,8-HxCDF	1.01e+07	1.28 y	1.23	34:47	1.000	48.568	*	2.5	*							
	1,2,3,7,8,9-HxCDF	8.04e+06	1.28 y	1.13	35:46	1.001	47.600	*	2.5	*							
	1,2,3,4,6,7,8-HpCDF	9.08e+06	1.08 y	1.57	37:38	1.000	45.993	*	2.5	*							
	1,2,3,4,7,8,9-HpCDF	7.11e+06	1.06 y	1.50	39:22	1.000	44.794	*	2.5	*							
	OCDF	1.18e+07	0.91 y	1.05	42:25	1.000	97.316	*	2.5	*							
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	1.88e+07	0.80 y	1.06	27:07	1.021	96.548					96.5					
IS	13C-1,2,3,7,8-PeCDD	1.73e+07	0.63 y	1.08	31:36	1.190	86.979					87.0					
IS	13C-1,2,3,4,7,8-HxCDD	1.22e+07	1.26 y	0.74	34:57	1.014	96.412					96.4					
IS	13C-1,2,3,6,7,8-HxCDD	1.25e+07	1.24 y	0.75	35:03	1.017	97.874					97.9					
IS	13C-1,2,3,7,8,9-HxCDD	1.43e+07	1.20 y	0.89	35:21	1.026	94.035					94.0					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.09e+07	1.05 y	0.70	38:48	1.126	91.382					91.4					
IS	13C-OCDD	1.83e+07	0.91 y	0.59	42:10	1.224	181.78					90.9					
IS	13C-2,3,7,8-TCDF	2.59e+07	0.78 y	0.97	26:21	0.992	103.46					103					
IS	13C-1,2,3,7,8-PeCDF	2.40e+07	1.57 y	0.99	30:26	1.146	93.580					93.6					
IS	13C-2,3,4,7,8-PeCDF	2.33e+07	1.59 y	1.01	31:19	1.179	89.217					89.2					
IS	13C-1,2,3,4,7,8-HxCDF	1.66e+07	0.51 y	0.94	34:02	0.988	103.27					103					
IS	13C-1,2,3,6,7,8-HxCDF	1.95e+07	0.51 y	1.23	34:10	0.991	93.008					93.0					
IS	13C-2,3,4,6,7,8-HxCDF	1.69e+07	0.52 y	1.03	34:46	1.009	96.169					96.2					
IS	13C-1,2,3,7,8,9-HxCDF	1.50e+07	0.50 y	0.89	35:45	1.037	99.092					99.1					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.26e+07	0.44 y	0.71	37:37	1.092	104.29					104					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.06e+07	0.44 y	0.64	39:21	1.142	96.522					96.5					
IS	13C-OCDF	2.30e+07	0.92 y	0.76	42:24	1.230	177.66					88.8					
C/Up	37Cl-2,3,7,8-TCDD	2.00e+06	.	1.04	27:09	1.022	10.471					26.2	Integrations by Analyst:	Reviewed by			
RS/RT	13C-1,2,3,4-TCDD	1.83e+07	0.81 y	1.00	26:34	*	100.00						WV				
RS	13C-1,2,3,4-TCDF	2.59e+07	0.75 y	1.00	25:09	*	100.00										
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.70e+07	0.52 y	1.00	34:28	*	100.00						9/22/14		Date: 9/22/14		

Vista Analytical Laboratory - Injection Log Run file: 140922D1 Instrument ID: VG-7 GC Column ID: ZB-5MS

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140922D1	1	ST140922D1-1	MAS	22-SEP-14	13:33:10	ST140922D1-1	NA
140922D1	2	B4I0065-BS1	MAS	22-SEP-14	14:21:30	ST140922D1-1	NA
140922D1	3	B4I0066-BS1	MAS	22-SEP-14	15:09:53	ST140922D1-1	NA
140922D1	4	SOLVENT BLANK	MAS	22-SEP-14	15:58:14	ST140922D1-1	NA
140922D1	5	B4I0065-BLK1	MAS	22-SEP-14	16:46:36	ST140922D1-1	NA
140922D1	6	B4I0066-BLK1	MAS	22-SEP-14	17:34:58	ST140922D1-1	NA
140922D1	7	1400664-01	MAS	22-SEP-14	18:23:20	ST140922D1-1	NA
140922D1	8	1400668-01	MAS	22-SEP-14	19:11:42	ST140922D1-1	NA
140922D1	9	1400668-02	MAS	22-SEP-14	20:00:03	ST140922D1-1	NA
140922D1	10	1400665-04	MAS	22-SEP-14	20:48:24	ST140922D1-1	NA
140922D1	11	1400659-01	MAS	22-SEP-14	21:36:44	ST140922D1-1	NA
140922D1	12	1400659-02	MAS	22-SEP-14	22:25:04	ST140922D1-1	NA
140922D1	13	1400666-01	MAS	22-SEP-14	23:13:25	ST140922D1-1	NA
140922D1	14	SOLVENT BLANK	MAS	23-SEP-14	00:01:46	ST140922D1-1	NA



CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST14092201-1

End Calibration ID: NA

Ion abundance within QC limits?

Beq. End

<input type="checkbox"/>	<input checked="" type="checkbox"/> NA
--------------------------	--

Concentration within range?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

First and last eluters present?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Retention Times within criteria?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Verification Std. named correctly?
(ST-Year-Month-Day-VG ID)

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Forms signed and dated?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Correct ICAL referenced?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Run Log:

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

-Data file matches Conc Cal ID?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

-Correct instrument listed?

<input type="checkbox"/>	<input checked="" type="checkbox"/> ✓
--------------------------	---------------------------------------

-Samples within 12-hour clock?

<input type="checkbox"/> y	<input type="checkbox"/> n
----------------------------	----------------------------

Reviewed by: gk 9/23/14
Initials & Date

Mass resolution > 10,000?

- Method 1614 > 5,000; CARB 429 > 8,000

TCDD/TCDF valleys < 25%?

Peaks integrated correctly?

Manual integrations included?

8280 CS1 Ending Standard

-Ratios within limits

-S/N > 2.5:1

-CS1 within 12-hour clock

Comments:

Beq. End

<input type="checkbox"/> ✓	<input type="checkbox"/> -
----------------------------	----------------------------

<input type="checkbox"/> -	<input checked="" type="checkbox"/> NA
----------------------------	--

<input checked="" type="checkbox"/> ✓	<input type="checkbox"/>
---------------------------------------	--------------------------

<input type="checkbox"/> ✓	<input type="checkbox"/>
----------------------------	--------------------------

<input type="checkbox"/> ✓	<input type="checkbox"/>
----------------------------	--------------------------

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/> ✓
--------------------------	---------------------------------------

* Ending standard criteria applicable to 8290 only.

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

FORM 4A/4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

CCAL ID: ST140918D1-1

Initial Calibration Date: 3-10-14

Instrument ID: VG-7

GC Column ID: DB-225

VER Data Filename: 140918D1 S#2 Analysis Date: 18-SEP-14 Time: 12:41:41

M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. CONC. FOUND	CONC. RANGE 1613 (ng/mL)	CONC. RANGE 8290 (ng/mL)
ANALYTES					
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	8.5	8.4 - 12.0 (3) 8.6 - 11.6 (4)
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	108.4	71.0 - 140.0 (3) 76.0 - 131.0 (4)

* Tetra-octa only
ms 9/18/14

- (1) See Table 8, Method 1613, for m/z specifications.
- (2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
- (3) Contract-required concentration range as specified in Table 6a, Method 1613, under VER.
- (4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MJDate: 9/18/14

Client ID: 1613 CS3 14F1201
Lab ID: ST140918D1-1

Filename: 140918D1 S:2 Acq:18-SEP-14 12:41:41
GC Column ID: DB-225 ICal: 1613TCDFVG7-3-10-14 wt/vol: 1.000 ConCal: ST140918D1-1
EndCAL: NA

Page 1 of 1

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	3.43e+07	0.79	y	15:26	1.00	100.0
13C-2,3,7,8-TCDF	3.44e+07	0.79	y	17:45	0.93	108.4
2,3,7,8-TCDF	3.39e+06	0.77	y	17:47	1.16	8.501

Integrations
by _____
Analyst: MJ
Date: 9/16/14 Reviewed
by _____
Analyst: _____
Date: _____

Vista Analytical Laboratory - Injection Log Run file: 140918D1 Instrument ID: VG-7 GC Column ID: DB-225

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140918D1	1	CP140918D1-1	MAS	18-SEP-14	12:09:36	ST140918D1-1	NA
140918D1	2	ST140918D1-1	MAS	18-SEP-14	12:41:41	ST140918D1-1	NA
140918D1	3	SOLVENT BLANK	MAS	18-SEP-14	13:13:47	ST140918D1-1	NA
140918D1	4	1400659-03RE1	MAS	18-SEP-14	13:45:53	ST140918D1-1	NA
140918D1	5	1400668-03RE1	MAS	18-SEP-14	14:17:59	ST140918D1-1	NA
140918D1	6	1400665-01RE1	MAS	18-SEP-14	14:50:04	ST140918D1-1	NA
140918D1	7	1400665-02RE1	MAS	18-SEP-14	15:22:10	ST140918D1-1	NA
140918D1	8	1400665-03RE1	MAS	18-SEP-14	15:54:16	ST140918D1-1	NA
140918D1	9	1400661-01RE2	MAS	18-SEP-14	16:26:21	ST140918D1-1	NA



CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST14091801-1

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>		<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	NA	Mass resolution > 10,000?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Concentration within range?	<input checked="" type="checkbox"/>		Method 1614 > 5,000; CARB 429 > 8,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
First and last eluters present?	NA		TCDD/TCDF valleys < 25%?	<input checked="" type="checkbox"/>	NA
Retention Times within criteria?	<input checked="" type="checkbox"/>		Peaks integrated correctly?	<input checked="" type="checkbox"/>	
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>		Manual integrations included?	<input checked="" type="checkbox"/>	
Forms signed and dated?	<input checked="" type="checkbox"/>		8280 CS1 Ending Standard		
Correct ICAL referenced?	<input checked="" type="checkbox"/>		-Ratios within limits		
Run Log:			-S/N > 2.5:1		
-Data file matches Conc Cal ID?	<input checked="" type="checkbox"/>		-CS1 within 12-hour clock		
-Correct instrument listed?	<input checked="" type="checkbox"/>				
-Samples within 12-hour clock?	<input checked="" type="checkbox"/>				
			Comments: * Tetra → Octa only m 9/19/14		

Reviewed by: CP 9/19/14
Initials & Date

* Ending standard criteria applicable to 8290 only.

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 7 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140919E1-1

Instrument ID: VG-8

Initial Calibration Date: 6-20-14

ICal ID: PCBVG8-6-20-14

GC Column ID: ZB-1

VER Data Filename: 140919E1 S#1 Analysis Date: 19-SEP-14 Time: 09:33:01

ANALYTES	ION	QC	CONC.				ION	QC	CONC.			
	ABUND.	LIMITS	PASS	CONC.	RANGE	(ng/mL)	ANALYTES	ABUND.	LIMITS	PASS	CONC.	RANGE
	RATIO			FOUND			ANALYTES	RATIO			FOUND	(ng/mL)
PCB-1	2.97	2.66-3.60	y	50.4	37.5-62.5	PCB-52/69	0.77	0.65-0.89	y	88.8	75.0-125	
PCB-2	3.00	2.66-3.60	y	50.2	37.5-62.5	PCB-73	0.79	0.65-0.89	y	48.2	37.5-62.5	
PCB-3	3.00	2.66-3.60	y	49.7	37.5-62.5	PCB-43/49	0.77	0.65-0.89	y	89.4	75.0-125	
PCB-4/10	1.62	1.33-1.79	y	202.0	150-250	PCB-47	0.78	0.65-0.89	y	43.7	37.5-62.5	
PCB-7/9	1.63	1.33-1.79	y	201.3	150-250	PCB-48/75	0.78	0.65-0.89	y	91.0	75.0-125	
PCB-6	1.63	1.33-1.79	y	97.7	75.0-125	PCB-65	0.77	0.65-0.89	y	45.3	37.5-62.5	
PCB-5/8	1.62	1.33-1.79	y	204.0	150-250	PCB-62	0.79	0.65-0.89	y	43.1	37.5-62.5	
PCB-14	1.64	1.33-1.79	y	100.5	75.0-125	PCB-44	0.78	0.65-0.89	y	44.9	37.5-62.5	
PCB-11	1.64	1.33-1.79	y	99.2	75.0-125	PCB-42/59	0.77	0.65-0.89	y	89.0	75.0-125	
PCB-12/13	1.63	1.33-1.79	y	202.2	150-250	PCB-41/64/71/72	0.77	0.65-0.89	y	178.1	150-250	
PCB-15	1.66	1.33-1.79	y	97.1	75.0-125	PCB-68	0.77	0.65-0.89	y	43.4	37.5-62.5	
PCB-19	1.08	0.88-1.20	y	53.5	37.5-62.5	PCB-40	0.78	0.65-0.89	y	44.5	37.5-62.5	
PCB-30	1.07	0.88-1.20	y	55.5	37.5-62.5	PCB-57	0.79	0.65-0.89	y	48.5	37.5-62.5	
PCB-18	1.07	0.88-1.20	y	60.3	37.5-62.5	PCB-67	0.81	0.65-0.89	y	49.3	37.5-62.5	
PCB-17	1.08	0.88-1.20	y	58.8	37.5-62.5	PCB-58	0.82	0.65-0.89	y	44.3	37.5-62.5	
PCB-24/27	1.09	0.88-1.20	y	116.7	75.0-125	PCB-63	0.80	0.65-0.89	y	47.2	37.5-62.5	
PCB-16/32	1.09	0.88-1.20	y	112.4	75.0-125	PCB-74	0.79	0.65-0.89	y	47.1	37.5-62.5	
PCB-34	0.99	0.88-1.20	y	47.0	37.5-62.5	PCB-61/70	0.81	0.65-0.89	y	93.0	75.0-125	
PCB-23	1.00	0.88-1.20	y	47.5	37.5-62.5	PCB-76/66	0.79	0.65-0.89	y	93.8	75.0-125	
PCB-29	1.00	0.88-1.20	y	44.9	37.5-62.5	PCB-80	0.79	0.65-0.89	y	45.5	37.5-62.5	
PCB-26	1.01	0.88-1.20	y	47.5	37.5-62.5	PCB-55	0.78	0.65-0.89	y	45.7	37.5-62.5	
PCB-25	1.00	0.88-1.20	y	44.4	37.5-62.5	PCB-56/60	0.82	0.65-0.89	y	88.1	75.0-125	
PCB-31	0.99	0.88-1.20	y	39.3	37.5-62.5	PCB-79	0.81	0.65-0.89	y	44.0	37.5-62.5	
PCB-28	1.00	0.88-1.20	y	43.3	37.5-62.5	PCB-78	0.82	0.65-0.89	y	45.4	37.5-62.5	
PCB-20/21/33	0.99	0.88-1.20	y	120.6	112.5-225	PCB-81	0.81	0.65-0.89	y	46.7	37.5-62.5	
PCB-22	1.01	0.88-1.20	y	43.3	37.5-62.5	PCB-77	0.86	0.65-0.89	y	48.4	37.5-62.5	
PCB-36	1.00	0.88-1.20	y	45.5	37.5-62.5	PCB-104	1.61	1.32-1.78	y	50.3	37.5-62.5	
PCB-39	0.97	0.88-1.20	y	41.4	37.5-62.5	PCB-96	1.63	1.32-1.78	y	49.4	37.5-62.5	
PCB-38	1.00	0.88-1.20	y	43.4	37.5-62.5	PCB-103	1.63	1.32-1.78	y	48.6	37.5-62.5	
PCB-35	1.02	0.88-1.20	y	39.9	37.5-62.5	PCB-100	1.60	1.32-1.78	y	48.0	37.5-62.5	
PCB-37	1.01	0.88-1.20	y	41.5	37.5-62.5	PCB-94	1.61	1.32-1.78	y	50.8	37.5-62.5	
PCB-54	0.78	0.65-0.89	y	45.6	37.5-62.5	PCB-95/98/102	1.60	1.32-1.78	y	158.1	112.5-225	Analyst: <i>DMS</i>
PCB-50	0.77	0.65-0.89	y	43.7	37.5-62.5	PCB-93	1.65	1.32-1.78	y	41.5	37.5-62.5	
PCB-53	0.77	0.65-0.89	y	44.9	37.5-62.5	PCB-88/91	1.62	1.32-1.78	y	109.5	75.0-125	
PCB-51	0.77	0.65-0.89	y	47.5	37.5-62.5	PCB-121	1.62	1.32-1.78	y	42.5	37.5-62.5	Date: <i>9/19/14</i>
PCB-45	0.76	0.65-0.89	y	48.0	37.5-62.5							
PCB-46	0.77	0.65-0.89	y	46.3	37.5-62.5							

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 7 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140919E1-1

Instrument ID: VG-8

Initial Calibration Date: 6-20-14

ICal ID: PCBVG8-6-20-14

GC Column ID: ZB-1

VER Data Filename: 140919E1 S#1 Analysis Date: 19-SEP-14 Time: 09:33:01

ANALYTES	ION QC				CONC.				ION QC				CONC.				
	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	
	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS
PCB-84/92	1.61	1.32-1.78	y	97.6	75.0-125	PCB-140	1.25	1.05-1.43	y	43.4	37.5-62.5	PCB-134/143	1.27	1.05-1.43	y	104.8	75.0-125
PCB-89	1.57	1.32-1.78	y	50.1	37.5-62.5	PCB-133/142	1.27	1.05-1.43	y	100.1	75.0-125	PCB-131	1.24	1.05-1.43	y	49.6	37.5-62.5
PCB-90/101	1.60	1.32-1.78	y	97.3	75.0-125	PCB-146/165	1.26	1.05-1.43	y	97.2	75.0-125	PCB-146/165	1.26	1.05-1.43	y	97.2	75.0-125
PCB-113	1.61	1.32-1.78	y	52.0	37.5-62.5	PCB-132/161	1.27	1.05-1.43	y	99.0	75.0-125	PCB-153	1.27	1.05-1.43	y	49.9	37.5-62.5
PCB-99	1.65	1.32-1.78	y	45.8	37.5-62.5	PCB-168	1.27	1.05-1.43	y	47.1	37.5-62.5	PCB-141	1.24	1.05-1.43	y	48.3	37.5-62.5
PCB-119	1.61	1.32-1.78	y	48.8	37.5-62.5	PCB-137	1.28	1.05-1.43	y	46.5	37.5-62.5	PCB-130	1.24	1.05-1.43	y	46.8	37.5-62.5
PCB-108/112	1.62	1.32-1.78	y	101.5	75.0-125	PCB-138/163/164	1.26	1.05-1.43	y	148.1	112.5-225	PCB-158/160	1.27	1.05-1.43	y	94.9	75.0-125
PCB-83	1.62	1.32-1.78	y	49.9	37.5-62.5	PCB-129	1.28	1.05-1.43	y	49.1	37.5-62.5	PCB-166	1.27	1.05-1.43	y	50.6	37.5-62.5
PCB-97	1.62	1.32-1.78	y	51.5	37.5-62.5	PCB-159	1.33	1.05-1.43	y	48.9	37.5-62.5	PCB-128/162	1.28	1.05-1.43	y	105.0	75.0-125
PCB-86	1.60	1.32-1.78	y	45.2	37.5-62.5	PCB-167	1.25	1.05-1.43	y	48.3	37.5-62.5	PCB-167	1.25	1.05-1.43	y	48.3	37.5-62.5
PCB-87/117/125	1.60	1.32-1.78	y	151.0	112.5-225	PCB-156	1.27	1.05-1.43	y	49.6	37.5-62.5	PCB-157	1.30	1.05-1.43	y	49.4	37.5-62.5
PCB-111/115	1.62	1.32-1.78	y	99.3	75.0-125	PCB-158/163/164	1.26	1.05-1.43	y	104.4	75.0-125	PCB-169	1.27	1.05-1.43	y	47.6	37.5-62.5
PCB-85/116	1.63	1.32-1.78	y	97.8	75.0-125	PCB-129	1.28	1.05-1.43	y	49.9	37.5-62.5	PCB-188	1.05	0.89-1.21	y	49.9	37.5-62.5
PCB-120	1.64	1.32-1.78	y	45.7	37.5-62.5	PCB-184	1.07	0.89-1.21	y	50.0	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.0	37.5-62.5
PCB-110	1.63	1.32-1.78	y	48.5	37.5-62.5	PCB-176	1.07	0.89-1.21	y	47.7	37.5-62.5	PCB-169	1.27	1.05-1.43	y	49.2	37.5-62.5
PCB-82	1.62	1.32-1.78	y	55.7	37.5-62.5	PCB-186	1.07	0.89-1.21	y	46.8	37.5-62.5	PCB-186	1.07	0.89-1.21	y	49.2	37.5-62.5
PCB-124	1.57	1.32-1.78	y	47.9	37.5-62.5	PCB-156	1.27	1.05-1.43	y	48.3	37.5-62.5	PCB-188	1.05	0.89-1.21	y	49.9	37.5-62.5
PCB-107/109	1.62	1.32-1.78	y	104.4	75.0-125	PCB-157	1.30	1.05-1.43	y	49.4	37.5-62.5	PCB-184	1.07	0.89-1.21	y	50.0	37.5-62.5
PCB-123	1.61	1.32-1.78	y	50.0	37.5-62.5	PCB-158/160	1.27	1.05-1.43	y	47.6	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.0	37.5-62.5
PCB-106/118	1.62	1.32-1.78	y	98.7	75.0-125	PCB-167	1.25	1.05-1.43	y	48.3	37.5-62.5	PCB-176	1.07	0.89-1.21	y	47.7	37.5-62.5
PCB-114	1.60	1.32-1.78	y	48.3	37.5-62.5	PCB-156	1.27	1.05-1.43	y	49.6	37.5-62.5	PCB-186	1.07	0.89-1.21	y	49.2	37.5-62.5
PCB-122	1.63	1.32-1.78	y	49.4	37.5-62.5	PCB-157	1.30	1.05-1.43	y	49.4	37.5-62.5	PCB-178	1.07	0.89-1.21	y	46.8	37.5-62.5
PCB-105	1.63	1.32-1.78	y	51.0	37.5-62.5	PCB-186	1.07	0.89-1.21	y	50.0	37.5-62.5	PCB-175	1.06	0.89-1.21	y	44.6	37.5-62.5
PCB-127	1.63	1.32-1.78	y	48.5	37.5-62.5	PCB-182/187	1.07	0.89-1.21	y	47.6	37.5-62.5	PCB-186	1.07	0.89-1.21	y	49.9	37.5-62.5
PCB-126	1.65	1.32-1.78	y	50.0	37.5-62.5	PCB-183	1.08	0.89-1.21	y	46.1	37.5-62.5	PCB-183	1.08	0.89-1.21	y	54.9	37.5-62.5
PCB-155	1.27	1.05-1.43	y	50.6	37.5-62.5	PCB-185	1.04	0.89-1.21	y	53.9	37.5-62.5	PCB-185	1.04	0.89-1.21	y	54.8	37.5-62.5
PCB-150	1.28	1.05-1.43	y	49.0	37.5-62.5	PCB-174	1.05	0.89-1.21	y	57.5	37.5-62.5	PCB-174	1.05	0.89-1.21	y	52.1	37.5-62.5
PCB-152	1.28	1.05-1.43	y	48.1	37.5-62.5	PCB-181	1.06	0.89-1.21	y	54.9	37.5-62.5	PCB-177	1.07	0.89-1.21	y	54.8	37.5-62.5
PCB-145	1.29	1.05-1.43	y	47.0	37.5-62.5	PCB-177	1.07	0.89-1.21	y	51.8	37.5-62.5	PCB-171	1.06	0.89-1.21	y	53.2	37.5-62.5
PCB-136	1.27	1.05-1.43	y	45.9	37.5-62.5	PCB-173	1.08	0.89-1.21	y	51.8	37.5-62.5	PCB-172	1.08	0.89-1.21	y	51.8	37.5-62.5
PCB-148	1.29	1.05-1.43	y	49.3	37.5-62.5	PCB-174	1.05	0.89-1.21	y	57.5	37.5-62.5	PCB-172	1.08	0.89-1.21	y	51.8	37.5-62.5
PCB-154	1.29	1.05-1.43	y	45.3	37.5-62.5	PCB-181	1.06	0.89-1.21	y	52.1	37.5-62.5	PCB-171	1.06	0.89-1.21	y	54.8	37.5-62.5
PCB-151	1.25	1.05-1.43	y	43.0	37.5-62.5	PCB-177	1.07	0.89-1.21	y	54.9	37.5-62.5	PCB-173	1.08	0.89-1.21	y	53.2	37.5-62.5
PCB-135	1.27	1.05-1.43	y	40.3	37.5-62.5	PCB-171	1.06	0.89-1.21	y	54.8	37.5-62.5	PCB-172	1.08	0.89-1.21	y	51.8	37.5-62.5
PCB-144	1.29	1.05-1.43	y	47.1	37.5-62.5	PCB-172	1.08	0.89-1.21	y	51.8	37.5-62.5	PCB-174	1.05	0.89-1.21	y	57.5	37.5-62.5
PCB-147	1.29	1.05-1.43	y	42.8	37.5-62.5	PCB-173	1.08	0.89-1.21	y	53.2	37.5-62.5	PCB-171	1.06	0.89-1.21	y	54.8	37.5-62.5
PCB-139/149	1.29	1.05-1.43	y	89.1	75.0-125	PCB-172	1.08	0.89-1.21	y	51.8	37.5-62.5	PCB-173	1.08	0.89-1.21	y	51.8	37.5-62.5

Analyst: DMS
Date: 9/19/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 7 of

Lab Name: Vista Analytical Laboratory Lab ID: ST140919E1-1 Instrument ID: VG-8

Initial Calibration Date: 6-20-14 ICAL ID: PCBVG8-6-20-14 GC Column ID: ZB-1

VER Data Filename: 140919E1 S#1 Analysis Date: 19-SEP-14 Time: 09:33:01

ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	
	RATIO	PASS	FOUND	(ng/mL)	
PCB-192	1.06	0.89-1.21	y	48.4	37.5-62.5
PCB-180	1.05	0.89-1.21	y	49.6	37.5-62.5
PCB-193	1.07	0.89-1.21	y	49.0	37.5-62.5
PCB-191	1.07	0.89-1.21	y	46.9	37.5-62.5
PCB-170	1.08	0.89-1.21	y	50.0	37.5-62.5
PCB-190	1.04	0.89-1.21	y	47.1	37.5-62.5
PCB-189	1.04	0.89-1.21	y	52.0	37.5-62.5
PCB-202	0.91	0.76-1.02	y	48.8	37.5-62.5
PCB-201	0.91	0.76-1.02	y	46.4	37.5-62.5
PCB-204	0.92	0.76-1.02	y	47.3	37.5-62.5
PCB-197	0.92	0.76-1.02	y	46.3	37.5-62.5
PCB-200	0.91	0.76-1.02	y	46.5	37.5-62.5
PCB-198	0.91	0.76-1.02	y	39.0	37.5-62.5
PCB-199	0.90	0.76-1.02	y	42.6	37.5-62.5
PCB-196/203	0.93	0.76-1.02	y	81.6	75.0-125
PCB-195	0.93	0.76-1.02	y	56.5	37.5-62.5
PCB-194	0.88	0.76-1.02	y	50.7	37.5-62.5
PCB-205	0.90	0.76-1.02	y	48.5	37.5-62.5
PCB-208	1.37	1.14-1.54	y	50.6	37.5-62.5
PCB-207	1.34	1.14-1.54	y	48.9	37.5-62.5
PCB-206	1.38	1.14-1.54	y	51.9	37.5-62.5
PCB-209	1.17	0.99-1.33	y	49.2	37.5-62.5

Analyst: DMSDate: 9/19/14

LABLED 1668C CONTINUING CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Lab ID: ST140919E1-1 Instrument ID: VG-8

Initial Calibration Date: 6-20-14 ICAL ID: PCBVG8-6-20-14 GC Column ID: ZB-1

VER Data Filename: 140919E1 S#1 Analysis Date: 19-SEP-14 Time: 09:33:01

LABLED IS	ION				CONC.		LABLED IS	ION				CONC.	
	ABUND.	QC	CONC.	RANGE	FOUND	(ng/mL)		ABUND.	QC	CONC.	RANGE	FOUND	(ng/mL)
13C-PCB-1	3.44	2.66-3.60	y	107.0	50.0-145		13C-PCB-169	1.29	1.05-1.43	y	71.7	50 - 145	
13C-PCB-3	3.48	2.66-3.60	y	109.1	50.0-145		13C-PCB-188	0.45	0.38-0.52	y	122.1	50 - 145	
13C-PCB-4	1.58	1.33-1.79	y	104.2	50.0-145		13C-PCB-180	0.47	0.38-0.52	y	96.1	50 - 145	
13C-PCB-9	1.58	1.33-1.79	y	101.8	50.0-145		13C-PCB-170	0.46	0.38-0.52	y	93.3	50 - 145	
13C-PCB-11	1.57	1.33-1.79	y	100.6	50.0-145		13C-PCB-189	0.46	0.38-0.52	y	74.9	50 - 145	
13C-PCB-19	1.11	0.88-1.20	y	97.8	50.0-145		13C-PCB-202	0.91	0.76-1.02	y	127.3	50 - 145	
13C-PCB-32	1.11	0.88-1.20	y	89.9	50.0-145		13C-PCB-194	0.93	0.76-1.02	y	102.9	50 - 145	
13C-PCB-28	1.08	0.88-1.20	y	97.2	50.0-145		13C-PCB-208	0.77	0.65-0.89	y	128.7	50 - 145	
13C-PCB-37	1.10	0.88-1.20	y	91.3	50.0-145		13C-PCB-206	0.79	0.65-0.89	y	101.2	50 - 145	
13C-PCB-54	0.82	0.65-0.89	y	127.5	50.0-145		13C-PCB-209	1.17	0.99-1.33	y	107.5	50 - 145	
13C-PCB-52	0.81	0.65-0.89	y	116.3	50.0-145								
13C-PCB-47	0.80	0.65-0.89	y	115.8	50.0-145								
13C-PCB-70	0.80	0.65-0.89	y	101.1	50.0-145								
13C-PCB-80	0.81	0.65-0.89	y	101.0	50.0-145								
13C-PCB-81	0.80	0.65-0.89	y	95.1	50.0-145								
13C-PCB-77	0.82	0.65-0.89	y	90.8	50.0-145								
13C-PCB-104	1.59	1.32-1.78	y	113.4	50.0-145								
13C-PCB-95	1.59	1.32-1.78	y	106.9	50.0-145								
13C-PCB-101	1.58	1.32-1.78	y	104.9	50.0-145		CRS vs. RS						
13C-PCB-97	1.57	1.32-1.78	y	102.1	50.0-145								
13C-PCB-123	1.60	1.32-1.78	y	87.5	50.0-145		13C-PCB-79	0.82	0.65-0.89	y	103.5	75 - 125	
13C-PCB-118	1.60	1.32-1.78	y	90.0	50.0-145		13C-PCB-178	0.46	0.38-0.52	y	124.9	75 - 125	
13C-PCB-114	1.68	1.32-1.78	y	90.0	50.0-145								
13C-PCB-105	1.68	1.32-1.78	y	87.3	50.0-145								
13C-PCB-127	1.63	1.32-1.78	y	82.3	50.0-145								
13C-PCB-126	1.68	1.32-1.78	y	76.0	50.0-145								
13C-PCB-155	1.28	1.05-1.43	y	122.3	50.0-145								
13C-PCB-153	1.31	1.05-1.43	y	104.1	50.0-145								
13C-PCB-141	1.32	1.05-1.43	y	107.7	50.0-145								
13C-PCB-138	1.29	1.05-1.43	y	102.4	50.0-145								
13C-PCB-159	1.30	1.05-1.43	y	91.5	50.0-145								
13C-PCB-167	1.30	1.05-1.43	y	89.3	50.0-145								
13C-PCB-156	1.27	1.05-1.43	y	82.5	50.0-145								
13C-PCB-157	1.32	1.05-1.43	y	86.6	50.0-145								

Analyst: DMSDate: 9/19/14

Client ID: PCB CS3 14F1901
 Lab ID: ST140919E1-1

Filename: 140919E1 S:1 Acq:19-SEP-14 09:33:01 ConCal: ST140919E1-1
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: ST140919E1-2

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	1.09e+08	2.97	y	1.25	16:18	1.001	0.996-1.006	50.4072	PCB-52/69	1.14e+08	0.77	y	1.28	31:42	1.001	0.996-1.006	88.8097
PCB-2	1.09e+08	3.00	y	1.18	18:41	0.988	0.983-0.993	50.2282	PCB-73	6.63e+07	0.79	y	1.37	31:49	1.004	1.000-1.010	48.2291
PCB-3	1.11e+08	3.00	y	1.22	18:55	1.001	0.996-1.006	49.6830	PCB-43/49	9.97e+07	0.77	y	1.11	31:59	1.010	1.005-1.015	89.3569
PCB-4/10	3.26e+08	1.62	y	1.55	20:17	1.002	0.998-1.008	202.038	PCB-47	5.18e+07	0.78	y	1.13	32:12	1.000	0.996-1.006	43.6515
PCB-7/9	3.90e+08	1.63	y	1.27	22:04	0.868	0.865-0.873	201.343	PCB-48/75	1.24e+08	0.78	y	1.30	32:19	1.004	0.999-1.009	90.9974
PCB-6	1.88e+08	1.63	y	1.26	22:43	0.894	0.890-0.899	97.6701	PCB-65	6.33e+07	0.77	y	1.33	32:34	1.012	1.007-1.017	45.2564
PCB-5/8	3.84e+08	1.62	y	1.23	23:08	0.910	0.906-0.916	204.006	PCB-62	5.84e+07	0.79	y	1.29	32:41	1.015	1.011-1.021	43.0793
PCB-14	2.12e+08	1.64	y	1.23	24:14	0.954	0.949-0.959	100.507	PCB-44	4.43e+07	0.78	y	0.94	32:59	1.025	1.020-1.030	44.9050
PCB-11	1.97e+08	1.64	y	1.16	25:25	1.000	0.996-1.006	99.2120	PCB-42/59	1.14e+08	0.77	y	1.22	33:13	1.032	1.028-1.038	89.0494
PCB-12/13	3.81e+08	1.63	y	1.10	25:49	1.016	1.010-1.020	202.245	PCB-41/64/71/72	2.45e+08	0.77	y	1.31	33:48	1.050	1.046-1.056	178.106
PCB-15	2.01e+08	1.66	y	1.21	26:08	1.028	1.024-1.034	97.1064	PCB-68	6.77e+07	0.77	y	1.49	34:03	1.058	1.054-1.064	43.4475
PCB-19	6.57e+07	1.08	y	1.30	24:25	1.001	0.996-1.006	53.5318	PCB-40	3.83e+07	0.78	y	0.82	34:17	1.065	1.061-1.071	44.5378
PCB-30	9.63e+07	1.07	y	1.83	25:18	1.037	1.032-1.042	55.5275	PCB-57	6.29e+07	0.79	y	1.11	34:38	0.970	0.965-0.975	48.5166
PCB-18	6.88e+07	1.07	y	0.86	26:03	0.954	0.949-0.959	60.2512	PCB-67	6.16e+07	0.81	y	1.07	34:56	0.979	0.974-0.984	49.3124
PCB-17	7.04e+07	1.08	y	0.90	26:14	0.961	0.955-0.965	58.8473	PCB-58	5.68e+07	0.82	y	1.10	35:03	0.982	0.977-0.987	44.3284
PCB-24/27	1.83e+08	1.09	y	1.18	26:48	0.981	0.976-0.986	116.701	PCB-63	6.13e+07	0.80	y	1.12	35:12	0.986	0.982-0.992	47.1749
- PCB-16/32	1.54e+08	1.09	y	1.03	27:19	1.000	0.995-1.005	112.384	PCB-74	6.59e+07	0.79	y	1.20	35:31	0.995	0.990-1.000	47.0541
- PCB-34	6.69e+07	0.99	y	1.26	28:06	0.960	0.956-0.966	47.0302	PCB-61/70	1.17e+08	0.81	y	1.08	35:41	1.000	0.994-1.004	93.0026
PCB-23	7.02e+07	1.00	y	1.31	28:12	0.963	0.959-0.969	47.4895	PCB-76/66	1.24e+08	0.79	y	1.14	35:53	1.005	1.001-1.011	93.7900
PCB-29	6.72e+07	1.00	y	1.33	28:27	0.972	0.967-0.977	44.8504	PCB-80	6.88e+07	0.79	y	1.28	36:07	1.000	0.996-1.006	45.5158
PCB-26	6.92e+07	1.01	y	1.29	28:39	0.979	0.974-0.984	47.5142	PCB-55	6.00e+07	0.78	y	1.11	36:27	1.009	1.005-1.015	45.6724
PCB-25	6.72e+07	1.00	y	1.34	28:49	0.984	0.980-0.990	44.3758	PCB-56/60	1.13e+08	0.82	y	1.09	36:57	1.023	1.018-1.028	88.0546
PCB-31	6.29e+07	0.99	y	1.42	29:11	0.997	0.992-1.002	39.3172	PCB-79	5.85e+07	0.81	y	1.12	38:01	1.053	1.048-1.058	43.9975
PCB-28	6.73e+07	1.00	y	1.38	29:17	1.000	0.996-1.006	43.3059	PCB-78	5.46e+07	0.82	y	1.24	38:43	0.987	0.982-0.992	45.4367
PCB-20/21/33	1.78e+08	0.99	y	1.31	29:54	1.021	1.017-1.027	120.555	PCB-81	6.27e+07	0.81	y	1.38	39:14	1.000	0.995-1.005	46.6995
PCB-22	6.46e+07	1.01	y	1.32	30:20	1.036	1.032-1.042	43.3076	PCB-77	5.78e+07	0.86	y	1.21	39:50	1.000	0.995-1.005	48.3989
PCB-36	6.22e+07	1.00	y	1.38	30:57	0.934	0.929-0.939	45.5450	PCB-104	6.68e+07	1.61	y	1.26	32:51	1.000	0.996-1.006	50.2597
PCB-39	5.84e+07	0.97	y	1.42	31:25	0.948	0.943-0.953	41.4287	PCB-96	5.70e+07	1.63	y	1.09	34:08	1.039	1.034-1.044	49.4246
PCB-38	5.83e+07	1.00	y	1.35	32:12	0.972	0.967-0.976	43.3954	PCB-103	4.79e+07	1.63	y	0.93	34:39	1.055	1.050-1.060	48.6423
PCB-35	5.44e+07	1.02	y	1.38	32:44	0.988	0.982-0.992	39.8668	PCB-100	5.08e+07	1.60	y	1.00	35:00	1.066	1.061-1.071	47.9577
PCB-37	5.73e+07	1.01	y	1.39	33:10	1.001	0.996-1.006	41.4801	PCB-94	4.19e+07	1.61	y	1.11	35:28	0.985	0.981-0.991	50.8314
PCB-54	7.20e+07	0.78	y	1.20	28:10	1.000	0.996-1.006	45.5859	PCB-95/98/102	1.43e+08	1.60	y	1.21	35:58	0.999	0.994-1.004	158.089
PCB-50	5.58e+07	0.77	y	0.97	29:20	1.042	1.037-1.047	43.7401	PCB-93	3.49e+07	1.65	y	1.13	36:06	1.003	0.998-1.008	41.4752
PCB-53	5.35e+07	0.77	y	1.19	29:59	0.946	0.941-0.951	44.9394	PCB-88/91	8.31e+07	1.62	y	1.02	36:23	1.011	1.006-1.016	109.503
PCB-51	5.49e+07	0.77	y	1.15	30:19	0.957	0.952-0.962	47.5207	PCB-121	6.03e+07	1.62	y	1.90	36:30	1.014	1.009-1.019	42.5426
PCB-45	4.64e+07	0.76	y	0.97	30:45	0.971	0.966-0.976	47.9615	PCB-84/92	7.91e+07	1.61	y	1.05	37:19	0.990	0.986-0.996	97.5829
PCB-46	4.41e+07	0.77	y	0.95	31:15	0.986	0.982-0.992	46.2754	PCB-89	3.93e+07	1.57	y	1.02	37:30	0.995	0.991-1.001	50.1179

Integrations
 by _____
 Analyst: *DMS*
 Date: *9/19/14*
 Reviewed
 by _____
 Analyst: _____
 Date: _____

Client ID: PCB CS3 14F1901
 Lab ID: ST140919E1-1

Filename: 140919E1 S:1 Acq:19-SEP-14 09:33:01 ConCal: ST140919E1-1
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: ST140919E1-2

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	8.93e+07	1.60	y	1.19	37:41	1.000	0.996-1.006	97.3177	PCB-133/142	7.12e+07	1.27	y	0.95	42:37	0.982	0.977-0.987	100.071
PCB-113	5.41e+07	1.61	y	1.35	37:56	1.007	1.002-1.012	51.9533	PCB-131	3.41e+07	1.24	y	0.91	42:46	0.986	0.981-0.991	49.5525
PCB-99	4.55e+07	1.65	y	1.29	38:02	1.009	1.005-1.015	45.8085	PCB-146/165	8.46e+07	1.26	y	1.16	43:00	0.991	0.986-0.996	97.2214
PCB-119	5.53e+07	1.61	y	1.72	38:29	0.987	0.982-0.992	48.7612	PCB-132/161	8.29e+07	1.27	y	1.11	43:15	0.997	0.992-1.002	98.9946
PCB-108/112	8.61e+07	1.62	y	1.29	38:38	0.991	0.986-0.996	101.530	PCB-153	4.43e+07	1.27	y	1.18	43:25	1.001	0.995-1.005	49.9464
PCB-83	4.99e+07	1.62	y	1.52	38:48	0.995	0.991-1.001	49.8659	PCB-168	4.85e+07	1.27	y	1.37	43:37	1.005	1.000-1.010	47.1291
PCB-97	4.23e+07	1.62	y	1.25	39:00	1.001	0.996-1.006	51.4667	PCB-141	3.53e+07	1.24	y	0.97	44:08	1.000	0.996-1.005	48.2531
PCB-86	3.04e+07	1.60	y	1.02	39:09	1.004	1.000-1.010	45.2460	PCB-137	3.73e+07	1.28	y	1.07	44:32	1.009	1.004-1.014	46.4688
B-87/117/125	1.55e+08	1.60	y	1.56	39:16	1.007	1.002-1.012	151.047	PCB-130	2.97e+07	1.24	y	0.85	44:39	1.012	1.007-1.017	46.7781
PCB-111/115	1.15e+08	1.62	y	1.75	39:26	1.012	1.007-1.017	99.2962	PCB-138/163/164	1.26e+08	1.26	y	1.23	45:00	1.000	0.996-1.006	148.080
PCB-85/116	8.39e+07	1.63	y	1.30	39:34	1.015	1.010-1.020	97.8421	PCB-158/160	8.49e+07	1.27	y	1.29	45:16	1.006	1.001-1.011	94.8684
PCB-120	5.36e+07	1.64	y	1.78	39:47	1.021	1.016-1.026	45.6568	PCB-129	3.15e+07	1.28	y	0.92	45:29	1.011	1.007-1.017	49.0965
PCB-110	5.36e+07	1.63	y	1.68	39:56	1.025	1.020-1.030	48.4727	PCB-166	4.02e+07	1.27	y	1.12	45:57	0.993	0.988-0.998	50.5738
PCB-82	3.20e+07	1.62	y	0.74	40:34	0.976	0.972-0.982	55.6786	PCB-159	4.06e+07	1.33	y	1.16	46:17	1.000	0.995-1.005	48.9438
PCB-124	4.92e+07	1.57	y	1.32	41:14	0.993	0.988-0.998	47.8668	PCB-128/162	7.62e+07	1.28	y	1.02	46:34	1.007	1.002-1.012	104.969
PCB-107/109	9.91e+07	1.62	y	1.22	41:23	0.996	0.991-1.001	104.362	PCB-167	3.93e+07	1.25	y	1.06	46:57	1.000	0.995-1.005	48.3083
PCB-123	4.74e+07	1.61	y	1.22	41:33	1.000	0.995-1.005	50.0368	PCB-156	3.91e+07	1.27	y	1.18	48:15	1.000	0.995-1.005	49.6483
- PCB-106/118	1.00e+08	1.62	y	1.22	41:46	1.001	0.996-1.006	98.7444	PCB-157	3.94e+07	1.30	y	1.08	48:31	1.000	0.995-1.005	49.3784
- PCB-114	4.61e+07	1.60	y	1.36	42:23	1.000	0.995-1.005	48.2628	PCB-169	2.98e+07	1.27	y	1.11	50:38	1.000	0.995-1.005	47.5908
PCB-122	4.31e+07	1.63	y	1.24	42:31	1.003	0.999-1.009	49.4299	PCB-188	5.20e+07	1.05	y	1.40	43:03	1.001	0.995-1.005	49.9033
PCB-105	4.59e+07	1.63	y	1.28	43:15	1.000	0.995-1.005	50.9874	PCB-184	4.58e+07	1.07	y	1.24	43:30	1.011	1.006-1.016	49.9670
PCB-127	3.97e+07	1.63	y	1.14	43:35	1.000	0.995-1.005	48.4715	PCB-179	4.74e+07	1.06	y	1.30	44:17	1.029	1.024-1.034	49.0038
PCB-126	3.68e+07	1.65	y	1.28	45:29	1.000	0.995-1.005	50.0036	PCB-176	4.81e+07	1.07	y	1.36	44:44	1.040	1.035-1.045	47.6505
PCB-155	5.47e+07	1.27	y	1.14	37:15	1.001	0.966-1.006	50.5592	PCB-186	4.66e+07	1.07	y	1.28	45:21	1.054	1.049-1.059	49.2457
PCB-150	4.97e+07	1.28	y	1.06	38:30	1.034	1.030-1.040	48.9975	PCB-178	3.25e+07	1.07	y	0.94	45:50	1.065	1.061-1.071	46.8448
PCB-152	5.03e+07	1.28	y	1.10	38:59	1.047	1.043-1.053	48.0941	PCB-175	3.20e+07	1.06	y	0.97	46:11	1.073	1.069-1.079	44.5527
PCB-145	4.89e+07	1.29	y	1.09	39:26	1.059	1.055-1.065	46.9724	PCB-182/187	7.14e+07	1.07	y	1.01	46:21	1.077	1.073-1.083	94.9041
PCB-136	4.74e+07	1.27	y	1.08	39:45	1.068	1.064-1.074	45.8942	PCB-183	3.70e+07	1.08	y	1.08	46:41	1.085	1.080-1.090	46.0557
PCB-148	3.48e+07	1.29	y	0.74	39:51	1.071	1.066-1.076	49.2907	PCB-185	3.04e+07	1.04	y	1.34	47:20	0.956	0.951-0.961	53.8702
PCB-154	3.81e+07	1.29	y	0.88	40:20	1.084	1.079-1.089	45.3155	PCB-174	3.24e+07	1.05	y	1.34	47:42	0.963	0.958-0.968	57.5236
PCB-151	3.31e+07	1.25	y	0.81	40:59	1.101	1.097-1.107	42.9680	PCB-181	2.98e+07	1.06	y	1.36	47:49	0.965	0.961-0.971	52.0733
PCB-135	2.99e+07	1.27	y	0.78	41:11	1.107	1.101-1.113	40.3153	PCB-177	2.87e+07	1.07	y	1.24	47:59	0.969	0.964-0.974	54.9391
PCB-144	3.68e+07	1.29	y	0.82	41:18	1.110	1.105-1.116	47.1150	PCB-171	3.03e+07	1.06	y	1.31	48:16	0.974	0.970-0.980	54.7936
PCB-147	3.38e+07	1.29	y	0.83	41:26	1.113	1.011-1.120	42.8257	PCB-173	2.60e+07	1.08	y	1.16	48:42	0.983	0.979-0.989	53.2102
PCB-139/149	7.17e+07	1.29	y	0.84	41:42	1.120	1.115-1.127	89.1300	PCB-172	2.66e+07	1.08	y	1.22	49:09	0.992	0.988-0.998	51.8292
- PCB-140	3.25e+07	1.25	y	0.79	41:54	1.125	1.120-1.132	43.4469	PCB-192	3.11e+07	1.06	y	1.53	49:20	0.996	0.991-1.001	48.3730
- PCB-134/143	7.31e+07	1.27	y	0.93	42:20	0.976	0.970-0.980	104.822	PCB-180	2.98e+07	1.05	y	1.43	49:33	1.000	0.995-1.005	49.6397

Integrations

by _____

Analyst: DMS

Date: 9/19/14

Client ID: PCB CS3 14F1901
Lab ID: ST140919E1-1

Filename: 140919E1 S:1 Acq:19-SEP-14 09:33:01 ConCal: ST140919E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: ST140919E1-2

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	3.41e+07	1.07	y	1.65	49:45	1.004	0.999-1.009	48.9756
PCB-191	3.30e+07	1.07	y	1.67	49:60	1.009	1.004-1.014	46.9463
PCB-170	2.44e+07	1.08	y	1.50	51:01	1.000	0.995-1.005	50.0038
PCB-190	3.08e+07	1.04	y	2.02	51:11	1.004	0.998-1.008	47.0515
PCB-189	2.79e+07	1.04	y	1.54	52:29	1.000	0.995-1.005	51.9537
PCB-202	3.49e+07	0.91	y	1.04	48:29	1.000	0.995-1.005	48.7533
PCB-201	3.52e+07	0.91	y	1.10	48:58	1.010	1.006-1.016	46.4092
PCB-204	3.24e+07	0.92	y	0.99	49:07	1.014	1.009-1.019	47.3005
PCB-197	3.42e+07	0.92	y	1.07	49:25	1.020	1.015-1.025	46.2723
PCB-200	3.26e+07	0.91	y	1.02	50:17	1.038	1.032-1.044	46.4646
PCB-198	2.00e+07	0.91	y	0.74	51:36	1.065	1.058-1.068	39.0113
PCB-199	2.14e+07	0.90	y	0.73	51:42	1.067	1.060-1.070	42.5819
- PCB-196/203	4.34e+07	0.93	y	0.77	51:58	1.072	1.066-1.076	81.6410
- PCB-195	2.15e+07	0.93	y	1.20	53:08	0.984	0.979-0.989	56.5346
PCB-194	2.00e+07	0.88	y	1.25	53:59	1.000	0.995-1.005	50.6575
PCB-205	2.17e+07	0.90	y	1.41	54:16	1.005	1.001-1.011	48.5308
PCB-208	2.68e+07	1.37	y	0.96	53:16	1.000	0.995-1.005	50.6369
PCB-207	2.46e+07	1.34	y	0.92	53:34	1.006	1.001-1.011	48.8934
PCB-206	1.35e+07	1.38	y	1.03	55:38	1.000	0.995-1.005	51.8814
PCB-209	1.45e+07	1.17	y	1.18	56:59	1.000	0.995-1.005	49.1679

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	3.30e+08	2.97	y	16:18	1.22
Total Di-PCB	2.28e+09	1.62	y	20:17	1.21
Total Tri-PCB	6.38e+08	1.08	y	24:25	1.16
Total Tetra-PCB	1.02e+09	0.99	y	28:06	1.35
Total Penta-PCB	2.45e+09	0.78	y	28:10	1.17
Total Hepta-PCB	1.95e+09	1.61	y	32:51	2041.32
Total Octa-PCB	2.26e+08	1.60	y	42:23	264.192
Total Hexa-PCB	5.62e+08	1.27	y	37:15	0.92
Total Nona-PCB	1.10e+09	1.27	y	42:20	1.08
Total Deca-PCB	8.31e+08	1.05	y	43:03	1.27
Total Octa-PCB	2.54e+08	0.91	y	48:29	0.92
Total Nona-PCB	6.41e+07	0.93	y	53:08	1.29
Total Deca-PCB	6.77e+07	1.37	y	53:16	0.96
Total PCB Conc:	1.45e+07	1.17	y	56:59	1.18

Total PCB Conc:10673.7511180

Integrations
by _____
Analyst: DMS
Date: 9/19/14

Client ID: PCB CS3 14F1901
 Lab ID: ST140919E1-1

Filename: 140919E1 S:1 Acq:19-SEP-14 09:33:01 ConCal: ST140919E1-1
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000 EndCAL: ST140919E1-2

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	1.73e+08	3.44	y	0.89	16:17	0.623	0.622-0.628	107	107	13C-PCB-79	1.27e+08	0.82	y	1.01	37:59	1.028	1.023-1.033	104	104		
13C-PCB-3	1.84e+08	3.48	y	0.93	18:54	0.724	0.721-0.729	109	109	13C-PCB-178	5.11e+07	0.46	y	0.63	45:49	0.984	0.979-0.989	125	125		
13C-PCB-4	1.04e+08	1.58	y	0.55	20:15	0.775	0.772-0.780	104	104												
13C-PCB-9	1.53e+08	1.58	y	0.83	22:02	0.843	0.840-0.848	102	102												
13C-PCB-11	1.71e+08	1.57	y	0.94	25:25	0.973	0.968-0.978	101	101												
13C-PCB-19	9.47e+07	1.11	y	0.53	24:24	0.934	0.929-0.939	97.8	97.8												
13C-PCB-28	1.13e+08	1.08	y	0.89	29:16	1.004	0.999-1.009	97.2	97.2												
13C-PCB-32	1.33e+08	1.11	y	0.81	27:19	1.046	1.041-1.051	89.9	89.9												
13C-PCB-37	9.92e+07	1.10	y	0.83	33:09	1.136	1.131-1.143	91.3	91.3												
13C-PCB-47	1.05e+08	0.80	y	0.74	32:11	0.871	0.867-0.875	116	116												
13C-PCB-52	1.00e+08	0.81	y	0.71	31:41	0.858	0.853-0.861	116	116												
13C-PCB-54	1.32e+08	0.82	y	0.85	28:09	0.762	0.758-0.766	127	127												
13C-PCB-70	1.16e+08	0.80	y	0.94	35:42	0.966	0.961-0.971	101	101												
13C-PCB-77	9.87e+07	0.82	y	0.89	39:49	1.078	1.073-1.083	90.8	90.8												
13C-PCB-80	1.18e+08	0.81	y	0.96	36:07	0.977	0.972-0.982	101	101												
13C-PCB-81	9.71e+07	0.80	y	0.84	39:13	1.062	1.057-1.067	95.1	95.1												
13C-PCB-95	7.44e+07	1.59	y	0.74	36:00	0.914	0.908-0.918	107	107												
13C-PCB-97	6.59e+07	1.57	y	0.69	38:59	0.989	0.984-0.994	102	102												
13C-PCB-101	7.71e+07	1.58	y	0.79	37:41	0.956	0.951-0.961	105	105												
13C-PCB-104	1.06e+08	1.59	y	1.00	32:50	0.833	0.829-0.837	113	113												
13C-PCB-105	7.02e+07	1.68	y	1.24	43:15	0.929	0.924-0.934	87.3	87.3												
13C-PCB-114	7.05e+07	1.68	y	1.21	42:23	0.911	0.905-0.915	90.0	90.0												
13C-PCB-118	8.29e+07	1.60	y	0.98	41:43	1.059	1.054-1.064	90.0	90.0												
13C-PCB-123	7.78e+07	1.60	y	0.95	41:33	1.054	1.049-1.059	87.5	87.5												
13C-PCB-126	5.74e+07	1.68	y	1.16	45:29	0.977	0.972-0.982	76.0	76.0												
13C-PCB-127	7.18e+07	1.63	y	1.34	43:35	0.936	0.931-0.941	82.3	82.3												
13C-PCB-138	6.94e+07	1.29	y	1.04	44:59	0.966	0.961-0.971	102	102												
13C-PCB-141	7.50e+07	1.32	y	1.07	44:08	0.948	0.943-0.953	108	108												
13C-PCB-153	7.52e+07	1.31	y	1.11	43:23	0.932	0.927-0.937	104	104												
13C-PCB-155	9.52e+07	1.28	y	0.83	37:13	0.945	0.939-0.949	122	122												
13C-PCB-156	6.67e+07	1.27	y	1.24	48:15	1.037	1.032-1.042	82.5	82.5												
13C-PCB-157	7.37e+07	1.32	y	1.31	48:31	1.042	1.037-1.047	86.6	86.6												
13C-PCB-159	7.12e+07	1.30	y	1.20	46:16	0.994	0.989-0.999	91.5	91.5												
13C-PCB-167	7.66e+07	1.30	y	1.32	46:57	1.009	1.004-1.014	89.3	89.3												
13C-PCB-169	5.65e+07	1.29	y	1.22	50:38	1.088	1.082-1.092	71.7	71.7												
13C-PCB-170	3.25e+07	0.46	y	0.54	51:00	1.096	1.089-1.101	93.4	93.4												
13C-PCB-180	4.21e+07	0.47	y	0.67	49:32	1.064	1.059-1.069	96.2	96.2												
13C-PCB-188	7.41e+07	0.45	y	0.94	43:01	0.924	0.919-0.929	122	122												
13C-PCB-189	3.48e+07	0.46	y	0.72	52:28	1.127	1.120-1.132	74.9	74.9												
13C-PCB-194	3.17e+07	0.93	y	0.81	53:58	0.995	0.990-1.000	103	103												
13C-PCB-202	6.88e+07	0.91	y	0.83	48:27	1.041	1.036-1.046	127	127												
13C-PCB-206	2.53e+07	0.79	y	0.66	55:38	1.025	1.021-1.031	101	101												
13C-PCB-208	5.49e+07	0.77	y	1.12	53:15	0.982	0.976-0.986	129	129												
13C-PCB-209	2.51e+07	1.17	y	0.61	56:59	1.050	1.044-1.054	107	107												

Analyst: DMS
 Date: 9/19/14

Vista Analytical Laboratory - Injection Log Run file: 140919E1 Instrument ID: VG-8 GC Column ID: ZB-1

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140919E1	1	ST140919E1-1	DMS	19-SEP-14	09:33:01	ST140919E1-1	ST140919E1-2
140919E1	2	B4I0047-BS1	DMS	19-SEP-14	10:37:25	ST140919E1-1	NA
140919E1	3	B4I0036-BS1	DMS	19-SEP-14	11:41:49	ST140919E1-1	ST140919E1-2
140919E1	4	SOLVENT BLANK	DMS	19-SEP-14	12:46:13	NA	NA
140919E1	5	B4I0047-BLK1	DMS	19-SEP-14	13:50:37	ST140919E1-1	NA
140919E1	6	B4I0036-BLK1	DMS	19-SEP-14	14:55:00	ST140919E1-1	ST140919E1-2
140919E1	7	1400659-01	DMS	19-SEP-14	15:59:24	ST140919E1-1	NA
140919E1	8	1400659-02	DMS	19-SEP-14	17:03:47	ST140919E1-1	NA
140919E1	9	1400646-01	DMS	19-SEP-14	18:08:11	ST140919E1-1	ST140919E1-2
140919E1	10	1400646-02	DMS	19-SEP-14	19:12:33	ST140919E1-1	ST140919E1-2
140919E1	11	1400646-03	DMS	19-SEP-14	20:16:56	ST140919E1-1	ST140919E1-2
140919E1	12	SOLVENT BLANK	DMS	19-SEP-14	21:21:21	NA	NA
140919E1	13	ST140919E1-2	DMS	19-SEP-14	22:25:46	ST140919E1-1	ST140919E1-2

CALIBRATION STANDARDS REVIEW CHECKLIST



Beg. Calibration ID: ST140919E1-1

End Calibration ID: ST140919E1-32

	<u>Beg.</u>	<u>End</u>	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	Mass resolution > 10,000?	<input checked="" type="checkbox"/> <input type="checkbox"/>
Concentration within range?	<input type="checkbox"/>	<input type="checkbox"/>	Method 1614 > 5,000; CARB 429 > 8,000	<input type="checkbox"/> <input checked="" type="checkbox"/>
First and last eluters present?	<input type="checkbox"/>	<input type="checkbox"/>	TCDD/TCDF valleys < 25%?	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Retention Times within criteria?	Dms 9/22/14	Dms 9/22/14	Peaks integrated correctly?	<input type="checkbox"/> <input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input type="checkbox"/>	<input type="checkbox"/>	Manual integrations included?	<input type="checkbox"/> <input type="checkbox"/>
Forms signed and dated?	<input type="checkbox"/>	<input type="checkbox"/>	8280 CS1 Ending Standard	<input checked="" type="checkbox"/>
Correct ICAL referenced?	<input type="checkbox"/>	<input type="checkbox"/>	-Ratios within limits	<input checked="" type="checkbox"/>
Run Log:			-S/N > 2.5:1	<input type="checkbox"/>
-Data file matches Conc Cal ID?	<input type="checkbox"/>	<input type="checkbox"/>	-CS1 within 12-hour clock	<input checked="" type="checkbox"/>
-Correct instrument listed?	<input type="checkbox"/>	<input type="checkbox"/>	Comments: <i>*OK'd by WTL Dms 9/22/14</i>	
-Samples within 12-hour clock?	<input checked="" type="checkbox"/> (y)	n		

Reviewed by: WJL 9/22/14
Initials & Date

* Ending standard criteria applicable to 8290 only.

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 2 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140919E2-1

Instrument ID: VG-8

Initial Calibration Date: 6-20-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140919E2 S#1 Analysis Date: 19-SEP-14 Time: 23:43:03

ANALYTES	ION	QC	CONC.				ION	QC	CONC.			
	ABUND.	LIMITS	PASS	CONC.	RANGE	ANALYTES	ABUND.	LIMITS	PASS	CONC.	RANGE	
	RATIO			FOUND	(ng/mL)		RATIO			FOUND	(ng/mL)	
PCB-1	3.09	2.66-3.60	y	40.0	37.5-62.5	PCB-52/69	0.82	0.65-0.89	y	100.5	75.0-125	
PCB-2	3.13	2.66-3.60	y	39.7	37.5-62.5	PCB-73	0.83	0.65-0.89	y	48.2	37.5-62.5	
PCB-3	3.07	2.66-3.60	y	39.2	37.5-62.5	PCB-43/49	0.83	0.65-0.89	y	96.3	75.0-125	
PCB-4/10	1.63	1.33-1.79	y	201.9	150-250	PCB-47	0.96	0.65-0.89	n	42.5	37.5-62.5	
PCB-7/9	1.65	1.33-1.79	y	203.6	150-250	PCB-48/75	0.77	0.65-0.89	y	100.6	75.0-125	
PCB-6	1.66	1.33-1.79	y	97.5	75.0-125	PCB-65	0.81	0.65-0.89	y	48.8	37.5-62.5	
PCB-5/8	1.64	1.33-1.79	y	204.7	150-250	PCB-62	0.84	0.65-0.89	y	50.2	37.5-62.5	
PCB-14	1.65	1.33-1.79	y	103.8	75.0-125	PCB-44	0.81	0.65-0.89	y	49.7	37.5-62.5	
PCB-11	1.66	1.33-1.79	y	102.3	75.0-125	PCB-42/59	0.81	0.65-0.89	y	99.3	75.0-125	
PCB-12/13	1.65	1.33-1.79	y	202.8	150-250	PCB-41/64/71/72	0.82	0.65-0.89	y	197.3	150-250	
PCB-15	1.67	1.33-1.79	y	100.3	75.0-125	PCB-68	0.82	0.65-0.89	y	50.9	37.5-62.5	
PCB-19	1.10	0.88-1.20	y	46.4	37.5-62.5	PCB-40	0.82	0.65-0.89	y	51.9	37.5-62.5	
PCB-30	1.09	0.88-1.20	y	47.0	37.5-62.5	PCB-57	0.82	0.65-0.89	y	50.0	37.5-62.5	
PCB-18	1.08	0.88-1.20	y	47.3	37.5-62.5	PCB-67	0.82	0.65-0.89	y	47.5	37.5-62.5	
PCB-17	1.09	0.88-1.20	y	46.8	37.5-62.5	PCB-58	0.83	0.65-0.89	y	50.8	37.5-62.5	
PCB-24/27	1.09	0.88-1.20	y	94.0	75.0-125	PCB-63	0.83	0.65-0.89	y	49.5	37.5-62.5	
PCB-16/32	1.10	0.88-1.20	y	93.3	75.0-125	PCB-74	0.81	0.65-0.89	y	48.7	37.5-62.5	
PCB-34	1.06	0.88-1.20	y	57.5	37.5-62.5	PCB-61/70	0.83	0.65-0.89	y	102.2	75.0-125	
PCB-23	1.07	0.88-1.20	y	48.9	37.5-62.5	PCB-76/66	0.82	0.65-0.89	y	97.7	75.0-125	
PCB-29	1.06	0.88-1.20	y	53.1	37.5-62.5	PCB-80	0.83	0.65-0.89	y	49.5	37.5-62.5	
PCB-26	1.09	0.88-1.20	y	52.0	37.5-62.5	PCB-55	0.83	0.65-0.89	y	48.5	37.5-62.5	
PCB-25	1.05	0.88-1.20	y	53.4	37.5-62.5	PCB-56/60	0.82	0.65-0.89	y	99.8	75.0-125	
PCB-31	1.05	0.88-1.20	y	49.8	37.5-62.5	PCB-79	0.82	0.65-0.89	y	49.8	37.5-62.5	
PCB-28	1.06	0.88-1.20	y	52.6	37.5-62.5	PCB-78	0.82	0.65-0.89	y	47.6	37.5-62.5	
PCB-20/21/33	1.07	0.88-1.20	y	158.7	112.5-225	PCB-81	0.82	0.65-0.89	y	46.9	37.5-62.5	
PCB-22	1.06	0.88-1.20	y	53.7	37.5-62.5	PCB-77	0.86	0.65-0.89	y	50.2	37.5-62.5	
PCB-36	1.06	0.88-1.20	y	55.4	37.5-62.5	PCB-104	1.63	1.32-1.78	y	51.4	37.5-62.5	
PCB-39	1.05	0.88-1.20	y	55.2	37.5-62.5	PCB-96	1.65	1.32-1.78	y	51.2	37.5-62.5	
PCB-38	1.07	0.88-1.20	y	52.2	37.5-62.5	PCB-103	1.61	1.32-1.78	y	51.9	37.5-62.5	
PCB-35	1.07	0.88-1.20	y	58.2	37.5-62.5	PCB-100	1.65	1.32-1.78	y	53.3	37.5-62.5	
PCB-37	1.06	0.88-1.20	y	53.6	37.5-62.5	PCB-94	1.65	1.32-1.78	y	50.0	37.5-62.5	
PCB-54	0.81	0.65-0.89	y	47.4	37.5-62.5	PCB-95/98/102	1.63	1.32-1.78	y	150.6	112.5-225	
PCB-50	0.81	0.65-0.89	y	49.8	37.5-62.5	PCB-93	1.74	1.32-1.78	y	57.2	37.5-62.5	
PCB-53	0.83	0.65-0.89	y	47.7	37.5-62.5	PCB-88/91	1.62	1.32-1.78	y	100.0	75.0-125	
PCB-51	0.81	0.65-0.89	y	48.4	37.5-62.5	PCB-121	1.66	1.32-1.78	y	57.6	37.5-62.5	
PCB-45	0.82	0.65-0.89	y	50.2	37.5-62.5							
PCB-46	0.82	0.65-0.89	y	48.5	37.5-62.5							

Analyst: DMSDate: 9/22/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 2 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140919E2-1

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140919E2 S#1 Analysis Date: 19-SEP-14 Time: 23:43:03

ANALYTES	ION	QC	CONC.				ION	QC	CONC.			
	ABUND.	LIMITS	CONC.	RANGE	FOUND	(ng/mL)	ANALYTES	ABUND.	CONC.	RANGE		
	RATIO	PASS					ANALYTES	RATIO				
PCB-1	3.09	2.66-3.60	Y	40.0	37.5-62.5		PCB-52/69	0.82	0.65-0.89	Y	100.5	75.0-125
PCB-2	3.13	2.66-3.60	Y	39.7	37.5-62.5		PCB-73	0.83	0.65-0.89	Y	48.2	37.5-62.5
PCB-3	3.07	2.66-3.60	Y	39.2	37.5-62.5		PCB-43/49	0.83	0.65-0.89	Y	96.3	75.0-125
PCB-4/10	1.63	1.33-1.79	Y	201.9	150-250		PCB-47	0.96	0.65-0.89	N	42.5	37.5-62.5
PCB-7/9	1.65	1.33-1.79	Y	203.6	150-250		PCB-48/75	0.77	0.65-0.89	Y	100.6	75.0-125
PCB-6	1.66	1.33-1.79	Y	97.5	75.0-125		PCB-65	0.81	0.65-0.89	Y	48.8	37.5-62.5
PCB-5/8	1.64	1.33-1.79	Y	204.7	150-250		PCB-62	0.84	0.65-0.89	Y	50.2	37.5-62.5
PCB-14	1.65	1.33-1.79	Y	103.8	75.0-125		PCB-44	0.81	0.65-0.89	Y	49.7	37.5-62.5
PCB-11	1.66	1.33-1.79	Y	102.3	75.0-125		PCB-42/59	0.81	0.65-0.89	Y	99.3	75.0-125
PCB-12/13	1.65	1.33-1.79	Y	202.8	150-250		PCB-41/64/71/72	0.82	0.65-0.89	Y	197.3	150-250
PCB-15	1.67	1.33-1.79	Y	100.3	75.0-125		PCB-68	0.82	0.65-0.89	Y	50.9	37.5-62.5
PCB-19	1.10	0.88-1.20	Y	46.4	37.5-62.5		PCB-40	0.82	0.65-0.89	Y	51.9	37.5-62.5
PCB-30	1.09	0.88-1.20	Y	47.0	37.5-62.5		PCB-57	0.82	0.65-0.89	Y	50.0	37.5-62.5
PCB-18	1.08	0.88-1.20	Y	47.3	37.5-62.5		PCB-67	0.82	0.65-0.89	Y	47.5	37.5-62.5
PCB-17	1.09	0.88-1.20	Y	46.8	37.5-62.5		PCB-58	0.83	0.65-0.89	Y	50.8	37.5-62.5
PCB-24/27	1.09	0.88-1.20	Y	94.0	75.0-125		PCB-63	0.83	0.65-0.89	Y	49.5	37.5-62.5
PCB-16/32	1.10	0.88-1.20	Y	93.3	75.0-125		PCB-74	0.81	0.65-0.89	Y	48.7	37.5-62.5
PCB-34	1.06	0.88-1.20	Y	57.5	37.5-62.5		PCB-61/70	0.83	0.65-0.89	Y	102.2	75.0-125
PCB-23	1.07	0.88-1.20	Y	48.9	37.5-62.5		PCB-76/66	0.82	0.65-0.89	Y	97.7	75.0-125
PCB-29	1.06	0.88-1.20	Y	53.1	37.5-62.5		PCB-80	0.83	0.65-0.89	Y	49.5	37.5-62.5
PCB-26	1.09	0.88-1.20	Y	52.0	37.5-62.5		PCB-55	0.83	0.65-0.89	Y	48.5	37.5-62.5
PCB-25	1.05	0.88-1.20	Y	53.4	37.5-62.5		PCB-56/60	0.82	0.65-0.89	Y	99.8	75.0-125
PCB-31	1.05	0.88-1.20	Y	49.8	37.5-62.5		PCB-79	0.82	0.65-0.89	Y	49.8	37.5-62.5
PCB-28	1.06	0.88-1.20	Y	52.6	37.5-62.5		PCB-78	0.82	0.65-0.89	Y	47.6	37.5-62.5
PCB-20/21/33	1.07	0.88-1.20	Y	158.7	112.5-225		PCB-81	0.82	0.65-0.89	Y	46.9	37.5-62.5
PCB-22	1.06	0.88-1.20	Y	53.7	37.5-62.5		PCB-77	0.86	0.65-0.89	Y	50.2	37.5-62.5
PCB-36	1.06	0.88-1.20	Y	55.4	37.5-62.5		PCB-104	1.63	1.32-1.78	Y	51.4	37.5-62.5
PCB-39	1.05	0.88-1.20	Y	55.2	37.5-62.5		PCB-96	1.65	1.32-1.78	Y	51.2	37.5-62.5
PCB-38	1.07	0.88-1.20	Y	52.2	37.5-62.5		PCB-103	1.61	1.32-1.78	Y	51.9	37.5-62.5
PCB-35	1.07	0.88-1.20	Y	58.2	37.5-62.5		PCB-100	1.65	1.32-1.78	Y	53.3	37.5-62.5
PCB-37	1.06	0.88-1.20	Y	53.6	37.5-62.5		PCB-94	1.65	1.32-1.78	Y	50.0	37.5-62.5
PCB-54	0.81	0.65-0.89	Y	47.4	37.5-62.5		PCB-95/98/102	1.63	1.32-1.78	Y	150.6	112.5-225
PCB-50	0.81	0.65-0.89	Y	49.8	37.5-62.5		PCB-93	1.74	1.32-1.78	Y	57.2	37.5-62.5
PCB-53	0.83	0.65-0.89	Y	47.7	37.5-62.5		PCB-88/91	1.62	1.32-1.78	Y	100.0	75.0-125
PCB-51	0.81	0.65-0.89	Y	48.4	37.5-62.5		PCB-121	1.66	1.32-1.78	Y	57.6	37.5-62.5
PCB-45	0.82	0.65-0.89	Y	50.2	37.5-62.5							
PCB-46	0.82	0.65-0.89	Y	48.5	37.5-62.5							

Analyst: DMSDate: 9/22/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 2 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140919E2-1

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140919E2 S#1 Analysis Date: 19-SEP-14 Time: 23:43:03

ANALYTES	ION	QC	CONC.			ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	PASS	CONC.	RANGE		ABUND.	LIMITS	PASS	CONC.	RANGE
	RATIO		FOUND	(ng/mL)			RATIO		FOUND	(ng/mL)	
PCB-84/92	1.64	1.32-1.78	y	102.3	75.0-125	PCB-140	1.30	1.05-1.43	y	54.8	37.5-62.5
PCB-89	1.65	1.32-1.78	y	51.4	37.5-62.5	PCB-134/143	1.29	1.05-1.43	y	93.1	75.0-125
PCB-90/101	1.64	1.32-1.78	y	103.4	75.0-125	PCB-133/142	1.30	1.05-1.43	y	93.7	75.0-125
PCB-113	1.64	1.32-1.78	y	50.9	37.5-62.5	PCB-131	1.31	1.05-1.43	y	46.4	37.5-62.5
PCB-99	1.67	1.32-1.78	y	53.7	37.5-62.5	PCB-146/165	1.30	1.05-1.43	y	91.3	75.0-125
PCB-119	1.64	1.32-1.78	y	50.9	37.5-62.5	PCB-132/161	1.35	1.05-1.43	y	91.4	75.0-125
PCB-108/112	1.66	1.32-1.78	y	99.0	75.0-125	PCB-153	1.22	1.05-1.43	y	45.5	37.5-62.5
PCB-83	1.66	1.32-1.78	y	48.6	37.5-62.5	PCB-168	1.29	1.05-1.43	y	46.5	37.5-62.5
PCB-97	1.65	1.32-1.78	y	49.6	37.5-62.5	PCB-141	1.28	1.05-1.43	y	46.5	37.5-62.5
PCB-86	1.64	1.32-1.78	y	59.2	37.5-62.5	PCB-137	1.26	1.05-1.43	y	48.4	37.5-62.5
PCB-87/117/125	1.63	1.32-1.78	y	148.7	112.5-225	PCB-130	1.32	1.05-1.43	y	45.5	37.5-62.5
PCB-111/115	1.63	1.32-1.78	y	96.1	75.0-125	PCB-138/163/164	1.29	1.05-1.43	y	137.8	112.5-225
PCB-85/116	1.64	1.32-1.78	y	104.4	75.0-125	PCB-158/160	1.28	1.05-1.43	y	94.9	75.0-125
PCB-120	1.65	1.32-1.78	y	51.0	37.5-62.5	PCB-129	1.30	1.05-1.43	y	48.2	37.5-62.5
PCB-110	1.64	1.32-1.78	y	50.3	37.5-62.5	PCB-166	1.30	1.05-1.43	y	46.3	37.5-62.5
PCB-82	1.64	1.32-1.78	y	52.3	37.5-62.5	PCB-159	1.28	1.05-1.43	y	46.1	37.5-62.5
PCB-124	1.64	1.32-1.78	y	52.9	37.5-62.5	PCB-128/162	1.28	1.05-1.43	y	92.2	75.0-125
PCB-107/109	1.65	1.32-1.78	y	97.9	75.0-125	PCB-167	1.29	1.05-1.43	y	47.1	37.5-62.5
PCB-123	1.63	1.32-1.78	y	51.3	37.5-62.5	PCB-156	1.30	1.05-1.43	y	47.3	37.5-62.5
PCB-106/118	1.64	1.32-1.78	y	103.2	75.0-125	PCB-157	1.30	1.05-1.43	y	45.8	37.5-62.5
PCB-114	1.61	1.32-1.78	y	50.6	37.5-62.5	PCB-169	1.29	1.05-1.43	y	45.7	37.5-62.5
PCB-122	1.61	1.32-1.78	y	51.9	37.5-62.5	PCB-188	1.07	0.89-1.21	y	48.5	37.5-62.5
PCB-105	1.62	1.32-1.78	y	49.8	37.5-62.5	PCB-184	1.08	0.89-1.21	y	49.2	37.5-62.5
PCB-127	1.64	1.32-1.78	y	50.0	37.5-62.5	PCB-179	1.07	0.89-1.21	y	49.6	37.5-62.5
PCB-126	1.63	1.32-1.78	y	51.2	37.5-62.5	PCB-176	1.07	0.89-1.21	y	48.8	37.5-62.5
PCB-155	1.31	1.05-1.43	y	48.2	37.5-62.5	PCB-186	1.08	0.89-1.21	y	50.1	37.5-62.5
PCB-150	1.30	1.05-1.43	y	50.0	37.5-62.5	PCB-178	1.06	0.89-1.21	y	50.9	37.5-62.5
PCB-152	1.32	1.05-1.43	y	48.3	37.5-62.5	PCB-175	1.09	0.89-1.21	y	52.3	37.5-62.5
PCB-145	1.30	1.05-1.43	y	49.1	37.5-62.5	PCB-182/187	1.07	0.89-1.21	y	101.4	75.0-125
PCB-136	1.31	1.05-1.43	y	53.1	37.5-62.5	PCB-183	1.07	0.89-1.21	y	50.9	37.5-62.5
PCB-148	1.33	1.05-1.43	y	45.6	37.5-62.5	PCB-185	1.08	0.89-1.21	y	46.7	37.5-62.5
PCB-154	1.29	1.05-1.43	y	53.1	37.5-62.5	PCB-174	1.07	0.89-1.21	y	48.5	37.5-62.5
PCB-151	1.31	1.05-1.43	y	51.6	37.5-62.5	PCB-181	1.07	0.89-1.21	y	49.6	37.5-62.5
PCB-135	1.28	1.05-1.43	y	52.7	37.5-62.5	PCB-177	1.07	0.89-1.21	y	48.5	37.5-62.5
PCB-144	1.29	1.05-1.43	y	51.9	37.5-62.5	PCB-171	1.06	0.89-1.21	y	47.6	37.5-62.5
PCB-147	1.32	1.05-1.43	y	53.8	37.5-62.5	PCB-173	1.09	0.89-1.21	y	49.8	37.5-62.5
PCB-139/149	1.31	1.05-1.43	y	105.8	75.0-125	PCB-172	1.08	0.89-1.21	y	50.1	37.5-62.5

Analyst: DMSDate: 9/22/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 2 of

Lab Name: Vista Analytical Laboratory Lab ID: ST140919E2-1 Instrument ID: VG-8

Initial Calibration Date: 6-23-14 ICal ID: PCBVG8-6-23-14 GC Column ID: ZB-1

VER Data Filename: 140919E2 S#1 Analysis Date: 19-SEP-14 Time: 23:43:03

ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	
	RATIO	PASS	FOUND	(ng/mL)	
PCB-192	1.07	0.89-1.21	Y	50.1	37.5-62.5
PCB-180	1.07	0.89-1.21	Y	49.2	37.5-62.5
PCB-193	1.08	0.89-1.21	Y	48.3	37.5-62.5
PCB-191	1.07	0.89-1.21	Y	48.6	37.5-62.5
PCB-170	1.06	0.89-1.21	Y	49.1	37.5-62.5
PCB-190	1.07	0.89-1.21	Y	47.8	37.5-62.5
PCB-189	1.07	0.89-1.21	Y	48.4	37.5-62.5
PCB-202	0.93	0.76-1.02	Y	47.8	37.5-62.5
PCB-201	0.93	0.76-1.02	Y	48.8	37.5-62.5
PCB-204	0.93	0.76-1.02	Y	49.4	37.5-62.5
PCB-197	0.92	0.76-1.02	Y	48.9	37.5-62.5
PCB-200	0.92	0.76-1.02	Y	49.4	37.5-62.5
PCB-198	0.91	0.76-1.02	Y	52.7	37.5-62.5
PCB-199	0.94	0.76-1.02	Y	51.8	37.5-62.5
PCB-196/203	0.92	0.76-1.02	Y	105.7	75.0-125
PCB-195	0.93	0.76-1.02	Y	48.2	37.5-62.5
PCB-194	0.92	0.76-1.02	Y	48.2	37.5-62.5
PCB-205	0.93	0.76-1.02	Y	47.1	37.5-62.5
PCB-208	1.39	1.14-1.54	Y	49.9	37.5-62.5
PCB-207	1.38	1.14-1.54	Y	50.5	37.5-62.5
PCB-206	1.37	1.14-1.54	Y	49.8	37.5-62.5
PCB-209	1.19	0.99-1.33	Y	49.5	37.5-62.5

Analyst: DMS

Date: 9/22/14

LABLED 1668C CONTINUING CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

Lab ID: ST140919E2-1

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140919E2 S#1 Analysis Date: 19-SEP-14 Time: 23:43:03

LABLED IS	ION				CONC.		LABLED IS	ION				CONC.	
	ABUND.	QC	CONC.	RANGE	FOUND	(ng/mL)		ABUND.	QC	CONC.	RANGE	FOUND	(ng/mL)
13C-PCB-1	3.42	2.66-3.60	Y	135.0	50.0-145		13C-PCB-169	1.30	1.05-1.43	Y	102.8	50 - 145	
13C-PCB-3	3.46	2.66-3.60	Y	136.6	50.0-145		13C-PCB-188	0.46	0.38-0.52	Y	98.5	50 - 145	
13C-PCB-4	1.58	1.33-1.79	Y	96.5	50.0-145		13C-PCB-180	0.47	0.38-0.52	Y	110.0	50 - 145	
13C-PCB-9	1.60	1.33-1.79	Y	97.3	50.0-145		13C-PCB-170	0.46	0.38-0.52	Y	114.8	50 - 145	
13C-PCB-11	1.57	1.33-1.79	Y	98.5	50.0-145		13C-PCB-189	0.45	0.38-0.52	Y	114.0	50 - 145	
13C-PCB-19	1.12	0.88-1.20	Y	117.4	50.0-145		13C-PCB-202	0.93	0.76-1.02	Y	118.9	50 - 145	
13C-PCB-32	1.14	0.88-1.20	Y	119.7	50.0-145		13C-PCB-194	0.93	0.76-1.02	Y	101.9	50 - 145	
13C-PCB-28	1.11	0.88-1.20	Y	102.3	50.0-145		13C-PCB-208	0.77	0.65-0.89	Y	100.8	50 - 145	
13C-PCB-37	1.13	0.88-1.20	Y	103.0	50.0-145		13C-PCB-206	0.79	0.65-0.89	Y	106.4	50 - 145	
13C-PCB-54	0.85	0.65-0.89	Y	86.0	50.0-145		13C-PCB-209	1.17	0.99-1.33	Y	121.4	50 - 145	
13C-PCB-52	0.83	0.65-0.89	Y	91.0	50.0-145								
13C-PCB-47	0.85	0.65-0.89	Y	91.1	50.0-145								
13C-PCB-70	0.85	0.65-0.89	Y	94.6	50.0-145								
13C-PCB-80	0.86	0.65-0.89	Y	97.5	50.0-145								
13C-PCB-81	0.85	0.65-0.89	Y	97.8	50.0-145								
13C-PCB-77	0.87	0.65-0.89	Y	96.6	50.0-145								
13C-PCB-104	1.61	1.32-1.78	Y	91.3	50.0-145								
13C-PCB-95	1.62	1.32-1.78	Y	95.6	50.0-145								
13C-PCB-101	1.62	1.32-1.78	Y	98.6	50.0-145								
13C-PCB-97	1.61	1.32-1.78	Y	101.1	50.0-145								
13C-PCB-123	1.63	1.32-1.78	Y	105.1	50.0-145		13C-PCB-79	0.84	0.65-0.89	Y	101.1	75 - 125	
13C-PCB-118	1.64	1.32-1.78	Y	101.6	50.0-145		13C-PCB-178	0.46	0.38-0.52	Y	103.7	75 - 125	
13C-PCB-114	1.71	1.32-1.78	Y	78.9	50.0-145								
13C-PCB-105	1.69	1.32-1.78	Y	78.8	50.0-145								
13C-PCB-127	1.71	1.32-1.78	Y	79.3	50.0-145								
13C-PCB-126	1.70	1.32-1.78	Y	83.0	50.0-145								
13C-PCB-155	1.31	1.05-1.43	Y	107.3	50.0-145								
13C-PCB-153	1.33	1.05-1.43	Y	92.5	50.0-145								
13C-PCB-141	1.33	1.05-1.43	Y	92.3	50.0-145								
13C-PCB-138	1.32	1.05-1.43	Y	94.5	50.0-145								
13C-PCB-159	1.30	1.05-1.43	Y	96.2	50.0-145								
13C-PCB-167	1.34	1.05-1.43	Y	97.8	50.0-145								
13C-PCB-156	1.32	1.05-1.43	Y	99.1	50.0-145								
13C-PCB-157	1.34	1.05-1.43	Y	101.4	50.0-145								

Analyst: DMSDate: 9/22/14

Client ID: PCB CS3 14F1302
 Lab ID: ST140919E2-1

Filename: 140919E2 S:1 Acq:19-SEP-14 23:43:03 ConCal: ST140919E2-1
 GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	1.11e+08	3.09	y	1.19	16:19	1.001	0.996-1.006	39.9728
PCB-2	1.15e+08	3.13	y	1.18	18:42	0.989	0.984-0.994	39.7109
PCB-3	1.37e+08	3.07	y	1.43	18:56	1.001	0.996-1.006	39.1959
PCB-4/10	3.53e+08	1.63	y	1.57	20:18	1.003	0.997-1.007	201.893
PCB-7/9	4.23e+08	1.65	y	1.21	22:05	0.869	0.866-0.874	203.572
PCB-6	2.19e+08	1.66	y	1.30	22:44	0.894	0.890-0.899	97.4930
PCB-5/8	4.04e+08	1.64	y	1.15	23:09	0.911	0.907-0.917	204.664
PCB-14	2.10e+08	1.65	y	1.11	24:15	0.954	0.949-0.959	103.816
PCB-11	2.02e+08	1.66	y	1.09	25:26	1.001	0.995-1.005	102.316
PCB-12/13	4.41e+08	1.65	y	1.19	25:49	1.016	1.011-1.021	202.849
PCB-15	2.34e+08	1.67	y	1.28	26:08	1.028	1.023-1.033	100.275
PCB-19	5.95e+07	1.10	y	1.04	24:26	1.001	0.996-1.006	46.4094
PCB-30	9.90e+07	1.09	y	1.71	25:19	1.037	1.032-1.042	47.0091
PCB-18	6.94e+07	1.08	y	0.78	26:04	0.954	0.949-0.959	47.3299
PCB-17	8.10e+07	1.09	y	0.92	26:14	0.960	0.956-0.966	46.8122
PCB-24/27	2.10e+08	1.09	y	1.19	26:49	0.981	0.977-0.987	93.9988
PCB-16/32	1.65e+08	1.10	y	0.94	27:19	1.000	0.995-1.005	93.3408
PCB-34	1.02e+08	1.06	y	1.14	28:07	0.960	0.955-0.965	57.4954
PCB-23	9.78e+07	1.07	y	1.28	28:13	0.964	0.959-0.969	48.9323
PCB-29	8.96e+07	1.06	y	1.08	28:28	0.972	0.967-0.977	53.0876
PCB-26	9.81e+07	1.09	y	1.21	28:40	0.979	0.974-0.984	52.0184
PCB-25	1.05e+08	1.05	y	1.26	28:49	0.984	0.979-0.989	53.3545
PCB-31	1.00e+08	1.05	y	1.28	29:11	0.997	0.992-1.002	49.7953
PCB-28	1.41e+08	1.06	y	1.71	29:18	1.001	0.995-1.005	52.5660
PCB-20/21/33	2.68e+08	1.07	y	1.08	29:54	1.021	1.017-1.027	158.720
PCB-22	1.01e+08	1.06	y	1.21	30:21	1.037	1.032-1.042	53.7242
PCB-36	8.96e+07	1.06	y	1.14	30:58	0.934	0.928-0.938	55.3638
PCB-39	8.72e+07	1.05	y	1.12	31:26	0.948	0.943-0.953	55.1536
PCB-38	8.87e+07	1.07	y	1.20	32:13	0.972	0.966-0.976	52.1638
PCB-35	1.02e+08	1.07	y	1.23	32:44	0.987	0.982-0.992	58.2204
PCB-37	9.34e+07	1.06	y	1.23	33:10	1.000	0.995-1.005	53.6121
PCB-54	7.39e+07	0.81	y	1.10	28:11	1.001	0.996-1.006	47.3802
PCB-50	6.20e+07	0.81	y	0.88	29:20	1.042	1.037-1.047	49.7845
PCB-53	6.04e+07	0.83	y	1.06	29:59	0.946	0.942-0.952	47.7193
PCB-51	5.71e+07	0.81	y	0.99	30:19	0.957	0.952-0.962	48.4308
PCB-45	5.16e+07	0.82	y	0.86	30:45	0.971	0.966-0.976	50.1711
PCB-46	4.88e+07	0.82	y	0.85	31:15	0.986	0.981-0.991	48.5466

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-52/69	1.53e+08	0.82	y	1.28	31:43	1.001	0.996-1.006	100.493
PCB-73	7.76e+07	0.83	y	1.35	31:50	1.005	1.000-1.010	48.2342
PCB-43/49	1.14e+08	0.83	y	0.99	32:00	1.010	1.005-1.015	96.2901
PCB-47	5.64e+07	0.96	n	1.06	32:13	1.001	0.996-1.006	42.4969
PCB-48/75	1.55e+08	0.77	y	1.23	32:20	1.004	0.999-1.009	100.647
PCB-65	7.50e+07	0.81	y	1.22	32:36	1.013	1.008-1.018	48.8214
PCB-62	7.69e+07	0.84	y	1.22	32:41	1.015	1.011-1.021	50.1886
PCB-44	5.36e+07	0.81	y	0.86	33:01	1.026	1.021-1.031	49.6890
PCB-42/59	1.42e+08	0.81	y	1.14	33:13	1.032	1.028-1.038	99.2925
PCB-41/64/71/72	2.99e+08	0.82	y	1.21	33:48	1.050	1.046-1.056	197.303
PCB-68	8.61e+07	0.82	y	1.35	34:04	1.058	1.054-1.064	50.9281
PCB-40	4.57e+07	0.82	y	0.70	34:18	1.065	1.061-1.071	51.9284
PCB-57	7.83e+07	0.82	y	0.98	34:38	0.970	0.965-0.975	49.9521
PCB-67	8.42e+07	0.82	y	1.11	34:56	0.978	0.974-0.984	47.5147
PCB-58	7.55e+07	0.83	y	0.93	35:04	0.982	0.977-0.987	50.8489
PCB-63	7.55e+07	0.83	y	0.95	35:14	0.987	0.982-0.992	49.5047
PCB-74	9.70e+07	0.81	y	1.24	35:31	0.995	0.990-1.000	48.7249
PCB-61/70	1.56e+08	0.83	y	0.95	35:41	0.999	0.995-1.005	102.162
PCB-76/66	1.63e+08	0.82	y	1.04	35:54	1.005	1.001-1.011	97.6861
PCB-80	1.01e+08	0.83	y	1.19	36:08	1.000	0.996-1.006	49.4841
PCB-55	8.62e+07	0.83	y	1.04	36:27	1.009	1.005-1.015	48.5257
PCB-56/60	1.72e+08	0.82	y	1.01	36:57	1.023	1.019-1.029	99.8359
PCB-79	9.17e+07	0.82	y	1.08	38:01	1.053	1.048-1.058	49.8075
PCB-78	9.24e+07	0.82	y	1.27	38:43	0.987	0.982-0.992	47.5758
PCB-81	9.54e+07	0.82	y	1.33	39:14	1.000	0.995-1.005	46.9330
PCB-77	8.52e+07	0.86	y	1.10	39:50	1.000	0.995-1.005	50.1527
PCB-104	6.86e+07	1.63	y	1.18	32:51	1.000	0.996-1.006	51.3735
PCB-96	6.58e+07	1.65	y	1.14	34:08	1.039	1.034-1.044	51.2370
PCB-103	5.60e+07	1.61	y	0.96	34:39	1.055	1.050-1.060	51.8620
PCB-100	5.63e+07	1.65	y	0.94	35:01	1.066	1.061-1.071	53.2722
PCB-94	4.61e+07	1.65	y	1.06	35:29	0.986	0.980-0.990	49.9645
PCB-95/98/102	1.61e+08	1.63	y	1.22	35:59	0.999	0.995-1.005	150.602
PCB-93	4.22e+07	1.74	y	0.84	36:07	1.003	0.997-1.007	57.2422
PCB-88/91	9.75e+07	1.62	y	1.12	36:23	1.011	1.005-1.015	99.9804
PCB-121	8.12e+07	1.66	y	1.62	36:30	1.014	1.009-1.019	57.5594
PCB-84/92	1.02e+08	1.64	y	1.05	37:20	0.991	0.985-0.995	102.316
PCB-89	5.53e+07	1.65	y	1.13	37:31	0.995	0.991-1.001	51.3810

Integrations
Reviewed
by _____

Analyst: DMS
Date: 9/22/14

Reviewed
by _____
Analyst: _____
Date: _____

Client ID: PCB CS3 14F1302
Lab ID: ST140919E2-1

Filename: 140919E2 S:1 Acq:19-SEP-14 23:43:03 ConCal: ST140919E2-1
GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	1.09e+08	1.64	y	1.10	37:41	1.000	0.995-1.005	103.447	PCB-133/142	9.08e+07	1.30	y	0.82	42:37	0.982	0.977-0.987	93.7376
PCB-113	6.83e+07	1.64	y	1.41	37:56	1.007	1.002-1.012	50.8693	PCB-131	4.98e+07	1.31	y	0.91	42:47	0.986	0.981-0.991	46.3913
PCB-99	6.83e+07	1.67	y	1.34	38:02	1.009	1.004-1.014	53.6570	PCB-146/165	1.34e+08	1.30	y	1.25	43:00	0.991	0.986-0.996	91.2559
PCB-119	6.84e+07	1.64	y	1.53	38:29	0.987	0.982-0.992	50.8545	PCB-132/161	1.19e+08	1.35	y	1.10	43:15	0.996	0.992-1.002	91.3657
PCB-108/112	1.11e+08	1.66	y	1.28	38:39	0.991	0.986-0.996	99.0293	PCB-153	6.72e+07	1.22	y	1.25	43:26	1.001	0.995-1.005	45.4666
PCB-83	6.48e+07	1.66	y	1.52	38:48	0.995	0.990-1.000	48.6088	PCB-168	7.98e+07	1.29	y	1.45	43:38	1.005	1.001-1.011	46.5392
PCB-97	5.15e+07	1.65	y	1.18	39:01	1.001	0.995-1.005	49.5956	PCB-141	5.58e+07	1.28	y	1.09	44:10	1.001	0.995-1.005	46.5017
PCB-86	4.38e+07	1.64	y	0.84	39:09	1.004	0.999-1.009	59.2332	PCB-137	5.69e+07	1.26	y	1.06	44:33	1.009	1.004-1.014	48.4431
B-87/117/125	2.02e+08	1.63	y	1.55	39:17	1.007	1.002-1.012	148.694	PCB-130	4.86e+07	1.32	y	0.96	44:38	1.011	1.006-1.016	45.4933
PCB-111/115	1.38e+08	1.63	y	1.63	39:26	1.011	1.006-1.016	96.1083	PCB-138/163/164	2.06e+08	1.29	y	1.29	45:02	1.001	0.996-1.006	137.752
PCB-85/116	1.19e+08	1.64	y	1.30	39:34	1.015	1.010-1.020	104.412	PCB-158/160	1.48e+08	1.28	y	1.34	45:15	1.006	1.001-1.011	94.8712
PCB-120	7.51e+07	1.65	y	1.68	39:49	1.021	1.016-1.026	50.9712	PCB-129	4.77e+07	1.30	y	0.85	45:31	1.012	1.007-1.017	48.1925
PCB-110	6.88e+07	1.64	y	1.56	39:56	1.024	1.020-1.030	50.3046	PCB-166	7.34e+07	1.30	y	1.19	45:57	0.993	0.988-0.998	46.2505
PCB-82	4.60e+07	1.64	y	0.76	40:34	0.976	0.971-0.981	52.3033	PCB-159	6.87e+07	1.28	y	1.11	46:17	1.000	0.996-1.006	46.1474
PCB-124	9.01e+07	1.64	y	1.47	41:15	0.993	0.988-0.998	52.8572	PCB-128/162	1.29e+08	1.28	y	1.05	46:34	1.006	1.002-1.012	92.1806
PCB-107/109	1.50e+08	1.65	y	1.32	41:24	0.996	0.991-1.001	97.8841	PCB-167	8.33e+07	1.29	y	1.20	46:58	1.000	0.995-1.005	47.0741
PCB-123	6.95e+07	1.63	y	1.17	41:34	1.000	0.996-1.006	51.3152	PCB-156	7.70e+07	1.30	y	1.14	48:16	1.000	0.996-1.006	47.3222
- PCB-106/118	1.46e+08	1.64	y	1.17	41:46	1.001	0.996-1.006	103.201	PCB-157	8.18e+07	1.30	y	1.16	48:32	1.000	0.995-1.005	45.7572
- PCB-114	7.86e+07	1.61	y	1.30	42:24	1.000	0.995-1.005	50.5711	PCB-169	7.54e+07	1.29	y	1.12	50:38	1.000	0.995-1.005	45.7477
PCB-122	6.97e+07	1.61	y	1.12	42:32	1.003	0.999-1.009	51.8888	PCB-188	7.73e+07	1.07	y	1.58	43:04	1.001	0.996-1.006	48.4581
PCB-105	7.76e+07	1.62	y	1.30	43:16	1.000	0.995-1.005	49.7597	PCB-184	8.09e+07	1.08	y	1.63	43:30	1.011	1.006-1.016	49.1689
PCB-127	8.68e+07	1.64	y	1.33	43:36	1.000	0.996-1.006	49.9674	PCB-179	6.52e+07	1.07	y	1.30	44:17	1.029	1.024-1.034	49.5964
PCB-126	7.33e+07	1.63	y	1.18	45:29	1.000	0.995-1.005	51.2309	PCB-176	7.27e+07	1.07	y	1.48	44:45	1.040	1.035-1.045	48.8249
PCB-155	5.96e+07	1.31	y	1.11	37:15	1.001	0.966-1.006	48.1853	PCB-186	7.35e+07	1.08	y	1.45	45:21	1.054	1.050-1.060	50.1252
PCB-150	5.55e+07	1.30	y	1.00	38:31	1.035	1.030-1.040	49.9802	PCB-178	5.31e+07	1.06	y	1.03	45:51	1.065	1.061-1.071	50.9095
PCB-152	5.99e+07	1.32	y	1.12	38:60	1.047	1.043-1.053	48.3424	PCB-175	5.34e+07	1.09	y	1.01	46:12	1.073	1.069-1.079	52.2793
PCB-145	6.55e+07	1.30	y	1.20	39:26	1.059	1.055-1.065	49.0784	PCB-182/187	1.28e+08	1.07	y	1.25	46:22	1.077	1.073-1.083	101.354
PCB-136	6.95e+07	1.31	y	1.18	39:46	1.068	1.064-1.074	53.1158	PCB-183	6.21e+07	1.07	y	1.21	46:41	1.085	1.081-1.091	50.9008
PCB-148	3.78e+07	1.33	y	0.74	39:52	1.071	1.066-1.076	45.6456	PCB-185	7.06e+07	1.08	y	1.80	47:21	0.956	0.951-0.961	46.6808
PCB-154	5.06e+07	1.29	y	0.86	40:21	1.084	1.080-1.090	53.0917	PCB-174	5.61e+07	1.07	y	1.38	47:42	0.963	0.958-0.968	48.4933
PCB-151	4.28e+07	1.31	y	0.75	40:60	1.101	1.097-1.107	51.6348	PCB-181	5.75e+07	1.07	y	1.38	47:49	0.965	0.960-0.970	49.6421
PCB-135	4.64e+07	1.28	y	0.79	41:13	1.107	1.103-1.113	52.6520	PCB-177	5.12e+07	1.07	y	1.26	47:59	0.969	0.963-0.973	48.5465
PCB-144	4.39e+07	1.29	y	0.76	41:19	1.110	1.105-1.117	51.8595	PCB-171	6.33e+07	1.06	y	1.58	48:17	0.975	0.970-0.980	47.6402
PCB-147	4.90e+07	1.32	y	0.82	41:27	1.113	1.109-1.121	53.8050	PCB-173	4.64e+07	1.09	y	1.11	48:42	0.983	0.978-0.988	49.8226
PCB-139/149	8.96e+07	1.31	y	0.76	41:43	1.120	1.116-1.128	105.849	PCB-172	6.87e+07	1.08	y	1.63	49:09	0.992	0.987-0.997	50.0910
- PCB-140	4.40e+07	1.30	y	0.72	41:54	1.125	1.121-1.133	54.8157	PCB-192	7.32e+07	1.07	y	1.74	49:21	0.996	0.991-1.001	50.1132
- PCB-134/143	1.01e+08	1.29	y	0.92	42:20	0.975	0.970-0.980	93.0880	PCB-180	5.56e+07	1.07	y	1.34	49:33	1.000	0.995-1.005	49.2297

Integrations

by

Analyst: DMS

Date: 9/22/14

Client ID: PCB CS3 14F1302
Lab ID: ST140919E2-1

Filename: 140919E2 S:1 Acq:19-SEP-14 23:43:03
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 ConCal: ST140919E2-1
EndCAL: NA

Page 2 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	6.95e+07	1.08	y	1.72	49:45	1.004	0.999-1.009	48.2708
PCB-191	6.91e+07	1.07	y	1.69	49:60	1.009	1.004-1.014	48.5888
PCB-170	5.45e+07	1.06	y	1.60	51:01	1.000	0.995-1.005	49.0877
PCB-190	7.34e+07	1.07	y	2.21	51:11	1.004	0.998-1.008	47.7964
PCB-189	6.83e+07	1.07	y	1.55	52:29	1.000	0.995-1.005	48.3848
PCB-202	5.76e+07	0.93	y	1.08	48:29	1.000	0.995-1.005	47.8363
PCB-201	6.24e+07	0.93	y	1.15	48:58	1.010	1.005-1.015	48.7887
PCB-204	6.26e+07	0.93	y	1.14	49:07	1.014	1.008-1.018	49.4498
PCB-197	5.83e+07	0.92	y	1.07	49:25	1.020	1.015-1.025	48.8525
PCB-200	5.84e+07	0.92	y	1.06	50:17	1.038	1.032-1.044	49.4456
PCB-198	4.42e+07	0.91	y	0.76	51:36	1.065	1.059-1.069	52.6742
PCB-199	4.59e+07	0.94	y	0.80	51:43	1.067	1.061-1.071	51.7544
- PCB-196/203	9.42e+07	0.92	y	0.80	51:58	1.072	1.066-1.076	105.715
- PCB-195	5.11e+07	0.93	y	1.23	53:07	0.984	0.979-0.989	48.2362
PCB-194	5.04e+07	0.92	y	1.21	53:59	1.000	0.995-1.005	48.2296
PCB-205	6.27e+07	0.93	y	1.54	54:15	1.005	1.001-1.011	47.1337
PCB-208	5.38e+07	1.39	y	0.93	53:16	1.000	0.995-1.005	49.9495
PCB-207	6.33e+07	1.38	y	1.08	53:34	1.006	1.001-1.011	50.5179
PCB-206	3.74e+07	1.37	y	1.02	55:38	1.000	0.995-1.005	49.7562
PCB-209	4.56e+07	1.19	y	1.17	56:58	1.000	0.995-1.005	49.4577

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	3.63e+08	3.09	y	16:19	1.27
Total Di-PCB	2.49e+09	1.63	y	20:18	1.21
Total Tri-PCB	6.83e+08	1.10	y	24:26	1.10
Total Tri-PCB	1.58e+09	1.06	y	28:07	1.21
Total Tetra-PCB	3.11e+09	0.81	y	28:11	1.09
Total Penta-PCB	2.53e+09	1.63	y	32:51	1.18
Total Penta-PCB	4.05e+08	1.61	y	42:24	1.25
Total Hexa-PCB	7.14e+08	1.31	y	37:15	0.90
Total Hexa-PCB	1.82e+09	1.29	y	42:20	1.11
Total Hepta-PCB	1.56e+09	1.07	y	43:04	1.42
Total Octa-PCB	4.84e+08	0.93	y	48:29	0.96
Total Octa-PCB	1.67e+08	0.93	y	53:07	1.33
Total Nona-PCB	1.58e+08	1.39	y	53:16	1.01
Total Deca-PCB	4.56e+07	1.19	y	56:58	1.17

Total PCB Conc:10984.9083290

RL: MONO, TRI - DECA: _____

Integrations
by
Analyst: DMS
Date: 9/22/14

Client ID: PCB CS3 14F1302
 Lab ID: ST140919E2-1

Filename: 140919E2 S:1 Acq:19-SEP-14 23:43:03
 GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:1.0000
 ConCal: ST140919E2-1
 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	④ Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	2.32e+08	3.42	y	0.87	16:17	0.623	0.629-0.635	135	135	13C-PCB-79	1.74e+08	0.84	y	1.02	38:00	1.029	1.023-1.034	101	101		
13C-PCB-3	2.46e+08	3.46	y	0.91	18:55	0.724	0.725-0.733	137	137	13C-PCB-178	7.10e+07	0.46	y	0.61	45:50	0.984	0.979-0.990	104	104		
13C-PCB-4	1.12e+08	1.58	y	0.59	20:15	0.775	0.775-0.783	96.5	96.5	PS vs. IS		13C-PCB-79	1.74e+08	0.84	y	1.10	38:00	0.969	0.964-0.974	103	103
13C-PCB-9	1.72e+08	1.60	y	0.90	22:02	0.844	0.842-0.850	97.3	97.3	13C-PCB-178	7.10e+07	0.46	y	0.90	45:50	0.925	0.920-0.930	94.2	94.2		
13C-PCB-11	1.82e+08	1.57	y	0.94	25:25	0.973	0.968-0.978	98.5	98.5	RS		13C-PCB-79	1.74e+08	0.84	y	1.00	26:08	100	100		
13C-PCB-19	1.23e+08	1.12	y	0.53	24:24	0.934	0.930-0.940	117	117	13C-PCB-31	1.64e+08	1.11	y	1.00	29:10	100	100				
13C-PCB-28	1.56e+08	1.11	y	0.93	29:17	1.004	0.999-1.009	102	102	13C-PCB-60	1.69e+08	0.86	y	1.00	36:57	100	100				
13C-PCB-32	1.88e+08	1.14	y	0.80	27:19	1.046	1.040-1.050	120	120	13C-PCB-111	1.23e+08	1.61	y	1.00	39:25	100	100				
13C-PCB-37	1.42e+08	1.13	y	0.84	33:09	1.137	1.131-1.143	103	103	13C-PCB-128	1.12e+08	1.32	y	1.00	46:33	100	100				
13C-PCB-47	1.25e+08	0.85	y	0.81	32:12	0.871	0.866-0.874	91.1	91.1	13C-PCB-205	1.06e+08	0.93	y	1.00	54:15	100	100				
13C-PCB-52	1.19e+08	0.83	y	0.77	31:41	0.858	0.853-0.861	91.0	91.0	④ = RRT limits used for DATA processing only, RRT within 1668 method limit. DMS 9/22/14		13C-PCB-15	1.97e+08	1.57	y	1.00	26:08	100	100		
13C-PCB-54	1.41e+08	0.85	y	0.97	28:10	0.762	0.758-0.766	86.0	86.0	13C-PCB-31	1.64e+08	1.11	y	1.00	29:10	100	100				
13C-PCB-70	1.60e+08	0.85	y	1.00	35:43	0.966	0.961-0.971	94.6	94.6	13C-PCB-60	1.69e+08	0.86	y	1.00	36:57	100	100				
13C-PCB-77	1.54e+08	0.87	y	0.94	39:49	1.078	1.073-1.083	96.6	96.6	13C-PCB-111	1.23e+08	1.61	y	1.00	39:25	100	100				
13C-PCB-80	1.70e+08	0.86	y	1.03	36:07	0.977	0.972-0.982	97.5	97.5	13C-PCB-128	1.12e+08	1.32	y	1.00	46:33	100	100				
13C-PCB-81	1.53e+08	0.85	y	0.92	39:13	1.062	1.057-1.067	97.8	97.8	13C-PCB-205	1.06e+08	0.93	y	1.00	54:15	100	100				
13C-PCB-95	8.74e+07	1.62	y	0.74	36:00	0.914	0.908-0.918	95.6	95.6												
13C-PCB-97	8.79e+07	1.61	y	0.70	38:59	0.989	0.984-0.994	101	101												
13C-PCB-101	9.53e+07	1.62	y	0.78	37:41	0.956	0.951-0.961	98.6	98.6												
13C-PCB-104	1.13e+08	1.61	y	1.00	32:51	0.834	0.828-0.836	91.3	91.3												
13C-PCB-105	1.20e+08	1.69	y	1.37	43:15	0.929	0.924-0.934	78.8	78.8												
13C-PCB-114	1.20e+08	1.71	y	1.36	42:23	0.911	0.905-0.915	78.9	78.9												
13C-PCB-118	1.20e+08	1.64	y	0.96	41:44	1.059	1.054-1.064	102	102												
13C-PCB-123	1.16e+08	1.63	y	0.89	41:33	1.054	1.050-1.060	105	105												
13C-PCB-126	1.21e+08	1.70	y	1.31	45:29	0.977	0.972-0.982	83.0	83.0												
13C-PCB-127	1.30e+08	1.71	y	1.47	43:35	0.936	0.931-0.941	79.3	79.3												
13C-PCB-138	1.16e+08	1.32	y	1.10	44:59	0.966	0.961-0.971	94.5	94.5												
13C-PCB-141	1.11e+08	1.33	y	1.07	44:08	0.948	0.943-0.953	92.3	92.3												
13C-PCB-153	1.18e+08	1.33	y	1.15	43:24	0.932	0.927-0.937	92.5	92.5												
13C-PCB-155	1.11e+08	1.31	y	0.84	37:14	0.945	0.939-0.949	107	107												
13C-PCB-156	1.43e+08	1.32	y	1.30	48:15	1.036	1.032-1.042	99.1	99.1												
13C-PCB-157	1.54e+08	1.34	y	1.36	48:31	1.042	1.038-1.048	101	101												
13C-PCB-159	1.34e+08	1.30	y	1.25	46:16	0.994	0.989-0.999	96.2	96.2												
13C-PCB-167	1.47e+08	1.34	y	1.35	46:57	1.009	1.004-1.014	97.8	97.8												
13C-PCB-169	1.47e+08	1.30	y	1.29	50:38	1.088	1.083-1.093	103	103												
13C-PCB-170	6.95e+07	0.46	y	0.54	51:00	1.096	1.089-1.101	115	115												
13C-PCB-180	8.39e+07	0.47	y	0.68	49:32	1.064	1.060-1.070	110	110												
13C-PCB-188	1.01e+08	0.46	y	0.92	43:02	0.925	0.919-0.929	98.5	98.5												
13C-PCB-189	9.11e+07	0.45	y	0.72	52:28	1.127	1.120-1.132	114	114												
13C-PCB-194	8.64e+07	0.93	y	0.80	53:58	0.995	0.990-1.000	102	102												
13C-PCB-202	1.11e+08	0.93	y	0.84	48:27	1.041	1.036-1.046	119	119												
13C-PCB-206	7.34e+07	0.79	y	0.65	55:37	1.025	1.021-1.031	106	106												
13C-PCB-208	1.16e+08	0.77	y	1.08	53:15	0.982	0.976-0.986	101	101												
13C-PCB-209	7.88e+07	1.17	y	0.61	56:57	1.050	1.045-1.055	121	121												

Analyst: DMS
 Date: 9/22/14

Vista Analytical Laboratory - Injection Log Run file: 140919E2 Instrument ID: VG-8 GC Column ID: ZB-1

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140919E2	1	ST140919E2-1	DMS	19-SEP-14	23:43:03	ST140919E2-1	NA
140919E2	2	B4I0032-BS1	DMS	20-SEP-14	00:47:26	ST140919E2-1	NA
140919E2	3	B4I0061-BS1	DMS	20-SEP-14	01:51:50	ST140919E2-1	NA
140919E2	4	SOLVENT BLANK	DMS	20-SEP-14	02:56:14	ST140919E2-1	NA
140919E2	5	B4I0032-BLK1	DMS	20-SEP-14	04:00:37	ST140919E2-1	NA
140919E2	6	B4I0061-BLK1	DMS	20-SEP-14	05:05:04	ST140919E2-1	NA
140919E2	7	1400647-04RE1 DL 1:20	DMS	20-SEP-14	06:09:32	ST140919E2-1	NA
140919E2	8	1400659-03RE1 DL 1:20	DMS	20-SEP-14	07:13:59	ST140919E2-1	NA
140919E2	9	1400665-01RE1 DL 1:20	DMS	20-SEP-14	08:18:25	ST140919E2-1	NA
140919E2	10	1400665-02RE1 DL 1:20	DMS	20-SEP-14	09:22:50	ST140919E2-1	NA
140919E2	11	1400665-03RE1 DL 1:20	DMS	20-SEP-14	10:27:16	ST140919E2-1	NA
140919E2	12	SOLVENT BLANK	DMS	20-SEP-14	11:31:39	ST140919E2-1	NA
140919E2	13	SOLVENT BLANK	DMS	20-SEP-14	12:36:04	ST140919E2-1	NA



CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: STI40919E2-1

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input type="checkbox"/> /	<input checked="" type="checkbox"/> NA
Concentration within range?	<input type="checkbox"/> /	<input type="checkbox"/>
First and last eluters present?	<input type="checkbox"/> /	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/> DMS <input checked="" type="checkbox"/> 9/22/14	<input type="checkbox"/> M
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input type="checkbox"/> /	<input type="checkbox"/>
Forms signed and dated?	<input type="checkbox"/> /	<input type="checkbox"/>
Correct ICAL referenced?	<input type="checkbox"/> /	<input type="checkbox"/>
Run Log:		
-Data file matches Conc Cal ID?	<input type="checkbox"/> /	<input type="checkbox"/>
-Correct instrument listed?	<input type="checkbox"/> /	<input checked="" type="checkbox"/> ✓
-Samples within 12-hour clock?	<input type="checkbox"/> y	<input type="checkbox"/> n

Reviewed by: MJ 9/22/14
Initials & Date

Mass resolution > 10,000?
▪ Method 1614 > 5,000; CARB 429 > 8,000

TCDD/TCDF valleys < 25%?

Peaks integrated correctly?

Manual integrations included?

8280 CS1 Ending Standard

-Ratios within limits

-S/N > 2.5:1

-CS1 within 12-hour clock

Comments: * OK'd b7 wjl
DMS 9/22/14

* Ending standard criteria applicable to 8290 only.

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

Client ID: PCB CS3 14F1901
Lab ID: ST140923E1-1

Filename: 140923E1 S:1 Acq:23-SEP-14 14:00:03 ConCal: ST140923E1-1
GC Column ID: ZB-1 ICal: PCVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	5.08e+07	1.07	y	1.65	49:40	1.004	0.999-1.009	53.8367
PCB-191	5.06e+07	1.07	y	1.67	49:55	1.009	1.004-1.014	53.0717
PCB-170	3.66e+07	1.06	y	1.50	50:57	1.000	0.995-1.005	53.5767
PCB-190	4.97e+07	1.07	y	2.02	51:07	1.004	0.998-1.008	54.1307
PCB-189	4.99e+07	1.06	y	1.54	52:26	1.000	0.995-1.005*	54.4655
							37.8 - 62.5	
PCB-202	3.46e+07	0.90	y	1.04	48:24	1.001	0.995-1.005	53.4901
PCB-201	3.62e+07	0.91	y	1.10	48:53	1.011	1.006-1.016	52.8973
PCB-204	3.26e+07	0.92	y	0.99	49:02	1.014	1.009-1.019	52.8383
PCB-197	3.54e+07	0.90	y	1.07	49:20	1.020	1.015-1.025	53.1034
PCB-200	3.48e+07	0.89	y	1.02	50:13	1.038	1.032-1.044	55.0493
PCB-198	2.29e+07	0.90	y	0.74	51:31	1.065	1.058-1.068	49.6083
PCB-199	2.51e+07	0.91	y	0.73	51:38	1.068	1.060-1.070	55.4673
- PCB-196/203	5.13e+07	0.90	y	0.77	51:54	1.073	1.066-1.076	106.900
- PCB-195	3.45e+07	0.88	y	1.20	53:04	0.985	0.979-0.989	47.8565
PCB-194	3.52e+07	0.90	y	1.25	53:55	1.000	0.995-1.005	46.9725
PCB-205	4.19e+07	0.90	y	1.41	54:12	1.006	1.001-1.011	49.3176
PCB-208	4.50e+07	1.32	y	0.96	53:12	1.000	0.995-1.005	47.8518
PCB-207	4.36e+07	1.32	y	0.92	53:31	1.006	1.001-1.011	48.5987
PCB-206	2.84e+07	1.33	y	1.03	55:34	1.000	0.995-1.005	48.8366
PCB-209	4.43e+07	1.20	y	1.18	56:54	1.000	0.995-1.005	53.4298

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	3.61e+08	3.00	y	16:12	1.22
Total Di-PCB	2.18e+09	1.54	y	20:10	1.21
Total Tri-PCB	6.87e+08	1.06	y	24:19	1.16
Total Tri-PCB	1.32e+09	1.02	y	28:01	1.35
Total Tetra-PCB	2.98e+09	0.77	y	28:05	1.17
Total Penta-PCB	1.93e+09	1.61	y	32:46	1.21
Total Penta-PCB	3.23e+08	1.58	y	42:19	1.26
Total Hexa-PCB	4.01e+08	1.30	y	37:09	0.92
Total Hexa-PCB	1.55e+09	1.22	y	42:15	1.08
Total Hepta-PCB	1.12e+09	1.05	y	42:58	1.27
Total Octa-PCB	2.73e+08	0.90	y	48:24	0.92
Total Octa-PCB	1.17e+08	0.88	y	53:04	1.29
Total Nona-PCB	1.20e+08	1.32	y	53:12	0.96
Total Deca-PCB	4.43e+07	1.20	y	56:54	1.18
					Total PCB Conc:11053.8969400

* used for PCB 189 only

RL: MONO, TRI - DECA: _____

Integrations

by

Analyst: DMS

Date: 9/24/14

Client ID: PCB CS3 14F1901
 Lab ID: ST140923E1-1

Filename: 140923E1 S:1 Acq:23-SEP-14 14:00:03
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000
 ConCal: ST140923E1-1
 EndCAL: NA

Page 1 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	1.97e+08	3.35	y	0.89	16:12	0.623	0.622-0.628	117	117	13C-PCB-79	1.66e+08	0.80	y	1.01	37:54	1.028	1.023-1.033	107	107		
13C-PCB-3	1.93e+08	3.40	y	0.93	18:49	0.723	0.721-0.729	110	110	13C-PCB-178	5.99e+07	0.46	y	0.63	45:44	0.985	0.979-0.989	105	105		
13C-PCB-4	1.06e+08	1.59	y	0.55	20:09	0.775	0.772-0.780	102	102	13C-PCB-178	5.99e+07	0.46	y	0.63	45:44	0.985	0.979-0.989	105	105		
13C-PCB-9	1.60e+08	1.57	y	0.83	21:56	0.843	0.840-0.848	102	102												
13C-PCB-11	1.75e+08	1.55	y	0.94	25:19	0.973	0.968-0.978	98.6	98.6	PS vs. IS											
13C-PCB-19	9.97e+07	1.10	y	0.53	24:18	0.934	0.929-0.939	98.8	98.8	13C-PCB-79	1.66e+08	0.80	y	1.20	37:54	0.968	0.963-0.973	109	109		
13C-PCB-28	1.42e+08	1.05	y	0.89	29:11	1.004	0.999-1.009	95.9	95.9	13C-PCB-178	5.99e+07	0.46	y	0.94	45:44	0.925	0.920-0.930	112	112		
13C-PCB-32	1.47e+08	1.09	y	0.81	27:13	1.046	1.041-1.051	95.5	95.5	13C-PCB-178	5.99e+07	0.46	y	0.94	45:44	0.925	0.920-0.930	112	112		
13C-PCB-37	1.27e+08	1.05	y	0.83	33:03	1.137	1.131-1.143	91.3	91.3												
13C-PCB-47	1.17e+08	0.77	y	0.74	32:06	0.871	0.867-0.875	102	102												
13C-PCB-52	1.15e+08	0.80	y	0.71	31:35	0.857	0.853-0.861	106	106												
13C-PCB-54	1.42e+08	0.82	y	0.85	28:03	0.761	0.758-0.766	108	108												
13C-PCB-70	1.42e+08	0.79	y	0.94	35:36	0.966	0.961-0.971	97.4	97.4												
13C-PCB-77	1.34e+08	0.79	y	0.89	39:44	1.078	1.073-1.083	97.3	97.3												
13C-PCB-80	1.45e+08	0.78	y	0.96	36:01	0.977	0.972-0.982	97.8	97.8												
13C-PCB-81	1.26e+08	0.79	y	0.84	39:08	1.062	1.057-1.067	97.4	97.4												
13C-PCB-95	6.37e+07	1.63	y	0.74	35:54	0.913	0.908-0.918	100	100	RS											
13C-PCB-97	5.94e+07	1.59	y	0.69	38:54	0.989	0.984-0.994	101	101	13C-PCB-15	1.90e+08	1.56	y	1.00	26:01	100					
13C-PCB-101	6.64e+07	1.61	y	0.79	37:36	0.956	0.951-0.961	98.9	98.9	13C-PCB-31	1.67e+08	1.04	y	1.00	29:04	100					
13C-PCB-104	8.81e+07	1.60	y	1.00	32:45	0.833	0.829-0.837	104	104	13C-PCB-60	1.54e+08	0.78	y	1.00	36:51	100					
13C-PCB-105	9.48e+07	1.58	y	1.24	43:10	0.929	0.924-0.934	84.8	84.8	13C-PCB-111	8.55e+07	1.60	y	1.00	39:19	100					
13C-PCB-114	9.16e+07	1.61	y	1.21	42:18	0.911	0.905-0.915	84.1	84.1	13C-PCB-128	9.03e+07	1.25	y	1.00	46:27	100					
13C-PCB-118	8.01e+07	1.60	y	0.98	41:38	1.059	1.054-1.064	95.2	95.2	13C-PCB-205	7.61e+07	0.88	y	1.00	54:11	100					
13C-PCB-123	7.59e+07	1.60	y	0.95	41:27	1.054	1.049-1.059	93.5	93.5												
13C-PCB-126	8.83e+07	1.60	y	1.16	45:24	0.977	0.972-0.982	84.1	84.1												
13C-PCB-127	1.03e+08	1.53	y	1.34	43:29	0.936	0.931-0.941	84.5	84.5												
13C-PCB-138	9.16e+07	1.26	y	1.04	44:54	0.967	0.961-0.971	97.2	97.2												
13C-PCB-141	9.24e+07	1.28	y	1.07	44:03	0.948	0.943-0.953	95.4	95.4												
13C-PCB-153	9.51e+07	1.25	y	1.11	43:19	0.933	0.927-0.937	94.6	94.6												
13C-PCB-155	5.65e+07	1.28	y	0.83	37:08	0.944	0.939-0.949	79.5	79.5												
13C-PCB-156	1.08e+08	1.27	y	1.24	48:09	1.037	1.032-1.042	95.9	95.9												
13C-PCB-157	1.18e+08	1.30	y	1.31	48:25	1.042	1.037-1.047	99.4	99.4												
13C-PCB-159	1.04e+08	1.28	y	1.20	46:11	0.994	0.989-0.999	96.0	96.0												
13C-PCB-167	1.12e+08	1.27	y	1.32	46:52	1.009	1.004-1.014	94.1	94.1												
13C-PCB-169	1.00e+08	1.27	y	1.22	50:34	1.089	1.082-1.092	91.4	91.4												
13C-PCB-170	4.55e+07	0.47	y	0.54	50:56	1.097	1.089-1.101	94.1	94.1												
13C-PCB-180	5.70e+07	0.46	y	0.67	49:27	1.065	1.059-1.069	93.7	93.7												
13C-PCB-188	7.97e+07	0.48	y	0.94	42:57	0.925	0.919-0.929	94.3	94.3												
13C-PCB-189	5.95e+07	0.47	y	0.72	52:25	1.128	1.120-1.132	92.0	92.0	* used only (50-145 %)											
13C-PCB-194	6.01e+07	0.89	y	0.81	53:54	0.995	0.990-1.000	97.4	97.4	Analyst: <u>Dmz</u>											
13C-PCB-202	6.21e+07	0.91	y	0.83	48:22	1.041	1.036-1.046	82.5	82.5	Date: <u>9/24/14</u>											
13C-PCB-206	5.66e+07	0.80	y	0.66	55:33	1.025	1.021-1.031	113	113												
13C-PCB-208	9.78e+07	0.77	y	1.12	53:12	0.982	0.976-0.986	114	114												
13C-PCB-209	7.05e+07	1.20	y	0.61	56:53	1.050	1.044-1.054	151	151												

Vista Analytical Laboratory - Injection Log Run file: 140923E1 Instrument ID: VG-8 GC Column ID: ZB-1

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140923E1	1	ST140923E1-1	DMS	23-SEP-14	14:00:03	ST140923E1-1	NA
140923E1	2	ST140923E1-2	DMS	23-SEP-14	15:04:26	ST140923E1-2	NA
140923E1	3	B4I0063-BS1	DMS	23-SEP-14	16:08:55	ST140923E1-2	NA
140923E1	4	SOLVENT BLANK	DMS	23-SEP-14	17:13:19	NA	NA
140923E1	5	B4I0063-BLK1	DMS	23-SEP-14	18:17:42	ST140923E1-2	NA
140923E1	6	1400659-02RE1 RI	DMS	23-SEP-14	19:22:06	ST140923E1-1	NA
140923E1	7	1400667-01RE1 DL 1:5	DMS	23-SEP-14	20:26:29	ST140923E1-2	NA
140923E1	8	SOLVENT BLANK	DMS	23-SEP-14	21:30:52	ST140923E1-2	NA
140923E1	9	SOLVENT BLANK	DMS	23-SEP-14	22:35:17	NA	NA
140923E1	10	SOLVENT BLANK	DMS	23-SEP-14	23:39:41	NA	NA



CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST140923E1-1

End Calibration ID: NA

Ion abundance within QC limits?

Beg. End

NA

Concentration within range?

Beg. End

First and last eluters present?

Beg. End

Retention Times within criteria?

Beg. End

Verification Std. named correctly?
(ST-Year-Month-Day-VG ID)

Beg. End

Forms signed and dated?

Beg. End

Correct ICAL referenced?

Beg. End

Run Log:

Beg. End

-Data file matches Conc Cal ID?

Beg. End

-Correct instrument listed?

Beg. End

-Samples within 12-hour clock?

Beg. End

y n

Reviewed by: M) 9/24/14
Initials & Date

Mass resolution > 10,000?

- Method 1614 > 5,000, CARB 429 > 8,000

Beg. End

TCDD/TCDF valleys < 25%?

NA NA

Peaks integrated correctly?

Beg. End

Manual integrations included?

Beg. End

8280 CS1 Ending Standard

-Ratios within limits

-S/N > 2.5:1

-CS1 within 12-hour clock

Comments: used for PCB 189
only. DMS 9/24/14

* Ending standard criteria applicable to 8290 only.

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 9 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140924E1-2

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

ANALYTES	ION	QC	CONC.				ION	QC	CONC.			
	ABUND.	LIMITS	CONC.	RANGE			ABUND.	LIMITS			CONC.	RANGE
	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS	FOUND	(ng/mL)			
PCB-1	2.97	2.66-3.60	y	42.2	37.5-62.5	PCB-52/69	0.75	0.65-0.89	y	99.2	75.0-125	
PCB-2	2.98	2.66-3.60	y	41.6	37.5-62.5	PCB-73	0.74	0.65-0.89	y	47.8	37.5-62.5	
PCB-3	2.94	2.66-3.60	y	41.7	37.5-62.5	PCB-43/49	0.73	0.65-0.89	y	96.4	75.0-125	
PCB-4/10	1.61	1.33-1.79	y	195.3	150-250	PCB-47	0.74	0.65-0.89	y	51.1	37.5-62.5	
PCB-7/9	1.61	1.33-1.79	y	194.9	150-250	PCB-48/75	0.75	0.65-0.89	y	94.9	75.0-125	
PCB-6	1.61	1.33-1.79	y	94.1	75.0-125	PCB-65	0.74	0.65-0.89	y	48.5	37.5-62.5	
PCB-5/8	1.61	1.33-1.79	y	193.8	150-250	PCB-62	0.75	0.65-0.89	y	49.4	37.5-62.5	
PCB-14	1.62	1.33-1.79	y	101.3	75.0-125	PCB-44	0.75	0.65-0.89	y	48.7	37.5-62.5	
PCB-11	1.62	1.33-1.79	y	99.3	75.0-125	PCB-42/59	0.75	0.65-0.89	y	97.4	75.0-125	
PCB-12/13	1.62	1.33-1.79	y	194.2	150-250	PCB-41/64/71/72	0.74	0.65-0.89	y	192.0	150-250	
PCB-15	1.63	1.33-1.79	y	96.7	75.0-125	PCB-68	0.75	0.65-0.89	y	48.0	37.5-62.5	
PCB-19	1.06	0.88-1.20	y	49.4	37.5-62.5	PCB-40	0.76	0.65-0.89	y	50.6	37.5-62.5	
PCB-30	1.05	0.88-1.20	y	49.2	37.5-62.5	PCB-57	0.74	0.65-0.89	y	49.8	37.5-62.5	
PCB-18	1.05	0.88-1.20	y	50.9	37.5-62.5	PCB-67	0.74	0.65-0.89	y	45.8	37.5-62.5	
PCB-17	1.05	0.88-1.20	y	50.0	37.5-62.5	PCB-58	0.75	0.65-0.89	y	50.2	37.5-62.5	
PCB-24/27	1.05	0.88-1.20	y	99.7	75.0-125	PCB-63	0.75	0.65-0.89	y	47.6	37.5-62.5	
PCB-16/32	1.05	0.88-1.20	y	99.1	75.0-125	PCB-74	0.76	0.65-0.89	y	47.3	37.5-62.5	
PCB-34	1.01	0.88-1.20	y	41.5	37.5-62.5	PCB-61/70	0.75	0.65-0.89	y	98.9	75.0-125	
PCB-23	0.99	0.88-1.20	y	44.2	37.5-62.5	PCB-76/66	0.75	0.65-0.89	y	94.4	75.0-125	
PCB-29	1.00	0.88-1.20	y	44.4	37.5-62.5	PCB-80	0.74	0.65-0.89	y	50.8	37.5-62.5	
PCB-26	1.01	0.88-1.20	y	46.2	37.5-62.5	PCB-55	0.75	0.65-0.89	y	49.6	37.5-62.5	
PCB-25	1.00	0.88-1.20	y	46.1	37.5-62.5	PCB-56/60	0.74	0.65-0.89	y	97.8	75.0-125	
PCB-31	1.01	0.88-1.20	y	44.5	37.5-62.5	PCB-79	0.76	0.65-0.89	y	50.5	37.5-62.5	
PCB-28	1.01	0.88-1.20	y	47.6	37.5-62.5	PCB-78	0.74	0.65-0.89	y	47.8	37.5-62.5	
PCB-20/21/33	1.00	0.88-1.20	y	137.5	112.5-225	PCB-81	0.76	0.65-0.89	y	48.6	37.5-62.5	
PCB-22	1.01	0.88-1.20	y	46.1	37.5-62.5	PCB-77	0.78	0.65-0.89	y	49.2	37.5-62.5	
PCB-36	0.99	0.88-1.20	y	48.7	37.5-62.5	PCB-104	1.57	1.32-1.78	y	52.4	37.5-62.5	
PCB-39	0.99	0.88-1.20	y	48.2	37.5-62.5	PCB-96	1.57	1.32-1.78	y	51.4	37.5-62.5	
PCB-38	0.99	0.88-1.20	y	48.1	37.5-62.5	PCB-103	1.58	1.32-1.78	y	50.0	37.5-62.5	
PCB-35	0.99	0.88-1.20	y	52.5	37.5-62.5	PCB-100	1.57	1.32-1.78	y	50.5	37.5-62.5	
PCB-37	1.01	0.88-1.20	y	48.7	37.5-62.5	PCB-94	1.57	1.32-1.78	y	50.5	37.5-62.5	
PCB-54	0.74	0.65-0.89	y	47.6	37.5-62.5	PCB-95/98/102	1.56	1.32-1.78	y	148.7	112.5-225	Analyst: <u>DMS</u>
PCB-50	0.74	0.65-0.89	y	48.9	37.5-62.5	PCB-93	1.64	1.32-1.78	y	60.7	37.5-62.5	
PCB-53	0.76	0.65-0.89	y	50.6	37.5-62.5	PCB-88/91	1.56	1.32-1.78	y	100.2	75.0-125	
PCB-51	0.75	0.65-0.89	y	50.2	37.5-62.5	PCB-121	1.60	1.32-1.78	y	52.4	37.5-62.5	Date: <u>9/24/14</u>
PCB-45	0.74	0.65-0.89	y	48.3	37.5-62.5							
PCB-46	0.74	0.65-0.89	y	48.0	37.5-62.5							

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 9 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140924E1-2

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

ANALYTES	ION	QC	CONC.			ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.
	RATIO	PASS	FOUND	(ng/mL)	RATIO	PASS	FOUND	(ng/mL)	RATIO	PASS	FOUND
PCB-84/92	1.58	1.32-1.78	y	102.2	75.0-125	PCB-140	1.27	1.05-1.43	y	52.3	37.5-62.5
PCB-89	1.58	1.32-1.78	y	51.9	37.5-62.5	PCB-134/143	1.20	1.05-1.43	y	98.5	75.0-125
PCB-90/101	1.60	1.32-1.78	y	104.0	75.0-125	PCB-133/142	1.21	1.05-1.43	y	98.0	75.0-125
PCB-113	1.57	1.32-1.78	y	47.6	37.5-62.5	PCB-131	1.22	1.05-1.43	y	47.1	37.5-62.5
PCB-99	1.61	1.32-1.78	y	56.6	37.5-62.5	PCB-146/165	1.22	1.05-1.43	y	92.1	75.0-125
PCB-119	1.58	1.32-1.78	y	50.4	37.5-62.5	PCB-132/161	1.23	1.05-1.43	y	91.9	75.0-125
PCB-108/112	1.59	1.32-1.78	y	101.0	75.0-125	PCB-153	1.22	1.05-1.43	y	46.0	37.5-62.5
PCB-83	1.58	1.32-1.78	y	48.8	37.5-62.5	PCB-168	1.23	1.05-1.43	y	47.8	37.5-62.5
PCB-97	1.60	1.32-1.78	y	50.8	37.5-62.5	PCB-141	1.24	1.05-1.43	y	47.1	37.5-62.5
PCB-86	1.57	1.32-1.78	y	56.6	37.5-62.5	PCB-137	1.19	1.05-1.43	y	46.8	37.5-62.5
PCB-87/117/125	1.57	1.32-1.78	y	154.4	112.5-225	PCB-130	1.21	1.05-1.43	y	43.5	37.5-62.5
PCB-111/115	1.57	1.32-1.78	y	99.4	75.0-125	PCB-138/163/164	1.21	1.05-1.43	y	140.2	112.5-225
PCB-85/116	1.58	1.32-1.78	y	106.8	75.0-125	PCB-158/160	1.19	1.05-1.43	y	92.3	75.0-125
PCB-120	1.59	1.32-1.78	y	50.5	37.5-62.5	PCB-129	1.21	1.05-1.43	y	49.2	37.5-62.5
PCB-110	1.61	1.32-1.78	y	51.0	37.5-62.5	PCB-166	1.20	1.05-1.43	y	47.0	37.5-62.5
PCB-82	1.60	1.32-1.78	y	54.9	37.5-62.5	PCB-159	1.25	1.05-1.43	y	48.6	37.5-62.5
PCB-124	1.55	1.32-1.78	y	52.3	37.5-62.5	PCB-128/162	1.21	1.05-1.43	y	96.7	75.0-125
PCB-107/109	1.59	1.32-1.78	y	104.5	75.0-125	PCB-167	1.20	1.05-1.43	y	47.6	37.5-62.5
PCB-123	1.59	1.32-1.78	y	50.5	37.5-62.5	PCB-156	1.19	1.05-1.43	y	48.2	37.5-62.5
PCB-106/118	1.58	1.32-1.78	y	104.0	75.0-125	PCB-157	1.22	1.05-1.43	y	45.3	37.5-62.5
PCB-114	1.59	1.32-1.78	y	52.6	37.5-62.5	PCB-169	1.22	1.05-1.43	y	45.1	37.5-62.5
PCB-122	1.63	1.32-1.78	y	52.6	37.5-62.5	PCB-188	1.04	0.89-1.21	y	48.7	37.5-62.5
PCB-105	1.59	1.32-1.78	y	53.5	37.5-62.5	PCB-184	1.04	0.89-1.21	y	47.7	37.5-62.5
PCB-127	1.65	1.32-1.78	y	52.6	37.5-62.5	PCB-179	1.04	0.89-1.21	y	46.6	37.5-62.5
PCB-126	1.64	1.32-1.78	y	54.9	37.5-62.5	PCB-176	1.06	0.89-1.21	y	44.7	37.5-62.5
PCB-155	1.29	1.05-1.43	y	51.7	37.5-62.5	PCB-186	1.04	0.89-1.21	y	47.5	37.5-62.5
PCB-150	1.27	1.05-1.43	y	52.4	37.5-62.5	PCB-178	1.04	0.89-1.21	y	46.1	37.5-62.5
PCB-152	1.28	1.05-1.43	y	52.6	37.5-62.5	PCB-175	1.04	0.89-1.21	y	45.0	37.5-62.5
PCB-145	1.27	1.05-1.43	y	53.4	37.5-62.5	PCB-182/187	1.06	0.89-1.21	y	91.2	75.0-125
PCB-136	1.29	1.05-1.43	y	53.9	37.5-62.5	PCB-183	1.06	0.89-1.21	y	48.7	37.5-62.5
PCB-148	1.26	1.05-1.43	y	50.2	37.5-62.5	PCB-185	1.07	0.89-1.21	y	51.2	37.5-62.5
PCB-154	1.28	1.05-1.43	y	52.0	37.5-62.5	PCB-174	1.18	0.89-1.21	y	52.5	37.5-62.5
PCB-151	1.28	1.05-1.43	y	51.7	37.5-62.5	PCB-181	0.93	0.89-1.21	y	50.4	37.5-62.5
PCB-135	1.25	1.05-1.43	y	50.9	37.5-62.5	PCB-177	1.04	0.89-1.21	y	50.6	37.5-62.5
PCB-144	1.36	1.05-1.43	y	54.7	37.5-62.5	PCB-171	1.04	0.89-1.21	y	51.3	37.5-62.5
PCB-147	1.21	1.05-1.43	y	53.9	37.5-62.5	PCB-173	1.05	0.89-1.21	y	50.2	37.5-62.5
PCB-139/149	1.28	1.05-1.43	y	106.4	75.0-125	PCB-172	1.04	0.89-1.21	y	49.0	37.5-62.5

Analyst: DMSDate: 9/24/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 9 of

Lab Name: Vista Analytical Laboratory Lab ID: ST140924E1-2 Instrument ID: VG-8

Initial Calibration Date: 6-23-14 ICAL ID: PCVG8-6-23-14 GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	
	RATIO	PASS	FOUND	(ng/mL)	
PCB-192	1.02	0.89-1.21	y	48.8	37.5-62.5
PCB-180	1.05	0.89-1.21	y	48.3	37.5-62.5
PCB-193	1.04	0.89-1.21	y	48.3	37.5-62.5
PCB-191	1.07	0.89-1.21	y	46.7	37.5-62.5
PCB-170	1.04	0.89-1.21	y	48.6	37.5-62.5
PCB-190	1.06	0.89-1.21	y	45.0	37.5-62.5
PCB-189	1.03	0.89-1.21	y	48.5	37.5-62.5
PCB-202	0.90	0.76-1.02	y	49.1	37.5-62.5
PCB-201	0.89	0.76-1.02	y	47.4	37.5-62.5
PCB-204	0.88	0.76-1.02	y	46.5	37.5-62.5
PCB-197	0.88	0.76-1.02	y	46.7	37.5-62.5
PCB-200	0.91	0.76-1.02	y	46.5	37.5-62.5
PCB-198	0.90	0.76-1.02	y	43.3	37.5-62.5
PCB-199	0.90	0.76-1.02	y	47.4	37.5-62.5
PCB-196/203	0.90	0.76-1.02	y	92.1	75.0-125
PCB-195	0.90	0.76-1.02	y	53.7	37.5-62.5
PCB-194	0.91	0.76-1.02	y	48.8	37.5-62.5
PCB-205	0.91	0.76-1.02	y	51.7	37.5-62.5
PCB-208	1.31	1.14-1.54	y	48.7	37.5-62.5
PCB-207	1.31	1.14-1.54	y	46.4	37.5-62.5
PCB-206	1.29	1.14-1.54	y	47.7	37.5-62.5
PCB-209	1.18	0.99-1.33	y	50.1	37.5-62.5

Analyst: DMSDate: 9/24/14

LABELED 1668C CONTINUING CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

Lab ID: ST140924E1-2

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

Labeled IS	ION				CONC.		Labeled IS	ION				CONC.	
	ABUND.	QC	CONC.	RANGE	FOUND	(ng/mL)		ABUND.	QC	CONC.	RANGE	FOUND	(ng/mL)
13C-PCB-1	3.26	2.66-3.60	Y	134.9	50.0-145		13C-PCB-169	1.27	1.05-1.43	Y	84.4	50 - 145	
13C-PCB-3	3.34	2.66-3.60	Y	132.7	50.0-145		13C-PCB-188	0.47	0.38-0.52	Y	108.1	50 - 145	
13C-PCB-4	1.61	1.33-1.79	Y	104.7	50.0-145		13C-PCB-180	0.46	0.38-0.52	Y	97.2	50 - 145	
13C-PCB-9	1.58	1.33-1.79	Y	102.6	50.0-145		13C-PCB-170	0.46	0.38-0.52	Y	98.9	50 - 145	
13C-PCB-11	1.58	1.33-1.79	Y	100.0	50.0-145		13C-PCB-189	0.47	0.38-0.52	Y	90.0	50 - 145	
13C-PCB-19	1.09	0.88-1.20	Y	112.9	50.0-145		13C-PCB-202	0.92	0.76-1.02	Y	100.7	50 - 145	
13C-PCB-32	1.09	0.88-1.20	Y	111.6	50.0-145		13C-PCB-194	0.91	0.76-1.02	Y	97.0	50 - 145	
13C-PCB-28	1.03	0.88-1.20	Y	108.4	50.0-145		13C-PCB-208	0.76	0.65-0.89	Y	116.9	50 - 145	
13C-PCB-37	1.06	0.88-1.20	Y	100.0	50.0-145		13C-PCB-206	0.78	0.65-0.89	Y	114.6	50 - 145	
13C-PCB-54	0.79	0.65-0.89	Y	101.2	50.0-145		13C-PCB-209	1.21	0.99-1.33	Y	121.2	50 - 145	
13C-PCB-52	0.79	0.65-0.89	Y	101.1	50.0-145								
13C-PCB-47	0.78	0.65-0.89	Y	102.1	50.0-145								
13C-PCB-70	0.78	0.65-0.89	Y	99.6	50.0-145								
13C-PCB-80	0.79	0.65-0.89	Y	98.7	50.0-145								
13C-PCB-81	0.78	0.65-0.89	Y	101.9	50.0-145								
13C-PCB-77	0.78	0.65-0.89	Y	98.1	50.0-145								
13C-PCB-104	1.55	1.32-1.78	Y	99.2	50.0-145								
13C-PCB-95	1.59	1.32-1.78	Y	98.7	50.0-145								
13C-PCB-101	1.63	1.32-1.78	Y	96.8	50.0-145								
13C-PCB-97	1.59	1.32-1.78	Y	100.6	50.0-145								
13C-PCB-123	1.60	1.32-1.78	Y	98.3	50.0-145		13C-PCB-79	0.79	0.65-0.89	Y	99.5	75 - 125	
13C-PCB-118	1.62	1.32-1.78	Y	96.3	50.0-145		13C-PCB-178	0.47	0.38-0.52	Y	102.6	75 - 125	
13C-PCB-114	1.58	1.32-1.78	Y	85.8	50.0-145								
13C-PCB-105	1.52	1.32-1.78	Y	79.5	50.0-145								
13C-PCB-127	1.57	1.32-1.78	Y	81.0	50.0-145								
13C-PCB-126	1.59	1.32-1.78	Y	74.7	50.0-145								
13C-PCB-155	1.27	1.05-1.43	Y	91.9	50.0-145								
13C-PCB-153	1.24	1.05-1.43	Y	98.8	50.0-145								
13C-PCB-141	1.24	1.05-1.43	Y	95.1	50.0-145								
13C-PCB-138	1.25	1.05-1.43	Y	94.3	50.0-145								
13C-PCB-159	1.25	1.05-1.43	Y	93.4	50.0-145								
13C-PCB-167	1.25	1.05-1.43	Y	95.1	50.0-145								
13C-PCB-156	1.27	1.05-1.43	Y	90.6	50.0-145								
13C-PCB-157	1.30	1.05-1.43	Y	92.6	50.0-145								

Analyst: DMSDate: 9/24/14

NATIVE PCB CONTINUING CALIBRATION VERIFICATION

Page 9 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140924E1-2

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

ANALYTES	ION	QC	CONC.			ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.
	RATIO	PASS	FOUND	(ng/mL)	RATIO	PASS	FOUND	(ng/mL)	RATIO	PASS	FOUND
PCB-1	2.97	2.66-3.60	y	42.2	35.0-65.0	PCB-52/69	0.75	0.65-0.89	y	99.2	70.0-130
PCB-2	2.98	2.66-3.60	y	41.6	35.0-65.0	PCB-73	0.74	0.65-0.89	y	47.8	35.0-65.0
PCB-3	2.94	2.66-3.60	y	41.7	35.0-65.0	PCB-43/49	0.73	0.65-0.89	y	96.4	70.0-130
PCB-4/10	1.61	1.33-1.79	y	195.3	140-260	PCB-47	0.74	0.65-0.89	y	51.1	35.0-65.0
PCB-7/9	1.61	1.33-1.79	y	194.9	140-260	PCB-48/75	0.75	0.65-0.89	y	94.9	70.0-130
PCB-6	1.61	1.33-1.79	y	94.1	70.0-130	PCB-65	0.74	0.65-0.89	y	48.5	35.0-65.0
PCB-5/8	1.61	1.33-1.79	y	193.8	140-260	PCB-62	0.75	0.65-0.89	y	49.4	35.0-65.0
PCB-14	1.62	1.33-1.79	y	101.3	70.0-130	PCB-44	0.75	0.65-0.89	y	48.7	35.0-65.0
PCB-11	1.62	1.33-1.79	y	99.3	70.0-130	PCB-42/59	0.75	0.65-0.89	y	97.4	70.0-130
PCB-12/13	1.62	1.33-1.79	y	194.2	140-260	PCB-41/64/71/72	0.74	0.65-0.89	y	192.0	140-260
PCB-15	1.63	1.33-1.79	y	96.7	70.0-130	PCB-68	0.75	0.65-0.89	y	48.0	35.0-65.0
PCB-19	1.06	0.88-1.20	y	49.4	35.0-65.0	PCB-40	0.76	0.65-0.89	y	50.6	35.0-65.0
PCB-30	1.05	0.88-1.20	y	49.2	35.0-65.0	PCB-57	0.74	0.65-0.89	y	49.8	35.0-65.0
PCB-18	1.05	0.88-1.20	y	50.9	35.0-65.0	PCB-67	0.74	0.65-0.89	y	45.8	35.0-65.0
PCB-17	1.05	0.88-1.20	y	50.0	35.0-65.0	PCB-58	0.75	0.65-0.89	y	50.2	35.0-65.0
PCB-24/27	1.05	0.88-1.20	y	99.7	70.0-130	PCB-63	0.75	0.65-0.89	y	47.6	35.0-65.0
PCB-16/32	1.05	0.88-1.20	y	99.1	70.0-130	PCB-74	0.76	0.65-0.89	y	47.3	35.0-65.0
PCB-34	1.01	0.88-1.20	y	41.5	35.0-65.0	PCB-61/70	0.75	0.65-0.89	y	98.9	70.0-130
PCB-23	0.99	0.88-1.20	y	44.2	35.0-65.0	PCB-76/66	0.75	0.65-0.89	y	94.4	70.0-130
PCB-29	1.00	0.88-1.20	y	44.4	35.0-65.0	PCB-80	0.74	0.65-0.89	y	50.8	35.0-65.0
PCB-26	1.01	0.88-1.20	y	46.2	35.0-65.0	PCB-55	0.75	0.65-0.89	y	49.6	35.0-65.0
PCB-25	1.00	0.88-1.20	y	46.1	35.0-65.0	PCB-56/60	0.74	0.65-0.89	y	97.8	70.0-130
PCB-31	1.01	0.88-1.20	y	44.5	35.0-65.0	PCB-79	0.76	0.65-0.89	y	50.5	35.0-65.0
PCB-28	1.01	0.88-1.20	y	47.6	35.0-65.0	PCB-78	0.74	0.65-0.89	y	47.8	35.0-65.0
PCB-20/21/33	1.00	0.88-1.20	y	137.5	105-195	PCB-81	0.76	0.65-0.89	y	48.6	35.0-65.0
PCB-22	1.01	0.88-1.20	y	46.1	35.0-65.0	PCB-77	0.78	0.65-0.89	y	49.2	35.0-65.0
PCB-36	0.99	0.88-1.20	y	48.7	35.0-65.0	PCB-104	1.57	1.32-1.78	y	52.4	35.0-65.0
PCB-39	0.99	0.88-1.20	y	48.2	35.0-65.0	PCB-96	1.57	1.32-1.78	y	51.4	35.0-65.0
PCB-38	0.99	0.88-1.20	y	48.1	35.0-65.0	PCB-103	1.58	1.32-1.78	y	50.0	35.0-65.0
PCB-35	0.99	0.88-1.20	y	52.5	35.0-65.0	PCB-100	1.57	1.32-1.78	y	50.5	35.0-65.0
PCB-37	1.01	0.88-1.20	y	48.7	35.0-65.0	PCB-94	1.57	1.32-1.78	y	50.5	35.0-65.0
PCB-54	0.74	0.65-0.89	y	47.6	35.0-65.0	PCB-95/98/102	1.56	1.32-1.78	y	148.7	105-195
PCB-50	0.74	0.65-0.89	y	48.9	35.0-65.0	PCB-93	1.64	1.32-1.78	y	60.7	35.0-65.0
PCB-53	0.76	0.65-0.89	y	50.6	35.0-65.0	PCB-88/91	1.56	1.32-1.78	y	100.2	70.0-130
PCB-51	0.75	0.65-0.89	y	50.2	35.0-65.0	PCB-121	1.60	1.32-1.78	y	52.4	35.0-65.0
PCB-45	0.74	0.65-0.89	y	48.3	35.0-65.0						Date: <u>9/24/14</u>
PCB-46	0.74	0.65-0.89	y	48.0	35.0-65.0						Analyst: <u>DMS</u>

NATIVE PCB CONTINUING CALIBRATION VERIFICATION

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Lab Name: Vista Analytical Laboratory

Lab ID: ST140924E1-2

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

ANALYTES	ION	QC	CONC.			ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.
	RATIO	PASS	FOUND	(ng/mL)	RATIO	PASS	FOUND	(ng/mL)	RATIO	PASS	FOUND
PCB-84/92	1.58	1.32-1.78	y	102.2	70.0-130	PCB-140	1.27	1.05-1.43	y	52.3	35.0-65.0
PCB-89	1.58	1.32-1.78	y	51.9	35.0-65.0	PCB-134/143	1.20	1.05-1.43	y	98.5	70.0-130
PCB-90/101	1.60	1.32-1.78	y	104.0	70.0-130	PCB-133/142	1.21	1.05-1.43	y	98.0	70.0-130
PCB-113	1.57	1.32-1.78	y	47.6	35.0-65.0	PCB-131	1.22	1.05-1.43	y	47.1	35.0-65.0
PCB-99	1.61	1.32-1.78	y	56.6	35.0-65.0	PCB-146/165	1.22	1.05-1.43	y	92.1	70.0-130
PCB-119	1.58	1.32-1.78	y	50.4	35.0-65.0	PCB-132/161	1.23	1.05-1.43	y	91.9	70.0-130
PCB-108/112	1.59	1.32-1.78	y	101.0	70.0-130	PCB-153	1.22	1.05-1.43	y	46.0	35.0-65.0
PCB-83	1.58	1.32-1.78	y	48.8	35.0-65.0	PCB-168	1.23	1.05-1.43	y	47.8	35.0-65.0
PCB-97	1.60	1.32-1.78	y	50.8	35.0-65.0	PCB-141	1.24	1.05-1.43	y	47.1	35.0-65.0
PCB-86	1.57	1.32-1.78	y	56.6	35.0-65.0	PCB-137	1.19	1.05-1.43	y	46.8	35.0-65.0
PCB-87/117/125	1.57	1.32-1.78	y	154.4	105-195	PCB-130	1.21	1.05-1.43	y	43.5	35.0-65.0
PCB-111/115	1.57	1.32-1.78	y	99.4	70.0-130	PCB-138/163/164	1.21	1.05-1.43	y	140.2	105-195
PCB-85/116	1.58	1.32-1.78	y	106.8	70.0-130	PCB-158/160	1.19	1.05-1.43	y	92.3	70.0-130
PCB-120	1.59	1.32-1.78	y	50.5	35.0-65.0	PCB-129	1.21	1.05-1.43	y	49.2	35.0-65.0
PCB-110	1.61	1.32-1.78	y	51.0	35.0-65.0	PCB-166	1.20	1.05-1.43	y	47.0	35.0-65.0
PCB-82	1.60	1.32-1.78	y	54.9	35.0-65.0	PCB-159	1.25	1.05-1.43	y	48.6	35.0-65.0
PCB-124	1.55	1.32-1.78	y	52.3	35.0-65.0	PCB-128/162	1.21	1.05-1.43	y	96.7	70.0-130
PCB-107/109	1.59	1.32-1.78	y	104.5	70.0-130	PCB-167	1.20	1.05-1.43	y	47.6	35.0-65.0
PCB-123	1.59	1.32-1.78	y	50.5	35.0-65.0	PCB-156	1.19	1.05-1.43	y	48.2	35.0-65.0
PCB-106/118	1.58	1.32-1.78	y	104.0	70.0-130	PCB-157	1.22	1.05-1.43	y	45.3	35.0-65.0
PCB-114	1.59	1.32-1.78	y	52.6	35.0-65.0	PCB-169	1.22	1.05-1.43	y	45.1	35.0-65.0
PCB-122	1.63	1.32-1.78	y	52.6	35.0-65.0	PCB-188	1.04	0.89-1.21	y	48.7	35.0-65.0
PCB-105	1.59	1.32-1.78	y	53.5	35.0-65.0	PCB-184	1.04	0.89-1.21	y	47.7	35.0-65.0
PCB-127	1.65	1.32-1.78	y	52.6	35.0-65.0	PCB-179	1.04	0.89-1.21	y	46.6	35.0-65.0
PCB-126	1.64	1.32-1.78	y	54.9	35.0-65.0	PCB-176	1.06	0.89-1.21	y	44.7	35.0-65.0
PCB-155	1.29	1.05-1.43	y	51.7	35.0-65.0	PCB-186	1.04	0.89-1.21	y	47.5	35.0-65.0
PCB-150	1.27	1.05-1.43	y	52.4	35.0-65.0	PCB-178	1.04	0.89-1.21	y	46.1	35.0-65.0
PCB-152	1.28	1.05-1.43	y	52.6	35.0-65.0	PCB-175	1.04	0.89-1.21	y	45.0	35.0-65.0
PCB-145	1.27	1.05-1.43	y	53.4	35.0-65.0	PCB-182/187	1.06	0.89-1.21	y	91.2	70.0-130
PCB-136	1.29	1.05-1.43	y	53.9	35.0-65.0	PCB-183	1.06	0.89-1.21	y	48.7	35.0-65.0
PCB-148	1.26	1.05-1.43	y	50.2	35.0-65.0	PCB-185	1.07	0.89-1.21	y	51.2	35.0-65.0
PCB-154	1.28	1.05-1.43	y	52.0	35.0-65.0	PCB-174	1.18	0.89-1.21	y	52.5	35.0-65.0
PCB-151	1.28	1.05-1.43	y	51.7	35.0-65.0	PCB-181	0.93	0.89-1.21	y	50.4	35.0-65.0
PCB-135	1.25	1.05-1.43	y	50.9	35.0-65.0	PCB-177	1.04	0.89-1.21	y	50.6	35.0-65.0
PCB-144	1.36	1.05-1.43	y	54.7	35.0-65.0	PCB-171	1.04	0.89-1.21	y	51.3	35.0-65.0
PCB-147	1.21	1.05-1.43	y	53.9	35.0-65.0	PCB-173	1.05	0.89-1.21	y	50.2	35.0-65.0
PCB-139/149	1.28	1.05-1.43	y	106.4	70.0-130	PCB-172	1.04	0.89-1.21	y	49.0	35.0-65.0

Analyst: DMSDate: 9/24/14

NATIVE PCB CONTINUING CALIBRATION VERIFICATION

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Lab Name: Vista Analytical Laboratory

Lab ID: ST140924E1-2

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	
	RATIO	PASS	FOUND	(ng/mL)	
PCB-192	1.02	0.89-1.21	y	48.8	35.0-65.0
PCB-180	1.05	0.89-1.21	y	48.3	35.0-65.0
PCB-193	1.04	0.89-1.21	y	48.3	35.0-65.0
PCB-191	1.07	0.89-1.21	y	46.7	35.0-65.0
PCB-170	1.04	0.89-1.21	y	48.6	35.0-65.0
PCB-190	1.06	0.89-1.21	y	45.0	35.0-65.0
PCB-189	1.03	0.89-1.21	y	48.5	35.0-65.0
PCB-202	0.90	0.76-1.02	y	49.1	35.0-65.0
PCB-201	0.89	0.76-1.02	y	47.4	35.0-65.0
PCB-204	0.88	0.76-1.02	y	46.5	35.0-65.0
PCB-197	0.88	0.76-1.02	y	46.7	35.0-65.0
PCB-200	0.91	0.76-1.02	y	46.5	35.0-65.0
PCB-198	0.90	0.76-1.02	y	43.3	35.0-65.0
PCB-199	0.90	0.76-1.02	y	47.4	35.0-65.0
PCB-196/203	0.90	0.76-1.02	y	92.1	70.0-130
PCB-195	0.90	0.76-1.02	y	53.7	35.0-65.0
PCB-194	0.91	0.76-1.02	y	48.8	35.0-65.0
PCB-205	0.91	0.76-1.02	y	51.7	35.0-65.0
PCB-208	1.31	1.14-1.54	y	48.7	35.0-65.0
PCB-207	1.31	1.14-1.54	y	46.4	35.0-65.0
PCB-206	1.29	1.14-1.54	y	47.7	35.0-65.0
PCB-209	1.18	0.99-1.34	y	50.1	35.0-65.0

Analyst: DmsDate: 9/24/14

LABELED 1668A CONTINUING CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

Lab ID: ST140924E1-2

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140924E1 S#2 Analysis Date: 24-SEP-14 Time: 12:13:31

LABELED IS	ION				ION						
	ABUND.	QC	CONC.	RANGE	ABUND.	QC	CONC.	RANGE			
	RATIO	LIMITS	PASS	FOUND	(ng/mL)	LABELED IS	RATIO	LIMITS	PASS	FOUND	(ng/mL)
13C-PCB-1	3.26	2.66-3.60	Y	134.9	50.0-150	13C-PCB-169	1.27	1.05-1.43	Y	84.4	50 - 150
13C-PCB-3	3.34	2.66-3.60	Y	132.7	50.0-150	13C-PCB-188	0.47	0.38-0.52	Y	108.1	50 - 150
13C-PCB-4	1.61	1.33-1.79	Y	104.7	50.0-150	13C-PCB-180	0.46	0.38-0.52	Y	97.2	50 - 150
13C-PCB-9	1.58	1.33-1.79	Y	102.6	50.0-150	13C-PCB-170	0.46	0.38-0.52	Y	98.9	50 - 150
13C-PCB-11	1.58	1.33-1.79	Y	100.0	50.0-150	13C-PCB-189	0.47	0.38-0.52	Y	90.0	50 - 150
13C-PCB-19	1.09	0.88-1.20	Y	112.9	50.0-150	13C-PCB-202	0.92	0.76-1.02	Y	100.7	50 - 150
13C-PCB-32	1.09	0.88-1.20	Y	111.6	50.0-150	13C-PCB-194	0.91	0.76-1.02	Y	97.0	50 - 150
13C-PCB-28	1.03	0.88-1.20	Y	108.4	50.0-150	13C-PCB-208	0.76	0.65-0.89	Y	116.9	50 - 150
13C-PCB-37	1.06	0.88-1.20	Y	100.0	50.0-150	13C-PCB-206	0.78	0.65-0.89	Y	114.6	50 - 150
13C-PCB-54	0.79	0.65-0.89	Y	101.2	50.0-150	13C-PCB-209	1.21	0.99-1.33	Y	121.2	50 - 150
13C-PCB-52	0.79	0.65-0.89	Y	101.1	50.0-150						
13C-PCB-47	0.78	0.65-0.89	Y	102.1	50.0-150						
13C-PCB-70	0.78	0.65-0.89	Y	99.6	50.0-150						
13C-PCB-80	0.79	0.65-0.89	Y	98.7	50.0-150						
13C-PCB-81	0.78	0.65-0.89	Y	101.9	50.0-150						
13C-PCB-77	0.78	0.65-0.89	Y	98.1	50.0-150						
13C-PCB-104	1.55	1.32-1.78	Y	99.2	50.0-150						
13C-PCB-95	1.59	1.32-1.78	Y	98.7	50.0-150						
13C-PCB-101	1.63	1.32-1.78	Y	96.8	50.0-150	CRS vs. RS					
13C-PCB-97	1.59	1.32-1.78	Y	100.6	50.0-150						
13C-PCB-123	1.60	1.32-1.78	Y	98.3	50.0-150	13C-PCB-79	0.79	0.65-0.89	Y	99.5	60 - 130
13C-PCB-118	1.62	1.32-1.78	Y	96.3	50.0-150	13C-PCB-178	0.47	0.38-0.52	Y	102.6	60 - 130
13C-PCB-114	1.58	1.32-1.78	Y	85.8	50.0-150						
13C-PCB-105	1.52	1.32-1.78	Y	79.5	50.0-150	PS vs. IS					
13C-PCB-127	1.57	1.32-1.78	Y	81.0	50.0-150						
13C-PCB-126	1.59	1.32-1.78	Y	74.7	50.0-150	13C-PCB-79	0.79	0.65-0.89	Y	97.6	60 - 130
13C-PCB-155	1.27	1.05-1.43	Y	91.9	50.0-150	13C-PCB-178	0.47	0.38-0.52	Y	105.5	60 - 130
13C-PCB-153	1.24	1.05-1.43	Y	98.8	50.0-150						
13C-PCB-141	1.24	1.05-1.43	Y	95.1	50.0-150						
13C-PCB-138	1.25	1.05-1.43	Y	94.3	50.0-150						
13C-PCB-159	1.25	1.05-1.43	Y	93.4	50.0-150						
13C-PCB-167	1.25	1.05-1.43	Y	95.1	50.0-150						
13C-PCB-156	1.27	1.05-1.43	Y	90.6	50.0-150						
13C-PCB-157	1.30	1.05-1.43	Y	92.6	50.0-150						

Analyst: DmsDate: 9/24/14

Client ID: PCB CS3 14F1302
 Lab ID: ST140924E1-2

Filename: 140924E1 S:2 Acq:24-SEP-14 12:13:31 ConCal: ST140924E1-2
 GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	1.24e+08	2.97	y	1.19	16:14	1.001	0.996-1.006	42.1606
PCB-2	1.24e+08	2.98	y	1.18	18:37	0.988	0.984-0.994	41.6252
PCB-3	1.50e+08	2.94	y	1.43	18:51	1.001	0.996-1.006	41.7083
PCB-4/10	3.92e+08	1.61	y	1.57	20:13	1.003	0.997-1.007	195.300
PCB-7/9	4.53e+08	1.61	y	1.21	21:59	0.868	0.866-0.874	194.903
PCB-6	2.36e+08	1.61	y	1.30	22:38	0.894	0.890-0.899	94.0821
PCB-5/8	4.28e+08	1.61	y	1.15	23:03	0.910	0.907-0.917	193.830
PCB-14	2.20e+08	1.62	y	1.11	24:09	0.954	0.949-0.959	101.288
PCB-11	2.11e+08	1.62	y	1.09	25:20	1.000	0.995-1.005	99.2970
PCB-12/13	4.53e+08	1.62	y	1.19	25:44	1.016	1.011-1.021	194.230
PCB-15	2.42e+08	1.63	y	1.28	26:03	1.029	1.023-1.033	96.7477
PCB-19	6.45e+07	1.06	y	1.04	24:20	1.001	0.996-1.006	49.3984
PCB-30	1.05e+08	1.05	y	1.71	25:13	1.037	1.032-1.042	49.1649
PCB-18	7.38e+07	1.05	y	0.78	25:58	0.954	0.949-0.959	50.9414
PCB-17	8.54e+07	1.05	y	0.92	26:09	0.960	0.956-0.966	49.9925
PCB-24/27	2.20e+08	1.05	y	1.19	26:43	0.981	0.977-0.987	99.6977
- PCB-16/32	1.73e+08	1.05	y	0.94	27:14	1.000	0.995-1.005	99.1490
- PCB-34	7.85e+07	1.01	y	1.14	28:02	0.961	0.955-0.965	41.4903
PCB-23	9.41e+07	0.99	y	1.28	28:07	0.963	0.959-0.969	44.1561
PCB-29	7.99e+07	1.00	y	1.08	28:22	0.972	0.967-0.977	44.3991
PCB-26	9.28e+07	1.01	y	1.21	28:35	0.979	0.974-0.984	46.1622
PCB-25	9.69e+07	1.00	y	1.26	28:44	0.985	0.979-0.989	46.0855
PCB-31	9.53e+07	1.01	y	1.28	29:05	0.997	0.992-1.002	44.5393
PCB-28	1.36e+08	1.01	y	1.71	29:12	1.001	0.995-1.005	47.6113
PCB-20/21/33	2.48e+08	1.00	y	1.08	29:49	1.022	1.017-1.027	137.456
PCB-22	9.29e+07	1.01	y	1.21	30:16	1.037	1.032-1.042	46.1323
PCB-36	7.71e+07	0.99	y	1.14	30:52	0.934	0.928-0.938	48.7284
PCB-39	7.46e+07	0.99	y	1.12	31:21	0.948	0.943-0.953	48.2468
PCB-38	7.99e+07	0.99	y	1.20	32:07	0.971	0.966-0.976	48.0689
PCB-35	8.96e+07	0.99	y	1.23	32:38	0.987	0.982-0.992	52.4920
PCB-37	8.30e+07	1.01	y	1.23	33:04	1.000	0.995-1.005	48.7318
PCB-54	7.46e+07	0.74	y	1.10	28:05	1.001	0.996-1.006	47.5959
PCB-50	6.13e+07	0.74	y	0.88	29:15	1.042	1.037-1.047	48.9121
PCB-53	6.08e+07	0.76	y	1.06	29:54	0.946	0.942-0.952	50.6207
PCB-51	5.62e+07	0.75	y	0.99	30:14	0.957	0.952-0.962	50.2429
PCB-45	4.71e+07	0.74	y	0.86	30:40	0.971	0.966-0.976	48.3443
PCB-46	4.58e+07	0.74	y	0.85	31:09	0.986	0.981-0.991	48.0155

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations by Analyst: <u>DMS</u>	Reviewed by Analyst: <u>gj</u>
Date: <u>9/24/14</u>	Date: <u>9/25/14</u>

Client ID: PCB CS3 14F1302

Lab ID: ST140924E1-2

Filename: 140924E1 S:2 Acq:24-SEP-14 12:13:31 ConCal: ST140924E1-2
 GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	8.92e+07	1.60	y	1.10	37:36	1.000	0.995-1.005	103.993	PCB-133/142	8.02e+07	1.21	y	0.82	42:33	0.982	0.977-0.987	98.0435
PCB-113	5.23e+07	1.57	y	1.41	37:50	1.006	1.002-1.012	47.5616	PCB-131	4.27e+07	1.22	y	0.91	42:42	0.986	0.981-0.991	47.1345
PCB-99	5.89e+07	1.61	y	1.34	37:56	1.009	1.004-1.014	56.6103	PCB-146/165	1.15e+08	1.22	y	1.25	42:55	0.991	0.986-0.996	92.1448
PCB-119	5.62e+07	1.58	y	1.53	38:24	0.987	0.982-0.992	50.3867	PCB-132/161	1.01e+08	1.23	y	1.10	43:10	0.997	0.992-1.002	91.8828
PCB-108/112	9.41e+07	1.59	y	1.28	38:33	0.991	0.986-0.996	100.986	PCB-153	5.74e+07	1.22	y	1.25	43:20	1.000	0.995-1.005	46.0184
PCB-83	5.40e+07	1.58	y	1.52	38:44	0.996	0.990-1.000	48.8367	PCB-168	6.92e+07	1.23	y	1.45	43:33	1.005	1.001-1.011	47.8439
PCB-97	4.37e+07	1.60	y	1.18	38:55	1.000	0.995-1.005	50.8336	PCB-141	4.60e+07	1.24	y	1.09	44:04	1.000	0.995-1.005	47.0579
PCB-86	3.47e+07	1.57	y	0.84	39:03	1.004	0.999-1.009	56.5749	PCB-137	4.47e+07	1.19	y	1.06	44:27	1.009	1.004-1.014	46.7725
B-87/117/125	1.74e+08	1.57	y	1.55	39:11	1.007	1.002-1.012	154.357	PCB-130	3.78e+07	1.21	y	0.96	44:34	1.012	1.006-1.016	43.4965
PCB-111/115	1.18e+08	1.57	y	1.63	39:20	1.011	1.006-1.016	99.4499	PCB-138/163/164	1.66e+08	1.21	y	1.29	44:56	1.001	0.996-1.006	140.154
PCB-85/116	1.01e+08	1.58	y	1.30	39:28	1.015	1.010-1.020	106.807	PCB-158/160	1.13e+08	1.19	y	1.34	45:11	1.006	1.001-1.011	92.2698
PCB-120	6.16e+07	1.59	y	1.68	39:43	1.021	1.016-1.026	50.5130	PCB-129	3.84e+07	1.21	y	0.85	45:25	1.012	1.007-1.017	49.2323
PCB-110	5.78e+07	1.61	y	1.56	39:51	1.024	1.020-1.030	51.0190	PCB-166	5.72e+07	1.20	y	1.19	45:53	0.993	0.988-0.998	46.9604
PCB-82	3.76e+07	1.60	y	0.76	40:29	0.977	0.971-0.981	54.9143	PCB-159	5.55e+07	1.25	y	1.11	46:12	1.000	0.996-1.006	48.6342
PCB-124	6.94e+07	1.55	y	1.47	41:09	0.993	0.988-0.998	52.2951	PCB-128/162	1.04e+08	1.21	y	1.05	46:30	1.007	1.002-1.012	96.6833
PCB-107/109	1.25e+08	1.59	y	1.32	41:18	0.996	0.991-1.001	104.487	PCB-167	6.47e+07	1.20	y	1.20	46:53	1.000	0.995-1.005	47.6147
PCB-123	5.32e+07	1.59	y	1.17	41:28	1.000	0.996-1.006	50.4902	PCB-156	5.67e+07	1.19	y	1.14	48:10	1.000	0.996-1.006	48.2253
- PCB-106/118	1.16e+08	1.58	y	1.17	41:41	1.001	0.996-1.006	104.038	PCB-157	5.84e+07	1.22	y	1.16	48:26	1.000	0.995-1.005	45.2849
- PCB-114	7.02e+07	1.59	y	1.30	42:19	1.000	0.995-1.005	52.5711	PCB-169	4.82e+07	1.22	y	1.12	50:35	1.000	0.995-1.005	45.1462
PCB-122	6.08e+07	1.63	y	1.12	42:27	1.003	0.999-1.009	52.6250	PCB-188	6.73e+07	1.04	y	1.58	42:58	1.000	0.996-1.006	48.7404
PCB-105	6.64e+07	1.59	y	1.30	43:11	1.001	0.995-1.005	53.4799	PCB-184	6.81e+07	1.04	y	1.63	43:25	1.011	1.006-1.016	47.7496
PCB-127	7.37e+07	1.65	y	1.33	43:30	1.000	0.996-1.006	52.6305	PCB-179	5.31e+07	1.04	y	1.30	44:12	1.029	1.024-1.034	46.5872
PCB-126	5.58e+07	1.64	y	1.18	45:25	1.000	0.995-1.005	54.8747	PCB-176	5.77e+07	1.06	y	1.48	44:40	1.040	1.035-1.045	44.6974
PCB-155	4.56e+07	1.29	y	1.11	37:09	1.001	0.966-1.006	51.6548	PCB-186	6.04e+07	1.04	y	1.45	45:17	1.054	1.050-1.060	47.5147
PCB-150	4.15e+07	1.27	y	1.00	38:26	1.035	1.030-1.040	52.3889	PCB-178	4.17e+07	1.04	y	1.03	45:46	1.066	1.061-1.071	46.1062
PCB-152	4.66e+07	1.28	y	1.12	38:54	1.047	1.043-1.053	52.6463	PCB-175	3.98e+07	1.04	y	1.01	46:07	1.074	1.069-1.079	45.0198
PCB-145	5.09e+07	1.27	y	1.20	39:21	1.060	1.055-1.065	53.4076	PCB-182/187	9.98e+07	1.06	y	1.25	46:17	1.078	1.073-1.083	91.2208
PCB-136	5.04e+07	1.29	y	1.18	39:40	1.068	1.064-1.074	53.9307	PCB-183	5.14e+07	1.06	y	1.21	46:35	1.085	1.081-1.091	48.6518
PCB-148	2.96e+07	1.26	y	0.74	39:46	1.071	1.066-1.076	50.2491	PCB-185	5.40e+07	1.07	y	1.80	47:16	0.956	0.951-0.961	51.1567
PCB-154	3.54e+07	1.28	y	0.86	40:16	1.084	1.080-1.090	52.0346	PCB-174	4.23e+07	1.18	y	1.38	47:38	0.963	0.958-0.968	52.4538
PCB-151	3.06e+07	1.28	y	0.75	40:54	1.101	1.097-1.107	51.7268	PCB-181	4.08e+07	0.93	y	1.38	47:44	0.965	0.960-0.970	50.4345
PCB-135	3.20e+07	1.25	y	0.79	41:07	1.107	1.103-1.113	50.9113	PCB-177	3.72e+07	1.04	y	1.26	47:54	0.969	0.963-0.973	50.5756
PCB-144	3.30e+07	1.36	y	0.76	41:14	1.110	1.105-1.117	54.6543	PCB-171	4.76e+07	1.04	y	1.58	48:11	0.975	0.970-0.980	51.3309
PCB-147	3.50e+07	1.21	y	0.82	41:22	1.114	1.109-1.121	53.9246	PCB-173	3.26e+07	1.05	y	1.11	48:37	0.983	0.978-0.988	50.1598
PCB-139/149	6.42e+07	1.28	y	0.76	41:38	1.121	1.116-1.128	106.363	PCB-172	4.69e+07	1.04	y	1.63	49:03	0.992	0.987-0.997	49.0444
- PCB-140	3.00e+07	1.27	y	0.72	41:49	1.126	1.121-1.133	52.3271	PCB-192	4.97e+07	1.02	y	1.74	49:16	0.996	0.991-1.001	48.7836
- PCB-134/143	9.02e+07	1.20	y	0.92	42:14	0.975	0.970-0.980	98.4785	PCB-180	3.80e+07	1.05	y	1.34	49:28	1.000	0.995-1.005	48.2888

Integrations

by

Analyst: DMSDate: 9/24/14

Client ID: PCB CS3 14F1302
Lab ID: ST140924E1-2

Filename: 140924E1 S:2 Acq:24-SEP-14 12:13:31 ConCal: ST140924E1-2
GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	4.86e+07	1.04	y	1.72	49:40	1.005	0.999-1.009	48.3498
PCB-191	4.63e+07	1.07	y	1.69	49:55	1.010	1.004-1.014	46.6762
PCB-170	3.67e+07	1.04	y	1.60	50:57	1.000	0.995-1.005	48.6118
PCB-190	4.70e+07	1.06	y	2.21	51:07	1.004	0.998-1.008	45.0312
PCB-189	4.27e+07	1.03	y	1.55	52:26	1.000	0.995-1.005	48.5149
PCB-202	3.95e+07	0.90	y	1.08	48:24	1.000	0.995-1.005	49.0799
PCB-201	4.05e+07	0.89	y	1.15	48:53	1.010	1.005-1.015	47.3818
PCB-204	3.94e+07	0.88	y	1.14	49:02	1.014	1.008-1.018	46.5154
PCB-197	3.73e+07	0.88	y	1.07	49:21	1.020	1.015-1.025	46.7416
PCB-200	3.68e+07	0.91	y	1.06	50:13	1.038	1.032-1.044	46.5444
PCB-198	2.43e+07	0.90	y	0.76	51:32	1.065	1.059-1.069	43.2921
PCB-199	2.81e+07	0.90	y	0.80	51:38	1.067	1.061-1.071	47.3962
- PCB-196/203	5.49e+07	0.90	y	0.80	51:55	1.073	1.066-1.076	92.1273
- PCB-195	3.65e+07	0.90	y	1.23	53:04	0.984	0.979-0.989	53.7422
PCB-194	3.28e+07	0.91	y	1.21	53:56	1.000	0.995-1.005	48.8441
PCB-205	4.42e+07	0.91	y	1.54	54:13	1.005	1.001-1.011	51.6929
PCB-208	4.10e+07	1.31	y	0.93	53:13	1.000	0.995-1.005	48.7219
PCB-207	4.55e+07	1.31	y	1.08	53:31	1.006	1.001-1.011	46.3615
PCB-206	2.60e+07	1.29	y	1.02	55:35	1.000	0.995-1.005	47.6987
PCB-209	3.11e+07	1.18	y	1.17	56:55	1.000	0.995-1.005	50.0964

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	3.98e+08	2.97	y	16:14	1.27
Total Di-PCB	2.64e+09	1.61	y	20:13	1.21
Total Tri-PCB	7.21e+08	1.06	y	24:20	1.10
Total Tetra-PCB	1.44e+09	1.01	y	28:02	1.21
Total Penta-PCB	2.90e+09	0.74	y	28:05	1.09
Total Hepta-PCB	2.11e+09	1.57	y	32:46	1.18
Total Octa-PCB	3.58e+08	1.59	y	42:19	1.25
Total Hexa-PCB	5.25e+08	1.29	y	37:09	0.90
Total Nona-PCB	1.47e+09	1.20	y	42:14	1.11
Total Deca-PCB	1.16e+09	1.04	y	42:58	1.42
Total Octa-PCB	3.01e+08	0.90	y	48:24	0.96
Total Nonna-PCB	1.15e+08	1.31	y	53:04	1.33
Total Deca-PCB	3.11e+07	1.18	y	56:55	1.17

Total PCB Conc:10842.3309240

Integrations
by
Analyst: DMS
Date: 9/24/14

Client ID: PCB CS3 14F1302
 Lab ID: ST140924E1-2

Filename: 140924E1 S:2 Acq:24-SEP-14 12:13:31
 GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:1.0000
 ConCal: ST140924E1-2
 EndCAL: NA

Page 9 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	2.45e+08	3.26	y	0.87	16:13	0.623	0.629-0.635	*	135	135	13C-PCB-79	1.46e+08	0.79	y	1.02	37:55	1.029	1.023-1.034	99.5	99.5	
13C-PCB-3	2.52e+08	3.34	y	0.91	18:50	0.723	0.725-0.733	↓	133	133	13C-PCB-178	5.55e+07	0.47	y	0.61	45:45	0.985	0.979-0.990	103	103	
13C-PCB-4	1.28e+08	1.61	y	0.59	20:10	0.774	0.775-0.783	↓	105	105	13C-PCB-178	5.55e+07	0.47	y	0.61	45:45	0.985	0.979-0.990	103	103	
13C-PCB-9	1.92e+08	1.58	y	0.90	21:57	0.843	0.842-0.850		103	103											
13C-PCB-11	1.96e+08	1.58	y	0.94	25:20	0.973	0.968-0.978		100.0	100.0	PS vs. IS										
13C-PCB-19	1.25e+08	1.09	y	0.53	24:19	0.934	0.930-0.940		113	113	13C-PCB-79	1.46e+08	0.79	y	1.10	37:55	0.969	0.964-0.974	97.6	97.6	
13C-PCB-28	1.67e+08	1.03	y	0.93	29:11	1.004	0.999-1.009		108	108	13C-PCB-178	5.55e+07	0.47	y	0.90	45:45	0.925	0.920-0.930	105	105	
13C-PCB-32	1.85e+08	1.09	y	0.80	27:14	1.046	1.040-1.050		112	112	13C-PCB-178	5.55e+07	0.47	y	0.90	45:45	0.925	0.920-0.930	105	105	
13C-PCB-37	1.39e+08	1.06	y	0.84	33:04	1.137	1.131-1.143		100	100											
13C-PCB-47	1.20e+08	0.78	y	0.81	32:06	0.871	0.866-0.874		102	102											
13C-PCB-52	1.13e+08	0.79	y	0.77	31:35	0.857	0.853-0.861		101	101											
13C-PCB-54	1.42e+08	0.79	y	0.97	28:04	0.762	0.758-0.766		101	101											
13C-PCB-70	1.44e+08	0.78	y	1.00	35:37	0.966	0.961-0.971		99.6	99.6											
13C-PCB-77	1.34e+08	0.78	y	0.94	39:44	1.078	1.073-1.083		98.1	98.1											
13C-PCB-80	1.47e+08	0.79	y	1.03	36:02	0.978	0.972-0.982		98.7	98.7											
13C-PCB-81	1.36e+08	0.78	y	0.92	39:08	1.062	1.057-1.067		102	102											
13C-PCB-95	7.51e+07	1.59	y	0.74	35:55	0.913	0.908-0.918		98.7	98.7	RS										
13C-PCB-97	7.28e+07	1.59	y	0.70	38:54	0.989	0.984-0.994		101	101	13C-PCB-15	2.09e+08	1.56	y	1.00	26:02	100				
13C-PCB-101	7.80e+07	1.63	y	0.78	37:36	0.956	0.951-0.961		96.8	96.8	13C-PCB-31	1.65e+08	1.04	y	1.00	29:04	100				
13C-PCB-104	1.02e+08	1.55	y	1.00	32:45	0.833	0.828-0.836		99.2	99.2	13C-PCB-60	1.45e+08	0.78	y	1.00	36:51	100				
13C-PCB-105	9.56e+07	1.52	y	1.37	43:10	0.929	0.924-0.934		79.5	79.5	13C-PCB-111	1.03e+08	1.61	y	1.00	39:20	100				
13C-PCB-114	1.03e+08	1.58	y	1.36	42:18	0.911	0.905-0.915		85.8	85.8	13C-PCB-128	8.81e+07	1.25	y	1.00	46:27	100				
13C-PCB-118	9.49e+07	1.62	y	0.96	41:39	1.059	1.054-1.064		96.3	96.3	13C-PCB-205	7.16e+07	0.90	y	1.00	54:12	100				
13C-PCB-123	9.03e+07	1.60	y	0.89	41:27	1.054	1.050-1.060		98.3	98.3											
13C-PCB-126	8.60e+07	1.59	y	1.31	45:24	0.977	0.972-0.982		74.7	74.7											
13C-PCB-127	1.05e+08	1.57	y	1.47	43:30	0.936	0.931-0.941		81.0	81.0											
13C-PCB-138	9.14e+07	1.25	y	1.10	44:54	0.966	0.961-0.971		94.3	94.3											
13C-PCB-141	9.00e+07	1.24	y	1.07	44:04	0.948	0.943-0.953		95.1	95.1											
13C-PCB-153	9.99e+07	1.24	y	1.15	43:19	0.932	0.927-0.937		98.8	98.8											
13C-PCB-155	7.93e+07	1.27	y	0.84	37:08	0.944	0.939-0.949		91.9	91.9											
13C-PCB-156	1.03e+08	1.27	y	1.30	48:10	1.037	1.032-1.042		90.6	90.6											
13C-PCB-157	1.11e+08	1.30	y	1.36	48:26	1.043	1.038-1.048		92.6	92.6											
13C-PCB-159	1.03e+08	1.25	y	1.25	46:11	0.994	0.989-0.999		93.4	93.4											
13C-PCB-167	1.13e+08	1.25	y	1.35	46:52	1.009	1.004-1.014		95.1	95.1											
13C-PCB-169	9.56e+07	1.27	y	1.29	50:34	1.089	1.083-1.093		84.4	84.4											
13C-PCB-170	4.73e+07	0.46	y	0.54	50:56	1.096	1.089-1.101		98.9	98.9											
13C-PCB-180	5.86e+07	0.46	y	0.68	49:27	1.064	1.060-1.070		97.2	97.2											
13C-PCB-188	8.73e+07	0.47	y	0.92	42:57	0.924	0.919-0.929		108	108											
13C-PCB-189	5.68e+07	0.47	y	0.72	52:25	1.128	1.120-1.132		90.0	90.0											
13C-PCB-194	5.54e+07	0.91	y	0.80	53:55	0.995	0.990-1.000		97.0	97.0											
13C-PCB-202	7.44e+07	0.92	y	0.84	48:23	1.041	1.036-1.046		101	101											
13C-PCB-206	5.33e+07	0.78	y	0.65	55:34	1.025	1.021-1.031		115	115											
13C-PCB-208	9.05e+07	0.76	y	1.08	53:12	0.982	0.976-0.986		117	117											
13C-PCB-209	5.30e+07	1.21	y	0.61	56:54	1.050	1.045-1.055		121	121											

* = RRT limits used for DATA processing only.
 RRT's within 1668A/C method limits.
 DMS 9/24/14

Analyst: DMS
 Date: 9/24/14

Vista Analytical Laboratory - Injection Log Run file: 140924E1 Instrument ID: VG-8 GC Column ID: ZB-1

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140924E1	1	ST140924E1-1	DMS	24-SEP-14	11:09:07	ST140924E1-1	NA
140924E1	2	ST140924E1-2	DMS	24-SEP-14	12:13:31	ST140924E1-2	NA
140924E1	3	SOLVENT BLANK	DMS	24-SEP-14	13:17:56	ST140924E1-2	NA
140924E1	4	1400665-04	DMS	24-SEP-14	14:22:21	ST140924E1-1	NA
140924E1	5	1400667-01	DMS	24-SEP-14	15:26:46	ST140924E1-2	NA
140924E1	6	1400668-03RE1 DL 1:20	DMS	24-SEP-14	16:31:09	ST140924E1-2	NA
140924E1	7	1400659-03RE1 DL 1:20	DMS	24-SEP-14	17:35:34	ST140924E1-2	NA
140924E1	8	1400665-01RE1 DL 1:20	DMS	24-SEP-14	18:39:58	ST140924E1-2	NA
140924E1	9	1400665-02RE1 DL 1:20	DMS	24-SEP-14	19:44:22	ST140924E1-2	NA
140924E1	10	1400665-03RE1 DL 1:20	DMS	24-SEP-14	20:48:44	ST140924E1-2	NA
140924E1	11	1400665-02RE2 DL 1:10	DMS	24-SEP-14	21:53:12	ST140924E1-2	NA
140924E1	12	1400665-03RE2 DL 1:10	DMS	24-SEP-14	22:57:34	ST140924E1-2	NA
140924E1	13	SOLVENT BLANK	DMS	25-SEP-14	00:01:58	ST140924E1-2	NA
140924E1	14	SOLVENT BLANK	DMS	25-SEP-14	01:06:21	ST140924E1-2	NA



CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST140924E 1-2

End Calibration ID: NA

Ion abundance within QC limits?

Beg. End

Concentration within range?

First and last eluters present?

Retention Times within criteria?

DMS
9/24/14

Verification Std. named correctly?
(ST-Year-Month-Day-VG ID)

Forms signed and dated?

Correct ICAL referenced?

Run Log:

-Data file matches Conc Cal ID?

-Correct instrument listed?

-Samples within 12-hour clock?

(y) n

Reviewed by: CM 9/25/14

Initials & Date

Mass resolution > 10,000?

- Method 1614 > 5,000; CARB 429 > 8,000

TCDD/TCDF valleys < 25%?

Beg. End

Peaks integrated correctly?

Manual integrations included?

8280 CS1 Ending Standard

-Ratios within limits

-S/N > 2.5:1

-CS1 within 12-hour clock

Comments: * = Filament failed and lost SIDS connection. Replaced filament and printed END res. check from saved parameters.
DMS 9/25/14

* Ending standard criteria applicable to 8290 only.

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

INITIAL CALIBRATION

Initial Calibration RRF Summary (ICAL) Vista Analytical Laboratory

Run: 140417d1

Analyte:

Cal: 1613VG7-4-17-14

Inst. ID. VG-7

Data filename: 140417D1

	Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
	10	0.25	0.50	2.0	40	200

Name	Mean RRF	*RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
2,3,7,8-TCDD	1.03	4.29 %	1.00	1.02	1.05	0.97	1.07	1.08
1,2,3,7,8-PeCDD	0.84	7.01 %	0.86	0.77	0.79	0.82	0.91	0.90
1,2,3,4,7,8-HxCDD	1.05	6.99 %	1.06	0.98	1.03	0.97	1.14	1.12
1,2,3,6,7,8-HxCDD	1.04	5.13 %	1.04	0.99	1.00	1.01	1.12	1.08
1,2,3,7,8,9-HxCDD	0.90	5.47 %	0.91	0.85	0.88	0.84	0.96	0.93
1,2,3,4,6,7,8-HpCDD	1.01	5.78 %	0.99	0.97	1.01	0.93	1.09	1.06
OCDD	1.04	5.60 %	1.05	0.98	1.01	0.99	1.12	1.10

2,3,7,8-TCDF	0.91	4.29 %	0.90	0.89	0.93	0.86	0.92	0.98
1,2,3,7,8-PeCDF	0.97	4.36 %	0.98	0.91	0.97	0.93	0.99	1.03
2,3,4,7,8-PeCDF	0.94	5.82 %	0.95	0.86	0.93	0.90	1.00	1.00
1,2,3,4,7,8-HxCDF	1.32	6.10 %	1.37	1.23	1.25	1.27	1.42	1.38
1,2,3,6,7,8-HxCDF	1.18	5.66 %	1.20	1.09	1.16	1.12	1.26	1.23
2,3,4,6,7,8-HxCDF	1.23	6.12 %	1.26	1.14	1.17	1.19	1.33	1.28
1,2,3,7,8,9-HxCDF	1.13	5.49 %	1.14	1.07	1.09	1.07	1.20	1.21
1,2,3,4,6,7,8-HpCDF	1.57	4.62 %	1.59	1.50	1.54	1.50	1.66	1.65
1,2,3,4,7,8,9-HpCDF	1.50	4.20 %	1.54	1.44	1.48	1.43	1.58	1.55
OCDF	1.05	6.08 %	1.08	1.00	1.01	0.99	1.13	1.11

13C-2,3,7,8-TCDD	1.06	2.41 %	1.08	1.08	1.06	1.02	1.09	1.05
13C-1,2,3,7,8-PeCDD	1.08	6.99 %	0.99	1.00	1.07	1.13	1.19	1.12
13C-1,2,3,4,7,8-HxCDD	0.74	4.12 %	0.71	0.73	0.71	0.76	0.77	0.78
13C-1,2,3,6,7,8-HxCDD	0.75	3.50 %	0.73	0.74	0.74	0.75	0.74	0.80
13C-1,2,3,7,8,9-HxCDD	0.89	4.91 %	0.84	0.88	0.85	0.91	0.92	0.95
13C-1,2,3,4,6,7,8-HpCDD	0.70	4.36 %	0.67	0.68	0.68	0.72	0.73	0.74
13C-OCDD	0.59	6.31 %	0.54	0.56	0.57	0.61	0.61	0.64
13C-2,3,7,8-TCDF	0.97	3.24 %	1.01	0.93	0.95	0.95	0.96	1.00
13C-1,2,3,7,8-PeCDF	0.99	3.99 %	1.06	0.98	0.94	1.01	0.97	0.98
13C-2,3,4,7,8-PeCDF	1.01	1.58 %	1.02	1.01	1.00	1.00	0.98	1.03
13C-1,2,3,4,7,8-HxCDF	0.94	2.65 %	0.91	0.95	0.92	0.93	0.94	0.98
13C-1,2,3,6,7,8-HxCDF	1.23	3.75 %	1.23	1.25	1.24	1.30	1.16	1.19
13C-2,3,4,6,7,8-HxCDF	1.03	3.01 %	1.02	1.06	1.01	1.03	1.00	1.08
13C-1,2,3,7,8,9-HxCDF	0.89	4.44 %	0.83	0.87	0.86	0.92	0.91	0.93
13C-1,2,3,4,6,7,8-HpCDF	0.71	5.05 %	0.67	0.68	0.69	0.72	0.73	0.76
13C-1,2,3,4,7,8,9-HpCDF	0.64	5.94 %	0.59	0.61	0.65	0.65	0.66	0.69
13C-OCDF	0.76	4.27 %	0.75	0.72	0.74	0.77	0.76	0.81

37Cl-2,3,7,8-TCDD	1.04	7.62 %	1.00	1.00	0.95	1.03	1.14	1.14
13C-1,2,3,4-TCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4-TCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4,6,9-HxCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

MS 4/18/14
AF 4/18/14

Filename: 140417D1 S: 1 Acquired: 17-APR-14 13:06:06
 Run: 140417d1 Analyte: Cal: 1613VG7-4-17-14 Results:
 Sample text: ST140417D1-1 1613 CS3 13L1811

Name	Amount	Resp	RA	RT	RF	RRF
2,3,7,8-TCDD	10.0	3.94e+06	0.75 y	27:04	-	1.00
1,2,3,7,8-PeCDD	50.0	1.55e+07	0.61 y	31:38	-	0.86
1,2,3,4,7,8-HxCDD	50.0	1.44e+07	1.31 y	34:59	-	1.06
1,2,3,6,7,8-HxCDD	50.0	1.46e+07	1.21 y	35:05	-	1.04
1,2,3,7,8,9-HxCDD	50.0	1.47e+07	1.26 y	35:23	-	0.91
1,2,3,4,6,7,8-HpCDD	50.0	1.28e+07	1.02 y	38:51	-	0.99
OCDD	100	2.19e+07	0.88 y	42:09	-	1.05
2,3,7,8-TCDF	10.0	5.01e+06	0.80 y	26:17	-	0.90
1,2,3,7,8-PeCDF	50.0	2.86e+07	1.59 y	30:27	-	0.98
2,3,4,7,8-PeCDF	50.0	2.69e+07	1.57 y	31:21	-	0.95
1,2,3,4,7,8-HxCDF	50.0	2.40e+07	1.31 y	34:04	-	1.37
1,2,3,6,7,8-HxCDF	50.0	2.83e+07	1.30 y	34:12	-	1.20
2,3,4,6,7,8-HxCDF	50.0	2.47e+07	1.30 y	34:48	-	1.26
1,2,3,7,8,9-HxCDF	50.0	1.81e+07	1.33 y	35:46	-	1.14
1,2,3,4,6,7,8-HpCDF	50.0	2.03e+07	1.07 y	37:36	-	1.59
1,2,3,4,7,8,9-HpCDF	50.0	1.73e+07	1.11 y	39:24	-	1.54
OCDF	100	3.12e+07	0.93 y	42:23	-	1.08
Total Tetra-Dioxins	0.00	-	- n	-	-	1.00
TCDD EMPC	0.00	-	- n	-	-	1.00
Total Penta-Dioxins	0.00	-	- n	-	-	0.86
PeCDD EMPC	0.00	-	- n	-	-	0.86
Total Hexa-Dioxins	0.00	-	- n	-	-	1.00
HxCDD EMPC	0.00	-	- n	-	-	1.00
Total Hepta-Dioxins	0.00	-	- n	-	-	0.99
HpCDD EMPC	0.00	-	- n	-	-	0.99
Total Tetra-Furans	0.00	-	- n	-	-	0.90
TCDF EMPC	0.00	-	- n	-	-	0.90
1st Func. Penta-Furans	0.00	-	- n	-	-	0.97
1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.97
Total Penta-Furans	0.00	-	- n	-	-	0.97
PeCDF EMPC	0.00	-	- n	-	-	0.97
Total Hexa-Furans	0.00	-	- n	-	-	1.24
HxCDF EMPC	0.00	-	- n	-	-	1.24
Total Hepta-Furans	0.00	-	- n	-	-	1.57
HpCDF EMPC	0.00	-	- n	-	-	1.57
13C-2,3,7,8-TCDD	100	3.92e+07	0.79 y	27:03	-	1.08
13C-1,2,3,7,8-PeCDD	100	3.60e+07	0.62 y	31:37	-	0.99
13C-1,2,3,4,7,8-HxCDD	100	2.73e+07	1.24 y	34:57	-	0.71

13C-1,2,3,6,7,8-HxCDD	100	2.80e+07	1.24 y	35:04	-	0.73
13C-1,2,3,7,8,9-HxCDD	100	3.22e+07	1.24 y	35:22	-	0.84
13C-1,2,3,4,6,7,8-HpCDD	100	2.58e+07	1.07 y	38:50	-	0.67
13C-OCDD	200	4.16e+07	0.89 y	42:09	-	0.54
13C-2,3,7,8-TCDF	100	5.56e+07	0.77 y	26:16	-	1.01
13C-1,2,3,7,8-PeCDF	100	5.82e+07	1.57 y	30:26	-	1.06
13C-2,3,4,7,8-PeCDF	100	5.64e+07	1.53 y	31:20	-	1.02
13C-1,2,3,4,7,8-HxCDF	100	3.51e+07	0.52 y	34:04	-	0.91
13C-1,2,3,6,7,8-HxCDF	100	4.72e+07	0.52 y	34:11	-	1.23
13C-2,3,4,6,7,8-HxCDF	100	3.93e+07	0.50 y	34:47	-	1.02
13C-1,2,3,7,8,9-HxCDF	100	3.18e+07	0.51 y	35:45	-	0.83
13C-1,2,3,4,6,7,8-HpCDF	100	2.56e+07	0.42 y	37:35	-	0.67
13C-1,2,3,4,7,8,9-HpCDF	100	2.25e+07	0.42 y	39:23	-	0.59

13C-OCDF	200	5.76e+07	0.89 y	42:22	-	0.75
37Cl-2,3,7,8-TCDD	10.0	3.62e+06		27:04	-	1.00
13C-1,2,3,4-TCDD	100	3.62e+07	0.81 y	26:28	-	1.00
13C-1,2,3,4-TCDF	100	5.51e+07	0.76 y	25:00	-	1.00
13C-1,2,3,4,6,9-HxCDF	100	3.84e+07	0.52 y	34:29	-	1.00

Filename: 140417D1 S: 3 Acquired: 17-APR-14 14:43:22

Run: 140417d1 Analyte: Cal: Results:

Sample text: ST140417D1-2 1613 CSO 13L1808

Name	Amount	Resp	RA	RT	RF	RRF
2,3,7,8-TCDD	0.250	9.23e+04	0.66 y	27:07	-	1.02
1,2,3,7,8-PeCDD	1.25	3.23e+05	0.60 y	31:40	-	0.77
1,2,3,4,7,8-HxCDD	1.25	2.98e+05	1.18 y	34:60	-	0.98
1,2,3,6,7,8-HxCDD	1.25	3.04e+05	1.33 y	35:07	-	0.99
1,2,3,7,8,9-HxCDD	1.25	3.11e+05	1.17 y	35:24	-	0.85
1,2,3,4,6,7,8-HpCDD	1.25	2.73e+05	1.05 y	38:52	-	0.97
OCDD	2.50	4.56e+05	0.88 y	42:10	-	0.98
2,3,7,8-TCDF	0.250	1.06e+05	0.73 y	26:20	-	0.89
1,2,3,7,8-PeCDF	1.25	5.74e+05	1.49 y	30:29	-	0.91
2,3,4,7,8-PeCDF	1.25	5.54e+05	1.50 y	31:23	-	0.86
1,2,3,4,7,8-HxCDF	1.25	4.86e+05	1.20 y	34:06	-	1.23
1,2,3,6,7,8-HxCDF	1.25	5.66e+05	1.35 y	34:14	-	1.09
2,3,4,6,7,8-HxCDF	1.25	5.03e+05	1.29 y	34:49	-	1.14
1,2,3,7,8,9-HxCDF	1.25	3.86e+05	1.34 y	35:47	-	1.07
1,2,3,4,6,7,8-HpCDF	1.25	4.21e+05	1.06 y	37:37	-	1.50
1,2,3,4,7,8,9-HpCDF	1.25	3.66e+05	1.13 y	39:25	-	1.44
OCDF	2.50	5.95e+05	0.94 y	42:24	-	1.00
Total Tetra-Dioxins	0.00	-	- n	-	-	1.02
TCDD EMPC	0.00	-	- n	-	-	1.02
Total Penta-Dioxins	0.00	-	- n	-	-	0.77
PeCDD EMPC	0.00	-	- n	-	-	0.77
Total Hexa-Dioxins	0.00	-	- n	-	-	0.93
HxCDD EMPC	0.00	-	- n	-	-	0.93
Total Hepta-Dioxins	0.00	-	- n	-	-	0.97
HpCDD EMPC	0.00	-	- n	-	-	0.97
Total Tetra-Furans	0.00	-	- n	-	-	0.89
TCDF EMPC	0.00	-	- n	-	-	0.89
1st Func. Penta-Furans	0.00	-	- n	-	-	0.89
1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.89
Total Penta-Furans	0.00	-	- n	-	-	0.89
PeCDF EMPC	0.00	-	- n	-	-	0.89
Total Hexa-Furans	0.00	-	- n	-	-	1.13
HxCDF EMPC	0.00	-	- n	-	-	1.13
Total Hepta-Furans	0.00	-	- n	-	-	1.47
HpCDF EMPC	0.00	-	- n	-	-	1.47
13C-2,3,7,8-TCDD	100	3.62e+07	0.80 y	27:06	-	1.08
13C-1,2,3,7,8-PeCDD	100	3.37e+07	0.62 y	31:39	-	1.00
13C-1,2,3,4,7,8-HxCDD	100	2.44e+07	1.26 y	34:59	-	0.73
13C-1,2,3,6,7,8-HxCDD	100	2.47e+07	1.24 y	35:06	-	0.74

13C-1,2,3,7,8,9-HxCDD	100	2.92e+07	1.26 y	35:23	-	0.88
13C-1,2,3,4,6,7,8-HpCDD	100	2.25e+07	1.07 y	38:52	-	0.68
13C-OCDD	200	3.73e+07	0.89 y	42:09	-	0.56
13C-2,3,7,8-TCDF	100	4.79e+07	0.79 y	26:19	-	0.93
13C-1,2,3,7,8-PeCDF	100	5.02e+07	1.58 y	30:28	-	0.98
13C-2,3,4,7,8-PeCDF	100	5.16e+07	1.56 y	31:22	-	1.01
13C-1,2,3,4,7,8-HxCDF	100	3.17e+07	0.52 y	34:05	-	0.95
13C-1,2,3,6,7,8-HxCDF	100	4.16e+07	0.52 y	34:12	-	1.25
13C-2,3,4,6,7,8-HxCDF	100	3.54e+07	0.52 y	34:49	-	1.06
13C-1,2,3,7,8,9-HxCDF	100	2.88e+07	0.52 y	35:46	-	0.87
13C-1,2,3,4,6,7,8-HpCDF	100	2.25e+07	0.42 y	37:37	-	0.68
13C-1,2,3,4,7,8,9-HpCDF	100	2.03e+07	0.43 y	39:25	-	0.61
13C-OCDF	200	4.78e+07	0.90 y	42:23	-	0.72

37C1-2,3,7,8-TCDD	0.250	8.41e+04		27:07	-	1.00
13C-1,2,3,4-TCDD	100	3.35e+07	0.82 y	26:32	-	1.00
13C-1,2,3,4-TCDF	100	5.13e+07	0.76 y	25:04	-	1.00
13C-1,2,3,4,6,9-HxCDF	100	3.33e+07	0.51 y	34:30	-	1.00

Filename: 140417D1 S: 4 Acquired: 17-APR-14 15:31:59

Run: 140417d1 Analyte: Cal:

Results:

Sample text: ST140417D1-3 1613 CS1 13L1809

Name	Amount	Resp	RA	RT	RF	RRF
2,3,7,8-TCDD	0.500	1.95e+05	0.87 y	27:07	-	1.05
1,2,3,7,8-PeCDD	2.50	7.42e+05	0.61 y	31:40	-	0.79
1,2,3,4,7,8-HxCDD	2.50	6.51e+05	1.21 y	34:59	-	1.03
1,2,3,6,7,8-HxCDD	2.50	6.56e+05	1.39 y	35:06	-	1.00
1,2,3,7,8,9-HxCDD	2.50	6.65e+05	1.27 y	35:24	-	0.88
1,2,3,4,6,7,8-HpCDD	2.50	6.09e+05	1.04 y	38:52	-	1.01
OCDD	5.00	1.04e+06	0.85 y	42:10	-	1.01
2,3,7,8-TCDF	0.500	2.39e+05	0.77 y	26:20	-	0.93
1,2,3,7,8-PeCDF	2.50	1.24e+06	1.65 y	30:28	-	0.97
2,3,4,7,8-PeCDF	2.50	1.26e+06	1.62 y	31:23	-	0.93
1,2,3,4,7,8-HxCDF	2.50	1.03e+06	1.25 y	34:05	-	1.25
1,2,3,6,7,8-HxCDF	2.50	1.27e+06	1.34 y	34:13	-	1.16
2,3,4,6,7,8-HxCDF	2.50	1.06e+06	1.36 y	34:49	-	1.17
1,2,3,7,8,9-HxCDF	2.50	8.40e+05	1.34 y	35:47	-	1.09
1,2,3,4,6,7,8-HpCDF	2.50	9.47e+05	1.05 y	37:37	-	1.54
1,2,3,4,7,8,9-HpCDF	2.50	8.59e+05	1.07 y	39:25	-	1.48
OCDF	5.00	1.32e+06	0.92 y	42:23	-	1.01
Total Tetra-Dioxins	0.00	-	- n	-	-	1.05
TCDD EMPC	0.00	-	- n	-	-	1.05
Total Penta-Dioxins	0.00	-	- n	-	-	0.79
PeCDD EMPC	0.00	-	- n	-	-	0.79
Total Hexa-Dioxins	0.00	-	- n	-	-	0.96
HxCDD EMPC	0.00	-	- n	-	-	0.96
Total Hepta-Dioxins	0.00	-	- n	-	-	1.01
HpCDD EMPC	0.00	-	- n	-	-	1.01
Total Tetra-Furans	0.00	-	- n	-	-	0.93
TCDF EMPC	0.00	-	- n	-	-	0.93
1st Func. Penta-Furans	0.00	-	- n	-	-	0.95
1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.95
Total Penta-Furans	0.00	-	- n	-	-	0.95
PeCDF EMPC	0.00	-	- n	-	-	0.95
Total Hexa-Furans	0.00	-	- n	-	-	1.17
HxCDF EMPC	0.00	-	- n	-	-	1.17
Total Hepta-Furans	0.00	-	- n	-	-	1.51
HpCDF EMPC	0.00	-	- n	-	-	1.51
13C-2,3,7,8-TCDD	100	3.72e+07	0.80 y	27:06	-	1.06
13C-1,2,3,7,8-PeCDD	100	3.77e+07	0.62 y	31:38	-	1.07
13C-1,2,3,4,7,8-HxCDD	100	2.52e+07	1.26 y	34:58	-	0.71
13C-1,2,3,6,7,8-HxCDD	100	2.64e+07	1.23 y	35:05	-	0.74

13C-1,2,3,7,8,9-HxCDD	100	3.03e+07	1.24 y	35:23	-	0.85
13C-1,2,3,4,6,7,8-HpCDD	100	2.42e+07	1.05 y	38:51	-	0.68
13C-OCDD	200	4.09e+07	0.89 y	42:09	-	0.57
13C-2,3,7,8-TCDF	100	5.16e+07	0.76 y	26:19	-	0.95
13C-1,2,3,7,8-PeCDF	100	5.10e+07	1.57 y	30:27	-	0.94
13C-2,3,4,7,8-PeCDF	100	5.42e+07	1.58 y	31:22	-	1.00
13C-1,2,3,4,7,8-HxCDF	100	3.28e+07	0.51 y	34:04	-	0.92
13C-1,2,3,6,7,8-HxCDF	100	4.41e+07	0.51 y	34:12	-	1.24
13C-2,3,4,6,7,8-HxCDF	100	3.60e+07	0.51 y	34:48	-	1.01
13C-1,2,3,7,8,9-HxCDF	100	3.07e+07	0.52 y	35:46	-	0.86
13C-1,2,3,4,6,7,8-HpCDF	100	2.46e+07	0.42 y	37:36	-	0.69
13C-1,2,3,4,7,8,9-HpCDF	100	2.33e+07	0.44 y	39:24	-	0.65
13C-OCDF	200	5.26e+07	0.89 y	42:23	-	0.74

37Cl-2,3,7,8-TCDD	0.500	1.66e+05		27:07	-	0.95
13C-1,2,3,4-TCDD	100	3.51e+07	0.80 y	26:31	-	1.00
13C-1,2,3,4-TCDF	100	5.41e+07	0.77 y	25:04	-	1.00
13C-1,2,3,4,6,9-HxCDF	100	3.56e+07	0.52 y	34:29	--	1.00

Filename: 140417D1 S: 5 Acquired: 17-APR-14 16:20:38

Run: 140417d1 Analyte: Cal: Results:

Sample text: ST140417D1-4 1613 CS2 14B1101

	Name	Amount	Resp	RA	RT	RF	RRF
	2,3,7,8-TCDD	2.00	7.67e+05	0.77 y	27:07	-	0.97
	1,2,3,7,8-PeCDD	10.0	3.58e+06	0.63 y	31:39	-	0.82
	1,2,3,4,7,8-HxCDD	10.0	2.87e+06	1.25 y	34:59	-	0.97
	1,2,3,6,7,8-HxCDD	10.0	2.97e+06	1.27 y	35:06	-	1.01
	1,2,3,7,8,9-HxCDD	10.0	3.01e+06	1.27 y	35:24	-	0.84
	1,2,3,4,6,7,8-HpCDD	10.0	2.66e+06	1.02 y	38:52	-	0.93
	OCDD	20.0	4.75e+06	0.90 y	42:10	-	0.99
	2,3,7,8-TCDF	2.00	9.19e+05	0.79 y	26:20	-	0.86
	1,2,3,7,8-PeCDF	10.0	5.34e+06	1.62 y	30:28	-	0.93
	2,3,4,7,8-PeCDF	10.0	5.08e+06	1.55 y	31:23	-	0.90
	1,2,3,4,7,8-HxCDF	10.0	4.67e+06	1.30 y	34:05	-	1.27
	1,2,3,6,7,8-HxCDF	10.0	5.72e+06	1.30 y	34:13	-	1.12
	2,3,4,6,7,8-HxCDF	10.0	4.85e+06	1.31 y	34:49	-	1.19
	1,2,3,7,8,9-HxCDF	10.0	3.86e+06	1.34 y	35:47	-	1.07
	1,2,3,4,6,7,8-HpCDF	10.0	4.23e+06	1.08 y	37:37	-	1.50
	1,2,3,4,7,8,9-HpCDF	10.0	3.67e+06	1.10 y	39:25	-	1.43
	OCDF	20.0	6.03e+06	0.92 y	42:23	-	0.99
	Total Tetra-Dioxins	0.00	-	- n	-	-	0.97
	TCDD EMPC	0.00	-	- n	-	-	0.97
	Total Penta-Dioxins	0.00	-	- n	-	-	0.82
	PeCDD EMPC	0.00	-	- n	-	-	0.82
	Total Hexa-Dioxins	0.00	-	- n	-	-	0.93
	HxCDD EMPC	0.00	-	- n	-	-	0.93
	Total Hepta-Dioxins	0.00	-	- n	-	-	0.93
	HpCDD EMPC	0.00	-	- n	-	-	0.93
	Total Tetra-Furans	0.00	-	- n	-	-	0.86
	TCDF EMPC	0.00	-	- n	-	-	0.86
1st Func.	Penta-Furans	0.00	-	- n	-	-	0.92
1st Func.	PeCDF EMPC	0.00	-	- n	-	-	0.92
	Total Penta-Furans	0.00	-	- n	-	-	0.92
	PeCDF EMPC	0.00	-	- n	-	-	0.92
	Total Hexa-Furans	0.00	-	- n	-	-	1.16
	HxCDF EMPC	0.00	-	- n	-	-	1.16
	Total Hepta-Furans	0.00	-	- n	-	-	1.47
	HpCDF EMPC	0.00	-	- n	-	-	1.47
	13C-2,3,7,8-TCDD	100	3.97e+07	0.80 y	27:06	-	1.02
	13C-1,2,3,7,8-PeCDD	100	4.38e+07	0.63 y	31:38	-	1.13
	13C-1,2,3,4,7,8-HxCDD	100	2.98e+07	1.25 y	34:58	-	0.76
	13C-1,2,3,6,7,8-HxCDD	100	2.95e+07	1.24 y	35:05	-	0.75

13C-1,2,3,7,8,9-HxCDD	100	3.61e+07	1.25 y	35:22	-	0.91
13C-1,2,3,4,6,7,8-HpCDD	100	2.85e+07	1.08 y	38:51	-	0.72
13C-OCDD	200	4.80e+07	0.89 y	42:09	-	0.61
13C-2,3,7,8-TCDF	100	5.34e+07	0.75 y	26:19	-	0.95
13C-1,2,3,7,8-PeCDF	100	5.72e+07	1.57 y	30:27	-	1.01
13C-2,3,4,7,8-PeCDF	100	5.65e+07	1.58 y	31:22	-	1.00
13C-1,2,3,4,7,8-HxCDF	100	3.68e+07	0.51 y	34:04	-	0.93
13C-1,2,3,6,7,8-HxCDF	100	5.12e+07	0.52 y	34:12	-	1.30
13C-2,3,4,6,7,8-HxCDF	100	4.08e+07	0.51 y	34:48	-	1.03
13C-1,2,3,7,8,9-HxCDF	100	3.61e+07	0.51 y	35:45	-	0.92
13C-1,2,3,4,6,7,8-HpCDF	100	2.82e+07	0.43 y	37:36	-	0.72
13C-1,2,3,4,7,8,9-HpCDF	100	2.57e+07	0.43 y	39:24	-	0.65
13C-OCDF	200	6.09e+07	0.88 y	42:23	-	0.77

37C1-2,3,7,8-TCDD	2.00	8.03e+05		27:07	-	1.03	
13C-1,2,3,4-TCDD	100	3.88e+07	0.80	y	26:32	-	1.00
13C-1,2,3,4-TCDF	100	5.65e+07	0.75	y	25:05	-	1.00
13C-1,2,3,4,6,9-HxCDF	100	3.94e+07	0.51	y	34:29	-	1.00

Filename: 140417D1 S: 6 Acquired: 17-APR-14 17:09:17

Run: 140417d1 Analyte: Cal:

Sample text: ST140417D1-5 1613 CS4 13L1812

	Name	Amount	Resp	RA	RT	RF	RRF
2,3,7,8-TCDD		40.0	1.68e+07	0.76 y	27:07	-	1.07
1,2,3,7,8-PeCDD		200	7.77e+07	0.62 y	31:39	-	0.91
1,2,3,4,7,8-HxCDD		200	6.76e+07	1.24 y	34:59	-	1.14
1,2,3,6,7,8-HxCDD		200	6.41e+07	1.26 y	35:06	-	1.12
1,2,3,7,8,9-HxCDD		200	6.81e+07	1.25 y	35:23	-	0.96
1,2,3,4,6,7,8-HpCDD		200	6.15e+07	1.02 y	38:51	-	1.09
OCDD		400	1.05e+08	0.88 y	42:09	-	1.12
2,3,7,8-TCDF		40.0	1.96e+07	0.78 y	26:20	-	0.92
1,2,3,7,8-PeCDF		200	1.07e+08	1.58 y	30:28	-	0.99
2,3,4,7,8-PeCDF		200	1.09e+08	1.58 y	31:22	-	1.00
1,2,3,4,7,8-HxCDF		200	1.03e+08	1.30 y	34:05	-	1.42
1,2,3,6,7,8-HxCDF		200	1.13e+08	1.30 y	34:13	-	1.26
2,3,4,6,7,8-HxCDF		200	1.02e+08	1.30 y	34:49	-	1.33
1,2,3,7,8,9-HxCDF		200	8.45e+07	1.29 y	35:46	-	1.20
1,2,3,4,6,7,8-HpCDF		200	9.37e+07	1.07 y	37:36	-	1.66
1,2,3,4,7,8,9-HpCDF		200	8.09e+07	1.08 y	39:24	-	1.58
OCDF		400	1.33e+08	0.94 y	42:23	-	1.13
Total Tetra-Dioxins		0.00	-	- n	-	-	1.07
TCDD EMPC		0.00	-	- n	-	-	1.07
Total Penta-Dioxins		0.00	-	- n	-	-	0.91
PeCDD EMPC		0.00	-	- n	-	-	0.91
Total Hexa-Dioxins		0.00	-	- n	-	-	1.07
HxCDD EMPC		0.00	-	- n	-	-	1.07
Total Hepta-Dioxins		0.00	-	- n	-	-	1.09
HpCDD EMPC		0.00	-	- n	-	-	1.09
Total Tetra-Furans		0.00	-	- n	-	-	0.92
TCDF EMPC		0.00	-	- n	-	-	0.92
1st Func. Penta-Furans		0.00	-	- n	-	-	0.99
1st Func. PeCDF EMPC		0.00	-	- n	-	-	0.99
Total Penta-Furans		0.00	-	- n	-	-	0.99
PeCDF EMPC		0.00	-	- n	-	-	0.99
Total Hexa-Furans		0.00	-	- n	-	-	1.30
HxCDF EMPC		0.00	-	- n	-	-	1.30
Total Hepta-Furans		0.00	-	- n	-	-	1.62
HpCDF EMPC		0.00	-	- n	-	-	1.62
13C-2,3,7,8-TCDD		100	3.93e+07	0.81 y	27:06	-	1.09
13C-1,2,3,7,8-PeCDD		100	4.28e+07	0.63 y	31:38	-	1.19
13C-1,2,3,4,7,8-HxCDD		100	2.96e+07	1.30 y	34:58	-	0.77
13C-1,2,3,6,7,8-HxCDD		100	2.86e+07	1.17 y	35:05	-	0.74

13C-1,2,3,7,8,9-HxCDD	100	3.54e+07	1.24 y	35:22	-	0.92
13C-1,2,3,4,6,7,8-HpCDD	100	2.81e+07	1.06 y	38:50	-	0.73
13C-OCDD	200	4.69e+07	0.87 y	42:09	-	0.61
13C-2,3,7,8-TCDF	100	5.33e+07	0.75 y	26:19	-	0.96
13C-1,2,3,7,8-PeCDF	100	5.39e+07	1.58 y	30:27	-	0.97
13C-2,3,4,7,8-PeCDF	100	5.48e+07	1.55 y	31:21	-	0.98
13C-1,2,3,4,7,8-HxCDF	100	3.63e+07	0.51 y	34:04	-	0.94
13C-1,2,3,6,7,8-HxCDF	100	4.49e+07	0.51 y	34:12	-	1.16
13C-2,3,4,6,7,8-HxCDF	100	3.84e+07	0.50 y	34:48	-	1.00
13C-1,2,3,7,8,9-HxCDF	100	3.52e+07	0.51 y	35:45	-	0.91
13C-1,2,3,4,6,7,8-HpCDF	100	2.82e+07	0.43 y	37:35	-	0.73
13C-1,2,3,4,7,8,9-HpCDF	100	2.56e+07	0.43 y	39:23	-	0.66
13C-OCDF	200	5.88e+07	0.89 y	42:22	-	0.76

37Cl-2,3,7,8-TCDD	40.0	1.64e+07		27:07	-	1.14
13C-1,2,3,4-TCDD	100	3.61e+07	0.81 y	26:31	-	1.00
13C-1,2,3,4-TCDF	100	5.57e+07	0.77 y	25:04	-	1.00
13C-1,2,3,4,6,9-HxCDF	100	3.85e+07	0.51 y	34:29	-	1.00

Filename: 140417D1 S: 7 Acquired: 17-APR-14 17:57:55
 Run: 140417d1 Analyte: Cal: 1613VG7-4-17-14 Results:
 Sample text: ST140417D1-6 1613 CSS 14B1102

Name	Amount	Resp	RA	RT	RF	RRF
2,3,7,8-TCDD	200	8.19e+07	0.76 y	27:06	-	1.08
1,2,3,7,8-PeCDD	1000	3.65e+08	0.62 y	31:39	-	0.90
1,2,3,4,7,8-HxCDD	1000	3.21e+08	1.31 y	34:59	-	1.12
1,2,3,6,7,8-HxCDD	1000	3.16e+08	1.17 y	35:05	-	1.08
1,2,3,7,8,9-HxCDD	1000	3.25e+08	1.23 y	35:23	-	0.93
1,2,3,4,6,7,8-HpCDD	1000	2.87e+08	1.01 y	38:51	-	1.06
OCDD	2000	5.18e+08	0.89 y	42:09	-	1.10
2,3,7,8-TCDF	200	1.05e+08	0.78 y	26:20	-	0.98
1,2,3,7,8-PeCDF	1000	5.40e+08	1.59 y	30:27	-	1.03
2,3,4,7,8-PeCDF	1000	5.46e+08	1.59 y	31:22	-	1.00
1,2,3,4,7,8-HxCDF	1000	4.98e+08	1.29 y	34:05	-	1.38
1,2,3,6,7,8-HxCDF	1000	5.37e+08	1.30 y	34:12	-	1.23
2,3,4,6,7,8-HxCDF	1000	5.06e+08	1.29 y	34:48	-	1.28
1,2,3,7,8,9-HxCDF	1000	4.10e+08	1.32 y	35:46	-	1.21
1,2,3,4,6,7,8-HpCDF	1000	4.60e+08	1.08 y	37:36	-	1.65
1,2,3,4,7,8,9-HpCDF	1000	3.92e+08	1.09 y	39:24	-	1.55
OCDF	2000	6.63e+08	0.93 y	42:22	-	1.11
Total Tetra-Dioxins	0.00	-	- n	-	-	1.08
TCDD EMPC	0.00	-	- n	-	-	1.08
Total Penta-Dioxins	0.00	-	- n	-	-	0.90
PeCDD EMPC	0.00	-	- n	-	-	0.90
Total Hexa-Dioxins	0.00	-	- n	-	-	1.04
HxCDD EMPC	0.00	-	- n	-	-	1.04
Total Hepta-Dioxins	0.00	-	- n	-	-	1.06
HpCDD EMPC	0.00	-	- n	-	-	1.06
Total Tetra-Furans	0.00	-	- n	-	-	0.98
TCDF EMPC	0.00	-	- n	-	-	0.98
1st Func. Penta-Furans	0.00	-	- n	-	-	1.01
1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.01
Total Penta-Furans	0.00	-	- n	-	-	1.01
PeCDF EMPC	0.00	-	- n	-	-	1.01
Total Hexa-Furans	0.00	-	- n	-	-	1.27
HxCDF EMPC	0.00	-	- n	-	-	1.27
Total Hepta-Furans	0.00	-	- n	-	-	1.60
HpCDF EMPC	0.00	-	- n	-	-	1.60
13C-2,3,7,8-TCDD	100	3.77e+07	0.81 y	27:05	-	1.05
13C-1,2,3,7,8-PeCDD	100	4.04e+07	0.63 y	31:38	-	1.12
13C-1,2,3,4,7,8-HxCDD	100	2.86e+07	1.26 y	34:57	-	0.78
13C-1,2,3,6,7,8-HxCDD	100	2.94e+07	1.25 y	35:04	-	0.80

13C-1,2,3,7,8,9-HxCDD	100	3.49e+07	1.25 y	35:22	-	0.95
13C-1,2,3,4,6,7,8-HpCDF	100	2.71e+07	1.05 y	38:50	-	0.74
13C-OCDD	200	4.71e+07	0.89 y	42:09	-	0.64
13C-2,3,7,8-TCDF	100	5.36e+07	0.77 y	26:13	-	1.00
13C-1,2,3,7,8-PeCDF	100	5.22e+07	1.55 y	30:27	-	0.98
13C-2,3,4,7,8-PeCDF	100	5.48e+07	1.54 y	31:21	-	1.03
13C-1,2,3,4,7,8-HxCDF	100	3.60e+07	0.51 y	34:04	-	0.98
13C-1,2,3,6,7,8-HxCDF	100	4.38e+07	0.52 y	34:11	-	1.19
13C-2,3,4,6,7,8-HxCDF	100	3.95e+07	0.51 y	34:47	-	1.08
13C-1,2,3,7,8,9-HxCDF	100	3.40e+07	0.51 y	35:45	-	0.93
13C-1,2,3,4,6,7,8-HpCDF	100	2.78e+07	0.44 y	37:35	-	0.76
13C-1,2,3,4,7,8,9-HpCDF	100	2.53e+07	0.43 y	39:23	-	0.69
13C-OCDF	200	5.95e+07	0.89 y	42:22	-	0.81

37Cl-2,3,7,8-TCDD	200	8.25e+07		27:06	-	1.14
13C-1,2,3,4-TCDD	100	3.60e+07	0.81 y	26:31	-	1.00
13C-1,2,3,4-TCDF	100	5.34e+07	0.76 y	25:04	-	1.00
13C-1,2,3,4,6,9-HxCDF	100	3.66e+07	0.51 y	34:29	-	1.00

Run: 140417d1

Analyte:

Cal: 1613VG7-4-17-14

Inst. ID. VG-7

Data filename: 140417D1

	Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
	10	0.25	0.50	2.0	40	200

RRT Limits

Name	Lower	Upper	RRT#1	RRT#2	RRT#3	RRT#4	RRT#5	RRT#6
2,3,7,8-TCDD	0.999	-1.002	1.001	1.000	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDD	0.999	-1.002	1.000	1.000	1.001	1.000	1.001	1.001
1,2,3,4,7,8-HxCDD	0.999	-1.001	1.001	1.000	1.001	1.000	1.000	1.001
1,2,3,6,7,8-HxCDD	0.998	-1.004	1.001	1.000	1.000	1.000	1.000	1.001
1,2,3,7,8,9-HxCDD	0.998	-1.004	1.001	1.000	1.000	1.001	1.000	1.000
1,2,3,4,6,7,8-HpCDD	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDD	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
2,3,7,8-TCDF	0.999	-1.003	1.001	1.001	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDF	0.999	-1.002	1.000	1.001	1.001	1.001	1.000	1.000
2,3,4,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8-HxCDF	0.999	-1.001	1.000	1.000	1.001	1.000	1.001	1.001
1,2,3,6,7,8-HxCDF	0.997	-1.005	1.001	1.001	1.000	1.001	1.000	1.000
2,3,4,6,7,8-HxCDF	0.999	-1.001	1.001	1.000	1.001	1.001	1.000	1.001
1,2,3,7,8,9-HxCDF	0.999	-1.001	1.001	1.000	1.000	1.001	1.000	1.000
1,2,3,4,6,7,8-HpCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8,9-HpCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
13C-2,3,7,8-TCDD	0.976	-1.043	1.022	1.022	1.022	1.022	1.022	1.022
13C-1,2,3,7,8-PeCDD	1.000	-1.567	1.195	1.193	1.193	1.193	1.193	1.193
13C-1,2,3,4,7,8-HxCDD	1.002	-1.026	1.014	1.014	1.014	1.014	1.014	1.014
13C-1,2,3,6,7,8-HxCDD	1.007	-1.029	1.017	1.017	1.017	1.017	1.017	1.017
13C-1,2,3,7,8,9-HxCDD	1.014	-1.038	1.026	1.026	1.026	1.026	1.026	1.026
13C-1,2,3,4,6,7,8-HpCDD	1.117	-1.141	1.127	1.126	1.127	1.126	1.127	1.127
13C-OCDD	1.085	-1.365	1.222	1.222	1.222	1.222	1.222	1.222
13C-2,3,7,8-TCDF	0.923	-1.103	0.992	0.992	0.992	0.992	0.992	0.992
13C-1,2,3,7,8-PeCDF	1.000	-1.425	1.150	1.148	1.149	1.148	1.148	1.148
13C-2,3,4,7,8-PeCDF	1.011	-1.526	1.184	1.183	1.183	1.182	1.183	1.183
13C-1,2,3,4,7,8-HxCDF	0.975	-1.001	0.988	0.988	0.988	0.988	0.988	0.988
13C-1,2,3,6,7,8-HxCDF	0.979	-1.005	0.992	0.992	0.992	0.992	0.992	0.992
13C-2,3,4,6,7,8-HxCDF	1.001	-1.020	1.009	1.009	1.009	1.009	1.009	1.009
13C-1,2,3,7,8,9-HxCDF	1.002	-1.072	1.037	1.037	1.037	1.037	1.037	1.037
13C-1,2,3,4,6,7,8-HpCDF	1.069	-1.111	1.090	1.090	1.090	1.090	1.090	1.090
13C-1,2,3,4,7,8,9-HpCDF	1.098	-1.192	1.143	1.142	1.142	1.143	1.142	1.142
13C-OCDF	1.091	-1.371	1.229	1.229	1.229	1.229	1.229	1.229
37Cl-2,3,7,8-TCDD	0.989	-1.052	1.023	1.023	1.023	1.022	1.022	1.022
13C-1,2,3,4-TCDD	0.000	-0.000	*	*	*	*	*	*
13C-1,2,3,4-TCDF	0.000	-0.000	*	*	*	*	*	*
13C-1,2,3,4,6,9-HxCDF	0.000	-0.000	*	*	*	*	*	*

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

CCAL ID: ST140417D1-1

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. Pass	CONC. FOUND	RANGE (3) (ng/mL)	
NATIVE ANALYTES							
2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89	y	9.73	7.8 - 12.9 8.2 - 12.3 (4)	(1) See Table 8, Method 1613, for m/z specifications.
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	y	51.2	39.0 - 65.0	(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
1,2,3,4,7,8-HxCDD	M ₂ /M ₄	1.31	1.05-1.43	y	50.3	39.0 - 64.0	(3) Contract-required concentration range as specified in Table 6, Method 1613.
1,2,3,6,7,8-HxCDD	M ₂ /M ₄	1.21	1.05-1.43	y	50.1	39.0 - 64.0	
1,2,3,7,8,9-HxCDD	M ₂ /M ₄	1.26	1.05-1.43	y	51.0	41.0 - 61.0	
1,2,3,4,6,7,8-HpCDD	M ₂ /M ₄	1.02	0.88-1.20	y	49.3	43.0 - 58.0	(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.
OCDD	M ₂ /M ₄	0.88	0.76-1.02	y	101	79.0 - 126.0	
2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	9.90	8.4 - 12.0 8.6 - 11.6 (4)	
1,2,3,7,8-PeCDF	M ₂ /M ₄	1.59	1.32-1.78	y	50.6	41.0 - 60.0	
2,3,4,7,8-PeCDF	M ₂ /M ₄	1.57	1.32-1.78	y	50.8	41.0 - 61.0	
1,2,3,4,7,8-HxCDF	M ₂ /M ₄	1.31	1.05-1.43	y	51.9	45.0 - 56.0	
1,2,3,6,7,8-HxCDF	M ₂ /M ₄	1.30	1.05-1.43	y	51.1	44.0 - 57.0	
2,3,4,6,7,8-HxCDF	M ₂ /M ₄	1.30	1.05-1.43	y	51.2	44.0 - 57.0	
1,2,3,7,8,9-HxCDF	M ₂ /M ₄	1.33	1.05-1.43	y	50.3	45.0 - 56.0	
1,2,3,4,6,7,8-HpCDF	M ₂ /M ₄	1.07	0.88-1.20	y	50.4	45.0 - 55.0	Analyst: <u>m</u>
1,2,3,4,7,8,9-HpCDF	M ₂ /M ₄	1.11	0.88-1.20	y	51.3	43.0 - 58.0	
OCDF	M ₂ /M ₄	0.93	0.76-1.02	y	103	63.0 - 159.0	Date: <u>4/18/14</u>

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

LABELED COMPOUNDS	M/Z'S	ION FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	QC Pass	CONC. CONC.	CONC. RANGE (ng/mL)
						FOUND	(ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y		102	82.0 - 121.0
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y		91.5	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y		95.7	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y		97.1	85.0 - 118.0
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y		93.9	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y		95.6	72.0 - 138.0
13C-OCDD	M/M+2	0.89	0.76-1.02	y		184	96.0 - 415.0
13C-2,3,7,8-TCDF	M+2/M+4	0.77	0.65-0.89	y		104	71.0 - 140.0
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y		107	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.53	1.32-1.78	y		102	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y		97.1	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y		99.9	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y		98.9	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	y		93.5	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.42	0.37-0.51	y		94.4	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.42	0.37-0.51	y		91.0	77.0 - 129.0
13C-OCDF	M+2/M+4	0.89	0.76-1.02	y		198	96.0 - 415.0
CLEANUP STANDARD (3)							
37Cl-2,3,7,8-TCDD						9.56	7.9 - 12.7

Analyst: M)

Date: 4/16/14

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

CCAL ID: ST140417D1-1

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

	M/Z'S	ION FORMING RATIO	QC ABUND. RATIO	QC LIMITS	CONC.	CONC. RANGE
				Pass	FOUND	(ng/mL)
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89	Y	9.73	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	Y	51.2	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.31	1.05-1.43	Y	50.3	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.21	1.05-1.43	Y	50.1	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.26	1.05-1.43	Y	51.0	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.02	0.88-1.20	Y	49.3	40.0 - 60.0
OCDD	M+2/M+4	0.88	0.76-1.02	Y	101	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	Y	9.90	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	Y	50.6	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	Y	50.8	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.31	1.05-1.43	Y	51.9	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.30	1.05-1.43	Y	51.1	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.30	1.05-1.43	Y	51.2	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.33	1.05-1.43	Y	50.3	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.07	0.88-1.20	Y	50.4	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.11	0.88-1.20	Y	51.3	40.0 - 60.0
OCDF	M+2/M+4	0.93	0.76-1.02	Y	103	80.0 - 120

Analyst: M)Date: 4/14/14

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

LABELED COMPOUNDS	M/Z'S	ION FORMING	ABUND.	QC LIMITS	Pass	CONC.	RANGE (ng/mL)
	RATIO	RATIO		CONC.		FOUND	
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y		102	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y		91.5	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y		95.7	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y		97.1	70.0 - 130
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y		93.9	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y		95.6	70.0 - 130
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y		184	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y		104	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y		107	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.53	1.32-1.78	y		102	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y		97.1	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y		99.9	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y		98.9	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	y		93.5	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.42	0.37-0.51	y		94.4	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.42	0.37-0.51	y		91.0	70.0 - 130
13C-OCDF	M+2/M+4	0.89	0.76-1.02	y		198	140 - 260
CLEANUP STANDARD							
37Cl-2,3,7,8-TCDD						9.56	7.00 - 13.0

Analyst: M

Date: 4/18/14

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-7 Initial Calibration Date: 4-17-14

RT Window Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

ZB-5MS IS Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

DB_225 IS Data Filename: Analysis Date: Time:

ZB-5MS RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE		ABSOLUTE	
	RT	ISOMERS	RT	
1,3,6,8-TCDD (F)	23:36	1,3,6,8-TCDF (F)	21:25	
1,2,8,9-TCDD (L)	27:57	1,2,8,9-TCDF (L)	28:06	
1,2,4,7,9-PeCDD (F)	29:34	1,3,4,6,8-PeCDF (F)	28:02	
1,2,3,8,9-PeCDD (L)	32:00	1,2,3,8,9-PeCDF (L)	32:15	
1,2,4,6,7,9-HxCDD (F)	33:25	1,2,3,4,6,8-HxCDF (F)	32:53	
1,2,3,7,8,9-HxCDD (L)	35:23	1,2,3,7,8,9-HxCDF (L)	35:46	
1,2,3,4,6,7,9-HpCDD (F)	37:59	1,2,3,4,6,7,8-HpCDF (F)	37:36	
1,2,3,4,6,7,8-HpCDD (L)	38:51	1,2,3,4,7,8,9-HpCDF (L)	39:24	

(F) = First eluting isomer (ZB-5MS); (L) = Last eluting isomer (ZB-5MS).

=====

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, *Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: MJ

Date: 4/19/14

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	REFERENCE	RETENTION TIME		RRT	QC LIMITS (1)
			RRT		
2,3,7,8-TCDD	13C-2,3,7,8-TCDD		1.001	0.999-1.002	
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD		1.000	0.999-1.002	
2,3,7,8-TCDF	13C-2,3,7,8-TCDF		1.001	0.999-1.003	
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF		1.000	0.999-1.002	
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF		1.000	0.999-1.002	

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.195	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.150	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.184	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989-1.052

Analyst: MJ

Date: 4/18/14

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 4-17-14

Instrument ID: VG-7 GC Column ID: ZB-5MS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

NATIVE ANALYTES	RETENTION TIME	RRT		(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94
	REFERENCE	RRT	QC LIMITS (1)	
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001	
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005	
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001	
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999-1.001	
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004	
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.998-1.004	
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001	
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001	
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001	
OCDD	13C-OCDD	1.000	0.999-1.001	
OCDF	13C-OCDF	1.000	0.999-1.001	

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975-1.001
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.992	0.979-1.005
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.037	1.002-1.072
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014-1.038
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.090	1.069-1.111
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.143	1.098-1.192
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.127	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.222	1.085-1.365
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.229	1.091-1.371

Analyst: MJ

Date: 4/16/14

Client ID: 1613 CS3 13L1811
 Lab ID: ST140417D1-1

Filename: 140417D1 S:1 Acq:17-APR-14 13:06:06
 GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol: 1.000
 ConCal: NA EndCAL: NA

Page 1 of 2

	Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
	2,3,7,8-TCDD	3.94e+06	0.75 y	1.03	27:04	1.001	9.7259	*	2.5	*	*	Total Tetra-Dioxins	53.0	53.2	*	*	
	1,2,3,7,8-PeCDD	1.55e+07	0.61 y	0.84	31:38	1.000	51.209	*	2.5	*	*	Total Penta-Dioxins	167	167	*	*	
	1,2,3,4,7,8-HxCDD	1.44e+07	1.31 y	1.05	34:59	1.001	50.337	*	2.5	*	*	Total Hexa-Dioxins	207	207	*	*	
	1,2,3,6,7,8-HxCDD	1.46e+07	1.21 y	1.04	35:05	1.001	50.117	*	2.5	*	*	Total Hepta-Dioxins	116	116	*	*	
	1,2,3,7,8,9-HxCDD	1.47e+07	1.26 y	0.90	35:23	1.001	50.982	*	2.5	*	*	Total Tetra-Furans	30.6	30.8	*	*	
	1,2,3,4,6,7,8-HpCDD	1.28e+07	1.02 y	1.01	38:51	1.000	49.274	*	2.5	*	*	Total Penta-Furans	194.29	194.58	*	*	
	OCDD	2.19e+07	0.88 y	1.04	42:09	1.000	101.04	*	2.5	*	*	Total Hexa-Furans	259	259	*	*	
												Total Hepta-Furans	102	103	*	*	
	2,3,7,8-TCDF	5.01e+06	0.80 y	0.91	26:17	1.001	9.8994	*	2.5	*	*						
	1,2,3,7,8-PeCDF	2.86e+07	1.59 y	0.97	30:27	1.000	50.623	*	2.5	*	*						
	2,3,4,7,8-PeCDF	2.69e+07	1.57 y	0.94	31:21	1.000	50.809	*	2.5	*	*						
	1,2,3,4,7,8-HxCDF	2.40e+07	1.31 y	1.32	34:04	1.000	51.860	*	2.5	*	*						
	1,2,3,6,7,8-HxCDF	2.83e+07	1.30 y	1.18	34:12	1.001	51.131	*	2.5	*	*						
	2,3,4,6,7,8-HxCDF	2.47e+07	1.30 y	1.23	34:48	1.001	51.243	*	2.5	*	*						
	1,2,3,7,8,9-HxCDF	1.81e+07	1.33 y	1.13	35:46	1.001	50.349	*	2.5	*	*						
	1,2,3,4,6,7,8-HpCDF	2.03e+07	1.07 y	1.57	37:36	1.000	50.428	*	2.5	*	*						
	1,2,3,4,7,8,9-HpCDF	1.73e+07	1.11 y	1.50	39:24	1.000	51.316	*	2.5	*	*						
	OCDF	3.12e+07	0.93 y	1.05	42:23	1.000	102.75	*	2.5	*	*						
												Rec	Qual				
IS	13C-2,3,7,8-TCDD	3.92e+07	0.79 y	1.06	27:03	1.022	101.79					102					
IS	13C-1,2,3,7,8-PeCDD	3.60e+07	0.62 y	1.08	31:37	1.195	91.491					91.5					
IS	13C-1,2,3,4,7,8-HxCDD	2.73e+07	1.24 y	0.74	34:57	1.014	95.672					95.7					
IS	13C-1,2,3,6,7,8-HxCDD	2.80e+07	1.24 y	0.75	35:04	1.017	97.064					97.1					
IS	13C-1,2,3,7,8,9-HxCDD	3.22e+07	1.24 y	0.89	35:22	1.026	93.879					93.9					
IS	13C-1,2,3,4,6,7,8-HpCDD	2.58e+07	1.07 y	0.70	38:50	1.127	95.641					95.6					
IS	13C-OCDD	4.16e+07	0.89 y	0.59	42:09	1.222	183.87					91.9					
IS	13C-2,3,7,8-TCDF	5.56e+07	0.77 y	0.97	26:16	0.992	104.32					104					
IS	13C-1,2,3,7,8-PeCDF	5.82e+07	1.57 y	0.99	30:26	1.150	106.78					107					
IS	13C-2,3,4,7,8-PeCDF	5.64e+07	1.53 y	1.01	31:20	1.184	101.67					102					
IS	13C-1,2,3,4,7,8-HxCDF	3.51e+07	0.52 y	0.94	34:04	0.988	97.063					97.1					
IS	13C-1,2,3,6,7,8-HxCDF	4.72e+07	0.52 y	1.23	34:11	0.992	99.921					99.9					
IS	13C-2,3,4,6,7,8-HxCDF	3.93e+07	0.50 y	1.03	34:47	1.009	98.878					98.9					
IS	13C-1,2,3,7,8,9-HxCDF	3.18e+07	0.51 y	0.89	35:45	1.037	93.526					93.5					
IS	13C-1,2,3,4,6,7,8-HpCDF	2.56e+07	0.42 y	0.71	37:35	1.090	94.369					94.4					
IS	13C-1,2,3,4,7,8,9-HpCDF	2.25e+07	0.42 y	0.64	39:23	1.143	91.044					91.0					
IS	13C-OCDF	5.76e+07	0.89 y	0.76	42:22	1.229	197.67					98.8					
C/Up	37Cl-2,3,7,8-TCDD	3.62e+06		1.04	27:04	1.023	9.5628					95.6	Integrations		Reviewed		
RS/RT	13C-1,2,3,4-TCDD	3.62e+07	0.81 y	1.00	26:28	*	100.00						by		by		
RS	13C-1,2,3,4-TCDF	5.51e+07	0.76 y	1.00	25:00	*	100.00						Analyst:	<u>M</u>	Analyst:	<u>g2</u>	
RS/RT	13C-1,2,3,4,6,9-HxCDF	3.84e+07	0.52 y	1.00	34:29	*	100.00						Date:	<u>4/16/14</u>	Date:	<u>4/18/14</u>	

Vista Analytical Laboratory - Injection Log Run file: 140417D1 Instrument ID: VG-7 GC Column ID: ZB-5MS

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140417D1	1	ST140417D1-1	MAS	17-APR-14	13:06:06	NA	NA
140417D1	2	SOLVENT BLANK	MAS	17-APR-14	13:54:44	NA	NA
140417D1	3	ST140417D1-2	MAS	17-APR-14	14:43:22	NA	NA
140417D1	4	ST140417D1-3	MAS	17-APR-14	15:31:59	NA	NA
140417D1	5	ST140417D1-4	MAS	17-APR-14	16:20:38	NA	NA
140417D1	6	ST140417D1-5	MAS	17-APR-14	17:09:17	NA	NA
140417D1	7	ST140417D1-6	MAS	17-APR-14	17:57:55	NA	NA
140417D1	8	SOLVENT BLANK	MAS	17-APR-14	18:46:34	NA	NA
140417D1	9	SS140417D1-1	MAS	17-APR-14	19:35:12	NA	NA

Initial Calibration RRF Summary (ICAL) Vista Analytical Laboratory
Run: 140310D2 Analyte: Cal: 1613TCDFVG7-3-10-14 Inst. ID. VG-7

Data filename: 140310D2 Samp# 3 Samp# 4 Samp# 5 Samp# 6 Samp# 7 Samp# 8
0.25 0.50 2.0 10 40 200

Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
13C-1,2,3,4-TCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-2,3,7,8-TCDF	0.93	3.36 %	0.92	0.99	0.90	0.91	0.91	0.94
2,3,7,8-TCDF	1.16	5.34 %	1.23	1.17	1.07	1.10	1.17	1.21

m) 3/11/14

FEB 3/17/14

Filename: 140310D2 S: 3 Acquired: 10-MAR-14 17:05:35
Run: 140310D2 Analyte: Cal: 1613TCDFVG7-3-10-14Results:
Sample text: ST140310D2-1 1613 CS0 13L1808

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	2.47e+07	0.79 y	15:26	-	1.00
13C-2,3,7,8-TCDF	100	2.26e+07	0.80 y	17:44	-	0.92
2,3,7,8-TCDF	0.250	6.92e+04	0.77 y	17:45	-	1.23

Filename: 140310D2 S: 4 Acquired: 10-MAR-14 17:37:42
Run: 140310D2 Analyte: Cal: 1613TCDFVG7-3-10-14Results:
Sample text: ST140310D2-2 1613 CS1 13L1809

	Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF		100	2.33e+07	0.80 y	15:25	-	1.00
13C-2,3,7,8-TCDF		100	2.30e+07	0.82 y	17:44	-	0.99
	2,3,7,8-TCDF	0.500	1.35e+05	0.80 y	17:46	-	1.17

Filename: 140310D2 S: 5 Acquired: 10-MAR-14 18:09:47
Run: 140310D2 Analyte: Cal: 1613TCDFVG7-3-10-14Results:
Sample text: ST140310D2-3 1613 CS2 14B1101

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	2.48e+07	0.81 y	15:27	-	1.00
13C-2,3,7,8-TCDF	100	2.24e+07	0.81 y	17:45	-	0.90
2,3,7,8-TCDF	2.00	4.79e+05	0.83 y	17:46	-	1.07

Filename: 140310D2 S: 6 Acquired: 10-MAR-14 18:41:51
Run: 140310D2 Analyte: Cal: 1613TCDFVG7-3-10-14Results:
Sample text: ST140310D2-4 1613 CS3 13L1811

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	2.40e+07	0.82 y	15:27	-	1.00
13C-2,3,7,8-TCDF	100	2.19e+07	0.80 y	17:46	-	0.91
2,3,7,8-TCDF	10.0	2.42e+06	0.83 y	17:47	-	1.10

Filename: 140310D2 S: 7 Acquired: 10-MAR-14 19:13:55
Run: 140310D2 Analyte: Cal: 1613TCDFVG7-3-10-14Results:
Sample text: ST140310D2-5 1613 CS4 13L1812

	Name	Amount	Resp	RA	RT	RF	RRF
	13C-1,2,3,4-TCDF	100	2.56e+07	0.81 y	15:27	-	1.00
	13C-2,3,7,8-TCDF	100	2.33e+07	0.81 y	17:46	-	0.91
	2,3,7,8-TCDF	40.0	1.09e+07	0.80 y	17:47	-	1.17

Filename: 140310D2 S: 8 Acquired: 10-MAR-14 19:46:00
Run: 140310D2 Analyte: Cal: 1613TCDFVG7-3-10-14Results:
Sample text: ST140310D2-6 1613 CS5 14B1102

Name	Amount	Resp	RA	RT	RF	RRF
13C-1,2,3,4-TCDF	100	2.43e+07	0.82 y	15:27	-	1.00
13C-2,3,7,8-TCDF	100	2.28e+07	0.81 y	17:46	-	0.94
2,3,7,8-TCDF	200	5.52e+07	0.81 y	17:47	-	1.21

FORM 4A/4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

CCAL ID: ST140310D2-4

Initial Calibration Date: 3-10-14

Instrument ID: VG-7

GC Column ID: DB-225

VER Data Filename: 140310D2 S#6 Analysis Date: 10-MAR-14 Time: 18:41:51

M/Z'S	ION	QC		CONC. RANGE	CONC. RANGE
FORMING	ABUND.	LIMITS	CONC.	1613	8290
RATIO (1)	RATIO	(2)	FOUND	(ng/mL)	(ng/mL)

ANALYTES

2,3,7,8-TCDF	M/M+2	0.83	0.65-0.89	9.5	8.4 - 12.0 (3) 8.6 - 11.6 (4)	8.0 - 12.0
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	98.5	71.0 - 140.0 (3) 76.0 - 131.0 (4)	70.0 - 130.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6a, Method 1613, under VER.

(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MDate: 3/11/14

Client ID: 1613 CS3 13L1811
Lab ID: ST140310D2-4

Filename: 140310D2 S:6 Acq:10-MAR-14 18:41:51
GC Column ID: DB-225 ICal: 1613TCDFVG7-3-10-14 wt/vol: 1.000 ConCal: NA
EndCAL: NA

Page 1 of 1

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	2.40e+07	0.82	y	15:27	1.00	100.0
13C-2,3,7,8-TCDF	2.19e+07	0.80	y	17:46	0.93	98.48
2,3,7,8-TCDF	2.42e+06	0.83	y	17:47	1.16	9.504

Integrations
by _____
Analyst: m Reviewed
by _____
Analyst: _____

Date: 3/11/14 Date: _____

Vista Analytical Laboratory - Injection Log Run file: 140310D2 Instrument ID: VG-7 GC Column ID: DB-225

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140310D2	1	CP140310D2-1	MAS	10-MAR-14	16:01:24	NA	NA
140310D2	2	SOLVENT BLANK	MAS	10-MAR-14	16:33:30	NA	NA
140310D2	3	ST140310D2-1	MAS	10-MAR-14	17:05:35	NA	NA
140310D2	4	ST140310D2-2	MAS	10-MAR-14	17:37:42	NA	NA
140310D2	5	ST140310D2-3	MAS	10-MAR-14	18:09:47	NA	NA
140310D2	6	ST140310D2-4	MAS	10-MAR-14	18:41:51	NA	NA
140310D2	7	ST140310D2-5	MAS	10-MAR-14	19:13:55	NA	NA
140310D2	8	ST140310D2-6	MAS	10-MAR-14	19:46:00	NA	NA
140310D2	9	SOLVENT BLANK	MAS	10-MAR-14	20:18:06	NA	NA
140310D2	10	SOLVENT BLANK	MAS	10-MAR-14	20:50:13	NA	NA
140310D2	11	ST140310D2-7	MAS	10-MAR-14	21:22:21	NA	NA
140310D2	12	SOLVENT BLANK	MAS	10-MAR-14	21:54:28	NA	NA

Run: 140620E1

Analyte:

Cal: PCBVG8-6-20-14

Inst. ID. VG-8

Data filename: 140620E1

	Samp# 1 0.25	Samp# 2 1.0	Samp# 3 2.5	Samp# 4 50	Samp# 5 400	Samp# 6 750
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Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
PCB-1	1.25	8.70 %	1.37	1.26	1.26	1.31	1.05	1.27
PCB-2	1.18	8.61 %	1.27	1.26	1.14	1.24	1.00	1.18
PCB-3	1.22	8.48 %	1.31	1.29	1.23	1.26	1.02	1.20
PCB-4/10	1.55	8.01 %	1.67	1.64	1.55	1.61	1.32	1.54
PCB-7/9	1.27	8.90 %	1.43	1.30	1.26	1.30	1.08	1.25
PCB-6	1.26	11.24 %	1.49	1.29	1.26	1.26	1.06	1.20
PCB-5/8	1.23	6.34 %	1.29	1.29	1.23	1.28	1.08	1.23
PCB-14	1.23	11.07 %	1.45	1.24	1.21	1.27	1.03	1.20
PCB-11	1.16	9.82 %	1.33	1.19	1.16	1.18	0.97	1.13
PCB-12/13	1.10	7.82 %	1.20	1.12	1.10	1.14	0.94	1.09
PCB-15	1.21	10.03 %	1.40	1.19	1.22	1.24	1.02	1.18
PCB-19	1.30	14.66 %	1.63	1.31	1.26	1.28	1.05	1.23
PCB-30	1.83	9.12 %	2.06	1.88	1.82	1.87	1.54	1.82
PCB-18	0.86	12.65 %	1.03	0.90	0.85	0.87	0.70	0.81
PCB-17	0.90	11.34 %	1.04	0.96	0.89	0.92	0.74	0.86
PCB-24/27	1.18	9.77 %	1.33	1.20	1.18	1.22	0.98	1.15
PCB-16/32	1.03	12.28 %	1.23	1.08	1.02	1.03	0.84	0.98
PCB-34	1.26	11.67 %	1.47	1.39	1.25	1.23	1.07	1.16
PCB-23	1.31	14.20 %	1.54	1.27	1.41	1.44	1.02	1.19
PCB-29	1.33	17.31 %	1.74	1.32	1.32	1.36	1.06	1.18
PCB-26	1.29	15.40 %	1.62	1.31	1.32	1.31	1.03	1.16
PCB-25	1.34	13.58 %	1.63	1.37	1.36	1.38	1.09	1.21
PCB-31	1.42	18.76 %	1.87	1.40	1.46	1.41	1.05	1.32
PCB-28	1.38	11.74 %	1.60	1.43	1.41	1.45	1.18	1.20
PCB-20/21/33	1.31	12.96 %	1.59	1.33	1.32	1.34	1.08	1.21
PCB-22	1.32	10.73 %	1.50	1.38	1.35	1.39	1.09	1.23
PCB-36	1.38	8.85 %	1.47	1.49	1.38	1.43	1.16	1.32
PCB-39	1.42	9.22 %	1.58	1.49	1.41	1.46	1.19	1.39
PCB-38	1.35	7.47 %	1.39	1.45	1.36	1.41	1.16	1.35
PCB-35	1.38	8.01 %	1.52	1.38	1.35	1.44	1.19	1.38
PCB-37	1.39	9.07 %	1.58	1.40	1.39	1.41	1.18	1.39
PCB-54	1.20	8.53 %	1.29	1.28	1.18	1.24	1.01	1.18
PCB-50	0.97	9.30 %	1.08	1.01	0.96	0.99	0.81	0.95
PCB-53	1.19	11.55 %	1.42	1.24	1.14	1.19	1.00	1.14
PCB-51	1.15	7.40 %	1.21	1.18	1.17	1.23	0.99	1.14
PCB-45	0.97	8.59 %	1.04	0.99	1.00	1.02	0.81	0.93
PCB-46	0.95	15.50 %	1.21	0.98	0.90	0.95	0.77	0.88
PCB-52/69	1.28	8.47 %	1.35	1.33	1.33	1.35	1.07	1.23
PCB-73	1.37	6.52 %	1.42	1.39	1.31	1.43	1.22	1.45
PCB-43/49	1.11	10.59 %	1.30	1.13	1.10	1.13	0.94	1.08
PCB-47	1.13	11.84 %	1.34	1.18	1.04	1.20	0.96	1.07

DMS 6/23/14
 6/23/14

PCB-48/75	1.30	10.70 %	1.52	1.28	1.33	1.31	1.08	1.30
PCB-65	1.33	13.12 %	1.67	1.30	1.28	1.32	1.15	1.30
PCB-62	1.29	10.74 %	1.39	1.40	1.30	1.38	1.03	1.25
PCB-44	0.94	10.79 %	1.08	0.90	0.98	0.98	0.78	0.92
PCB-42/59	1.22	9.45 %	1.36	1.25	1.21	1.26	1.01	1.21
PCB-41/64/71/72	1.31	8.83 %	1.48	1.32	1.28	1.35	1.12	1.33
PCB-68	1.49	9.40 %	1.63	1.59	1.48	1.51	1.23	1.46
PCB-40	0.82	12.75 %	0.99	0.83	0.82	0.83	0.67	0.78
PCB-57	1.11	10.20 %	1.26	1.18	1.11	1.15	0.92	1.07
PCB-67	1.07	9.89 %	1.05	1.20	1.12	1.15	0.90	1.03
PCB-58	1.10	11.05 %	1.29	1.13	1.12	1.09	0.91	1.07

PCB-63	1.12	7.49 %	1.17	1.17	1.14	1.16	0.95	1.12
PCB-74	1.20	8.89 %	1.31	1.27	1.22	1.25	1.00	1.18
PCB-61/70	1.08	8.22 %	1.18	1.13	1.08	1.10	0.92	1.06
PCB-76/66	1.14	10.54 %	1.31	1.18	1.12	1.17	0.94	1.10
PCB-80	1.28	9.96 %	1.46	1.33	1.28	1.28	1.07	1.24
PCB-55	1.11	7.19 %	1.16	1.17	1.10	1.14	0.96	1.12
PCB-56/60	1.09	10.58 %	1.26	1.12	1.07	1.09	0.91	1.07
PCB-79	1.12	8.90 %	1.26	1.11	1.12	1.15	0.95	1.13
PCB-78	1.24	11.08 %	1.43	1.32	1.20	1.27	1.02	1.18
PCB-81	1.38	9.94 %	1.51	1.50	1.41	1.41	1.14	1.31
PCB-77	1.21	8.98 %	1.33	1.26	1.22	1.25	1.02	1.17
PCB-104	1.26	10.21 %	1.42	1.31	1.28	1.27	1.03	1.22
PCB-96	1.09	9.49 %	1.24	1.12	1.08	1.10	0.92	1.10
PCB-103	0.93	8.17 %	1.00	0.98	0.89	0.95	0.80	0.98
PCB-100	1.00	7.45 %	1.03	1.08	0.97	1.01	0.87	1.05
PCB-94	1.11	11.35 %	1.31	1.11	1.11	1.13	0.91	1.08
PCB-95/98/102	1.21	9.28 %	1.36	1.25	1.18	1.30	1.04	1.17
PCB-93	1.13	18.48 %	1.36	1.34	1.21	0.95	0.84	1.08
PCB-88/91	1.02	8.29 %	1.00	1.06	1.02	1.15	0.89	1.00
PCB-121	1.90	16.11 %	2.27	2.21	1.94	1.69	1.46	1.85
PCB-84/92	1.05	9.56 %	1.15	1.13	1.05	1.09	0.87	1.02
PCB-89	1.02	10.73 %	1.15	1.04	1.02	1.08	0.83	0.98
PCB-90/101	1.19	9.91 %	1.34	1.26	1.19	1.21	0.99	1.15
PCB-113	1.35	10.72 %	1.54	1.26	1.32	1.51	1.16	1.33
PCB-99	1.29	12.88 %	1.43	1.48	1.35	1.20	1.03	1.24
PCB-119	1.72	7.60 %	1.78	1.88	1.72	1.73	1.48	1.73
PCB-108/112	1.29	7.44 %	1.31	1.39	1.29	1.33	1.10	1.30
PCB-83	1.52	7.96 %	1.66	1.53	1.51	1.58	1.30	1.54
PCB-97	1.25	8.07 %	1.35	1.26	1.27	1.32	1.06	1.23
PCB-86	1.02	10.03 %	1.19	0.96	1.05	0.98	0.90	1.06
PCB-87/117/125	1.56	6.32 %	1.67	1.60	1.55	1.59	1.37	1.57
PCB-111/115	1.75	13.48 %	2.16	1.80	1.69	1.76	1.43	1.66
PCB-85/116	1.30	6.67 %	1.30	1.35	1.33	1.34	1.13	1.35
PCB-120	1.78	10.02 %	2.08	1.80	1.76	1.75	1.52	1.77
PCB-110	1.68	10.37 %	1.90	1.78	1.65	1.72	1.38	1.64
PCB-82	0.74	11.58 %	0.83	0.83	0.73	0.73	0.60	0.71
PCB-124	1.32	11.30 %	1.54	1.34	1.33	1.32	1.07	1.33
PCB-107/109	1.22	8.01 %	1.35	1.31	1.18	1.24	1.08	1.17
PCB-123	1.22	9.00 %	1.30	1.30	1.23	1.28	1.01	1.20
PCB-106/118	1.22	9.57 %	1.37	1.27	1.25	1.26	1.01	1.19
PCB-114	1.36	10.69 %	1.57	1.37	1.36	1.37	1.11	1.35
PCB-122	1.24	10.69 %	1.41	1.32	1.20	1.25	1.02	1.22
PCB-105	1.28	7.83 %	1.36	1.29	1.33	1.34	1.09	1.28
PCB-127	1.14	11.20 %	1.33	1.18	1.14	1.16	0.94	1.09
PCB-126	1.28	9.08 %	1.46	1.28	1.28	1.32	1.10	1.27
PCB-155	1.14	7.40 %	1.11	1.20	1.18	1.20	0.98	1.15
PCB-150	1.06	7.11 %	1.15	1.04	1.05	1.11	0.94	1.10
PCB-152	1.10	11.78 %	1.32	1.08	1.06	1.12	0.92	1.09
PCB-145	1.09	12.69 %	1.35	1.06	1.05	1.11	0.92	1.08
PCB-136	1.08	11.65 %	1.25	1.02	1.08	1.14	0.88	1.14

PCB-148	0.74	7.71 %	0.84	0.75	0.68	0.75	0.70	0.72
PCB-154	0.88	8.65 %	0.96	0.88	0.88	0.93	0.74	0.91
PCB-151	0.81	9.63 %	0.91	0.82	0.78	0.86	0.68	0.81
PCB-135	0.78	6.32 %	0.83	0.75	0.76	0.81	0.70	0.82
PCB-144	0.82	10.98 %	0.93	0.81	0.78	0.90	0.68	0.82
PCB 147	0.83	12.38 %	1.00	0.76	0.78	0.88	0.70	0.85
PCB-139/149	0.84	7.77 %	0.91	0.82	0.83	0.91	0.73	0.86
PCB-140	0.79	11.18 %	0.91	0.73	0.76	0.86	0.66	0.80
PCB-134/143	0.93	12.49 %	1.13	0.94	0.90	0.94	0.78	0.87
PCB-133/142	0.95	11.69 %	1.12	0.98	0.91	0.96	0.79	0.90
PCB-131	0.91	13.39 %	1.11	0.96	0.90	0.90	0.74	0.87

PCB-146/165	1.16	9.91 %	1.33	1.19	1.14	1.16	0.97	1.13
PCB-132/161	1.11	10.87 %	1.31	1.14	1.09	1.13	0.93	1.07
PCB-153	1.18	8.19 %	1.21	1.24	1.26	1.18	0.99	1.18
PCB-168	1.37	10.18 %	1.56	1.44	1.37	1.37	1.14	1.35
PCB-141	0.97	8.49 %	1.08	1.00	0.97	0.99	0.83	0.99
PCB-137	1.07	6.76 %	1.12	1.16	1.05	1.03	0.96	1.11
PCB-130	0.85	9.16 %	0.85	0.83	0.87	0.94	0.71	0.89
PCB-138/163/164	1.23	7.23 %	1.30	1.28	1.22	1.26	1.05	1.24
PCB-158/160	1.29	7.06 %	1.37	1.33	1.29	1.34	1.11	1.29
PCB-129	0.92	10.90 %	1.06	0.98	0.93	0.93	0.76	0.88
PCB-166	1.12	8.09 %	1.17	1.21	1.11	1.13	0.94	1.13
PCB-159	1.16	9.05 %	1.24	1.24	1.18	1.17	0.96	1.20
PCB-128/162	1.02	8.78 %	1.10	1.03	1.04	1.07	0.85	1.03
PCB-167	1.06	9.67 %	1.20	1.04	1.10	1.09	0.88	1.05
PCB-156	1.18	12.60 %	1.44	1.20	1.18	1.17	0.98	1.12
PCB-157	1.08	8.46 %	1.17	1.12	1.13	1.11	0.91	1.06
PCB-169	1.11	8.78 %	1.24	1.15	1.12	1.11	0.94	1.09
PCB-188	1.40	9.77 %	1.59	1.44	1.43	1.43	1.17	1.37
PCB-184	1.24	9.34 %	1.35	1.30	1.25	1.28	1.02	1.23
PCB-179	1.30	11.40 %	1.50	1.37	1.32	1.31	1.05	1.28
PCB-176	1.36	12.01 %	1.55	1.47	1.35	1.38	1.07	1.34
PCB-186	1.28	10.58 %	1.46	1.30	1.25	1.31	1.05	1.29
PCB-178	0.94	10.89 %	0.99	1.05	0.96	0.96	0.75	0.92
PCB-175	0.97	9.63 %	1.03	1.01	0.98	1.02	0.78	0.99
PCB-182/187	1.01	8.25 %	1.07	1.03	1.01	1.06	0.85	1.07
PCB-183	1.08	11.32 %	1.18	1.17	1.08	1.10	0.85	1.12
PCB-185	1.34	11.43 %	1.58	1.37	1.30	1.36	1.10	1.35
PCB-174	1.34	6.35 %	1.41	1.36	1.36	1.32	1.18	1.40
PCB-181	1.36	12.64 %	1.56	1.48	1.28	1.43	1.08	1.33
PCB-177	1.24	12.38 %	1.50	1.23	1.20	1.28	1.03	1.21
PCB-171	1.31	10.27 %	1.52	1.33	1.34	1.31	1.10	1.28
PCB-173	1.16	12.99 %	1.43	1.13	1.15	1.17	0.97	1.11
PCB-172	1.22	11.23 %	1.47	1.18	1.22	1.24	1.05	1.18
PCB-192	1.53	7.91 %	1.69	1.58	1.49	1.56	1.33	1.51
PCB-180	1.43	12.38 %	1.72	1.48	1.44	1.42	1.18	1.34
PCB-193	1.65	9.91 %	1.90	1.71	1.65	1.68	1.40	1.59
PCB-191	1.67	12.03 %	2.04	1.63	1.65	1.68	1.43	1.61
PCB-170	1.50	10.78 %	1.66	1.67	1.51	1.50	1.23	1.44
PCB-190	2.02	10.04 %	2.33	2.09	1.97	2.04	1.70	1.98
PCB-189	1.54	8.43 %	1.70	1.58	1.55	1.59	1.30	1.54
PCB-202	1.04	12.36 %	1.24	1.11	1.01	1.04	0.85	0.99
PCB-201	1.10	11.84 %	1.33	1.11	1.06	1.11	0.92	1.09
PCB-204	0.99	8.55 %	1.10	0.99	0.99	1.04	0.84	1.00
PCB-197	1.07	11.41 %	1.28	1.04	1.04	1.12	0.90	1.06
PCB-200	1.02	8.06 %	1.11	1.02	1.02	1.07	0.87	1.02
PCB-198	0.74	13.95 %	0.90	0.81	0.69	0.77	0.60	0.70
PCB-199	0.73	6.67 %	0.75	0.75	0.73	0.77	0.63	0.74
PCB-196/203	0.77	7.49 %	0.82	0.80	0.75	0.81	0.67	0.79
PCB-195	1.20	7.95 %	1.32	1.23	1.17	1.25	1.04	1.19
PCB-194	1.25	15.62 %	1.61	1.21	1.22	1.24	1.02	1.17

PCB-205	1.41	12.03 %	1.70	1.44	1.41	1.41	1.17	1.36
PCB-208	0.96	16.01 %	1.25	0.95	0.93	0.95	0.78	0.91
PCB-207	0.92	8.32 %	0.99	0.97	0.91	0.93	0.78	0.91
PCB-206	1.03	12.39 %	1.24	1.05	1.03	1.02	0.84	0.98
PCB-209	1.18	8.31 %	1.27	1.19	1.21	1.23	0.99	1.16
Total Mono-PCB	1.22	8.44 %	1.32	1.27	1.21	1.27	1.02	1.22
Total Di-PCB	1.21	8.72 %	1.35	1.24	1.21	1.25	1.03	1.19
Total Tri-PCB	1.16	11.17 %	1.36	1.20	1.15	1.18	0.96	1.12

Total Tri-PCB	1.35	11.56 %	1.58	1.38	1.36	1.39	1.11	1.26
Total Tetra-PCB	1.17	9.20 %	1.32	1.21	1.17	1.21	0.99	1.15
Total Penta-PCB	1.21	8.50 %	1.33	1.27	1.21	1.24	1.03	1.21
Total Penta-PCB	1.26	9.64 %	1.42	1.29	1.26	1.29	1.05	1.24
Total Hexa-PCB	0.92	8.86 %	1.03	0.90	0.89	0.96	0.78	0.93
Total Hexa-PCB	1.08	8.82 %	1.20	1.12	1.08	1.10	0.91	1.07
Total Hepta-PCB	1.27	10.02 %	1.44	1.31	1.27	1.30	1.05	1.26
Total Octa-PCB	0.92	9.46 %	1.04	0.94	0.89	0.95	0.77	0.91
Total Octa-PCB	1.29	11.68 %	1.54	1.29	1.26	1.30	1.08	1.24
Total Nona-PCB	0.96	11.85 %	1.15	0.98	0.94	0.96	0.79	0.93
Total Deca-PCB	1.18	8.31 %	1.27	1.19	1.21	1.23	0.99	1.16
13C-PCB-1	0.89	8.16 %	0.97	0.94	0.91	0.88	0.88	0.76
13C-PCB-3	0.93	4.27 %	0.98	0.94	0.94	0.93	0.91	0.86
13C-PCB-4	0.55	3.55 %	0.56	0.57	0.56	0.55	0.53	0.52
13C-PCB-9	0.83	2.91 %	0.84	0.85	0.84	0.82	0.80	0.79
13C-PCB-11	0.94	1.99 %	0.94	0.96	0.96	0.92	0.93	0.91
13C-PCB-19	0.53	4.01 %	0.55	0.55	0.55	0.53	0.52	0.50
13C-PCB-32	0.81	1.81 %	0.83	0.82	0.83	0.81	0.81	0.79
13C-PCB-28	0.89	8.44 %	0.79	0.91	0.83	0.85	0.96	0.98
13C-PCB-37	0.83	4.85 %	0.80	0.83	0.80	0.80	0.87	0.89
13C-PCB-54	0.85	5.64 %	0.86	0.89	0.91	0.84	0.83	0.77
13C-PCB-52	0.71	4.89 %	0.72	0.74	0.75	0.70	0.68	0.66
13C-PCB-47	0.74	4.31 %	0.74	0.78	0.78	0.73	0.73	0.70
13C-PCB-70	0.94	2.25 %	0.96	0.97	0.96	0.93	0.94	0.91
13C-PCB-80	0.96	2.89 %	0.96	1.00	0.99	0.95	0.95	0.92
13C-PCB-81	0.84	2.20 %	0.83	0.82	0.84	0.82	0.86	0.86
13C-PCB-77	0.89	1.89 %	0.88	0.87	0.90	0.88	0.91	0.91
13C-PCB-104	1.00	6.42 %	0.99	1.06	1.07	0.98	0.96	0.90
13C-PCB-95	0.74	2.70 %	0.74	0.78	0.75	0.73	0.74	0.72
13C-PCB-101	0.79	2.14 %	0.79	0.81	0.79	0.77	0.78	0.77
13C-PCB-97	0.69	1.41 %	0.70	0.69	0.70	0.69	0.69	0.67
13C-PCB-123	0.95	4.62 %	0.88	0.92	0.98	1.00	0.95	0.97
13C-PCB-118	0.98	3.93 %	0.92	0.95	0.99	1.03	1.01	0.99
13C-PCB-114	1.21	3.28 %	1.26	1.20	1.21	1.18	1.25	1.15
13C-PCB-105	1.24	3.05 %	1.26	1.24	1.25	1.20	1.29	1.19
13C-PCB-127	1.34	2.73 %	1.37	1.34	1.38	1.29	1.36	1.30
13C-PCB-126	1.16	2.72 %	1.16	1.17	1.20	1.12	1.19	1.14
13C-PCB-155	0.83	3.93 %	0.86	0.87	0.84	0.83	0.81	0.78
13C-PCB-153	1.11	2.81 %	1.14	1.11	1.13	1.10	1.15	1.06
13C-PCB-141	1.07	3.72 %	1.13	1.09	1.09	1.06	1.06	1.01
13C-PCB-138	1.04	2.24 %	1.06	1.05	1.06	1.02	1.06	1.01
13C-PCB-159	1.20	1.72 %	1.21	1.19	1.22	1.17	1.22	1.19
13C-PCB-167	1.32	1.88 %	1.32	1.33	1.36	1.29	1.32	1.31
13C-PCB-156	1.24	1.98 %	1.23	1.25	1.28	1.21	1.26	1.24
13C-PCB-157	1.31	1.61 %	1.31	1.31	1.34	1.28	1.33	1.29
13C-PCB-169	1.22	1.81 %	1.22	1.21	1.25	1.19	1.22	1.20
13C-PCB-188	0.94	3.81 %	0.97	0.93	0.93	0.93	0.98	0.88
13C-PCB-180	0.67	2.62 %	0.71	0.67	0.67	0.67	0.67	0.65
13C-PCB-170	0.54	1.49 %	0.55	0.54	0.54	0.53	0.54	0.52
13C-PCB-189	0.72	1.73 %	0.72	0.70	0.73	0.73	0.71	0.70
13C-PCB-202	0.83	2.31 %	0.86	0.83	0.83	0.84	0.84	0.80

13C-PCB-194	0.81	1.33 %	0.82	0.82	0.82	0.80	0.81	0.79
13C-PCB-208	1.12	2.11 %	1.10	1.14	1.13	1.14	1.14	1.09
13C-PCB-206	0.66	3.31 %	0.63	0.65	0.66	0.70	0.65	0.65
13C-PCB-209	0.61	2.62 %	0.59	0.60	0.62	0.64	0.61	0.62
13C-PCB-15	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-31	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-60	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-111	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-128	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-205	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

13C-PCB-79	1.01	4.78 %	0.97	0.97	0.99	1.09	0.99	1.02
13C-PCB-178	0.63	4.30 %	0.62	0.61	0.62	0.69	0.62	0.62
13C-PCB-79	1.20	5.38 %	1.18	1.18	1.17	1.33	1.15	1.19
13C-PCB-178	0.94	5.01 %	0.88	0.91	0.92	1.02	0.93	0.96

Filename: 140620E1 S: 1 Acquired: 20-JUN-14 09:31:44

Run: 140620E1 Analyte: ICal: PCBVG8-6-20-14

Results:

Sample text: ST140620E1-1 PCB CS0 13H1202

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	0.25	4.35e+05	2.82 y	16:14	-	1.37
2	Mono	PCB-2	0.25	4.10e+05	3.17 y	18:35	-	1.27
3	Mono	PCB-3	0.25	4.22e+05	2.92 y	18:49	-	1.31
4	Di	PCB-4/10	1.00	1.23e+06	1.61 y	20:10	-	1.67
5	Di	PCB-7/9	1.00	1.58e+06	1.70 y	21:56	-	1.43
6	Di	PCB-6	0.50	8.23e+05	1.36 y	22:35	-	1.49
7	Di	PCB-5/8	1.00	1.42e+06	1.76 y	23:00	-	1.29
8	Di	PCB-14	0.50	8.96e+05	1.59 y	24:05	-	1.45
9	Di	PCB-11	0.50	8.18e+05	1.39 y	25:16	-	1.33
10	Di	PCB-12/13	1.00	1.48e+06	1.71 y	25:40	-	1.20
11	Di	PCB-15	0.50	8.65e+05	1.43 y	25:58	-	1.40
12	Tri	PCB-19	0.25	2.94e+05	1.11 y	24:16	-	1.63
13	Tri	PCB-30	0.25	3.70e+05	0.89 y	25:09	-	2.06
14	Tri	PCB-18	0.25	2.78e+05	1.19 y	25:54	-	1.03
15	Tri	PCB-17	0.25	2.82e+05	0.94 y	26:04	-	1.04
16	Tri	PCB-24/27	0.50	7.21e+05	1.01 y	26:38	-	1.33
17	Tri	PCB-16/32	0.50	6.64e+05	1.06 y	27:09	-	1.23
18	Tri	PCB-34	0.25	3.70e+05	1.06 y	27:56	-	1.47
19	Tri	PCB-23	0.25	3.85e+05	1.19 y	28:02	-	1.54
20	Tri	PCB-29	0.25	4.36e+05	1.18 y	28:17	-	1.74
21	Tri	PCB-26	0.25	4.07e+05	0.97 y	28:29	-	1.62
22	Tri	PCB-25	0.25	4.10e+05	1.07 y	28:39	-	1.63
23	Tri	PCB-31	0.25	4.70e+05	1.15 y	29:00	-	1.87
24	Tri	PCB-28	0.25	4.03e+05	1.12 y	29:07	-	1.60
25	Tri	PCB-20/21/33	0.75	1.20e+06	1.11 y	29:43	-	1.59
26	Tri	PCB-22	0.25	3.76e+05	1.05 y	30:10	-	1.50
27	Tri	PCB-36	0.25	3.74e+05	1.12 y	30:47	-	1.47
28	Tri	PCB-39	0.25	3.99e+05	1.02 y	31:14	-	1.58
29	Tri	PCB-38	0.25	3.51e+05	1.20 y	32:00	-	1.39
30	Tri	PCB-35	0.25	3.85e+05	1.07 y	32:32	-	1.52
31	Tri	PCB-37	0.25	4.00e+05	0.99 y	32:58	-	1.58
32	Tetra	PCB-54	0.25	3.02e+05	0.84 y	27:59	-	1.29
33	Tetra	PCB-50	0.25	2.51e+05	0.85 y	29:09	-	1.08
34	Tetra	PCB-53	0.25	2.75e+05	0.70 y	29:47	-	1.42
35	Tetra	PCB-51	0.25	2.35e+05	0.68 y	30:08	-	1.21
36	Tetra	PCB-45	0.25	2.02e+05	0.82 y	30:34	-	1.04
37	Tetra	PCB-46	0.25	2.36e+05	0.75 y	31:04	-	1.21
38	Tetra	PCB-52/69	0.50	5.24e+05	0.82 y	31:32	-	1.35
39	Tetra	PCB-73	0.25	2.76e+05	0.88 y	31:39	-	1.42
40	Tetra	PCB-43/49	0.50	5.07e+05	0.72 y	31:49	-	1.30

41	Tetra	PCB-47	0.25	2.69e+05	0.78	y	32:00	-	1.34
42	Tetra	PCB-48/75	0.50	6.11e+05	0.75	y	32:07	-	1.52
43	Tetra	PCB-65	0.25	3.35e+05	0.81	y	32:23	-	1.67
44	Tetra	PCB-62	0.25	2.78e+05	0.66	y	32:30	-	1.39
45	Tetra	PCB-44	0.25	2.18e+05	0.67	y	32:48	-	1.08
46	Tetra	PCB-42/59	0.50	5.48e+05	0.72	y	33:02	-	1.36
47	Tetra	PCB-41/64/71/72	1.00	1.19e+06	0.71	y	33:37	-	1.48
48	Tetra	PCB-68	0.25	3.28e+05	0.80	y	33:52	-	1.63
49	Tetra	PCB-40	0.25	1.99e+05	0.82	y	34:05	-	0.99
50	Tetra	PCB-57	0.25	3.26e+05	0.66	y	34:27	-	1.26
51	Tetra	PCB-67	0.25	2.73e+05	0.74	y	34:45	-	1.05

52	Tetra	PCB-58	0.25	3.35e+05	0.79 y	34:52	-	1.29
53	Tetra	PCB-63	0.25	3.04e+05	0.78 y	35:01	-	1.17
54	Tetra	PCB-74	0.25	3.39e+05	0.76 y	35:18	-	1.31
55	Tetra	PCB-61/70	0.50	6.13e+05	0.75 y	35:29	-	1.18
56	Tetra	PCB-76/66	0.50	6.79e+05	0.81 y	35:42	-	1.31
57	Tetra	PCB-80	0.25	3.81e+05	0.73 y	35:56	-	1.46
58	Tetra	PCB-55	0.25	3.04e+05	0.81 y	36:16	-	1.16
59	Tetra	PCB-56/60	0.50	6.61e+05	0.75 y	36:46	-	1.26
60	Tetra	PCB-79	0.25	3.31e+05	0.86 y	37:48	-	1.26
61	Tetra	PCB-78	0.25	3.20e+05	0.80 y	38:30	-	1.43
62	Tetra	PCB-81	0.25	3.39e+05	0.75 y	39:02	-	1.51
63	Tetra	PCB-77	0.25	3.19e+05	0.68 y	39:38	-	1.33
64	Penta	PCB-104	0.25	2.39e+05	1.52 y	32:40	-	1.42
65	Penta	PCB-96	0.25	2.08e+05	1.62 y	33:56	-	1.24
66	Penta	PCB-103	0.25	1.68e+05	1.38 y	34:27	-	1.00
67	Penta	PCB-100	0.25	1.73e+05	1.61 y	34:49	-	1.03
68	Penta	PCB-94	0.25	1.64e+05	1.42 y	35:17	-	1.31
69	Penta	PCB-95/98/102	0.75	5.11e+05	1.73 y	35:45	-	1.36
70	Penta	PCB-93	0.25	1.71e+05	1.64 y	35:54	-	1.36
71	Penta	PCB-88/91	0.50	2.51e+05	1.76 y	36:10	-	1.00
72	Penta	PCB-121	0.25	2.86e+05	1.39 y	36:17	-	2.27
73	Penta	PCB-84/92	0.50	3.08e+05	1.45 y	37:07	-	1.15
74	Penta	PCB-89	0.25	1.54e+05	1.32 y	37:19	-	1.15
75	Penta	PCB-90/101	0.50	3.59e+05	1.43 y	37:29	-	1.34
76	Penta	PCB-113	0.25	2.06e+05	1.63 y	37:44	-	1.54
77	Penta	PCB-99	0.25	1.92e+05	1.34 y	37:49	-	1.43
78	Penta	PCB-119	0.25	2.11e+05	1.49 y	38:18	-	1.78
79	Penta	PCB-108/112	0.50	3.11e+05	1.68 y	38:27	-	1.31
80	Penta	PCB-83	0.25	1.96e+05	1.33 y	38:37	-	1.66
81	Penta	PCB-97	0.25	1.60e+05	1.69 y	38:48	-	1.35
82	Penta	PCB-86	0.25	1.41e+05	1.52 y	38:56	-	1.19
83	Penta	PCB-87/117/125	0.75	5.92e+05	1.55 y	39:04	-	1.67
84	Penta	PCB-111/115	0.50	5.11e+05	1.55 y	39:14	-	2.16
85	Penta	PCB-85/116	0.50	3.09e+05	1.69 y	39:22	-	1.30
86	Penta	PCB-120	0.25	2.47e+05	1.58 y	39:35	-	2.08
87	Penta	PCB-110	0.25	2.26e+05	1.34 y	39:44	-	1.90
88	Penta	PCB-82	0.25	1.23e+05	1.66 y	40:23	-	0.83
89	Penta	PCB-124	0.25	2.30e+05	1.74 y	41:02	-	1.54
90	Penta	PCB-107/109	0.50	4.02e+05	1.57 y	41:12	-	1.35
91	Penta	PCB-123	0.25	1.93e+05	1.66 y	41:22	-	1.30
92	Penta	PCB-106/118	0.50	4.29e+05	1.45 y	41:33	-	1.37
93	Penta	PCB-114	0.25	2.76e+05	1.56 y	42:12	-	1.57
94	Penta	PCB-122	0.25	2.48e+05	1.55 y	42:20	-	1.41
95	Penta	PCB-105	0.25	2.42e+05	1.73 y	43:04	-	1.36
96	Penta	PCB-127	0.25	2.56e+05	1.65 y	43:24	-	1.33
97	Penta	PCB-126	0.25	2.38e+05	1.59 y	45:17	-	1.46
98	Hexa	PCB-155	0.25	1.62e+05	1.06 y	37:03	-	1.11
99	Hexa	PCB-150	0.25	1.67e+05	1.15 y	38:19	-	1.15
100	Hexa	PCB-152	0.25	1.92e+05	1.35 y	38:47	-	1.32
101	Hexa	PCB-145	0.25	1.95e+05	1.19 y	39:13	-	1.35

102	Hexa	PCB-136	0.25	1.82e+05	1.10	y	39:34	-	1.25
103	Hexa	PCB-148	0.25	1.22e+05	1.18	y	39:39	-	0.84
104	Hexa	PCB-154	0.25	1.40e+05	1.29	y	40:09	-	0.96
105	Hexa	PCB-151	0.25	1.32e+05	1.38	y	40:47	-	0.91
106	Hexa	PCB-135	0.25	1.21e+05	1.08	y	40:59	-	0.83
107	Hexa	PCB-144	0.25	1.35e+05	1.36	y	41:07	-	0.93
108	Hexa	PCB-147	0.25	1.45e+05	1.24	y	41:14	-	1.00
109	Hexa	PCB-139/149	0.50	2.63e+05	1.42	y	41:30	-	0.91
110	Hexa	PCB-140	0.25	1.32e+05	1.26	y	41:41	-	0.91
111	Hexa	PCB-134/143	0.50	3.60e+05	1.29	y	42:07	-	1.13
112	Hexa	PCB-133/142	0.50	3.59e+05	1.27	y	42:25	-	1.12

113	Hexa	PCB-131	0.25	1.78e+05	1.22	y	42:35	-	1.11
114	Hexa	PCB-146/165	0.50	4.25e+05	1.38	y	42:48	-	1.33
115	Hexa	PCB-132/161	0.50	4.18e+05	1.33	y	43:03	-	1.31
116	Hexa	PCB-153	0.25	1.94e+05	1.33	y	43:13	-	1.21
117	Hexa	PCB-168	0.25	2.50e+05	1.10	y	43:25	-	1.56
118	Hexa	PCB-141	0.25	1.70e+05	1.16	y	43:57	-	1.08
119	Hexa	PCB-137	0.25	1.76e+05	1.34	y	44:20	-	1.12
120	Hexa	PCB-130	0.25	1.34e+05	1.41	y	44:26	-	0.85
121	Hexa	PCB-138/163/164	0.75	5.80e+05	1.22	y	44:49	-	1.30
122	Hexa	PCB-158/160	0.50	4.07e+05	1.26	y	45:04	-	1.37
123	Hexa	PCB-129	0.25	1.58e+05	1.11	y	45:18	-	1.06
124	Hexa	PCB-166	0.25	1.98e+05	1.26	y	45:46	-	1.17
125	Hexa	PCB-159	0.25	2.11e+05	1.18	y	46:04	-	1.24
126	Hexa	PCB-128/162	0.50	3.74e+05	1.26	y	46:22	-	1.10
127	Hexa	PCB-167	0.25	2.22e+05	1.41	y	46:46	-	1.20
128	Hexa	PCB-156	0.25	2.47e+05	1.24	y	48:03	-	1.44
129	Hexa	PCB-157	0.25	2.16e+05	1.36	y	48:20	-	1.17
130	Hexa	PCB-169	0.25	2.12e+05	1.07	y	50:23	-	1.24
131	Hepta	PCB-188	0.25	2.17e+05	1.02	y	42:51	-	1.59
132	Hepta	PCB-184	0.25	1.84e+05	0.94	y	43:18	-	1.35
133	Hepta	PCB-179	0.25	2.05e+05	1.05	y	44:04	-	1.50
134	Hepta	PCB-176	0.25	2.12e+05	1.04	y	44:32	-	1.55
135	Hepta	PCB-186	0.25	2.00e+05	0.97	y	45:09	-	1.46
136	Hepta	PCB-178	0.25	1.35e+05	0.98	y	45:38	-	0.99
137	Hepta	PCB-175	0.25	1.41e+05	1.08	y	45:58	-	1.03
138	Hepta	PCB-182/187	0.50	2.91e+05	0.90	y	46:09	-	1.07
139	Hepta	PCB-183	0.25	1.61e+05	0.95	y	46:29	-	1.18
140	Hepta	PCB-185	0.25	1.56e+05	0.97	y	47:08	-	1.58
141	Hepta	PCB-174	0.25	1.40e+05	1.03	y	47:30	-	1.41
142	Hepta	PCB-181	0.25	1.55e+05	1.17	y	47:37	-	1.56
143	Hepta	PCB-177	0.25	1.49e+05	1.09	y	47:46	-	1.50
144	Hepta	PCB-171	0.25	1.51e+05	0.93	y	48:05	-	1.52
145	Hepta	PCB-173	0.25	1.42e+05	0.96	y	48:30	-	1.43
146	Hepta	PCB-172	0.25	1.45e+05	1.13	y	48:55	-	1.47
147	Hepta	PCB-192	0.25	1.68e+05	0.90	y	49:08	-	1.69
148	Hepta	PCB-180	0.25	1.70e+05	0.97	y	49:20	-	1.72
149	Hepta	PCB-193	0.25	1.88e+05	1.13	y	49:31	-	1.90
150	Hepta	PCB-191	0.25	2.02e+05	1.05	y	49:45	-	2.04
151	Hepta	PCB-170	0.25	1.27e+05	1.19	y	50:44	-	1.66
152	Hepta	PCB-190	0.25	1.78e+05	0.91	y	50:55	-	2.33
153	Hepta	PCB-189	0.25	1.70e+05	1.20	y	52:11	-	1.70
154	Octa	PCB-202	0.25	1.49e+05	0.98	y	48:16	-	1.24
155	Octa	PCB-201	0.25	1.60e+05	1.02	y	48:45	-	1.33
156	Octa	PCB-204	0.25	1.33e+05	0.77	y	48:54	-	1.10
157	Octa	PCB-197	0.25	1.54e+05	0.92	y	49:13	-	1.28
158	Octa	PCB-200	0.25	1.34e+05	1.01	y	50:02	-	1.11
159	Octa	PCB-198	0.25	1.08e+05	0.88	y	51:19	-	0.90
160	Octa	PCB-199	0.25	9.08e+04	0.94	y	51:25	-	0.75
161	Octa	PCB-196/203	0.50	1.98e+05	0.81	y	51:40	-	0.82
162	Octa	PCB-195	0.25	1.39e+05	0.81	y	52:48	-	1.32

163	Octa	PCB-194	0.25	1.70e+05	0.85	y	53:40	-	1.61
164	Octa	PCB-205	0.25	1.79e+05	0.98	y	53:57	-	1.70
165	Nona	PCB-208	0.25	1.78e+05	1.17	y	52:57	-	1.25
166	Nona	PCB-207	0.25	1.41e+05	1.37	y	53:14	-	0.99
167	Nona	PCB-206	0.25	1.02e+05	1.41	y	55:20	-	1.24
168	Deca	PCB-209	0.25	9.69e+04	1.15	y	56:37	-	1.27
169	Tot ䷂	Total Mono-PCB	0.00	-	-	n	-	-	1.32
170	Tot ䷂	Total Di-PCB	0.00	-	-	n	-	-	1.35

171	Tot ䷂	Total Tri-PCB	0.00	-	- n	-	-	1.36
172	Tot ䷂	Total Tri-PCB	0.00	-	- n	-	-	1.58
173	Tot ䷂	Total Tetra-PCB	0.00	-	- n	-	-	1.32
174	Tot ䷂	Total Penta-PCB	0.00	-	- n	-	-	1.33
175	Tot ䷂	Total Penta-PCB	0.00	-	- n	-	-	1.42
176	Tot ䷂	Total Hexa-PCB	0.00	-	- n	-	-	1.03
177	Tot ䷂	Total Hexa-PCB	0.00	-	- n	-	-	1.20
178	Tot ䷂	Total Hepta-PCB	0.00	-	- n	-	-	1.44
179	Tot ䷂	Total Octa-PCB	0.00	-	- n	-	-	1.04
180	Tot ䷂	Total Octa-PCB	0.00	-	- n	-	-	1.54
181	Tot ䷂	Total Nona-PCB	0.00	-	- n	-	-	1.15
182	Tot ䷂	Total Deca-PCB	0.25	9.69e+04	1.15 y	56:37	-	1.27
183	Mono䷀	13C-PCB-1	100.00	1.27e+08	3.28 y	16:13	-	0.97
184	Mono䷀	13C-PCB-3	100.00	1.29e+08	3.32 y	18:48	-	0.98
185	Di-IS	13C-PCB-4	100.00	7.37e+07	1.59 y	20:07	-	0.56
186	Di-IS	13C-PCB-9	100.00	1.10e+08	1.57 y	21:53	-	0.84
187	Di-1S	13C-PCB-11	100.00	1.24e+08	1.57 y	25:15	-	0.94
188	Tri-䷂	13C-PCB-19	100.00	7.18e+07	1.06 y	24:15	-	0.55
189	Tri-䷂	13C-PCB-32	100.00	1.08e+08	1.08 y	27:09	-	0.83
190	Tri-䷂	13C-PCB-28	100.00	1.00e+08	1.05 y	29:05	-	0.79
191	Tri-䷂	13C-PCB-37	100.00	1.01e+08	1.07 y	32:57	-	0.80
192	Tetra䷁	13C-PCB-54	100.00	9.33e+07	0.80 y	27:59	-	0.86
193	Tetra䷁	13C-PCB-52	100.00	7.77e+07	0.81 y	31:30	-	0.72
194	Tetra䷁	13C-PCB-47	100.00	8.03e+07	0.78 y	32:00	-	0.74
195	Tetra䷁	13C-PCB-70	100.00	1.04e+08	0.80 y	35:31	-	0.96
196	Tetra䷁	13C-PCB-80	100.00	1.05e+08	0.80 y	35:55	-	0.96
197	Tetra䷁	13C-PCB-81	100.00	8.95e+07	0.80 y	39:02	-	0.83
198	Tetra䷁	13C-PCB-77	100.00	9.58e+07	0.80 y	39:37	-	0.88
199	Pent䷃	13C-PCB-104	100.00	6.72e+07	1.63 y	32:39	-	0.99
200	Pent䷃	13C-PCB-95	100.00	5.03e+07	1.61 y	35:49	-	0.74
201	Pent䷃	13C-PCB-101	100.00	5.37e+07	1.61 y	37:29	-	0.79
202	Pent䷃	13C-PCB-97	100.00	4.74e+07	1.63 y	38:47	-	0.70
203	Pent䷃	13C-PCB-123	100.00	5.97e+07	1.63 y	41:21	-	0.88
204	Pent䷃	13C-PCB-118	100.00	6.28e+07	1.61 y	41:32	-	0.92
205	Pent䷃	13C-PCB-114	100.00	7.04e+07	1.59 y	42:11	-	1.26
206	Pent䷃	13C-PCB-105	100.00	7.09e+07	1.60 y	43:03	-	1.26
207	Pent䷃	13C-PCB-127	100.00	7.69e+07	1.57 y	43:22	-	1.37
208	Pent䷃	13C-PCB-126	100.00	6.51e+07	1.55 y	45:17	-	1.16
209	Hexa䷆	13C-PCB-155	100.00	5.81e+07	1.27 y	37:02	-	0.86
210	Hexa䷆	13C-PCB-153	100.00	6.40e+07	1.30 y	43:12	-	1.14
211	Hexa䷆	13C-PCB-141	100.00	6.31e+07	1.28 y	43:56	-	1.13
212	Hexa䷆	13C-PCB-138	100.00	5.96e+07	1.29 y	44:47	-	1.06
213	Hexa䷆	13C-PCB-159	100.00	6.79e+07	1.28 y	46:04	-	1.21
214	Hexa䷆	13C-PCB-167	100.00	7.42e+07	1.28 y	46:45	-	1.32
215	Hexa䷆	13C-PCB-156	100.00	6.87e+07	1.28 y	48:02	-	1.23
216	Hexa䷆	13C-PCB-157	100.00	7.37e+07	1.28 y	48:18	-	1.31
217	Hexa䷆	13C-PCB-169	100.00	6.83e+07	1.27 y	50:23	-	1.22
218	Hepta䷇	13C-PCB-188	100.00	5.45e+07	0.46 y	42:50	-	0.97
219	Hepta䷇	13C-PCB-180	100.00	3.96e+07	0.47 y	49:19	-	0.71
220	Hepta䷇	13C-PCB-170	100.00	3.06e+07	0.46 y	50:44	-	0.55
221	Hepta䷇	13C-PCB-189	100.00	4.02e+07	0.46 y	52:11	-	0.72

222	Octa _¶	13C-PCB-202	100.00	4.83e+07	0.91 y	48:15	-	0.86
223	Octa _¶	13C-PCB-194	100.00	4.22e+07	0.90 y	53:39	-	0.82
224	Nona _¶	13C-PCB-208	100.00	5.69e+07	0.78 y	52:56	-	1.10
225	Nona _¶	13C-PCB-206	100.00	3.28e+07	0.79 y	55:19	-	0.63
226	Deca _¶	13C-PCB-209	100.00	3.05e+07	1.17 y	56:36	-	0.59
227	DI-RS	13C-PCB-15	100.00	1.31e+08	1.57 y	25:58	-	1.00
228	Tri-¶	13C-PCB-31	100.00	1.27e+08	1.06 y	28:59	-	1.00
229	Tetr¶	13C-PCB-60	100.00	1.09e+08	0.78 y	36:45	-	1.00
230	Penta	13C-PCB-111	100.00	6.79e+07	1.58 y	39:12	-	1.00
231	Hexa _¶	13C-PCB-128	100.00	5.60e+07	1.28 y	46:20	-	1.00

232	Octa ₉	13C-PCB-205	100.00	5.17e+07	0.93	y	53:56	-	1.00
233	CRS	13C-PCB-79	100.00	1.05e+08	0.80	y	37:48	-	0.97
234	CRS	13C-PCB-178	100.00	3.50e+07	0.45	y	45:37	-	0.62
235	PS	13C-PCB-79	100.00	1.05e+08	0.80	y	37:48	-	1.18
236	PS	13C-PCB-178	100.00	3.50e+07	0.45	y	45:37	-	0.88

Filename: 140620E1 S: 2 Acquired: 20-JUN-14 10:35:42

Run: 140620E1 Analyte: ICal: PCBVG8-6-20-14

Sample text: ST140620E1-2 PCB CS1 13H1204

	TYP	Name	Amount	Resp	RA	RT	RF	RRF	
1	Mono	PCB-1	1.00	1.98e+06	3.08	y	16:16	-	1.26
2	Mono	PCB-2	1.00	1.97e+06	2.92	y	18:37	-	1.26
3	Mono	PCB-3	1.00	2.01e+06	3.12	y	18:51	-	1.29
4	Di	PCB-4/10	4.00	6.16e+06	1.55	y	20:12	-	1.64
5	Di	PCB-7/9	4.00	7.32e+06	1.64	y	21:57	-	1.30
6	Di	PCB-6	2.00	3.65e+06	1.60	y	22:37	-	1.29
7	Di	PCB-5/8	4.00	7.27e+06	1.61	y	23:01	-	1.29
8	Di	PCB-14	2.00	3.94e+06	1.66	y	24:06	-	1.24
9	Di	PCB-11	2.00	3.77e+06	1.68	y	25:17	-	1.19
10	Di	PCB-12/13	4.00	7.13e+06	1.61	y	25:41	-	1.12
11	Di	PCB-15	2.00	3.79e+06	1.72	y	26:00	-	1.19
12	Tri	PCB-19	1.00	1.20e+06	1.12	y	24:17	-	1.31
13	Tri	PCB-30	1.00	1.72e+06	1.12	y	25:10	-	1.88
14	Tri	PCB-18	1.00	1.24e+06	1.05	y	25:55	-	0.90
15	Tri	PCB-17	1.00	1.31e+06	1.07	y	26:05	-	0.96
16	Tri	PCB-24/27	2.00	3.29e+06	1.07	y	26:40	-	1.20
17	Tri	PCB-16/32	2.00	2.95e+06	1.04	y	27:10	-	1.08
18	Tri	PCB-34	1.00	1.94e+06	1.06	y	27:58	-	1.39
19	Tri	PCB-23	1.00	1.78e+06	1.00	y	28:04	-	1.27
20	Tri	PCB-29	1.00	1.84e+06	1.07	y	28:18	-	1.32
21	Tri	PCB-26	1.00	1.83e+06	1.06	y	28:31	-	1.31
22	Tri	PCB-25	1.00	1.92e+06	1.07	y	28:40	-	1.37
23	Tri	PCB-31	1.00	1.96e+06	1.10	y	29:02	-	1.40
24	Tri	PCB-28	1.00	2.00e+06	1.03	y	29:07	-	1.43
25	Tri	PCB-20/21/33	3.00	5.56e+06	1.09	y	29:45	-	1.33
26	Tri	PCB-22	1.00	1.93e+06	1.07	y	30:11	-	1.38
27	Tri	PCB-36	1.00	1.90e+06	1.15	y	30:47	-	1.49
28	Tri	PCB-39	1.00	1.91e+06	1.10	y	31:16	-	1.49
29	Tri	PCB-38	1.00	1.86e+06	1.05	y	32:02	-	1.45
30	Tri	PCB-35	1.00	1.77e+06	1.19	y	32:33	-	1.38
31	Tri	PCB-37	1.00	1.80e+06	1.09	y	32:59	-	1.40
32	Tetra	PCB-54	1.00	1.51e+06	0.77	y	28:01	-	1.28
33	Tetra	PCB-50	1.00	1.19e+06	0.86	y	29:11	-	1.01
34	Tetra	PCB-53	1.00	1.21e+06	0.82	y	29:49	-	1.24
35	Tetra	PCB-51	1.00	1.15e+06	0.86	y	30:10	-	1.18
36	Tetra	PCB-45	1.00	9.70e+05	0.76	y	30:36	-	0.99
37	Tetra	PCB-46	1.00	9.57e+05	0.75	y	31:05	-	0.98
38	Tetra	PCB-52/69	2.00	2.60e+06	0.79	y	31:33	-	1.33
39	Tetra	PCB-73	1.00	1.36e+06	0.84	y	31:40	-	1.39
40	Tetra	PCB-43/49	2.00	2.21e+06	0.81	y	31:50	-	1.13
41	Tetra	PCB-47	1.00	1.22e+06	0.72	y	32:02	-	1.18

42	Tetra	PCB-48/75	2.00	2.64e+06	0.76	y	32:09	-	1.28
43	Tetra	PCB-65	1.00	1.34e+06	0.76	y	32:25	-	1.30
44	Tetra	PCB-62	1.00	1.44e+06	0.77	y	32:32	-	1.40
45	Tetra	PCB-44	1.00	9.24e+05	0.78	y	32:50	-	0.90
46	Tetra	PCB-42/59	2.00	2.58e+06	0.75	y	33:04	-	1.25
47	Tetra	PCB-41/64/71/72	4.00	5.45e+06	0.78	y	33:39	-	1.32
48	Tetra	PCB-68	1.00	1.64e+06	0.79	y	33:54	-	1.59
49	Tetra	PCB-40	1.00	8.54e+05	0.76	y	34:07	-	0.83
50	Tetra	PCB-57	1.00	1.51e+06	0.73	y	34:29	-	1.18
51	Tetra	PCB-67	1.00	1.53e+06	0.78	y	34:47	-	1.20
52	Tetra	PCB-58	1.00	1.45e+06	0.75	y	34:54	-	1.13

53	Tetra	PCB-63	1.00	1.51e+06	0.75	y	35:03	-	1.17
54	Tetra	PCB-74	1.00	1.62e+06	0.77	y	35:20	-	1.27
55	Tetra	PCB-61/70	2.00	2.91e+06	0.80	y	35:31	-	1.13
56	Tetra	PCB-76/66	2.00	3.02e+06	0.75	y	35:44	-	1.18
57	Tetra	PCB-80	1.00	1.75e+06	0.82	y	35:57	-	1.33
58	Tetra	PCB-55	1.00	1.55e+06	0.78	y	36:17	-	1.17
59	Tetra	PCB-56/60	2.00	2.96e+06	0.79	y	36:47	-	1.12
60	Tetra	PCB-79	1.00	1.47e+06	0.75	y	37:50	-	1.11
61	Tetra	PCB-78	1.00	1.43e+06	0.78	y	38:32	-	1.32
62	Tetra	PCB-81	1.00	1.62e+06	0.82	y	39:04	-	1.50
63	Tetra	PCB-77	1.00	1.46e+06	0.80	y	39:40	-	1.26
64	Penta	PCB-104	1.00	1.12e+06	1.57	y	32:42	-	1.31
65	Penta	PCB-96	1.00	9.56e+05	1.70	y	33:57	-	1.12
66	Penta	PCB-103	1.00	8.44e+05	1.51	y	34:29	-	0.98
67	Penta	PCB-100	1.00	9.21e+05	1.69	y	34:50	-	1.08
68	Penta	PCB-94	1.00	6.94e+05	1.57	y	35:18	-	1.11
69	Penta	PCB-95/98/102	3.00	2.34e+06	1.61	y	35:47	-	1.25
70	Penta	PCB-93	1.00	8.35e+05	1.78	y	35:55	-	1.34
71	Penta	PCB-88/91	2.00	1.32e+06	1.53	y	36:12	-	1.06
72	Penta	PCB-121	1.00	1.38e+06	1.59	y	36:18	-	2.21
73	Penta	PCB-84/92	2.00	1.48e+06	1.69	y	37:09	-	1.13
74	Penta	PCB-89	1.00	6.78e+05	1.51	y	37:20	-	1.04
75	Penta	PCB-90/101	2.00	1.64e+06	1.61	y	37:31	-	1.26
76	Penta	PCB-113	1.00	8.19e+05	1.58	y	37:44	-	1.26
77	Penta	PCB-99	1.00	9.67e+05	1.59	y	37:50	-	1.48
78	Penta	PCB-119	1.00	1.04e+06	1.76	y	38:18	-	1.88
79	Penta	PCB-108/112	2.00	1.54e+06	1.59	y	38:27	-	1.39
80	Penta	PCB-83	1.00	8.48e+05	1.61	y	38:38	-	1.53
81	Penta	PCB-97	1.00	7.01e+05	1.71	y	38:49	-	1.26
82	Penta	PCB-86	1.00	5.31e+05	1.42	y	38:58	-	0.96
83	Penta	PCB-87/117/125	3.00	2.66e+06	1.67	y	39:05	-	1.60
84	Penta	PCB-111/115	2.00	2.00e+06	1.53	y	39:15	-	1.80
85	Penta	PCB-85/116	2.00	1.50e+06	1.61	y	39:23	-	1.35
86	Penta	PCB-120	1.00	1.00e+06	1.51	y	39:37	-	1.80
87	Penta	PCB-110	1.00	9.88e+05	1.74	y	39:46	-	1.78
88	Penta	PCB-82	1.00	6.18e+05	1.61	y	40:23	-	0.83
89	Penta	PCB-124	1.00	9.98e+05	1.74	y	41:03	-	1.34
90	Penta	PCB-107/109	2.00	1.94e+06	1.58	y	41:12	-	1.31
91	Penta	PCB-123	1.00	9.67e+05	1.61	y	41:22	-	1.30
92	Penta	PCB-106/118	2.00	1.95e+06	1.71	y	41:35	-	1.27
93	Penta	PCB-114	1.00	1.19e+06	1.64	y	42:13	-	1.37
94	Penta	PCB-122	1.00	1.14e+06	1.68	y	42:21	-	1.32
95	Penta	PCB-105	1.00	1.16e+06	1.68	y	43:05	-	1.29
96	Penta	PCB-127	1.00	1.14e+06	1.58	y	43:24	-	1.18
97	Penta	PCB-126	1.00	1.08e+06	1.48	y	45:19	-	1.28
98	Hexa	PCB-155	1.00	8.43e+05	1.23	y	37:03	-	1.20
99	Hexa	PCB-150	1.00	7.33e+05	1.34	y	38:20	-	1.04
100	Hexa	PCB-152	1.00	7.58e+05	1.20	y	38:48	-	1.08
101	Hexa	PCB-145	1.00	7.48e+05	1.15	y	39:15	-	1.06
102	Hexa	PCB-136	1.00	7.19e+05	1.34	y	39:33	-	1.02

103	Hexa	PCB-148	1.00	5.31e-05	1.18	y	39:40	-	0.75
104	Hexa	PCB-154	1.00	6.17e+05	1.37	y	40:10	-	0.88
105	Hexa	PCB-151	1.00	5.78e+05	1.33	y	40:48	-	0.82
106	Hexa	PCB-135	1.00	5.29e+05	1.36	y	41:01	-	0.75
107	Hexa	PCB-144	1.00	5.73e+05	1.29	y	41:08	-	0.81
108	Hexa	PCB-147	1.00	5.38e+05	1.32	y	41:16	-	0.76
109	Hexa	PCB-139/149	2.00	1.16e+06	1.33	y	41:30	-	0.82
110	Hexa	PCB-140	1.00	5.12e+05	1.26	y	41:42	-	0.73
111	Hexa	PCB-134/143	2.00	1.51e+06	1.24	y	42:09	-	0.94
112	Hexa	PCB-133/142	2.00	1.57e+06	1.37	y	42:26	-	0.98
113	Hexa	PCB-131	1.00	7.67e+05	1.32	y	42:36	-	0.96

114	Hexa	PCB-146/165	2.00	1.91e+06	1.21	y	42:48	-	1.19
115	Hexa	PCB-132/161	2.00	1.82e+06	1.22	y	43:03	-	1.14
116	Hexa	PCB-153	1.00	9.94e+05	1.17	y	43:14	-	1.24
117	Hexa	PCB-168	1.00	1.15e+06	1.10	y	43:27	-	1.44
118	Hexa	PCB-141	1.00	7.87e+05	1.28	y	43:58	-	1.00
119	Hexa	PCB-137	1.00	9.10e+05	1.29	y	44:21	-	1.16
120	Hexa	PCB-130	1.00	6.47e+05	1.23	y	44:28	-	0.83
121	Hexa	PCB-138/163/164	3.00	2.92e+06	1.18	y	44:50	-	1.28
122	Hexa	PCB-158/160	2.00	2.01e+06	1.38	y	45:05	-	1.33
123	Hexa	PCB-129	1.00	7.44e+05	1.17	y	45:19	-	0.98
124	Hexa	PCB-166	1.00	1.04e+06	1.28	y	45:46	-	1.21
125	Hexa	PCB-159	1.00	1.07e+06	1.23	y	46:05	-	1.24
126	Hexa	PCB-128/162	2.00	1.76e+06	1.16	y	46:22	-	1.03
127	Hexa	PCB-167	1.00	1.00e+06	1.19	y	46:47	-	1.04
128	Hexa	PCB-156	1.00	1.09e+06	1.12	y	48:04	-	1.20
129	Hexa	PCB-157	1.00	1.06e+06	1.22	y	48:20	-	1.12
130	Hexa	PCB-169	1.00	1.01e+06	1.16	y	50:24	-	1.15
131	Hepta	PCB-188	1.00	9.64e+05	1.15	y	42:52	-	1.44
132	Hepta	PCB-184	1.00	8.74e+05	0.93	y	43:18	-	1.30
133	Hepta	PCB-179	1.00	9.19e+05	1.16	y	44:06	-	1.37
134	Hepta	PCB-176	1.00	9.89e+05	1.02	y	44:34	-	1.47
135	Hepta	PCB-186	1.00	8.74e+05	1.12	y	45:09	-	1.30
136	Hepta	PCB-178	1.00	7.05e+05	1.02	y	45:38	-	1.05
137	Hepta	PCB-175	1.00	6.78e+05	0.95	y	45:59	-	1.01
138	Hepta	PCB-182/187	2.00	1.38e+06	0.98	y	46:11	-	1.03
139	Hepta	PCB-183	1.00	7.83e+05	1.07	y	46:29	-	1.17
140	Hepta	PCB-185	1.00	6.66e+05	0.96	y	47:09	-	1.37
141	Hepta	PCB-174	1.00	6.57e+05	1.07	y	47:31	-	1.36
142	Hepta	PCB-181	1.00	7.19e+05	0.90	y	47:36	-	1.48
143	Hepta	PCB-177	1.00	5.95e+05	0.98	y	47:47	-	1.23
144	Hepta	PCB-171	1.00	6.43e+05	1.06	y	48:04	-	1.33
145	Hepta	PCB-173	1.00	5.49e+05	1.09	y	48:31	-	1.13
146	Hepta	PCB-172	1.00	5.72e+05	1.17	y	48:57	-	1.18
147	Hepta	PCB-192	1.00	7.66e+05	1.07	y	49:09	-	1.58
148	Hepta	PCB-180	1.00	7.16e+05	1.13	y	49:20	-	1.48
149	Hepta	PCB-193	1.00	8.30e+05	1.09	y	49:32	-	1.71
150	Hepta	PCB-191	1.00	7.89e+05	1.14	y	49:46	-	1.63
151	Hepta	PCB-170	1.00	6.49e+05	1.09	y	50:45	-	1.67
152	Hepta	PCB-190	1.00	8.09e+05	1.12	y	50:55	-	2.09
153	Hepta	PCB-189	1.00	8.02e+05	1.19	y	52:12	-	1.58
154	Octa	PCB-202	1.00	6.64e+05	0.98	y	48:17	-	1.11
155	Octa	PCB-201	1.00	6.64e+05	0.96	y	48:46	-	1.11
156	Octa	PCB-204	1.00	5.92e+05	0.96	y	48:55	-	0.99
157	Octa	PCB-197	1.00	6.20e+05	0.87	y	49:13	-	1.04
158	Octa	PCB-200	1.00	6.09e+05	0.92	y	50:03	-	1.02
159	Octa	PCB-198	1.00	4.81e+05	0.77	y	51:20	-	0.81
160	Octa	PCB-199	1.00	4.49e+05	0.78	y	51:25	-	0.75
161	Octa	PCB-196/203	2.00	9.60e+05	0.87	y	51:40	-	0.80
162	Octa	PCB-195	1.00	6.50e+05	0.91	y	52:49	-	1.23
163	Octa	PCB-194	1.00	6.42e+05	1.01	y	53:40	-	1.21

164	Octa	PCB-205	1.00	7.63e+05	0.88	y	53:57	-	1.44
165	Nona	PCB-208	1.00	7.07e+05	1.32	y	52:57	-	0.95
166	Nona	PCB-207	1.00	7.22e+05	1.40	y	53:16	-	0.97
167	Nona	PCB-206	1.00	4.47e+05	1.26	y	55:21	-	1.05
168	Deca	PCB-209	1.00	4.65e+05	1.13	y	56:37	-	1.19
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.27
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.24
171	Tot Σ	Total Tri-PCB	0.00	-	-	n	-	-	1.20

172	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.38
173	Tot Σ	Total Tetra-PCB	0.00	-	- n	-	-	1.21
174	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.27
175	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.29
176	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.90
177	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	1.12
178	Tot Σ	Total Hepta-PCB	0.00	-	- n	-	-	1.31
179	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	0.94
180	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	1.29
181	Tot Σ	Total Nona-PCB	0.00	-	- n	-	-	0.98
182	Tot Σ	Total Deca-PCB	1.00	4.65e+05	1.13 y	56:37	-	1.19
183	MonoΣ	13C-PCB-1	100.00	1.56e+08	3.23 y	16:15	-	0.94
184	MonoΣ	13C-PCB-3	100.00	1.56e+08	3.29 y	18:50	-	0.94
185	Di-IS	13C-PCB-4	100.00	9.40e+07	1.58 y	20:09	-	0.57
186	Di-IS	13C-PCB-9	100.00	1.41e+08	1.60 y	21:55	-	0.85
187	Di-IS	13C-PCB-11	100.00	1.59e+08	1.57 y	25:17	-	0.96
188	Tri-Σ	13C-PCB-19	100.00	9.18e+07	1.06 y	24:16	-	0.55
189	Tri-Σ	13C-PCB-32	100.00	1.37e+08	1.08 y	27:10	-	0.82
190	Tri-Σ	13C-PCB-28	100.00	1.40e+08	1.05 y	29:07	-	0.91
191	Tri-Σ	13C-PCB-37	100.00	1.28e+08	1.06 y	32:59	-	0.83
192	Tetr-Σ	13C-PCB-54	100.00	1.18e+08	0.81 y	28:00	-	0.89
193	Tetr-Σ	13C-PCB-52	100.00	9.78e+07	0.79 y	31:30	-	0.74
194	Tetr-Σ	13C-PCB-47	100.00	1.03e+08	0.79 y	32:01	-	0.78
195	Tetr-Σ	13C-PCB-70	100.00	1.28e+08	0.80 y	35:31	-	0.97
196	Tetr-Σ	13C-PCB-80	100.00	1.32e+08	0.81 y	35:56	-	1.00
197	Tetr-Σ	13C-PCB-81	100.00	1.09e+08	0.81 y	39:03	-	0.82
198	Tetr-Σ	13C-PCB-77	100.00	1.16e+08	0.80 y	39:38	-	0.87
199	Pent-Σ	13C-PCB-104	100.00	8.57e+07	1.62 y	32:41	-	1.06
200	Pent-Σ	13C-PCB-95	100.00	6.25e+07	1.56 y	35:50	-	0.78
201	Pent-Σ	13C-PCB-101	100.00	6.52e+07	1.58 y	37:30	-	0.81
202	Pent-Σ	13C-PCB-97	100.00	5.55e+07	1.65 y	38:48	-	0.69
203	Pent-Σ	13C-PCB-123	100.00	7.42e+07	1.57 y	41:21	-	0.92
204	Pent-Σ	13C-PCB-118	100.00	7.69e+07	1.66 y	41:33	-	0.95
205	Pent-Σ	13C-PCB-114	100.00	8.65e+07	1.61 y	42:12	-	1.20
206	Pent-Σ	13C-PCB-105	100.00	8.97e+07	1.59 y	43:03	-	1.24
207	Pent-Σ	13C-PCB-127	100.00	9.70e+07	1.57 y	43:23	-	1.34
208	Pent-Σ	13C-PCB-126	100.00	8.43e+07	1.60 y	45:18	-	1.17
209	Hexa-Σ	13C-PCB-155	100.00	7.04e+07	1.28 y	37:03	-	0.87
210	Hexa-Σ	13C-PCB-153	100.00	8.00e+07	1.28 y	43:13	-	1.11
211	Hexa-Σ	13C-PCB-141	100.00	7.84e+07	1.29 y	43:57	-	1.09
212	Hexa	13C-PCB-138	100.00	7.60e+07	1.27 y	44:48	-	1.05
213	Hexa-Σ	13C-PCB-159	100.00	8.60e+07	1.28 y	46:05	-	1.19
214	Hexa-Σ	13C-PCB-167	100.00	9.61e+07	1.31 y	46:45	-	1.33
215	Hexa-Σ	13C-PCB-156	100.00	9.01e+07	1.28 y	48:03	-	1.25
216	Hexa-Σ	13C-PCB-157	100.00	9.47e+07	1.27 y	48:19	-	1.31
217	Hexa-Σ	13C-PCB-169	100.00	8.76e+07	1.27 y	50:24	-	1.21
218	Hept-Σ	13C-PCB-188	100.00	6.71e+07	0.47 y	42:51	-	0.93
219	Hept-Σ	13C-PCB-180	100.00	4.84e+07	0.47 y	49:19	-	0.67
220	Hept-Σ	13C-PCB-170	100.00	3.88e+07	0.48 y	50:45	-	0.54
221	Hept-Σ	13C-PCB-189	100.00	5.08e+07	0.46 y	52:10	-	0.70
222	Octa-Σ	13C-PCB-202	100.00	5.96e+07	0.91 y	48:16	-	0.83

223	Octa ₇	13C-PCB-194	100.00	5.30e+07	0.91	y	53:40	-	0.82
224	Nona ₇	13C-PCB-208	100.00	7.41e+07	0.77	y	52:56	-	1.14
225	Nona ₇	13C-PCB-206	100.00	4.24e+07	0.79	y	55:20	-	0.65
226	Deca ₇	13C-PCB-209	100.00	3.91e+07	1.19	y	56:37	-	0.60
227	DI-RS	13C-PCB-15	100.00	1.66e+08	1.58	y	25:59	-	1.00
228	Tri- ₇	13C-PCB-31	100.00	1.54e+08	1.06	y	29:00	-	1.00
229	Tetra ₇	13C-PCB-60	100.00	1.33e+08	0.79	y	36:46	-	1.00
230	Penta	13C-PCB-111	100.00	8.06e+07	1.63	y	39:14	-	1.00
231	Hexa ₇	13C-PCB-128	100.00	7.22e+07	1.30	y	46:21	-	1.00
232	Octa ₇	13C-PCB-205	100.00	6.47e+07	0.91	y	53:57	-	1.00

233	CRS	13C-PCB-79	100.00	1.28e+08	0.81	y	37:49	-	0.97
234	CRS	13C-PCB-178	100.00	4.42e+07	0.46	y	45:38	-	0.61
235	PS	13C-PCB-79	100.00	1.28e+08	0.81	y	37:49	-	1.18
236	PS	13C-PCB-178	100.00	4.42e+07	0.46	y	45:38	-	0.91

Filename: 140620E1 S: 3 Acquired: 20-JUN-14 11:39:47

Run: 140620E1 Analyte: ICAL: PCBVG8-6-20-14

Results:

Sample text: ST140620E1-3 PCB CS2 13H1205

	TYP	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	2.50	1.09e+07	2.94 y	16:15	-	1.26
2	Mono	PCB-2	2.50	1.01e+07	3.00 y	18:37	-	1.14
3	Mono	PCB-3	2.50	1.09e+07	3.06 y	18:51	-	1.23
4	Di	PCB-4/10	10.00	3.30e+07	1.63 y	20:12	-	1.55
5	Di	PCB-7/9	10.00	4.03e+07	1.63 y	21:58	-	1.26
6	Di	PCB-6	5.00	2.02e+07	1.66 y	22:36	-	1.26
7	Di	PCB-5/8	10.00	3.95e+07	1.65 y	23:01	-	1.23
8	Di	PCB-14	5.00	2.20e+07	1.65 y	24:06	-	1.21
9	Di	PCB-11	5.00	2.10e+07	1.68 y	25:18	-	1.16
10	Di	PCB-12/13	10.00	3.98e+07	1.61 y	25:41	-	1.10
11	Di	PCB-15	5.00	2.21e+07	1.67 y	25:59	-	1.22
12	Tri	PCB-19	2.50	6.55e+06	1.07 y	24:18	-	1.26
13	Tri	PCB-30	2.50	9.41e+06	1.06 y	25:11	-	1.82
14	Tri	PCB-18	2.50	6.63e+06	1.06 y	25:55	-	0.85
15	Tri	PCB-17	2.50	6.98e+06	1.08 y	26:06	-	0.89
16	Tri	PCB-24/27	5.00	1.85e+07	1.06 y	26:40	-	1.18
17	Tri	PCB-16/32	5.00	1.59e+07	1.07 y	27:10	-	1.02
18	Tri	PCB-34	2.50	9.58e+06	1.09 y	27:57	-	1.25
19	Tri	PCB-23	2.50	1.08e+07	1.09 y	28:03	-	1.41
20	Tri	PCB-29	2.50	1.02e+07	1.10 y	28:18	-	1.32
21	Tri	PCB-26	2.50	1.02e+07	1.06 y	28:30	-	1.32
22	Tri	PCB-25	2.50	1.04e+07	1.14 y	28:40	-	1.36
23	Tri	PCB-31	2.50	1.12e+07	1.09 y	29:02	-	1.46
24	Tri	PCB-28	2.50	1.08e+07	1.11 y	29:08	-	1.41
25	Tri	PCB-20/21/33	7.50	3.04e+07	1.09 y	29:45	-	1.32
26	Tri	PCB-22	2.50	1.03e+07	1.06 y	30:11	-	1.35
27	Tri	PCB-36	2.50	1.02e+07	1.08 y	30:48	-	1.38
28	Tri	PCB-39	2.50	1.04e+07	1.08 y	31:16	-	1.41
29	Tri	PCB-38	2.50	1.00e+07	1.09 y	32:03	-	1.36
30	Tri	PCB-35	2.50	9.94e+06	1.07 y	32:33	-	1.35
31	Tri	PCB-37	2.50	1.02e+07	1.12 y	32:59	-	1.39
32	Tetra	PCB-54	2.50	7.98e+06	0.79 y	28:02	-	1.18
33	Tetra	PCB-50	2.50	6.47e+06	0.77 y	29:11	-	0.96
34	Tetra	PCB-53	2.50	6.40e+06	0.77 y	29:50	-	1.14
35	Tetra	PCB-51	2.50	6.58e+06	0.81 y	30:10	-	1.17
36	Tetra	PCB-45	2.50	5.60e+06	0.78 y	30:36	-	1.00
37	Tetra	PCB-46	2.50	5.09e+06	0.75 y	31:05	-	0.90
38	Tetra	PCB-52/69	5.00	1.50e+07	0.79 y	31:33	-	1.33
39	Tetra	PCB-73	2.50	7.36e+06	0.75 y	31:40	-	1.31
40	Tetra	PCB-43/49	5.00	1.23e+07	0.78 y	31:50	-	1.10
41	Tetra	PCB-47	2.50	6.07e+06	0.76 y	32:02	-	1.04

42	Tetra	PCB-48/75	5.00	1.55e+07	0.77	y	32:09	-	1.33
43	Tetra	PCB-65	2.50	7.45e+06	0.79	y	32:25	-	1.28
44	Tetra	PCB-62	2.50	7.60e+06	0.79	y	32:32	-	1.30
45	Tetra	PCB-44	2.50	5.73e+06	0.74	y	32:50	-	0.98
46	Tetra	PCB-42/59	5.00	1.41e+07	0.77	y	33:04	-	1.21
47	Tetra	PCB-41/64/71/72	10.00	2.98e+07	0.78	y	33:39	-	1.28
48	Tetra	PCB-68	2.50	8.64e+06	0.79	y	33:54	-	1.48
49	Tetra	PCB-40	2.50	4.77e+06	0.77	y	34:07	-	0.82
50	Tetra	PCB-57	2.50	7.93e+06	0.79	y	34:28	-	1.11
51	Tetra	PCB-67	2.50	8.04e+06	0.68	y	34:46	-	1.12
52	Tetra	PCB-58	2.50	8.03e+06	0.88	y	34:53	-	1.12

53	Tetra	PCB-63	2.50	8.15e+06	0.80	y	35:03	-	1.14
54	Tetra	PCB-74	2.50	8.76e+06	0.78	y	35:20	-	1.22
55	Tetra	PCB-61/70	5.00	1.56e+07	0.76	y	35:31	-	1.08
56	Tetra	PCB-76/66	5.00	1.60e+07	0.79	y	35:44	-	1.12
57	Tetra	PCB-80	2.50	9.48e+06	0.78	y	35:58	-	1.28
58	Tetra	PCB-55	2.50	8.11e+06	0.77	y	36:17	-	1.10
59	Tetra	PCB-56/60	5.00	1.58e+07	0.77	y	36:47	-	1.07
60	Tetra	PCB-79	2.50	8.31e+06	0.75	y	37:50	-	1.12
61	Tetra	PCB-78	2.50	7.55e+06	0.77	y	38:32	-	1.20
62	Tetra	PCB-81	2.50	8.89e+06	0.79	y	39:04	-	1.41
63	Tetra	PCB-77	2.50	8.13e+06	0.82	y	39:39	-	1.22
64	Penta	PCB-104	2.50	6.23e+06	1.51	y	32:41	-	1.28
65	Penta	PCB-96	2.50	5.23e+06	1.55	y	33:57	-	1.08
66	Penta	PCB-103	2.50	4.30e+06	1.55	y	34:29	-	0.89
67	Penta	PCB-100	2.50	4.69e+06	1.55	y	34:50	-	0.97
68	Penta	PCB-94	2.50	3.79e+06	1.67	y	35:18	-	1.11
69	Penta	PCB-95/98/102	7.50	1.21e+07	1.60	y	35:48	-	1.18
70	Penta	PCB-93	2.50	4.14e+06	1.71	y	35:56	-	1.21
71	Penta	PCB-88/91	5.00	6.98e+06	1.52	y	36:13	-	1.02
72	Penta	PCB-121	2.50	6.62e+06	1.66	y	36:18	-	1.94
73	Penta	PCB-84/92	5.00	7.58e+06	1.59	y	37:08	-	1.05
74	Penta	PCB-89	2.50	3.69e+06	1.55	y	37:20	-	1.02
75	Penta	PCB-90/101	5.00	8.58e+06	1.58	y	37:30	-	1.19
76	Penta	PCB-113	2.50	4.74e+06	1.59	y	37:45	-	1.32
77	Penta	PCB-99	2.50	4.85e+06	1.65	y	37:50	-	1.35
78	Penta	PCB-119	2.50	5.47e+06	1.52	y	38:19	-	1.72
79	Penta	PCB-108/112	5.00	8.21e+06	1.65	y	38:28	-	1.29
80	Penta	PCB-83	2.50	4.81e+06	1.57	y	38:38	-	1.51
81	Penta	PCB-97	2.50	4.05e+06	1.59	y	38:49	-	1.27
82	Penta	PCB-86	2.50	3.35e+06	1.53	y	38:57	-	1.05
83	Penta	PCB-87/117/125	7.50	1.48e+07	1.59	y	39:05	-	1.55
84	Penta	PCB-111/115	5.00	1.08e+07	1.58	y	39:14	-	1.69
85	Penta	PCB-85/116	5.00	8.48e+06	1.60	y	39:22	-	1.33
86	Penta	PCB-120	2.50	5.59e+06	1.63	y	39:37	-	1.76
87	Penta	PCB-110	2.50	5.26e+06	1.59	y	39:45	-	1.65
88	Penta	PCB-82	2.50	3.23e+06	1.69	y	40:24	-	0.73
89	Penta	PCB-124	2.50	5.89e+06	1.57	y	41:04	-	1.33
90	Penta	PCB-107/109	5.00	1.04e+07	1.65	y	41:13	-	1.18
91	Penta	PCB-123	2.50	5.43e+06	1.52	y	41:23	-	1.23
92	Penta	PCB-106/118	5.00	1.13e+07	1.59	y	41:34	-	1.25
93	Penta	PCB-114	2.50	6.81e+06	1.68	y	42:13	-	1.36
94	Penta	PCB-122	2.50	6.01e+06	1.59	y	42:21	-	1.20
95	Penta	PCB-105	2.50	6.91e+06	1.69	y	43:05	-	1.33
96	Penta	PCB-127	2.50	6.53e+06	1.64	y	43:25	-	1.14
97	Penta	PCB-126	2.50	6.39e+06	1.68	y	45:18	-	1.28
98	Hexa	PCB-155	2.50	4.51e+06	1.22	y	37:04	-	1.18
99	Hexa	PCB-150	2.50	4.00e+06	1.22	y	38:20	-	1.05
100	Hexa	PCB-152	2.50	4.04e+06	1.22	y	38:48	-	1.06
101	Hexa	PCB-145	2.50	4.00e+06	1.28	y	39:14	-	1.05
102	Hexa	PCB-136	2.50	4.13e+06	1.32	y	39:34	-	1.08

103	Hexa	PCB-148	2.50	2.58e+06	1.36	y	39:41	-	0.68
104	Hexa	PCB-154	2.50	3.37e+06	1.28	y	40:09	-	0.88
105	Hexa	PCB-151	2.50	2.97e+06	1.35	y	40:48	-	0.78
106	Hexa	PCB-135	2.50	2.92e+06	1.29	y	41:00	-	0.76
107	Hexa	PCB-144	2.50	2.97e+06	1.28	y	41:07	-	0.78
108	Hexa	PCB-147	2.50	2.99e+06	1.23	y	41:15	-	0.78
109	Hexa	PCB-139/149	5.00	6.36e+06	1.23	y	41:31	-	0.83
110	Hexa	PCB-140	2.50	2.90e+06	1.28	y	41:42	-	0.76
111	Hexa	PCB-134/143	5.00	8.39e+06	1.23	y	42:08	-	0.90
112	Hexa	PCB-133/142	5.00	8.52e+06	1.22	y	42:26	-	0.91
113	Hexa	PCB-131	2.50	4.20e+06	1.24	y	42:36	-	0.90

114	Hexa	PCB-146/165	5.00	1.07e+07	1.23	y	42:49	-	1.14
115	Hexa	PCB-132/161	5.00	1.02e+07	1.22	y	43:04	-	1.09
116	Hexa	PCB-153	2.50	5.91e+06	1.25	y	43:13	-	1.26
117	Hexa	PCB-168	2.50	6.38e+06	1.17	y	43:26	-	1.37
118	Hexa	PCB-141	2.50	4.37e+06	1.21	y	43:58	-	0.97
119	Hexa	PCB-137	2.50	4.74e+06	1.24	y	44:21	-	1.05
120	Hexa	PCB-130	2.50	3.95e+06	1.26	y	44:27	-	0.87
121	Hexa	PCB-138/163/164	7.50	1.61e+07	1.23	y	44:50	-	1.22
122	Hexa	PCB-158/160	5.00	1.14e+07	1.26	y	45:04	-	1.29
123	Hexa	PCB-129	2.50	4.07e+06	1.27	y	45:19	-	0.93
124	Hexa	PCB-166	2.50	5.65e+06	1.19	y	45:46	-	1.11
125	Hexa	PCB-159	2.50	5.99e+06	1.25	y	46:05	-	1.18
126	Hexa	PCB-128/162	5.00	1.06e+07	1.20	y	46:23	-	1.04
127	Hexa	PCB-167	2.50	6.20e+06	1.24	y	46:46	-	1.10
128	Hexa	PCB-156	2.50	6.26e+06	1.23	y	48:04	-	1.18
129	Hexa	PCB-157	2.50	6.28e+06	1.27	y	48:20	-	1.13
130	Hexa	PCB-169	2.50	5.82e+06	1.20	y	50:24	-	1.12
131	Hepta	PCB-188	2.50	5.50e+06	1.08	y	42:52	-	1.43
132	Hepta	PCB-184	2.50	4.81e+06	1.08	y	43:19	-	1.25
133	Hepta	PCB-179	2.50	5.06e+06	1.03	y	44:06	-	1.32
134	Hepta	PCB-176	2.50	5.19e+06	1.06	y	44:34	-	1.35
135	Hepta	PCB-186	2.50	4.80e+06	1.01	y	45:11	-	1.25
136	Hepta	PCB-178	2.50	3.68e+06	1.04	y	45:40	-	0.96
137	Hepta	PCB-175	2.50	3.76e+06	1.07	y	46:00	-	0.98
138	Hepta	PCB-182/187	5.00	7.80e+06	1.03	y	46:11	-	1.01
139	Hepta	PCB-183	2.50	4.14e+06	1.08	y	46:30	-	1.08
140	Hepta	PCB-185	2.50	3.61e+06	1.06	y	47:09	-	1.30
141	Hepta	PCB-174	2.50	3.80e+06	1.05	y	47:31	-	1.36
142	Hepta	PCB-181	2.50	3.56e+06	1.02	y	47:38	-	1.28
143	Hepta	PCB-177	2.50	3.33e+06	1.02	y	47:47	-	1.20
144	Hepta	PCB-171	2.50	3.72e+06	1.05	y	48:04	-	1.34
145	Hepta	PCB-173	2.50	3.21e+06	1.03	y	48:31	-	1.15
146	Hepta	PCB-172	2.50	3.40e+06	1.05	y	48:57	-	1.22
147	Hepta	PCB-192	2.50	4.16e+06	1.05	y	49:09	-	1.49
148	Hepta	PCB-180	2.50	4.01e+06	1.10	y	49:21	-	1.44
149	Hepta	PCB-193	2.50	4.60e+06	1.04	y	49:32	-	1.65
150	Hepta	PCB-191	2.50	4.58e+06	1.05	y	49:46	-	1.65
151	Hepta	PCB-170	2.50	3.36e+06	1.02	y	50:45	-	1.51
152	Hepta	PCB-190	2.50	4.37e+06	1.06	y	50:55	-	1.97
153	Hepta	PCB-189	2.50	4.66e+06	1.06	y	52:12	-	1.55
154	Octa	PCB-202	2.50	3.48e+06	0.98	y	48:17	-	1.01
155	Octa	PCB-201	2.50	3.65e+06	0.94	y	48:46	-	1.06
156	Octa	PCB-204	2.50	3.41e+06	0.91	y	48:55	-	0.99
157	Octa	PCB-197	2.50	3.58e+06	0.96	y	49:14	-	1.04
158	Octa	PCB-200	2.50	3.52e+06	0.95	y	50:03	-	1.02
159	Octa	PCB-198	2.50	2.39e+06	0.96	y	51:19	-	0.69
160	Octa	PCB-199	2.50	2.50e+06	0.94	y	51:25	-	0.73
161	Octa	PCB-196/203	5.00	5.16e+06	0.89	y	51:41	-	0.75
162	Octa	PCB-195	2.50	3.62e+06	0.88	y	52:48	-	1.17
163	Octa	PCB-194	2.50	3.77e+06	0.94	y	53:40	-	1.22

164	Octa	PCB-205	2.50	4.34e+06	0.90	y	53:57	-	1.41
165	Nona	PCB-208	2.50	3.94e+06	1.36	y	52:56	-	0.93
166	Nona	PCB-207	2.50	3.87e+06	1.29	y	53:15	-	0.91
167	Nona	PCB-206	2.50	2.57e+06	1.40	y	55:20	-	1.03
168	Deca	PCB-209	2.50	2.82e+06	1.17	y	56:37	-	1.21
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.21
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.21
171	Tot Σ	Total Tri-PCB	0.00	-	-	n	-	-	1.15

172	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.36
173	Tot Σ	Total Tetra-PCB	0.00	-	- n	-	-	1.17
174	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.21
175	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.26
176	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.89
177	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	1.08
178	Tot Σ	Total Hepta-PCB	0.00	-	- n	-	-	1.27
179	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	0.89
180	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	1.26
181	Tot Σ	Total Nona-PCB	0.00	-	- n	-	-	0.94
182	Tot Σ	Total Deca-PCB	2.50	2.82e+06	1.17 y	56:37	-	1.21
183	Mono Σ	13C-PCB-1	100.00	3.46e+08	3.25 y	16:14	-	0.91
184	Mono Σ	13C-PCB-3	100.00	3.56e+08	3.24 y	18:50	-	0.94
185	Di-IS	13C-PCB-4	100.00	2.13e+08	1.57 y	20:09	-	0.56
186	Di-IS	13C-PCB-9	100.00	3.20e+08	1.57 y	21:55	-	0.84
187	Di-IS	13C-PCB-11	100.00	3.64e+08	1.57 y	25:16	-	0.96
188	Tri- Σ	13C-PCB-19	100.00	2.07e+08	1.06 y	24:16	-	0.55
189	Tri- Σ	13C-PCB-32	100.00	3.14e+08	1.08 y	27:10	-	0.83
190	Tri- Σ	13C-PCB-28	100.00	3.07e+08	1.06 y	29:07	-	0.83
191	Tri- Σ	13C-PCB-37	100.00	2.95e+08	1.07 y	32:58	-	0.80
192	Tetr Σ	13C-PCB-54	100.00	2.71e+08	0.81 y	28:00	-	0.91
193	Tetr Σ	13C-PCB-52	100.00	2.25e+08	0.80 y	31:31	-	0.75
194	Tetr Σ	13C-PCB-47	100.00	2.33e+08	0.79 y	32:01	-	0.78
195	Tetr Σ	13C-PCB-70	100.00	2.87e+08	0.80 y	35:32	-	0.96
196	Tetr Σ	13C-PCB-80	100.00	2.96e+08	0.81 y	35:56	-	0.99
197	Tetr Σ	13C-PCB-81	100.00	2.52e+08	0.80 y	39:03	-	0.84
198	Tetr Σ	13C-PCB-77	100.00	2.67e+08	0.80 y	39:38	-	0.90
199	Pent Σ	13C-PCB-104	100.00	1.94e+08	1.60 y	32:40	-	1.07
200	Pent Σ	13C-PCB-95	100.00	1.37e+08	1.60 y	35:50	-	0.75
201	Pent Σ	13C-PCB-101	100.00	1.44e+08	1.61 y	37:30	-	0.79
202	Pent Σ	13C-PCB-97	100.00	1.27e+08	1.61 y	38:48	-	0.70
203	Pent Σ	13C-PCB-123	100.00	1.77e+08	1.58 y	41:22	-	0.98
204	Pent Σ	13C-PCB-118	100.00	1.80e+08	1.61 y	41:33	-	0.99
205	Pent Σ	13C-PCB-114	100.00	2.01e+08	1.59 y	42:12	-	1.21
206	Pent Σ	13C-PCB-105	100.00	2.08e+08	1.59 y	43:04	-	1.25
207	Pent Σ	13C-PCB-127	100.00	2.30e+08	1.60 y	43:23	-	1.38
208	Pent Σ	13C-PCB-126	100.00	2.00e+08	1.58 y	45:18	-	1.20
209	Hexa Σ	13C-PCB-155	100.00	1.53e+08	1.28 y	37:03	-	0.84
210	Hexa Σ	13C-PCB-153	100.00	1.87e+08	1.28 y	43:13	-	1.13
211	Hexa Σ	13C-PCB-141	100.00	1.81e+08	1.27 y	43:57	-	1.09
212	Hexa Σ	13C-PCB-138	100.00	1.75e+08	1.26 y	44:48	-	1.06
213	Hexa Σ	13C-PCB-159	100.00	2.03e+08	1.26 y	46:04	-	1.22
214	Hexa Σ	13C-PCB-167	100.00	2.26e+08	1.29 y	46:46	-	1.36
215	Hexa Σ	13C-PCB-156	100.00	2.13e+08	1.27 y	48:03	-	1.28
216	Hexa Σ	13C-PCB-157	100.00	2.22e+08	1.29 y	48:20	-	1.34
217	Hexa Σ	13C-PCB-169	100.00	2.08e+08	1.29 y	50:23	-	1.25
218	Hepta Σ	13C-PCB-188	100.00	1.54e+08	0.47 y	42:51	-	0.93
219	Hepta Σ	13C-PCB-180	100.00	1.11e+08	0.47 y	49:20	-	0.67
220	Hepta Σ	13C-PCB-170	100.00	8.90e+07	0.47 y	50:44	-	0.54
221	Hepta Σ	13C-PCB-189	100.00	1.21e+08	0.46 y	52:11	-	0.73
222	Octa Σ	13C-PCB-202	100.00	1.38e+08	0.91 y	48:16	-	0.83

223	Octa χ	13C-PCB-194	100.00	1.24e+08	0.92 y	53:39	-	0.82
224	Nona χ	13C-PCB-208	100.00	1.70e+08	0.78 y	52:56	-	1.13
225	Nona χ	13C-PCB-206	100.00	1.00e+08	0.81 y	55:19	-	0.66
226	Deca χ	13C-PCB-209	100.00	9.32e+07	1.21 y	56:36	-	0.62
227	DI-RS	13C-PCB-15	100.00	3.79e+08	1.56 y	25:59	-	1.00
228	Tri- χ	13C-PCB-31	100.00	3.70e+08	1.06 y	29:01	-	1.00
229	Tetr χ	13C-PCB-60	100.00	2.98e+08	0.79 y	36:46	-	1.00
230	Penta	13C-PCB-111	100.00	1.81e+08	1.61 y	39:13	-	1.00
231	Hexa χ	13C-PCB-128	100.00	1.66e+08	1.28 y	46:22	-	1.00
232	Octa χ	13C-PCB-205	100.00	1.51e+08	0.90 y	53:56	-	1.00

233	CRS	13C-PCB-79	100.00	2.94e+08	0.79	y	37:49	-	0.99
234	CRS	13C-PCB-178	100.00	1.02e+08	0.47	y	45:38	-	0.62
235	PS	13C-PCB-79	100.00	2.94e+08	0.79	y	37:49	-	1.17
236	PS	13C-PCB-178	100.00	1.02e+08	0.47	y	45:38	-	0.92

Filename: 140620E1 S: 4 Acquired: 20-JUN-14 12:43:46
 Run: 140620E1 Analyte: ICal: PCBVG8-6-20-14 Results:
 Sample text: ST140620E1-4 PCB CS3 14F1901

	TYP	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	50.00	7.81e+07	2.96 y	16:15	-	1.31
2	Mono	PCB-2	50.00	7.76e+07	2.98 y	18:36	-	1.24
3	Mono	PCB-3	50.00	7.92e+07	2.99 y	18:50	-	1.26
4	Di	PCB-4/10	200.00	2.38e+08	1.63 y	20:12	-	1.61
5	Di	PCB-7/9	200.00	2.89e+08	1.64 y	21:57	-	1.30
6	Di	PCB-6	100.00	1.40e+08	1.64 y	22:36	-	1.26
7	Di	PCB-5/8	200.00	2.85e+08	1.64 y	23:01	-	1.28
8	Di	PCB-14	100.00	1.58e+08	1.64 y	24:06	-	1.27
9	Di	PCB-11	100.00	1.47e+08	1.66 y	25:17	-	1.18
10	Di	PCB-12/13	200.00	2.83e+08	1.65 y	25:41	-	1.14
11	Di	PCB-15	100.00	1.54e+08	1.67 y	26:00	-	1.24
12	Tri	PCB-19	50.00	4.61e+07	1.05 y	24:17	-	1.28
13	Tri	PCB-30	50.00	6.74e+07	1.06 y	25:10	-	1.87
14	Tri	PCB-18	50.00	4.73e+07	1.06 y	25:55	-	0.87
15	Tri	PCB-17	50.00	4.99e+07	1.05 y	26:05	-	0.92
16	Tri	PCB-24/27	100.00	1.33e+08	1.06 y	26:40	-	1.22
17	Tri	PCB-16/32	100.00	1.13e+08	1.05 y	27:10	-	1.03
18	Tri	PCB-34	50.00	6.57e+07	1.09 y	27:57	-	1.23
19	Tri	PCB-23	50.00	7.68e+07	1.09 y	28:02	-	1.44
20	Tri	PCB-29	50.00	7.27e+07	1.09 y	28:18	-	1.36
21	Tri	PCB-26	50.00	7.01e+07	1.08 y	28:30	-	1.31
22	Tri	PCB-25	50.00	7.40e+07	1.09 y	28:40	-	1.38
23	Tri	PCB-31	50.00	7.56e+07	1.08 y	29:02	-	1.41
24	Tri	PCB-28	50.00	7.73e+07	1.11 y	29:07	-	1.45
25	Tri	PCB-20/21/33	150.00	2.14e+08	1.09 y	29:45	-	1.34
26	Tri	PCB-22	50.00	7.44e+07	1.09 y	30:11	-	1.39
27	Tri	PCB-36	50.00	7.19e+07	1.09 y	30:47	-	1.43
28	Tri	PCB-39	50.00	7.33e+07	1.08 y	31:16	-	1.46
29	Tri	PCB-38	50.00	7.08e+07	1.08 y	32:02	-	1.41
30	Tri	PCB-35	50.00	7.21e+07	1.11 y	32:33	-	1.44
31	Tri	PCB-37	50.00	7.05e+07	1.09 y	32:59	-	1.41
32	Tetra	PCB-54	50.00	5.75e+07	0.77 y	28:01	-	1.24
33	Tetra	PCB-50	50.00	4.62e+07	0.77 y	29:11	-	0.99
34	Tetra	PCB-53	50.00	4.60e+07	0.78 y	29:49	-	1.19
35	Tetra	PCB-51	50.00	4.72e+07	0.78 y	30:10	-	1.23
36	Tetra	PCB-45	50.00	3.93e+07	0.78 y	30:36	-	1.02
37	Tetra	PCB-46	50.00	3.68e+07	0.76 y	31:04	-	0.95
38	Tetra	PCB-52/69	100.00	1.04e+08	0.77 y	31:33	-	1.35
39	Tetra	PCB-73	50.00	5.52e+07	0.77 y	31:39	-	1.43
40	Tetra	PCB-43/49	100.00	8.70e+07	0.78 y	31:50	-	1.13
41	Tetra	PCB-47	50.00	4.87e+07	0.76 y	32:02	-	1.20

42	Tetra	PCB-48/75	100.00	1.06e-08	0.78	y	32:09	-	1.31
43	Tetra	PCB-65	50.00	5.35e-07	0.77	y	32:25	-	1.32
44	Tetra	PCB-62	50.00	5.60e+07	0.77	y	32:32	-	1.38
45	Tetra	PCB-44	50.00	3.98e+07	0.78	y	32:49	-	0.98
46	Tetra	PCB-42/59	100.00	1.02e+08	0.77	y	33:02	-	1.26
47	Tetra	PCB-41/64/71/72	200.00	2.19e+08	0.78	y	33:38	-	1.35
48	Tetra	PCB-68	50.00	6.14e+07	0.78	y	33:54	-	1.51
49	Tetra	PCB-40	50.00	3.36e+07	0.77	y	34:06	-	0.83
50	Tetra	PCB-57	50.00	5.91e+07	0.77	y	34:28	-	1.15
51	Tetra	PCB-67	50.00	5.87e+07	0.78	y	34:46	-	1.15
52	Tetra	PCB-58	50.00	5.57e+07	0.78	y	34:53	-	1.09

53	Tetra	PCB-63	50.00	5.92e+07	0.76 y	35:03	-	1.16
54	Tetra	PCB-74	50.00	6.39e+07	0.77 y	35:20	-	1.25
55	Tetra	PCB-61/70	100.00	1.13e+08	0.78 y	35:30	-	1.10
56	Tetra	PCB-76/66	100.00	1.20e+08	0.77 y	35:43	-	1.17
57	Tetra	PCB-80	50.00	6.75e+07	0.78 y	35:56	-	1.28
58	Tetra	PCB-55	50.00	6.01e+07	0.77 y	36:17	-	1.14
59	Tetra	PCB-56/60	100.00	1.15e+08	0.77 y	36:46	-	1.09
60	Tetra	PCB-79	50.00	6.07e+07	0.78 y	37:50	-	1.15
61	Tetra	PCB-78	50.00	5.78e+07	0.78 y	38:32	-	1.27
62	Tetra	PCB-81	50.00	6.42e+07	0.78 y	39:03	-	1.41
63	Tetra	PCB-77	50.00	6.12e+07	0.79 y	39:39	-	1.25
64	Penta	PCB-104	50.00	4.42e+07	1.62 y	32:41	-	1.27
65	Penta	PCB-96	50.00	3.85e+07	1.59 y	33:57	-	1.10
66	Penta	PCB-103	50.00	3.30e+07	1.58 y	34:29	-	0.95
67	Penta	PCB-100	50.00	3.53e+07	1.61 y	34:49	-	1.01
68	Penta	PCB-94	50.00	2.93e+07	1.58 y	35:18	-	1.13
69	Penta	PCB-95/98/102	150.00	1.01e+08	1.60 y	35:47	-	1.30
70	Penta	PCB-93	50.00	2.46e+07	1.63 y	35:56	-	0.95
71	Penta	PCB-88/91	100.00	5.97e+07	1.61 y	36:12	-	1.15
72	Penta	PCB-121	50.00	4.37e+07	1.56 y	36:19	-	1.69
73	Penta	PCB-84/92	100.00	5.90e+07	1.59 y	37:08	-	1.09
74	Penta	PCB-89	50.00	2.93e+07	1.61 y	37:19	-	1.08
75	Penta	PCB-90/101	100.00	6.59e+07	1.60 y	37:31	-	1.21
76	Penta	PCB-113	50.00	4.09e+07	1.59 y	37:45	-	1.51
77	Penta	PCB-99	50.00	3.25e+07	1.60 y	37:51	-	1.20
78	Penta	PCB-119	50.00	4.22e+07	1.61 y	38:18	-	1.73
79	Penta	PCB-108/112	100.00	6.46e+07	1.63 y	38:27	-	1.33
80	Penta	PCB-83	50.00	3.86e+07	1.62 y	38:38	-	1.58
81	Penta	PCB-97	50.00	3.20e+07	1.59 y	38:49	-	1.32
82	Penta	PCB-86	50.00	2.38e+07	1.53 y	38:58	-	0.98
83	Penta	PCB-87/117/125	150.00	1.16e+08	1.58 y	39:05	-	1.59
84	Penta	PCB-111/115	100.00	8.59e+07	1.72 y	39:15	-	1.76
85	Penta	PCB-85/116	100.00	6.54e+07	1.46 y	39:23	-	1.34
86	Penta	PCB-120	50.00	4.27e+07	1.57 y	39:37	-	1.75
87	Penta	PCB-110	50.00	4.19e+07	1.60 y	39:46	-	1.72
88	Penta	PCB-82	50.00	2.58e+07	1.60 y	40:23	-	0.73
89	Penta	PCB-124	50.00	4.68e+07	1.60 y	41:03	-	1.32
90	Penta	PCB-107/109	100.00	8.79e+07	1.59 y	41:12	-	1.24
91	Penta	PCB-123	50.00	4.52e+07	1.59 y	41:22	-	1.28
92	Penta	PCB-106/118	100.00	9.20e+07	1.60 y	41:35	-	1.26
93	Penta	PCB-114	50.00	5.39e+07	1.62 y	42:13	-	1.37
94	Penta	PCB-122	50.00	4.95e+07	1.62 y	42:21	-	1.25
95	Penta	PCB-105	50.00	5.39e+07	1.63 y	43:05	-	1.34
96	Penta	PCB-127	50.00	5.03e+07	1.65 y	43:24	-	1.16
97	Penta	PCB-126	50.00	4.94e+07	1.62 y	45:19	-	1.32
98	Hexa	PCB-155	50.00	3.50e+07	1.27 y	37:03	-	1.20
99	Hexa	PCB-150	50.00	3.24e+07	1.28 y	38:20	-	1.11
100	Hexa	PCB-152	50.00	3.29e+07	1.26 y	38:48	-	1.12
101	Hexa	PCB-145	50.00	3.24e+07	1.26 y	39:15	-	1.11
102	Hexa	PCB-136	50.00	3.34e+07	1.27 y	39:35	-	1.14

103	Hexa	PCB-148	50.00	2.20e-07	1.30	y	39:40	-	0.75
104	Hexa	PCB-154	50.00	2.71e+07	1.26	y	40:10	-	0.93
105	Hexa	PCB-151	50.00	2.51e+07	1.30	y	40:47	-	0.86
106	Hexa	PCB-135	50.00	2.36e+07	1.28	y	41:01	-	0.81
107	Hexa	PCB-144	50.00	2.64e+07	1.36	y	41:08	-	0.90
108	Hexa	PCB-147	50.00	2.56e+07	1.18	y	41:16	-	0.88
109	Hexa	PCB-139/149	100.00	5.31e+07	1.27	y	41:30	-	0.91
110	Hexa	PCB-140	50.00	2.51e+07	1.27	y	41:42	-	0.86
111	Hexa	PCB-134/143	100.00	6.92e+07	1.24	y	42:08	-	0.94
112	Hexa	PCB-133/142	100.00	7.07e+07	1.23	y	42:26	-	0.96
113	Hexa	PCB-131	50.00	3.31e+07	1.22	y	42:36	-	0.90

114	Hexa	PCB-146/165	100.00	8.55e+07	1.24 y	42:48	-	1.16
115	Hexa	PCB-132/161	100.00	8.32e+07	1.22 y	43:03	-	1.13
116	Hexa	PCB-153	50.00	4.33e+07	1.22 y	43:14	-	1.18
117	Hexa	PCB-168	50.00	5.02e+07	1.21 y	43:27	-	1.37
118	Hexa	PCB-141	50.00	3.51e+07	1.21 y	43:58	-	0.99
119	Hexa	PCB-137	50.00	3.65e+07	1.26 y	44:21	-	1.03
120	Hexa	PCB-130	50.00	3.32e+07	1.23 y	44:27	-	0.94
121	Hexa	PCB-138/163/164	150.00	1.29e+08	1.23 y	44:50	-	1.26
122	Hexa	PCB-158/160	100.00	9.17e+07	1.23 y	45:05	-	1.34
123	Hexa	PCB-129	50.00	3.18e+07	1.24 y	45:19	-	0.93
124	Hexa	PCB-166	50.00	4.43e+07	1.22 y	45:46	-	1.13
125	Hexa	PCB-159	50.00	4.56e+07	1.22 y	46:05	-	1.17
126	Hexa	PCB-128/162	100.00	8.34e+07	1.23 y	46:22	-	1.07
127	Hexa	PCB-167	50.00	4.70e+07	1.21 y	46:47	-	1.09
128	Hexa	PCB-156	50.00	4.75e+07	1.22 y	48:04	-	1.17
129	Hexa	PCB-157	50.00	4.75e+07	1.22 y	48:20	-	1.11
130	Hexa	PCB-169	50.00	4.39e+07	1.23 y	50:24	-	1.11
131	Hepta	PCB-188	50.00	4.42e+07	1.02 y	42:52	-	1.43
132	Hepta	PCB-184	50.00	3.95e+07	1.05 y	43:18	-	1.28
133	Hepta	PCB-179	50.00	4.06e+07	1.05 y	44:06	-	1.31
134	Hepta	PCB-176	50.00	4.27e+07	1.05 y	44:34	-	1.38
135	Hepta	PCB-186	50.00	4.05e+07	1.04 y	45:10	-	1.31
136	Hepta	PCB-178	50.00	2.95e+07	1.05 y	45:39	-	0.96
137	Hepta	PCB-175	50.00	3.17e+07	1.05 y	46:00	-	1.02
138	Hepta	PCB-182/187	100.00	6.54e+07	1.04 y	46:11	-	1.06
139	Hepta	PCB-183	50.00	3.41e+07	1.05 y	46:29	-	1.10
140	Hepta	PCB-185	50.00	3.05e+07	1.05 y	47:09	-	1.36
141	Hepta	PCB-174	50.00	2.96e+07	1.04 y	47:31	-	1.32
142	Hepta	PCB-181	50.00	3.21e+07	1.07 y	47:37	-	1.43
143	Hepta	PCB-177	50.00	2.87e+07	1.06 y	47:48	-	1.28
144	Hepta	PCB-171	50.00	2.95e+07	1.04 y	48:05	-	1.31
145	Hepta	PCB-173	50.00	2.63e+07	1.05 y	48:31	-	1.17
146	Hepta	PCB-172	50.00	2.77e+07	1.03 y	48:57	-	1.24
147	Hepta	PCB-192	50.00	3.49e+07	1.05 y	49:09	-	1.56
148	Hepta	PCB-180	50.00	3.18e+07	1.04 y	49:20	-	1.42
149	Hepta	PCB-193	50.00	3.77e+07	1.05 y	49:32	-	1.68
150	Hepta	PCB-191	50.00	3.78e+07	1.05 y	49:47	-	1.68
151	Hepta	PCB-170	50.00	2.67e+07	1.04 y	50:46	-	1.50
152	Hepta	PCB-190	50.00	3.64e+07	1.03 y	50:55	-	2.04
153	Hepta	PCB-189	50.00	3.89e+07	1.04 y	52:12	-	1.59
154	Octa	PCB-202	50.00	2.93e+07	0.91 y	48:17	-	1.04
155	Octa	PCB-201	50.00	3.13e+07	0.93 y	48:46	-	1.11
156	Octa	PCB-204	50.00	2.91e+07	0.88 y	48:56	-	1.04
157	Octa	PCB-197	50.00	3.14e+07	0.91 y	49:13	-	1.12
158	Octa	PCB-200	50.00	3.00e+07	0.91 y	50:03	-	1.07
159	Octa	PCB-198	50.00	2.15e+07	0.90 y	51:20	-	0.77
160	Octa	PCB-199	50.00	2.15e+07	0.89 y	51:25	-	0.77
161	Octa	PCB-196/203	100.00	4.56e+07	0.90 y	51:41	-	0.81
162	Octa	PCB-195	50.00	2.93e+07	0.91 y	52:49	-	1.25
163	Octa	PCB-194	50.00	2.92e+07	0.90 y	53:41	-	1.24

164	Octa	PCB-205	50.00	3.30e+07	0.92	y	53:58	-	1.41
165	Nona	PCB-208	50.00	3.17e+07	1.33	y	52:57	-	0.95
166	Nona	PCB-207	50.00	3.11e+07	1.32	y	53:16	-	0.93
167	Nona	PCB-206	50.00	2.08e+07	1.33	y	55:21	-	1.02
168	Deca	PCB-209	50.00	2.28e+07	1.19	y	56:38	-	1.23
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.27
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.25
171	Tot Σ	Total Tri-PCB	0.00	-	-	n	-	-	1.18

172	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.39
173	Tot Σ	Total Tetra-PCB	0.00	-	- n	-	-	1.21
174	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.24
175	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.29
176	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.96
177	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	1.10
178	Tot Σ	Total Hepta-PCB	0.00	-	- n	-	-	1.30
179	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	0.95
180	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	1.30
181	Tot Σ	Total Nona-PCB	0.00	-	- n	-	-	0.96
182	Tot Σ	Total Deca-PCB	50.00	2.28e+07	1.19 y	56:38	-	1.23
183	Mono Σ	13C-PCB-1	100.00	1.19e+08	3.24 y	16:14	-	0.88
184	Mono Σ	13C-PCB-3	100.00	1.26e+08	3.30 y	18:49	-	0.93
185	Di-IS	13C-PCB-4	100.00	7.38e+07	1.60 y	20:09	-	0.55
186	Di-IS	13C-PCB-9	100.00	1.12e+08	1.59 y	21:55	-	0.82
187	Di-IS	13C-PCB-11	100.00	1.24e+08	1.58 y	25:16	-	0.92
188	Tri- Σ	13C-PCB-19	100.00	7.23e+07	1.06 y	24:16	-	0.53
189	Tri- Σ	13C-PCB-32	100.00	1.09e+08	1.07 y	27:10	-	0.81
190	Tri- Σ	13C-PCB-28	100.00	1.07e+08	1.05 y	29:07	-	0.85
191	Tri- Σ	13C-PCB-37	100.00	1.00e+08	1.07 y	32:59	-	0.80
192	Tetr Σ	13C-PCB-54	100.00	9.29e+07	0.81 y	28:00	-	0.84
193	Tetr Σ	13C-PCB-52	100.00	7.70e+07	0.79 y	31:30	-	0.70
194	Tetr Σ	13C-PCB-47	100.00	8.12e+07	0.80 y	32:01	-	0.73
195	Tetr Σ	13C-PCB-70	100.00	1.02e+08	0.79 y	35:31	-	0.93
196	Tetr Σ	13C-PCB-80	100.00	1.05e+08	0.80 y	35:56	-	0.95
197	Tetr Σ	13C-PCB-81	100.00	9.11e+07	0.80 y	39:03	-	0.82
198	Tetr Σ	13C-PCB-77	100.00	9.78e+07	0.81 y	39:38	-	0.88
199	Pent Σ	13C-PCB-104	100.00	6.97e+07	1.58 y	32:40	-	0.98
200	Pent Σ	13C-PCB-95	100.00	5.18e+07	1.63 y	35:49	-	0.73
201	Pent Σ	13C-PCB-101	100.00	5.42e+07	1.60 y	37:30	-	0.77
202	Pent Σ	13C-PCB-97	100.00	4.87e+07	1.60 y	38:48	-	0.69
203	Pent Σ	13C-PCB-123	100.00	7.09e+07	1.58 y	41:21	-	1.00
204	Pent Σ	13C-PCB-118	100.00	7.31e+07	1.59 y	41:32	-	1.03
205	Pent Σ	13C-PCB-114	100.00	7.90e+07	1.61 y	42:12	-	1.18
206	Pent Σ	13C-PCB-105	100.00	8.02e+07	1.61 y	43:03	-	1.20
207	Pent Σ	13C-PCB-127	100.00	8.65e+07	1.59 y	43:23	-	1.29
208	Pent Σ	13C-PCB-126	100.00	7.48e+07	1.61 y	45:18	-	1.12
209	Hexa Σ	13C-PCB-155	100.00	5.86e+07	1.27 y	37:02	-	0.83
210	Hexa Σ	13C-PCB-153	100.00	7.35e+07	1.25 y	43:13	-	1.10
211	Hexa Σ	13C-PCB-141	100.00	7.09e+07	1.28 y	43:57	-	1.06
212	Hexa	13C-PCB-138	100.00	6.83e+07	1.26 y	44:48	-	1.02
213	Hexa Σ	13C-PCB-159	100.00	7.82e+07	1.30 y	46:05	-	1.17
214	Hexa Σ	13C-PCB-167	100.00	8.59e+07	1.26 y	46:45	-	1.29
215	Hexa Σ	13C-PCB-156	100.00	8.11e+07	1.27 y	48:03	-	1.21
216	Hexa Σ	13C-PCB-157	100.00	8.59e+07	1.29 y	48:19	-	1.28
217	Hexa Σ	13C-PCB-169	100.00	7.93e+07	1.27 y	50:24	-	1.19
218	Hept Σ	13C-PCB-188	100.00	6.19e+07	0.46 y	42:51	-	0.93
219	Hept Σ	13C-PCB-180	100.00	4.49e+07	0.47 y	49:19	-	0.67
220	Hept Σ	13C-PCB-170	100.00	3.58e+07	0.45 y	50:45	-	0.53
221	Hept Σ	13C-PCB-189	100.00	4.91e+07	0.46 y	52:11	-	0.73
222	Octa Σ	13C-PCB-202	100.00	5.62e+07	0.92 y	48:16	-	0.84

223	Octa <small>¶</small>	13C-PCB-194	100.00	4.69e+07	0.91	y	53:40	-	0.80
224	Nona <small>¶</small>	13C-PCB-208	100.00	6.66e+07	0.78	y	52:56	-	1.14
225	Nona <small>¶</small>	13C-PCB-206	100.00	4.07e+07	0.77	y	55:20	-	0.70
226	Deca <small>¶</small>	13C-PCB-209	100.00	3.70e+07	1.21	y	56:37	-	0.64
227	DI-RS	13C-PCB-15	100.00	1.35e+08	1.56	y	25:58	-	1.00
228	Tri- <small>¶</small>	13C-PCB-31	100.00	1.25e+08	1.06	y	29:00	-	1.00
229	Tetra <small>¶</small>	13C-PCB-60	100.00	1.11e+08	0.80	y	36:46	-	1.00
230	Penta	13C-PCB-111	100.00	7.09e+07	1.59	y	39:14	-	1.00
231	Hexa <small>¶</small>	13C-PCB-128	100.00	6.69e+07	1.26	y	46:21	-	1.00
232	Octa <small>¶</small>	13C-PCB-205	100.00	5.82e+07	0.91	y	53:57	-	1.00

233	CRS	13C-PCB-79	100.00	1.21e+08	0.80	y	37:49	-	1.09
234	CRS	13C-PCB-178	100.00	4.58e+07	0.46	y	45:38	-	0.69
235	PS	13C-PCB-79	100.00	1.21e+08	0.80	y	37:49	-	1.33
236	PS	13C-PCB-178	100.00	4.58e+07	0.46	y	45:38	-	1.02

Filename: 140620E1 S: 5 Acquired: 20-JUN-14 13:47:50

Run: 140620E1 Analyte: ICal: PCBVG8-6-20-14

Results:

Sample text: ST140620E1-5 PCB CS4 13H1206

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	400.00	6.95e+08	2.97 y	16:15	-	1.05
2	Mono	PCB-2	400.00	6.84e+08	2.99 y	18:36	-	1.00
3	Mono	PCB-3	400.00	7.00e+08	3.00 y	18:50	-	1.02
4	Di	PCB-4/10	1600.00	2.12e+09	1.63 y	20:12	-	1.32
5	Di	PCB-7/9	1600.00	2.61e+09	1.63 y	21:57	-	1.08
6	Di	PCB-6	800.00	1.28e+09	1.64 y	22:36	-	1.06
7	Di	PCB-5/8	1600.00	2.62e+09	1.64 y	23:01	-	1.08
8	Di	PCB-14	800.00	1.44e+09	1.64 y	24:06	-	1.03
9	Di	PCB-11	800.00	1.36e+09	1.65 y	25:17	-	0.97
10	Di	PCB-12/13	1600.00	2.65e+09	1.64 y	25:41	-	0.94
11	Di	PCB-15	800.00	1.43e+09	1.63 y	26:00	-	1.02
12	Tri	PCB-19	400.00	4.09e+08	1.05 y	24:17	-	1.05
13	Tri	PCB-30	400.00	5.99e+08	1.06 y	25:10	-	1.54
14	Tri	PCB-18	400.00	4.25e+08	1.06 y	25:55	-	0.70
15	Tri	PCB-17	400.00	4.49e+08	1.05 y	26:05	-	0.74
16	Tri	PCB-24/27	800.00	1.19e+09	1.05 y	26:39	-	0.98
17	Tri	PCB-16/32	800.00	1.02e+09	1.06 y	27:10	-	0.84
18	Tri	PCB-34	400.00	6.61e+08	1.09 y	27:57	-	1.07
19	Tri	PCB-23	400.00	6.32e+08	1.10 y	28:03	-	1.02
20	Tri	PCB-29	400.00	6.52e+08	1.09 y	28:18	-	1.06
21	Tri	PCB-26	400.00	6.34e+08	1.11 y	28:30	-	1.03
22	Tri	PCB-25	400.00	6.76e+08	1.08 y	28:39	-	1.09
23	Tri	PCB-31	400.00	6.48e+08	1.08 y	29:01	-	1.05
24	Tri	PCB-28	400.00	7.30e+08	1.09 y	29:08	-	1.18
25	Tri	PCB-20/21/33	1200.00	2.00e+09	1.09 y	29:44	-	1.08
26	Tri	PCB-22	400.00	6.74e+08	1.09 y	30:10	-	1.09
27	Tri	PCB-36	400.00	6.53e+08	1.09 y	30:47	-	1.16
28	Tri	PCB-39	400.00	6.69e+08	1.09 y	31:15	-	1.19
29	Tri	PCB-38	400.00	6.54e+08	1.09 y	32:02	-	1.16
30	Tri	PCB-35	400.00	6.68e+08	1.09 y	32:32	-	1.19
31	Tri	PCB-37	400.00	6.65e+08	1.09 y	33:00	-	1.18
32	Tetra	PCB-54	400.00	5.24e+08	0.78 y	28:01	-	1.01
33	Tetra	PCB-50	400.00	4.18e+08	0.77 y	29:10	-	0.81
34	Tetra	PCB-53	400.00	4.29e+08	0.78 y	29:49	-	1.00
35	Tetra	PCB-51	400.00	4.24e+08	0.77 y	30:09	-	0.99
36	Tetra	PCB-45	400.00	3.49e+08	0.77 y	30:35	-	0.81
37	Tetra	PCB-46	400.00	3.30e+08	0.78 y	31:05	-	0.77
38	Tetra	PCB-52/69	800.00	9.21e+08	0.77 y	31:32	-	1.07
39	Tetra	PCB-73	400.00	5.23e+08	0.78 y	31:39	-	1.22
40	Tetra	PCB-43/49	800.00	8.03e+08	0.77 y	31:49	-	0.94
41	Tetra	PCB-47	400.00	4.43e+08	0.77 y	32:02	-	0.96

42	Tetra	PCB-48/75	800.00	9.95e+08	0.78	y	32:08	-	1.08
43	Tetra	PCB-65	400.00	5.26e+08	0.77	y	32:24	-	1.15
44	Tetra	PCB-62	400.00	4.75e+08	0.78	y	32:31	-	1.03
45	Tetra	PCB-44	400.00	3.59e+08	0.78	y	32:49	-	0.78
46	Tetra	PCB-42/59	800.00	9.31e+08	0.78	y	33:03	-	1.01
47	Tetra	PCB-41/64/71/72	1600.00	2.06e+09	0.78	y	33:38	-	1.12
48	Tetra	PCB-68	400.00	5.66e+08	0.78	y	33:53	-	1.23
49	Tetra	PCB-40	400.00	3.06e+08	0.78	y	34:07	-	0.67
50	Tetra	PCB-57	400.00	5.45e+08	0.78	y	34:27	-	0.92
51	Tetra	PCB-67	400.00	5.29e+08	0.77	y	34:45	-	0.90
52	Tetra	PCB-58	400.00	5.39e+08	0.78	y	34:53	-	0.91

53	Tetra	PCB-63	400.00	5.63e+08	0.78	y	35:02	-	0.95
54	Tetra	PCB-74	400.00	5.92e+08	0.78	y	35:19	-	1.00
55	Tetra	PCB-61/70	800.00	1.09e+09	0.78	y	35:30	-	0.92
56	Tetra	PCB-76/66	800.00	1.11e+09	0.78	y	35:43	-	0.94
57	Tetra	PCB-80	400.00	6.36e+08	0.78	y	35:57	-	1.07
58	Tetra	PCB-55	400.00	5.70e+08	0.78	y	36:16	-	0.96
59	Tetra	PCB-56/60	800.00	1.08e+09	0.77	y	36:46	-	0.91
60	Tetra	PCB-79	400.00	5.68e+08	0.78	y	37:49	-	0.95
61	Tetra	PCB-78	400.00	5.53e+08	0.77	y	38:31	-	1.02
62	Tetra	PCB-81	400.00	6.17e+08	0.77	y	39:03	-	1.14
63	Tetra	PCB-77	400.00	5.82e+08	0.80	y	39:38	-	1.02
64	Penta	PCB-104	400.00	3.92e+08	1.60	y	32:41	-	1.03
65	Penta	PCB-96	400.00	3.47e+08	1.59	y	33:56	-	0.92
66	Penta	PCB-103	400.00	3.03e+08	1.60	y	34:28	-	0.80
67	Penta	PCB-100	400.00	3.29e+08	1.60	y	34:50	-	0.87
68	Penta	PCB-94	400.00	2.68e+08	1.60	y	35:18	-	0.91
69	Penta	PCB-95/98/102	1200.00	9.09e+08	1.60	y	35:47	-	1.04
70	Penta	PCB-93	400.00	2.47e+08	1.60	y	35:56	-	0.84
71	Penta	PCB-88/91	800.00	5.23e+08	1.56	y	36:12	-	0.89
72	Penta	PCB-121	400.00	4.29e+08	1.64	y	36:18	-	1.46
73	Penta	PCB-84/92	800.00	5.39e+08	1.60	y	37:08	-	0.87
74	Penta	PCB-89	400.00	2.55e+08	1.60	y	37:20	-	0.83
75	Penta	PCB-90/101	800.00	6.11e+08	1.59	y	37:30	-	0.99
76	Penta	PCB-113	400.00	3.59e+08	1.58	y	37:45	-	1.16
77	Penta	PCB-99	400.00	3.19e+08	1.61	y	37:50	-	1.03
78	Penta	PCB-119	400.00	4.01e+08	1.59	y	38:18	-	1.48
79	Penta	PCB-108/112	800.00	5.97e+08	1.60	y	38:28	-	1.10
80	Penta	PCB-83	400.00	3.51e+08	1.60	y	38:37	-	1.30
81	Penta	PCB-97	400.00	2.87e+08	1.60	y	38:48	-	1.06
82	Penta	PCB-86	400.00	2.42e+08	1.63	y	38:58	-	0.90
83	Penta	PCB-87/117/125	1200.00	1.11e+09	1.59	y	39:05	-	1.37
84	Penta	PCB-111/115	800.00	7.75e+08	1.58	y	39:15	-	1.43
85	Penta	PCB-85/116	800.00	6.10e+08	1.63	y	39:23	-	1.13
86	Penta	PCB-120	400.00	4.12e+08	1.59	y	39:36	-	1.52
87	Penta	PCB-110	400.00	3.74e+08	1.60	y	39:45	-	1.38
88	Penta	PCB-82	400.00	2.25e+08	1.60	y	40:23	-	0.60
89	Penta	PCB-124	400.00	4.01e+08	1.59	y	41:04	-	1.07
90	Penta	PCB-107/109	800.00	8.08e+08	1.60	y	41:12	-	1.08
91	Penta	PCB-123	400.00	3.78e+08	1.60	y	41:22	-	1.01
92	Penta	PCB-106/118	800.00	8.07e+08	1.60	y	41:34	-	1.01
93	Penta	PCB-114	400.00	4.81e+08	1.63	y	42:13	-	1.11
94	Penta	PCB-122	400.00	4.40e+08	1.59	y	42:21	-	1.02
95	Penta	PCB-105	400.00	4.86e+08	1.61	y	43:04	-	1.09
96	Penta	PCB-127	400.00	4.44e+08	1.65	y	43:24	-	0.94
97	Penta	PCB-126	400.00	4.53e+08	1.69	y	45:18	-	1.10
98	Hexa	PCB-155	400.00	3.12e+08	1.27	y	37:04	-	0.98
99	Hexa	PCB-150	400.00	2.99e+08	1.28	y	38:19	-	0.94
100	Hexa	PCB-152	400.00	2.95e+08	1.28	y	38:47	-	0.92
101	Hexa	PCB-145	400.00	2.95e+08	1.27	y	39:15	-	0.92
102	Hexa	PCB-136	400.00	2.81e+08	1.31	y	39:34	-	0.88

103	Hexa	PCB-148	400.00	2.24e+08	1.24	y	39:40	-	0.70
104	Hexa	PCB-154	400.00	2.37e+08	1.27	y	40:09	-	0.74
105	Hexa	PCB-151	400.00	2.17e+08	1.27	y	40:48	-	0.68
106	Hexa	PCB-135	400.00	2.24e+08	1.25	y	41:00	-	0.70
107	Hexa	PCB-144	400.00	2.17e+08	1.28	y	41:07	-	0.68
108	Hexa	PCB-147	400.00	2.25e+08	1.29	y	41:15	-	0.70
109	Hexa	PCB-139/149	800.00	4.68e+08	1.28	y	41:31	-	0.73
110	Hexa	PCB-140	400.00	2.12e+08	1.27	y	41:42	-	0.66
111	Hexa	PCB-134/143	800.00	6.17e+08	1.24	y	42:08	-	0.78
112	Hexa	PCB-133/142	800.00	6.26e+08	1.23	y	42:26	-	0.79
113	Hexa	PCB-131	400.00	2.95e+08	1.25	y	42:36	-	0.74

114	Hexa	PCB-146/165	800.00	7.73e+08	1.24 y	42:49	-	0.97
115	Hexa	PCB-132/161	800.00	7.41e+08	1.23 y	43:04	-	0.93
116	Hexa	PCB-153	400.00	3.95e+08	1.23 y	43:13	-	0.99
117	Hexa	PCB-168	400.00	4.52e+08	1.23 y	43:26	-	1.14
118	Hexa	PCB-141	400.00	3.03e+08	1.23 y	43:57	-	0.83
119	Hexa	PCB-137	400.00	3.53e+08	1.24 y	44:20	-	0.96
120	Hexa	PCB-130	400.00	2.61e+08	1.22 y	44:27	-	0.71
121	Hexa	PCB-138/163/164	1200.00	1.16e+09	1.23 y	44:49	-	1.05
122	Hexa	PCB-158/160	800.00	8.21e+08	1.23 y	45:04	-	1.11
123	Hexa	PCB-129	400.00	2.80e+08	1.23 y	45:18	-	0.76
124	Hexa	PCB-166	400.00	3.99e+08	1.23 y	45:46	-	0.94
125	Hexa	PCB-159	400.00	4.06e+08	1.26 y	46:06	-	0.96
126	Hexa	PCB-128/162	800.00	7.15e+08	1.23 y	46:23	-	0.85
127	Hexa	PCB-167	400.00	4.05e+08	1.22 y	46:46	-	0.88
128	Hexa	PCB-156	400.00	4.28e+08	1.23 y	48:03	-	0.98
129	Hexa	PCB-157	400.00	4.21e+08	1.24 y	48:20	-	0.91
130	Hexa	PCB-169	400.00	3.99e+08	1.23 y	50:23	-	0.94
131	Hepta	PCB-188	400.00	3.97e+08	1.04 y	42:51	-	1.17
132	Hepta	PCB-184	400.00	3.45e+08	1.05 y	43:18	-	1.02
133	Hepta	PCB-179	400.00	3.55e+08	1.05 y	44:05	-	1.05
134	Hepta	PCB-176	400.00	3.64e+08	1.05 y	44:33	-	1.07
135	Hepta	PCB-186	400.00	3.55e+08	1.05 y	45:10	-	1.05
136	Hepta	PCB-178	400.00	2.55e+08	1.05 y	45:39	-	0.75
137	Hepta	PCB-175	400.00	2.66e+08	1.05 y	46:00	-	0.78
138	Hepta	PCB-182/187	800.00	5.78e+08	1.06 y	46:10	-	0.85
139	Hepta	PCB-183	400.00	2.87e+08	1.05 y	46:29	-	0.85
140	Hepta	PCB-185	400.00	2.56e+08	1.05 y	47:09	-	1.10
141	Hepta	PCB-174	400.00	2.74e+08	1.04 y	47:30	-	1.18
142	Hepta	PCB-181	400.00	2.51e+08	1.05 y	47:37	-	1.08
143	Hepta	PCB-177	400.00	2.40e+08	1.05 y	47:47	-	1.03
144	Hepta	PCB-171	400.00	2.57e+08	1.05 y	48:05	-	1.10
145	Hepta	PCB-173	400.00	2.26e+08	1.05 y	48:30	-	0.97
146	Hepta	PCB-172	400.00	2.44e+08	1.05 y	48:57	-	1.05
147	Hepta	PCB-192	400.00	3.09e+08	1.05 y	49:08	-	1.33
148	Hepta	PCB-180	400.00	2.75e+08	1.05 y	49:20	-	1.18
149	Hepta	PCB-193	400.00	3.25e+08	1.06 y	49:31	-	1.40
150	Hepta	PCB-191	400.00	3.32e+08	1.05 y	49:46	-	1.43
151	Hepta	PCB-170	400.00	2.30e+08	1.05 y	50:45	-	1.23
152	Hepta	PCB-190	400.00	3.17e+08	1.05 y	50:55	-	1.70
153	Hepta	PCB-189	400.00	3.22e+08	1.05 y	52:11	-	1.30
154	Octa	PCB-202	400.00	2.47e+08	0.91 y	48:16	-	0.85
155	Octa	PCB-201	400.00	2.67e+08	0.90 y	48:45	-	0.92
156	Octa	PCB-204	400.00	2.45e+08	0.91 y	48:54	-	0.84
157	Octa	PCB-197	400.00	2.62e+08	0.91 y	49:13	-	0.90
158	Octa	PCB-200	400.00	2.51e+08	0.91 y	50:03	-	0.87
159	Octa	PCB-198	400.00	1.73e+08	0.90 y	51:19	-	0.60
160	Octa	PCB-199	400.00	1.84e+08	0.91 y	51:25	-	0.63
161	Octa	PCB-196/203	800.00	3.87e+08	0.90 y	51:41	-	0.67
162	Octa	PCB-195	400.00	2.55e+08	0.91 y	52:49	-	1.04
163	Octa	PCB-194	400.00	2.51e+08	0.92 y	53:40	-	1.02

164	Octa	PCB-205	400.00	2.86e+08	0.92	y	53:57	-	1.17
165	Nona	PCB-208	400.00	2.69e+08	1.32	y	52:57	-	0.78
166	Nona	PCB-207	400.00	2.66e+08	1.33	y	53:15	-	0.78
167	Nona	PCB-206	400.00	1.66e+08	1.33	y	55:21	-	0.84
168	Deca	PCB-209	400.00	1.83e+08	1.19	y	56:38	-	0.99
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.02
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.03
171	Tot Σ	Total Tri-PCB	0.00	-	-	n	-	-	0.96

172	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.11
173	Tot Σ	Total Tetra-PCB	0.00	-	- n	-	-	0.99
174	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.03
175	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.05
176	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.78
177	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.91
178	Tot Σ	Total Hepta-PCB	0.00	-	- n	-	-	1.05
179	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	0.77
180	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	1.08
181	Tot Σ	Total Nona-PCB	0.00	-	- n	-	-	0.79
182	Tot Σ	Total Deca-PCB	400.00	1.83e+08	1.19 y	56:38	-	0.99
183	Mono Σ	13C-PCB-1	100.00	1.66e+08	3.23 y	16:14	-	0.88
184	Mono Σ	13C-PCB-3	100.00	1.71e+08	3.33 y	18:49	-	0.91
185	Di- Σ	13C-PCB-4	100.00	1.00e+08	1.57 y	20:08	-	0.53
186	Di- Σ	13C-PCB-9	100.00	1.51e+08	1.58 y	21:55	-	0.80
187	Di- Σ	13C-PCB-11	100.00	1.75e+08	1.57 y	25:16	-	0.93
188	Tri- Σ	13C-PCB-19	100.00	9.71e+07	1.07 y	24:16	-	0.52
189	Tri- Σ	13C-PCB-32	100.00	1.52e+08	1.07 y	27:10	-	0.81
190	Tri- Σ	13C-PCB-28	100.00	1.54e+08	1.06 y	29:06	-	0.96
191	Tri- Σ	13C-PCB-37	100.00	1.41e+08	1.06 y	32:58	-	0.87
192	Tetr Σ	13C-PCB-54	100.00	1.29e+08	0.81 y	27:60	-	0.83
193	Tetr Σ	13C-PCB-52	100.00	1.07e+08	0.80 y	31:31	-	0.68
194	Tetr Σ	13C-PCB-47	100.00	1.15e+08	0.80 y	32:00	-	0.73
195	Tetr Σ	13C-PCB-70	100.00	1.48e+08	0.80 y	35:31	-	0.94
196	Tetr Σ	13C-PCB-80	100.00	1.49e+08	0.80 y	35:56	-	0.95
197	Tetr Σ	13C-PCB-81	100.00	1.35e+08	0.82 y	39:03	-	0.86
198	Tetr Σ	13C-PCB-77	100.00	1.43e+08	0.81 y	39:38	-	0.91
199	Pent Σ	13C-PCB-104	100.00	9.47e+07	1.61 y	32:40	-	0.96
200	Pent Σ	13C-PCB-95	100.00	7.32e+07	1.57 y	35:49	-	0.74
201	Pent Σ	13C-PCB-101	100.00	7.72e+07	1.62 y	37:30	-	0.78
202	Pent Σ	13C-PCB-97	100.00	6.76e+07	1.59 y	38:48	-	0.69
203	Pent Σ	13C-PCB-123	100.00	9.35e+07	1.62 y	41:21	-	0.95
204	Pent Σ	13C-PCB-118	100.00	9.95e+07	1.59 y	41:32	-	1.01
205	Pent Σ	13C-PCB-114	100.00	1.08e+08	1.58 y	42:12	-	1.25
206	Pent Σ	13C-PCB-105	100.00	1.12e+08	1.60 y	43:04	-	1.29
207	Pent Σ	13C-PCB-127	100.00	1.18e+08	1.58 y	43:23	-	1.36
208	Pent Σ	13C-PCB-126	100.00	1.03e+08	1.56 y	45:18	-	1.19
209	Hexa Σ	13C-PCB-155	100.00	7.98e+07	1.30 y	37:03	-	0.81
210	Hexa Σ	13C-PCB-153	100.00	9.94e+07	1.27 y	43:12	-	1.15
211	Hexa Σ	13C-PCB-141	100.00	9.18e+07	1.28 y	43:57	-	1.06
212	Hexa	13C-PCB-138	100.00	9.22e+07	1.27 y	44:48	-	1.06
213	Hexa Σ	13C-PCB-159	100.00	1.06e+08	1.27 y	46:04	-	1.22
214	Hexa Σ	13C-PCB-167	100.00	1.14e+08	1.27 y	46:45	-	1.32
215	Hexa Σ	13C-PCB-156	100.00	1.09e+08	1.27 y	48:03	-	1.26
216	Hexa Σ	13C-PCB-157	100.00	1.15e+08	1.31 y	48:19	-	1.33
217	Hexa Σ	13C-PCB-169	100.00	1.06e+08	1.26 y	50:23	-	1.22
218	Hepta Σ	13C-PCB-188	100.00	8.49e+07	0.47 y	42:50	-	0.98
219	Hepta Σ	13C-PCB-180	100.00	5.82e+07	0.47 y	49:20	-	0.67
220	Hepta Σ	13C-PCB-170	100.00	4.66e+07	0.46 y	50:44	-	0.54
221	Hepta Σ	13C-PCB-189	100.00	6.18e+07	0.46 y	52:11	-	0.71
222	Octa Σ	13C-PCB-202	100.00	7.25e+07	0.90 y	48:16	-	0.84

223	Octa ₇	13C-PCB-194	100.00	6.13e+07	0.91	y	53:40	-	0.81
224	Nona ₇	13C-PCB-208	100.00	8.58e+07	0.78	y	52:56	-	1.14
225	Nona ₇	13C-PCB-206	100.00	4.92e+07	0.81	y	55:20	-	0.65
226	Deca ₇	13C-PCB-209	100.00	4.62e+07	1.22	y	56:37	-	0.61
227	DI-RS	13C-PCB-15	100.00	1.89e+08	1.58	y	25:58	-	1.00
228	Tri- ₇	13C-PCB-31	100.00	1.61e+08	1.07	y	28:60	-	1.00
229	Tetra ₇	13C-PCB-60	100.00	1.57e+08	0.80	y	36:46	-	1.00
230	Penta	13C-PCB-111	100.00	9.86e+07	1.61	y	39:13	-	1.00
231	Hexa ₇	13C-PCB-128	100.00	8.68e+07	1.28	y	46:21	-	1.00
232	Octa ₇	13C-PCB-205	100.00	7.56e+07	0.92	y	53:57	-	1.00

233	CRS	13C-PCB-79	100.00	1.55e+08	0.79	y	37:49	-	0.99
234	CRS	13C-PCB-178	100.00	5.41e+07	0.47	y	45:38	-	0.62
235	PS	13C-PCB-79	100.00	1.55e+08	0.79	y	37:49	-	1.15
236	PS	13C-PCB-178	100.00	5.41e+07	0.47	y	45:38	-	0.93

Filename: 140620E1 S: 6 Acquired: 20-JUN-14 14:51:49

Run: 140620E1 Analyte: ICal: PCBVG8-6-20-14

Results:

Sample text: ST140620E1-6 PCB CS5 13H1207

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	750.00	1.43e+09	2.96 y	16:15	-	1.27
2	Mono	PCB-2	750.00	1.51e+09	2.98 y	18:36	-	1.18
3	Mono	PCB-3	750.00	1.54e+09	2.98 y	18:50	-	1.20
4	Di	PCB-4/10	3000.00	4.71e+09	1.64 y	20:12	-	1.54
5	Di	PCB-7/9	3000.00	5.85e+09	1.64 y	21:57	-	1.25
6	Di	PCB-6	1500.00	2.81e+09	1.64 y	22:36	-	1.20
7	Di	PCB-5/8	3000.00	5.77e+09	1.64 y	23:01	-	1.23
8	Di	PCB-14	1500.00	3.24e+09	1.64 y	24:06	-	1.20
9	Di	PCB-11	1500.00	3.05e+09	1.65 y	25:17	-	1.13
10	Di	PCB-12/13	3000.00	5.91e+09	1.64 y	25:41	-	1.09
11	Di	PCB-15	1500.00	3.20e+09	1.64 y	26:00	-	1.18
12	Tri	PCB-19	750.00	9.08e+08	1.05 y	24:17	-	1.23
13	Tri	PCB-30	750.00	1.34e+09	1.06 y	25:10	-	1.82
14	Tri	PCB-18	750.00	9.50e+08	1.05 y	25:55	-	0.81
15	Tri	PCB-17	750.00	1.00e+09	1.05 y	26:05	-	0.86
16	Tri	PCB-24/27	1500.00	2.69e+09	1.05 y	26:40	-	1.15
17	Tri	PCB-16/32	1500.00	2.29e+09	1.06 y	27:10	-	0.98
18	Tri	PCB-34	750.00	1.45e+09	1.09 y	27:57	-	1.16
19	Tri	PCB-23	750.00	1.49e+09	1.09 y	28:03	-	1.19
20	Tri	PCB-29	750.00	1.47e+09	1.09 y	28:18	-	1.18
21	Tri	PCB-26	750.00	1.45e+09	1.10 y	28:30	-	1.16
22	Tri	PCB-25	750.00	1.51e+09	1.09 y	28:40	-	1.21
23	Tri	PCB-31	750.00	1.64e+09	1.06 y	29:01	-	1.32
24	Tri	PCB-28	750.00	1.49e+09	1.12 y	29:08	-	1.20
25	Tri	PCB-20/21/33	2250.00	4.54e+09	1.09 y	29:44	-	1.21
26	Tri	PCB-22	750.00	1.53e+09	1.09 y	30:11	-	1.23
27	Tri	PCB-36	750.00	1.49e+09	1.09 y	30:47	-	1.32
28	Tri	PCB-39	750.00	1.57e+09	1.09 y	31:15	-	1.39
29	Tri	PCB-38	750.00	1.52e+09	1.09 y	32:03	-	1.35
30	Tri	PCB-35	750.00	1.55e+09	1.09 y	32:33	-	1.38
31	Tri	PCB-37	750.00	1.56e+09	1.09 y	32:59	-	1.39
32	Tetra	PCB-54	750.00	1.18e+09	0.78 y	28:01	-	1.18
33	Tetra	PCB-50	750.00	9.47e+08	0.78 y	29:11	-	0.95
34	Tetra	PCB-53	750.00	9.66e+08	0.78 y	29:49	-	1.14
35	Tetra	PCB-51	750.00	9.67e+08	0.77 y	30:10	-	1.14
36	Tetra	PCB-45	750.00	7.90e+08	0.77 y	30:35	-	0.93
37	Tetra	PCB-46	750.00	7.50e+08	0.77 y	31:05	-	0.88
38	Tetra	PCB-52/69	1500.00	2.10e+09	0.77 y	31:33	-	1.23
39	Tetra	PCB-73	750.00	1.23e+09	0.78 y	31:40	-	1.45
40	Tetra	PCB-43/49	1500.00	1.83e+09	0.78 y	31:50	-	1.08
41	Tetra	PCB-47	750.00	9.58e+08	0.77 y	32:02	-	1.07

42	Tetra	PCB-48/75	1500.00	2.33e+09	0.78	y	32:09	-	1.30
43	Tetra	PCB-65	750.00	1.16e+09	0.77	y	32:25	-	1.30
44	Tetra	PCB-62	750.00	1.12e+09	0.78	y	32:32	-	1.25
45	Tetra	PCB-44	750.00	8.19e+08	0.78	y	32:49	-	0.92
46	Tetra	PCB-42/59	1500.00	2.16e+09	0.77	y	33:03	-	1.21
47	Tetra	PCB-41/64/71/72	3000.00	4.74e+09	0.78	y	33:38	-	1.33
48	Tetra	PCB-68	750.00	1.31e+09	0.78	y	33:54	-	1.46
49	Tetra	PCB-40	750.00	6.99e+08	0.78	y	34:07	-	0.78
50	Tetra	PCB-57	750.00	1.25e+09	0.77	y	34:28	-	1.07
51	Tetra	PCB-67	750.00	1.21e+09	0.77	y	34:46	-	1.03
52	Tetra	PCB-58	750.00	1.25e+09	0.78	y	34:53	-	1.07

53	Tetra	PCB-63	750.00	1.31e+09	0.77 y	35:03	-	1.12
54	Tetra	PCB-74	750.00	1.38e+09	0.81 y	35:20	-	1.18
55	Tetra	PCB-61/70	1500.00	2.48e+09	0.75 y	35:31	-	1.06
56	Tetra	PCB-76/66	1500.00	2.59e+09	0.78 y	35:44	-	1.10
57	Tetra	PCB-80	750.00	1.47e+09	0.78 y	35:57	-	1.24
58	Tetra	PCB-55	750.00	1.33e+09	0.78 y	36:17	-	1.12
59	Tetra	PCB-56/60	1500.00	2.53e+09	0.78 y	36:47	-	1.07
60	Tetra	PCB-79	750.00	1.34e+09	0.78 y	37:50	-	1.13
61	Tetra	PCB-78	750.00	1.30e+09	0.78 y	38:32	-	1.18
62	Tetra	PCB-81	750.00	1.44e+09	0.77 y	39:04	-	1.31
63	Tetra	PCB-77	750.00	1.37e+09	0.79 y	39:39	-	1.17
64	Penta	PCB-104	750.00	8.87e+08	1.60 y	32:41	-	1.22
65	Penta	PCB-96	750.00	7.97e+08	1.60 y	33:56	-	1.10
66	Penta	PCB-103	750.00	7.09e+08	1.60 y	34:28	-	0.98
67	Penta	PCB-100	750.00	7.64e+08	1.60 y	34:50	-	1.05
68	Penta	PCB-94	750.00	6.22e+08	1.59 y	35:18	-	1.08
69	Penta	PCB-95/98/102	2250.00	2.03e+09	1.58 y	35:47	-	1.17
70	Penta	PCB-93	750.00	6.23e+08	1.66 y	35:56	-	1.08
71	Penta	PCB-88/91	1500.00	1.15e+09	1.55 y	36:12	-	1.00
72	Penta	PCB-121	750.00	1.07e+09	1.65 y	36:18	-	1.85
73	Penta	PCB-84/92	1500.00	1.26e+09	1.59 y	37:08	-	1.02
74	Penta	PCB-89	750.00	6.06e+08	1.66 y	37:20	-	0.98
75	Penta	PCB-90/101	1500.00	1.42e+09	1.58 y	37:30	-	1.15
76	Penta	PCB-113	750.00	8.20e+08	1.61 y	37:45	-	1.33
77	Penta	PCB-99	750.00	7.64e+08	1.59 y	37:50	-	1.24
78	Penta	PCB-119	750.00	9.38e+08	1.60 y	38:18	-	1.73
79	Penta	PCB-108/112	1500.00	1.41e+09	1.59 y	38:28	-	1.30
80	Penta	PCB-83	750.00	8.35e+08	1.61 y	38:37	-	1.54
81	Penta	PCB-97	750.00	6.67e+08	1.59 y	38:49	-	1.23
82	Penta	PCB-86	750.00	5.75e+08	1.59 y	38:57	-	1.06
83	Penta	PCB-87/117/125	2250.00	2.55e+09	1.60 y	39:05	-	1.57
84	Penta	PCB-111/115	1500.00	1.80e+09	1.61 y	39:14	-	1.66
85	Penta	PCB-85/116	1500.00	1.47e+09	1.60 y	39:22	-	1.35
86	Penta	PCB-120	750.00	9.60e+08	1.60 y	39:36	-	1.77
87	Penta	PCB-110	750.00	8.91e+08	1.60 y	39:45	-	1.64
88	Penta	PCB-82	750.00	5.54e+08	1.60 y	40:23	-	0.71
89	Penta	PCB-124	750.00	1.04e+09	1.59 y	41:04	-	1.33
90	Penta	PCB-107/109	1500.00	1.83e+09	1.60 y	41:12	-	1.17
91	Penta	PCB-123	750.00	9.32e+08	1.60 y	41:23	-	1.20
92	Penta	PCB-106/118	1500.00	1.91e+09	1.60 y	41:34	-	1.19
93	Penta	PCB-114	750.00	1.21e+09	1.60 y	42:13	-	1.35
94	Penta	PCB-122	750.00	1.09e+09	1.62 y	42:22	-	1.22
95	Penta	PCB-105	750.00	1.17e+09	1.61 y	43:05	-	1.28
96	Penta	PCB-127	750.00	1.10e+09	1.63 y	43:25	-	1.09
97	Penta	PCB-126	750.00	1.11e+09	1.70 y	45:18	-	1.27
98	Hexa	PCB-155	750.00	7.23e+08	1.27 y	37:04	-	1.15
99	Hexa	PCB-150	750.00	6.95e+08	1.28 y	38:19	-	1.10
100	Hexa	PCB-152	750.00	6.85e+08	1.28 y	38:48	-	1.09
101	Hexa	PCB-145	750.00	6.77e+08	1.27 y	39:14	-	1.08
102	Hexa	PCB-136	750.00	7.15e+08	1.29 y	39:34	-	1.14

103	Hexa	PCB-148	750.00	4.56e+08	1.26	y	39:41	-	0.72
104	Hexa	PCB-154	750.00	5.75e+08	1.28	y	40:09	-	0.91
105	Hexa	PCB-151	750.00	5.08e+08	1.28	y	40:48	-	0.81
106	Hexa	PCB-135	750.00	5.16e+08	1.27	y	41:00	-	0.82
107	Hexa	PCB-144	750.00	5.14e+08	1.29	y	41:07	-	0.82
108	Hexa	PCB-147	750.00	5.36e-08	1.28	y	41:15	-	0.85
109	Hexa	PCB-139/149	1500.00	1.09e+09	1.28	y	41:31	-	0.86
110	Hexa	PCB-140	750.00	5.03e+08	1.28	y	41:42	-	0.80
111	Hexa	PCB-134/143	1500.00	1.43e+09	1.24	y	42:09	-	0.87
112	Hexa	PCB-133/142	1500.00	1.48e+09	1.23	y	42:26	-	0.90
113	Hexa	PCB-131	750.00	7.12e+08	1.24	y	42:36	-	0.87

114	Hexa	PCB-146/165	1500.00	1.86e+09	1.24 y	42:49	-	1.13
115	Hexa	PCB-132/161	1500.00	1.76e+09	1.23 y	43:04	-	1.07
116	Hexa	PCB-153	750.00	9.65e+08	1.23 y	43:14	-	1.18
117	Hexa	PCB-168	750.00	1.10e+09	1.23 y	43:27	-	1.35
118	Hexa	PCB-141	750.00	7.68e+08	1.23 y	43:58	-	0.99
119	Hexa	PCB-137	750.00	8.69e+08	1.22 y	44:21	-	1.11
120	Hexa	PCB-130	750.00	6.96e+08	1.25 y	44:28	-	0.89
121	Hexa	PCB-138/163/164	2250.00	2.89e+09	1.23 y	44:50	-	1.24
122	Hexa	PCB-158/160	1500.00	2.02e+09	1.23 y	45:05	-	1.29
123	Hexa	PCB-129	750.00	6.88e+08	1.23 y	45:19	-	0.88
124	Hexa	PCB-166	750.00	1.04e+09	1.22 y	45:46	-	1.13
125	Hexa	PCB-159	750.00	1.10e+09	1.22 y	46:05	-	1.20
126	Hexa	PCB-128/162	1500.00	1.89e+09	1.23 y	46:23	-	1.03
127	Hexa	PCB-167	750.00	1.07e+09	1.23 y	46:47	-	1.05
128	Hexa	PCB-156	750.00	1.08e+09	1.23 y	48:04	-	1.12
129	Hexa	PCB-157	750.00	1.06e+09	1.24 y	48:21	-	1.06
130	Hexa	PCB-169	750.00	1.01e+09	1.24 y	50:24	-	1.09
131	Hepta	PCB-188	750.00	9.34e+08	1.05 y	42:52	-	1.37
132	Hepta	PCB-184	750.00	8.40e+08	1.05 y	43:19	-	1.23
133	Hepta	PCB-179	750.00	8.75e+08	1.05 y	44:05	-	1.28
134	Hepta	PCB-176	750.00	9.17e+08	1.06 y	44:33	-	1.34
135	Hepta	PCB-186	750.00	8.77e+08	1.05 y	45:10	-	1.29
136	Hepta	PCB-178	750.00	6.27e+08	1.05 y	45:39	-	0.92
137	Hepta	PCB-175	750.00	6.73e+08	1.05 y	45:60	-	0.99
138	Hepta	PCB-182/187	1500.00	1.46e+09	1.05 y	46:10	-	1.07
139	Hepta	PCB-183	750.00	7.62e+08	1.05 y	46:29	-	1.12
140	Hepta	PCB-185	750.00	6.80e+08	1.05 y	47:09	-	1.35
141	Hepta	PCB-174	750.00	7.07e+08	1.04 y	47:31	-	1.40
142	Hepta	PCB-181	750.00	6.72e+08	1.06 y	47:38	-	1.33
143	Hepta	PCB-177	750.00	6.12e+08	1.05 y	47:47	-	1.21
144	Hepta	PCB-171	750.00	6.44e+08	1.05 y	48:05	-	1.28
145	Hepta	PCB-173	750.00	5.59e+08	1.05 y	48:31	-	1.11
146	Hepta	PCB-172	750.00	5.96e+08	1.04 y	48:57	-	1.18
147	Hepta	PCB-192	750.00	7.62e+08	1.05 y	49:09	-	1.51
148	Hepta	PCB-180	750.00	6.75e+08	1.05 y	49:21	-	1.34
149	Hepta	PCB-193	750.00	8.02e+08	1.05 y	49:32	-	1.59
150	Hepta	PCB-191	750.00	8.11e+08	1.05 y	49:46	-	1.61
151	Hepta	PCB-170	750.00	5.79e+08	1.05 y	50:45	-	1.44
152	Hepta	PCB-190	750.00	7.99e+08	1.05 y	50:55	-	1.98
153	Hepta	PCB-189	750.00	8.34e+08	1.05 y	52:11	-	1.54
154	Octa	PCB-202	750.00	6.16e+08	0.91 y	48:17	-	0.99
155	Octa	PCB-201	750.00	6.74e+08	0.90 y	48:46	-	1.09
156	Octa	PCB-204	750.00	6.20e+08	0.90 y	48:55	-	1.00
157	Octa	PCB-197	750.00	6.60e+08	0.90 y	49:13	-	1.06
158	Octa	PCB-200	750.00	6.36e+08	0.90 y	50:03	-	1.02
159	Octa	PCB-198	750.00	4.35e+08	0.90 y	51:19	-	0.70
160	Octa	PCB-199	750.00	4.62e+08	0.92 y	51:25	-	0.74
161	Octa	PCB-196/203	1500.00	9.78e+08	0.91 y	51:41	-	0.79
162	Octa	PCB-195	750.00	6.36e+08	0.92 y	52:48	-	1.19
163	Octa	PCB-194	750.00	6.26e+08	0.92 y	53:40	-	1.17

164	Octa	PCB-205	750.00	7.28e+08	0.91	y	53:57	-	1.36
165	Nona	PCB-208	750.00	6.70e+08	1.33	y	52:57	-	0.91
166	Nona	PCB-207	750.00	6.71e+08	1.33	y	53:15	-	0.91
167	Nona	PCB-206	750.00	4.30e+08	1.34	y	55:19	-	0.98
168	Deca	PCB-209	750.00	4.91e+08	1.19	y	56:35	-	1.16
169	Tot ↴	Total Mono-PCB	0.00	-	-	n	-	-	1.22
170	Tot ↴	Total Di-PCB	0.00	-	-	n	-	-	1.19
171	Tot ↴	Total Tri-PCB	0.00	-	-	n	-	-	1.12

172	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.26
173	Tot Σ	Total Tetra-PCB	0.00	-	- n	-	-	1.15
174	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.21
175	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.24
176	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.93
177	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	1.07
178	Tot Σ	Total Hepta-PCB	0.00	-	- n	-	-	1.26
179	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	0.91
180	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	1.24
181	Tot Σ	Total Nona-PCB	0.00	-	- n	-	-	0.93
182	Tot Σ	Total Deca-PCB	750.00	4.91e+08	1.19 y	56:35	-	1.16
183	Mono Σ	13C-PCB-1	100.00	1.50e+08	3.31 y	16:14	-	0.76
184	Mono Σ	13C-PCB-3	100.00	1.70e+08	3.29 y	18:49	-	0.86
185	Di-IS	13C-PCB-4	100.00	1.02e+08	1.58 y	20:08	-	0.52
186	Di-IS	13C-PCB-9	100.00	1.56e+08	1.60 y	21:55	-	0.79
187	Di-IS	13C-PCB-11	100.00	1.80e+08	1.58 y	25:16	-	0.91
188	Tri- Σ	13C-PCB-19	100.00	9.83e+07	1.04 y	24:16	-	0.50
189	Tri- Σ	13C-PCB-32	100.00	1.56e+08	1.07 y	27:10	-	0.79
190	Tri- Σ	13C-PCB-28	100.00	1.66e+08	1.06 y	29:07	-	0.98
191	Tri- Σ	13C-PCB-37	100.00	1.50e+08	1.08 y	32:58	-	0.89
192	Tetr Σ	13C-PCB-54	100.00	1.33e+08	0.80 y	27:59	-	0.77
193	Tetr Σ	13C-PCB-52	100.00	1.13e+08	0.80 y	31:31	-	0.66
194	Tetr Σ	13C-PCB-47	100.00	1.19e+08	0.80 y	32:01	-	0.70
195	Tetr Σ	13C-PCB-70	100.00	1.56e+08	0.81 y	35:31	-	0.91
196	Tetr Σ	13C-PCB-80	100.00	1.58e+08	0.80 y	35:56	-	0.92
197	Tetr Σ	13C-PCB-81	100.00	1.47e+08	0.81 y	39:03	-	0.86
198	Tetr Σ	13C-PCB-77	100.00	1.56e+08	0.81 y	39:38	-	0.91
199	Pent Σ	13C-PCB-104	100.00	9.67e+07	1.59 y	32:40	-	0.90
200	Pent Σ	13C-PCB-95	100.00	7.69e+07	1.59 y	35:49	-	0.72
201	Pent Σ	13C-PCB-101	100.00	8.24e+07	1.61 y	37:30	-	0.77
202	Pent Σ	13C-PCB-97	100.00	7.23e+07	1.63 y	38:48	-	0.67
203	Pent Σ	13C-PCB-123	100.00	1.04e+08	1.60 y	41:22	-	0.97
204	Pent Σ	13C-PCB-118	100.00	1.07e+08	1.61 y	41:33	-	0.99
205	Pent Σ	13C-PCB-114	100.00	1.19e+08	1.61 y	42:12	-	1.15
206	Pent Σ	13C-PCB-105	100.00	1.23e+08	1.59 y	43:04	-	1.19
207	Pent Σ	13C-PCB-127	100.00	1.34e+08	1.58 y	43:23	-	1.30
208	Pent Σ	13C-PCB-126	100.00	1.17e+08	1.57 y	45:18	-	1.14
209	Hexa Σ	13C-PCB-155	100.00	8.39e+07	1.28 y	37:03	-	0.78
210	Hexa Σ	13C-PCB-153	100.00	1.09e+08	1.28 y	43:13	-	1.06
211	Hexa Σ	13C-PCB-141	100.00	1.04e+08	1.29 y	43:57	-	1.01
212	Hexa	13C-PCB-138	100.00	1.04e+08	1.28 y	44:48	-	1.01
213	Hexa Σ	13C-PCB-159	100.00	1.22e+08	1.26 y	46:04	-	1.19
214	Hexa Σ	13C-PCB-167	100.00	1.35e+08	1.27 y	46:45	-	1.31
215	Hexa Σ	13C-PCB-156	100.00	1.28e+08	1.27 y	48:03	-	1.24
216	Hexa Σ	13C-PCB-157	100.00	1.33e+08	1.28 y	48:19	-	1.29
217	Hexa Σ	13C-PCB-169	100.00	1.24e+08	1.28 y	50:23	-	1.20
218	Hept Σ	13C-PCB-188	100.00	9.09e+07	0.46 y	42:51	-	0.88
219	Hept Σ	13C-PCB-180	100.00	6.73e+07	0.47 y	49:20	-	0.65
220	Hept Σ	13C-PCB-170	100.00	5.38e+07	0.46 y	50:44	-	0.52
221	Hept Σ	13C-PCB-189	100.00	7.24e+07	0.47 y	52:11	-	0.70
222	Octa Σ	13C-PCB-202	100.00	8.28e+07	0.92 y	48:16	-	0.80

223	Octa ₇	13C-PCB-194	100.00	7.14e+07	0.92	y	53:39	-	0.79
224	Nona ₇	13C-PCB-208	100.00	9.82e+07	0.76	y	52:56	-	1.09
225	Nona ₇	13C-PCB-206	100.00	5.84e+07	0.80	y	55:19	-	0.65
226	Deca ₇	13C-PCB-209	100.00	5.63e+07	1.21	y	56:35	-	0.62
227	DI-RS	13C-PCB-15	100.00	1.97e+08	1.56	y	25:59	-	1.00
228	Tri- ₇	13C-PCB-31	100.00	1.69e+08	1.06	y	28:60	-	1.00
229	Tetr ₇	13C-PCB-60	100.00	1.71e+08	0.80	y	36:46	-	1.00
230	Penta	13C-PCB-111	100.00	1.07e+08	1.60	y	39:13	-	1.00
231	Hexa ₇	13C-PCB-128	100.00	1.03e+08	1.28	y	46:21	-	1.00
232	Octa ₇	13C-PCB-205	100.00	9.02e+07	0.91	y	53:56	-	1.00

233	CRS	13C-PCB-79	100.00	1.75e+08	0.80	y	37:49	-	1.02
234	CRS	13C-PCB-178	100.00	6.43e+07	0.47	y	45:38	-	0.62
235	PS	13C-PCB-79	100.00	1.75e+08	0.80	y	37:49	-	1.19
236	PS	13C-PCB-178	100.00	6.43e+07	0.47	y	45:38	-	0.96

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 1 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140620E1-4

Instrument ID: VG-8

Initial Calibration Date: 6-20-14

ICal ID: PCBVG8-6-20-14

GC Column ID: ZB-1

VER Data Filename: 140620E1 S#4 Analysis Date: 20-JUN-14 Time: 12:43:46

ANALYTES	ION QC CONC.					ION QC CONC.					
	ABUND.	LIMITS	CONC.	RANGE		ABUND.	LIMITS	CONC.	RANGE		
	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS	FOUND	(ng/mL)		
PCB-1	2.96	2.66-3.60	y	52.3	37.5-62.5	PCB-52/69	0.77	0.65-0.89	y	105.4	75.0-125
PCB-2	2.98	2.66-3.60	y	52.3	37.5-62.5	PCB-73	0.77	0.65-0.89	y	52.2	37.5-62.5
PCB-3	2.98	2.66-3.60	y	51.7	37.5-62.5	PCB-43/49	0.77	0.65-0.89	y	101.6	75.0-125
PCB-4/10	1.64	1.33-1.79	y	206.7	150-250	PCB-47	0.76	0.65-0.89	y	53.7	37.5-62.5
PCB-7/9	1.64	1.33-1.79	y	204.6	150-250	PCB-48/75	0.77	0.65-0.89	y	99.8	75.0-125
PCB-6	1.64	1.33-1.79	y	99.9	75.0-125	PCB-65	0.77	0.65-0.89	y	49.4	37.5-62.5
PCB-5/8	1.64	1.33-1.79	y	206.9	150-250	PCB-62	0.77	0.65-0.89	y	53.4	37.5-62.5
PCB-14	1.65	1.33-1.79	y	102.3	75.0-125	PCB-44	0.78	0.65-0.89	y	51.3	37.5-62.5
PCB-11	1.66	1.33-1.79	y	101.6	75.0-125	PCB-42/59	0.77	0.65-0.89	y	103.4	75.0-125
PCB-12/13	1.63	1.33-1.79	y	205.7	150-250	PCB-41/64/71/72	0.78	0.65-0.89	y	205.8	150-250
PCB-15	1.66	1.33-1.79	y	101.1	75.0-125	PCB-68	0.78	0.65-0.89	y	50.9	37.5-62.5
PCB-19	1.05	0.88-1.20	y	49.4	37.5-62.5	PCB-40	0.77	0.65-0.89	y	50.7	37.5-62.5
PCB-30	1.06	0.88-1.20	y	51.2	37.5-62.5	PCB-57	0.77	0.65-0.89	y	51.8	37.5-62.5
PCB-18	1.05	0.88-1.20	y	50.4	37.5-62.5	PCB-67	0.77	0.65-0.89	y	53.3	37.5-62.5
PCB-17	1.05	0.88-1.20	y	51.0	37.5-62.5	PCB-58	0.78	0.65-0.89	y	49.3	37.5-62.5
PCB-24/27	1.06	0.88-1.20	y	103.5	75.0-125	PCB-63	0.76	0.65-0.89	y	51.7	37.5-62.5
PCB-16/32	1.05	0.88-1.20	y	100.5	75.0-125	PCB-74	0.77	0.65-0.89	y	51.8	37.5-62.5
PCB-34	1.08	0.88-1.20	y	57.4	37.5-62.5	PCB-61/70	0.78	0.65-0.89	y	101.8	75.0-125
PCB-23	1.11	0.88-1.20	y	46.4	37.5-62.5	PCB-76/66	0.77	0.65-0.89	y	103.1	75.0-125
PCB-29	1.09	0.88-1.20	y	51.1	37.5-62.5	PCB-80	0.78	0.65-0.89	y	50.2	37.5-62.5
PCB-26	1.08	0.88-1.20	y	50.7	37.5-62.5	PCB-55	0.77	0.65-0.89	y	51.5	37.5-62.5
PCB-25	1.09	0.88-1.20	y	51.5	37.5-62.5	PCB-56/60	0.77	0.65-0.89	y	100.3	75.0-125
PCB-31	1.08	0.88-1.20	y	49.7	37.5-62.5	PCB-79	0.78	0.65-0.89	y	51.2	37.5-62.5
PCB-28	1.11	0.88-1.20	y	52.5	37.5-62.5	PCB-78	0.78	0.65-0.89	y	51.1	37.5-62.5
PCB-20/21/33	1.09	0.88-1.20	y	152.7	112.5-225	PCB-81	0.78	0.65-0.89	y	50.9	37.5-62.5
PCB-22	1.08	0.88-1.20	y	52.6	37.5-62.5	PCB-77	0.79	0.65-0.89	y	52.0	37.5-62.5
PCB-36	1.09	0.88-1.20	y	52.3	37.5-62.5	PCB-104	1.61	1.32-1.78	y	50.4	37.5-62.5
PCB-39	1.08	0.88-1.20	y	51.7	37.5-62.5	PCB-96	1.59	1.32-1.78	y	50.5	37.5-62.5
PCB-38	1.10	0.88-1.20	y	52.4	37.5-62.5	PCB-103	1.58	1.32-1.78	y	50.8	37.5-62.5
PCB-35	1.11	0.88-1.20	y	52.7	37.5-62.5	PCB-100	1.61	1.32-1.78	y	50.5	37.5-62.5
PCB-37	1.09	0.88-1.20	y	51.2	37.5-62.5	PCB-94	1.58	1.32-1.78	y	50.8	37.5-62.5
PCB-54	0.76	0.65-0.89	y	51.7	37.5-62.5	PCB-95/98/102	1.60	1.32-1.78	y	160.1	112.5-225
PCB-50	0.77	0.65-0.89	y	51.4	37.5-62.5	PCB-93	1.63	1.32-1.78	y	42.1	37.5-62.5
PCB-53	0.78	0.65-0.89	y	50.2	37.5-62.5	PCB-88/91	1.59	1.32-1.78	y	114.0	75.0-125
PCB-51	0.78	0.65-0.89	y	53.2	37.5-62.5	PCB-121	1.59	1.32-1.78	y	43.7	37.5-62.5
PCB-45	0.78	0.65-0.89	y	52.8	37.5-62.5						
PCB-46	0.76	0.65-0.89	y	50.1	37.5-62.5						

Analyst: Dmz
Date: 6/23/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

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Lab Name: Vista Analytical Laboratory

Lab ID: ST140620E1-4

Instrument ID: VG-8

Initial Calibration Date: 6-20-14

ICal ID: PCBVG8-6-20-14

GC Column ID: ZB-1

VER Data Filename: 140620E1 S#4 Analysis Date: 20-JUN-14 Time: 12:43:46

ANALYTES	ION	QC	CONC.		ANALYTES	ION	QC	CONC.			
	ABUND.	LIMITS	CONC.	RANGE		ABUND.	LIMITS	CONC.	RANGE		
	RATIO		PASS	FOUND (ng/mL)		RATIO		PASS	FOUND (ng/mL)		
PCB-84/92	1.59	1.32-1.78	y	103.4	75.0-125	PCB-140	1.28	1.05-1.43	y	54.6	37.5-62.5
PCB-89	1.61	1.32-1.78	y	53.1	37.5-62.5	PCB-134/143	1.24	1.05-1.43	y	102.9	75.0-125
PCB-90/101	1.60	1.32-1.78	y	102.1	75.0-125	PCB-133/142	1.23	1.05-1.43	y	102.0	75.0-125
PCB-113	1.58	1.32-1.78	y	56.1	37.5-62.5	PCB-131	1.22	1.05-1.43	y	49.4	37.5-62.5
PCB-99	1.64	1.32-1.78	y	46.1	37.5-62.5	PCB-146/165	1.24	1.05-1.43	y	100.9	75.0-125
PCB-119	1.61	1.32-1.78	y	50.3	37.5-62.5	PCB-132/161	1.22	1.05-1.43	y	102.0	75.0-125
PCB-108/112	1.63	1.32-1.78	y	103.0	75.0-125	PCB-153	1.22	1.05-1.43	y	50.2	37.5-62.5
PCB-83	1.62	1.32-1.78	y	52.1	37.5-62.5	PCB-168	1.21	1.05-1.43	y	50.2	37.5-62.5
PCB-97	1.60	1.32-1.78	y	52.6	37.5-62.5	PCB-141	1.21	1.05-1.43	y	50.4	37.5-62.5
PCB-86	1.58	1.32-1.78	y	48.0	37.5-62.5	PCB-137	1.24	1.05-1.43	y	48.3	37.5-62.5
PCB-87/117/125	1.60	1.32-1.78	y	154.2	112.5-225	PCB-130	1.26	1.05-1.43	y	54.3	37.5-62.5
PCB-111/115	1.68	1.32-1.78	y	102.0	75.0-125	PCB-138/163/164	1.23	1.05-1.43	y	154.4	112.5-225
PCB-85/116	1.48	1.32-1.78	y	101.9	75.0-125	PCB-158/160	1.23	1.05-1.43	y	104.2	75.0-125
PCB-120	1.57	1.32-1.78	y	49.2	37.5-62.5	PCB-129	1.25	1.05-1.43	y	50.6	37.5-62.5
PCB-110	1.61	1.32-1.78	y	51.1	37.5-62.5	PCB-166	1.22	1.05-1.43	y	51.1	37.5-62.5
PCB-82	1.59	1.32-1.78	y	49.3	37.5-62.5	PCB-159	1.23	1.05-1.43	y	52.7	37.5-62.5
PCB-124	1.60	1.32-1.78	y	49.9	37.5-62.5	PCB-128/162	1.22	1.05-1.43	y	104.6	75.0-125
PCB-107/109	1.59	1.32-1.78	y	101.7	75.0-125	PCB-167	1.21	1.05-1.43	y	51.6	37.5-62.5
PCB-123	1.59	1.32-1.78	y	52.4	37.5-62.5	PCB-156	1.22	1.05-1.43	y	49.4	37.5-62.5
PCB-106/118	1.62	1.32-1.78	y	104.7	75.0-125	PCB-157	1.22	1.05-1.43	y	51.2	37.5-62.5
PCB-114	1.64	1.32-1.78	y	50.7	37.5-62.5	PCB-169	1.22	1.05-1.43	y	49.9	37.5-62.5
PCB-122	1.64	1.32-1.78	y	51.0	37.5-62.5	PCB-188	1.02	0.89-1.21	y	50.8	37.5-62.5
PCB-105	1.62	1.32-1.78	y	51.4	37.5-62.5	PCB-184	1.04	0.89-1.21	y	51.3	37.5-62.5
PCB-127	1.64	1.32-1.78	y	51.1	37.5-62.5	PCB-179	1.04	0.89-1.21	y	50.2	37.5-62.5
PCB-126	1.62	1.32-1.78	y	51.1	37.5-62.5	PCB-176	1.04	0.89-1.21	y	50.5	37.5-62.5
PCB-155	1.27	1.05-1.43	y	52.7	37.5-62.5	PCB-186	1.04	0.89-1.21	y	51.2	37.5-62.5
PCB-150	1.28	1.05-1.43	y	51.9	37.5-62.5	PCB-178	1.04	0.89-1.21	y	50.8	37.5-62.5
PCB-152	1.27	1.05-1.43	y	51.1	37.5-62.5	PCB-175	1.04	0.89-1.21	y	52.7	37.5-62.5
PCB-145	1.26	1.05-1.43	y	50.6	37.5-62.5	PCB-182/187	1.04	0.89-1.21	y	104.2	75.0-125
PCB-136	1.27	1.05-1.43	y	52.1	37.5-62.5	PCB-183	1.04	0.89-1.21	y	50.9	37.5-62.5
PCB-148	1.30	1.05-1.43	y	51.3	37.5-62.5	PCB-185	1.04	0.89-1.21	y	50.3	37.5-62.5
PCB-154	1.25	1.05-1.43	y	52.4	37.5-62.5	PCB-174	1.03	0.89-1.21	y	49.1	37.5-62.5
PCB-151	1.30	1.05-1.43	y	52.9	37.5-62.5	PCB-181	1.06	0.89-1.21	y	52.4	37.5-62.5
PCB-135	1.28	1.05-1.43	y	51.8	37.5-62.5	PCB-177	1.05	0.89-1.21	y	51.2	37.5-62.5
PCB-144	1.36	1.05-1.43	y	55.0	37.5-62.5	PCB-171	1.04	0.89-1.21	y	49.7	37.5-62.5
PCB-147	1.18	1.05-1.43	y	52.9	37.5-62.5	PCB-173	1.05	0.89-1.21	y	49.7	37.5-62.5
PCB-139/149	1.27	1.05-1.43	y	107.6	75.0-125	PCB-172	1.02	0.89-1.21	y	49.8	37.5-62.5

Analyst: DMSDate: 6/23/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

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Lab Name: Vista Analytical Laboratory Lab ID: ST140620E1-4 Instrument ID: VG-8

Initial Calibration Date: 6-20-14 ICal ID: PCBVG8-6-20-14 GC Column ID: ZB-1

VER Data Filename: 140620E1 S#4 Analysis Date: 20-JUN-14 Time: 12:43:46

ANALYTES	ION	QC	CONC.		(ng/mL)
	ABUND.	LIMITS	CONC	RANGE	
	RATIO	PASS	FOUND		
PCB-192	1.05	0.89-1.21	Y	50.5	37.5-62.5
PCB-180	1.04	0.89-1.21	Y	49.1	37.5-62.5
PCB-193	1.05	0.89-1.21	Y	50.4	37.5-62.5
PCB-191	1.06	0.89-1.21	Y	50.0	37.5-62.5
PCB-170	1.03	0.89-1.21	Y	49.6	37.5-62.5
PCB-190	1.02	0.89-1.21	Y	50.5	37.5-62.5
PCB-189	1.04	0.89-1.21	Y	51.7	37.5-62.5
PCB-202	0.91	0.76-1.02	Y	50.0	37.5-62.5
PCB-201	0.93	0.76-1.02	Y	50.4	37.5-62.5
PCB-204	0.88	0.76-1.02	Y	52.0	37.5-62.5
PCB-197	0.91	0.76-1.02	Y	52.0	37.5-62.5
PCB-200	0.91	0.76-1.02	Y	52.4	37.5-62.5
PCB-198	0.90	0.76-1.02	Y	51.5	37.5-62.5
PCB-199	0.89	0.76-1.02	Y	52.5	37.5-62.5
PCB-196/203	0.90	0.76-1.02	Y	104.9	75.0-125
PCB-195	0.90	0.76-1.02	Y	51.9	37.5-62.5
PCB-194	0.90	0.76-1.02	Y	49.9	37.5-62.5
PCB-205	0.91	0.76-1.02	Y	49.6	37.5-62.5
PCB-208	1.33	1.14-1.54	Y	49.5	37.5-62.5
PCB-207	1.32	1.14-1.54	Y	50.8	37.5-62.5
PCB-206	1.33	1.14-1.54	Y	49.7	37.5-62.5
PCB-209	1.19	0.99-1.33	Y	52.5	37.5-62.5

Analyst: DMSDate: 6/23/14

Client ID: PCB CS3 14F1901
 Lab ID: ST140620E1-4

Filename: 140620E1 S:4 Acq:20-JUN-14 12:43:46 ConCal: ST140620E1-4
 GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: ST140620E1-8

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	7.79e+07	2.96	y	1.25	16:15	1.001	0.996-1.006	52.3077	PCB-52/69	1.04e+08	0.77	y	1.28	31:33	1.001	0.996-1.006	105.426
PCB-2	7.75e+07	2.98	y	1.18	18:36	0.988	0.983-0.993	52.2846	PCB-73	5.51e+07	0.77	y	1.37	31:39	1.005	1.000-1.010	52.1810
PCB-3	7.90e+07	2.98	y	1.22	18:50	1.001	0.996-1.006	51.6788	PCB-43/49	8.70e+07	0.77	y	1.11	31:50	1.010	1.005-1.015	101.562
PCB-4/10	2.37e+08	1.64	y	1.55	20:12	1.003	0.998-1.008	206.748	PCB-47	4.93e+07	0.76	y	1.13	32:02	1.000	0.996-1.006	53.6979
PCB-7/9	2.89e+08	1.64	y	1.27	21:57	0.869	0.865-0.873	204.628	PCB-48/75	1.06e+08	0.77	y	1.30	32:09	1.004	0.999-1.009	99.7567
PCB-6	1.40e+08	1.64	y	1.26	22:36	0.894	0.890-0.899	99.9095	PCB-65	5.34e+07	0.77	y	1.33	32:25	1.012	1.007-1.017	49.3948
PCB-5/8	2.84e+08	1.64	y	1.23	23:01	0.911	0.906-0.916	206.862	PCB-62	5.60e+07	0.77	y	1.29	32:32	1.016	1.011-1.021	53.4188
PCB-14	1.57e+08	1.65	y	1.23	24:06	0.954	0.949-0.959	102.294	PCB-44	3.91e+07	0.78	y	0.94	32:50	1.025	1.020-1.030	51.2578
PCB-11	1.47e+08	1.66	y	1.16	25:17	1.000	0.996-1.006	101.627	PCB-42/59	1.02e+08	0.77	y	1.22	33:02	1.032	1.028-1.038	103.394
PCB-12/13	2.82e+08	1.63	y	1.10	25:41	1.016	1.010-1.020	205.694	PCB-41/64/71/72	2.19e+08	0.78	y	1.31	33:38	1.050	1.046-1.056	205.816
PCB-15	1.52e+08	1.66	y	1.21	26:00	1.029	1.024-1.034	101.148	PCB-68	6.14e+07	0.78	y	1.49	33:54	1.059	1.054-1.064	50.9457
PCB-19	4.60e+07	1.05	y	1.30	24:17	1.001	0.996-1.006	49.3886	PCB-40	3.37e+07	0.77	y	0.82	34:06	1.065	1.061-1.071	50.7163
PCB-30	6.73e+07	1.06	y	1.83	25:10	1.037	1.032-1.042	51.1589	PCB-57	5.90e+07	0.77	y	1.11	34:28	0.970	0.965-0.975	51.7966
PCB-18	4.72e+07	1.05	y	0.86	25:55	0.954	0.949-0.959	50.4475	PCB-67	5.86e+07	0.77	y	1.07	34:46	0.979	0.974-0.984	53.3170
PCB-17	5.00e+07	1.05	y	0.90	26:05	0.960	0.955-0.965	50.9703	PCB-58	5.56e+07	0.78	y	1.10	34:53	0.982	0.977-0.987	49.2975
PCB-24/27	1.33e+08	1.06	y	1.18	26:40	0.981	0.976-0.986	103.472	PCB-63	5.91e+07	0.76	y	1.12	35:03	0.987	0.982-0.992	51.7181
PCB-16/32	1.13e+08	1.05	y	1.03	27:10	1.000	0.995-1.005	100.505	PCB-74	6.38e+07	0.77	y	1.20	35:20	0.995	0.990-1.000	51.8367
PCB-34	7.74e+07	1.08	y	1.26	27:58	0.961	0.956-0.966	57.3995	PCB-61/70	1.12e+08	0.78	y	1.08	35:30	0.999	0.994-1.004	101.842
PCB-23	6.51e+07	1.11	y	1.31	28:04	0.964	0.959-0.969	46.4036	PCB-76/66	1.20e+08	0.77	y	1.14	35:43	1.005	1.001-1.011	103.088
PCB-29	7.26e+07	1.09	y	1.33	28:18	0.972	0.967-0.977	51.0903	PCB-80	6.74e+07	0.78	y	1.28	35:56	1.000	0.996-1.006	50.2410
PCB-26	7.01e+07	1.08	y	1.29	28:30	0.979	0.974-0.984	50.7150	PCB-55	6.01e+07	0.77	y	1.11	36:17	1.010	1.005-1.015	51.5207
PCB-25	7.40e+07	1.09	y	1.34	28:40	0.985	0.980-0.990	51.5314	PCB-56/60	1.15e+08	0.77	y	1.09	36:46	1.023	1.018-1.028	100.313
PCB-31	7.55e+07	1.08	y	1.42	29:02	0.997	0.992-1.002	49.7377	PCB-79	6.04e+07	0.78	y	1.12	37:50	1.053	1.048-1.058	51.1728
PCB-28	7.73e+07	1.11	y	1.38	29:07	1.000	0.996-1.006	52.4521	PCB-78	5.76e+07	0.78	y	1.24	38:32	0.987	0.982-0.992	51.0794
PCB-20/21/33	2.14e+08	1.09	y	1.31	29:45	1.022	1.017-1.027	152.731	PCB-81	6.41e+07	0.78	y	1.38	39:03	1.000	0.995-1.005	50.9258
PCB-22	7.44e+07	1.08	y	1.32	30:11	1.037	1.032-1.042	52.6344	PCB-77	6.12e+07	0.79	y	1.21	39:39	1.000	0.995-1.005	51.9669
PCB-36	7.16e+07	1.09	y	1.38	30:47	0.933	0.929-0.939	52.3141	PCB-104	4.41e+07	1.61	y	1.26	32:41	1.000	0.996-1.006	50.3835
PCB-39	7.29e+07	1.08	y	1.42	31:16	0.948	0.943-0.953	51.6606	PCB-96	3.84e+07	1.59	y	1.09	33:57	1.039	1.034-1.044	50.4976
PCB-38	7.06e+07	1.10	y	1.35	32:02	0.971	0.967-0.976	52.4183	PCB-103	3.30e+07	1.58	y	0.93	34:29	1.055	1.050-1.060	50.7622
PCB-35	7.21e+07	1.11	y	1.38	32:33	0.987	0.982-0.992	52.6668	PCB-100	3.52e+07	1.61	y	1.00	34:49	1.066	1.061-1.071	50.4670
PCB-37	7.08e+07	1.09	y	1.39	32:59	1.000	0.996-1.006	51.1869	PCB-94	2.91e+07	1.58	y	1.11	35:18	0.985	0.981-0.991	50.7908
PCB-54	5.75e+07	0.76	y	1.20	28:01	1.001	0.996-1.006	51.7229	PCB-95/98/102	1.01e+08	1.60	y	1.21	35:47	0.999	0.994-1.004	160.143
PCB-50	4.61e+07	0.77	y	0.97	29:11	1.042	1.037-1.047	51.4094	PCB-93	2.46e+07	1.63	y	1.13	35:56	1.003	0.998-1.008	42.0683
PCB-53	4.59e+07	0.78	y	1.19	29:49	0.946	0.941-0.951	50.2276	PCB-88/91	6.02e+07	1.59	y	1.02	36:12	1.010	1.006-1.016	114.032
PCB-51	4.72e+07	0.78	y	1.15	30:10	0.957	0.952-0.962	53.1558	PCB-121	4.31e+07	1.59	y	1.90	36:19	1.014	1.009-1.019	43.6820
PCB-45	3.92e+07	0.78	y	0.97	30:35	0.971	0.966-0.976	52.7585	PCB-84/92	5.90e+07	1.59	y	1.05	37:08	0.990	0.986-0.996	103.399
PCB-46	3.67e+07	0.76	y	0.95	31:04	0.986	0.982-0.992	50.0611	PCB-89	2.93e+07	1.61	y	1.02	37:19	0.995	0.991-1.001	53.0820

Integrations
by

Reviewed
by
Analyst: DMS
Date: 6/23/14

Analyst:

Date:

Client ID: PCB CS3 14F1901
Lab ID: ST140620E1-4

Filename: 140620E1 S:4 Acq:20-JUN-14 12:43:46 ConCal: ST140620E1-4
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: ST140620E1-8

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	6.59e+07	1.60	y	1.19	37:31	1.001	0.996-1.006	102.056
PCB-113	4.11e+07	1.58	y	1.35	37:45	1.007	1.002-1.012	56.0520
PCB-99	3.22e+07	1.64	y	1.29	37:51	1.010	1.005-1.015	46.1415
PCB-119	4.21e+07	1.61	y	1.72	38:18	0.987	0.982-0.992	50.2990
PCB-108/112	6.45e+07	1.63	y	1.29	38:27	0.991	0.986-0.996	102.978
PCB-83	3.85e+07	1.62	y	1.52	38:38	0.996	0.991-1.001	52.0737
PCB-97	3.19e+07	1.60	y	1.25	38:49	1.000	0.996-1.006	52.5654
PCB-86	2.39e+07	1.58	y	1.02	38:58	1.004	1.000-1.010	48.0340
B-87/117/125	1.17e+08	1.60	y	1.56	39:05	1.007	1.002-1.012	154.194
PCB-111/115	8.69e+07	1.68	y	1.75	39:15	1.012	1.007-1.017	101.981
PCB-85/116	6.45e+07	1.48	y	1.30	39:23	1.015	1.010-1.020	101.910
PCB-120	4.26e+07	1.57	y	1.78	39:37	1.021	1.016-1.026	49.1740
PCB-110	4.18e+07	1.61	y	1.68	39:46	1.025	1.020-1.030	51.1450
PCB-82	2.58e+07	1.59	y	0.74	40:23	0.976	0.972-0.982	49.2945
PCB-124	4.68e+07	1.60	y	1.32	41:03	0.993	0.988-0.998	49.9220
PCB-107/109	8.79e+07	1.59	y	1.22	41:12	0.996	0.991-1.001	101.669
PCB-123	4.52e+07	1.59	y	1.22	41:22	1.000	0.995-1.005	52.4448
- PCB-106/118	9.37e+07	1.62	y	1.22	41:35	1.001	0.996-1.006	104.679
- PCB-114	5.41e+07	1.64	y	1.36	42:13	1.000	0.995-1.005	50.6622
PCB-122	4.97e+07	1.64	y	1.24	42:21	1.004	0.999-1.009	50.9693
PCB-105	5.28e+07	1.62	y	1.28	43:05	1.001	0.995-1.005	51.3611
PCB-127	5.04e+07	1.64	y	1.14	43:24	1.000	0.995-1.005	51.1125
PCB-126	4.91e+07	1.62	y	1.28	45:19	1.001	0.995-1.005	51.0683
PCB-155	3.50e+07	1.27	y	1.14	37:04	1.001	0.966-1.006	52.6727
PCB-150	3.23e+07	1.28	y	1.06	38:20	1.035	1.030-1.040	51.8920
PCB-152	3.28e+07	1.27	y	1.10	38:49	1.048	1.043-1.053	51.0615
PCB-145	3.24e+07	1.26	y	1.09	39:15	1.060	1.055-1.065	50.6281
PCB-136	3.31e+07	1.27	y	1.08	39:35	1.069	1.064-1.074	52.0720
PCB-148	2.22e+07	1.30	y	0.74	39:40	1.071	1.066-1.076	51.2670
PCB-154	2.71e+07	1.25	y	0.88	40:10	1.084	1.079-1.089	52.4052
PCB-151	2.51e+07	1.30	y	0.81	40:48	1.102	1.097-1.107	52.9183
PCB-135	2.36e+07	1.28	y	0.78	41:01	1.107	1.101-1.113	51.8361
PCB-144	2.64e+07	1.36	y	0.82	41:08	1.110	1.105-1.116	54.9912
PCB-147	2.56e+07	1.18	y	0.83	41:16	1.114	1.011-1.120	52.8823
PCB-139/149	5.32e+07	1.27	y	0.84	41:31	1.121	1.115-1.127	107.613
- PCB-140	2.51e+07	1.28	y	0.79	41:43	1.126	1.120-1.132	54.6052
- PCB-134/143	7.01e+07	1.24	y	0.93	42:08	0.975	0.970-0.980	102.949

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-133/142	7.08e+07	1.23	y	0.95	42:26	0.982	0.977-0.987	102.037
PCB-131	3.32e+07	1.22	y	0.91	42:36	0.986	0.981-0.991	49.4221
PCB-146/165	8.56e+07	1.24	y	1.16	42:48	0.991	0.986-0.996	100.884
PCB-132/161	8.34e+07	1.22	y	1.11	43:03	0.996	0.992-1.002	102.031
PCB-153	4.34e+07	1.22	y	1.18	43:14	1.001	0.995-1.005	50.1872
PCB-168	5.04e+07	1.21	y	1.37	43:27	1.006	1.000-1.010	50.1556
PCB-141	3.48e+07	1.21	y	0.97	43:58	1.001	0.996-1.005	50.4291
PCB-137	3.66e+07	1.24	y	1.07	44:21	1.009	1.004-1.014	48.2814
PCB-130	3.25e+07	1.26	y	0.85	44:27	1.012	1.007-1.017	54.2556
PCB-138/163/164	1.29e+08	1.23	y	1.23	44:50	1.001	0.996-1.006	154.435
PCB-158/160	9.17e+07	1.23	y	1.29	45:05	1.007	1.001-1.011	104.238
PCB-129	3.19e+07	1.25	y	0.92	45:19	1.012	1.007-1.017	50.5660
PCB-166	4.45e+07	1.22	y	1.12	45:46	0.993	0.988-0.998	51.1070
PCB-159	4.79e+07	1.23	y	1.16	46:05	1.000	0.995-1.005	52.6640
PCB-128/162	8.32e+07	1.22	y	1.02	46:22	1.006	1.002-1.012	104.591
PCB-167	4.69e+07	1.21	y	1.06	46:47	1.001	0.995-1.005	51.5594
PCB-156	4.73e+07	1.22	y	1.18	48:04	1.000	0.995-1.005	49.4312
PCB-157	4.74e+07	1.22	y	1.08	48:20	1.000	0.995-1.005	51.2216
PCB-169	4.38e+07	1.22	y	1.11	50:24	1.000	0.995-1.005	49.8867
PCB-188	4.41e+07	1.02	y	1.40	42:52	1.000	0.995-1.005	50.7803
PCB-184	3.92e+07	1.04	y	1.24	43:18	1.011	1.006-1.016	51.2869
PCB-179	4.05e+07	1.04	y	1.30	44:06	1.029	1.024-1.034	50.2126
PCB-176	4.26e+07	1.04	y	1.36	44:34	1.040	1.035-1.045	50.5434
PCB-186	4.04e+07	1.04	y	1.28	45:10	1.054	1.049-1.059	51.1676
PCB-178	2.94e+07	1.04	y	0.94	45:39	1.066	1.061-1.071	50.8281
PCB-175	3.16e+07	1.04	y	0.97	46:00	1.074	1.069-1.079	52.7165
PCB-182/187	6.54e+07	1.04	y	1.01	46:11	1.078	1.073-1.083	104.234
PCB-183	3.41e+07	1.04	y	1.08	46:29	1.085	1.080-1.090	50.9232
PCB-185	3.03e+07	1.04	y	1.34	47:09	0.956	0.951-0.961	50.2993
PCB-174	2.95e+07	1.03	y	1.34	47:31	0.963	0.958-0.968	49.0649
PCB-181	3.20e+07	1.06	y	1.36	47:37	0.966	0.961-0.971	52.3684
PCB-177	2.85e+07	1.05	y	1.24	47:48	0.969	0.964-0.974	51.2147
PCB-171	2.93e+07	1.04	y	1.31	48:05	0.975	0.970-0.980	49.7433
PCB-173	2.59e+07	1.05	y	1.16	48:31	0.984	0.979-0.989	49.7232
PCB-172	2.73e+07	1.02	y	1.22	48:57	0.993	0.988-0.998	49.7746
PCB-192	3.46e+07	1.05	y	1.53	49:09	0.996	0.991-1.001	50.4921
PCB-180	3.15e+07	1.04	y	1.43	49:20	1.000	0.995-1.005	49.0865

Integrations
by
RL: MONO, TRI - DECA: _____ Analyst: DMS
Date: 6/23/14

Client ID: PCB CS3 14F1901
Lab ID: ST140620E1-4

Filename: 140620E1 S:4 Acq:20-JUN-14 12:43:46
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 ConCal: ST140620E1-4
EndCAL: ST140620E1-8

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	3.74e+07	1.05	y	1.65	49:32	1.004	0.999-1.009	50.3769
PCB-191	3.75e+07	1.06	y	1.67	49:47	1.009	1.004-1.014	49.9945
PCB-170	2.66e+07	1.03	y	1.50	50:46	1.000	0.995-1.005	49.6074
PCB-190	3.64e+07	1.02	y	2.02	50:55	1.003	0.998-1.008	50.4804
PCB-189	3.90e+07	1.04	y	1.54	52:12	1.000	0.995-1.005	51.6684
PCB-202	2.92e+07	0.91	y	1.04	48:17	1.000	0.995-1.005	49.9695
PCB-201	3.12e+07	0.93	y	1.10	48:46	1.011	1.006-1.016	50.3688
PCB-204	2.91e+07	0.88	y	0.99	48:56	1.014	1.009-1.019	52.0459
PCB-197	3.14e+07	0.91	y	1.07	49:13	1.020	1.015-1.025	51.9828
PCB-200	3.00e+07	0.91	y	1.02	50:03	1.037	1.032-1.044	52.4432
PCB-198	2.15e+07	0.90	y	0.74	51:20	1.063	1.058-1.068	51.5297
PCB-199	2.15e+07	0.89	y	0.73	51:25	1.065	1.060-1.070	52.5143
- PCB-196/203	4.56e+07	0.90	y	0.77	51:41	1.071	1.066-1.076	104.918
- PCB-195	2.91e+07	0.90	y	1.20	52:49	0.984	0.979-0.989	51.8965
PCB-194	2.91e+07	0.90	y	1.25	53:41	1.000	0.995-1.005	49.8808
PCB-205	3.28e+07	0.91	y	1.41	53:58	1.006	1.001-1.011	49.5944
PCB-208	3.18e+07	1.33	y	0.96	52:57	1.000	0.995-1.005	49.4830
PCB-207	3.10e+07	1.32	y	0.92	53:16	1.006	1.001-1.011	50.7809
PCB-206	2.07e+07	1.33	y	1.03	55:21	1.000	0.995-1.005	49.7349
PCB-209	2.28e+07	1.19	y	1.18	56:38	1.000	0.995-1.005	52.4674

Name	Resp	RA	RT	RRF	Conc
Total Mono-PCB	2.34e+08	2.96	y	16:15	1.22
Total Di-PCB	1.69e+09	1.64	y	20:12	1.21
Total Tri-PCB	4.56e+08	1.05	y	24:17	1.16
Total Tri-PCB	1.17e+09	1.08	y	27:58	1.35
Total Tetra-PCB	2.26e+09	0.76	y	28:01	1.17
Total Penta-PCB	1.49e+09	1.61	y	32:41	1.21
Total Penta-PCB	2.69e+08	1.64	y	42:13	1.26
Total Hexa-PCB	3.94e+08	1.27	y	37:04	0.92
Total Hexa-PCB	1.17e+09	1.24	y	42:08	1.08
Total Hepta-PCB	8.19e+08	1.02	y	42:52	1.27
Total Octa-PCB	2.40e+08	0.91	y	48:17	0.92
Total Octa-PCB	9.28e+07	0.90	y	52:49	1.29
Total Nona-PCB	8.35e+07	1.33	y	52:57	0.96
Total Deca-PCB	2.28e+07	1.19	y	56:38	1.18
Total PCB Conc:	11327.5526340				

Integrations
by _____
Analyst: DMS
Date: 6/23/14

RL: MONO, TRI - DECA: _____

Client ID: PCB CS3 14F1901
 Lab ID: ST140620E1-4

Filename: 140620E1 S:4 Acq:20-JUN-14 12:43:46
 GC Column ID: ZB-1 ICAL: PCBVG8-6-20-14 wt/vol: 1.000 ConCal: ST140620E1-4
 EndCAL: ST140620E1-8

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	1.19e+08	3.24	y	0.89	16:14	0.625	0.622-0.628	98.9	98.9			13C-PCB-79	1.21e+08	0.80	y	1.01	37:49	1.028	1.023-1.033	109	109
13C-PCB-3	1.25e+08	3.32	y	0.93	18:49	0.725	0.721-0.729	100	100			13C-PCB-178	4.58e+07	0.46	y	0.63	45:38	0.984	0.979-0.989	109	109
13C-PCB-4	7.38e+07	1.60	y	0.55	20:09	0.776	0.772-0.780	99.9	99.9			13C-PCB-19	7.19e+07	1.04	y	0.53	24:16	0.934	0.929-0.939	100	100
13C-PCB-9	1.11e+08	1.59	y	0.83	21:55	0.844	0.840-0.848	100.0	100.0			13C-PCB-28	1.07e+08	1.05	y	0.89	29:07	1.004	0.999-1.009	96.1	96.1
13C-PCB-11	1.25e+08	1.58	y	0.94	25:16	0.973	0.968-0.978	98.6	98.6	PS vs. IS		13C-PCB-32	1.09e+08	1.07	y	0.81	27:10	1.046	1.041-1.051	99.3	99.3
13C-PCB-19	7.19e+07	1.04	y	0.53	24:16	0.934	0.929-0.939	100	100			13C-PCB-37	9.94e+07	1.06	y	0.83	32:59	1.137	1.131-1.143	95.3	95.3
13C-PCB-28	1.07e+08	1.05	y	0.89	29:07	1.004	0.999-1.009	96.1	96.1			13C-PCB-47	8.11e+07	0.81	y	0.74	32:01	0.871	0.867-0.875	98.7	98.7
13C-PCB-32	1.09e+08	1.07	y	0.81	27:10	1.046	1.041-1.051	99.3	99.3			13C-PCB-52	7.70e+07	0.79	y	0.71	31:30	0.857	0.853-0.861	98.5	98.5
13C-PCB-37	9.94e+07	1.06	y	0.83	32:59	1.137	1.131-1.143	95.3	95.3			13C-PCB-54	9.29e+07	0.81	y	0.85	28:00	0.762	0.758-0.766	99.0	99.0
13C-PCB-47	8.11e+07	0.81	y	0.74	32:01	0.871	0.867-0.875	98.7	98.7			13C-PCB-70	1.02e+08	0.79	y	0.94	35:31	0.966	0.961-0.971	98.1	98.1
13C-PCB-52	7.70e+07	0.79	y	0.71	31:30	0.857	0.853-0.861	98.5	98.5			13C-PCB-77	9.74e+07	0.81	y	0.89	39:38	1.078	1.073-1.083	98.7	98.7
13C-PCB-54	9.29e+07	0.81	y	0.85	28:00	0.762	0.758-0.766	99.0	99.0			13C-PCB-80	1.05e+08	0.80	y	0.96	35:56	0.977	0.972-0.982	99.0	99.0
13C-PCB-70	1.02e+08	0.79	y	0.94	35:31	0.966	0.961-0.971	98.1	98.1			13C-PCB-80	1.05e+08	0.80	y	0.84	39:03	1.062	1.057-1.067	98.4	98.4
13C-PCB-77	9.74e+07	0.81	y	0.89	39:38	1.078	1.073-1.083	98.7	98.7			13C-PCB-81	9.10e+07	0.80	y	0.84	39:03	1.062	1.057-1.067	98.4	98.4
13C-PCB-80	1.05e+08	0.80	y	0.84	39:03	1.062	1.057-1.067	98.4	98.4	RS		13C-PCB-95	5.18e+07	1.63	y	0.74	35:49	0.913	0.908-0.918	98.4	98.4
13C-PCB-81	9.10e+07	0.80	y	0.84	39:03	1.062	1.057-1.067	98.4	98.4			13C-PCB-97	4.86e+07	1.60	y	0.69	38:48	0.989	0.984-0.994	99.7	99.7
13C-PCB-95	5.18e+07	1.63	y	0.74	35:49	0.913	0.908-0.918	98.4	98.4			13C-PCB-97	4.86e+07	1.60	y	0.69	38:48	0.989	0.984-0.994	99.7	99.7
13C-PCB-101	5.42e+07	1.60	y	0.79	37:30	0.956	0.951-0.961	97.6	97.6	Name		13C-PCB-104	6.97e+07	1.58	y	1.00	32:40	0.833	0.829-0.837	99.0	99.0
13C-PCB-104	6.97e+07	1.58	y	1.00	32:40	0.833	0.829-0.837	99.0	99.0	Name		13C-PCB-105	8.01e+07	1.61	y	1.24	43:03	0.929	0.924-0.934	96.7	96.7
13C-PCB-105	8.01e+07	1.61	y	1.24	43:03	0.929	0.924-0.934	96.7	96.7	Name		13C-PCB-114	7.88e+07	1.61	y	1.21	42:12	0.910	0.905-0.915	97.6	97.6
13C-PCB-114	7.88e+07	1.61	y	1.21	42:12	0.910	0.905-0.915	97.6	97.6	Name		13C-PCB-118	7.31e+07	1.59	y	0.98	41:32	1.059	1.054-1.064	105	105
13C-PCB-118	7.31e+07	1.59	y	0.98	41:32	1.059	1.054-1.064	105	105	Name		13C-PCB-123	7.08e+07	1.58	y	0.95	41:21	1.054	1.049-1.059	105	105
13C-PCB-123	7.08e+07	1.58	y	0.95	41:21	1.054	1.049-1.059	105	105	Name		13C-PCB-126	7.48e+07	1.61	y	1.16	45:18	0.977	0.972-0.982	96.2	96.2
13C-PCB-126	7.48e+07	1.61	y	1.16	45:18	0.977	0.972-0.982	96.2	96.2	Name		13C-PCB-127	8.64e+07	1.59	y	1.34	43:23	0.936	0.931-0.941	96.3	96.3
13C-PCB-127	8.64e+07	1.59	y	1.34	43:23	0.936	0.931-0.941	96.3	96.3	Name		13C-PCB-138	6.82e+07	1.26	y	1.04	44:48	0.966	0.961-0.971	97.7	97.7
13C-PCB-138	6.82e+07	1.26	y	1.04	44:48	0.966	0.961-0.971	97.7	97.7	Name		13C-PCB-141	7.08e+07	1.28	y	1.07	43:57	0.948	0.943-0.953	98.8	98.8
13C-PCB-141	7.08e+07	1.28	y	1.07	43:57	0.948	0.943-0.953	98.8	98.8	Name		13C-PCB-153	7.34e+07	1.25	y	1.11	43:13	0.932	0.927-0.937	98.6	98.6
13C-PCB-153	7.34e+07	1.25	y	1.11	43:13	0.932	0.927-0.937	98.6	98.6	Name		13C-PCB-155	5.85e+07	1.27	y	0.83	37:02	0.944	0.939-0.949	99.4	99.4
13C-PCB-155	5.85e+07	1.27	y	0.83	37:02	0.944	0.939-0.949	99.4	99.4	Name		13C-PCB-156	8.09e+07	1.27	y	1.24	48:03	1.037	1.032-1.042	97.2	97.2
13C-PCB-156	8.09e+07	1.27	y	1.24	48:03	1.037	1.032-1.042	97.2	97.2	Name		13C-PCB-157	8.55e+07	1.28	y	1.31	48:19	1.042	1.037-1.047	97.5	97.5
13C-PCB-157	8.55e+07	1.28	y	1.31	48:19	1.042	1.037-1.047	97.5	97.5	Name		13C-PCB-159	7.80e+07	1.30	y	1.20	46:05	0.994	0.989-0.999	97.3	97.3
13C-PCB-159	7.80e+07	1.30	y	1.20	46:05	0.994	0.989-0.999	97.3	97.3	Name		13C-PCB-167	8.57e+07	1.25	y	1.32	46:45	1.009	1.004-1.014	97.0	97.0
13C-PCB-167	8.57e+07	1.25	y	1.32	46:45	1.009	1.004-1.014	97.0	97.0	Name		13C-PCB-169	7.92e+07	1.27	y	1.22	50:24	1.087	1.082-1.092	97.5	97.5
13C-PCB-169	7.92e+07	1.27	y	1.22	50:24	1.087	1.082-1.092	97.5	97.5	Name		13C-PCB-170	3.58e+07	0.46	y	0.54	50:45	1.095	1.089-1.101	99.9	99.9
13C-PCB-170	3.58e+07	0.46	y	0.54	50:45	1.095	1.089-1.101	99.9	99.9	Name		13C-PCB-180	4.49e+07	0.47	y	0.67	49:19	1.064	1.059-1.069	99.6	99.6
13C-PCB-180	4.49e+07	0.47	y	0.67	49:19	1.064	1.059-1.069	99.6	99.6	Name		13C-PCB-188	6.18e+07	0.46	y	0.94	42:51	0.924	0.919-0.929	98.8	98.8
13C-PCB-188	6.18e+07	0.46	y	0.94	42:51	0.924	0.919-0.929	98.8	98.8	Name		13C-PCB-189	4.90e+07	0.46	y	0.72	52:11	1.126	1.120-1.132	102	102
13C-PCB-189	4.90e+07	0.46	y	0.72	52:11	1.126	1.120-1.132	102	102	Name		13C-PCB-194	4.68e+07	0.91	y	0.81	53:40	0.995	0.990-1.000	99.2	99.2
13C-PCB-194	4.68e+07	0.91	y	0.81	53:40	0.995	0.990-1.000	99.2	99.2	Name		13C-PCB-202	5.62e+07	0.92	y	0.83	48:16	1.041	1.036-1.046	101	101
13C-PCB-202	5.62e+07	0.92	y	0.83	48:16	1.041	1.036-1.046	101	101	Name		13C-PCB-206	4.05e+07	0.78	y	0.66	55:20	1.026	1.021-1.031	106	106
13C-PCB-206	4.05e+07	0.78	y	0.66	55:20	1.026	1.021-1.031	106	106	Name		13C-PCB-208	6.67e+07	0.78	y	1.12	52:56	0.981	0.976-0.986	102	102
13C-PCB-208	6.67e+07	0.78	y	1.12	52:56	0.981	0.976-0.986	102	102	Name		13C-PCB-209	3.70e+07	1.21	y	0.61	56:37	1.049	1.044-1.054	103	103

Analyst: DMS
 Date: 6/23/14

Vista Analytical Laboratory - Injection Log Run file: 140620E1 Instrument ID: VG-8 GC Column ID: ZB-1

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140620E1	1	ST140620E1-1	DMS	20-JUN-14	09:31:44	NA	NA
140620E1	2	ST140620E1-2	DMS	20-JUN-14	10:35:42	NA	NA
140620E1	3	ST140620E1-3	DMS	20-JUN-14	11:39:47	NA	NA
140620E1	4	ST140620E1-4	DMS	20-JUN-14	12:43:46	ST140620E1-4	ST140620E1-8
140620E1	5	ST140620E1-5	DMS	20-JUN-14	13:47:50	NA	NA
140620E1	6	ST140620E1-6	DMS	20-JUN-14	14:51:49	NA	NA
140620E1	8	ST140620E1-7	DMS	20-JUN-14	15:57:15	NA	NA
140620E1	9	B4F0047-BS1	DMS	20-JUN-14	17:01:12	ST140620E1-4	ST140620E1-8
140620E1	10	SOLVENT BLANK	DMS	20-JUN-14	18:05:10	NA	NA
140620E1	11	B4F0047-BLK1	DMS	20-JUN-14	19:09:06	ST140620E1-4	ST140620E1-8
140620E1	12	1400406-01	DMS	20-JUN-14	20:13:09	ST140620E1-4	ST140620E1-8
140620E1	13	1400434-01	DMS	20-JUN-14	21:17:10	ST140620E1-4	NA
140620E1	14	1400434-02	DMS	20-JUN-14	22:21:13	ST140620E1-4	NA
140620E1	15	1400434-03	DMS	20-JUN-14	23:25:09	ST140620E1-4	NA
140620E1	16	SOLVENT BLANK	DMS	21-JUN-14	00:29:07	ST140620E1-4	NA
140620E1	17	ST140620E1-8	DMS	21-JUN-14	01:33:10	ST140620E1-4	ST140620E1-8

Data filename: 140623E2

	Samp# 1 0.25	Samp# 2 1.0	Samp# 3 2.5	Samp# 4 50	Samp# 5 400	Samp# 6 750
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Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
PCB-1	1.19	8.06 %	1.04	1.13	1.18	1.23	1.29	1.29
PCB-2	1.18	7.35 %	1.05	1.12	1.16	1.23	1.28	1.26
PCB-3	1.43	5.11 %	1.34	1.37	1.37	1.46	1.49	1.51
PCB-4/10	1.57	2.14 %	1.53	1.54	1.55	1.57	1.60	1.62
PCB-7/9	1.21	2.44 %	1.22	1.17	1.19	1.21	1.22	1.26
PCB-6	1.30	2.87 %	1.25	1.28	1.31	1.31	1.34	1.35
PCB-5/8	1.15	2.31 %	1.13	1.12	1.15	1.15	1.16	1.19
PCB-14	1.11	3.28 %	1.05	1.09	1.11	1.14	1.12	1.15
PCB-11	1.09	2.23 %	1.05	1.09	1.07	1.10	1.09	1.12
PCB-12/13	1.19	2.18 %	1.17	1.17	1.18	1.20	1.20	1.24
PCB-15	1.28	3.09 %	1.29	1.22	1.26	1.28	1.30	1.34
PCB-19	1.04	3.02 %	1.04	1.01	1.01	1.04	1.07	1.09
PCB-30	1.71	4.54 %	1.67	1.64	1.66	1.69	1.79	1.83
PCB-18	0.78	5.11 %	0.71	0.79	0.79	0.80	0.78	0.82
PCB-17	0.92	2.36 %	0.90	0.90	0.94	0.93	0.91	0.95
PCB-24/27	1.19	3.36 %	1.13	1.17	1.19	1.20	1.18	1.25
PCB-16/32	0.94	1.56 %	0.92	0.93	0.94	0.94	0.94	0.96
PCB-34	1.14	3.58 %	1.15	1.19	1.13	1.09	1.16	1.09
PCB-23	1.28	4.96 %	1.38	1.28	1.22	1.23	1.24	1.33
PCB-29	1.08	3.94 %	1.11	1.13	1.09	1.06	1.01	1.06
PCB-26	1.21	4.37 %	1.25	1.23	1.27	1.18	1.12	1.19
PCB-25	1.26	7.07 %	1.39	1.25	1.30	1.27	1.25	1.11
PCB-31	1.28	11.62 %	1.50	1.29	1.36	1.24	1.27	1.05
PCB-28	1.71	5.40 %	1.81	1.76	1.78	1.70	1.63	1.57
PCB-20/21/33	1.08	5.41 %	1.15	1.07	1.11	1.08	1.11	0.98
PCB-22	1.21	8.00 %	1.36	1.24	1.17	1.23	1.06	1.18
PCB-36	1.14	11.01 %	1.36	1.16	1.11	1.18	1.05	0.99
PCB-39	1.12	11.88 %	1.31	1.12	1.09	1.20	0.92	1.05
PCB-38	1.20	13.44 %	1.44	1.25	1.24	1.23	1.03	1.00
PCB-35	1.23	8.27 %	1.40	1.18	1.31	1.18	1.15	1.17
PCB-37	1.23	8.23 %	1.38	1.30	1.25	1.19	1.12	1.13
PCB-54	1.10	3.74 %	1.18	1.06	1.10	1.10	1.09	1.09
PCB-50	0.88	6.30 %	0.97	0.83	0.92	0.88	0.86	0.83
PCB-53	1.06	1.53 %	1.06	1.05	1.06	1.08	1.09	1.05
PCB-51	0.99	4.28 %	0.95	1.06	0.97	0.98	0.96	1.02
PCB-45	0.86	5.46 %	0.95	0.85	0.83	0.89	0.84	0.82
PCB-46	0.85	4.52 %	0.90	0.89	0.82	0.83	0.83	0.81
PCB-52/69	1.28	3.90 %	1.23	1.29	1.27	1.28	1.25	1.37
PCB-73	1.35	5.47 %	1.44	1.30	1.43	1.38	1.30	1.27
PCB-43/49	0.99	4.35 %	1.07	1.01	0.96	0.97	0.95	1.02
PCB-47	1.06	4.72 %	1.12	1.10	1.07	1.04	1.04	0.98

Dms 6/24/14

MS 6/25/14

PCB-48/75	1.23	5.03 %	1.34	1.24	1.21	1.17	1.17	1.24
PCB-65	1.22	5.52 %	1.22	1.30	1.29	1.23	1.12	1.19
PCB-62	1.22	11.22 %	1.47	1.10	1.25	1.09	1.22	1.19
PCB-44	0.86	9.00 %	1.00	0.90	0.84	0.80	0.79	0.83
PCB-42/59	1.14	4.85 %	1.20	1.19	1.08	1.08	1.11	1.17
PCB-41/64/71/72	1.21	4.49 %	1.24	1.25	1.16	1.13	1.19	1.26
PCB-68	1.35	3.60 %	1.42	1.35	1.32	1.29	1.31	1.38
PCB-40	0.70	2.83 %	0.69	0.73	0.70	0.68	0.69	0.71
PCB-57	0.98	1.87 %	0.97	0.96	1.00	0.99	0.96	0.99
PCB-67	1.11	4.07 %	1.19	1.11	1.11	1.09	1.09	1.05
PCB-58	0.93	3.04 %	0.90	0.95	0.94	0.93	0.88	0.96

PCB-63	0.95	8.80 %	1.12	0.95	0.91	0.93	0.88	0.92
PCB-74	1.24	4.15 %	1.34	1.21	1.25	1.20	1.23	1.23
PCB-61/70	0.95	2.14 %	0.96	0.96	0.98	0.95	0.92	0.94
PCB-76/66	1.04	3.20 %	1.11	1.04	1.04	1.03	1.03	1.02
PCB-80	1.19	2.93 %	1.13	1.22	1.22	1.22	1.18	1.18
PCB-55	1.04	3.47 %	1.00	0.99	1.07	1.08	1.05	1.06
PCB-56/60	1.01	3.48 %	1.01	1.06	1.05	1.00	0.97	0.98
PCB-79	1.08	3.24 %	1.12	1.07	1.13	1.07	1.04	1.06
PCB-78	1.27	5.24 %	1.40	1.26	1.27	1.25	1.20	1.24
PCB-81	1.33	5.94 %	1.49	1.32	1.29	1.29	1.27	1.33
PCB-77	1.10	4.03 %	1.19	1.07	1.11	1.08	1.07	1.09
PCB-104	1.18	2.54 %	1.13	1.18	1.20	1.20	1.19	1.21
PCB-96	1.14	2.81 %	1.10	1.15	1.11	1.13	1.16	1.19
PCB-103	0.96	4.05 %	0.99	0.93	0.92	0.93	0.95	1.02
PCB-100	0.94	4.52 %	0.97	0.90	0.89	0.92	0.95	1.00
PCB-94	1.06	5.71 %	1.17	1.08	1.03	1.02	1.00	1.05
PCB-95/98/102	1.22	0.35 %	1.23	1.23	1.22	1.22	1.23	1.23
PCB-93	0.84	6.35 %	0.80	0.85	0.86	0.85	0.77	0.93
PCB-88/91	1.12	3.65 %	1.05	1.11	1.15	1.12	1.16	1.10
PCB-121	1.62	5.39 %	1.66	1.53	1.61	1.62	1.52	1.75
PCB-84/92	1.05	3.37 %	1.10	1.00	1.04	1.04	1.04	1.06
PCB-89	1.13	4.67 %	1.23	1.07	1.13	1.14	1.11	1.10
PCB-90/101	1.10	1.29 %	1.11	1.08	1.12	1.10	1.08	1.11
PCB-113	1.41	6.93 %	1.52	1.30	1.46	1.49	1.29	1.41
PCB-99	1.34	8.14 %	1.19	1.49	1.27	1.27	1.42	1.36
PCB-119	1.53	3.61 %	1.51	1.46	1.54	1.52	1.53	1.63
PCB-108/112	1.28	3.29 %	1.26	1.25	1.25	1.28	1.29	1.36
PCB-83	1.52	3.93 %	1.64	1.49	1.52	1.49	1.48	1.49
PCB-97	1.18	4.68 %	1.29	1.13	1.14	1.17	1.17	1.19
PCB-86	0.84	7.14 %	0.84	0.82	0.81	0.80	0.83	0.96
PCB-87/117/125	1.55	5.06 %	1.46	1.50	1.49	1.59	1.59	1.66
PCB-111/115	1.63	1.45 %	1.61	1.64	1.61	1.61	1.65	1.67
PCB-85/116	1.30	4.51 %	1.35	1.21	1.27	1.31	1.31	1.37
PCB-120	1.68	3.52 %	1.67	1.69	1.60	1.63	1.70	1.77
PCB-110	1.56	2.67 %	1.63	1.50	1.56	1.56	1.54	1.55
PCB-82	0.76	2.07 %	0.78	0.75	0.74	0.76	0.76	0.76
PCB-124	1.47	4.97 %	1.43	1.40	1.45	1.43	1.51	1.60
PCB-107/109	1.32	3.64 %	1.31	1.24	1.29	1.35	1.37	1.36
PCB-123	1.17	1.49 %	1.14	1.16	1.18	1.18	1.16	1.19
PCB-106/118	1.17	2.46 %	1.20	1.13	1.19	1.17	1.15	1.20
PCB-114	1.30	1.22 %	1.29	1.31	1.31	1.31	1.28	1.28
PCB-122	1.12	0.66 %	1.13	1.12	1.12	1.11	1.11	1.12
PCB-105	1.30	1.61 %	1.32	1.28	1.31	1.28	1.28	1.33
PCB-127	1.33	5.30 %	1.46	1.31	1.37	1.27	1.28	1.32
PCB-126	1.18	1.24 %	1.18	1.16	1.19	1.17	1.18	1.21
PCB-155	1.11	2.06 %	1.10	1.11	1.10	1.11	1.11	1.16
PCB-150	1.00	4.51 %	0.93	0.99	0.98	1.00	1.03	1.06
PCB-152	1.12	4.70 %	1.15	1.02	1.12	1.10	1.12	1.18
PCB-145	1.20	4.85 %	1.17	1.13	1.18	1.19	1.23	1.30
PCB-136	1.18	1.51 %	1.17	1.17	1.17	1.15	1.21	1.19

PCB-148	0.74	7.90 %	0.70	0.72	0.74	0.74	0.72	0.86
PCB-154	0.86	3.14 %	0.85	0.86	0.88	0.83	0.83	0.90
PCB-151	0.75	8.09 %	0.86	0.69	0.73	0.71	0.71	0.77
PCB-135	0.79	9.11 %	0.89	0.82	0.70	0.77	0.73	0.84
PCB-144	0.76	6.76 %	0.70	0.75	0.76	0.71	0.82	0.82
PCB-147	0.82	6.64 %	0.80	0.80	0.78	0.79	0.83	0.93
PCB-139/149	0.76	6.06 %	0.79	0.71	0.73	0.74	0.77	0.84
PCB-140	0.72	3.18 %	0.70	0.73	0.73	0.70	0.71	0.76
PCB-134/143	0.92	3.43 %	0.95	0.89	0.89	0.89	0.94	0.95
PCB-133/142	0.82	3.97 %	0.86	0.78	0.79	0.80	0.83	0.85
PCB-131	0.91	1.88 %	0.92	0.93	0.90	0.89	0.90	0.90

PCB-146/165	1.25	4.47 %	1.32	1.16	1.22	1.23	1.26	1.29
PCB-132/161	1.10	4.39 %	1.19	1.06	1.07	1.08	1.09	1.14
PCB-153	1.25	3.90 %	1.19	1.33	1.24	1.23	1.27	1.24
PCB-168	1.45	3.18 %	1.40	1.41	1.43	1.45	1.48	1.52
PCB-141	1.09	4.31 %	1.16	1.12	1.04	1.06	1.05	1.09
PCB-137	1.06	4.15 %	1.07	1.02	1.03	1.05	1.06	1.14
PCB-130	0.96	5.65 %	1.06	0.91	0.99	0.97	0.96	0.90
PCB-138/163/164	1.29	4.03 %	1.26	1.23	1.30	1.27	1.31	1.38
PCB-158/160	1.34	4.62 %	1.24	1.30	1.39	1.34	1.37	1.41
PCB-129	0.85	2.93 %	0.85	0.82	0.87	0.84	0.86	0.89
PCB-166	1.19	1.02 %	1.19	1.18	1.18	1.17	1.18	1.21
PCB-159	1.11	2.18 %	1.10	1.09	1.11	1.11	1.10	1.16
PCB-128/162	1.05	3.89 %	1.12	1.04	1.00	1.02	1.03	1.07
PCB-167	1.20	2.55 %	1.15	1.21	1.21	1.20	1.19	1.24
PCB-156	1.14	4.58 %	1.06	1.09	1.18	1.14	1.16	1.19
PCB-157	1.16	5.07 %	1.28	1.16	1.14	1.13	1.12	1.15
PCB-169	1.12	7.20 %	1.28	1.07	1.09	1.08	1.07	1.12
PCB-188	1.58	3.04 %	1.58	1.66	1.55	1.56	1.52	1.61
PCB-184	1.63	2.34 %	1.61	1.66	1.69	1.60	1.60	1.64
PCB-179	1.30	4.28 %	1.27	1.41	1.29	1.30	1.26	1.29
PCB-176	1.48	4.46 %	1.61	1.46	1.45	1.46	1.45	1.44
PCB-186	1.45	8.39 %	1.69	1.34	1.36	1.45	1.46	1.43
PCB-178	1.03	3.35 %	1.03	1.05	1.10	1.02	1.00	1.00
PCB-175	1.01	1.89 %	1.05	1.02	1.00	1.01	0.99	1.01
PCB-182/187	1.25	2.08 %	1.28	1.25	1.24	1.21	1.26	1.28
PCB-183	1.21	5.09 %	1.33	1.19	1.21	1.15	1.18	1.19
PCB-185	1.80	4.35 %	1.77	1.68	1.87	1.78	1.82	1.89
PCB-174	1.38	4.65 %	1.34	1.30	1.33	1.42	1.47	1.40
PCB-181	1.38	7.65 %	1.25	1.33	1.44	1.36	1.35	1.56
PCB-177	1.26	3.80 %	1.18	1.23	1.28	1.26	1.28	1.32
PCB-171	1.58	6.45 %	1.43	1.54	1.57	1.59	1.61	1.74
PCB-173	1.11	6.27 %	0.97	1.11	1.14	1.13	1.13	1.17
PCB-172	1.63	10.65 %	1.31	1.67	1.66	1.64	1.70	1.83
PCB-192	1.74	6.94 %	1.52	1.71	1.77	1.78	1.79	1.87
PCB-180	1.34	3.01 %	1.35	1.27	1.37	1.35	1.34	1.39
PCB-193	1.72	3.48 %	1.81	1.65	1.67	1.72	1.69	1.76
PCB-191	1.69	2.79 %	1.73	1.62	1.71	1.68	1.67	1.75
PCB-170	1.60	3.31 %	1.54	1.53	1.63	1.62	1.61	1.66
PCB-190	2.21	4.63 %	2.14	2.04	2.28	2.23	2.23	2.33
PCB-189	1.55	1.89 %	1.58	1.50	1.54	1.55	1.55	1.58
PCB-202	1.08	3.14 %	1.09	1.05	1.05	1.06	1.10	1.14
PCB-201	1.15	2.55 %	1.11	1.14	1.16	1.13	1.16	1.20
PCB-204	1.14	6.76 %	1.02	1.10	1.14	1.14	1.18	1.25
PCB-197	1.07	2.46 %	1.09	1.04	1.05	1.07	1.09	1.11
PCB-200	1.06	2.80 %	1.08	1.01	1.05	1.06	1.09	1.09
PCB-198	0.76	5.28 %	0.74	0.69	0.76	0.77	0.76	0.81
PCB-199	0.80	5.91 %	0.76	0.86	0.75	0.76	0.82	0.83
PCB-196/203	0.80	9.29 %	0.71	0.75	0.77	0.80	0.86	0.91
PCB-195	1.23	4.42 %	1.15	1.18	1.24	1.24	1.25	1.30
PCB-194	1.21	4.43 %	1.32	1.19	1.18	1.19	1.18	1.20

PCB-205	1.54	2.37 %	1.51	1.58	1.53	1.52	1.51	1.60
PCB-208	0.93	1.86 %	0.95	0.92	0.91	0.92	0.94	0.94
PCB-207	1.08	2.65 %	1.07	1.07	1.05	1.08	1.12	1.12
PCB-206	1.02	4.52 %	1.11	1.03	0.99	1.01	0.97	1.03
PCB-209	1.17	3.05 %	1.15	1.12	1.17	1.20	1.17	1.22
Total Mono-PCB	1.27	6.66 %	1.15	1.21	1.24	1.31	1.35	1.36
Total Di-PCB	1.21	2.10 %	1.19	1.18	1.20	1.21	1.22	1.25
Total Tri-PCB	1.10	2.76 %	1.06	1.08	1.09	1.10	1.10	1.15

Total Tri-PCB	1.21	6.05 %	1.33	1.23	1.24	1.21	1.15	1.12
Total Tetra-PCB	1.09	2.96 %	1.14	1.10	1.08	1.06	1.06	1.09
Total Penta-PCB	1.18	1.93 %	1.18	1.16	1.17	1.18	1.18	1.23
Total Penta-PCB	1.25	1.50 %	1.28	1.24	1.26	1.23	1.23	1.25
Total Hexa-PCB	0.90	3.60 %	0.90	0.87	0.88	0.88	0.90	0.96
Total Hexa-PCB	1.11	2.03 %	1.13	1.08	1.10	1.09	1.11	1.14
Total Hepta-PCB	1.42	1.47 %	1.41	1.40	1.42	1.41	1.41	1.46
Total Octa-PCB	0.96	4.13 %	0.92	0.93	0.95	0.96	0.99	1.03
Total Octa-PCB	1.33	1.46 %	1.33	1.31	1.32	1.32	1.32	1.36
Total Nona-PCB	1.01	1.96 %	1.03	1.00	0.98	1.00	1.02	1.03
Total Deca-PCB	1.17	3.05 %	1.15	1.12	1.17	1.20	1.17	1.22
 13C-PCB-1	0.87	10.59 %	1.00	0.92	0.91	0.86	0.77	0.77
13C-PCB-3	0.91	9.90 %	1.04	0.97	0.96	0.86	0.81	0.83
13C-PCB-4	0.59	1.89 %	0.60	0.60	0.60	0.59	0.57	0.57
13C-PCB-9	0.90	1.45 %	0.90	0.91	0.91	0.89	0.88	0.88
13C-PCB-11	0.94	1.14 %	0.95	0.94	0.95	0.92	0.93	0.94
13C-PCB-19	0.53	8.18 %	0.58	0.56	0.56	0.53	0.48	0.48
13C-PCB-32	0.80	5.62 %	0.87	0.82	0.80	0.78	0.77	0.74
13C-PCB-28	0.93	4.96 %	0.92	0.91	0.93	0.92	0.89	1.02
13C-PCB-37	0.84	6.29 %	0.87	0.84	0.79	0.79	0.82	0.93
13C-PCB-54	0.97	0.69 %	0.96	0.96	0.97	0.98	0.97	0.98
13C-PCB-52	0.77	2.27 %	0.80	0.77	0.77	0.78	0.76	0.75
13C-PCB-47	0.81	2.56 %	0.85	0.80	0.81	0.82	0.81	0.78
13C-PCB-70	1.00	1.92 %	1.03	0.99	0.99	0.98	1.00	1.02
13C-PCB-80	1.03	1.60 %	1.05	1.02	1.02	1.01	1.04	1.05
13C-PCB-81	0.92	3.24 %	0.91	0.91	0.92	0.89	0.93	0.98
13C-PCB-77	0.94	2.93 %	0.95	0.93	0.92	0.91	0.98	0.97
13C-PCB-104	1.00	2.32 %	1.02	1.02	1.01	1.00	1.00	0.96
13C-PCB-95	0.74	1.65 %	0.74	0.73	0.73	0.74	0.77	0.74
13C-PCB-101	0.78	1.28 %	0.79	0.79	0.77	0.77	0.80	0.79
13C-PCB-97	0.70	1.19 %	0.72	0.71	0.71	0.69	0.71	0.70
13C-PCB-123	0.89	2.20 %	0.92	0.90	0.90	0.87	0.88	0.89
13C-PCB-118	0.96	2.66 %	0.96	0.97	0.95	0.92	0.98	0.99
13C-PCB-114	1.36	3.25 %	1.33	1.33	1.35	1.35	1.37	1.45
13C-PCB-105	1.37	3.32 %	1.34	1.34	1.36	1.32	1.38	1.45
13C-PCB-127	1.47	2.80 %	1.42	1.48	1.48	1.45	1.48	1.54
13C-PCB-126	1.31	1.41 %	1.29	1.30	1.31	1.31	1.30	1.34
13C-PCB-155	0.84	3.94 %	0.89	0.85	0.84	0.83	0.83	0.79
13C-PCB-153	1.15	1.31 %	1.15	1.16	1.15	1.14	1.12	1.15
13C-PCB-141	1.07	1.13 %	1.07	1.09	1.09	1.07	1.06	1.07
13C-PCB-138	1.10	0.94 %	1.10	1.11	1.09	1.11	1.09	1.09
13C-PCB-159	1.25	1.27 %	1.26	1.27	1.25	1.22	1.24	1.25
13C-PCB-167	1.35	1.38 %	1.36	1.37	1.35	1.33	1.37	1.33
13C-PCB-156	1.30	1.09 %	1.30	1.30	1.29	1.28	1.30	1.32
13C-PCB-157	1.36	1.30 %	1.37	1.36	1.35	1.33	1.36	1.38
13C-PCB-169	1.29	2.02 %	1.32	1.28	1.29	1.24	1.28	1.29
13C-PCB-188	0.92	2.20 %	0.95	0.90	0.91	0.92	0.91	0.91
13C-PCB-180	0.68	5.20 %	0.75	0.70	0.67	0.67	0.67	0.65
13C-PCB-170	0.54	5.16 %	0.59	0.56	0.53	0.53	0.53	0.52
13C-PCB-189	0.72	4.14 %	0.77	0.74	0.71	0.69	0.69	0.70
13C-PCB-202	0.84	6.77 %	0.94	0.87	0.83	0.81	0.80	0.78

13C-PCB-194	0.80	1.04 %	0.79	0.81	0.80	0.79	0.80	0.79
13C-PCB-208	1.08	1.09 %	1.09	1.09	1.09	1.08	1.07	1.07
13C-PCB-206	0.65	2.52 %	0.65	0.66	0.65	0.65	0.67	0.62
13C-PCB-209	0.61	3.41 %	0.62	0.62	0.63	0.59	0.63	0.58
13C-PCB-15	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-31	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-60	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-111	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-128	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-PCB-205	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

13C-PCB-79	1.02	1.30 %	1.02	1.02	1.02	1.00	1.01	1.04
13C-PCB-178	0.61	3.59 %	0.64	0.63	0.61	0.62	0.60	0.58
13C-PCB-79	1.10	2.04 %	1.11	1.12	1.11	1.12	1.09	1.06
13C-PCB-178	0.90	2.70 %	0.86	0.90	0.92	0.93	0.89	0.90

Filename: 140623E2 S: 1 Acquired: 23-JUN-14 11:41:57
 Run: 140623E2 Analyte: ICAL: PCBVG8-6-23-14 Results: 140623E2
 Sample text: ST140623E2-1 PCB CS0 14F1602

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	0.25	4.81e+05	2.67 y	16:24	-	1.04
2	Mono	PCB-2	0.25	5.03e+05	3.50 y	18:40	-	1.05
3	Mono	PCB-3	0.25	6.38e+05	2.83 y	18:54	-	1.34
4	Di	PCB-4/10	1.00	1.68e+06	1.64 y	20:13	-	1.53
5	Di	PCB-7/9	1.00	2.03e+06	1.59 y	21:57	-	1.22
6	Di	PCB-6	0.50	1.04e+06	1.77 y	22:34	-	1.25
7	Di	PCB-5/8	1.00	1.87e+06	1.60 y	22:59	-	1.13
8	Di	PCB-14	0.50	9.15e+05	1.73 y	24:03	-	1.05
9	Di	PCB-11	0.50	9.14e+05	1.60 y	25:13	-	1.05
10	Di	PCB-12/13	1.00	2.03e+06	1.71 y	25:37	-	1.17
11	Di	PCB-15	0.50	1.13e+06	1.70 y	25:55	-	1.29
12	Tri	PCB-19	0.25	2.77e+05	1.03 y	24:14	-	1.04
13	Tri	PCB-30	0.25	4.46e+05	1.08 y	25:06	-	1.67
14	Tri	PCB-18	0.25	2.82e+05	1.17 y	25:50	-	0.71
15	Tri	PCB-17	0.25	3.59e+05	0.95 y	26:01	-	0.90
16	Tri	PCB-24/27	0.50	9.03e+05	1.12 y	26:35	-	1.13
17	Tri	PCB-16/32	0.50	7.35e+05	1.02 y	27:05	-	0.92
18	Tri	PCB-34	0.25	4.46e+05	1.14 y	27:51	-	1.15
19	Tri	PCB-23	0.25	5.33e+05	1.13 y	27:57	-	1.38
20	Tri	PCB-29	0.25	4.32e+05	1.02 y	28:12	-	1.11
21	Tri	PCB-26	0.25	4.83e+05	0.94 y	28:24	-	1.25
22	Tri	PCB-25	0.25	5.38e+05	0.92 y	28:33	-	1.39
23	Tri	PCB-31	0.25	5.81e+05	0.96 y	28:55	-	1.50
24	Tri	PCB-28	0.25	7.03e+05	1.16 y	29:01	-	1.81
25	Tri	PCB-20/21/33	0.75	1.33e+06	1.03 y	29:38	-	1.15
26	Tri	PCB-22	0.25	5.26e+05	1.01 y	30:04	-	1.36
27	Tri	PCB-36	0.25	4.96e+05	1.00 y	30:41	-	1.36
28	Tri	PCB-39	0.25	4.79e+05	1.13 y	31:08	-	1.31
29	Tri	PCB-38	0.25	5.28e+05	1.17 y	31:55	-	1.44
30	Tri	PCB-35	0.25	5.13e+05	0.95 y	32:25	-	1.40
31	Tri	PCB-37	0.25	5.06e+05	1.03 y	32:51	-	1.38
32	Tetra	PCB-54	0.25	3.83e+05	0.67 y	27:55	-	1.18
33	Tetra	PCB-50	0.25	3.14e+05	0.72 y	29:04	-	0.97
34	Tetra	PCB-53	0.25	2.86e+05	0.85 y	29:42	-	1.06
35	Tetra	PCB-51	0.25	2.57e+05	0.85 y	30:03	-	0.95
36	Tetra	PCB-45	0.25	2.55e+05	0.84 y	30:28	-	0.95
37	Tetra	PCB-46	0.25	2.42e+05	0.82 y	30:58	-	0.90
38	Tetra	PCB-52/69	0.50	6.62e+05	0.73 y	31:25	-	1.23
39	Tetra	PCB-73	0.25	3.88e+05	0.72 y	31:32	-	1.44
40	Tetra	PCB-43/49	0.50	5.73e+05	0.83 y	31:42	-	1.07

41	Tetra	PCB-47	0.25	3.18e+05	0.79	y	31:55	-	1.12
42	Tetra	PCB-48/75	0.50	7.61e+05	0.81	y	32:01	-	1.34
43	Tetra	PCB-65	0.25	3.48e+05	0.88	y	32:17	-	1.22
44	Tetra	PCB-62	0.25	4.17e+05	0.79	y	32:24	-	1.47
45	Tetra	PCB-44	0.25	2.83e+05	0.73	y	32:42	-	1.00
46	Tetra	PCB-42/59	0.50	6.84e+05	0.76	y	32:55	-	1.20
47	Tetra	PCB-41/64/71/72	1.00	1.41e+06	0.76	y	33:30	-	1.24
48	Tetra	PCB-68	0.25	4.05e+05	0.81	y	33:46	-	1.42
49	Tetra	PCB-40	0.25	1.96e+05	0.70	y	34:00	-	0.69
50	Tetra	PCB-57	0.25	3.33e+05	0.87	y	34:20	-	0.97
51	Tetra	PCB-67	0.25	4.09e+05	0.84	y	34:38	-	1.19

52	Tetra	PCB-58	0.25	3.10e+05	0.67 y	34:45	-	0.90
53	Tetra	PCB-63	0.25	3.84e+05	0.79 y	34:55	-	1.12
54	Tetra	PCB-74	0.25	4.62e+05	0.82 y	35:12	-	1.34
55	Tetra	PCB-61/70	0.50	6.62e+05	0.77 y	35:23	-	0.96
56	Tetra	PCB-76/66	0.50	7.64e+05	0.73 y	35:35	-	1.11
57	Tetra	PCB-80	0.25	4.01e+05	0.75 y	35:49	-	1.13
58	Tetra	PCB-55	0.25	3.54e+05	0.77 y	36:09	-	1.00
59	Tetra	PCB-56/60	0.50	7.14e+05	0.78 y	36:39	-	1.01
60	Tetra	PCB-79	0.25	3.94e+05	0.76 y	37:42	-	1.12
61	Tetra	PCB-78	0.25	4.28e+05	0.69 y	38:24	-	1.40
62	Tetra	PCB-81	0.25	4.55e+05	0.75 y	38:56	-	1.49
63	Tetra	PCB-77	0.25	3.79e+05	0.71 y	39:31	-	1.19
64	Penta	PCB-104	0.25	2.69e+05	1.51 y	32:34	-	1.13
65	Penta	PCB-96	0.25	2.62e+05	1.46 y	33:49	-	1.10
66	Penta	PCB-103	0.25	2.37e+05	1.63 y	34:21	-	0.99
67	Penta	PCB-100	0.25	2.32e+05	1.75 y	34:43	-	0.97
68	Penta	PCB-94	0.25	2.02e+05	1.62 y	35:10	-	1.17
69	Penta	PCB-95/98/102	0.75	6.38e+05	1.53 y	35:40	-	1.23
70	Penta	PCB-93	0.25	1.38e+05	1.68 y	35:48	-	0.80
71	Penta	PCB-88/91	0.50	3.63e+05	1.40 y	36:05	-	1.05
72	Penta	PCB-121	0.25	2.89e+05	1.74 y	36:10	-	1.66
73	Penta	PCB-84/92	0.50	4.09e+05	1.74 y	37:00	-	1.10
74	Penta	PCB-89	0.25	2.28e+05	1.35 y	37:12	-	1.23
75	Penta	PCB-90/101	0.50	4.11e+05	1.60 y	37:22	-	1.11
76	Penta	PCB-113	0.25	2.82e+05	1.48 y	37:38	-	1.52
77	Penta	PCB-99	0.25	2.22e+05	1.49 y	37:43	-	1.19
78	Penta	PCB-119	0.25	2.54e+05	1.74 y	38:11	-	1.51
79	Penta	PCB-108/112	0.50	4.22e+05	1.43 y	38:20	-	1.26
80	Penta	PCB-83	0.25	2.75e+05	1.61 y	38:30	-	1.64
81	Penta	PCB-97	0.25	2.16e+05	1.33 y	38:41	-	1.29
82	Penta	PCB-86	0.25	1.41e+05	1.33 y	38:50	-	0.84
83	Penta	PCB-87/117/125	0.75	7.34e+05	1.43 y	38:57	-	1.46
84	Penta	PCB-111/115	0.50	5.41e+05	1.52 y	39:08	-	1.61
85	Penta	PCB-85/116	0.50	4.52e+05	1.76 y	39:15	-	1.35
86	Penta	PCB-120	0.25	2.81e+05	1.77 y	39:29	-	1.67
87	Penta	PCB-110	0.25	2.74e+05	1.56 y	39:38	-	1.63
88	Penta	PCB-82	0.25	1.70e+05	1.65 y	40:16	-	0.78
89	Penta	PCB-124	0.25	3.10e+05	1.57 y	40:57	-	1.43
90	Penta	PCB-107/109	0.50	5.68e+05	1.59 y	41:05	-	1.31
91	Penta	PCB-123	0.25	2.47e+05	1.58 y	41:16	-	1.14
92	Penta	PCB-106/118	0.50	5.38e+05	1.47 y	41:27	-	1.20
93	Penta	PCB-114	0.25	3.15e+05	1.48 y	42:06	-	1.29
94	Penta	PCB-122	0.25	2.77e+05	1.67 y	42:14	-	1.13
95	Penta	PCB-105	0.25	3.23e+05	1.61 y	42:58	-	1.32
96	Penta	PCB-127	0.25	3.79e+05	1.59 y	43:18	-	1.46
97	Penta	PCB-126	0.25	2.78e+05	1.58 y	45:12	-	1.18
98	Hexa	PCB-155	0.25	2.29e+05	1.14 y	36:56	-	1.10
99	Hexa	PCB-150	0.25	1.94e+05	1.23 y	38:12	-	0.93
100	Hexa	PCB-152	0.25	2.40e+05	1.08 y	38:40	-	1.15
101	Hexa	PCB-145	0.25	2.45e+05	1.20 y	39:08	-	1.17

102	Hexa	PCB-136	0.25	2.45e+05	1.20	y	39:27	-	1.17
103	Hexa	PCB-148	0.25	1.45e+05	1.15	y	39:33	-	0.70
104	Hexa	PCB-154	0.25	1.77e+05	1.37	y	40:02	-	0.85
105	Hexa	PCB-151	0.25	1.79e+05	1.18	y	40:41	-	0.86
106	Hexa	PCB-135	0.25	1.86e+05	1.13	y	40:54	-	0.89
107	Hexa	PCB-144	0.25	1.47e+05	1.40	y	41:00	-	0.70
108	Hexa	PCB-147	0.25	1.67e+05	1.07	y	41:08	-	0.80
109	Hexa	PCB-139/149	0.50	3.29e+05	1.16	y	41:24	-	0.79
110	Hexa	PCB-140	0.25	1.47e+05	1.10	y	41:35	-	0.70
111	Hexa	PCB-134/143	0.50	4.01e+05	1.40	y	42:01	-	0.95
112	Hexa	PCB-133/142	0.50	3.65e+05	1.40	y	42:19	-	0.86

113	Hexa	PCB-131	0.25	1.96e+05	1.21	y	42:29	-	0.92
114	Hexa	PCB-146/165	0.50	5.59e+05	1.30	y	42:42	-	1.32
115	Hexa	PCB-132/161	0.50	5.02e+05	1.30	y	42:57	-	1.19
116	Hexa	PCB-153	0.25	2.51e+05	1.25	y	43:06	-	1.19
117	Hexa	PCB-168	0.25	2.97e+05	1.27	y	43:20	-	1.40
118	Hexa	PCB-141	0.25	2.26e+05	1.36	y	43:51	-	1.16
119	Hexa	PCB-137	0.25	2.10e+05	1.21	y	44:14	-	1.07
120	Hexa	PCB-130	0.25	2.06e+05	1.15	y	44:20	-	1.06
121	Hexa	PCB-138/163/164	0.75	7.59e+05	1.25	y	44:43	-	1.26
122	Hexa	PCB-158/160	0.50	5.00e+05	1.32	y	44:58	-	1.24
123	Hexa	PCB-129	0.25	1.71e+05	1.19	y	45:12	-	0.85
124	Hexa	PCB-166	0.25	2.74e+05	1.28	y	45:40	-	1.19
125	Hexa	PCB-159	0.25	2.53e+05	1.29	y	46:00	-	1.10
126	Hexa	PCB-128/162	0.50	5.15e+05	1.18	y	46:17	-	1.12
127	Hexa	PCB-167	0.25	2.86e+05	1.19	y	46:40	-	1.15
128	Hexa	PCB-156	0.25	2.51e+05	1.34	y	47:59	-	1.06
129	Hexa	PCB-157	0.25	3.21e+05	1.29	y	48:15	-	1.28
130	Hexa	PCB-169	0.25	3.10e+05	1.35	y	50:19	-	1.28
131	Hepta	PCB-188	0.25	2.77e+05	1.01	y	42:45	-	1.58
132	Hepta	PCB-184	0.25	2.81e+05	1.07	y	43:12	-	1.61
133	Hepta	PCB-179	0.25	2.22e+05	0.95	y	43:58	-	1.27
134	Hepta	PCB-176	0.25	2.82e+05	1.14	y	44:27	-	1.61
135	Hepta	PCB-186	0.25	2.95e+05	1.09	y	45:04	-	1.69
136	Hepta	PCB-178	0.25	1.81e+05	0.95	y	45:33	-	1.03
137	Hepta	PCB-175	0.25	1.83e+05	1.03	y	45:54	-	1.05
138	Hepta	PCB-182/187	0.50	4.48e+05	0.94	y	46:04	-	1.28
139	Hepta	PCB-183	0.25	2.33e+05	1.14	y	46:23	-	1.33
140	Hepta	PCB-185	0.25	2.42e+05	0.91	y	47:03	-	1.77
141	Hepta	PCB-174	0.25	1.84e+05	0.97	y	47:25	-	1.34
142	Hepta	PCB-181	0.25	1.71e+05	0.89	y	47:31	-	1.25
143	Hepta	PCB-177	0.25	1.62e+05	1.15	y	47:41	-	1.18
144	Hepta	PCB-171	0.25	1.96e+05	0.95	y	48:00	-	1.43
145	Hepta	PCB-173	0.25	1.34e+05	1.04	y	48:25	-	0.97
146	Hepta	PCB-172	0.25	1.79e+05	1.06	y	48:52	-	1.31
147	Hepta	PCB-192	0.25	2.08e+05	1.05	y	49:03	-	1.52
148	Hepta	PCB-180	0.25	1.86e+05	1.04	y	49:15	-	1.35
149	Hepta	PCB-193	0.25	2.48e+05	1.20	y	49:27	-	1.81
150	Hepta	PCB-191	0.25	2.37e+05	0.93	y	49:42	-	1.73
151	Hepta	PCB-170	0.25	1.67e+05	1.00	y	50:41	-	1.54
152	Hepta	PCB-190	0.25	2.32e+05	1.20	y	50:51	-	2.14
153	Hepta	PCB-189	0.25	2.21e+05	0.99	y	52:07	-	1.58
154	Octa	PCB-202	0.25	1.87e+05	0.90	y	48:11	-	1.09
155	Octa	PCB-201	0.25	1.91e+05	0.96	y	48:40	-	1.11
156	Octa	PCB-204	0.25	1.75e+05	0.89	y	48:50	-	1.02
157	Octa	PCB-197	0.25	1.86e+05	1.01	y	49:08	-	1.09
158	Octa	PCB-200	0.25	1.85e+05	1.02	y	49:59	-	1.08
159	Octa	PCB-198	0.25	1.27e+05	0.92	y	51:14	-	0.74
160	Octa	PCB-199	0.25	1.30e+05	0.87	y	51:21	-	0.76
161	Octa	PCB-196/203	0.50	2.45e+05	0.96	y	51:36	-	0.71
162	Octa	PCB-195	0.25	1.54e+05	0.94	y	52:45	-	1.15

163	Octa	PCB-194	0.25	1.77e+05	0.95	y	53:38	-	1.32
164	Octa	PCB-205	0.25	2.02e+05	0.89	y	53:56	-	1.51
165	Nona	PCB-208	0.25	1.76e+05	1.45	y	52:54	-	0.95
166	Nona	PCB-207	0.25	1.98e+05	1.16	y	53:13	-	1.07
167	Nona	PCB-206	0.25	1.21e+05	1.45	y	55:20	-	1.11
168	Deca	PCB-209	0.25	1.20e+05	1.18	y	56:37	-	1.15
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.15
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.19

171	Tot 7	Total Tri-PCB	0.00	-	- n	-	-	1.06
172	Tot 7	Total Tri-PCB	0.00	-	- n	-	-	1.33
173	Tot 7	Total Tetra-PCB	0.00	-	- n	-	-	1.14
174	Tot 7	Total Penta-PCB	0.00	-	- n	-	-	1.18
175	Tot 7	Total Penta-PCB	0.00	-	- n	-	-	1.28
176	Tot 7	Total Hexa-PCB	0.00	-	- n	-	-	0.90
177	Tot 7	Total Hexa-PCB	0.00	-	- n	-	-	1.13
178	Tot 7	Total Hepta-PCB	0.00	-	- n	-	-	1.41
179	Tot 7	Total Octa-PCB	0.00	-	- n	-	-	0.92
180	Tot 7	Total Octa-PCB	0.00	-	- n	-	-	1.33
181	Tot 7	Total Nona-PCB	0.00	-	- n	-	-	1.03
182	Tot 7	Total Deca-PCB	0.25	1.20e+05	1.18 y	56:37	-	1.15
183	Mono ₇	13C-PCB-1	100.00	1.84e+08	3.30 y	16:23	-	1.00
184	Mono ₇	13C-PCB-3	100.00	1.91e+08	3.30 y	18:53	-	1.04
185	Di-IS	13C-PCB-4	100.00	1.10e+08	1.58 y	20:10	-	0.60
186	Di-IS	13C-PCB-9	100.00	1.66e+08	1.58 y	21:54	-	0.90
187	Di-IS	13C-PCB-11	100.00	1.74e+08	1.56 y	25:12	-	0.95
188	Tri- ₇	13C-PCB-19	100.00	1.07e+08	1.08 y	24:13	-	0.58
189	Tri- ₇	13C-PCB-32	100.00	1.60e+08	1.07 y	27:05	-	0.87
190	Tri- ₇	13C-PCB-28	100.00	1.55e+08	1.06 y	29:00	-	0.92
191	Tri- ₇	13C-PCB-37	100.00	1.46e+08	1.07 y	32:51	-	0.87
192	Tetr ₇	13C-PCB-54	100.00	1.29e+08	0.80 y	27:54	-	0.96
193	Tetr ₇	13C-PCB-52	100.00	1.08e+08	0.80 y	31:23	-	0.80
194	Tetr ₇	13C-PCB-47	100.00	1.14e+08	0.80 y	31:53	-	0.85
195	Tetr ₇	13C-PCB-70	100.00	1.38e+08	0.80 y	35:24	-	1.03
196	Tetr ₇	13C-PCB-80	100.00	1.41e+08	0.80 y	35:48	-	1.05
197	Tetr ₇	13C-PCB-81	100.00	1.22e+08	0.80 y	38:55	-	0.91
198	Tetr ₇	13C-PCB-77	100.00	1.28e+08	0.80 y	39:31	-	0.95
199	Pent ₇	13C-PCB-104	100.00	9.53e+07	1.55 y	32:33	-	1.02
200	Pent ₇	13C-PCB-95	100.00	6.94e+07	1.58 y	35:42	-	0.74
201	Pent ₇	13C-PCB-101	100.00	7.42e+07	1.61 y	37:22	-	0.79
202	Pent ₇	13C-PCB-97	100.00	6.72e+07	1.62 y	38:40	-	0.72
203	Pent ₇	13C-PCB-123	100.00	8.66e+07	1.59 y	41:15	-	0.92
204	Pent ₇	13C-PCB-118	100.00	9.00e+07	1.59 y	41:25	-	0.96
205	Pent ₇	13C-PCB-114	100.00	9.79e+07	1.62 y	42:05	-	1.33
206	Pent ₇	13C-PCB-105	100.00	9.84e+07	1.62 y	42:57	-	1.34
207	Pent ₇	13C-PCB-127	100.00	1.04e+08	1.60 y	43:17	-	1.42
208	Pent ₇	13C-PCB-126	100.00	9.44e+07	1.59 y	45:11	-	1.29
209	Hexa ₇	13C-PCB-155	100.00	8.36e+07	1.29 y	36:55	-	0.89
210	Hexa ₇	13C-PCB-153	100.00	8.47e+07	1.26 y	43:06	-	1.15
211	Hexa ₇	13C-PCB-141	100.00	7.81e+07	1.26 y	43:50	-	1.07
212	Hexa	13C-PCB-138	100.00	8.05e+07	1.27 y	44:41	-	1.10
213	Hexa ₇	13C-PCB-159	100.00	9.21e+07	1.27 y	45:58	-	1.26
214	Hexa ₇	13C-PCB-167	100.00	9.97e+07	1.26 y	46:40	-	1.36
215	Hexa ₇	13C-PCB-156	100.00	9.50e+07	1.29 y	47:58	-	1.30
216	Hexa ₇	13C-PCB-157	100.00	1.00e+08	1.32 y	48:14	-	1.37
217	Hexa ₇	13C-PCB-169	100.00	9.71e+07	1.27 y	50:19	-	1.32
218	Hept ₇	13C-PCB-188	100.00	7.00e+07	0.47 y	42:44	-	0.95
219	Hept ₇	13C-PCB-180	100.00	5.49e+07	0.46 y	49:15	-	0.75
220	Hept ₇	13C-PCB-170	100.00	4.33e+07	0.46 y	50:40	-	0.59
221	Hept ₇	13C-PCB-189	100.00	5.61e+07	0.46 y	52:07	-	0.77

222	Octa ₇	13C-PCB-202	100.00	6.86e+07	0.93	y	48:10	-	0.94
223	Octa ₇	13C-PCB-194	100.00	5.37e+07	0.93	y	53:37	-	0.79
224	Nona ₇	13C-PCB-208	100.00	7.40e+07	0.78	y	52:53	-	1.09
225	Nona ₇	13C-PCB-206	100.00	4.38e+07	0.78	y	55:20	-	0.65
226	Deca ₇	13C-PCB-209	100.00	4.18e+07	1.19	y	56:37	-	0.62
227	DI-RS	13C-PCB-15	100.00	1.84e+08	1.59	y	25:54	-	1.00
228	Tri- ₇	13C-PCB-31	100.00	1.69e+08	1.07	y	28:54	-	1.00
229	Tetra ₇	13C-PCB-60	100.00	1.34e+08	0.80	y	36:38	-	1.00
230	Penta	13C-PCB-111	100.00	9.38e+07	1.57	y	39:06	-	1.00
231	Hexa ₇	13C-PCB-128	100.00	7.33e+07	1.25	y	46:16	-	1.00

232	Octa ₇	13C-PCB-205	100.00	6.77e+07	0.90	y	53:55	-	1.00
233	CRS	13C-PCB-79	100.00	1.36e+08	0.80	y	37:41	-	1.02
234	CRS	13C-PCB-178	100.00	4.71e+07	0.46	y	45:32	-	0.64
235	PS	13C-PCB-79	100.00	1.36e+08	0.80	y	37:41	-	1.11
236	PS	13C-PCB-178	100.00	4.71e+07	0.46	y	45:32	-	0.86

Filename: 140623E2 S: 2 Acquired: 23-JUN-14 12:45:53
 Run: 140623E2 Analyte: ICal: PCBVG8-6-23-14 Results: 140623E2
 Sample text: ST140623E2-2 PCB CS1 14F1603

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Mono	PCB-1	1.00	1.92e+06	3.07	y	16:24	-	1.13
2	Mono	PCB-2	1.00	2.00e+06	3.10	y	18:41	-	1.12
3	Mono	PCB-3	1.00	2.45e+06	2.99	y	18:54	-	1.37
4	Di	PCB-4/10	4.00	6.76e+06	1.61	y	20:14	-	1.54
5	Di	PCB-7/9	4.00	7.85e+06	1.66	y	21:57	-	1.17
6	Di	PCB-6	2.00	4.27e+06	1.72	y	22:35	-	1.28
7	Di	PCB-5/8	4.00	7.47e+06	1.65	y	22:59	-	1.12
8	Di	PCB-14	2.00	3.76e+06	1.62	y	24:03	-	1.09
9	Di	PCB-11	2.00	3.76e+06	1.61	y	25:13	-	1.09
10	Di	PCB-12/13	4.00	8.12e+06	1.62	y	25:37	-	1.17
11	Di	PCB-15	2.00	4.22e+06	1.64	y	25:55	-	1.22
12	Tri	PCB-19	1.00	1.05e+06	1.10	y	24:15	-	1.01
13	Tri	PCB-30	1.00	1.69e+06	1.10	y	25:06	-	1.64
14	Tri	PCB-18	1.00	1.19e+06	1.03	y	25:51	-	0.79
15	Tri	PCB-17	1.00	1.36e+06	1.06	y	26:01	-	0.90
16	Tri	PCB-24/27	2.00	3.54e+06	1.03	y	26:35	-	1.17
17	Tri	PCB-16/32	2.00	2.81e+06	1.04	y	27:05	-	0.93
18	Tri	PCB-34	1.00	1.77e+06	1.02	y	27:52	-	1.19
19	Tri	PCB-23	1.00	1.91e+06	1.05	y	27:58	-	1.28
20	Tri	PCB-29	1.00	1.69e+06	1.03	y	28:13	-	1.13
21	Tri	PCB-26	1.00	1.83e+06	1.06	y	28:25	-	1.23
22	Tri	PCB-25	1.00	1.86e+06	1.03	y	28:35	-	1.25
23	Tri	PCB-31	1.00	1.92e+06	1.03	y	28:55	-	1.29
24	Tri	PCB-28	1.00	2.63e+06	1.05	y	29:02	-	1.76
25	Tri	PCB-20/21/33	3.00	4.78e+06	1.06	y	29:38	-	1.07
26	Tri	PCB-22	1.00	1.85e+06	1.03	y	30:05	-	1.24
27	Tri	PCB-36	1.00	1.58e+06	0.96	y	30:41	-	1.16
28	Tri	PCB-39	1.00	1.53e+06	1.03	y	31:09	-	1.12
29	Tri	PCB-38	1.00	1.71e+06	0.96	y	31:56	-	1.25
30	Tri	PCB-35	1.00	1.61e+06	1.02	y	32:27	-	1.18
31	Tri	PCB-37	1.00	1.78e+06	0.99	y	32:53	-	1.30
32	Tetra	PCB-54	1.00	1.33e+06	0.85	y	27:56	-	1.06
33	Tetra	PCB-50	1.00	1.04e+06	0.83	y	29:04	-	0.83
34	Tetra	PCB-53	1.00	1.06e+06	0.75	y	29:43	-	1.05
35	Tetra	PCB-51	1.00	1.07e+06	0.77	y	30:03	-	1.06
36	Tetra	PCB-45	1.00	8.56e+05	0.81	y	30:29	-	0.85
37	Tetra	PCB-46	1.00	8.89e+05	0.82	y	30:58	-	0.89
38	Tetra	PCB-52/69	2.00	2.58e+06	0.75	y	31:26	-	1.29
39	Tetra	PCB-73	1.00	1.30e+06	0.82	y	31:33	-	1.30
40	Tetra	PCB-43/49	2.00	2.01e+06	0.79	y	31:43	-	1.01
41	Tetra	PCB-47	1.00	1.15e+06	0.76	y	31:55	-	1.10

42	Tetra	PCB-48/75	2.00	2.58e+06	0.79	y	32:02	-	1.24
43	Tetra	PCB-65	1.00	1.36e+06	0.70	y	32:18	-	1.30
44	Tetra	PCB-62	1.00	1.15e+06	0.75	y	32:25	-	1.10
45	Tetra	PCB-44	1.00	9.43e+05	0.71	y	32:42	-	0.90
46	Tetra	PCB-42/59	2.00	2.48e+06	0.73	y	32:56	-	1.19
47	Tetra	PCB-41/64/71/72	4.00	5.23e+06	0.81	y	33:31	-	1.25
48	Tetra	PCB-68	1.00	1.41e+06	0.83	y	33:46	-	1.35
49	Tetra	PCB-40	1.00	7.66e+05	0.68	y	34:00	-	0.73
50	Tetra	PCB-57	1.00	1.23e+06	0.73	y	34:21	-	0.96
51	Tetra	PCB-67	1.00	1.43e+06	0.70	y	34:39	-	1.11
52	Tetra	PCB-58	1.00	1.22e+06	0.81	y	34:46	-	0.95

53	Tetra	PCB-63	1.00	1.23e+06	0.72	y	34:55	-	0.95
54	Tetra	PCB-74	1.00	1.56e+06	0.79	y	35:12	-	1.21
55	Tetra	PCB-61/70	2.00	2.47e+06	0.75	y	35:23	-	0.96
56	Tetra	PCB-76/66	2.00	2.68e+06	0.76	y	35:36	-	1.04
57	Tetra	PCB-80	1.00	1.62e+06	0.71	y	35:50	-	1.22
58	Tetra	PCB-55	1.00	1.32e+06	0.77	y	36:09	-	0.99
59	Tetra	PCB-56/60	2.00	2.80e+06	0.73	y	36:39	-	1.06
60	Tetra	PCB-79	1.00	1.42e+06	0.79	y	37:42	-	1.07
61	Tetra	PCB-78	1.00	1.49e+06	0.78	y	38:25	-	1.26
62	Tetra	PCB-81	1.00	1.56e+06	0.81	y	38:56	-	1.32
63	Tetra	PCB-77	1.00	1.28e+06	0.77	y	39:32	-	1.07
64	Penta	PCB-104	1.00	1.07e+06	1.55	y	32:35	-	1.18
65	Penta	PCB-96	1.00	1.05e+06	1.49	y	33:50	-	1.15
66	Penta	PCB-103	1.00	8.47e+05	1.59	y	34:21	-	0.93
67	Penta	PCB-100	1.00	8.14e+05	1.70	y	34:42	-	0.90
68	Penta	PCB-94	1.00	7.01e+05	1.52	y	35:10	-	1.08
69	Penta	PCB-95/98/102	3.00	2.40e+06	1.45	y	35:40	-	1.23
70	Penta	PCB-93	1.00	5.56e+05	1.74	y	35:48	-	0.85
71	Penta	PCB-88/91	2.00	1.45e+06	1.50	y	36:05	-	1.11
72	Penta	PCB-121	1.00	9.97e+05	1.56	y	36:12	-	1.53
73	Penta	PCB-84/92	2.00	1.39e+06	1.53	y	37:00	-	1.00
74	Penta	PCB-89	1.00	7.51e+05	1.52	y	37:13	-	1.07
75	Penta	PCB-90/101	2.00	1.52e+06	1.60	y	37:23	-	1.08
76	Penta	PCB-113	1.00	9.10e+05	1.52	y	37:37	-	1.30
77	Penta	PCB-99	1.00	1.04e+06	1.45	y	37:42	-	1.49
78	Penta	PCB-119	1.00	9.16e+05	1.51	y	38:11	-	1.46
79	Penta	PCB-108/112	2.00	1.56e+06	1.62	y	38:20	-	1.25
80	Penta	PCB-83	1.00	9.33e+05	1.71	y	38:30	-	1.49
81	Penta	PCB-97	1.00	7.11e+05	1.49	y	38:42	-	1.13
82	Penta	PCB-86	1.00	5.14e+05	1.35	y	38:51	-	0.82
83	Penta	PCB-87/117/125	3.00	2.83e+06	1.57	y	38:57	-	1.50
84	Penta	PCB-111/115	2.00	2.06e+06	1.59	y	39:08	-	1.64
85	Penta	PCB-85/116	2.00	1.52e+06	1.65	y	39:16	-	1.21
86	Penta	PCB-120	1.00	1.06e+06	1.54	y	39:29	-	1.69
87	Penta	PCB-110	1.00	9.43e+05	1.47	y	39:38	-	1.50
88	Penta	PCB-82	1.00	6.04e+05	1.60	y	40:16	-	0.75
89	Penta	PCB-124	1.00	1.13e+06	1.50	y	40:56	-	1.40
90	Penta	PCB-107/109	2.00	2.00e+06	1.63	y	41:05	-	1.24
91	Penta	PCB-123	1.00	9.34e+05	1.64	y	41:15	-	1.16
92	Penta	PCB-106/118	2.00	1.94e+06	1.53	y	41:27	-	1.13
93	Penta	PCB-114	1.00	1.25e+06	1.49	y	42:06	-	1.31
94	Penta	PCB-122	1.00	1.07e+06	1.65	y	42:14	-	1.12
95	Penta	PCB-105	1.00	1.23e+06	1.59	y	42:58	-	1.28
96	Penta	PCB-127	1.00	1.38e+06	1.64	y	43:18	-	1.31
97	Penta	PCB-126	1.00	1.08e+06	1.55	y	45:12	-	1.16
98	Hexa	PCB-155	1.00	8.37e+05	1.10	y	36:56	-	1.11
99	Hexa	PCB-150	1.00	7.52e+05	1.14	y	38:12	-	0.99
100	Hexa	PCB-152	1.00	7.75e+05	1.29	y	38:40	-	1.02
101	Hexa	PCB-145	1.00	8.56e+05	1.22	y	39:08	-	1.13
102	Hexa	PCB-136	1.00	8.87e+05	1.27	y	39:27	-	1.17

103	Hexa	PCB-148	1.00	5.42e+05	1.31	y	39:33	-	0.72
104	Hexa	PCB-154	1.00	6.51e+05	1.13	y	40:02	-	0.86
105	Hexa	PCB-151	1.00	5.25e+05	1.34	y	40:41	-	0.69
106	Hexa	PCB-135	1.00	6.20e+05	1.16	y	40:53	-	0.82
107	Hexa	PCB-144	1.00	5.68e+05	1.14	y	41:00	-	0.75
108	Hexa	PCB-147	1.00	6.03e+05	1.39	y	41:08	-	0.80
109	Hexa	PCB-139/149	2.00	1.07e+06	1.35	y	41:24	-	0.71
110	Hexa	PCB-140	1.00	5.54e+05	1.12	y	41:35	-	0.73
111	Hexa	PCB-134/143	2.00	1.48e+06	1.32	y	42:02	-	0.89
112	Hexa	PCB-133/142	2.00	1.31e+06	1.23	y	42:19	-	0.78
113	Hexa	PCB-131	1.00	7.77e+05	1.25	y	42:29	-	0.93

114	Hexa	PCB-146/165	2.00	1.94e+06	1.26 y	42:42	-	1.16
115	Hexa	PCB-132/161	2.00	1.76e+06	1.27 y	42:57	-	1.06
116	Hexa	PCB-153	1.00	1.11e+06	1.29 y	43:06	-	1.33
117	Hexa	PCB-168	1.00	1.18e+06	1.25 y	43:19	-	1.41
118	Hexa	PCB-141	1.00	8.76e+05	1.23 y	43:51	-	1.12
119	Hexa	PCB-137	1.00	7.99e+05	1.23 y	44:15	-	1.02
120	Hexa	PCB-130	1.00	7.15e+05	1.22 y	44:20	-	0.91
121	Hexa	PCB-138/163/164	3.00	2.94e+06	1.28 y	44:43	-	1.23
122	Hexa	PCB-158/160	2.00	2.07e+06	1.39 y	44:58	-	1.30
123	Hexa	PCB-129	1.00	6.52e+05	1.17 y	45:12	-	0.82
124	Hexa	PCB-166	1.00	1.08e+06	1.25 y	45:40	-	1.18
125	Hexa	PCB-159	1.00	9.95e+05	1.26 y	46:00	-	1.09
126	Hexa	PCB-128/162	2.00	1.90e+06	1.35 y	46:17	-	1.04
127	Hexa	PCB-167	1.00	1.19e+06	1.26 y	46:40	-	1.21
128	Hexa	PCB-156	1.00	1.01e+06	1.15 y	47:59	-	1.09
129	Hexa	PCB-157	1.00	1.13e+06	1.24 y	48:15	-	1.16
130	Hexa	PCB-169	1.00	9.84e+05	1.29 y	50:19	-	1.07
131	Hepta	PCB-188	1.00	1.07e+06	1.08 y	42:44	-	1.66
132	Hepta	PCB-184	1.00	1.07e+06	1.01 y	43:12	-	1.66
133	Hepta	PCB-179	1.00	9.11e+05	1.11 y	43:58	-	1.41
134	Hepta	PCB-176	1.00	9.38e+05	1.19 y	44:27	-	1.46
135	Hepta	PCB-186	1.00	8.65e+05	1.07 y	45:04	-	1.34
136	Hepta	PCB-178	1.00	6.76e+05	1.13 y	45:32	-	1.05
137	Hepta	PCB-175	1.00	6.57e+05	1.07 y	45:54	-	1.02
138	Hepta	PCB-182/187	2.00	1.61e+06	1.10 y	46:04	-	1.25
139	Hepta	PCB-183	1.00	7.65e+05	1.02 y	46:23	-	1.19
140	Hepta	PCB-185	1.00	8.43e+05	0.96 y	47:03	-	1.68
141	Hepta	PCB-174	1.00	6.52e+05	1.02 y	47:25	-	1.30
142	Hepta	PCB-181	1.00	6.66e+05	1.08 y	47:31	-	1.33
143	Hepta	PCB-177	1.00	6.16e+05	1.08 y	47:42	-	1.23
144	Hepta	PCB-171	1.00	7.73e+05	0.96 y	47:59	-	1.54
145	Hepta	PCB-173	1.00	5.56e+05	0.90 y	48:25	-	1.11
146	Hepta	PCB-172	1.00	8.39e+05	1.07 y	48:52	-	1.67
147	Hepta	PCB-192	1.00	8.60e+05	1.06 y	49:04	-	1.71
148	Hepta	PCB-180	1.00	6.37e+05	0.90 y	49:15	-	1.27
149	Hepta	PCB-193	1.00	8.28e+05	1.14 y	49:27	-	1.65
150	Hepta	PCB-191	1.00	8.11e+05	1.07 y	49:42	-	1.62
151	Hepta	PCB-170	1.00	6.14e+05	0.96 y	50:41	-	1.53
152	Hepta	PCB-190	1.00	8.22e+05	1.03 y	50:50	-	2.04
153	Hepta	PCB-189	1.00	7.94e+05	1.03 y	52:07	-	1.50
154	Octa	PCB-202	1.00	6.55e+05	1.00 y	48:12	-	1.05
155	Octa	PCB-201	1.00	7.12e+05	0.86 y	48:42	-	1.14
156	Octa	PCB-204	1.00	6.82e+05	0.95 y	48:50	-	1.10
157	Octa	PCB-197	1.00	6.44e+05	0.88 y	49:08	-	1.04
158	Octa	PCB-200	1.00	6.28e+05	0.92 y	49:59	-	1.01
159	Octa	PCB-198	1.00	4.28e+05	0.78 y	51:15	-	0.69
160	Octa	PCB-199	1.00	5.35e+05	0.89 y	51:21	-	0.86
161	Octa	PCB-196/203	2.00	9.29e+05	0.93 y	51:37	-	0.75
162	Octa	PCB-195	1.00	6.48e+05	0.85 y	52:45	-	1.18
163	Octa	PCB-194	1.00	6.56e+05	0.96 y	53:38	-	1.19

164	Octa	PCB-205	1.00	8.69e+05	0.98	y	53:56	-	1.58
165	Nona	PCB-208	1.00	6.83e+05	1.14	y	52:54	-	0.92
166	Nona	PCB-207	1.00	7.94e+05	1.46	y	53:12	-	1.07
167	Nona	PCB-206	1.00	4.60e+05	1.50	y	55:20	-	1.03
168	Deca	PCB-209	1.00	4.74e+05	1.30	y	56:37	-	1.12
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.21
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.18
171	Tot Σ	Total Tri-PCB	0.00	-	-	n	-	-	1.08

172	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.23
173	Tot Σ	Total Tetra-PCB	0.00	-	- n	-	-	1.10
174	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.16
175	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.24
176	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.87
177	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	1.08
178	Tot Σ	Total Hepta-PCB	0.00	-	- n	-	-	1.40
179	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	0.93
180	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	1.31
181	Tot Σ	Total Nona-PCB	0.00	-	- n	-	-	1.00
182	Tot Σ	Total Deca-PCB	1.00	4.74e+05	1.30 y	56:37	-	1.12
183	MonoΣ	13C-PCB-1	100.00	1.69e+08	3.26 y	16:23	-	0.92
184	MonoΣ	13C-PCB-3	100.00	1.78e+08	3.34 y	18:53	-	0.97
185	Di-IS	13C-PCB-4	100.00	1.10e+08	1.59 y	20:11	-	0.60
186	Di-IS	13C-PCB-9	100.00	1.67e+08	1.58 y	21:54	-	0.91
187	Di-IS	13C-PCB-11	100.00	1.73e+08	1.56 y	25:13	-	0.94
188	Tri-Σ	13C-PCB-19	100.00	1.03e+08	1.08 y	24:13	-	0.56
189	Tri-Σ	13C-PCB-32	100.00	1.51e+08	1.08 y	27:05	-	0.82
190	Tri-Σ	13C-PCB-28	100.00	1.49e+08	1.05 y	29:01	-	0.91
191	Tri-Σ	13C-PCB-37	100.00	1.36e+08	1.07 y	32:51	-	0.84
192	TetrΣ	13C-PCB-54	100.00	1.25e+08	0.80 y	27:55	-	0.96
193	TetrΣ	13C-PCB-52	100.00	1.00e+08	0.79 y	31:24	-	0.77
194	TetrΣ	13C-PCB-47	100.00	1.04e+08	0.79 y	31:54	-	0.80
195	TetrΣ	13C-PCB-70	100.00	1.29e+08	0.80 y	35:24	-	0.99
196	TetrΣ	13C-PCB-80	100.00	1.33e+08	0.79 y	35:49	-	1.02
197	TetrΣ	13C-PCB-81	100.00	1.18e+08	0.79 y	38:55	-	0.91
198	TetrΣ	13C-PCB-77	100.00	1.20e+08	0.79 y	39:30	-	0.93
199	PentΣ	13C-PCB-104	100.00	9.09e+07	1.57 y	32:33	-	1.02
200	PentΣ	13C-PCB-95	100.00	6.52e+07	1.56 y	35:42	-	0.73
201	PentΣ	13C-PCB-101	100.00	7.00e+07	1.57 y	37:22	-	0.79
202	PentΣ	13C-PCB-97	100.00	6.28e+07	1.60 y	38:40	-	0.71
203	PentΣ	13C-PCB-123	100.00	8.04e+07	1.57 y	41:15	-	0.90
204	PentΣ	13C-PCB-118	100.00	8.60e+07	1.62 y	41:25	-	0.97
205	PentΣ	13C-PCB-114	100.00	9.51e+07	1.64 y	42:05	-	1.33
206	PentΣ	13C-PCB-105	100.00	9.62e+07	1.60 y	42:57	-	1.34
207	PentΣ	13C-PCB-127	100.00	1.06e+08	1.61 y	43:17	-	1.48
208	PentΣ	13C-PCB-126	100.00	9.30e+07	1.60 y	45:11	-	1.30
209	HexaΣ	13C-PCB-155	100.00	7.57e+07	1.27 y	36:55	-	0.85
210	HexaΣ	13C-PCB-153	100.00	8.33e+07	1.30 y	43:06	-	1.16
211	HexaΣ	13C-PCB-141	100.00	7.82e+07	1.28 y	43:50	-	1.09
212	Hexa	13C-PCB-138	100.00	7.98e+07	1.28 y	44:41	-	1.11
213	HexaΣ	13C-PCB-159	100.00	9.11e+07	1.28 y	45:59	-	1.27
214	HexaΣ	13C-PCB-167	100.00	9.84e+07	1.27 y	46:40	-	1.37
215	HexaΣ	13C-PCB-156	100.00	9.34e+07	1.28 y	47:58	-	1.30
216	HexaΣ	13C-PCB-157	100.00	9.73e+07	1.29 y	48:14	-	1.36
217	HexaΣ	13C-PCB-169	100.00	9.18e+07	1.27 y	50:19	-	1.28
218	HeptΣ	13C-PCB-188	100.00	6.44e+07	0.46 y	42:44	-	0.90
219	HeptΣ	13C-PCB-180	100.00	5.02e+07	0.46 y	49:15	-	0.70
220	HeptΣ	13C-PCB-170	100.00	4.02e+07	0.48 y	50:40	-	0.56
221	HeptΣ	13C-PCB-189	100.00	5.29e+07	0.47 y	52:06	-	0.74
222	OctaΣ	13C-PCB-202	100.00	6.22e+07	0.90 y	48:10	-	0.87

223	Octa ₇	13C-PCB-194	100.00	5.51e+07	0.92 y	53:37	-	0.81
224	Nona ₇	13C-PCB-208	100.00	7.43e+07	0.77 y	52:53	-	1.09
225	Nona ₇	13C-PCB-206	100.00	4.47e+07	0.79 y	55:19	-	0.66
226	Deca ₇	13C-PCB-209	100.00	4.24e+07	1.24 y	56:36	-	0.62
227	DI-RS	13C-PCB-15	100.00	1.84e+08	1.57 y	25:54	-	1.00
228	Tri- ₇	13C-PCB-31	100.00	1.63e+08	1.05 y	28:54	-	1.00
229	Tetra ₇	13C-PCB-60	100.00	1.30e+08	0.80 y	36:39	-	1.00
230	Penta	13C-PCB-111	100.00	8.89e+07	1.60 y	39:06	-	1.00
231	Hexa ₇	13C-PCB-128	100.00	7.17e+07	1.30 y	46:16	-	1.00
232	Octa ₇	13C-PCB-205	100.00	6.82e+07	0.91 y	53:55	-	1.00

233	CRS	13C-PCB-79	100.00	1.32e+08	0.79	y	37:41	-	1.02
234	CRS	13C-PCB-178	100.00	4.49e+07	0.45	y	45:32	-	0.63
235	PS	13C-PCB-79	100.00	1.32e+08	0.79	y	37:41	-	1.12
236	PS	13C-PCB-178	100.00	4.49e+07	0.45	y	45:32	-	0.90

Filename: 140623E2 S: 3 Acquired: 23-JUN-14 13:49:52
 Run: 140623E2 Analyte: ICal: PCBVG8-6-23-14 Results: 140623E2
 Sample text: ST140623E2-3 PCB CS2 14F1604

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Mono	PCB-1	2.50	4.75e+06	3.02	y	16:24	-	1.18
2	Mono	PCB-2	2.50	4.92e+06	2.98	y	18:41	-	1.16
3	Mono	PCB-3	2.50	5.82e+06	3.06	y	18:54	-	1.37
4	Di	PCB-4/10	10.00	1.63e+07	1.69	y	20:13	-	1.55
5	Di	PCB-7/9	10.00	1.91e+07	1.66	y	21:57	-	1.19
6	Di	PCB-6	5.00	1.05e+07	1.63	y	22:35	-	1.31
7	Di	PCB-5/8	10.00	1.85e+07	1.65	y	22:59	-	1.15
8	Di	PCB-14	5.00	9.28e+06	1.67	y	24:03	-	1.11
9	Di	PCB-11	5.00	8.97e+06	1.69	y	25:13	-	1.07
10	Di	PCB-12/13	10.00	1.98e+07	1.68	y	25:37	-	1.18
11	Di	PCB-15	5.00	1.05e+07	1.70	y	25:55	-	1.26
12	Tri	PCB-19	2.50	2.48e+06	1.07	y	24:14	-	1.01
13	Tri	PCB-30	2.50	4.07e+06	1.08	y	25:06	-	1.66
14	Tri	PCB-18	2.50	2.77e+06	1.08	y	25:50	-	0.79
15	Tri	PCB-17	2.50	3.32e+06	1.02	y	26:01	-	0.94
16	Tri	PCB-24/27	5.00	8.36e+06	1.04	y	26:35	-	1.19
17	Tri	PCB-16/32	5.00	6.64e+06	1.06	y	27:05	-	0.94
18	Tri	PCB-34	2.50	4.10e+06	1.00	y	27:52	-	1.13
19	Tri	PCB-23	2.50	4.41e+06	1.05	y	27:58	-	1.22
20	Tri	PCB-29	2.50	3.95e+06	1.06	y	28:13	-	1.09
21	Tri	PCB-26	2.50	4.58e+06	1.04	y	28:24	-	1.27
22	Tri	PCB-25	2.50	4.69e+06	1.09	y	28:35	-	1.30
23	Tri	PCB-31	2.50	4.94e+06	1.06	y	28:55	-	1.36
24	Tri	PCB-28	2.50	6.44e+06	1.05	y	29:02	-	1.78
25	Tri	PCB-20/21/33	7.50	1.21e+07	1.07	y	29:38	-	1.11
26	Tri	PCB-22	2.50	4.25e+06	1.06	y	30:04	-	1.17
27	Tri	PCB-36	2.50	3.41e+06	1.03	y	30:41	-	1.11
28	Tri	PCB-39	2.50	3.35e+06	1.04	y	31:09	-	1.09
29	Tri	PCB-38	2.50	3.81e+06	1.11	y	31:56	-	1.24
30	Tri	PCB-35	2.50	4.04e+06	1.02	y	32:26	-	1.31
31	Tri	PCB-37	2.50	3.84e+06	0.98	y	32:53	-	1.25
32	Tetra	PCB-54	2.50	3.28e+06	0.79	y	27:56	-	1.10
33	Tetra	PCB-50	2.50	2.75e+06	0.77	y	29:04	-	0.92
34	Tetra	PCB-53	2.50	2.52e+06	0.76	y	29:43	-	1.06
35	Tetra	PCB-51	2.50	2.31e+06	0.79	y	30:03	-	0.97
36	Tetra	PCB-45	2.50	1.97e+06	0.72	y	30:29	-	0.83
37	Tetra	PCB-46	2.50	1.95e+06	0.75	y	30:58	-	0.82
38	Tetra	PCB-52/69	5.00	6.07e+06	0.78	y	31:26	-	1.27
39	Tetra	PCB-73	2.50	3.40e+06	0.77	y	31:33	-	1.43
40	Tetra	PCB-43/49	5.00	4.57e+06	0.77	y	31:43	-	0.96
41	Tetra	PCB-47	2.50	2.67e+06	0.72	y	31:55	-	1.07

42	Tetra	PCB-48/75	5.00	6.04e+06	0.80	y	32:01	-	1.21
43	Tetra	PCB-65	2.50	3.21e+06	0.86	y	32:18	-	1.29
44	Tetra	PCB-62	2.50	3.13e+06	0.70	y	32:25	-	1.25
45	Tetra	PCB-44	2.50	2.09e+06	0.75	y	32:42	-	0.84
46	Tetra	PCB-42/59	5.00	5.38e+06	0.76	y	32:56	-	1.08
47	Tetra	PCB-41/64/71/72	10.00	1.16e+07	0.76	y	33:31	-	1.16
48	Tetra	PCB-68	2.50	3.30e+06	0.76	y	33:46	-	1.32
49	Tetra	PCB-40	2.50	1.74e+06	0.77	y	34:00	-	0.70
50	Tetra	PCB-57	2.50	3.04e+06	0.75	y	34:21	-	1.00
51	Tetra	PCB-67	2.50	3.37e+06	0.81	y	34:39	-	1.11
52	Tetra	PCB-58	2.50	2.87e+06	0.75	y	34:46	-	0.94

53	Tetra	PCB-63	2.50	2.77e+06	0.73	y	34:55	-	0.91
54	Tetra	PCB-74	2.50	3.80e+06	0.75	y	35:12	-	1.25
55	Tetra	PCB-61/70	5.00	5.98e+06	0.74	y	35:23	-	0.98
56	Tetra	PCB-76/66	5.00	6.31e+06	0.76	y	35:36	-	1.04
57	Tetra	PCB-80	2.50	3.85e+06	0.79	y	35:50	-	1.22
58	Tetra	PCB-55	2.50	3.37e+06	0.77	y	36:09	-	1.07
59	Tetra	PCB-56/60	5.00	6.58e+06	0.79	y	36:39	-	1.05
60	Tetra	PCB-79	2.50	3.55e+06	0.78	y	37:42	-	1.13
61	Tetra	PCB-78	2.50	3.58e+06	0.75	y	38:24	-	1.27
62	Tetra	PCB-81	2.50	3.64e+06	0.71	y	38:56	-	1.29
63	Tetra	PCB-77	2.50	3.13e+06	0.84	y	39:32	-	1.11
64	Penta	PCB-104	2.50	2.54e+06	1.55	y	32:34	-	1.20
65	Penta	PCB-96	2.50	2.37e+06	1.57	y	33:49	-	1.11
66	Penta	PCB-103	2.50	1.95e+06	1.62	y	34:21	-	0.92
67	Penta	PCB-100	2.50	1.89e+06	1.58	y	34:42	-	0.89
68	Penta	PCB-94	2.50	1.59e+06	1.56	y	35:10	-	1.03
69	Penta	PCB-95/98/102	7.50	5.65e+06	1.58	y	35:40	-	1.22
70	Penta	PCB-93	2.50	1.33e+06	1.59	y	35:48	-	0.86
71	Penta	PCB-88/91	5.00	3.54e+06	1.56	y	36:05	-	1.15
72	Penta	PCB-121	2.50	2.47e+06	1.61	y	36:11	-	1.61
73	Penta	PCB-84/92	5.00	3.35e+06	1.58	y	37:00	-	1.04
74	Penta	PCB-89	2.50	1.82e+06	1.44	y	37:13	-	1.13
75	Penta	PCB-90/101	5.00	3.61e+06	1.57	y	37:23	-	1.12
76	Penta	PCB-113	2.50	2.36e+06	1.55	y	37:38	-	1.46
77	Penta	PCB-99	2.50	2.05e+06	1.54	y	37:43	-	1.27
78	Penta	PCB-119	2.50	2.29e+06	1.50	y	38:11	-	1.54
79	Penta	PCB-108/112	5.00	3.72e+06	1.60	y	38:20	-	1.25
80	Penta	PCB-83	2.50	2.26e+06	1.63	y	38:30	-	1.52
81	Penta	PCB-97	2.50	1.70e+06	1.65	y	38:41	-	1.14
82	Penta	PCB-86	2.50	1.20e+06	1.61	y	38:50	-	0.81
83	Penta	PCB-87/117/125	7.50	6.65e+06	1.64	y	38:57	-	1.49
84	Penta	PCB-111/115	5.00	4.80e+06	1.62	y	39:08	-	1.61
85	Penta	PCB-85/116	5.00	3.77e+06	1.61	y	39:15	-	1.27
86	Penta	PCB-120	2.50	2.37e+06	1.56	y	39:29	-	1.60
87	Penta	PCB-110	2.50	2.32e+06	1.42	y	39:38	-	1.56
88	Penta	PCB-82	2.50	1.39e+06	1.53	y	40:16	-	0.74
89	Penta	PCB-124	2.50	2.74e+06	1.58	y	40:57	-	1.45
90	Penta	PCB-107/109	5.00	4.89e+06	1.55	y	41:05	-	1.29
91	Penta	PCB-123	2.50	2.23e+06	1.54	y	41:15	-	1.18
92	Penta	PCB-106/118	5.00	4.74e+06	1.58	y	41:27	-	1.19
93	Penta	PCB-114	2.50	3.01e+06	1.74	y	42:06	-	1.31
94	Penta	PCB-122	2.50	2.58e+06	1.66	y	42:14	-	1.12
95	Penta	PCB-105	2.50	3.03e+06	1.56	y	42:58	-	1.31
96	Penta	PCB-127	2.50	3.44e+06	1.56	y	43:18	-	1.37
97	Penta	PCB-126	2.50	2.65e+06	1.69	y	45:12	-	1.19
98	Hexa	PCB-155	2.50	1.95e+06	1.25	y	36:56	-	1.10
99	Hexa	PCB-150	2.50	1.74e+06	1.30	y	38:12	-	0.98
100	Hexa	PCB-152	2.50	1.99e+06	1.35	y	38:40	-	1.12
101	Hexa	PCB-145	2.50	2.09e+06	1.25	y	39:08	-	1.18
102	Hexa	PCB-136	2.50	2.08e+06	1.27	y	39:27	-	1.17

103	Hexa	PCB-148	2.50	1.31e+06	1.34	y	39:33	-	0.74
104	Hexa	PCB-154	2.50	1.55e+06	1.20	y	40:02	-	0.88
105	Hexa	PCB-151	2.50	1.29e+06	1.35	y	40:41	-	0.73
106	Hexa	PCB-135	2.50	1.24e+06	1.27	y	40:53	-	0.70
107	Hexa	PCB-144	2.50	1.35e+06	1.29	y	41:00	-	0.76
108	Hexa	PCB-147	2.50	1.38e+06	1.27	y	41:08	-	0.78
109	Hexa	PCB-139/149	5.00	2.58e+06	1.32	y	41:24	-	0.73
110	Hexa	PCB-140	2.50	1.29e+06	1.21	y	41:35	-	0.73
111	Hexa	PCB-134/143	5.00	3.48e+06	1.21	y	42:01	-	0.89
112	Hexa	PCB-133/142	5.00	3.10e+06	1.24	y	42:19	-	0.79
113	Hexa	PCB-131	2.50	1.76e+06	1.30	y	42:29	-	0.90

114	Hexa	PCB-146/165	5.00	4.77e+06	1.25 y	42:42	-	1.22
115	Hexa	PCB-132/161	5.00	4.19e+06	1.28 y	42:57	-	1.07
116	Hexa	PCB-153	2.50	2.42e+06	1.18 y	43:07	-	1.24
117	Hexa	PCB-168	2.50	2.79e+06	1.31 y	43:20	-	1.43
118	Hexa	PCB-141	2.50	1.92e+06	1.24 y	43:51	-	1.04
119	Hexa	PCB-137	2.50	1.90e+06	1.26 y	44:14	-	1.03
120	Hexa	PCB-130	2.50	1.82e+06	1.20 y	44:20	-	0.99
121	Hexa	PCB-138/163/164	7.50	7.26e+06	1.17 y	44:43	-	1.30
122	Hexa	PCB-158/160	5.00	5.17e+06	1.21 y	44:58	-	1.39
123	Hexa	PCB-129	2.50	1.61e+06	1.27 y	45:12	-	0.87
124	Hexa	PCB-166	2.50	2.51e+06	1.17 y	45:40	-	1.18
125	Hexa	PCB-159	2.50	2.37e+06	1.27 y	46:00	-	1.11
126	Hexa	PCB-128/162	5.00	4.28e+06	1.21 y	46:17	-	1.00
127	Hexa	PCB-167	2.50	2.79e+06	1.21 y	46:40	-	1.21
128	Hexa	PCB-156	2.50	2.59e+06	1.29 y	47:59	-	1.18
129	Hexa	PCB-157	2.50	2.63e+06	1.28 y	48:15	-	1.14
130	Hexa	PCB-169	2.50	2.41e+06	1.20 y	50:20	-	1.09
131	Hepta	PCB-188	2.50	2.41e+06	0.99 y	42:44	-	1.55
132	Hepta	PCB-184	2.50	2.63e+06	1.06 y	43:12	-	1.69
133	Hepta	PCB-179	2.50	2.01e+06	1.01 y	43:59	-	1.29
134	Hepta	PCB-176	2.50	2.25e+06	1.03 y	44:27	-	1.45
135	Hepta	PCB-186	2.50	2.12e+06	0.99 y	45:04	-	1.36
136	Hepta	PCB-178	2.50	1.70e+06	1.03 y	45:33	-	1.10
137	Hepta	PCB-175	2.50	1.56e+06	1.13 y	45:54	-	1.00
138	Hepta	PCB-182/187	5.00	3.83e+06	1.06 y	46:04	-	1.24
139	Hepta	PCB-183	2.50	1.88e+06	0.99 y	46:23	-	1.21
140	Hepta	PCB-185	2.50	2.14e+06	1.08 y	47:03	-	1.87
141	Hepta	PCB-174	2.50	1.52e+06	1.09 y	47:25	-	1.33
142	Hepta	PCB-181	2.50	1.64e+06	1.06 y	47:31	-	1.44
143	Hepta	PCB-177	2.50	1.46e+06	1.12 y	47:41	-	1.28
144	Hepta	PCB-171	2.50	1.80e+06	1.10 y	47:59	-	1.57
145	Hepta	PCB-173	2.50	1.30e+06	1.02 y	48:25	-	1.14
146	Hepta	PCB-172	2.50	1.89e+06	1.10 y	48:52	-	1.66
147	Hepta	PCB-192	2.50	2.02e+06	1.05 y	49:03	-	1.77
148	Hepta	PCB-180	2.50	1.56e+06	1.03 y	49:15	-	1.37
149	Hepta	PCB-193	2.50	1.90e+06	1.14 y	49:27	-	1.67
150	Hepta	PCB-191	2.50	1.95e+06	1.08 y	49:42	-	1.71
151	Hepta	PCB-170	2.50	1.48e+06	1.03 y	50:41	-	1.63
152	Hepta	PCB-190	2.50	2.08e+06	1.01 y	50:51	-	2.28
153	Hepta	PCB-189	2.50	1.87e+06	1.06 y	52:07	-	1.54
154	Octa	PCB-202	2.50	1.49e+06	0.93 y	48:11	-	1.05
155	Octa	PCB-201	2.50	1.64e+06	0.88 y	48:41	-	1.16
156	Octa	PCB-204	2.50	1.62e+06	0.92 y	48:51	-	1.14
157	Octa	PCB-197	2.50	1.49e+06	0.97 y	49:09	-	1.05
158	Octa	PCB-200	2.50	1.49e+06	0.95 y	49:59	-	1.05
159	Octa	PCB-198	2.50	1.08e+06	0.86 y	51:15	-	0.76
160	Octa	PCB-199	2.50	1.06e+06	0.98 y	51:22	-	0.75
161	Octa	PCB-196/203	5.00	2.18e+06	0.94 y	51:37	-	0.77
162	Octa	PCB-195	2.50	1.58e+06	0.94 y	52:46	-	1.24
163	Octa	PCB-194	2.50	1.51e+06	0.87 y	53:39	-	1.18

164	Octa	PCB-205	2.50	1.95e+06	0.91	y	53:56	-	1.53
165	Nona	PCB-208	2.50	1.57e+06	1.28	y	52:54	-	0.91
166	Nona	PCB-207	2.50	1.82e+06	1.42	y	53:13	-	1.05
167	Nona	PCB-206	2.50	1.03e+06	1.32	y	55:21	-	0.99
168	Deca	PCB-209	2.50	1.17e+06	1.22	y	56:39	-	1.17
169	Tot က	Total Mono-PCB	0.00	-	-	n	-	-	1.24
170	Tot က	Total Di-PCB	0.00	-	-	n	-	-	1.20
171	Tot က	Total Tri-PCB	0.00	-	-	n	-	-	1.09

172	Tot က	Total Tri-PCB	0.00	-	- n	-	-	1.24
173	Tot က	Total Tetra-PCB	0.00	-	- n	-	-	1.08
174	Tot က	Total Penta-PCB	0.00	-	- n	-	-	1.17
175	Tot က	Total Penta-PCB	0.00	-	- n	-	-	1.26
176	Tot က	Total Hexa-PCB	0.00	-	- n	-	-	0.88
177	Tot က	Total Hexa-PCB	0.00	-	- n	-	-	1.10
178	Tot က	Total Hepta-PCB	0.00	-	- n	-	-	1.42
179	Tot က	Total Octa-PCB	0.00	-	- n	-	-	0.95
180	Tot က	Total Octa-PCB	0.00	-	- n	-	-	1.32
181	Tot က	Total Nona-PCB	0.00	-	- n	-	-	0.98
182	Tot က	Total Deca-PCB	2.50	1.17e+06	1.22 y	56:39	-	1.17
183	Monoက	13C-PCB-1	100.00	1.61e+08	3.34 y	16:23	-	0.91
184	Monoက	13C-PCB-3	100.00	1.70e+08	3.41 y	18:53	-	0.96
185	Di-IS	13C-PCB-4	100.00	1.05e+08	1.60 y	20:11	-	0.60
186	Di-IS	13C-PCB-9	100.00	1.61e+08	1.58 y	21:54	-	0.91
187	Di-IS	13C-PCB-11	100.00	1.68e+08	1.55 y	25:12	-	0.95
188	Tri-က	13C-PCB-19	100.00	9.81e+07	1.09 y	24:13	-	0.56
189	Tri-က	13C-PCB-32	100.00	1.41e+08	1.10 y	27:05	-	0.80
190	Tri-က	13C-PCB-28	100.00	1.45e+08	1.05 y	29:00	-	0.93
191	Tri-က	13C-PCB-37	100.00	1.23e+08	1.05 y	32:51	-	0.79
192	Tetrက	13C-PCB-54	100.00	1.19e+08	0.80 y	27:55	-	0.97
193	Tetrက	13C-PCB-52	100.00	9.54e+07	0.79 y	31:24	-	0.77
194	Tetrက	13C-PCB-47	100.00	9.99e+07	0.78 y	31:53	-	0.81
195	Tetrက	13C-PCB-70	100.00	1.22e+08	0.79 y	35:24	-	0.99
196	Tetrက	13C-PCB-80	100.00	1.26e+08	0.79 y	35:48	-	1.02
197	Tetrက	13C-PCB-81	100.00	1.13e+08	0.80 y	38:55	-	0.92
198	Tetrက	13C-PCB-77	100.00	1.13e+08	0.81 y	39:31	-	0.92
199	Pentက	13C-PCB-104	100.00	8.51e+07	1.58 y	32:33	-	1.01
200	Pentက	13C-PCB-95	100.00	6.16e+07	1.60 y	35:42	-	0.73
201	Pentက	13C-PCB-101	100.00	6.46e+07	1.61 y	37:22	-	0.77
202	Pentက	13C-PCB-97	100.00	5.95e+07	1.56 y	38:40	-	0.71
203	Pentက	13C-PCB-123	100.00	7.57e+07	1.60 y	41:14	-	0.90
204	Pentက	13C-PCB-118	100.00	7.96e+07	1.58 y	41:25	-	0.95
205	Pentက	13C-PCB-114	100.00	9.23e+07	1.63 y	42:05	-	1.35
206	Pentက	13C-PCB-105	100.00	9.25e+07	1.61 y	42:57	-	1.36
207	Pentက	13C-PCB-127	100.00	1.01e+08	1.61 y	43:17	-	1.48
208	Pentက	13C-PCB-126	100.00	8.91e+07	1.60 y	45:11	-	1.31
209	Hexaက	13C-PCB-155	100.00	7.08e+07	1.28 y	36:55	-	0.84
210	Hexaက	13C-PCB-153	100.00	7.84e+07	1.29 y	43:06	-	1.15
211	Hexaက	13C-PCB-141	100.00	7.40e+07	1.27 y	43:50	-	1.09
212	Hexa	13C-PCB-138	100.00	7.43e+07	1.26 y	44:41	-	1.09
213	Hexaက	13C-PCB-159	100.00	8.52e+07	1.28 y	45:58	-	1.25
214	Hexaက	13C-PCB-167	100.00	9.23e+07	1.29 y	46:40	-	1.35
215	Hexaက	13C-PCB-156	100.00	8.80e+07	1.30 y	47:58	-	1.29
216	Hexaက	13C-PCB-157	100.00	9.23e+07	1.29 y	48:14	-	1.35
217	Hexaက	13C-PCB-169	100.00	8.83e+07	1.28 y	50:19	-	1.29
218	Heptက	13C-PCB-188	100.00	6.20e+07	0.47 y	42:44	-	0.91
219	Heptက	13C-PCB-180	100.00	4.56e+07	0.47 y	49:15	-	0.67
220	Heptက	13C-PCB-170	100.00	3.64e+07	0.46 y	50:40	-	0.53
221	Heptက	13C-PCB-189	100.00	4.86e+07	0.48 y	52:07	-	0.71
222	Octaက	13C-PCB-202	100.00	5.66e+07	0.90 y	48:10	-	0.83

223	Octa ₇	13C-PCB-194	100.00	5.12e+07	0.92	y	53:38	-	0.80
224	Nona ₇	13C-PCB-208	100.00	6.94e+07	0.78	y	52:53	-	1.09
225	Nona ₇	13C-PCB-206	100.00	4.16e+07	0.79	y	55:20	-	0.65
226	Deca ₇	13C-PCB-209	100.00	3.99e+07	1.19	y	56:38	-	0.63
227	DI-RS	13C-PCB-15	100.00	1.76e+08	1.60	y	25:54	-	1.00
228	Tri- ₇	13C-PCB-31	100.00	1.55e+08	1.05	y	28:54	-	1.00
229	Tetra ₇	13C-PCB-60	100.00	1.23e+08	0.79	y	36:38	-	1.00
230	Penta	13C-PCB-111	100.00	8.39e+07	1.60	y	39:06	-	1.00
231	Hexa ₇	13C-PCB-128	100.00	6.82e+07	1.27	y	46:16	-	1.00
232	Octa ₇	13C-PCB-205	100.00	6.36e+07	0.91	y	53:55	-	1.00

233	CRS	13C-PCB-79	100.00	1.25e+08	0.79	Y	37:41	-	1.02
234	CRS	13C-PCB-178	100.00	4.19e+07	0.47	Y	45:32	-	0.61
235	PS	13C-PCB-79	100.00	1.25e+08	0.79	Y	37:41	-	1.11
236	PS	13C-PCB-178	100.00	4.19e+07	0.47	Y	45:32	-	0.92

Filename: 140623E2 S: 4 Acquired: 23-JUN-14 14:53:49
 Run: 140623E2 Analyte: ICal: PCBVG8-6-23-14 Results: 140623E2
 Sample text: ST140623E2-4 PCB CS3 14F1302

	TYP	Name	Amount	Resp	RA	RT	RF	RRF	
1	Mono	PCB-1	50.00	9.40e+07	3.00	y	16:25	-	1.23
2	Mono	PCB-2	50.00	9.45e+07	3.01	y	18:41	-	1.23
3	Mono	PCB-3	50.00	1.13e+08	3.01	y	18:55	-	1.46
4	Di	PCB-4/10	200.00	3.27e+08	1.65	y	20:14	-	1.57
5	Di	PCB-7/9	200.00	3.82e+08	1.65	y	21:57	-	1.21
6	Di	PCB-6	100.00	2.07e+08	1.56	y	22:35	-	1.31
7	Di	PCB-5/8	200.00	3.65e+08	1.64	y	23:00	-	1.15
8	Di	PCB-14	100.00	1.87e+08	1.66	y	24:04	-	1.14
9	Di	PCB-11	100.00	1.81e+08	1.65	y	25:14	-	1.10
10	Di	PCB-12/13	200.00	3.92e+08	1.65	y	25:38	-	1.20
11	Di	PCB-15	100.00	2.11e+08	1.66	y	25:56	-	1.28
12	Tri	PCB-19	50.00	4.92e+07	1.05	y	24:15	-	1.04
13	Tri	PCB-30	50.00	7.99e+07	1.06	y	25:07	-	1.69
14	Tri	PCB-18	50.00	5.58e+07	1.05	y	25:51	-	0.80
15	Tri	PCB-17	50.00	6.48e+07	1.05	y	26:02	-	0.93
16	Tri	PCB-24/27	100.00	1.68e+08	1.05	y	26:36	-	1.20
17	Tri	PCB-16/32	100.00	1.31e+08	1.06	y	27:06	-	0.94
18	Tri	PCB-34	50.00	7.59e+07	1.03	y	27:52	-	1.09
19	Tri	PCB-23	50.00	8.55e+07	1.06	y	27:58	-	1.23
20	Tri	PCB-29	50.00	7.42e+07	1.04	y	28:13	-	1.06
21	Tri	PCB-26	50.00	8.24e+07	1.04	y	28:25	-	1.18
22	Tri	PCB-25	50.00	8.85e+07	1.06	y	28:34	-	1.27
23	Tri	PCB-31	50.00	8.65e+07	1.02	y	28:56	-	1.24
24	Tri	PCB-28	50.00	1.19e+08	1.04	y	29:02	-	1.70
25	Tri	PCB-20/21/33	150.00	2.26e+08	1.03	y	29:39	-	1.08
26	Tri	PCB-22	50.00	8.60e+07	1.04	y	30:05	-	1.23
27	Tri	PCB-36	50.00	7.12e+07	1.03	y	30:40	-	1.18
28	Tri	PCB-39	50.00	7.20e+07	1.02	y	31:09	-	1.20
29	Tri	PCB-38	50.00	7.37e+07	1.03	y	31:55	-	1.23
30	Tri	PCB-35	50.00	7.10e+07	1.03	y	32:26	-	1.18
31	Tri	PCB-37	50.00	7.16e+07	1.02	y	32:53	-	1.19
32	Tetra	PCB-54	50.00	6.73e+07	0.78	y	27:57	-	1.10
33	Tetra	PCB-50	50.00	5.38e+07	0.77	y	29:05	-	0.88
34	Tetra	PCB-53	50.00	5.23e+07	0.75	y	29:44	-	1.08
35	Tetra	PCB-51	50.00	4.77e+07	0.77	y	30:04	-	0.98
36	Tetra	PCB-45	50.00	4.32e+07	0.77	y	30:30	-	0.89
37	Tetra	PCB-46	50.00	4.05e+07	0.76	y	30:59	-	0.83
38	Tetra	PCB-52/69	100.00	1.24e+08	0.76	y	31:27	-	1.28
39	Tetra	PCB-73	50.00	6.71e+07	0.78	y	31:34	-	1.38
40	Tetra	PCB-43/49	100.00	9.43e+07	0.76	y	31:44	-	0.97
41	Tetra	PCB-47	50.00	5.35e+07	0.76	y	31:55	-	1.04

42	Tetra	PCB-48/75	100.00	1.20e+08	0.77	y	32:02	-	1.17
43	Tetra	PCB-65	50.00	6.30e+07	0.76	y	32:19	-	1.23
44	Tetra	PCB-62	50.00	5.58e+07	0.76	y	32:26	-	1.09
45	Tetra	PCB-44	50.00	4.12e+07	0.77	y	32:43	-	0.80
46	Tetra	PCB-42/59	100.00	1.11e+08	0.76	y	32:57	-	1.08
47	Tetra	PCB-41/64/71/72	200.00	2.33e+08	0.77	y	33:32	-	1.13
48	Tetra	PCB-68	50.00	6.63e+07	0.76	y	33:47	-	1.29
49	Tetra	PCB-40	50.00	3.48e+07	0.77	y	34:00	-	0.68
50	Tetra	PCB-57	50.00	6.06e+07	0.76	y	34:22	-	0.99
51	Tetra	PCB-67	50.00	6.65e+07	0.76	y	34:40	-	1.09
52	Tetra	PCB-58	50.00	5.67e+07	0.79	y	34:47	-	0.93

53	Tetra	PCB-63	50.00	5.70e+07	0.76	y	34:56	-	0.93
54	Tetra	PCB-74	50.00	7.34e+07	0.77	y	35:13	-	1.20
55	Tetra	PCB-61/70	100.00	1.16e+08	0.77	y	35:24	-	0.95
56	Tetra	PCB-76/66	100.00	1.26e+08	0.77	y	35:37	-	1.03
57	Tetra	PCB-80	50.00	7.72e+07	0.77	y	35:50	-	1.22
58	Tetra	PCB-55	50.00	6.84e+07	0.77	y	36:10	-	1.08
59	Tetra	PCB-56/60	100.00	1.27e+08	0.77	y	36:40	-	1.00
60	Tetra	PCB-79	50.00	6.79e+07	0.78	y	37:43	-	1.07
61	Tetra	PCB-78	50.00	6.97e+07	0.77	y	38:25	-	1.25
62	Tetra	PCB-81	50.00	7.20e+07	0.78	y	38:57	-	1.29
63	Tetra	PCB-77	50.00	6.19e+07	0.79	y	39:33	-	1.08
64	Penta	PCB-104	50.00	5.11e+07	1.57	y	32:35	-	1.20
65	Penta	PCB-96	50.00	4.80e+07	1.56	y	33:50	-	1.13
66	Penta	PCB-103	50.00	3.98e+07	1.56	y	34:22	-	0.93
67	Penta	PCB-100	50.00	3.93e+07	1.58	y	34:42	-	0.92
68	Penta	PCB-94	50.00	3.18e+07	1.55	y	35:11	-	1.02
69	Penta	PCB-95/98/102	150.00	1.14e+08	1.55	y	35:42	-	1.22
70	Penta	PCB-93	50.00	2.65e+07	1.58	y	35:48	-	0.85
71	Penta	PCB-88/91	100.00	7.03e+07	1.58	y	36:05	-	1.12
72	Penta	PCB-121	50.00	5.08e+07	1.60	y	36:12	-	1.62
73	Penta	PCB-84/92	100.00	6.82e+07	1.56	y	37:01	-	1.04
74	Penta	PCB-89	50.00	3.73e+07	1.58	y	37:14	-	1.14
75	Penta	PCB-90/101	100.00	7.26e+07	1.56	y	37:24	-	1.10
76	Penta	PCB-113	50.00	4.88e+07	1.57	y	37:39	-	1.49
77	Penta	PCB-99	50.00	4.19e+07	1.60	y	37:44	-	1.27
78	Penta	PCB-119	50.00	4.49e+07	1.56	y	38:12	-	1.52
79	Penta	PCB-108/112	100.00	7.56e+07	1.58	y	38:21	-	1.28
80	Penta	PCB-83	50.00	4.40e+07	1.57	y	38:31	-	1.49
81	Penta	PCB-97	50.00	3.44e+07	1.55	y	38:42	-	1.17
82	Penta	PCB-86	50.00	2.35e+07	1.55	y	38:51	-	0.80
83	Penta	PCB-87/117/125	150.00	1.40e+08	1.62	y	38:58	-	1.59
84	Penta	PCB-111/115	100.00	9.49e+07	1.51	y	39:08	-	1.61
85	Penta	PCB-85/116	100.00	7.71e+07	1.58	y	39:16	-	1.31
86	Penta	PCB-120	50.00	4.81e+07	1.59	y	39:30	-	1.63
87	Penta	PCB-110	50.00	4.58e+07	1.57	y	39:39	-	1.56
88	Penta	PCB-82	50.00	2.78e+07	1.55	y	40:17	-	0.76
89	Penta	PCB-124	50.00	5.28e+07	1.58	y	40:57	-	1.43
90	Penta	PCB-107/109	100.00	9.93e+07	1.59	y	41:05	-	1.35
91	Penta	PCB-123	50.00	4.35e+07	1.59	y	41:17	-	1.18
92	Penta	PCB-106/118	100.00	9.15e+07	1.59	y	41:28	-	1.17
93	Penta	PCB-114	50.00	6.12e+07	1.65	y	42:07	-	1.31
94	Penta	PCB-122	50.00	5.19e+07	1.66	y	42:15	-	1.11
95	Penta	PCB-105	50.00	5.88e+07	1.64	y	42:59	-	1.28
96	Penta	PCB-127	50.00	6.36e+07	1.67	y	43:19	-	1.27
97	Penta	PCB-126	50.00	5.32e+07	1.63	y	45:13	-	1.17
98	Hexa	PCB-155	50.00	3.92e+07	1.27	y	36:57	-	1.11
99	Hexa	PCB-150	50.00	3.54e+07	1.29	y	38:13	-	1.00
100	Hexa	PCB-152	50.00	3.90e+07	1.30	y	38:42	-	1.10
101	Hexa	PCB-145	50.00	4.21e+07	1.28	y	39:08	-	1.19
102	Hexa	PCB-136	50.00	4.09e+07	1.29	y	39:28	-	1.15

103	Hexa	PCB-148	50.00	2.62e+07	1.30	y	39:33	-	0.74
104	Hexa	PCB-154	50.00	2.94e+07	1.28	y	40:03	-	0.83
105	Hexa	PCB-151	50.00	2.53e+07	1.29	y	40:42	-	0.71
106	Hexa	PCB-135	50.00	2.73e+07	1.26	y	40:55	-	0.77
107	Hexa	PCB-144	50.00	2.52e+07	1.30	y	41:02	-	0.71
108	Hexa	PCB-147	50.00	2.80e+07	1.30	y	41:09	-	0.79
109	Hexa	PCB-139/149	100.00	5.22e+07	1.28	y	41:25	-	0.74
110	Hexa	PCB-140	50.00	2.47e+07	1.27	y	41:36	-	0.70
111	Hexa	PCB-134/143	100.00	7.05e+07	1.25	y	42:02	-	0.89
112	Hexa	PCB-133/142	100.00	6.32e+07	1.24	y	42:20	-	0.80
113	Hexa	PCB-131	50.00	3.53e+07	1.23	y	42:30	-	0.89

114	Hexa	PCB-146/165	100.00	9.72e+07	1.25	y	42:43	-	1.23
115	Hexa	PCB-132/161	100.00	8.58e+07	1.31	y	42:58	-	1.08
116	Hexa	PCB-153	50.00	4.86e+07	1.16	y	43:08	-	1.23
117	Hexa	PCB-168	50.00	5.75e+07	1.25	y	43:21	-	1.45
118	Hexa	PCB-141	50.00	3.94e+07	1.24	y	43:52	-	1.06
119	Hexa	PCB-137	50.00	3.90e+07	1.23	y	44:15	-	1.05
120	Hexa	PCB-130	50.00	3.61e+07	1.23	y	44:21	-	0.97
121	Hexa	PCB-138/163/164	150.00	1.47e+08	1.24	y	44:44	-	1.27
122	Hexa	PCB-158/160	100.00	1.03e+08	1.23	y	44:59	-	1.34
123	Hexa	PCB-129	50.00	3.23e+07	1.24	y	45:13	-	0.84
124	Hexa	PCB-166	50.00	4.98e+07	1.24	y	45:41	-	1.17
125	Hexa	PCB-159	50.00	4.70e+07	1.23	y	46:01	-	1.11
126	Hexa	PCB-128/162	100.00	8.65e+07	1.23	y	46:18	-	1.02
127	Hexa	PCB-167	50.00	5.55e+07	1.22	y	46:41	-	1.20
128	Hexa	PCB-156	50.00	5.05e+07	1.25	y	48:00	-	1.14
129	Hexa	PCB-157	50.00	5.18e+07	1.24	y	48:16	-	1.13
130	Hexa	PCB-169	50.00	4.66e+07	1.27	y	50:20	-	1.08
131	Hepta	PCB-188	50.00	4.99e+07	1.05	y	42:46	-	1.56
132	Hepta	PCB-184	50.00	5.13e+07	1.06	y	43:13	-	1.60
133	Hepta	PCB-179	50.00	4.15e+07	1.06	y	44:00	-	1.30
134	Hepta	PCB-176	50.00	4.68e+07	1.04	y	44:28	-	1.46
135	Hepta	PCB-186	50.00	4.64e+07	1.05	y	45:05	-	1.45
136	Hepta	PCB-178	50.00	3.27e+07	1.05	y	45:34	-	1.02
137	Hepta	PCB-175	50.00	3.22e+07	1.05	y	45:55	-	1.01
138	Hepta	PCB-182/187	100.00	7.77e+07	1.05	y	46:05	-	1.21
139	Hepta	PCB-183	50.00	3.68e+07	1.05	y	46:24	-	1.15
140	Hepta	PCB-185	50.00	4.12e+07	1.07	y	47:04	-	1.78
141	Hepta	PCB-174	50.00	3.30e+07	1.02	y	47:26	-	1.42
142	Hepta	PCB-181	50.00	3.14e+07	1.06	y	47:33	-	1.36
143	Hepta	PCB-177	50.00	2.91e+07	1.05	y	47:42	-	1.26
144	Hepta	PCB-171	50.00	3.69e+07	1.07	y	48:00	-	1.59
145	Hepta	PCB-173	50.00	2.61e+07	1.04	y	48:26	-	1.13
146	Hepta	PCB-172	50.00	3.80e+07	1.07	y	48:53	-	1.64
147	Hepta	PCB-192	50.00	4.11e+07	1.06	y	49:04	-	1.78
148	Hepta	PCB-180	50.00	3.12e+07	1.05	y	49:17	-	1.35
149	Hepta	PCB-193	50.00	3.98e+07	1.07	y	49:27	-	1.72
150	Hepta	PCB-191	50.00	3.90e+07	1.07	y	49:42	-	1.68
151	Hepta	PCB-170	50.00	2.97e+07	1.05	y	50:41	-	1.62
152	Hepta	PCB-190	50.00	4.08e+07	1.06	y	50:51	-	2.23
153	Hepta	PCB-189	50.00	3.71e+07	1.05	y	52:08	-	1.55
154	Octa	PCB-202	50.00	3.01e+07	0.94	y	48:12	-	1.06
155	Octa	PCB-201	50.00	3.19e+07	0.91	y	48:41	-	1.13
156	Octa	PCB-204	50.00	3.22e+07	0.91	y	48:50	-	1.14
157	Octa	PCB-197	50.00	3.03e+07	0.91	y	49:09	-	1.07
158	Octa	PCB-200	50.00	3.01e+07	0.90	y	49:59	-	1.06
159	Octa	PCB-198	50.00	2.18e+07	0.92	y	51:15	-	0.77
160	Octa	PCB-199	50.00	2.16e+07	0.91	y	51:21	-	0.76
161	Octa	PCB-196/203	100.00	4.53e+07	0.92	y	51:36	-	0.80
162	Octa	PCB-195	50.00	3.20e+07	0.89	y	52:45	-	1.24
163	Octa	PCB-194	50.00	3.08e+07	0.92	y	53:37	-	1.19

164	Octa	PCB-205	50.00	3.93e+07	0.92	y	53:55	-	1.52
165	Nona	PCB-208	50.00	3.24e+07	1.34	y	52:53	-	0.92
166	Nona	PCB-207	50.00	3.78e+07	1.32	y	53:12	-	1.08
167	Nona	PCB-206	50.00	2.13e+07	1.36	y	55:20	-	1.01
168	Deca	PCB-209	50.00	2.30e+07	1.21	y	56:38	-	1.20
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.31
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.21
171	Tot Σ	Total Tri-PCB	0.00	-	-	n	-	-	1.10

172	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.21
173	Tot η	Total Tetra-PCB	0.00	-	- n	-	-	1.06
174	Tot η	Total Penta-PCB	0.00	-	- n	-	-	1.18
175	Tot η	Total Penta-PCB	0.00	-	- n	-	-	1.23
176	Tot η	Total Hexa-PCB	0.00	-	- n	-	-	0.88
177	Tot η	Total Hexa-PCB	0.00	-	- n	-	-	1.09
178	Tot η	Total Hepta-PCB	0.00	-	- n	-	-	1.41
179	Tot η	Total Octa-PCB	0.00	-	- n	-	-	0.96
180	Tot η	Total Octa-PCB	0.00	-	- n	-	-	1.32
181	Tot η	Total Nona-PCB	0.00	-	- n	-	-	1.00
182	Tot η	Total Deca-PCB	50.00	2.30e+07	1.21 y	56:38	-	1.20
183	Monoη	13C-PCB-1	100.00	1.53e+08	3.37 y	16:24	-	0.86
184	Monoη	13C-PCB-3	100.00	1.54e+08	3.41 y	18:54	-	0.86
185	Di-IS	13C-PCB-4	100.00	1.04e+08	1.58 y	20:11	-	0.59
186	Di-IS	13C-PCB-9	100.00	1.59e+08	1.59 y	21:55	-	0.89
187	Di-IS	13C-PCB-11	100.00	1.64e+08	1.57 y	25:13	-	0.92
188	Tri-η	13C-PCB-19	100.00	9.46e+07	1.07 y	24:14	-	0.53
189	Tri-η	13C-PCB-32	100.00	1.39e+08	1.09 y	27:06	-	0.78
190	Tri-η	13C-PCB-28	100.00	1.40e+08	1.06 y	29:01	-	0.92
191	Tri-η	13C-PCB-37	100.00	1.20e+08	1.07 y	32:52	-	0.79
192	Tetrη	13C-PCB-54	100.00	1.23e+08	0.81 y	27:55	-	0.98
193	Tetrη	13C-PCB-52	100.00	9.72e+07	0.80 y	31:24	-	0.78
194	Tetrη	13C-PCB-47	100.00	1.02e+08	0.79 y	31:54	-	0.82
195	Tetrη	13C-PCB-70	100.00	1.22e+08	0.78 y	35:25	-	0.98
196	Tetrη	13C-PCB-80	100.00	1.27e+08	0.80 y	35:49	-	1.01
197	Tetrη	13C-PCB-81	100.00	1.12e+08	0.79 y	38:56	-	0.89
198	Tetrη	13C-PCB-77	100.00	1.14e+08	0.78 y	39:32	-	0.91
199	Pentη	13C-PCB-104	100.00	8.52e+07	1.57 y	32:34	-	1.00
200	Pentη	13C-PCB-95	100.00	6.27e+07	1.59 y	35:43	-	0.74
201	Pentη	13C-PCB-101	100.00	6.57e+07	1.54 y	37:23	-	0.77
202	Pentη	13C-PCB-97	100.00	5.89e+07	1.59 y	38:42	-	0.69
203	Pentη	13C-PCB-123	100.00	7.37e+07	1.61 y	41:15	-	0.87
204	Pentη	13C-PCB-118	100.00	7.79e+07	1.58 y	41:26	-	0.92
205	Pentη	13C-PCB-114	100.00	9.33e+07	1.60 y	42:06	-	1.35
206	Pentη	13C-PCB-105	100.00	9.17e+07	1.60 y	42:58	-	1.32
207	Pentη	13C-PCB-127	100.00	1.00e+08	1.57 y	43:17	-	1.45
208	Pentη	13C-PCB-126	100.00	9.05e+07	1.58 y	45:12	-	1.31
209	Hexaη	13C-PCB-155	100.00	7.08e+07	1.29 y	36:55	-	0.83
210	Hexaη	13C-PCB-153	100.00	7.92e+07	1.29 y	43:07	-	1.14
211	Hexaη	13C-PCB-141	100.00	7.45e+07	1.28 y	43:51	-	1.07
212	Hexa	13C-PCB-138	100.00	7.71e+07	1.29 y	44:42	-	1.11
213	Hexaη	13C-PCB-159	100.00	8.48e+07	1.27 y	45:59	-	1.22
214	Hexaη	13C-PCB-167	100.00	9.22e+07	1.30 y	46:40	-	1.33
215	Hexaη	13C-PCB-156	100.00	8.85e+07	1.29 y	47:58	-	1.28
216	Hexaη	13C-PCB-157	100.00	9.20e+07	1.29 y	48:15	-	1.33
217	Hexaη	13C-PCB-169	100.00	8.62e+07	1.27 y	50:19	-	1.24
218	Heptη	13C-PCB-188	100.00	6.40e+07	0.46 y	42:45	-	0.92
219	Heptη	13C-PCB-180	100.00	4.63e+07	0.47 y	49:15	-	0.67
220	Heptη	13C-PCB-170	100.00	3.66e+07	0.47 y	50:40	-	0.53
221	Heptη	13C-PCB-189	100.00	4.78e+07	0.47 y	52:07	-	0.69
222	Octaη	13C-PCB-202	100.00	5.65e+07	0.94 y	48:11	-	0.81

223	Octa ₉	13C-PCB-194	100.00	5.16e+07	0.92	y	53:36	-	0.79
224	Nona ₉	13C-PCB-208	100.00	7.00e+07	0.78	y	52:53	-	1.08
225	Nona ₉	13C-PCB-206	100.00	4.23e+07	0.78	y	55:19	-	0.65
226	Deca ₉	13C-PCB-209	100.00	3.85e+07	1.23	y	56:37	-	0.59
227	DI-RS	13C-PCB-15	100.00	1.78e+08	1.59	y	25:55	-	1.00
228	Tri- ₉	13C-PCB-31	100.00	1.52e+08	1.05	y	28:55	-	1.00
229	Tetr ₉	13C-PCB-60	100.00	1.25e+08	0.79	y	36:39	-	1.00
230	Penta	13C-PCB-111	100.00	8.51e+07	1.57	y	39:07	-	1.00
231	Hexa ₉	13C-PCB-128	100.00	6.93e+07	1.27	y	46:16	-	1.00
232	Octa ₉	13C-PCB-205	100.00	6.51e+07	0.91	y	53:54	-	1.00

233	CRS	13C-PCB-79	100.00	1.25e+08	0.79	y	37:42	-	1.00
234	CRS	13C-PCB-178	100.00	4.30e+07	0.46	y	45:33	-	0.62
235	PS	13C-PCB-79	100.00	1.25e+08	0.79	y	37:42	-	1.12
236	PS	13C-PCB-178	100.00	4.30e+07	0.46	y	45:33	-	0.93

Filename: 140623E2 S: 5 Acquired: 23-JUN-14 15:57:45
 Run: 140623E2 Analyte: ICal: PCBVG8-6-23-14 Results: 140623E2
 Sample text: ST140623E2-5 PCB CS4 14F1605

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	400.00	7.39e+08	3.02 y	16:25	-	1.29
2	Mono	PCB-2	400.00	7.73e+08	3.00 y	18:41	-	1.28
3	Mono	PCB-3	400.00	9.04e+08	3.01 y	18:55	-	1.49
4	Di	PCB-4/10	1600.00	2.74e+09	1.64 y	20:14	-	1.60
5	Di	PCB-7/9	1600.00	3.22e+09	1.65 y	21:58	-	1.22
6	Di	PCB-6	800.00	1.77e+09	1.65 y	22:36	-	1.34
7	Di	PCB-5/8	1600.00	3.07e+09	1.65 y	23:01	-	1.16
8	Di	PCB-14	800.00	1.56e+09	1.66 y	24:04	-	1.12
9	Di	PCB-11	800.00	1.52e+09	1.66 y	25:15	-	1.09
10	Di	PCB-12/13	1600.00	3.35e+09	1.64 y	25:37	-	1.20
11	Di	PCB-15	800.00	1.81e+09	1.65 y	25:56	-	1.30
12	Tri	PCB-19	400.00	3.88e+08	1.06 y	24:15	-	1.07
13	Tri	PCB-30	400.00	6.46e+08	1.07 y	25:08	-	1.79
14	Tri	PCB-18	400.00	4.49e+08	1.07 y	25:51	-	0.78
15	Tri	PCB-17	400.00	5.20e+08	1.07 y	26:02	-	0.91
16	Tri	PCB-24/27	800.00	1.36e+09	1.07 y	26:36	-	1.18
17	Tri	PCB-16/32	800.00	1.07e+09	1.06 y	27:06	-	0.94
18	Tri	PCB-34	400.00	6.31e+08	1.04 y	27:53	-	1.16
19	Tri	PCB-23	400.00	6.73e+08	1.03 y	27:58	-	1.24
20	Tri	PCB-29	400.00	5.51e+08	1.00 y	28:13	-	1.01
21	Tri	PCB-26	400.00	6.09e+08	1.01 y	28:26	-	1.12
22	Tri	PCB-25	400.00	6.81e+08	1.01 y	28:35	-	1.25
23	Tri	PCB-31	400.00	6.90e+08	1.00 y	28:56	-	1.27
24	Tri	PCB-28	400.00	8.88e+08	1.03 y	29:02	-	1.63
25	Tri	PCB-20/21/33	1200.00	1.80e+09	1.00 y	29:38	-	1.11
26	Tri	PCB-22	400.00	5.78e+08	1.01 y	30:06	-	1.06
27	Tri	PCB-36	400.00	5.30e+08	1.01 y	30:41	-	1.05
28	Tri	PCB-39	400.00	4.63e+08	0.99 y	31:09	-	0.92
29	Tri	PCB-38	400.00	5.20e+08	1.00 y	31:56	-	1.03
30	Tri	PCB-35	400.00	5.75e+08	0.99 y	32:27	-	1.15
31	Tri	PCB-37	400.00	5.64e+08	1.01 y	32:53	-	1.12
32	Tetra	PCB-54	400.00	5.49e+08	0.77 y	27:57	-	1.09
33	Tetra	PCB-50	400.00	4.32e+08	0.76 y	29:05	-	0.86
34	Tetra	PCB-53	400.00	4.28e-08	0.76 y	29:44	-	1.09
35	Tetra	PCB-51	400.00	3.77e-08	0.76 y	30:04	-	0.96
36	Tetra	PCB-45	400.00	3.32e+08	0.76 y	30:30	-	0.84
37	Tetra	PCB-46	400.00	3.25e+08	0.77 y	30:59	-	0.83
38	Tetra	PCB-52/69	800.00	9.79e+08	0.75 y	31:27	-	1.25
39	Tetra	PCB-73	400.00	5.09e+08	0.76 y	31:34	-	1.30
40	Tetra	PCB-43/49	800.00	7.49e+08	0.75 y	31:43	-	0.95
41	Tetra	PCB-47	400.00	4.38e+08	0.76 y	31:56	-	1.04

42	Tetra	PCB-48/75	800.00	9.87e+08	0.76	y	32:03	-	1.17
43	Tetra	PCB-65	400.00	4.70e+08	0.75	y	32:19	-	1.12
44	Tetra	PCB-62	400.00	5.15e+08	0.76	y	32:25	-	1.22
45	Tetra	PCB-44	400.00	3.32e+08	0.76	y	32:44	-	0.79
46	Tetra	PCB-42/59	800.00	9.34e+08	0.76	y	32:57	-	1.11
47	Tetra	PCB-41/64/71/72	1600.00	2.01e+09	0.77	y	33:32	-	1.19
48	Tetra	PCB-68	400.00	5.53e+08	0.76	y	33:47	-	1.31
49	Tetra	PCB-40	400.00	2.93e+08	0.77	y	34:01	-	0.69
50	Tetra	PCB-57	400.00	4.98e+08	0.76	y	34:21	-	0.96
51	Tetra	PCB-67	400.00	5.63e+08	0.76	y	34:40	-	1.09
52	Tetra	PCB-58	400.00	4.58e+08	0.78	y	34:47	-	0.88

53	Tetra	PCB-63	400.00	4.57e+08	0.76	y	34:56	-	0.88
54	Tetra	PCB-74	400.00	6.33e+08	0.76	y	35:14	-	1.23
55	Tetra	PCB-61/70	800.00	9.54e+08	0.76	y	35:24	-	0.92
56	Tetra	PCB-76/66	800.00	1.06e+09	0.77	y	35:37	-	1.03
57	Tetra	PCB-80	400.00	6.36e+08	0.77	y	35:51	-	1.18
58	Tetra	PCB-55	400.00	5.68e+08	0.76	y	36:10	-	1.05
59	Tetra	PCB-56/60	800.00	1.04e+09	0.76	y	36:40	-	0.97
60	Tetra	PCB-79	400.00	5.59e+08	0.77	y	37:44	-	1.04
61	Tetra	PCB-78	400.00	5.77e+08	0.76	y	38:26	-	1.20
62	Tetra	PCB-81	400.00	6.11e+08	0.76	y	38:58	-	1.27
63	Tetra	PCB-77	400.00	5.41e+08	0.79	y	39:33	-	1.07
64	Penta	PCB-104	400.00	4.22e+08	1.58	y	32:35	-	1.19
65	Penta	PCB-96	400.00	4.08e+08	1.59	y	33:51	-	1.16
66	Penta	PCB-103	400.00	3.36e+08	1.56	y	34:23	-	0.95
67	Penta	PCB-100	400.00	3.34e+08	1.58	y	34:43	-	0.95
68	Penta	PCB-94	400.00	2.70e+08	1.58	y	35:11	-	1.00
69	Penta	PCB-95/98/102	1200.00	9.97e+08	1.58	y	35:41	-	1.23
70	Penta	PCB-93	400.00	2.10e+08	1.55	y	35:49	-	0.77
71	Penta	PCB-88/91	800.00	6.29e+08	1.54	y	36:06	-	1.16
72	Penta	PCB-121	400.00	4.11e+08	1.62	y	36:13	-	1.52
73	Penta	PCB-84/92	800.00	5.85e+08	1.57	y	37:02	-	1.04
74	Penta	PCB-89	400.00	3.12e+08	1.58	y	37:13	-	1.11
75	Penta	PCB-90/101	800.00	6.09e+08	1.57	y	37:23	-	1.08
76	Penta	PCB-113	400.00	3.62e+08	1.56	y	37:38	-	1.29
77	Penta	PCB-99	400.00	4.00e+08	1.57	y	37:44	-	1.42
78	Penta	PCB-119	400.00	3.82e+08	1.57	y	38:12	-	1.53
79	Penta	PCB-108/112	800.00	6.45e+08	1.57	y	38:21	-	1.29
80	Penta	PCB-83	400.00	3.69e+08	1.56	y	38:31	-	1.48
81	Penta	PCB-97	400.00	2.93e+08	1.58	y	38:43	-	1.17
82	Penta	PCB-86	400.00	2.07e+08	1.53	y	38:52	-	0.83
83	Penta	PCB-87/117/125	1200.00	1.19e+09	1.57	y	38:59	-	1.59
84	Penta	PCB-111/115	800.00	8.24e+08	1.65	y	39:09	-	1.65
85	Penta	PCB-85/116	800.00	6.56e+08	1.48	y	39:17	-	1.31
86	Penta	PCB-120	400.00	4.25e+08	1.57	y	39:30	-	1.70
87	Penta	PCB-110	400.00	3.85e+08	1.58	y	39:40	-	1.54
88	Penta	PCB-82	400.00	2.39e+08	1.57	y	40:17	-	0.76
89	Penta	PCB-124	400.00	4.72e+08	1.57	y	40:57	-	1.51
90	Penta	PCB-107/109	800.00	8.57e+08	1.57	y	41:06	-	1.37
91	Penta	PCB-123	400.00	3.63e+08	1.58	y	41:16	-	1.16
92	Penta	PCB-106/118	800.00	7.95e+08	1.58	y	41:29	-	1.15
93	Penta	PCB-114	400.00	5.21e+08	1.63	y	42:07	-	1.28
94	Penta	PCB-122	400.00	4.51e+08	1.65	y	42:16	-	1.11
95	Penta	PCB-105	400.00	5.21e+08	1.62	y	42:59	-	1.28
96	Penta	PCB-127	400.00	5.57e+08	1.64	y	43:19	-	1.28
97	Penta	PCB-126	400.00	4.53e+08	1.65	y	45:14	-	1.18
98	Hexa	PCB-155	400.00	3.27e+08	1.28	y	36:57	-	1.11
99	Hexa	PCB-150	400.00	3.03e+08	1.28	y	38:13	-	1.03
100	Hexa	PCB-152	400.00	3.29e+08	1.27	y	38:42	-	1.12
101	Hexa	PCB-145	400.00	3.63e+08	1.28	y	39:09	-	1.23
102	Hexa	PCB-136	400.00	3.55e+08	1.28	y	39:28	-	1.21

103	Hexa	PCB-148	400.00	2.11e+08	1.30	y	39:34	-	0.72
104	Hexa	PCB-154	400.00	2.46e+08	1.28	y	40:03	-	0.83
105	Hexa	PCB-151	400.00	2.09e+08	1.29	y	40:42	-	0.71
106	Hexa	PCB-135	400.00	2.14e+08	1.26	y	40:55	-	0.73
107	Hexa	PCB-144	400.00	2.42e+08	1.27	y	41:01	-	0.82
108	Hexa	PCB-147	400.00	2.44e+08	1.29	y	41:09	-	0.83
109	Hexa	PCB-139/149	800.00	4.56e+08	1.27	y	41:25	-	0.77
110	Hexa	PCB-140	400.00	2.10e+08	1.30	y	41:37	-	0.71
111	Hexa	PCB-134/143	800.00	6.18e+08	1.24	y	42:03	-	0.94
112	Hexa	PCB-133/142	800.00	5.46e+08	1.24	y	42:20	-	0.83
113	Hexa	PCB-131	400.00	2.97e+08	1.24	y	42:31	-	0.90

114	Hexa	PCB-146/165	800.00	8.31e+08	1.24	y	42:43	-	1.26
115	Hexa	PCB-132/161	800.00	7.22e+08	1.24	y	42:58	-	1.09
116	Hexa	PCB-153	400.00	4.21e+08	1.25	y	43:08	-	1.27
117	Hexa	PCB-168	400.00	4.88e+08	1.24	y	43:20	-	1.48
118	Hexa	PCB-141	400.00	3.29e+08	1.24	y	43:53	-	1.05
119	Hexa	PCB-137	400.00	3.31e+08	1.24	y	44:16	-	1.06
120	Hexa	PCB-130	400.00	3.00e+08	1.24	y	44:22	-	0.96
121	Hexa	PCB-138/163/164	1200.00	1.27e+09	1.25	y	44:45	-	1.31
122	Hexa	PCB-158/160	800.00	8.83e+08	1.24	y	45:00	-	1.37
123	Hexa	PCB-129	400.00	2.76e+08	1.24	y	45:14	-	0.86
124	Hexa	PCB-166	400.00	4.30e+08	1.24	y	45:41	-	1.18
125	Hexa	PCB-159	400.00	4.02e+08	1.27	y	46:00	-	1.10
126	Hexa	PCB-128/162	800.00	7.56e+08	1.24	y	46:18	-	1.03
127	Hexa	PCB-167	400.00	4.81e+08	1.24	y	46:41	-	1.19
128	Hexa	PCB-156	400.00	4.44e+08	1.24	y	47:59	-	1.16
129	Hexa	PCB-157	400.00	4.52e+08	1.25	y	48:16	-	1.12
130	Hexa	PCB-169	400.00	4.05e+08	1.24	y	50:20	-	1.07
131	Hepta	PCB-188	400.00	4.10e+08	1.06	y	42:46	-	1.52
132	Hepta	PCB-184	400.00	4.29e+08	1.05	y	43:13	-	1.60
133	Hepta	PCB-179	400.00	3.39e+08	1.06	y	44:01	-	1.26
134	Hepta	PCB-176	400.00	3.89e+08	1.05	y	44:28	-	1.45
135	Hepta	PCB-186	400.00	3.92e+08	1.05	y	45:05	-	1.46
136	Hepta	PCB-178	400.00	2.70e+08	1.06	y	45:34	-	1.00
137	Hepta	PCB-175	400.00	2.66e+08	1.05	y	45:55	-	0.99
138	Hepta	PCB-182/187	800.00	6.75e+08	1.05	y	46:06	-	1.26
139	Hepta	PCB-183	400.00	3.18e+08	1.06	y	46:24	-	1.18
140	Hepta	PCB-185	400.00	3.60e+08	1.05	y	47:05	-	1.82
141	Hepta	PCB-174	400.00	2.91e+08	1.05	y	47:26	-	1.47
142	Hepta	PCB-181	400.00	2.68e+08	1.07	y	47:33	-	1.35
143	Hepta	PCB-177	400.00	2.53e+08	1.05	y	47:43	-	1.28
144	Hepta	PCB-171	400.00	3.19e+08	1.05	y	48:00	-	1.61
145	Hepta	PCB-173	400.00	2.24e+08	1.05	y	48:27	-	1.13
146	Hepta	PCB-172	400.00	3.36e+08	1.06	y	48:53	-	1.70
147	Hepta	PCB-192	400.00	3.55e+08	1.05	y	49:05	-	1.79
148	Hepta	PCB-180	400.00	2.65e+08	1.05	y	49:16	-	1.34
149	Hepta	PCB-193	400.00	3.34e+08	1.06	y	49:28	-	1.69
150	Hepta	PCB-191	400.00	3.32e+08	1.06	y	49:42	-	1.67
151	Hepta	PCB-170	400.00	2.49e+08	1.04	y	50:42	-	1.61
152	Hepta	PCB-190	400.00	3.45e+08	1.05	y	50:51	-	2.23
153	Hepta	PCB-189	400.00	3.17e+08	1.06	y	52:08	-	1.55
154	Octa	PCB-202	400.00	2.60e+08	0.91	y	48:13	-	1.10
155	Octa	PCB-201	400.00	2.75e+08	0.90	y	48:42	-	1.16
156	Octa	PCB-204	400.00	2.80e+08	0.91	y	48:51	-	1.18
157	Octa	PCB-197	400.00	2.59e+08	0.92	y	49:09	-	1.09
158	Octa	PCB-200	400.00	2.59e+08	0.91	y	49:59	-	1.09
159	Octa	PCB-198	400.00	1.81e+08	1.01	y	51:16	-	0.76
160	Octa	PCB-199	400.00	1.96e+08	0.84	y	51:21	-	0.82
161	Octa	PCB-196/203	800.00	4.10e+08	0.91	y	51:37	-	0.86
162	Octa	PCB-195	400.00	2.74e+08	0.91	y	52:46	-	1.25
163	Octa	PCB-194	400.00	2.60e+08	0.92	y	53:38	-	1.18

164	Octa	PCB-205	400.00	3.32e+08	0.92	y	53:55	-	1.51
165	Nona	PCB-208	400.00	2.75e+08	1.33	y	52:54	-	0.94
166	Nona	PCB-207	400.00	3.26e+08	1.32	y	53:12	-	1.12
167	Nona	PCB-206	400.00	1.78e+08	1.32	y	55:19	-	0.97
168	Deca	PCB-209	400.00	2.00e+08	1.19	y	56:35	-	1.17
169	Tot Σ	Total Mono-PCB	0.00	-	-	n	-	-	1.35
170	Tot Σ	Total Di-PCB	0.00	-	-	n	-	-	1.22
171	Tot Σ	Total Tri-PCB	0.00	-	-	n	-	-	1.10

172	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.15
173	Tot Σ	Total Tetra-PCB	0.00	-	- n	-	-	1.06
174	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.18
175	Tot Σ	Total Penta-PCB	0.00	-	- n	-	-	1.23
176	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	0.90
177	Tot Σ	Total Hexa-PCB	0.00	-	- n	-	-	1.11
178	Tot Σ	Total Hepta-PCB	0.00	-	- n	-	-	1.41
179	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	0.99
180	Tot Σ	Total Octa-PCB	0.00	-	- n	-	-	1.32
181	Tot Σ	Total Nona-PCB	0.00	-	- n	-	-	1.02
182	Tot Σ	Total Deca-PCB	400.00	2.00e+08	1.19 y	56:35	-	1.17
183	Mono Σ	13C-PCB-1	100.00	1.43e+08	3.35 y	16:24	-	0.77
184	Mono Σ	13C-PCB-3	100.00	1.51e+08	3.41 y	18:54	-	0.81
185	Di-IS	13C-PCB-4	100.00	1.07e+08	1.60 y	20:12	-	0.57
186	Di-IS	13C-PCB-9	100.00	1.65e+08	1.57 y	21:55	-	0.88
187	Di-IS	13C-PCB-11	100.00	1.74e+08	1.58 y	25:13	-	0.93
188	Tri- Σ	13C-PCB-19	100.00	9.04e+07	1.10 y	24:14	-	0.48
189	Tri- Σ	13C-PCB-32	100.00	1.43e+08	1.10 y	27:06	-	0.77
190	Tri- Σ	13C-PCB-28	100.00	1.36e+08	1.05 y	29:02	-	0.89
191	Tri- Σ	13C-PCB-37	100.00	1.26e+08	1.06 y	32:52	-	0.82
192	Tetr Σ	13C-PCB-54	100.00	1.26e+08	0.81 y	27:55	-	0.97
193	Tetr Σ	13C-PCB-52	100.00	9.82e+07	0.78 y	31:24	-	0.76
194	Tetr Σ	13C-PCB-47	100.00	1.05e+08	0.77 y	31:55	-	0.81
195	Tetr Σ	13C-PCB-70	100.00	1.29e+08	0.79 y	35:25	-	1.00
196	Tetr Σ	13C-PCB-80	100.00	1.35e+08	0.80 y	35:50	-	1.04
197	Tetr Σ	13C-PCB-81	100.00	1.20e+08	0.78 y	38:56	-	0.93
198	Tetr Σ	13C-PCB-77	100.00	1.27e+08	0.80 y	39:32	-	0.98
199	Pent Σ	13C-PCB-104	100.00	8.83e+07	1.55 y	32:34	-	1.00
200	Pent Σ	13C-PCB-95	100.00	6.77e+07	1.62 y	35:43	-	0.77
201	Pent Σ	13C-PCB-101	100.00	7.03e+07	1.56 y	37:23	-	0.80
202	Pent Σ	13C-PCB-97	100.00	6.24e+07	1.61 y	38:42	-	0.71
203	Pent Σ	13C-PCB-123	100.00	7.82e+07	1.58 y	41:16	-	0.88
204	Pent Σ	13C-PCB-118	100.00	8.64e+07	1.60 y	41:26	-	0.98
205	Pent Σ	13C-PCB-114	100.00	1.01e+08	1.61 y	42:06	-	1.37
206	Pent Σ	13C-PCB-105	100.00	1.02e+08	1.58 y	42:58	-	1.38
207	Pent Σ	13C-PCB-127	100.00	1.09e+08	1.60 y	43:18	-	1.48
208	Pent Σ	13C-PCB-126	100.00	9.62e+07	1.57 y	45:12	-	1.30
209	Hexa Σ	13C-PCB-155	100.00	7.37e+07	1.30 y	36:56	-	0.83
210	Hexa Σ	13C-PCB-153	100.00	8.26e+07	1.29 y	43:07	-	1.12
211	Hexa Σ	13C-PCB-141	100.00	7.81e+07	1.29 y	43:51	-	1.06
212	Hexa	13C-PCB-138	100.00	8.07e+07	1.29 y	44:42	-	1.09
213	Hexa Σ	13C-PCB-159	100.00	9.15e+07	1.26 y	46:00	-	1.24
214	Hexa Σ	13C-PCB-167	100.00	1.01e+08	1.25 y	46:40	-	1.37
215	Hexa Σ	13C-PCB-156	100.00	9.58e+07	1.27 y	47:59	-	1.30
216	Hexa Σ	13C-PCB-157	100.00	1.01e+08	1.31 y	48:15	-	1.36
217	Hexa Σ	13C-PCB-169	100.00	9.47e+07	1.29 y	50:19	-	1.28
218	Hepta Σ	13C-PCB-188	100.00	6.72e+07	0.46 y	42:45	-	0.91
219	Hepta Σ	13C-PCB-180	100.00	4.95e+07	0.46 y	49:15	-	0.67
220	Hepta Σ	13C-PCB-170	100.00	3.88e+07	0.47 y	50:41	-	0.53
221	Hepta Σ	13C-PCB-189	100.00	5.10e+07	0.48 y	52:07	-	0.69
222	Octa Σ	13C-PCB-202	100.00	5.93e+07	0.90 y	48:11	-	0.80

223	Octa γ	13C-PCB-194	100.00	5.48e+07	0.91	y	53:37	-	0.80
224	Nona γ	13C-PCB-208	100.00	7.31e+07	0.78	y	52:53	-	1.07
225	Nona γ	13C-PCB-206	100.00	4.59e+07	0.80	y	55:18	-	0.67
226	Deca γ	13C-PCB-209	100.00	4.28e+07	1.18	y	56:34	-	0.63
227	DI-RS	13C-PCB-15	100.00	1.87e+08	1.59	y	25:55	-	1.00
228	Tri- γ	13C-PCB-31	100.00	1.53e+08	1.05	y	28:55	-	1.00
229	Tetr γ	13C-PCB-60	100.00	1.30e+08	0.78	y	36:40	-	1.00
230	Penta	13C-PCB-111	100.00	8.84e+07	1.58	y	39:07	-	1.00
231	Hexa γ	13C-PCB-128	100.00	7.38e+07	1.22	y	46:17	-	1.00
232	Octa γ	13C-PCB-205	100.00	6.83e+07	0.90	y	53:54	-	1.00

233	CR\$	13C-PCB-79	100.00	1.31e+08	0.78	y	37:43	-	1.01
234	CR\$	13C-PCB-178	100.00	4.40e+07	0.47	y	45:33	-	0.60
235	PS	13C-PCB-79	100.00	1.31e+08	0.78	y	37:43	-	1.09
236	PS	13C-PCB-178	100.00	4.40e+07	0.47	y	45:33	-	0.89

Filename: 140623E2 S: 6 Acquired: 23-JUN-14 17:01:39

Run: 140623E2 Analyte: ICal: PCBVG8-6-23-14

Results: 140623E2

Sample text: ST140623E2-6 PCB CS5 14F1606

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Mono	PCB-1	750.00	1.47e+09	3.03 y	16:25	-	1.29
2	Mono	PCB-2	750.00	1.54e+09	3.03 y	18:42	-	1.26
3	Mono	PCB-3	750.00	1.85e+09	3.03 y	18:55	-	1.51
4	Di	PCB-4/10	3000.00	5.45e+09	1.65 y	20:15	-	1.62
5	Di	PCB-7/9	3000.00	6.53e+09	1.65 y	21:58	-	1.26
6	Di	PCB-6	1500.00	3.51e+09	1.66 y	22:36	-	1.35
7	Di	PCB-5/8	3000.00	6.19e+09	1.65 y	23:01	-	1.19
8	Di	PCB-14	1500.00	3.16e+09	1.66 y	24:04	-	1.15
9	Di	PCB-11	1500.00	3.07e+09	1.65 y	25:14	-	1.12
10	Di	PCB-12/13	3000.00	6.82e+09	1.65 y	25:38	-	1.24
11	Di	PCB-15	1500.00	3.68e+09	1.66 y	25:56	-	1.34
12	Tri	PCB-19	750.00	7.61e+08	1.06 y	24:15	-	1.09
13	Tri	PCB-30	750.00	1.28e+09	1.06 y	25:08	-	1.83
14	Tri	PCB-18	750.00	8.96e+08	1.06 y	25:51	-	0.82
15	Tri	PCB-17	750.00	1.03e+09	1.07 y	26:02	-	0.95
16	Tri	PCB-24/27	1500.00	2.73e+09	1.07 y	26:36	-	1.25
17	Tri	PCB-16/32	1500.00	2.10e+09	1.07 y	27:06	-	0.96
18	Tri	PCB-34	750.00	1.12e+09	1.02 y	27:52	-	1.09
19	Tri	PCB-23	750.00	1.37e+09	1.02 y	27:58	-	1.33
20	Tri	PCB-29	750.00	1.10e+09	1.00 y	28:13	-	1.06
21	Tri	PCB-26	750.00	1.23e+09	1.02 y	28:25	-	1.19
22	Tri	PCB-25	750.00	1.15e+09	0.98 y	28:35	-	1.11
23	Tri	PCB-31	750.00	1.08e+09	0.96 y	28:56	-	1.05
24	Tri	PCB-28	750.00	1.62e+09	1.02 y	29:03	-	1.57
25	Tri	PCB-20/21/33	2250.00	3.02e+09	0.99 y	29:39	-	0.98
26	Tri	PCB-22	750.00	1.22e+09	1.01 y	30:05	-	1.18
27	Tri	PCB-36	750.00	9.30e+08	0.97 y	30:41	-	0.99
28	Tri	PCB-39	750.00	9.84e+08	1.03 y	31:10	-	1.05
29	Tri	PCB-38	750.00	9.41e+08	0.97 y	31:56	-	1.00
30	Tri	PCB-35	750.00	1.09e+09	0.98 y	32:27	-	1.17
31	Tri	PCB-37	750.00	1.06e+09	0.97 y	32:53	-	1.13
32	Tetra	PCB-54	750.00	1.06e+09	0.76 y	27:57	-	1.09
33	Tetra	PCB-50	750.00	8.12e+08	0.76 y	29:06	-	0.83
34	Tetra	PCB-53	750.00	7.83e+08	0.75 y	29:44	-	1.05
35	Tetra	PCB-51	750.00	7.61e+08	0.75 y	30:04	-	1.02
36	Tetra	PCB-45	750.00	6.16e+08	0.75 y	30:30	-	0.82
37	Tetra	PCB-46	750.00	6.05e+08	0.76 y	30:59	-	0.81
38	Tetra	PCB-52/69	1500.00	2.06e+09	0.76 y	31:27	-	1.37
39	Tetra	PCB-73	750.00	9.51e+08	0.78 y	31:34	-	1.27
40	Tetra	PCB-43/49	1500.00	1.52e+09	0.76 y	31:44	-	1.02
41	Tetra	PCB-47	750.00	7.65e+08	0.74 y	31:56	-	0.98

42	Tetra	PCB-48/75	1500.00	1.93e+09	0.76	y	32:03	-	1.24
43	Tetra	PCB-65	750.00	9.32e+08	0.75	y	32:19	-	1.19
44	Tetra	PCB-62	750.00	9.33e+08	0.76	y	32:26	-	1.19
45	Tetra	PCB-44	750.00	6.53e+08	0.76	y	32:44	-	0.83
46	Tetra	PCB-42/59	1500.00	1.82e+09	0.76	y	32:57	-	1.17
47	Tetra	PCB-41/64/71/72	3000.00	3.95e+09	0.77	y	33:32	-	1.26
48	Tetra	PCB-68	750.00	1.08e+09	0.76	y	33:47	-	1.38
49	Tetra	PCB-40	750.00	5.59e+08	0.77	y	34:00	-	0.71
50	Tetra	PCB-57	750.00	1.01e+09	0.77	y	34:22	-	0.99
51	Tetra	PCB-67	750.00	1.07e+09	0.76	y	34:40	-	1.05
52	Tetra	PCB-58	750.00	9.72e+08	0.77	y	34:47	-	0.96

53	Tetra	PCB-63	750.00	9.30e+08	0.77	y	34:56	-	0.92
54	Tetra	PCB-74	750.00	1.25e+09	0.76	y	35:13	-	1.23
55	Tetra	PCB-61/70	1500.00	1.91e+09	0.76	y	35:24	-	0.94
56	Tetra	PCB-76/66	1500.00	2.06e+09	0.76	y	35:37	-	1.02
57	Tetra	PCB-80	750.00	1.23e+09	0.76	y	35:51	-	1.18
58	Tetra	PCB-55	750.00	1.10e+09	0.75	y	36:10	-	1.06
59	Tetra	PCB-56/60	1500.00	2.06e+09	0.76	y	36:40	-	0.98
60	Tetra	PCB-79	750.00	1.10e+09	0.77	y	37:44	-	1.06
61	Tetra	PCB-78	750.00	1.22e+09	0.77	y	38:26	-	1.24
62	Tetra	PCB-81	750.00	1.30e+09	0.78	y	38:58	-	1.33
63	Tetra	PCB-77	750.00	1.06e+09	0.79	y	39:33	-	1.09
64	Penta	PCB-104	750.00	8.02e+08	1.57	y	32:35	-	1.21
65	Penta	PCB-96	750.00	7.85e+08	1.58	y	33:50	-	1.19
66	Penta	PCB-103	750.00	6.73e+08	1.58	y	34:22	-	1.02
67	Penta	PCB-100	750.00	6.59e+08	1.58	y	34:44	-	1.00
68	Penta	PCB-94	750.00	5.35e+08	1.58	y	35:12	-	1.05
69	Penta	PCB-95/98/102	2250.00	1.88e+09	1.56	y	35:41	-	1.23
70	Penta	PCB-93	750.00	4.72e+08	1.58	y	35:49	-	0.93
71	Penta	PCB-88/91	1500.00	1.12e+09	1.56	y	36:05	-	1.10
72	Penta	PCB-121	750.00	8.92e+08	1.59	y	36:12	-	1.75
73	Penta	PCB-84/92	1500.00	1.15e+09	1.58	y	37:02	-	1.06
74	Penta	PCB-89	750.00	5.99e+08	1.56	y	37:14	-	1.10
75	Penta	PCB-90/101	1500.00	1.20e+09	1.56	y	37:24	-	1.11
76	Penta	PCB-113	750.00	7.64e+08	1.55	y	37:39	-	1.41
77	Penta	PCB-99	750.00	7.39e+08	1.58	y	37:44	-	1.36
78	Penta	PCB-119	750.00	7.86e+08	1.58	y	38:11	-	1.63
79	Penta	PCB-108/112	1500.00	1.31e+09	1.58	y	38:22	-	1.36
80	Penta	PCB-83	750.00	7.22e+08	1.58	y	38:31	-	1.49
81	Penta	PCB-97	750.00	5.75e+08	1.58	y	38:43	-	1.19
82	Penta	PCB-86	750.00	4.64e+08	1.55	y	38:51	-	0.96
83	Penta	PCB-87/117/125	2250.00	2.41e+09	1.59	y	38:59	-	1.66
84	Penta	PCB-111/115	1500.00	1.61e+09	1.57	y	39:08	-	1.67
85	Penta	PCB-85/116	1500.00	1.32e+09	1.57	y	39:16	-	1.37
86	Penta	PCB-120	750.00	8.54e+08	1.57	y	39:30	-	1.77
87	Penta	PCB-110	750.00	7.47e+08	1.59	y	39:39	-	1.55
88	Penta	PCB-82	750.00	4.68e+08	1.56	y	40:16	-	0.76
89	Penta	PCB-124	750.00	9.82e+08	1.56	y	40:57	-	1.60
90	Penta	PCB-107/109	1500.00	1.67e+09	1.57	y	41:06	-	1.36
91	Penta	PCB-123	750.00	7.28e+08	1.57	y	41:17	-	1.19
92	Penta	PCB-106/118	1500.00	1.64e+09	1.59	y	41:29	-	1.20
93	Penta	PCB-114	750.00	1.06e+09	1.62	y	42:07	-	1.28
94	Penta	PCB-122	750.00	9.29e+08	1.66	y	42:15	-	1.12
95	Penta	PCB-105	750.00	1.10e+09	1.63	y	42:59	-	1.33
96	Penta	PCB-127	750.00	1.16e+09	1.65	y	43:18	-	1.32
97	Penta	PCB-126	750.00	9.26e+08	1.64	y	45:13	-	1.21
98	Hexa	PCB-155	750.00	6.31e+08	1.29	y	36:58	-	1.16
99	Hexa	PCB-150	750.00	5.78e+08	1.28	y	38:13	-	1.06
100	Hexa	PCB-152	750.00	6.42e+08	1.29	y	38:42	-	1.18
101	Hexa	PCB-145	750.00	7.08e+08	1.29	y	39:09	-	1.30
102	Hexa	PCB-136	750.00	6.49e+08	1.27	y	39:28	-	1.19

103	Hexa	PCB-148	750.00	4.68e+08	1.28	y	39:34	-	0.86
104	Hexa	PCB-154	750.00	4.91e+08	1.28	y	40:03	-	0.90
105	Hexa	PCB-151	750.00	4.20e+08	1.28	y	40:42	-	0.77
106	Hexa	PCB-135	750.00	4.60e+08	1.27	y	40:55	-	0.84
107	Hexa	PCB-144	750.00	4.48e+08	1.29	y	41:02	-	0.82
108	Hexa	PCB-147	750.00	5.04e+08	1.28	y	41:10	-	0.93
109	Hexa	PCB-139/149	1500.00	9.10e+08	1.28	y	41:26	-	0.84
110	Hexa	PCB-140	750.00	4.13e+08	1.28	y	41:37	-	0.76
111	Hexa	PCB-134/143	1500.00	1.26e+09	1.24	y	42:02	-	0.95
112	Hexa	PCB-133/142	1500.00	1.12e+09	1.25	y	42:21	-	0.85
113	Hexa	PCB-131	750.00	5.92e+08	1.24	y	42:30	-	0.90

114	Hexa	PCB-146/165	1500.00	1.70e+09	1.24	y	42:43	-	1.29
115	Hexa	PCB-132/161	1500.00	1.50e+09	1.24	y	42:58	-	1.14
116	Hexa	PCB-153	750.00	8.18e+08	1.25	y	43:08	-	1.24
117	Hexa	PCB-168	750.00	1.00e+09	1.24	y	43:21	-	1.52
118	Hexa	PCB-141	750.00	6.67e+08	1.24	y	43:52	-	1.09
119	Hexa	PCB-137	750.00	7.01e+08	1.23	y	44:15	-	1.14
120	Hexa	PCB-130	750.00	5.55e+08	1.25	y	44:22	-	0.90
121	Hexa	PCB-138/163/164	2250.00	2.58e+09	1.24	y	44:44	-	1.38
122	Hexa	PCB-158/160	1500.00	1.76e+09	1.24	y	44:59	-	1.41
123	Hexa	PCB-129	750.00	5.55e+08	1.24	y	45:14	-	0.89
124	Hexa	PCB-166	750.00	8.60e+08	1.24	y	45:41	-	1.21
125	Hexa	PCB-159	750.00	8.27e+08	1.24	y	46:00	-	1.16
126	Hexa	PCB-128/162	1500.00	1.52e+09	1.24	y	46:18	-	1.07
127	Hexa	PCB-167	750.00	9.41e+08	1.24	y	46:42	-	1.24
128	Hexa	PCB-156	750.00	8.95e+08	1.24	y	47:59	-	1.19
129	Hexa	PCB-157	750.00	9.06e+08	1.25	y	48:16	-	1.15
130	Hexa	PCB-169	750.00	8.21e+08	1.25	y	50:21	-	1.12
131	Hepta	PCB-188	750.00	8.34e+08	1.05	y	42:46	-	1.61
132	Hepta	PCB-184	750.00	8.48e+08	1.06	y	43:13	-	1.64
133	Hepta	PCB-179	750.00	6.69e+08	1.06	y	44:00	-	1.29
134	Hepta	PCB-176	750.00	7.45e+08	1.06	y	44:28	-	1.44
135	Hepta	PCB-186	750.00	7.39e+08	1.05	y	45:05	-	1.43
136	Hepta	PCB-178	750.00	5.20e+08	1.06	y	45:34	-	1.00
137	Hepta	PCB-175	750.00	5.24e+08	1.06	y	45:55	-	1.01
138	Hepta	PCB-182/187	1500.00	1.33e+09	1.05	y	46:05	-	1.28
139	Hepta	PCB-183	750.00	6.17e+08	1.06	y	46:25	-	1.19
140	Hepta	PCB-185	750.00	7.01e+08	1.06	y	47:04	-	1.89
141	Hepta	PCB-174	750.00	5.17e+08	1.05	y	47:26	-	1.40
142	Hepta	PCB-181	750.00	5.76e+08	1.06	y	47:33	-	1.56
143	Hepta	PCB-177	750.00	4.88e+08	1.06	y	47:42	-	1.32
144	Hepta	PCB-171	750.00	6.45e+08	1.06	y	48:01	-	1.74
145	Hepta	PCB-173	750.00	4.34e+08	1.05	y	48:26	-	1.17
146	Hepta	PCB-172	750.00	6.78e+08	1.06	y	48:53	-	1.83
147	Hepta	PCB-192	750.00	6.93e+08	1.05	y	49:04	-	1.87
148	Hepta	PCB-180	750.00	5.13e+08	1.05	y	49:17	-	1.39
149	Hepta	PCB-193	750.00	6.52e+08	1.06	y	49:29	-	1.76
150	Hepta	PCB-191	750.00	6.47e+08	1.05	y	49:42	-	1.75
151	Hepta	PCB-170	750.00	4.90e+08	1.06	y	50:41	-	1.66
152	Hepta	PCB-190	750.00	6.88e+08	1.05	y	50:52	-	2.33
153	Hepta	PCB-189	750.00	6.33e+08	1.05	y	52:08	-	1.58
154	Octa	PCB-202	750.00	5.06e+08	0.91	y	48:13	-	1.14
155	Octa	PCB-201	750.00	5.32e+08	0.91	y	48:42	-	1.20
156	Octa	PCB-204	750.00	5.54e+08	0.92	y	48:52	-	1.25
157	Octa	PCB-197	750.00	4.91e+08	0.92	y	49:10	-	1.11
158	Octa	PCB-200	750.00	4.81e+08	0.92	y	50:00	-	1.09
159	Octa	PCB-198	750.00	3.58e+08	0.91	y	51:16	-	0.81
160	Octa	PCB-199	750.00	3.69e+08	0.92	y	51:23	-	0.83
161	Octa	PCB-196/203	1500.00	8.08e+08	0.92	y	51:38	-	0.91
162	Octa	PCB-195	750.00	5.64e+08	0.92	y	52:47	-	1.30
163	Octa	PCB-194	750.00	5.18e+08	0.92	y	53:40	-	1.20

164	Octa	PCB-205	750.00	6.92e+08	0.92 y	53:57	-	1.60
165	Nona	PCB-208	750.00	5.53e+08	1.33 y	52:55	-	0.94
166	Nona	PCB-207	750.00	6.58e+08	1.33 y	53:14	-	1.12
167	Nona	PCB-206	750.00	3.54e+08	1.32 y	55:22	-	1.03
168	Deca	PCB-209	750.00	3.89e+08	1.19 y	56:40	-	1.22
169	Tot Σ	Total Mono-PCB	0.00	-	- n	-	-	1.36
170	Tot Σ	Total Di-PCB	0.00	-	- n	-	-	1.25
171	Tot Σ	Total Tri-PCB	0.00	-	- n	-	-	1.15

172	Tot ٦	Total Tri-PCB	0.00	-	- n	-	-	1.12
173	Tot ٦	Total Tetra-PCB	0.00	-	- n	-	-	1.09
174	Tot ٦	Total Penta-PCB	0.00	-	- n	-	-	1.23
175	Tot ٦	Total Penta-PCB	0.00	-	- n	-	-	1.25
176	Tot ٦	Total Hexa-PCB	0.00	-	- n	-	-	0.96
177	Tot ٦	Total Hexa-PCB	0.00	-	- n	-	-	1.14
178	Tot ٦	Total Hepta-PCB	0.00	-	- n	-	-	1.46
179	Tot ٦	Total Octa-PCB	0.00	-	- n	-	-	1.03
180	Tot ٦	Total Octa-PCB	0.00	-	- n	-	-	1.36
181	Tot ٦	Total Nona-PCB	0.00	-	- n	-	-	1.03
182	Tot ٦	Total Deca-PCB	750.00	3.89e+08	1.19 y	56:40	-	1.22
183	Mono٦	13C-PCB-1	100.00	1.51e+08	3.37 y	16:24	-	0.77
184	Mono٦	13C-PCB-3	100.00	1.63e+08	3.42 y	18:54	-	0.83
185	Di-IS	13C-PCB-4	100.00	1.12e+08	1.60 y	20:12	-	0.57
186	Di-IS	13C-PCB-9	100.00	1.73e+08	1.58 y	21:55	-	0.88
187	Di-IS	13C-PCB-11	100.00	1.84e+08	1.56 y	25:13	-	0.94
188	Tri-٦	13C-PCB-19	100.00	9.33e+07	1.09 y	24:14	-	0.48
189	Tri-٦	13C-PCB-32	100.00	1.45e+08	1.09 y	27:05	-	0.74
190	Tri-٦	13C-PCB-28	100.00	1.37e+08	1.03 y	29:01	-	1.02
191	Tri-٦	13C-PCB-37	100.00	1.25e+08	1.07 y	32:52	-	0.93
192	Tetr٦	13C-PCB-54	100.00	1.30e+08	0.80 y	27:56	-	0.98
193	Tetr٦	13C-PCB-52	100.00	9.99e+07	0.80 y	31:25	-	0.75
194	Tetr٦	13C-PCB-47	100.00	1.04e+08	0.77 y	31:55	-	0.78
195	Tetr٦	13C-PCB-70	100.00	1.35e+08	0.78 y	35:24	-	1.02
196	Tetr٦	13C-PCB-80	100.00	1.39e+08	0.80 y	35:49	-	1.05
197	Tetr٦	13C-PCB-81	100.00	1.30e+08	0.79 y	38:56	-	0.98
198	Tetr٦	13C-PCB-77	100.00	1.29e+08	0.80 y	39:32	-	0.97
199	Pent٦	13C-PCB-104	100.00	8.83e+07	1.59 y	32:34	-	0.96
200	Pent٦	13C-PCB-95	100.00	6.79e+07	1.55 y	35:43	-	0.74
201	Pent٦	13C-PCB-101	100.00	7.25e+07	1.55 y	37:23	-	0.79
202	Pent٦	13C-PCB-97	100.00	6.44e+07	1.57 y	38:42	-	0.70
203	Pent٦	13C-PCB-123	100.00	8.18e+07	1.58 y	41:16	-	0.89
204	Pent٦	13C-PCB-118	100.00	9.11e+07	1.59 y	41:27	-	0.99
205	Pent٦	13C-PCB-114	100.00	1.10e+08	1.61 y	42:06	-	1.45
206	Pent٦	13C-PCB-105	100.00	1.10e+08	1.59 y	42:58	-	1.45
207	Pent٦	13C-PCB-127	100.00	1.18e+08	1.61 y	43:18	-	1.54
208	Pent٦	13C-PCB-126	100.00	1.02e+08	1.57 y	45:13	-	1.34
209	Hexa٦	13C-PCB-155	100.00	7.27e+07	1.27 y	36:56	-	0.79
210	Hexa٦	13C-PCB-153	100.00	8.79e+07	1.29 y	43:07	-	1.15
211	Hexa٦	13C-PCB-141	100.00	8.18e+07	1.28 y	43:52	-	1.07
212	Hexa٦	13C-PCB-138	100.00	8.32e+07	1.27 y	44:43	-	1.09
213	Hexa٦	13C-PCB-159	100.00	9.51e+07	1.28 y	45:59	-	1.25
214	Hexa٦	13C-PCB-167	100.00	1.01e+08	1.26 y	46:41	-	1.33
215	Hexa٦	13C-PCB-156	100.00	1.01e+08	1.27 y	47:59	-	1.32
216	Hexa٦	13C-PCB-157	100.00	1.05e+08	1.31 y	48:15	-	1.38
217	Hexa٦	13C-PCB-169	100.00	9.82e+07	1.28 y	50:20	-	1.29
218	Hepta٦	13C-PCB-188	100.00	6.91e+07	0.47 y	42:45	-	0.91
219	Hepta٦	13C-PCB-180	100.00	4.94e+07	0.48 y	49:16	-	0.65
220	Hepta٦	13C-PCB-170	100.00	3.94e+07	0.46 y	50:41	-	0.52
221	Hepta٦	13C-PCB-189	100.00	5.34e+07	0.46 y	52:08	-	0.70
222	Octa٦	13C-PCB-202	100.00	5.91e+07	0.90 y	48:12	-	0.78

223	Octa ₇	13C-PCB-194	100.00	5.78e+07	0.93	y	53:39	-	0.79
224	Nona ₇	13C-PCB-208	100.00	7.83e+07	0.77	y	52:54	-	1.07
225	Nona ₇	13C-PCB-206	100.00	4.57e+07	0.77	y	55:21	-	0.62
226	Deca ₇	13C-PCB-209	100.00	4.25e+07	1.20	y	56:39	-	0.58
227	DI-RS	13C-PCB-15	100.00	1.96e+08	1.59	y	25:55	-	1.00
228	Tri- ₇	13C-PCB-31	100.00	1.34e+08	1.04	y	28:55	-	1.00
229	Tetr ₇	13C-PCB-60	100.00	1.33e+08	0.78	y	36:39	-	1.00
230	Penta	13C-PCB-111	100.00	9.21e+07	1.57	y	39:07	-	1.00
231	Hexa ₇	13C-PCB-128	100.00	7.63e+07	1.27	y	46:17	-	1.00
232	Octa ₇	13C-PCB-205	100.00	7.35e+07	0.92	y	53:56	-	1.00

233	CRS	13C-PCB-79	100.00	1.38e+08	0.77	y	37:43	-	1.04
234	CRS	13C-PCB-178	100.00	4.43e+07	0.45	y	45:33	-	0.58
235	PS	13C-PCB-79	100.00	1.38e+08	0.77	y	37:43	-	1.06
236	PS	13C-PCB-178	100.00	4.43e+07	0.45	y	45:33	-	0.90

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 1 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140623E2-4

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140623E2 S#4 Analysis Date: 23-JUN-14 Time: 14:53:49

ANALYTES	ION QC				CONC.				ION QC				CONC.			
	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE
	RATIO		PASS	FOUND	(ng/mL)	ANALYTES	RATIO		PASS	FOUND	(ng/mL)					
PCB-1	3.00	2.66-3.60	y	51.3	37.5-62.5	PCB-52/69	0.76	0.65-0.89	y	99.8	75.0-125					
PCB-2	3.01	2.66-3.60	y	51.8	37.5-62.5	PCB-73	0.78	0.65-0.89	y	51.0	37.5-62.5					
PCB-3	3.01	2.66-3.60	y	51.3	37.5-62.5	PCB-43/49	0.76	0.65-0.89	y	97.5	75.0-125					
PCB-4/10	1.65	1.33-1.79	y	200.1	150-250	PCB-47	0.76	0.65-0.89	y	49.3	37.5-62.5					
PCB-7/9	1.65	1.33-1.79	y	199.3	150-250	PCB-48/75	0.77	0.65-0.89	y	95.6	75.0-125					
PCB-6	1.66	1.33-1.79	y	100.0	75.0-125	PCB-65	0.76	0.65-0.89	y	50.2	37.5-62.5					
PCB-5/8	1.64	1.33-1.79	y	200.2	150-250	PCB-62	0.76	0.65-0.89	y	44.6	37.5-62.5					
PCB-14	1.66	1.33-1.79	y	102.7	75.0-125	PCB-44	0.77	0.65-0.89	y	46.7	37.5-62.5					
PCB-11	1.65	1.33-1.79	y	101.7	75.0-125	PCB-42/59	0.76	0.65-0.89	y	95.3	75.0-125					
PCB-12/13	1.65	1.33-1.79	y	200.4	150-250	PCB-41/64/71/72	0.77	0.65-0.89	y	187.9	150-250					
PCB-15	1.66	1.33-1.79	y	100.2	75.0-125	PCB-68	0.76	0.65-0.89	y	48.0	37.5-62.5					
PCB-19	1.05	0.88-1.20	y	49.8	37.5-62.5	PCB-40	0.77	0.65-0.89	y	48.5	37.5-62.5					
PCB-30	1.06	0.88-1.20	y	49.4	37.5-62.5	PCB-57	0.76	0.65-0.89	y	50.7	37.5-62.5					
PCB-18	1.05	0.88-1.20	y	51.3	37.5-62.5	PCB-67	0.76	0.65-0.89	y	49.2	37.5-62.5					
PCB-17	1.05	0.88-1.20	y	50.5	37.5-62.5	PCB-58	0.79	0.65-0.89	y	50.1	37.5-62.5					
PCB-24/27	1.05	0.88-1.20	y	101.3	75.0-125	PCB-63	0.76	0.65-0.89	y	49.0	37.5-62.5					
PCB-16/32	1.06	0.88-1.20	y	100.2	75.0-125	PCB-74	0.77	0.65-0.89	y	48.3	37.5-62.5					
PCB-34	1.03	0.88-1.20	y	47.9	37.5-62.5	PCB-61/70	0.77	0.65-0.89	y	99.9	75.0-125					
PCB-23	1.06	0.88-1.20	y	47.9	37.5-62.5	PCB-76/66	0.77	0.65-0.89	y	99.0	75.0-125					
PCB-29	1.04	0.88-1.20	y	49.2	37.5-62.5	PCB-80	0.77	0.65-0.89	y	51.1	37.5-62.5					
PCB-26	1.04	0.88-1.20	y	48.9	37.5-62.5	PCB-55	0.77	0.65-0.89	y	51.8	37.5-62.5					
PCB-25	1.06	0.88-1.20	y	50.3	37.5-62.5	PCB-56/60	0.77	0.65-0.89	y	98.9	75.0-125					
PCB-31	1.02	0.88-1.20	y	48.2	37.5-62.5	PCB-79	0.78	0.65-0.89	y	49.6	37.5-62.5					
PCB-28	1.04	0.88-1.20	y	49.8	37.5-62.5	PCB-78	0.77	0.65-0.89	y	49.1	37.5-62.5					
PCB-20/21/33	1.03	0.88-1.20	y	149.6	112.5-225	PCB-81	0.78	0.65-0.89	y	48.4	37.5-62.5					
PCB-22	1.04	0.88-1.20	y	50.9	37.5-62.5	PCB-77	0.79	0.65-0.89	y	49.2	37.5-62.5					
PCB-36	1.03	0.88-1.20	y	51.8	37.5-62.5	PCB-104	1.57	1.32-1.78	y	50.6	37.5-62.5					
PCB-39	1.02	0.88-1.20	y	53.7	37.5-62.5	PCB-96	1.56	1.32-1.78	y	49.5	37.5-62.5					
PCB-38	1.03	0.88-1.20	y	51.1	37.5-62.5	PCB-103	1.56	1.32-1.78	y	48.8	37.5-62.5					
PCB-35	1.03	0.88-1.20	y	47.9	37.5-62.5	PCB-100	1.58	1.32-1.78	y	49.2	37.5-62.5					
PCB-37	1.02	0.88-1.20	y	48.4	37.5-62.5	PCB-94	1.55	1.32-1.78	y	48.1	37.5-62.5					
PCB-54	0.78	0.65-0.89	y	49.7	37.5-62.5	PCB-95/98/102	1.55	1.32-1.78	y	149.1	112.5-225	Analyst: <i>DMS</i>				
PCB-50	0.77	0.65-0.89	y	49.7	37.5-62.5	PCB-93	1.58	1.32-1.78	y	50.1	37.5-62.5					
PCB-53	0.75	0.65-0.89	y	50.5	37.5-62.5	PCB-88/91	1.58	1.32-1.78	y	100.5	75.0-125					
PCB-51	0.77	0.65-0.89	y	49.6	37.5-62.5	PCB-121	1.60	1.32-1.78	y	50.2	37.5-62.5	Date: <i>6/24/14</i>				
PCB-45	0.77	0.65-0.89	y	51.4	37.5-62.5											
PCB-46	0.76	0.65-0.89	y	49.3	37.5-62.5											

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 1 of

Lab Name: Vista Analytical Laboratory

Lab ID: ST140623E2-4

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140623E2 S#4 Analysis Date: 23-JUN-14 Time: 14:53:49

ANALYTES	ION QC				CONC.				ION QC				CONC.				
	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	ABUND.	LIMITS	CONC.	RANGE	
	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS	FOUND	(ng/mL)	ANALYTES	RATIO	PASS
PCB-84/92	1.56	1.32-1.78	y	99.2	75.0-125	PCB-140	1.27	1.05-1.43	y	48.3	37.5-62.5	PCB-134/143	1.25	1.05-1.43	y	97.1	75.0-125
PCB-89	1.58	1.32-1.78	y	50.3	37.5-62.5	PCB-133/142	1.24	1.05-1.43	y	97.4	75.0-125	PCB-131	1.23	1.05-1.43	y	49.1	37.5-62.5
PCB-90/101	1.56	1.32-1.78	y	100.3	75.0-125	PCB-146/165	1.25	1.05-1.43	y	98.5	75.0-125	PCB-132/161	1.31	1.05-1.43	y	98.0	75.0-125
PCB-113	1.57	1.32-1.78	y	52.7	37.5-62.5	PCB-153	1.16	1.05-1.43	y	49.2	37.5-62.5	PCB-158	1.25	1.05-1.43	y	50.1	37.5-62.5
PCB-99	1.60	1.32-1.78	y	47.7	37.5-62.5	PCB-141	1.24	1.05-1.43	y	48.7	37.5-62.5	PCB-137	1.23	1.05-1.43	y	49.3	37.5-62.5
PCB-119	1.56	1.32-1.78	y	49.8	37.5-62.5	PCB-130	1.23	1.05-1.43	y	50.2	37.5-62.5	PCB-138/163/164	1.24	1.05-1.43	y	147.8	112.5-225
PCB-108/112	1.58	1.32-1.78	y	100.2	75.0-125	PCB-158/160	1.23	1.05-1.43	y	99.9	75.0-125	PCB-159	1.23	1.05-1.43	y	49.9	37.5-62.5
PCB-83	1.57	1.32-1.78	y	49.2	37.5-62.5	PCB-129	1.24	1.05-1.43	y	49.1	37.5-62.5	PCB-128/162	1.23	1.05-1.43	y	97.4	75.0-125
PCB-97	1.55	1.32-1.78	y	49.4	37.5-62.5	PCB-166	1.24	1.05-1.43	y	49.5	37.5-62.5	PCB-167	1.22	1.05-1.43	y	50.2	37.5-62.5
PCB-86	1.55	1.32-1.78	y	47.3	37.5-62.5	PCB-157	1.24	1.05-1.43	y	48.4	37.5-62.5	PCB-156	1.25	1.05-1.43	y	50.3	37.5-62.5
PCB-87/117/125	1.62	1.32-1.78	y	153.7	112.5-225	PCB-157	1.24	1.05-1.43	y	48.4	37.5-62.5	PCB-158	1.27	1.05-1.43	y	48.4	37.5-62.5
PCB-111/115	1.51	1.32-1.78	y	98.7	75.0-125	PCB-169	1.05	0.89-1.21	y	49.3	37.5-62.5	PCB-188	1.06	0.89-1.21	y	49.1	37.5-62.5
PCB-85/116	1.58	1.32-1.78	y	100.6	75.0-125	PCB-184	1.06	0.89-1.21	y	49.1	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.7	37.5-62.5
PCB-120	1.59	1.32-1.78	y	48.7	37.5-62.5	PCB-169	1.04	0.89-1.21	y	49.5	37.5-62.5	PCB-176	1.05	0.89-1.21	y	49.8	37.5-62.5
PCB-110	1.57	1.32-1.78	y	50.0	37.5-62.5	PCB-186	1.05	0.89-1.21	y	49.4	37.5-62.5	PCB-178	1.05	0.89-1.21	y	49.4	37.5-62.5
PCB-82	1.55	1.32-1.78	y	49.8	37.5-62.5	PCB-175	1.05	0.89-1.21	y	49.6	37.5-62.5	PCB-175	1.05	0.89-1.21	y	49.6	37.5-62.5
PCB-124	1.58	1.32-1.78	y	48.7	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.7	37.5-62.5	PCB-176	1.04	0.89-1.21	y	49.5	37.5-62.5
PCB-107/109	1.59	1.32-1.78	y	102.0	75.0-125	PCB-184	1.06	0.89-1.21	y	49.1	37.5-62.5	PCB-178	1.05	0.89-1.21	y	49.3	37.5-62.5
PCB-123	1.59	1.32-1.78	y	50.6	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.7	37.5-62.5	PCB-184	1.06	0.89-1.21	y	49.1	37.5-62.5
PCB-106/118	1.59	1.32-1.78	y	100.2	75.0-125	PCB-176	1.05	0.89-1.21	y	49.8	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.7	37.5-62.5
PCB-114	1.65	1.32-1.78	y	50.6	37.5-62.5	PCB-186	1.05	0.89-1.21	y	49.8	37.5-62.5	PCB-186	1.05	0.89-1.21	y	49.3	37.5-62.5
PCB-122	1.66	1.32-1.78	y	49.6	37.5-62.5	PCB-184	1.06	0.89-1.21	y	49.1	37.5-62.5	PCB-188	1.05	0.89-1.21	y	49.3	37.5-62.5
PCB-105	1.64	1.32-1.78	y	49.4	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.1	37.5-62.5	PCB-184	1.06	0.89-1.21	y	49.1	37.5-62.5
PCB-127	1.67	1.32-1.78	y	47.6	37.5-62.5	PCB-176	1.05	0.89-1.21	y	49.7	37.5-62.5	PCB-178	1.05	0.89-1.21	y	49.4	37.5-62.5
PCB-126	1.63	1.32-1.78	y	49.7	37.5-62.5	PCB-186	1.05	0.89-1.21	y	49.5	37.5-62.5	PCB-179	1.06	0.89-1.21	y	49.7	37.5-62.5
PCB-155	1.27	1.05-1.43	y	49.7	37.5-62.5	PCB-186	1.05	0.89-1.21	y	49.8	37.5-62.5	PCB-186	1.05	0.89-1.21	y	49.8	37.5-62.5
PCB-150	1.29	1.05-1.43	y	50.1	37.5-62.5	PCB-178	1.05	0.89-1.21	y	49.4	37.5-62.5	PCB-178	1.05	0.89-1.21	y	49.4	37.5-62.5
PCB-152	1.30	1.05-1.43	y	49.4	37.5-62.5	PCB-175	1.05	0.89-1.21	y	49.6	37.5-62.5	PCB-175	1.05	0.89-1.21	y	49.6	37.5-62.5
PCB-145	1.28	1.05-1.43	y	49.5	37.5-62.5	PCB-182/187	1.05	0.89-1.21	y	96.9	75.0-125	PCB-182/187	1.05	0.89-1.21	y	96.9	75.0-125
PCB-136	1.29	1.05-1.43	y	49.0	37.5-62.5	PCB-183	1.05	0.89-1.21	y	47.6	37.5-62.5	PCB-183	1.05	0.89-1.21	y	47.6	37.5-62.5
PCB-148	1.30	1.05-1.43	y	49.6	37.5-62.5	PCB-185	1.07	0.89-1.21	y	49.3	37.5-62.5	PCB-185	1.07	0.89-1.21	y	49.3	37.5-62.5
PCB-154	1.28	1.05-1.43	y	48.4	37.5-62.5	PCB-174	1.02	0.89-1.21	y	51.7	37.5-62.5	PCB-174	1.02	0.89-1.21	y	51.7	37.5-62.5
PCB-151	1.29	1.05-1.43	y	47.9	37.5-62.5	PCB-181	1.06	0.89-1.21	y	49.2	37.5-62.5	PCB-181	1.06	0.89-1.21	y	49.2	37.5-62.5
PCB-135	1.26	1.05-1.43	y	48.7	37.5-62.5	PCB-177	1.05	0.89-1.21	y	50.0	37.5-62.5	PCB-177	1.05	0.89-1.21	y	50.0	37.5-62.5
PCB-144	1.30	1.05-1.43	y	46.6	37.5-62.5	PCB-171	1.07	0.89-1.21	y	50.3	37.5-62.5	PCB-171	1.07	0.89-1.21	y	50.3	37.5-62.5
PCB-147	1.30	1.05-1.43	y	48.2	37.5-62.5	PCB-173	1.04	0.89-1.21	y	50.8	37.5-62.5	PCB-173	1.04	0.89-1.21	y	50.8	37.5-62.5
PCB-139/149	1.28	1.05-1.43	y	96.8	75.0-125	PCB-172	1.07	0.89-1.21	y	50.2	37.5-62.5	PCB-172	1.07	0.89-1.21	y	50.2	37.5-62.5

Analyst: *DMS*Date: *6/24/14*

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 1 of

Lab Name: Vista Analytical Laboratory Lab ID: ST140623E2-4 Instrument ID: VG-8

Initial Calibration Date: 6-23-14 ICal ID: PCBVG8-6-23-14 GC Column ID: ZB-1

VER Data Filename: 140623E2 S#4 Analysis Date: 23-JUN-14 Time: 14:53:49

ANALYTES	ION	QC	CONC.		
	ABUND.	LIMITS	CONC.	RANGE	
	RATIO	PASS	FOUND	(ng/mL)	
PCB-192	1.06	0.89-1.21	y	51.0	37.5-62.5
PCB-180	1.05	0.89-1.21	y	50.1	37.5-62.5
PCB-193	1.07	0.89-1.21	y	50.1	37.5-62.5
PCB-191	1.07	0.89-1.21	y	49.6	37.5-62.5
PCB-170	1.05	0.89-1.21	y	50.8	37.5-62.5
PCB-190	1.06	0.89-1.21	y	50.5	37.5-62.5
PCB-189	1.05	0.89-1.21	y	50.0	37.5-62.5
PCB-202	0.94	0.76-1.02	y	49.2	37.5-62.5
PCB-201	0.91	0.76-1.02	y	49.1	37.5-62.5
PCB-204	0.91	0.76-1.02	y	50.1	37.5-62.5
PCB-197	0.91	0.76-1.02	y	49.9	37.5-62.5
PCB-200	0.90	0.76-1.02	y	50.1	37.5-62.5
PCB-198	0.92	0.76-1.02	y	51.1	37.5-62.5
PCB-199	0.91	0.76-1.02	y	47.9	37.5-62.5
PCB-196/203	0.92	0.76-1.02	y	100.1	75.0-125
PCB-195	0.89	0.76-1.02	y	50.7	37.5-62.5
PCB-194	0.92	0.76-1.02	y	49.2	37.5-62.5
PCB-205	0.92	0.76-1.02	y	49.4	37.5-62.5
PCB-208	1.34	1.14-1.54	y	49.7	37.5-62.5
PCB-207	1.32	1.14-1.54	y	49.8	37.5-62.5
PCB-206	1.36	1.14-1.54	y	49.3	37.5-62.5
PCB-209	1.21	0.99-1.33	y	51.1	37.5-62.5

Analyst: DMSDate: 6/24/14

LABLED 1668C CONTINUING CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory

Lab ID: ST140623E2-4

Instrument ID: VG-8

Initial Calibration Date: 6-23-14

ICal ID: PCBVG8-6-23-14

GC Column ID: ZB-1

VER Data Filename: 140623E2 S#4 Analysis Date: 23-JUN-14 Time: 14:53:49

LABLED IS	ION				CONC.		ION				CONC.	
	ABUND.	QC	CONC.	RANGE	LABELD IS	ABUND.	QC	CONC.	RANGE	LABELD IS	RATIO	LIMITS
	RATIO	LIMITS	PASS	FOUND	(ng/mL)	LABELD IS	RATIO	LIMITS	PASS	FOUND	(ng/mL)	
13C-PCB-1	3.37	2.66-3.60	Y	98.7	50.0-145	13C-PCB-169	1.27	1.05-1.43	Y	96.7	50 - 145	
13C-PCB-3	3.41	2.66-3.60	Y	94.8	50.0-145	13C-PCB-188	0.46	0.38-0.52	Y	100.6	50 - 145	
13C-PCB-4	1.58	1.33-1.79	Y	99.7	50.0-145	13C-PCB-180	0.47	0.38-0.52	Y	97.7	50 - 145	
13C-PCB-9	1.59	1.33-1.79	Y	99.2	50.0-145	13C-PCB-170	0.47	0.38-0.52	Y	97.2	50 - 145	
13C-PCB-11	1.57	1.33-1.79	Y	98.2	50.0-145	13C-PCB-189	0.47	0.38-0.52	Y	96.3	50 - 145	
13C-PCB-19	1.07	0.88-1.20	Y	99.8	50.0-145	13C-PCB-202	0.94	0.76-1.02	Y	97.2	50 - 145	
13C-PCB-32	1.09	0.88-1.20	Y	98.2	50.0-145	13C-PCB-194	0.92	0.76-1.02	Y	99.4	50 - 145	
13C-PCB-28	1.06	0.88-1.20	Y	98.7	50.0-145	13C-PCB-208	0.78	0.65-0.89	Y	99.5	50 - 145	
13C-PCB-37	1.07	0.88-1.20	Y	94.4	50.0-145	13C-PCB-206	0.78	0.65-0.89	Y	100.0	50 - 145	
13C-PCB-54	0.81	0.65-0.89	Y	100.9	50.0-145	13C-PCB-209	1.23	0.99-1.33	Y	96.9	50 - 145	
13C-PCB-52	0.80	0.65-0.89	Y	100.5	50.0-145							
13C-PCB-47	0.79	0.65-0.89	Y	100.7	50.0-145							
13C-PCB-70	0.78	0.65-0.89	Y	97.6	50.0-145							
13C-PCB-80	0.80	0.65-0.89	Y	98.0	50.0-145							
13C-PCB-81	0.79	0.65-0.89	Y	96.6	50.0-145							
13C-PCB-77	0.78	0.65-0.89	Y	96.6	50.0-145							
13C-PCB-104	1.57	1.32-1.78	Y	100.0	50.0-145							
13C-PCB-95	1.59	1.32-1.78	Y	99.4	50.0-145							
13C-PCB-101	1.54	1.32-1.78	Y	98.6	50.0-145	CRS vs. RS						
13C-PCB-97	1.59	1.32-1.78	Y	98.2	50.0-145							
13C-PCB-123	1.61	1.32-1.78	Y	96.8	50.0-145	13C-PCB-79	0.79	0.65-0.89	Y	98.3	75 - 125	
13C-PCB-118	1.58	1.32-1.78	Y	95.4	50.0-145	13C-PCB-178	0.46	0.38-0.52	Y	101.1	75 - 125	
13C-PCB-114	1.60	1.32-1.78	Y	98.7	50.0-145							
13C-PCB-105	1.60	1.32-1.78	Y	96.9	50.0-145							
13C-PCB-127	1.57	1.32-1.78	Y	98.2	50.0-145							
13C-PCB-126	1.58	1.32-1.78	Y	99.9	50.0-145							
13C-PCB-155	1.29	1.05-1.43	Y	99.1	50.0-145							
13C-PCB-153	1.29	1.05-1.43	Y	99.7	50.0-145							
13C-PCB-141	1.28	1.05-1.43	Y	100.0	50.0-145							
13C-PCB-138	1.29	1.05-1.43	Y	101.1	50.0-145							
13C-PCB-159	1.27	1.05-1.43	Y	98.0	50.0-145							
13C-PCB-167	1.30	1.05-1.43	Y	98.4	50.0-145							
13C-PCB-156	1.29	1.05-1.43	Y	98.4	50.0-145							
13C-PCB-157	1.29	1.05-1.43	Y	97.7	50.0-145							

Analyst: DMSDate: 8/24/14

Client ID: PCB CS3 14F1302
Lab ID: ST140623E2-4

Filename: 140623E2 S:4 Acq:23-JUN-14 14:53:49 ConCal: NA
GC Column ID: ZB-1 ICal: PCBVCG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

Page 1 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	9.40e+07	3.00	y	1.19	16:25	1.001	0.996-1.006	51.3300	PCB-52/69	1.24e+08	0.76	y	1.28	31:27	1.001	0.996-1.006	99.8332
PCB-2	9.45e+07	3.01	y	1.18	18:41	0.989	0.984-0.994	51.8481	PCB-73	6.71e+07	0.78	y	1.35	31:34	1.005	1.000-1.010	51.0170
PCB-3	1.13e+08	3.01	y	1.43	18:55	1.001	0.996-1.006	51.3028	PCB-43/49	9.43e+07	0.76	y	0.99	31:44	1.010	1.005-1.015	97.5221
PCB-4/10	3.27e+08	1.65	y	1.57	20:14	1.002	0.997-1.007	200.078	PCB-47	5.35e+07	0.76	y	1.06	31:55	1.001	0.996-1.006	49.2976
PCB-7/9	3.82e+08	1.65	y	1.21	21:57	0.870	0.866-0.874	199.310	PCB-48/75	1.20e+08	0.77	y	1.23	32:02	1.004	0.999-1.009	95.5705
PCB-6	2.07e+08	1.66	y	1.30	22:35	0.895	0.890-0.899	100.033	PCB-65	6.30e+07	0.76	y	1.22	32:19	1.013	1.008-1.018	50.1860
PCB-5/8	3.65e+08	1.64	y	1.15	23:00	0.912	0.907-0.917	200.175	PCB-62	5.58e+07	0.76	y	1.22	32:26	1.016	1.011-1.021	44.5973
PCB-14	1.87e+08	1.66	y	1.11	24:04	0.954	0.949-0.959	102.750	PCB-44	4.12e+07	0.77	y	0.86	32:43	1.026	1.021-1.031	46.6811
PCB-11	1.81e+08	1.65	y	1.09	25:14	1.000	0.995-1.005	101.723	PCB-42/59	1.11e+08	0.76	y	1.14	32:57	1.033	1.028-1.038	95.2591
PCB-12/13	3.92e+08	1.65	y	1.19	25:38	1.016	1.011-1.021	200.431	PCB-41/64/71/72	2.33e+08	0.77	y	1.21	33:32	1.051	1.046-1.056	187.913
PCB-15	2.11e+08	1.66	y	1.28	25:56	1.028	1.023-1.033	100.196	PCB-68	6.63e+07	0.76	y	1.35	33:47	1.059	1.054-1.064	47.9757
PCB-19	4.92e+07	1.05	y	1.04	24:15	1.001	0.996-1.006	49.8495	PCB-40	3.48e+07	0.77	y	0.70	34:00	1.066	1.061-1.071	48.4517
PCB-30	7.99e+07	1.06	y	1.71	25:07	1.037	1.032-1.042	49.3635	PCB-57	6.06e+07	0.76	y	0.98	34:22	0.970	0.965-0.975	50.6920
PCB-18	5.58e+07	1.05	y	0.78	25:51	0.954	0.949-0.959	51.2756	PCB-67	6.65e+07	0.76	y	1.11	34:40	0.979	0.974-0.984	49.1755
PCB-17	6.48e+07	1.05	y	0.92	26:02	0.961	0.956-0.966	50.4844	PCB-58	5.67e+07	0.79	y	0.93	34:47	0.982	0.977-0.987	50.1141
PCB-24/27	1.68e+08	1.05	y	1.19	26:36	0.982	0.977-0.987	101.312	PCB-63	5.70e+07	0.76	y	0.95	34:56	0.987	0.982-0.992	48.9977
- PCB-16/32	1.31e+08	1.06	y	0.94	27:06	1.000	0.995-1.005	100.158	PCB-74	7.34e+07	0.77	y	1.24	35:13	0.995	0.990-1.000	48.3011
- PCB-34	7.59e+07	1.03	y	1.14	27:52	0.960	0.955-0.965	47.8540	PCB-61/70	1.16e+08	0.77	y	0.95	35:24	1.000	0.995-1.005	99.8888
PCB-23	8.55e+07	1.06	y	1.28	27:58	0.964	0.959-0.969	47.9079	PCB-76/66	1.26e+08	0.77	y	1.04	35:37	1.006	1.001-1.011	99.0361
PCB-29	7.42e+07	1.04	y	1.08	28:13	0.972	0.967-0.977	49.2142	PCB-80	7.72e+07	0.77	y	1.19	35:50	1.001	0.996-1.006	51.1089
PCB-26	8.24e+07	1.04	y	1.21	28:25	0.979	0.974-0.984	48.9217	PCB-55	6.84e+07	0.77	y	1.04	36:10	1.010	1.005-1.015	51.7926
PCB-25	8.85e+07	1.06	y	1.26	28:34	0.984	0.979-0.989	50.2567	PCB-56/60	1.27e+08	0.77	y	1.01	36:40	1.024	1.019-1.029	98.8614
PCB-31	8.64e+07	1.02	y	1.28	28:56	0.997	0.992-1.002	48.1924	PCB-79	6.79e+07	0.78	y	1.08	37:43	1.053	1.048-1.058	49.6313
PCB-28	1.19e+08	1.04	y	1.71	29:02	1.000	0.995-1.005	49.7990	PCB-78	6.97e+07	0.77	y	1.27	38:25	0.987	0.982-0.992	49.0861
PCB-20/21/33	2.26e+08	1.03	y	1.08	29:39	1.022	1.017-1.027	149.601	PCB-81	7.20e+07	0.78	y	1.33	38:57	1.000	0.995-1.005	48.4278
PCB-22	8.60e+07	1.04	y	1.21	30:05	1.037	1.032-1.042	50.9455	PCB-77	6.19e+07	0.79	y	1.10	39:33	1.000	0.995-1.005	49.2464
PCB-36	7.12e+07	1.03	y	1.14	30:40	0.933	0.928-0.938	51.8469	PCB-104	5.11e+07	1.57	y	1.18	32:35	1.001	0.996-1.006	50.6145
PCB-39	7.20e+07	1.02	y	1.12	31:09	0.948	0.943-0.953	53.6838	PCB-96	4.80e+07	1.56	y	1.14	33:50	1.039	1.034-1.044	49.4868
PCB-38	7.37e+07	1.03	y	1.20	31:55	0.971	0.966-0.976	51.1156	PCB-103	3.98e+07	1.56	y	0.96	34:22	1.055	1.050-1.060	48.8016
PCB-35	7.10e+07	1.03	y	1.23	32:26	0.987	0.982-0.992	47.9376	PCB-100	3.93e+07	1.58	y	0.94	34:42	1.066	1.061-1.071	49.1824
PCB-37	7.16e+07	1.02	y	1.23	32:53	1.000	0.995-1.005	48.3854	PCB-94	3.18e+07	1.55	y	1.06	35:11	0.985	0.980-0.990	48.0705
PCB-54	6.73e+07	0.78	y	1.10	27:57	1.001	0.996-1.006	49.6981	PCB-95/98/102	1.14e+08	1.55	y	1.22	35:42	1.000	0.995-1.005	149.073
PCB-50	5.38e+07	0.77	y	0.88	29:05	1.042	1.037-1.047	49.7280	PCB-93	2.65e+07	1.58	y	0.84	35:48	1.002	0.997-1.007	50.1439
PCB-53	5.23e+07	0.75	y	1.06	29:44	0.947	0.942-0.952	50.5493	PCB-88/91	7.03e+07	1.58	y	1.12	36:05	1.010	1.005-1.015	100.5229
PCB-51	4.77e+07	0.77	y	0.99	30:04	0.957	0.952-0.962	49.5846	PCB-121	5.08e+07	1.60	y	1.62	36:12	1.014	1.009-1.019	50.2163
PCB-45	4.32e+07	0.77	y	0.86	30:30	0.971	0.966-0.976	51.4204	PCB-84/92	6.82e+07	1.56	y	1.05	37:01	0.990	0.985-0.995	99.2072
PCB-46	4.05e+07	0.76	y	0.85	30:59	0.986	0.981-0.991	49.2764	PCB-89	3.73e+07	1.58	y	1.13	37:14	0.996	0.991-1.001	50.2710

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations
by
Analyst: DMS

Date: 6/24/14

Reviewed
by
Analyst: _____

Date: _____

Client ID: PCB CS3 14F1302
Lab ID: ST140623E2-4

Filename: 140623E2 S:4 Acq:23-JUN-14 14:53:49 ConCal: NA
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	7.26e+07	1.56	y	1.10	37:24	1.000	0.995-1.005	100.338	PCB-133/142	6.32e+07	1.24	y	0.82	42:20	0.982	0.977-0.987	97.4225
PCB-113	4.88e+07	1.57	y	1.41	37:39	1.007	1.002-1.012	52.6770	PCB-131	3.53e+07	1.23	y	0.91	42:30	0.986	0.981-0.991	49.1208
PCB-99	4.19e+07	1.60	y	1.34	37:44	1.009	1.004-1.014	47.7406	PCB-146/165	9.72e+07	1.25	y	1.25	42:43	0.991	0.986-0.996	98.5088
PCB-119	4.49e+07	1.56	y	1.53	38:12	0.987	0.982-0.992	49.7646	PCB-132/161	8.58e+07	1.31	y	1.10	42:58	0.997	0.992-1.002	98.0024
PCB-108/112	7.56e+07	1.58	y	1.28	38:21	0.991	0.986-0.996	100.241	PCB-153	4.86e+07	1.16	y	1.25	43:08	1.000	0.995-1.005	49.1545
PCB-83	4.40e+07	1.57	y	1.52	38:31	0.995	0.990-1.000	49.2175	PCB-168	5.75e+07	1.25	y	1.45	43:21	1.006	1.001-1.011	50.0689
PCB-97	3.44e+07	1.55	y	1.18	38:42	1.000	0.995-1.005	49.3584	PCB-141	3.94e+07	1.24	y	1.09	43:52	1.000	0.995-1.005	48.7397
PCB-86	2.35e+07	1.55	y	0.84	38:51	1.004	0.999-1.009	47.2868	PCB-137	3.90e+07	1.23	y	1.06	44:15	1.009	1.004-1.014	49.2894
B-87/117/125	1.40e+08	1.62	y	1.55	38:58	1.007	1.002-1.012	153.661	PCB-130	3.61e+07	1.23	y	0.96	44:21	1.011	1.006-1.016	50.1859
PCB-111/115	9.49e+07	1.51	y	1.63	39:08	1.011	1.006-1.016	98.7316	PCB-138/163/164	1.47e+08	1.24	y	1.29	44:44	1.001	0.996-1.006	147.764
PCB-85/116	7.71e+07	1.58	y	1.30	39:16	1.015	1.010-1.020	100.601	PCB-158/160	1.03e+08	1.23	y	1.34	44:59	1.006	1.001-1.011	99.9483
PCB-120	4.81e+07	1.59	y	1.68	39:30	1.021	1.016-1.026	48.6800	PCB-129	3.23e+07	1.24	y	0.85	45:13	1.012	1.007-1.017	49.1140
PCB-110	4.58e+07	1.57	y	1.56	39:39	1.025	1.020-1.030	50.0059	PCB-166	4.98e+07	1.24	y	1.19	45:41	0.993	0.988-0.998	49.5492
PCB-82	2.78e+07	1.55	y	0.76	40:17	0.976	0.971-0.981	49.7616	PCB-159	4.70e+07	1.23	y	1.11	46:01	1.001	0.996-1.006	49.8539
PCB-124	5.28e+07	1.58	y	1.47	40:57	0.993	0.988-0.998	48.7175	PCB-128/162	8.65e+07	1.23	y	1.05	46:18	1.007	1.002-1.012	97.4214
PCB-107/109	9.93e+07	1.59	y	1.32	41:05	0.996	0.991-1.001	102.042	PCB-167	5.55e+07	1.22	y	1.20	46:41	1.000	0.995-1.005	50.1954
PCB-123	4.35e+07	1.59	y	1.17	41:17	1.001	0.996-1.006	50.5524	PCB-156	5.05e+07	1.25	y	1.14	48:00	1.001	0.996-1.006	50.3349
- PCB-106/118	9.15e+07	1.59	y	1.17	41:28	1.001	0.996-1.006	100.161	PCB-157	5.18e+07	1.24	y	1.16	48:16	1.000	0.995-1.005	48.3867
- PCB-114	6.12e+07	1.65	y	1.30	42:07	1.000	0.995-1.005	50.6258	PCB-169	4.66e+07	1.27	y	1.12	50:20	1.000	0.995-1.005	48.3941
PCB-122	5.19e+07	1.66	y	1.12	42:15	1.004	0.999-1.009	49.6469	PCB-188	4.99e+07	1.05	y	1.58	42:46	1.001	0.996-1.006	49.3061
PCB-105	5.88e+07	1.64	y	1.30	42:59	1.000	0.995-1.005	49.4039	PCB-184	5.13e+07	1.06	y	1.63	43:13	1.011	1.006-1.016	49.1029
PCB-127	6.36e+07	1.67	y	1.33	43:19	1.001	0.996-1.006	47.5787	PCB-179	4.15e+07	1.06	y	1.30	44:00	1.029	1.024-1.034	49.7059
PCB-126	5.32e+07	1.63	y	1.18	45:13	1.000	0.995-1.005	49.7195	PCB-176	4.68e+07	1.04	y	1.48	44:28	1.040	1.035-1.045	49.4886
PCB-155	3.92e+07	1.27	y	1.11	36:57	1.001	0.966-1.006	49.6608	PCB-186	4.64e+07	1.05	y	1.45	45:05	1.055	1.050-1.060	49.8177
PCB-150	3.54e+07	1.29	y	1.00	38:13	1.035	1.030-1.040	50.0537	PCB-178	3.27e+07	1.05	y	1.03	45:34	1.066	1.061-1.071	49.3595
PCB-152	3.90e+07	1.30	y	1.12	38:42	1.048	1.043-1.053	49.3510	PCB-175	3.22e+07	1.05	y	1.01	45:55	1.074	1.069-1.079	49.6213
PCB-145	4.21e+07	1.28	y	1.20	39:08	1.060	1.055-1.065	49.5203	PCB-182/187	7.77e+07	1.05	y	1.25	46:05	1.078	1.073-1.083	96.9439
PCB-136	4.09e+07	1.29	y	1.18	39:28	1.069	1.064-1.074	48.9891	PCB-183	3.68e+07	1.05	y	1.21	46:24	1.086	1.081-1.091	47.6012
PCB-148	2.62e+07	1.30	y	0.74	39:33	1.071	1.066-1.076	49.6483	PCB-185	4.12e+07	1.07	y	1.80	47:04	0.956	0.951-0.961	49.3457
PCB-154	2.94e+07	1.28	y	0.86	40:03	1.085	1.080-1.090	48.3589	PCB-174	3.30e+07	1.02	y	1.38	47:26	0.963	0.958-0.968	51.6599
PCB-151	2.53e+07	1.29	y	0.75	40:42	1.102	1.097-1.107	47.8747	PCB-181	3.14e+07	1.06	y	1.38	47:33	0.965	0.960-0.970	49.1713
PCB-135	2.73e+07	1.26	y	0.79	40:55	1.108	1.103-1.113	48.6888	PCB-177	2.91e+07	1.05	y	1.26	47:42	0.968	0.963-0.973	50.0451
PCB-144	2.52e+07	1.30	y	0.76	41:02	1.111	1.105-1.117	46.6300	PCB-171	3.69e+07	1.07	y	1.58	48:00	0.975	0.970-0.980	50.3499
PCB-147	2.80e+07	1.30	y	0.82	41:09	1.115	1.109-1.121	48.1949	PCB-173	2.61e+07	1.04	y	1.11	48:26	0.983	0.978-0.988	50.8218
PCB-139/149	5.22e+07	1.28	y	0.76	41:25	1.122	1.116-1.128	96.7904	PCB-172	3.80e+07	1.07	y	1.63	48:53	0.992	0.987-0.997	50.2115
- PCB-140	2.47e+07	1.27	y	0.72	41:36	1.127	1.121-1.133	48.2707	PCB-192	4.11e+07	1.06	y	1.74	49:04	0.996	0.991-1.001	51.0155
- PCB-134/143	7.05e+07	1.25	y	0.92	42:02	0.975	0.970-0.980	97.1084	PCB-180	3.12e+07	1.05	y	1.34	49:17	1.000	0.995-1.005	50.1142

Integrations

by

Analyst: DMS

Date: 6/24/14

Client ID: PCB CS3 14F1302
Lab ID: ST140623E2-4

Filename: 140623E2 S:4 Acq:23-JUN-14 14:53:49
GC Column ID: ZB-1 ICal: PCVG8-6-23-14 wt/vol: 1.00000 EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	3.98e+07	1.07	y	1.72	49:27	1.004	0.999-1.009	50.0826
PCB-191	3.90e+07	1.07	y	1.69	49:42	1.009	1.004-1.014	49.6416
PCB-170	2.97e+07	1.05	y	1.60	50:41	1.000	0.995-1.005	50.7863
PCB-190	4.08e+07	1.06	y	2.21	50:51	1.003	0.998-1.008	50.4671
PCB-189	3.71e+07	1.05	y	1.55	52:08	1.000	0.995-1.005	50.0142
PCB-202	3.01e+07	0.94	y	1.08	48:12	1.000	0.995-1.005	49.1569
PCB-201	3.19e+07	0.91	y	1.15	48:41	1.010	1.005-1.015	49.1361
PCB-204	3.22e+07	0.91	y	1.14	48:50	1.014	1.008-1.018	50.0554
PCB-197	3.03e+07	0.91	y	1.07	49:09	1.020	1.015-1.025	49.8625
PCB-200	3.01e+07	0.90	y	1.06	49:59	1.037	1.032-1.044	50.0631
PCB-198	2.18e+07	0.92	y	0.76	51:15	1.064	1.059-1.069	51.1487
PCB-199	2.16e+07	0.91	y	0.80	51:21	1.066	1.061-1.071	47.8578
- PCB-196/203	4.53e+07	0.92	y	0.80	51:37	1.071	1.066-1.076	100.108
- PCB-195	3.20e+07	0.89	y	1.23	52:45	0.984	0.979-0.989	50.6536
PCB-194	3.08e+07	0.92	y	1.21	53:37	1.000	0.995-1.005	49.2456
PCB-205	3.93e+07	0.92	y	1.54	53:55	1.006	1.001-1.011	49.3837
PCB-208	3.24e+07	1.34	y	0.93	52:53	1.000	0.995-1.005	49.6730
PCB-207	3.78e+07	1.32	y	1.08	53:12	1.006	1.001-1.011	49.8284
PCB-206	2.13e+07	1.36	y	1.02	55:20	1.000	0.995-1.005	49.3149
PCB-209	2.30e+07	1.21	y	1.17	56:38	1.000	0.995-1.005	51.1001

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	3.01e+08	3.00	y	16:25	1.27	154.481
Total Di-PCB	2.26e+09	1.65	y	20:14	1.21	1208.89
Total Tri-PCB	5.48e+08	1.05	y	24:15	1.10	402.442
Total Tetra-PCB	1.30e+09	1.03	y	27:52	1.21	807.063
Total Penta-PCB	2.49e+09	0.78	y	27:57	1.09	2080.43
Total Hexa-PCB	1.69e+09	1.57	y	32:35	1.18	2047.61
Total Hepta-PCB	3.13e+08	1.65	y	42:07	1.25	268.155
Total Octa-PCB	4.35e+08	1.27	y	36:57	0.90	682.032
Total Nona-PCB	1.26e+09	1.25	y	42:02	1.11	1398.33
Total Deca-PCB	9.18e+08	1.05	y	42:46	1.42	1205.33
Total Octa-PCB	2.43e+08	0.94	y	48:12	0.96	447.388
Total Nona-PCB	1.04e+08	0.89	y	52:45	1.33	151.653
Total Deca-PCB	2.30e+07	1.21	y	56:38	1.17	51.1001
Total PCB Conc:	10960.1670500					

Integrations
by
Analyst: DMS
Date: 6/24/14

Client ID: PCB CS3 14F1302
Lab ID: ST140623E2-4

Filename: 140623E2 S:4 Acq:23-JUN-14 14:53:49
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.000 ConCal: NA
EndCAL: NA

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Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec		
13C-PCB-1	1.53e+08	3.37	y	0.87	16:24	0.632	0.629-0.635	98.7	98.7	13C-PCB-79	1.25e+08	0.79	y	1.02	37:42	1.028	1.023-1.034	98.3	98.3				
13C-PCB-3	1.54e+08	3.41	y	0.91	18:54	0.729	0.725-0.733	94.8	94.8	13C-PCB-178	4.30e+07	0.46	y	0.61	45:33	0.984	0.979-0.990	101	101				
13C-PCB-4	1.04e+08	1.58	y	0.59	20:11	0.779	0.775-0.783	99.7	99.7	13C-PCB-11	1.64e+08	0.973	0.968-0.978	98.2	98.2	PS vs. IS	1.028	1.023-1.034	98.3	98.3			
13C-PCB-9	1.59e+08	1.59	y	0.90	21:55	0.846	0.842-0.850	99.2	99.2	13C-PCB-19	9.46e+07	0.53	24:14	0.935	0.930-0.940	99.8	99.8	1.028	1.023-1.034	98.3	98.3		
13C-PCB-11	1.64e+08	1.57	y	0.94	25:13	0.973	0.968-0.978	98.2	98.2	13C-PCB-28	1.40e+08	1.06	y	0.93	29:01	1.004	0.999-1.009	98.7	98.7	1.028	1.023-1.034	98.3	98.3
13C-PCB-19	9.46e+07	1.07	y	0.53	24:14	0.935	0.930-0.940	99.8	99.8	13C-PCB-32	1.39e+08	1.09	y	0.80	27:06	1.045	1.040-1.050	98.2	98.2	1.028	1.023-1.034	98.3	98.3
13C-PCB-28	1.40e+08	1.06	y	0.93	29:01	1.004	0.999-1.009	98.7	98.7	13C-PCB-37	1.20e+08	1.07	y	0.84	32:52	1.137	1.131-1.143	94.4	94.4	1.028	1.023-1.034	98.3	98.3
13C-PCB-32	1.39e+08	1.09	y	0.80	27:06	1.045	1.040-1.050	98.2	98.2	13C-PCB-47	1.02e+08	0.79	y	0.81	31:54	0.870	0.866-0.874	101	101	1.028	1.023-1.034	98.3	98.3
13C-PCB-37	1.20e+08	1.07	y	0.84	32:52	1.137	1.131-1.143	94.4	94.4	13C-PCB-52	9.72e+07	0.80	y	0.77	31:24	0.857	0.853-0.861	101	101	1.028	1.023-1.034	98.3	98.3
13C-PCB-47	1.02e+08	0.79	y	0.81	31:54	0.870	0.866-0.874	101	101	13C-PCB-54	1.23e+08	0.81	y	0.97	27:55	0.762	0.758-0.766	101	101	1.028	1.023-1.034	98.3	98.3
13C-PCB-52	9.72e+07	0.80	y	0.77	31:24	0.857	0.853-0.861	101	101	13C-PCB-70	1.22e+08	0.78	y	1.00	35:25	0.966	0.961-0.971	97.6	97.6	1.028	1.023-1.034	98.3	98.3
13C-PCB-54	1.23e+08	0.81	y	0.97	27:55	0.762	0.758-0.766	101	101	13C-PCB-77	1.14e+08	0.78	y	0.94	39:32	1.078	1.073-1.083	96.6	96.6	1.028	1.023-1.034	98.3	98.3
13C-PCB-70	1.22e+08	0.78	y	1.00	35:25	0.966	0.961-0.971	97.6	97.6	13C-PCB-80	1.27e+08	0.80	y	1.03	35:49	0.977	0.972-0.982	98.0	98.0	1.028	1.023-1.034	98.3	98.3
13C-PCB-77	1.14e+08	0.78	y	0.94	39:32	1.078	1.073-1.083	96.6	96.6	13C-PCB-80	1.27e+08	0.80	y	1.03	35:49	0.977	0.972-0.982	98.0	98.0	1.028	1.023-1.034	98.3	98.3
13C-PCB-80	1.27e+08	0.80	y	1.03	35:49	0.977	0.972-0.982	98.0	98.0	13C-PCB-81	1.12e+08	0.79	y	0.92	38:56	1.062	1.057-1.067	96.6	96.6	1.028	1.023-1.034	98.3	98.3
13C-PCB-81	1.12e+08	0.79	y	0.92	38:56	1.062	1.057-1.067	96.6	96.6	13C-PCB-95	6.27e+07	1.59	y	0.74	35:43	0.913	0.908-0.918	99.4	99.4	1.028	1.023-1.034	98.3	98.3
13C-PCB-95	6.27e+07	1.59	y	0.74	35:43	0.913	0.908-0.918	99.4	99.4	13C-PCB-97	5.89e+07	1.59	y	0.70	38:42	0.989	0.984-0.994	98.2	98.2	1.028	1.023-1.034	98.3	98.3
13C-PCB-97	5.89e+07	1.59	y	0.70	38:42	0.989	0.984-0.994	98.2	98.2	13C-PCB-101	6.57e+07	1.54	y	0.78	37:23	0.956	0.951-0.961	98.6	98.6	1.028	1.023-1.034	98.3	98.3
13C-PCB-101	6.57e+07	1.54	y	0.78	37:23	0.956	0.951-0.961	98.6	98.6	13C-PCB-104	8.52e+07	1.57	y	1.00	32:34	0.832	0.828-0.836	100.0	100.0	1.028	1.023-1.034	98.3	98.3
13C-PCB-104	8.52e+07	1.57	y	1.00	32:34	0.832	0.828-0.836	100.0	100.0	13C-PCB-105	9.17e+07	1.60	y	1.37	42:58	0.929	0.924-0.934	96.9	96.9	1.028	1.023-1.034	98.3	98.3
13C-PCB-105	9.17e+07	1.60	y	1.37	42:58	0.929	0.924-0.934	96.9	96.9	13C-PCB-114	9.33e+07	1.60	y	1.36	42:06	0.910	0.905-0.915	98.7	98.7	1.028	1.023-1.034	98.3	98.3
13C-PCB-114	9.33e+07	1.60	y	1.36	42:06	0.910	0.905-0.915	98.7	98.7	13C-PCB-118	7.79e+07	1.58	y	0.96	41:26	1.059	1.054-1.064	95.4	95.4	1.028	1.023-1.034	98.3	98.3
13C-PCB-118	7.79e+07	1.58	y	0.96	41:26	1.059	1.054-1.064	95.4	95.4	13C-PCB-123	7.37e+07	1.61	y	0.89	41:15	1.055	1.050-1.060	96.8	96.8	1.028	1.023-1.034	98.3	98.3
13C-PCB-123	7.37e+07	1.61	y	0.89	41:15	1.055	1.050-1.060	96.8	96.8	13C-PCB-126	9.05e+07	1.58	y	1.31	45:12	0.977	0.972-0.982	99.9	99.9	1.028	1.023-1.034	98.3	98.3
13C-PCB-126	9.05e+07	1.58	y	1.31	45:12	0.977	0.972-0.982	99.9	99.9	13C-PCB-127	1.00e+08	1.57	y	1.47	43:17	0.936	0.931-0.941	98.2	98.2	1.028	1.023-1.034	98.3	98.3
13C-PCB-127	1.00e+08	1.57	y	1.47	43:17	0.936	0.931-0.941	98.2	98.2	13C-PCB-138	7.71e+07	1.29	y	1.10	44:42	0.966	0.961-0.971	101	101	1.028	1.023-1.034	98.3	98.3
13C-PCB-138	7.71e+07	1.29	y	1.10	44:42	0.966	0.961-0.971	101	101	13C-PCB-141	7.45e+07	1.28	y	1.07	43:51	0.948	0.943-0.953	100.0	100.0	1.028	1.023-1.034	98.3	98.3
13C-PCB-141	7.45e+07	1.28	y	1.07	43:51	0.948	0.943-0.953	100.0	100.0	13C-PCB-153	7.92e+07	1.29	y	1.15	43:07	0.932	0.927-0.937	99.7	99.7	1.028	1.023-1.034	98.3	98.3
13C-PCB-153	7.92e+07	1.29	y	1.15	43:07	0.932	0.927-0.937	99.7	99.7	13C-PCB-155	7.08e+07	1.29	y	0.84	36:55	0.944	0.939-0.949	99.1	99.1	1.028	1.023-1.034	98.3	98.3
13C-PCB-155	7.08e+07	1.29	y	0.84	36:55	0.944	0.939-0.949	99.1	99.1	13C-PCB-156	8.85e+07	1.29	y	1.30	47:58	1.037	1.032-1.042	98.4	98.4	1.028	1.023-1.034	98.3	98.3
13C-PCB-156	8.85e+07	1.29	y	1.30	47:58	1.037	1.032-1.042	98.4	98.4	13C-PCB-157	9.20e+07	1.29	y	1.36	48:15	1.043	1.038-1.048	97.7	97.7	1.028	1.023-1.034	98.3	98.3
13C-PCB-157	9.20e+07	1.29	y	1.36	48:15	1.043	1.038-1.048	97.7	97.7	13C-PCB-159	8.48e+07	1.27	y	1.25	45:59	0.994	0.989-0.999	98.0	98.0	1.028	1.023-1.034	98.3	98.3
13C-PCB-159	8.48e+07	1.27	y	1.25	45:59	0.994	0.989-0.999	98.0	98.0	13C-PCB-167	9.22e+07	1.30	y	1.35	46:40	1.009	1.004-1.014	98.4	98.4	1.028	1.023-1.034	98.3	98.3
13C-PCB-167	9.22e+07	1.30	y	1.35	46:40	1.009	1.004-1.014	98.4	98.4	13C-PCB-169	8.62e+07	1.27	y	1.29	50:19	1.088	1.083-1.093	96.7	96.7	1.028	1.023-1.034	98.3	98.3
13C-PCB-169	8.62e+07	1.27	y	1.29	50:19	1.088	1.083-1.093	96.7	96.7	13C-PCB-170	3.66e+07	0.47	y	0.54	50:40	1.095	1.089-1.101	97.2	97.2	1.028	1.023-1.034	98.3	98.3
13C-PCB-170	3.66e+07	0.47	y	0.54	50:40	1.095	1.089-1.101	97.2	97.2	13C-PCB-180	4.63e+07	0.47	y	0.68	49:15	1.065	1.060-1.070	97.7	97.7	1.028	1.023-1.034	98.3	98.3
13C-PCB-180	4.63e+07	0.47	y	0.68	49:15	1.065	1.060-1.070	97.7	97.7	13C-PCB-188	6.40e+07	0.46	y	0.92	42:45	0.924	0.919-0.929	101	101	1.028	1.023-1.034	98.3	98.3
13C-PCB-188	6.40e+07	0.46	y	0.92	42:45	0.924	0.919-0.929	101	101	13C-PCB-189	4.78e+07	0.47	y	0.72	52:07	1.126	1.120-1.132	96.3	96.3	1.028	1.023-1.034	98.3	98.3
13C-PCB-189	4.78e+07	0.47	y	0.72	52:07	1.126	1.120-1.132	96.3	96.3	13C-PCB-194	5.16e+07	0.92	y	0.80	53:36	0.995	0.990-1.000	99.4	99.4	1.028	1.023-1.034	98.3	98.3
13C-PCB-194	5.16e+07	0.92	y	0.80	53:36	0.995	0.990-1.000	99.4	99.4	13C-PCB-202	5.65e+07	0.94	y	0.84	48:11	1.041	1.036-1.046	97.2	97.2	1.028	1.023-1.034	98.3	98.3
13C-PCB-202	5.65e+07	0.94	y	0.84	48:11	1.041	1.036-1.046	97.2	97.2	13C-PCB-206	4.23e+07	0.78	y	0.65	55:19	1.026	1.021-1.031	100.0	100.0	1.028	1.023-1.034	98.3	98.3
13C-PCB-206	4.23e+07	0.78	y	0.65	55:19	1.026	1.021-1.031	100.0	100.0	13C-PCB-208	7.00e+07	0.78	y	1.08	52:53	0.981	0.976-0.986	99.5	99.5	1.028	1.023-1.034	98.3	98.3

Vista Analytical Laboratory - Injection Log Run file: 140623E2 Instrument ID: VG-8 GC Column ID: ZB-1

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
140623E2	1	ST140623E2-1	DMS	23-JUN-14	11:41:57	NA	NA
140623E2	2	ST140623E2-2	DMS	23-JUN-14	12:45:53	NA	NA
140623E2	3	ST140623E2-3	DMS	23-JUN-14	13:49:52	NA	NA
140623E2	4	ST140623E2-4	DMS	23-JUN-14	14:53:49	NA	NA
140623E2	5	ST140623E2-5	DMS	23-JUN-14	15:57:45	NA	NA
140623E2	6	ST140623E2-6	DMS	23-JUN-14	17:01:39	NA	NA
140623E2	7	SOLVENT BLANK	DMS	23-JUN-14	18:05:37	NA	NA
140623E2	8	ST140623E2-7	DMS	23-JUN-14	19:09:28	NA	NA
140623E2	9	B4F0051-BS1	DMS	23-JUN-14	20:13:23	ST140623E2-4	NA
140623E2	10	SOLVENT BLANK	DMS	23-JUN-14	21:17:15	NA	NA
140623E2	11	B4F0051-BLK1	DMS	23-JUN-14	22:21:11	ST140623E2-4	NA
140623E2	12	1400418-01 1:10	DMS	23-JUN-14	23:25:05	ST140623E2-4	NA
140623E2	13	1400418-02 1:10	DMS	24-JUN-14	00:29:00	ST140623E2-4	NA
140623E2	14	1400418-03 1:10	DMS	24-JUN-14	01:32:54	ST140623E2-4	NA
140623E2	15	SOLVENT BLANK	DMS	24-JUN-14	02:36:47	NA	NA

Attachment M-5

Split Sample Results

From: Matt Carey [<mailto:mattc@machinistsinc.com>]
Sent: Friday, May 08, 2015 10:02 AM
To: Alam, Mahbub (ECY); Nisquallyenv@aol.com
Cc: Wright, Robert (ECY)
Subject: RE: FW: Puget Sound Coating data

Alam-

Sorry about my delayed response. I've been a bit swamped after taking a few days of vacation, followed by a 3 day training course. I am writing this to verify that our split sample was in my possession from a few minutes after the COC was signed by Shawn Mellot (another PSC employee who was helping monitor the sampling by Test America) until I personally delivered the samples (which were on ice in a cooler) to our lab. Shawn signed the COC when Test America was done, and then he brought the samples to me for transport to the lab.

I hope this clears up any questions about the COC and allows you to use our split sample results.

Thank you,
Matt

Matt Carey
mattc@machinistsinc.com
206-763-0990 Office
206-763-8709 Fax
206-265-1029 Cell

From: Alam, Mahbub (ECY) [<mailto:MALA461@ECY.WA.GOV>]
Sent: Thursday, April 30, 2015 2:27 PM
To: Nisquallyenv@aol.com
Cc: Matt Carey; Wright, Robert (ECY)
Subject: RE: FW: Puget Sound Coating data

Thank you, John.

I think a simple signed letter explaining this would help so that I can attach the letter to your lab report and ultimately to our final report. Otherwise, I cannot include PSC's split results in the final report. Also, the split results will be qualified as "unvalidated" in the report because I believe you have not done any third party data validation service. If you did, please let me know.

Sincerely,

Mahbub Alam, PhD, PE
Source Control and Stormwater Engineer
425-649-7202; mahbub.alam@ecy.wa.gov

From: Nisquallyenv@aol.com [mailto:Nisquallyenv@aol.com]
Sent: Thursday, April 30, 2015 1:56 PM
To: Alam, Mahbub (ECY)
Cc: mattc@machinistsinc.com
Subject: Re: FW: Puget Sound Coating data

Mahbub,

I see what you mean, your contractor had one of the folks present sign the COC from Test America (Shawn), then the samples were handed to Matt and we took the samples to Spectra Labs. Therefore the chain is broken in the sense that there is not a signature from Shawn to Matt (though both were present during the transfer).

I don't know what else to do about this, other than acknowledge that it occurred.

As for mistakenly done or left out, the client was unaware of the specific requirements of the COC. I am sure, if there is a need that benefits my client, we can send you a paragraph stating the samples were in possession of Matt from the site to the lab.

John

In a message dated 4/30/2015 1:40:09 P.M. Pacific Daylight Time, MALA461@ECY.WA.GOV writes:

John,

I know you were present at the time of sampling. I am not disputing that.

Please open the first file attachment (chain of custody) that I sent in my previous email. That COC clearly shows sample was relinquished by Shawn Mellott (spelling may be wrong). This part of the COC should be present in your lab report. Also, Spectra COC says Matt Carey's name. The paper trail shows inconsistency. If this is something that was mistakenly done or left out, I would need written explanation and also I would contact the lab to make this straight.

Thanks for your help.

Mahbub Alam, PhD, PE
Source Control and Stormwater Engineer
425-649-7202; mahbub.alam@ecy.wa.gov

From: Nisquallyenv@aol.com [mailto:Nisquallyenv@aol.com]
Sent: Thursday, April 30, 2015 12:44 PM
To: Alam, Mahbub (ECY)
Subject: Re: FW: Puget Sound Coating data

As you know, we were present the entire sampling event. There is no COC from your contractor transferring ownership, we obtained the splits on site and took them to the lab ourselves.

John

In a message dated 4/30/2015 12:37:30 P.M. Pacific Daylight Time, MALA461@ECY.WA.GOV writes:

Good Morning, John:

While looking into Puget Sound Coating split sampling data, I could not find the original chain of custody (COC) prepared by our contractor (Leidos). I only see a COC from PSC to Spectra. it appears that the chain of custody is broken.

Can you explain this?

Please see attached the original COC prepared by Leidos and signed by PSC.

I am also attaching the preliminary lab reports (unvalidated) so that you can find explanation of symbols and QC data. The reason we didn't share these earlier:

1. These are unvalidated preliminary data and we are doing third party data validation
2. These would be included in the final report as an attachment, so the facility will have a chance to see that as part of the bigger package
3. If shared now, these might create confusion among the parties (validated vs. unvalidated)

Hope this answers many of your questions.

Thank you,

Mahbub Alam, PhD, PE
Source Control and Stormwater Engineer
425-649-7202; mahbub.alam@ecy.wa.gov

From: Alam, Mahbub (ECY)
Sent: Wednesday, April 29, 2015 7:31 AM
To: 'Nisquallyenv@aol.com'; Wright, Robert (ECY)
Cc: mattc@machinistsinc.com
Subject: RE: FW: Puget Sound Coating data

John:

Thank you for sending the split sampling results. We are intending to include your lab results in our report as an attachment to the facility appendix. However, this will be qualified as "unvalidated data" since I believe this data has not gone through any third party data validation process. If you have done any such services, please let me know.



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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

P.O.#: 61409
Project: City Split Samples
Client ID: PS-TS-01 20140909-W
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 1

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
Antimony	1.5	µg/L	EPA 200.8	1,2-Dichlorobenzene	<2.50	µg/L	SW846 8270D
Arsenic	< 0.5	µg/L	EPA 200.8	1,3-Dichlorobenzene	<2.50	µg/L	SW846 8270D
Beryllium	< 0.5	µg/L	EPA 200.8	1,4-Dichlorobenzene	<2.50	µg/L	SW846 8270D
Cadmium	< 0.5	µg/L	EPA 200.8	1-Methylnaphthalene	<0.100	µg/L	SW846 8270D
Chromium	2.0	µg/L	EPA 200.8	2,3,4,5-Tetrachlorophenol	<2.50	µg/L	SW846 8270D
Copper	13.1	µg/L	EPA 200.8	2,3,4,6-Tetrachlorophenol	<2.50	µg/L	SW846 8270D
Lead	0.8	µg/L	EPA 200.8	2,4,5-Trichlorophenol	<2.50	µg/L	SW846 8270D
Nickel	3.0	µg/L	EPA 200.8	2,4,6-Trichlorophenol	<2.50	µg/L	SW846 8270D
Selenium	< 0.5	µg/L	EPA 200.8	2,4-Dichlorophenol	<2.50	µg/L	SW846 8270D
Silver	< 0.5	µg/L	EPA 200.8	2,4-Dimethylphenol	<2.50	µg/L	SW846 8270D
Thallium	< 0.5	µg/L	EPA 200.8	2,4-Dinitrophenol	<10	µg/L	SW846 8270D
Zinc	3250	µg/L	EPA 200.8	2,4-Dinitrotoluene	<2.50	µg/L	SW846 8270D
Mercury	<0.2	µg/L	EPA 245.1	2,6-Dinitrotoluene	<2.50	µg/L	SW846 8270D
Nitrate	1.0	mg/L-N	Easy1-Reagent	2-Chloronaphthalene	<2.50	µg/L	SW846 8270D
Chloride	4.0	mg/L	SM 4500 CL-C	2-Chlorophenol	<2.50	µg/L	SW846 8270D
Sulfate	10	mg/L	SM 4500-SO4 E	2-Methylnaphthalene	<0.100	µg/L	SW846 8270D
Hexavalent Chromium	<0.01	mg/L	SM3500-CR-D	2-Methylphenol	<2.50	µg/L	SW846 8270D
PCB	<0.03	µg/L	SW846 8082A	2-Nitroaniline	<2.50	µg/L	SW846 8270D
1,2,4-Trichlorobenzene	<2.50	µg/L	SW846 8270D	2-Nitrophenol	<2.50	µg/L	SW846 8270D

Surrogate	Recovery	Method
Decachlorobiphenyl	68	SW846 8082A
Nitrobenzene-d6	92	SW846 8270D
p-Terphenyl-d14	102	SW846 8270D
2-Fluorobiphenyl	74	SW846 8270D
Phenol-d6	67	SW846 8270D
2-Fluorophenol	65	SW846 8270D
2,4,6-Tribromophenol	<2.50	SW846 8270D

Surrogate	Recovery	Method
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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

P.O.#: 61409
Project: City Split Samples
Client ID: PS-TS-01 20140909-W
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 1

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
3,3-Dichlorobenzidine	<20	µg/L	SW846 8270D	Benzo(ghi)Perylene	<0.100	µg/L	SW846 8270D
3-Nitroaniline	<2.50	µg/L	SW846 8270D	Benzo(k)Fluoranthene	<0.100	µg/L	SW846 8270D
4,6-Dinitro-2-Methylphenol	<10	µg/L	SW846 8270D	Benzoic Acid	<10	µg/L	SW846 8270D
4-Bromophenyl-phenylether	<2.50	µg/L	SW846 8270D	Benzyl Alcohol	<2.50	µg/L	SW846 8270D
4-Chloro-3-Methylphenol	<2.50	µg/L	SW846 8270D	Biphenyl	<2.50	µg/L	SW846 8270D
4-Chloroaniline	<2.50	µg/L	SW846 8270D	Bis(2-Chloroethyl)Ether	<2.50	µg/L	SW846 8270D
4-Chlorophenyl-phenylether	<2.50	µg/L	SW846 8270D	Butylbenzyl phthalate	<2.50	µg/L	SW846 8270D
4-Methylphenol	<2.50	µg/L	SW846 8270D	Carbazole	<2.50	µg/L	SW846 8270D
4-Nitroaniline	<2.50	µg/L	SW846 8270D	Chrysene	<0.100	µg/L	SW846 8270D
4-Nitrophenol	<2.50	µg/L	SW846 8270D	Di-n-Butylphthalate	<2.50	µg/L	SW846 8270D
Acenaphthene	<0.100	µg/L	SW846 8270D	Di-n-Octyl Phthalate	<2.50	µg/L	SW846 8270D
Acenaphthylene	<0.100	µg/L	SW846 8270D	Dibenzo(a,h)Anthracene	<0.100	µg/L	SW846 8270D
Aniline	<10	µg/L	SW846 8270D	Dibenzofuran	<2.50	µg/L	SW846 8270D
Anthracene	<0.100	µg/L	SW846 8270D	Dibenzothiophene	<2.50	µg/L	SW846 8270D
Azobenzene	<2.50	µg/L	SW846 8270D	Diethylphthalate	<2.50	µg/L	SW846 8270D
Benzidine	<20	µg/L	SW846 8270D	Dimethyl Phthalate	<2.50	µg/L	SW846 8270D
Benzo(a)Anthracene	<0.100	µg/L	SW846 8270D	Fluoranthene	<0.100	µg/L	SW846 8270D
Benzo(a)Pyrene	<0.100	µg/L	SW846 8270D	Fluorene	<0.100	µg/L	SW846 8270D
Benzo(b)Fluoranthene	<0.100	µg/L	SW846 8270D	Hexachlorobenzene	<2.50	µg/L	SW846 8270D

Surrogate	Recovery	Method
Decachlorobiphenyl	68	SW846 8082A
Nitrobenzene-d6	92	SW846 8270D
p-Terphenyl-d14	102	SW846 8270D
2-Fluorobiphenyl	74	SW846 8270D
Phenol-d6	67	SW846 8270D
2-Fluorophenol	65	SW846 8270D
2,4,6-Tribromophenol	<2.50	SW846 8270D

Surrogate	Recovery	Method
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Steve Hibbs, Laboratory Manager
a14exsur/jjb

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09/26/2014

Puget Sound Coatings
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Spectra Number: 1

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
Hexachlorobutadiene	<2.50	µg/L	SW846 8270D				
Hexachlorocyclopentadiene	<2.50	µg/L	SW846 8270D				
Hexachloroethane	<2.50	µg/L	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.100	µg/L	SW846 8270D				
Isophorone	<2.50	µg/L	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<2.50	µg/L	SW846 8270D				
N-Nitrosodiphenylamine	<2.50	µg/L	SW846 8270D				
N-nitrosodimethylamine	<2.50	µg/L	SW846 8270D				
Naphthalene	<0.100	µg/L	SW846 8270D				
Nitrobenzene	<2.50	µg/L	SW846 8270D				
Pentachlorophenol	<0.100	µg/L	SW846 8270D				
Phenanthrene	<0.100	µg/L	SW846 8270D				
Phenol	<2.50	µg/L	SW846 8270D				
Pyrene	<0.100	µg/L	SW846 8270D				
Pyridine	<10	µg/L	SW846 8270D				
bis(2-Chloroethoxy)Methane	<2.50	µg/L	SW846 8270D				
bis(2-Ethylhexyl)Phthalate	<2.50	µg/L	SW846 8270D				
bis(2-chloroisopropyl)Ether	<2.50	µg/L	SW846 8270D				

Surrogate	Recovery	Method	Surrogate	Recovery	Method
Decachlorobiphenyl	68	SW846 8082A			
Nitrobenzene-d6	92	SW846 8270D			
p-Terphenyl-d14	102	SW846 8270D			
2-Fluorobiphenyl	74	SW846 8270D			
Phenol-d6	67	SW846 8270D			
2-Fluorophenol	65	SW846 8270D			
2,4,6-Tribromophenol	<2.50	SW846 8270D			

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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

P.O.#: 61409
Project: City Split Samples
Client ID: PS-OS-01 20140909-W
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 2

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
Antimony	51.9	µg/L	EPA 200.8	1,2-Dichlorobenzene	<2.50	µg/L	SW846 8270D
Arsenic	3.1	µg/L	EPA 200.8	1,3-Dichlorobenzene	<2.50	µg/L	SW846 8270D
Beryllium	< 0.5	µg/L	EPA 200.8	1,4-Dichlorobenzene	<2.50	µg/L	SW846 8270D
Cadmium	1.7	µg/L	EPA 200.8	1-Methylnaphthalene	<0.100	µg/L	SW846 8270D
Chromium	1.5	µg/L	EPA 200.8	2,3,4,5-Tetrachlorophenol	<2.50	µg/L	SW846 8270D
Copper	4.8	µg/L	EPA 200.8	2,3,4,6-Tetrachlorophenol	<2.50	µg/L	SW846 8270D
Lead	0.7	µg/L	EPA 200.8	2,4,5-Trichlorophenol	<2.50	µg/L	SW846 8270D
Nickel	1.4	µg/L	EPA 200.8	2,4,6-Trichlorophenol	<2.50	µg/L	SW846 8270D
Selenium	< 0.5	µg/L	EPA 200.8	2,4-Dichlorophenol	<2.50	µg/L	SW846 8270D
Silver	< 0.5	µg/L	EPA 200.8	2,4-Dimethylphenol	<2.50	µg/L	SW846 8270D
Thallium	< 0.5	µg/L	EPA 200.8	2,4-Dinitrophenol	<10	µg/L	SW846 8270D
Zinc	149	µg/L	EPA 200.8	2,4-Dinitrotoluene	<2.50	µg/L	SW846 8270D
Mercury	<0.2	µg/L	EPA 245.1	2,6-Dinitrotoluene	<2.50	µg/L	SW846 8270D
Nitrate	0.55	mg/L-N	Easy1-Reagent	2-Chloronaphthalene	<2.50	µg/L	SW846 8270D
Chloride	4.0	mg/L	SM 4500 CL-C	2-Chlorophenol	<2.50	µg/L	SW846 8270D
Sulfate	11	mg/L	SM 4500-SO4 E	2-Methylnaphthalene	<0.100	µg/L	SW846 8270D
Hexavalent Chromium	<0.01	mg/L	SM3500-CR-D	2-Methylphenol	<2.50	µg/L	SW846 8270D
PCB	<0.03	µg/L	SW846 8082A	2-Nitroaniline	<2.50	µg/L	SW846 8270D
1,2,4-Trichlorobenzene	<2.50	µg/L	SW846 8270D	2-Nitrophenol	<2.50	µg/L	SW846 8270D

Surrogate	Recovery	Method	Surrogate	Recovery	Method
Decachlorobiphenyl	75	SW846 8082A			
Nitrobenzene-d6	81	SW846 8270D			
p-Terphenyl-d14	101	SW846 8270D			
2-Fluorobiphenyl	75	SW846 8270D			
Phenol-d6	61	SW846 8270D			
2-Fluorophenol	57	SW846 8270D			
2,4,6-Tribromophenol	87	SW846 8270D			

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P.O.#: 61409
Project: City Split Samples
Client ID: PS-OS-01 20140909-W
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 2

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
3,3-Dichlorobenzidine	<20	µg/L	SW846 8270D	Benzo(ghi)Perylene	<0.100	µg/L	SW846 8270D
3-Nitroaniline	<2.50	µg/L	SW846 8270D	Benzo(k)Fluoranthene	<0.100	µg/L	SW846 8270D
4,6-Dinitro-2-Methylphenol	<10	µg/L	SW846 8270D	Benzoic Acid	<10	µg/L	SW846 8270D
4-Bromophenyl-phenylether	<2.50	µg/L	SW846 8270D	Benzyl Alcohol	<2.50	µg/L	SW846 8270D
4-Chloro-3-Methylphenol	<2.50	µg/L	SW846 8270D	Biphenyl	<2.50	µg/L	SW846 8270D
4-Chloroaniline	<2.50	µg/L	SW846 8270D	Bis(2-Chloroethyl)Ether	<2.50	µg/L	SW846 8270D
4-Chlorophenyl-phenylether	<2.50	µg/L	SW846 8270D	Butylbenzyl phthalate	<2.50	µg/L	SW846 8270D
4-Methylphenol	<2.50	µg/L	SW846 8270D	Carbazole	<2.50	µg/L	SW846 8270D
4-Nitroaniline	<2.50	µg/L	SW846 8270D	Chrysene	<0.100	µg/L	SW846 8270D
4-Nitrophenol	<2.50	µg/L	SW846 8270D	Di-n-Butylphthalate	<2.50	µg/L	SW846 8270D
Acenaphthene	<0.100	µg/L	SW846 8270D	Di-n-Octyl Phthalate	<2.50	µg/L	SW846 8270D
Acenaphthylene	<0.100	µg/L	SW846 8270D	Dibenzo(a,h)Anthracene	<0.100	µg/L	SW846 8270D
Aniline	<10	µg/L	SW846 8270D	Dibenzofuran	<2.50	µg/L	SW846 8270D
Anthracene	<0.100	µg/L	SW846 8270D	Dibenzothiophene	<2.50	µg/L	SW846 8270D
Azobenzene	<2.50	µg/L	SW846 8270D	Diethylphthalate	<2.50	µg/L	SW846 8270D
Benzidine	<20	µg/L	SW846 8270D	Dimethyl Phthalate	<2.50	µg/L	SW846 8270D
Benzo(a)Anthracene	<0.100	µg/L	SW846 8270D	Fluoranthene	<0.100	µg/L	SW846 8270D
Benzo(a)Pyrene	<0.100	µg/L	SW846 8270D	Fluorene	<0.100	µg/L	SW846 8270D
Benzo(b)Fluoranthene	<0.100	µg/L	SW846 8270D	Hexachlorobenzene	<2.50	µg/L	SW846 8270D

Surrogate	Recovery	Method	Surrogate	Recovery	Method
Decachlorobiphenyl	75	SW846 8082A			
Nitrobenzene-d6	81	SW846 8270D			
p-Terphenyl-d14	101	SW846 8270D			
2-Fluorobiphenyl	75	SW846 8270D			
Phenol-d6	61	SW846 8270D			
2-Fluorophenol	57	SW846 8270D			
2,4,6-Tribromophenol	87	SW846 8270D			

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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

P.O.#: 61409
Project: City Split Samples
Client ID: PS-OS-01 20140909-W
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 2

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Hexachlorobutadiene	<2.50	µg/L	SW846 8270D				
Hexachlorocyclopentadiene	<2.50	µg/L	SW846 8270D				
Hexachloroethane	<2.50	µg/L	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.100	µg/L	SW846 8270D				
Isophorone	<2.50	µg/L	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<2.50	µg/L	SW846 8270D				
N-Nitrosodiphenylamine	<2.50	µg/L	SW846 8270D				
N-nitrosodimethylamine	<2.50	µg/L	SW846 8270D				
Naphthalene	<0.100	µg/L	SW846 8270D				
Nitrobenzene	<2.50	µg/L	SW846 8270D				
Pentachlorophenol	<0.100	µg/L	SW846 8270D				
Phenanthrene	<0.100	µg/L	SW846 8270D				
Phenol	<2.50	µg/L	SW846 8270D				
Pyrene	<0.100	µg/L	SW846 8270D				
Pyridine	<10	µg/L	SW846 8270D				
bis(2-Chloroethoxy)Methane	<2.50	µg/L	SW846 8270D				
bis(2-Ethylhexyl)Phthalate	4.87	µg/L	SW846 8270D				
bis(2-chloroisopropyl)Ether	<2.50	µg/L	SW846 8270D				

Surrogate	Recovery	Method	Surrogate	Recovery	Method
Decachlorobiphenyl	75	SW846 8082A			
Nitrobenzene-d6	81	SW846 8270D			
p-Terphenyl-d14	101	SW846 8270D			
2-Fluorobiphenyl	75	SW846 8270D			
Phenol-d6	61	SW846 8270D			
2-Fluorophenol	57	SW846 8270D			
2,4,6-Tribromophenol	87	SW846 8270D			

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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

P.O.#: 61409
Project: City Split Samples
Client ID: PS-TS-01 20140909-S
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 3

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
Diesel	<100	mg/Kg	NWTPH-D	1,1,2,2-Tetrachloroethane	<0.005	mg/Kg	SW846 8260C
Oil	3100	mg/Kg	NWTPH-D	1,1,2-Trichloroethane	<0.005	mg/Kg	SW846 8260C
Gasoline	268	mg/Kg	NWTPH-G	1,1-Dichloroethane	<0.005	mg/Kg	SW846 8260C
Total Antimony	1.7	mg/Kg	SW846 6020A	1,1-Dichloroethene	<0.005	mg/Kg	SW846 8260C
Total Arsenic	3.5	mg/Kg	SW846 6020A	1,1-Dichloropropene	<0.005	mg/Kg	SW846 8260C
Total Beryllium	< 0.1	mg/Kg	SW846 6020A	1,2,3-Trichlorobenzene	<0.005	mg/Kg	SW846 8260C
Total Cadmium	0.6	mg/Kg	SW846 6020A	1,2,3-Trichloropropane	<0.005	mg/Kg	SW846 8260C
Total Chromium	49.1	mg/Kg	SW846 6020A	1,2,4-Trichlorobenzene	<0.005	mg/Kg	SW846 8260C
Total Copper	205	mg/Kg	SW846 6020A	1,2,4-Trimethylbenzene	22.1	mg/Kg	SW846 8260C
Total Lead	19.5	mg/Kg	SW846 6020A	1,2-Dibromo3Chloropropane	<0.05	mg/Kg	SW846 8260C
Total Nickel	40.0	mg/Kg	SW846 6020A	1,2-Dibromoethane (EDB)	<0.005	mg/Kg	SW846 8260C
Total Selenium	< 0.5	mg/Kg	SW846 6020A	1,2-Dichlorobenzene	<0.005	mg/Kg	SW846 8260C
Total Silver	< 0.5	mg/Kg	SW846 6020A	1,2-Dichloroethane	<0.005	mg/Kg	SW846 8260C
Total Thallium	< 0.5	mg/Kg	SW846 6020A	1,2-Dichloropropene	<0.005	mg/Kg	SW846 8260C
Total Zinc	17460	mg/Kg	SW846 6020A	1,3,5-Trimethylbenzene	16.6	mg/Kg	SW846 8260C
Total Mercury	0.09	mg/Kg	SW846 7471B	1,3-Dichlorobenzene	<0.005	mg/Kg	SW846 8260C
PCB AR1254*	0.02	mg/Kg	SW846 8082A	1,3-Dichloropropane	<0.005	mg/Kg	SW846 8260C
1,1,1,2-Tetrachloroethane	<0.005	mg/Kg	SW846 8260C	1,4-Dichlorobenzene	<0.005	mg/Kg	SW846 8260C
1,1,1-Trichloroethane	<0.005	mg/Kg	SW846 8260C	2,2-Dichloropropane	<0.005	mg/Kg	SW846 8260C

*Sample contains multiple Aroclors. Total area of the PCB pattern in the sample was quantified on the basis of the Aroclor standard that is most similar to the sample. **Surrogate diluted out of sample.

Surrogate	Recovery	Method	Surrogate	Recovery	Method
2-Fluorophenol	56	SW846 8270D	4-Bromofluorobenzene	100	SW846 8260C
Nitrobenzene-d6	109	SW846 8270D	Dibromofluoromethane	112	SW846 8260C
Phenol-d6	108	SW846 8270D	Toluene-d8	91	SW846 8260C
2-Fluorobiphenyl	61	SW846 8270D	Decachlorobiphenyl	64	SW846 8082A
2,4,6-Tribromophenol	87	SW846 8270D	p-Terphenyl	0**	NWTPH-D
p-Terphenyl-d14	64	SW846 8270D	Toluene-d8	105	NWTPH-G
1,2-Dichloroethane-d4	140	SW846 8260C	4-Bromofluorobenzene	91	NWTPH-G

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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

P.O.#: 61409
Project: City Split Samples
Client ID: PS-TS-01 20140909-S
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 3

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
2-Butanone (MEK)	<0.05	mg/Kg	SW846 8260C	Chloroform	<0.005	mg/Kg	SW846 8260C
2-Chlorotoluene	<0.005	mg/Kg	SW846 8260C	Chloromethane	<0.005	mg/Kg	SW846 8260C
2-Hexanone (MBK)	<0.05	mg/Kg	SW846 8260C	Dibromomethane	<0.005	mg/Kg	SW846 8260C
4-Chlorotoluene	<0.005	mg/Kg	SW846 8260C	Dichlorodifluoromethane	<0.005	mg/Kg	SW846 8260C
4-Isopropyltoluene	0.506	mg/Kg	SW846 8260C	Ethylbenzene	0.989	mg/Kg	SW846 8260C
4-methyl-2-pentanone (MIBK)	2.40	mg/Kg	SW846 8260C	Hexachlorobutadiene	<0.005	mg/Kg	SW846 8260C
Acetone	<0.05	mg/Kg	SW846 8260C	Isopropylbenzene	1.08	mg/Kg	SW846 8260C
Acrolein	<0.05	mg/Kg	SW846 8260C	Methyl-tert-Butyl Ether	<0.005	mg/Kg	SW846 8260C
Acrylonitrile	<0.05	mg/Kg	SW846 8260C	Methylene chloride	<0.005	mg/Kg	SW846 8260C
Benzene	<0.005	mg/Kg	SW846 8260C	Styrene	<0.005	mg/Kg	SW846 8260C
Bromobenzene	<0.005	mg/Kg	SW846 8260C	Tetrachloroethene	<0.005	mg/Kg	SW846 8260C
Bromoform	<0.005	mg/Kg	SW846 8260C	Toluene	0.246	mg/Kg	SW846 8260C
Bromomethane	<0.005	mg/Kg	SW846 8260C	Total Xylenes	16.0	mg/Kg	SW846 8260C
Carbon Tetrachloride	<0.005	mg/Kg	SW846 8260C	Trichloroethene	<0.005	mg/Kg	SW846 8260C
Chlorobenzene	<0.005	mg/Kg	SW846 8260C	Trichlorofluoromethane	<0.005	mg/Kg	SW846 8260C
Chlorodibromomethane	<0.005	mg/Kg	SW846 8260C	Vinyl Acetate	<0.05	mg/Kg	SW846 8260C
Chloroethane	<0.005	mg/Kg	SW846 8260C	Vinyl chloride	<0.005	mg/Kg	SW846 8260C
				cis-1,2-Dichloroethene	<0.005	mg/Kg	SW846 8260C
				cis-1,3-Dichloropropene	<0.005	mg/Kg	SW846 8260C

*Sample contains multiple Aroclors. Total area of the PCB pattern in the sample was quantified on the basis of the Aroclor standard that is most similar to the sample. **Surrogate diluted out of sample.

Surrogate	Recovery	Method	Surrogate	Recovery	Method
2-Fluorophenol	56	SW846 8270D	4-Bromofluorobenzene	100	SW846 8260C
Nitrobenzene-d6	109	SW846 8270D	Dibromofluoromethane	112	SW846 8260C
Phenol-d6	108	SW846 8270D	Toluene-d8	91	SW846 8260C
2-Fluorobiphenyl	61	SW846 8270D	Decachlorobiphenyl	64	SW846 8082A
2,4,6-Tribromophenol	87	SW846 8270D	p-Terphenyl	0**	NWTPH-D
p-Terphenyl-d14	64	SW846 8270D	Toluene-d8	105	NWTPH-G
1,2-Dichloroethane-d4	140	SW846 8260C	4-Bromofluorobenzene	91	NWTPH-G

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P.O.#: 61409
Project: City Split Samples
Client ID: PS-TS-01 20140909-S
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 3

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
n-Butylbenzene	<0.005	mg/Kg	SW846 8260C	2-Chlorophenol	<0.25	mg/Kg	SW846 8270D
n-Propylbenzene	1.82	mg/Kg	SW846 8260C	2-Methylnaphthalene	0.027	mg/Kg	SW846 8270D
sec-Butylbenzene	<0.005	mg/Kg	SW846 8260C	2-Methylphenol	<0.01	mg/Kg	SW846 8270D
tert-Butylbenzene	<0.005	mg/Kg	SW846 8260C	2-Nitroaniline	<0.25	mg/Kg	SW846 8270D
trans-1,2-Dichloroethene	<0.005	mg/Kg	SW846 8260C	2-Nitrophenol	<0.25	mg/Kg	SW846 8270D
trans-1,3-Dichloropropene	<0.005	mg/Kg	SW846 8260C	3,3-Dichlorobenzidine	<2.00	mg/Kg	SW846 8270D
1,2,4-Trichlorobenzene	<0.01	mg/Kg	SW846 8270D	3-Nitroaniline	<0.25	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.01	mg/Kg	SW846 8270D	4,6-Dinitro-2-Methylphenol	<1.00	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.01	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.25	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.01	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.25	mg/Kg	SW846 8270D
1-Methylnaphthalene	0.016	mg/Kg	SW846 8270D	4-Chloroaniline	<0.25	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.25	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.25	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.25	mg/Kg	SW846 8270D	4-Methylphenol	0.352	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.25	mg/Kg	SW846 8270D	4-Nitroaniline	<0.25	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.01	mg/Kg	SW846 8270D	4-Nitrophenol	<0.25	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<1.00	mg/Kg	SW846 8270D	Acenaphthene	0.054	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.25	mg/Kg	SW846 8270D	Acenaphthylene	<0.01	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.25	mg/Kg	SW846 8270D	Aniline	<1.00	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.25	mg/Kg	SW846 8270D	Anthracene	0.062	mg/Kg	SW846 8270D

*Sample contains multiple Aroclors. Total area of the PCB pattern in the sample was quantified on the basis of the Aroclor standard that is most similar to the sample. **Surrogate diluted out of sample.

Surrogate	Recovery	Method	Surrogate	Recovery	Method
2-Fluorophenol	56	SW846 8270D	4-Bromofluorobenzene	100	SW846 8260C
Nitrobenzene-d6	109	SW846 8270D	Dibromofluoromethane	112	SW846 8260C
Phenol-d6	108	SW846 8270D	Toluene-d8	91	SW846 8260C
2-Fluorobiphenyl	61	SW846 8270D	Decachlorobiphenyl	64	SW846 8082A
2,4,6-Tribromophenol	87	SW846 8270D	p-Terphenyl	0**	NWTPH-D
p-Terphenyl-d14	64	SW846 8270D	Toluene-d8	105	NWTPH-G
1,2-Dichloroethane-d4	140	SW846 8260C	4-Bromofluorobenzene	91	NWTPH-G

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a14exsur/jjb

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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

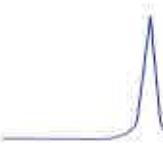
P.O.#: 61409
Project: City Split Samples
Client ID: PS-TS-01 20140909-S
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 3

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
Azobenzene	<0.25	mg/Kg	SW846 8270D	Diethylphthalate	<0.150	mg/Kg	SW846 8270D
Benzidine	<2.00	mg/Kg	SW846 8270D	Dimethyl Phthalate	<0.150	mg/Kg	SW846 8270D
Benzo(a)Anthracene	0.503	mg/Kg	SW846 8270D	Fluoranthene	1.41	mg/Kg	SW846 8270D
Benzo(a)Pyrene	0.408	mg/Kg	SW846 8270D	Fluorene	0.072	mg/Kg	SW846 8270D
Benzo(b)Fluoranthene	0.815	mg/Kg	SW846 8270D	Hexachlorobenzene	<0.01	mg/Kg	SW846 8270D
Benzo(ghi)Perylene	0.028	mg/Kg	SW846 8270D	Hexachlorobutadiene	<0.01	mg/Kg	SW846 8270D
Benzo(k)Fluoranthene	0.216	mg/Kg	SW846 8270D	Hexachlorocyclopentadiene	<0.25	mg/Kg	SW846 8270D
Benzoic Acid	<0.05	mg/Kg	SW846 8270D	Hexachloroethane	<0.25	mg/Kg	SW846 8270D
Benzyl Alcohol	<0.01	mg/Kg	SW846 8270D	Indeno(1,2,3-cd)Pyrene	0.155	mg/Kg	SW846 8270D
Biphenyl	<0.25	mg/Kg	SW846 8270D	Isophorone	<0.25	mg/Kg	SW846 8270D
Bis(2-Chloroethyl)Ether	<0.25	mg/Kg	SW846 8270D	N-Nitroso-Di-n-Propylamine	<0.25	mg/Kg	SW846 8270D
Butylbenzylphthalate	3.28	mg/Kg	SW846 8270D	N-Nitrosodiphenylamine	<0.01	mg/Kg	SW846 8270D
Carbazole	<0.25	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.25	mg/Kg	SW846 8270D
Chrysene	0.718	mg/Kg	SW846 8270D	Naphthalene	0.089	mg/Kg	SW846 8270D
Di-n-Butylphthalate	0.266	mg/Kg	SW846 8270D	Nitrobenzene	<0.25	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	0.180	mg/Kg	SW846 8270D	Pentachlorophenol	<0.01	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	0.023	mg/Kg	SW846 8270D	Phenanthrene	1.04	mg/Kg	SW846 8270D
Dibenzofuran	0.038	mg/Kg	SW846 8270D	Phenol	0.392	mg/Kg	SW846 8270D
Dibenzothiophene	<0.25	mg/Kg	SW846 8270D	Pyrene	1.18	mg/Kg	SW846 8270D

*Sample contains multiple Aroclors. Total area of the PCB pattern in the sample was quantified on the basis of the Aroclor standard that is most similar to the sample. **Surrogate diluted out of sample.

Surrogate	Recovery	Method	Surrogate	Recovery	Method
2-Fluorophenol	56	SW846 8270D	4-Bromofluorobenzene	100	SW846 8260C
Nitrobenzene-d6	109	SW846 8270D	Dibromofluoromethane	112	SW846 8260C
Phenol-d6	108	SW846 8270D	Toluene-d8	91	SW846 8260C
2-Fluorobiphenyl	61	SW846 8270D	Decachlorobiphenyl	64	SW846 8082A
2,4,6-Tribromophenol	87	SW846 8270D	p-Terphenyl	0**	NWTPH-D
p-Terphenyl-d14	64	SW846 8270D	Toluene-d8	105	NWTPH-G
1,2-Dichloroethane-d4	140	SW846 8260C	4-Bromofluorobenzene	91	NWTPH-G

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09/26/2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

P.O.#: 61409
Project: City Split Samples
Client ID: PS-TS-01 20140909-S
Sample Matrix: Liquid
Date Sampled: 09/09/2014
Date Received: 09/10/2014
Spectra Project: 2014090268
Spectra Number: 3

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
Pyridine	<1.00	mg/Kg	SW846 8270D				
Tetrachlorophenol	<0.25	mg/Kg	SW846 8270D				
bis(2-Chloroethoxy)Methane	<0.25	mg/Kg	SW846 8270D				
bis(2-Ethylhexyl)Phthalate	6.44	mg/Kg	SW846 8270D				
bis(2-chloroisopropyl)Ether	<0.25	mg/Kg	SW846 8270D				

*Sample contains multiple Aroclors. Total area of the PCB pattern in the sample was quantified on the basis of the Aroclor standard that is most similar to the sample. **Surrogate diluted out of sample.

Surrogate	Recovery	Method	Surrogate	Recovery	Method
2-Fluorophenol	56	SW846 8270D	4-Bromofluorobenzene	100	SW846 8260C
Nitrobenzene-d6	109	SW846 8270D	Dibromofluoromethane	112	SW846 8260C
Phenol-d6	108	SW846 8270D	Toluene-d8	91	SW846 8260C
2-Fluorobiphenyl	61	SW846 8270D	Decachlorobiphenyl	64	SW846 8082A
2,4,6-Tribromophenol	87	SW846 8270D	p-Terphenyl	0**	NWTPH-D
p-Terphenyl-d14	64	SW846 8270D	Toluene-d8	105	NWTPH-G
1,2-Dichloroethane-d4	140	SW846 8260C	4-Bromofluorobenzene	91	NWTPH-G

SPECTRA LABORATORIES


Steve Hibbs, Laboratory Manager
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September 23, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Spectra Project # 2014090268
Sample Spiked: Method Blank
Date Extracted: 9/12/2014
Date Analyzed: 9/13/2014
Units: ug/L
Applies to Spectra #'s: #1-2

GCMS Semi-Volatile Organic Analysis Method 625/8270 Blank Spike (LCS) Results

Compound	Sample Conc.	Spike Added	MS Conc.	MS %Rec
Phenol	<2.50	75	53.0	71
2-Chlorophenol	<2.50	75	53.0	71
1,4-Dichlorobenzene	<2.50	50	20.9	42
N-Nitroso-Di-N-Propylamine	<2.50	50	51.3	103
1,2,4-Trichlorobenzene	<2.50	50	24.4	49
4-Chloro-3-Methylphenol	<2.50	75	53.7	72
Acenaphthene	<1.00	50	34.6	69
2,4-Dinitrotoluene	<2.50	50	33.2	66
4-Nitrophenol	<2.50	75	93.7	125
Pentachlorophenol	<2.50	75	54.3	72
Pyrene	<1.00	50	34.7	69

Surrogates	MS%Rec
2-Fluorophenol	84
Phenol-d5	88
Nitrobenzene-d5	119
2-Fluorobiphenyl	76
2,4,6-Tribromophenol	92
p-Terphenyl-d14	112



Steven G. Hibbs
Laboratory Manager



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September 23, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Sample Matrix:
Spectra Project:
Applies to #1-2

Water
2014090268

Date Extracted:
Date Analyzed:
Dilution:
< = less than

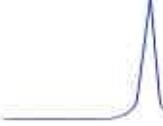
9/12/2014
9/13/2014
1

SEMOVOLATILE ORGANIC ANALYSIS METHOD BLANK RESULTS

Compound	ug/L	Compound	METHOD 625/8270 ug/L
Pyridine	< 10	2,4-Dinitrophenol	< 10
N-Nitrosodimethylamine	< 2.5	4-Nitrophenol	< 2.5
Aniline	< 10	Dibenzofuran	< 2.5
Phenol	< 2.5	2,4-Dinitrotoluene	< 2.5
bis(2-Chloroethyl)Ether	< 2.5	2,6-Dinitrotoluene	< 2.5
2-Chlorophenol	< 2.5	Diethylphthalate	< 2.5
1,3-Dichlorobenzene	< 2.5	4-Chlorophenyl-phenylether	< 2.5
1,4-Dichlorobenzene	< 2.5	Fluorene	< 1.0
Benzyl Alcohol	< 2.5	4-Nitroaniline	< 2.5
1,2-Dichlorobenzene	< 2.5	4,6-Dinitro-2-Methylphenol	< 10
2-Methylphenol	< 2.5	Ni-Nitrosodiphenylamine	< 2.5
bis(2-Chloroisopropyl)Ether	< 2.5	4-Bromophenyl-phenylether	< 2.5
4-Methylphenol	< 2.5	Hexachlorobenzene	< 2.5
N-Nitroso-di-n-Propylamine	< 2.5	Pentachlorophenol	< 2.5
Hexachloroethane	< 2.5	Phenanthrene	< 1.0
Nitrobenzene	< 2.5	Anthracene	< 1.0
Isophorone	< 2.5	Di-n-butylphthalate	< 2.5
2-Nitrophenol	< 2.5	Fluoranthene	< 1.0
2,4-Dimethylphenol	< 2.5	Benzidine	< 20
Benzoic Acid	< 10	Pyrene	< 1.0
bis(2-Chloroethoxy)methane	< 2.5	Butylbenzylphthalate	< 2.5
2,4-Dichlorophenol	< 2.5	3,3-Dichlorobenzidine	< 20
1,2,4-Trichlorobenzene	< 2.5	Benzo(a)anthracene	< 1.0
Naphthalene	< 1.0	bis(2-ethylhexyl)phthalate	< 2.5
4-Chloroaniline	< 10	Chrysene	< 1.0
Hexachlorobutadiene	< 2.5	Di-n-octyl phthalate	< 2.5
4-Chloro-3-Methylphenol	< 2.5	Benzo(b)fluoranthene	< 1.0
2-Methylnaphthalene	< 1.0	Benzo(k)fluoranthene	< 1.0
Hexachlorocyclopentadiene	< 2.5	Benzo(a)pyrene	< 1.0
2,4,6-Trichlorophenol	< 2.5	Indeno(1,2,3-c,d)pyrene	< 1.0
2,4,5-Trichlorophenol	< 2.5	Dibenzo(a,h)anthracene	< 1.0
2-Chloronaphthalene	< 2.5	Benzo(g,h,i)perylene	< 1.0
2-Nitroaniline	< 2.5	Carbazole	< 2.5
Dimethyl Phthalate	< 2.5	Biphenyl	< 2.5
Acenaphthylene	< 1.0	n-decane	< 2.5
3-Nitroaniline	< 2.5	n-octadecane	< 2.5
Acenaphthene	< 1.0	1-Methylnaphthalene	< 1.0
		2,3,4,5-tetrachlorophenol	< 2.5
		2,3,4,6-tetrachlorophenol	< 2.5
SURROGATE RECOVERIES			
Nitrobenzene-d5	119 %	2-Fluorophenol	86 %
2-Fluorobiphenyl	56 %	Phenol-d5	75 %
p-Terphenyl-d14	112 %	2,4,6-Tribromophenol	83 %



Steven G. Hibbs
Laboratory Manager



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September 23, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Project: City Split Samples
Sample matrix: Water
Spectra Project: 2014090268
Method 625/8270-SIM

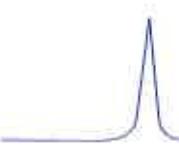
Date Extracted: 09/12/14
Date Analyzed: 09/13/14
Applies to Samples: 1-2
< = less than

POLYNUCLEAR AROMATIC HYDROCARBON ANALYSIS QUALITY CONTROL RESULTS

	Method Blank
Compound	Blank Result, ug/L
Naphthalene	<0.10
2-Methylnaphthalene	<0.10
1-Methylnaphthalene	<0.10
Acenaphthylene	<0.10
Acenaphthene	<0.10
Fluorene	<0.10
Phenanthrene	<0.10
Anthracene	<0.10
Fluoranthene	<0.10
Pyrene	<0.10
Benzo(a)Anthracene	<0.10
Chrysene	<0.10
Benzo(b)Fluoranthene	<0.10
Benzo(k)Fluoranthene	<0.10
Benzo(a)Pyrene	<0.10
Indeno(1,2,3-cd)Pyrene	<0.10
Dibenzo(a,h)Anthracene	<0.10
Benzo(g,h,i)Perylene	<0.10
Pentachlorophenol	<0.10
 SURROGATE RECOVERIES	
	%Rec
Nitrobenzene-d5	119
2-Fluorobiphenyl	57
p-Terphenyl-d14	112
2,4,6-Tribromophenol	83



Steven G. Hibbs
Laboratory Manager



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September 24, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Spectra Project: 2014090268
Sample Matrix: Soil
EPA Method: 8260C--Low Level
Spiked Sample: 2014090268-3
Date Analyzed: 9/23/2014
Units: mg/Kg wet wt.
Applies to: #3

GCMS VOLATILE ORGANIC ANALYSIS METHOD 8260C
Matrix Spike/ Matrix Spike Duplicate Duplicate (MS/MSD) Results

COMPOUND	SAMPLE RESULT	SPIKE AMOUNT	SPIKE RESULT	% REC	DUP RESULT	DUP % REC	% RPD
1,1-Dichloroethene	<0.005	0.050	0.0512	102	0.0533	107	4
Trichloroethene	<0.005	0.050	0.0406	81	0.0418	84	3
Benzene	<0.005	0.050	0.0332	66	0.0370	74	11
Toluene	0.013	0.050	0.0682	110	0.0668	107	3
Chlorobenzene	<0.005	0.050	0.0388	78	0.0442	88	13

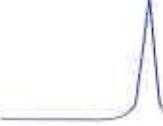
Surrogates

	MS	MSD
Dibromofluoromethane	110	110
1,2-Dichloroethane-d4	147	145
Toluene-d8	109	111
4-Bromofluorobenzene	117	125

Spectra Laboratories, Inc.



Steven G. Hibbs
Laboratory Manager



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September 24, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Sample ID: Method Blank
Project:
Sample Matrix: Soil
Spectra Project: 2014090268

Methanolic Extraction
Date Received: 9/10/2014
Date Analyzed: 9/23/2014
Sample Weight (g): 5.00
< = less than
Applies to: #3

VOLATILE ORGANIC ANALYSIS:

Compound	mg/Kg Dry wt.
Acetone	< 0.050
Benzene	< 0.005
Bromobenzene	< 0.005
Bromochloromethane	< 0.005
Bromodichloromethane	< 0.005
Bromoform	< 0.005
Bromomethane	< 0.005
2-Butanone (MEK)	< 0.050
n-Butylbenzene	< 0.005
sec-Butylbenzene	< 0.005
tert-Butylbenzene	< 0.005
Carbon tetrachloride	< 0.005
Chlorobenzene	< 0.005
Chlorodibromomethane	< 0.005
Chloroethane	< 0.005
Chloroform	< 0.005
Chloromethane	< 0.005
2-Chlorotoluene	< 0.005
4-Chlorotoluene	< 0.005
1,2-Dibromo-3-Chloropropane (DBCP)	< 0.005
1,2-Dibromoethane (EDB)	< 0.0050
Dibromomethane	< 0.005
1,2-Dichlorobenzene	< 0.005
1,3-Dichlorobenzene	< 0.005
1,4-Dichlorobenzene	< 0.005
Dichlorodifluoromethane	< 0.005
1,1-Dichloroethane	< 0.005
1,2-Dichloroethane	< 0.005
1,1-Dichloroethene	< 0.005
cis-1,2-Dichloroethene	< 0.005
trans-1,2,-Dichloroethene	< 0.005

METHOD 8260C-5035 Sparge

Compound	mg/Kg Dry wt.
1,2-Dichloropropane	< 0.005
1,3-Dichloropropane	< 0.005
cis-1,3-Dichloropropene	< 0.005
trans-1,3-Dichloropropene	< 0.005
2,2-Dichloropropane	< 0.005
1,1-Dichloropropene	< 0.005
Ethylbenzene	< 0.005
2-Hexanone (MBK)	< 0.050
Hexachlorobutadiene	< 0.005
Isopropylbenzene	< 0.005
p-Isopropyltoluene	< 0.005
Methylene chloride	< 0.005
4-Methyl-2-pentanone (MIBK)	< 0.005
Naphthalene	< 0.005
n-Propylbenzene	< 0.005
Styrene	< 0.005
1,1,1,2-Tetrachloroethane	< 0.005
1,1,2,2-Tetrachloroethane	< 0.005
Tetrachloroethene	< 0.005
Toluene	< 0.005
1,2,3-Trichlorobenzene	< 0.005
1,2,4-Trichlorobenzene	< 0.005
1,1,1-Trichloroethane	< 0.005
1,1,2-Trichloroethane	< 0.005
Trichloroethene	< 0.005
Trichlorofluoromethane	< 0.005
1,2,3-Trichloropropane	< 0.005
1,2,4-Trimethylbenzene	< 0.005
1,3,5-Trimethylbenzene	< 0.005
Vinyl chloride	< 0.005
Total Xylenes	< 0.010
Methyl tert-butyl ether	< 0.005
Acrolein	< 0.050
Acrylonitrile	< 0.050
Vinyl Acetate	< 0.050

SURROGATE RECOVERIES

Dibromofluoromethane	112	%
1,2-Dichloroethane-d4	140	%
Toluene-d8	91	%
4-Bromofluorobenzene	100	%



Steven G. Hibbs
Laboratory Manager



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September 25, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

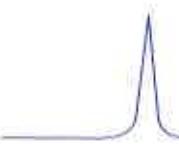
Spectra Project # 2014090268
Sample Spiked: Method Blank
Date Extracted: 9/12/2014
Date Analyzed: 9/13/2014
Units: ug/L
Applies to Spectra #'s: #1-2

GCMS Semi-Volatile Organic Analysis Method 625/8270 Blank Spike (LCS) Results

Compound	Sample Conc.	Spike Added	MS Conc.	MS %Rec
Phenol	<2.50	75	53.0	71
2-Chlorophenol	<2.50	75	53.0	71
1,4-Dichlorobenzene	<2.50	50	20.9	42
N-Nitroso-Di-N-Propylamine	<2.50	50	51.3	103
1,2,4-Trichlorobenzene	<2.50	50	24.4	49
4-Chloro-3-Methylphenol	<2.50	75	53.7	72
Acenaphthene	<1.00	50	34.6	69
2,4-Dinitrotoluene	<2.50	50	33.2	66
4-Nitrophenol	<2.50	75	93.7	125
Pentachlorophenol	<2.50	75	54.3	72
Pyrene	<1.00	50	34.7	69
Surrogates	MS%Rec			
2-Fluorophenol	84			
Phenol-d5	88			
Nitrobenzene-d5	119			
2-Fluorobiphenyl	76			
2,4,6-Tribromophenol	92			
p-Terphenyl-d14	112			



Steven G. Hibbs
Laboratory Manager



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September 25, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Sample Matrix:	Soil	Date Extracted:	9/15/2014
Spectra Project:	2014090268	Date Analyzed:	9/17/2014
Applies to:	#3	Dilution:	1
< = less than			

SEMOVOLATILE ORGANIC ANALYSIS METHOD BLANK RESULTS

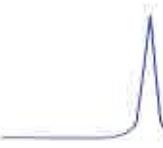
Compound	mg/Kg	Compound	METHOD 8270 mg/Kg
Pyridine	< 0.20	Acenaphthene	< 0.02
N-Nitrosodimethylamine	< 0.05	2,4-Dinitrophenol	< 0.20
Aniline	< 0.20	4-Nitrophenol	< 0.05
Phenol	< 0.05	Dibenzofuran	< 0.05
bis(2-Chloroethyl)Ether	< 0.05	2,4-Dinitrotoluene	< 0.05
2-Chlorophenol	< 0.05	2,6-Dinitrotoluene	< 0.05
1,3-Dichlorobenzene	< 0.05	Diethylphthalate	< 0.05
1,4-Dichlorobenzene	< 0.05	4-Chlorophenyl-phenylether	< 0.05
Benzyl Alcohol	< 0.05	Fluorene	< 0.02
1,2-Dichlorobenzene	< 0.05	4-Nitroaniline	< 0.05
2-Methylphenol	< 0.05	4,6-Dinitro-2-Methylphenol	< 0.20
bis(2-Chloroisopropyl)Ether	< 0.05	Ni-Nitrosodiphenylamine	< 0.05
4-Methylphenol	< 0.05	4-Bromophenyl-phenylether	< 0.05
N-Nitroso-di-n-Propylamine	< 0.05	Hexachlorobenzene	< 0.05
Hexachloroethane	< 0.05	Pentachlorophenol	< 0.05
Nitrobenzene	< 0.05	Phenanthrene	< 0.02
Isophorone	< 0.05	Anthracene	< 0.02
2-Nitrophenol	< 0.05	Di-n-butylphthalate	< 0.05
2,4-Dimethylphenol	< 0.05	Fluoranthene	< 0.02
Benzoic Acid	< 0.20	Benzidine	< 0.40
bis(2-Chloroethoxy)methane	< 0.05	Pyrene	< 0.02
2,4-Dichlorophenol	< 0.05	Butylbenzylphthalate	< 0.05
1,2,4-Trichlorobenzene	< 0.05	3,3-Dichlorobenzidine	< 0.40
Naphthalene	< 0.02	Benzo(a)anthracene	< 0.02
4-Chloroaniline	< 0.05	bis(2-ethylhexyl)phthalate	0.07
Hexachlorobutadiene	< 0.05	Chrysene	< 0.02
4-Chloro-3-Methylphenol	< 0.05	Di-n-octyl phthalate	< 0.05
2-Methylnaphthalene	< 0.02	Benzo(b)Fluoranthene	< 0.02
Hexachlorocyclopentadiene	< 0.05	Benzo(k)Fluoranthene	< 0.02
2,4,6-Trichlorophenol	< 0.05	Benzo(a)pyrene	< 0.02
2,4,5-Trichlorophenol	< 0.05	Indeno(1,2,3-c,d)pyrene	< 0.02
2-Chloronaphthalene	< 0.05	Dibenzo(a,h)anthracene	< 0.02
2-Nitroaniline	< 0.05	Benzo(g,h,i)perylene	< 0.02
Dimethyl Phthalate	< 0.05	Carbazole	< 0.05
Acenaphthylene	< 0.02	Biphenyl	< 0.05
3-Nitroaniline	< 0.05	1-Methylnaphthalene	< 0.05
		Dibenzothiophene	< 0.05
		Tetrachlorophenol	< 0.05

SURROGATE RECOVERIES

Nitrobenzene-d5	70	%	2-Fluorophenol	52	%
2-Fluorobiphenyl	54	%	Phenol-d5	39	%
p-Terphenyl-d14	67	%	2,4,6-Tribromophenol	51	%



Steven G. Hibbs
Laboratory Manager



SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

September 25, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

METHOD BLANK RESULTS
Sample matrix: Soil
Spectra Project: 2014090268
Applies to: #3

Date Extracted: 9/15/2014
Date Analyzed: 9/17/2014
Dilution: 1
< = less than

POLYNUCLEAR AROMATIC HYDROCARBON ANALYSIS

Compound	mg/Kg	Compound	METHOD 8270 mg/Kg
Naphthalene	< 0.003	Benzo(a)Anthracene	< 0.003
2-Methylnaphthalene	< 0.003	Chrysene	< 0.003
Acenaphthylene	< 0.003	Benzo(b)Fluoranthene	< 0.003
Acenaphthene	< 0.003	Benzo(k)Fluoranthene	< 0.003
Fluorene	< 0.003	Benzo(a)Pyrene	< 0.003
Phenanthrene	< 0.003	Indeno(1,2,3-cd)Pyrene	< 0.003
Anthracene	< 0.003	Dibenzo(a,h)Anthracene	< 0.003
Fluoranthene	< 0.003	Benzo(g,h,i)Perylene	< 0.003
Pyrene	< 0.003	1-Methylnaphthalene	< 0.003

SURROGATE RECOVERIES

Nitrobenzene-d5	72	%
2-Fluorobiphenyl	56	%
p-Terphenyl-d14	67	%



Steven G. Hibbs
Laboratory Manager



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September 26, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Method: NWTPH-Dx
Sample Matrix: Soil
Spectra Project: 2014090268
Applies to Spectra #: 3
Units: mg/Kg

HYDROCARBON ANALYSIS QUALITY CONTROL RESULTS

MS/MSD

Spiked Sample:	080379-1	Date Extracted:	8/25/2014
		Date Analyzed:	8/25/2014

Compound	Sample Result	Spike	Spike	Dup.	Spike	Percent Recovery	Percent Recovery	% RPD
		Amount Added	Amount Found	Percent Recovery				
Diesel	<10.0	250	220	88	202	81	8.7	

BLANK SPIKE (LCS)

Date Extracted:	9/23/2014	Date Analyzed:	9/24/2014
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Compound	Sample Result	Spike	Spike	Percent Recovery
		Amount Added	Amount Found	
Diesel	<10.0	125	101.9	81.52

METHOD BLANK

Date Extracted:	9/23/2014	Date Analyzed:	9/24/2014
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WTPH-D <10.0

Heavy Oils <50

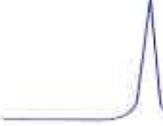
Surrogate Percent Recoveries:

p-terphenyl 78%

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Steven G. Hibbs, Laboratory Manager



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September 26, 2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

Method: EPA Method 8082
Sample Matrix: Solid
Units: mg/Kg
Spectra Project: 2014090268
Applies to Spectra # 1-2

PCB ANALYSIS QUALITY CONTROL RESULTS

MS/MSD							
Spiked Sample:	090468-1				Date Extracted:	9/25/2014	
					Date Analyzed:	9/25/2014	
Compound	Sample Result	Spike Amount Added	Spike Amount Found	Percent Recovery	Dup. Spike Amount Found	Percent Recovery	RPD
AR1260	<0.01	0.025	0.014	56	0.017	68	19

METHOD BLANK

Date Extracted: 9/25/2014 Date Analyzed: 9/25/2014

PCB's <0.01

Surrogate Percent Recoveries:

Decachlorobiphenyl 78%

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September 26, 2014

Puget Sound Coatings
9220 8th Ave S.
Seattle, WA 98108

Method: EPA Method 608/808
Sample Matrix: Water
Units: ug/L
Spectra Project: 2014090268
Applies to Spectra # 1-2

PCB ANALYSIS QUALITY CONTROL RESULTS

LCS/LCSD

Spiked Sample:	Method Blank	Date Extracted:	9/17/2014
		Date Analyzed:	9/24/2014

<u>Compound</u>	<u>Sample Result</u>	<u>Spike Amount Added</u>	<u>Spike Amount Found</u>	<u>Percent Recovery</u>	<u>Dup. Spike Amount Found</u>	<u>Percent Recovery</u>	<u>RPD</u>
AR1260	<0.03	0.50	0.34	68	0.33	66	3

METHOD BLANK

Date Extracted: 9/17/2014 Date Analyzed: 9/24/2014

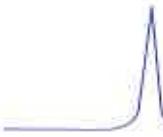
PCB's <0.03

Surrogate Percent Recoveries:

Decachlorobiphenyl 62%

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Steven G. Hibbs, Laboratory Manager



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September 26, 2014

Puget Sound Coatings
9220 8th Ave. S.
Seattle, WA 98108

Method: NWTPH-G
Sample Matrix: Soil
Units: mg/Kg dry wt.
Spectra Project: 2014090268
Applies to Spectra # 3

HYDROCARBON ANALYSIS QUALITY CONTROL RESULTS

DUPLICATE

Duplicate Sample # 2014090450-1
Date Analyzed: 9/24/2014

<u>Compound</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>RPD</u>
Gasoline	12	13	8

METHOD BLANK

Date Analyzed: 9/24/2014

WTPH-G 268

Surrogate Recoveries:

Toluene-d8	108%
BFB	89%

SPECTRA LABORATORIES



Steven G. Hibbs, Laboratory Manager

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CLIENT: Puget Sound Coatings
PROJECT: City Split Samples - ~~Almond~~

CLIENT: Puget Sound Coatings **ADDRESS:** 9220 8th Ave. S.
ADDRESS CHANGE

PAGE

STANDARD



RUSH

ADDRESS: 9220 8th Ave. S.