

Lower Duwamish Waterway

NPDES Inspection Sampling Support 2014/2015

Prepared for



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Appendix N

Unified Grocers

Limitation of Use: Leidos' project activities were restricted to collection and analysis of a limited number of environmental samples and visual observations obtained during the physical site visit, and from records made available by Ecology or third parties during the project. In preparing this report, Leidos has relied on verbal and written information provided by secondary sources and interviews, including information provided by the customer. Leidos has made no independent investigations concerning the accuracy or completeness of the information relied upon. Because the project activities consisted of collecting and evaluating a limited supply of information, Leidos may not have identified all potential items of concern and, therefore, Leidos warrants only that the project activities under this contract have been performed within the parameters and scope communicated by Ecology and reflected in the contract. Maps presented in this report were accurate based on the information available to Leidos at the time that the facility inspections were conducted.

This report is intended to be used in its entirety. Taking or using in any way excerpts from this report are not permitted and any party doing so does so at its own risk.

Table of Contents

	<u>Page</u>
N-1 Introduction and Background	N-1
N-1.1 Stormwater Conveyance	N-2
N-1.2 Recent Compliance History	N-2
N-2 Inspection and Sampling	N-2
N-2.1 September 2014 Stormwater Compliance Inspection.....	N-2
N-2.2 Stormwater Conveyance System Sampling	N-3
N-2.2.1 Water Sample.....	N-3
N-2.2.2 Solids Samples	N-3
N-3 Results	N-4
N-3.1 Chemical Analysis	N-4
N-3.2 Inspection Results and Permit Compliance Requirements	N-4
N-4 References.....	N-5

Figures

Figure N-1. Unified Grocers SWPPP Map

Figure N-2. Unified Grocers Inspection and Sample Locations

Tables

Table N-1. Sample Locations and Analytical Methods

Table N-2. Water Quality Data – Field Measurements

Table N-3. Water Sample Results

Table N-4. Water Sample Results Compared to Criteria

Table N-5. Water Sample Results – PCB Congeners

Table N-6. Water Sample Results - Conventionals

Table N-7. Solids Sample Results

Table N-8. Solids Sample Results Compared to Dry Weight Criteria

Table N-9. Solids Sample Results Compared to Organic Carbon-Normalized Criteria

Table N-10. Solids Sample Results – PCB Congeners

Attachments

Attachment N-1. Inspection Photographic Log

Attachment N-2. Field Documentation

Attachment N-3. Chain of Custody Forms

Attachment N-4. Laboratory Reports (on CD)

Attachment N-5. Ecology Inspection Report

N-1 Introduction and Background

Facility Name	Unified Grocers
Facility/Site ID	73338176
Address	3301 S Norfolk Street Seattle, WA 98118-5648
NPDES Permit Type	Industrial Stormwater General Permit
NPDES Permit No.	WAR002040
Permit Monitoring Requirements	Turbidity, pH, total zinc, total copper, petroleum-oil, grease
SIC Code	4222: Refrigerated Warehousing and Storage 4225: General Warehousing and Storage 5141: Groceries, General Line
Inspection Date	September 11, 2014
Grab Samples	1 water sample; 3 solids samples
Sample ID(s)	UG-MH-60-20140911-W UG-MH-60-20140911-S UG-FD-01-20140911-S UG-MH-76-20140911-S
Water Sample Analytes	Total metals, mercury, PCB congeners, SVOCs, dioxins/furans, sulfate, 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	Yes

Unified Grocers is situated within an industrial area south of King County International Airport. The facility is comprised of approximately 57 acres. The facility is primarily engaged in wholesale distribution of food products and related non-food items to retail markets and stores. Food products and non-food items are typically stored on-site in boxes or packages that are either stacked on wooden pallets or placed in racks. Storage locations are determined by the type of product. Products are off-loaded, transferred in and out of inventory, and loaded into shipping trucks with the help of materials handling equipment such as forklifts and pallet jacks. Truck loading and unloading docks are located throughout the site. Potential sources of stormwater pollutants at the site includes air compressors, battery charging stations, chemical storage areas, clarifiers, emergency generators, fire system generators, facility and fleet maintenance, fuel loading and dispensing, general surface run-off, hazardous waste accumulation area, non-industrial sources, miscellaneous equipment accumulation areas, off-loading and handling of materials, off-site sources, pallet accumulation areas, refrigerated trailer yard, truck and trailer yard, and truck wash area (JE Compliance 2010).

N-1.1 Stormwater Conveyance

According to the facility's Stormwater Pollution Prevention Plan (SWPPP), stormwater is collected in drainage structures located along the northern and central portions of the facility. The on-site drainage flows to a Washington State Department of Transportation (WSDOT) 60-inch storm drain which conveys stormwater from Interstate 5 (I-5) to the Lower Duwamish Waterway (LDW). The I-5 drainage line bisects the property from east to west. Stormwater at the northern portion of the facility is collected and conveyed to the City of Seattle's storm drain system at S Norfolk Street. The majority of the site is covered with asphalt, concrete or structures that prevent infiltration into the soil. A facility drainage map from the SWPPP is presented in Figure N-1.

N-1.2 Recent Compliance History

Based on available discharge monitoring reports, Unified Grocers exceeded benchmarks for zinc during the 1st and 2nd quarter of 2014. The facility exceeded benchmarks for zinc and copper during the 4th quarter of 2013 (Ecology 2015).

Previous corrective actions identified during compliance inspections in 2010 and 2011 included providing proper storage for chemical and petroleum products, evaluation of the fuel island for compliance with the Stormwater Management Manual for Western Washington, quarterly stormwater sampling, and updating the SWPPP to include necessary permit requirements (Ecology 2011).

N-2 Inspection and Sampling

N-2.1 September 2014 Stormwater Compliance Inspection

On September 11, 2014, Ecology conducted a stormwater compliance inspection at Unified Grocers. Leidos assisted Ecology with inspection and sampling of the facility's stormwater conveyance system. A representative from City of Tukwila Public Works was also present during the inspection. The inspection included investigating influent and effluent points at drainage structures, preparing written and photographic documentation, and assessing whether the drainage structures contained sufficient sampleable material. The coordinates of sample locations are plotted on Figure N-2 using geographic information system software. An inspection photographic log and field documentation are presented in Attachments N-1 and N-2, respectively.

The field team inspected the following stormwater conveyance structures at Unified Grocers, as shown on Figure N-2 (structures where samples were collected are shown in bold font):

- **Manhole 60 (UG-MH-60)**
- **Manhole 76 (UG-MH-76)**
- Manhole 77 (UG-MH-77)
- Manhole 75 (UG-MH-75)

- Catch basin 27 (UG-CB-27)
- Catch basin 29 (UG-CB-29)
- Fueling area.

Locations UG-CB-27 and UG-CB-29 were inspected to determine whether sufficient sampleable material was present in the conveyance structure. Neither location contained sufficient water or solids for sampling. The area surrounding the fueling station was investigated to assess whether or not conveyance structures contained sampleable material. No satisfactory location was identified for sampling. Storm drain structure inspection locations are presented in Figure N-2.

N-2.2 Stormwater Conveyance System Sampling

Ecology collected one water sample and three solids samples (including one duplicate sample) from the stormwater conveyance system at Unified Grocers. Sample locations, analytes, and analytical methods are listed on Table N-1. Results for water samples are presented in Tables N-2 through N-6. Results for solids samples are presented in Tables N-7 through N-10. Chain of custody forms and the laboratory reports are provided as Attachments N-3 and N-4, respectively. An Ecology stormwater compliance inspection report is presented in Attachment N-5. Split samples were collected by Unified Grocers, but results had not been provided at the time this report was prepared.

N-2.2.1 Water Sample

Water sample UG-MH-60-20140911-W was collected from location UG-MH-60 (Figure N-2 and Attachment N-1). Location UG-MH-60 appeared to receive stormwater from north and central portion of the facility and roof drains from the Dry Grocery Building along the eastern portion of the property. Stormwater was conveyed from UG-MH-60 offsite to a City of Seattle public storm drain line along S Norfolk Street.

N-2.2.2 Solids Samples

The solids sample UG-MH-60-20140911-S and duplicate sample UG-FD-01-20140911-S were collected from location UG-MH-60 (Figure N-2 and Attachment N-1). Solids sample UG-MH-76-20140911 was collected at location UG-MH-76. Location UG-MH-76 is in the central portion of the facility. Manhole UG-MH-76 had a drain pipe connected to a line to the north and another drain pipe connected to the east. The north drain pipe appeared to be higher than the east drain pipe indicating a conveyance from the north and towards the east. According to the facility map, the east drain pipe makes a 90 degree turn towards the south and connects with the WSDOT main line that runs through the property.

N-3 Results

N-3.1 Chemical Analysis

Ecology collected one water and three solids samples (including one split sample) during the September 11, 2014 stormwater compliance inspection at Unified Grocers. Analytical methods, chemical results and regulatory criteria are presented in Tables N-1 through N-10.

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).

Copper, mercury, zinc, total PCB congeners, benzo(a)anthracene, and chrysene concentrations exceeded a screening level in the water sample (Table N-4).

The following chemicals exceeded a screening level in one or more of the solids samples (Table N-8 and N-9).

- Metals: mercury, zinc;
- PCBs: total PCB Aroclors, total PCB congeners;
- PAHs: benzo(g,h,i)perylene, fluoranthene, cPAH TEQ;
- Phthalates: bis(2-ethylhexyl)phthalate, butylbenzylphthalate, diethylphthalate, dimethylphthalate;
- Other SVOCs: n-nitrosodiphenylamine;
- Dioxin/furan TEQ;
- Gasoline-, diesel-, and motor oil-range hydrocarbons.

N-3.2 Inspection Results and Permit Compliance Requirements

During the September 2014 inspection, Ecology found that the SWPPP was dated 2008 but the SWPPP Certification form was signed and dated January 5, 2013. Site drainage was not accurately determined by the existing site map. One of the discharge monitoring locations was not representative of industrial stormwater discharges from the northern portion of the facility. Ecology determined that a Stormwater Permit Discharge/Sample Point Update form had to be completed and submitted to Ecology. The shop had miscellaneous materials stored outside, some without cover. Scrap metal bins or dumpsters were not covered. Ecology observed that the fuel island was ringed by an asphalt berm. There was a cut in the berm that prevented its function as a secondary containment berm, and would allow spills to reach adjacent catch basins.

The facility monitors stormwater discharges at two locations, S1 and S2 (Figure N-1). Ecology determined that the sampling location S1 identified by Unified Grocers staff was not representative of industrial stormwater discharges from the northern portion of the facility. A more appropriate location was identified by Ecology staff. The facility map did not adequately represent the site drainage infrastructure. While catch basins were indicated, their connections to

major aggregating lines were absent, and the flow direction of major aggregating lines was, in some cases, ambiguous. (Ecology 2014).

As a result of the inspection, Ecology identified the following corrective actions (Ecology 2014):

- Submit an updated SWPPP that meets the requirements of the current permit. The SWPPP Certification form must be signed and dated as necessary.
- The monitoring plan must be revised to reflect the new sample location.
- The facility site map in the SWPPP must be updated to clearly identify and label all catch basins, their connections to aggregating lines, and the flow direction of all lines. The facility diagram must also clearly indicate sampling location(s) at the facility. Spill kit locations should be identified in the SWPPP, and on the facility diagram.
- All liquid chemical and petroleum products and wastes stored outside or near doorways must be provided with proper cover and containment.
- The fuel island must be evaluated to determine if the design meets the Stormwater Management Manual for Western Washington Volume IV Chapter 2 (Page 2-19). Submit to Ecology a plan and schedule for upgrading the fuel island to meet Stormwater Manual guidelines.
- Areas with the potential for spills shall maintain a properly labeled spill kit, identified in the SWPPP.
- All dumpsters and scrap metal bins must be kept under cover or fit with a lid that must remain closed when not in use.

Additional information regarding compliance with corrective actions was not available for review.

N-4 References

- Ecology (Washington State Department of Ecology). 2011. Stormwater Compliance Inspection Report, Unified Grocers. April 22, 2014.
- Ecology. 2014. Stormwater Compliance Inspection Report, Unified Grocers. November 22, 2014.
- Ecology. 2015. Water Quality Permitting and Reporting Information System, Summary Information, Unified Grocers. 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.

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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.

JE Compliance Services, Inc. (JE Compliance). 2010. Unified Grocers Storm Water Pollution Prevention Plan. Permit No. WAR002040. Prepared for Unified Grocers, 3301 South Norfolk Street, Seattle, Washington. September 2010.

Figures

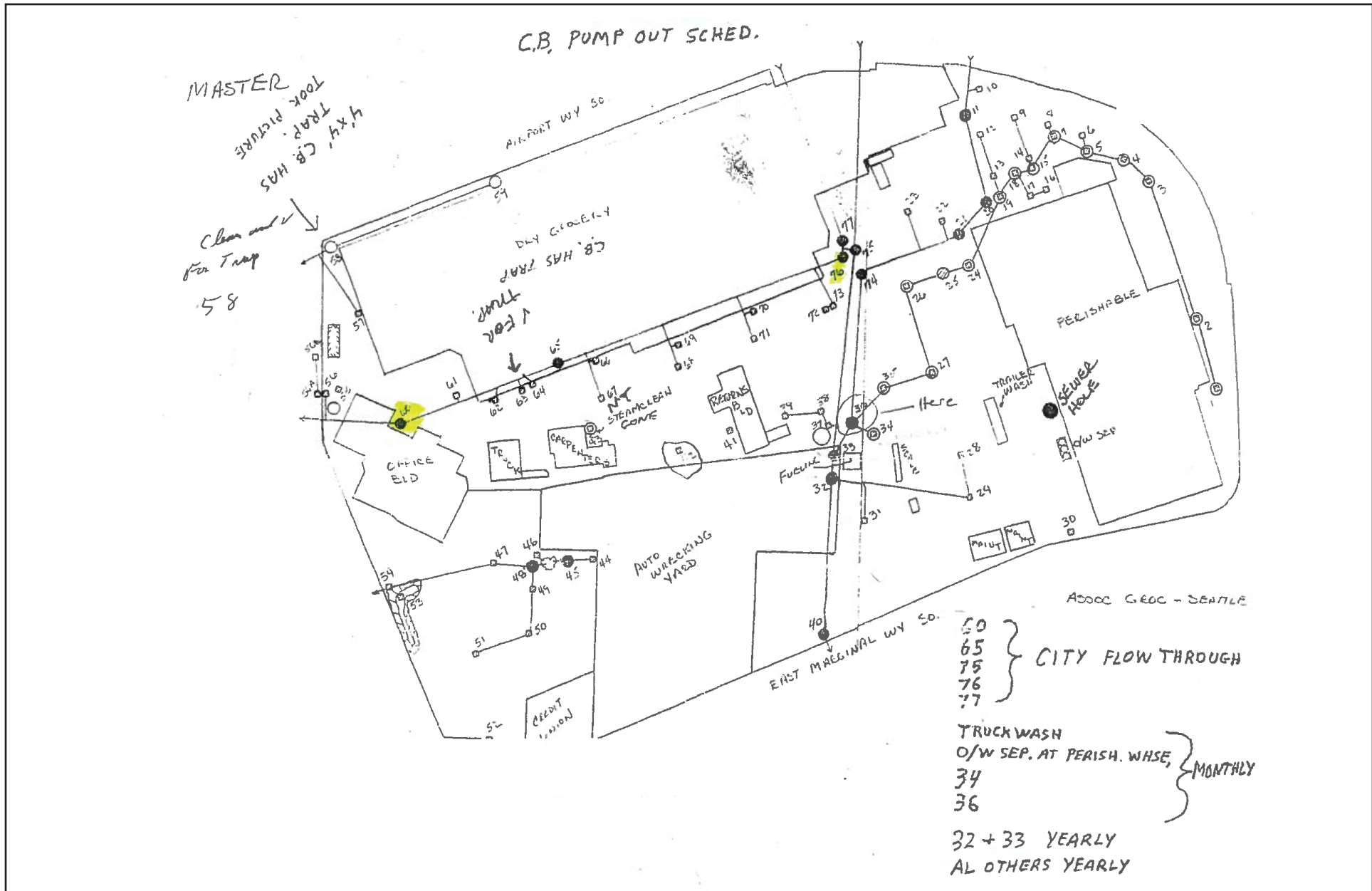


Figure N-1. Unified Grocers SWPPP Map

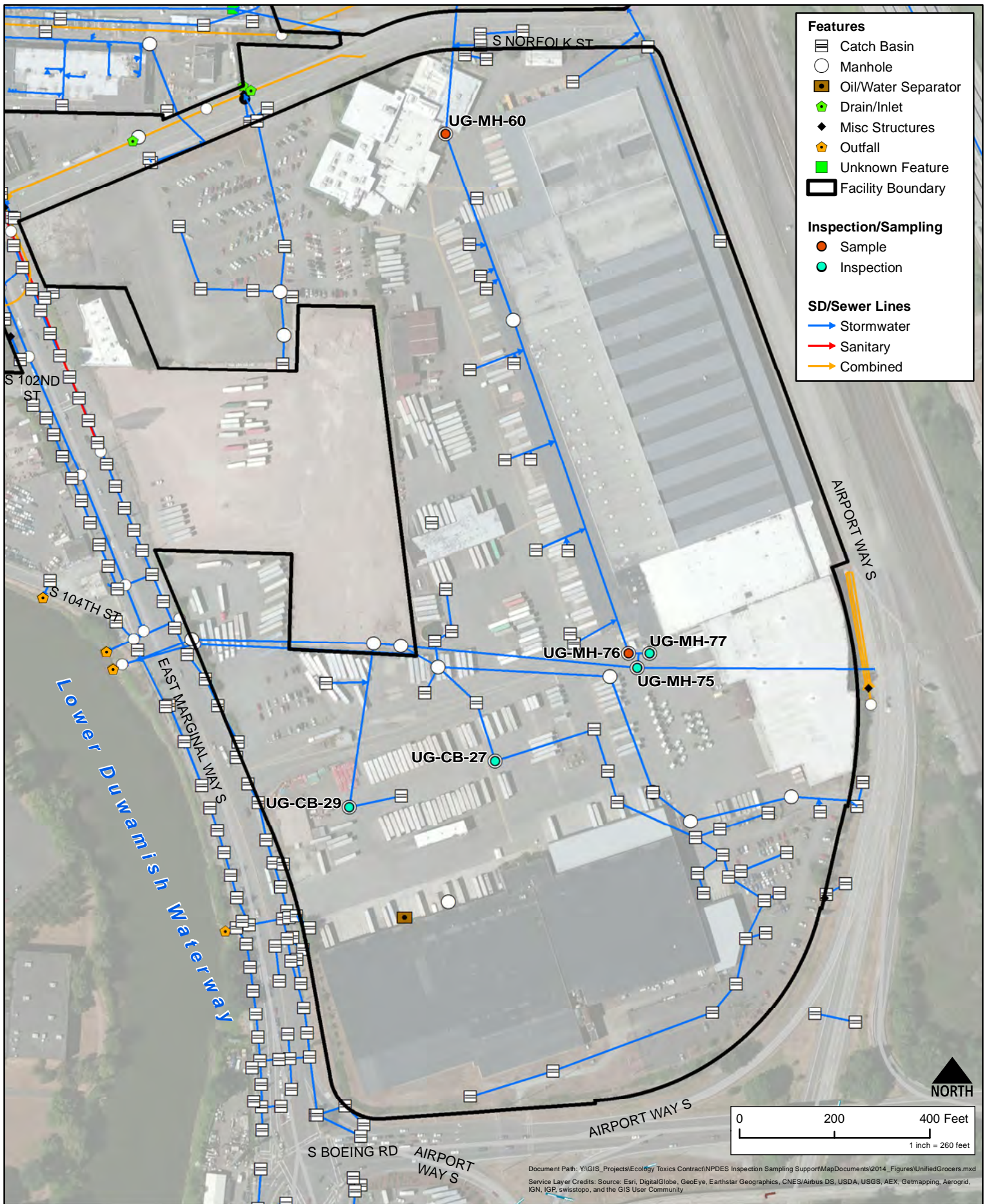


Figure N-2. Unified Grocers Inspection and Sample Locations

Tables

Acronyms and Abbreviations Used in Tables

<	not detected
%	percent
2LAET	Second Lowest Apparent Effects Threshold
CaCO ₃	calcium carbonate
CB	chlorobiphenyl
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSL	Cleanup Screening Level
EF	exceedance factor (sample result / criteria value)
EMPC	estimated maximum possible concentration
EPA	U.S. Environmental Protection Agency
HHO	human health – consumption of organisms only
HPAH	high molecular weight polycyclic aromatic hydrocarbon
ICP-MS	Inductively coupled plasma – mass spectrometry
ISGP	Industrial Stormwater General Permit
J	estimated concentration
JN	estimated concentration
LAET	Lower Apparent Effects Threshold
LDW	Lower Duwamish Waterway
LPAH	low molecular weight polycyclic aromatic hydrocarbon
MA	marine acute
MC	marine chronic
µg/L	micrograms per liter
µmhos/cm	micromhos per centimeter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mS/cm	milliSiemens per centimeter
MTCA	Model Toxics Control Act
na	not analyzed
nd	not detected

ng/kg	nanograms per kilogram
NPDES	National Pollutant Discharge Elimination System
NR WQC	National Recommended Water Quality Criteria
NTR WQC	National Toxics Rule Water Quality Criteria
NTU	Nephelometric Turbidity Units
OC	organic carbon
ORP	Oxidation Reduction Potential
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
pg/L	picograms per liter
PSEP	Puget Sound Estuary Program
R	rejected during data validation review
RAL	Remedial Action Level
RL	reporting limit
SCO	Sediment Cleanup Objective
SDL	sample detection limit
SIM	Selected ion monitoring
SMS	Washington State Sediment Management Standards
std units	standard units
SVOC	Semivolatile organic compound
SW	Surface water
TEQ	toxic equivalency
TPH	Total petroleum hydrocarbon
U	not detected
U*	Flagged as EMPC by the laboratory; this was changed to U (non-detect) during data validation
VOC	volatile organic compound
WA WQC	Washington State Water Quality Criteria
WQC	Water Quality Criteria

**Table N-1. Sampling Locations and Analytical Methods
Unified Grocers**

Analyte	Method	Sample Location / Collection Date		
		UG-MH-60 9/11/2014	UG-FD-01 9/11/2014	UG-MH-76 9/11/2014
Water Samples				
Metals (total)	EPA 200.8	●		
Mercury (total, dissolved)	SW 7470A	●		
PCB Congeners	EPA 1668C	●		
SVOCs	SW 8270D-Low	●		
Dioxins/furans	EPA 1613B	●		
Anions	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	SW 7471A	●	●	●
PCB Aroclors	EPA 8082	●	●	●
PCB Congeners	EPA 1668C	●	●	●
Dioxins/furans	EPA 1613B	●	●	●
SVOCs	SW 8270D-Low	●	●	●
VOCs	SW 8260B-Low	●	●	●
TPH-diesel/motor oil	NWTPH-Dx	●	●	●
TPH-gasoline	NWTPH-Gx	●	●	●
Grain size	PSEP Plumb 1981	●	●	●
Total organic carbon	PSEP 9060	●	●	●

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

**Table N-2. Water Quality Data - Field Measurements
Unified Grocers**

Location ID			UG-MH-60
Collection Date			9/11/2014
Analyte	ISGP Benchmark	Units	Result
Field Parameters			
Flow	--	Yes/No	No
pH	5.0 to 9.0	std units	6.6
Conductivity	--	mS/cm	0.22 a
Temperature	--	degrees C	18.8
Total Dissolved Solids	--	mg/L	na
Turbidity	25	NTU	88
Oil & Grease	No visible sheen	Yes/No	No
Dissolved Oxygen	--	mg/L	4.0
ORP	--	mV	na

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

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

**Table N-3. Water Sample Results
Unified Grocers**

	Location ID					UG-MH-60
	Collection Date					9/11/2014
Analyte	ISGP Benchmark	WA WQC		NTR WQC	NR WQC	Result
		Marine		HHO	HHO	
		Chronic	Acute			
Total Metals (µg/L)						
Antimony	--	--	--	--	--	50
Arsenic	150	36	69	--	--	1.8
Beryllium	--	--	--	--	--	< 0.40 U
Cadmium	2.1	9.4	42	--	--	0.16 J
Chromium	--	--	--	--	--	8.1
Chromium, hexavalent	--	--	--	--	--	na
Copper	14	3.7	5.8	--	--	11
Lead	81.6	8.5	221	--	--	5.8
Mercury	1.4	0.025	2.1	--	--	0.21
Nickel	--	8.3	75	--	--	1.6 J
Selenium	5	71	291	--	--	< 1.0 U
Silver	3.8	--	2.2	--	--	0.035 J
Thallium	--	--	--	--	--	< 1.0 U
Zinc	117	86	95	--	--	450
PCB Congeners (ug/L) ^a						
Total PCB Congeners	--	0.03	10	1.70E-04	6.40E-05	0.00154 J
PCB TEQ, nd SDL*0	--	0.03	10	--	--	3.68E-08 J
PCB TEQ, nd SDL*0.5	--	0.03	10	--	--	1.58E-07 J
PCB TEQ, nd SDL*1	--	0.03	10	--	--	2.79E-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	--	--	--	--	--	< 0.821 U
1,2,3,4,7,8-HxCDD	--	--	--	--	--	< 2.16 U
1,2,3,6,7,8-HxCDD	--	--	--	--	--	< 1.93 U
1,2,3,7,8,9-HxCDD	--	--	--	--	--	< 2.02 U
1,2,3,4,6,7,8-HpCDD	--	--	--	--	--	< 3.63 U*
OCDD	--	--	--	--	--	29.4 J
2,3,7,8-TCDF	--	--	--	--	--	< 0.756 U
1,2,3,7,8-PeCDF	--	--	--	--	--	< 0.780 U
2,3,4,7,8-PeCDF	--	--	--	--	--	< 0.691 U
1,2,3,4,7,8-HxCDF	--	--	--	--	--	< 0.526 U
1,2,3,6,7,8-HxCDF	--	--	--	--	--	< 0.557 U
1,2,3,7,8,9-HxCDF	--	--	--	--	--	< 0.852 U
2,3,4,6,7,8-HxCDF	--	--	--	--	--	< 0.605 U
1,2,3,4,6,7,8-HpCDF	--	--	--	--	--	< 1.46 U
1,2,3,4,7,8,9-HpCDF	--	--	--	--	--	< 0.76 U
OCDF	--	--	--	--	--	< 2.23 U
Total TCDD	--	--	--	--	--	< 1.09 U
Total PeCDD	--	--	--	--	--	< 1.72 U
Total HxCDD	--	--	--	--	--	< 5.94 U
Total HpCDD	--	--	--	--	--	6.64 J
Total TCDF	--	--	--	--	--	< 0.756 U
Total PeCDF	--	--	--	--	--	< 1.06 U
Total HxCDF	--	--	--	--	--	0.675
Total HpCDF	--	--	--	--	--	< 1.73 U
Dioxin/Furan TEQ, nd SDL*0	--	--	--	--	--	0.00882 J
Dioxin/Furan TEQ, nd SDL*0.5	--	--	--	--	--	1.51 J
Dioxin/Furan TEQ, nd SDL*1	--	--	--	--	--	3.00 J

**Table N-3. Water Sample Results
Unified Grocers**

	Location ID					UG-MH-60	
	Collection Date					9/11/2014	
Analyte	ISGP Benchmark	WA WQC		NTR WQC	NR WQC	Result	
		Marine		HHO	HHO		
		Chronic	Acute				
PAHs (µg/L)							
1-Methylnaphthalene	--	--	--	--	--	< 0.29	U
2-Chloronaphthalene	--	--	--	--	1,600	< 0.29	U
2-Methylnaphthalene	--	--	--	--	--	< 0.95	U
Acenaphthene	--	--	--	--	990	< 0.48	U
Acenaphthylene	--	--	--	--	--	< 0.38	U
Anthracene	--	--	--	110,000	40,000	< 0.19	U
Benzo(a)anthracene	--	--	--	0.031	0.018	0.21	J
Benzo(a)pyrene	--	--	--	0.031	0.018	< 0.19	U
Benzo(b)fluoranthene	--	--	--	0.031	0.018	< 0.38	U
Benzo(g,h,i)perylene	--	--	--	--	--	< 0.29	U
Benzo(k)fluoranthene	--	--	--	0.031	0.018	< 0.29	U
Chrysene	--	--	--	0.031	0.018	0.16	J
Dibenz(a,h)anthracene	--	--	--	0.031	0.018	< 0.29	U
Dibenzofuran	--	--	--	--	--	< 1.9	U
Fluoranthene	--	--	--	370	140	0.53	
Fluorene	--	--	--	14,000	5,300	< 0.29	U
Indeno(1,2,3-cd)pyrene	--	--	--	0.031	0.018	< 0.29	U
Naphthalene	--	--	--	--	--	< 1.9	U
Phenanthrene	--	--	--	--	--	0.37	J
Pyrene	--	--	--	11,000	4,000	0.45	
Total Benzofluoranthenes	--	--	--	--	--	< 0.38	U
Total HPAHs	--	--	--	--	--	1.4	J
Total LPAHs	--	--	--	--	--	0.37	J
Total PAHs	--	--	--	--	--	1.7	J
cPAHs, nd RL*0	--	--	--	--	--	0.023	J
cPAHs, nd RL*0.5	--	--	--	--	--	0.18	J
cPAHs, nd RL*1	--	--	--	--	--	0.34	J
Phthalates (µg/L)							
bis(2-Ethylhexyl)phthalate	--	--	--	5.9	2.2	< 14	U
Butylbenzylphthalate	--	--	--	--	1,900	< 2.9	U
Di-n-Butylphthalate	--	--	--	12,000	4,500	< 3.8	U
Diethylphthalate	--	--	--	120,000	44,000	< 1.9	U
Dimethylphthalate	--	--	--	2,900,000	1,100,000	< 1.9	U
Di-n-Octyl phthalate	--	--	--	--	--	< 1.9	U
Phenols (µg/L)							
2,3,4,6-Tetrachlorophenol	--	--	--	--	--	na	
2,4,5-Trichlorophenol	--	--	--	--	3,600	< 1.9	U
2,4,6-Trichlorophenol	--	--	--	6.5	2.4	< 2.9	U
2,4-Dichlorophenol	--	--	--	790	290	< 1.9	U
2,4-Dimethylphenol	--	--	--	--	850	< 9.5	U
2,4-Dinitrophenol	--	--	--	14,000	5,300	< 24	U
2-Chlorophenol	--	--	--	--	150	< 1.9	U
2-Methylphenol	--	--	--	--	--	< 1.9	U
2-Nitrophenol	--	--	--	--	--	< 1.9	U
4,6-Dinitro-2-Methylphenol	--	--	--	765	280	< 19	U
4-Chloro-3-methylphenol	--	--	--	--	--	< 1.9	U
4-Methylphenol	--	--	--	--	--	< 3.8	U
4-Nitrophenol	--	--	--	--	--	< 14	U

**Table N-3. Water Sample Results
Unified Grocers**

	Location ID					UG-MH-60		
	Collection Date					9/11/2014		
Analyte	ISGP Benchmark	WA WQC		NTR WQC	NR WQC	Result		
		Marine		HHO	HHO			
		Chronic	Acute					
Pentachlorophenol	--	7.9	13	8.2	3.0	<	3.3	U
Phenol	--	--	--	4,600,000	860,000	<	2.9	U
Other SVOCs (µg/L)								
1,2,4-Trichlorobenzene	--	--	--	--	70	<	1.9	U
1,2-Dichlorobenzene	--	--	--	17,000	1,300	<	1.9	U
1,3-Dichlorobenzene	--	--	--	2,600	960	<	1.9	U
1,4-Dichlorobenzene	--	--	--	2,600	190	<	1.9	U
2,4-Dinitrotoluene	--	--	--	9.1	3.4	<	1.9	U
2,6-Dinitrotoluene	--	--	--	--	--	<	1.9	U
2-Nitroaniline	--	--	--	--	--	<	1.9	U
3,3'-Dichlorobenzidine	--	--	--	0.077	0.028	<	9.5	UJ
3-Nitroaniline	--	--	--	--	--	<	1.9	U
4-Bromophenyl-phenylether	--	--	--	--	--	<	1.9	U
4-Chloroaniline	--	--	--	--	--	<	1.9	UJ
4-Chlorophenyl-phenylether	--	--	--	--	--	<	1.9	U
4-Nitroaniline	--	--	--	--	--	<	2.9	U
Benzoic Acid	--	--	--	--	--		3.4	J
Benzyl Alcohol	--	--	--	--	--	<	1.9	U
2,2'-Oxybis(1-Chloropropane)	--	--	--	170,000	65,000	<	1	U
bis(2-Chloroethoxy) Methane	--	--	--	--	--	<	1.9	U
Bis-(2-Chloroethyl) Ether	--	--	--	1.4	0.53	<	1.9	U
Carbazole	--	--	--	--	--	<	1.9	U
Hexachlorobenzene	--	--	--	0.00077	0.00029	<	1.9	U
Hexachlorobutadiene	--	--	--	50	18	<	2.9	U
Hexachlorocyclopentadiene	--	--	--	17,000	1,100	<	9.5	U
Hexachloroethane	--	--	--	8.9	3.3	<	2.9	U
Isophorone	--	--	--	600	960	<	1.9	U
Nitrobenzene	--	--	--	1,900	690	<	1.9	U
N-Nitrosodimethylamine	--	--	--	8.1	3.0	<	9.5	U
N-Nitroso-Di-N-Propylamine	--	--	--	--	0.51	<	1.9	U
N-Nitrosodiphenylamine	--	--	--	16	6.0	<	1.9	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 N-4. Water Sample Results Compared to Criteria
Unified Grocers**

Location ID	UG-MH-60				
Collection Date	9/11/2014				
Analyte	Exceedance Factor				
	ISGP Benchmark	WA Marine Chronic	WA Marine Acute	NTR Human Health - Organisms	NR Human Health - Organisms
Total Metals					
Copper		2.9	1.9		
Mercury		8.4			
Zinc	3.8	5.3	4.7		
PCB Congeners					
Total PCB Congeners				9.1	24
PAHs					
Benzo(a)anthracene				6.8	12
Chrysene				5.2	8.9

Exceedance Factors (EFs) are presented for detected concentrations only.

Only chemicals with EF > 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 N-5. Water Sample Results - PCB Congeners
Unified Grocers**

Location ID	UG-MH-60
Collection Date	9/11/2014
Analyte	Result
Total PCB Congeners (µg/L)	0.00154 J
Total PCB Congeners (pg/L)	1,540 J
Total Mono-CB (pg/L)	2.70 J
PCB-1	2.70 J
PCB-2	< 1.25 U*
PCB-3	< 1.49 U
Total Di-CB (pg/L)	80.0 J
PCB-4/10	< 5.64 U
PCB-5/8	13.3 J
PCB-6	< 3.10 U
PCB-7/9	< 6.22 U
PCB-11	58.4
PCB-12/13	< 5.01 U
PCB-14	< 3.98 U
PCB-15	8.31 J
Total Tri-CB (pg/L)	136 J
PCB-16/32	16.0
PCB-17	8.91
PCB-18	22.1
PCB-19	2.49 J
PCB-20/21/33	15.3
PCB-22	9.05
PCB-23	< 0.659 U
PCB-24/27	2.13 J
PCB-25	1.57 J
PCB-26	3.71 J
PCB-28	22.2
PCB-29	< 0.650 U
PCB-30	< 0.617 U
PCB-31	19.8
PCB-34	< 0.685 U
PCB-35	2.18 J
PCB-36	< 0.681 U
PCB-37	10.7
PCB-38	< 0.693 U
PCB-39	< 0.661 U
Total Tetra-CB (pg/L)	222 J
PCB-40	4.39 J
PCB-41/64/71/72	21.4
PCB-42/59	8.02 J
PCB-43/49	18.5
PCB-44	24.4
PCB-45	4.63 J
PCB-46	2.48 J
PCB-47	9.61
PCB-48/75	5.49 J
PCB-50	< 1.36 U
PCB-51	2.23 J
PCB-52/69	30.1
PCB-53	3.69 J
PCB-54	< 1.10 U
PCB-55	< 1.05 U

**Table N-5. Water Sample Results - PCB Congeners
Unified Grocers**

Location ID	UG-MH-60
Collection Date	9/11/2014
Analyte	Result
PCB-56/60	16.0
PCB-57	< 0.857 U
PCB-58	< 1.09 U
PCB-61/70	33.4
PCB-62	< 1.19 U
PCB-63	< 0.696 U
PCB-65	< 0.953 U
PCB-67	20.7
PCB-68	< 1.12 U
PCB-73	1.09 J
PCB-74	< 1.20 U
PCB-76/66	11.2
PCB-77	4.74 J
PCB-78	< 0.990 U
PCB-79	< 1.03 U
PCB-80	< 0.909 U
PCB-81	< 0.982 U
Total Penta-CB (pg/L)	409 J
PCB-82	8.80
PCB-83	< 1.32 U
PCB-84/92	27.8
PCB-85/116	10.5
PCB-86	< 2.06 U
PCB-87/117/125	23.4
PCB-88/91	8.48
PCB-89	< 1.84 U
PCB-90/101	67.8
PCB-93	< 1.47 U
PCB-94	< 1.90 U
PCB-95/98/102	51.2
PCB-96	< 1.39 U
PCB-97	17.6
PCB-99	23.0
PCB-100	< 1.51 U
PCB-103	< 1.62 U
PCB-104	< 0.931 U
PCB-105	26.1
PCB-106/118	61.6
PCB-107/109	4.76 J
PCB-108/112	3.59 J
PCB-110	69.4
PCB-111/115	1.22 J
PCB-113	< 2.59 U*
PCB-114	< 1.56 U*
PCB-119	< 1.02 U*
PCB-120	< 1.01 U
PCB-121	< 1.11 U
PCB-122	0.747 J
PCB-123	< 1.08 U*
PCB-124	3.34 J
PCB-126	< 2.42 U*
PCB-127	< 0.808 U

**Table N-5. Water Sample Results - PCB Congeners
Unified Grocers**

Location ID	UG-MH-60
Collection Date	9/11/2014
Analyte	Result
Total Hexa-CB (pg/L)	377 J
PCB-128/162	15.9
PCB-129	< 4.77 U*
PCB-130	< 5.42 U*
PCB-131	< 1.46 U
PCB-132/161	21.8
PCB-133/142	2.66 J
PCB-134/143	4.48 J
PCB-135	10.5
PCB-136	9.75
PCB-137	4.61 J
PCB-138/163/164	90.0
PCB-139/149	67.8
PCB-140	< 1.95 U
PCB-141	19.2
PCB-144	< 3.07 U*
PCB-145	< 1.40 U
PCB-146/165	12.0
PCB-147	1.99 J
PCB-148	< 1.68 U
PCB-150	< 1.14 U
PCB-151	18.6
PCB-152	< 1.39 U
PCB-153	74.3
PCB-154	< 1.73 U
PCB-155	< 1.35 U
PCB-156	8.66
PCB-157	3.04 J
PCB-158/160	10.9
PCB-159	< 1.11 U
PCB-166	< 0.920 U
PCB-167	< 4.44 U*
PCB-168	< 0.933 U
PCB-169	1.11 J
Total Hepta-CB (pg/L)	229 J
PCB-170	23.9
PCB-171	7.58
PCB-172	4.46 J
PCB-173	< 1.44 U
PCB-174	28.6
PCB-175	< 1.65 U*
PCB-176	3.03 J
PCB-177	14.5
PCB-178	6.37
PCB-179	11.7
PCB-180	62.5
PCB-181	< 1.01 U
PCB-182/187	35.7
PCB-183	15.5
PCB-184	< 1.04 U
PCB-185	4.17 J
PCB-186	< 1.01 U

**Table N-5. Water Sample Results - PCB Congeners
Unified Grocers**

Location ID	UG-MH-60
Collection Date	9/11/2014
Analyte	Result
PCB-188	< 0.918 U
PCB-189	1.76 J
PCB-190	6.72
PCB-191	< 0.998 U
PCB-192	< 1.09 U
PCB-193	2.95 J
Total Octa-CB (pg/L)	63.7 J
PCB-194	15.6
PCB-195	6.67
PCB-196/203	18.6
PCB-197	< 1.31 U
PCB-198	< 1.88 U
PCB-199	16.1
PCB-200	< 2.24 U*
PCB-201	1.84 J
PCB-202	4.03 J
PCB-204	< 1.41 U
PCB-205	0.903 J
Total Nona-CB (pg/L)	10.9 J
PCB-206	7.26
PCB-207	1.28 J
PCB-208	2.34 J
Deca-CB (pg/L)	3.29 J
PCB-209	3.29 J
PCB TEQ, nd SDL*0	0.0368 J
PCB TEQ, nd SDL*0.5	0.158 J
PCB TEQ, nd SDL*1	0.279 J

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

**Table N-6. Water Sample Results - Conventionals
Unified Grocers**

		Location ID	UG-MH-60
		Collection	9/14/2014
Analyte	ISGP Benchmark	Units	Result
Conventionals			
Alkalinity	--	mg/L	na
Bicarbonate	--	mg/L CaCO ₃	na
Carbonate	--	mg/L CaCO ₃	na
Chloride	--	mg/L	6.7
Specific Conductance	--	µmhos/cm	200
Hydroxide	--	mg/L CaCO ₃	na
Nitrate	--	mg/L	< 0.9 U
pH	5-9	std units	6.80
Salinity	--	mg/L	na
Sulfate	--	mg/L	4.2
Dissolved Organic Carbon	--	mg/L	12 J
Total Organic Carbon	--	mg/L	6.2 J
Total Suspended Solids ^a	30	mg/L	17 J
Turbidity	25	NTU	na
Oil & Grease	--	mg/L	na
Oil & Grease - Polar	--	mg/L	na
Oil & Grease - Silica Gel Treated	--	mg/L	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 N-7. Solids Sample Results
Unified Grocers**

Location ID				UG-MH-60	UG-FD-01	UG-MH-76
Collection Date				9/11/2014	9/11/2014	9/11/2014
Analyte	SMS Criteria		Unit	Result	Result	Result
	SCO/ LAET ^a	CSL/ 2LAET				
Metals (Total) (mg/kg)						
Antimony	--	--	mg/kg	220	220	29
Arsenic	57	93	mg/kg	17	16	6.6
Beryllium	--	--	mg/kg	0.29 J	0.28 J	0.22 J
Cadmium	5.1	6.7	mg/kg	5.5	4.8	1.0
Chromium	260	270	mg/kg	80	78	28
Copper	390	390	mg/kg	180	170	41
Lead	450	530	mg/kg	340	350	43
Mercury	0.41	0.59	mg/kg	0.37	0.42	0.073
Nickel	--	--	mg/kg	43	41	20
Selenium	--	--	mg/kg	0.67 J	0.63 J	< 1.0 U
Silver	6.1	6.1	mg/kg	0.60	0.82	0.12 J
Thallium	--	--	mg/kg	< 0.99 U	< 1.1 U	< 0.75 U
Zinc	410	960	mg/kg	1,200	1,300	310
PCB Aroclors (µg/kg)						
Aroclor 1016	--	--	µg/kg	110 J	77	< 15 U
Aroclor 1221	--	--	µg/kg	< 27 UJ	< 28 U	< 16 U
Aroclor 1232	--	--	µg/kg	< 27 UJ	< 28 U	< 16 U
Aroclor 1242	--	--	µg/kg	< 25 UJ	< 25 U	< 15 U
Aroclor 1248	--	--	µg/kg	< 25 UJ	< 25 U	< 15 U
Aroclor 1254	--	--	µg/kg	< 25 UJ	< 25 U	< 15 U
Aroclor 1260	--	--	µg/kg	150 J	130	28
Total PCB Aroclors	130	1,000	µg/kg	260	210	28
PCB Congeners (µg/kg) ^b						
Total PCB Congeners	130	1,000	µg/kg	922 J	697 J	67 J
PCB TEQ, nd SDL*0	--	--	µg/kg	0.044	0.032	0.048 J
PCB TEQ, nd SDL*0.5	--	--	µg/kg	0.044	0.032	0.049 J
PCB TEQ, nd SDL*1	--	--	µg/kg	0.044	0.032	0.048 J
Dioxins and Furans (ng/kg)						
2,3,7,8-TCDD	--	--	ng/kg	1.74	1.72	< 0.24 U*
1,2,3,7,8-PeCDD	--	--	ng/kg	7.06	7.31	1.15 J
1,2,3,4,7,8-HxCDD	--	--	ng/kg	12.1	11.7	1.75 J
1,2,3,6,7,8-HxCDD	--	--	ng/kg	35.1	38.5	6.56
1,2,3,7,8,9-HxCDD	--	--	ng/kg	24.5	25	3.58
1,2,3,4,6,7,8-HpCDD	--	--	ng/kg	767	812	125
OCDD	--	--	ng/kg	6,770 J	7,300 J	1,040
2,3,7,8-TCDF	--	--	ng/kg	5.59	5.52	0.852
1,2,3,7,8-PeCDF	--	--	ng/kg	4.52	4.43	0.717 J
2,3,4,7,8-PeCDF	--	--	ng/kg	8.85	7.5	1.25 J
1,2,3,4,7,8-HxCDF	--	--	ng/kg	13.6	14	2.91
1,2,3,6,7,8-HxCDF	--	--	ng/kg	11.2	11.4	1.65 J
1,2,3,7,8,9-HxCDF	--	--	ng/kg	1.24 J	2.06 J	0.538 J
2,3,4,6,7,8-HxCDF	--	--	ng/kg	14.8	14.7	2.32 J
1,2,3,4,6,7,8-HpCDF	--	--	ng/kg	195	203	29.6
1,2,3,4,7,8,9-HpCDF	--	--	ng/kg	10.5	10.5	1.86 J
OCDF	--	--	ng/kg	438	475	72.9
Dioxin/Furan TEQ, nd SDL*0	25	--	ng/kg	35.3 J	36.3 J	5.46 J
Dioxin/Furan TEQ, nd SDL*0.5	25	--	ng/kg	35.3 J	36.3 J	5.58 J
Dioxin/Furan TEQ, nd SDL*1	25	--	ng/kg	35.3 J	36.3 J	5.70 J

**Table N-7. Solids Sample Results
Unified Grocers**

				Location ID	UG-MH-60	UG-FD-01	UG-MH-76
				Collection Date	9/11/2014	9/11/2014	9/11/2014
Analyte	SMS Criteria		Unit	Result	Result	Result	Result
	SCO/ LAET ^a	CSL/ 2LAET					
Total TCDD	--	--	ng/kg	38.1	38.4 J	5.34 J	
Total TCDF	--	--	ng/kg	138 J	134 J	19.6 J	
Total PeCDD	--	--	ng/kg	70.7	74.2	10.9	
Total PeCDF	--	--	ng/kg	196 J	185 J	25.6	
Total HxCDD	--	--	ng/kg	292	308	47	
Total HxCDF	--	--	ng/kg	280	279	44.8	
Total HpCDD	--	--	ng/kg	1,500	1520	244	
Total HpCDF	--	--	ng/kg	460	479	73.2	
PAHs (µg/kg)							
1-Methylnaphthalene	--	--	µg/kg	< 380 U	68 J	15 J	
2-Chloronaphthalene	--	--	µg/kg	< 250 U	< 250 U	< 16 U	
2-Methylnaphthalene	670	1,400	µg/kg	140 J	160 J	30	
Acenaphthene	500	730	µg/kg	< 250 U	130 J	16	
Acenaphthylene	1,300	1,300	µg/kg	< 250 U	78 J	12 J	
Anthracene	960	4,400	µg/kg	230 J	220 J	41	
Benzo(a)anthracene	1,300	1,600	µg/kg	630	510	180	
Benzo(a)pyrene	1,600	3,000	µg/kg	720	630	240	
Benzo(g,h,i)perylene	670	720	µg/kg	770	610	160	
Chrysene	1,400	2,800	µg/kg	1,400 J	1,200 J	300 J	
Dibenz(a,h)anthracene	230	540	µg/kg	< 500 U	91 J	21 J	
Dibenzofuran	540	700	µg/kg	< 1,300 U	< 1,300 U	17 J	
Fluoranthene	1,700	2,500	µg/kg	2,000	1,800	520	
Fluorene	540	1,000	µg/kg	340	350	40	
Indeno(1,2,3-cd)pyrene	600	690	µg/kg	600	440 J	120	
Naphthalene	2,100	2,400	µg/kg	170 J	170 J	18	
Phenanthrene	1,500	5,400	µg/kg	750	750	230	
Pyrene	2,600	3,300	µg/kg	2,500	2,200	550	
Total Benzofluoranthenes	3,200	3,600	µg/kg	1,900	1,700	520	
Total HPAHs	12,000	17,000	µg/kg	11,000 J	9,200 J	2,600 J	
Total LPAHs	5,200	13,000	µg/kg	1,500 J	1,700 J	360 J	
cPAHs, nd RL*0	1,000	--	µg/kg	1,100 J	920 J	330 J	
cPAHs, nd RL*0.5	1,000	--	µg/kg	1,100 J	920 J	330 J	
cPAHs, nd RL*1	1,000	--	µg/kg	1,100 J	920 J	330 J	
Phthalates (µg/kg)							
bis(2-Ethylhexyl)phthalate	1,300	1,900	µg/kg	12,000	11,000	1,900	
Butylbenzylphthalate	63	900	µg/kg	< 2,500 U	< 2,500 U	90 J	
Di-n-Butylphthalate	1,400	5,100	µg/kg	< 6,300 U	< 6,300 U	< 390 U	
Diethylphthalate	200	1,200	µg/kg	230 J	< 2,500 U	< 160 U	
Dimethylphthalate	71	160	µg/kg	< 1,300 U	900 J	300	
Di-n-Octyl phthalate	6,200	--	µg/kg	1,100 J	1,000 J	250 J	
Phenols (µg/kg)							
2,4,5-Trichlorophenol	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2,4,6-Trichlorophenol	--	--	µg/kg	< 1,900 U	< 1,900 U	< 120 U	
2,4-Dichlorophenol	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2,4-Dimethylphenol	29	29	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2,4-Dinitrophenol	--	--	µg/kg	< 13,000 U	< 13,000 U	< 780 U	
2-Chlorophenol	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2-Methylphenol	63	63	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2-Nitrophenol	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	

**Table N-7. Solids Sample Results
Unified Grocers**

				Location ID	UG-MH-60	UG-FD-01	UG-MH-76
				Collection Date	9/11/2014	9/11/2014	9/11/2014
Analyte	SMS Criteria		Unit	Result	Result	Result	Result
	SCO/ LAET ^a	CSL/ 2LAET					
4,6-Dinitro-2-Methylphenol	--	--	µg/kg	< 13,000 U	< 13,000 U	< 780 U	
4-Chloro-3-methylphenol	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
4-Methylphenol	670	670	µg/kg	< 2,500 U	< 2,500 U	12 J	
4-Nitrophenol	--	--	µg/kg	< 13,000 U	< 13,000 U	< 780 U	
Pentachlorophenol	360	690	µg/kg	< 2,500 U	< 2,500 U	< 160 U	
Phenol	420	1,200	µg/kg	< 1,300 U	260 J	< 78 U	
Other SVOCs (µg/kg)							
1,2,4-Trichlorobenzene	31	51	µg/kg	< 630 U	< 630 U	< 39 U	
1,2-Dichlorobenzene	35	50	µg/kg	< 690 U	< 700 U	< 43 U	
1,3-Dichlorobenzene	--	--	µg/kg	< 630 U	< 630 U	< 39 U	
1,4-Dichlorobenzene	110	120	µg/kg	< 630 U	< 630 U	< 39 U	
2,4-Dinitrotoluene	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2,6-Dinitrotoluene	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2-Nitroaniline	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
3,3'-Dichlorobenzidine	--	--	µg/kg	< 2,500 U	< 2,500 U	< 160 U	
3-Nitroaniline	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
4-Bromophenyl-phenylether	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
4-Chloroaniline	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
4-Chlorophenyl-phenylether	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
4-Nitroaniline	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
Benzoic Acid	650	650	µg/kg	< 32,000 U	< 32,000 U	< 1,900 U	
Benzyl Alcohol	57	73	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
2,2'-Oxybis(1-Chloropropane)	--	--	µg/kg	< 3,200 U	< 3,200 U	< 190 U	
bis(2-Chloroethoxy) Methane	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
Bis-(2-Chloroethyl) Ether	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
Carbazole	--	--	µg/kg	270 J	250 J	35 J	
Hexachlorobenzene	22	70	µg/kg	< 630 U	< 630 U	< 39 U	
Hexachlorobutadiene	11	120	µg/kg	< 630 U	< 630 U	< 39 U	
Hexachlorocyclopentadiene	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
Hexachloroethane	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
Isophorone	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
Nitrobenzene	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
N-Nitrosodimethylamine	--	--	µg/kg	< 13,000 U	< 13,000 U	< 780 U	
N-Nitroso-Di-N-Propylamine	--	--	µg/kg	< 1,300 U	< 1,300 U	< 78 U	
N-Nitrosodiphenylamine	28	40	µg/kg	1,300	1,200	27 J	
VOCs (µg/kg)							
1,1,1,2-Tetrachloroethane	--	--	µg/kg	< 4.9 UJ	< 3.7 U	< 2.2 U	
1,1,1-Trichloroethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U	
1,1,2,2-Tetrachloroethane	--	--	µg/kg	< 9.8 UJ	< 7.4 U	< 4.5 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U	
1,1,2-Trichloroethane	--	--	µg/kg	< 9.8 UJ	< 7.4 U	< 4.5 U	
1,1-Dichloroethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U	
1,1-Dichloroethene	--	--	µg/kg	< 24 U	< 18 U	< 11 U	
1,1-Dichloropropene	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U	
1,2,3-Trichlorobenzene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	< 4.5 UJ	
1,2,3-Trichloropropane	--	--	µg/kg	< 4.9 UJ	< 3.7 UJ	< 2.2 UJ	
1,2,4-Trimethylbenzene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	2.1 J	
1,2-Dibromo-3-chloropropane	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	< 4.5 UJ	
1,2-Dibromoethane	--	--	µg/kg	< 4.9 UJ	< 3.7 U	< 2.2 U	
1,2-Dichloroethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U	

**Table N-7. Solids Sample Results
Unified Grocers**

Analyte	Location ID		Unit	UG-MH-60		UG-FD-01		UG-MH-76	
	Collection Date			9/11/2014		9/11/2014		9/11/2014	
	SMS Criteria			Result	Result	Result			
SCO/ LAET ^a	CSL/ 2LAET								
1,2-Dichloropropane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
1,3,5-Trimethylbenzene	--	--	µg/kg	< 24 UJ	< 18 UJ	< 11 UJ			
1,3-Dichloropropane	--	--	µg/kg	< 9.8 UJ	< 7.4 U	< 4.5 U			
2,2-Dichloropropane	--	--	µg/kg	< 24 U	< 18 U	< 11 U			
2-Chloroethylvinylether	--	--	µg/kg	< 24 UJ	< 18 U	< 11 U			
2-Chlorotoluene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	< 4.5 UJ			
2-Hexanone	--	--	µg/kg	< 24 UJ	< 18 U	< 11 U			
4-Chlorotoluene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	< 4.5 UJ			
Acetone	--	--	µg/kg	1,100 J	650 J	210 J			
Acrolein	--	--	µg/kg	< 150 U	< 110 U	< 67 U			
Acrylonitrile	--	--	µg/kg	< 49 U	< 37 U	< 22 U			
Benzene	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Bromobenzene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	< 4.5 UJ			
Bromochloromethane	--	--	µg/kg	< 9.8 U	< 7.4 U	< 4.5 U			
Bromoform	--	--	µg/kg	< 4.9 UJ	< 3.7 UJ	< 2.2 UJ			
Bromomethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Carbon Disulfide	--	--	µg/kg	10 J	4.8 J	2.0 J			
Carbon Tetrachloride	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Chlorobenzene	--	--	µg/kg	< 4.9 UJ	< 3.7 U	< 2.2 U			
Dibromochloromethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Chloroethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Chloroform	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Chloromethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
cis-1,2-Dichloroethene	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
cis-1,3-Dichloropropene	--	--	µg/kg	< 4.9 UJ	< 3.7 U	< 2.2 U			
Dibromomethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Bromodichloromethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Dichlorodifluoromethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Ethylbenzene	--	--	µg/kg	3.0 J	5.0 J	3.8 J			
Isopropylbenzene	--	--	µg/kg	< 9.8 UJ	4.5 J	< 4.5 U			
m,p-Xylene	--	--	µg/kg	8.0 J	5.8 J	1.9 J			
2-Butanone	--	--	µg/kg	120 J	160 J	36 J			
Iodomethane	--	--	µg/kg	< 73 U	< 55 U	< 34 U			
4-Methyl-2-Pentanone (MIBK)	--	--	µg/kg	52 J	23 J	11 J			
Methyl tert-Butyl Ether	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
Methylene Chloride	--	--	µg/kg	< 73 U	< 55 U	< 34 U			
n-Butylbenzene	--	--	µg/kg	27 J	< 7.4 UJ	< 4.5 UJ			
n-Propylbenzene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	< 4.5 UJ			
o-Xylene	--	--	µg/kg	< 9.8 UJ	< 7.4 U	< 4.5 U			
4-Isopropyltoluene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	2.5 J			
sec-Butylbenzene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	2.7 J			
Styrene	--	--	µg/kg	< 9.8 UJ	< 7.4 U	< 4.5 U			
tert-Butylbenzene	--	--	µg/kg	< 9.8 UJ	< 7.4 UJ	< 4.5 UJ			
Tetrachloroethene	--	--	µg/kg	< 4.9 UJ	< 3.7 U	< 2.2 U			
Toluene	--	--	µg/kg	3.7 J	4.6 J	1.2 J			
Total Xylenes	--	--	µg/kg	8 J	5.8 J	< 4.5 U			
trans-1,2-Dichloroethene	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			
trans-1,3-Dichloropropene	--	--	µg/kg	< 4.9 UJ	< 3.7 U	< 2.2 U			
trans-1,4-Dichloro-2-butene	--	--	µg/kg	< 24 UJ	< 18 UJ	< 11 UJ			
Trichloroethene	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U			

**Table N-7. Solids Sample Results
Unified Grocers**

Location ID				UG-MH-60	UG-FD-01	UG-MH-76
Collection Date				9/11/2014	9/11/2014	9/11/2014
Analyte	SMS Criteria		Unit	Result	Result	Result
	SCO/ LAET ^a	CSL/ 2LAET				
Trichlorofluoromethane	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U
Vinyl Acetate	--	--	µg/kg	< 24 U	< 18 U	< 11 U
Vinyl Chloride	--	--	µg/kg	< 4.9 U	< 3.7 U	< 2.2 U
TPH (mg/kg)						
Gasoline-Range Hydrocarbons	30/100	--	mg/kg	490	1,800 J	94
Diesel-Range Hydrocarbons	2,000	--	mg/kg	5,200 J	4,600 J	510 J
Motor Oil-Range Hydrocarbons	2,000	--	mg/kg	19,000 J	17,000 J	2,800
Grain size (%)						
Clay	--	--	%	2.0	1.5	1.9
Silt	--	--	%	53	42	17
Sand	--	--	%	41	52	76
Gravel	--	--	%	4.1	4.6	5.4
Cobbles	--	--	%	0.0	0.0	0.0
Conventionals (%)						
Total Organic Carbon	--	--	%	15	15	2.3
Total Solids	--	--	%	39.2	38.5	63.8

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 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.

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.

Results shaded in gray exceed one or more criteria.

**Table N-8. Solids Sample Results Compared to Dry Weight Criteria
Unified Grocers**

Location ID	UG-MH-60		UG-FD-01		UG-MH-76	
Collection Date	9/11/2014		9/11/2014		9/11/2014	
Analyte	Exceedance Factor		Exceedance Factor		Exceedance Factor	
	SCO/ LAET	CSL/ 2LAET	SCO/ LAET	CSL/ 2LAET	SCO/ LAET	CSL/ 2LAET
Metals (Total)						
Mercury			1.0			
Zinc	2.9	1.3	3.2	1.4		
PCBs						
Total PCB Aroclors	2.0		1.6			
Total PCB Congeners	7.1		5.4			
Dioxins and Furans						
Dioxin/Furan TEQ, nd SDL*0	1.4		1.5			
Dioxin/Furan TEQ, nd SDL*0.5	1.4		1.5			
Dioxin/Furan TEQ, nd SDL*1	1.4		1.5			
PAHs						
Benzo(g,h,i)perylene	1.1	1.1				
Fluoranthene	1.2		1.1			
cPAHs, nd RL*0	1.1					
cPAHs, nd RL*0.5	1.1					
cPAHs, nd RL*1	1.1					
Phthalates						
bis(2-Ethylhexyl)phthalate	9.2	6.3	8.5	5.8	1.5	
Butylbenzylphthalate					1.4	
Diethylphthalate	1.2					
Dimethylphthalate			13	5.6	4.2	1.9
Other SVOCs						
N-Nitrosodiphenylamine	46	33	43	30		
TPH						
Gasoline-Range Hydrocarbons	4.9		18			
Diesel-Range Hydrocarbons	2.6		2.3			
Motor Oil-Range Hydrocarbons	9.5		8.5		1.4	

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 N-9. Solids Sample Results Compared to
Organic Carbon-Normalized Criteria
Unified Grocers**

Location ID			UG-MH-76		
Collection Date			9/11/2014		
Analyte	SMS Criteria		Result	EF	
	SCO	CSL		SCO	CSL
PAHs (mg/kg OC)					
2-Methylnaphthalene	38	64	1.3		
Acenaphthene	16	57	0.70		
Acenaphthylene	66	66	0.52	J	
Anthracene	220	1,200	1.8		
Benzo(a)anthracene	110	270	7.8		
Benzo(a)pyrene	99	210	10		
Benzo(g,h,i)perylene	31	78	7.0		
Chrysene	110	460	13	J	
Dibenz(a,h)anthracene	12	33	0.91	J	
Dibenzofuran	15	58	0.74	J	
Fluoranthene	160	1,200	23		
Fluorene	23	79	1.7		
Indeno(1,2,3-cd)pyrene	34	88	5.2		
Naphthalene	99	170	0.78		
Phenanthrene	100	480	10		
Pyrene	1,000	1,400	24		
Total Benzofluoranthenes	230	450	23		
Total HPAHs	960	5,300	113	J	
Total LPAHs	370	780	16	J	
Phthalates (mg/kg OC)					
bis(2-Ethylhexyl)phthalate	47	78	83	1.8	1.1
Butylbenzylphthalate	4.9	64	3.9	J	
Di-n-Butylphthalate	220	1,700	< 17	U	
Diethylphthalate	61	110	< 7.0	U	
Dimethylphthalate	53	53	13		
Di-n-Octyl phthalate	58	4,500	11	J	
Other SVOCs (mg/kg OC)					
1,2,4-Trichlorobenzene	0.81	1.8	< 1.7	U	
1,2-Dichlorobenzene	2.3	2.3	< 1.9	U	
1,4-Dichlorobenzene	3.1	9	< 1.7	U	
Hexachlorobenzene	0.38	2.3	< 1.7	U	
Hexachlorobutadiene	3.9	6.2	< 1.7	U	
N-Nitrosodiphenylamine	11	11	1.2	J	
PCB Aroclors (mg/kg OC)					
Total PCB Aroclors	12	65	1.2		

Only samples with TOC content between 0.5 and 4.0% are OC-normalized for comparison with SMS OC-normalized criteria.

Exceedance Factors (EFs) are presented for detected concentrations that exceed the SMS criteria only.

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 SMS criteria.

Results in **bold** are detections.
Results shaded gray exceed at least one criterion.

**Table N-10. Solids Sample Results - PCB Congeners
Unified Grocers**

Location ID	UG-MH-60	UG-FD-01	UG-MH-76
Collection Date	9/11/2014	9/11/2014	9/11/2014
Analyte	Result	Result	Result
Total PCB Congeners (ng/kg) ^a	922,000 J	697,000 J	67,000 J
PCB TEQ, nd SDL*0	43.6	31.7	4.77 J
PCB TEQ, nd SDL*0.5	43.6	31.8	4.90 J
PCB TEQ, nd SDL*1	43.6	31.8	4.80 J
Total Monochlorobiphenyl (ng/kg)^a	1,920	1,190	171 J
PCB-1	1,080	667	89.0
PCB-2	191	121	20.3 J
PCB-3	652	405	61.6
Total Dichlorobiphenyl (ng/kg)^a	25,700	19,900	971 J
PCB-4/10	3,260	2,430	82.2 J
PCB-5/8	10,200	7,680	254
PCB-6	1,550	1,240	49.8 J
PCB-7/9	949	751	< 46.9 U*
PCB-11	2,710	2,730	355
PCB-12/13	650	491	34.4 J
PCB-14	< 0.337 U	< 0.337 U	< 0.337 U
PCB-15	6,400	4,570	196
Total Trichlorobiphenyl (ng/kg)^a	125,000 J	86,400 J	2,350 J
PCB-16/32	17,400	10,900	261
PCB-17	9,540	6,040	132
PCB-18	28,600	17,700	389
PCB-19	3,070 J	1,360 J	43.0 J
PCB-20/21/33	12,900	9,850	301
PCB-22	6,740	5,040	168
PCB-23	28.4 J	20.8 J	< 0.543 U
PCB-24/27	1,780	1,200	34.6 J
PCB-25	1,360	1,160	36.2 J
PCB-26	2,870	2,500	77.9
PCB-28	13,900	10,300	323
PCB-29	150	161	< 0.949 U
PCB-30	< 0.355 U	< 0.355 U	< 0.355 U
PCB-31	18,300	13,900	397
PCB-34	116	109	< 1.57 U
PCB-35	291	317	< 15.7 U*
PCB-36	25.1 J	40.4 J	< 0.406 U
PCB-37	7,680	5,700	189
PCB-38	232 J	122 J	< 0.528 U
PCB-39	24.8 J	0.461 UJ	< 0.461 U
Total Tetrachlorobiphenyl (ng/kg)^a	185,000 J	121,000 J	7,390 J
PCB-40	4,240	2,610	134
PCB-41/64/71/72	17,300	11,200	573
PCB-42/59	6,700	4,170	190
PCB-43/49	16,900	10,400	723
PCB-44	20,500	13,800	824
PCB-45	4,810 J	2,590 J	96.7
PCB-46	2,040 J	1,090 J	< 38.1 U*
PCB-47	5,110	3,270	202
PCB-48/75	4,010	2,600	113
PCB-50	72.4	44.1 J	< 0.603 U
PCB-51	1,510 J	751 J	34.8 J
PCB-52/69	23,600	15,200	1,270
PCB-53	3,920 J	1,990 J	103

**Table N-10. Solids Sample Results - PCB Congeners
Unified Grocers**

Location ID	UG-MH-60	UG-FD-01	UG-MH-76
Collection Date	9/11/2014	9/11/2014	9/11/2014
Analyte	Result	Result	Result
PCB-54	101	49.1 J	< 0.275 U
PCB-55	443	359	34.2 J
PCB-56/60	11,400	9,040	388
PCB-57	117	75.0	< 0.354 U
PCB-58	49.7	38.2 J	< 0.589 U
PCB-61/70	28,300	19,900	1,400
PCB-62	< 0.597 U	< 0.597 U	< 0.597 U
PCB-63	899	580	39.7 J
PCB-65	< 0.842 U	< 0.842 U	< 0.842 U
PCB-67	20,200	12,800	765
PCB-68	708	429	22.8 J
PCB-73	99.2	88.6	18.8 J
PCB-74	< 0.454 U	< 0.454 U	< 0.454 U
PCB-76/66	8,930	5,760	326
PCB-77	2,840	1,720	113
PCB-78	< 0.385 U	< 0.385 U	< 0.385 U
PCB-79	401	358	< 41.9 U*
PCB-80	< 0.336 U	< 0.336 U	< 0.336 U
PCB-81	136	86.2	14.3 J
Total Pentachlorobiphenyl (ng/kg)^a	227,000 J	180,000 J	20,200 J
PCB-82	4,970	3,610	319
PCB-83	< 24.8 U*	< 0.440 U	< 0.440 U
PCB-84/92	16,300	11,000	1,370
PCB-85/116	5,210	4,330	405
PCB-86	< 183 U*	< 1.79 U	< 1.79 U
PCB-87/117/125	12,500	10,400	1,030
PCB-88/91	4,860	3,870	450
PCB-89	352	212	23.8 J
PCB-90/101	39,800	27,900	3,540
PCB-93	< 1.42 U	< 1.42 U	< 1.42 U
PCB-94	183 J	0.874 J	< 17.0 U*
PCB-95/98/102	28,100	22,700	2,640
PCB-96	197	203	< 21.8 U*
PCB-97	10,200	8,650	903
PCB-99	13,100	8,980	1,070
PCB-100	124	< 0.511 U	< 0.511 U
PCB-103	287	282	35.0 J
PCB-104	< 0.876 U	< 0.876 U	< 0.876 U
PCB-105	14,200	10,300	1,050
PCB-106/118	30,800	28,000	2,830
PCB-107/109	1,990	1,640	172
PCB-108/112	1,630	1,380	144
PCB-110	37,900	33,000	3,850
PCB-111/115	532	502	45.4 J
PCB-113	101 J	215 UJ	< 65.1 U*
PCB-114	743	542	< 49.3 U*
PCB-119	< 608 U*	567	70.9
PCB-120	< 80.2 U*	< 0.622 U	< 0.622 U
PCB-121	< 0.978 U	< 0.978 U	< 0.978 U
PCB-122	395	290	23.7 J
PCB-123	410	339	38.9 J
PCB-124	1,380	983	108

**Table N-10. Solids Sample Results - PCB Congeners
Unified Grocers**

Location ID	UG-MH-60	UG-FD-01	UG-MH-76
Collection Date	9/11/2014	9/11/2014	9/11/2014
Analyte	Result	Result	Result
PCB-126	417	302	46.2 J
PCB-127	< 0.326 U	< 0.326 U	< 0.326 U
Total Hexachlorobiphenyl (ng/kg)^a	193,000	156,000	19,900 J
PCB-128/162	6,670	5,190	668
PCB-129	2,000	1,670	218
PCB-130	2,260	1,860	289
PCB-131	< 0.731 U	< 0.731 U	< 0.731 U
PCB-132/161	14,500	10,500	1,350
PCB-133/142	1,440	1,130	172
PCB-134/143	2,480	1,990	275
PCB-135	5,680	4,300	614
PCB-136	5,030	3,870	505
PCB-137	2,060	1,670	205
PCB-138/163/164	37,600	31,900	3,840
PCB-139/149	37,500	29,600	4,230
PCB-140	224	204	23.1 J
PCB-141	8,490	6,660	842
PCB-144	2,050	1,680	228
PCB-145	< 1.05 U	< 1.05 U	< 1.05 U
PCB-146/165	5,800	4,700	557
PCB-147	620	566	80.7
PCB-148	51.5	65.4	< 1.45 U
PCB-150	68.4	66.9	< 0.801 U
PCB-151	10,600	8,310	1,120
PCB-152	56.3	< 0.744 U	< 0.744 U
PCB-153	36,900	31,000	3,550
PCB-154	455	461	51.2
PCB-155	< 0.767 U	< 0.767 U	< 0.767 U
PCB-156	4,130	3,130	386
PCB-157	859	664	80.4
PCB-158/160	4,130	3,500	487
PCB-159	< 0.578 U	< 0.578 U	< 0.578 U
PCB-166	124	105	< 16.8 U*
PCB-167	1,580	1,290	152
PCB-168	58.6	< 0.502 U	< 0.502 U
PCB-169	< 0.767 U	< 0.767 U	< 0.767 U
Total Heptachlorobiphenyl (ng/kg)^a	128,000 J	101,000	12,100 J
PCB-170	15,500	10,700	1,340
PCB-171	3,510	2,610	325
PCB-172	2,130	1,580	198
PCB-173	< 329 U*	298	43.6 J
PCB-174	17,200	12,800	1,520
PCB-175	567	430	< 50.1 U*
PCB-176	1,670	1,430	180
PCB-177	9,360	7,440	869
PCB-178	2,690	2,330	308
PCB-179	6,350	5,280	673
PCB-180	39,200	30,000	3,500
PCB-181	< 1.26 U	< 1.26 U	< 1.26 U
PCB-182/187	15,700	14,100	1,660
PCB-183	7,470	6,450	802
PCB-184	< 0.597 U	< 0.597 U	< 0.597 U



**Table N-10. Solids Sample Results - PCB Congeners
Unified Grocers**



Location ID	UG-MH-60	UG-FD-01	UG-MH-76
Collection Date	9/11/2014	9/11/2014	9/11/2014
Analyte	Result	Result	Result
PCB-185	1,580	1,230	133
PCB-186	< 0.421 U	< 0.421 U	< 0.421 U
PCB-188	< 0.759 U	< 0.759 U	< 0.759 U
PCB-189	354	439	59.9
PCB-190	2,980	2,000	262
PCB-191	572	453	55.9
PCB-192	< 0.528 U	< 0.528 U	< 0.528 U
PCB-193	1,640	1,260	165
Total Octachlorobiphenyl (ng/kg)^a	30,900	26,800	3,340 J
PCB-194	7,850	6,280	801
PCB-195	3,120	2,400	324
PCB-196/203	8,040	7,470	899
PCB-197	358	291	43.7 J
PCB-198	480	355	40.6 J
PCB-199	6,960	6,480	813
PCB-200	1,000	921	101
PCB-201	1,100	912	111
PCB-202	1,690	1,380	166
PCB-204	< 0.543 U	< 0.543 U	< 0.543 U
PCB-205	315	301	39.2 J
Total Nonachlorobiphenyl (ng/kg)^a	3,230	3,820	443 J
PCB-206	2,190	2,870	306
PCB-207	345	293	45.9 J
PCB-208	690	656	90.9
Decachlorobiphenyl (ng/kg)	811	804	113
PCB-209	811	804	113

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 N-1
Inspection Photographic Log

Conveyance Structure Information	
Structure Identification Number: UG-MH-60/C-1	<p>N ←</p> 
Structure Type: Manhole	
General Location: North Central area of facility	
Characteristics: 10' to bottom of structure, 9' depth of water, 6" depth of sediment	
Pump Capacity (gpm): --	
Design Storm: --	
Access: Manhole cover	
Volume Gauge: --	
Sample ID: UG-MH-60-20140911-S UG-FD-01-20140911-S UG-MH-60-20140911-W	
Drainage Information:	
<p>MH-60 is located at the north end of the Unified Grocers facility. The location appeared to receive stormwater from north and central portion of the facility and roof drains from the Dry Grocery building along the eastern portion of the property. Stormwater was conveyed from MH-60 off site to a public storm drain line along S Norfolk Street.</p>	<p>N ↘</p> 

Conveyance Structure Information	
Structure Identification Number: UG-MH-76	N↑
Structure Type: Manhole	
General Location: Centrally located at facility	
Characteristics: 11.5' to bottom of structure, 8' to depth of water, 4.5" of sediment	
Pump Capacity (gpm): --	
Design Storm: --	
Access: Manhole Grate	
Volume Gauge: --	
Sample ID: UG-MH-76-20140911-S	
Drainage Information:	
<p>Manhole MH-76 had a drain pipe connected to a line to the north and another drain pipe connected to the east. The north drain pipe appeared to be higher than the east drain pipe indicating a conveyance from the north and towards the east. According to the facility map, the east drain pipe makes a 90 degree turn towards the south and connects with the WSDOT main line that runs through the property.</p>	N↗
	

Attachment N-2
Field Documentation

Location Unified Grocers Date 9/11/14 13
Project / Client NPOES / Ecology

- 0645 C. Wilson stops to purchase ice while en route to storage unit
- 0655 Arrive at Storage unit. M. Ivancevich on site
- 0700 Leidos preps sample equipment for field event
- 0805 Leidos departs field office
- 0820 Arrive at Starbucks near unified Grocers. C. Nancarrow onsite
- 0840 Leidos arrive on site at Unified Grocers Bob Wright, Alex White, Mahbub Alam from EGY on site. Villanueva, Greg from city of Tukwila.
- Discussion about leveling concrete buildings and using as leveling material for trench storage in gravel area of SW portion of property where trucks are parked Bob Wright spoke to management at Unified Grocers who directed us to truck entrance to property.
- 0850 Ecology, City of Tukwila, and Leidos mob to truck entrance at unified Grocers at 10430 E. Marginal Way S.

Location Unified Grocers Date 09/11/14
 Project / Client NPDES/Ecology

- 0905 Met with John, site manager at Unified Grocers to discuss activities for the day - sampling
- 0925 Conducted H+S meeting w/ Ecy + Leides personnel
- 0930 Probed at catch basin C-1 also labeled 60 on facility provided figure. Low volume detected in catch basin. Incorrectly identified C-1. Moved upstream and identified correct location. Photo documentation collected. Leides ID for this location is MH-60. Manhole is located in the C drainage basin and drains North central portion of site.
- 1030 Collected sample UG-MH-60-20140911-5 and field duplicate UG-FD-01-20140911-5. Leides split the sample to transfer to Unified Grocers
- 1130 Investigating area at the Southern portion of the facility around facility manholes 74-77. Identified location 76 w/ sufficient sampleable material for water + sediment

Location Unified Grocers Date 9/11/14
 Project / Client NPDES/Ecology

- 1200 Determined to collect sample at MH-76. Location has a drain pipe entering from north and a drain pipe entering from east. North Drain pipe elevation appears higher than east drain pipe
- 1230 Collect solids sample UG-MH-76-20140911-5 and split w/ facility
- 1315 Completed solids sampling at MH-76. Mapped to CB (#H-1), in truck wash, maintenance buildings, loading docs in SW portion of site. Insufficient volume of solids for sampling. Likely insufficient volume of water for sampling. Investigated additional CB's in SW portion of site, near fueling station and truck scales area as well as CB (#I-1). CB (#I-1) also had insufficient volumes for sampling. Due to insufficient volumes in SW portion, Ecology

Location Unified GrocersProject / Client NPDES/EcologyDate 09/11/14

- decided to return to MH-60 to collect a water sample.
- 1400 Mobbed to MH-60
- 1440 Collected sample UG-MH-60-20140911-1 and split with facility
- 1510 Sampling complete. Leidos packs up equipment and prepares COCs for split samples for transfer to Unified Grocers.
- 1515 Unified Grocers signs COCs and split samples are transferred.
- 1520 Leidos offsite, mobbed to field office to prepare Vista samples for shipment.
- 1540 Leidos demobbed at field office and packaged samples to be shipped to Vista via FedEx.
- 1630 C. Wilson delivered samples in a secured cooler to FedEx for shipment to Vista. M. Ivancevich completes field logbook and organizes field office.
- 1700 M. Ivancevich secured field office.

M. Ivancevich 09/11/14

Location Field officeProject / Client NPDES/EcologyDate 09/12/14

- 0702 M. Ivancevich arrives at field office and replaces ice in Test America sample coolers
- 0713 M. Ivancevich began prepping sampling kits for next field sampling event and took inventory of remaining sampling containers
- 0800 M. Ivancevich deconned equipment from sampling on 09/11/14.
- 0915 M. Ivancevich relinquished one cooler to Test America courier "Paco"
- 0920 M. Ivancevich completed activities at field office & secured location.

M. Ivancevich 09/12/14



Sediment Collection Form

Project: NPDES Sampling Support

Location ID: UG-MH-60

Facility Name: Unified Grocers

Sample ID: UG-MH-60-20140911-5

Sampled By: CW, MI

Date: 9 / 11 / 2014 Time: 1030

Structure Type: <u>Manhole</u>	Dimensions: <u>Standard</u> W _____ L _____	Standing Water: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	Flow: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N
Conveyance System Sketch			↑ N
			<p>X - approx sample grab locations</p> <p>Small roof drain ~ 3"</p>
Depth to Bottom: <u>~10</u> ft	Depth to Water: <u>~1</u> ft	Depth of Sediment: <u>~6</u> in	Sampled: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N Discrete / Composite (circle one)
Sediment type: Cobble Gravel <input checked="" type="checkbox"/> Sand C M F <input checked="" type="checkbox"/> Silt/clay Organic matter Debris	Sediment color: Drab olive Brown Brown surface Gray <input checked="" type="checkbox"/> Black Tan	Sediment Odor: None Slight <input checked="" type="checkbox"/> Moderate Strong Overwhelming H ₂ S <input checked="" type="checkbox"/> Petroleum	Comments: Collected Field duplicate at this location Photo ID(s): <u>Photos taken</u> GPS ID: <u>No GPS</u>

NOTES: Small manhole opens to a larger downhole basin. Flow path appears to be from south to north. Also collected water sample UG-MH-60-20140911-V from this location

Recorded By/Date: [Signature] 9/11/14

Reviewed By/Date: [Signature] 9/12/14



Sediment Collection Form


Project: NPDES Sampling Support

Location ID: UG-MH-76

Facility Name: Unified Grocers

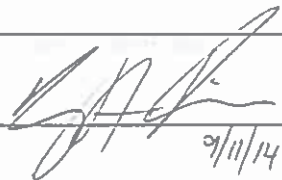
Sample ID: UG-MH-76-20140911-5

Sampled By: C. M. I. Date: 9 / 11 / 2014 Time: 1245

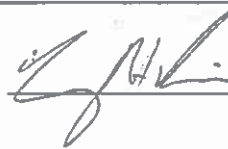
Structure Type: <u>Manhole</u>	Dimensions: Standard W _____ L _____	Standing Water: <input checked="" type="radio"/> N	Flow: Y / <input checked="" type="radio"/> N
Conveyance System Sketch 			<input checked="" type="radio"/> N X approximate location of grab samples
Depth to Bottom: <u>~11.5</u> ft	Depth to Water: <u>8</u> ft	Depth of Sediment: <u>4-6</u> in	Sampled: <input checked="" type="radio"/> N Discrete / Composite (circle one)
Sediment type: Cobble <input checked="" type="radio"/> Gravel <input checked="" type="radio"/> Sand <input checked="" type="radio"/> C <input checked="" type="radio"/> M <input checked="" type="radio"/> F Silt/clay Organic matter Debris	Sediment color: Drab olive Brown Brown surface Gray <input checked="" type="radio"/> Black Tan	Sediment Odor: None Slight <input checked="" type="radio"/> Moderate Strong Overwhelming H ₂ S <input checked="" type="radio"/> Petroleum	Comments: Debris + gravel removed during jacking Photo ID(s): <u>Photos Taken</u> GPS ID: <u>Name Taken</u>

NOTES: Location is ID'd as 76 on facility provided figures. Unable to determine if north pipe is influent or effluent. North pipe elevation is greater than pipe observed on the east side of the man hole sump.

Recorded By/Date:

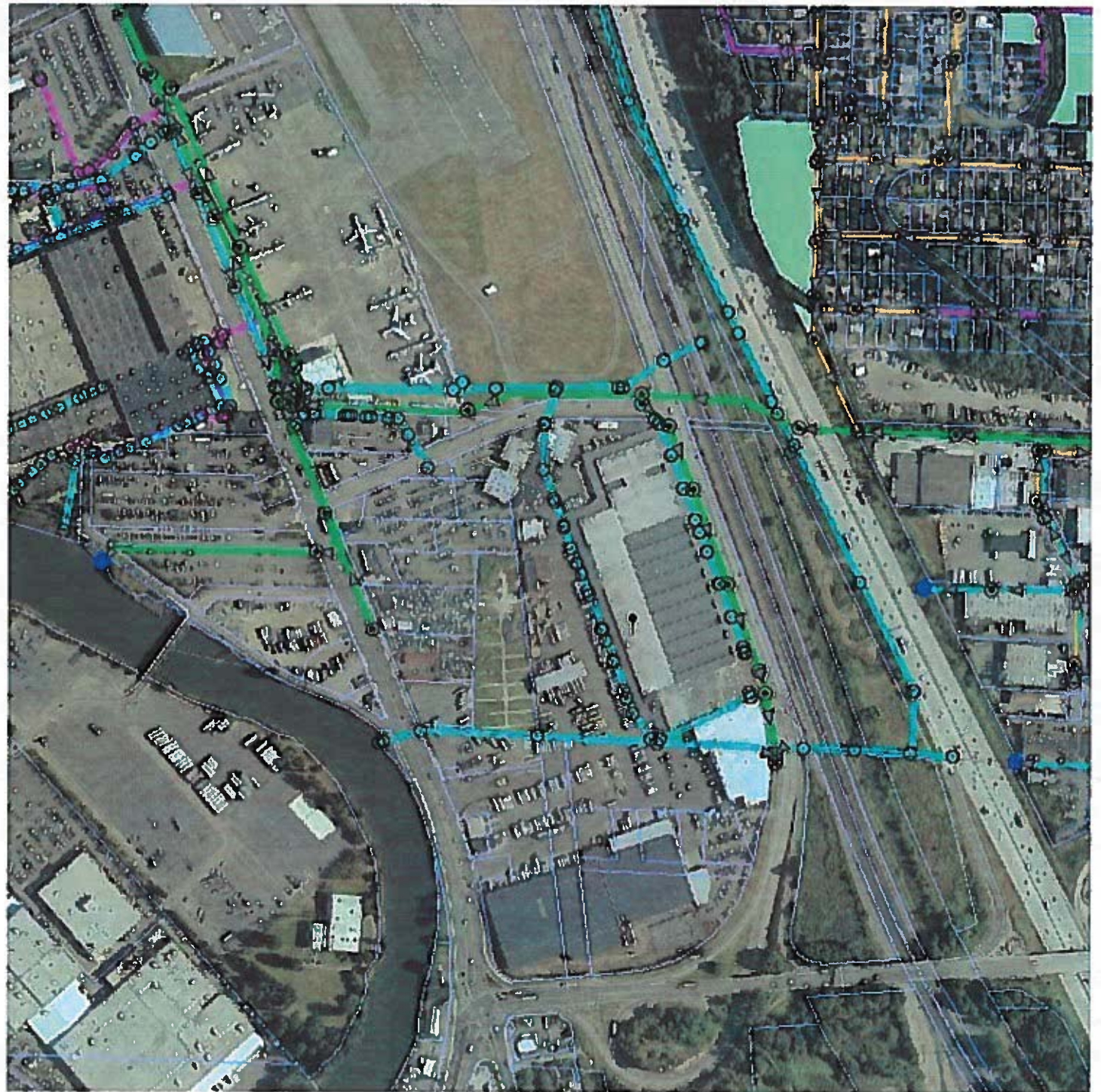

9/11/14

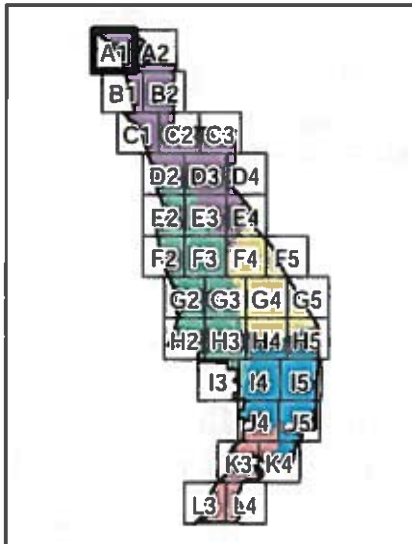
Reviewed By/Date:

 9/12/14

UNIFIED GROCCERS

- DWW Mainline End Points**
- ⊙ Standard MH
 - ⊙ CB MH
 - ⊙ Drop MH
 - ⊙ Other MH
 - ┌ END, PLG, CAP
 - ⊙ Outfall
 - ⊙ Infall
 - Water Quality Structure
 - Misc Structure
 - ⊙ Unknown
 - ⊙ Private Maintenance Holes
- DWW Mainlines**
- ▬ Drainage Mainline
 - ▬ Sanitary Mainline
 - ▬ Combined Mainlines
 - ▬ King County Mainline
- DWW Private Mainlines (Permitted Use)**
- ▬ Drainage
 - ▬ Sanitary
 - ▬ Combined
- DWW Mainline Repairs**
- ▬ Pavement Edge
- Streams**
- ▬ Open Channel
 - ▬ Culverted
- Street Names**
- ▬ Parcel Boundaries
- Water Bodies**
- Parks

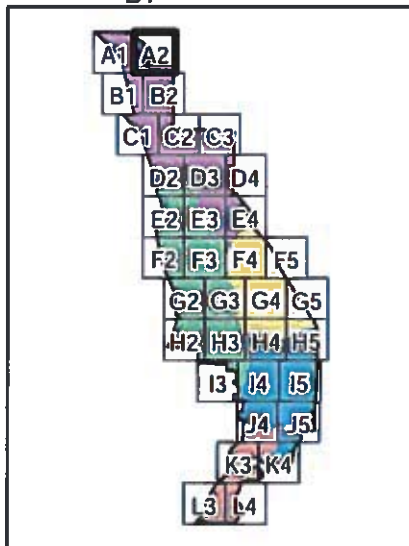
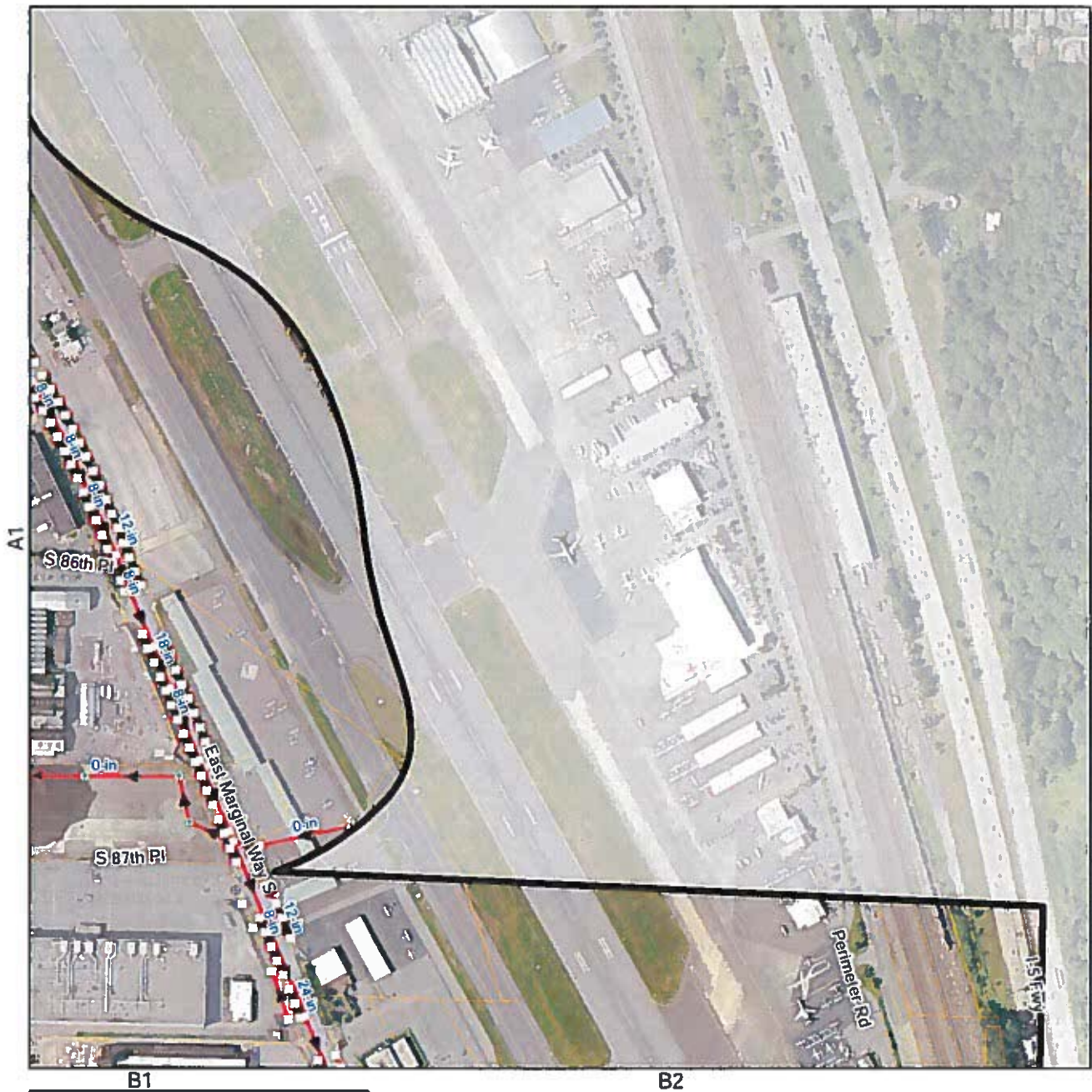




1 inch = 500 feet
 0 200 400 600
 Feet



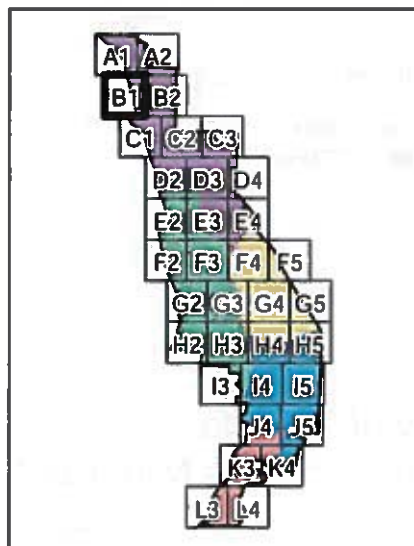
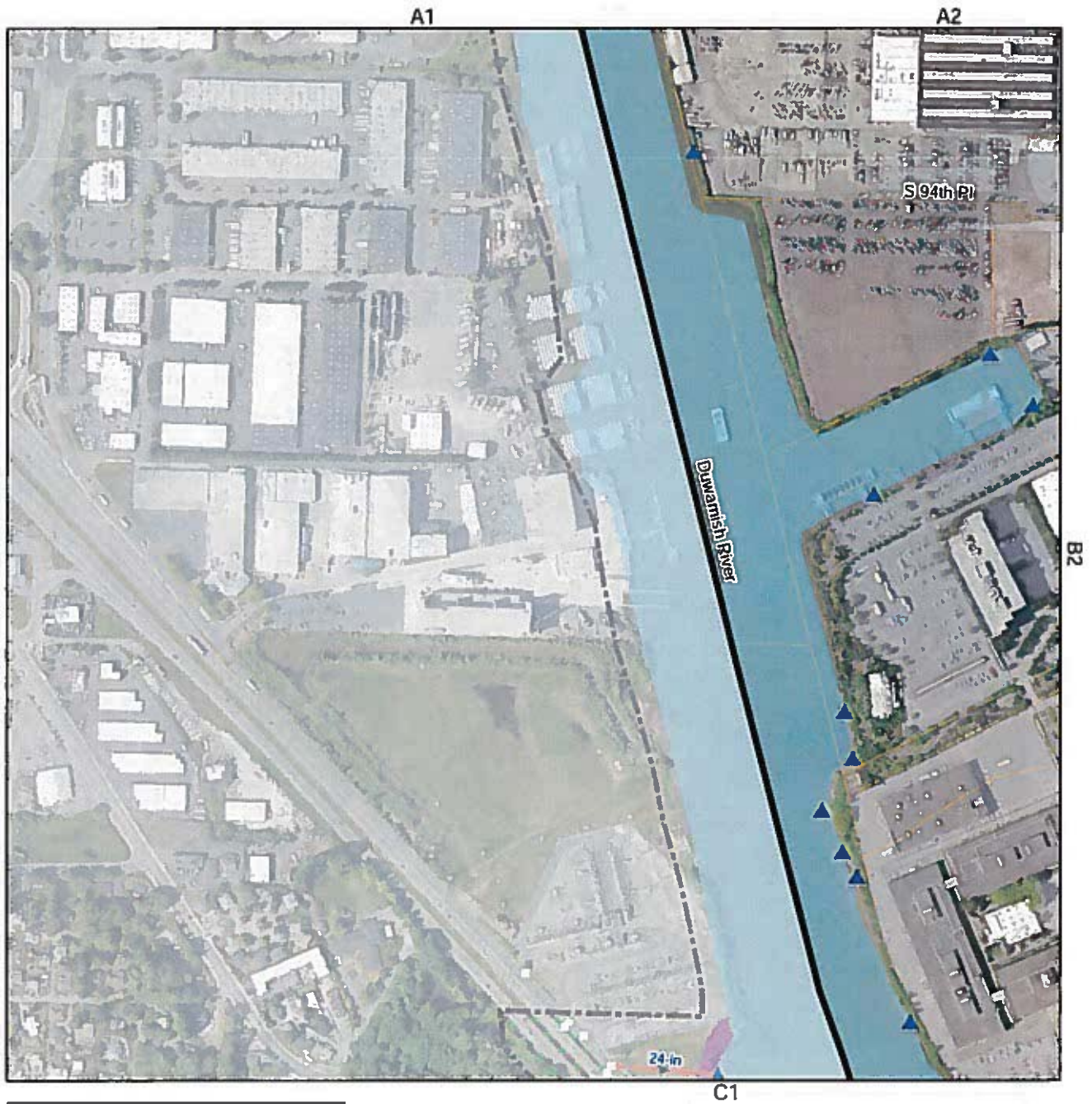
City of Tukwila
 Surface Water Map Book



1 inch = 500 feet



City of Tukwila
Surface Water Map Book

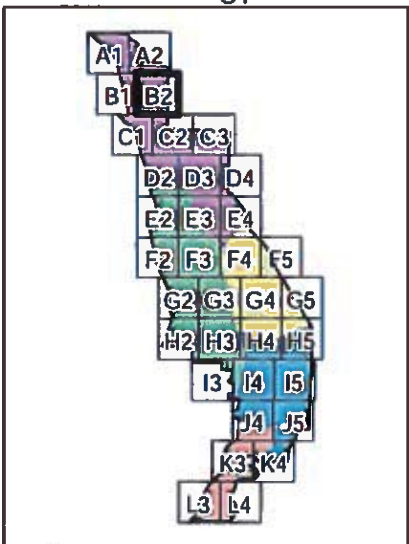


1 inch = 500 feet



City of Tukwila
Surface Water Map Book

A2

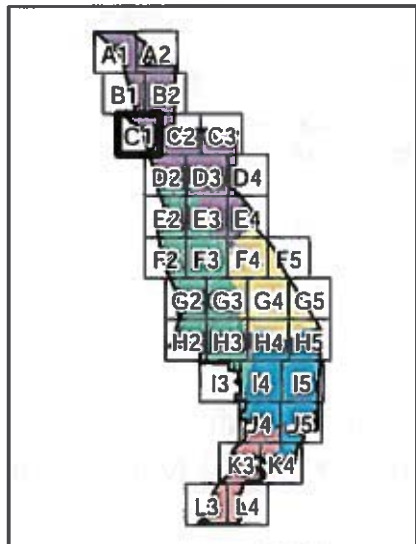
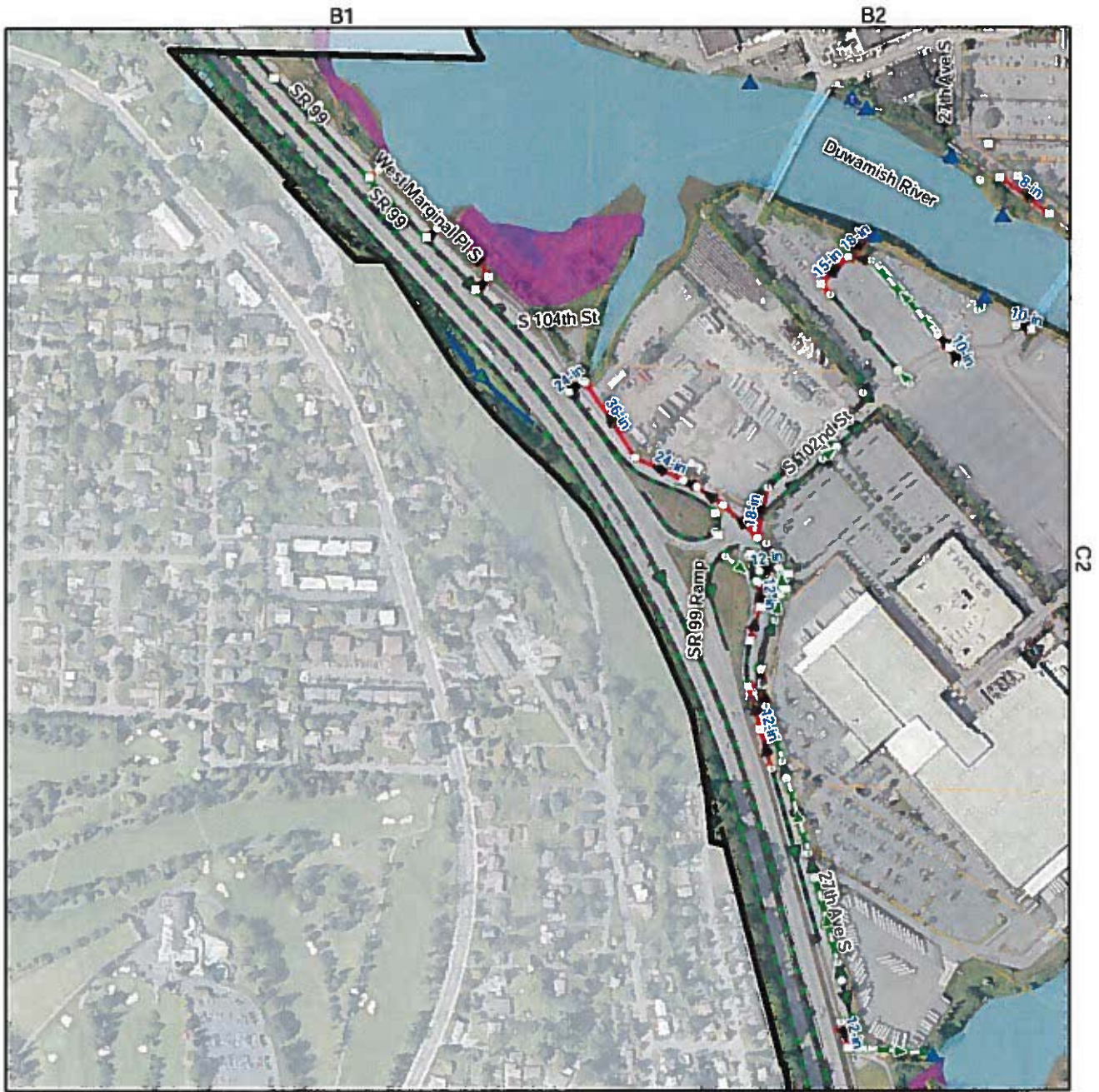


1 inch = 500 feet

0 200 400 600 Feet



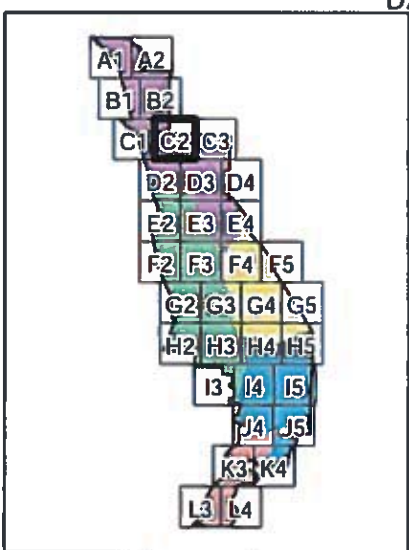
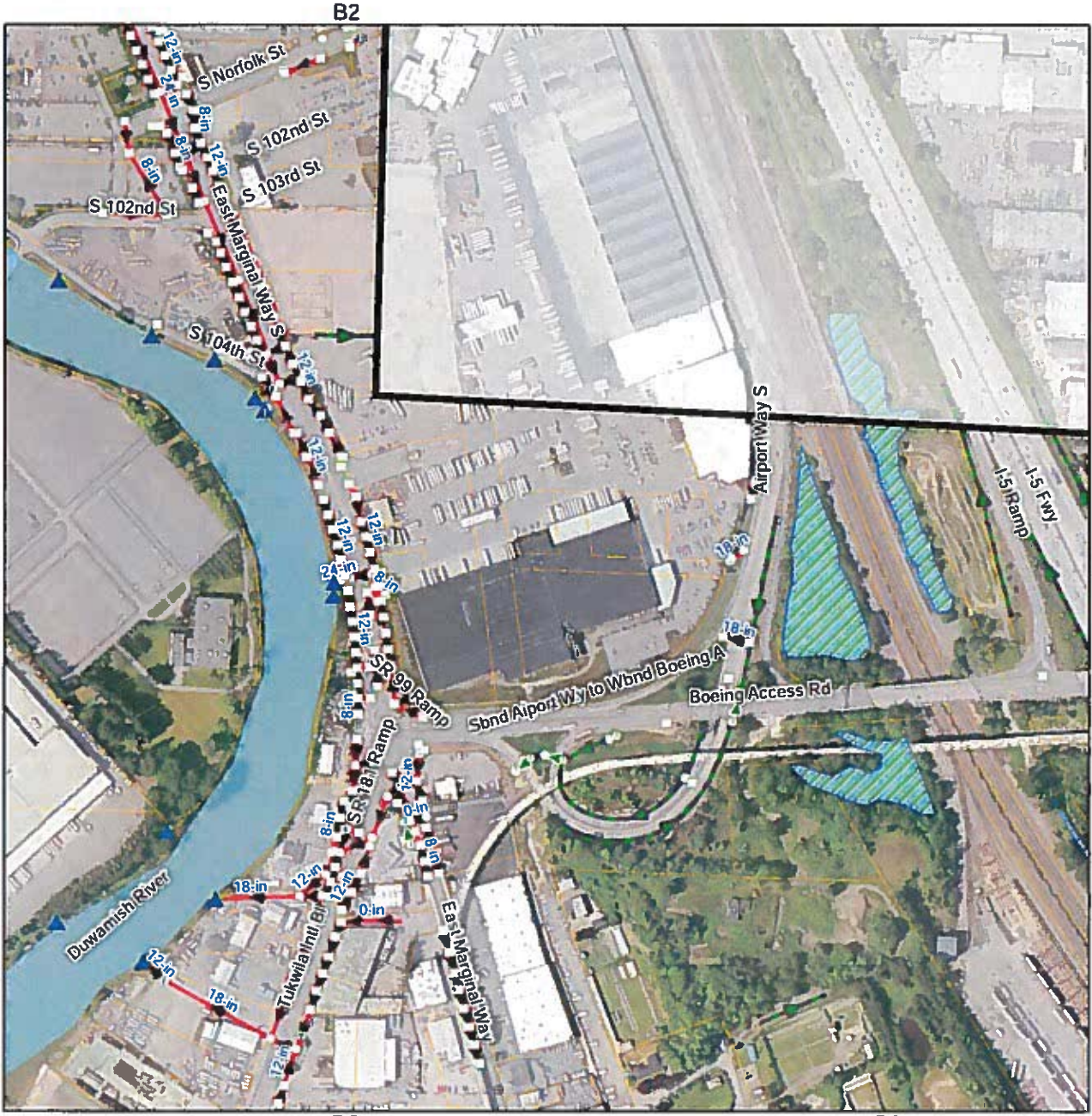
City of Tukwila
Surface Water Map Book



1 inch = 500 feet
 0 200 400 600 Feet



City of Tukwila
 Surface Water Map Book



1 inch = 500 feet
 0 200 400 600 Feet



City of Tukwila
Surface Water Map Book

Attachment N-3
Chain of Custody Forms

TestAmerica Seattle

5755 8th Street East

Tacoma, WA 98424
phone 253.922.2310 fax

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: Christine Nancarrow		Site Contact: Mellisa Ivancevich		Date: 9-11-14		COC No:	
Leidos		Tel/Fax: 206.300.2144		Lab Contact: Kris Allen		Carrier: Courier		2 of 2 COCs	
18912 N Creek Pkwy, Ste. 101		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) PCB Aroclors (Method 8082) SVOC (Method 8270D/8270D-SIM) TPH-Diesel (NWTPH-Dx) Metals (Method 200.87471A) Total Solids (Method SM2540B) TPH-Gasoline (NWTPH-Gx) VOCs (EPA 8260C) TOC (Plumb1981/9060) Particle Size (PSEP_Plumb1981)		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below 3 Weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sampler:	
Bothell, WA 98011		Phone						For Lab Use Only:	
425.398.2101		FAX						Walk-in Client:	
425.485.5566		Project Name: NPDES Sampling Support						Lab Sampling:	
Site: Lower Duwamish Waterway		P O #						Job / SDG No.:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PCB Aroclors (Method 8082)	SVOC (Method 8270D/8270D-SIM)	TPH-Diesel (NWTPH-Dx)	Metals (Method 200.87471A)	Total Solids (Method SM2540B)	TPH-Gasoline (NWTPH-Gx)	VOCs (EPA 8260C)	TOC (Plumb1981/9060)	Particle Size (PSEP_Plumb1981)	Sample Specific Notes:	
UG-MH-60-20140911-S	9-11-14	1020	G	Sed	6													
UG-ED-01-20140911-S	9-11-14	1030	G	Sed	6			✓	✓	✓	✓	✓	✓	✓	✓	✓		
UG-MH-76-20140911-S	9-11-14	1245	G	Sed	6			✓	✓	✓	✓	✓	✓	✓	✓	✓		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other MeOH

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.:	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	Relinquished by:	Company:
Melissa Ivancevich	Leidos	09/11/14 0915	[Signature]	TESTA	9/12/14 0915		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	Relinquished by:	Company:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:	Relinquished by:	Company:

TestAmerica Seattle
5755 8th Street East

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Tacoma, WA 98424
phone 253.922.2310 fax

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Christine Nancarrow		Site Contact: Mellisa Ivancevich		Date: 9-11-14		COC No:	
Leidos		Tel/Fax: 206.300.2144		Lab Contact: Kris Allen		Carrier: Courier		1 of 2 COCs	
18912 N Creek Pkwy, Ste. 101		Analysis Turnaround Time							
Bothell, WA 98011		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below 3 Weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
425 398 2101 Phone		Filtered Sample (Y/N) Perform MS / MSD (Y/N) SVOCs (Method 8270D) Metals (Method 200.8/7470A) pH (Method SM4500H) Spec Cond (Method 120.1) Alk/Bicarb/Carb (Method SM2320) Anions (Method 300.0/353.2) TOC (Method SM5310B) DOC (Method SM5310B) TSS (Method 2540D)							
425 485 5566 FAX									
Project Name: NPDES Sampling Support									
Site: Lower Duwamish Waterway									
P O #		Sampler: _____ For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____							

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	SVOCs (Method 8270D)	Metals (Method 200.8/7470A)	pH (Method SM4500H)	Spec Cond (Method 120.1)	Alk/Bicarb/Carb (Method SM2320)	Anions (Method 300.0/353.2)	TOC (Method SM5310B)	DOC (Method SM5310B)	TSS (Method 2540D)	Sample Specific Notes:
UG-MH-60-20140914-W	9/11/14	1440	G	W	13	N	2	2		2			1	1	1		
					9												

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other MeOH

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.:	
Relinquished by: <i>Mellisa Ivancevich</i>	Company: Leidos	Date/Time: 9/11/14 0915	Received by: <i>[Signature]</i>	Company: T.A.S.E.A.	Date/Time: 9/12/14 0915		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:		

Attachment N-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: 580-45354-1

Client Project/Site: Industrial Facility Sampling

For:

Leidos, Inc.
18912 North Creek Parkway, Suite 101
Bothell, Washington 98011

Attn: Christine Nancarrow



Authorized for release by:
10/9/2014 3:25:45 PM

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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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6

7

8

9

10

11



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions	6
Client Sample Results	8
QC Sample Results	26
Chronicle	58
Certification Summary	61
Sample Summary	62
Chain of Custody	63
Receipt Checklists	65

Case Narrative

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Job ID: 580-45354-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-45354-1

Comments

No additional comments.

Receipt

The samples were received on 9/12/2014 12:41 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.3° C.

Except:

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): UG-MH-60-20140914-W (580-45354-1). The container labels list UG-MH-60-20140911-W, while the COC lists UG-MH-60-20140914-W. Sample ID was entered per the COC.

GC/MS VOA

Method(s) 5035: Approximately 2-4g of sample was provided in each 10mL methanol vial for the following samples: UG-FD-01-20140911-S (580-45354-3), UG-MH-60-20140911-S (580-45354-2), UG-MH-76-20140911-S (580-45354-4). The typical sample volume is 10g.

Method(s) 8260B: The Internal standard responses for Chlorobenzene-d5 (IS group 107) in sample UG-MH-60-20140911-S (580-45354-2) were outside of acceptance limits. The sample(s) shows evidence of matrix interference; therefore the affected analytes were flagged (*) and have a potential high bias.

Method(s) 8260B: The Internal standard responses for 1,4-Dichlorobenzene-d5 (IS group 51) in samples UG-FD-01-20140911-S (580-45354-3), UG-MH-60-20140911-S (580-45354-2), UG-MH-76-20140911-S (580-45354-4) were outside of acceptance limits. The sample(s) shows evidence of matrix interference; therefore the affected analytes were flagged (*) and have a potential high bias.

Method(s) 8260B: The surrogate Toluene-d8 and 4-Bromofluorobenzene recovery for the following sample(s) was outside control limits: UG-FD-01-20140911-S (580-45354-3), UG-MH-60-20140911-S (580-45354-2), UG-MH-76-20140911-S (580-45354-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) NWTPH-Gx: Surrogate recovery (Bromofluorobenzene, BFB) for the following sample(s) was outside control limits: UG-FD-01-20140911-S (580-45354-3). Evidence of matrix interference is present; 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) 8270D: The continuing calibration verification (CCV) associated with batch 169948 recovered above the upper control limit (+20%) for Indeno(1,2,3cd)Pyrene, 4-Nitrophenol, n-Octadecane, 2,4-Dinitrotoluene, 3,3'-Dichlorobenzidine, Butyl benzyl phthalate, 2-Nitroaniline, 4,6-Dinitro-2-Methylphenol and 2,4-Dinitrophenol. The samples associated with this CCV were below the reporting limit (RL) for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCVIS 580-169948/3), (LCS 580-169636/2-A), (LCSD 580-169636/3-A), (MB 580-169636/1-A), UG-MH-60-20140914-W (580-45354-1).

Method(s) 8270D: The method blank for prep batch 169636 contained Butylbenzyl phthalate, Bis(2-ethylhexyl)phthalate, Di-n-butyl phthalate and n-Decane 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) 8270D: The following analytes recovered outside control limits for the LCS/LCSD associated with prep batch 169636: Bis(2-ethylhexyl)phthalate (high in both LCS/LCSD), 3,3'-Dichlorobenzidine (low in LCS), and 4-Chloroaniline (low in LCSD). This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method(s) 8270D: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation

Case Narrative

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Job ID: 580-45354-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

batch 169636 recovered outside control limits for the following analytes: 4-Chloroaniline, 3,3'-Dichlorobenzidine, 2,4-Dinitrophenol, Bis(2-ethylhexyl)phthalate, 2,4-Dimethylphenol and Benzoic Acid.

Method(s) 8270D: The continuing calibration verification (CCV) associated with analytical batch 171413 recovered above the upper control limit for 4-Nitrophenol, Hexachlorocyclopentadiene, Hexachlorobutadiene and Bis(2-chloroethoxy)methane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (580-45354-2 MS), (580-45354-2 MSD), (CCVIS 580-171413/3), (LCS 580-170013/2-A), (LCSD 580-170013/3-A), (MB 580-170013/1-A), UG-FD-01-20140911-S (580-45354-3), UG-MH-60-20140911-S (580-45354-2), UG-MH-76-20140911-S (580-45354-4).

Method(s) 8270D: The method blank for prep batch 169636 contained Bis(2-ethylhexyl)phthalate 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) 8270D: Multiple analyte(s) recovered outside control limits for the LCS/LCSD associated with prep batch 170013. These analytes were outside the Marginal Exceedance Limits; therefore, re-extraction and/or re-analysis was performed. The re-extraction took place outside of the method specific holding time. Both sets of data have been reported for the affected analytes.

Method(s) 8270D: Surrogate recovery for the following sample(s) was outside control limits: (580-45354-2 MS). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

Method(s) 8270D: Benzo(a)anthracene recovered slightly outside control limits for the re-extracted LCS associated with prep batch 171673. Since the recovery was within 2% of the control limits and the associated LCSD passed the criteria; no further corrective action was taken. The results have been qualified and reported as secondary.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: UG-MH-60-20140914-W (580-45354-1). 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) 8082: In batch 170123, the following sample(s) required a copper clean-up to reduce matrix interferences caused by sulfur: (580-45354-2 MS), (580-45354-2 MSD), (LCS 580-169872/4-A), (LCSD 580-169872/5-A), (MB 580-169872/1-A), UG-FD-01-20140911-S (580-45354-3), UG-MH-60-20140911-S (580-45354-2), UG-MH-76-20140911-S (580-45354-4). Lot# H25604

Method(s) 8082: In batch 170123, surrogate Decachlorobiphenyl recovery for the following sample(s) was outside control limits: UG-MH-60-20140911-S (580-45354-2). Evidence of matrix interference is present in the chromatogram and in a very dark acid layer from the acid cleanup; therefore, re-extraction and/or re-analysis was not performed.

Method(s) NWTPH-Dx: In analysis batch 170232, for the following sample(s) from preparation batch 169865: UG-FD-01-20140911-S (580-45354-3), UG-MH-60-20140911-S (580-45354-2), the results in the #2 Diesel Fuel (C10-C24) and Motor Oil (>C24-C36) range(s) are due to a complex mixture of weathered/degraded diesel fuel and motor oil. The affected analyte range(s) have been Y qualified and reported.

Method(s) NWTPH-Dx: In analysis batch 170232, for the following sample(s) from preparation batch 169865: UG-MH-76-20140911-S (580-45354-4), the results in the #2 Diesel Fuel (C10-C24) range are due primarily to motor oil overlap. The affected analyte range has 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

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.

Case Narrative

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Job ID: 580-45354-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

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.

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Definitions/Glossary

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
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.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
*	LCS or 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.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery exceeds the control limits
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.
F2	MS/MSD RPD exceeds control limits

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
Y	The chromatographic response resembles a typical fuel pattern.
F3	Duplicate RPD exceeds the control limit
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds 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.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
F1	MS and/or MSD Recovery exceeds the control limits

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

TestAmerica Seattle

Definitions/Glossary

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140914-W

Lab Sample ID: 580-45354-1

Date Collected: 09/11/14 14:40

Matrix: Water

Date Received: 09/12/14 12:41

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		2.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Bis(2-chloroethyl)ether	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2-Chlorophenol	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
1,3-Dichlorobenzene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
1,4-Dichlorobenzene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Benzyl alcohol	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
1,2-Dichlorobenzene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2-Methylphenol	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
3 & 4 Methylphenol	ND		3.8	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
N-Nitrosodi-n-propylamine	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Hexachloroethane	ND		2.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Nitrobenzene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Isophorone	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2-Nitrophenol	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2,4-Dimethylphenol	ND	*	9.5	1.4	ug/L		09/12/14 16:46	09/16/14 23:30	5
Benzoic acid	3.4	J *	14	2.9	ug/L		09/12/14 16:46	09/16/14 23:30	5
Bis(2-chloroethoxy)methane	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2,4-Dichlorophenol	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
1,2,4-Trichlorobenzene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Naphthalene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
4-Chloroaniline	ND	*	1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Hexachlorobutadiene	ND		2.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
4-Chloro-3-methylphenol	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2-Methylnaphthalene	ND		0.95	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
1-Methylnaphthalene	ND		0.29	0.14	ug/L		09/12/14 16:46	09/16/14 23:30	5
Hexachlorocyclopentadiene	ND		9.5	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2,4,6-Trichlorophenol	ND		2.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2,4,5-Trichlorophenol	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2-Chloronaphthalene	ND		0.29	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
2-Nitroaniline	ND	^	1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Dimethyl phthalate	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Acenaphthylene	ND		0.38	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
2,6-Dinitrotoluene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
3-Nitroaniline	ND		1.9	0.57	ug/L		09/12/14 16:46	09/16/14 23:30	5
Acenaphthene	ND		0.48	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
2,4-Dinitrophenol	ND	* ^	24	4.8	ug/L		09/12/14 16:46	09/16/14 23:30	5
4-Nitrophenol	ND	^	14	4.8	ug/L		09/12/14 16:46	09/16/14 23:30	5
Dibenzofuran	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
2,4-Dinitrotoluene	ND	^	1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Diethyl phthalate	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
4-Chlorophenyl phenyl ether	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Fluorene	ND		0.29	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
4-Nitroaniline	ND		2.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
4,6-Dinitro-2-methylphenol	ND	^	19	4.8	ug/L		09/12/14 16:46	09/16/14 23:30	5
N-Nitrosodiphenylamine	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
4-Bromophenyl phenyl ether	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Hexachlorobenzene	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Pentachlorophenol	ND		3.3	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Phenanthrene	0.37	J	0.38	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140914-W

Lab Sample ID: 580-45354-1

Date Collected: 09/11/14 14:40

Matrix: Water

Date Received: 09/12/14 12:41

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.19	0.048	ug/L		09/12/14 16:46	09/16/14 23:30	5
Carbazole	ND		1.9	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Di-n-butyl phthalate	3.8	B	1.9	0.62	ug/L		09/12/14 16:46	09/16/14 23:30	5
Fluoranthene	0.53		0.24	0.062	ug/L		09/12/14 16:46	09/16/14 23:30	5
Pyrene	0.45		0.29	0.062	ug/L		09/12/14 16:46	09/16/14 23:30	5
Butyl benzyl phthalate	ND	^	2.9	0.95	ug/L		09/12/14 16:46	09/16/14 23:30	5
3,3'-Dichlorobenzidine	ND	* ^	9.5	0.48	ug/L		09/12/14 16:46	09/16/14 23:30	5
Benzo[a]anthracene	0.21	J	0.29	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
Chrysene	0.16	J	0.19	0.062	ug/L		09/12/14 16:46	09/16/14 23:30	5
Bis(2-ethylhexyl) phthalate	ND	*	14	5.6	ug/L		09/12/14 16:46	09/16/14 23:30	5
Di-n-octyl phthalate	ND		1.9	0.86	ug/L		09/12/14 16:46	09/16/14 23:30	5
Benzo[b]fluoranthene	ND		0.38	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
Benzo[k]fluoranthene	ND		0.29	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
Benzo[a]pyrene	ND		0.19	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
Indeno[1,2,3-cd]pyrene	ND	^	0.29	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
Dibenz(a,h)anthracene	ND		0.29	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
Benzo[g,h,i]perylene	ND		0.29	0.095	ug/L		09/12/14 16:46	09/16/14 23:30	5
N-Nitrosodimethylamine	ND		9.5	0.95	ug/L		09/12/14 16:46	09/16/14 23:30	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	65		30 - 134	09/12/14 16:46	09/16/14 23:30	5
Phenol-d5	84		52 - 120	09/12/14 16:46	09/16/14 23:30	5
2,4,6-Tribromophenol	115		44 - 125	09/12/14 16:46	09/16/14 23:30	5
Nitrobenzene-d5	96		59 - 120	09/12/14 16:46	09/16/14 23:30	5
2-Fluorobiphenyl	78		50 - 120	09/12/14 16:46	09/16/14 23:30	5
Terphenyl-d14	113		64 - 150	09/12/14 16:46	09/16/14 23:30	5

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0010	0.00075	mg/L		10/02/14 14:33	10/03/14 10:54	1
Antimony	0.050		0.00040	0.000080	mg/L		10/02/14 14:33	10/03/14 10:54	1
Beryllium	ND		0.00040	0.00010	mg/L		10/02/14 14:33	10/03/14 10:54	1
Cadmium	0.00016	J	0.00040	0.000028	mg/L		10/02/14 14:33	10/03/14 10:54	1
Chromium	0.0081		0.00040	0.00027	mg/L		10/02/14 14:33	10/03/14 10:54	1
Copper	0.011		0.0010	0.00011	mg/L		10/02/14 14:33	10/03/14 10:54	1
Lead	0.0058		0.00040	0.000034	mg/L		10/02/14 14:33	10/03/14 10:54	1
Nickel	0.0016	J	0.0030	0.00040	mg/L		10/02/14 14:33	10/03/14 10:54	1
Selenium	ND		0.0010	0.00071	mg/L		10/02/14 14:33	10/03/14 10:54	1
Silver	0.000035	J	0.00040	0.000030	mg/L		10/02/14 14:33	10/03/14 10:54	1
Thallium	ND		0.0010	0.00028	mg/L		10/02/14 14:33	10/03/14 10:54	1
Zinc	0.45	B	0.0040	0.0019	mg/L		10/02/14 14:33	10/03/14 10:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00021		0.00020	0.000041	mg/L		09/15/14 11:20	09/15/14 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	200		10	10	umhos/cm			09/13/14 16:48	1
Chloride	6.7		0.90	0.30	mg/L			09/13/14 11:50	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140914-W

Lab Sample ID: 580-45354-1

Date Collected: 09/11/14 14:40

Matrix: Water

Date Received: 09/12/14 12:41

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90	0.20	mg/L			09/13/14 11:50	1
Sulfate	4.2		1.2	0.40	mg/L			09/13/14 11:50	1
Total Suspended Solids	17		14	14	mg/L			09/16/14 16:21	1
pH	6.80	HF	0.0100	0.0100	SU			09/12/14 14:30	1
Total Organic Carbon	6.2		1.0	0.33	mg/L			09/18/14 14:40	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	12		1.0	0.33	mg/L			09/22/14 15:18	1

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140911-S

Lab Sample ID: 580-45354-2

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Chloromethane	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Vinyl chloride	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Bromomethane	ND		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Chloroethane	ND		4.9	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Trichlorofluoromethane	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1-Dichloroethene	ND		24	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Methylene Chloride	ND		73	15	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
trans-1,2-Dichloroethene	ND		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1-Dichloroethane	ND		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
2,2-Dichloropropane	ND		24	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
cis-1,2-Dichloroethene	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Bromochloromethane	ND		9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Chloroform	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1,1-Trichloroethane	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Acrolein	ND		150	40	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Carbon tetrachloride	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1-Dichloropropene	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Benzene	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2-Dichloroethane	ND		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Iodomethane	ND		73	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Carbon disulfide	10		4.9	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Trichloroethene	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2-Dichloropropane	ND		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Acetone	1100		73	12	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Dibromomethane	ND		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Bromodichloromethane	ND		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
cis-1,3-Dichloropropene	ND *		4.9	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Toluene	3.7 J *		9.8	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
trans-1,3-Dichloropropene	ND *		4.9	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1,2-Trichloroethane	ND *		9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Acrylonitrile	ND		49	14	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Tetrachloroethene	ND *		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,3-Dichloropropane	ND *		9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Chlorodibromomethane	ND *		9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2-Dibromoethane	ND *		4.9	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Chlorobenzene	ND *		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Vinyl acetate	ND		24	2.9	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Ethylbenzene	3.0 J *		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1,1,2-Tetrachloroethane	ND *		4.9	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,1,2,2-Tetrachloroethane	ND *		9.8	4.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
2-Butanone	120		49	15	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
m-Xylene & p-Xylene	8.0 J *		9.8	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
o-Xylene	ND *		9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Styrene	ND *		9.8	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Bromoform	ND *		4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Isopropylbenzene	ND *		9.8	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Bromobenzene	ND *		9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140911-S

Lab Sample ID: 580-45354-2

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	*	9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2,3-Trichloropropane	ND	*	4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
2-Chlorotoluene	ND	*	9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,3,5-Trimethylbenzene	ND	*	24	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
4-Chlorotoluene	ND	*	9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
tert-Butylbenzene	ND	*	9.8	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2,4-Trimethylbenzene	ND	*	9.8	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
sec-Butylbenzene	ND	*	9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,3-Dichlorobenzene	ND	*	9.8	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
4-Isopropyltoluene	ND	*	9.8	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,4-Dichlorobenzene	ND	*	4.9	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
n-Butylbenzene	27	*	9.8	0.98	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2-Dichlorobenzene	ND	*	9.8	2.9	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2-Dibromo-3-Chloropropane	ND	*	9.8	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2,4-Trichlorobenzene	ND	*	9.8	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
1,2,3-Trichlorobenzene	ND	*	9.8	2.9	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
2-Chloroethyl vinyl ether	ND	*	24	6.8	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Hexachloro-1,3-butadiene	ND	*	9.8	2.9	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
4-Methyl-2-pentanone	52	*	24	7.3	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Naphthalene	22	J *	24	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
Methyl tert-butyl ether	ND	*	4.9	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
2-Hexanone	ND	*	24	2.4	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1
trans-1,4-Dichloro-2-butene	ND	*	24	8.3	ug/Kg	☼	09/12/14 12:30	09/22/14 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	131	X *	80 - 120	09/12/14 12:30	09/22/14 17:26	1
4-Bromofluorobenzene (Surr)	158	X *	70 - 120	09/12/14 12:30	09/22/14 17:26	1
Dibromofluoromethane (Surr)	127		75 - 132	09/12/14 12:30	09/22/14 17:26	1
Trifluorotoluene (Surr)	80		65 - 140	09/12/14 12:30	09/22/14 17:26	1
1,2-Dichloroethane-d4 (Surr)	136		71 - 136	09/12/14 12:30	09/22/14 17:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Bis(2-chloroethyl)ether	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2-Chlorophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
1,3-Dichlorobenzene	ND		630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
1,4-Dichlorobenzene	ND	*	630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Benzyl alcohol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
1,2-Dichlorobenzene	ND	*	690	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2-Methylphenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
3 & 4 Methylphenol	ND		2500	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
N-Nitrosodi-n-propylamine	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Hexachloroethane	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Nitrobenzene	ND		1300	430	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Isophorone	ND		1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2-Nitrophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2,4-Dimethylphenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Benzoic acid	ND		32000	9500	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Bis(2-chloroethoxy)methane	ND	^	1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140911-S

Lab Sample ID: 580-45354-2

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
1,2,4-Trichlorobenzene	ND		630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Naphthalene	170	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
4-Chloroaniline	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Hexachlorobutadiene	ND	^	630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
4-Chloro-3-methylphenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2-Methylnaphthalene	140	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
1-Methylnaphthalene	ND		380	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Hexachlorocyclopentadiene	ND	^	1300	130	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2,4,6-Trichlorophenol	ND		1900	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2,4,5-Trichlorophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2-Chloronaphthalene	ND		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2-Nitroaniline	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Dimethyl phthalate	ND		1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Acenaphthylene	ND		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2,6-Dinitrotoluene	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
3-Nitroaniline	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Acenaphthene	ND		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2,4-Dinitrophenol	ND		13000	2500	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
4-Nitrophenol	ND	^	13000	3200	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Dibenzofuran	ND		1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
2,4-Dinitrotoluene	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Diethyl phthalate	230	J	2500	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
4-Chlorophenyl phenyl ether	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Fluorene	340		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
4-Nitroaniline	ND		1300	250	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
4,6-Dinitro-2-methylphenol	ND		13000	1300	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
N-Nitrosodiphenylamine	1300		630	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
4-Bromophenyl phenyl ether	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Hexachlorobenzene	ND		630	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Pentachlorophenol	ND		2500	250	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Phenanthrene	750		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Anthracene	230	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Carbazole	270	J	1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Di-n-butyl phthalate	ND		6300	630	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Fluoranthene	2000		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Pyrene	2500		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Butyl benzyl phthalate	ND	*	2500	630	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
3,3'-Dichlorobenzidine	ND		2500	380	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Benzo[a]anthracene	630	*	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Chrysene	1400	*	320	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Bis(2-ethylhexyl) phthalate	12000	B	7600	630	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Di-n-octyl phthalate	1100	J*	6300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Benzo[b]fluoranthene	1300		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Benzo[k]fluoranthene	590		320	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Benzo[a]pyrene	720		380	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Indeno[1,2,3-cd]pyrene	600		500	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Dibenz(a,h)anthracene	ND		500	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Benzo[g,h,i]perylene	770		320	63	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140911-S

Lab Sample ID: 580-45354-2

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		13000	3200	ug/Kg	☼	09/18/14 08:30	10/01/14 21:43	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	80		36 - 145				09/18/14 08:30	10/01/14 21:43	50
Phenol-d5	84		38 - 149				09/18/14 08:30	10/01/14 21:43	50
2,4,6-Tribromophenol	63		28 - 143				09/18/14 08:30	10/01/14 21:43	50
Nitrobenzene-d5	78		38 - 141				09/18/14 08:30	10/01/14 21:43	50
2-Fluorobiphenyl	81		42 - 140				09/18/14 08:30	10/01/14 21:43	50
Terphenyl-d14	106		42 - 151				09/18/14 08:30	10/01/14 21:43	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND	H	630	190	ug/Kg	☼	10/03/14 14:00	10/06/14 19:23	50
1,2-Dichlorobenzene	ND	H	700	190	ug/Kg	☼	10/03/14 14:00	10/06/14 19:23	50
Butyl benzyl phthalate	660	J H	2500	630	ug/Kg	☼	10/03/14 14:00	10/06/14 19:23	50
Benzo[a]anthracene	280	H *	250	63	ug/Kg	☼	10/03/14 14:00	10/06/14 19:23	50
Chrysene	350	H	320	63	ug/Kg	☼	10/03/14 14:00	10/06/14 19:23	50
Di-n-octyl phthalate	ND	H	6300	63	ug/Kg	☼	10/03/14 14:00	10/06/14 19:23	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	50		36 - 145				10/03/14 14:00	10/06/14 19:23	50
Phenol-d5	49		38 - 149				10/03/14 14:00	10/06/14 19:23	50
2,4,6-Tribromophenol	57		28 - 143				10/03/14 14:00	10/06/14 19:23	50
Nitrobenzene-d5	64		38 - 141				10/03/14 14:00	10/06/14 19:23	50
2-Fluorobiphenyl	62		42 - 140				10/03/14 14:00	10/06/14 19:23	50
Terphenyl-d14	76		42 - 151				10/03/14 14:00	10/06/14 19:23	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	490		57	7.1	mg/Kg	☼	09/13/14 14:56	09/14/14 03:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		50 - 150				09/13/14 14:56	09/14/14 03:42	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arochlor 1016	0.11		0.025	0.0079	mg/Kg	☼	09/16/14 09:51	09/18/14 17:14	1
Arochlor 1221	ND		0.027	0.020	mg/Kg	☼	09/16/14 09:51	09/18/14 17:14	1
Arochlor 1232	ND		0.027	0.017	mg/Kg	☼	09/16/14 09:51	09/18/14 17:14	1
Arochlor 1242	ND		0.025	0.0052	mg/Kg	☼	09/16/14 09:51	09/18/14 17:14	1
Arochlor 1248	ND		0.025	0.0074	mg/Kg	☼	09/16/14 09:51	09/18/14 17:14	1
Arochlor 1254	ND		0.025	0.0052	mg/Kg	☼	09/16/14 09:51	09/18/14 17:14	1
Arochlor 1260	0.15		0.025	0.0074	mg/Kg	☼	09/16/14 09:51	09/18/14 17:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	48		45 - 135				09/16/14 09:51	09/18/14 17:14	1
DCB Decachlorobiphenyl	48	X	50 - 140				09/16/14 09:51	09/18/14 17:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	5200	Y	310	70	mg/Kg	☼	09/16/14 09:02	09/19/14 17:13	5

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140911-S

Lab Sample ID: 580-45354-2

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil (>C24-C36)	19000	Y	620	110	mg/Kg	☼	09/16/14 09:02	09/19/14 17:13	5
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	101		50 - 150				09/16/14 09:02	09/19/14 17:13	5

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		0.99	0.35	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Lead	340		0.39	0.026	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Antimony	220		0.39	0.083	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Beryllium	0.29	J	0.39	0.069	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Cadmium	5.5		0.39	0.016	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Chromium	80		0.39	0.22	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Copper	180		0.79	0.19	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Nickel	43		0.99	0.16	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Selenium	0.67	J	1.4	0.40	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Silver	0.60		0.39	0.024	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Thallium	ND		0.99	0.26	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10
Zinc	1200		3.9	2.2	mg/Kg	☼	10/02/14 12:24	10/03/14 10:08	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.37		0.034	0.011	mg/Kg	☼	10/03/14 10:14	10/03/14 12:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	39		0.10	0.10	%			09/15/14 08:28	1
Total Organic Carbon	150000		2000	250	mg/Kg			09/25/14 09:38	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 14:26	1
Gravel	4.1				%			09/16/14 14:26	1
Sand	41				%			09/16/14 14:26	1
Silt	53				%			09/16/14 14:26	1
Clay	2.0				%			09/16/14 14:26	1

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-FD-01-20140911-S

Lab Sample ID: 580-45354-3

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 38.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Chloromethane	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Vinyl chloride	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Bromomethane	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Chloroethane	ND		3.7	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Trichlorofluoromethane	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1-Dichloroethene	ND		18	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Methylene Chloride	ND		55	11	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
trans-1,2-Dichloroethene	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1-Dichloroethane	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
2,2-Dichloropropane	ND		18	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
cis-1,2-Dichloroethene	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Bromochloromethane	ND		7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Chloroform	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1,1-Trichloroethane	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Acrolein	ND		110	30	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Carbon tetrachloride	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1-Dichloropropene	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.7	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Benzene	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2-Dichloroethane	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Iodomethane	ND		55	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Carbon disulfide	4.8		3.7	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Trichloroethene	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2-Dichloropropane	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Acetone	650		55	8.9	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Dibromomethane	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Bromodichloromethane	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
cis-1,3-Dichloropropene	ND		3.7	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Toluene	4.6 J		7.4	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
trans-1,3-Dichloropropene	ND		3.7	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1,2-Trichloroethane	ND		7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Acrylonitrile	ND		37	10	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Tetrachloroethene	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,3-Dichloropropane	ND		7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Chlorodibromomethane	ND		7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2-Dibromoethane	ND		3.7	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Chlorobenzene	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Vinyl acetate	ND		18	2.2	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Ethylbenzene	5.0		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1,1,2-Tetrachloroethane	ND		3.7	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,1,2,2-Tetrachloroethane	ND		7.4	3.3	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
2-Butanone	160		37	11	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
m-Xylene & p-Xylene	5.8 J		7.4	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
o-Xylene	ND		7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Styrene	ND		7.4	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Bromoform	ND *		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Isopropylbenzene	4.5 J		7.4	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Bromobenzene	ND *		7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-FD-01-20140911-S

Lab Sample ID: 580-45354-3

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 38.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	*	7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2,3-Trichloropropane	ND	*	3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
2-Chlorotoluene	ND	*	7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,3,5-Trimethylbenzene	ND	*	18	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
4-Chlorotoluene	ND	*	7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
tert-Butylbenzene	ND	*	7.4	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2,4-Trimethylbenzene	ND	*	7.4	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
sec-Butylbenzene	ND	*	7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,3-Dichlorobenzene	ND	*	7.4	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
4-Isopropyltoluene	ND	*	7.4	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,4-Dichlorobenzene	ND	*	3.7	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
n-Butylbenzene	ND	*	7.4	0.74	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2-Dichlorobenzene	ND	*	7.4	2.2	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2-Dibromo-3-Chloropropane	ND	*	7.4	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2,4-Trichlorobenzene	ND	*	7.4	1.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
1,2,3-Trichlorobenzene	ND	*	7.4	2.2	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
2-Chloroethyl vinyl ether	ND		18	5.2	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Hexachloro-1,3-butadiene	ND	*	7.4	2.2	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
4-Methyl-2-pentanone	23		18	5.5	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Naphthalene	ND	*	18	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
Methyl tert-butyl ether	ND		3.7	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
2-Hexanone	ND		18	1.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1
trans-1,4-Dichloro-2-butene	ND	*	18	6.3	ug/Kg	☼	09/12/14 12:30	09/22/14 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	125	X	80 - 120	09/12/14 12:30	09/22/14 18:12	1
4-Bromofluorobenzene (Surr)	185	X *	70 - 120	09/12/14 12:30	09/22/14 18:12	1
Dibromofluoromethane (Surr)	104		75 - 132	09/12/14 12:30	09/22/14 18:12	1
Trifluorotoluene (Surr)	69		65 - 140	09/12/14 12:30	09/22/14 18:12	1
1,2-Dichloroethane-d4 (Surr)	126		71 - 136	09/12/14 12:30	09/22/14 18:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	260	J	1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Bis(2-chloroethyl)ether	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2-Chlorophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
1,3-Dichlorobenzene	ND		630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
1,4-Dichlorobenzene	ND	*	630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Benzyl alcohol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
1,2-Dichlorobenzene	ND	*	700	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2-Methylphenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
3 & 4 Methylphenol	ND		2500	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
N-Nitrosodi-n-propylamine	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Hexachloroethane	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Nitrobenzene	ND		1300	430	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Isophorone	ND		1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2-Nitrophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2,4-Dimethylphenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Benzoic acid	ND		32000	9500	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Bis(2-chloroethoxy)methane	ND	^	1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-FD-01-20140911-S

Lab Sample ID: 580-45354-3

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 38.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
1,2,4-Trichlorobenzene	ND		630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Naphthalene	170	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
4-Chloroaniline	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Hexachlorobutadiene	ND	^	630	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
4-Chloro-3-methylphenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2-Methylnaphthalene	160	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
1-Methylnaphthalene	68	J	380	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Hexachlorocyclopentadiene	ND	^	1300	130	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2,4,6-Trichlorophenol	ND		1900	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2,4,5-Trichlorophenol	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2-Chloronaphthalene	ND		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2-Nitroaniline	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Dimethyl phthalate	900	J	1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Acenaphthylene	78	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2,6-Dinitrotoluene	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
3-Nitroaniline	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Acenaphthene	130	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2,4-Dinitrophenol	ND		13000	2500	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
4-Nitrophenol	ND	^	13000	3200	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Dibenzofuran	ND		1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
2,4-Dinitrotoluene	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Diethyl phthalate	ND		2500	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
4-Chlorophenyl phenyl ether	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Fluorene	350		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
4-Nitroaniline	ND		1300	250	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
4,6-Dinitro-2-methylphenol	ND		13000	1300	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
N-Nitrosodiphenylamine	1200		630	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
4-Bromophenyl phenyl ether	ND		1300	190	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Hexachlorobenzene	ND		630	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Pentachlorophenol	ND		2500	250	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Phenanthrene	750		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Anthracene	220	J	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Carbazole	250	J	1300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Di-n-butyl phthalate	ND		6300	630	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Fluoranthene	1800		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Pyrene	2200		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Butyl benzyl phthalate	ND	*	2500	630	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
3,3'-Dichlorobenzidine	ND		2500	380	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Benzo[a]anthracene	510	*	250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Chrysene	1200	*	320	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Bis(2-ethylhexyl) phthalate	11000	B	7600	630	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Di-n-octyl phthalate	1000	J*	6300	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Benzo[b]fluoranthene	1300		250	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Benzo[k]fluoranthene	420		320	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Benzo[a]pyrene	630		380	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Indeno[1,2,3-cd]pyrene	440	J	510	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Dibenz(a,h)anthracene	91	J	510	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Benzo[g,h,i]perylene	610		320	63	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-FD-01-20140911-S

Lab Sample ID: 580-45354-3

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 38.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		13000	3200	ug/Kg	☼	09/18/14 08:30	10/01/14 22:58	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	74		36 - 145				09/18/14 08:30	10/01/14 22:58	50
Phenol-d5	83		38 - 149				09/18/14 08:30	10/01/14 22:58	50
2,4,6-Tribromophenol	87		28 - 143				09/18/14 08:30	10/01/14 22:58	50
Nitrobenzene-d5	71		38 - 141				09/18/14 08:30	10/01/14 22:58	50
2-Fluorobiphenyl	78		42 - 140				09/18/14 08:30	10/01/14 22:58	50
Terphenyl-d14	110		42 - 151				09/18/14 08:30	10/01/14 22:58	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND	H	650	190	ug/Kg	☼	10/03/14 14:00	10/06/14 20:34	50
1,2-Dichlorobenzene	ND	H	710	190	ug/Kg	☼	10/03/14 14:00	10/06/14 20:34	50
Butyl benzyl phthalate	ND	H	2600	650	ug/Kg	☼	10/03/14 14:00	10/06/14 20:34	50
Benzo[a]anthracene	440	H *	260	65	ug/Kg	☼	10/03/14 14:00	10/06/14 20:34	50
Chrysene	750	H	320	65	ug/Kg	☼	10/03/14 14:00	10/06/14 20:34	50
Di-n-octyl phthalate	ND	H	6500	65	ug/Kg	☼	10/03/14 14:00	10/06/14 20:34	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	57		36 - 145				10/03/14 14:00	10/06/14 20:34	50
Phenol-d5	65		38 - 149				10/03/14 14:00	10/06/14 20:34	50
2,4,6-Tribromophenol	56		28 - 143				10/03/14 14:00	10/06/14 20:34	50
Nitrobenzene-d5	106		38 - 141				10/03/14 14:00	10/06/14 20:34	50
2-Fluorobiphenyl	66		42 - 140				10/03/14 14:00	10/06/14 20:34	50
Terphenyl-d14	75		42 - 151				10/03/14 14:00	10/06/14 20:34	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	1800		52	6.5	mg/Kg	☼	09/13/14 14:56	09/14/14 04:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	153	X	50 - 150				09/13/14 14:56	09/14/14 04:15	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arochlor 1016	0.077		0.025	0.0080	mg/Kg	☼	09/16/14 09:51	09/18/14 18:00	1
Arochlor 1221	ND		0.028	0.020	mg/Kg	☼	09/16/14 09:51	09/18/14 18:00	1
Arochlor 1232	ND		0.028	0.018	mg/Kg	☼	09/16/14 09:51	09/18/14 18:00	1
Arochlor 1242	ND		0.025	0.0053	mg/Kg	☼	09/16/14 09:51	09/18/14 18:00	1
Arochlor 1248	ND		0.025	0.0075	mg/Kg	☼	09/16/14 09:51	09/18/14 18:00	1
Arochlor 1254	ND		0.025	0.0053	mg/Kg	☼	09/16/14 09:51	09/18/14 18:00	1
Arochlor 1260	0.13		0.025	0.0075	mg/Kg	☼	09/16/14 09:51	09/18/14 18:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		45 - 135				09/16/14 09:51	09/18/14 18:00	1
DCB Decachlorobiphenyl	60		50 - 140				09/16/14 09:51	09/18/14 18:00	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)	4600	Y	63	14	mg/Kg	☼	09/16/14 09:02	09/19/14 17:49	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-FD-01-20140911-S

Lab Sample ID: 580-45354-3

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 38.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil (>C24-C36)	17000	Y	130	23	mg/Kg	☼	09/16/14 09:02	09/19/14 17:49	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	107		50 - 150				09/16/14 09:02	09/19/14 17:49	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16		1.1	0.39	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Lead	350		0.44	0.028	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Antimony	220		0.44	0.092	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Beryllium	0.28	J	0.44	0.076	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Cadmium	4.8		0.44	0.017	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Chromium	78		0.44	0.25	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Copper	170		0.87	0.21	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Nickel	41		1.1	0.18	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Selenium	0.63	J	1.5	0.44	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Silver	0.82		0.44	0.026	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Thallium	ND		1.1	0.28	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10
Zinc	1300		4.4	2.4	mg/Kg	☼	10/02/14 12:24	10/03/14 10:18	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.42		0.039	0.012	mg/Kg	☼	10/03/14 10:14	10/03/14 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	38		0.10	0.10	%			09/15/14 08:28	1
Total Organic Carbon	150000		2000	250	mg/Kg			09/24/14 15:05	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 14:26	1
Gravel	4.6				%			09/16/14 14:26	1
Sand	52				%			09/16/14 14:26	1
Silt	42				%			09/16/14 14:26	1
Clay	1.5				%			09/16/14 14:26	1

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-76-20140911-S

Lab Sample ID: 580-45354-4

Date Collected: 09/11/14 12:45

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 63.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Chloromethane	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Vinyl chloride	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Bromomethane	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Chloroethane	ND		2.2	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Trichlorofluoromethane	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1-Dichloroethene	ND		11	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Methylene Chloride	ND		34	6.7	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
trans-1,2-Dichloroethene	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1-Dichloroethane	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
2,2-Dichloropropane	ND		11	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
cis-1,2-Dichloroethene	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Bromochloromethane	ND		4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Chloroform	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1,1-Trichloroethane	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Acrolein	ND		67	18	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Carbon tetrachloride	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1-Dichloropropene	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.2	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Benzene	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2-Dichloroethane	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Iodomethane	ND		34	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Carbon disulfide	2.0	J	2.2	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Trichloroethene	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2-Dichloropropane	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Acetone	210		34	5.4	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Dibromomethane	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Bromodichloromethane	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
cis-1,3-Dichloropropene	ND		2.2	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Toluene	1.2	J	4.5	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
trans-1,3-Dichloropropene	ND		2.2	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1,2-Trichloroethane	ND		4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Acrylonitrile	ND		22	6.3	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Tetrachloroethene	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,3-Dichloropropane	ND		4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Chlorodibromomethane	ND		4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2-Dibromoethane	ND		2.2	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Chlorobenzene	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Vinyl acetate	ND		11	1.3	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Ethylbenzene	3.8		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1,1,2-Tetrachloroethane	ND		2.2	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,1,2,2-Tetrachloroethane	ND		4.5	2.0	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
2-Butanone	36		22	6.7	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
m-Xylene & p-Xylene	1.9	J	4.5	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
o-Xylene	ND		4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Styrene	ND		4.5	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Bromoform	ND	*	2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Isopropylbenzene	ND		4.5	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Bromobenzene	ND	*	4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-76-20140911-S

Lab Sample ID: 580-45354-4

Date Collected: 09/11/14 12:45

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 63.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	*	4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2,3-Trichloropropane	ND	*	2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
2-Chlorotoluene	ND	*	4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,3,5-Trimethylbenzene	ND	*	11	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
4-Chlorotoluene	ND	*	4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
tert-Butylbenzene	ND	*	4.5	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2,4-Trimethylbenzene	2.1	J *	4.5	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
sec-Butylbenzene	2.7	J *	4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,3-Dichlorobenzene	ND	*	4.5	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
4-Isopropyltoluene	2.5	J *	4.5	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,4-Dichlorobenzene	ND	*	2.2	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
n-Butylbenzene	ND	*	4.5	0.45	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2-Dichlorobenzene	ND	*	4.5	1.3	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2-Dibromo-3-Chloropropane	ND	*	4.5	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2,4-Trichlorobenzene	ND	*	4.5	0.90	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
1,2,3-Trichlorobenzene	ND	*	4.5	1.3	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
2-Chloroethyl vinyl ether	ND		11	3.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Hexachloro-1,3-butadiene	ND	*	4.5	1.3	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
4-Methyl-2-pentanone	11		11	3.4	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Naphthalene	1.8	J *	11	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
Methyl tert-butyl ether	ND		2.2	0.67	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
2-Hexanone	ND		11	1.1	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1
trans-1,4-Dichloro-2-butene	ND	*	11	3.8	ug/Kg	☼	09/12/14 12:30	09/22/14 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	129	X	80 - 120	09/12/14 12:30	09/22/14 18:38	1
4-Bromofluorobenzene (Surr)	154	X *	70 - 120	09/12/14 12:30	09/22/14 18:38	1
Dibromofluoromethane (Surr)	113		75 - 132	09/12/14 12:30	09/22/14 18:38	1
Trifluorotoluene (Surr)	81		65 - 140	09/12/14 12:30	09/22/14 18:38	1
1,2-Dichloroethane-d4 (Surr)	111		71 - 136	09/12/14 12:30	09/22/14 18:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Bis(2-chloroethyl)ether	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2-Chlorophenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
1,3-Dichlorobenzene	ND		39	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
1,4-Dichlorobenzene	ND	*	39	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Benzyl alcohol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
1,2-Dichlorobenzene	ND	*	43	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2-Methylphenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
3 & 4 Methylphenol	12	J	160	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
N-Nitrosodi-n-propylamine	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Hexachloroethane	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Nitrobenzene	ND		78	26	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Isophorone	ND		78	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2-Nitrophenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2,4-Dimethylphenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Benzoic acid	ND		1900	580	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Bis(2-chloroethoxy)methane	ND	^	78	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-76-20140911-S

Lab Sample ID: 580-45354-4

Date Collected: 09/11/14 12:45

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 63.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
1,2,4-Trichlorobenzene	ND		39	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Naphthalene	18		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
4-Chloroaniline	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Hexachlorobutadiene	ND	^	39	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
4-Chloro-3-methylphenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2-Methylnaphthalene	30		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
1-Methylnaphthalene	15	J	23	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Hexachlorocyclopentadiene	ND	^	78	7.8	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2,4,6-Trichlorophenol	ND		120	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2,4,5-Trichlorophenol	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2-Chloronaphthalene	ND		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2-Nitroaniline	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Dimethyl phthalate	300		78	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Acenaphthylene	12	J	16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2,6-Dinitrotoluene	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
3-Nitroaniline	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Acenaphthene	16		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2,4-Dinitrophenol	ND		780	160	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
4-Nitrophenol	ND	^	780	190	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Dibenzofuran	17	J	78	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
2,4-Dinitrotoluene	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Diethyl phthalate	ND		160	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
4-Chlorophenyl phenyl ether	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Fluorene	40		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
4-Nitroaniline	ND		78	16	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
4,6-Dinitro-2-methylphenol	ND		780	78	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
N-Nitrosodiphenylamine	27	J	39	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
4-Bromophenyl phenyl ether	ND		78	12	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Hexachlorobenzene	ND		39	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Pentachlorophenol	ND		160	16	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Phenanthrene	230		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Anthracene	41		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Carbazole	35	J	78	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Di-n-butyl phthalate	ND		390	39	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Fluoranthene	520		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Pyrene	550		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Butyl benzyl phthalate	90	J *	160	39	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
3,3'-Dichlorobenzidine	ND		160	23	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Benzo[a]anthracene	180	*	16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Chrysene	300	*	19	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Bis(2-ethylhexyl) phthalate	1900	B	470	39	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Di-n-octyl phthalate	250	J *	390	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Benzo[b]fluoranthene	410		16	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Benzo[k]fluoranthene	110		19	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Benzo[a]pyrene	240		23	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Indeno[1,2,3-cd]pyrene	120		31	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Dibenz(a,h)anthracene	21	J	31	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Benzo[g,h,i]perylene	160		19	3.9	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-76-20140911-S

Lab Sample ID: 580-45354-4

Date Collected: 09/11/14 12:45

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 63.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		780	190	ug/Kg	☼	09/18/14 08:30	10/01/14 23:23	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		36 - 145				09/18/14 08:30	10/01/14 23:23	5
Phenol-d5	81		38 - 149				09/18/14 08:30	10/01/14 23:23	5
2,4,6-Tribromophenol	96		28 - 143				09/18/14 08:30	10/01/14 23:23	5
Nitrobenzene-d5	74		38 - 141				09/18/14 08:30	10/01/14 23:23	5
2-Fluorobiphenyl	86		42 - 140				09/18/14 08:30	10/01/14 23:23	5
Terphenyl-d14	117		42 - 151				09/18/14 08:30	10/01/14 23:23	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	12	J H	39	12	ug/Kg	☼	10/03/14 14:00	10/06/14 20:58	5
1,2-Dichlorobenzene	ND	H	43	12	ug/Kg	☼	10/03/14 14:00	10/06/14 20:58	5
Butyl benzyl phthalate	94	J H	150	39	ug/Kg	☼	10/03/14 14:00	10/06/14 20:58	5
Benzo[a]anthracene	58	H *	15	3.9	ug/Kg	☼	10/03/14 14:00	10/06/14 20:58	5
Chrysene	140	H	19	3.9	ug/Kg	☼	10/03/14 14:00	10/06/14 20:58	5
Di-n-octyl phthalate	150	J H	390	3.9	ug/Kg	☼	10/03/14 14:00	10/06/14 20:58	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		36 - 145				10/03/14 14:00	10/06/14 20:58	5
Phenol-d5	89		38 - 149				10/03/14 14:00	10/06/14 20:58	5
2,4,6-Tribromophenol	93		28 - 143				10/03/14 14:00	10/06/14 20:58	5
Nitrobenzene-d5	76		38 - 141				10/03/14 14:00	10/06/14 20:58	5
2-Fluorobiphenyl	78		42 - 140				10/03/14 14:00	10/06/14 20:58	5
Terphenyl-d14	92		42 - 151				10/03/14 14:00	10/06/14 20:58	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	94		20	2.5	mg/Kg	☼	09/13/14 14:56	09/14/14 04:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		50 - 150				09/13/14 14:56	09/14/14 04:48	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arochlor 1016	ND		0.015	0.0048	mg/Kg	☼	09/16/14 09:51	09/18/14 18:36	1
Arochlor 1221	ND		0.016	0.012	mg/Kg	☼	09/16/14 09:51	09/18/14 18:36	1
Arochlor 1232	ND		0.016	0.010	mg/Kg	☼	09/16/14 09:51	09/18/14 18:36	1
Arochlor 1242	ND		0.015	0.0031	mg/Kg	☼	09/16/14 09:51	09/18/14 18:36	1
Arochlor 1248	ND		0.015	0.0045	mg/Kg	☼	09/16/14 09:51	09/18/14 18:36	1
Arochlor 1254	ND		0.015	0.0031	mg/Kg	☼	09/16/14 09:51	09/18/14 18:36	1
Arochlor 1260	0.028		0.015	0.0045	mg/Kg	☼	09/16/14 09:51	09/18/14 18:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		45 - 135				09/16/14 09:51	09/18/14 18:36	1
DCB Decachlorobiphenyl	69		50 - 140				09/16/14 09:51	09/18/14 18:36	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)	510	Y	38	8.6	mg/Kg	☼	09/17/14 16:03	09/19/14 18:07	1

TestAmerica Seattle

Client Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-76-20140911-S

Lab Sample ID: 580-45354-4

Date Collected: 09/11/14 12:45

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 63.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil (>C24-C36)	2800		75	14	mg/Kg	☼	09/17/14 16:03	09/19/14 18:07	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	100		50 - 150				09/17/14 16:03	09/19/14 18:07	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.6		0.75	0.27	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Lead	43		0.30	0.019	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Antimony	29		0.30	0.063	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Beryllium	0.22	J	0.30	0.052	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Cadmium	1.0		0.30	0.012	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Chromium	28		0.30	0.17	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Copper	41		0.60	0.15	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Nickel	20		0.75	0.12	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Selenium	ND		1.0	0.30	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Silver	0.12	J	0.30	0.018	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Thallium	ND		0.75	0.19	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10
Zinc	310		3.0	1.7	mg/Kg	☼	10/02/14 12:24	10/03/14 10:21	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.073		0.019	0.0059	mg/Kg	☼	10/03/14 10:14	10/03/14 12:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	64		0.10	0.10	%			09/15/14 08:28	1
Total Organic Carbon	23000		2000	250	mg/Kg			09/24/14 15:20	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 14:26	1
Gravel	5.4				%			09/16/14 14:26	1
Sand	76				%			09/16/14 14:26	1
Silt	17				%			09/16/14 14:26	1
Clay	1.9				%			09/16/14 14:26	1

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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
Dichlorodifluoromethane	ND		1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Chloromethane	ND		1.0	0.30	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
Bromomethane	ND		1.0	0.40	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Chloroethane	ND		1.0	0.20	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
1,1-Dichloroethene	ND		5.0	0.20	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
trans-1,2-Dichloroethene	ND		1.0	0.40	ug/Kg		09/22/14 08:22	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	1
2,2-Dichloropropane	ND		5.0	0.30	ug/Kg		09/22/14 08:22	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	1
Bromochloromethane	ND		2.0	0.50	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Chloroform	ND		1.0	0.30	ug/Kg		09/22/14 08:22	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	1
Acrolein	ND		30	8.2	ug/Kg		09/22/14 08:22	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	1
1,1-Dichloropropene	ND		1.0	0.30	ug/Kg		09/22/14 08:22	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	1
Benzene	ND		1.0	0.30	ug/Kg		09/22/14 08:22	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	1
Iodomethane	ND		15	0.20	ug/Kg		09/22/14 08:22	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	1
Trichloroethene	ND		1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
1,2-Dichloropropane	ND		1.0	0.40	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Acetone	ND		15	2.4	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Dibromomethane	ND		1.0	0.30	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Bromodichloromethane	ND		1.0	0.40	ug/Kg		09/22/14 08:22	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	1
Toluene	ND		2.0	0.30	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
1,1,2-Trichloroethane	ND		2.0	0.50	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Acrylonitrile	ND		10	2.8	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
1,3-Dichloropropane	ND		2.0	0.50	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
Chlorodibromomethane	ND		2.0	0.50	ug/Kg		09/22/14 08:22	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	1
Chlorobenzene	ND		1.0	0.40	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
Ethylbenzene	ND		1.0	0.40	ug/Kg		09/22/14 08:22	09/22/14 09:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.40	ug/Kg		09/22/14 08:22	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	1
2-Butanone	ND		10	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
o-Xylene	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
Bromoform	ND		1.0	0.30	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

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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 Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		2.0	0.50	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
1,2,3-Trichloropropane	ND		1.0	0.30	ug/Kg		09/22/14 08:22	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	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg		09/22/14 08:22	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	1
tert-Butylbenzene	ND		2.0	0.20	ug/Kg		09/22/14 08:22	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	1
sec-Butylbenzene	ND		2.0	0.50	ug/Kg		09/22/14 08:22	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	1
4-Isopropyltoluene	ND		2.0	0.40	ug/Kg		09/22/14 08:22	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	1
n-Butylbenzene	ND		2.0	0.20	ug/Kg		09/22/14 08:22	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	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.30	ug/Kg		09/22/14 08:22	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	1
1,2,3-Trichlorobenzene	ND		2.0	0.60	ug/Kg		09/22/14 08:22	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	1
Hexachloro-1,3-butadiene	ND		2.0	0.60	ug/Kg		09/22/14 08:22	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	1
Naphthalene	ND		5.0	0.50	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
2-Hexanone	ND		5.0	0.50	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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
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 Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	30.0	22.9		ug/Kg		76	38 - 150
Chloromethane	30.0	25.3		ug/Kg		84	55 - 136
Vinyl chloride	30.0	25.6		ug/Kg		85	67 - 131
Bromomethane	30.0	26.8		ug/Kg		89	57 - 148
Chloroethane	30.0	26.8		ug/Kg		89	48 - 167
Trichlorofluoromethane	30.0	26.8		ug/Kg		89	47 - 165
1,1-Dichloroethene	30.0	27.1		ug/Kg		90	70 - 133
Methylene Chloride	30.0	25.3		ug/Kg		84	57 - 146
trans-1,2-Dichloroethene	30.0	30.2		ug/Kg		101	76 - 131
1,1-Dichloroethane	30.0	29.6		ug/Kg		99	70 - 128
2,2-Dichloropropane	30.0	27.8		ug/Kg		93	56 - 144

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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 Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	30.0	31.2		ug/Kg		104	70 - 130
Bromochloromethane	30.0	31.5		ug/Kg		105	78 - 123
Chloroform	30.0	30.2		ug/Kg		101	78 - 125
1,1,1-Trichloroethane	30.0	29.2		ug/Kg		97	63 - 135
Acrolein	178	182		ug/Kg		102	10 - 125
Carbon tetrachloride	30.0	29.1		ug/Kg		97	59 - 145
1,1-Dichloropropene	30.0	31.6		ug/Kg		105	77 - 125
1,1,2-Trichloro-1,2,2-trifluoroethane	30.0	27.2		ug/Kg		91	66 - 163
Benzene	30.0	30.2		ug/Kg		101	70 - 128
1,2-Dichloroethane	30.0	29.5		ug/Kg		98	71 - 128
Iodomethane	30.0	30.7		ug/Kg		102	44 - 148
Carbon disulfide	30.0	28.5		ug/Kg		95	45 - 160
Trichloroethene	30.0	31.3		ug/Kg		104	83 - 124
1,2-Dichloropropane	30.0	31.0		ug/Kg		103	76 - 161
Acetone	120	124		ug/Kg		103	20 - 160
Dibromomethane	30.0	32.3		ug/Kg		108	78 - 126
Bromodichloromethane	30.0	30.8		ug/Kg		103	58 - 133
cis-1,3-Dichloropropene	30.0	28.1		ug/Kg		94	69 - 129
Toluene	30.0	28.8		ug/Kg		96	75 - 126
trans-1,3-Dichloropropene	30.0	25.5		ug/Kg		85	72 - 129
1,1,2-Trichloroethane	30.0	30.5		ug/Kg		102	77 - 124
Acrylonitrile	300	305		ug/Kg		102	74 - 117
Tetrachloroethene	30.0	26.2		ug/Kg		87	56 - 155
1,3-Dichloropropane	30.0	29.1		ug/Kg		97	77 - 123
Chlorodibromomethane	30.0	30.1		ug/Kg		100	42 - 129
1,2-Dibromoethane	30.0	29.2		ug/Kg		97	69 - 126
Chlorobenzene	30.0	27.9		ug/Kg		93	75 - 120
Vinyl acetate	60.1	58.3		ug/Kg		97	19 - 144
Ethylbenzene	30.0	30.2		ug/Kg		101	78 - 126
1,1,1,2-Tetrachloroethane	30.0	29.8		ug/Kg		99	72 - 123
1,1,2,2-Tetrachloroethane	30.0	30.8		ug/Kg		103	73 - 125
2-Butanone	120	121		ug/Kg		101	30 - 160
m-Xylene & p-Xylene	30.0	28.3		ug/Kg		94	78 - 126
o-Xylene	30.0	28.5		ug/Kg		95	77 - 127
Styrene	30.0	26.5		ug/Kg		88	79 - 127
Bromoform	30.0	27.9		ug/Kg		93	50 - 124
Isopropylbenzene	30.0	24.6		ug/Kg		82	79 - 127
Bromobenzene	30.0	27.5		ug/Kg		92	80 - 120
N-Propylbenzene	30.0	26.1		ug/Kg		87	81 - 127
1,2,3-Trichloropropane	30.0	30.1		ug/Kg		100	77 - 123
2-Chlorotoluene	30.0	26.8		ug/Kg		89	79 - 122
1,3,5-Trimethylbenzene	30.0	25.0		ug/Kg		83	80 - 125
4-Chlorotoluene	30.0	27.9		ug/Kg		93	80 - 122
tert-Butylbenzene	30.0	22.6		ug/Kg		75	71 - 136
1,2,4-Trimethylbenzene	30.0	23.8		ug/Kg		79	79 - 124
sec-Butylbenzene	30.0	24.3		ug/Kg		81	78 - 128
1,3-Dichlorobenzene	30.0	26.8		ug/Kg		89	79 - 119

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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 Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Isopropyltoluene	30.0	26.0		ug/Kg		87	78 - 126
1,4-Dichlorobenzene	30.0	26.4		ug/Kg		88	79 - 117
n-Butylbenzene	30.0	25.4		ug/Kg		85	78 - 128
1,2-Dichlorobenzene	30.0	27.9		ug/Kg		93	79 - 117
1,2-Dibromo-3-Chloropropane	30.0	31.5		ug/Kg		105	53 - 132
1,2,4-Trichlorobenzene	30.0	28.3		ug/Kg		94	61 - 130
1,2,3-Trichlorobenzene	30.0	29.0		ug/Kg		97	61 - 130
2-Chloroethyl vinyl ether	30.0	29.4		ug/Kg		98	60 - 150
Hexachloro-1,3-butadiene	30.0	25.2		ug/Kg		84	68 - 134
4-Methyl-2-pentanone	120	132		ug/Kg		110	45 - 145
Naphthalene	30.0	26.9		ug/Kg		90	14 - 170
Methyl tert-butyl ether	30.0	34.3		ug/Kg		114	65 - 125
2-Hexanone	120	112		ug/Kg		93	45 - 145
trans-1,4-Dichloro-2-butene	30.0	23.7		ug/Kg		79	42 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
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 Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	30.0	20.6		ug/Kg		69	38 - 150	11	26
Chloromethane	30.0	23.3		ug/Kg		78	55 - 136	8	26
Vinyl chloride	30.0	23.7		ug/Kg		79	67 - 131	8	22
Bromomethane	30.0	25.0		ug/Kg		83	57 - 148	7	29
Chloroethane	30.0	25.3		ug/Kg		84	48 - 167	6	53
Trichlorofluoromethane	30.0	25.0		ug/Kg		83	47 - 165	7	54
1,1-Dichloroethene	30.0	26.5		ug/Kg		88	70 - 133	2	23
Methylene Chloride	30.0	23.8		ug/Kg		79	57 - 146	6	21
trans-1,2-Dichloroethene	30.0	29.9		ug/Kg		100	76 - 131	1	18
1,1-Dichloroethane	30.0	30.2		ug/Kg		101	70 - 128	2	21
2,2-Dichloropropane	30.0	26.5		ug/Kg		88	56 - 144	5	21
cis-1,2-Dichloroethene	30.0	30.9		ug/Kg		103	70 - 130	1	19
Bromochloromethane	30.0	32.5		ug/Kg		108	78 - 123	3	19
Chloroform	30.0	30.9		ug/Kg		103	78 - 125	2	17
1,1,1-Trichloroethane	30.0	28.9		ug/Kg		96	63 - 135	1	20
Acrolein	178	190		ug/Kg		107	10 - 125	4	30
Carbon tetrachloride	30.0	28.3		ug/Kg		94	59 - 145	3	19
1,1-Dichloropropene	30.0	32.2		ug/Kg		107	77 - 125	2	16
1,1,2-Trichloro-1,2,2-trifluoroethane	30.0	25.6		ug/Kg		85	66 - 163	6	30
Benzene	30.0	30.9		ug/Kg		103	70 - 128	3	19

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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 Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
1,2-Dichloroethane	30.0	30.6		ug/Kg		102	71 - 128	4	18	
Iodomethane	30.0	29.5		ug/Kg		98	44 - 148	4	30	
Carbon disulfide	30.0	27.4		ug/Kg		91	45 - 160	4	30	
Trichloroethene	30.0	31.9		ug/Kg		106	83 - 124	2	17	
1,2-Dichloropropane	30.0	31.6		ug/Kg		105	76 - 161	2	15	
Acetone	120	124		ug/Kg		103	20 - 160	0	30	
Dibromomethane	30.0	33.3		ug/Kg		111	78 - 126	3	18	
Bromodichloromethane	30.0	32.5		ug/Kg		108	58 - 133	5	19	
cis-1,3-Dichloropropene	30.0	30.8		ug/Kg		103	69 - 129	9	19	
Toluene	30.0	30.5		ug/Kg		102	75 - 126	6	19	
trans-1,3-Dichloropropene	30.0	28.7		ug/Kg		96	72 - 129	12	20	
1,1,1,2-Tetrachloroethane	30.0	32.8		ug/Kg		109	77 - 124	7	18	
Acrylonitrile	300	299		ug/Kg		100	74 - 117	2	30	
Tetrachloroethene	30.0	26.8		ug/Kg		89	56 - 155	2	27	
1,3-Dichloropropane	30.0	32.2		ug/Kg		107	77 - 123	10	19	
Chlorodibromomethane	30.0	32.7		ug/Kg		109	42 - 129	8	23	
1,2-Dibromoethane	30.0	33.1		ug/Kg		110	69 - 126	13	21	
Chlorobenzene	30.0	29.8		ug/Kg		99	75 - 120	7	21	
Vinyl acetate	60.1	60.0		ug/Kg		100	19 - 144	3	30	
Ethylbenzene	30.0	31.5		ug/Kg		105	78 - 126	4	23	
1,1,1,2-Tetrachloroethane	30.0	30.4		ug/Kg		101	72 - 123	2	20	
1,1,1,2-Tetrachloroethane	30.0	31.8		ug/Kg		106	73 - 125	3	22	
2-Butanone	120	123		ug/Kg		102	30 - 160	1	30	
m-Xylene & p-Xylene	30.0	29.5		ug/Kg		98	78 - 126	4	23	
o-Xylene	30.0	29.1		ug/Kg		97	77 - 127	2	22	
Styrene	30.0	29.1		ug/Kg		97	79 - 127	9	21	
Bromoform	30.0	32.4		ug/Kg		108	50 - 124	15	25	
Isopropylbenzene	30.0	24.7		ug/Kg		82	79 - 127	0	20	
Bromobenzene	30.0	31.4		ug/Kg		105	80 - 120	13	19	
N-Propylbenzene	30.0	28.2		ug/Kg		94	81 - 127	8	20	
1,2,3-Trichloropropane	30.0	32.5		ug/Kg		108	77 - 123	8	23	
2-Chlorotoluene	30.0	29.3		ug/Kg		98	79 - 122	9	18	
1,3,5-Trimethylbenzene	30.0	26.7		ug/Kg		89	80 - 125	6	18	
4-Chlorotoluene	30.0	31.3		ug/Kg		104	80 - 122	12	18	
tert-Butylbenzene	30.0	24.2		ug/Kg		81	71 - 136	7	27	
1,2,4-Trimethylbenzene	30.0	25.5		ug/Kg		85	79 - 124	7	18	
sec-Butylbenzene	30.0	25.0		ug/Kg		83	78 - 128	3	17	
1,3-Dichlorobenzene	30.0	29.7		ug/Kg		99	79 - 119	10	17	
4-Isopropyltoluene	30.0	27.3		ug/Kg		91	78 - 126	5	18	
1,4-Dichlorobenzene	30.0	29.5		ug/Kg		98	79 - 117	11	18	
n-Butylbenzene	30.0	26.2		ug/Kg		87	78 - 128	3	17	
1,2-Dichlorobenzene	30.0	30.4		ug/Kg		101	79 - 117	9	17	
1,2-Dibromo-3-Chloropropane	30.0	33.6		ug/Kg		112	53 - 132	7	27	
1,2,4-Trichlorobenzene	30.0	29.8		ug/Kg		99	61 - 130	5	22	
1,2,3-Trichlorobenzene	30.0	30.0		ug/Kg		100	61 - 130	4	23	
2-Chloroethyl vinyl ether	30.0	34.0		ug/Kg		113	60 - 150	15	30	
Hexachloro-1,3-butadiene	30.0	25.4		ug/Kg		85	68 - 134	1	21	
4-Methyl-2-pentanone	120	136		ug/Kg		114	45 - 145	3	30	

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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 Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	30.0	29.1		ug/Kg		97	14 - 170	8	50
Methyl tert-butyl ether	30.0	34.4		ug/Kg		115	65 - 125	0	30
2-Hexanone	120	124		ug/Kg		103	45 - 145	10	30
trans-1,4-Dichloro-2-butene	30.0	28.4		ug/Kg		95	42 - 160	18	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
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: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-169636/1-A
Matrix: Water
Analysis Batch: 169948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 169636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		0.60	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Bis(2-chloroethyl)ether	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2-Chlorophenol	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
1,3-Dichlorobenzene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
1,4-Dichlorobenzene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Benzyl alcohol	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
1,2-Dichlorobenzene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2-Methylphenol	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
3 & 4 Methylphenol	ND		0.80	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
N-Nitrosodi-n-propylamine	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Hexachloroethane	ND		0.60	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Nitrobenzene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Isophorone	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2-Nitrophenol	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2,4-Dimethylphenol	ND		2.0	0.30	ug/L		09/12/14 16:46	09/16/14 19:09	1
Benzoic acid	ND		3.0	0.60	ug/L		09/12/14 16:46	09/16/14 19:09	1
Bis(2-chloroethoxy)methane	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2,4-Dichlorophenol	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
1,2,4-Trichlorobenzene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Naphthalene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
4-Chloroaniline	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Hexachlorobutadiene	ND		0.60	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
4-Chloro-3-methylphenol	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2-Methylnaphthalene	ND		0.20	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
1-Methylnaphthalene	ND		0.060	0.030	ug/L		09/12/14 16:46	09/16/14 19:09	1
Hexachlorocyclopentadiene	ND		2.0	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2,4,6-Trichlorophenol	ND		0.60	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2,4,5-Trichlorophenol	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2-Chloronaphthalene	ND		0.060	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: MB 580-169636/1-A

Matrix: Water

Analysis Batch: 169948

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169636

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Nitroaniline	ND	^	0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Dimethyl phthalate	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Acenaphthylene	ND		0.080	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
2,6-Dinitrotoluene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
3-Nitroaniline	ND		0.40	0.12	ug/L		09/12/14 16:46	09/16/14 19:09	1
Acenaphthene	ND		0.10	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
2,4-Dinitrophenol	ND	^	5.0	1.0	ug/L		09/12/14 16:46	09/16/14 19:09	1
4-Nitrophenol	ND	^	3.0	1.0	ug/L		09/12/14 16:46	09/16/14 19:09	1
Dibenzofuran	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
2,4-Dinitrotoluene	ND	^	0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Diethyl phthalate	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
4-Chlorophenyl phenyl ether	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Fluorene	ND		0.060	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
4-Nitroaniline	ND		0.60	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
4,6-Dinitro-2-methylphenol	ND	^	4.0	1.0	ug/L		09/12/14 16:46	09/16/14 19:09	1
N-Nitrosodiphenylamine	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
4-Bromophenyl phenyl ether	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Hexachlorobenzene	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Pentachlorophenol	ND		0.70	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Phenanthrene	ND		0.080	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
Anthracene	ND		0.040	0.010	ug/L		09/12/14 16:46	09/16/14 19:09	1
Carbazole	ND		0.40	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Di-n-butyl phthalate	0.148	J	0.40	0.13	ug/L		09/12/14 16:46	09/16/14 19:09	1
Fluoranthene	ND		0.050	0.013	ug/L		09/12/14 16:46	09/16/14 19:09	1
Pyrene	ND		0.060	0.013	ug/L		09/12/14 16:46	09/16/14 19:09	1
Butyl benzyl phthalate	0.255	J ^	0.60	0.20	ug/L		09/12/14 16:46	09/16/14 19:09	1
3,3'-Dichlorobenzidine	ND	^	2.0	0.10	ug/L		09/12/14 16:46	09/16/14 19:09	1
Benzo[a]anthracene	ND		0.060	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
Chrysene	ND		0.040	0.013	ug/L		09/12/14 16:46	09/16/14 19:09	1
Bis(2-ethylhexyl) phthalate	2.70	J	3.0	1.2	ug/L		09/12/14 16:46	09/16/14 19:09	1
Di-n-octyl phthalate	ND		0.40	0.18	ug/L		09/12/14 16:46	09/16/14 19:09	1
Benzo[b]fluoranthene	ND		0.080	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
Benzo[k]fluoranthene	ND		0.060	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
Benzo[a]pyrene	ND		0.040	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
Indeno[1,2,3-cd]pyrene	ND	^	0.060	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
Dibenz(a,h)anthracene	ND		0.060	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
Benzo[g,h,i]perylene	ND		0.060	0.020	ug/L		09/12/14 16:46	09/16/14 19:09	1
N-Nitrosodimethylamine	ND		2.0	0.20	ug/L		09/12/14 16:46	09/16/14 19:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	69		30 - 134	09/12/14 16:46	09/16/14 19:09	1
Phenol-d5	76		52 - 120	09/12/14 16:46	09/16/14 19:09	1
2,4,6-Tribromophenol	99		44 - 125	09/12/14 16:46	09/16/14 19:09	1
Nitrobenzene-d5	93		59 - 120	09/12/14 16:46	09/16/14 19:09	1
2-Fluorobiphenyl	82		50 - 120	09/12/14 16:46	09/16/14 19:09	1
Terphenyl-d14	112		64 - 150	09/12/14 16:46	09/16/14 19:09	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCS 580-169636/2-A

Matrix: Water

Analysis Batch: 169948

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	2.00	1.47		ug/L		74	53 - 130
Bis(2-chloroethyl)ether	2.00	1.55		ug/L		77	55 - 125
2-Chlorophenol	2.00	1.77		ug/L		89	57 - 125
1,3-Dichlorobenzene	2.00	1.51		ug/L		76	40 - 125
1,4-Dichlorobenzene	2.00	1.55		ug/L		77	40 - 125
Benzyl alcohol	2.00	1.69		ug/L		84	41 - 144
1,2-Dichlorobenzene	2.00	1.63		ug/L		82	44 - 125
2-Methylphenol	2.00	1.69		ug/L		85	60 - 130
2,2'-oxybis[1-chloropropane]	2.00	1.86		ug/L		93	44 - 130
3 & 4 Methylphenol	2.00	1.77		ug/L		89	60 - 130
N-Nitrosodi-n-propylamine	2.00	1.67		ug/L		83	60 - 120
Hexachloroethane	2.00	1.60		ug/L		80	30 - 125
Nitrobenzene	2.00	1.87		ug/L		93	62 - 125
Isophorone	2.00	1.82		ug/L		91	64 - 125
2-Nitrophenol	2.00	1.74		ug/L		87	55 - 140
2,4-Dimethylphenol	2.00	1.87	J	ug/L		94	30 - 135
Benzoic acid	4.00	1.87	J	ug/L		47	20 - 144
Bis(2-chloroethoxy)methane	2.00	1.64		ug/L		82	59 - 125
2,4-Dichlorophenol	2.00	1.83		ug/L		91	50 - 140
1,2,4-Trichlorobenzene	2.00	1.55		ug/L		78	40 - 125
Naphthalene	2.00	1.73		ug/L		87	56 - 125
4-Chloroaniline	2.00	0.880		ug/L		44	20 - 150
Hexachlorobutadiene	2.00	1.46		ug/L		73	25 - 125
4-Chloro-3-methylphenol	2.00	2.02		ug/L		101	65 - 145
2-Methylnaphthalene	2.00	1.76		ug/L		88	56 - 125
1-Methylnaphthalene	2.00	1.76		ug/L		88	54 - 125
Hexachlorocyclopentadiene	2.00	1.37	J	ug/L		68	20 - 125
2,4,6-Trichlorophenol	2.00	1.66		ug/L		83	55 - 140
2,4,5-Trichlorophenol	2.00	1.66		ug/L		83	66 - 130
2-Chloronaphthalene	2.00	1.71		ug/L		86	55 - 125
2-Nitroaniline	2.00	2.22	^	ug/L		111	52 - 140
Dimethyl phthalate	2.00	1.94		ug/L		97	65 - 155
Acenaphthylene	2.00	1.79		ug/L		90	62 - 125
2,6-Dinitrotoluene	2.00	2.02		ug/L		101	67 - 134
3-Nitroaniline	2.00	1.57		ug/L		78	22 - 124
Acenaphthene	2.00	1.87		ug/L		93	63 - 125
2,4-Dinitrophenol	4.00	4.02	J ^	ug/L		101	24 - 146
4-Nitrophenol	4.00	4.14	^	ug/L		103	35 - 153
Dibenzofuran	2.00	1.80		ug/L		90	60 - 125
2,4-Dinitrotoluene	2.00	2.13	^	ug/L		107	73 - 126
Diethyl phthalate	2.00	1.67		ug/L		84	60 - 150
4-Chlorophenyl phenyl ether	2.00	1.82		ug/L		91	59 - 125
Fluorene	2.00	1.90		ug/L		95	69 - 125
4-Nitroaniline	2.00	1.78		ug/L		89	49 - 125
4,6-Dinitro-2-methylphenol	4.00	4.10	^	ug/L		103	50 - 136
N-Nitrosodiphenylamine	2.00	1.74		ug/L		87	40 - 135
4-Bromophenyl phenyl ether	2.00	1.90		ug/L		95	62 - 132
Hexachlorobenzene	2.00	1.79		ug/L		89	61 - 125

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCS 580-169636/2-A

Matrix: Water

Analysis Batch: 169948

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Pentachlorophenol	4.00	2.62		ug/L		66	20 - 145	
Phenanthrene	2.00	1.89		ug/L		95	70 - 125	
Anthracene	2.00	1.73		ug/L		86	50 - 125	
Carbazole	2.00	2.15		ug/L		107	75 - 142	
Di-n-butyl phthalate	2.00	2.29		ug/L		115	55 - 167	
Fluoranthene	2.00	1.99		ug/L		99	70 - 145	
Pyrene	2.00	1.90		ug/L		95	70 - 133	
Butyl benzyl phthalate	2.00	2.84	^	ug/L		142	60 - 167	
3,3'-Dichlorobenzidine	4.00	ND	* ^	ug/L		2	20 - 175	
Benzo[a]anthracene	2.00	1.90		ug/L		95	65 - 125	
Chrysene	2.00	1.84		ug/L		92	70 - 125	
Bis(2-ethylhexyl) phthalate	2.00	9.80	*	ug/L		490	70 - 185	
Di-n-octyl phthalate	2.00	2.13		ug/L		106	55 - 150	
Benzo[b]fluoranthene	2.00	2.17		ug/L		109	70 - 129	
Benzo[k]fluoranthene	2.00	1.80		ug/L		90	70 - 123	
Benzo[a]pyrene	2.00	1.74		ug/L		87	45 - 125	
Indeno[1,2,3-cd]pyrene	2.00	2.50	^	ug/L		125	70 - 136	
Dibenz(a,h)anthracene	2.00	2.04		ug/L		102	69 - 154	
Benzo[g,h,i]perylene	2.00	1.75		ug/L		87	65 - 153	
N-Nitrosodimethylamine	2.00	1.56	J	ug/L		78	33 - 143	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	68		30 - 134
Phenol-d5	77		52 - 120
2,4,6-Tribromophenol	107		44 - 125
Nitrobenzene-d5	92		59 - 120
2-Fluorobiphenyl	80		50 - 120
Terphenyl-d14	108		64 - 150

Lab Sample ID: LCSD 580-169636/3-A

Matrix: Water

Analysis Batch: 169948

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
									RPD	Limit
Phenol	2.00	1.56		ug/L		78	53 - 130	6	20	
Bis(2-chloroethyl)ether	2.00	1.72		ug/L		86	55 - 125	10	20	
2-Chlorophenol	2.00	1.86		ug/L		93	57 - 125	5	20	
1,3-Dichlorobenzene	2.00	1.58		ug/L		79	40 - 125	4	20	
1,4-Dichlorobenzene	2.00	1.64		ug/L		82	40 - 125	6	20	
Benzyl alcohol	2.00	1.71		ug/L		86	41 - 144	2	20	
1,2-Dichlorobenzene	2.00	1.69		ug/L		85	44 - 125	4	20	
2-Methylphenol	2.00	1.62		ug/L		81	60 - 130	4	20	
2,2'-oxybis[1-chloropropane]	2.00	1.91		ug/L		95	44 - 130	2	20	
3 & 4 Methylphenol	2.00	1.74		ug/L		87	60 - 130	2	20	
N-Nitrosodi-n-propylamine	2.00	1.79		ug/L		90	60 - 120	7	20	
Hexachloroethane	2.00	1.67		ug/L		84	30 - 125	5	20	
Nitrobenzene	2.00	1.89		ug/L		95	62 - 125	1	20	
Isophorone	2.00	1.83		ug/L		92	64 - 125	1	20	

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCSD 580-169636/3-A

Matrix: Water

Analysis Batch: 169948

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
2-Nitrophenol	2.00	1.90		ug/L		95	55 - 140	8	20	
2,4-Dimethylphenol	2.00	0.832	J *	ug/L		42	30 - 135	77	20	
Benzoic acid	4.00	4.31	*	ug/L		108	20 - 144	79	20	
Bis(2-chloroethoxy)methane	2.00	1.73		ug/L		86	59 - 125	5	20	
2,4-Dichlorophenol	2.00	1.84		ug/L		92	50 - 140	1	20	
1,2,4-Trichlorobenzene	2.00	1.65		ug/L		82	40 - 125	6	20	
Naphthalene	2.00	1.73		ug/L		86	56 - 125	0	20	
4-Chloroaniline	2.00	0.170	J *	ug/L		8	20 - 150	135	20	
Hexachlorobutadiene	2.00	1.59		ug/L		79	25 - 125	8	20	
4-Chloro-3-methylphenol	2.00	1.99		ug/L		99	65 - 145	2	20	
2-Methylnaphthalene	2.00	1.80		ug/L		90	56 - 125	2	20	
1-Methylnaphthalene	2.00	1.81		ug/L		91	54 - 125	3	20	
Hexachlorocyclopentadiene	2.00	1.40	J	ug/L		70	20 - 125	3	20	
2,4,6-Trichlorophenol	2.00	1.75		ug/L		87	55 - 140	5	20	
2,4,5-Trichlorophenol	2.00	1.69		ug/L		85	66 - 130	2	20	
2-Chloronaphthalene	2.00	1.81		ug/L		90	55 - 125	5	20	
2-Nitroaniline	2.00	2.37	^	ug/L		119	52 - 140	7	20	
Dimethyl phthalate	2.00	1.98		ug/L		99	65 - 155	2	20	
Acenaphthylene	2.00	1.78		ug/L		89	62 - 125	0	20	
2,6-Dinitrotoluene	2.00	2.12		ug/L		106	67 - 134	5	20	
3-Nitroaniline	2.00	1.45		ug/L		72	22 - 124	8	20	
Acenaphthene	2.00	1.89		ug/L		94	63 - 125	1	20	
2,4-Dinitrophenol	4.00	5.39	* ^	ug/L		135	24 - 146	29	20	
4-Nitrophenol	4.00	4.59	^	ug/L		115	35 - 153	10	20	
Dibenzofuran	2.00	1.86		ug/L		93	60 - 125	3	20	
2,4-Dinitrotoluene	2.00	2.31	^	ug/L		116	73 - 126	8	20	
Diethyl phthalate	2.00	1.75		ug/L		87	60 - 150	4	20	
4-Chlorophenyl phenyl ether	2.00	1.90		ug/L		95	59 - 125	4	20	
Fluorene	2.00	1.94		ug/L		97	69 - 125	2	20	
4-Nitroaniline	2.00	1.77		ug/L		88	49 - 125	1	20	
4,6-Dinitro-2-methylphenol	4.00	4.66	^	ug/L		116	50 - 136	13	20	
N-Nitrosodiphenylamine	2.00	1.46		ug/L		73	40 - 135	17	20	
4-Bromophenyl phenyl ether	2.00	1.97		ug/L		99	62 - 132	4	20	
Hexachlorobenzene	2.00	1.70		ug/L		85	61 - 125	5	20	
Pentachlorophenol	4.00	2.73		ug/L		68	20 - 145	4	20	
Phenanthrene	2.00	1.83		ug/L		92	70 - 125	3	20	
Anthracene	2.00	1.51		ug/L		75	50 - 125	14	20	
Carbazole	2.00	2.09		ug/L		105	75 - 142	3	20	
Di-n-butyl phthalate	2.00	2.24		ug/L		112	55 - 167	2	20	
Fluoranthene	2.00	2.00		ug/L		100	70 - 145	1	20	
Pyrene	2.00	1.80		ug/L		90	70 - 133	5	20	
Butyl benzyl phthalate	2.00	2.73	^	ug/L		136	60 - 167	4	20	
3,3'-Dichlorobenzidine	4.00	1.56	J * ^	ug/L		39	20 - 175	183	20	
Benzo[a]anthracene	2.00	1.77		ug/L		89	65 - 125	7	20	
Chrysene	2.00	1.82		ug/L		91	70 - 125	1	20	
Bis(2-ethylhexyl) phthalate	2.00	17.2	*	ug/L		861	70 - 185	55	20	
Di-n-octyl phthalate	2.00	2.17		ug/L		108	55 - 150	2	20	
Benzo[b]fluoranthene	2.00	2.23		ug/L		111	70 - 129	3	20	

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCSD 580-169636/3-A
Matrix: Water
Analysis Batch: 169948

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 169636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Benzo[k]fluoranthene	2.00	1.86		ug/L		93	70 - 123	3	20	
Benzo[a]pyrene	2.00	1.57		ug/L		79	45 - 125	10	20	
Indeno[1,2,3-cd]pyrene	2.00	2.38	^	ug/L		119	70 - 136	5	20	
Dibenz(a,h)anthracene	2.00	1.97		ug/L		98	69 - 154	3	20	
Benzo[g,h,i]perylene	2.00	1.82		ug/L		91	65 - 153	4	20	
N-Nitrosodimethylamine	2.00	1.69	J	ug/L		85	33 - 143	8	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol	77		30 - 134
Phenol-d5	86		52 - 120
2,4,6-Tribromophenol	104		44 - 125
Nitrobenzene-d5	100		59 - 120
2-Fluorobiphenyl	81		50 - 120
Terphenyl-d14	111		64 - 150

Lab Sample ID: MB 580-170013/1-A
Matrix: Solid
Analysis Batch: 171413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170013

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Bis(2-chloroethyl)ether	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2-Chlorophenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
1,3-Dichlorobenzene	ND		5.0	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
1,4-Dichlorobenzene	ND		5.0	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Benzyl alcohol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
1,2-Dichlorobenzene	ND		5.5	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2-Methylphenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
3 & 4 Methylphenol	ND		20	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
N-Nitrosodi-n-propylamine	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Hexachloroethane	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Nitrobenzene	ND		10	3.4	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Isophorone	ND		10	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2-Nitrophenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2,4-Dimethylphenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Benzoic acid	ND		250	75	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Bis(2-chloroethoxy)methane	ND	^	10	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2,4-Dichlorophenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
1,2,4-Trichlorobenzene	ND		5.0	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Naphthalene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
4-Chloroaniline	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Hexachlorobutadiene	ND	^	5.0	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
4-Chloro-3-methylphenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2-Methylnaphthalene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
1-Methylnaphthalene	ND		3.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Hexachlorocyclopentadiene	ND	^	10	1.0	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2,4,6-Trichlorophenol	ND		15	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2,4,5-Trichlorophenol	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: MB 580-170013/1-A

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 170013

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Chloronaphthalene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2-Nitroaniline	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Dimethyl phthalate	ND		10	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Acenaphthylene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2,6-Dinitrotoluene	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
3-Nitroaniline	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Acenaphthene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2,4-Dinitrophenol	ND		100	20	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
4-Nitrophenol	ND	^	100	25	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Dibenzofuran	ND		10	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
2,4-Dinitrotoluene	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Diethyl phthalate	ND		20	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
4-Chlorophenyl phenyl ether	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Fluorene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
4-Nitroaniline	ND		10	2.0	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
4,6-Dinitro-2-methylphenol	ND		100	10	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
N-Nitrosodiphenylamine	ND		5.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
4-Bromophenyl phenyl ether	ND		10	1.5	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Hexachlorobenzene	ND		5.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Pentachlorophenol	ND		20	2.0	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Phenanthrene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Anthracene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Carbazole	ND		10	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Di-n-butyl phthalate	ND		50	5.0	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Fluoranthene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Pyrene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Butyl benzyl phthalate	ND		20	5.0	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
3,3'-Dichlorobenzidine	ND		20	3.0	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Benzo[a]anthracene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Chrysene	ND		2.5	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Bis(2-ethylhexyl) phthalate	5.67	J	60	5.0	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Di-n-octyl phthalate	ND		50	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Benzo[b]fluoranthene	ND		2.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Benzo[k]fluoranthene	ND		2.5	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Benzo[a]pyrene	ND		3.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Indeno[1,2,3-cd]pyrene	ND		4.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Dibenz(a,h)anthracene	ND		4.0	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
Benzo[g,h,i]perylene	ND		2.5	0.50	ug/Kg		09/18/14 08:30	10/01/14 16:44	1
N-Nitrosodimethylamine	ND		100	25	ug/Kg		09/18/14 08:30	10/01/14 16:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	67		36 - 145	09/18/14 08:30	10/01/14 16:44	1
Phenol-d5	67		38 - 149	09/18/14 08:30	10/01/14 16:44	1
2,4,6-Tribromophenol	73		28 - 143	09/18/14 08:30	10/01/14 16:44	1
Nitrobenzene-d5	67		38 - 141	09/18/14 08:30	10/01/14 16:44	1
2-Fluorobiphenyl	79		42 - 140	09/18/14 08:30	10/01/14 16:44	1
Terphenyl-d14	91		42 - 151	09/18/14 08:30	10/01/14 16:44	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCS 580-170013/2-A

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	500	376		ug/Kg		75	63 - 111
Bis(2-chloroethyl)ether	500	355		ug/Kg		71	62 - 110
2-Chlorophenol	500	380		ug/Kg		76	68 - 117
1,3-Dichlorobenzene	500	351		ug/Kg		70	64 - 111
1,4-Dichlorobenzene	500	337		ug/Kg		67	65 - 110
Benzyl alcohol	500	431		ug/Kg		86	55 - 123
1,2-Dichlorobenzene	500	340		ug/Kg		68	64 - 112
2-Methylphenol	500	393		ug/Kg		79	71 - 116
2,2'-oxybis[1-chloropropane]	500	344		ug/Kg		69	41 - 126
3 & 4 Methylphenol	500	403		ug/Kg		81	70 - 116
N-Nitrosodi-n-propylamine	500	360		ug/Kg		72	62 - 116
Hexachloroethane	500	342		ug/Kg		68	62 - 120
Nitrobenzene	500	365		ug/Kg		73	64 - 118
Isophorone	500	382		ug/Kg		76	67 - 119
2-Nitrophenol	500	432		ug/Kg		86	67 - 127
2,4-Dimethylphenol	500	361		ug/Kg		72	54 - 139
Benzoic acid	1000	684		ug/Kg		68	29 - 158
Bis(2-chloroethoxy)methane	500	382	^	ug/Kg		76	69 - 107
2,4-Dichlorophenol	500	455		ug/Kg		91	68 - 125
1,2,4-Trichlorobenzene	500	403		ug/Kg		81	66 - 115
Naphthalene	500	351		ug/Kg		70	62 - 112
4-Chloroaniline	500	258		ug/Kg		52	20 - 103
Hexachlorobutadiene	500	444	^	ug/Kg		89	65 - 116
4-Chloro-3-methylphenol	500	408		ug/Kg		82	69 - 121
2-Methylnaphthalene	500	383		ug/Kg		77	64 - 119
1-Methylnaphthalene	500	390		ug/Kg		78	62 - 118
Hexachlorocyclopentadiene	500	462	^	ug/Kg		92	46 - 131
2,4,6-Trichlorophenol	500	421		ug/Kg		84	62 - 133
2,4,5-Trichlorophenol	500	425		ug/Kg		85	57 - 133
2-Chloronaphthalene	500	377		ug/Kg		75	68 - 112
2-Nitroaniline	500	350		ug/Kg		70	64 - 112
Dimethyl phthalate	500	419		ug/Kg		84	78 - 117
Acenaphthylene	500	403		ug/Kg		81	68 - 120
2,6-Dinitrotoluene	500	404		ug/Kg		81	66 - 123
3-Nitroaniline	500	303		ug/Kg		61	27 - 103
Acenaphthene	500	376		ug/Kg		75	68 - 116
2,4-Dinitrophenol	1000	667		ug/Kg		67	20 - 141
4-Nitrophenol	1000	1540	^	ug/Kg		154	20 - 165
Dibenzofuran	500	385		ug/Kg		77	72 - 109
2,4-Dinitrotoluene	500	407		ug/Kg		81	68 - 121
Diethyl phthalate	500	415		ug/Kg		83	73 - 116
4-Chlorophenyl phenyl ether	500	459		ug/Kg		92	75 - 108
Fluorene	500	410		ug/Kg		82	70 - 121
4-Nitroaniline	500	347		ug/Kg		69	58 - 108
4,6-Dinitro-2-methylphenol	1000	791		ug/Kg		79	48 - 130
N-Nitrosodiphenylamine	500	397		ug/Kg		79	73 - 115
4-Bromophenyl phenyl ether	500	465		ug/Kg		93	68 - 122
Hexachlorobenzene	500	446		ug/Kg		89	66 - 117

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCS 580-170013/2-A

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Pentachlorophenol	1000	704		ug/Kg		70	45 - 117	
Phenanthrene	500	407		ug/Kg		81	73 - 106	
Anthracene	500	396		ug/Kg		79	73 - 116	
Carbazole	500	411		ug/Kg		82	76 - 135	
Di-n-butyl phthalate	500	416		ug/Kg		83	66 - 140	
Fluoranthene	500	438		ug/Kg		88	73 - 125	
Pyrene	500	436		ug/Kg		87	70 - 120	
Butyl benzyl phthalate	500	349		ug/Kg		70	69 - 142	
3,3'-Dichlorobenzidine	1000	624		ug/Kg		62	20 - 103	
Benzo[a]anthracene	500	387		ug/Kg		77	76 - 119	
Chrysene	500	368	*	ug/Kg		74	75 - 114	
Bis(2-ethylhexyl) phthalate	500	350		ug/Kg		70	62 - 144	
Di-n-octyl phthalate	500	336		ug/Kg		67	65 - 141	
Benzo[b]fluoranthene	500	377		ug/Kg		75	63 - 132	
Benzo[k]fluoranthene	500	422		ug/Kg		84	63 - 119	
Benzo[a]pyrene	500	416		ug/Kg		83	72 - 117	
Indeno[1,2,3-cd]pyrene	500	434		ug/Kg		87	56 - 127	
Dibenz(a,h)anthracene	500	435		ug/Kg		87	56 - 134	
Benzo[g,h,i]perylene	500	413		ug/Kg		83	55 - 139	
N-Nitrosodimethylamine	500	349		ug/Kg		70	38 - 133	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	76		36 - 145
Phenol-d5	79		38 - 149
2,4,6-Tribromophenol	87		28 - 143
Nitrobenzene-d5	77		38 - 141
2-Fluorobiphenyl	84		42 - 140
Terphenyl-d14	98		42 - 151

Lab Sample ID: LCSD 580-170013/3-A

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
									RPD	Limit
Phenol	500	356		ug/Kg		71	63 - 111	5	26	
Bis(2-chloroethyl)ether	500	324		ug/Kg		65	62 - 110	9	22	
2-Chlorophenol	500	361		ug/Kg		72	68 - 117	5	27	
1,3-Dichlorobenzene	500	318		ug/Kg		64	64 - 111	10	30	
1,4-Dichlorobenzene	500	316	*	ug/Kg		63	65 - 110	7	30	
Benzyl alcohol	500	384		ug/Kg		77	55 - 123	12	60	
1,2-Dichlorobenzene	500	316	*	ug/Kg		63	64 - 112	7	30	
2-Methylphenol	500	370		ug/Kg		74	71 - 116	6	25	
2,2'-oxybis[1-chloropropane]	500	323		ug/Kg		65	41 - 126	6	57	
3 & 4 Methylphenol	500	387		ug/Kg		77	70 - 116	4	27	
N-Nitrosodi-n-propylamine	500	356		ug/Kg		71	62 - 116	1	28	
Hexachloroethane	500	317		ug/Kg		63	62 - 120	8	30	
Nitrobenzene	500	346		ug/Kg		69	64 - 118	5	30	
Isophorone	500	365		ug/Kg		73	67 - 119	5	30	

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCSD 580-170013/3-A

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD
							Limits	RPD	Limit
2-Nitrophenol	500	407		ug/Kg		81	67 - 127	6	30
2,4-Dimethylphenol	500	350		ug/Kg		70	54 - 139	3	30
Benzoic acid	1000	644		ug/Kg		64	29 - 158	6	28
Bis(2-chloroethoxy)methane	500	358	^	ug/Kg		72	69 - 107	7	30
2,4-Dichlorophenol	500	424		ug/Kg		85	68 - 125	7	30
1,2,4-Trichlorobenzene	500	376		ug/Kg		75	66 - 115	7	28
Naphthalene	500	328		ug/Kg		66	62 - 112	7	26
4-Chloroaniline	500	272		ug/Kg		54	20 - 103	5	60
Hexachlorobutadiene	500	413	^	ug/Kg		83	65 - 116	7	30
4-Chloro-3-methylphenol	500	385		ug/Kg		77	69 - 121	6	27
2-Methylnaphthalene	500	364		ug/Kg		73	64 - 119	5	27
1-Methylnaphthalene	500	364		ug/Kg		73	62 - 118	7	30
Hexachlorocyclopentadiene	500	429	^	ug/Kg		86	46 - 131	7	29
2,4,6-Trichlorophenol	500	396		ug/Kg		79	62 - 133	6	30
2,4,5-Trichlorophenol	500	421		ug/Kg		84	57 - 133	1	30
2-Chloronaphthalene	500	360		ug/Kg		72	68 - 112	5	25
2-Nitroaniline	500	342		ug/Kg		68	64 - 112	2	22
Dimethyl phthalate	500	394		ug/Kg		79	78 - 117	6	30
Acenaphthylene	500	387		ug/Kg		77	68 - 120	4	28
2,6-Dinitrotoluene	500	386		ug/Kg		77	66 - 123	5	30
3-Nitroaniline	500	315		ug/Kg		63	27 - 103	4	33
Acenaphthene	500	355		ug/Kg		71	68 - 116	6	27
2,4-Dinitrophenol	1000	666		ug/Kg		67	20 - 141	0	36
4-Nitrophenol	1000	1460	^	ug/Kg		146	20 - 165	5	30
Dibenzofuran	500	379		ug/Kg		76	72 - 109	2	30
2,4-Dinitrotoluene	500	381		ug/Kg		76	68 - 121	7	30
Diethyl phthalate	500	398		ug/Kg		80	73 - 116	4	26
4-Chlorophenyl phenyl ether	500	446		ug/Kg		89	75 - 108	3	30
Fluorene	500	404		ug/Kg		81	70 - 121	2	30
4-Nitroaniline	500	345		ug/Kg		69	58 - 108	1	32
4,6-Dinitro-2-methylphenol	1000	726		ug/Kg		73	48 - 130	9	22
N-Nitrosodiphenylamine	500	366		ug/Kg		73	73 - 115	8	30
4-Bromophenyl phenyl ether	500	435		ug/Kg		87	68 - 122	7	30
Hexachlorobenzene	500	414		ug/Kg		83	66 - 117	7	30
Pentachlorophenol	1000	680		ug/Kg		68	45 - 117	3	23
Phenanthrene	500	374		ug/Kg		75	73 - 106	8	28
Anthracene	500	370		ug/Kg		74	73 - 116	7	27
Carbazole	500	385		ug/Kg		77	76 - 135	7	30
Di-n-butyl phthalate	500	387		ug/Kg		77	66 - 140	7	30
Fluoranthene	500	411		ug/Kg		82	73 - 125	6	30
Pyrene	500	412		ug/Kg		82	70 - 120	6	30
Butyl benzyl phthalate	500	334	*	ug/Kg		67	69 - 142	5	30
3,3'-Dichlorobenzidine	1000	658		ug/Kg		66	20 - 103	5	60
Benzo[a]anthracene	500	359	*	ug/Kg		72	76 - 119	8	27
Chrysene	500	369	*	ug/Kg		74	75 - 114	0	26
Bis(2-ethylhexyl) phthalate	500	326		ug/Kg		65	62 - 144	7	30
Di-n-octyl phthalate	500	318	*	ug/Kg		64	65 - 141	5	30
Benzo[b]fluoranthene	500	388		ug/Kg		78	63 - 132	3	30

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCSD 580-170013/3-A

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[k]fluoranthene	500	387		ug/Kg		77	63 - 119	9	30
Benzo[a]pyrene	500	393		ug/Kg		79	72 - 117	6	30
Indeno[1,2,3-cd]pyrene	500	397		ug/Kg		79	56 - 127	9	29
Dibenz(a,h)anthracene	500	404		ug/Kg		81	56 - 134	7	30
Benzo[g,h,i]perylene	500	376		ug/Kg		75	55 - 139	9	28
N-Nitrosodimethylamine	500	324		ug/Kg		65	38 - 133	7	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol	68		36 - 145
Phenol-d5	70		38 - 149
2,4,6-Tribromophenol	77		28 - 143
Nitrobenzene-d5	68		38 - 141
2-Fluorobiphenyl	78		42 - 140
Terphenyl-d14	92		42 - 151

Lab Sample ID: 580-45354-2 MS

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Phenol	ND		1250	1110	J	ug/Kg	☼	89	63 - 111
Bis(2-chloroethyl)ether	ND		1250	790	J	ug/Kg	☼	63	62 - 110
2-Chlorophenol	ND		1250	882	J	ug/Kg	☼	71	68 - 117
1,3-Dichlorobenzene	ND		1250	811		ug/Kg	☼	65	64 - 111
1,4-Dichlorobenzene	ND	*	1250	864		ug/Kg	☼	69	65 - 110
Benzyl alcohol	ND		1250	212	J F1	ug/Kg	☼	17	55 - 123
1,2-Dichlorobenzene	ND	*	1250	820		ug/Kg	☼	66	64 - 112
2-Methylphenol	ND		1250	1540	F1	ug/Kg	☼	124	71 - 116
2,2'-oxybis[1-chloropropane]	ND		1250	916	J	ug/Kg	☼	74	41 - 126
3 & 4 Methylphenol	ND		1250	1190	J	ug/Kg	☼	96	70 - 116
N-Nitrosodi-n-propylamine	ND		1250	834	J	ug/Kg	☼	67	62 - 116
Hexachloroethane	ND		1250	802	J	ug/Kg	☼	64	62 - 120
Nitrobenzene	ND		1250	952	J	ug/Kg	☼	76	64 - 118
Isophorone	ND		1250	1150	J	ug/Kg	☼	93	67 - 119
2-Nitrophenol	ND		1250	1060	J	ug/Kg	☼	85	67 - 127
2,4-Dimethylphenol	ND		1250	979	J	ug/Kg	☼	79	54 - 139
Benzoic acid	ND		2490	ND		ug/Kg	☼	NC	29 - 158
Bis(2-chloroethoxy)methane	ND	^	1250	949	J ^	ug/Kg	☼	76	69 - 107
2,4-Dichlorophenol	ND		1250	976	J	ug/Kg	☼	78	68 - 125
1,2,4-Trichlorobenzene	ND		1250	982		ug/Kg	☼	79	66 - 115
Naphthalene	170	J	1250	1080		ug/Kg	☼	73	62 - 112
4-Chloroaniline	ND		1250	361	J	ug/Kg	☼	29	20 - 103
Hexachlorobutadiene	ND	^	1250	1160	^	ug/Kg	☼	93	65 - 116
4-Chloro-3-methylphenol	ND		1250	1100	J	ug/Kg	☼	88	69 - 121
2-Methylnaphthalene	140	J	1250	1090		ug/Kg	☼	76	64 - 119
1-Methylnaphthalene	ND		1250	1060		ug/Kg	☼	85	62 - 118
Hexachlorocyclopentadiene	ND	^	1250	ND	F1 ^	ug/Kg	☼	0	46 - 131
2,4,6-Trichlorophenol	ND		1250	1130	J	ug/Kg	☼	91	62 - 133

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: 580-45354-2 MS

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
2,4,5-Trichlorophenol	ND		1250	1280		ug/Kg	*	102	57 - 133
2-Chloronaphthalene	ND		1250	942		ug/Kg	*	76	68 - 112
2-Nitroaniline	ND		1250	1280		ug/Kg	*	102	64 - 112
Dimethyl phthalate	ND		1250	1440		ug/Kg	*	116	78 - 117
Acenaphthylene	ND		1250	1080		ug/Kg	*	87	68 - 120
2,6-Dinitrotoluene	ND		1250	1310		ug/Kg	*	105	66 - 123
3-Nitroaniline	ND		1250	692	J	ug/Kg	*	56	27 - 103
Acenaphthene	ND		1250	1110		ug/Kg	*	90	68 - 116
2,4-Dinitrophenol	ND		2490	ND		ug/Kg	*	NC	20 - 141
4-Nitrophenol	ND	^	2490	5780	J ^	ug/Kg	*	NC	20 - 165
Dibenzofuran	ND		1250	ND	F1	ug/Kg	*	0	72 - 109
2,4-Dinitrotoluene	ND		1250	1450		ug/Kg	*	116	68 - 121
Diethyl phthalate	230	J	1250	1100	J F1	ug/Kg	*	70	73 - 116
4-Chlorophenyl phenyl ether	ND		1250	1030	J	ug/Kg	*	83	75 - 108
Fluorene	340		1250	1360		ug/Kg	*	82	70 - 121
4-Nitroaniline	ND		1250	801	J	ug/Kg	*	64	58 - 108
4,6-Dinitro-2-methylphenol	ND		2490	ND	F1	ug/Kg	*	0	48 - 130
N-Nitrosodiphenylamine	1300		1250	2250	F1	ug/Kg	*	72	73 - 115
4-Bromophenyl phenyl ether	ND		1250	1050	J	ug/Kg	*	84	68 - 122
Hexachlorobenzene	ND		1250	1060		ug/Kg	*	85	66 - 117
Pentachlorophenol	ND		2490	2610		ug/Kg	*	105	45 - 117
Phenanthrene	750		1250	1460	F1	ug/Kg	*	58	73 - 106
Anthracene	230	J	1250	1060	F1	ug/Kg	*	66	73 - 116
Carbazole	270	J	1250	1140	J F1	ug/Kg	*	70	76 - 135
Di-n-butyl phthalate	ND		1250	1100	J	ug/Kg	*	88	66 - 140
Fluoranthene	2000		1250	2820	F1	ug/Kg	*	65	73 - 125
Pyrene	2500		1250	2930	F1	ug/Kg	*	38	70 - 120
Butyl benzyl phthalate	ND	*	1250	1000	J	ug/Kg	*	80	69 - 142
3,3'-Dichlorobenzidine	ND		2490	ND	F1	ug/Kg	*	0	20 - 103
Benzo[a]anthracene	630	*	1250	1480	F1	ug/Kg	*	68	76 - 119
Chrysene	1400	*	1250	2130	F1	ug/Kg	*	58	75 - 114
Bis(2-ethylhexyl) phthalate	12000	B	1250	15300	4	ug/Kg	*	229	62 - 144
Di-n-octyl phthalate	1100	J*	1250	1930	J	ug/Kg	*	65	65 - 141
Benzo[b]fluoranthene	1300		1250	1990	F1	ug/Kg	*	57	63 - 132
Benzo[k]fluoranthene	590		1250	1280	F1	ug/Kg	*	55	63 - 119
Benzo[a]pyrene	720		1250	1500	F1	ug/Kg	*	63	72 - 117
Indeno[1,2,3-cd]pyrene	600		1250	1100	F1	ug/Kg	*	40	56 - 127
Dibenz(a,h)anthracene	ND		1250	805		ug/Kg	*	65	56 - 134
Benzo[g,h,i]perylene	770		1250	1170	F1	ug/Kg	*	32	55 - 139
N-Nitrosodimethylamine	ND		1250	ND		ug/Kg	*	NC	38 - 133

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	64		36 - 145
Phenol-d5	73		38 - 149
2,4,6-Tribromophenol	8	X	28 - 143
Nitrobenzene-d5	87		38 - 141
2-Fluorobiphenyl	71		42 - 140
Terphenyl-d14	102		42 - 151

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: 580-45354-2 MSD

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result			Result							
Phenol	ND		1260	1260	J	ug/Kg	☼	101	63 - 111	13	26
Bis(2-chloroethyl)ether	ND		1260	970	J	ug/Kg	☼	77	62 - 110	20	60
2-Chlorophenol	ND		1260	1070	J	ug/Kg	☼	85	68 - 117	19	27
1,3-Dichlorobenzene	ND		1260	854		ug/Kg	☼	68	64 - 111	5	60
1,4-Dichlorobenzene	ND	*	1260	888		ug/Kg	☼	71	65 - 110	3	32
Benzyl alcohol	ND		1260	334	J F1	ug/Kg	☼	27	55 - 123	44	60
1,2-Dichlorobenzene	ND	*	1260	950		ug/Kg	☼	76	64 - 112	15	60
2-Methylphenol	ND		1260	1220	J	ug/Kg	☼	97	71 - 116	23	25
2,2'-oxybis[1-chloropropane]	ND		1260	985	J	ug/Kg	☼	78	41 - 126	7	60
3 & 4 Methylphenol	ND		1260	1270	J	ug/Kg	☼	101	70 - 116	6	27
N-Nitrosodi-n-propylamine	ND		1260	1370	F2	ug/Kg	☼	109	62 - 116	49	28
Hexachloroethane	ND		1260	731	J F1	ug/Kg	☼	58	62 - 120	9	60
Nitrobenzene	ND		1260	1080	J	ug/Kg	☼	86	64 - 118	13	60
Isophorone	ND		1260	1180	J	ug/Kg	☼	94	67 - 119	3	60
2-Nitrophenol	ND		1260	1330		ug/Kg	☼	106	67 - 127	23	60
2,4-Dimethylphenol	ND		1260	1030	J	ug/Kg	☼	82	54 - 139	5	60
Benzoic acid	ND		2510	ND		ug/Kg	☼	NC	29 - 158	NC	60
Bis(2-chloroethoxy)methane	ND	^	1260	1200	J ^	ug/Kg	☼	95	69 - 107	23	60
2,4-Dichlorophenol	ND		1260	1130	J	ug/Kg	☼	90	68 - 125	14	60
1,2,4-Trichlorobenzene	ND		1260	1130		ug/Kg	☼	90	66 - 115	14	28
Naphthalene	170	J	1260	1140		ug/Kg	☼	77	62 - 112	6	26
4-Chloroaniline	ND		1260	425	J	ug/Kg	☼	34	20 - 103	16	60
Hexachlorobutadiene	ND	^	1260	1190	^	ug/Kg	☼	95	65 - 116	3	60
4-Chloro-3-methylphenol	ND		1260	1120	J	ug/Kg	☼	89	69 - 121	2	27
2-Methylnaphthalene	140	J	1260	1170		ug/Kg	☼	82	64 - 119	7	27
1-Methylnaphthalene	ND		1260	1090		ug/Kg	☼	86	62 - 118	3	30
Hexachlorocyclopentadiene	ND	^	1260	ND	^ F1	ug/Kg	☼	0	46 - 131	NC	60
2,4,6-Trichlorophenol	ND		1260	1260	J	ug/Kg	☼	100	62 - 133	11	60
2,4,5-Trichlorophenol	ND		1260	1410		ug/Kg	☼	112	57 - 133	10	60
2-Chloronaphthalene	ND		1260	991		ug/Kg	☼	79	68 - 112	5	25
2-Nitroaniline	ND		1260	1150	J	ug/Kg	☼	92	64 - 112	10	60
Dimethyl phthalate	ND		1260	1350		ug/Kg	☼	107	78 - 117	7	60
Acenaphthylene	ND		1260	1190		ug/Kg	☼	94	68 - 120	10	28
2,6-Dinitrotoluene	ND		1260	1130	J	ug/Kg	☼	90	66 - 123	15	60
3-Nitroaniline	ND		1260	846	J	ug/Kg	☼	67	27 - 103	20	60
Acenaphthene	ND		1260	1220		ug/Kg	☼	97	68 - 116	9	27
2,4-Dinitrophenol	ND		2510	ND	F1	ug/Kg	☼	0	20 - 141	NC	60
4-Nitrophenol	ND	^	2510	6760	J ^	ug/Kg	☼	NC	20 - 165	16	33
Dibenzofuran	ND		1260	ND	F1	ug/Kg	☼	0	72 - 109	NC	60
2,4-Dinitrotoluene	ND		1260	1640	F1	ug/Kg	☼	131	68 - 121	13	31
Diethyl phthalate	230	J	1260	1130	J F1	ug/Kg	☼	72	73 - 116	2	26
4-Chlorophenyl phenyl ether	ND		1260	1340		ug/Kg	☼	106	75 - 108	26	60
Fluorene	340		1260	1510		ug/Kg	☼	94	70 - 121	11	31
4-Nitroaniline	ND		1260	1010	J	ug/Kg	☼	80	58 - 108	23	60
4,6-Dinitro-2-methylphenol	ND		2510	ND	F1	ug/Kg	☼	0	48 - 130	NC	60
N-Nitrosodiphenylamine	1300		1260	2850	F1	ug/Kg	☼	119	73 - 115	24	60
4-Bromophenyl phenyl ether	ND		1260	1430		ug/Kg	☼	114	68 - 122	31	60
Hexachlorobenzene	ND		1260	1230		ug/Kg	☼	98	66 - 117	14	60

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: 580-45354-2 MSD

Matrix: Solid

Analysis Batch: 171413

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 170013

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Pentachlorophenol	ND		2510	2940		ug/Kg	*	117	45 - 117	12	68
Phenanthrene	750		1260	1840		ug/Kg	*	87	73 - 106	23	28
Anthracene	230	J	1260	1310		ug/Kg	*	85	73 - 116	21	27
Carbazole	270	J	1260	1240	J	ug/Kg	*	77	76 - 135	8	60
Di-n-butyl phthalate	ND		1260	1290	J	ug/Kg	*	103	66 - 140	16	60
Fluoranthene	2000		1260	3980	F1	ug/Kg	*	157	73 - 125	34	36
Pyrene	2500		1260	6090	F1 F2	ug/Kg	*	289	70 - 120	70	31
Butyl benzyl phthalate	ND	*	1260	1460	J	ug/Kg	*	116	69 - 142	37	60
3,3'-Dichlorobenzidine	ND		2510	453	J F1	ug/Kg	*	18	20 - 103	NC	60
Benzo[a]anthracene	630	*	1260	3250	F1 F2	ug/Kg	*	208	76 - 119	75	27
Chrysene	1400	*	1260	5780	F1 F2	ug/Kg	*	348	75 - 114	92	26
Bis(2-ethylhexyl) phthalate	12000	B	1260	12000	4	ug/Kg	*	-35	62 - 144	24	60
Di-n-octyl phthalate	1100	J *	1260	1880	J F1	ug/Kg	*	60	65 - 141	3	31
Benzo[b]fluoranthene	1300		1260	3020	F1 F2	ug/Kg	*	139	63 - 132	41	31
Benzo[k]fluoranthene	590		1260	2080	F2	ug/Kg	*	118	63 - 119	48	31
Benzo[a]pyrene	720		1260	3090	F1 F2	ug/Kg	*	189	72 - 117	69	30
Indeno[1,2,3-cd]pyrene	600		1260	1150	F1	ug/Kg	*	44	56 - 127	5	29
Dibenz[a,h]anthracene	ND		1260	1110	F2	ug/Kg	*	88	56 - 134	32	30
Benzo[g,h,i]perylene	770		1260	1540		ug/Kg	*	61	55 - 139	27	28
N-Nitrosodimethylamine	ND		1260	ND		ug/Kg	*	NC	38 - 133	NC	60

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorophenol	77		36 - 145
Phenol-d5	80		38 - 149
2,4,6-Tribromophenol	79		28 - 143
Nitrobenzene-d5	88		38 - 141
2-Fluorobiphenyl	83		42 - 140
Terphenyl-d14	108		42 - 151

Lab Sample ID: MB 580-171673/1-A

Matrix: Solid

Analysis Batch: 171805

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 171673

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	ND		5.0	1.5	ug/Kg		10/03/14 14:00	10/06/14 13:30	1
1,2-Dichlorobenzene	ND		5.5	1.5	ug/Kg		10/03/14 14:00	10/06/14 13:30	1
Butyl benzyl phthalate	ND		20	5.0	ug/Kg		10/03/14 14:00	10/06/14 13:30	1
Benzo[a]anthracene	ND		2.0	0.50	ug/Kg		10/03/14 14:00	10/06/14 13:30	1
Chrysene	ND		2.5	0.50	ug/Kg		10/03/14 14:00	10/06/14 13:30	1
Di-n-octyl phthalate	ND		50	0.50	ug/Kg		10/03/14 14:00	10/06/14 13:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	68		36 - 145	10/03/14 14:00	10/06/14 13:30	1
Phenol-d5	70		38 - 149	10/03/14 14:00	10/06/14 13:30	1
2,4,6-Tribromophenol	81		28 - 143	10/03/14 14:00	10/06/14 13:30	1
Nitrobenzene-d5	70		38 - 141	10/03/14 14:00	10/06/14 13:30	1
2-Fluorobiphenyl	66		42 - 140	10/03/14 14:00	10/06/14 13:30	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: MB 580-171673/1-A
Matrix: Solid
Analysis Batch: 171805

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171673

<i>Surrogate</i>	<i>MB MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>	
<i>Terphenyl-d14</i>	<i>%Recovery Qualifier</i>	<i>79</i>	<i>42 - 151</i>	<i>10/03/14 14:00</i>	<i>10/06/14 13:30</i>	<i>1</i>

Lab Sample ID: LCS 580-171673/2-A
Matrix: Solid
Analysis Batch: 171805

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171673

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,4-Dichlorobenzene	100	71.6		ug/Kg		72	65 - 110
1,2-Dichlorobenzene	100	72.6		ug/Kg		73	64 - 112
Butyl benzyl phthalate	100	80.4		ug/Kg		80	69 - 142
Benzo[a]anthracene	100	74.1	*	ug/Kg		74	76 - 119
Chrysene	100	75.6		ug/Kg		76	75 - 114
Di-n-octyl phthalate	100	75.7		ug/Kg		76	65 - 141

<i>Surrogate</i>	<i>LCS LCS</i>	<i>Limits</i>
<i>2-Fluorophenol</i>	<i>%Recovery Qualifier</i>	<i>36 - 145</i>
<i>Phenol-d5</i>	<i>74</i>	<i>38 - 149</i>
<i>2,4,6-Tribromophenol</i>	<i>81</i>	<i>28 - 143</i>
<i>Nitrobenzene-d5</i>	<i>73</i>	<i>38 - 141</i>
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>42 - 140</i>
<i>Terphenyl-d14</i>	<i>75</i>	<i>42 - 151</i>

Lab Sample ID: LCSD 580-171673/3-A
Matrix: Solid
Analysis Batch: 171805

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 171673

<i>Analyte</i>	<i>Spike Added</i>	<i>LCSD Result</i>	<i>LCSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
1,4-Dichlorobenzene	100	73.4		ug/Kg		73	65 - 110	2	30
1,2-Dichlorobenzene	100	70.6		ug/Kg		71	64 - 112	3	30
Butyl benzyl phthalate	100	88.9		ug/Kg		89	69 - 142	10	30
Benzo[a]anthracene	100	78.8		ug/Kg		79	76 - 119	6	27
Chrysene	100	80.6		ug/Kg		81	75 - 114	6	26
Di-n-octyl phthalate	100	79.1		ug/Kg		79	65 - 141	4	30

<i>Surrogate</i>	<i>LCSD LCSD</i>	<i>Limits</i>
<i>2-Fluorophenol</i>	<i>%Recovery Qualifier</i>	<i>36 - 145</i>
<i>Phenol-d5</i>	<i>73</i>	<i>38 - 149</i>
<i>2,4,6-Tribromophenol</i>	<i>87</i>	<i>28 - 143</i>
<i>Nitrobenzene-d5</i>	<i>76</i>	<i>38 - 141</i>
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>42 - 140</i>
<i>Terphenyl-d14</i>	<i>82</i>	<i>42 - 151</i>

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: 580-45354-2 MS

Matrix: Solid

Analysis Batch: 171805

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 171673

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
1,4-Dichlorobenzene - RE	ND	H	250	ND	F1	ug/Kg	☼	0	65 - 110
1,2-Dichlorobenzene - RE	ND	H	250	ND	F1	ug/Kg	☼	0	64 - 112
Butyl benzyl phthalate - RE	660	J H	250	ND	F1	ug/Kg	☼	0	69 - 142
Benzo[a]anthracene - RE	280	H *	250	350	F1	ug/Kg	☼	26	76 - 119
Chrysene - RE	350	H	250	569		ug/Kg	☼	86	75 - 114
Di-n-octyl phthalate - RE	ND	H	250	714	J F1	ug/Kg	☼	285	65 - 141

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorophenol - RE	62		36 - 145
Phenol-d5 - RE	70		38 - 149
2,4,6-Tribromophenol - RE	78		28 - 143
Nitrobenzene-d5 - RE	73		38 - 141
2-Fluorobiphenyl - RE	78		42 - 140
Terphenyl-d14 - RE	94		42 - 151

Lab Sample ID: 580-45354-2 MSD

Matrix: Solid

Analysis Batch: 171805

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 171673

Analyte	Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	
	Result	Qualifier		Result	Qualifier					RPD	Limit
1,4-Dichlorobenzene - RE	ND	H	247	ND	F1	ug/Kg	☼	0	65 - 110	NC	32
1,2-Dichlorobenzene - RE	ND	H	247	ND	F1	ug/Kg	☼	0	64 - 112	NC	60
Butyl benzyl phthalate - RE	660	J H	247	ND	F1	ug/Kg	☼	0	69 - 142	NC	60
Benzo[a]anthracene - RE	280	H *	247	291	F1	ug/Kg	☼	3	76 - 119	18	27
Chrysene - RE	350	H	247	573		ug/Kg	☼	89	75 - 114	1	26
Di-n-octyl phthalate - RE	ND	H	247	577	J F1	ug/Kg	☼	234	65 - 141	21	31

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol - RE	41		36 - 145
Phenol-d5 - RE	44		38 - 149
2,4,6-Tribromophenol - RE	34		28 - 143
Nitrobenzene-d5 - RE	46		38 - 141
2-Fluorobiphenyl - RE	52		42 - 140
Terphenyl-d14 - RE	55		42 - 151

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

Lab Sample ID: MB 580-169682/1-A

Matrix: Solid

Analysis Batch: 169691

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169682

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline	ND		4.0	0.50	mg/Kg		09/13/14 14:56	09/14/14 02:03	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	99		50 - 150	09/13/14 14:56	09/14/14 02:03	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCS 580-169682/2-A

Matrix: Solid

Analysis Batch: 169691

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169682

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline	40.0	34.3		mg/Kg		86	68 - 120
Surrogate		LCS %Recovery	LCS Qualifier				Limits
4-Bromofluorobenzene (Surr)		105					50 - 150

Lab Sample ID: LCSD 580-169682/3-A

Matrix: Solid

Analysis Batch: 169691

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169682

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	40.0	39.3		mg/Kg		98	68 - 120	14	25
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
4-Bromofluorobenzene (Surr)		105					50 - 150		

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-169872/1-A

Matrix: Solid

Analysis Batch: 170123

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169872

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arochlor 1016	ND		0.010	0.0032	mg/Kg		09/16/14 09:51	09/18/14 14:57	1
Arochlor 1221	ND		0.011	0.0080	mg/Kg		09/16/14 09:51	09/18/14 14:57	1
Arochlor 1232	ND		0.011	0.0070	mg/Kg		09/16/14 09:51	09/18/14 14:57	1
Arochlor 1242	ND		0.010	0.0021	mg/Kg		09/16/14 09:51	09/18/14 14:57	1
Arochlor 1248	ND		0.010	0.0030	mg/Kg		09/16/14 09:51	09/18/14 14:57	1
Arochlor 1254	ND		0.010	0.0021	mg/Kg		09/16/14 09:51	09/18/14 14:57	1
Arochlor 1260	ND		0.010	0.0030	mg/Kg		09/16/14 09:51	09/18/14 14:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		45 - 135				09/16/14 09:51	09/18/14 14:57	1
DCB Decachlorobiphenyl	102		50 - 140				09/16/14 09:51	09/18/14 14:57	1

Lab Sample ID: LCS 580-169872/4-A

Matrix: Solid

Analysis Batch: 170123

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arochlor 1016	0.100	0.0894		mg/Kg		89	40 - 140
Arochlor 1260	0.100	0.0966		mg/Kg		97	60 - 130
Surrogate		LCS %Recovery	LCS Qualifier				Limits
Tetrachloro-m-xylene		82					45 - 135
DCB Decachlorobiphenyl		96					50 - 140

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 580-169872/5-A

Matrix: Solid

Analysis Batch: 170123

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169872

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
Arochlor 1016	0.100	0.0850		mg/Kg		85	40 - 140	5	20	
Arochlor 1260	0.100	0.0933		mg/Kg		93	60 - 130	3	20	
		LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits							
Tetrachloro-m-xylene	77		45 - 135							
DCB Decachlorobiphenyl	92		50 - 140							

Lab Sample ID: 580-45354-2 MS

Matrix: Solid

Analysis Batch: 170123

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 169872

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Arochlor 1016	0.11		0.254	0.300		mg/Kg	☼	76	40 - 140			
Arochlor 1260	0.15		0.254	0.943	F1	mg/Kg	☼	314	60 - 130			
		MS	MS									
Surrogate	%Recovery	Qualifier	Limits									
Tetrachloro-m-xylene	66		45 - 135									
DCB Decachlorobiphenyl	73		50 - 140									

Lab Sample ID: 580-45354-2 MSD

Matrix: Solid

Analysis Batch: 170123

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 169872

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Arochlor 1016	0.11		0.250	0.205	F1 F2	mg/Kg	☼	39	40 - 140	38	20	
Arochlor 1260	0.15		0.250	0.279	F1 F2	mg/Kg	☼	53	60 - 130	109	20	
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
Tetrachloro-m-xylene	59		45 - 135									
DCB Decachlorobiphenyl	59		50 - 140									

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

Lab Sample ID: MB 580-169865/1-A

Matrix: Solid

Analysis Batch: 170232

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 169865

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier								
#2 Diesel (C10-C24)	ND		25	5.7	mg/Kg		09/16/14 09:02	09/19/14 16:19	1	
Motor Oil (>C24-C36)	ND		50	9.1	mg/Kg		09/16/14 09:02	09/19/14 16:19	1	
		MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
o-Terphenyl	87		50 - 150	09/16/14 09:02	09/19/14 16:19	1				

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCS 580-169865/2-A

Matrix: Solid

Analysis Batch: 170232

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 169865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	500	482		mg/Kg		96	70 - 125
Motor Oil (>C24-C36)	502	499		mg/Kg		99	64 - 127
Surrogate		LCS %Recovery	LCS Qualifier				Limits
<i>o-Terphenyl</i>		93					50 - 150

Lab Sample ID: LCSD 580-169865/3-A

Matrix: Solid

Analysis Batch: 170232

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 169865

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	500	464		mg/Kg		93	70 - 125	4	16
Motor Oil (>C24-C36)	502	483		mg/Kg		96	64 - 127	3	17
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
<i>o-Terphenyl</i>		92					50 - 150		

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

Lab Sample ID: 580-45354-2 DU

Matrix: Solid

Analysis Batch: 170232

Client Sample ID: UG-MH-60-20140911-S

Prep Type: Total/NA

Prep Batch: 169865

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
#2 Diesel (C10-C24) - DL	5200	Y	10000	F3	mg/Kg	☼	64	35
Motor Oil (>C24-C36) - DL	19000	Y	23300		mg/Kg	☼	20	35
Surrogate		DU %Recovery	DU Qualifier				Limits	
<i>o-Terphenyl - DL</i>		122					50 - 150	

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-171557/26-A

Matrix: Water

Analysis Batch: 171661

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 171557

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00075	mg/L		10/02/14 14:33	10/03/14 10:51	1
Antimony	ND		0.00040	0.000080	mg/L		10/02/14 14:33	10/03/14 10:51	1
Beryllium	ND		0.00040	0.00010	mg/L		10/02/14 14:33	10/03/14 10:51	1
Cadmium	ND		0.00040	0.000028	mg/L		10/02/14 14:33	10/03/14 10:51	1
Chromium	ND		0.00040	0.00027	mg/L		10/02/14 14:33	10/03/14 10:51	1
Copper	ND		0.0010	0.00011	mg/L		10/02/14 14:33	10/03/14 10:51	1
Lead	ND		0.00040	0.000034	mg/L		10/02/14 14:33	10/03/14 10:51	1
Nickel	ND		0.0030	0.00040	mg/L		10/02/14 14:33	10/03/14 10:51	1
Selenium	ND		0.0010	0.00071	mg/L		10/02/14 14:33	10/03/14 10:51	1
Silver	ND		0.00040	0.000030	mg/L		10/02/14 14:33	10/03/14 10:51	1

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: MB 580-171557/26-A
Matrix: Water
Analysis Batch: 171661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171557

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.0010	0.00028	mg/L		10/02/14 14:33	10/03/14 10:51	1
Zinc	0.00218	J	0.0040	0.0019	mg/L		10/02/14 14:33	10/03/14 10:51	1

Lab Sample ID: LCS 580-171557/27-A
Matrix: Water
Analysis Batch: 171661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171557

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							RPD	Limit
Arsenic	0.100	0.101		mg/L		101	80 - 120	
Antimony	0.100	0.0981		mg/L		98	80 - 120	
Beryllium	0.100	0.0991		mg/L		99	80 - 120	
Cadmium	0.100	0.0992		mg/L		99	80 - 120	
Chromium	0.100	0.0961		mg/L		96	80 - 120	
Copper	0.100	0.0960		mg/L		96	80 - 120	
Lead	0.100	0.0971		mg/L		97	80 - 120	
Nickel	0.100	0.0969		mg/L		97	80 - 120	
Selenium	0.100	0.107		mg/L		107	80 - 120	
Silver	0.100	0.0966		mg/L		97	80 - 120	
Thallium	0.100	0.0981		mg/L		98	80 - 120	
Zinc	0.100	0.101		mg/L		101	80 - 120	

Lab Sample ID: LCSD 580-171557/28-A
Matrix: Water
Analysis Batch: 171661

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 171557

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD		
							RPD	Limit	RPD	Limit	
Arsenic	0.100	0.101		mg/L		101	80 - 120	1	20	1	20
Antimony	0.100	0.0978		mg/L		98	80 - 120	0	20	0	20
Beryllium	0.100	0.0965		mg/L		96	80 - 120	3	20	3	20
Cadmium	0.100	0.0993		mg/L		99	80 - 120	0	20	0	20
Chromium	0.100	0.0959		mg/L		96	80 - 120	0	20	0	20
Copper	0.100	0.0967		mg/L		97	80 - 120	1	20	1	20
Lead	0.100	0.0974		mg/L		97	80 - 120	0	20	0	20
Nickel	0.100	0.0977		mg/L		98	80 - 120	1	20	1	20
Selenium	0.100	0.107		mg/L		107	80 - 120	0	20	0	20
Silver	0.100	0.0962		mg/L		96	80 - 120	0	20	0	20
Thallium	0.100	0.0984		mg/L		98	80 - 120	0	20	0	20
Zinc	0.100	0.101		mg/L		101	80 - 120	1	20	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-171536/22-A
Matrix: Solid
Analysis Batch: 171661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.18	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Lead	ND		0.20	0.013	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Antimony	ND		0.20	0.042	mg/Kg		10/02/14 12:24	10/03/14 08:57	10

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: MB 580-171536/22-A
Matrix: Solid
Analysis Batch: 171661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.20	0.035	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Cadmium	ND		0.20	0.0080	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Chromium	ND		0.20	0.11	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Copper	ND		0.40	0.098	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Nickel	ND		0.50	0.081	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Selenium	ND		0.70	0.20	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Silver	ND		0.20	0.012	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Thallium	ND		0.50	0.13	mg/Kg		10/02/14 12:24	10/03/14 08:57	10
Zinc	ND		2.0	1.1	mg/Kg		10/02/14 12:24	10/03/14 08:57	10

Lab Sample ID: LCS 580-171536/23-A
Matrix: Solid
Analysis Batch: 171661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	215		mg/Kg		108	80 - 120
Lead	50.0	53.9		mg/Kg		108	80 - 120
Antimony	150	158		mg/Kg		105	80 - 120
Beryllium	5.00	5.29		mg/Kg		106	80 - 120
Cadmium	5.00	5.57		mg/Kg		111	80 - 120
Chromium	20.0	21.5		mg/Kg		107	80 - 120
Copper	25.0	27.5		mg/Kg		110	80 - 120
Nickel	50.0	54.0		mg/Kg		108	80 - 120
Selenium	200	217		mg/Kg		108	80 - 120
Silver	30.0	33.1		mg/Kg		110	80 - 120
Thallium	200	211		mg/Kg		105	80 - 120
Zinc	200	223		mg/Kg		112	80 - 120

Lab Sample ID: LCSD 580-171536/24-A
Matrix: Solid
Analysis Batch: 171661

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 171536

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	208		mg/Kg		104	80 - 120	4	20
Lead	50.0	51.3		mg/Kg		103	80 - 120	5	20
Antimony	150	151		mg/Kg		100	80 - 120	5	20
Beryllium	5.00	5.42		mg/Kg		108	80 - 120	2	20
Cadmium	5.00	5.32		mg/Kg		106	80 - 120	5	20
Chromium	20.0	20.4		mg/Kg		102	80 - 120	5	20
Copper	25.0	26.9		mg/Kg		108	80 - 120	2	20
Nickel	50.0	51.4		mg/Kg		103	80 - 120	5	20
Selenium	200	211		mg/Kg		106	80 - 120	2	20
Silver	30.0	31.1		mg/Kg		104	80 - 120	6	20
Thallium	200	202		mg/Kg		101	80 - 120	4	20
Zinc	200	219		mg/Kg		109	80 - 120	2	20

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: LCSSRM 580-171536/25-A

Matrix: Solid

Analysis Batch: 171661

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171536

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	139	145		mg/Kg		104.2	70.4 - 140.3
Lead	133	138		mg/Kg		103.8	72.9 - 127.8
Antimony	88.8	158		mg/Kg		177.9	22.0 - 259.0
Beryllium	96.1	96.0		mg/Kg		99.9	74.5 - 125.9
Cadmium	96.0	97.1		mg/Kg		101.1	73.2 - 127.1
Chromium	136	144		mg/Kg		105.8	69.9 - 129.4
Copper	168	175		mg/Kg		104.5	75.6 - 125.0
Nickel	123	129		mg/Kg		104.8	73.1 - 128.5
Selenium	177	187		mg/Kg		105.7	67.8 - 131.6
Silver	40.2	42.0		mg/Kg		104.4	66.2 - 134.1
Thallium	138	142		mg/Kg		102.9	68.1 - 131.9
Zinc	189	205		mg/Kg		108.3	69.8 - 130.7

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	%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	%Rec. Limits	RPD	RPD Limit
Mercury	0.00200	0.00186		mg/L		93	80 - 120	5	20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Method: 7470A - Mercury (CVAA) (Continued)

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	%Rec. Limits
Mercury	0.00200	0.00206		mg/L		103	75 - 125

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-171623/23-A
Matrix: Solid
Analysis Batch: 171660

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171623

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017	0.0053	mg/Kg		10/03/14 10:25	10/03/14 11:42	1

Lab Sample ID: LCS 580-171623/24-A
Matrix: Solid
Analysis Batch: 171660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.182		mg/Kg		109	80 - 120

Lab Sample ID: LCSD 580-171623/25-A
Matrix: Solid
Analysis Batch: 171660

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 171623

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.167	0.172		mg/Kg		103	80 - 120	6	20

Lab Sample ID: LCSSRM 580-171623/26-A ^10
Matrix: Solid
Analysis Batch: 171660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171623

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.9	13.8		mg/Kg		106.7	51.2 - 148. 1

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 580-169701/1
Matrix: Water
Analysis Batch: 169701

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			09/13/14 16:48	1

Lab Sample ID: LCS 580-169701/2
Matrix: Water
Analysis Batch: 169701

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	100	107		umhos/cm		107	90 - 110

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Method: 120.1 - Conductivity, Specific Conductance (Continued)

Lab Sample ID: 580-45354-1 DU
Matrix: Water
Analysis Batch: 169701

Client Sample ID: UG-MH-60-20140914-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	200		195		umhos/cm		0.1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-169784/10
Matrix: Water
Analysis Batch: 169784

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			09/13/14 09:57	1
Sulfate	ND		1.2	0.40	mg/L			09/13/14 09:57	1

Lab Sample ID: LCS 580-169784/11
Matrix: Water
Analysis Batch: 169784

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.00	9.18		mg/L		102	90 - 110
Sulfate	12.0	13.2		mg/L		110	90 - 110

Lab Sample ID: LCSD 580-169784/1
Matrix: Water
Analysis Batch: 169784

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.00	9.16		mg/L		102	90 - 110	0	15
Sulfate	12.0	12.4		mg/L		103	90 - 110	6	15

Lab Sample ID: 580-45354-1 MS
Matrix: Water
Analysis Batch: 169784

Client Sample ID: UG-MH-60-20140914-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.7		9.00	16.2		mg/L		105	90 - 110
Sulfate	4.2		12.0	16.7		mg/L		104	90 - 110

Lab Sample ID: 580-45354-1 DU
Matrix: Water
Analysis Batch: 169784

Client Sample ID: UG-MH-60-20140914-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	6.7		6.71		mg/L		0.3	10
Sulfate	4.2		4.25		mg/L		0.7	10

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 580-169787/3
Matrix: Water
Analysis Batch: 169787

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90	0.20	mg/L			09/13/14 09:57	1

Lab Sample ID: LCS 580-169787/4
Matrix: Water
Analysis Batch: 169787

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.80	1.82		mg/L		101	90 - 110

Lab Sample ID: LCSD 580-169787/5
Matrix: Water
Analysis Batch: 169787

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.80	1.82		mg/L		101	90 - 110	0	15

Lab Sample ID: 580-45354-1 MS
Matrix: Water
Analysis Batch: 169787

Client Sample ID: UG-MH-60-20140914-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		1.80	2.03	F1	mg/L		113	90 - 110

Lab Sample ID: 580-45354-1 DU
Matrix: Water
Analysis Batch: 169787

Client Sample ID: UG-MH-60-20140914-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	ND		ND		mg/L		NC	10

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-170721/3
Matrix: Solid
Analysis Batch: 170721

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		2000	250	mg/Kg			09/24/14 14:53	1

Lab Sample ID: LCS 580-170721/4
Matrix: Solid
Analysis Batch: 170721

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

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

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: LCSD 580-170721/5
Matrix: Solid
Analysis Batch: 170721

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

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

Lab Sample ID: 580-45354-3 MS
Matrix: Solid
Analysis Batch: 170721

Client Sample ID: UG-FD-01-20140911-S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	150000		118000	257000		mg/Kg		94	50 - 140

Lab Sample ID: 580-45354-3 MSD
Matrix: Solid
Analysis Batch: 170721

Client Sample ID: UG-FD-01-20140911-S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	150000		124000	235000		mg/Kg		71	50 - 140	9	35

Lab Sample ID: 580-45354-3 DU
Matrix: Solid
Analysis Batch: 170721

Client Sample ID: UG-FD-01-20140911-S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	150000		148000		mg/Kg		0.8	50

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

Lab Sample ID: MB 580-169944/1
Matrix: Water
Analysis Batch: 169944

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			09/16/14 16:21	1

Lab Sample ID: LCS 580-169944/2
Matrix: Water
Analysis Batch: 169944

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	30.0	30.8		mg/L		103	70.6 - 120

Lab Sample ID: 580-45354-1 DU
Matrix: Water
Analysis Batch: 169944

Client Sample ID: UG-MH-60-20140914-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	17		24.3		mg/L		34	20

TestAmerica Seattle

QC Sample Results

Client: Leidos, Inc.
 Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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

Lab Sample ID: MB 580-170221/1
Matrix: Water
Analysis Batch: 170221

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			09/18/14 14:40	1

Lab Sample ID: LCS 580-170221/2
Matrix: Water
Analysis Batch: 170221

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

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

Lab Sample ID: MB 580-170484/1
Matrix: Water
Analysis Batch: 170484

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			09/22/14 15:18	1

Lab Sample ID: LCS 580-170484/2
Matrix: Water
Analysis Batch: 170484

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	15.0	16.3		mg/L		108	85 - 115

Lab Chronicle

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-60-20140914-W

Lab Sample ID: 580-45354-1

Date Collected: 09/11/14 14:40

Matrix: Water

Date Received: 09/12/14 12:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			169636	09/12/14 16:46	CLH	TAL SEA
Total/NA	Analysis	8270D		5	169948	09/16/14 23:30	AHP	TAL SEA
Total/NA	Prep	200.8			171557	10/02/14 14:33	PAB	TAL SEA
Total/NA	Analysis	200.8		1	171661	10/03/14 10:54	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 14:34	FCW	TAL SEA
Total/NA	Analysis	120.1		1	169701	09/13/14 16:48	TAA	TAL SEA
Total/NA	Analysis	300.0		1	169784	09/13/14 11:50	JLS	TAL SEA
Total/NA	Analysis	300.0		1	169787	09/13/14 11:50	JLS	TAL SEA
Total/NA	Analysis	SM 2540D		1	169944	09/16/14 16:21	JLS	TAL SEA
Total/NA	Analysis	SM 4500 H+ B		1	169735	09/12/14 14:30	TAA	TAL SEA
Dissolved	Analysis	SM 5310B		1	170484	09/22/14 15:18	RSB	TAL SEA
Total/NA	Analysis	SM 5310B		1	170221	09/18/14 14:40	RSB	TAL SEA

Client Sample ID: UG-MH-60-20140911-S

Lab Sample ID: 580-45354-2

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 39.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			170378	09/12/14 12:30	JMB	TAL SEA
Total/NA	Analysis	8260B		1	170368	09/22/14 17:26	AS	TAL SEA
Total/NA	Prep	3550B	RE		171673	10/03/14 14:00	RMB	TAL SEA
Total/NA	Analysis	8270D	RE	50	171805	10/06/14 19:23	AHP	TAL SEA
Total/NA	Prep	3550B			170013	09/18/14 08:30	ALL	TAL SEA
Total/NA	Analysis	8270D		50	171413	10/01/14 21:43	AHP	TAL SEA
Total/NA	Prep	5035			169682	09/13/14 14:56	IWH	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	169691	09/14/14 03:42	IWH	TAL SEA
Total/NA	Prep	3550B			169872	09/16/14 09:51	ALL	TAL SEA
Total/NA	Analysis	8082		1	170123	09/18/14 17:14	ALC	TAL SEA
Total/NA	Prep	3546	DL		169865	09/16/14 09:02	TAA	TAL SEA
Total/NA	Analysis	NWTPH-Dx	DL	5	170232	09/19/14 17:13	JJP	TAL SEA
Total/NA	Prep	3050B			171536	10/02/14 12:24	PAB	TAL SEA
Total/NA	Analysis	6020		10	171661	10/03/14 10:08	FCW	TAL SEA
Total/NA	Prep	7471A			171623	10/03/14 10:14	PAB	TAL SEA
Total/NA	Analysis	7471A		1	171660	10/03/14 12:09	FCW	TAL SEA
Total/NA	Analysis	2540B		1	169741	09/15/14 08:28	TAA	TAL SEA
Total/NA	Analysis	9060_PSEP		1	170721	09/25/14 09:38	JLS	TAL SEA
Total/NA	Analysis	PSEP Plumb 1981		1	169920	09/16/14 14:26	HJM	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-FD-01-20140911-S

Lab Sample ID: 580-45354-3

Date Collected: 09/11/14 10:30

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 38.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			170378	09/12/14 12:30	JMB	TAL SEA
Total/NA	Analysis	8260B		1	170368	09/22/14 18:12	AS	TAL SEA
Total/NA	Prep	3550B	RE		171673	10/03/14 14:00	RMB	TAL SEA
Total/NA	Analysis	8270D	RE	50	171805	10/06/14 20:34	AHP	TAL SEA
Total/NA	Prep	3550B			170013	09/18/14 08:30	ALL	TAL SEA
Total/NA	Analysis	8270D		50	171413	10/01/14 22:58	AHP	TAL SEA
Total/NA	Prep	5035			169682	09/13/14 14:56	IWH	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	169691	09/14/14 04:15	IWH	TAL SEA
Total/NA	Prep	3550B			169872	09/16/14 09:51	ALL	TAL SEA
Total/NA	Analysis	8082		1	170123	09/18/14 18:00	ALC	TAL SEA
Total/NA	Prep	3546			169865	09/16/14 09:02	TAA	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	170232	09/19/14 17:49	JJP	TAL SEA
Total/NA	Prep	3050B			171536	10/02/14 12:24	PAB	TAL SEA
Total/NA	Analysis	6020		10	171661	10/03/14 10:18	FCW	TAL SEA
Total/NA	Prep	7471A			171623	10/03/14 10:14	PAB	TAL SEA
Total/NA	Analysis	7471A		1	171660	10/03/14 12:12	FCW	TAL SEA
Total/NA	Analysis	2540B		1	169741	09/15/14 08:28	TAA	TAL SEA
Total/NA	Analysis	9060_PSEP		1	170721	09/24/14 15:05	JLS	TAL SEA
Total/NA	Analysis	PSEP Plumb 1981		1	169920	09/16/14 14:26	HJM	TAL SEA

Client Sample ID: UG-MH-76-20140911-S

Lab Sample ID: 580-45354-4

Date Collected: 09/11/14 12:45

Matrix: Solid

Date Received: 09/12/14 12:41

Percent Solids: 63.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			170378	09/12/14 12:30	JMB	TAL SEA
Total/NA	Analysis	8260B		1	170368	09/22/14 18:38	AS	TAL SEA
Total/NA	Prep	3550B	RE		171673	10/03/14 14:00	RMB	TAL SEA
Total/NA	Analysis	8270D	RE	5	171805	10/06/14 20:58	AHP	TAL SEA
Total/NA	Prep	3550B			170013	09/18/14 08:30	ALL	TAL SEA
Total/NA	Analysis	8270D		5	171413	10/01/14 23:23	AHP	TAL SEA
Total/NA	Prep	5035			169682	09/13/14 14:56	IWH	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	169691	09/14/14 04:48	IWH	TAL SEA
Total/NA	Prep	3550B			169872	09/16/14 09:51	ALL	TAL SEA
Total/NA	Analysis	8082		1	170123	09/18/14 18:36	ALC	TAL SEA
Total/NA	Prep	3546			169865	09/17/14 16:03	TAA	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	170232	09/19/14 18:07	JJP	TAL SEA
Total/NA	Prep	3050B			171536	10/02/14 12:24	PAB	TAL SEA
Total/NA	Analysis	6020		10	171661	10/03/14 10:21	FCW	TAL SEA
Total/NA	Prep	7471A			171623	10/03/14 10:14	PAB	TAL SEA
Total/NA	Analysis	7471A		1	171660	10/03/14 12:14	FCW	TAL SEA
Total/NA	Analysis	2540B		1	169741	09/15/14 08:28	TAA	TAL SEA
Total/NA	Analysis	9060_PSEP		1	170721	09/24/14 15:20	JLS	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

Client Sample ID: UG-MH-76-20140911-S

Lab Sample ID: 580-45354-4

Date Collected: 09/11/14 12:45

Matrix: Solid

Date Received: 09/12/14 12:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PSEP Plumb 1981		1	169920	09/16/14 14:26	HJM	TAL SEA

Laboratory References:

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



Certification Summary

Client: Leidos, Inc.
Project/Site: Industrial Facility Sampling

TestAmerica Job ID: 580-45354-1

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
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

Sample Summary

Client: Leidos, Inc.

TestAmerica Job ID: 580-45354-1

Project/Site: Industrial Facility Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-45354-1	UG-MH-60-20140914-W	Water	09/11/14 14:40	09/12/14 12:41
580-45354-2	UG-MH-60-20140911-S	Solid	09/11/14 10:30	09/12/14 12:41
580-45354-3	UG-FD-01-20140911-S	Solid	09/11/14 10:30	09/12/14 12:41
580-45354-4	UG-MH-76-20140911-S	Solid	09/11/14 12:45	09/12/14 12:41

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TestAmerica Seattle
5756 8th Street East
Tacoma, WA 98424
phone 253.922.2310 fax

Chain of Custody Record



TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other

Client Contact: **Lelidos**
18912 N Creek Pkwy, Ste. 101
Bothell, WA 98011
Phone: 425.398.2101
FAX: 425.485.5566
Project Name: NPDES Sampling Support
Site: Lower Duwamish Waterway
P O #

Project Manager: **Christine Nancarrow**
Tel/fax: 206.300.2144
Analysis Turnaround Time: CALENDAR DAYS WORKING DAYS
TAT if different from Below: 3 Weeks
 2 weeks
 1 week
 2 days
 1 day

Site Contact: **Melissa Ivancevich**
Lab Contact: **Kris Allen**

Date: **9-11-14**
Carrier: **Courier**

COC No.: **2** of **2** COCs
Sampler: _____
For Lab Use Only: _____
Walk-in Client: _____
Lab Sampling: _____
Job / SDG No.: _____

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PCB Aroclors (Method 8082)	SVOC (Method 8270D/8270D-SIM)	TPH-Diesel (NWTPH-Dx)	Metals (Method 200.8/7471A)	Total Solids (Method SM2540B)	TPH-Gasoline (NWTPH-Gx)	VOCs (EPA 8260C)	TOC (Plumb1981/9060)	Particle Size (PSEP_Plumb1981)	Sample Specific Notes:
UG-MH-60-20140911-S	9-11-14	1030	G	Sed	6												
UG-FD-01-20140911-S	9-11-14	1030	G	Sed	6												
UG-MH-76-20140911-S	9-11-14	1045	G	Sed	6												

Preservation Used:	Ice	2-HCl	H2SO4	HNO3	5-NaOH	6-Other/MeOH
Possible Hazard Identification:						
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						
Special Instructions/QC Requirements & Comments:						

Special Instructions/QC Requirements & Comments:
 Non-Hazard Flammable Skin Irritant Poison B Unknown
 Return to Client Dispose by Lab Archive for _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

580-45354 Chain of Custody

580-45354 Chain of Custody

Cooler/DB Rig/IR cor 5.3 unc 5.6
Cooler Dsc lg blue/white Lab 1030
Vet/Packs Packing 84 bbl
w/c 5 #2

590-45354 Chain of Custody

Received by: _____
Received in Laboratory by: _____

Company: **Lelidos**
Company: _____

Date/Time: **09/11/14**
Date/Time: _____

Company: _____
Company: **TH STELL**

Date/Time: **9/17/14**
Date/Time: _____

Company: _____
Company: _____

Date/Time: _____
Date/Time: _____

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
phone 253.922.2310 fax

Chain of Custody

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other: _____
Client Contact: Christine Nancarrow
Project Manager: Christine Nancarrow
Tel/Fax: 206.300.2144
Analysis Turnaround Time: CALENDAR DAYS WORKING DAYS
TAT if different from Below: 3 Weeks
 1 week
 2 days
 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	SVOCs (Method 8270D)	Metals (Method 200.8/7470A)	pH (Method SM4500H)	Spec Cond (Method 120.1)	Alk/Bicarb/Carb (Method SM2320)	Anions (Method 300.0/353.2)	TOC (Method SM5310B)	DOC (Method SM5310B)	TSS (Method 2540D)	Carrier	Date	COC No.	Sampler	For Lab Use Only: Walk-In Client: Lab Sampling:	Job / SDG No.:
UG-MH-60-20140914-W	9/11/14	1440	G	W	1	N												9-11-14	1 of 2 COCs			

Preservation Used:	Ice	HCl	H2SO4	HNO3	5-NaOH	6-Other	MeOH

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poisonous Unknown

Special Instructions/QC Requirements & Comments:
 Return to Client Disposal by Lab Archive for _____ Months

Custody Seals Intact: Yes No
Custody Seal No.: _____
Cooler Temp. (°C): Obs'd: _____
Therm ID No.: _____

Relinquished by: *Morgan D* Company: *Lidos* Date/Time: *9/12/14 0915*
Received by: *[Signature]* Company: *THSEH* Date/Time: _____
Relinquished by: _____ Company: _____ Date/Time: _____
Received in Laboratory by: _____ Company: _____ Date/Time: _____

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 580-45354-1

Login Number: 45354

List Source: TestAmerica Seattle

List Number: 1

Creator: Ames, Melissa R

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 $<6\text{mm}$ (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.: 1400665

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 12, 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. 1400665

Case Narrative

Sample Condition on Receipt:

Three sediment samples and one aqueous sample were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

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 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.

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.

TABLE OF CONTENTS

Case Narrative.....	1
Table of Contents.....	4
Sample Inventory.....	5
Analytical Results.....	6
Qualifiers.....	43
Certifications.....	44
Sample Receipt.....	45
Extraction Information.....	47
Sample Data - EPA Method 1613.....	65
Sample Data - EPA Method 1668C.....	279
Confirmation.....	749
Continuing Calibration.....	760
Initial Calibration.....	816

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1400665-01	UG-MH-76-20140911-S	11-Sep-14 12:45	12-Sep-14 08:55	Amber Glass, 250mL
1400665-02	UG-MH-60-20140911-S	11-Sep-14 10:30	12-Sep-14 08:55	Amber Glass, 250mL
1400665-03	UG-FD-01-20140911-S	11-Sep-14 10:30	12-Sep-14 08:55	Amber Glass, 250mL
1400665-04	UG-MH-60-20140911-W	11-Sep-14 14:40	12-Sep-14 08:55	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L

ANALYTICAL RESULTS

Sample ID: Method Blank							EPA Method 1613B				
Matrix: Solid Sample Size: 10.0 g			QC Batch: B4I0053 Date Extracted: 15-Sep-2014 15:17			Lab Sample: B4I0053-BLK1 Date Analyzed: 17-Sep-14 18:50 Column: ZB-5MS Analyst: MAS					
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: UG-MH-76-20140911-S **EPA Method 1613B**

Client Data	Sample Data	Laboratory Data
Name: Leidos	Matrix: Sediment	Lab Sample: 1400665-01 Date Received: 12-Sep-2014 8:55
Project: NPDES Sampling Support	Sample Size: 15.6 g	QC Batch: B4I0053 Date Extracted: 15-Sep-2014 15:17
Date Collected: 11-Sep-2014 12:45	% Solids: 64.5	Date Analyzed: 17-Sep-14 22:51 Column: ZB-5MS Analyst: MAS
		18-Sep-14 14:50 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	0.498		0.240	0.0778		IS 13C-2,3,7,8-TCDD	94.2	25 - 164	
1,2,3,7,8-PeCDD	1.15	2.49			0.230	J	13C-1,2,3,7,8-PeCDD	118	25 - 181	
1,2,3,4,7,8-HxCDD	1.75	2.49			0.231	J	13C-1,2,3,4,7,8-HxCDD	96.1	32 - 141	
1,2,3,6,7,8-HxCDD	6.56	2.49			0.126		13C-1,2,3,6,7,8-HxCDD	98.6	28 - 130	
1,2,3,7,8,9-HxCDD	3.58	2.49			0.173		13C-1,2,3,7,8,9-HxCDD	93.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	125	2.49			0.263		13C-1,2,3,4,6,7,8-HpCDD	89.4	23 - 140	
OCDD	1040	4.98			0.167	B	13C-OCDD	98.5	17 - 157	
2,3,7,8-TCDF	0.852	0.498			0.0289		13C-2,3,7,8-TCDF	93.3	24 - 169	
1,2,3,7,8-PeCDF	0.717	2.49			0.254	J	13C-1,2,3,7,8-PeCDF	104	24 - 185	
2,3,4,7,8-PeCDF	1.25	2.49			0.211	J	13C-2,3,4,7,8-PeCDF	114	21 - 178	
1,2,3,4,7,8-HxCDF	2.91	2.49			0.154		13C-1,2,3,4,7,8-HxCDF	107	26 - 152	
1,2,3,6,7,8-HxCDF	1.65	2.49			0.195	J	13C-1,2,3,6,7,8-HxCDF	86.4	26 - 123	
2,3,4,6,7,8-HxCDF	2.32	2.49			0.0805	J	13C-2,3,4,6,7,8-HxCDF	92.8	28 - 136	
1,2,3,7,8,9-HxCDF	0.538	2.49			0.195	J	13C-1,2,3,7,8,9-HxCDF	94.6	29 - 147	
1,2,3,4,6,7,8-HpCDF	29.6	2.49			0.230		13C-1,2,3,4,6,7,8-HpCDF	98.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	1.86	2.49			0.211	J	13C-1,2,3,4,7,8,9-HpCDF	104	26 - 138	
OCDF	72.9	4.98			0.470		13C-OCDF	93.8	17 - 157	
							CRS 37Cl-2,3,7,8-TCDD	90.1	35 - 197	

Toxic Equivalent Quotient (TEQ) Data

TEQMinWHO2005Dioxin	5.46
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TOTALS	
Total TCDD	5.34
Total PeCDD	10.9
Total HxCDD	47.0
Total HpCDD	244
Total TCDF	19.6
Total PeCDF	25.6
Total HxCDF	44.8
Total HpCDF	73.2

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: UG-MH-60-20140911-S **EPA Method 1613B**

Client Data	Sample Data	Laboratory Data
Name: Leidos	Matrix: Sediment	Lab Sample: 1400665-02 Date Received: 12-Sep-2014 8:55
Project: NPDES Sampling Support	Sample Size: 28.8 g	QC Batch: B4I0053 Date Extracted: 15-Sep-2014 15:17
Date Collected: 11-Sep-2014 10:30	% Solids: 34.9	Date Analyzed : 17-Sep-14 23:39 Column: ZB-5MS Analyst: MAS 18-Sep-14 15:22 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	1.74	0.498			0.0778		IS 13C-2,3,7,8-TCDD	77.7	25 - 164	
1,2,3,7,8-PeCDD	7.06	2.49			0.230		13C-1,2,3,7,8-PeCDD	83.8	25 - 181	
1,2,3,4,7,8-HxCDD	12.1	2.49			0.231		13C-1,2,3,4,7,8-HxCDD	83.7	32 - 141	
1,2,3,6,7,8-HxCDD	35.1	2.49			0.126		13C-1,2,3,6,7,8-HxCDD	92.7	28 - 130	
1,2,3,7,8,9-HxCDD	24.5	2.49			0.173		13C-1,2,3,7,8,9-HxCDD	88.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	767	2.49			0.263		13C-1,2,3,4,6,7,8-HpCDD	95.6	23 - 140	
OCDD	6770	4.98			0.167	B, E	13C-OCDD	109	17 - 157	
2,3,7,8-TCDF	5.59	0.498			0.0289		13C-2,3,7,8-TCDF	83.1	24 - 169	
1,2,3,7,8-PeCDF	4.52	2.49			0.254		13C-1,2,3,7,8-PeCDF	87.1	24 - 185	
2,3,4,7,8-PeCDF	8.85	2.49			0.211		13C-2,3,4,7,8-PeCDF	89.3	21 - 178	
1,2,3,4,7,8-HxCDF	13.6	2.49			0.154		13C-1,2,3,4,7,8-HxCDF	89.5	26 - 152	
1,2,3,6,7,8-HxCDF	11.2	2.49			0.195		13C-1,2,3,6,7,8-HxCDF	73.8	26 - 123	
2,3,4,6,7,8-HxCDF	14.8	2.49			0.0805		13C-2,3,4,6,7,8-HxCDF	82.4	28 - 136	
1,2,3,7,8,9-HxCDF	1.24	2.49			0.195	J	13C-1,2,3,7,8,9-HxCDF	91.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	195	2.49			0.230		13C-1,2,3,4,6,7,8-HpCDF	101	28 - 143	
1,2,3,4,7,8,9-HpCDF	10.5	2.49			0.211		13C-1,2,3,4,7,8,9-HpCDF	114	26 - 138	
OCDF	438	4.98			0.470		13C-OCDF	98.2	17 - 157	
							CRS 37Cl-2,3,7,8-TCDD	80.5	35 - 197	

Toxic Equivalent Quotient (TEQ) Data	
TEQMinWHO2005Dioxin	35.3

TOTALS										
Total TCDD	38.1									
Total PeCDD	70.7									
Total HxCDD	292									
Total HpCDD	1500					B				
Total TCDF	138			139						
Total PeCDF	196					P				
Total HxCDF	280									
Total HpCDF	460									

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: UG-FD-01-20140911-S **EPA Method 1613B**

Client Data	Sample Data	Laboratory Data
Name: Leidos	Matrix: Sediment	Lab Sample: 1400665-03 Date Received: 12-Sep-2014 8:55
Project: NPDES Sampling Support	Sample Size: 28.3 g	QC Batch: B4I0053 Date Extracted: 15-Sep-2014 15:17
Date Collected: 11-Sep-2014 10:30	% Solids: 35.6	Date Analyzed: 18-Sep-14 00:28 Column: ZB-5MS Analyst: MAS
		18-Sep-14 15:54 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	1.72	0.496			0.0778		IS 13C-2,3,7,8-TCDD	75.7	25 - 164	
1,2,3,7,8-PeCDD	7.31	2.48			0.230		13C-1,2,3,7,8-PeCDD	91.1	25 - 181	
1,2,3,4,7,8-HxCDD	11.7	2.48			0.231		13C-1,2,3,4,7,8-HxCDD	79.7	32 - 141	
1,2,3,6,7,8-HxCDD	38.5	2.48			0.126		13C-1,2,3,6,7,8-HxCDD	80.3	28 - 130	
1,2,3,7,8,9-HxCDD	25.0	2.48			0.173		13C-1,2,3,7,8,9-HxCDD	79.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	812	2.48			0.263		13C-1,2,3,4,6,7,8-HpCDD	84.7	23 - 140	
OCDD	7300	4.96			0.167	B, E	13C-OCDD	92.5	17 - 157	
2,3,7,8-TCDF	5.52	0.496			0.0289		13C-2,3,7,8-TCDF	79.9	24 - 169	
1,2,3,7,8-PeCDF	4.43	2.48			0.254		13C-1,2,3,7,8-PeCDF	92.9	24 - 185	
2,3,4,7,8-PeCDF	7.50	2.48			0.211		13C-2,3,4,7,8-PeCDF	91.5	21 - 178	
1,2,3,4,7,8-HxCDF	14.0	2.48			0.154		13C-1,2,3,4,7,8-HxCDF	86.3	26 - 152	
1,2,3,6,7,8-HxCDF	11.4	2.48			0.195		13C-1,2,3,6,7,8-HxCDF	70.4	26 - 123	
2,3,4,6,7,8-HxCDF	14.7	2.48			0.0805		13C-2,3,4,6,7,8-HxCDF	73.1	28 - 136	
1,2,3,7,8,9-HxCDF	2.06	2.48			0.195	J	13C-1,2,3,7,8,9-HxCDF	80.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	203	2.48			0.230		13C-1,2,3,4,6,7,8-HpCDF	85.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	10.5	2.48			0.211		13C-1,2,3,4,7,8,9-HpCDF	96.9	26 - 138	
OCDF	475	4.96			0.470		13C-OCDF	81.9	17 - 157	
							CRS 37Cl-2,3,7,8-TCDD	78.2	35 - 197	

Toxic Equivalent Quotient (TEQ) Data

TEQMinWHO2005Dioxin	36.3
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TOTALS					
Total TCDD	38.4			38.9	
Total PeCDD	74.2				
Total HxCDD	308				
Total HpCDD	1520				B
Total TCDF	134			136	
Total PeCDF	185				P
Total HxCDF	279				
Total HpCDF	479				

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: Method Blank **EPA Method 1613B**

Matrix: Aqueous	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 Sample Size: 1.00 L		QC Batch: B4I0066 Date Extracted: 19-Sep-2014 8:01		Lab Sample: B4I0066-BS1 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: UG-MH-60-20140911-W **EPA Method 1613B**

Client Data	Sample Data	Laboratory Data
Name: Leidos	Matrix: Aqueous	Lab Sample: 1400665-04 Date Received: 12-Sep-2014 8:55
Project: NPDES Sampling Support	Sample Size: 1.02 L	QC Batch: B4I0066 Date Extracted: 19-Sep-2014 8:01
Date Collected: 11-Sep-2014 14:40		Date Analyzed: 22-Sep-14 20:48 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	4.90	1.09		0.943		IS 13C-2,3,7,8-TCDD	70.9	25 - 164	
1,2,3,7,8-PeCDD	ND	24.5	0.821		4.51		13C-1,2,3,7,8-PeCDD	81.9	25 - 181	
1,2,3,4,7,8-HxCDD	ND	24.5	2.16		2.21		13C-1,2,3,4,7,8-HxCDD	69.9	32 - 141	
1,2,3,6,7,8-HxCDD	ND	24.5	2.06		1.93		13C-1,2,3,6,7,8-HxCDD	71.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	24.5	2.27		2.02		13C-1,2,3,7,8,9-HxCDD	69.6	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	24.5		3.63	2.98		13C-1,2,3,4,6,7,8-HpCDD	62.4	23 - 140	
OCDD	29.4	49.0			3.57	J	13C-OCDD	73.3	17 - 157	
2,3,7,8-TCDF	ND	4.90	0.756		0.984		13C-2,3,7,8-TCDF	75.0	24 - 169	
1,2,3,7,8-PeCDF	ND	24.5	0.780		2.50		13C-1,2,3,7,8-PeCDF	67.9	24 - 185	
2,3,4,7,8-PeCDF	ND	24.5	0.691		1.73		13C-2,3,4,7,8-PeCDF	68.8	21 - 178	
1,2,3,4,7,8-HxCDF	ND	24.5	0.526		1.36		13C-1,2,3,4,7,8-HxCDF	73.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND	24.5	0.557		1.56		13C-1,2,3,6,7,8-HxCDF	61.8	26 - 123	
2,3,4,6,7,8-HxCDF	ND	24.5	0.605		2.05		13C-2,3,4,6,7,8-HxCDF	66.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND	24.5	0.852		1.34		13C-1,2,3,7,8,9-HxCDF	66.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	24.5	1.62		1.46		13C-1,2,3,4,6,7,8-HpCDF	64.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	24.5	0.760		1.75		13C-1,2,3,4,7,8,9-HpCDF	66.9	26 - 138	
OCDF	ND	49.0	2.23		2.98		13C-OCDF	63.4	17 - 157	
							CRS 37Cl-2,3,7,8-TCDD	89.6	35 - 197	

Toxic Equivalent Quotient (TEQ) Data	
TEQMinWHO2005Dioxin	0.00882

TOTALS										
Total TCDD	ND		1.09							
Total PeCDD	ND		1.72							
Total HxCDD	ND		5.94							
Total HpCDD	6.64			10.3						
Total TCDF	ND		0.756							
Total PeCDF	ND		1.06							
Total HxCDF	0.675									
Total HpCDF	ND		1.73							

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 1668C

Matrix: Solid	QC Batch: B4I0061	Lab Sample: B4I0061-BLK1
Sample Size: 10.0 g	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-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

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: Method Blank

EPA Method 1668C

Matrix: Solid	QC Batch: B4I0061	Lab Sample: B4I0061-BLK1
Sample Size: 10.0 g	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

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: Method Blank

EPA Method 1668C

Matrix: Solid	QC Batch: B4I0061	Lab Sample: B4I0061-BLK1
Sample Size: 10.0 g	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

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: Method Blank

EPA Method 1668C

Matrix: Solid	QC Batch: B4I0061	Lab Sample: B4I0061-BLK1
Sample Size: 10.0 g	Date Extracted: 16-Sep-2014 13:26	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
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
					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: UG-MH-76-20140911-S

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Sediment		Lab Sample:	1400665-01		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	15.7 g		QC Batch:	B410061		Date Extracted:	16-Sep-2014 13:26		
Date Collected:	11-Sep-2014 12:45			% Solids:	64.5		Date Analyzed :	24-Sep-14 18:39		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	89.0	49.5			0.320	D	PCB-44	824	49.5			0.745	D
PCB-2	20.3	49.5			0.240	J, D	PCB-45	96.7	49.5			0.402	D
PCB-3	61.6	49.5			0.323	D	PCB-46	ND	49.5		38.1	0.537	D
PCB-4/10	82.2	198			1.14	J, D	PCB-47	202	49.5			2.19	D
PCB-5/8	254	198			1.76	D	PCB-48/75	113	99.0			0.983	D
PCB-6	49.8	99.0			1.00	J, D	PCB-50	ND	49.5	26.1		0.603	D
PCB-7/9	ND	198		46.9	1.34	D	PCB-51	34.8	49.5			0.789	J, D
PCB-11	355	99.0			3.48	D	PCB-52/69	1270	99.0			0.722	D
PCB-12/13	34.4	198			1.37	J, D	PCB-53	103	49.5			0.331	D
PCB-14	ND	99.0	51.2		0.337	D	PCB-54	ND	49.5	20.9		0.275	D
PCB-15	196	99.0			0.634	D	PCB-55	34.2	49.5			0.416	J, D
PCB-16/32	261	198			0.430	D	PCB-56/60	388	99.0			0.825	D
PCB-17	132	49.5			0.658	D	PCB-57	ND	49.5	22.8		0.354	D
PCB-18	389	49.5			0.696	D	PCB-58	ND	49.5	24.1		0.589	D
PCB-19	43.0	49.5			0.612	J, D	PCB-61/70	1400	99.0			1.20	D
PCB-20/21/33	301	149			2.47	D	PCB-62	ND	49.5	24.7		0.597	D
PCB-22	168	49.5			0.964	D	PCB-63	39.7	49.5			0.524	J, D
PCB-23	ND	49.5	16.6		0.543	D	PCB-65	ND	49.5	24.6		0.842	D
PCB-24/27	34.6	99.0			0.742	J, D	PCB-66/76	765	99.0			1.31	D
PCB-25	36.2	49.5			0.768	J, D	PCB-67	22.8	49.5			0.486	J, D
PCB-26	77.9	49.5			0.766	D	PCB-68	18.8	49.5			0.658	J, D
PCB-28	323	49.5			1.12	D	PCB-73	ND	49.5	21.0		0.454	D
PCB-29	ND	49.5	19.7		0.949	D	PCB-74	326	49.5			0.781	D
PCB-30	ND	49.5	7.16		0.355	D	PCB-77	113	49.5			0.748	D
PCB-31	397	49.5			0.809	D	PCB-78	ND	49.5	21.3		0.385	D
PCB-34	ND	49.5	18.7		1.57	D	PCB-79	ND	49.5		41.9	0.633	D
PCB-35	ND	49.5		15.7	0.565	D	PCB-80	ND	49.5	17.3		0.336	D
PCB-36	ND	49.5	23.7		0.406	D	PCB-81	14.3	49.5			0.674	J, D
PCB-37	189	49.5			0.389	D	PCB-82	319	49.5			0.981	D
PCB-38	ND	49.5	22.6		0.528	D	PCB-83	ND	49.5	25.7		0.440	D
PCB-39	ND	49.5	24.3		0.461	D	PCB-84/92	1370	99.0			1.01	D
PCB-40	134	49.5			0.927	D	PCB-85/116	405	99.0			1.64	D
PCB-41/64/71/72	573	198			1.70	D	PCB-86	ND	49.5	46.4		1.79	D
PCB-42/59	190	99.0			0.899	D	PCB-87/117/125	1030	149			0.880	D
PCB-43/49	723	99.0			0.879	D	PCB-88/91	450	99.0			1.25	D

RL - Reporting limit

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

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: UG-MH-76-20140911-S

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Sediment		Lab Sample:	1400665-01		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	15.7 g		QC Batch:	B410061		Date Extracted:	16-Sep-2014 13:26		
Date Collected:	11-Sep-2014 12:45			% Solids:	64.5		Date Analyzed :	24-Sep-14 18:39		Column:	ZB-1 Analyst: DMS		

Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers
PCB-89	23.8	49.5			1.22	J, D	PCB-136	505	49.5			0.776	D
PCB-90/101	3540	99.0			1.19	D	PCB-137	205	49.5			0.541	D
PCB-93	ND	49.5	39.3		1.42	D	PCB-138/163/164	3840	149			0.809	D
PCB-94	ND	49.5		17.0	0.874	D	PCB-139/149	4230	49.5			1.49	D
PCB-95/98/102	2640	149			1.38	D	PCB-140	23.1	49.5			1.20	J, D
PCB-96	ND	49.5		21.8	0.588	D	PCB-141	842	49.5			0.678	D
PCB-97	903	49.5			0.675	D	PCB-144	228	49.5			1.38	D
PCB-99	1070	49.5			0.474	D	PCB-145	ND	49.5	44.8		1.05	D
PCB-100	ND	49.5	24.6		0.511	D	PCB-146/165	557	99.0			0.792	D
PCB-103	35.0	49.5			0.428	J, D	PCB-147	80.7	49.5			1.65	D
PCB-104	ND	49.5	19.5		0.876	D	PCB-148	ND	49.5	72.2		1.45	D
PCB-105	1050	49.5			0.462	D	PCB-150	ND	49.5	53.8		0.801	D
PCB-106/118	2830	99.0			0.728	D	PCB-151	1120	49.5			1.16	D
PCB-107/109	172	99.0			0.631	D	PCB-152	ND	49.5	48.2		0.744	D
PCB-108/112	144	99.0			0.844	D	PCB-153	3550	49.5			0.484	D
PCB-110	3850	49.5			0.555	D	PCB-154	51.2	49.5			0.837	D
PCB-111/115	45.4	99.0			1.24	J, D	PCB-155	ND	49.5	48.3		0.767	D
PCB-113	ND	49.5		65.1	0.495	D	PCB-156	386	49.5			0.534	D
PCB-114	ND	49.5		49.3	0.418	D	PCB-157	80.4	49.5			0.485	D
PCB-119	70.9	49.5			0.383	D	PCB-158/160	487	99.0			0.915	D
PCB-120	ND	49.5	23.3		0.622	D	PCB-159	ND	49.5	23.7		0.578	D
PCB-121	ND	49.5	20.5		0.978	D	PCB-166	ND	49.5		16.8	0.425	D
PCB-122	23.7	49.5			0.619	J, D	PCB-167	152	49.5			0.653	D
PCB-123	38.9	49.5			0.494	J, D	PCB-168	ND	49.5	19.6		0.502	D
PCB-124	108	49.5			0.813	D	PCB-169	ND	49.5	26.5		0.767	D
PCB-126	46.2	49.5			0.543	J, D	PCB-170	1340	49.5			0.758	D
PCB-127	ND	49.5	38.1		0.326	D	PCB-171	325	49.5			0.372	D
PCB-128/162	668	99.0			1.08	D	PCB-172	198	49.5			0.857	D
PCB-129	218	49.5			0.567	D	PCB-173	43.6	49.5			0.507	J, D
PCB-130	289	49.5			0.798	D	PCB-174	1520	49.5			0.797	D
PCB-131	ND	49.5	31.3		0.731	D	PCB-175	ND	49.5		50.1	0.679	D
PCB-132/161	1350	99.0			1.05	D	PCB-176	180	49.5			0.729	D
PCB-133/142	172	99.0			1.04	D	PCB-177	869	49.5			0.404	D
PCB-134/143	275	99.0			1.05	D	PCB-178	308	49.5			0.610	D
PCB-135	614	49.5			1.47	D	PCB-179	673	49.5			0.418	D

RL - Reporting limit

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

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: UG-MH-76-20140911-S

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Sediment		Lab Sample:	1400665-01		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	15.7 g		QC Batch:	B4I0061		Date Extracted:	16-Sep-2014 13:26		
Date Collected:	11-Sep-2014 12:45			% Solids:	64.5		Date Analyzed :	24-Sep-14 18:39		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	3500	49.5			0.420	D	Total octaCB	3340	49.5				
PCB-181	ND	49.5	20.9		1.26	D	Total nonaCB	443	49.5				
PCB-182/187	1660	99.0			1.33	D	DecaCB	113	49.5				
PCB-183	802	49.5			0.638	D	Total PCB	66900	99.0				
PCB-184	ND	49.5	13.8		0.597	D							
PCB-185	133	49.5			0.557	D							
PCB-186	ND	49.5	15.5		0.421	D							
PCB-188	ND	49.5	14.3		0.759	D							
PCB-189	59.9	49.5			0.483	D							
PCB-190	262	49.5			0.686	D							
PCB-191	55.9	49.5			0.447	D							
PCB-192	ND	49.5	16.6		0.528	D							
PCB-193	165	49.5			0.836	D							
PCB-194	801	49.5			0.645	D							
PCB-195	324	49.5			0.722	D							
PCB-196/203	899	99.0			0.983	D							
PCB-197	43.7	49.5			0.794	J, D							
PCB-198	40.6	49.5			0.792	J, D							
PCB-199	813	49.5			0.615	D							
PCB-200	101	49.5			0.795	D							
PCB-201	111	49.5			0.317	D							
PCB-202	166	49.5			0.759	D							
PCB-204	ND	49.5	19.9		0.543	D							
PCB-205	39.2	49.5			0.471	J, D							
PCB-206	306	49.5			0.852	D							
PCB-207	45.9	49.5			0.402	J, D							
PCB-208	90.9	49.5			0.441	D							
PCB-209	113	49.5			1.10	D							
Total monoCB	171	49.5											
Total diCB	972	99.0		1020									
Total triCB	2350	49.5		2370									
Total tetraCB	7390	49.5		7470									
Total pentaCB	20200	49.5		20300									
Total hexaCB	19900	49.5											
Total heptaCB	12100	49.5											

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: UG-MH-76-20140911-S

EPA Method 1668C

Client Data		Sample Data		Laboratory Data	
Name:	Leidos	Matrix:	Sediment	Lab Sample:	1400665-01
Project:	NPDES Sampling Support	Sample Size:	15.7 g	Date Received:	12-Sep-2014 8:55
Date Collected:	11-Sep-2014 12:45	% Solids:	64.5	QC Batch:	B4I0061
				Date Analyzed :	24-Sep-14 18:39
				Column:	ZB-1
				Analyst:	DMS

Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	111	5 -145	D	13C-PCB-170	85.0	10 -145	D
13C-PCB-3	105	5 -145	D	13C-PCB-180	89.6	10 -145	D
13C-PCB-4	88.1	5 -145	D	13C-PCB-188	87.4	10 -145	D
13C-PCB-11	86.7	5 -145	D	13C-PCB-189	81.7	10 -145	D
13C-PCB-9	91.8	5 -145	D	13C-PCB-194	100	10 -145	D
13C-PCB-19	103	5 -145	D	13C-PCB-202	91.5	10 -145	D
13C-PCB-28	82.1	5 -145	D	13C-PCB-206	114	10 -145	D
13C-PCB-32	106	5 -145	D	13C-PCB-208	109	10 -145	D
13C-PCB-37	92.7	5 -145	D	13C-PCB-209	122	10 -145	D
13C-PCB-47	93.2	5 -145	D	CRS 13C-PCB-79	97.6	10 -145	D
13C-PCB-52	91.2	5 -145	D	13C-PCB-178	100	10 -145	D
13C-PCB-54	85.6	5 -145	D				
13C-PCB-70	92.8	5 -145	D				
13C-PCB-77	91.0	10 -145	D				
13C-PCB-80	96.8	10 -145	D				
13C-PCB-81	88.7	10 -145	D				
13C-PCB-95	97.8	10 -145	D				
13C-PCB-97	98.0	10 -145	D				
13C-PCB-101	100	10 -145	D				
13C-PCB-104	93.2	10 -145	D				
13C-PCB-105	72.1	10 -145	D				
13C-PCB-114	72.7	10 -145	D				
13C-PCB-118	92.9	10 -145	D				
13C-PCB-123	99.8	10 -145	D				
13C-PCB-126	63.7	10 -145	D				
13C-PCB-127	74.1	10 -145	D				
13C-PCB-138	92.3	10 -145	D				
13C-PCB-141	88.0	10 -145	D				
13C-PCB-153	85.8	10 -145	D				
13C-PCB-155	89.6	10 -145	D				
13C-PCB-156	82.1	10 -145	D				
13C-PCB-157	85.7	10 -145	D				
13C-PCB-159	87.3	10 -145	D				
13C-PCB-167	83.9	10 -145	D				
13C-PCB-169	75.4	10 -145	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: UG-MH-60-20140911-S

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Sediment		Lab Sample:	1400665-02		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	28.8 g		QC Batch:	B410061		Date Extracted:	16-Sep-2014 13:26		
Date Collected:	11-Sep-2014 10:30			% Solids:	34.9		Date Analyzed :	20-Sep-14 09:22		Column:	ZB-1 Analyst: DMS		
									24-Sep-14 19:44		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	1080	49.6			0.320	D	PCB-44	20500	49.6			0.745	D
PCB-2	191	49.6			0.240	D	PCB-45	4810	49.6			0.402	D
PCB-3	652	49.6			0.323	D	PCB-46	2040	49.6			0.537	D
PCB-4/10	3260	199			1.14	D	PCB-47	5110	49.6			2.19	D
PCB-5/8	10200	199			1.76	D	PCB-48/75	4010	99.3			0.983	D
PCB-6	1550	99.3			1.00	D	PCB-50	72.4	49.6			0.603	D
PCB-7/9	949	199			1.34	D	PCB-51	1510	49.6			0.789	D
PCB-11	2710	99.3			3.48	D	PCB-52/69	23600	99.3			0.722	D
PCB-12/13	650	199			1.37	D	PCB-53	3920	49.6			0.331	D
PCB-14	ND	99.3	326		0.337	D	PCB-54	101	49.6			0.275	D
PCB-15	6400	99.3			0.634	D	PCB-55	443	49.6			0.416	D
PCB-16/32	17400	199			0.430	D	PCB-56/60	11400	99.3			0.825	D
PCB-17	9540	49.6			0.658	D	PCB-57	117	49.6			0.354	D
PCB-18	28600	49.6			0.696	D	PCB-58	49.7	49.6			0.589	D
PCB-19	3070	49.6			0.612	D	PCB-61/70	28300	99.3			1.20	D
PCB-20/21/33	12900	149			2.47	D	PCB-62	ND	49.6	89.3		0.597	D
PCB-22	6740	49.6			0.964	D	PCB-63	899	49.6			0.524	D
PCB-23	28.4	49.6			0.543	J, D	PCB-65	ND	49.6	89.1		0.842	D
PCB-24/27	1780	99.3			0.742	D	PCB-66/76	20200	99.3			1.31	D
PCB-25	1360	49.6			0.768	D	PCB-67	708	49.6			0.486	D
PCB-26	2870	49.6			0.766	D	PCB-68	99.2	49.6			0.658	D
PCB-28	13900	49.6			1.12	D	PCB-73	ND	49.6	78.9		0.454	D
PCB-29	150	49.6			0.949	D	PCB-74	8930	49.6			0.781	D
PCB-30	ND	49.6	21.5		0.355	D	PCB-77	2840	49.6			0.748	D
PCB-31	18300	49.6			0.809	D	PCB-78	ND	49.6	61.2		0.385	D
PCB-34	116	49.6			1.57	D	PCB-79	401	49.6			0.633	D
PCB-35	291	49.6			0.565	D	PCB-80	ND	49.6	54.1		0.336	D
PCB-36	25.1	49.6			0.406	J, D	PCB-81	136	49.6			0.674	D
PCB-37	7680	49.6			0.389	D	PCB-82	4970	49.6			0.981	D
PCB-38	232	49.6			0.528	D	PCB-83	ND	49.6		24.8	0.440	D
PCB-39	24.8	49.6			0.461	J, D	PCB-84/92	16300	99.3			1.01	D
PCB-40	4240	49.6			0.927	D	PCB-85/116	5210	99.3			1.64	D
PCB-41/64/71/72	17300	199			1.70	D	PCB-86	ND	49.6		183	1.79	D
PCB-42/59	6700	99.3			0.899	D	PCB-87/117/125	12500	149			0.880	D
PCB-43/49	16900	99.3			0.879	D	PCB-88/91	4860	99.3			1.25	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.

Sample ID: UG-MH-60-20140911-S

EPA Method 1668C

Client Data			Sample Data			Laboratory Data					
Name:	Leidos		Matrix:	Sediment		Lab Sample:	1400665-02	Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support		Sample Size:	28.8 g		QC Batch:	B410061	Date Extracted:	16-Sep-2014 13:26		
Date Collected:	11-Sep-2014 10:30		% Solids:	34.9		Date Analyzed :	20-Sep-14 09:22	Column:	ZB-1	Analyst:	DMS
							24-Sep-14 19:44	Column:	ZB-1	Analyst:	DMS

Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers
PCB-89	352	49.6			1.22	D	PCB-136	5030	49.6			0.776	D
PCB-90/101	39800	99.3			1.19	D	PCB-137	2060	49.6			0.541	D
PCB-93	ND	49.6	230		1.42	D	PCB-138/163/164	37600	149			0.809	D
PCB-94	183	49.6			0.874	D	PCB-139/149	37500	49.6			1.49	D
PCB-95/98/102	28100	149			1.38	D	PCB-140	224	49.6			1.20	D
PCB-96	197	49.6			0.588	D	PCB-141	8490	49.6			0.678	D
PCB-97	10200	49.6			0.675	D	PCB-144	2050	49.6			1.38	D
PCB-99	13100	49.6			0.474	D	PCB-145	ND	49.6	37.1		1.05	D
PCB-100	124	49.6			0.511	D	PCB-146/165	5800	99.3			0.792	D
PCB-103	287	49.6			0.428	D	PCB-147	620	49.6			1.65	D
PCB-104	ND	49.6	147		0.876	D	PCB-148	51.5	49.6			1.45	D
PCB-105	14200	49.6			0.462	D	PCB-150	68.4	49.6			0.801	D
PCB-106/118	30800	99.3			0.728	D	PCB-151	10600	49.6			1.16	D
PCB-107/109	1990	99.3			0.631	D	PCB-152	56.3	49.6			0.744	D
PCB-108/112	1630	99.3			0.844	D	PCB-153	36900	49.6			0.484	D
PCB-110	37900	49.6			0.555	D	PCB-154	455	49.6			0.837	D
PCB-111/115	532	99.3			1.24	D	PCB-155	ND	49.6	40.0		0.767	D
PCB-113	101	49.6			0.495	D	PCB-156	4130	49.6			0.534	D
PCB-114	743	49.6			0.418	D	PCB-157	859	49.6			0.485	D
PCB-119	ND	49.6		608	0.383	D	PCB-158/160	4130	99.3			0.915	D
PCB-120	ND	49.6		80.2	0.622	D	PCB-159	ND	49.6	132		0.578	D
PCB-121	ND	49.6	120		0.978	D	PCB-166	124	49.6			0.425	D
PCB-122	395	49.6			0.619	D	PCB-167	1580	49.6			0.653	D
PCB-123	410	49.6			0.494	D	PCB-168	58.6	49.6			0.502	D
PCB-124	1380	49.6			0.813	D	PCB-169	ND	49.6	175		0.767	D
PCB-126	417	49.6			0.543	D	PCB-170	15500	49.6			0.758	D
PCB-127	ND	49.6	149		0.326	D	PCB-171	3510	49.6			0.372	D
PCB-128/162	6670	99.3			1.08	D	PCB-172	2130	49.6			0.857	D
PCB-129	2000	49.6			0.567	D	PCB-173	ND	49.6		329	0.507	D
PCB-130	2260	49.6			0.798	D	PCB-174	17200	49.6			0.797	D
PCB-131	ND	49.6	173		0.731	D	PCB-175	567	49.6			0.679	D
PCB-132/161	14500	99.3			1.05	D	PCB-176	1670	49.6			0.729	D
PCB-133/142	1440	99.3			1.04	D	PCB-177	9360	49.6			0.404	D
PCB-134/143	2480	99.3			1.05	D	PCB-178	2690	49.6			0.610	D
PCB-135	5680	49.6			1.47	D	PCB-179	6350	49.6			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: UG-MH-60-20140911-S

EPA Method 1668C

Client Data				Sample Data			Laboratory Data								
Name:	Leidos			Matrix:	Sediment		Lab Sample:	1400665-02		Date Received:	12-Sep-2014 8:55				
Project:	NPDES Sampling Support			Sample Size:	28.8 g		QC Batch:	B4I0061		Date Extracted:	16-Sep-2014 13:26				
Date Collected:	11-Sep-2014 10:30			% Solids:	34.9		Date Analyzed :	20-Sep-14 09:22		Column:	ZB-1		Analyst:	DMS	
									24-Sep-14 19:44		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	39200	49.6			0.420	D	Total octaCB	30900	49.6				
PCB-181	ND	49.6	78.1		1.26	D	Total nonaCB	3230	49.6				
PCB-182/187	15700	99.3			1.33	D	DecaCB	811	49.6				
PCB-183	7470	49.6			0.638	D	Total PCB	922000	99.3				
PCB-184	ND	49.6	43.3		0.597	D							
PCB-185	1580	49.6			0.557	D							
PCB-186	ND	49.6	48.6		0.421	D							
PCB-188	ND	49.6	44.7		0.759	D							
PCB-189	354	49.6			0.483	D							
PCB-190	2980	49.6			0.686	D							
PCB-191	572	49.6			0.447	D							
PCB-192	ND	49.6	61.9		0.528	D							
PCB-193	1640	49.6			0.836	D							
PCB-194	7850	49.6			0.645	D							
PCB-195	3120	49.6			0.722	D							
PCB-196/203	8040	99.3			0.983	D							
PCB-197	358	49.6			0.794	D							
PCB-198	480	49.6			0.792	D							
PCB-199	6960	49.6			0.615	D							
PCB-200	1000	49.6			0.795	D							
PCB-201	1100	49.6			0.317	D							
PCB-202	1690	49.6			0.759	D							
PCB-204	ND	49.6	63.4		0.543	D							
PCB-205	315	49.6			0.471	D							
PCB-206	2190	49.6			0.852	D							
PCB-207	345	49.6			0.402	D							
PCB-208	690	49.6			0.441	D							
PCB-209	811	49.6			1.10	D							
Total monoCB	1920	49.6											
Total diCB	25800	99.3											
Total triCB	125000	49.6											
Total tetraCB	185000	49.6											
Total pentaCB	227000	49.6		228000									
Total hexaCB	194000	49.6											
Total heptaCB	128000	49.6		129000									

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: UG-MH-60-20140911-S

EPA Method 1668C

Client Data		Sample Data		Laboratory Data	
Name:	Leidos	Matrix:	Sediment	Lab Sample:	1400665-02
Project:	NPDES Sampling Support	Sample Size:	28.8 g	Date Received:	12-Sep-2014 8:55
Date Collected:	11-Sep-2014 10:30	% Solids:	34.9	QC Batch:	B4I0061
				Date Analyzed:	20-Sep-14 09:22 Column: ZB-1 Analyst: DMS
					24-Sep-14 19:44 Column: ZB-1 Analyst: DMS

Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	95.8	5 -145	D	13C-PCB-170	46.2	10 -145	D
13C-PCB-3	87.5	5 -145	D	13C-PCB-180	57.8	10 -145	D
13C-PCB-4	72.3	5 -145	D	13C-PCB-188	71.7	10 -145	D
13C-PCB-11	71.3	5 -145	D	13C-PCB-189	51.3	10 -145	D
13C-PCB-9	79.6	5 -145	D	13C-PCB-194	78.3	10 -145	D
13C-PCB-19	83.6	5 -145	D	13C-PCB-202	92.0	10 -145	D
13C-PCB-28	76.6	5 -145	D	13C-PCB-206	108	10 -145	D
13C-PCB-32	84.1	5 -145	D	13C-PCB-208	84.9	10 -145	D
13C-PCB-37	77.9	5 -145	D	13C-PCB-209	99.3	10 -145	D
13C-PCB-47	68.5	5 -145	D	CRS 13C-PCB-79	60.3	10 -145	D
13C-PCB-52	64.3	5 -145	D	13C-PCB-178	79.3	10 -145	D
13C-PCB-54	58.4	5 -145	D				
13C-PCB-70	67.0	5 -145	D				
13C-PCB-77	58.9	10 -145	D				
13C-PCB-80	77.8	10 -145	D				
13C-PCB-81	71.7	10 -145	D				
13C-PCB-95	83.3	10 -145	D				
13C-PCB-97	82.5	10 -145	D				
13C-PCB-101	77.3	10 -145	D				
13C-PCB-104	79.0	10 -145	D				
13C-PCB-105	62.1	10 -145	D				
13C-PCB-114	64.4	10 -145	D				
13C-PCB-118	74.0	10 -145	D				
13C-PCB-123	72.1	10 -145	D				
13C-PCB-126	50.0	10 -145	D				
13C-PCB-127	57.0	10 -145	D				
13C-PCB-138	72.6	10 -145	D				
13C-PCB-141	72.8	10 -145	D				
13C-PCB-153	67.0	10 -145	D				
13C-PCB-155	75.4	10 -145	D				
13C-PCB-156	60.9	10 -145	D				
13C-PCB-157	62.5	10 -145	D				
13C-PCB-159	62.9	10 -145	D				
13C-PCB-167	60.6	10 -145	D				
13C-PCB-169	47.1	10 -145	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: UG-FD-01-20140911-S

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Sediment		Lab Sample:	1400665-03		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	28.2 g		QC Batch:	B410061		Date Extracted:	16-Sep-2014 13:26		
Date Collected:	11-Sep-2014 10:30			% Solids:	35.6		Date Analyzed :	20-Sep-14 10:27		Column:	ZB-1 Analyst: DMS		
							24-Sep-14 20:48		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	667	49.8			0.320	D	PCB-44	13800	49.8			0.745	D
PCB-2	121	49.8			0.240	D	PCB-45	2590	49.8			0.402	D
PCB-3	405	49.8			0.323	D	PCB-46	1090	49.8			0.537	D
PCB-4/10	2430	199			1.14	D	PCB-47	3270	49.8			2.19	D
PCB-5/8	7680	199			1.76	D	PCB-48/75	2600	99.5			0.983	D
PCB-6	1240	99.5			1.00	D	PCB-50	44.1	49.8			0.603	J, D
PCB-7/9	751	199			1.34	D	PCB-51	751	49.8			0.789	D
PCB-11	2730	99.5			3.48	D	PCB-52/69	15200	99.5			0.722	D
PCB-12/13	491	199			1.37	D	PCB-53	1990	49.8			0.331	D
PCB-14	ND	99.5	150		0.337	D	PCB-54	49.1	49.8			0.275	J, D
PCB-15	4570	99.5			0.634	D	PCB-55	359	49.8			0.416	D
PCB-16/32	10900	199			0.430	D	PCB-56/60	9040	99.5			0.825	D
PCB-17	6040	49.8			0.658	D	PCB-57	75.0	49.8			0.354	D
PCB-18	17700	49.8			0.696	D	PCB-58	38.2	49.8			0.589	J, D
PCB-19	1360	49.8			0.612	D	PCB-61/70	19900	99.5			1.20	D
PCB-20/21/33	9850	149			2.47	D	PCB-62	ND	49.8	34.3		0.597	D
PCB-22	5040	49.8			0.964	D	PCB-63	580	49.8			0.524	D
PCB-23	20.8	49.8			0.543	J, D	PCB-65	ND	49.8	23.1		0.842	D
PCB-24/27	1200	99.5			0.742	D	PCB-66/76	12800	99.5			1.31	D
PCB-25	1160	49.8			0.768	D	PCB-67	429	49.8			0.486	D
PCB-26	2500	49.8			0.766	D	PCB-68	88.6	49.8			0.658	D
PCB-28	10300	49.8			1.12	D	PCB-73	ND	49.8	35.0		0.454	D
PCB-29	161	49.8			0.949	D	PCB-74	5760	49.8			0.781	D
PCB-30	ND	49.8	17.4		0.355	D	PCB-77	1720	49.8			0.748	D
PCB-31	13900	49.8			0.809	D	PCB-78	ND	49.8	32.1		0.385	D
PCB-34	109	49.8			1.57	D	PCB-79	358	49.8			0.633	D
PCB-35	317	49.8			0.565	D	PCB-80	ND	49.8	31.3		0.336	D
PCB-36	40.4	49.8			0.406	J, D	PCB-81	86.2	49.8			0.674	D
PCB-37	5700	49.8			0.389	D	PCB-82	3610	49.8			0.981	D
PCB-38	122	49.8			0.528	D	PCB-83	ND	49.8	154		0.440	D
PCB-39	ND	49.8	40.7		0.461	D	PCB-84/92	11000	99.5			1.01	D
PCB-40	2610	49.8			0.927	D	PCB-85/116	4330	99.5			1.64	D
PCB-41/64/71/72	11200	199			1.70	D	PCB-86	ND	49.8	278		1.79	D
PCB-42/59	4170	99.5			0.899	D	PCB-87/117/125	10400	149			0.880	D
PCB-43/49	10400	99.5			0.879	D	PCB-88/91	3870	99.5			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: UG-FD-01-20140911-S

EPA Method 1668C

Client Data				Sample Data			Laboratory Data							
Name:	Leidos			Matrix:	Sediment		Lab Sample:	1400665-03		Date Received:	12-Sep-2014 8:55			
Project:	NPDES Sampling Support			Sample Size:	28.2 g		QC Batch:	B410061		Date Extracted:	16-Sep-2014 13:26			
Date Collected:	11-Sep-2014 10:30			% Solids:	35.6		Date Analyzed :	20-Sep-14 10:27		Column:	ZB-1 Analyst: DMS			
									24-Sep-14 20:48		Column:	ZB-1 Analyst: DMS		

Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/g)	RL	DL	EMPC	MDL	Qualifiers
PCB-89	212	49.8			1.22	D	PCB-136	3870	49.8			0.776	D
PCB-90/101	27900	99.5			1.19	D	PCB-137	1670	49.8			0.541	D
PCB-93	ND	49.8	184		1.42	D	PCB-138/163/164	31900	149			0.809	D
PCB-94	ND	49.8	227		0.874	D	PCB-139/149	29600	49.8			1.49	D
PCB-95/98/102	22700	149			1.38	D	PCB-140	204	49.8			1.20	D
PCB-96	203	49.8			0.588	D	PCB-141	6660	49.8			0.678	D
PCB-97	8650	49.8			0.675	D	PCB-144	1680	49.8			1.38	D
PCB-99	8980	49.8			0.474	D	PCB-145	ND	49.8	31.4		1.05	D
PCB-100	ND	49.8	194		0.511	D	PCB-146/165	4700	99.5			0.792	D
PCB-103	282	49.8			0.428	D	PCB-147	566	49.8			1.65	D
PCB-104	ND	49.8	99.0		0.876	D	PCB-148	65.4	49.8			1.45	D
PCB-105	10300	49.8			0.462	D	PCB-150	66.9	49.8			0.801	D
PCB-106/118	28000	99.5			0.728	D	PCB-151	8310	49.8			1.16	D
PCB-107/109	1640	99.5			0.631	D	PCB-152	ND	49.8	33.8		0.744	D
PCB-108/112	1380	99.5			0.844	D	PCB-153	31000	49.8			0.484	D
PCB-110	33000	49.8			0.555	D	PCB-154	461	49.8			0.837	D
PCB-111/115	502	99.5			1.24	D	PCB-155	ND	49.8	33.9		0.767	D
PCB-113	ND	49.8		215	0.495	D	PCB-156	3130	49.8			0.534	D
PCB-114	542	49.8			0.418	D	PCB-157	664	49.8			0.485	D
PCB-119	567	49.8			0.383	D	PCB-158/160	3500	99.5			0.915	D
PCB-120	ND	49.8	140		0.622	D	PCB-159	ND	49.8	57.0		0.578	D
PCB-121	ND	49.8	95.8		0.978	D	PCB-166	105	49.8			0.425	D
PCB-122	290	49.8			0.619	D	PCB-167	1290	49.8			0.653	D
PCB-123	339	49.8			0.494	D	PCB-168	ND	49.8	53.0		0.502	D
PCB-124	983	49.8			0.813	D	PCB-169	ND	49.8	65.0		0.767	D
PCB-126	302	49.8			0.543	D	PCB-170	10700	49.8			0.758	D
PCB-127	ND	49.8	22.9		0.326	D	PCB-171	2610	49.8			0.372	D
PCB-128/162	5190	99.5			1.08	D	PCB-172	1580	49.8			0.857	D
PCB-129	1670	49.8			0.567	D	PCB-173	298	49.8			0.507	D
PCB-130	1860	49.8			0.798	D	PCB-174	12800	49.8			0.797	D
PCB-131	ND	49.8	84.8		0.731	D	PCB-175	430	49.8			0.679	D
PCB-132/161	10500	99.5			1.05	D	PCB-176	1430	49.8			0.729	D
PCB-133/142	1130	99.5			1.04	D	PCB-177	7440	49.8			0.404	D
PCB-134/143	1990	99.5			1.05	D	PCB-178	2330	49.8			0.610	D
PCB-135	4300	49.8			1.47	D	PCB-179	5280	49.8			0.418	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.

Sample ID: UG-FD-01-20140911-S

EPA Method 1668C

Client Data			Sample Data			Laboratory Data					
Name:	Leidos		Matrix:	Sediment		Lab Sample:	1400665-03	Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support		Sample Size:	28.2 g		QC Batch:	B4I0061	Date Extracted:	16-Sep-2014 13:26		
Date Collected:	11-Sep-2014 10:30		% Solids:	35.6		Date Analyzed :	20-Sep-14 10:27	Column:	ZB-1	Analyst:	DMS
						24-Sep-14 20:48 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	30000	49.8			0.420	D	Total octaCB	26800	49.8				
PCB-181	ND	49.8	47.3		1.26	D	Total nonaCB	3820	49.8				
PCB-182/187	14100	99.5			1.33	D	DecaCB	804	49.8				
PCB-183	6450	49.8			0.638	D	Total PCB	697000	99.5				
PCB-184	ND	49.8	28.3		0.597	D							
PCB-185	1230	49.8			0.557	D							
PCB-186	ND	49.8	31.8		0.421	D							
PCB-188	ND	49.8	29.2		0.759	D							
PCB-189	439	49.8			0.483	D							
PCB-190	2000	49.8			0.686	D							
PCB-191	453	49.8			0.447	D							
PCB-192	ND	49.8	37.5		0.528	D							
PCB-193	1260	49.8			0.836	D							
PCB-194	6280	49.8			0.645	D							
PCB-195	2400	49.8			0.722	D							
PCB-196/203	7470	99.5			0.983	D							
PCB-197	291	49.8			0.794	D							
PCB-198	355	49.8			0.792	D							
PCB-199	6480	49.8			0.615	D							
PCB-200	921	49.8			0.795	D							
PCB-201	912	49.8			0.317	D							
PCB-202	1380	49.8			0.759	D							
PCB-204	ND	49.8	59.2		0.543	D							
PCB-205	301	49.8			0.471	D							
PCB-206	2870	49.8			0.852	D							
PCB-207	293	49.8			0.402	D							
PCB-208	656	49.8			0.441	D							
PCB-209	804	49.8			1.10	D							
Total monoCB	1190	49.8											
Total diCB	19900	99.5											
Total triCB	86300	49.8											
Total tetraCB	121000	49.8											
Total pentaCB	180000	49.8											
Total hexaCB	156000	49.8											
Total heptaCB	101000	49.8											

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: UG-FD-01-20140911-S

EPA Method 1668C

Client Data		Sample Data		Laboratory Data			
Name:	Leidos	Matrix:	Sediment	Lab Sample:	1400665-03	Date Received:	12-Sep-2014 8:55
Project:	NPDES Sampling Support	Sample Size:	28.2 g	QC Batch:	B4I0061	Date Extracted:	16-Sep-2014 13:26
Date Collected:	11-Sep-2014 10:30	% Solids:	35.6	Date Analyzed :	20-Sep-14 10:27	Column:	ZB-1 Analyst: DMS
					24-Sep-14 20:48	Column:	ZB-1 Analyst: DMS

Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	116	5 -145	D	13C-PCB-170	74.7	10 -145	D
13C-PCB-3	116	5 -145	D	13C-PCB-180	79.4	10 -145	D
13C-PCB-4	76.4	5 -145	D	13C-PCB-188	77.1	10 -145	D
13C-PCB-11	79.3	5 -145	D	13C-PCB-189	46.3	10 -145	D
13C-PCB-9	80.6	5 -145	D	13C-PCB-194	83.4	10 -145	D
13C-PCB-19	140	5 -145	D	13C-PCB-202	87.3	10 -145	D
13C-PCB-28	76.8	5 -145	D	13C-PCB-206	73.5	10 -145	D
13C-PCB-32	99.7	5 -145	D	13C-PCB-208	78.5	10 -145	D
13C-PCB-37	81.5	5 -145	D	13C-PCB-209	79.1	10 -145	D
13C-PCB-47	77.8	5 -145	D	CRS 13C-PCB-79	74.9	10 -145	D
13C-PCB-52	78.8	5 -145	D	13C-PCB-178	84.9	10 -145	D
13C-PCB-54	74.6	5 -145	D				
13C-PCB-70	75.8	5 -145	D				
13C-PCB-77	77.1	10 -145	D				
13C-PCB-80	69.8	10 -145	D				
13C-PCB-81	75.1	10 -145	D				
13C-PCB-95	86.5	10 -145	D				
13C-PCB-97	85.8	10 -145	D				
13C-PCB-101	97.5	10 -145	D				
13C-PCB-104	86.7	10 -145	D				
13C-PCB-105	64.3	10 -145	D				
13C-PCB-114	72.3	10 -145	D				
13C-PCB-118	79.6	10 -145	D				
13C-PCB-123	89.1	10 -145	D				
13C-PCB-126	66.1	10 -145	D				
13C-PCB-127	60.1	10 -145	D				
13C-PCB-138	78.2	10 -145	D				
13C-PCB-141	81.4	10 -145	D				
13C-PCB-153	73.1	10 -145	D				
13C-PCB-155	95.2	10 -145	D				
13C-PCB-156	78.7	10 -145	D				
13C-PCB-157	78.1	10 -145	D				
13C-PCB-159	75.6	10 -145	D				
13C-PCB-167	70.4	10 -145	D				
13C-PCB-169	62.8	10 -145	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: Method Blank

EPA Method 1668C

Matrix: Aqueous	QC Batch: B4I0047	Lab Sample: B4I0047-BLK1
Sample Size: 1.00 L	Date Extracted: 15-Sep-2014 8:46	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

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: Aqueous	QC Batch: B4I0047	Lab Sample: B4I0047-BLK1
Sample Size: 1.00 L	Date Extracted: 15-Sep-2014 8:46	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

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: Aqueous	QC Batch: B410047	Lab Sample: B410047-BLK1
Sample Size: 1.00 L	Date Extracted: 15-Sep-2014 8:46	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

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: Aqueous	QC Batch: B4I0047	Lab Sample: B4I0047-BLK1
Sample Size: 1.00 L	Date Extracted: 15-Sep-2014 8:46	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

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: OPR**EPA Method 1668C**Matrix: Aqueous
Sample Size: 1.00 LQC Batch: B4I0047
Date Extracted: 15-Sep-2014 8:46Lab Sample: B4I0047-BS1
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	QC Batch: B4I0047	Lab Sample: B4I0047-BS1			Date Analyzed: 19-Sep-14 10:37 Column: ZB-1 Analyst: DMS			
Sample Size: 1.00 L	Date Extracted: 15-Sep-2014 8:46							
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: UG-MH-60-20140911-W

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Aqueous		Lab Sample:	1400665-04		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	1.03 L		QC Batch:	B410047		Date Extracted:	15-Sep-2014 8:46		
Date Collected:	11-Sep-2014 14:40						Date Analyzed :	24-Sep-14 14:22		Column:	ZB-1 Analyst: DMS		

Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers
PCB-1	2.70	4.87			1.21	J	PCB-44	24.4	4.87			2.48	
PCB-2	ND	4.87		1.25	1.75		PCB-45	4.63	4.87			1.96	J
PCB-3	ND	4.87	1.83		1.49		PCB-46	2.48	4.87			2.49	J
PCB-4/10	ND	19.5	10.9		5.64		PCB-47	9.61	4.87			4.42	
PCB-5/8	13.3	19.5			3.59	J	PCB-48/75	5.49	9.74			2.09	J
PCB-6	ND	9.74	8.52		3.10		PCB-50	ND	4.87	1.36		1.40	
PCB-7/9	ND	19.5	8.46		6.22		PCB-51	2.23	4.87			1.42	J
PCB-11	58.4	9.74			3.86		PCB-52/69	30.1	9.74			3.64	
PCB-12/13	ND	19.5	8.71		5.01		PCB-53	3.69	4.87			1.12	J
PCB-14	ND	9.74	7.77		3.98		PCB-54	ND	4.87	1.10		1.51	
PCB-15	8.31	9.74			2.53	J	PCB-55	ND	4.87	1.05		1.19	
PCB-16/32	16.0	9.74			2.87		PCB-56/60	16.0	9.74			2.19	
PCB-17	8.91	4.87			1.37		PCB-57	ND	4.87	1.08		0.857	
PCB-18	22.1	4.87			2.57		PCB-58	ND	4.87	1.09		1.81	
PCB-19	2.49	4.87			2.38	J	PCB-61/70	33.4	9.74			2.40	
PCB-20/21/33	15.3	14.6			10.3		PCB-62	ND	4.87	1.19		1.46	
PCB-22	9.05	4.87			3.17		PCB-63	ND	4.87	1.08		0.696	
PCB-23	ND	4.87	0.659		1.35		PCB-65	ND	4.87	1.15		0.953	
PCB-24/27	2.13	9.74			3.16	J	PCB-66/76	20.7	9.74			2.82	
PCB-25	1.57	4.87			3.34	J	PCB-67	ND	4.87	1.12		1.22	
PCB-26	3.71	4.87			2.19	J	PCB-68	1.09	4.87			1.24	J
PCB-28	22.2	4.87			2.90		PCB-73	ND	4.87	1.20		1.56	
PCB-29	ND	4.87	0.650		1.60		PCB-74	11.2	4.87			1.53	
PCB-30	ND	4.87	0.617		2.09		PCB-77	4.74	4.87			1.34	J
PCB-31	19.8	4.87			4.29		PCB-78	ND	4.87	1.10		0.990	
PCB-34	ND	4.87	0.685		2.34		PCB-79	ND	4.87	1.03		1.60	
PCB-35	2.18	4.87			1.65	J	PCB-80	ND	4.87	0.909		1.98	
PCB-36	ND	4.87	0.681		2.69		PCB-81	ND	4.87	0.982		2.34	
PCB-37	10.7	4.87			1.92		PCB-82	8.80	4.87			1.69	
PCB-38	ND	4.87	0.693		1.56		PCB-83	ND	4.87	1.39		1.32	
PCB-39	ND	4.87	0.661		2.60		PCB-84/92	27.8	9.74			3.38	
PCB-40	4.39	4.87			3.08	J	PCB-85/116	10.5	9.74			2.83	
PCB-41/64/71/72	21.4	19.5			5.57		PCB-86	ND	4.87	2.06		2.34	
PCB-42/59	8.02	9.74			2.84	J	PCB-87/117/125	23.4	14.6			3.79	
PCB-43/49	18.5	9.74			3.38		PCB-88/91	8.48	4.87			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: UG-MH-60-20140911-W

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Aqueous		Lab Sample:	1400665-04		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	1.03 L		QC Batch:	B410047		Date Extracted:	15-Sep-2014 8:46		
Date Collected:	11-Sep-2014 14:40						Date Analyzed:	24-Sep-14 14:22		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	ND	4.87	1.89		1.84		PCB-136	9.75	4.87			2.89	
PCB-90/101	67.8	9.74			1.92		PCB-137	4.61	4.87			2.08	J
PCB-93	ND	4.87	1.86		1.47		PCB-138/163/164	90.0	14.6			2.68	
PCB-94	ND	4.87	1.90		1.91		PCB-139/149	67.8	9.74			7.87	
PCB-95/98/102	51.2	14.6			6.58		PCB-140	ND	4.87	1.95		3.52	
PCB-96	ND	4.87	1.39		2.16		PCB-141	19.2	4.87			1.15	
PCB-97	17.6	4.87			1.24		PCB-144	ND	4.87		3.07	3.22	
PCB-99	23.0	4.87			1.94		PCB-145	ND	4.87	1.40		1.73	
PCB-100	ND	4.87	1.51		2.03		PCB-146/165	12.0	9.74			1.91	
PCB-103	ND	4.87	1.62		2.28		PCB-147	1.99	4.87			3.62	J
PCB-104	ND	4.87	1.21		0.931		PCB-148	ND	4.87	2.07		1.68	
PCB-105	26.1	4.87			2.21		PCB-150	ND	4.87	1.44		1.14	
PCB-106/118	61.6	9.74			2.44		PCB-151	18.6	4.87			3.59	
PCB-107/109	4.76	9.74			1.98	J	PCB-152	ND	4.87	1.39		1.82	
PCB-108/112	3.59	9.74			1.86	J	PCB-153	74.3	4.87			1.83	
PCB-110	69.4	4.87			1.94		PCB-154	ND	4.87	1.73		2.78	
PCB-111/115	1.22	9.74			0.768	J	PCB-155	ND	4.87	1.35		1.45	
PCB-113	ND	4.87		2.59	1.31		PCB-156	8.66	4.87			1.74	
PCB-114	ND	4.87		1.56	1.81		PCB-157	3.04	4.87			1.17	J
PCB-119	ND	4.87		1.02	0.949		PCB-158/160	10.9	9.74			1.99	
PCB-120	ND	4.87	1.18		1.01		PCB-159	ND	4.87	1.11		1.20	
PCB-121	ND	4.87	1.11		1.94		PCB-166	ND	4.87	1.16		0.920	
PCB-122	0.747	4.87			1.84	J	PCB-167	ND	4.87		4.44	1.65	
PCB-123	ND	4.87		1.08	1.35		PCB-168	ND	4.87	1.03		0.933	
PCB-124	3.34	4.87			1.79	J	PCB-169	1.11	4.87			1.12	J
PCB-126	ND	4.87		2.42	2.05		PCB-170	23.9	4.87			1.38	
PCB-127	ND	4.87	1.88		0.808		PCB-171	7.58	4.87			1.61	
PCB-128/162	15.9	9.74			1.68		PCB-172	4.46	4.87			1.46	J
PCB-129	ND	4.87		4.77	1.11		PCB-173	ND	4.87	1.44		1.49	
PCB-130	ND	4.87		5.42	2.21		PCB-174	28.6	4.87			1.42	
PCB-131	ND	4.87	1.54		1.46		PCB-175	ND	4.87		1.65	3.15	
PCB-132/161	21.8	9.74			2.34		PCB-176	3.03	4.87			2.17	J
PCB-133/142	2.66	9.74			2.19	J	PCB-177	14.5	4.87			1.34	
PCB-134/143	4.48	9.74			2.40	J	PCB-178	6.37	4.87			2.25	
PCB-135	10.5	4.87			2.90		PCB-179	11.7	4.87			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: UG-MH-60-20140911-W

EPA Method 1668C

Client Data				Sample Data			Laboratory Data						
Name:	Leidos			Matrix:	Aqueous		Lab Sample:	1400665-04		Date Received:	12-Sep-2014 8:55		
Project:	NPDES Sampling Support			Sample Size:	1.03 L		QC Batch:	B4I0047		Date Extracted:	15-Sep-2014 8:46		
Date Collected:	11-Sep-2014 14:40						Date Analyzed :	24-Sep-14 14:22		Column:	ZB-1 Analyst: DMS		

Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers	Analyte	Conc. (pg/L)	RL	DL	EMPC	MDL	Qualifiers
PCB-180	62.5	4.87			0.610		Total octaCB	63.7	4.87		65.9		
PCB-181	ND	4.87	1.23		1.01		Total nonaCB	10.9	4.87				
PCB-182/187	35.7	9.74			6.20		DecaCB	3.29	4.87				J
PCB-183	15.5	4.87			3.29		Total PCB	1530	9.74				
PCB-184	ND	4.87	1.04		1.25								
PCB-185	4.17	4.87			1.47	J							
PCB-186	ND	4.87	1.01		2.43								
PCB-188	ND	4.87	0.918		1.08								
PCB-189	1.76	4.87			1.49	J							
PCB-190	6.72	4.87			1.70								
PCB-191	ND	4.87	0.998		1.96								
PCB-192	ND	4.87	1.09		1.69								
PCB-193	2.95	4.87			1.46	J							
PCB-194	15.6	4.87			1.71								
PCB-195	6.67	4.87			1.47								
PCB-196/203	18.6	9.74			6.35								
PCB-197	ND	4.87	1.31		1.80								
PCB-198	ND	4.87	1.88		3.78								
PCB-199	16.1	4.87			4.05								
PCB-200	ND	4.87		2.24	1.75								
PCB-201	1.84	4.87			1.02	J							
PCB-202	4.03	4.87			1.55	J							
PCB-204	ND	4.87	1.41		1.48								
PCB-205	0.903	4.87			1.53	J							
PCB-206	7.26	4.87			1.32								
PCB-207	1.28	4.87			1.51	J							
PCB-208	2.34	4.87			1.34	J							
PCB-209	3.29	4.87			1.86	J							
Total monoCB	2.70	4.87		3.95		J							
Total diCB	80.1	9.74											
Total triCB	136	4.87											
Total tetraCB	222	4.87											
Total pentaCB	409	4.87		418									
Total hexaCB	377	4.87		395									
Total heptaCB	229	4.87		231									

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: UG-MH-60-20140911-W

EPA Method 1668C

Client Data		Sample Data		Laboratory Data			
Name:	Leidos	Matrix:	Aqueous	Lab Sample:	1400665-04	Date Received:	12-Sep-2014 8:55
Project:	NPDES Sampling Support	Sample Size:	1.03 L	QC Batch:	B4I0047	Date Extracted:	15-Sep-2014 8:46
Date Collected:	11-Sep-2014 14:40			Date Analyzed:	24-Sep-14 14:22	Column:	ZB-1
				Analyst:	DMS		

Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	72.3	5 -145		13C-PCB-170	89.9	10 -145	
13C-PCB-3	75.5	5 -145		13C-PCB-180	94.2	10 -145	
13C-PCB-4	72.6	5 -145		13C-PCB-188	89.1	10 -145	
13C-PCB-11	81.5	5 -145		13C-PCB-189	86.7	10 -145	
13C-PCB-9	75.1	5 -145		13C-PCB-194	88.7	10 -145	
13C-PCB-19	83.2	5 -145		13C-PCB-202	91.0	10 -145	
13C-PCB-28	92.8	5 -145		13C-PCB-206	103	10 -145	
13C-PCB-32	89.6	5 -145		13C-PCB-208	93.3	10 -145	
13C-PCB-37	94.1	5 -145		13C-PCB-209	117	10 -145	
13C-PCB-47	86.1	5 -145		CRS 13C-PCB-79	102	10 -145	
13C-PCB-52	85.1	5 -145		13C-PCB-178	107	10 -145	
13C-PCB-54	81.4	5 -145					
13C-PCB-70	87.4	5 -145					
13C-PCB-77	84.9	10 -145					
13C-PCB-80	89.3	10 -145					
13C-PCB-81	88.2	10 -145					
13C-PCB-95	86.0	10 -145					
13C-PCB-97	90.9	10 -145					
13C-PCB-101	88.7	10 -145					
13C-PCB-104	84.2	10 -145					
13C-PCB-105	84.3	10 -145					
13C-PCB-114	84.1	10 -145					
13C-PCB-118	87.9	10 -145					
13C-PCB-123	86.0	10 -145					
13C-PCB-126	82.0	10 -145					
13C-PCB-127	83.6	10 -145					
13C-PCB-138	92.0	10 -145					
13C-PCB-141	91.4	10 -145					
13C-PCB-153	92.0	10 -145					
13C-PCB-155	81.8	10 -145					
13C-PCB-156	91.0	10 -145					
13C-PCB-157	90.8	10 -145					
13C-PCB-159	92.6	10 -145					
13C-PCB-167	88.5	10 -145					
13C-PCB-169	82.2	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

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

Laboratory Project ID: 1400665

Yes No

Storage ID: WR-2

Temp 0.3 °C

TAT: (Check One):

Standard: 21 Days

Rush (surcharge may apply):

14 days 7 days Specify: _____

Project I.D.: NDES Sampling Support P.O.# - Sampler: Corey Wilson (Name)

Invoice to: Name Corey Wilson Company Leidos Address 18912 N Creele Pkwy City Bothell State WA Zip 98011 Ph# 425.354.0551 Fax# _____

Relinquished by: (Signature and Printed Name) Corey Wilson Date: 9-11-14 Time: 1600 Received by: (Signature and Printed Name) B. Benedict Date: 9/2/14 Time: 0919

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: Fedex

Add Analysis(es) Requested

ATTN: Sample Receiving

Tracking No.: _____

Container(s)

Quantity	Type	Matrix	Add Analysis(es) Requested											
			2378-TCDD	2378-TCDD/TCDF	PCDD/PCDF	2378-TCDD	2378-TCDD/TCDF	PCDD/PCDF	2378-TCDD	2378-TCDD/TCDF	PCDD/PCDF	TOTALS	COPLANAR PCB's	209 CONGENERS

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	2378-TCDD	2378-TCDD/TCDF	PCDD/PCDF	2378-TCDD	2378-TCDD/TCDF	PCDD/PCDF	2378-TCDD	2378-TCDD/TCDF	PCDD/PCDF	TOTALS	COPLANAR PCB's	209 CONGENERS	PBDE	PAH	WHO-29	
UG-MH-60-20140911-W	9-11-14	ev	9-11-14																			
UG-MH-76-20140911-S	9-11-14	1245	Unified Grasses/So Solids	1	G	SD	✓									✓	✓					
UG-MH-60-20140911-S	9-11-14	1030	" / "	1	G	SD	✓									✓	✓					
UG-MH-60-20140911-W	9-11-14	1440	Unified Grass / water	4	A	AQ			2							2	2					
UG-FD-01-20140911-S	9-11-14	1030	Unified Grasses/SD Solids	1	G	SD	✓									✓	✓					

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Christine Nancarrow
Company: _____
Address: Same as Above
City: _____ State: _____ Zip: _____
Phone: 206.300.2144 Fax: _____
Email: nancarrow@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

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

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

WHITE - ORIGINAL

YELLOW - ARCHIVE

PINK - COPY

SAMPLE LOG-IN CHECKLIST



Vista Project #: 1400665 TAT Std

Samples Arrival:	Date/Time: 9/12/14 0855	Initials: UBAB	Location: WR-2
			Shelf/Rack: NA
Logged In:	Date/Time: 9/12/14 1323	Initials: UBAB	Location: WR-2
			Shelf/Rack: A3/F4
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac
		<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered
			<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C: 0.4 (uncorrected)	Time: 0917		Thermometer ID: IR-2
Temp °C: 0.3 (corrected)			

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill	✓		
Trk # 874613130440			
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? NA			
COC			
Sample Container			
None			
Shipping Container	Vista	Client	Retain
		Return	Dispose

Comments:

EXTRACTION INFORMATION

Process Sheet
Workorder: **1400665**

Prep Expiration: 09/11/2015
Client: Leidos

Workorder Due: 03-Oct-14 00:00

TAT: 21

Method: **1613 Full List**
Matrix: **Solid**
Client Matrix: Sediment
Also run: **Percent Solids**

Prep Batch: B4 I0053

Prep Data Entered: 9/17/14 es
Date and Initials

Initial Sequence: S4I0031

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400665-01	<input checked="" type="checkbox"/>	UG-MH-76-20140911-S	12-Sep-14 08:55	WR-2 F-4	
1400665-02	<input checked="" type="checkbox"/>	UG-MH-60-20140911-S	12-Sep-14 08:55	WR-2 F-4	
1400665-03	<input checked="" type="checkbox"/>	UG-FD-01-20140911-S	12-Sep-14 08:55	WR-2 F-4	

Vista PM: Martha Maier

Vial Box ID: Atreyu

Sample Reconciled By: S. Roughton 9/15/2014
Page 3 of 4

Solids estimate

Batch: B4I0055

Lab ID	Analysis	% Solids	Entered	Target weight	Weigh this much
1400665-01	Percent Solids	64.49		10.00	15.51
1400665-02	Percent Solids	34.92		10.00	28.64
1400665-03	Percent Solids	35.63		10.00	28.06
1400668-03	Percent Solids	42.46		10.00	23.55

D2216-90

BATCH ID

B4I0055

Analyst: V. Ordsmith	Test Code: %Moist/%Solids
Analyte: Dried at 110°C+/-5°C	Units: %

HRMS-2

<u>Date/Time IN:</u>	<u>Date/Time OUT:</u>
9/15/14 16:50	9/16/14 13:55

Pan #	SampID	Source ID	SampType	Initial and Date:		VO 9/15/2014	CG 9/16/14	Dry Sample Weight (g)	%Solids RawVal	N/A			
				Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)					pH Before	pH After	Acid Added	Cl-
	1400665-01		Sample	1.3100	17.0800	11.4800	10.1700	64.49					
	1400665-02		Sample	1.2900	13.6900	5.6200	4.3300	34.92					
	1400665-03		Sample	1.3000	16.2300	6.6200	5.3200	35.63					
	1400668-03		Sample	1.3000	16.4900	7.7500	6.4500	42.46					

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 AP CHEM/DATE	C4I0069 ABSG CHEM/DATE	C4I0069 AA CHEM/DATE	C4I0070 Florisil CHEM/DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	B4I0053-BLK1 (1)	10.00	(10.00)	M.T 9/16/14	ES SK 9/17/14	ES 9/17/14	ES 9/17/14	ES 9/17/14	ES 9/17/14	ES SK 9/17/14
<input type="checkbox"/>	B4I0053-BS1 (2)	↓	↓	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400659-03	13.26	13.37	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-01	15.51	15.58	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-02 (3)	28.64	28.77	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-03 (5)	28.06	28.27	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400668-03 (A)(B)	23.55	23.69	↓	↓	↓	↓	↓	↓	↓

(1) Petroleum smell. ES 9/17/14
 (2) Second acid partition performed. ES 9/17/14

IS Name <u>V1</u>	NS Name <u>V14</u>	CRS Name <u>V3</u>	RS Name <u>V2</u>	Cycle Time	APP: SEFUN SOX <u>SDS</u>	Check Out: <u>M.T 9/16/14</u>
PCDD/F <u>1350101, 10ml</u>	PCDD/F <u>1361101, 10ml</u>	PCDD/F <u>1350103, 10ml</u>	PCDD/F <u>1350703, 10ml</u>	Start Date/Time <u>9/16/14</u>	SOLV: <u>TOL</u>	Check In: <u>M.T 9/16/14</u>
PCB	PCB	PCB	PCB	<u>16:05</u>	Other <u>NA</u>	Chemist/Date: <u>M.T 9/16/14</u>
PAH	PAH	PAH	PAH	Stop Date/Time <u>9/17/14</u>	Final Volume(s) <u>20ml</u>	Balance ID: <u>HRMS-2</u>
				<u>8:07</u>	<u>C14</u>	

Comments:

Process Sheet
Workorder: 1400665

Prep Expiration: 09/11/2015
 Client: Leidos

Workorder Due: 03-Oct-14 00:00

TAT: 21

Method: **1613 Full List**
 Matrix: **Aqueous**
 Client Matrix: Aqueous
 Also run: **Percent Solids**

Prep Batch: B4I006

Prep Data Entered: 9/22/14 ES 9/23/14
Date and Initials

Initial Sequence: S4E0040

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400665-04	"A" <input checked="" type="checkbox"/>	UG-MH-60-20140911-W	12-Sep-14 08:55	WR-2 A-3	

Vista PM: Martha Maier

Vial Box ID: Campine

Sample Reconciled By: B. Smith 9/17/14

Percent Moisture/ Percent Solids

D2216-90

BATCH ID

B4I0064

Analyst: B. Smith	Test Code: %Moist/%Solids
Analyte: Dried at 110°C+/-5°C	Units: %

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

INST HRMS-4

Pan #	SampID	Source ID	SampType	Initial and Date:		BMS 9/17/14		BMS 9/20/14		BMS 9/17/14					
				Pan Tare Wt. (gms)		Wet Pan and Sample Weight (g)		Dry Pan and Sample Weight (g)		Dry Sample Weight (g)	%Solids RawVal	pH Before	pH After	Acid Added	Cl-
	1400659-01RE1		Sample	1.2300		22.4900		1.2400		0.0100	0.05	7	N/A	N/A	0
	1400659-02RE1		Sample	1.2500		20.8100		1.2600		0.0100	0.05	7	N/A	N/A	0
	1400664-01RE1		Sample	1.2500		27.2600		1.3200		0.0700	0.27	7	N/A	N/A	0
	1400665-04RE1		Sample	1.2300		21.4600		1.2400		0.0100	0.05	6	N/A	N/A	0
	1400666-01		Sample	1.2600		16.9200		1.4200		0.1600	1.02	8	N/A	N/A	0
	1400668-01		Sample	1.2300		18.3100		1.2400		0.0100	0.06	5	N/A	N/A	0
	1400668-02		Sample	1.2300		19.7400		1.2300		0.0000	0.00	5	N/A	N/A	0

D2216-90

BATCH ID

B410064

Analyst: B. Smith

Test Code: %Moist/%Solids

Analyte:

Dried at 110°C+/-5°C

Units: %

Date/Time IN: ~~9/17/14 09:39~~ 9/20/14/536
 Date/Time OUT:

INST HRMS-4

Pan #	SampID	Source ID	SampType	Initial and Date:		Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	6ms 9/17/14			
				Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)				pH Before	pH After	Acid Added	Cl-
	1400659-01RE1		Sample	1.23	22.49	1.24		7	4.1	NA	0	
	1400659-02RE1		Sample	1.25	20.81	1.26		7	↓	↓	↓	
	1400664-01RE1		Sample	1.25	27.26	1.32		7	↓	↓	↓	
	1400665-04RE1		Sample	1.23	21.96	1.24		6	↓	↓	↓	
	1400666-01		Sample	1.26	16.92	1.42		8	↓	↓	↓	
	1400668-01		Sample	1.23	18.31	1.24		5	↓	↓	↓	
	1400668-02		Sample	1.23	19.74	1.23		5	↓	↓	↓	

PREPARATION BENCH SHEET

B4I0066

Chemist: A. Clark

Prep Date/Time: 17-Sep-14 08:20
19 ced

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	MA	C4I0084	C4I0084	C4I0085	Florisil CHEM/WIT DATE	RS CHEM/WIT DATE
							AP CHEM/DATE	ABSG CHEM/DATE	AA CHEM/DATE			
<input type="checkbox"/>	B4I0066-BLK1	MA	MA	(1.000)	BMS 9/17/14	BMS 9/20/14	MA	BMS 9/20/14	BMS 9/20/14	ES 9/22/14	ES 9/22/14	ES 9/22/14
<input type="checkbox"/>	B4I0066-BS1	↓	↓	↓								
<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	NS Name	CRS Name	RS Name	Cycle Time	APP: SEFUN SOX (SDS)	Check Out: BMS 9/17/14
PCDD/F 13T001 10µl	PCDD/F 13L1101 10µl	PCDD/F 13J0103 10µl	PCDD/F 13J070 3,10µl	Start Date/Time	SOLV: Tol	Chemist/Date: BMS 9/17/14
PCB	PCB	PCB	PCB	9/19/14 18:40	Other: SPE	Check In: Empty ↓
PAH	PAH	PAH	PAH	Stop Date/Time	Final Volume(s) 20µl	Chemist/Date: Empty ↓
				9/20/14 10:41	Cut	Balance ID: HEMS-4

Comments:

Process Sheet
Workorder: **1400665**

Prep Expiration: 09/11/2015
Client: Leidos

Workorder Due: 03-Oct-14 00:00

TAT: 21

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

Prep Batch: B4I0061

Client Matrix: Sediment

Prep Data Entered: 9/19/14 ES
Date and Initials

Also run: **Percent Solids**

Initial Sequence: S4I0035E

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400665-01	<input checked="" type="checkbox"/>	UG-MH-76-20140911-S	12-Sep-14 08:55	WR-2 F-4	
1400665-02	<input checked="" type="checkbox"/>	UG-MH-60-20140911-S	12-Sep-14 08:55	WR-2 F-4	
1400665-03	<input checked="" type="checkbox"/>	UG-FD-01-20140911-S	12-Sep-14 08:55	WR-2 F-4	

Vista PM: Martha Maier

Vial Box ID: SNATCH

Sample Reconciled By: CS 9/17/2014

Solids estimate

Batch: B410055

Lab ID	Analysis	% Solids	Entered	Target weight	Weigh this much
1400665-01	Percent Solids	64.49		10.00	15.51
1400665-02	Percent Solids	34.92		10.00	28.64
1400665-03	Percent Solids	35.63		10.00	28.06
1400668-03	Percent Solids	42.46		10.00	23.55

D2216-90

BATCH ID

B4I0055

Analyst: V. Ordsmith

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C+/-5°C

Date/Time IN: Date/Time OUT

9/15/14 16:50 9/16/14 13:55

HRMS-2

Pan #	SampID	Source ID	SampType	Intial and Date:		G		Dry Sample Weight (g)	%Solids RawVal	N/A		
				VO 9/15/2014	CG 9/16/14	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)			pH Before	pH After	Acid Added
	1400665-01		Sample	1.3100	17.0800	11.4800	10.1700	64.49				
	1400665-02		Sample	1.2900	13.6900	5.6200	4.3300	34.92				
	1400665-03		Sample	1.3000	16.2300	6.6200	5.3200	35.63				
	1400668-03		Sample	1.3000	16.4900	7.7500	6.4500	42.46				

D2216-90

BATCH ID

B4I0055

Analyst: V. Ordsmith

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C+/-5°C

Date/Time IN: Date/Time OUT

9/15/14 16:50 9/16/14 13:55

HRMS-2

B	C	D	E	F	G	H	K	M	N	O	P	
Pan #	SampID	Source ID	SampType	Initial and Date:	16 9/15/14	04 9/16/14	Dry Sample Weight (g)	%Solids RawVal	pH Before	pH After	Acid Added	Cl-
				Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)						
1400665-01			Sample	1.31	17.08	11.48						
1400665-02			Sample	1.29	13.69	5.62						
1400665-03			Sample	1.29 1.30	16.23	6.62						
1400668-03			Sample	1.30	16.49	7.75						

PREPARATION BENCH SHEET

Matrix: Solid

B4I0061

Chemist: Ballardo
 Prep Date/Time: 9/17/14 14:40
~~13 Sep 14 13:26~~ 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	4I0072	4I0073	N/A	N/A	RS CHEM/WIT DATE
						AP CHEM/DATE	ABSG CHEM/DATE	AA CHEM/DATE	Florisil CHEM/DATE	
<input type="checkbox"/>	B4I0061-BLK1 (A)	10.00	(10.00)	9/17/14	9/18/14	9/18/14	9/19/14	N/A	N/A	9/19/14
<input type="checkbox"/>	B4I0061-BS1 (A)	↓	↓	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400659-03 (B)(E)(F)	13.26	13.41	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-01 (B)(D)(E)	15.51	15.66	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-02 (A)(C)(D)(E)(F)(G)(H)(I)	28.06	28.04	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-03 (A)(B)(E)	28.06	28.20	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400668-03 (A)(B)(C)	23.55	24.02	↓	↓	↓	↓	↓	↓	↓

10.79
10.071
10.049

- (A) Second acid partition performed ES 9/18/14.
- (B) Precipitate formed at final volume. ES 9/17/14
- (C) Cloudy at final volume ES 9/19/14
- (D) Crystals at final volume ES 9/19/14
- (E) 1:10 Dilution made per request. ES 9/19/14
- (F) 1:20 Dilution made per request. ES 9/19/14
- (G) FV of about 180 mL. ES 9/19/14
- (H) FV of about 200 mL. ES 9/19/14
- (I) FV of about 650 mL. ES 9/19/14

IS Name	NS Name	CRS Name	RS Name	Cycle Time	APP: SEFUN SOX (SDS)	Check Out:
PCDD/F (V3)	PCDD/F (V3)	PCDD/F (V3)	PCDD/F (V3)	Start Date/Time	SOLV: Tol.	Chemist/Date: <u>CB 9/17/14</u>
PCB 1402901, 10μL	PCB 14F1301, 10μL	PCB 1402903, 10μL	PCB 1402904, 10μL	9/17/14 15:25	Other: N/A	Check In:
PAH	PAH	PAH	PAH	Stop Date/Time	Final Volume(s) 100μL	Chemist/Date: <u>↓</u>
				9/18/14 07:30	Cg	Balance ID: HRMS-2

Comments:

Process Sheet
Workorder: **1400665**

Prep Expiration: 09/11/2015
Client: Leidos

Workorder Due: 03-Oct-14 00:00
TAT: 21

Method: **1668C Full List**
Matrix: **Aqueous**
Client Matrix: Aqueous
Also run: **Percent Solids**

Prep Batch: B4I0047

Prep Data Entered: M.T 9/16/14
Date and Initials *pms 9/16/14*

Initial Sequence: 5410038E

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1400665-04	<input checked="" type="checkbox"/>	UG-MH-60-20140911-W "B"	12-Sep-14 08:55	WR-2 A-3	27

Vista PM: Martha Maier

Vial Box ID: SNATCH

Sample Reconciled By: M.T 9/15/14

D2216-90

BATCH ID

B4I0046

Analyst: MJT

Test Code: %Moist/%Solids

Analyte:

Units: %

Dried at 110°C+/-5°C

INST HRMS-4

Date/Time IN: 9/15/14 0:00
 Date/Time OUT: M.T 9/16/14 10:40
 10:00

Pan #	SampID	Source ID	SampType	Initial and Date:			Dry Sample Weight (g)	%Solids RawVal	MJT 9/15/2014			Cl-
				Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)			MJT 9/15/14	pH Before	pH After	
	1400650-01		Sample	1.25	10.98	1.25			7	2	10	0
	1400659-01		Sample	1.24	8.95	1.24			6	2	T	0
	1400659-02		Sample	1.24	9.01	1.25			7	2		0
	1400664-01		Sample	1.24	13.29	1.28			7	2		0
	1400665-04		Sample	1.25	10.47	1.26			6	2		0
	B4I0047-MB		QC	NA	NA	NA			M.T. 9/15/14 5	2		0
	B4I0047-BS1		QC	↓	↓	↓			5	2		0
	B4I0048-MB		QC	↓	↓	↓			5	2		0
	B4I0048-BS1		QC	↓	↓	↓			5	2	↓	0

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

D2216-90

BATCH ID

B410046

Analyst: MJT

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

Pan #	SampID	Source ID	SampType	Initial and Date:		Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	MJT 9/15/2014			
				Wet Pan and Sample Weight (g)	MJT 9/15/2014				MJT 9/16/2014	pH Before	pH After	Acid Added
	1400650-01		Sample	1.2500	10.9800	1.2500	0.0000	0.00	7	2	10	0
	1400659-01		Sample	1.2400	8.9500	1.2400	0.0000	0.00	6	2	10	0
	1400659-02		Sample	1.2400	9.0100	1.2500	0.0100	0.13	7	2	10	0
	1400664-01		Sample	1.2400	13.2900	1.2800	0.0400	0.33	7	2	10	0
	1400665-04		Sample	1.2500	10.4700	1.2600	0.0100	0.11	6	2	10	0
	B410047-MB		QC	NA	NA	NA	NA	NA	5	2	10	0
	B410047-BS1		QC	NA	NA	NA	NA	NA	5	2	10	0
	B410048-MB		QC	NA	NA	NA	NA	NA	5	2	10	0
	B410048-BS1		QC	NA	NA	NA	NA	NA	5	2	10	0

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 (mL)	Bottle Only (mL)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	PS CRS CHEM/WIT DATE	NA AP CHEM/ DATE	C4I0059 ABSG CHEM/ DATE	NA AA CHEM/ DATE	NA Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	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
<input type="checkbox"/>	B4I0047-BS1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400659-01	1528.73	503.29	1.02544	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400659-02	1511.68	499.35	1.01233	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	1400665-04	1529.83	503.54	1.02629	↓	↓	↓	↓	↓	↓	↓

IS Name	NS Name	PS CRS Name	RS Name	Cycle Time	APP: <u>SEFUN</u> SOX SDS	Check Out: Chemist/Date: <u>M.T 9/15/14</u>
PCDD/F <u>V2</u>	PCDD/F <u>V5</u>	PCDD/F <u>V3</u>	PCDD/F <u>V3</u>	Start Date/Time	SOLV: <u>DCM</u>	Check In: Chemist/Date: <u>Empty</u>
PCB <u>14A3001, 10ul</u>	PCB <u>13I2503, 10ul</u>	PCB <u>14A3002, 10ul</u>	PCB <u>14A3003, 10ul</u>	Stop Date/Time	Other: <u>NA</u>	Balance ID: <u>HRMS-4</u>
PAH _____	PAH _____	PAH _____	PAH _____	<u>NA</u>	Final Volume(s) <u>20ul</u> <u>29</u>	

Comments:

SAMPLE DATA

EPA Method 1613

Client ID: Method Blank
Lab ID: B410053-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 η	*	*		295	2.5	0.0418	Total Tetra-Dioxins	*	*		295	0.0418
1,2,3,7,8-PeCDD	*	* n	0.84	NotF η	*	*		788	2.5	0.0860	Total Penta-Dioxins	*	*		1370	0.149
1,2,3,4,7,8-HxCDD	*	* n	1.05	NotF η	*	*		359	2.5	0.0736	Total Hexa-Dioxins	*	*		549	0.116
1,2,3,6,7,8-HxCDD	*	* n	1.04	NotF η	*	*		359	2.5	0.0750	Total Hepta-Dioxins	0.0942	0.0942		*	*
1,2,3,7,8,9-HxCDD	*	* n	0.90	NotF η	*	*		359	2.5	0.0796	Total Tetra-Furans	*	*		651	0.0820
1,2,3,4,6,7,8-HpCDD	*	* n	1.01	NotF η	*	*		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 η	*	*		651	2.5	0.0820						
1,2,3,7,8-PeCDF	*	* n	0.97	NotF η	*	*		323	2.5	0.0379						
2,3,4,7,8-PeCDF	*	* n	0.94	NotF η	*	*		323	2.5	0.0344						
1,2,3,4,7,8-HxCDF	*	* n	1.32	NotF η	*	*		424	2.5	0.0285						
1,2,3,6,7,8-HxCDF	*	* n	1.18	NotF η	*	*		424	2.5	0.0345						
2,3,4,6,7,8-HxCDF	*	* n	1.23	NotF η	*	*		289	2.5	0.0252						
1,2,3,7,8,9-HxCDF	*	* n	1.13	NotF η	*	*		289	2.5	0.0337						
1,2,3,4,6,7,8-HpCDF	*	* n	1.57	NotF η	*	*		654	2.5	0.0672						
1,2,3,4,7,8,9-HpCDF	*	* n	1.50	NotF η	*	*		345	2.5	0.0339						
OCDF	*	* n	1.05	NotF η	*	*		1120	2.5	0.244						
IS	13C-2,3,7,8-TCDD	2.20e+07	0.81 y	1.06	27:03	1.021	177.92				Rec	Qual				
IS	13C-1,2,3,7,8-PeCDD	2.63e+07	0.63 y	1.08	31:32	1.190	208.76				89.0					
IS	13C-1,2,3,4,7,8-HxCDD	1.88e+07	1.28 y	0.74	34:53	1.014	192.29				104					
IS	13C-1,2,3,6,7,8-HxCDD	1.88e+07	1.29 y	0.75	34:60	1.017	190.33				96.1					
IS	13C-1,2,3,7,8,9-HxCDD	2.21e+07	1.29 y	0.89	35:18	1.026	188.41				95.2					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.65e+07	1.07 y	0.70	38:45	1.126	177.68				94.2					
IS	13C-OCDD	2.85e+07	0.89 y	0.59	42:06	1.224	366.29				88.8					
IS	13C-2,3,7,8-TCDF	3.09e+07	0.76 y	0.97	26:17	0.992	179.82				91.6					
IS	13C-1,2,3,7,8-PeCDF	3.31e+07	1.56 y	0.99	30:22	1.146	188.45				89.9					
IS	13C-2,3,4,7,8-PeCDF	3.56e+07	1.57 y	1.01	31:15	1.179	198.70				94.2					
IS	13C-1,2,3,4,7,8-HxCDF	2.69e+07	0.52 y	0.94	33:59	0.988	216.70				99.3					
IS	13C-1,2,3,6,7,8-HxCDF	2.79e+07	0.51 y	1.23	34:07	0.991	172.46				108					
IS	13C-2,3,4,6,7,8-HxCDF	2.52e+07	0.52 y	1.03	34:43	1.009	185.23				86.2					
IS	13C-1,2,3,7,8,9-HxCDF	2.25e+07	0.52 y	0.89	35:41	1.037	192.35				92.6					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.82e+07	0.44 y	0.71	37:34	1.092	195.37				96.2					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.80e+07	0.43 y	0.64	39:18	1.142	211.97				97.7					
IS	13C-OCDF	3.72e+07	0.89 y	0.76	42:20	1.230	371.65				106					
C/Up	37Cl-2,3,7,8-TCDD	8.53e+06		1.04	27:05	1.021	70.316				92.9					
RS/RT	13C-1,2,3,4-TCDD	2.32e+07	0.79 y	1.00	26:31	*	200.00				87.9					
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									

Integrations
by
Analyst: ms
Date: 9/18/14
Reviewed
by
Analyst: [Signature]
Date: 9/19/14

Totals class: HpCDD EMPC

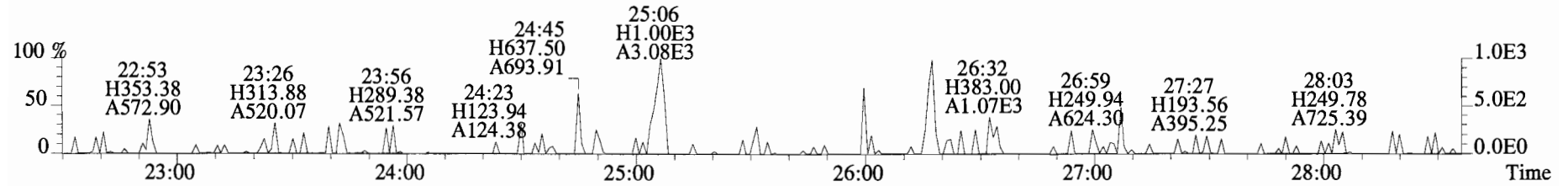
Entry #: 25

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

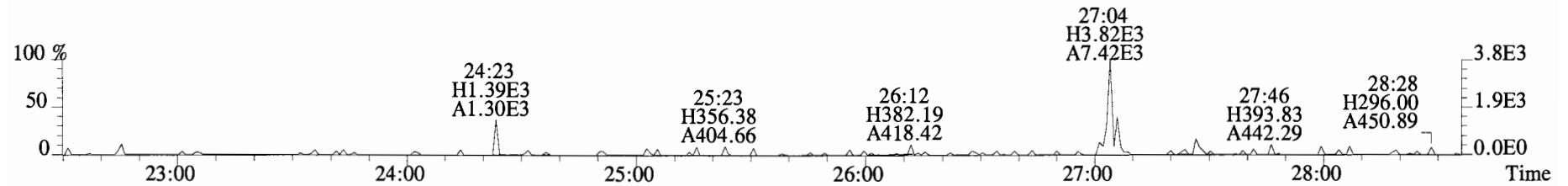
Total Concentration: 0.094243 Unnamed Concentration: 0.094

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

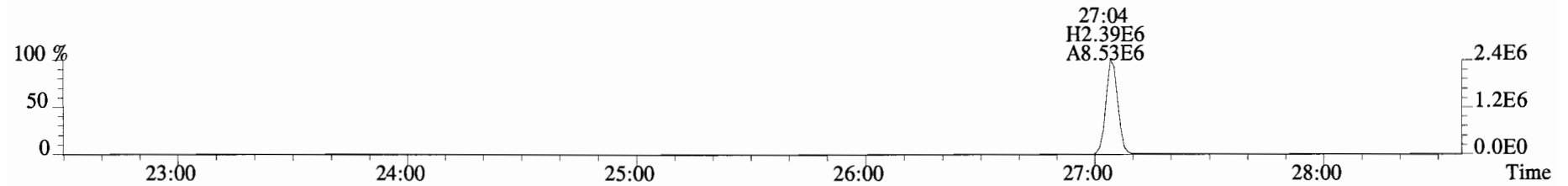
File:140917D1 #1-551 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B410053-BLK1 Method Blank 10 Exp:OCDD_DB5
319.8965 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



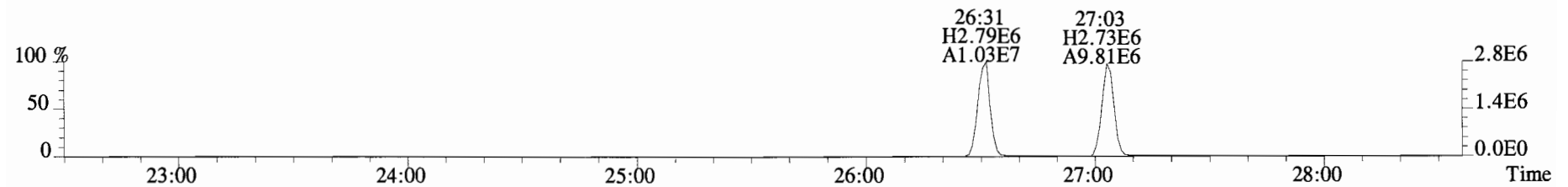
321.8936 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



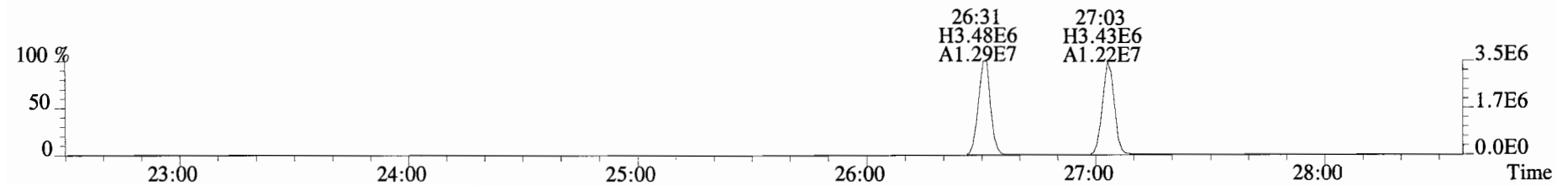
327.8847 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



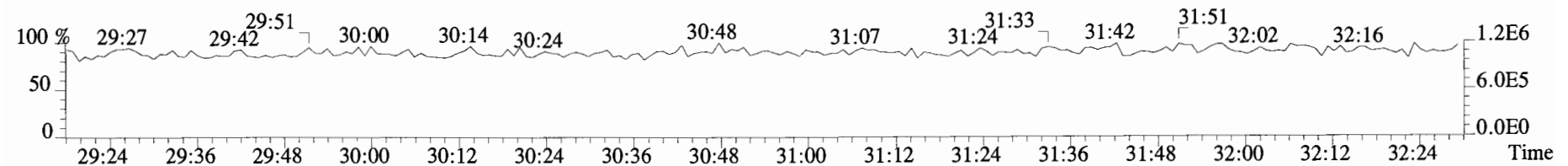
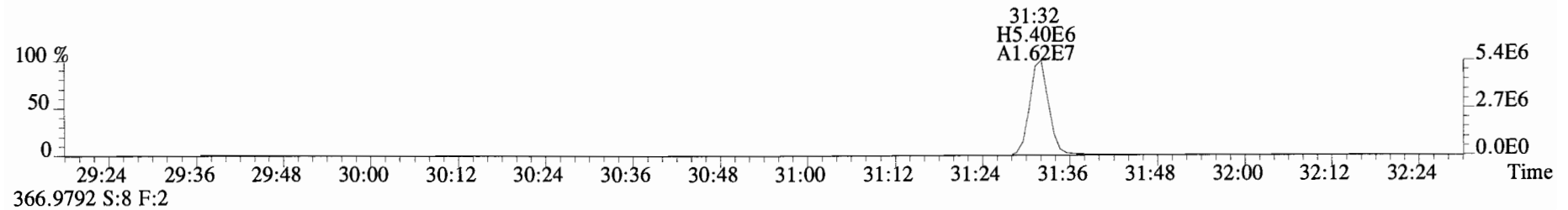
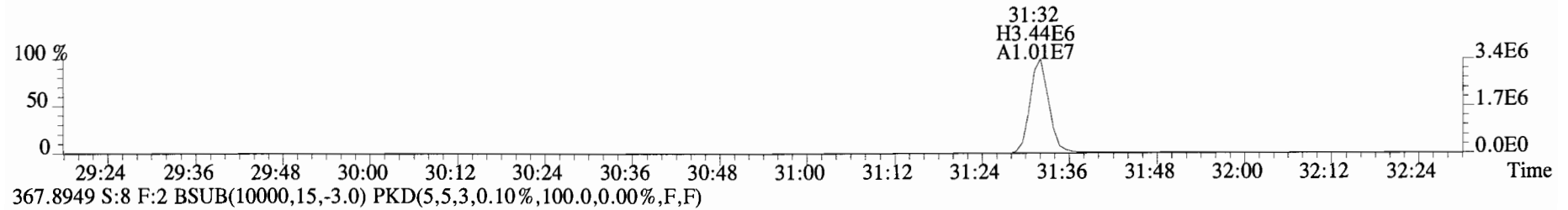
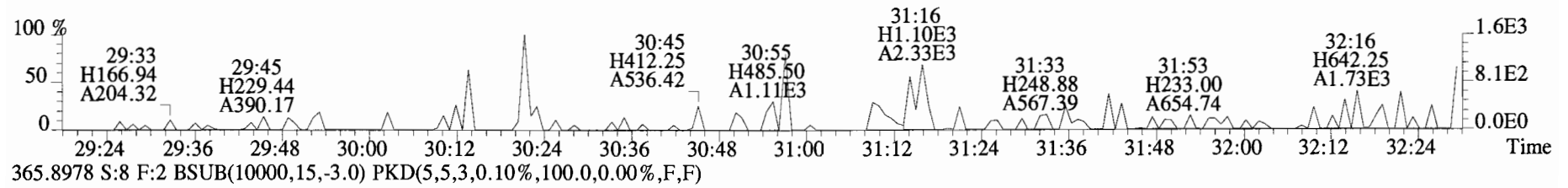
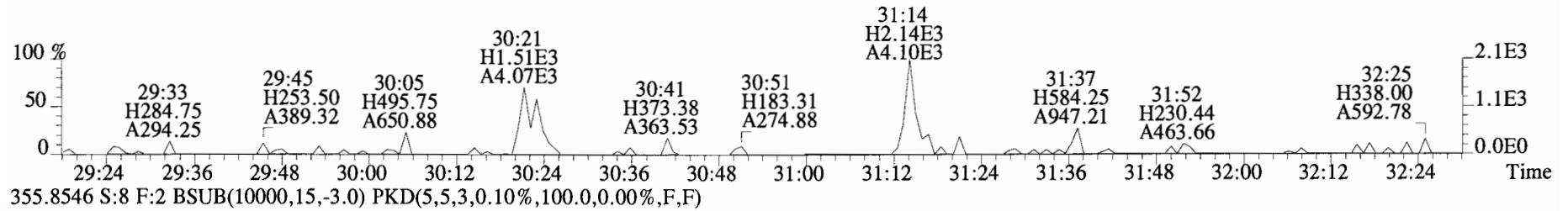
331.9368 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



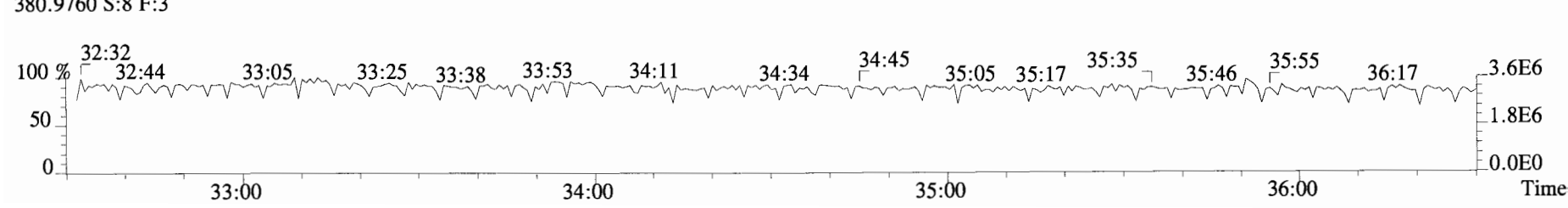
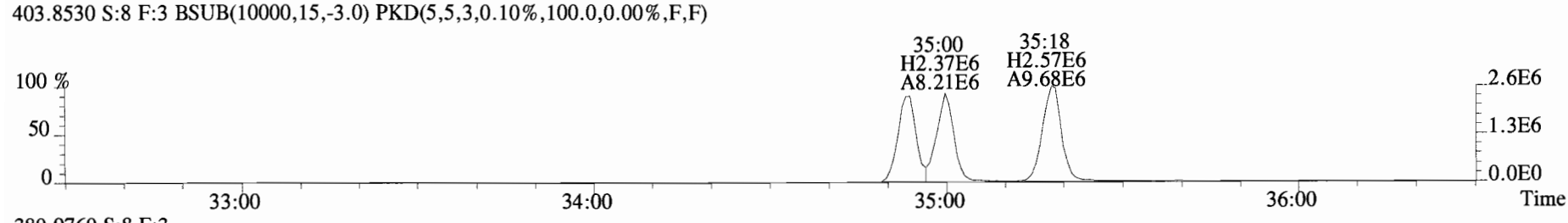
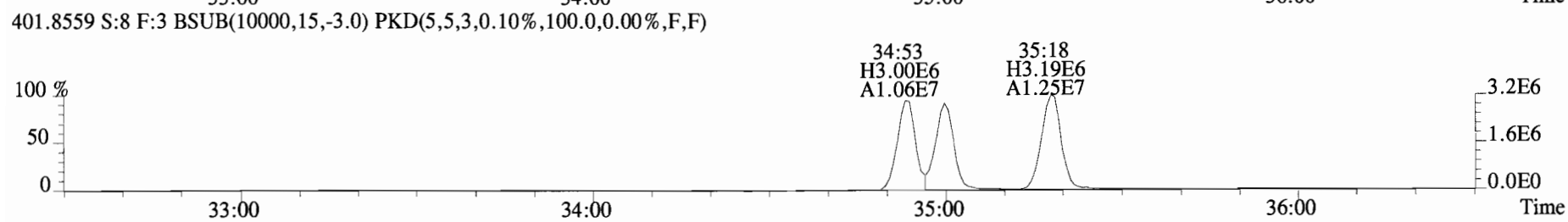
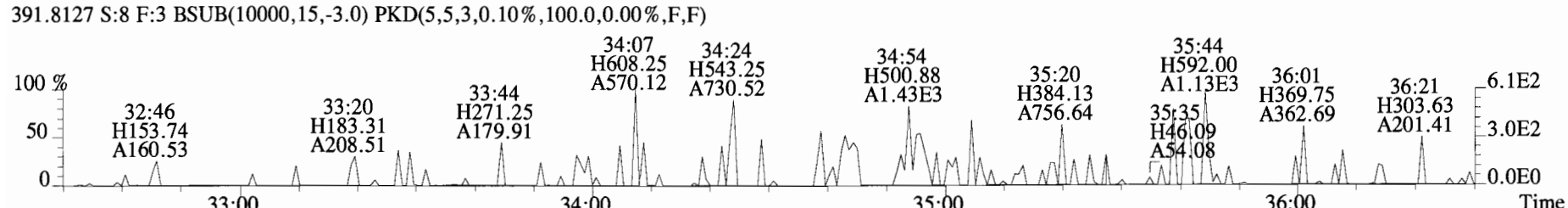
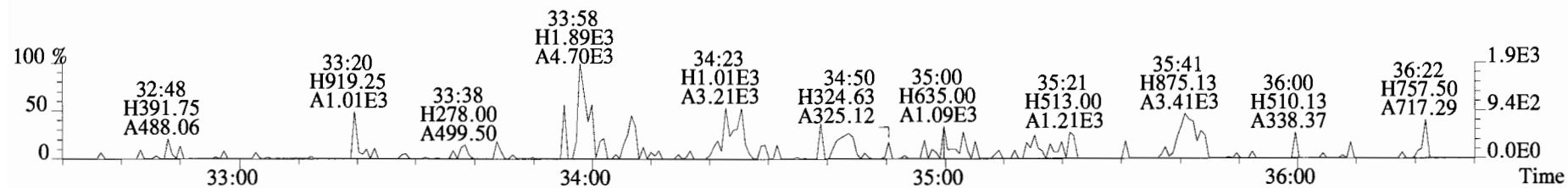
333.9339 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



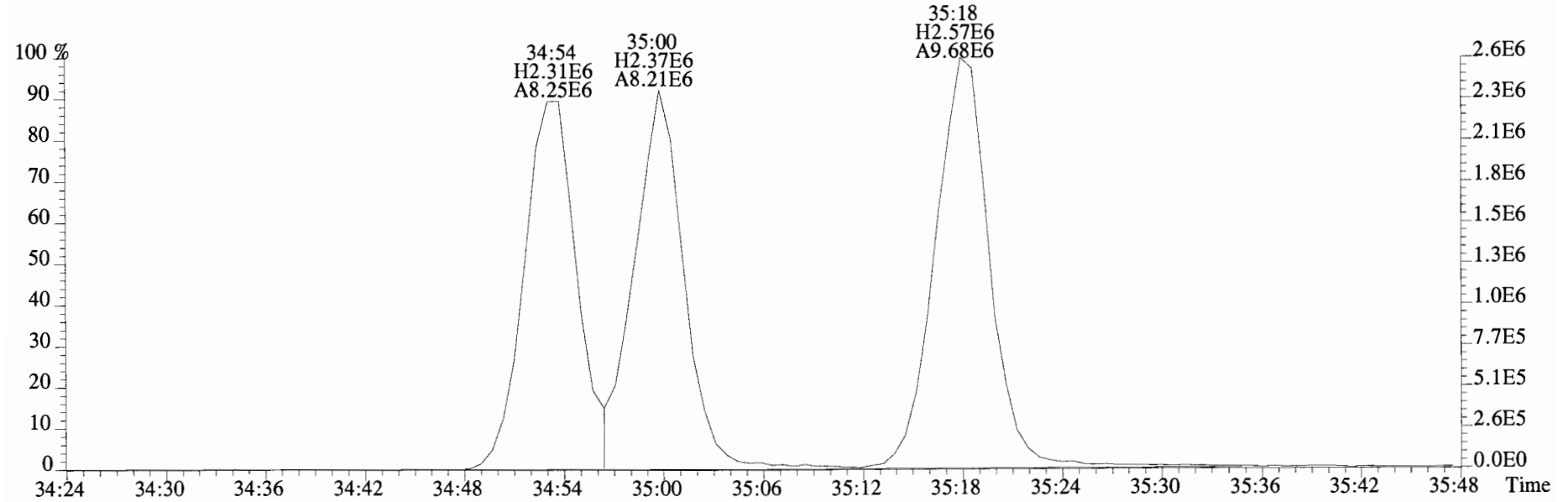
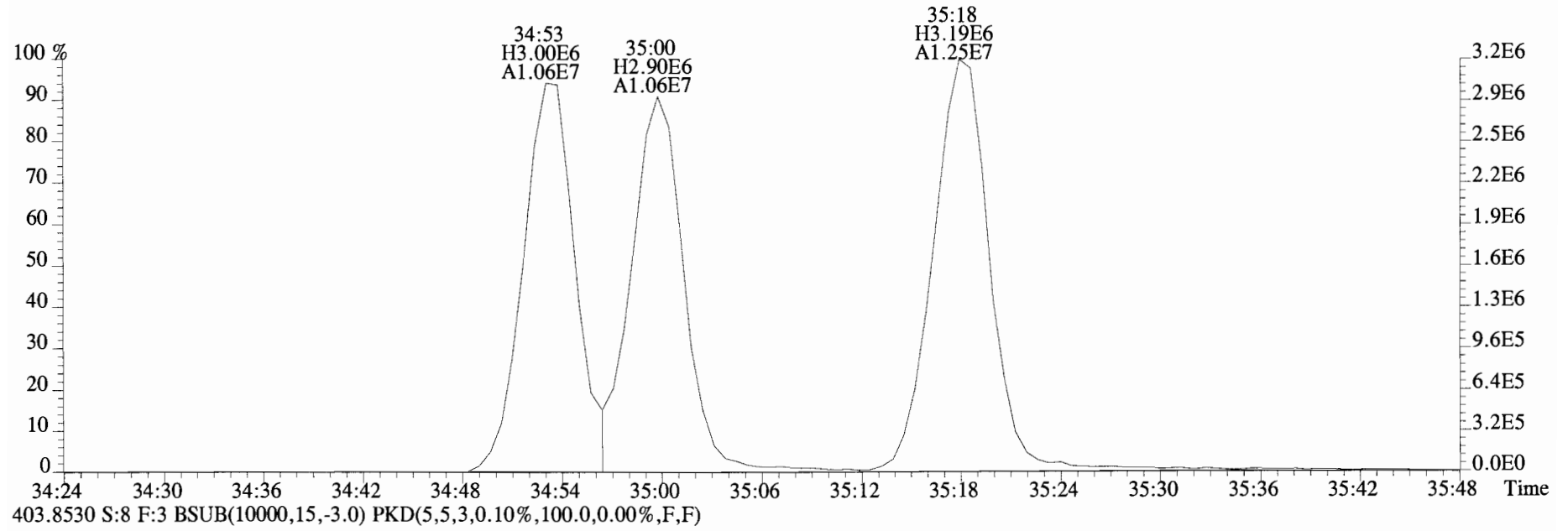
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353.8576 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



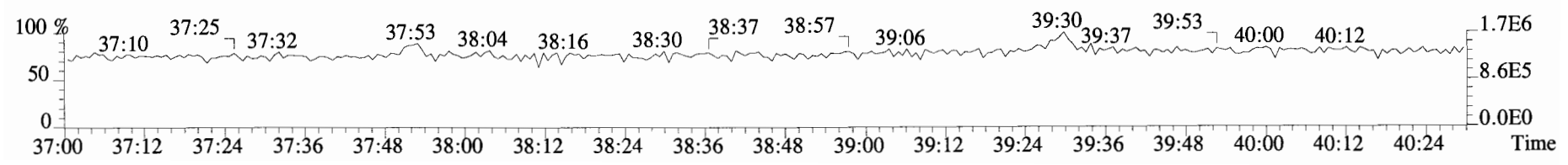
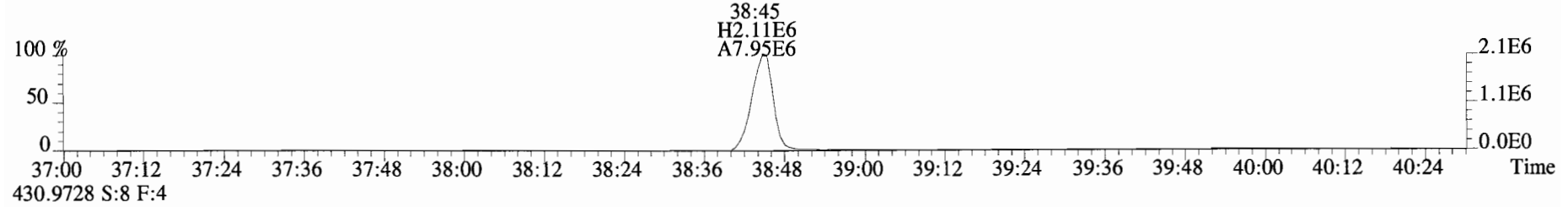
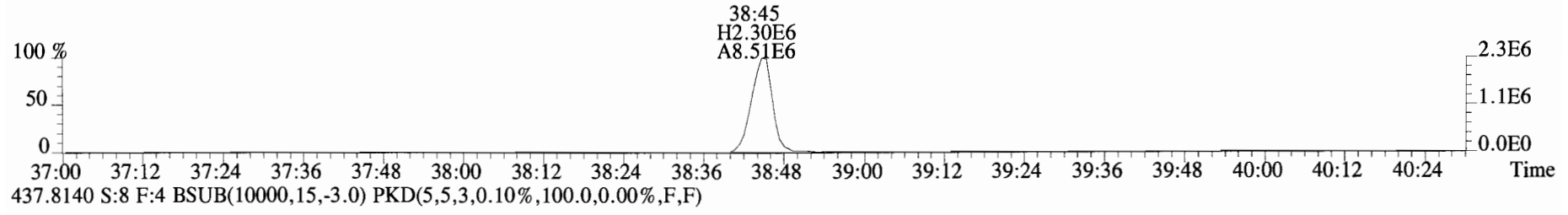
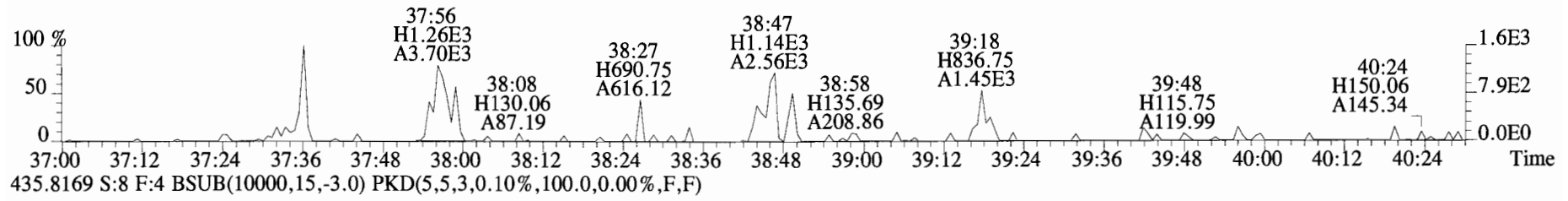
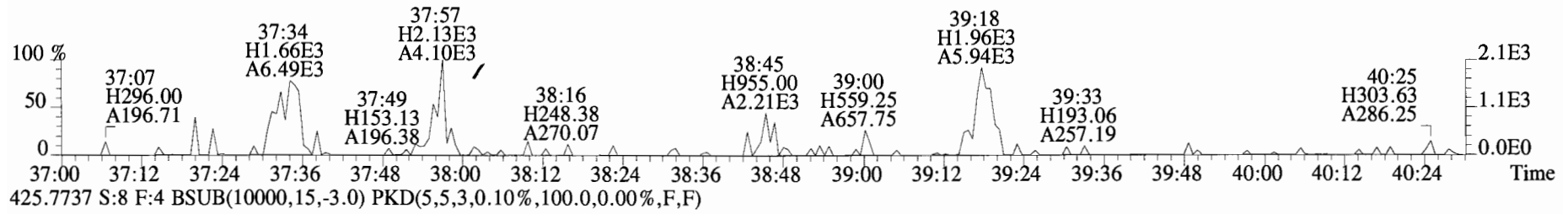
File:140917D1 #1-385 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B410053-BLK1 Method Blank 10 Exp:OCDD_DB5
389.8156 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



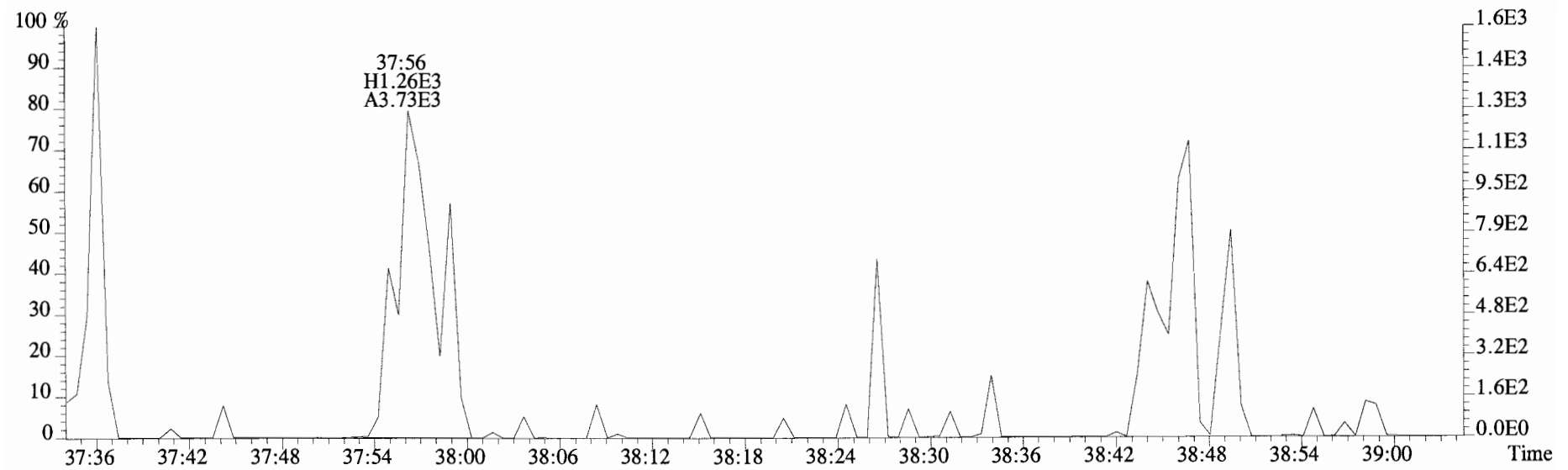
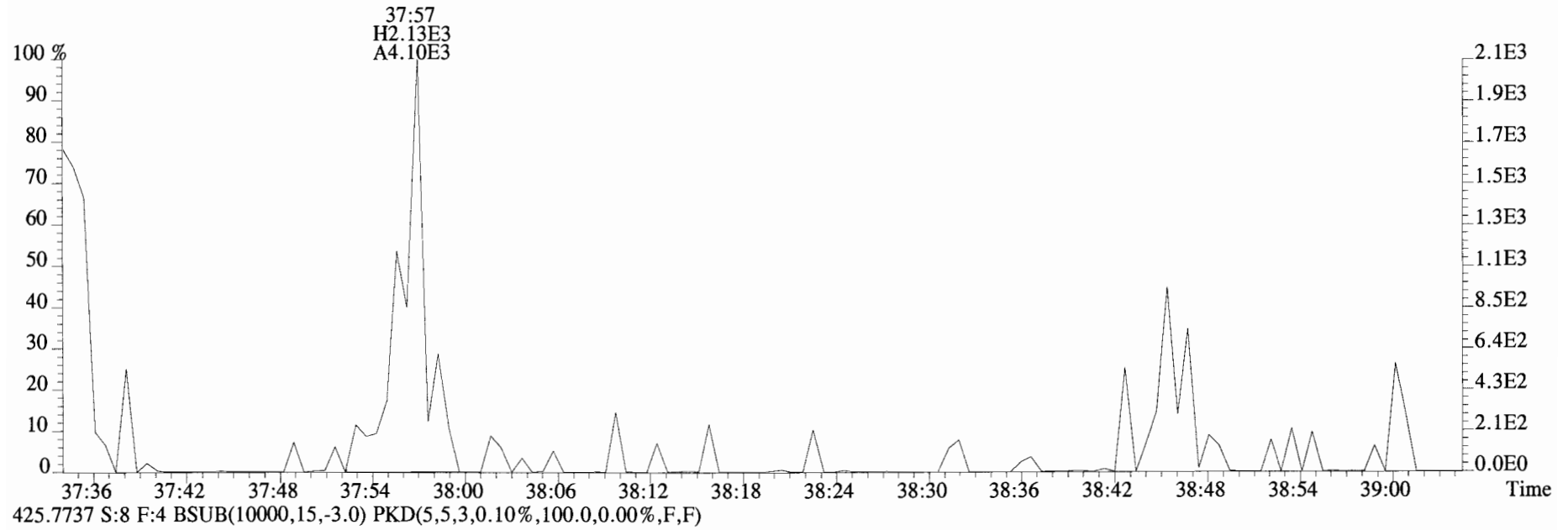
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401.8559 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



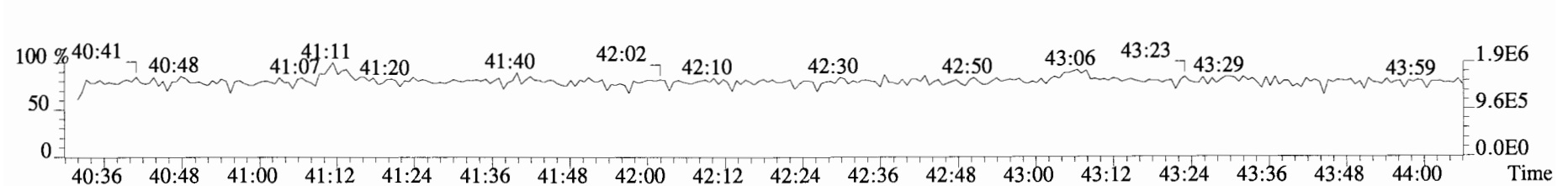
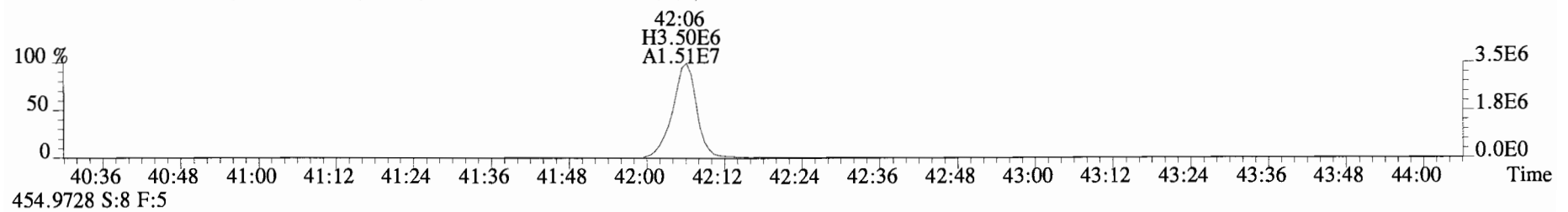
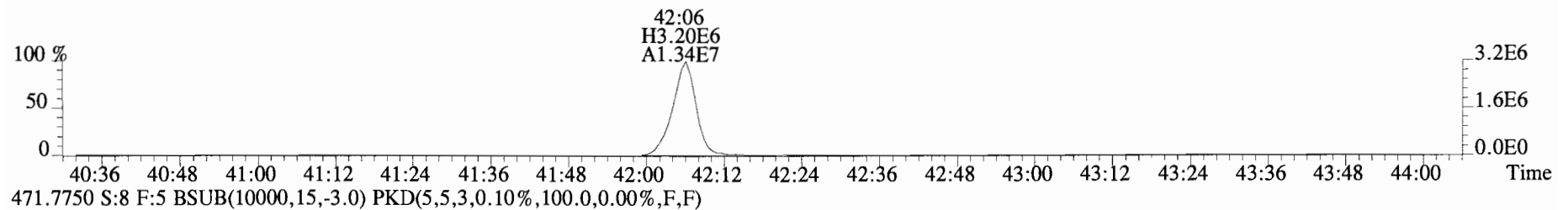
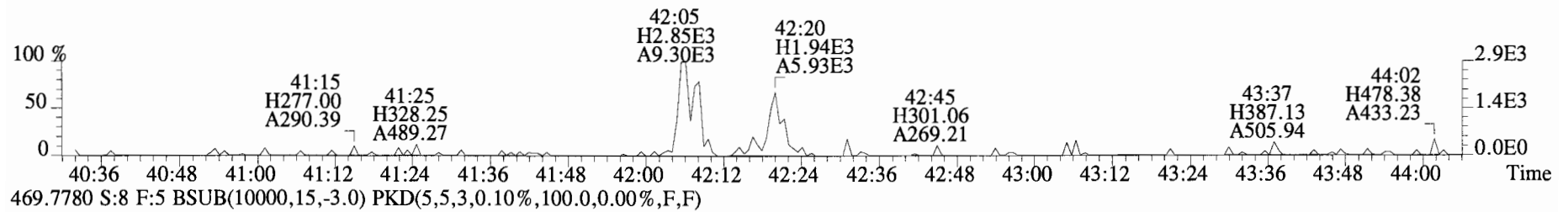
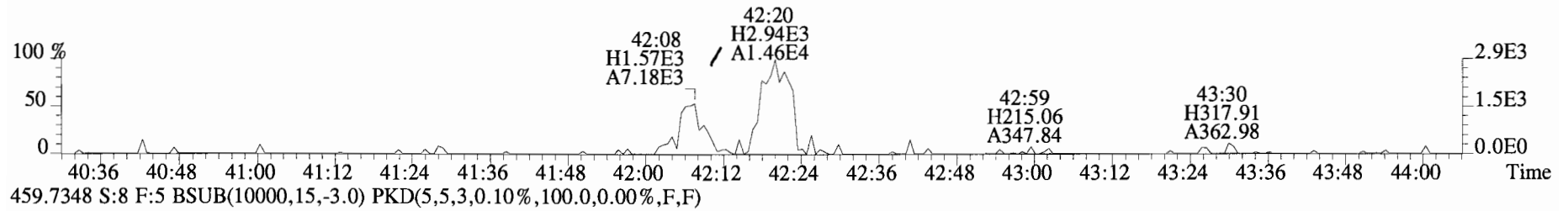
File:140917D1 #1-326 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B410053-BLK1 Method Blank 10 Exp:OCDD_DB5
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



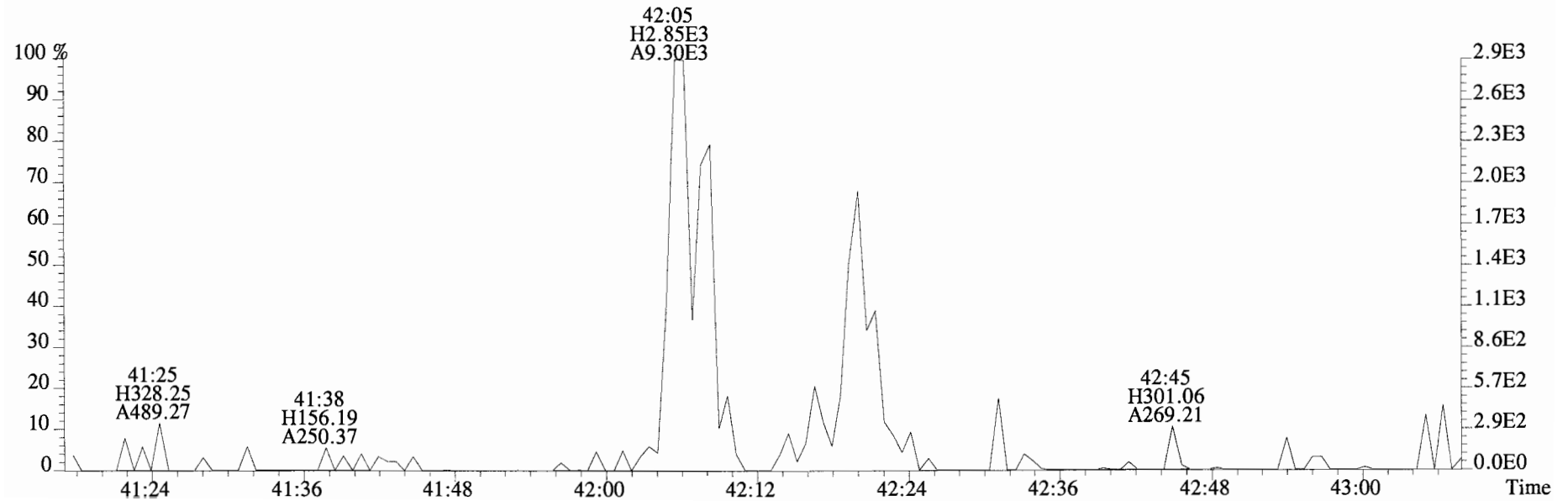
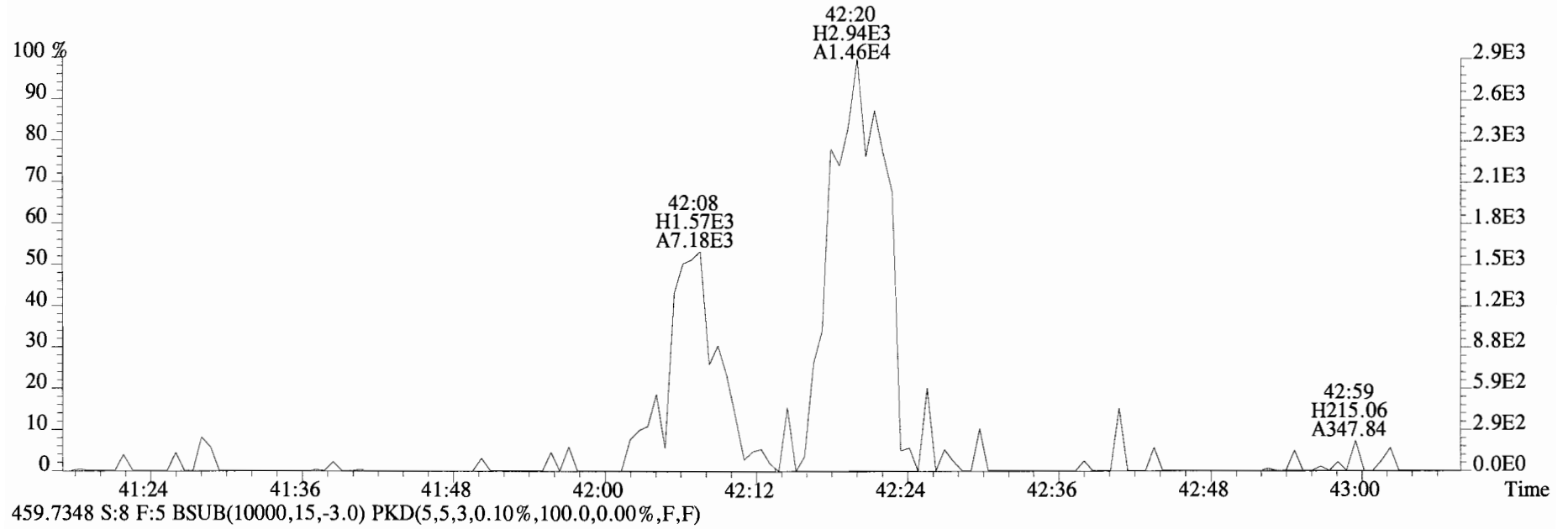
File:140917D1 #1-326 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
423.7767 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



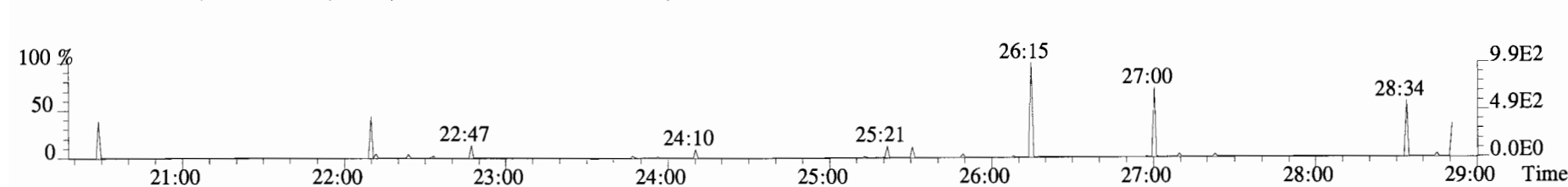
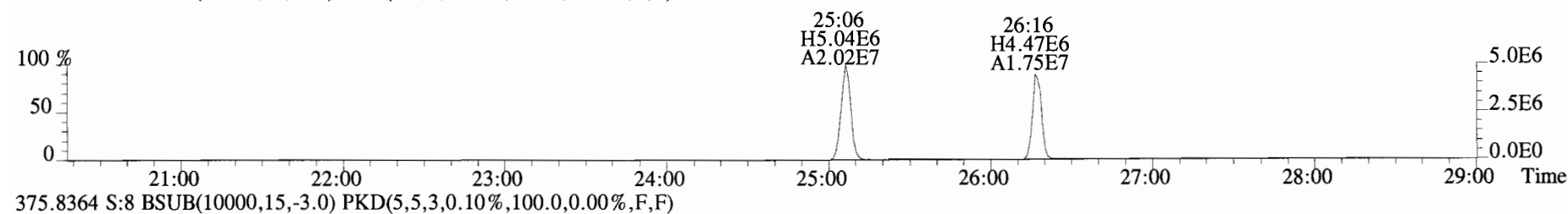
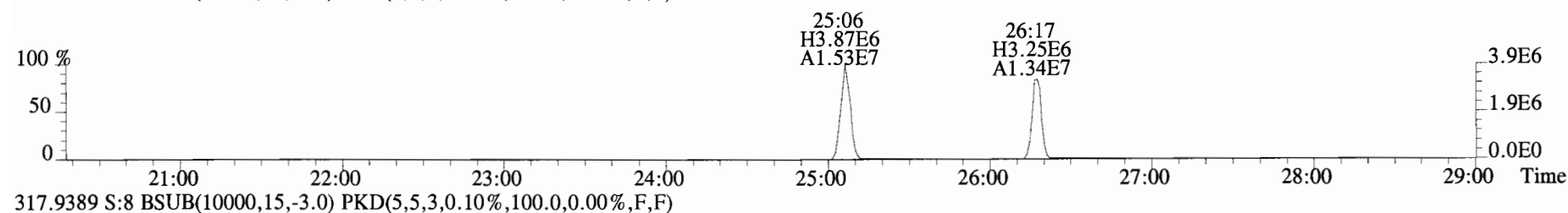
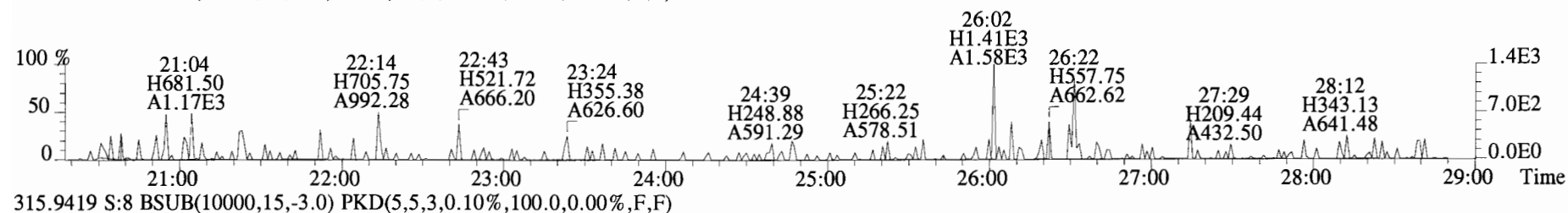
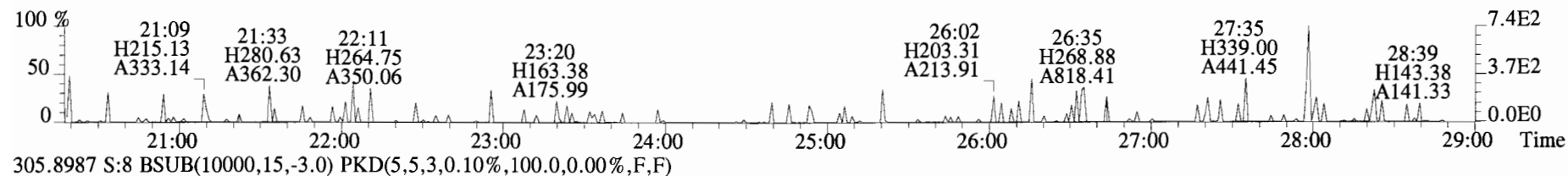
File:140917D1 #1-389 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



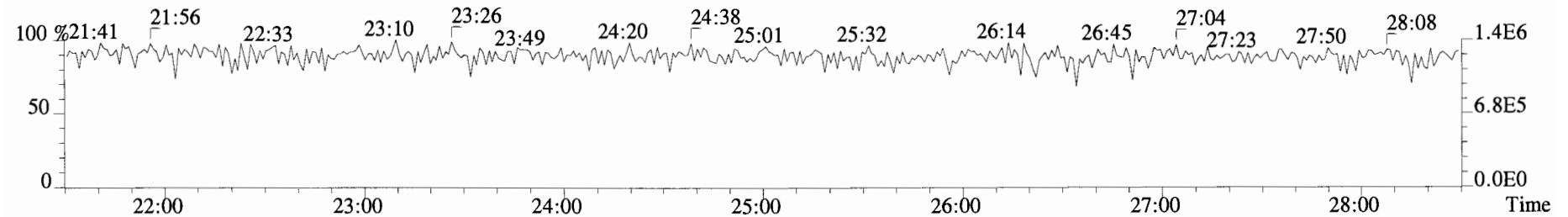
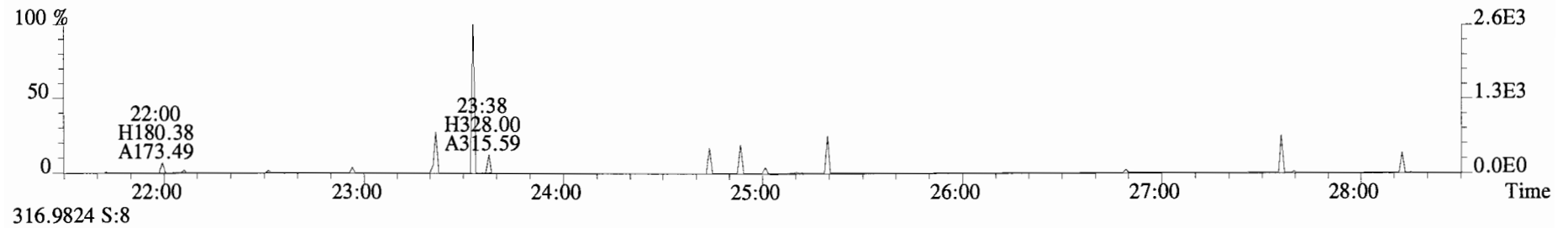
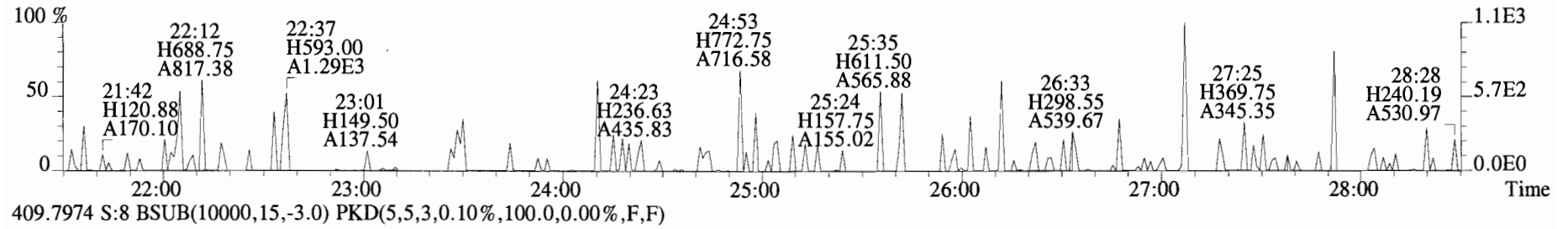
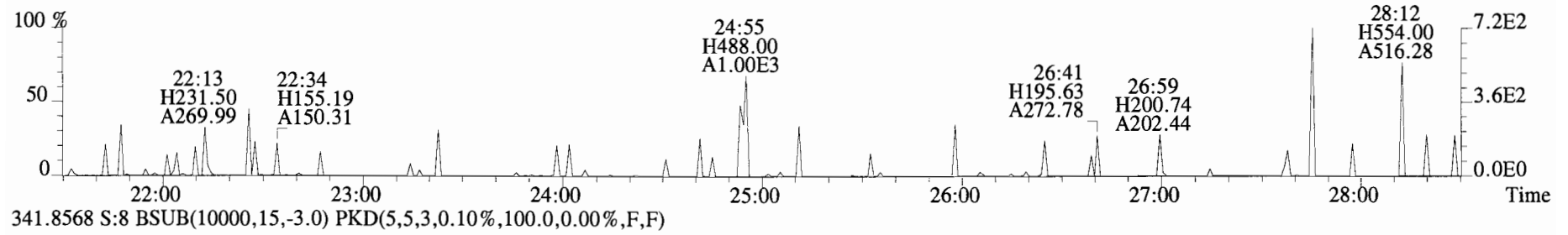
File:140917D1 #1-389 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
457.7377 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



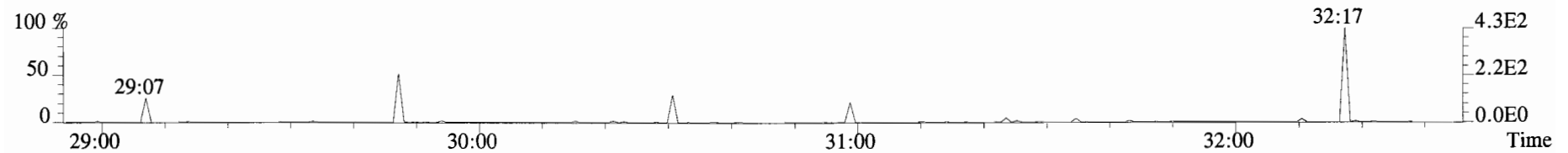
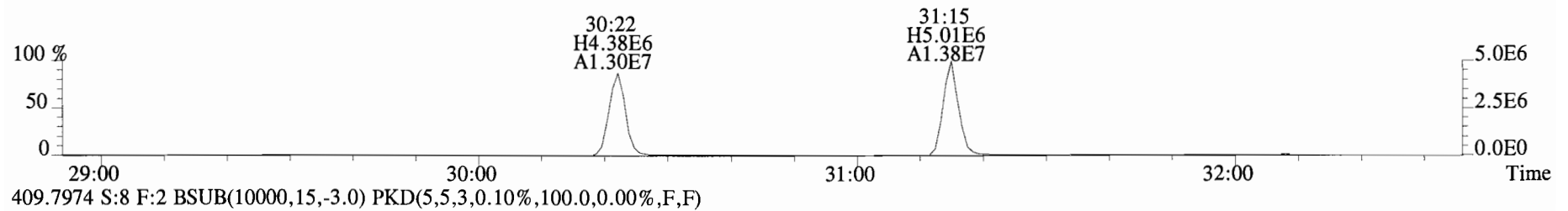
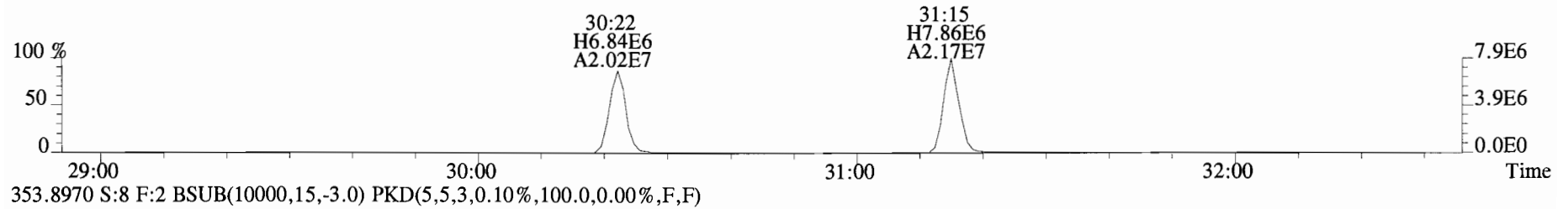
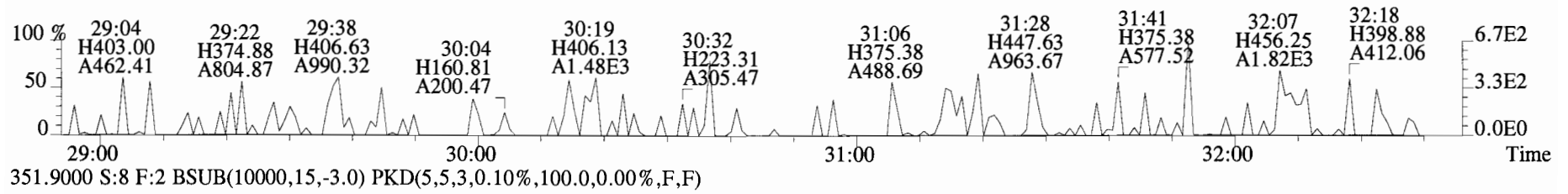
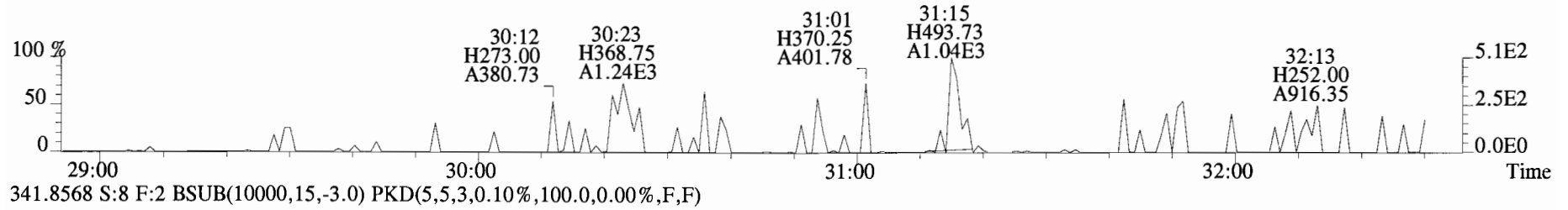
File:140917D1 #1-551 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



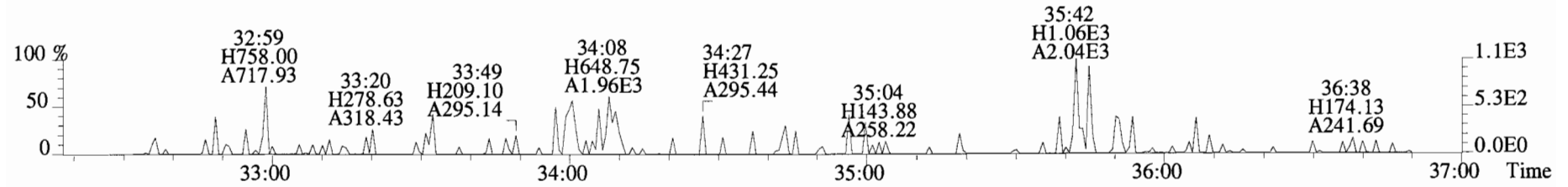
File:140917D1 #1-551 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
339.8597 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



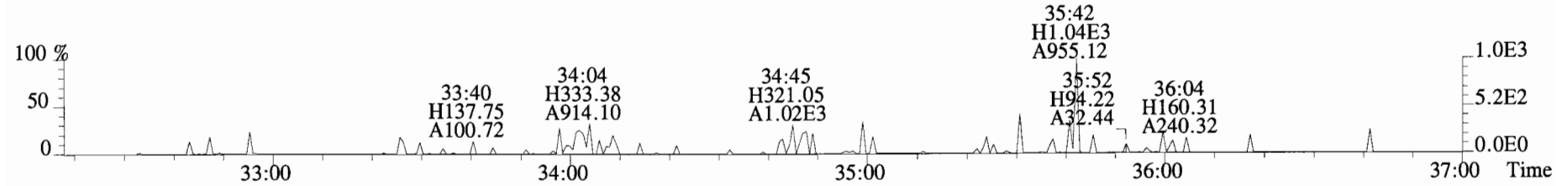
File:140917D1 #1-256 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B410053-BLK1 Method Blank 10 Exp:OCDD_DB5
339.8597 S:8 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



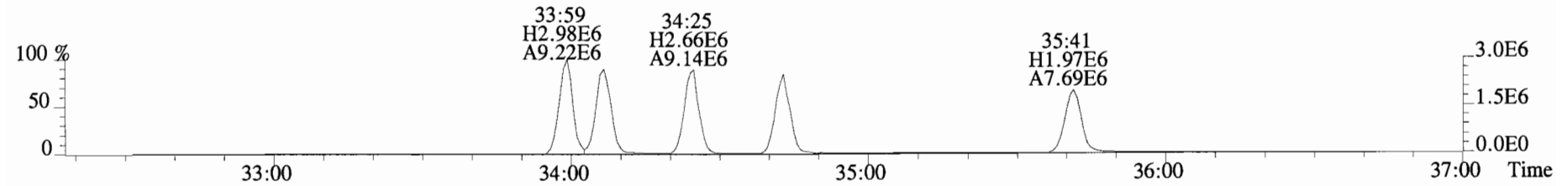
File:140917D1 #1-385 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B410053-BLK1 Method Blank 10 Exp:OCDD_DB5
373.8207 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



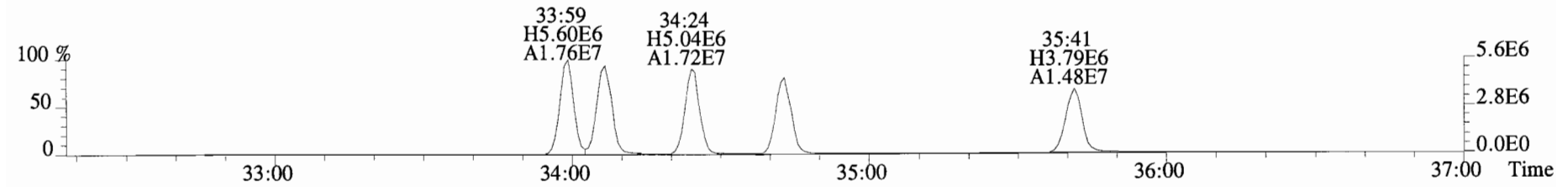
375.8178 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



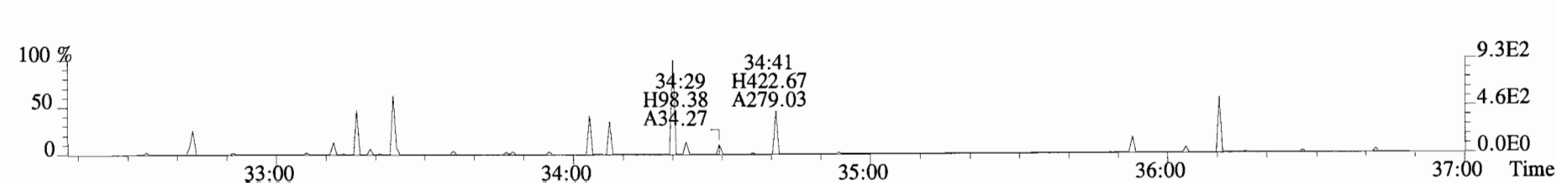
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



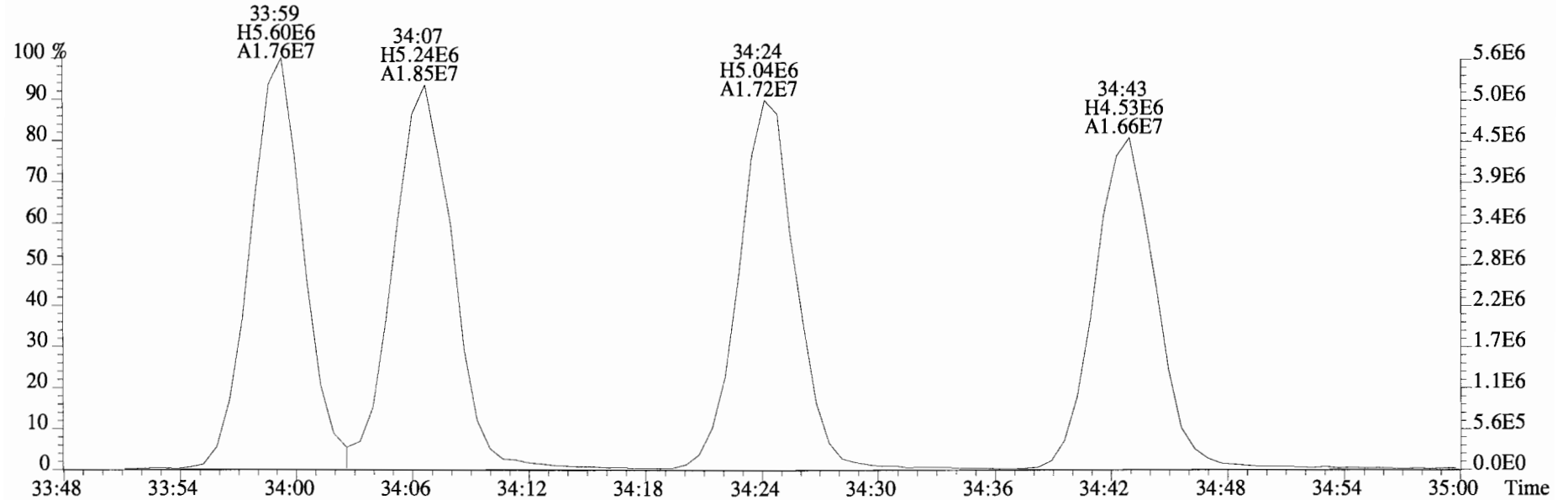
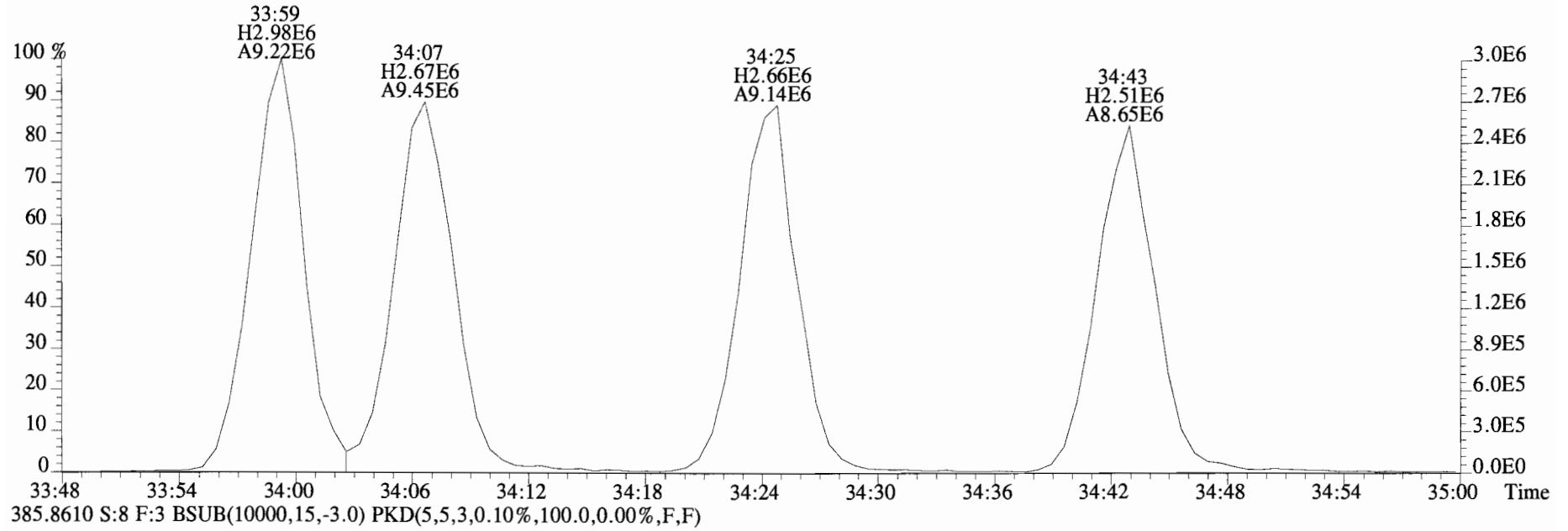
385.8610 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



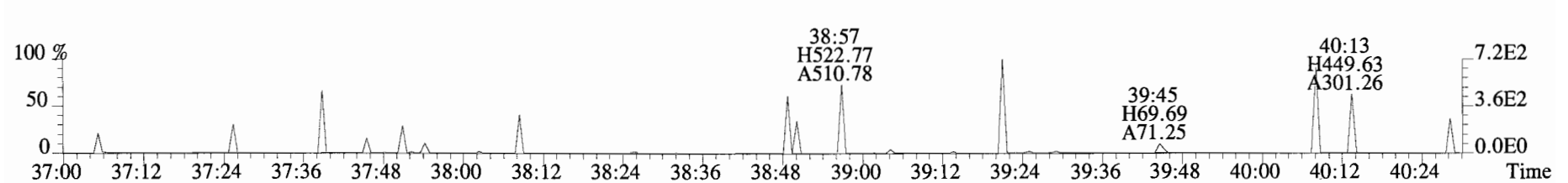
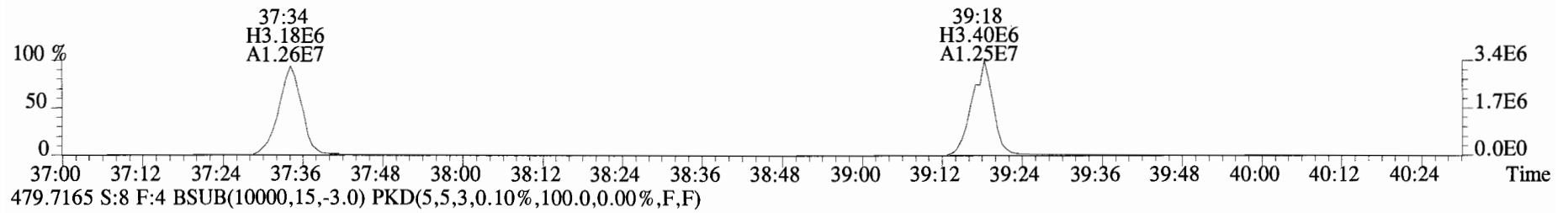
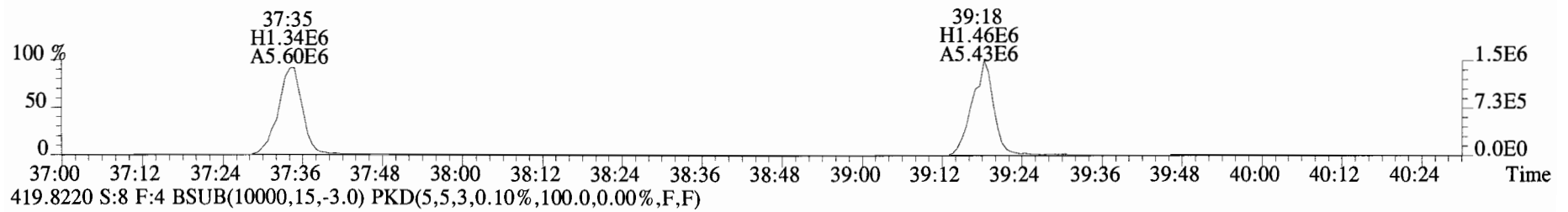
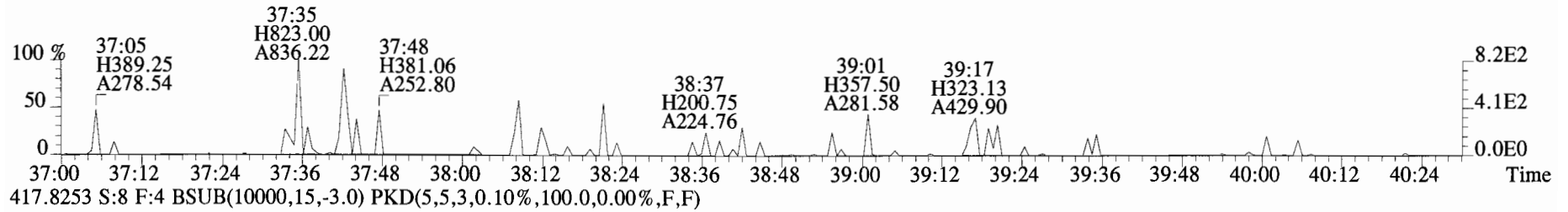
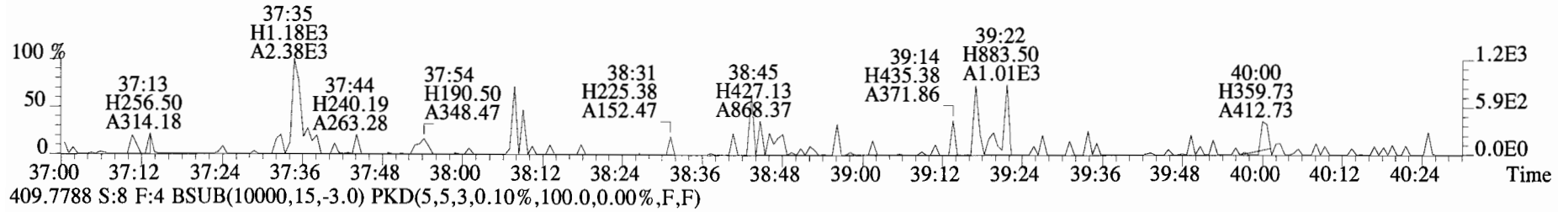
445.7555 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



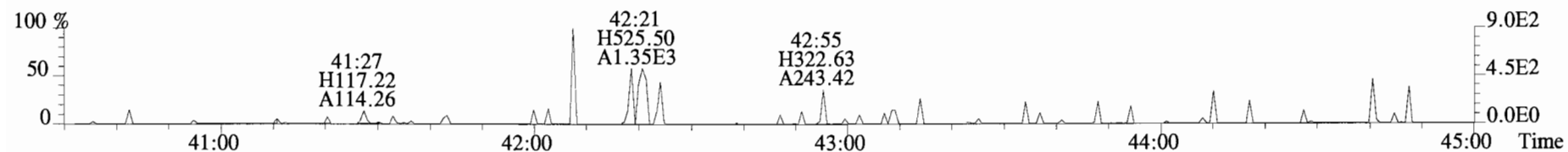
File:140917D1 #1-385 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text: Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
383.8639 S:8 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



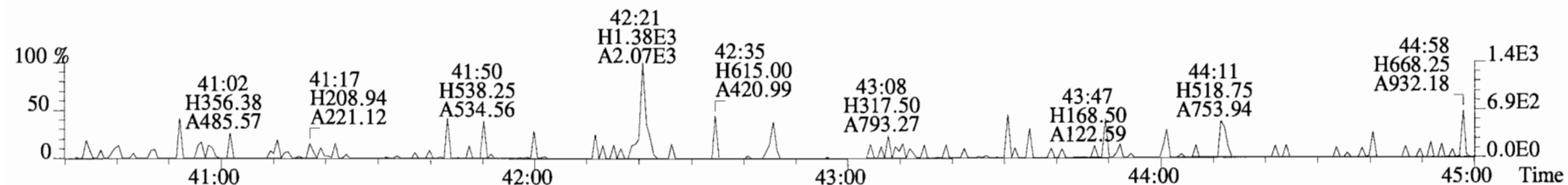
File:140917D1 #1-326 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
407.7818 S:8 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



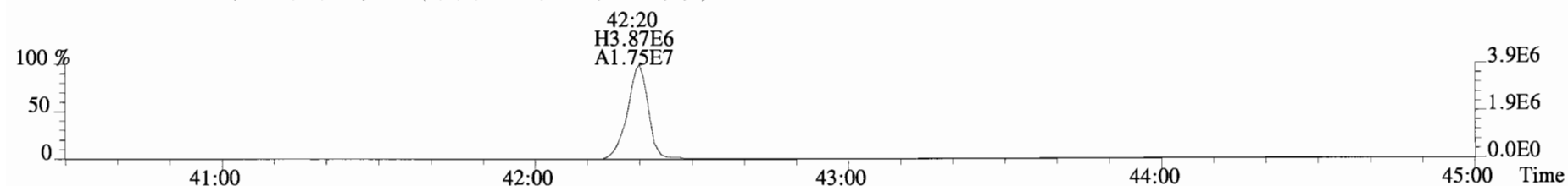
File:140917D1 #1-389 Acq:17-SEP-2014 18:50:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BLK1 Method Blank 10 Exp:OCDD_DB5
441.7428 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



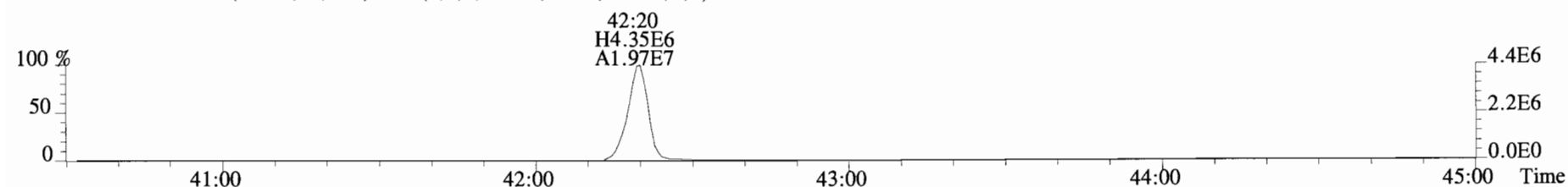
443.7398 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



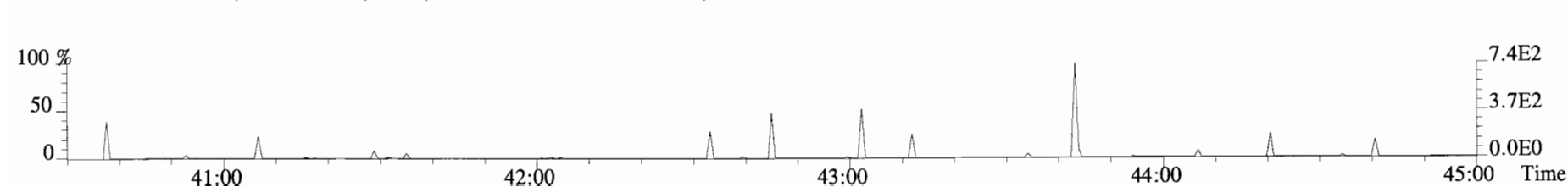
453.7831 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:8 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 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)
1,2,3,7,8-PeCDD	50	48.0	35.0 - 71.0
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
1,2,3,4,7,8,9-HpCDF	50	42.8	39.0 - 69.0
OCDF	100	93.2	63.0 - 170.0

(1) Contract-required concentration limits for OPR
as specified in Table 6, Method 1613. 10/94(2) Contract-required concentration limits for OPR
as specified in Table 6a, Method 1613. 10/94Analyst: m Date: 9/17/14

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)
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
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			
37Cl-2,3,7,8-TCDD	40	22.5	12.4 - 76.4

(1) Contract-required concentration limits for OPR
as specified in Table 6, Method 1613. 10/94(2) Contract-required concentration limits for OPR
as specified in Table 6a, Method 1613. 10/94Analyst: myDate: 9/18/14

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

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					
RS/RT 13C-1,2,3,4-TCDD	2.38e+07	0.81 y	1.00	26:32	*	100.00					Analyst: <i>mm</i>					
RS 13C-1,2,3,4-TCDF	3.78e+07	0.75 y	1.00	25:07	*	100.00					Analyst: <i>afz</i>					
RS/RT 13C-1,2,3,4,6,9-HxCDF	2.63e+07	0.54 y	1.00	34:25	*	100.00					Date: <i>9/19/14</i>					
											Date: <i>9/19/14</i>					

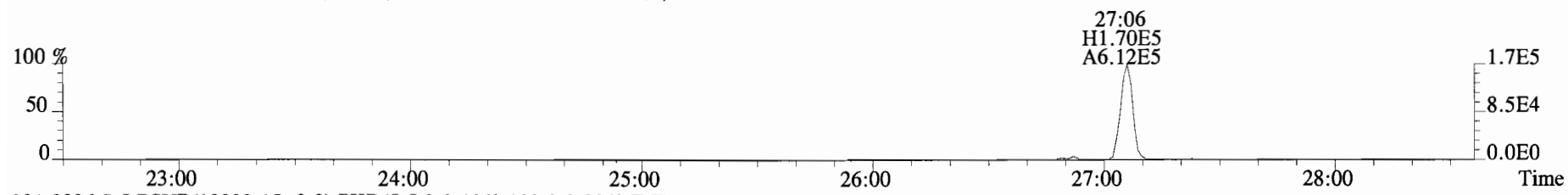
Client ID: OPR
Lab ID: B4I0053-BS1

Filename: 140917D1 S:5 Acq:17-SEP-14 16:25:00
GC Column ID: ZB-5MS ICal: 1613VG7-4-17-14 wt/vol:10.000

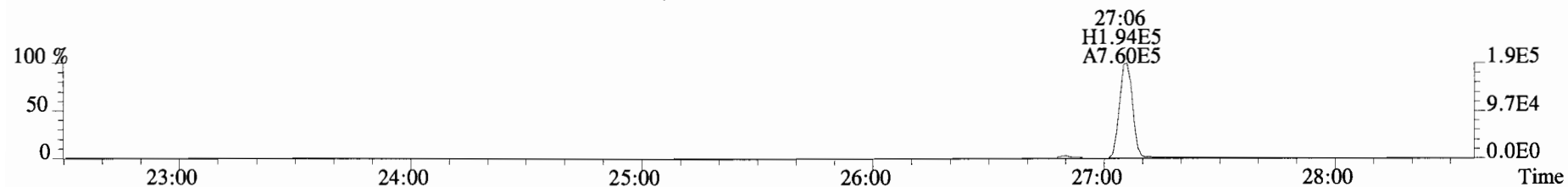
ConCal: ST140917D1-1
EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	1.37e+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					
RS/RT	13C-1,2,3,4-TCDD	2.38e+07	0.81 y	1.00	26:32	*	200.00				Analyst: <u>ms</u>					
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>					

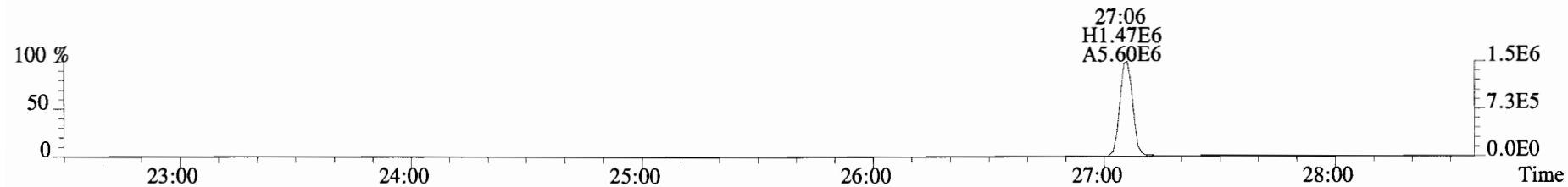
File:140917D1 #1-551 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



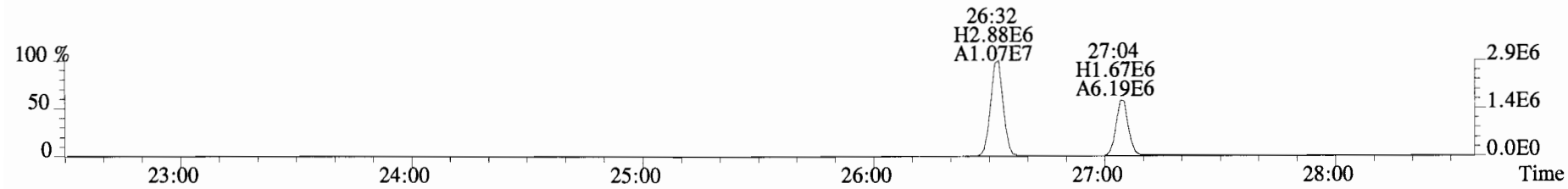
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



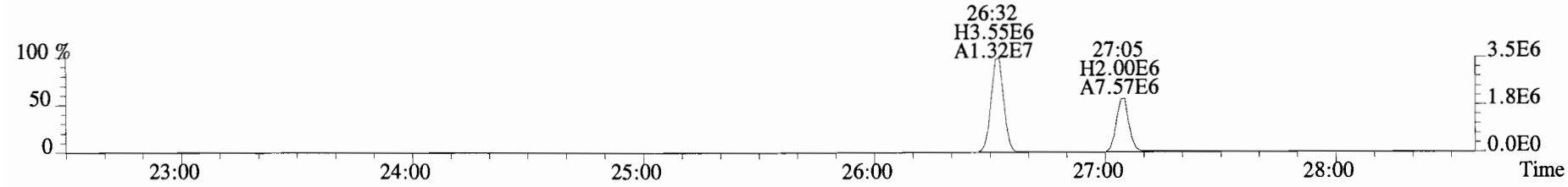
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



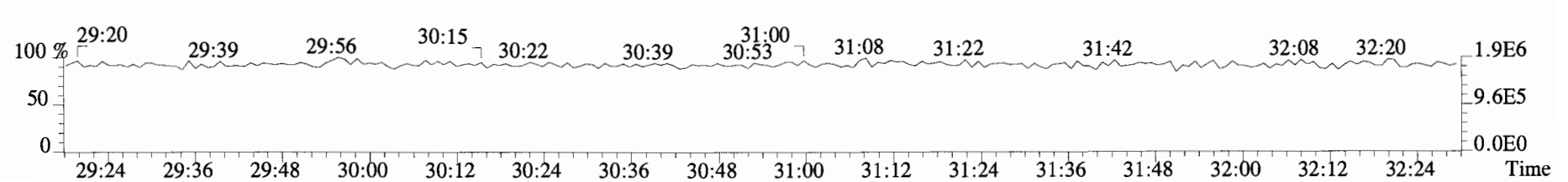
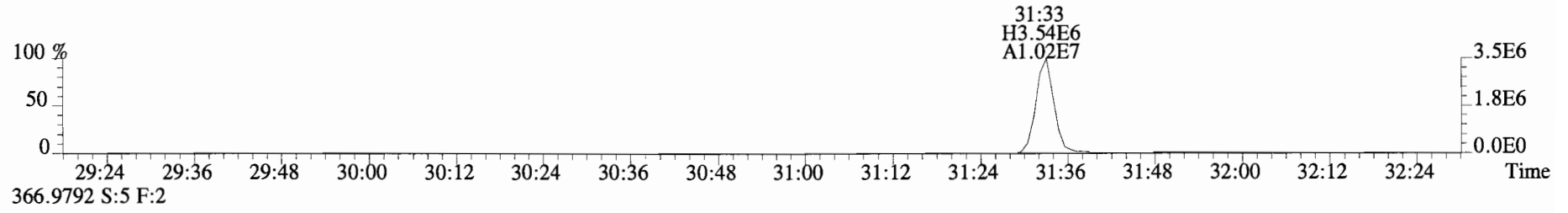
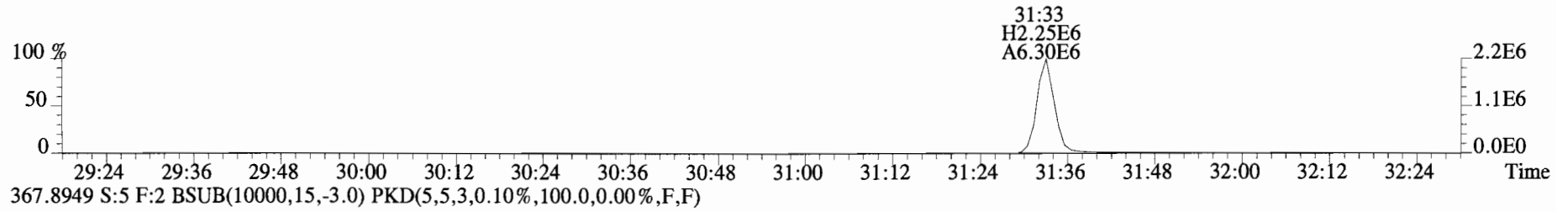
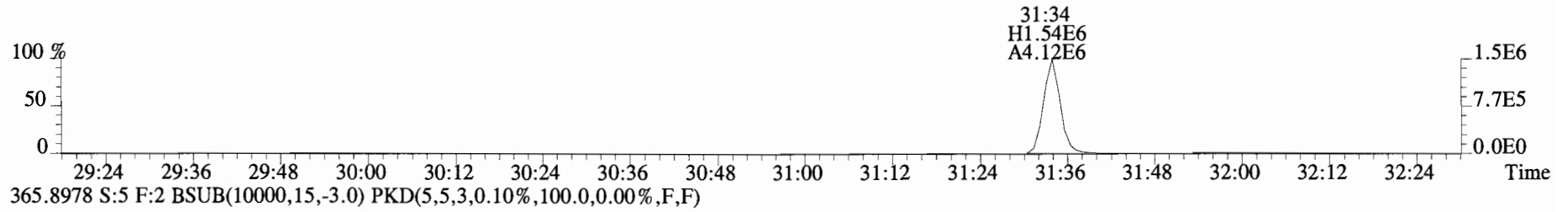
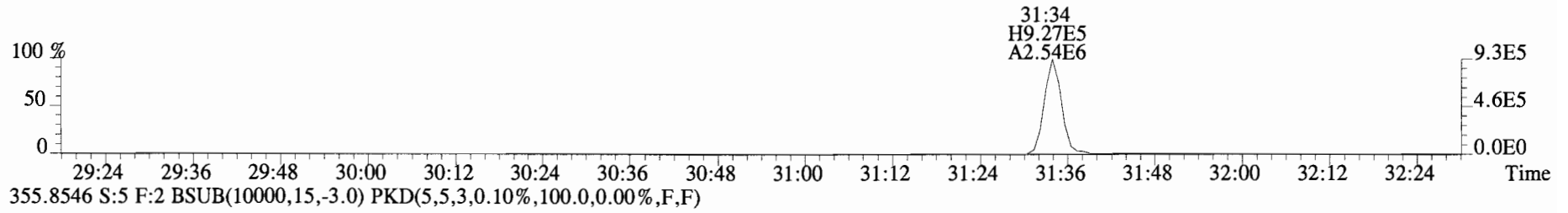
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



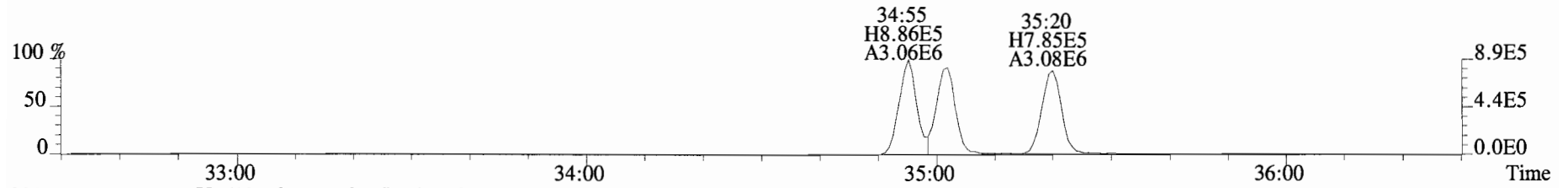
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



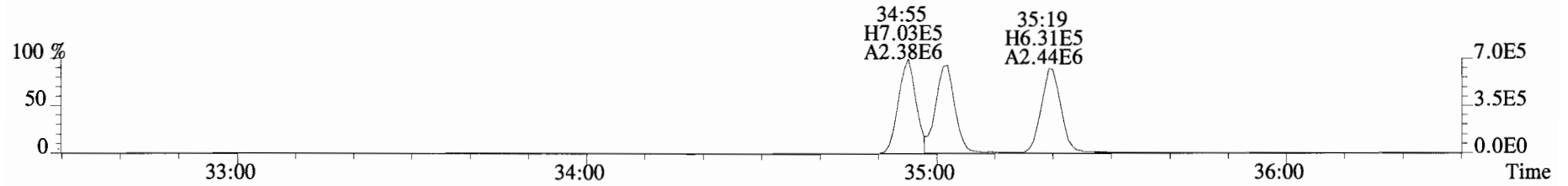
File:140917D1 #1-256 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
353.8576 S:5 F:2 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



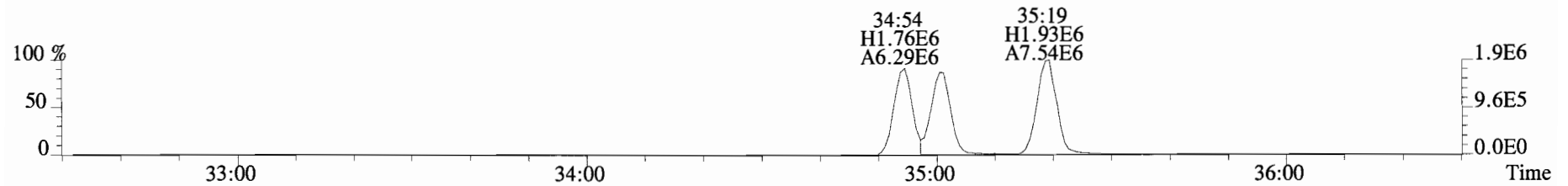
File:140917D1 #1-385 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



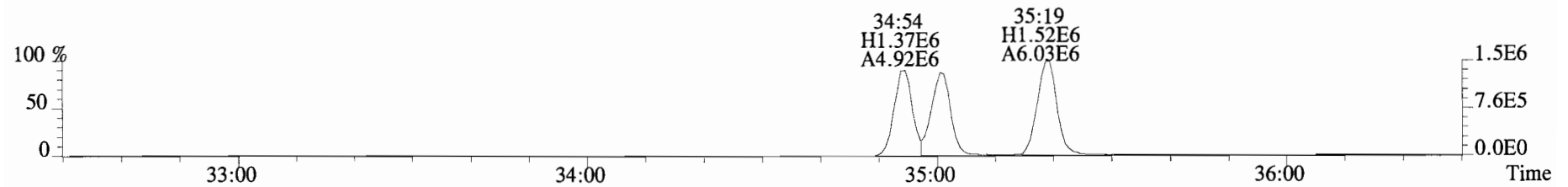
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



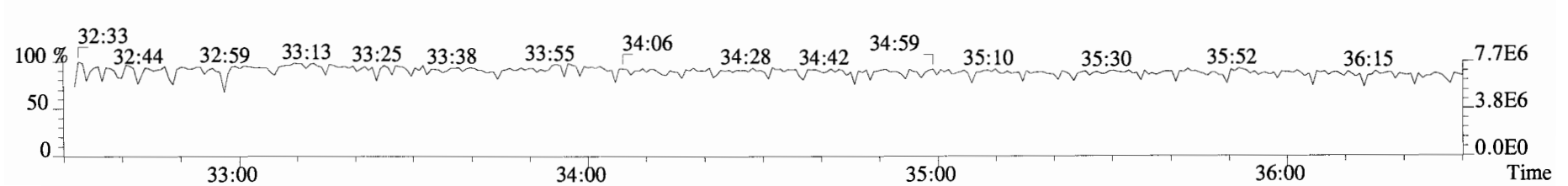
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



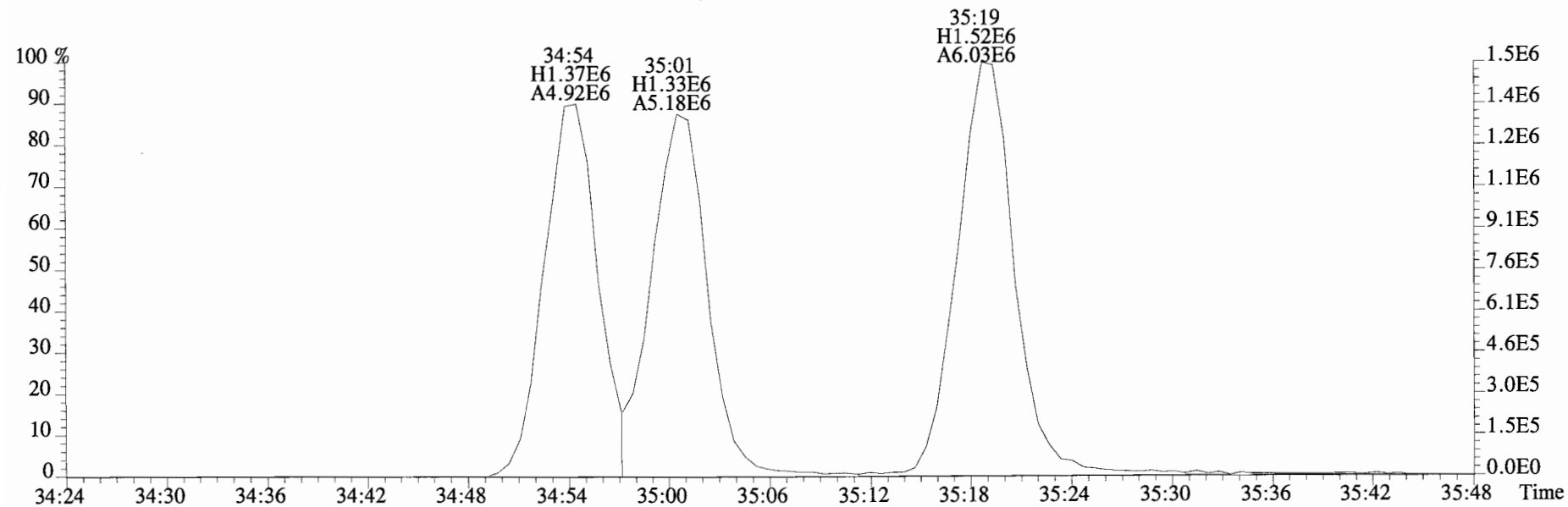
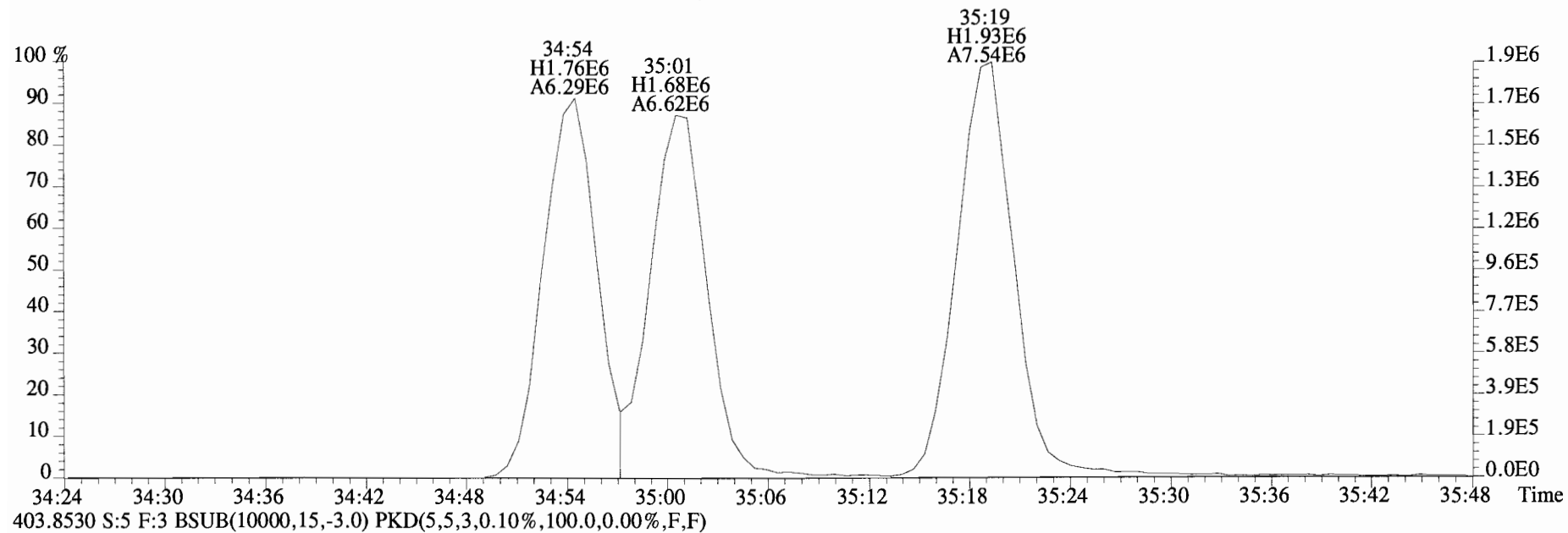
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



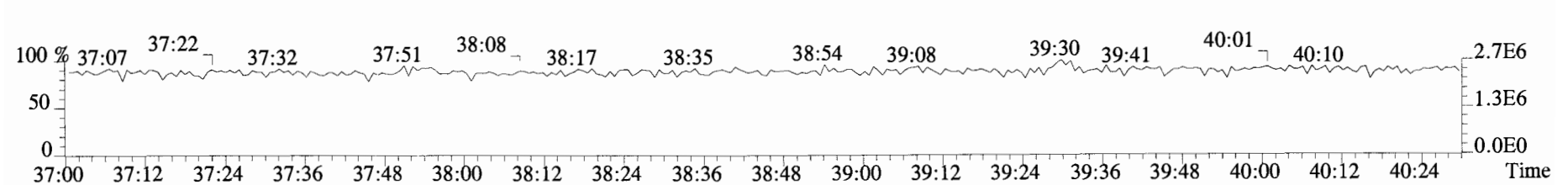
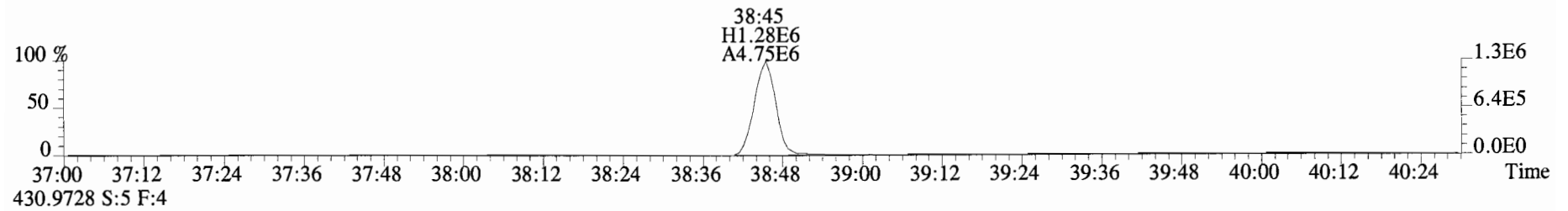
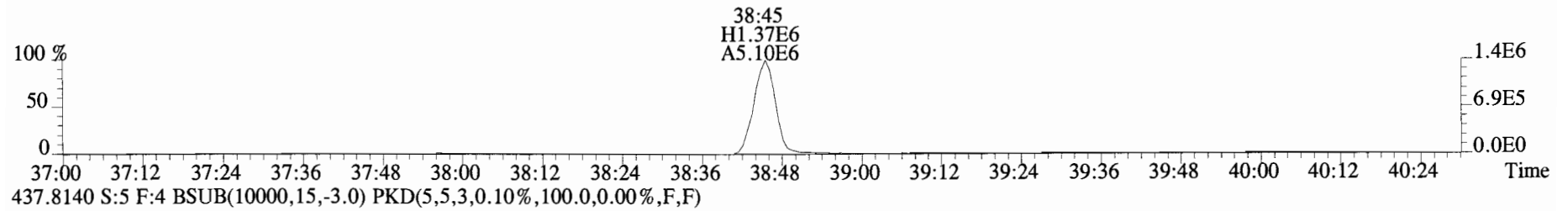
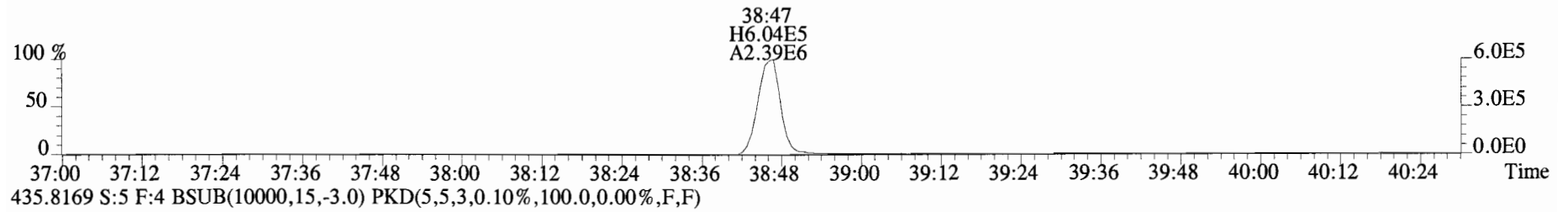
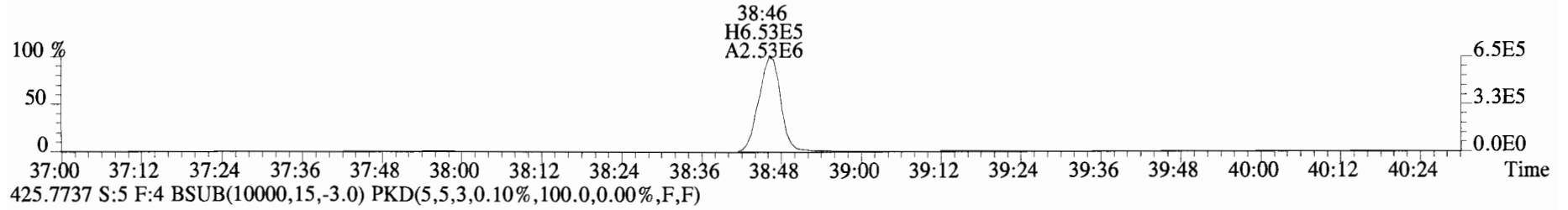
380.9760 S:5 F:3



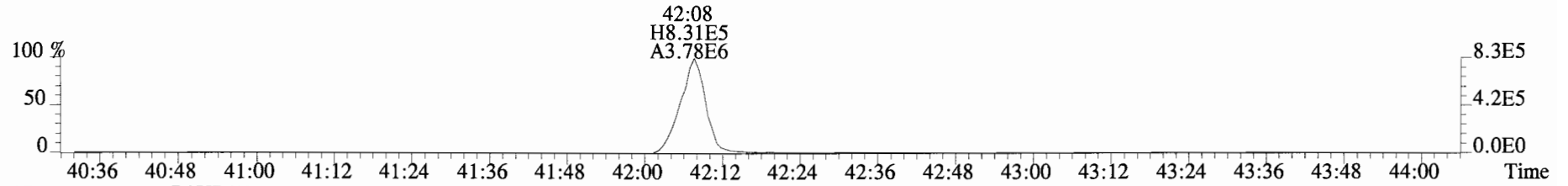
File:140917D1 #1-385 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text: Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



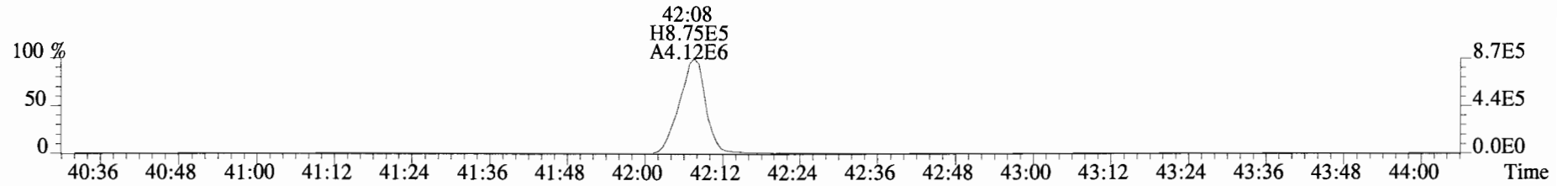
File:140917D1 #1-326 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



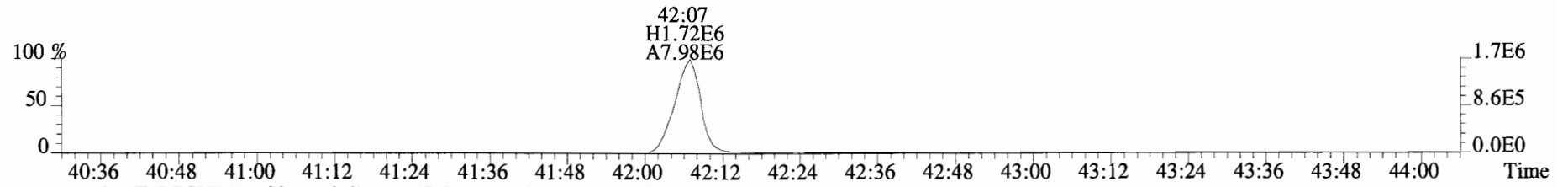
File:140917D1 #1-388 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



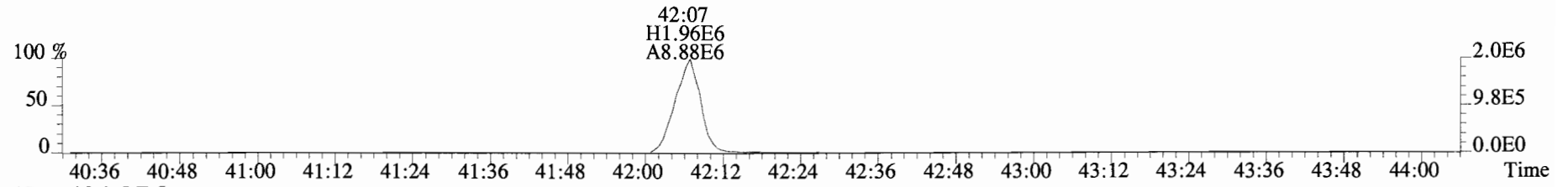
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



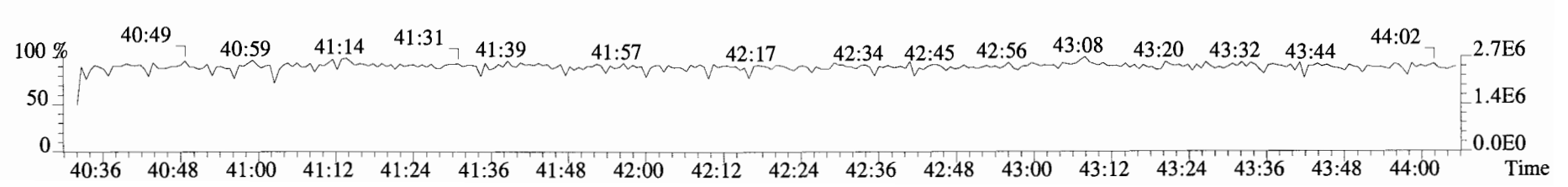
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



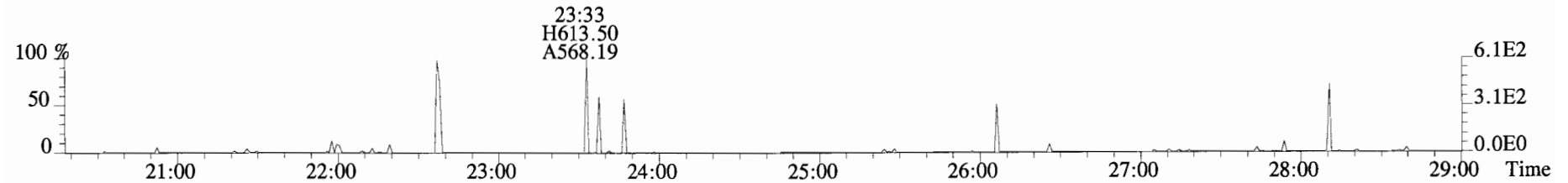
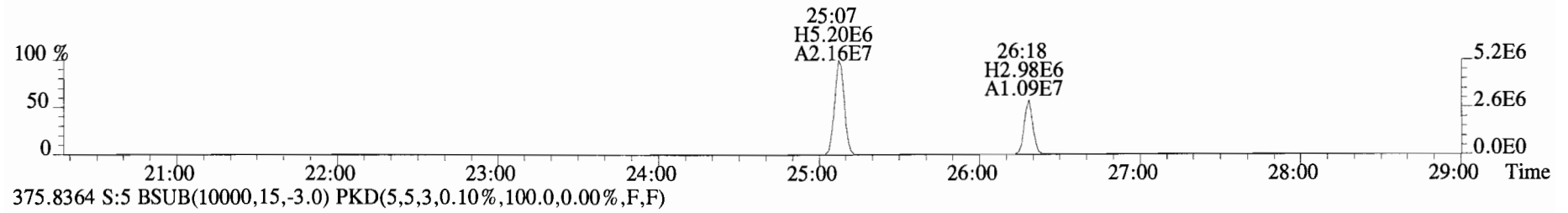
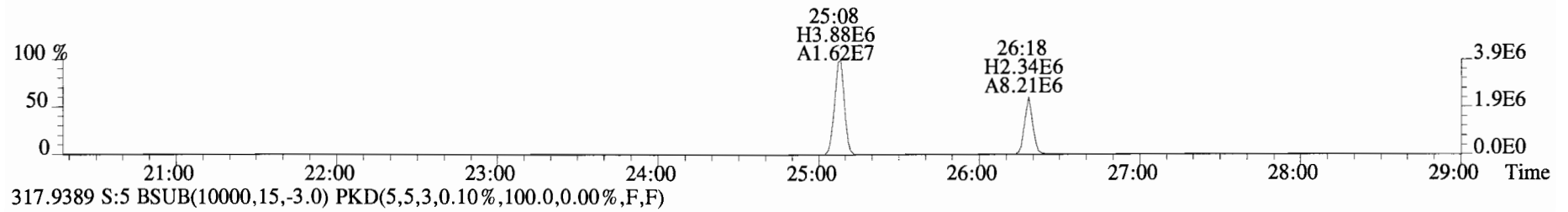
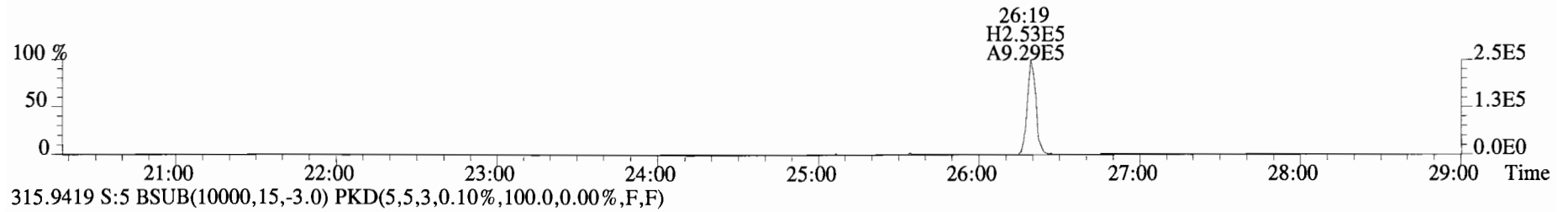
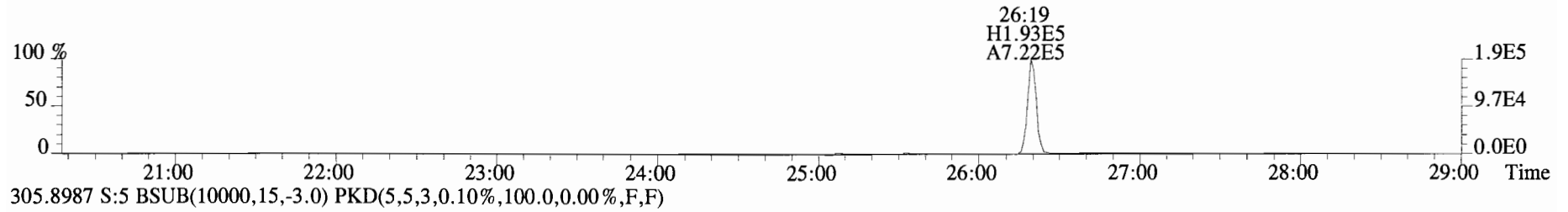
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



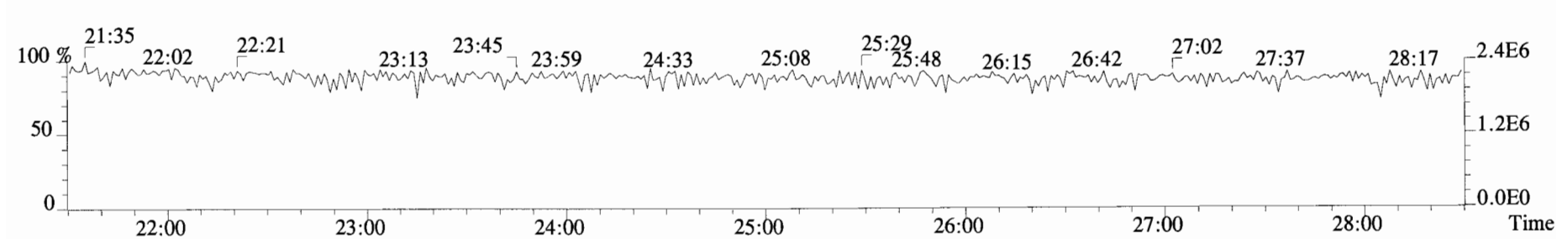
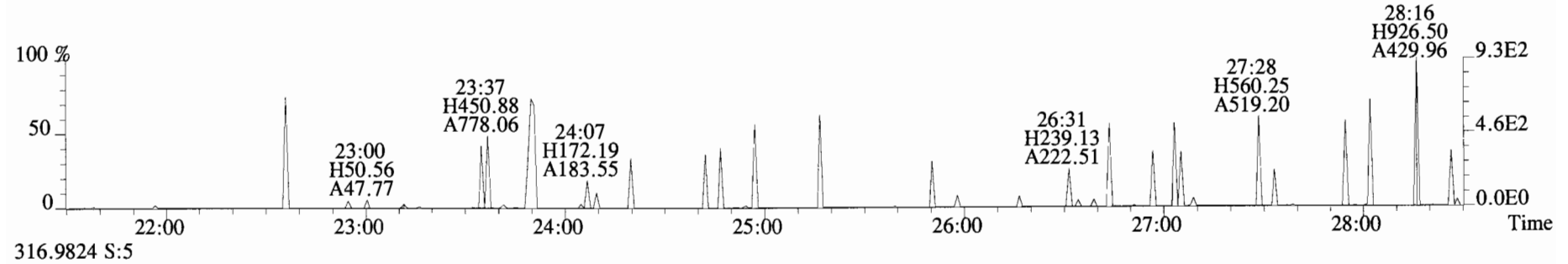
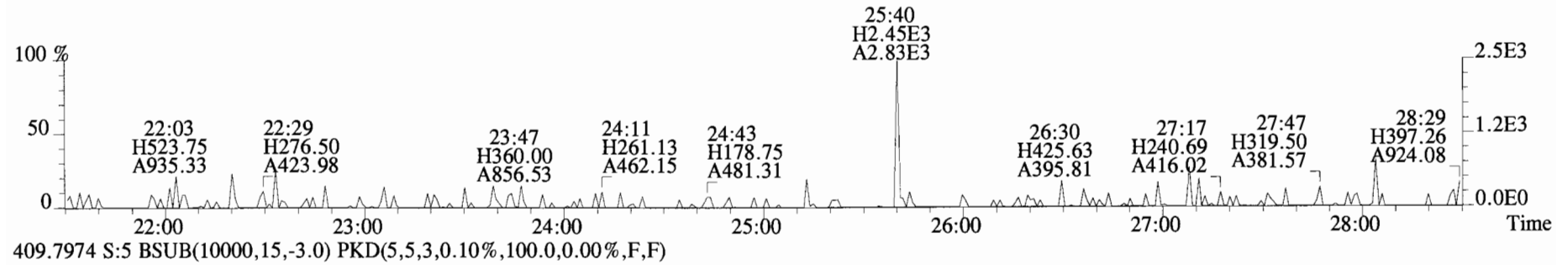
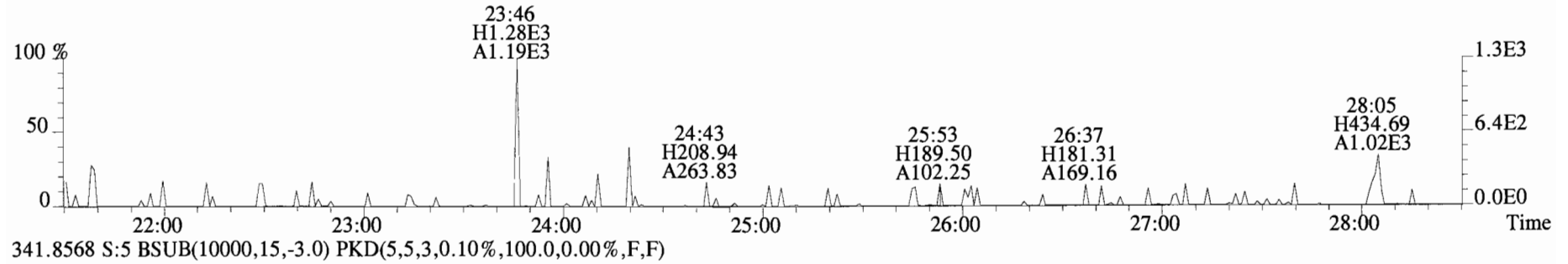
454.9728 S:5 F:5



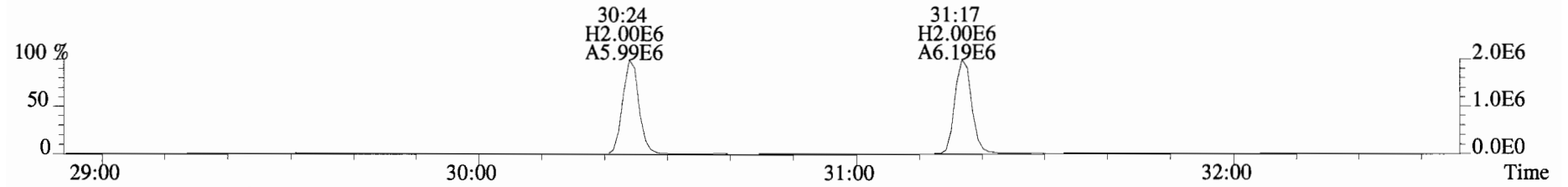
File:140917D1 #1-551 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



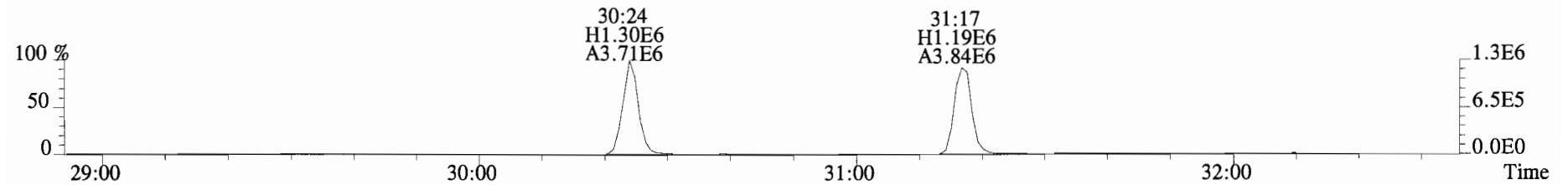
File:140917D1 #1-551 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



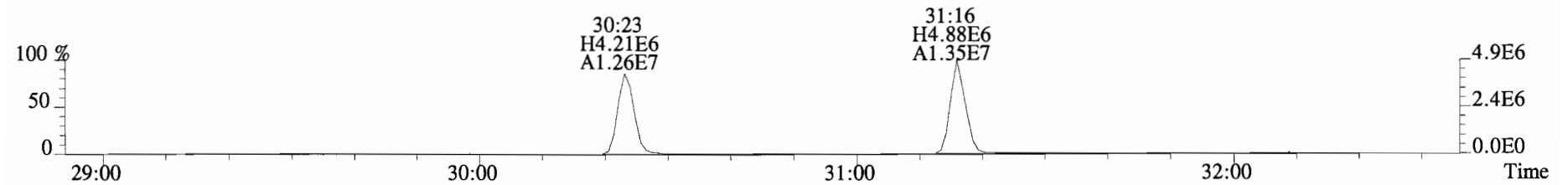
File:140917D1 #1-256 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



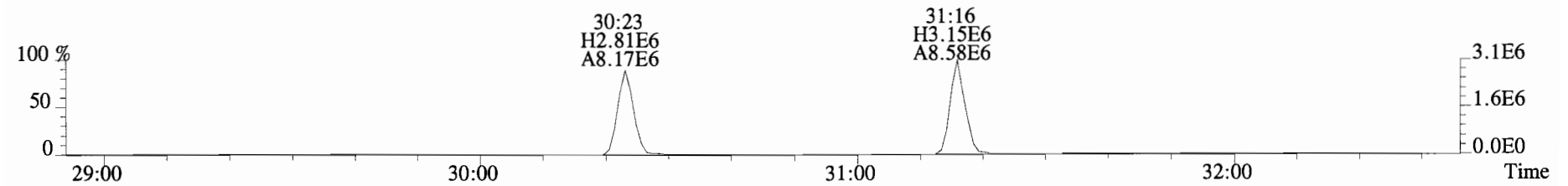
341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



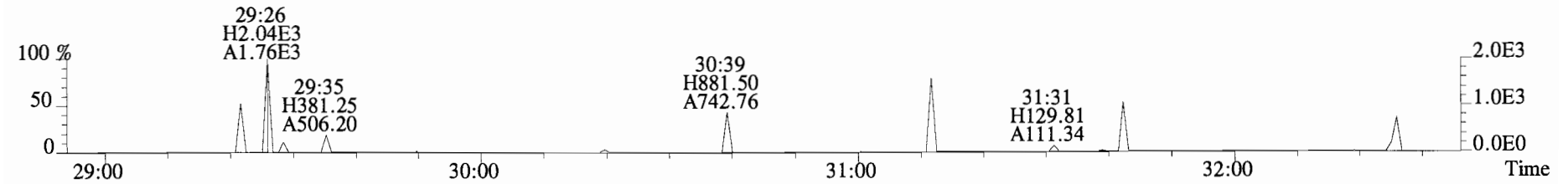
351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



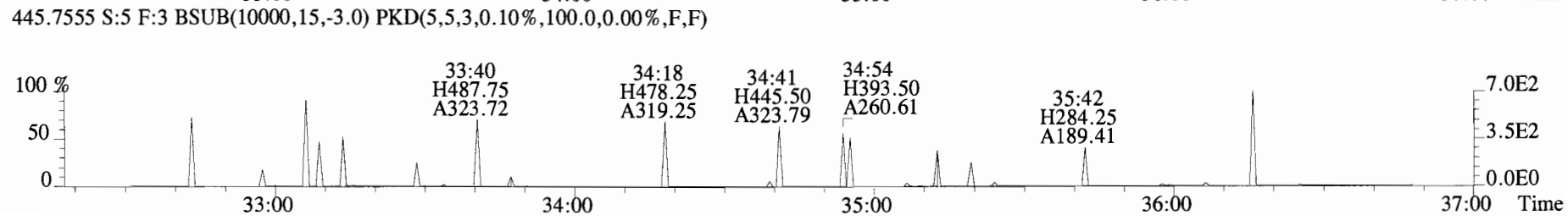
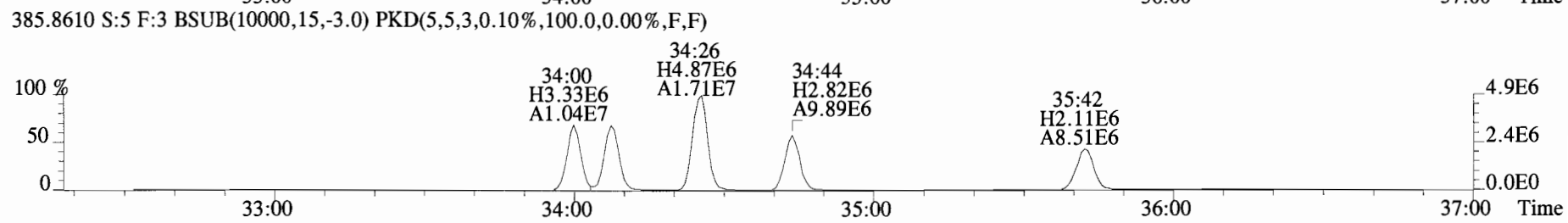
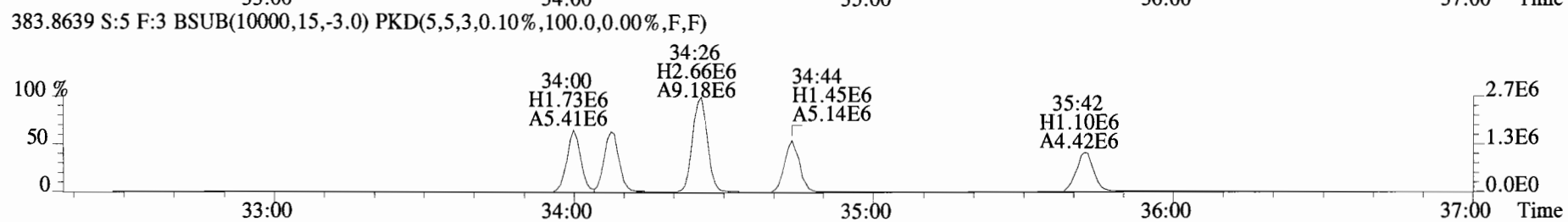
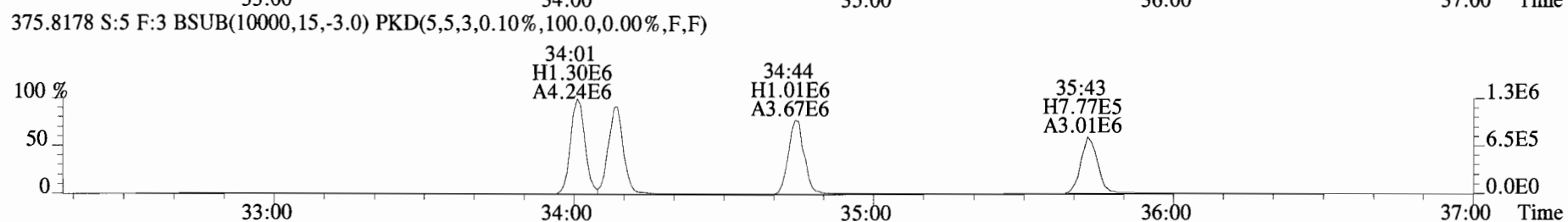
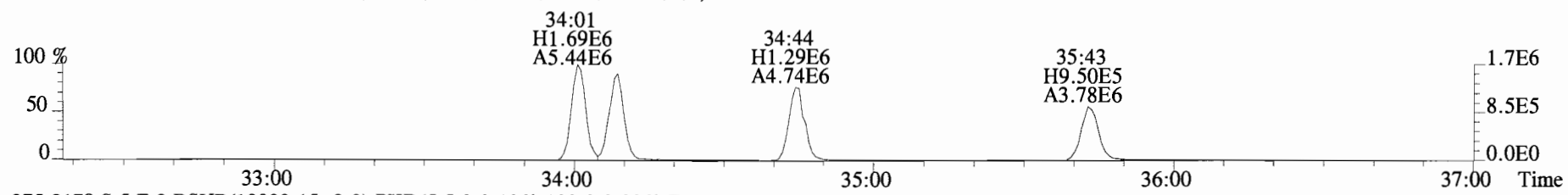
353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



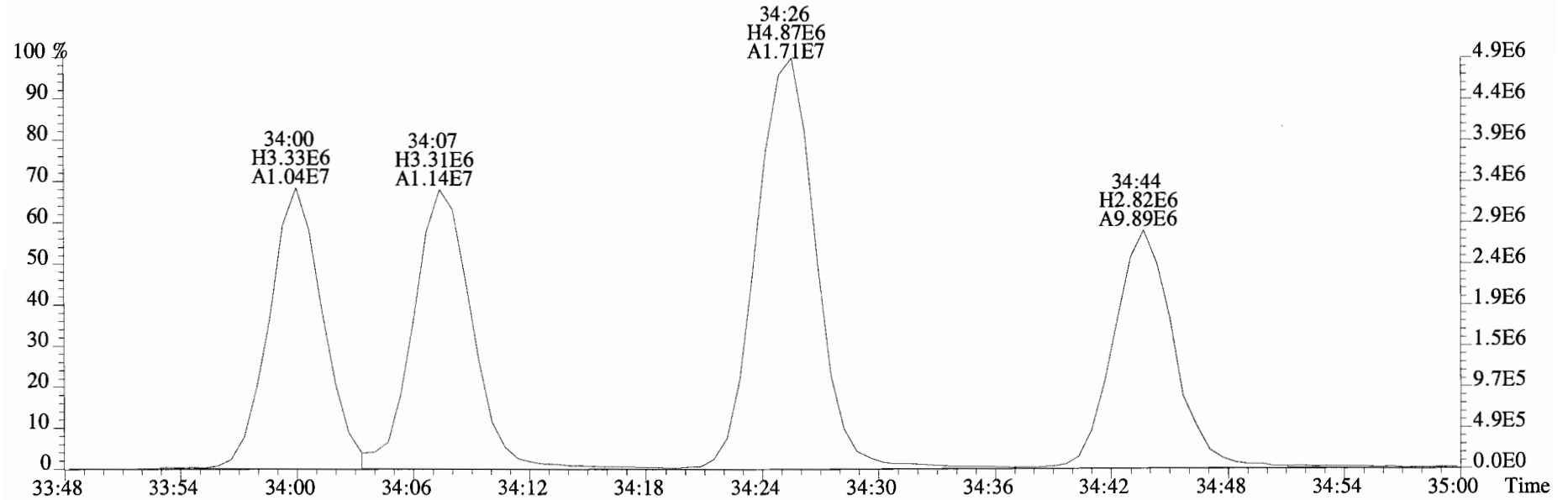
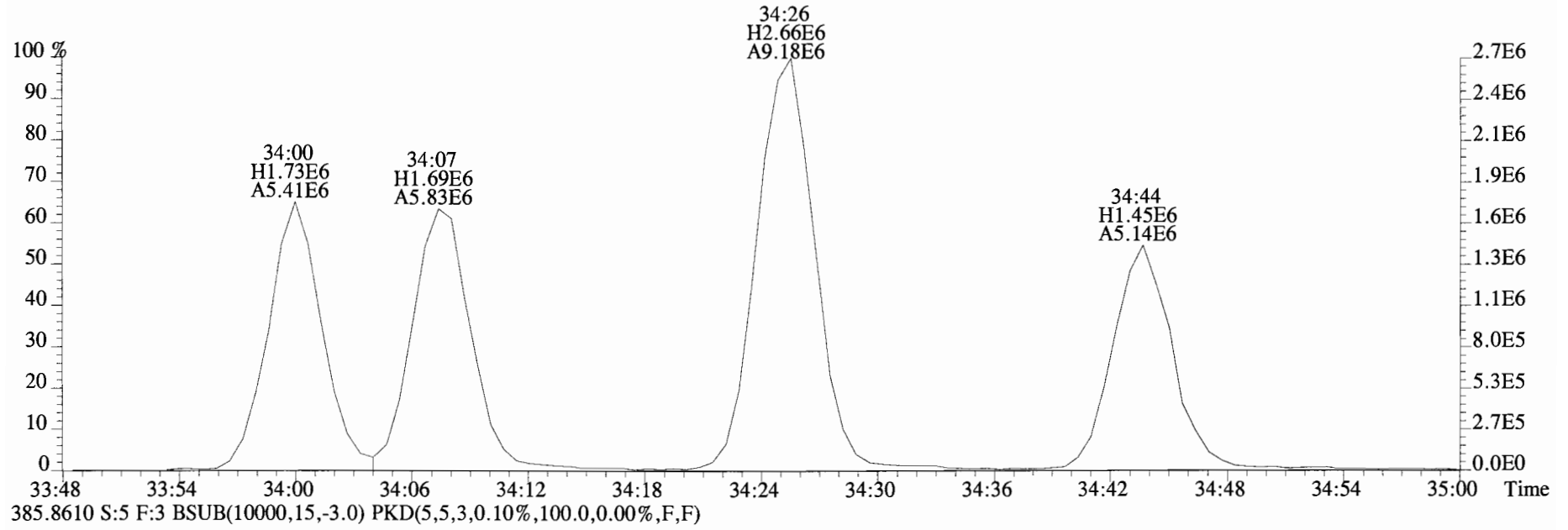
409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



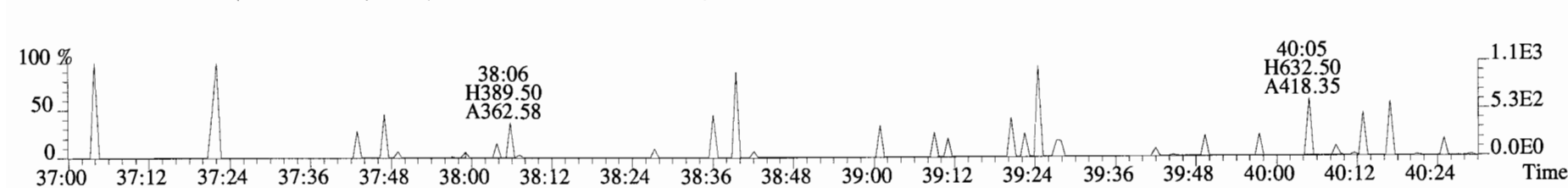
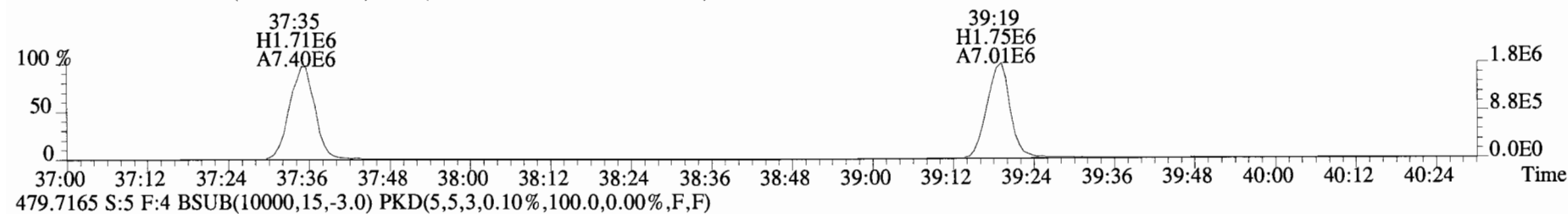
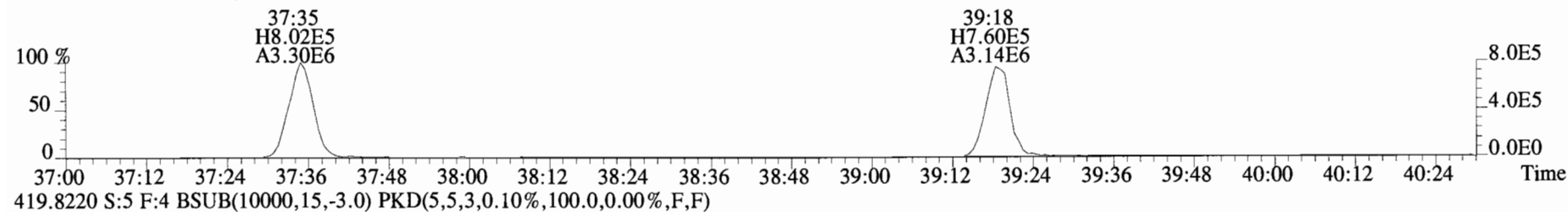
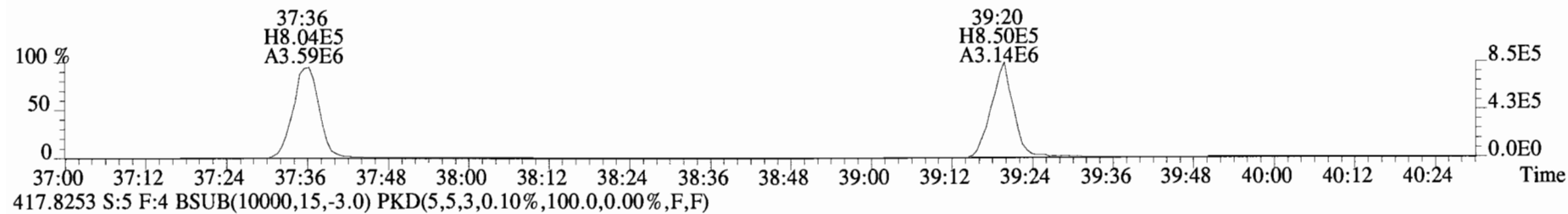
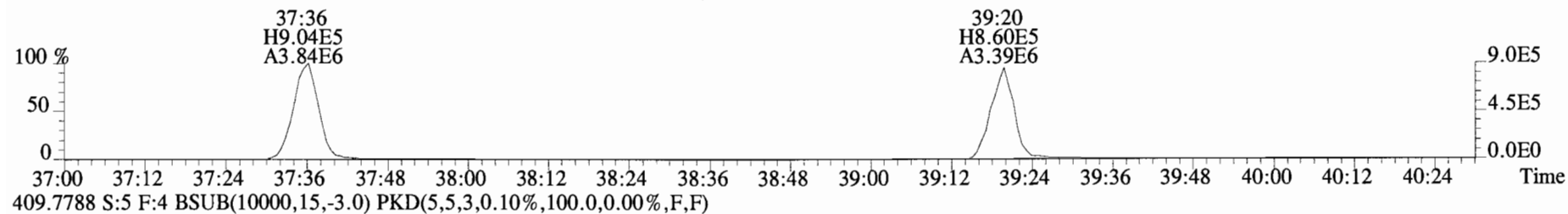
File:140917D1 #1-385 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
 373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



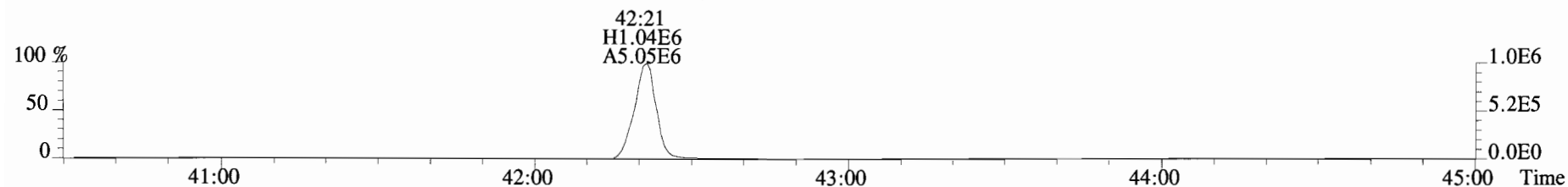
File:140917D1 #1-385 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



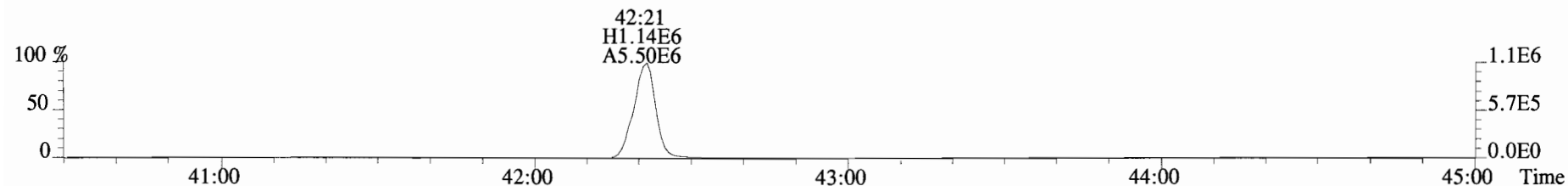
File:140917D1 #1-326 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



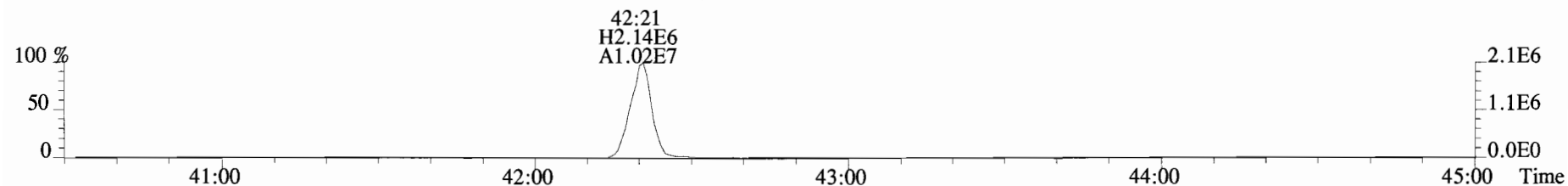
File:140917D1 #1-388 Acq:17-SEP-2014 16:25:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-7 Text:B4I0053-BS1 OPR 10 Exp:OCDD_DB5
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



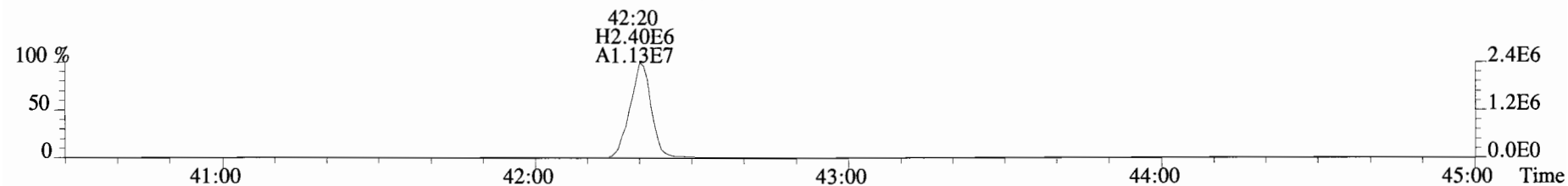
443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



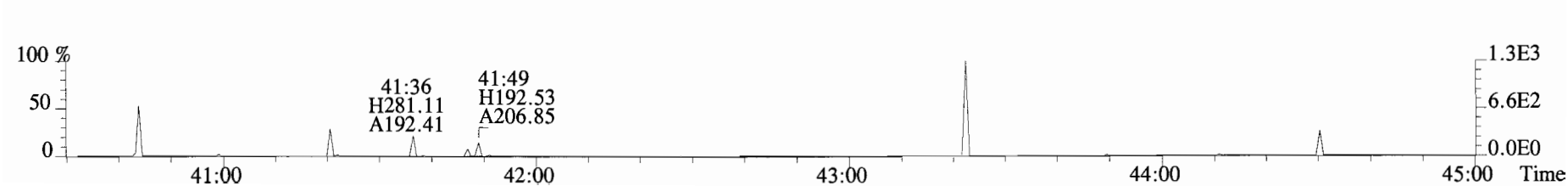
453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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



513.6775 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	2.46e+04	0.53	n	1.03	27:03	1.000	0.23965	*	2.5	*	Total Tetra-Dioxins	5.34	5.93	*	*	
1,2,3,7,8-PeCDD	1.23e+05	0.56	y	0.84	31:32	1.000	1.1534	*	2.5	*	Total Penta-Dioxins	10.9	10.9	*	*	
1,2,3,4,7,8-HxCDD	1.71e+05	1.37	y	1.05	34:54	1.000	1.7468	*	2.5	*	Total Hexa-Dioxins	47.0	47.0	*	*	
1,2,3,6,7,8-HxCDD	6.60e+05	1.20	y	1.04	35:00	1.000	6.5645	*	2.5	*	Total Hepta-Dioxins	244	244	*	*	
1,2,3,7,8,9-HxCDD	3.49e+05	1.19	y	0.90	35:19	1.001	3.5780	*	2.5	*	Total Tetra-Furans	19.6	20.7	*	*	
1,2,3,4,6,7,8-HpCDD	1.04e+07	1.03	y	1.01	38:45	1.000	125.43	*	2.5	*	Total Penta-Furans	25.641	25.641	*	*	
OCDD	8.24e+07	0.89	y	1.04	42:07	1.000	1040.3	*	2.5	*	Total Hexa-Furans	44.8	44.8	*	*	
2,3,7,8-TCDF	1.36e+05	0.76	y	0.91	26:18	1.001	1.0329(0.852)	*	2.5	*	Total Hepta-Furans	73.2	73.2	*	*	
1,2,3,7,8-PeCDF	1.15e+05	1.40	y	0.97	30:22	1.000	0.71746	*	2.5	*						
2,3,4,7,8-PeCDF	2.15e+05	1.53	y	0.94	31:16	1.001	1.2478	*	2.5	*						
1,2,3,4,7,8-HxCDF	5.07e+05	1.34	y	1.32	33:59	1.000	2.9121	*	2.5	*						
1,2,3,6,7,8-HxCDF	2.69e+05	1.30	y	1.18	34:07	1.000	1.6493	*	2.5	*						
2,3,4,6,7,8-HxCDF	3.58e+05	1.36	y	1.23	34:44	1.001	2.3211	*	2.5	*						
1,2,3,7,8,9-HxCDF	6.66e+04	1.23	y	1.13	35:43	1.001	0.53759	*	2.5	*						
1,2,3,4,6,7,8-HpCDF	4.25e+06	1.12	y	1.57	37:35	1.000	29.619	*	2.5	*						
1,2,3,4,7,8,9-HpCDF	2.45e+05	1.16	y	1.50	39:18	1.000	1.8649	*	2.5	*						
OCDF	7.16e+06	0.89	y	1.05	42:21	1.000	72.923	*	2.5	*						

IS	13C-2,3,7,8-TCDD	1.98e+07	0.80	y	1.06	27:03	1.021	187.60	94.2	Qual
IS	13C-1,2,3,7,8-PeCDD	2.53e+07	0.64	y	1.08	31:32	1.190	235.42	118	
IS	13C-1,2,3,4,7,8-HxCDD	1.86e+07	1.26	y	0.74	34:53	1.014	191.26	96.1	
IS	13C-1,2,3,6,7,8-HxCDD	1.93e+07	1.28	y	0.75	34:60	1.017	196.37	98.6	
IS	13C-1,2,3,7,8,9-HxCDD	2.17e+07	1.25	y	0.89	35:18	1.026	186.07	93.5	
IS	13C-1,2,3,4,6,7,8-HpCDD	1.64e+07	1.05	y	0.70	38:45	1.126	178.01	89.4	
IS	13C-OCDD	3.03e+07	0.89	y	0.59	42:06	1.224	392.10	98.5	
IS	13C-2,3,7,8-TCDF	2.88e+07	0.76	y	0.97	26:17	0.992	185.75	93.3	
IS	13C-1,2,3,7,8-PeCDF	3.28e+07	1.58	y	0.99	30:22	1.146	206.61	104	
IS	13C-2,3,4,7,8-PeCDF	3.65e+07	1.60	y	1.01	31:15	1.179	226.53	114	
IS	13C-1,2,3,4,7,8-HxCDF	2.62e+07	0.51	y	0.94	33:59	0.988	213.13	107	
IS	13C-1,2,3,6,7,8-HxCDF	2.77e+07	0.52	y	1.23	34:07	0.992	172.02	86.4	
IS	13C-2,3,4,6,7,8-HxCDF	2.50e+07	0.51	y	1.03	34:43	1.009	184.76	92.8	
IS	13C-1,2,3,7,8,9-HxCDF	2.18e+07	0.51	y	0.89	35:41	1.037	188.35	94.6	
IS	13C-1,2,3,4,6,7,8-HpCDF	1.82e+07	0.44	y	0.71	37:34	1.092	196.48	98.7	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.74e+07	0.43	y	0.64	39:18	1.143	207.12	104	
IS	13C-OCDF	3.71e+07	0.89	y	0.76	42:20	1.230	373.57	93.8	

C/Up	37Cl-2,3,7,8-TCDD	7.42e+06			1.04	27:04	1.021	71.720	90.1	
RS/RT	13C-1,2,3,4-TCDD	1.97e+07	0.80	y	1.00	26:30	*	199.05		
RS	13C-1,2,3,4-TCDF	3.19e+07	0.75	y	1.00	25:06	*	199.05		
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.61e+07	0.52	y	1.00	34:24	*	199.05		

Integrations Reviewed by Analyst: (M) Analyst: [Signature]
 Date: 9/22/14 Date: 9/23/14

Totals class: TCDD EMPC

Entry #: 19

Run: 16 File: 140917D1 S: 13 I: 1 F: 1
 Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 5.9350 Unnamed Concentration: 5.695

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
23:44	6.327e+04	9.319e+04	0.68	y	1.565e+05	1.5261	
24:06	5.005e+04	5.875e+04	0.85	y	1.088e+05	1.0613	
24:30	1.019e+04	1.463e+04	0.70	y	2.482e+04	0.24210	
25:13	1.190e+04	1.817e+04	0.65	y	3.007e+04	0.29334	
25:26	2.261e+04	2.798e+04	0.81	y	5.060e+04	0.49355	
25:36	2.374e+04	3.292e+04	0.72	y	5.667e+04	0.55274	
25:47	5.208e+03	1.253e+04	0.42	n	1.197e+04	0.11677	
26:00	3.290e+03	6.800e+03	0.48	n	7.562e+03	0.073765	
26:10	1.179e+04	1.351e+04	0.87	y	2.530e+04	0.24680	
26:31	1.406e+04	1.979e+04	0.71	y	3.385e+04	0.33020	
26:49	1.673e+04	1.997e+04	0.84	y	3.670e+04	0.35801	
26:57	2.265e+03	5.300e+03	0.43	n	5.207e+03	0.050794	
27:03	1.069e+04	2.014e+04	0.53	n	2.457e+04	0.23965	2,3,7,8-TCDD
27:21	9.774e+03	1.432e+04	0.68	y	2.409e+04	0.23500	
27:29	1.964e+03	3.480e+03	0.56	n	4.515e+03	0.044037	
27:55	3.154e+03	7.280e+03	0.43	n	7.249e+03	0.070714	

Totals class: PeCDD EMPC

Entry #: 21

Run: 16 File: 140917D1 S: 13 I: 1 F: 2
 Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 10.880

Unnamed Concentration: 9.727

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
29:30	1.205e+05	1.745e+05	0.69	y	2.950e+05	2.7614
29:57	2.714e+04	4.320e+04	0.63	y	7.034e+04	0.65839
30:24	5.877e+04	8.211e+04	0.72	y	1.409e+05	1.3187
30:33	3.711e+04	6.393e+04	0.58	y	1.010e+05	0.94581
30:38	4.497e+04	7.345e+04	0.61	y	1.184e+05	1.1084
30:51	6.238e+04	1.040e+05	0.60	y	1.664e+05	1.5575
31:09	2.283e+04	3.604e+04	0.63	y	5.888e+04	0.55109
31:32	4.448e+04	7.874e+04	0.56	y	1.232e+05	1.1534
31:36	1.097e+04	2.017e+04	0.54	y	3.114e+04	0.29149
31:54	2.317e+04	3.389e+04	0.68	y	5.705e+04	0.53401

1,2,3,7,8-PeCDD

Totals class: HxCDD EMPC

Entry #: 23

Run: 16 File: 140917D1 S: 13 I: 1 F: 3
 Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 47.015 Unnamed Concentration: 35.126

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
33:20	5.825e+05	4.659e+05	1.25	y	1.048e+06	10.631
33:55	2.696e+05	2.189e+05	1.23	y	4.885e+05	4.9537
34:11	9.315e+05	7.490e+05	1.24	y	1.680e+06	17.041
34:18	7.409e+04	5.764e+04	1.29	y	1.317e+05	1.3358
34:54	9.899e+04	7.229e+04	1.37	y	1.713e+05	1.7468 1,2,3,4,7,8-HxCDD
35:00	3.600e+05	3.000e+05	1.20	y	6.600e+05	6.5645 1,2,3,6,7,8-HxCDD
35:13	6.044e+04	5.437e+04	1.11	y	1.148e+05	1.1642
35:19	1.897e+05	1.598e+05	1.19	y	3.495e+05	3.5780 1,2,3,7,8,9-HxCDD

Totals class: HpCDD EMPC

Entry #: 25

Run: 16 File: 140917D1 S: 13 I: 1 F: 4

Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 244.06

Unnamed Concentration: 118.630

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
37:56	4.974e+06	4.883e+06	1.02 y	9.857e+06	118.63	
38:45	5.293e+06	5.128e+06	1.03 y	1.042e+07	125.43	1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 16 File: 140917D1 S: 13 I: 1 F: 1

Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 20.728

Unnamed Concentration: 19.696

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
21:38	2.656e+04	3.229e+04	0.82	y	5.885e+04	0.44665
22:12	3.885e+04	4.582e+04	0.85	y	8.467e+04	0.64264
22:50	1.681e+05	1.978e+05	0.85	y	3.659e+05	2.7775
23:21	1.123e+05	1.488e+05	0.75	y	2.610e+05	1.9811
23:43	1.148e+05	1.465e+05	0.78	y	2.613e+05	1.9832
24:07	8.092e+04	1.124e+05	0.72	y	1.933e+05	1.4670
24:15	3.622e+04	4.679e+04	0.77	y	8.300e+04	0.63000
24:24	4.134e+04	5.035e+04	0.82	y	9.169e+04	0.69591
24:45	1.975e+04	2.248e+04	0.88	y	4.223e+04	0.32052
24:51	4.312e+04	5.061e+04	0.85	y	9.373e+04	0.71143
25:00	1.188e+05	1.524e+05	0.78	y	2.711e+05	2.0578
25:07	6.174e+04	8.420e+04	0.73	y	1.459e+05	1.1077
25:31	5.890e+04	6.383e+04	0.92	n	1.130e+05	0.85747
25:46	2.732e+04	3.841e+04	0.71	y	6.573e+04	0.49894
25:56	2.471e+04	3.261e+04	0.76	y	5.732e+04	0.43510
26:07	3.012e+04	3.862e+04	0.78	y	6.874e+04	0.52172
26:13	3.097e+04	3.529e+04	0.88	y	6.626e+04	0.50289
26:18	5.873e+04	7.736e+04	0.76	y	1.361e+05	1.0329
26:38	9.879e+04	1.276e+05	0.77	y	2.264e+05	1.7182
26:50	5.175e+03	6.639e+03	0.78	y	1.181e+04	0.089668
28:02	3.094e+04	1.862e+04	1.66	n	3.296e+04	0.25017

2,3,7,8-TCDF

Totals class: 1st Func. PeCDF EMPC Entry #: 29

Run: 16 File: 140917D1 S: 13 I: 1 F: 1
Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 9.4265 Unnamed Concentration: 9.426

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
28:03	9.455e+05	6.212e+05	1.52 y	1.567e+06	9.4265

Totals class: PeCDF EMPC

Entry #: 31

Run: 16 File: 140917D1 S: 13 I: 1 F: 2
 Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 16.214

Unnamed Concentration: 14.249

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
29:20	1.225e+05	8.427e+04	1.45	y	2.067e+05	1.2438	
29:28	6.511e+05	4.197e+05	1.55	y	1.071e+06	6.4426	
30:00	2.815e+05	1.894e+05	1.49	y	4.710e+05	2.8335	
30:13	4.190e+04	3.005e+04	1.39	y	7.195e+04	0.43289	
30:22	6.690e+04	4.777e+04	1.40	y	1.147e+05	0.71746	1,2,3,7,8-PeCDF
30:36	1.321e+05	8.633e+04	1.53	y	2.185e+05	1.3144	
31:05	7.443e+03	5.332e+03	1.40	y	1.277e+04	0.076858	
31:10	8.407e+04	5.116e+04	1.64	y	1.352e+05	0.81360	
31:16	1.300e+05	8.508e+04	1.53	y	2.151e+05	1.2478	2,3,4,7,8-PeCDF
31:18	1.049e+05	6.102e+04	1.72	y	1.659e+05	0.99799	
31:33	9.257e+03	6.257e+03	1.48	y	1.551e+04	0.093339	

Totals class: HxCDF EMPC

Entry #: 33

Run: 16 File: 140917D1 S: 13 I: 1 F: 3
 Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 44.787 Unnamed Concentration: 37.366

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
32:47	3.651e+05	2.717e+05	1.34	y	6.368e+05	4.1522
32:57	1.397e+06	1.054e+06	1.33	y	2.451e+06	15.982
33:19	4.761e+04	4.040e+04	1.18	y	8.801e+04	0.57382
33:30	1.316e+06	1.018e+06	1.29	y	2.334e+06	15.215
33:53	9.148e+04	7.150e+04	1.28	y	1.630e+05	1.0627
33:59	2.904e+05	2.161e+05	1.34	y	5.065e+05	2.9121
34:07	1.524e+05	1.171e+05	1.30	y	2.694e+05	1.6493
34:25	1.824e+04	1.344e+04	1.36	y	3.168e+04	0.20654
34:44	2.068e+05	1.515e+05	1.36	y	3.583e+05	2.3211
35:43	3.673e+04	2.989e+04	1.23	y	6.663e+04	0.53759
35:46	1.423e+04	1.243e+04	1.14	y	2.666e+04	0.17381
						1,2,3,4,7,8-HxCDF
						1,2,3,6,7,8-HxCDF
						2,3,4,6,7,8-HxCDF
						1,2,3,7,8,9-HxCDF

Totals class: HpCDF EMPC

Entry #: 35

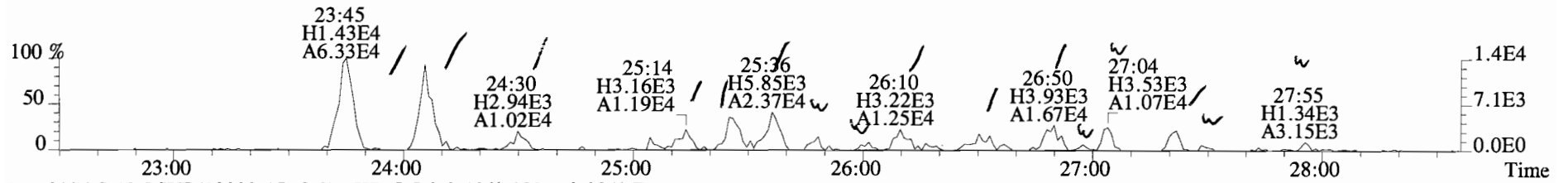
Run: 16 File: 140917D1 S: 13 I: 1 F: 4
 Acquired: 17-SEP-14 22:51:37 Processed: 18-SEP-14 09:39:58

Total Concentration: 73.243

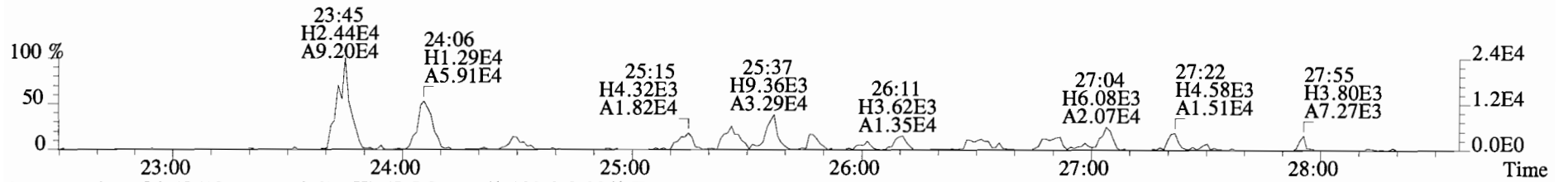
Unnamed Concentration: 41.759

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
37:35	2.249e+06	2.006e+06	1.12 y	4.255e+06	29.619	1,2,3,4,6,7,8-HpCDF
37:56	7.229e+04	6.179e+04	1.17 y	1.341e+05	0.97386	
38:07	2.894e+06	2.721e+06	1.06 y	5.615e+06	40.785	
39:18	1.318e+05	1.136e+05	1.16 y	2.454e+05	1.8649	1,2,3,4,7,8,9-HpCDF

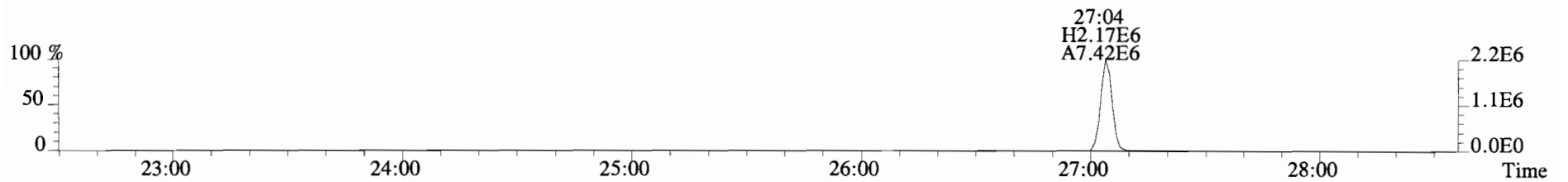
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
319.8965 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



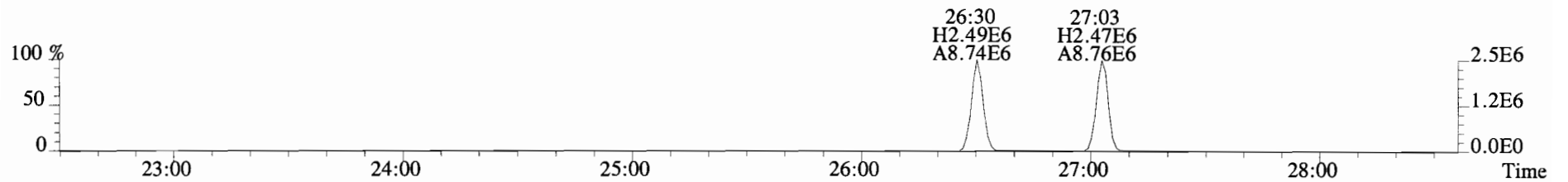
321.8936 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



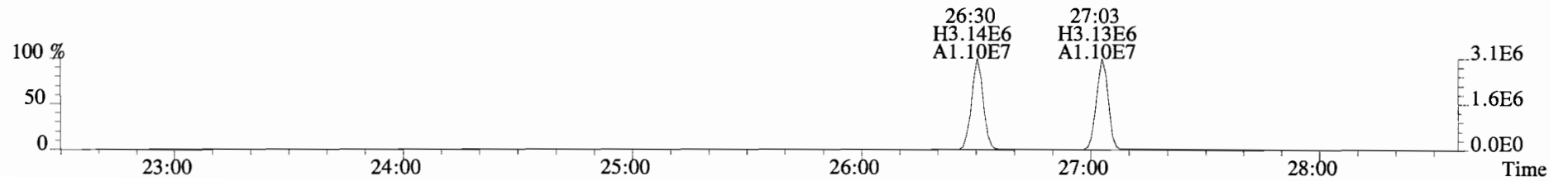
327.8847 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



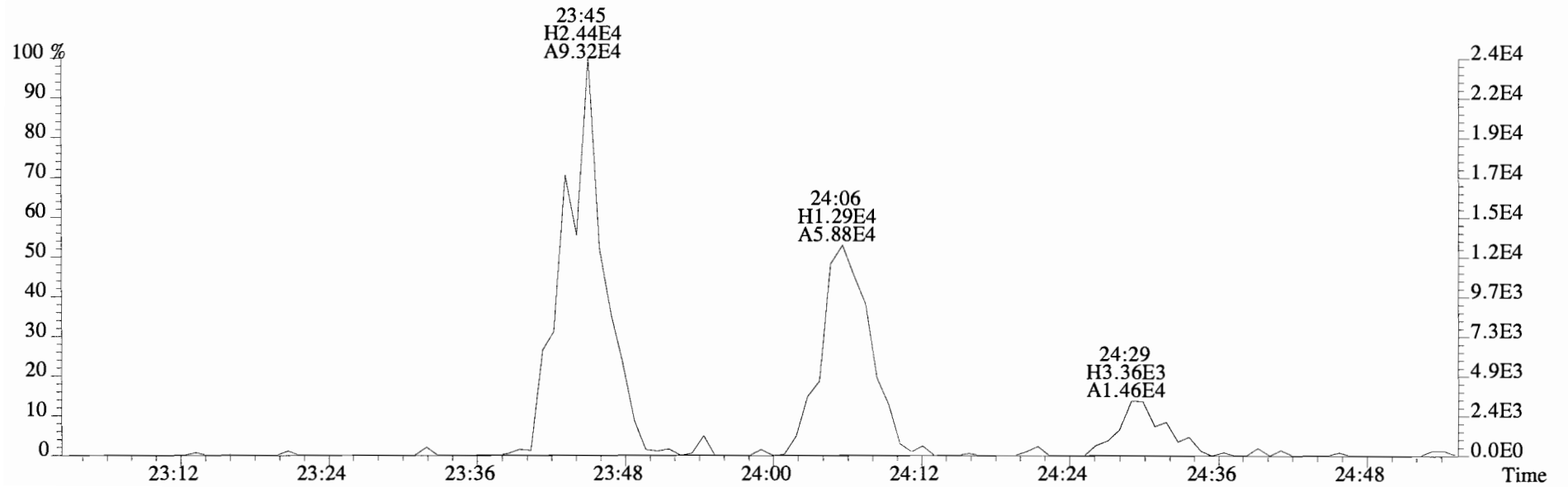
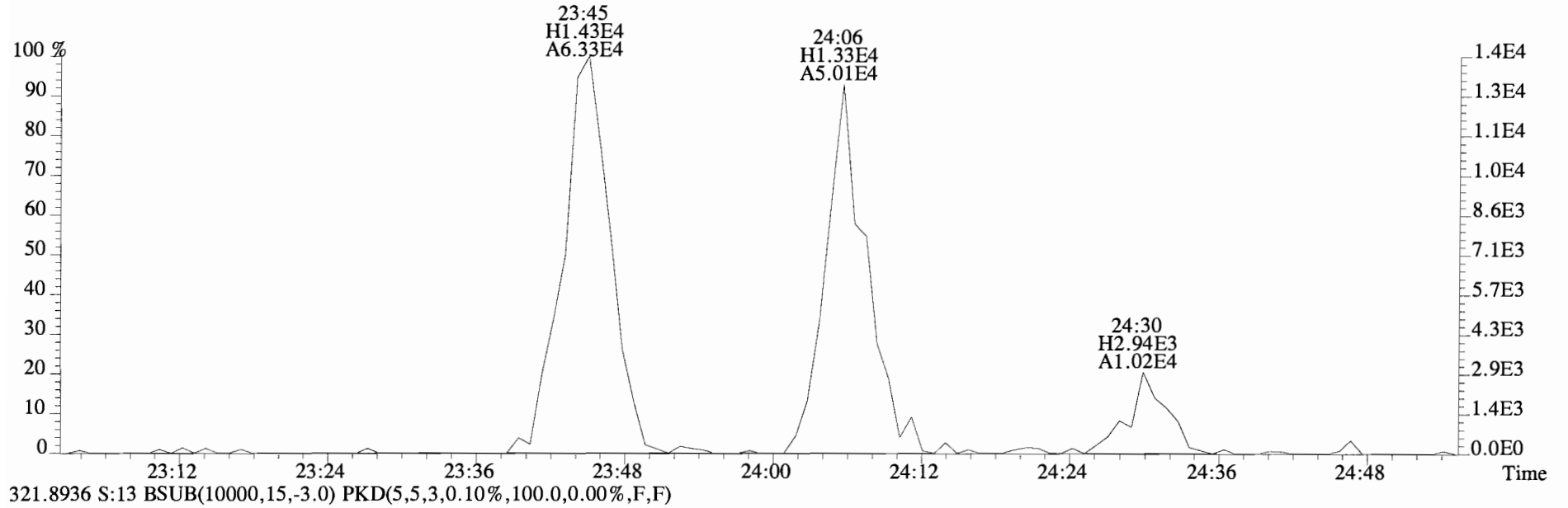
331.9368 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



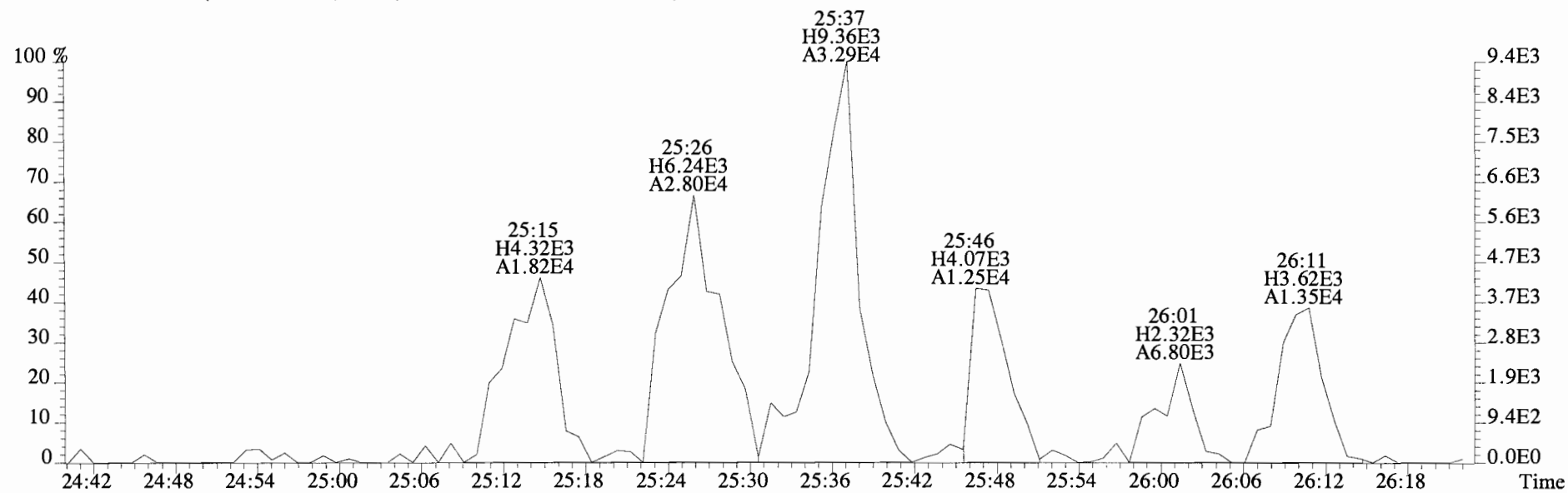
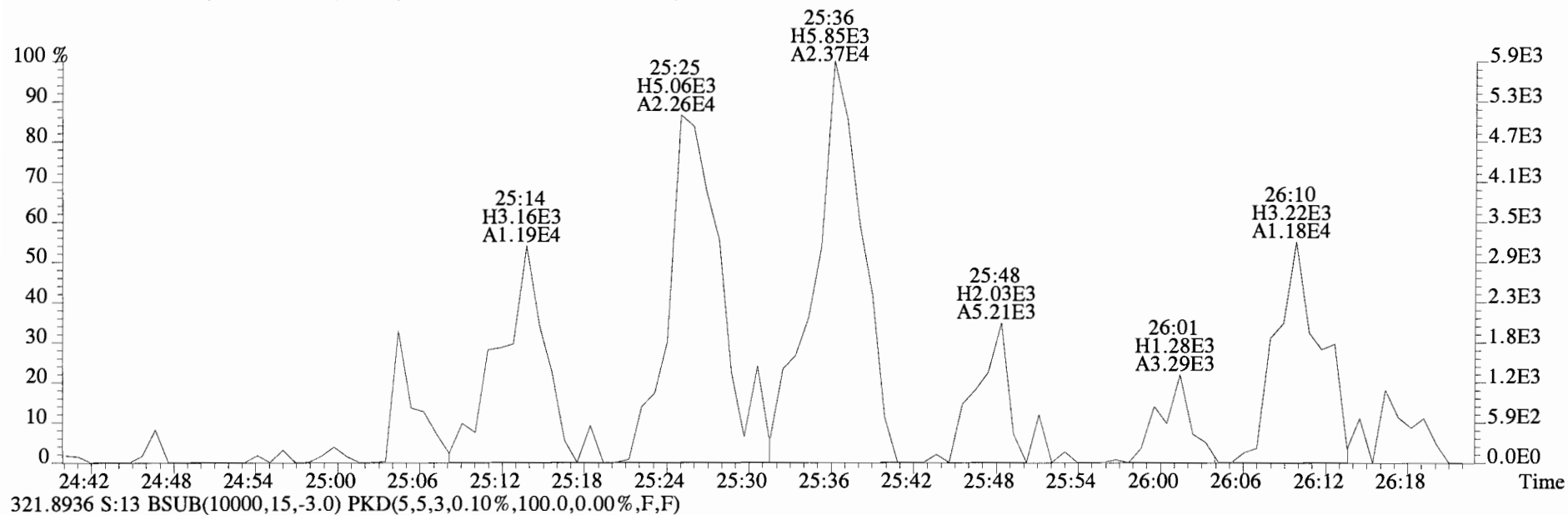
333.9339 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



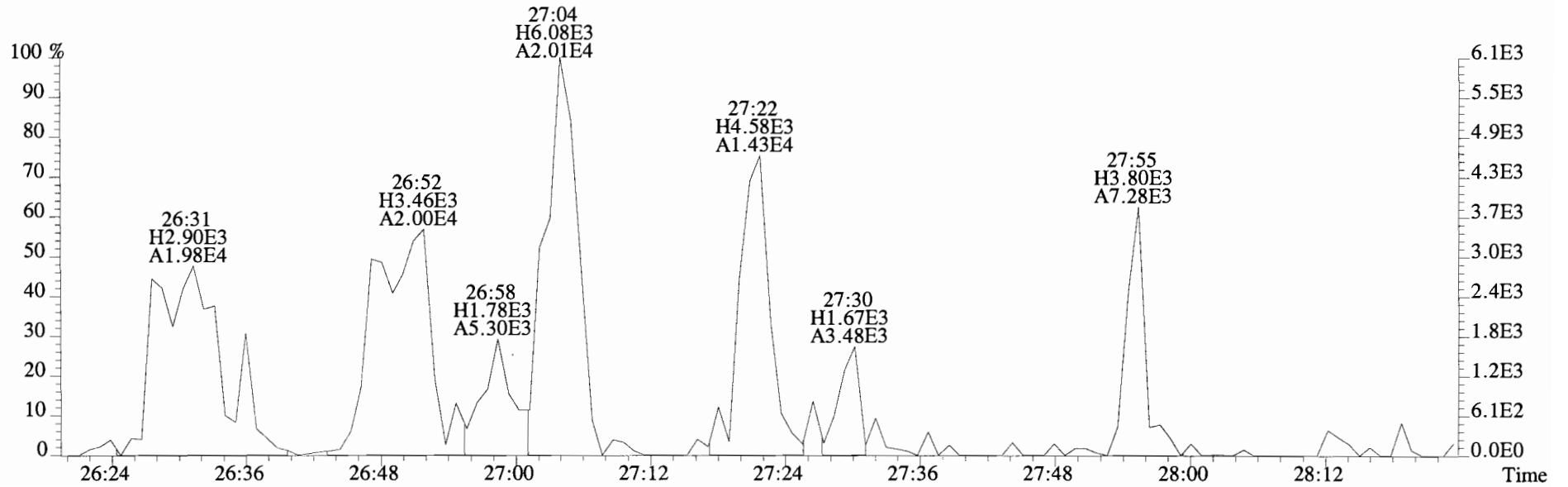
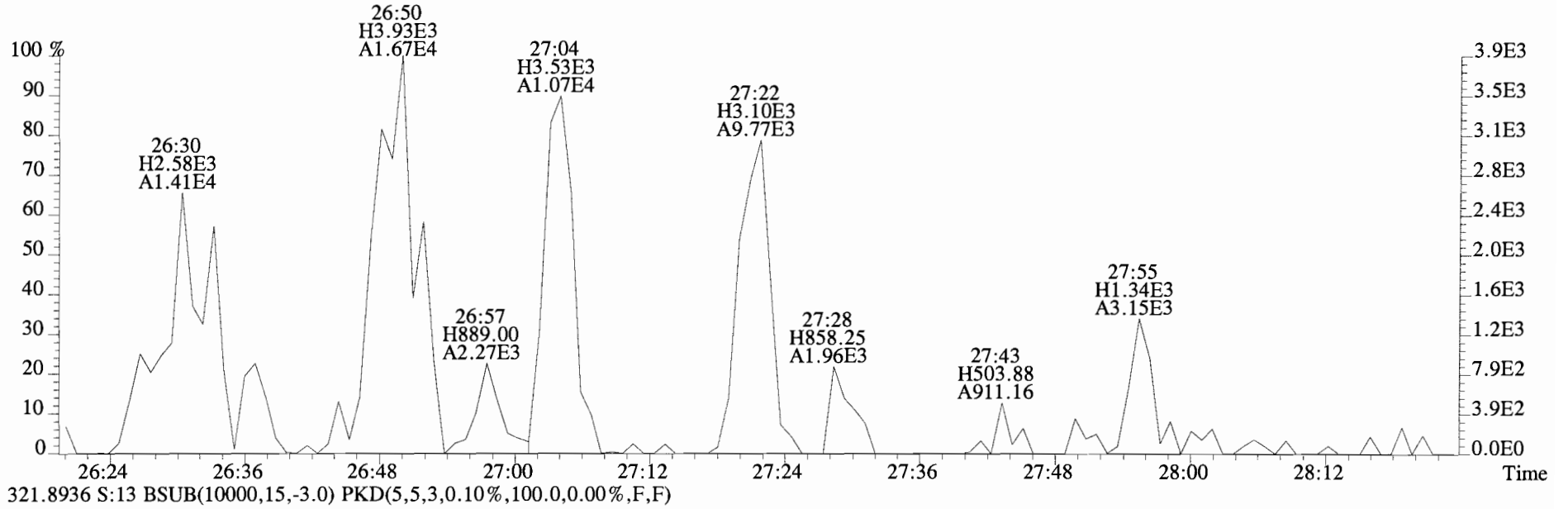
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
319.8965 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



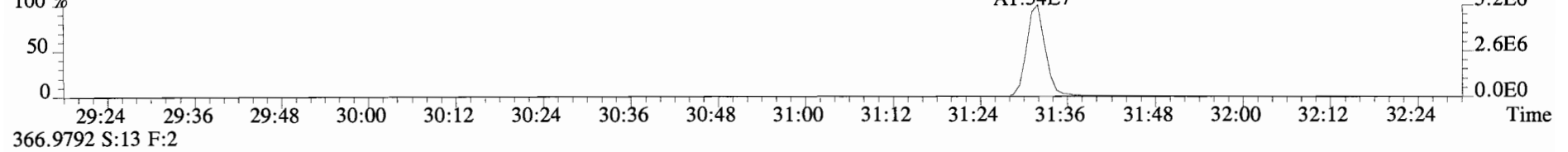
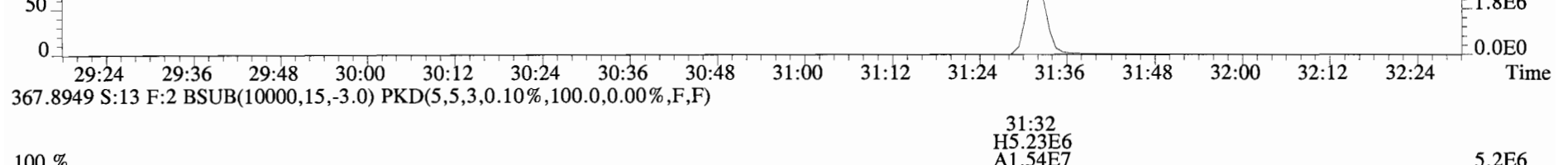
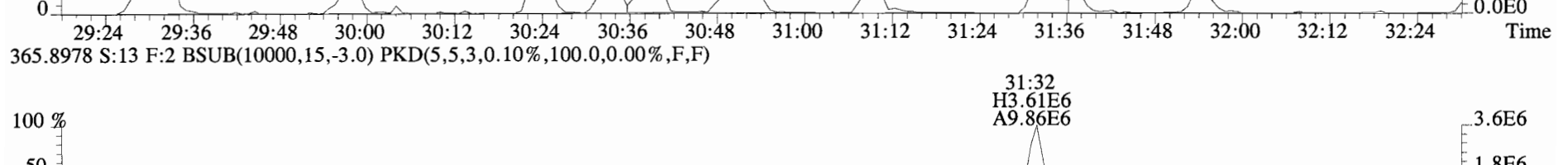
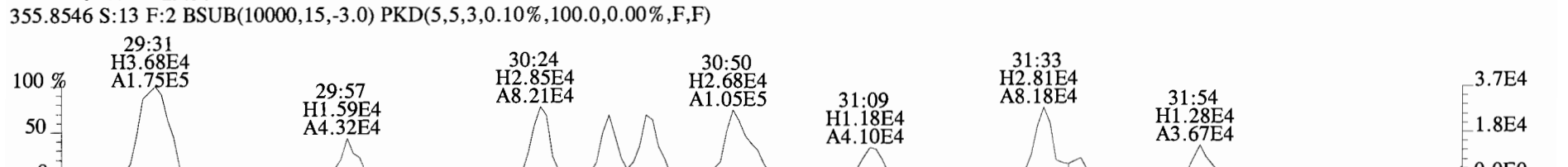
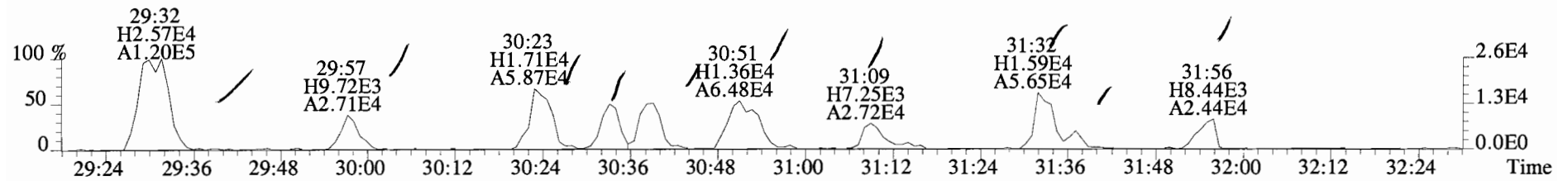
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
319.8965 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



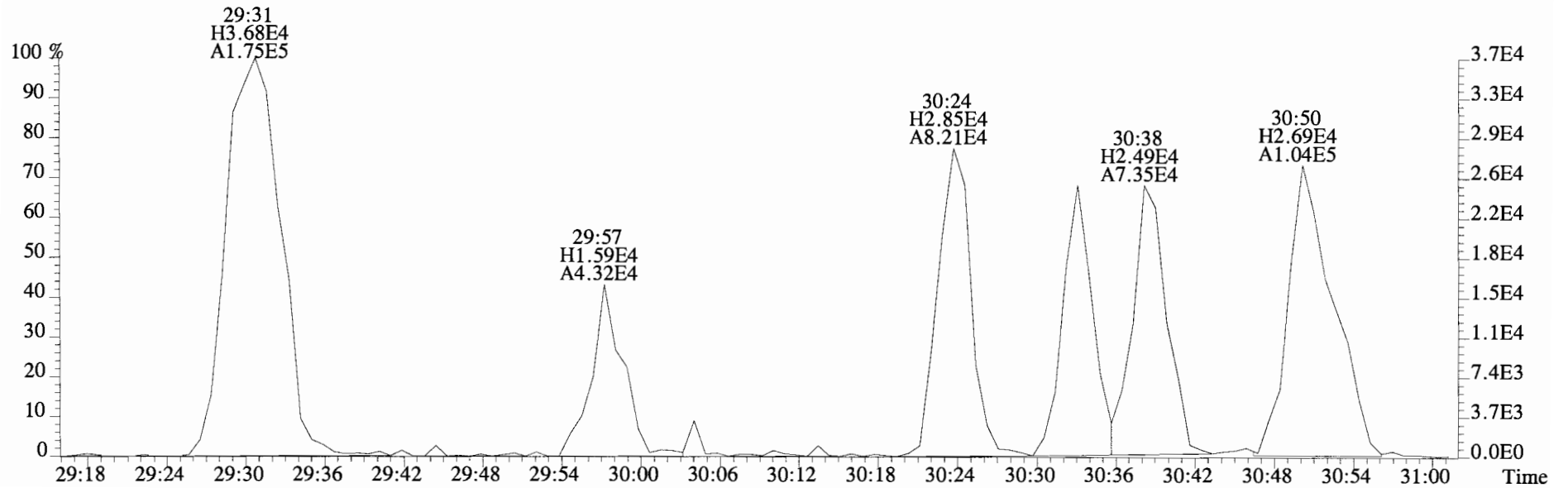
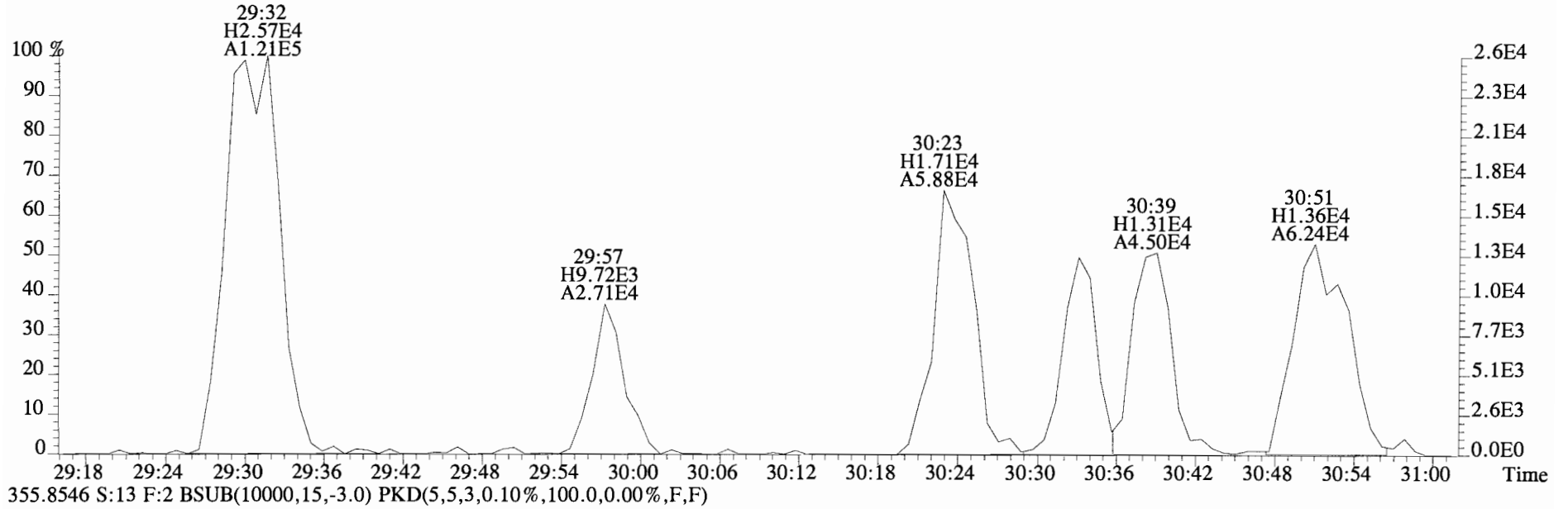
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
319.8965 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



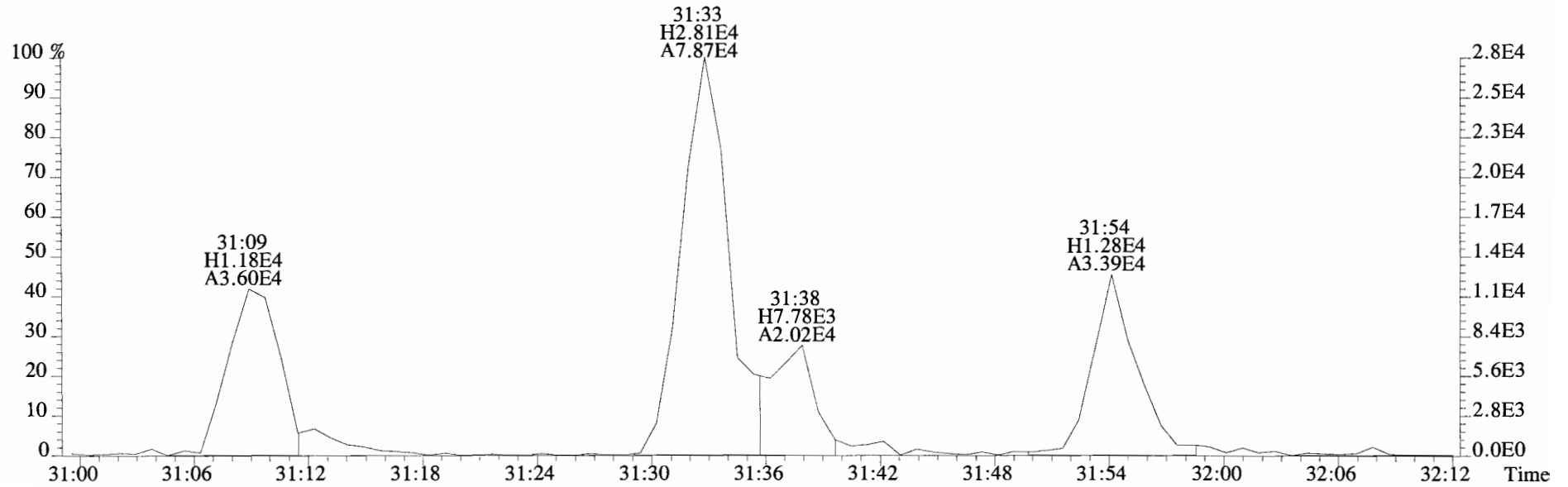
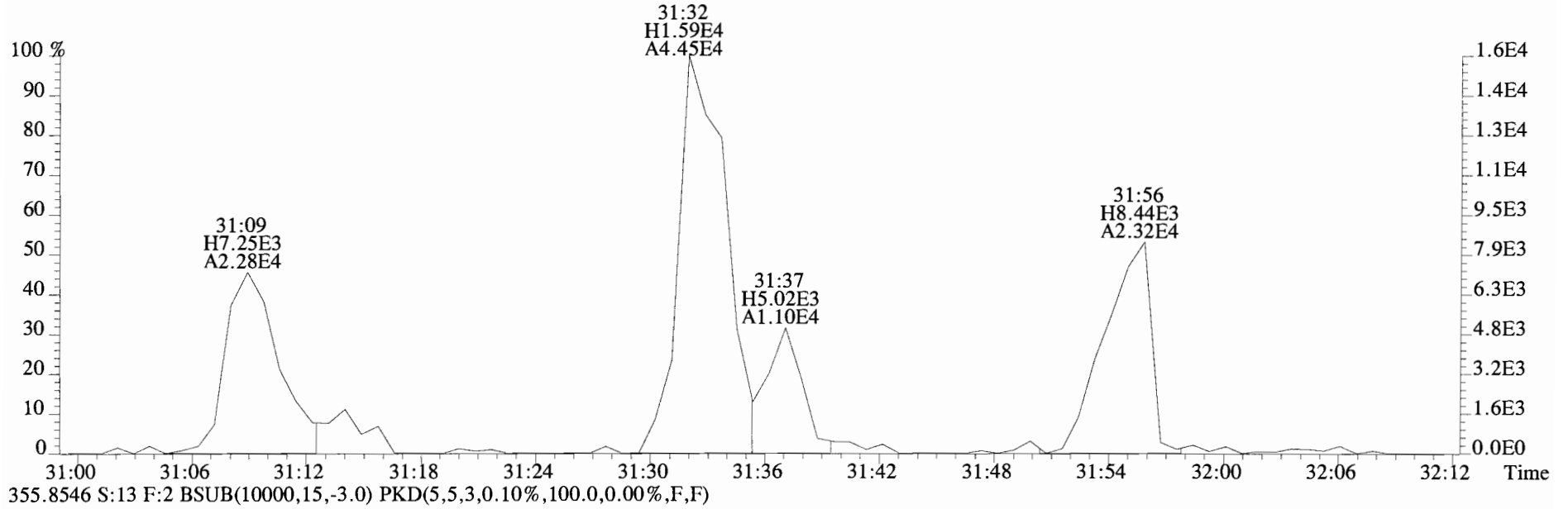
File:140917D1 #1-257 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
353.8576 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



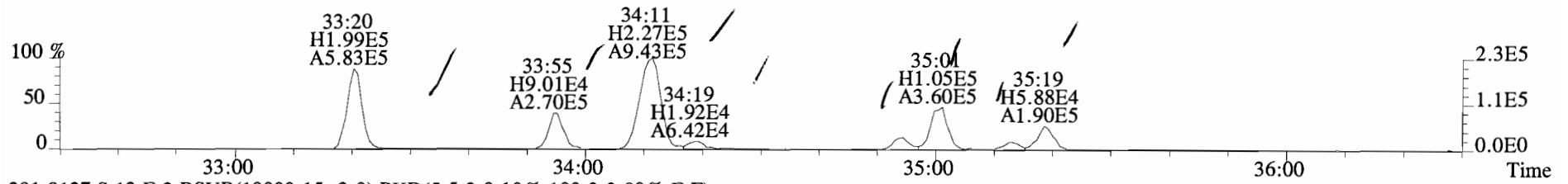
File:140917D1 #1-257 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
353.8576 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



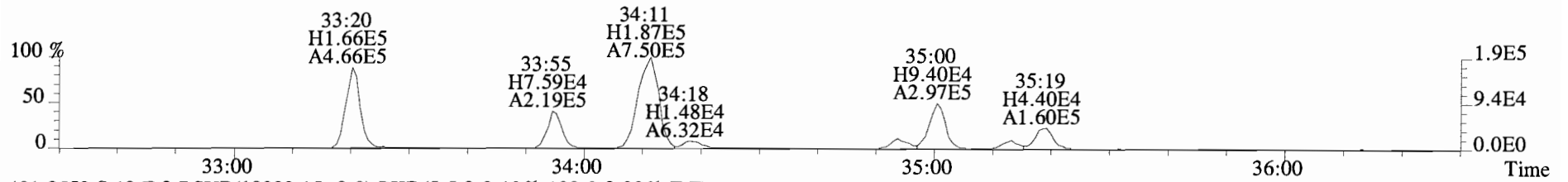
File:140917D1 #1-257 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
353.8576 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



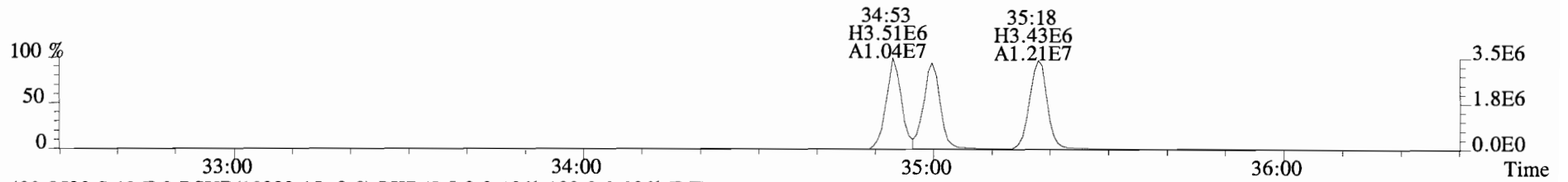
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text: Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
389.8156 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



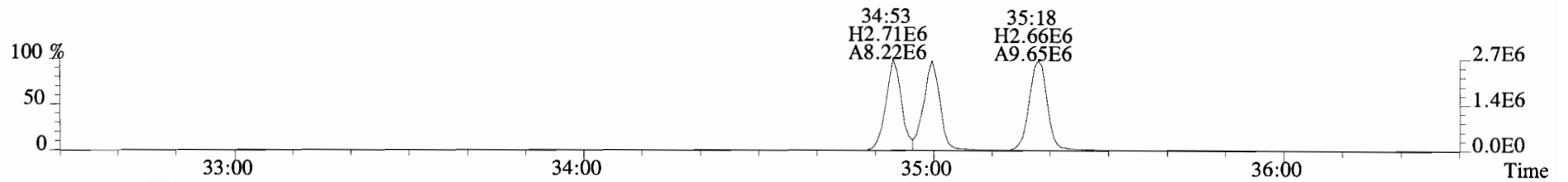
391.8127 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



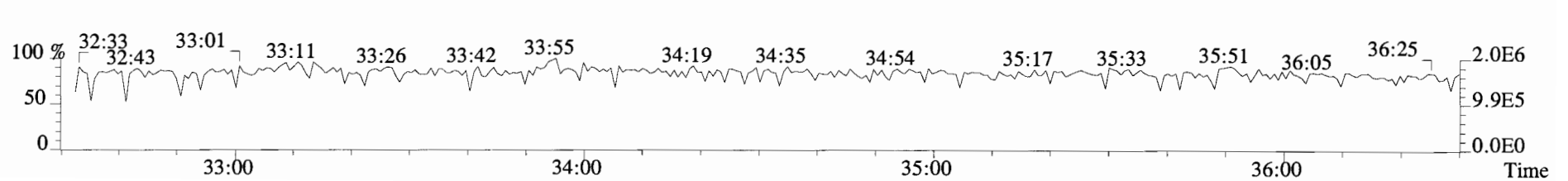
401.8559 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



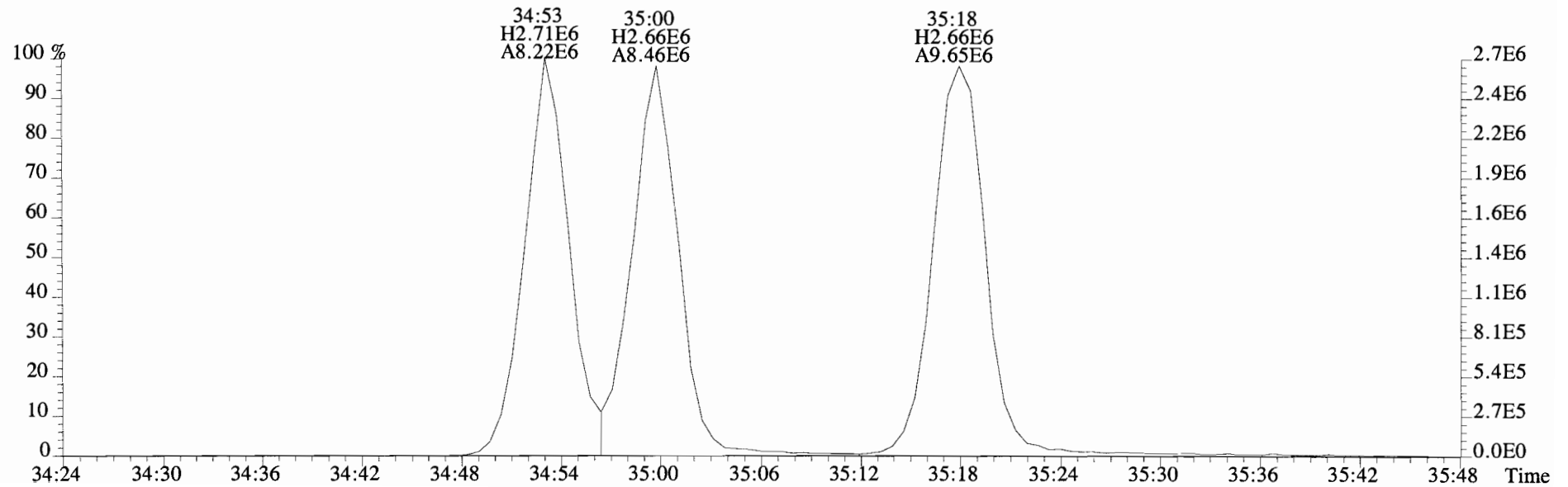
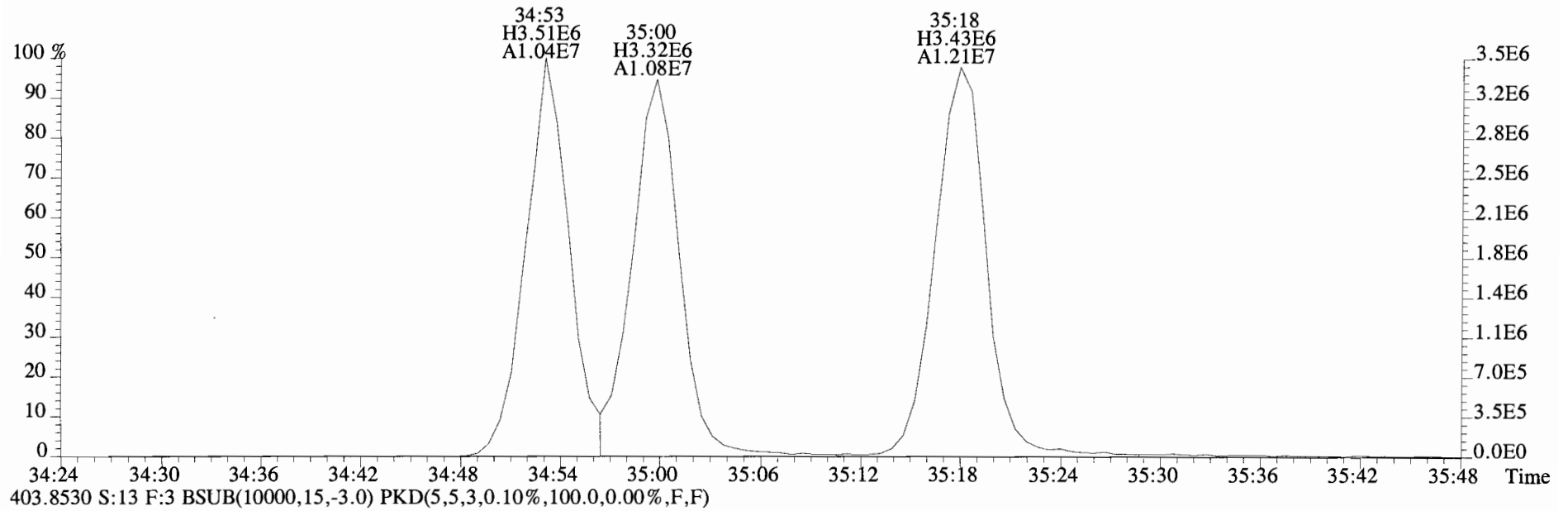
403.8530 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



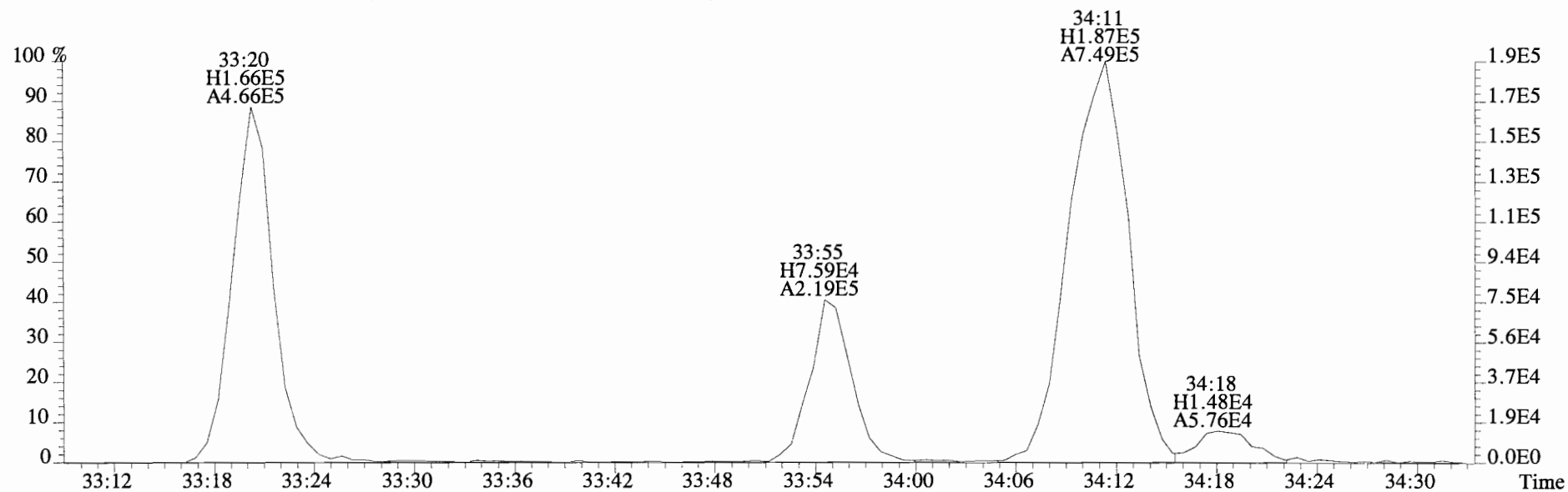
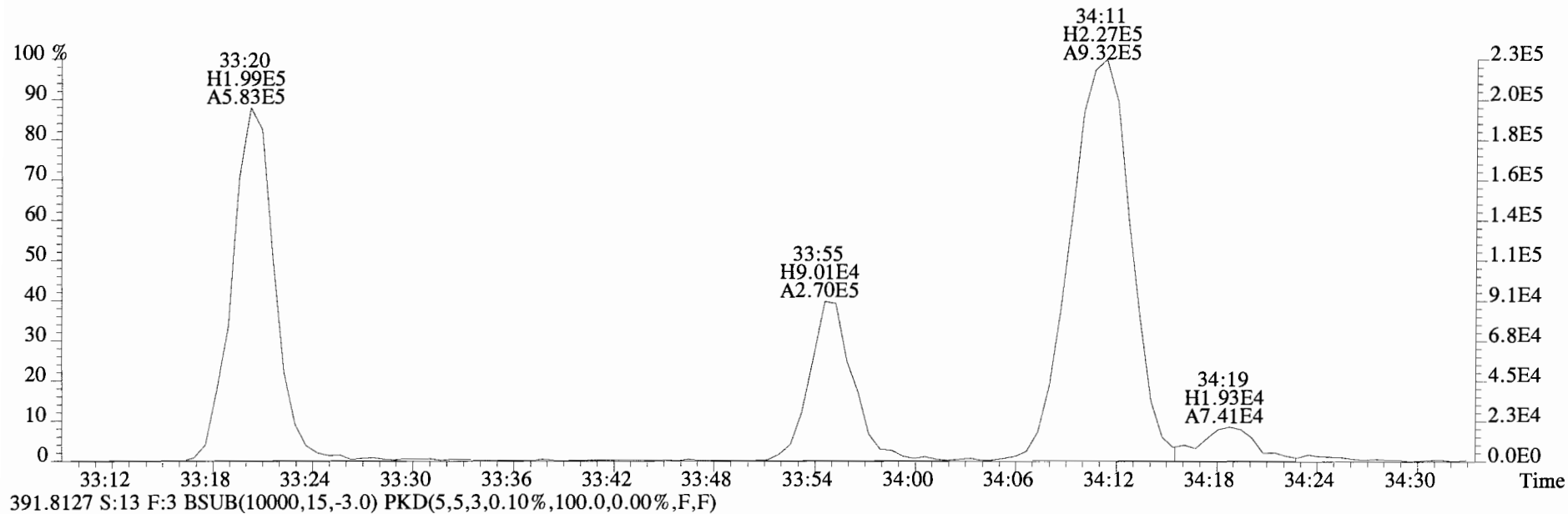
380.9760 S:13 F:3



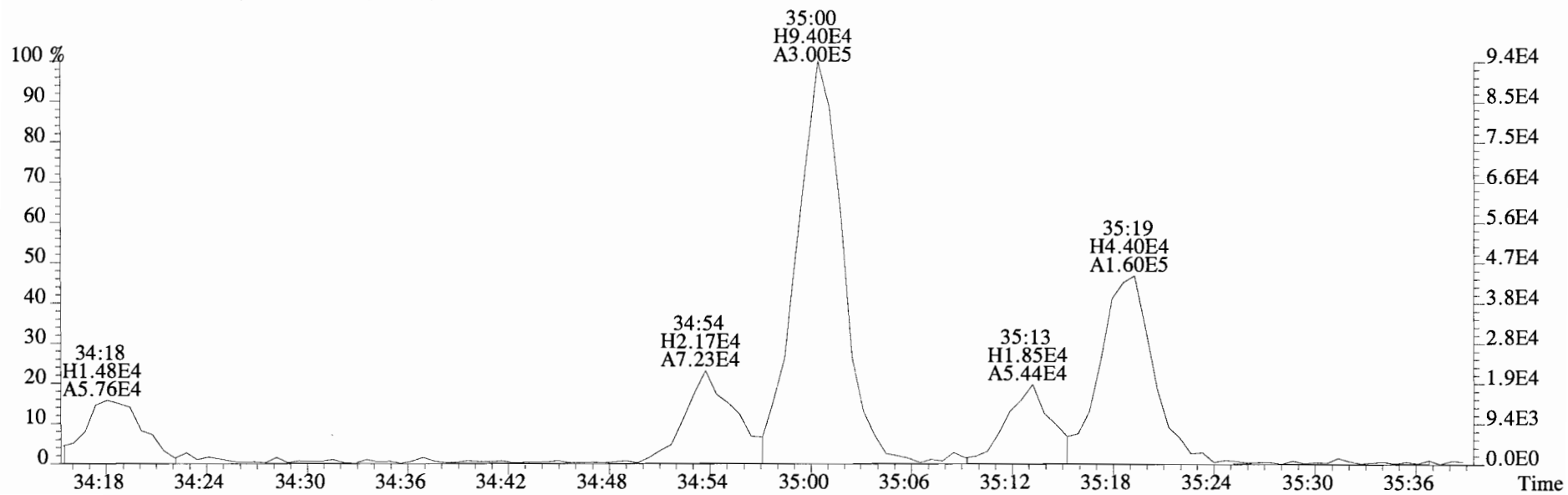
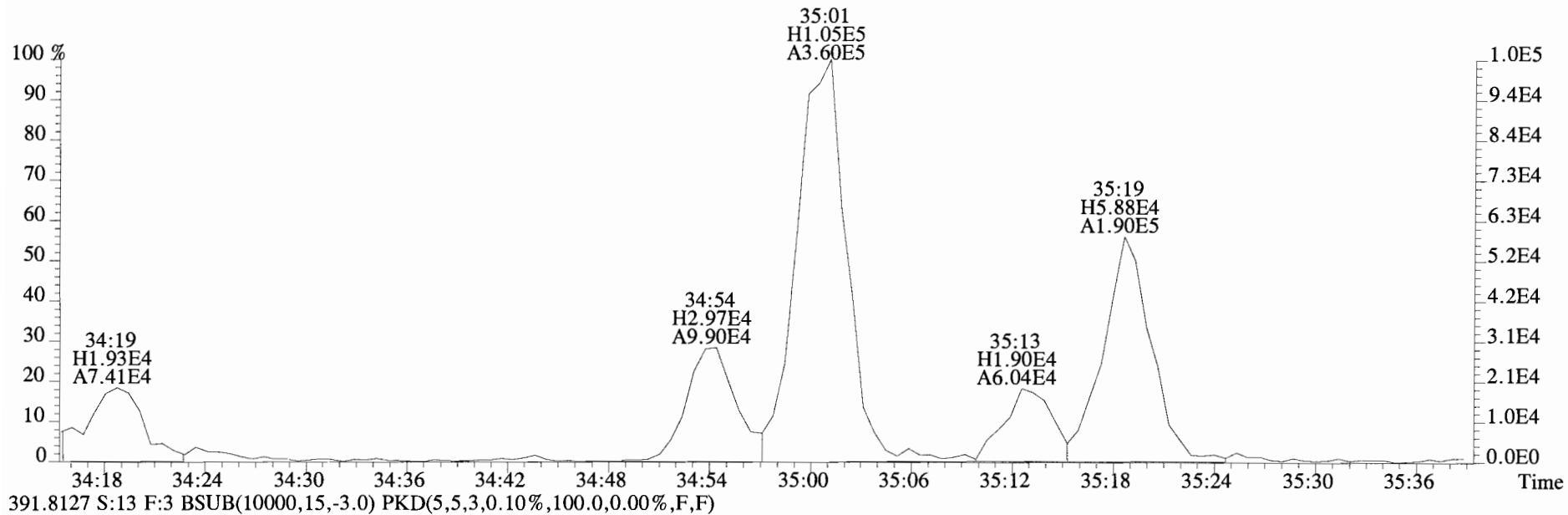
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
401.8559 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



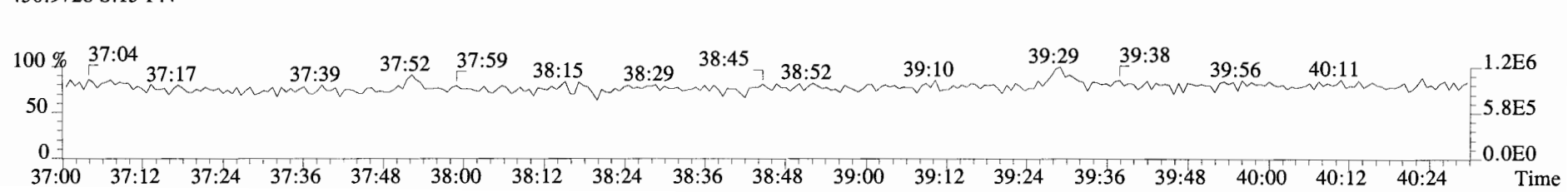
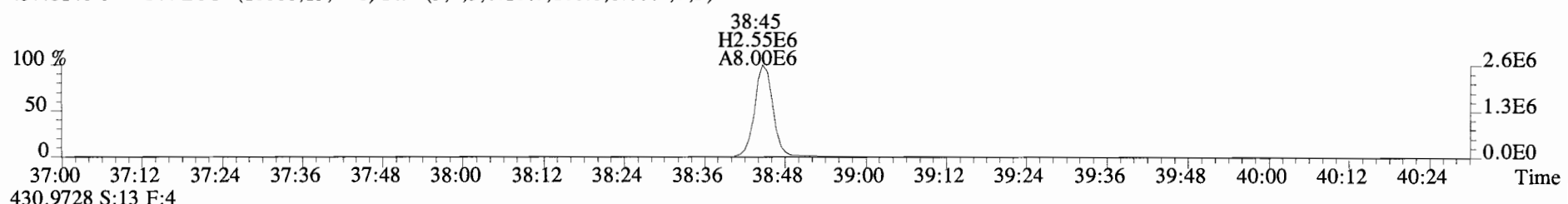
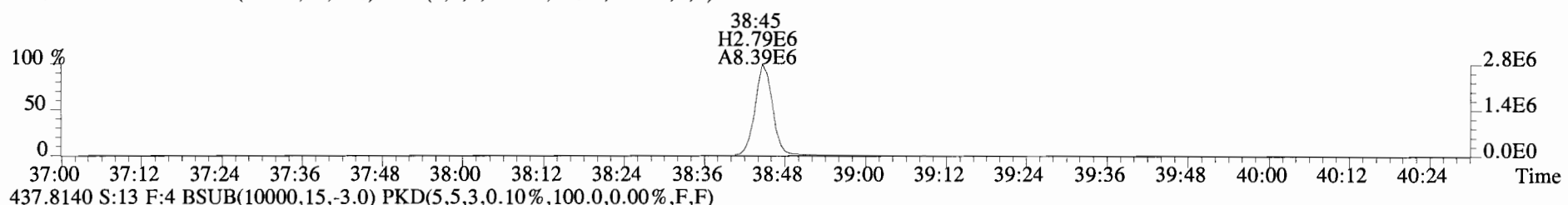
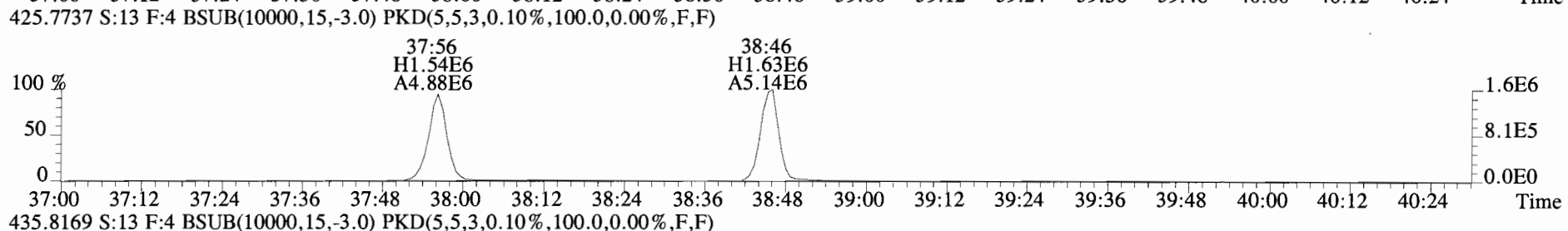
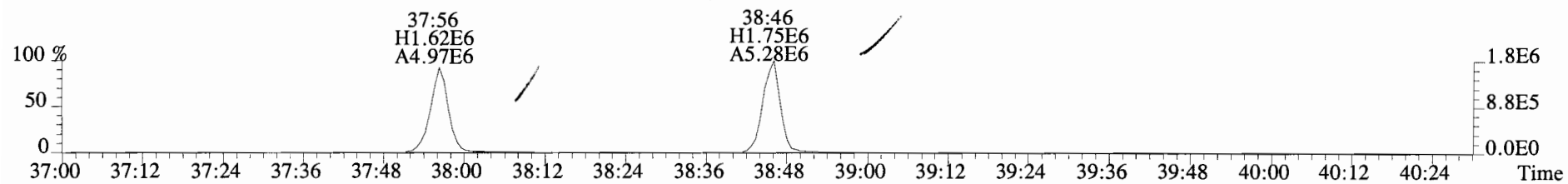
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
389.8156 S:13 F:3 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



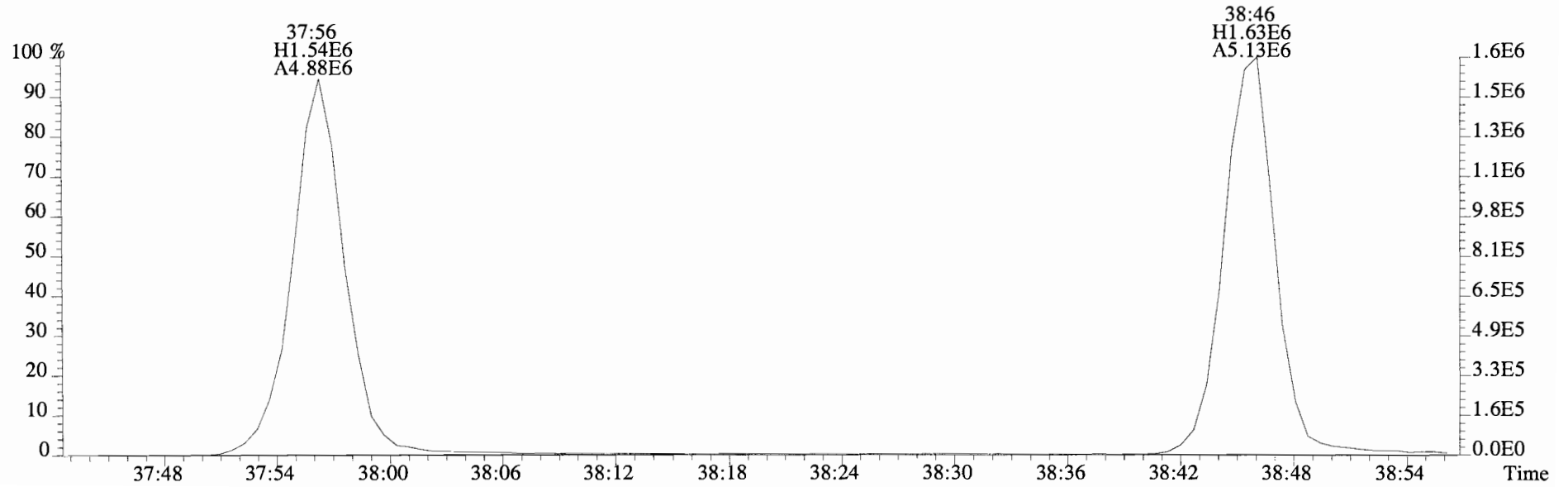
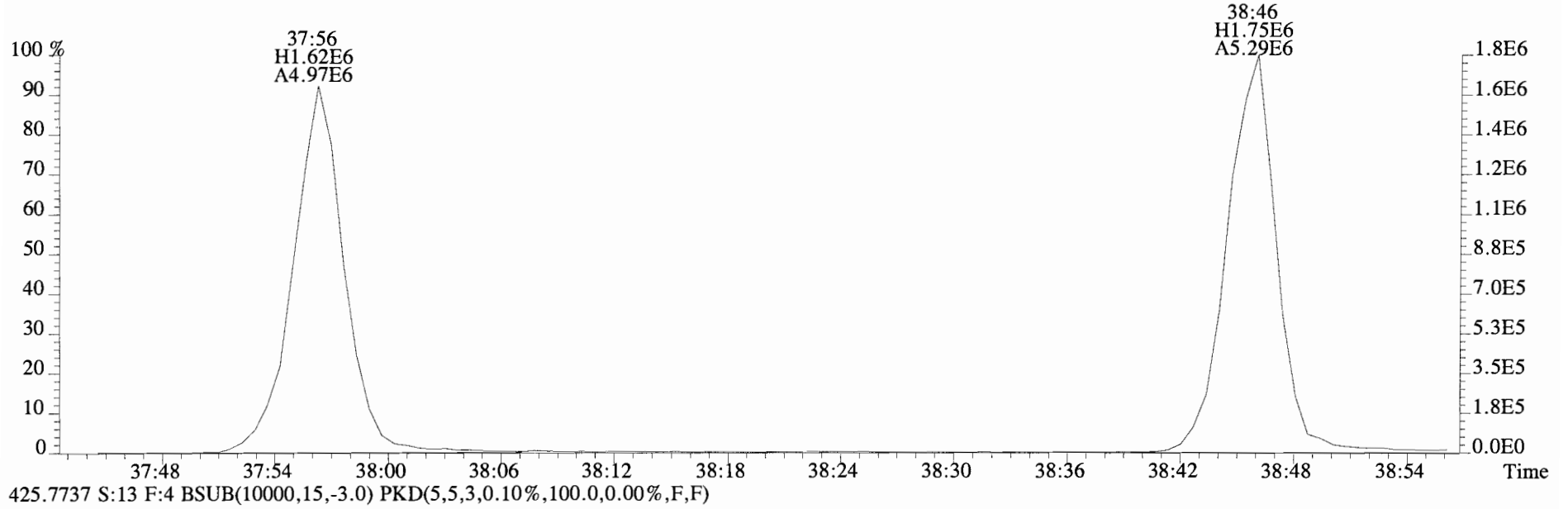
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Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
389.8156 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



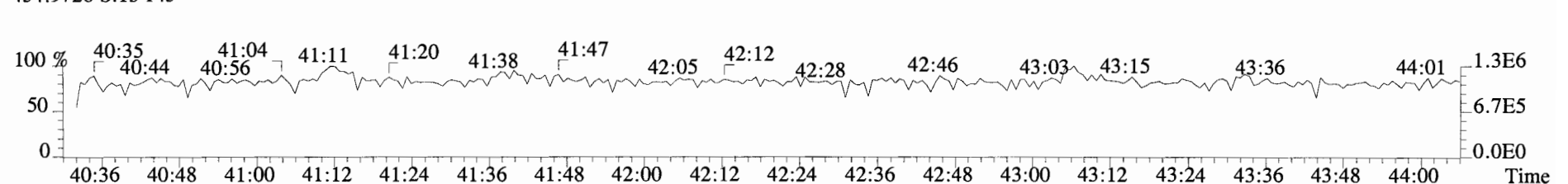
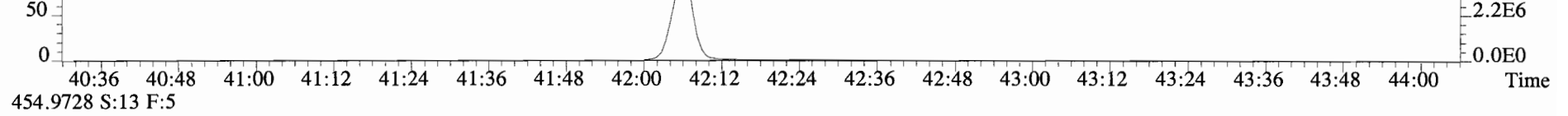
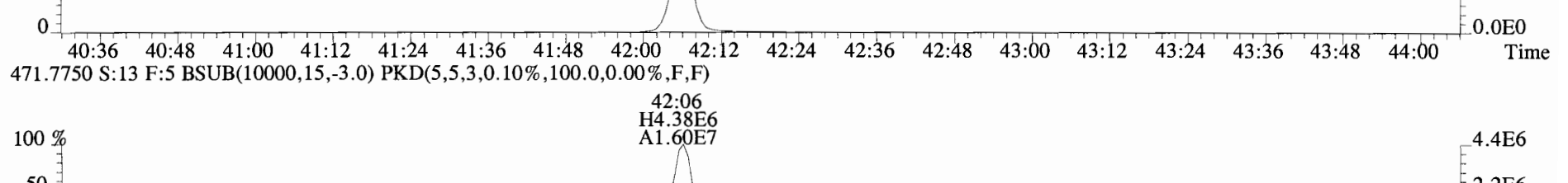
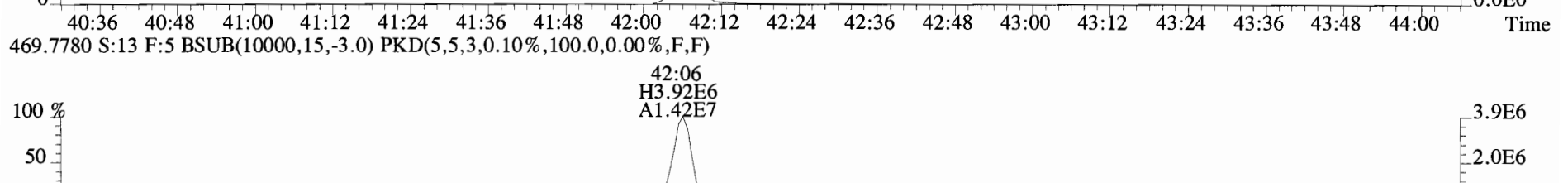
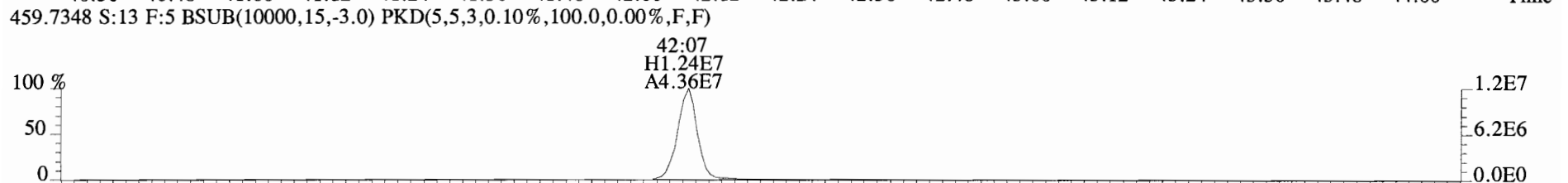
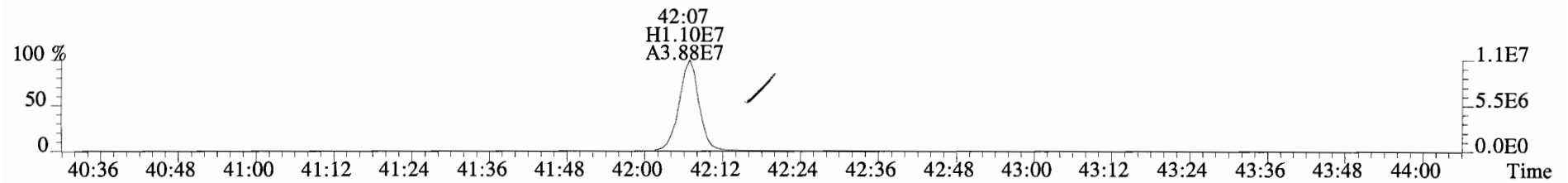
File:140917D1 #1-326 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
423.7767 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



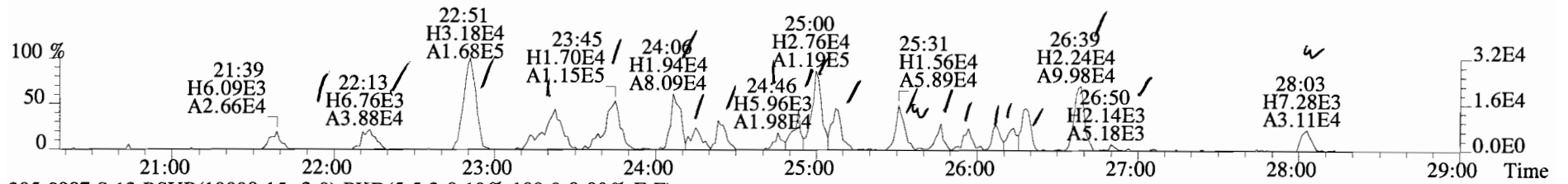
File:140917D1 #1-326 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
423.7767 S:13 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



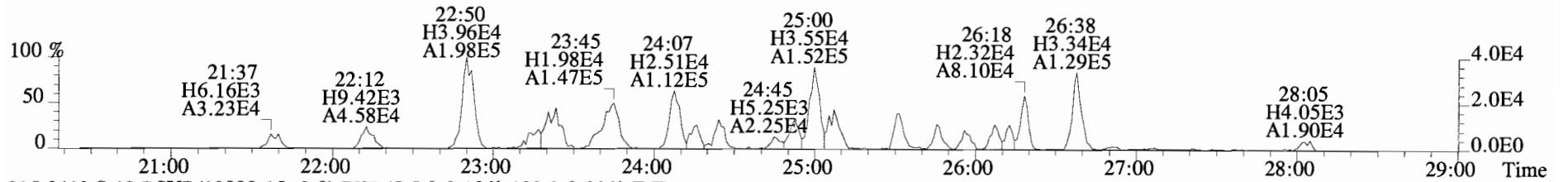
File:140917D1 #1-389 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
457.7377 S:13 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



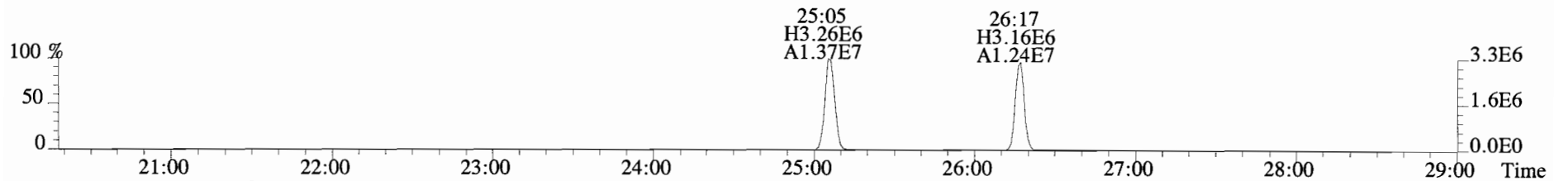
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



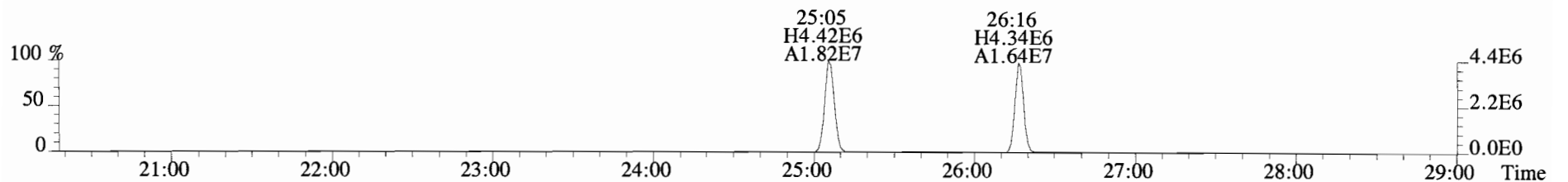
305.8987 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



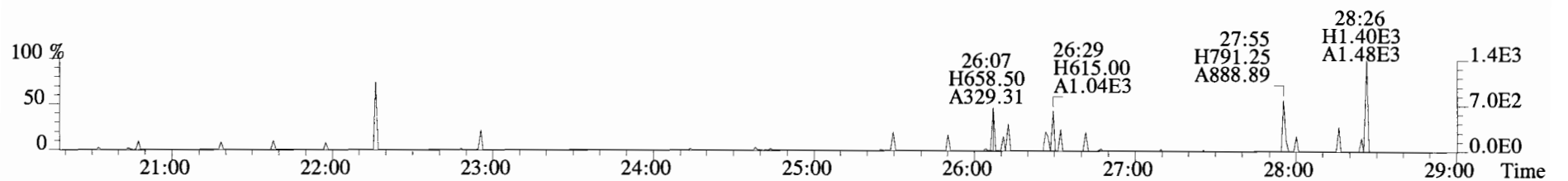
315.9419 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



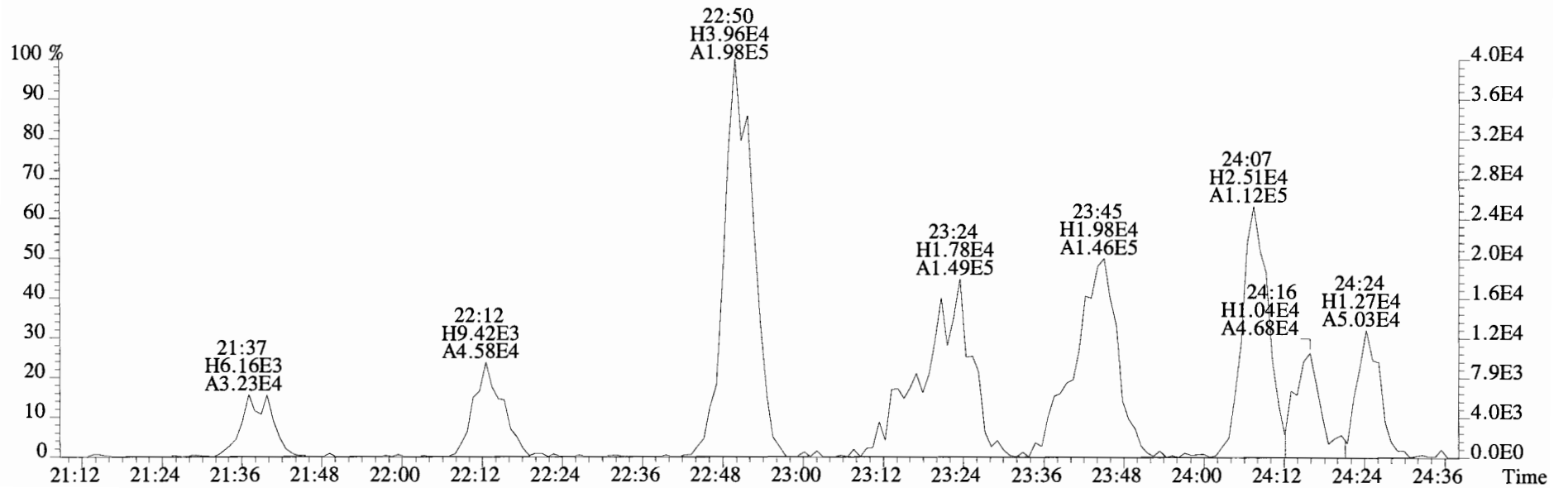
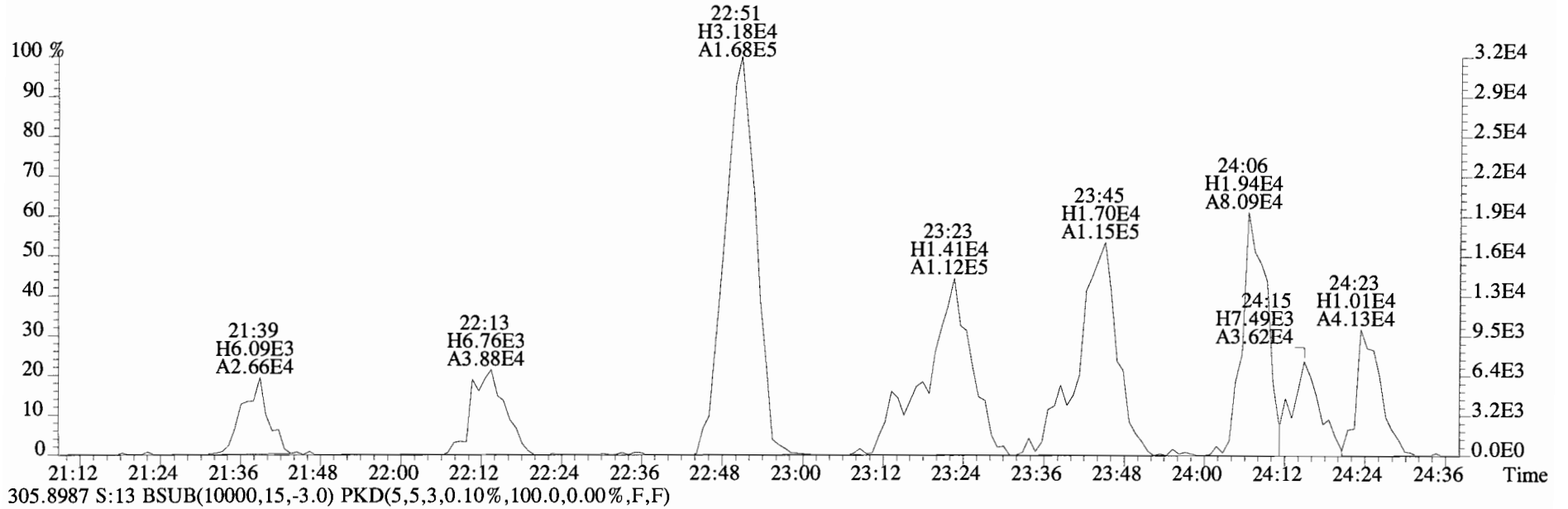
317.9389 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



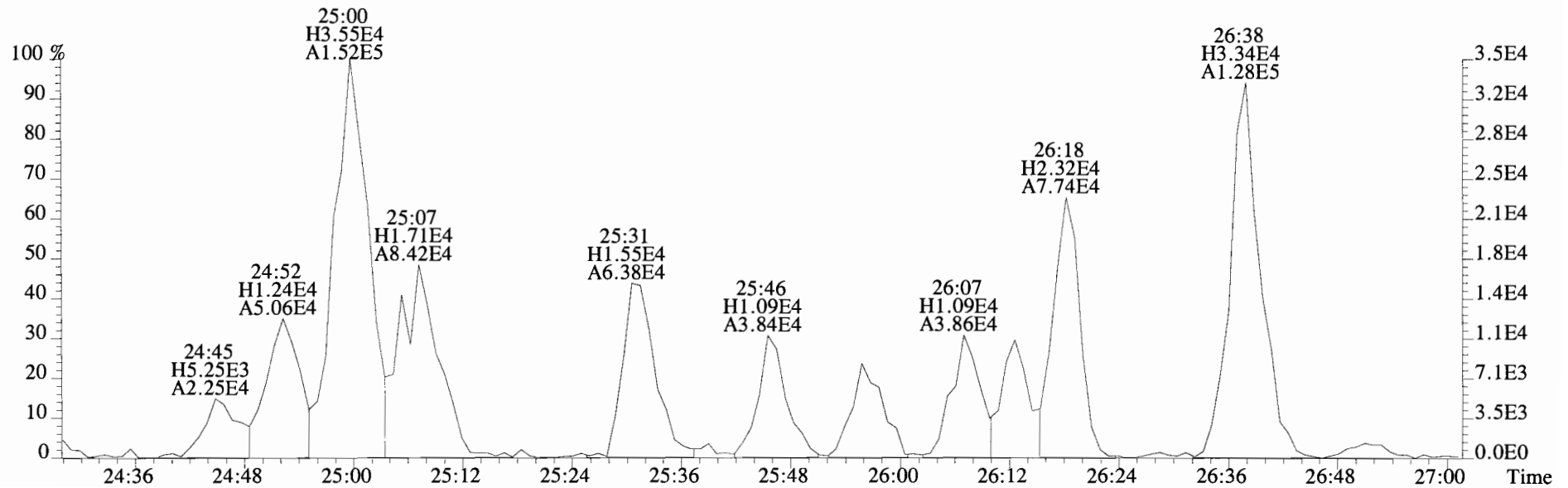
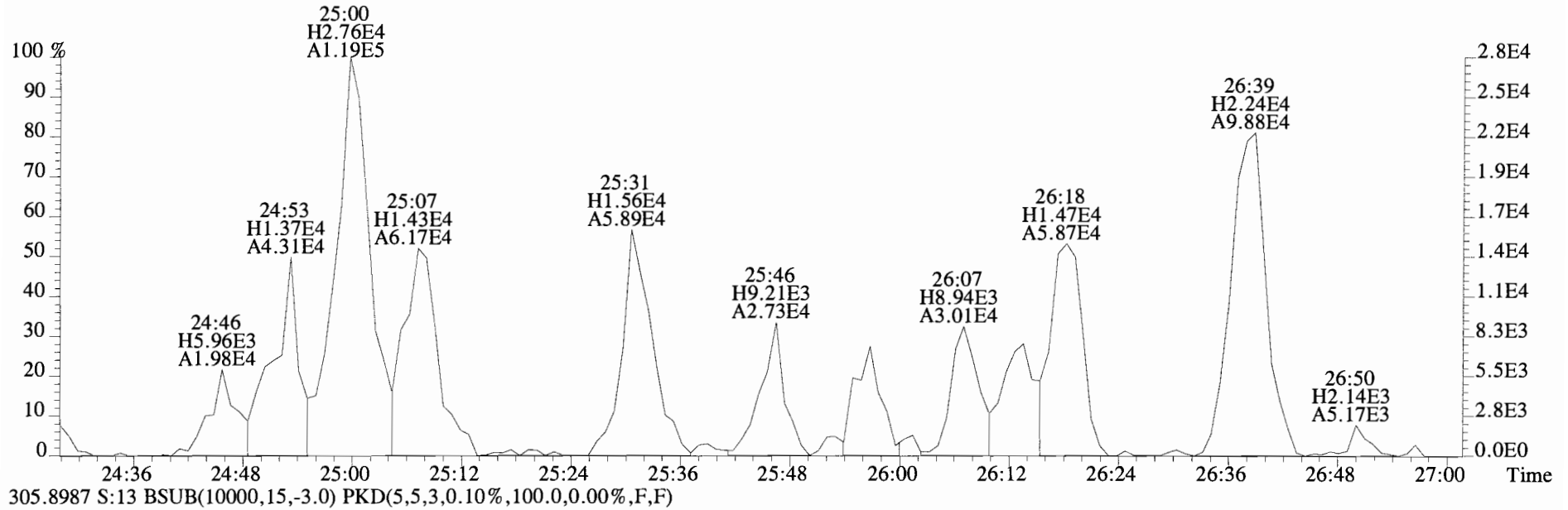
375.8364 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



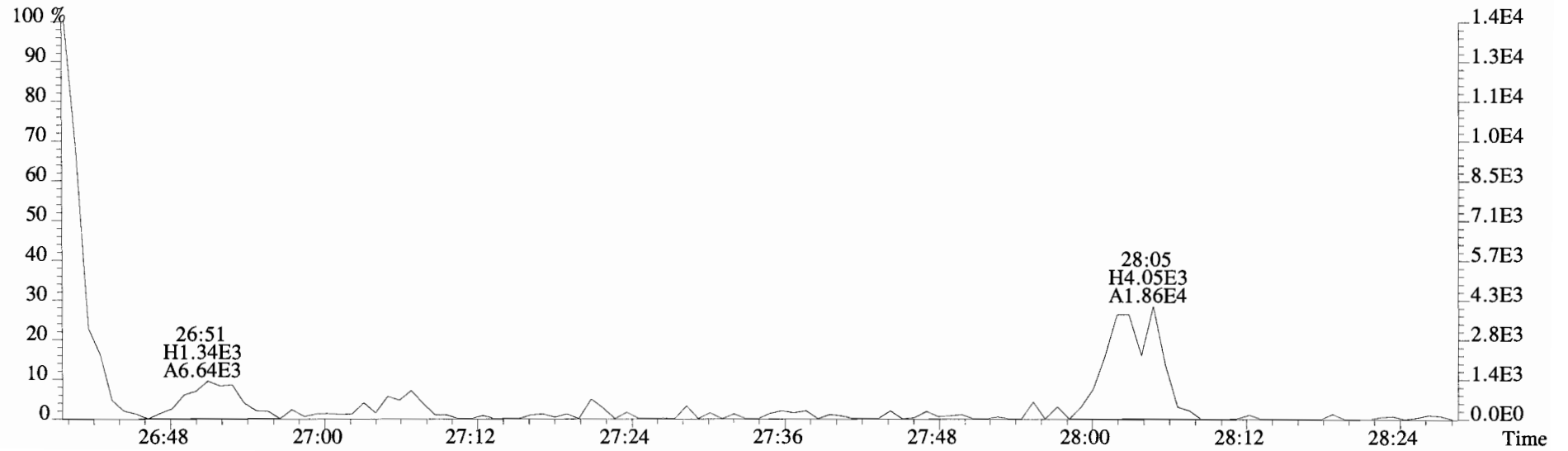
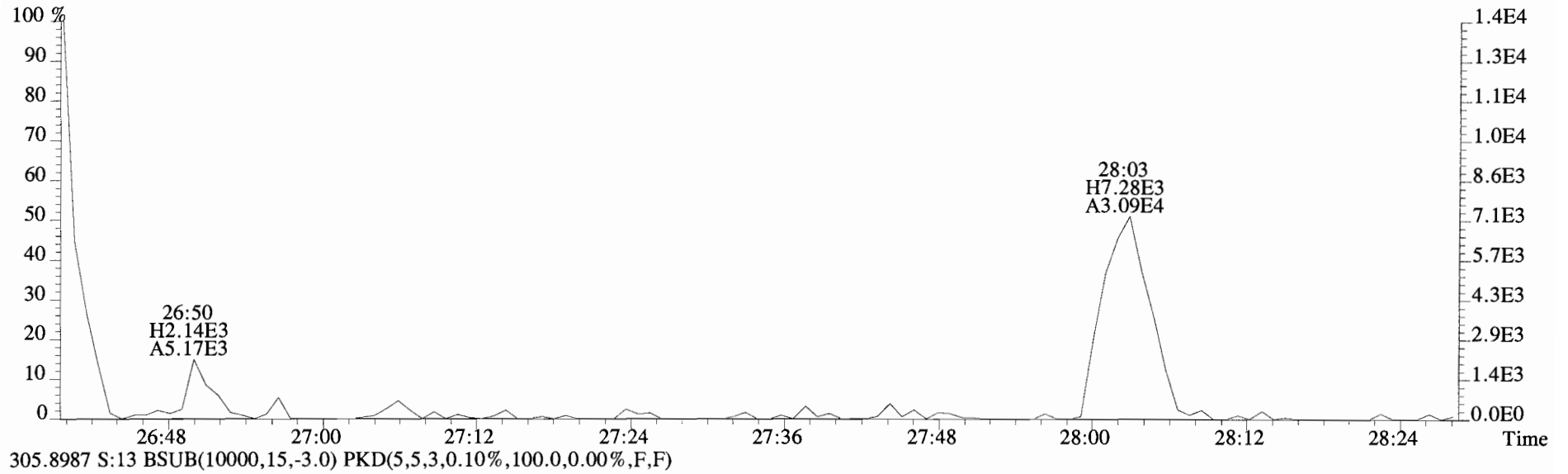
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
 303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



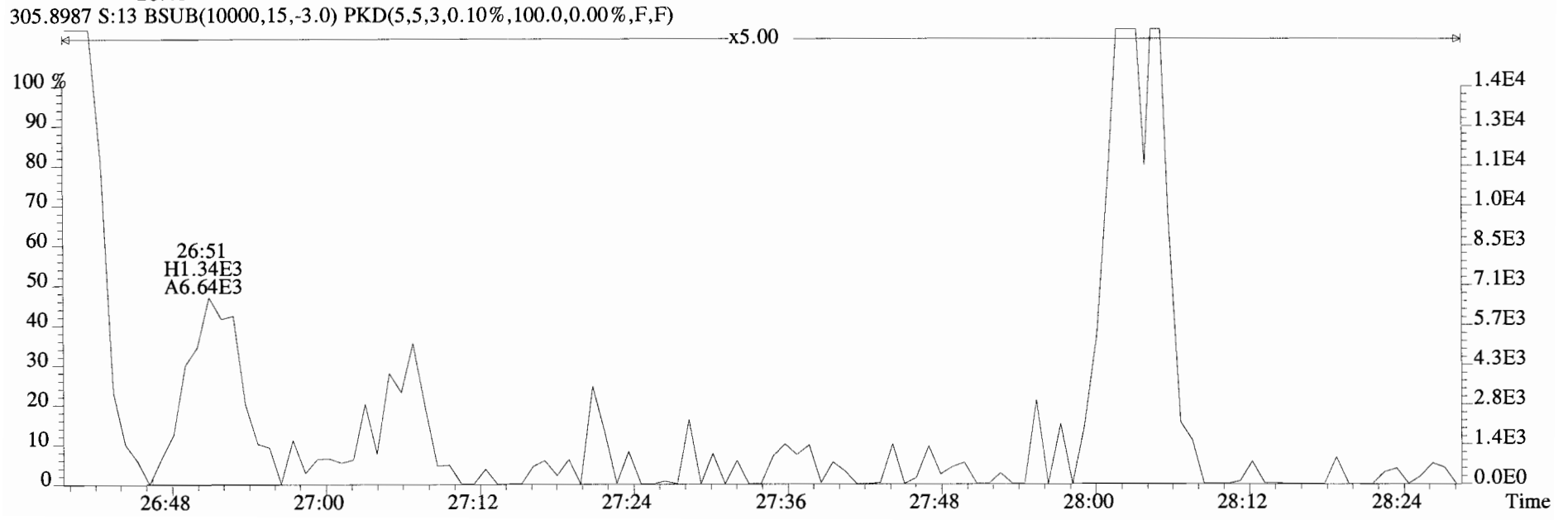
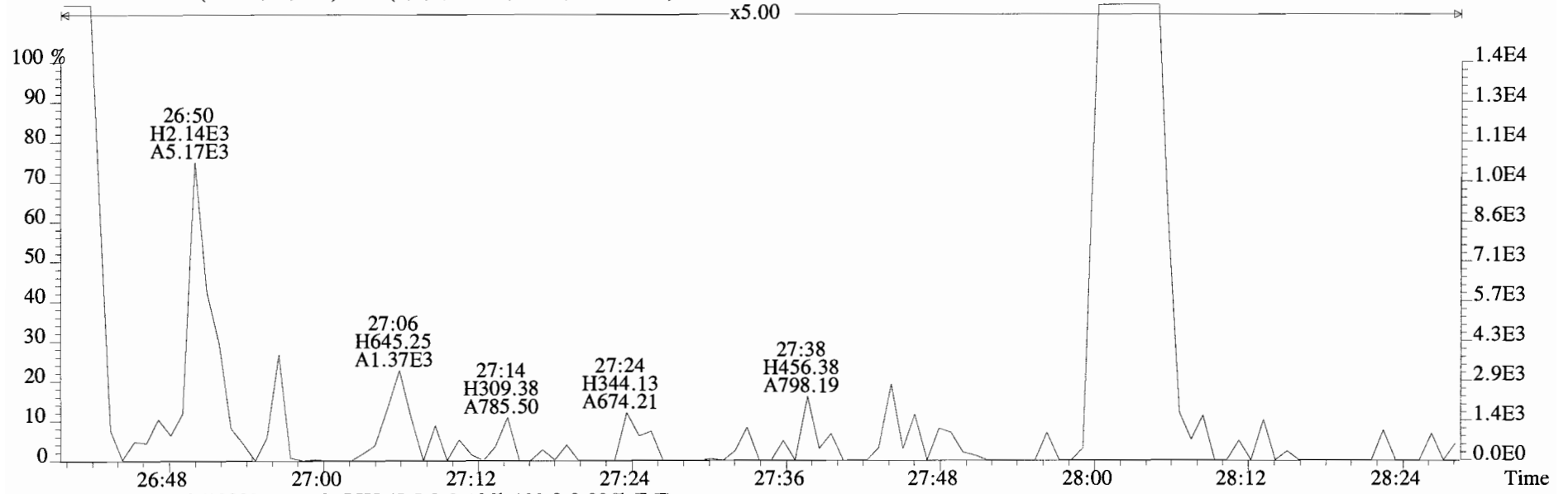
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Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



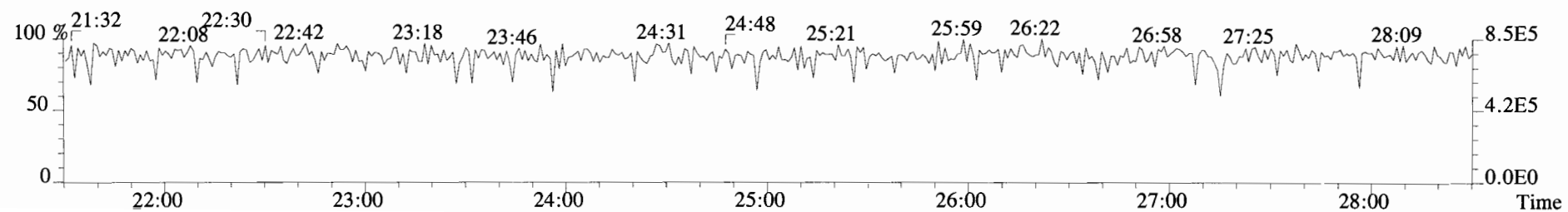
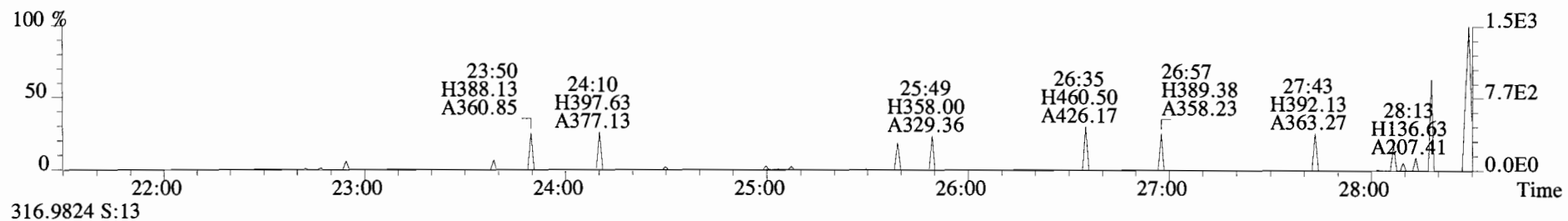
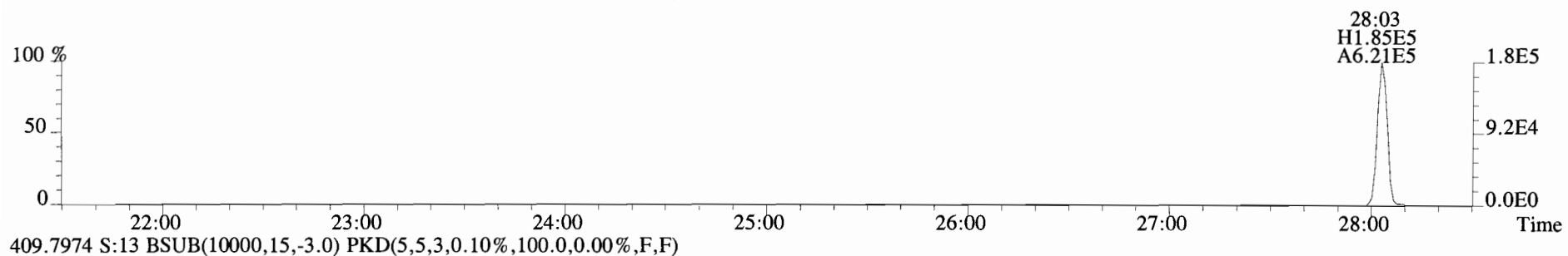
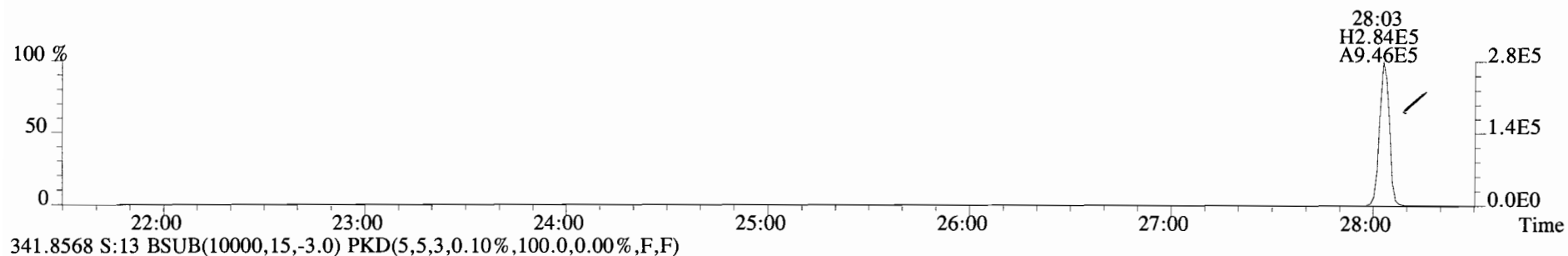
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Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



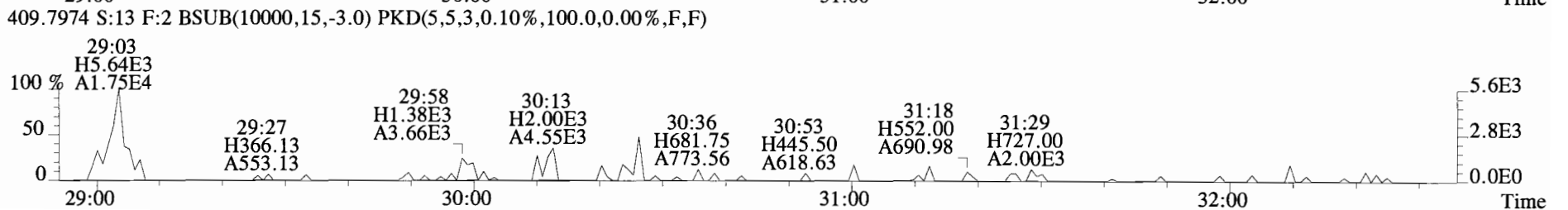
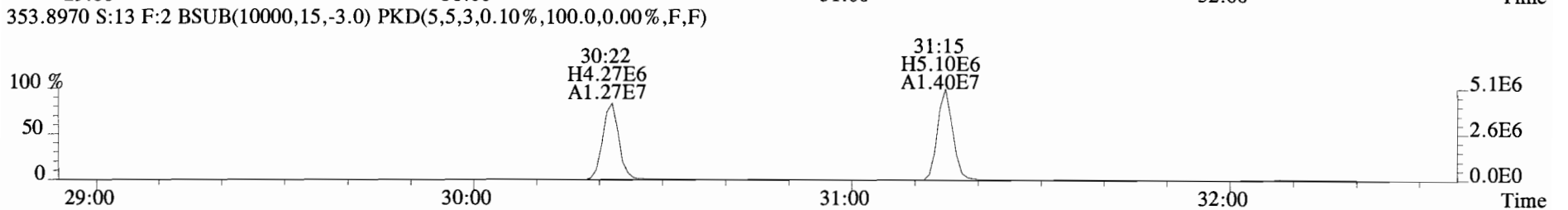
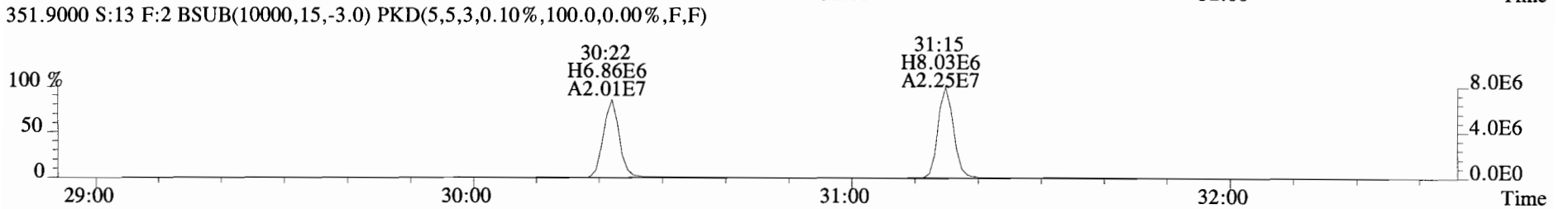
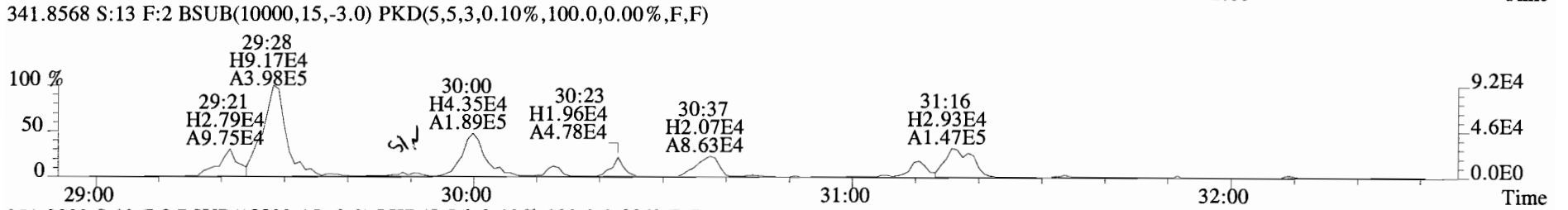
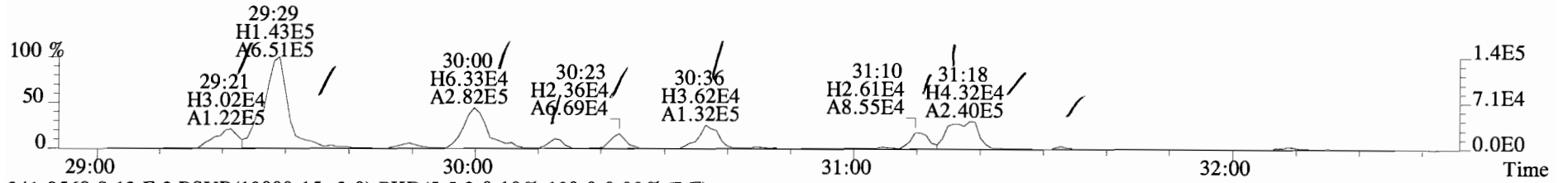
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
303.9016 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



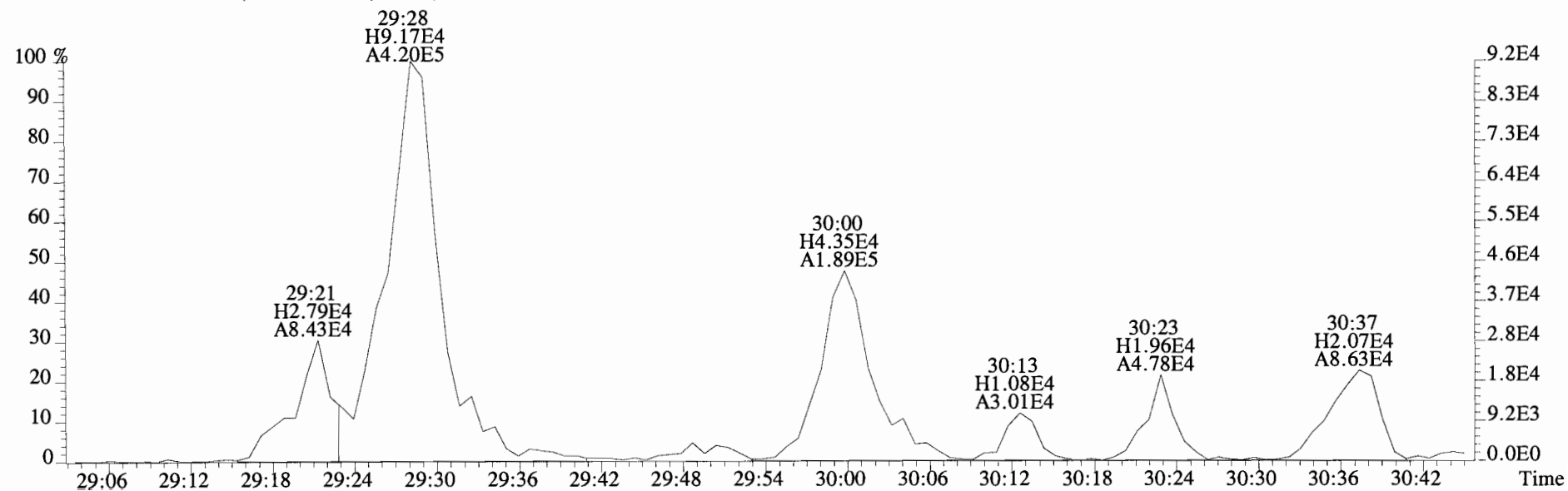
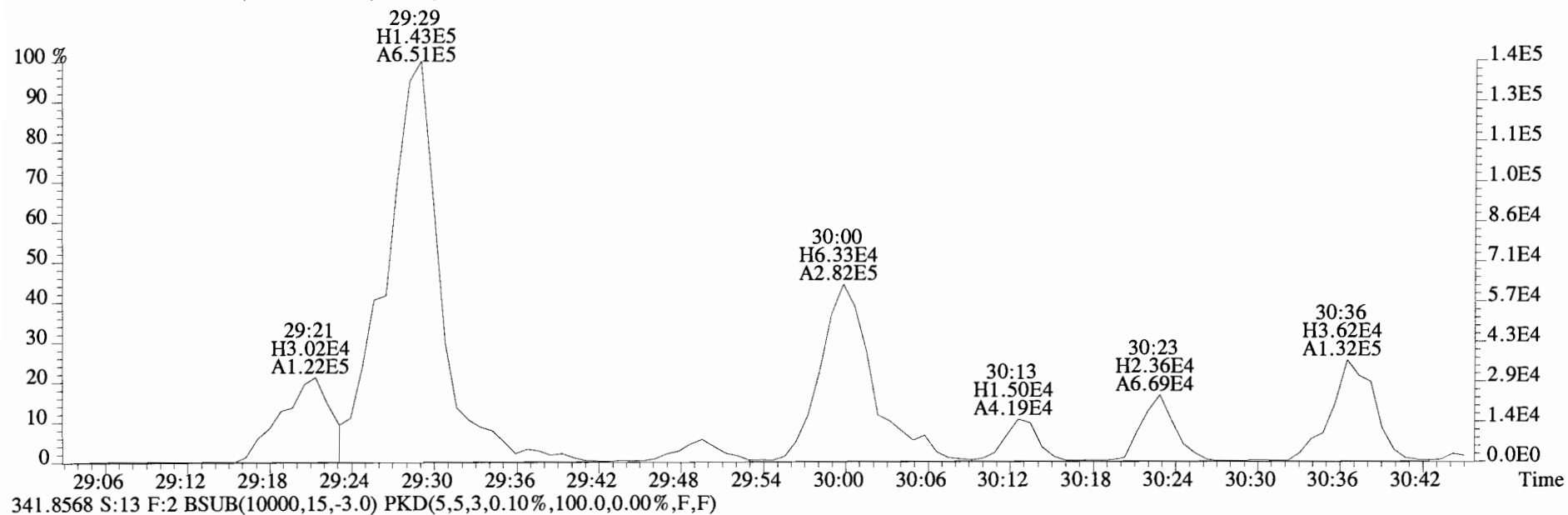
File:140917D1 #1-551 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
339.8597 S:13 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



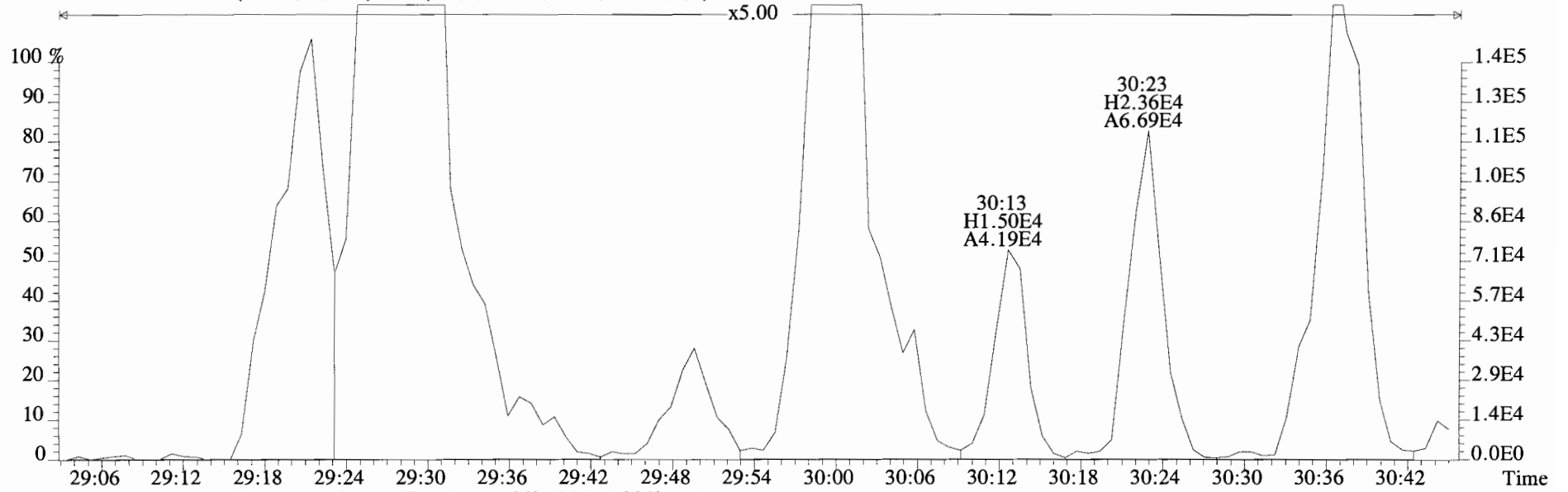
File:140917D1 #1-257 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
339.8597 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



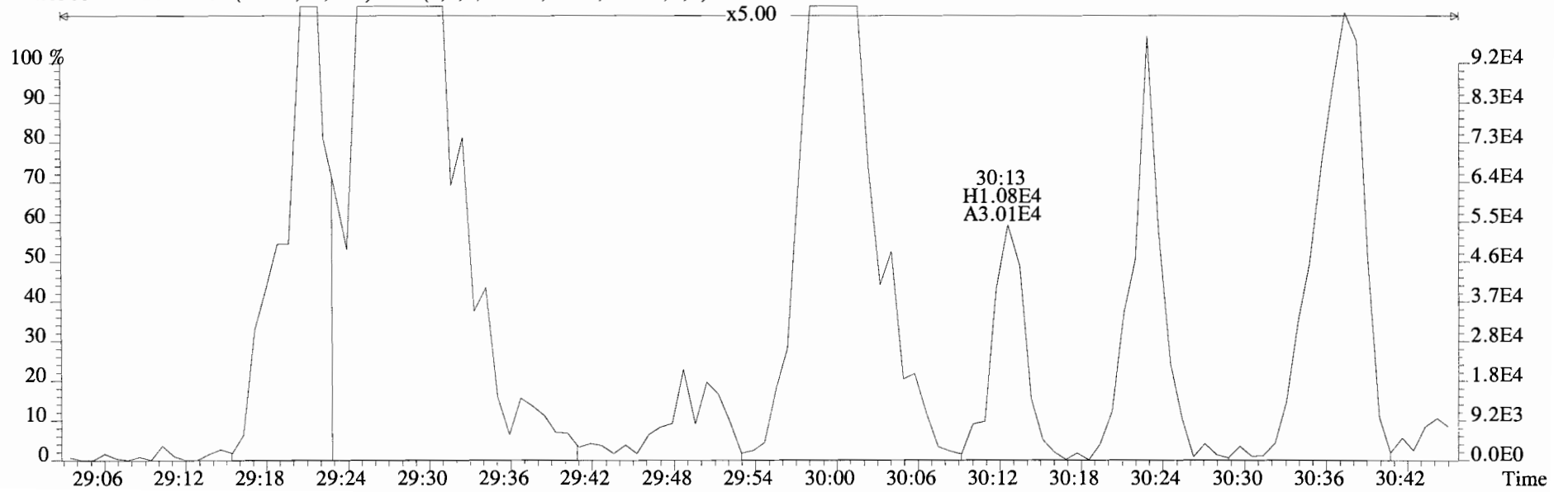
File:140917D1 #1-257 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
339.8597 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



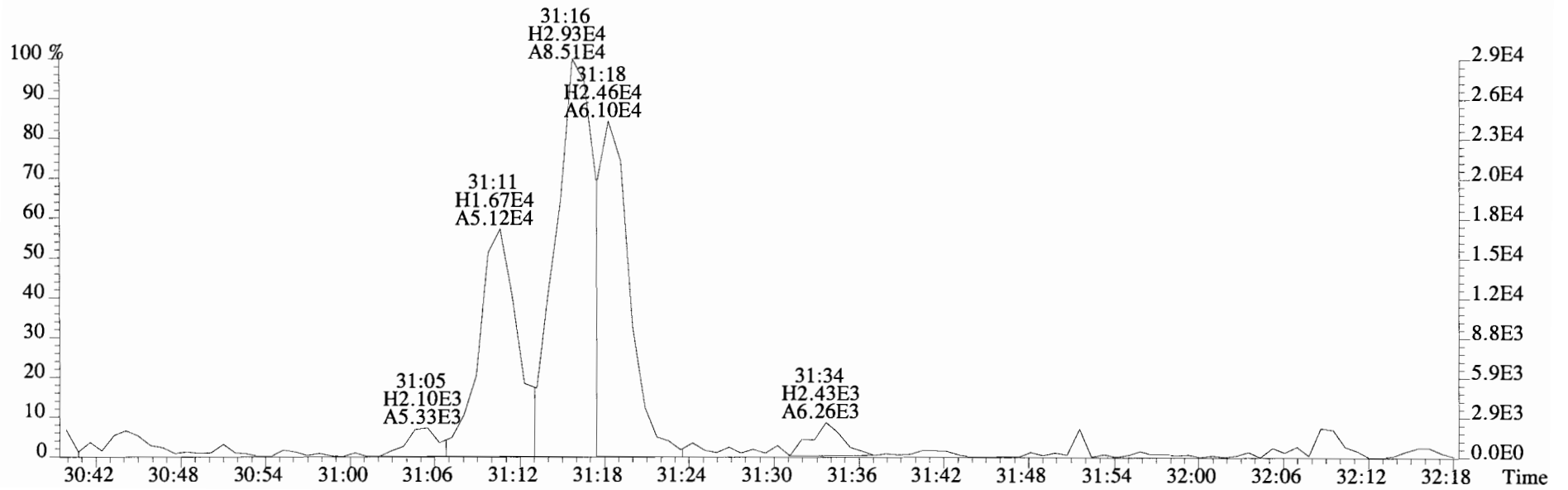
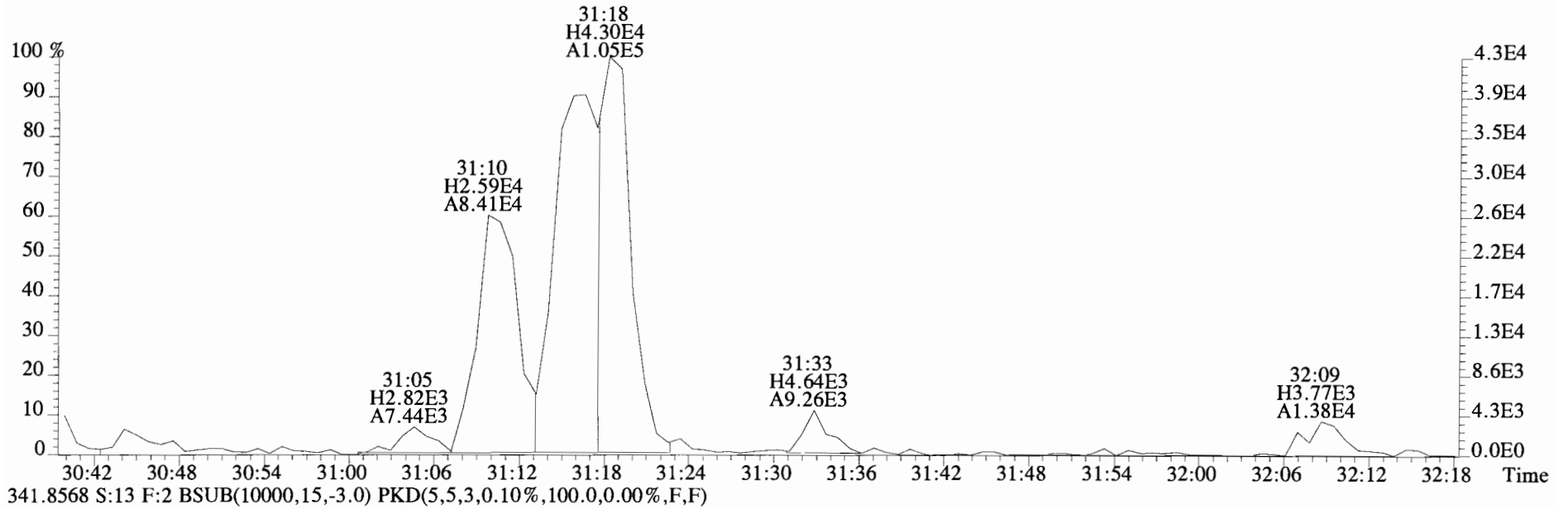
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Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
339.8597 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



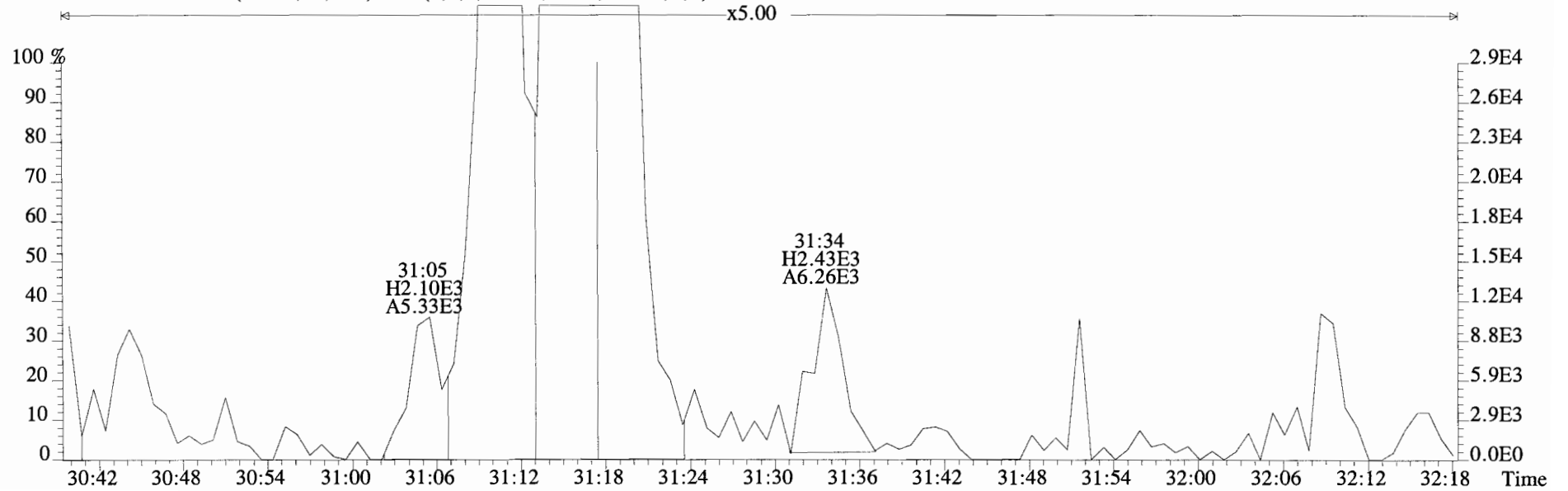
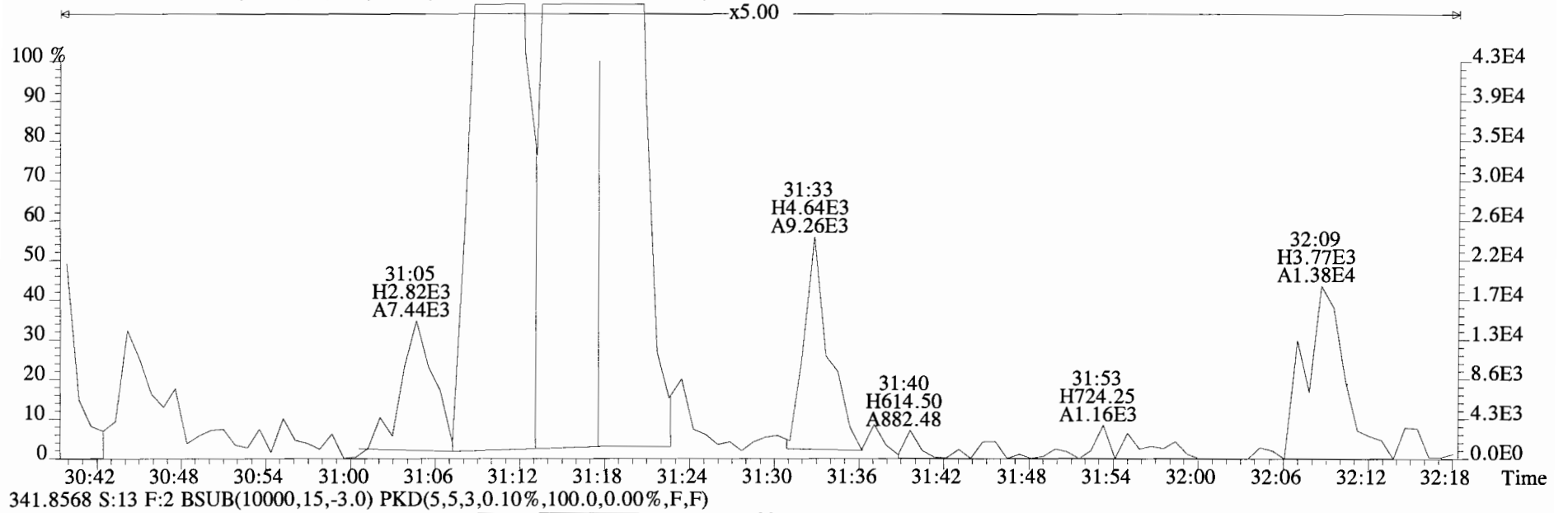
341.8568 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



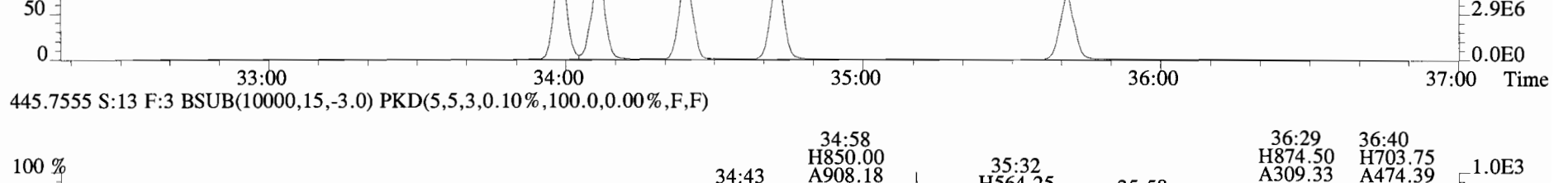
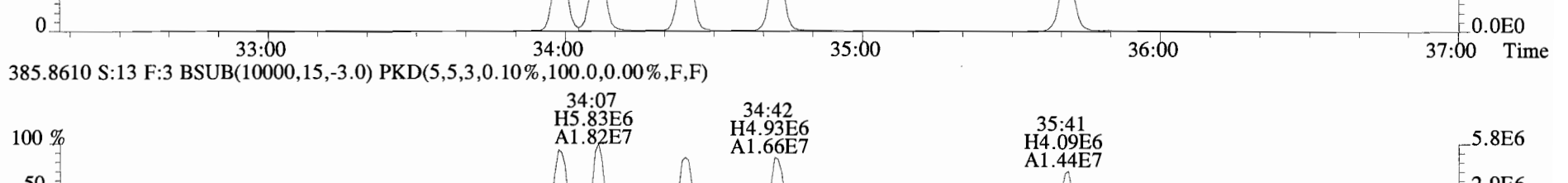
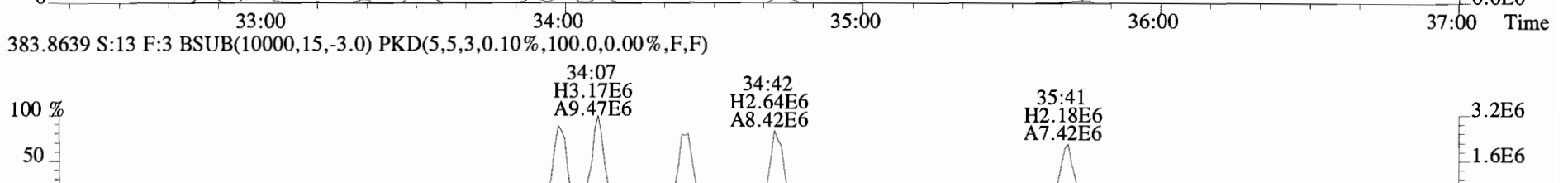
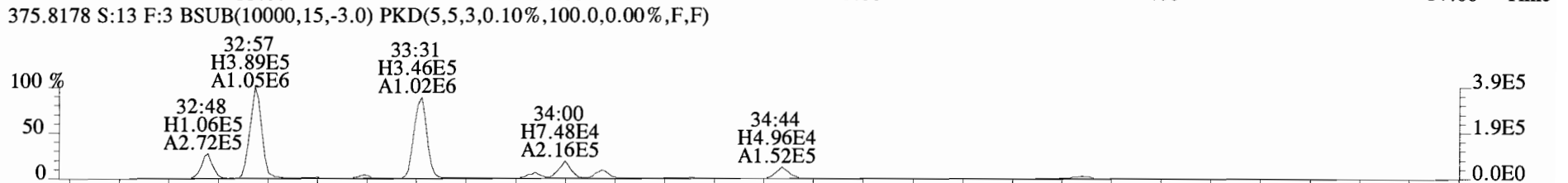
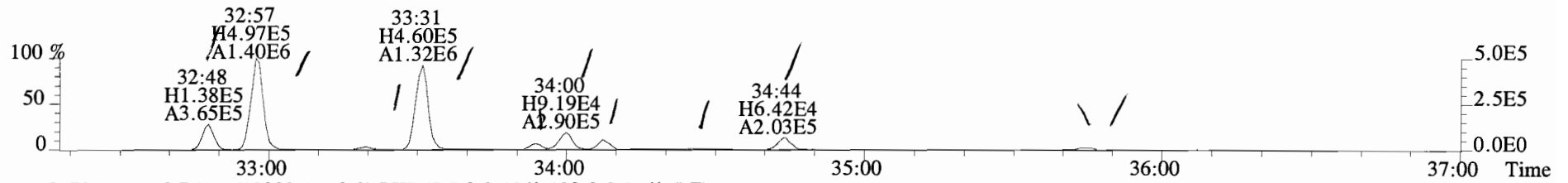
File:140917D1 #1-257 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
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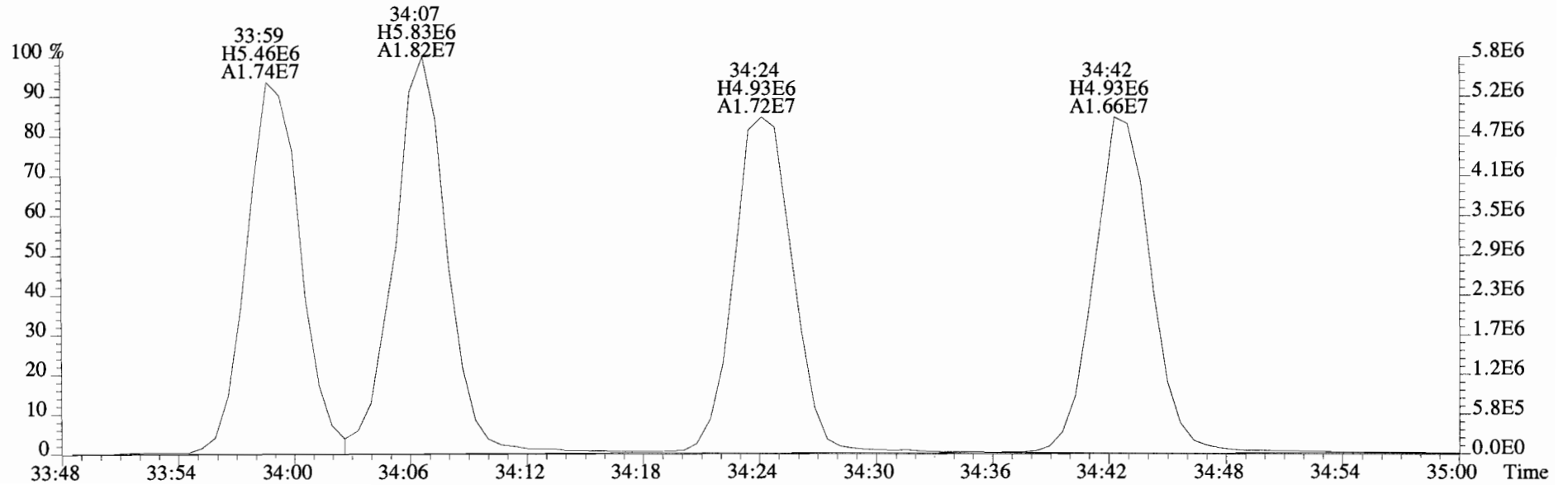
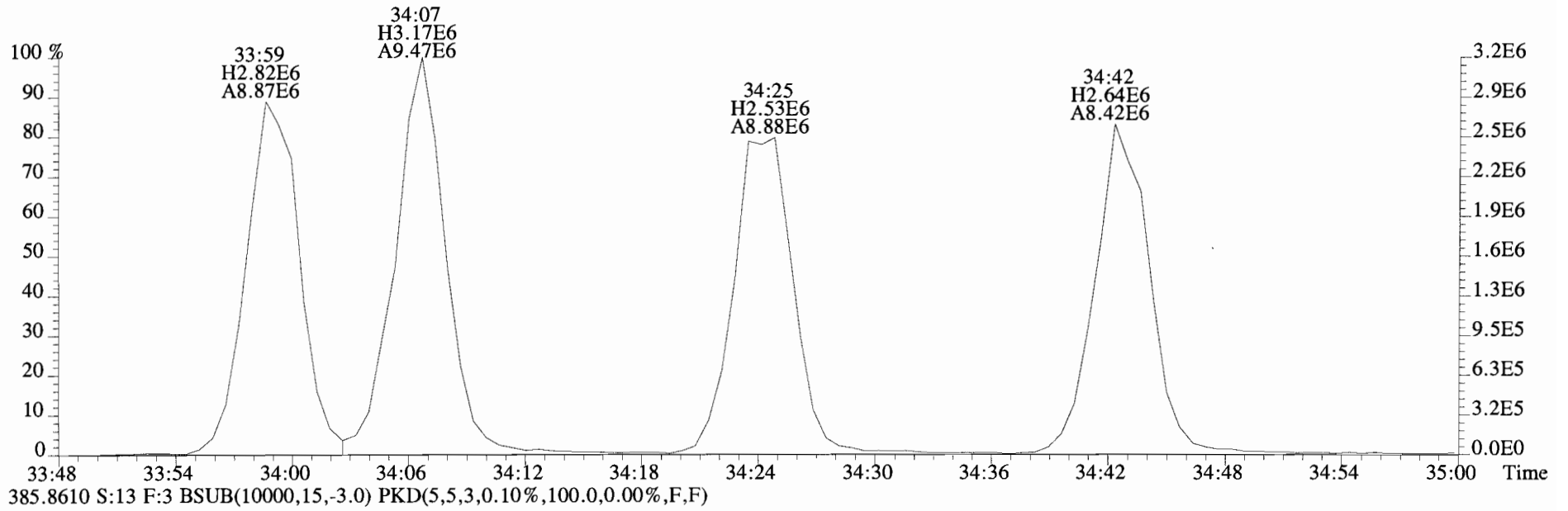
File:140917D1 #1-257 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
339.8597 S:13 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



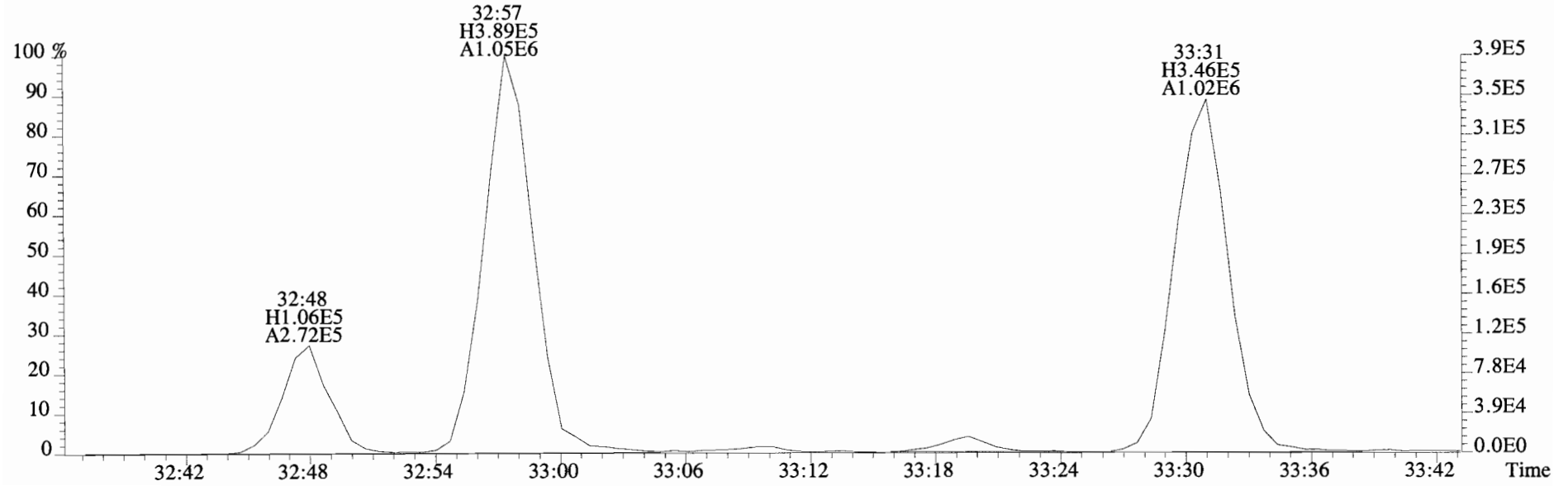
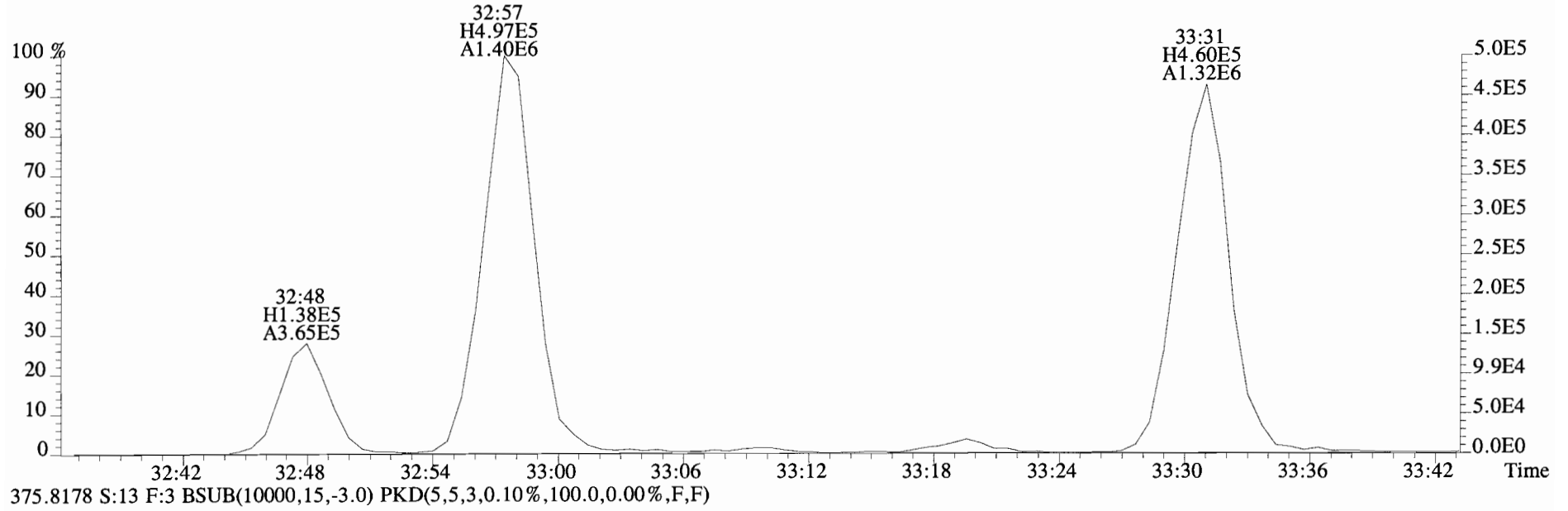
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



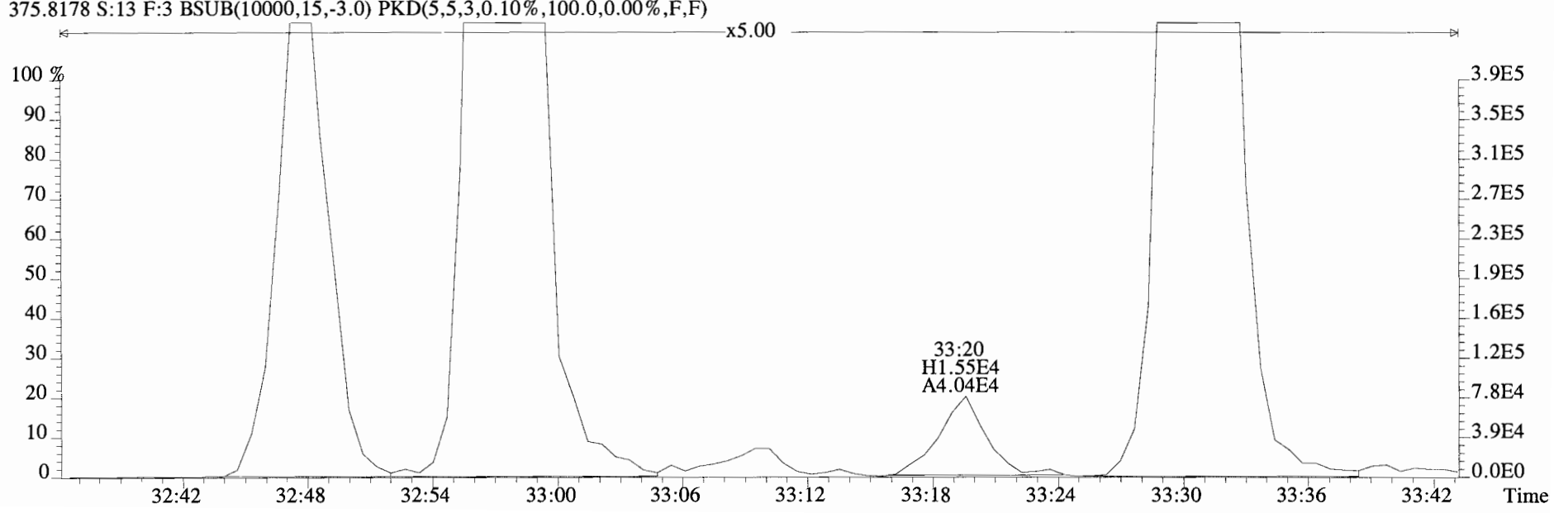
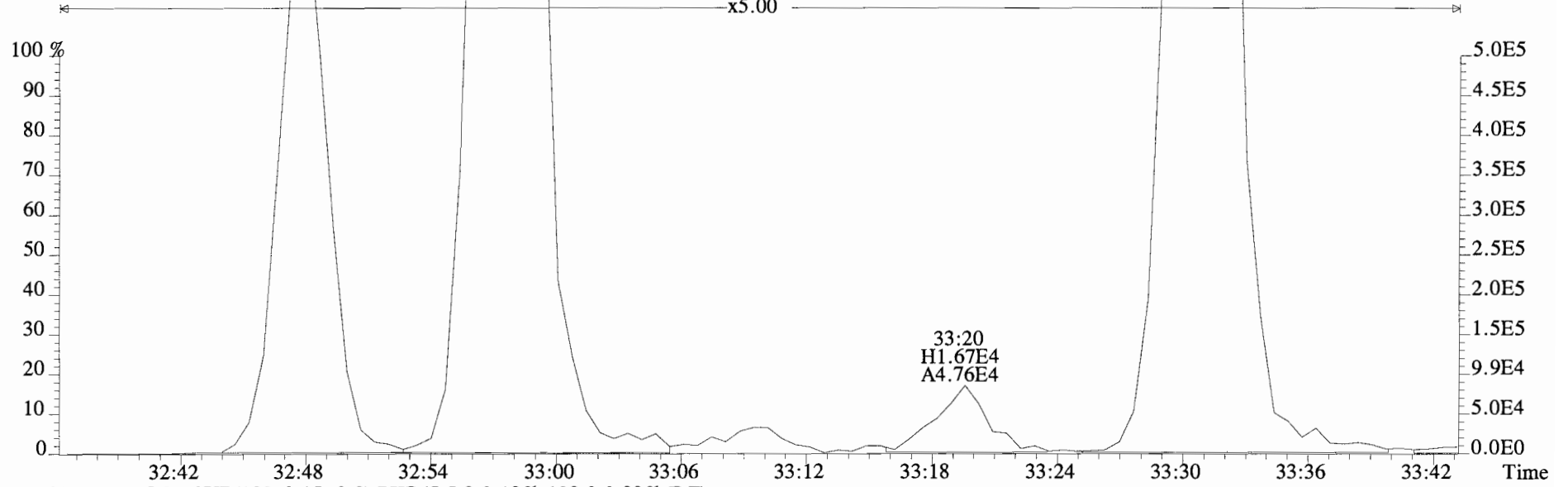
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
383.8639 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



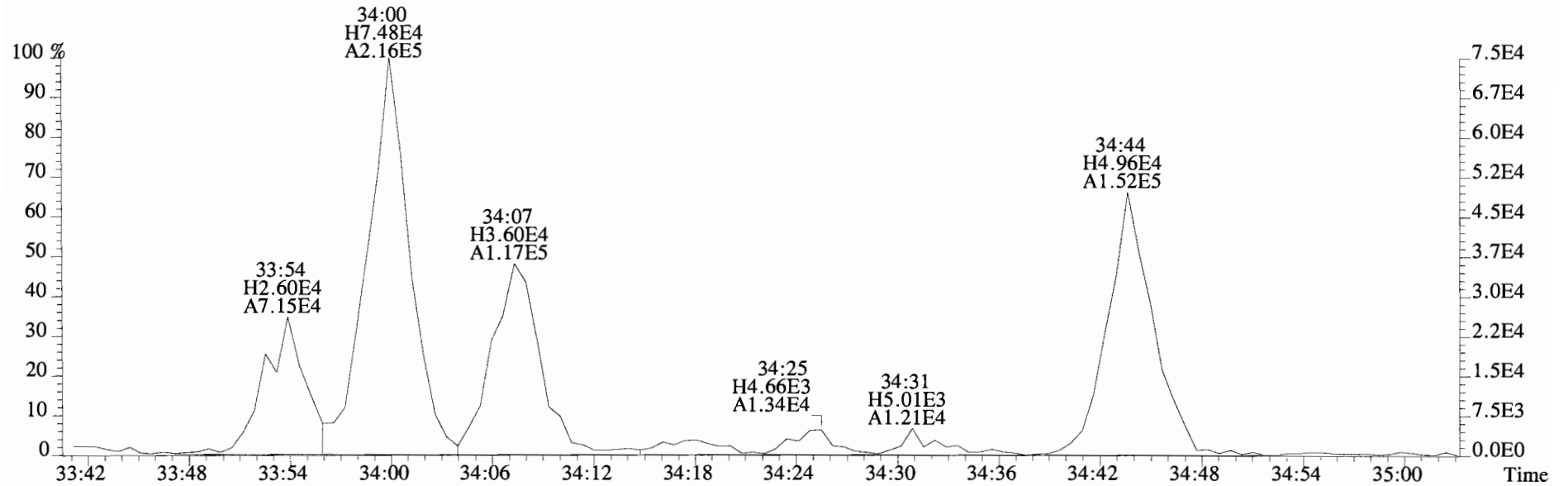
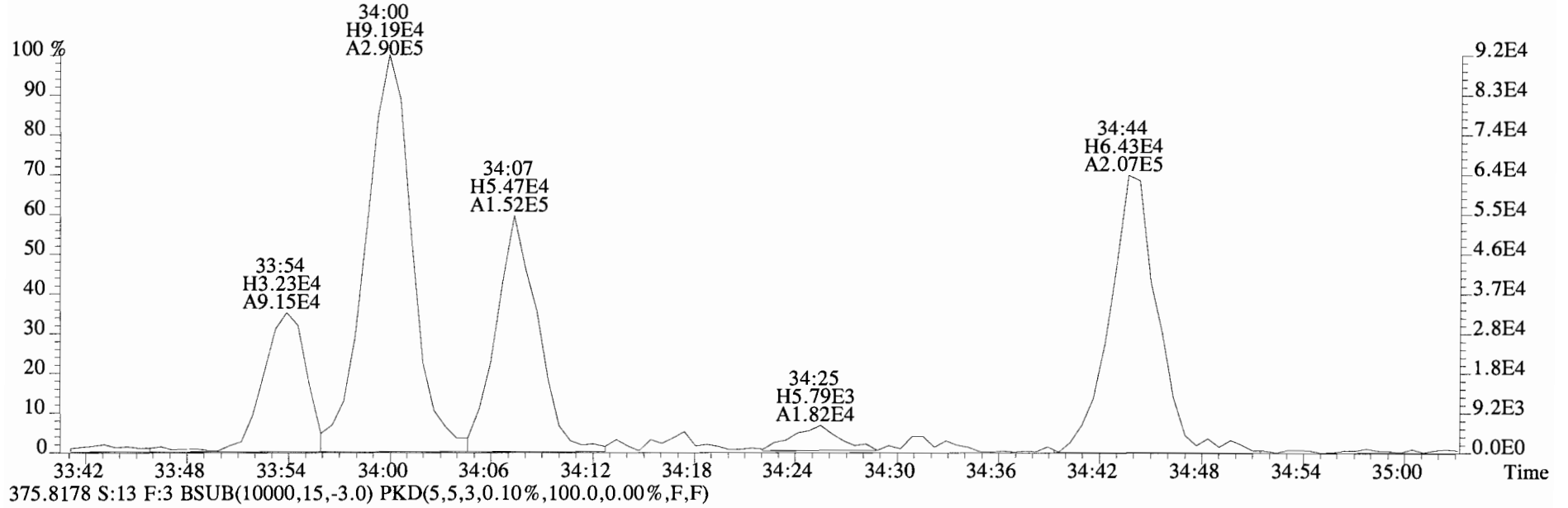
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Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



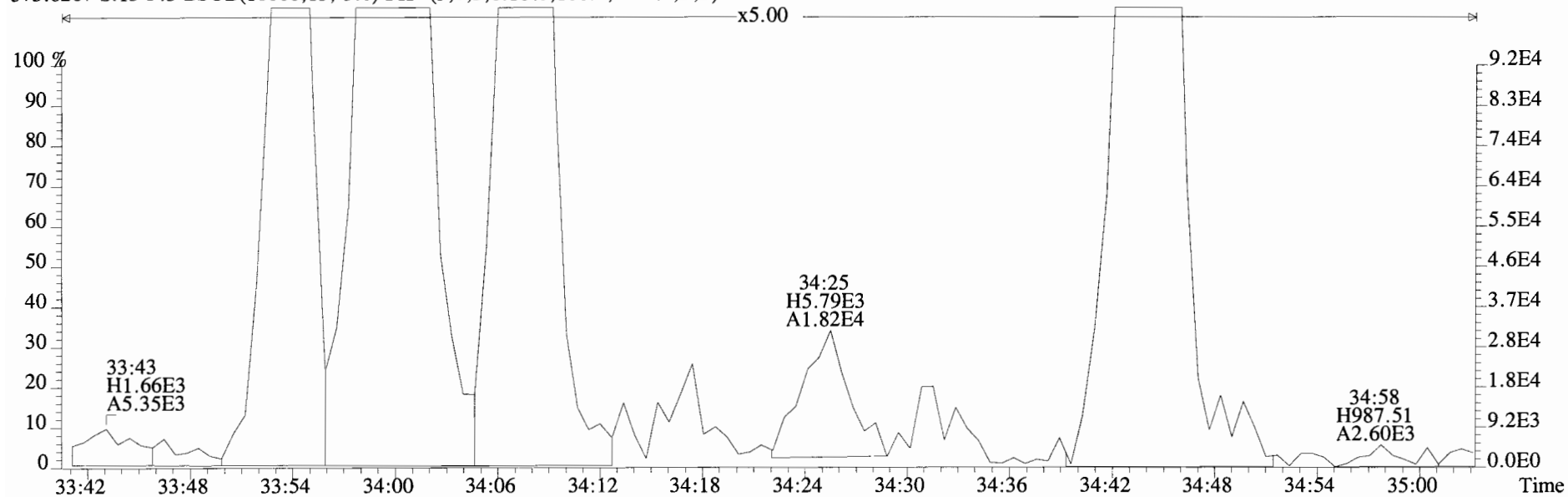
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



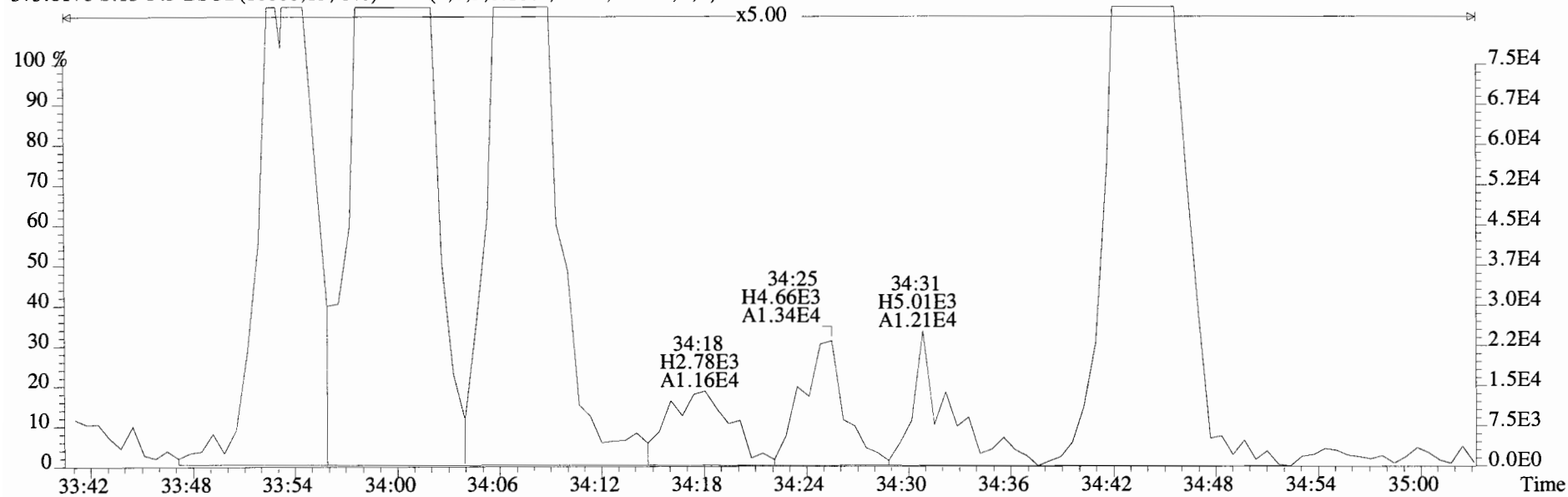
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



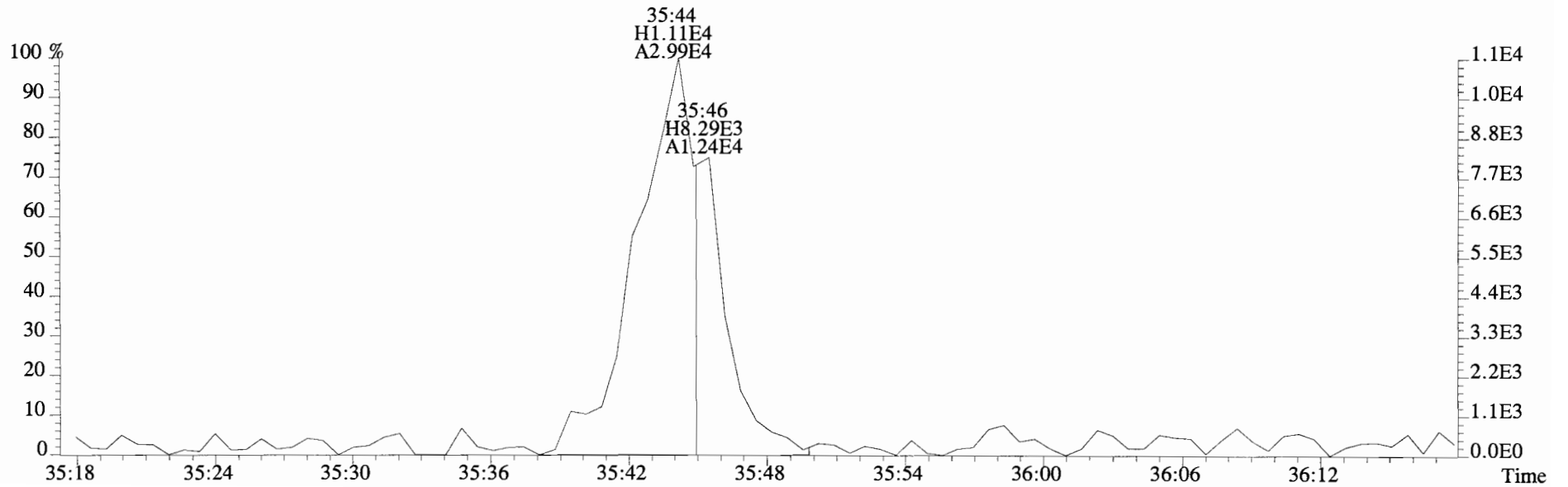
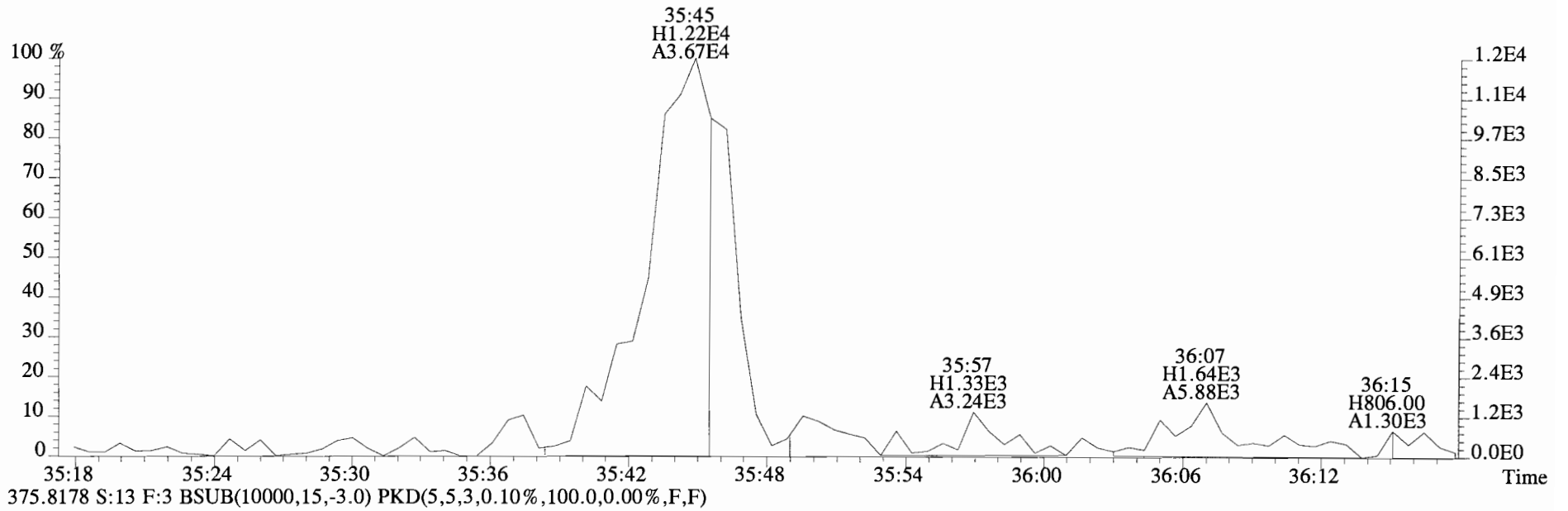
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



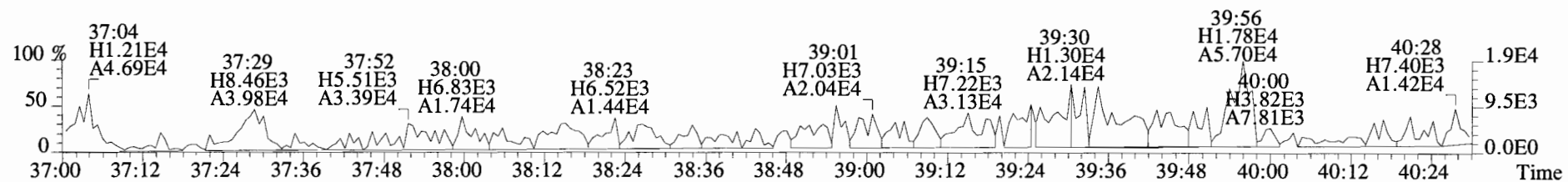
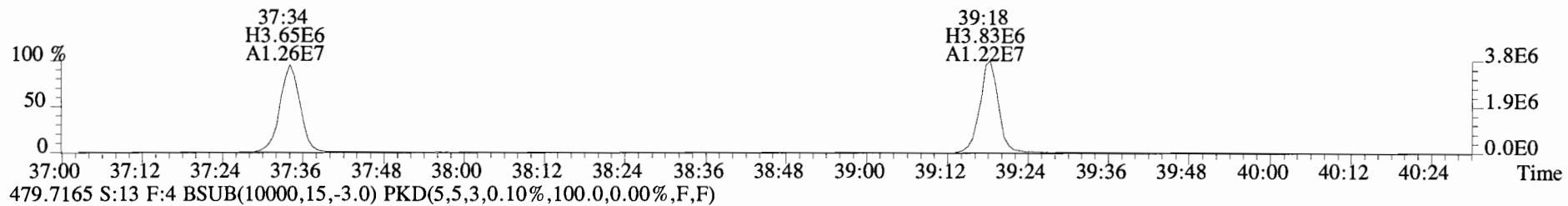
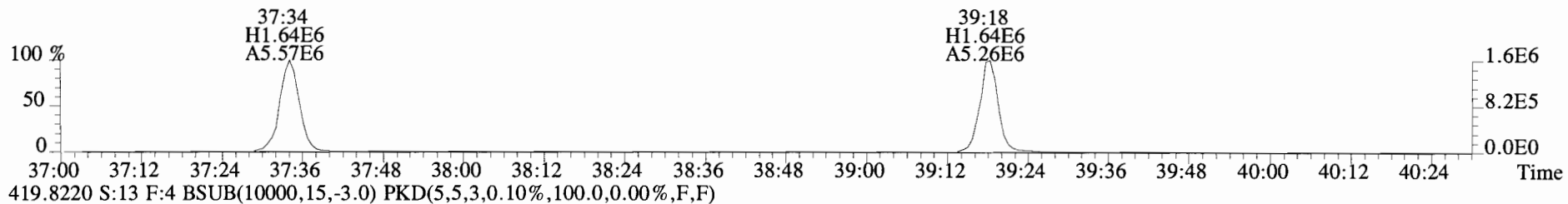
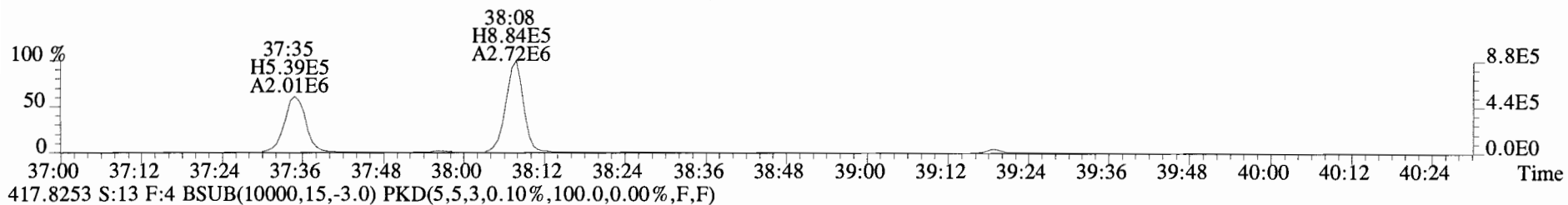
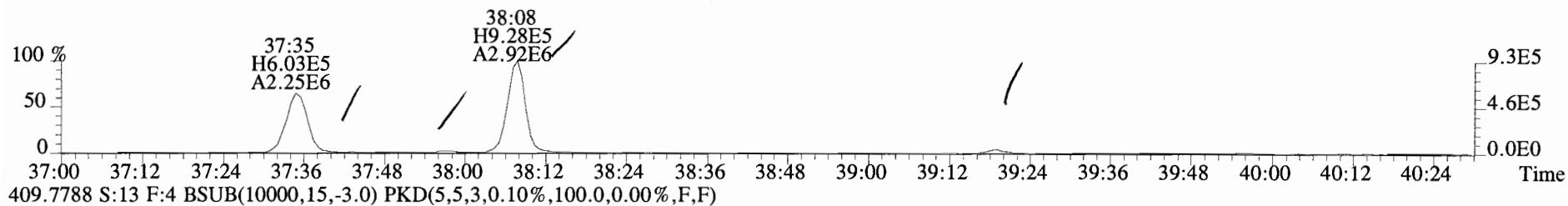
375.8178 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



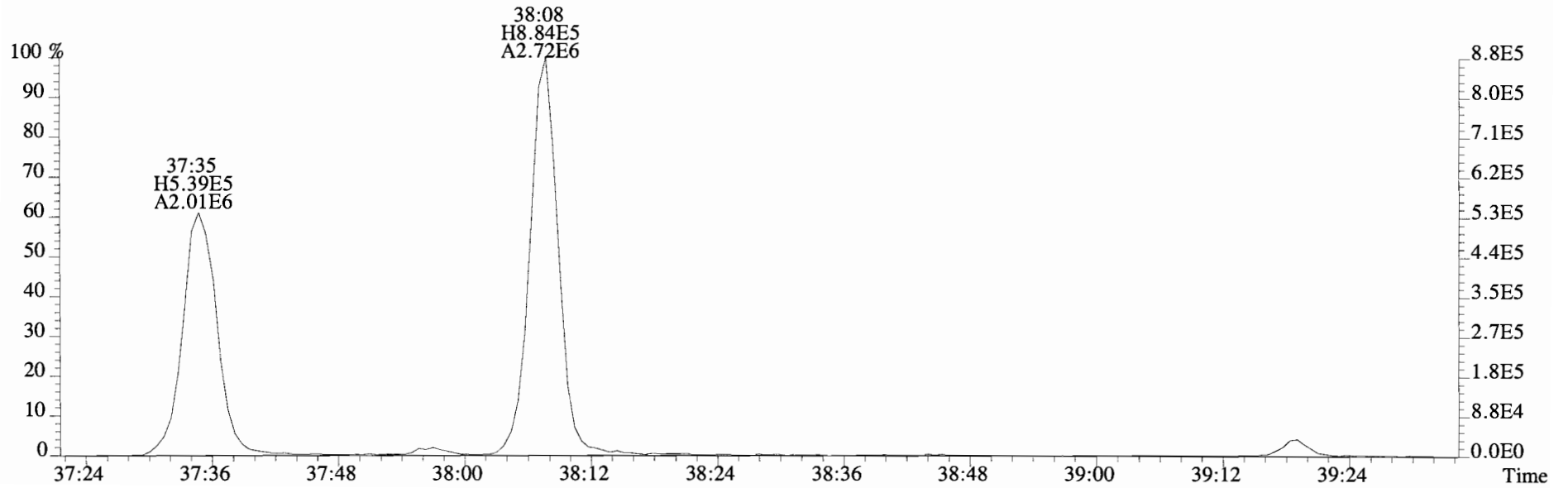
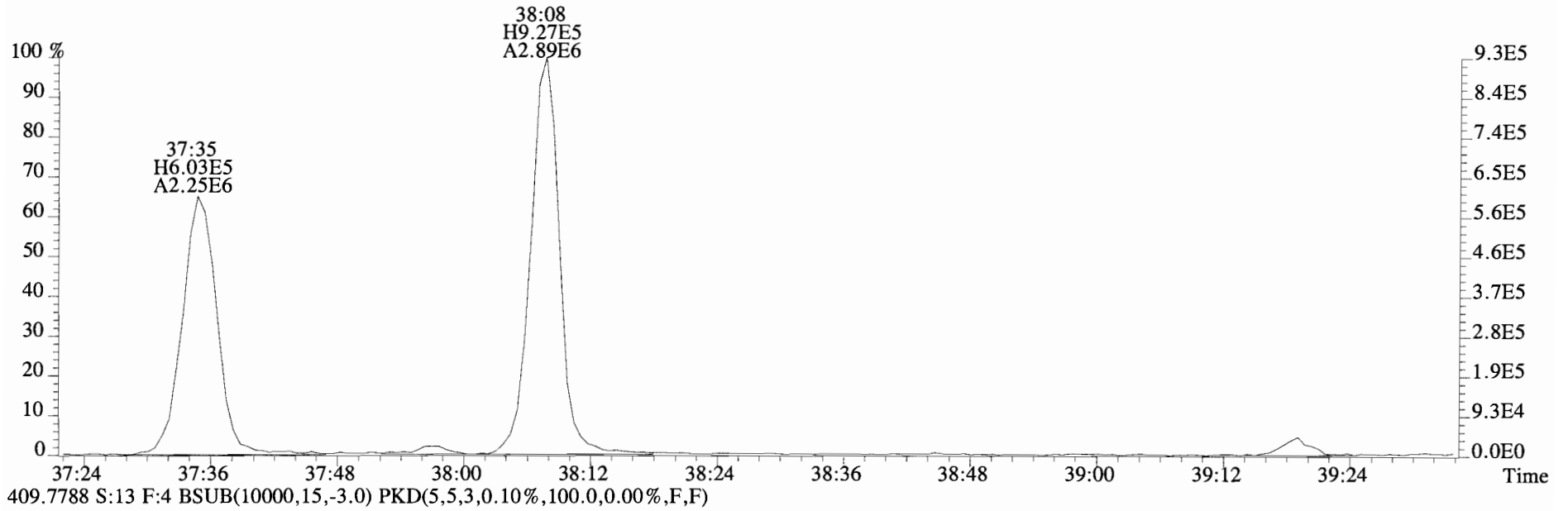
File:140917D1 #1-384 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
373.8207 S:13 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



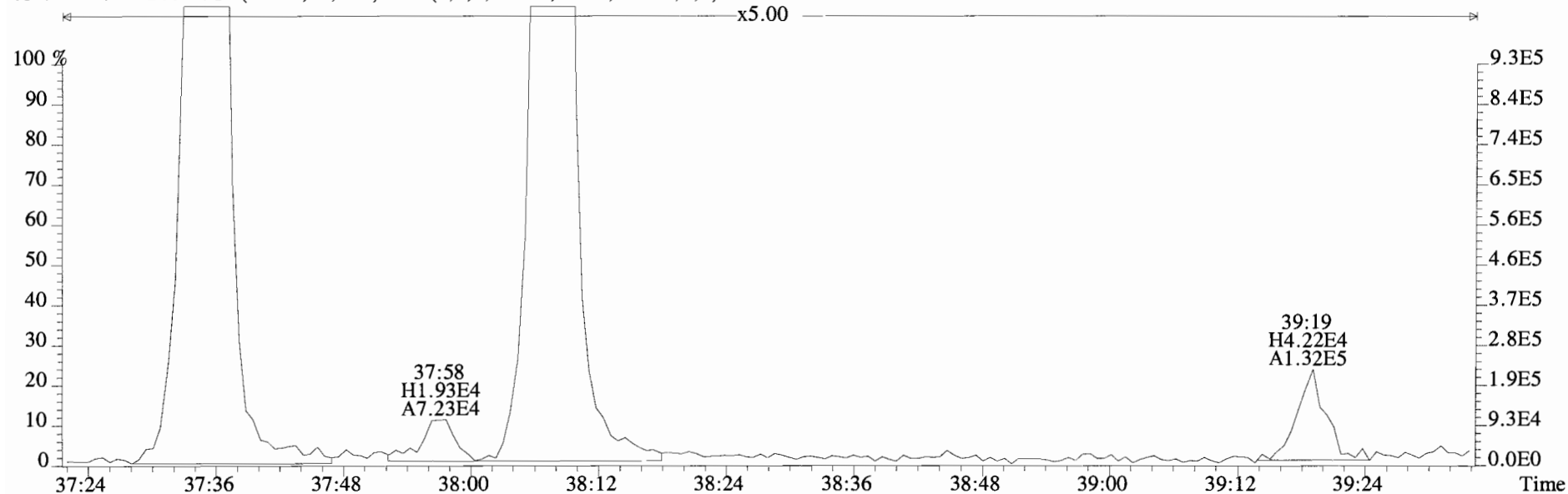
File:140917D1 #1-326 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
407.7818 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



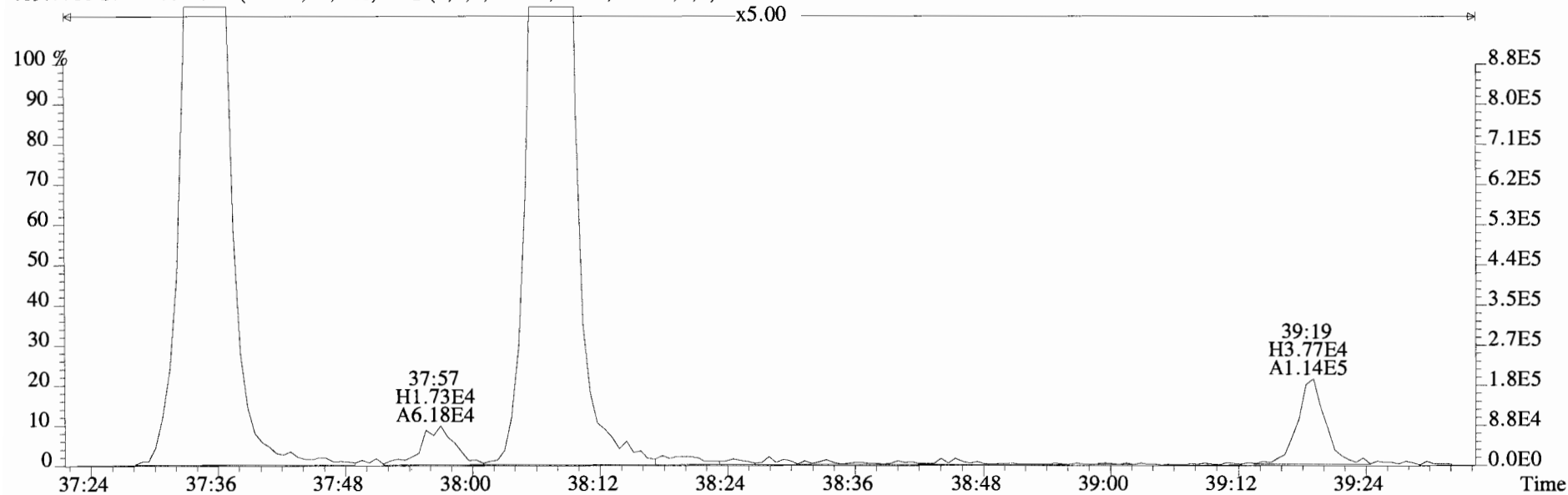
File:140917D1 #1-326 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
407.7818 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



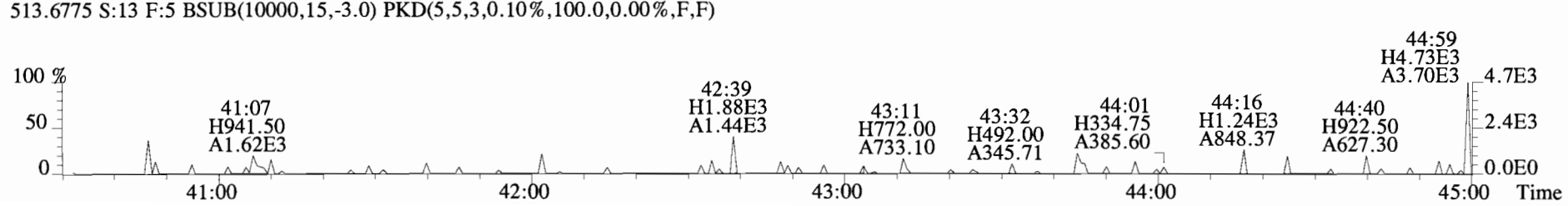
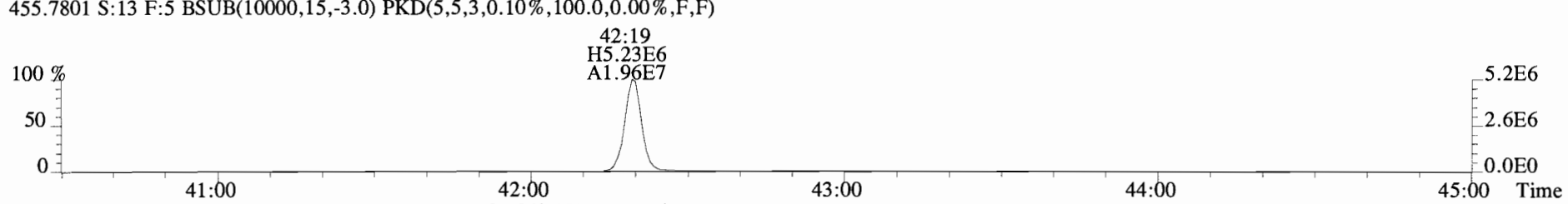
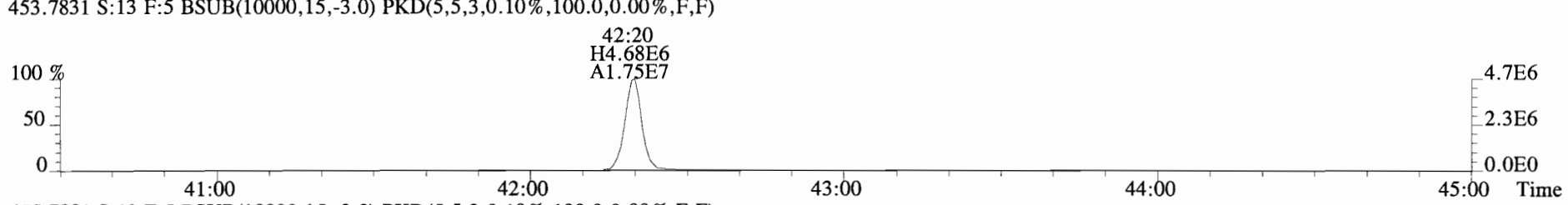
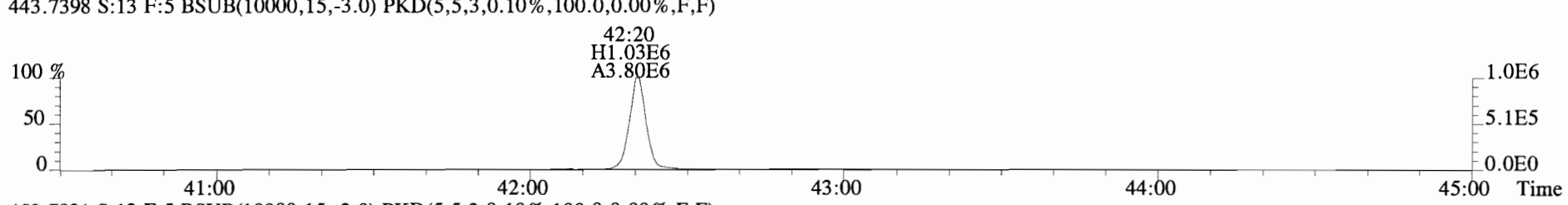
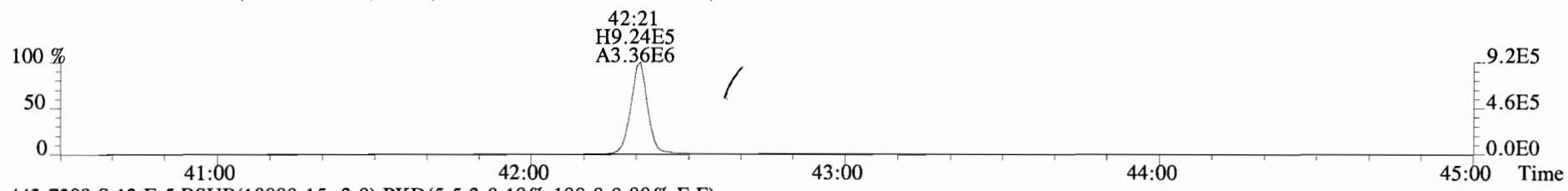
File:140917D1 #1-326 Acq:17-SEP-2014 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
407.7818 S:13 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



409.7788 S:13 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 22:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#13 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01 UG-MH-76-20140911-S 15.58 Exp:OCDD_DB5
441.7428 S:13 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	1.88e+05	0.70 y	1.03	27:04	1.001	1.7450	*	2.5	*	*	Total Tetra-Dioxins	38.1	38.1	*	*	
1,2,3,7,8-PeCDD	6.82e+05	0.55 y	0.84	31:32	1.000	7.0610	*	2.5	*	*	Total Penta-Dioxins	70.7	70.7	*	*	
1,2,3,4,7,8-HxCDD	1.18e+06	1.24 y	1.05	34:53	1.000	12.103	*	2.5	*	*	Total Hexa-Dioxins	292	292	*	*	
1,2,3,6,7,8-HxCDD	3.79e+06	1.26 y	1.04	35:00	1.000	35.140	*	2.5	*	*	Total Hepta-Dioxins	1500	1500	*	*	
1,2,3,7,8,9-HxCDD	2.57e+06	1.23 y	0.90	35:18	1.000	24.477	*	2.5	*	*	Total Tetra-Furans	138	139	*	*	
1,2,3,4,6,7,8-HpCDD	7.78e+07	1.03 y	1.01	38:46	1.000	767.40	*	2.5	*	*	Total Penta-Furans	195.86	195.86	*	*	P
OCDD	6.76e+08	0.89 y	1.04	42:08	1.000	6773.4	*	2.5	*	*	Total Hexa-Furans	280	280	*	*	
2,3,7,8-TCDF	9.35e+05	0.80 y	0.91	26:18	1.001	7.3963	(5.59)	*	2.5	*	Total Hepta-Furans	460	460	*	*	
1,2,3,7,8-PeCDF	6.53e+05	1.56 y	0.97	30:22	1.000	4.5172	*	2.5	*	*						
2,3,4,7,8-PeCDF	1.29e+06	1.56 y	0.94	31:15	1.000	8.8533	*	2.5	*	*						
1,2,3,4,7,8-HxCDF	2.26e+06	1.30 y	1.32	33:59	1.000	13.607	*	2.5	*	*						
1,2,3,6,7,8-HxCDF	1.79e+06	1.28 y	1.18	34:07	1.000	11.242	*	2.5	*	*						
2,3,4,6,7,8-HxCDF	2.32e+06	1.30 y	1.23	34:43	1.000	14.838	*	2.5	*	*						
1,2,3,7,8,9-HxCDF	1.68e+05	1.18 y	1.13	35:42	1.000	1.2380	*	2.5	*	*						
1,2,3,4,6,7,8-HpCDF	3.29e+07	1.05 y	1.57	37:35	1.000	195.33	*	2.5	*	*						
1,2,3,4,7,8,9-HpCDF	1.73e+06	1.09 y	1.50	39:19	1.000	10.529	*	2.5	*	*						
OCDF	5.14e+07	0.90 y	1.05	42:22	1.000	437.98	*	2.5	*	*						

IS	13C-2,3,7,8-TCDD	2.08e+07	0.80 y	1.06	27:03	1.021	154.59	77.7
IS	13C-1,2,3,7,8-PeCDD	2.29e+07	0.62 y	1.08	31:31	1.190	166.90	83.8
IS	13C-1,2,3,4,7,8-HxCDD	1.85e+07	1.27 y	0.74	34:53	1.014	166.69	83.7
IS	13C-1,2,3,6,7,8-HxCDD	2.07e+07	1.24 y	0.75	34:60	1.017	184.49	92.7
IS	13C-1,2,3,7,8,9-HxCDD	2.33e+07	1.26 y	0.89	35:18	1.026	175.19	88.0
IS	13C-1,2,3,4,6,7,8-HpCDD	2.00e+07	1.06 y	0.70	38:45	1.126	190.30	95.6
IS	13C-OCDD	3.81e+07	0.89 y	0.59	42:07	1.224	433.04	109
IS	13C-2,3,7,8-TCDF	2.76e+07	0.75 y	0.97	26:17	0.992	165.33	83.1
IS	13C-1,2,3,7,8-PeCDF	2.96e+07	1.56 y	0.99	30:21	1.146	173.47	87.1
IS	13C-2,3,4,7,8-PeCDF	3.09e+07	1.58 y	1.01	31:14	1.179	177.86	89.3
IS	13C-1,2,3,4,7,8-HxCDF	2.51e+07	0.53 y	0.94	33:59	0.988	178.24	89.5
IS	13C-1,2,3,6,7,8-HxCDF	2.70e+07	0.51 y	1.23	34:06	0.991	146.88	73.8
IS	13C-2,3,4,6,7,8-HxCDF	2.53e+07	0.50 y	1.03	34:42	1.009	164.03	82.4
IS	13C-1,2,3,7,8,9-HxCDF	2.40e+07	0.51 y	0.89	35:41	1.037	181.19	91.0
IS	13C-1,2,3,4,6,7,8-HpCDF	2.13e+07	0.45 y	0.71	37:34	1.092	201.99	101
IS	13C-1,2,3,4,7,8,9-HpCDF	2.17e+07	0.43 y	0.64	39:18	1.143	226.28	114
IS	13C-OCDF	4.43e+07	0.90 y	0.76	42:21	1.231	391.16	98.2

Rec	Qual
77.7	
83.8	
83.7	
92.7	
88.0	
95.6	
109	
83.1	
87.1	
89.3	
89.5	
73.8	
82.4	
91.0	
101	
114	
98.2	

C/Up	37Cl-2,3,7,8-TCDD	8.46e+06		1.04	27:04	1.021	64.122	80.5
RS/RT	13C-1,2,3,4-TCDD	2.52e+07	0.82 y	1.00	26:30	*	199.07	
RS	13C-1,2,3,4-TCDF	3.44e+07	0.77 y	1.00	25:06	*	199.07	
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.97e+07	0.51 y	1.00	34:24	*	199.07	

Integrations Reviewed by
 Analyst: MJ Analyst: MJ
 Date: 9/24/14 Date: 9/23/14

Totals class: TCDD EMPC

Entry #: 19

Run: 17 File: 140917D1 S: 14 I: 1 F: 1
 Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 38.123

Unnamed Concentration: 36.379

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
23:45	5.567e+05	7.229e+05	0.77	y	1.280e+06	11.871	
24:05	3.125e+05	4.023e+05	0.78	y	7.148e+05	6.6312	
24:29	5.694e+04	7.100e+04	0.80	y	1.279e+05	1.1869	
25:12	2.280e+04	3.222e+04	0.71	y	5.502e+04	0.51046	
25:25	1.314e+05	1.758e+05	0.75	y	3.071e+05	2.8493	
25:36	1.259e+05	1.604e+05	0.78	y	2.862e+05	2.6553	
25:47	4.852e+04	6.291e+04	0.77	y	1.114e+05	1.0337	
25:59	2.295e+04	2.617e+04	0.88	y	4.913e+04	0.45575	
26:09	6.154e+04	9.175e+04	0.67	y	1.533e+05	1.4221	
26:31	1.175e+05	1.338e+05	0.88	y	2.513e+05	2.3311	
26:49	1.115e+05	1.517e+05	0.74	y	2.632e+05	2.4419	
26:57	2.831e+04	4.239e+04	0.67	y	7.070e+04	0.65589	
27:04	7.724e+04	1.109e+05	0.70	y	1.881e+05	1.7450	2,3,7,8-TCDD
27:20	7.077e+04	8.415e+04	0.84	y	1.549e+05	1.4371	
27:28	1.496e+04	1.821e+04	0.82	y	3.317e+04	0.30774	
27:55	2.623e+04	3.721e+04	0.70	y	6.344e+04	0.58854	

Totals class: PeCDD EMPC

Entry #: 21

Run: 17 File: 140917D1 S: 14 I: 1 F: 2
 Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 70.679

Unnamed Concentration: 63.618

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
29:30	6.120e+05	9.983e+05	0.61	y	1.610e+06	16.662
29:57	1.253e+05	2.184e+05	0.57	y	3.437e+05	3.5567
30:23	3.221e+05	5.259e+05	0.61	y	8.481e+05	8.7750
30:33	2.594e+05	4.418e+05	0.59	y	7.013e+05	7.2559
30:38	3.167e+05	5.096e+05	0.62	y	8.263e+05	8.5498
30:50	3.437e+05	5.577e+05	0.62	y	9.014e+05	9.3272
31:08	1.491e+05	2.476e+05	0.60	y	3.967e+05	4.1046
31:32	2.430e+05	4.394e+05	0.55	y	6.824e+05	7.0610
31:37	8.820e+04	1.261e+05	0.70	y	2.143e+05	2.2176
31:54	1.200e+05	1.863e+05	0.64	y	3.062e+05	3.1687

1,2,3,7,8-PeCDD

Totals class: HxCDD EMPC

Entry #: 23

Run: 17 File: 140917D1 S: 14 I: 1 F: 3
 Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 292.07

Unnamed Concentration: 220.346

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
33:20	3.789e+06	2.994e+06	1.27	y	6.782e+06	65.574	
33:55	1.536e+06	1.228e+06	1.25	y	2.765e+06	26.729	
34:10	6.389e+06	5.139e+06	1.24	y	1.153e+07	111.45	
34:19	4.878e+05	3.930e+05	1.24	y	8.808e+05	8.5154	
34:53	6.538e+05	5.266e+05	1.24	y	1.180e+06	12.103	1,2,3,4,7,8-HxCDD
35:00	2.110e+06	1.678e+06	1.26	y	3.788e+06	35.140	1,2,3,6,7,8-HxCDD
35:12	4.662e+05	3.691e+05	1.26	y	8.353e+05	8.0759	
35:18	1.419e+06	1.150e+06	1.23	y	2.569e+06	24.477	1,2,3,7,8,9-HxCDD

Totals class: HpCDD EMPC

Entry #: 25

Run: 17 File: 140917D1 S: 14 I: 1 F: 4
Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 1497.6

Unnamed Concentration: 730.194

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
37:56	3.754e+07	3.649e+07	1.03 y	7.402e+07	730.19
38:46	3.949e+07	3.831e+07	1.03 y	7.779e+07	767.40 1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 17 File: 140917D1 S: 14 I: 1 F: 1
 Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 139.42 Unnamed Concentration: 132.028

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
21:37	1.403e+05	1.732e+05	0.81	y	3.135e+05	2.4804
22:12	2.106e+05	2.823e+05	0.75	y	4.929e+05	3.8996
22:49	1.116e+06	1.442e+06	0.77	y	2.558e+06	20.239
23:19	7.210e+05	8.959e+05	0.80	y	1.617e+06	12.792
23:43	6.304e+05	7.825e+05	0.81	y	1.413e+06	11.178
24:07	6.128e+05	8.024e+05	0.76	y	1.415e+06	11.196
24:14	2.495e+05	3.197e+05	0.78	y	5.692e+05	4.5030
24:24	2.419e+05	3.016e+05	0.80	y	5.434e+05	4.2994
24:44	1.013e+05	1.275e+05	0.79	y	2.288e+05	1.8098
24:52	2.744e+05	3.503e+05	0.78	y	6.247e+05	4.9423
24:59	7.243e+05	9.011e+05	0.80	y	1.625e+06	12.859
25:07	4.168e+05	5.387e+05	0.77	y	9.555e+05	7.5595
25:31	3.594e+05	4.731e+05	0.76	y	8.326e+05	6.5868
25:45	1.912e+05	2.325e+05	0.82	y	4.237e+05	3.3520
25:55	1.560e+05	2.015e+05	0.77	y	3.575e+05	2.8286
26:07	1.854e+05	2.641e+05	0.70	y	4.495e+05	3.5564
26:11	1.574e+05	2.009e+05	0.78	y	3.583e+05	2.8344
26:18	4.160e+05	5.189e+05	0.80	y	9.349e+05	7.3963
26:37	6.727e+05	8.836e+05	0.76	y	1.556e+06	12.313
26:50	3.482e+04	4.212e+04	0.83	y	7.694e+04	0.60871
27:05	1.663e+04	1.928e+04	0.86	y	3.591e+04	0.28407
28:02	1.637e+05	1.362e+05	1.20	n	2.412e+05	1.9079

2,3,7,8-TCDF

Totals class: 1st Func. PeCDF EMPC Entry #: 29

Run: 17 File: 140917D1 S: 14 I: 1 F: 1
Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 82.115 Unnamed Concentration: 82.115

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
28:02	7.246e+06	4.683e+06	1.55 y	1.193e+07	82.115

Totals class: PeCDF EMPC

Entry #: 31

Run: 17 File: 140917D1 S: 14 I: 1 F: 2
 Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 113.74 Unnamed Concentration: 100.370

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
29:20	8.737e+05	5.592e+05	1.56	y	1.433e+06	9.8632	
29:28	4.138e+06	2.583e+06	1.60	y	6.721e+06	46.265	
29:49	1.159e+05	7.525e+04	1.54	y	1.911e+05	1.3155	
30:00	1.561e+06	9.161e+05	1.70	y	2.477e+06	17.051	
30:12	2.185e+05	1.445e+05	1.51	y	3.629e+05	2.4981	
30:22	3.985e+05	2.549e+05	1.56	y	6.534e+05	4.5172	1,2,3,7,8-PeCDF
30:36	8.521e+05	5.401e+05	1.58	y	1.392e+06	9.5835	
30:44	4.756e+04	3.169e+04	1.50	y	7.924e+04	0.54548	
31:04	4.782e+04	3.171e+04	1.51	y	7.953e+04	0.54744	
31:10	4.212e+05	2.810e+05	1.50	y	7.022e+05	4.8336	
31:15	7.876e+05	5.037e+05	1.56	y	1.291e+06	8.8533	2,3,4,7,8-PeCDF
31:19	6.229e+05	3.686e+05	1.69	y	9.915e+05	6.8254	
31:32	4.546e+04	2.989e+04	1.52	y	7.536e+04	0.51875	
32:08	4.419e+04	3.172e+04	1.39	y	7.590e+04	0.52249	

Totals class: HxCDF EMPC

Entry #: 33

Run: 17 File: 140917D1 S: 14 I: 1 F: 3
Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 279.65 Unnamed Concentration: 238.722

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
32:47	2.557e+06	2.032e+06	1.26	y	4.590e+06	29.756
32:57	9.697e+06	7.476e+06	1.30	y	1.717e+07	111.34
33:09	1.175e+05	9.094e+04	1.29	y	2.084e+05	1.3514
33:19	4.569e+05	3.884e+05	1.18	y	8.453e+05	5.4805
33:31	7.014e+06	5.421e+06	1.29	y	1.243e+07	80.619
33:53	4.500e+05	3.457e+05	1.30	y	7.957e+05	5.1589
33:59	1.277e+06	9.821e+05	1.30	y	2.259e+06	13.607 1,2,3,4,7,8-HxCDF
34:07	1.005e+06	7.846e+05	1.28	y	1.790e+06	11.242 1,2,3,6,7,8-HxCDF
34:16	6.165e+04	5.780e+04	1.07	y	1.194e+05	0.77445
34:24	9.184e+04	7.583e+04	1.21	y	1.677e+05	1.0871
34:31	7.476e+04	6.833e+04	1.09	y	1.431e+05	0.92774
34:43	1.313e+06	1.008e+06	1.30	y	2.321e+06	14.838 2,3,4,6,7,8-HxCDF
35:42	9.122e+04	7.724e+04	1.18	y	1.685e+05	1.2380 1,2,3,7,8,9-HxCDF
35:45	1.936e+05	1.500e+05	1.29	y	3.436e+05	2.2274

Totals class: HpCDF EMPC

Entry #: 35

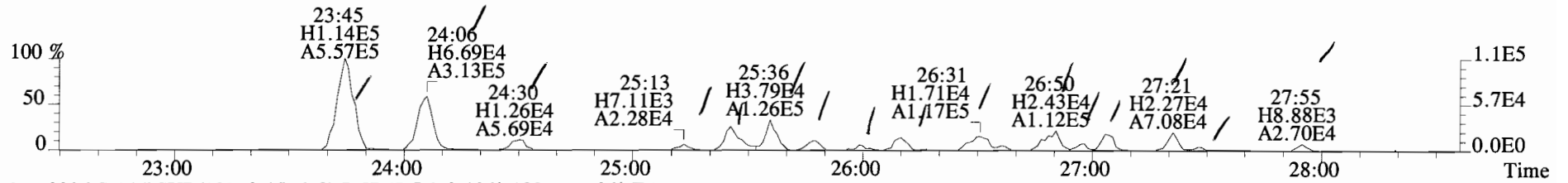
Run: 17 File: 140917D1 S: 14 I: 1 F: 4
Acquired: 17-SEP-14 23:39:58 Processed: 18-SEP-14 09:40:04

Total Concentration: 460.00

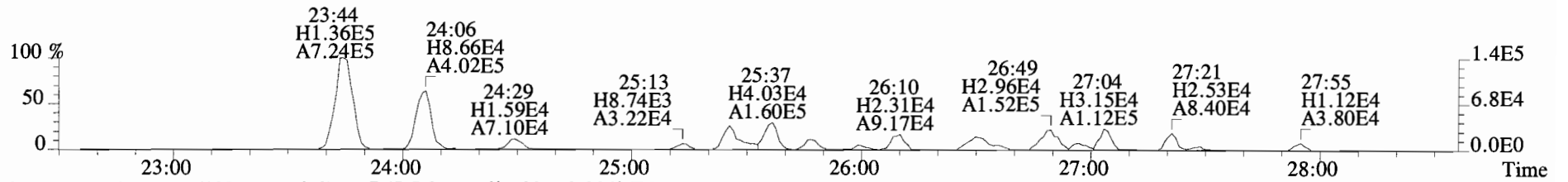
Unnamed Concentration: 254.139

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
37:35	1.689e+07	1.603e+07	1.05 y	3.292e+07	195.33	1,2,3,4,6,7,8-HpCDF
37:56	4.695e+05	4.279e+05	1.10 y	8.974e+05	5.3896	
38:07	2.141e+07	2.001e+07	1.07 y	4.142e+07	248.75	
39:19	8.997e+05	8.275e+05	1.09 y	1.727e+06	10.529	1,2,3,4,7,8,9-HpCDF

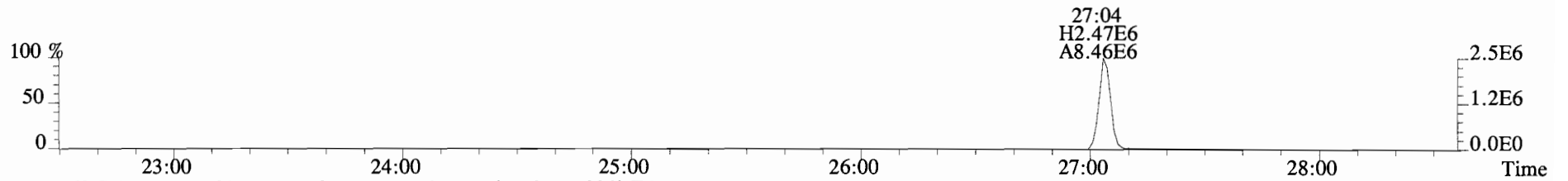
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Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
319.8965 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



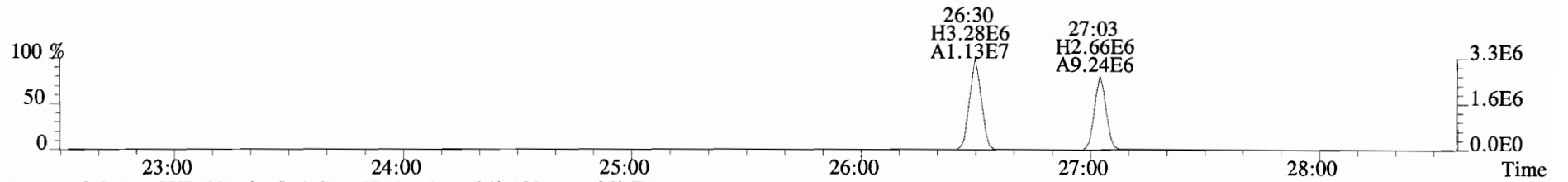
321.8936 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



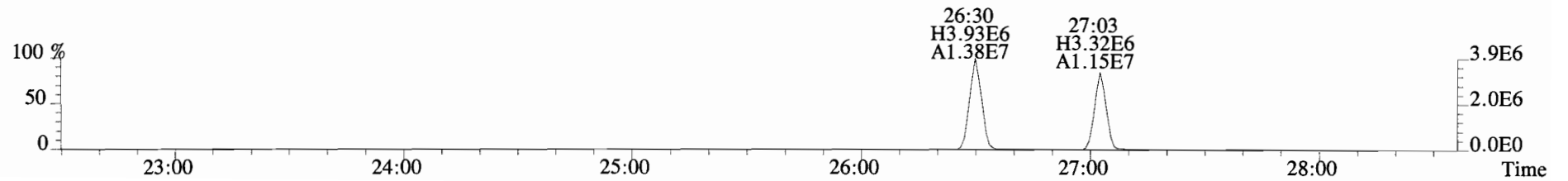
327.8847 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



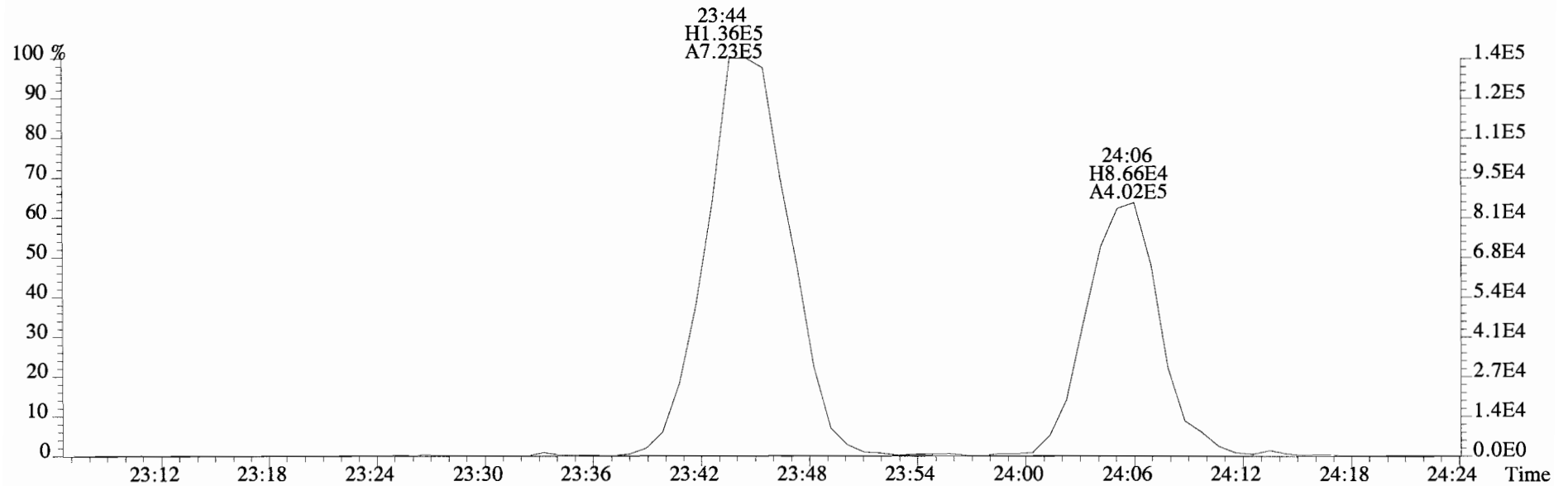
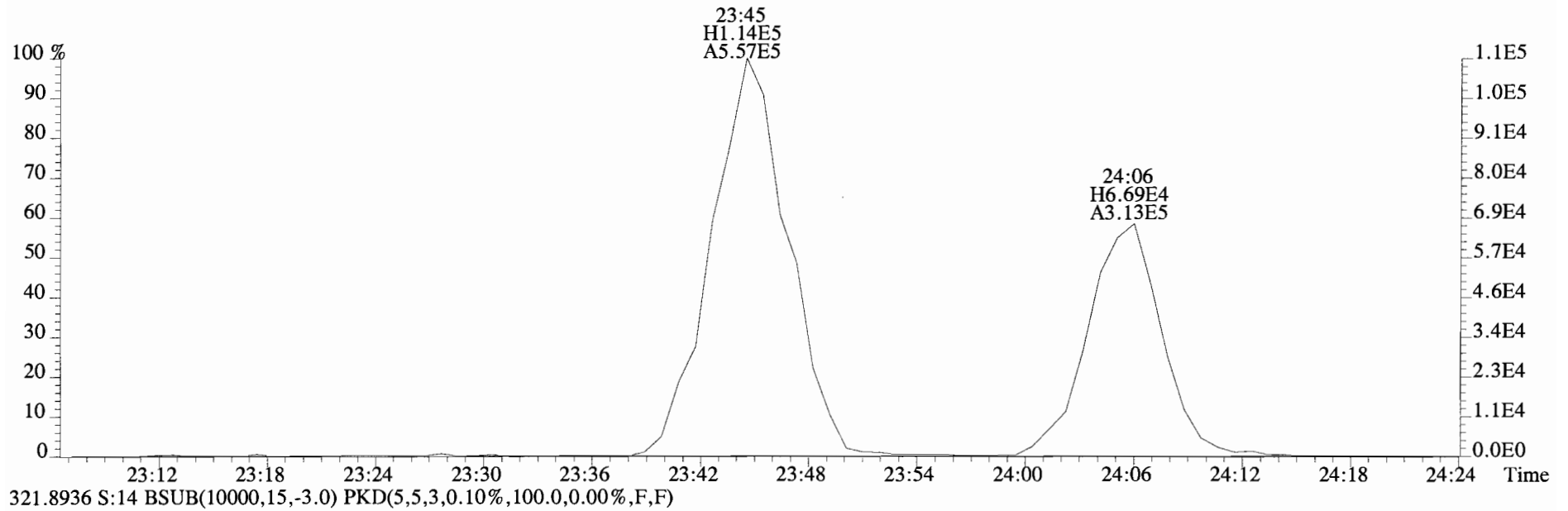
331.9368 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



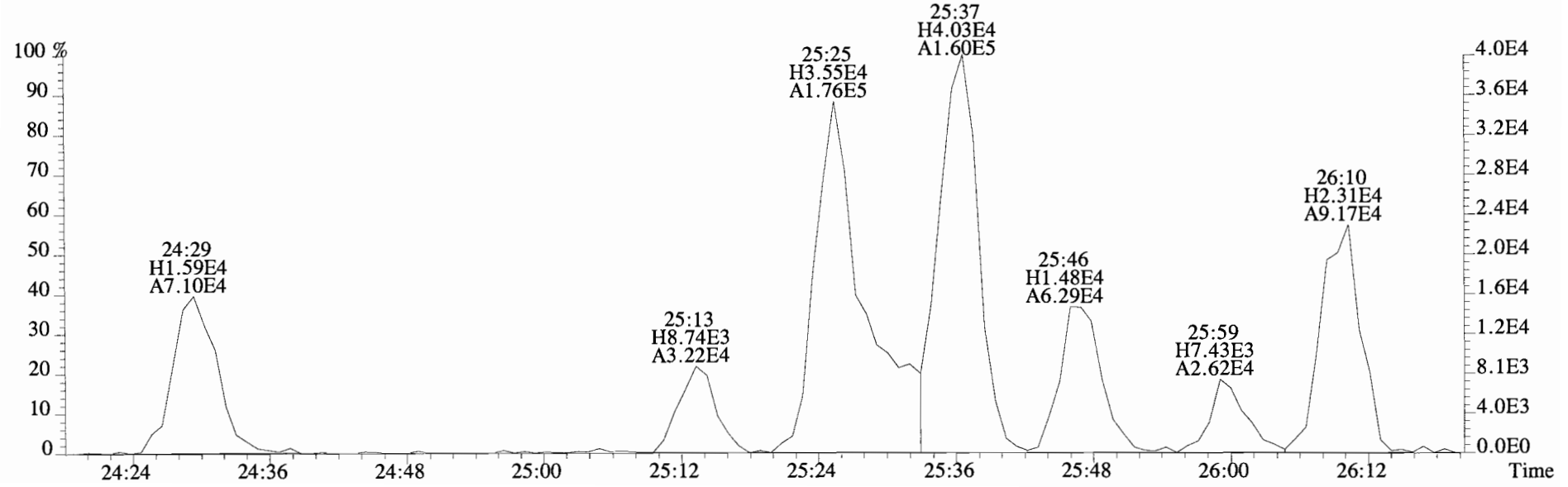
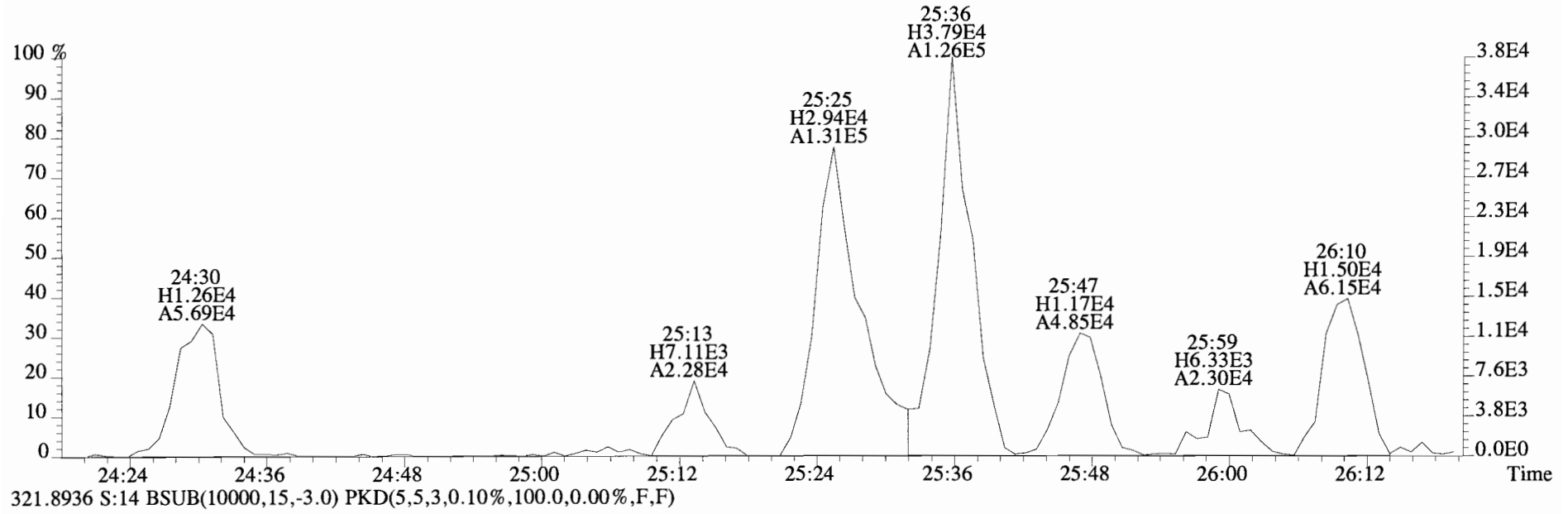
333.9339 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



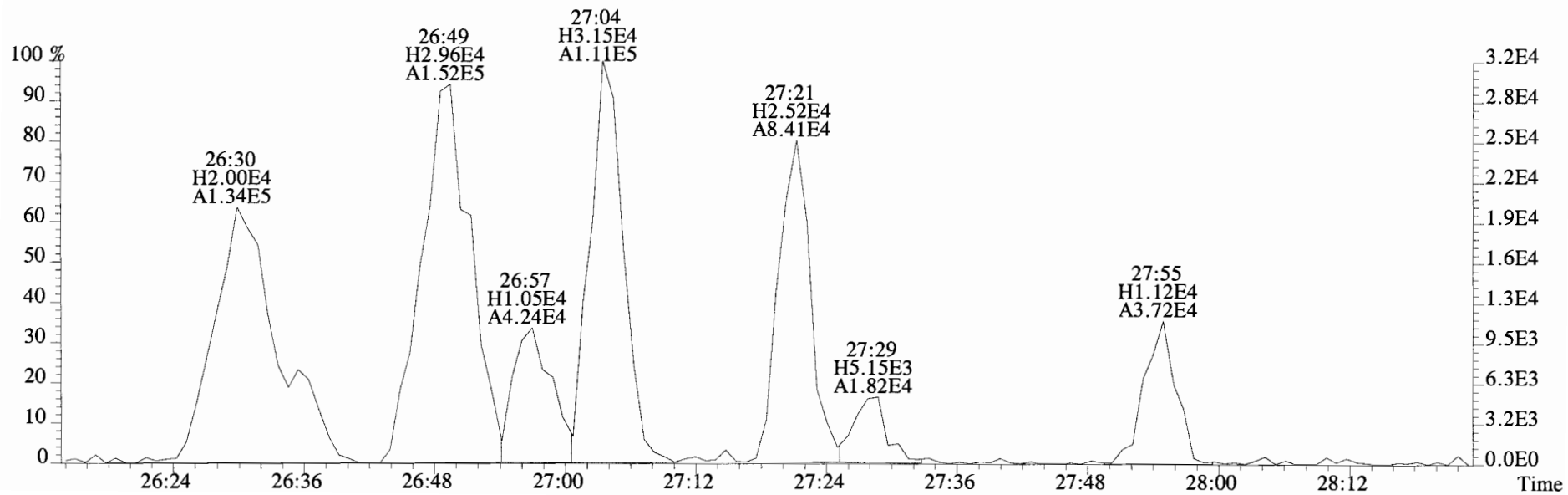
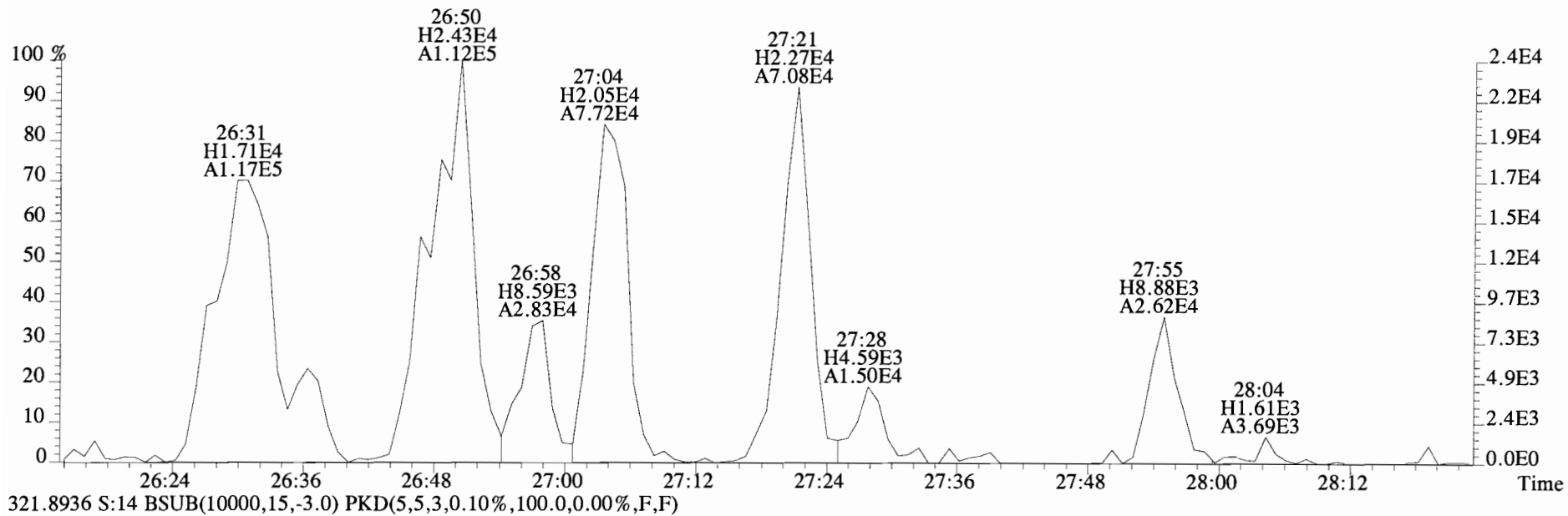
File:140917D1 #1-551 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
319.8965 S:14 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



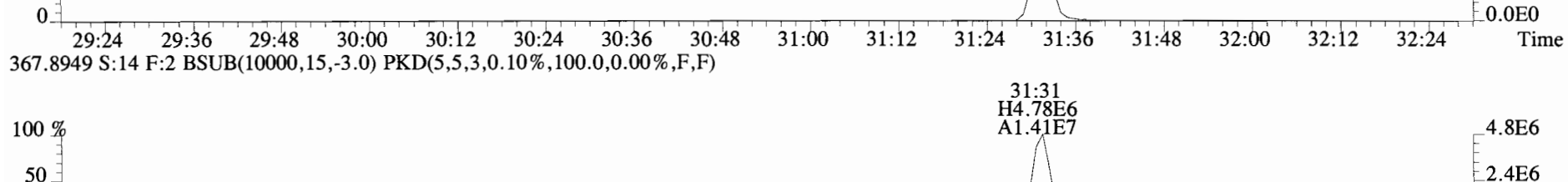
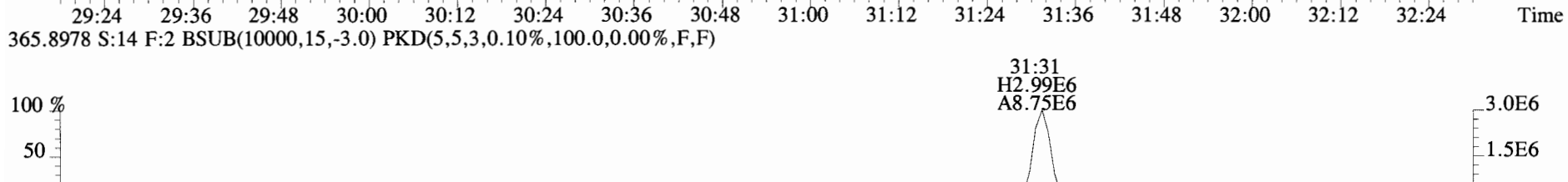
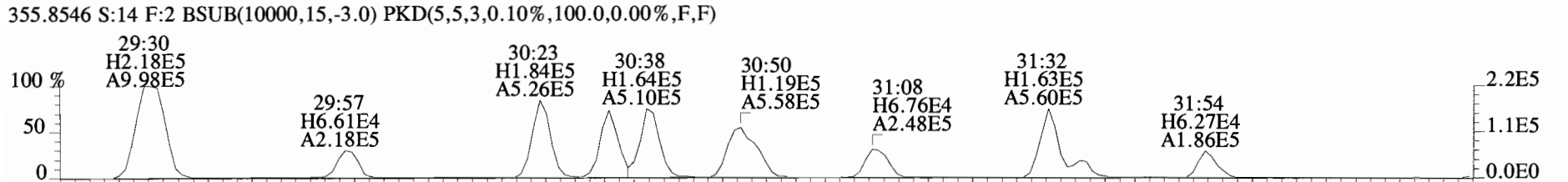
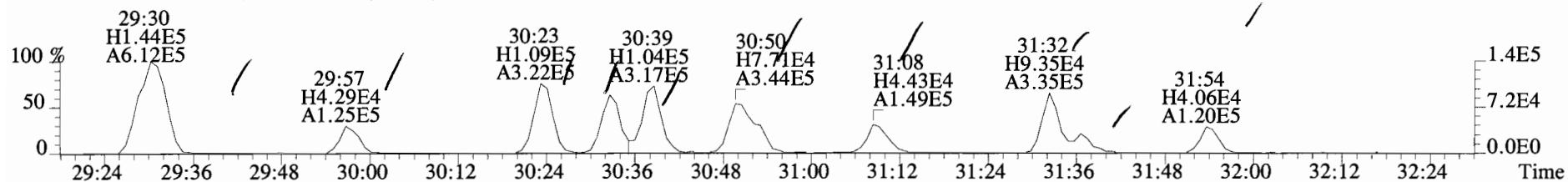
File: 140917D1 #1-551 Acq: 17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#14 File Text: Vista Analytical Laboratory VG-7 Text: 1400665-02 UG-MH-60-20140911-S 28.77 Exp: OCDD_DB5
 319.8965 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



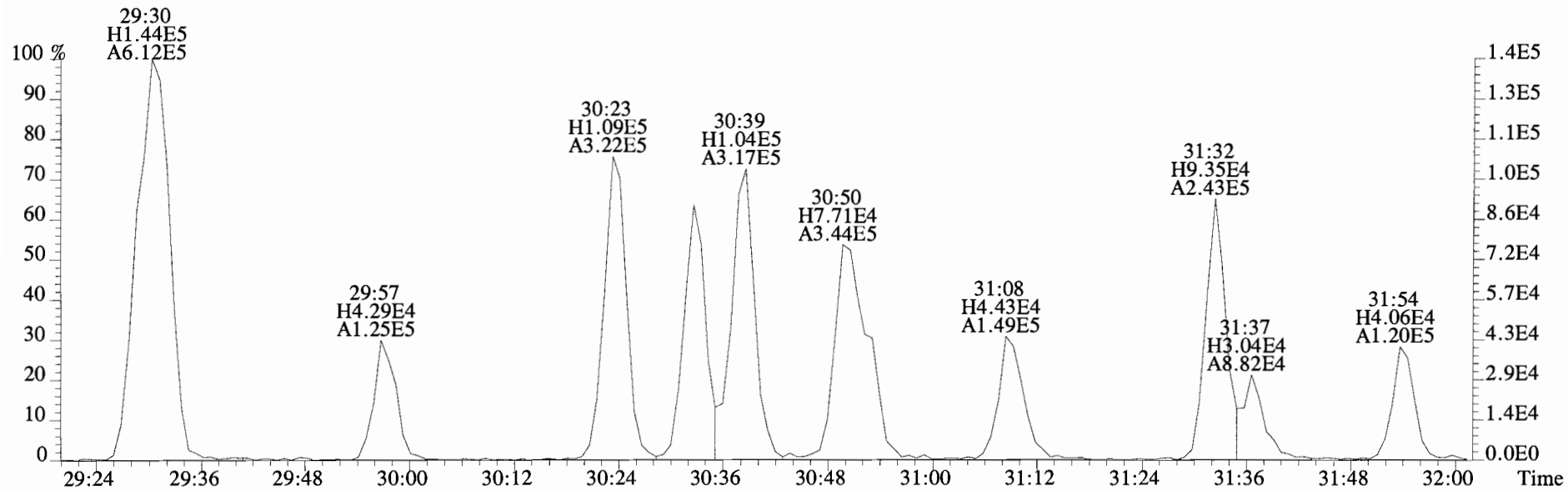
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Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
319.8965 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



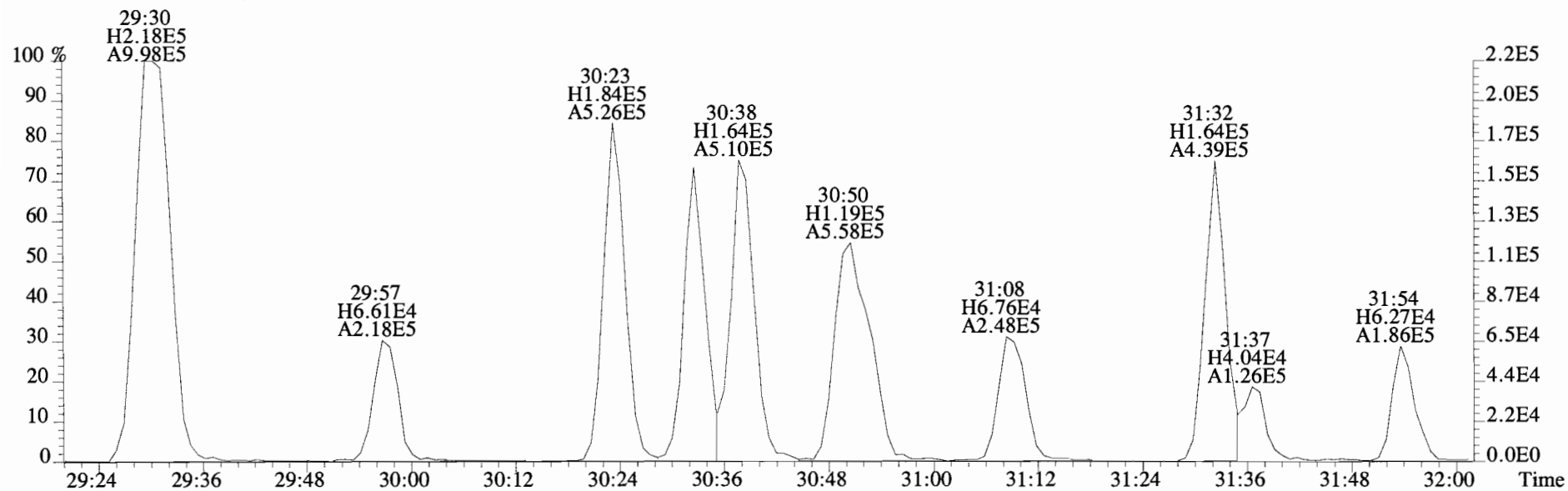
File:140917D1 #1-257 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
353.8576 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



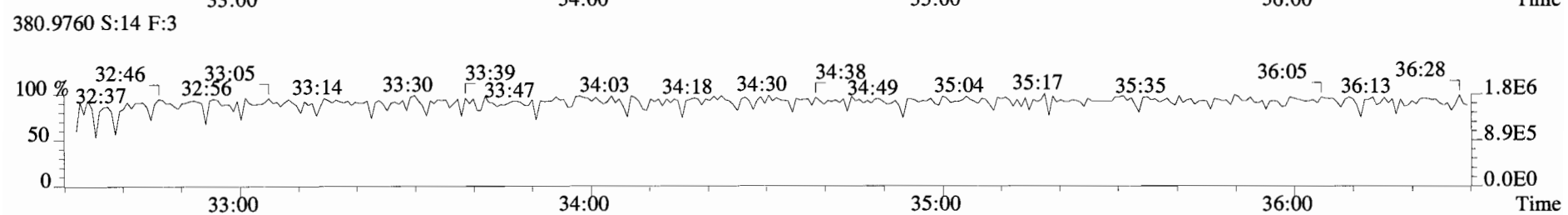
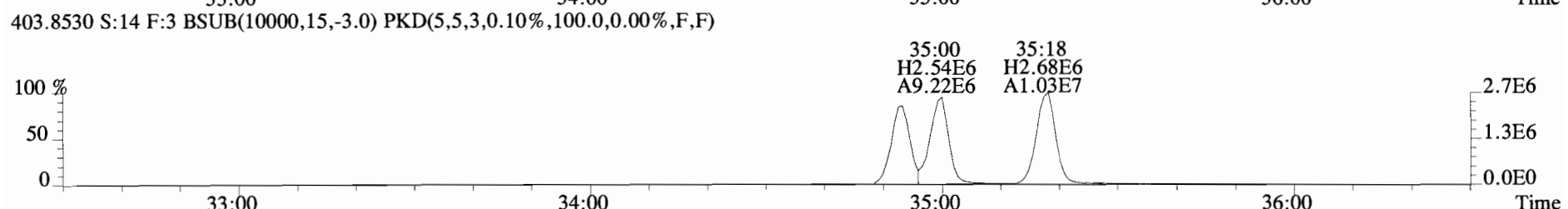
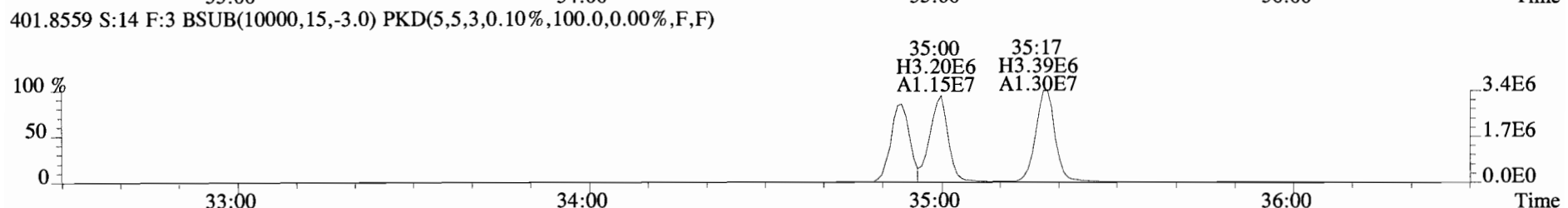
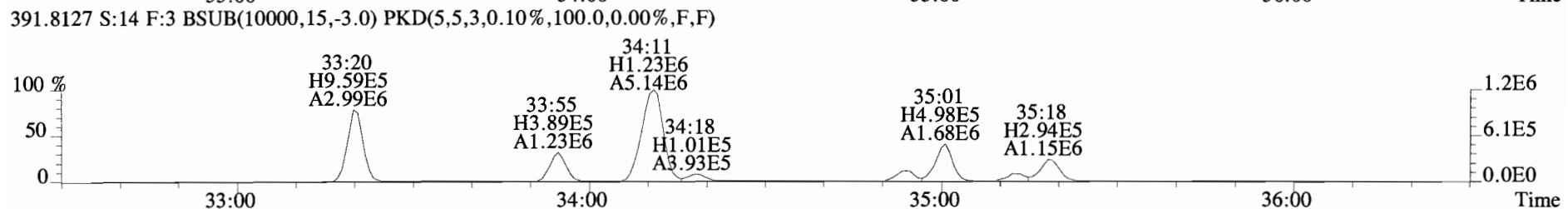
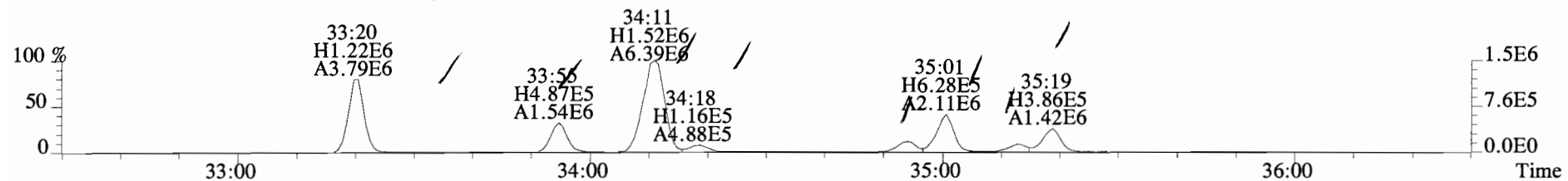
File:140917D1 #1-257 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
 353.8576 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



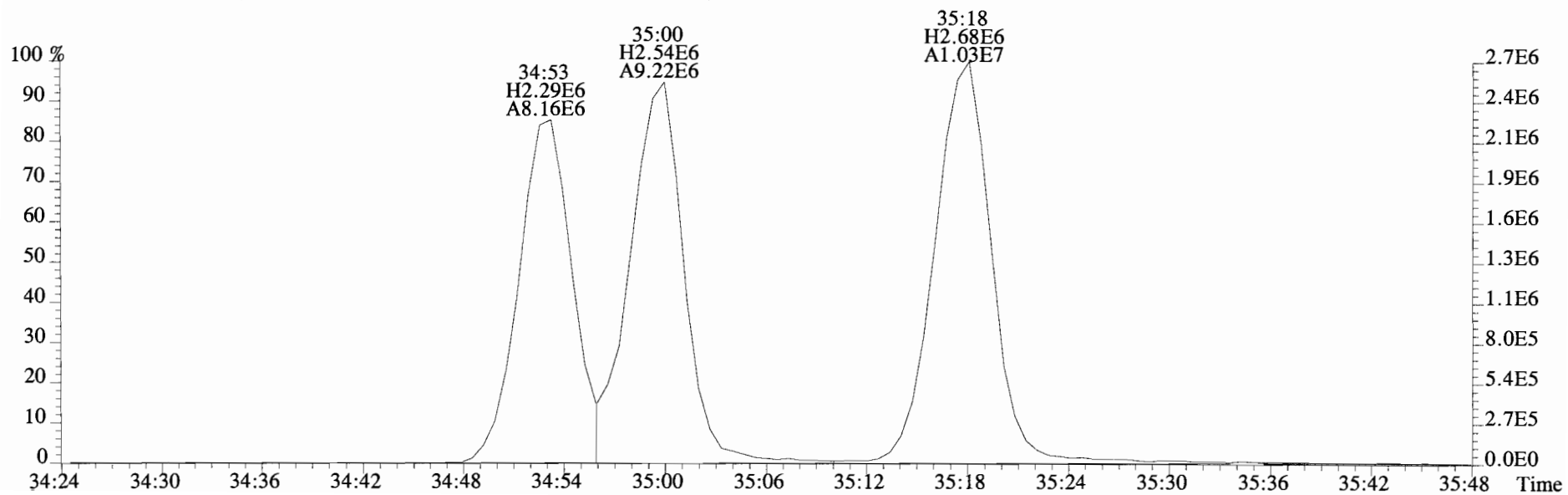
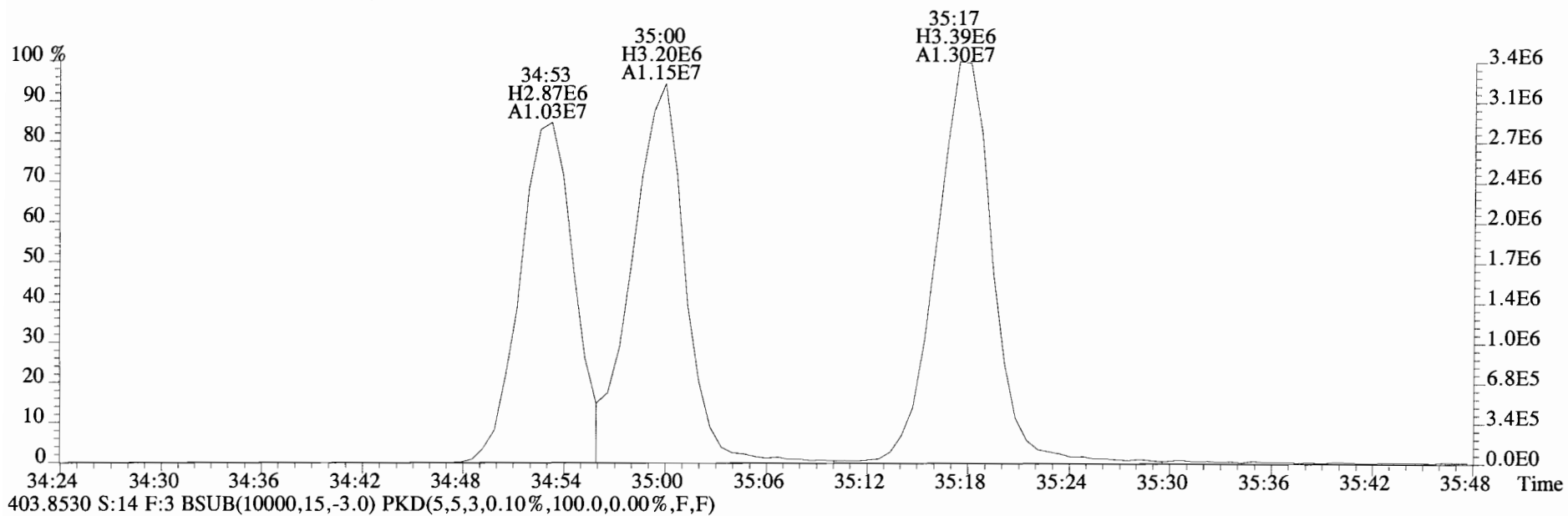
355.8546 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



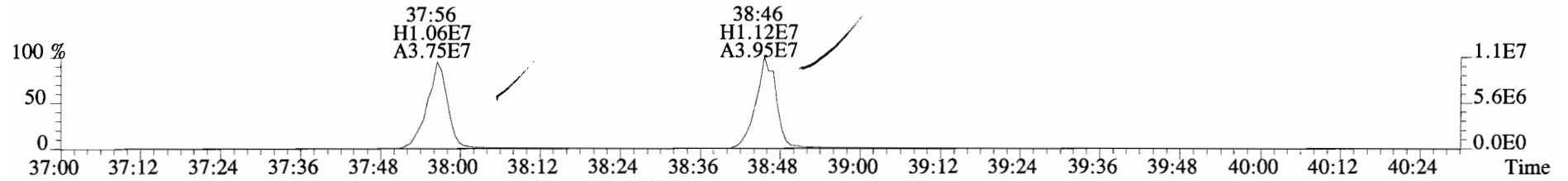
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
 389.8156 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



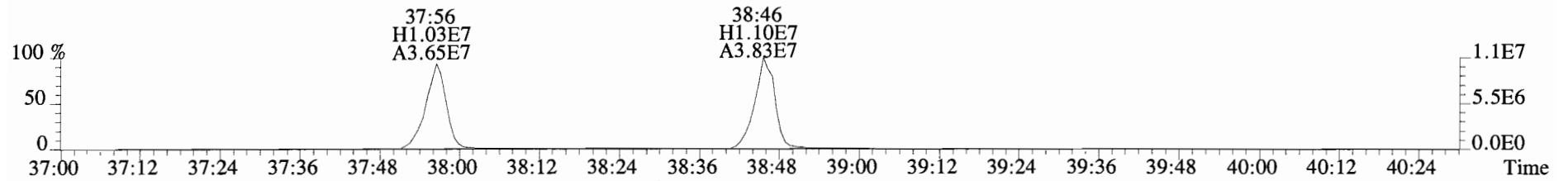
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
401.8559 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



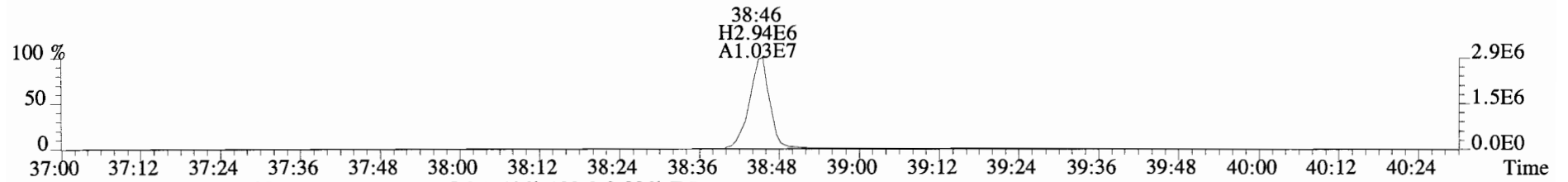
File:140917D1 #1-326 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
423.7767 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



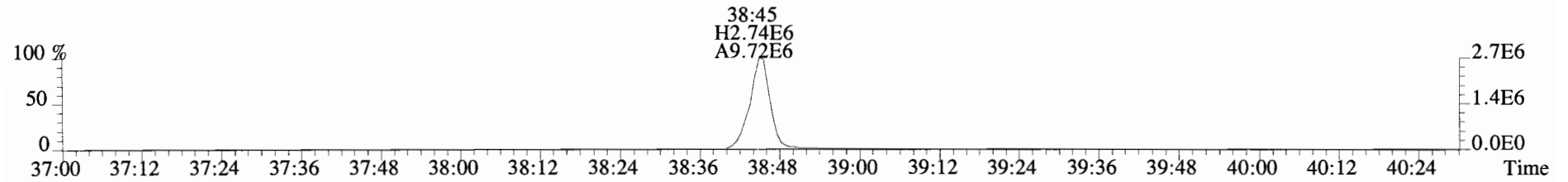
425.7737 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



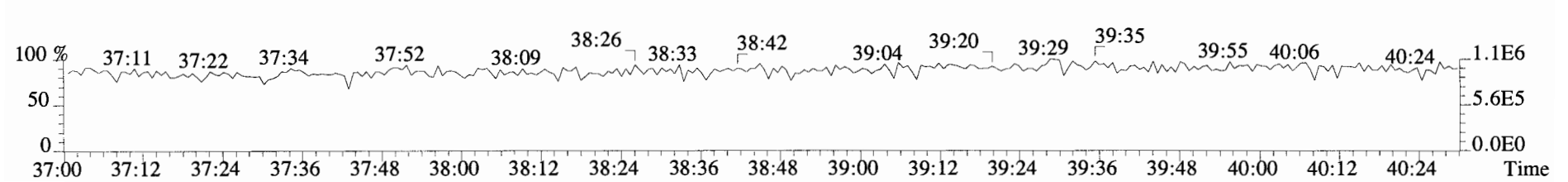
435.8169 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



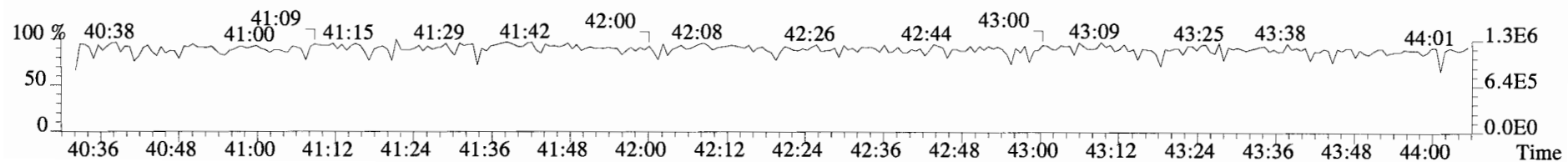
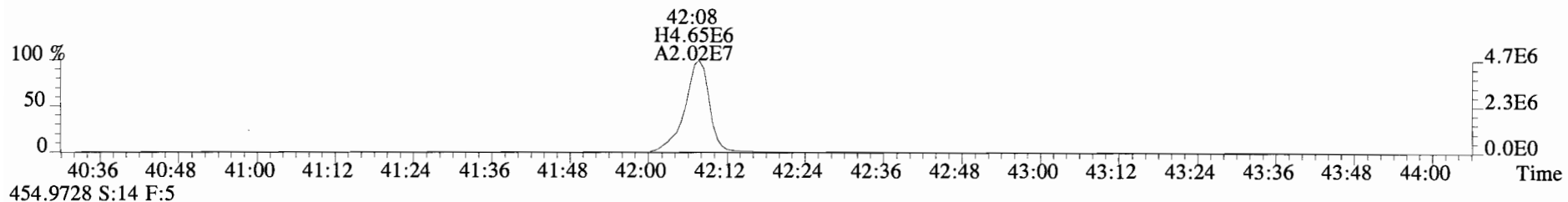
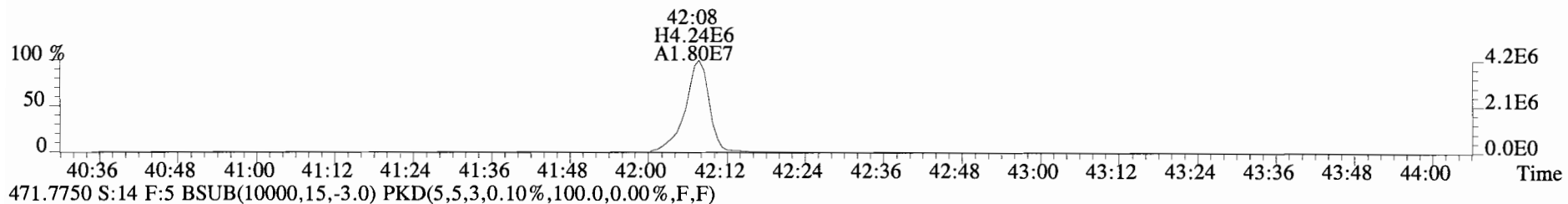
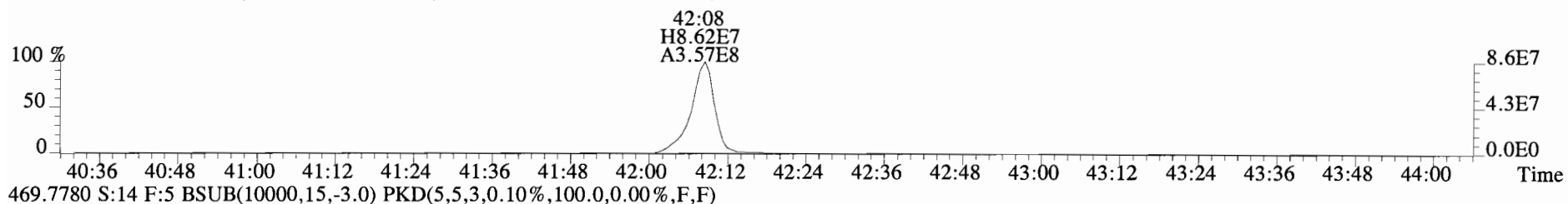
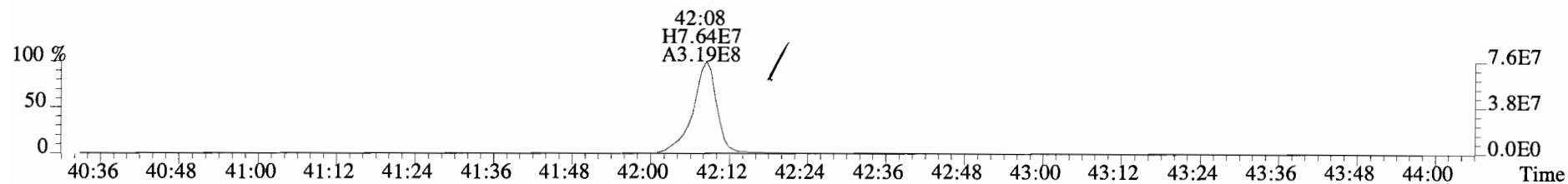
437.8140 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



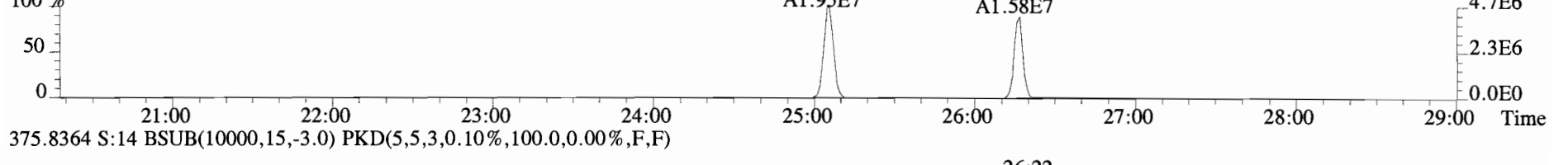
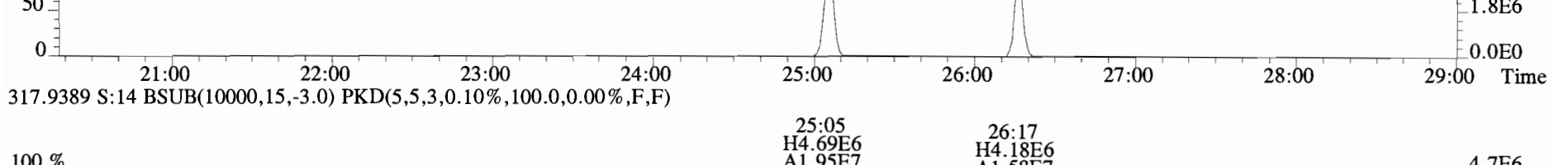
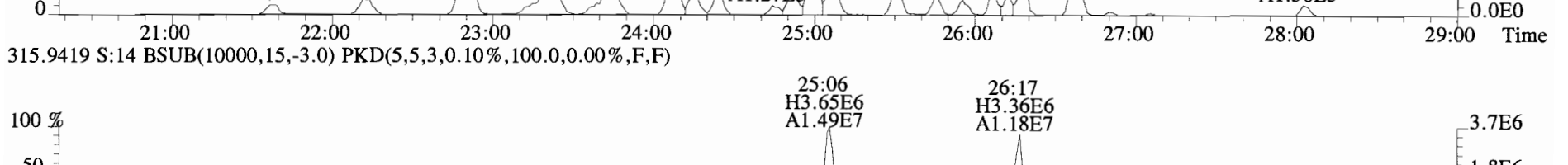
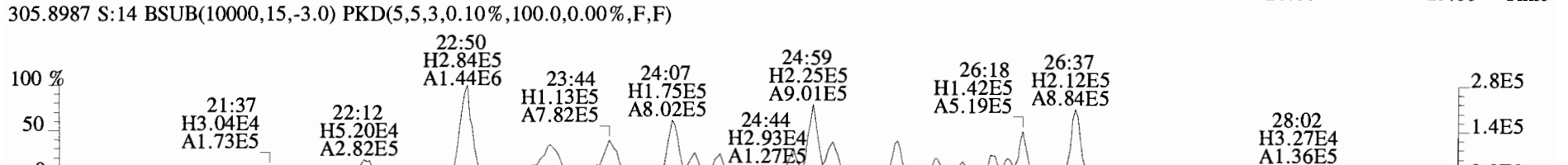
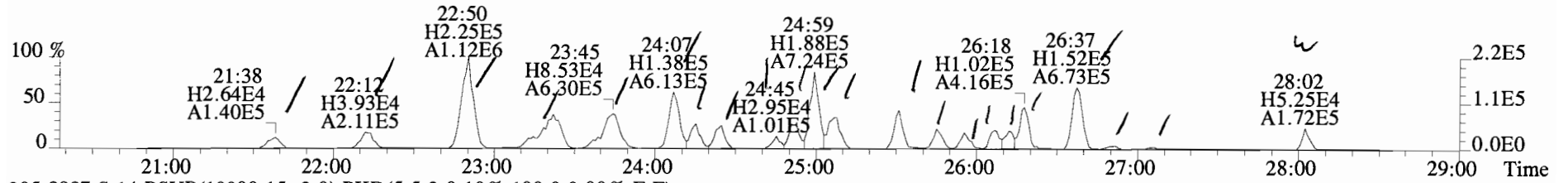
430.9728 S:14 F:4



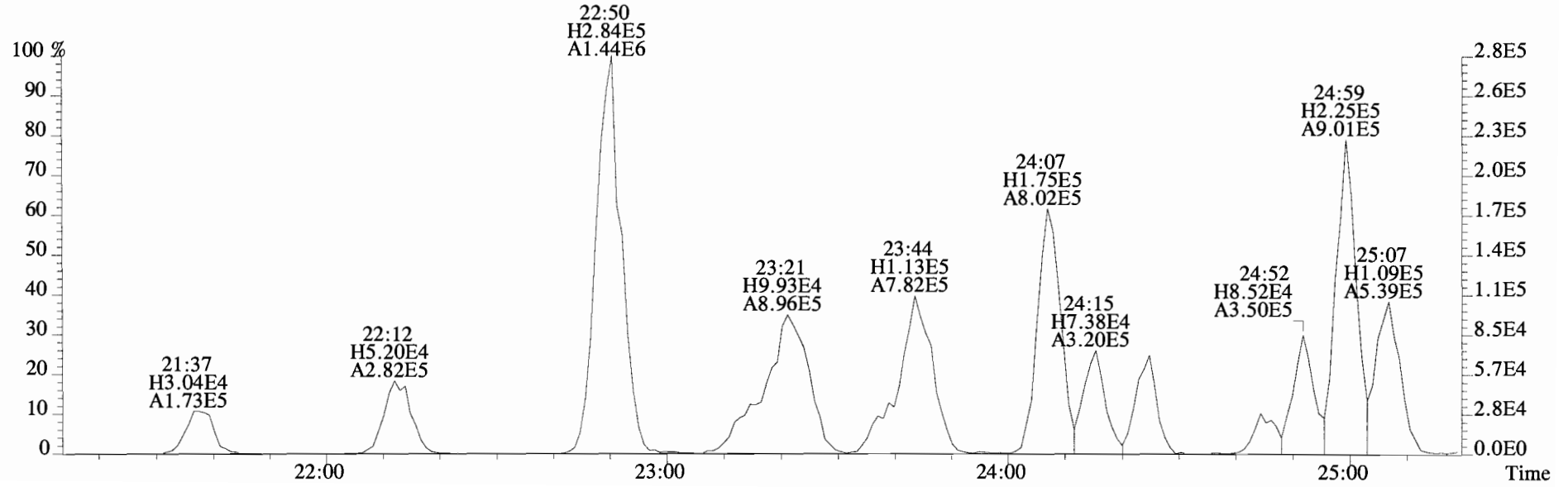
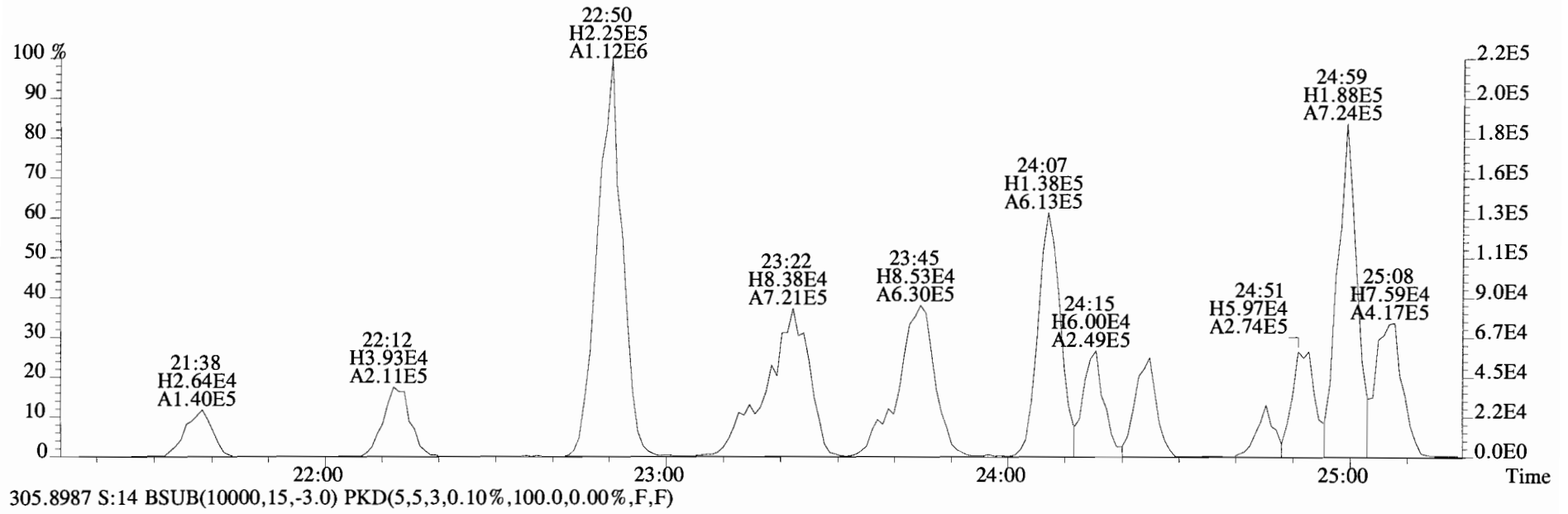
File:140917D1 #1-388 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
457.7377 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



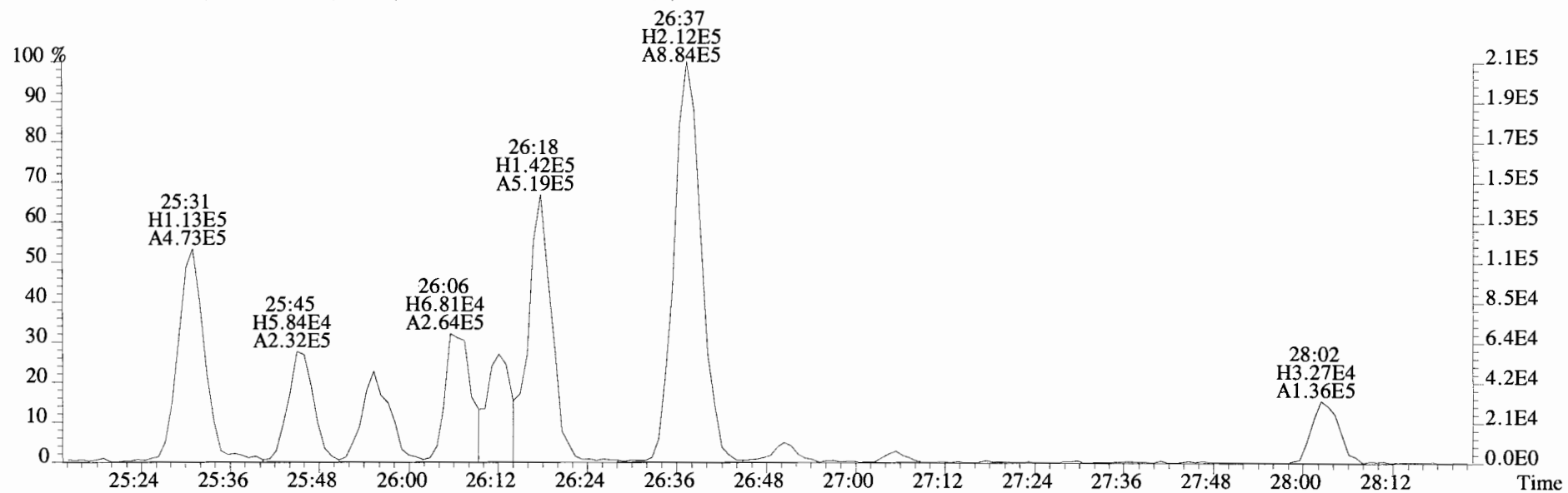
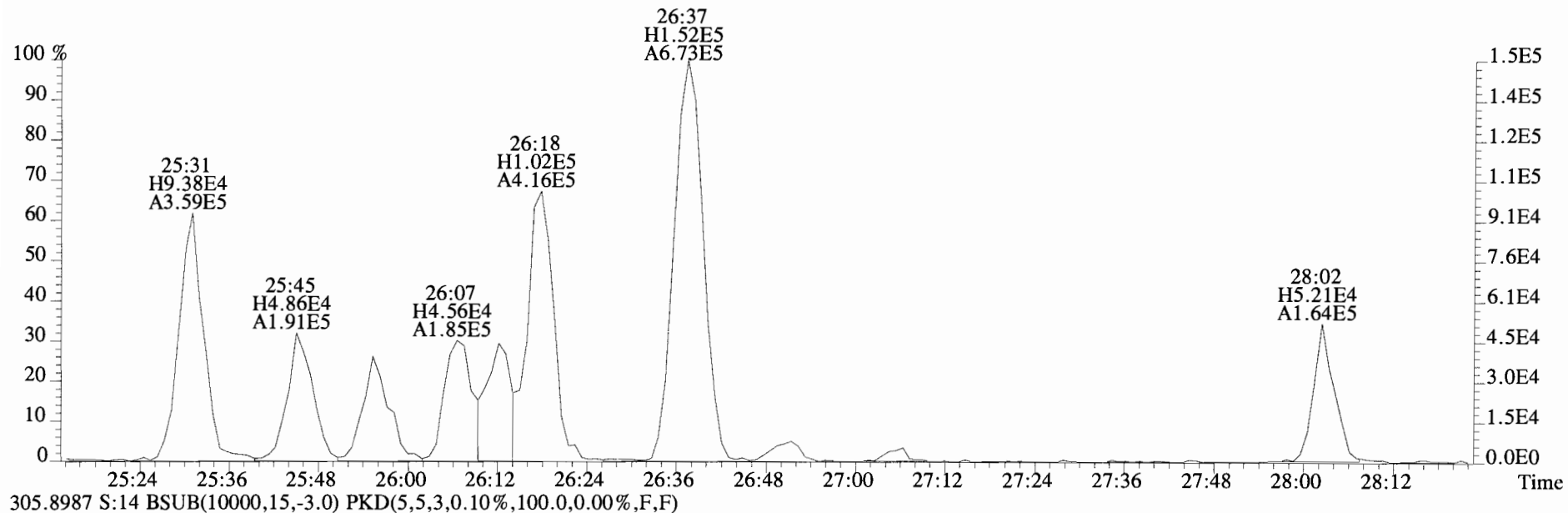
File:140917D1 #1-551 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
303.9016 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



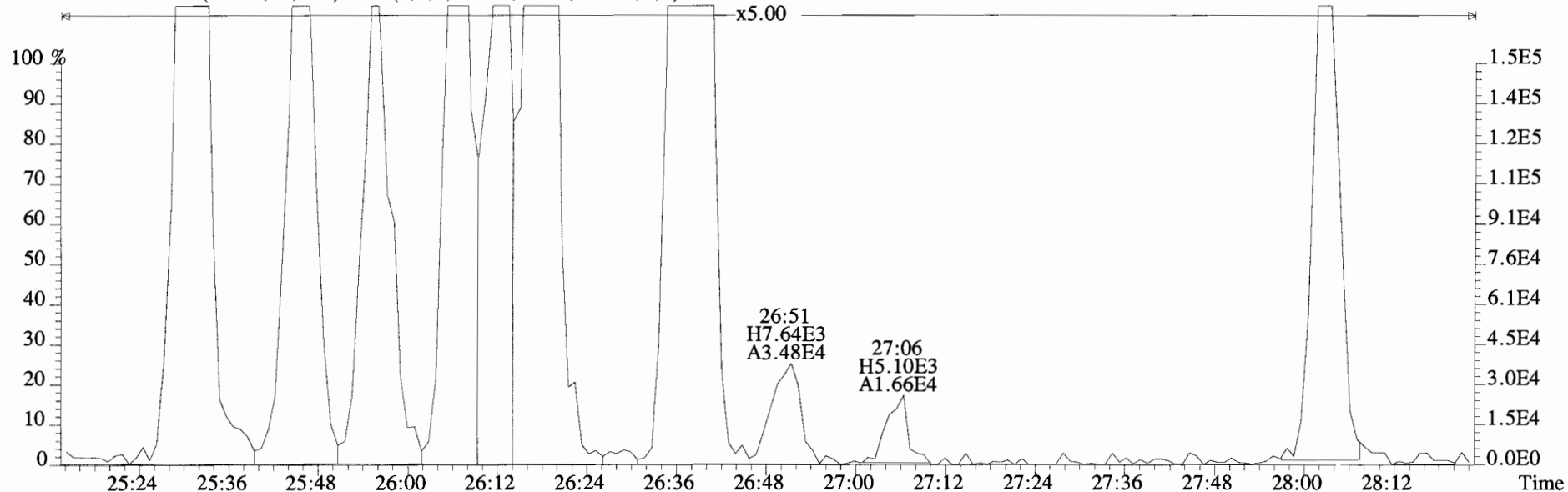
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 Sample#14 File Text: Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
 303.9016 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



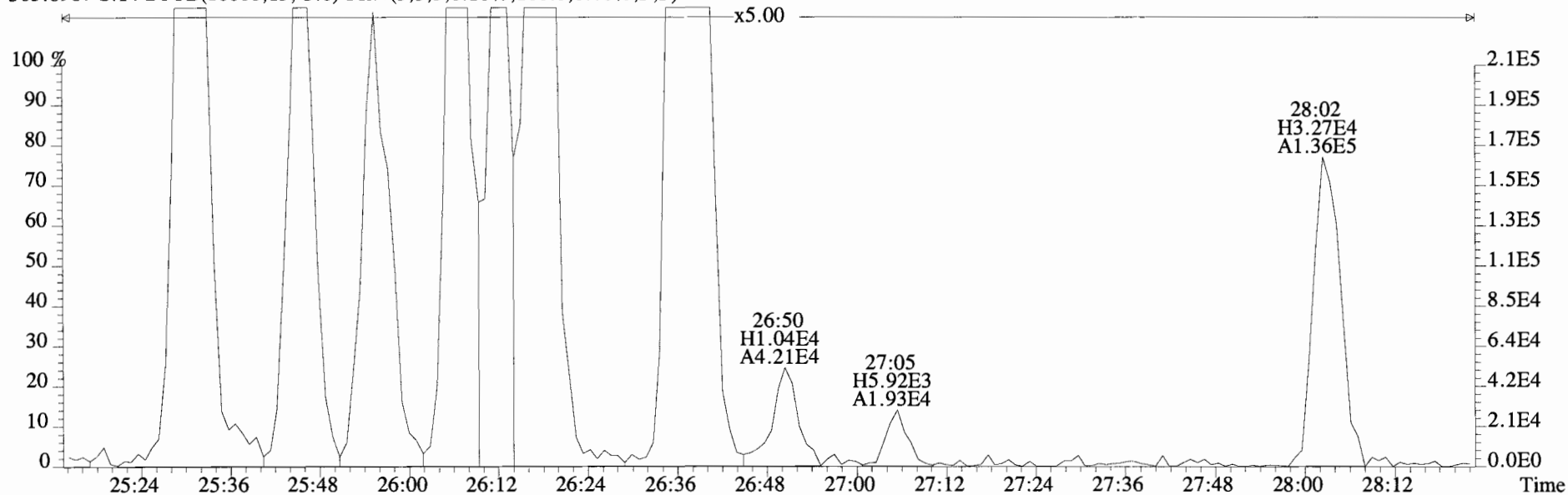
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Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
303.9016 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



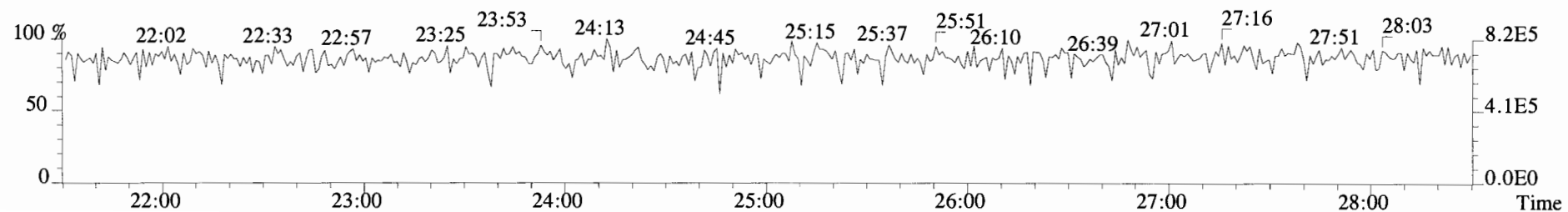
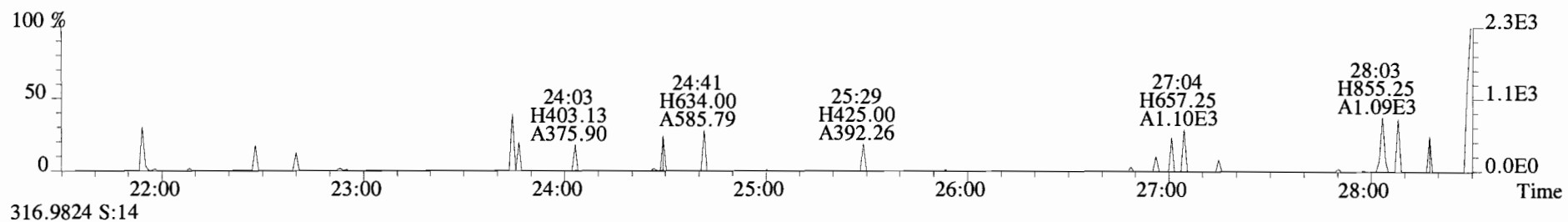
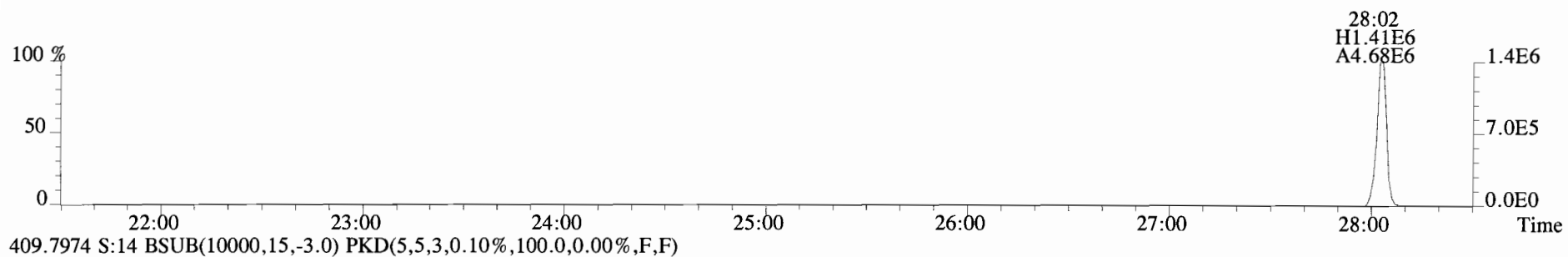
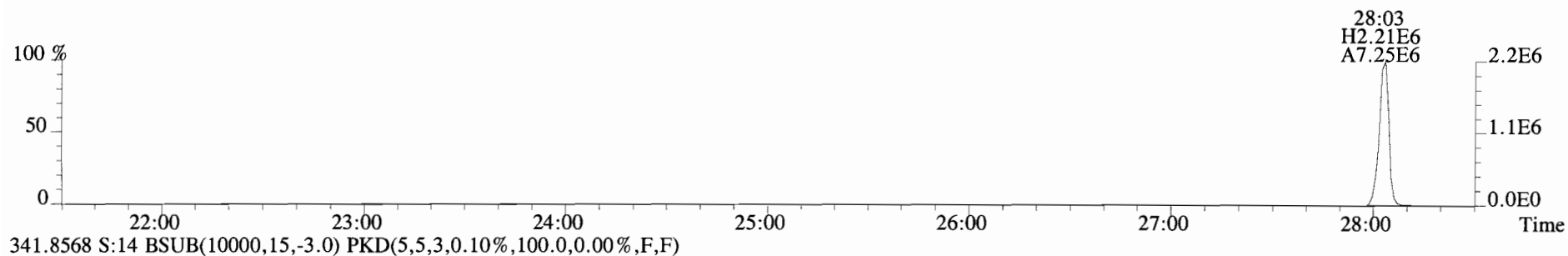
File:140917D1 #1-551 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
303.9016 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



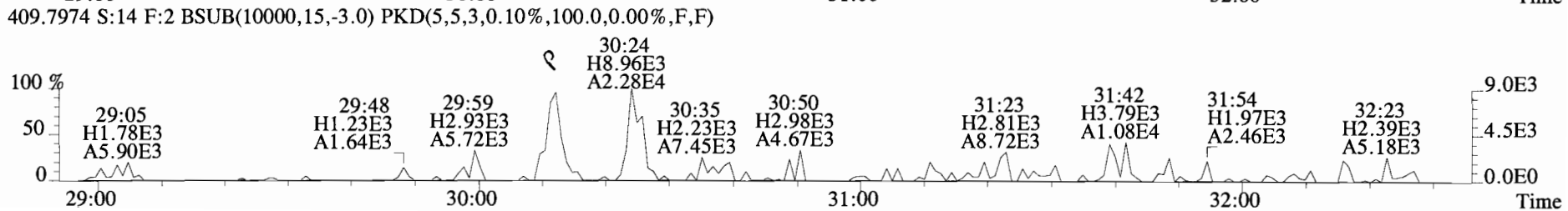
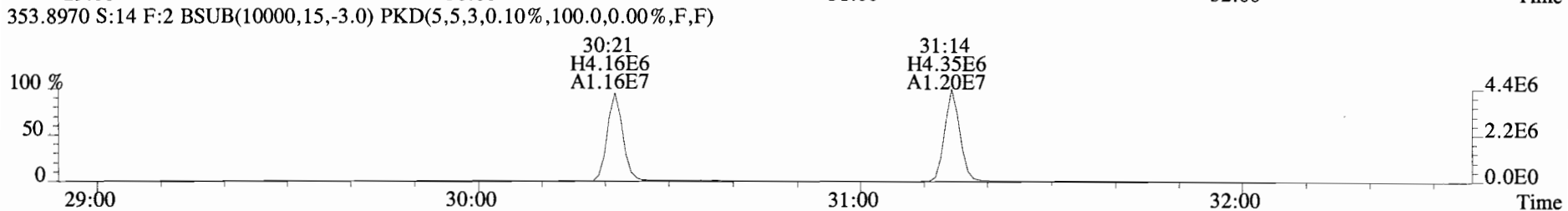
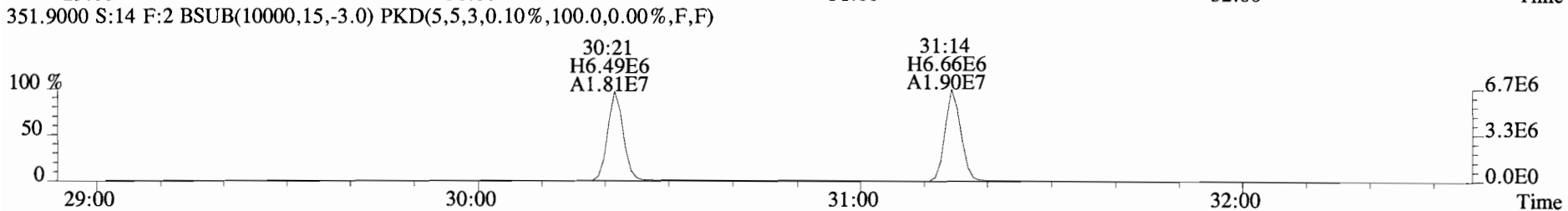
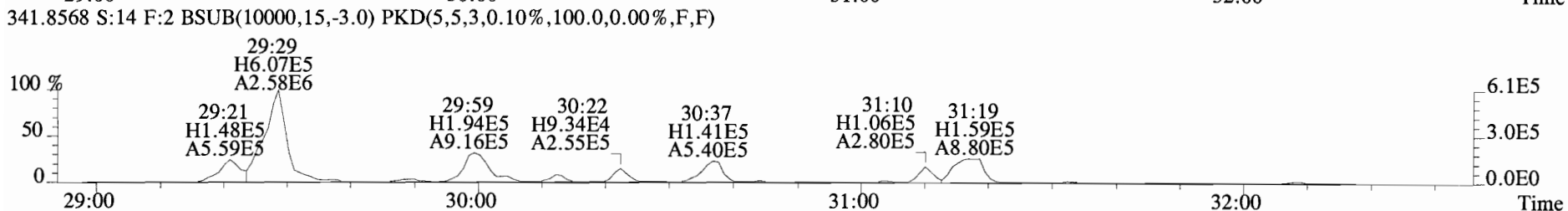
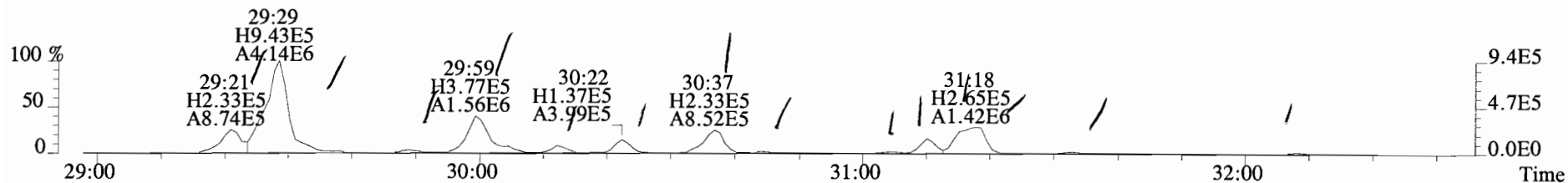
305.8987 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



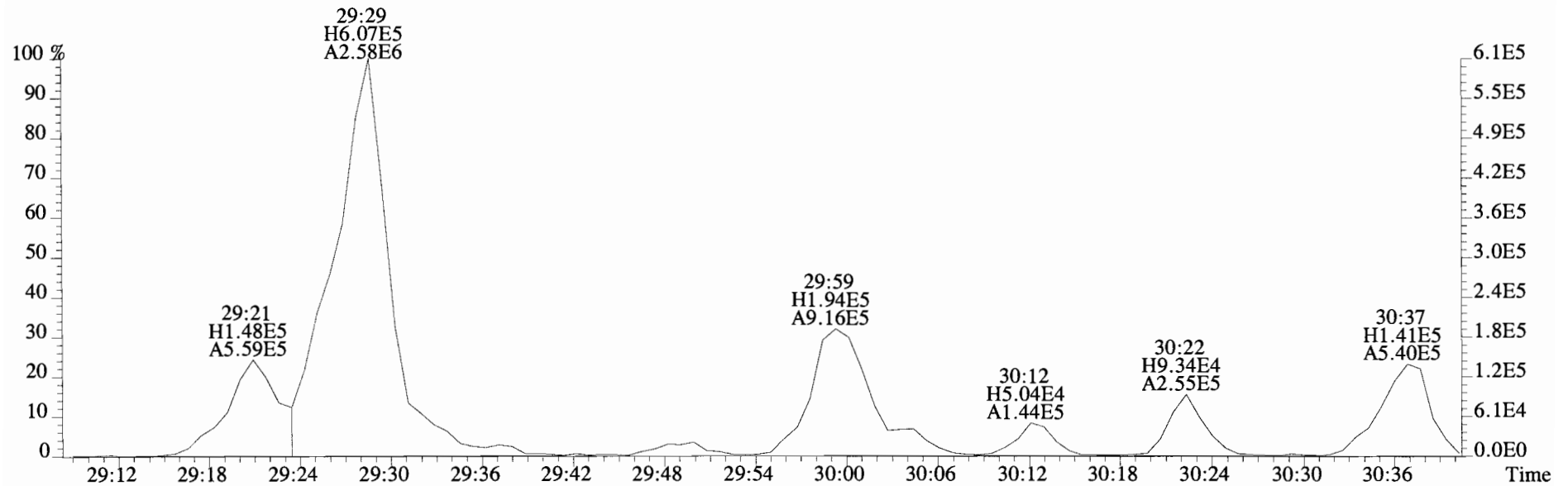
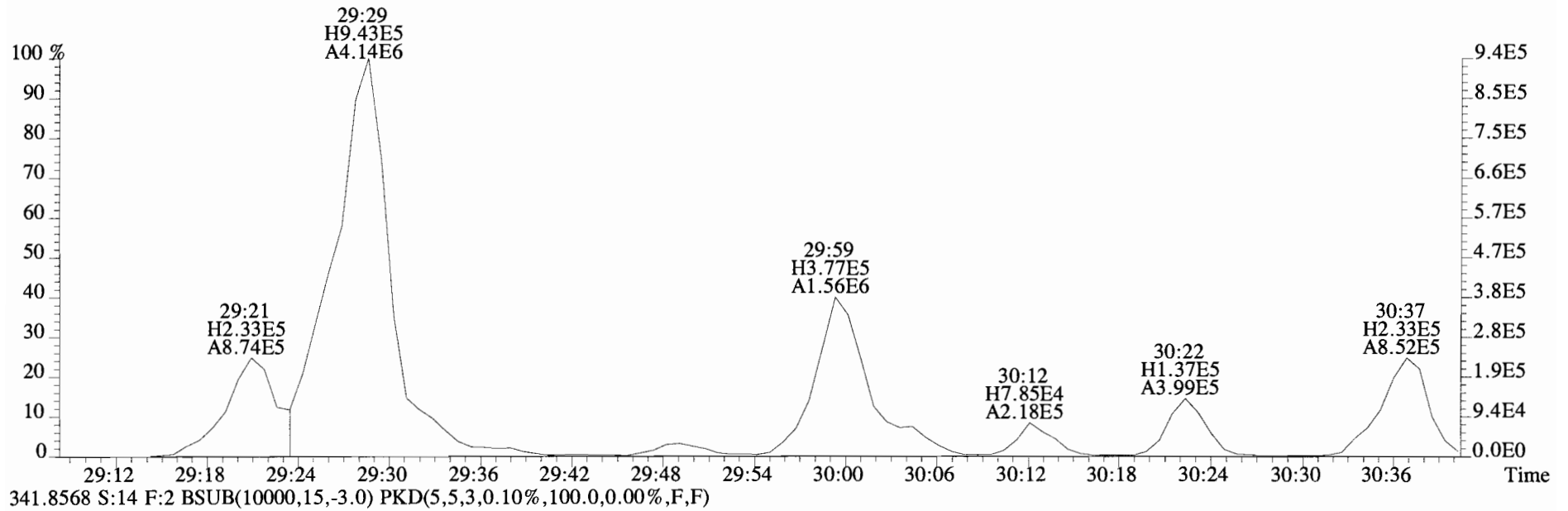
File: 140917D1 #1-551 Acq: 17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text: Vista Analytical Laboratory VG-7 Text: 1400665-02 UG-MH-60-20140911-S 28.77 Exp: OCDD_DB5
339.8597 S:14 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



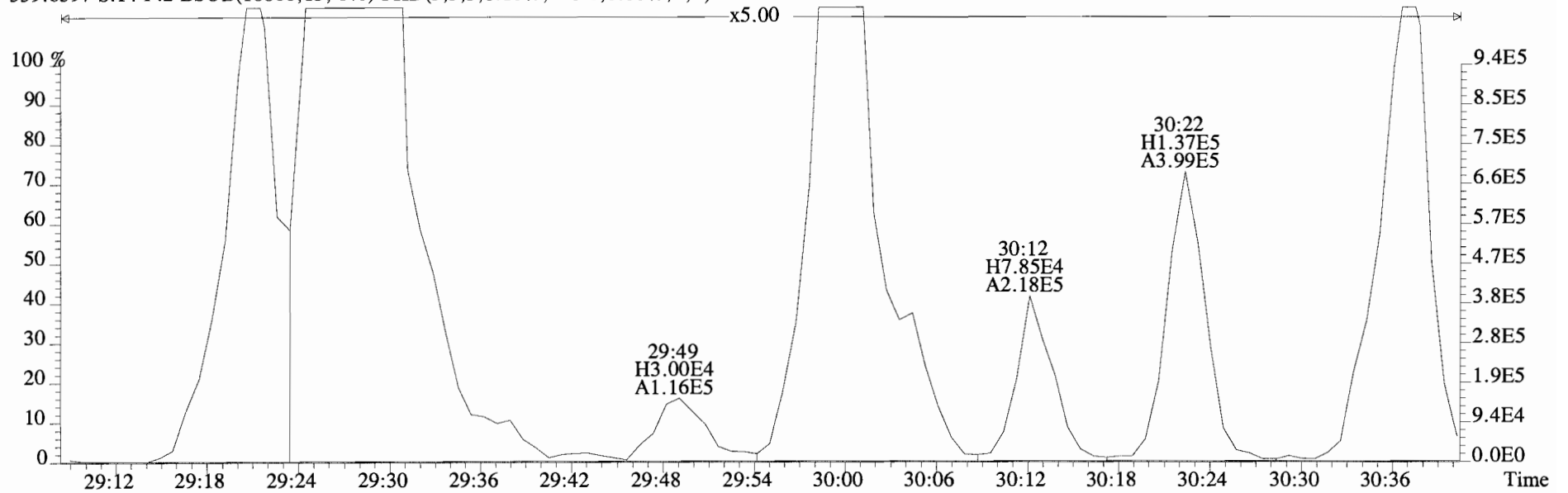
File:140917D1 #1-257 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
 339.8597 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



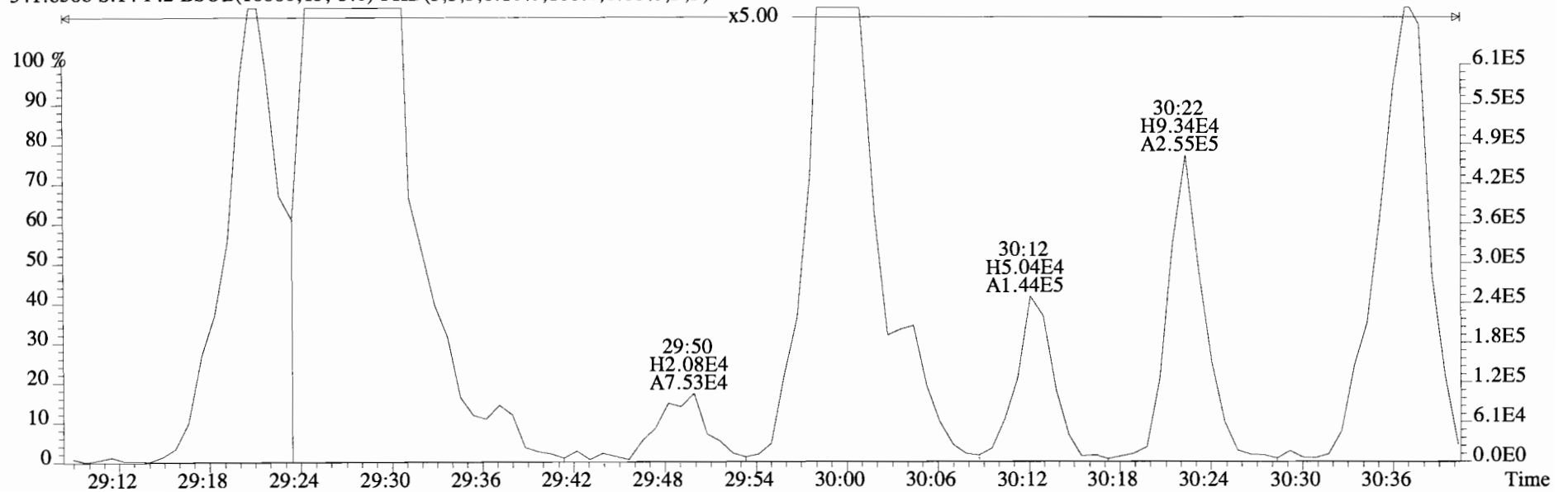
File: 140917D1 #1-257 Acq: 17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text: Vista Analytical Laboratory VG-7 Text: 1400665-02 UG-MH-60-20140911-S 28.77 Exp: OCDD_DB5
339.8597 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



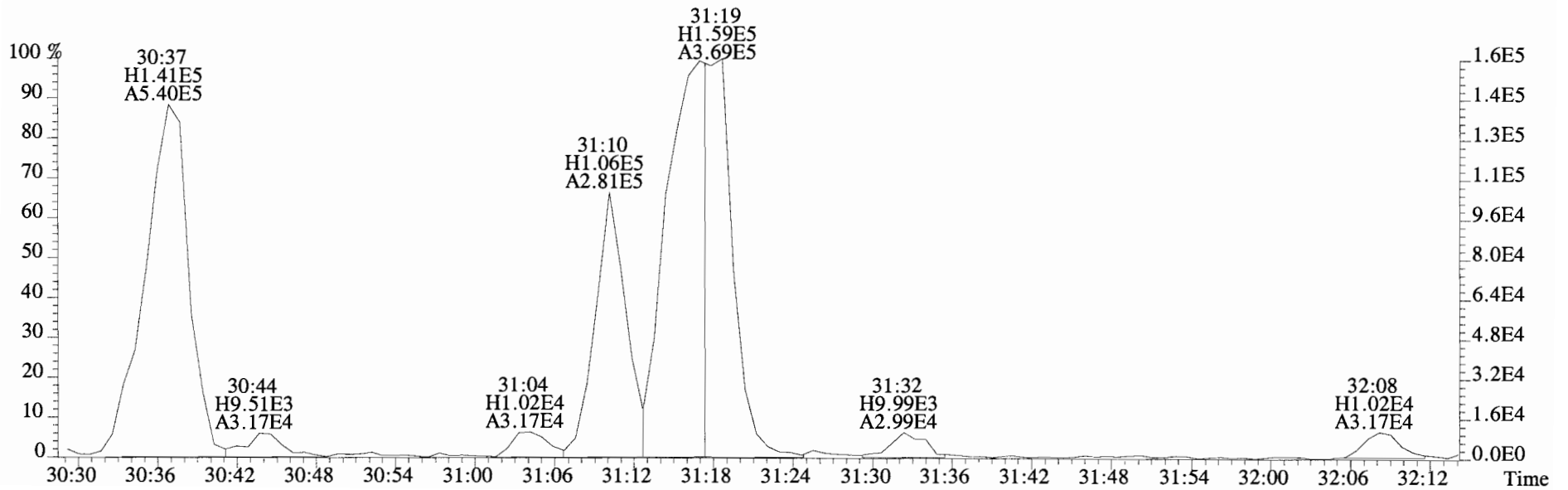
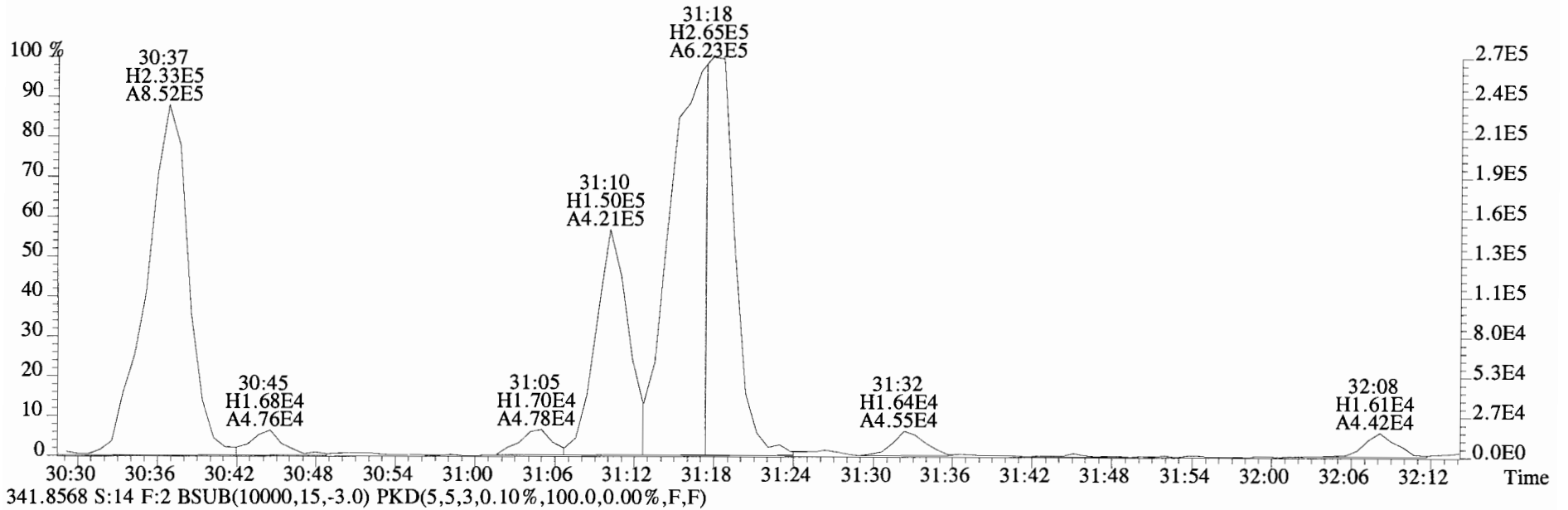
File:140917D1 #1-257 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
339.8597 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



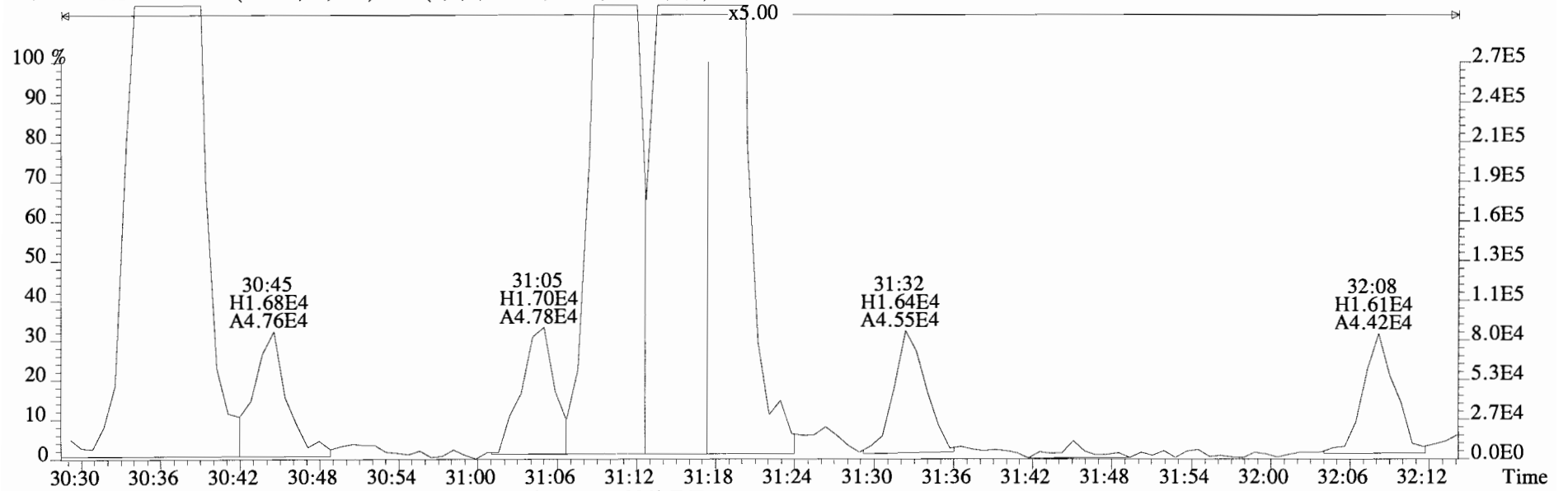
341.8568 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



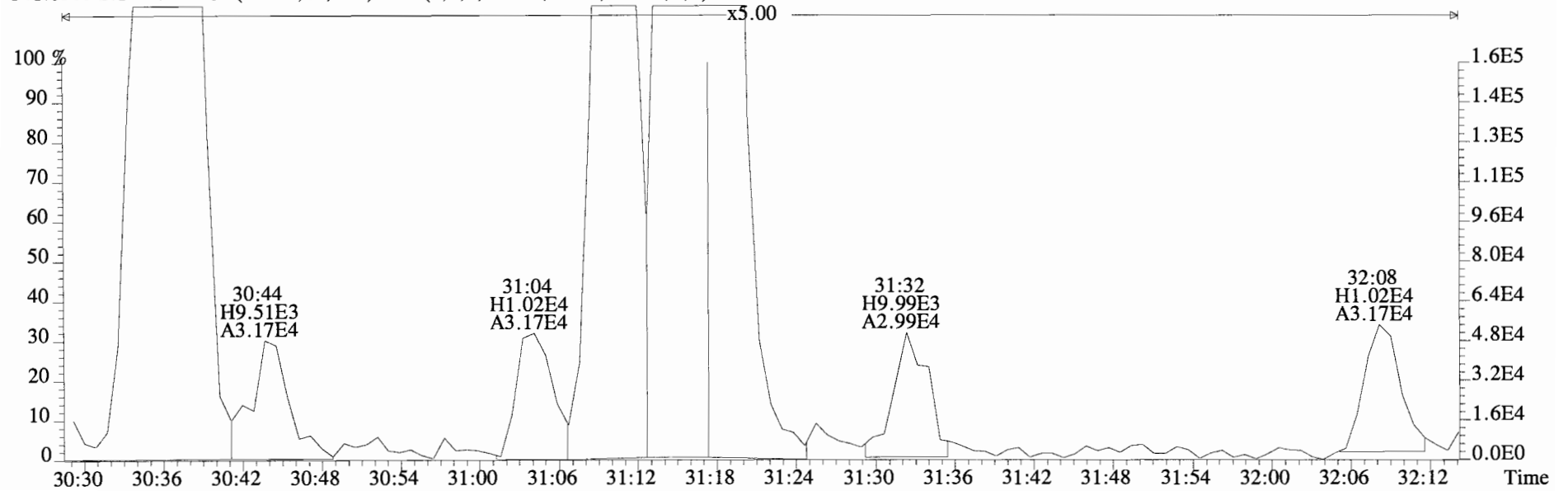
File:140917D1 #1-257 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
339.8597 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



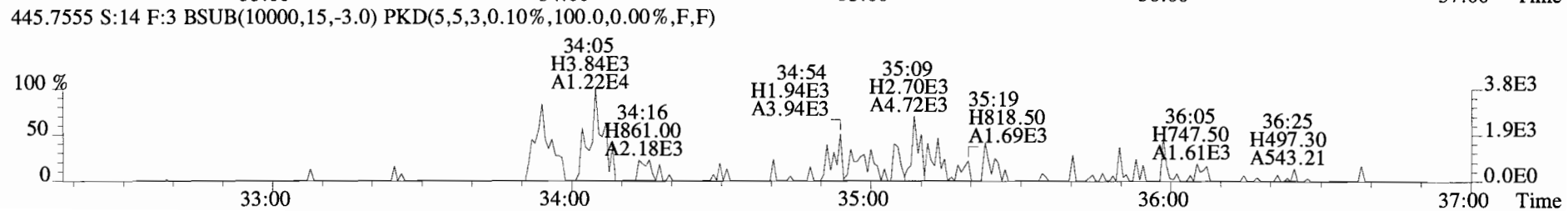
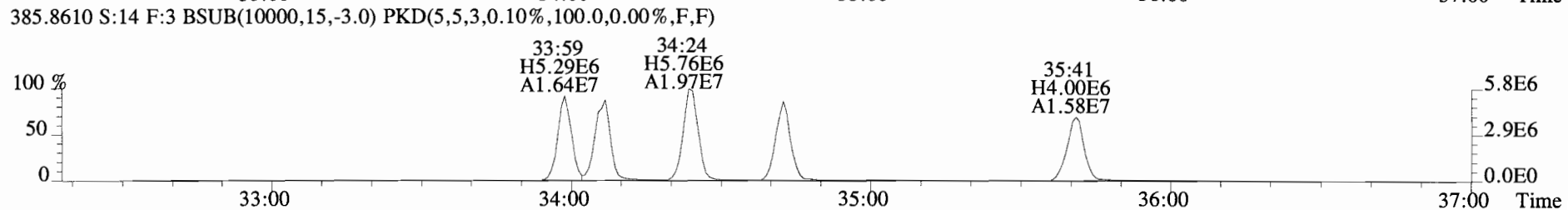
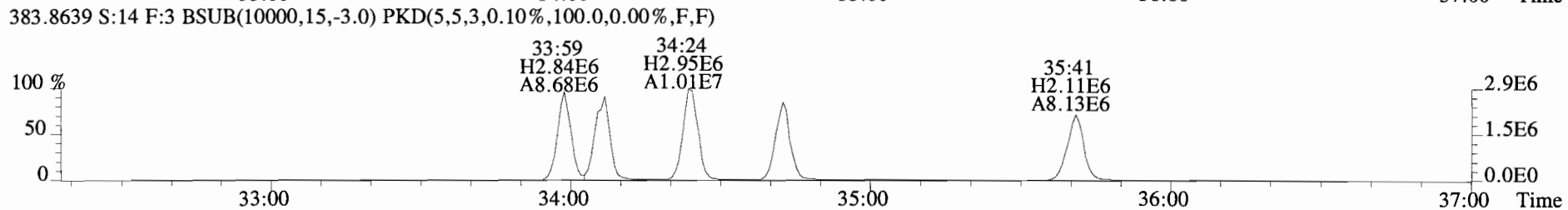
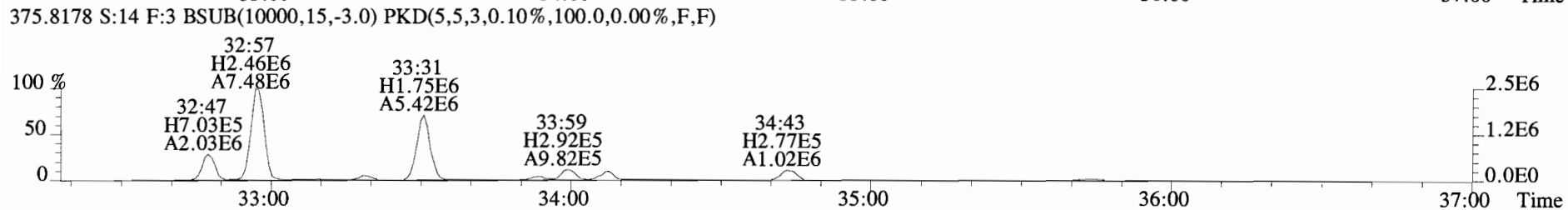
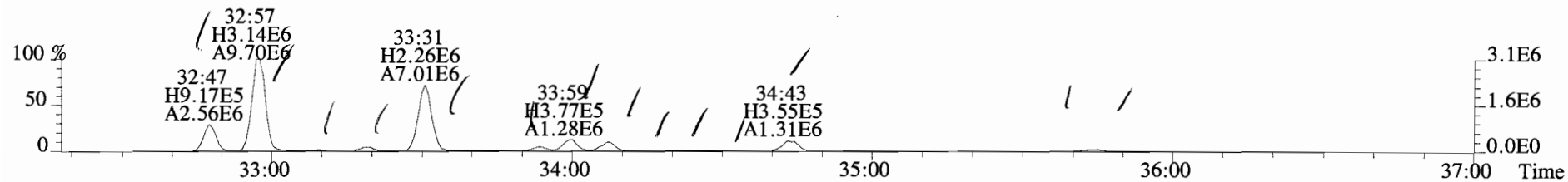
File:140917D1 #1-257 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
339.8597 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



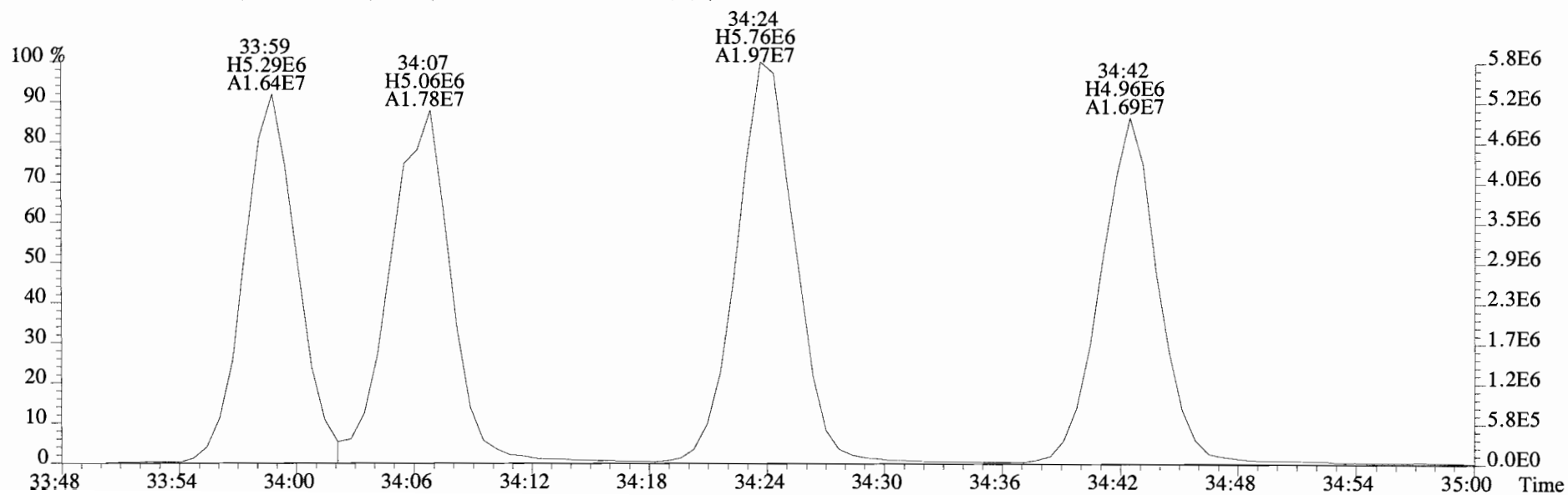
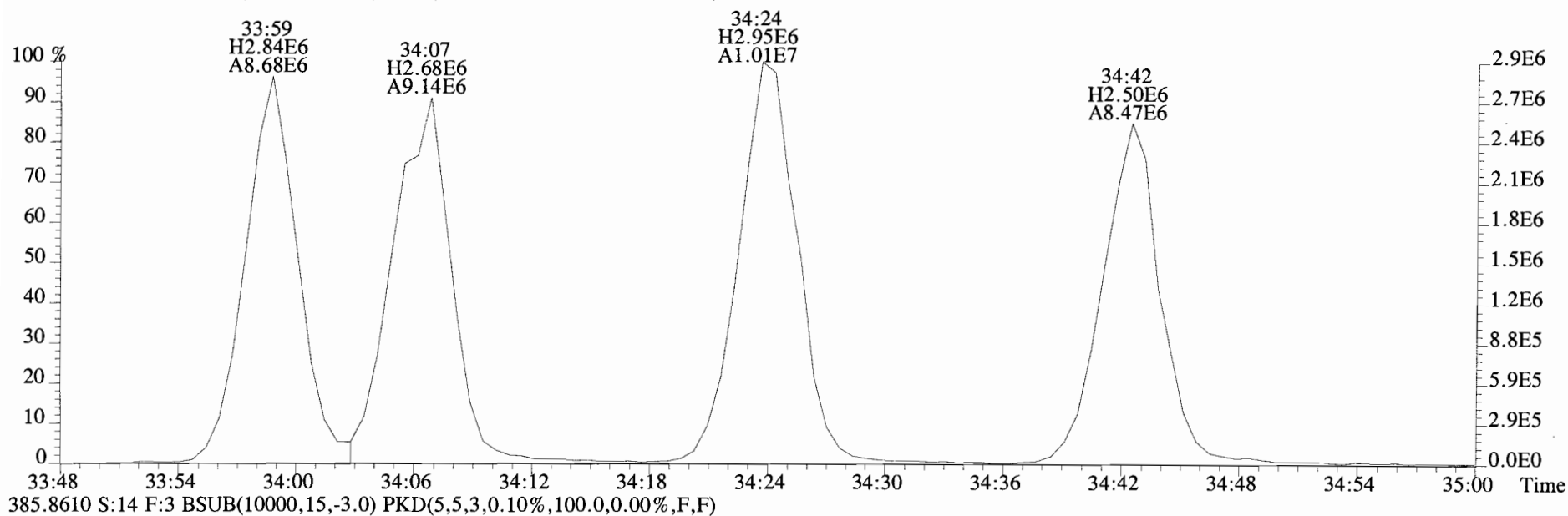
341.8568 S:14 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



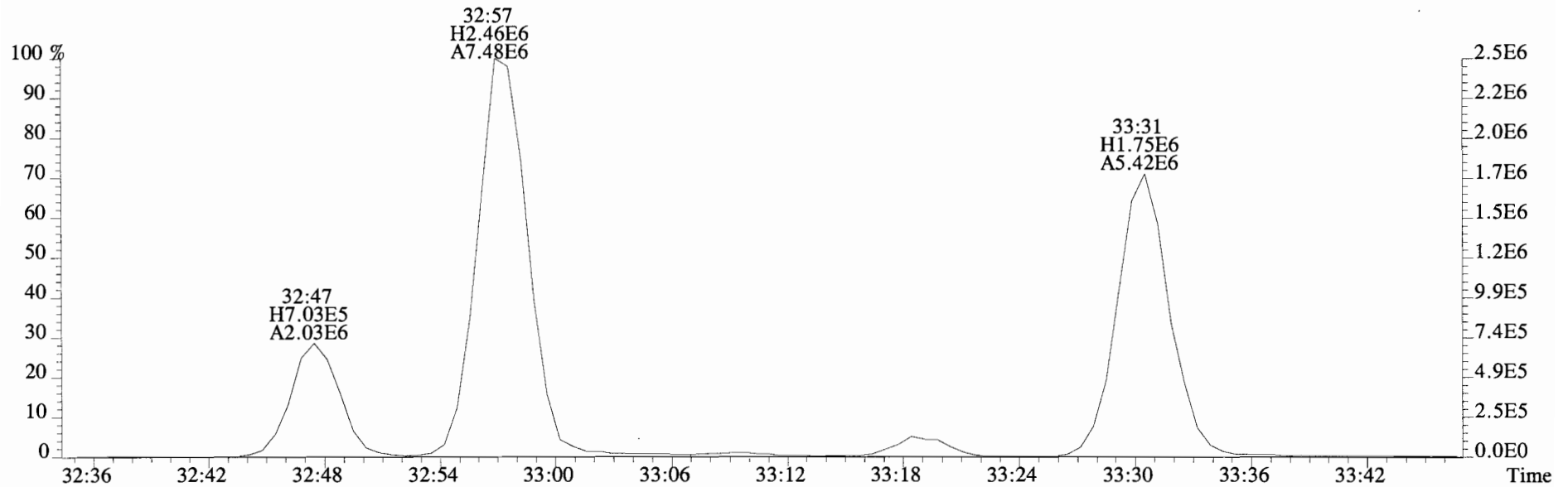
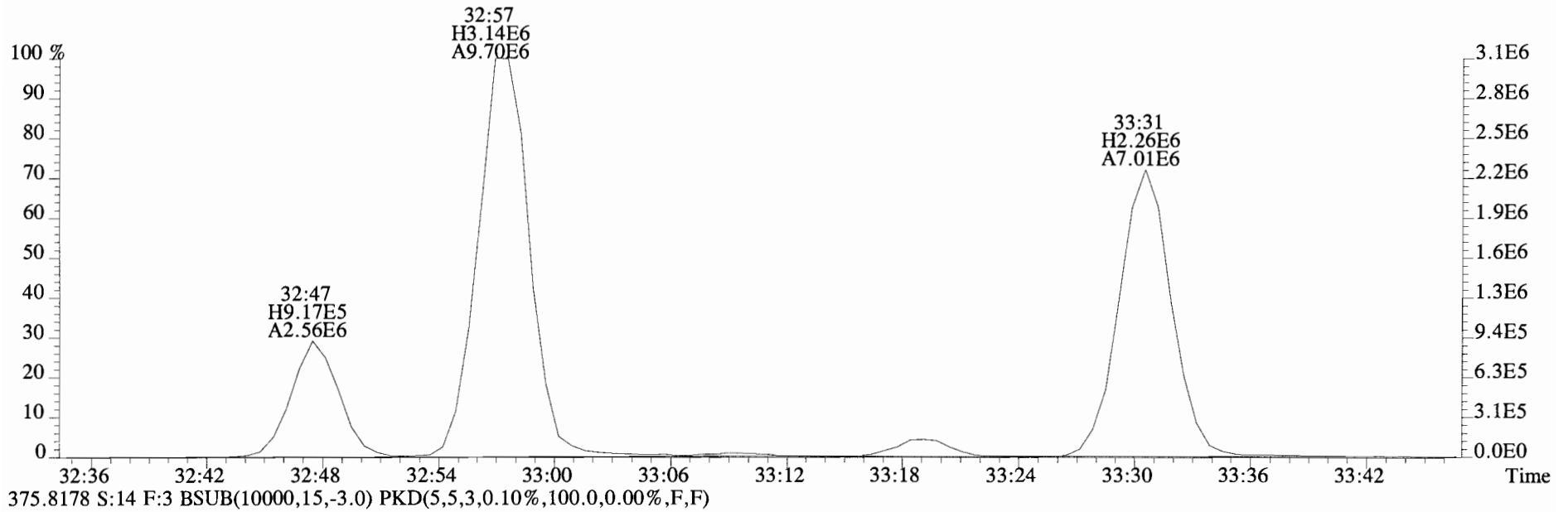
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
373.8207 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



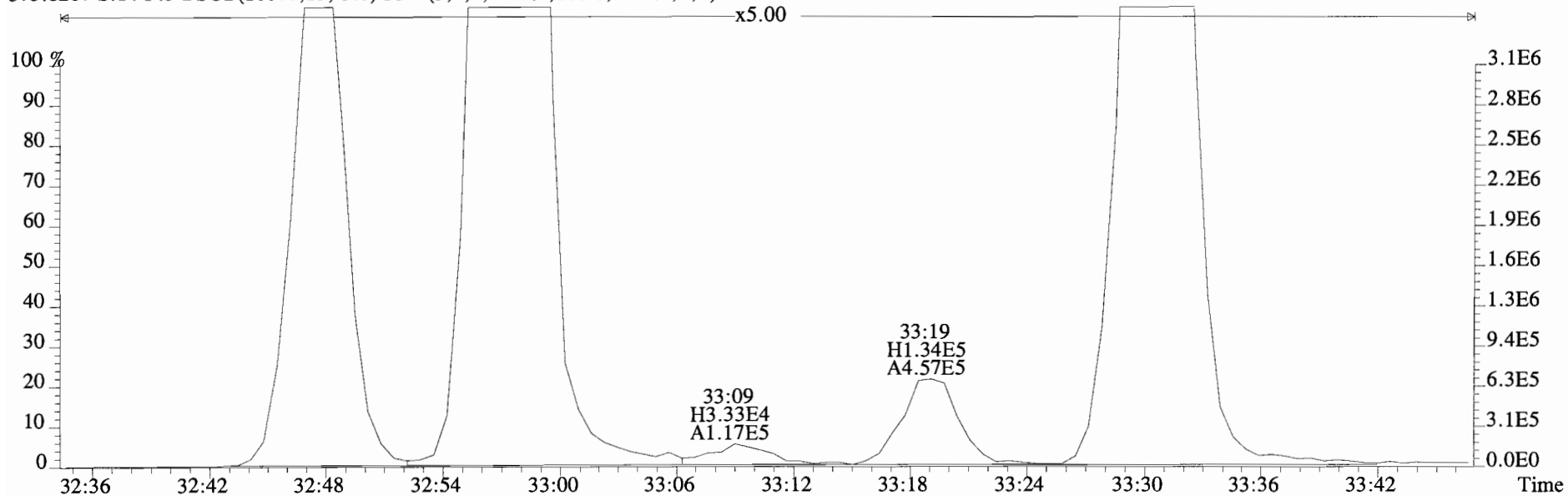
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
383.8639 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



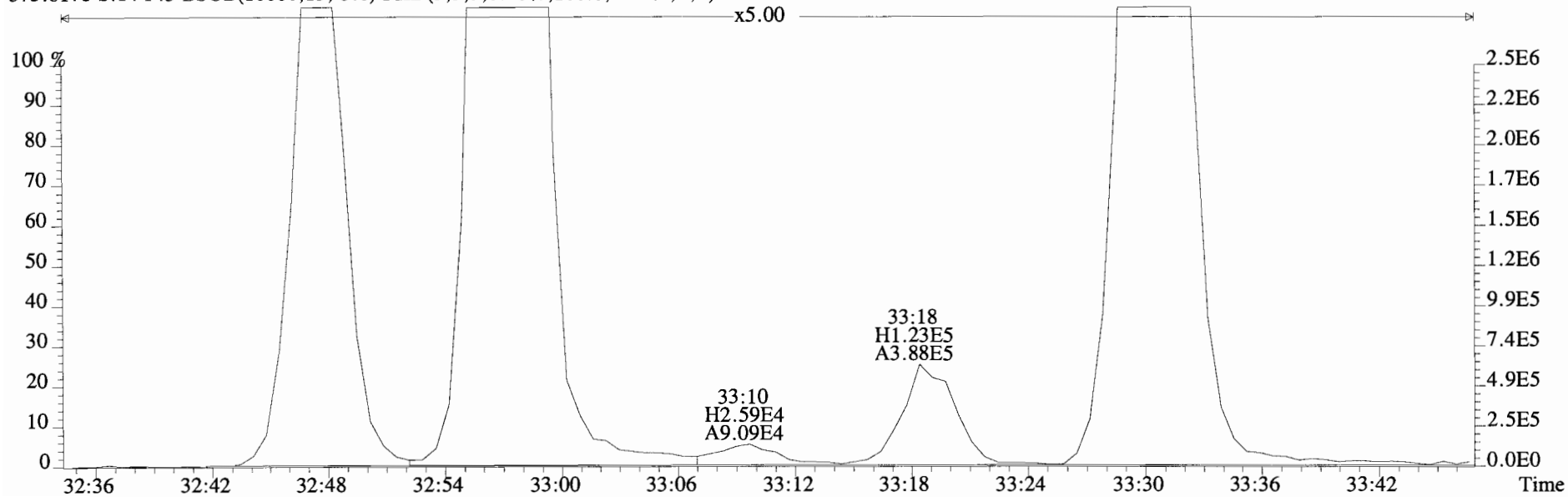
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
373.8207 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



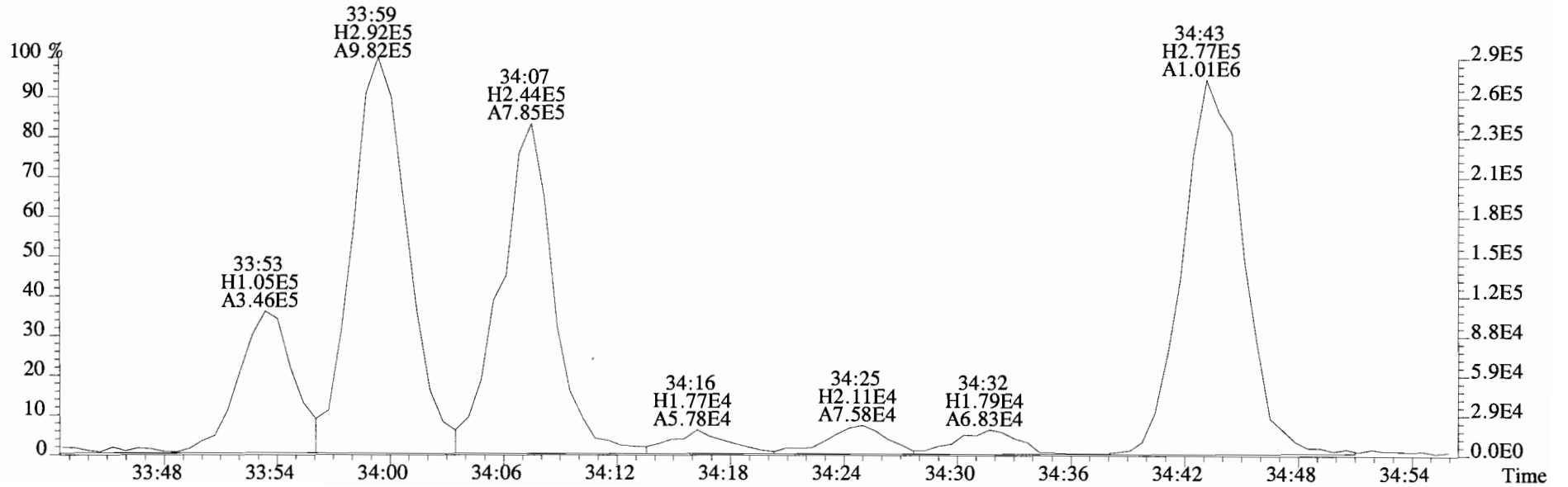
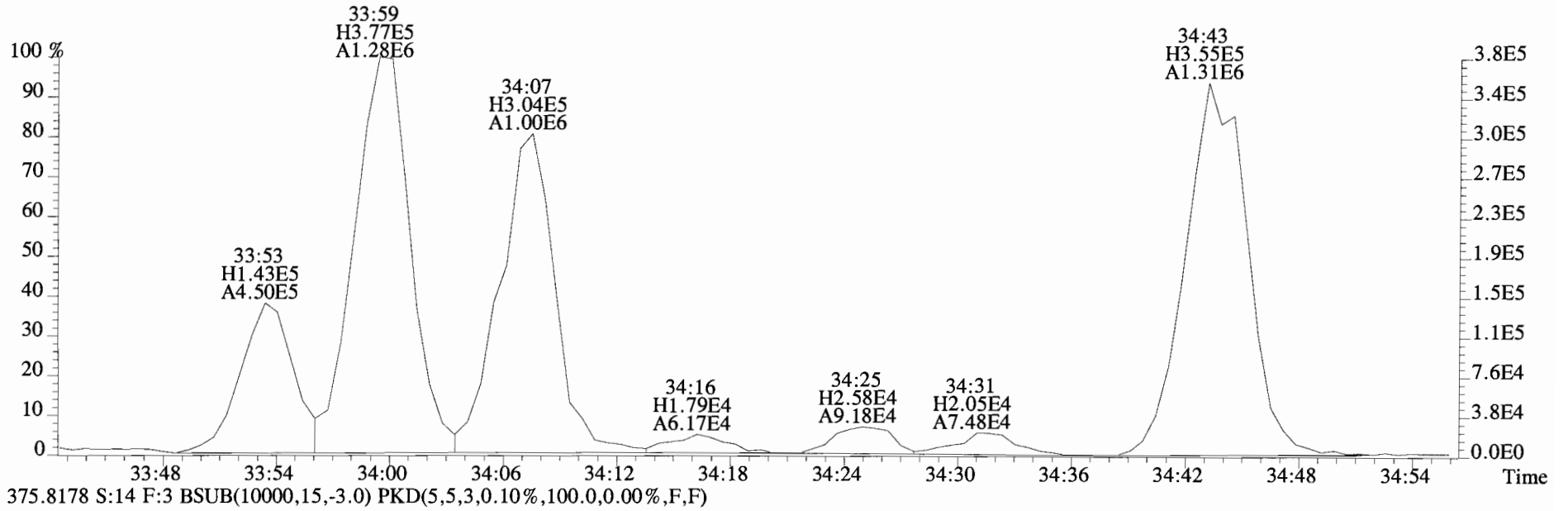
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
373.8207 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



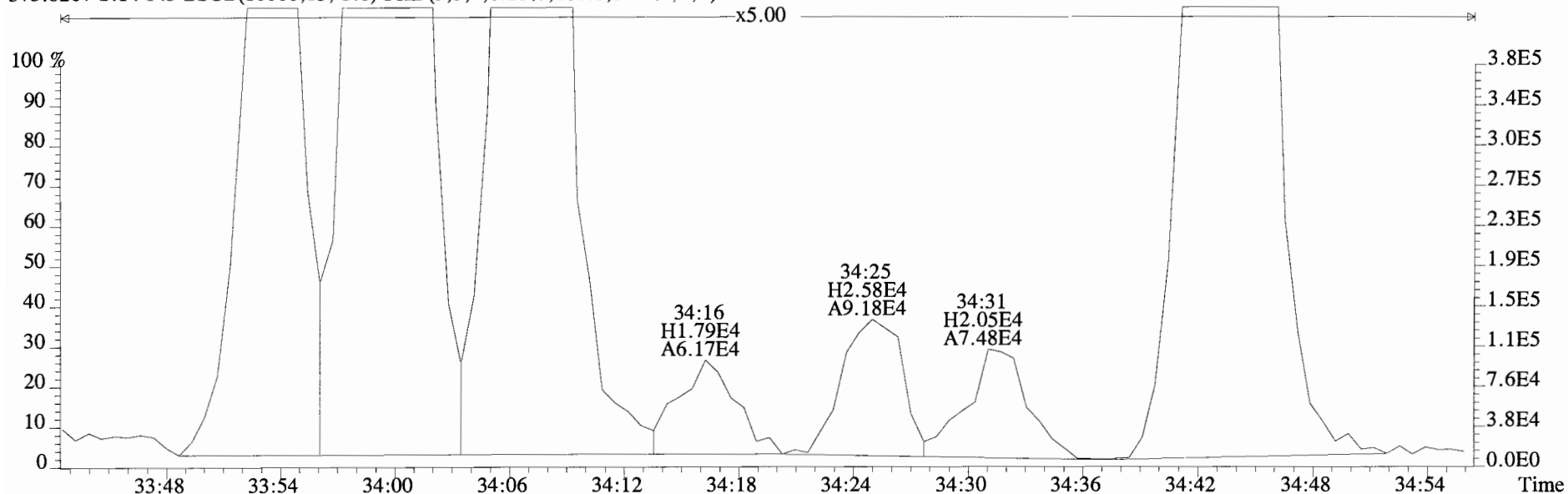
375.8178 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



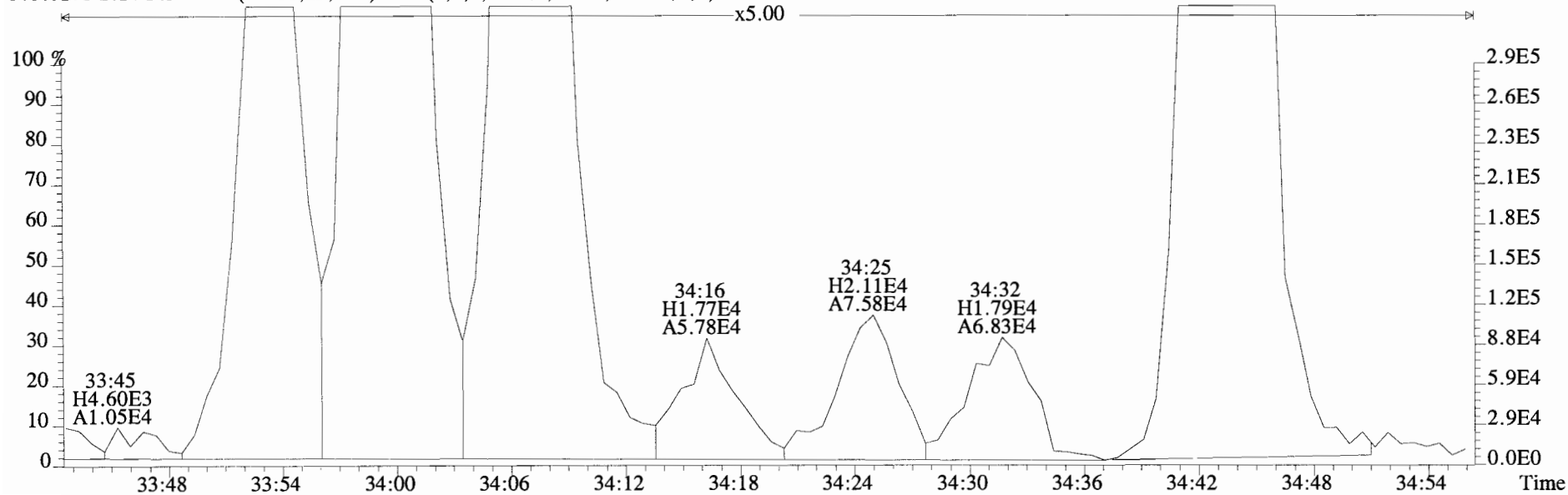
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
373.8207 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



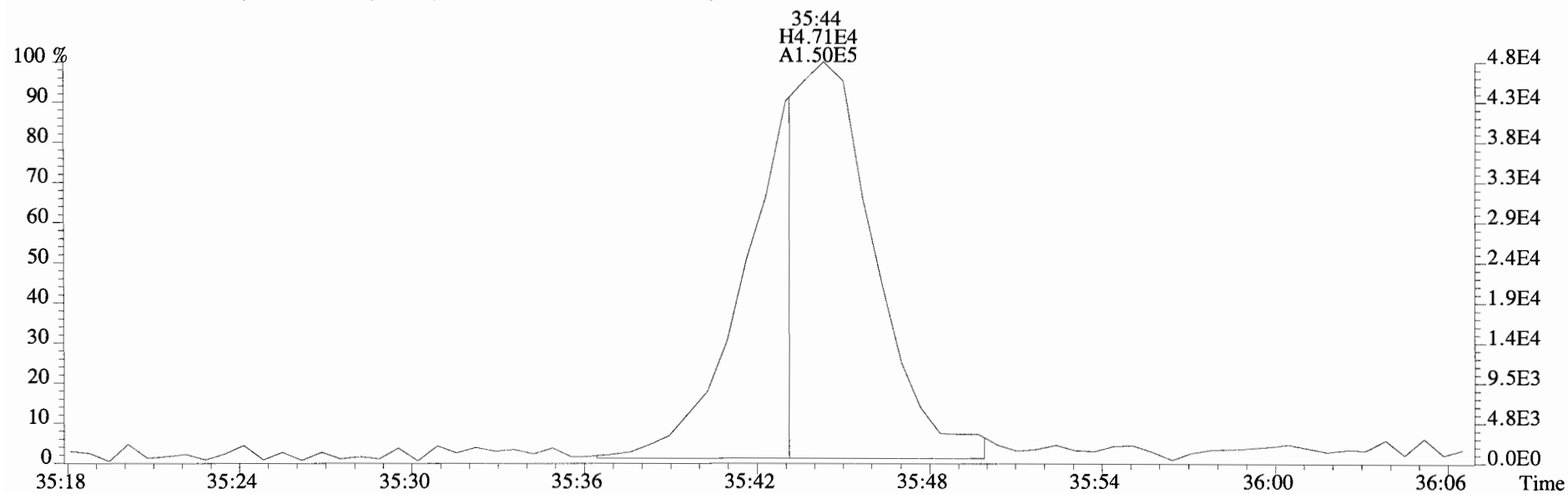
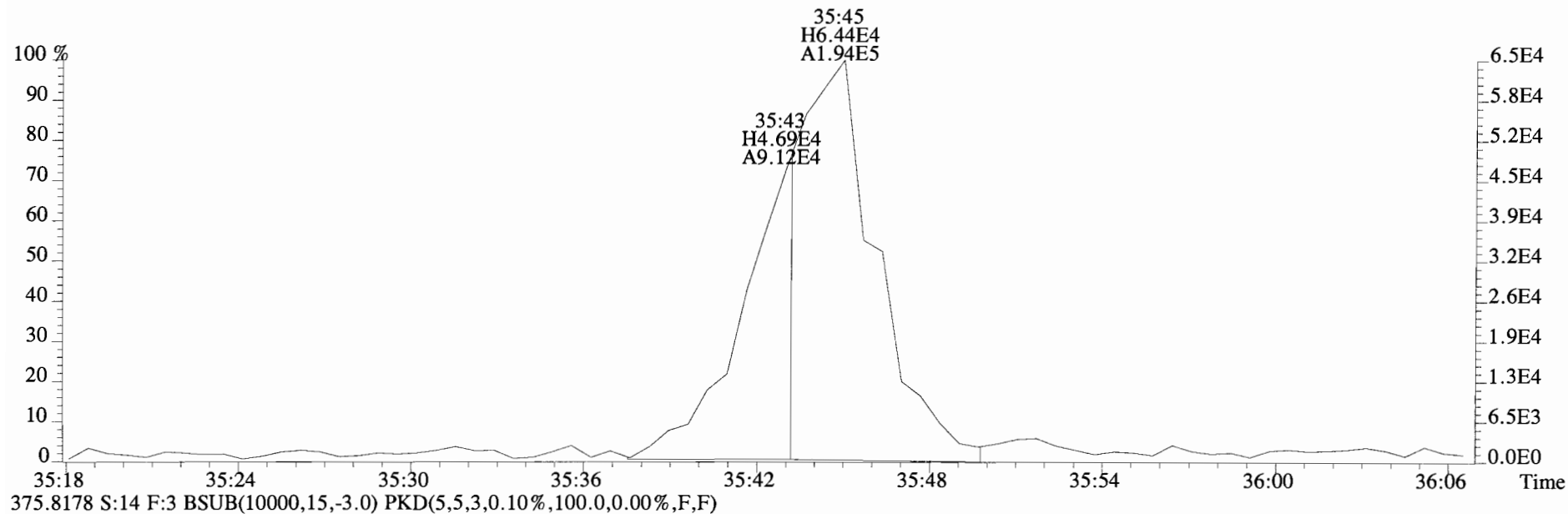
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
373.8207 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



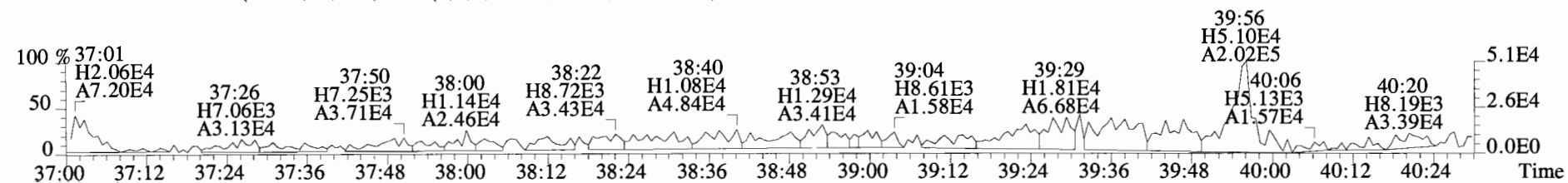
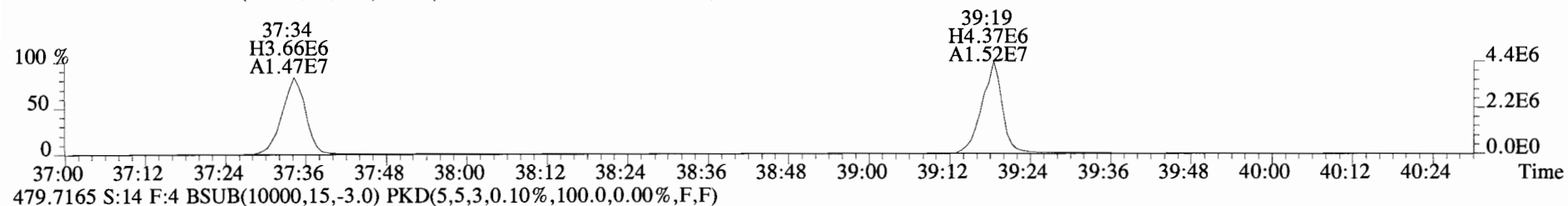
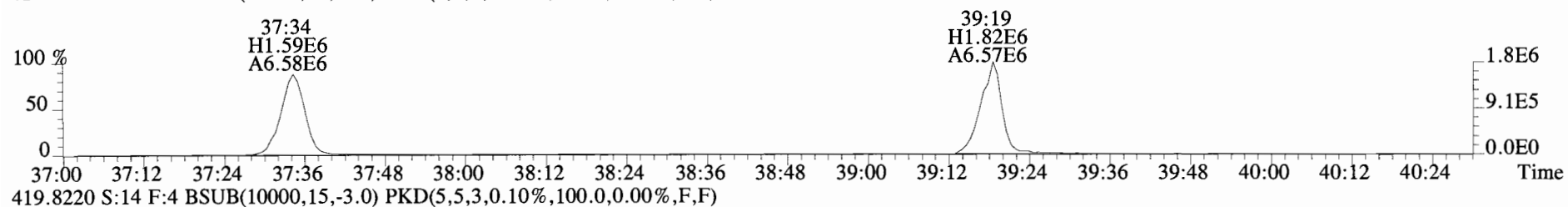
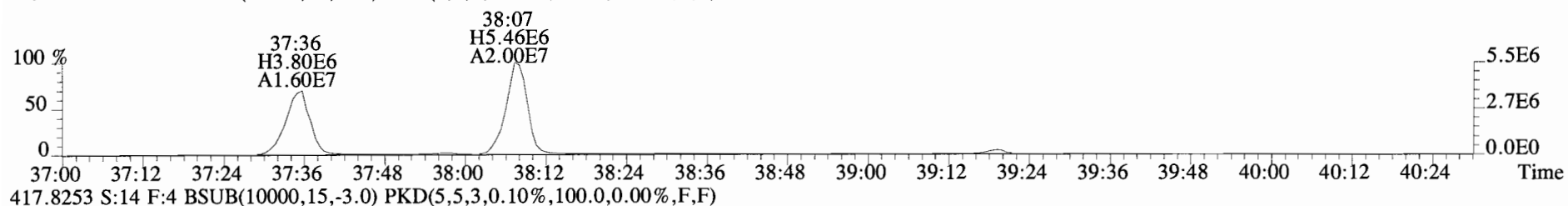
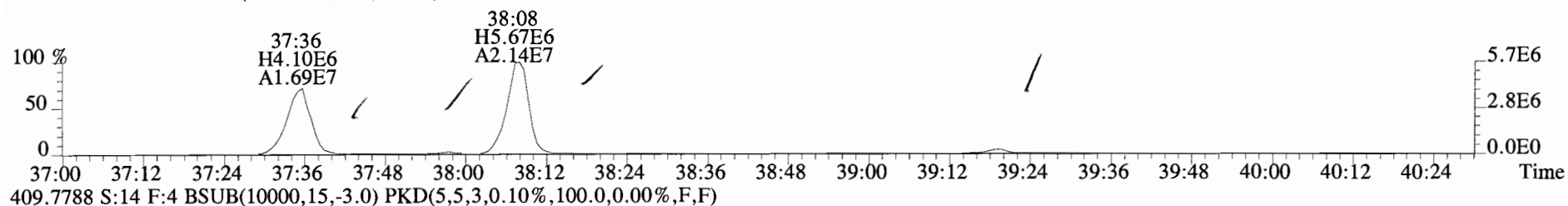
375.8178 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



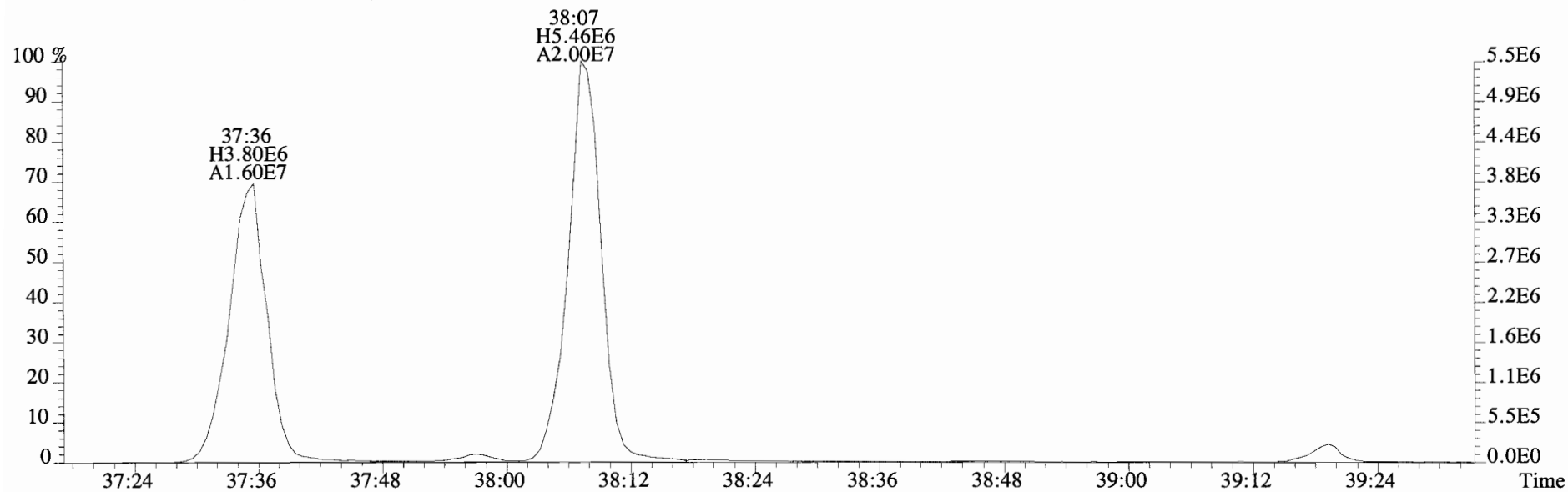
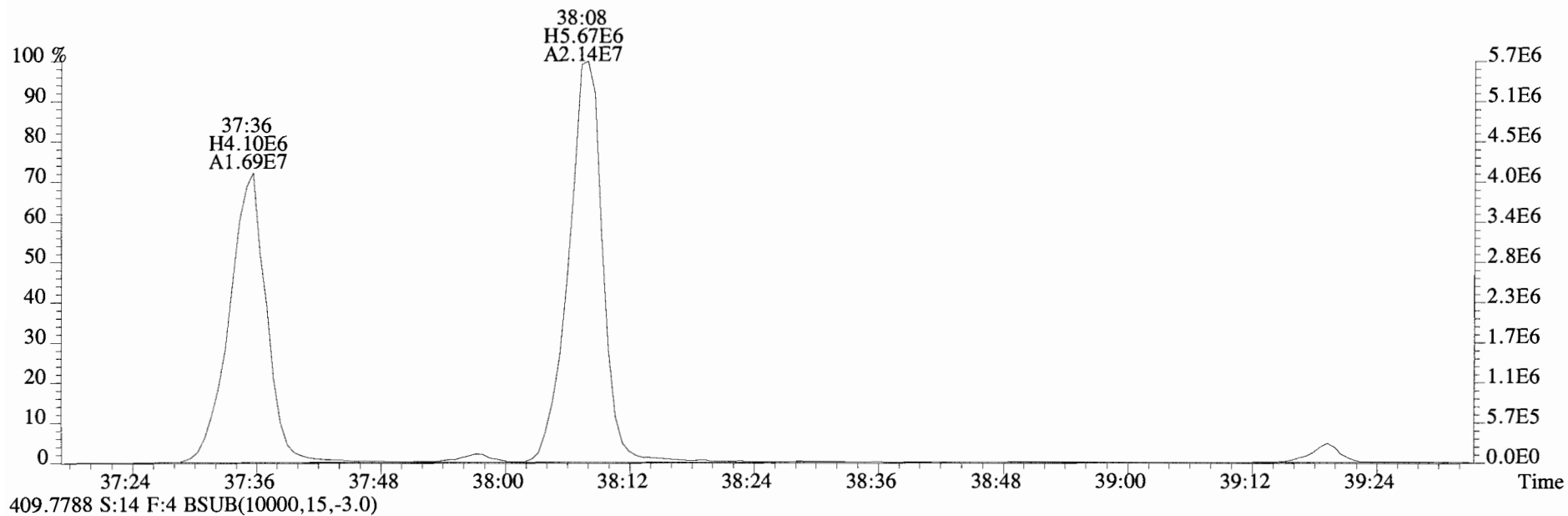
File:140917D1 #1-385 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
373.8207 S:14 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



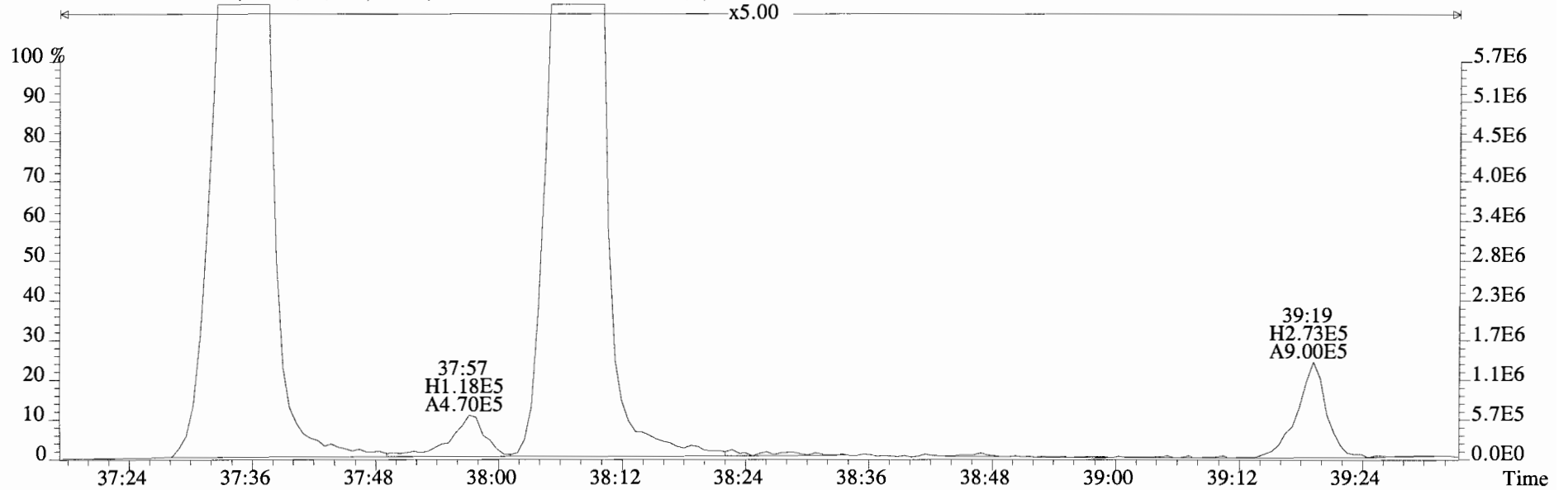
File:140917D1 #1-326 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
 407.7818 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



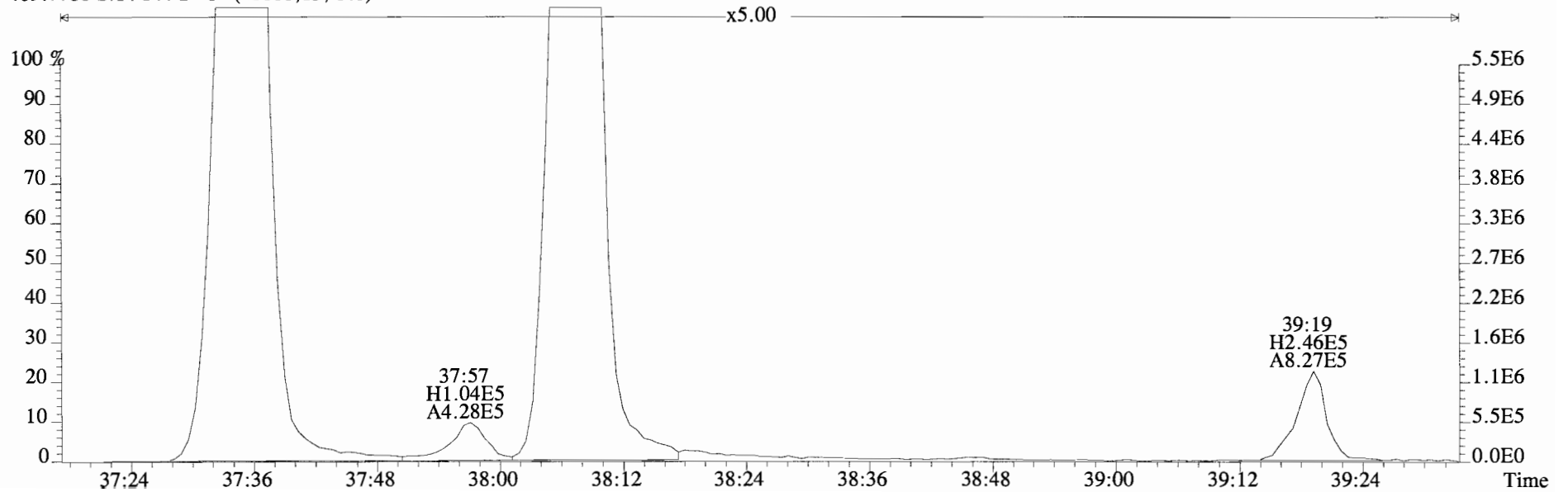
File:140917D1 #1-326 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
407.7818 S:14 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



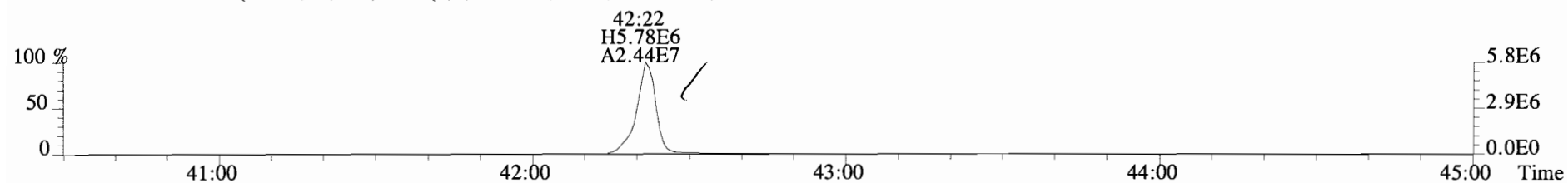
File:140917D1 #1-326 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
407.7818 S:14 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



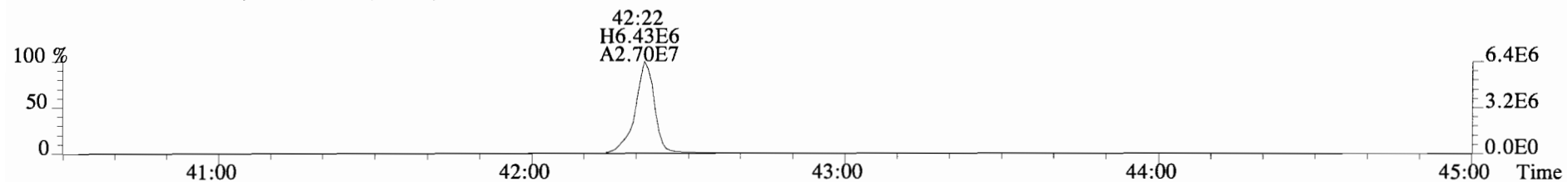
409.7788 S:14 F:4 BSub(10000,15,-3.0)



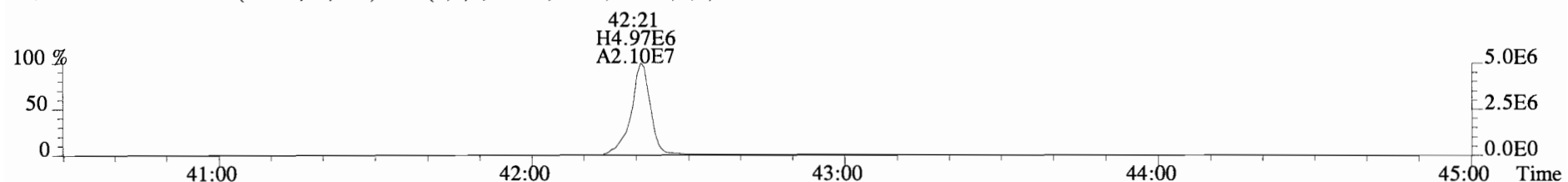
File:140917D1 #1-388 Acq:17-SEP-2014 23:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02 UG-MH-60-20140911-S 28.77 Exp:OCDD_DB5
441.7428 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



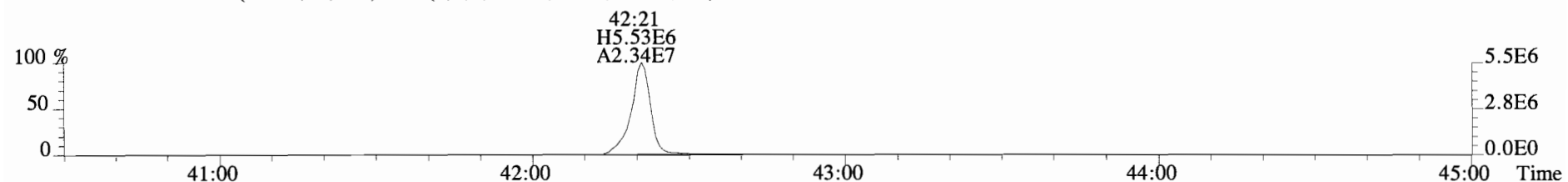
443.7398 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



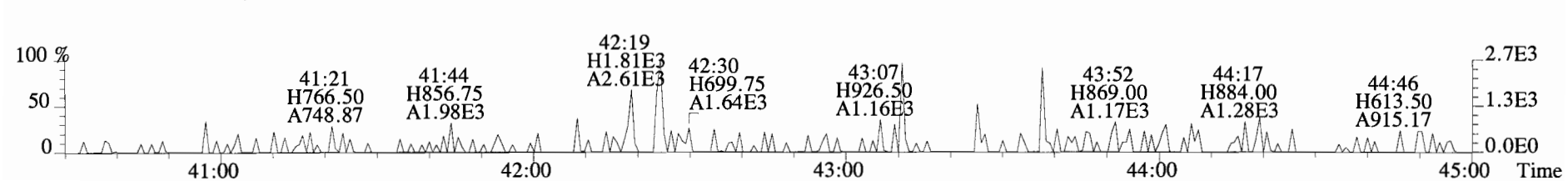
453.7831 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:14 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:14 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
2,3,7,8-TCDD	1.69e+05	0.69 y	1.03	27:03	1.000	1.7175		*	2.5	*
1,2,3,7,8-PeCDD	7.21e+05	0.61 y	0.84	31:32	1.000	7.3100		*	2.5	*
1,2,3,4,7,8-HxCDD	1.16e+06	1.19 y	1.05	34:53	1.000	11.748		*	2.5	*
1,2,3,6,7,8-HxCDD	3.83e+06	1.26 y	1.04	35:00	1.000	38.467		*	2.5	*
1,2,3,7,8,9-HxCDD	2.52e+06	1.19 y	0.90	35:18	1.000	25.012		*	2.5	*
1,2,3,4,6,7,8-HpCDD	7.78e+07	1.03 y	1.01	38:45	1.000	812.08		*	2.5	*
OCDD	6.61e+08	0.89 y	1.04	42:07	1.000	7299.5		*	2.5	*
2,3,7,8-TCDF	8.58e+05	0.76 y	0.91	26:17	1.000	7.0254	(5.52)	*	2.5	*
1,2,3,7,8-PeCDF	6.85e+05	1.59 y	0.97	30:22	1.000	4.4259		*	2.5	*
2,3,4,7,8-PeCDF	1.12e+06	1.55 y	0.94	31:15	1.000	7.4980		*	2.5	*
1,2,3,4,7,8-HxCDF	2.39e+06	1.30 y	1.32	33:59	1.000	14.013		*	2.5	*
1,2,3,6,7,8-HxCDF	1.85e+06	1.27 y	1.18	34:07	1.000	11.414		*	2.5	*
2,3,4,6,7,8-HxCDF	2.18e+06	1.27 y	1.23	34:43	1.000	14.747		*	2.5	*
1,2,3,7,8,9-HxCDF	2.64e+05	1.37 y	1.13	35:42	1.001	2.0552		*	2.5	*
1,2,3,4,6,7,8-HpCDF	3.06e+07	1.06 y	1.57	37:34	1.000	202.83		*	2.5	*
1,2,3,4,7,8,9-HpCDF	1.57e+06	1.12 y	1.50	39:19	1.000	10.531		*	2.5	*
OCDF	4.96e+07	0.90 y	1.05	42:20	1.000	475.14		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	38.4	38.9		*	*
Total Penta-Dioxins	74.2	74.2		*	*
Total Hexa-Dioxins	308	308		*	*
Total Hepta-Dioxins	1520	1520		*	*
Total Tetra-Furans	134	136		*	*
Total Penta-Furans	184.98	184.98 P		*	*
Total Hexa-Furans	279	279		*	*
Total Hepta-Furans	479	479		*	*

										Rec	Qual
IS	13C-2,3,7,8-TCDD	1.90e+07	0.80 y	1.06	27:03	1.021	150.33			75.7	
IS	13C-1,2,3,7,8-PeCDD	2.33e+07	0.64 y	1.08	31:31	1.190	180.80			91.1	
IS	13C-1,2,3,4,7,8-HxCDD	1.87e+07	1.28 y	0.74	34:53	1.014	158.24			79.7	
IS	13C-1,2,3,6,7,8-HxCDD	1.91e+07	1.29 y	0.75	34:59	1.017	159.46			80.3	
IS	13C-1,2,3,7,8,9-HxCDD	2.24e+07	1.27 y	0.89	35:17	1.026	157.48			79.3	
IS	13C-1,2,3,4,6,7,8-HpCDD	1.89e+07	1.07 y	0.70	38:45	1.126	168.27			84.7	
IS	13C-OCDD	3.45e+07	0.89 y	0.59	42:06	1.224	367.34			92.5	
IS	13C-2,3,7,8-TCDF	2.66e+07	0.72 y	0.97	26:16	0.992	158.69			79.9	
IS	13C-1,2,3,7,8-PeCDF	3.16e+07	1.61 y	0.99	30:22	1.146	184.48			92.9	
IS	13C-2,3,4,7,8-PeCDF	3.17e+07	1.58 y	1.01	31:14	1.179	181.69			91.5	
IS	13C-1,2,3,4,7,8-HxCDF	2.57e+07	0.52 y	0.94	33:59	0.988	171.41			86.3	
IS	13C-1,2,3,6,7,8-HxCDF	2.74e+07	0.52 y	1.23	34:06	0.992	139.70			70.4	
IS	13C-2,3,4,6,7,8-HxCDF	2.39e+07	0.51 y	1.03	34:42	1.009	145.23			73.1	
IS	13C-1,2,3,7,8,9-HxCDF	2.25e+07	0.51 y	0.89	35:41	1.037	159.69			80.4	
IS	13C-1,2,3,4,6,7,8-HpCDF	1.90e+07	0.44 y	0.71	37:34	1.092	169.12			85.2	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.97e+07	0.46 y	0.64	39:18	1.143	192.32			96.9	
IS	13C-OCDF	3.93e+07	0.89 y	0.76	42:20	1.231	325.43			81.9	

C/Up	37Cl-2,3,7,8-TCDD	7.69e+06		1.04	27:03	1.021	62.096			78.2	
RS/RT	13C-1,2,3,4-TCDD	2.36e+07	0.79 y	1.00	26:30	*	198.56				
RS	13C-1,2,3,4-TCDF	3.44e+07	0.77 y	1.00	25:06	*	198.56				
RS/RT	13C-1,2,3,4,6,9-HxCDF	3.16e+07	0.51 y	1.00	34:24	*	198.56				

Integrations
 by
 Analyst: M
 Date: 9/22/14
 Reviewed
 by
 Analyst: [Signature]
 Date: 9/23/14

Totals class: TCDD EMPC

Entry #: 19

Run: 18 File: 140917D1 S: 15 I: 1 F: 1
 Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 38.908

Unnamed Concentration: 37.191

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
23:44	4.667e+05	6.334e+05	0.74	y	1.100e+06	11.147	
24:05	2.739e+05	3.743e+05	0.73	y	6.482e+05	6.5685	
24:29	5.156e+04	7.658e+04	0.67	y	1.281e+05	1.2984	
25:13	1.829e+04	2.722e+04	0.67	y	4.551e+04	0.46115	
25:26	1.410e+05	1.774e+05	0.79	y	3.184e+05	3.2262	
25:36	1.242e+05	1.774e+05	0.70	y	3.016e+05	3.0565	
25:47	5.791e+04	6.903e+04	0.84	y	1.269e+05	1.2863	
26:00	1.898e+04	2.792e+04	0.68	y	4.690e+04	0.47526	
26:09	7.212e+04	8.425e+04	0.86	y	1.564e+05	1.5845	
26:29	7.883e+04	1.019e+05	0.77	y	1.808e+05	1.8318	
26:35	2.580e+04	2.718e+04	0.95	n	4.811e+04	0.48745	
26:49	1.117e+05	1.436e+05	0.78	y	2.553e+05	2.5865	
26:56	2.358e+04	3.354e+04	0.70	y	5.713e+04	0.57886	
27:03	6.910e+04	1.004e+05	0.69	y	1.695e+05	1.7175	2,3,7,8-TCDD
27:20	6.638e+04	8.816e+04	0.75	y	1.545e+05	1.5660	
27:28	1.584e+04	1.890e+04	0.84	y	3.474e+04	0.35206	
27:55	3.134e+04	3.622e+04	0.87	y	6.756e+04	0.68464	

Totals class: PeCDD EMPC

Entry #: 21

Run: 18 File: 140917D1 S: 15 I: 1 F: 2
 Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 74.239 Unnamed Concentration: 66.929

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
29:29	7.358e+05	1.229e+06	0.60	y	1.965e+06	19.938
29:57	1.356e+05	2.148e+05	0.63	y	3.505e+05	3.5557
30:23	3.366e+05	5.843e+05	0.58	y	9.209e+05	9.3426
30:33	2.642e+05	4.272e+05	0.62	y	6.914e+05	7.0147
30:38	3.196e+05	4.900e+05	0.65	y	8.096e+05	8.2133
30:51	3.659e+05	5.610e+05	0.65	y	9.268e+05	9.4032
31:09	1.506e+05	2.381e+05	0.63	y	3.887e+05	3.9434
31:32	2.723e+05	4.482e+05	0.61	y	7.205e+05	7.3100
31:37	9.340e+04	1.381e+05	0.68	y	2.315e+05	2.3485
31:54	1.198e+05	1.927e+05	0.62	y	3.125e+05	3.1704

1, 2, 3, 7, 8-PeCDD

Totals class: HxCDD EMPC

Entry #: 23

Run: 18 File: 140917D1 S: 15 I: 1 F: 3
Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 307.76

Unnamed Concentration: 232.531

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
33:20	3.858e+06	3.092e+06	1.25	y	6.950e+06	69.623
33:54	1.599e+06	1.268e+06	1.26	y	2.867e+06	28.720
34:10	6.512e+06	5.257e+06	1.24	y	1.177e+07	117.90
34:18	4.370e+05	3.678e+05	1.19	y	8.048e+05	8.0621
34:53	6.317e+05	5.316e+05	1.19	y	1.163e+06	11.748 1,2,3,4,7,8-HxCDD
35:00	2.134e+06	1.699e+06	1.26	y	3.834e+06	38.467 1,2,3,6,7,8-HxCDD
35:12	4.496e+05	3.715e+05	1.21	y	8.210e+05	8.2249
35:18	1.373e+06	1.151e+06	1.19	y	2.524e+06	25.012 1,2,3,7,8,9-HxCDD

Totals class: HpCDD EMPC

Entry #: 25

Run: 18 File: 140917D1 S: 15 I: 1 F: 4

Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 1520.6

Unnamed Concentration: 708.490

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
37:56	3.437e+07	3.355e+07	1.02 y	6.792e+07	708.49	
38:45	3.948e+07	3.837e+07	1.03 y	7.785e+07	812.08	1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 18 File: 140917D1 S: 15 I: 1 F: 1
 Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 135.76

Unnamed Concentration: 128.736

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
21:37	1.421e+05	1.850e+05	0.77	y	3.271e+05	2.6793
22:12	2.091e+05	2.606e+05	0.80	y	4.697e+05	3.8479
22:49	9.972e+05	1.288e+06	0.77	y	2.285e+06	18.718
23:19	6.744e+05	8.356e+05	0.81	y	1.510e+06	12.370
23:43	5.632e+05	7.204e+05	0.78	y	1.284e+06	10.515
24:07	5.803e+05	7.265e+05	0.80	y	1.307e+06	10.704
24:14	2.238e+05	2.680e+05	0.84	y	4.918e+05	4.0284
24:24	2.431e+05	3.229e+05	0.75	y	5.660e+05	4.6361
24:44	1.049e+05	1.292e+05	0.81	y	2.341e+05	1.9180
24:51	2.303e+05	3.218e+05	0.72	y	5.521e+05	4.5227
24:58	7.244e+05	8.671e+05	0.84	y	1.591e+06	13.037
25:07	4.424e+05	5.599e+05	0.79	y	1.002e+06	8.2099
25:31	3.433e+05	4.253e+05	0.81	y	7.686e+05	6.2961
25:45	1.875e+05	2.403e+05	0.78	y	4.277e+05	3.5036
25:55	1.527e+05	1.993e+05	0.77	y	3.520e+05	2.8835
26:06	1.779e+05	2.375e+05	0.75	y	4.154e+05	3.4027
26:11	1.626e+05	2.084e+05	0.78	y	3.711e+05	3.0396
26:17	3.712e+05	4.864e+05	0.76	y	8.576e+05	7.0254
26:37	6.166e+05	7.952e+05	0.78	y	1.412e+06	11.565
26:49	3.183e+04	3.930e+04	0.81	y	7.113e+04	0.58266
27:04	1.659e+04	2.031e+04	0.82	y	3.690e+04	0.30230
28:02	1.601e+05	1.361e+05	1.18	n	2.409e+05	1.9737

2,3,7,8-TCDF

Totals class: 1st Func. PeCDF EMPC Entry #: 29

Run: 18 File: 140917D1 S: 15 I: 1 F: 1
Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 69.918 Unnamed Concentration: 69.918

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
28:02	6.436e+06	4.214e+06	1.53 y	1.065e+07	69.918

Totals class: PeCDF EMPC

Entry #: 31

Run: 18 File: 140917D1 S: 15 I: 1 F: 2
 Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 115.06

Unnamed Concentration: 103.137

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
29:20	8.150e+05	4.934e+05	1.65 y		1.308e+06	8.5900
29:28	4.832e+06	3.027e+06	1.60 y		7.858e+06	51.592
29:48	1.242e+05	8.400e+04	1.48 y		2.082e+05	1.3666
29:59	1.570e+06	9.889e+05	1.59 y		2.559e+06	16.803
30:12	2.230e+05	1.378e+05	1.62 y		3.607e+05	2.3683
30:22	4.205e+05	2.646e+05	1.59 y		6.850e+05	4.4259
30:36	8.204e+05	5.145e+05	1.59 y		1.335e+06	8.7639
30:44	4.327e+04	2.944e+04	1.47 y		7.271e+04	0.47736
31:03	5.239e+04	3.132e+04	1.67 y		8.371e+04	0.54956
31:10	4.436e+05	2.785e+05	1.59 y		7.222e+05	4.7413
31:15	6.825e+05	4.416e+05	1.55 y		1.124e+06	7.4980
31:18	6.460e+05	3.972e+05	1.63 y		1.043e+06	6.8487
31:32	4.095e+04	2.722e+04	1.50 y		6.818e+04	0.44759
32:07	5.591e+04	3.373e+04	1.66 y		8.965e+04	0.58854

Totals class: HxCDF EMPC

Entry #: 33

Run: 18 File: 140917D1 S: 15 I: 1 F: 3
 Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 279.28

Unnamed Concentration: 237.050

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
32:47	2.535e+06	1.959e+06	1.29	y	4.494e+06	29.587	
32:57	9.375e+06	7.321e+06	1.28	y	1.670e+07	109.92	
33:09	1.250e+05	9.343e+04	1.34	y	2.185e+05	1.4384	
33:18	4.467e+05	3.371e+05	1.33	y	7.837e+05	5.1599	
33:30	7.017e+06	5.437e+06	1.29	y	1.245e+07	81.993	
33:53	4.257e+05	3.259e+05	1.31	y	7.516e+05	4.9484	
33:59	1.350e+06	1.042e+06	1.30	y	2.393e+06	14.013	1,2,3,4,7,8-HxCDF
34:07	1.035e+06	8.135e+05	1.27	y	1.848e+06	11.414	1,2,3,6,7,8-HxCDF
34:16	6.762e+04	5.100e+04	1.33	y	1.186e+05	0.78098	
34:24	9.371e+04	6.744e+04	1.39	y	1.611e+05	1.0609	
34:31	6.609e+04	5.726e+04	1.15	y	1.234e+05	0.81213	
34:43	1.220e+06	9.642e+05	1.27	y	2.184e+06	14.747	2,3,4,6,7,8-HxCDF
35:42	1.523e+05	1.113e+05	1.37	y	2.636e+05	2.0552	1,2,3,7,8,9-HxCDF
35:46	1.117e+05	9.275e+04	1.20	y	2.045e+05	1.3462	

Totals class: HpCDF EMPC

Entry #: 35

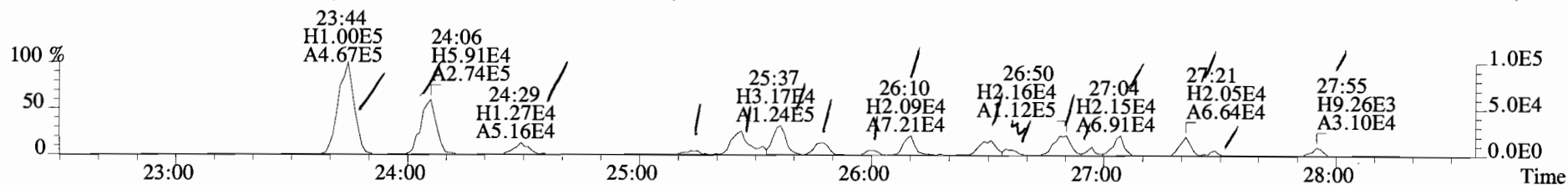
Run: 18 File: 140917D1 S: 15 I: 1 F: 4
Acquired: 18-SEP-14 00:28:17 Processed: 18-SEP-14 09:40:06

Total Concentration: 479.02

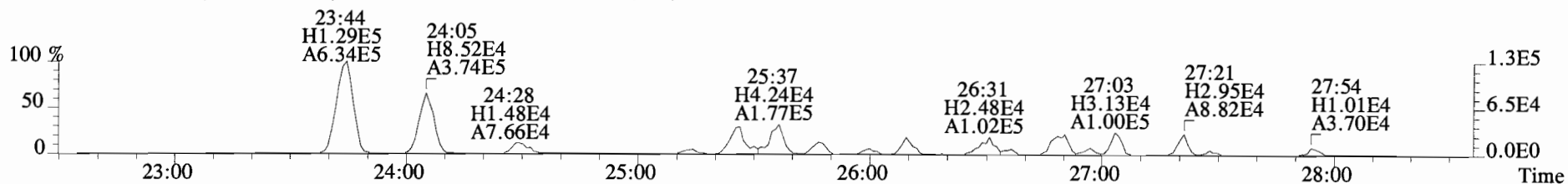
Unnamed Concentration: 265.662

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name	
37:34	1.572e+07	1.489e+07	1.06	y	3.061e+07	202.83	1,2,3,4,6,7,8-HpCDF
37:56	3.497e+05	3.284e+05	1.06	y	6.781e+05	4.5134	
38:07	2.022e+07	1.901e+07	1.06	y	3.923e+07	261.15	
39:19	8.296e+05	7.407e+05	1.12	y	1.570e+06	10.531	1,2,3,4,7,8,9-HpCDF

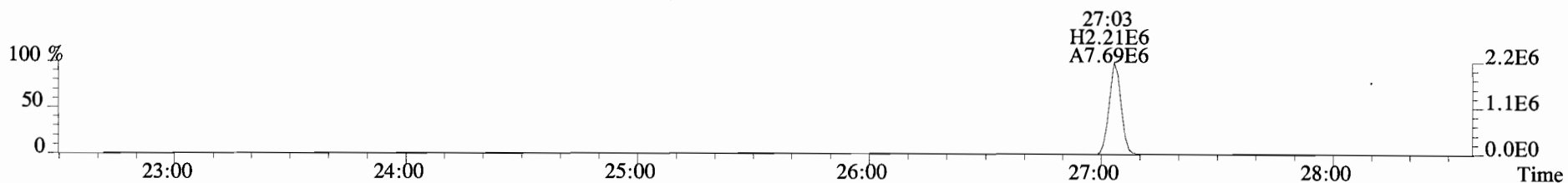
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
319.8965 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



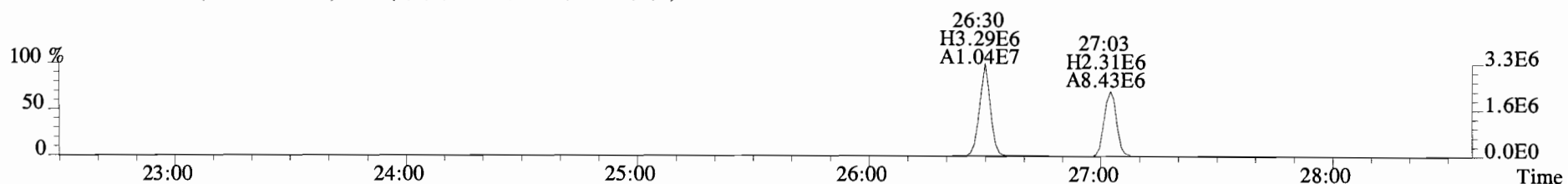
321.8936 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



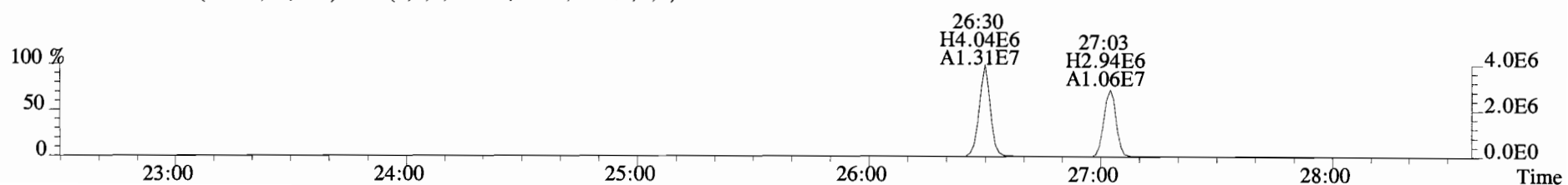
327.8847 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



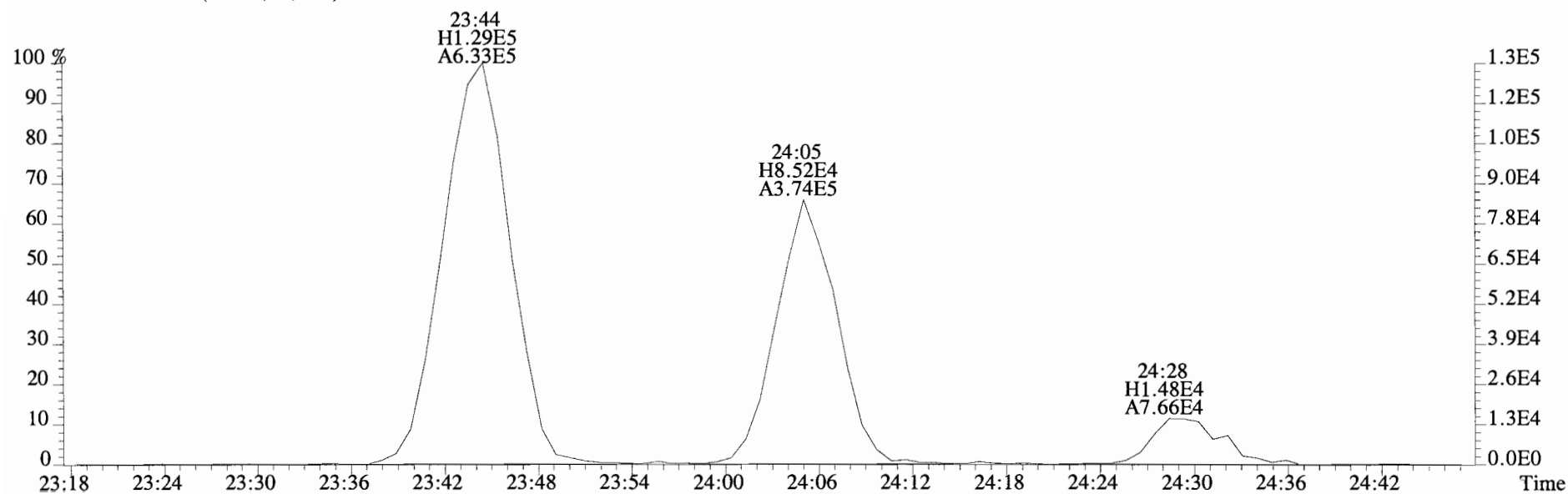
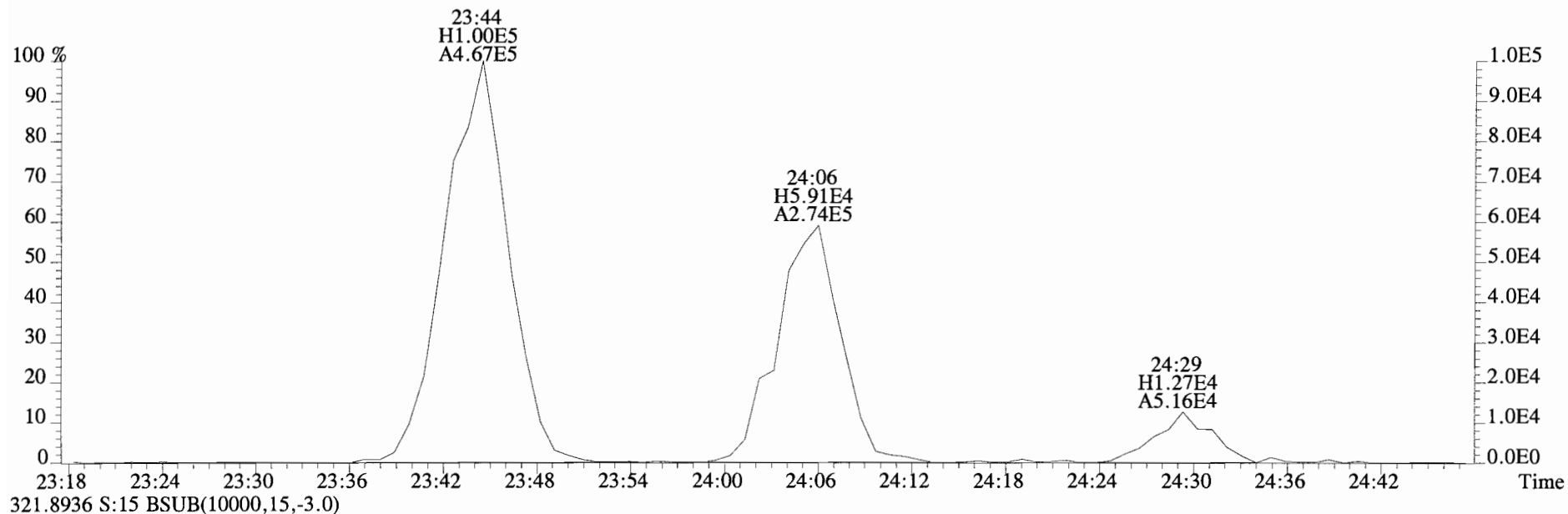
331.9368 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



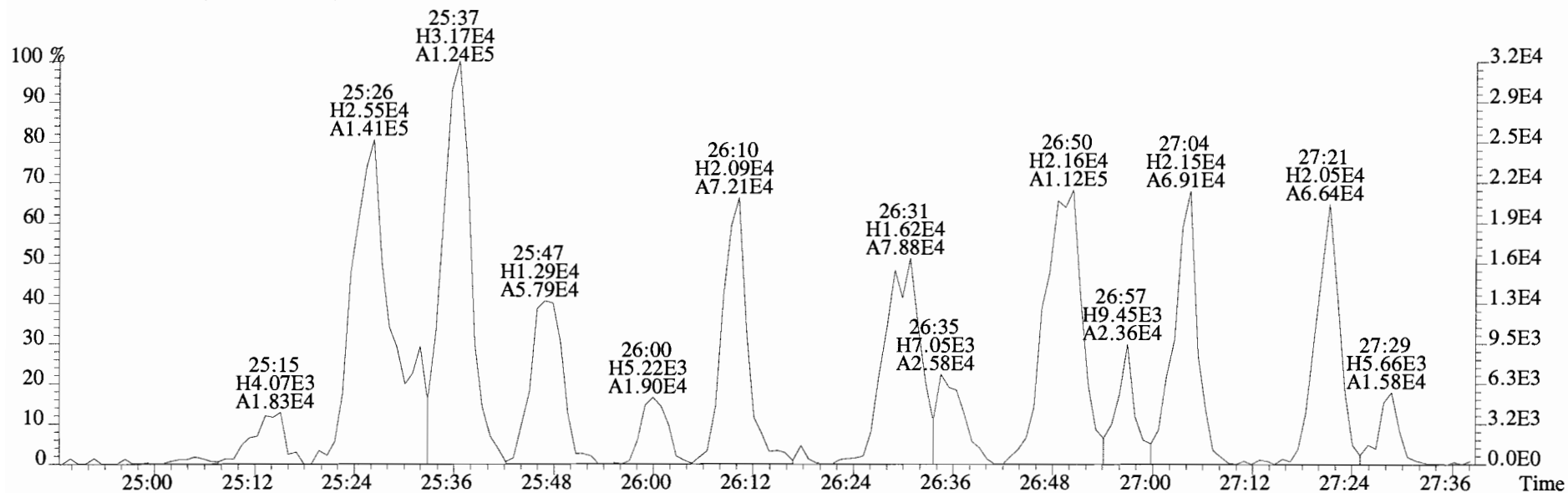
333.9339 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



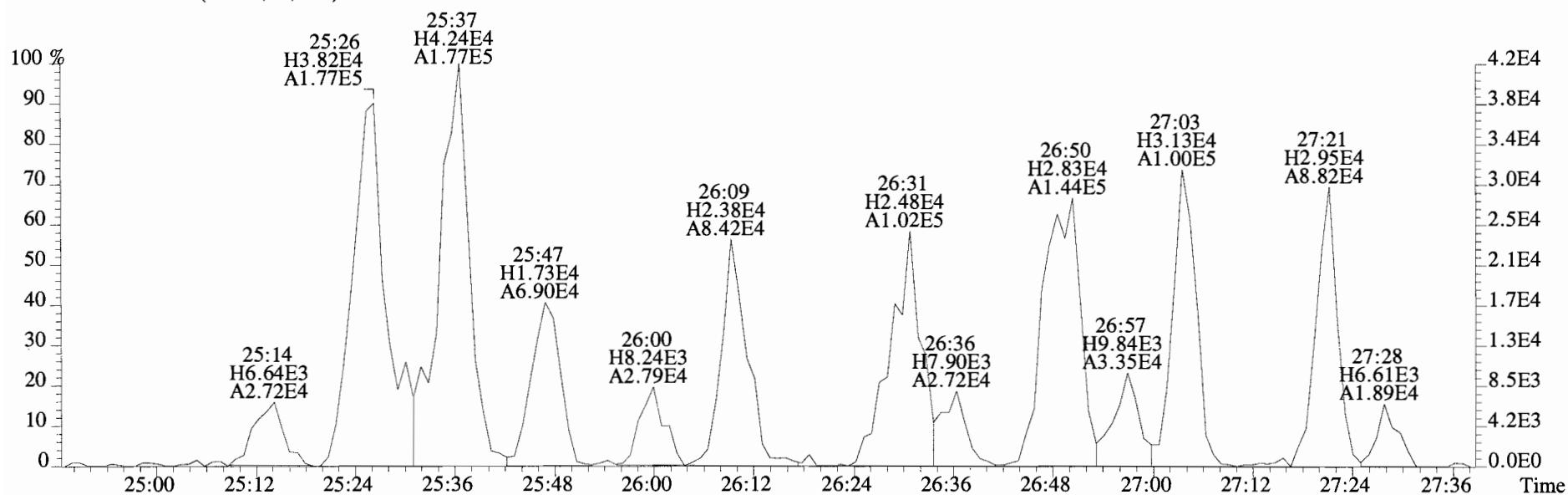
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
319.8965 S:15 BSUB(10000,15,-3.0)



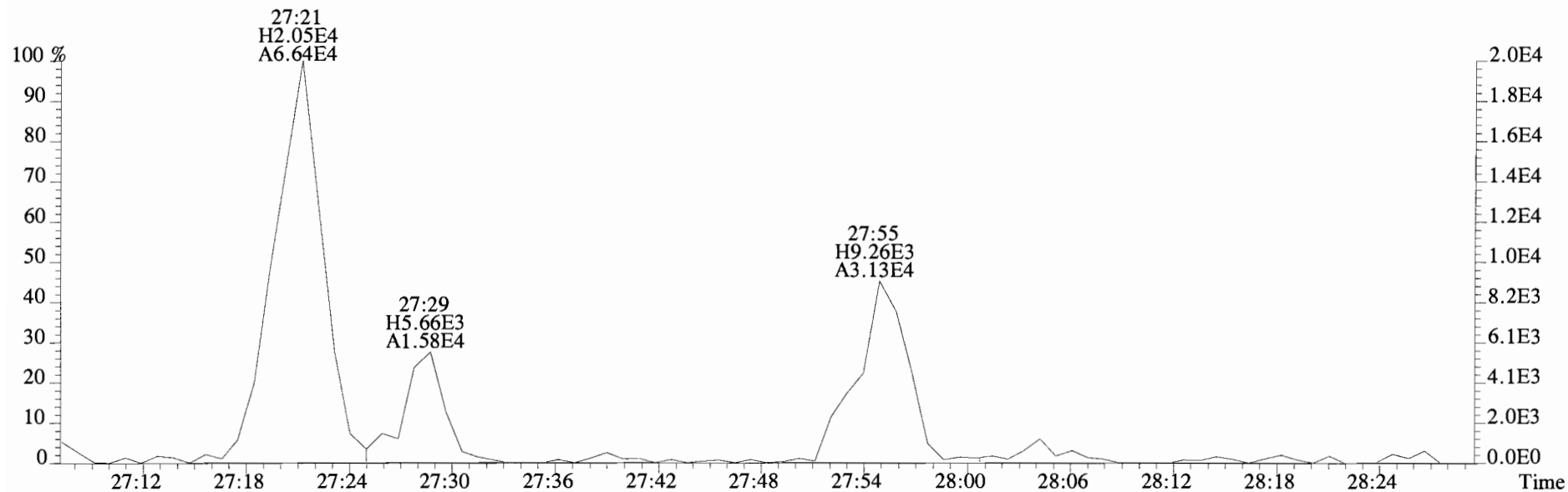
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
319.8965 S:15 BSUB(10000,15,-3.0)



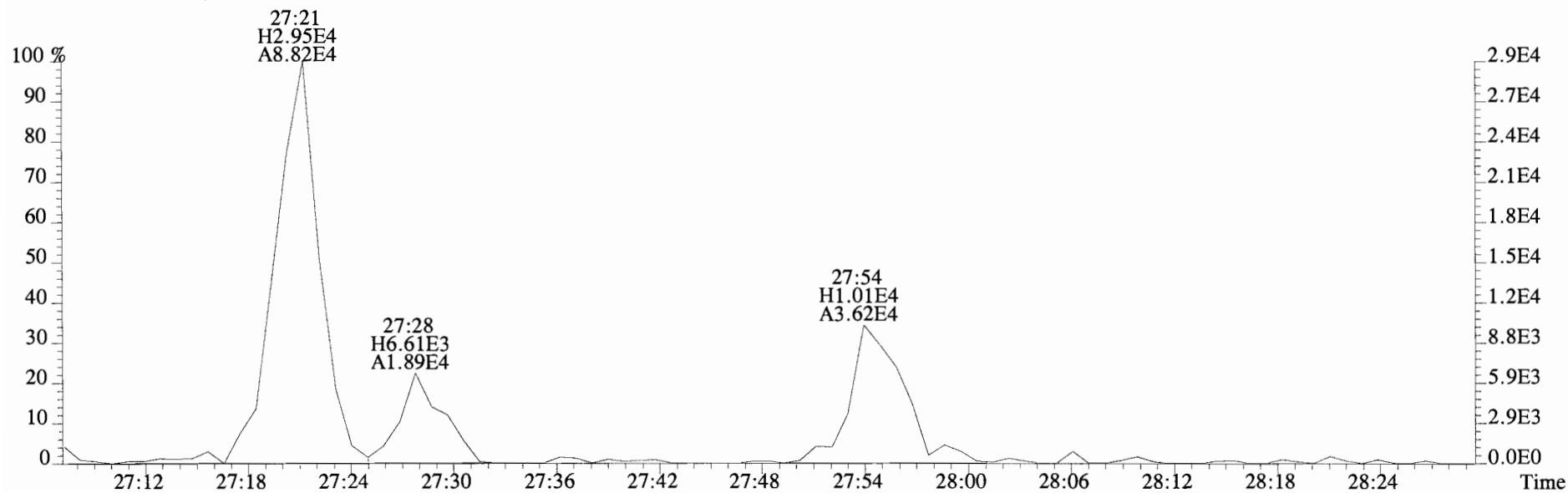
321.8936 S:15 BSUB(10000,15,-3.0)



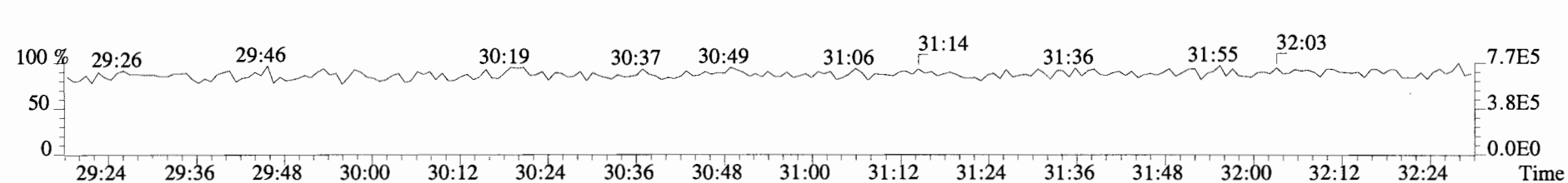
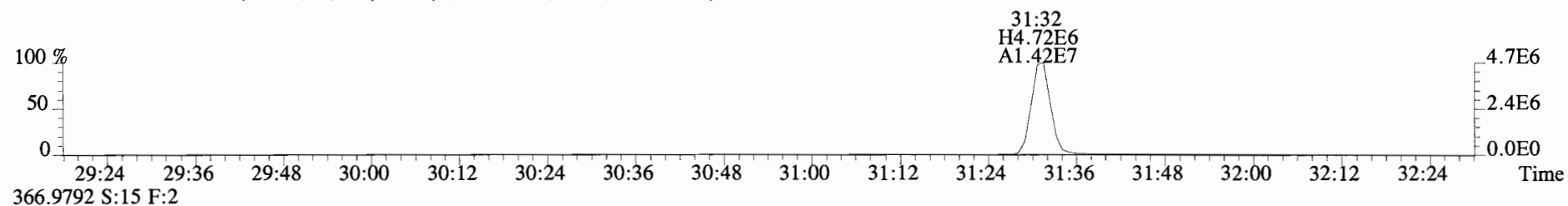
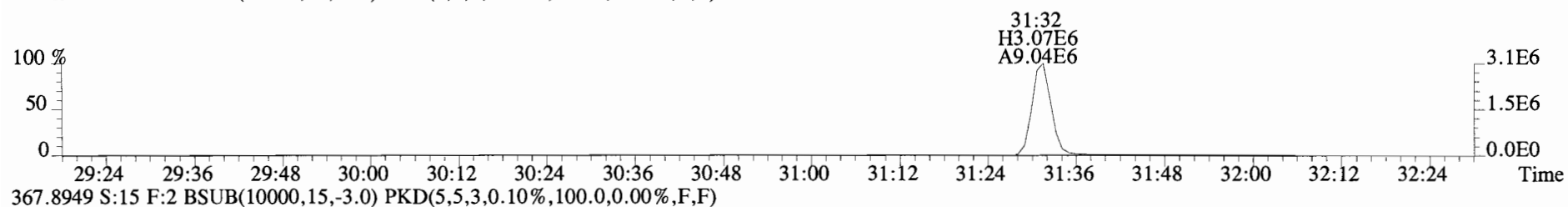
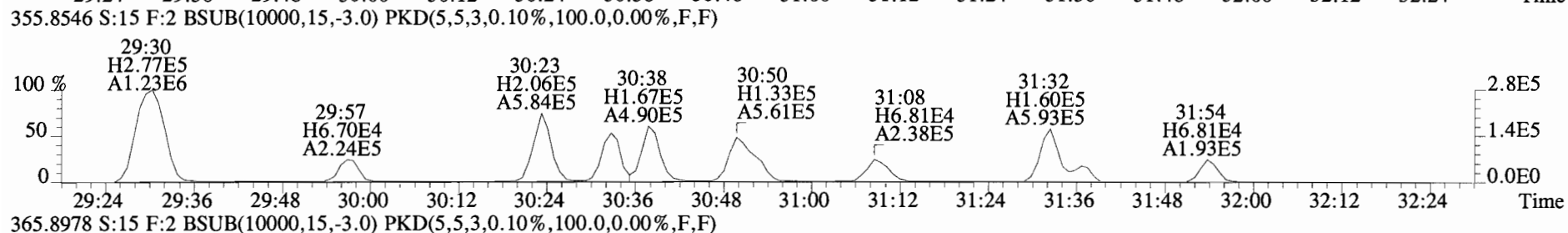
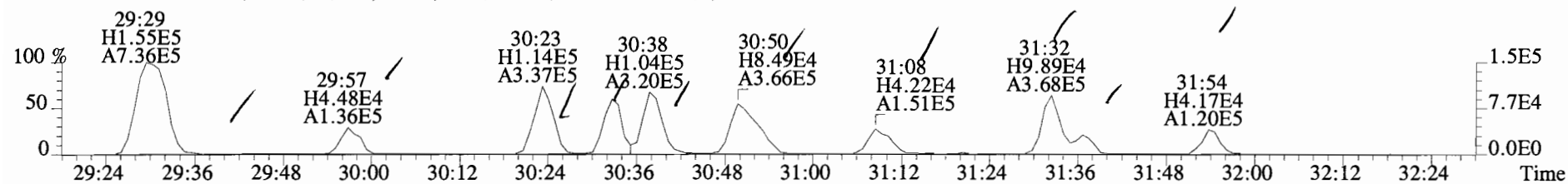
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
319.8965 S:15 BSUB(10000,15,-3.0)



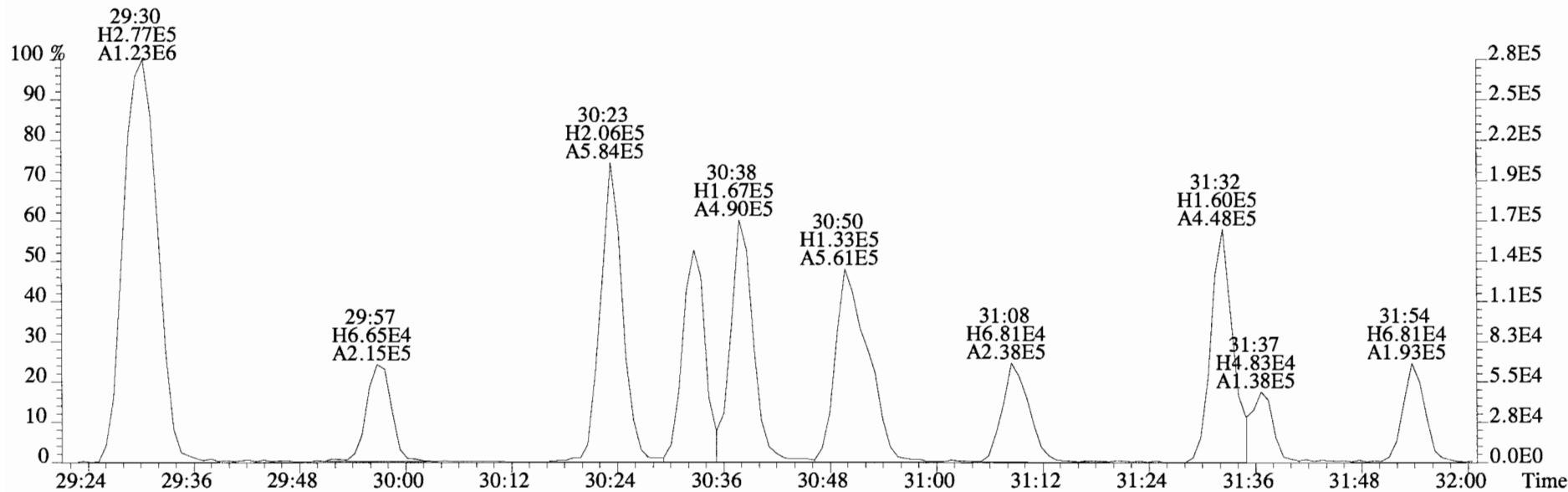
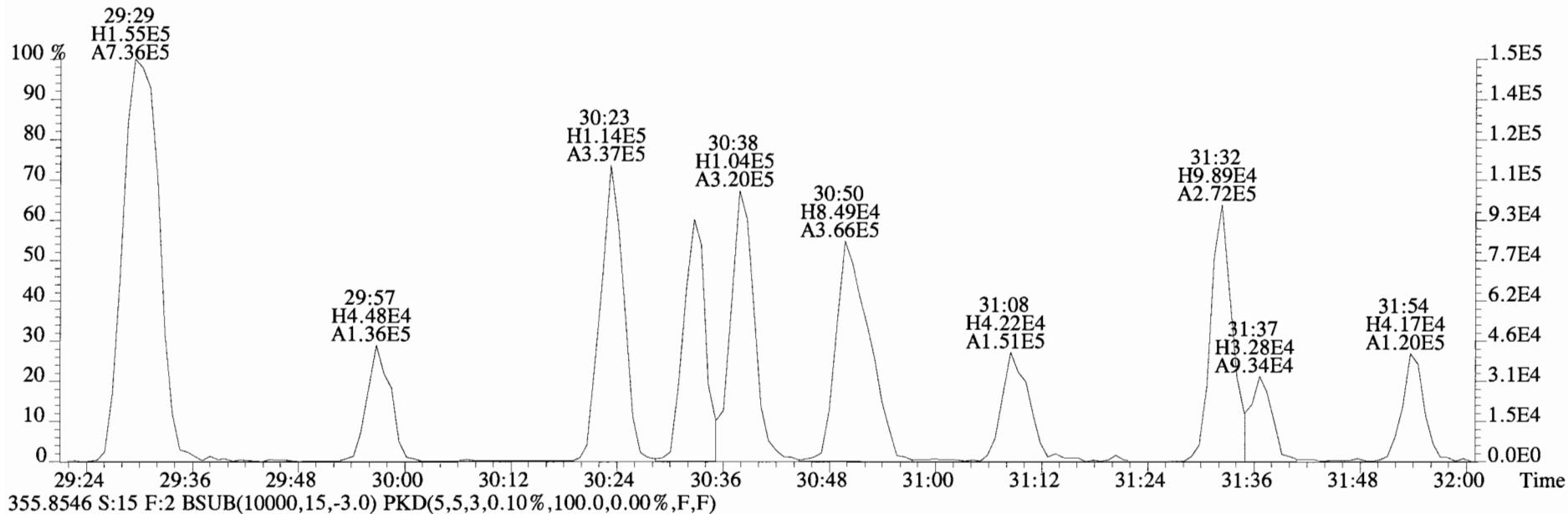
321.8936 S:15 BSUB(10000,15,-3.0)



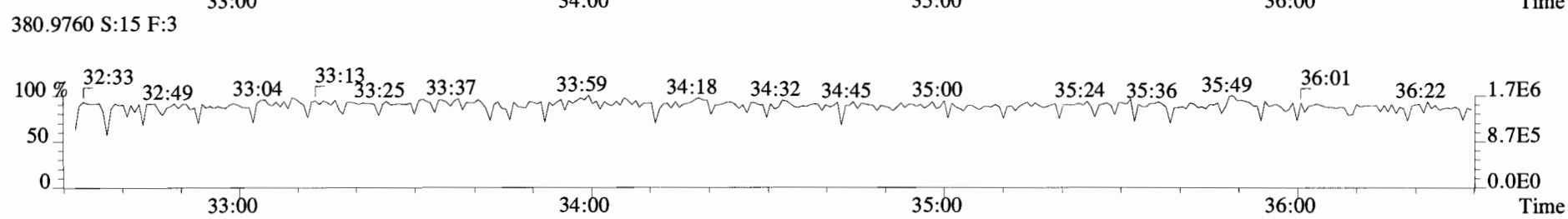
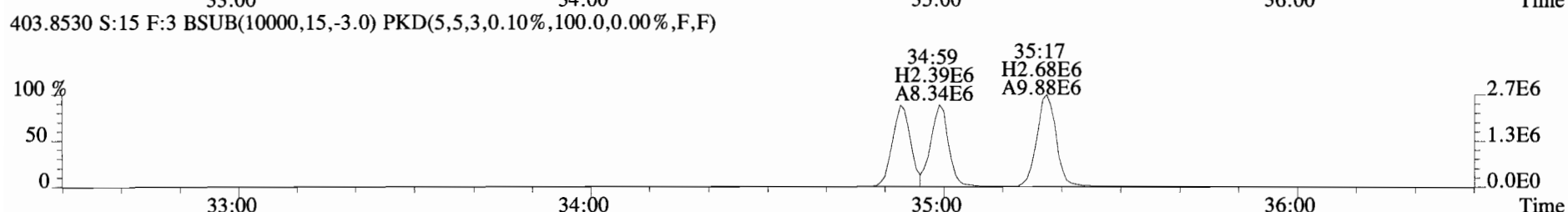
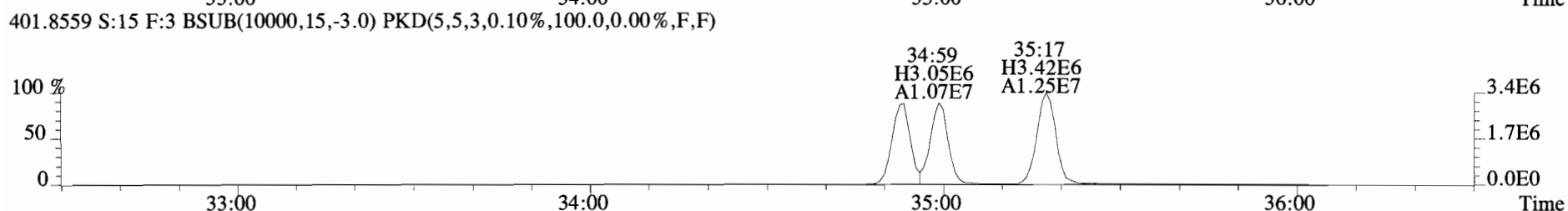
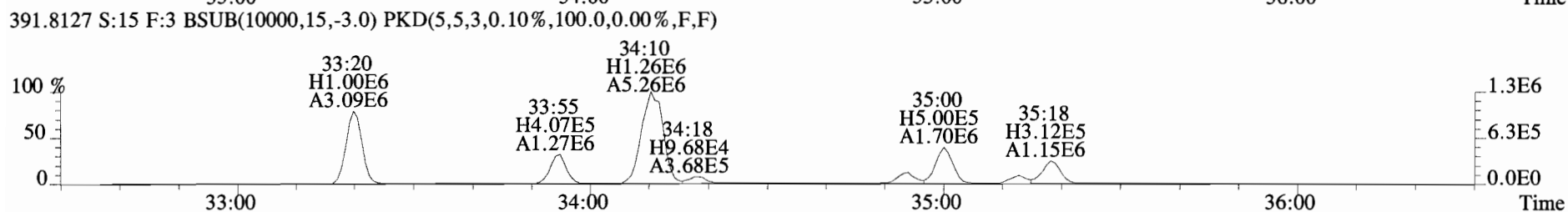
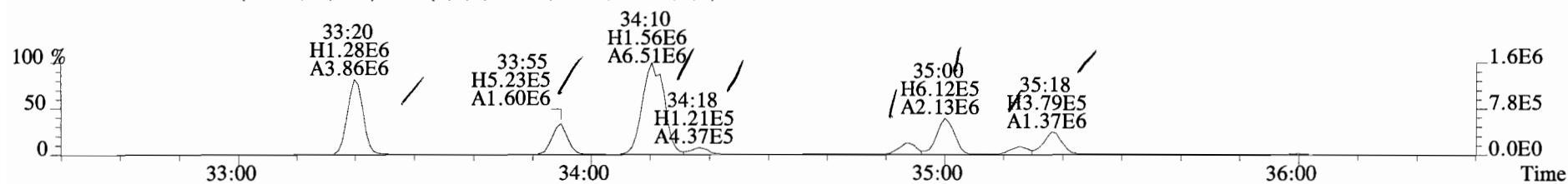
File:140917D1 #1-256 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
353.8576 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



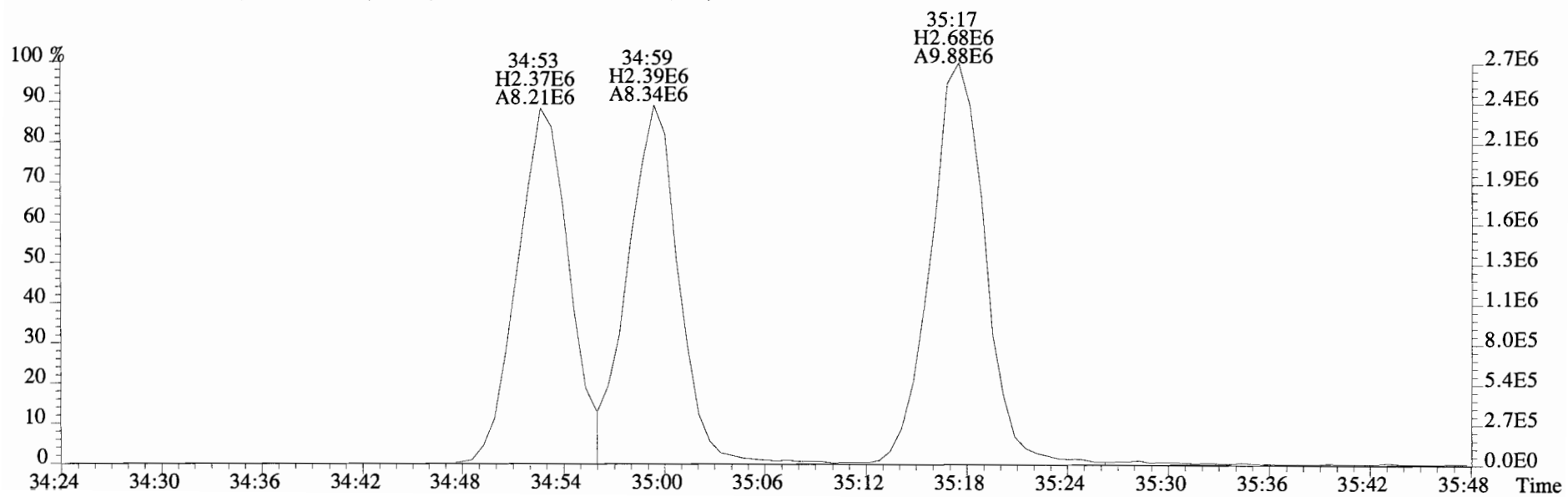
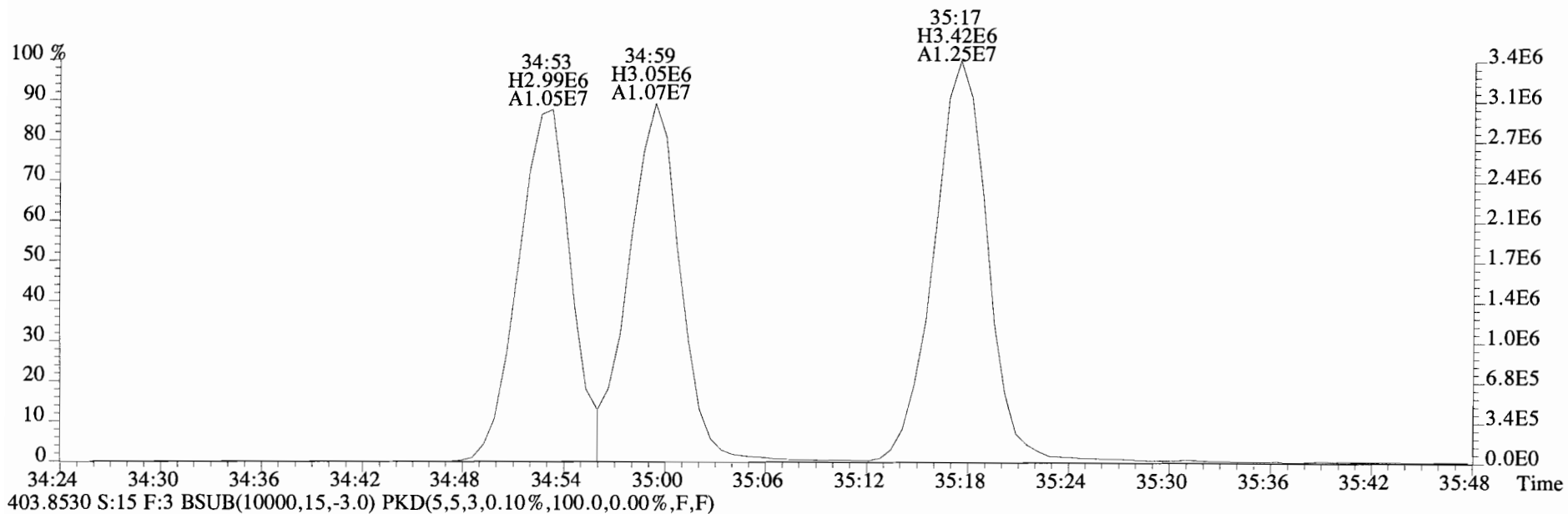
File:140917D1 #1-256 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
 353.8576 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



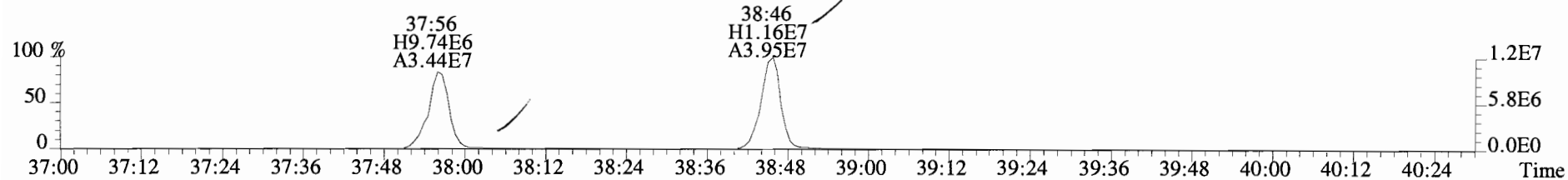
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
 389.8156 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



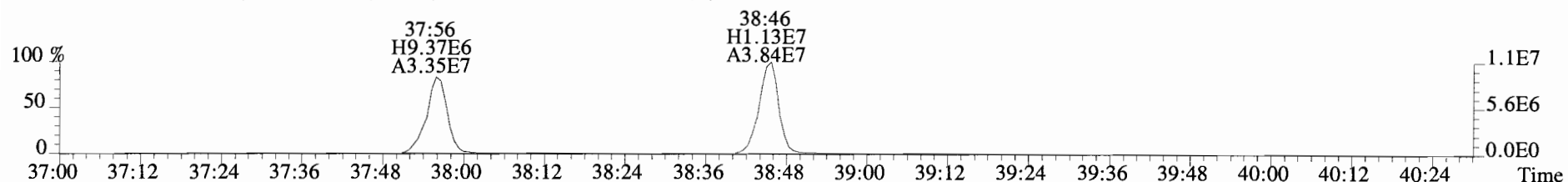
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC E1+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
401.8559 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



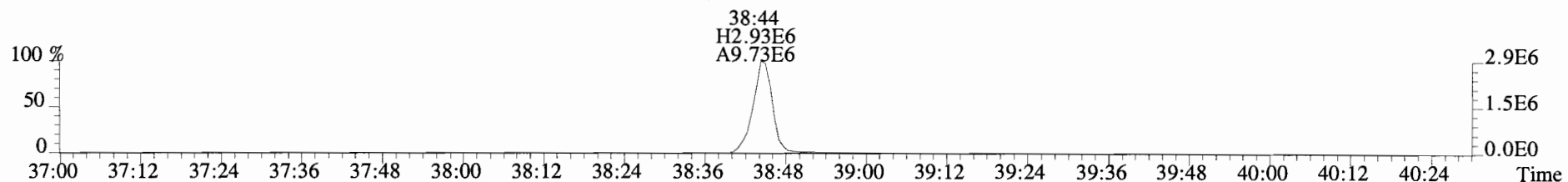
File:140917D1 #1-326 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
423.7767 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



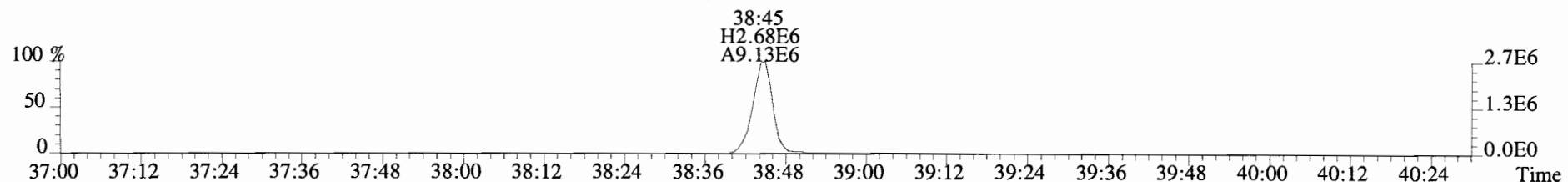
425.7737 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



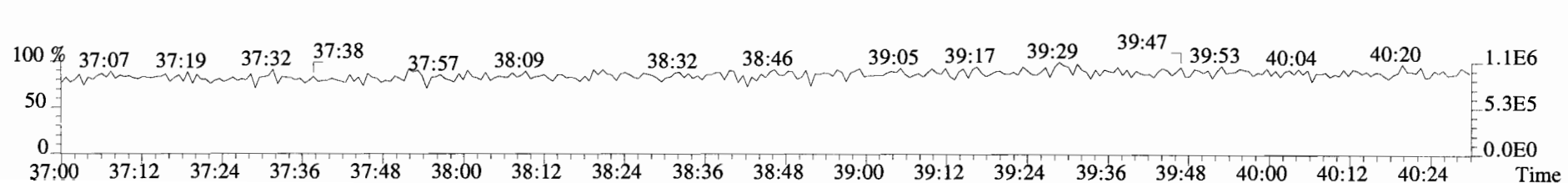
435.8169 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



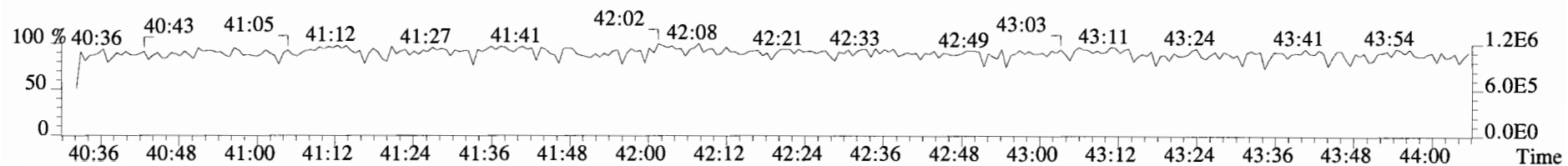
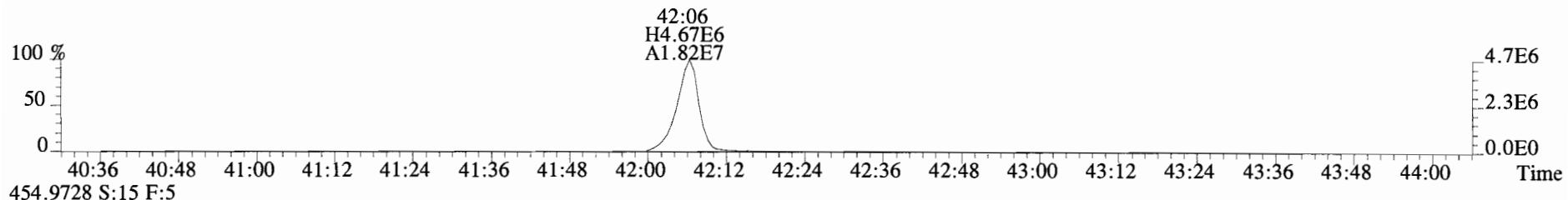
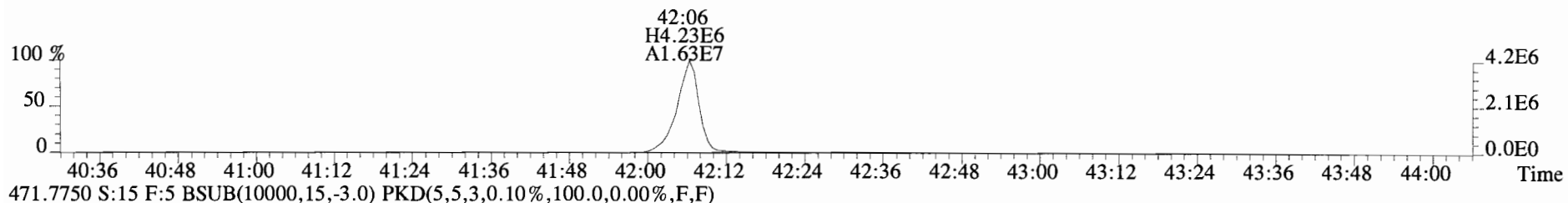
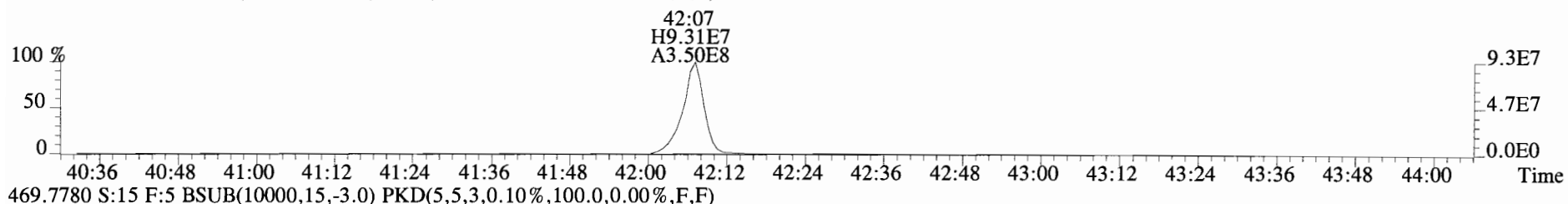
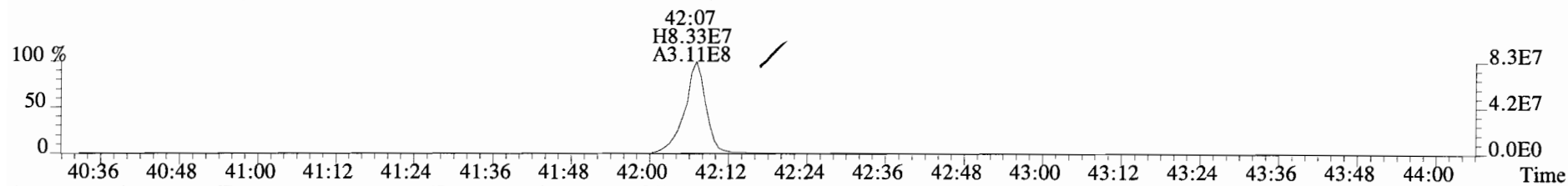
437.8140 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



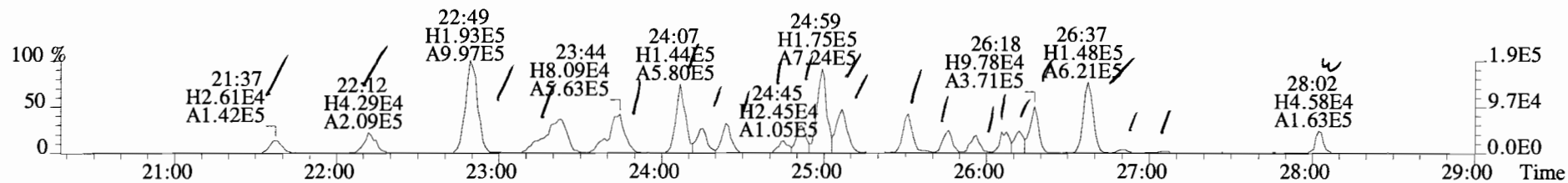
430.9728 S:15 F:4



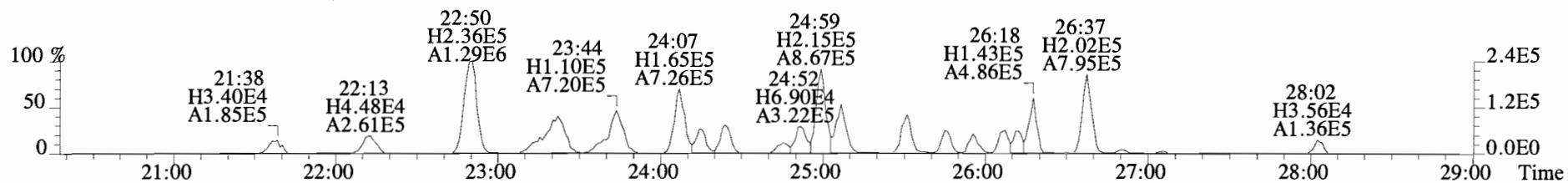
File:140917D1 #1-388 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
457.7377 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



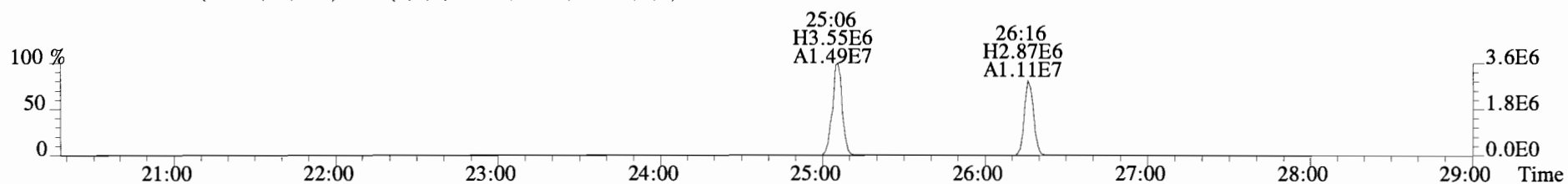
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
303.9016 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



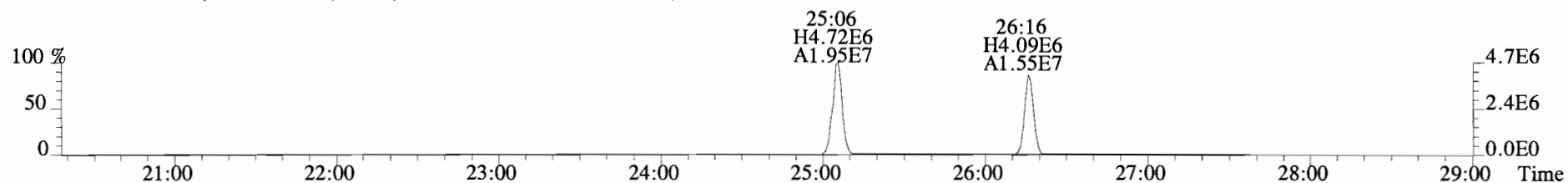
305.8987 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



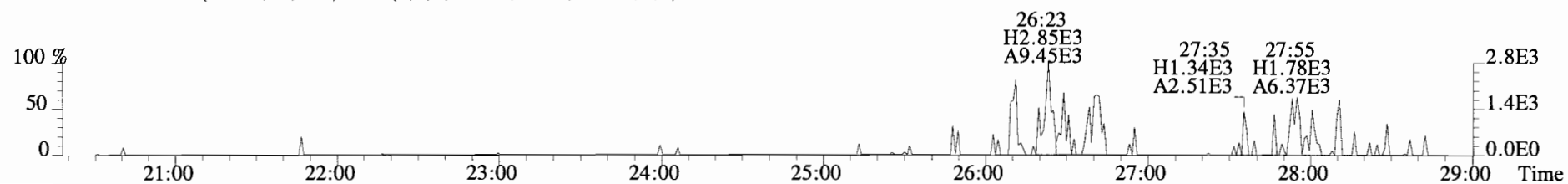
315.9419 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



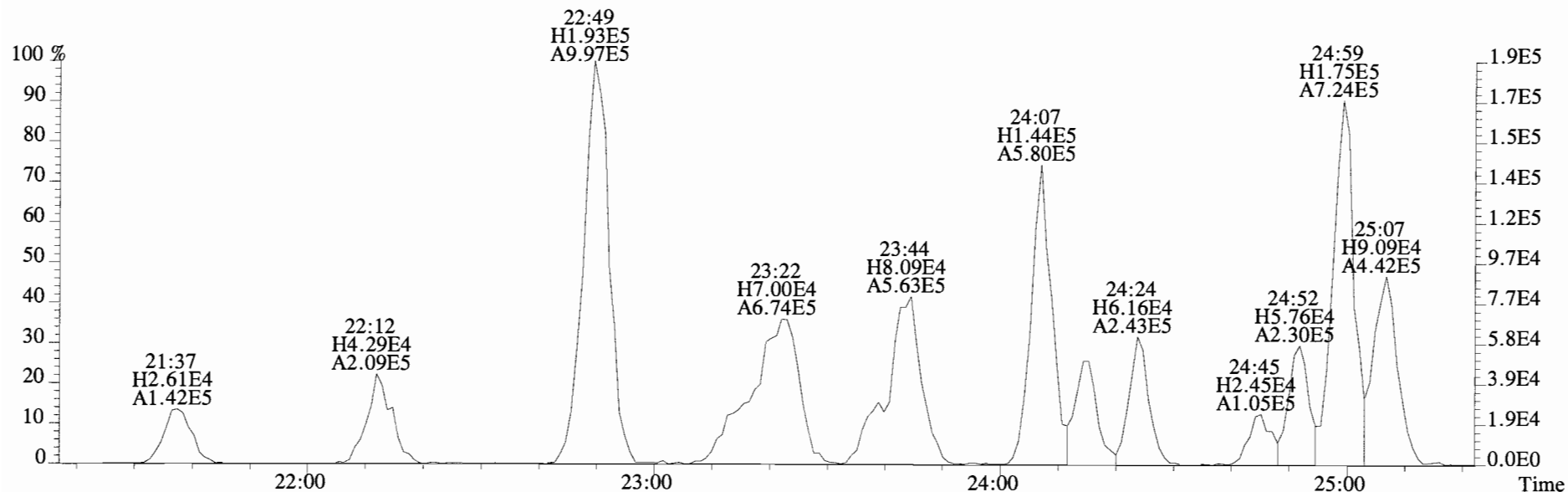
317.9389 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



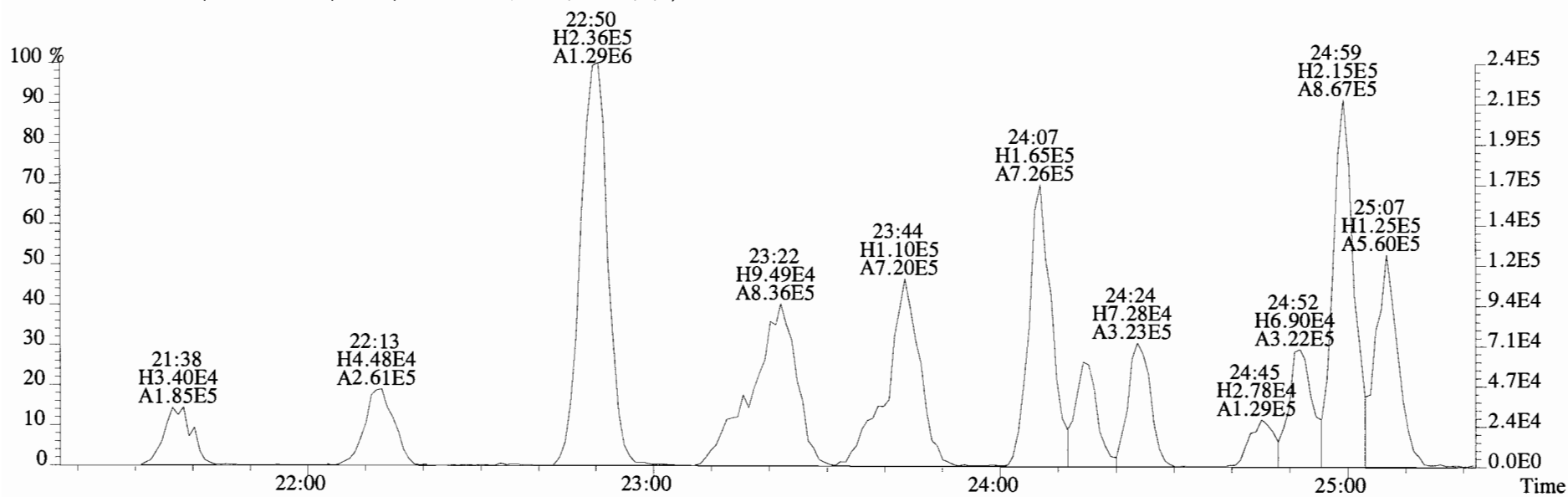
375.8364 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



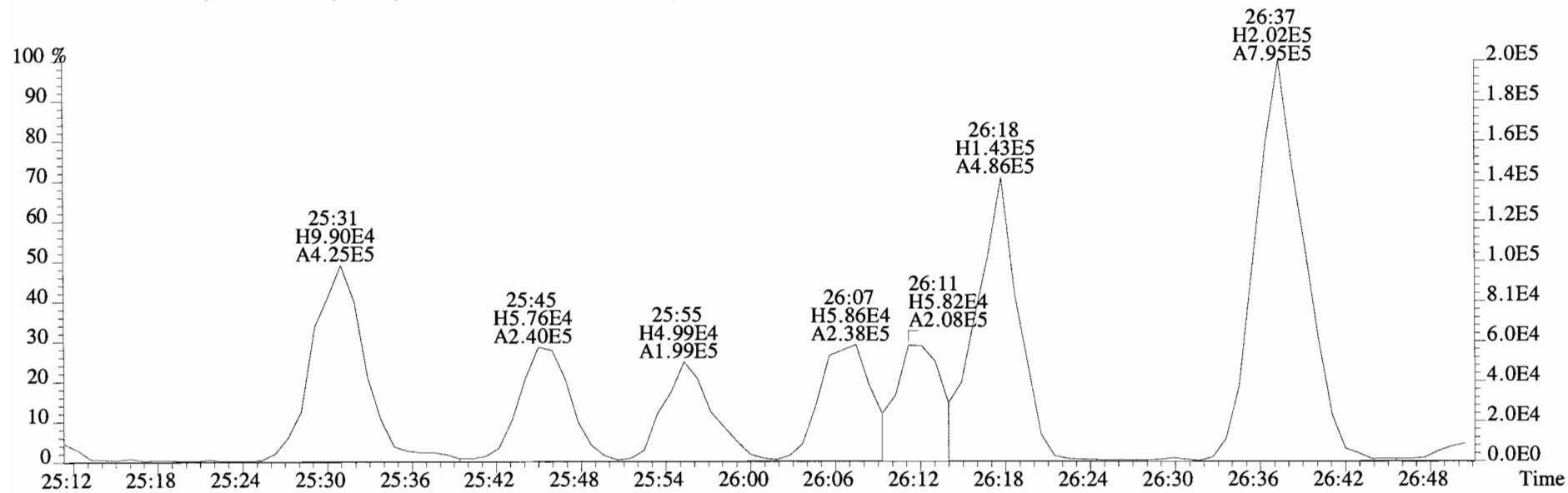
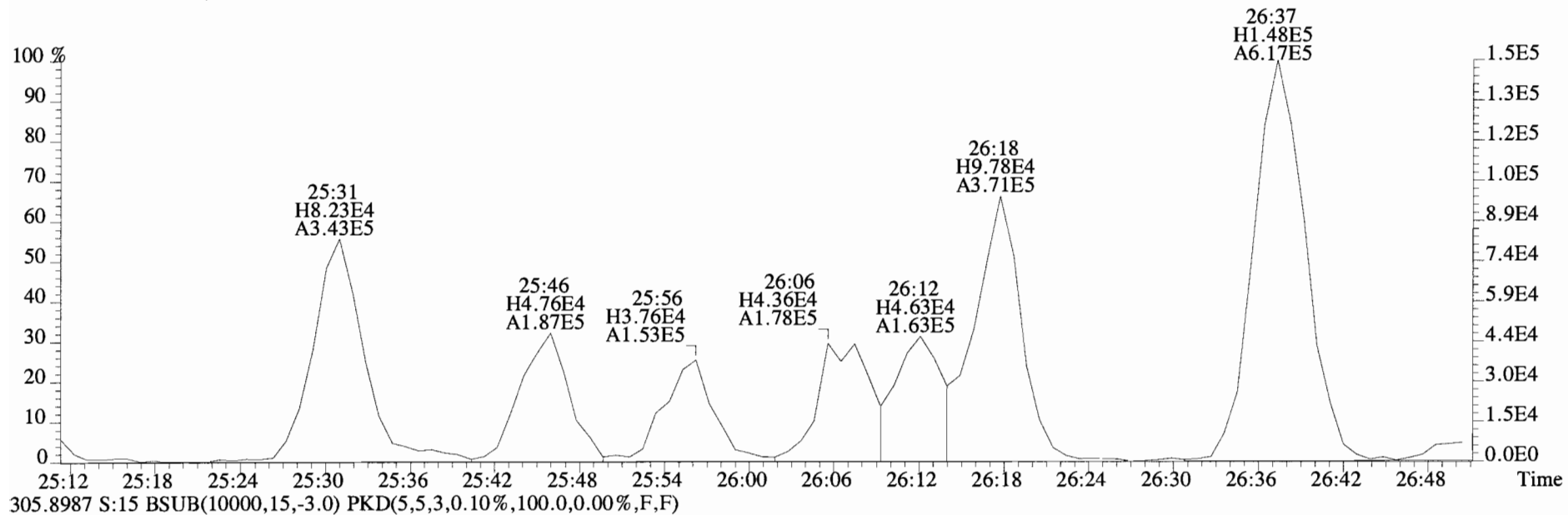
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
 303.9016 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



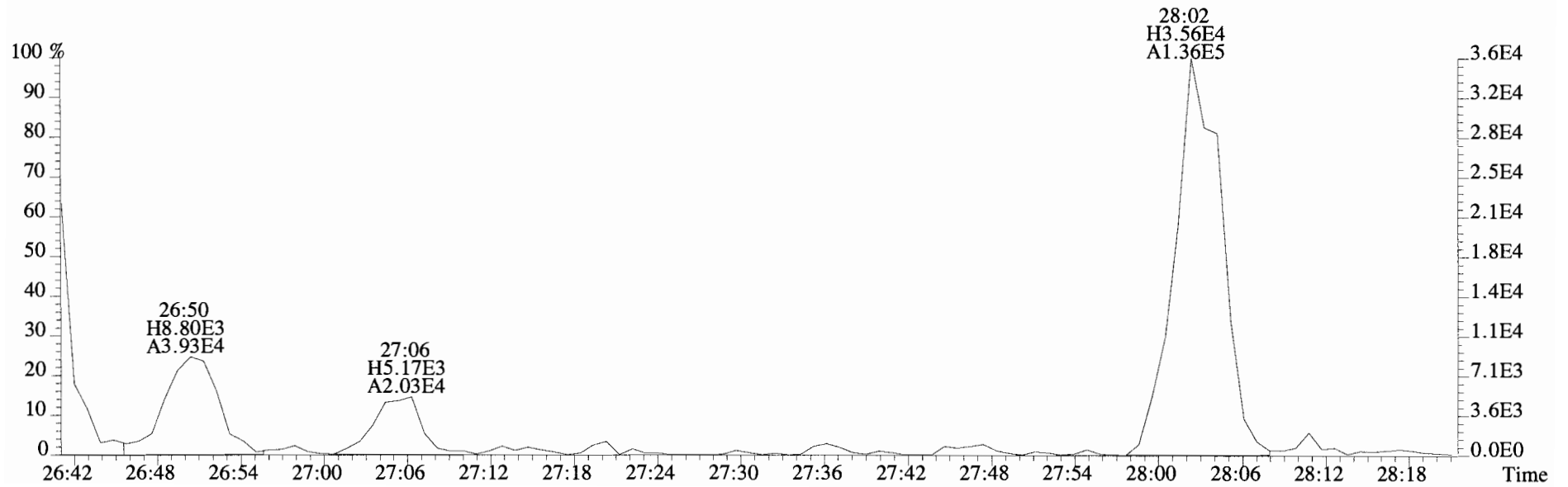
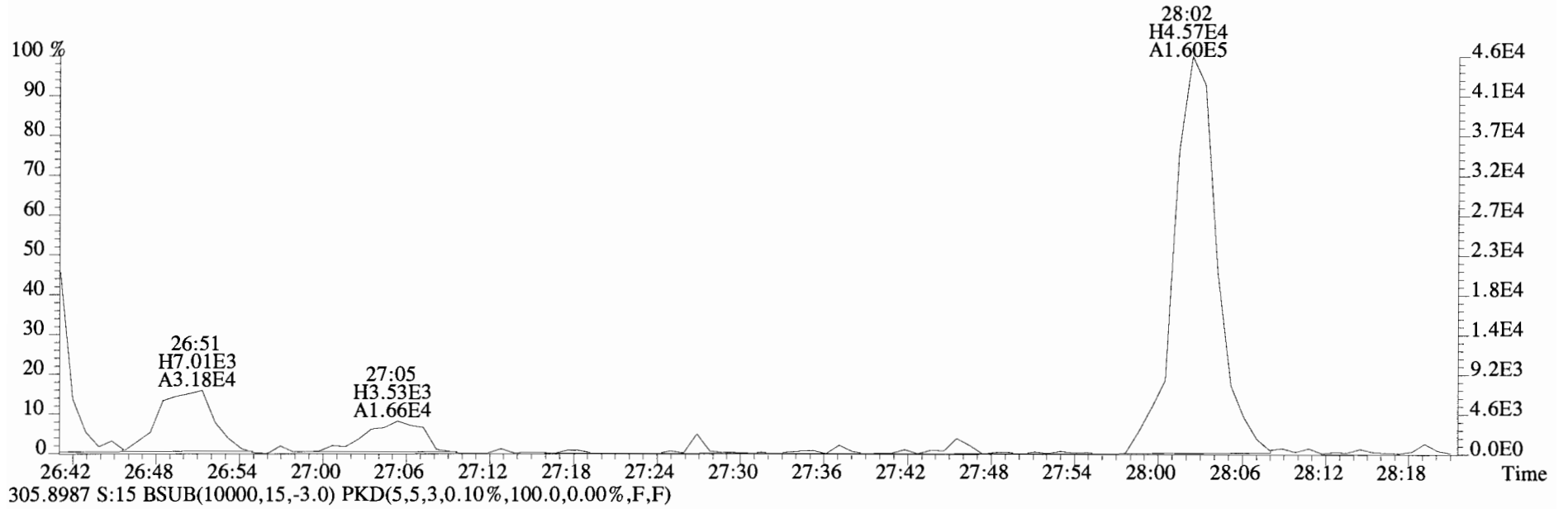
305.8987 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



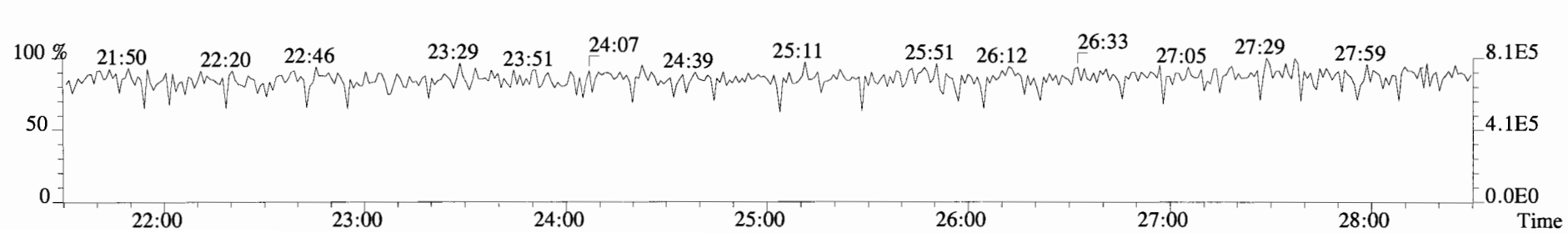
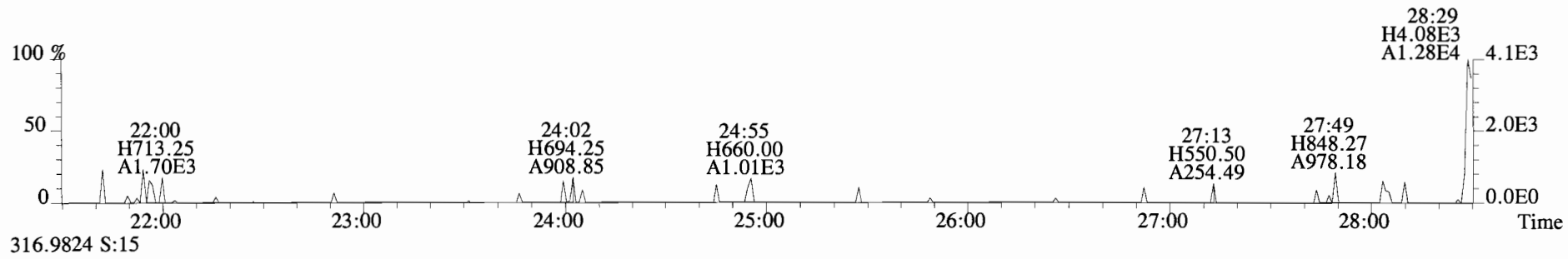
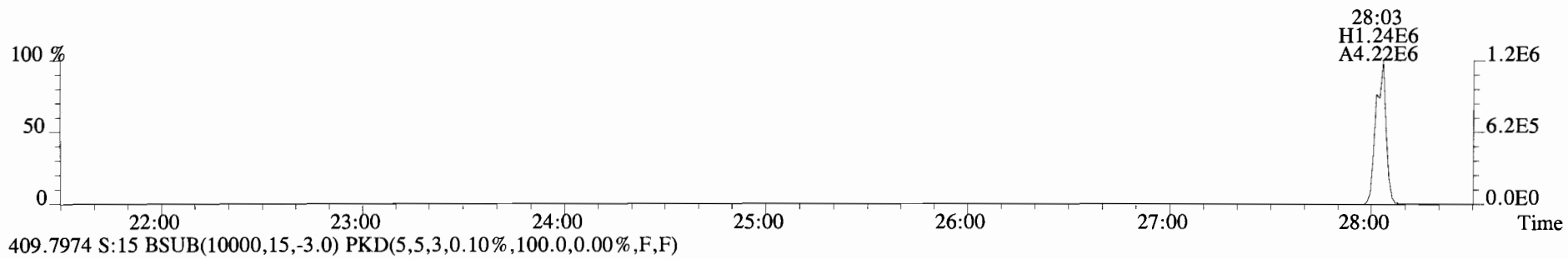
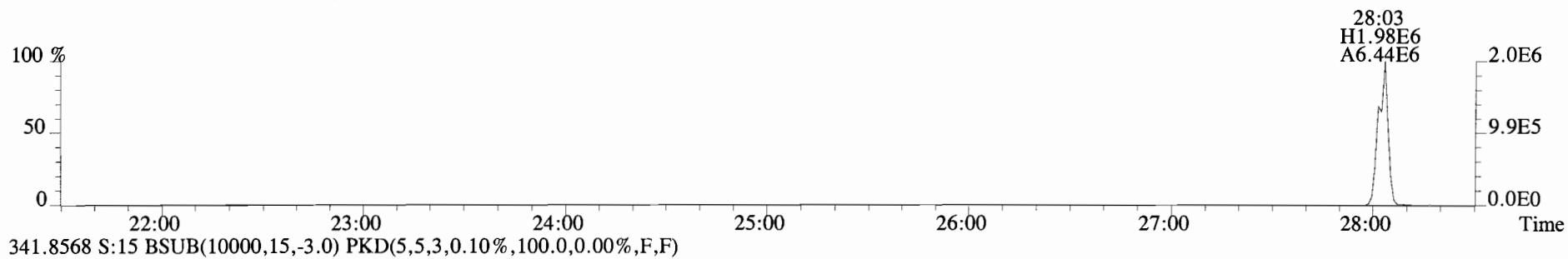
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
 303.9016 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



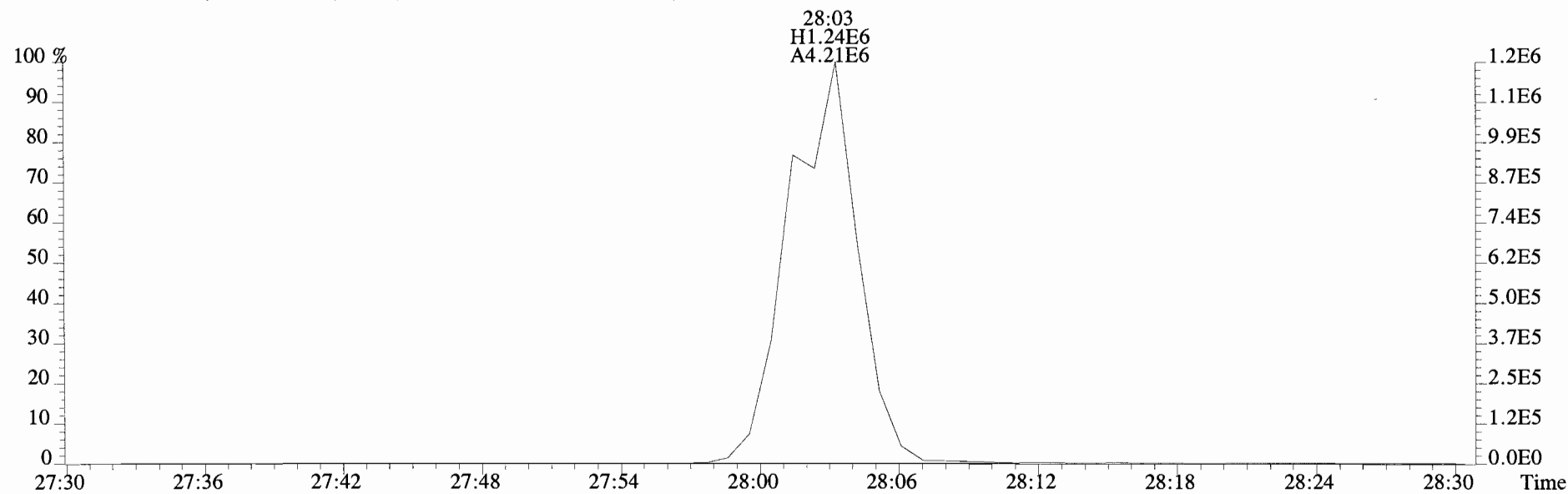
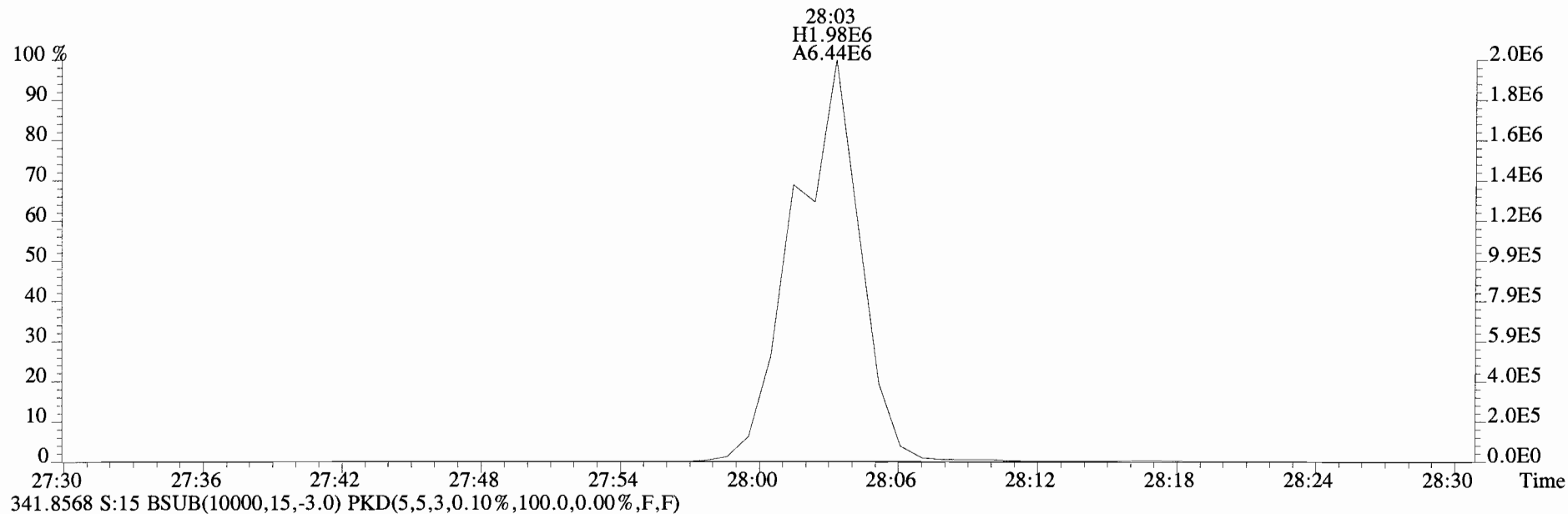
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Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
303.9016 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



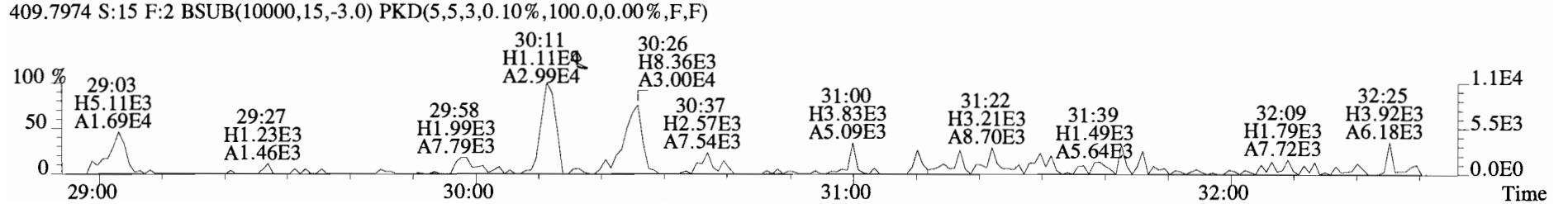
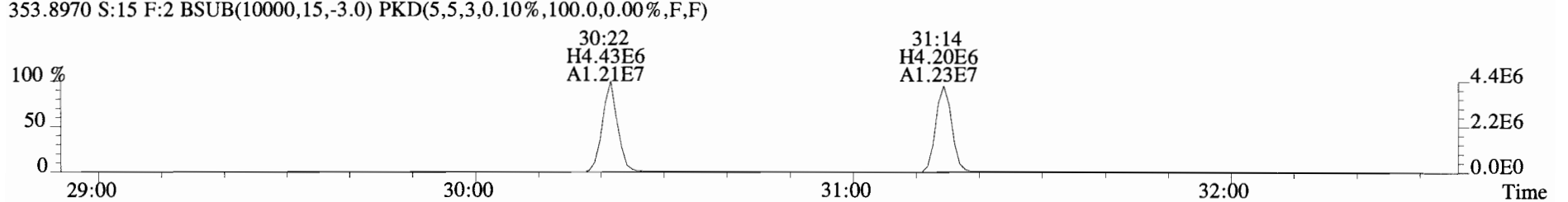
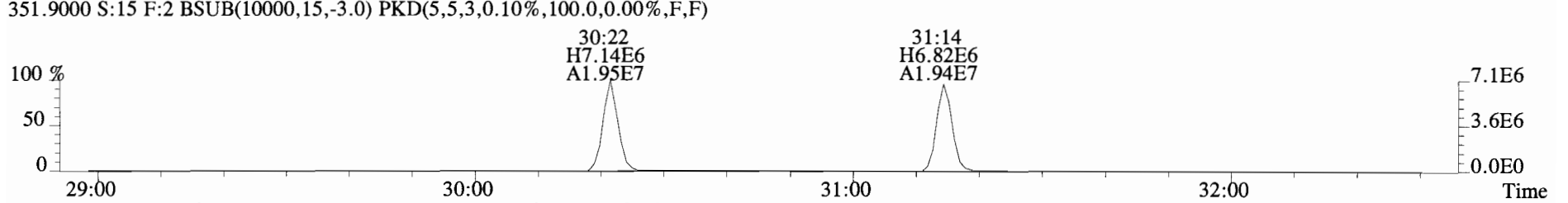
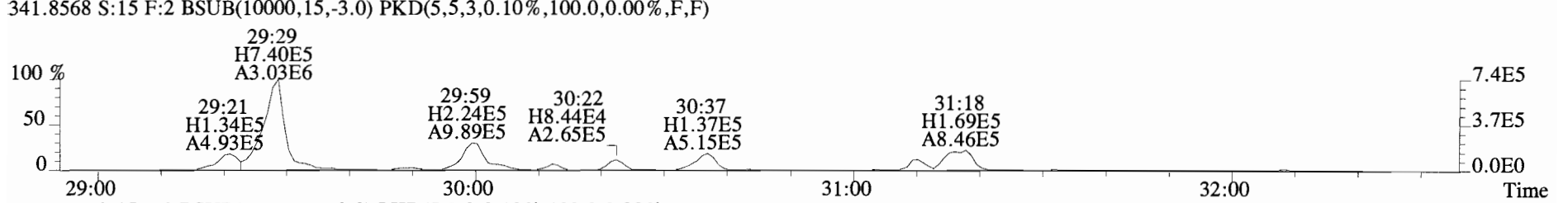
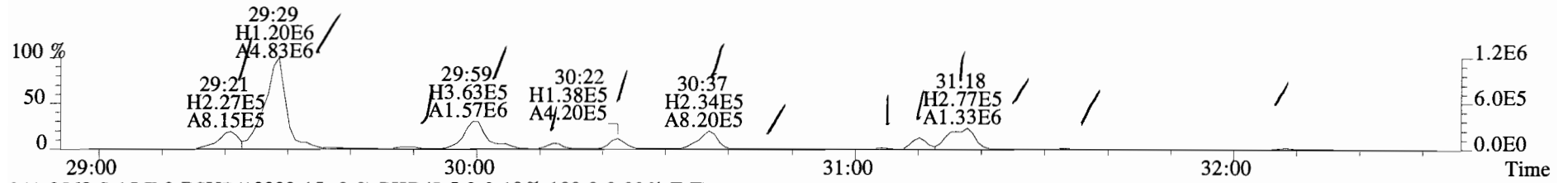
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
339.8597 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



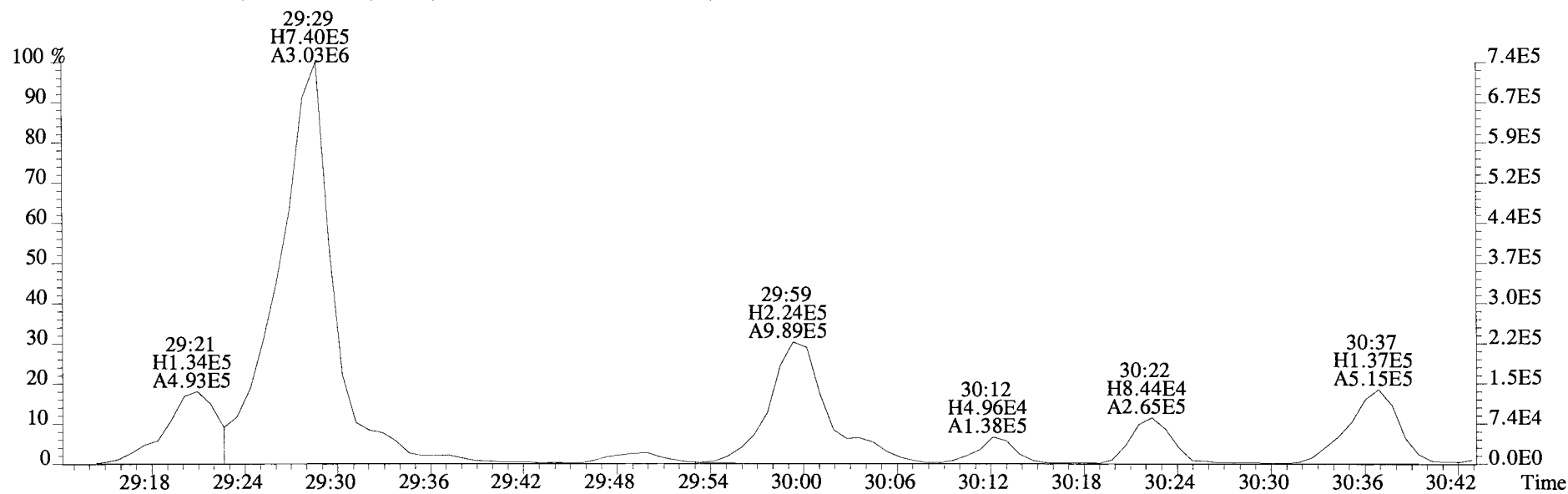
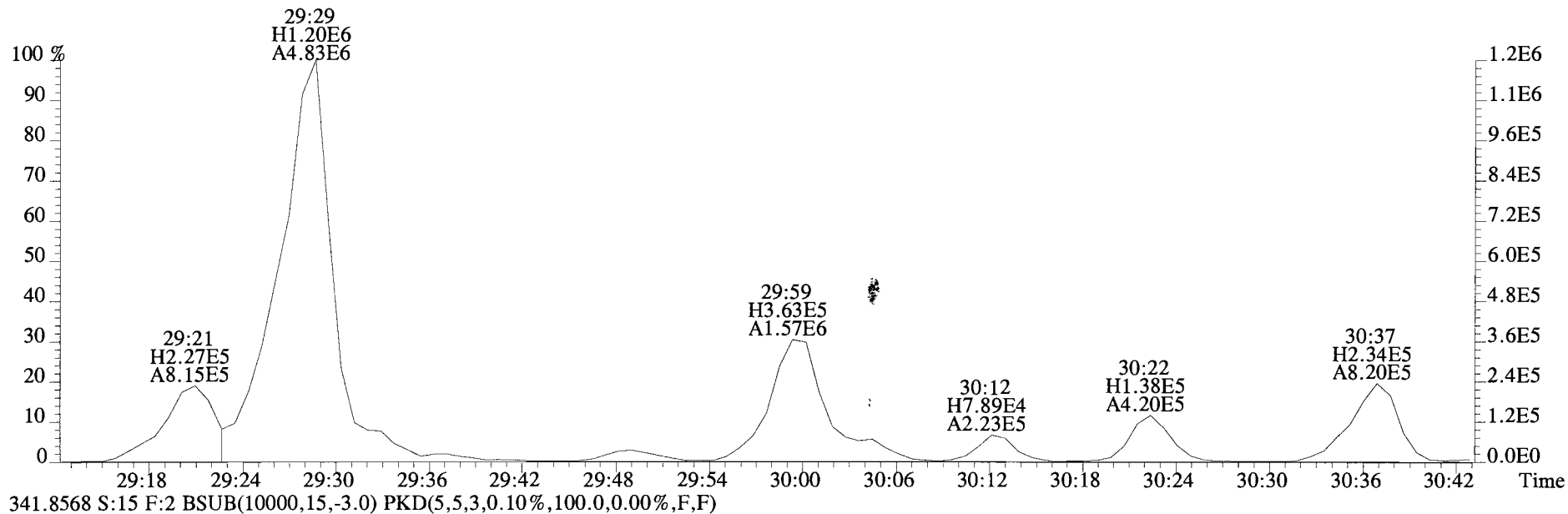
File:140917D1 #1-552 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
339.8597 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



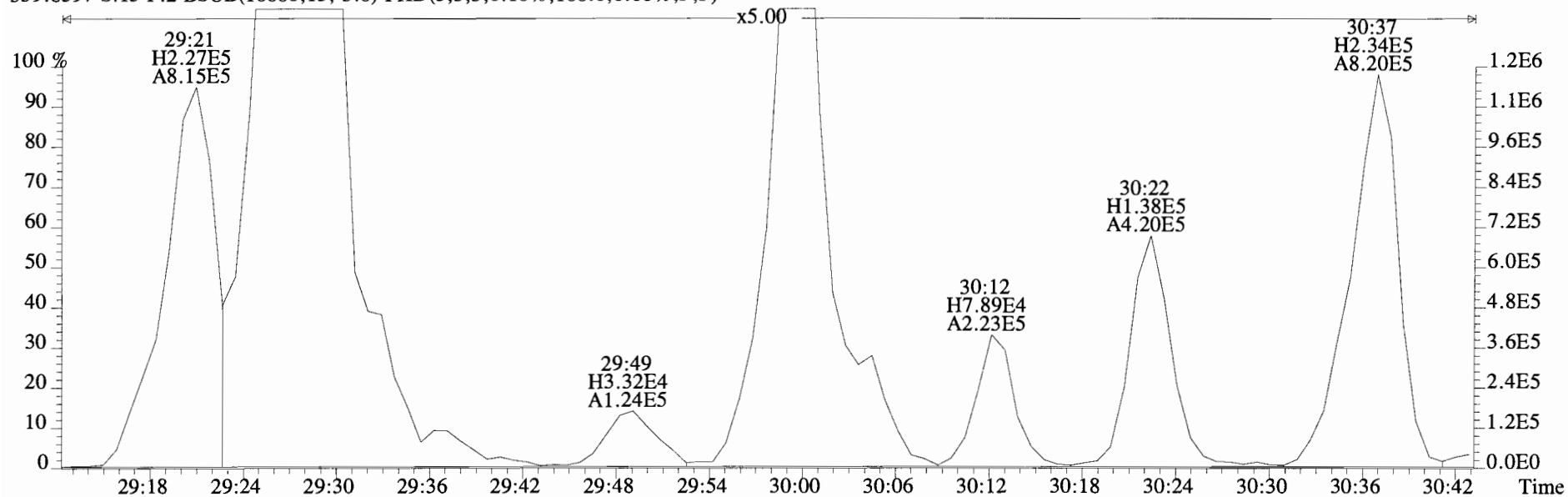
File:140917D1 #1-256 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
339.8597 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



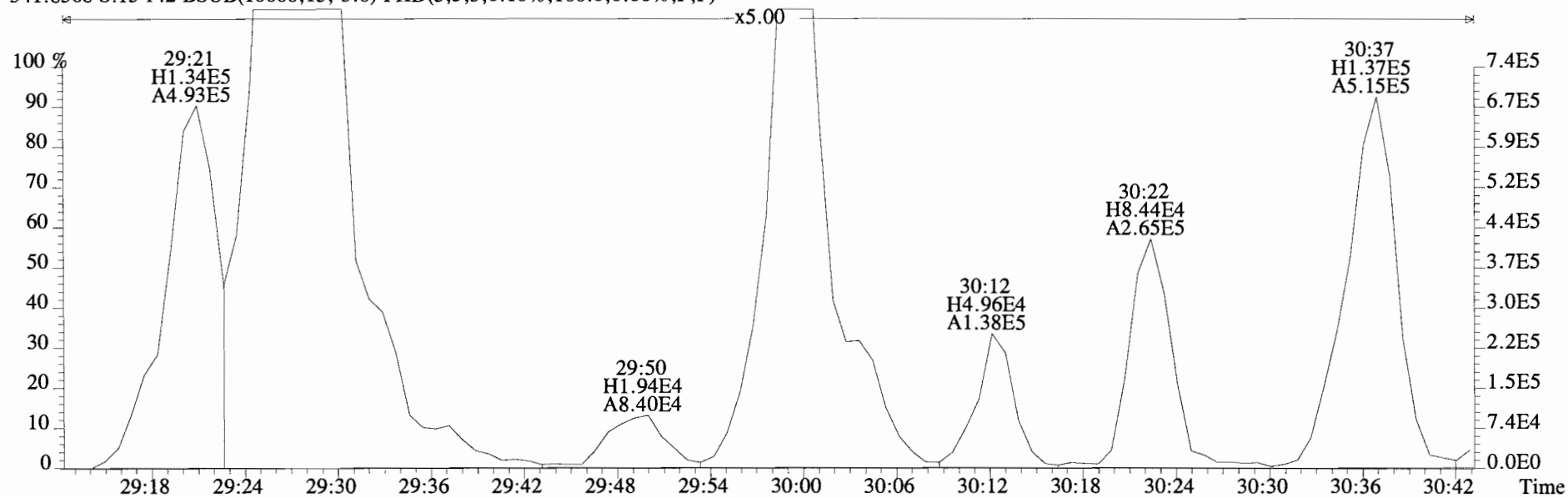
File:140917D1 #1-256 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
339.8597 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



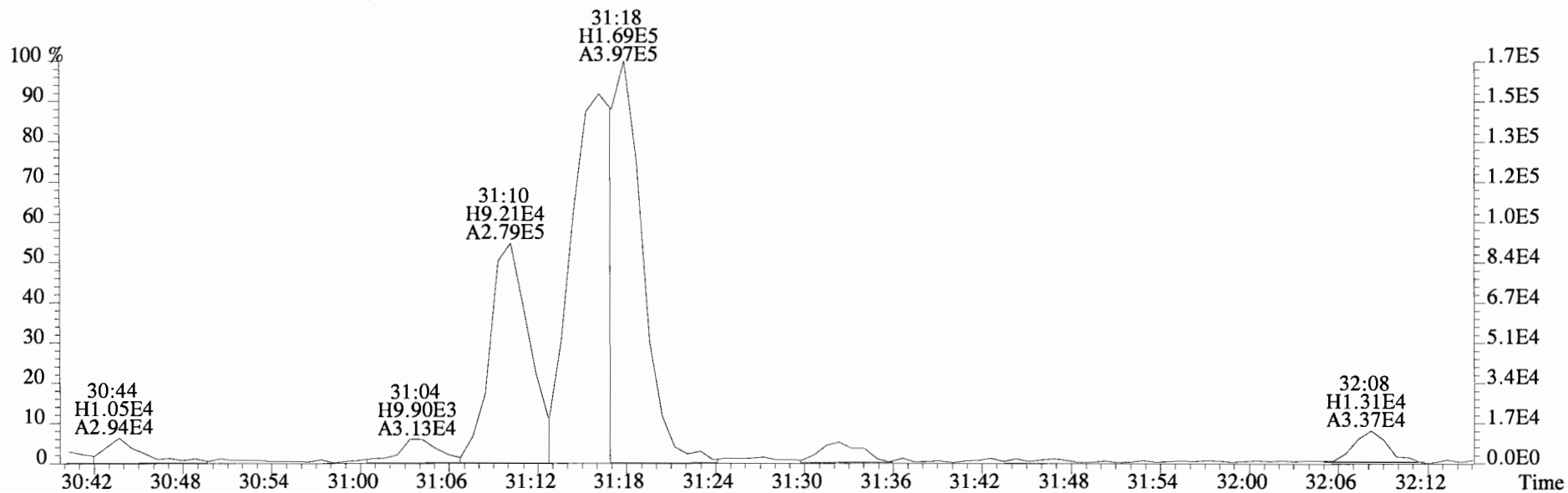
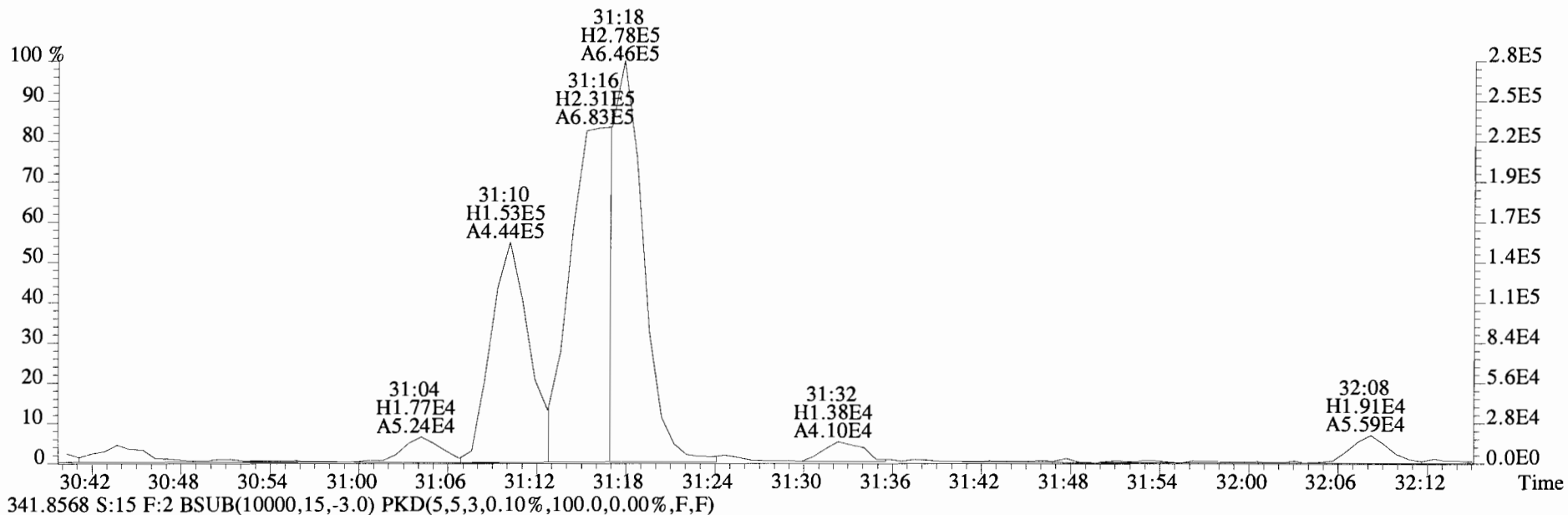
File:140917D1 #1-256 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
339.8597 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



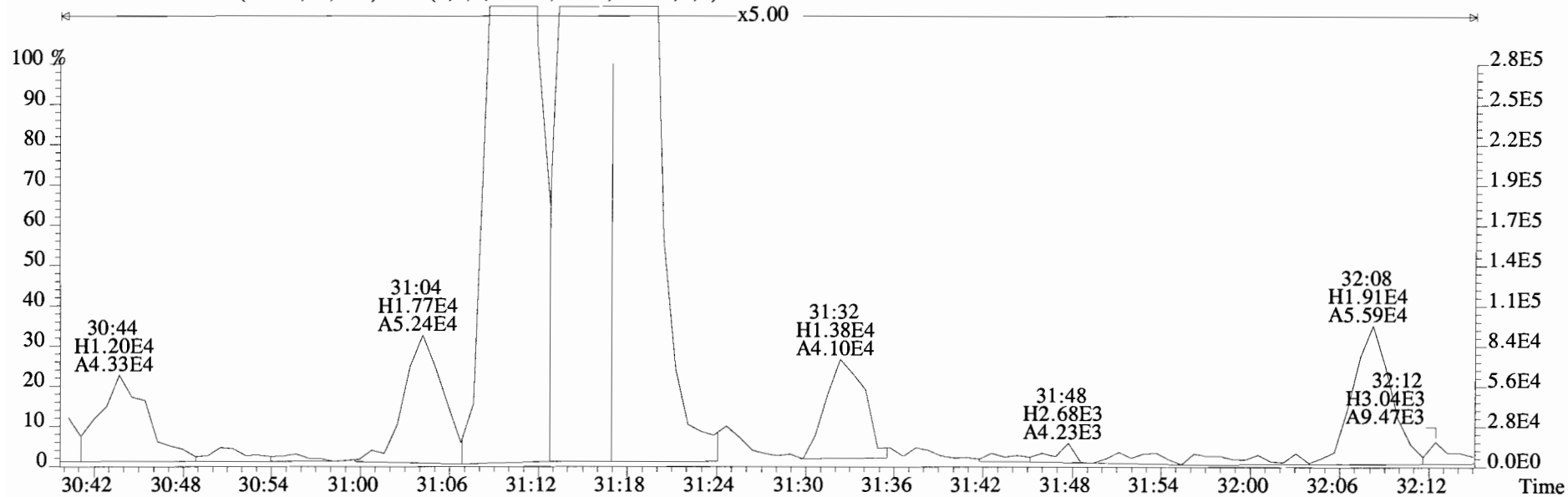
341.8568 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



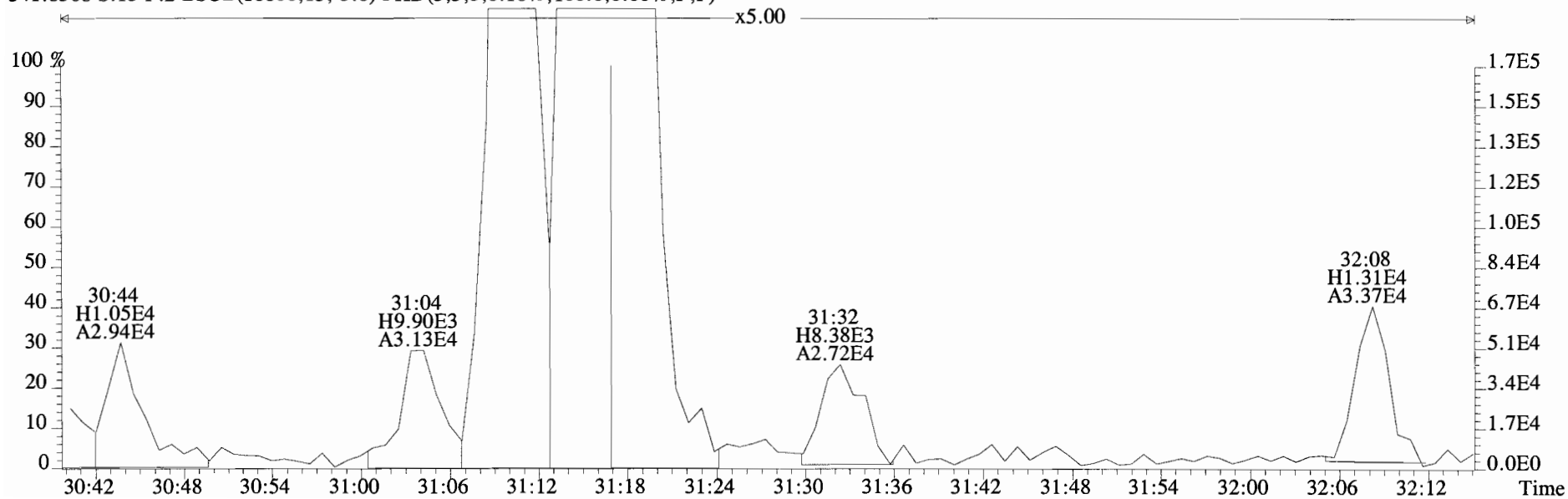
File:140917D1 #1-256 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
339.8597 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



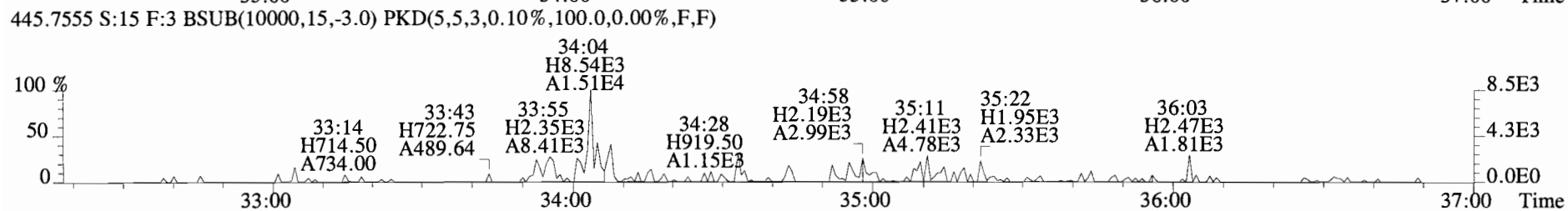
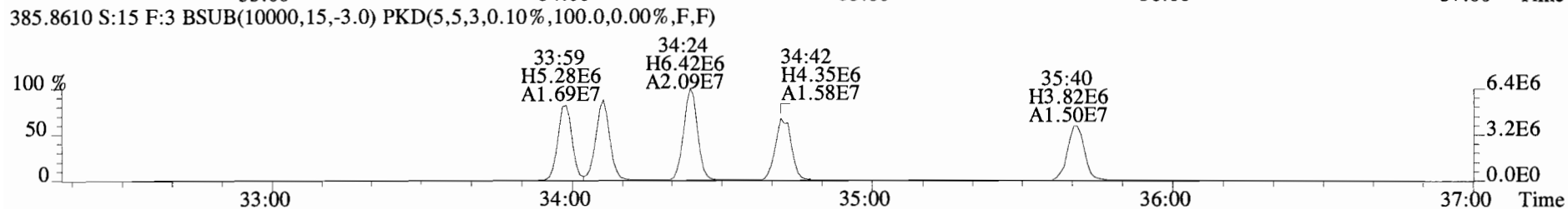
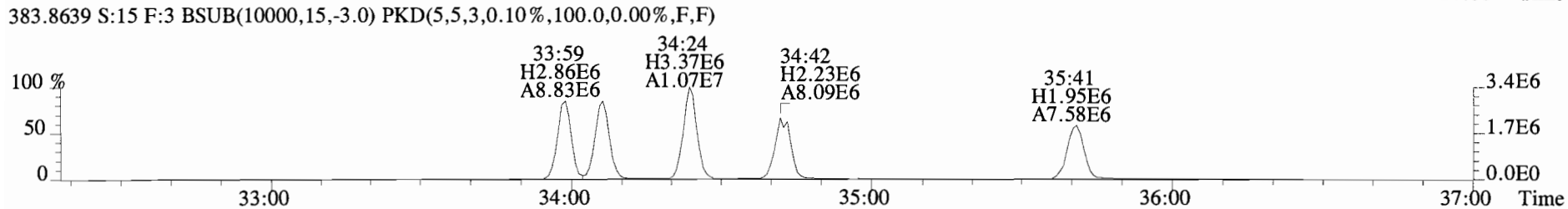
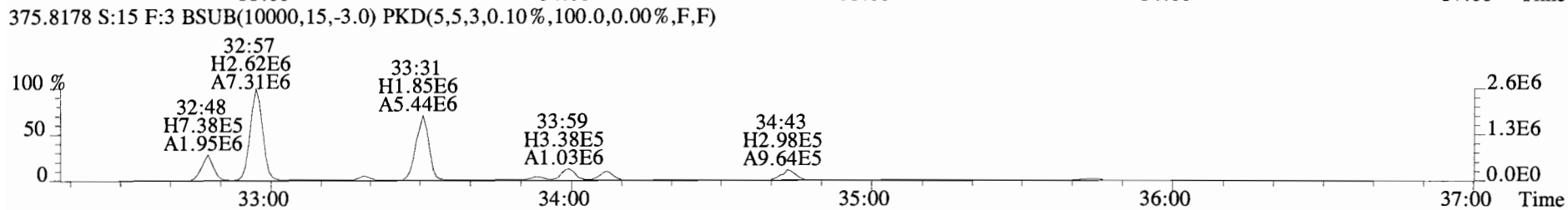
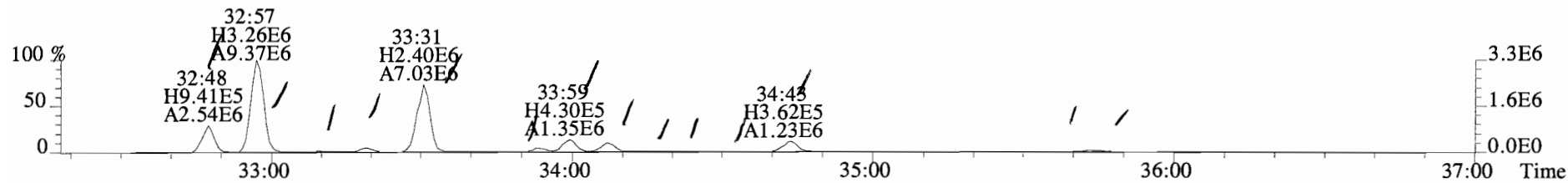
File:140917D1 #1-256 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
339.8597 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



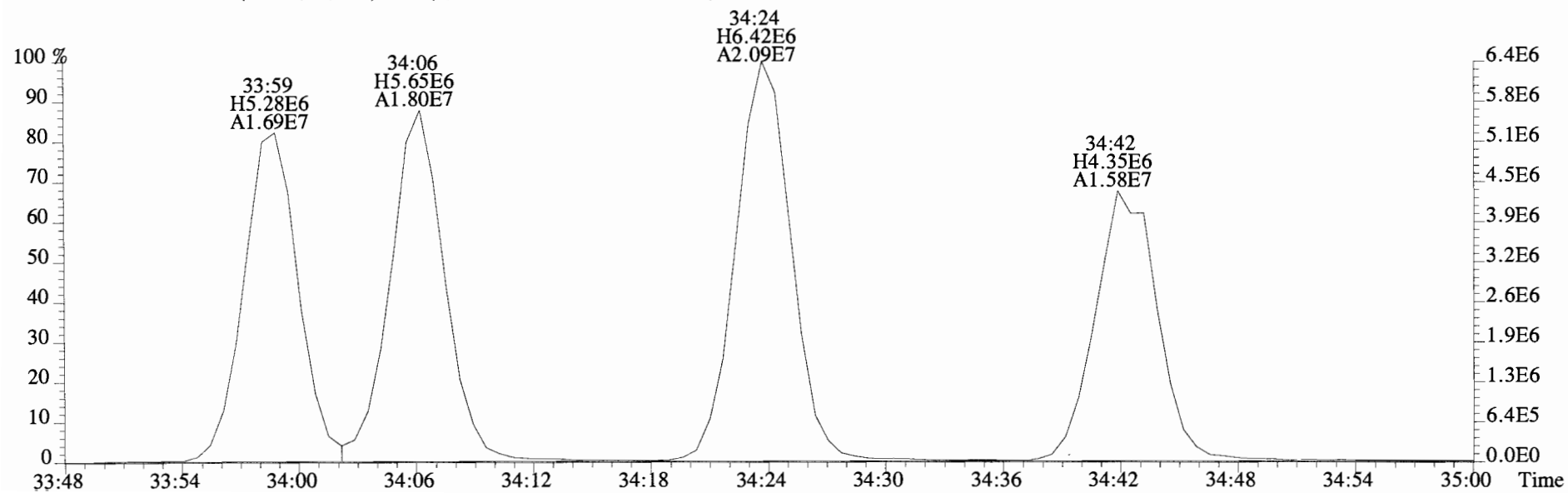
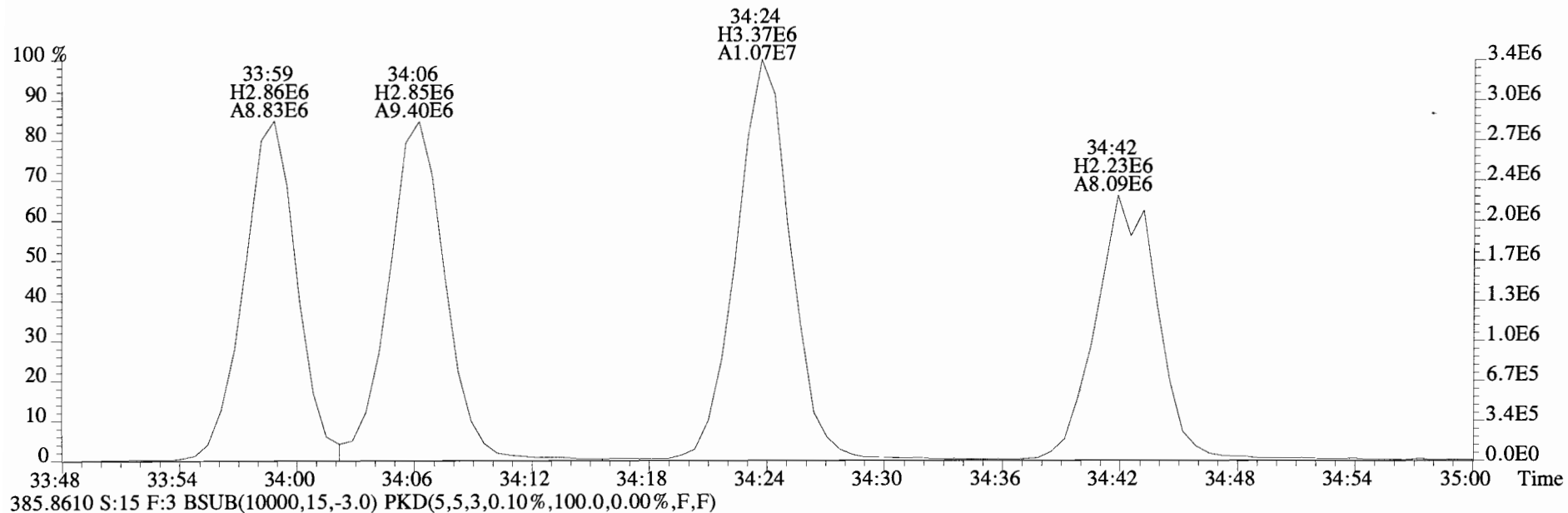
341.8568 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



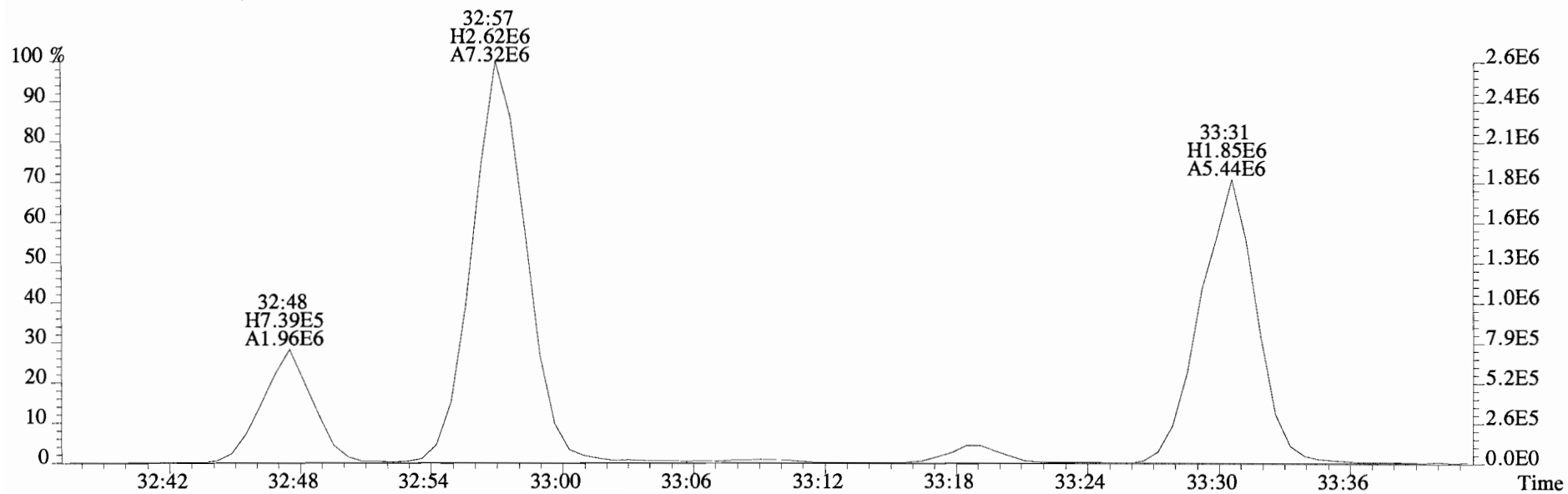
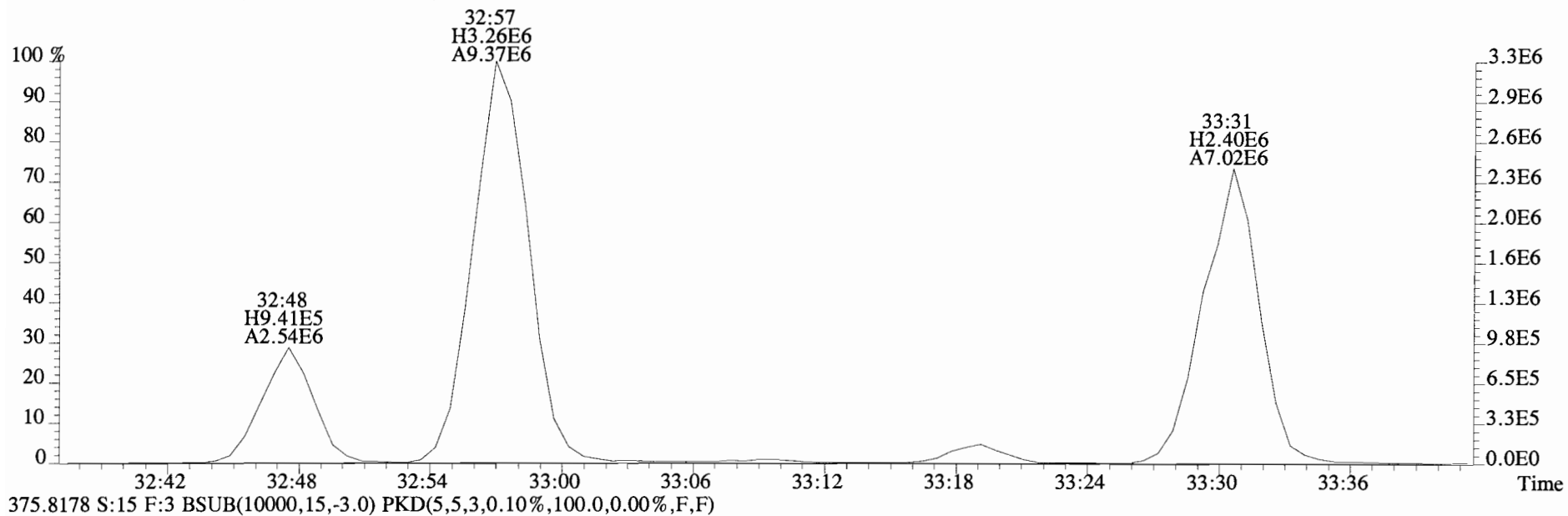
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
 373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



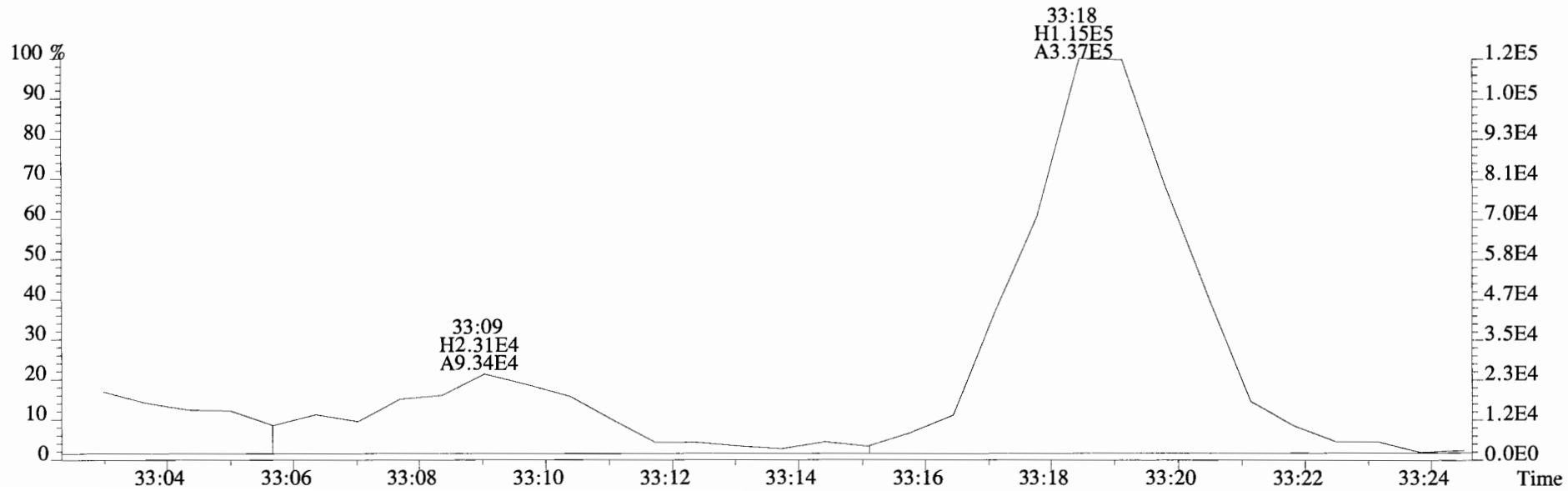
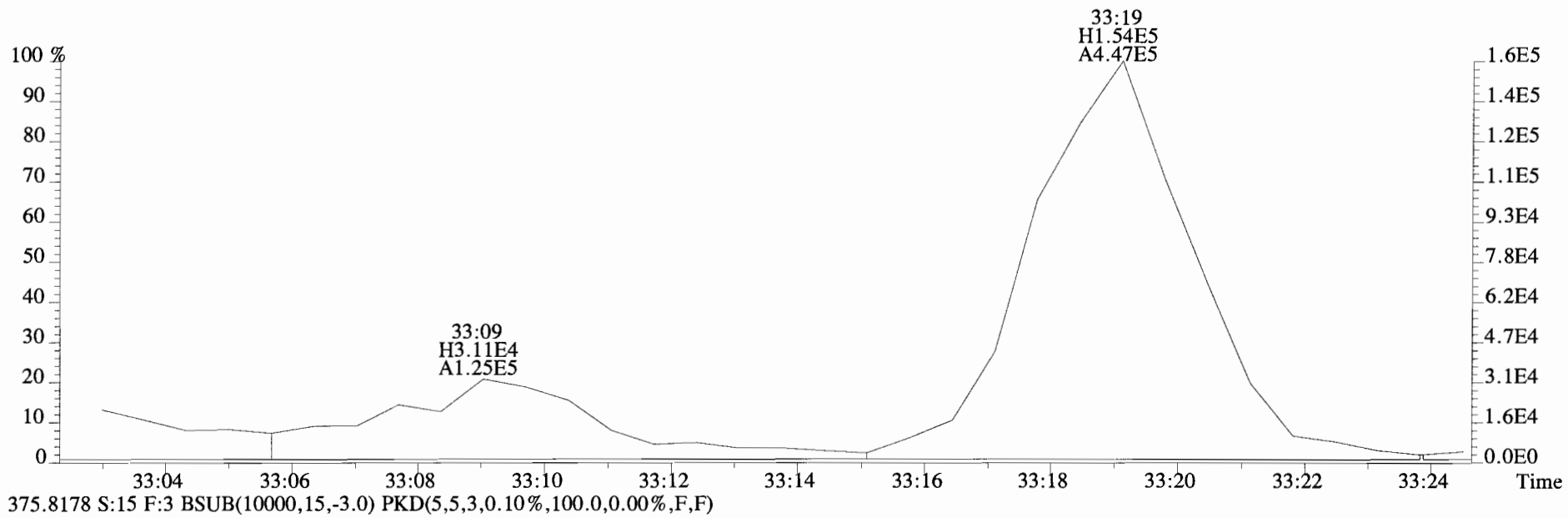
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
383.8639 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



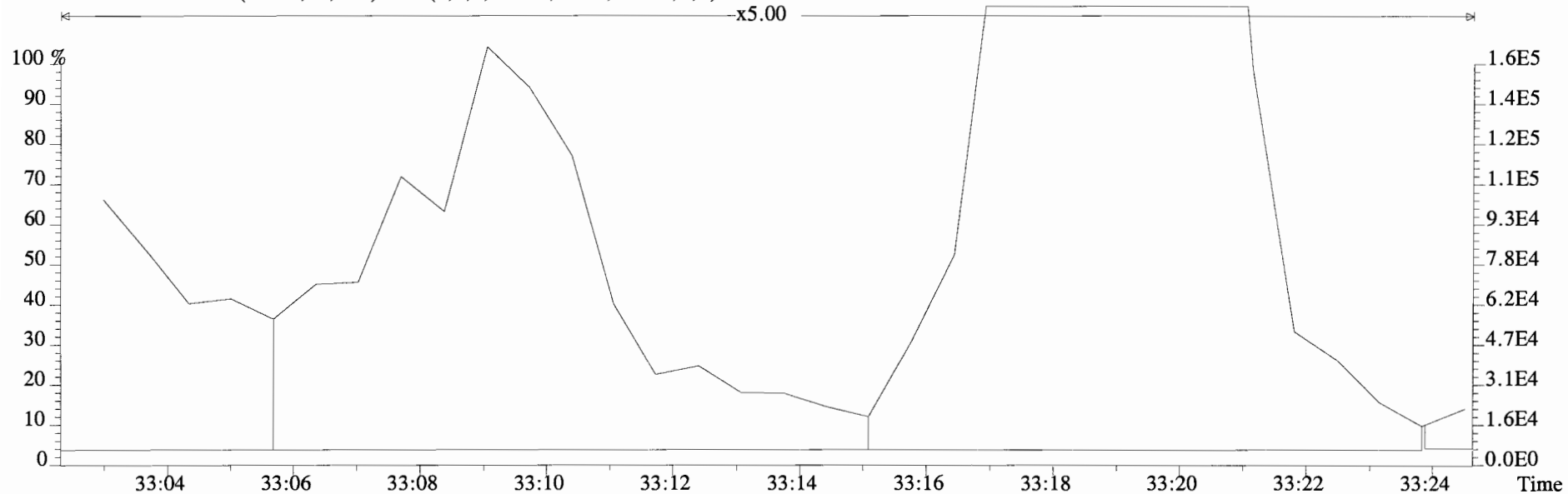
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



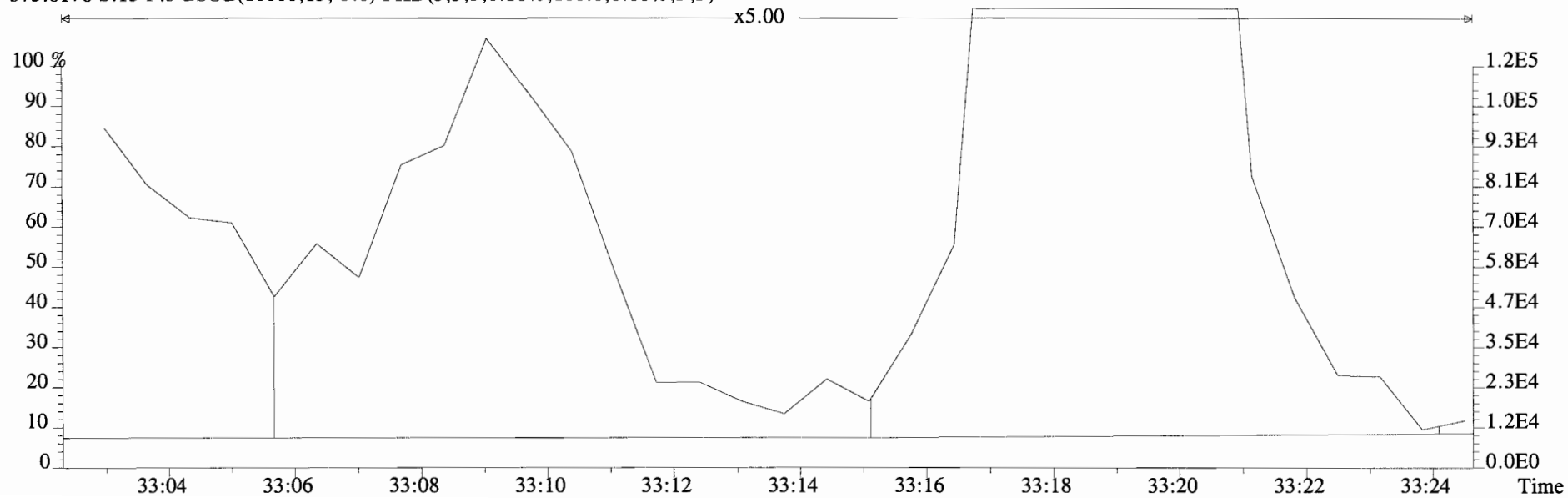
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



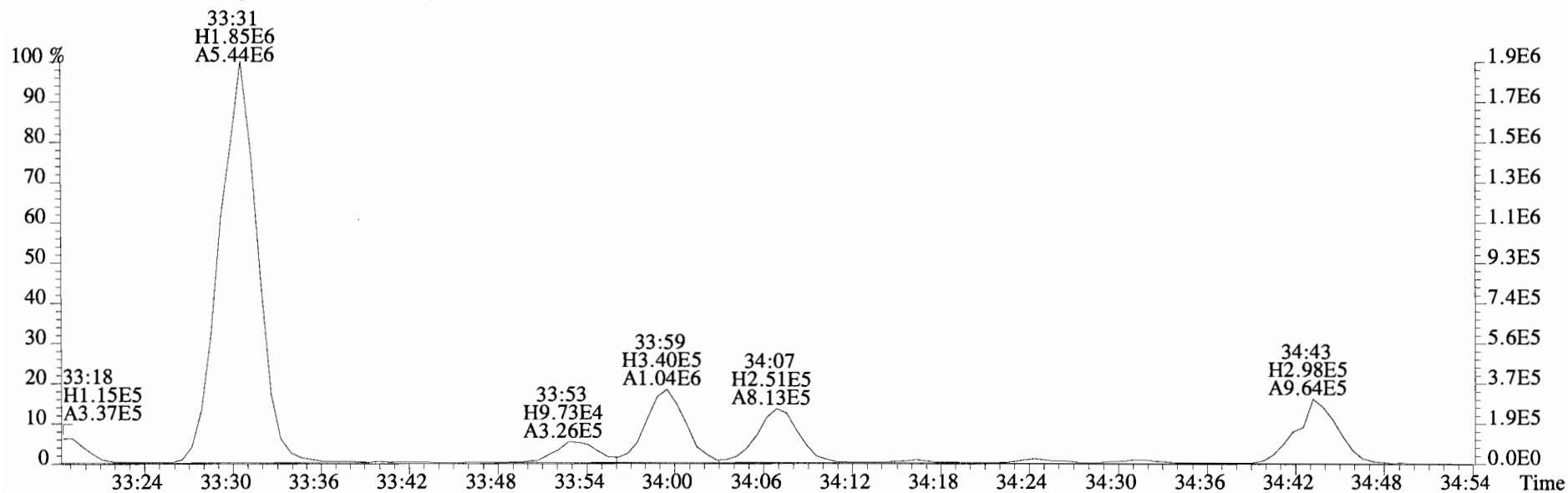
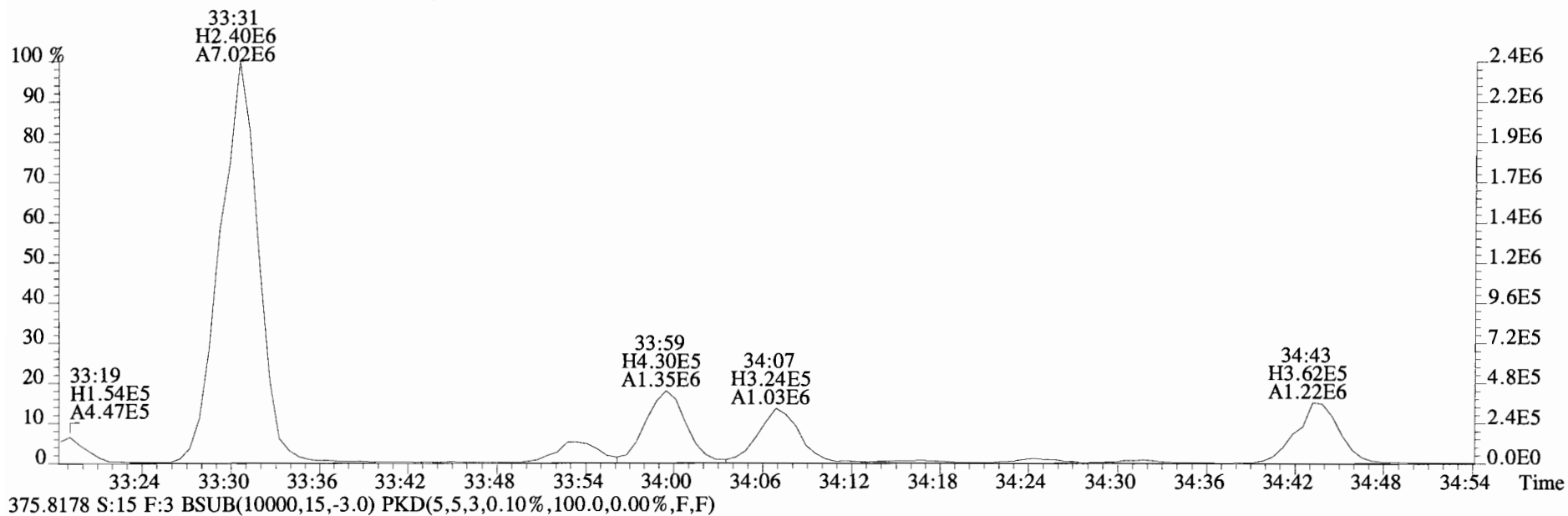
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



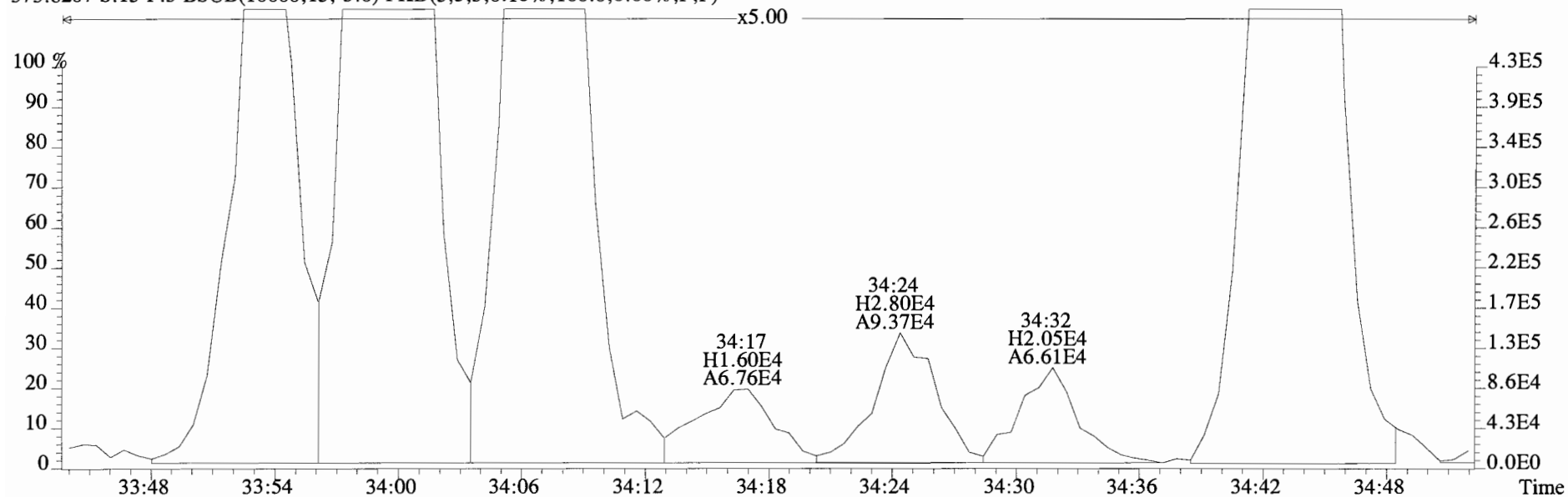
375.8178 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



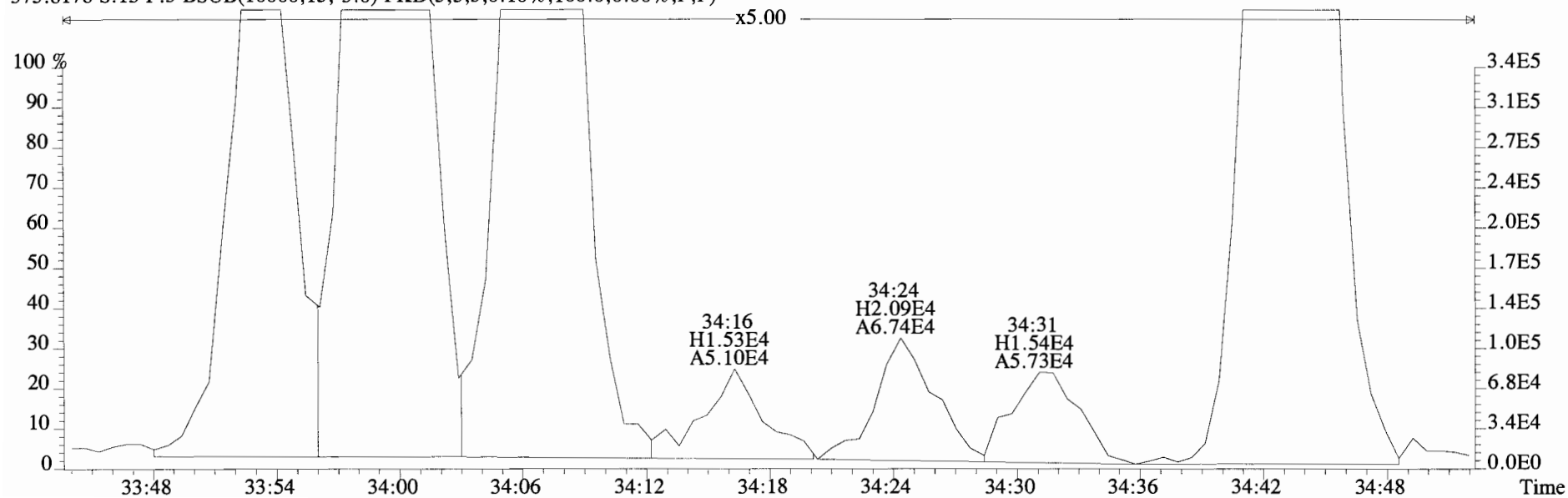
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
 373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



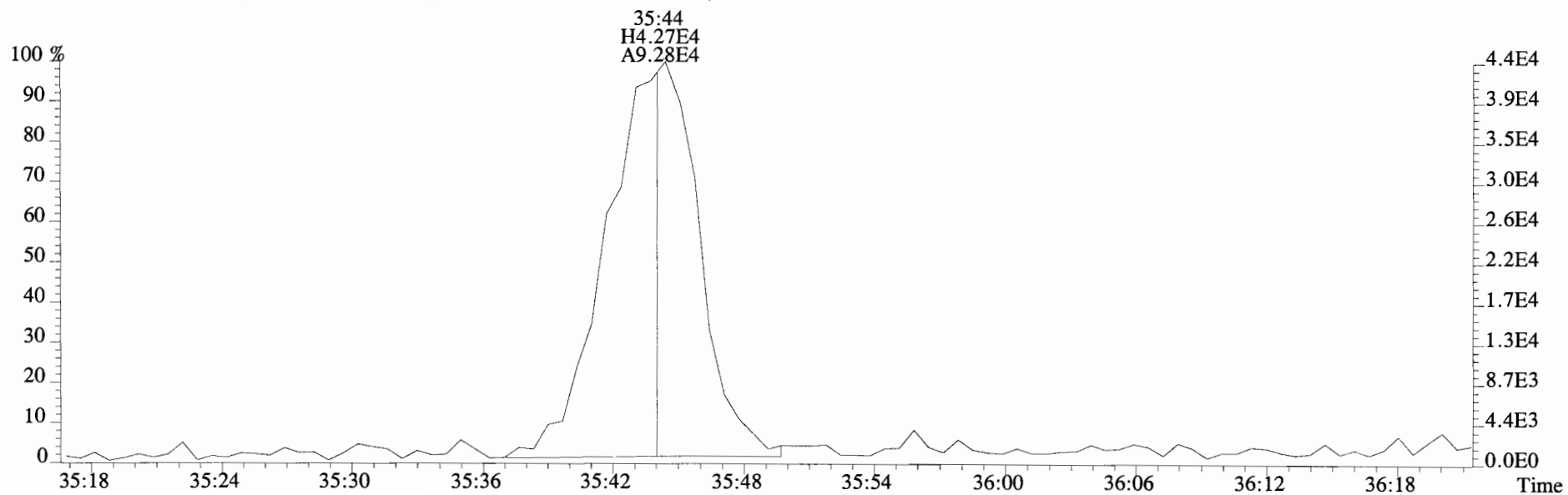
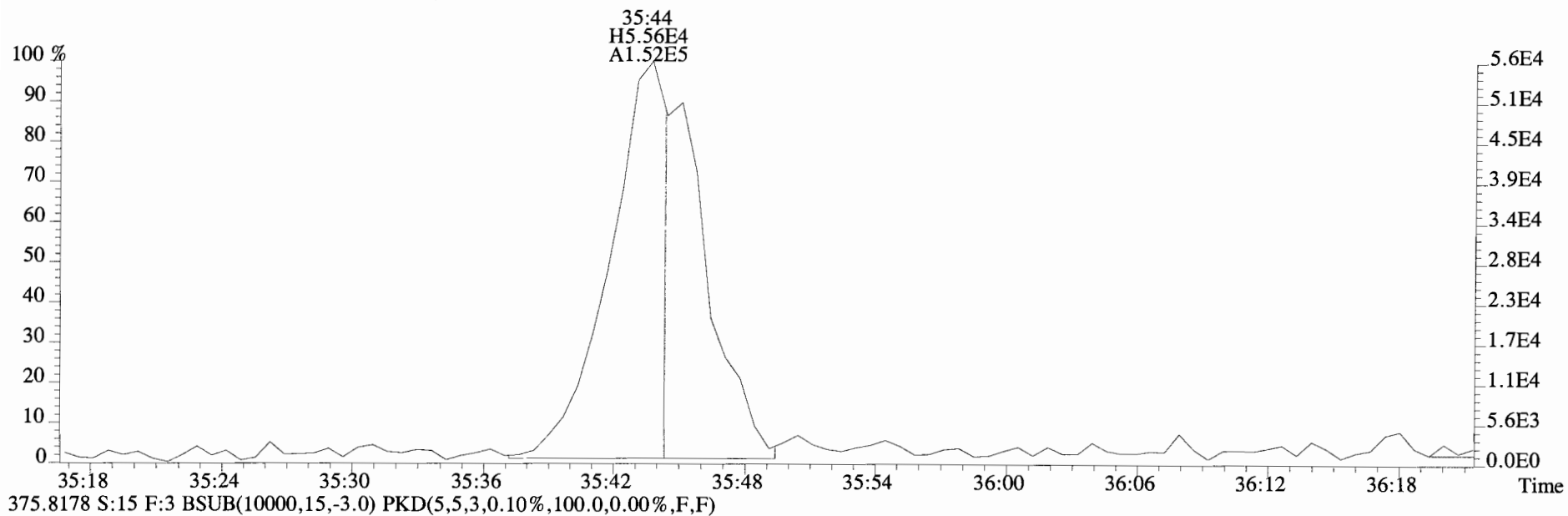
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



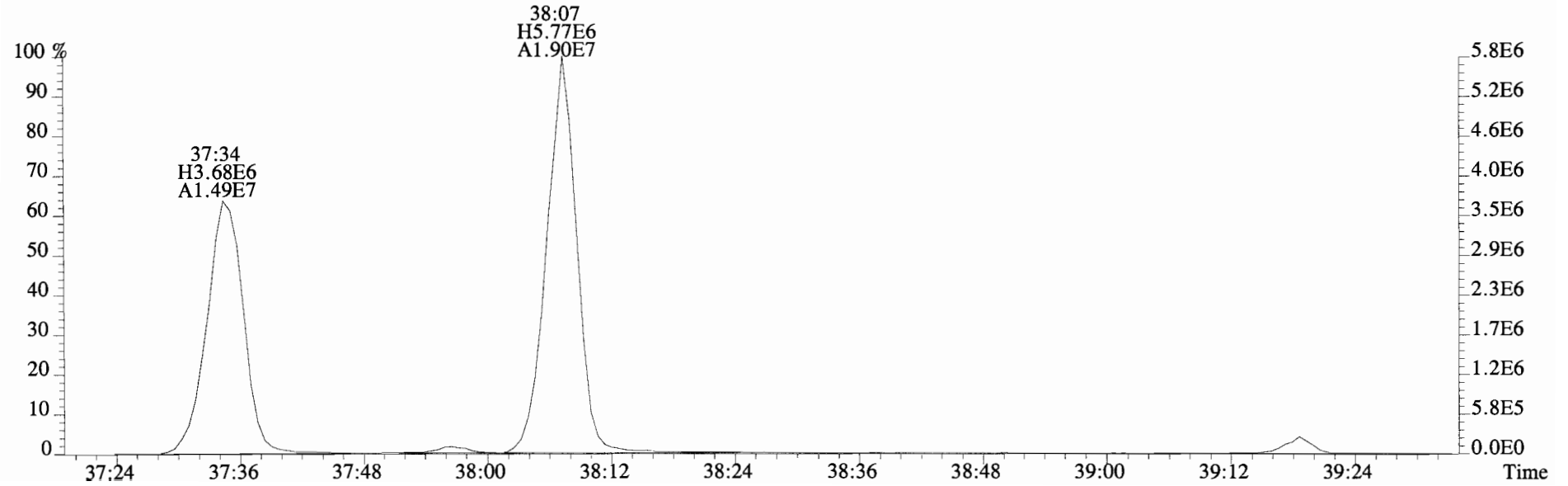
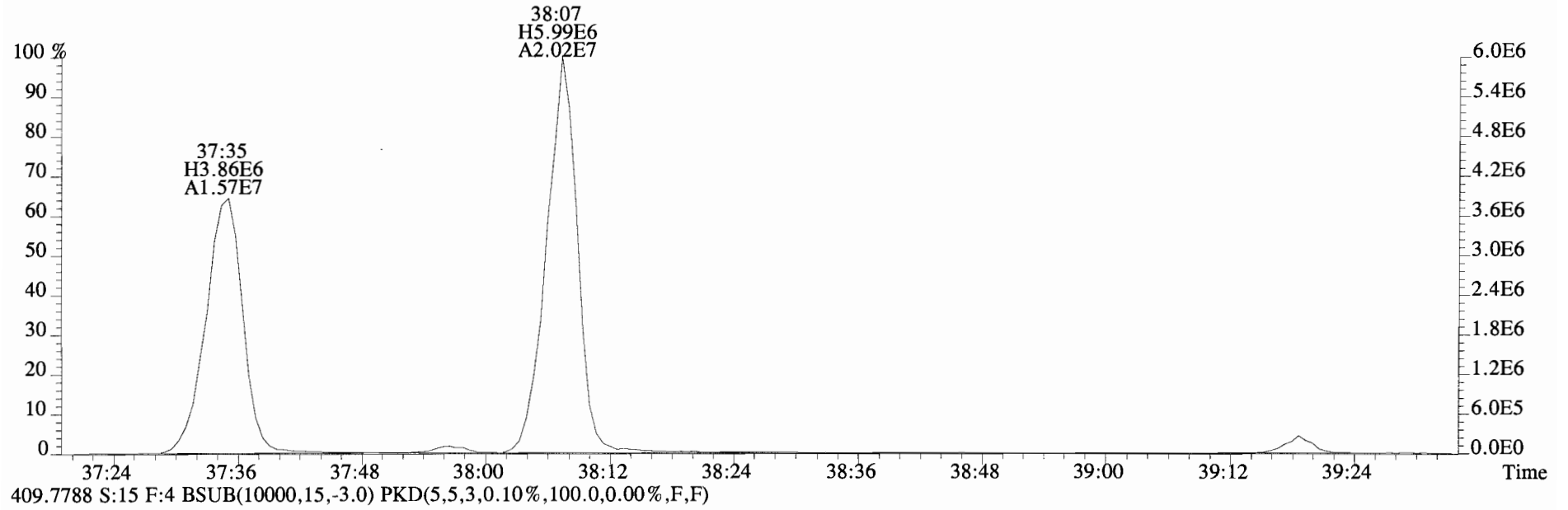
375.8178 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



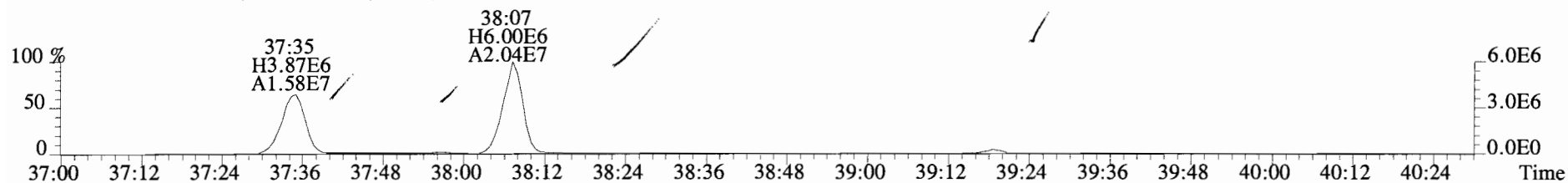
File:140917D1 #1-385 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



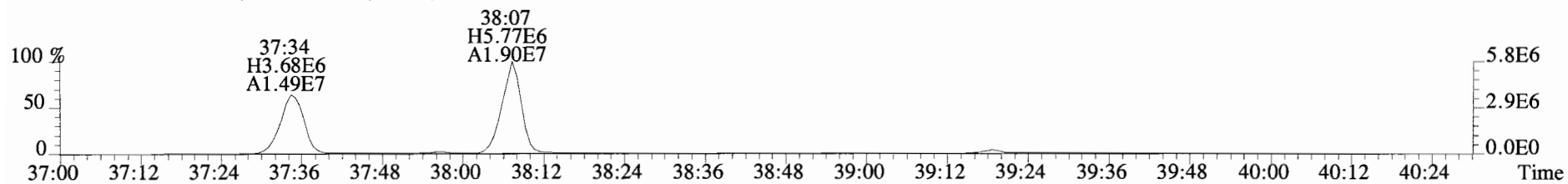
File:140917D1 #1-326 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
407.7818 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



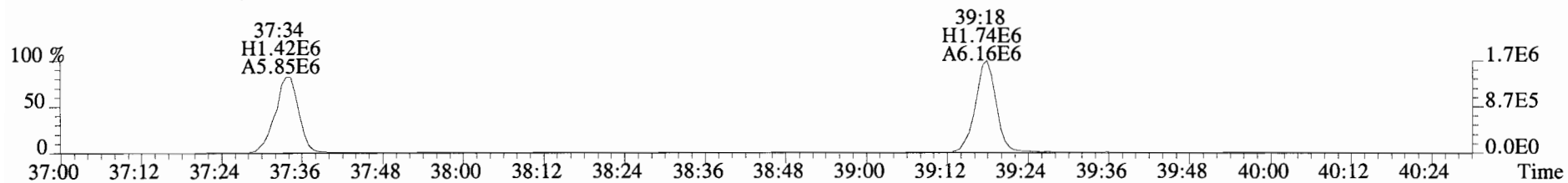
File:140917D1 #1-326 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
407.7818 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



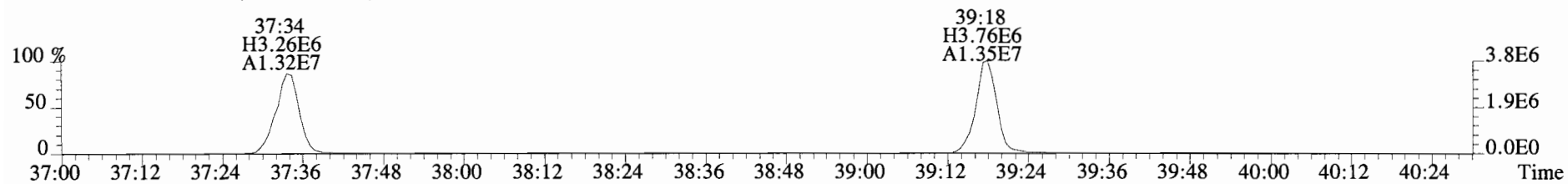
409.7788 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



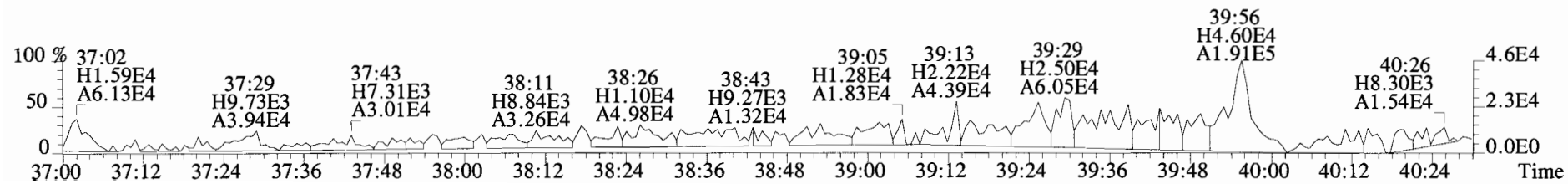
417.8253 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



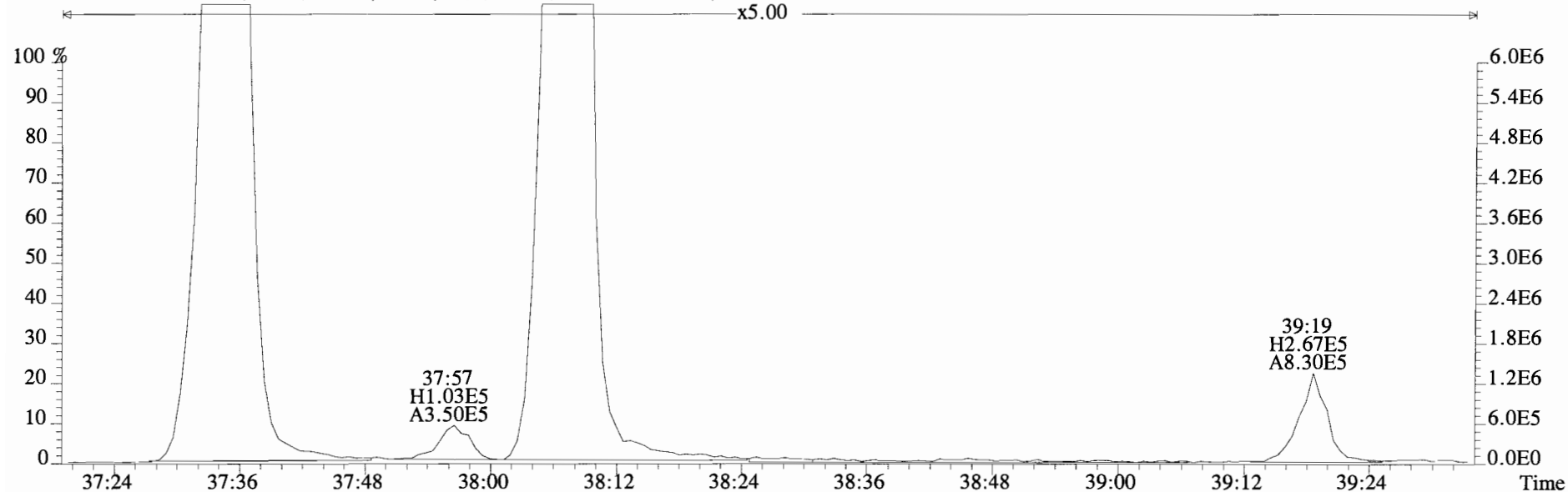
419.8220 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



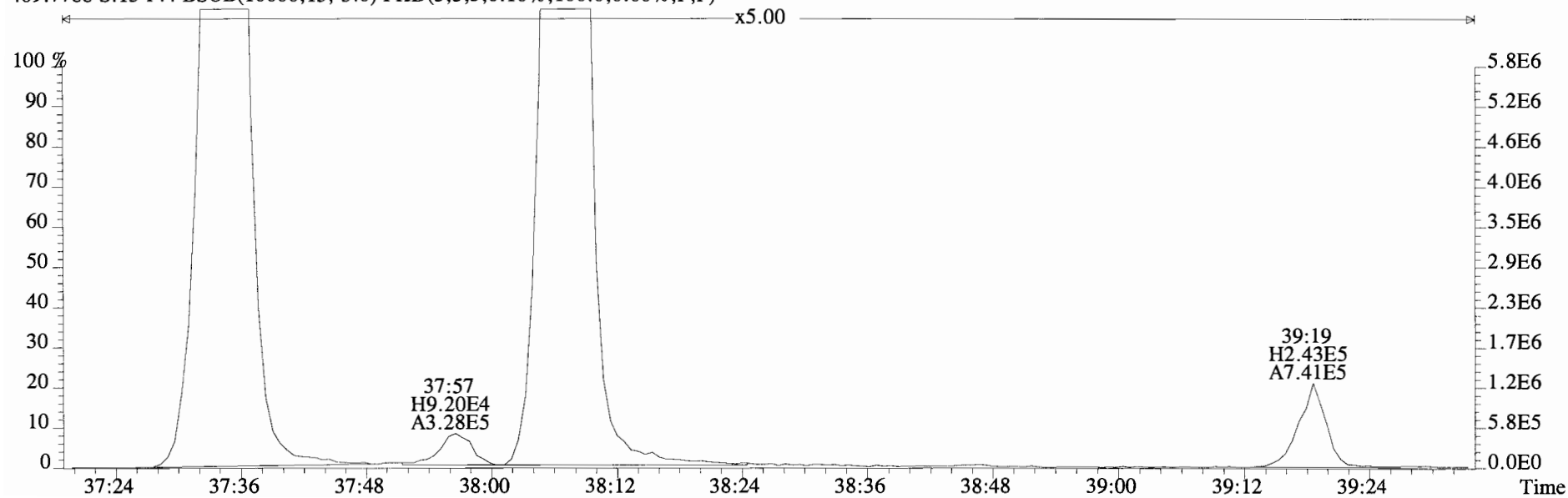
479.7165 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



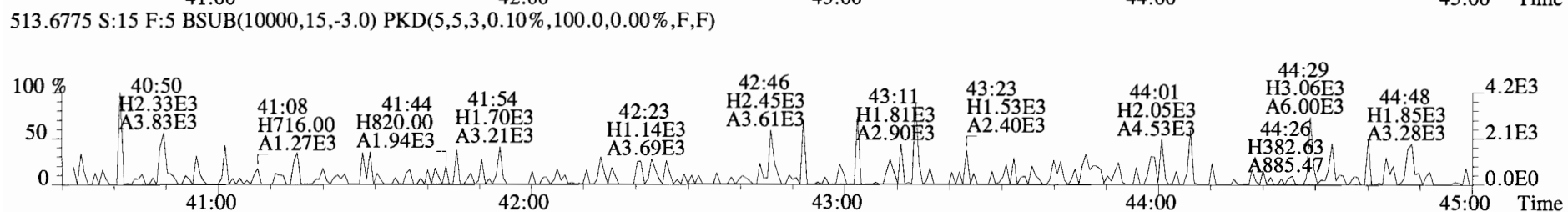
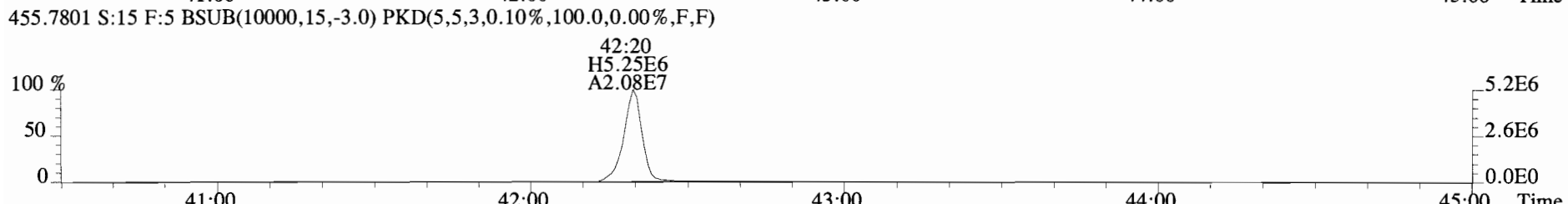
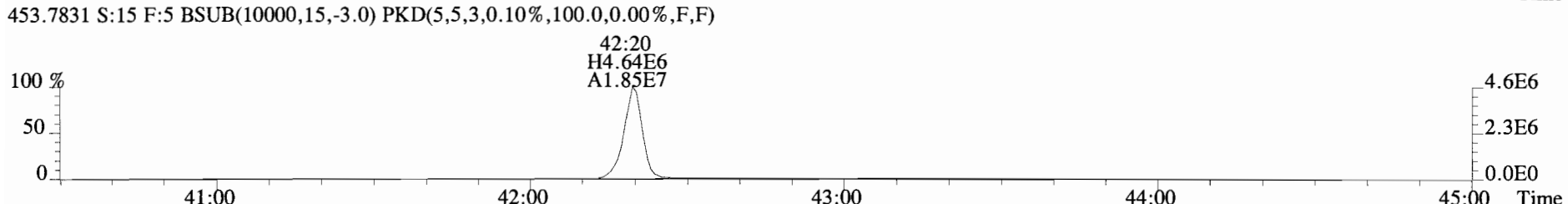
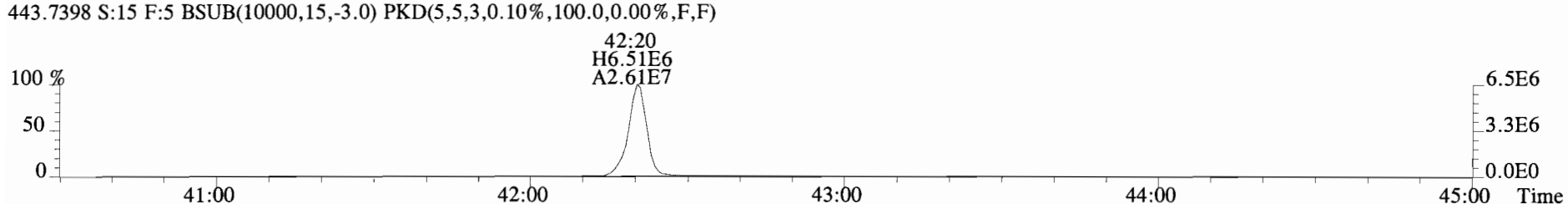
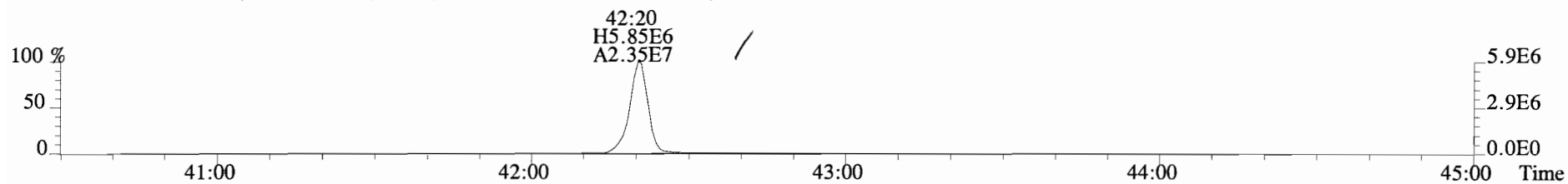
File:140917D1 #1-326 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
407.7818 S:15 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



409.7788 S:15 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140917D1 #1-388 Acq:18-SEP-2014 00:28:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03 UG-FD-01-20140911-S 28.27 Exp:OCDD_DB5
441.7428 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



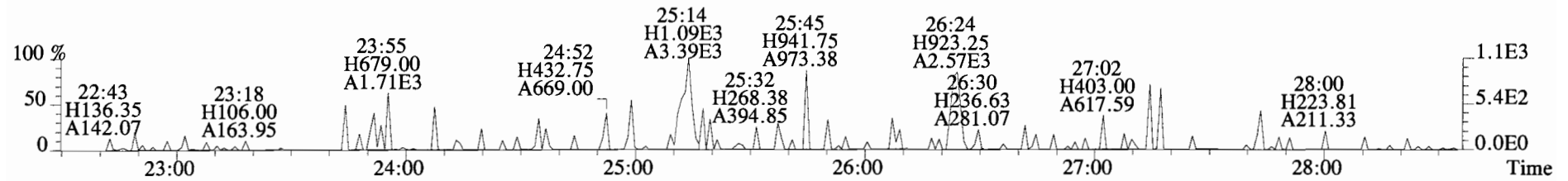
Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	*	* n	1.03	NotF η	*	*		681	2.5	1.20	Total Tetra-Dioxins	*	*		681	1.20
1,2,3,7,8-PeCDD	*	* n	0.84	NotF η	*	*		856	2.5	1.37	Total Penta-Dioxins	*	*		856	1.37
1,2,3,4,7,8-HxCDD	*	* n	1.05	NotF η	*	*		325	2.5	1.05	Total Hexa-Dioxins	*	*		547	1.82
1,2,3,6,7,8-HxCDD	*	* n	1.04	NotF η	*	*		325	2.5	1.11	Total Hepta-Dioxins	*	*		639	2.29
1,2,3,7,8,9-HxCDD	*	* n	0.90	NotF η	*	*		325	2.5	1.08	Total Tetra-Furans	*	*		599	0.950
1,2,3,4,6,7,8-HpCDD	*	* n	1.01	NotF η	*	*		639	2.5	2.29	Total Penta-Furans	0.0000	0.0000		859	1.50
OCDD	*	* n	1.04	NotF η	*	*		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 η	*	*		599	2.5	0.950						
1,2,3,7,8-PeCDF	*	* n	0.97	NotF η	*	*		446	2.5	0.768						
2,3,4,7,8-PeCDF	*	* n	0.94	NotF η	*	*		446	2.5	0.793						
1,2,3,4,7,8-HxCDF	*	* n	1.32	NotF η	*	*		576	2.5	0.690						
1,2,3,6,7,8-HxCDF	*	* n	1.18	NotF η	*	*		576	2.5	0.710						
2,3,4,6,7,8-HxCDF	*	* n	1.23	NotF η	*	*		300	2.5	0.438						
1,2,3,7,8,9-HxCDF	*	* n	1.13	NotF η	*	*		300	2.5	0.634						
1,2,3,4,6,7,8-HpCDF	*	* n	1.57	NotF η	*	*		792	2.5	1.54						
1,2,3,4,7,8,9-HpCDF	*	* n	1.50	NotF η	*	*		391	2.5	0.755						
OCDF	*	* n	1.05	NotF η	*	*		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	

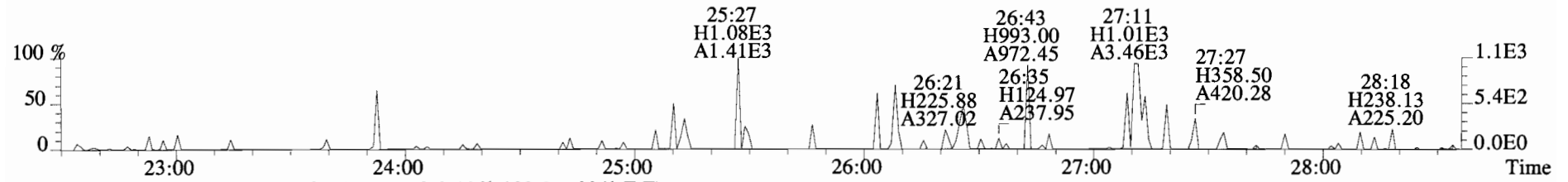
C/Up	37C1-2,3,7,8-TCDD	7.65e+06		1.04	27:12	1.022	737.00				92.1	
RS/RT	13C-1,2,3,4-TCDD	1.99e+07	0.79 y	1.00	26:37	*	2000.0					
RS	13C-1,2,3,4-TCDF	2.86e+07	0.76 y	1.00	25:13	*	2000.0					
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.00e+07	0.51 y	1.00	34:29	*	2000.0					

Integrations
by
Analyst: ms
Date: 9/23/14
Reviewed
by
Analyst: [Signature]
Date: 9/23/14

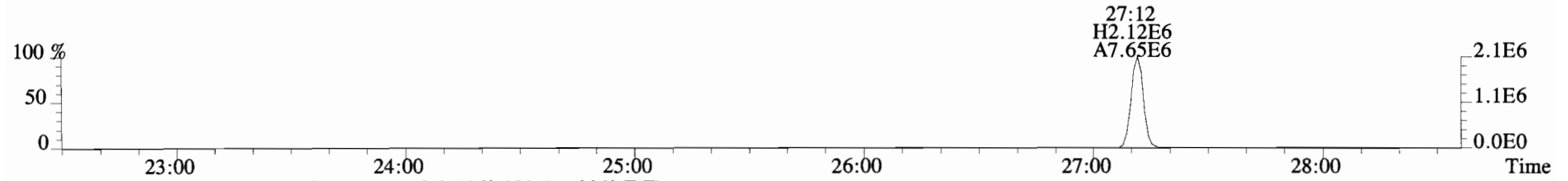
File:140922D1 #1-551 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



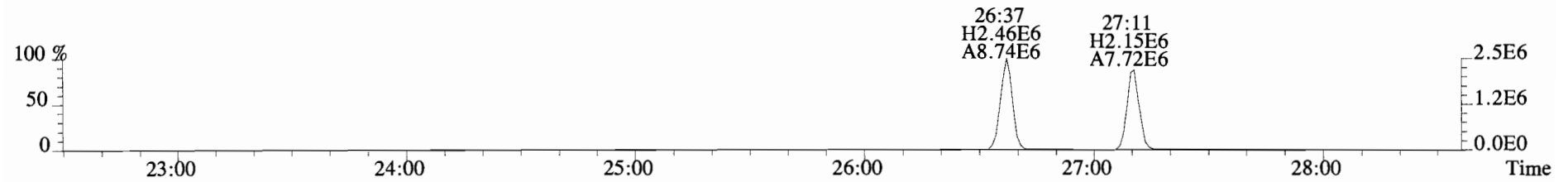
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



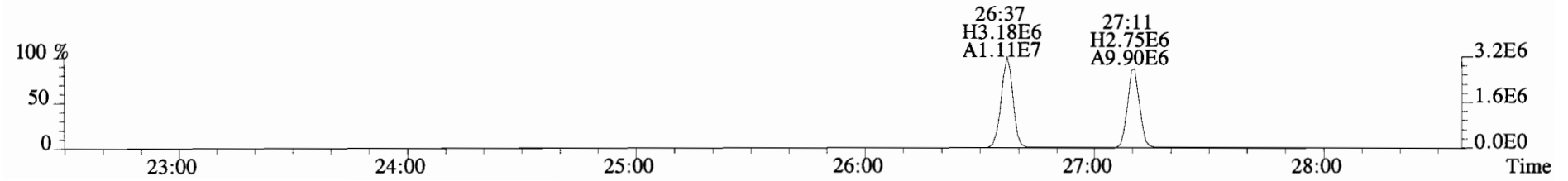
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



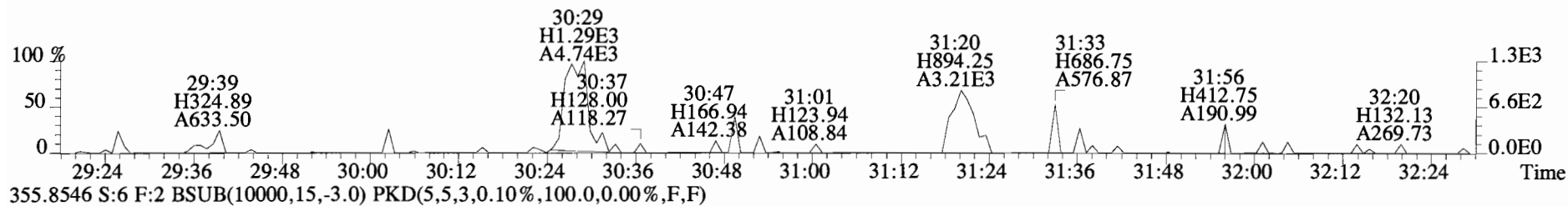
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



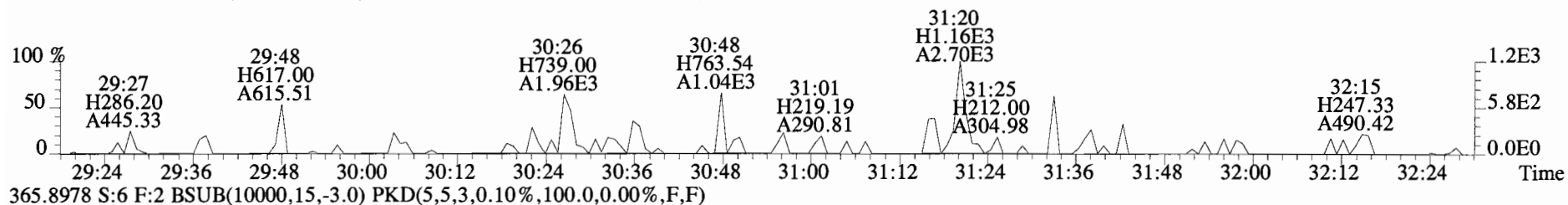
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



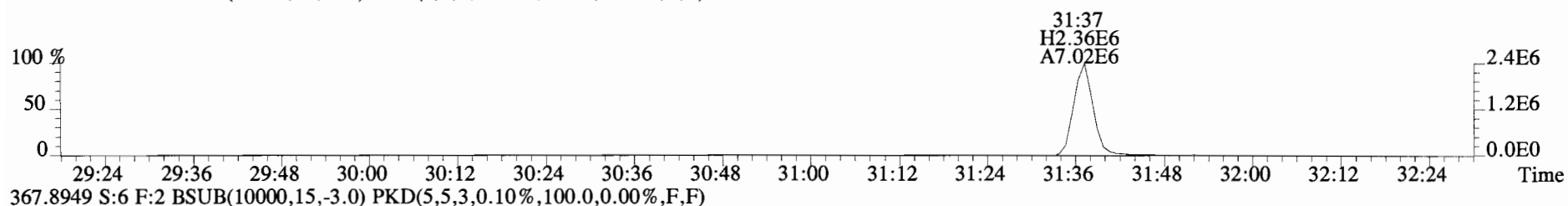
File:140922D1 #1-256 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
353.8576 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



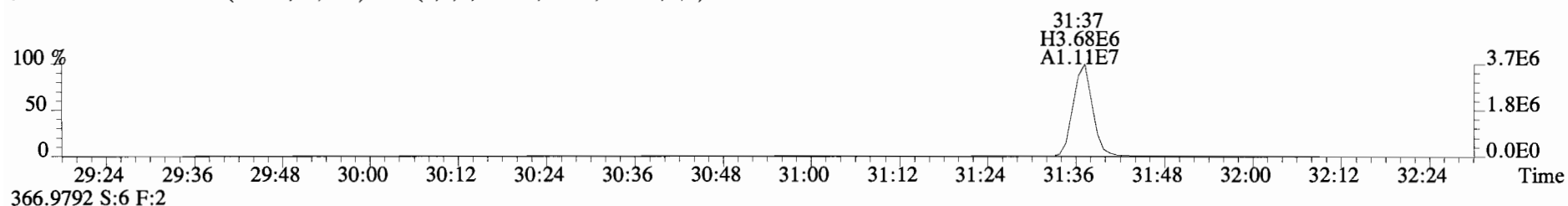
355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



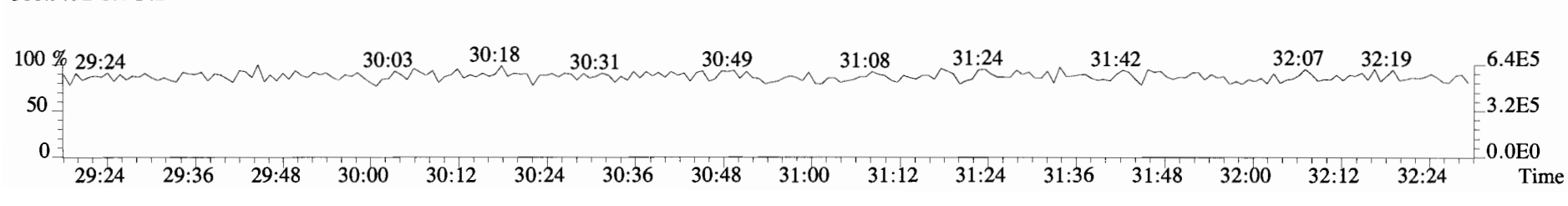
365.8978 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



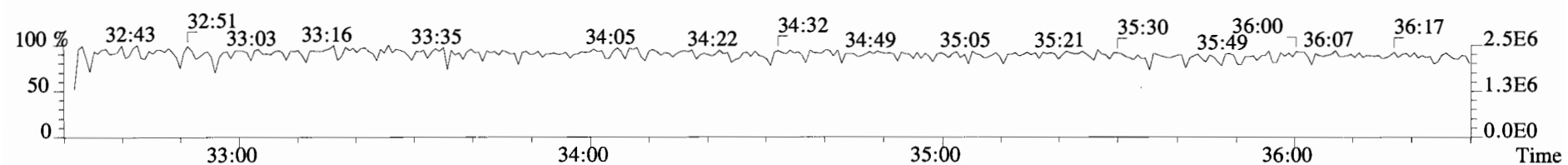
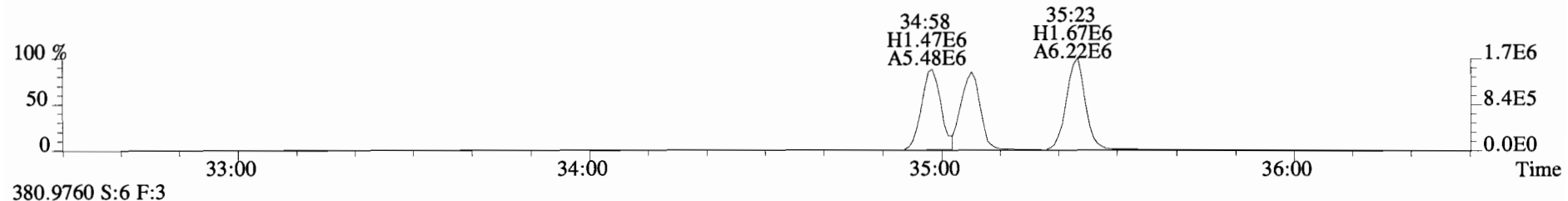
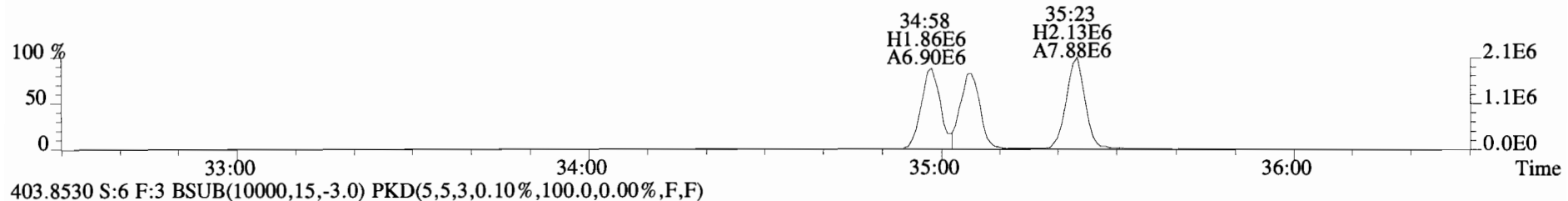
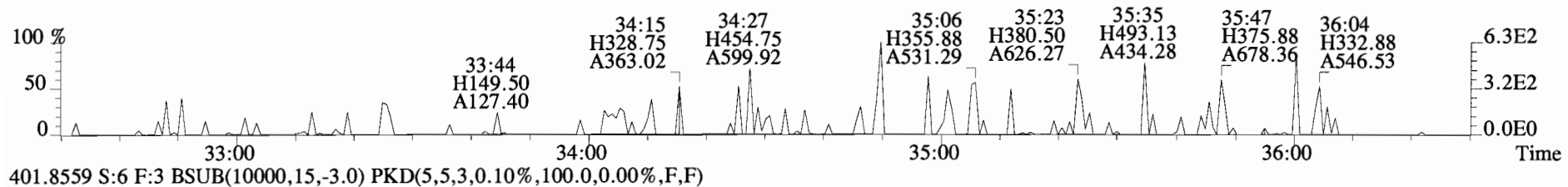
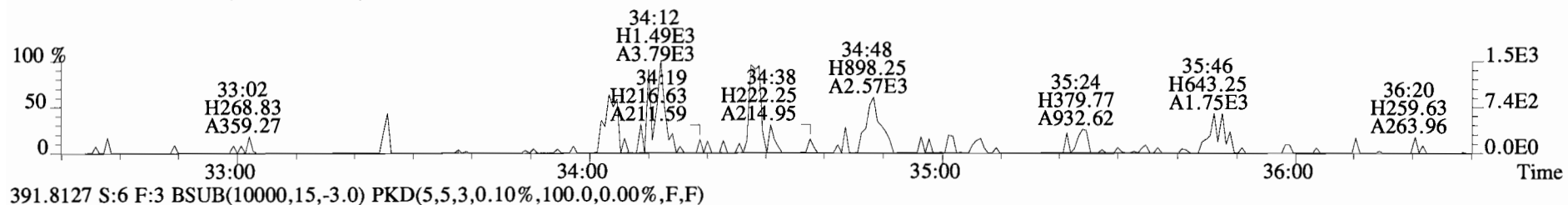
367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



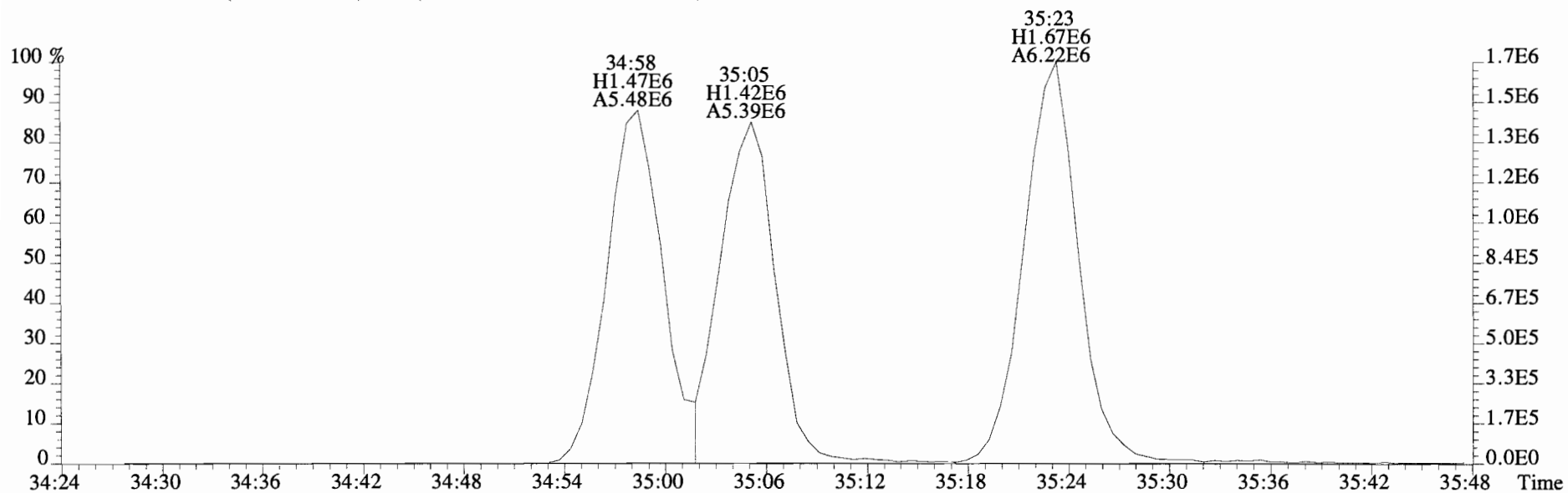
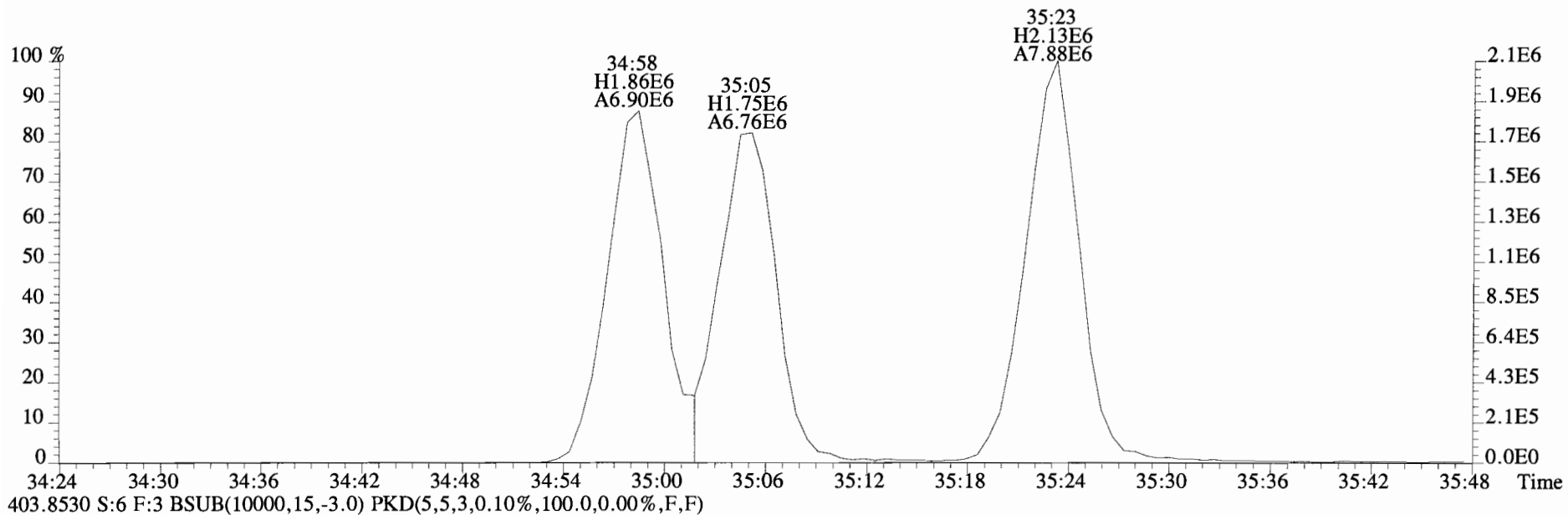
366.9792 S:6 F:2



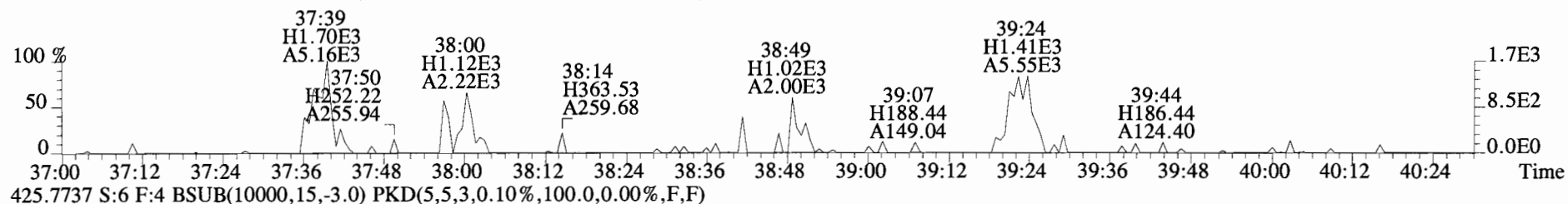
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B410066-BLK1 Method Blank 1 Exp:OCDD_DB5
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



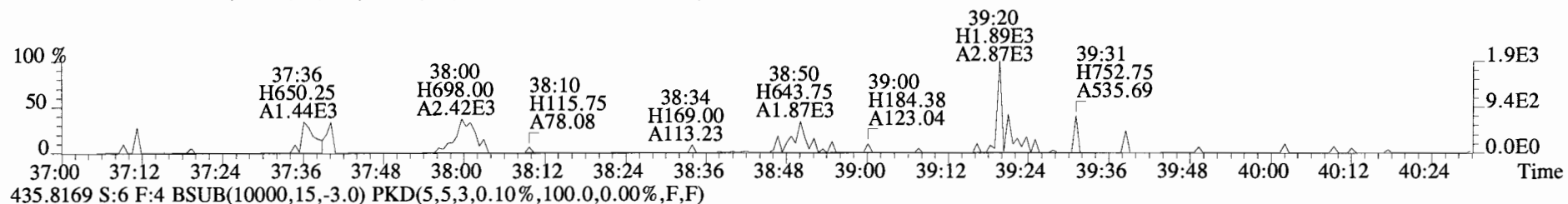
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text: Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



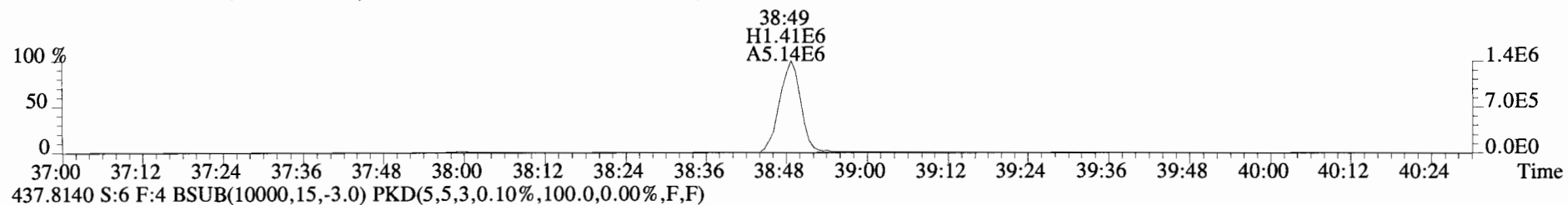
File:140922D1 #1-326 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



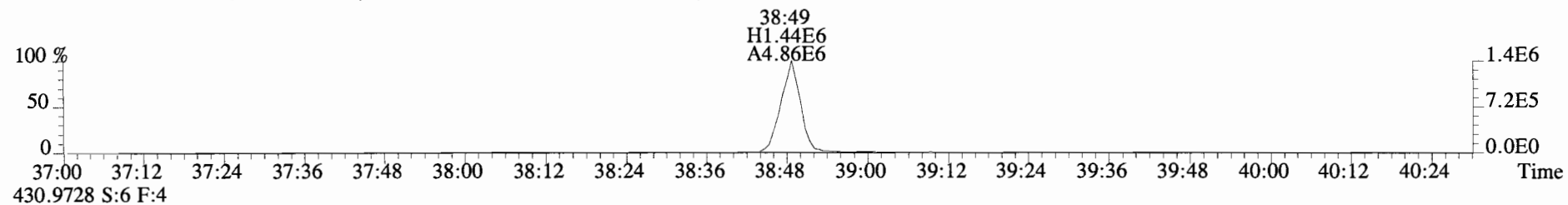
425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



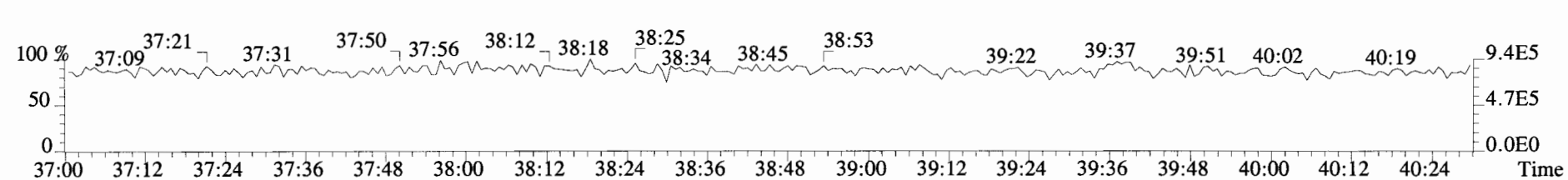
435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



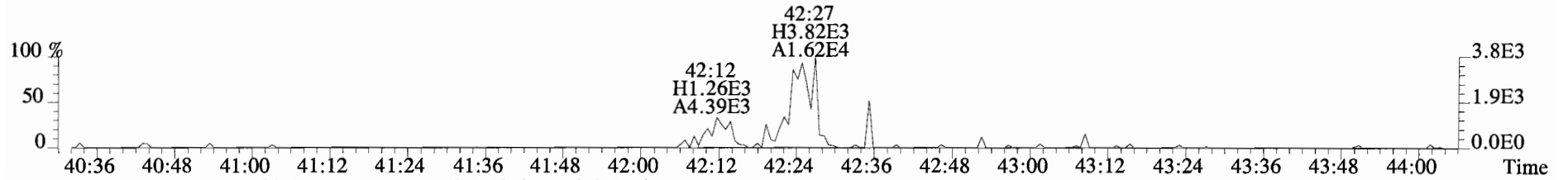
437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



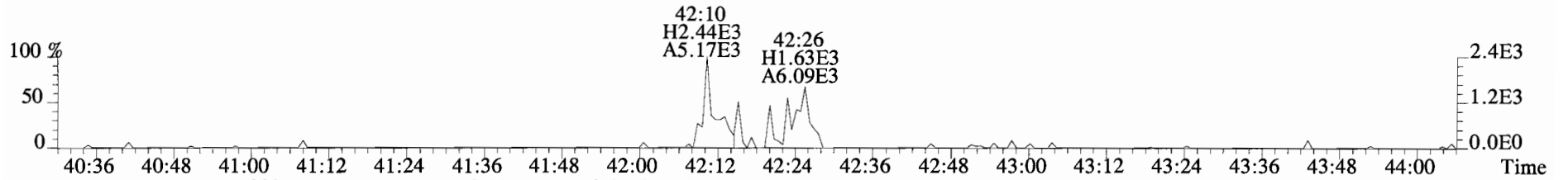
430.9728 S:6 F:4



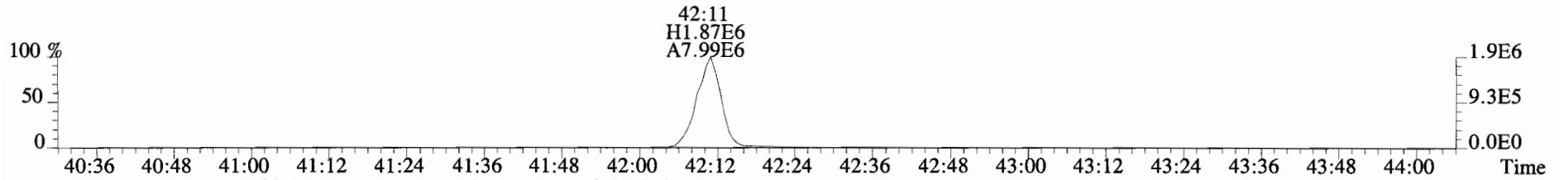
File:140922D1 #1-389 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B410066-BLK1 Method Blank 1 Exp:OCDD_DB5
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



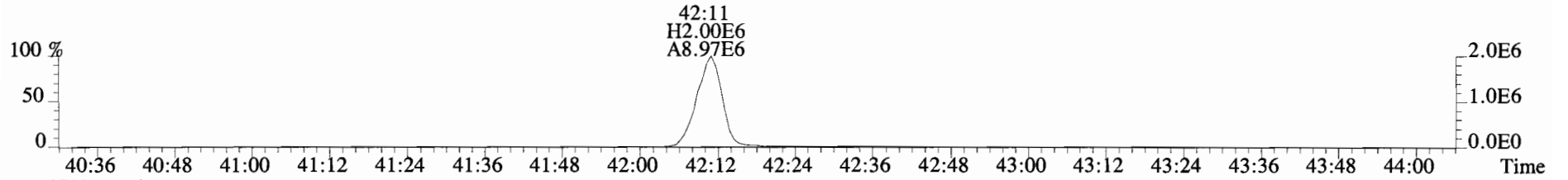
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



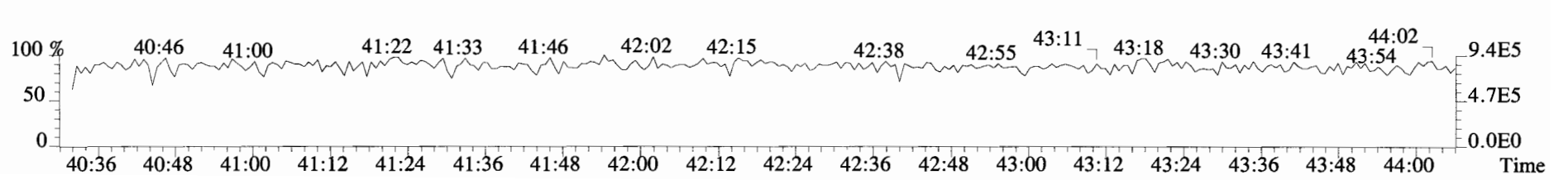
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



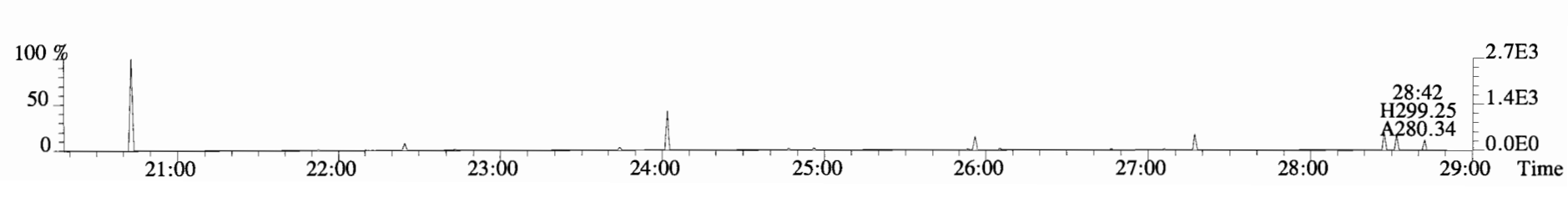
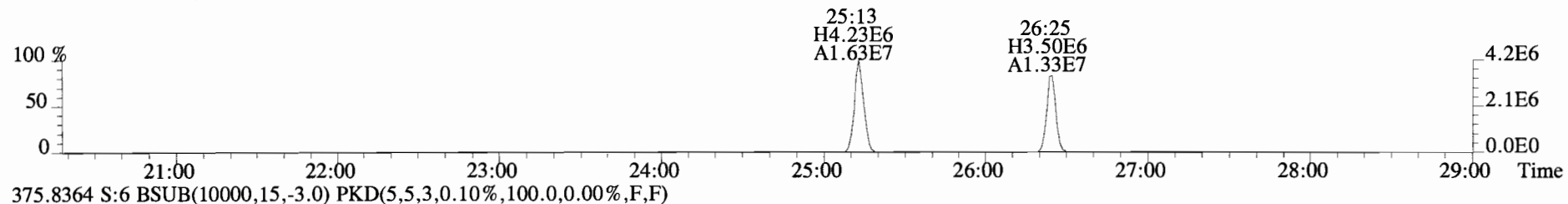
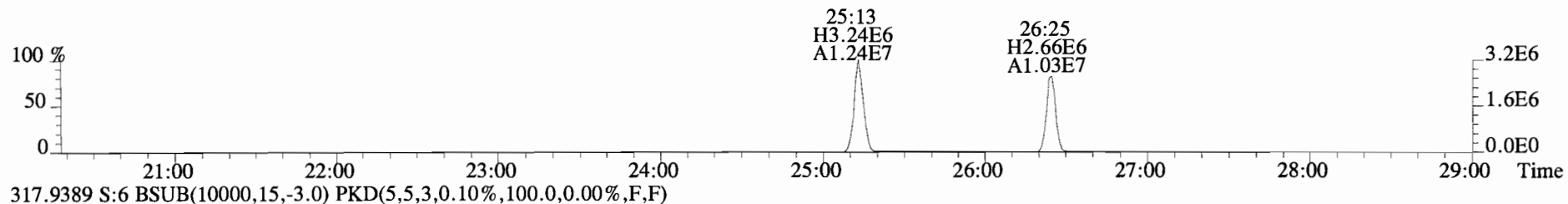
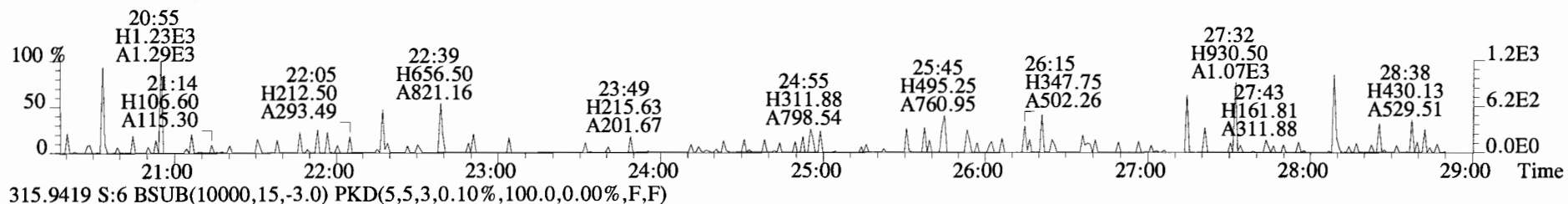
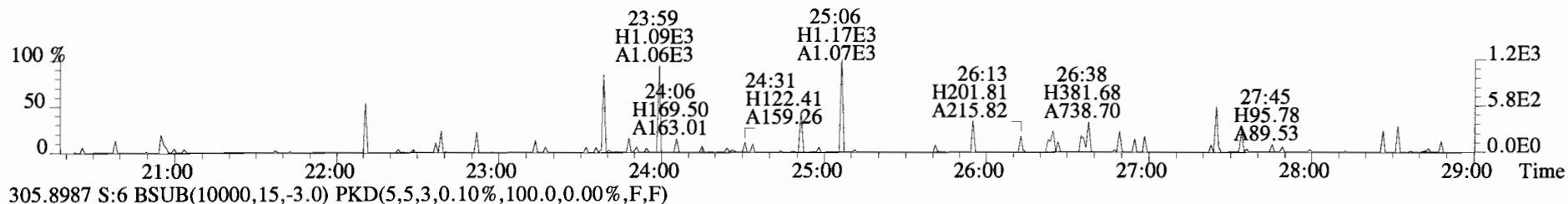
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



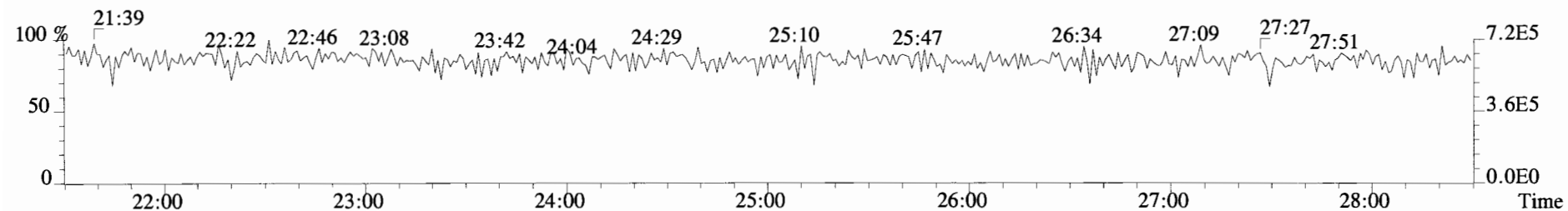
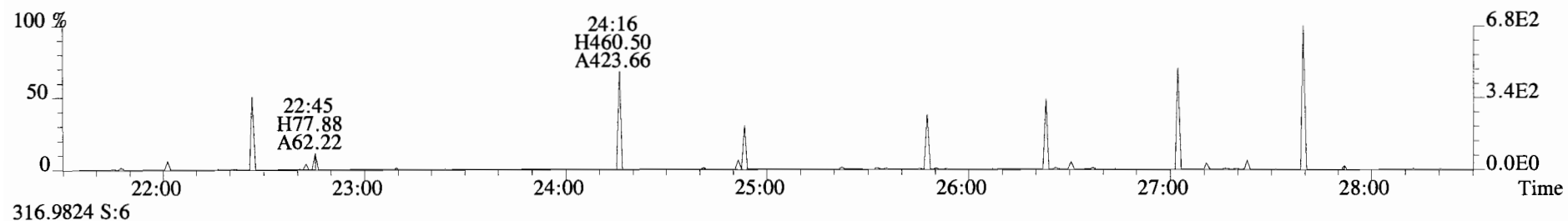
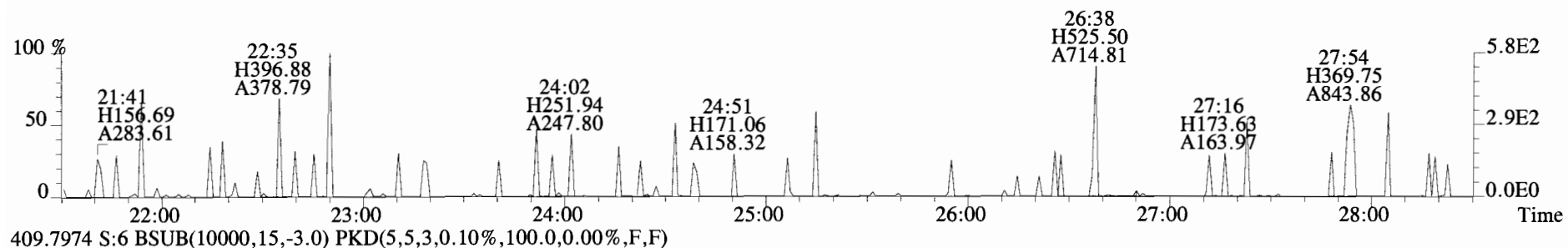
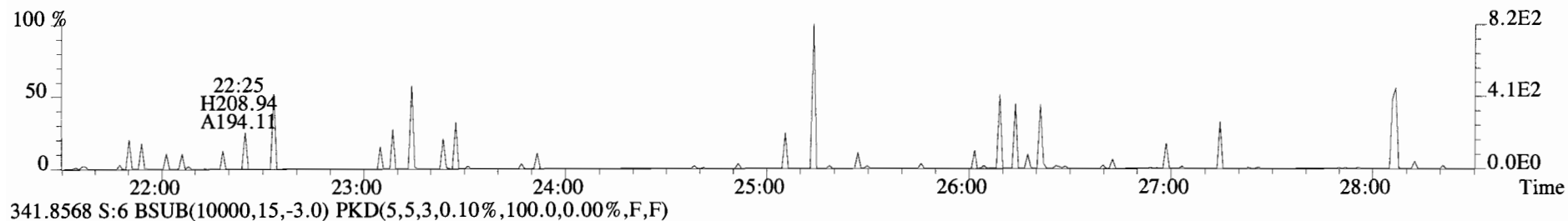
454.9728 S:6 F:5



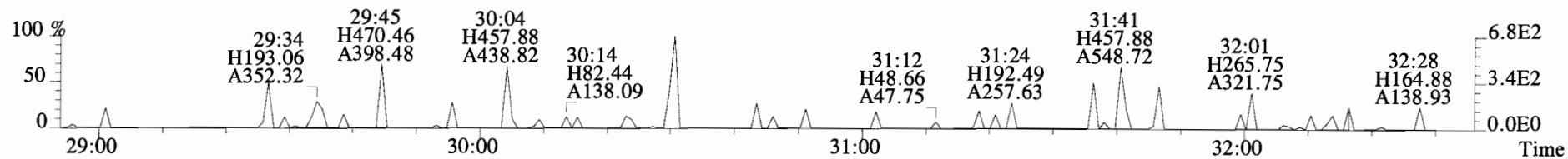
File:140922D1 #1-551 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



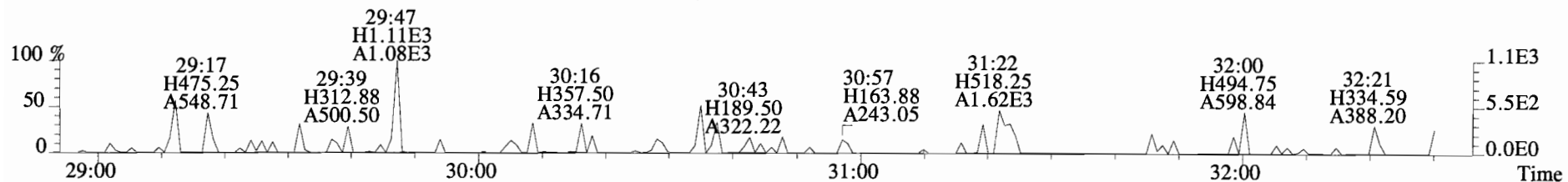
File:140922D1 #1-551 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text: Vista Analytical Laboratory VG-7 Text:B410066-BLK1 Method Blank 1 Exp:OCDD_DB5
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



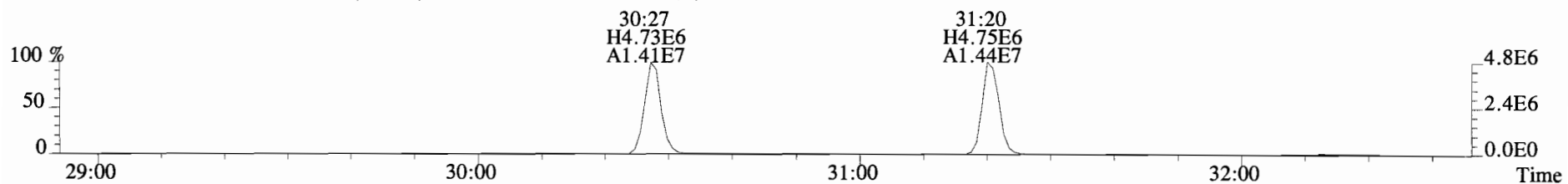
File:140922D1 #1-256 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



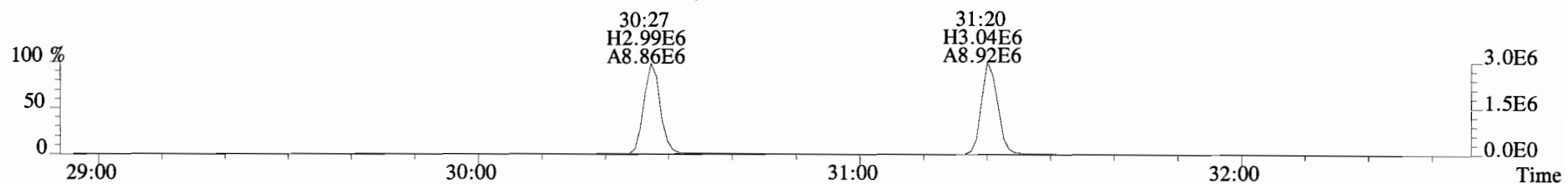
341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



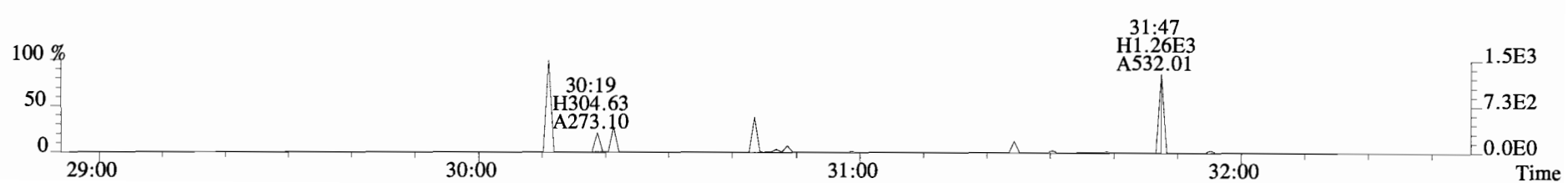
351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



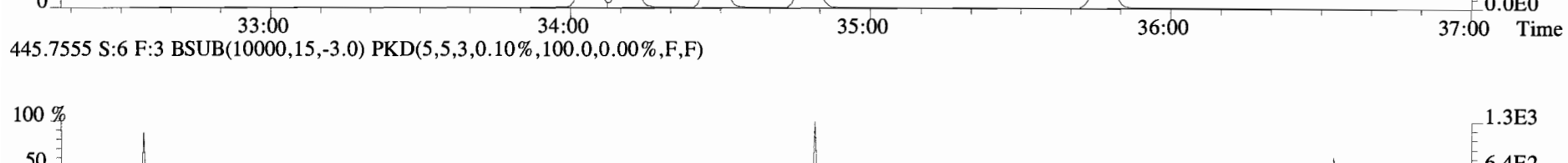
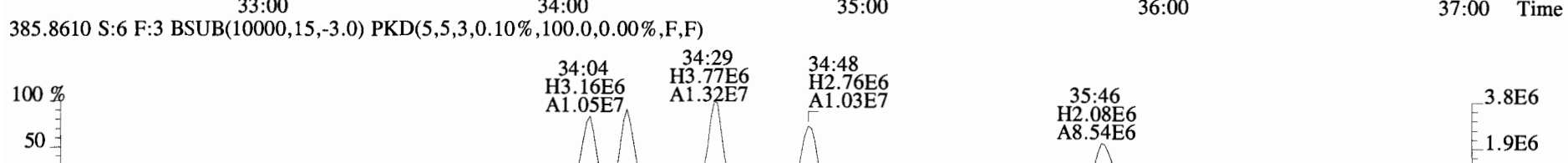
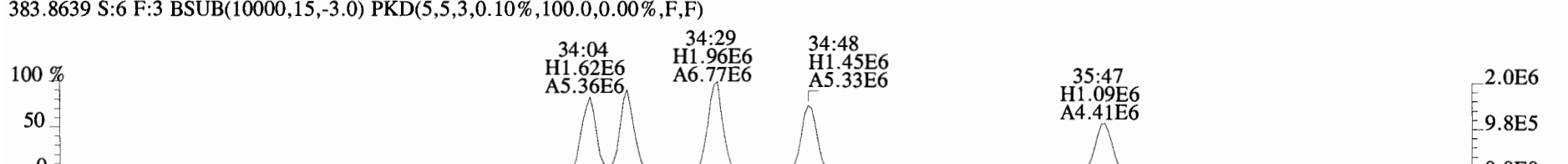
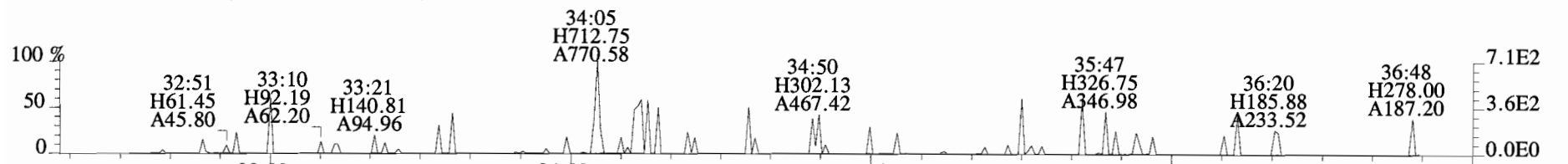
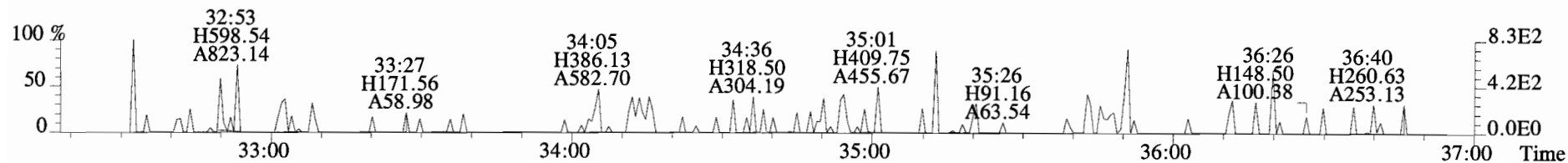
353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



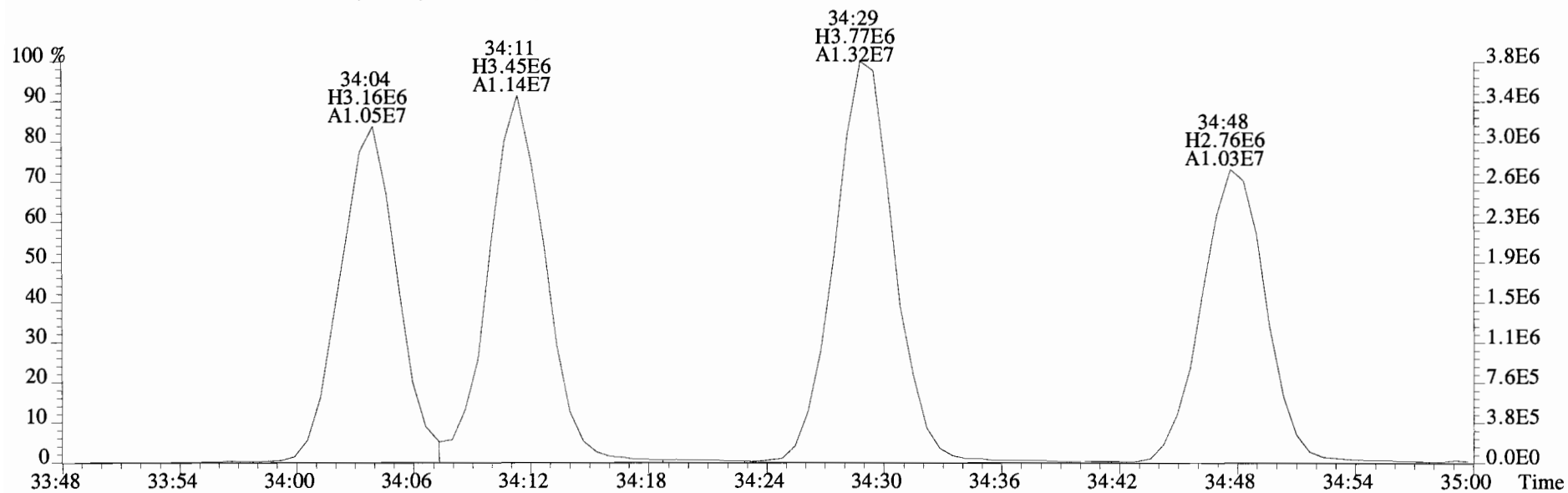
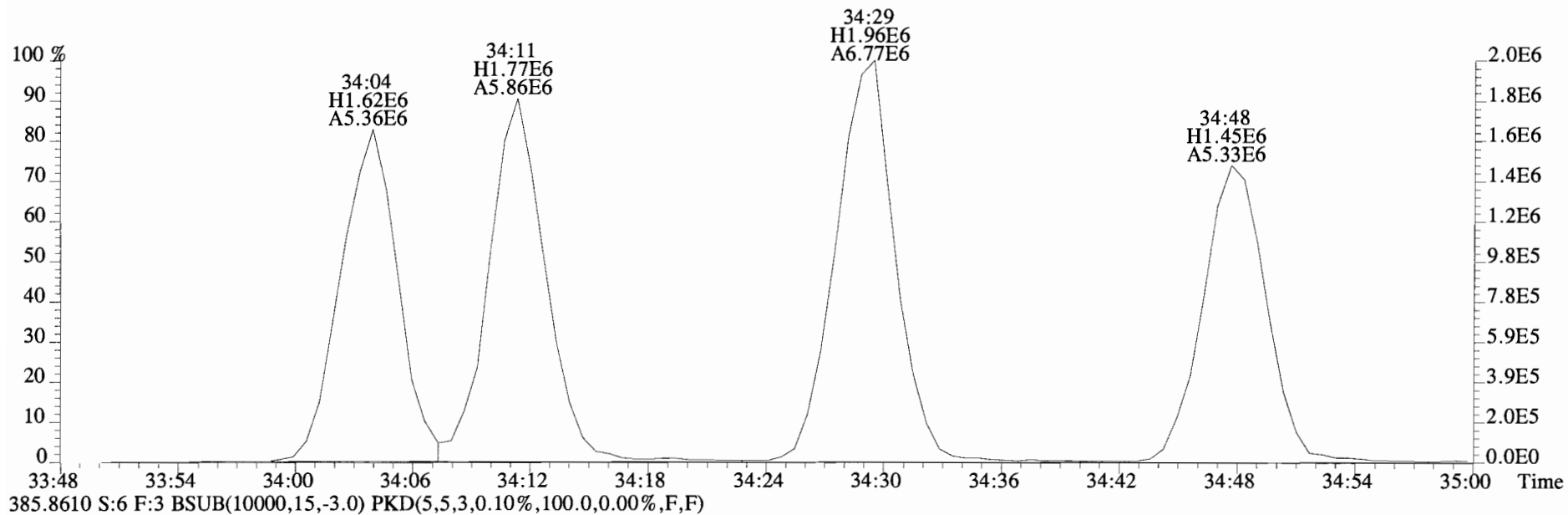
409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



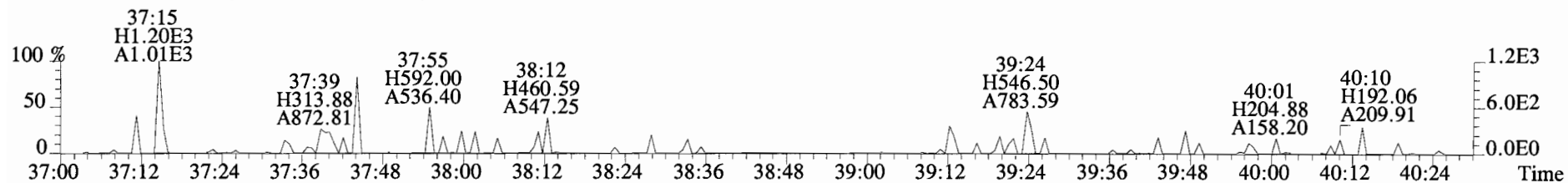
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B410066-BLK1 Method Blank 1 Exp:OCDD_DB5
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



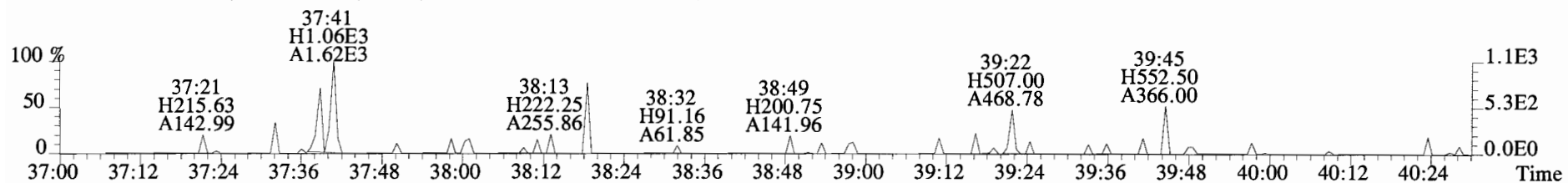
File:140922D1 #1-385 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



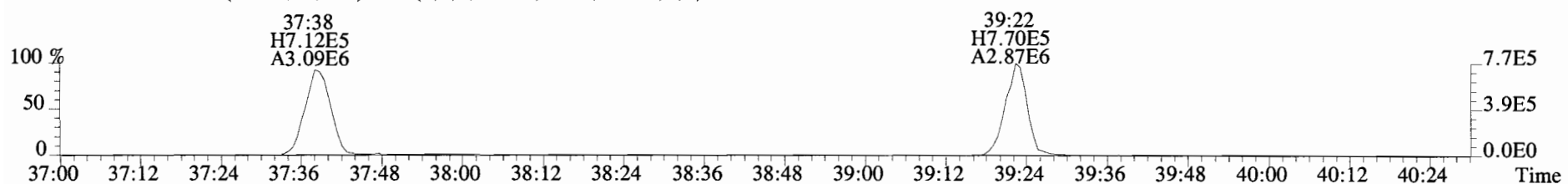
File:140922D1 #1-326 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



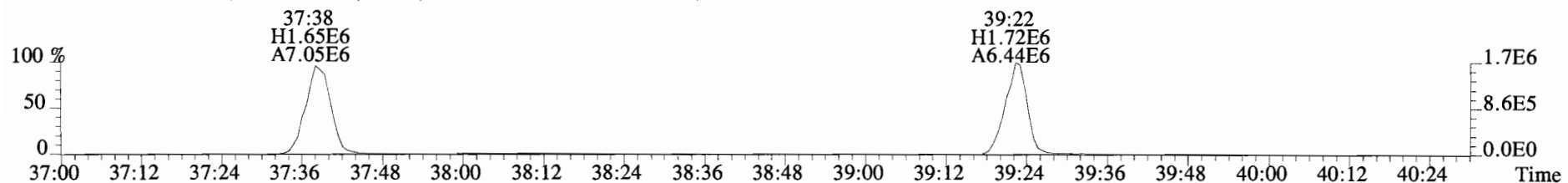
409.7788 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



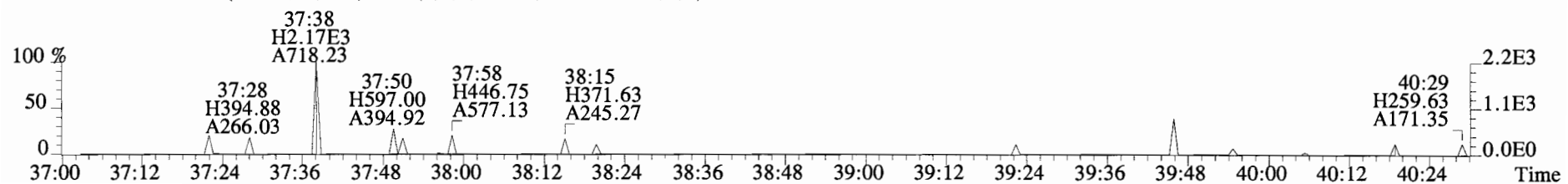
417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



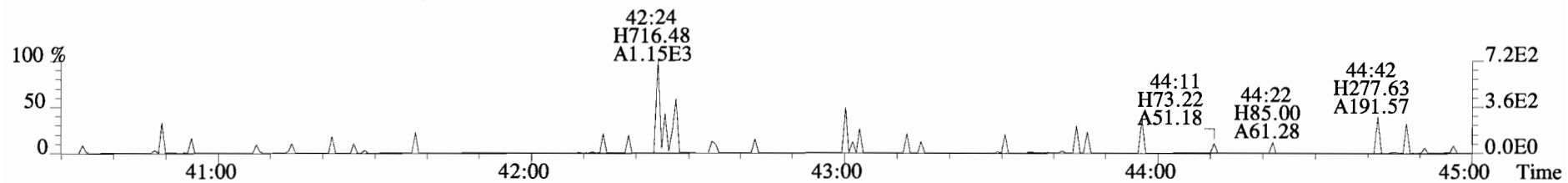
419.8220 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



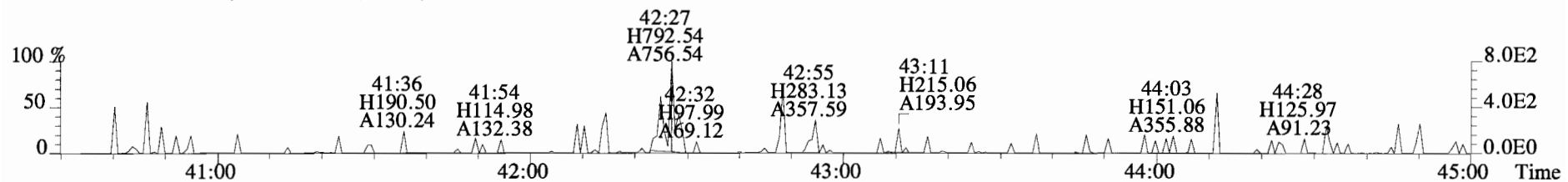
479.7165 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



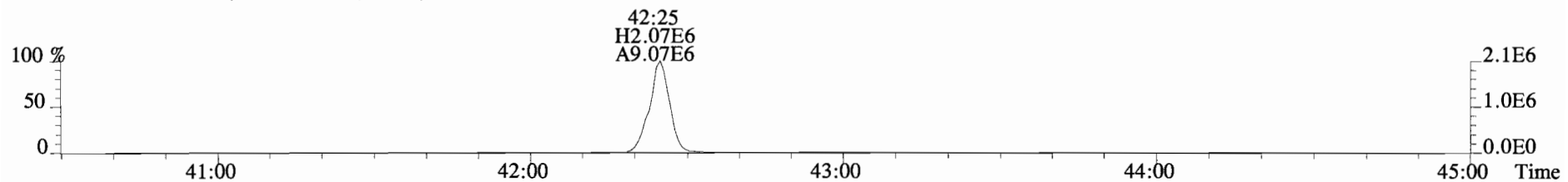
File:140922D1 #1-389 Acq:22-SEP-2014 17:34:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:B4I0066-BLK1 Method Blank 1 Exp:OCDD_DB5
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



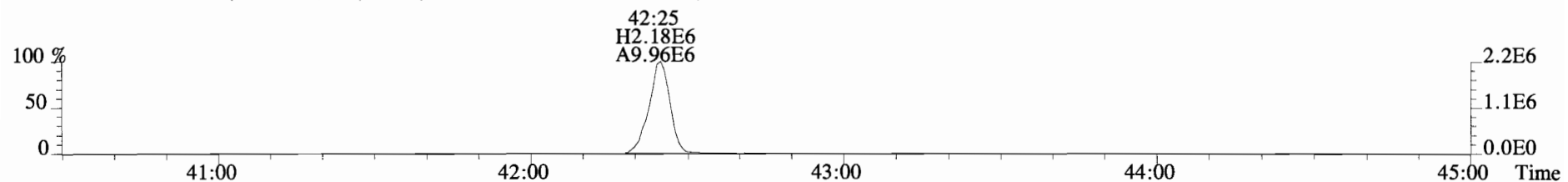
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



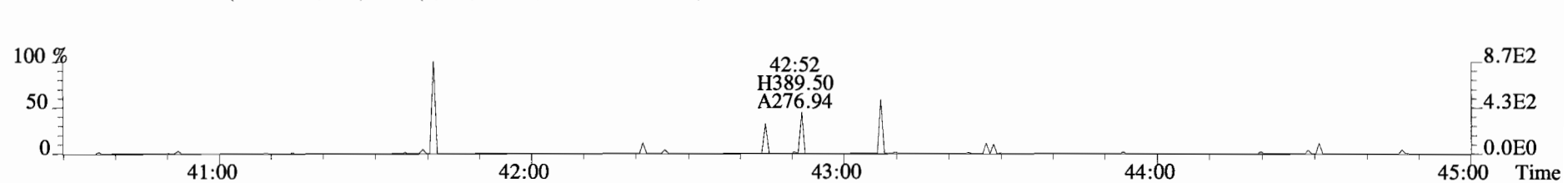
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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)
1,2,3,7,8-PeCDD	50	49.7	35.0 - 71.0
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

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94

Analyst: m

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)
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
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

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94

Analyst: VM

Date: 9/23/14

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	*	*						

IS	13C-2,3,7,8-TCDD	1.66e+07	0.81 y	1.06	27:11	1.021	80.103			
IS	13C-1,2,3,7,8-PeCDD	1.78e+07	0.63 y	1.08	31:38	1.188	84.354			
IS	13C-1,2,3,4,7,8-HxCDD	1.10e+07	1.24 y	0.74	34:58	1.014	76.534			
IS	13C-1,2,3,6,7,8-HxCDD	1.12e+07	1.25 y	0.75	35:05	1.017	76.681			
IS	13C-1,2,3,7,8,9-HxCDD	1.29e+07	1.28 y	0.89	35:23	1.026	74.628			
IS	13C-1,2,3,4,6,7,8-HpCDD	9.21e+06	1.03 y	0.70	38:49	1.125	67.376			
IS	13C-OCDD	1.57e+07	0.87 y	0.59	42:11	1.223	136.63			
IS	13C-2,3,7,8-TCDF	2.23e+07	0.75 y	0.97	26:25	0.992	84.426			
IS	13C-1,2,3,7,8-PeCDF	2.28e+07	1.60 y	0.99	30:28	1.144	84.355			
IS	13C-2,3,4,7,8-PeCDF	2.28e+07	1.58 y	1.01	31:21	1.177	83.000			
IS	13C-1,2,3,4,7,8-HxCDF	1.54e+07	0.50 y	0.94	34:04	0.988	84.215			
IS	13C-1,2,3,6,7,8-HxCDF	1.67e+07	0.53 y	1.23	34:12	0.991	69.707			
IS	13C-2,3,4,6,7,8-HxCDF	1.50e+07	0.53 y	1.03	34:48	1.009	74.429			
IS	13C-1,2,3,7,8,9-HxCDF	1.26e+07	0.52 y	0.89	35:47	1.037	73.118			
IS	13C-1,2,3,4,6,7,8-HpCDF	9.73e+06	0.44 y	0.71	37:39	1.091	70.842			
IS	13C-1,2,3,4,7,8,9-HpCDF	8.91e+06	0.44 y	0.64	39:23	1.142	71.289			
IS	13C-OCDF	1.77e+07	0.91 y	0.76	42:25	1.230	120.37			

Rec	Qual
80.1	
84.4	
76.5	
76.7	
74.6	
67.4	
68.3	
84.4	
84.4	
83.0	
84.2	
69.7	
74.4	
73.1	
70.8	
71.3	
60.2	

C/Up	37C1-2,3,7,8-TCDD	7.61e+06		1.04	27:12	1.021	37.409	93.5	Integrations	Reviewed
RS/RT	13C-1,2,3,4-TCDD	1.95e+07	0.78 y	1.00	26:37	*	100.00		by	by
RS	13C-1,2,3,4-TCDF	2.73e+07	0.75 y	1.00	25:14	*	100.00	Analyst: <u>M</u>		Analyst: <u>[Signature]</u>
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.94e+07	0.52 y	1.00	34:29	*	100.00	Date: <u>9/23/14</u>		Date: <u>9/23/14</u>

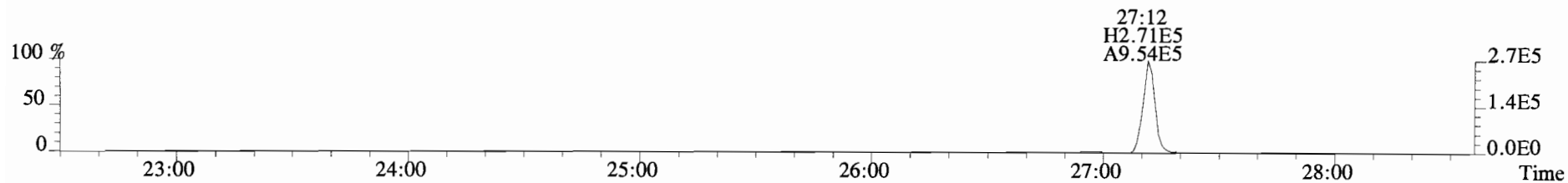
Name	Resp	RA	RRF	RT	RRT	Conc	Q	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	1.70e+06	0.74 y	1.03	27:12	1.001	198.21		*	2.5	*	Total Tetra-Dioxins	203	205	*	*	
1,2,3,7,8-PeCDD	7.45e+06	0.59 y	0.84	31:39	1.000	993.60		*	2.5	*	Total Penta-Dioxins	998	1000	*	*	
1,2,3,4,7,8-HxCDD	5.63e+06	1.25 y	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	*						

IS	13C-2,3,7,8-TCDD	1.66e+07	0.81 y	1.06	27:11	1.021	1602.1			
IS	13C-1,2,3,7,8-PeCDD	1.78e+07	0.63 y	1.08	31:38	1.188	1687.1			
IS	13C-1,2,3,4,7,8-HxCDD	1.10e+07	1.24 y	0.74	34:58	1.014	1530.7			
IS	13C-1,2,3,6,7,8-HxCDD	1.12e+07	1.25 y	0.75	35:05	1.017	1533.6			
IS	13C-1,2,3,7,8,9-HxCDD	1.29e+07	1.28 y	0.89	35:23	1.026	1492.6			
IS	13C-1,2,3,4,6,7,8-HpCDD	9.21e+06	1.03 y	0.70	38:49	1.125	1347.5			
IS	13C-OCDD	1.57e+07	0.87 y	0.59	42:11	1.223	2732.6			
IS	13C-2,3,7,8-TCDF	2.23e+07	0.75 y	0.97	26:25	0.992	1688.5			
IS	13C-1,2,3,7,8-PeCDF	2.28e+07	1.60 y	0.99	30:28	1.144	1687.1			
IS	13C-2,3,4,7,8-PeCDF	2.28e+07	1.58 y	1.01	31:21	1.177	1660.0			
IS	13C-1,2,3,4,7,8-HxCDF	1.54e+07	0.50 y	0.94	34:04	0.988	1684.3			
IS	13C-1,2,3,6,7,8-HxCDF	1.67e+07	0.53 y	1.23	34:12	0.991	1394.1			
IS	13C-2,3,4,6,7,8-HxCDF	1.50e+07	0.53 y	1.03	34:48	1.009	1488.6			
IS	13C-1,2,3,7,8,9-HxCDF	1.26e+07	0.52 y	0.89	35:47	1.037	1462.4			
IS	13C-1,2,3,4,6,7,8-HpCDF	9.73e+06	0.44 y	0.71	37:39	1.091	1416.8			
IS	13C-1,2,3,4,7,8,9-HpCDF	8.91e+06	0.44 y	0.64	39:23	1.142	1425.8			
IS	13C-OCDF	1.77e+07	0.91 y	0.76	42:25	1.230	2407.3			

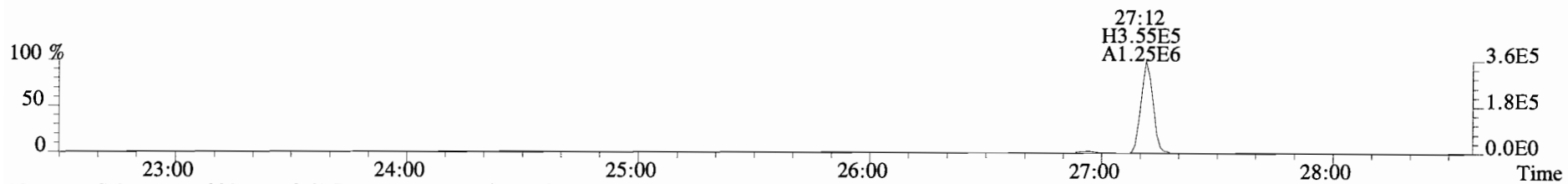
Rec	Qual
80.1	
84.4	
76.5	
76.7	
74.6	
67.4	
68.3	
84.4	
84.4	
83.0	
84.2	
69.7	
74.4	
73.1	
70.8	
71.3	
60.2	

C/Up	37Cl-2,3,7,8-TCDD	7.61e+06		1.04	27:12	1.021	748.18			93.5	Integrations	Reviewed
											by	by
RS/RT	13C-1,2,3,4-TCDD	1.95e+07	0.78 y	1.00	26:37	*	2000.0				Analyst: <u>(M)</u>	Analyst: <u>G/Z</u>
RS	13C-1,2,3,4-TCDF	2.73e+07	0.75 y	1.00	25:14	*	2000.0					
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.94e+07	0.52 y	1.00	34:29	*	2000.0					
											Date: <u>9/23/14</u>	Date: <u>9/23/14</u>

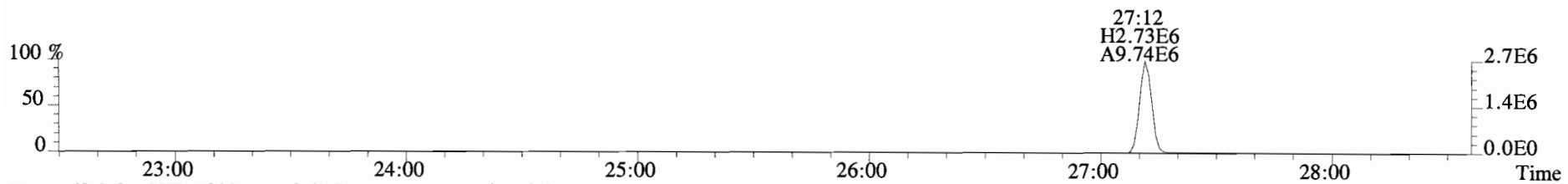
File:140922D1 #1-551 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



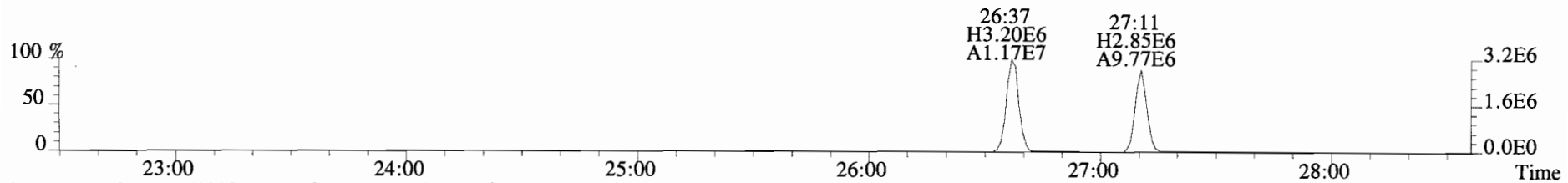
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



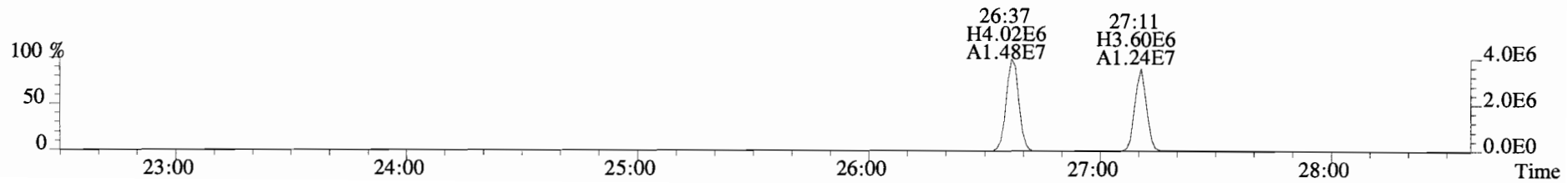
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



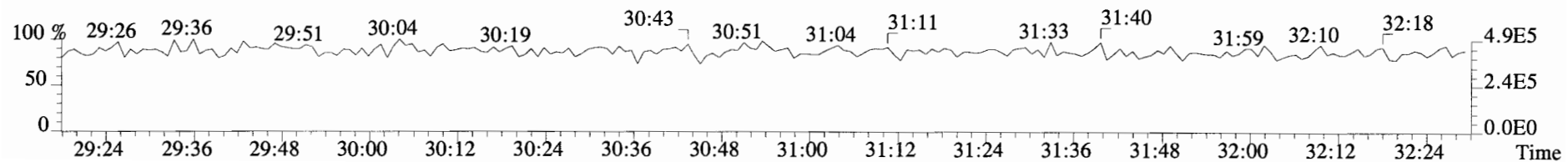
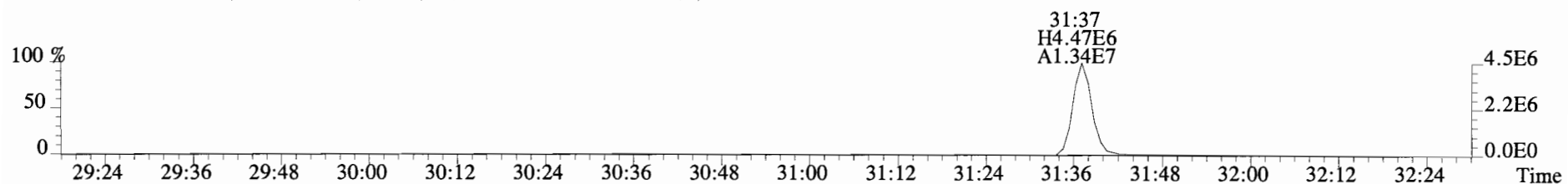
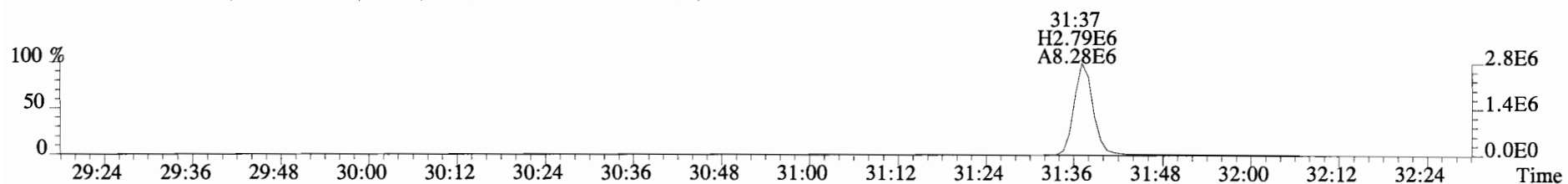
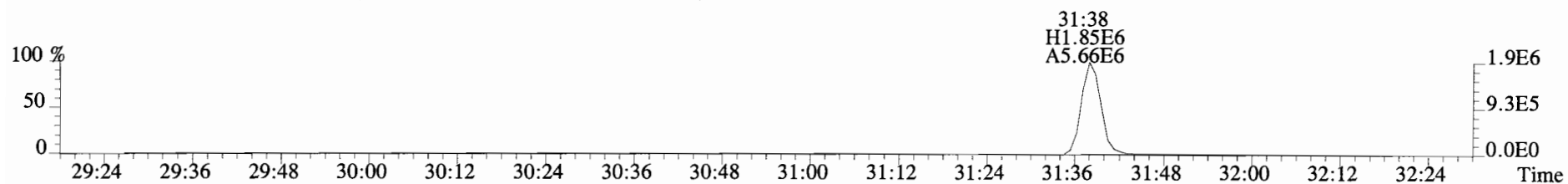
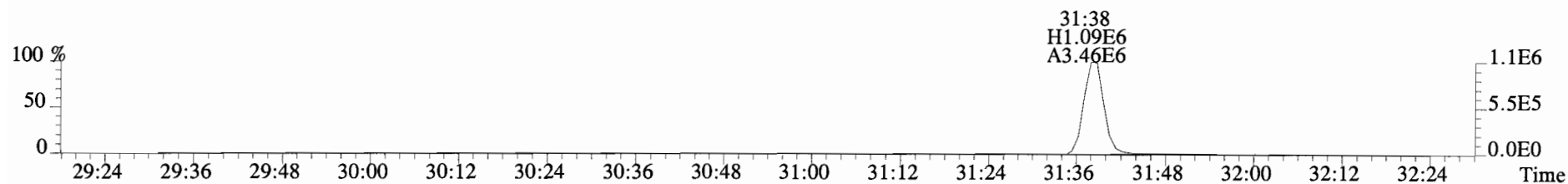
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



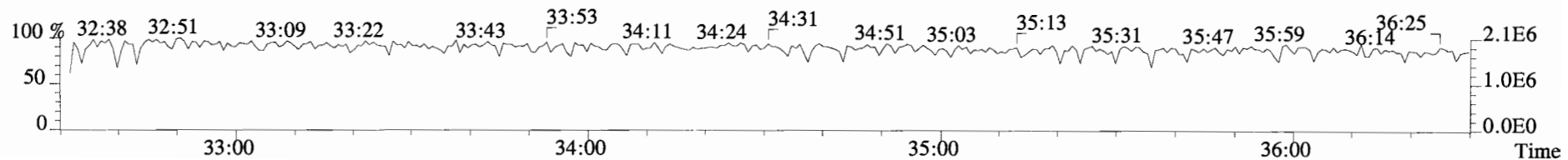
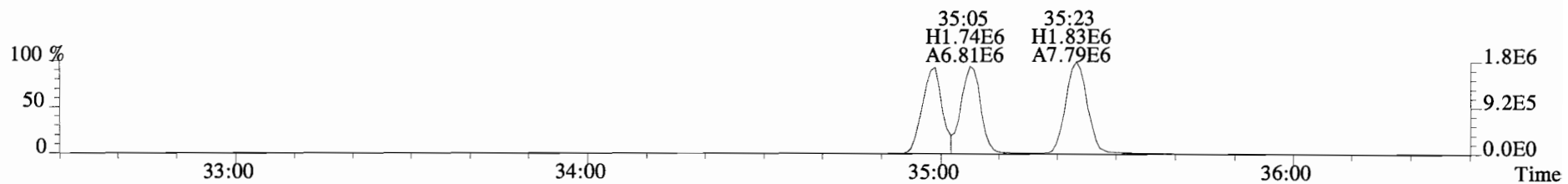
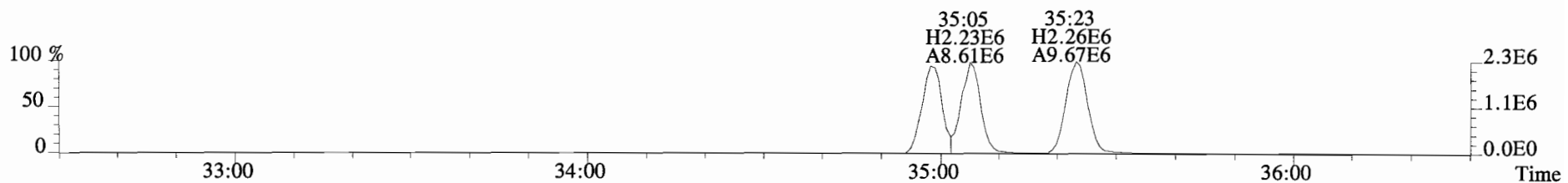
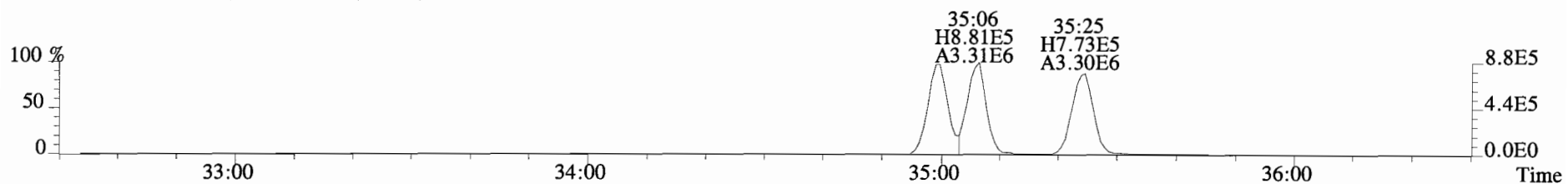
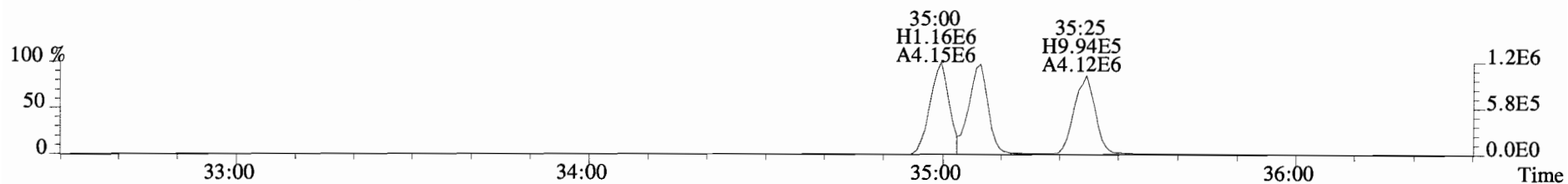
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



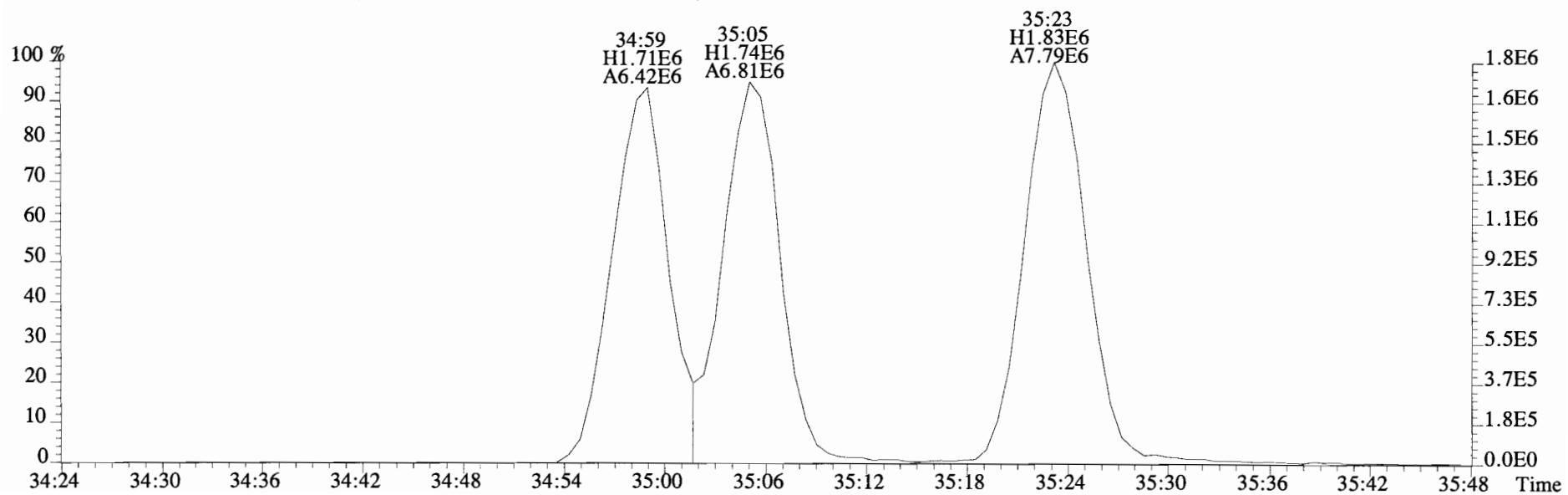
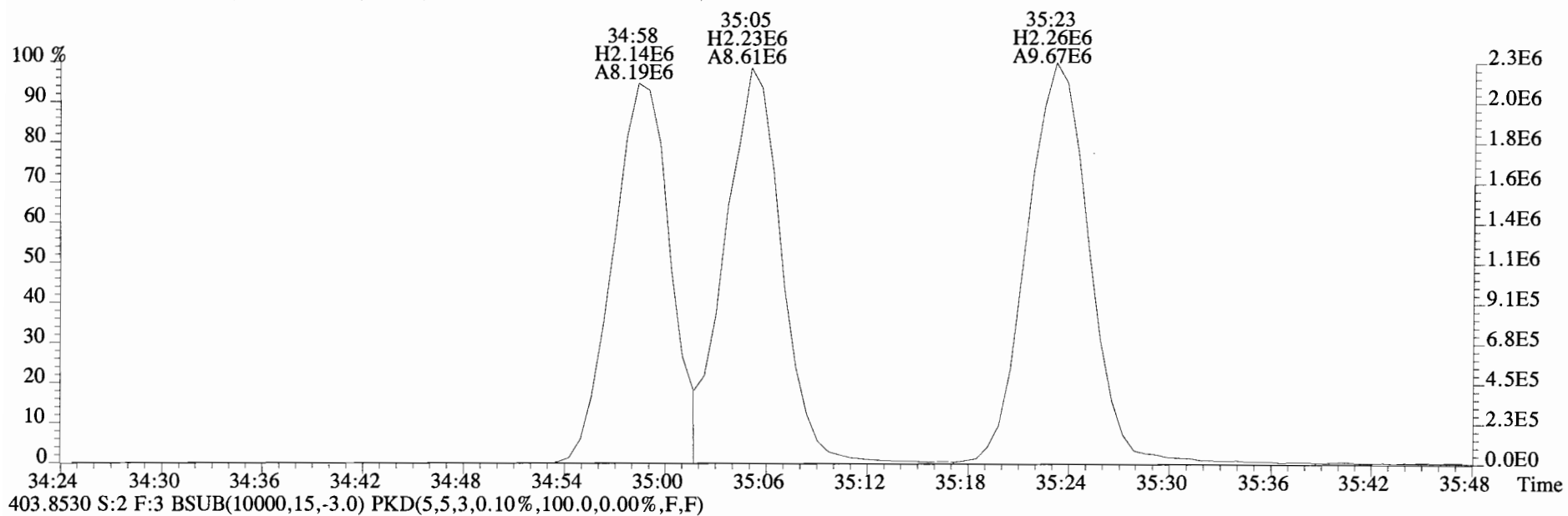
File:140922D1 #1-256 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



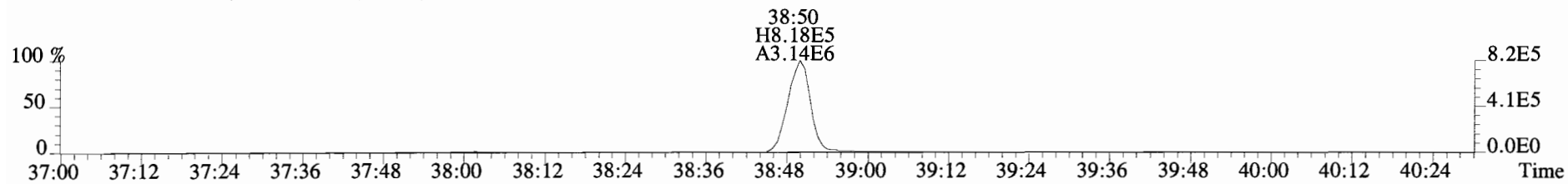
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



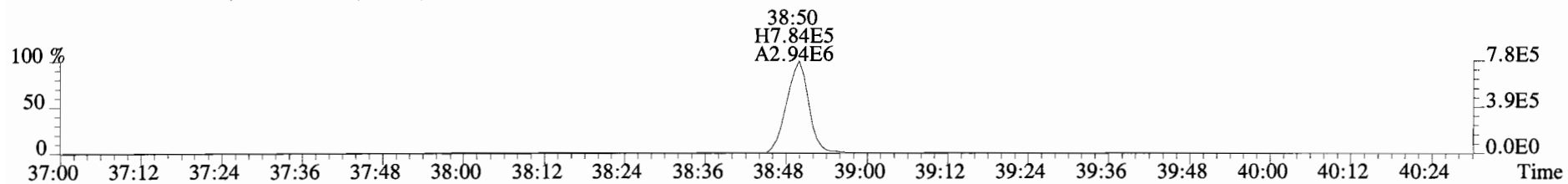
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



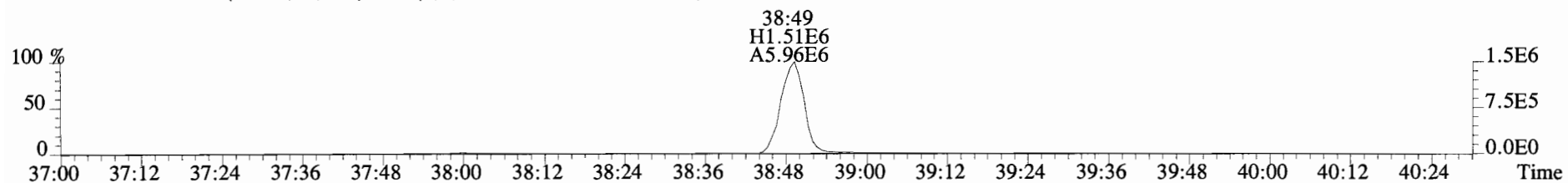
File:140922D1 #1-325 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



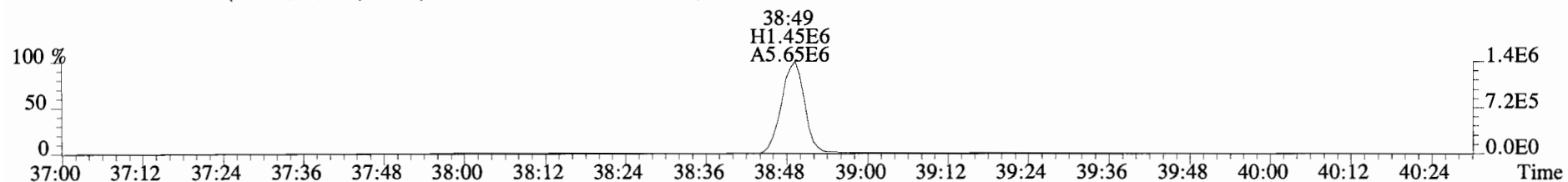
425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



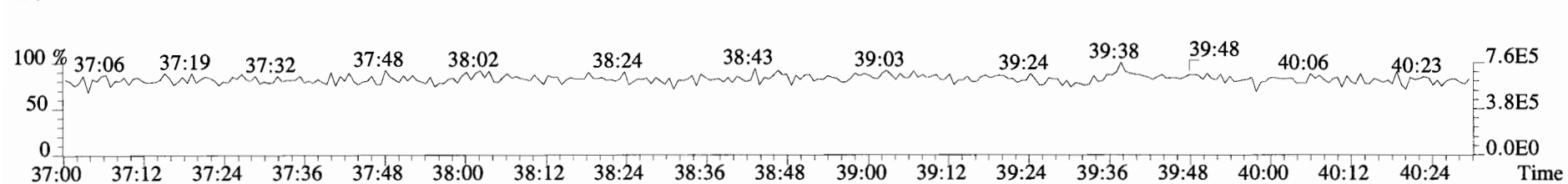
435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



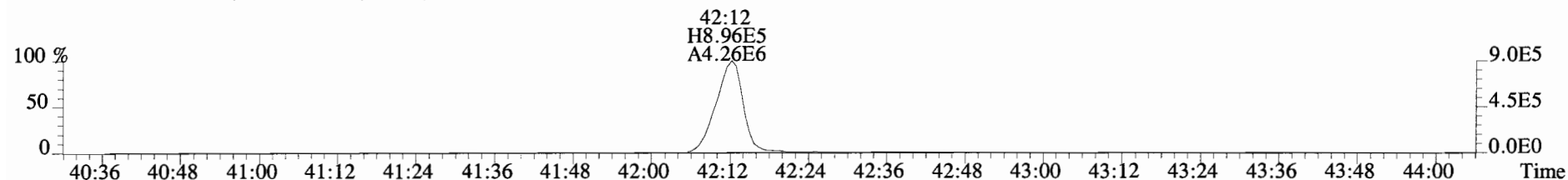
437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



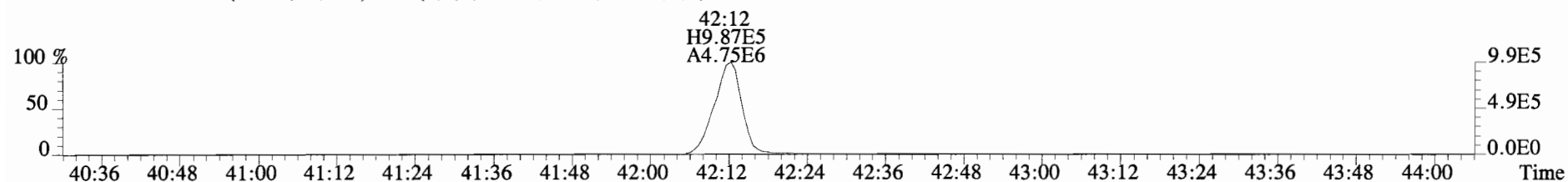
430.9728 S:2 F:4



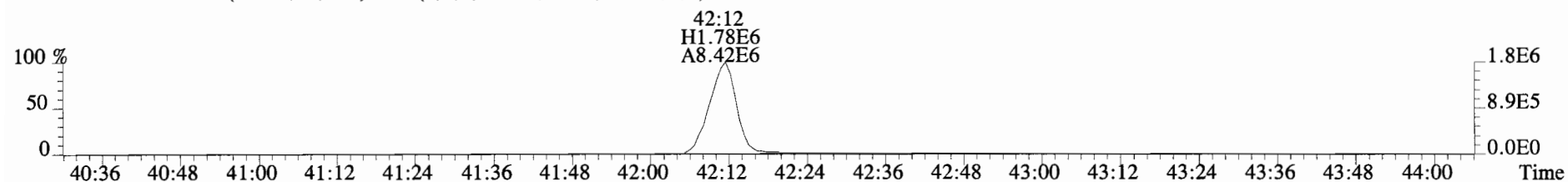
File:140922D1 #1-389 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-7 Text: B4I0065-BS1 OPR 1 Exp: OCDD_DB5
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



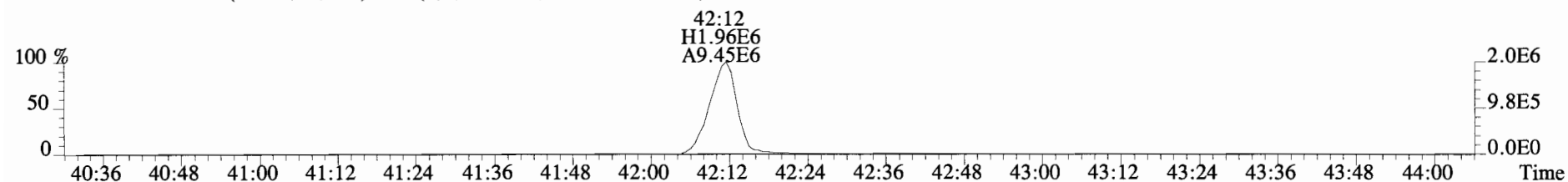
459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



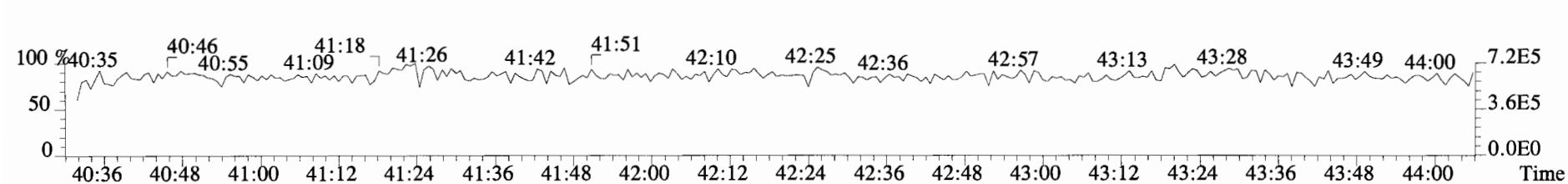
469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



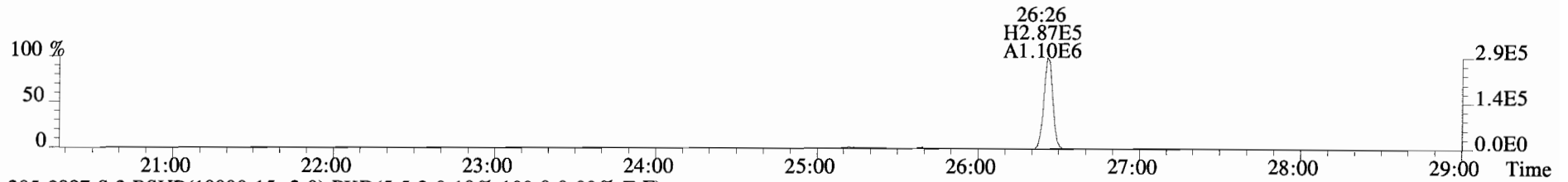
471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



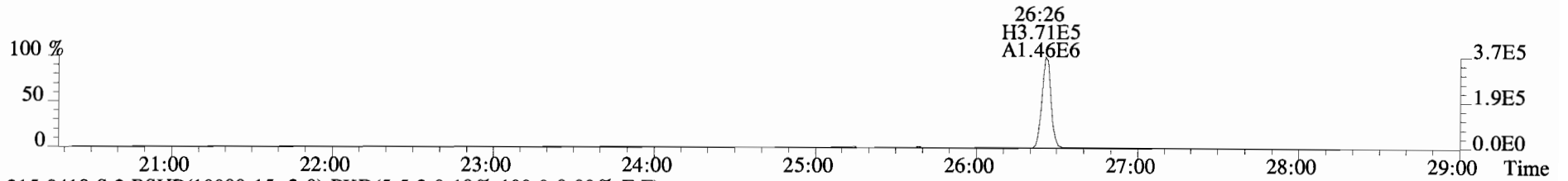
454.9728 S:2 F:5



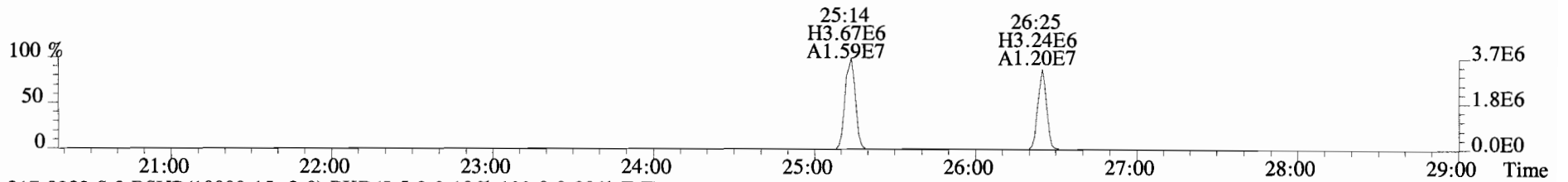
File:140922D1 #1-551 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



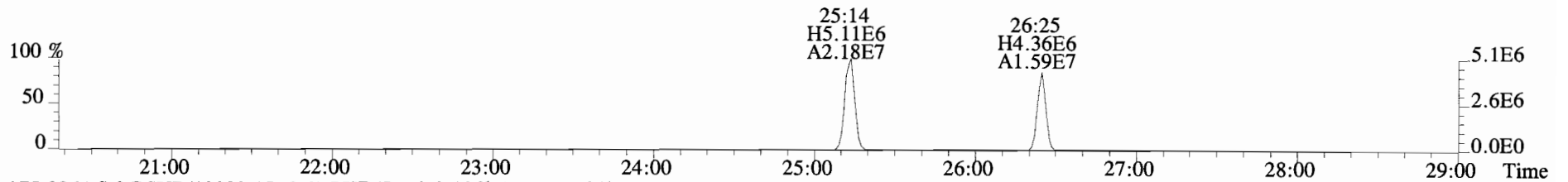
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



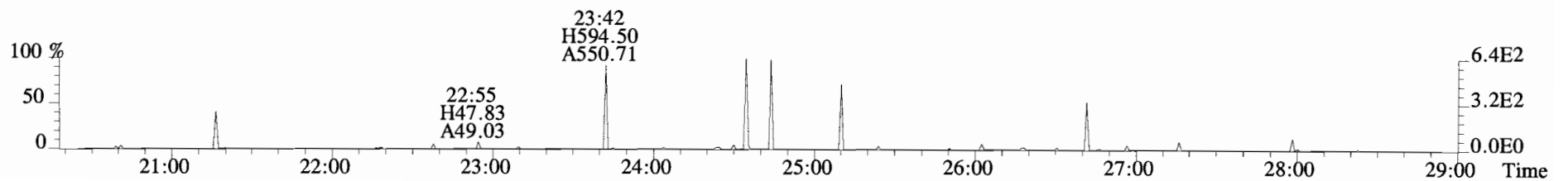
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



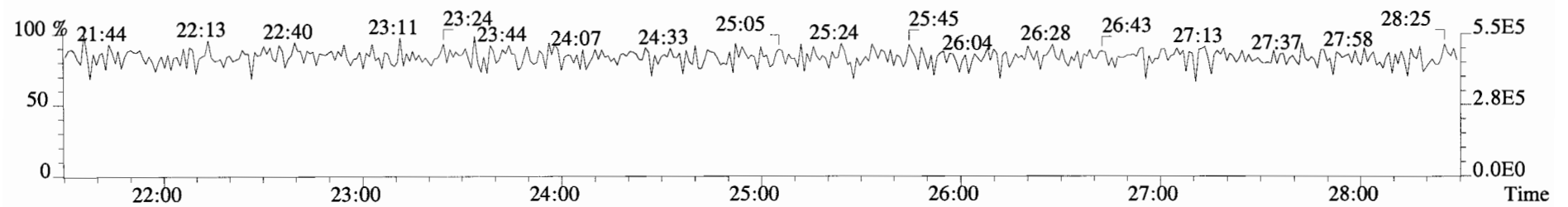
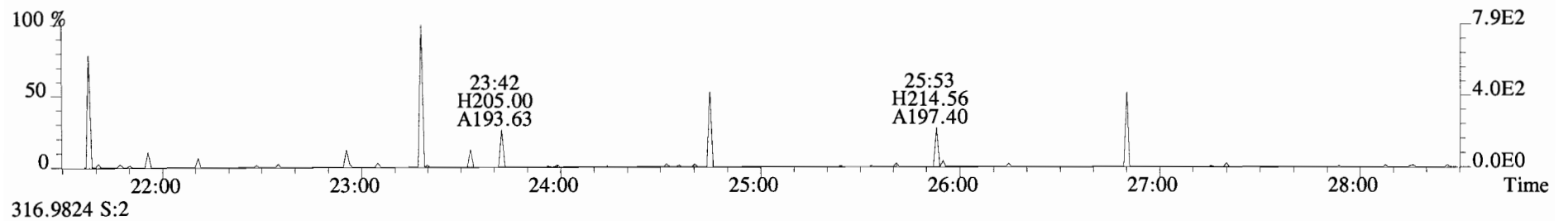
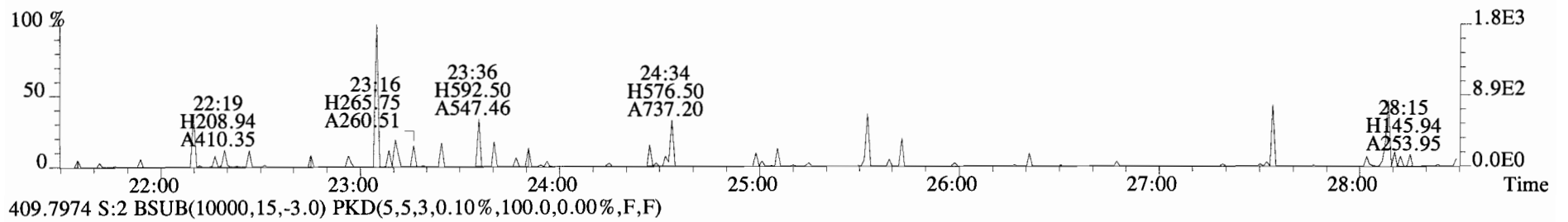
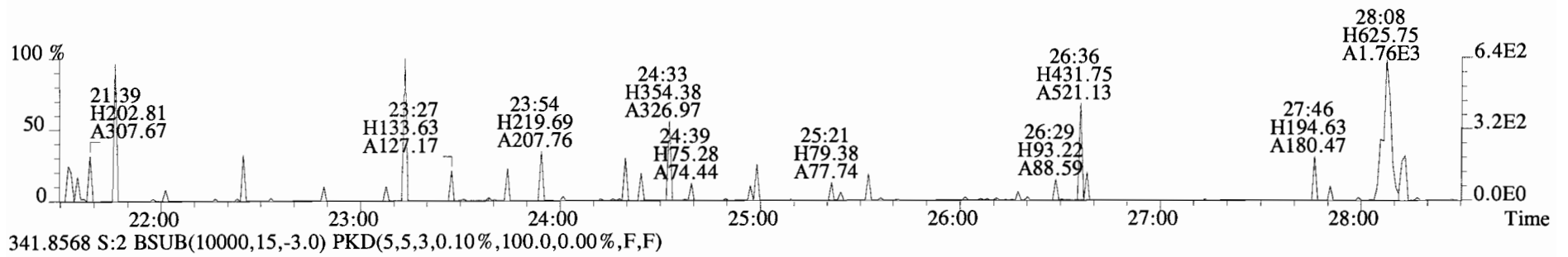
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



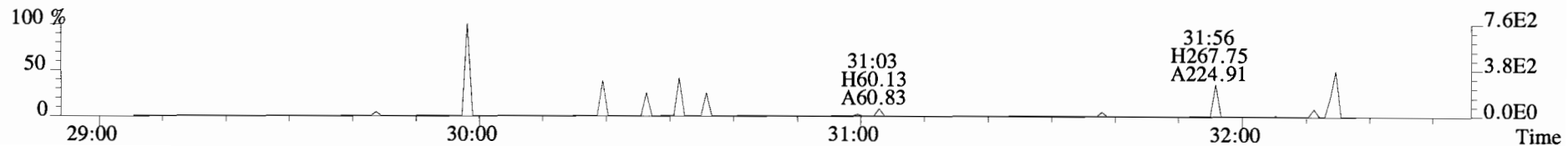
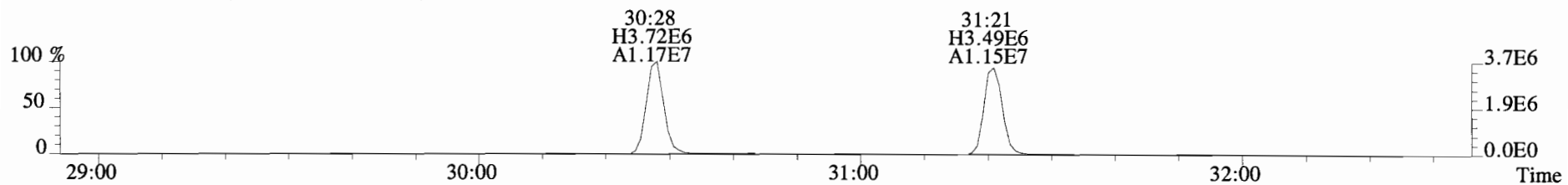
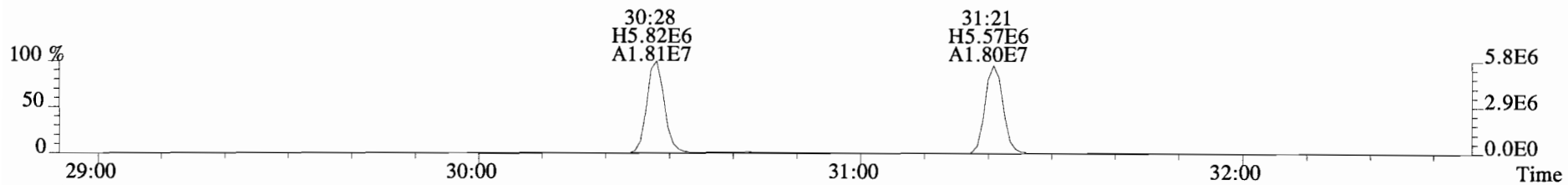
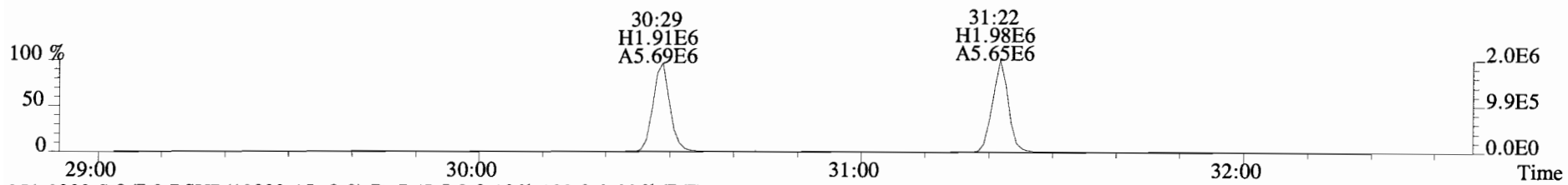
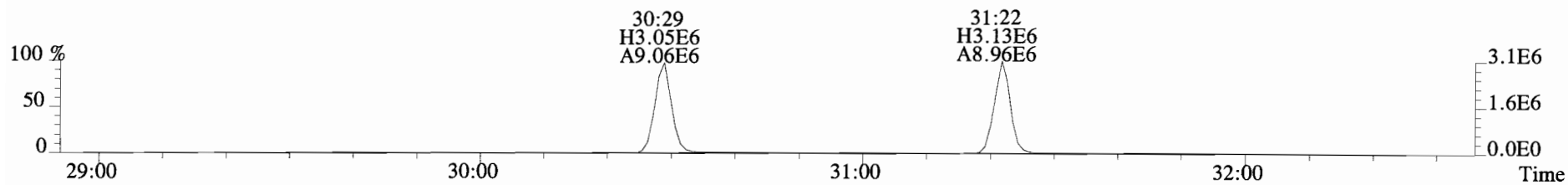
375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



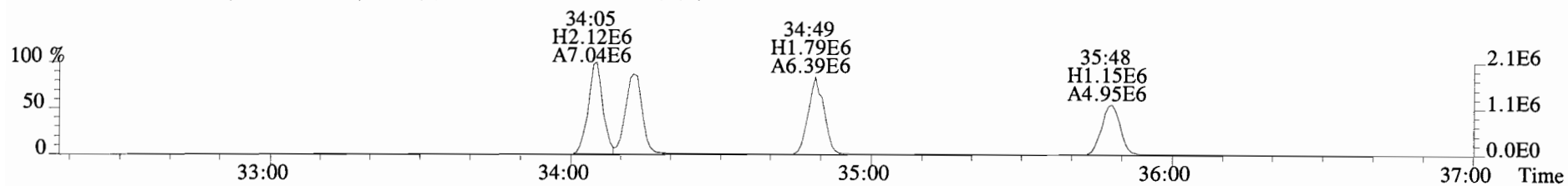
File:140922D1 #1-551 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



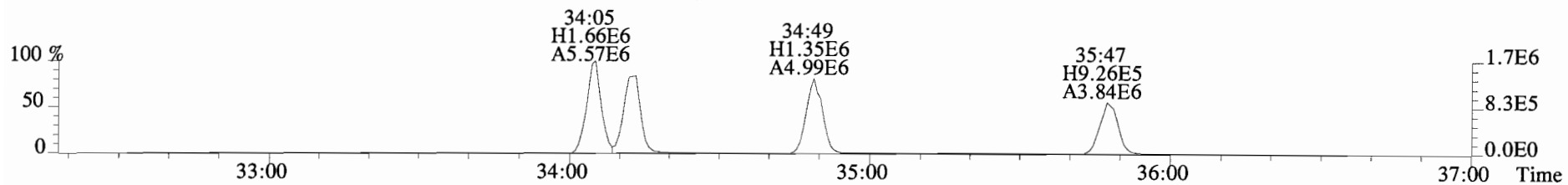
File:140922D1 #1-256 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



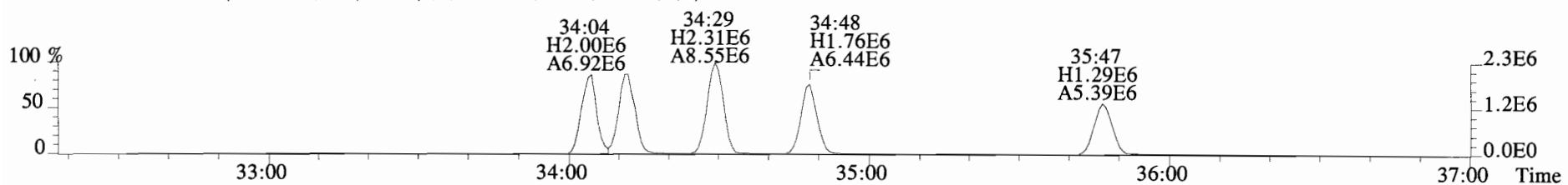
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



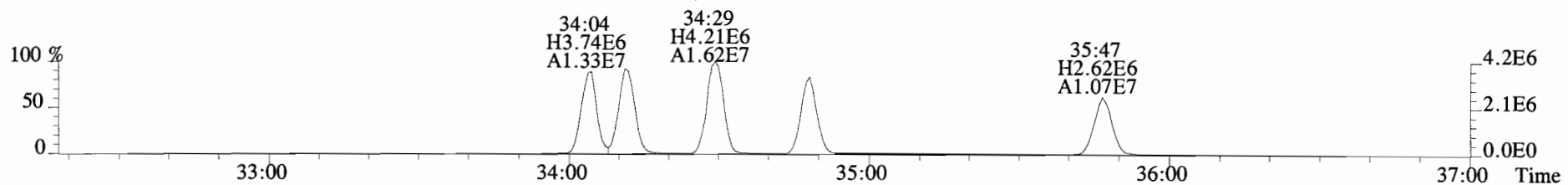
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



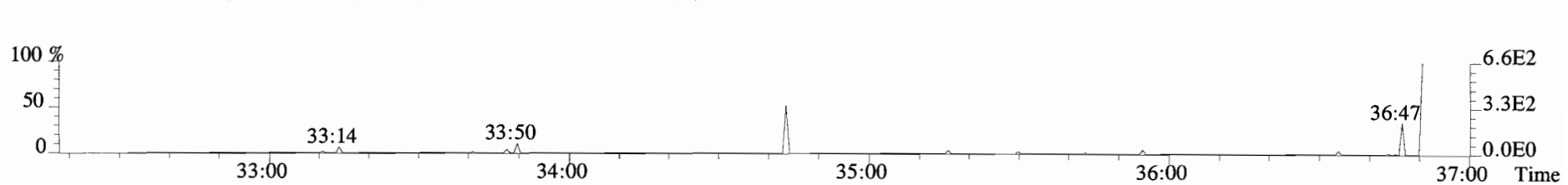
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



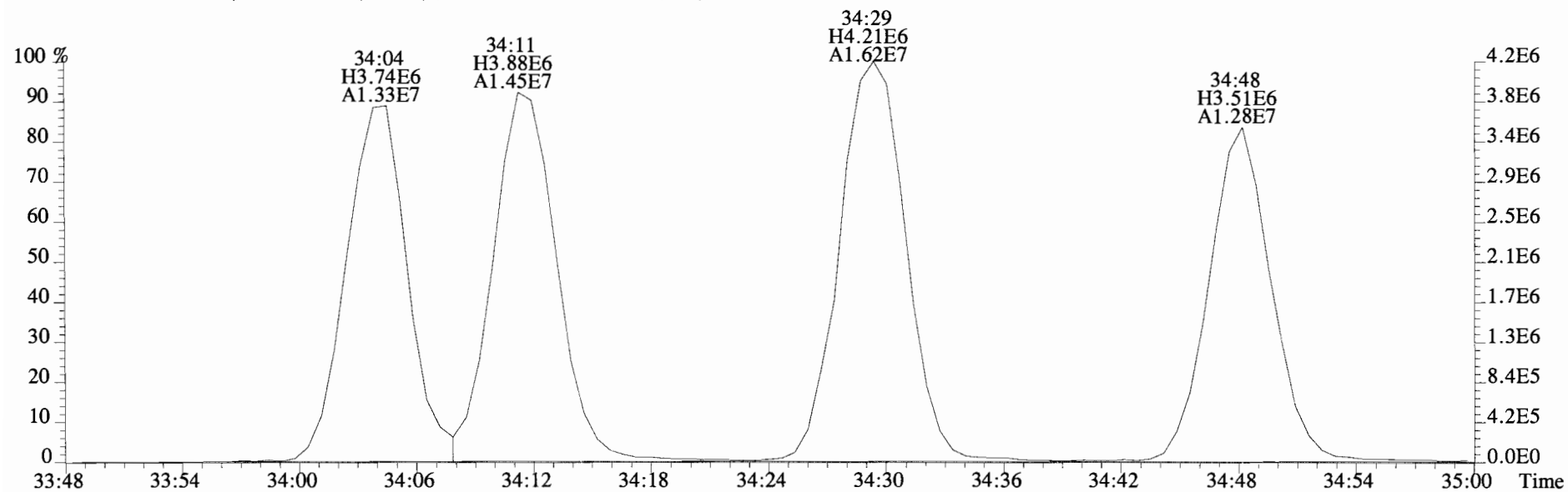
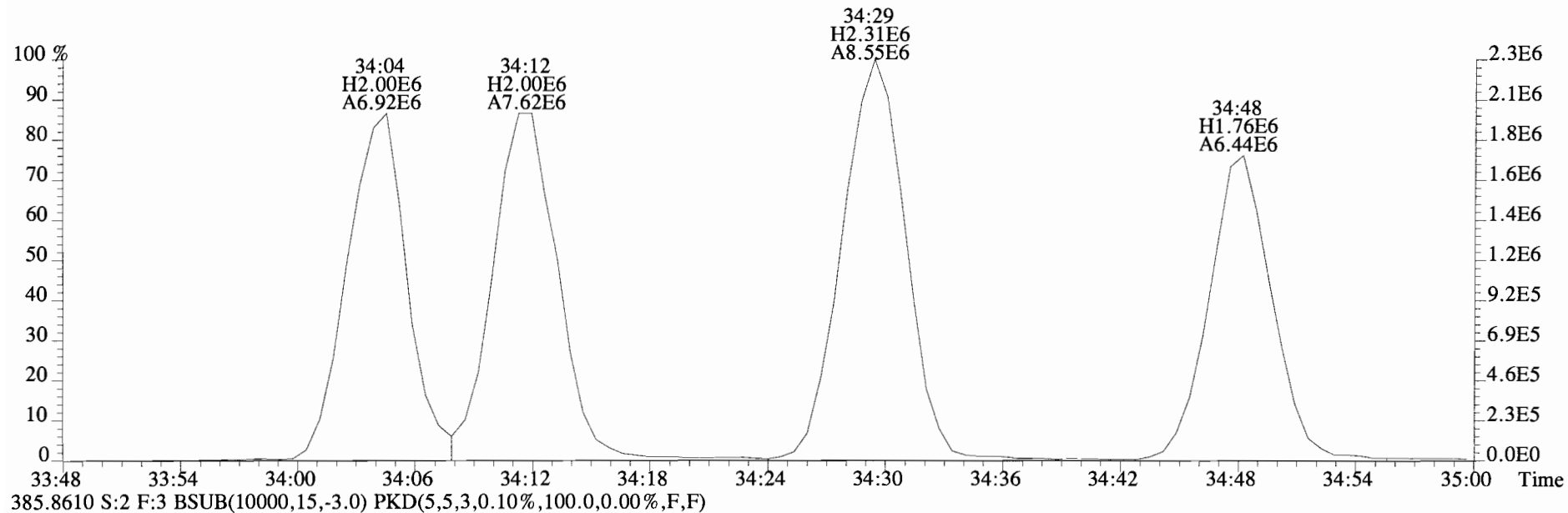
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



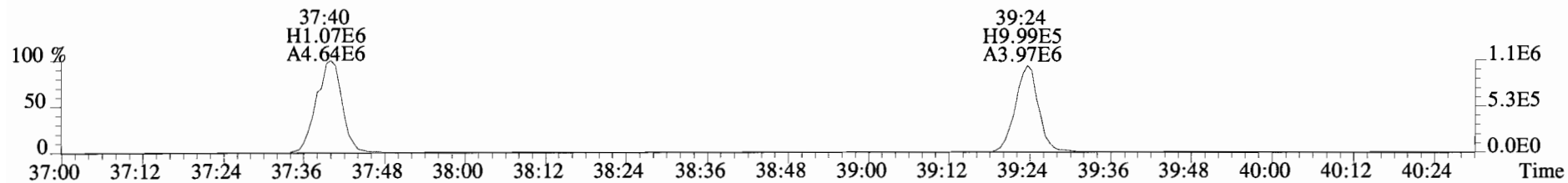
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



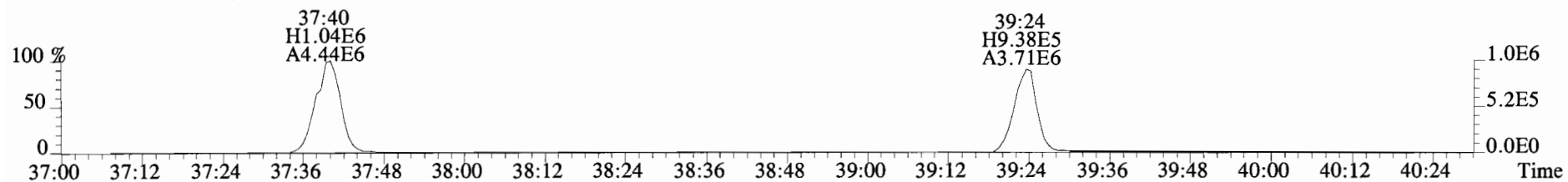
File:140922D1 #1-386 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-7 Text: B4I0065-BS1 OPR 1 Exp: OCDD_DB5
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



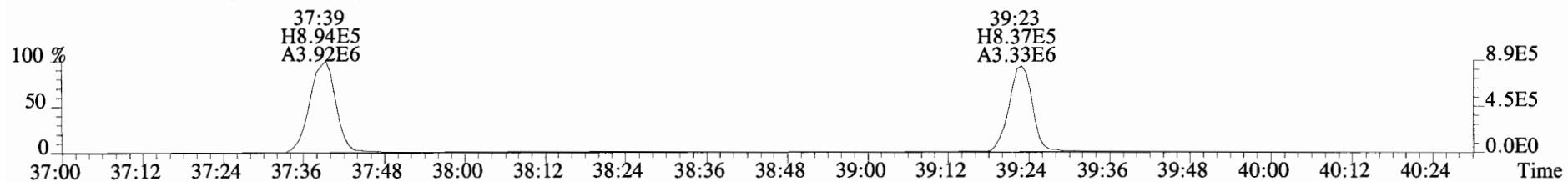
File:140922D1 #1-325 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



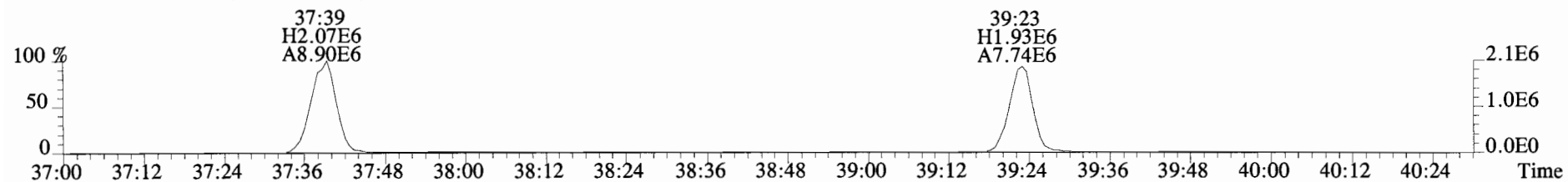
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



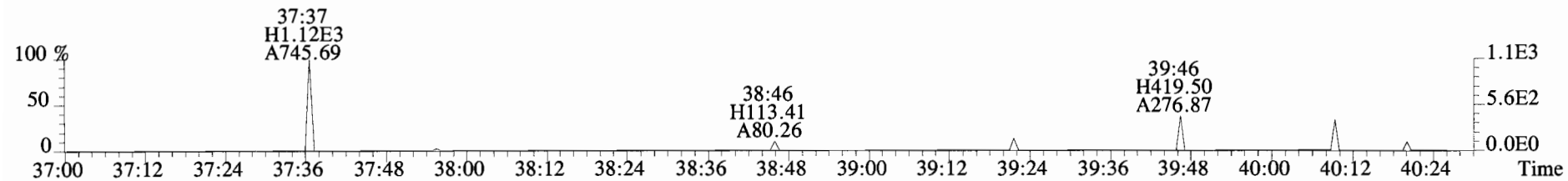
417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



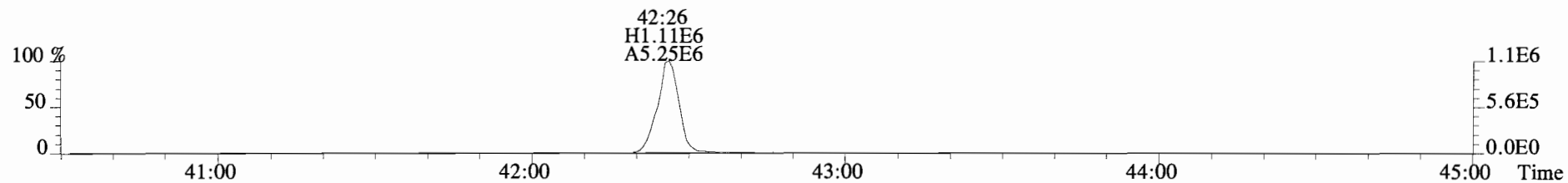
419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



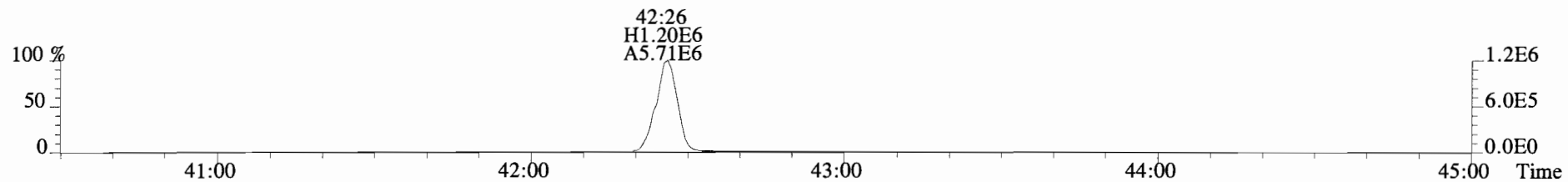
479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



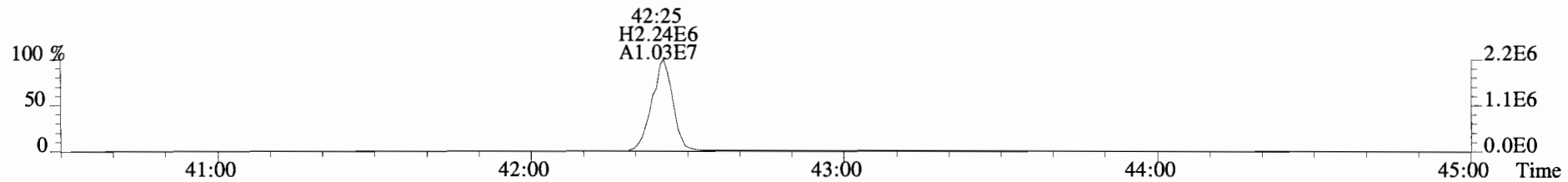
File:140922D1 #1-389 Acq:22-SEP-2014 14:21:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-7 Text:B4I0065-BS1 OPR 1 Exp:OCDD_DB5
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



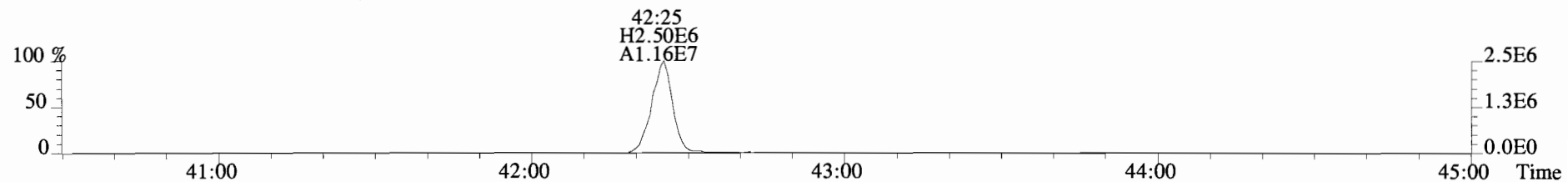
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



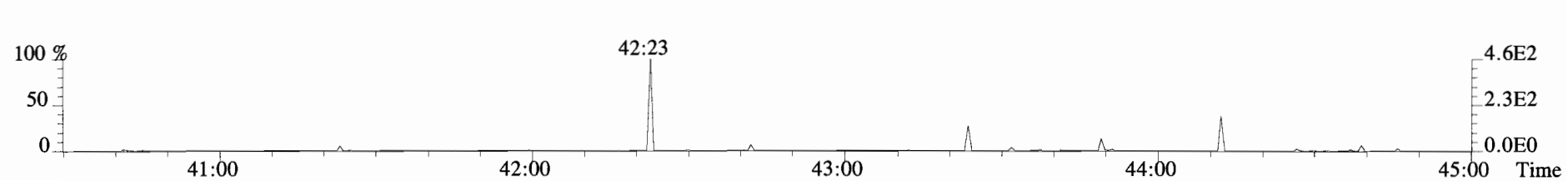
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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



513.6775 S:2 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
2,3,7,8-TCDD	*	* n	1.03	NotF η	*	*		507	2.5	1.09
1,2,3,7,8-PeCDD	*	* n	0.84	NotF η	*	*		490	2.5	0.821
1,2,3,4,7,8-HxCDD	*	* n	1.05	NotF η	*	*		578	2.5	2.16
1,2,3,6,7,8-HxCDD	*	* n	1.04	NotF η	*	*		578	2.5	2.06
1,2,3,7,8,9-HxCDD	*	* n	0.90	NotF η	*	*		578	2.5	2.27
1,2,3,4,6,7,8-HpCDD	1.58e+04	0.76 n	1.01	38:49	1.000	3.6310	*	2.5	*	*
OCDD	1.30e+05	0.90 y	1.04	42:11	1.000	29.383	*	2.5	*	*
2,3,7,8-TCDF	*	* n	0.91	NotF η	*	*		452	2.5	0.756
1,2,3,7,8-PeCDF	*	* n	0.97	NotF η	*	*		358	2.5	0.780
2,3,4,7,8-PeCDF	*	* n	0.94	NotF η	*	*		358	2.5	0.691
1,2,3,4,7,8-HxCDF	*	* n	1.32	NotF η	*	*		370	2.5	0.526
1,2,3,6,7,8-HxCDF	*	* n	1.18	NotF η	*	*		370	2.5	0.557
2,3,4,6,7,8-HxCDF	*	* n	1.23	NotF η	*	*		370	2.5	0.605
1,2,3,7,8,9-HxCDF	*	* n	1.13	NotF η	*	*		370	2.5	0.852
1,2,3,4,6,7,8-HpCDF	*	* n	1.57	NotF η	*	*		818	2.5	1.62
1,2,3,4,7,8,9-HpCDF	*	* n	1.50	NotF η	*	*		336	2.5	0.760
OCDF	*	* n	1.05	NotF η	*	*		1290	1.0	2.23

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		507	1.09
Total Penta-Dioxins	*	*		1030	1.72
Total Hexa-Dioxins	*	*		1590	5.94
Total Hepta-Dioxins	6.64	10.3		*	*
Total Tetra-Furans	*	*		452	0.756
Total Penta-Furans	0.0000	0.0000		516	1.06
Total Hexa-Furans	0.675	0.675		*	*
Total Hepta-Furans	*	*		818	1.73

									Rec	Qual
IS	13C-2,3,7,8-TCDD	1.41e+07	0.78 y	1.06	27:10	1.021	1387.9		70.9	
IS	13C-1,2,3,7,8-PeCDD	1.66e+07	0.63 y	1.08	31:37	1.188	1603.3		81.9	
IS	13C-1,2,3,4,7,8-HxCDD	9.95e+06	1.25 y	0.74	34:58	1.014	1368.3		69.9	
IS	13C-1,2,3,6,7,8-HxCDD	1.02e+07	1.21 y	0.75	35:05	1.017	1394.4		71.2	
IS	13C-1,2,3,7,8,9-HxCDD	1.19e+07	1.28 y	0.89	35:23	1.026	1362.7		69.6	
IS	13C-1,2,3,4,6,7,8-HpCDD	8.42e+06	1.06 y	0.70	38:49	1.126	1222.4		62.4	
IS	13C-OCDD	1.66e+07	0.91 y	0.59	42:11	1.223	2871.7		73.3	
IS	13C-2,3,7,8-TCDF	2.00e+07	0.77 y	0.97	26:24	0.992	1469.2		75.0	
IS	13C-1,2,3,7,8-PeCDF	1.85e+07	1.57 y	0.99	30:27	1.145	1328.7		67.9	
IS	13C-2,3,4,7,8-PeCDF	1.91e+07	1.54 y	1.01	31:20	1.178	1347.6		68.8	
IS	13C-1,2,3,4,7,8-HxCDF	1.33e+07	0.52 y	0.94	34:04	0.988	1446.6		73.9	
IS	13C-1,2,3,6,7,8-HxCDF	1.46e+07	0.51 y	1.23	34:11	0.992	1210.8		61.8	
IS	13C-2,3,4,6,7,8-HxCDF	1.31e+07	0.51 y	1.03	34:48	1.009	1296.7		66.2	
IS	13C-1,2,3,7,8,9-HxCDF	1.13e+07	0.51 y	0.89	35:46	1.037	1300.7		66.4	
IS	13C-1,2,3,4,6,7,8-HpCDF	8.74e+06	0.43 y	0.71	37:38	1.092	1262.6		64.5	
IS	13C-1,2,3,4,7,8,9-HpCDF	8.24e+06	0.43 y	0.64	39:22	1.142	1309.4		66.9	
IS	13C-OCDF	1.84e+07	0.89 y	0.76	42:25	1.230	2481.6		63.4	

C/Up	37Cl-2,3,7,8-TCDD	6.99e+06		1.04	27:11	1.022	702.09		89.6	
RS/RT	13C-1,2,3,4-TCDD	1.87e+07	0.80 y	1.00	26:36	*	1958.3			
RS	13C-1,2,3,4-TCDF	2.76e+07	0.75 y	1.00	25:13	*	1958.3			
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.92e+07	0.51 y	1.00	34:29	*	1958.3			

Integrations
 by MJ
 Analyst: [Signature]
 Date: 9/23/14
 Reviewed
 by [Signature]
 Analyst: [Signature]
 Date: 9/23/14

Totals class: HpCDD EMPC

Entry #: 25

Run: 15 File: 140922D1 S: 10 I: 1 F: 4

Acquired: 22-SEP-14 20:48:24 Processed: 23-SEP-14 08:24:14

Total Concentration: 10.270

Unnamed Concentration: 6.639

RT	m1 Resp	m2 Resp	RA		Resp Concentration	Name
38:00	1.536e+04	1.344e+04	1.14 y		2.880e+04	6.6391
38:49	8.030e+03	1.062e+04	0.76 n		1.575e+04	3.6310

Totals class: HxCDF EMPC

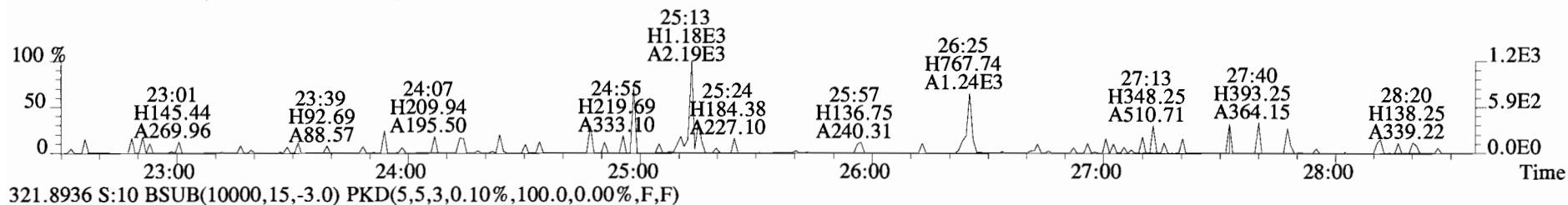
Entry #: 33

Run: 15 File: 140922D1 S: 10 I: 1 F: 3
Acquired: 22-SEP-14 20:48:24 Processed: 23-SEP-14 08:24:14

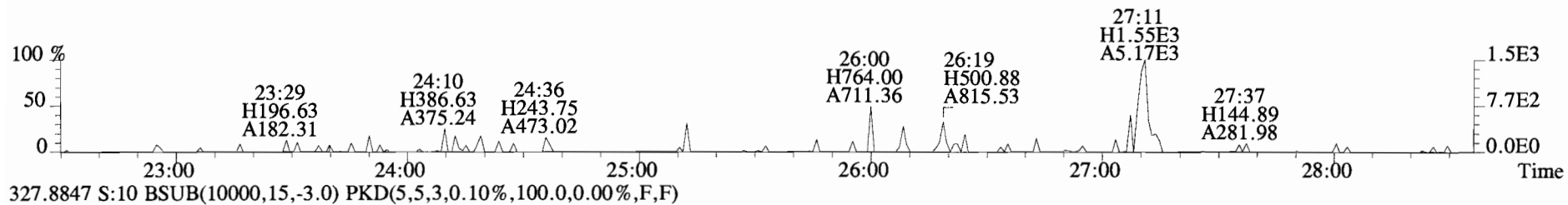
Total Concentration: 0.67519 Unnamed Concentration: 0.675

RT	m1 Resp	m2 Resp	RA	Resp Concentration	Name
33:02	2.833e+03	2.631e+03	1.08 y	5.464e+03	0.67519

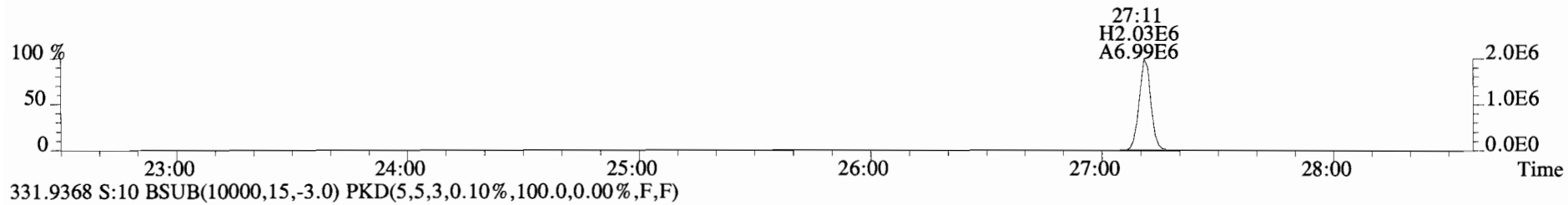
File:140922D1 #1-552 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
319.8965 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



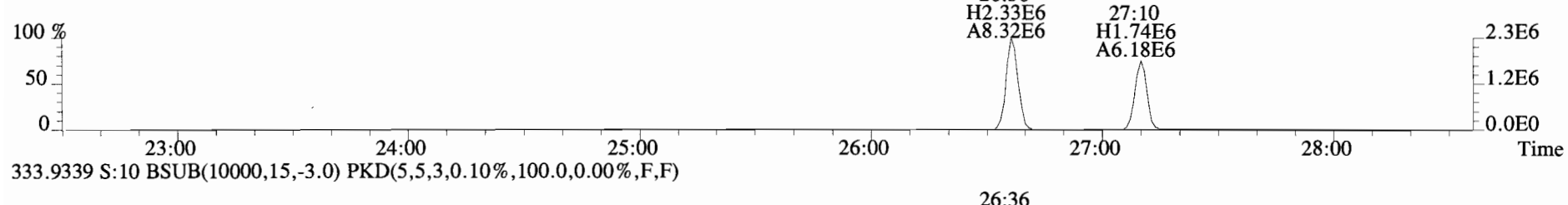
321.8936 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



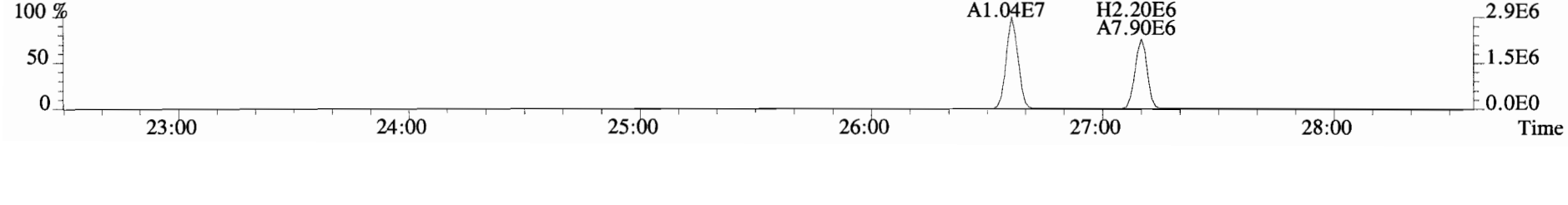
327.8847 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



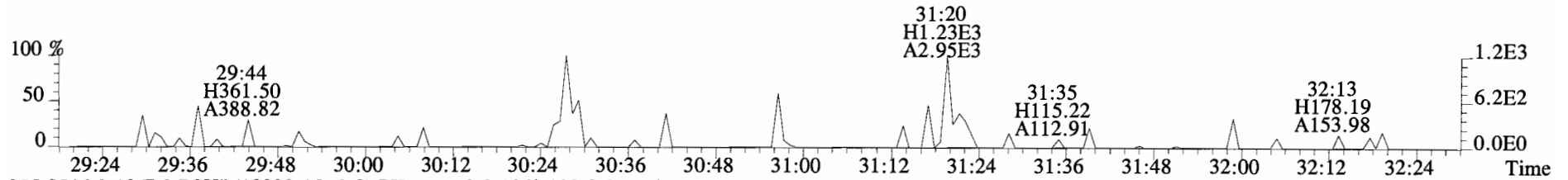
331.9368 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



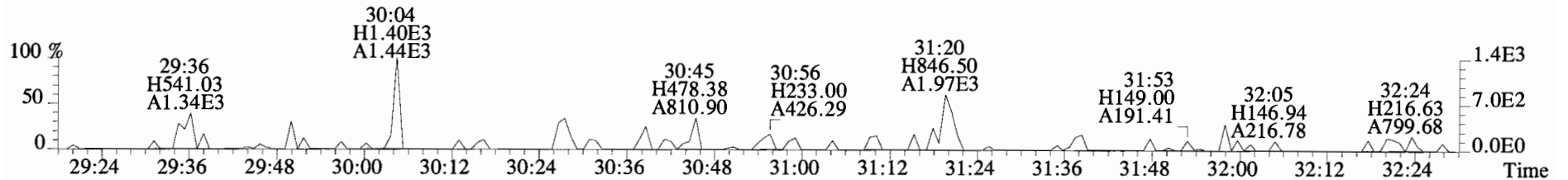
333.9339 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



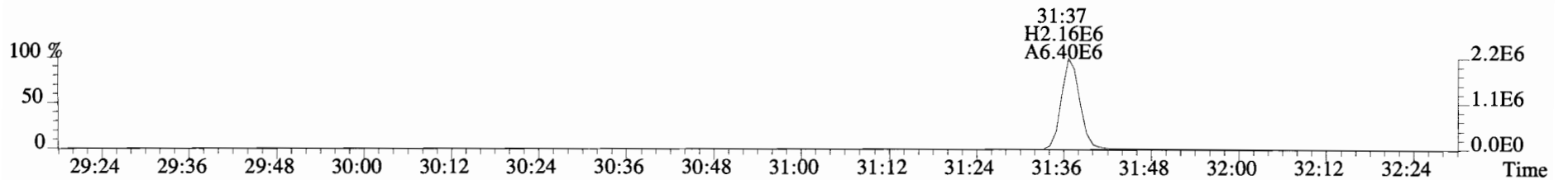
File:140922D1 #1-256 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
353.8576 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



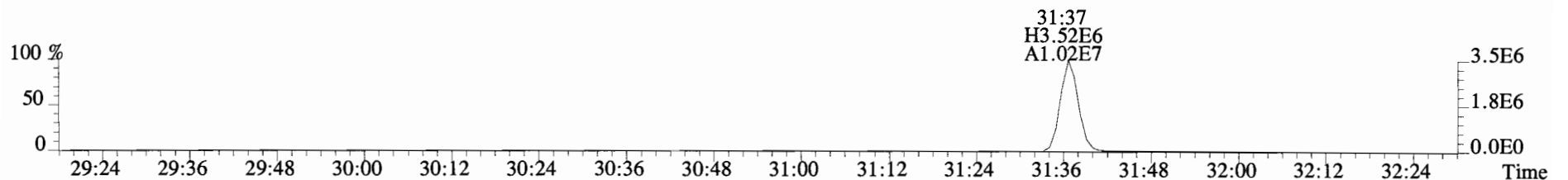
355.8546 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



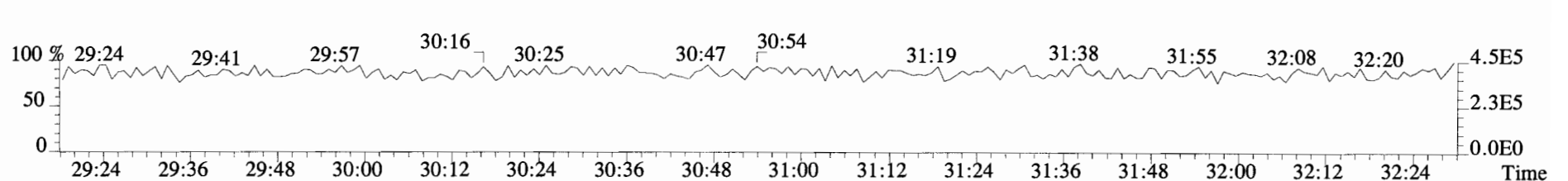
365.8978 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



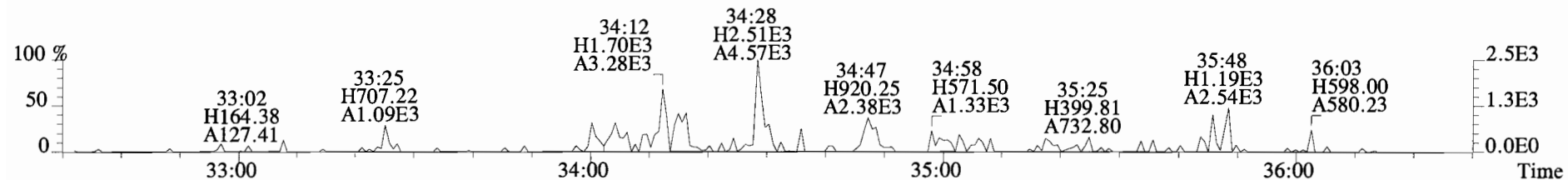
367.8949 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



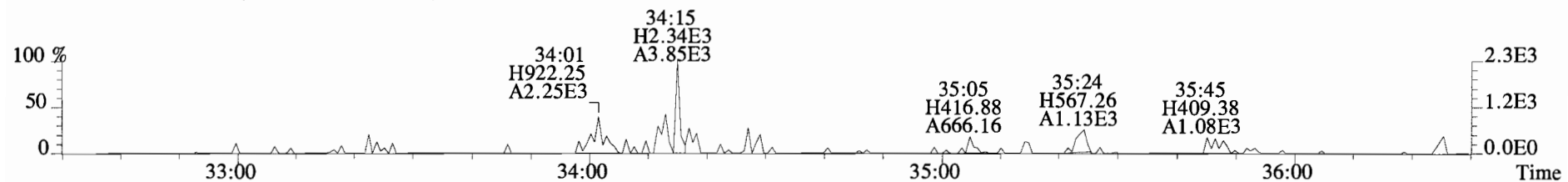
366.9792 S:10 F:2



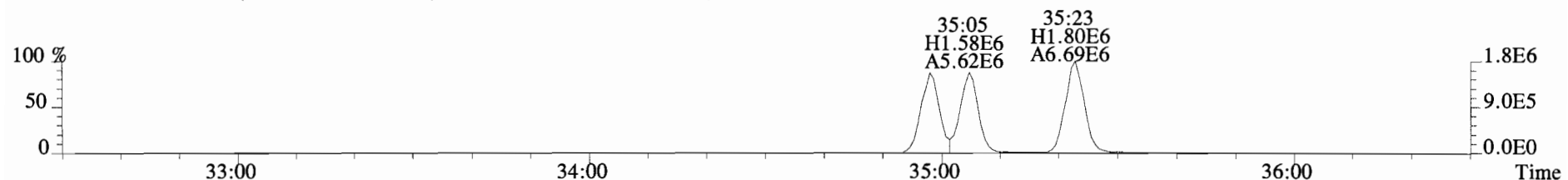
File:140922D1 #1-385 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



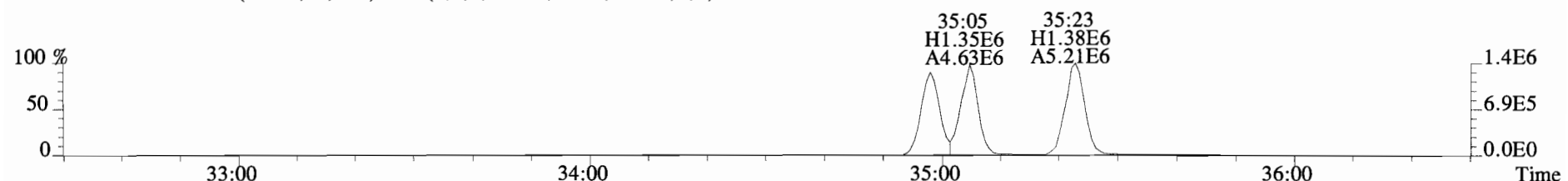
391.8127 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



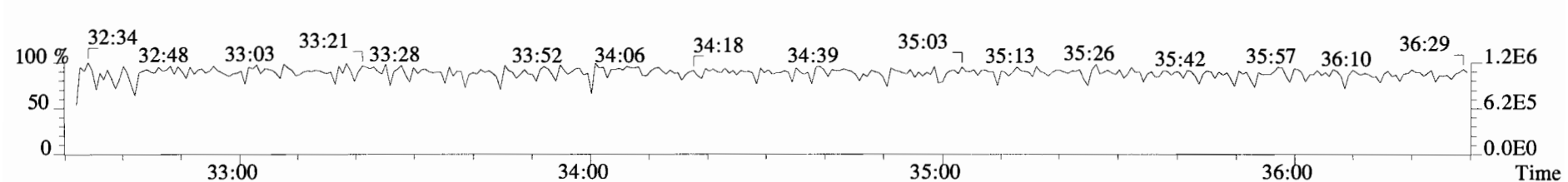
401.8559 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



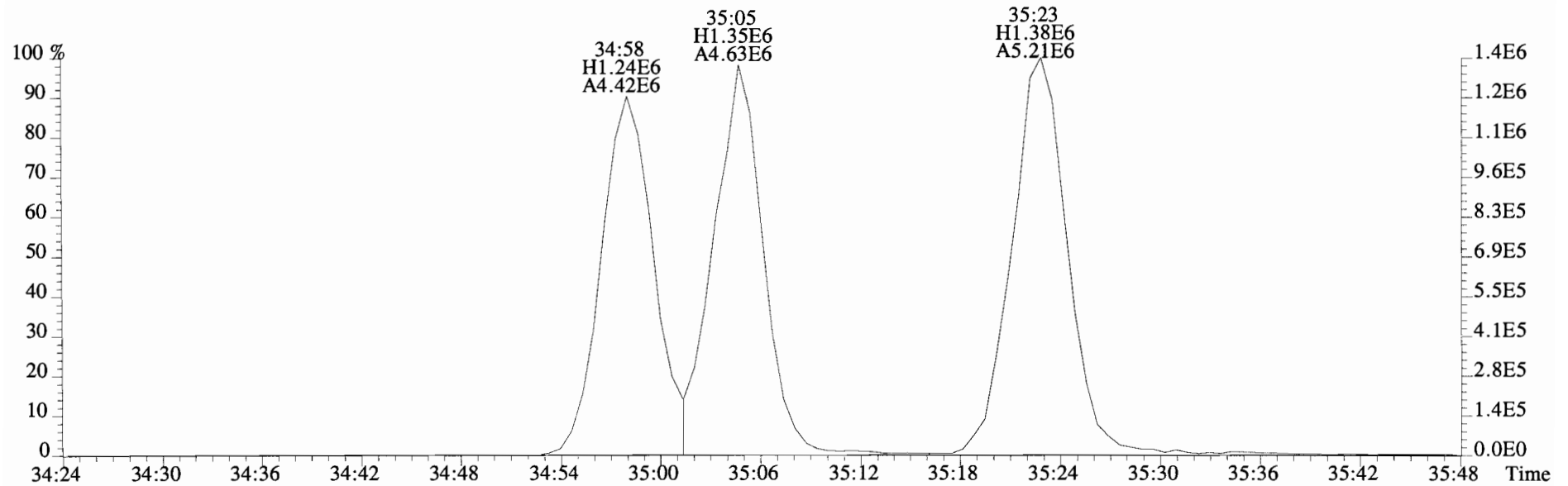
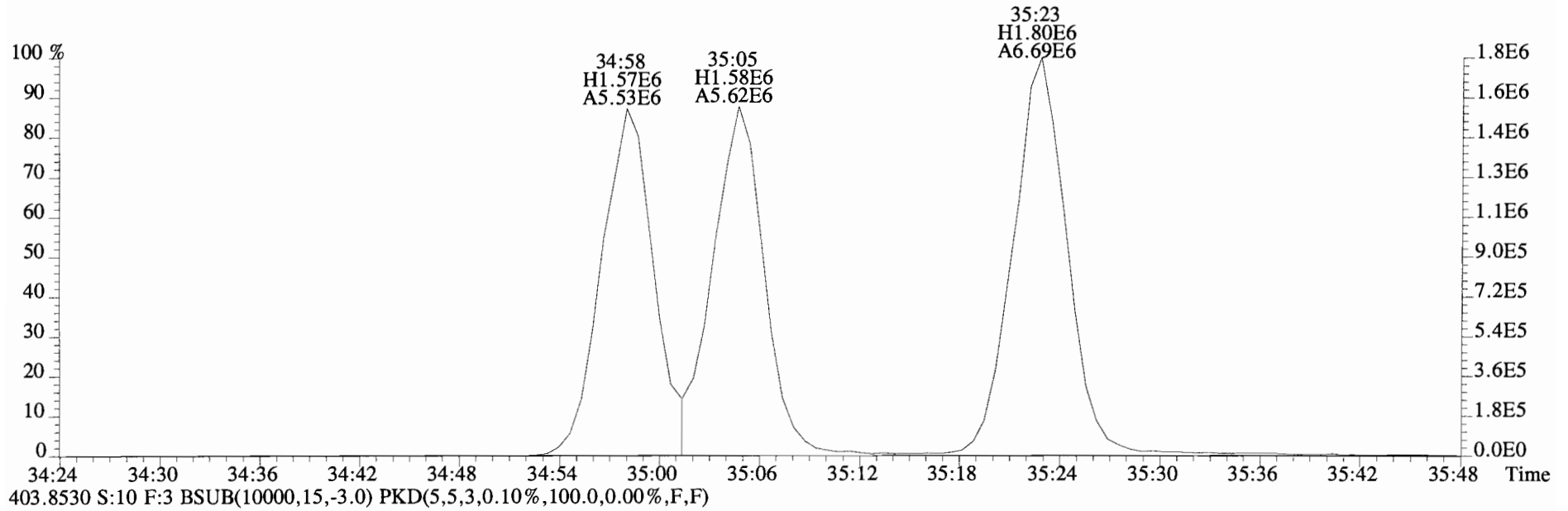
403.8530 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



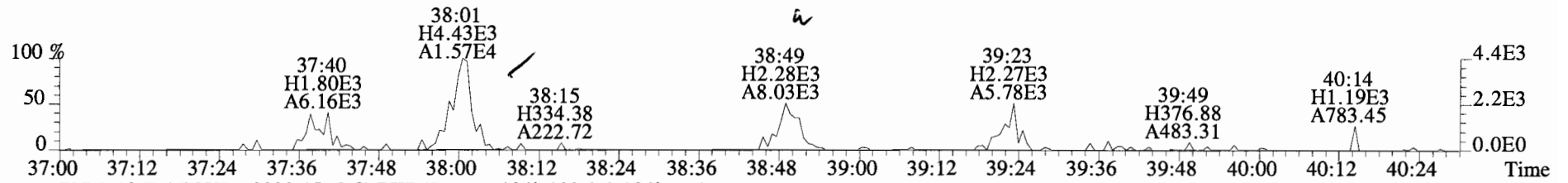
380.9760 S:10 F:3



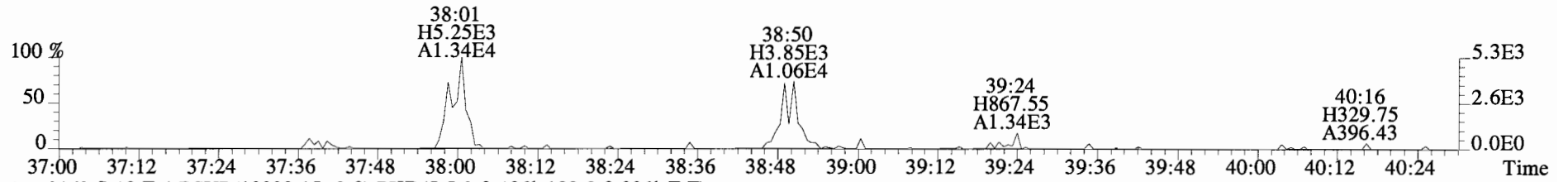
File:140922D1 #1-385 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
401.8559 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



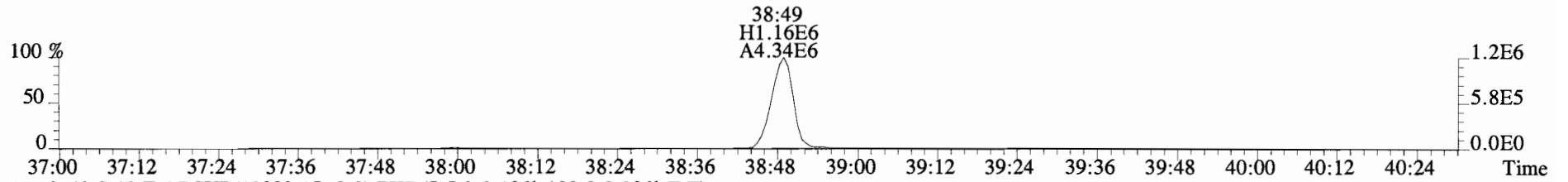
File:140922D1 #1-326 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



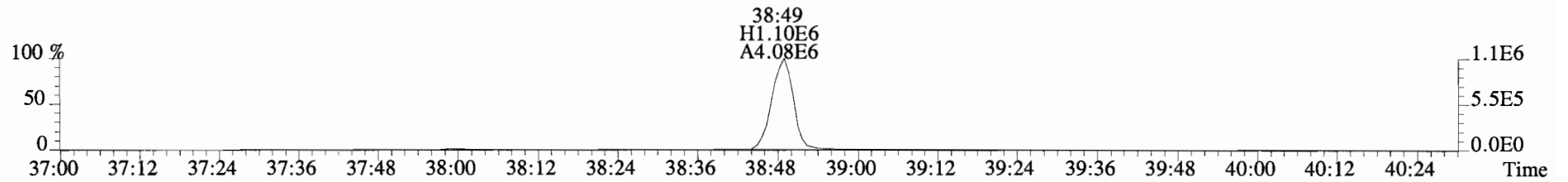
425.7737 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



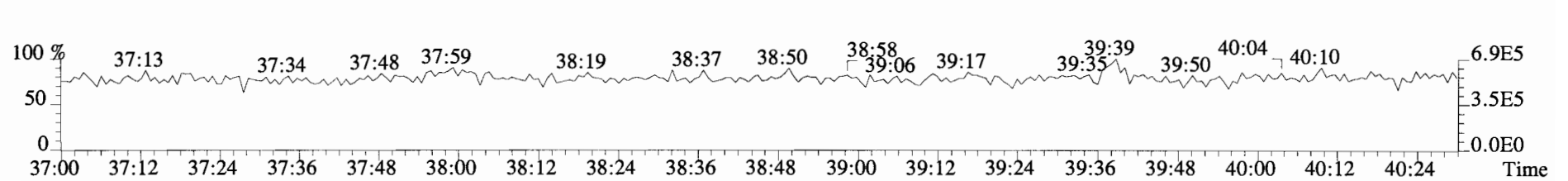
435.8169 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



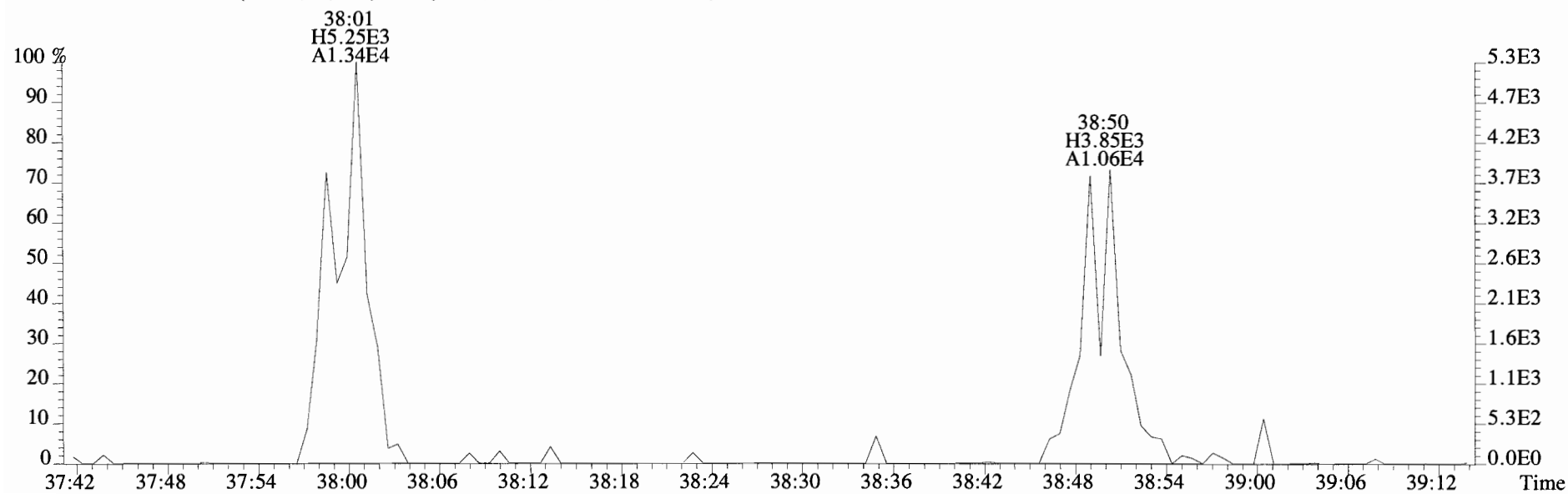
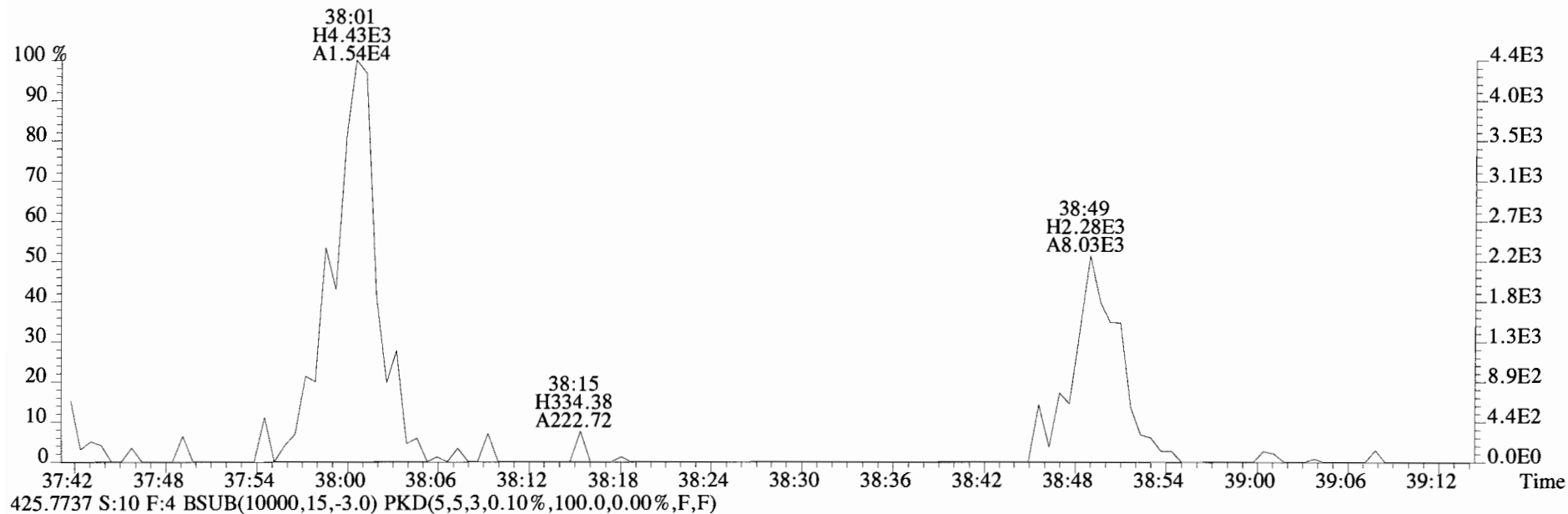
437.8140 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



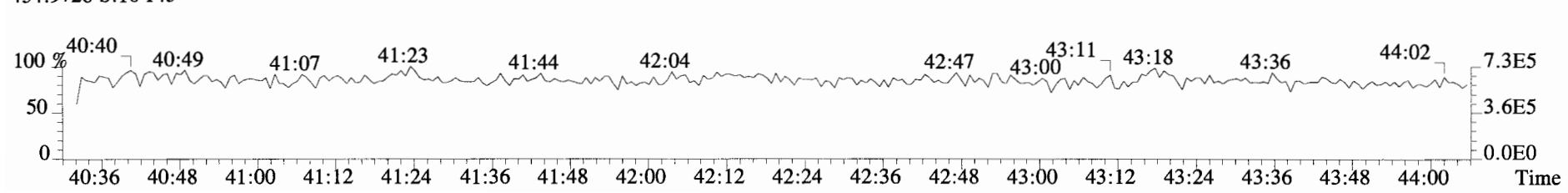
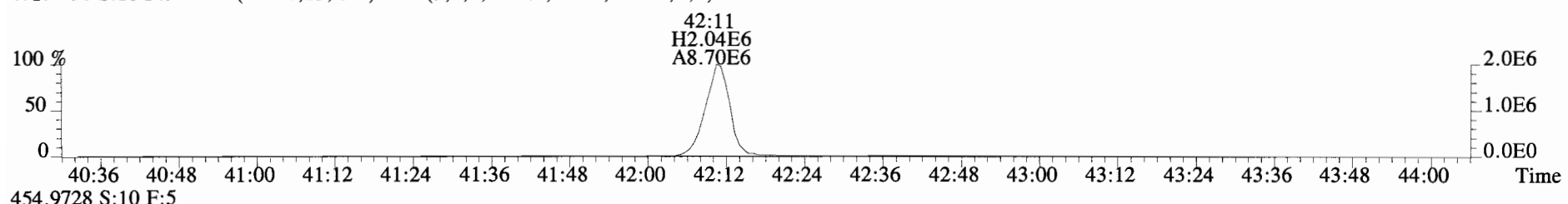
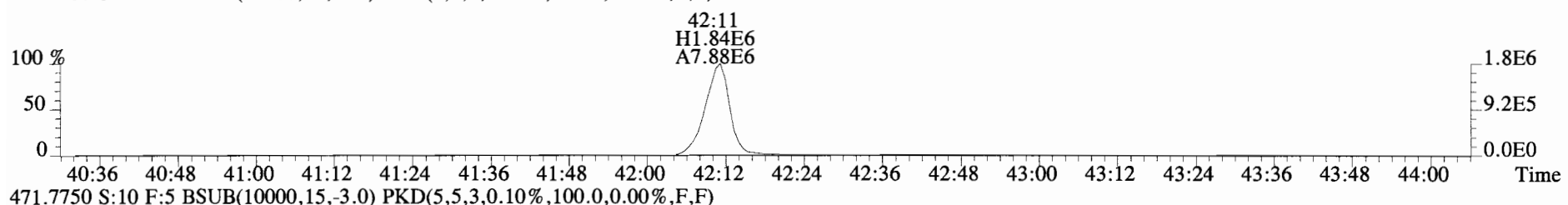
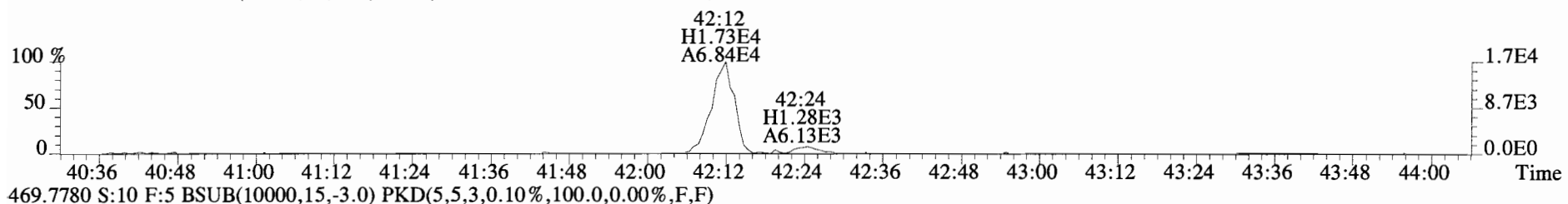
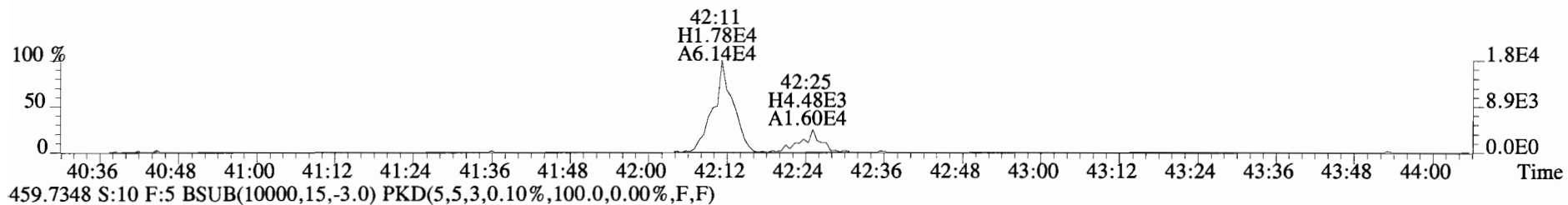
430.9728 S:10 F:4



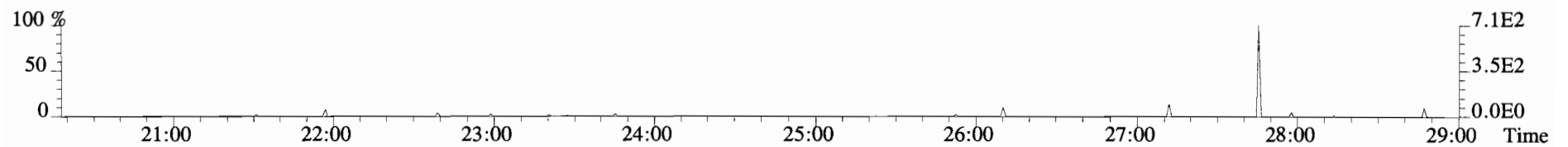
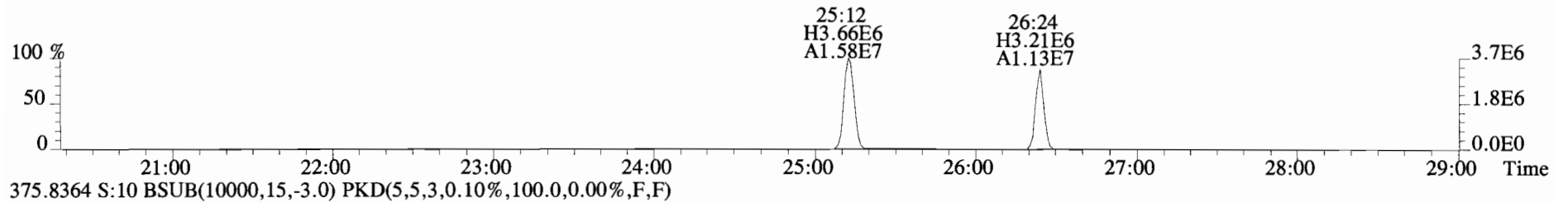
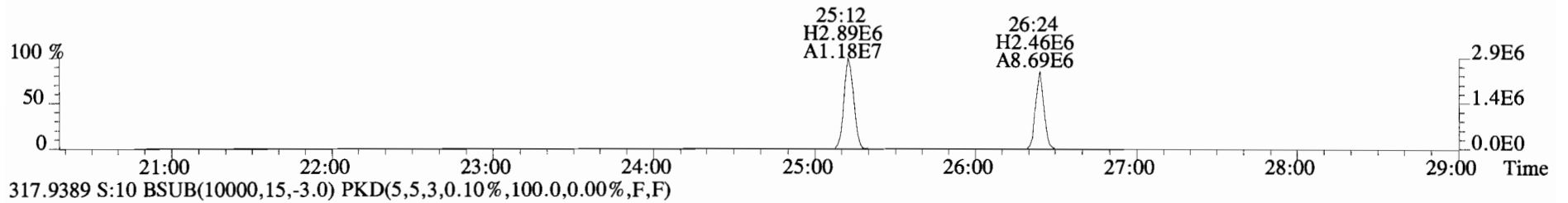
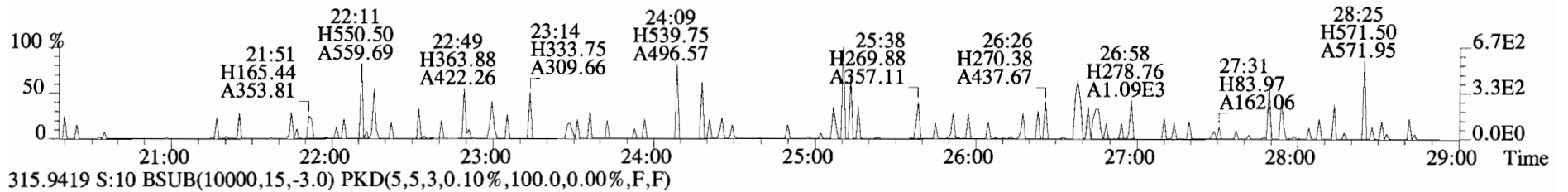
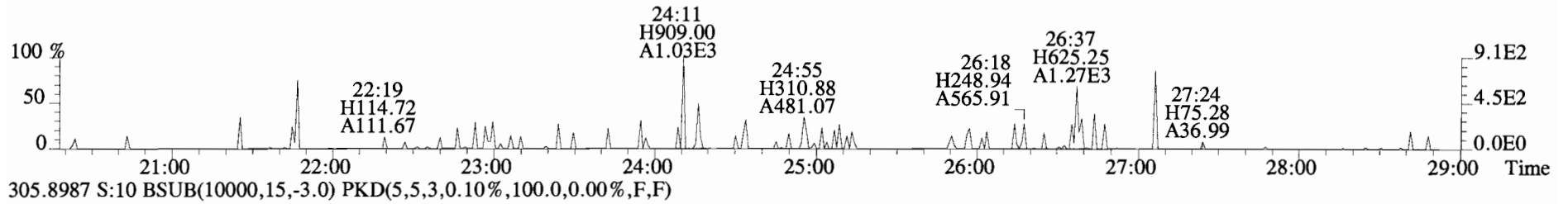
File:140922D1 #1-326 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



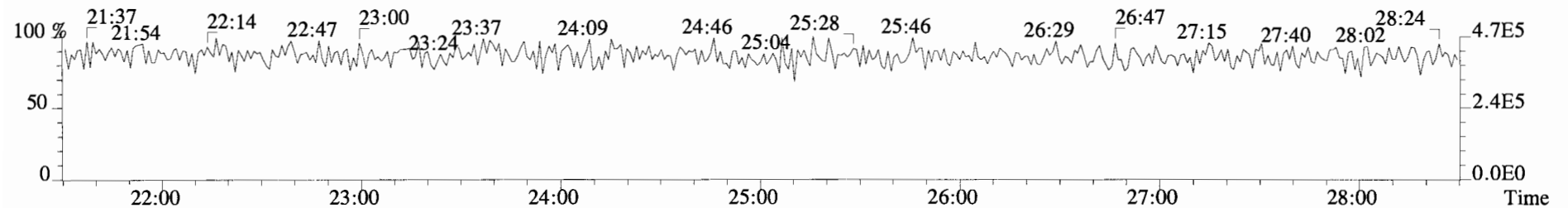
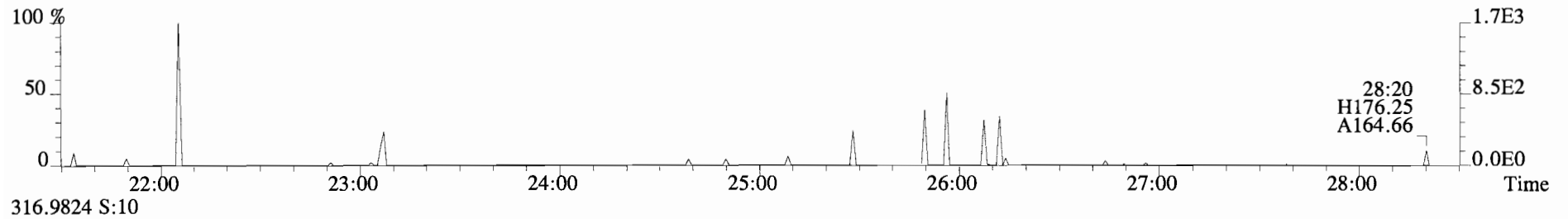
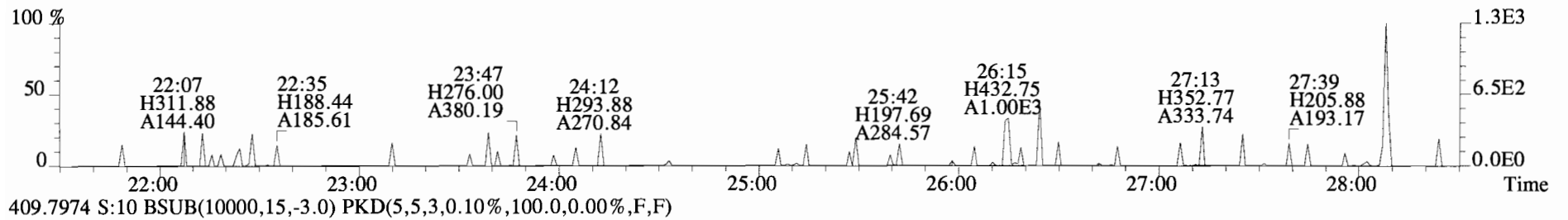
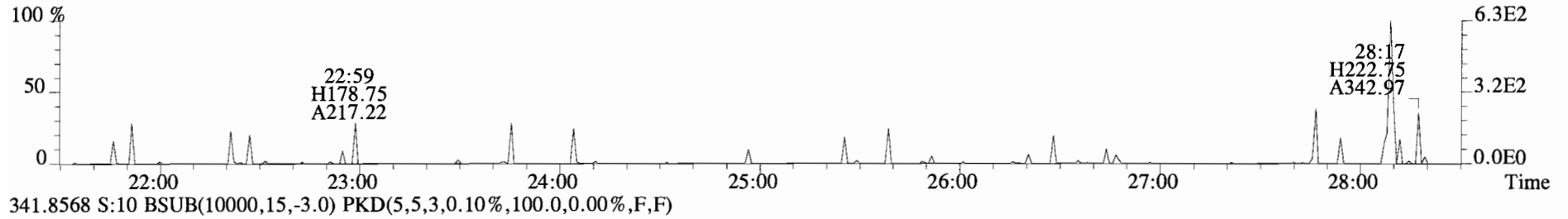
File:140922D1 #1-388 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
457.7377 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



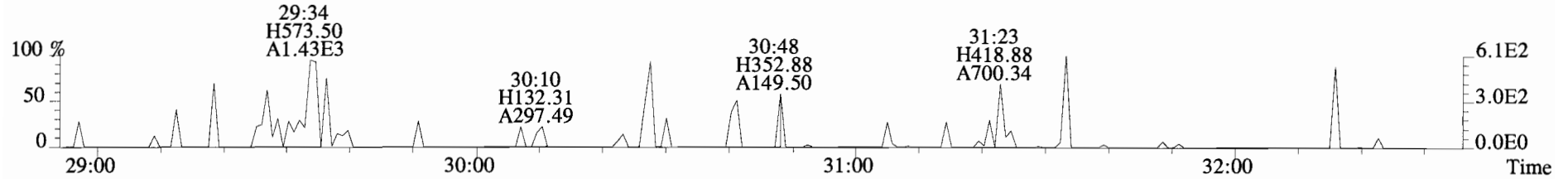
File:140922D1 #1-552 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



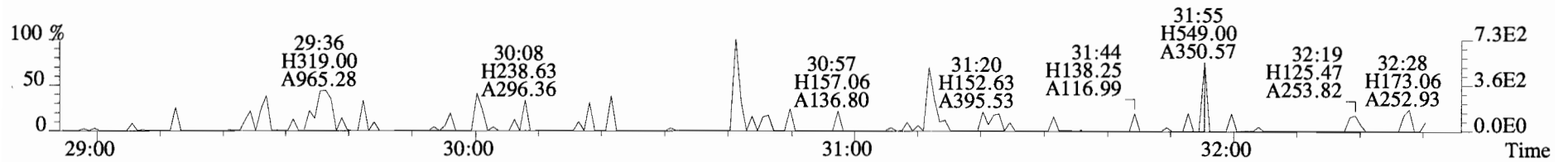
File:140922D1 #1-552 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
339.8597 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



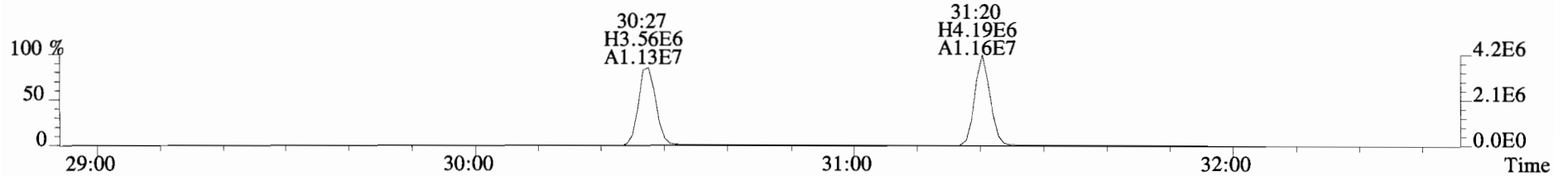
File:140922D1 #1-256 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



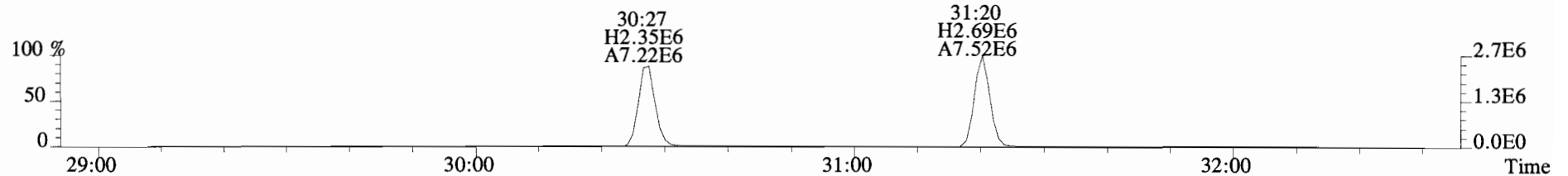
341.8568 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



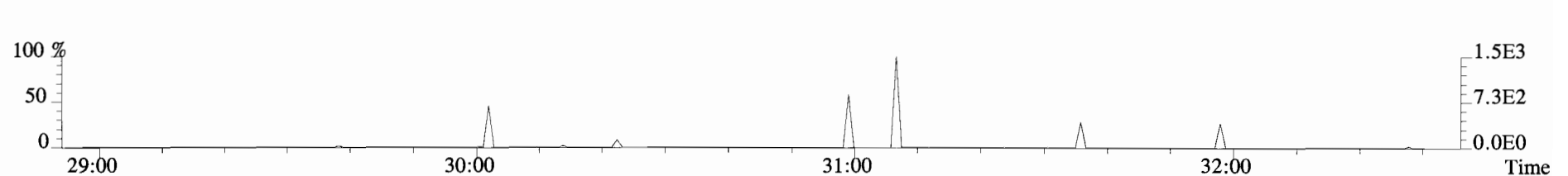
351.9000 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



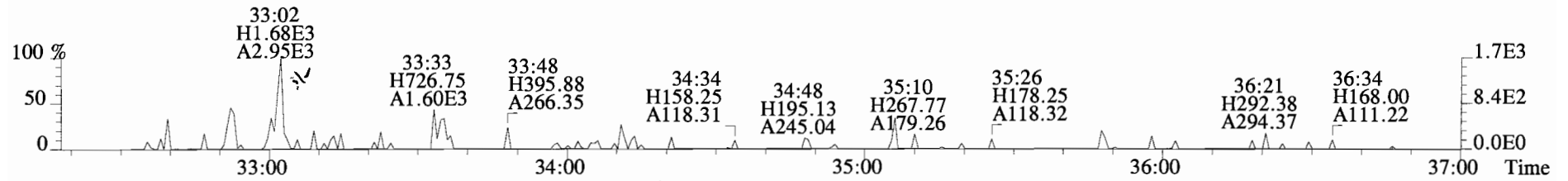
353.8970 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



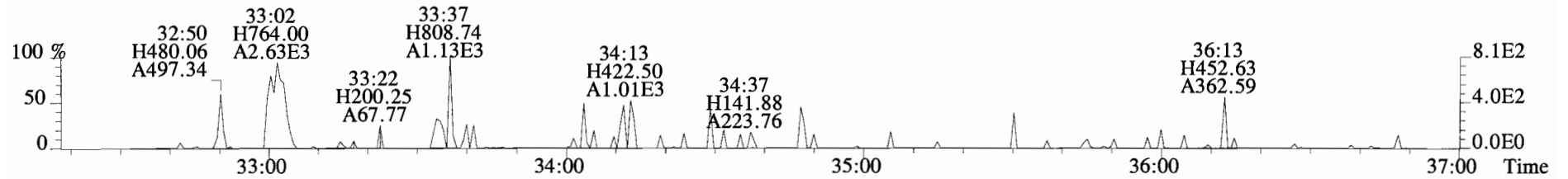
409.7974 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



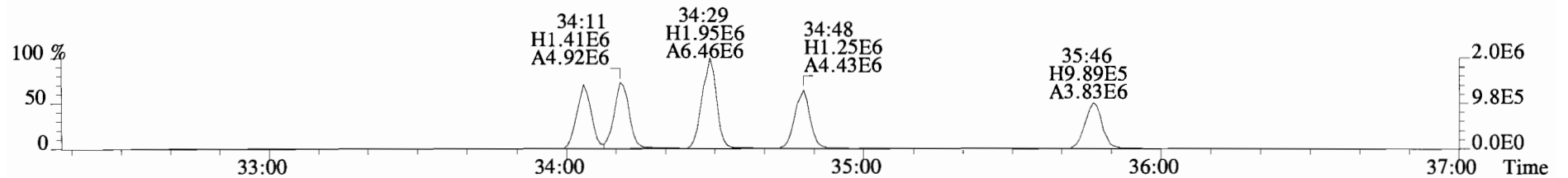
File:140922D1 #1-385 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



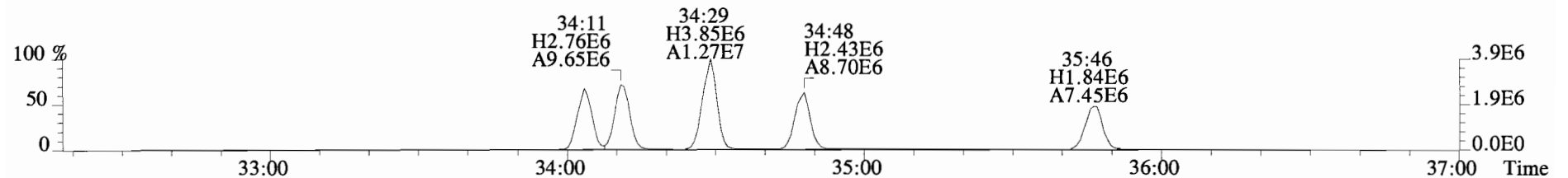
375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



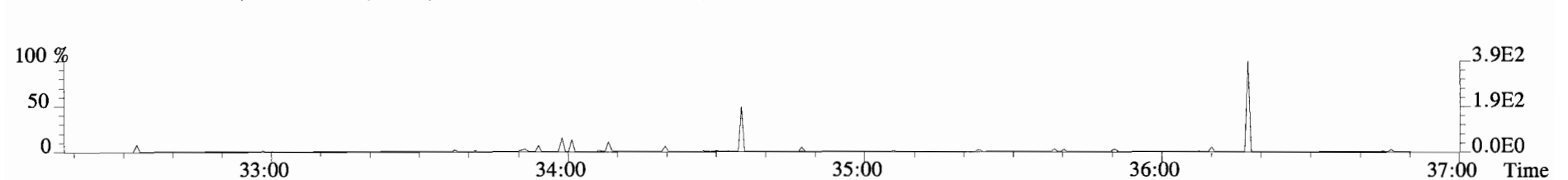
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



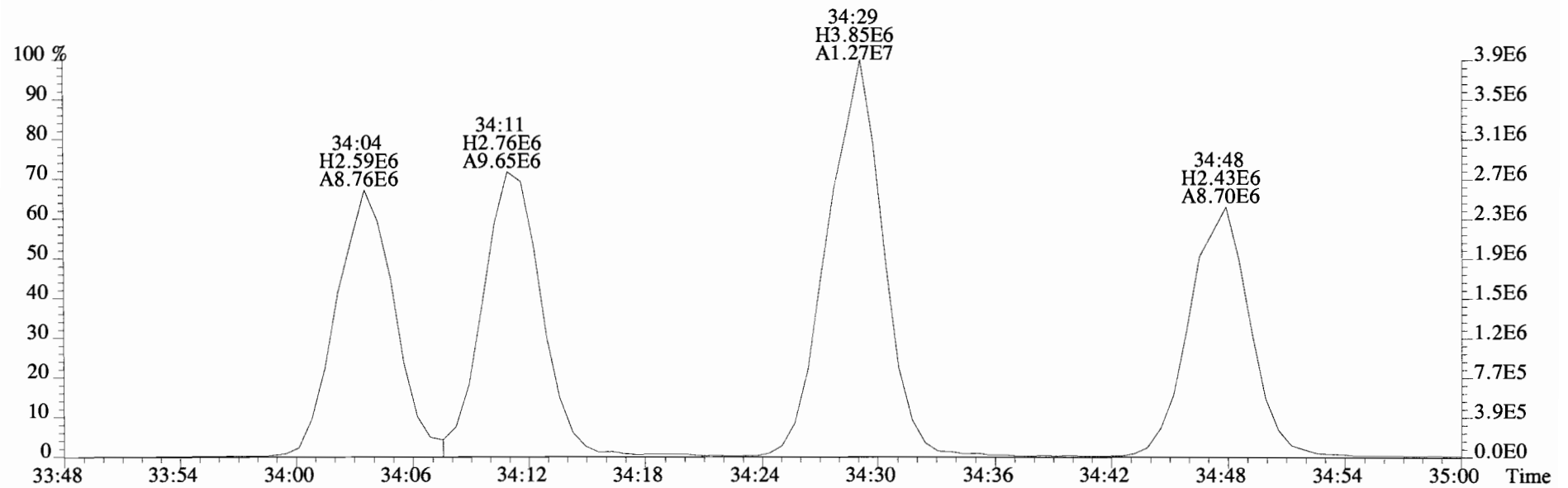
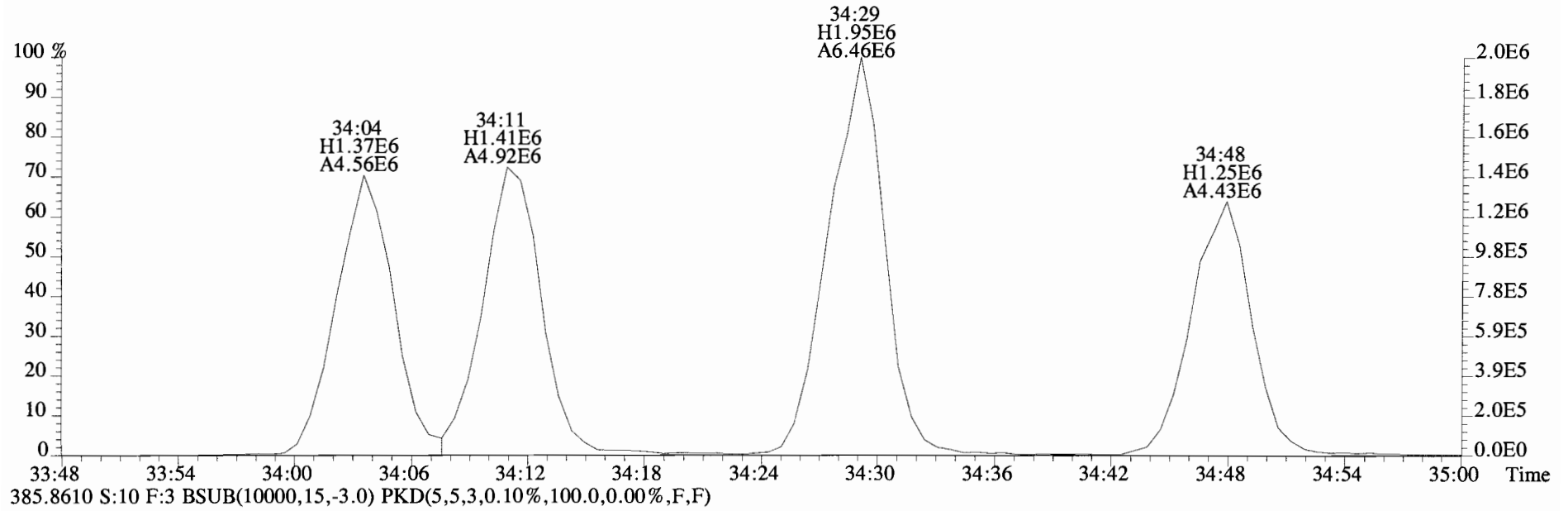
385.8610 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



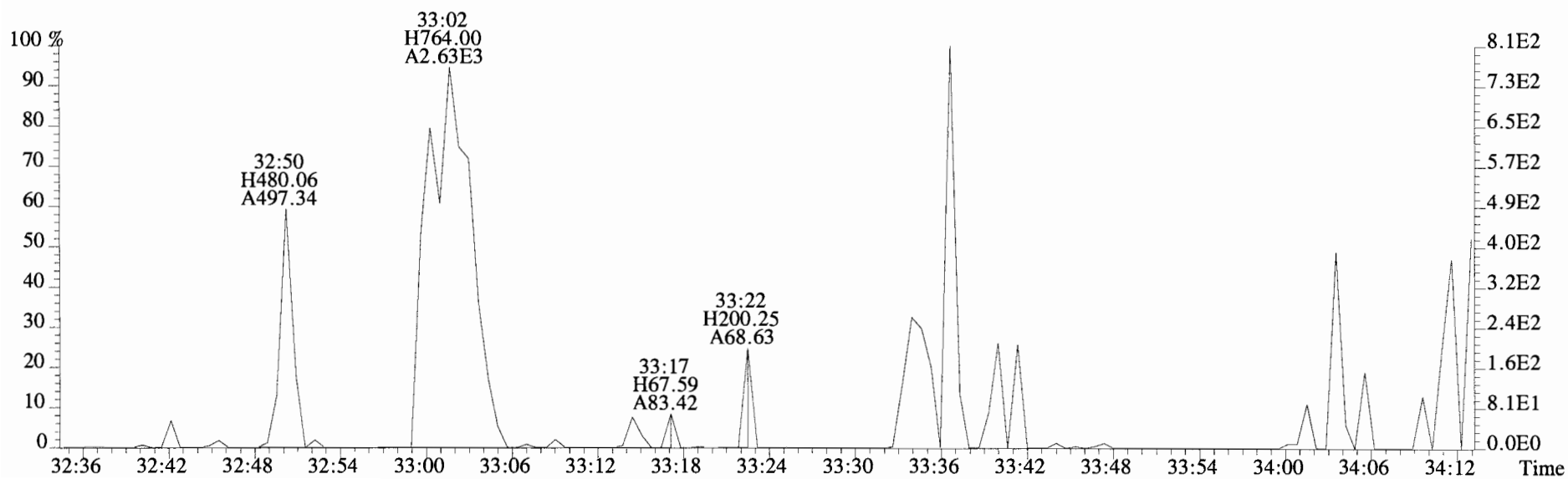
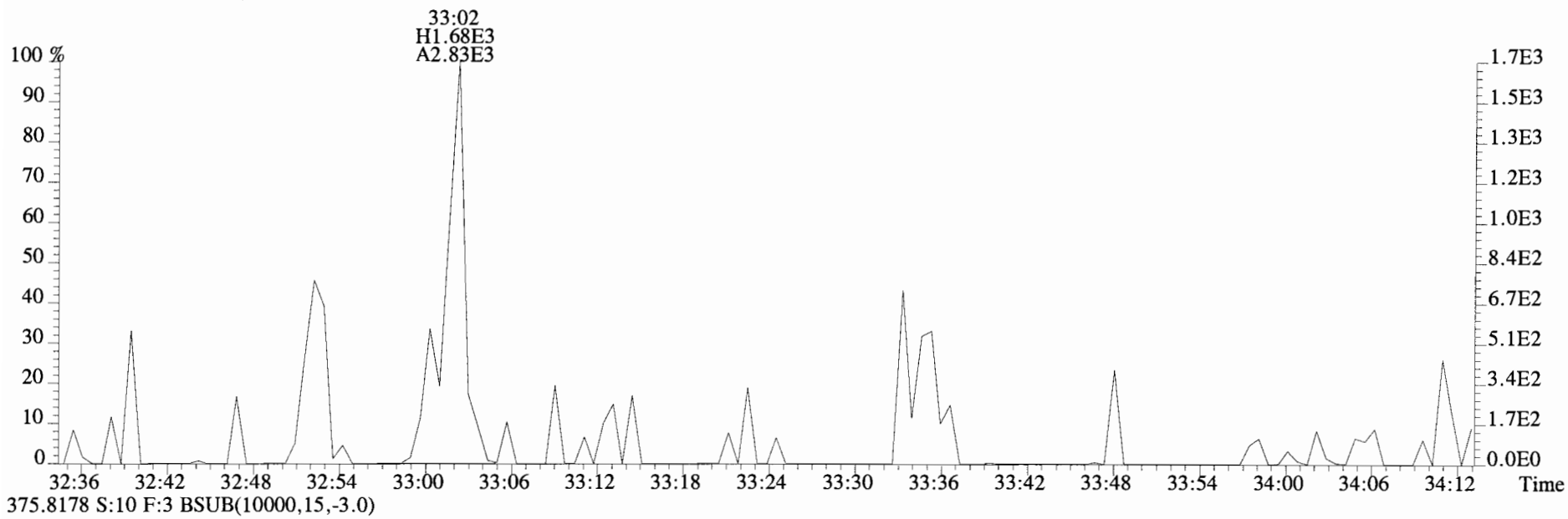
445.7555 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



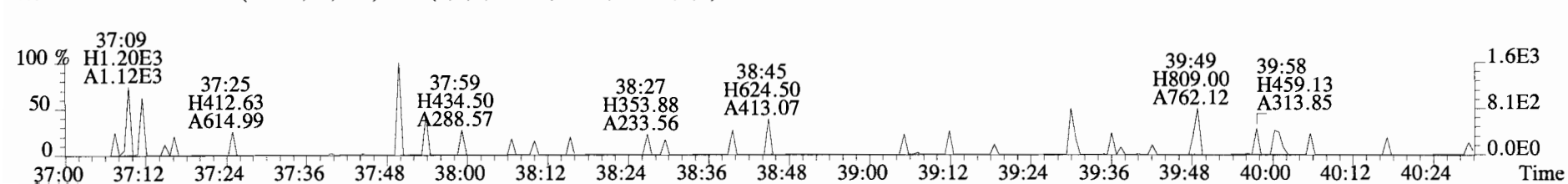
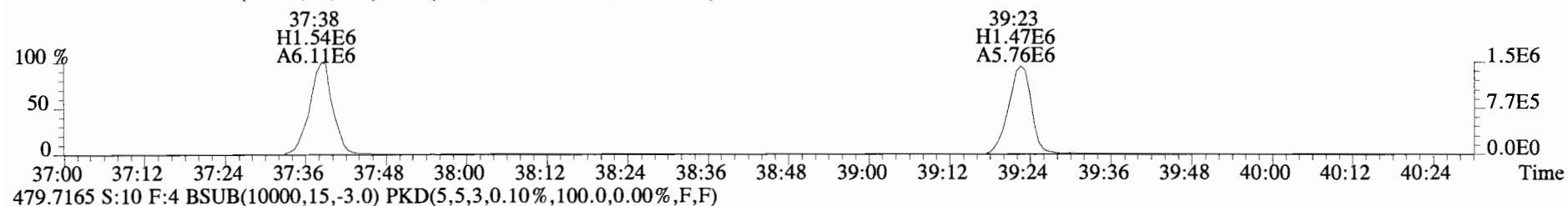
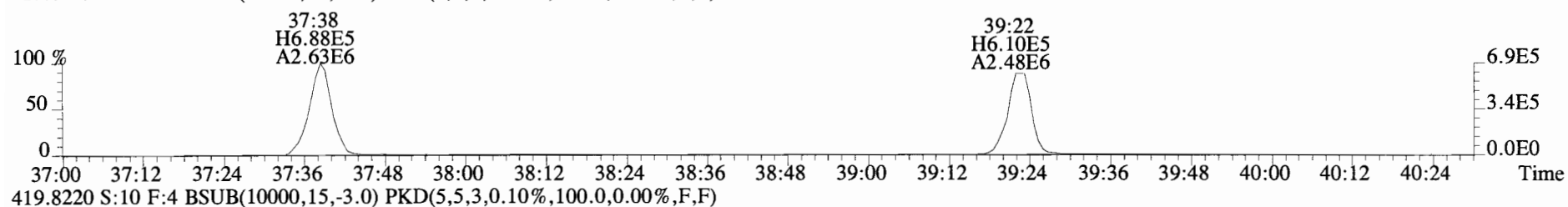
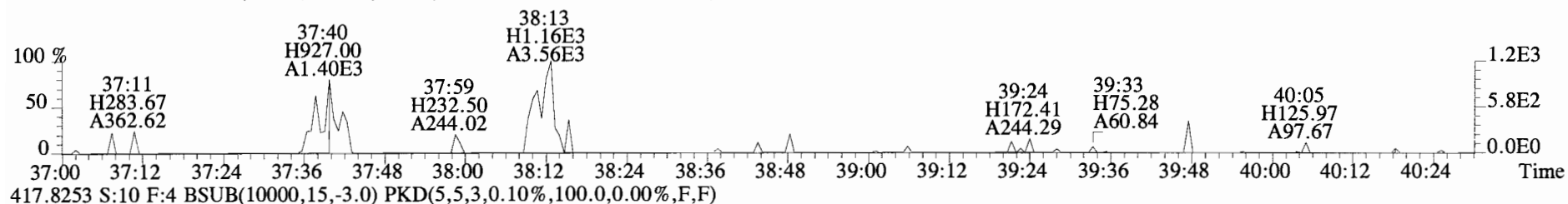
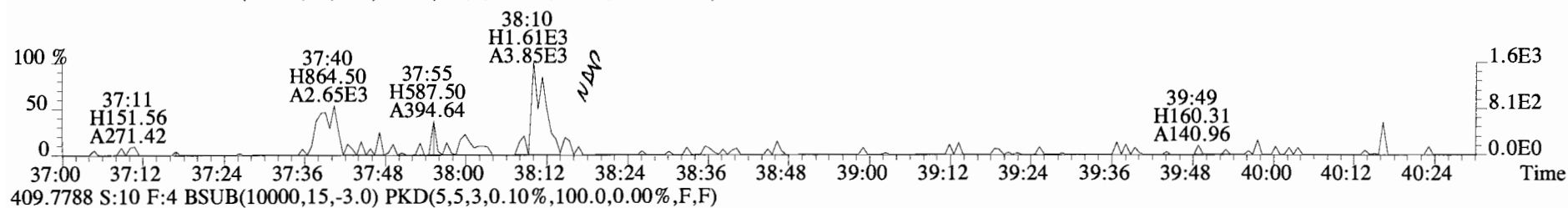
File:140922D1 #1-385 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text: Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



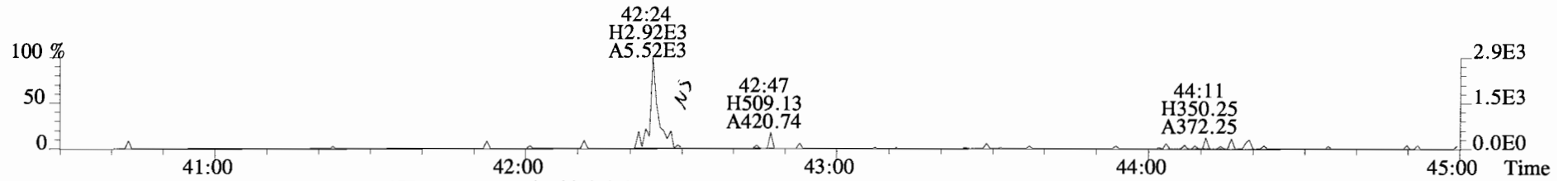
File:140922D1 #1-385 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
373.8207 S:10 F:3 BSUB(10000,15,-3.0)



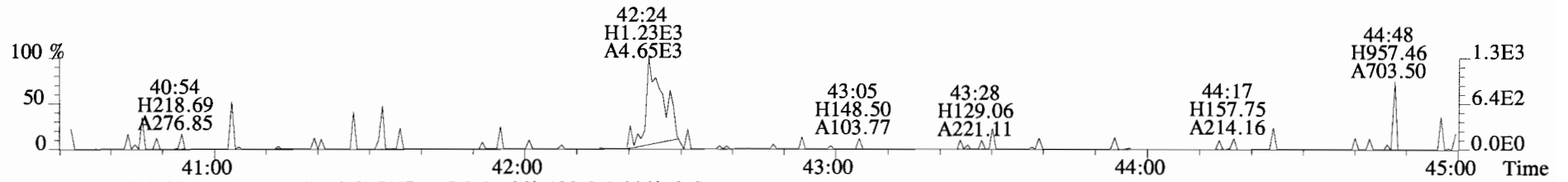
File:140922D1 #1-326 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



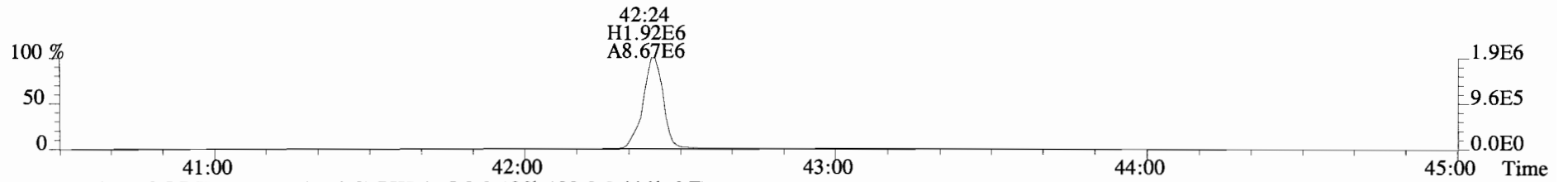
File:140922D1 #1-388 Acq:22-SEP-2014 20:48:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-7 Text:1400665-04 UG-MH-60-20140911-W 1.02131 Exp:OCDD_DB5
441.7428 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



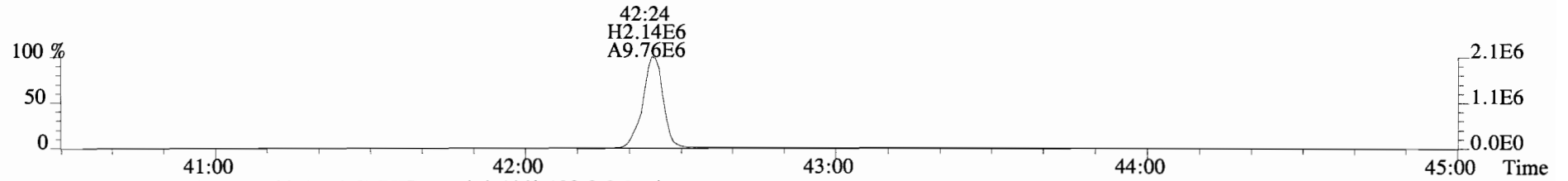
443.7398 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



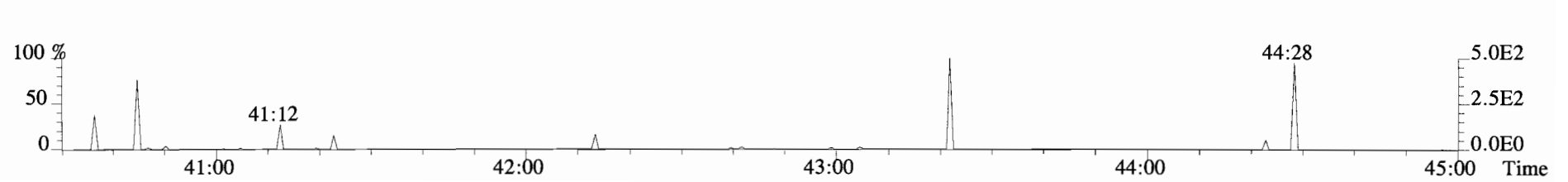
453.7831 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 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: B4I0061-BLK1

Filename: 140919E2
GC Column ID: ZB-1

S:6 Acq:20-SEP-14 05:05:04
ICal: PCBVG8-6-23-14 wt/vol: 10.000

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	*	* n	NotF η	1.19	*		3600	2.5	0.794	*	0.996-1.006	
Mono	PCB-2	*	* n	NotF η	1.18	*		3600	2.5	0.833	*	0.984-0.994	
Mono	PCB-3	*	* n	NotF η	1.43	*		3600	2.5	0.692	*	0.996-1.006	
Di	PCB-4/10	*	* n	NotF η	1.57	*		15000	2.5	3.61	*	0.997-1.007	
Di	PCB-7/9	*	* n	NotF η	1.21	*		15000	2.5	3.07	*	0.866-0.874	
Di	PCB-6	*	* n	NotF η	1.30	*		15000	2.5	2.85	*	0.890-0.899	
Di	PCB-5/8	*	* n	NotF η	1.15	*		15000	2.5	3.24	*	0.907-0.917	
Di	PCB-14	*	* n	NotF η	1.11	*		15000	2.5	3.25	*	0.949-0.959	
Di	PCB-11	*	* n	NotF η	1.09	*		15000	2.5	3.32	*	0.995-1.005	
Di	PCB-12/13	*	* n	NotF η	1.19	*		15000	2.5	3.02	*	1.011-1.021	
Di	PCB-15	*	* n	NotF η	1.28	*		15000	2.5	2.81	*	1.023-1.033	
Tri	PCB-19	*	* n	NotF η	1.04	*		1770	2.5	0.480	*	0.996-1.006	
Tri	PCB-30	*	* n	NotF η	1.71	*		1770	2.5	0.293	*	1.032-1.042	
Tri	PCB-18	*	* n	NotF η	0.78	*		4710	1.0	0.455	*	0.949-0.959	
Tri	PCB-17	*	* n	NotF η	0.92	*		1770	2.5	0.362	*	0.956-0.966	
Tri	PCB-24/27	*	* n	NotF η	1.19	*		1770	2.5	0.281	*	0.977-0.987	
Tri	PCB-16/32	*	* n	NotF η	0.94	*		1770	2.5	0.355	*	0.995-1.005	
Tri	PCB-34	*	* n	NotF η	1.14	*		1610	2.5	0.357	*	0.955-0.965	
Tri	PCB-23	*	* n	NotF η	1.28	*		1610	2.5	0.317	*	0.959-0.969	
Tri	PCB-29	*	* n	NotF η	1.08	*		1610	2.5	0.376	*	0.967-0.977	
Tri	PCB-26	*	* n	NotF η	1.21	*		1610	2.5	0.336	*	0.974-0.984	
Tri	PCB-25	*	* n	NotF η	1.26	*		1610	2.5	0.322	*	0.979-0.989	
Tri	PCB-31	*	* n	NotF η	1.28	*		3400	1.0	0.267	*	0.992-1.002	
Tri	PCB-28	*	* n	NotF η	1.71	*		3400	1.0	0.200	*	0.995-1.005	
Tri	PCB-20/21/33	*	* n	NotF η	1.08	*		4200	1.0	0.391	*	1.017-1.027	
Tri	PCB-22	*	* n	NotF η	1.21	*		4200	1.0	0.350	*	1.032-1.042	
Tri	PCB-36	*	* n	NotF η	1.14	*		1610	2.5	0.396	*	0.928-0.938	
Tri	PCB-39	*	* n	NotF η	1.12	*		1610	2.5	0.405	*	0.943-0.953	
Tri	PCB-38	*	* n	NotF η	1.20	*		1610	2.5	0.377	*	0.966-0.976	
Tri	PCB-35	*	* n	NotF η	1.23	*		1610	2.5	0.367	*	0.982-0.992	
Tri	PCB-37	*	* n	NotF η	1.23	*		1610	2.5	0.367	*	0.995-1.005	
Tetra	PCB-54	*	* n	NotF η	1.10	*		1850	2.5	0.413	*	0.996-1.006	
Tetra	PCB-50	*	* n	NotF η	0.88	*		1850	2.5	0.517	*	1.037-1.047	
Tetra	PCB-53	*	* n	NotF η	1.06	*		1850	2.5	0.516	*	0.942-0.952	
Tetra	PCB-51	*	* n	NotF η	0.99	*		1850	2.5	0.554	*	0.952-0.962	
Tetra	PCB-45	*	* n	NotF η	0.86	*		1850	2.5	0.636	*	0.966-0.976	
Tetra	PCB-46	*	* n	NotF η	0.85	*		1850	2.5	0.650	*	0.981-0.991	

Integrations by:

Analyst: ms

Date: 9/23/14

Reviewed by: 10/2

Date: 9/29/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2
GC Column ID: ZB-1

S:6 Acq:20-SEP-14 05:05:04
ICal: PCBVG8-6-23-14 wt/vol:10.000

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	*	*	n NotF η	1.28	*		1850	2.5	0.428	*	0.996-1.006	
Tetra	PCB-73	*	*	n NotF η	1.35	*		1850	2.5	0.406	*	1.000-1.010	
Tetra	PCB-43/49	*	*	n NotF η	0.99	*		1850	2.5	0.552	*	1.005-1.015	
Tetra	PCB-47	*	*	n NotF η	1.06	*		1850	2.5	0.473	*	0.996-1.006	
Tetra	PCB-48/75	*	*	n NotF η	1.23	*		1850	2.5	0.408	*	0.999-1.009	
Tetra	PCB-65	*	*	n NotF η	1.22	*		1850	2.5	0.409	*	1.008-1.018	
Tetra	PCB-62	*	*	n NotF η	1.22	*		1850	2.5	0.410	*	1.011-1.021	
Tetra	PCB-44	*	*	n NotF η	0.86	*		1850	2.5	0.583	*	1.021-1.031	
Tetra	PCB-42/59	*	*	n NotF η	1.14	*		1850	2.5	0.441	*	1.028-1.038	
Tetra	PCB-41/64/71/72	*	*	n NotF η	1.21	*		1850	2.5	0.415	*	1.046-1.056	
Tetra	PCB-68	*	*	n NotF η	1.35	*		1850	2.5	0.372	*	1.054-1.064	
Tetra	PCB-40	*	*	n NotF η	0.70	*		1850	2.5	0.715	*	1.061-1.071	
Tetra	PCB-57	*	*	n NotF η	0.98	*		1850	2.5	0.406	*	0.965-0.975	
Tetra	PCB-67	*	*	n NotF η	1.11	*		1850	2.5	0.359	*	0.974-0.984	
Tetra	PCB-58	*	*	n NotF η	0.93	*		1850	2.5	0.428	*	0.977-0.987	
Tetra	PCB-63	*	*	n NotF η	0.95	*		1850	2.5	0.417	*	0.982-0.992	
Tetra	PCB-74	*	*	n NotF η	1.24	*		1850	2.5	0.319	*	0.990-1.000	
Tetra	PCB-61/70	*	*	n NotF η	0.95	*		1850	2.5	0.417	*	0.995-1.005	
Tetra	PCB-76/66	*	*	n NotF η	1.04	*		1850	2.5	0.380	*	1.001-1.011	
Tetra	PCB-80	*	*	n NotF η	1.19	*		1850	2.5	0.325	*	0.996-1.006	
Tetra	PCB-55	*	*	n NotF η	1.04	*		1850	2.5	0.373	*	1.005-1.015	
Tetra	PCB-56/60	*	*	n NotF η	1.01	*		1850	2.5	0.384	*	1.019-1.029	
Tetra	PCB-79	*	*	n NotF η	1.08	*		1850	2.5	0.359	*	1.048-1.058	
Tetra	PCB-78	*	*	n NotF η	1.27	*		1850	2.5	0.339	*	0.982-0.992	
Tetra	PCB-81	*	*	n NotF η	1.33	*		1850	2.5	0.323	*	0.995-1.005	
Tetra	PCB-77	*	*	n NotF η	1.10	*		1850	2.5	0.377	*	0.995-1.005	
Penta	PCB-104	*	*	n NotF η	1.18	*		1760	2.5	0.650	*	0.996-1.006	
Penta	PCB-96	*	*	n NotF η	1.14	*		1760	2.5	0.676	*	1.034-1.044	
Penta	PCB-103	*	*	n NotF η	0.96	*		1760	2.5	0.804	*	1.050-1.060	
Penta	PCB-100	*	*	n NotF η	0.94	*		1760	2.5	0.821	*	1.061-1.071	
Penta	PCB-94	*	*	n NotF η	1.06	*		1760	2.5	0.973	*	0.980-0.990	
Penta	PCB-95/98/102	*	*	n NotF η	1.22	*		1760	2.5	0.840	*	0.995-1.005	
Penta	PCB-93	*	*	n NotF η	0.84	*		1760	2.5	1.22	*	0.997-1.007	
Penta	PCB-88/91	*	*	n NotF η	1.12	*		1760	2.5	0.921	*	1.005-1.015	
Penta	PCB-121	*	*	n NotF η	1.62	*		1760	2.5	0.637	*	1.009-1.019	
Penta	PCB-84/92	*	*	n NotF η	1.05	*		1760	2.5	0.870	*	0.985-0.995	
Penta	PCB-89	*	*	n NotF η	1.13	*		1760	2.5	0.805	*	0.991-1.001	

Analyst: mm

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2
GC Column ID: ZB-1

S:6 Acq:20-SEP-14 05:05:04
ICal: PCBVG8-6-23-14 wt/vol:10.000

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	*	* n	NotF η	1.10	*		1760	2.5	0.827	*	0.995-1.005	
Penta	PCB-113	*	* n	NotF η	1.41	*		1760	2.5	0.645	*	1.002-1.012	
Penta	PCB-99	*	* n	NotF η	1.34	*		1760	2.5	0.681	*	1.004-1.014	
Penta	PCB-119	*	* n	NotF η	1.53	*		1760	2.5	0.627	*	0.982-0.992	
Penta	PCB-108/112	*	* n	NotF η	1.28	*		1760	2.5	0.750	*	0.986-0.996	
Penta	PCB-83	*	* n	NotF η	1.52	*		1760	2.5	0.632	*	0.990-1.000	
Penta	PCB-97	*	* n	NotF η	1.18	*		1760	2.5	0.812	*	0.995-1.005	
Penta	PCB-86	*	* n	NotF η	0.84	*		1760	2.5	1.14	*	0.999-1.009	
Penta	PCB-87/117/125	*	* n	NotF η	1.55	*		1760	2.5	0.620	*	1.002-1.012	
Penta	PCB-111/115	*	* n	NotF η	1.63	*		1760	2.5	0.588	*	1.006-1.016	
Penta	PCB-85/116	*	* n	NotF η	1.30	*		1760	2.5	0.737	*	1.010-1.020	
Penta	PCB-120	*	* n	NotF η	1.68	*		1760	2.5	0.573	*	1.016-1.026	
Penta	PCB-110	*	* n	NotF η	1.56	*		1760	2.5	0.617	*	1.020-1.030	
Penta	PCB-82	*	* n	NotF η	0.76	*		1760	2.5	0.966	*	0.971-0.981	
Penta	PCB-124	*	* n	NotF η	1.47	*		1760	2.5	0.499	*	0.988-0.998	
Penta	PCB-107/109	*	* n	NotF η	1.32	*		1760	2.5	0.555	*	0.991-1.001	
Penta	PCB-123	*	* n	NotF η	1.17	*		1760	2.5	0.628	*	0.996-1.006	
Penta	PCB-106/118	*	* n	NotF η	1.17	*		1760	2.5	0.633	*	0.996-1.006	
Penta	PCB-114	*	* n	NotF η	1.30	*		2360	2.5	0.775	*	0.995-1.005	
Penta	PCB-122	*	* n	NotF η	1.12	*		2360	2.5	0.897	*	0.999-1.009	
Penta	PCB-105	*	* n	NotF η	1.30	*		2360	2.5	0.738	*	0.995-1.005	
Penta	PCB-127	*	* n	NotF η	1.33	*		2360	2.5	0.687	*	0.996-1.006	
Penta	PCB-126	*	* n	NotF η	1.18	*		2360	2.5	0.886	*	0.995-1.005	
Hexa	PCB-155	*	* n	NotF η	1.11	*		1270	2.5	0.423	*	0.966-1.006	
Hexa	PCB-150	*	* n	NotF η	1.00	*		1270	2.5	0.472	*	1.030-1.040	
Hexa	PCB-152	*	* n	NotF η	1.12	*		1270	2.5	0.423	*	1.043-1.053	
Hexa	PCB-145	*	* n	NotF η	1.20	*		1270	2.5	0.392	*	1.055-1.065	
Hexa	PCB-136	*	* n	NotF η	1.18	*		1270	2.5	0.400	*	1.064-1.074	
Hexa	PCB-148	*	* n	NotF η	0.74	*		1270	2.5	0.633	*	1.066-1.076	
Hexa	PCB-154	*	* n	NotF η	0.86	*		1270	2.5	0.550	*	1.080-1.090	
Hexa	PCB-151	*	* n	NotF η	0.75	*		1270	2.5	0.631	*	1.097-1.107	
Hexa	PCB-135	*	* n	NotF η	0.79	*		1270	2.5	0.595	*	1.103-1.113	
Hexa	PCB-144	*	* n	NotF η	0.76	*		1270	2.5	0.619	*	1.105-1.117	
Hexa	PCB-147	*	* n	NotF η	0.82	*		1270	2.5	0.575	*	1.109-1.121	
Hexa	PCB-139/149	*	* n	NotF η	0.76	*		1270	2.5	0.619	*	1.116-1.128	
Hexa	PCB-140	*	* n	NotF η	0.72	*		1270	2.5	0.653	*	1.121-1.133	
Hexa	PCB-134/143	*	* n	NotF η	0.92	*		1900	2.5	0.752	*	0.970-0.980	

Analyst: MM

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2
GC Column ID: ZB-1

S:6 Acq:20-SEP-14 05:05:04
ICal: PCBVG8-6-23-14 wt/vol:10.000

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	*	* n	NotF η	0.82	*		1900	2.5	0.842	*	0.977-0.987	
Hexa	PCB-131	*	* n	NotF η	0.91	*		1900	2.5	0.760	*	0.981-0.991	
Hexa	PCB-146/165	*	* n	NotF η	1.25	*		1900	2.5	0.553	*	0.986-0.996	
Hexa	PCB-132/161	*	* n	NotF η	1.10	*		1900	2.5	0.624	*	0.992-1.002	
Hexa	PCB-153	*	* n	NotF η	1.25	*		1900	2.5	0.552	*	0.995-1.005	
Hexa	PCB-168	*	* n	NotF η	1.45	*		1900	2.5	0.476	*	1.001-1.011	
Hexa	PCB-141	*	* n	NotF η	1.09	*		1900	2.5	0.714	*	0.995-1.005	
Hexa	PCB-137	*	* n	NotF η	1.06	*		1900	2.5	0.730	*	1.004-1.014	
Hexa	PCB-130	*	* n	NotF η	0.96	*		1900	2.5	0.803	*	1.006-1.016	
Hexa	PCB-138/163/164	*	* n	NotF η	1.29	*		1900	2.5	0.550	*	0.996-1.006	
Hexa	PCB-158/160	*	* n	NotF η	1.34	*		1900	2.5	0.530	*	1.001-1.011	
Hexa	PCB-129	*	* n	NotF η	0.85	*		1900	2.5	0.834	*	1.007-1.017	
Hexa	PCB-166	*	* n	NotF η	1.19	*		1900	2.5	0.541	*	0.988-0.998	
Hexa	PCB-159	*	* n	NotF η	1.11	*		1900	2.5	0.577	*	0.996-1.006	
Hexa	PCB-128/162	*	* n	NotF η	1.05	*		1900	2.5	0.613	*	1.002-1.012	
Hexa	PCB-167	*	* n	NotF η	1.20	*		1900	2.5	0.482	*	0.995-1.005	
Hexa	PCB-156	*	* n	NotF η	1.14	*		1900	2.5	0.546	*	0.996-1.006	
Hexa	PCB-157	*	* n	NotF η	1.16	*		1900	2.5	0.517	*	0.995-1.005	
Hexa	PCB-169	*	* n	NotF η	1.12	*		1900	2.5	0.560	*	0.995-1.005	
Hepta	PCB-188	*	* n	NotF η	1.58	*		1660	2.5	0.275	*	0.996-1.006	
Hepta	PCB-184	*	* n	NotF η	1.63	*		1660	2.5	0.266	*	1.006-1.016	
Hepta	PCB-179	*	* n	NotF η	1.30	*		1660	2.5	0.333	*	1.024-1.034	
Hepta	PCB-176	*	* n	NotF η	1.48	*		1660	2.5	0.294	*	1.035-1.045	
Hepta	PCB-186	*	* n	NotF η	1.45	*		1660	2.5	0.299	*	1.050-1.060	
Hepta	PCB-178	*	* n	NotF η	1.03	*		1660	2.5	0.420	*	1.061-1.071	
Hepta	PCB-175	*	* n	NotF η	1.01	*		1660	2.5	0.429	*	1.069-1.079	
Hepta	PCB-182/187	*	* n	NotF η	1.25	*		1660	2.5	0.347	*	1.073-1.083	
Hepta	PCB-183	*	* n	NotF η	1.21	*		1660	2.5	0.359	*	1.081-1.091	
Hepta	PCB-185	*	* n	NotF η	1.80	*		1660	2.5	0.320	*	0.951-0.961	
Hepta	PCB-174	*	* n	NotF η	1.38	*		1660	2.5	0.418	*	0.958-0.968	
Hepta	PCB-181	*	* n	NotF η	1.38	*		1660	2.5	0.417	*	0.960-0.970	
Hepta	PCB-177	*	* n	NotF η	1.26	*		1660	2.5	0.459	*	0.963-0.973	
Hepta	PCB-171	*	* n	NotF η	1.58	*		1660	2.5	0.364	*	0.970-0.980	
Hepta	PCB-173	*	* n	NotF η	1.11	*		1660	2.5	0.519	*	0.978-0.988	
Hepta	PCB-172	*	* n	NotF η	1.63	*		1660	2.5	0.352	*	0.987-0.997	
Hepta	PCB-192	*	* n	NotF η	1.74	*		1660	2.5	0.331	*	0.991-1.001	
Hepta	PCB-180	*	* n	NotF η	1.34	*		1660	2.5	0.428	*	0.995-1.005	

Analyst: vm

Date: 9/23/14

Client ID: Method Blank
Lab ID: B4I0061-BLK1

Filename: 140919E2
GC Column ID: ZB-1

S:6 Acq:20-SEP-14 05:05:04
ICal: PCBVG8-6-23-14 wt/vol:10.000

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	* n	NotF η	1.72	*		1660	2.5	0.336	*	0.999-1.009	
Hepta	PCB-191	*	* n	NotF η	1.69	*		1660	2.5	0.340	*	1.004-1.014	
Hepta	PCB-170	*	* n	NotF η	1.60	*		1660	2.5	0.410	*	0.995-1.005	
Hepta	PCB-190	*	* n	NotF η	2.21	*		1660	2.5	0.297	*	0.998-1.008	
Hepta	PCB-189	*	* n	NotF η	1.55	*		1660	2.5	0.329	*	0.995-1.005	
Octa	PCB-202	*	* n	NotF η	1.08	*		1510	2.5	0.459	*	0.995-1.005	
Octa	PCB-201	*	* n	NotF η	1.15	*		1510	2.5	0.432	*	1.005-1.015	
Octa	PCB-204	*	* n	NotF η	1.14	*		1510	2.5	0.436	*	1.008-1.018	
Octa	PCB-197	*	* n	NotF η	1.07	*		1510	2.5	0.462	*	1.015-1.025	
Octa	PCB-200	*	* n	NotF η	1.06	*		1510	2.5	0.467	*	1.032-1.044	
Octa	PCB-198	*	* n	NotF η	0.76	*		1510	2.5	0.658	*	1.059-1.069	
Octa	PCB-199	*	* n	NotF η	0.80	*		1510	2.5	0.623	*	1.061-1.071	
Octa	PCB-196/203	*	* n	NotF η	0.80	*		1510	2.5	0.620	*	1.066-1.076	
Octa	PCB-195	*	* n	NotF η	1.23	*		1480	2.5	0.496	*	0.979-0.989	
Octa	PCB-194	*	* n	NotF η	1.21	*		1480	2.5	0.502	*	0.995-1.005	
Octa	PCB-205	*	* n	NotF η	1.54	*		1480	2.5	0.394	*	1.001-1.011	
Nona	PCB-208	*	* n	NotF η	0.93	*		1160	2.5	0.303	*	0.995-1.005	
Nona	PCB-207	*	* n	NotF η	1.08	*		1160	2.5	0.260	*	1.001-1.011	
Nona	PCB-206	*	* n	NotF η	1.02	*		1160	2.5	0.610	*	0.995-1.005	
Deca	PCB-209	*	* n	NotF η	1.17	*		2100	1.0	0.485	*	0.995-1.005	

Analyst: VM

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: 10.0000 EndCAL: NA

ConCal: ST140919E2-1

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	*	* n	NotFnd	1.09	*
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	*	* n	NotFnd	1.11	* Sum:0.00000
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:0.0000000000

Integrations

by
Analyst:

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

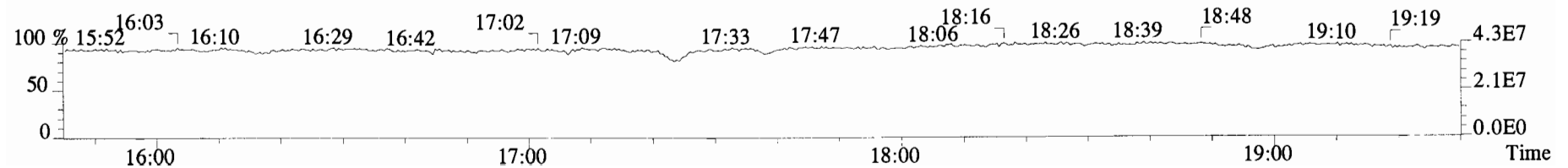
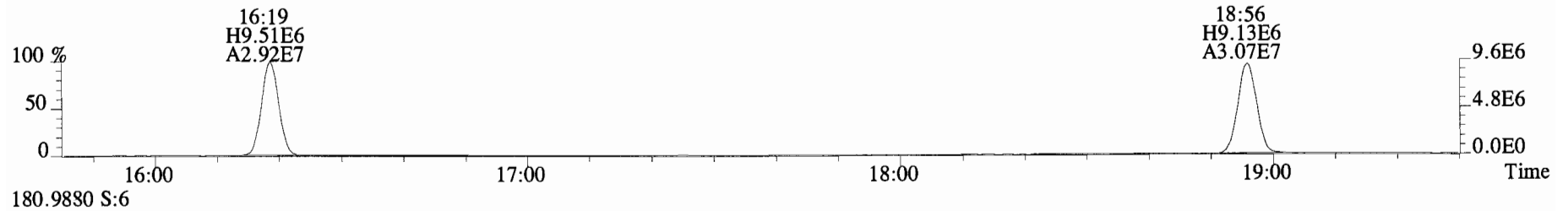
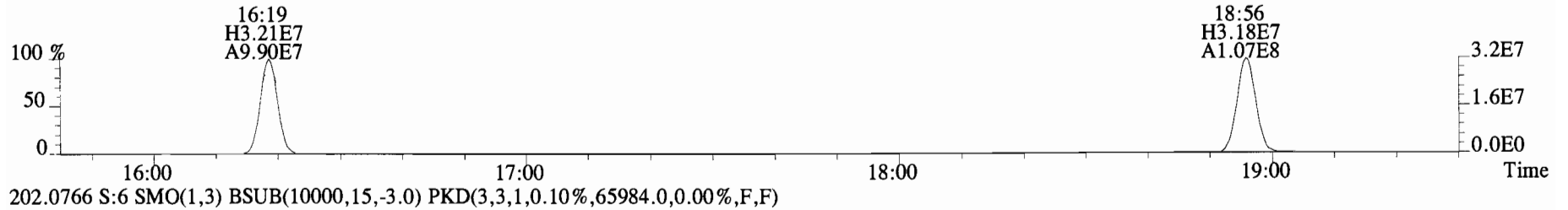
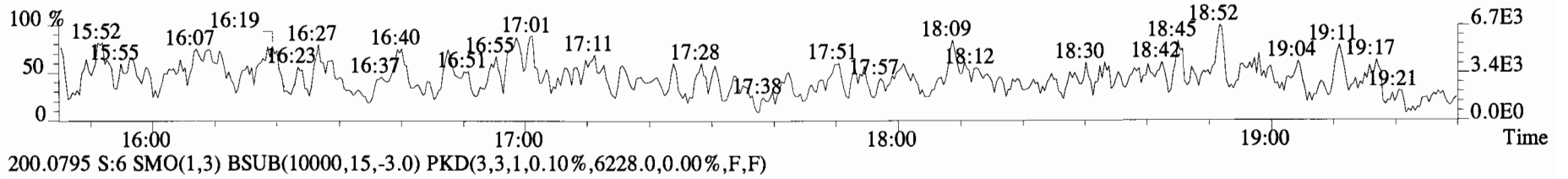
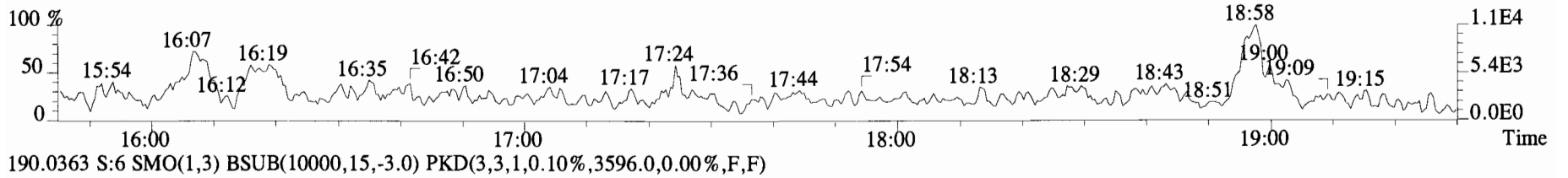
ConCal: ST140919E2-1
 EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS
13C-PCB-1	1.28e+08	3.39	y	0.87	16:19	0.624	0.629-0.635	907	90.7	
13C-PCB-3	1.38e+08	3.50	y	0.91	18:56	0.724	0.725-0.733	934	93.4	
13C-PCB-4	6.14e+07	1.59	y	0.59	20:16	0.776	0.775-0.783	646	64.6	13C-PCB-79 1.12e+08 0.85 y 1.02 38:00 1.028 1.023-1.034 800 80.0
13C-PCB-9	9.62e+07	1.59	y	0.90	22:03	0.844	0.842-0.850	662	66.2	13C-PCB-178 4.88e+07 0.47 y 0.61 45:50 0.985 0.979-0.990 908 90.8
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	PS vs. IS
13C-PCB-19	7.12e+07	1.11	y	0.53	24:25	0.934	0.930-0.940	826	82.6	Name Resp RA RRF RT RRT LCL UCL Conc Rec
13C-PCB-28	9.16e+07	1.11	y	0.93	29:17	1.003	0.999-1.009	686	68.6	13C-PCB-79 1.12e+08 0.85 y 1.10 38:00 0.969 0.964-0.974 1020 102
13C-PCB-52	7.47e+07	0.85	y	0.77	31:42	0.858	0.853-0.861	705	70.5	13C-PCB-178 4.88e+07 0.47 y 0.90 45:50 0.925 0.920-0.930 1040 104
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	Name Resp RA RRF RT Conc
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	
13C-PCB-208	6.93e+07	0.77	y	1.08	53:16	0.982	0.976-0.986	866	86.6	
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	

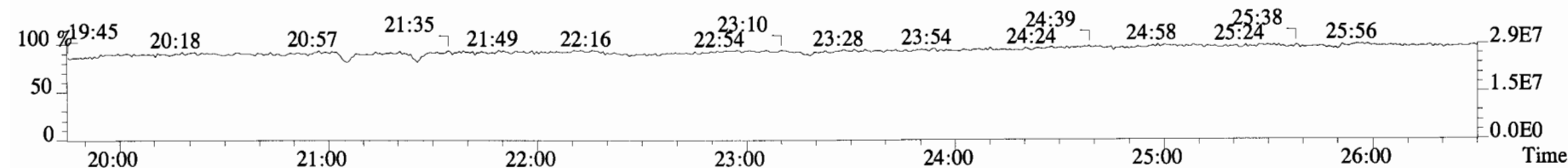
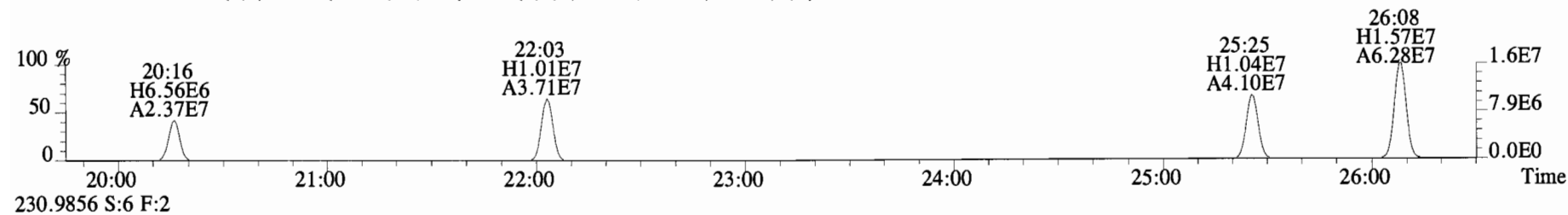
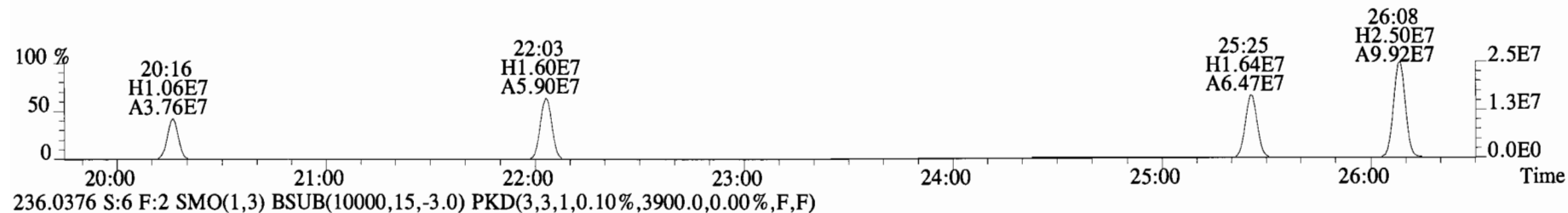
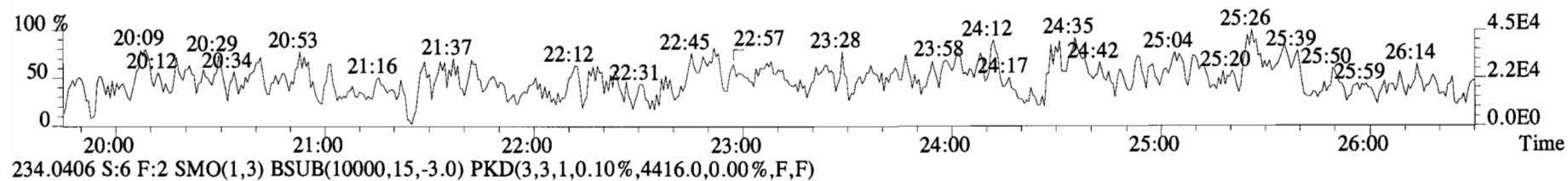
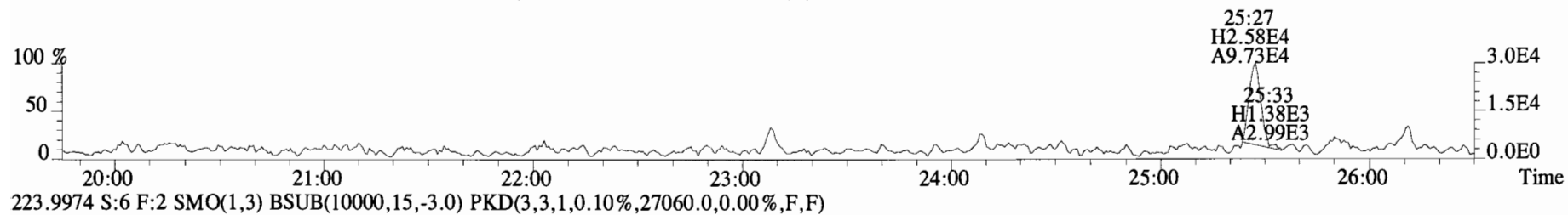
Analyst: ms

Date: 9/23/14

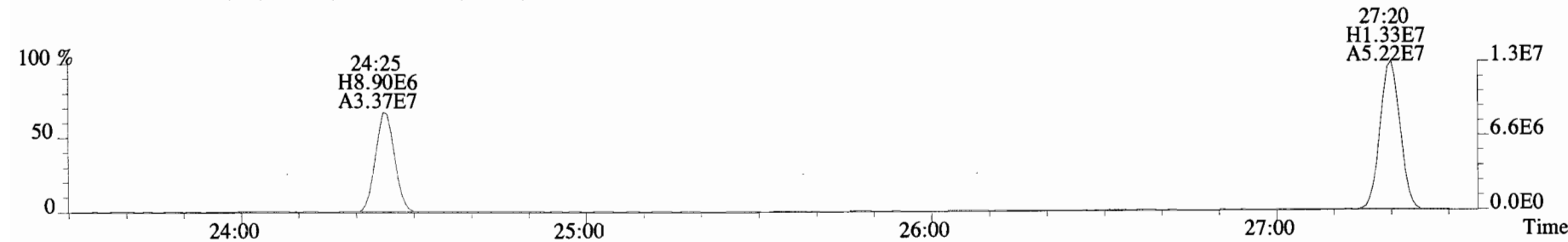
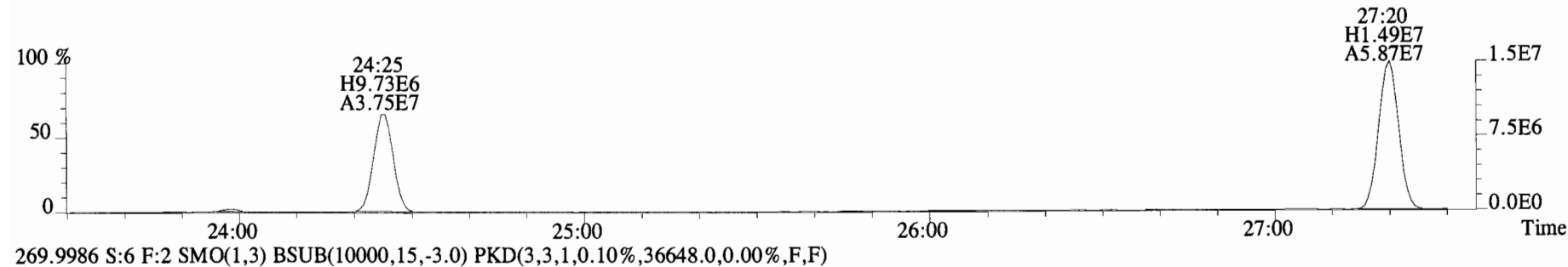
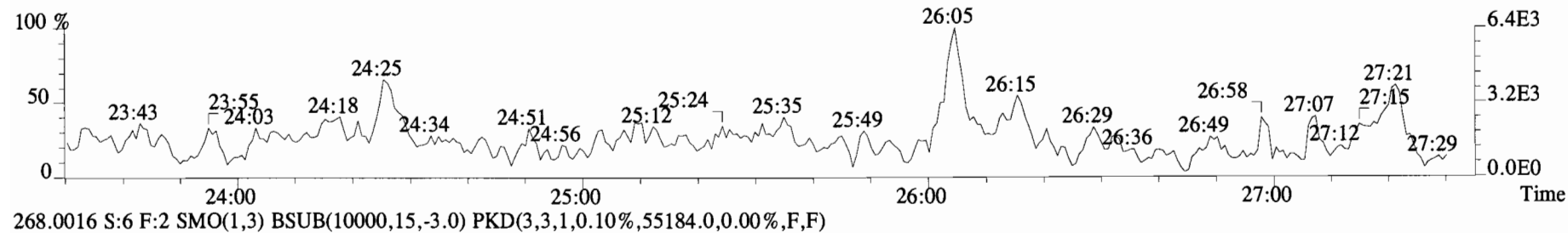
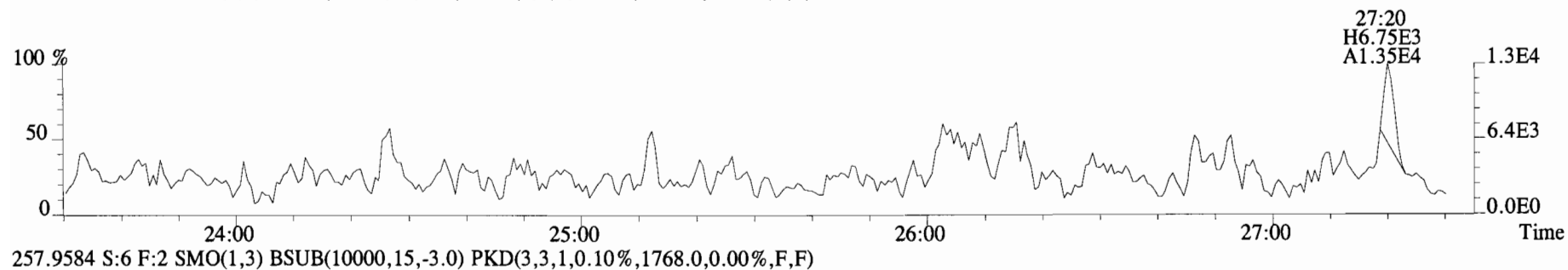
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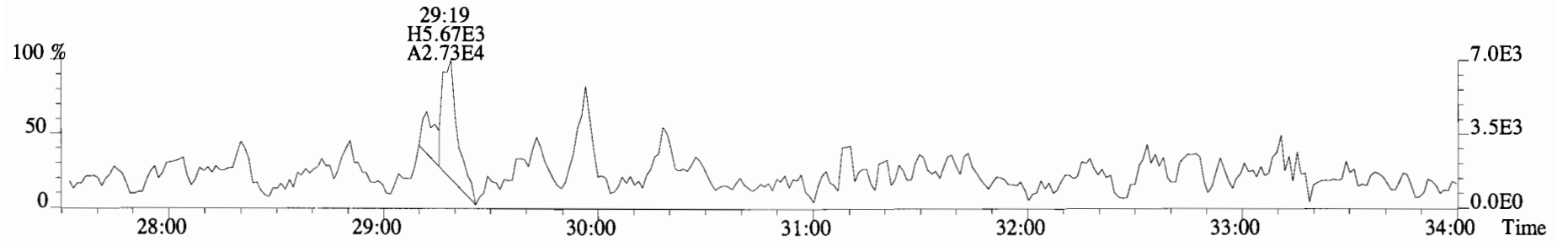
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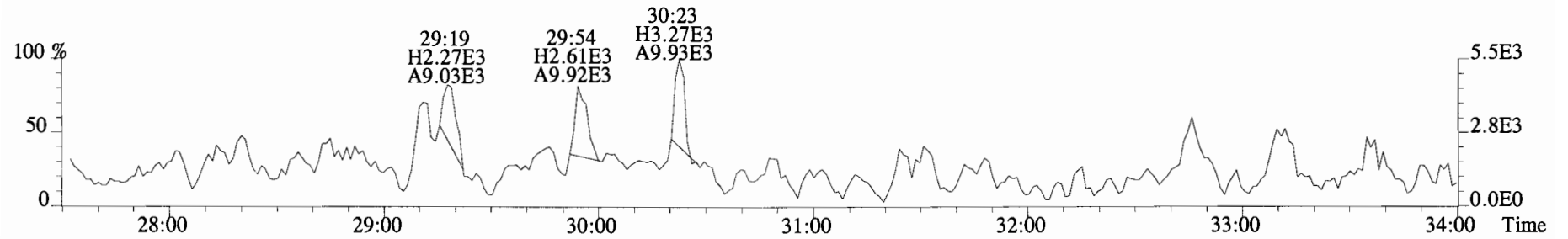
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Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
255.9613 S:6 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4012.0,0.00%,F,F)



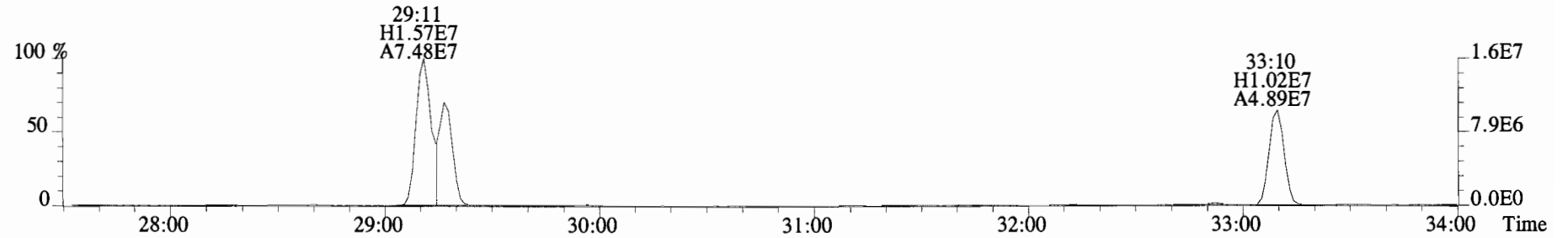
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
255.9613 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1912.0,0.00%,F,F)



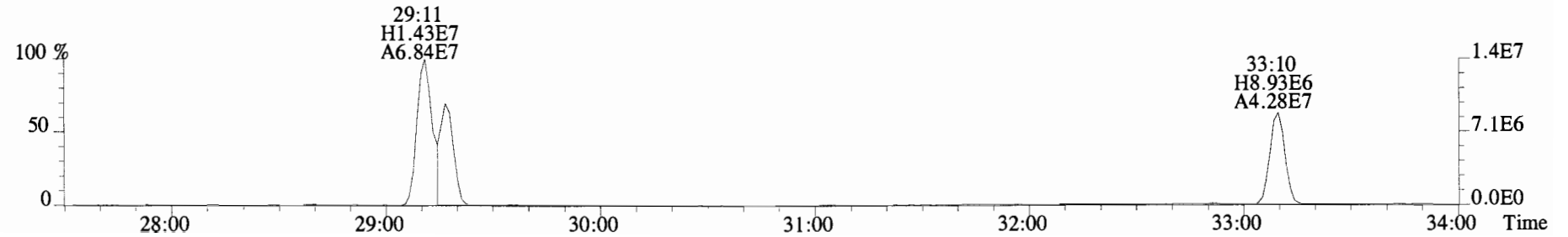
257.9584 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1612.0,0.00%,F,F)



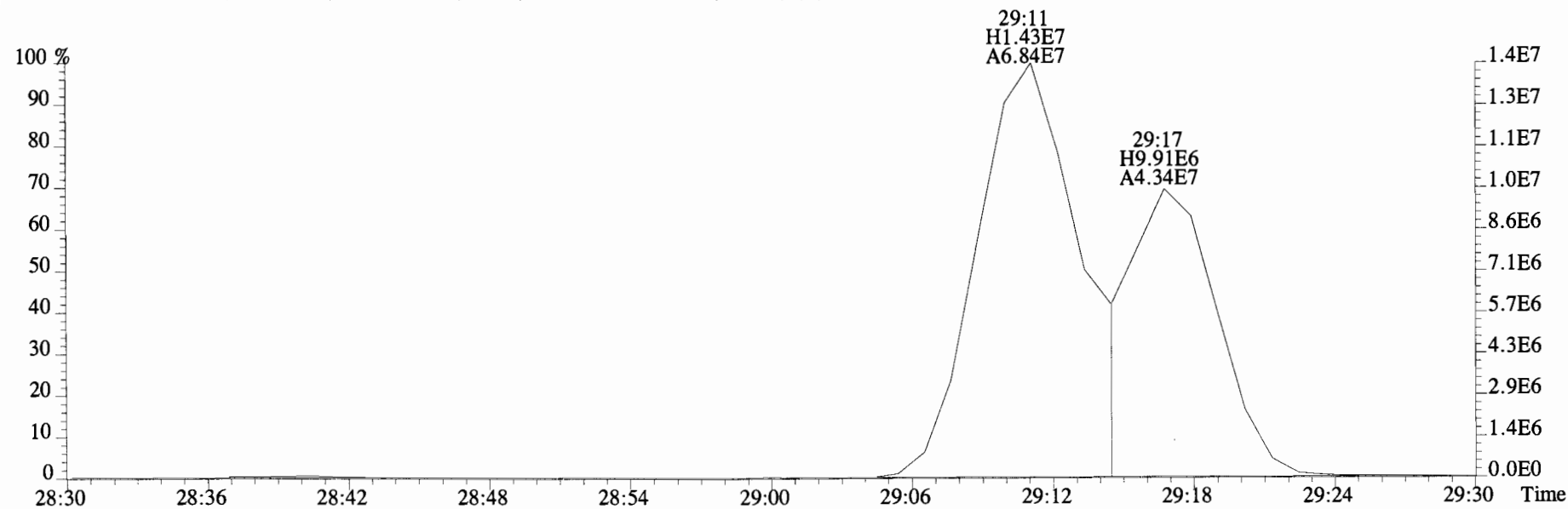
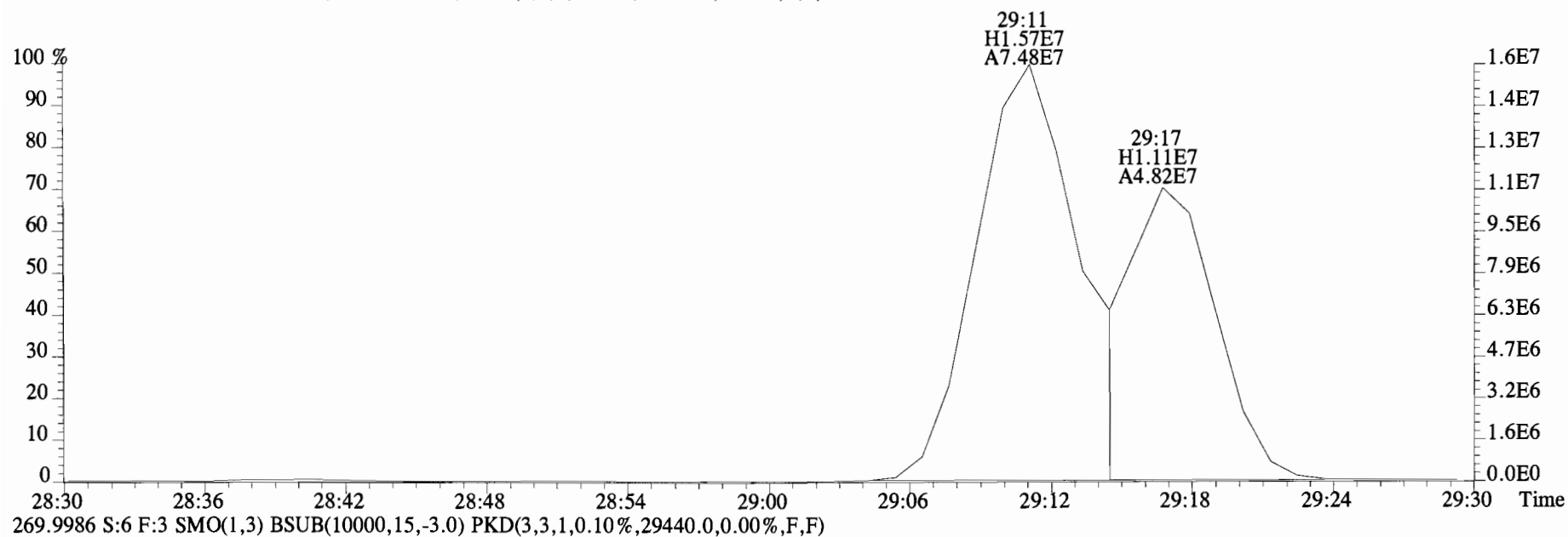
268.0016 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,43164.0,0.00%,F,F)



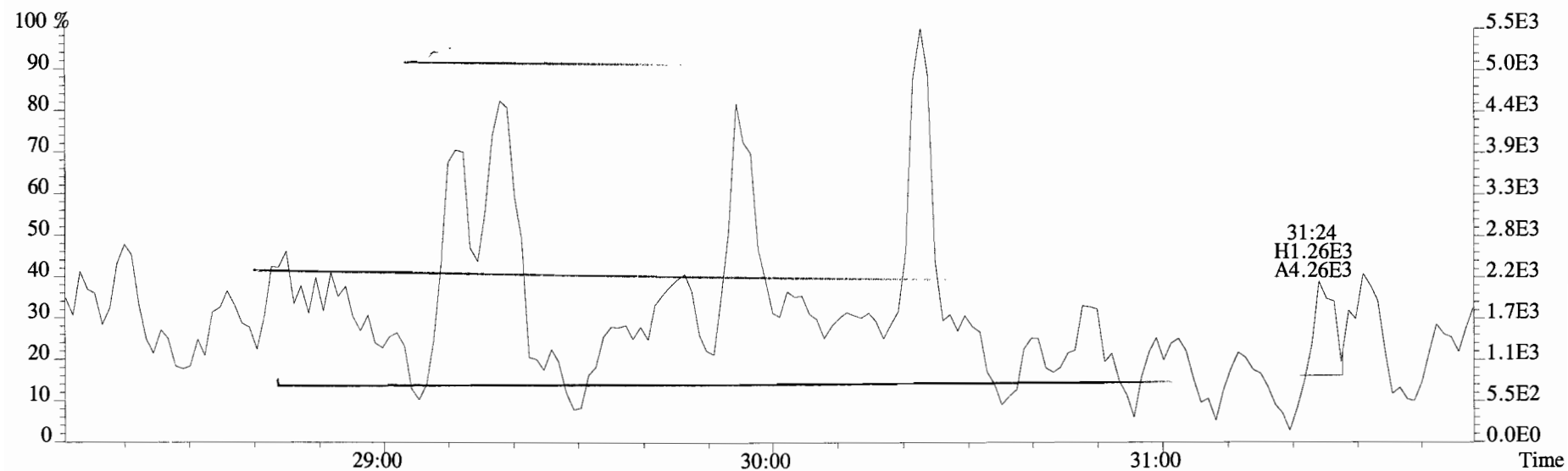
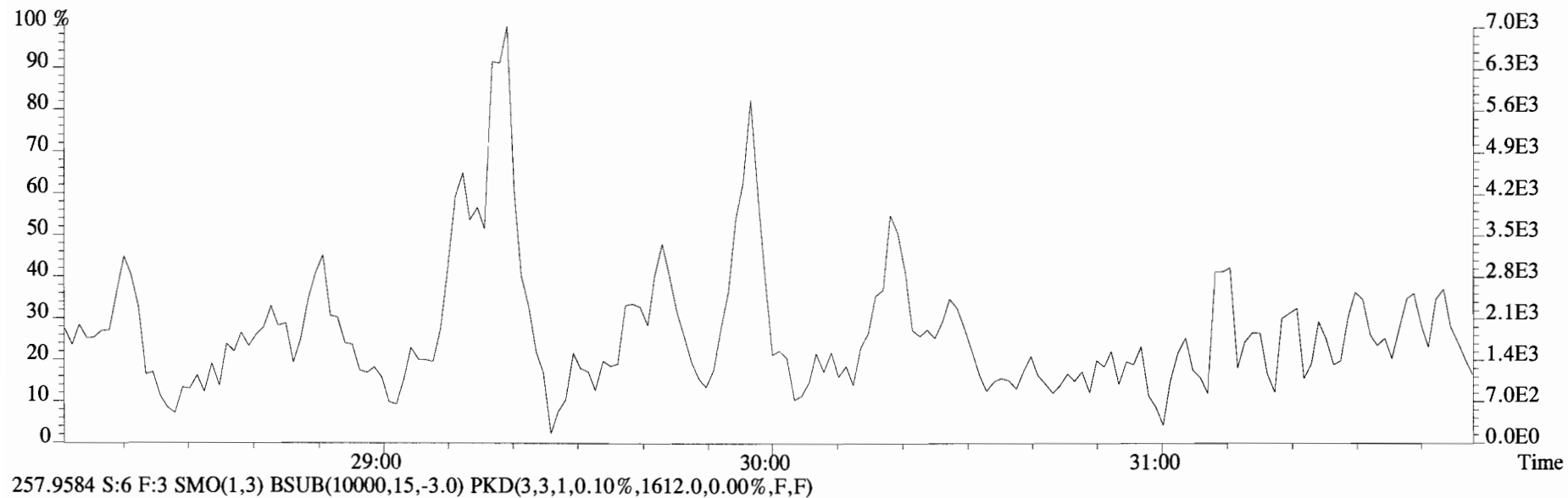
269.9986 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,29440.0,0.00%,F,F)



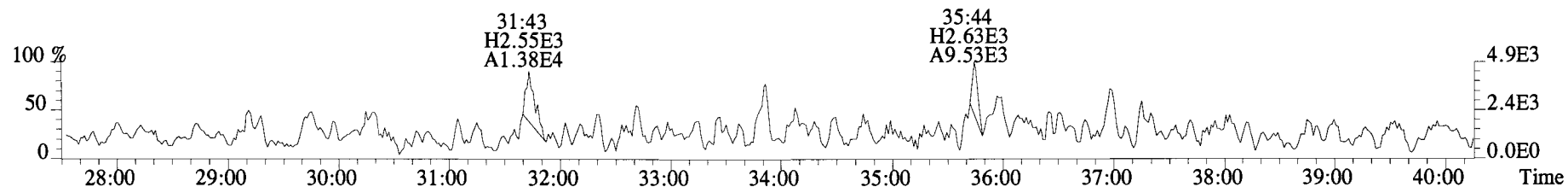
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
268.0016 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,43164.0,0.00%,F,F)



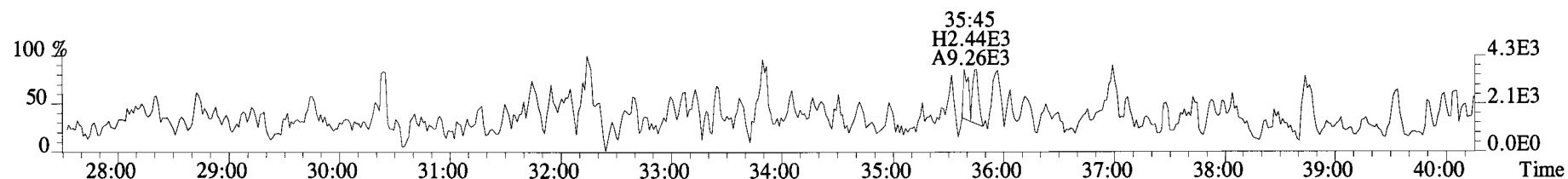
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
255.9613 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1912.0,0.00%,F,F)



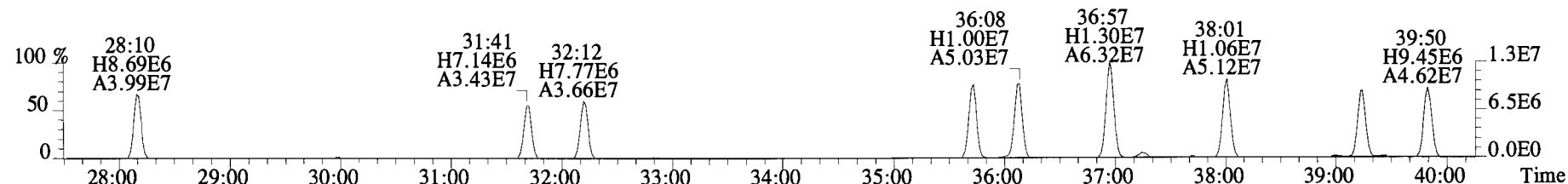
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
289.9224 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1524.0,0.00%,F,F)



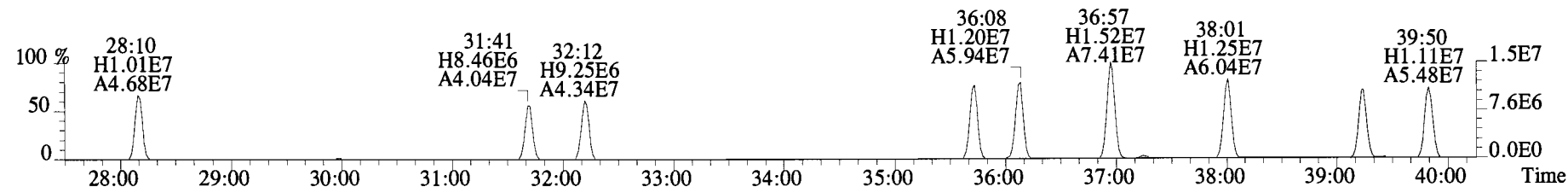
291.9194 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1852.0,0.00%,F,F)



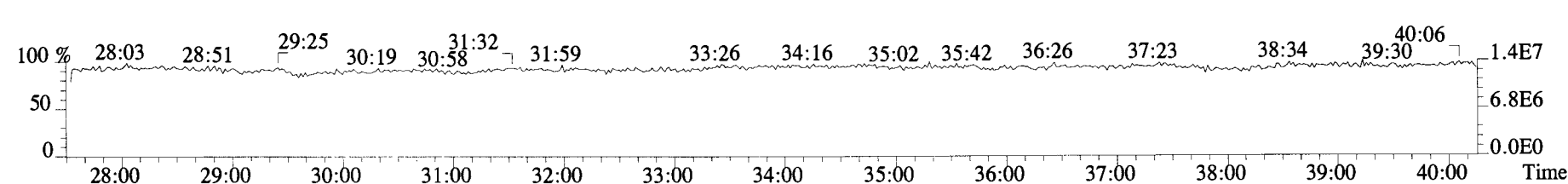
301.9626 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9204.0,0.00%,F,F)



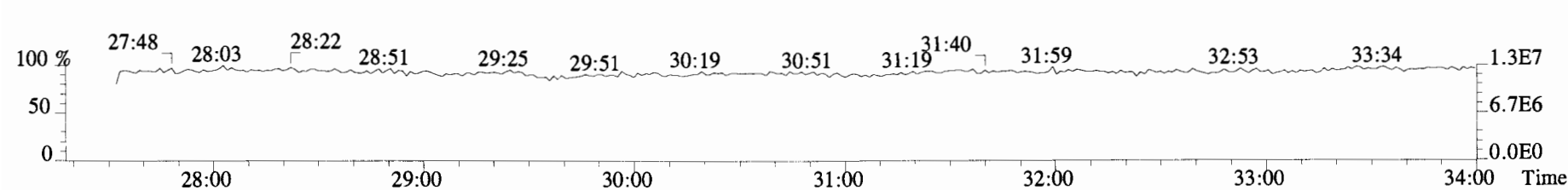
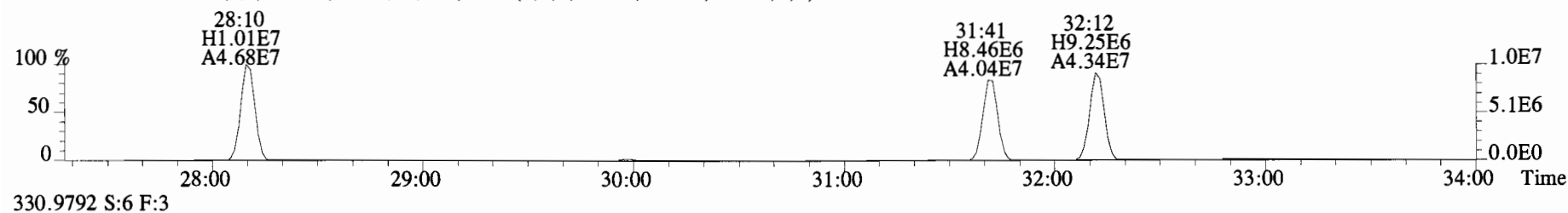
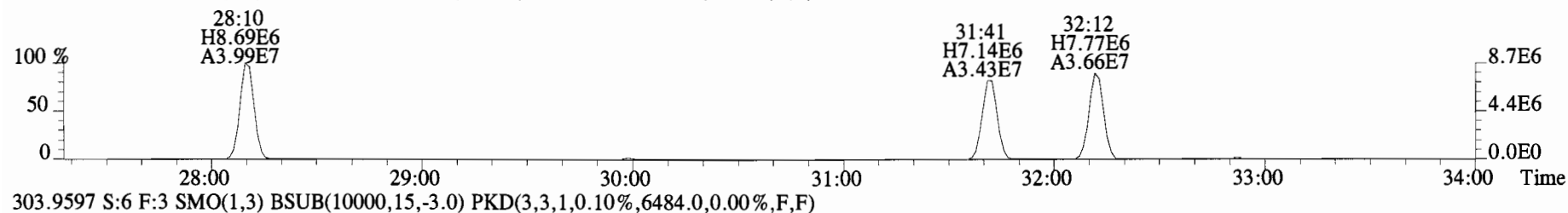
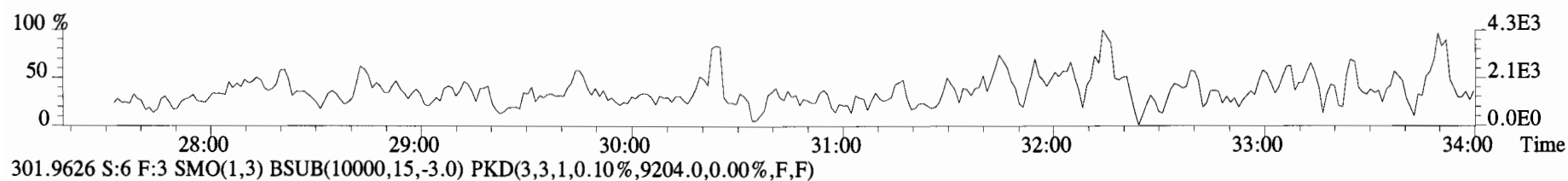
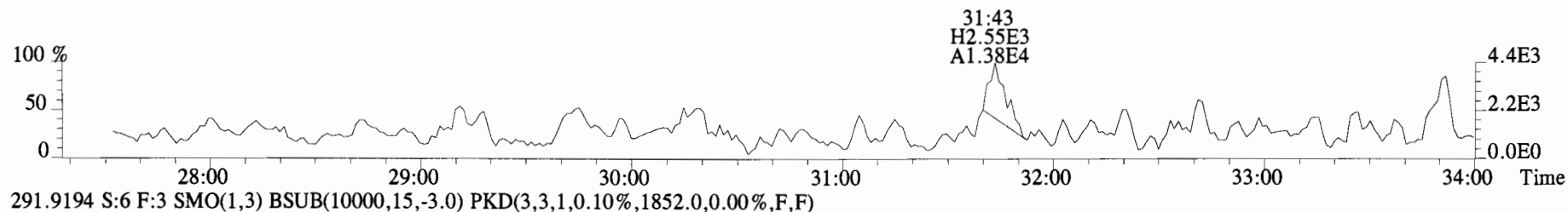
303.9597 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6484.0,0.00%,F,F)



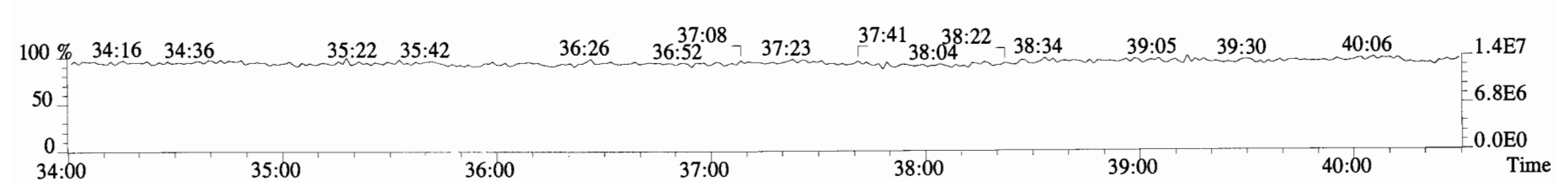
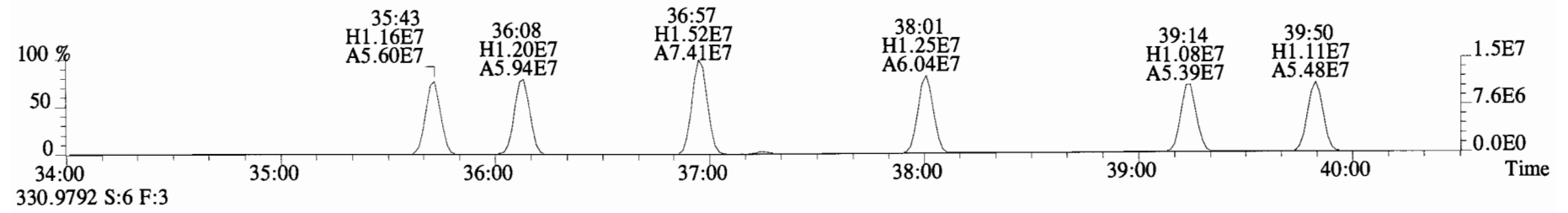
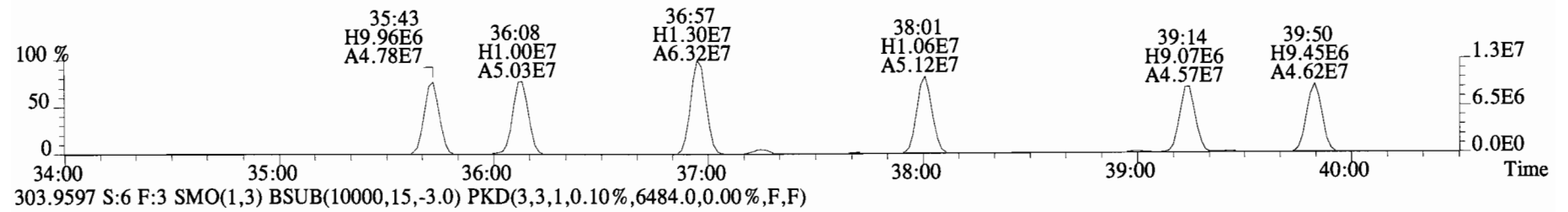
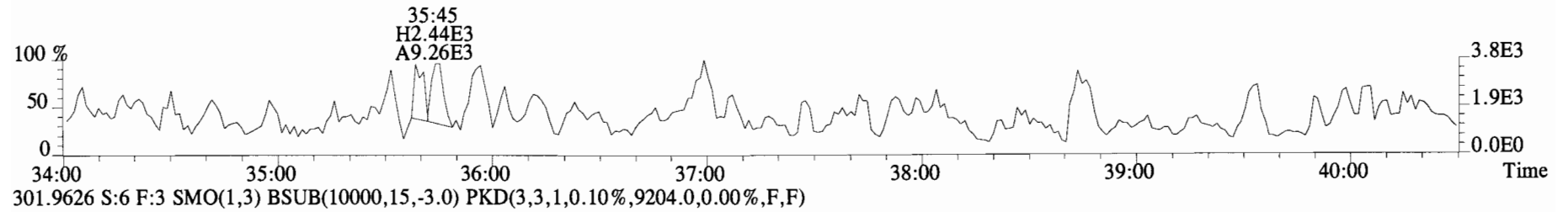
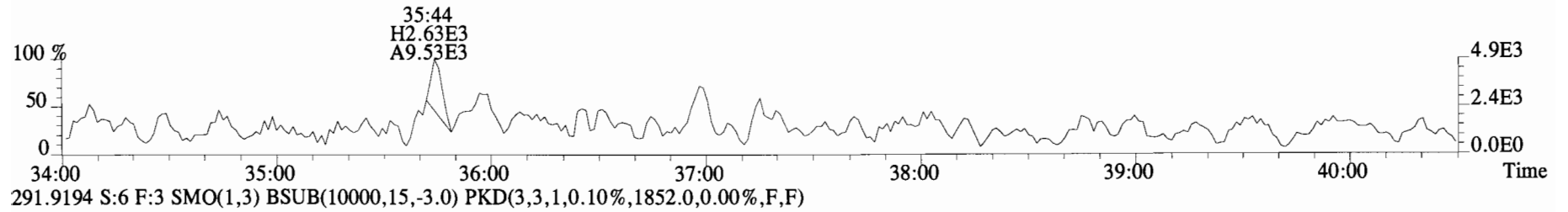
330.9792 S:6 F:3



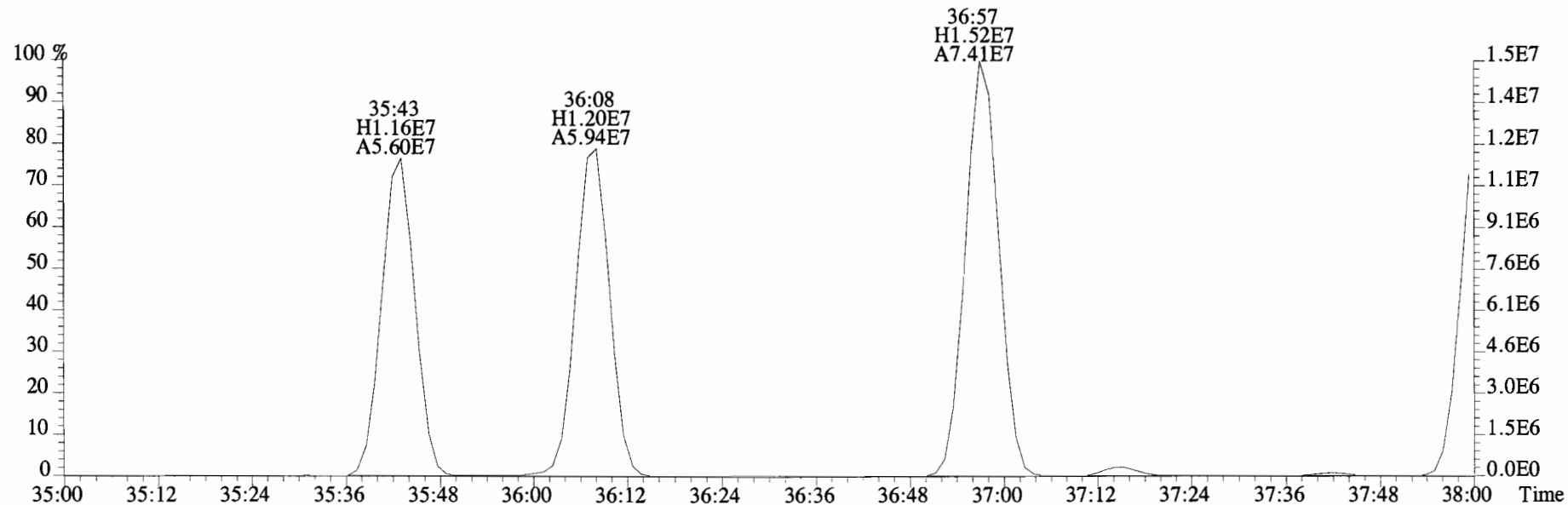
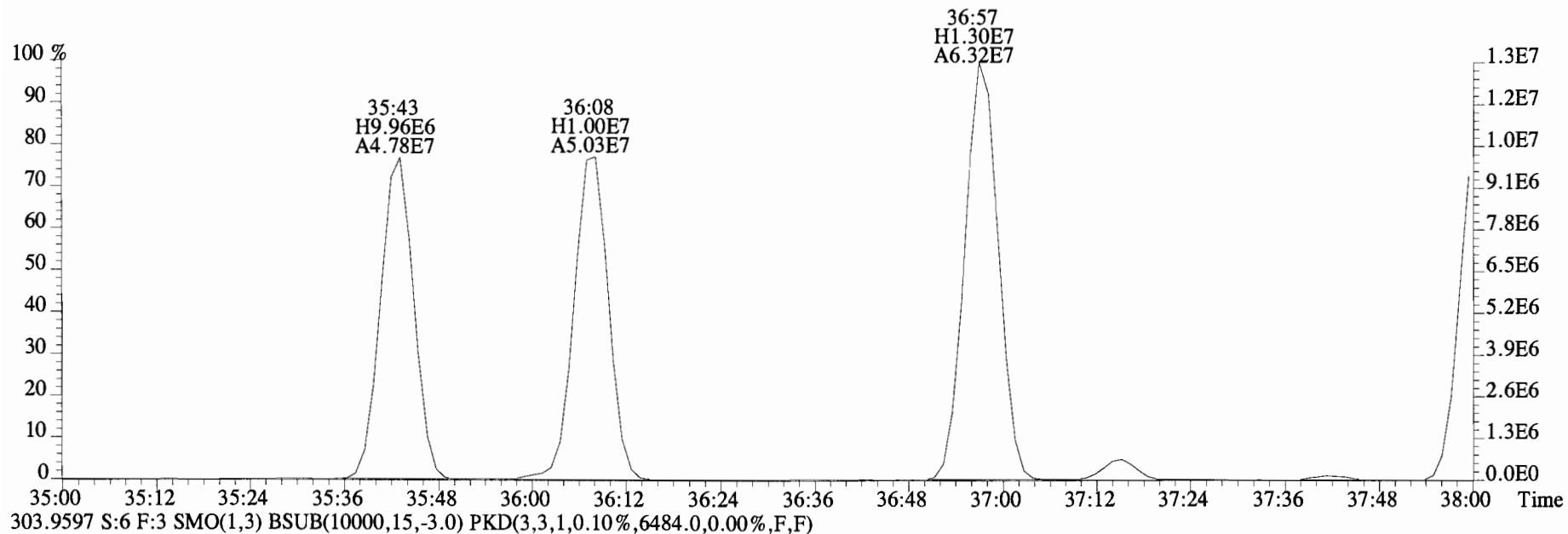
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
289.9224 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1524.0,0.00%,F,F)



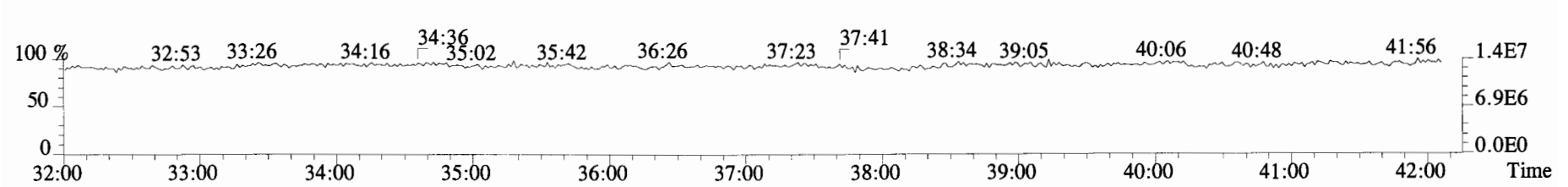
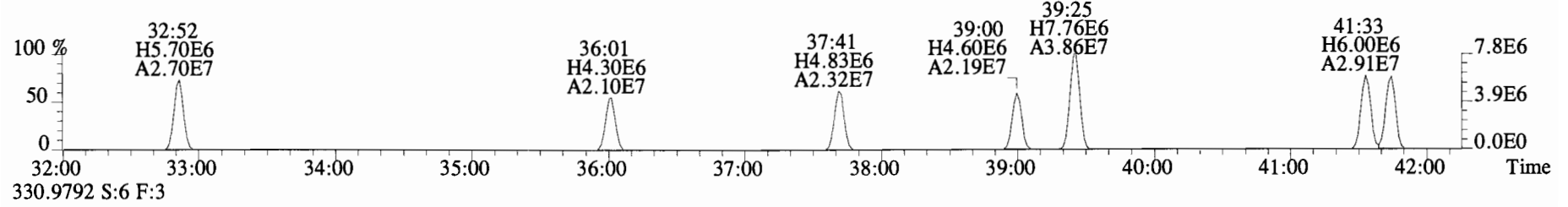
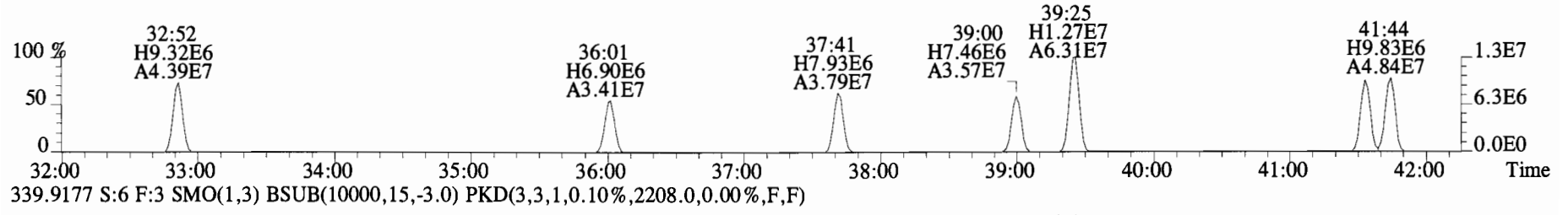
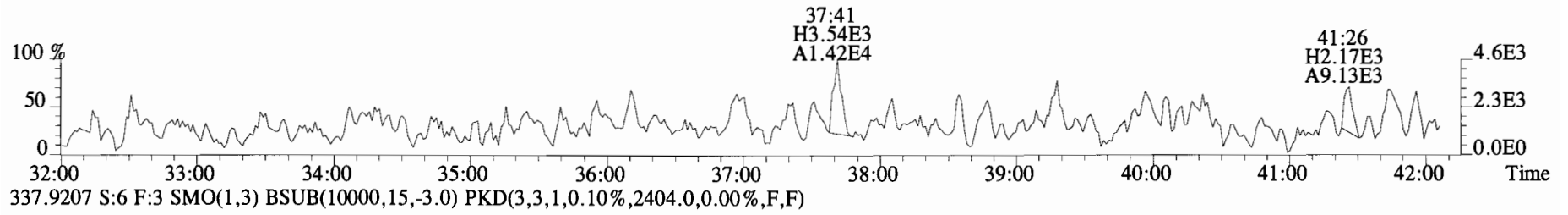
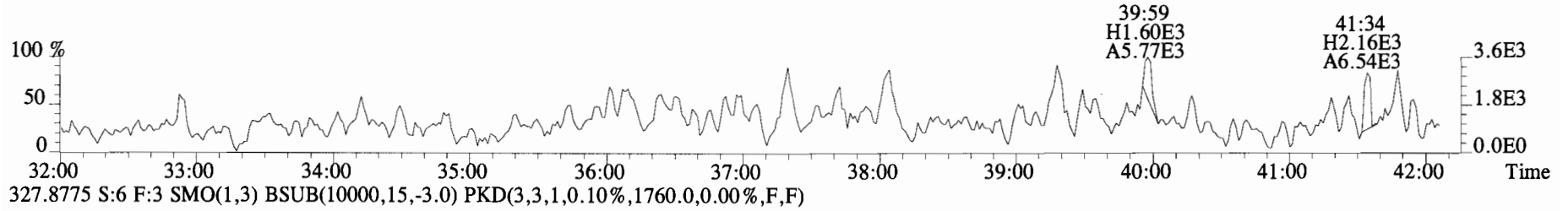
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
289.9224 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1524.0,0.00%,F,F)



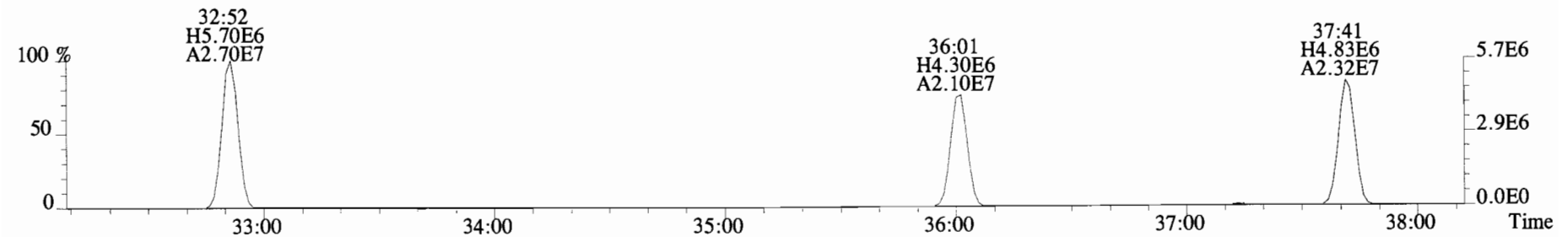
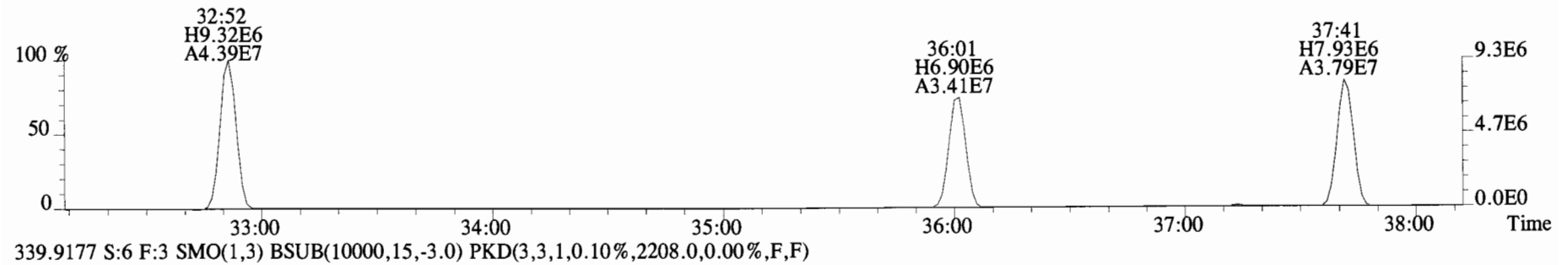
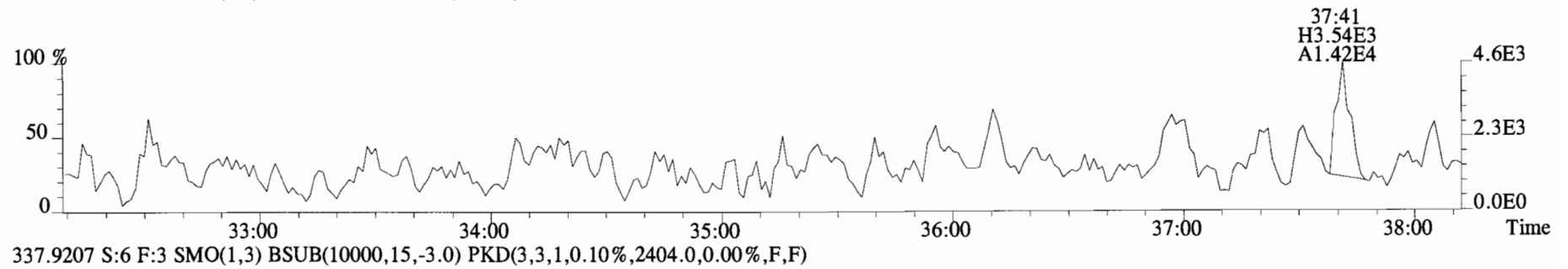
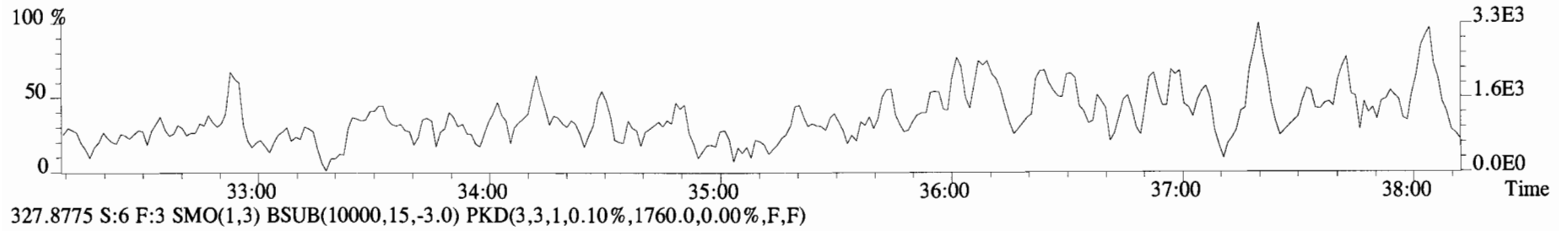
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
301.9626 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9204.0,0.00%,F,F)



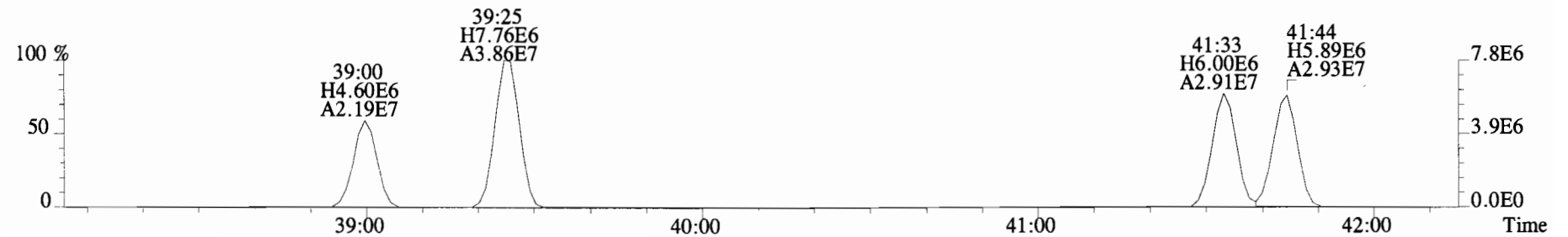
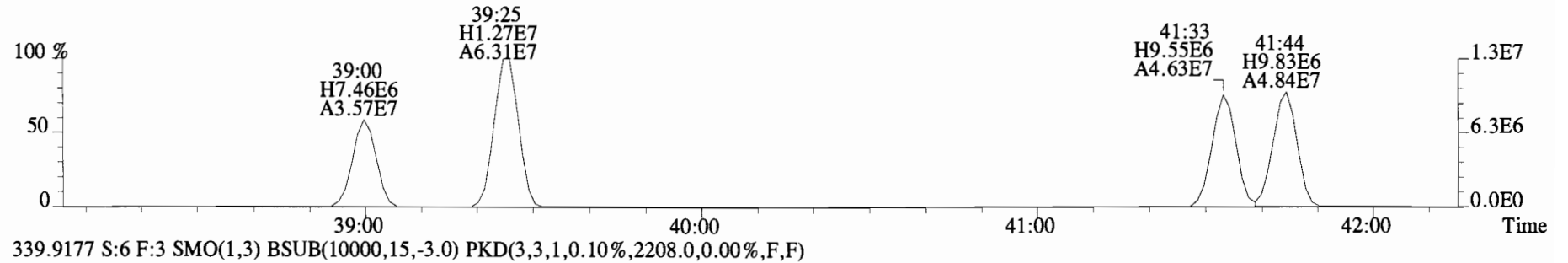
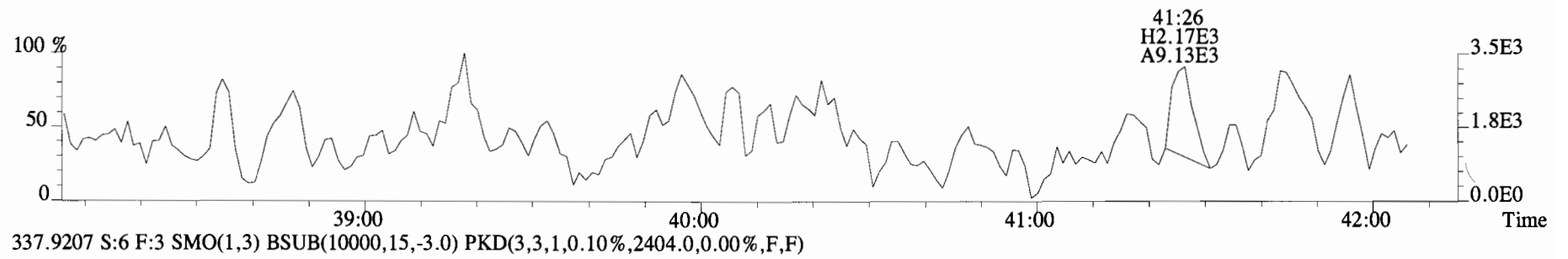
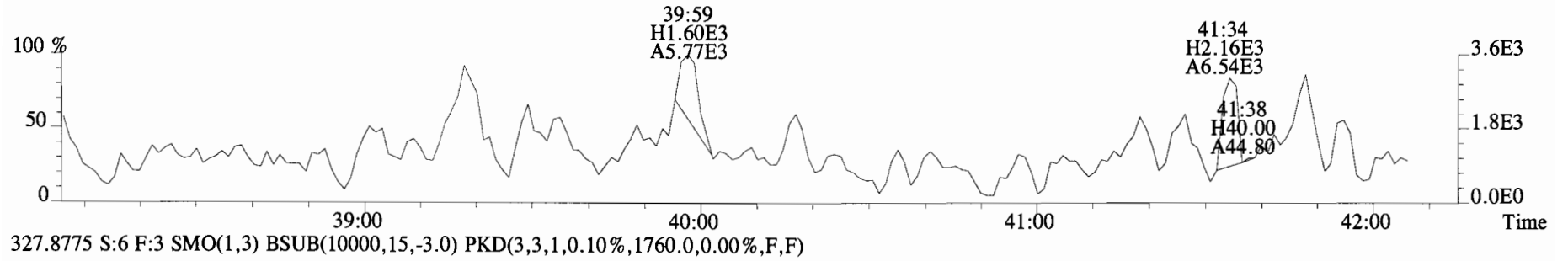
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
325.8804 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1452.0,0.00%,F,F)



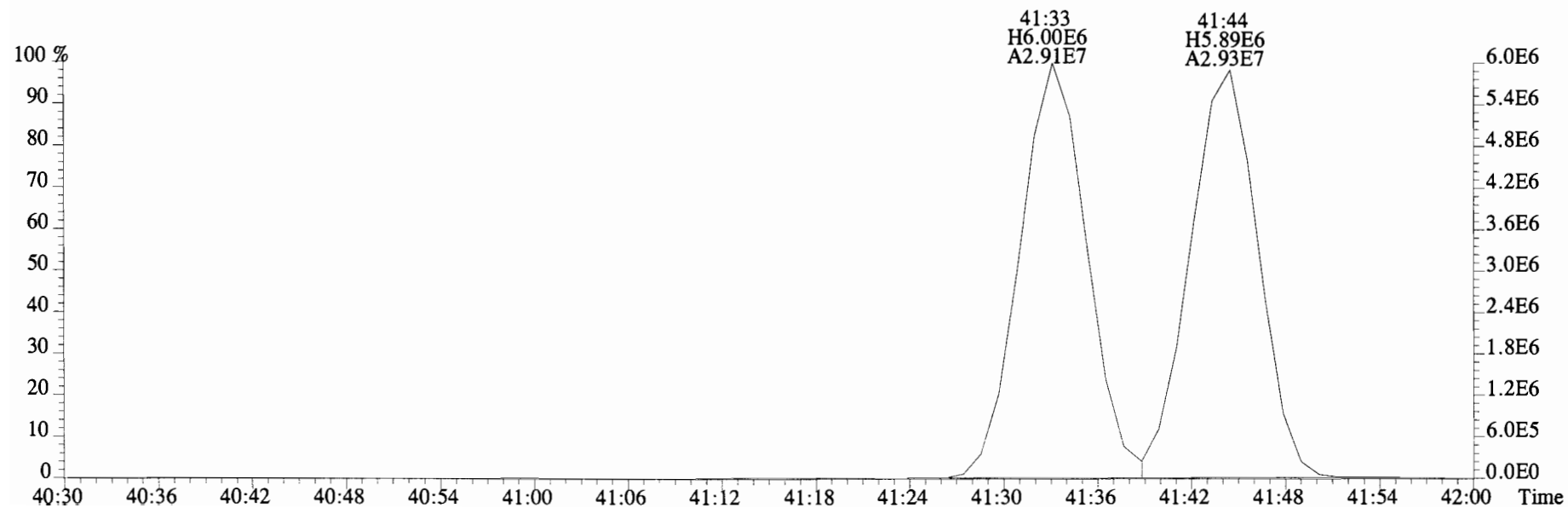
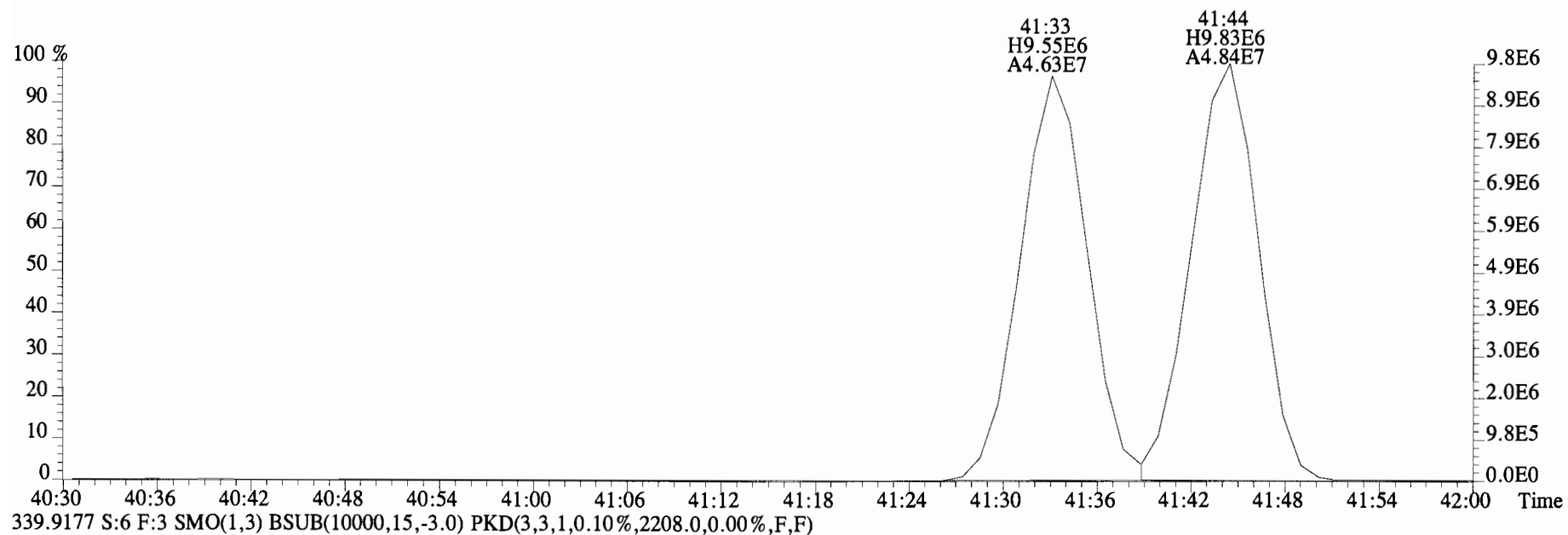
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
325.8804 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1452.0,0.00%,F,F)



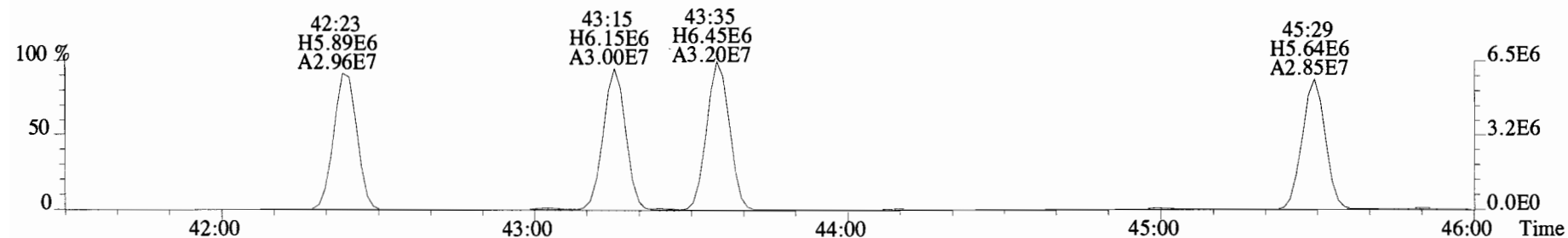
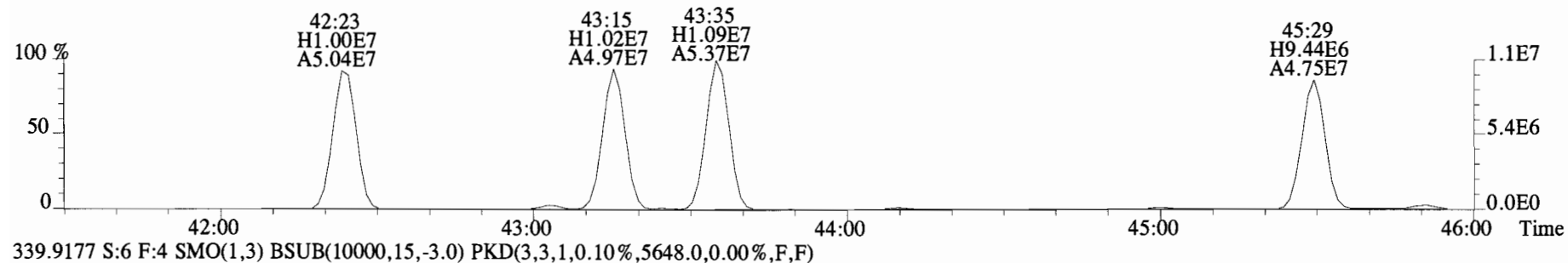
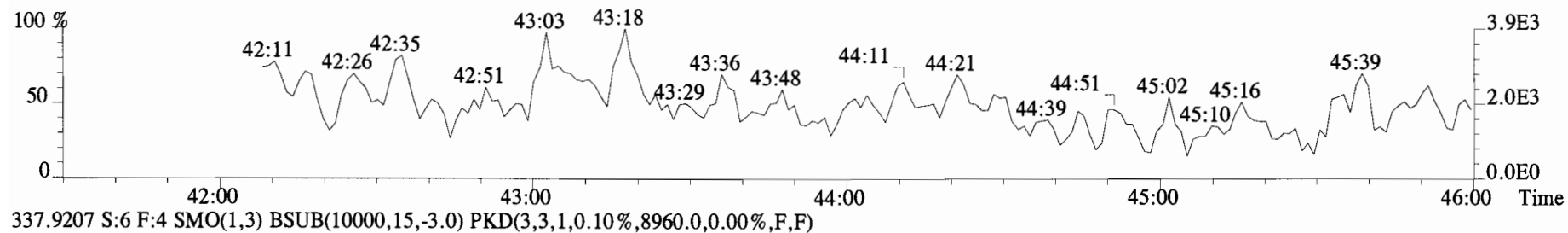
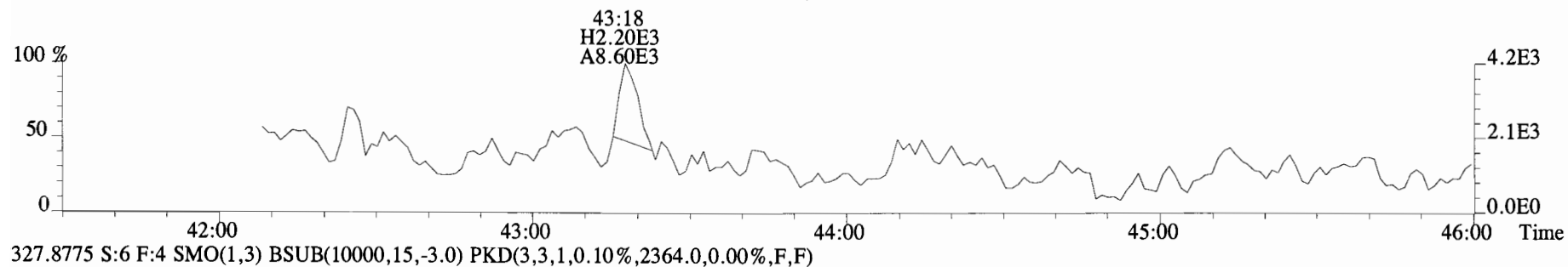
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
325.8804 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1452.0,0.00%,F,F)



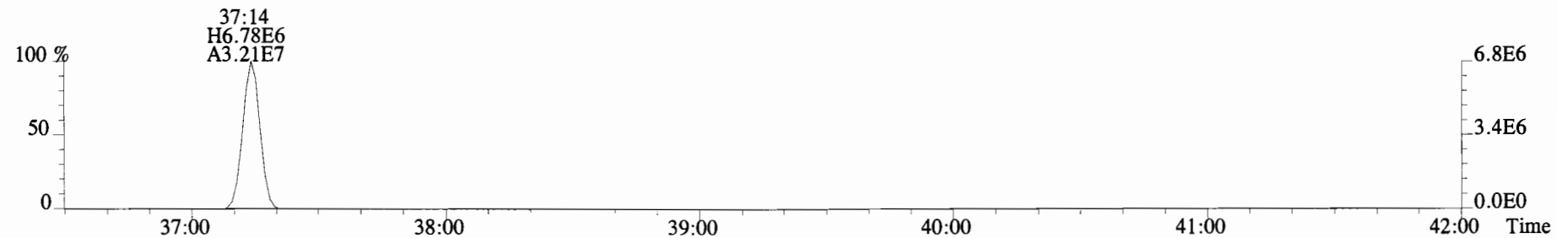
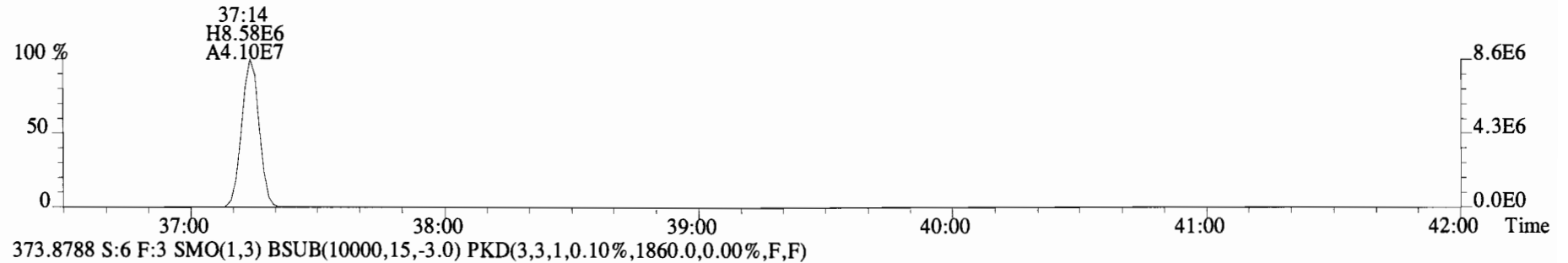
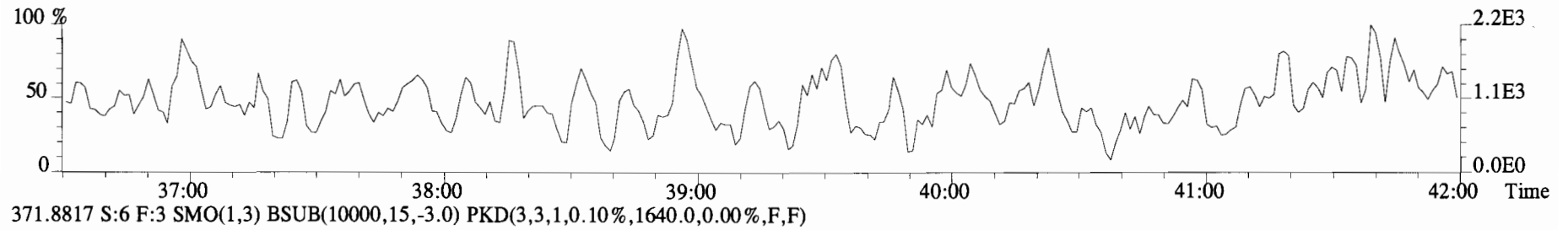
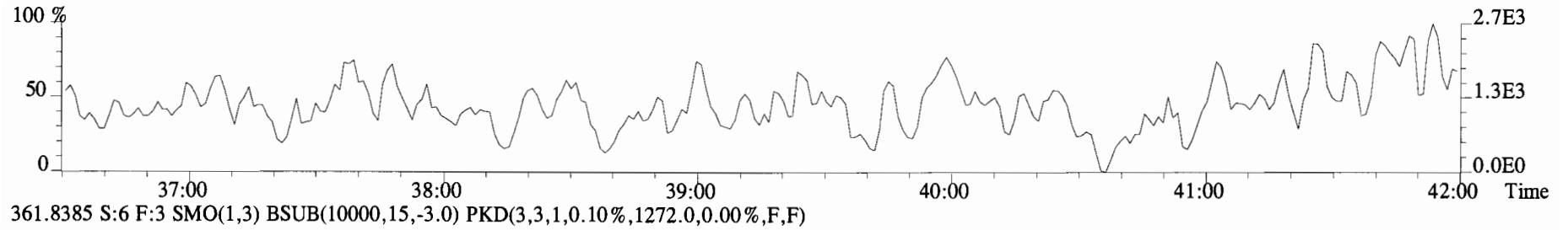
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
337.9207 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2404.0,0.00%,F,F)



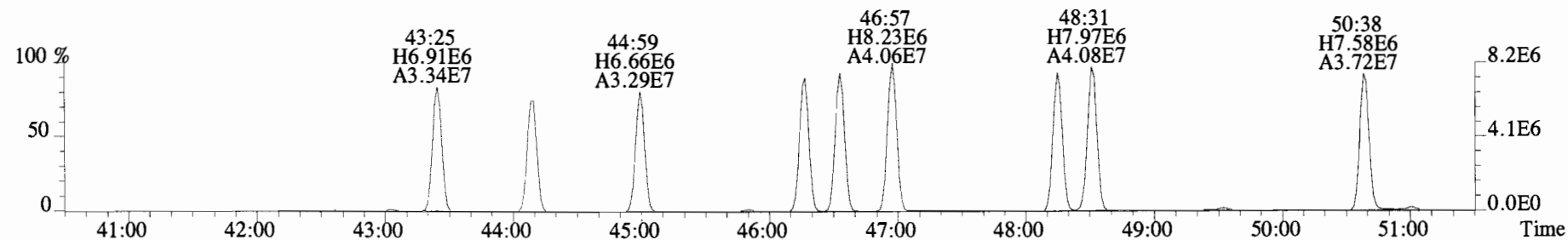
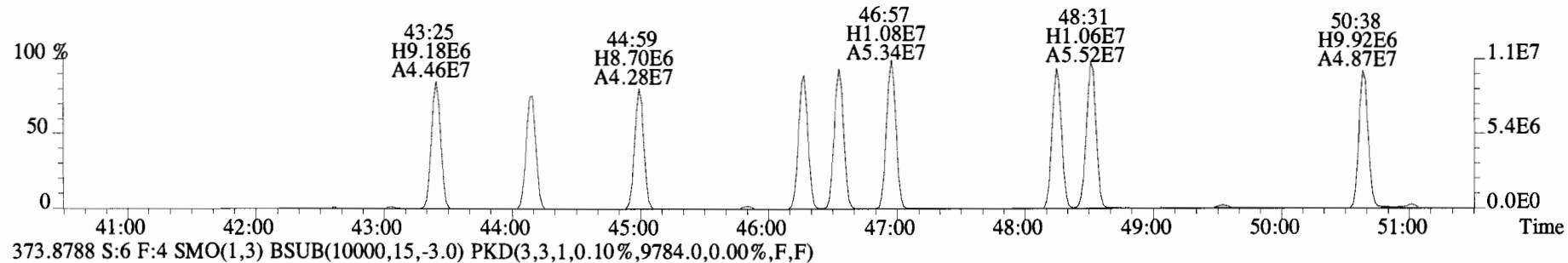
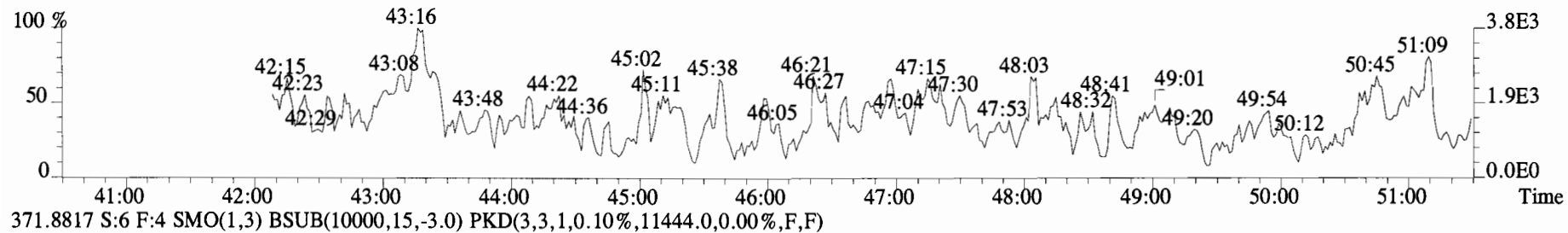
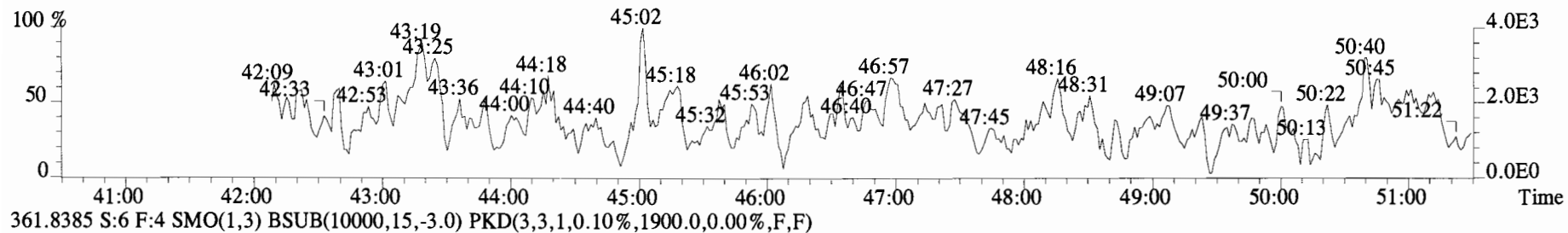
File:140919E2 #1-544 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
325.8804 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1716.0,0.00%,F,F)



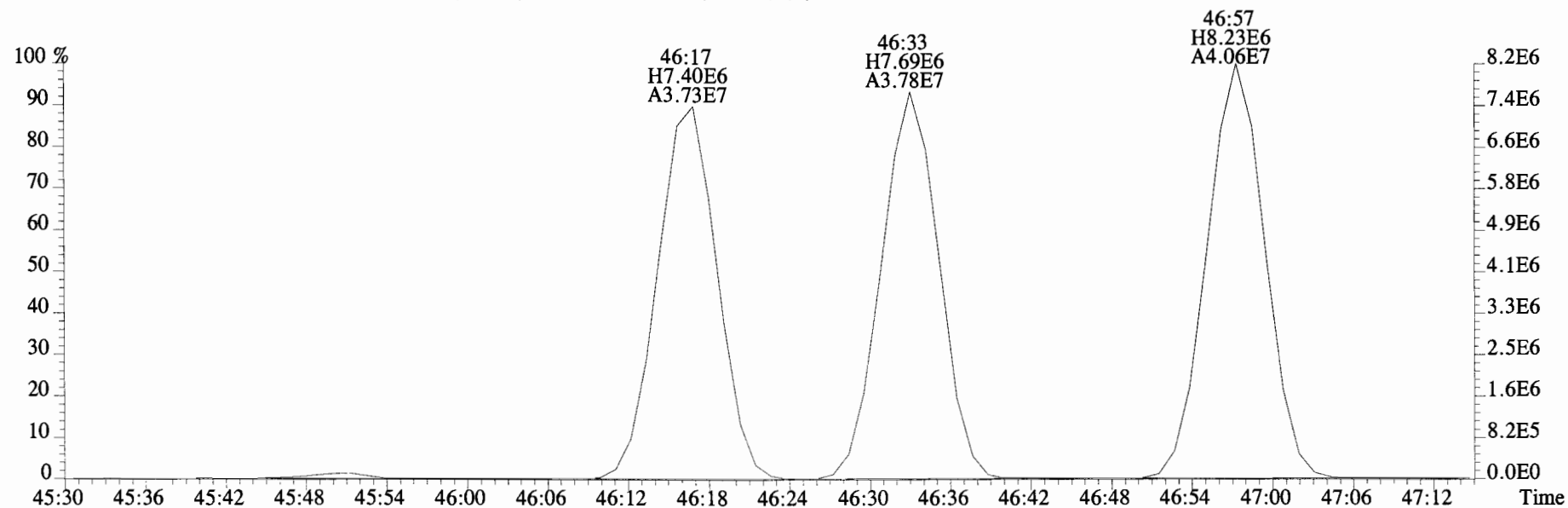
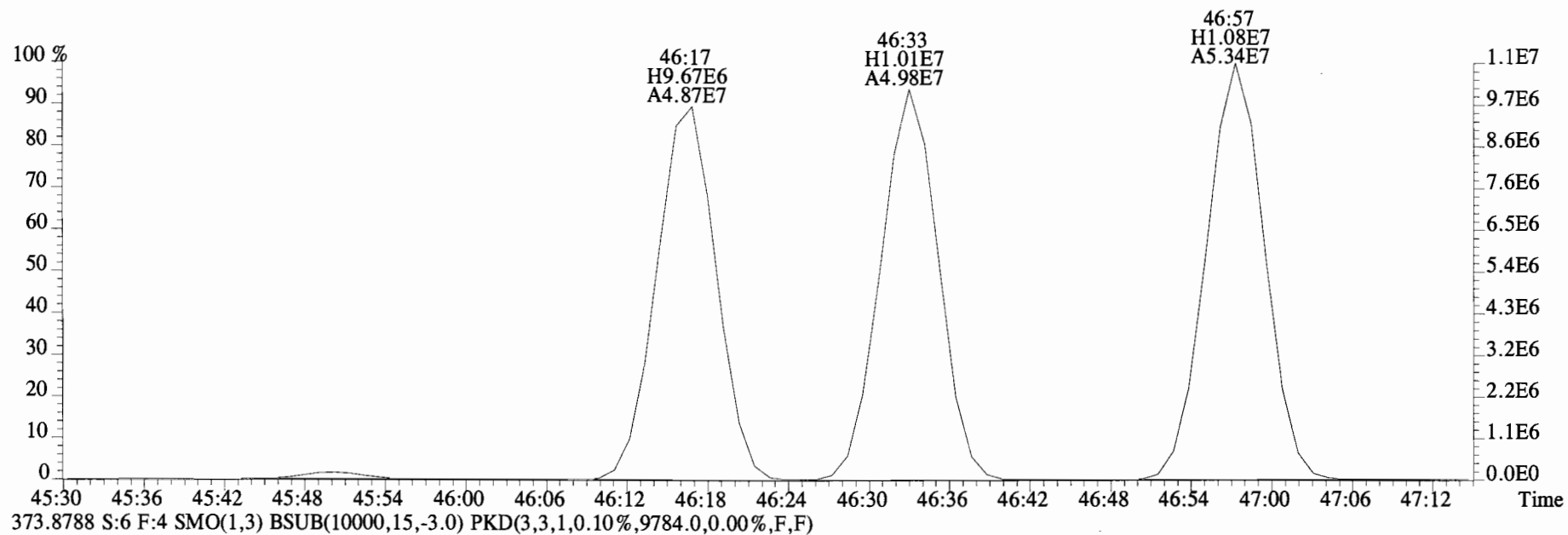
File:140919E2 #1-770 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
359.8415 S:6 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1496.0,0.00%,F,F)



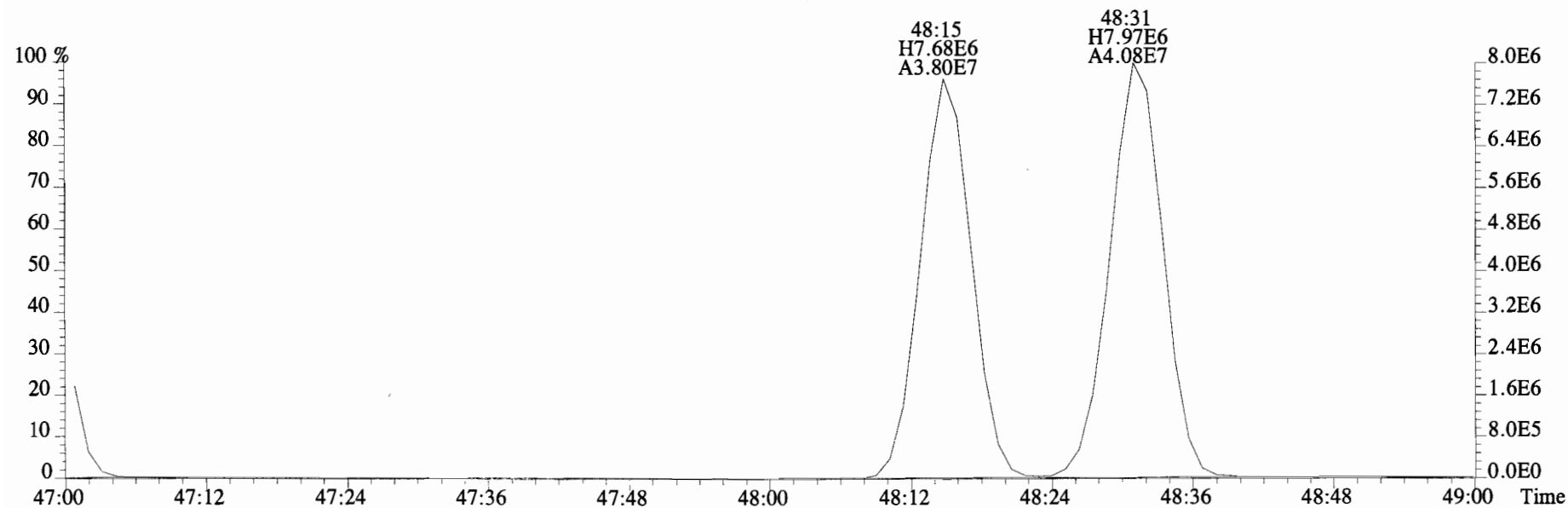
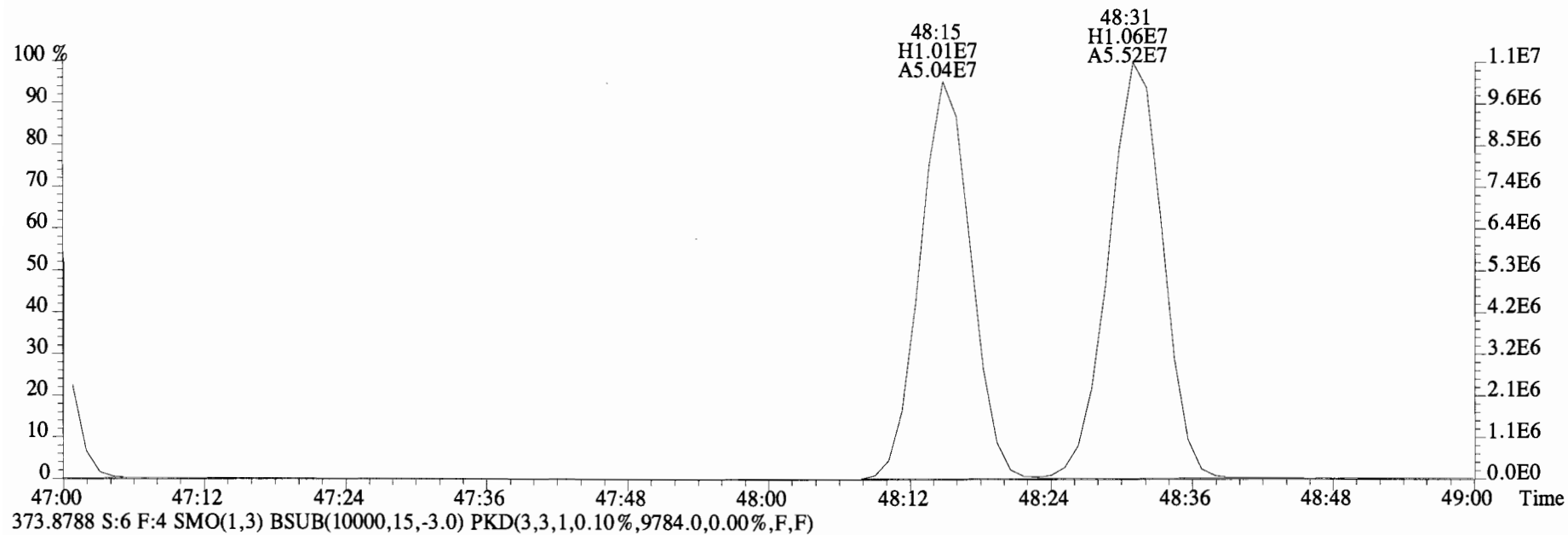
File:140919E2 #1-544 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
 359.8415 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1972.0,0.00%,F,F)



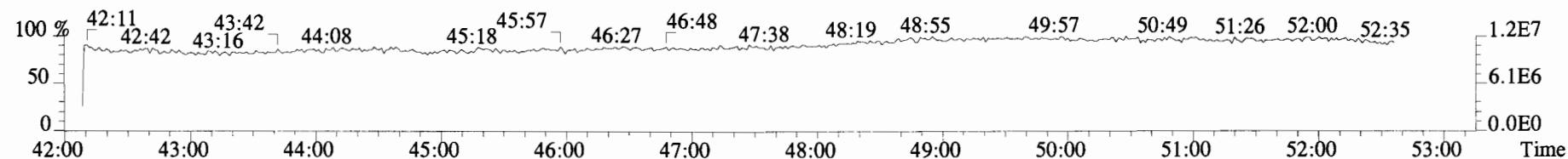
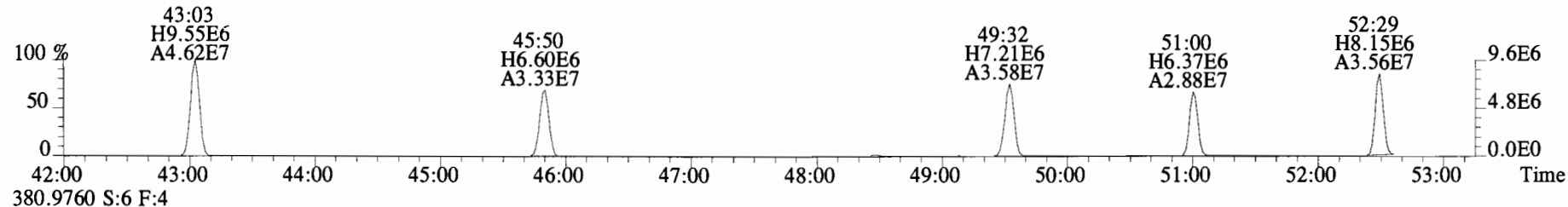
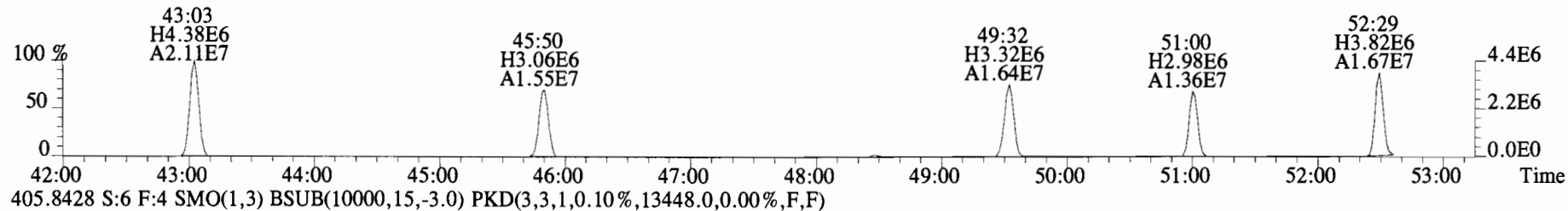
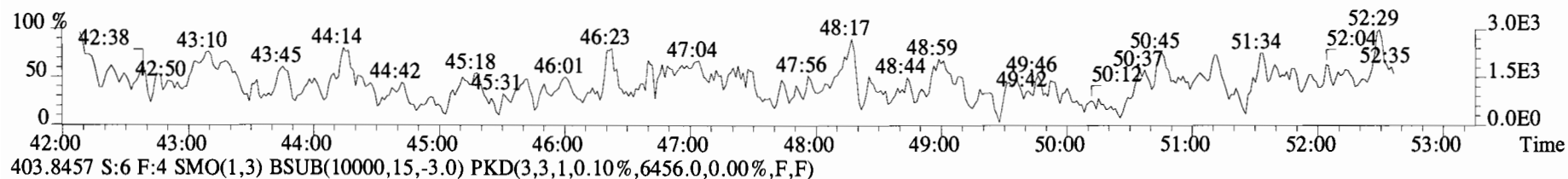
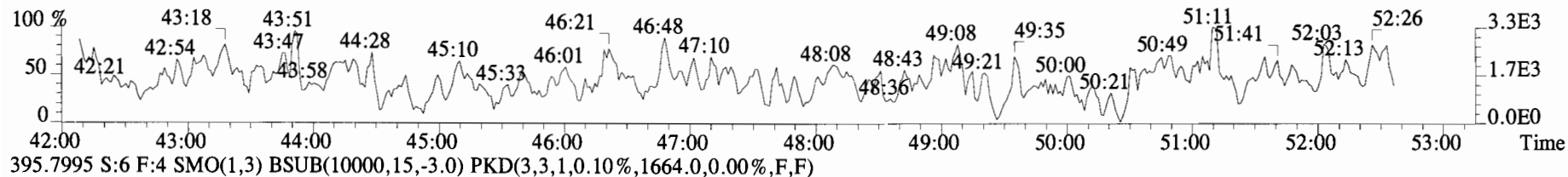
File:140919E2 #1-544 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
371.8817 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11444.0,0.00%,F,F)



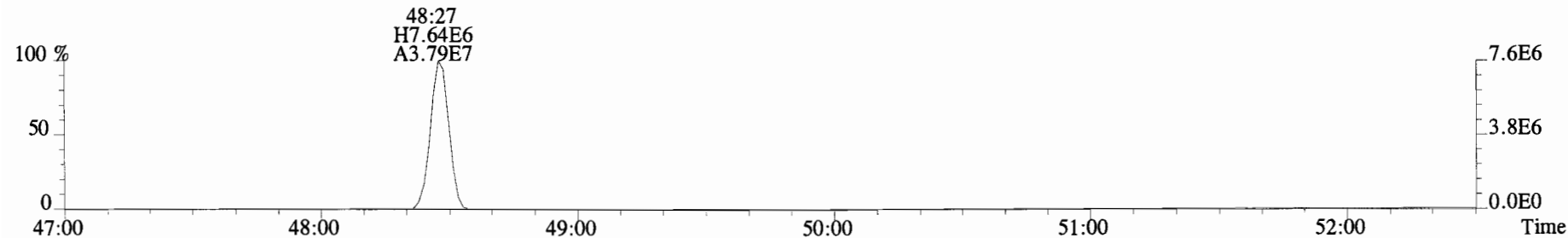
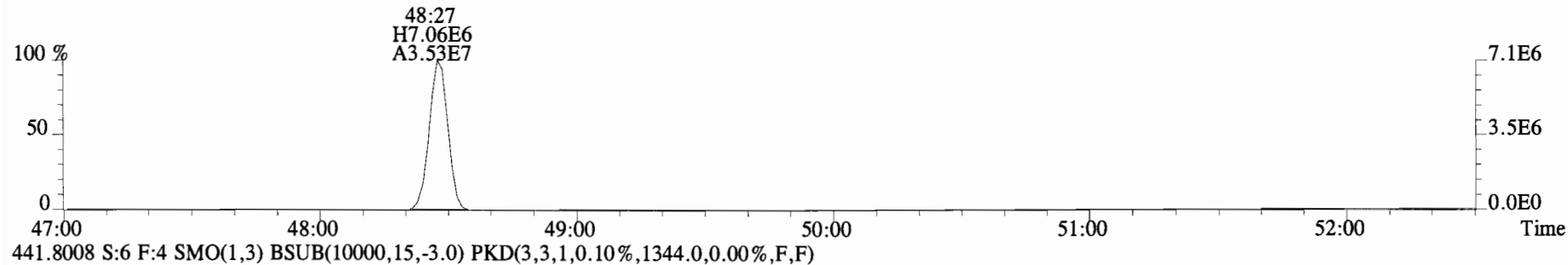
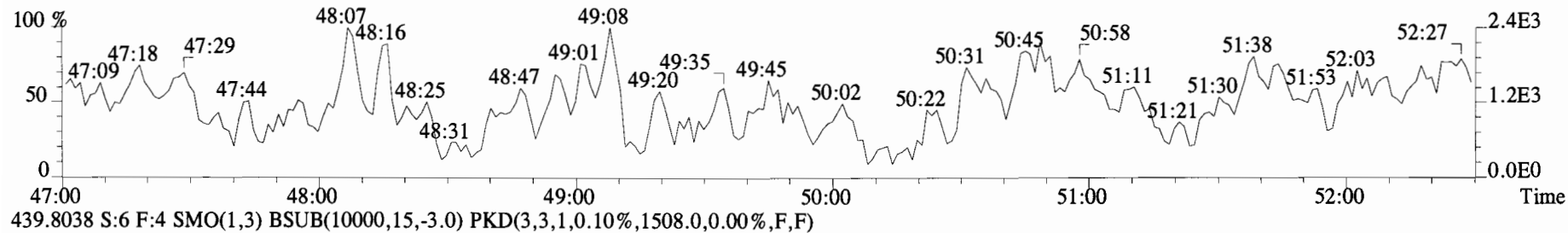
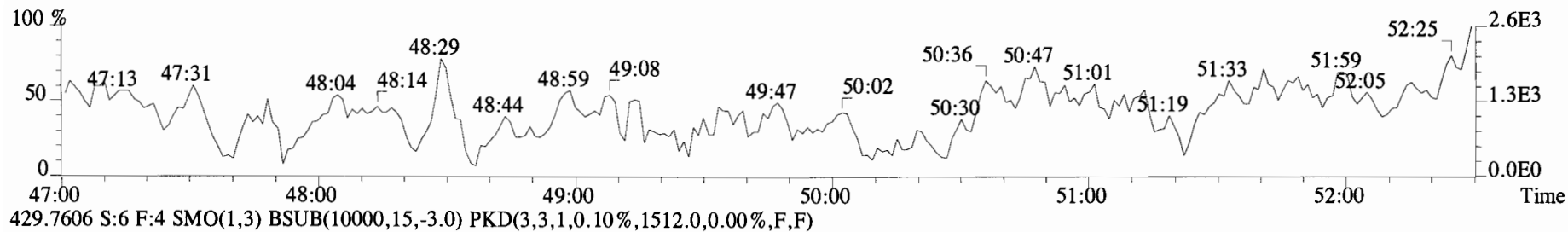
File:140919E2 #1-544 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
371.8817 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11444.0,0.00%,F,F)



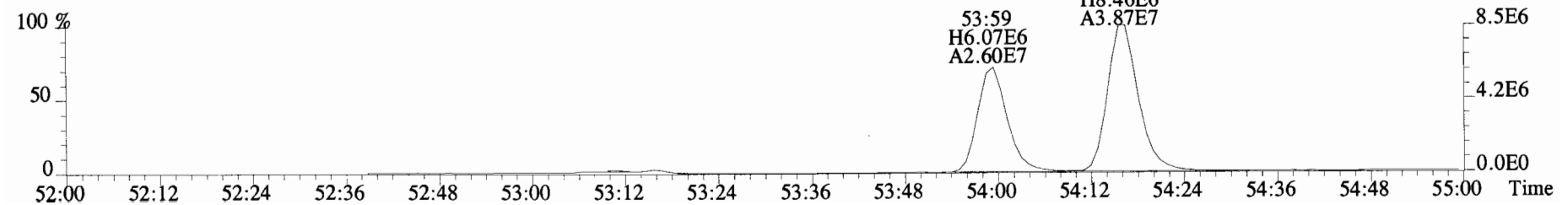
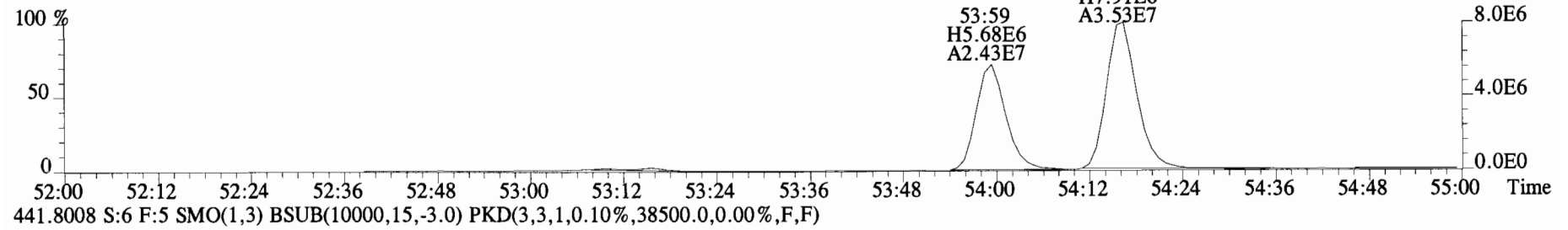
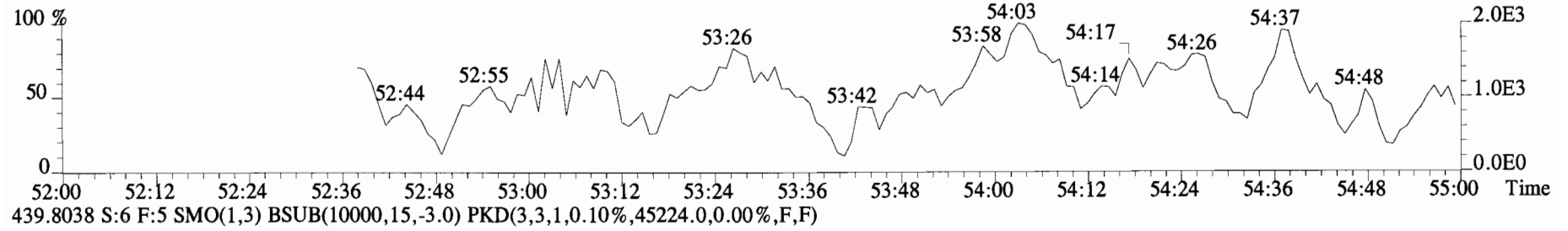
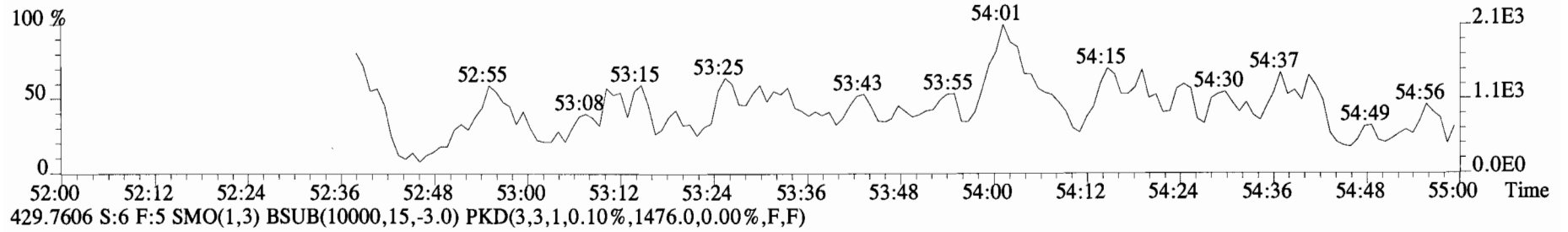
File:140919E2 #1-544 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
393.8025 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1980.0,0.00%,F,F)



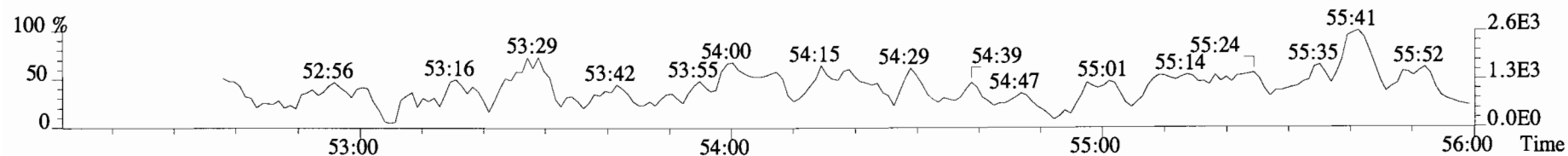
File:140919E2 #1-544 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
427.7635 S:6 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1428.0,0.00%,F,F)



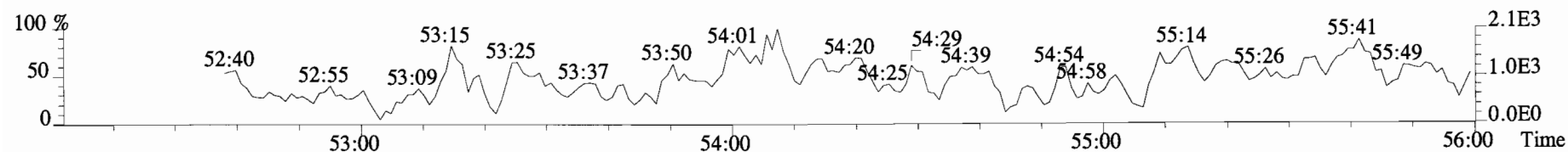
File:140919E2 #1-429 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
427.7635 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1240.0,0.00%,F,F)



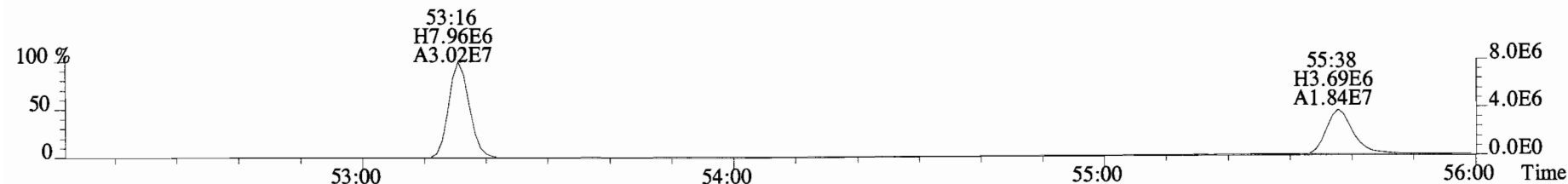
File:140919E2 #1-429 Acq:20-SEP-2014 05:05:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BLK1 Method Blank 10 Exp:PCB_ZB1
463.7216 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1340.0,0.00%,F,F)



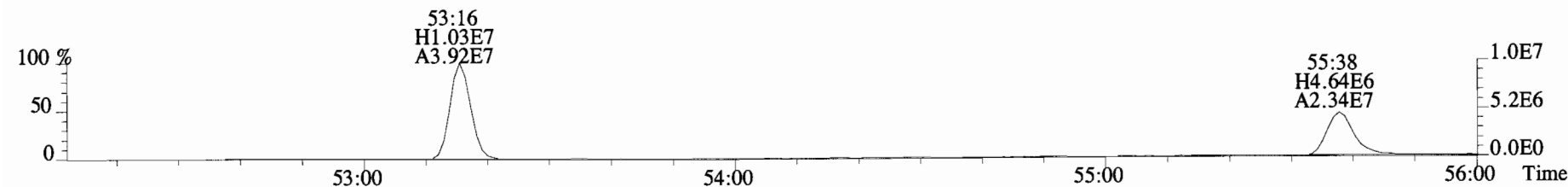
465.7186 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1164.0,0.00%,F,F)



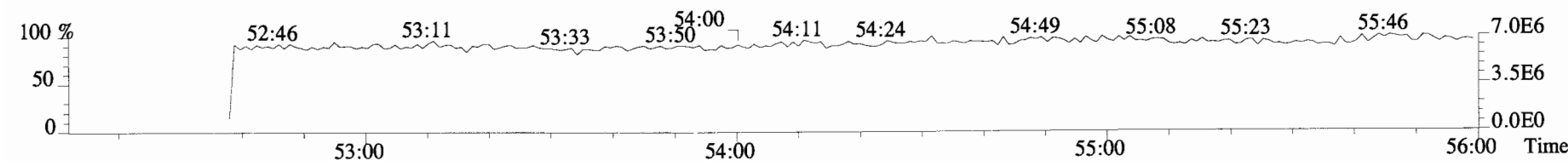
473.7648 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,21056.0,0.00%,F,F)



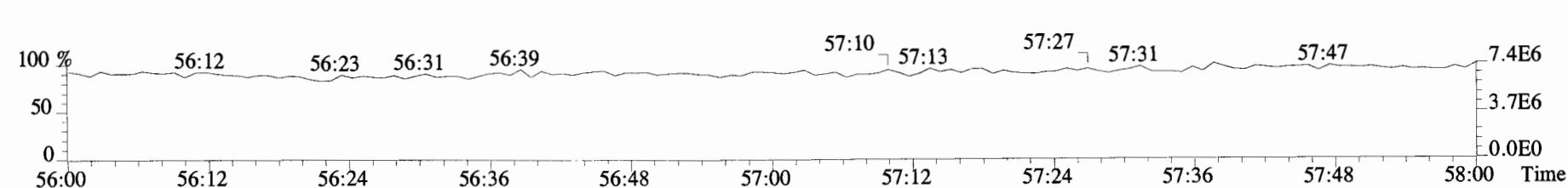
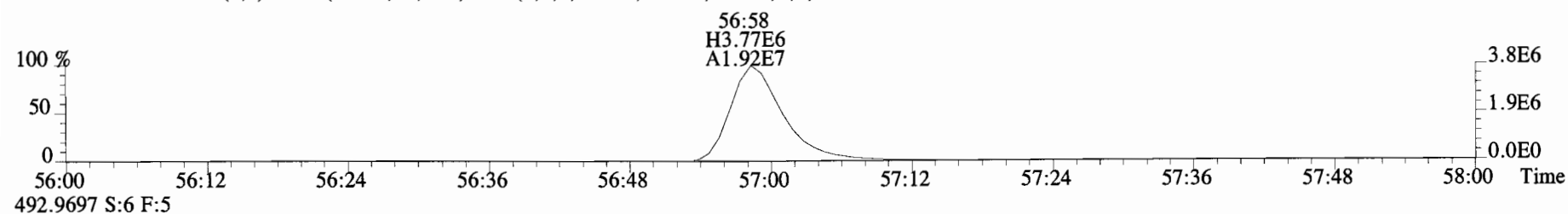
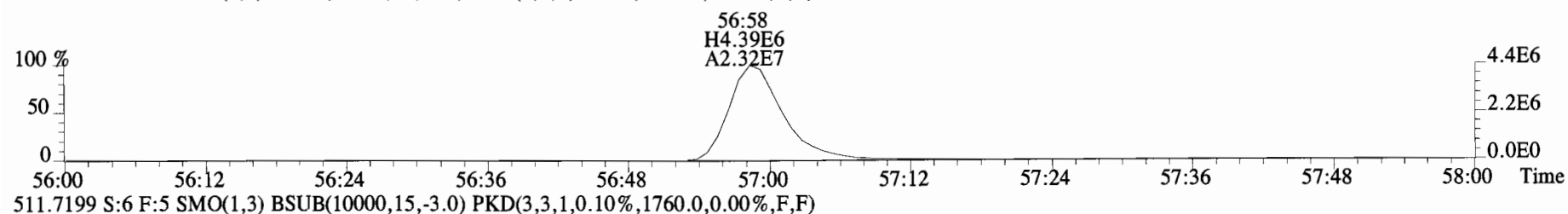
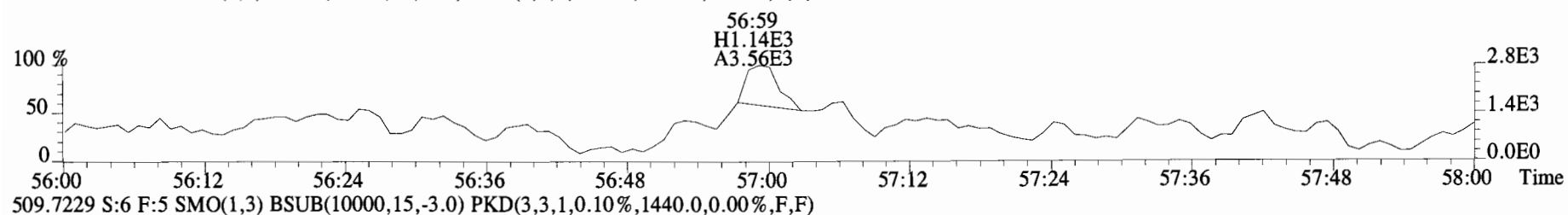
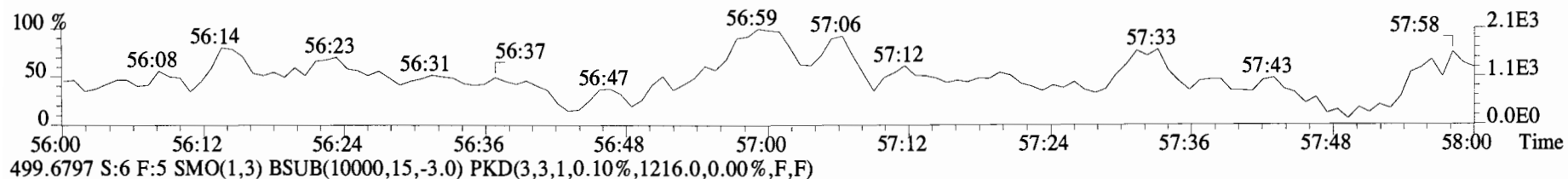
475.7619 S:6 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,29376.0,0.00%,F,F)



492.9697 S:6 F:5



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: msDate: 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

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-47	4.24e+07	0.80	y	1.06	32:13	1.001	0.996-1.006	50.1173
PCB-4/10	1.93e+08	1.63	y	1.57	20:19	1.002	0.997-1.007	211.231	PCB-48/75	1.00e+08	0.81	y	1.23	32:20	1.004	0.999-1.009	102.194
PCB-7/9	2.37e+08	1.65	y	1.21	22:06	0.869	0.866-0.874	211.842	PCB-65	5.36e+07	0.81	y	1.22	32:36	1.012	1.008-1.018	54.7305
PCB-6	1.26e+08	1.66	y	1.30	22:45	0.894	0.890-0.899	104.090	PCB-62	4.79e+07	0.82	y	1.22	32:43	1.016	1.011-1.021	49.0365
PCB-5/8	2.32e+08	1.65	y	1.15	23:10	0.911	0.907-0.917	218.242	PCB-44	3.63e+07	0.82	y	0.86	33:01	1.025	1.021-1.031	52.7637
PCB-14	1.23e+08	1.67	y	1.11	24:15	0.953	0.949-0.959	106.549	PCB-42/59	9.13e+07	0.81	y	1.14	33:14	1.032	1.028-1.038	100.393
PCB-11	1.21e+08	1.67	y	1.09	25:27	1.001	0.995-1.005	107.270	PCB-41/64/71/72	1.98e+08	0.81	y	1.21	33:50	1.051	1.046-1.056	205.562
PCB-12/13	2.68e+08	1.66	y	1.19	25:50	1.016	1.011-1.021	215.504	PCB-68	5.73e+07	0.80	y	1.35	34:04	1.058	1.054-1.064	53.1908
PCB-15	1.41e+08	1.68	y	1.28	26:09	1.028	1.023-1.033	105.419	PCB-40	3.09e+07	0.81	y	0.70	34:18	1.065	1.061-1.071	55.0327
									PCB-57	5.14e+07	0.81	y	0.98	34:40	0.971	0.965-0.975	52.4147
PCB-19	3.49e+07	1.10	y	1.04	24:26	1.001	0.996-1.006	47.9902	PCB-67	5.82e+07	0.83	y	1.11	34:58	0.979	0.974-0.984	52.5142
PCB-30	5.88e+07	1.10	y	1.71	25:20	1.038	1.032-1.042	49.2482	PCB-58	4.87e+07	0.80	y	0.93	35:05	0.982	0.977-0.987	52.4138
PCB-18	4.20e+07	1.10	y	0.78	26:05	0.954	0.949-0.959	48.8701	PCB-63	4.83e+07	0.82	y	0.95	35:14	0.986	0.982-0.992	50.6722
PCB-17	4.88e+07	1.09	y	0.92	26:15	0.960	0.956-0.966	48.1642	PCB-74	6.40e+07	0.81	y	1.24	35:31	0.994	0.990-1.000	51.3664
PCB-24/27	1.26e+08	1.10	y	1.19	26:50	0.982	0.977-0.987	96.4522	PCB-61/70	9.92e+07	0.82	y	0.95	35:42	1.000	0.995-1.005	103.883
PCB-16/32	1.00e+08	1.09	y	0.94	27:20	1.000	0.995-1.005	97.0333	PCB-76/66	1.08e+08	0.81	y	1.04	35:55	1.006	1.001-1.011	103.682
PCB-34	5.78e+07	1.05	y	1.14	28:08	0.960	0.955-0.965	55.6233	PCB-80	6.52e+07	0.83	y	1.19	36:08	1.000	0.996-1.006	51.5475
PCB-23	6.26e+07	1.05	y	1.28	28:13	0.963	0.959-0.969	53.5016	PCB-55	5.80e+07	0.81	y	1.04	36:29	1.010	1.005-1.015	52.5284
PCB-29	5.55e+07	1.04	y	1.08	28:28	0.972	0.967-0.977	56.1613	PCB-56/60	1.20e+08	0.81	y	1.01	36:58	1.023	1.019-1.029	112.327
PCB-26	6.03e+07	1.05	y	1.21	28:40	0.978	0.974-0.984	54.6161	PCB-79	6.50e+07	0.80	y	1.08	38:02	1.053	1.048-1.058	56.7348
PCB-25	6.90e+07	1.07	y	1.26	28:51	0.985	0.979-0.989	59.8166	PCB-78	6.88e+07	0.80	y	1.27	38:43	0.987	0.982-0.992	50.5071
PCB-31	6.54e+07	1.04	y	1.28	29:12	0.997	0.992-1.002	55.6443	PCB-81	7.09e+07	0.80	y	1.33	39:15	1.000	0.995-1.005	49.6595
PCB-28	8.45e+07	1.05	y	1.71	29:18	1.000	0.995-1.005	53.9571	PCB-77	6.37e+07	0.85	y	1.10	39:51	1.000	0.995-1.005	52.4693
PCB-20/21/33	1.71e+08	1.05	y	1.08	29:55	1.021	1.017-1.027	173.338									
PCB-22	6.54e+07	1.05	y	1.21	30:22	1.036	1.032-1.042	59.1472	PCB-104	4.48e+07	1.67	y	1.18	32:53	1.001	0.996-1.006	53.0041
PCB-36	5.66e+07	1.04	y	1.14	30:58	0.934	0.928-0.938	54.8786	PCB-96	4.32e+07	1.64	y	1.14	34:08	1.039	1.034-1.044	53.1753
PCB-39	5.71e+07	1.04	y	1.12	31:26	0.948	0.943-0.953	56.6468	PCB-103	3.55e+07	1.65	y	0.96	34:40	1.055	1.050-1.060	52.0140
PCB-38	5.82e+07	1.06	y	1.20	32:13	0.971	0.966-0.976	53.7533	PCB-100	3.60e+07	1.65	y	0.94	35:01	1.065	1.061-1.071	53.8457
PCB-35	6.77e+07	1.06	y	1.23	32:44	0.987	0.982-0.992	60.8574	PCB-94	2.95e+07	1.68	y	1.06	35:30	0.986	0.980-0.990	50.5325
PCB-37	6.07e+07	1.06	y	1.23	33:11	1.001	0.995-1.005	54.6410	PCB-95/98/102	1.02e+08	1.64	y	1.22	35:59	0.999	0.995-1.005	150.215
									PCB-93	2.98e+07	1.57	y	0.84	36:07	1.003	0.997-1.007	64.0063
PCB-54	4.64e+07	0.82	y	1.10	28:11	1.001	0.996-1.006	49.8313	PCB-88/91	6.89e+07	1.62	y	1.12	36:24	1.011	1.005-1.015	111.726
PCB-50	3.89e+07	0.82	y	0.88	29:21	1.042	1.037-1.047	52.3244	PCB-121	4.58e+07	1.65	y	1.62	36:31	1.014	1.009-1.019	51.2862
PCB-53	3.84e+07	0.83	y	1.06	30:00	0.946	0.942-0.952	48.6192	PCB-84/92	7.07e+07	1.63	y	1.05	37:20	0.991	0.985-0.995	103.083
PCB-51	3.70e+07	0.82	y	0.99	30:20	0.957	0.952-0.962	50.3463	PCB-89	3.86e+07	1.67	y	1.13	37:31	0.996	0.991-1.001	52.1485
PCB-45	3.21e+07	0.79	y	0.86	30:47	0.971	0.966-0.976	50.0324									
PCB-46	3.22e+07	0.82	y	0.85	31:15	0.986	0.981-0.991	51.2460									

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations

by

Analyst: M

Date: 9/23/14

Reviewed

by

Analyst: [Signature]

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

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

RL: MONO, TRI - DECA: _____

Analyst: MS

Date: 9/23/14

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: 1.0000

ConCal: ST140919E2-1
EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	4.67e+07	1.07 y	1.72	49:45	1.004	0.999-1.009		48.7929
PCB-191	4.66e+07	1.06 y	1.69	50:00	1.009	1.004-1.014		49.3506
PCB-170	3.69e+07	1.07 y	1.60	51:01	1.000	0.995-1.005		51.0845
PCB-190	4.87e+07	1.06 y	2.21	51:12	1.004	0.998-1.008		48.8343
PCB-189	4.38e+07	1.06 y	1.55	52:29	1.000	0.995-1.005		48.7701
PCB-202	4.03e+07	0.95 y	1.08	48:29	1.000	0.995-1.005		48.8873
PCB-201	4.39e+07	0.95 y	1.15	48:58	1.010	1.005-1.015		50.1897
PCB-204	4.26e+07	0.90 y	1.14	49:08	1.014	1.008-1.018		49.1810
PCB-197	4.06e+07	0.93 y	1.07	49:25	1.020	1.015-1.025		49.6837
PCB-200	4.02e+07	0.93 y	1.06	50:17	1.037	1.032-1.044		49.7118
PCB-198	2.97e+07	0.91 y	0.76	51:36	1.065	1.059-1.069		51.6059
PCB-199	3.26e+07	0.94 y	0.80	51:43	1.067	1.061-1.071		53.6516
- PCB-196/203	6.45e+07	0.92 y	0.80	51:59	1.073	1.066-1.076		105.713
- PCB-195	3.38e+07	0.92 y	1.23	53:08	0.984	0.979-0.989		49.5293
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
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

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	1.96e+08	3.13 y	16:19	1.27	122.088	
Total Di-PCB	1.44e+09	1.63 y	20:19	1.21	1281.73	
Total Tri-PCB	4.11e+08	1.10 y	24:26	1.10	387.758	
Total Tetra-PCB	1.01e+09	1.05 y	28:08	1.21	914.789	Sum:1302.55
Total Penta-PCB	2.11e+09	0.82 y	28:11	1.09	2187.94	
Total Penta-PCB	1.76e+09	1.67 y	32:53	1.18	2163.77	
Total Penta-PCB	2.92e+08	1.62 y	42:25	1.25	274.275	Sum:2438.04
Total Hexa-PCB	5.15e+08	1.28 y	37:16	0.90	765.476	
Total Hexa-PCB	1.29e+09	1.28 y	42:20	1.11	1361.69	Sum:2127.17
Total Hepta-PCB	1.07e+09	1.06 y	43:04	1.42	1222.02	
Total Octa-PCB	3.34e+08	0.95 y	48:29	0.96	458.624	
Total Octa-PCB	1.10e+08	0.92 y	53:08	1.33	149.941	Sum:608.565
Total Nona-PCB	1.02e+08	1.37 y	53:16	1.01	157.124	
Total Deca-PCB	2.71e+07	1.18 y	57:00	1.17	50.6692	

Total PCB Conc:11427.9322610

RL: MONO, TRI - DECA: _____

Integrations
by
Analyst: MM
Date: 9/23/14

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

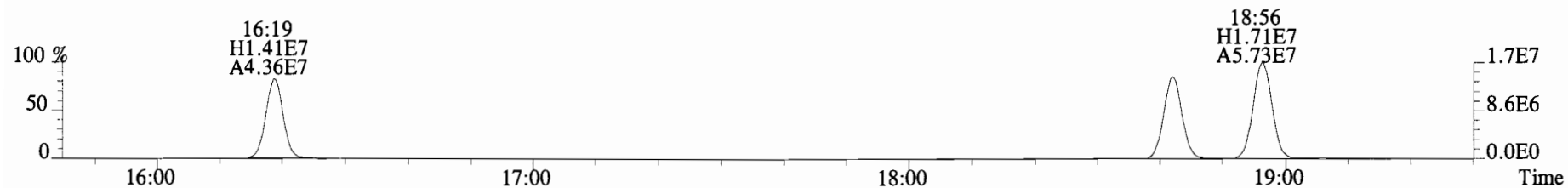
ConCal: ST140919E2-1
EndCAL: NA

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-3	1.31e+08	3.54	y	0.91	18:55	0.724	0.725-0.733	94.1	94.1											
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-79	1.19e+08	0.83	y	1.02	38:01	1.029	1.023-1.034	84.9	84.9	
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-178	5.01e+07	0.46	y	0.61	45:50	0.985	0.979-0.990	90.5	90.5	
13C-PCB-11	1.04e+08	1.57	y	0.94	25:26	0.973	0.968-0.978	72.9	72.9											
13C-PCB-32	1.10e+08	1.14	y	0.80	27:20	1.046	1.040-1.050	90.6	90.6	PS vs. IS										
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-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											
13C-PCB-95	5.53e+07	1.58	y	0.74	36:01	0.913	0.908-0.918	71.3	71.3	RS										
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-114	8.42e+07	1.68	y	1.36	42:23	0.910	0.905-0.915	68.5	68.5											
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-123	8.01e+07	1.64	y	0.89	41:33	1.054	1.050-1.060	85.7	85.7											
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-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											

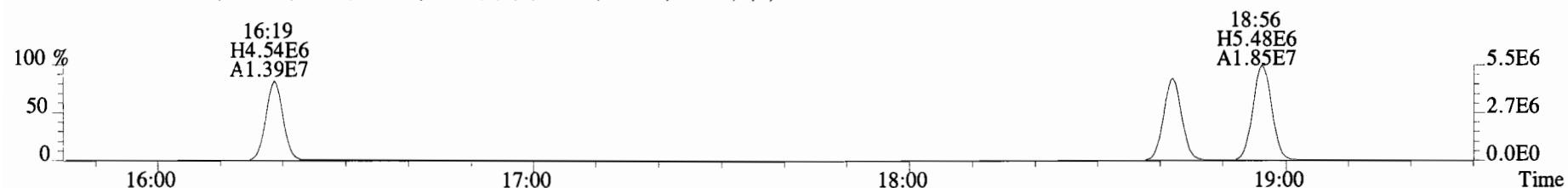
Analyst: M

Date: 9/23/14

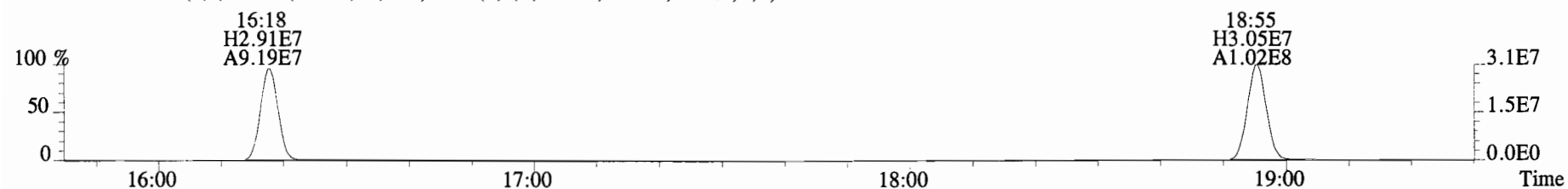
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Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
188.0393 S:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2956.0,0.00%,F,F)



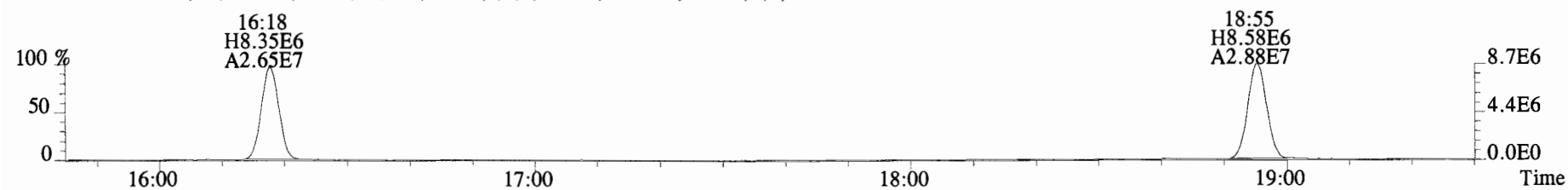
190.0363 S:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3392.0,0.00%,F,F)



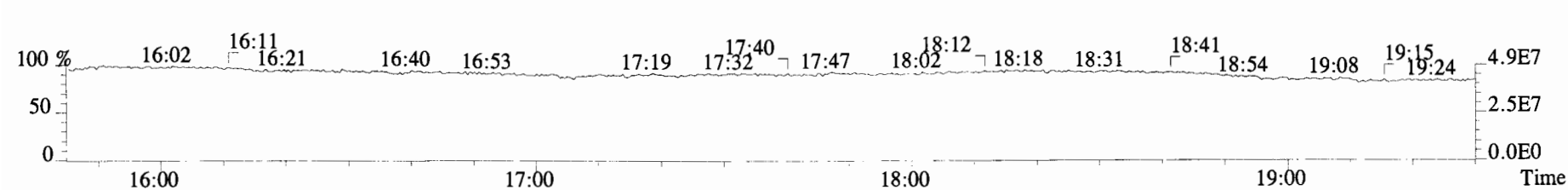
200.0795 S:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6516.0,0.00%,F,F)



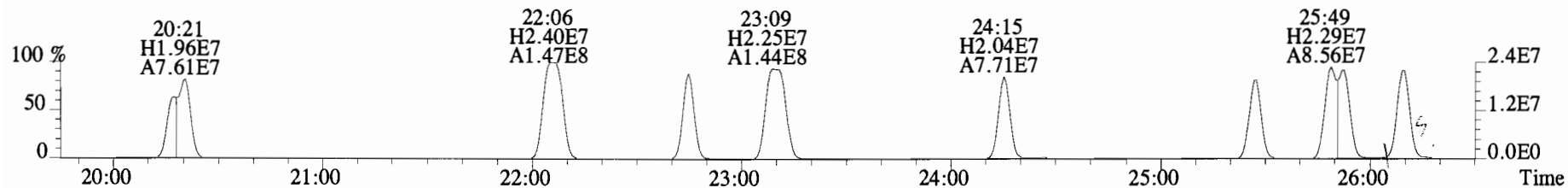
202.0766 S:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,67740.0,0.00%,F,F)



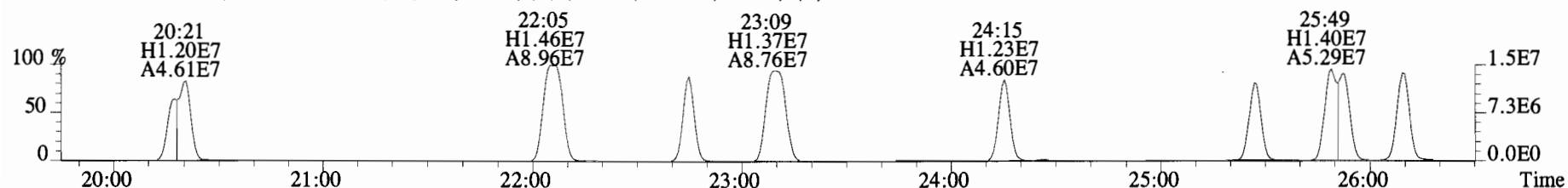
180.9880 S:3



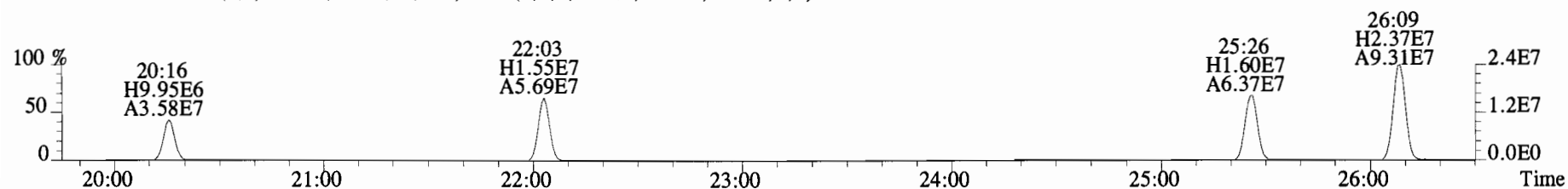
File:140919E2 #1-757 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 222.0003 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6288.0,0.00%,F,F)



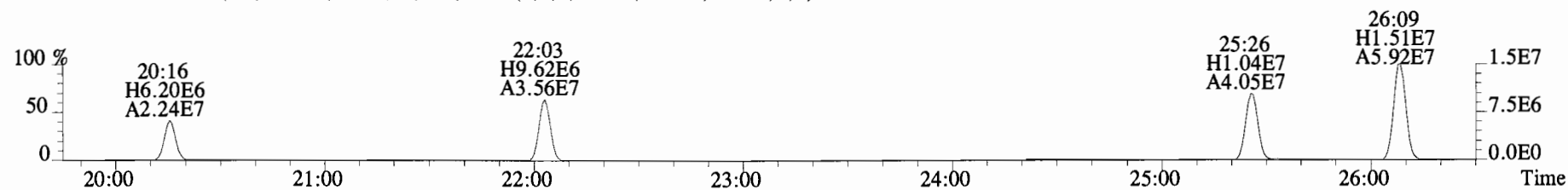
223.9974 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,31552.0,0.00%,F,F)



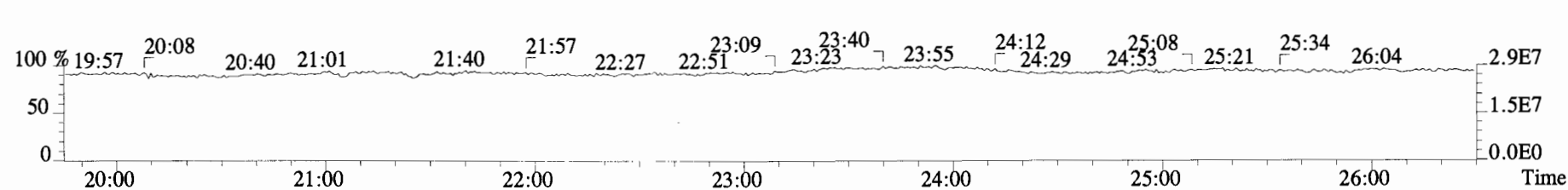
234.0406 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4632.0,0.00%,F,F)



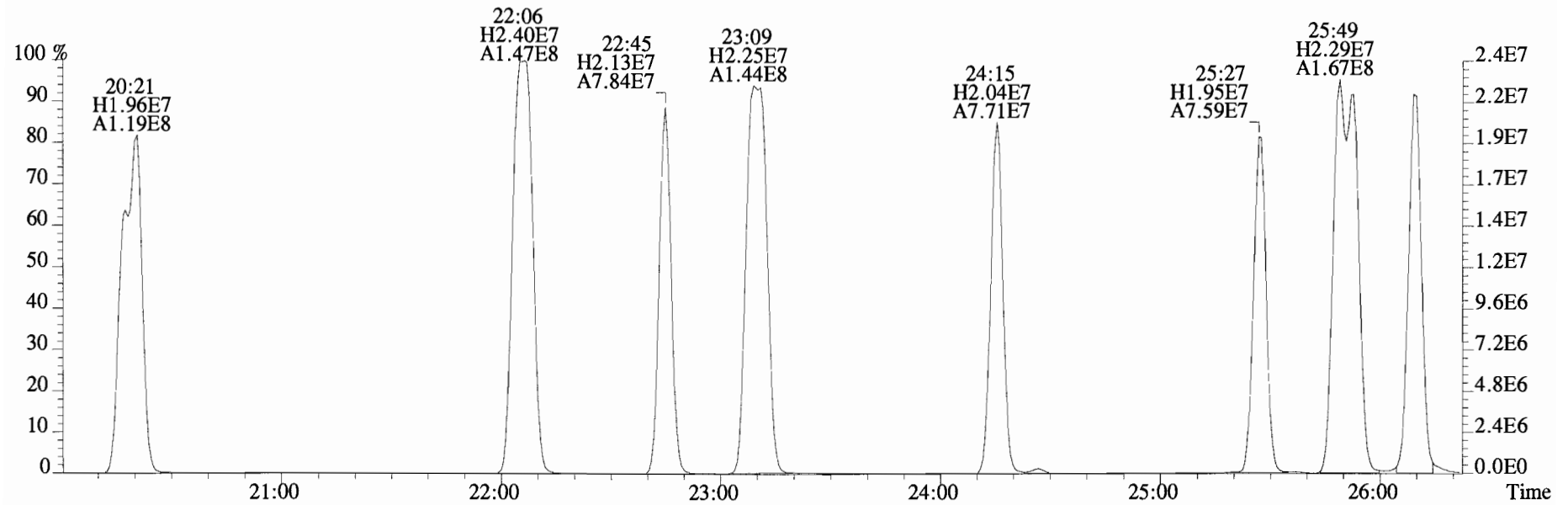
236.0376 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4080.0,0.00%,F,F)



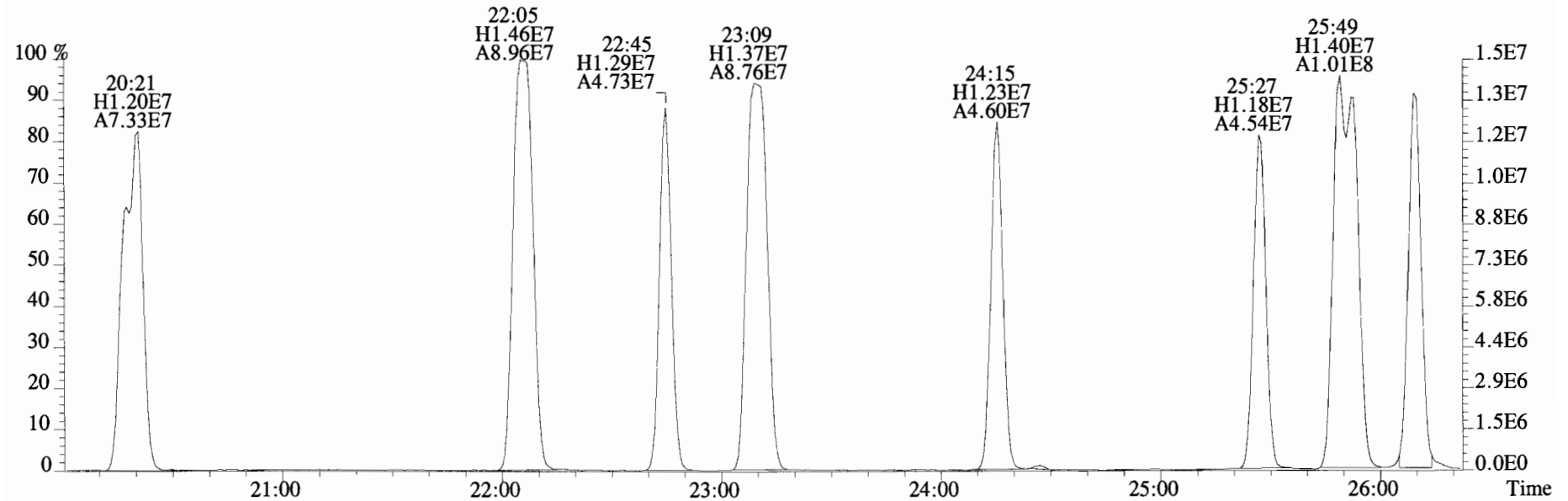
230.9856 S:3 F:2



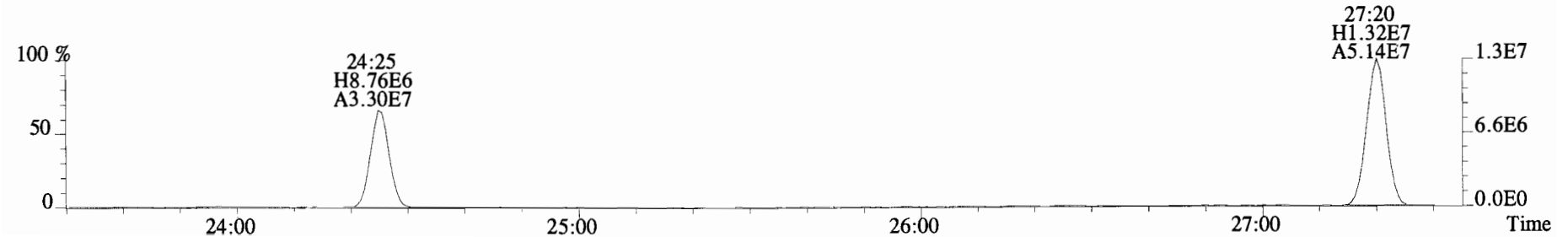
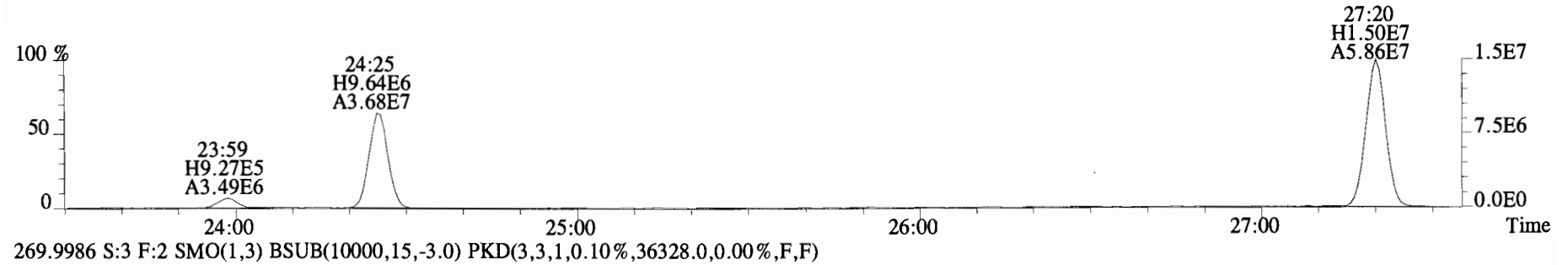
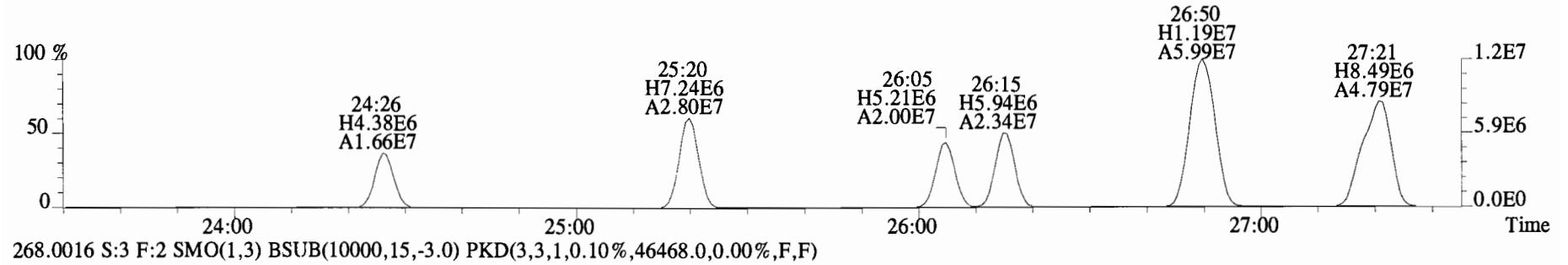
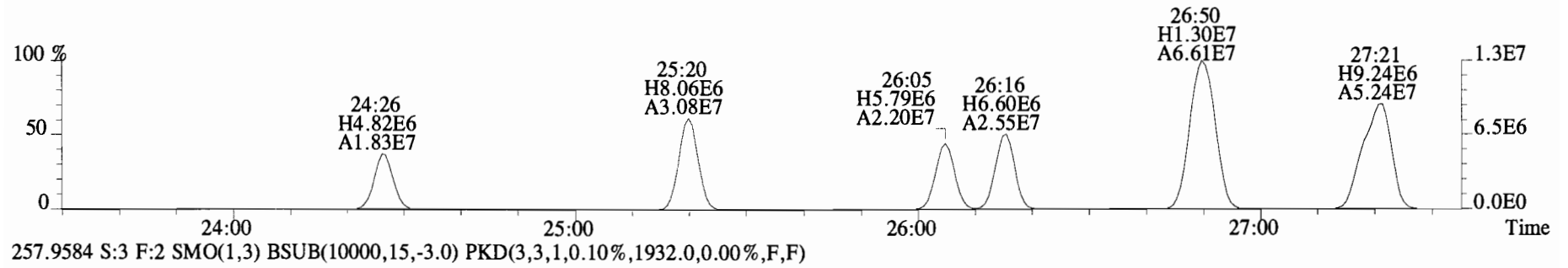
File:140919E2 #1-757 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 222.0003 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6292.0,0.00%,F,F)



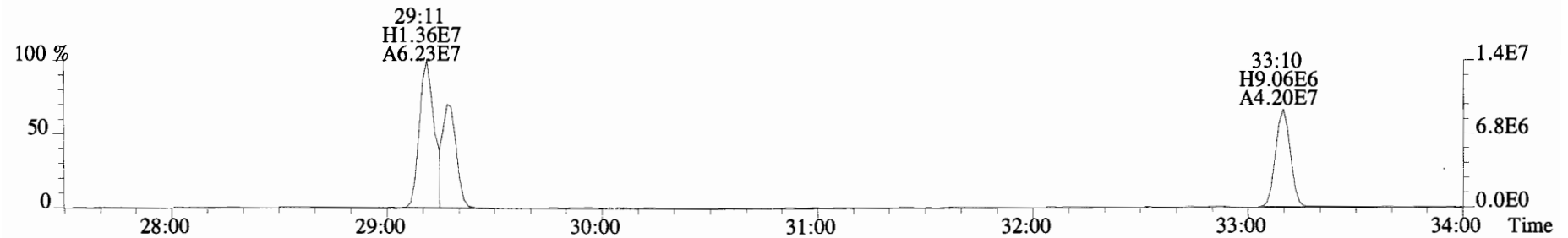
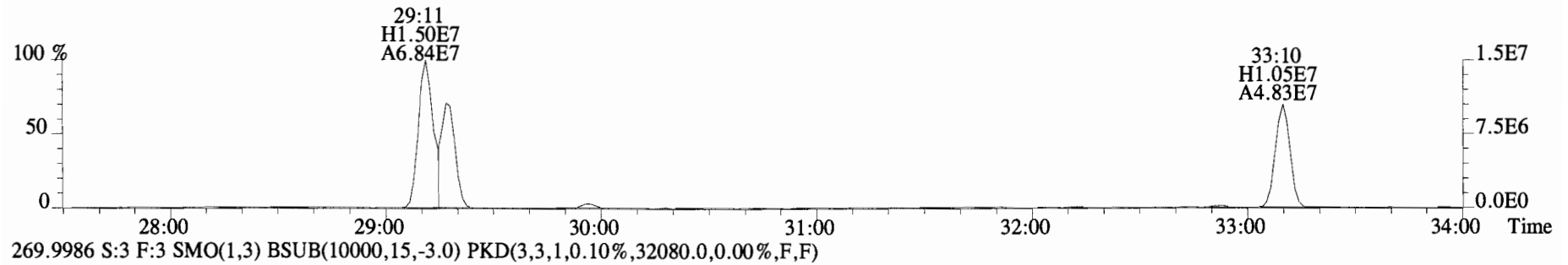
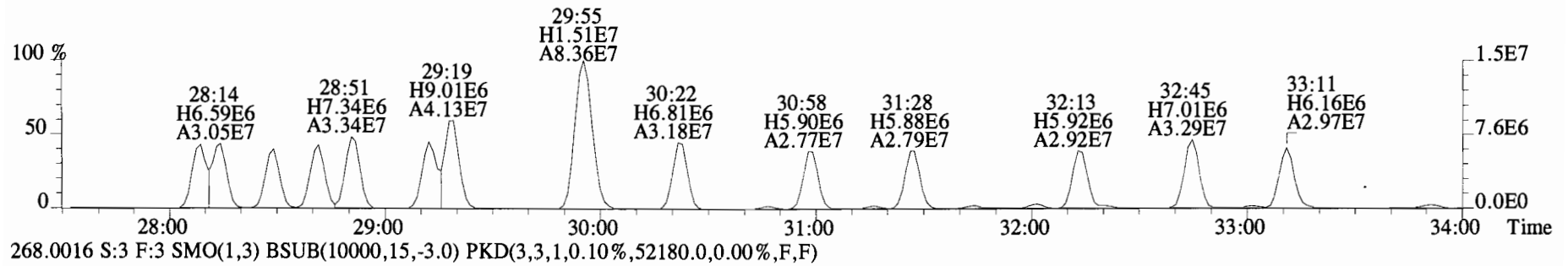
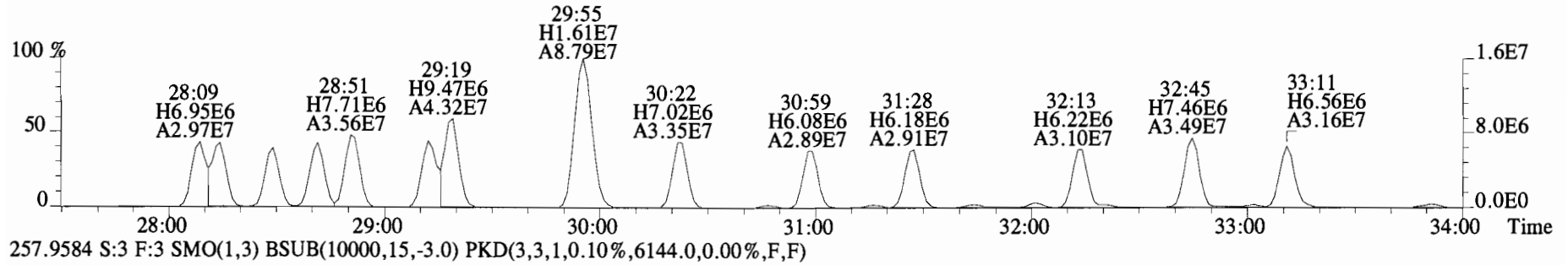
223.9974 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,31552.0,0.00%,F,F)



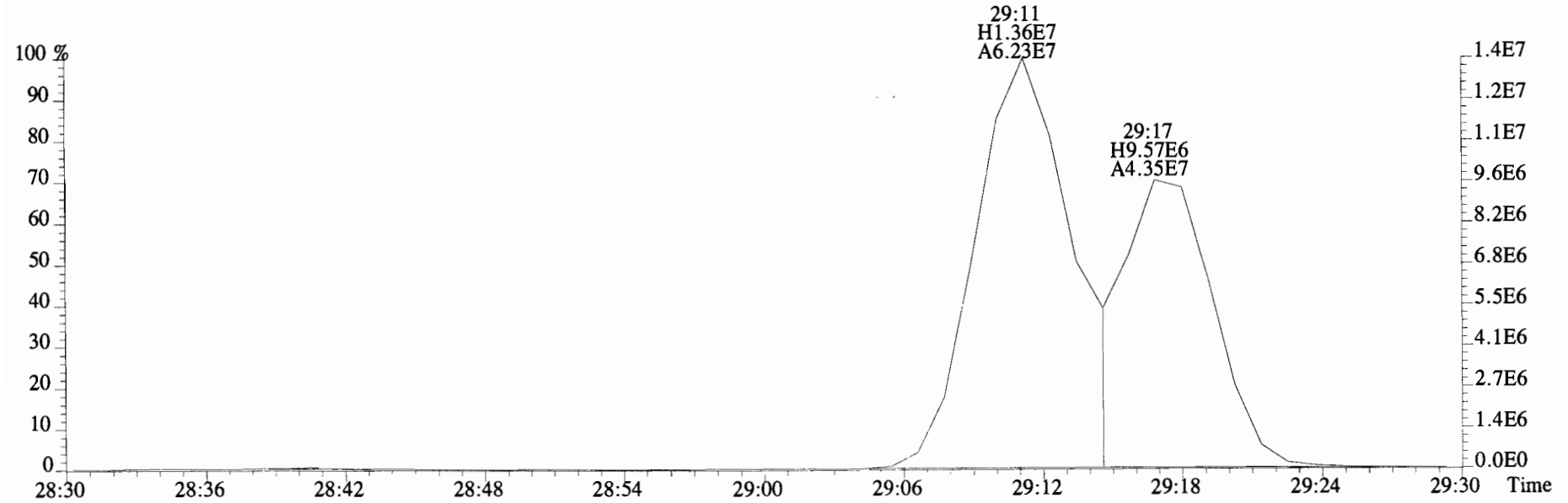
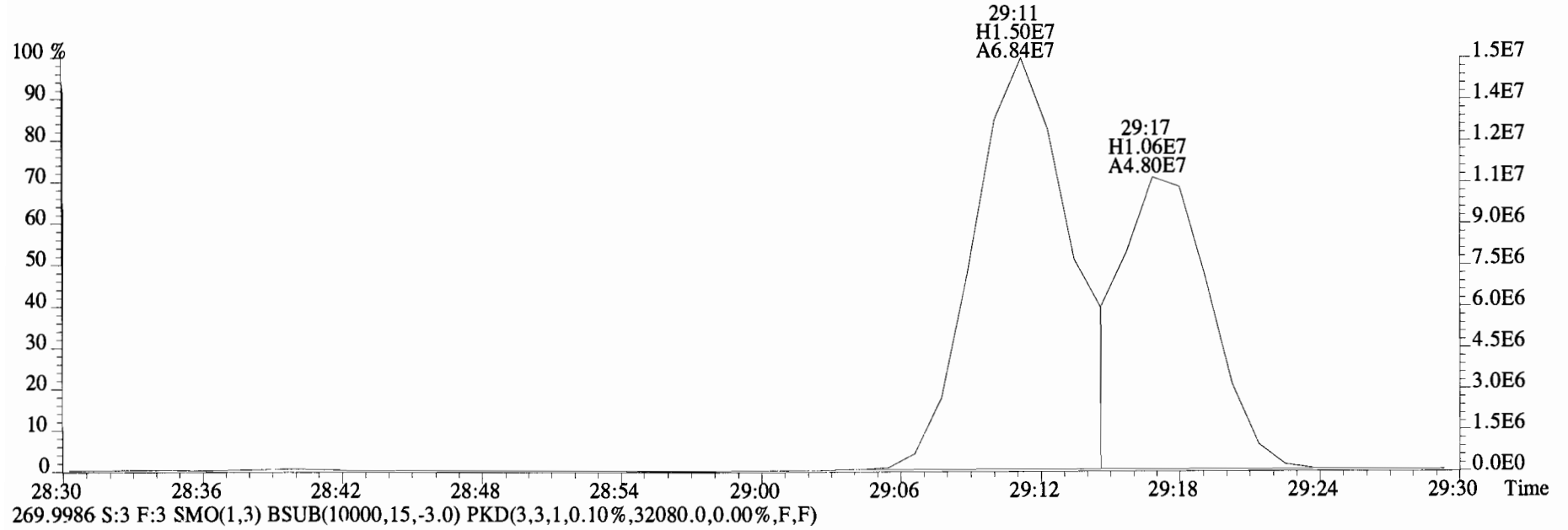
File:140919E2 #1-757 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
255.9613 S:3 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4492.0,0.00%,F,F)



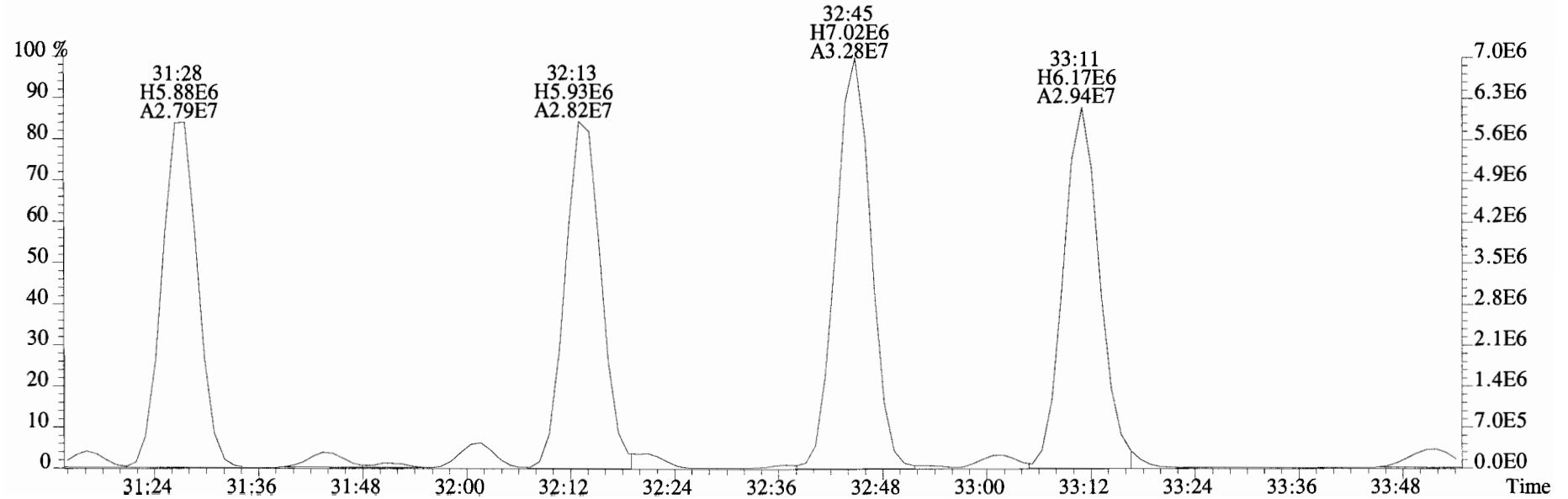
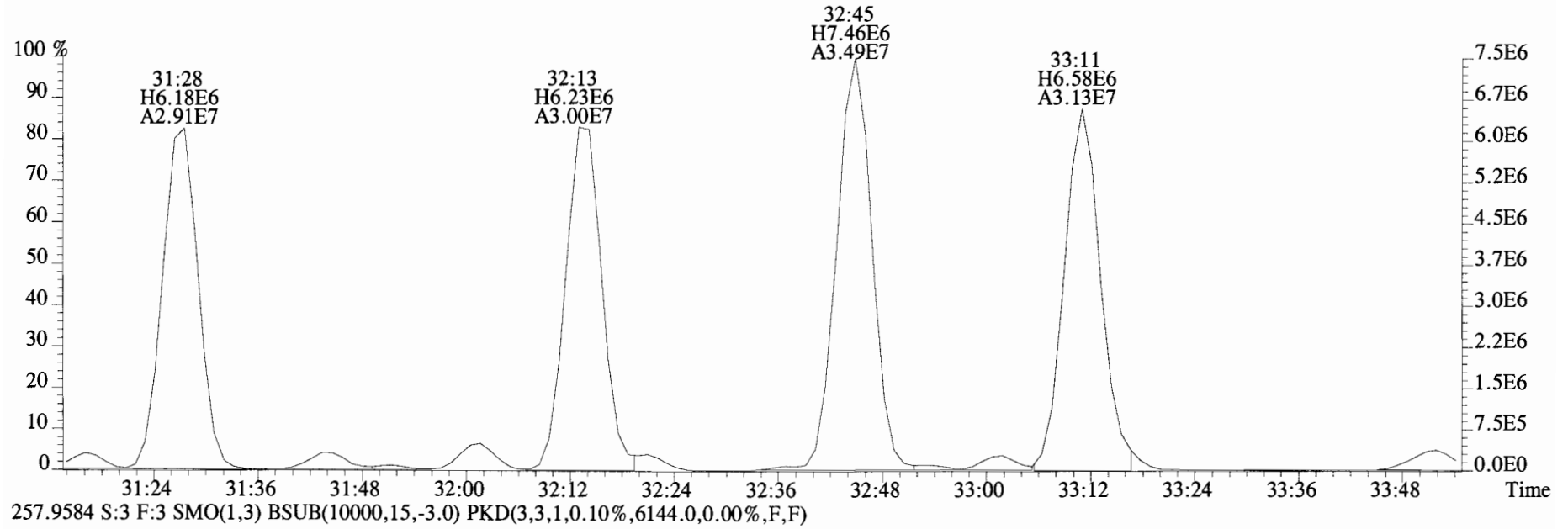
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
255.9613 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8412.0,0.00%,F,F)



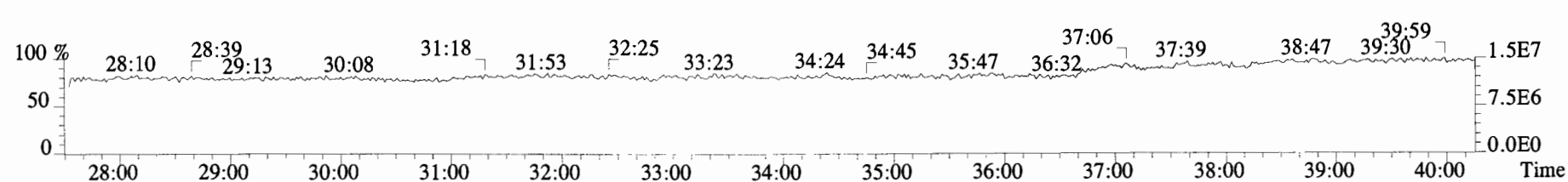
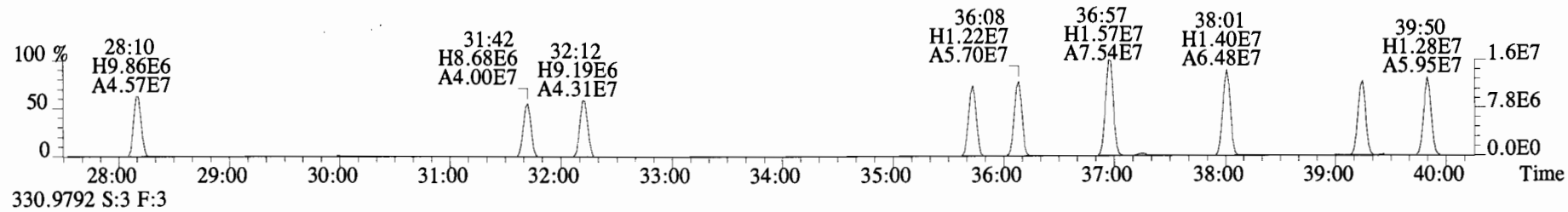
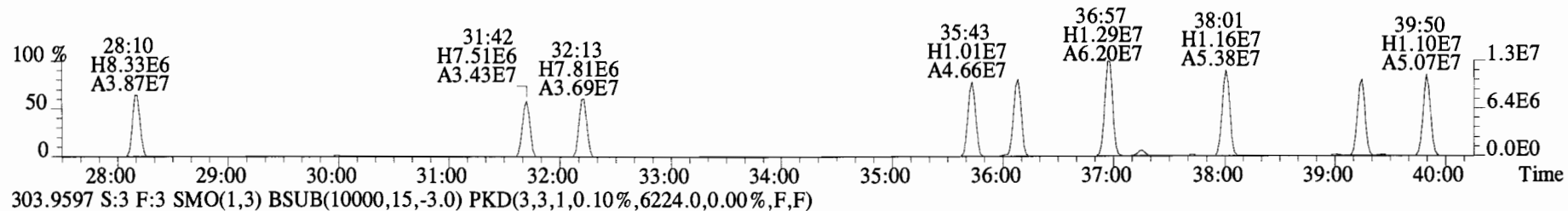
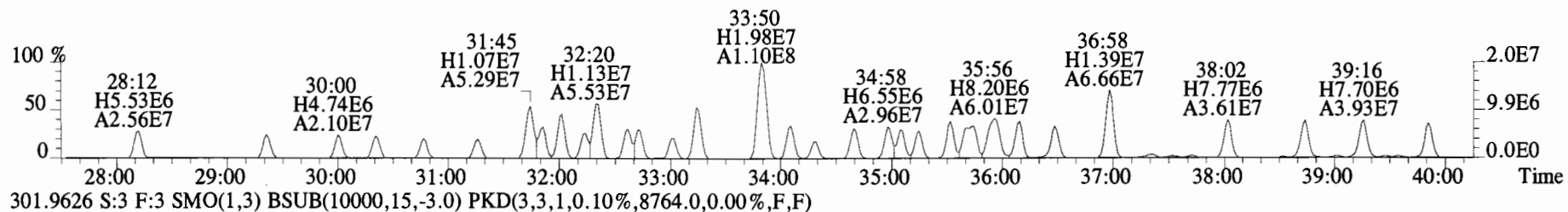
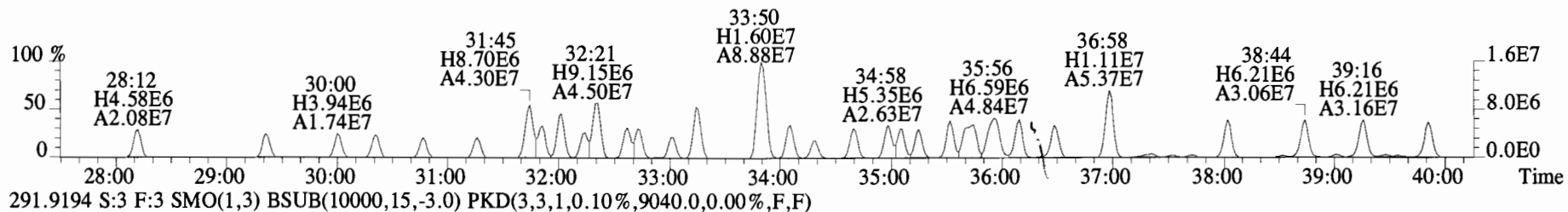
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
268.0016 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,52180.0,0.00%,F,F)



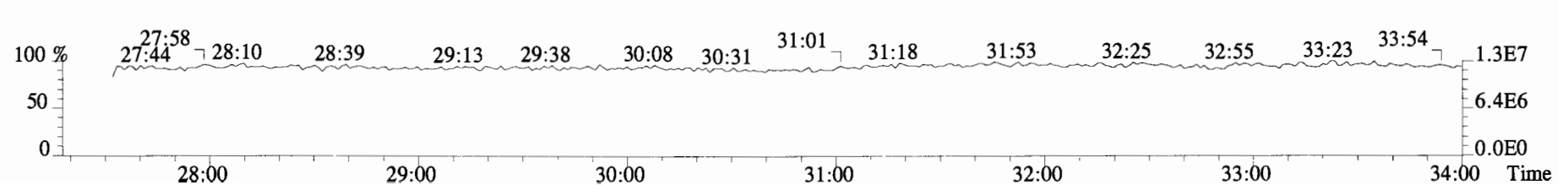
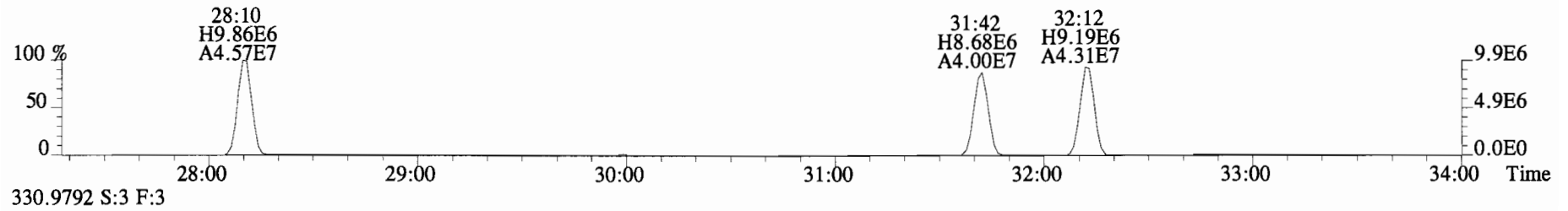
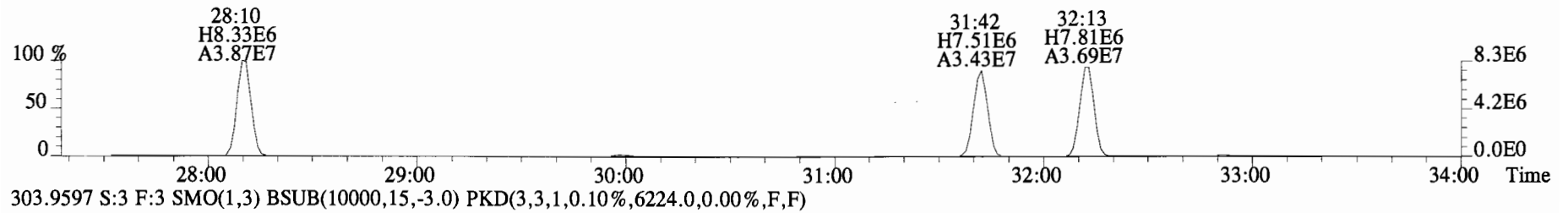
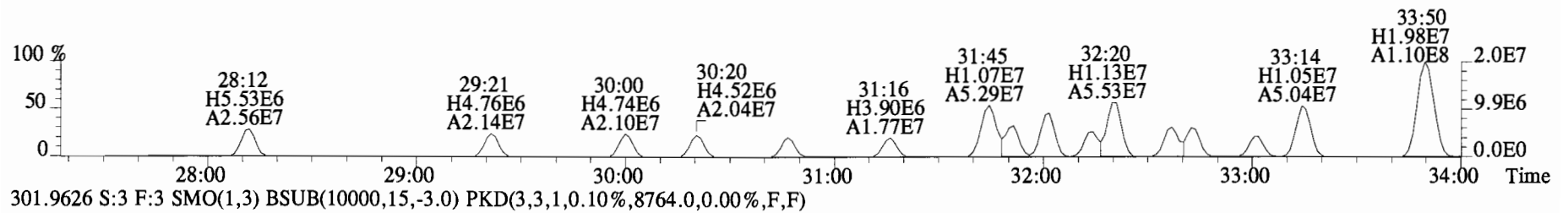
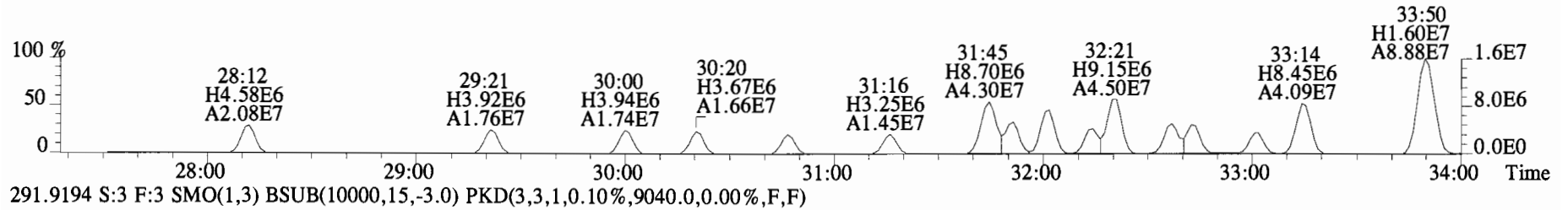
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
255.9613 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8412.0,0.00%,F,F)



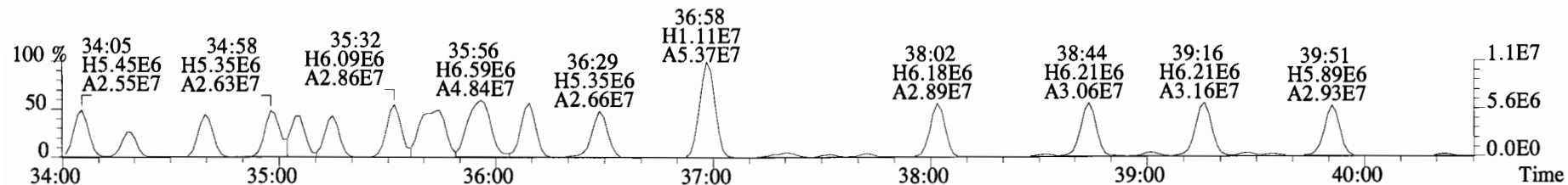
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 289.9224 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8508.0,0.00%,F,F)



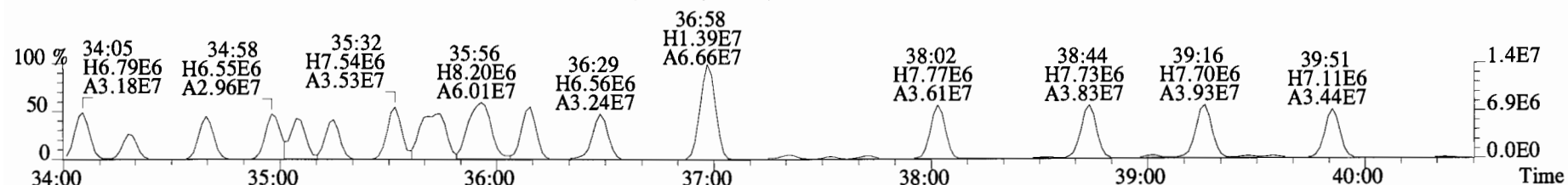
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
289.9224 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8508.0,0.00%,F,F)



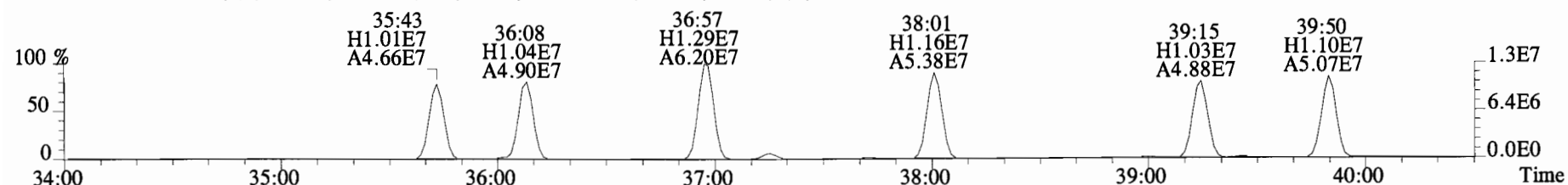
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 289.9224 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8508.0,0.00%,F,F)



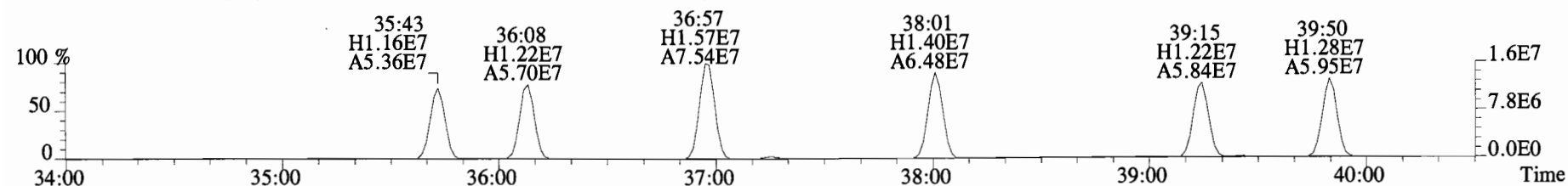
291.9194 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9040.0,0.00%,F,F)



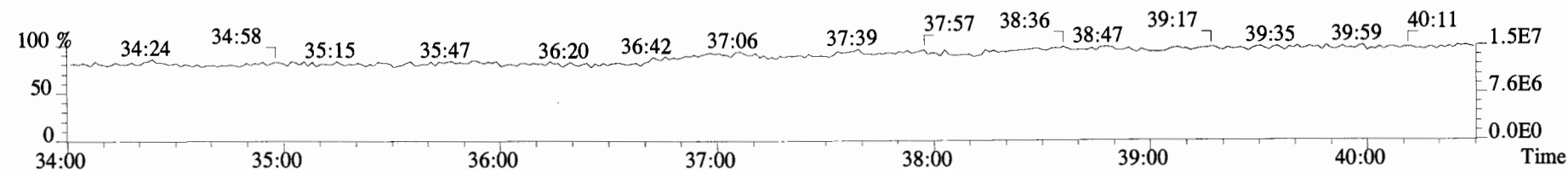
301.9626 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8764.0,0.00%,F,F)



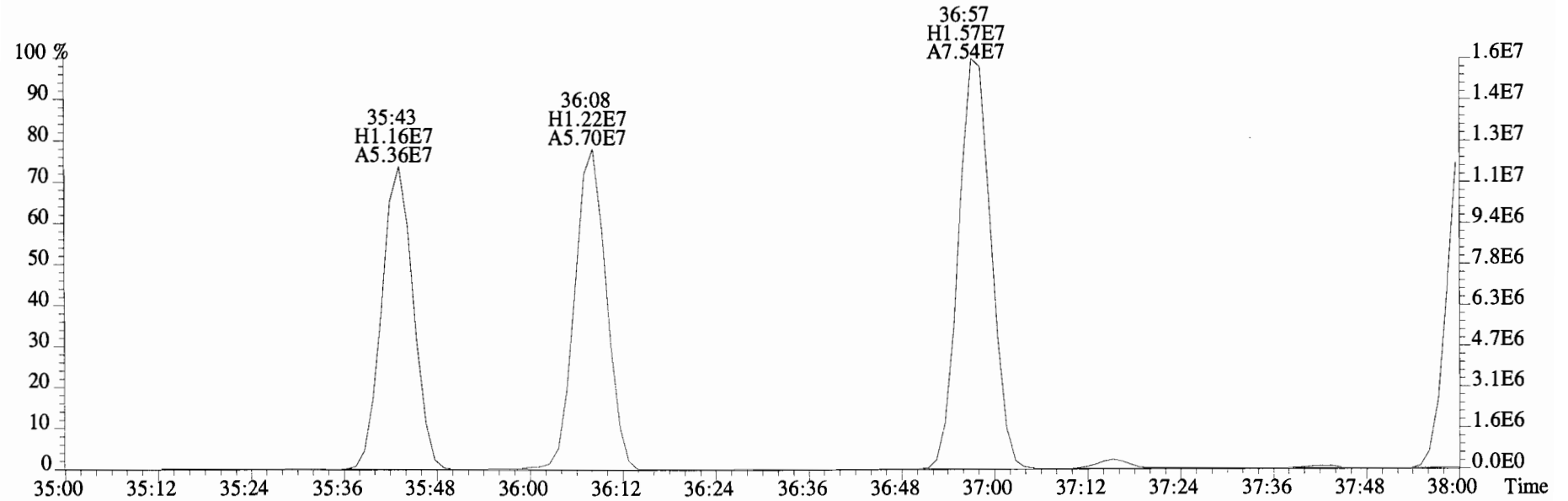
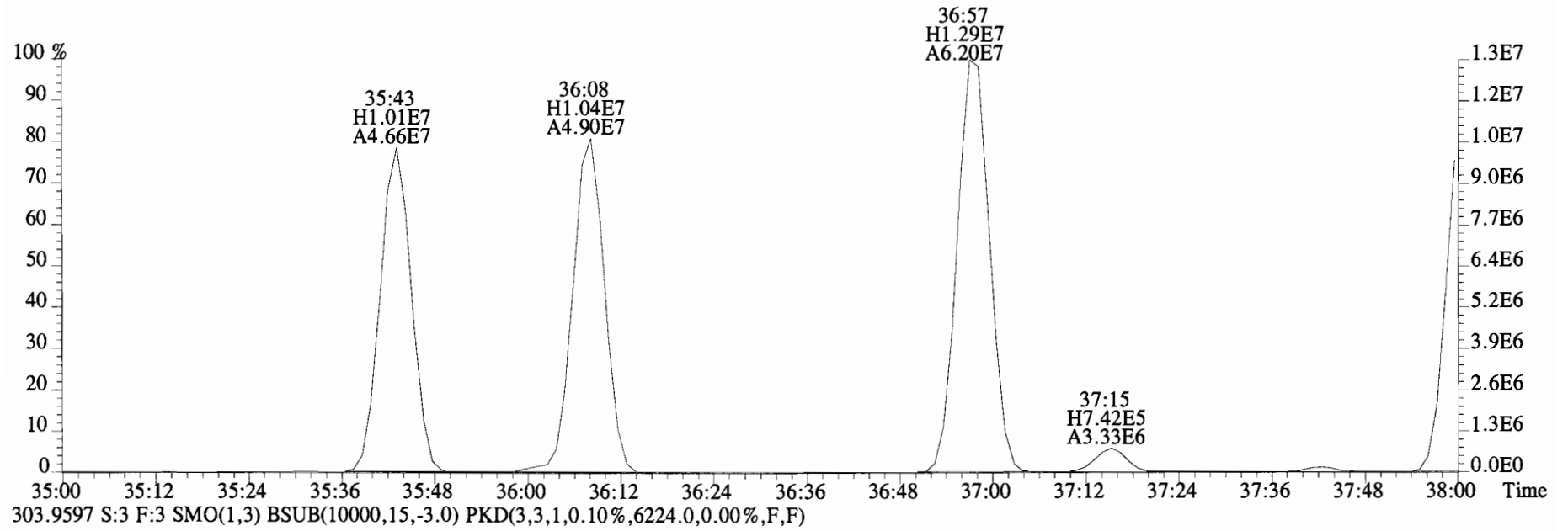
303.9597 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6224.0,0.00%,F,F)



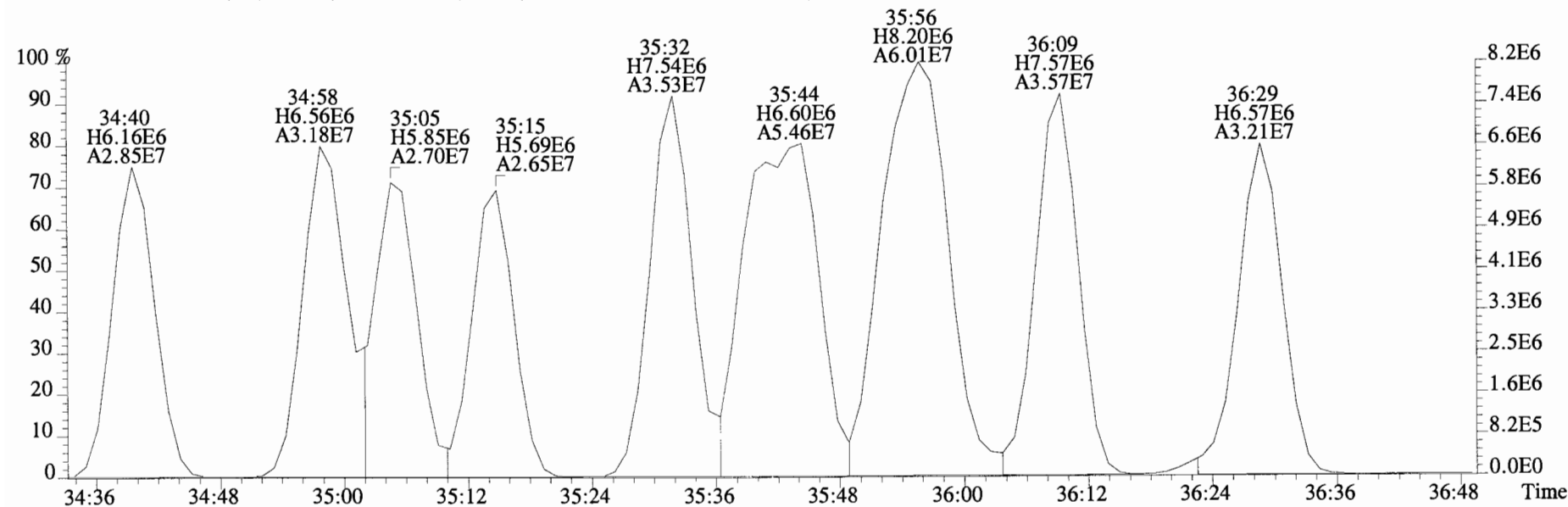
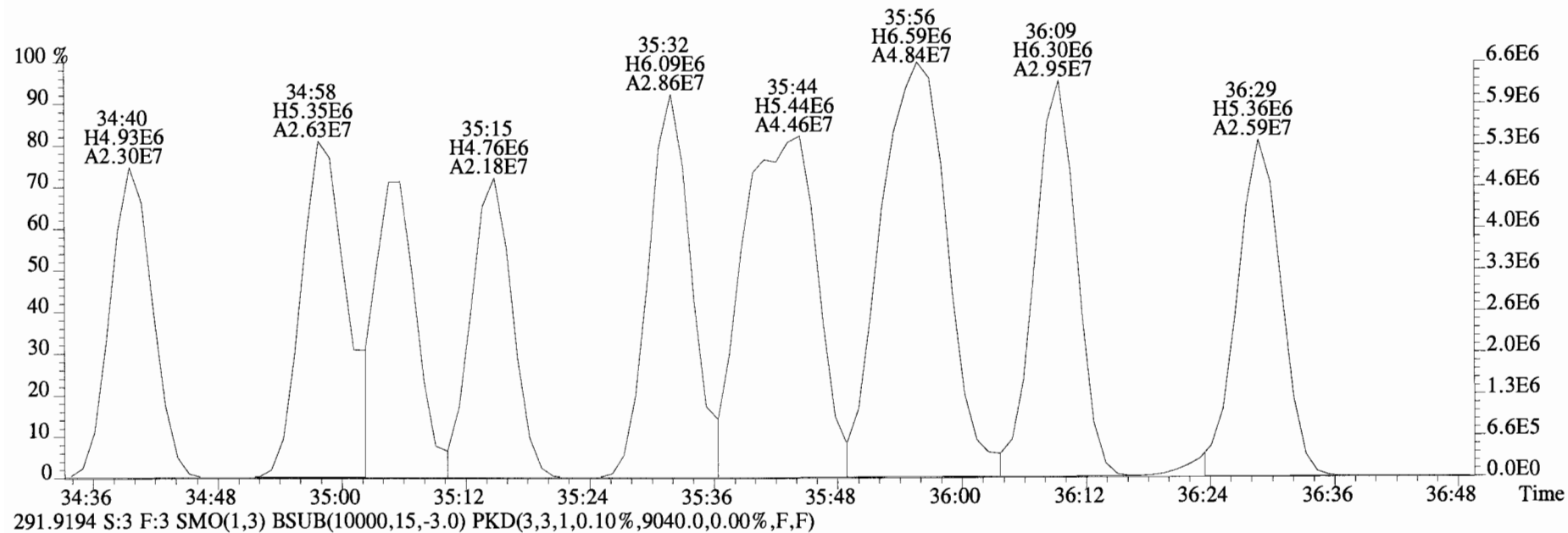
330.9792 S:3 F:3



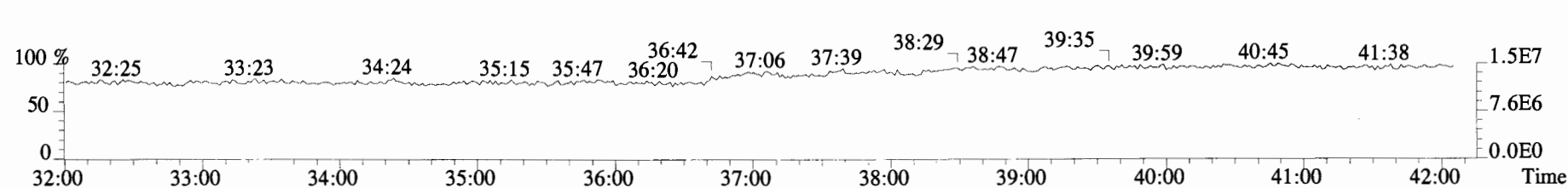
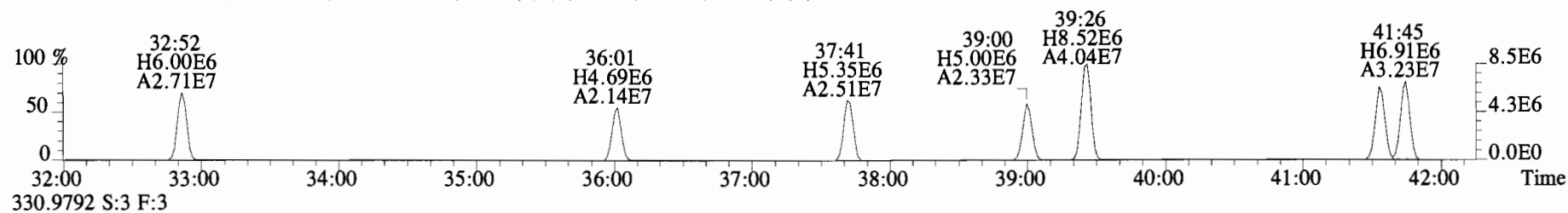
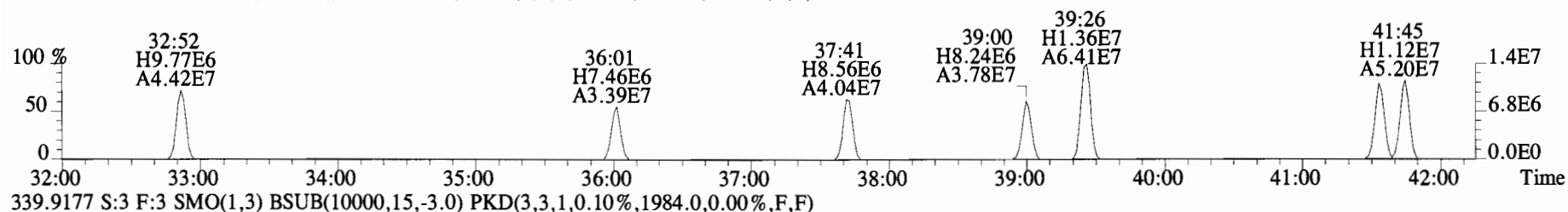
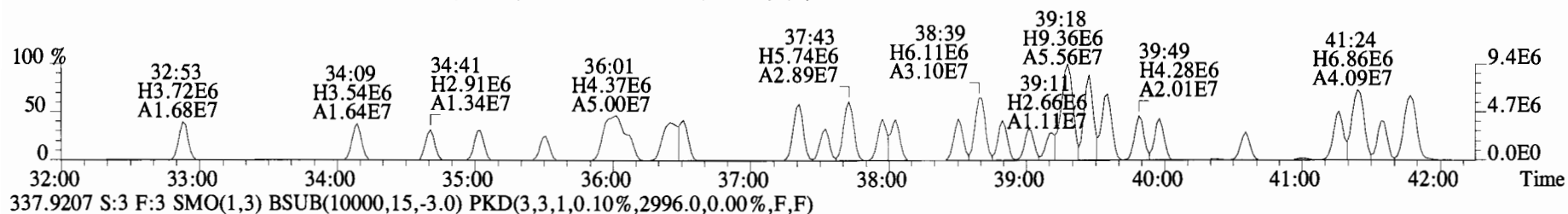
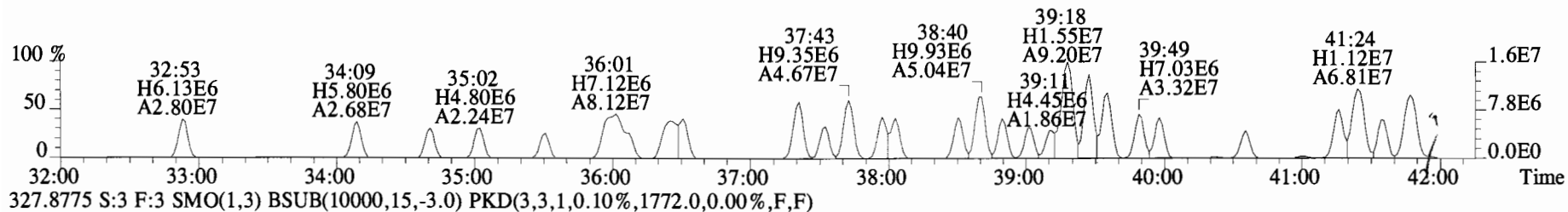
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
301.9626 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8764.0,0.00%,F,F)



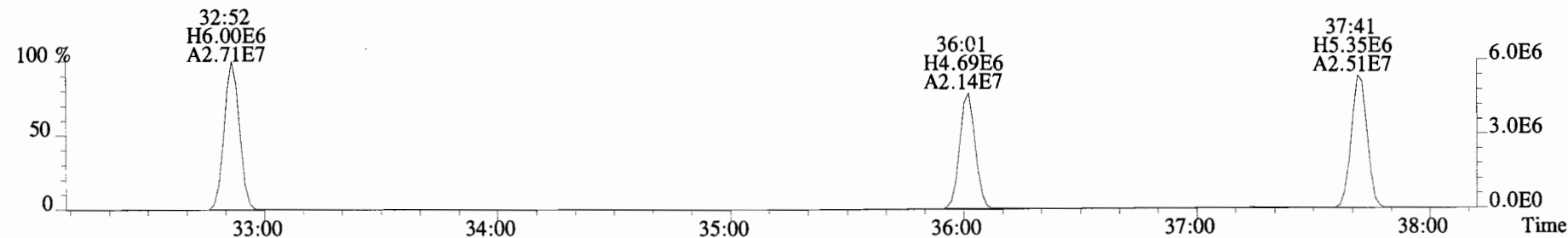
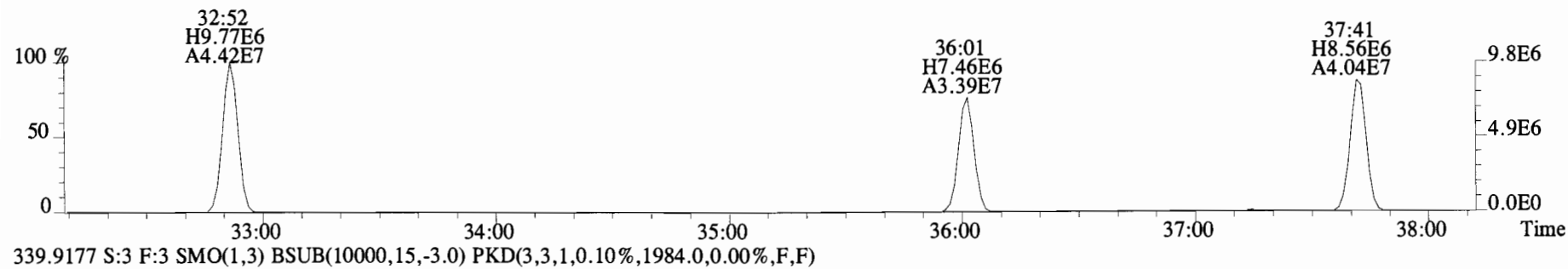
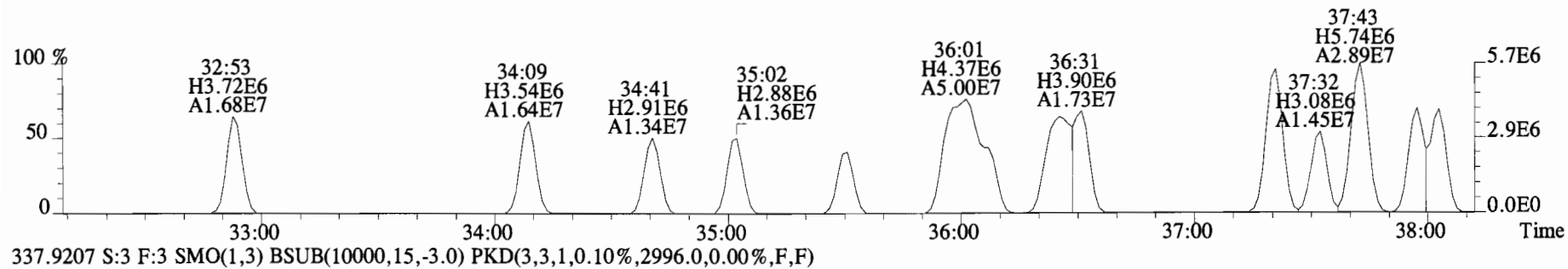
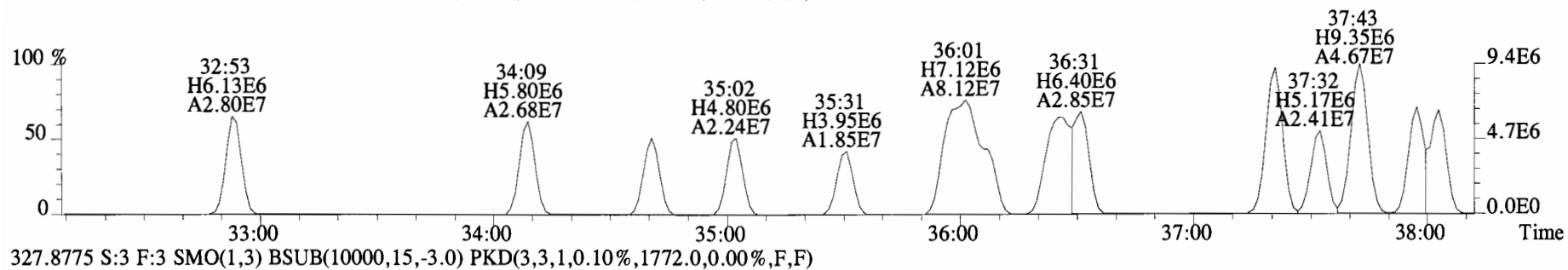
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 289.9224 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8508.0,0.00%,F,F)



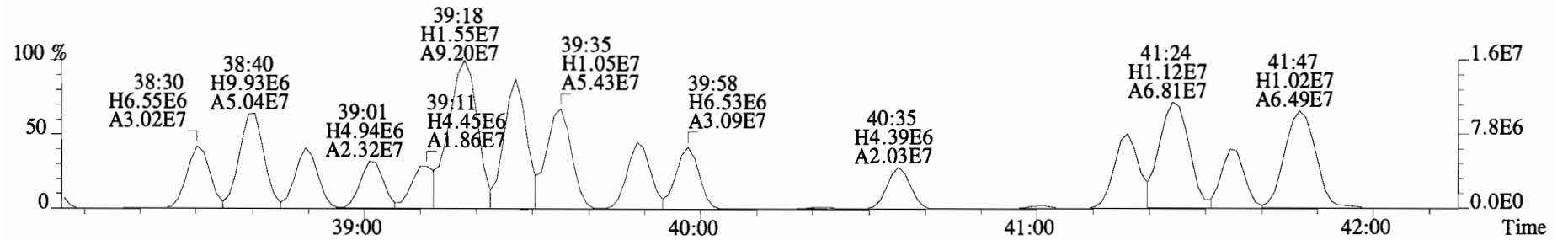
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



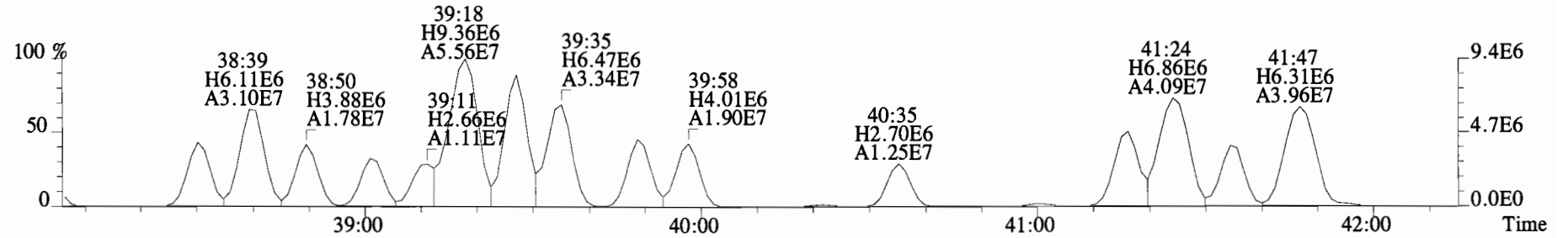
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



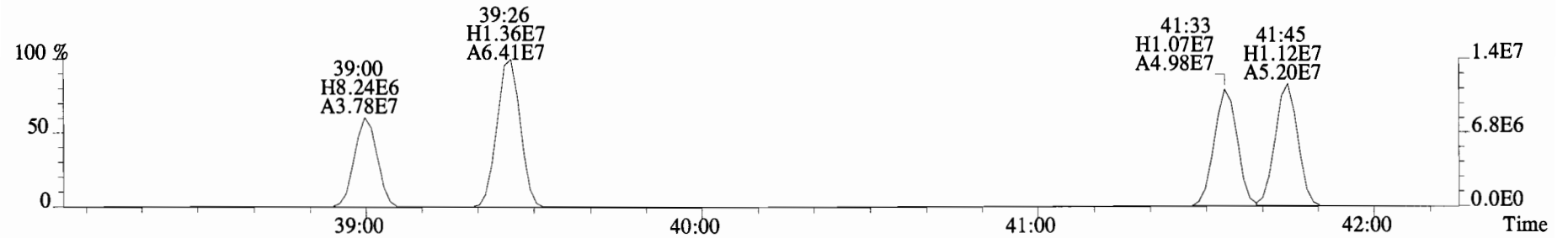
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
 325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



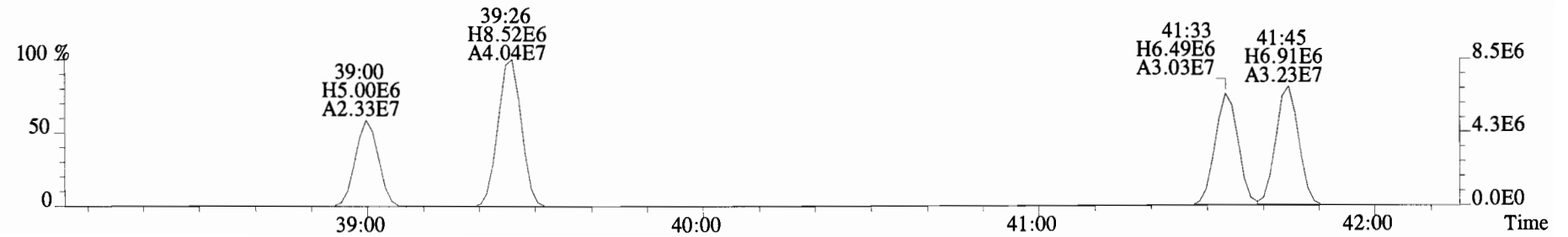
327.8775 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1772.0,0.00%,F,F)



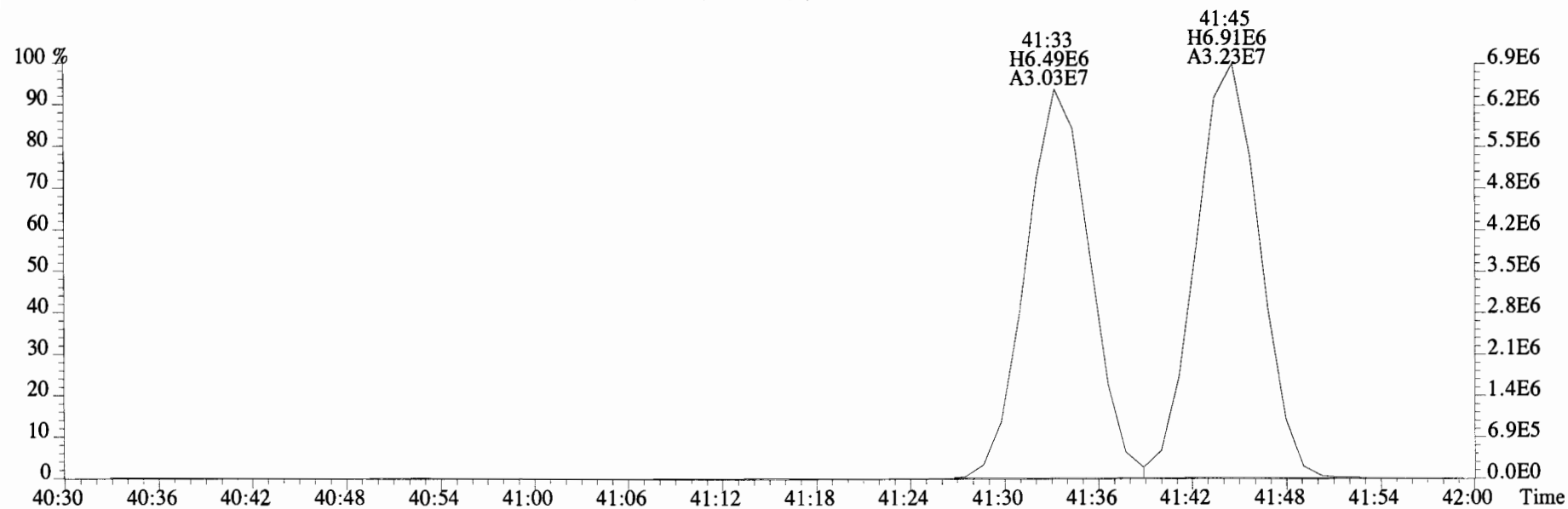
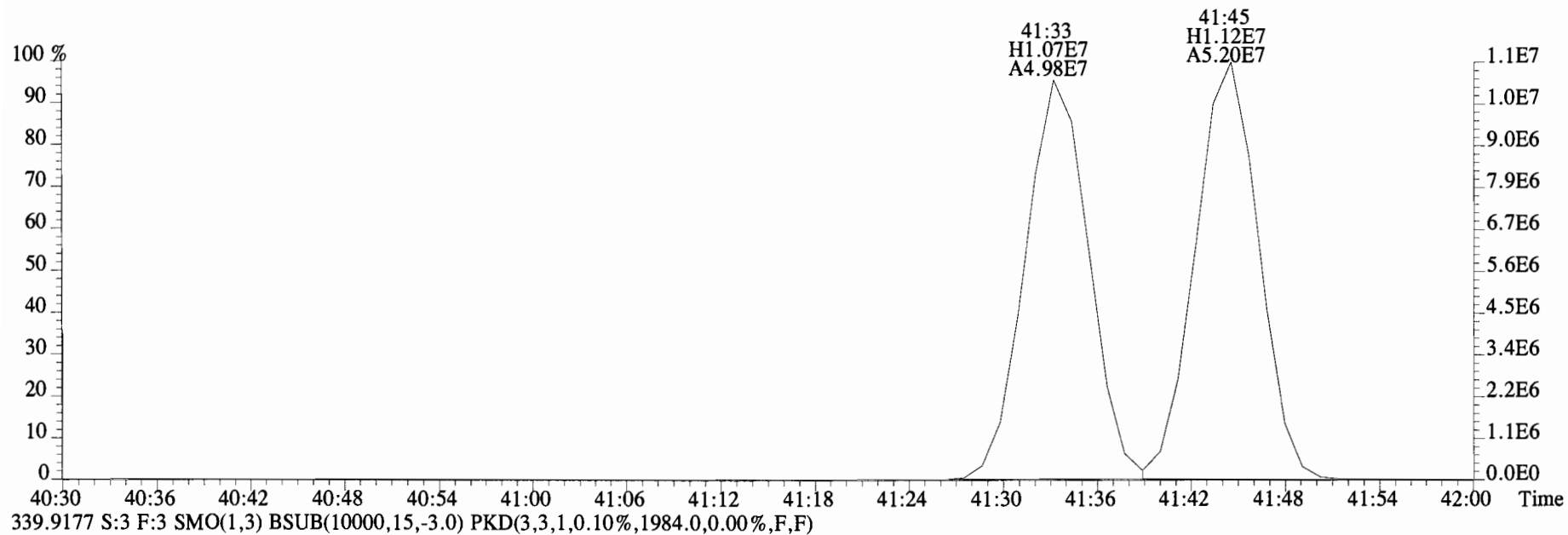
337.9207 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2996.0,0.00%,F,F)



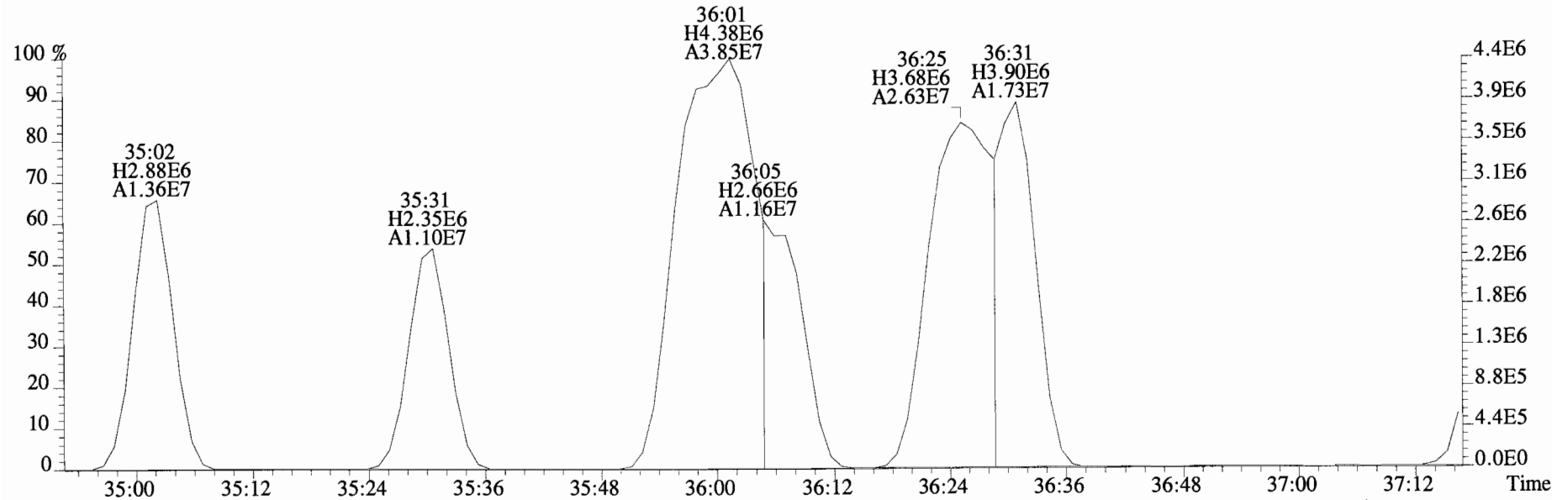
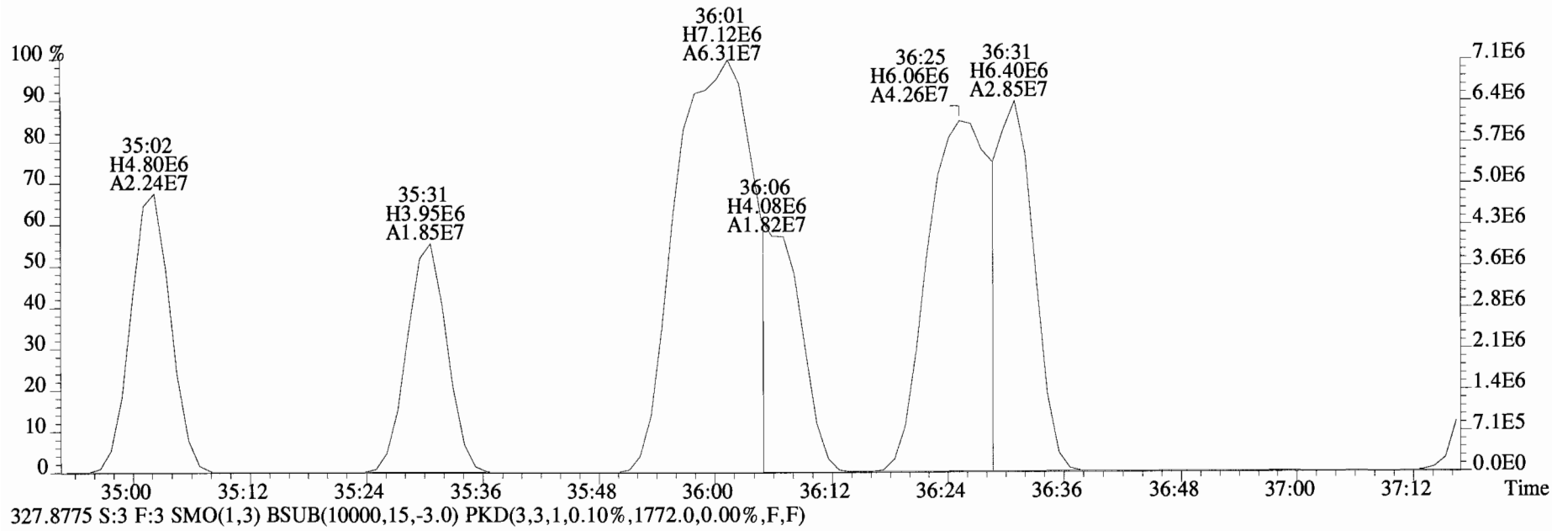
339.9177 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1984.0,0.00%,F,F)



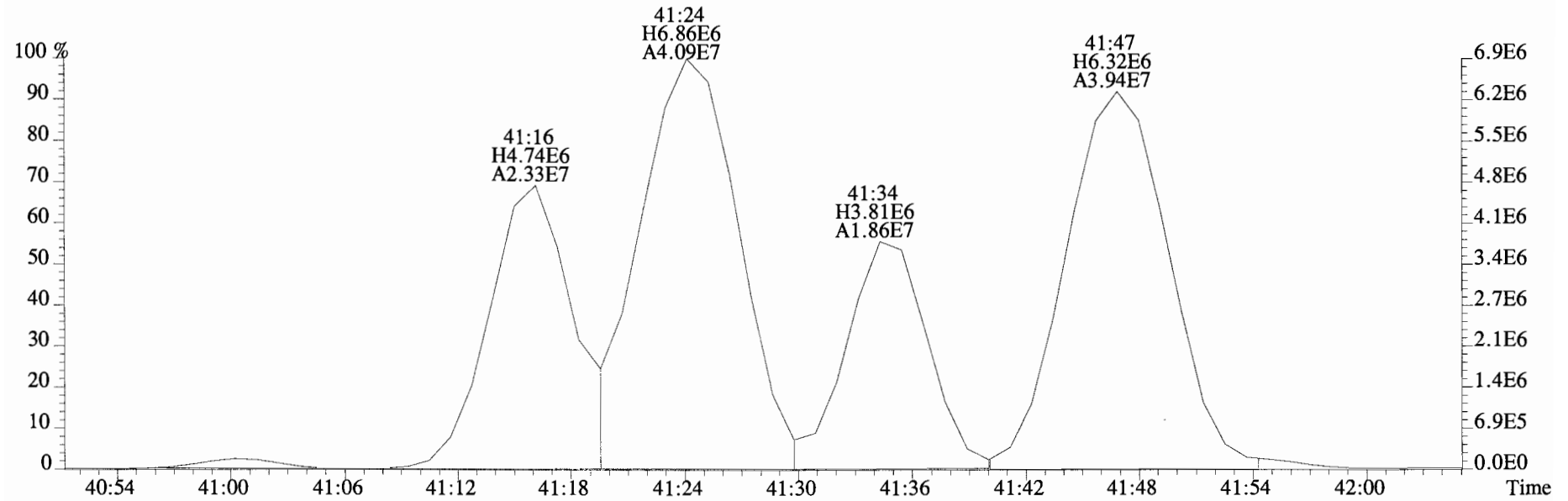
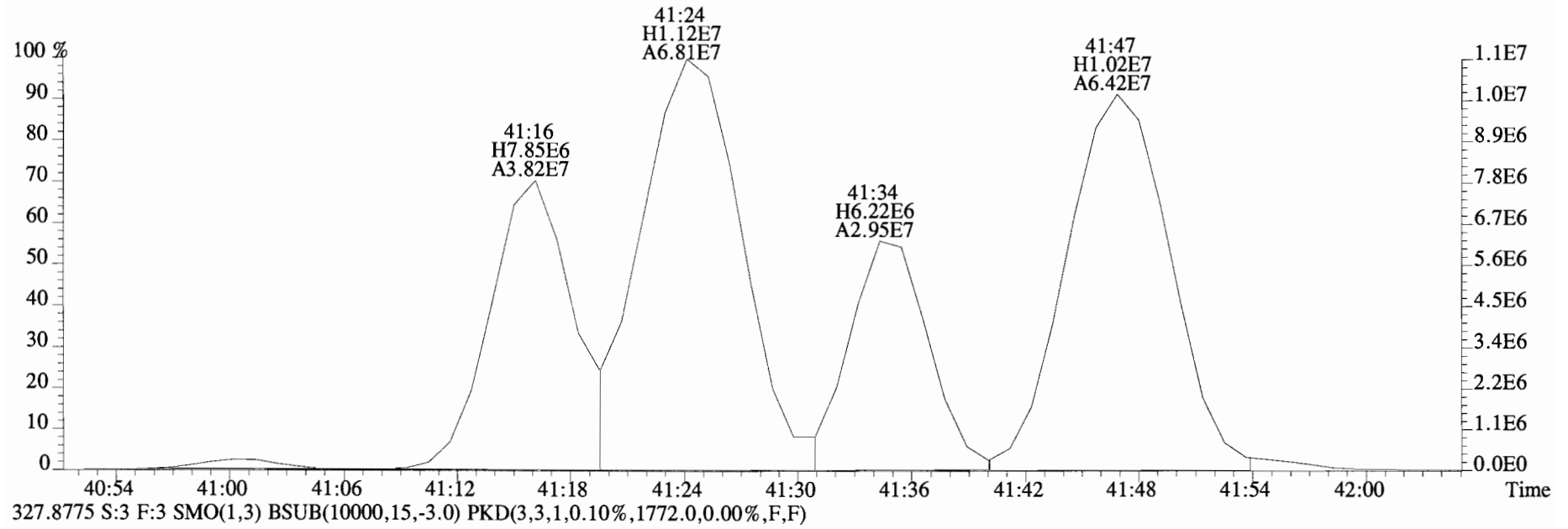
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
337.9207 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2996.0,0.00%,F,F)



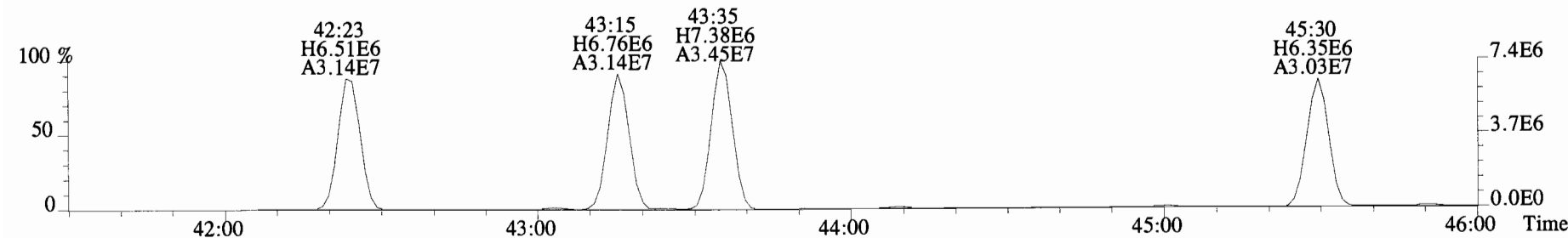
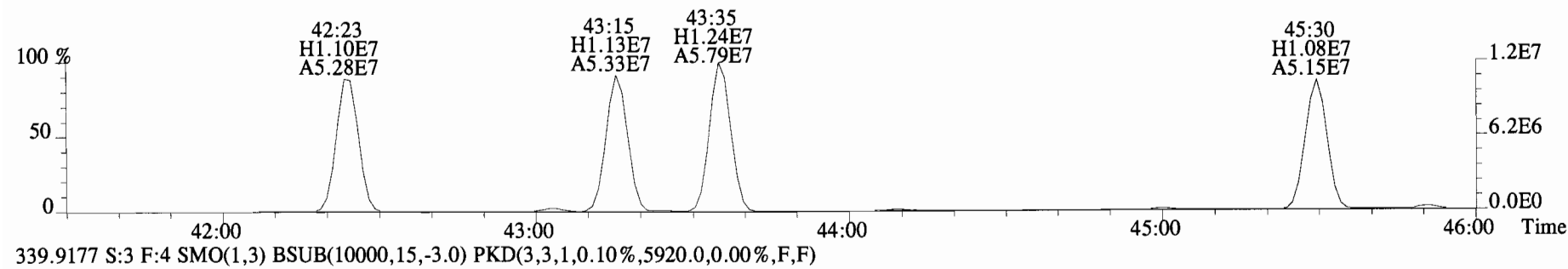
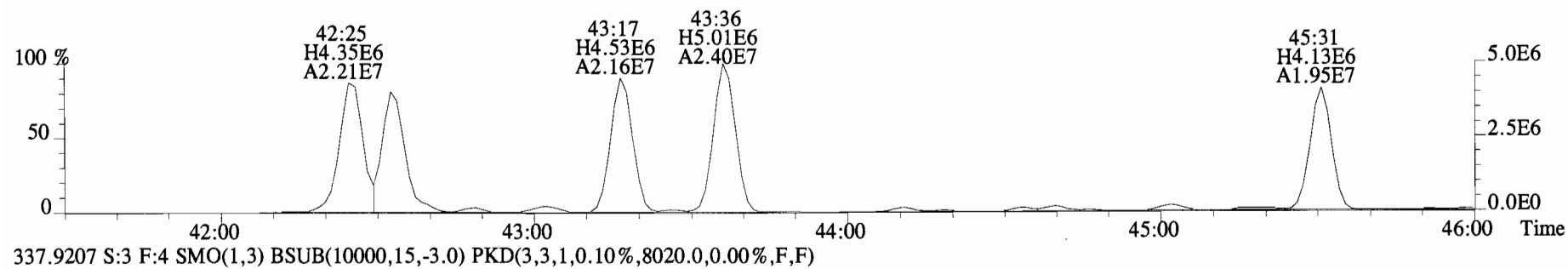
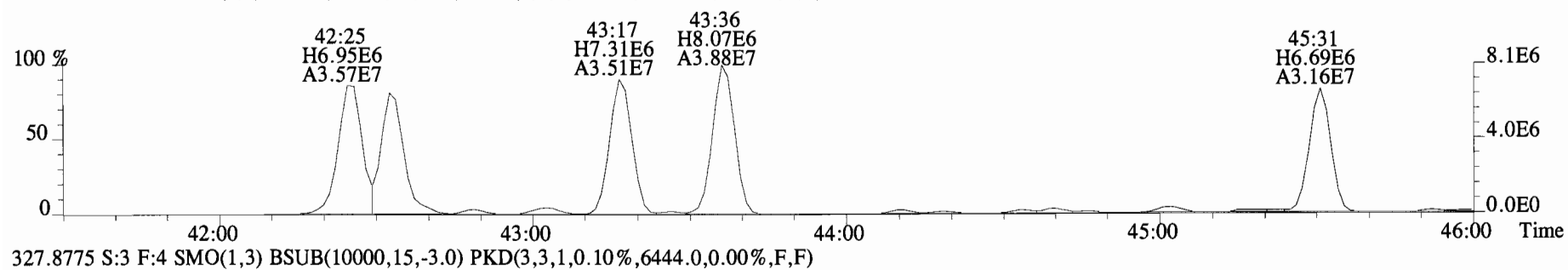
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



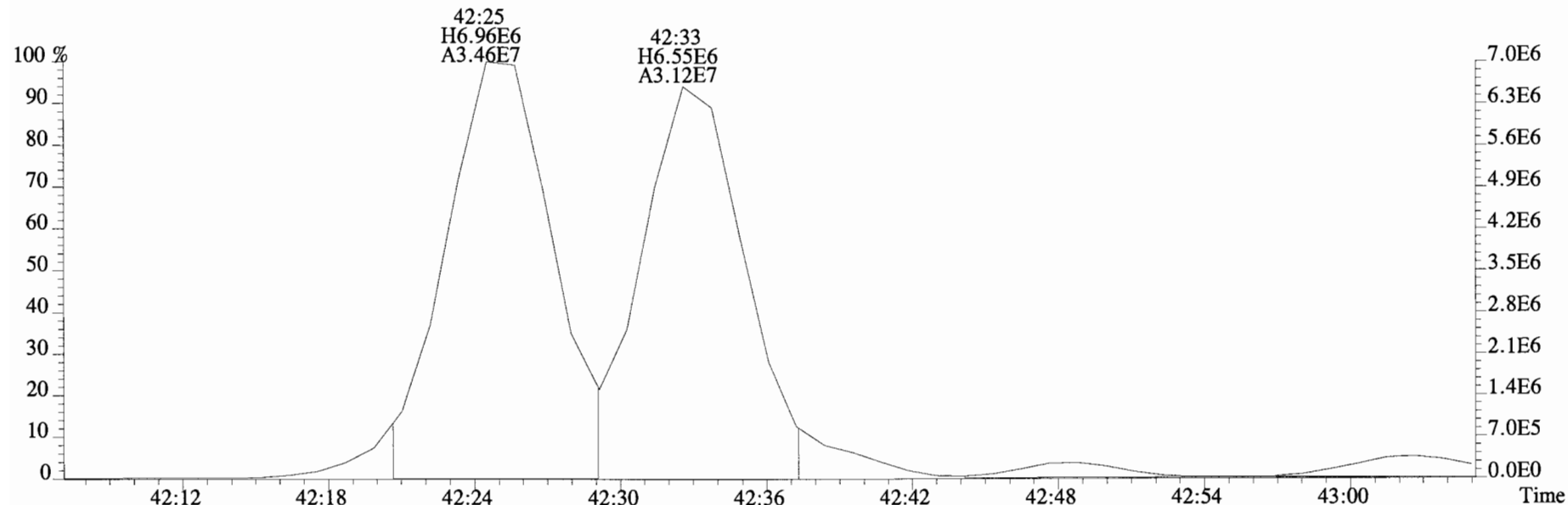
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



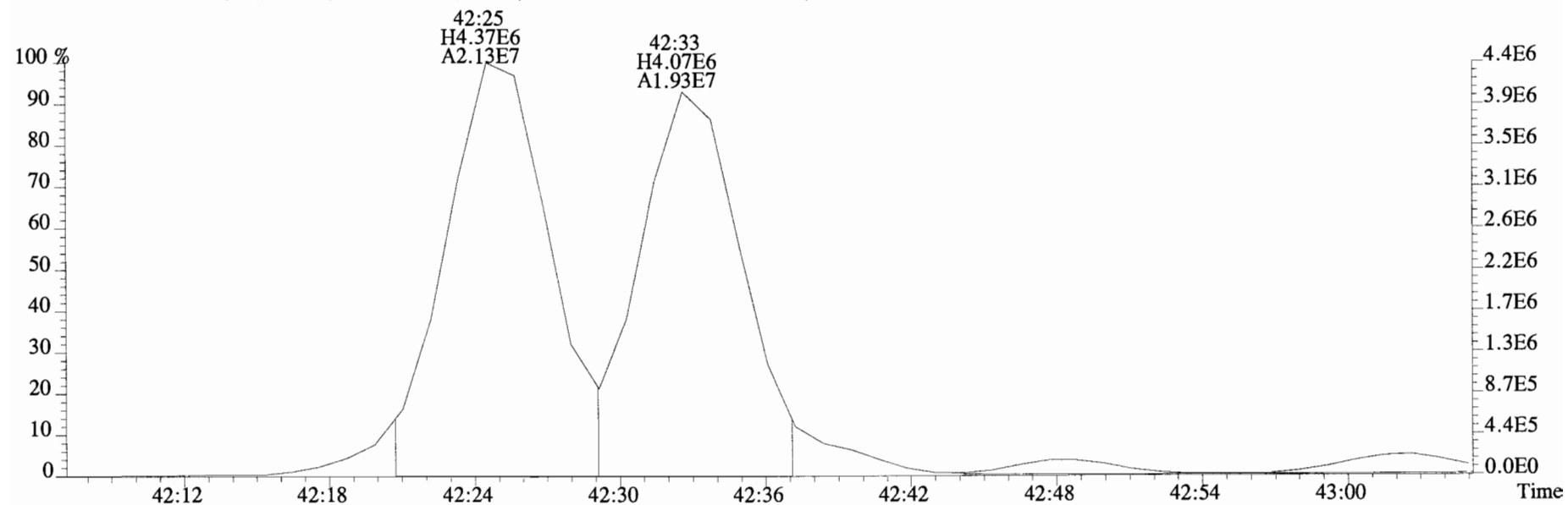
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,14912.0,0.00%,F,F)



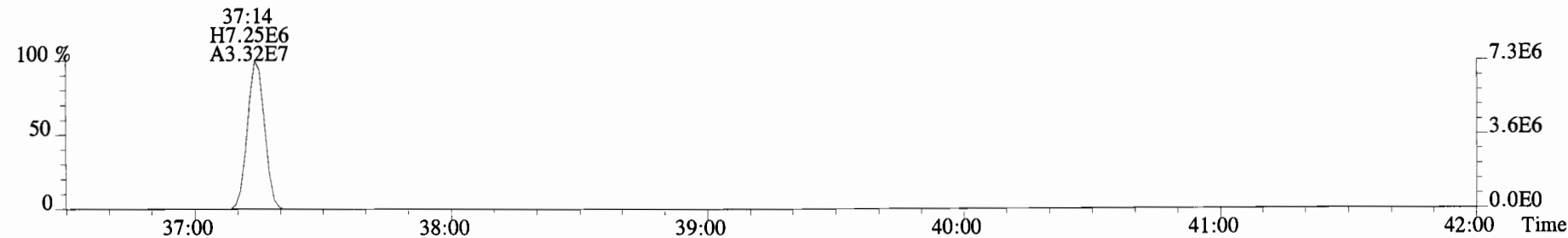
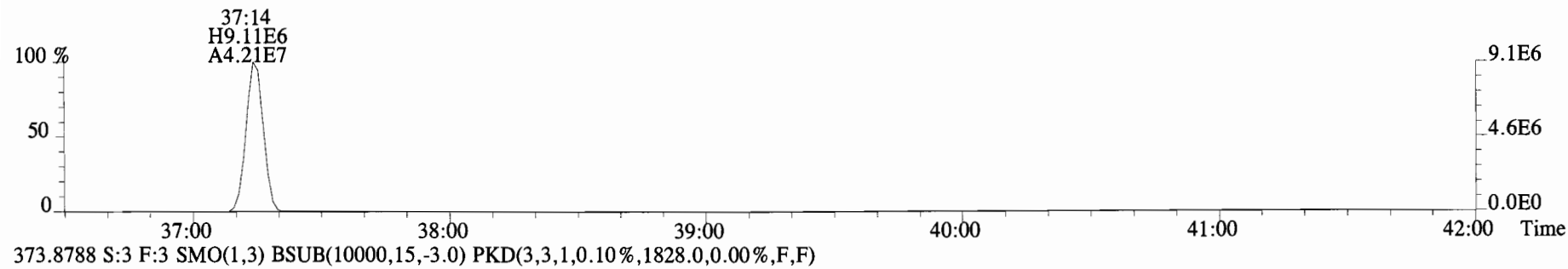
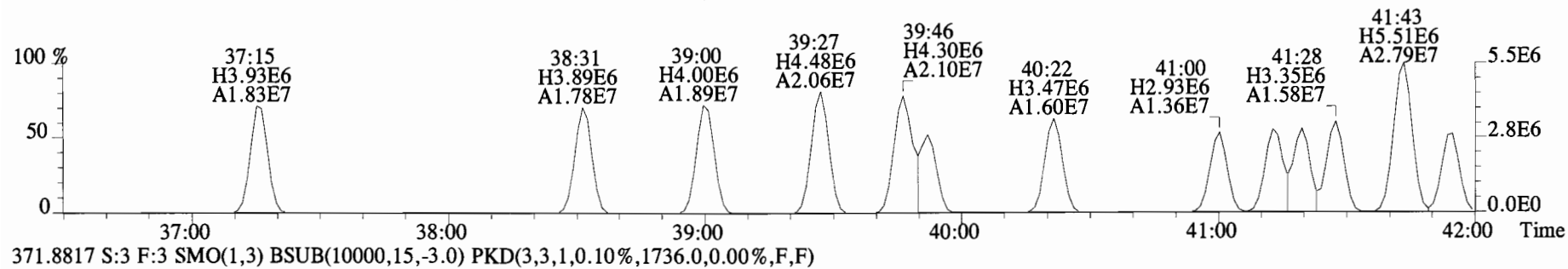
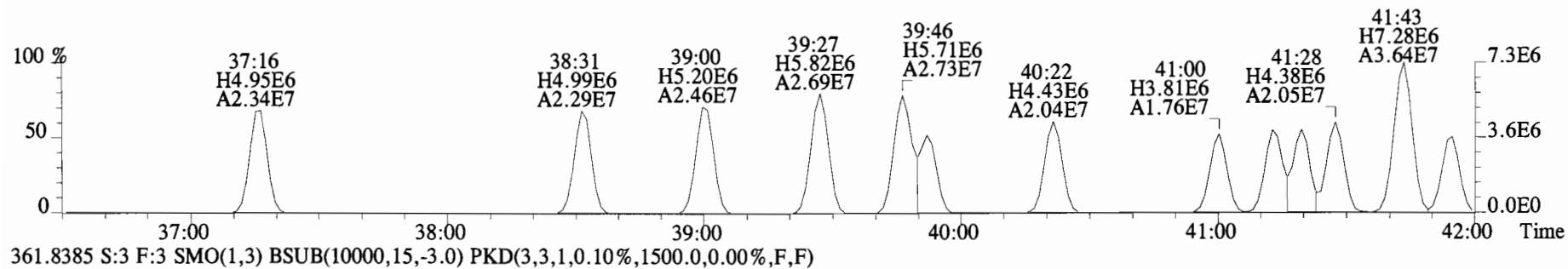
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
325.8804 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,14912.0,0.00%,F,F)



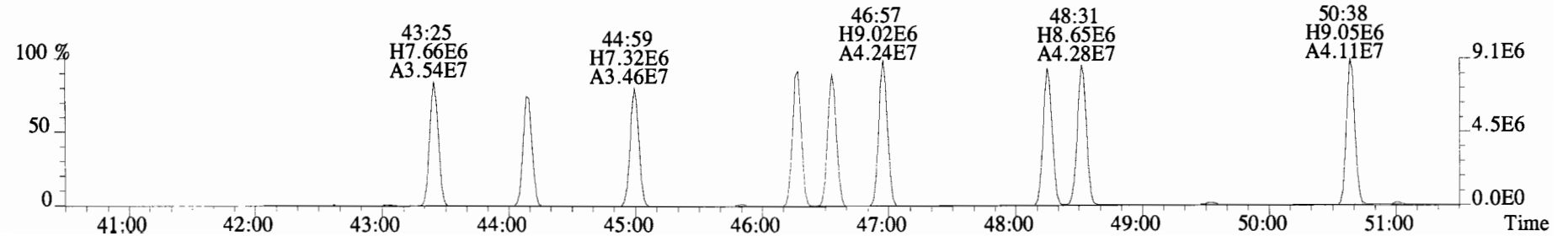
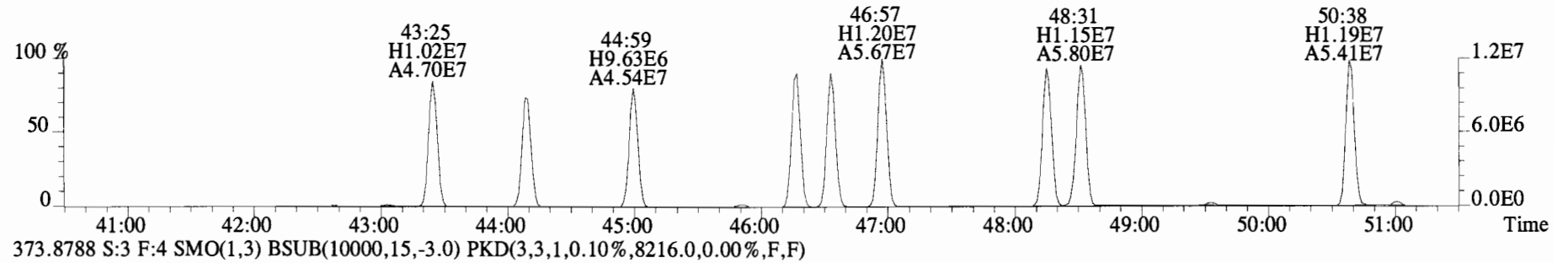
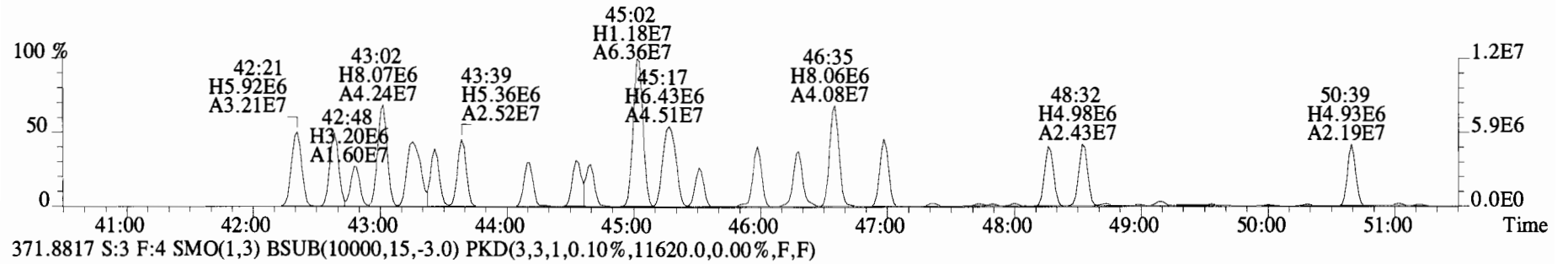
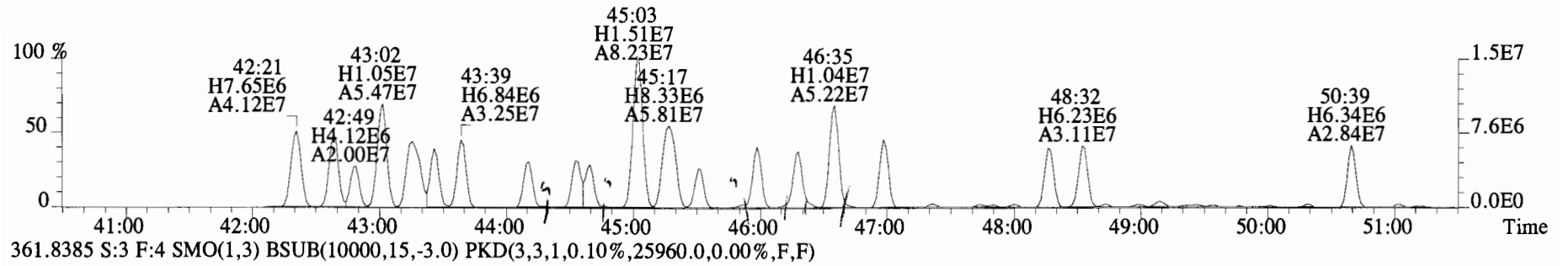
327.8775 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6444.0,0.00%,F,F)



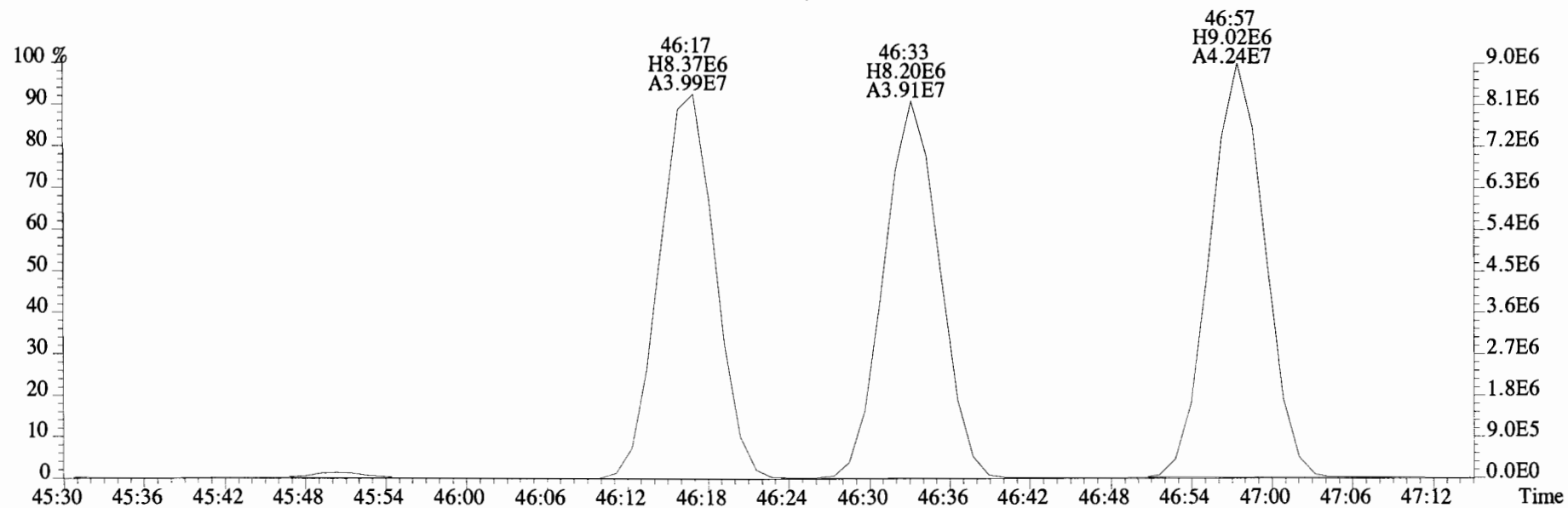
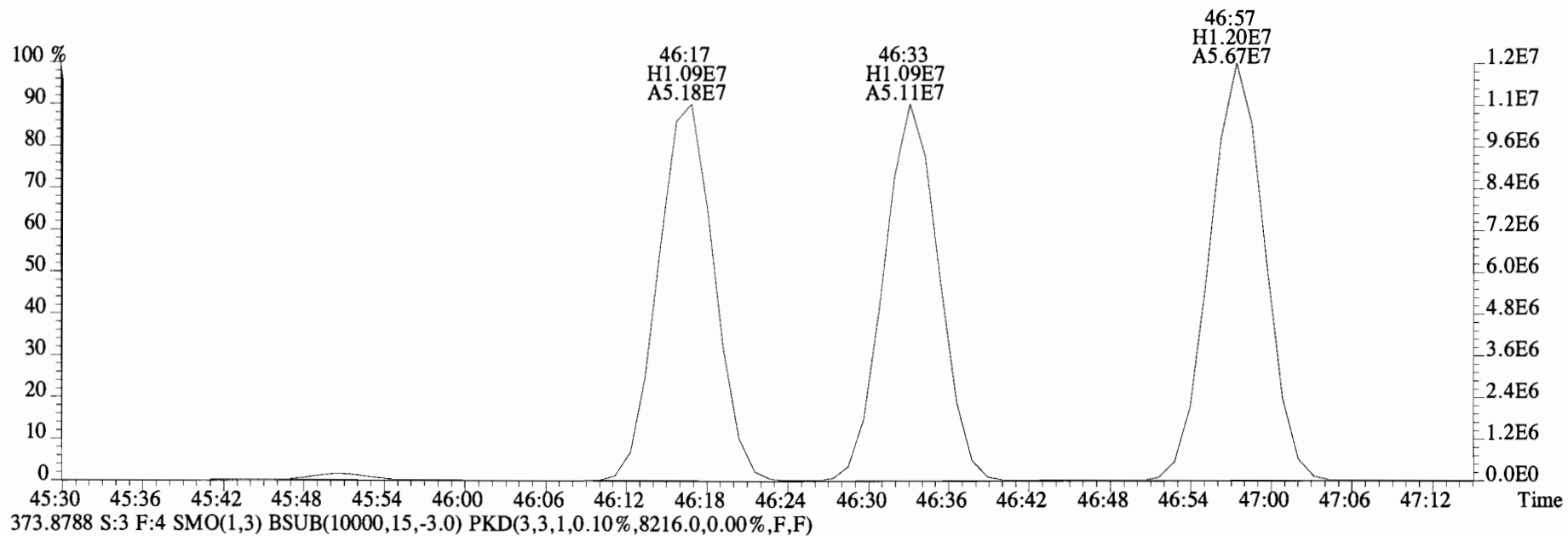
File:140919E2 #1-769 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
359.8415 S:3 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1552.0,0.00%,F,F)



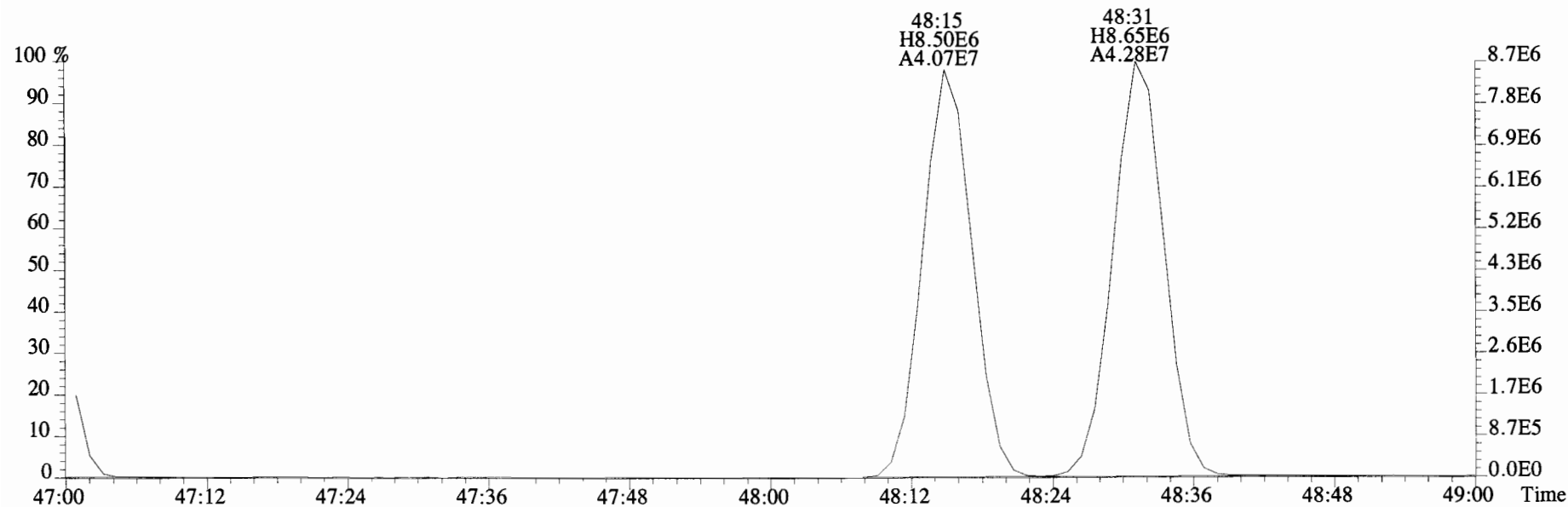
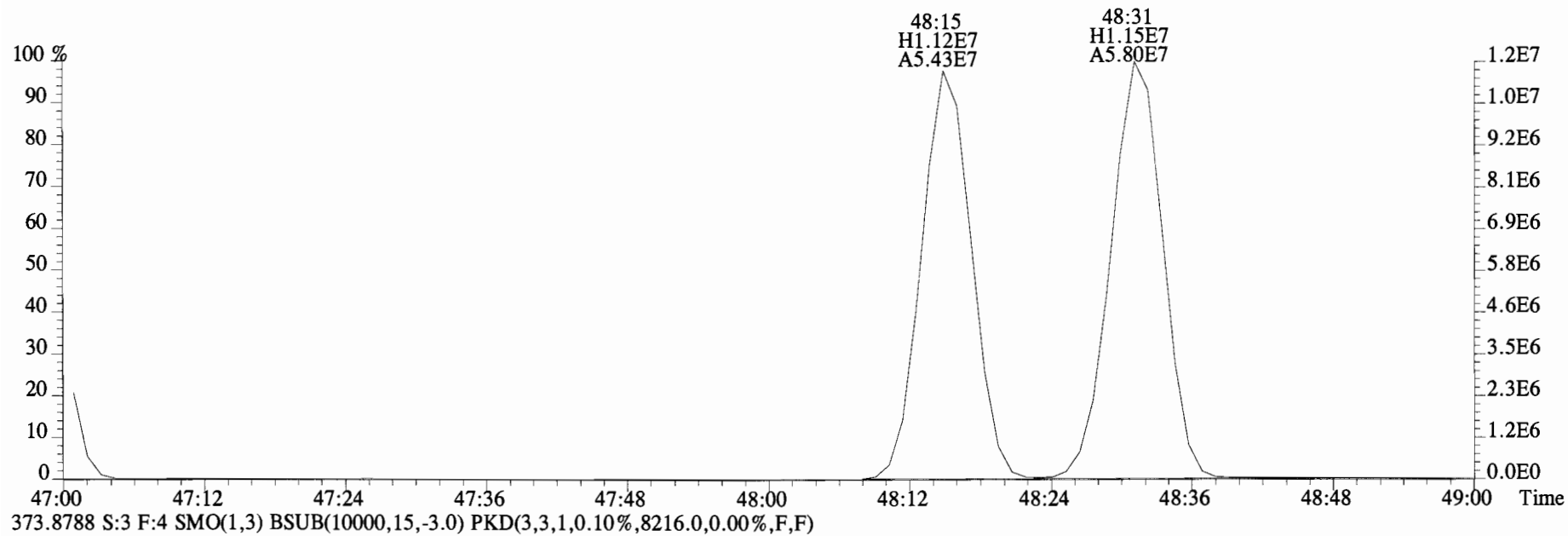
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
359.8415 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,45176.0,0.00%,F,F)



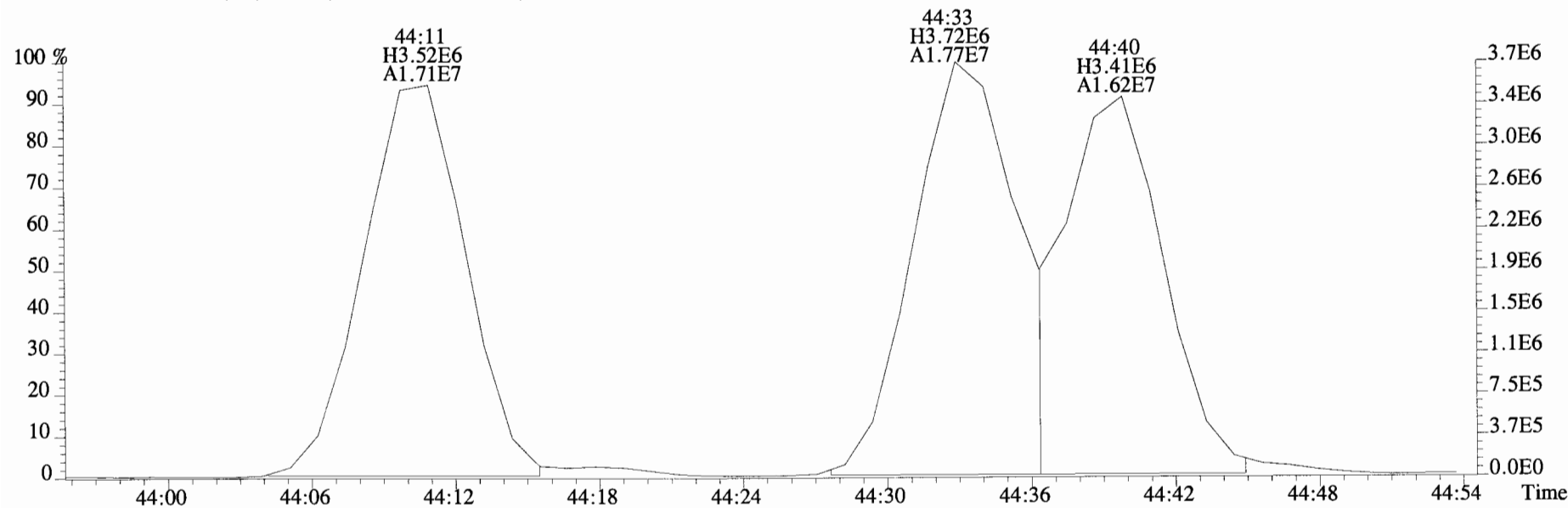
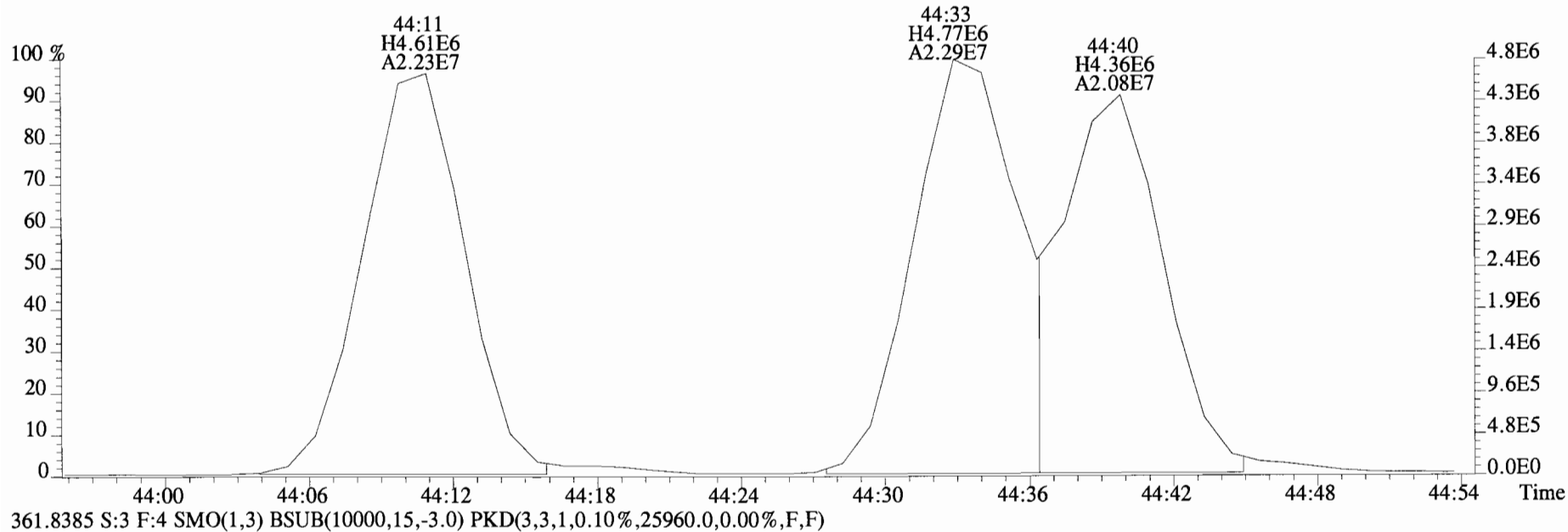
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
371.8817 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11620.0,0.00%,F,F)



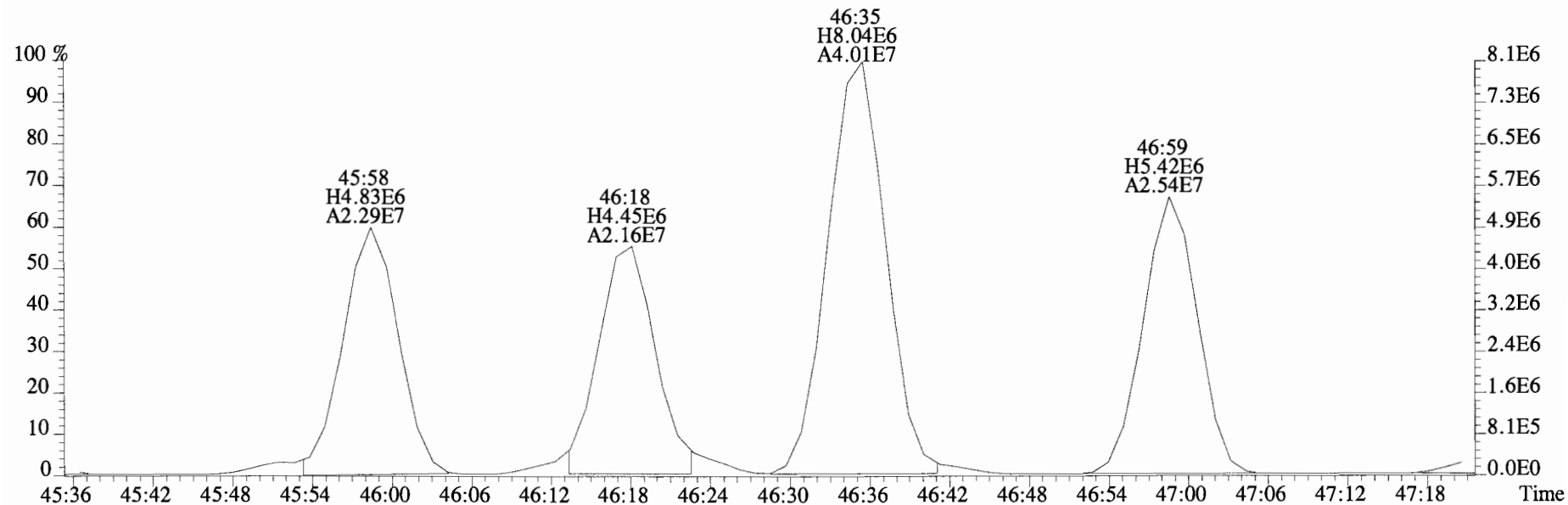
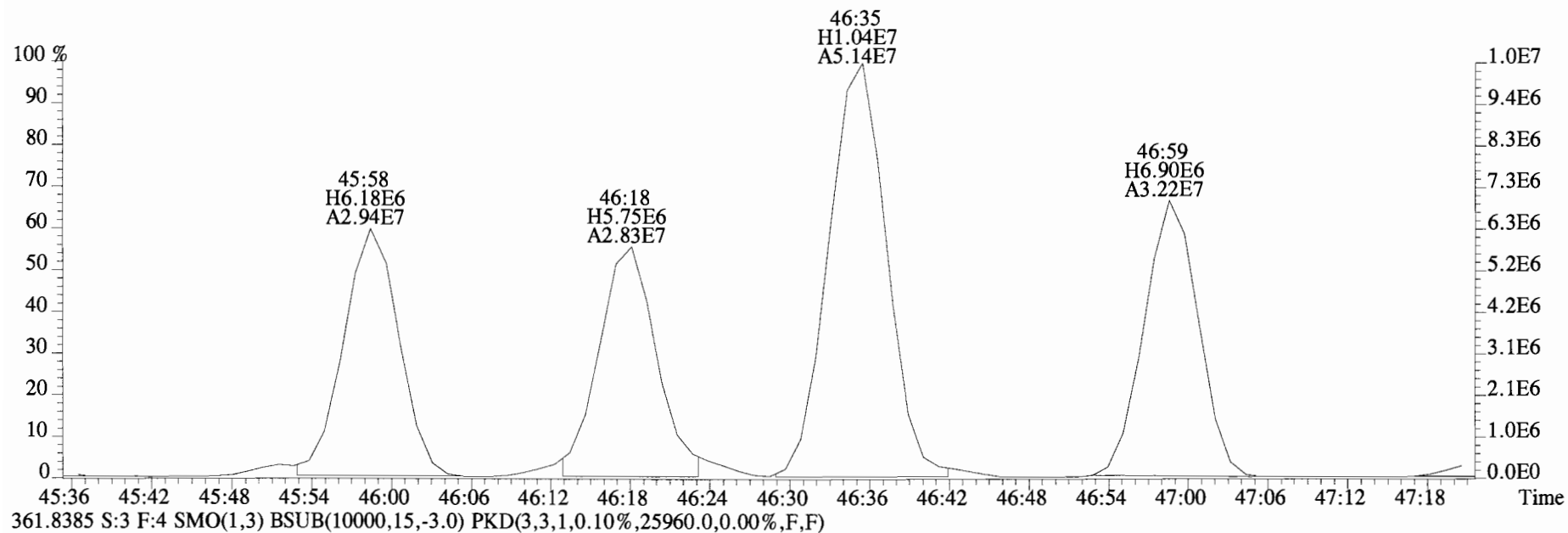
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Sample#3 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
371.8817 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11620.0,0.00%,F,F)



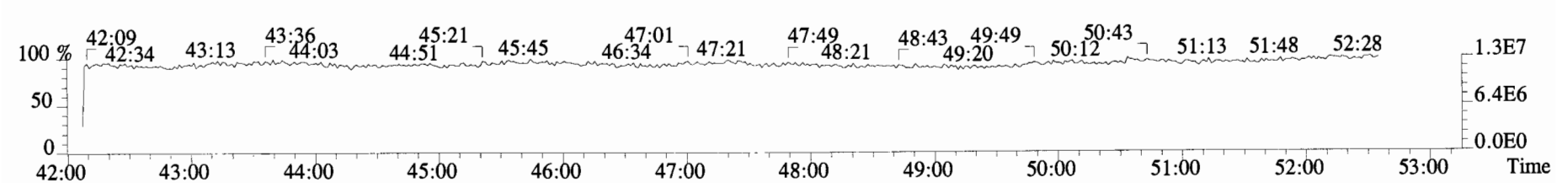
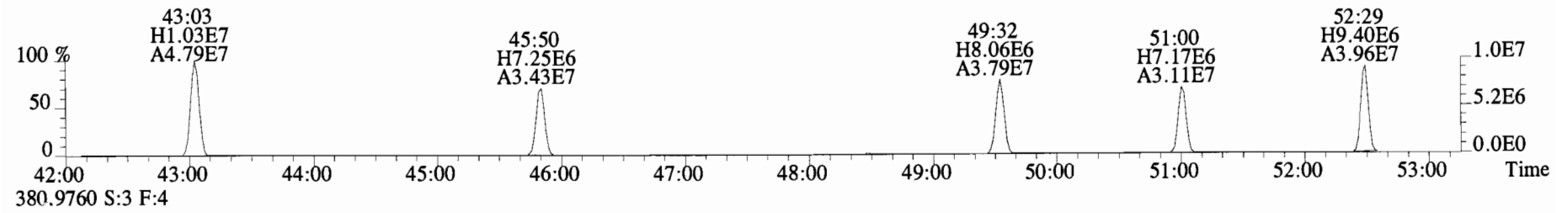
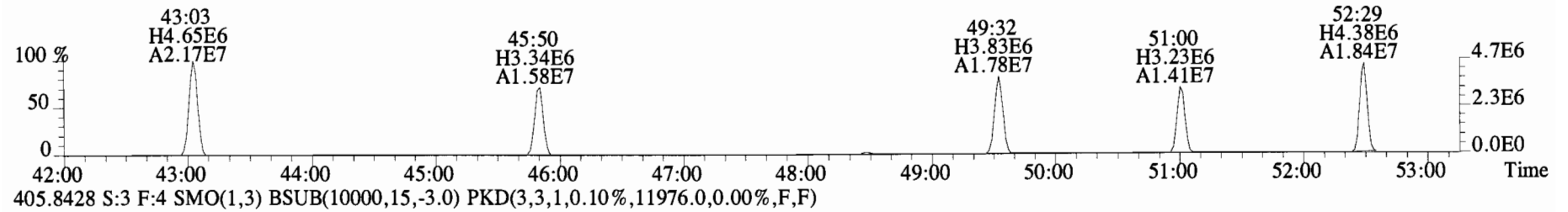
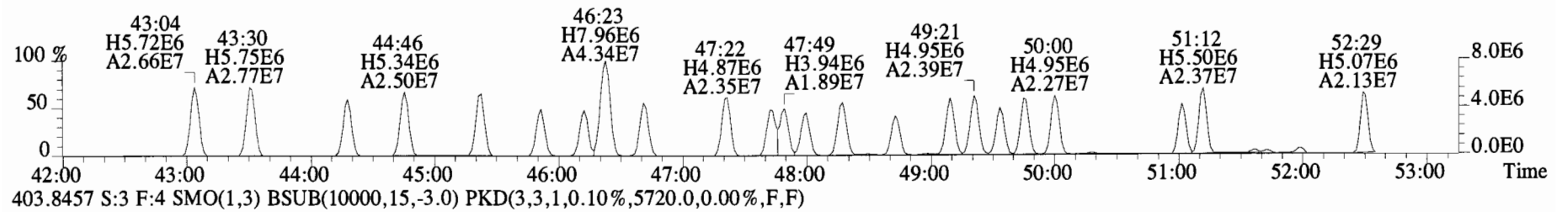
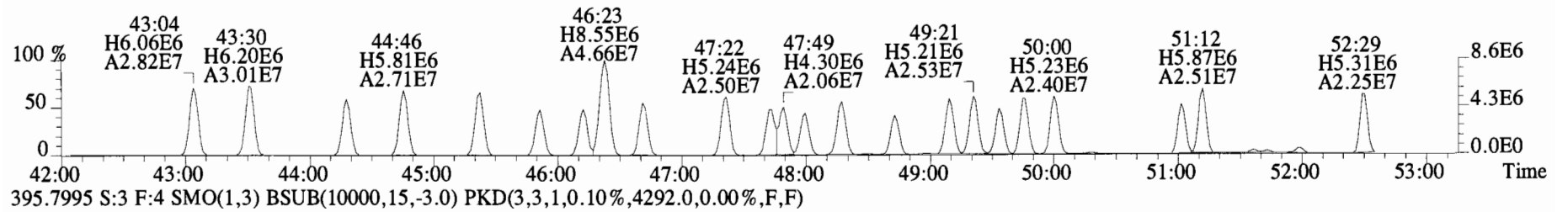
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
359.8415 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,45176.0,0.00%,F,F)



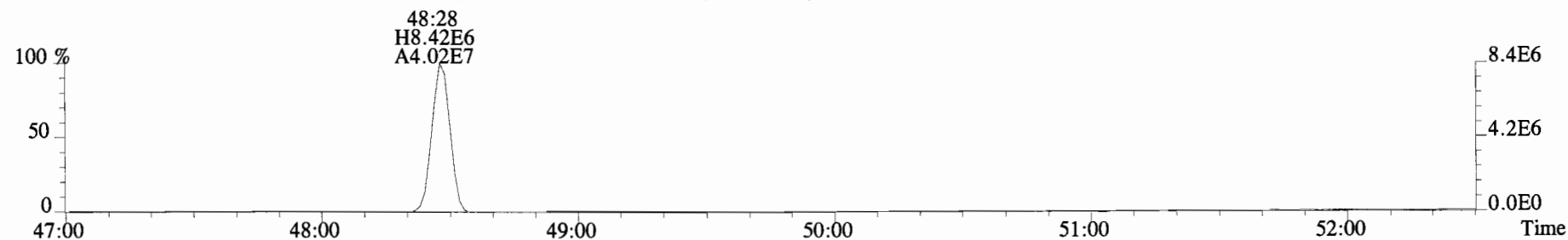
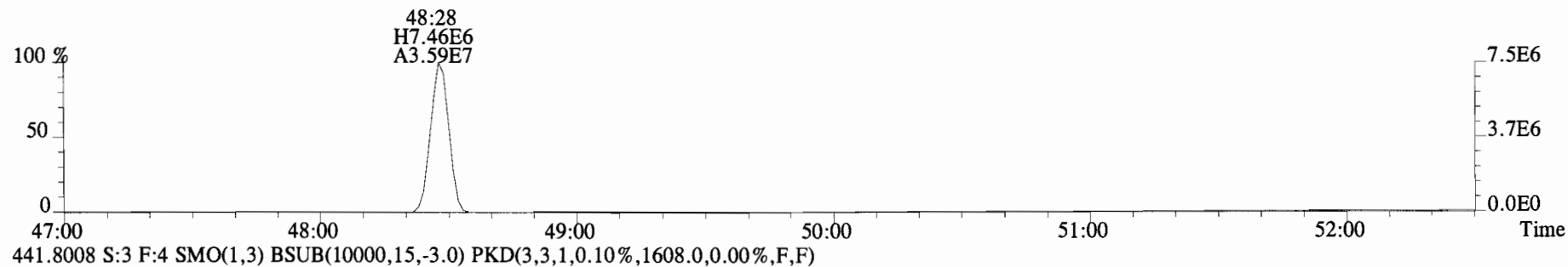
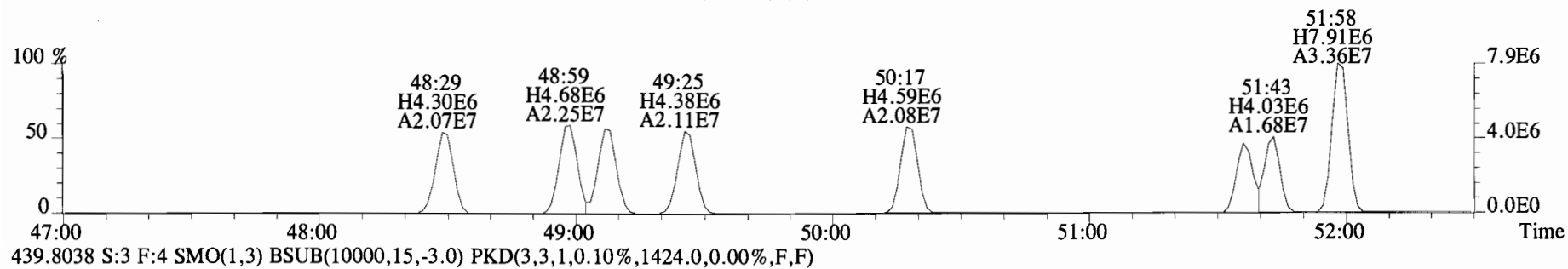
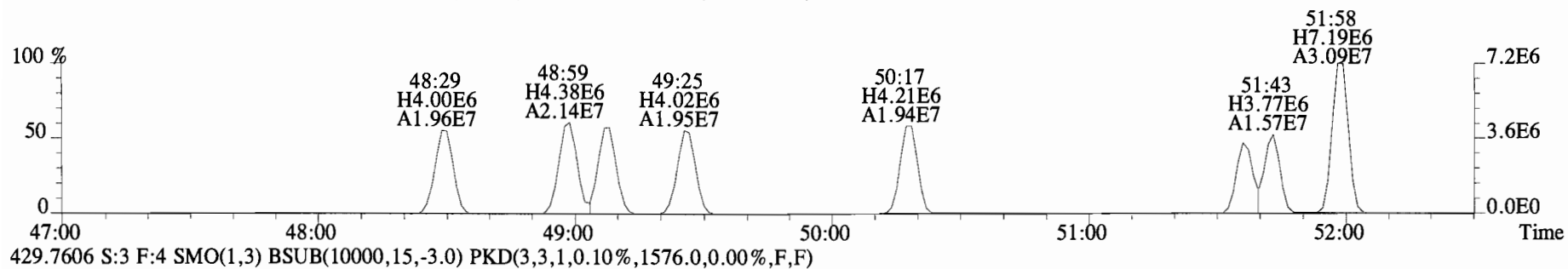
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
359.8415 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,45176.0,0.00%,F,F)



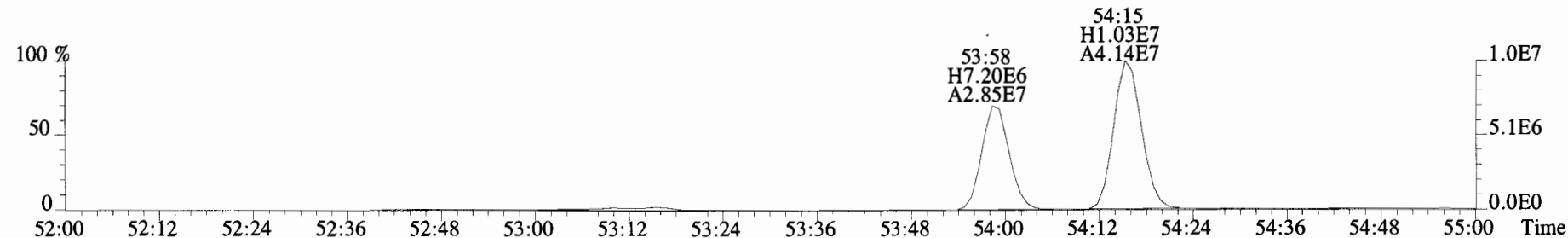
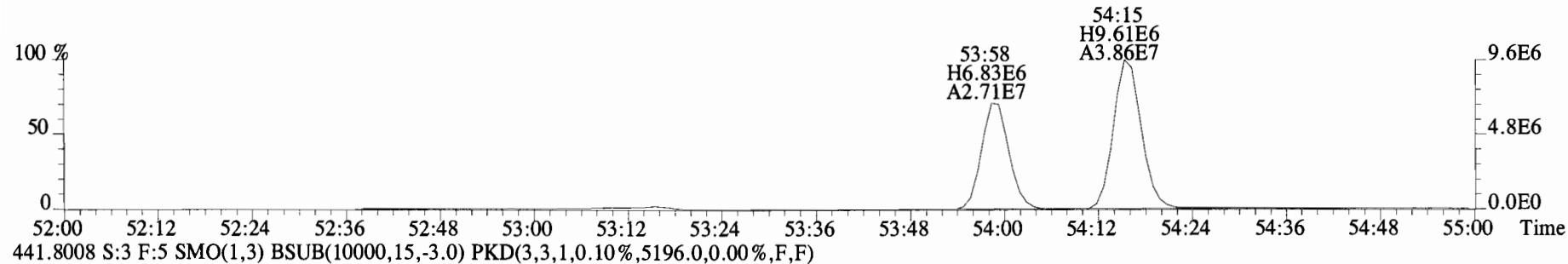
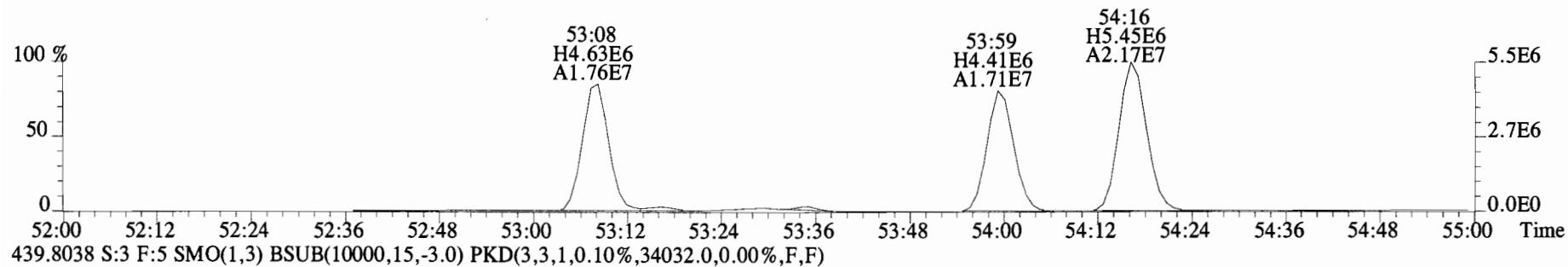
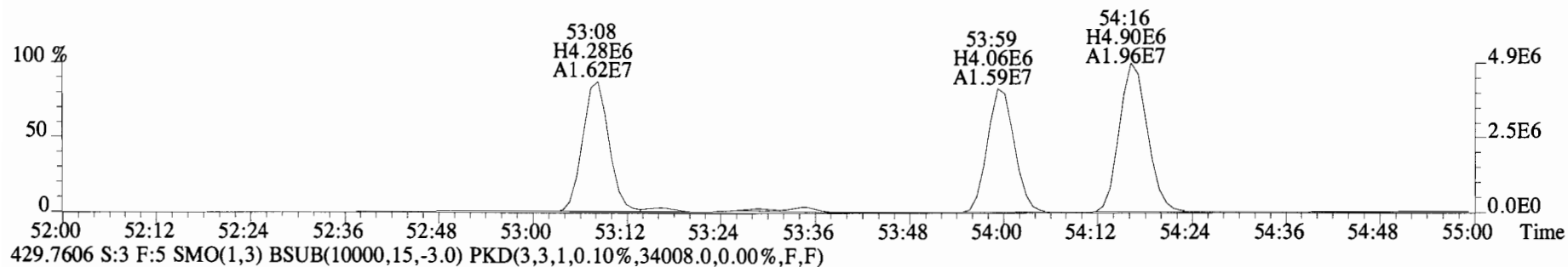
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
393.8025 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,25676.0,0.00%,F,F)



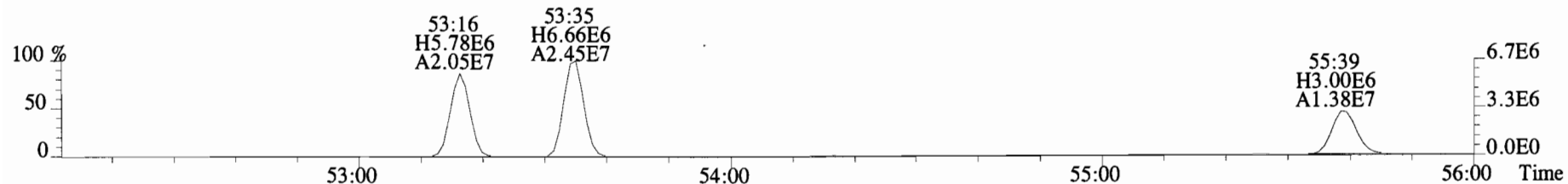
File:140919E2 #1-544 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text: Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
427.7635 S:3 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1344.0,0.00%,F,F)



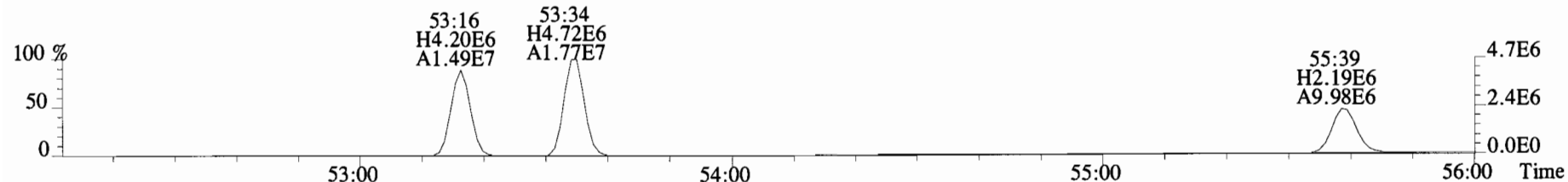
File:140919E2 #1-430 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
427.7635 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,31528.0,0.00%,F,F)



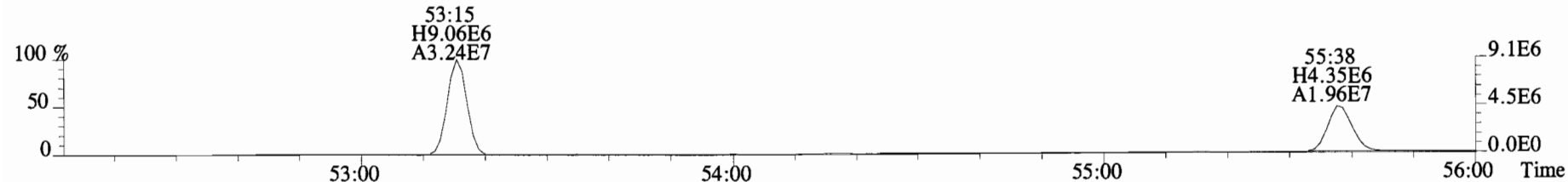
File:140919E2 #1-430 Acq:20-SEP-2014 01:51:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-8 Text:B4I0061-BS1 OPR 10 Exp:PCB_ZB1
463.7216 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1760.0,0.00%,F,F)



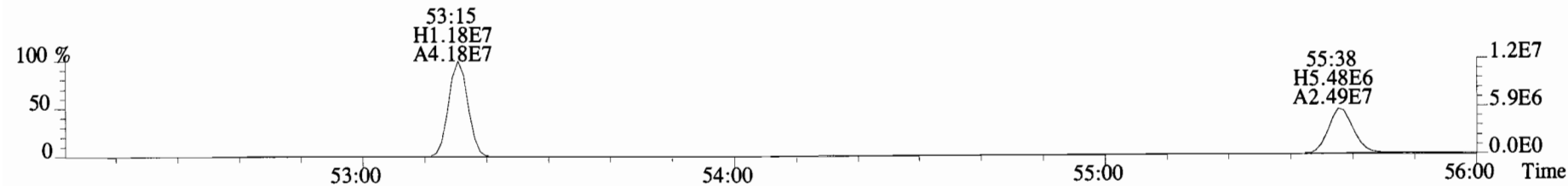
465.7186 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1624.0,0.00%,F,F)



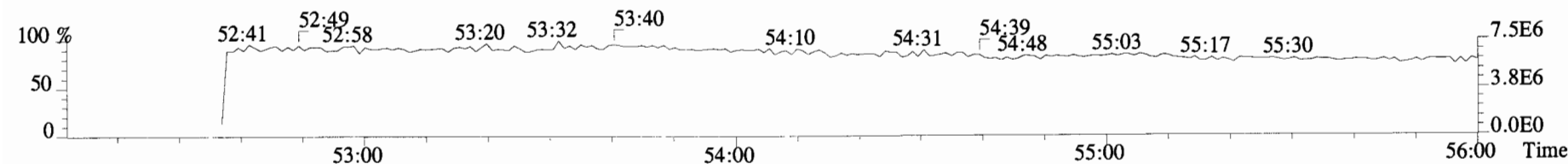
473.7648 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,21460.0,0.00%,F,F)



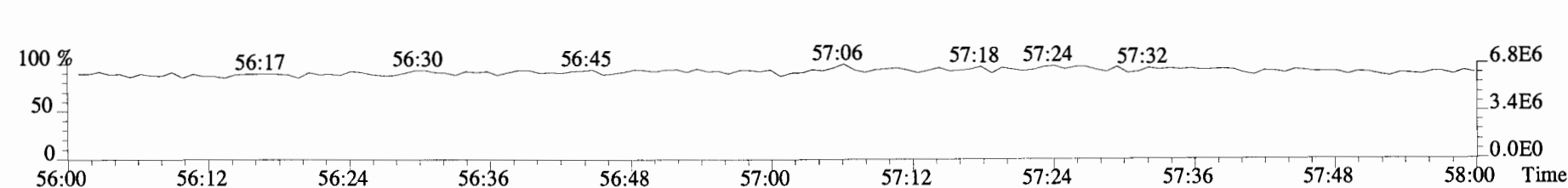
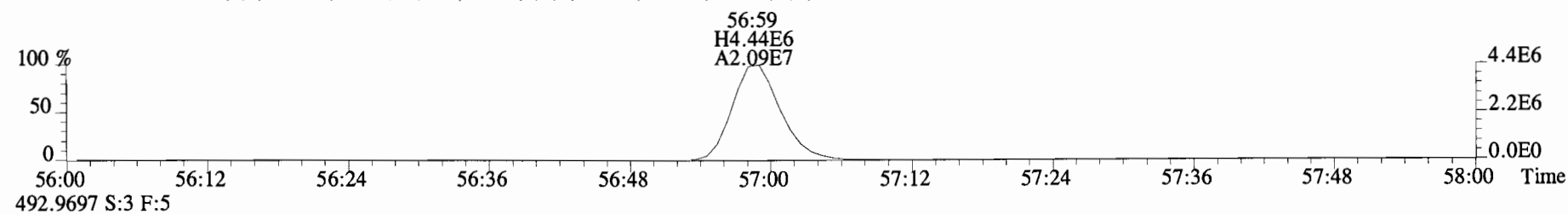
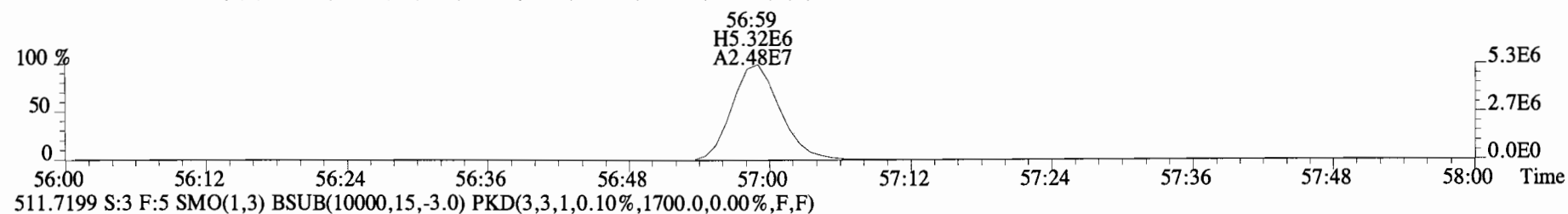
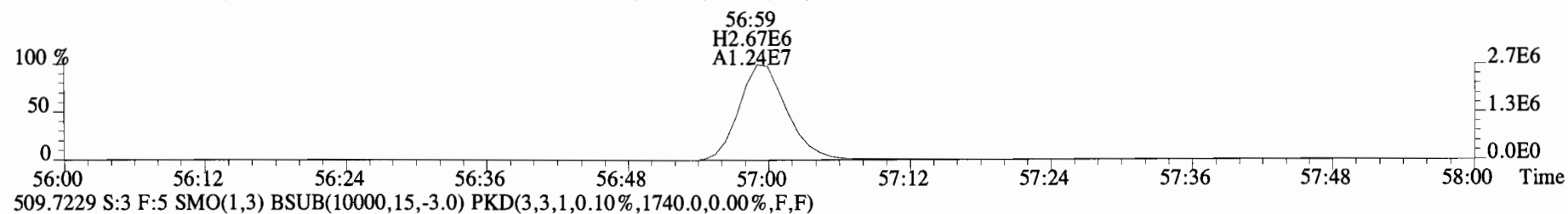
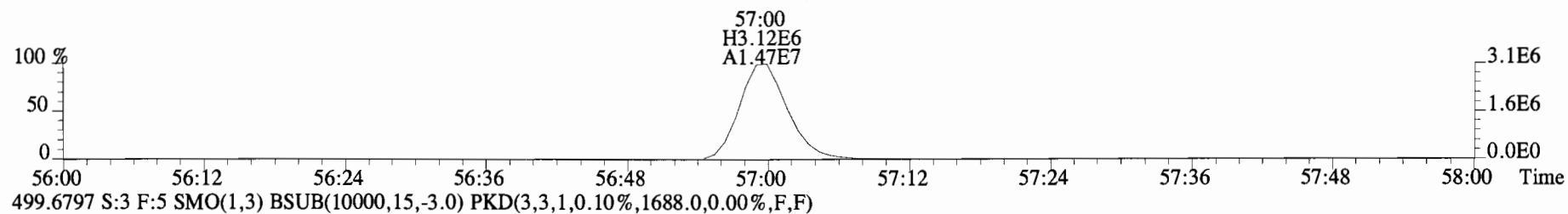
475.7619 S:3 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1640.0,0.00%,F,F)



492.9697 S:3 F:5



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)



Client ID: UG-MH-76-20140911-S
Lab ID: 1400665-01RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:8 Acq:24-SEP-14 18:39:58
ICal: PCBVG8-6-23-14 wt/vol: 10.099

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	5.73e+05	2.84	y 16:14	1.19	89.0		*	2.5	*	1.001	0.996-1.006	
Mono	PCB-2	1.29e+05	3.02	y 18:37	1.18	20.3		*	2.5	*	0.988	0.984-0.994	
Mono	PCB-3	4.69e+05	2.89	y 18:51	1.43	61.6		*	2.5	*	1.001	0.996-1.006	
Di	PCB-4/10	3.73e+05	1.34	y 20:12	1.57	82.2		*	2.5	*	1.001	0.997-1.007	
Di	PCB-7/9	2.61e+05	1.29	n 22:00	1.21	46.9	R	*	2.5	*	0.868	0.866-0.874	
Di	PCB-6	2.99e+05	1.44	y 22:39	1.30	49.8		*	2.5	*	0.894	0.890-0.899	
Di	PCB-5/8	1.35e+06	1.64	y 23:03	1.15	254		*	2.5	*	0.909	0.907-0.917	
Di	PCB-14	*	*	n NotF η	1.11	*		10000	2.5	51.2	*	0.949-0.959	
Di	PCB-11	1.75e+06	1.51	y 25:22	1.09	355		*	2.5	*	1.001	0.995-1.005	
Di	PCB-12/13	1.87e+05	1.36	y 25:44	1.19	34.4		*	2.5	*	1.015	1.011-1.021	
Di	PCB-15	1.14e+06	1.63	y 26:04	1.28	196		*	2.5	*	1.028	1.023-1.033	
Tri	PCB-19	1.37e+05	1.19	y 24:21	1.04	43.0		*	2.5	*	1.001	0.996-1.006	
Tri	PCB-30	*	*	n NotF η	1.71	*		1710	2.5	7.16	*	1.032-1.042	
Tri	PCB-18	1.43e+06	1.06	y 25:59	0.78	389		*	2.5	*	0.954	0.949-0.959	
Tri	PCB-17	5.70e+05	1.08	y 26:10	0.92	132		*	2.5	*	0.961	0.956-0.966	
Tri	PCB-24/27	1.93e+05	1.16	y 26:43	1.19	34.6		*	2.5	*	0.981	0.977-0.987	
Tri	PCB-16/32	1.15e+06	1.09	y 27:14	0.94	261		*	2.5	*	1.000	0.995-1.005	
Tri	PCB-34	*	*	n NotF η	1.14	*		3020	2.5	18.7	*	0.955-0.965	
Tri	PCB-23	*	*	n NotF η	1.28	*		3020	2.5	16.6	*	0.959-0.969	
Tri	PCB-29	*	*	n NotF η	1.08	*		3020	2.5	19.7	*	0.967-0.977	
Tri	PCB-26	2.85e+05	1.02	y 28:36	1.21	77.9		*	2.5	*	0.979	0.974-0.984	
Tri	PCB-25	1.38e+05	1.13	y 28:45	1.26	36.2		*	2.5	*	0.985	0.979-0.989	
Tri	PCB-31	1.54e+06	1.06	y 29:06	1.28	397		*	2.5	*	0.997	0.992-1.002	
Tri	PCB-28	1.68e+06	0.99	y 29:13	1.71	323		*	2.5	*	1.001	0.995-1.005	
Tri	PCB-20/21/33	9.87e+05	0.91	y 29:51	1.08	301		*	2.5	*	1.022	1.017-1.027	
Tri	PCB-22	6.14e+05	1.19	y 30:17	1.21	168		*	2.5	*	1.037	1.032-1.042	
Tri	PCB-36	*	*	n NotF η	1.14	*		3020	2.5	23.7	*	0.928-0.938	
Tri	PCB-39	*	*	n NotF η	1.12	*		3020	2.5	24.3	*	0.943-0.953	
Tri	PCB-38	*	*	n NotF η	1.20	*		3020	2.5	22.6	*	0.966-0.976	
Tri	PCB-35	5.96e+04	1.26	n 32:40	1.23	15.7	R	*	2.5	*	0.987	0.982-0.992	
Tri	PCB-37	7.17e+05	1.00	y 33:07	1.23	189		*	2.5	*	1.001	0.995-1.005	
Tetra	PCB-54	*	*	n NotF η	1.10	*		3300	2.5	20.9	*	0.996-1.006	
Tetra	PCB-50	*	*	n NotF η	0.88	*		3300	2.5	26.1	*	1.037-1.047	
Tetra	PCB-53	2.76e+05	0.73	y 29:54	1.06	103		*	2.5	*	0.945	0.942-0.952	
Tetra	PCB-51	8.68e+04	0.74	y 30:15	0.99	34.8		*	2.5	*	0.956	0.952-0.962	
Tetra	PCB-45	2.10e+05	0.73	y 30:41	0.86	96.7		*	2.5	*	0.970	0.966-0.976	
Tetra	PCB-46	8.11e+04	0.99	n 31:10	0.85	38.1	R	*	2.5	*	0.985	0.981-0.991	

Integrations by:

Analyst: Dms

Date: 9/25/14

Reviewed by: AL

Date: 9/26/14

Client ID: UG-MH-76-20140911-S
Lab ID: 1400665-01RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:8 Acq:24-SEP-14 18:39:58
ICal: PCBVG8-6-23-14 wt/vol:10.099

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	4.09e+06	0.73	y 31:39	1.28	1270	*	2.5	*	*	1.001	0.996-1.006	
Tetra	PCB-73	*	*	n NotFη	1.35	*	3300	2.5	21.0	*	*	1.000-1.010	
Tetra	PCB-43/49	1.81e+06	0.79	y 31:57	0.99	723	*	2.5	*	*	1.010	1.005-1.015	
Tetra	PCB-47	5.81e+05	0.74	y 32:09	1.06	202	*	2.5	*	*	1.000	0.996-1.006	
Tetra	PCB-48/75	3.76e+05	0.87	y 32:17	1.23	113	*	2.5	*	*	1.005	0.999-1.009	
Tetra	PCB-65	*	*	n NotFη	1.22	*	3300	2.5	24.6	*	*	1.008-1.018	
Tetra	PCB-62	*	*	n NotFη	1.22	*	3300	2.5	24.7	*	*	1.011-1.021	
Tetra	PCB-44	1.92e+06	0.77	y 32:57	0.86	824	*	2.5	*	*	1.025	1.021-1.031	
Tetra	PCB-42/59	5.86e+05	0.67	y 33:11	1.14	190	*	2.5	*	*	1.033	1.028-1.038	
Tetra	PCB-41/64/71/72	1.88e+06	0.70	y 33:45	1.21	573	*	2.5	*	*	1.050	1.046-1.056	
Tetra	PCB-68	6.86e+04	0.80	y 34:01	1.35	18.8	*	2.5	*	*	1.058	1.054-1.064	
Tetra	PCB-40	2.56e+05	0.74	y 34:13	0.70	134	*	2.5	*	*	1.065	1.061-1.071	
Tetra	PCB-57	*	*	n NotFη	0.98	*	3300	2.5	22.8	*	*	0.965-0.975	
Tetra	PCB-67	8.37e+04	0.79	y 34:53	1.11	22.8	*	2.5	*	*	0.979	0.974-0.984	
Tetra	PCB-58	*	*	n NotFη	0.93	*	3300	2.5	24.1	*	*	0.977-0.987	
Tetra	PCB-63	1.25e+05	0.69	y 35:10	0.95	39.7	*	2.5	*	*	0.987	0.982-0.992	
Tetra	PCB-74	1.34e+06	0.75	y 35:27	1.24	326	*	2.5	*	*	0.995	0.990-1.000	
Tetra	PCB-61/70	4.44e+06	0.80	y 35:40	0.95	1400	*	2.5	*	*	1.001	0.995-1.005	
Tetra	PCB-76/66	2.65e+06	0.79	y 35:52	1.04	765	*	2.5	*	*	1.006	1.001-1.011	
Tetra	PCB-80	*	*	n NotFη	1.19	*	3300	2.5	17.3	*	*	0.996-1.006	
Tetra	PCB-55	1.28e+05	0.85	y 36:23	1.04	34.2	*	2.5	*	*	1.009	1.005-1.015	
Tetra	PCB-56/60	1.40e+06	0.67	y 36:53	1.01	388	*	2.5	*	*	1.023	1.019-1.029	
Tetra	PCB-79	1.62e+05	0.92	n 37:58	1.08	41.9	R	*	2.5	*	1.053	1.048-1.058	
Tetra	PCB-78	*	*	n NotFη	1.27	*	3300	2.5	21.3	*	*	0.982-0.992	
Tetra	PCB-81	5.57e+04	0.78	y 39:10	1.33	14.3	*	2.5	*	*	1.000	0.995-1.005	
Tetra	PCB-77	3.82e+05	0.87	y 39:46	1.10	113	*	2.5	*	*	1.000	0.995-1.005	
Penta	PCB-104	*	*	n NotFη	1.18	*	1920	2.5	19.5	*	*	0.996-1.006	
Penta	PCB-96	5.73e+04	1.02	n 34:03	1.14	21.8	R	*	2.5	*	1.038	1.034-1.044	
Penta	PCB-103	7.75e+04	1.75	y 34:36	0.96	35.0	*	2.5	*	*	1.055	1.050-1.060	
Penta	PCB-100	*	*	n NotFη	0.94	*	1920	2.5	24.6	*	*	1.061-1.071	
Penta	PCB-94	3.22e+04	1.29	n 35:26	1.06	17.0	R	*	2.5	*	0.986	0.980-0.990	
Penta	PCB-95/98/102	5.80e+06	1.57	y 35:57	1.22	2640	*	2.5	*	*	1.000	0.995-1.005	
Penta	PCB-93	*	*	n NotFη	0.84	*	1920	2.5	39.3	*	*	0.997-1.007	
Penta	PCB-88/91	9.01e+05	1.78	y 36:22	1.12	450	*	2.5	*	*	1.012	1.005-1.015	
Penta	PCB-121	*	*	n NotFη	1.62	*	1920	2.5	20.5	*	*	1.009-1.019	
Penta	PCB-84/92	2.77e+06	1.65	y 37:16	1.05	1370	*	2.5	*	*	0.990	0.985-0.995	
Penta	PCB-89	5.20e+04	1.63	y 37:26	1.13	23.8	*	2.5	*	*	0.995	0.991-1.001	

Analyst: DMS

Date: 9/25/14

Client ID: UG-MH-76-20140911-S
Lab ID: 1400665-01RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:8 Acq:24-SEP-14 18:39:58
ICal: PCBVG8-6-23-14 wt/vol:10.099

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	7.54e+06	1.65	y 37:38	1.10	3540		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-113	1.78e+05	1.96	n 37:50	1.41	65.1	R	*	2.5	*	1.005	1.002-1.012	
Penta	PCB-99	2.78e+06	1.49	y 37:58	1.34	1070		*	2.5	*	1.009	1.004-1.014	
Penta	PCB-119	1.86e+05	1.67	y 38:26	1.53	70.9		*	2.5	*	0.987	0.982-0.992	
Penta	PCB-108/112	3.15e+05	1.36	y 38:36	1.28	144		*	2.5	*	0.992	0.986-0.996	
Penta	PCB-83	*	*	n NotF η	1.52	*		1920	2.5	25.7	*	0.990-1.000	
Penta	PCB-97	1.82e+06	1.71	y 38:56	1.18	903		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-86	*	*	n NotF η	0.84	*		1920	2.5	46.4	*	0.999-1.009	
Penta	PCB-87/117/125	2.72e+06	1.54	y 39:13	1.55	1030		*	2.5	*	1.007	1.002-1.012	
Penta	PCB-111/115	1.27e+05	1.54	y 39:22	1.63	45.4		*	2.5	*	1.011	1.006-1.016	
Penta	PCB-85/116	9.02e+05	1.53	y 39:29	1.30	405		*	2.5	*	1.014	1.010-1.020	
Penta	PCB-120	*	*	n NotF η	1.68	*		1920	2.5	23.3	*	1.016-1.026	
Penta	PCB-110	1.02e+07	1.58	y 39:53	1.56	3850		*	2.5	*	1.025	1.020-1.030	
Penta	PCB-82	5.35e+05	1.74	y 40:31	0.76	319		*	2.5	*	0.976	0.971-0.981	
Penta	PCB-124	3.52e+05	1.72	y 41:11	1.47	108		*	2.5	*	0.993	0.988-0.998	
Penta	PCB-107/109	5.01e+05	1.78	y 41:22	1.32	172		*	2.5	*	0.997	0.991-1.001	
Penta	PCB-123	1.01e+05	1.36	y 41:31	1.17	38.9		*	2.5	*	1.001	0.996-1.006	
Penta	PCB-106/118	7.31e+06	1.66	y 41:41	1.17	2830		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-114	1.44e+05	1.93	n 42:21	1.30	49.3	R	*	2.5	*	1.000	0.995-1.005	
Penta	PCB-122	6.00e+04	1.60	y 42:29	1.12	23.7		*	2.5	*	1.004	0.999-1.009	
Penta	PCB-105	3.05e+06	1.53	y 43:13	1.30	1050		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-127	*	*	n NotF η	1.33	*		3680	2.5	38.1	*	0.996-1.006	
Penta	PCB-126	1.03e+05	1.75	y 45:28	1.18	46.2		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-155	*	*	n NotF η	1.11	*		3540	2.5	48.3	*	0.966-1.006	
Hexa	PCB-150	*	*	n NotF η	1.00	*		3540	2.5	53.8	*	1.030-1.040	
Hexa	PCB-152	*	*	n NotF η	1.12	*		3540	2.5	48.2	*	1.043-1.053	
Hexa	PCB-145	*	*	n NotF η	1.20	*		3540	2.5	44.8	*	1.055-1.065	
Hexa	PCB-136	1.11e+06	1.26	y 39:42	1.18	505		*	2.5	*	1.068	1.064-1.074	
Hexa	PCB-148	*	*	n NotF η	0.74	*		3540	2.5	72.2	*	1.066-1.076	
Hexa	PCB-154	8.17e+04	1.19	y 40:18	0.86	51.2		*	2.5	*	1.084	1.080-1.090	
Hexa	PCB-151	1.55e+06	1.30	y 40:56	0.75	1120		*	2.5	*	1.101	1.097-1.107	
Hexa	PCB-135	9.06e+05	1.34	y 41:09	0.79	614		*	2.5	*	1.107	1.103-1.113	
Hexa	PCB-144	3.24e+05	1.27	y 41:16	0.76	228		*	2.5	*	1.110	1.105-1.117	
Hexa	PCB-147	1.23e+05	1.29	y 41:24	0.82	80.7		*	2.5	*	1.114	1.109-1.121	
Hexa	PCB-139/149	6.00e+06	1.26	y 41:38	0.76	4230		*	2.5	*	1.120	1.116-1.128	
Hexa	PCB-140	3.11e+04	1.39	y 41:50	0.72	23.1		*	2.5	*	1.126	1.121-1.133	
Hexa	PCB-134/143	5.63e+05	1.18	y 42:18	0.92	275		*	2.5	*	0.976	0.970-0.980	

Analyst: DMJ

Date: 9/25/14

Client ID: UG-MH-76-20140911-S
Lab ID: 1400665-01RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:8 Acq:24-SEP-14 18:39:58
ICal: PCBVG8-6-23-14 wt/vol:10.099

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	3.15e+05	1.19	y 42:34	0.82	172	*	2.5	*	*	0.982	0.977-0.987	
Hexa	PCB-131	*	*	n NotF η	0.91	*		2240	2.5	31.3	*	0.981-0.991	
Hexa	PCB-146/165	1.55e+06	1.20	y 42:58	1.25	557	*	2.5	*	*	0.991	0.986-0.996	
Hexa	PCB-132/161	3.33e+06	1.22	y 43:14	1.10	1350	*	2.5	*	*	0.997	0.992-1.002	
Hexa	PCB-153	9.91e+06	1.22	y 43:22	1.25	3550	*	2.5	*	*	1.000	0.995-1.005	
Hexa	PCB-168	*	*	n NotF η	1.45	*		2240	2.5	19.6	*	1.001-1.011	
Hexa	PCB-141	1.97e+06	1.18	y 44:06	1.09	842	*	2.5	*	*	1.000	0.995-1.005	
Hexa	PCB-137	4.68e+05	1.25	y 44:29	1.06	205	*	2.5	*	*	1.009	1.004-1.014	
Hexa	PCB-130	6.01e+05	1.36	y 44:36	0.96	289	*	2.5	*	*	1.012	1.006-1.016	
Hexa	PCB-138/163/164	1.15e+07	1.19	y 44:58	1.29	3840	*	2.5	*	*	1.001	0.996-1.006	
Hexa	PCB-158/160	1.51e+06	1.25	y 45:12	1.34	487	*	2.5	*	*	1.006	1.001-1.011	
Hexa	PCB-129	4.29e+05	1.29	y 45:27	0.85	218	*	2.5	*	*	1.011	1.007-1.017	
Hexa	PCB-166	4.95e+04	1.54	n 45:55	1.19	16.8	R	*	2.5	*	0.994	0.988-0.998	
Hexa	PCB-159	*	*	n NotF η	1.11	*		2240	2.5	23.7	*	0.996-1.006	
Hexa	PCB-128/162	1.73e+06	1.23	y 46:31	1.05	668	*	2.5	*	*	1.006	1.002-1.012	
Hexa	PCB-167	4.70e+05	1.38	y 46:56	1.20	152	*	2.5	*	*	1.000	0.995-1.005	
Hexa	PCB-156	1.06e+06	1.25	y 48:14	1.14	386	*	2.5	*	*	1.000	0.996-1.006	
Hexa	PCB-157	2.48e+05	1.10	y 48:29	1.16	80.4	*	2.5	*	*	1.000	0.995-1.005	
Hexa	PCB-169	*	*	n NotF η	1.12	*		2240	2.5	26.5	*	0.995-1.005	
Hepta	PCB-188	*	*	n NotF η	1.58	*		2080	2.5	14.3	*	0.996-1.006	
Hepta	PCB-184	*	*	n NotF η	1.63	*		2080	2.5	13.8	*	1.006-1.016	
Hepta	PCB-179	1.60e+06	1.00	y 44:13	1.30	673	*	2.5	*	*	1.029	1.024-1.034	
Hepta	PCB-176	4.84e+05	1.00	y 44:42	1.48	180	*	2.5	*	*	1.040	1.035-1.045	
Hepta	PCB-186	*	*	n NotF η	1.45	*		2080	2.5	15.5	*	1.050-1.060	
Hepta	PCB-178	5.81e+05	1.01	y 45:48	1.03	308	*	2.5	*	*	1.066	1.061-1.071	
Hepta	PCB-175	9.26e+04	1.57	n 46:08	1.01	50.1	R	*	2.5	*	1.074	1.069-1.079	
Hepta	PCB-182/187	3.79e+06	1.04	y 46:18	1.25	1660	*	2.5	*	*	1.078	1.073-1.083	
Hepta	PCB-183	1.77e+06	0.96	y 46:38	1.21	802	*	2.5	*	*	1.085	1.081-1.091	
Hepta	PCB-185	3.33e+05	1.12	y 47:18	1.80	133	*	2.5	*	*	0.956	0.951-0.961	
Hepta	PCB-174	2.92e+06	1.06	y 47:39	1.38	1520	*	2.5	*	*	0.963	0.958-0.968	
Hepta	PCB-181	*	*	n NotF η	1.38	*		2080	2.5	20.9	*	0.960-0.970	
Hepta	PCB-177	1.52e+06	1.09	y 47:56	1.26	869	*	2.5	*	*	0.968	0.963-0.973	
Hepta	PCB-171	7.18e+05	0.96	y 48:14	1.58	325	*	2.5	*	*	0.974	0.970-0.980	
Hepta	PCB-173	6.74e+04	1.11	y 48:39	1.11	43.6	*	2.5	*	*	0.983	0.978-0.988	
Hepta	PCB-172	4.52e+05	0.90	y 49:06	1.63	198	*	2.5	*	*	0.992	0.987-0.997	
Hepta	PCB-192	*	*	n NotF η	1.74	*		2080	2.5	16.6	*	0.991-1.001	
Hepta	PCB-180	6.57e+06	1.10	y 49:31	1.34	3500	*	2.5	*	*	1.000	0.995-1.005	

Analyst: *DMS*

Date: *9/25/14*

Client ID: UG-MH-76-20140911-S
Lab ID: 1400665-01RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:8 Acq:24-SEP-14 18:39:58
ICal: PCBVG8-6-23-14 wt/vol:10.099

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	3.94e+05	1.04	y 49:43	1.72	165		*	2.5	*	1.004	0.999-1.009	
Hepta	PCB-191	1.32e+05	1.18	y 49:58	1.69	55.9		*	2.5	*	1.009	1.004-1.014	
Hepta	PCB-170	2.24e+06	1.05	y 50:59	1.60	1340		*	2.5	*	1.000	0.995-1.005	
Hepta	PCB-190	6.08e+05	1.19	y 51:09	2.21	262		*	2.5	*	1.004	0.998-1.008	
Hepta	PCB-189	1.24e+05	1.01	y 52:28	1.55	59.9		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-202	3.13e+05	0.83	y 48:26	1.08	166		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-201	2.22e+05	0.89	y 48:54	1.15	111		*	2.5	*	1.010	1.005-1.015	
Octa	PCB-204	*	*	n NotF η	1.14	*	1520	2.5	19.9	*	*	1.008-1.018	
Octa	PCB-197	8.19e+04	0.91	y 49:22	1.07	43.7		*	2.5	*	1.020	1.015-1.025	
Octa	PCB-200	1.87e+05	0.88	y 50:15	1.06	101		*	2.5	*	1.038	1.032-1.044	
Octa	PCB-198	5.34e+04	0.99	y 51:35	0.76	40.6		*	2.5	*	1.065	1.059-1.069	
Octa	PCB-199	1.13e+06	0.85	y 51:41	0.80	813		*	2.5	*	1.067	1.061-1.071	
Octa	PCB-196/203	1.26e+06	0.84	y 51:57	0.80	899		*	2.5	*	1.073	1.066-1.076	
Octa	PCB-195	4.74e+05	1.01	y 53:06	1.23	324		*	2.5	*	0.984	0.979-0.989	
Octa	PCB-194	1.16e+06	0.91	y 53:59	1.21	801		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-205	7.23e+04	0.90	y 54:16	1.54	39.2		*	2.5	*	1.006	1.001-1.011	
Nona	PCB-208	1.48e+05	1.48	y 53:14	0.93	90.9		*	2.5	*	1.000	0.995-1.005	
Nona	PCB-207	8.70e+04	1.37	y 53:33	1.08	45.9		*	2.5	*	1.006	1.001-1.011	
Nona	PCB-206	3.47e+05	1.27	y 55:39	1.02	306		*	2.5	*	1.000	0.995-1.005	
Deca	PCB-209	1.47e+05	1.03	y 57:01	1.17	113		*	2.5	*	1.000	0.995-1.005	

Analyst: *Dms*

Date: *9/25/14*

Client ID: UG-MH-76-20140911-S
Lab ID: 1400665-01RE1 DL 1:20

Filename: 140924E1 S:8 Acq:24-SEP-14 18:39:58
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 10.0991

ConCal: ST140924E1-2
EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	1.17e+06	2.84 y	16:14	1.27	170.864	
Total Di-PCB	5.10e+06	1.34 y	20:12	1.21	972.018	
Total Tri-PCB	3.48e+06	1.19 y	24:21	1.10	859.443	
Total Tri-PCB	5.96e+06	1.02 y	28:36	1.21	1492.60	Sum:2352.04
Total Tetra-PCB	2.27e+07	0.73 y	29:54	1.09	7386.17	
Total Penta-PCB	4.50e+07	1.75 y	34:36	1.18	19039.0	
Total Penta-PCB	3.21e+06	1.60 y	42:29	1.25	1118.24	Sum:20157.2
Total Hexa-PCB	1.01e+07	1.26 y	39:42	0.90	6853.63	
Total Hexa-PCB	3.56e+07	1.18 y	42:18	1.11	13065.5	Sum:19919.1
Total Hepta-PCB	2.43e+07	1.00 y	44:13	1.42	12093.9	
Total Octa-PCB	3.25e+06	0.83 y	48:26	0.96	2173.44	
Total Octa-PCB	1.71e+06	1.01 y	53:06	1.33	1163.76	Sum:3337.20
Total Nona-PCB	5.82e+05	1.48 y	53:14	1.01	443.066	
Total Deca-PCB	1.47e+05	1.03 y	57:01	1.17	113.041	

Total PCB Conc: ~~67207.3255340~~

66900

Integrations

by

Analyst: *DMS*

Date: *9/25/14*

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	5.34e+06	2.89 y	0.87	16:13	0.622	0.629-0.635*	1090	111	
13C-PCB-3	5.30e+06	3.50 y	0.91	18:50	0.723	0.725-0.733	1040	105	
13C-PCB-4	2.86e+06	1.61 y	0.59	20:10	0.774	0.775-0.783	872	88.1	
13C-PCB-9	4.56e+06	1.61 y	0.90	21:58	0.843	0.842-0.850	909	91.8	
13C-PCB-11	4.50e+06	1.65 y	0.94	25:21	0.973	0.968-0.978	858	86.7	
13C-PCB-19	3.02e+06	1.13 y	0.53	24:20	0.934	0.930-0.940	1010	103	
13C-PCB-28	3.00e+06	0.91 y	0.93	29:12	1.004	0.999-1.009	813	82.1	
13C-PCB-32	4.65e+06	1.18 y	0.80	27:14	1.045	1.040-1.050	1050	106	
13C-PCB-37	3.05e+06	1.17 y	0.84	33:05	1.138	1.131-1.143	918	92.7	
13C-PCB-47	2.68e+06	0.80 y	0.81	32:08	0.871	0.866-0.874	923	93.2	
13C-PCB-52	2.49e+06	0.74 y	0.77	31:38	0.857	0.853-0.861	903	91.2	
13C-PCB-54	2.95e+06	0.74 y	0.97	28:05	0.761	0.758-0.766	847	85.6	
13C-PCB-70	3.29e+06	0.84 y	1.00	35:38	0.966	0.961-0.971	919	92.8	
13C-PCB-77	3.04e+06	0.79 y	0.94	39:46	1.078	1.073-1.083	901	91.0	
13C-PCB-80	3.54e+06	0.75 y	1.03	36:03	0.978	0.972-0.982	958	96.8	
13C-PCB-81	2.90e+06	0.77 y	0.92	39:11	1.062	1.057-1.067	878	88.7	
13C-PCB-95	1.77e+06	1.63 y	0.74	35:57	0.913	0.908-0.918	968	97.8	
13C-PCB-97	1.69e+06	1.65 y	0.70	38:56	0.989	0.984-0.994	970	98.0	
13C-PCB-101	1.92e+06	1.70 y	0.78	37:38	0.956	0.951-0.961	990	100.0	
13C-PCB-104	2.29e+06	1.53 y	1.00	32:48	0.833	0.828-0.836	923	93.2	
13C-PCB-105	2.22e+06	1.64 y	1.37	43:12	0.929	0.924-0.934	714	72.1	
13C-PCB-114	2.23e+06	1.55 y	1.36	42:20	0.910	0.905-0.915	720	72.7	
13C-PCB-118	2.18e+06	1.45 y	0.96	41:41	1.059	1.054-1.064	920	92.9	
13C-PCB-123	2.19e+06	1.63 y	0.89	41:30	1.054	1.050-1.060	989	99.8	
13C-PCB-126	1.88e+06	1.47 y	1.31	45:27	0.977	0.972-0.982	631	63.7	
13C-PCB-127	2.46e+06	1.62 y	1.47	43:32	0.936	0.931-0.941	733	74.1	
13C-PCB-138	2.29e+06	1.25 y	1.10	44:56	0.966	0.961-0.971	914	92.3	
13C-PCB-141	2.13e+06	1.42 y	1.07	44:05	0.948	0.943-0.953	871	88.0	
13C-PCB-153	2.22e+06	1.20 y	1.15	43:21	0.932	0.927-0.937	849	85.8	
13C-PCB-155	1.84e+06	1.22 y	0.84	37:10	0.944	0.939-0.949	887	89.6	
13C-PCB-156	2.40e+06	1.27 y	1.30	48:13	1.037	1.032-1.042	813	82.1	
13C-PCB-157	2.62e+06	1.27 y	1.36	48:29	1.043	1.038-1.048	849	85.7	
13C-PCB-159	2.45e+06	1.25 y	1.25	46:13	0.994	0.989-0.999	864	87.3	
13C-PCB-167	2.55e+06	1.38 y	1.35	46:55	1.009	1.004-1.014	831	83.9	
13C-PCB-169	2.18e+06	1.33 y	1.29	50:37	1.089	1.083-1.093	746	75.4	
13C-PCB-170	1.04e+06	0.39 y	0.54	50:58	1.096	1.089-1.101	841	85.0	
13C-PCB-180	1.38e+06	0.51 y	0.68	49:30	1.065	1.060-1.070	888	89.6	
13C-PCB-188	1.81e+06	0.48 y	0.92	42:58	0.924	0.919-0.929	865	87.4	
13C-PCB-189	1.32e+06	0.48 y	0.72	52:27	1.128	1.120-1.132	809	81.7	
13C-PCB-194	1.18e+06	0.92 y	0.80	53:58	0.995	0.990-1.000	994	100	
13C-PCB-202	1.73e+06	0.98 y	0.84	48:25	1.041	1.036-1.046	906	91.5	
13C-PCB-206	1.10e+06	0.86 y	0.65	55:38	1.026	1.021-1.031	1130	114	
13C-PCB-208	1.73e+06	0.81 y	1.08	53:14	0.981	0.976-0.986	1070	109	
13C-PCB-209	1.10e+06	1.17 y	0.61	57:00	1.051	1.045-1.055	1210	122	

CRS vs. RS

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-79	3.52e+06	0.69 y	1.02	37:57	1.029	1.023-1.034	967	97.6	
13C-PCB-178	1.39e+06	0.51 y	0.61	45:47	0.985	0.979-0.990	992	100	

PS vs. IS

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-79	3.52e+06	0.69 y	1.10	37:57	0.969	0.964-0.974	1090	110	
13C-PCB-178	1.39e+06	0.51 y	0.90	45:47	0.925	0.920-0.930	1110	112	

RS

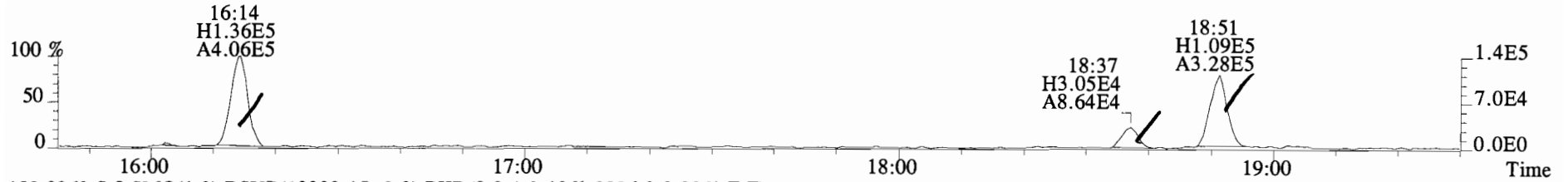
Name	Resp	RA	RRF	RT	Conc
13C-PCB-15	5.53e+06	1.59 y	1.00	26:03	990
13C-PCB-31	3.91e+06	1.01 y	1.00	29:05	990
13C-PCB-60	3.55e+06	0.76 y	1.00	36:53	990
13C-PCB-111	2.45e+06	1.64 y	1.00	39:22	990
13C-PCB-128	2.25e+06	1.42 y	1.00	46:30	990
13C-PCB-205	1.48e+06	0.97 y	1.00	54:15	990

* = RRT limits used for DATA processing only. RRT's within 1668cl method limits.

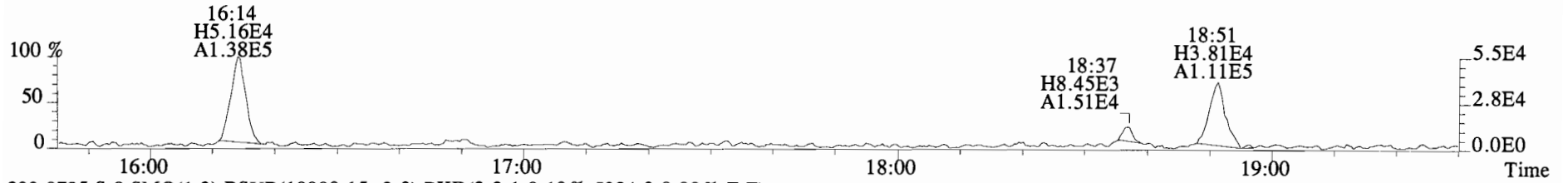
Analyst: Dms

Date: 9/25/14

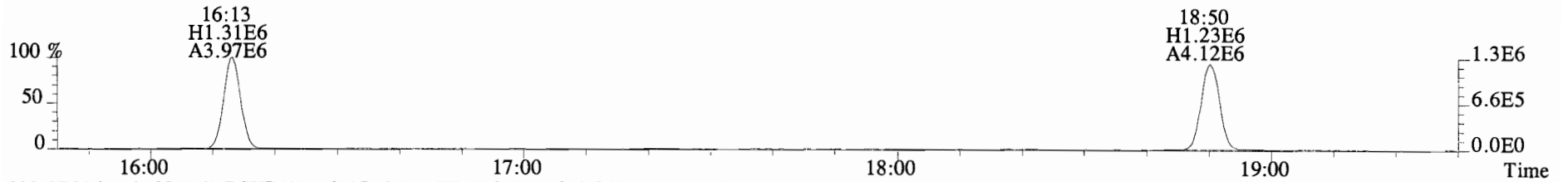
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
188.0393 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3108.0,0.00%,F,F)



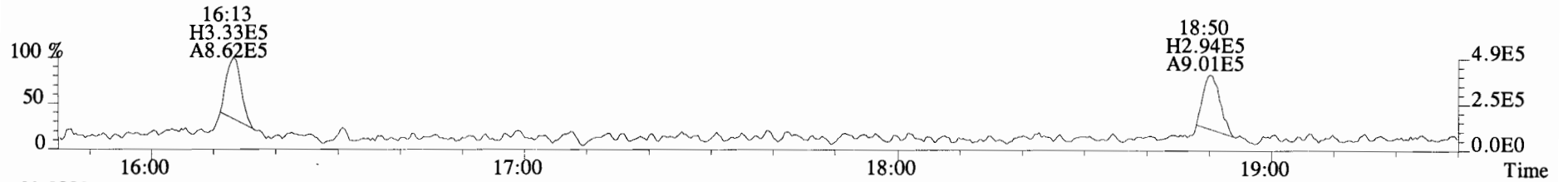
190.0363 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2996.0,0.00%,F,F)



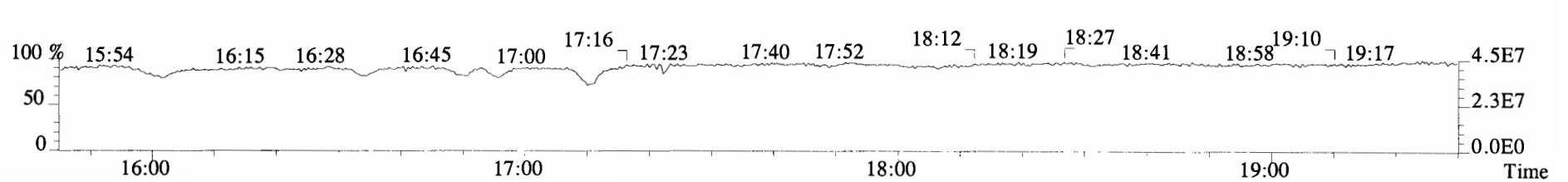
200.0795 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5084.0,0.00%,F,F)



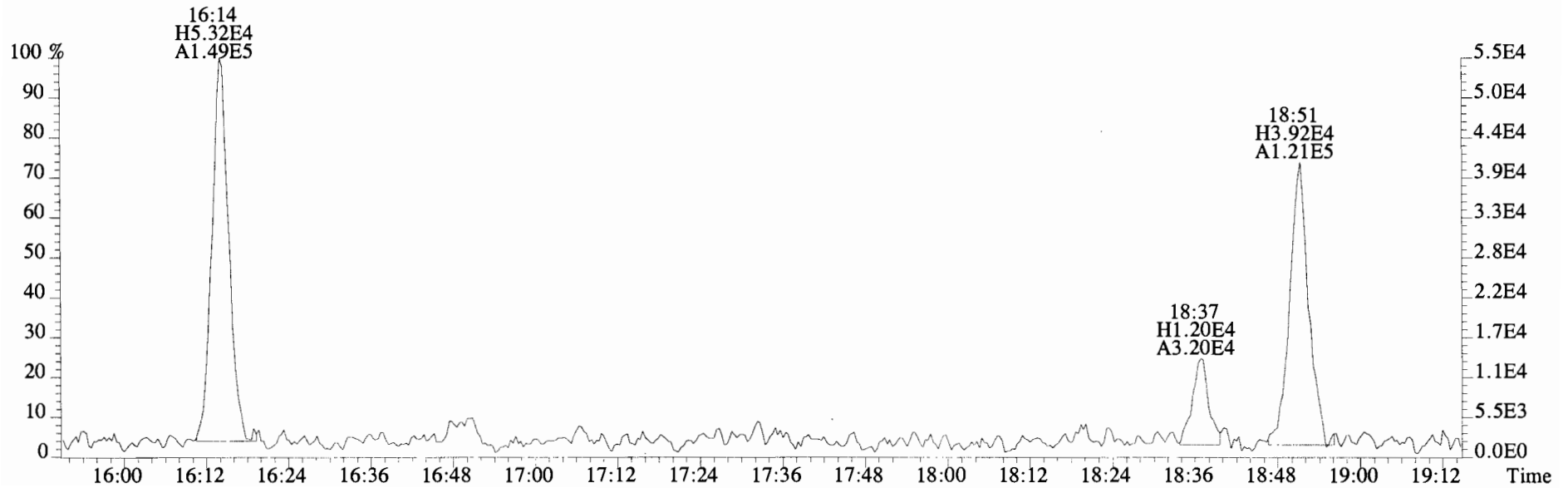
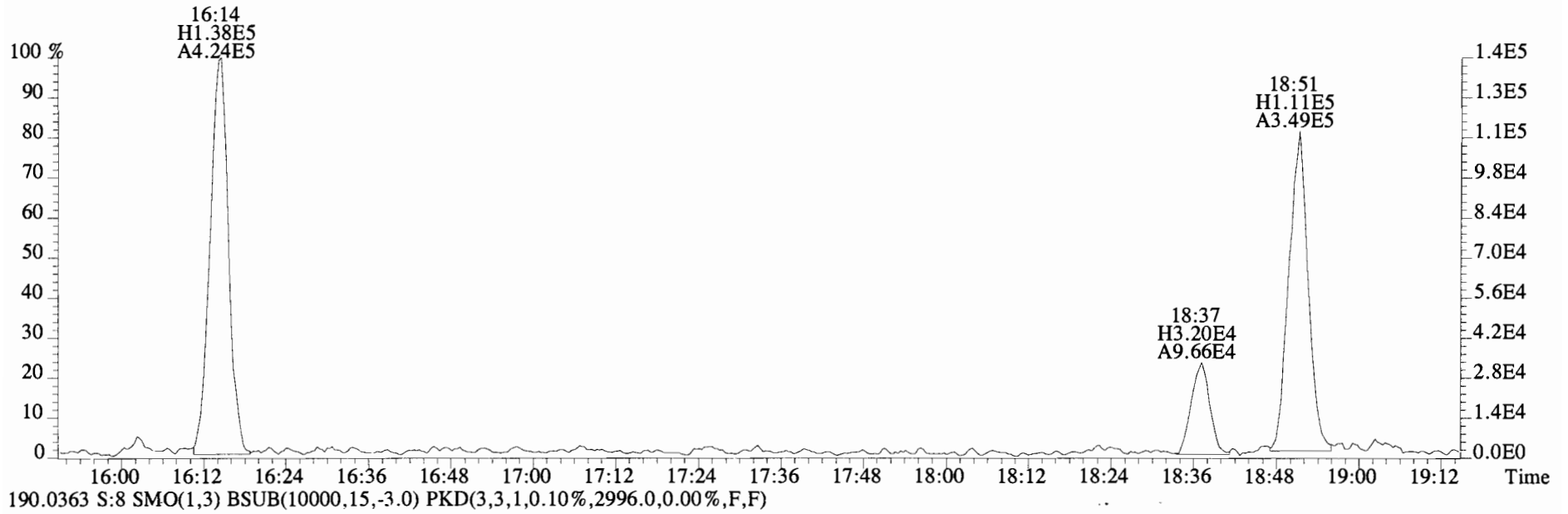
202.0766 S:8 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,86180.0,0.00%,F,F)



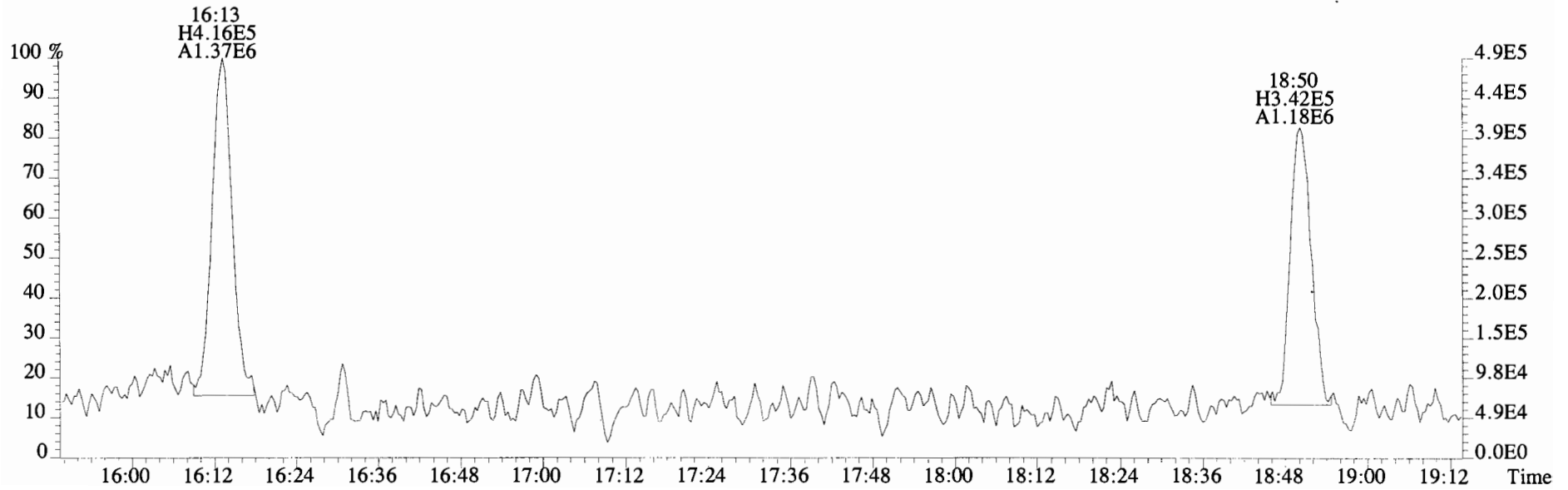
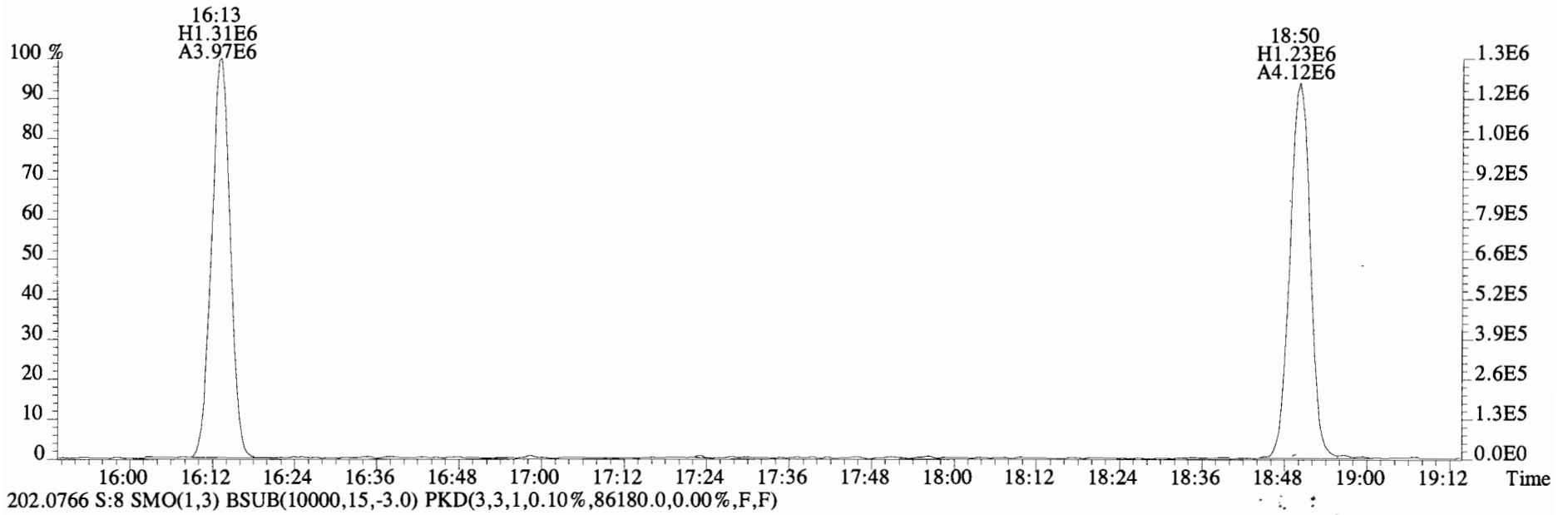
180.9880 S:8



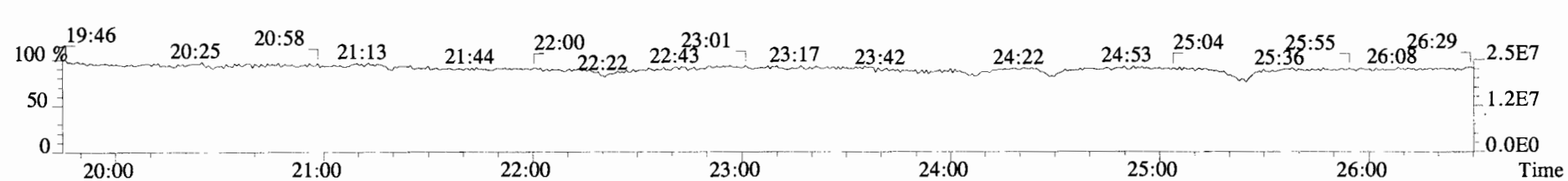
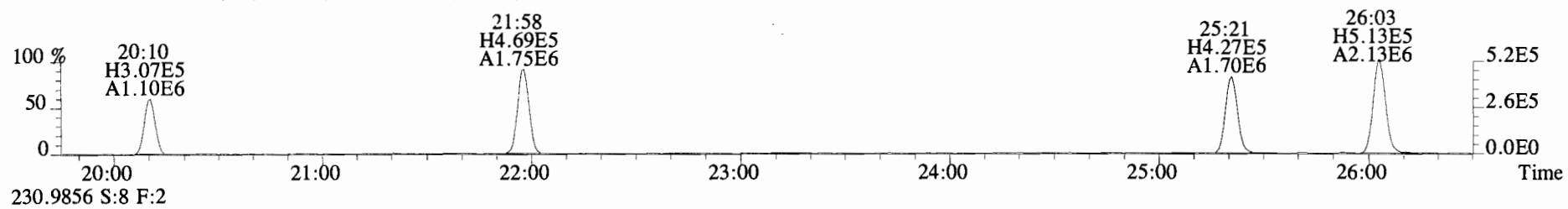
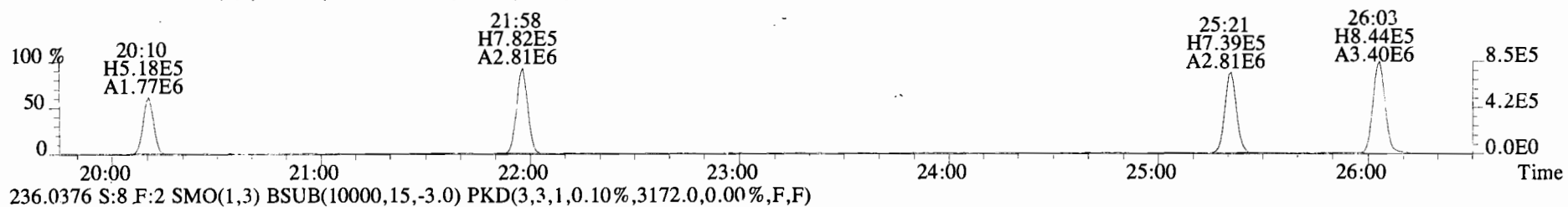
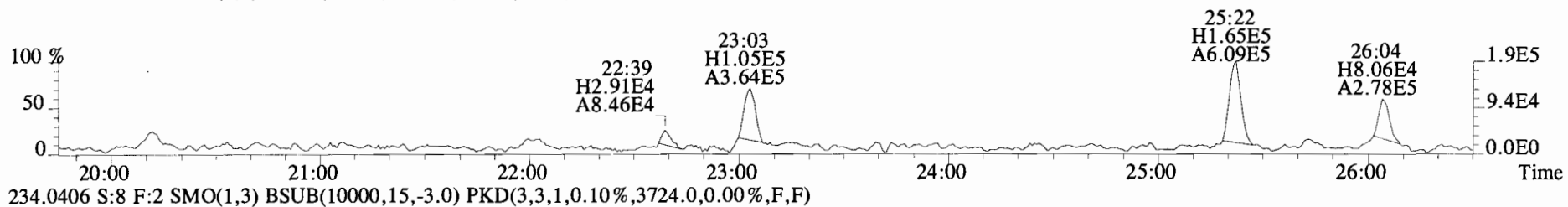
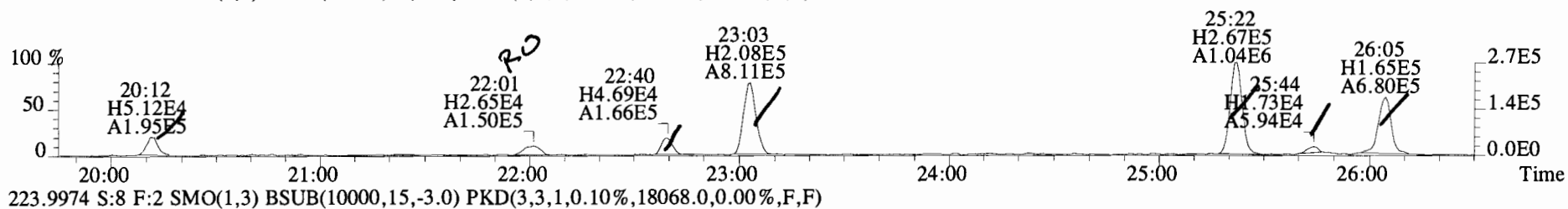
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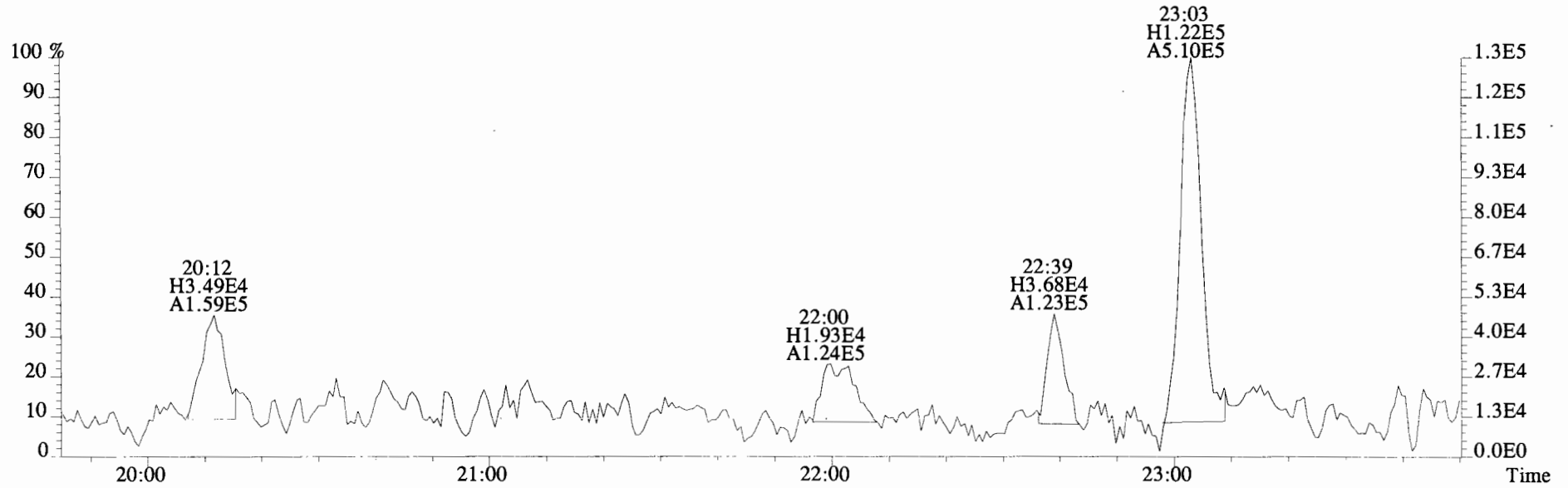
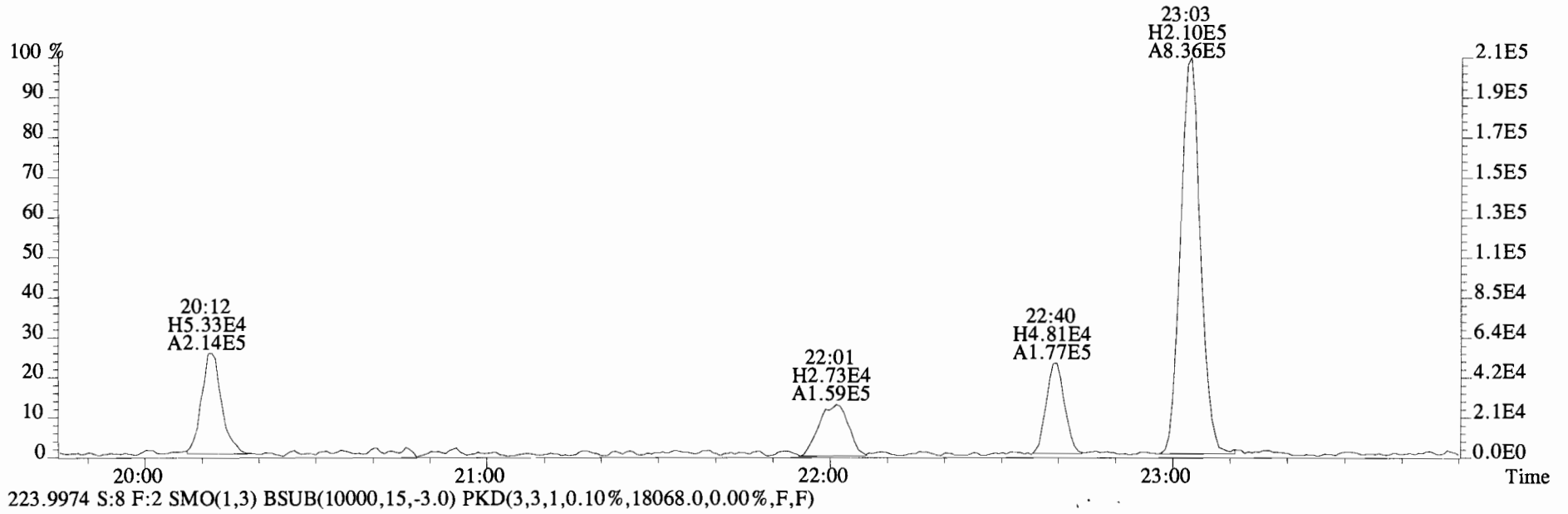
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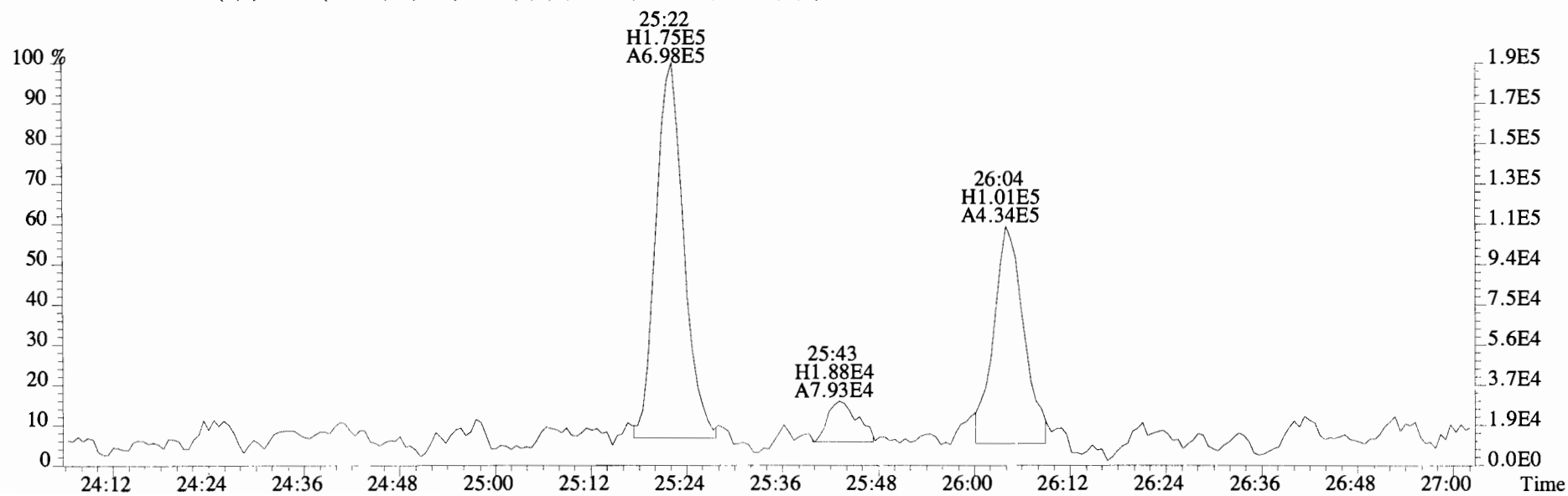
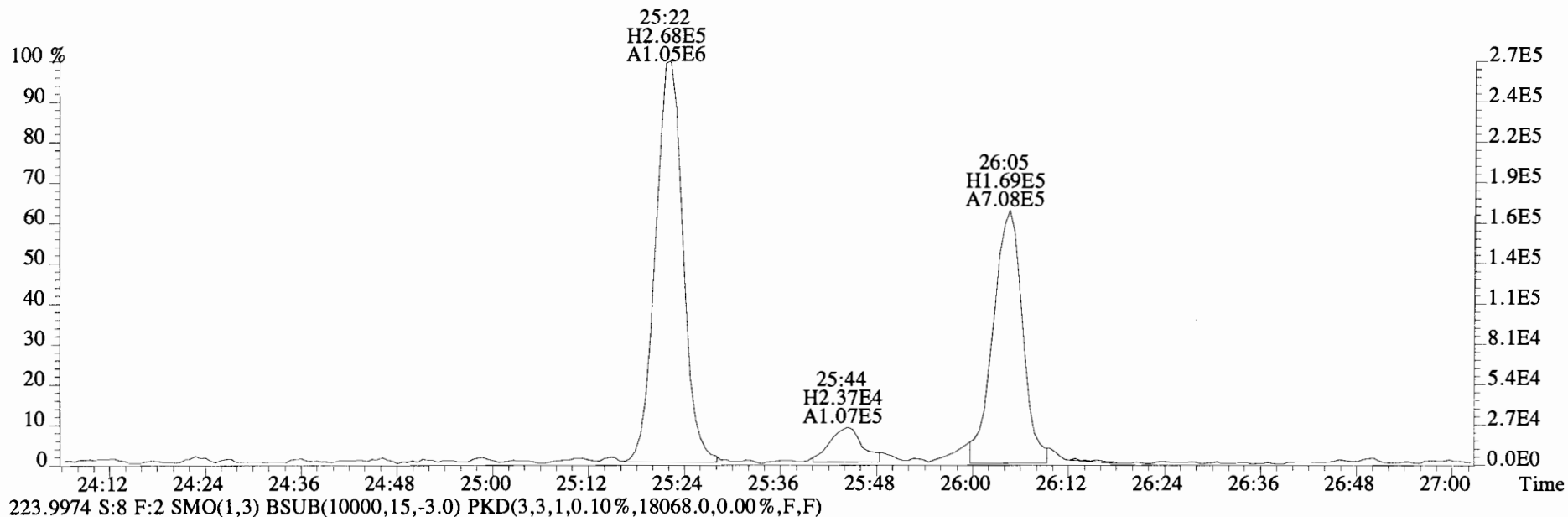
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
222.0003 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2980.0,0.00%,F,F)



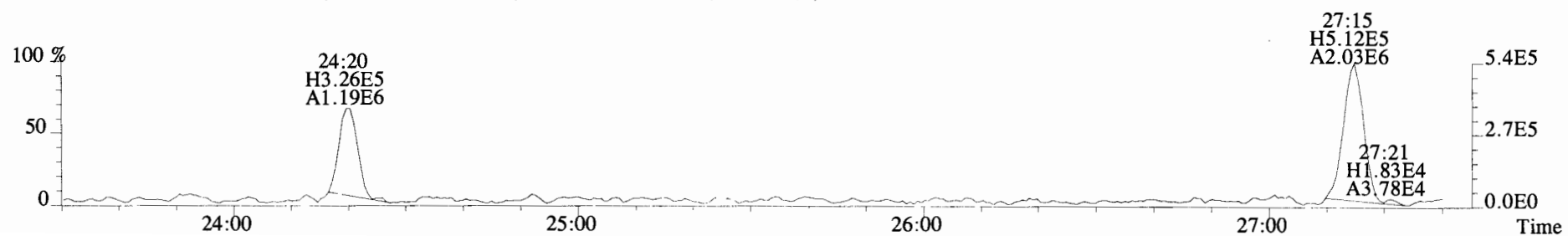
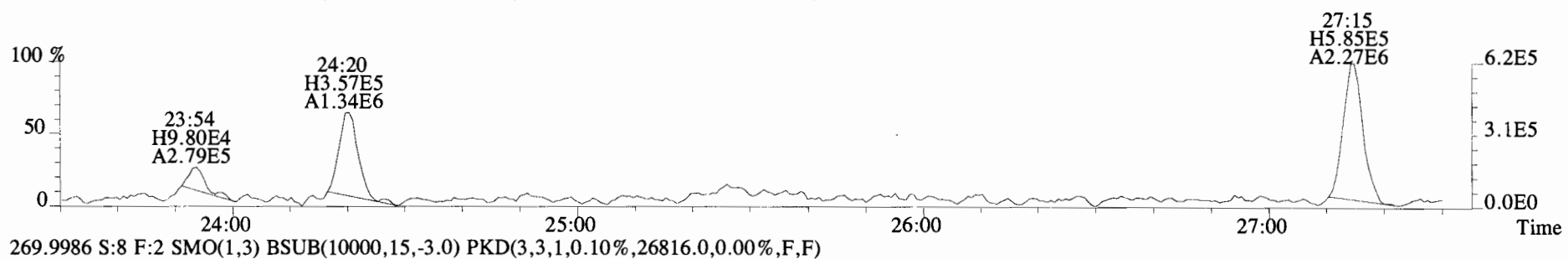
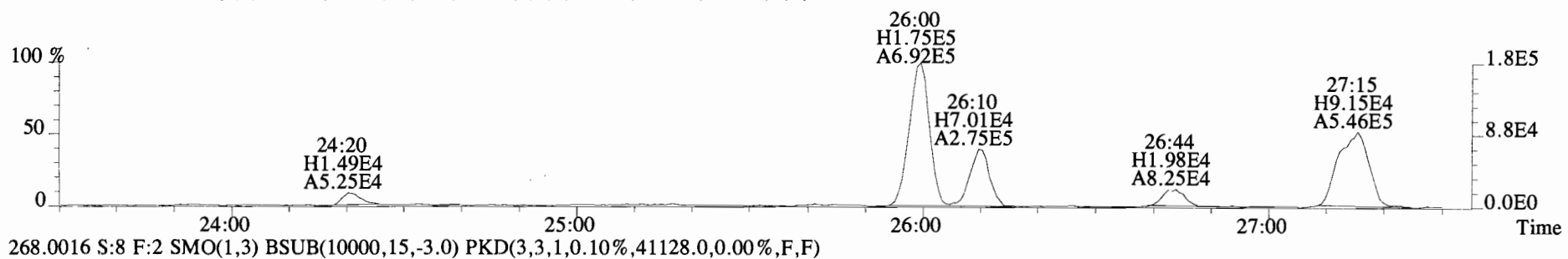
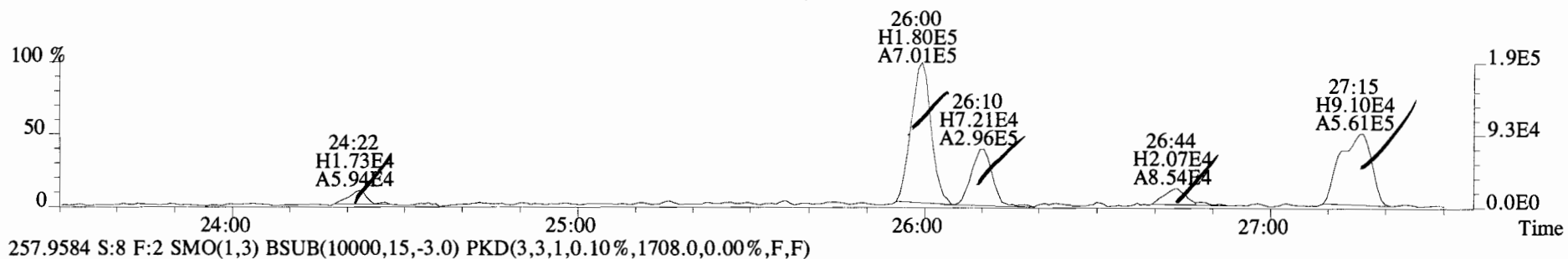
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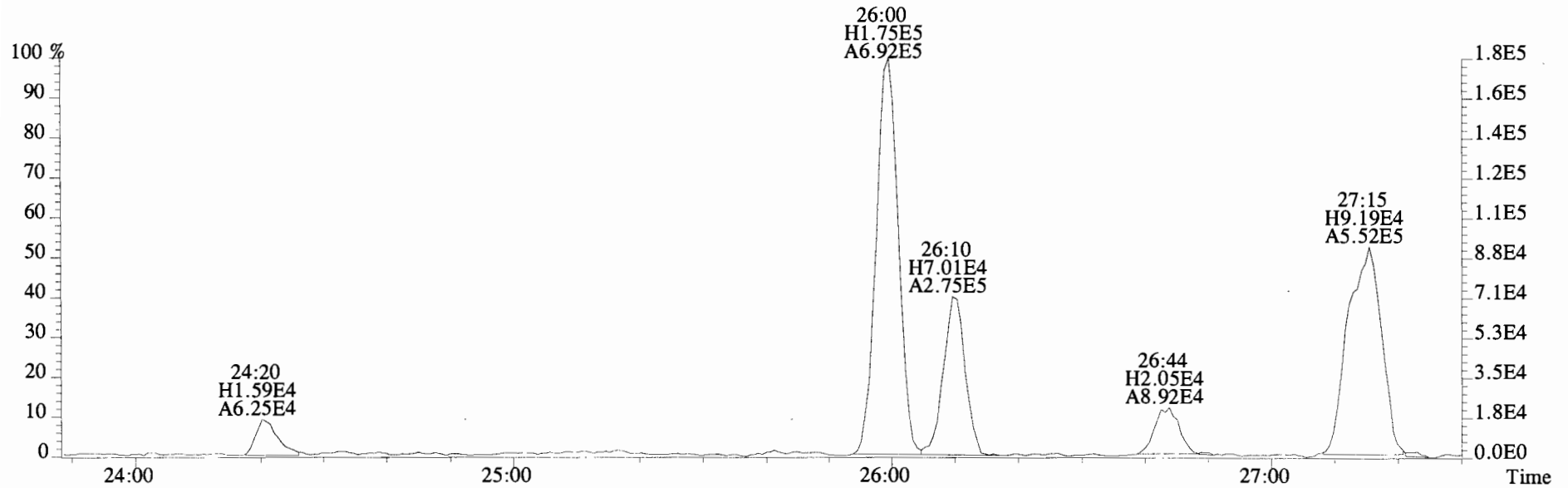
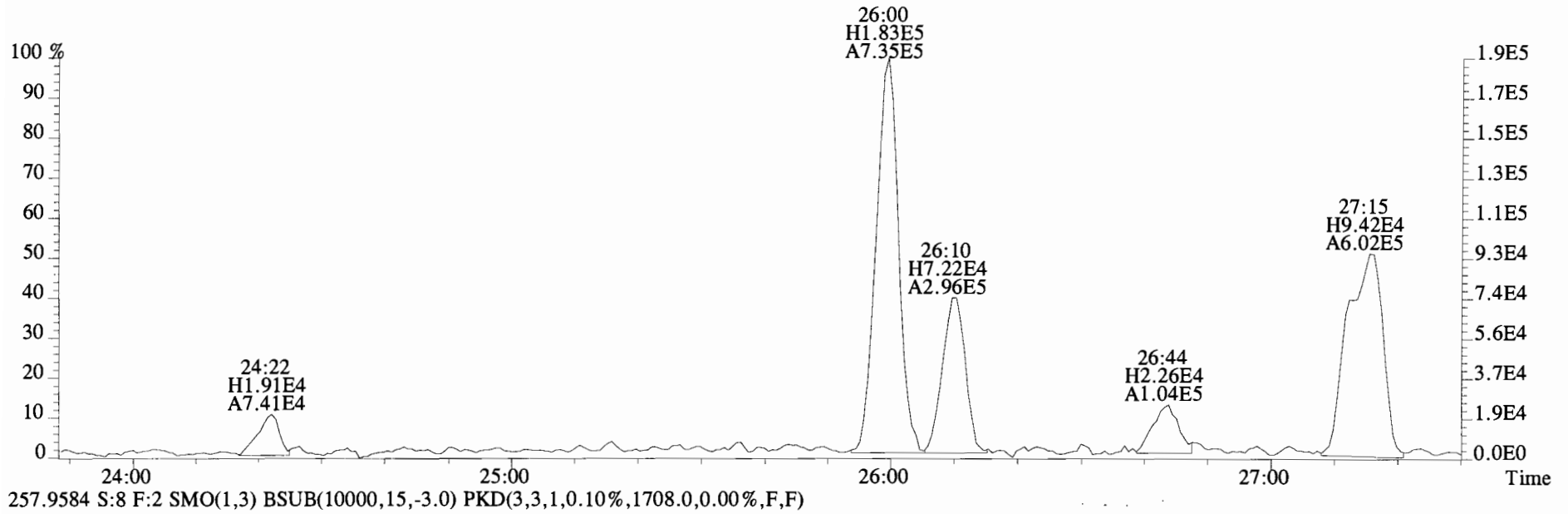
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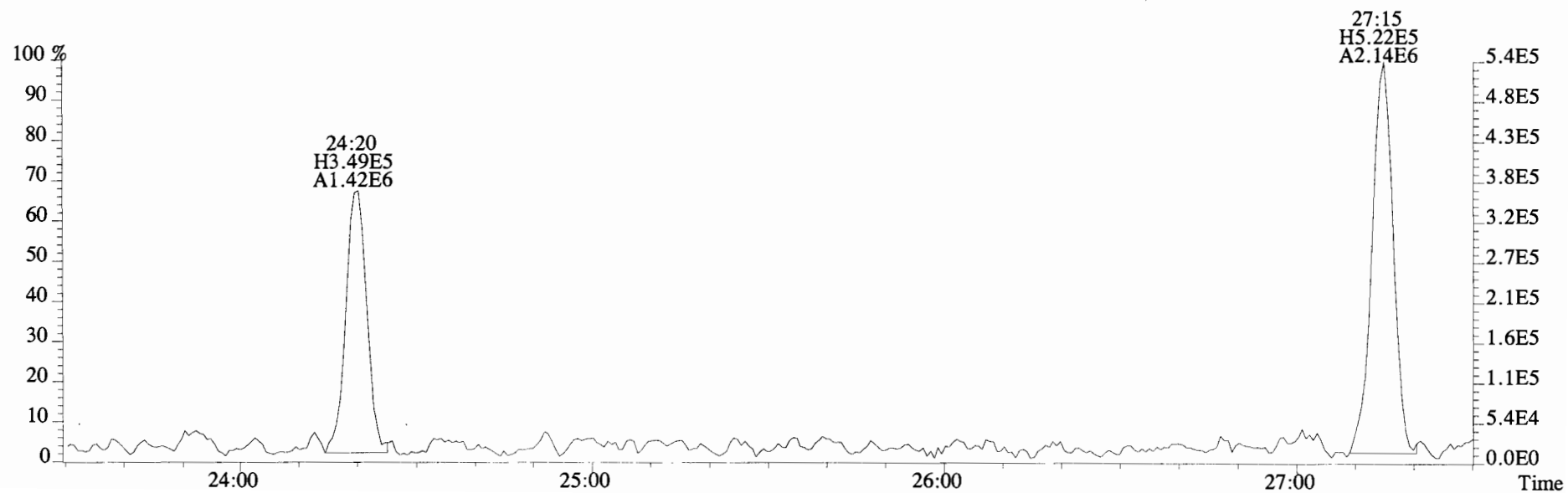
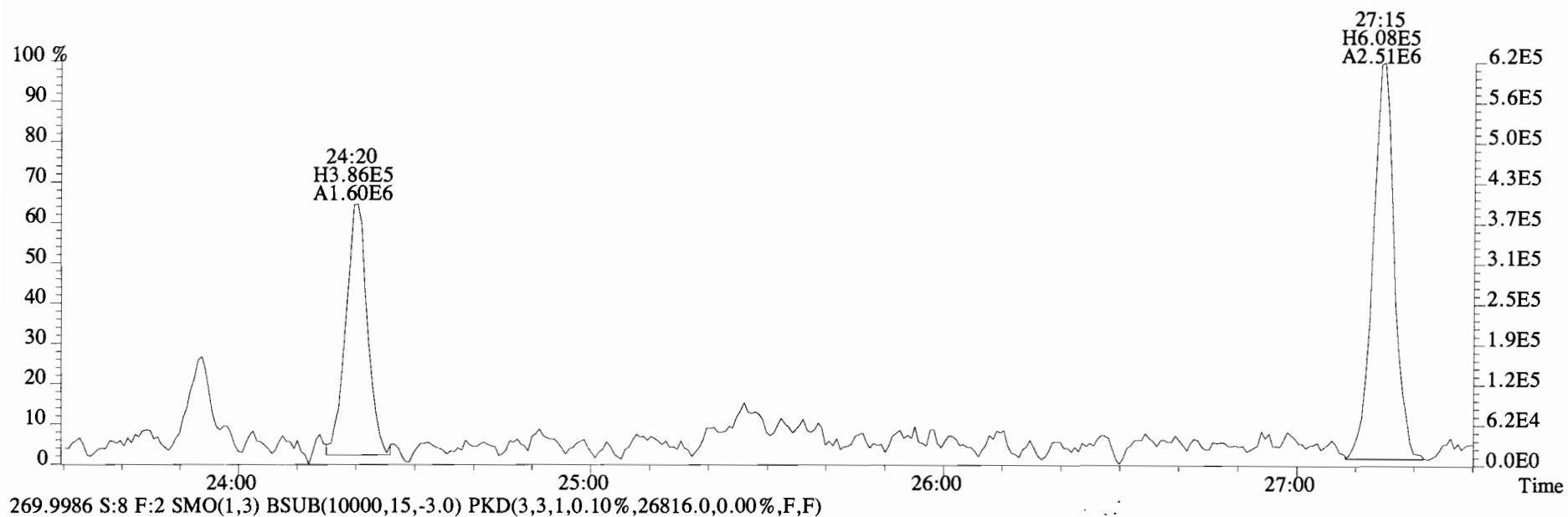
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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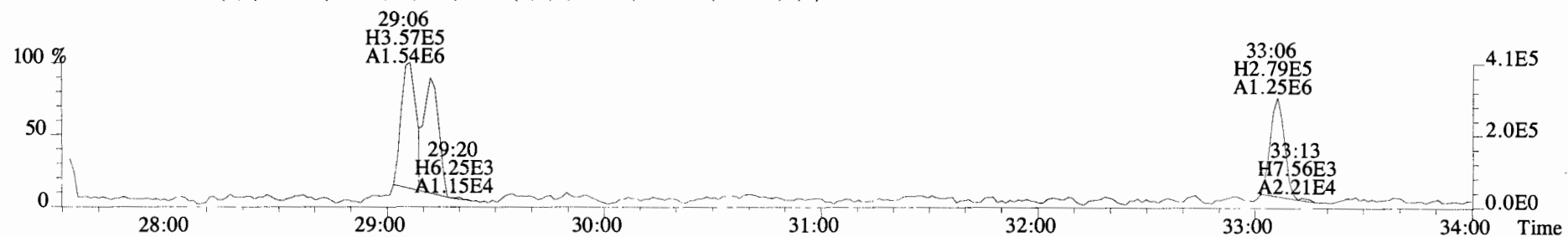
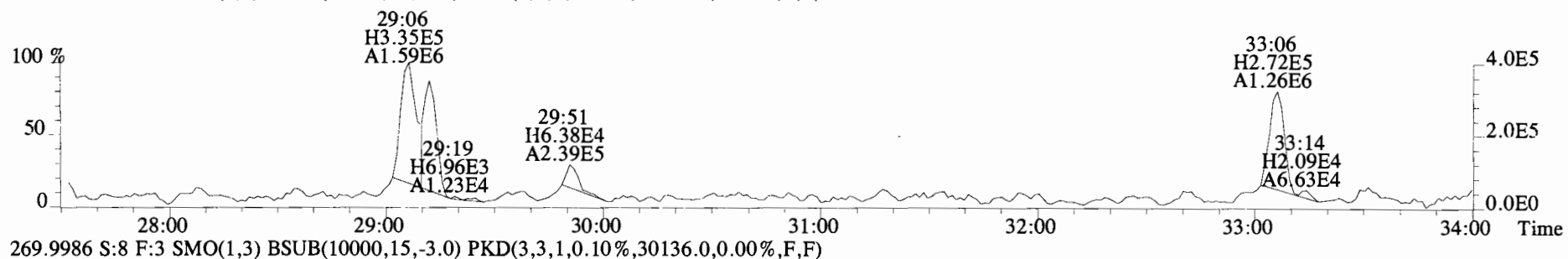
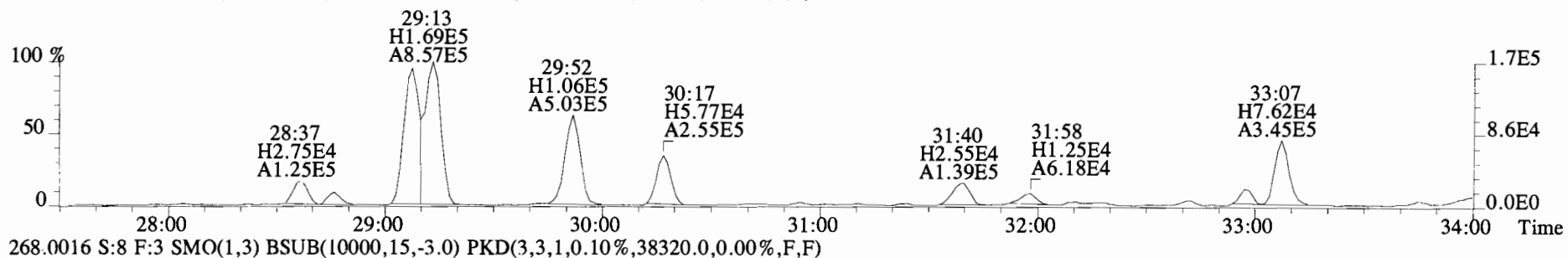
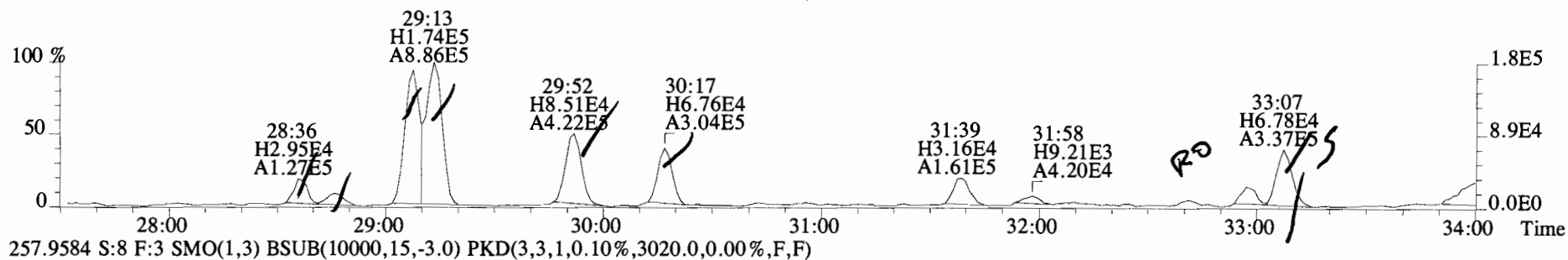
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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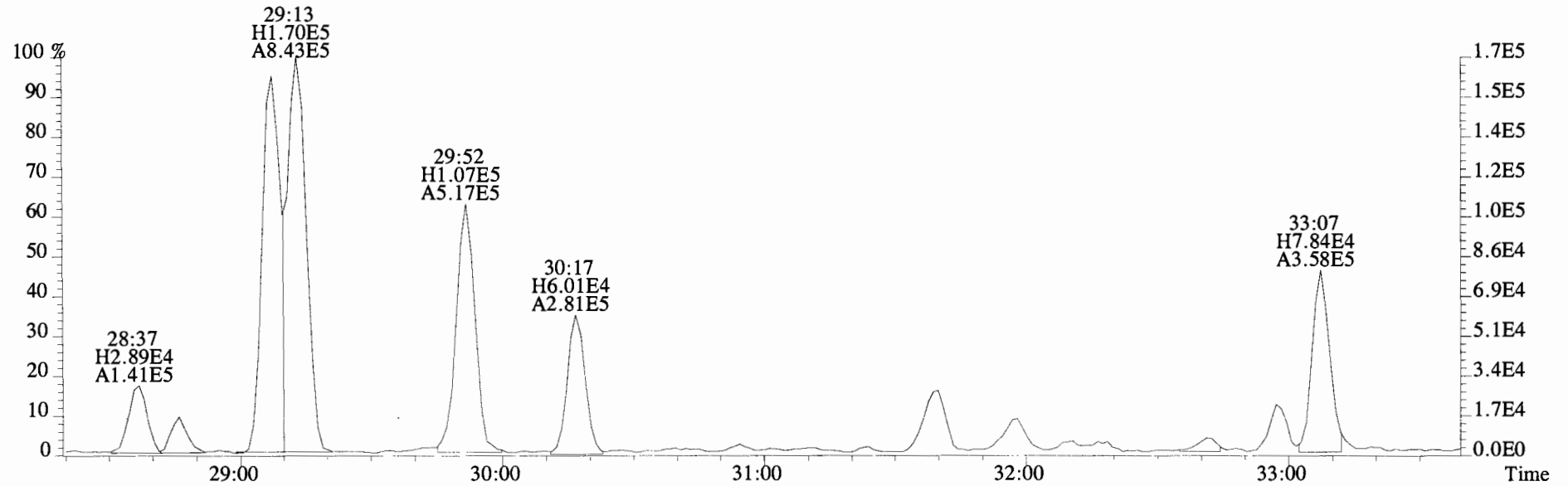
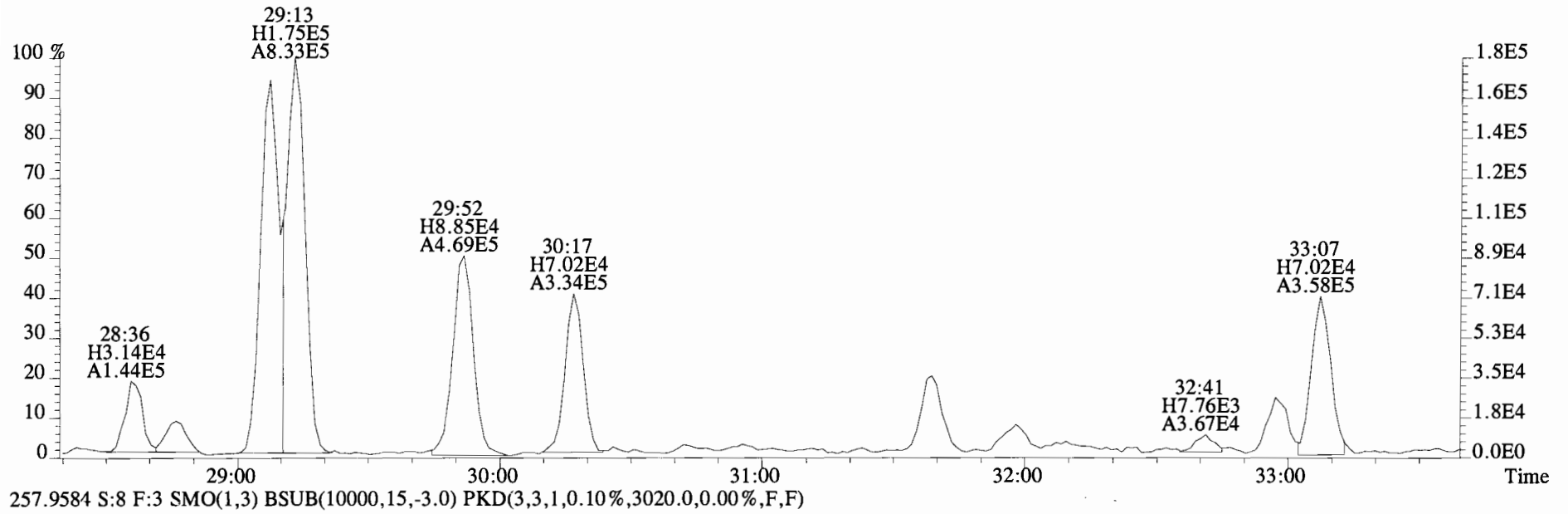
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Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
268.0016 S:8 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,41128.0,0.00%,F,F)



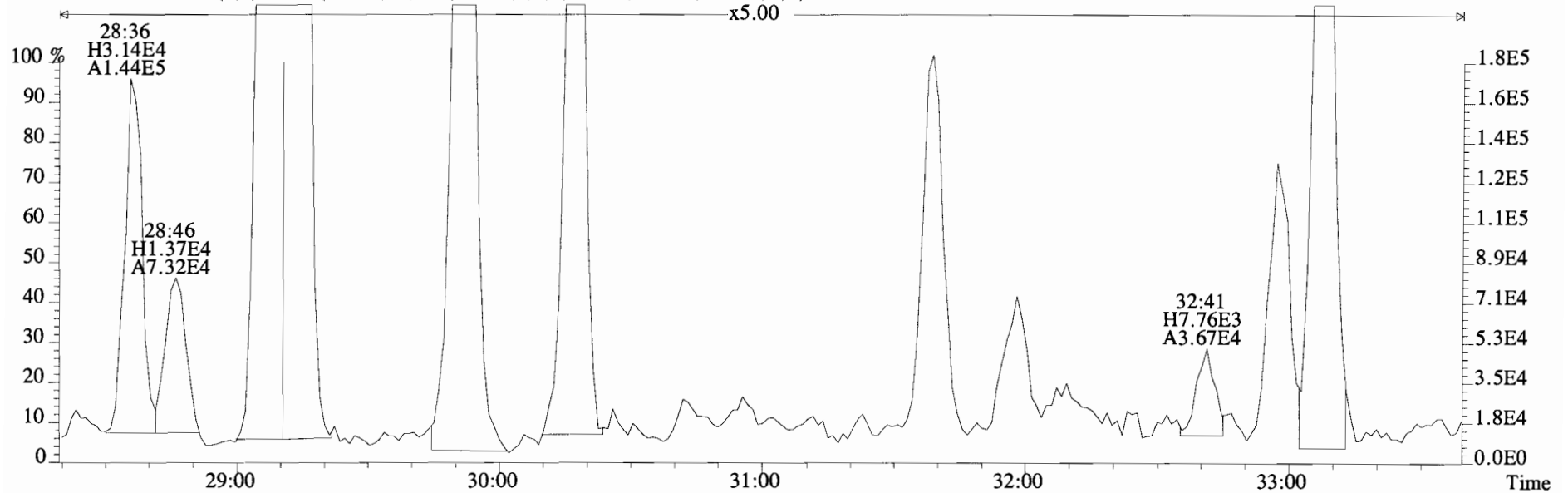
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255.9613 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4596.0,0.00%,F,F)



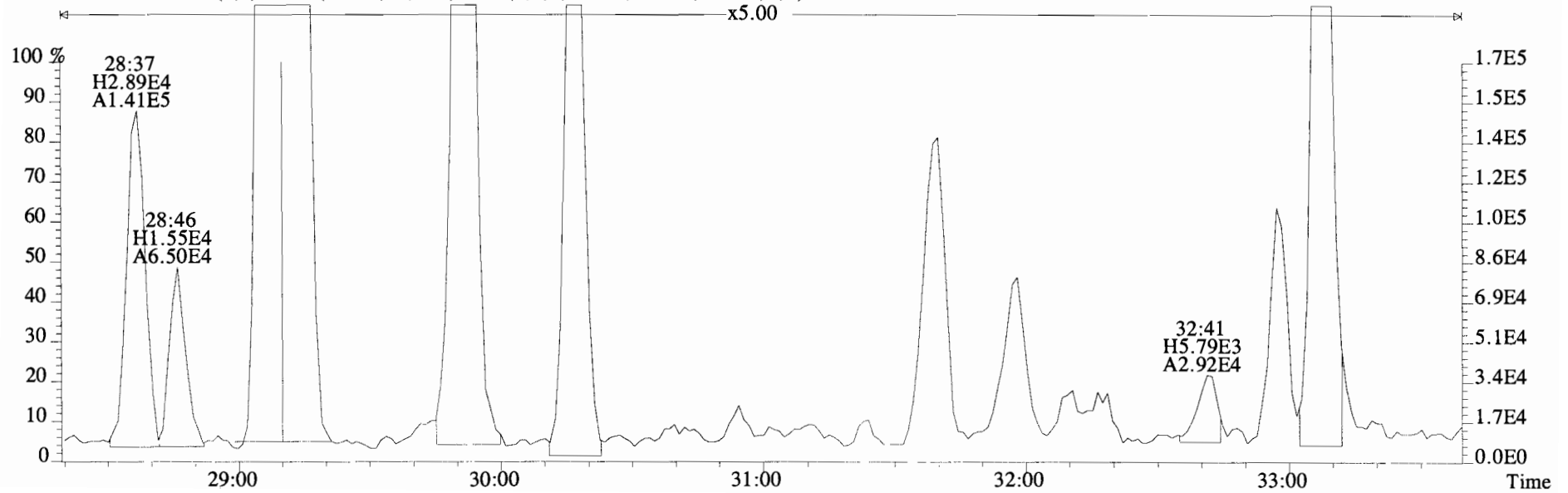
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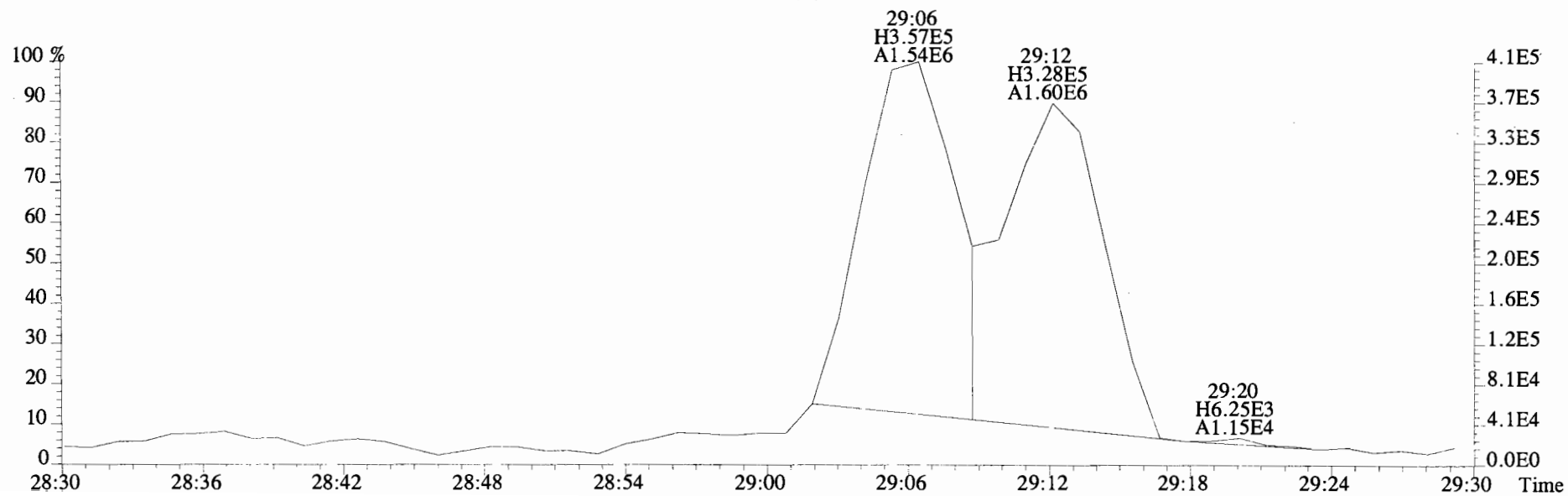
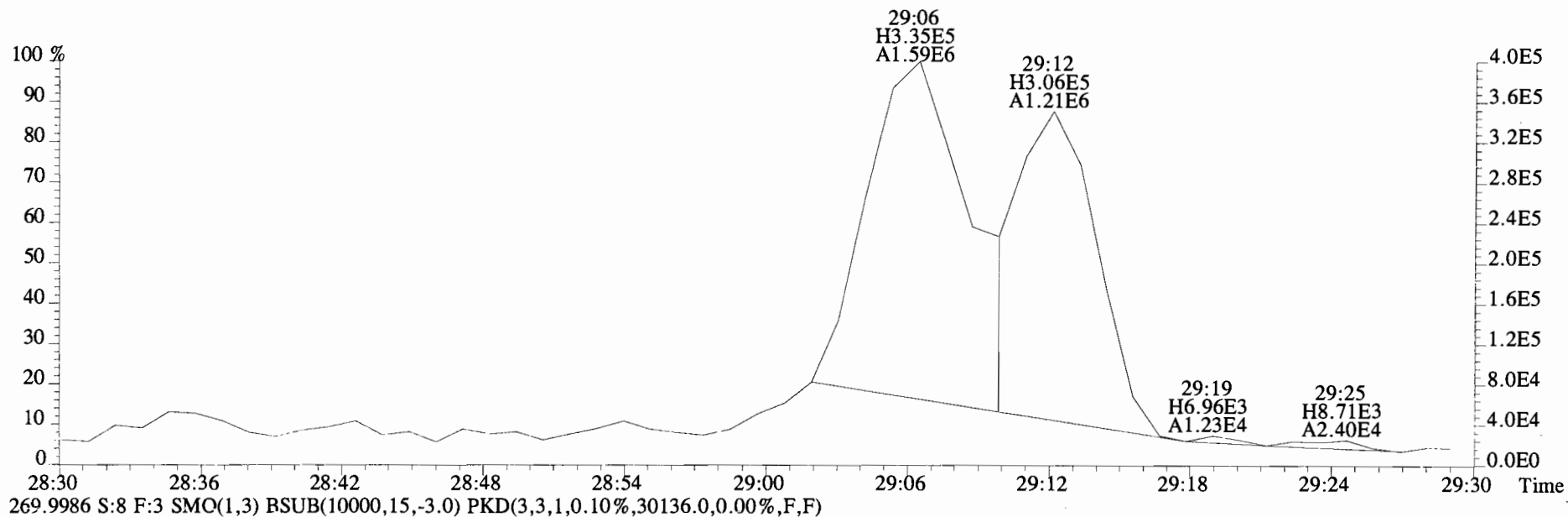
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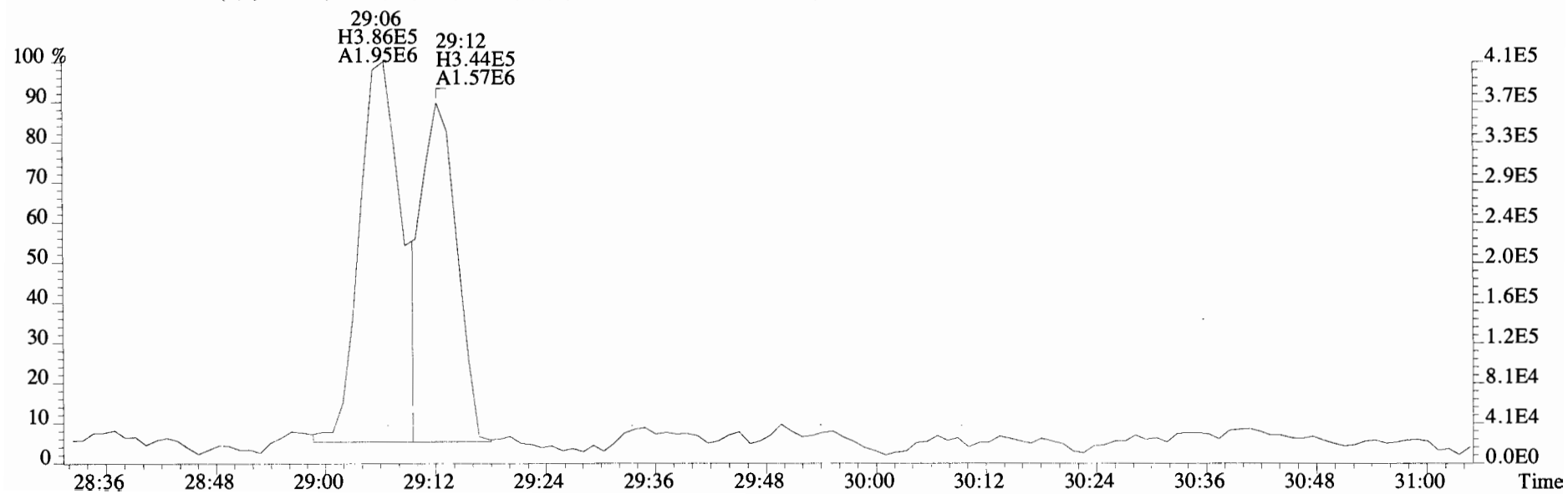
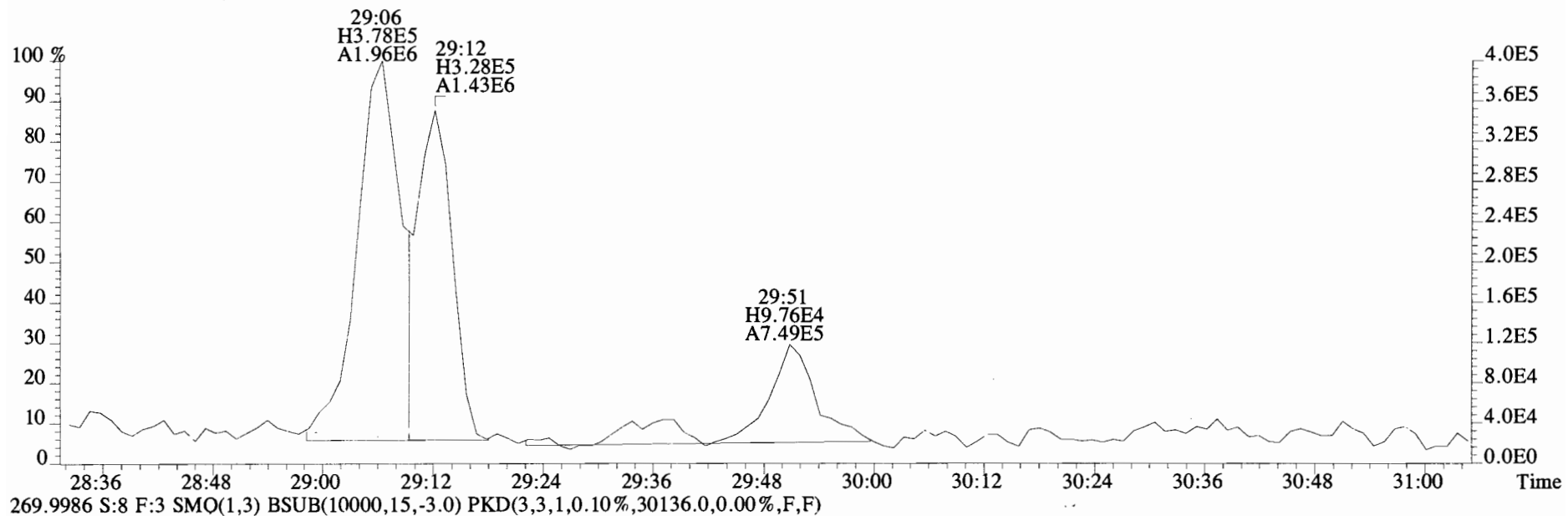
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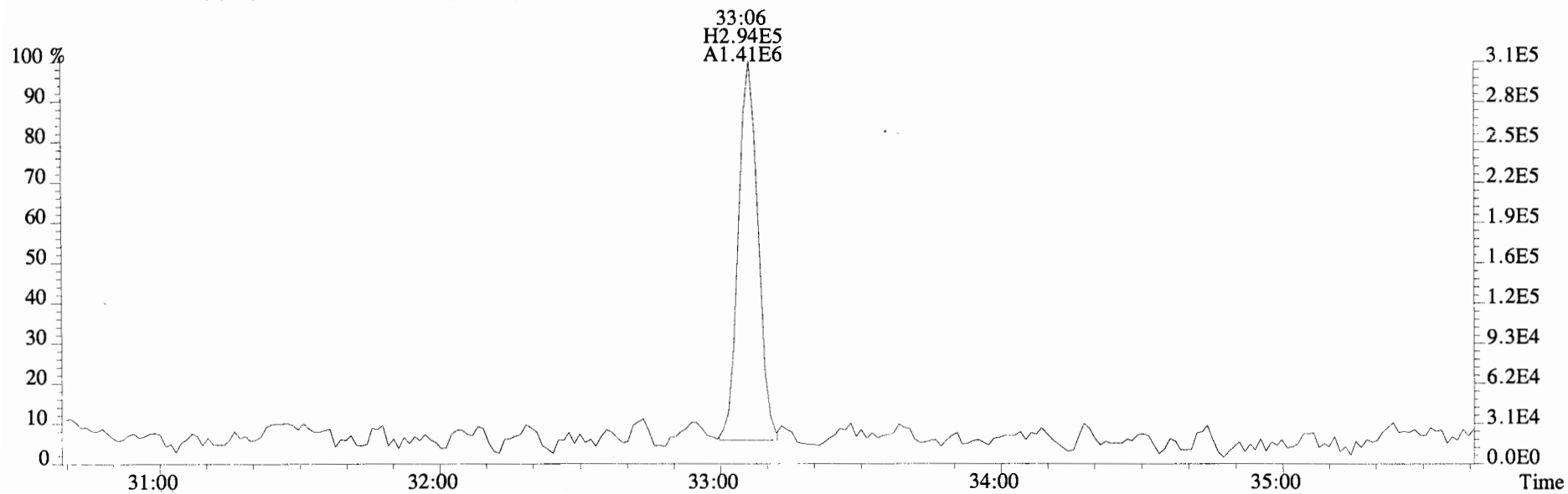
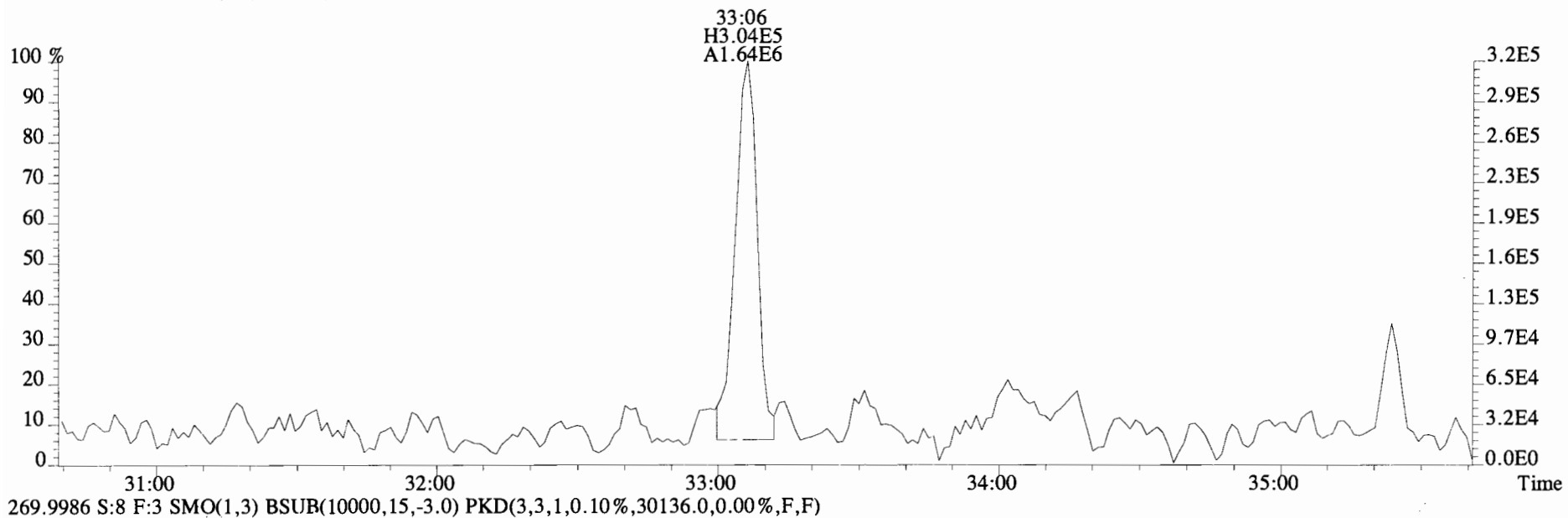
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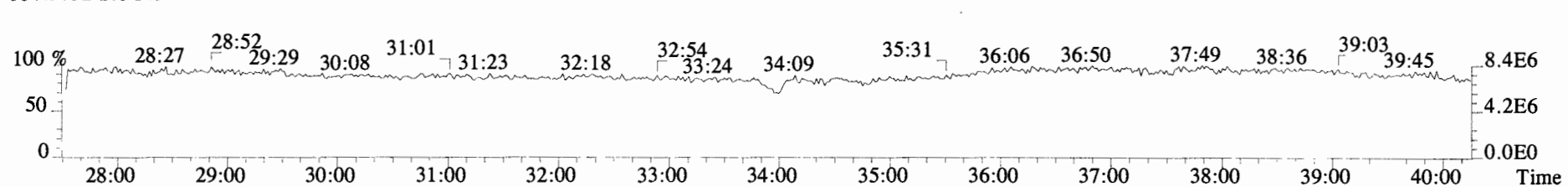
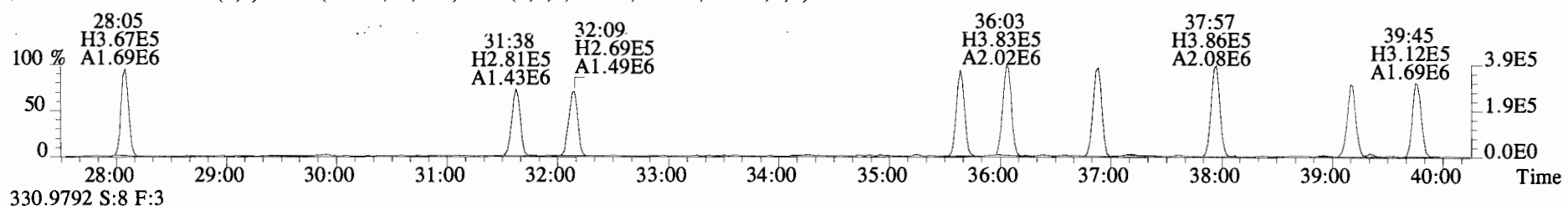
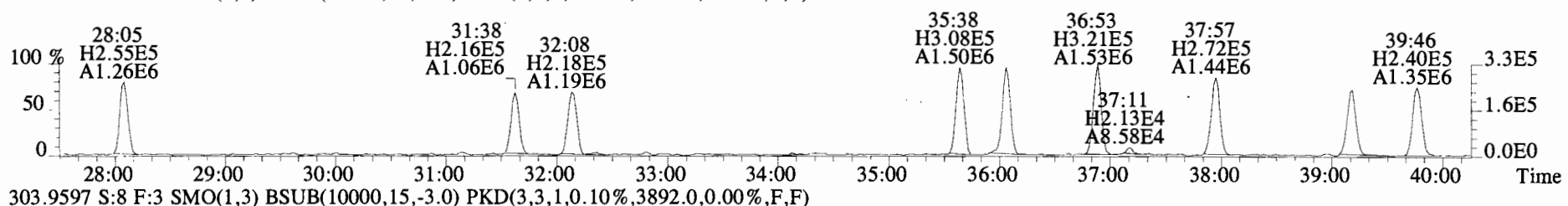
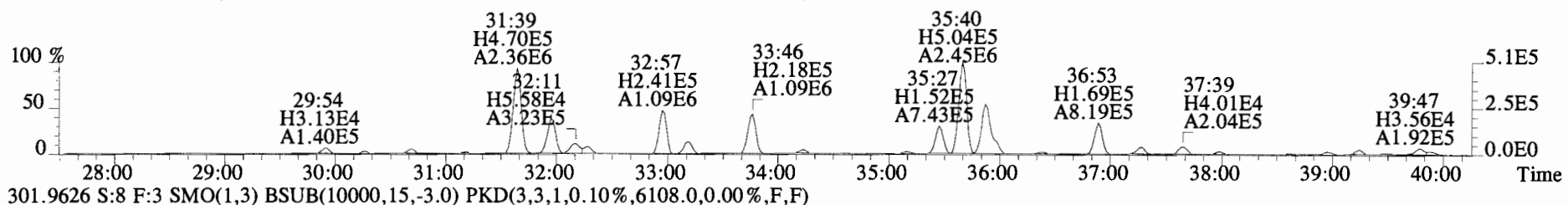
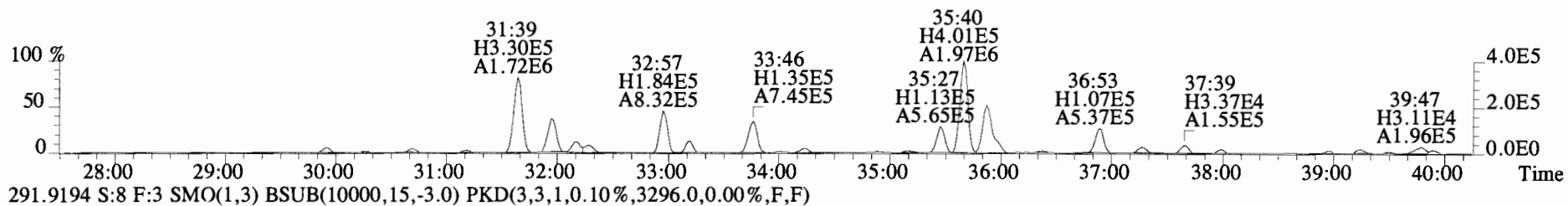
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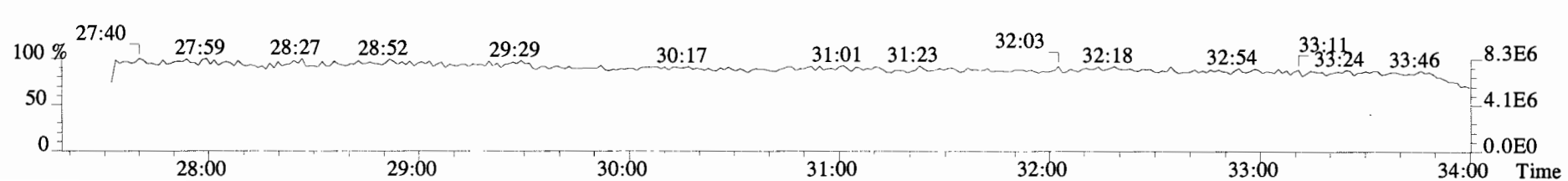
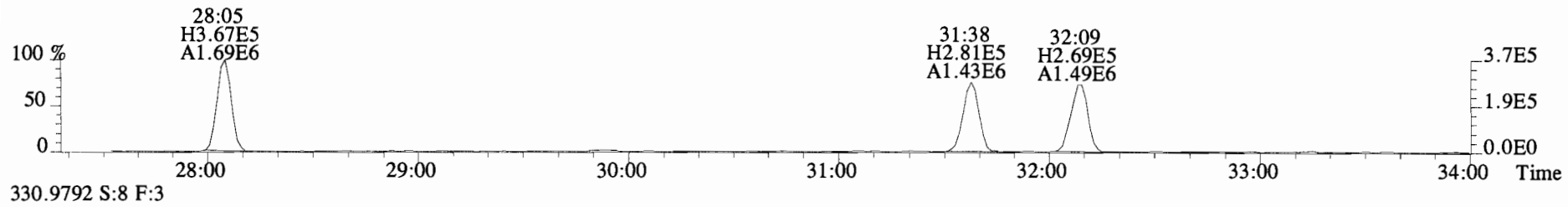
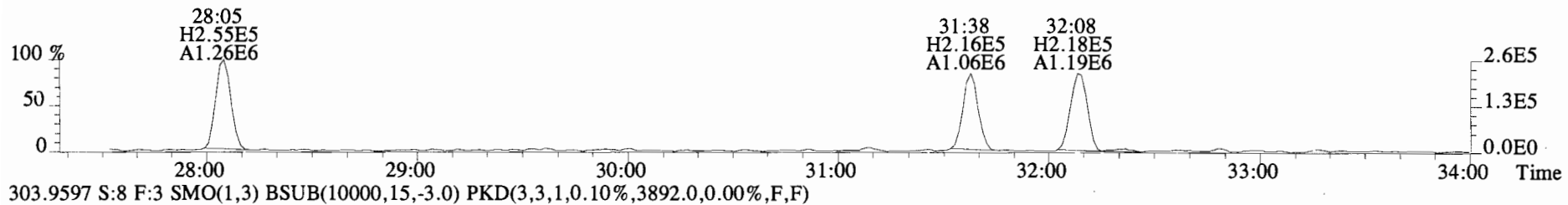
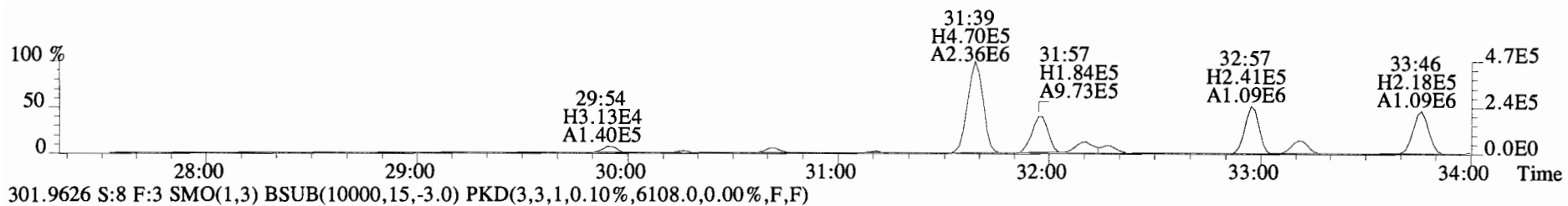
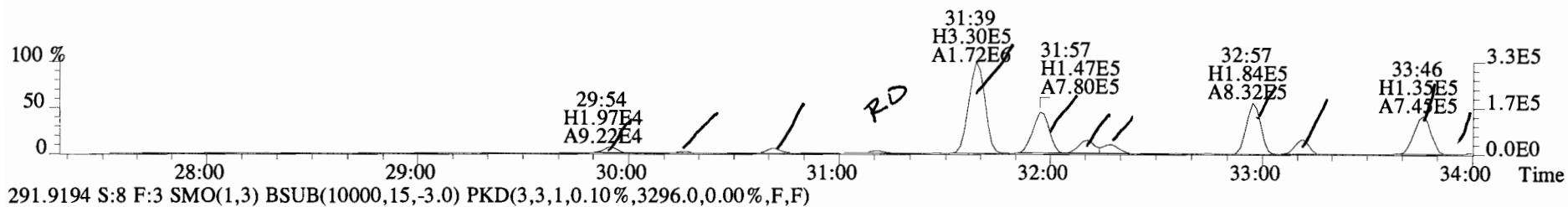
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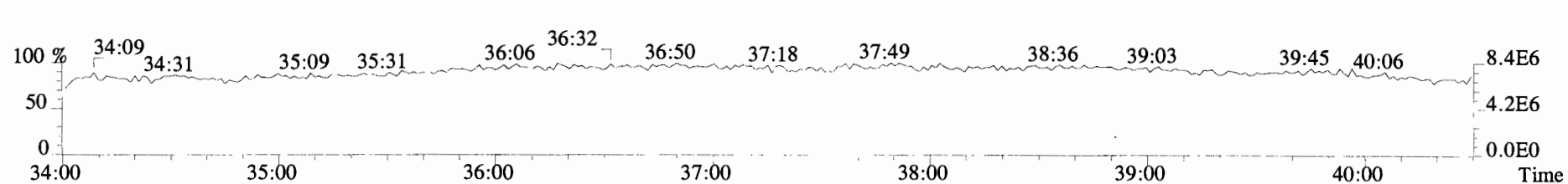
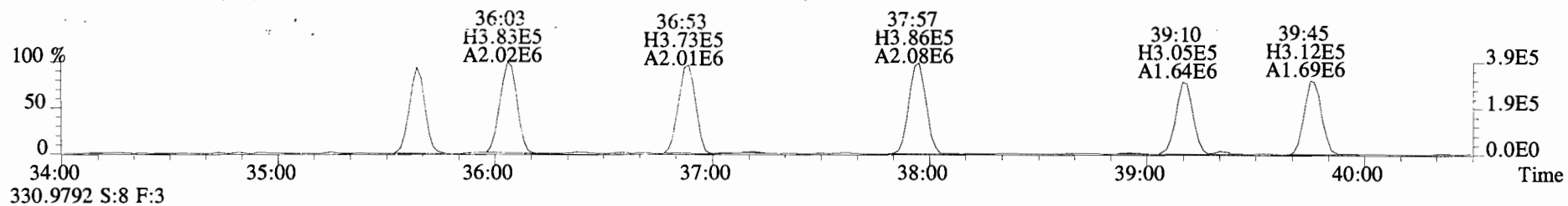
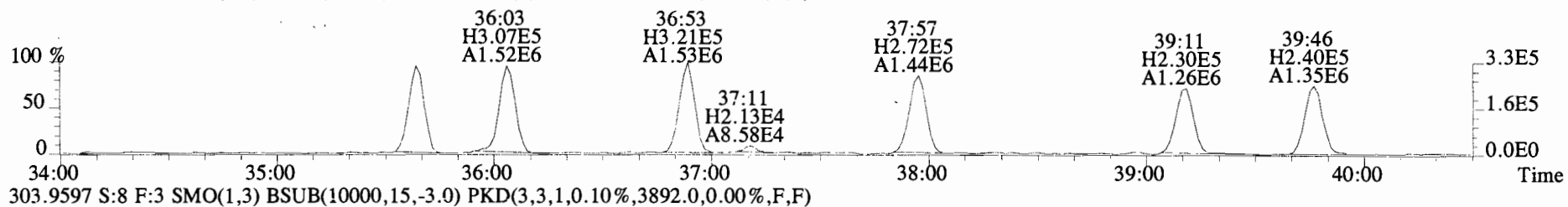
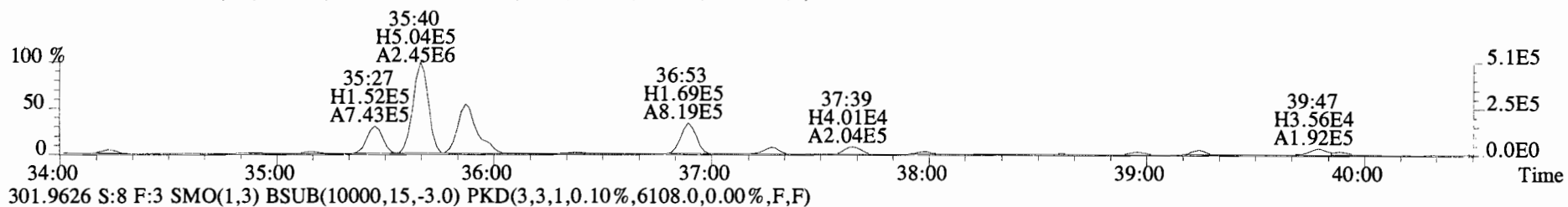
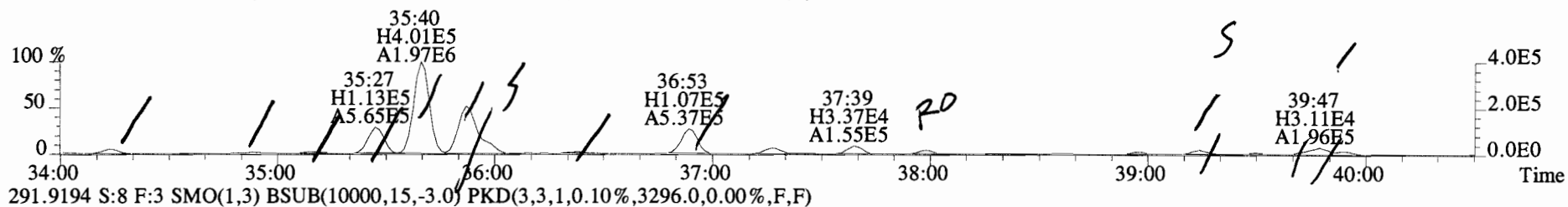
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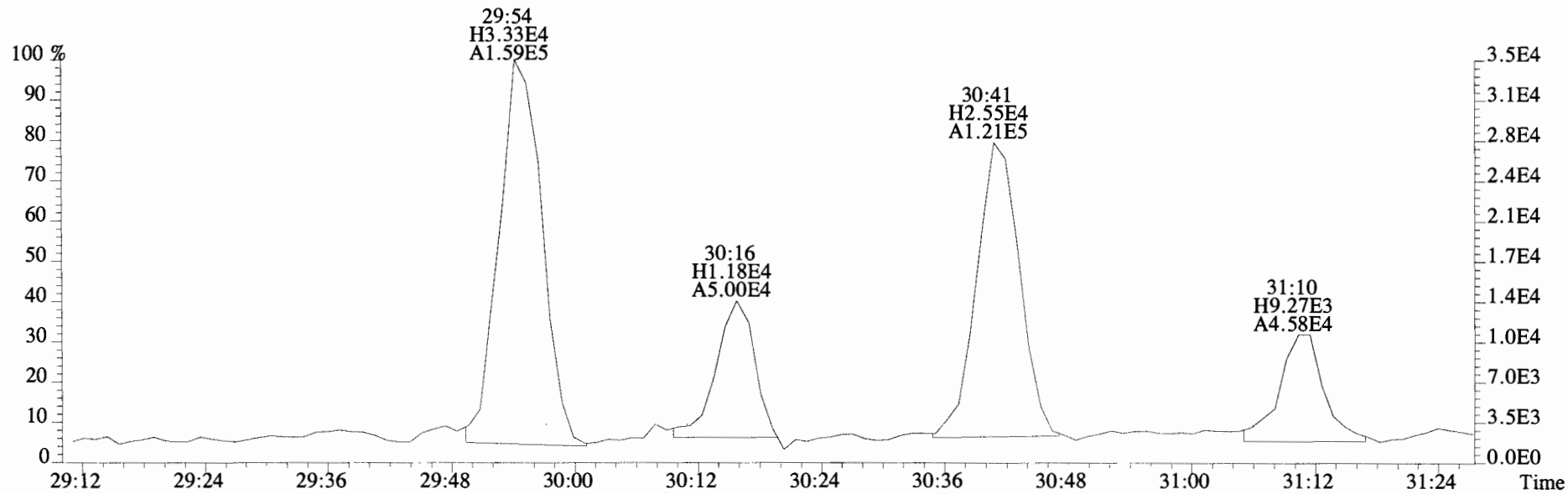
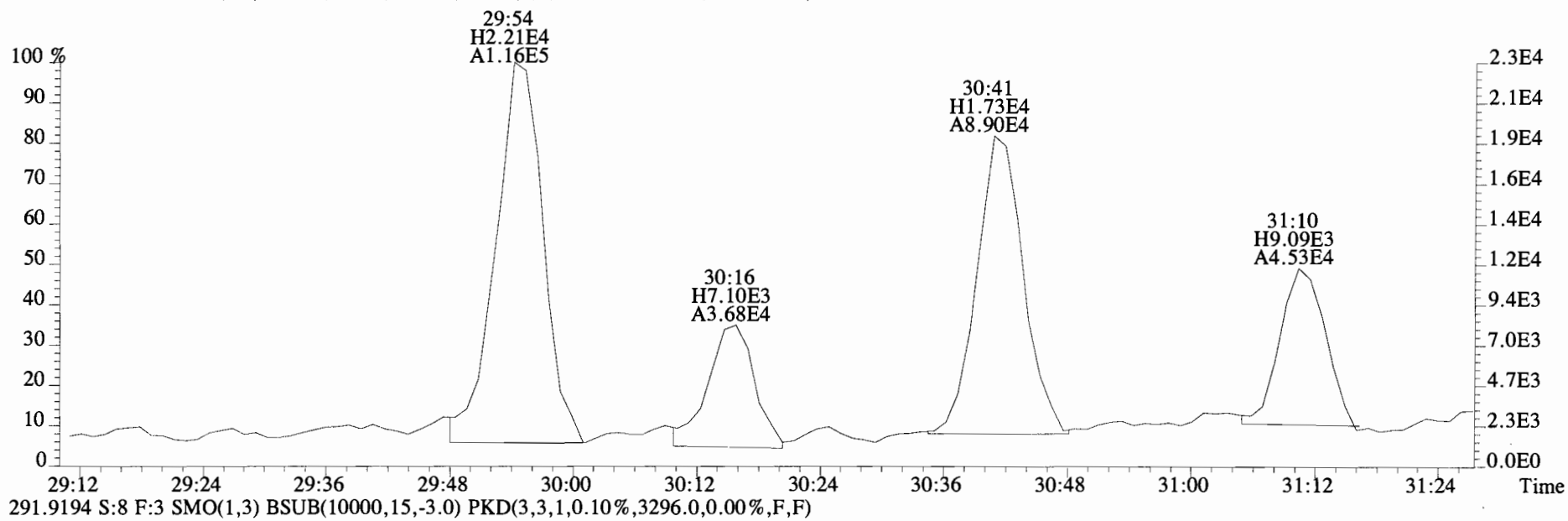
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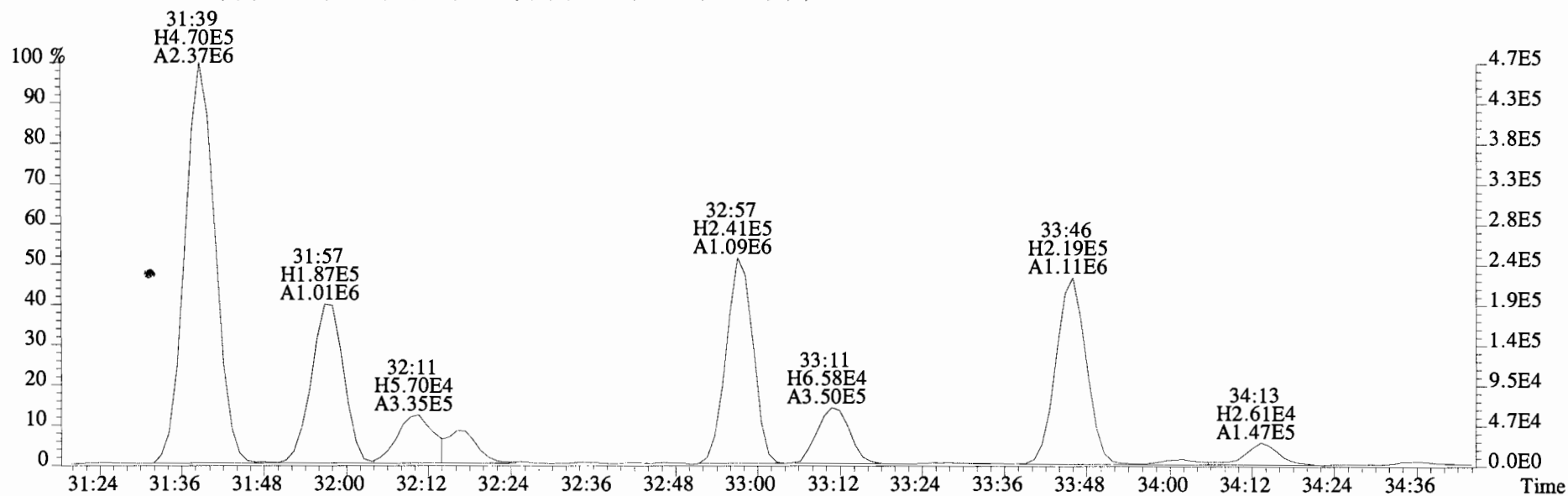
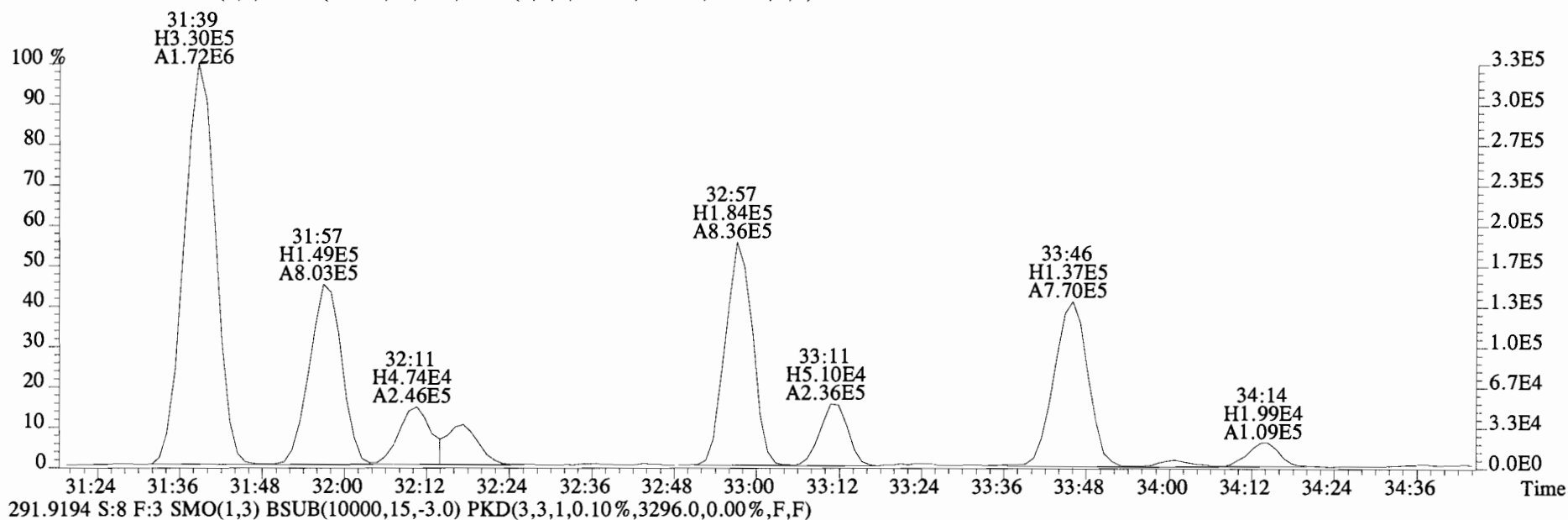
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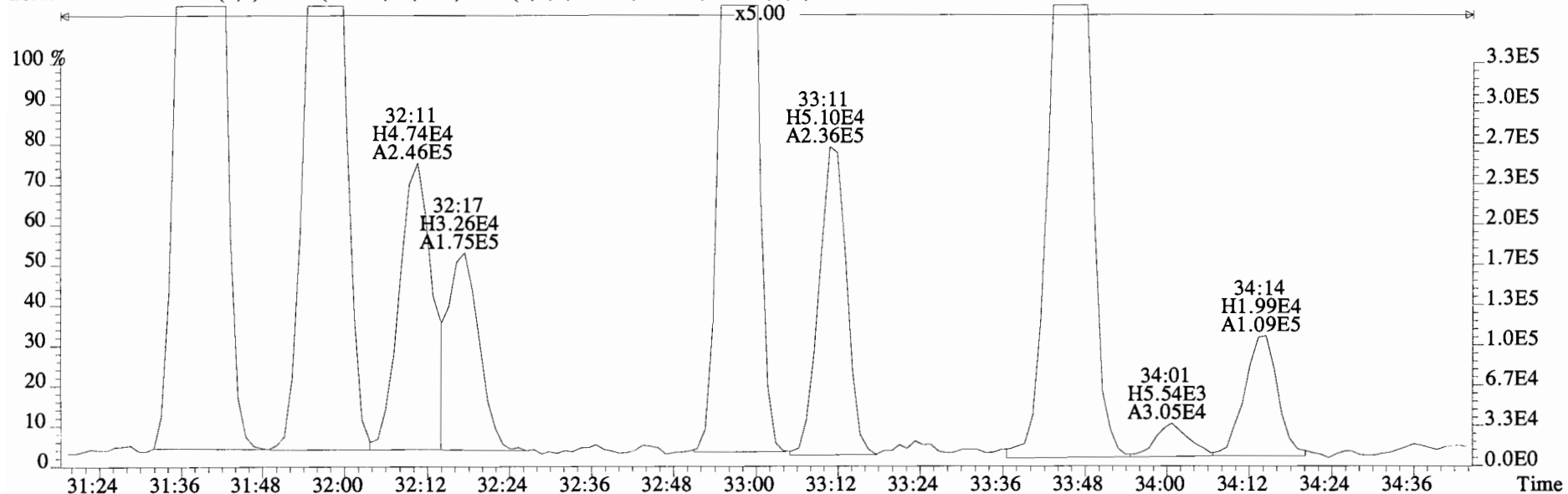
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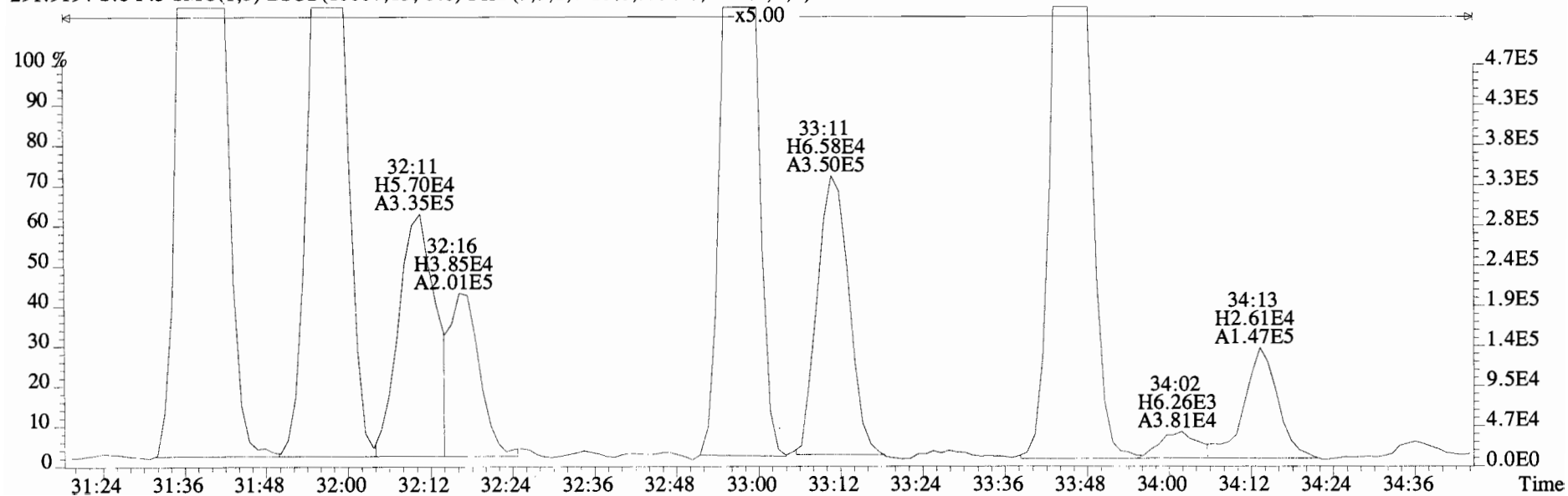
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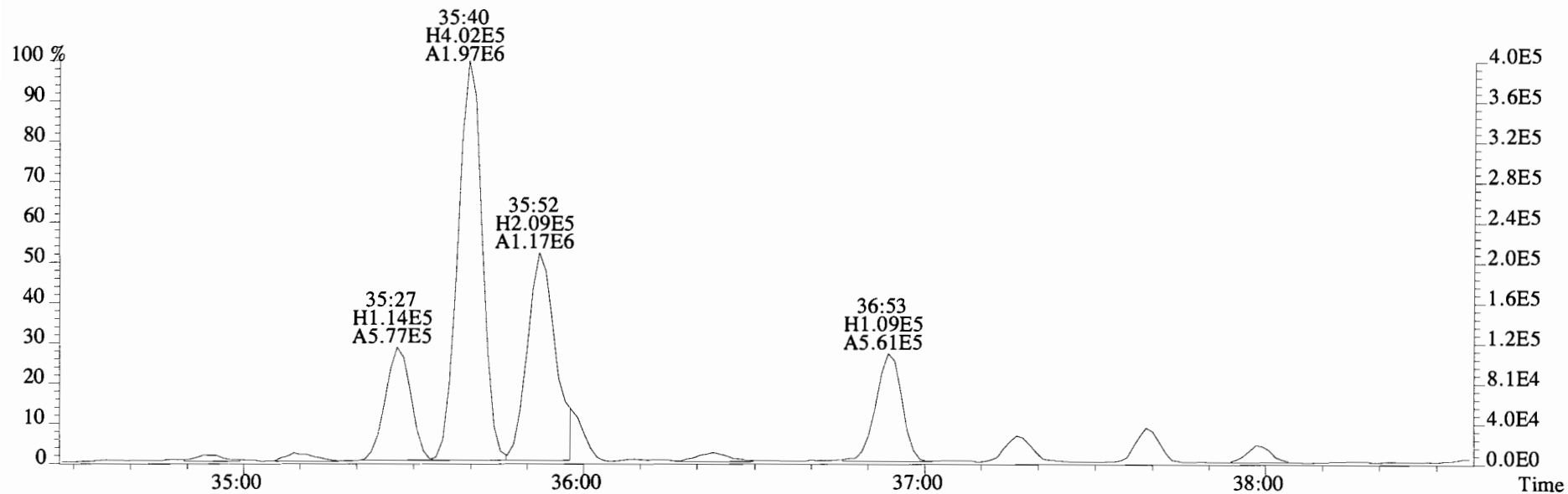
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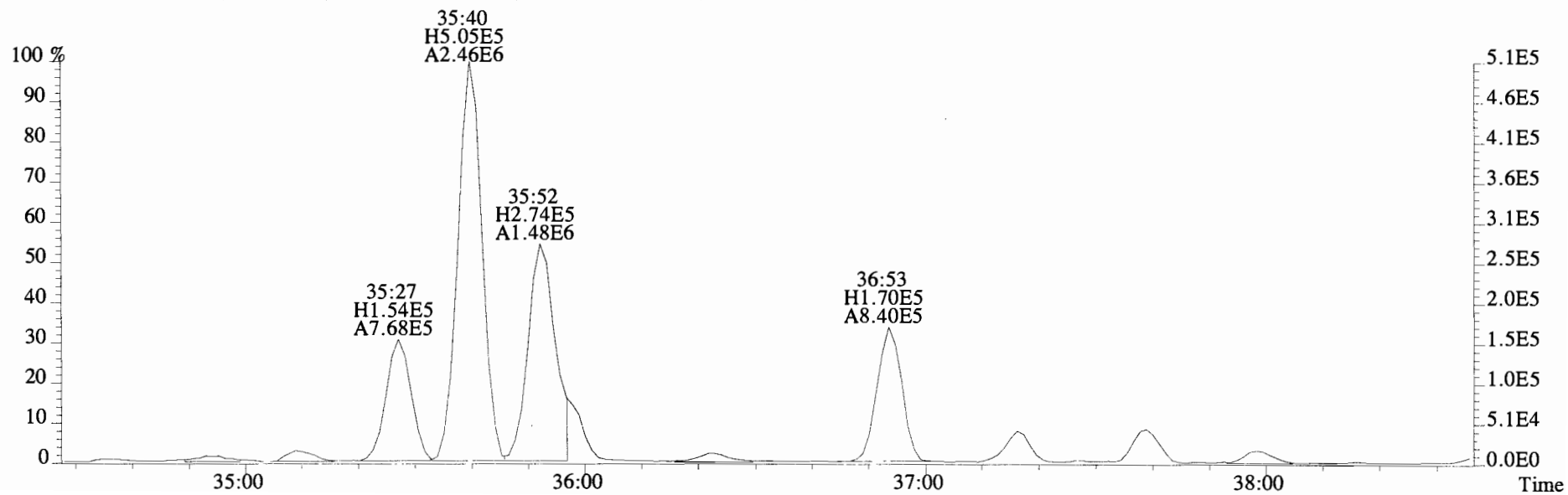
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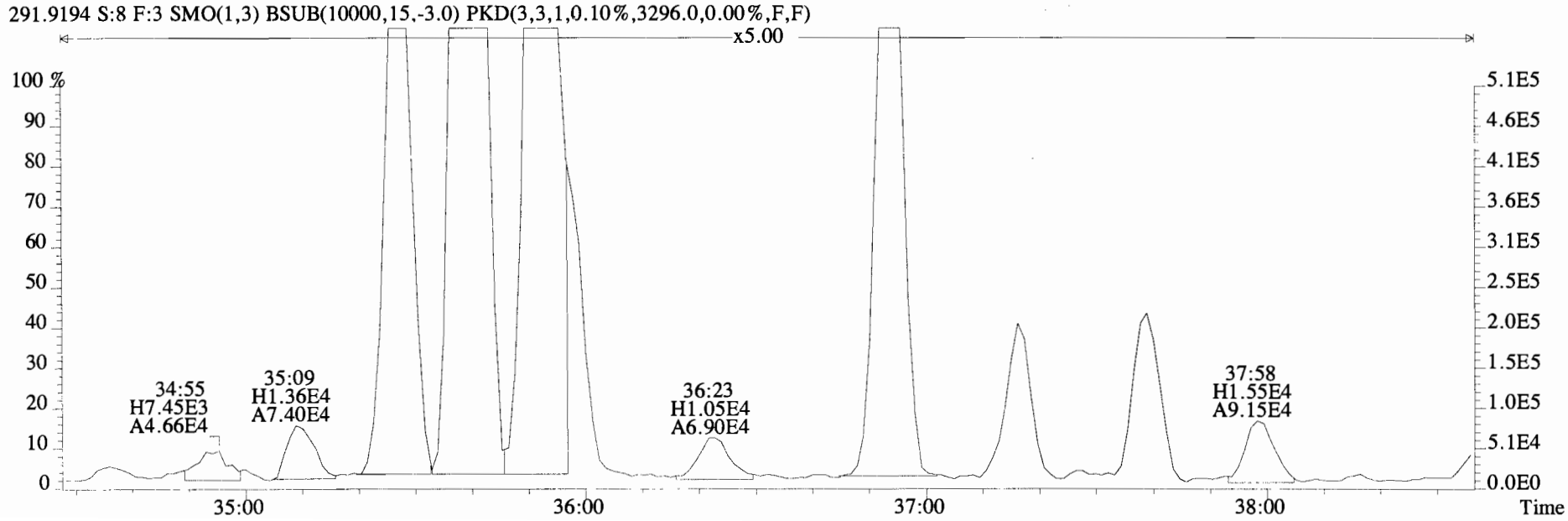
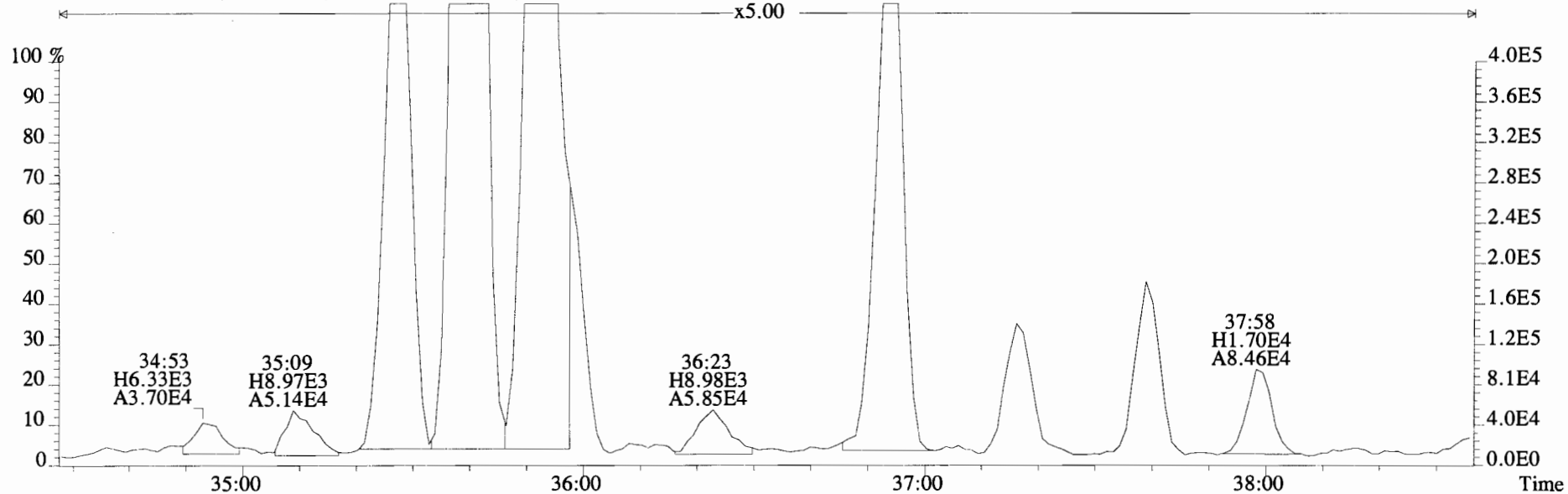
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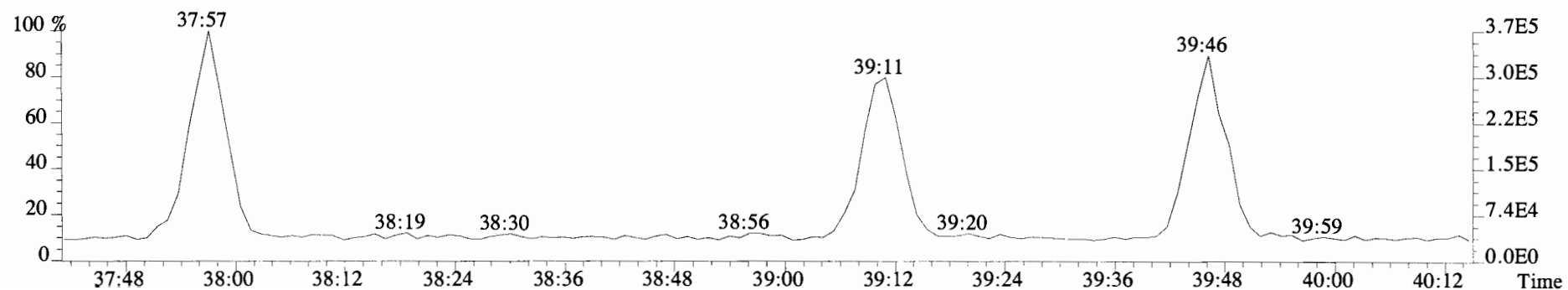
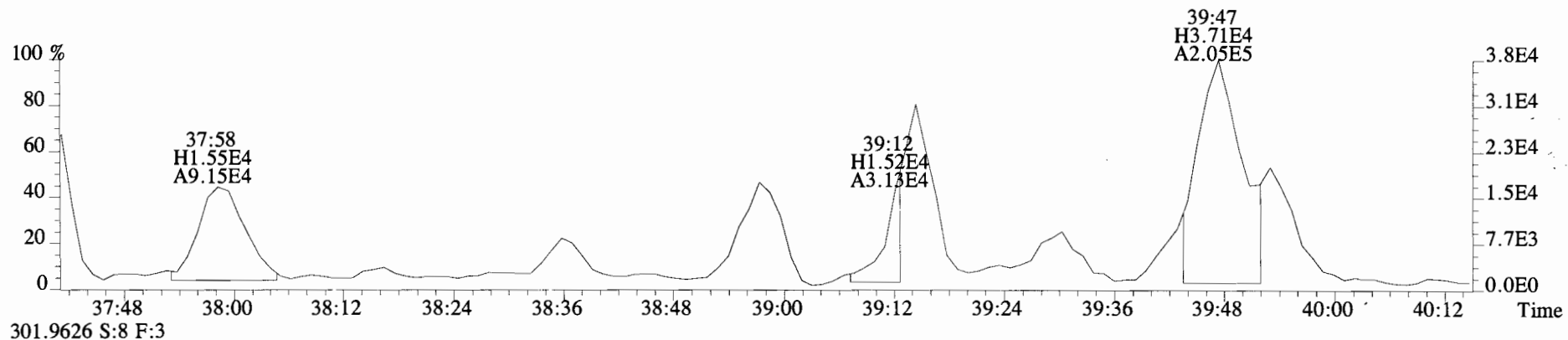
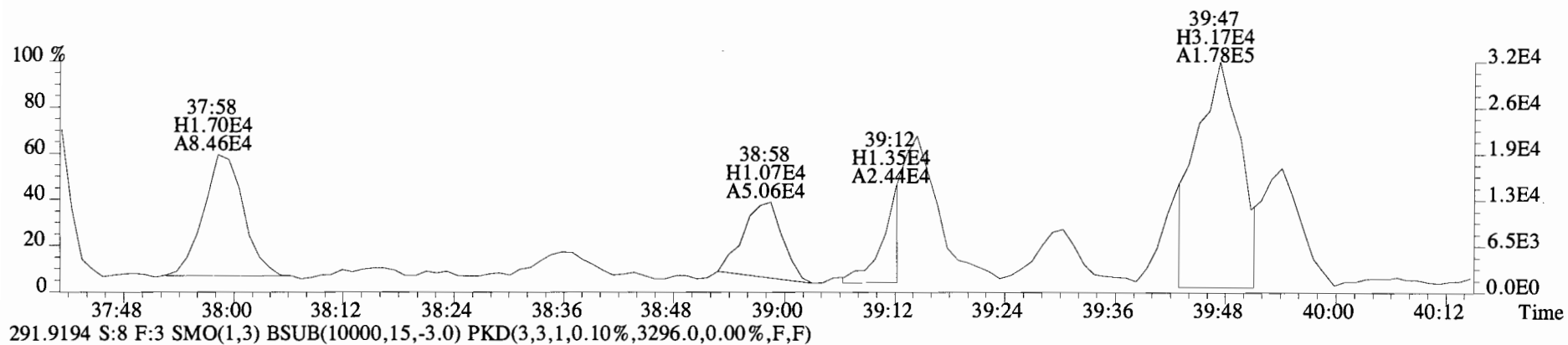
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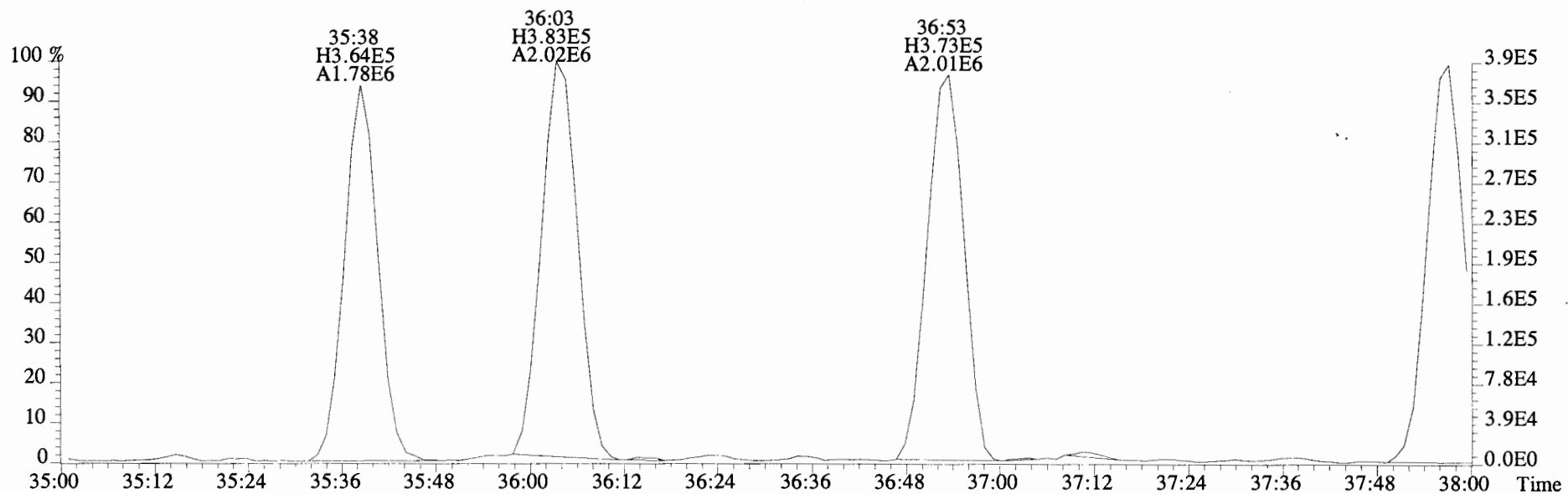
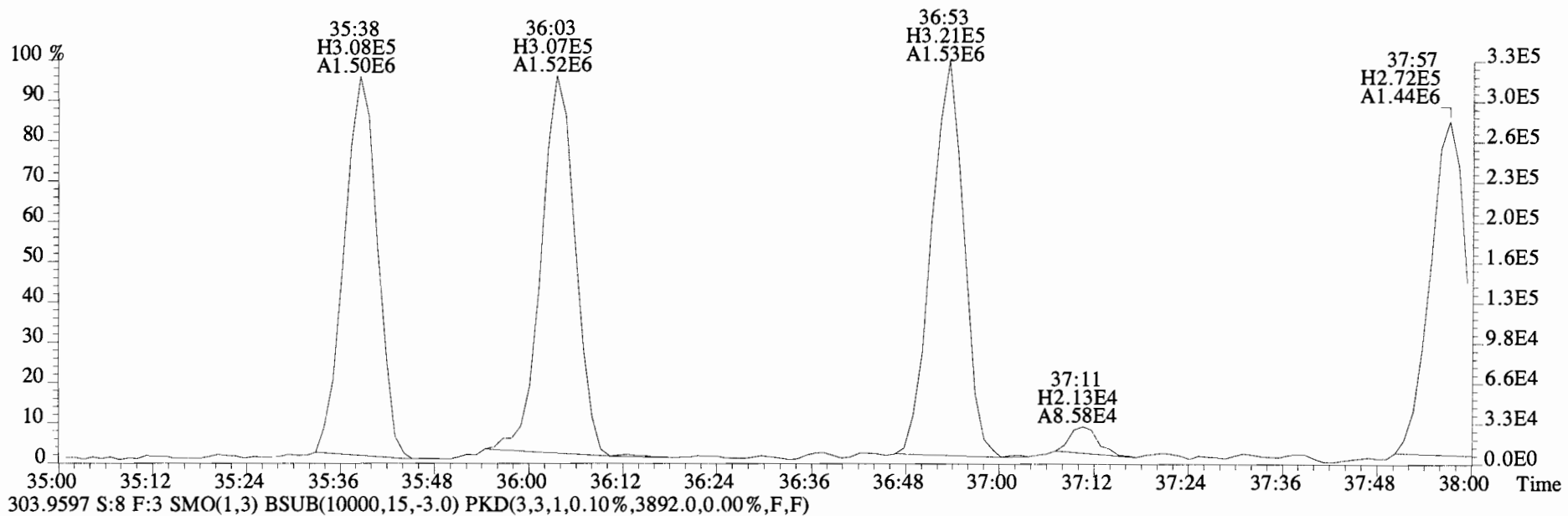
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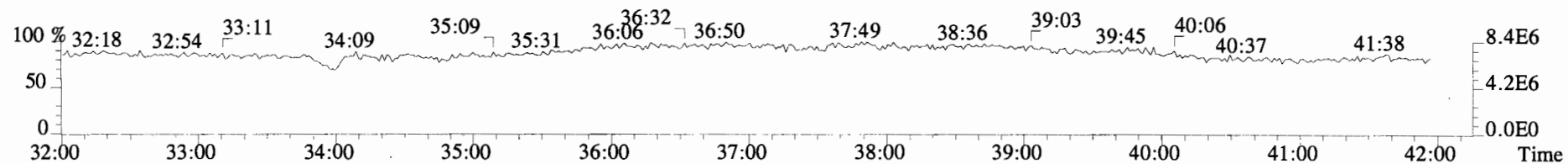
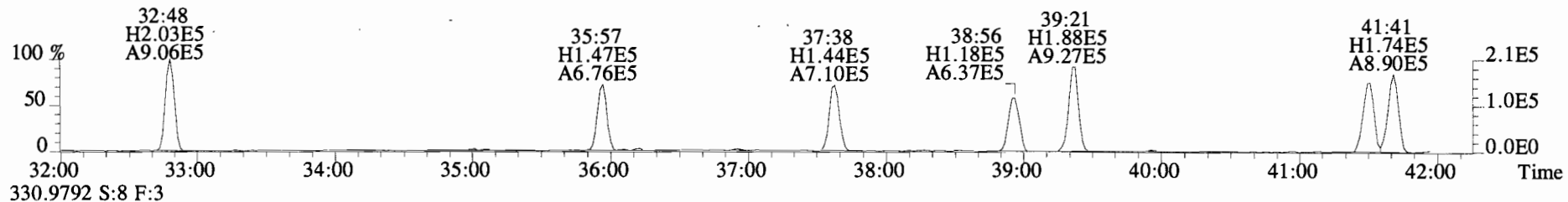
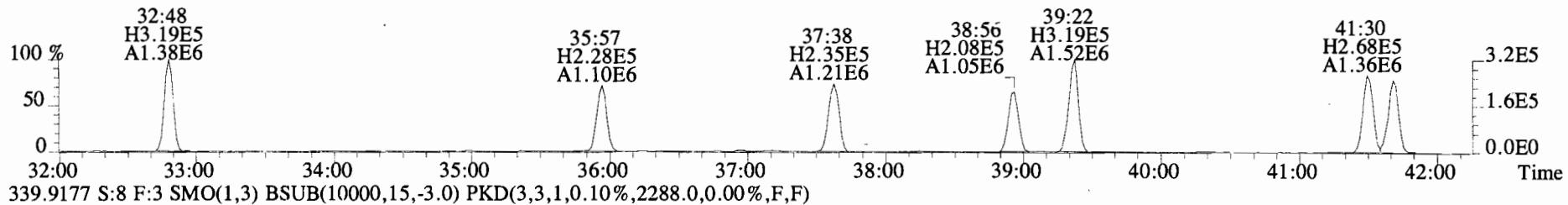
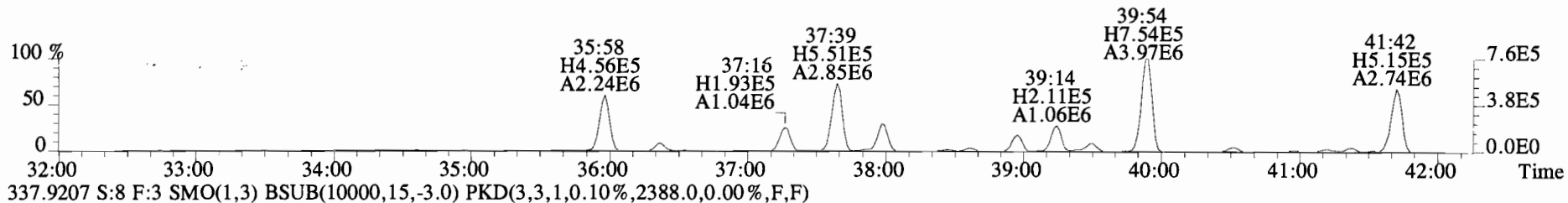
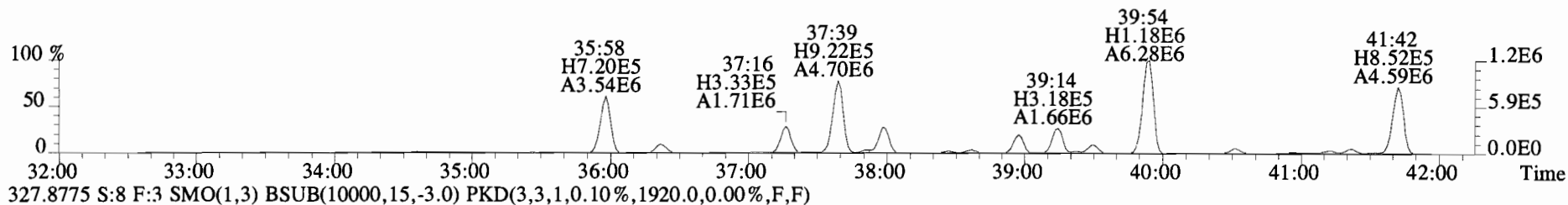
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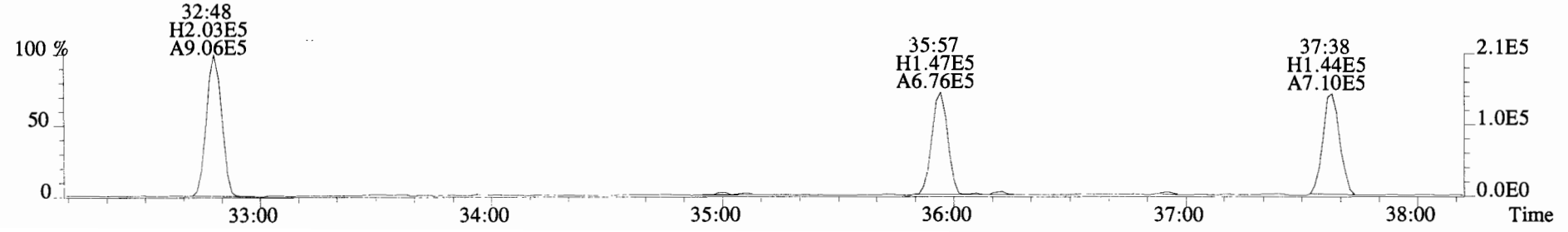
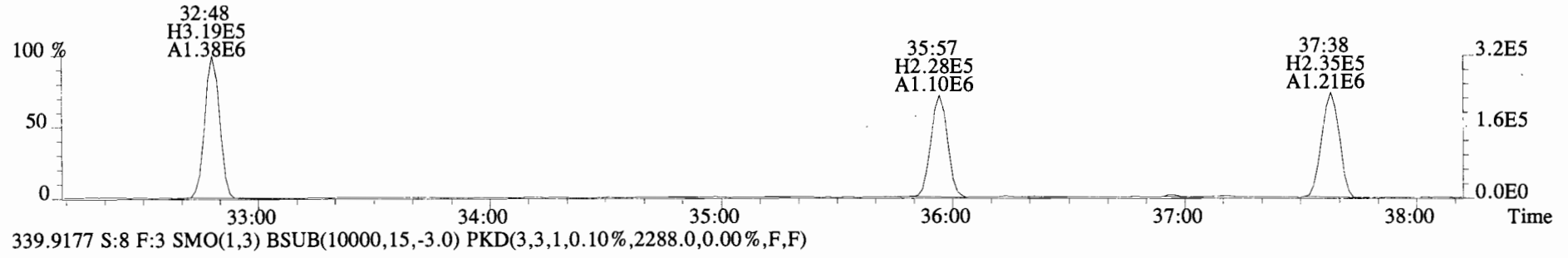
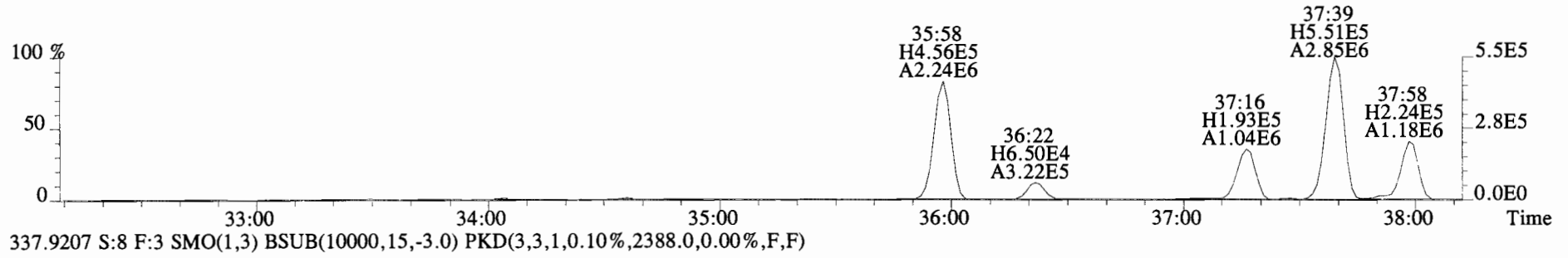
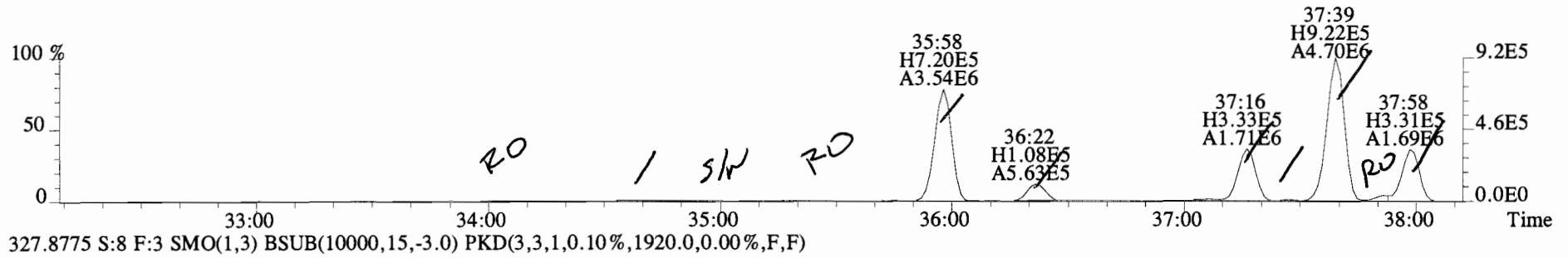
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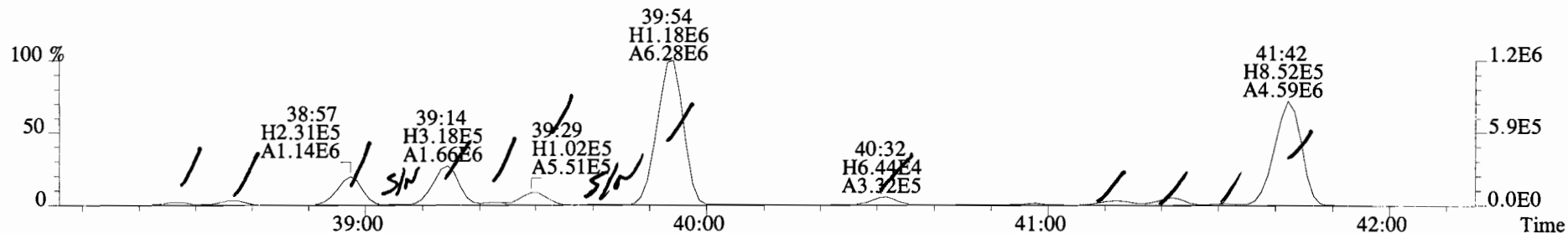
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
325.8804 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1920.0,0.00%,F,F)



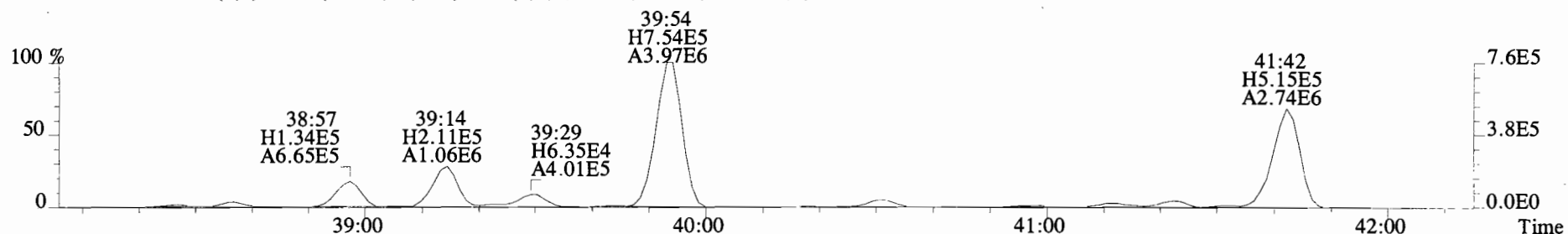
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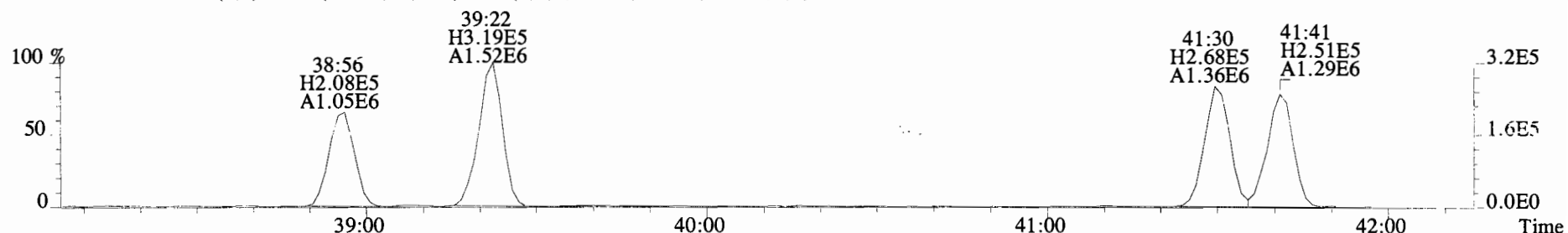
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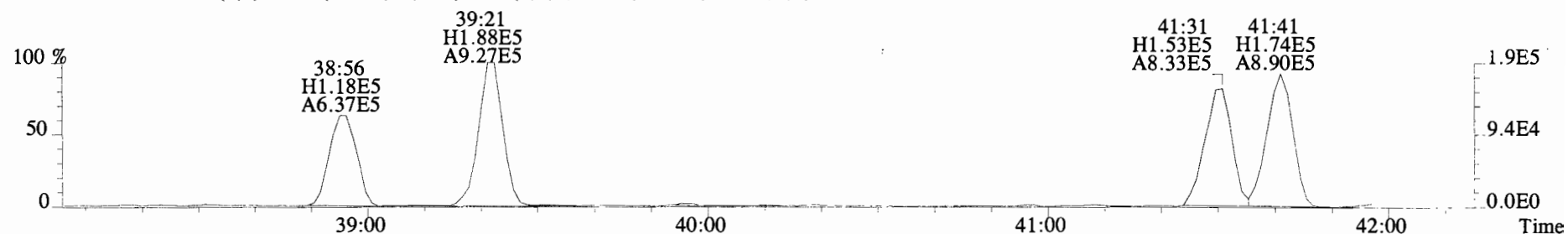
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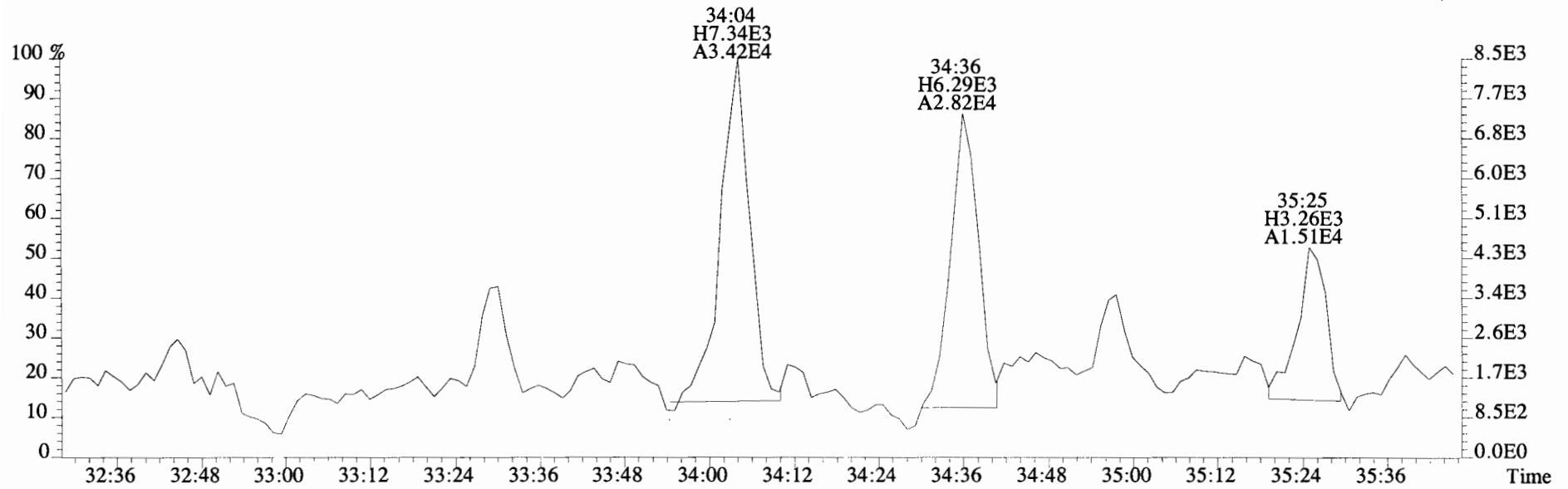
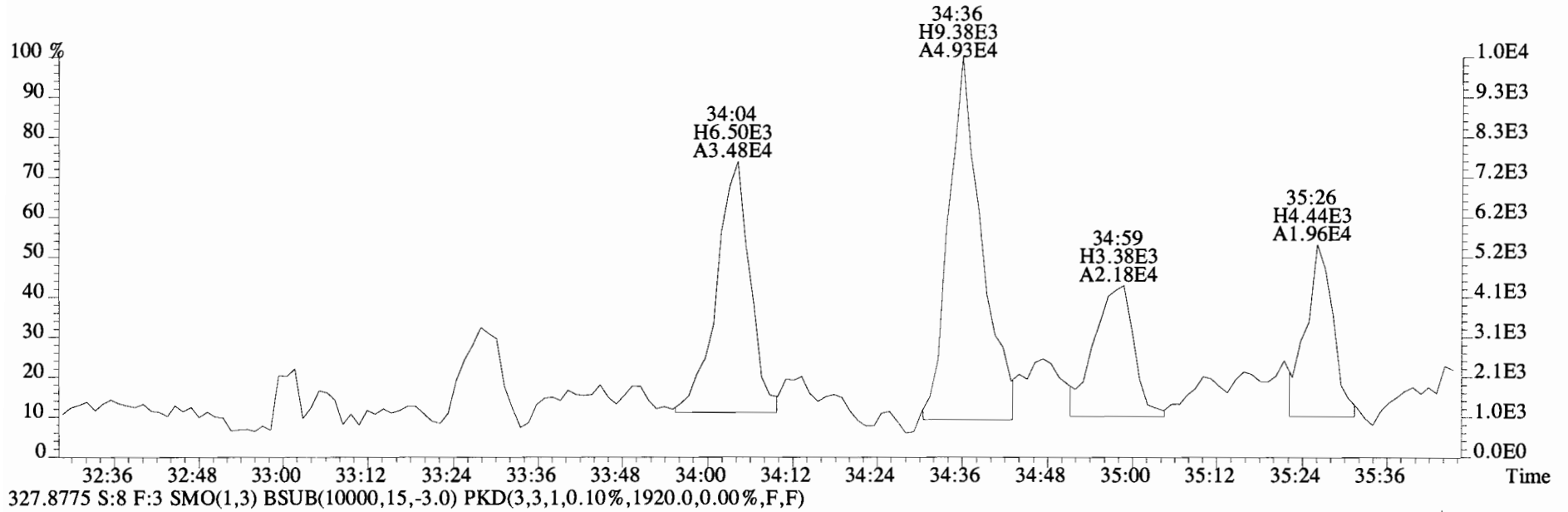
337.9207 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2388.0,0.00%,F,F)



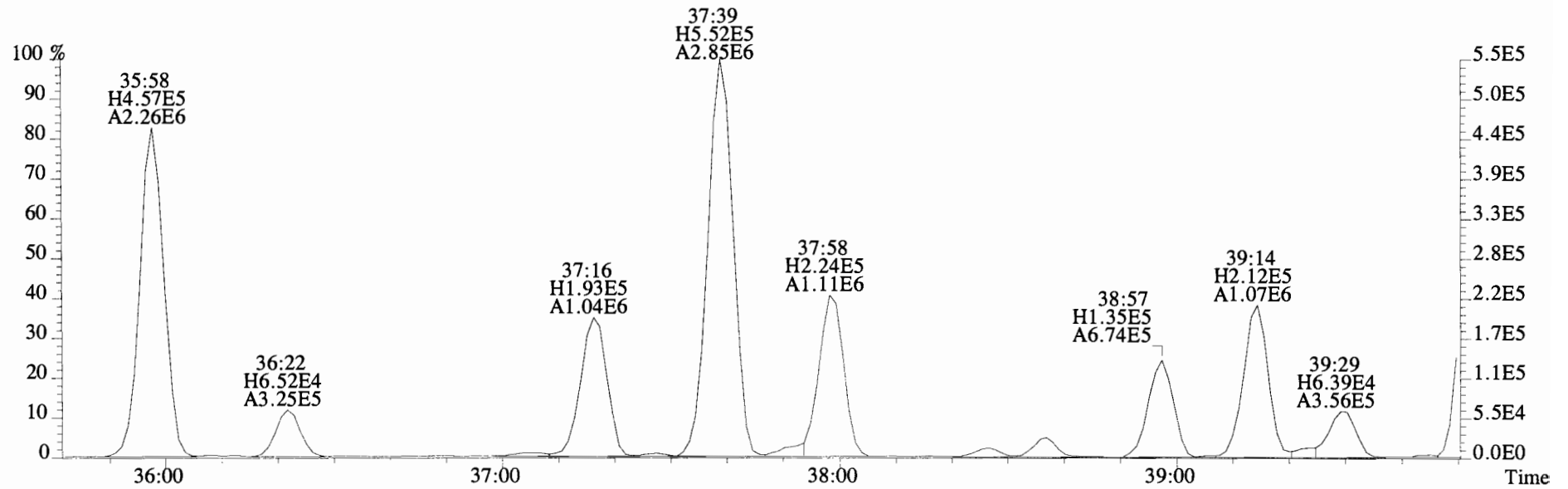
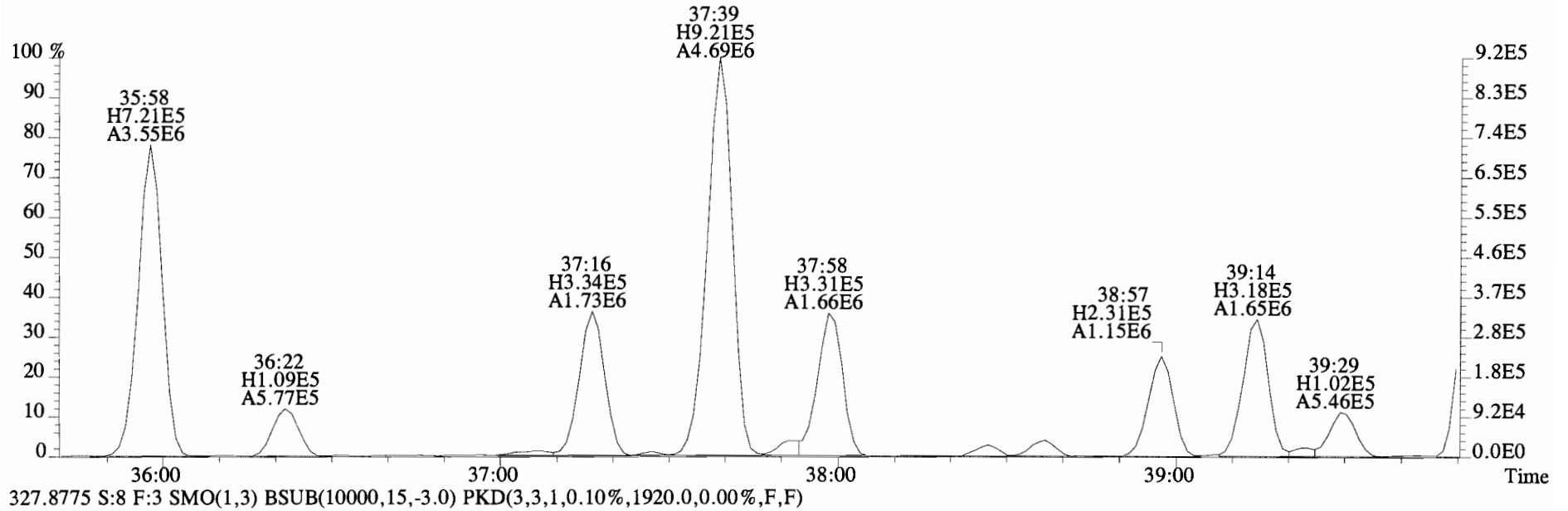
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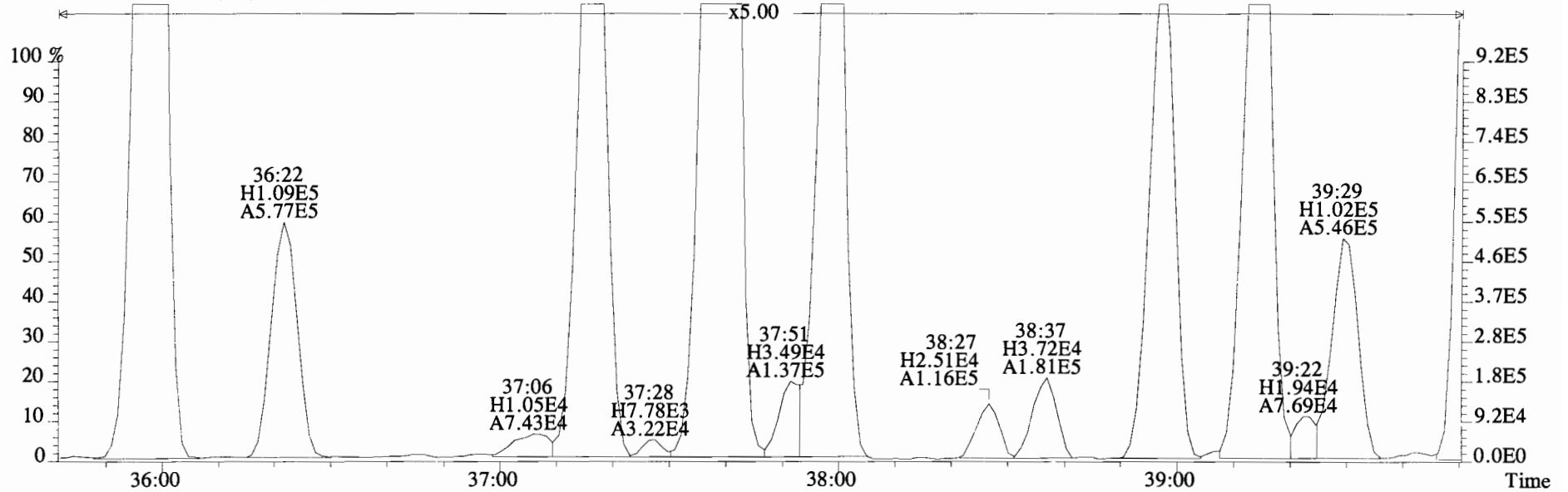
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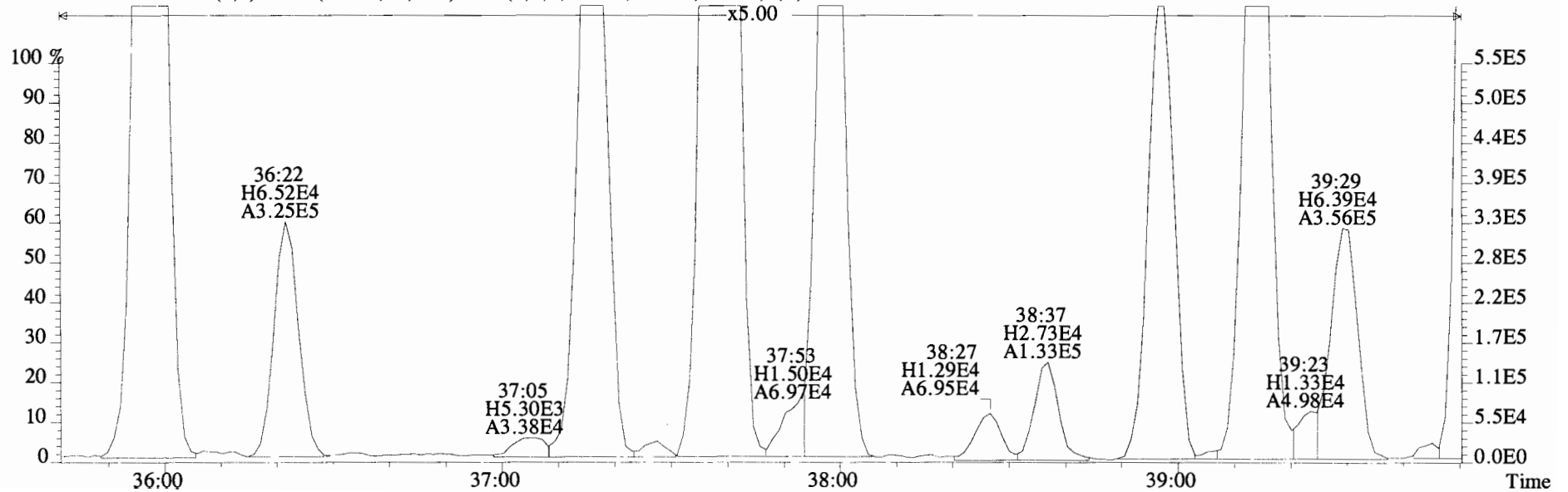
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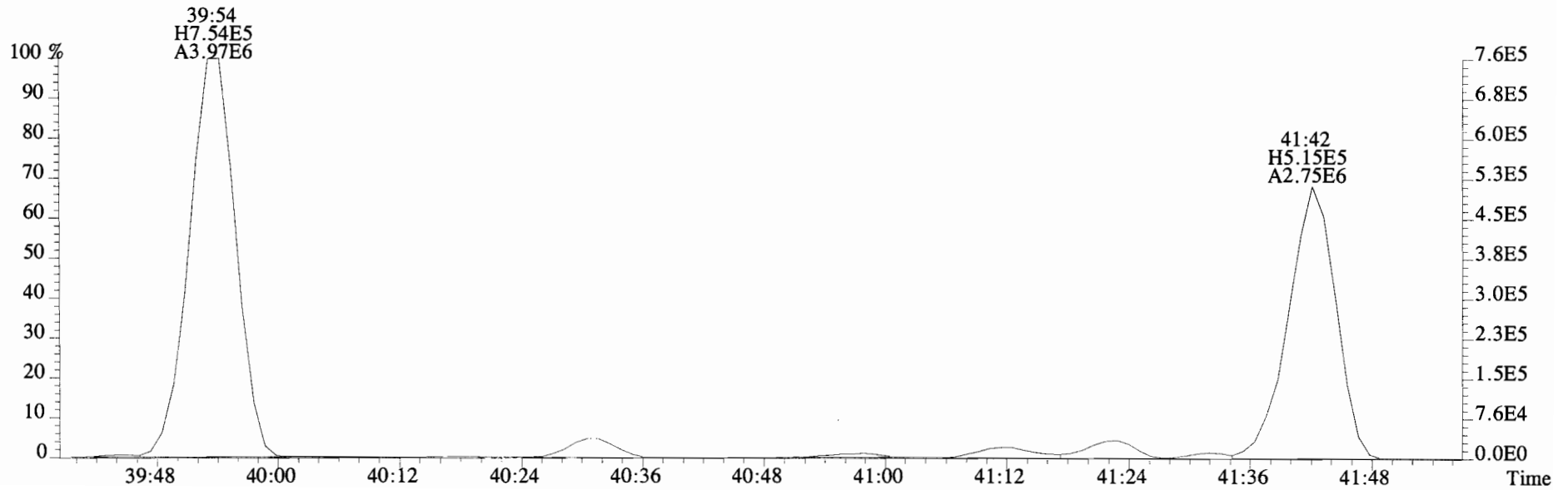
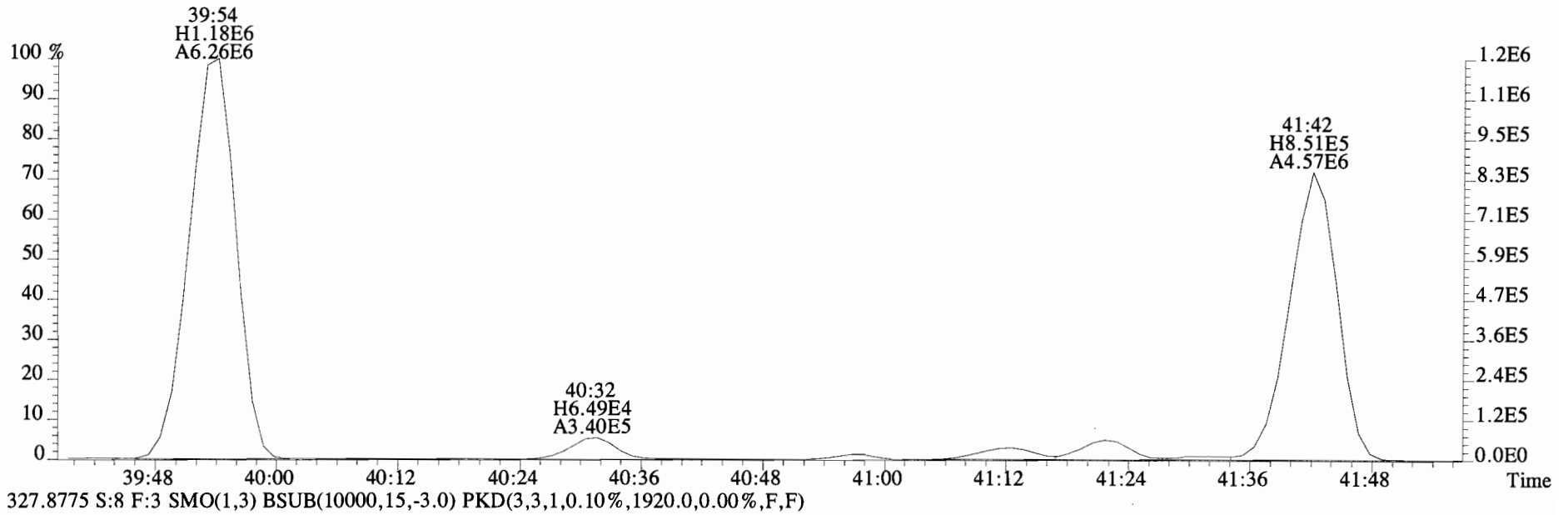
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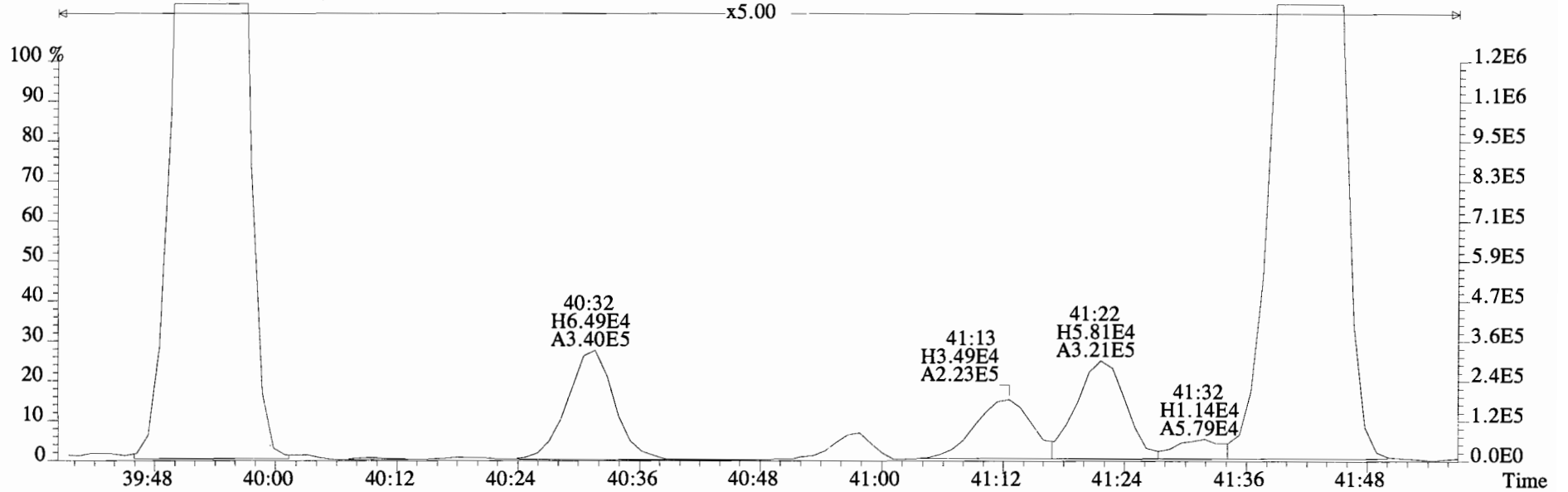
327.8775 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1920.0,0.00%,F,F)



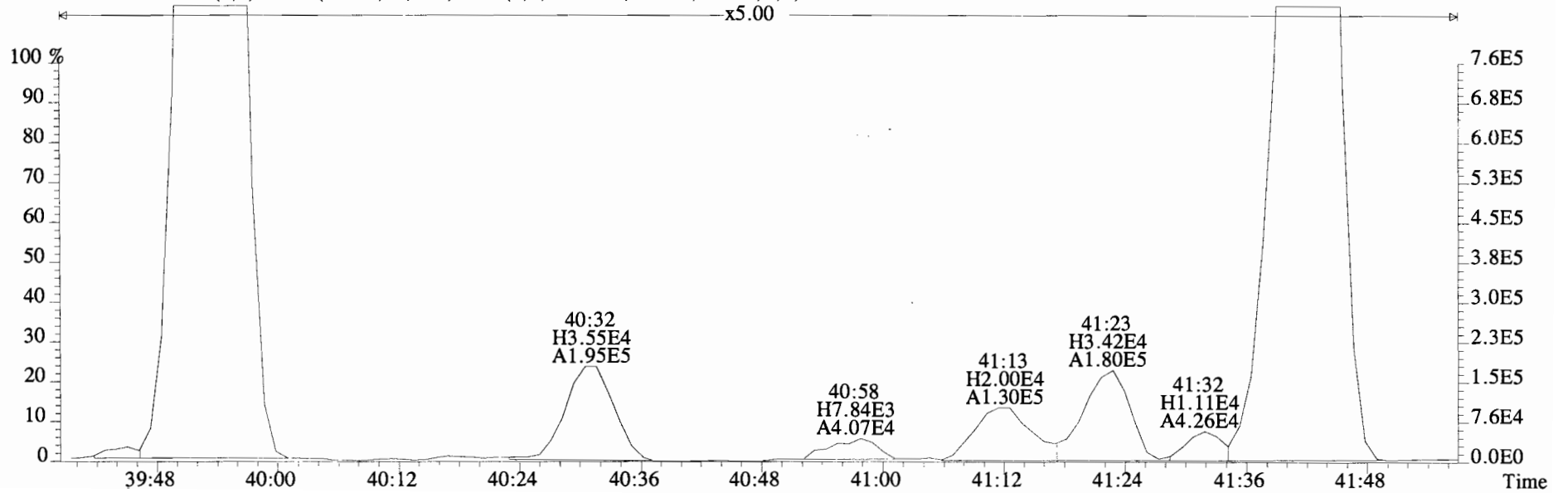
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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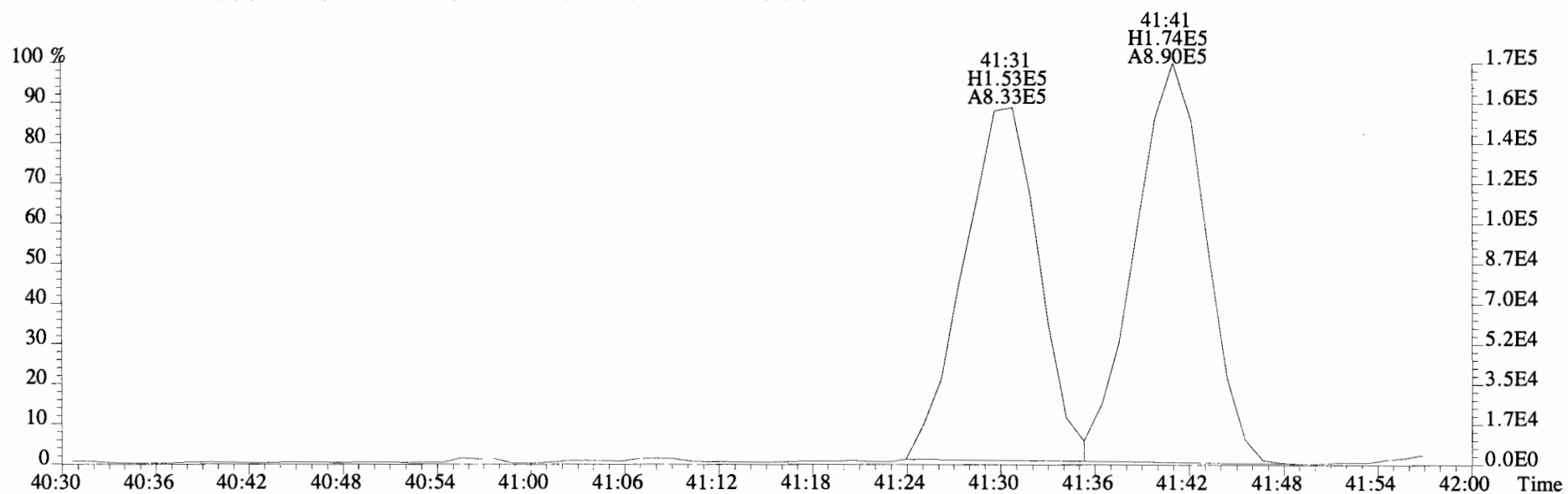
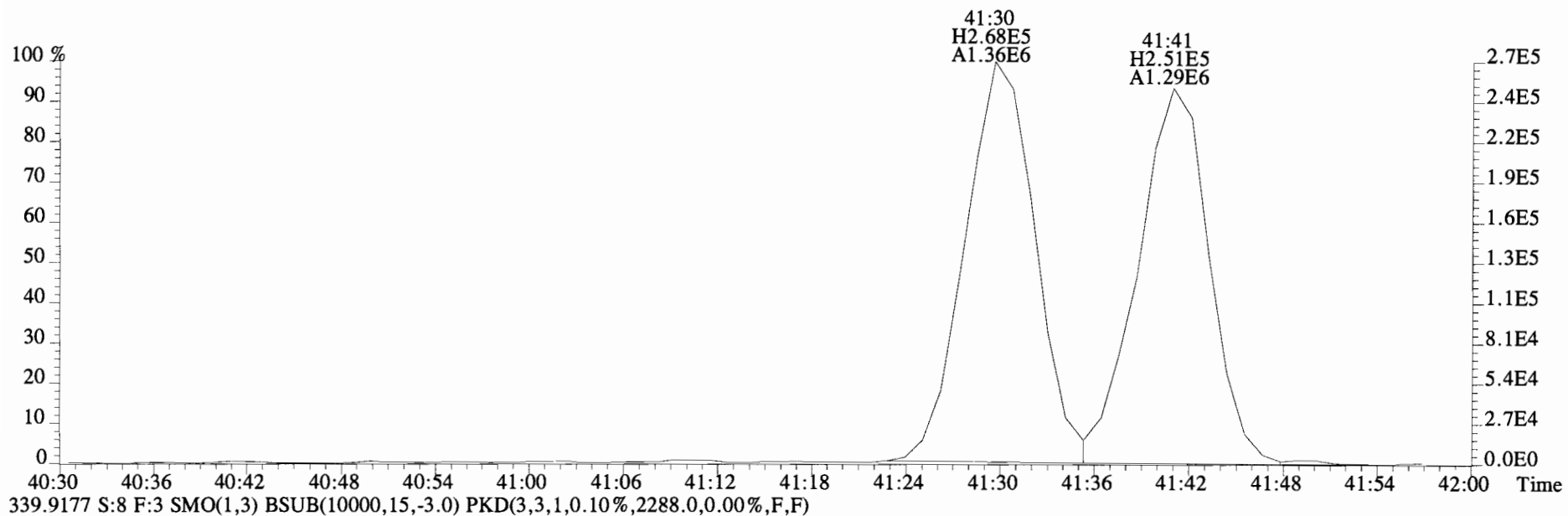
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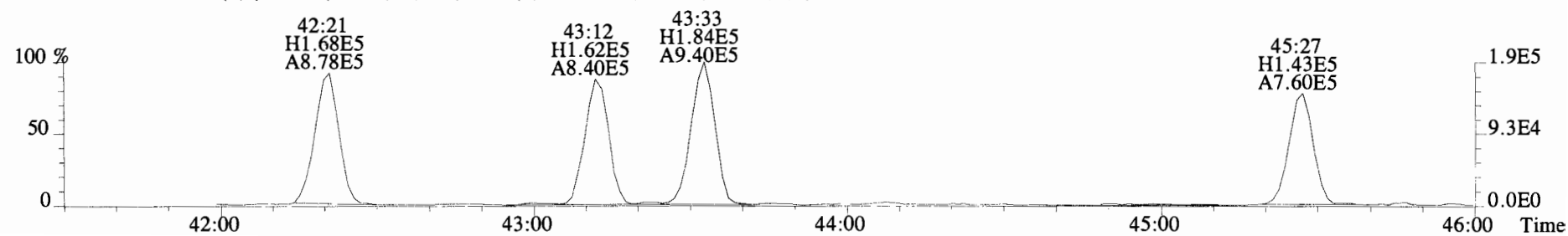
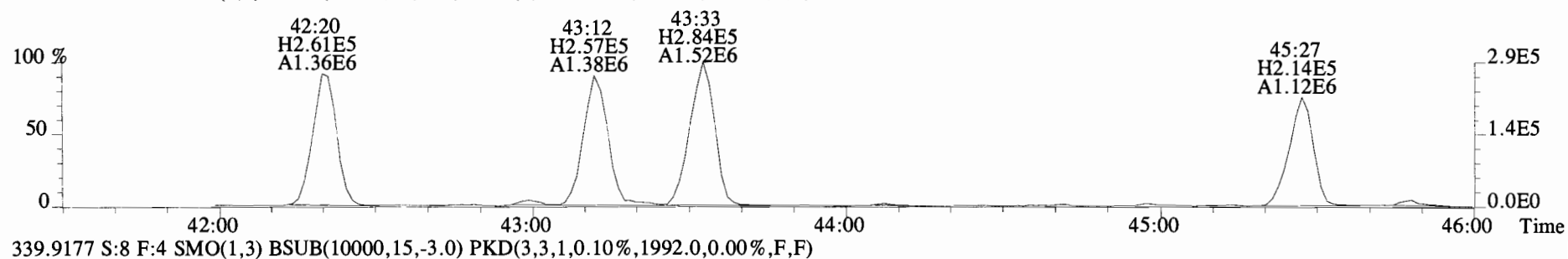
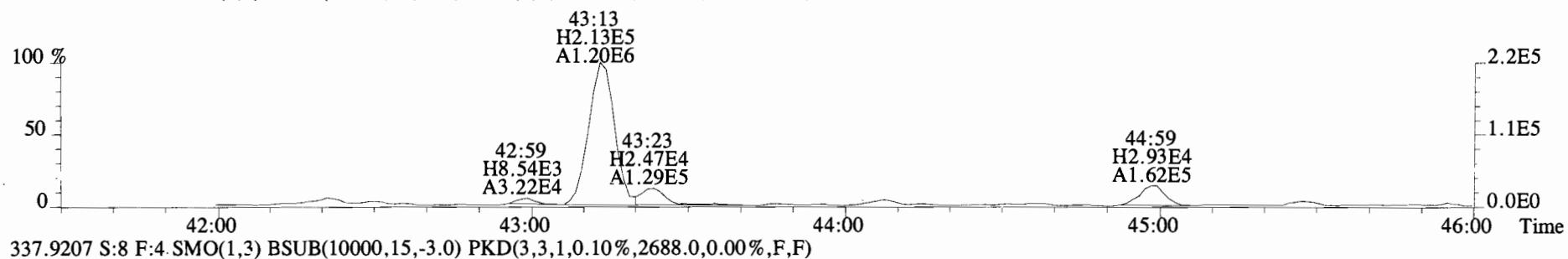
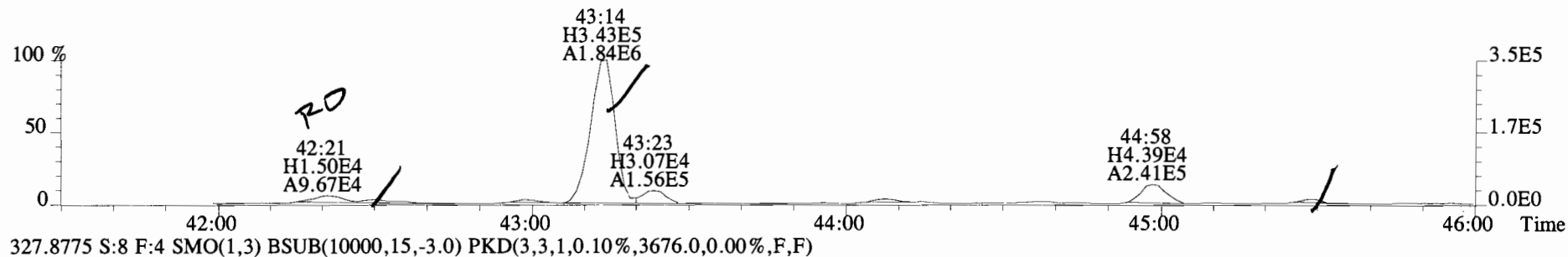
327.8775 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1920.0,0.00%,F,F)



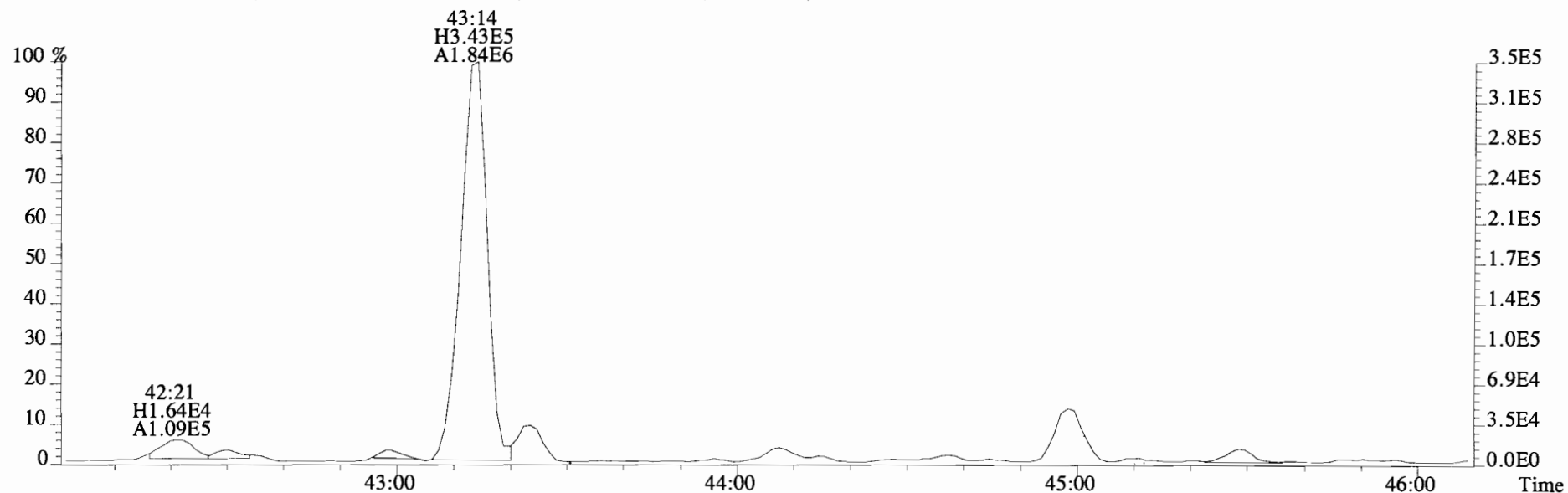
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
337.9207 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2388.0,0.00%,F,F)



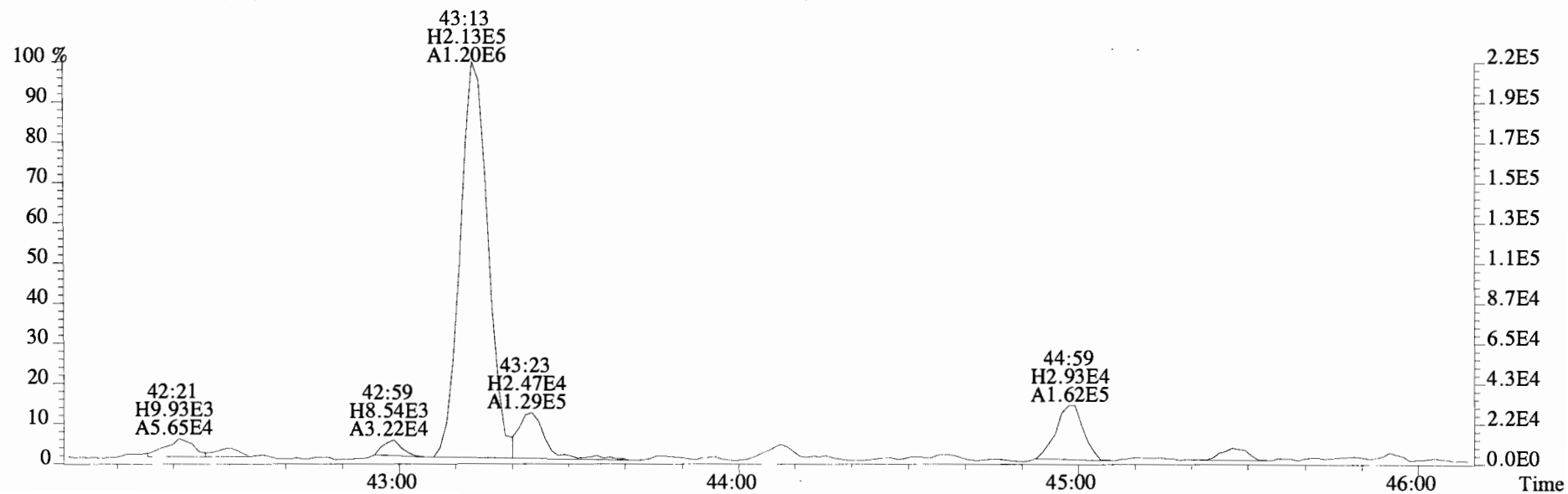
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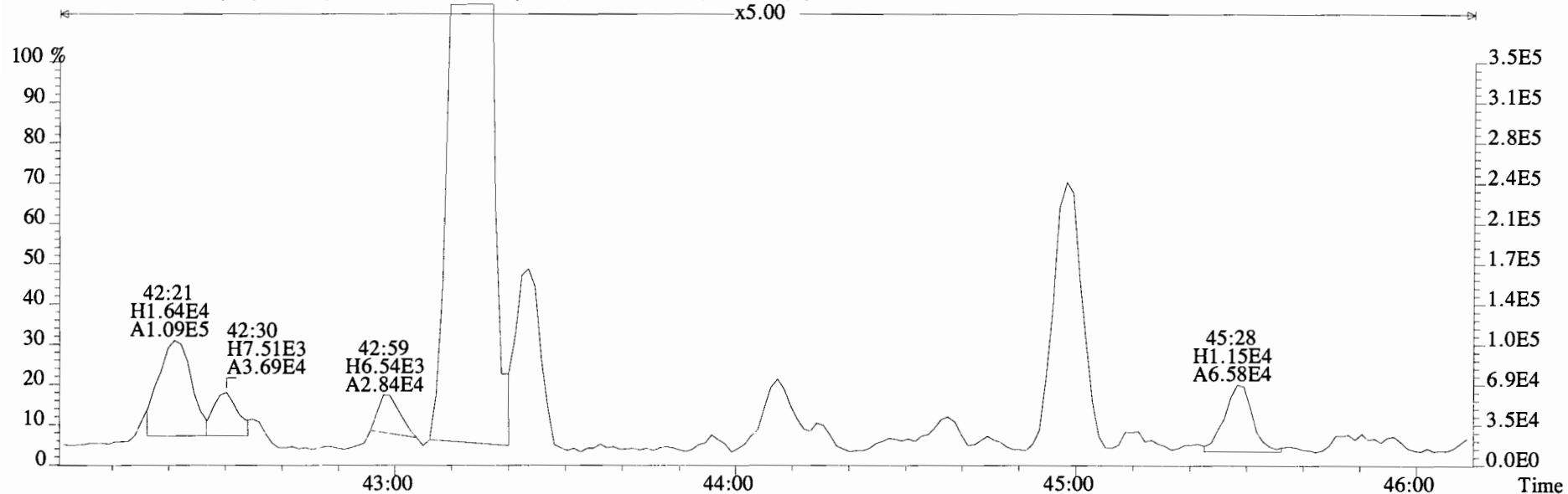
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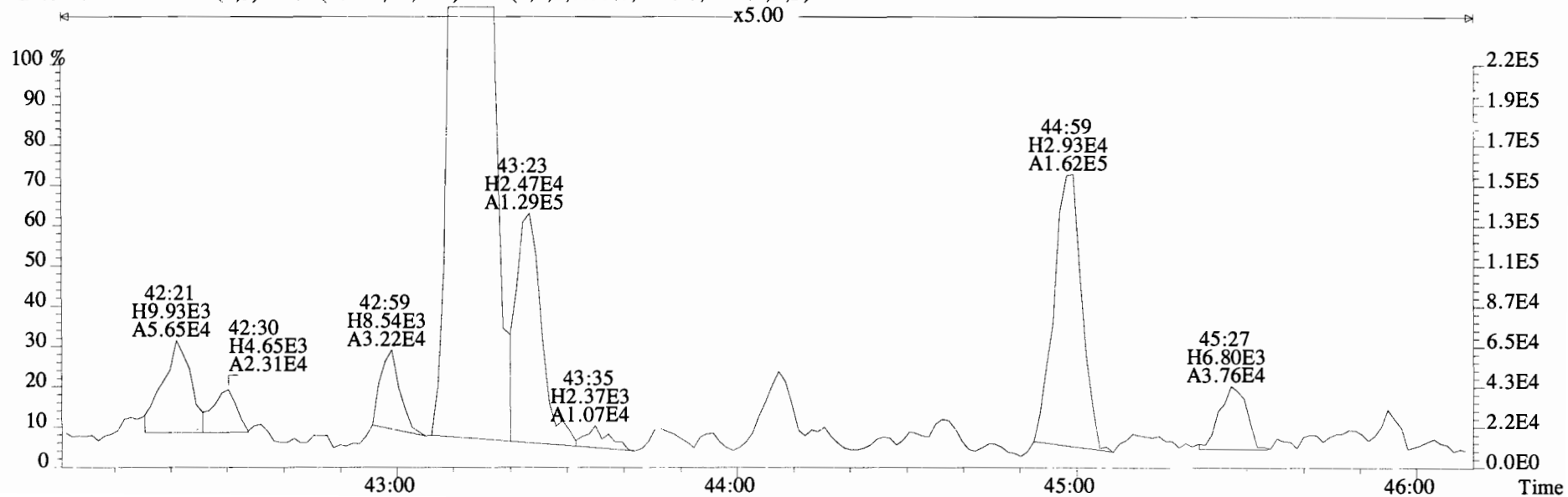
327.8775 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3676.0,0.00%,F,F)



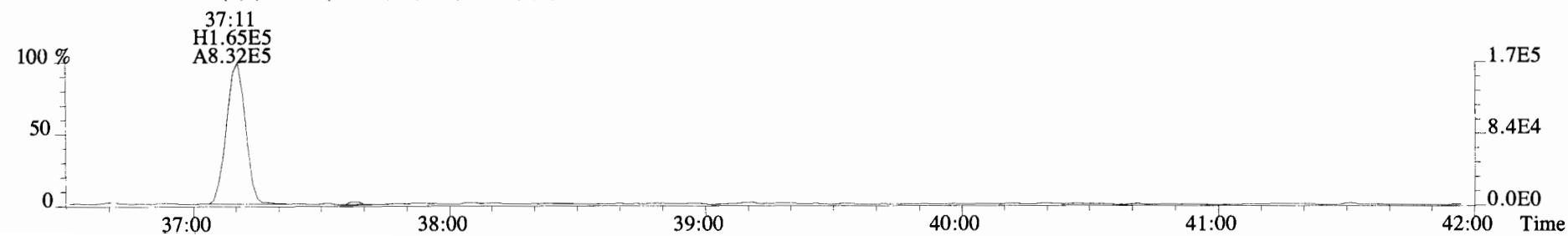
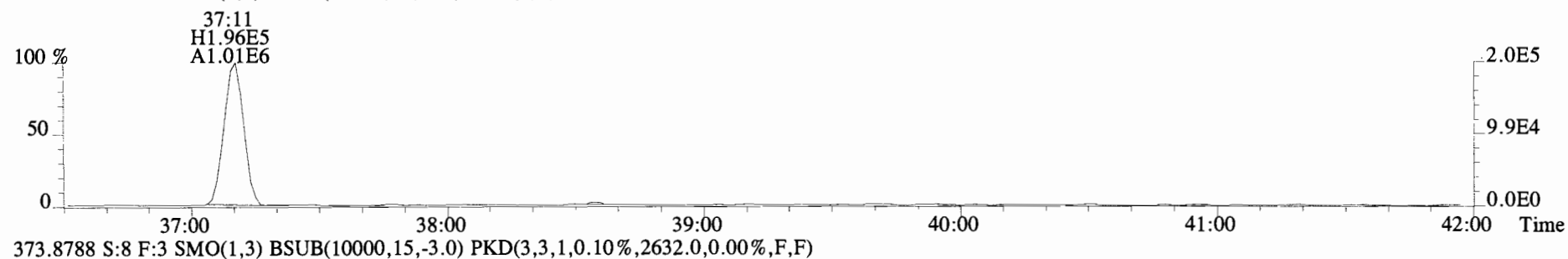
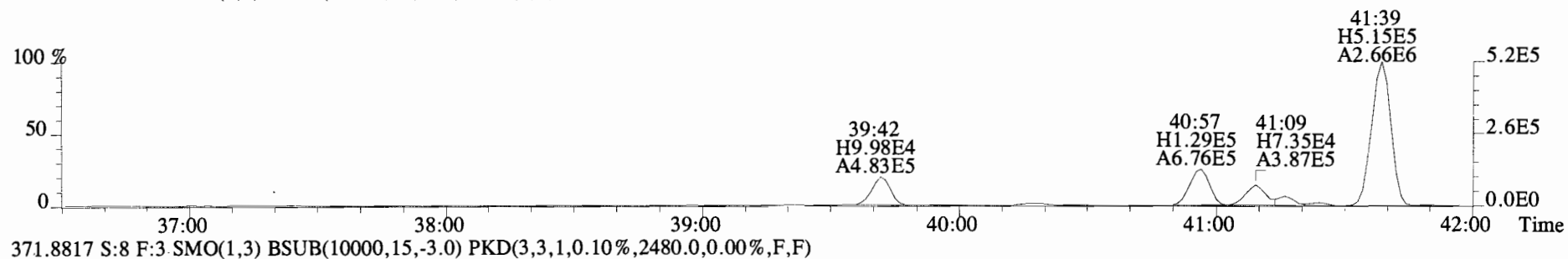
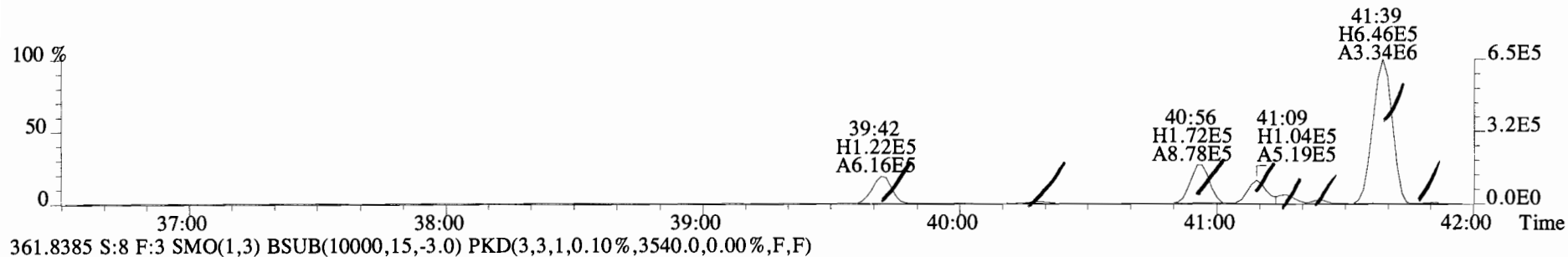
File:140924E1 #1-560 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
 325.8804 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4268.0,0.00%,F,F)



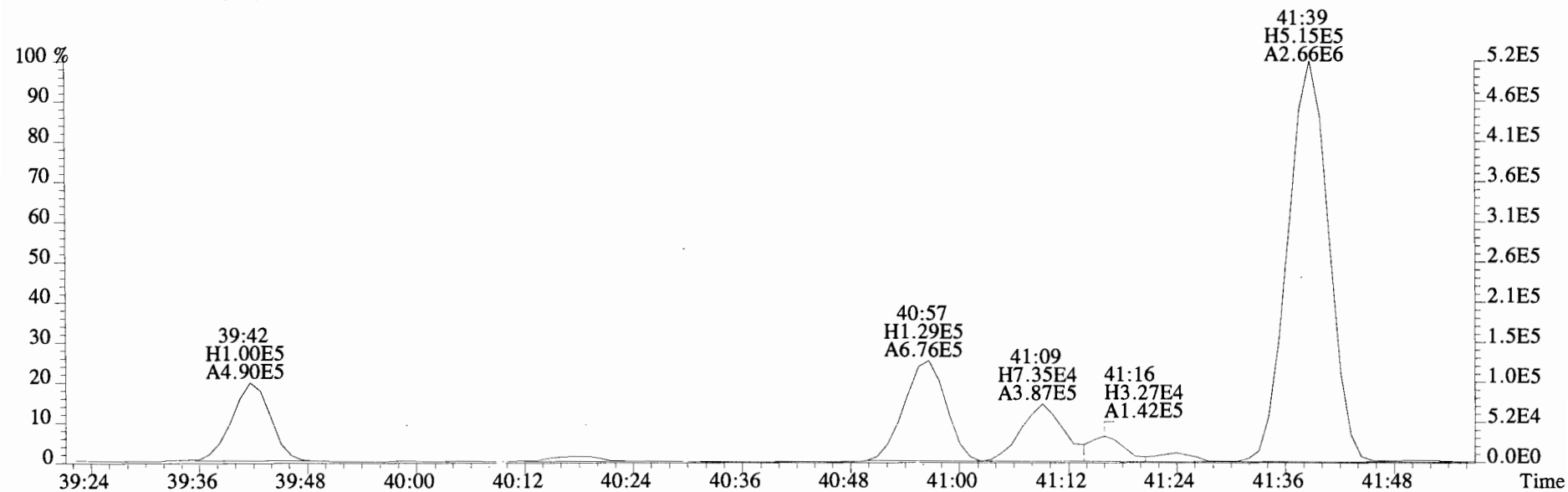
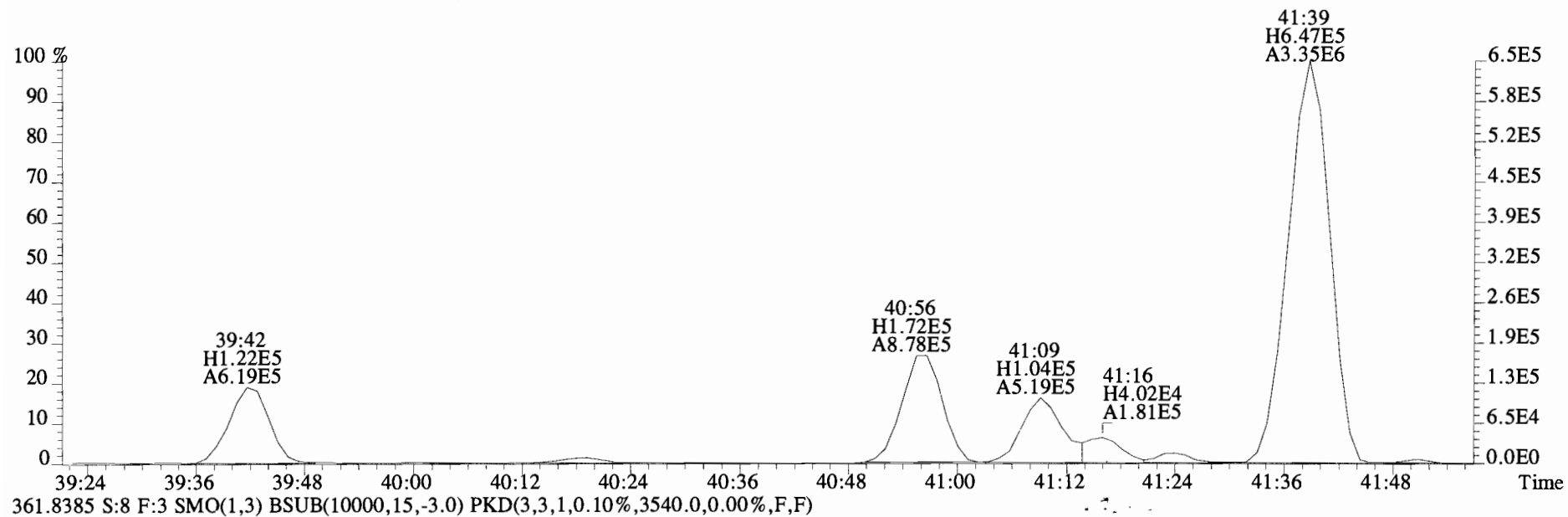
327.8775 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3676.0,0.00%,F,F)



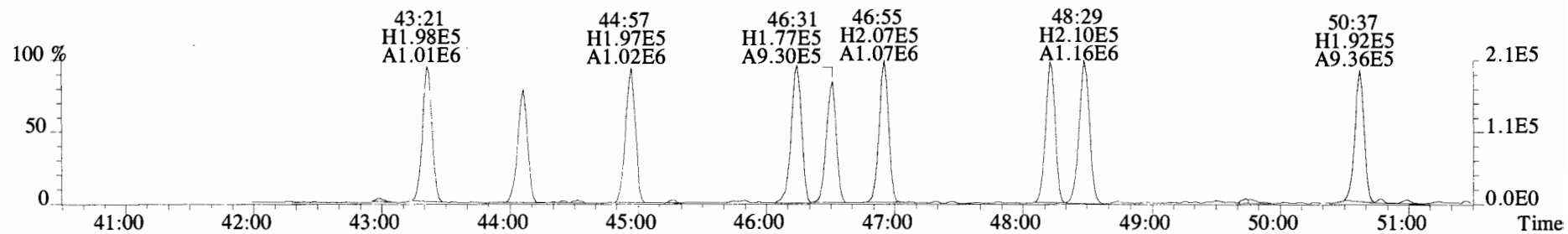
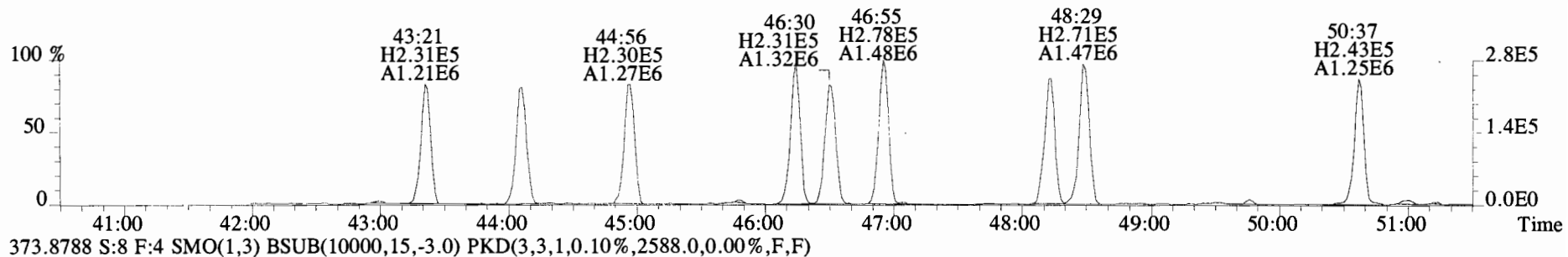
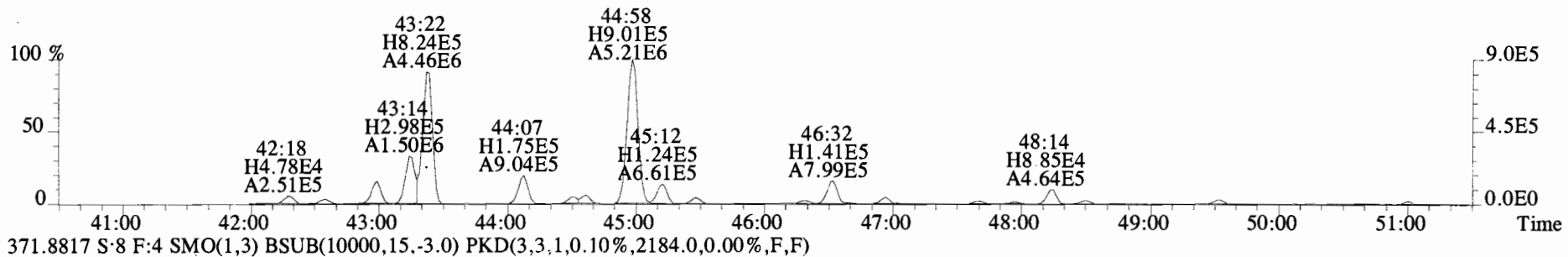
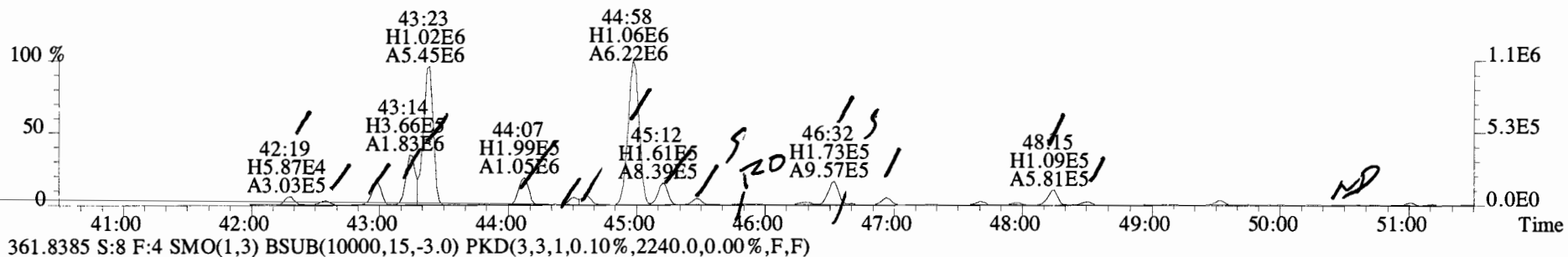
File:140924E1 #1-762 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
359.8415 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2308.0,0.00%,F,F)



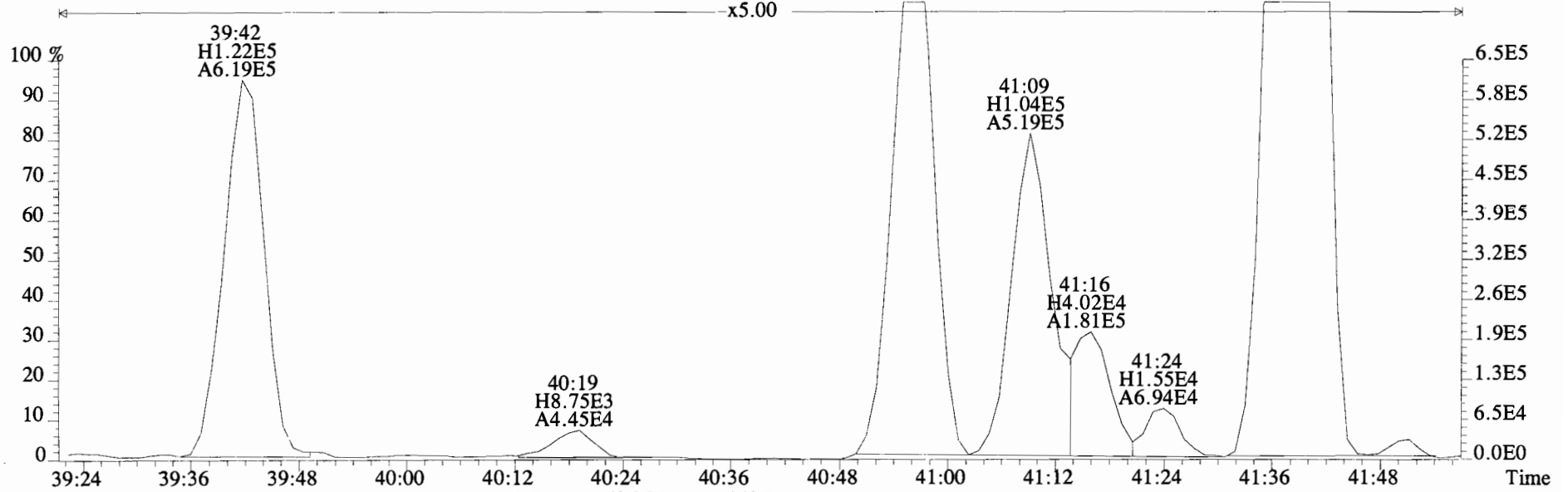
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Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
359.8415 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2308.0,0.00%,F,F)



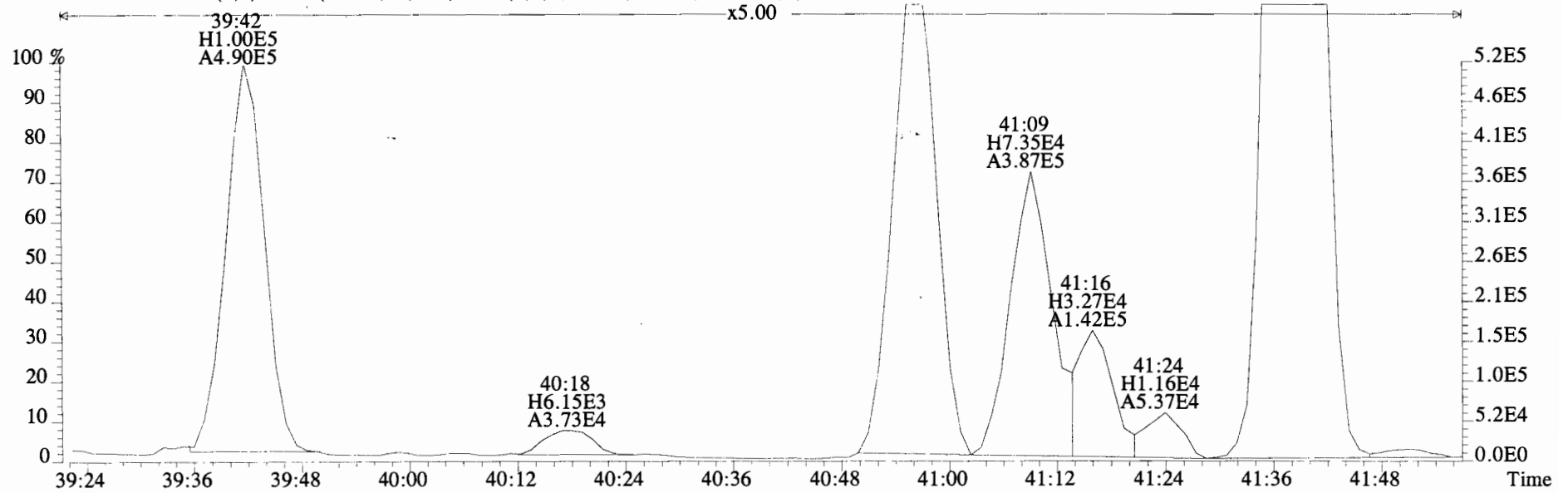
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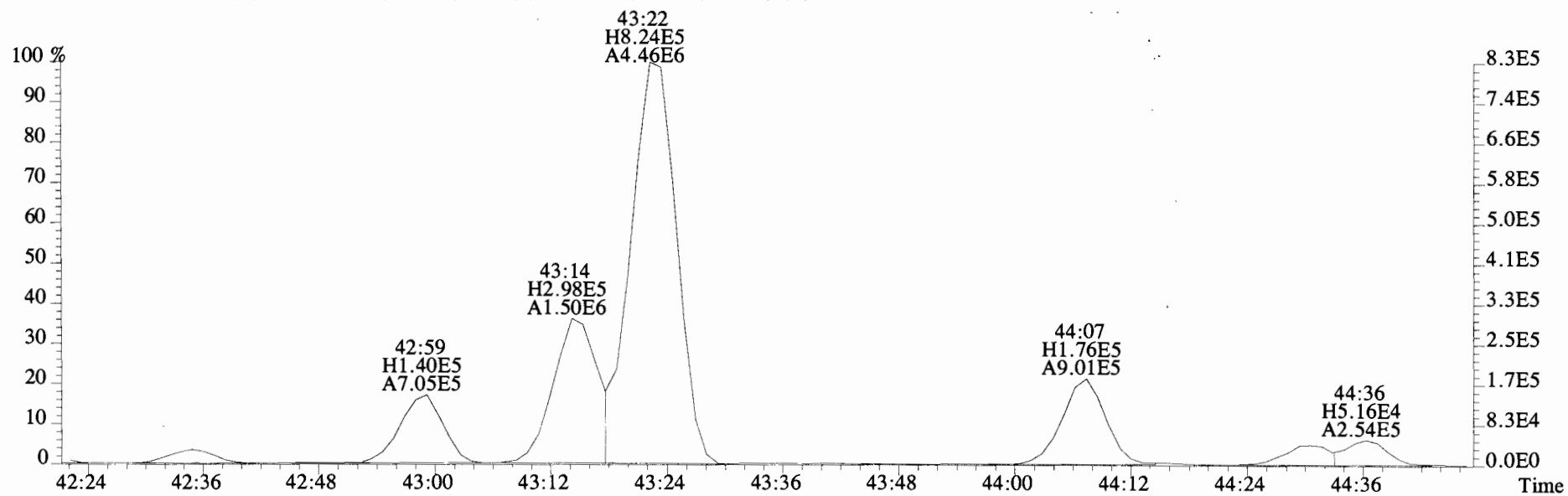
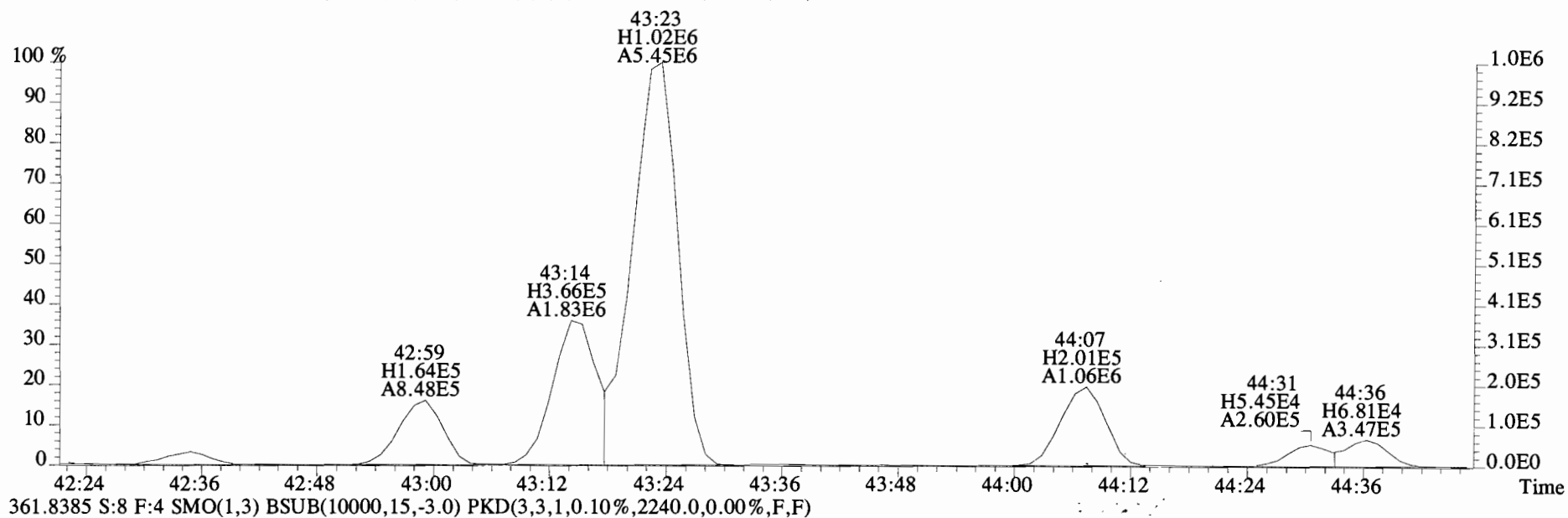
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 Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
 359.8415 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2308.0,0.00%,F,F)



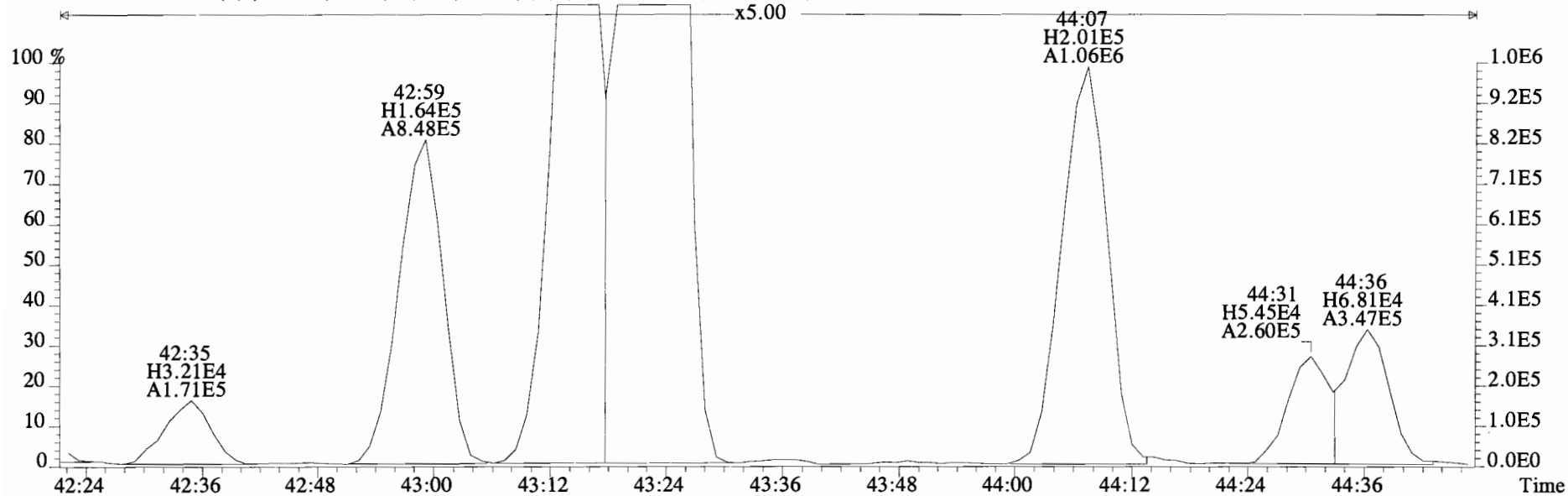
361.8385 S:8 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3540.0,0.00%,F,F)



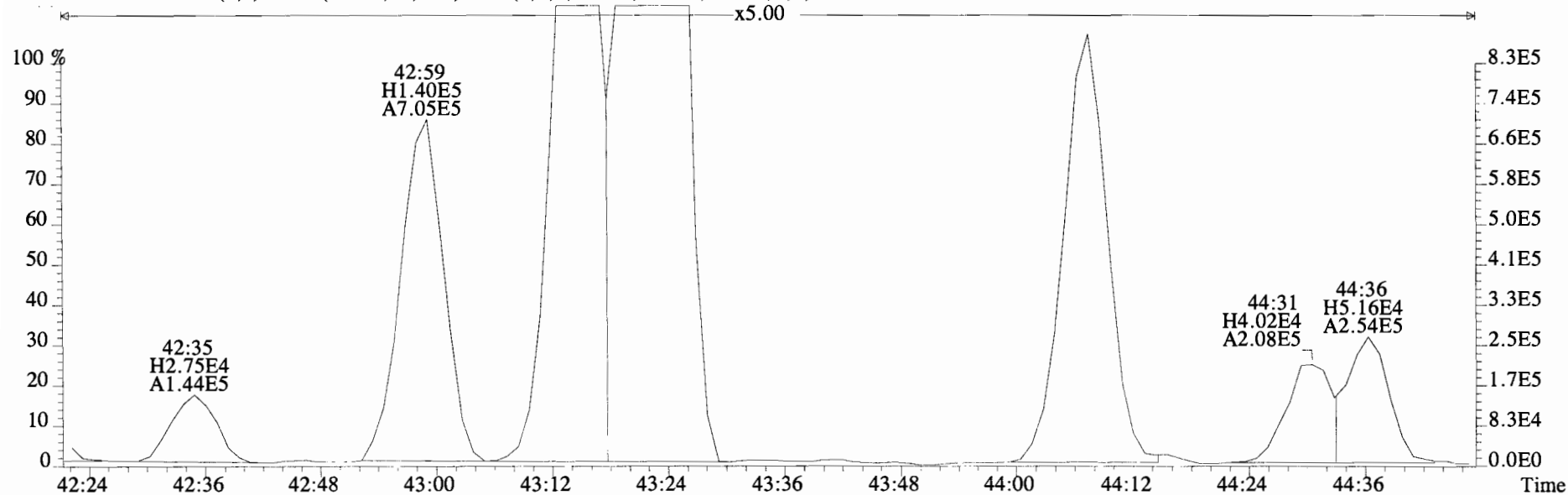
File:140924E1 #1-560 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
 359.8415 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2432.0,0.00%,F,F)



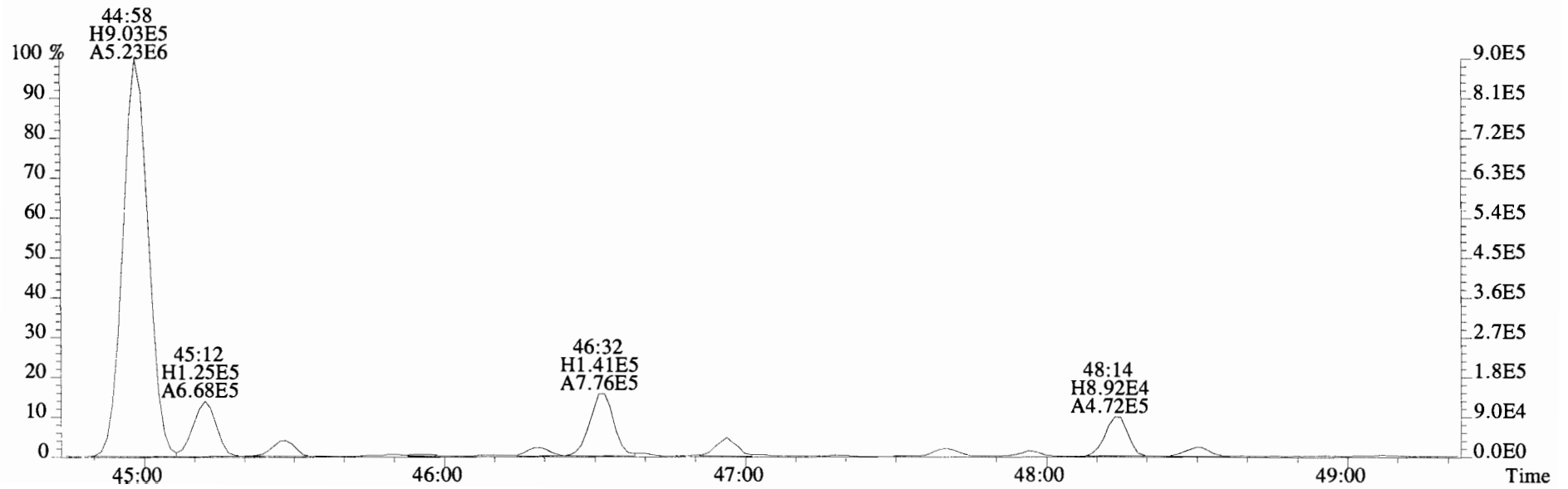
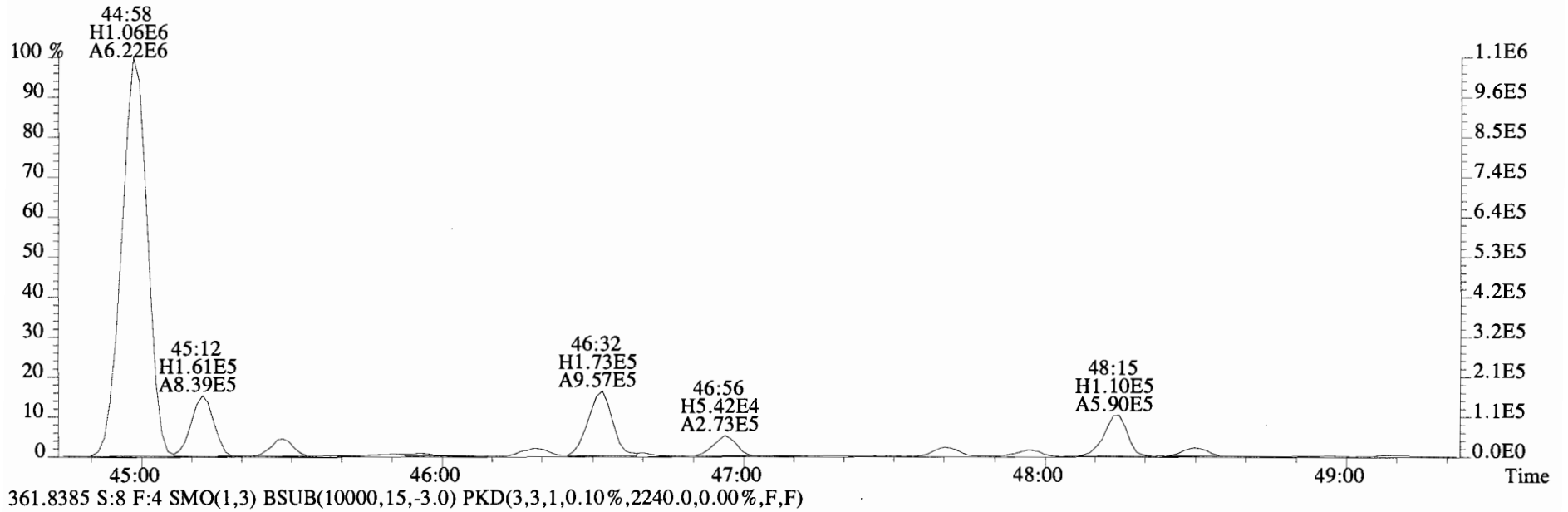
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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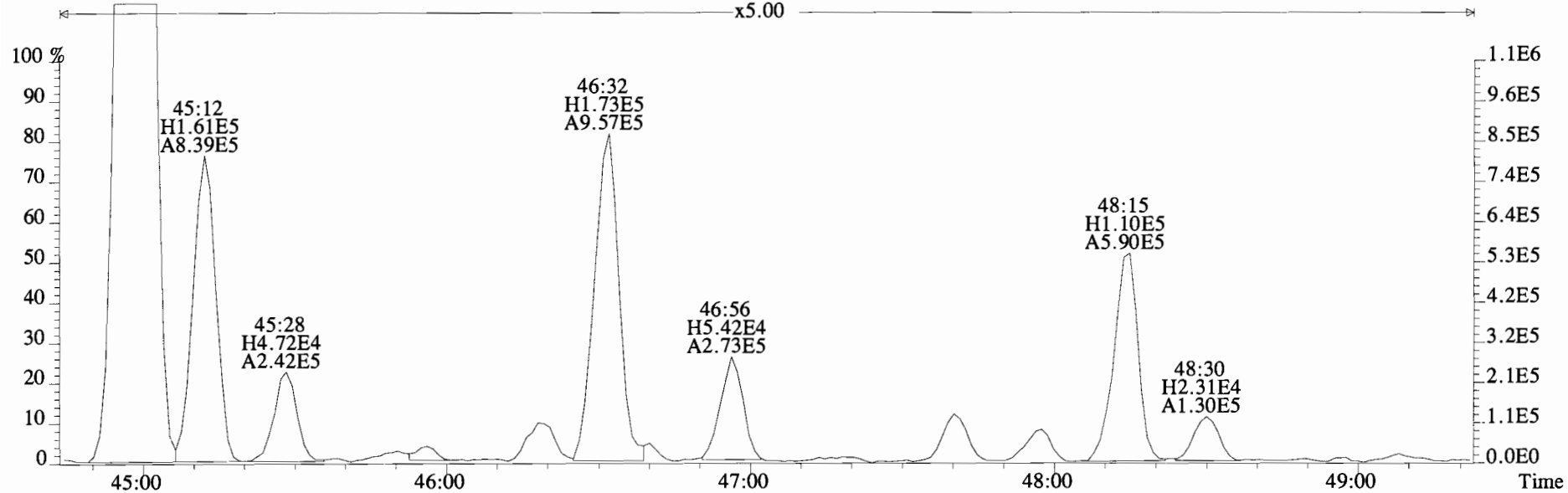
361.8385 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2240.0,0.00%,F,F)



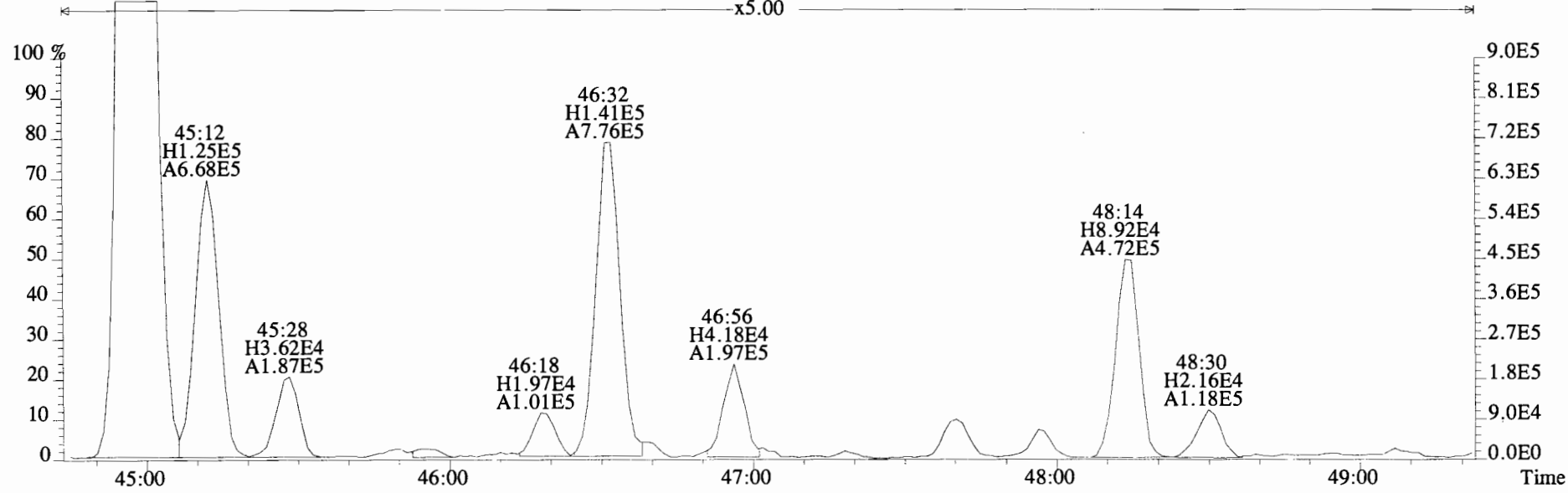
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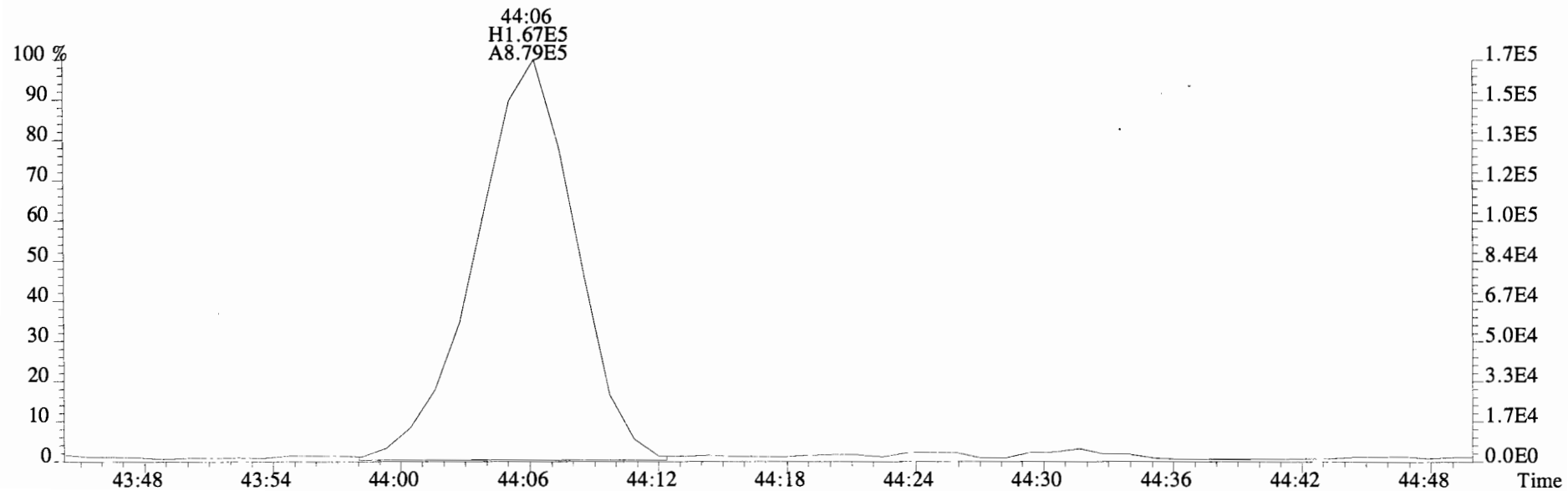
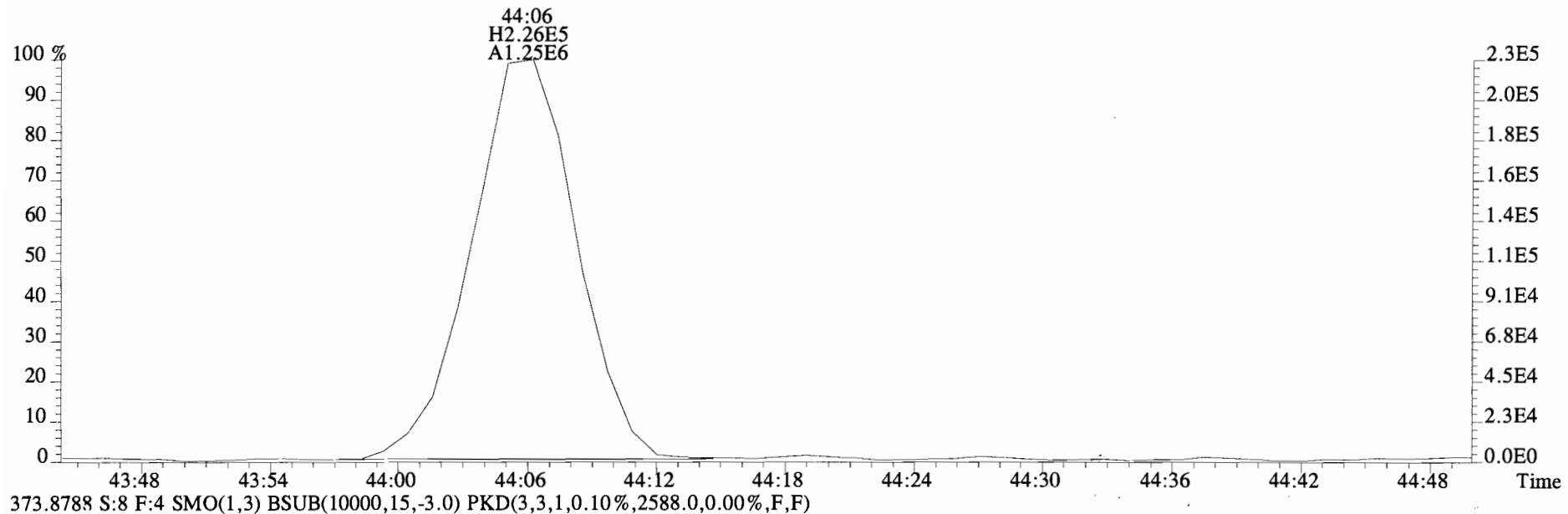
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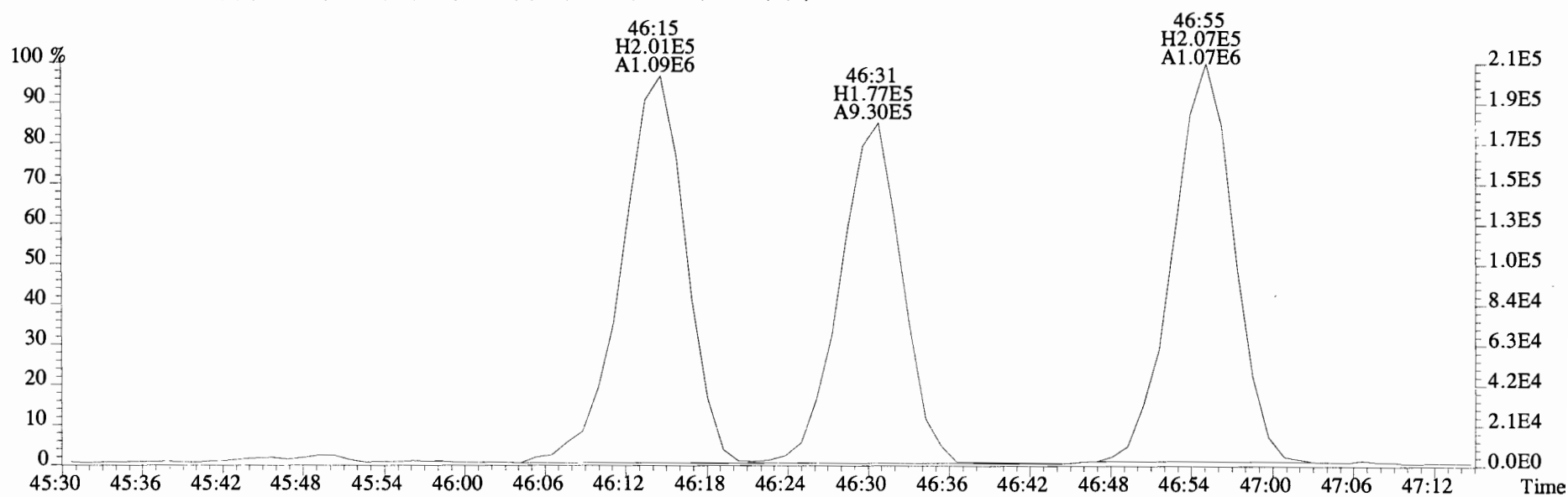
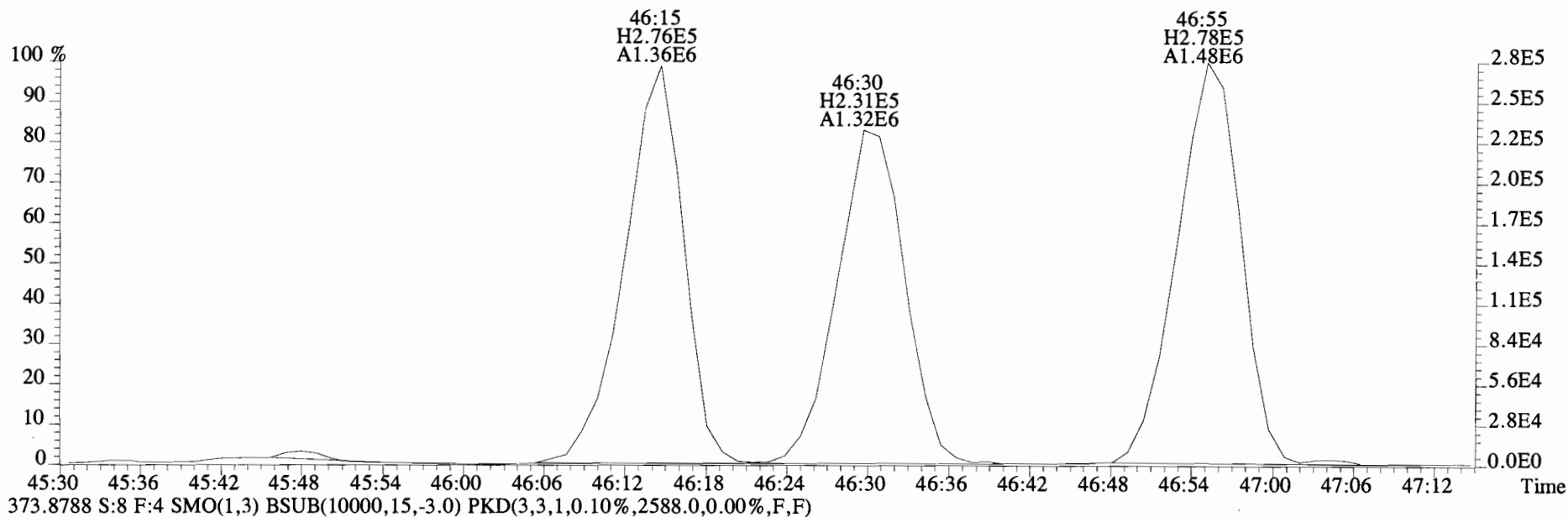
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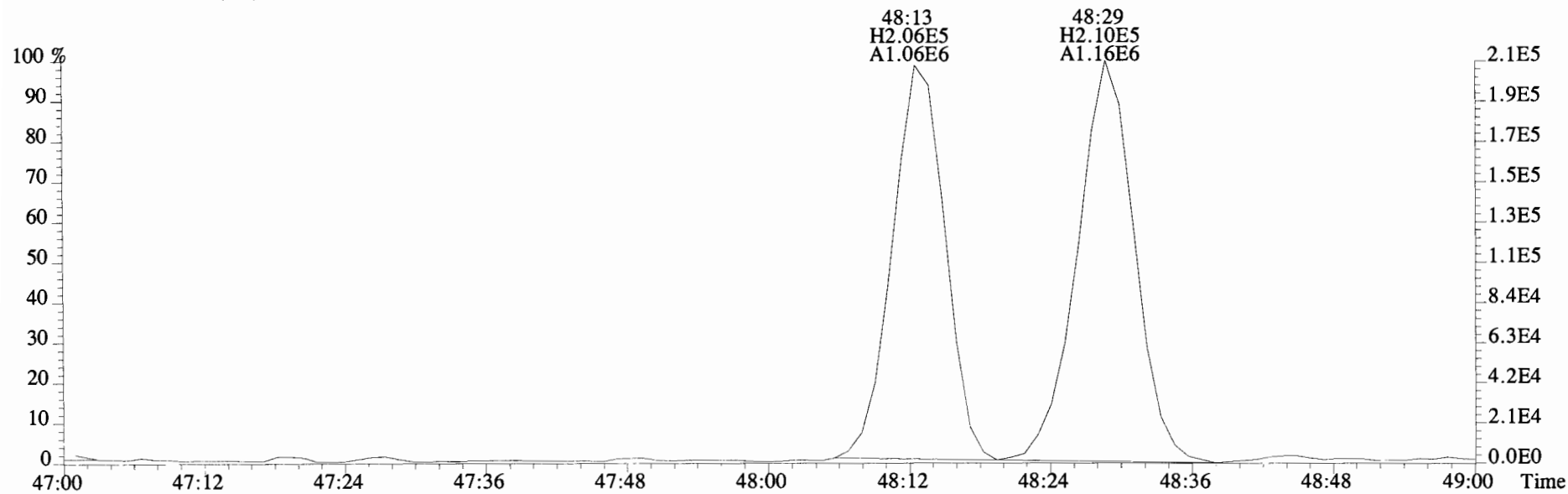
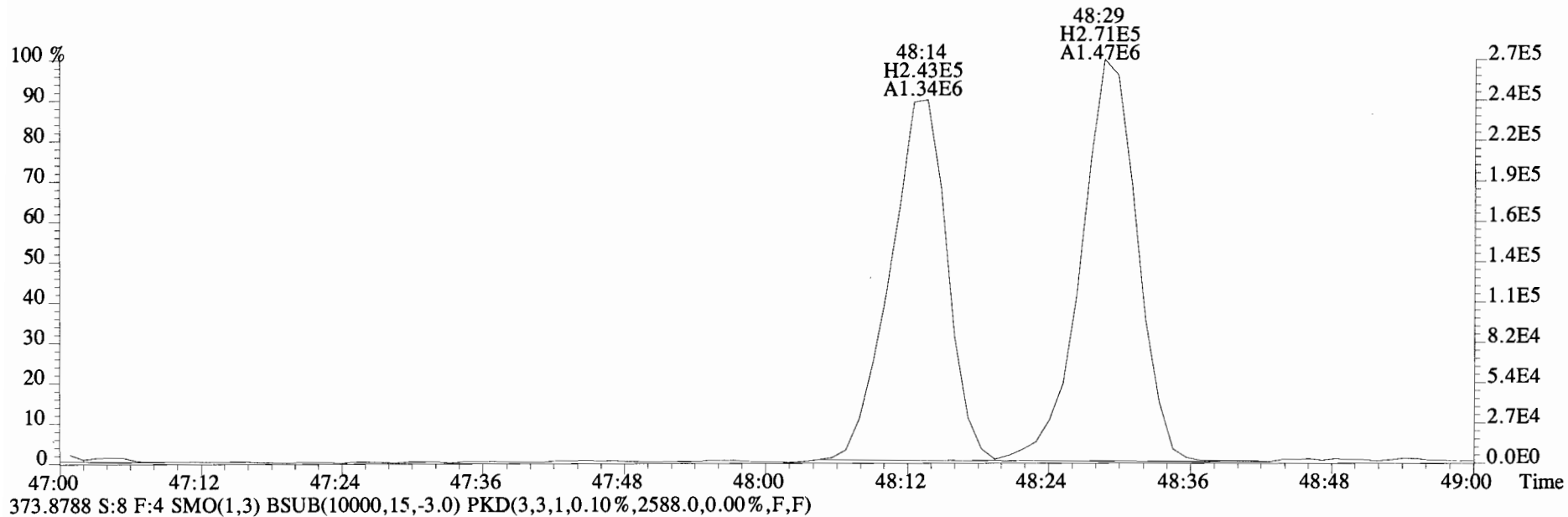
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
371.8817 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2184.0,0.00%,F,F)



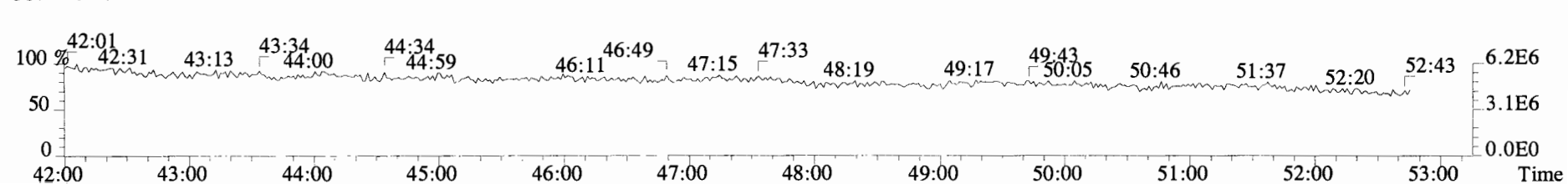
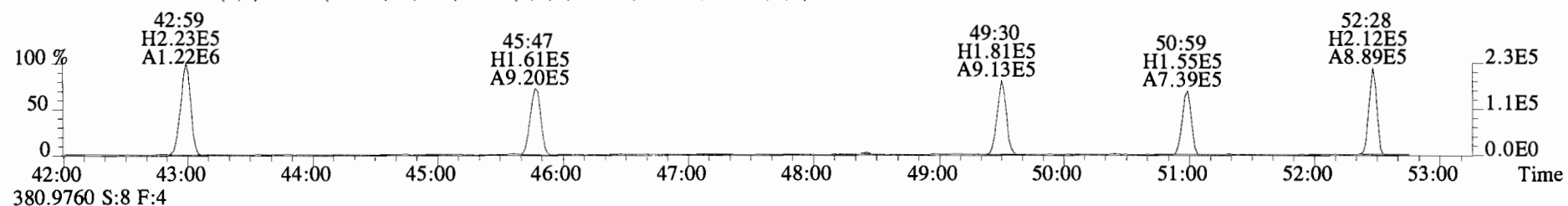
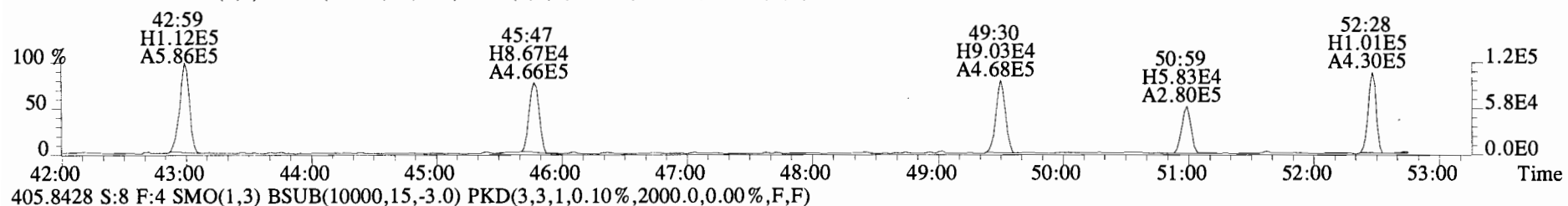
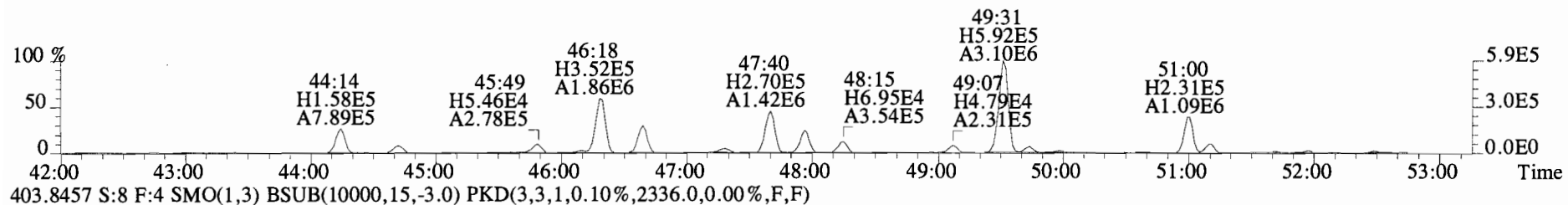
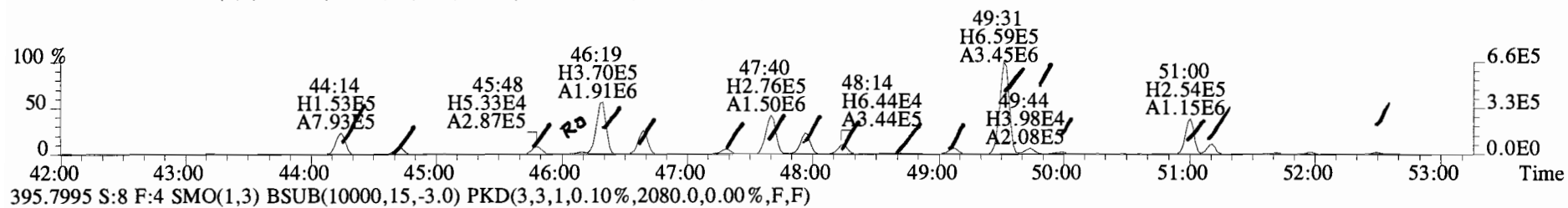
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Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
371.8817 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2184.0,0.00%,F,F)



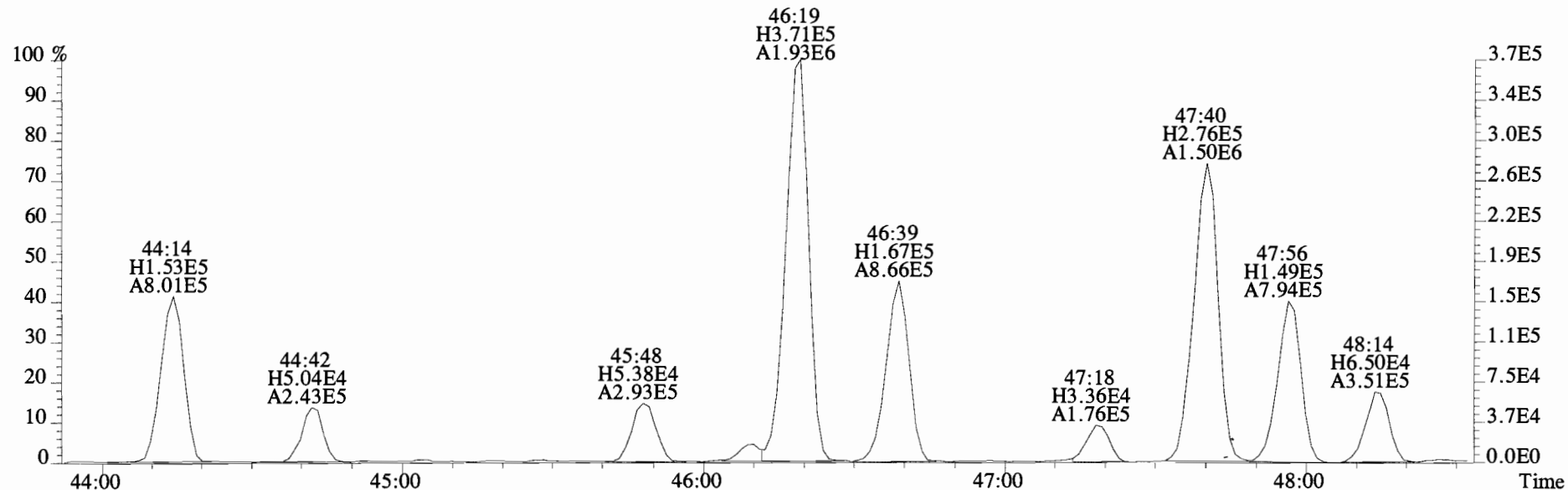
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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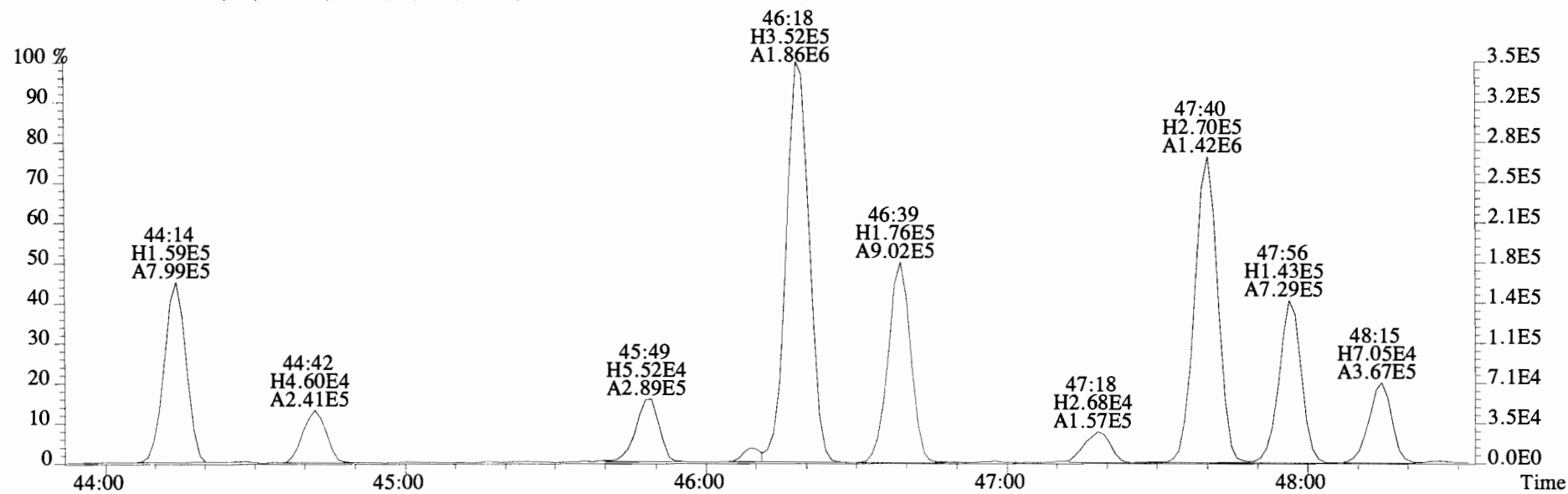
File:140924E1 #1-560 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
393.8025 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1904.0,0.00%,F,F)



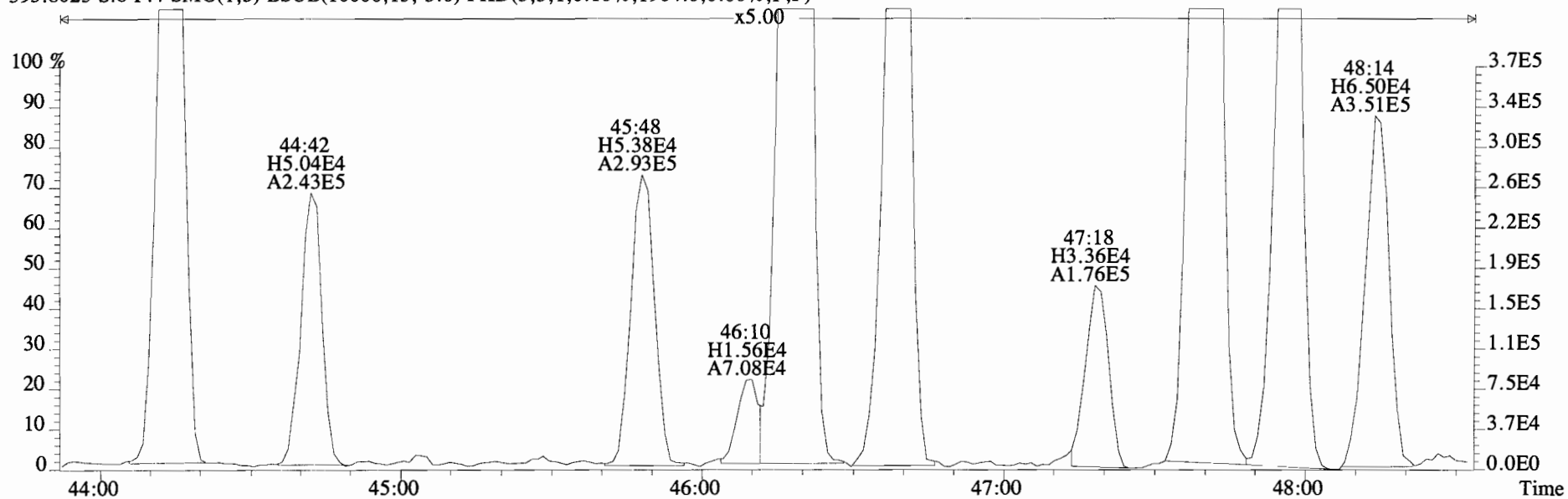
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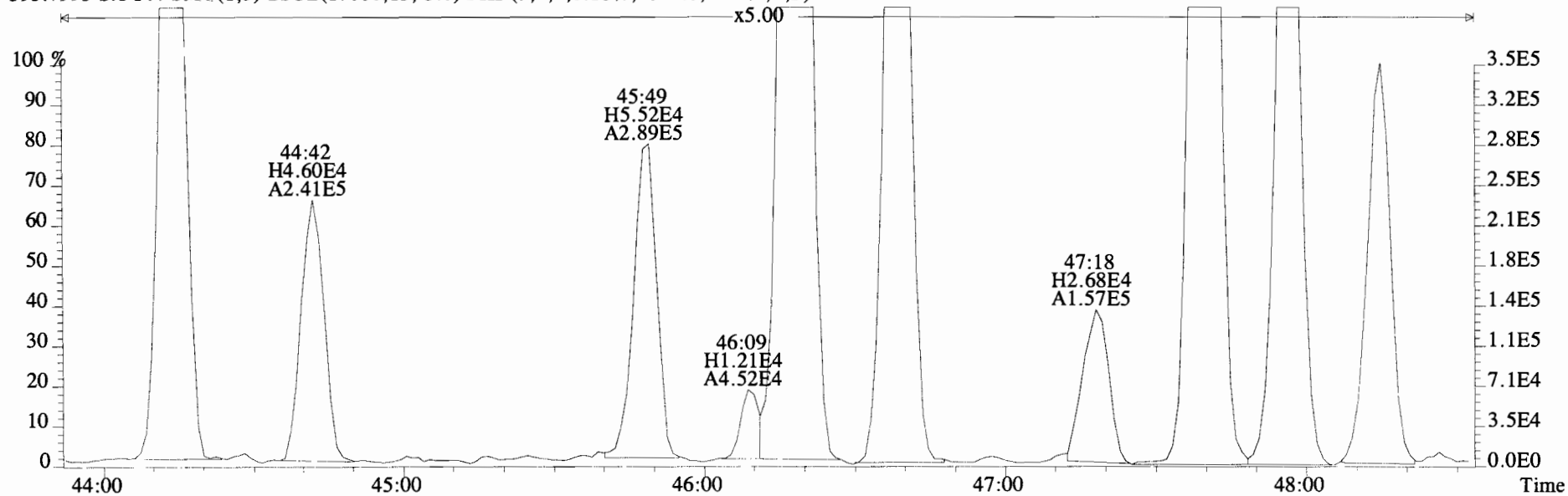
395.7995 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2080.0,0.00%,F,F)



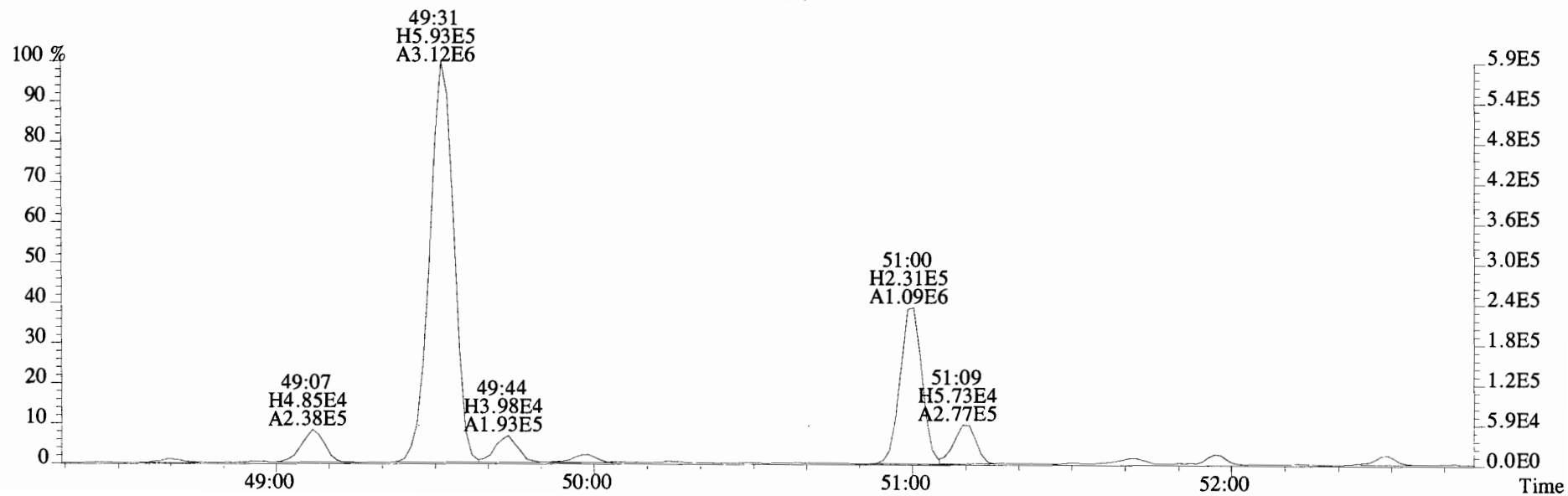
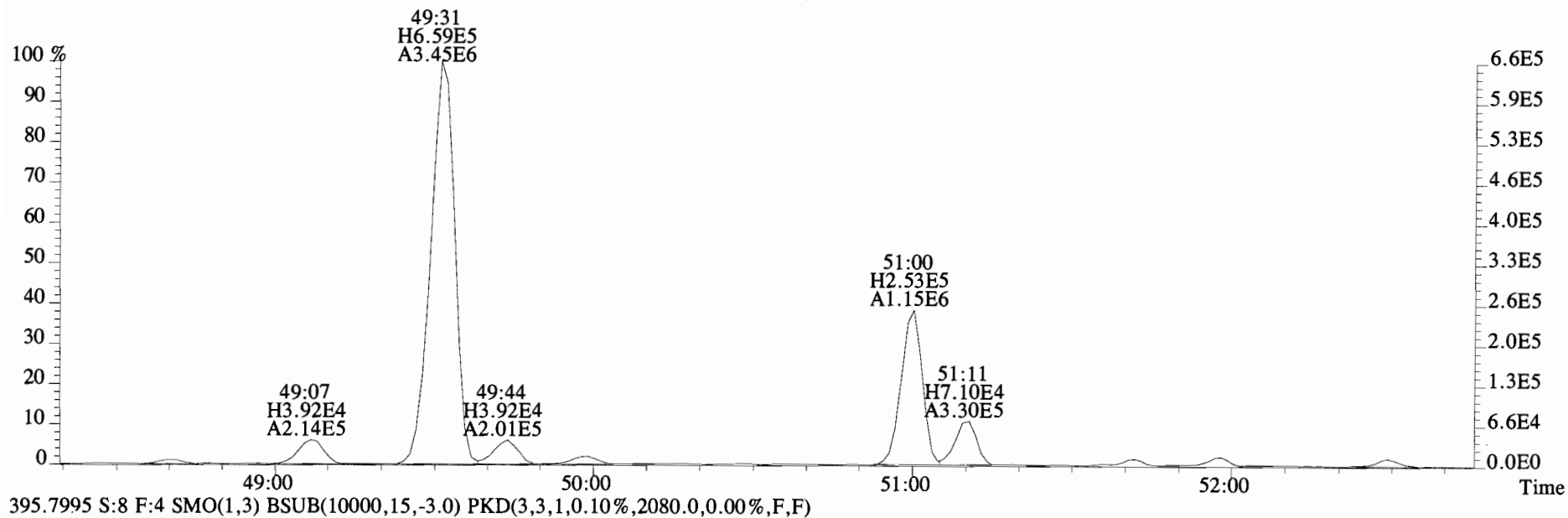
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 Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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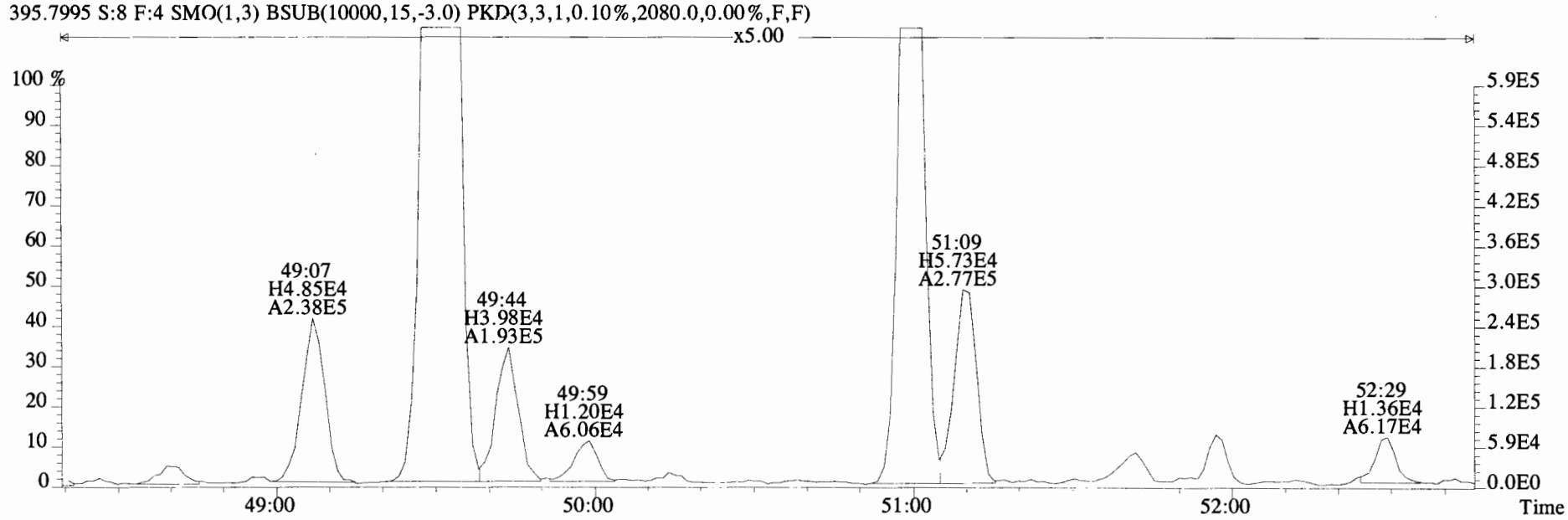
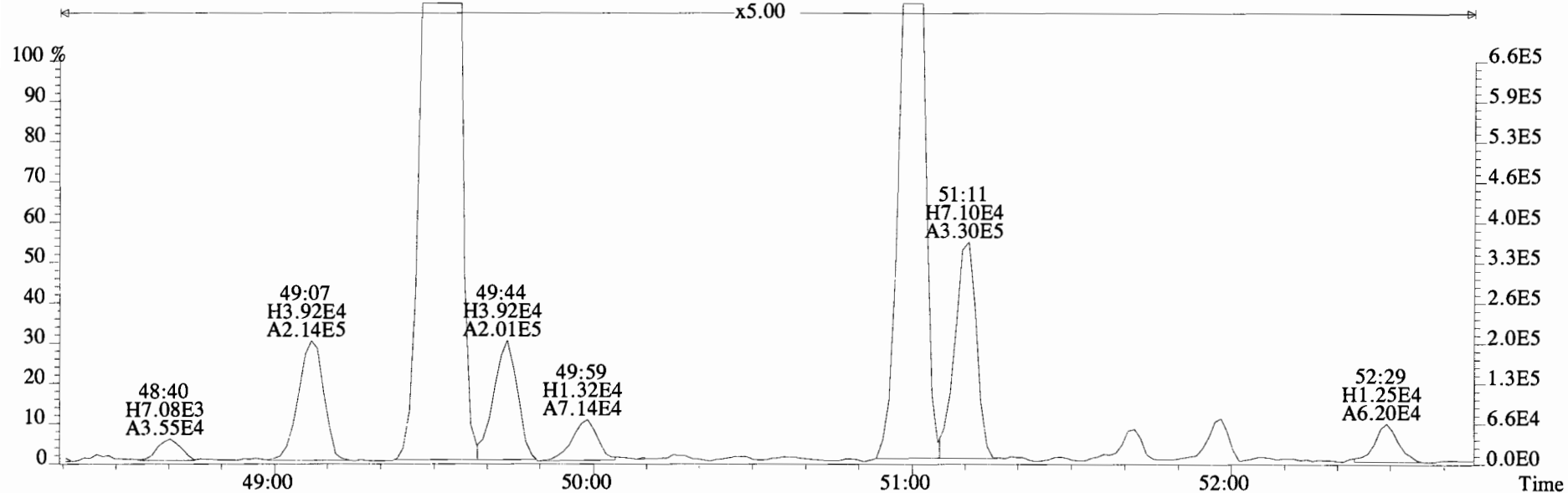
395.7995 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2080.0,0.00%,F,F)



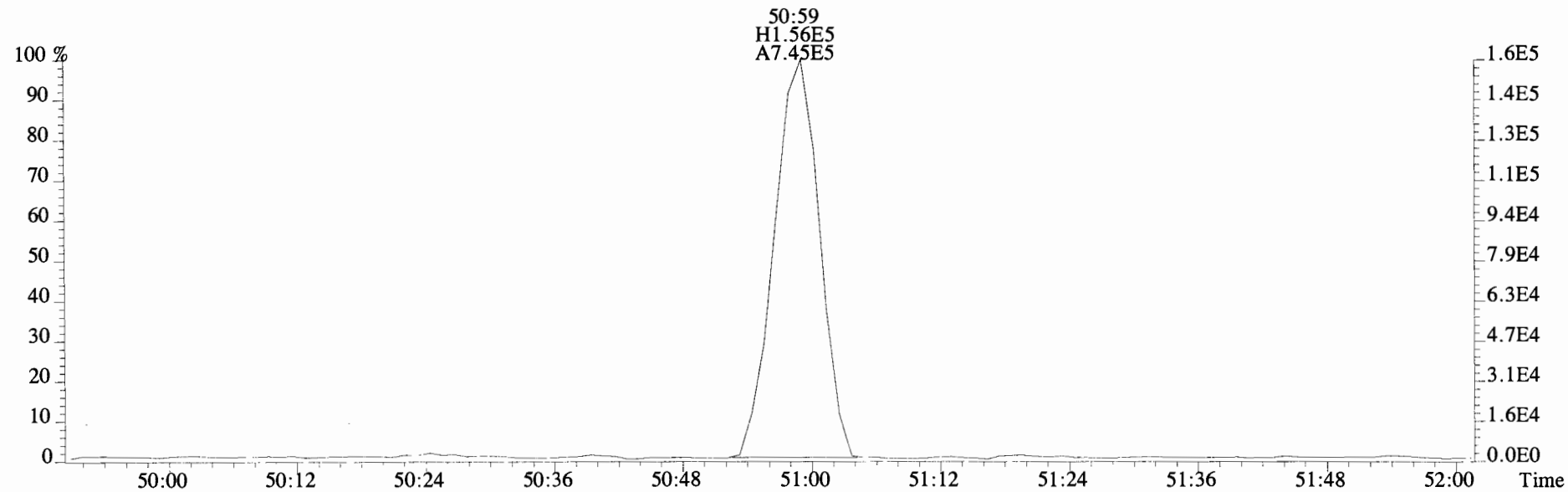
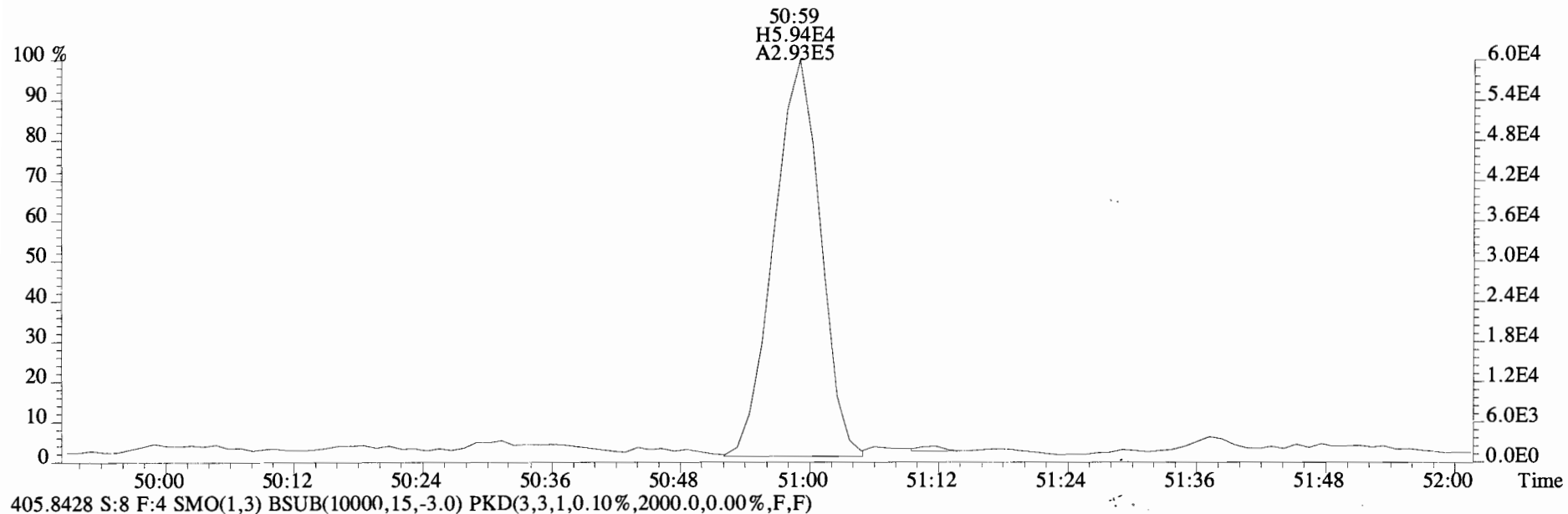
File:140924E1 #1-560 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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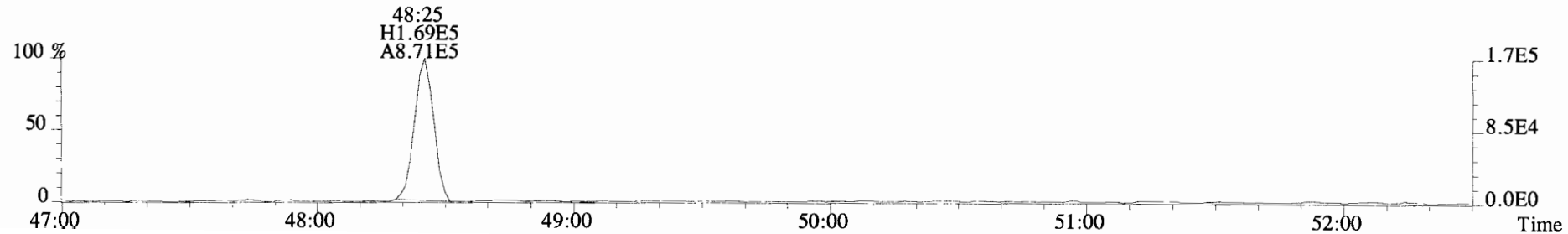
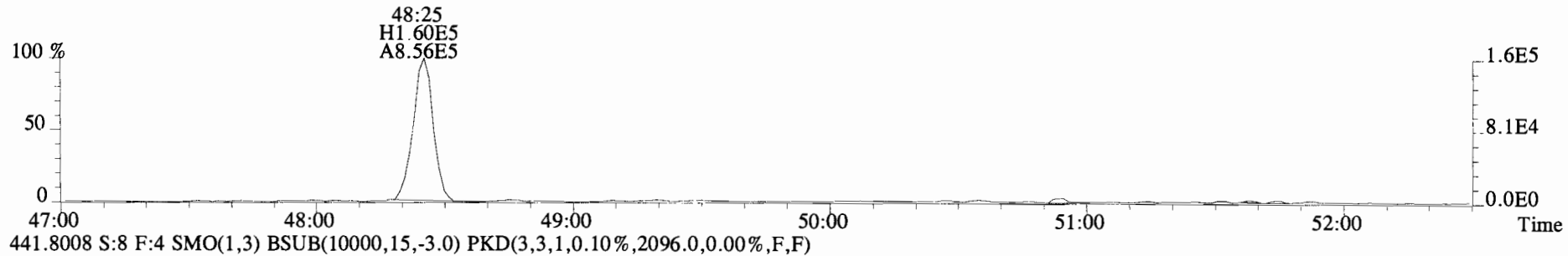
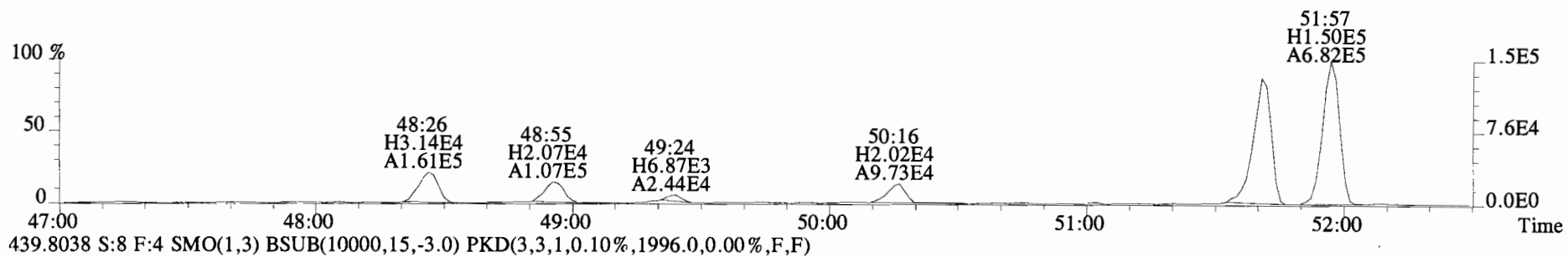
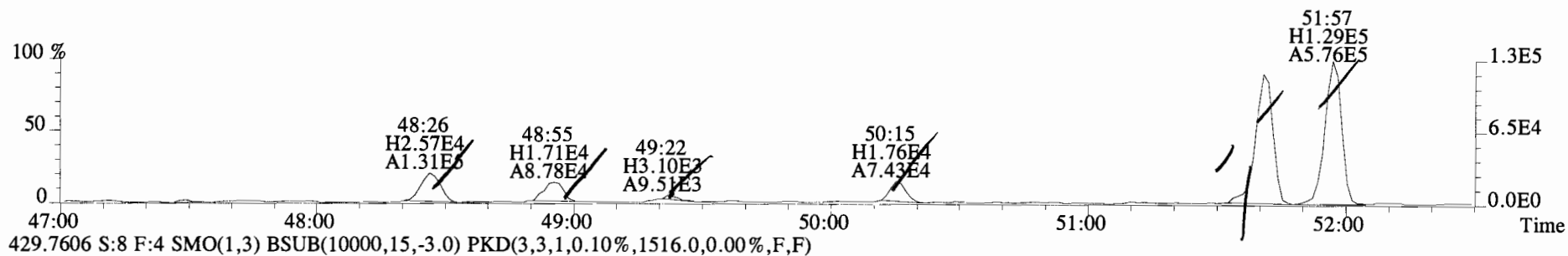
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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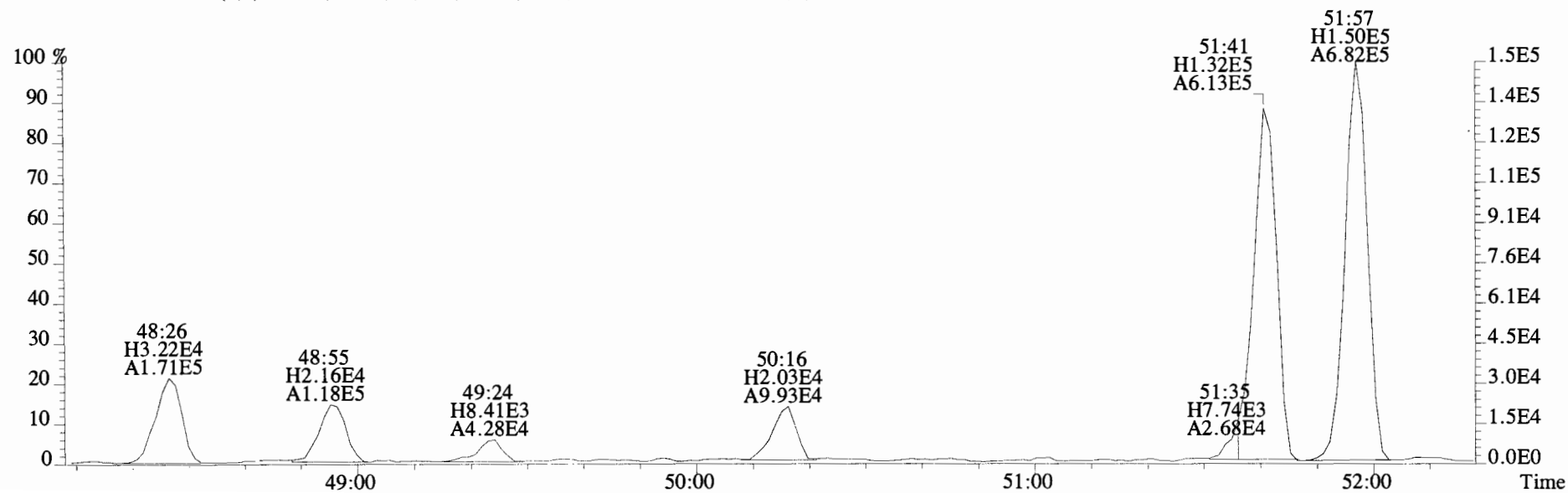
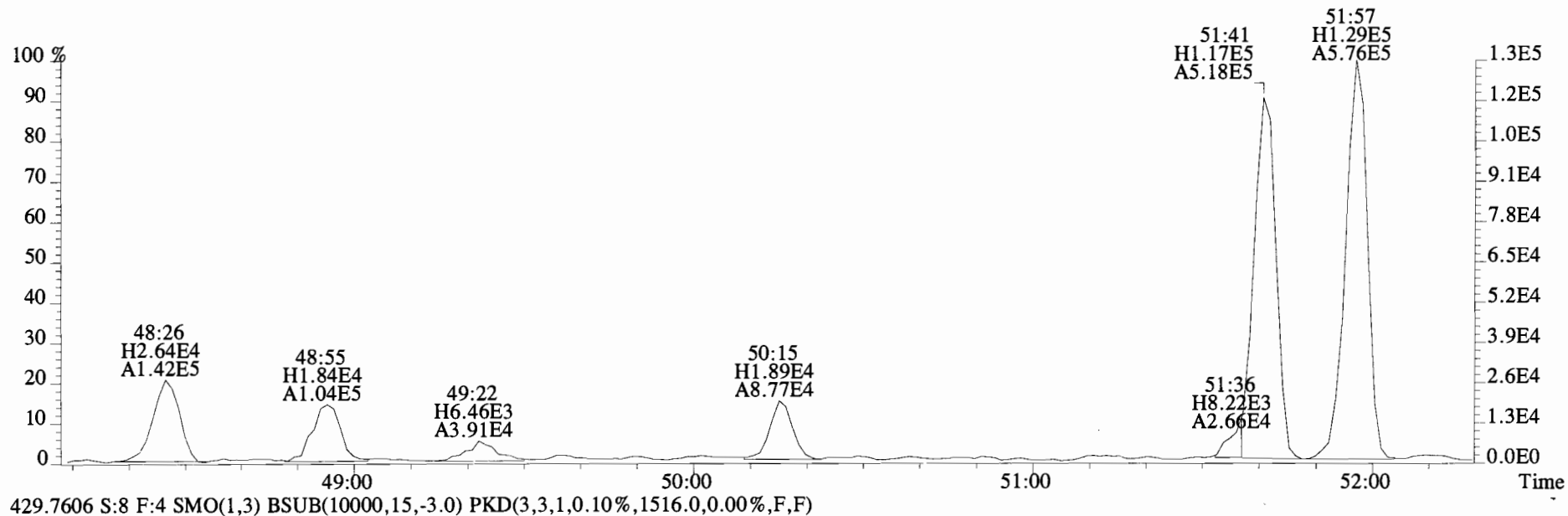
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
403.8457 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2336.0,0.00%,F,F)



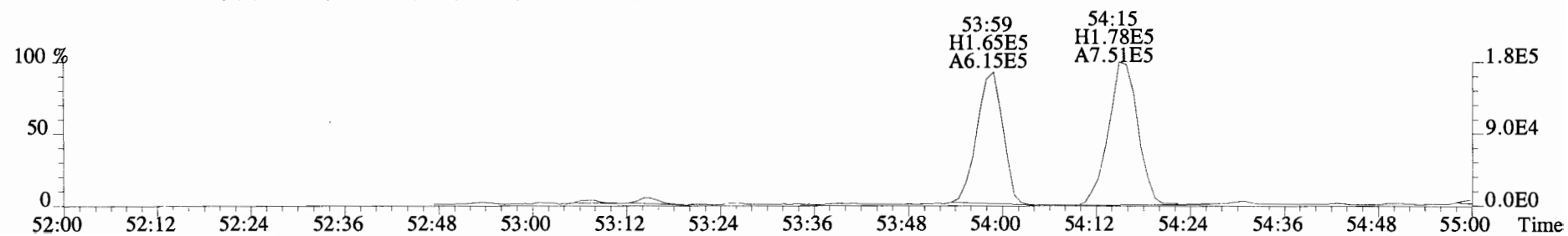
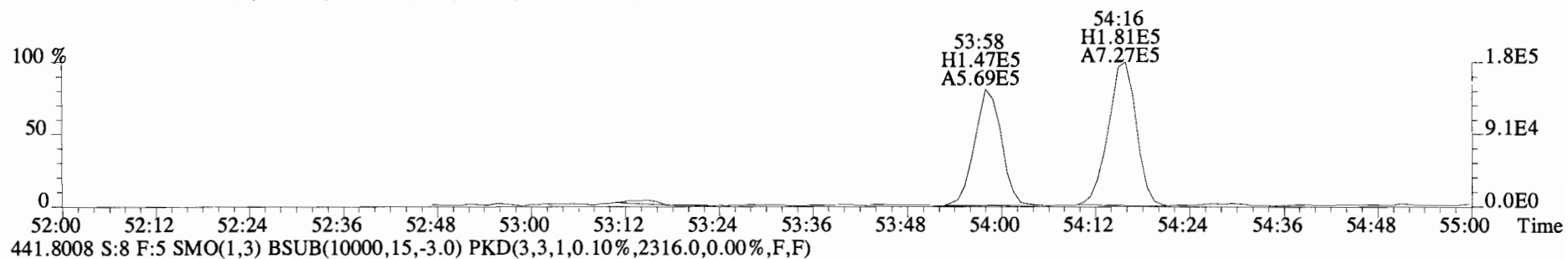
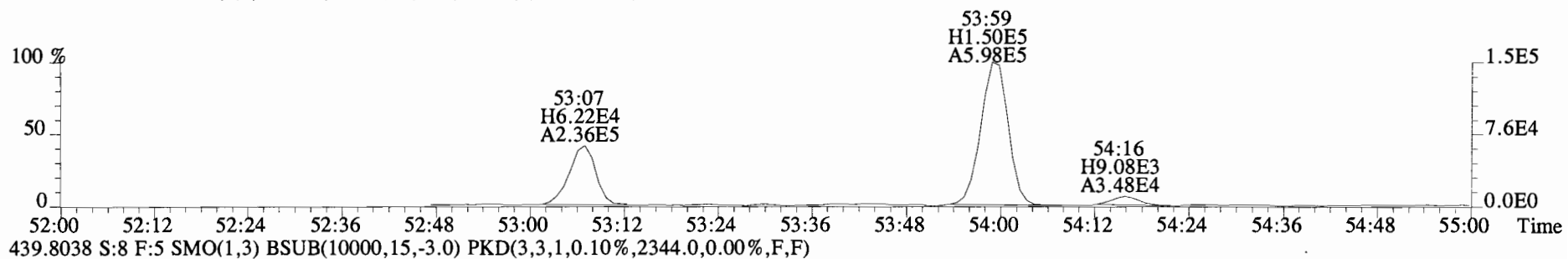
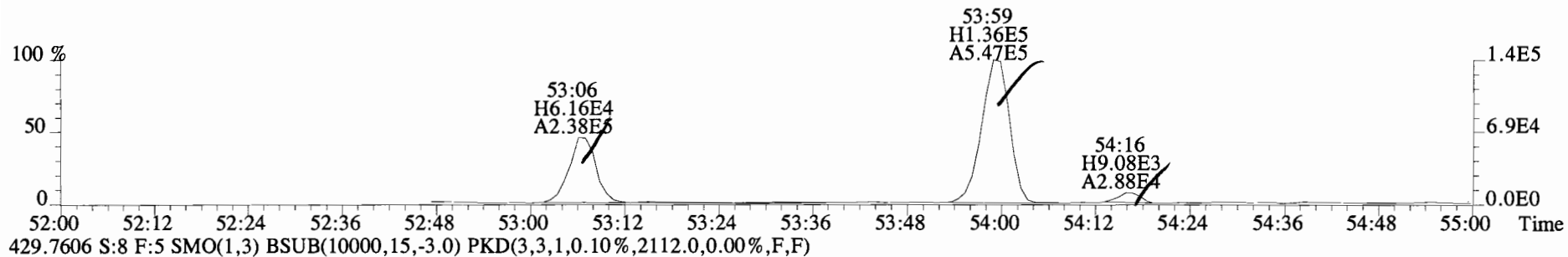
File:140924E1 #1-560 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
427.7635 S:8 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1980.0,0.00%,F,F)



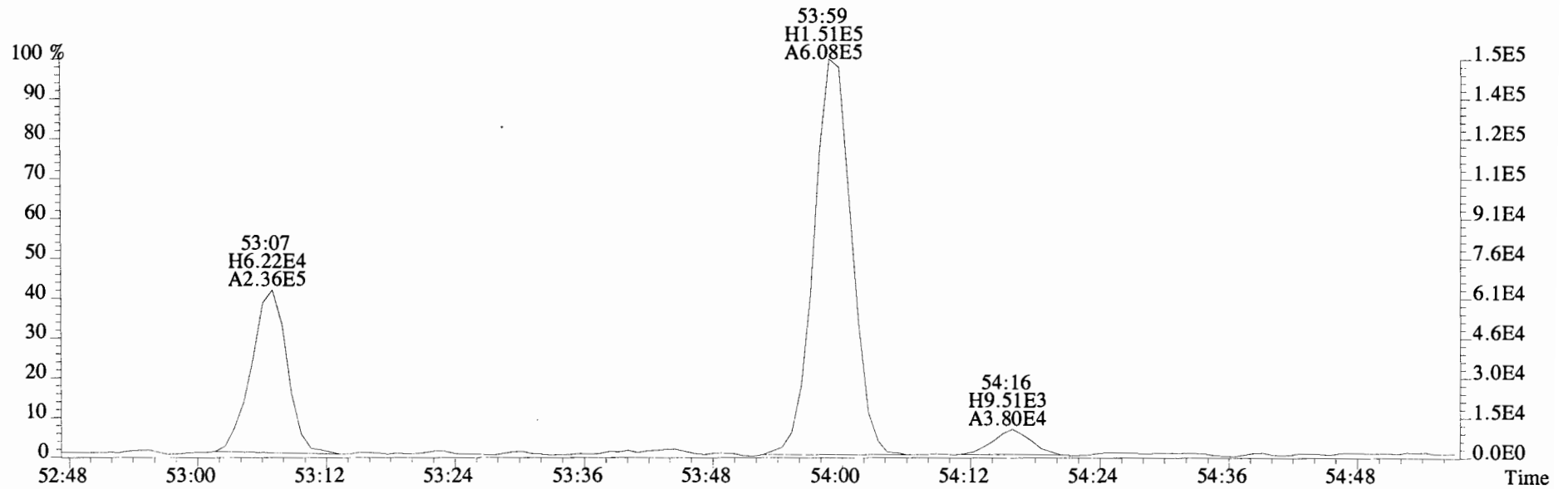
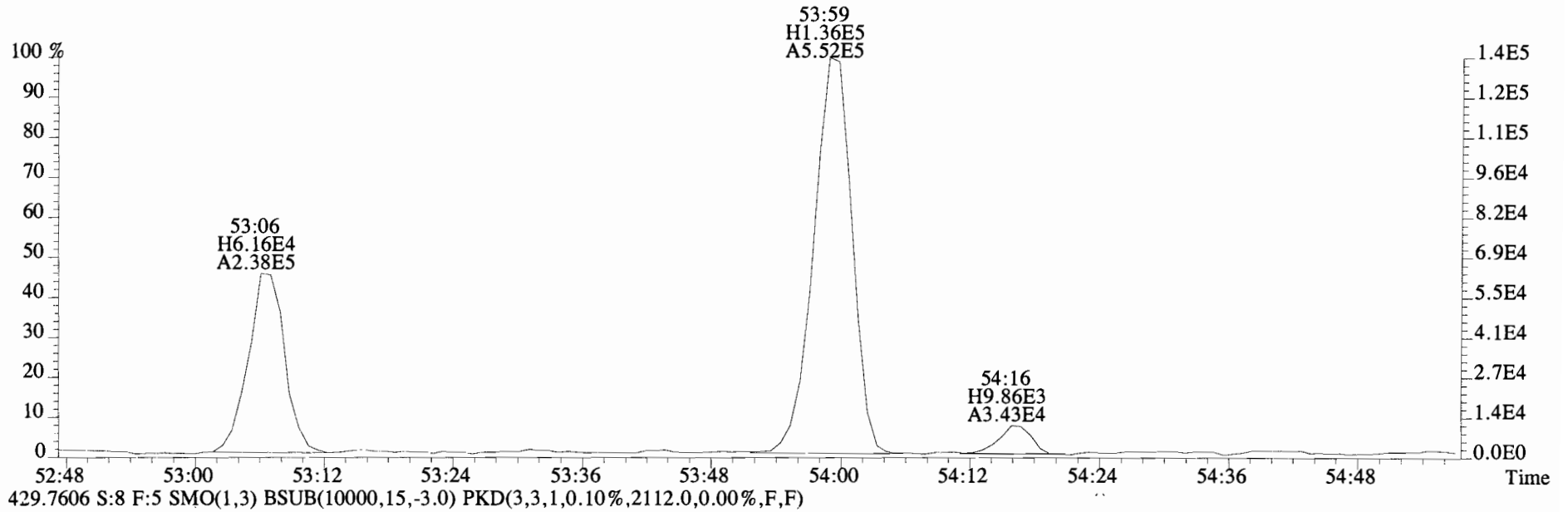
File:140924E1 #1-560 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
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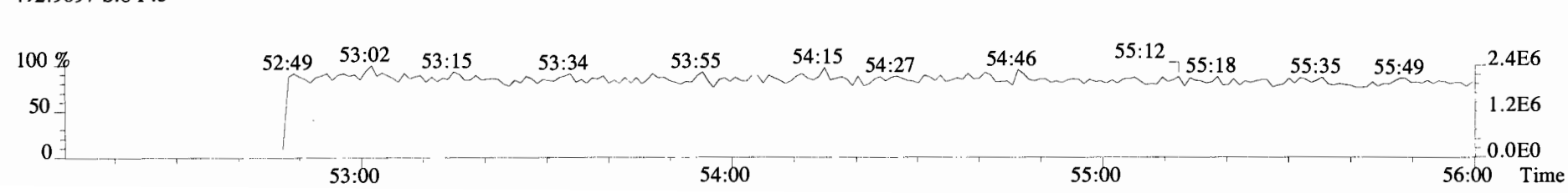
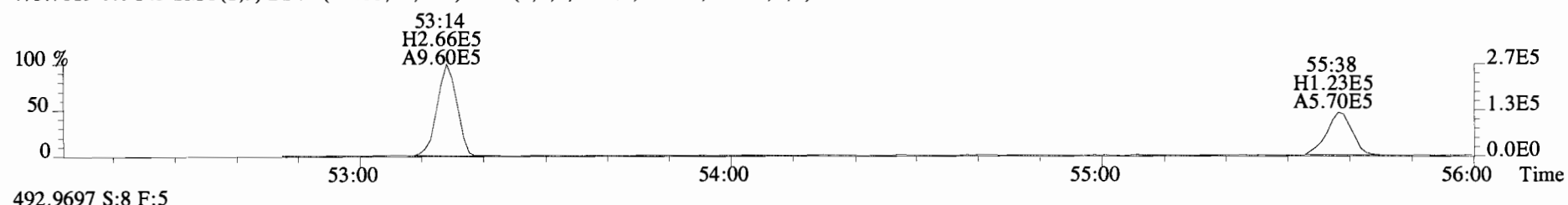
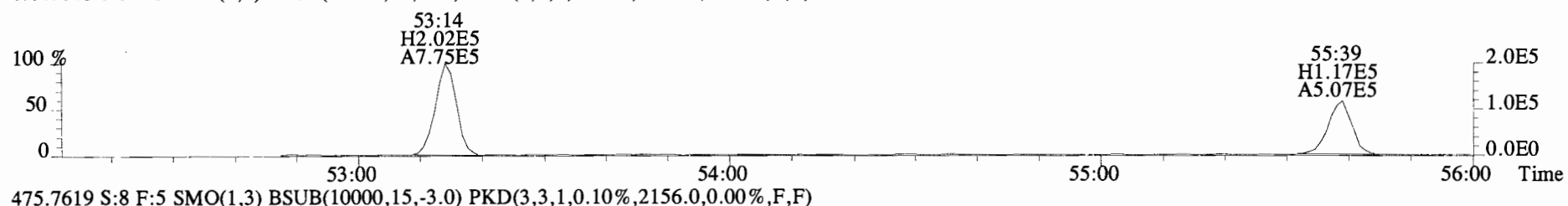
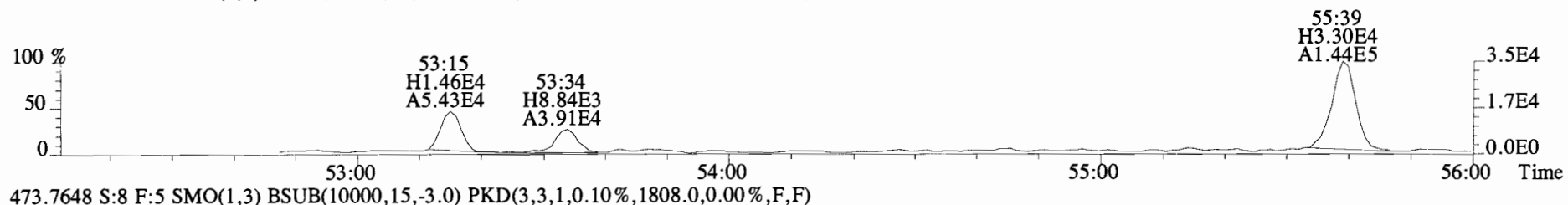
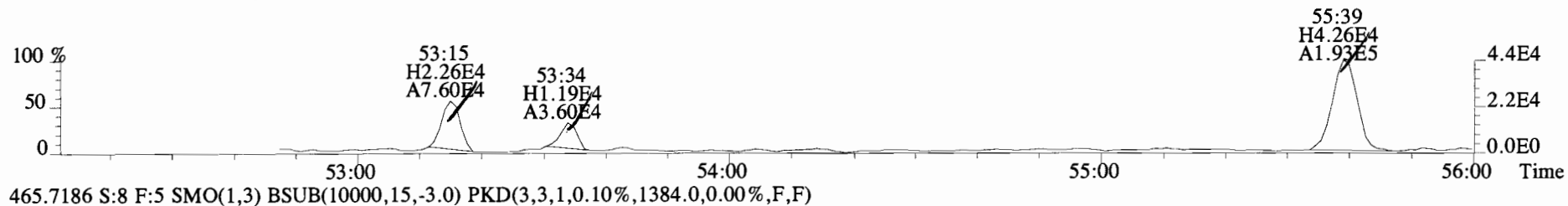
File:140924E1 #1-418 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
427.7635 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2276.0,0.00%,F,F)



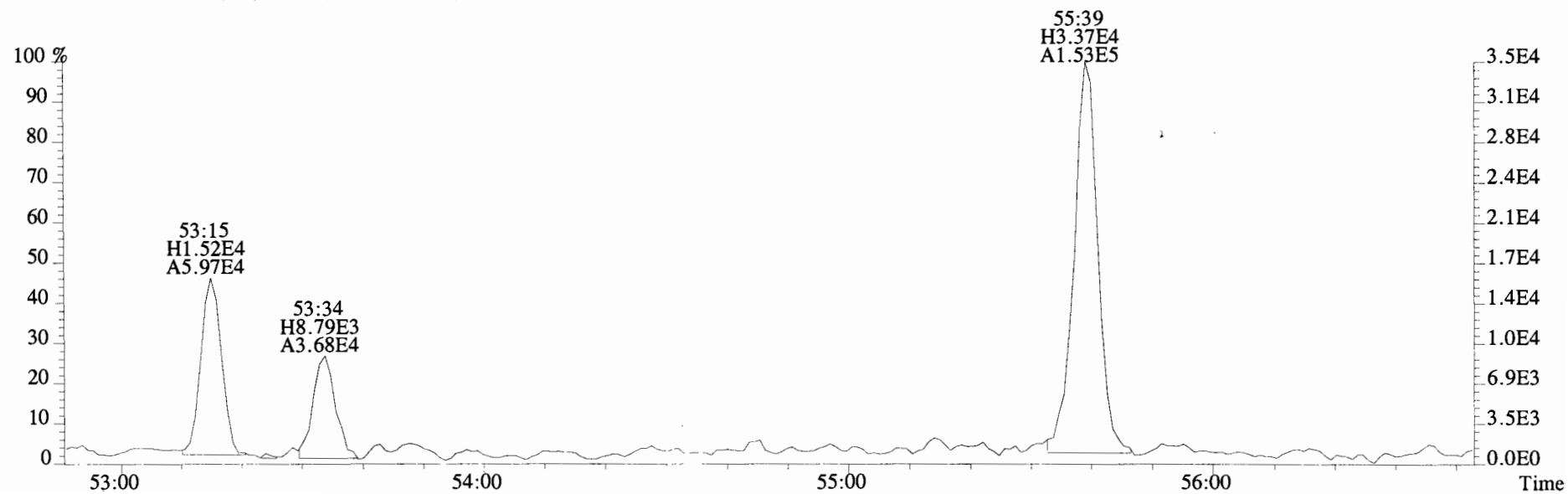
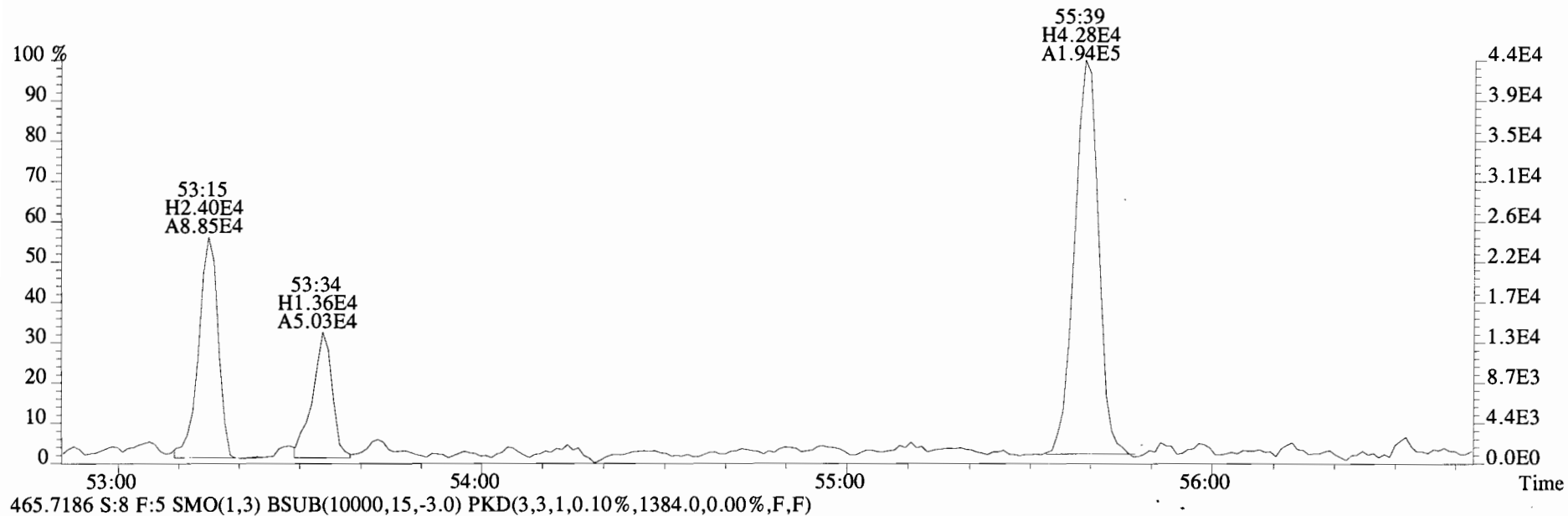
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Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
427.7635 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0)



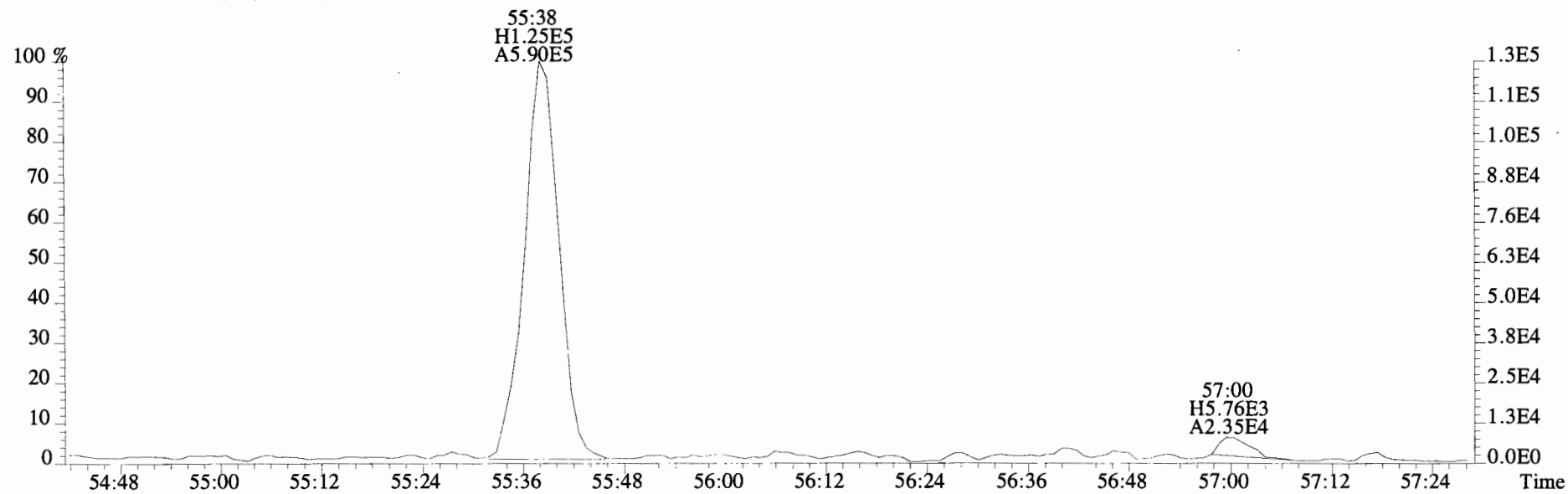
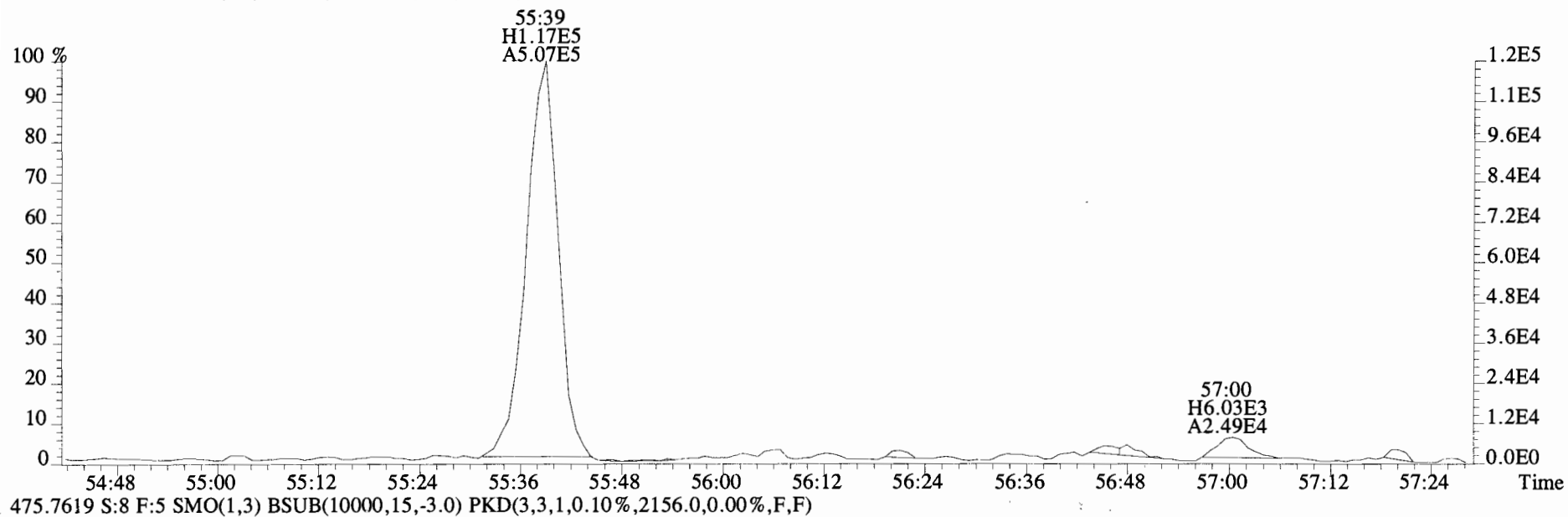
File:140924E1 #1-418 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
463.7216 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1656.0,0.00%,F,F)



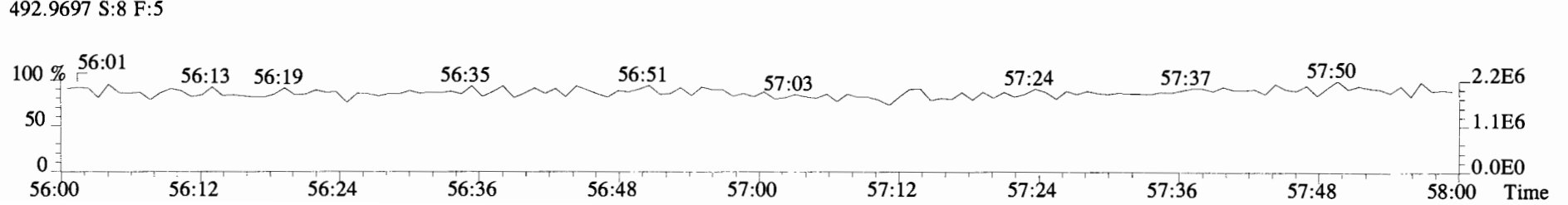
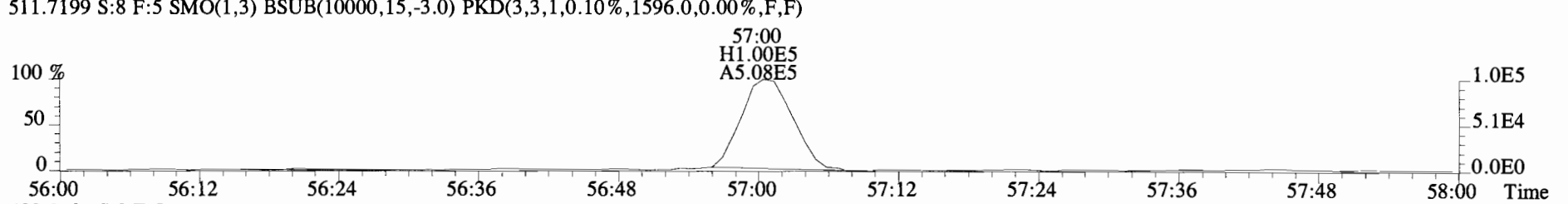
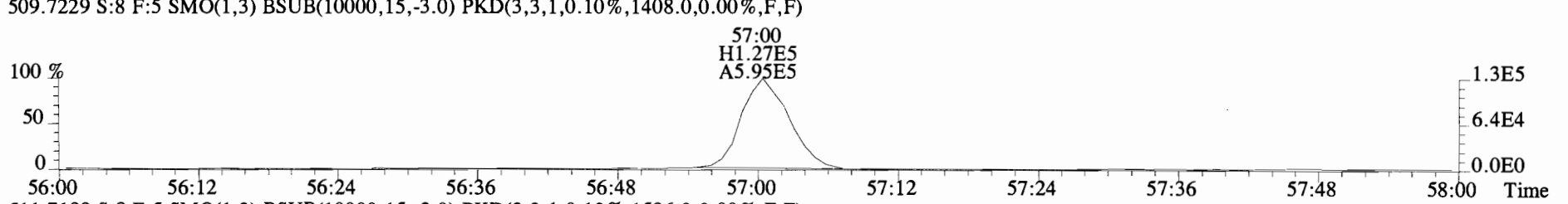
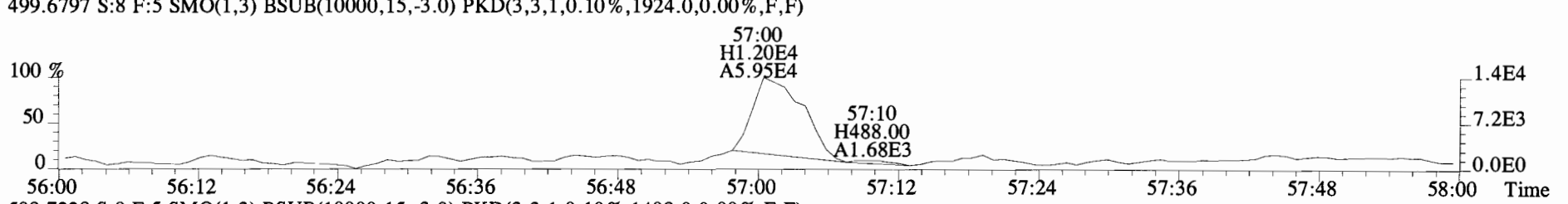
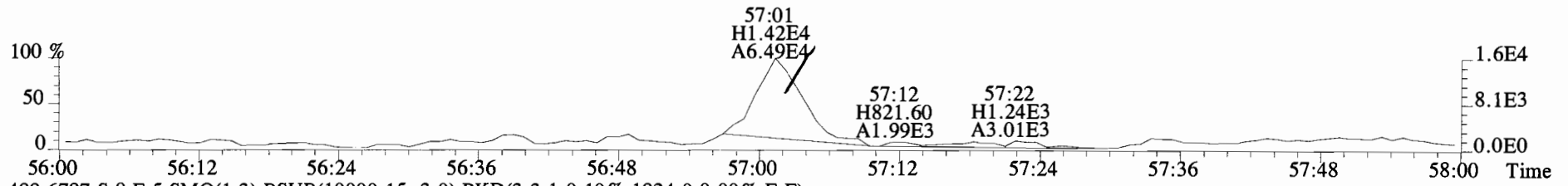
File:140924E1 #1-418 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text: Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
463.7216 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1656.0,0.00%,F,F)



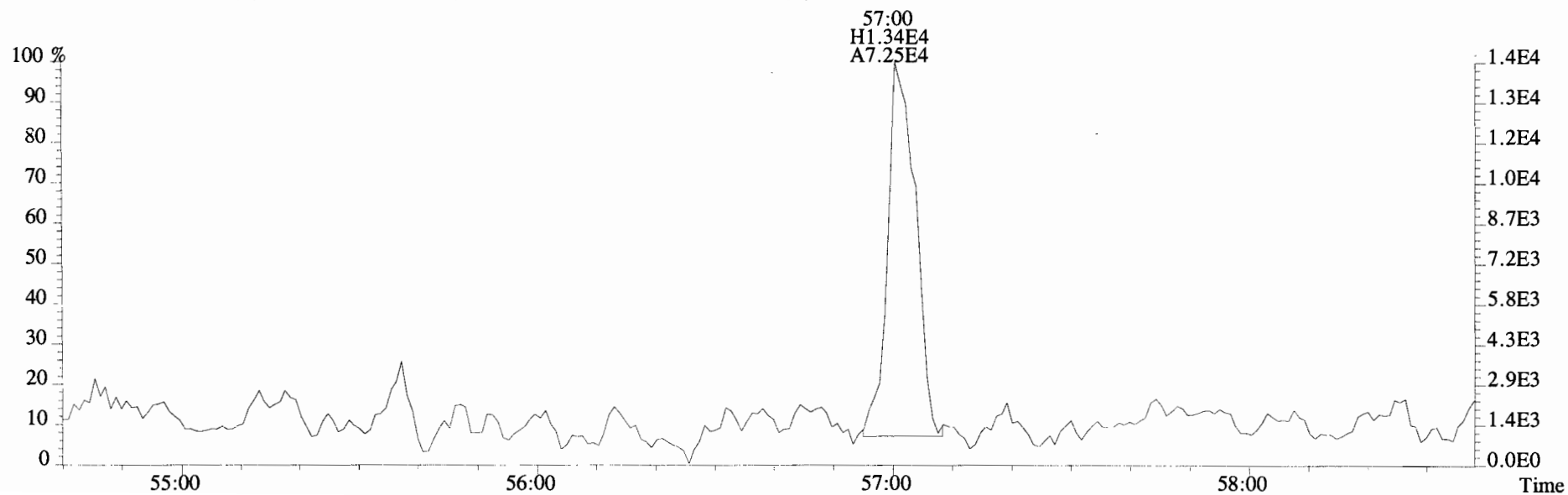
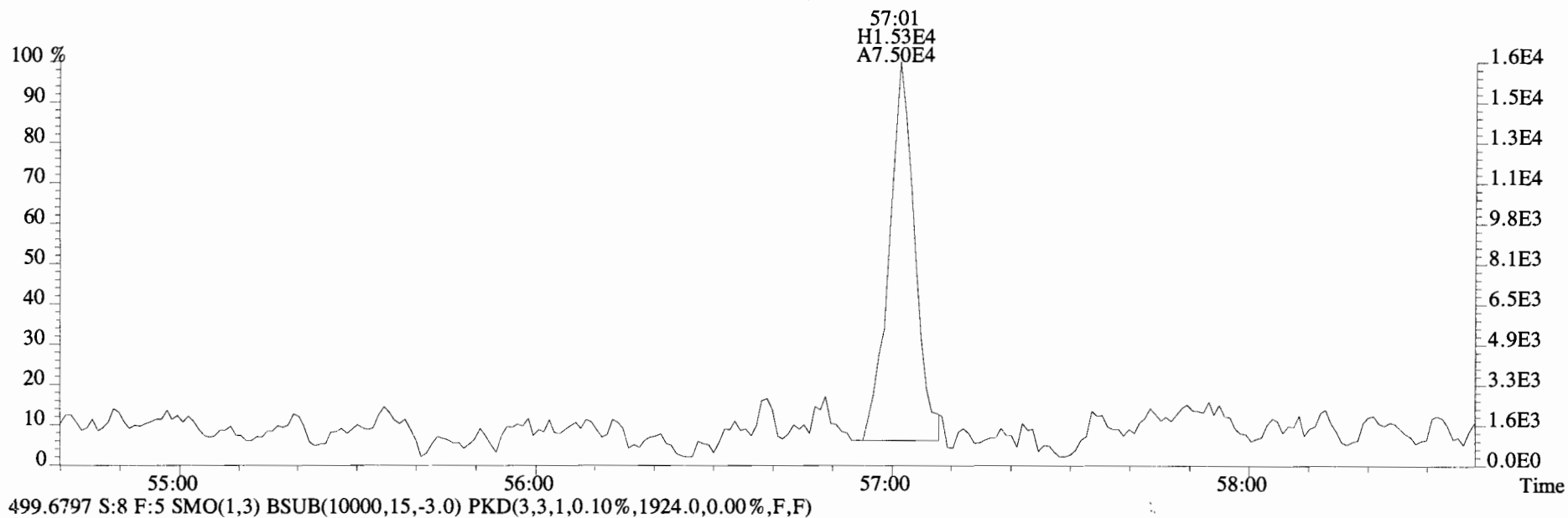
File:140924E1 #1-418 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
473.7648 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1808.0,0.00%,F,F)



File:140924E1 #1-418 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
497.6826 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1860.0,0.00%,F,F)



File:140924E1 #1-418 Acq:24-SEP-2014 18:39:58 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-8 Text:1400665-01RE1 DL 1:20 UG-MH-76-20140911-S Exp:PCB_ZB1
497.6826 S:8 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1860.0,0.00%,F,F)



Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:9 Acq:24-SEP-14 19:44:22
Ical: PCBVG8-6-23-14 wt/vol: 10.071

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF.	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	2.54e+06	3.07	y 16:17	1.19	1080	*	2.5	*	*	1.001	0.996-1.006	
Mono	PCB-2	4.26e+05	3.08	y 18:40	1.18	191	*	2.5	*	*	0.989	0.984-0.994	
Mono	PCB-3	1.75e+06	2.97	y 18:54	1.43	652	*	2.5	*	*	1.001	0.996-1.006	
Di	PCB-4/10	5.11e+06	1.65	y 20:14	1.57	3260	*	2.5	*	*	1.001	0.997-1.007	
Di	PCB-7/9	1.93e+06	1.48	y 22:03	1.21	949	*	2.5	*	*	0.868	0.866-0.874	
Di	PCB-6	3.41e+06	1.69	y 22:42	1.30	1550	*	2.5	*	*	0.893	0.890-0.899	
Di	PCB-5/8	1.98e+07	1.63	y 23:06	1.15	10200	*	2.5	*	*	0.909	0.907-0.917	
Di	PCB-14	*	*	n NotF η	1.11	*	19400	2.5	326	*	*	0.949-0.959	
Di	PCB-11	4.63e+06	1.61	y 25:26	1.09	2710	*	2.5	*	*	1.001	0.995-1.005	
Di	PCB-12/13	1.22e+06	1.70	y 25:48	1.19	650	*	2.5	*	*	1.015	1.011-1.021	
Di	PCB-15	1.29e+07	1.64	y 26:08	1.28	6400	*	2.5	*	*	1.028	1.023-1.033	
Tri	PCB-19	3.35e+06	1.10	y 24:25	1.04	3070	*	2.5	*	*	1.001	0.996-1.006	
Tri	PCB-30	*	*	n NotF η	1.71	*	1760	2.5	21.5	*	*	1.032-1.042	
Tri	PCB-18	3.53e+07	1.06	y 26:03	0.78	28600	*	2.5	*	*	0.954	0.949-0.959	
Tri	PCB-17	1.39e+07	1.06	y 26:14	0.92	9540	*	2.5	*	*	0.961	0.956-0.966	
Tri	PCB-24/27	3.35e+06	1.08	y 26:47	1.19	1780	*	2.5	*	*	0.981	0.977-0.987	
Tri	PCB-16/32	2.58e+07	1.06	y 27:18	0.94	17400	*	2.5	*	*	1.000	0.995-1.005	
Tri	PCB-34	1.58e+05	1.09	y 28:06	1.14	116	*	2.5	*	*	0.960	0.955-0.965	
Tri	PCB-23	4.37e+04	1.10	y 28:12	1.28	28.4	*	2.5	*	*	0.964	0.959-0.969	
Tri	PCB-29	1.95e+05	1.05	y 28:27	1.08	150	*	2.5	*	*	0.972	0.967-0.977	
Tri	PCB-26	4.17e+06	1.01	y 28:39	1.21	2870	*	2.5	*	*	0.979	0.974-0.984	
Tri	PCB-25	2.06e+06	0.98	y 28:50	1.26	1360	*	2.5	*	*	0.985	0.979-0.989	
Tri	PCB-31	2.84e+07	0.95	y 29:11	1.28	18300	*	2.5	*	*	0.997	0.992-1.002	
Tri	PCB-28	2.86e+07	0.97	y 29:17	1.71	13900	*	2.5	*	*	1.001	0.995-1.005	
Tri	PCB-20/21/33	1.69e+07	0.94	y 29:55	1.08	12900	*	2.5	*	*	1.022	1.017-1.027	
Tri	PCB-22	9.81e+06	0.94	y 30:20	1.21	6740	*	2.5	*	*	1.036	1.032-1.042	
Tri	PCB-36	3.16e+04	1.09	y 30:58	1.14	25.1	*	2.5	*	*	0.932	0.928-0.938	
Tri	PCB-39	3.06e+04	0.92	y 31:26	1.12	24.8	*	2.5	*	*	0.946	0.943-0.953	
Tri	PCB-38	3.07e+05	1.07	y 32:14	1.20	232	*	2.5	*	*	0.970	0.966-0.976	
Tri	PCB-35	3.96e+05	0.93	y 32:48	1.23	291	*	2.5	*	*	0.987	0.982-0.992	
Tri	PCB-37	1.04e+07	0.92	y 33:15	1.23	7680	*	2.5	*	*	1.001	0.995-1.005	
Tetra	PCB-54	1.09e+05	0.88	y 28:09	1.10	101	*	2.5	*	*	1.001	0.996-1.006	
Tetra	PCB-50	6.20e+04	0.71	y 29:19	0.88	72.4	*	2.5	*	*	1.042	1.037-1.047	
Tetra	PCB-53	3.55e+06	0.73	y 29:58	1.06	3920	*	2.5	*	*	0.946	0.942-0.952	
Tetra	PCB-51	1.27e+06	0.72	y 30:18	0.99	1510	*	2.5	*	*	0.956	0.952-0.962	
Tetra	PCB-45	3.54e+06	0.77	y 30:44	0.86	4810	*	2.5	*	*	0.970	0.966-0.976	
Tetra	PCB-46	1.47e+06	0.74	y 31:14	0.85	2040	*	2.5	*	*	0.986	0.981-0.991	

Integrations by:

Analyst: *DMS*

Date: *9/26/14*

Reviewed by: *[Signature]*

Date: *9/26/14*

Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:9 Acq:24-SEP-14 19:44:22
ICal: PCBVG8-6-23-14 wt/vol:10.071

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	2.58e+07	0.71	y 31:42	1.28	23600	*	2.5	*	*	1.001	0.996-1.006	
Tetra	PCB-73	*	*	n NotF η	1.35	*	3560	2.5	78.9	*	*	1.000-1.010	
Tetra	PCB-43/49	1.43e+07	0.73	y 32:00	0.99	16900	*	2.5	*	*	1.010	1.005-1.015	
Tetra	PCB-47	5.16e+06	0.74	y 32:14	1.06	5110	*	2.5	*	*	1.001	0.996-1.006	
Tetra	PCB-48/75	4.69e+06	0.71	y 32:22	1.23	4010	*	2.5	*	*	1.005	0.999-1.009	
Tetra	PCB-65	*	*	n NotF η	1.22	*	3560	2.5	89.1	*	*	1.008-1.018	
Tetra	PCB-62	*	*	n NotF η	1.22	*	3560	2.5	89.3	*	*	1.011-1.021	
Tetra	PCB-44	1.68e+07	0.72	y 33:04	0.86	20500	*	2.5	*	*	1.026	1.021-1.031	
Tetra	PCB-42/59	7.28e+06	0.74	y 33:18	1.14	6700	*	2.5	*	*	1.034	1.028-1.038	
Tetra	PCB-41/64/71/72	2.00e+07	0.75	y 33:51	1.21	17300	*	2.5	*	*	1.051	1.046-1.056	
Tetra	PCB-68	1.28e+05	0.77	y 34:04	1.35	99.2	*	2.5	*	*	1.057	1.054-1.064	
Tetra	PCB-40	2.84e+06	0.74	y 34:17	0.70	4240	*	2.5	*	*	1.064	1.061-1.071	
Tetra	PCB-57	1.31e+05	0.78	y 34:38	0.98	117	*	2.5	*	*	0.970	0.965-0.975	
Tetra	PCB-67	9.00e+05	0.73	y 34:58	1.11	708	*	2.5	*	*	0.979	0.974-0.984	
Tetra	PCB-58	5.29e+04	0.78	y 35:05	0.93	49.7	*	2.5	*	*	0.982	0.977-0.987	
Tetra	PCB-63	9.83e+05	0.78	y 35:14	0.95	899	*	2.5	*	*	0.986	0.982-0.992	
Tetra	PCB-74	1.27e+07	0.72	y 35:31	1.24	8930	*	2.5	*	*	0.994	0.990-1.000	
Tetra	PCB-61/70	3.10e+07	0.73	y 35:43	0.95	28300	*	2.5	*	*	1.000	0.995-1.005	
Tetra	PCB-76/66	2.42e+07	0.74	y 35:56	1.04	20200	*	2.5	*	*	1.006	1.001-1.011	
Tetra	PCB-80	*	*	n NotF η	1.19	*	3560	2.5	54.1	*	*	0.996-1.006	
Tetra	PCB-55	6.35e+05	0.81	y 36:26	1.04	443	*	2.5	*	*	1.008	1.005-1.015	
Tetra	PCB-56/60	1.59e+07	0.74	y 36:57	1.01	11400	*	2.5	*	*	1.023	1.019-1.029	
Tetra	PCB-79	5.97e+05	0.82	y 38:02	1.08	401	*	2.5	*	*	1.053	1.048-1.058	
Tetra	PCB-78	*	*	n NotF η	1.27	*	3560	2.5	61.2	*	*	0.982-0.992	
Tetra	PCB-81	2.05e+05	0.71	y 39:13	1.33	136	*	2.5	*	*	1.000	0.995-1.005	
Tetra	PCB-77	2.98e+06	0.74	y 39:51	1.10	2840	*	2.5	*	*	1.000	0.995-1.005	
Penta	PCB-104	*	*	n NotF η	1.18	*	3440	2.5	147	*	*	0.996-1.006	
Penta	PCB-96	1.80e+05	1.39	y 34:07	1.14	197	*	2.5	*	*	1.037	1.034-1.044	
Penta	PCB-103	2.21e+05	1.59	y 34:40	0.96	287	*	2.5	*	*	1.054	1.050-1.060	
Penta	PCB-100	9.34e+04	1.53	y 35:00	0.94	124	*	2.5	*	*	1.064	1.061-1.071	
Penta	PCB-94	1.22e+05	1.47	y 35:28	1.06	183	*	2.5	*	*	0.985	0.980-0.990	
Penta	PCB-95/98/102	2.17e+07	1.57	y 36:00	1.22	28100	*	2.5	*	*	1.000	0.995-1.005	
Penta	PCB-93	*	*	n NotF η	0.84	*	3440	2.5	230	*	*	0.997-1.007	
Penta	PCB-88/91	3.41e+06	1.60	y 36:25	1.12	4860	*	2.5	*	*	1.012	1.005-1.015	
Penta	PCB-121	*	*	n NotF η	1.62	*	3440	2.5	120	*	*	1.009-1.019	
Penta	PCB-84/92	1.05e+07	1.60	y 37:19	1.05	16300	*	2.5	*	*	0.990	0.985-0.995	
Penta	PCB-89	2.45e+05	1.46	y 37:30	1.13	352	*	2.5	*	*	0.995	0.991-1.001	

Analyst: DMS

Date: 9/26/14

Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:9 Acq:24-SEP-14 19:44:22
ICal: PCBVG8-6-23-14 wt/vol:10.071

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	2.70e+07	1.59	y 37:42	1.10	39800		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-113	8.77e+04	1.69	y 37:53	1.41	101		*	2.5	*	1.005	1.002-1.012	
Penta	PCB-99	1.08e+07	1.65	y 38:02	1.34	13100		*	2.5	*	1.009	1.004-1.014	
Penta	PCB-119	5.51e+05	1.85	n 38:29	1.53	608	R	*	2.5	*	0.987	0.982-0.992	
Penta	PCB-108/112	1.24e+06	1.57	y 38:39	1.28	1630		*	2.5	*	0.991	0.986-0.996	
Penta	PCB-83	2.23e+04	0.94	n 38:48	1.52	24.8	R	*	2.5	*	0.995	0.990-1.000	
Penta	PCB-97	7.14e+06	1.54	y 39:00	1.18	10200		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-86	9.12e+04	1.81	n 39:09	0.84	183	R	*	2.5	*	1.004	0.999-1.009	
Penta	PCB-87/117/125	1.15e+07	1.57	y 39:17	1.55	12500		*	2.5	*	1.008	1.002-1.012	
Penta	PCB-111/115	5.13e+05	1.34	y 39:26	1.63	532		*	2.5	*	1.012	1.006-1.016	
Penta	PCB-85/116	4.01e+06	1.61	y 39:33	1.30	5210		*	2.5	*	1.015	1.010-1.020	
Penta	PCB-120	7.95e+04	1.26	n 39:45	1.68	80.2	R	*	2.5	*	1.020	1.016-1.026	
Penta	PCB-110	3.49e+07	1.61	y 39:57	1.56	37900		*	2.5	*	1.025	1.020-1.030	
Penta	PCB-82	2.48e+06	1.64	y 40:34	0.76	4970		*	2.5	*	0.976	0.971-0.981	
Penta	PCB-124	1.34e+06	1.68	y 41:16	1.47	1380		*	2.5	*	0.993	0.988-0.998	
Penta	PCB-107/109	1.73e+06	1.57	y 41:26	1.32	1990		*	2.5	*	0.997	0.991-1.001	
Penta	PCB-123	3.14e+05	1.46	y 41:34	1.17	410		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-106/118	2.61e+07	1.59	y 41:46	1.17	30800		*	2.5	*	1.001	0.996-1.006	
Penta	PCB-114	7.55e+05	1.60	y 42:26	1.30	743		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-122	3.47e+05	1.61	y 42:34	1.12	395		*	2.5	*	1.004	0.999-1.009	
Penta	PCB-105	*	*	n NotF η	1.30	14202 *		*	2.5	*	*	0.995-1.005	
Penta	PCB-127	*	*	n NotF η	1.33	*		3750	2.5	149	*	0.996-1.006	
Penta	PCB-126	2.88e+05	1.77	y 45:32	1.18	417		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-155	*	*	n NotF η	1.11	*		1880	2.5	66.3	*	0.966-1.006	
Hexa	PCB-150	*	*	n NotF η	1.00	*		1880	2.5	73.9	*	1.030-1.040	
Hexa	PCB-152	*	*	n NotF η	1.12	*		1880	2.5	66.2	*	1.043-1.053	
Hexa	PCB-145	*	*	n NotF η	1.20	*		1880	2.5	61.5	*	1.055-1.065	
Hexa	PCB-136	*	*	n NotF η	1.18	*		1880	2.5	62.7	*	1.064-1.074	
Hexa	PCB-148	*	*	n NotF η	0.74	*		1880	2.5	99.2	*	1.066-1.076	
Hexa	PCB-154	*	*	n NotF η	0.86	*		1880	2.5	86.1	*	1.080-1.090	
Hexa	PCB-151	*	*	n NotF η	0.75	*		1880	2.5	98.9	*	1.097-1.107	
Hexa	PCB-135	*	*	n NotF η	0.79	*		1880	2.5	93.1	*	1.103-1.113	
Hexa	PCB-144	*	*	n NotF η	0.76	*		1880	2.5	96.9	*	1.105-1.117	
Hexa	PCB-147	*	*	n NotF η	0.82	*		1880	2.5	90.1	*	1.109-1.121	
Hexa	PCB-139/149	*	*	n NotF η	0.76	*		1880	2.5	96.9	*	1.116-1.128	
Hexa	PCB-140	*	*	n NotF η	0.72	*		1880	2.5	102	*	1.121-1.133	
Hexa	PCB-134/143	1.56e+06	1.19	y 42:21	0.92	2480		*	2.5	*	0.975	0.970-0.980	

* = See ORIGINAL injection

Analyst: DMS

Date: 9/26/14

Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02RE1 DL 1:20

Filename: 140924E1 S:9 Acq:24-SEP-14 19:44:22
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.071

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	8.09e+05	1.16	y 42:38	0.82	1440		*	2.5	*	0.982	0.977-0.987	
Hexa	PCB-131	*	*	n NotF η	0.91	*		3650	2.5	173	*	0.981-0.991	
Hexa	PCB-146/165	4.96e+06	1.21	y 43:03	1.25	5800		*	2.5	*	0.991	0.986-0.996	
Hexa	PCB-132/161	1.10e+07	1.17	y 43:18	1.10	14500		*	2.5	*	0.997	0.992-1.002	
Hexa	PCB-153	3.16e+07	1.21	y 43:27	1.25	36900		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-168	5.82e+04	1.11	y 43:39	1.45	58.6		*	2.5	*	1.005	1.001-1.011	
Hexa	PCB-141	6.43e+06	1.24	y 44:11	1.09	8490		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-137	1.53e+06	1.42	y 44:34	1.06	2060		*	2.5	*	1.009	1.004-1.014	
Hexa	PCB-130	1.52e+06	1.17	y 44:41	0.96	2260		*	2.5	*	1.012	1.006-1.016	
Hexa	PCB-138/163/164	3.46e+07	1.22	y 45:02	1.29	37600		*	2.5	*	1.000	0.996-1.006	
Hexa	PCB-158/160	3.95e+06	1.23	y 45:16	1.34	4130		*	2.5	*	1.006	1.001-1.011	
Hexa	PCB-129	1.21e+06	1.29	y 45:32	0.85	2000		*	2.5	*	1.011	1.007-1.017	
Hexa	PCB-166	1.03e+05	1.20	y 46:00	1.19	124		*	2.5	*	0.994	0.988-0.998	
Hexa	PCB-159	*	*	n NotF η	1.11	*		3650	2.5	132	*	0.996-1.006	
Hexa	PCB-128/162	4.89e+06	1.17	y 46:35	1.05	6670		*	2.5	*	1.006	1.002-1.012	
Hexa	PCB-167	1.38e+06	1.33	y 47:01	1.20	1580		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-156	3.31e+06	1.28	y 48:18	1.14	4130		*	2.5	*	1.000	0.996-1.006	
Hexa	PCB-157	7.57e+05	1.21	y 48:35	1.16	859		*	2.5	*	1.001	0.995-1.005	
Hexa	PCB-169	*	*	n NotF η	1.12	*		3650	2.5	175	*	0.995-1.005	
Hepta	PCB-188	*	*	n NotF η	1.58	*		2040	2.5	44.7	*	0.996-1.006	
Hepta	PCB-184	*	*	n NotF η	1.63	*		2040	2.5	43.3	*	1.006-1.016	
Hepta	PCB-179	4.86e+06	1.06	y 44:18	1.30	6350		*	2.5	*	1.029	1.024-1.034	
Hepta	PCB-176	1.45e+06	1.06	y 44:46	1.48	1670		*	2.5	*	1.040	1.035-1.045	
Hepta	PCB-186	*	*	n NotF η	1.45	*		2040	2.5	48.6	*	1.050-1.060	
Hepta	PCB-178	1.63e+06	1.09	y 45:52	1.03	2690		*	2.5	*	1.065	1.061-1.071	
Hepta	PCB-175	3.37e+05	0.93	y 46:12	1.01	567		*	2.5	*	1.073	1.069-1.079	
Hepta	PCB-182/187	1.15e+07	1.05	y 46:23	1.25	15700		*	2.5	*	1.077	1.073-1.083	
Hepta	PCB-183	5.30e+06	1.02	y 46:42	1.21	7470		*	2.5	*	1.085	1.081-1.091	
Hepta	PCB-185	1.01e+06	1.04	y 47:22	1.80	1580		*	2.5	*	0.955	0.951-0.961	
Hepta	PCB-174	8.34e+06	1.04	y 47:44	1.38	17200		*	2.5	*	0.963	0.958-0.968	
Hepta	PCB-181	*	*	n NotF η	1.38	*		2040	2.5	78.1	*	0.960-0.970	
Hepta	PCB-177	4.15e+06	1.06	y 48:00	1.26	9360		*	2.5	*	0.968	0.963-0.973	
Hepta	PCB-171	1.96e+06	1.07	y 48:18	1.58	3510		*	2.5	*	0.974	0.970-0.980	
Hepta	PCB-173	1.29e+05	1.27	n 48:44	1.11	329	R	*	2.5	*	0.983	0.978-0.988	
Hepta	PCB-172	1.23e+06	0.95	y 49:12	1.63	2130		*	2.5	*	0.992	0.987-0.997	
Hepta	PCB-192	*	*	n NotF η	1.74	*		2040	2.5	61.9	*	0.991-1.001	
Hepta	PCB-180	1.86e+07	1.02	y 49:36	1.34	39200		*	2.5	*	1.000	0.995-1.005	

Analyst: pm5

Date: 9/26/14

Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02RE1 DL 1:20

Filename: 140924E1
GC Column ID: ZB-1

S:9 Acq:24-SEP-14 19:44:22
ICal: PCBVG8-6-23-14 wt/vol:10.071

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	9.90e+05	1.13	y 49:47	1.72	1640		*	2.5	*	1.004	0.999-1.009	
Hepta	PCB-191	3.42e+05	1.16	y 50:02	1.69	572		*	2.5	*	1.009	1.004-1.014	
Hepta	PCB-170	5.54e+06	1.08	y 51:04	1.60	15500		*	2.5	*	1.000	0.995-1.005	
Hepta	PCB-190	1.47e+06	1.06	y 51:14	2.21	2980		*	2.5	*	1.004	0.998-1.008	
Hepta	PCB-189	1.80e+05	0.94	y 52:33	1.55	354		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-202	8.29e+05	0.98	y 48:30	1.08	1690		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-201	5.73e+05	0.86	y 49:00	1.15	1100		*	2.5	*	1.010	1.005-1.015	
Octa	PCB-204	*	*	n NotF η	1.14	*		1360	2.5	63.4	*	1.008-1.018	
Octa	PCB-197	1.75e+05	0.89	y 49:27	1.07	358		*	2.5	*	1.020	1.015-1.025	
Octa	PCB-200	4.83e+05	0.89	y 50:19	1.06	1000		*	2.5	*	1.037	1.032-1.044	
Octa	PCB-198	1.65e+05	0.83	y 51:40	0.76	480		*	2.5	*	1.065	1.059-1.069	
Octa	PCB-199	2.52e+06	0.89	y 51:44	0.80	6960		*	2.5	*	1.067	1.061-1.071	
Octa	PCB-196/203	2.93e+06	0.92	y 52:00	0.80	8040		*	2.5	*	1.072	1.066-1.076	
Octa	PCB-195	*	*	n NotF η	1.23	*		*	2.5	*	*	0.979-0.989	
Octa	PCB-194	*	*	n NotF η	1.21	*		*	2.5	*	*	0.995-1.005	
Octa	PCB-205	*	*	n NotF η	1.54	*		*	2.5	*	*	1.001-1.011	
Nona	PCB-208	2.44e+05	1.45	y 53:18	0.93	690		*	2.5	*	1.000	0.995-1.005	
Nona	PCB-207	1.42e+05	1.44	y 53:37	1.08	345		*	2.5	*	1.006	1.001-1.011	
Nona	PCB-206	6.50e+05	1.38	y 55:42	1.02	2190		*	2.5	*	1.000	0.995-1.005	
Deca	PCB-209	2.38e+05	1.30	y 57:01	1.17	811		*	2.5	*	1.000	0.995-1.005	

* = See original injection

Analyst: DMS

Date: 9/26/14

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	4.72e+06	3.07 y	16:17	1.27	1923.80	
Total Di-PCB	4.90e+07	1.65 y	20:14	1.21	25765.2	
Total Tri-PCB	8.17e+07	1.10 y	24:25	1.10	60411.8	
Total Tri-PCB	1.01e+08	1.09 y	28:06	1.21	64637.5	Sum:125049
Total Tetra-PCB	1.97e+08	0.88 y	28:09	1.09	185317	
Total Penta-PCB	1.65e+08	1.39 y	34:07	1.18	210972	
Total Penta-PCB	1.39e+06	1.60 y	42:26	1.25	1556.07	Sum:212528
Total Hexa-PCB	*	* n	NotFnd	0.90	62390*	
Total Hexa-PCB	1.10e+08	1.19 y	42:21	1.11	131139	Sum:131139
Total Hepta-PCB	6.89e+07	1.06 y	44:18	1.42	128477	
Total Octa-PCB	7.67e+06	0.98 y	48:30	0.96	19633.0	
Total Octa-PCB	*	* n	NotFnd	1.33	11292*	Sum:19633.0
Total Nona-PCB	1.04e+06	1.45 y	53:18	1.01	3227.29	
Total Deca-PCB	2.38e+05	1.30 y	57:01	1.17	811.155	

*
+ 14163.9 = 226691.9

*
+ 62390.4 = 193529.4

*
+ 11292.6 = 30925.6

Total PCB Conc: 835096.152514 + 87846.92 = 922,943.07
922,000

* = See ORIGINAL injection

Integrations
by
Analyst: DMS
Date: 9/26/14

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	1.96e+06	2.96 y	0.87	16:16	0.623	0.629-0.635		951	95.8											
13C-PCB-3	1.87e+06	3.04 y	0.91	18:53	0.723	0.725-0.733		869	87.5		13C-PCB-79	1.04e+06	0.77 y	1.02	38:01	1.029	1.023-1.034		599	60.3
13C-PCB-4	9.93e+05	1.55 y	0.59	20:13	0.774	0.775-0.783		718	72.3		13C-PCB-178	4.31e+05	0.50 y	0.61	45:50	0.984	0.979-0.990		787	79.3
13C-PCB-9	1.67e+06	1.53 y	0.90	22:01	0.843	0.842-0.850		790	79.6											
13C-PCB-11	1.56e+06	1.63 y	0.94	25:25	0.973	0.968-0.978		708	71.3	PS vs. IS										
13C-PCB-19	1.04e+06	1.09 y	0.53	24:23	0.934	0.930-0.940		830	83.6		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-28	1.20e+06	1.11 y	0.93	29:16	1.003	0.999-1.009		760	76.6		13C-PCB-79	1.04e+06	0.77 y	1.10	38:01	0.969	0.964-0.974		835	84.1
13C-PCB-32	1.57e+06	1.00 y	0.80	27:18	1.045	1.040-1.050		836	84.1		13C-PCB-178	4.31e+05	0.50 y	0.90	45:50	0.924	0.920-0.930		1360	137
13C-PCB-37	1.10e+06	1.08 y	0.84	33:13	1.139	1.131-1.143		773	77.9											
13C-PCB-47	9.48e+05	0.73 y	0.81	32:13	0.872	0.866-0.874		680	68.5											
13C-PCB-52	8.46e+05	0.82 y	0.77	31:41	0.857	0.853-0.861		639	64.3											
13C-PCB-54	9.65e+05	0.75 y	0.97	28:08	0.761	0.758-0.766		580	58.4											
13C-PCB-70	1.14e+06	0.72 y	1.00	35:43	0.967	0.961-0.971		665	67.0											
13C-PCB-77	9.46e+05	0.75 y	0.94	39:50	1.078	1.073-1.083		585	58.9											
13C-PCB-80	1.37e+06	0.83 y	1.03	36:08	0.978	0.972-0.982		772	77.8											
13C-PCB-81	1.13e+06	0.86 y	0.92	39:14	1.062	1.057-1.067		712	71.7											
13C-PCB-95	6.24e+05	1.70 y	0.74	36:00	0.913	0.908-0.918		827	83.3	RS										
13C-PCB-97	5.87e+05	1.68 y	0.70	38:59	0.989	0.984-0.994		819	82.5		Name	Resp	RA	RRF	RT	Conc				
13C-PCB-101	6.12e+05	1.68 y	0.78	37:41	0.956	0.951-0.961		767	77.3		13C-PCB-15	2.34e+06	1.55 y	1.00	26:07	993				
13C-PCB-104	8.00e+05	1.33 y	1.00	32:54	0.834	0.828-0.836		785	79.0		13C-PCB-31	1.67e+06	0.92 y	1.00	29:10	993				
13C-PCB-105	5.25e+05	2.20 n	1.37	43:15	0.929	0.924-0.934		431	43.4	<i>62.1 *</i>	13C-PCB-60	1.70e+06	0.71 y	1.00	36:57	993				
13C-PCB-114	7.78e+05	1.77 y	1.36	42:25	0.911	0.905-0.915		640	64.4		13C-PCB-111	1.01e+06	1.59 y	1.00	39:26	993				
13C-PCB-118	7.18e+05	1.71 y	0.96	41:44	1.058	1.054-1.064		735	74.0		13C-PCB-128	8.86e+05	1.38 y	1.00	46:34	993				
13C-PCB-123	6.52e+05	1.60 y	0.89	41:34	1.054	1.050-1.060		716	72.1		13C-PCB-205	4.11e+05	0.90 y	1.00	54:20	993				
13C-PCB-126	5.80e+05	1.40 y	1.31	45:32	0.978	0.972-0.982		497	50.0											
13C-PCB-127	7.44e+05	1.55 y	1.47	43:37	0.937	0.931-0.941		566	57.0											
13C-PCB-138	7.08e+05	1.27 y	1.10	45:01	0.967	0.961-0.971		721	72.6											
13C-PCB-141	6.93e+05	1.32 y	1.07	44:10	0.948	0.943-0.953		723	72.8											
13C-PCB-153	6.81e+05	1.19 y	1.15	43:26	0.933	0.927-0.937		666	67.0											
13C-PCB-155	6.40e+05	1.10 y	0.84	37:14	0.944	0.939-0.949		749	75.4											
13C-PCB-156	7.00e+05	1.14 y	1.30	48:17	1.037	1.032-1.042		605	60.9											
13C-PCB-157	7.53e+05	1.18 y	1.36	48:33	1.043	1.038-1.048		621	62.5											
13C-PCB-159	6.96e+05	1.18 y	1.25	46:18	0.994	0.989-0.999		625	62.9											
13C-PCB-167	7.26e+05	1.40 y	1.35	47:00	1.009	1.004-1.014		602	60.6											
13C-PCB-169	5.37e+05	1.35 y	1.29	50:42	1.089	1.083-1.093		468	47.1											
13C-PCB-170	2.22e+05	0.49 y	0.54	51:03	1.096	1.089-1.101		459	46.2											
13C-PCB-180	3.50e+05	0.46 y	0.68	49:35	1.065	1.060-1.070		574	57.8											
13C-PCB-188	5.83e+05	0.46 y	0.92	43:03	0.924	0.919-0.929		712	71.7											
13C-PCB-189	3.25e+05	0.43 y	0.72	52:32	1.128	1.120-1.132		509	51.3											
13C-PCB-194	2.20e+05	0.60 n	0.80	54:03	0.995	0.990-1.000		666	67.1											
13C-PCB-202	4.51e+05	0.84 y	0.84	48:30	1.042	1.036-1.046		602	60.7	<i>28.3 *</i>										
13C-PCB-206	2.88e+05	0.83 y	0.65	55:41	1.025	1.021-1.031		1070	108	<i>92.0 *</i>										
13C-PCB-208	3.77e+05	0.75 y	1.08	53:17	0.981	0.976-0.986		843	84.9											
13C-PCB-209	2.49e+05	1.11 y	0.61	57:01	1.049	1.045-1.055		986	99.3											

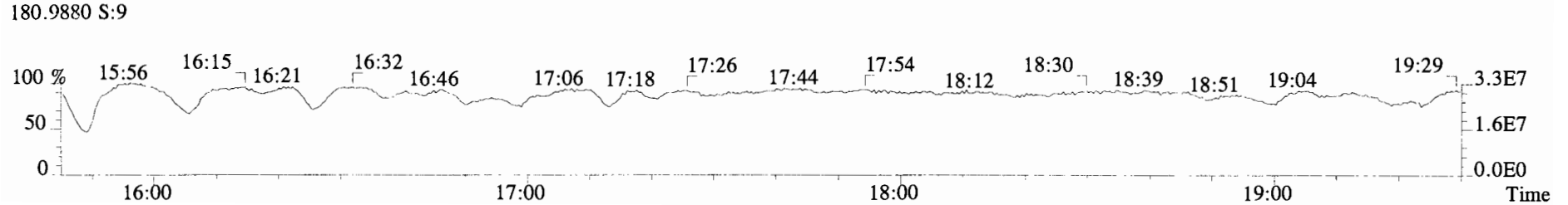
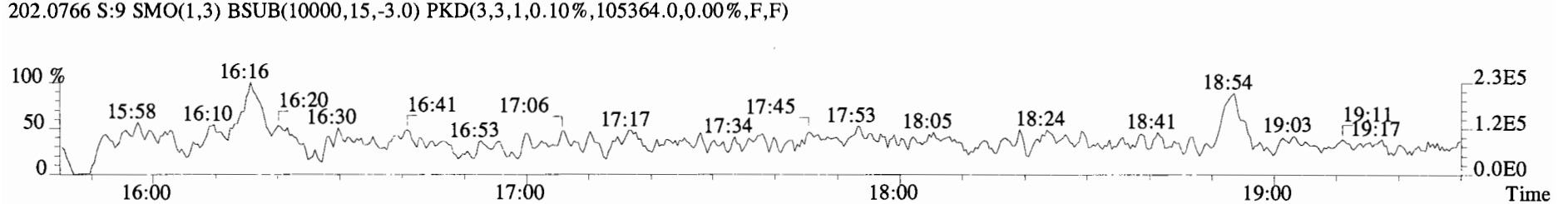
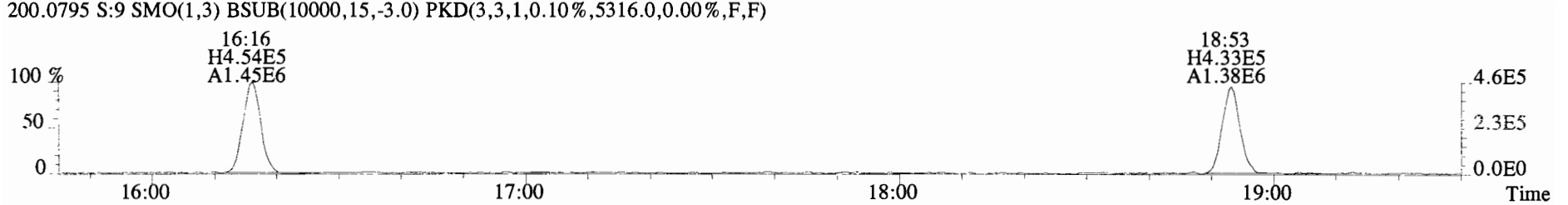
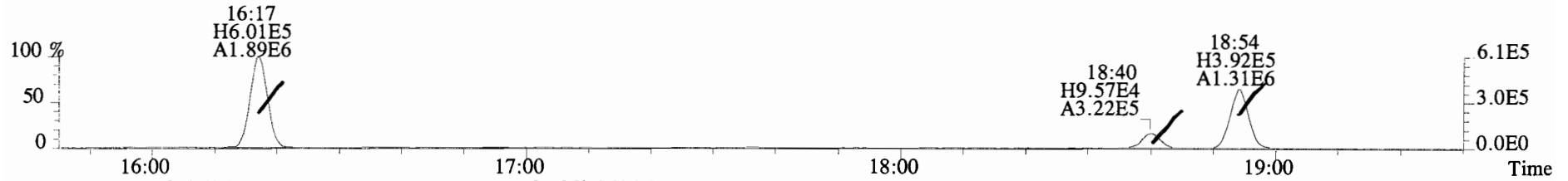
** RRT limits used for data processing only.
RRT's within 16680 method limits.*

Analyst: DMS

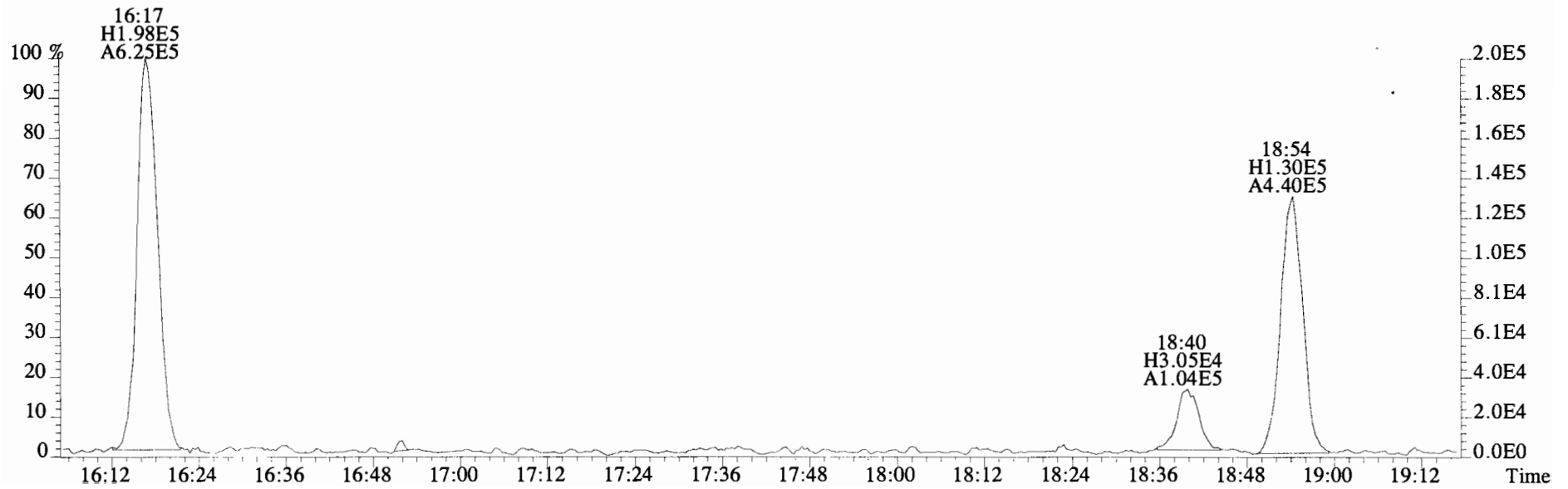
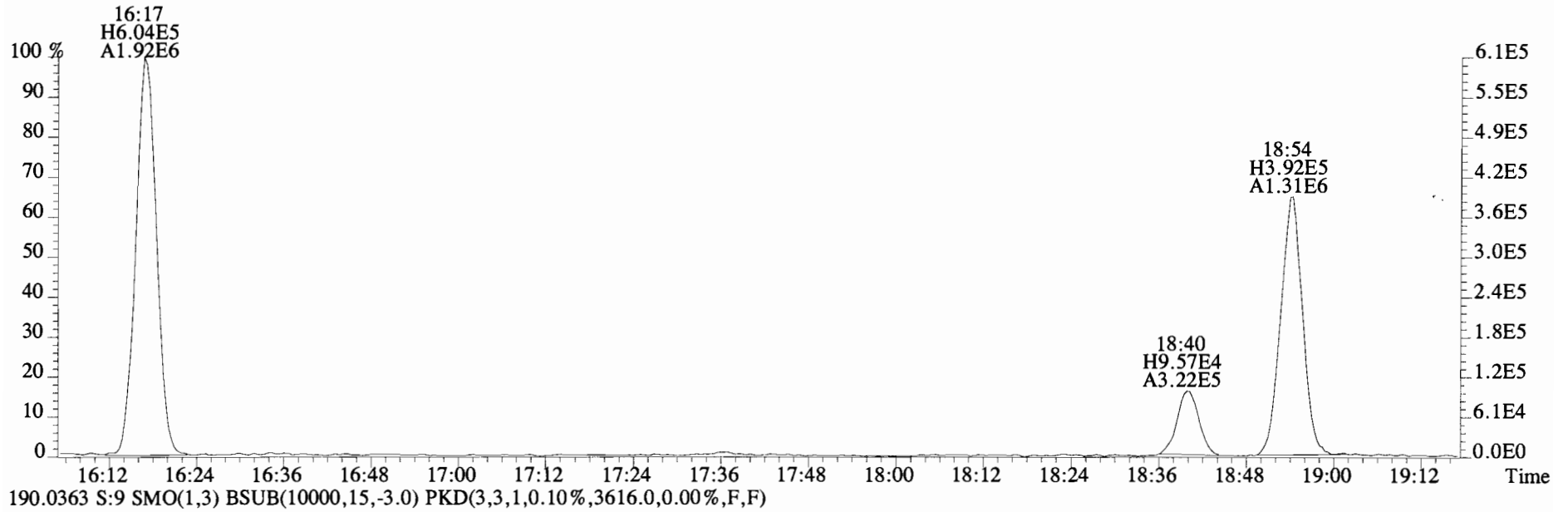
Date: 9/26/14

** = See original injection*

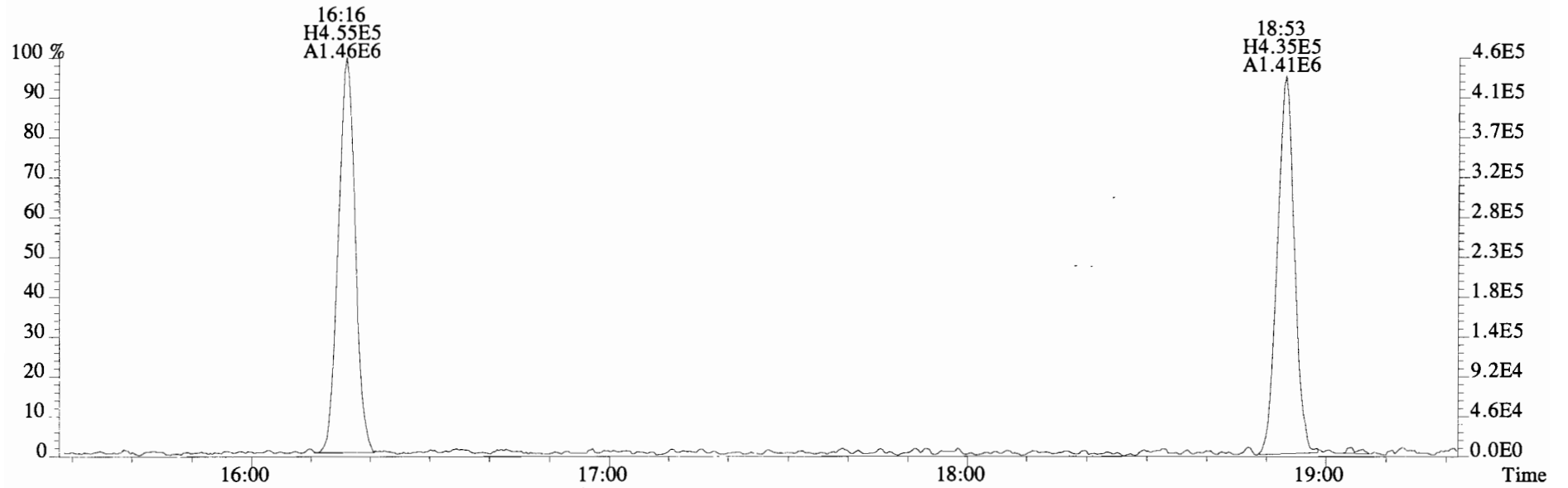
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
188.0393 S:9 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3260.0,0.00%,F,F)



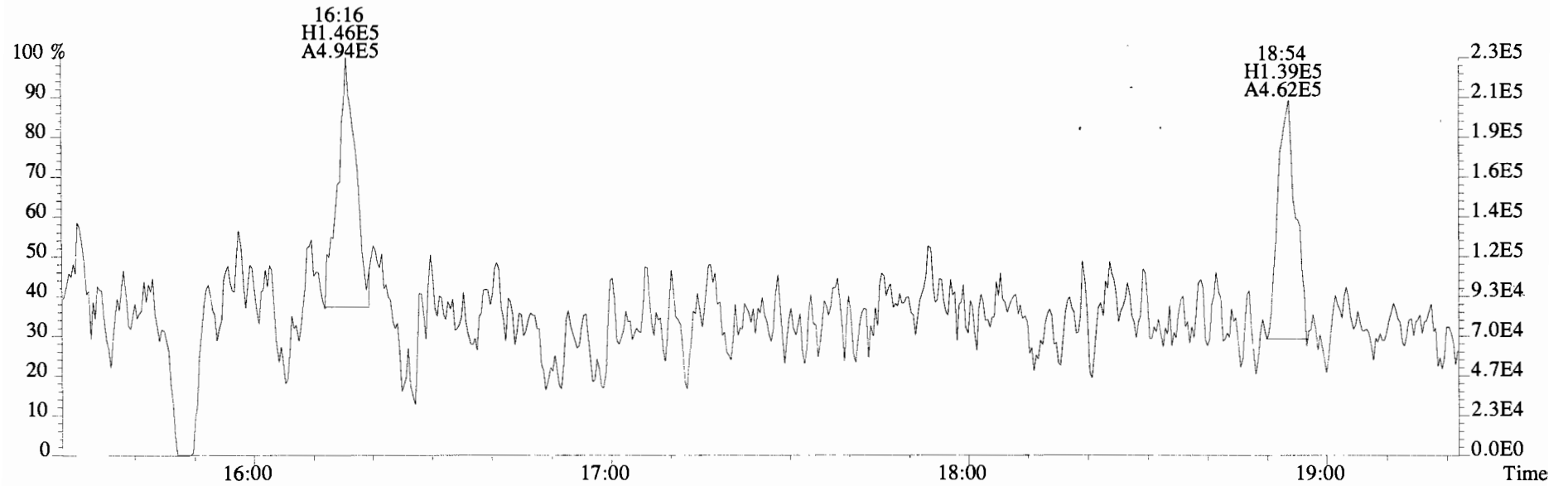
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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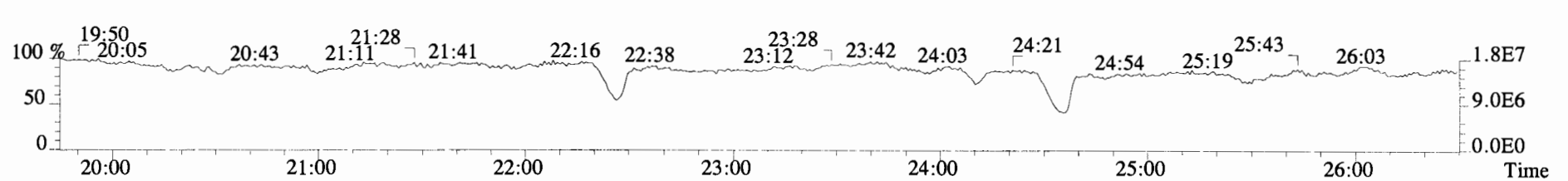
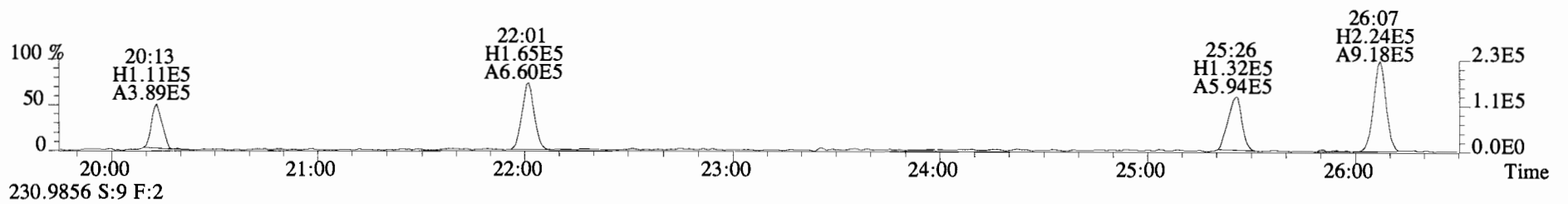
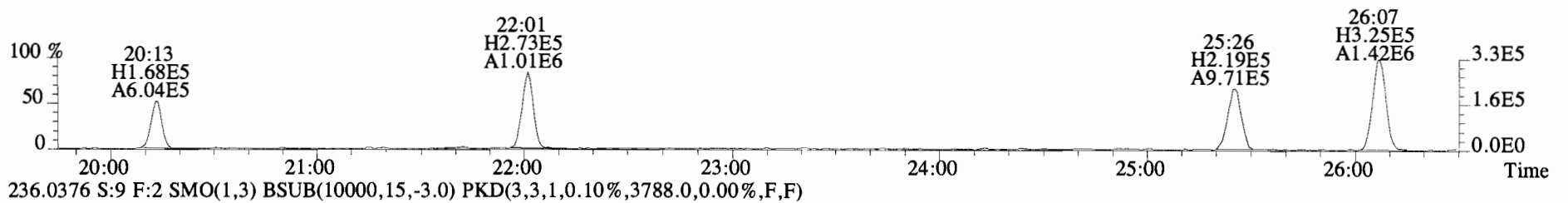
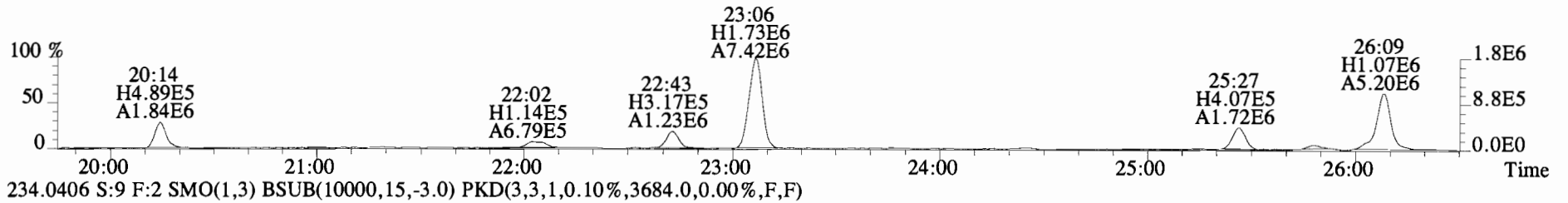
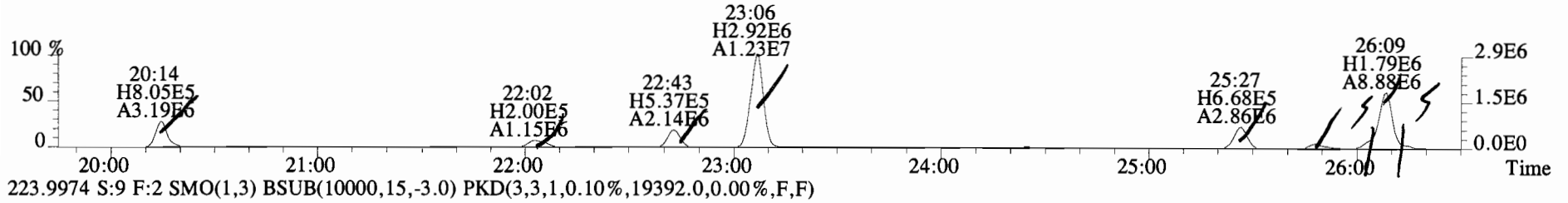
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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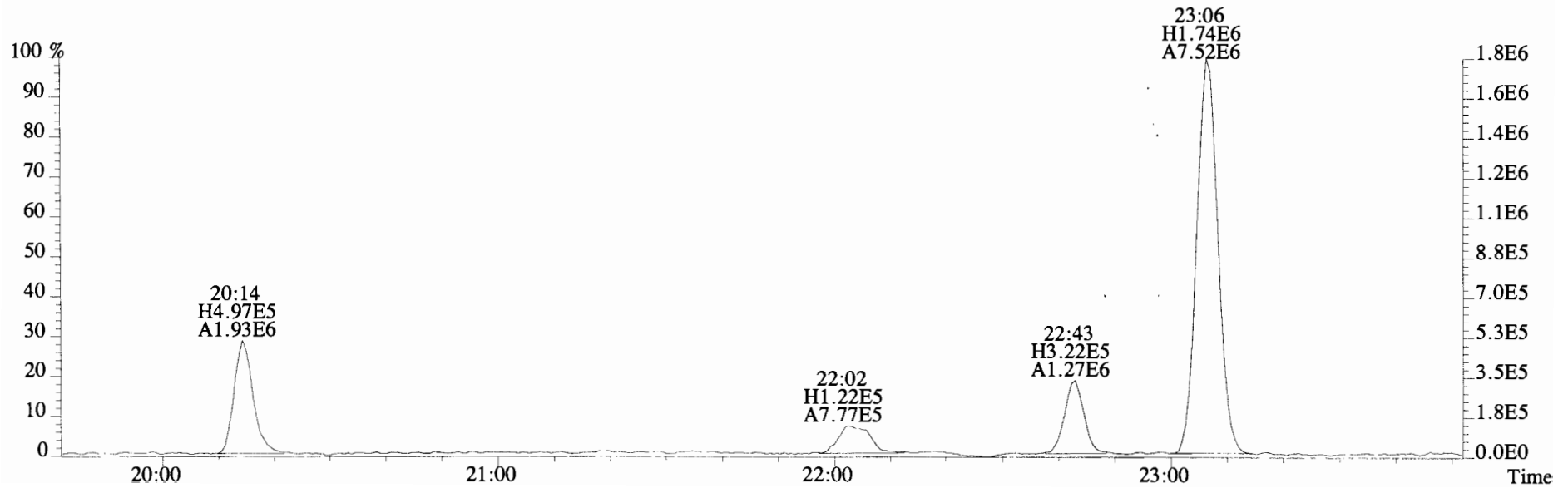
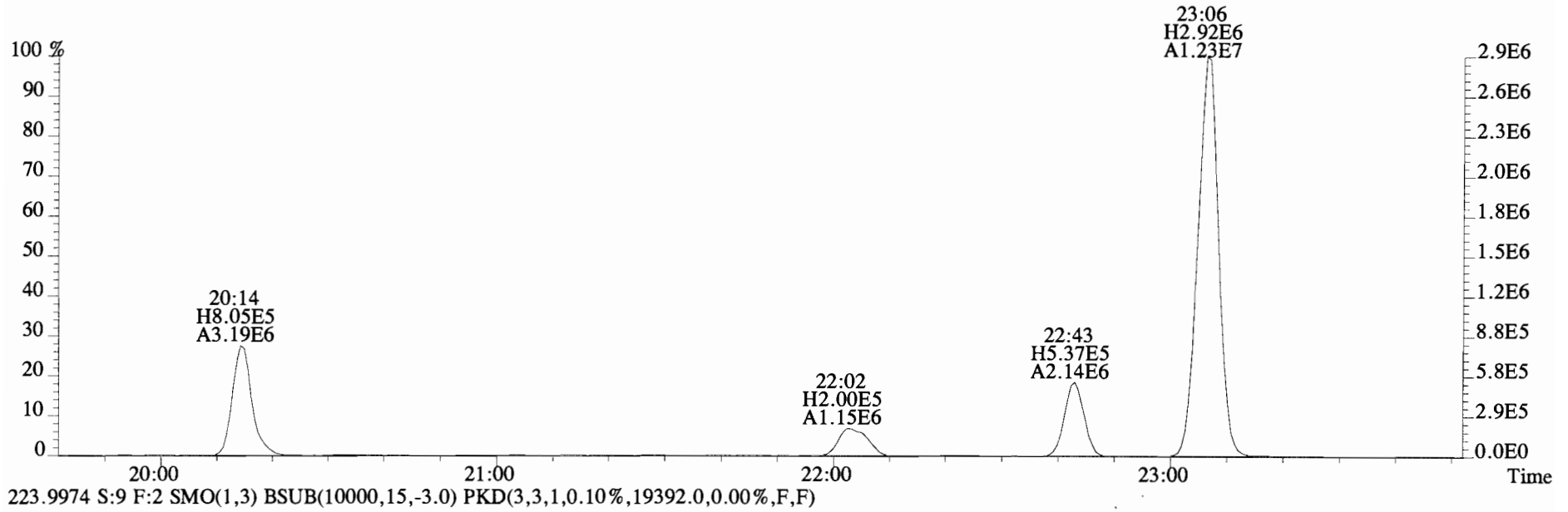
202.0766 S:9 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,105364.0,0.00%,F,F)



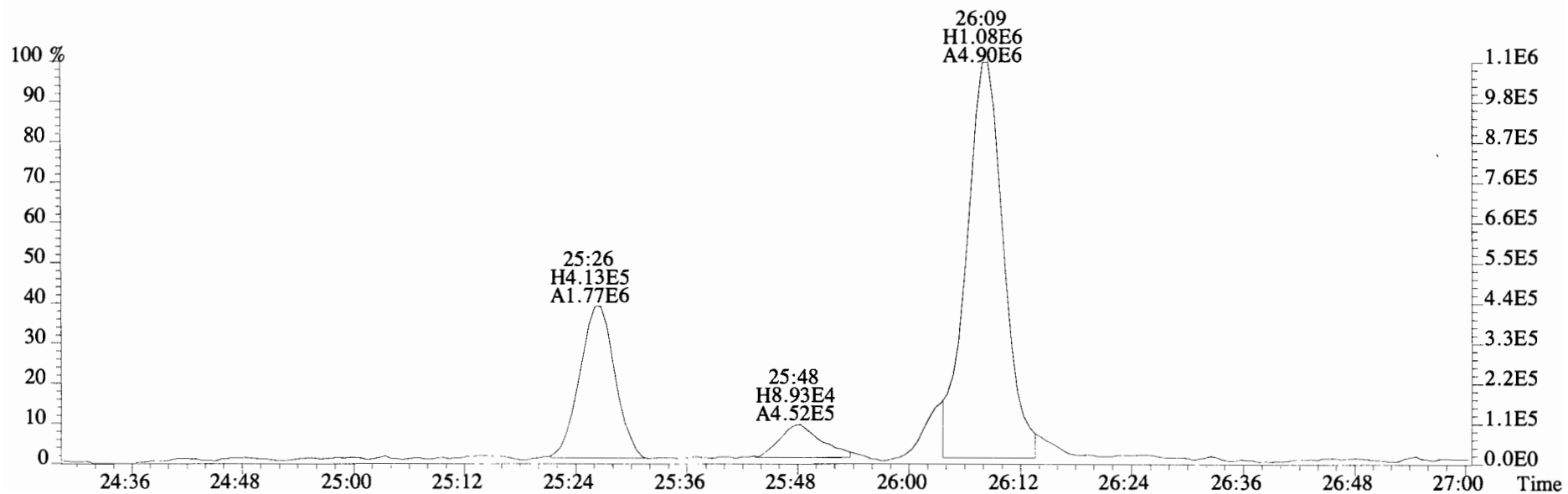
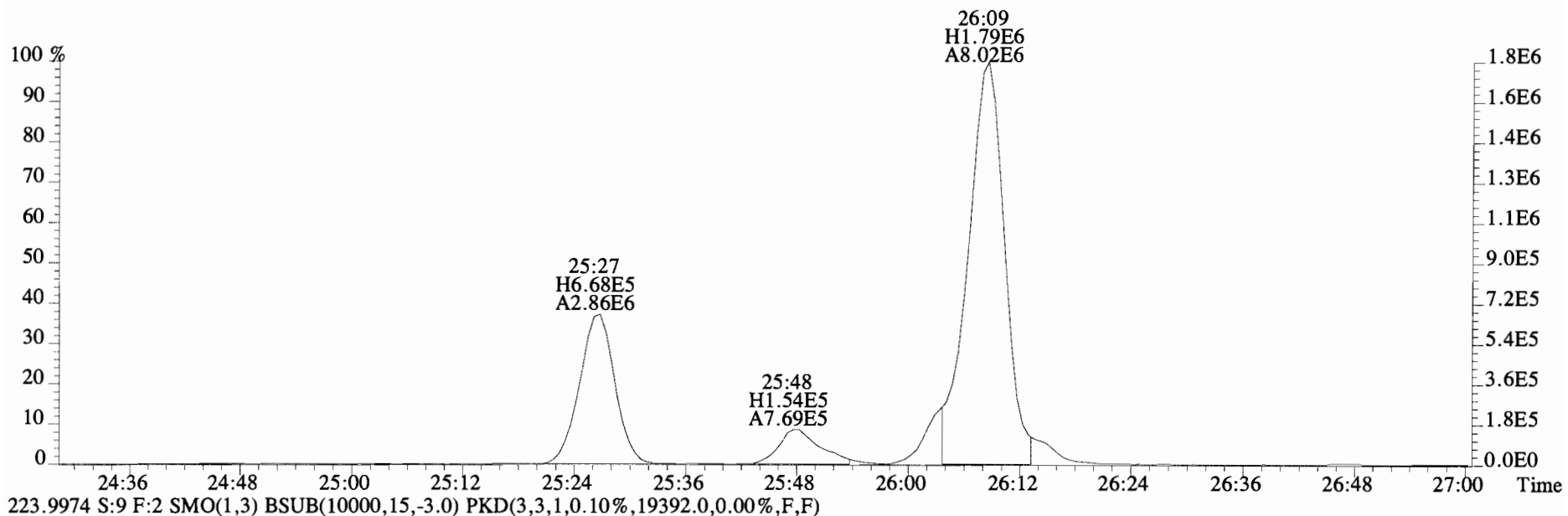
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 Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
 222.0003 S:9 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2980.0,0.00%,F,F)



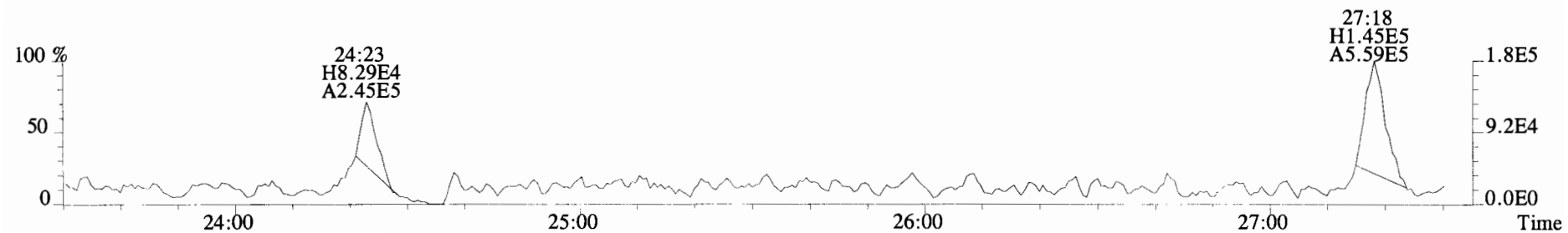
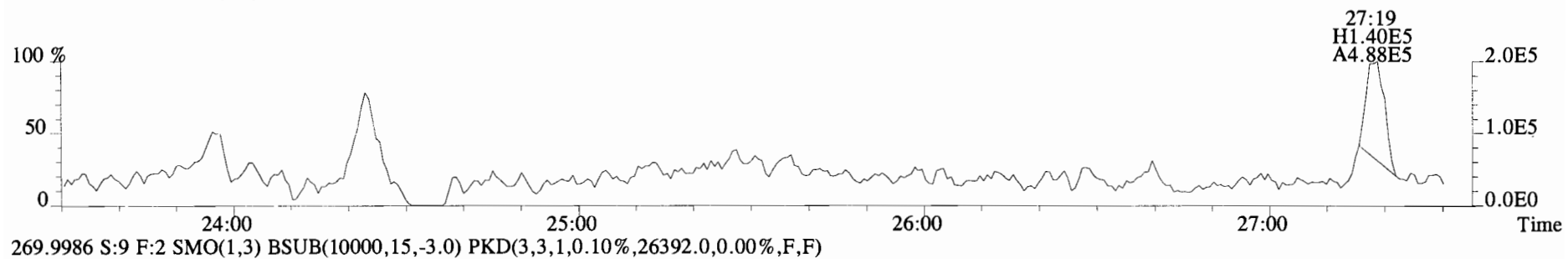
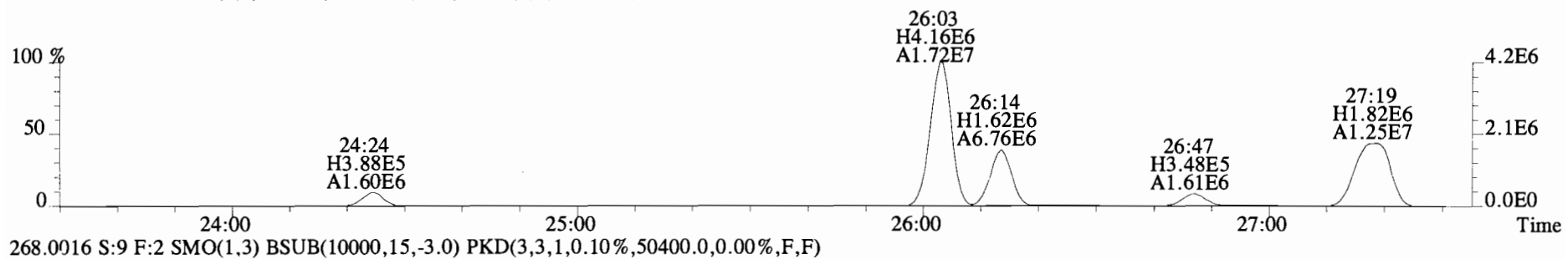
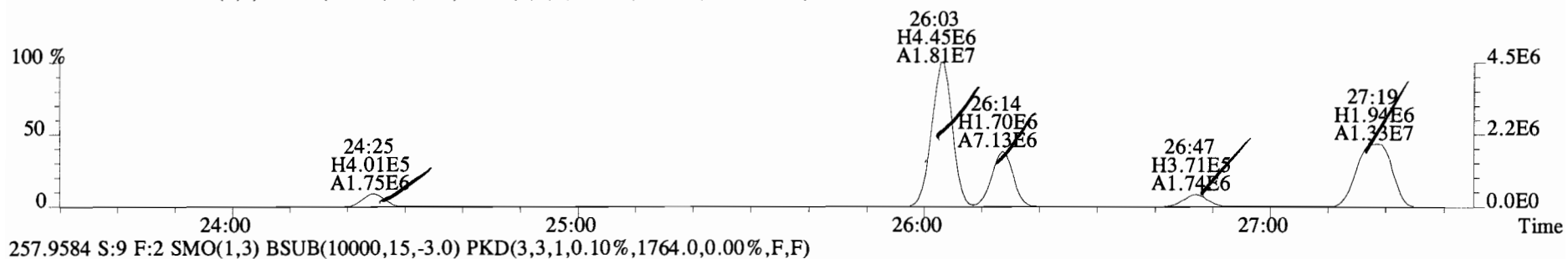
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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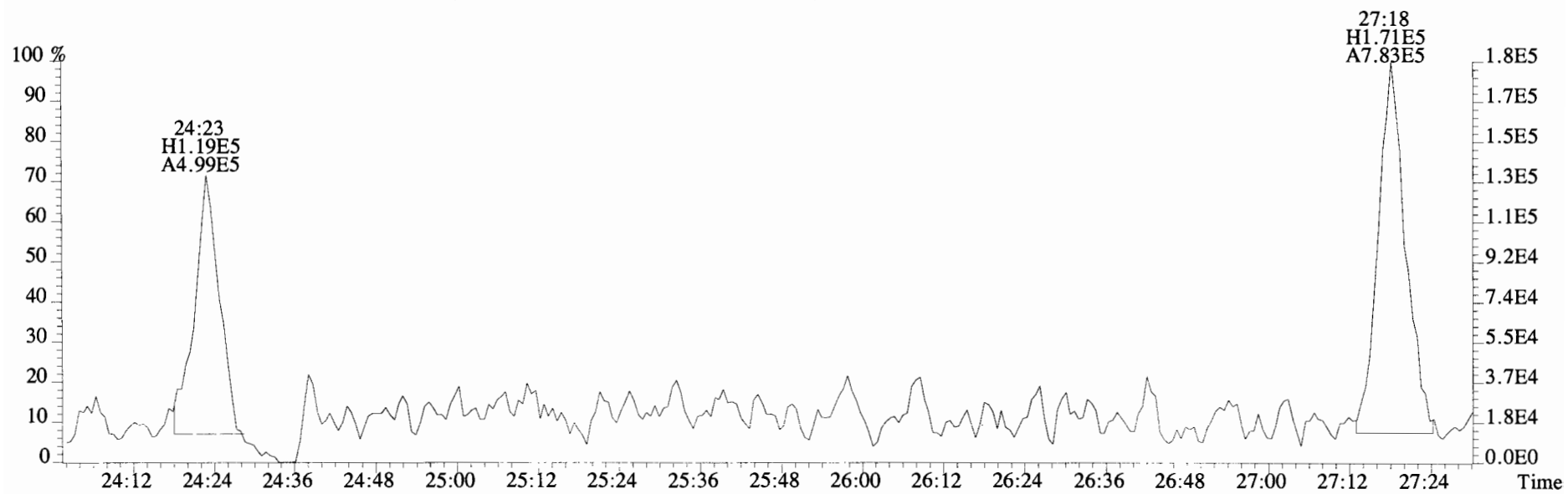
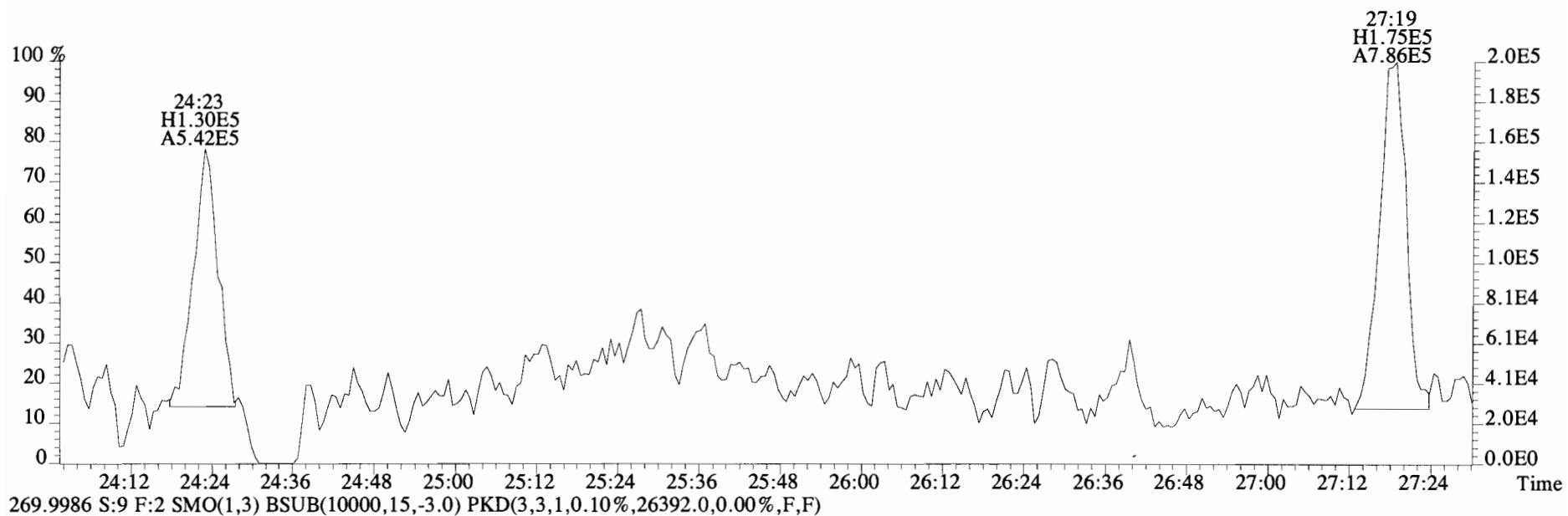
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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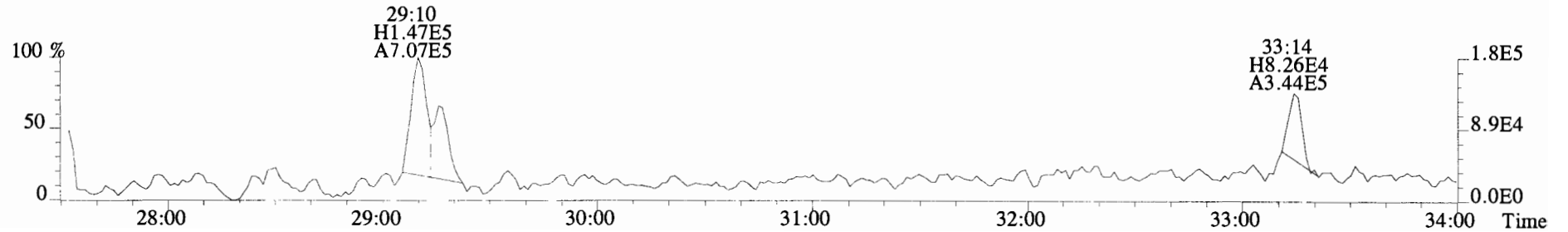
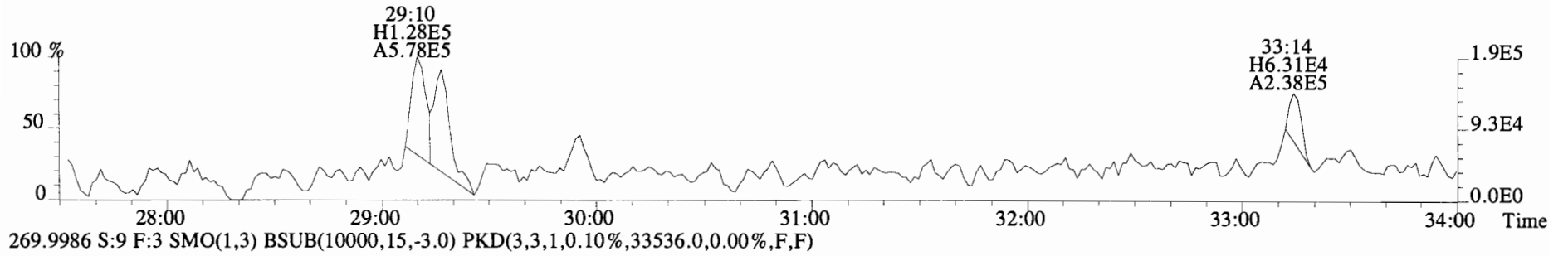
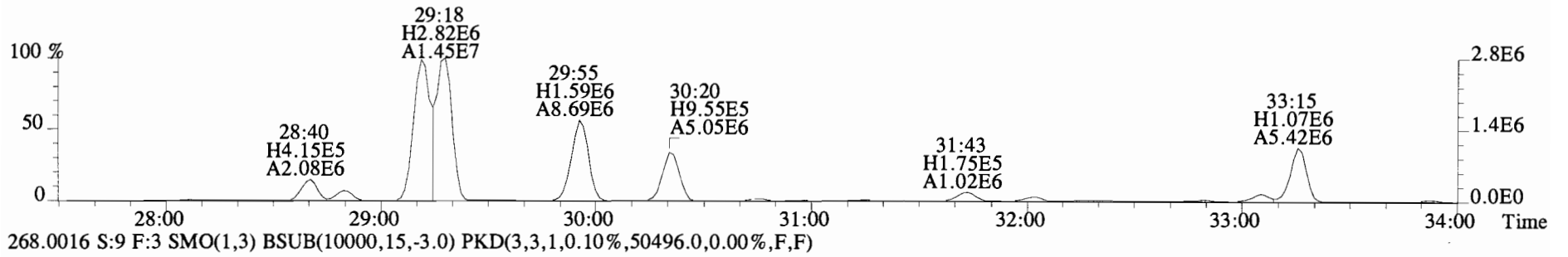
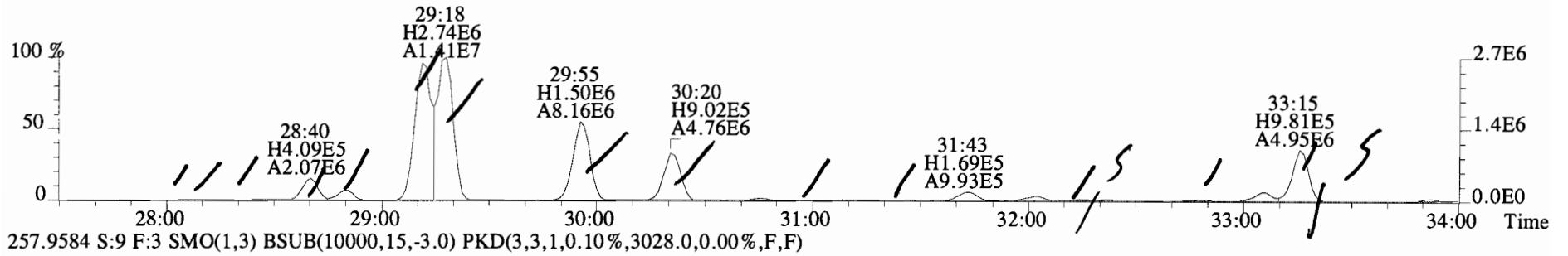
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 255.9613 S:9 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3924.0,0.00%,F,F)



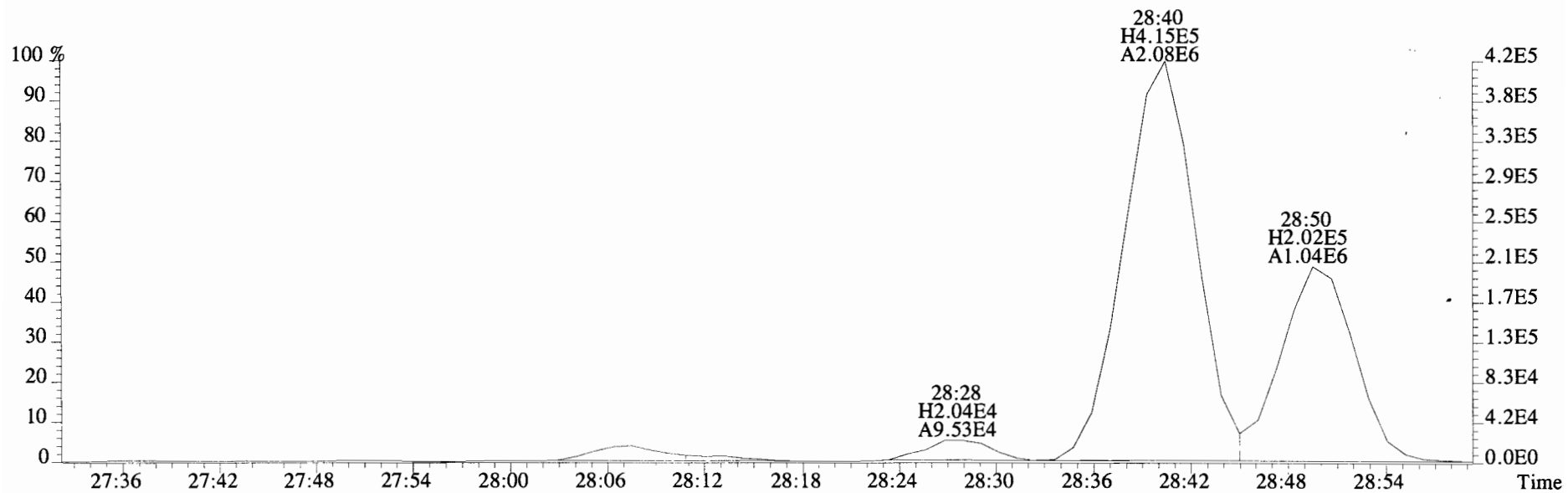
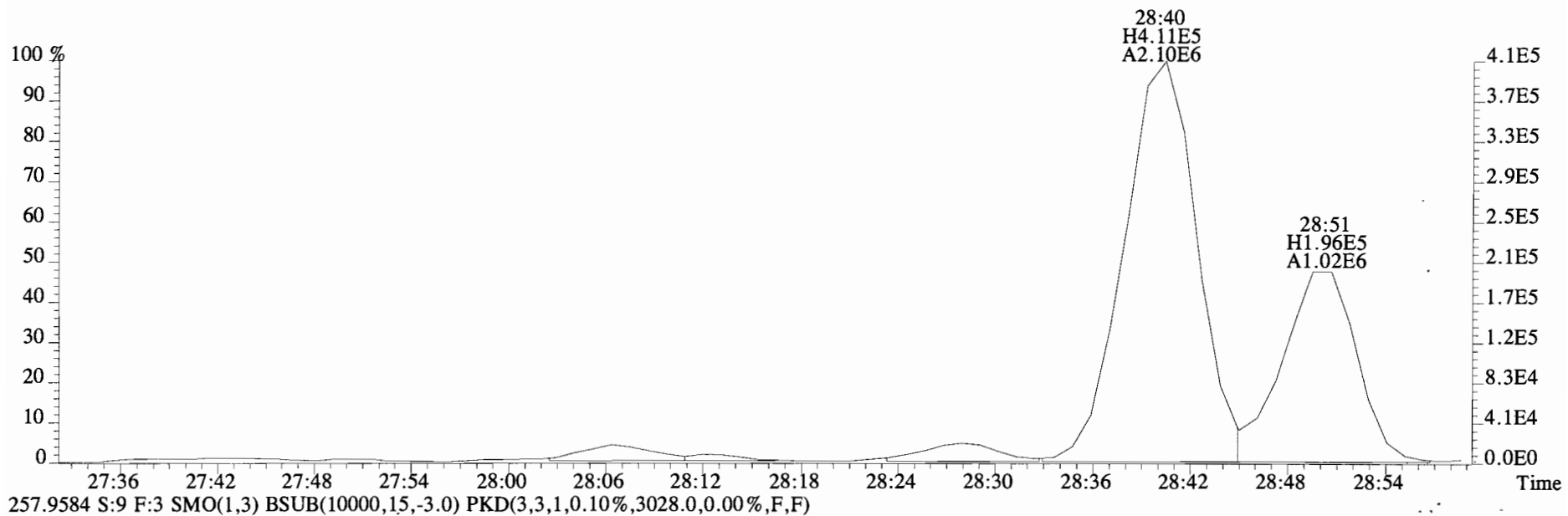
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
268.0016 S:9 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,50400.0,0.00%,F,F)



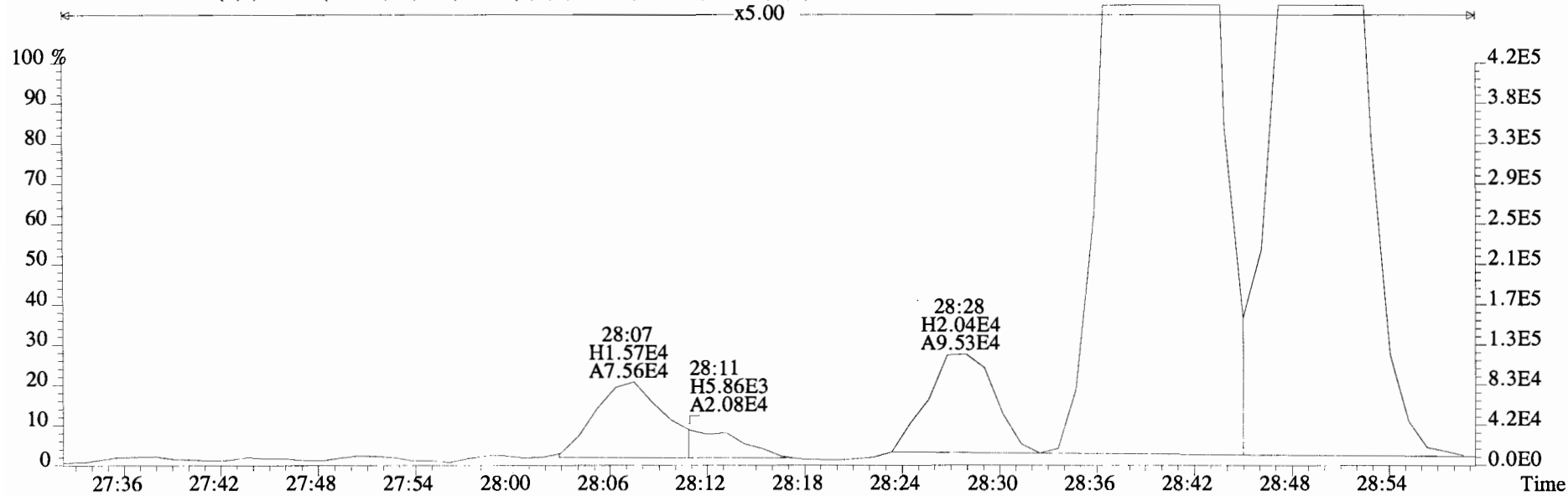
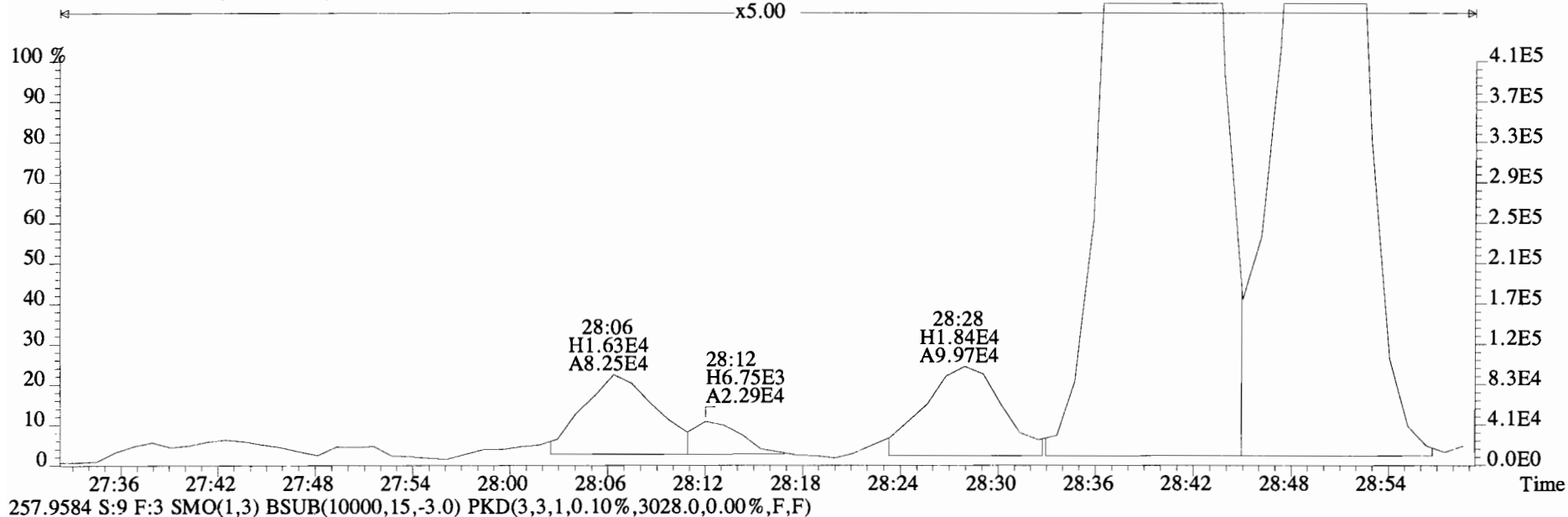
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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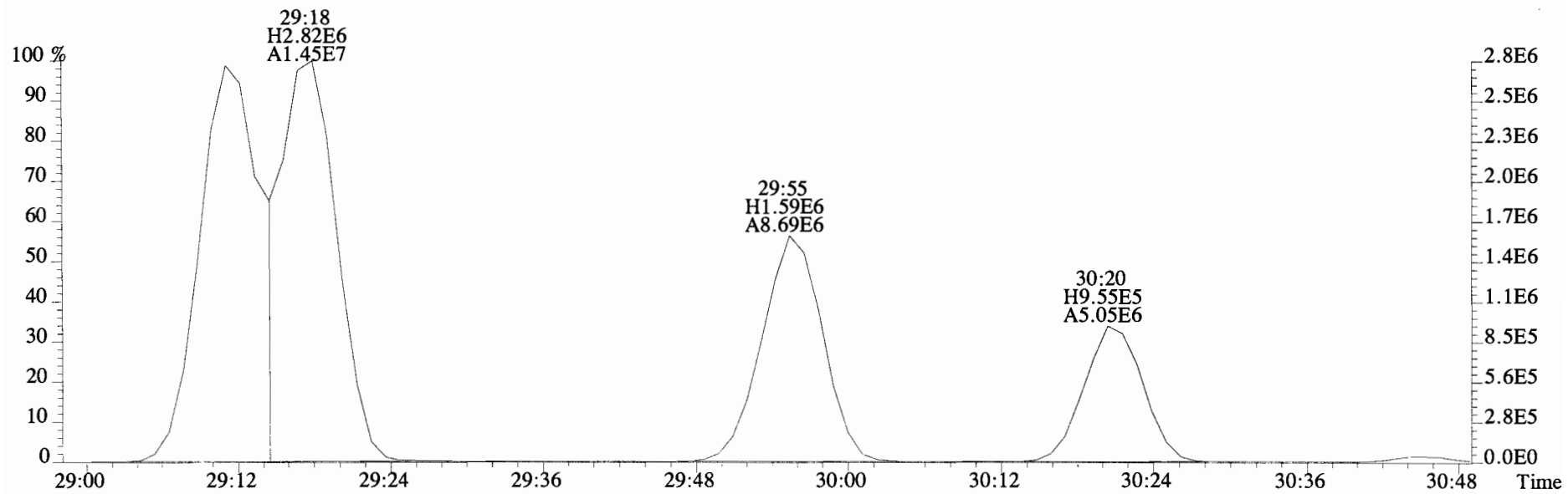
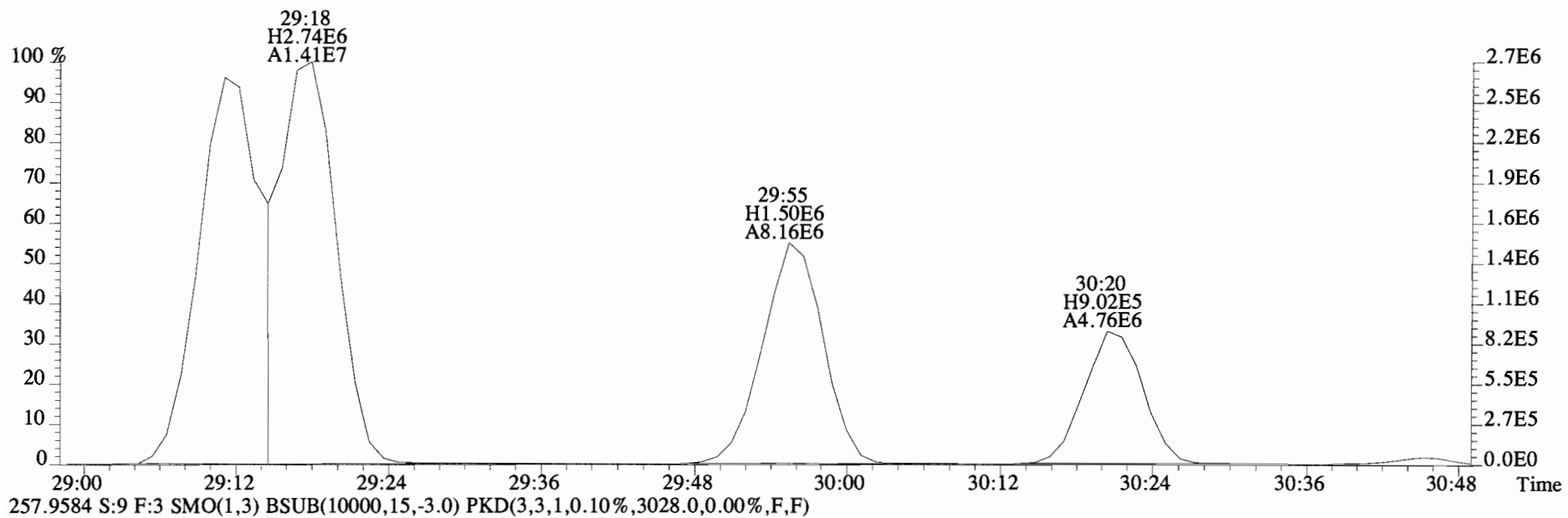
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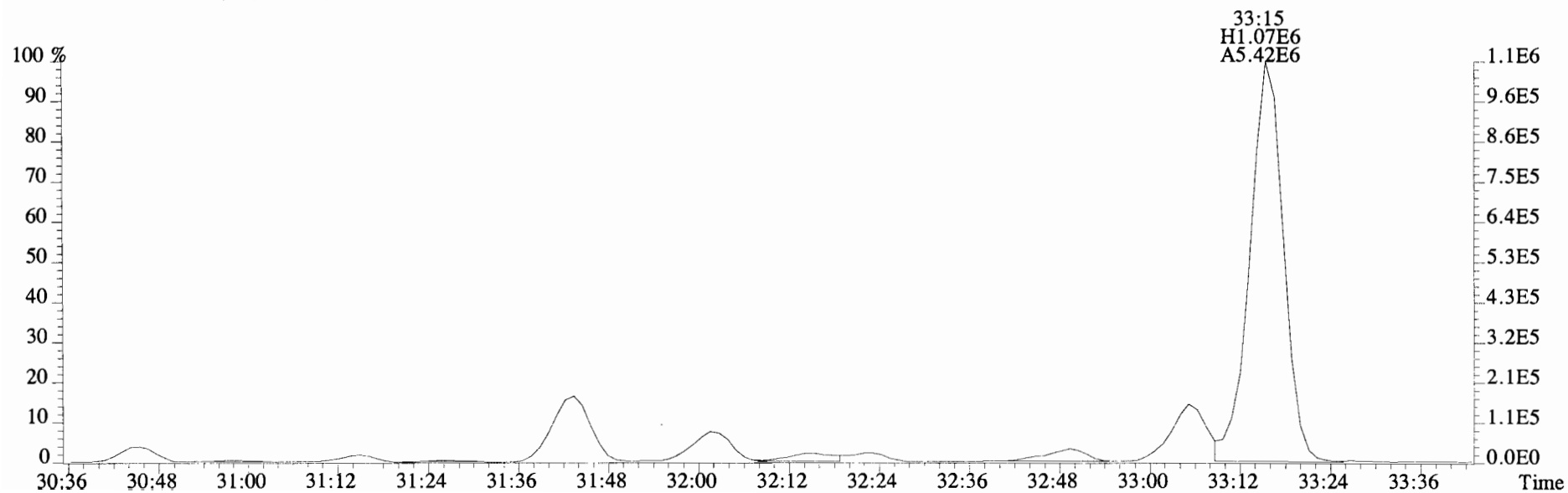
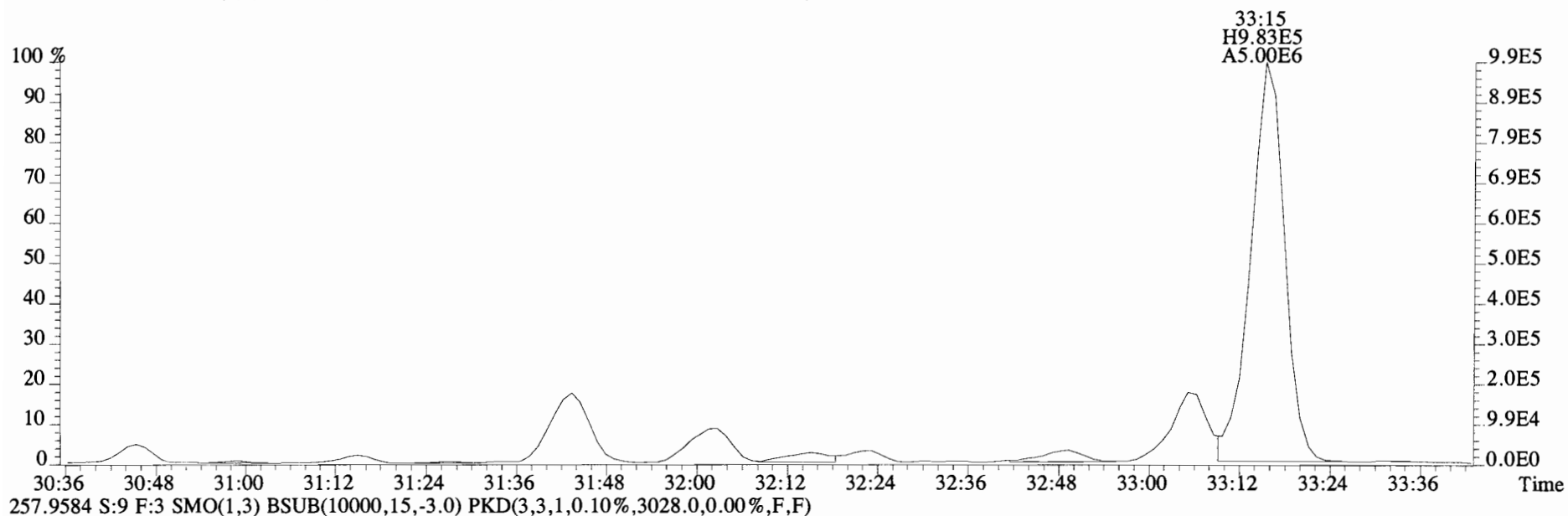
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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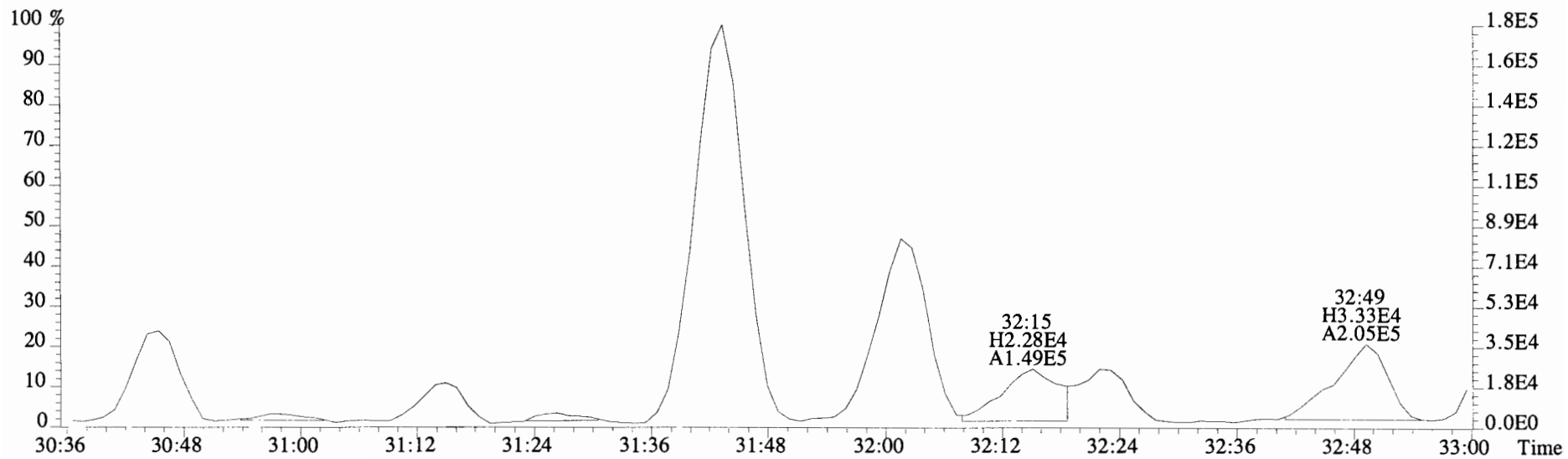
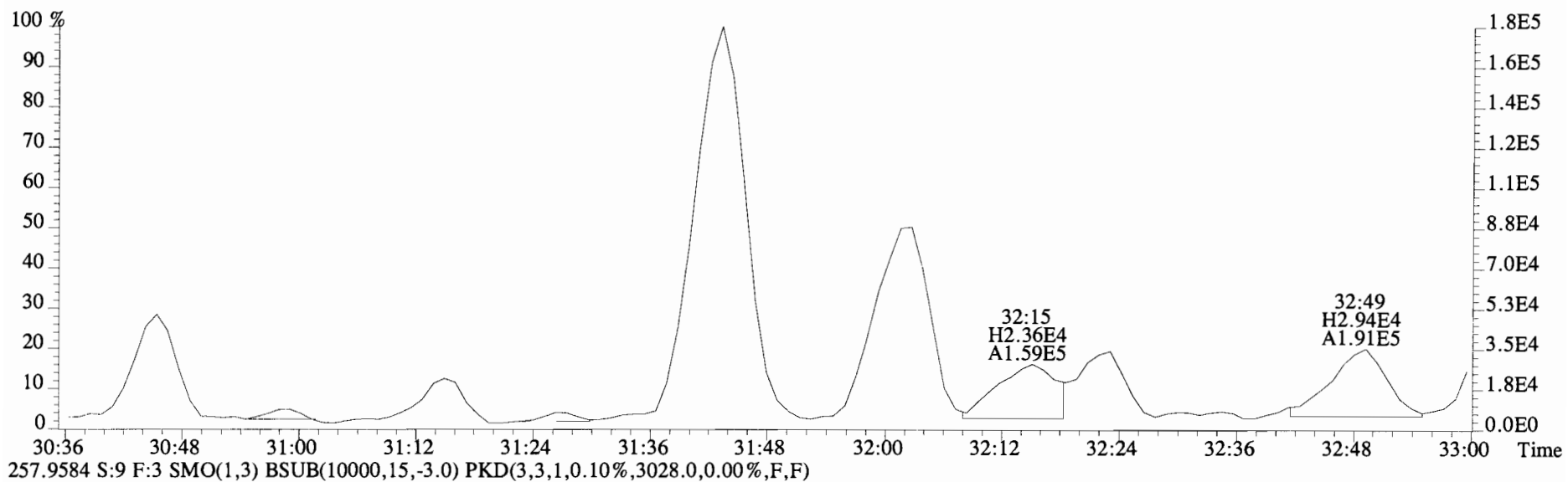
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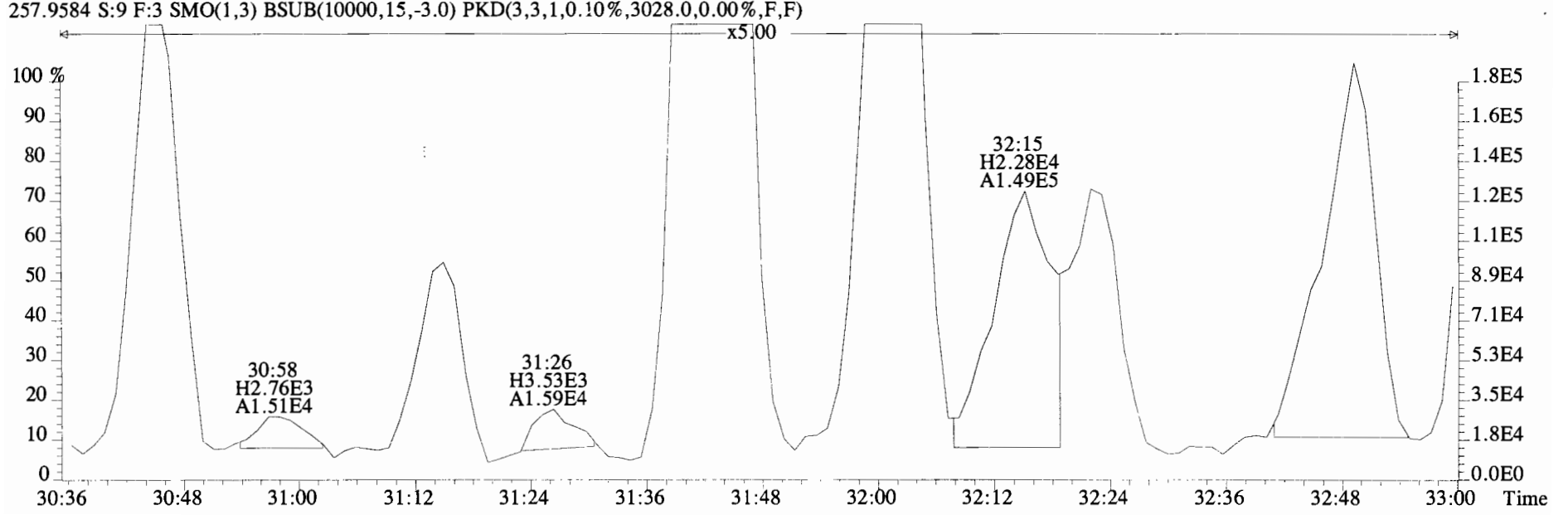
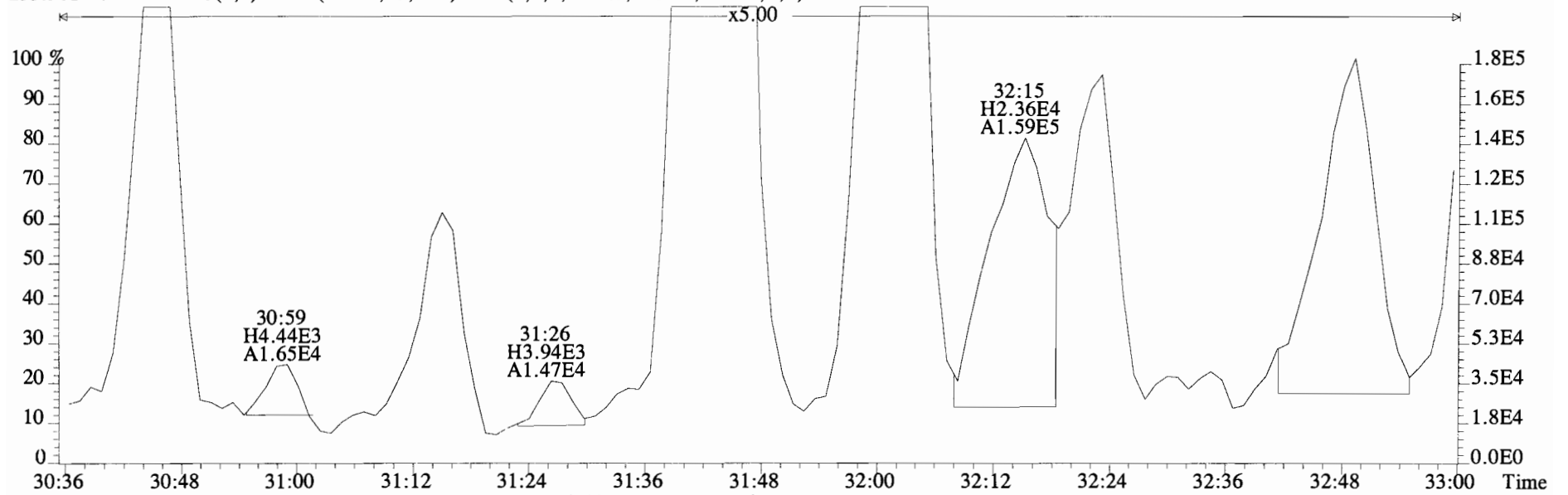
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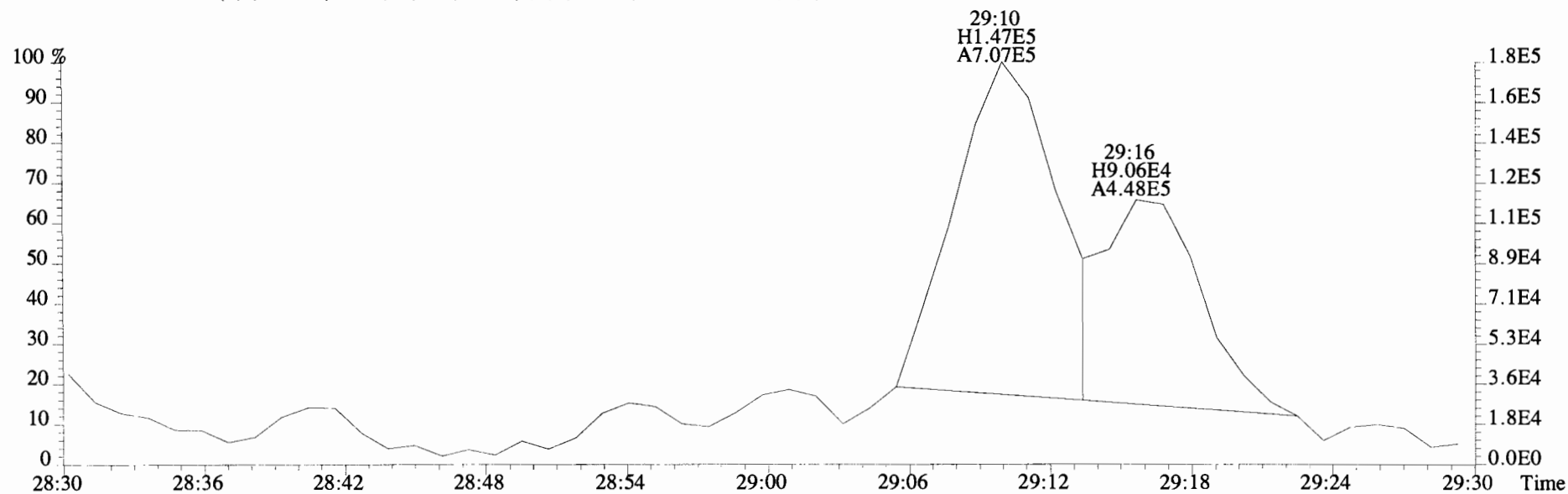
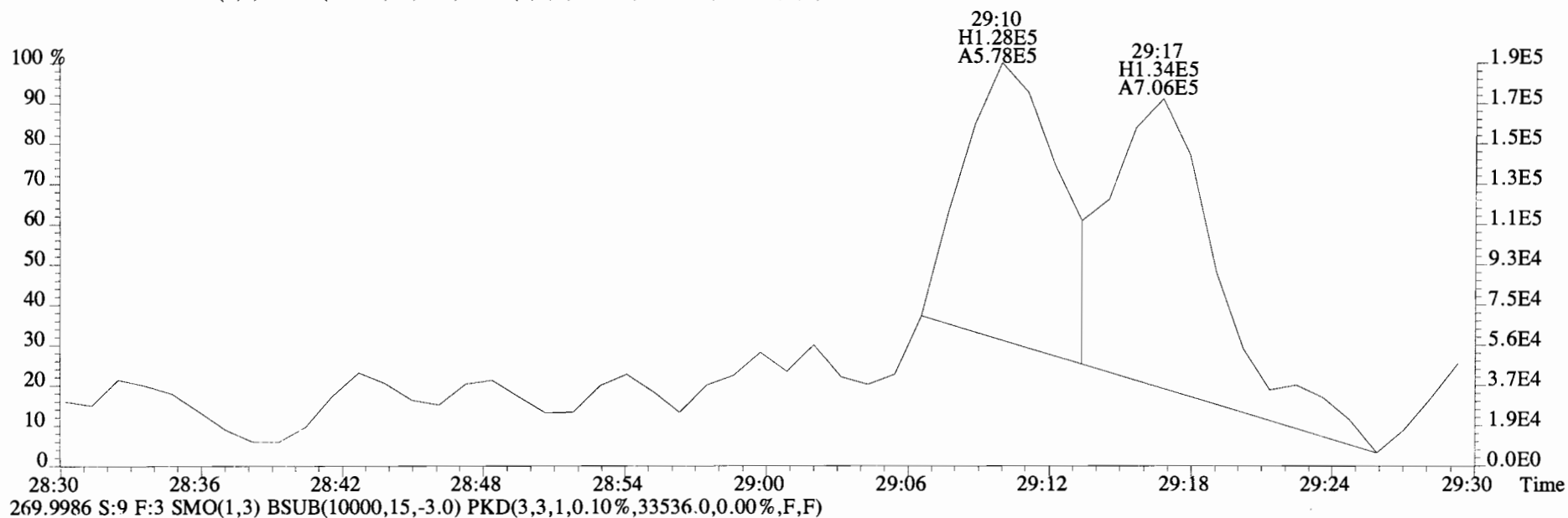
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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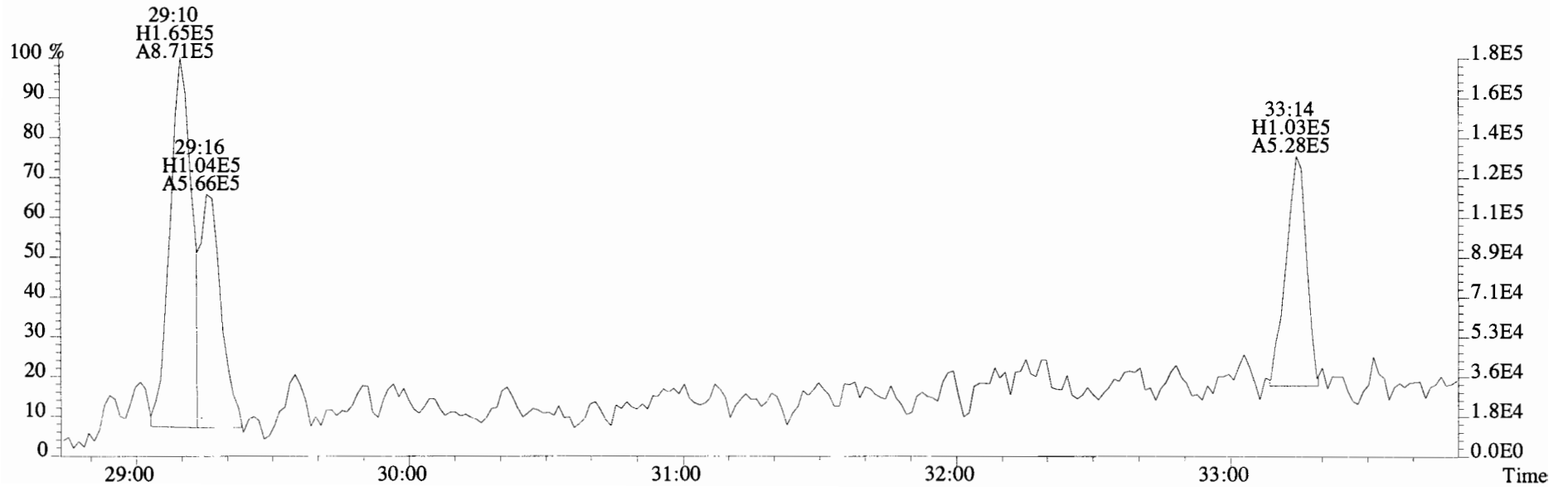
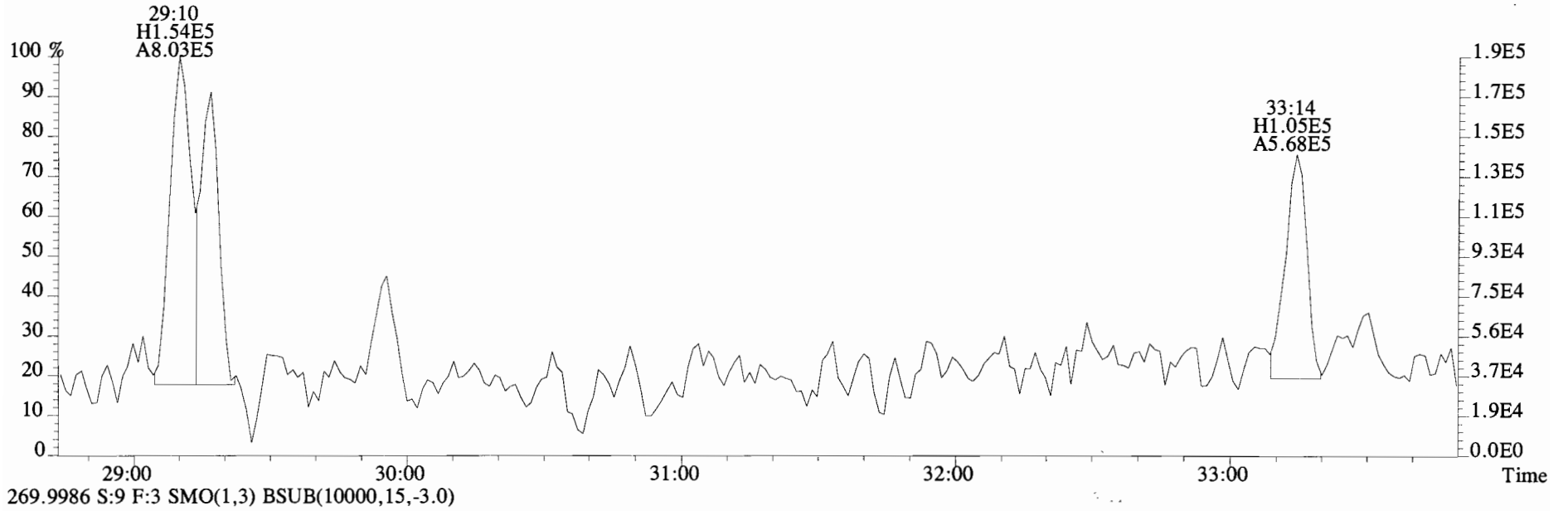
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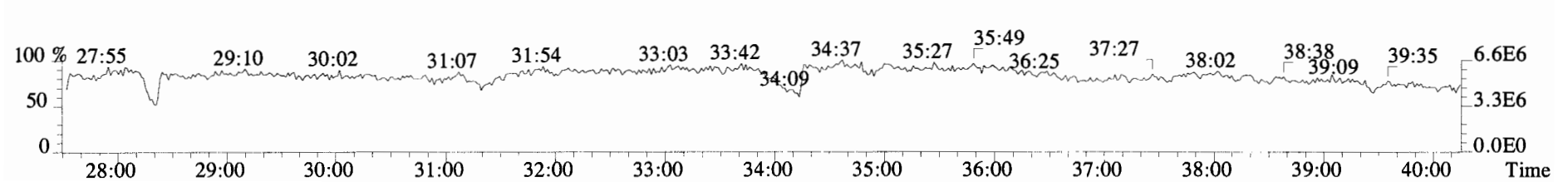
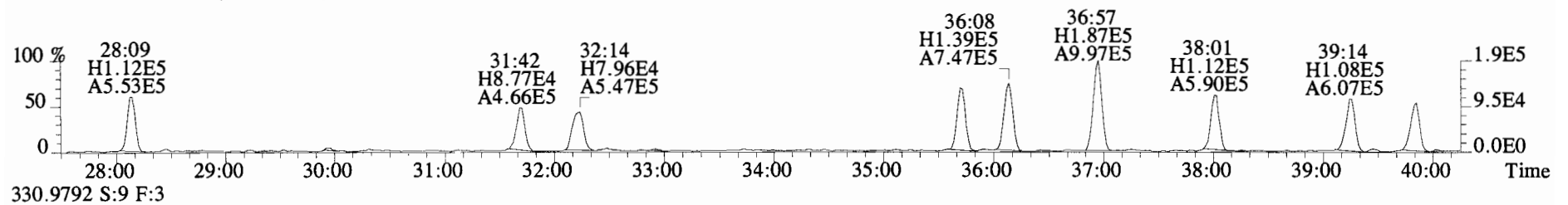
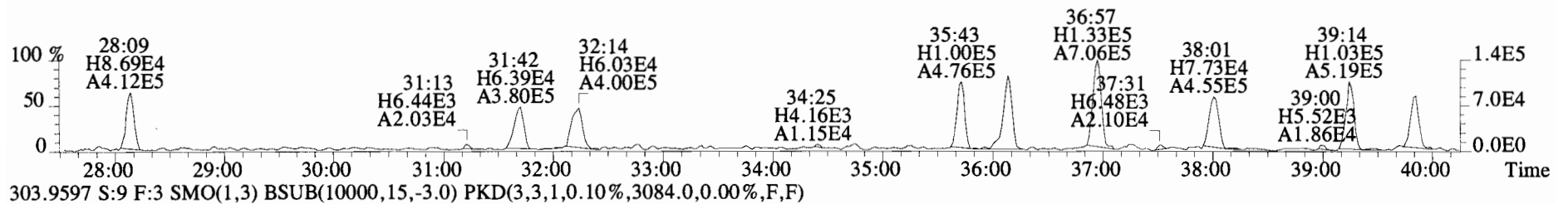
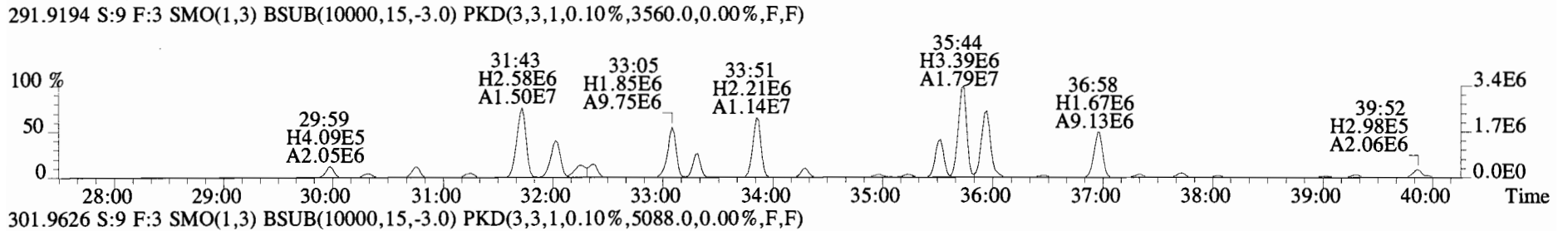
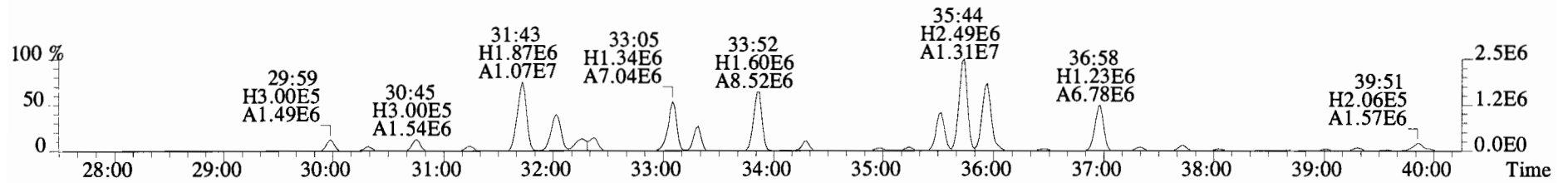
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
268.0016 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,50496.0,0.00%,F,F)



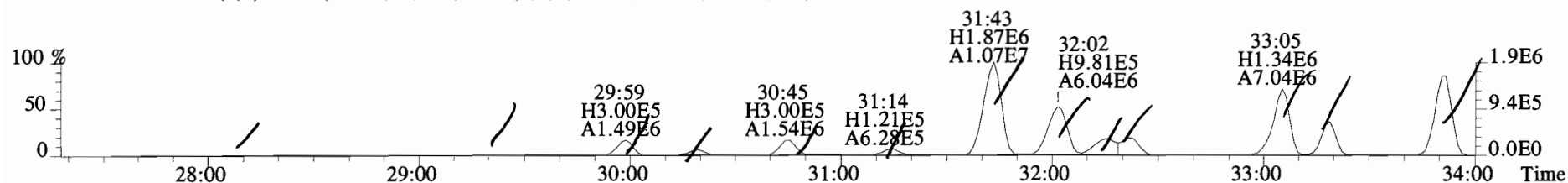
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268.0016 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0)



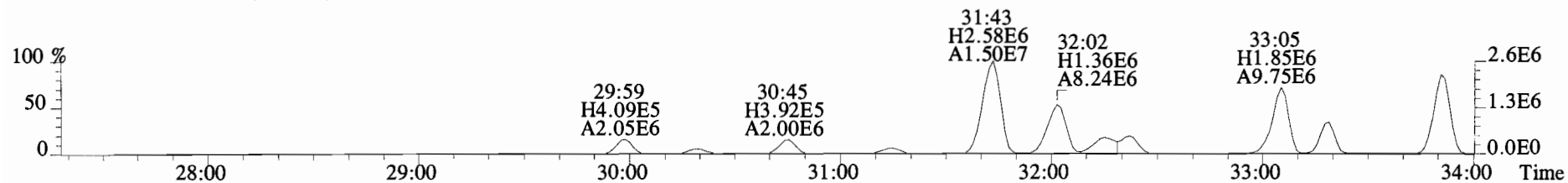
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 Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
 289.9224 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2612.0,0.00%,F,F)



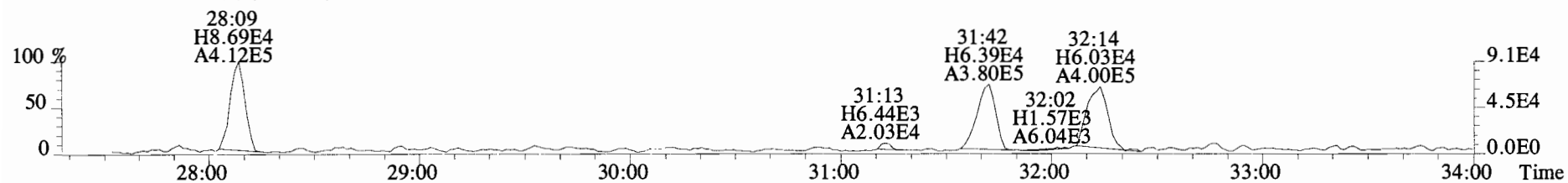
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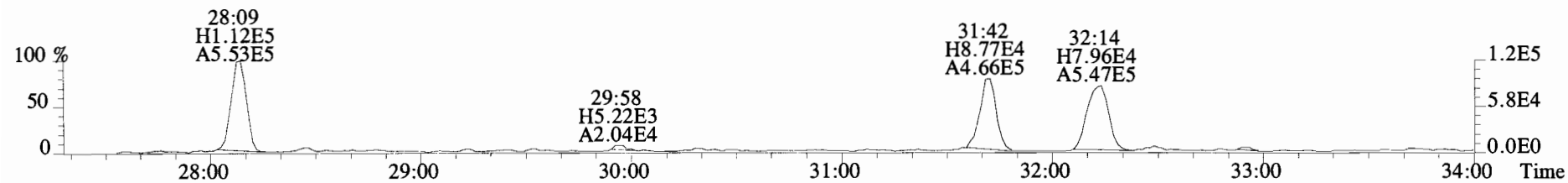
291.9194 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3560.0,0.00%,F,F)



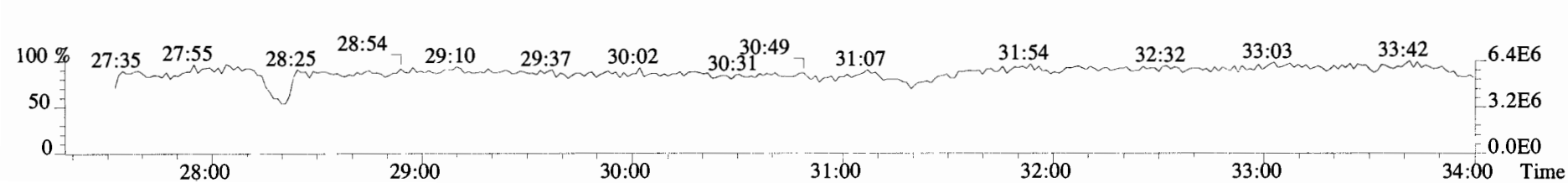
301.9626 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5088.0,0.00%,F,F)



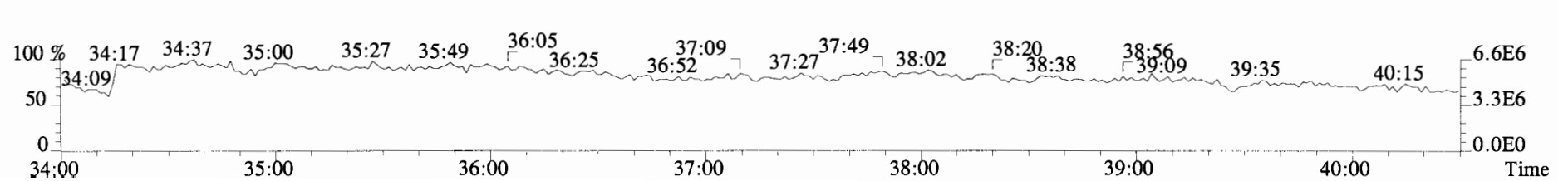
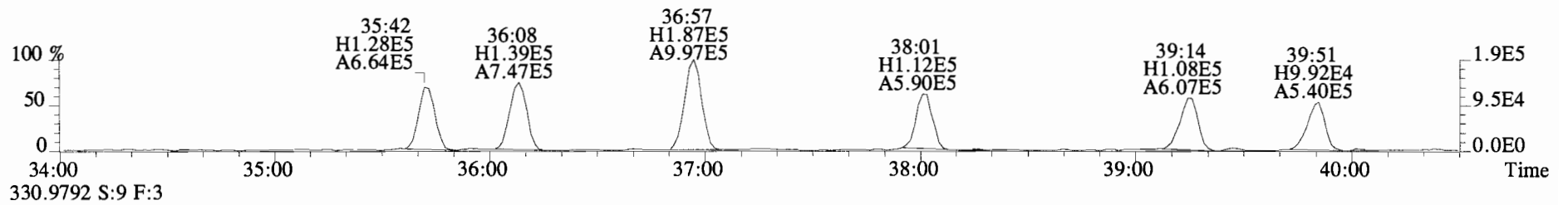
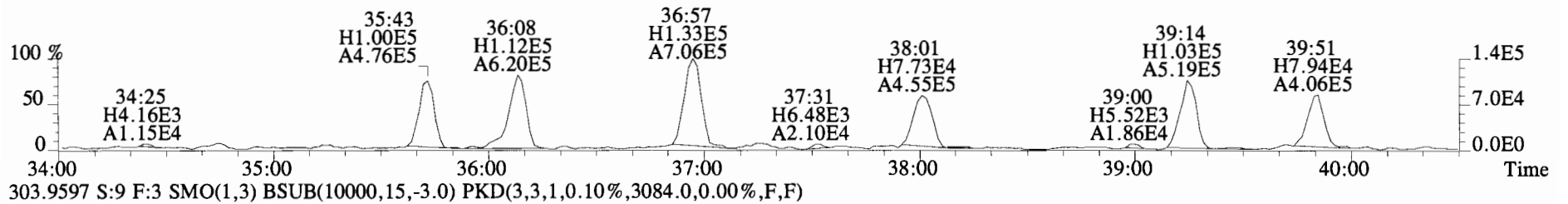
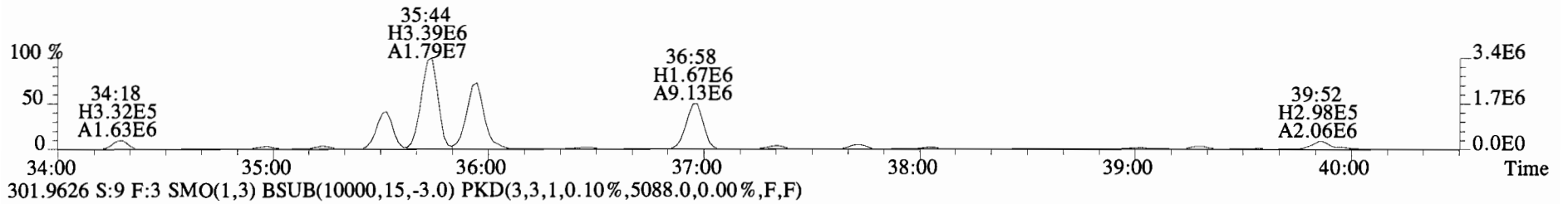
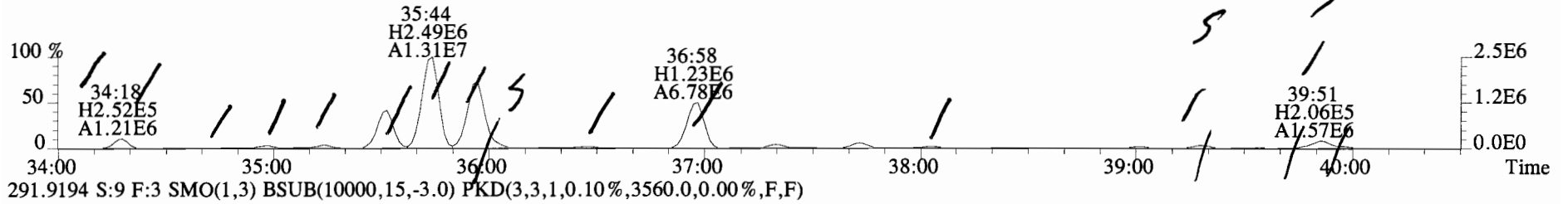
303.9597 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3084.0,0.00%,F,F)



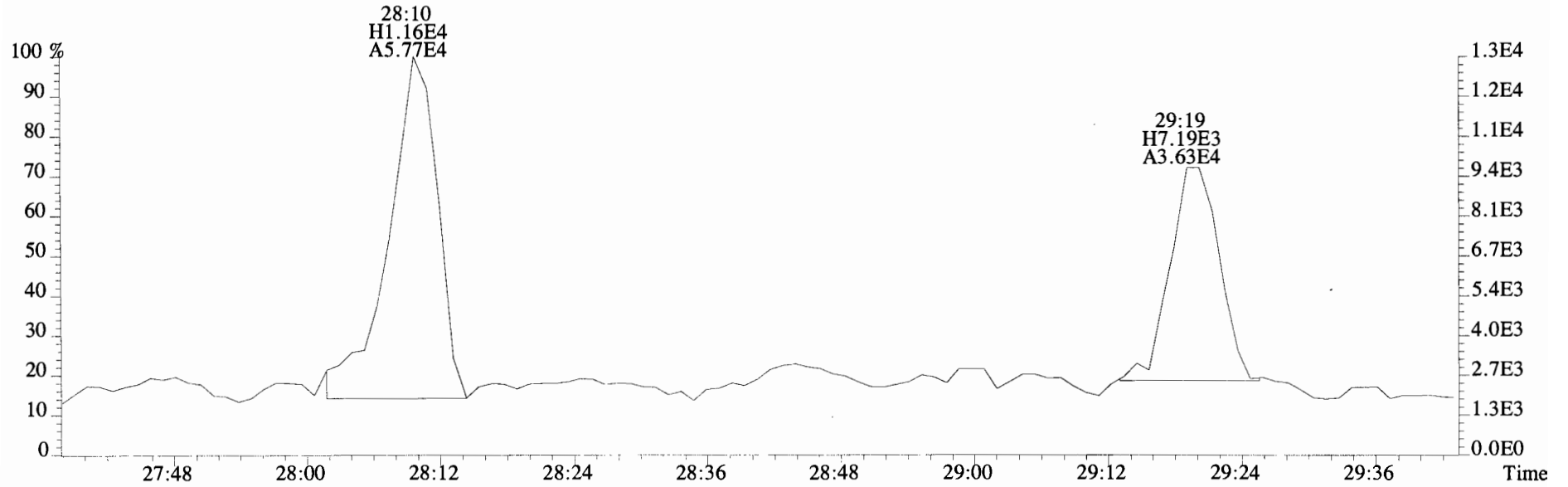
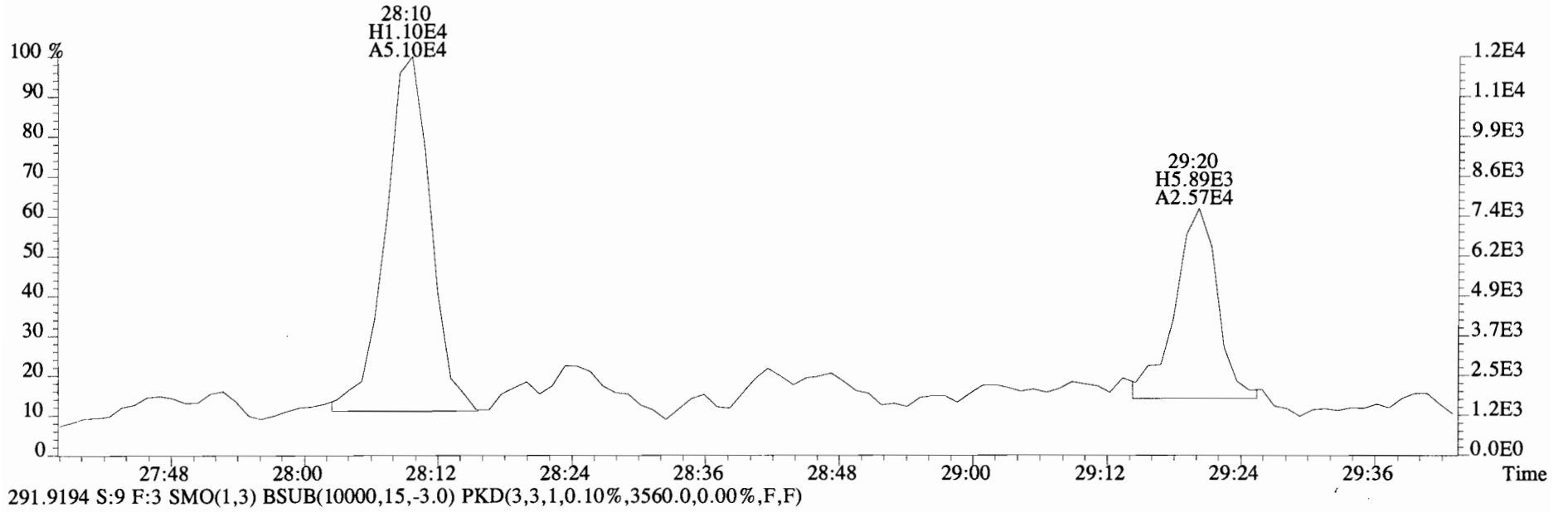
330.9792 S:9 F:3



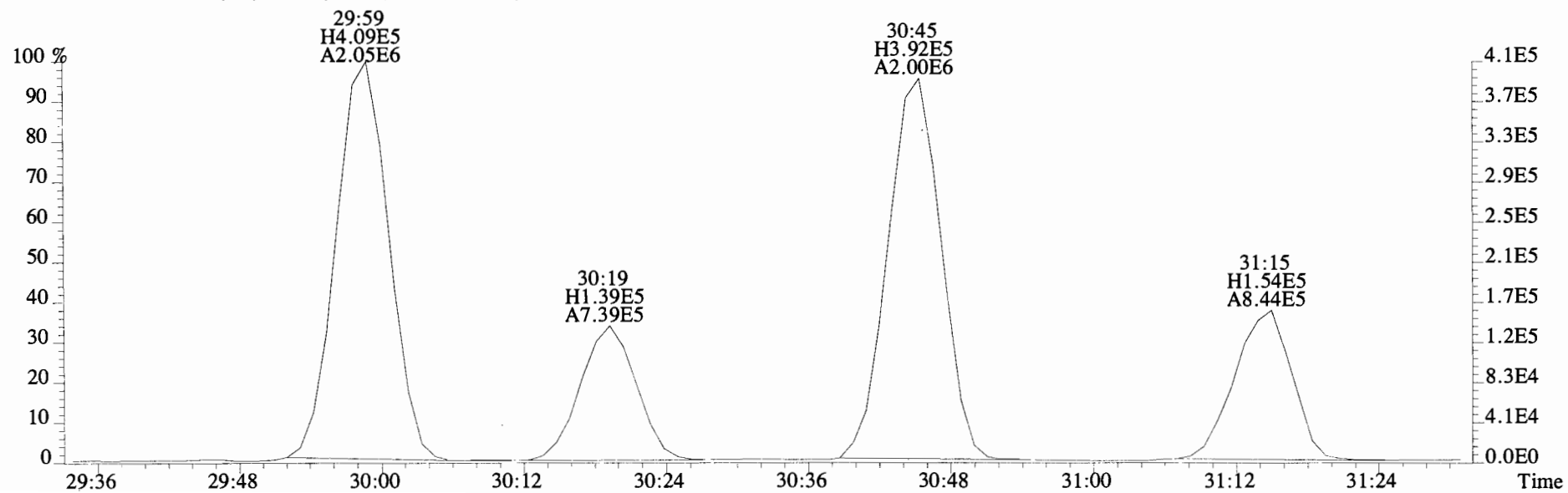
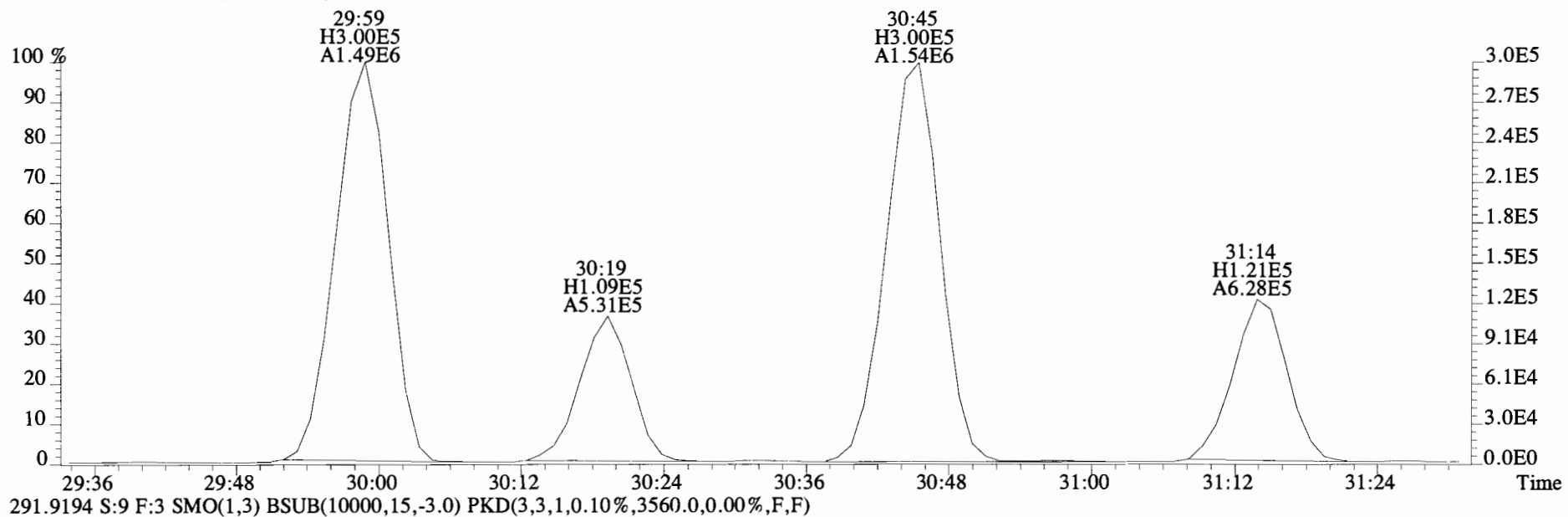
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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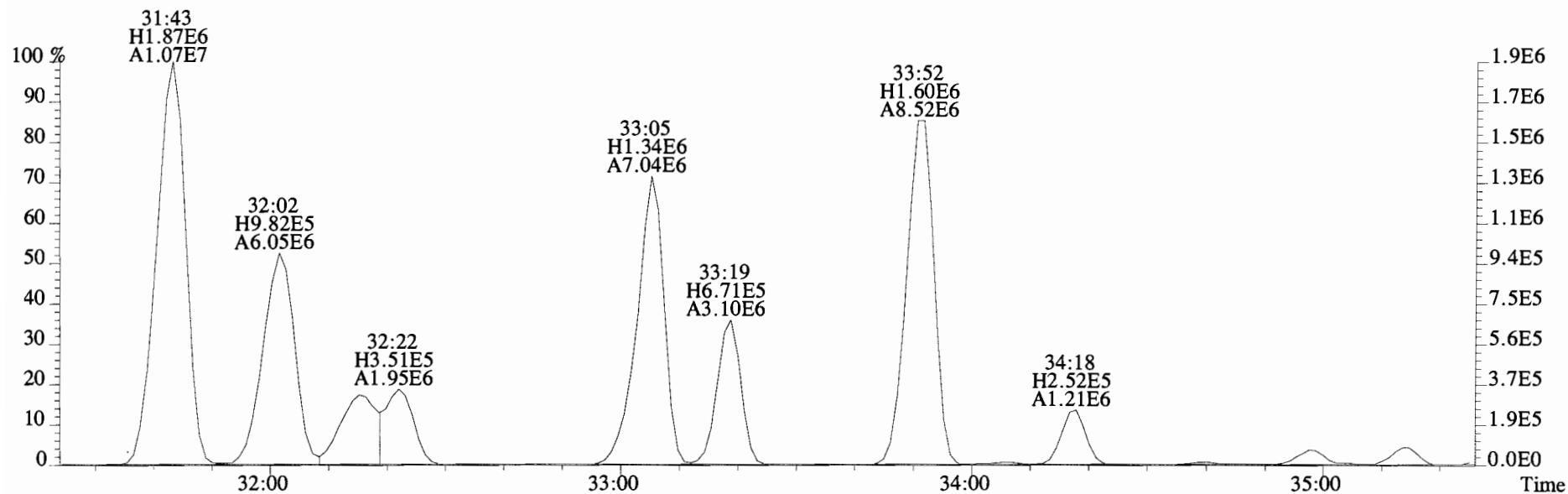
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
289.9224 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2612.0,0.00%,F,F)



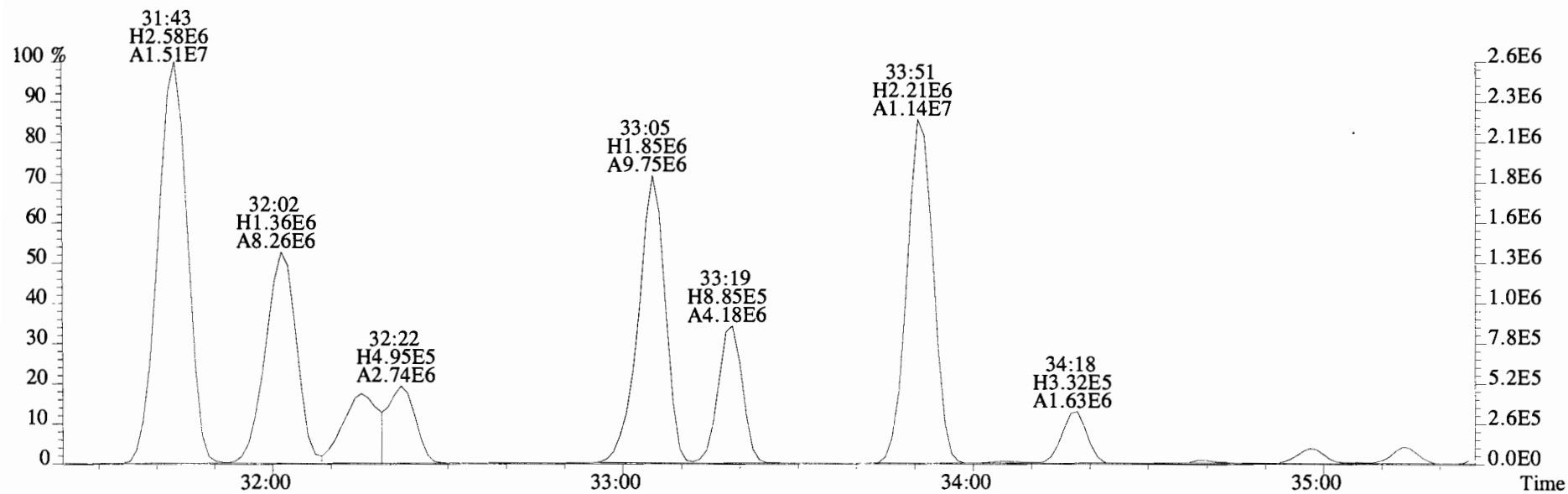
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
289.9224 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2612.0,0.00%,F,F)



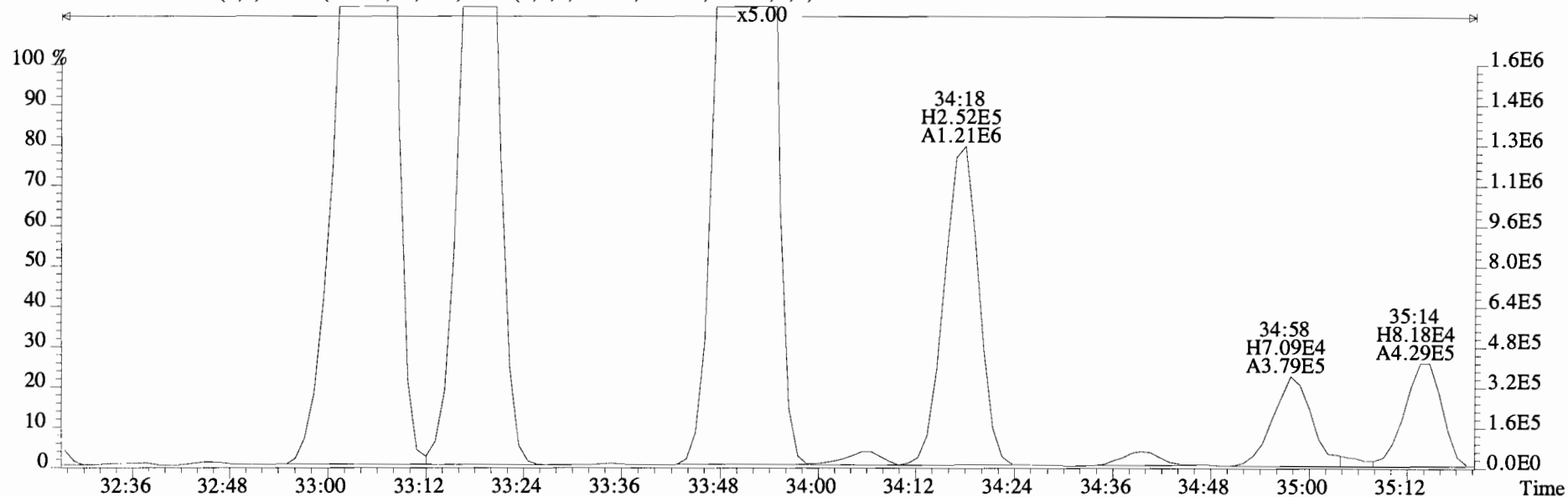
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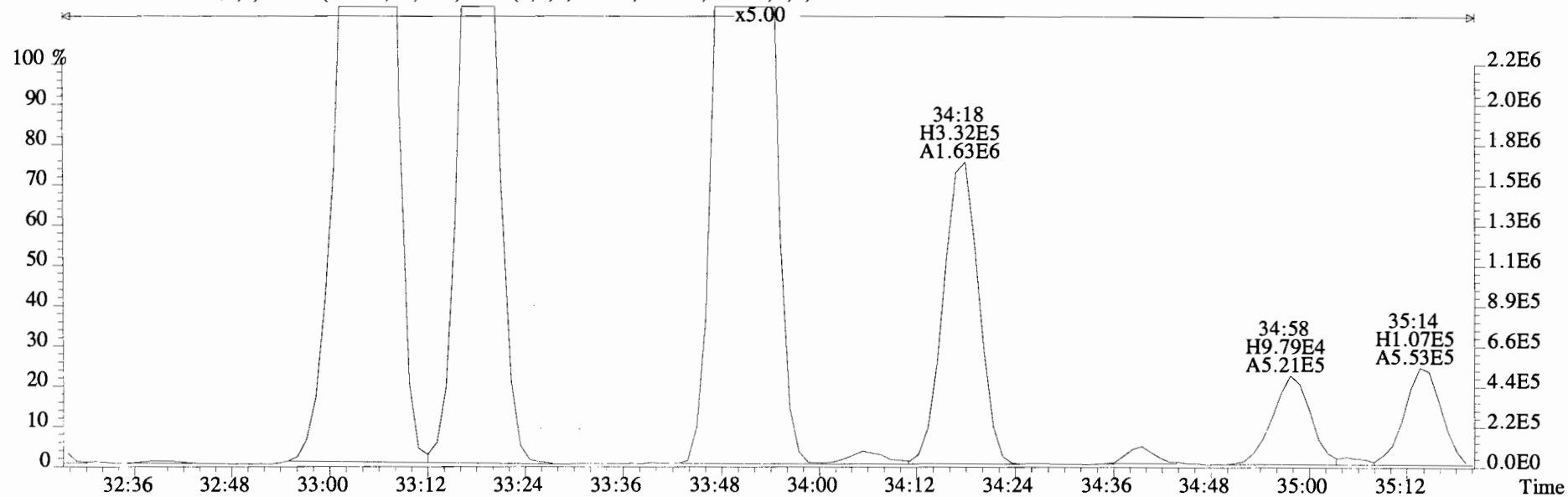
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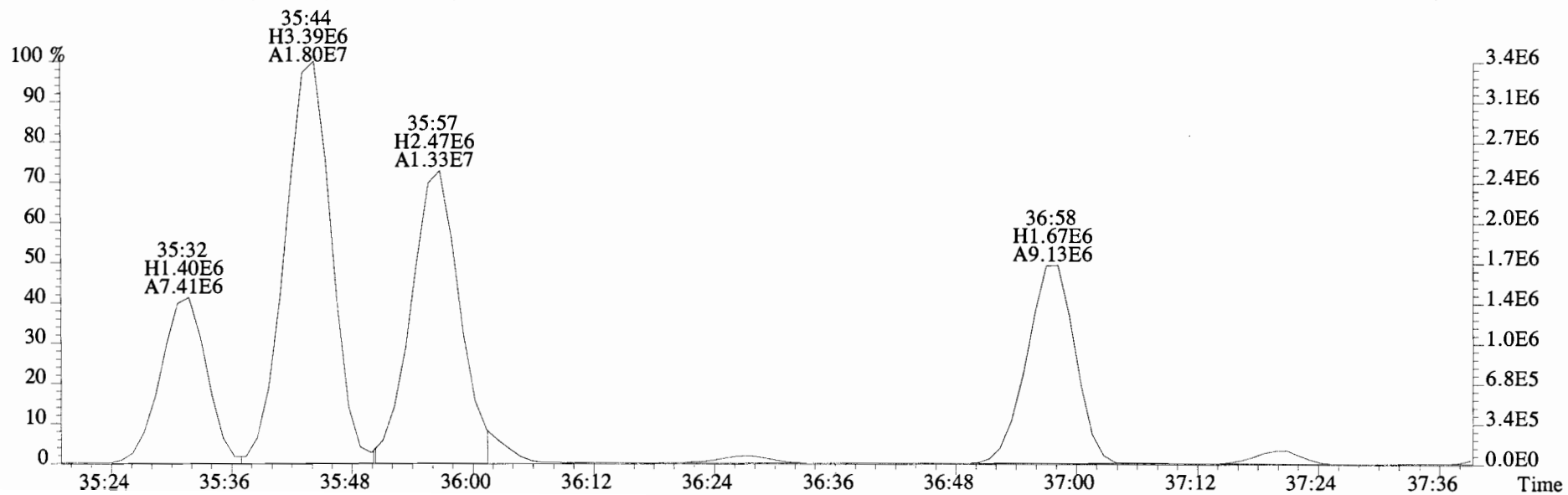
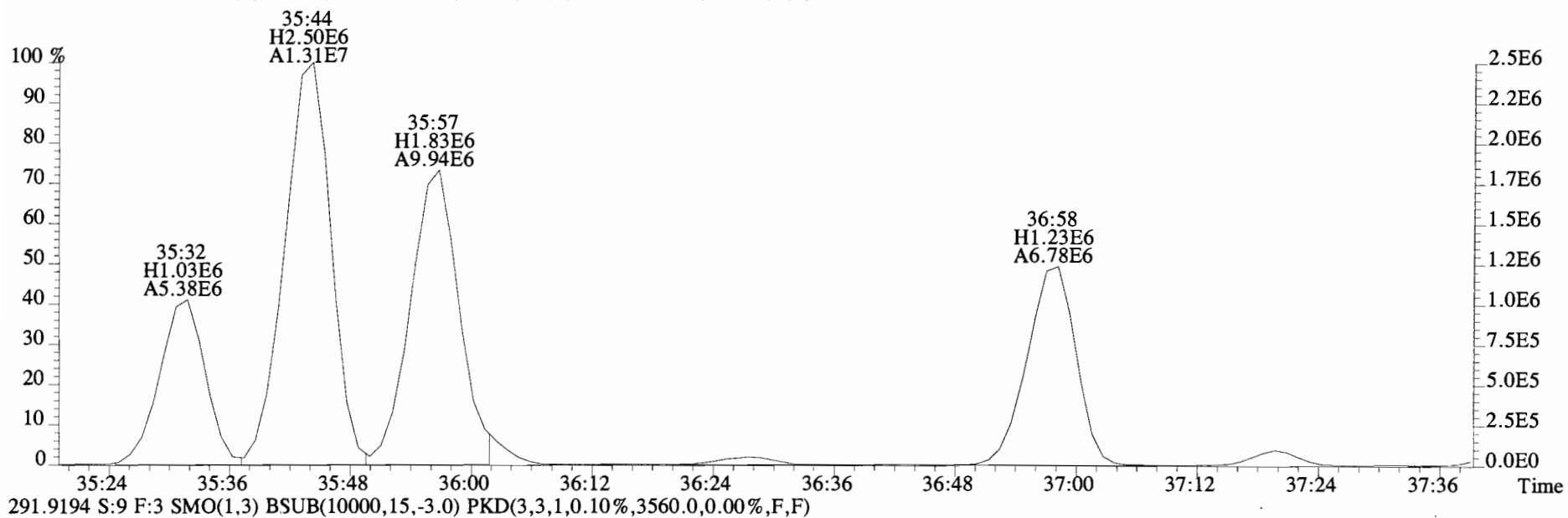
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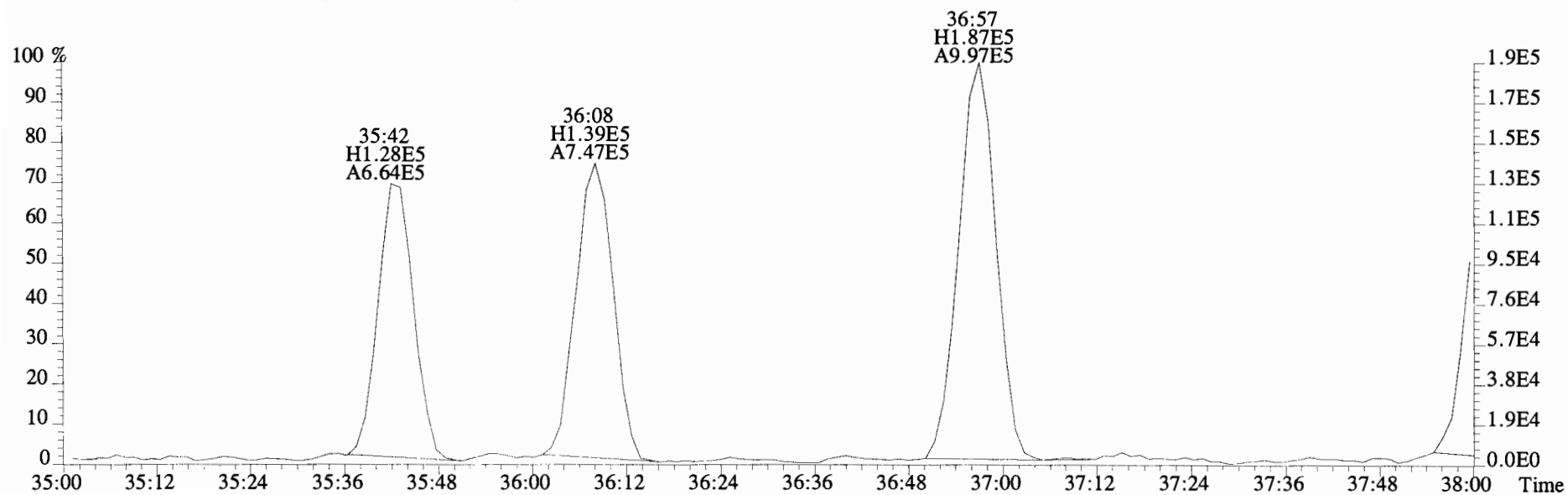
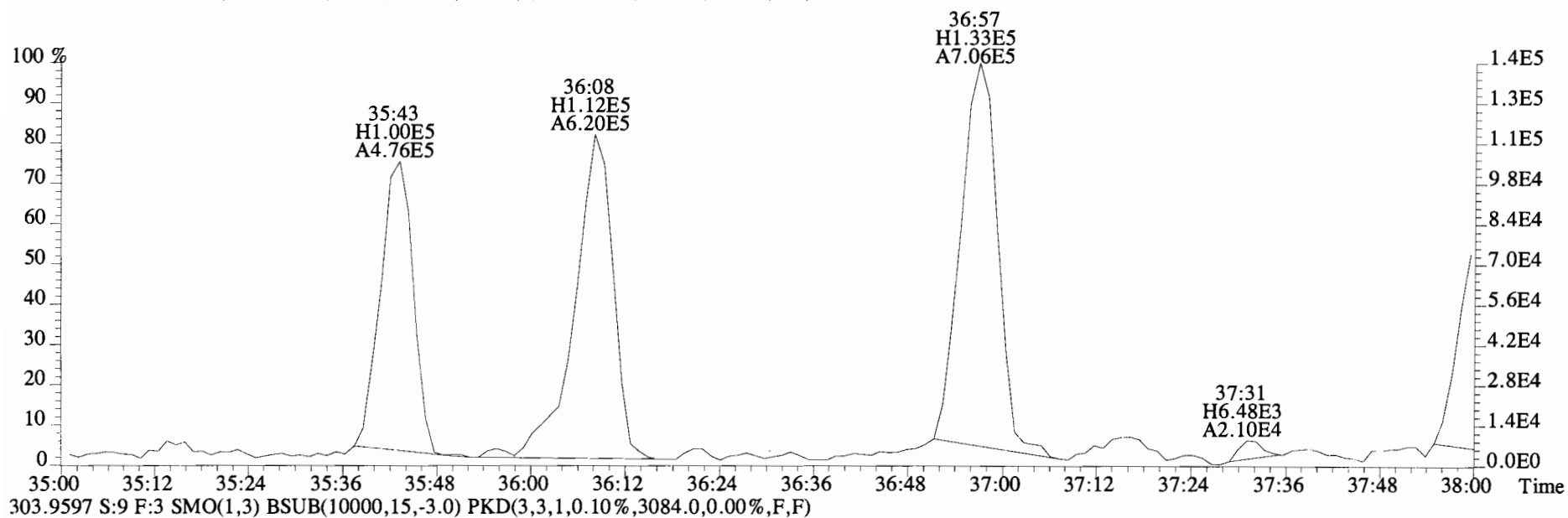
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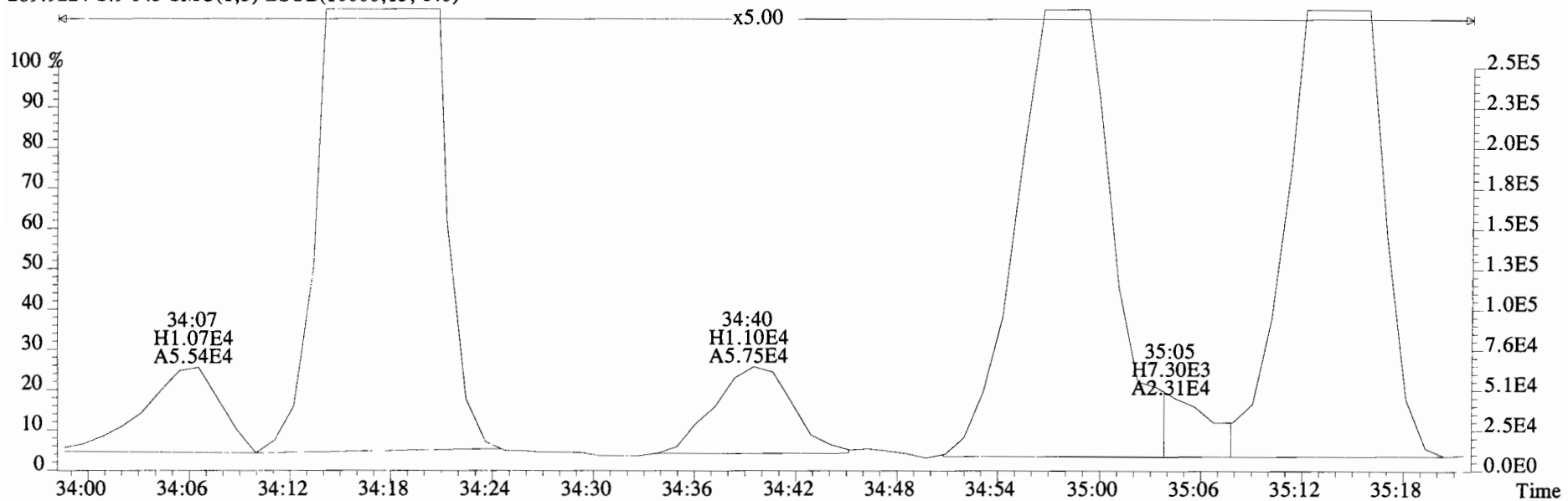
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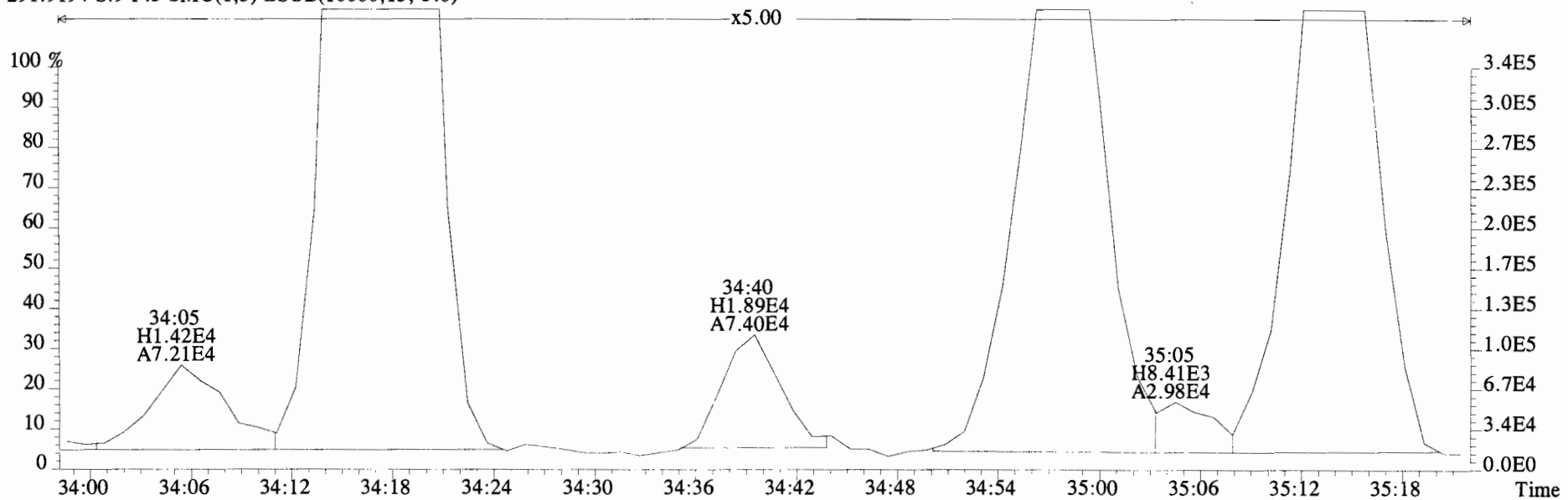
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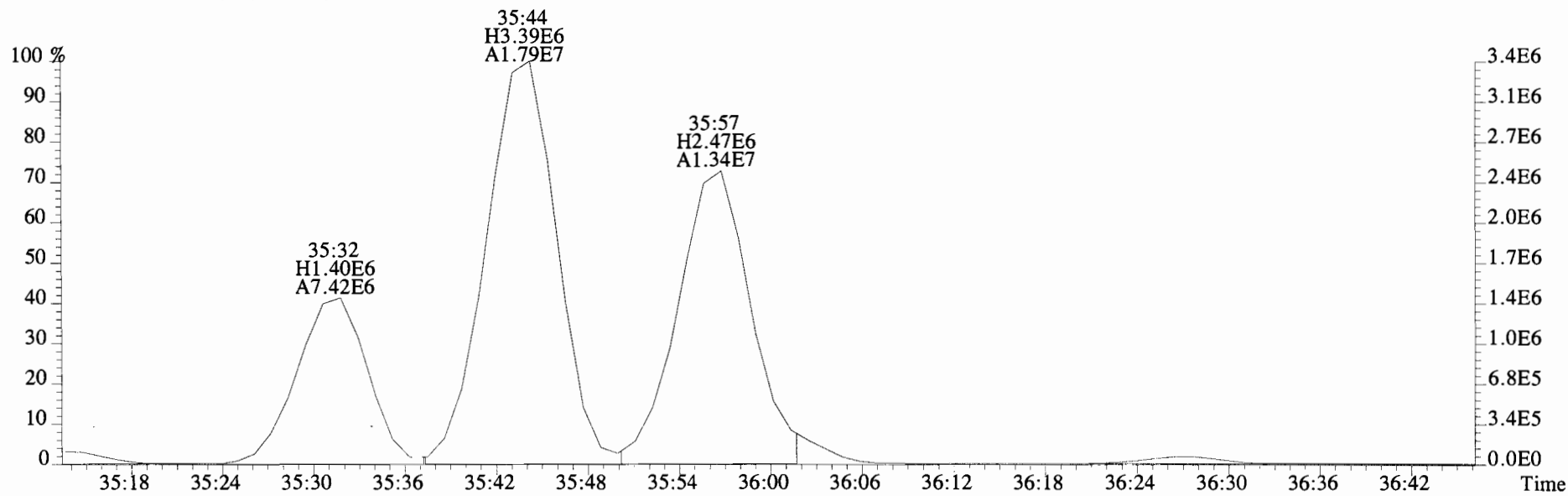
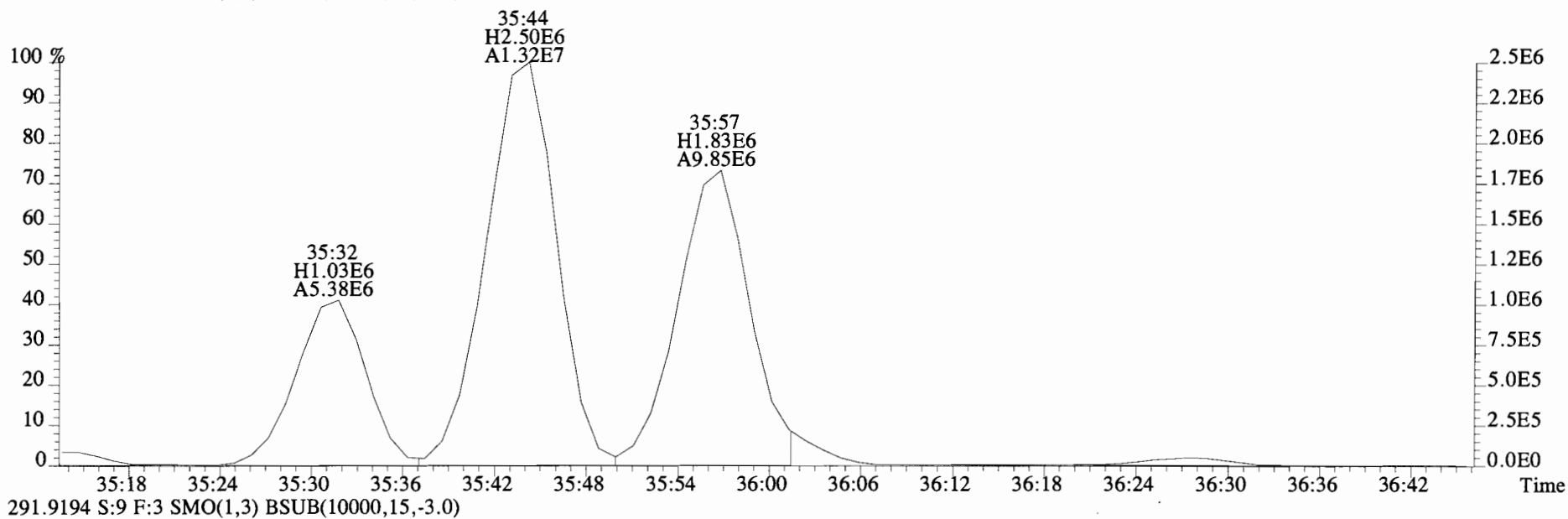
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289.9224 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0)



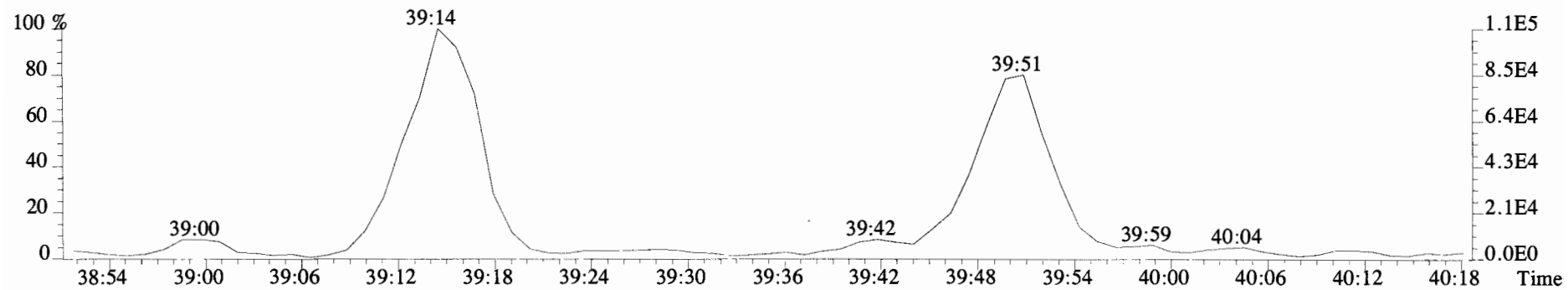
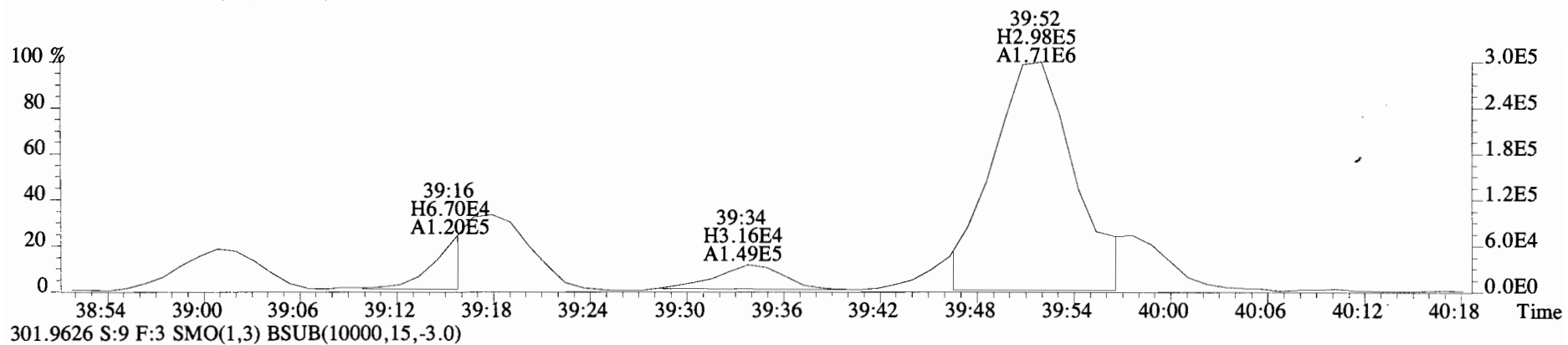
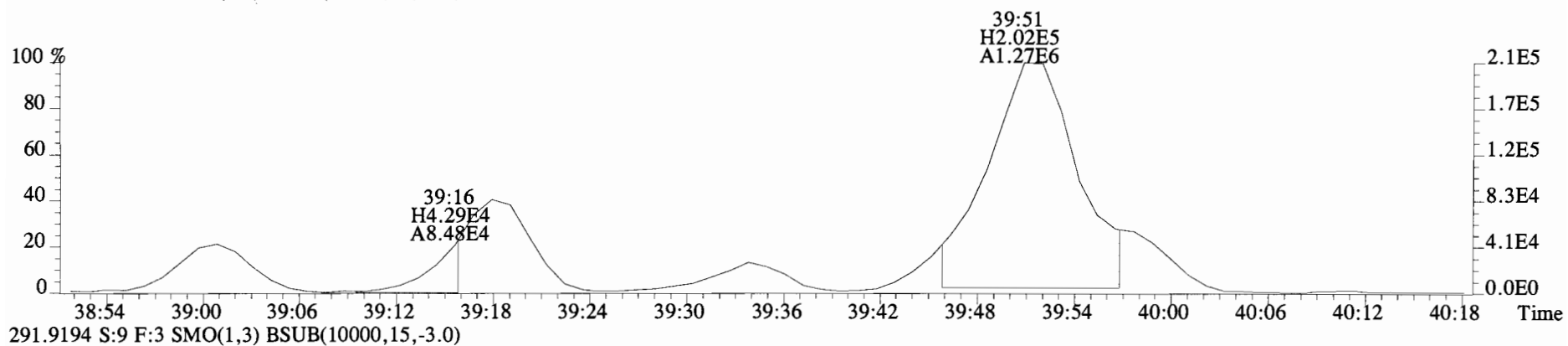
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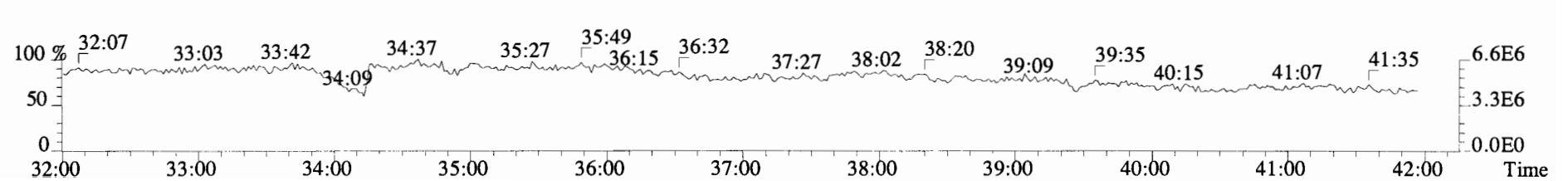
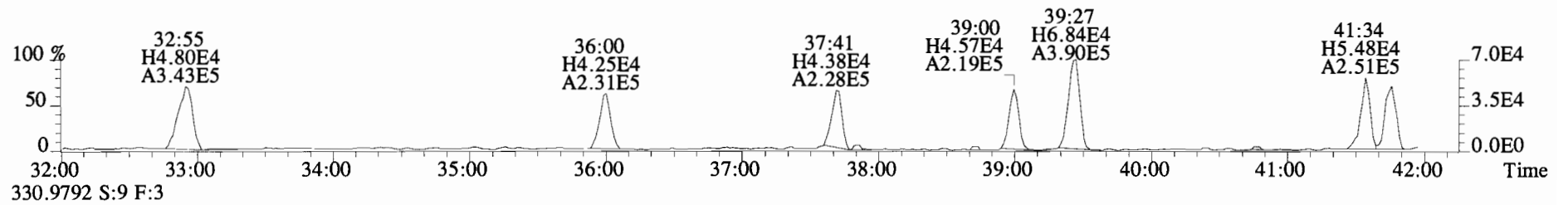
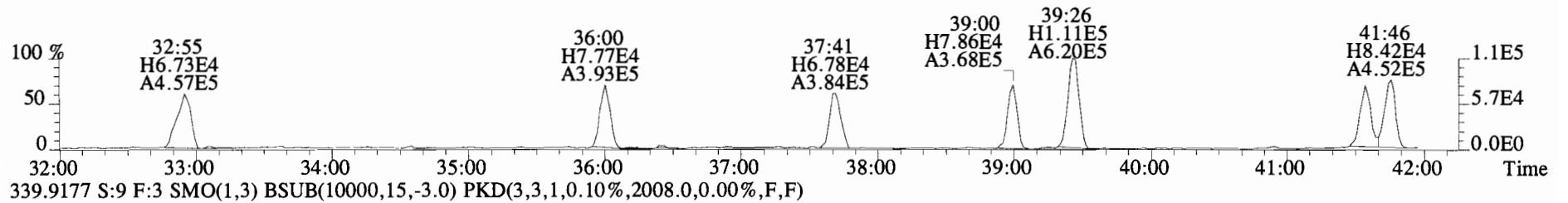
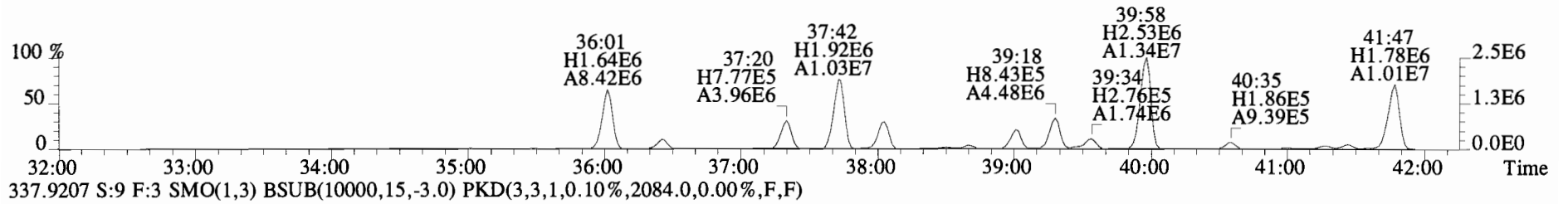
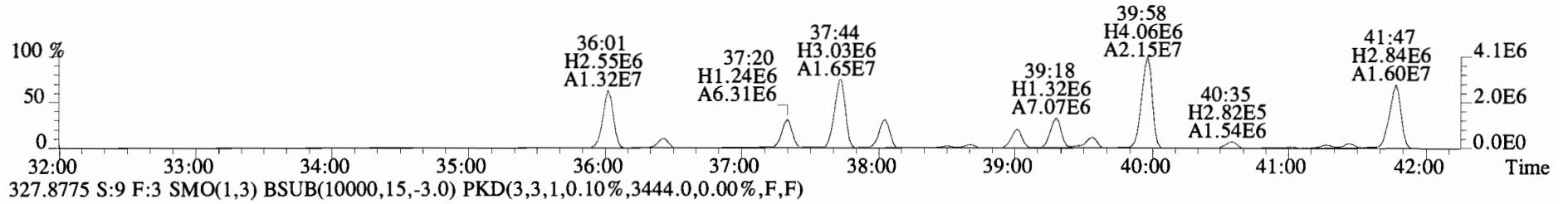
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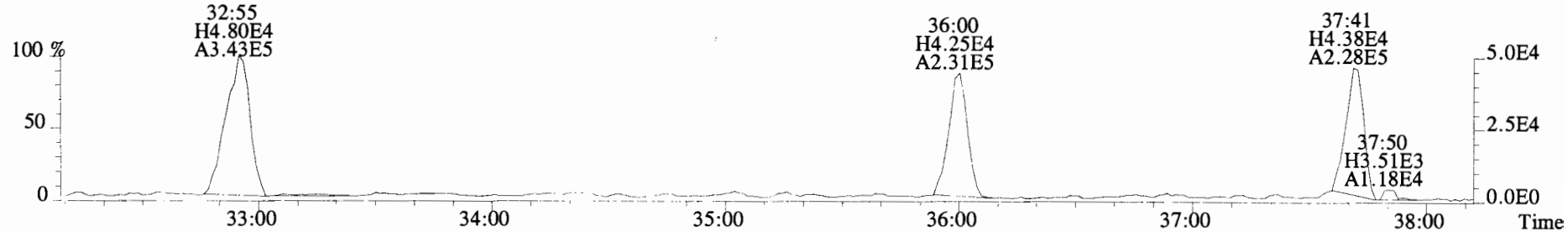
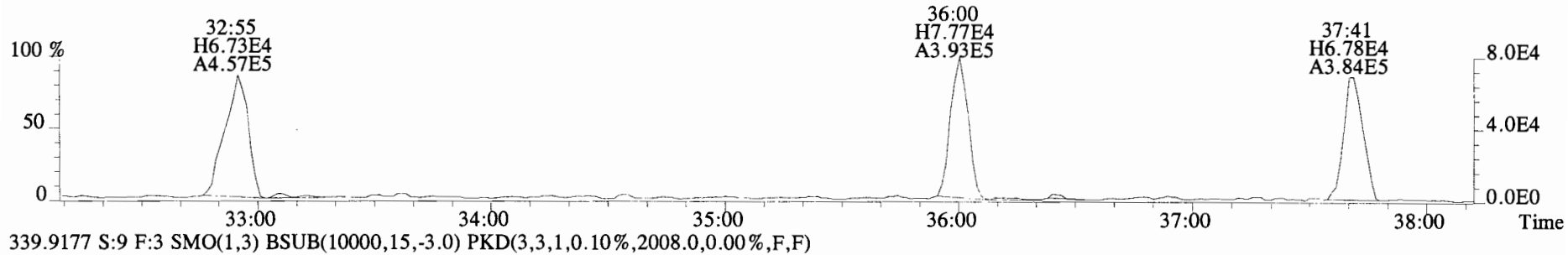
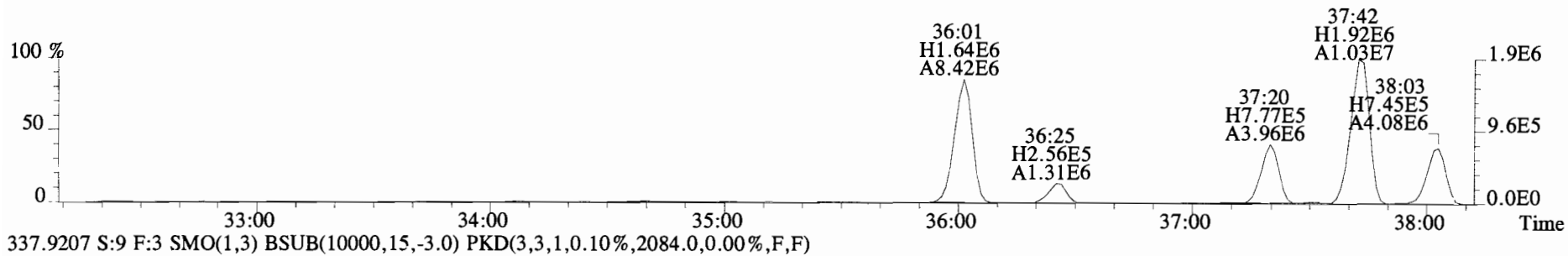
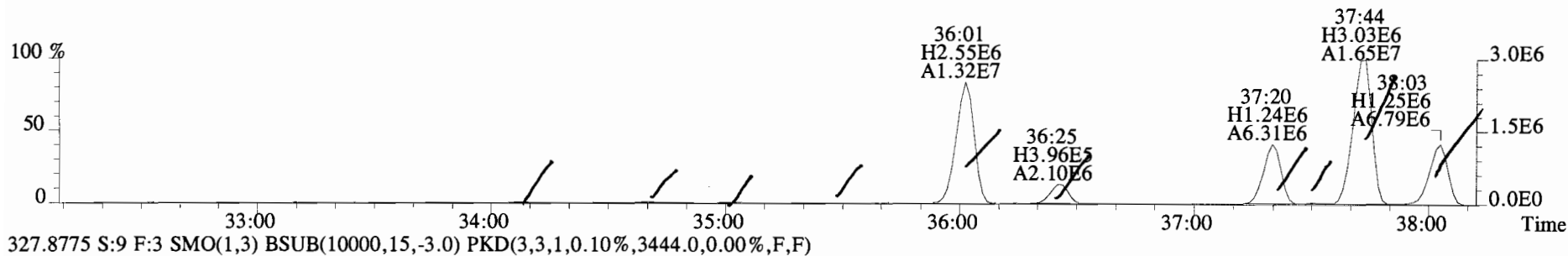
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289.9224 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0)



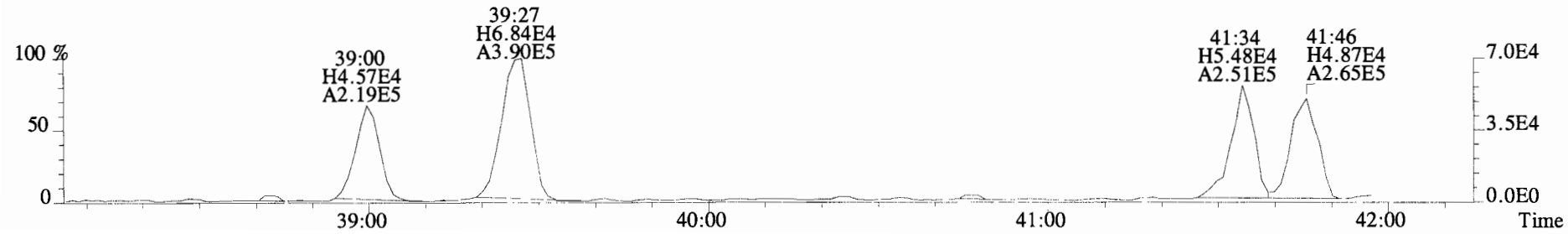
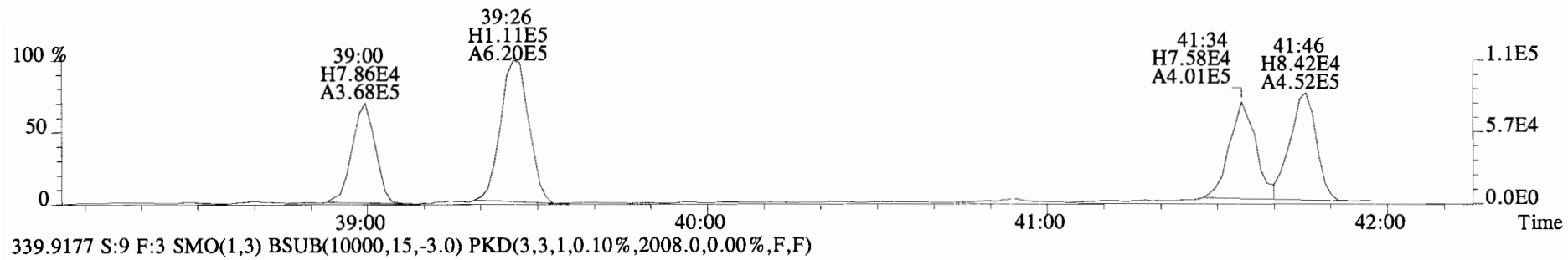
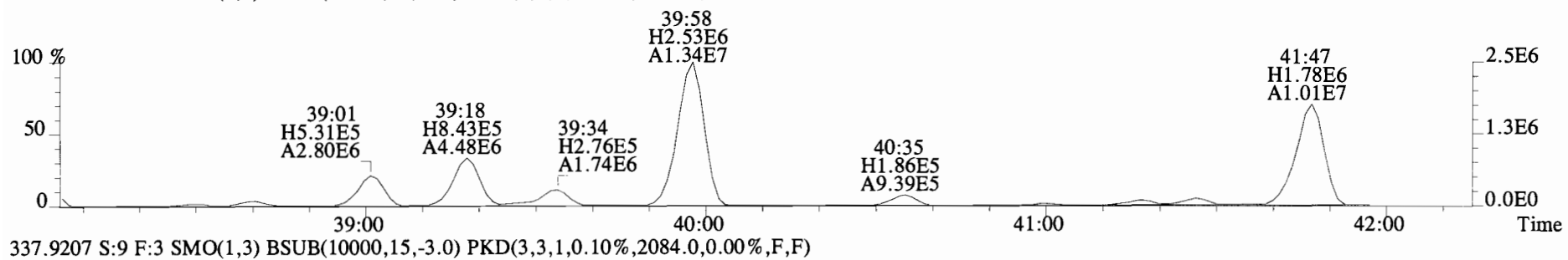
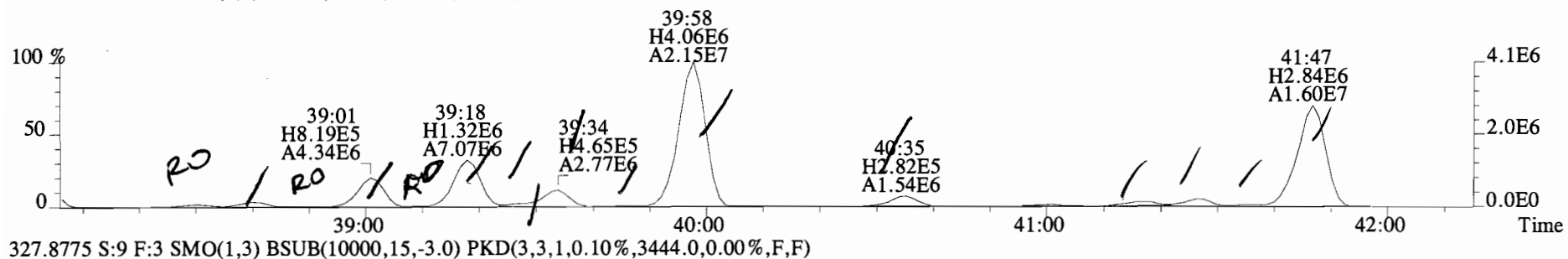
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325.8804 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5312.0,0.00%,F,F)



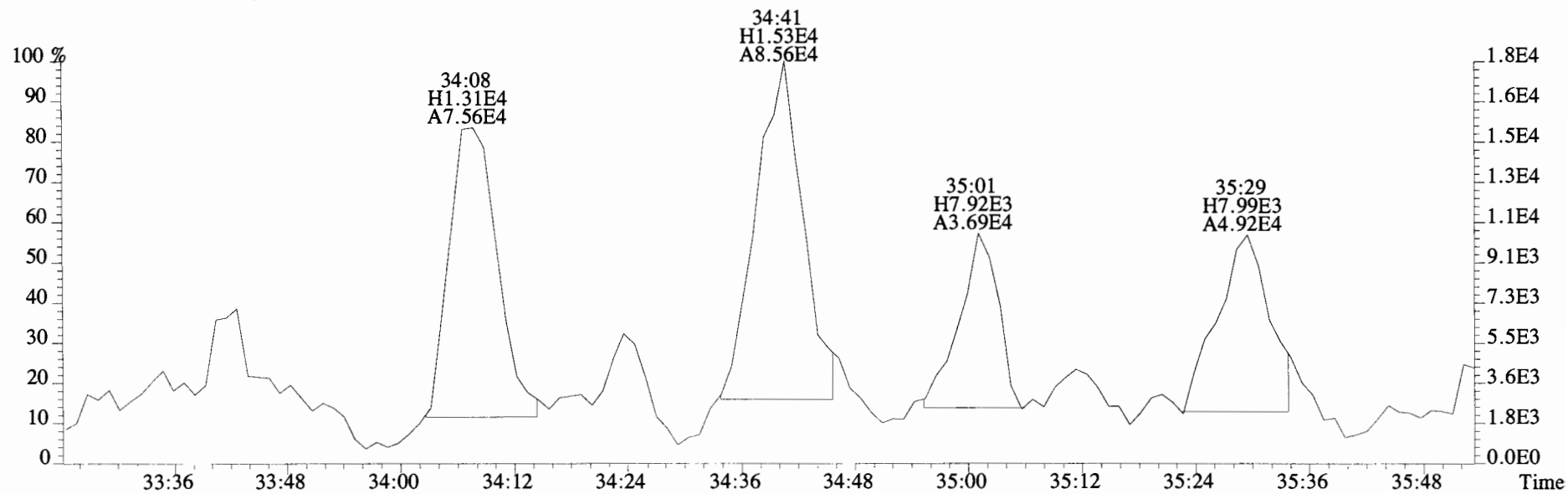
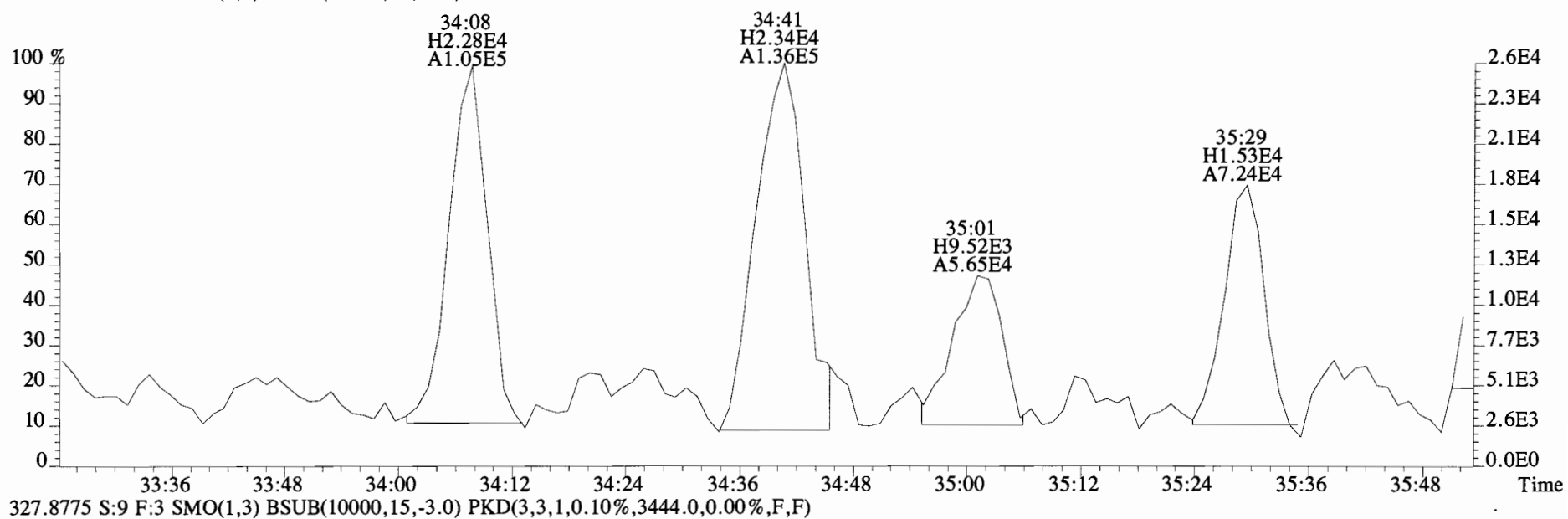
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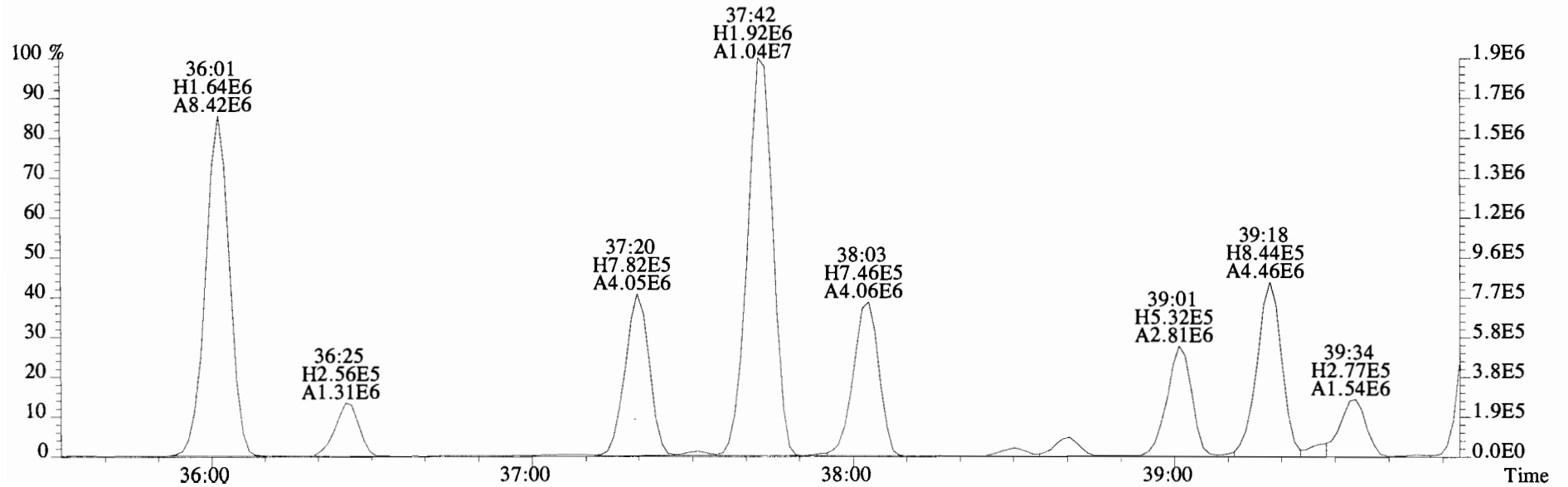
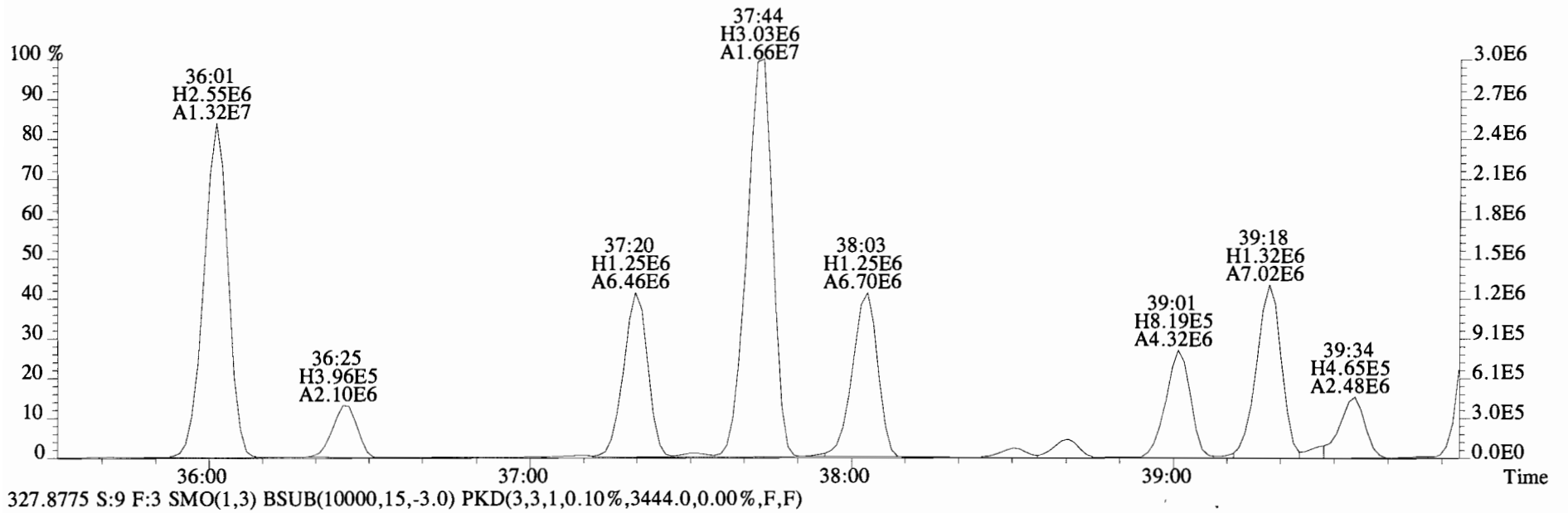
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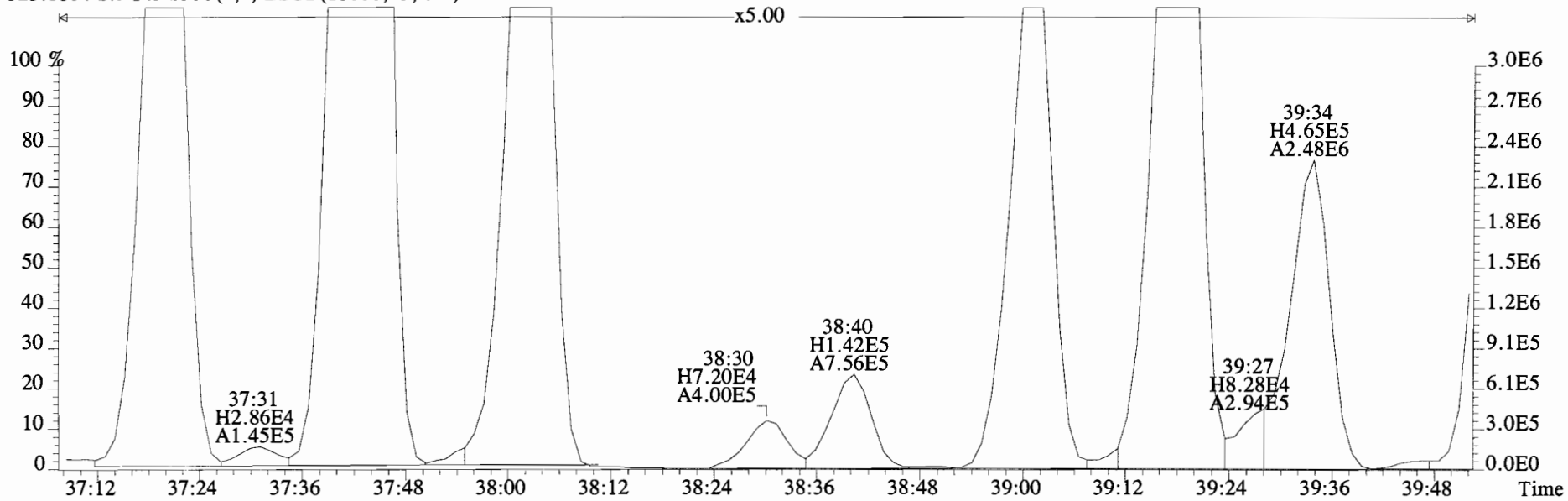
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325.8804 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0)



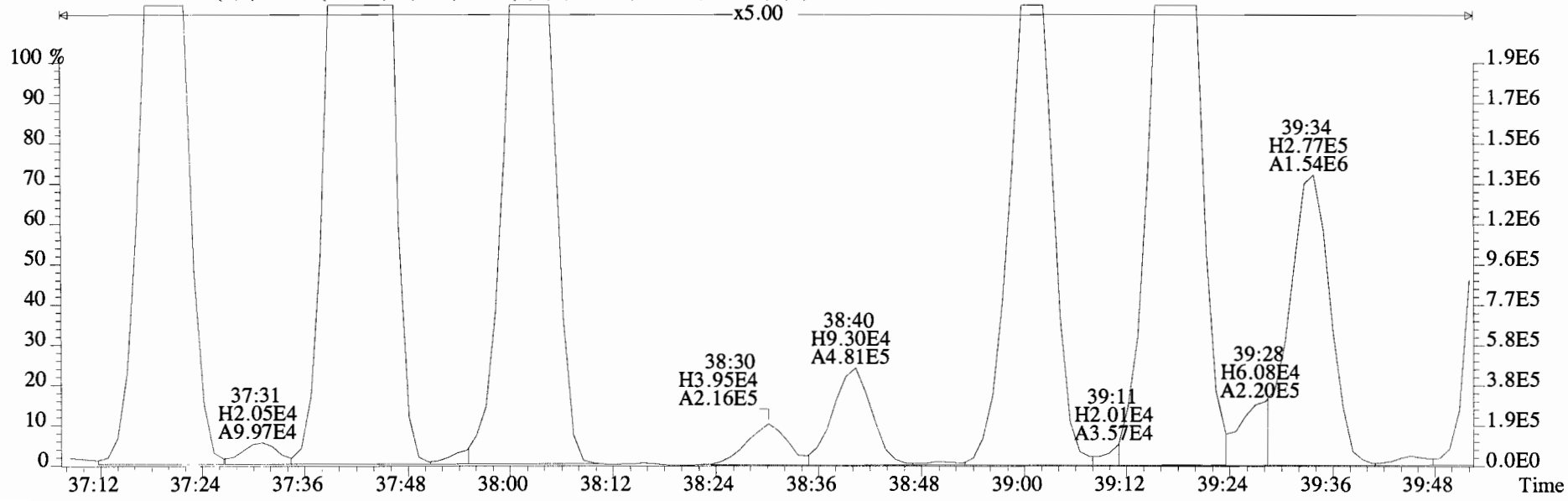
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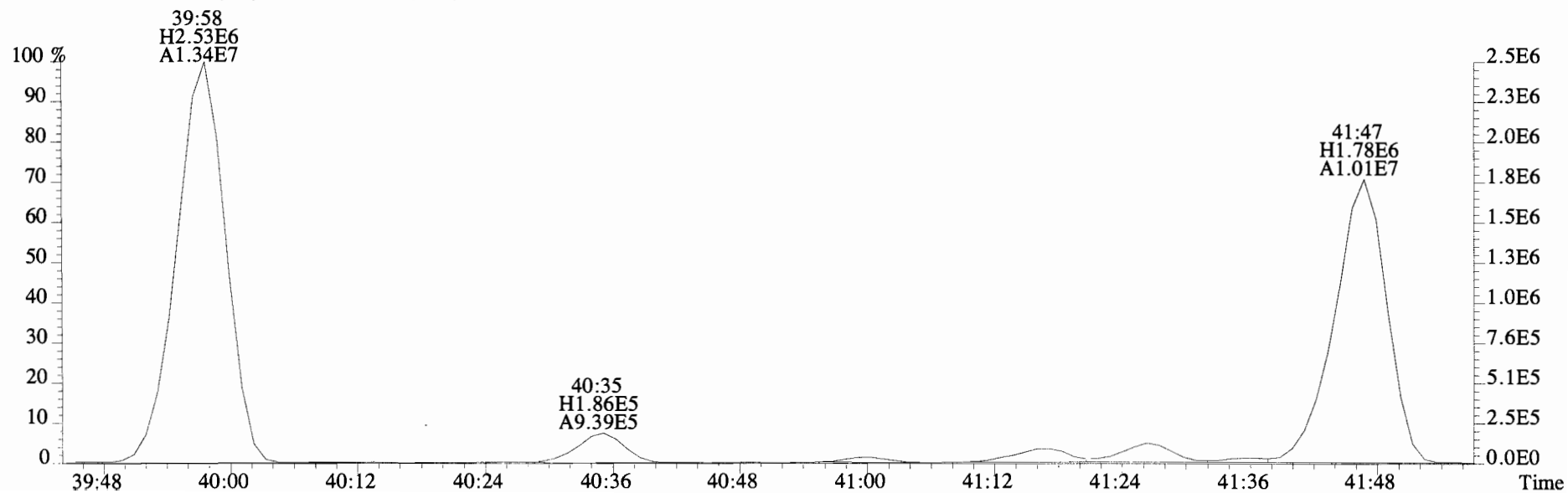
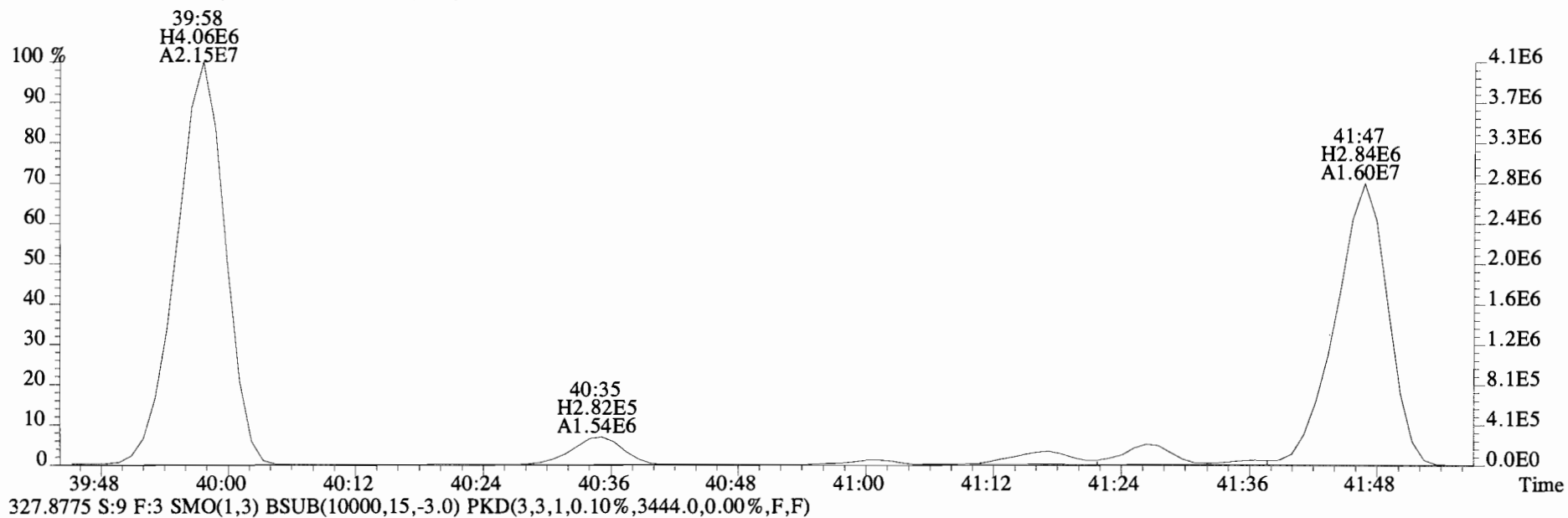
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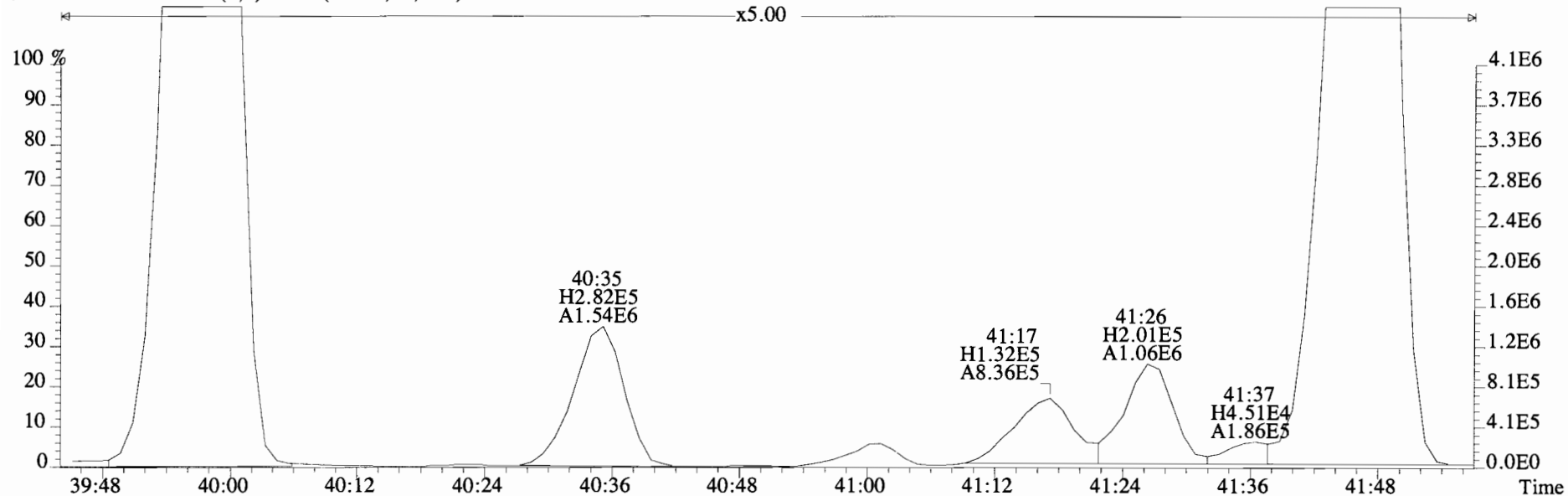
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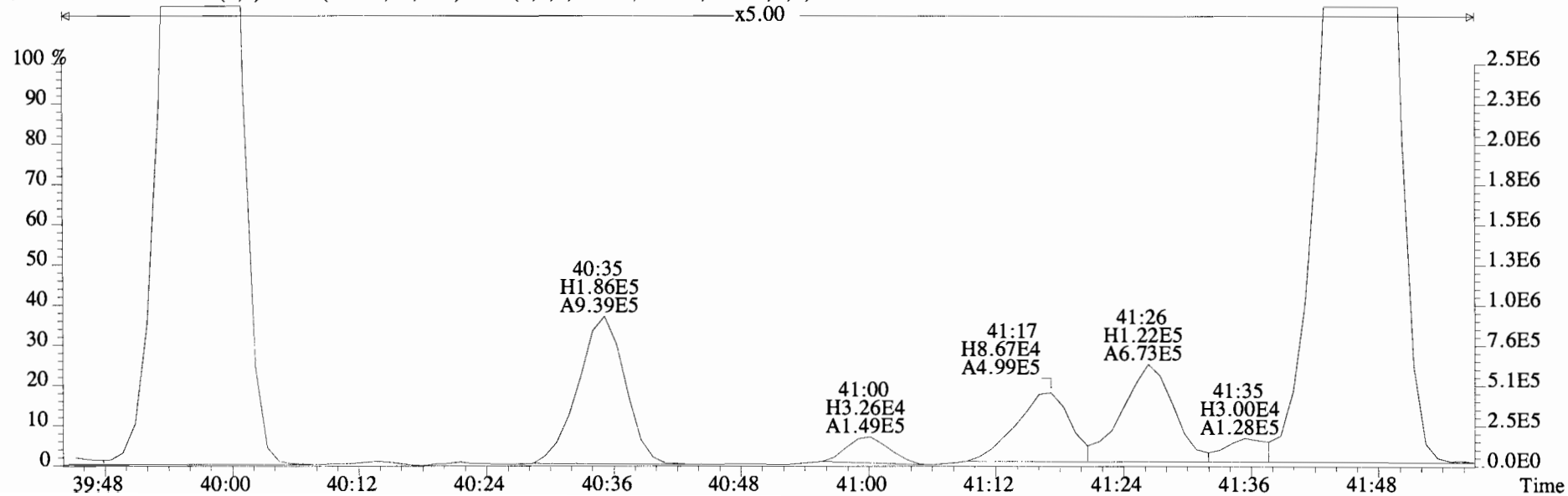
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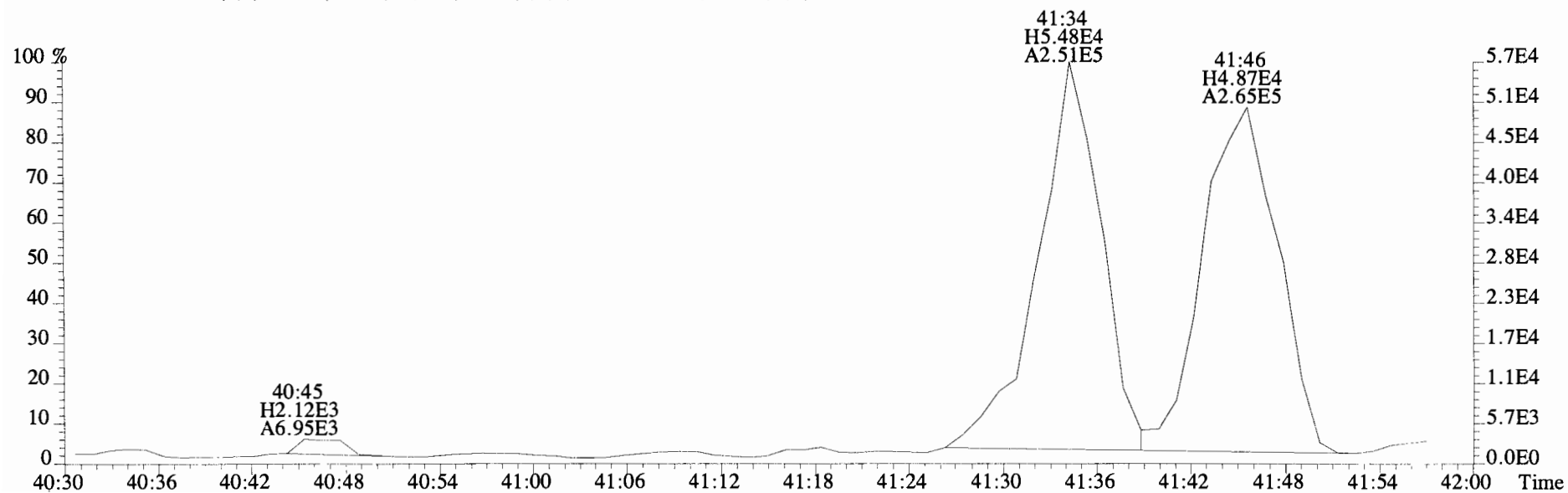
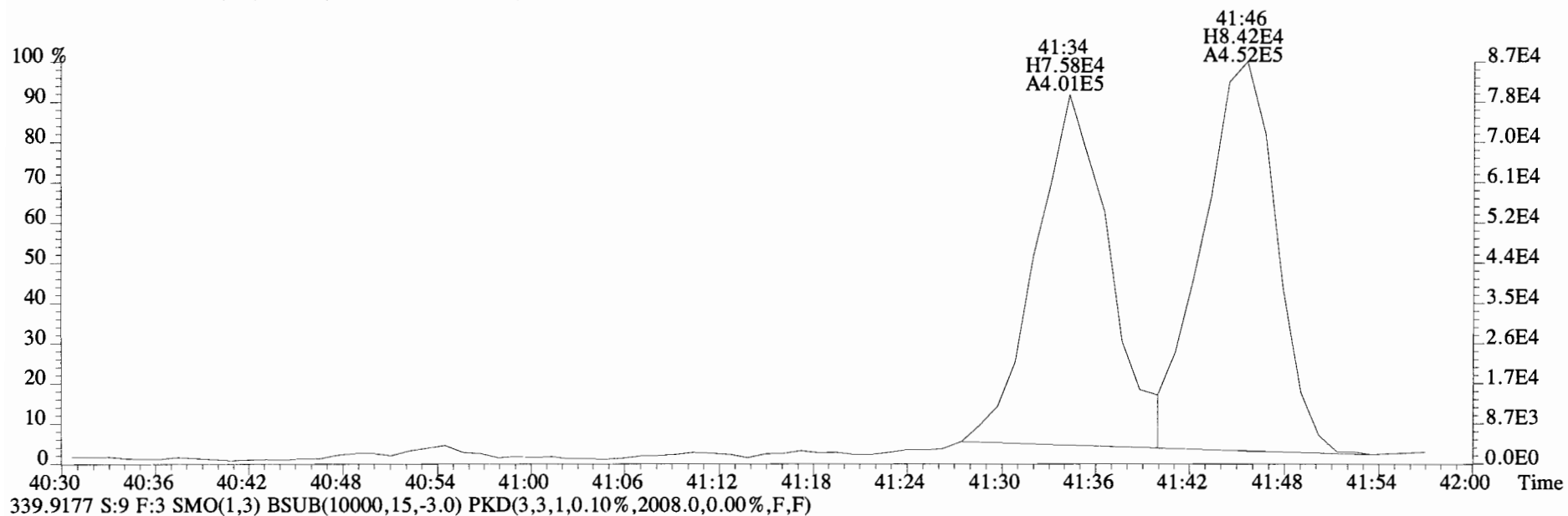
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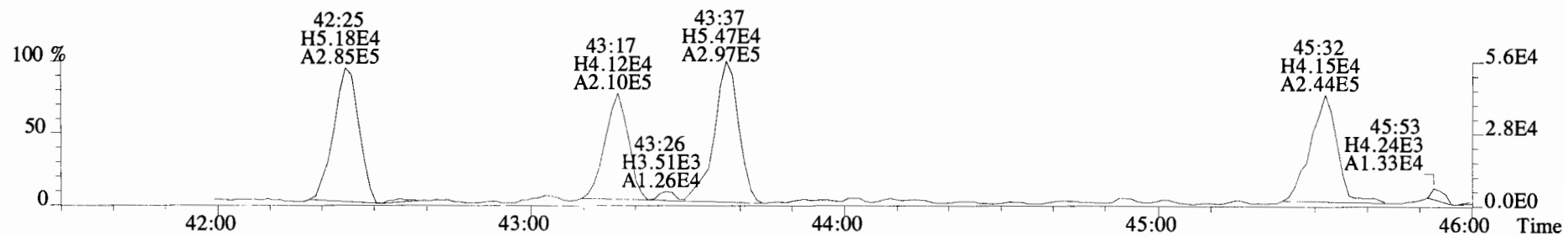
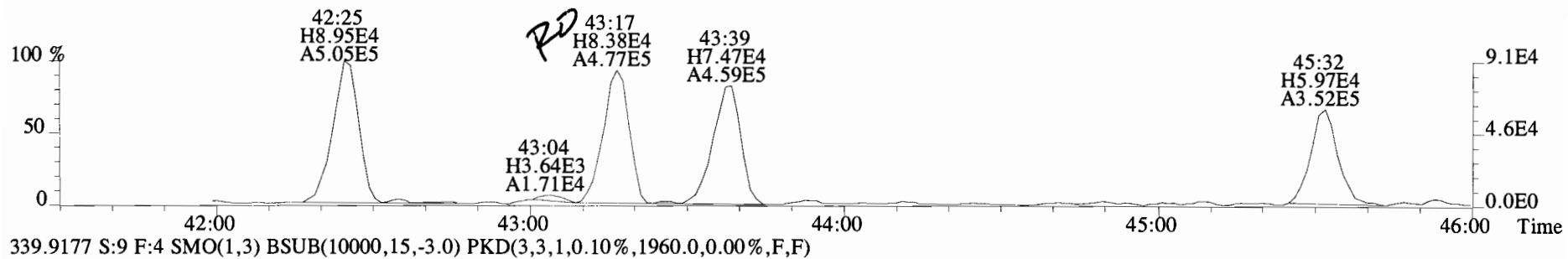
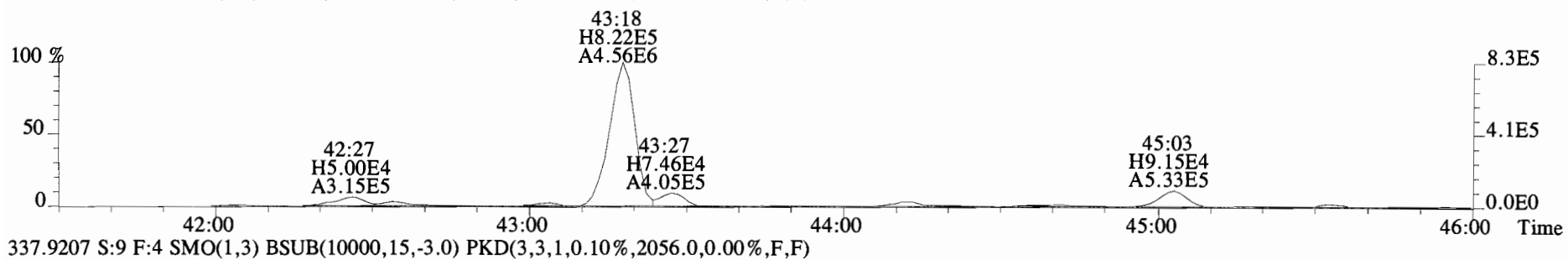
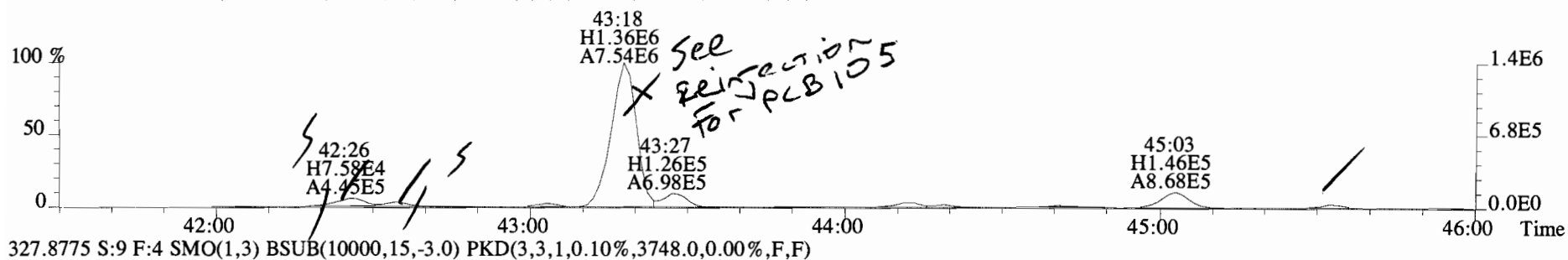
327.8775 S:9 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3444.0,0.00%,F,F)



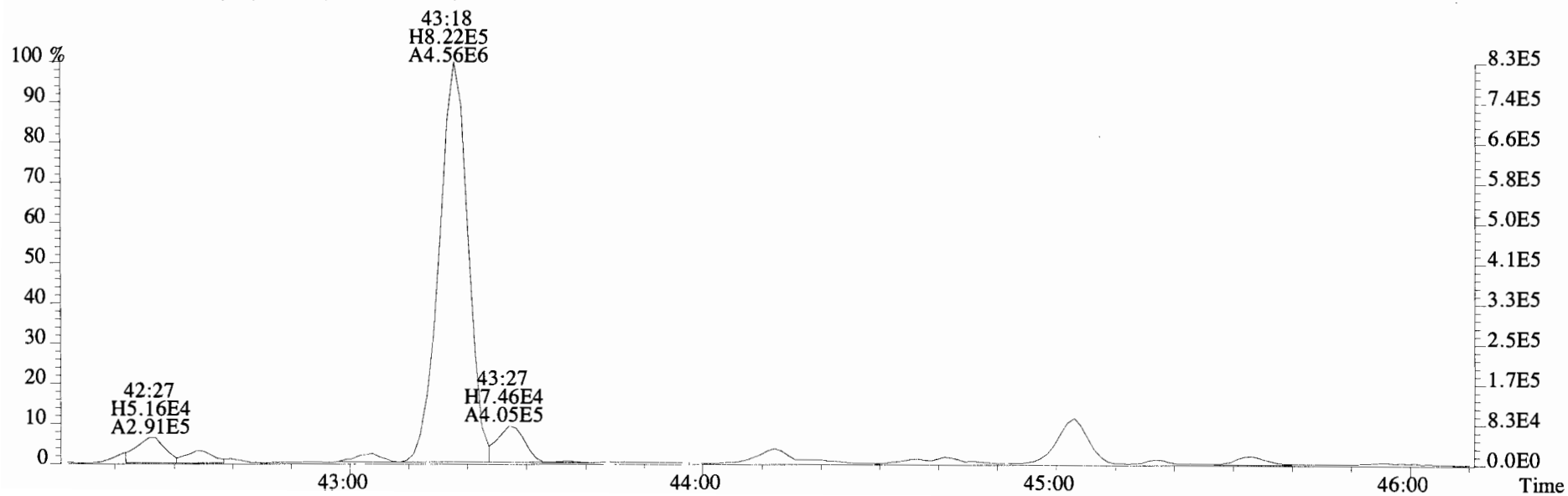
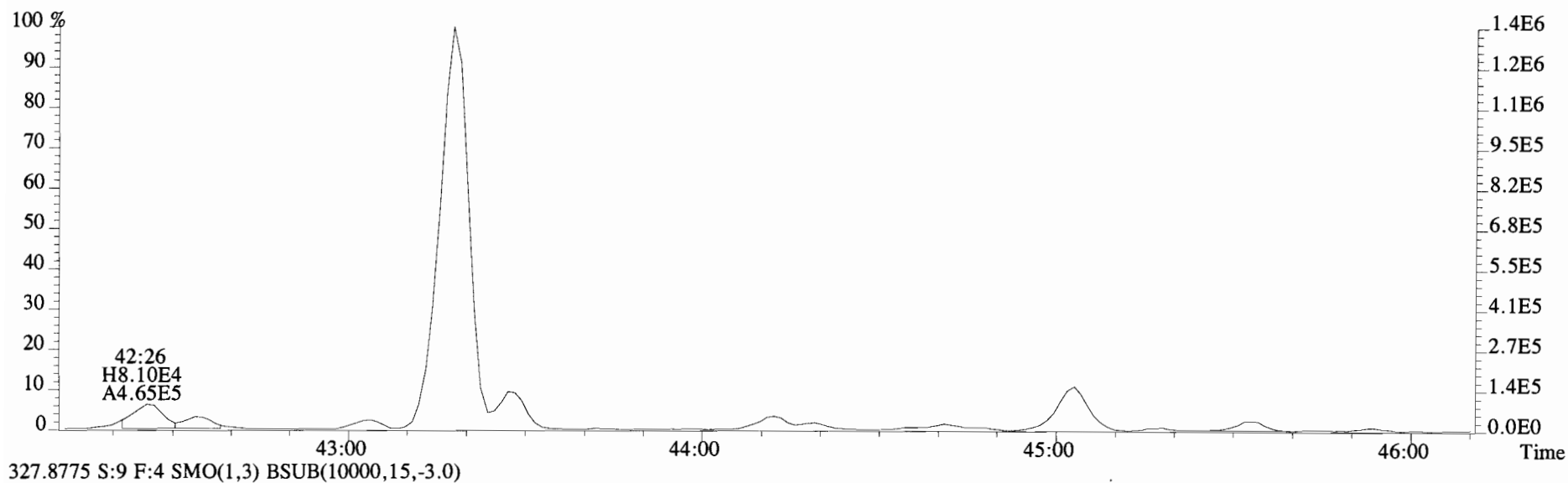
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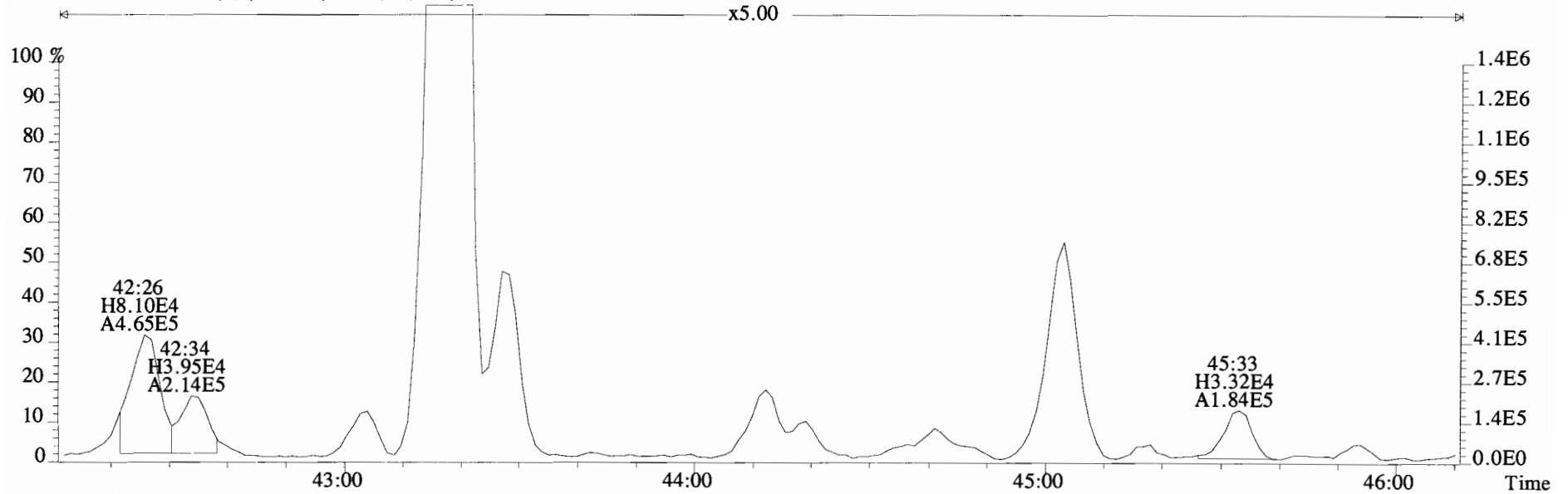
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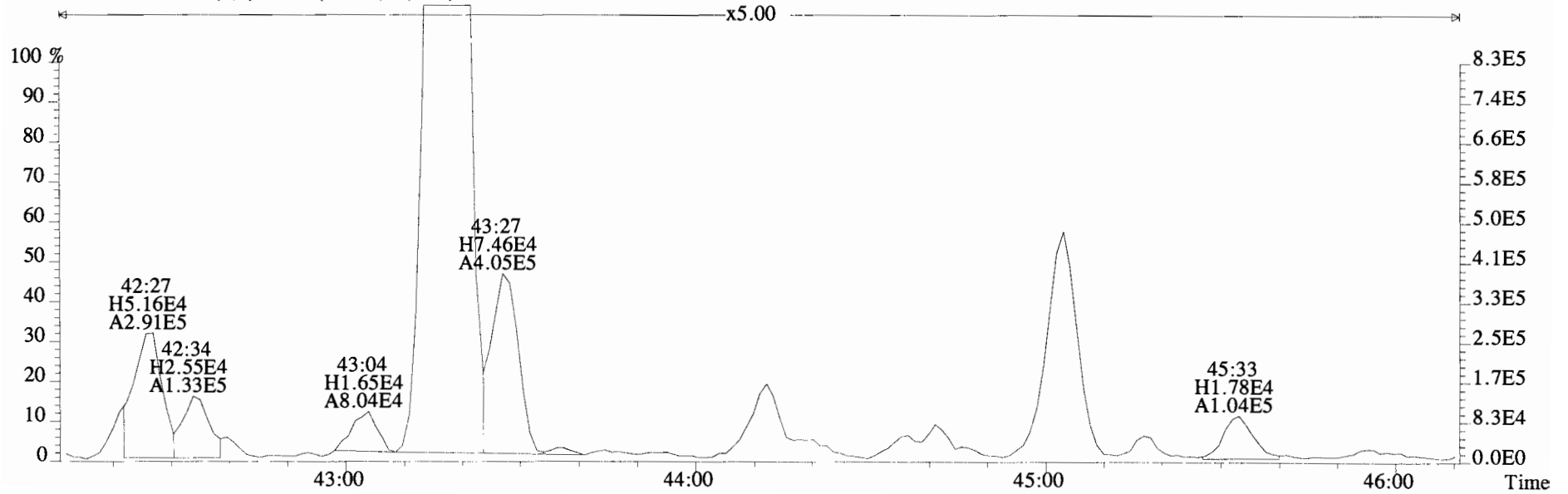
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325.8804 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0)



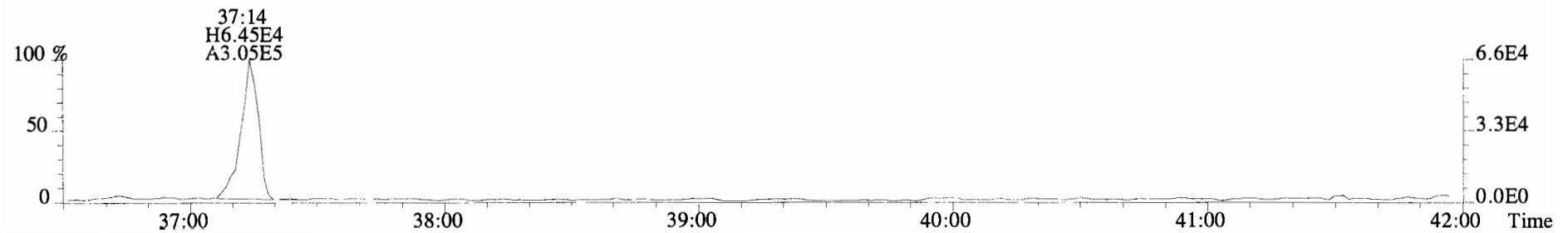
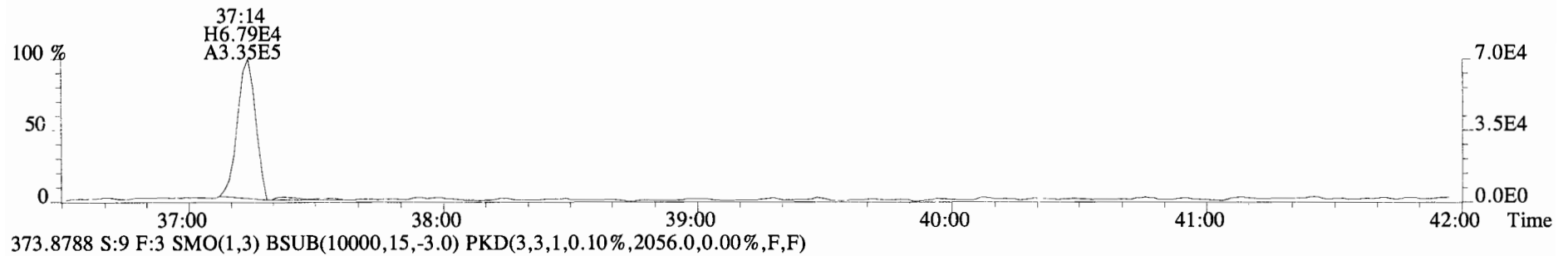
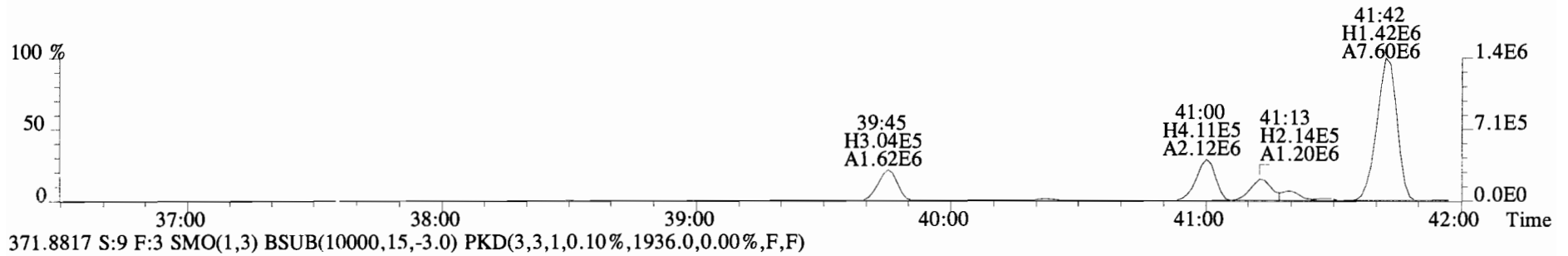
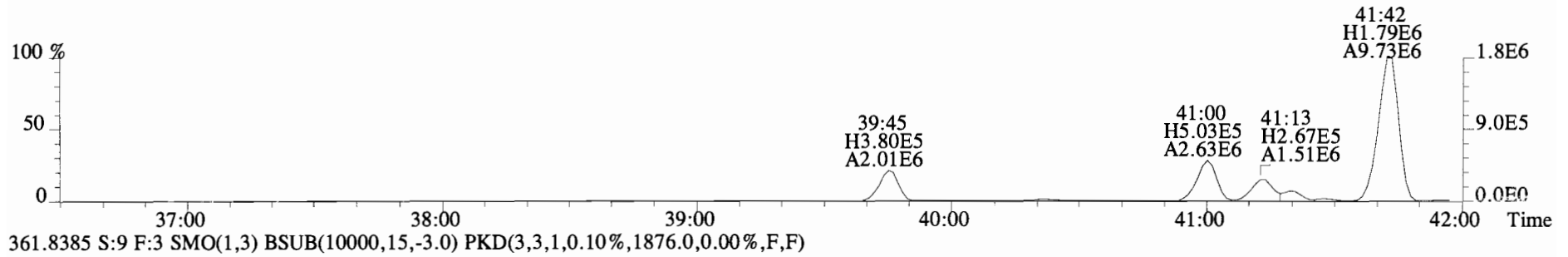
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325.8804 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0)



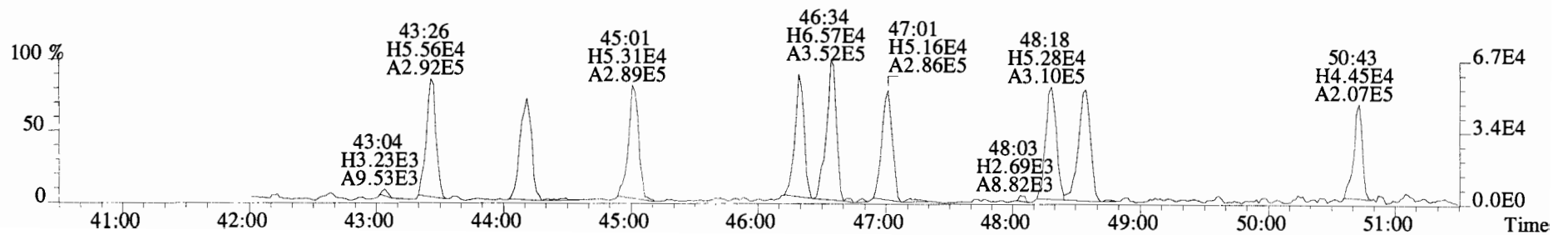
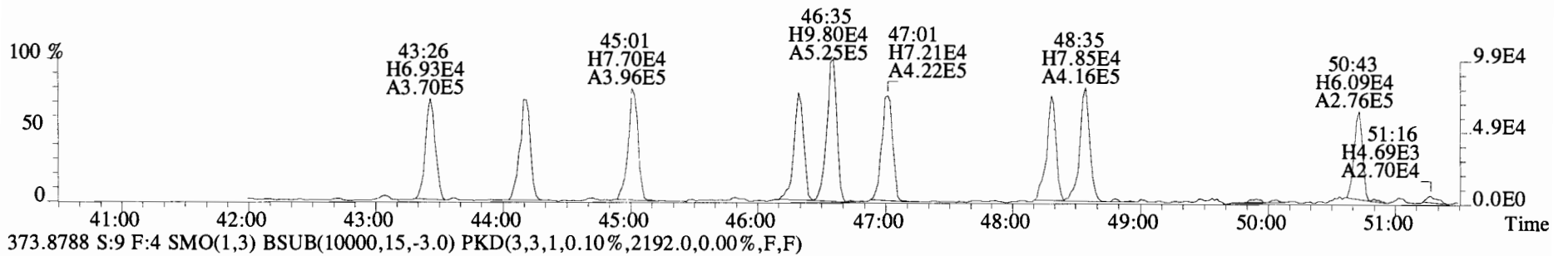
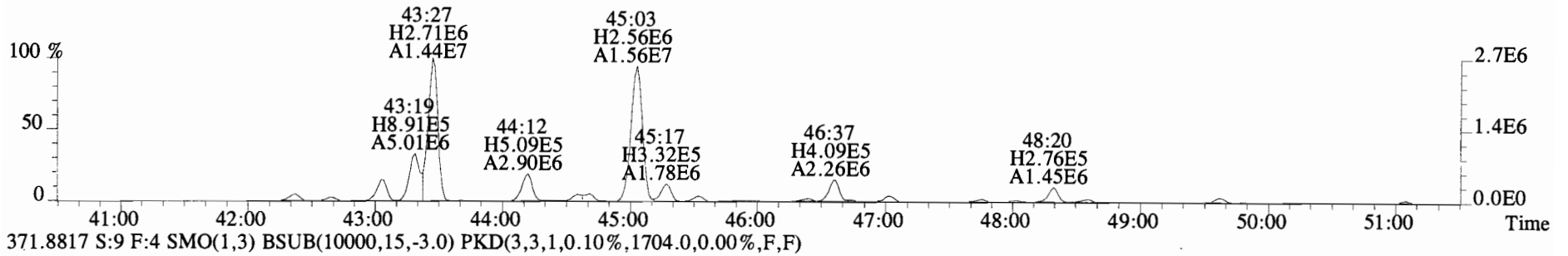
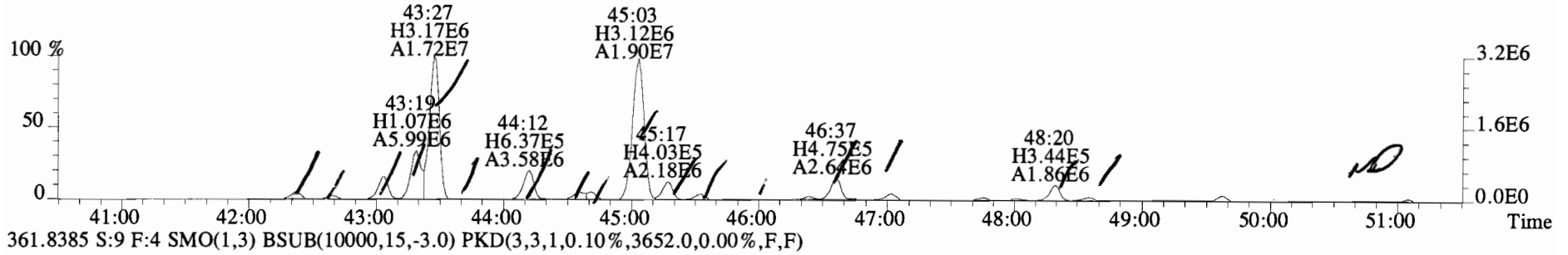
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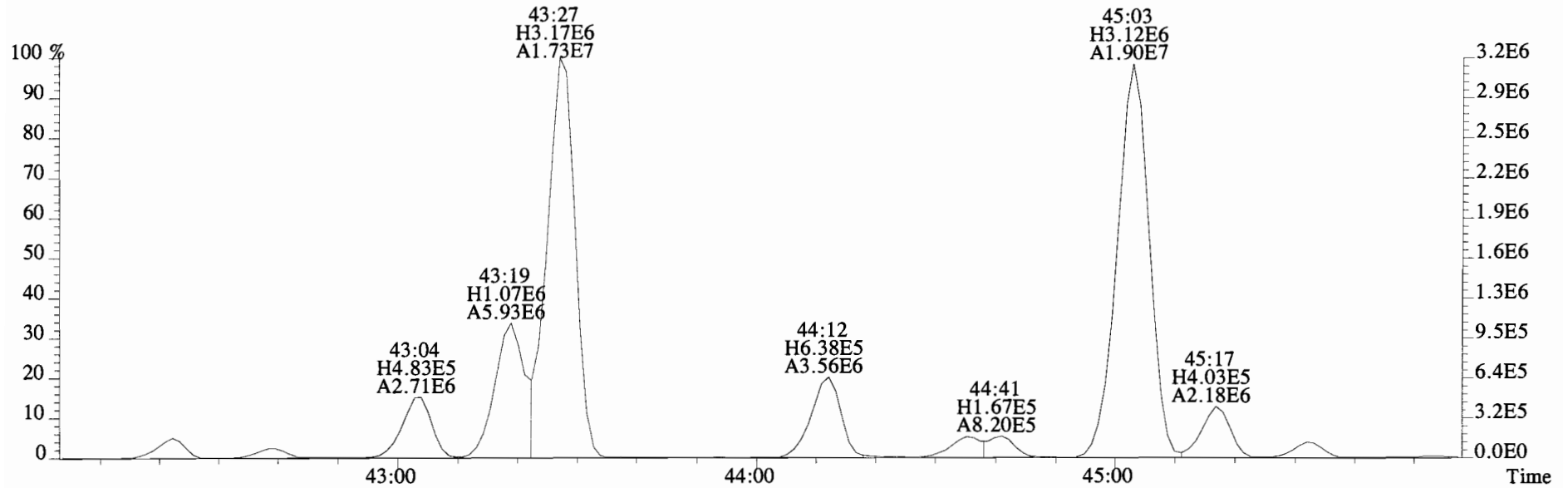
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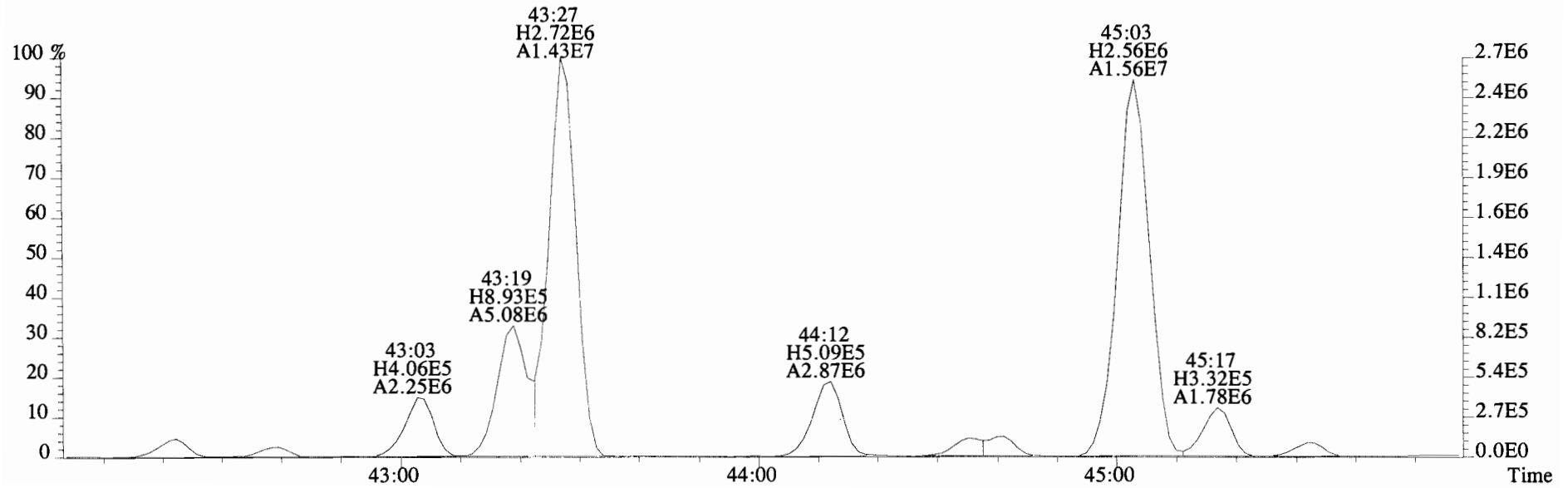
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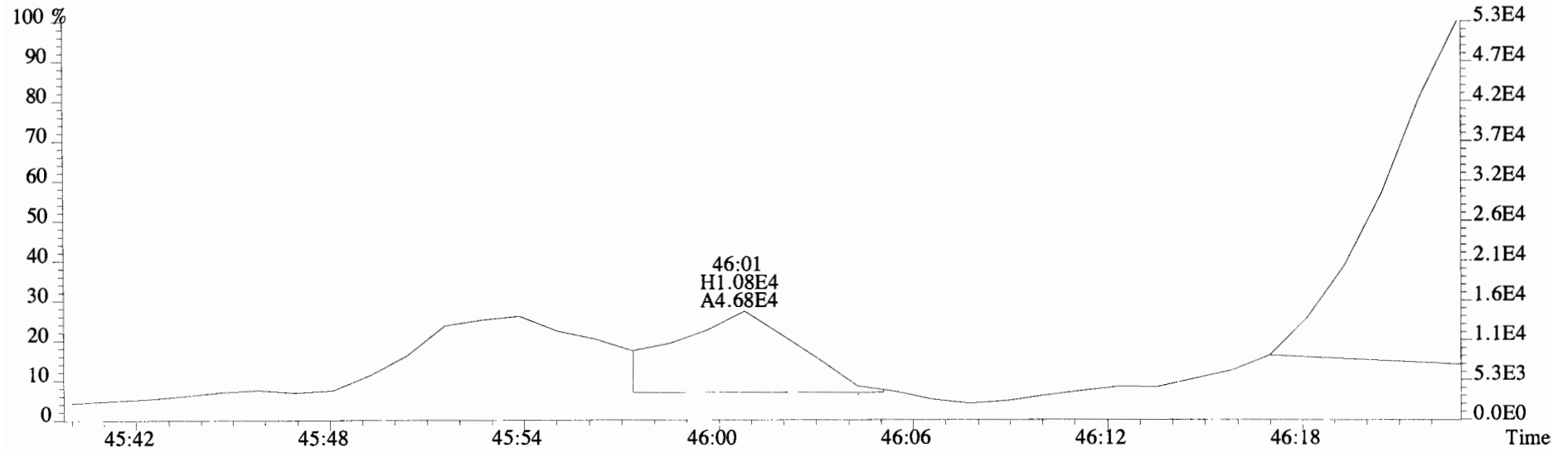
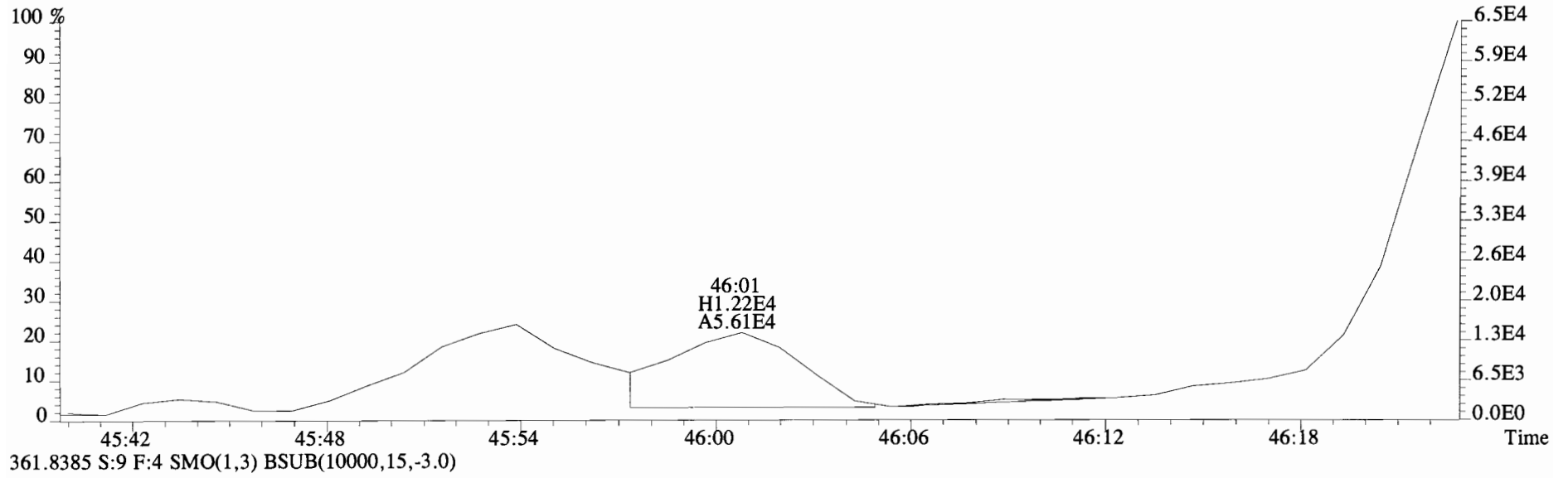
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
359.8415 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3032.0,0.00%,F,F)



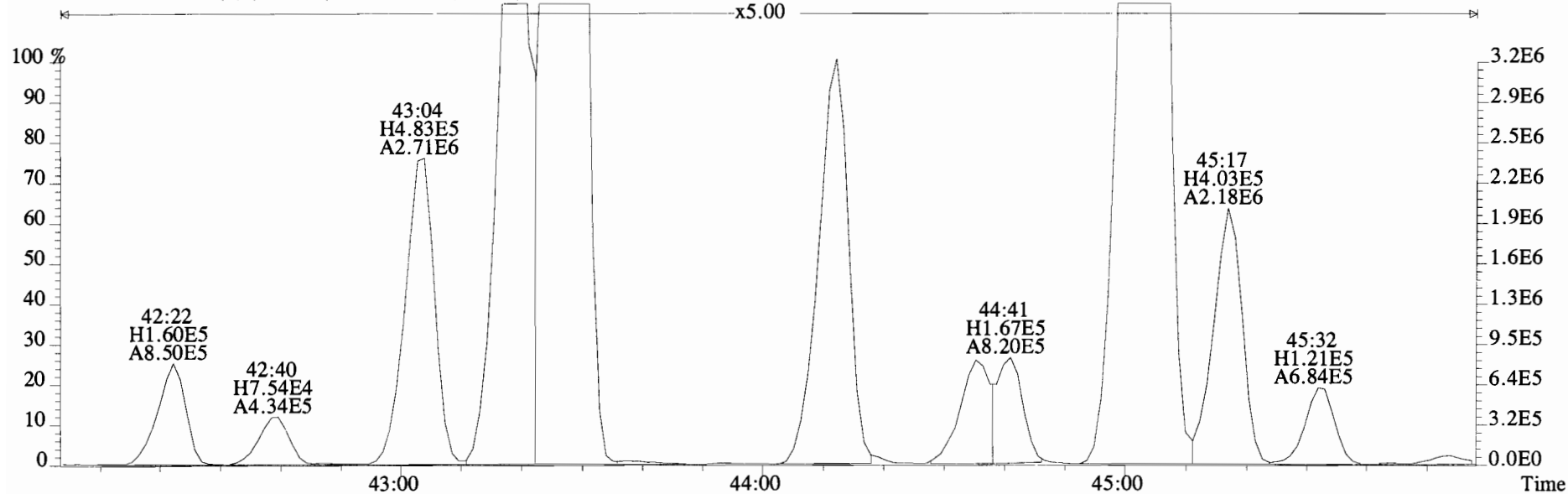
361.8385 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3652.0,0.00%,F,F)



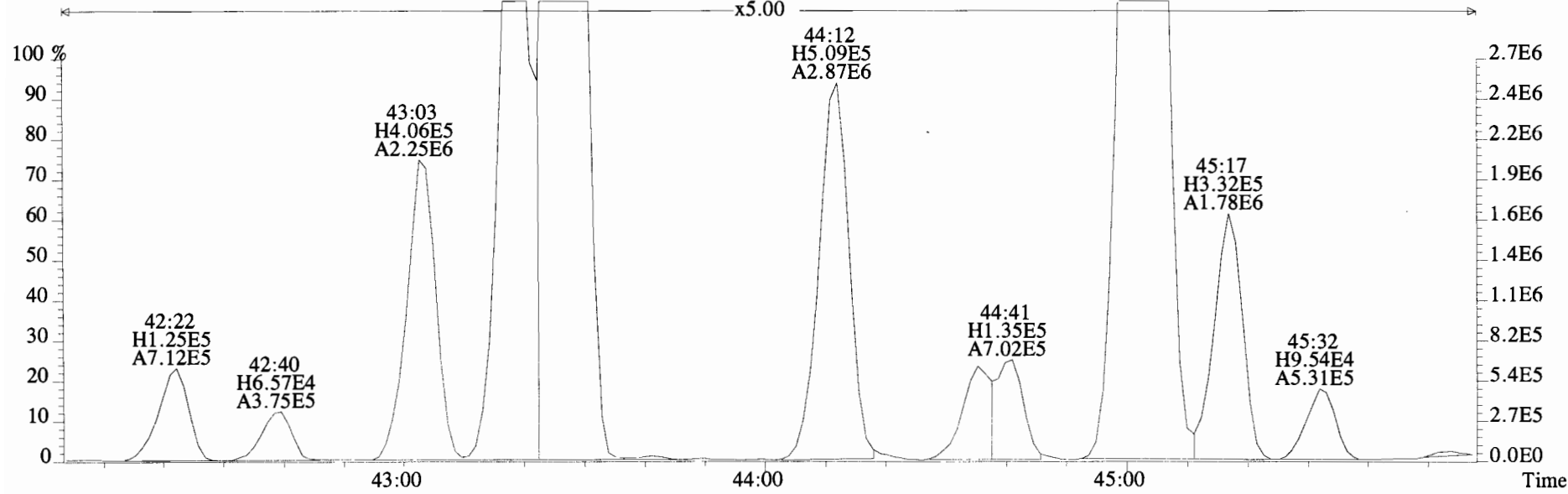
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
359.8415 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0)



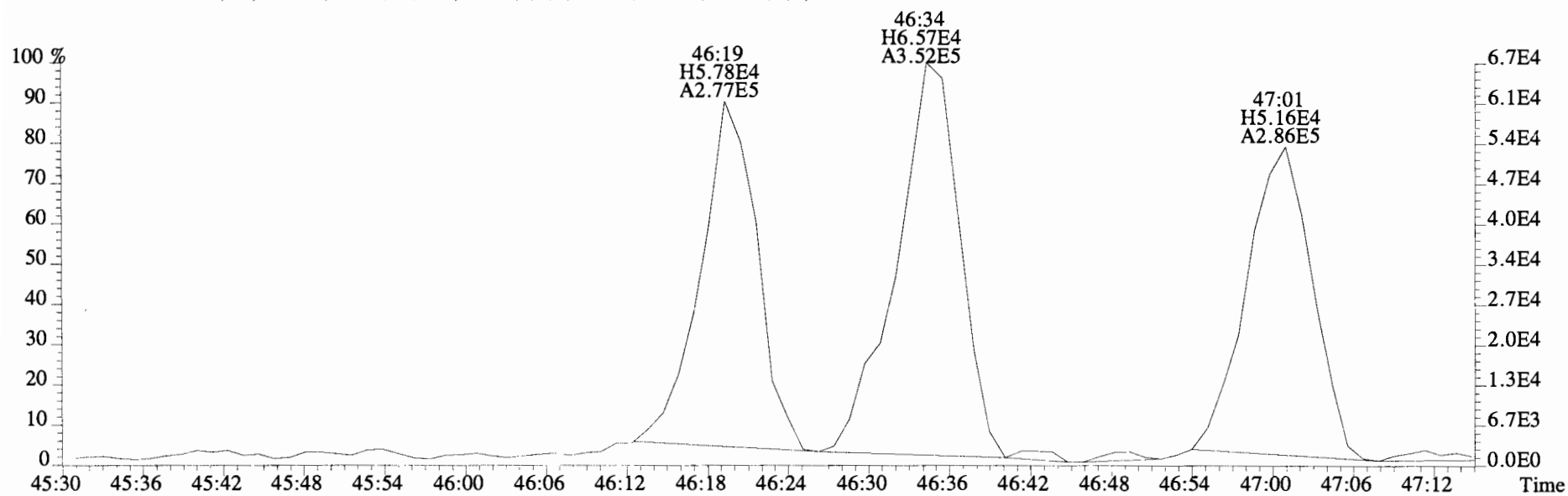
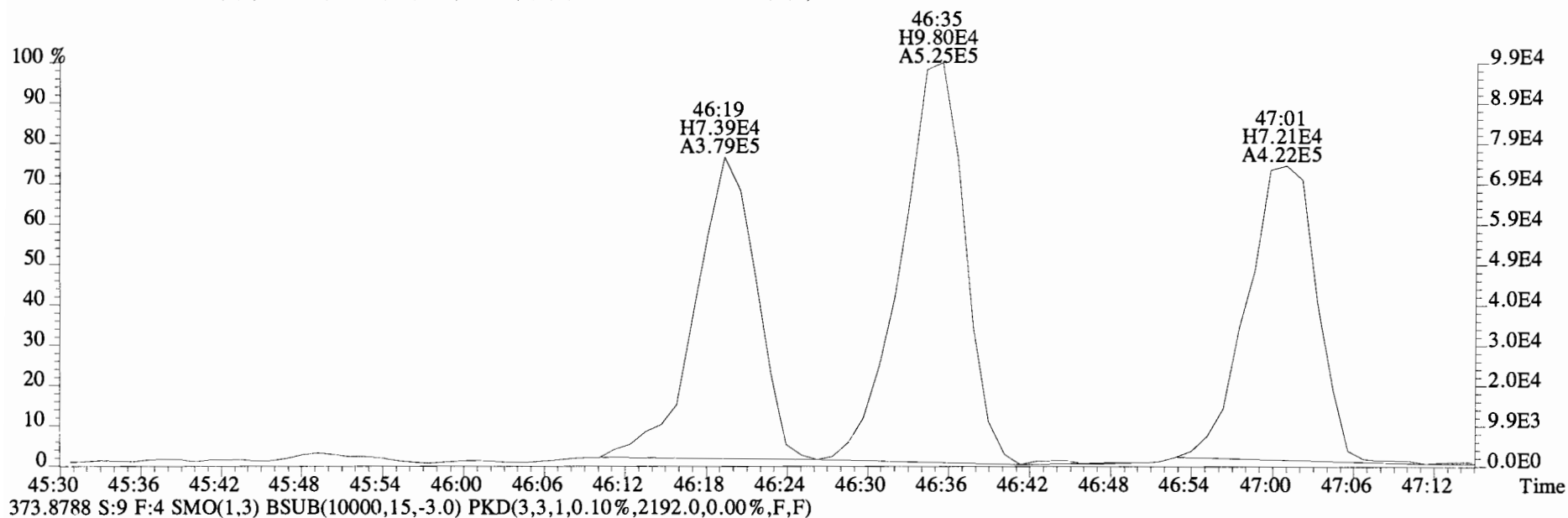
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 Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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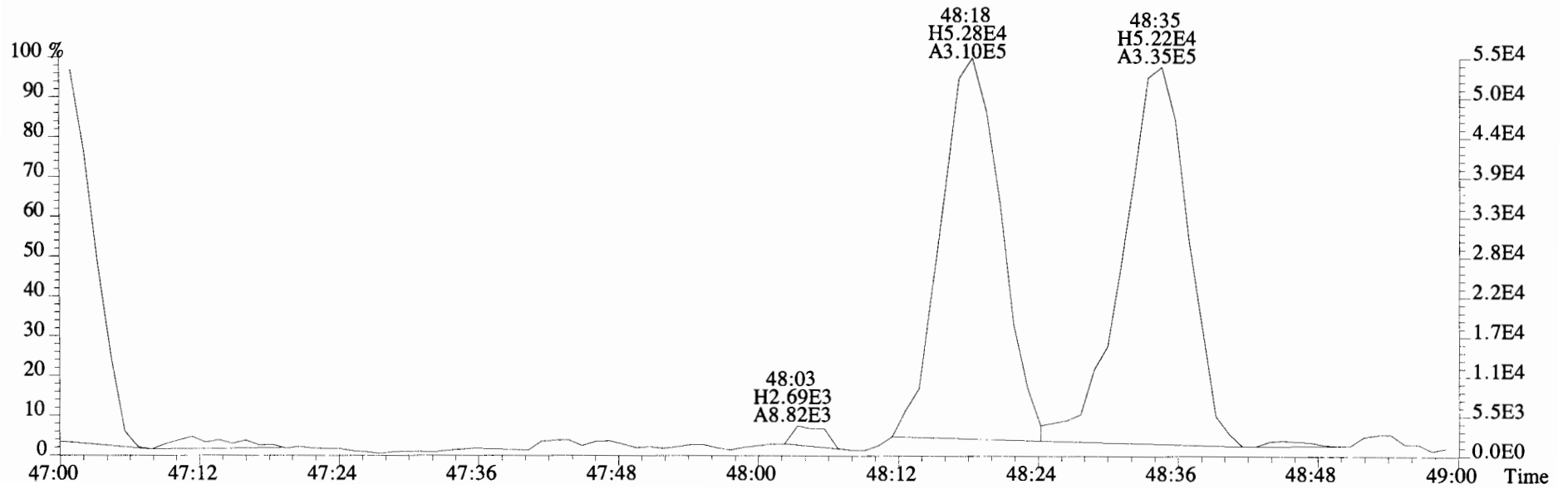
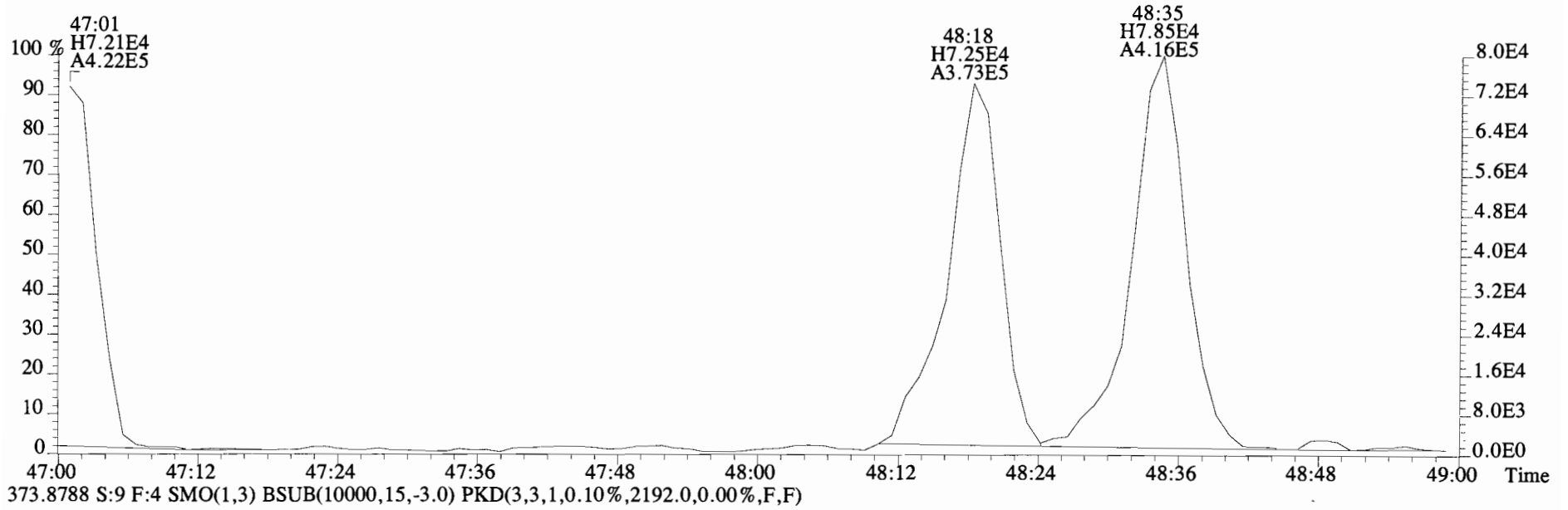
361.8385 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3652.0,0.00%,F,F)



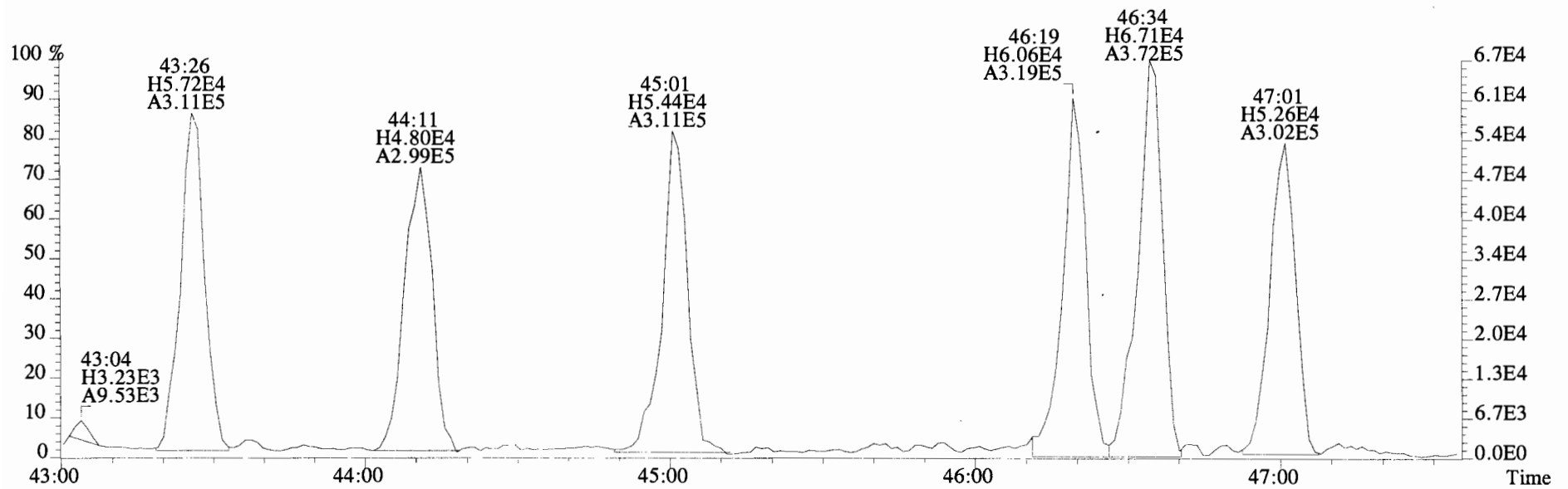
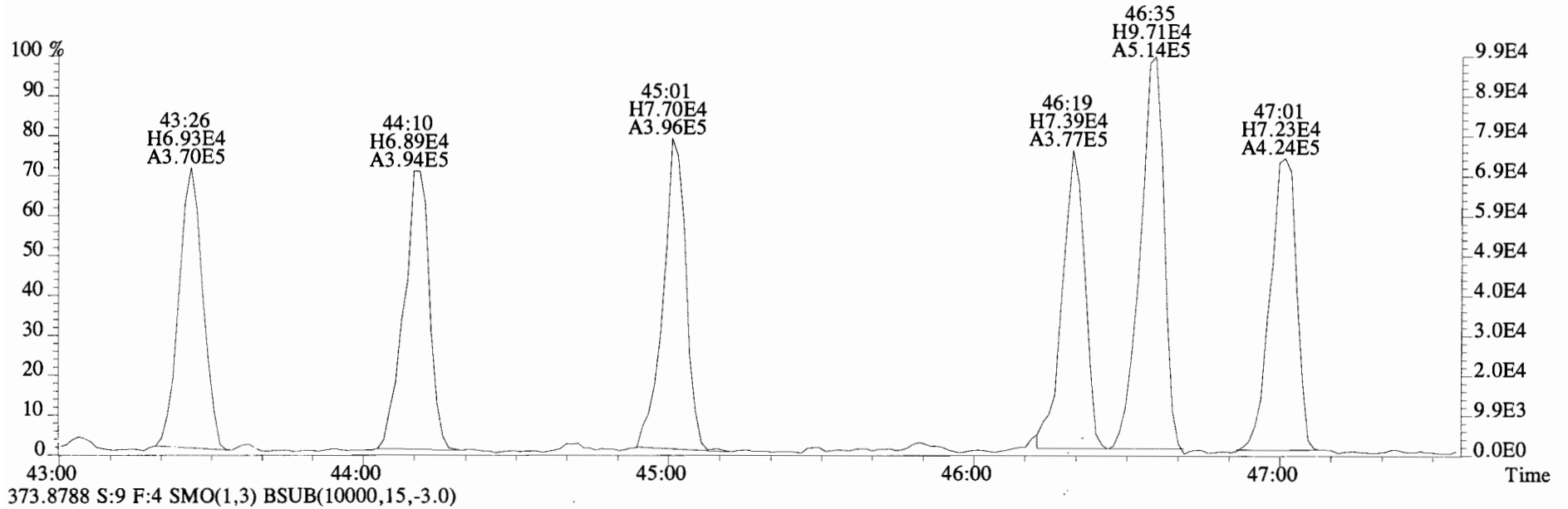
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
371.8817 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



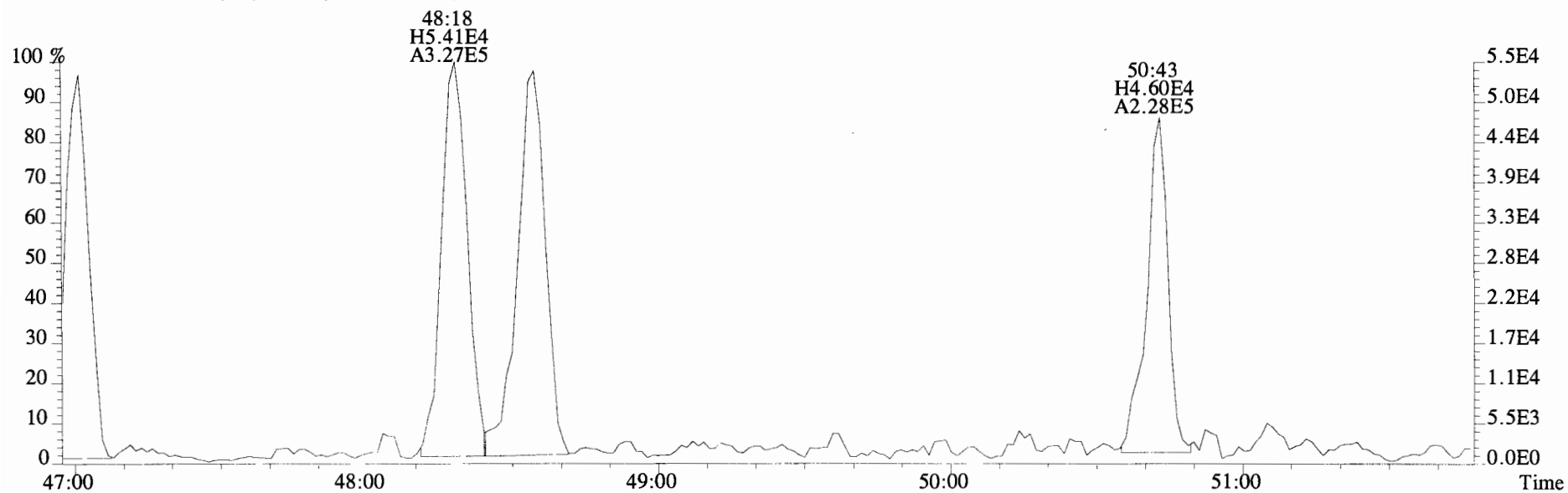
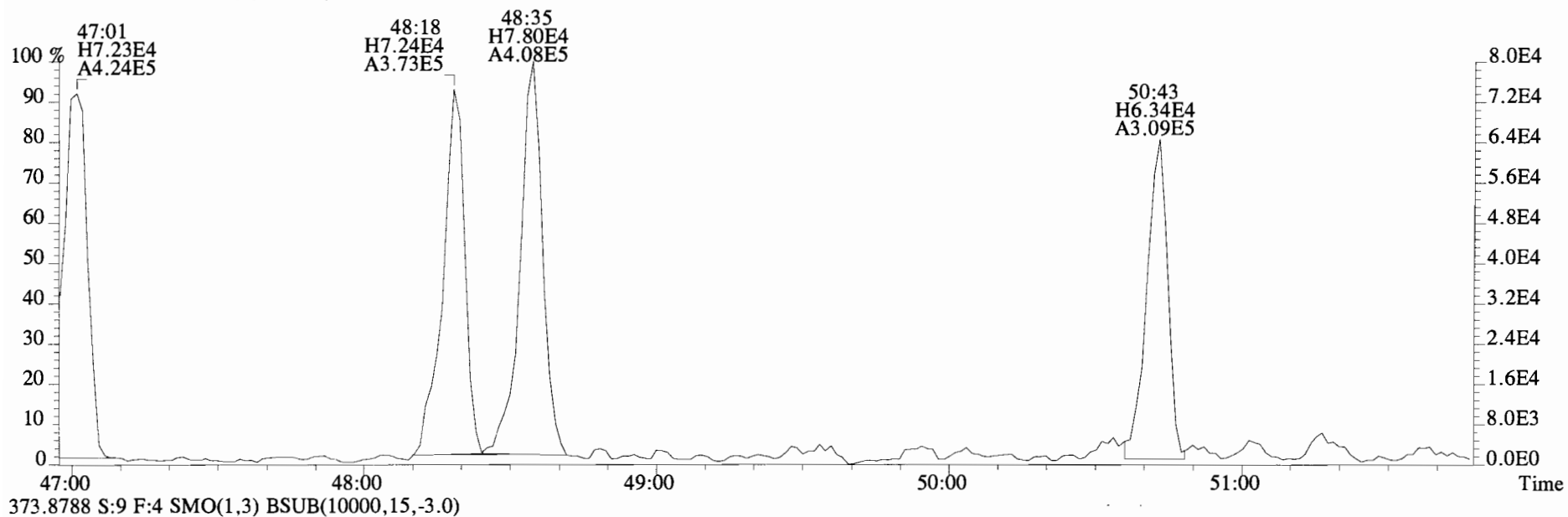
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371.8817 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1704.0,0.00%,F,F)



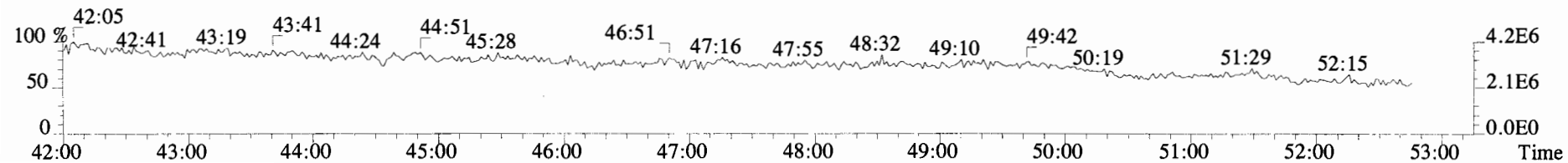
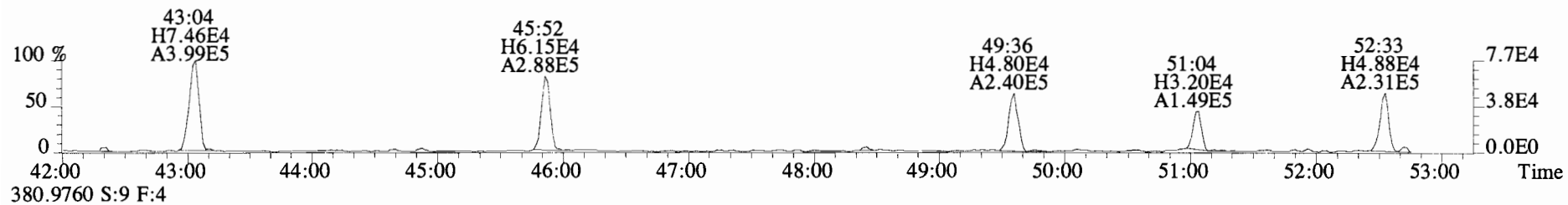
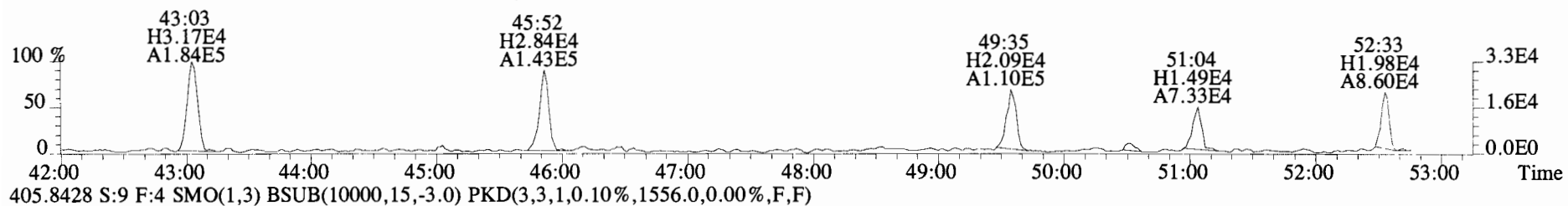
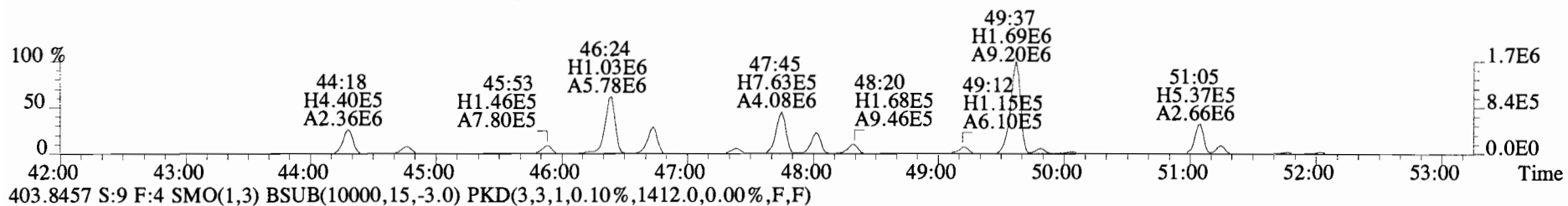
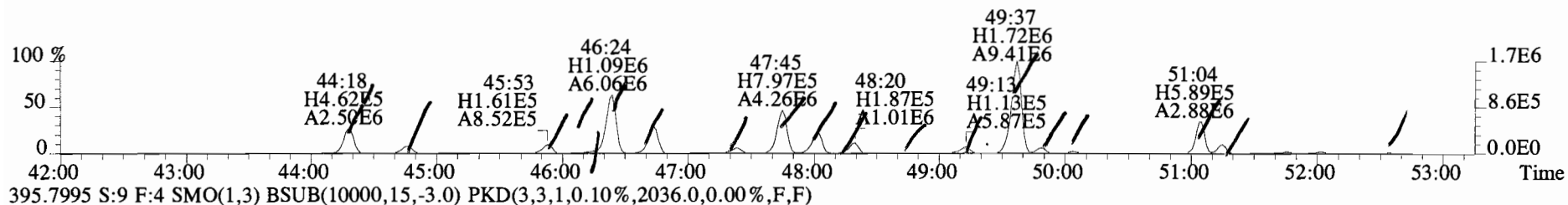
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 371.8817 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0)



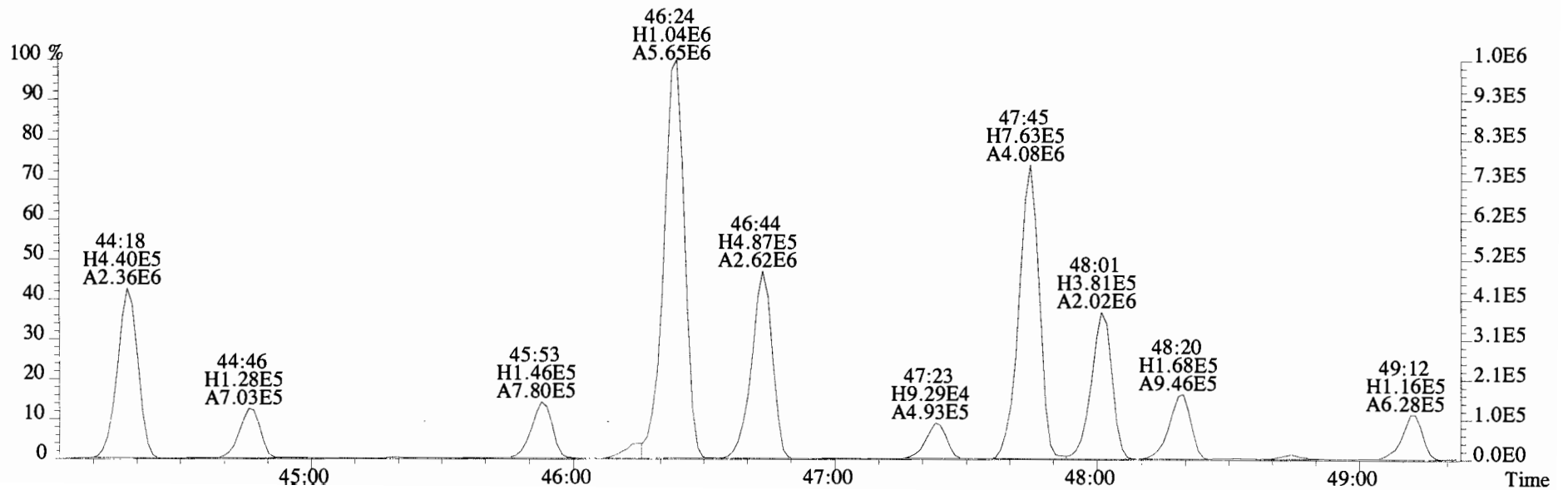
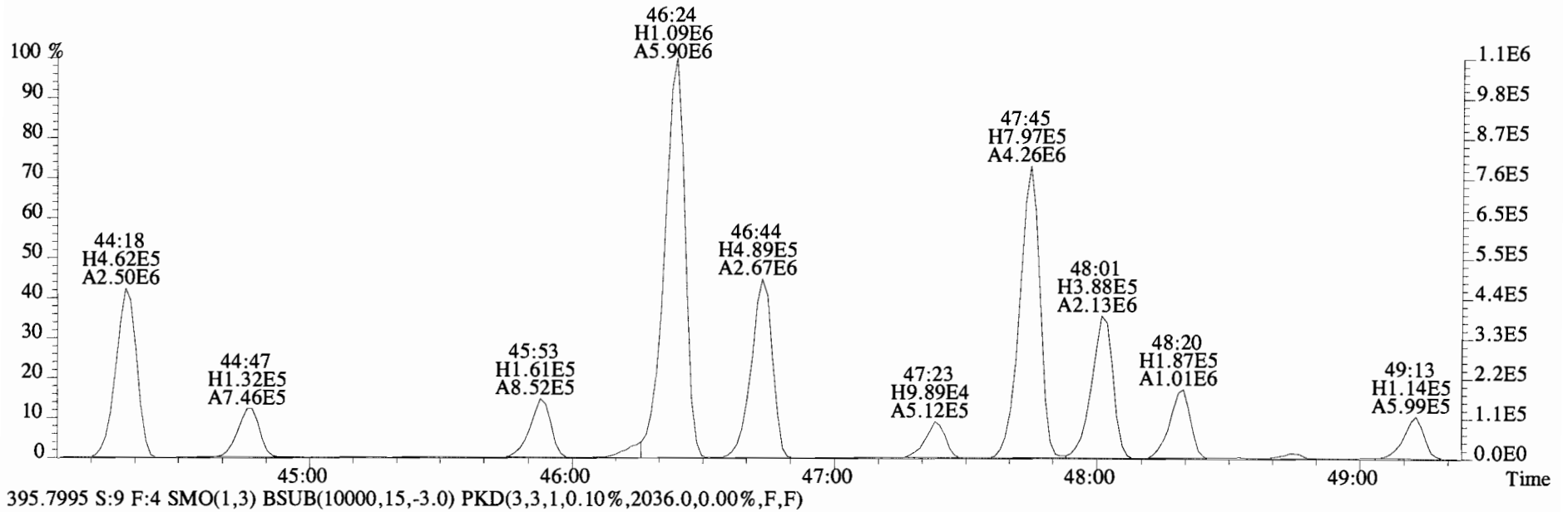
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
371.8817 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0)



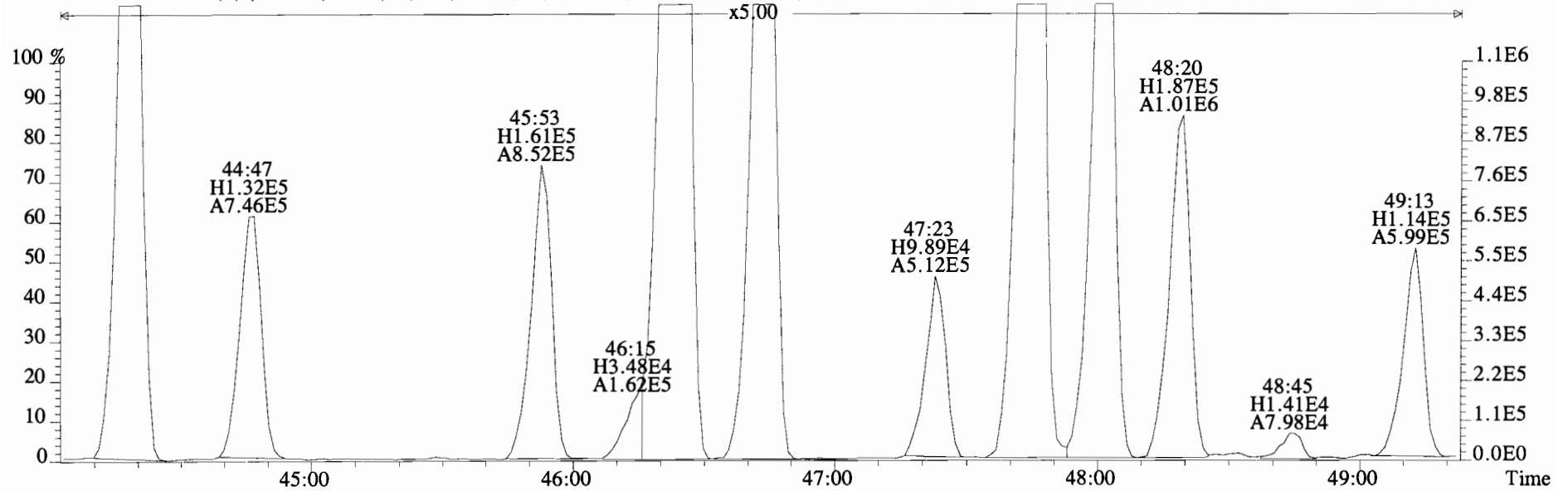
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
393.8025 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1756.0,0.00%,F,F)



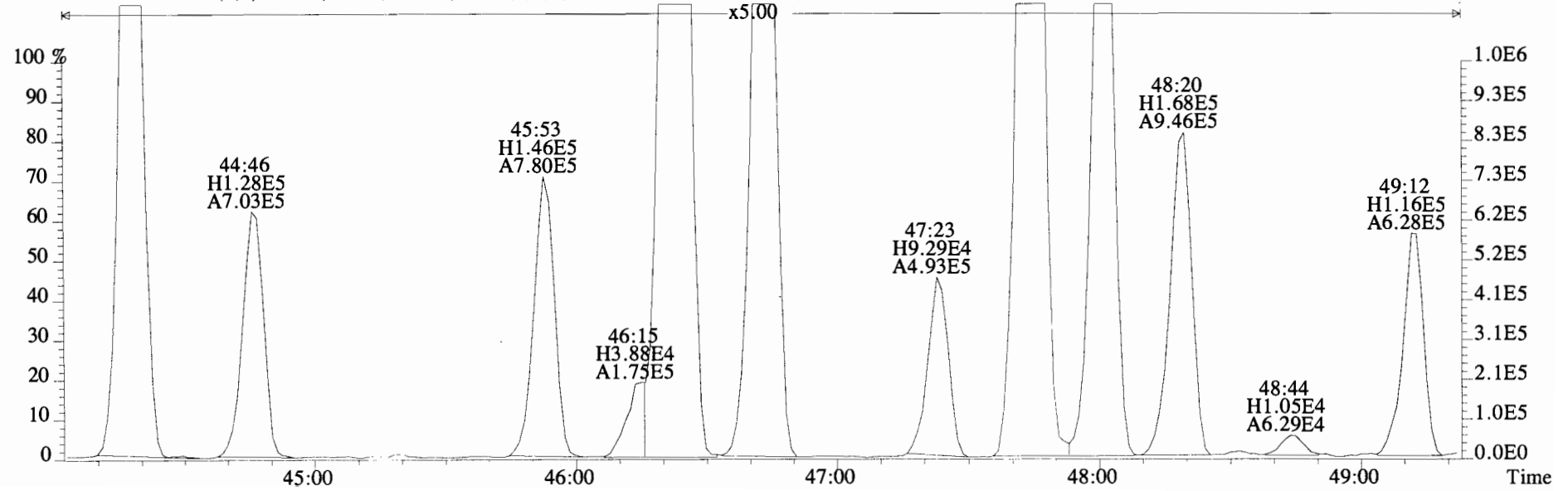
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 Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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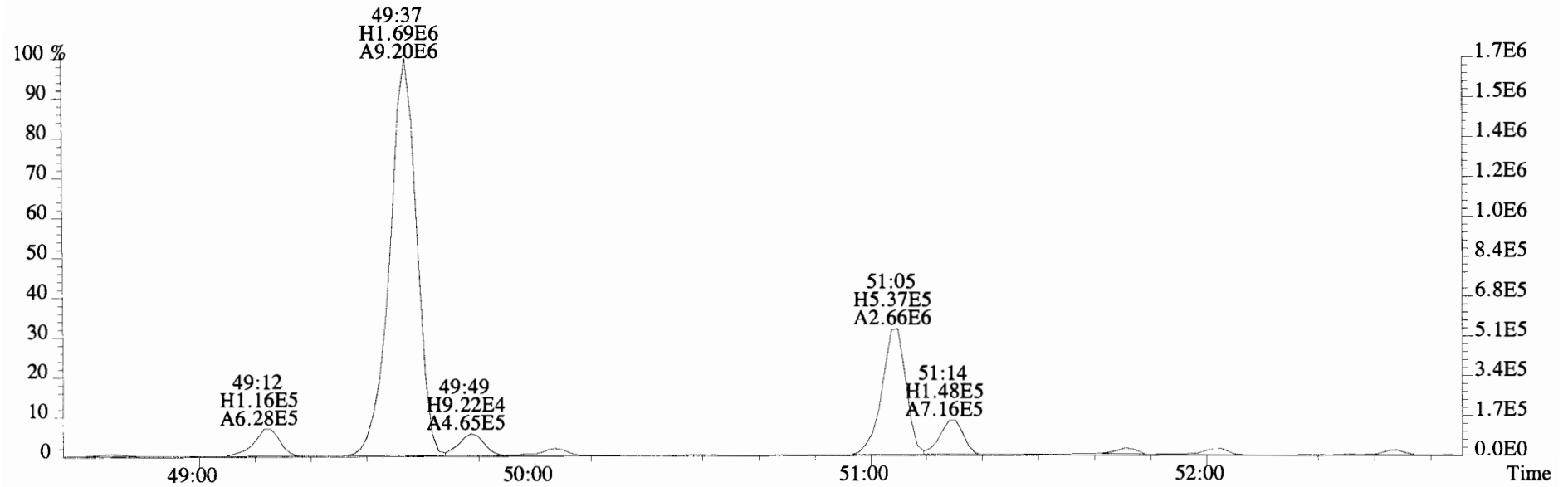
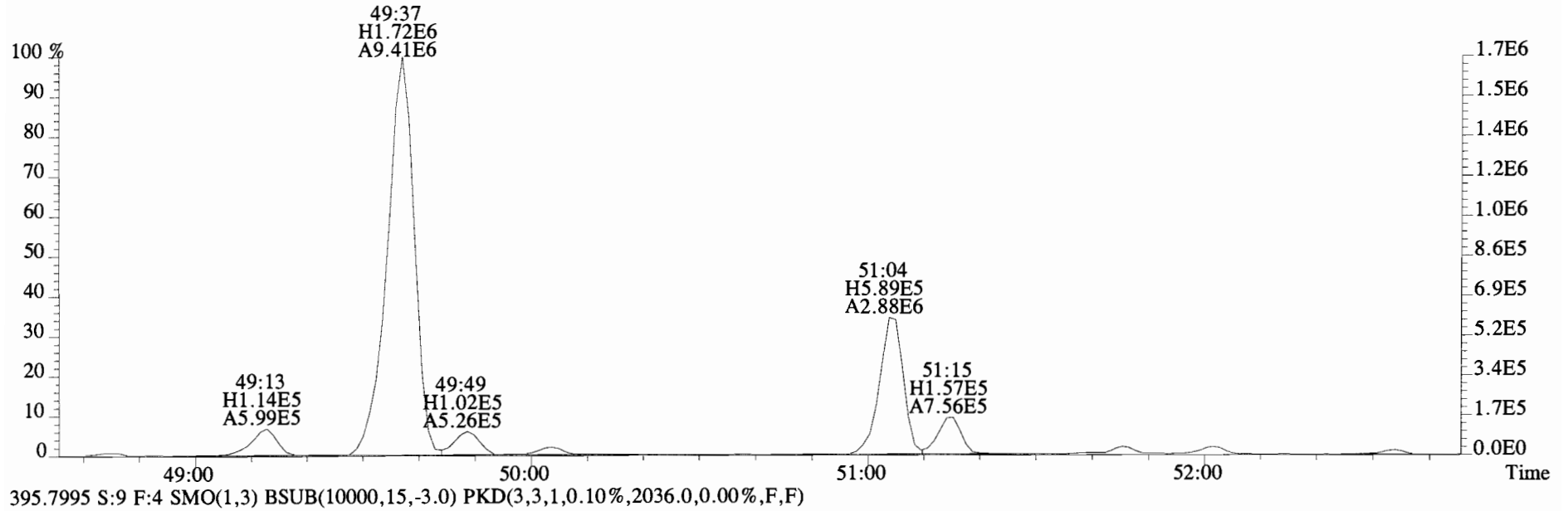
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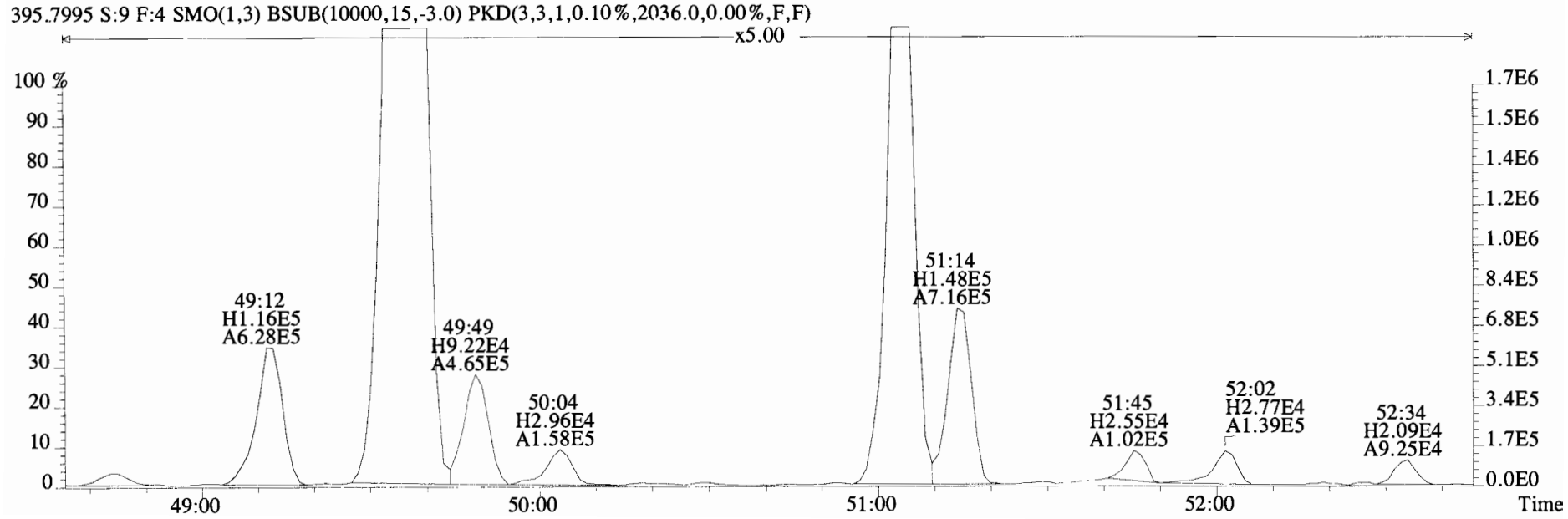
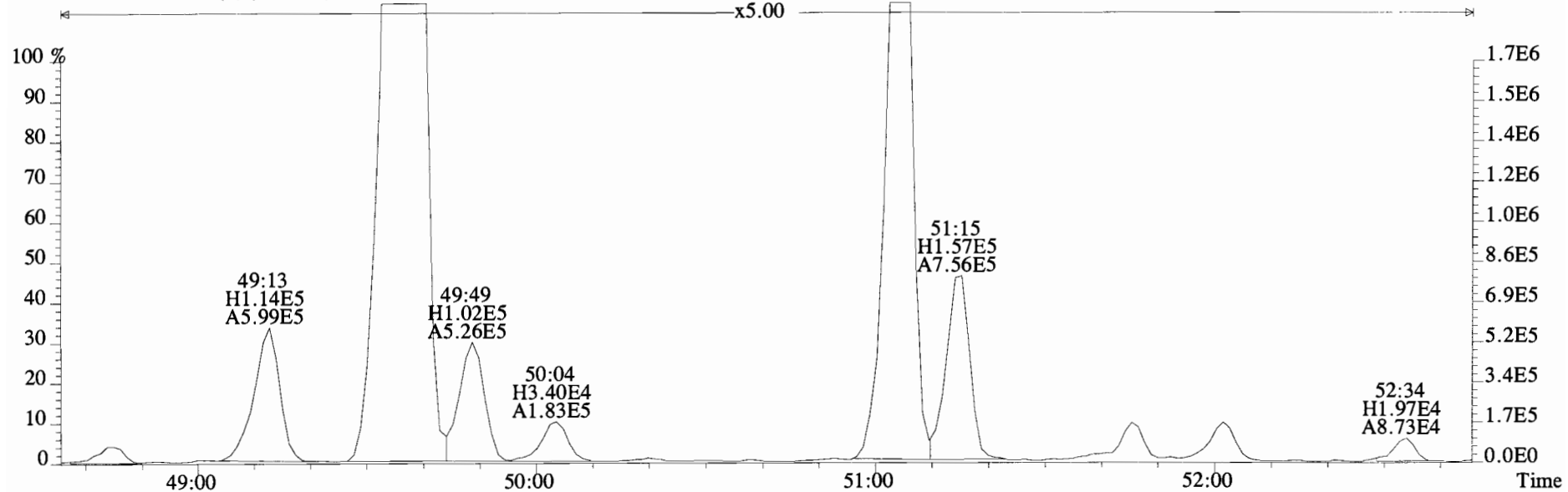
395.7995 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2036.0,0.00%,F,F)



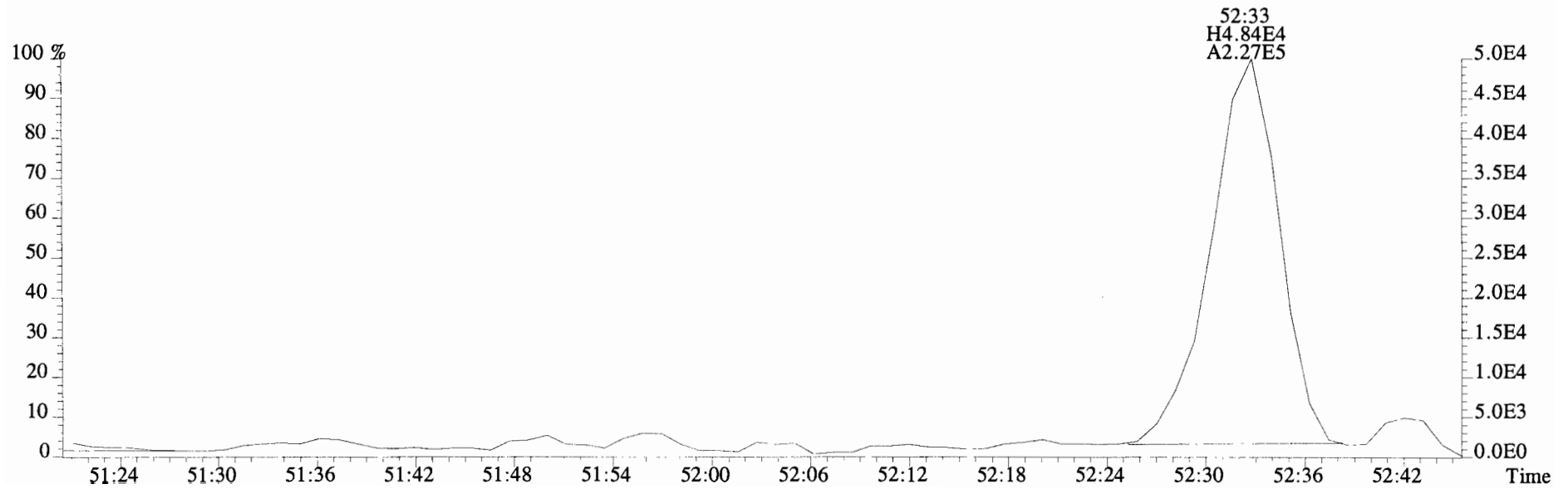
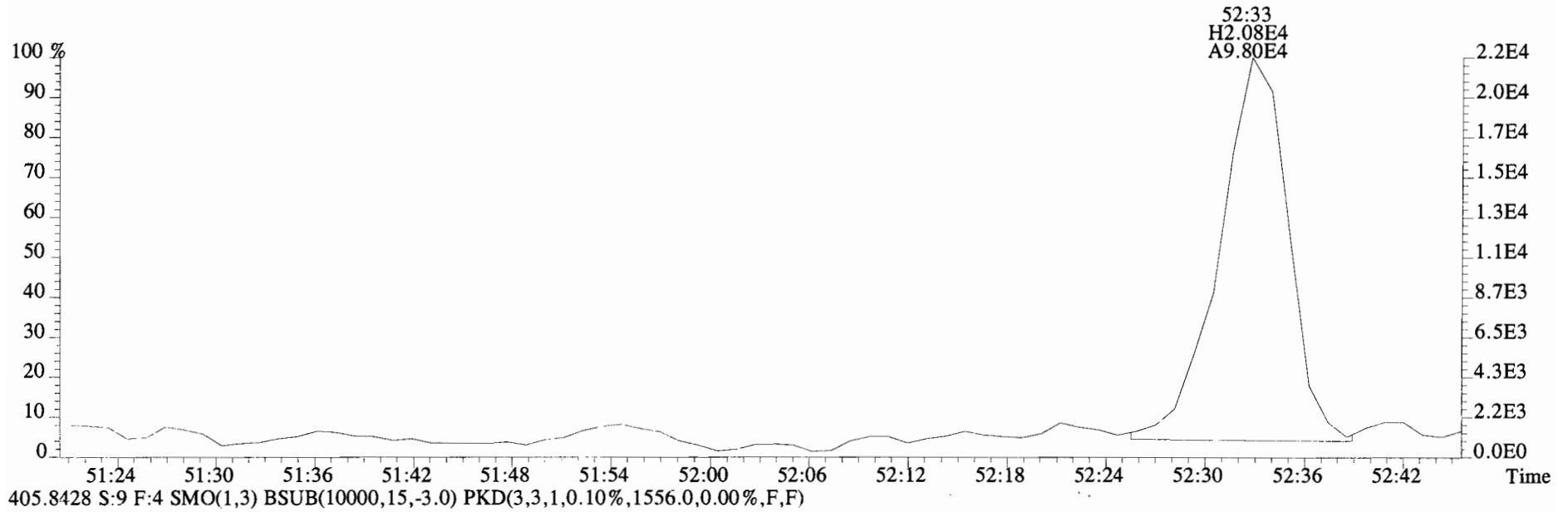
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
393.8025 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1756.0,0.00%,F,F)



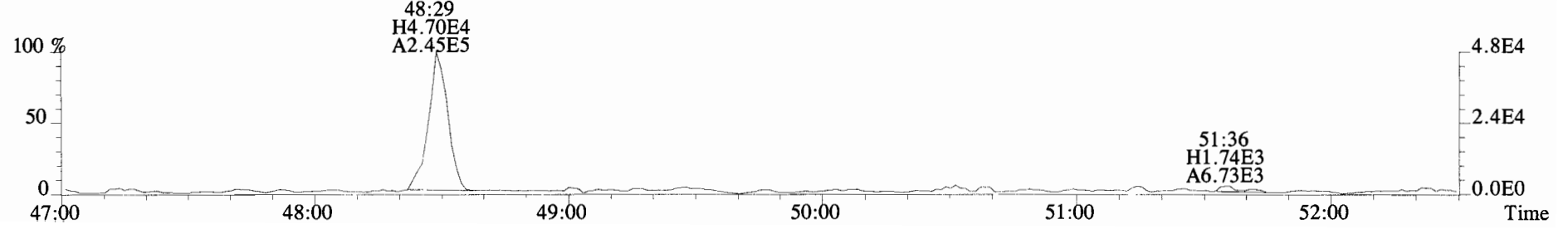
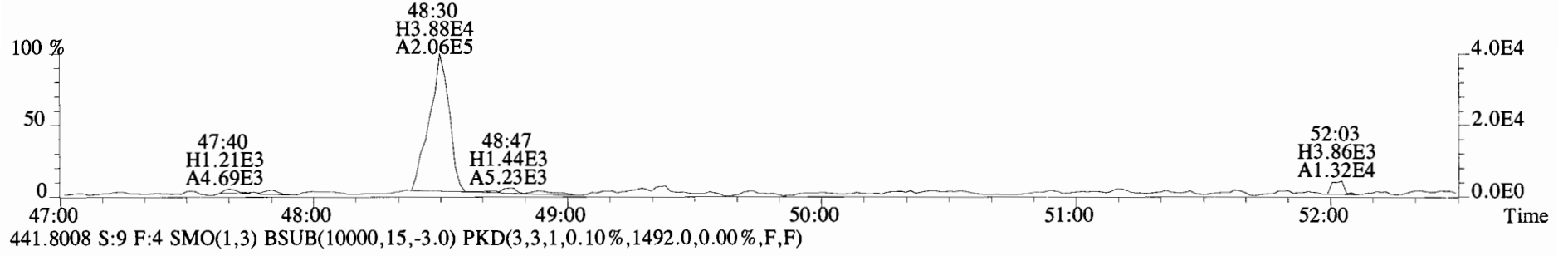
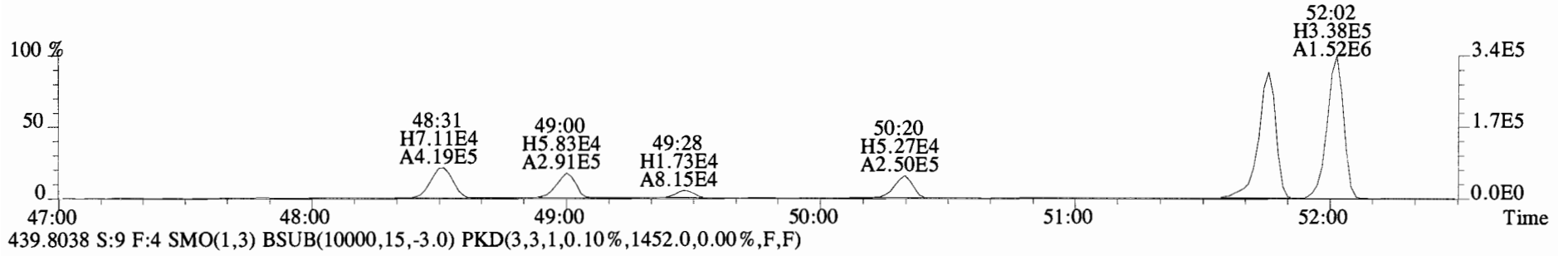
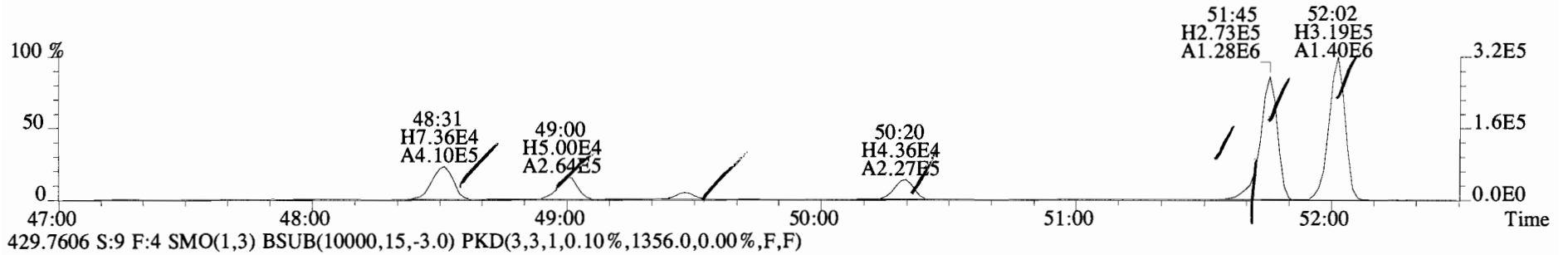
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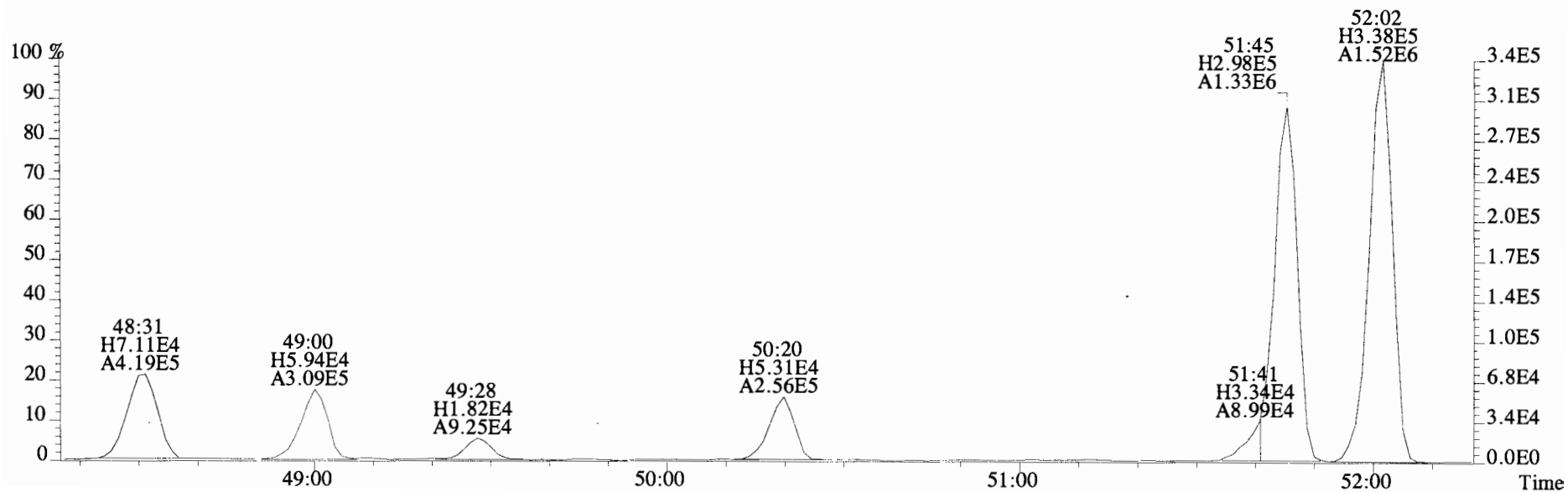
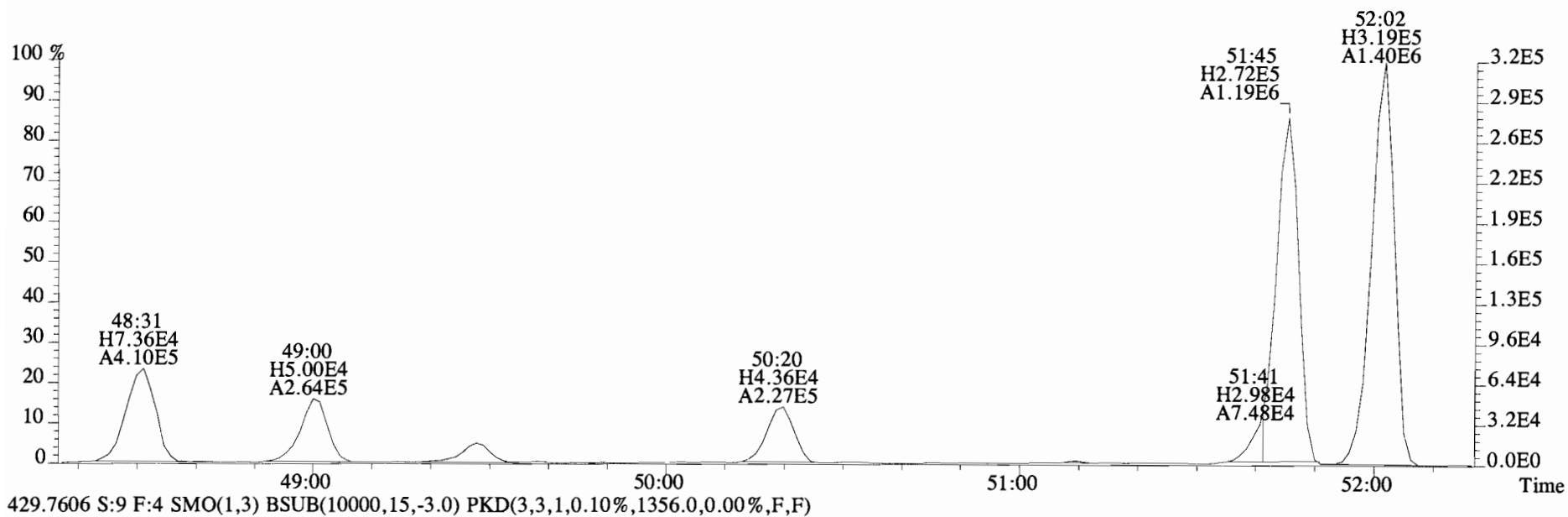
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
403.8457 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1412.0,0.00%,F,F)



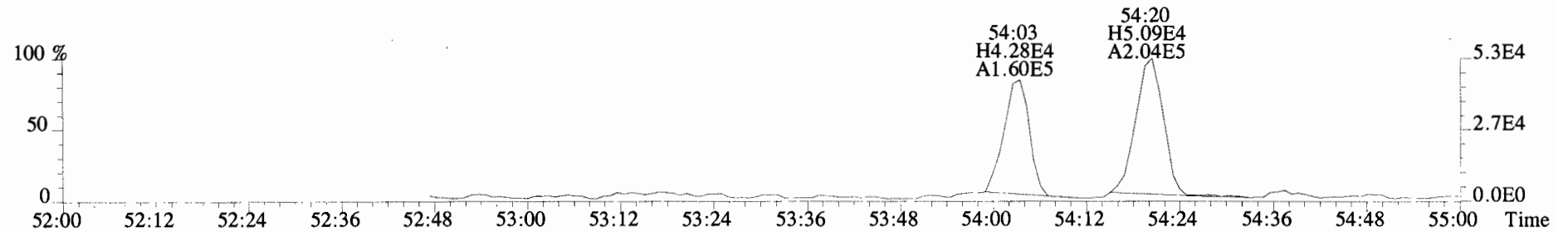
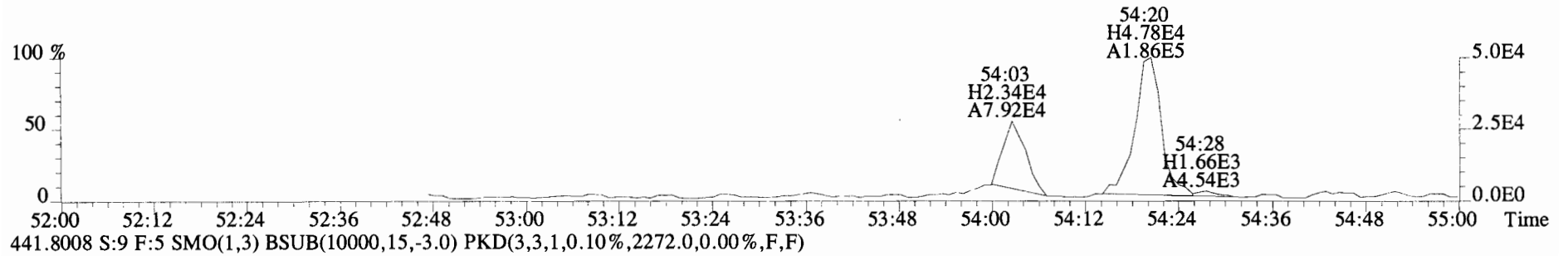
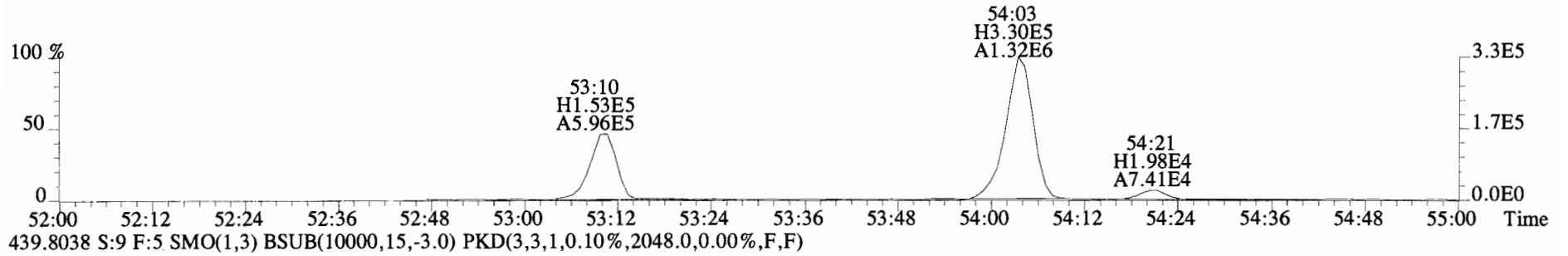
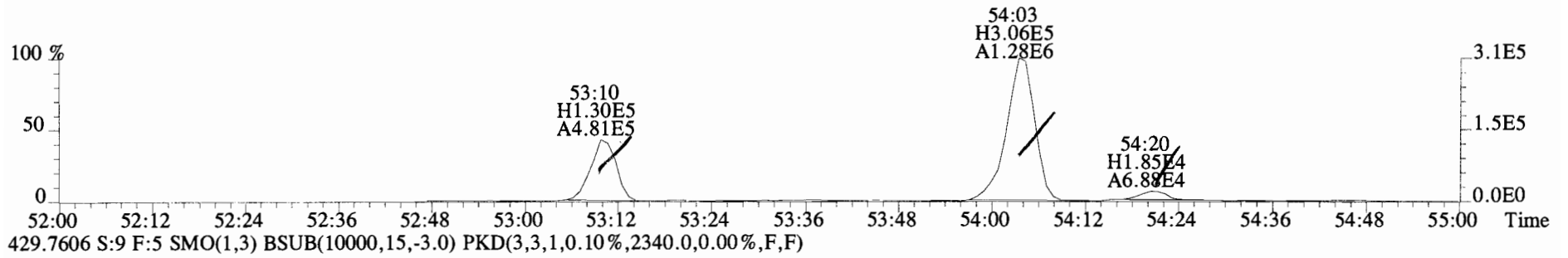
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
427.7635 S:9 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1300.0,0.00%,F,F)



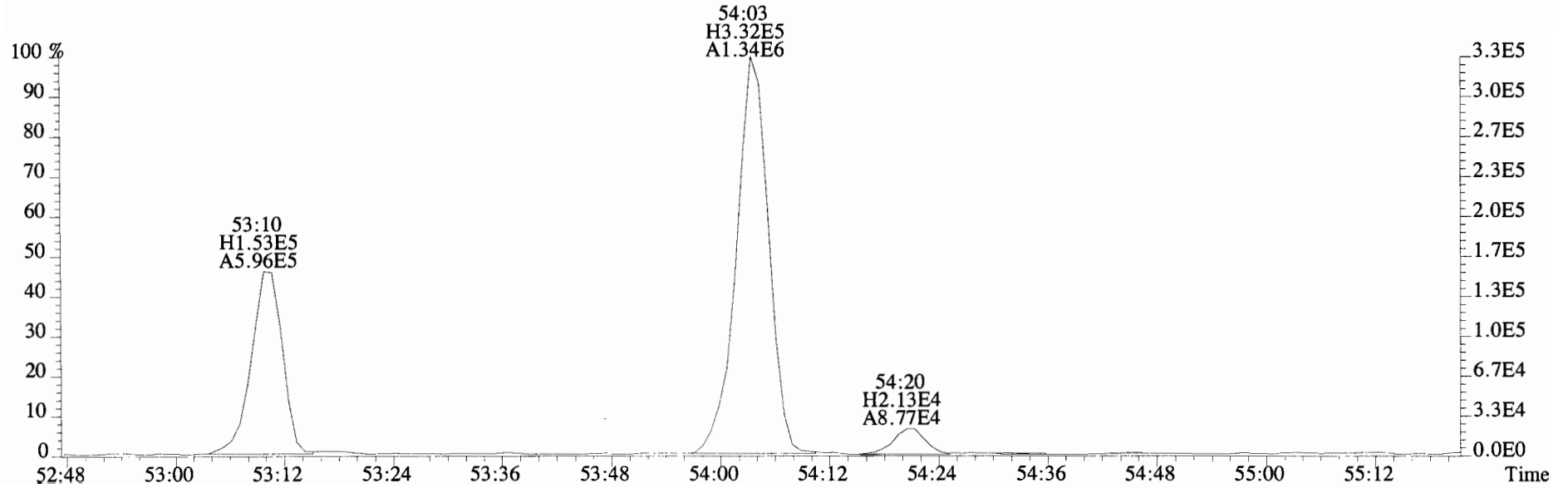
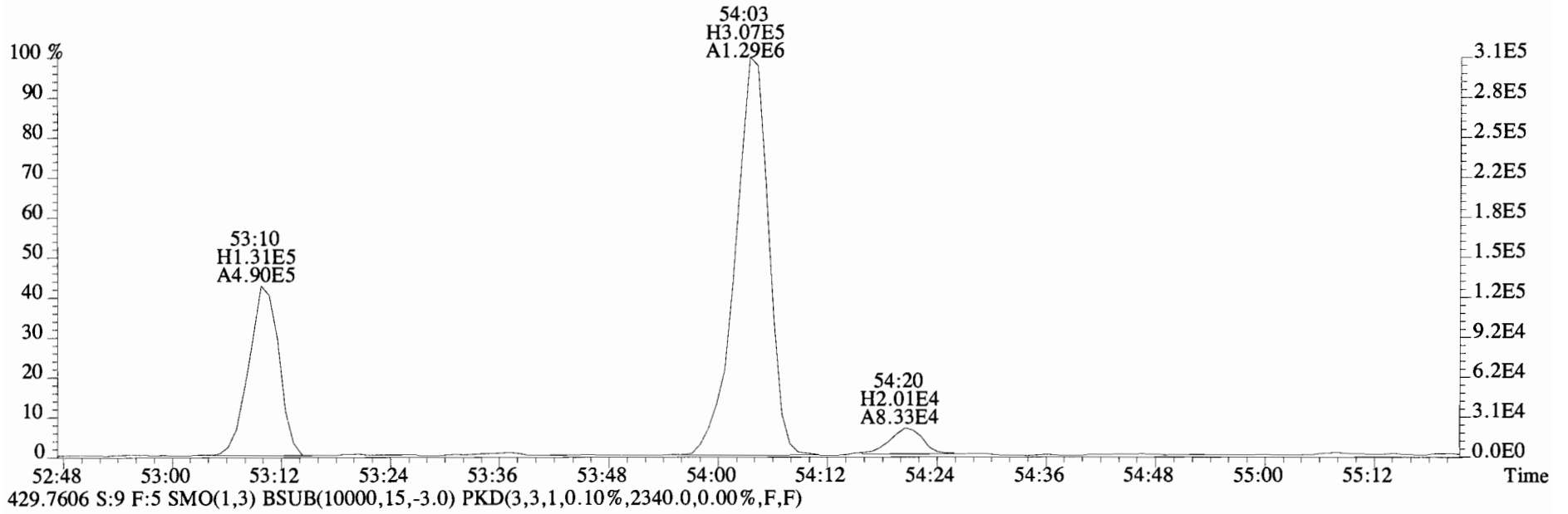
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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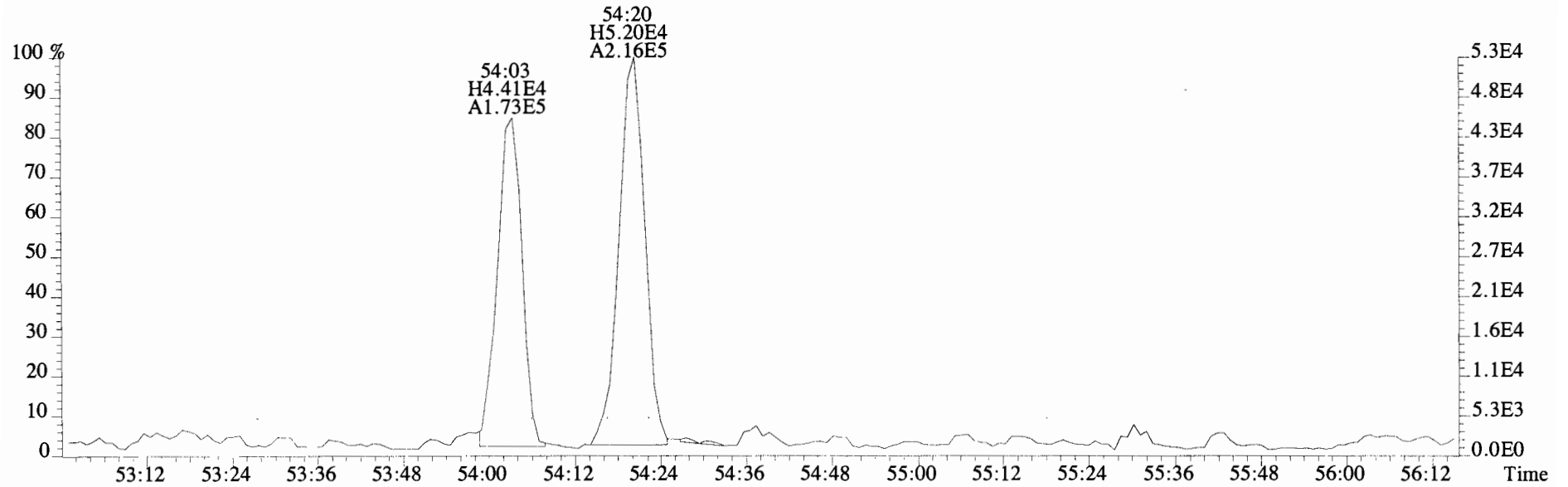
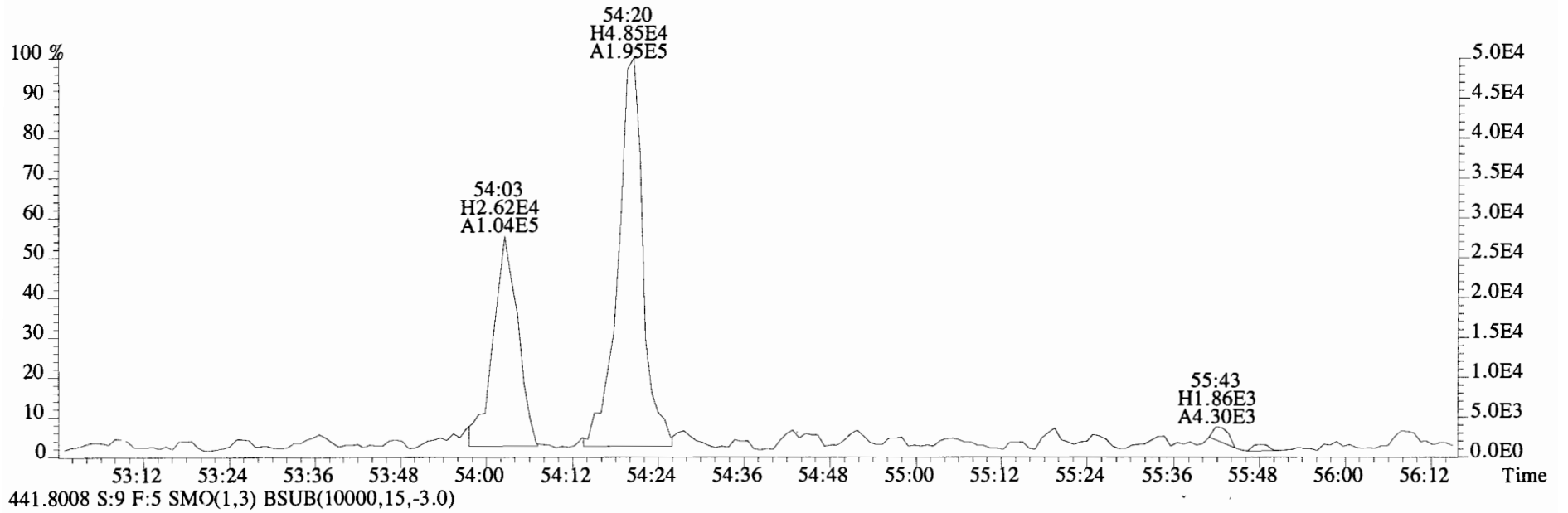
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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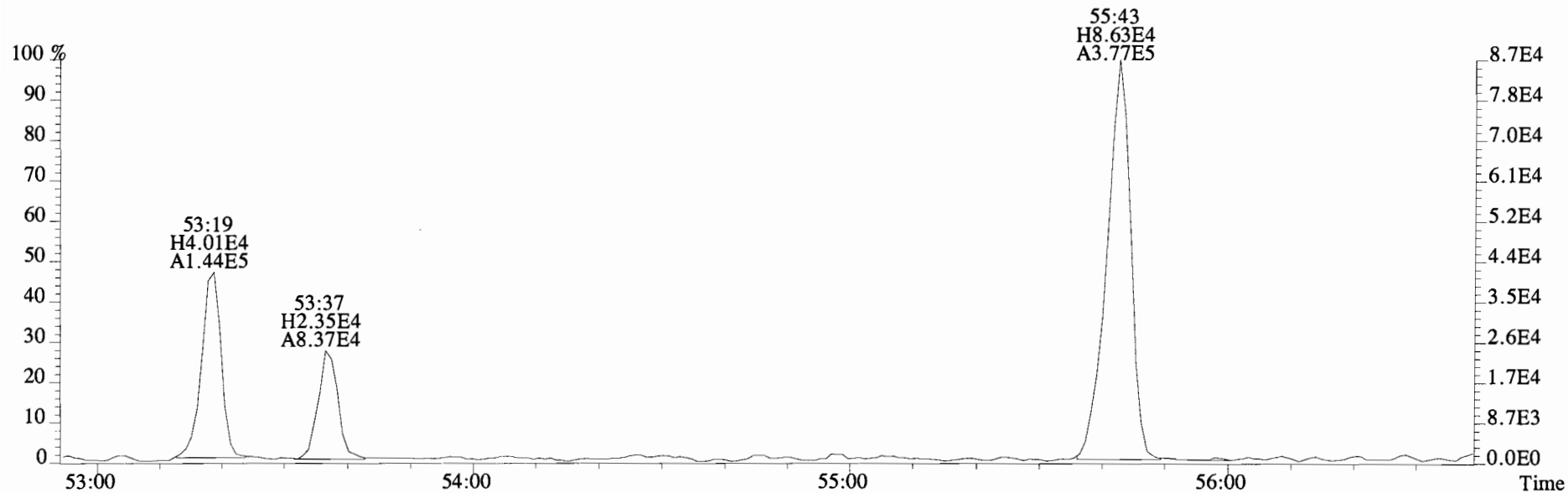
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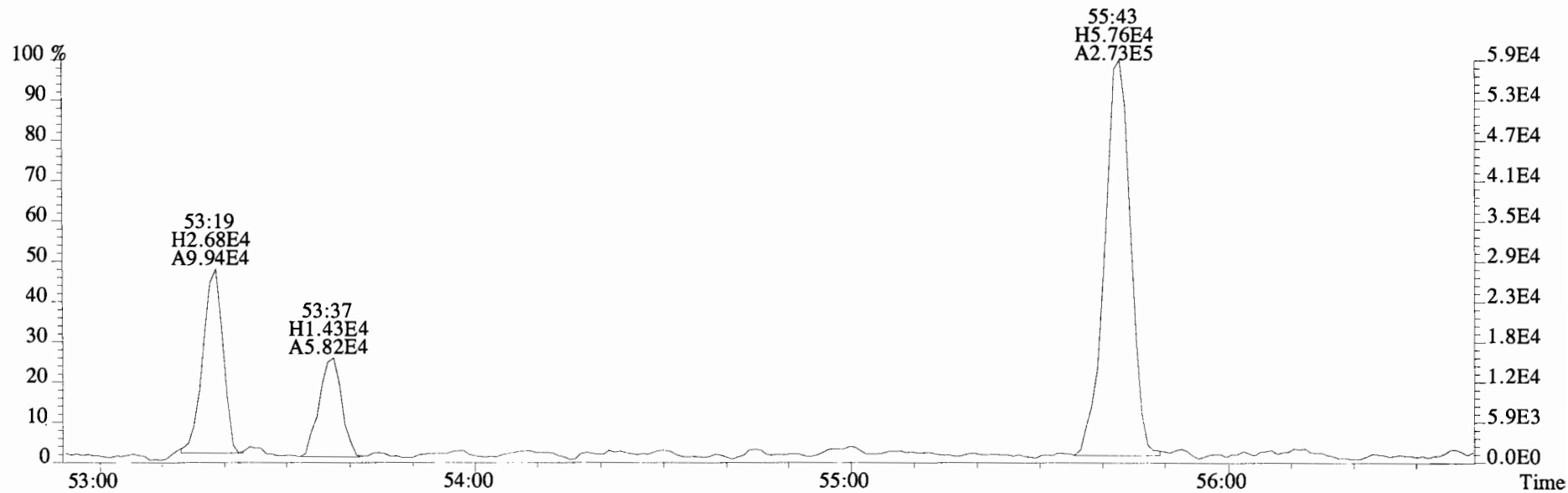
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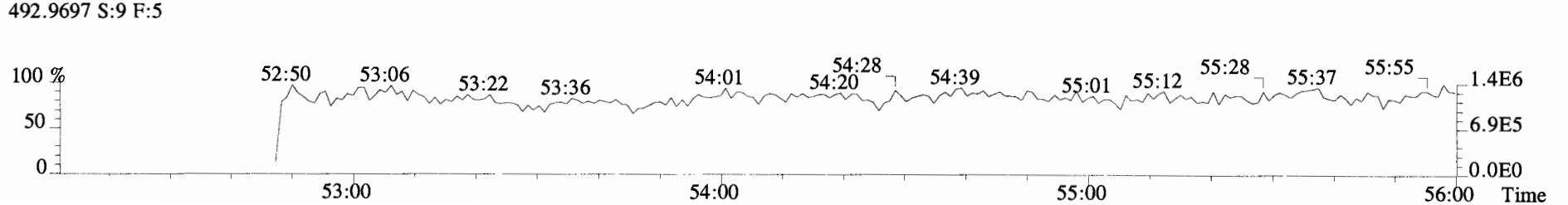
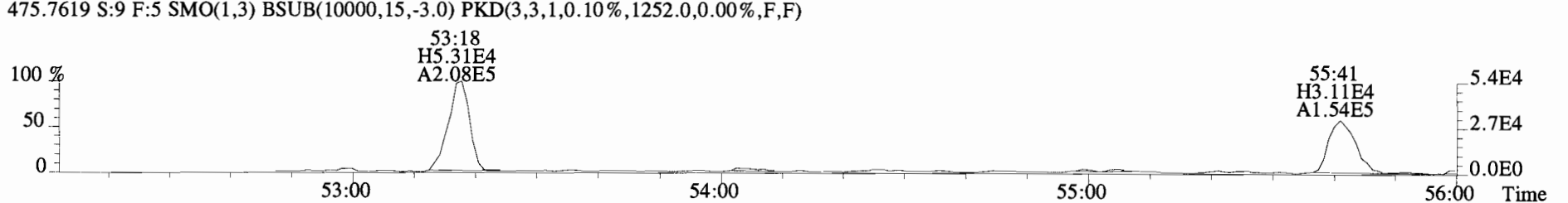
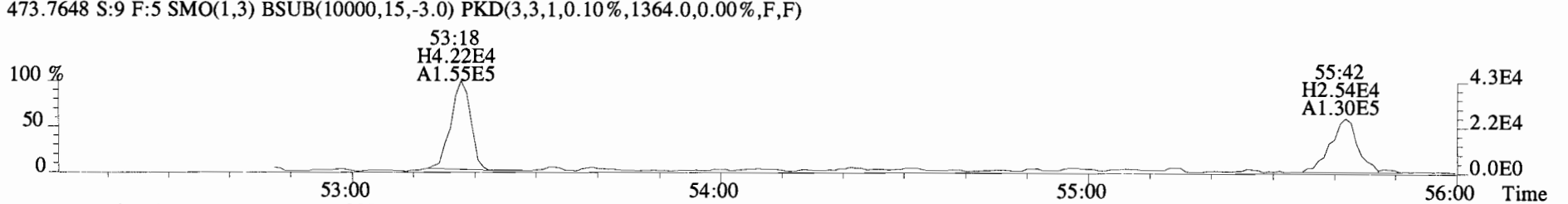
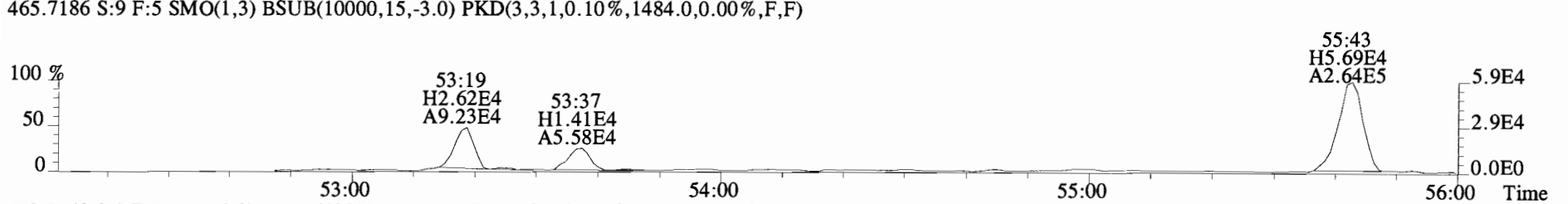
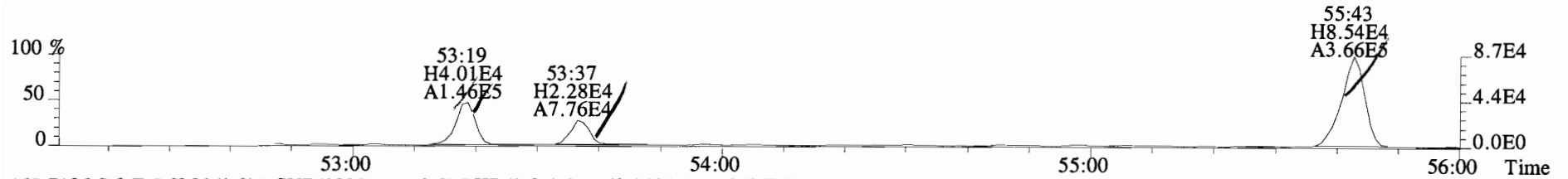
File:140924E1 #1-418 Acq:24-SEP-2014 19:44:22 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text: Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
463.7216 S:9 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1320.0,0.00%,F,F)



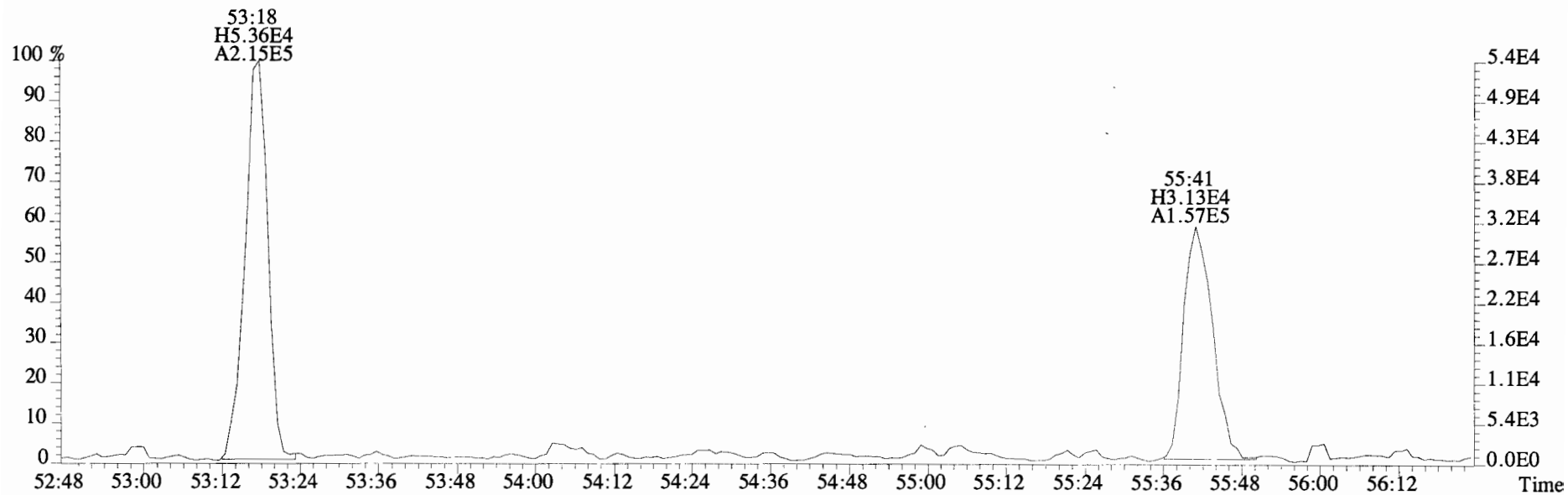
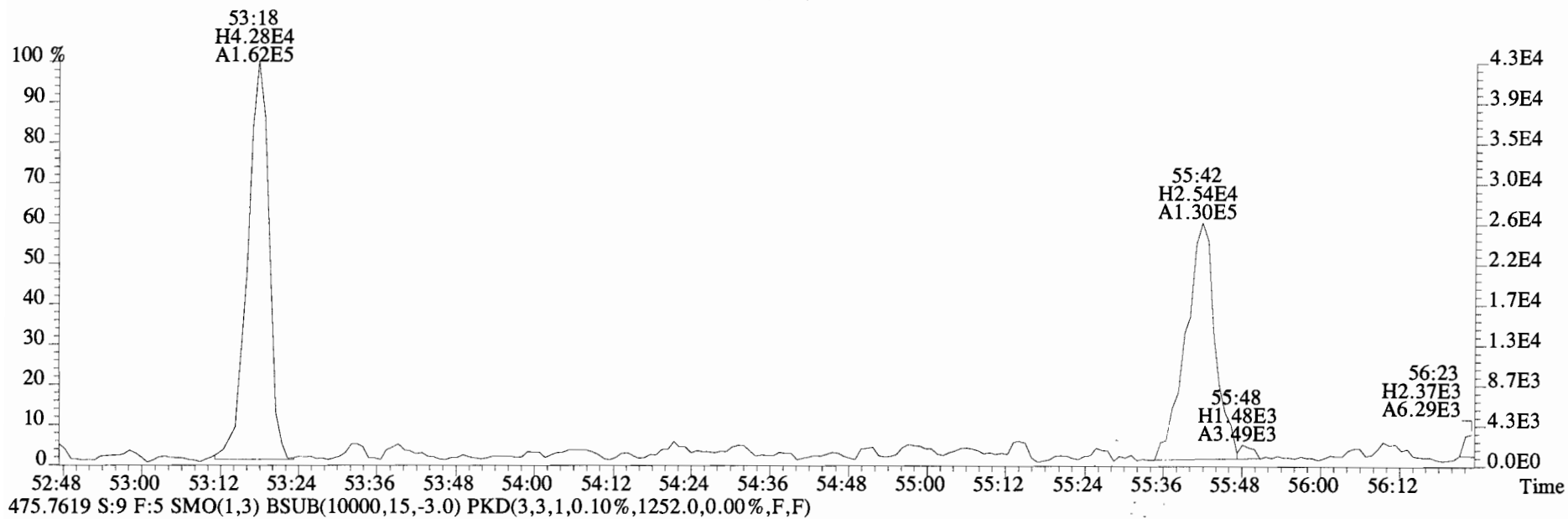
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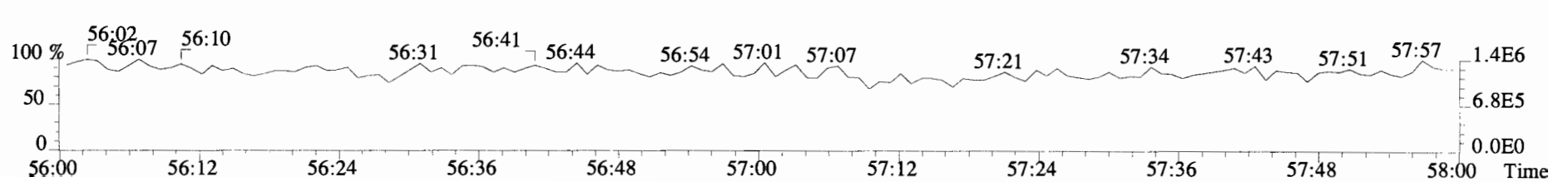
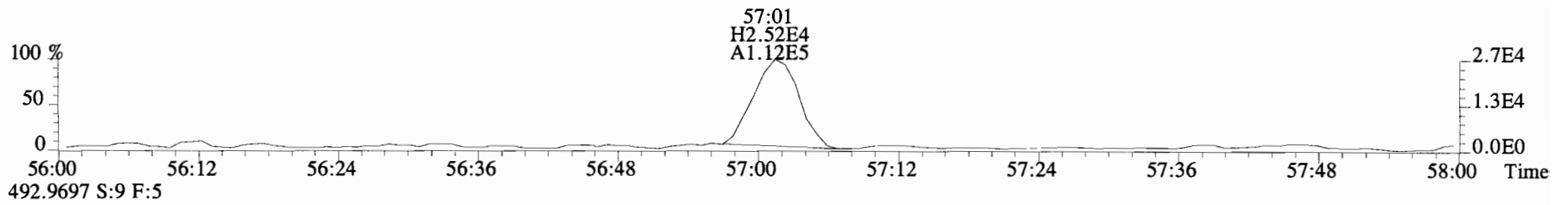
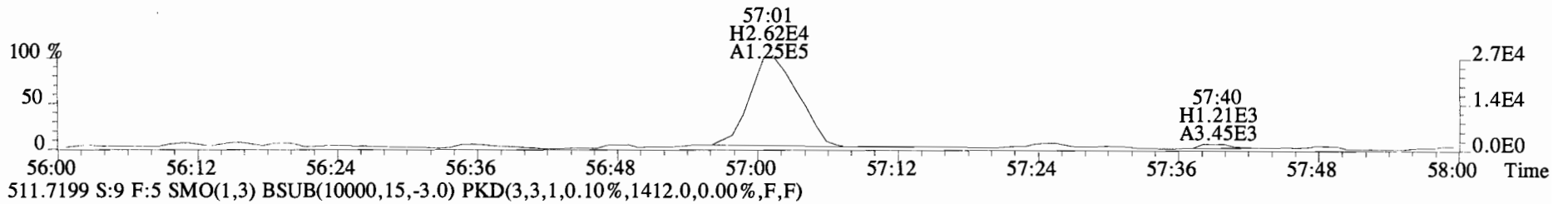
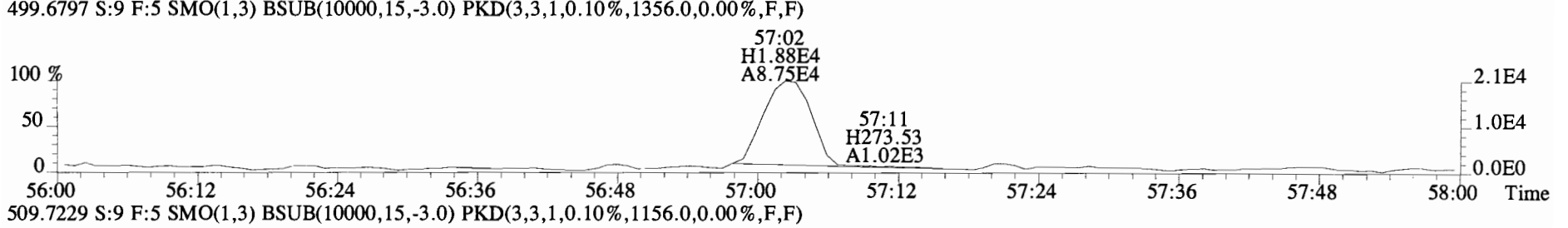
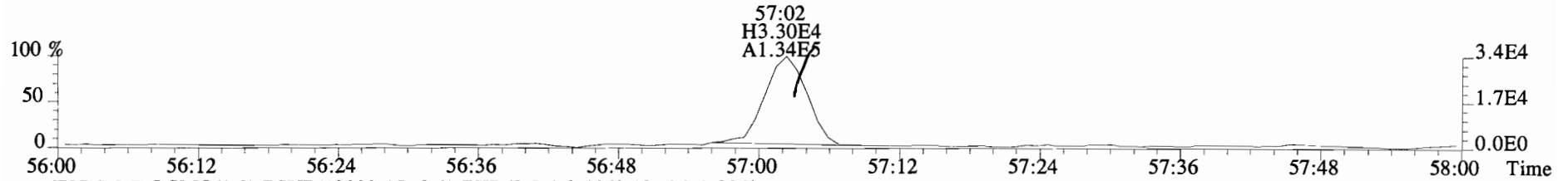
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Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
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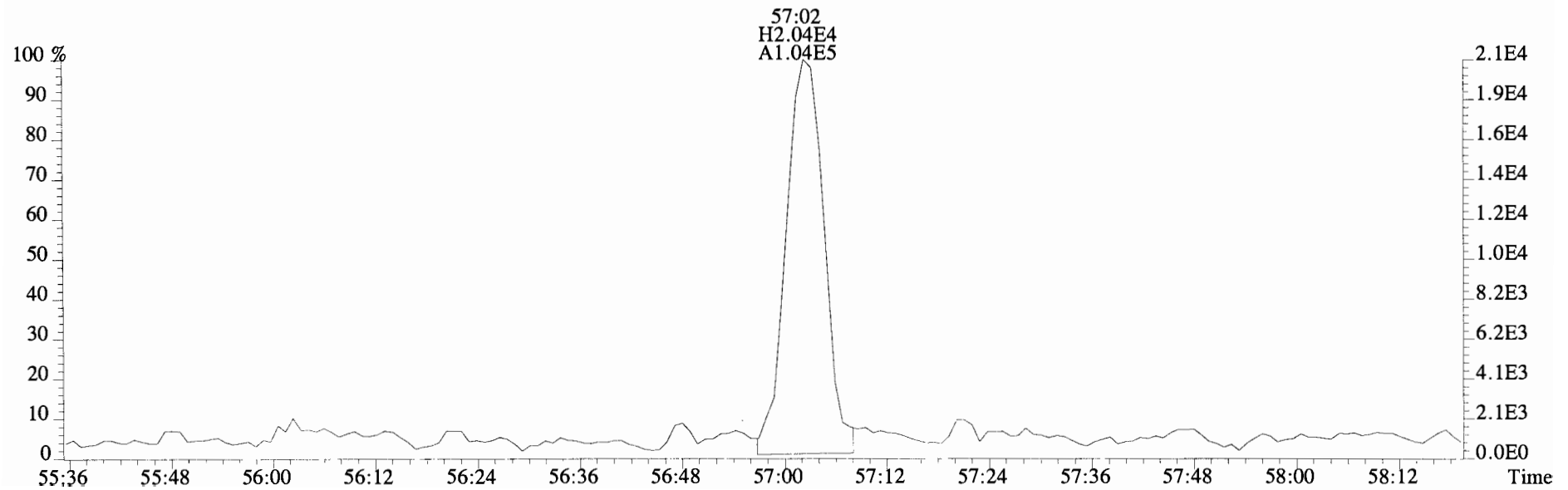
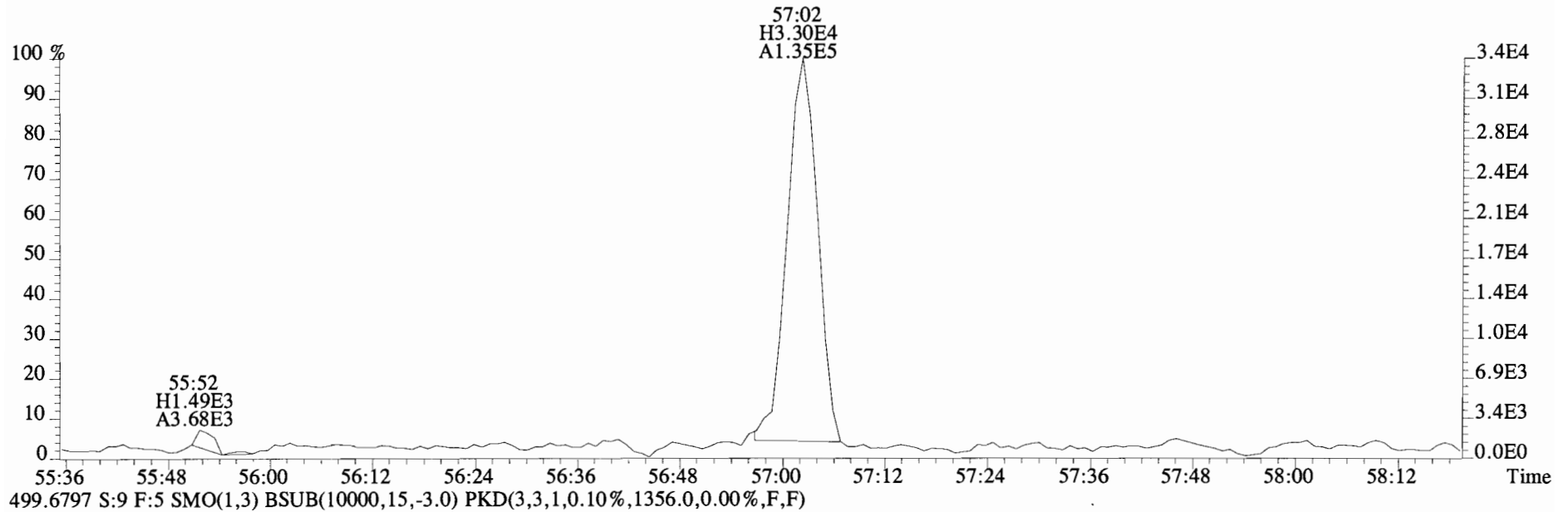
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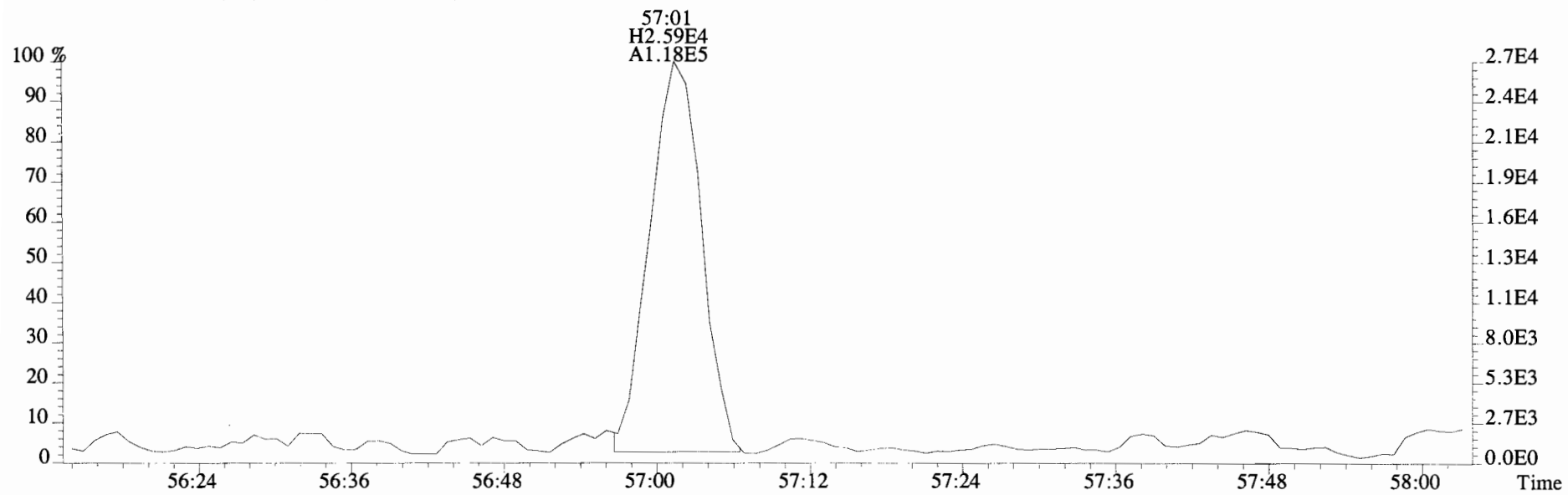
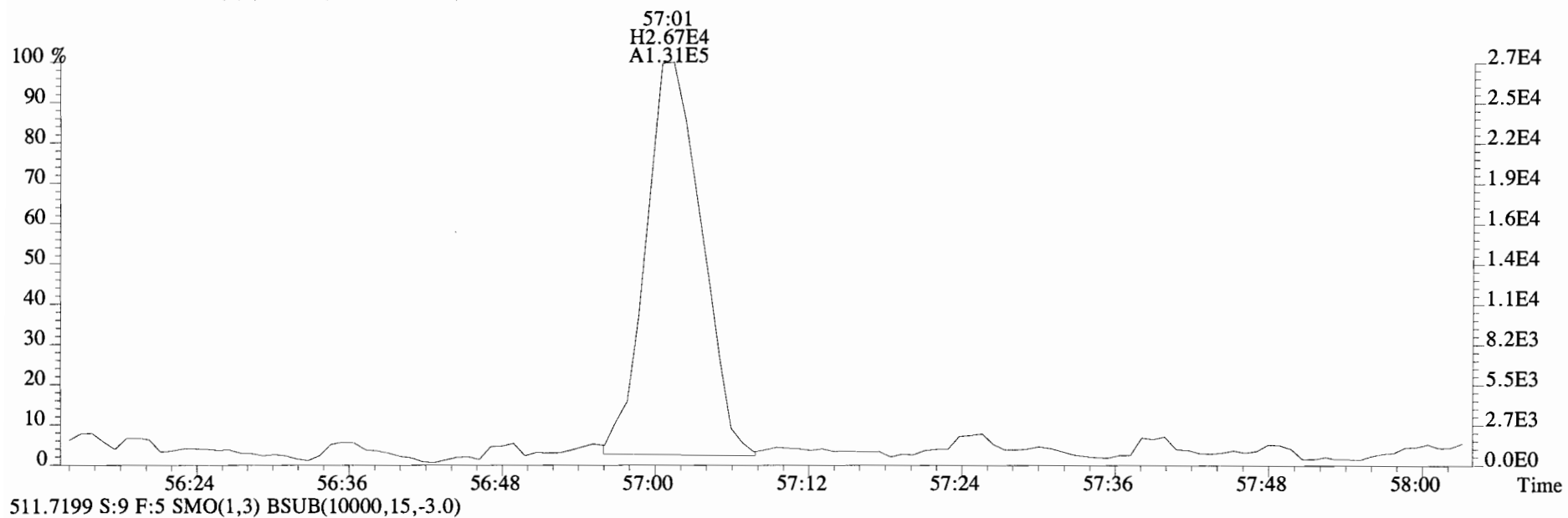
File:140924E1 #1-418 Acq:24-SEP-2014 19:44:22 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
497.6826 S:9 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1228.0,0.00%,F,F)



File:140924E1 #1-418 Acq:24-SEP-2014 19:44:22 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
497.6826 S:9 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1228.0,0.00%,F,F)



File:140924E1 #1-418 Acq:24-SEP-2014 19:44:22 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 DL 1:20 UG-MH-60-20140911-S Exp:PCB_ZB1
509.7229 S:9 F:5 SMO(1,3) BSUB(10000,15,-3.0)



Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02RE1 DL 1:20

Filename: 140919E2 S:10 Acq:20-SEP-14 09:22:50
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.071

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	*	* n	NotFη	1.10	*	*	*	2.5	*	*	0.995-1.005	
Penta	PCB-113	*	* n	NotFη	1.41	*	*	*	2.5	*	*	1.002-1.012	
Penta	PCB-99	*	* n	NotFη	1.34	*	*	*	2.5	*	*	1.004-1.014	
Penta	PCB-119	*	* n	NotFη	1.53	*	*	*	2.5	*	*	0.982-0.992	
Penta	PCB-108/112	*	* n	NotFη	1.28	*	*	*	2.5	*	*	0.986-0.996	
Penta	PCB-83	*	* n	NotFη	1.52	*	*	*	2.5	*	*	0.990-1.000	
Penta	PCB-97	*	* n	NotFη	1.18	*	*	*	2.5	*	*	0.995-1.005	
Penta	PCB-86	*	* n	NotFη	0.84	*	*	*	2.5	*	*	0.999-1.009	
Penta	PCB-87/117/125	*	* n	NotFη	1.55	*	*	*	2.5	*	*	1.002-1.012	
Penta	PCB-111/115	*	* n	NotFη	1.63	*	*	*	2.5	*	*	1.006-1.016	
Penta	PCB-85/116	*	* n	NotFη	1.30	*	*	*	2.5	*	*	1.010-1.020	
Penta	PCB-120	*	* n	NotFη	1.68	*	*	*	2.5	*	*	1.016-1.026	
Penta	PCB-110	*	* n	NotFη	1.56	*	*	*	2.5	*	*	1.020-1.030	
Penta	PCB-82	*	* n	NotFη	0.76	*	*	*	2.5	*	*	0.971-0.981	
Penta	PCB-124	*	* n	NotFη	1.47	*	*	*	2.5	*	*	0.988-0.998	
Penta	PCB-107/109	*	* n	NotFη	1.32	*	*	*	2.5	*	*	0.991-1.001	
Penta	PCB-123	*	* n	NotFη	1.17	*	*	*	2.5	*	*	0.996-1.006	
Penta	PCB-106/118	*	* n	NotFη	1.17	*	*	*	2.5	*	*	0.996-1.006	
Penta	PCB-114	*	* n	NotFη	1.30	*	*	*	2.5	*	*	0.995-1.005	
Penta	PCB-122	*	* n	NotFη	1.12	*	*	*	2.5	*	*	0.999-1.009	
Penta	PCB-105	1.90e+07	1.69 y	43:23	1.30	14200 *	*	*	2.5	*	1.000	0.995-1.005	
Penta	PCB-127	*	* n	NotFη	1.33	*	*	*	2.5	*	*	0.996-1.006	
Penta	PCB-126	*	* n	NotFη	1.18	*	*	*	2.5	*	*	0.995-1.005	
Hexa	PCB-155	*	* n	NotFη	1.11	*	*	1660	2.5	40.0	*	0.966-1.006	
Hexa	PCB-150	7.55e+04	1.25 y	38:36	1.00	68.4	*	*	2.5	*	1.034	1.030-1.040	
Hexa	PCB-152	6.94e+04	1.21 y	39:04	1.12	56.3	*	*	2.5	*	1.046	1.043-1.053	
Hexa	PCB-145	*	* n	NotFη	1.20	*	*	1660	2.5	37.1	*	1.055-1.065	
Hexa	PCB-136	6.55e+06	1.31 y	39:50	1.18	5030	*	*	2.5	*	1.067	1.064-1.074	
Hexa	PCB-148	4.24e+04	1.20 y	39:59	0.74	51.5	*	*	2.5	*	1.071	1.066-1.076	
Hexa	PCB-154	4.32e+05	1.15 y	40:27	0.86	455	*	*	2.5	*	1.083	1.080-1.090	
Hexa	PCB-151	8.78e+06	1.29 y	41:05	0.75	10600	*	*	2.5	*	1.100	1.097-1.107	
Hexa	PCB-135	4.98e+06	1.36 y	41:18	0.79	5680	*	*	2.5	*	1.106	1.103-1.113	
Hexa	PCB-144	1.73e+06	1.25 y	41:26	0.76	2050	*	*	2.5	*	1.110	1.105-1.117	
Hexa	PCB-147	5.62e+05	1.22 y	41:32	0.82	620	*	*	2.5	*	1.113	1.109-1.121	
Hexa	PCB-139/149	3.16e+07	1.33 y	41:47	0.76	37500	*	*	2.5	*	1.119	1.116-1.128	
Hexa	PCB-140	1.79e+05	1.36 y	42:00	0.72	224	*	*	2.5	*	1.125	1.121-1.133	
Hexa	PCB-134/143	*	* n	NotFη	0.92	*	*	*	2.5	*	*	0.970-0.980	

U² 9/26/14

* = used only

Analyst: Dms

Date: 9/27/14

Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02RE1 DL 1:20

Filename: 140919E2
GC Column ID: ZB-1

S:10 Acq:20-SEP-14 09:22:50
ICal: PCBVG8-6-23-14 wt/vol:10.071

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	*	n NotF η	1.72	*		*	2.5	*	*	0.999-1.009	
Hepta	PCB-191	*	*	n NotF η	1.69	*		*	2.5	*	*	1.004-1.014	
Hepta	PCB-170	*	*	n NotF η	1.60	*		*	2.5	*	*	0.995-1.005	
Hepta	PCB-190	*	*	n NotF η	2.21	*		*	2.5	*	*	0.998-1.008	
Hepta	PCB-189	*	*	n NotF η	1.55	*		*	2.5	*	*	0.995-1.005	
Octa	PCB-202	*	*	n NotF η	1.08	*		*	2.5	*	*	0.995-1.005	
Octa	PCB-201	*	*	n NotF η	1.15	*		*	2.5	*	*	1.005-1.015	
Octa	PCB-204	*	*	n NotF η	1.14	*		*	2.5	*	*	1.008-1.018	
Octa	PCB-197	*	*	n NotF η	1.07	*		*	2.5	*	*	1.015-1.025	
Octa	PCB-200	*	*	n NotF η	1.06	*		*	2.5	*	*	1.032-1.044	
Octa	PCB-198	*	*	n NotF η	0.76	*		*	2.5	*	*	1.059-1.069	
Octa	PCB-199	*	*	n NotF η	0.80	*		*	2.5	*	*	1.061-1.071	
Octa	PCB-196/203	*	*	n NotF η	0.80	*		*	2.5	*	*	1.066-1.076	
Octa	PCB-195	1.74e+06	0.91	y 53:14	1.23	3120		*	2.5	*	0.984	0.979-0.989	
Octa	PCB-194	4.32e+06	0.93	y 54:07	1.21	7850		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-205	2.20e+05	0.99	y 54:24	1.54	315		*	2.5	*	1.006	1.001-1.011	
Nona	PCB-208	*	*	n NotF η	0.93	*		*	2.5	*	*	0.995-1.005	
Nona	PCB-207	*	*	n NotF η	1.08	*		*	2.5	*	*	1.001-1.011	
Nona	PCB-206	*	*	n NotF η	1.02	*		*	2.5	*	*	0.995-1.005	
Deca	PCB-209	*	*	n NotF η	1.17	*		*	2.5	*	*	0.995-1.005	

Analyst: *DMS*

Date: *9/26/14*

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	*	* n	NotFnd	1.09	*	
Total Penta-PCB	*	* n	NotFnd	1.18	*	
Total Penta-PCB	1.90e+07	1.69 y	43:23	1.25	14163.9	Sum:14163.9
Total Hexa-PCB	5.50e+07	1.25 y	38:36	0.90	62390.4	
Total Hexa-PCB	*	* n	NotFnd	1.11	*	Sum:62390.4
Total Hepta-PCB	*	* n	NotFnd	1.42	*	
Total Octa-PCB	*	* n	NotFnd	0.96	*	
Total Octa-PCB	6.28e+06	0.91 y	53:14	1.33	11292.6	Sum:11292.6
Total Nona-PCB	*	* n	NotFnd	1.01	*	
Total Deca-PCB	*	* n	NotFnd	1.17	*	

Total PCB Conc:87846.9212430

Integrations

by

Analyst: DMS

Date: 9/26/14

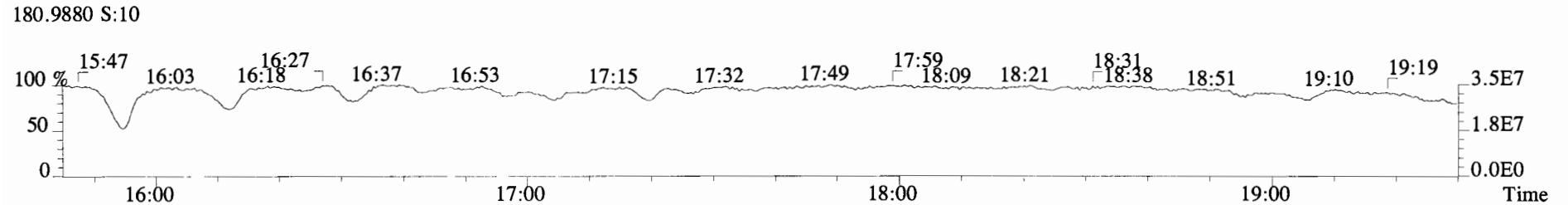
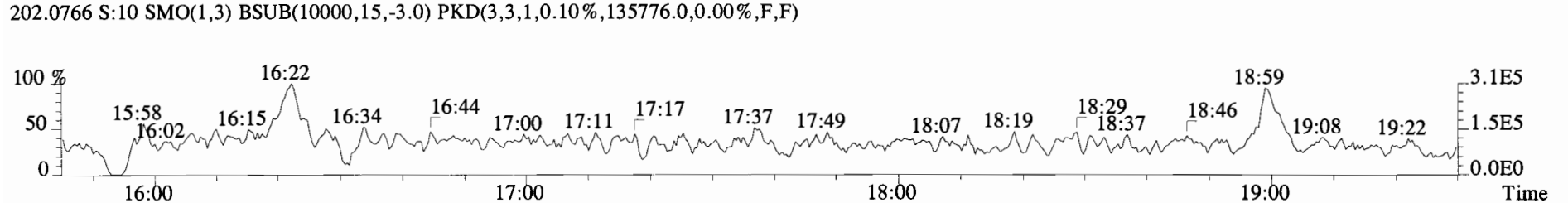
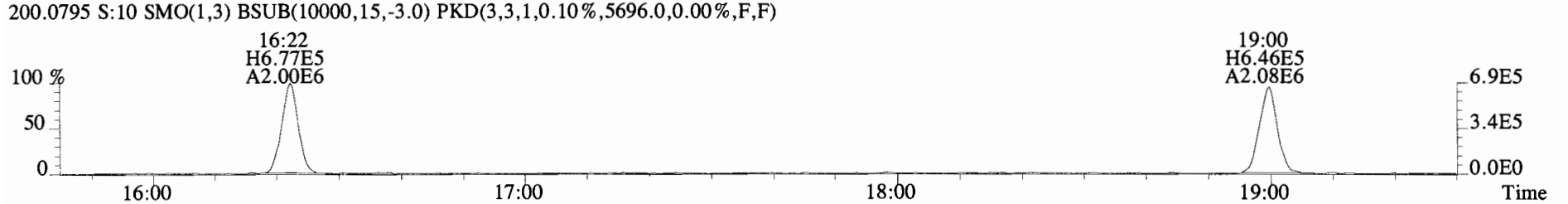
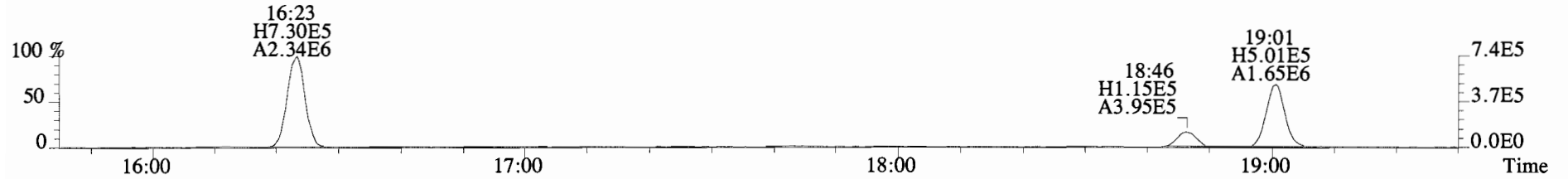
Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	*	* n	0.87	NotFnd	*	0.629-0.635	*	*	*											
13C-PCB-3	*	* n	0.91	NotFnd	*	0.725-0.733	*	*	*		13C-PCB-79	1.77e+06	0.85 y	1.02	38:07	1.029	1.023-1.034	715	72.0	
13C-PCB-4	1.26e+06	1.55 y	0.59	20:20	0.776	0.775-0.783	752	75.7			13C-PCB-178	6.90e+05	0.48 y	0.61	45:57	0.985	0.979-0.990	922	92.9	
13C-PCB-9	1.96e+06	1.74 y	0.90	22:07	0.844	0.842-0.850	761	76.6												
13C-PCB-11	1.99e+06	1.53 y	0.94	25:32	0.974	0.968-0.978	740	74.5		PS vs. IS										
13C-PCB-19	6.03e+05	0.49 n	0.53	24:30	0.935	0.930-0.940	395	39.8			Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-28	1.18e+06	0.77 n	0.93	29:23	1.003	0.999-1.009	635	63.9			13C-PCB-79	1.77e+06	0.85 y	1.10	38:07	0.969	0.964-0.974	1050	106	
13C-PCB-32	1.74e+06	0.92 y	0.80	27:25	1.046	1.040-1.050	763	76.9			13C-PCB-178	6.90e+05	0.48 y	0.90	45:57	0.925	0.920-0.930	1380	139	
13C-PCB-37	1.00e+06	0.93 y	0.84	33:20	1.138	1.131-1.143	598	60.2												
13C-PCB-47	1.31e+06	0.86 y	0.81	32:19	0.872	0.866-0.874	662	66.7												
13C-PCB-52	1.34e+06	0.78 y	0.77	31:48	0.858	0.853-0.861	712	71.7												
13C-PCB-54	1.35e+06	1.02 n	0.97	28:15	0.762	0.758-0.766	571	57.5												
13C-PCB-70	1.60e+06	0.90 n	1.00	35:48	0.966	0.961-0.971	660	66.4												
13C-PCB-77	1.51e+06	0.83 y	0.94	39:56	1.078	1.073-1.083	659	66.4												
13C-PCB-80	1.56e+06	0.93 n	1.03	36:14	0.978	0.972-0.982	620	62.5												
13C-PCB-81	1.51e+06	0.87 y	0.92	39:20	1.062	1.057-1.067	673	67.8												
13C-PCB-95	8.47e+05	1.82 n	0.74	36:06	0.913	0.908-0.918	696	70.1		RS										
13C-PCB-97	9.21e+05	1.69 y	0.70	39:05	0.989	0.984-0.994	796	80.1			Name	Resp	RA	RRF	RT	Conc				
13C-PCB-101	1.02e+06	1.65 y	0.78	37:47	0.956	0.951-0.961	795	80.1			13C-PCB-15	2.85e+06	1.57 y	1.00	26:13	993				
13C-PCB-104	1.19e+06	1.58 y	1.00	33:01	0.835	0.828-0.836	721	72.6			13C-PCB-31	1.98e+06	1.15 y	1.00	29:17	993				
13C-PCB-105	1.03e+06	1.76 y	1.37	43:22	0.930	0.924-0.934	617	62.1	*		13C-PCB-60	2.41e+06	0.79 y	1.00	37:03	993				
13C-PCB-114	1.16e+06	1.71 y	1.36	42:30	0.911	0.905-0.915	696	70.1			13C-PCB-111	1.63e+06	1.52 y	1.00	39:32	993				
13C-PCB-118	1.15e+06	1.37 y	0.96	41:51	1.059	1.054-1.064	727	73.2			13C-PCB-128	1.21e+06	1.22 y	1.00	46:39	993				
13C-PCB-123	9.53e+05	1.81 n	0.89	41:39	1.054	1.050-1.060	648	65.3			13C-PCB-205	7.22e+05	0.98 y	1.00	54:23	993				
13C-PCB-126	1.05e+06	1.58 y	1.31	45:37	0.978	0.972-0.982	661	66.6												
13C-PCB-127	1.21e+06	1.69 y	1.47	43:42	0.937	0.931-0.941	672	67.7												
13C-PCB-138	9.21e+05	1.54 n	1.10	45:06	0.967	0.961-0.971	688	69.3												
13C-PCB-141	8.30e+05	1.46 n	1.07	44:16	0.949	0.943-0.953	634	63.8												
13C-PCB-153	9.34e+05	1.51 n	1.15	43:31	0.933	0.927-0.937	668	67.3												
13C-PCB-155	1.10e+06	1.28 y	0.84	37:20	0.944	0.939-0.949	796	80.2												
13C-PCB-156	1.18e+06	1.27 y	1.30	48:23	1.037	1.032-1.042	745	75.0												
13C-PCB-157	1.19e+06	1.29 y	1.36	48:38	1.043	1.038-1.048	722	72.7												
13C-PCB-159	1.06e+06	1.28 y	1.25	46:24	0.995	0.989-0.999	699	70.4												
13C-PCB-167	1.21e+06	1.32 y	1.35	47:05	1.009	1.004-1.014	736	74.1												
13C-PCB-169	8.13e+05	1.29 y	1.29	50:47	1.089	1.083-1.093	519	52.3												
13C-PCB-170	4.69e+05	0.44 y	0.54	51:07	1.096	1.089-1.101	709	71.4												
13C-PCB-180	5.51e+05	0.60 n	0.68	49:40	1.065	1.060-1.070	661	66.5												
13C-PCB-188	9.56e+05	0.46 y	0.92	43:09	0.925	0.919-0.929	856	86.2												
13C-PCB-189	*	* n	0.72	NotFnd	*	1.120-1.132	*	*	*											
13C-PCB-194	4.51e+05	0.99 y	0.80	54:06	0.995	0.990-1.000	777	78.3	*											
13C-PCB-202	9.33e+05	0.98 y	0.84	48:34	1.041	1.036-1.046	914	92.0	*											
13C-PCB-206	2.39e+05	1.24 n	0.65	55:46	1.025	1.021-1.031	505	50.9												
13C-PCB-208	5.75e+05	0.66 y	1.08	53:21	0.981	0.976-0.986	732	73.7												
13C-PCB-209	4.14e+05	1.11 y	0.61	57:07	1.050	1.045-1.055	934	94.0												

Analyst: DMS

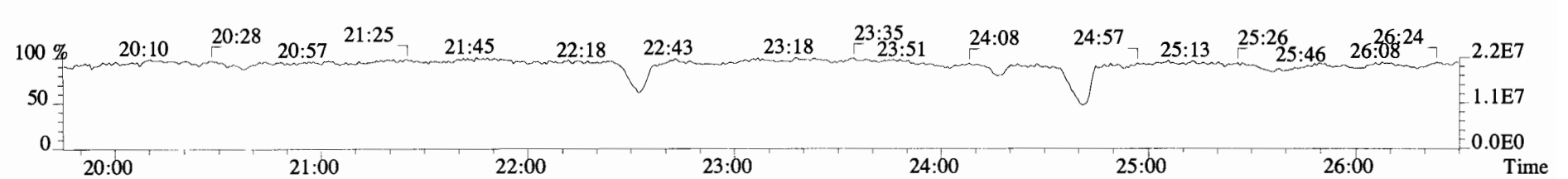
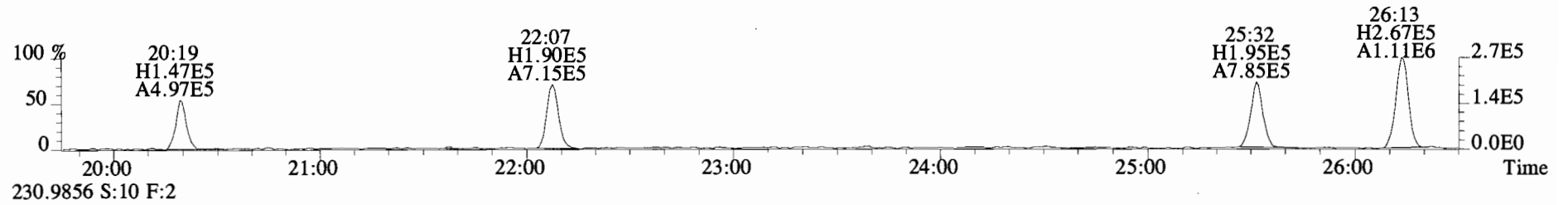
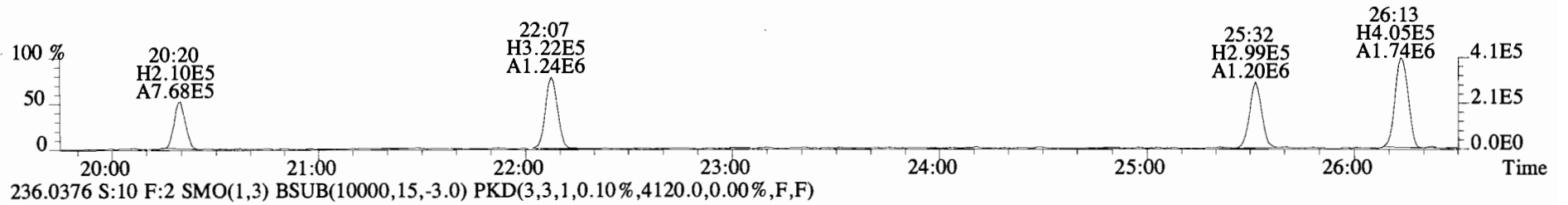
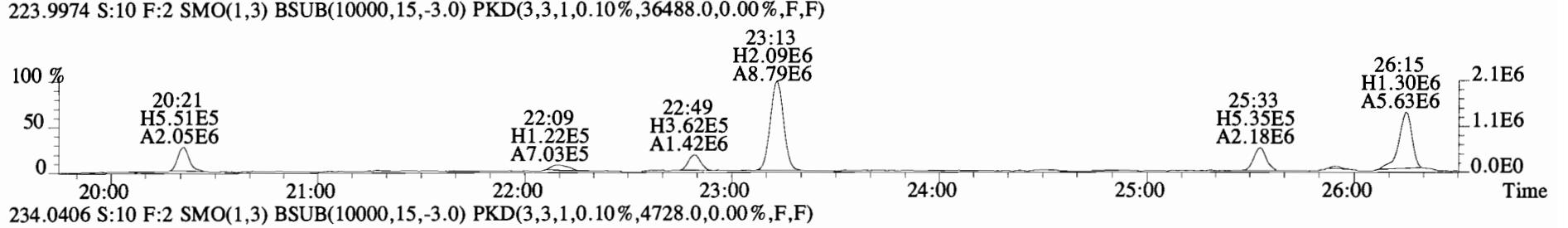
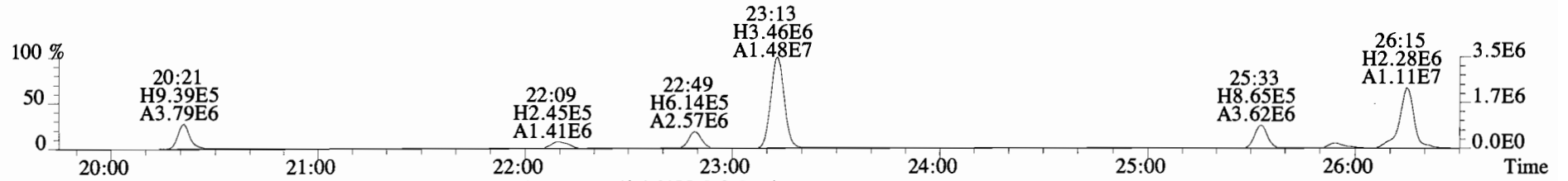
Date: 9/26/14

* = used only

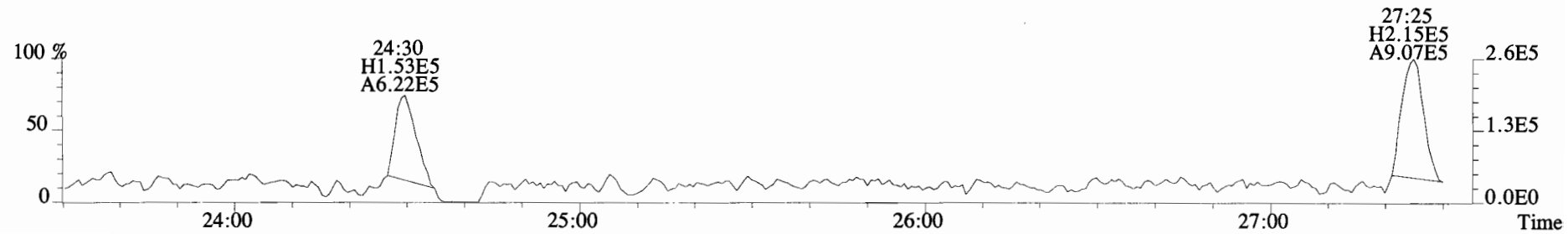
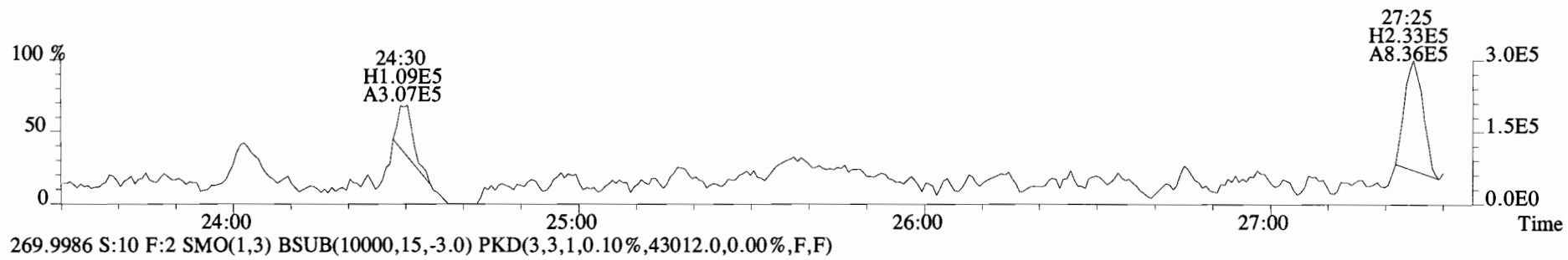
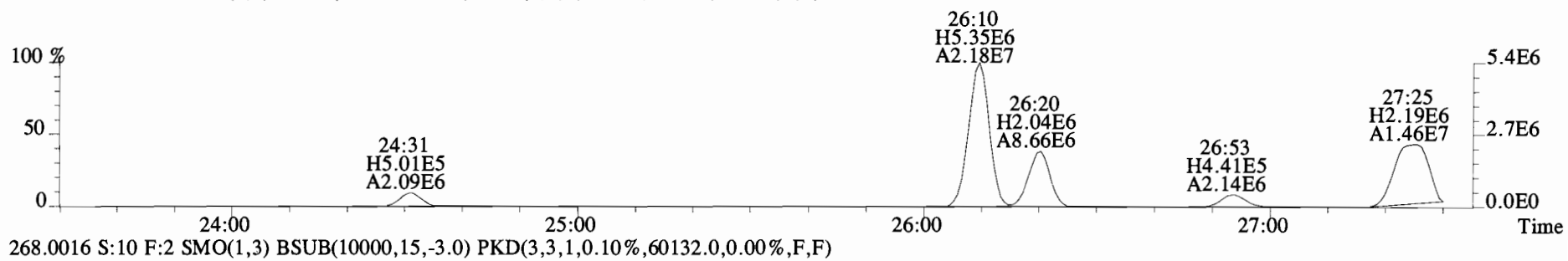
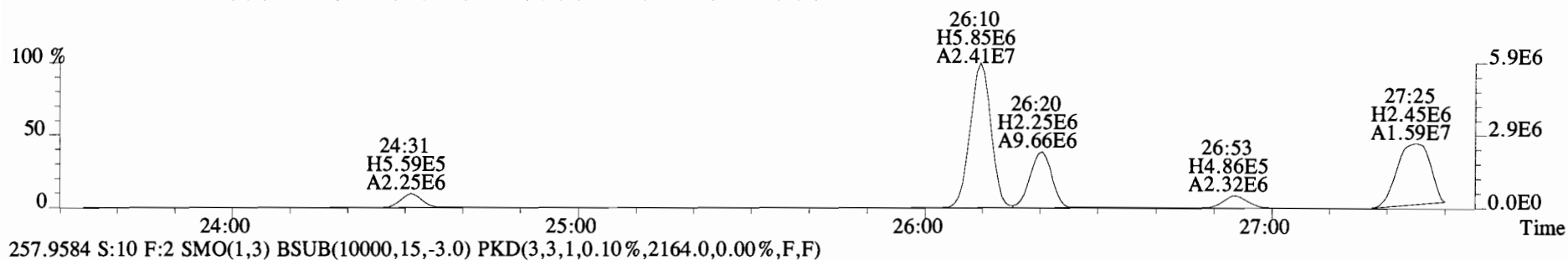
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 Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
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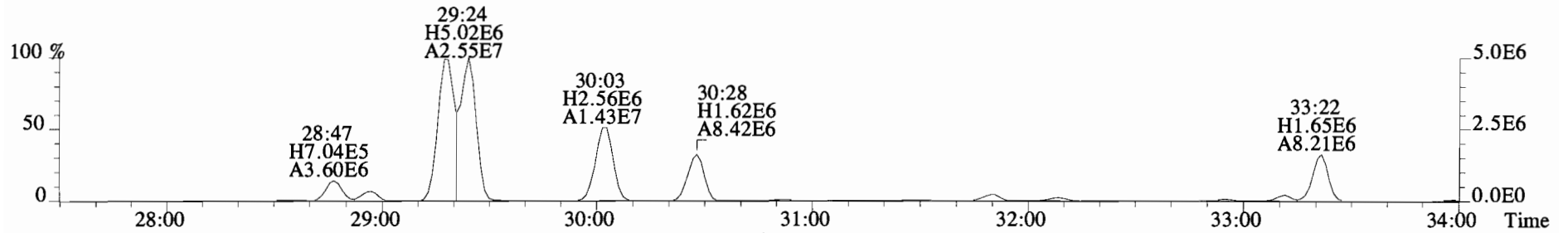
File:140919E2 #1-757 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
222.0003 S:10 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4352.0,0.00%,F,F)



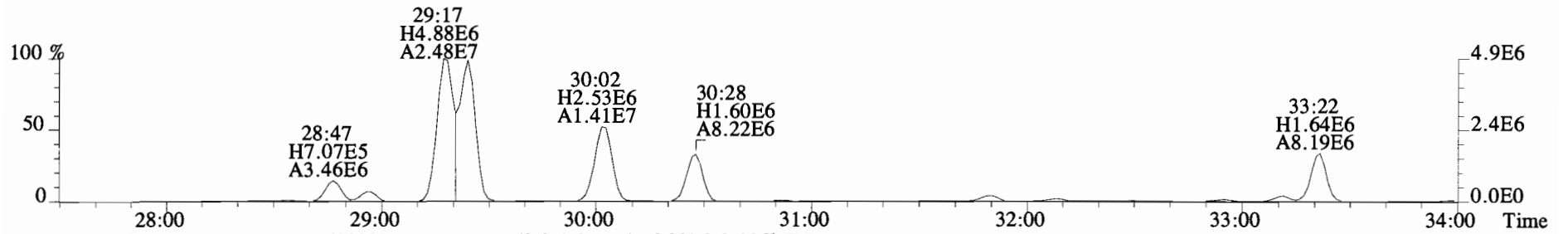
File:140919E2 #1-757 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
255.9613 S:10 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4556.0,0.00%,F,F)



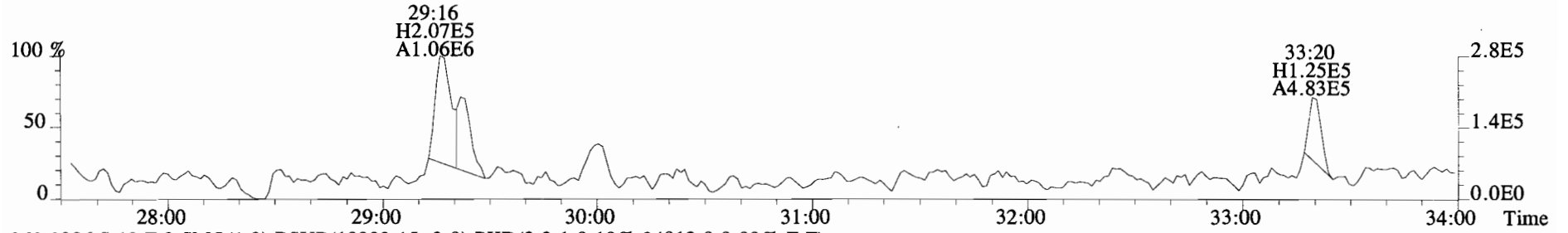
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
255.9613 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7604.0,0.00%,F,F)



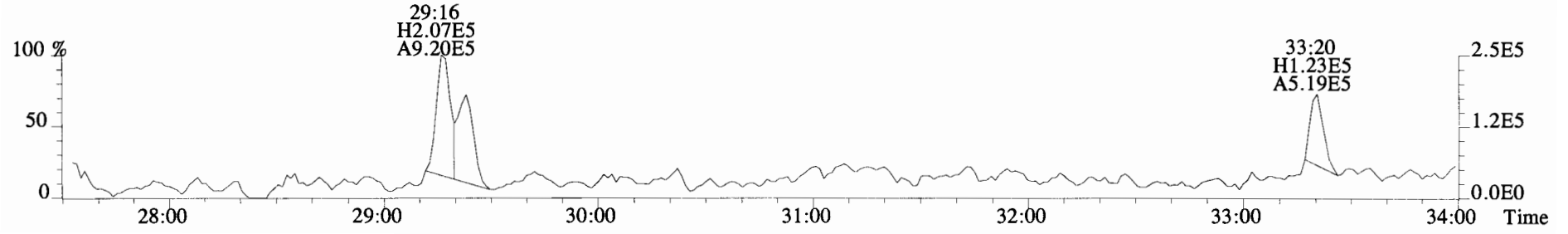
257.9584 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3816.0,0.00%,F,F)



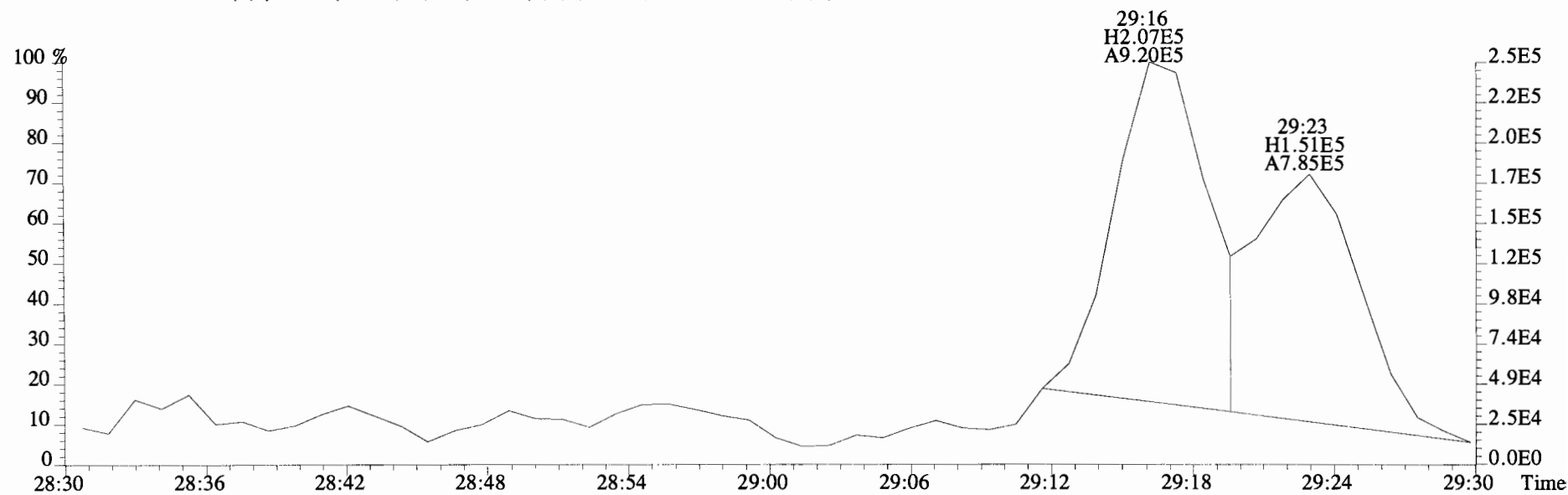
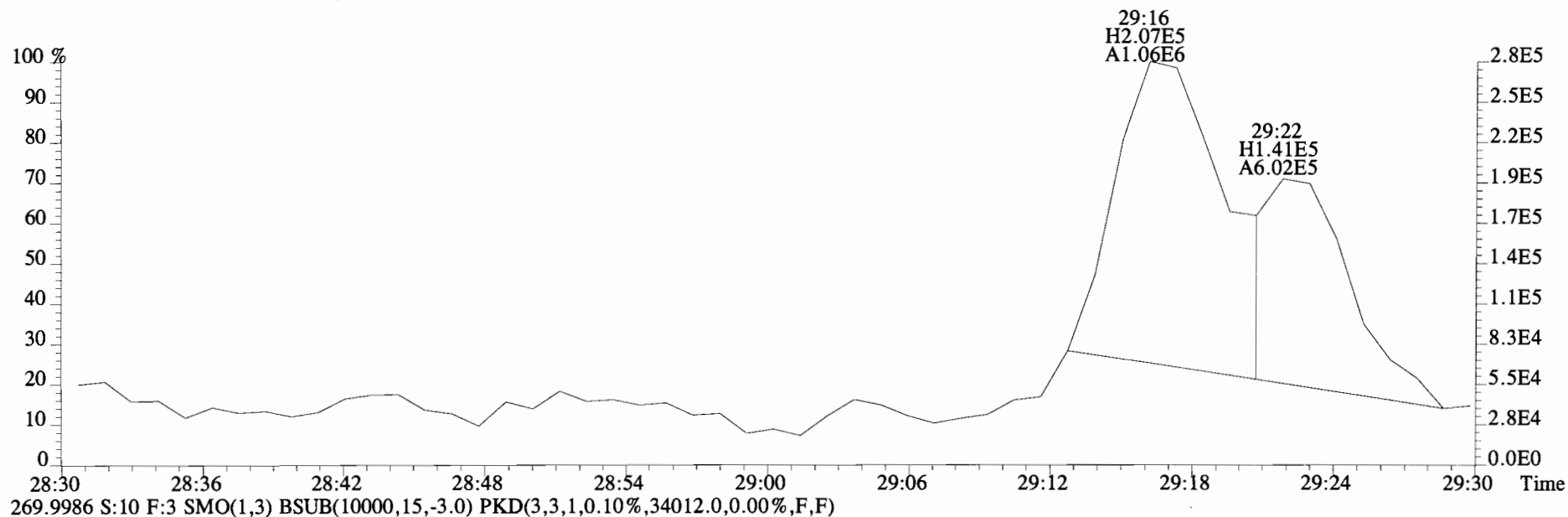
268.0016 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,50664.0,0.00%,F,F)



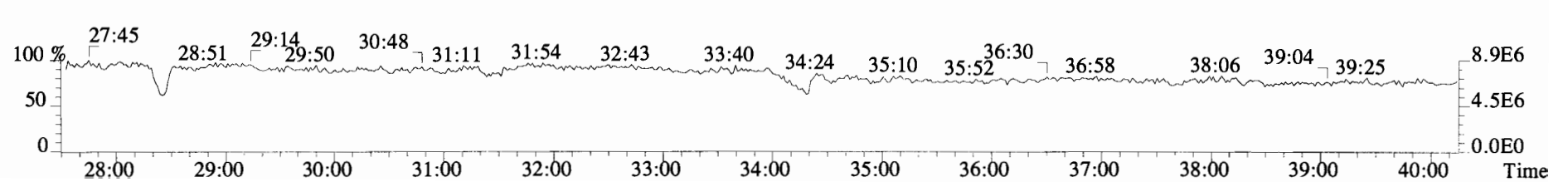
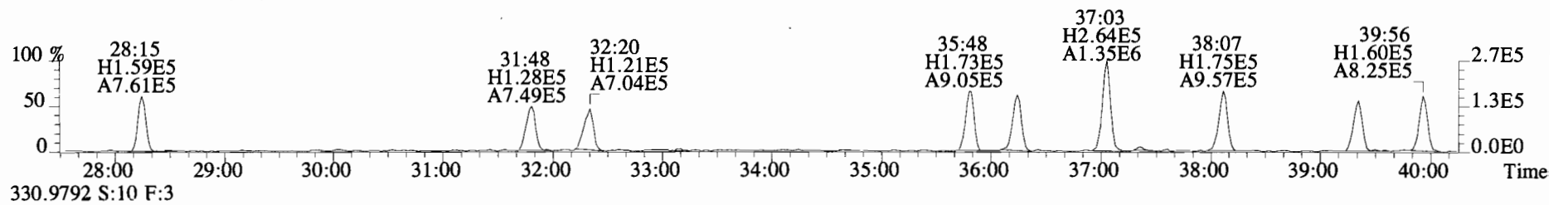
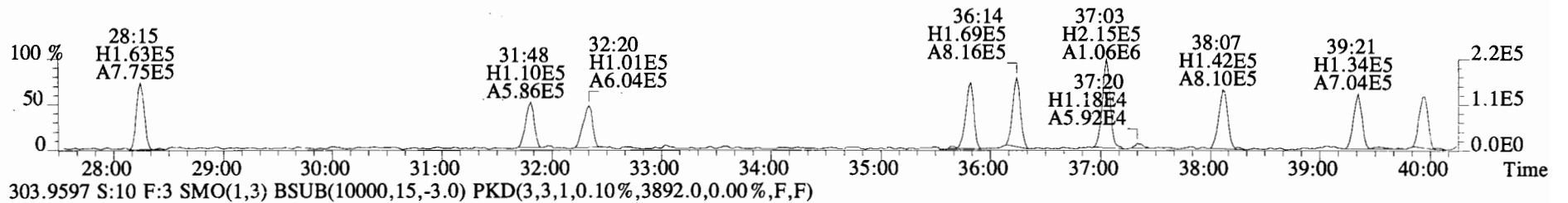
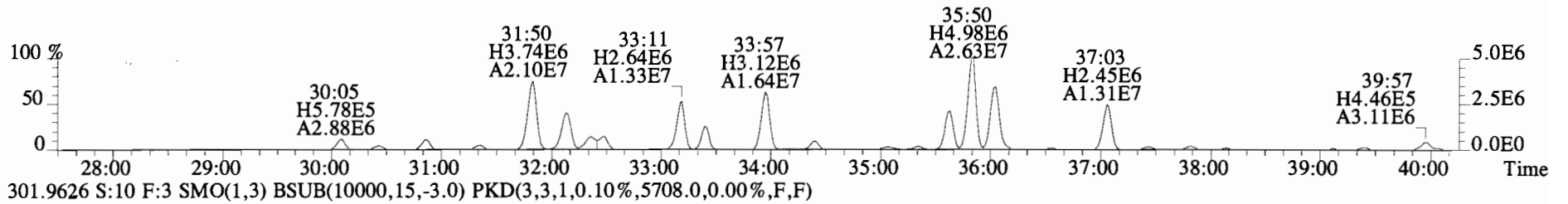
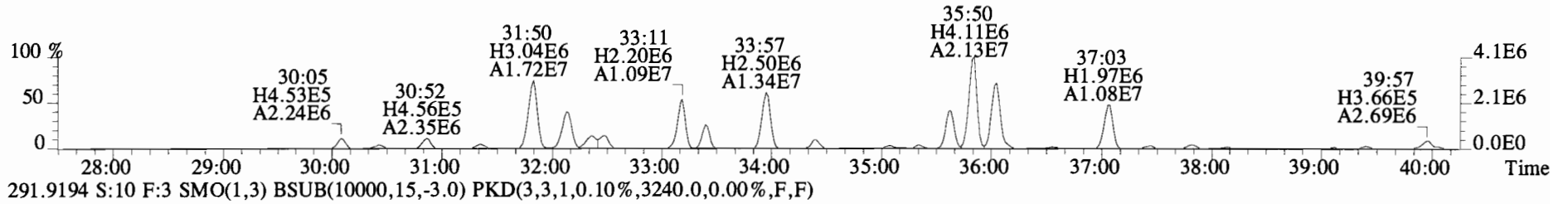
269.9986 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,34012.0,0.00%,F,F)



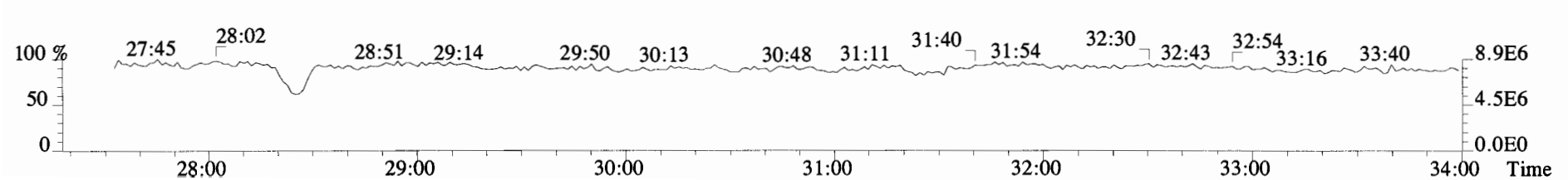
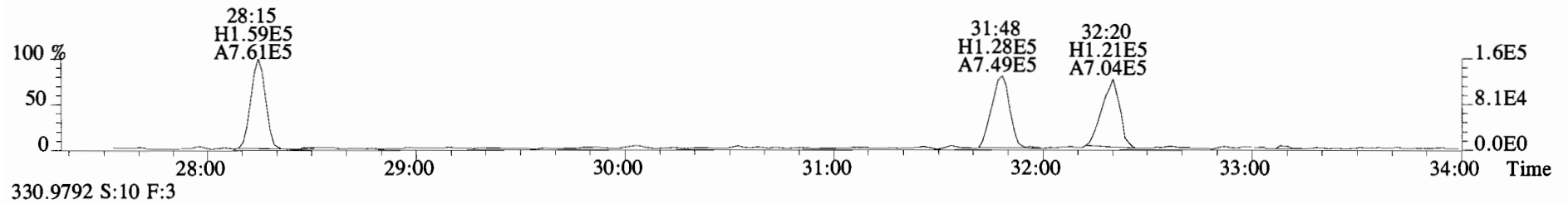
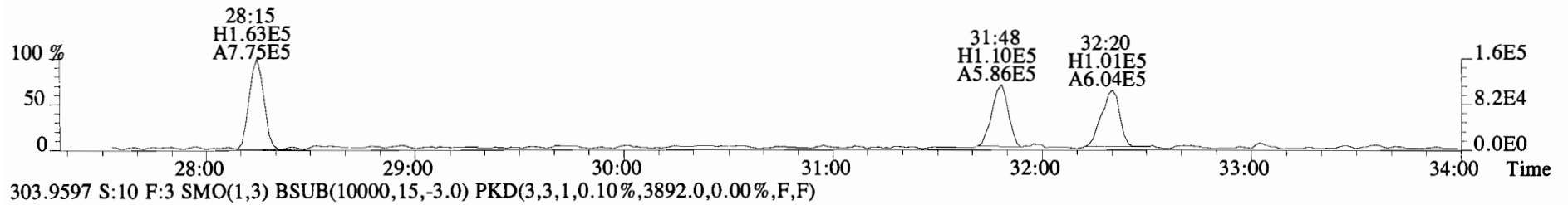
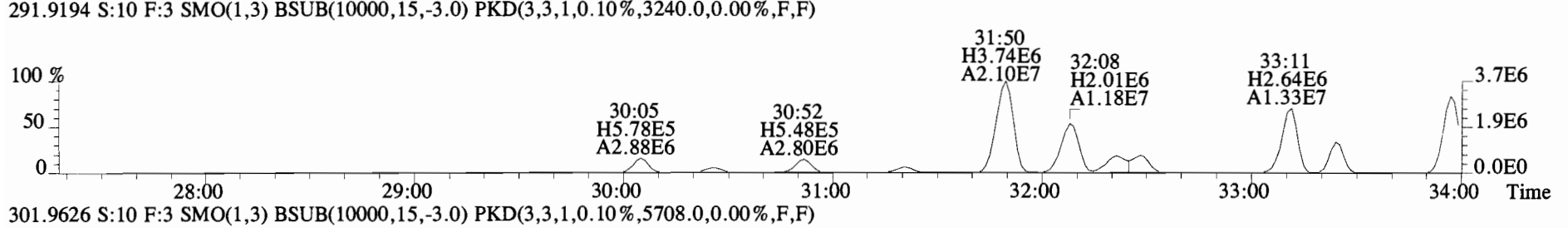
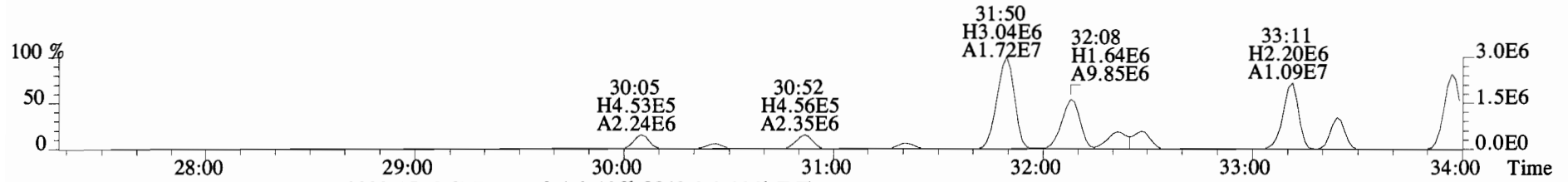
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
268.0016 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,50664.0,0.00%,F,F)



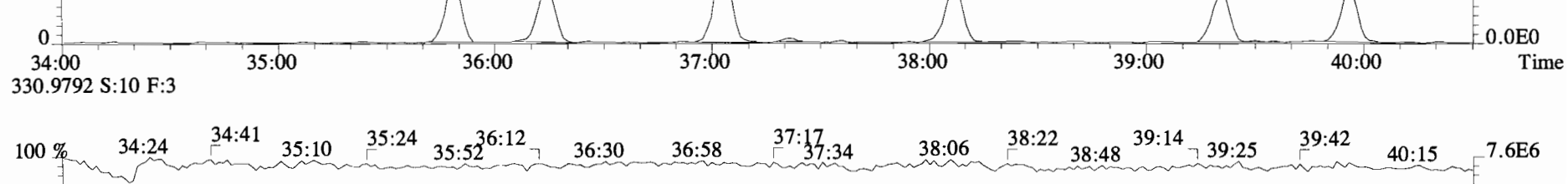
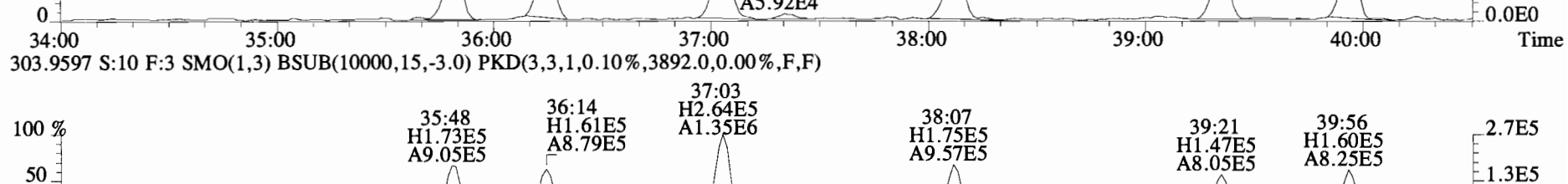
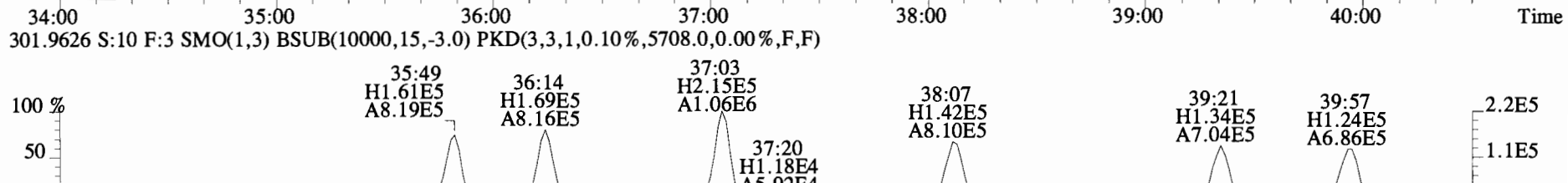
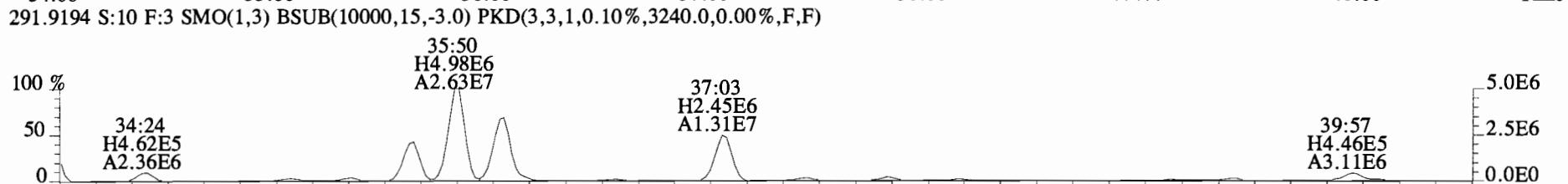
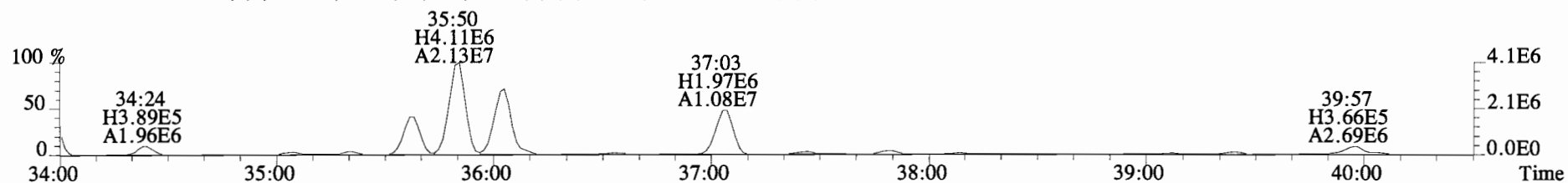
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
289.9224 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3920.0,0.00%,F,F)



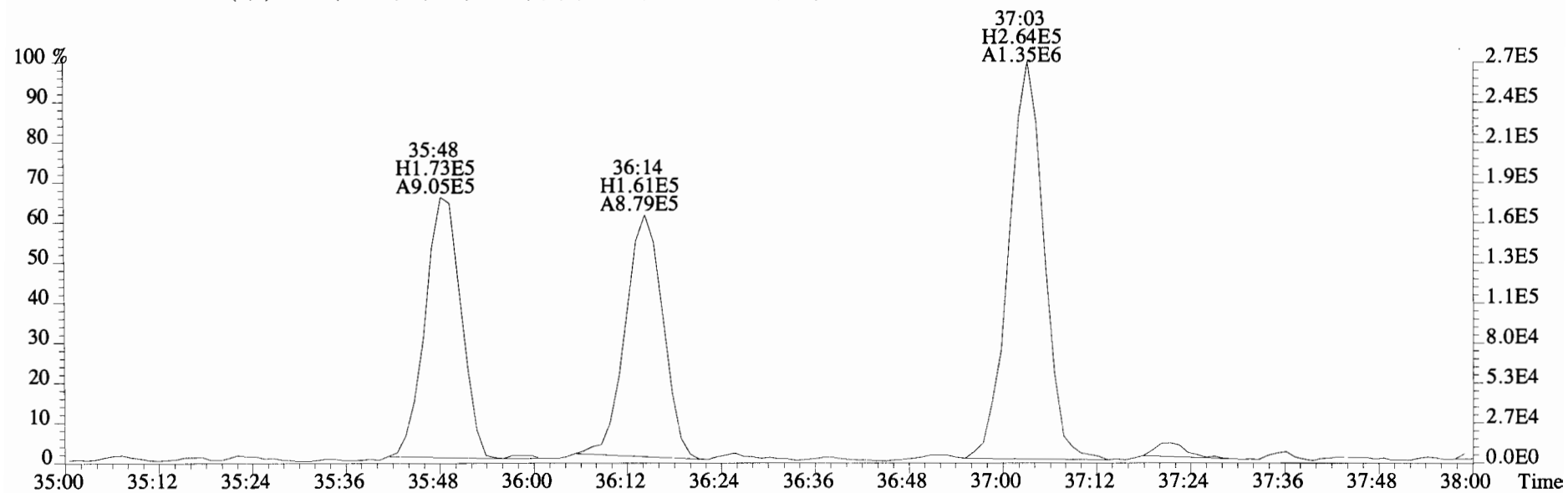
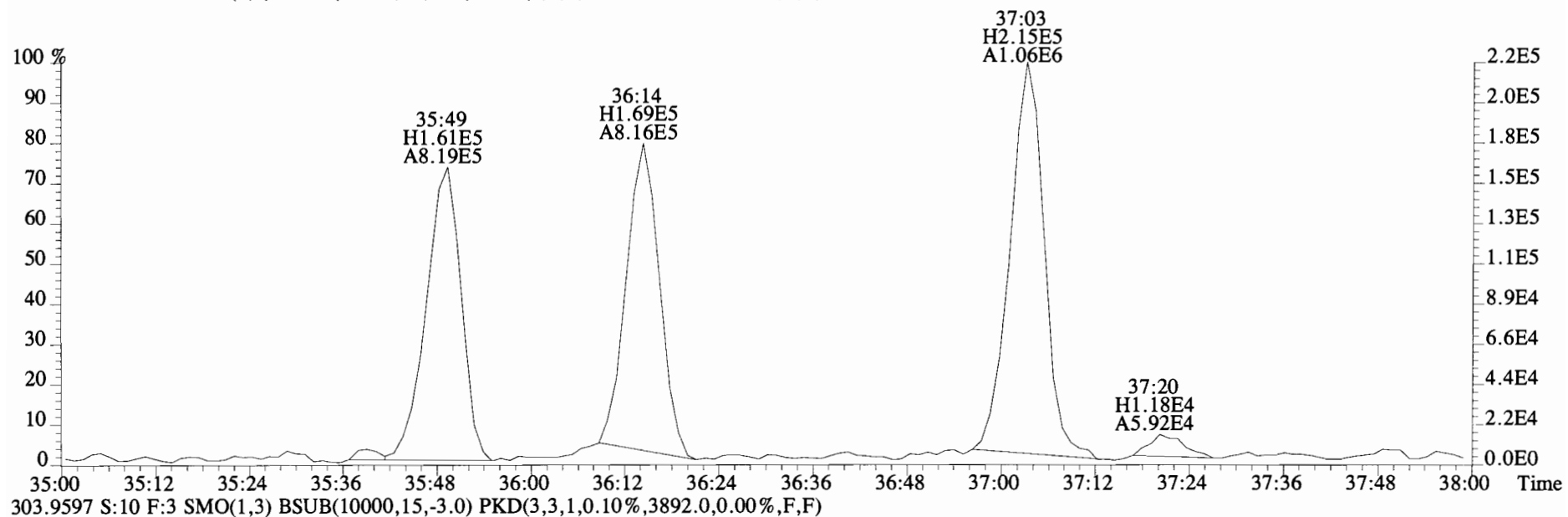
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
289.9224 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3920.0,0.00%,F,F)



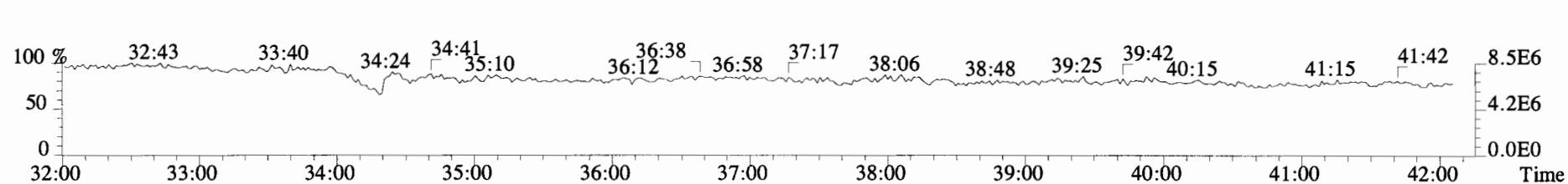
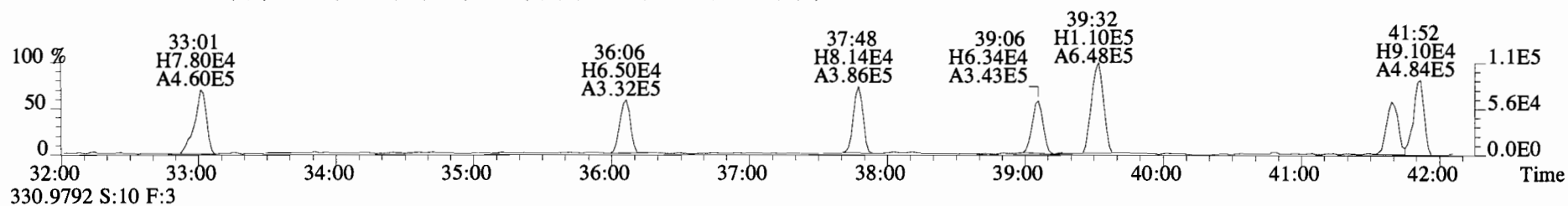
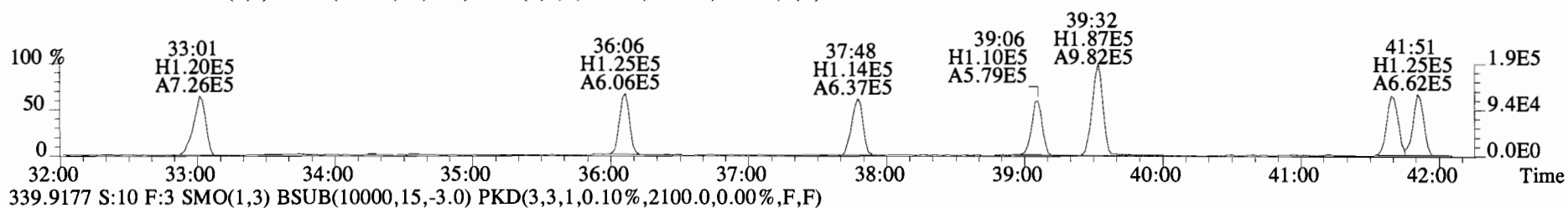
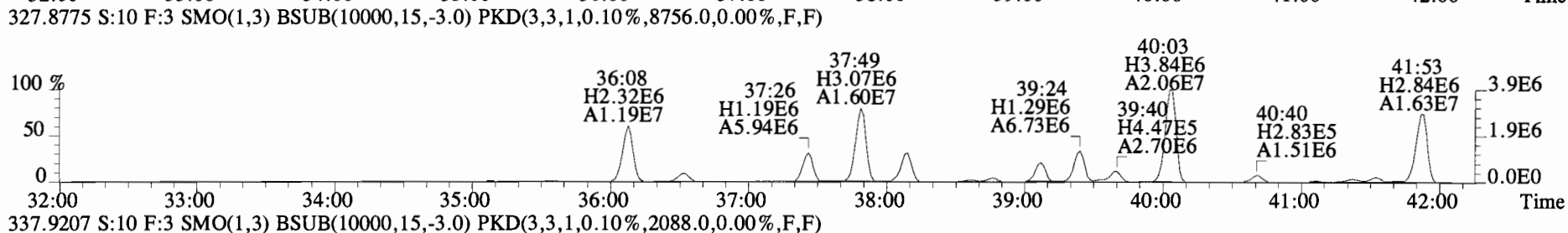
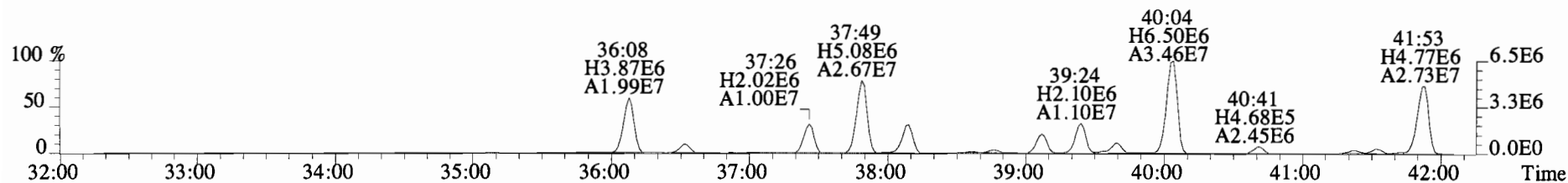
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
289.9224 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3920.0,0.00%,F,F)



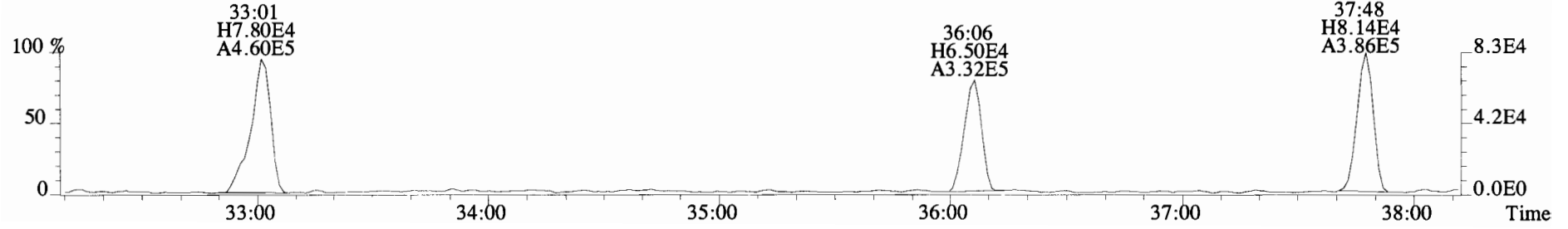
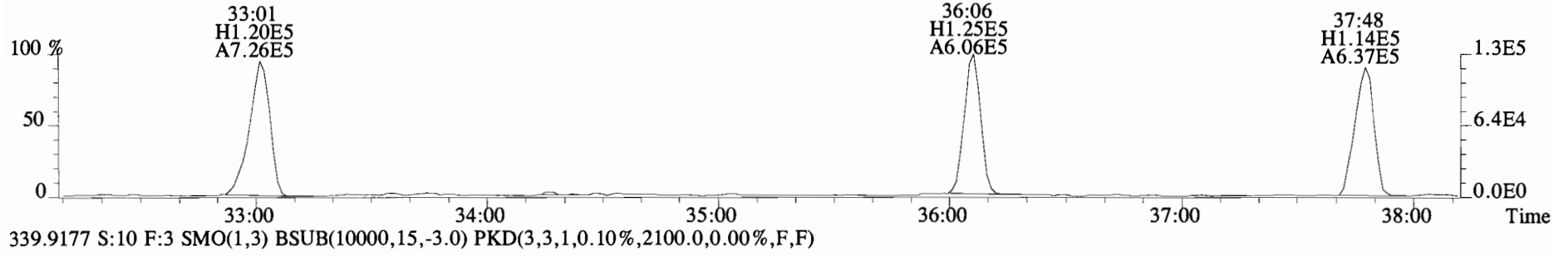
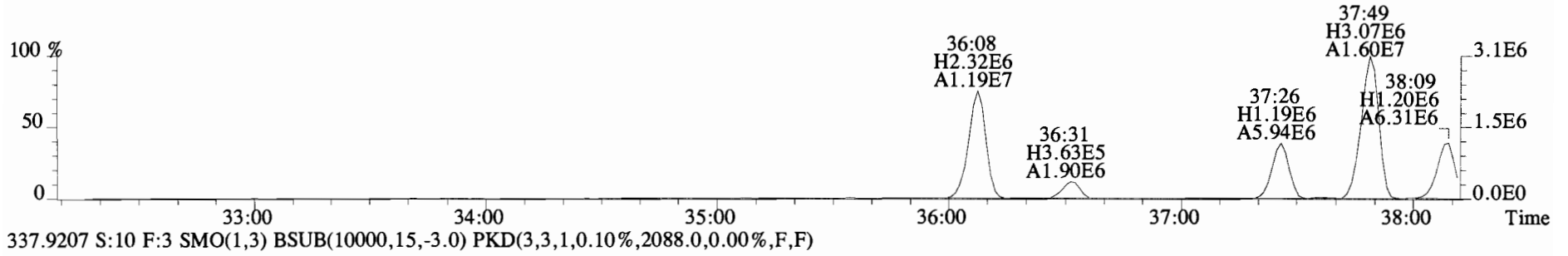
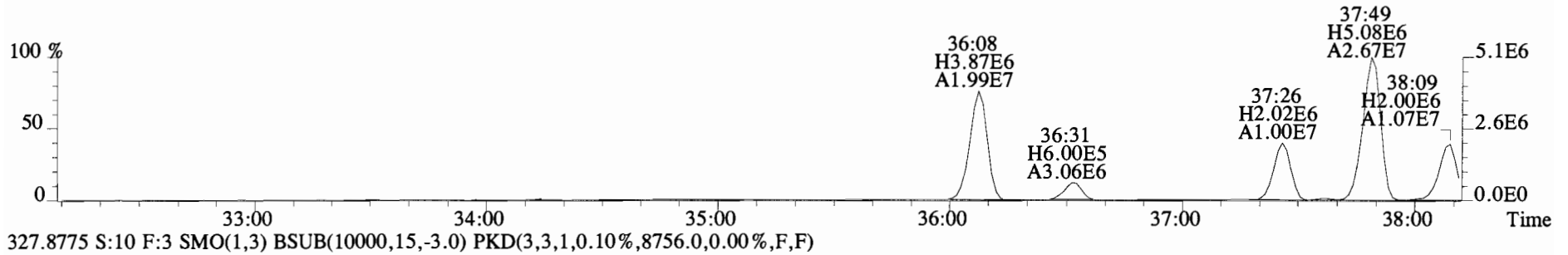
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
301.9626 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5708.0,0.00%,F,F)



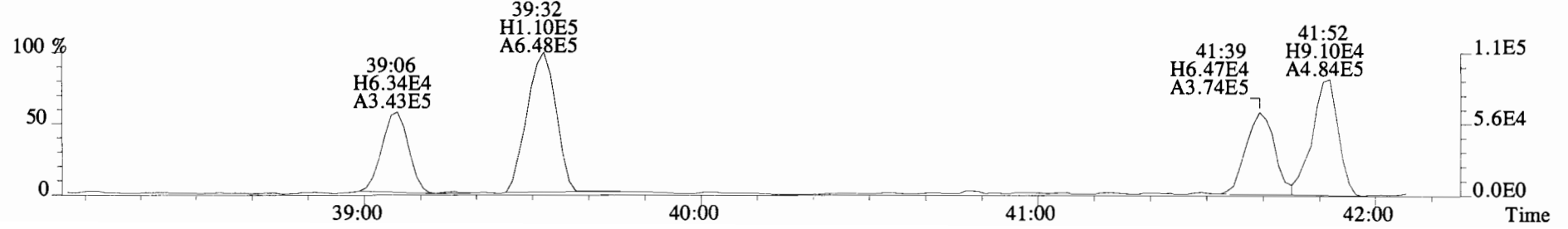
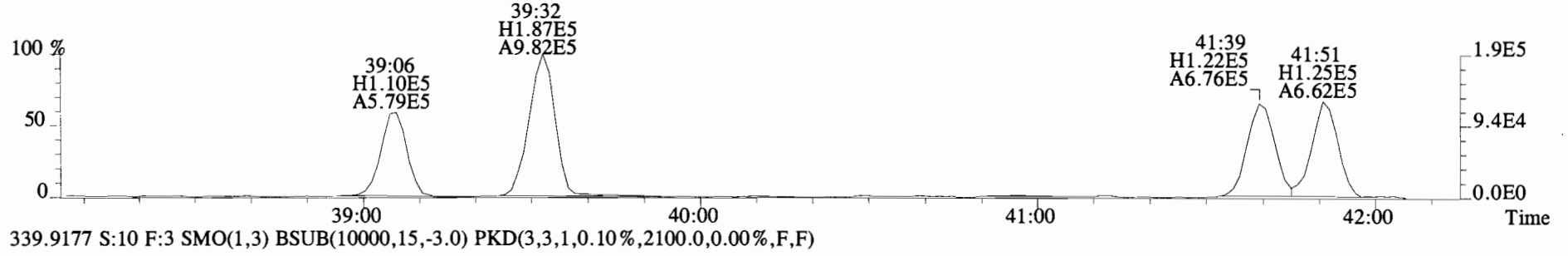
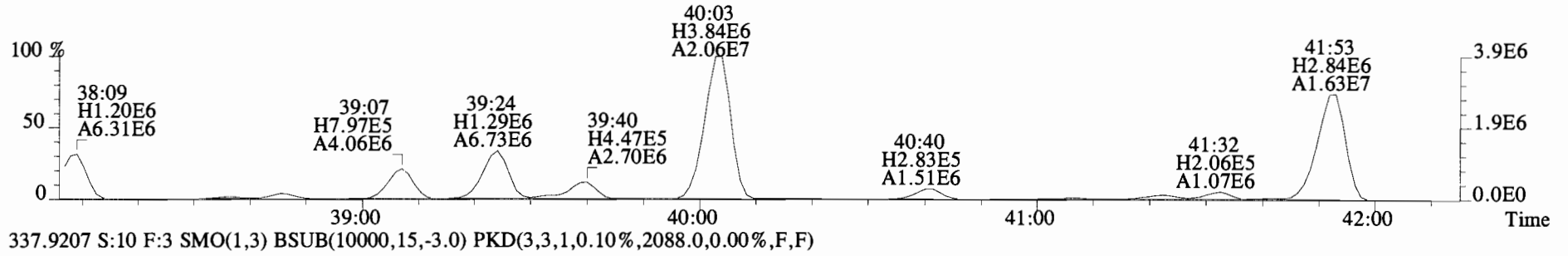
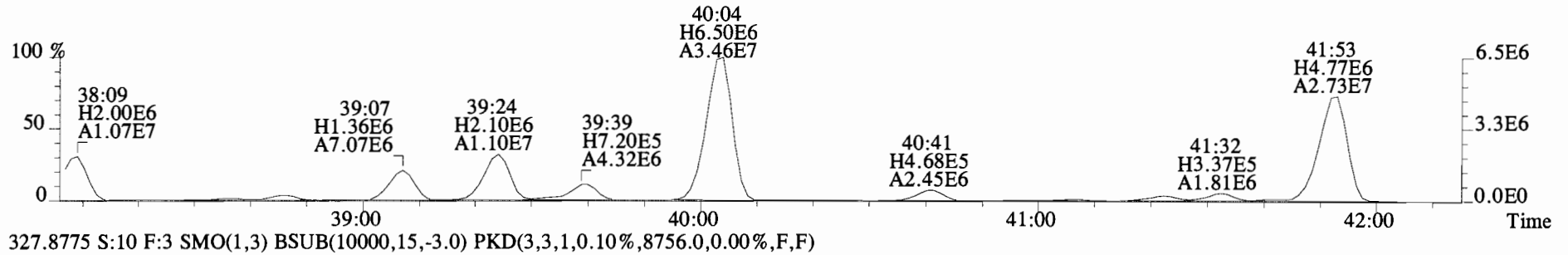
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
 325.8804 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,18268.0,0.00%,F,F)



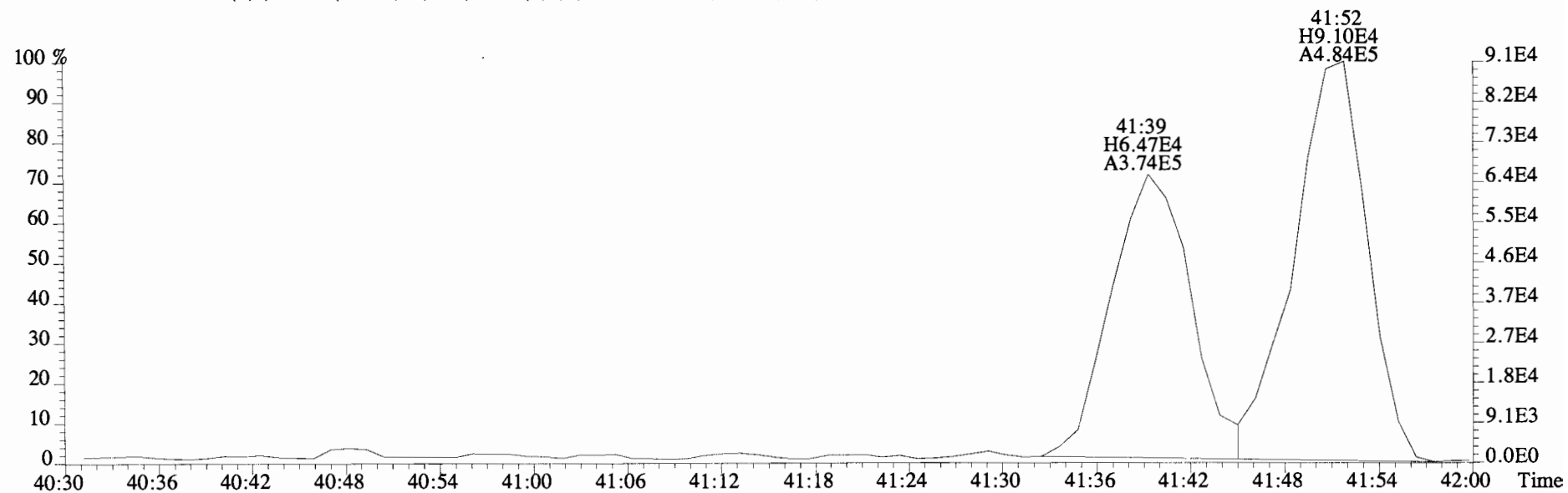
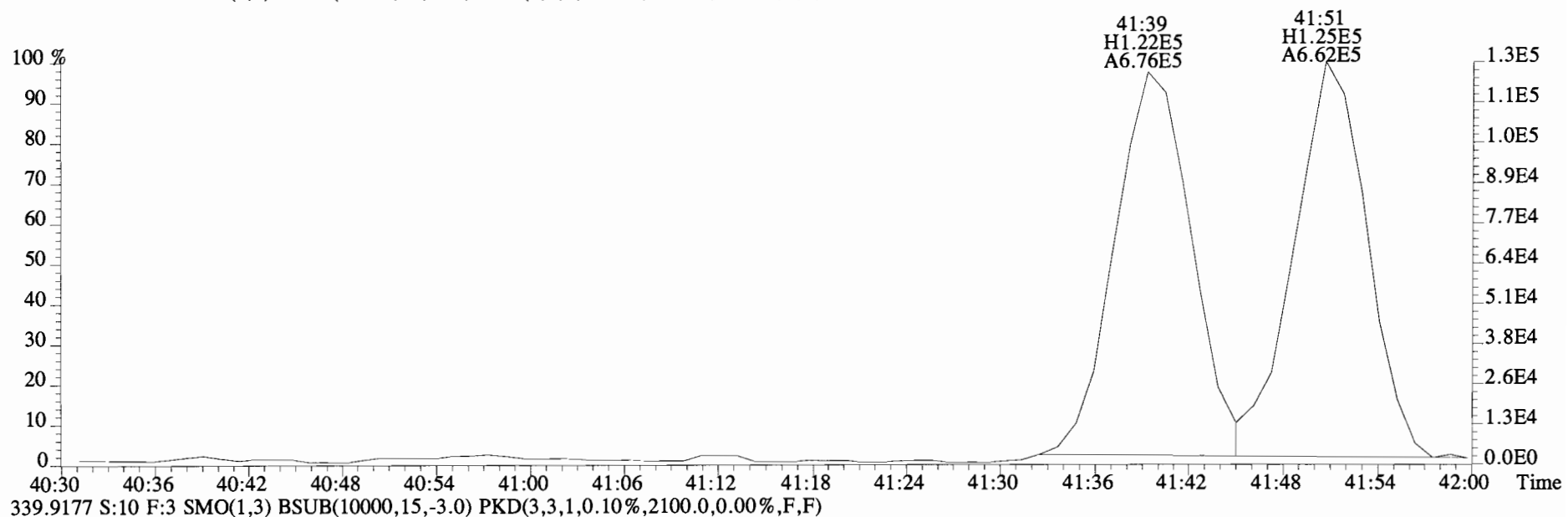
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
325.8804 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,18268.0,0.00%,F,F)



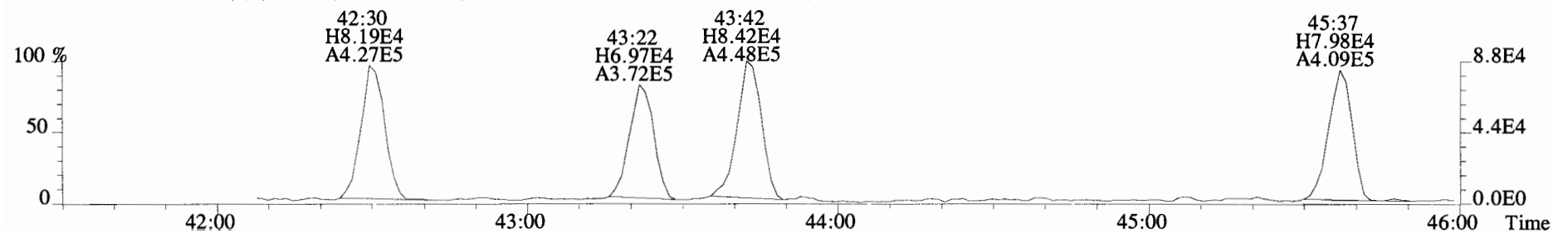
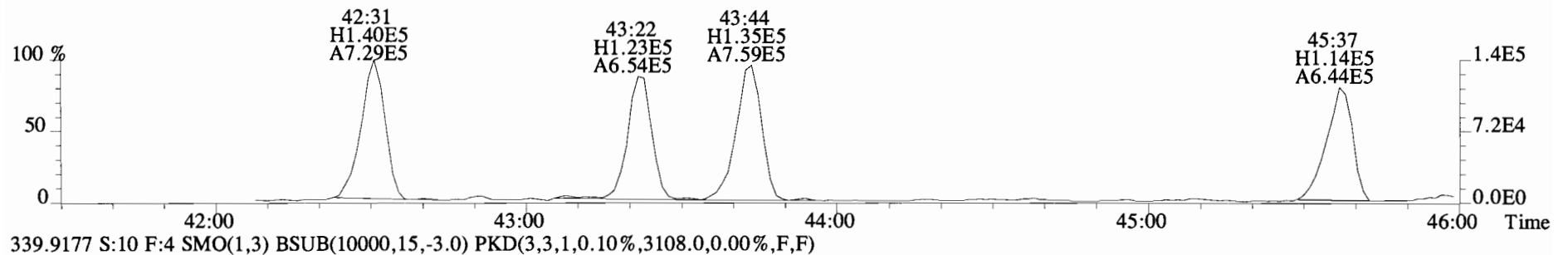
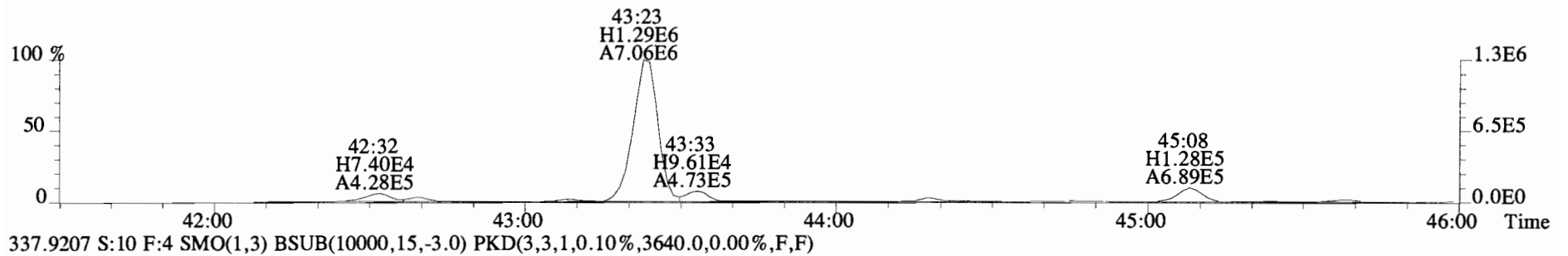
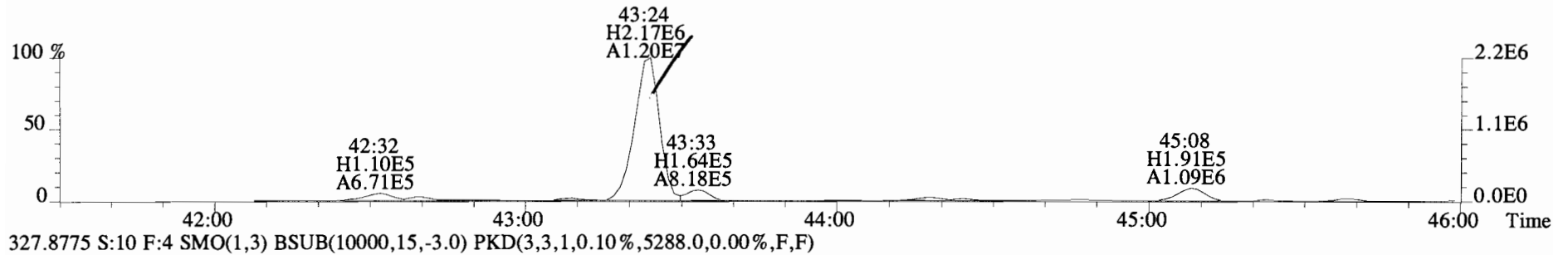
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
 325.8804 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,18268.0,0.00%,F,F)



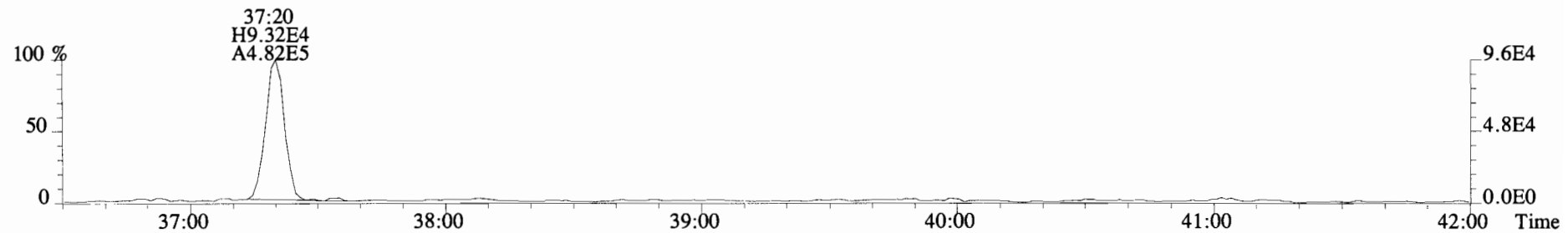
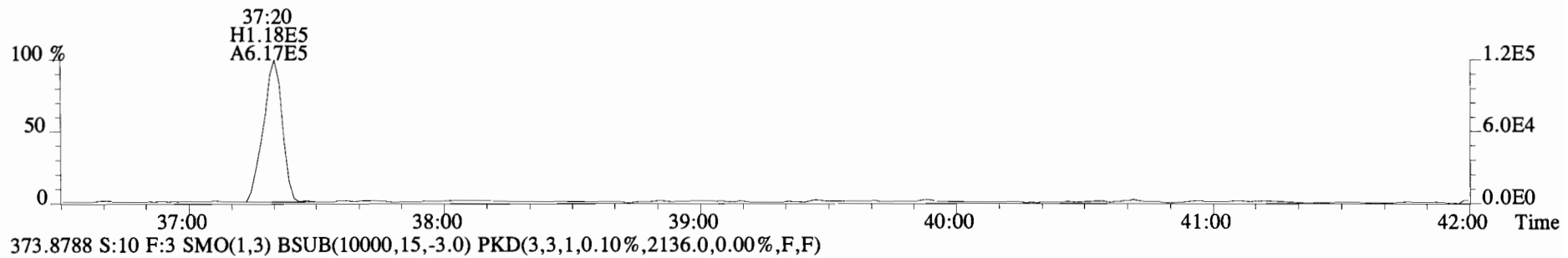
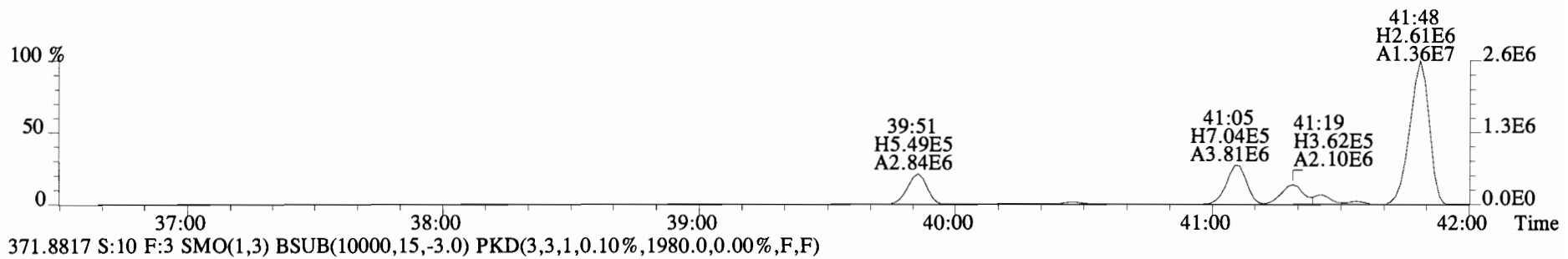
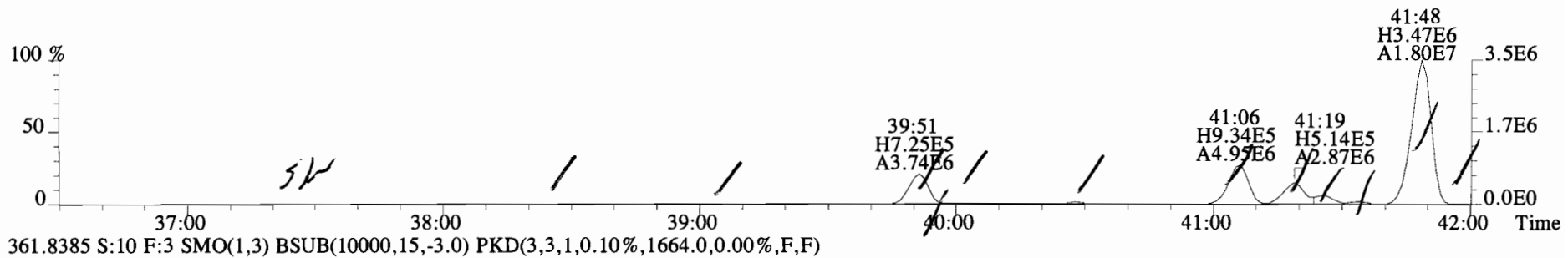
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
337.9207 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2088.0,0.00%,F,F)



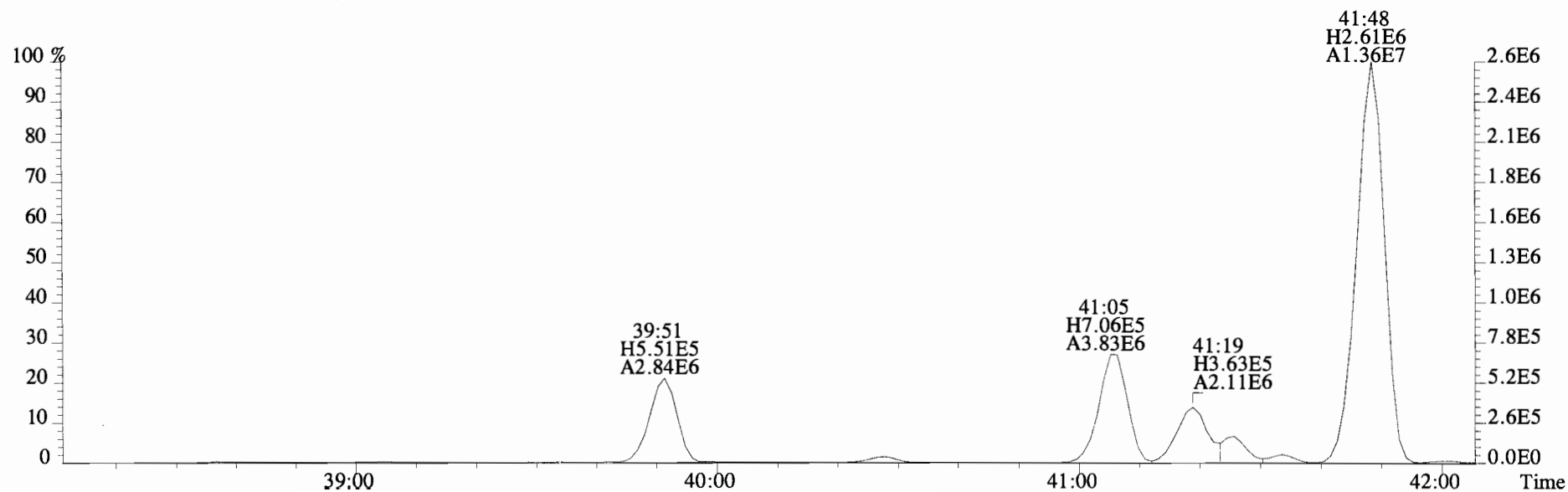
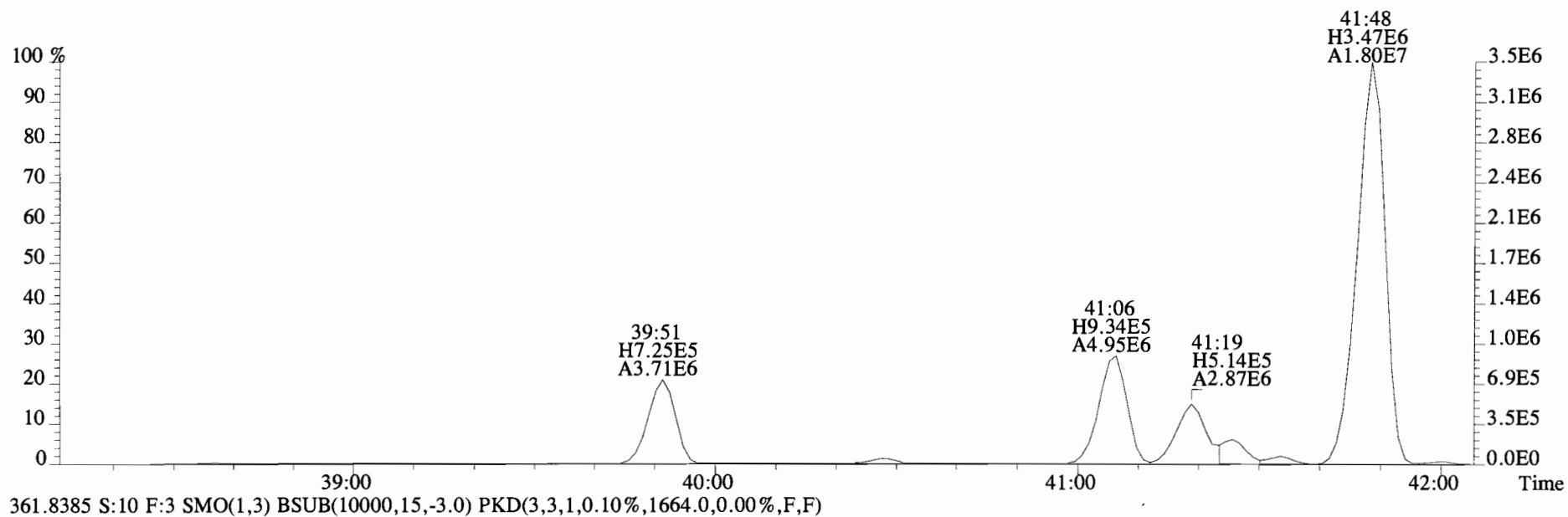
File:140919E2 #1-544 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
325.8804 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,8556.0,0.00%,F,F)



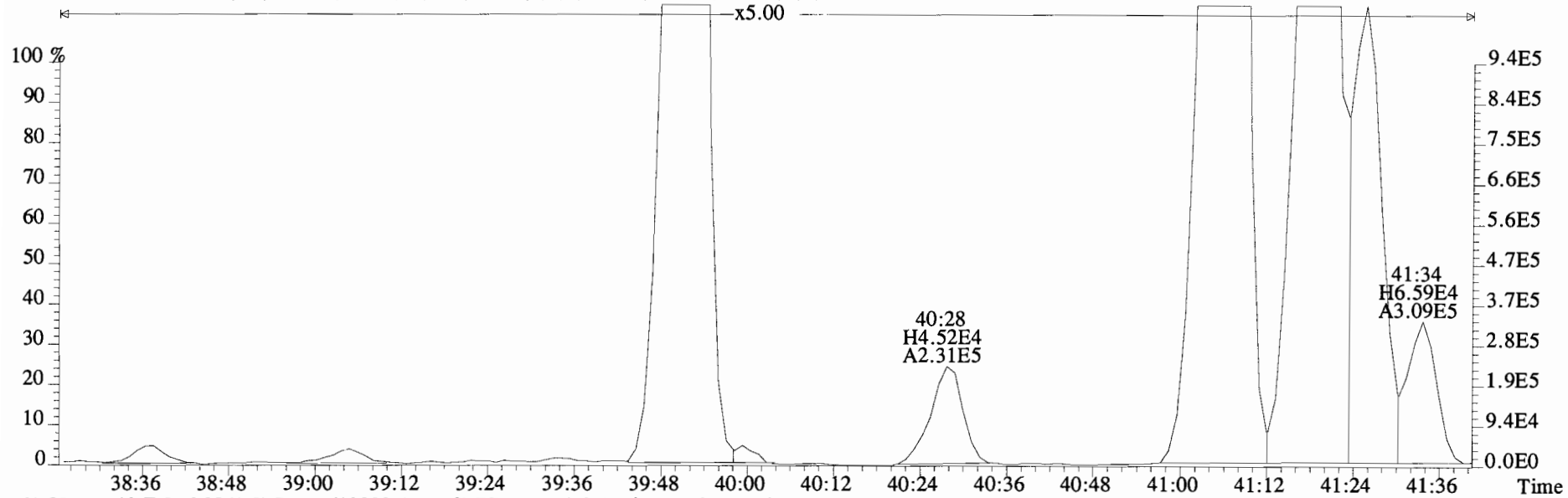
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
359.8415 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2008.0,0.00%,F,F)



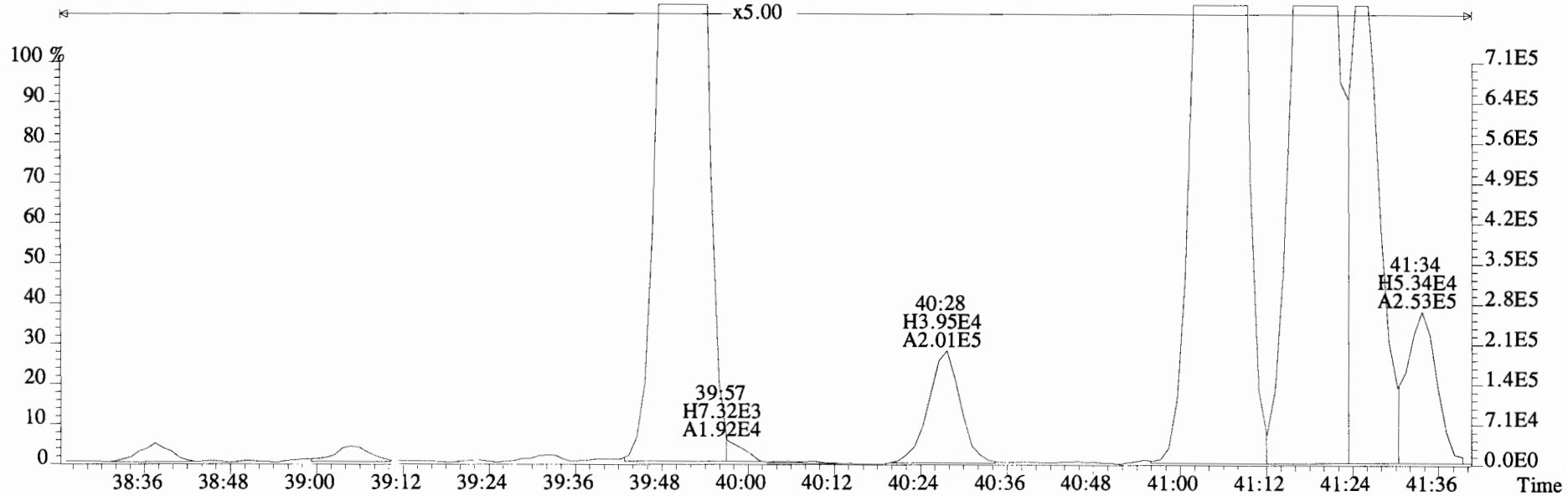
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
359.8415 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2008.0,0.00%,F,F)



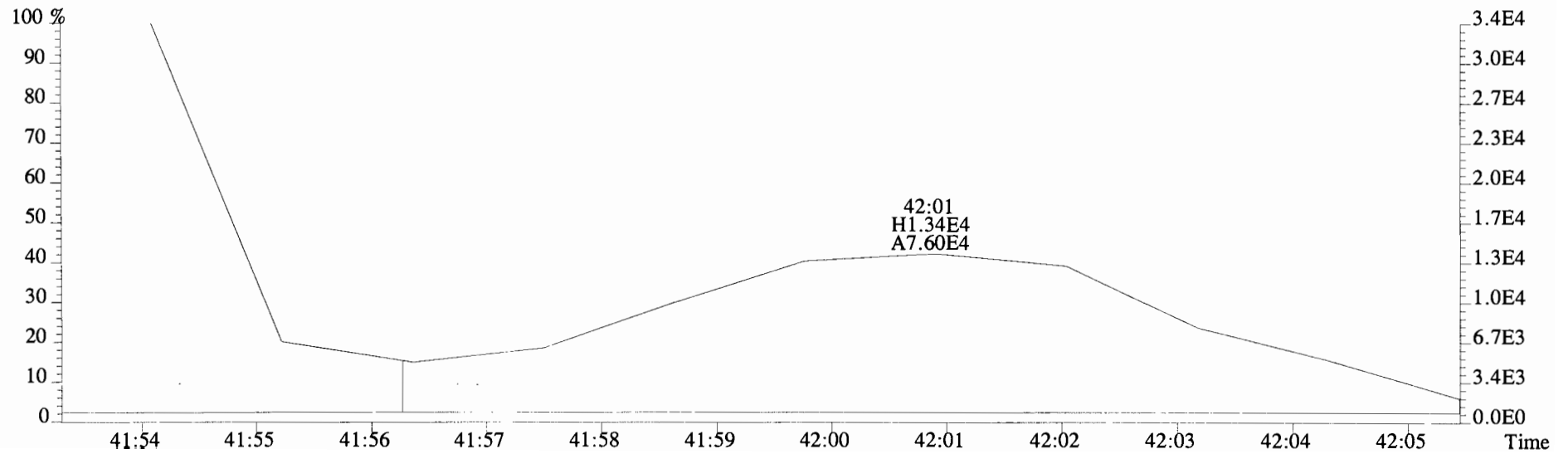
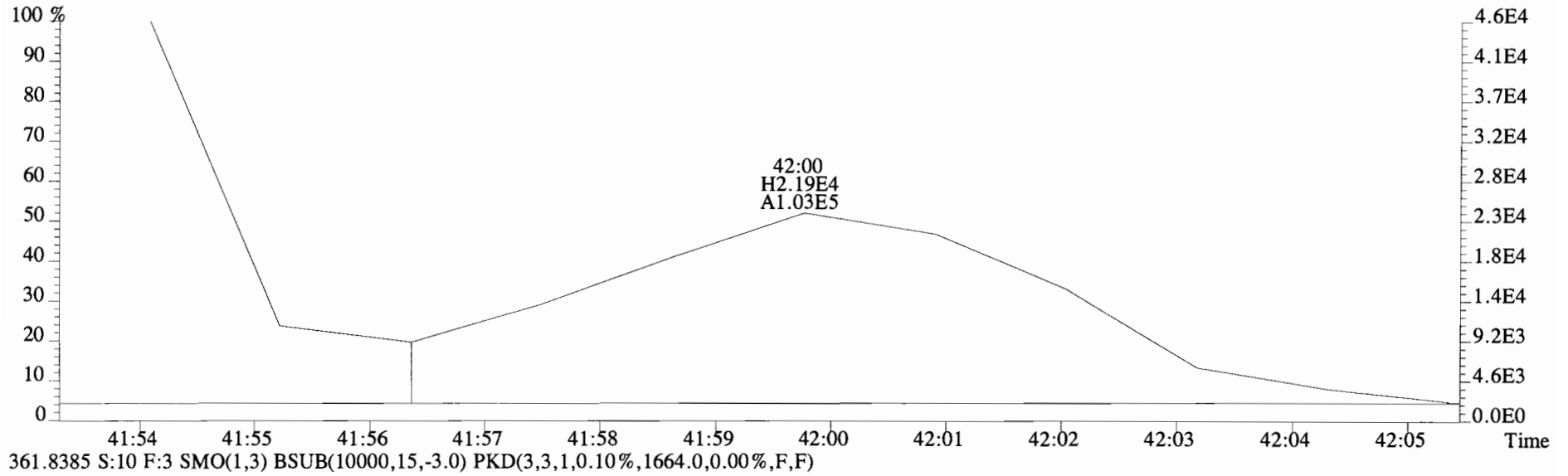
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
 359.8415 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2008.0,0.00%,F,F)



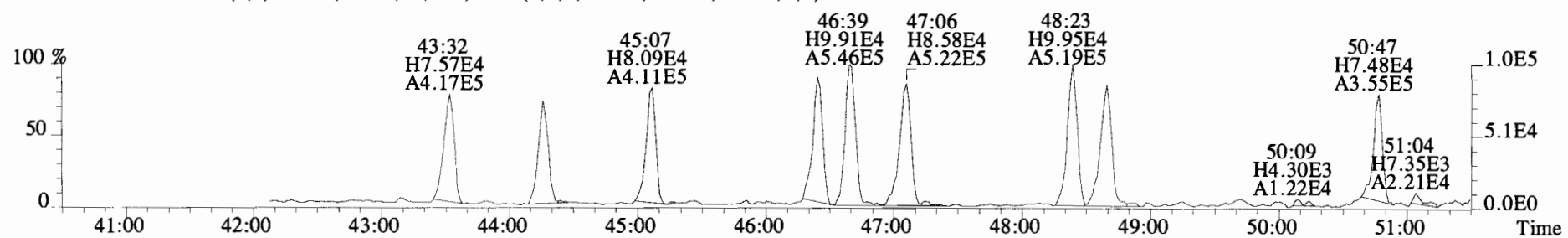
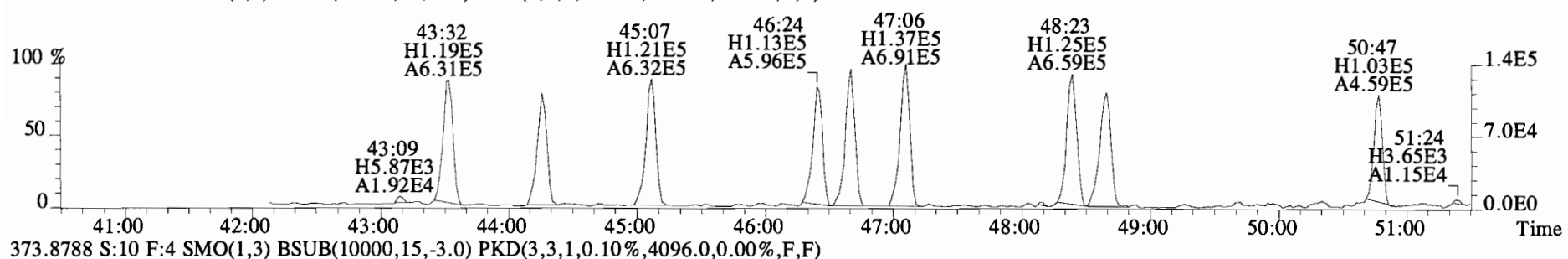
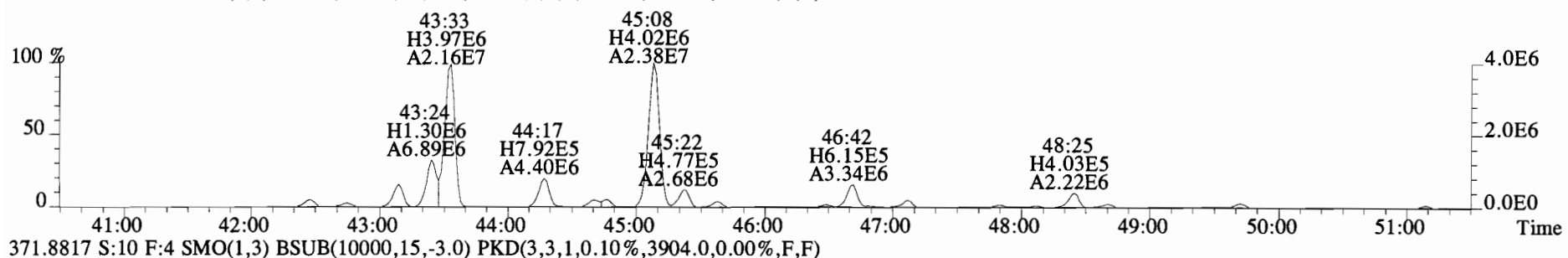
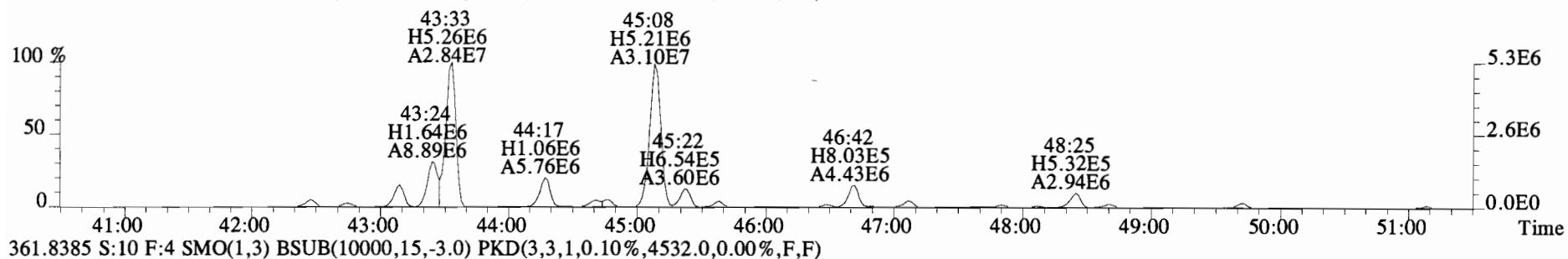
361.8385 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1664.0,0.00%,F,F)



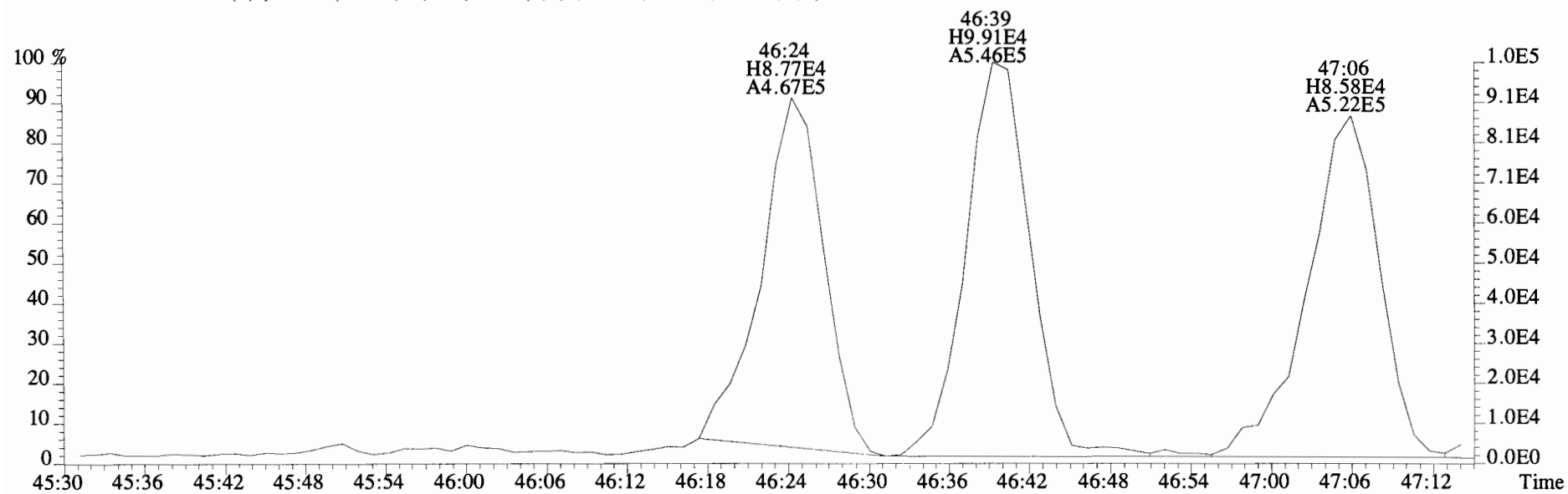
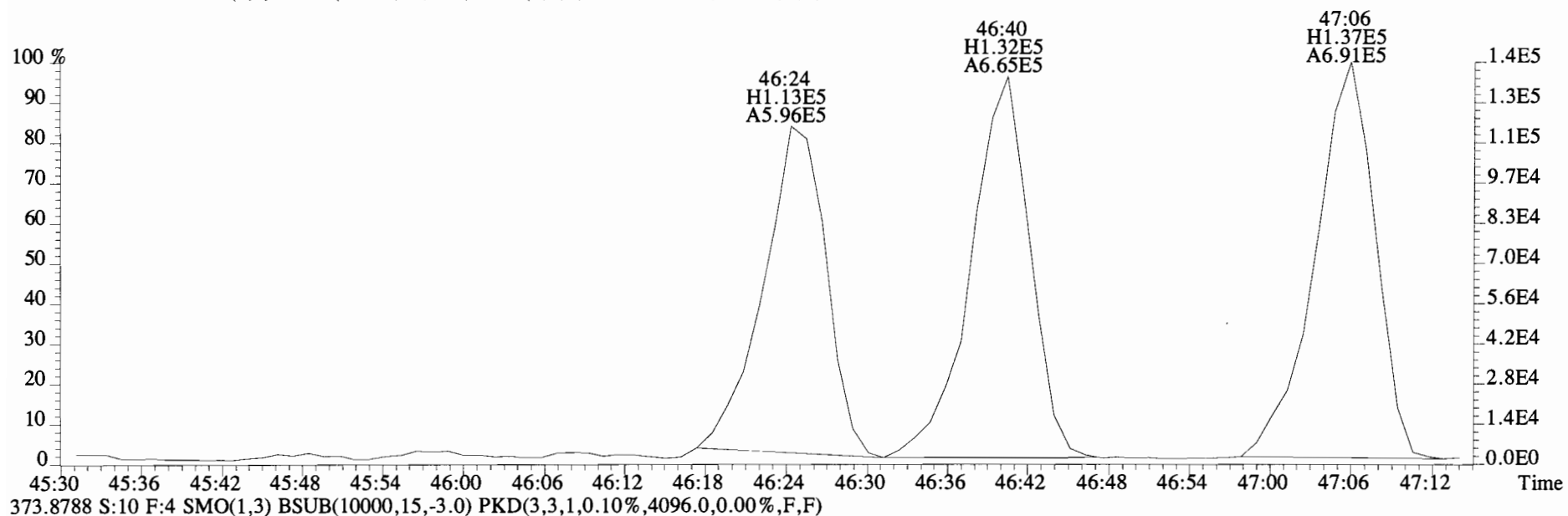
File:140919E2 #1-769 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text: Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
359.8415 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2008.0,0.00%,F,F)



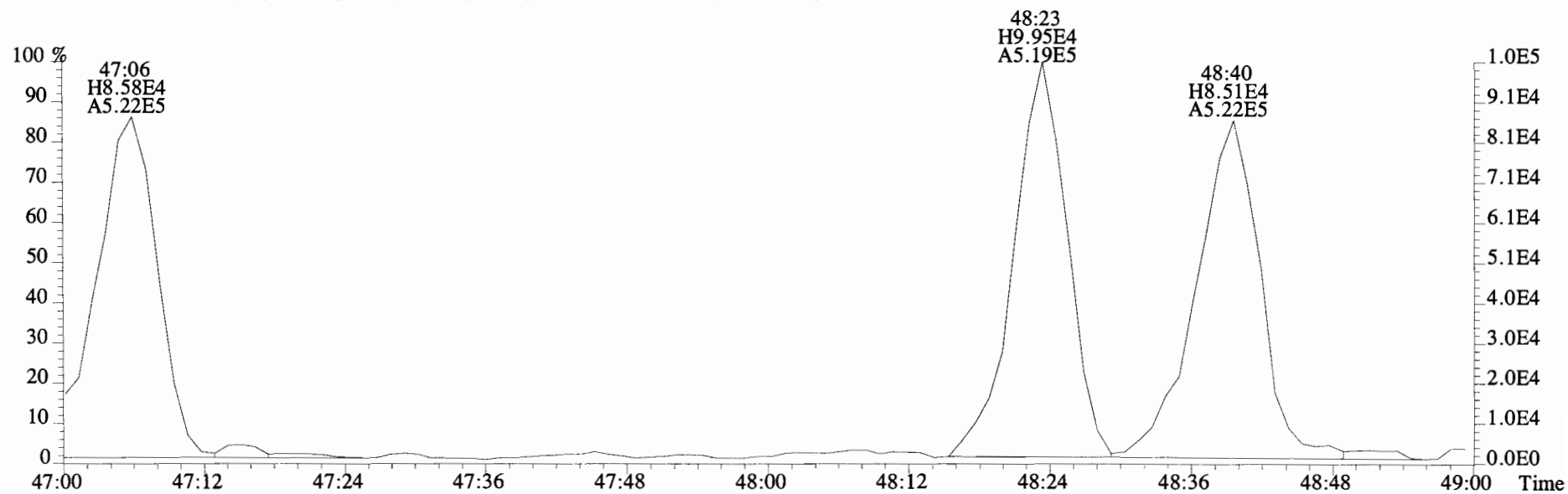
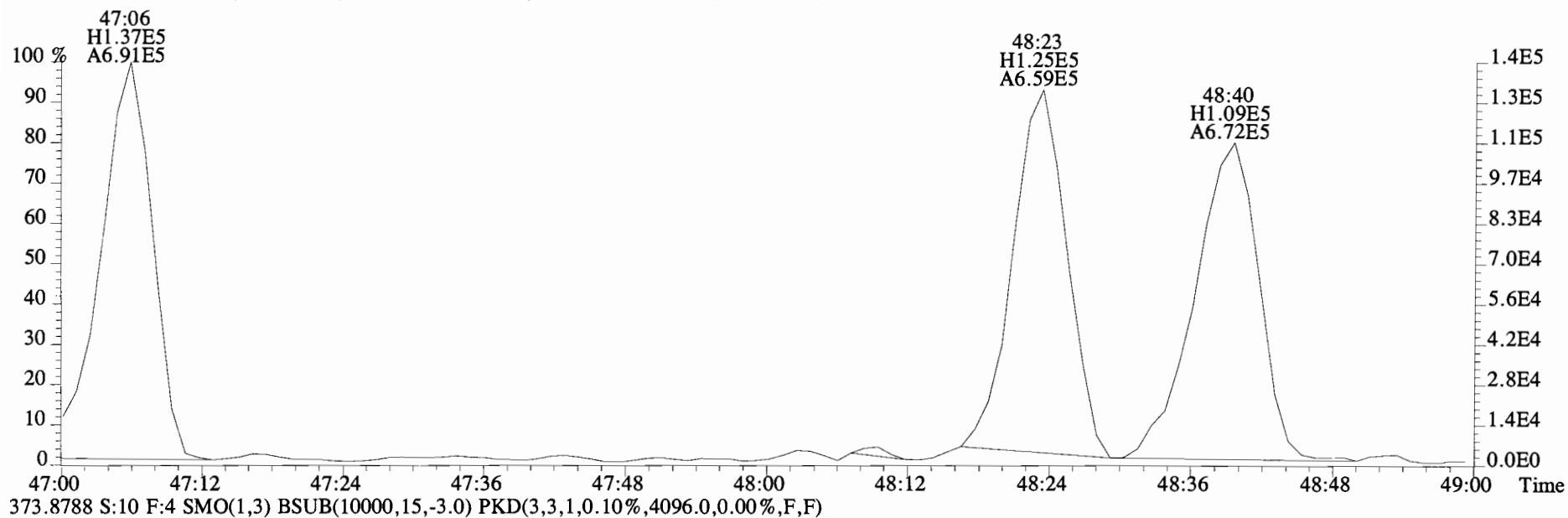
File:140919E2 #1-544 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text: Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
359.8415 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5512.0,0.00%,F,F)



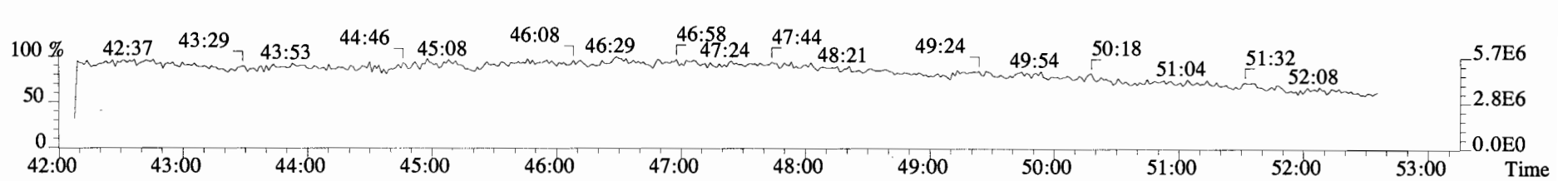
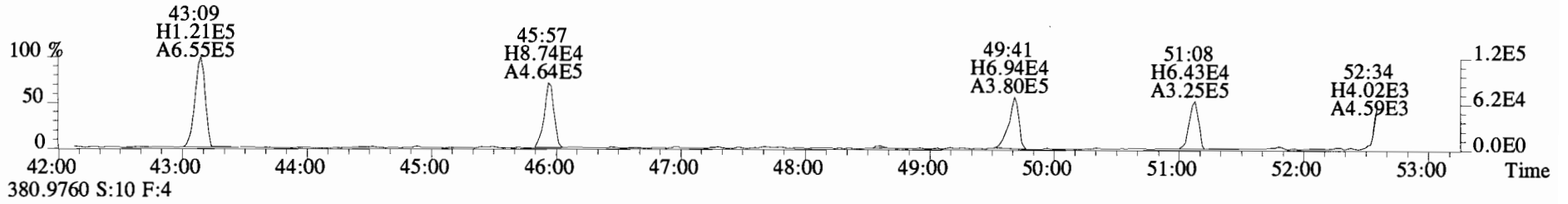
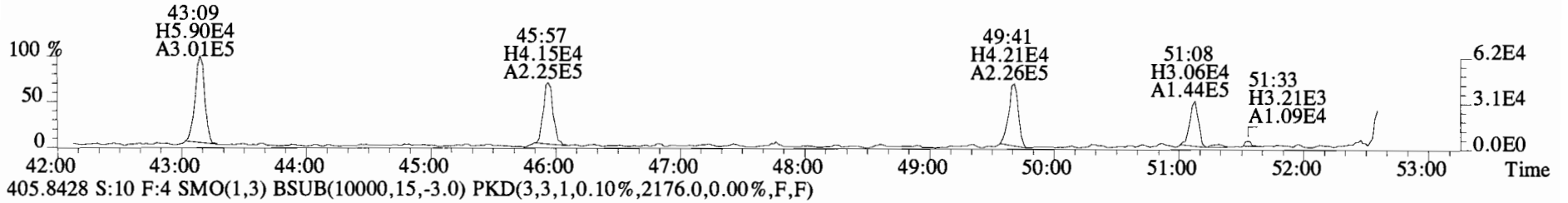
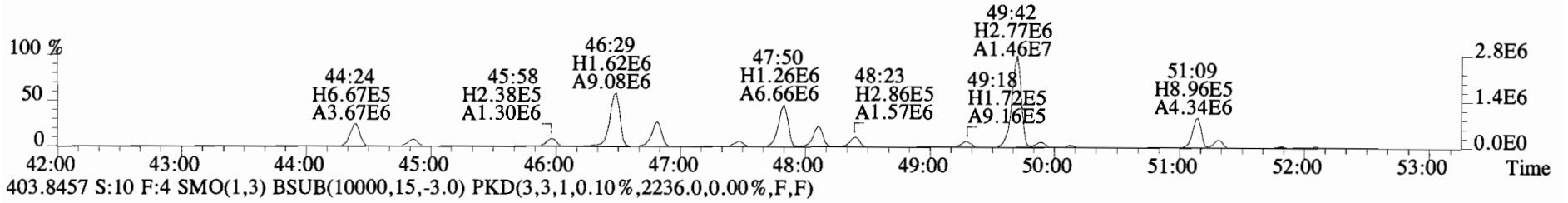
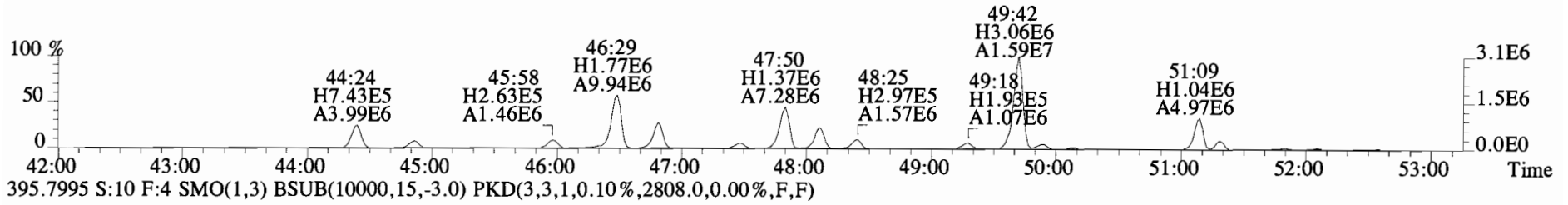
File:140919E2 #1-544 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text: Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
371.8817 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3904.0,0.00%,F,F)



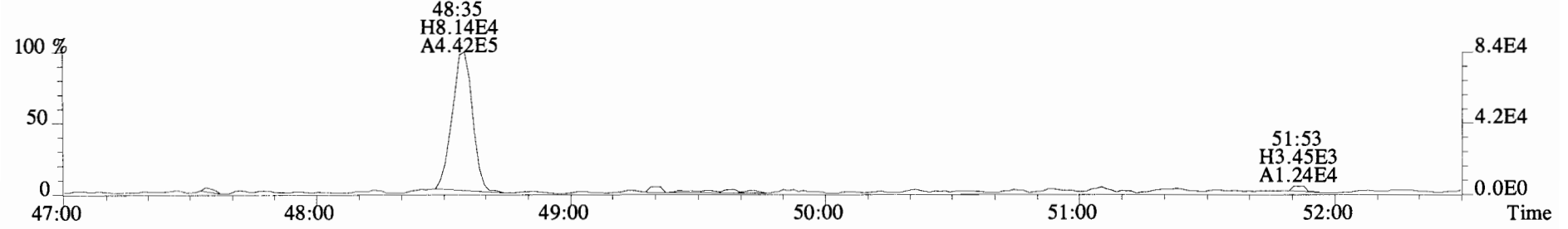
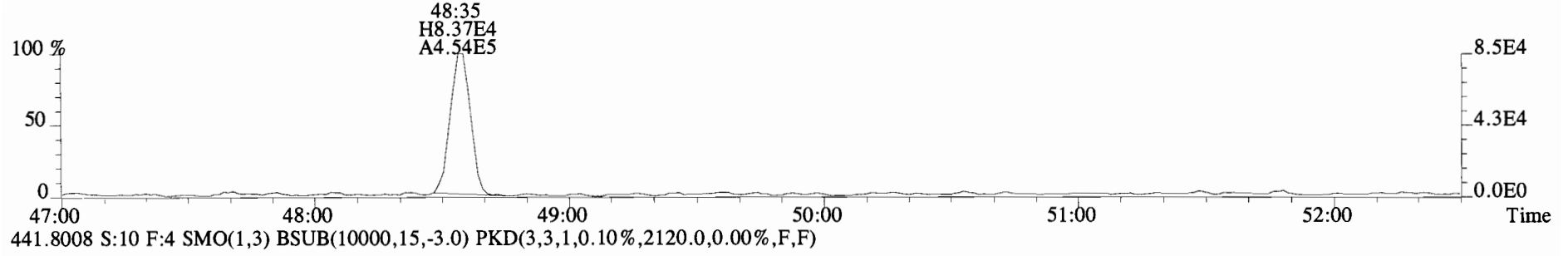
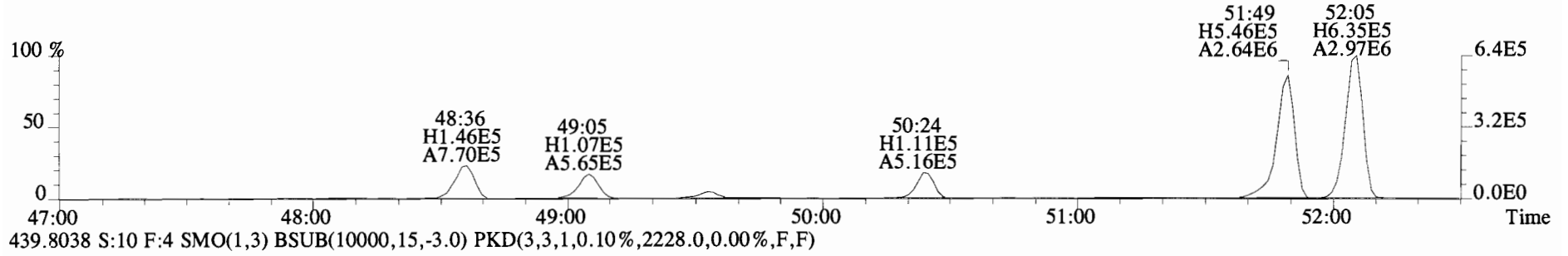
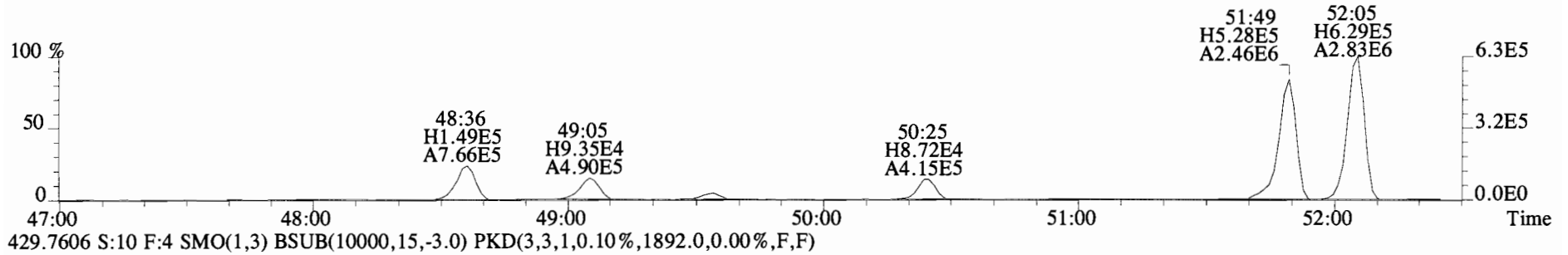
File:140919E2 #1-544 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
371.8817 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3904.0,0.00%,F,F)



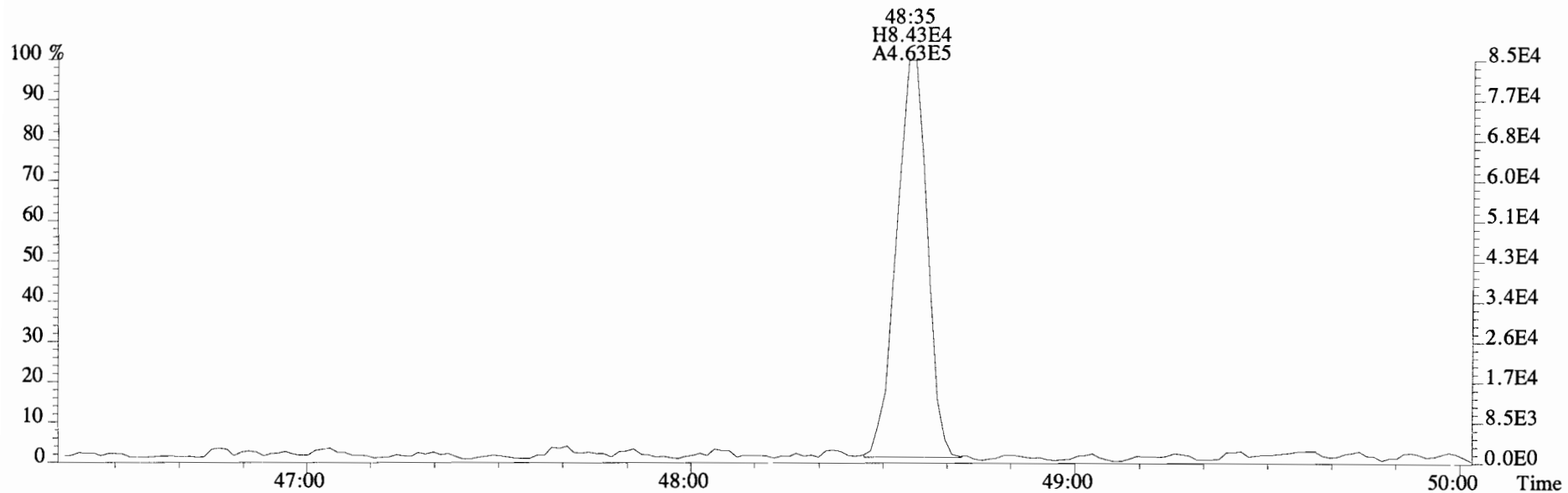
File:140919E2 #1-544 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
393.8025 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2724.0,0.00%,F,F)



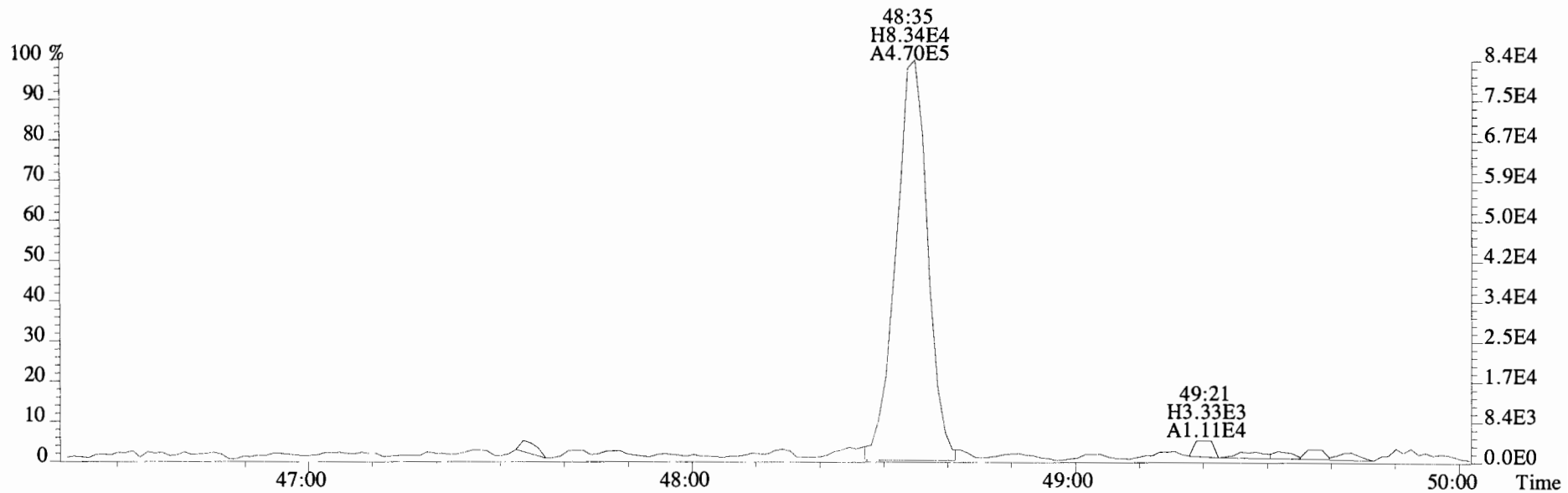
File:140919E2 #1-544 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
427.7635 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2140.0,0.00%,F,F)



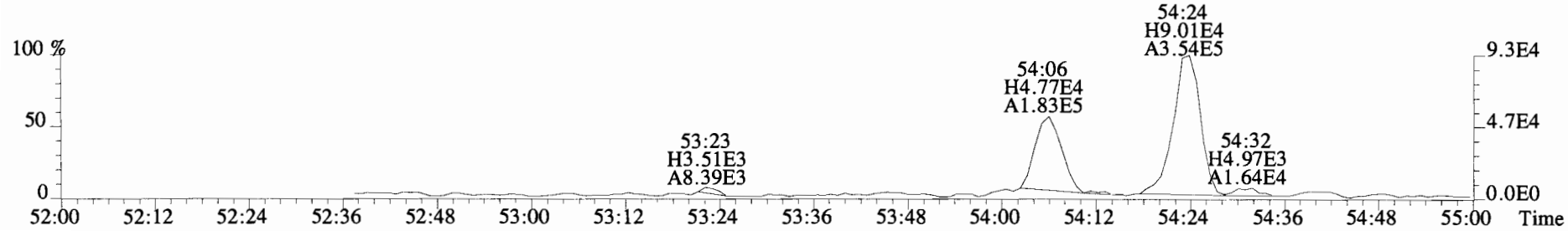
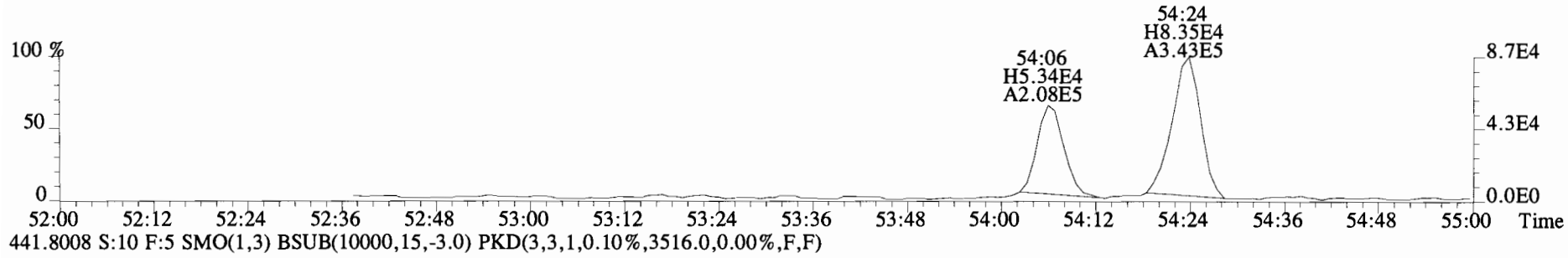
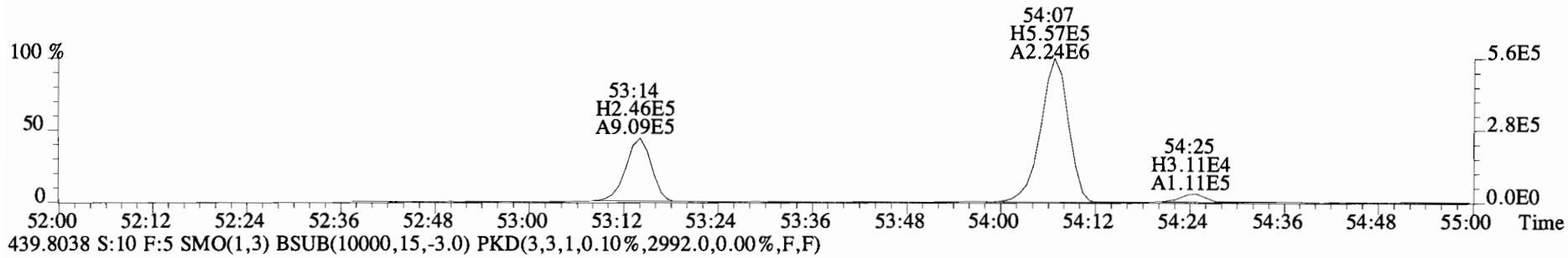
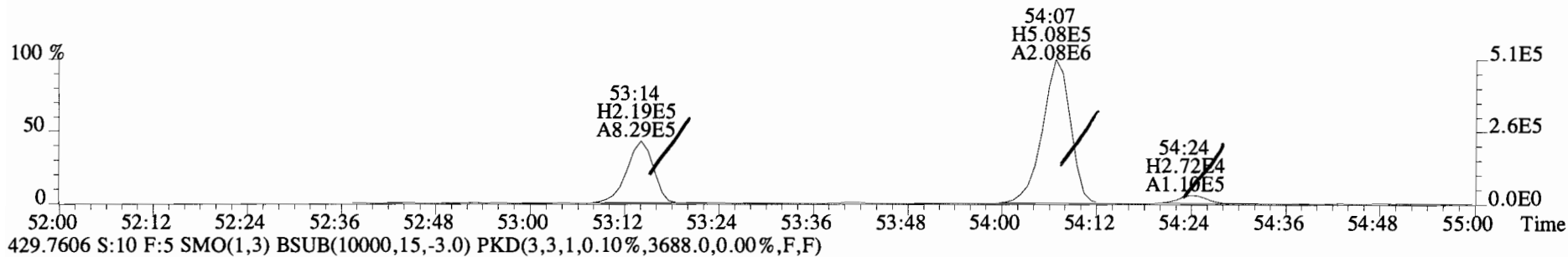
File:140919E2 #1-544 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
439.8038 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2228.0,0.00%,F,F)



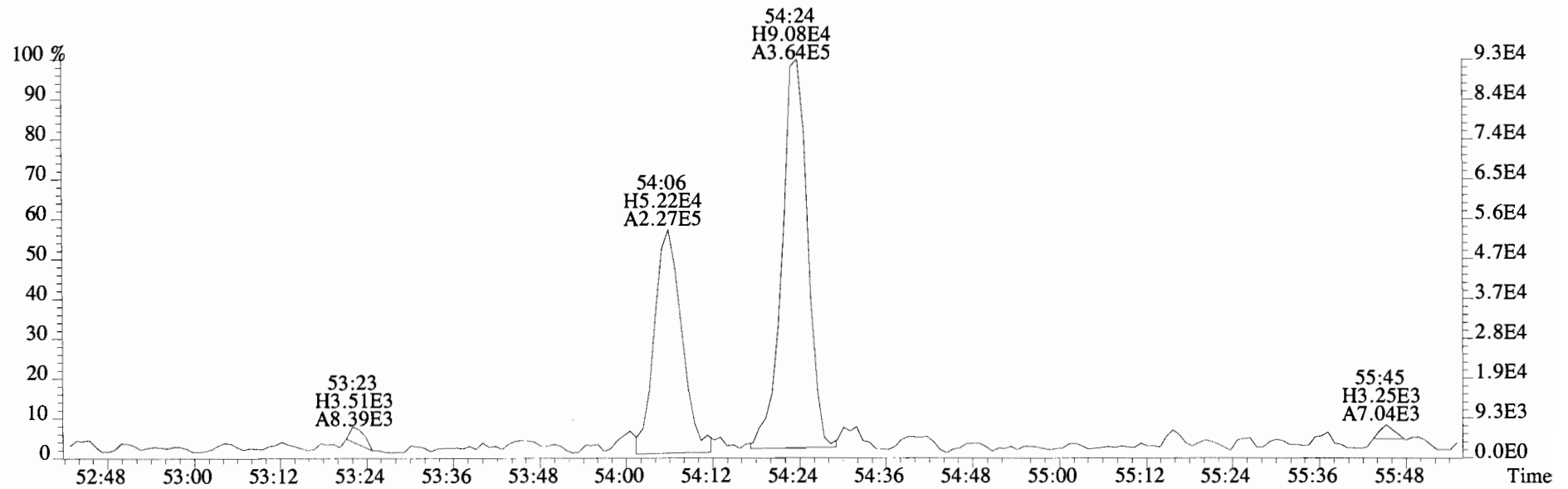
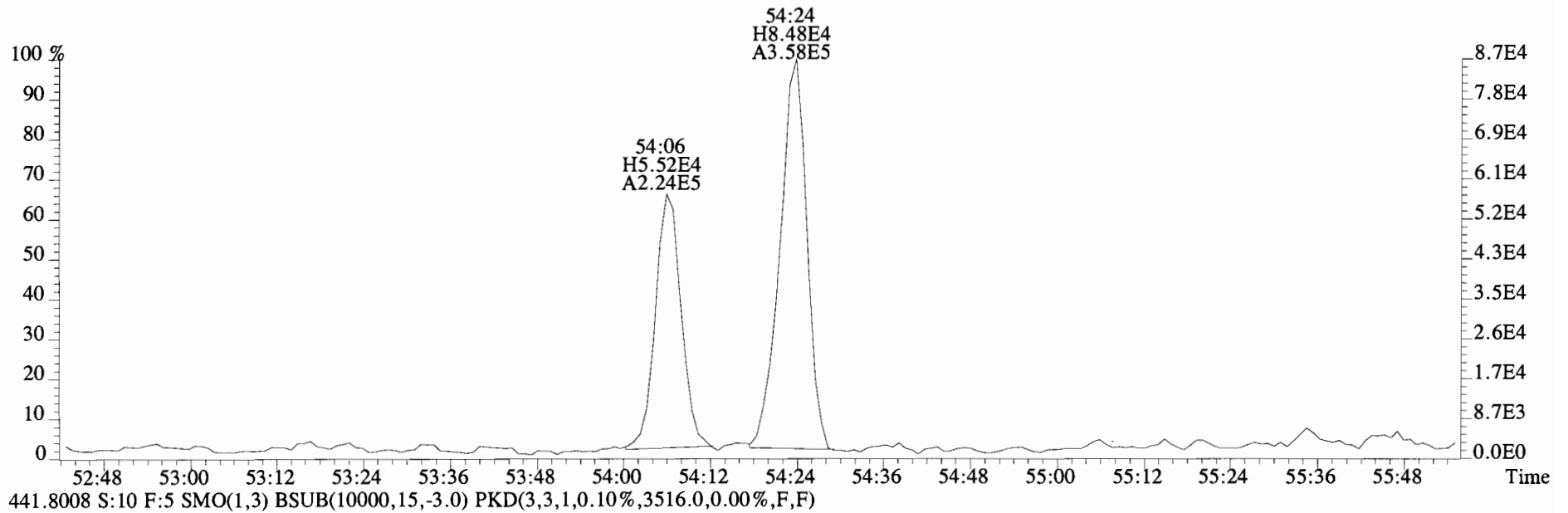
441.8008 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2120.0,0.00%,F,F)



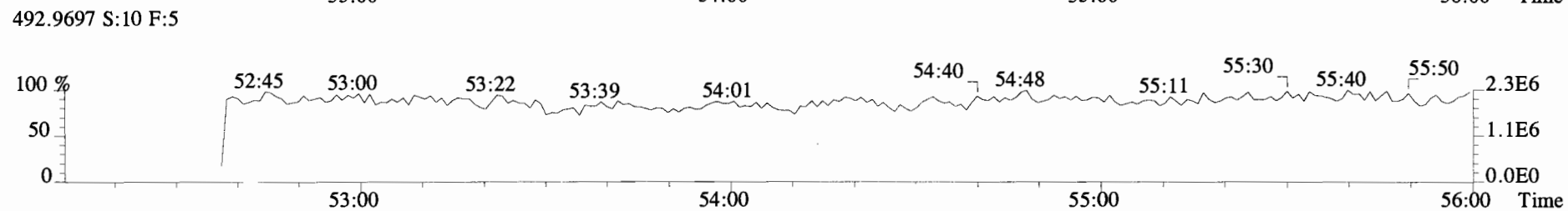
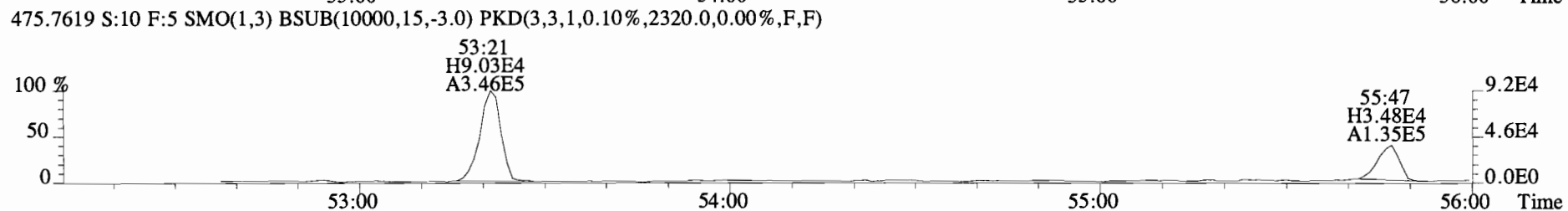
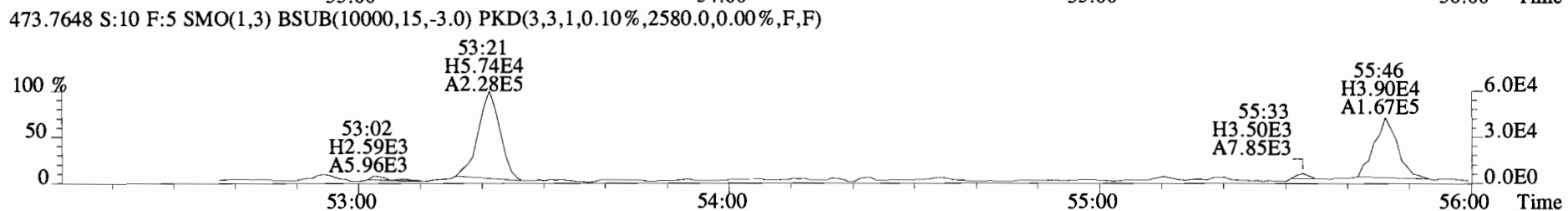
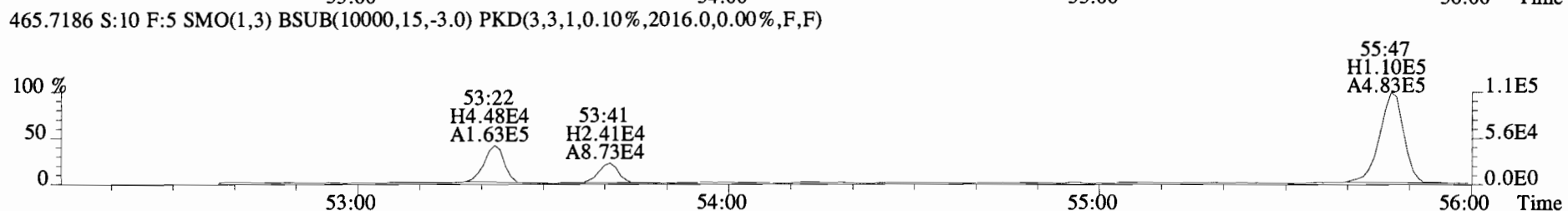
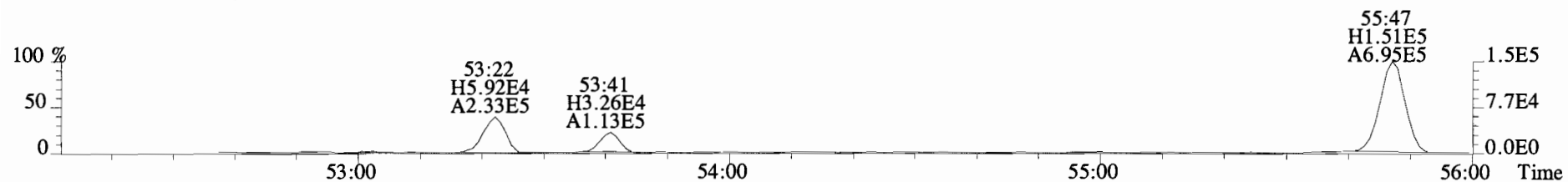
File:140919E2 #1-429 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
427.7635 S:10 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3520.0,0.00%,F,F)



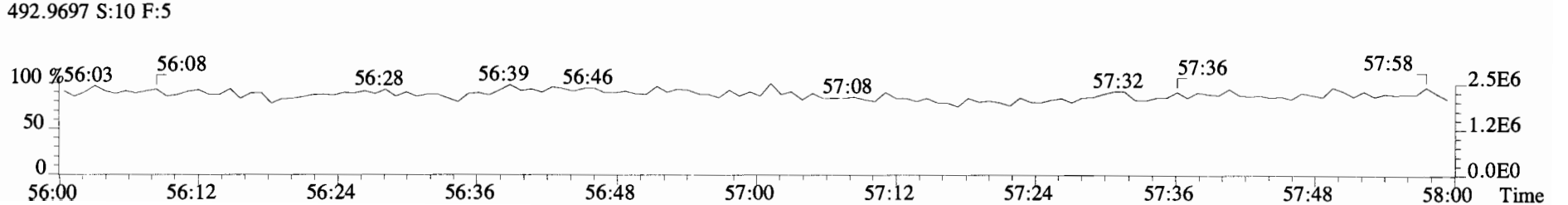
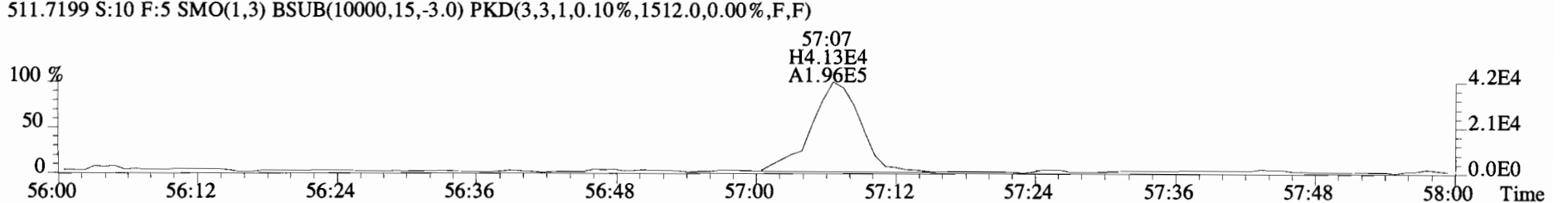
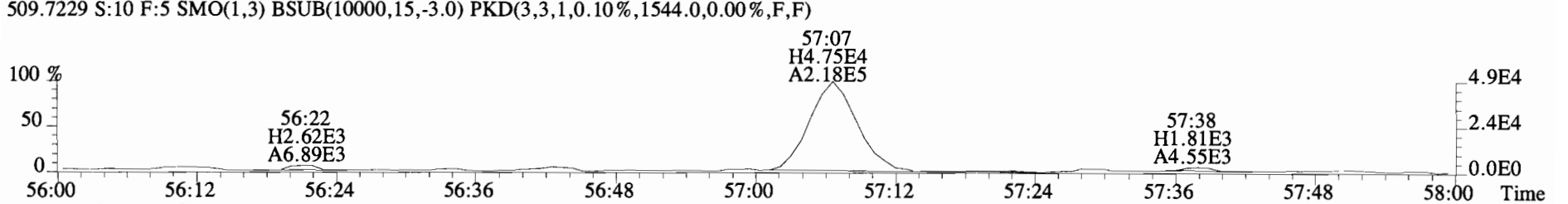
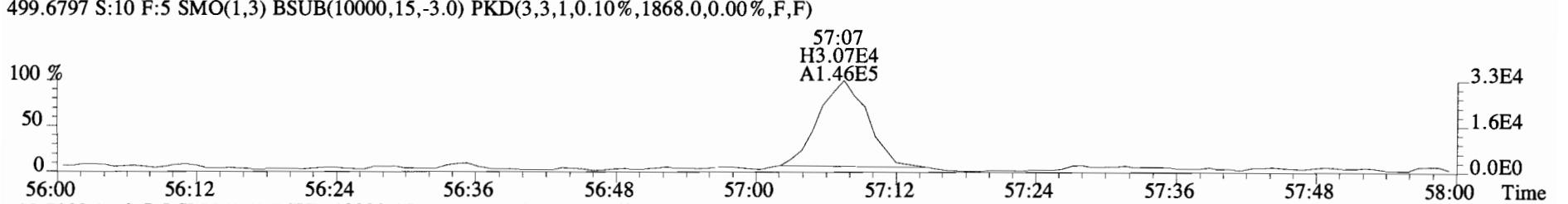
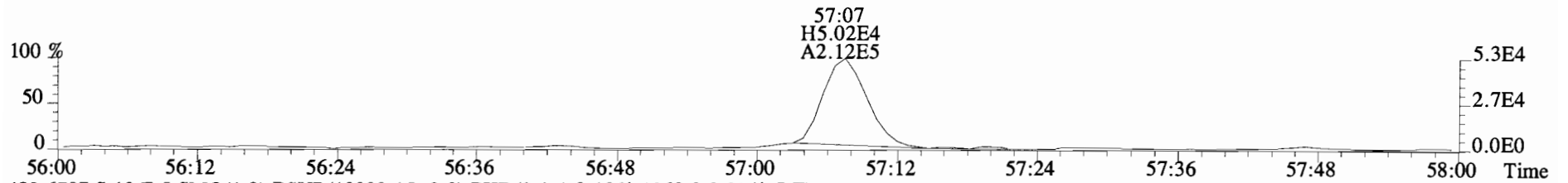
File:140919E2 #1-429 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
439.8038 S:10 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2992.0,0.00%,F,F)



File:140919E2 #1-429 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
463.7216 S:10 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1972.0,0.00%,F,F)



File:140919E2 #1-429 Acq:20-SEP-2014 09:22:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-02RE1 UG-MH-60-20140911-S 28.84 Exp:PCB_ZB1
497.6826 S:10 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1512.0,0.00%,F,F)



Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	2.10e+06	3.17	y 16:23	1.19	667	*	2.5	*	*	1.001	0.996-1.006	
Mono	PCB-2	3.94e+05	2.89	y 18:46	1.18	121	*	2.5	*	*	0.989	0.984-0.994	
Mono	PCB-3	1.59e+06	3.04	y 19:00	1.43	405	*	2.5	*	*	1.001	0.996-1.006	
Di	PCB-4/10	4.45e+06	1.50	y 20:21	1.57	2430	*	2.5	*	*	1.002	0.997-1.007	
Di	PCB-7/9	1.71e+06	1.44	y 22:09	1.21	751	*	2.5	*	*	0.868	0.866-0.874	
Di	PCB-6	3.06e+06	1.54	y 22:49	1.30	1240	*	2.5	*	*	0.894	0.890-0.899	
Di	PCB-5/8	1.66e+07	1.66	y 23:13	1.15	7680	*	2.5	*	*	0.910	0.907-0.917	
Di	PCB-14	*	*	n NotF η	1.11	*		12100	2.5	150	*	0.949-0.959	
Di	PCB-11	5.76e+06	1.65	y 25:32	1.09	2730	*	2.5	*	*	1.001	0.995-1.005	
Di	PCB-12/13	1.14e+06	1.59	y 25:54	1.19	491	*	2.5	*	*	1.015	1.011-1.021	
Di	PCB-15	1.13e+07	1.66	y 26:14	1.28	4570	*	2.5	*	*	1.028	1.023-1.033	
Tri	PCB-19	2.74e+06	1.10	y 24:30	1.04	1360	*	2.5	*	*	1.001	0.996-1.006	
Tri	PCB-30	*	*	n NotF η	1.71	*		2090	2.5	17.4	*	1.032-1.042	
Tri	PCB-18	2.86e+07	1.12	y 26:08	0.78	17700	*	2.5	*	*	0.954	0.949-0.959	
Tri	PCB-17	1.15e+07	1.14	y 26:19	0.92	6040	*	2.5	*	*	0.960	0.956-0.966	
Tri	PCB-24/27	2.95e+06	1.16	y 26:53	1.19	1200	*	2.5	*	*	0.981	0.977-0.987	
Tri	PCB-16/32	2.11e+07	1.12	y 27:24	0.94	10900	*	2.5	*	*	1.000	0.995-1.005	
Tri	PCB-34	1.95e+05	1.14	y 28:13	1.14	109	*	2.5	*	*	0.961	0.955-0.965	
Tri	PCB-23	4.19e+04	1.04	y 28:18	1.28	20.8	*	2.5	*	*	0.964	0.959-0.969	
Tri	PCB-29	2.74e+05	0.93	y 28:32	1.08	161	*	2.5	*	*	0.972	0.967-0.977	
Tri	PCB-26	4.75e+06	1.03	y 28:46	1.21	2500	*	2.5	*	*	0.980	0.974-0.984	
Tri	PCB-25	2.29e+06	1.03	y 28:55	1.26	1160	*	2.5	*	*	0.985	0.979-0.989	
Tri	PCB-31	2.81e+07	1.00	y 29:17	1.28	13900	*	2.5	*	*	0.998	0.992-1.002	
Tri	PCB-28	2.77e+07	1.01	y 29:23	1.71	10300	*	2.5	*	*	1.001	0.995-1.005	
Tri	PCB-20/21/33	1.68e+07	1.00	y 30:01	1.08	9850	*	2.5	*	*	1.023	1.017-1.027	
Tri	PCB-22	9.58e+06	1.01	y 30:26	1.21	5040	*	2.5	*	*	1.037	1.032-1.042	
Tri	PCB-36	6.95e+04	1.06	y 31:05	1.14	40.4	*	2.5	*	*	0.935	0.928-0.938	
Tri	PCB-39	*	*	n NotF η	1.12	*		2310	2.5	40.7	*	0.943-0.953	
Tri	PCB-38	2.21e+05	1.13	y 32:18	1.20	122	*	2.5	*	*	0.971	0.966-0.976	
Tri	PCB-35	5.88e+05	1.02	y 32:50	1.23	317	*	2.5	*	*	0.987	0.982-0.992	
Tri	PCB-37	1.06e+07	1.02	y 33:15	1.23	5700	*	2.5	*	*	1.000	0.995-1.005	
Tetra	PCB-54	8.39e+04	0.81	y 28:15	1.10	49.1	*	2.5	*	*	1.001	0.996-1.006	
Tetra	PCB-50	6.02e+04	0.72	y 29:25	0.88	44.1	*	2.5	*	*	1.042	1.037-1.047	
Tetra	PCB-53	2.75e+06	0.82	y 30:04	1.06	1990	*	2.5	*	*	0.946	0.942-0.952	
Tetra	PCB-51	9.67e+05	0.85	y 30:25	0.99	751	*	2.5	*	*	0.958	0.952-0.962	
Tetra	PCB-45	2.91e+06	0.83	y 30:50	0.86	2590	*	2.5	*	*	0.971	0.966-0.976	
Tetra	PCB-46	1.19e+06	0.75	y 31:19	0.85	1090	*	2.5	*	*	0.986	0.981-0.991	

Integrations by:

Analyst: *DMS*

Date: *9/26/14*

Reviewed by: *M/L* Date: *9/29/14*

Client ID: UG-FD-01-20140911-S
Lab ID: 1400665-03RE1 DL 1:20

Filename: 140919E2 S:11 Acq:20-SEP-14 10:27:16
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.048

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	2.53e+07	0.82	y 31:48	1.28	15200	*	2.5	*	*	1.001	0.996-1.006	
Tetra	PCB-73	*	*	n NotFη	1.35	*	2430	2.5	35.0	*	*	1.000-1.010	
Tetra	PCB-43/49	1.34e+07	0.79	y 32:06	0.99	10400	*	2.5	*	*	1.010	1.005-1.015	
Tetra	PCB-47	4.67e+06	0.78	y 32:18	1.06	3270	*	2.5	*	*	1.001	0.996-1.006	
Tetra	PCB-48/75	4.31e+06	0.74	y 32:25	1.23	2600	*	2.5	*	*	1.004	0.999-1.009	
Tetra	PCB-65	*	*	n NotFη	1.22	*	1650	2.5	23.1	*	*	1.008-1.018	
Tetra	PCB-62	*	*	n NotFη	1.22	*	2430	2.5	34.3	*	*	1.011-1.021	
Tetra	PCB-44	1.60e+07	0.80	y 33:05	0.86	13800	*	2.5	*	*	1.025	1.021-1.031	
Tetra	PCB-42/59	6.40e+06	0.83	y 33:20	1.14	4170	*	2.5	*	*	1.033	1.028-1.038	
Tetra	PCB-41/64/71/72	1.82e+07	0.81	y 33:54	1.21	11200	*	2.5	*	*	1.050	1.046-1.056	
Tetra	PCB-68	1.61e+05	0.84	y 34:10	1.35	88.6	*	2.5	*	*	1.058	1.054-1.064	
Tetra	PCB-40	2.47e+06	0.83	y 34:22	0.70	2610	*	2.5	*	*	1.065	1.061-1.071	
Tetra	PCB-57	1.19e+05	0.75	y 34:44	0.98	75.0	*	2.5	*	*	0.970	0.965-0.975	
Tetra	PCB-67	7.67e+05	0.80	y 35:03	1.11	429	*	2.5	*	*	0.979	0.974-0.984	
Tetra	PCB-58	5.72e+04	0.69	y 35:10	0.93	38.2	*	2.5	*	*	0.982	0.977-0.987	
Tetra	PCB-63	8.93e+05	0.86	y 35:19	0.95	580	*	2.5	*	*	0.986	0.982-0.992	
Tetra	PCB-74	1.16e+07	0.81	y 35:36	1.24	5760	*	2.5	*	*	0.994	0.990-1.000	
Tetra	PCB-61/70	3.07e+07	0.81	y 35:49	0.95	19900	*	2.5	*	*	1.000	0.995-1.005	
Tetra	PCB-76/66	2.17e+07	0.81	y 36:01	1.04	12800	*	2.5	*	*	1.006	1.001-1.011	
Tetra	PCB-80	*	*	n NotFη	1.19	*	2430	2.5	31.3	*	*	0.996-1.006	
Tetra	PCB-55	5.75e+05	0.80	y 36:32	1.04	359	*	2.5	*	*	1.009	1.005-1.015	
Tetra	PCB-56/60	1.41e+07	0.84	y 37:03	1.01	9040	*	2.5	*	*	1.023	1.019-1.029	
Tetra	PCB-79	5.95e+05	0.87	y 38:07	1.08	358	*	2.5	*	*	1.052	1.048-1.058	
Tetra	PCB-78	*	*	n NotFη	1.27	*	2430	2.5	32.1	*	*	0.982-0.992	
Tetra	PCB-81	1.70e+05	0.67	y 39:20	1.33	86.2	*	2.5	*	*	1.000	0.995-1.005	
Tetra	PCB-77	2.94e+06	0.85	y 39:56	1.10	1720	*	2.5	*	*	1.000	0.995-1.005	
Penta	PCB-104	*	*	n NotFη	1.18	*	4180	2.5	99.0	*	*	0.996-1.006	
Penta	PCB-96	2.66e+05	1.50	y 34:13	1.14	203	*	2.5	*	*	1.038	1.034-1.044	
Penta	PCB-103	3.10e+05	1.77	y 34:46	0.96	282	*	2.5	*	*	1.055	1.050-1.060	
Penta	PCB-100	*	*	n NotFη	0.94	*	6470	2.5	194	*	*	1.061-1.071	
Penta	PCB-94	*	*	n NotFη	1.06	*	6470	2.5	227	*	*	0.980-0.990	
Penta	PCB-95/98/102	2.35e+07	1.70	y 36:07	1.22	22700	*	2.5	*	*	1.000	0.995-1.005	
Penta	PCB-93	*	*	n NotFη	0.84	*	4180	2.5	184	*	*	0.997-1.007	
Penta	PCB-88/91	3.66e+06	1.72	y 36:31	1.12	3870	*	2.5	*	*	1.012	1.005-1.015	
Penta	PCB-121	*	*	n NotFη	1.62	*	4180	2.5	95.8	*	*	1.009-1.019	
Penta	PCB-84/92	1.16e+07	1.66	y 37:25	1.05	11000	*	2.5	*	*	0.990	0.985-0.995	
Penta	PCB-89	2.42e+05	1.66	y 37:36	1.13	212	*	2.5	*	*	0.995	0.991-1.001	

Analyst: *Dms*

Date: *9/26/14*

Client ID: UG-FD-01-20140911-S
Lab ID: 1400665-03RE1 DL 1:20

Filename: 140919E2 S:11 Acq:20-SEP-14 10:27:16
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.048

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	3.11e+07	1.67	y 37:48	1.10	27900		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-113	3.06e+05	1.94	n 38:01	1.41	215	R	*	2.5	*	1.006	1.002-1.012	
Penta	PCB-99	1.21e+07	1.66	y 38:07	1.34	8980		*	2.5	*	1.009	1.004-1.014	
Penta	PCB-119	6.95e+05	1.73	y 38:36	1.53	567		*	2.5	*	0.988	0.982-0.992	
Penta	PCB-108/112	1.41e+06	1.55	y 38:45	1.28	1380		*	2.5	*	0.991	0.986-0.996	
Penta	PCB-83	*	*	n NotF η	1.52	*		6470	2.5	154	*	0.990-1.000	
Penta	PCB-97	8.18e+06	1.64	y 39:06	1.18	8650		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-86	*	*	n NotF η	0.84	*		6470	2.5	278	*	0.999-1.009	
Penta	PCB-87/117/125	1.29e+07	1.61	y 39:23	1.55	10400		*	2.5	*	1.008	1.002-1.012	
Penta	PCB-111/115	6.55e+05	1.45	y 39:31	1.63	502		*	2.5	*	1.011	1.006-1.016	
Penta	PCB-85/116	4.51e+06	1.59	y 39:38	1.30	4330		*	2.5	*	1.014	1.010-1.020	
Penta	PCB-120	*	*	n NotF η	1.68	*		6470	2.5	140	*	1.016-1.026	
Penta	PCB-110	4.10e+07	1.69	y 40:02	1.56	33000		*	2.5	*	1.024	1.020-1.030	
Penta	PCB-82	2.89e+06	1.59	y 40:40	0.76	3610		*	2.5	*	0.976	0.971-0.981	
Penta	PCB-124	1.52e+06	1.66	y 41:22	1.47	983		*	2.5	*	0.993	0.988-0.998	
Penta	PCB-107/109	2.29e+06	1.75	y 41:31	1.32	1640		*	2.5	*	0.996	0.991-1.001	
Penta	PCB-123	4.17e+05	1.44	y 41:40	1.17	339		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-106/118	3.31e+07	1.69	y 41:51	1.17	28000		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-114	8.14e+05	1.74	y 42:31	1.30	542		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-122	3.76e+05	1.72	y 42:39	1.12	290		*	2.5	*	1.004	0.999-1.009	
Penta	PCB-105	1.38e+07	1.64	y 43:22	1.30	10300		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-127	*	*	n NotF η	1.33	*		874	2.5	22.9	*	0.996-1.006	
Penta	PCB-126	3.63e+05	1.57	y 45:36	1.18	302		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-155	*	*	n NotF η	1.11	*		1590	2.5	33.9	*	0.966-1.006	
Hexa	PCB-150	7.07e+04	1.07	y 38:35	1.00	66.9		*	2.5	*	1.033	1.030-1.040	
Hexa	PCB-152	*	*	n NotF η	1.12	*		1590	2.5	33.8	*	1.043-1.053	
Hexa	PCB-145	*	*	n NotF η	1.20	*		1590	2.5	31.4	*	1.055-1.065	
Hexa	PCB-136	4.82e+06	1.30	y 39:51	1.18	3870		*	2.5	*	1.067	1.064-1.074	
Hexa	PCB-148	5.15e+04	1.29	y 39:58	0.74	65.4		*	2.5	*	1.071	1.066-1.076	
Hexa	PCB-154	4.18e+05	1.37	y 40:27	0.86	461		*	2.5	*	1.083	1.080-1.090	
Hexa	PCB-151	6.56e+06	1.30	y 41:05	0.75	8310		*	2.5	*	1.100	1.097-1.107	
Hexa	PCB-135	3.61e+06	1.33	y 41:18	0.79	4300		*	2.5	*	1.106	1.103-1.113	
Hexa	PCB-144	1.36e+06	1.29	y 41:25	0.76	1680		*	2.5	*	1.109	1.105-1.117	
Hexa	PCB-147	4.90e+05	1.42	y 41:33	0.82	566		*	2.5	*	1.113	1.109-1.121	
Hexa	PCB-139/149	2.39e+07	1.33	y 41:48	0.76	29600		*	2.5	*	1.120	1.116-1.128	
Hexa	PCB-140	1.56e+05	1.27	y 41:59	0.72	204		*	2.5	*	1.125	1.121-1.133	
Hexa	PCB-134/143	1.79e+06	1.42	y 42:27	0.92	1990		*	2.5	*	0.976	0.970-0.980	

Analyst: *DMJ*

Date: *9/26/14*

Client ID: UG-FD-01-20140911-S
Lab ID: 1400665-03RE1 DL 1:20

Filename: 140919E2 S:11 Acq:20-SEP-14 10:27:16
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.048

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	9.15e+05	1.40	y 42:44	0.82	1130	*	*	2.5	*	0.982	0.977-0.987	
Hexa	PCB-131	*	*	n NotF η	0.91	*	*	2380	2.5	84.8	*	0.981-0.991	
Hexa	PCB-146/165	5.78e+06	1.31	y 43:07	1.25	4700	*	*	2.5	*	0.991	0.986-0.996	
Hexa	PCB-132/161	1.15e+07	1.29	y 43:23	1.10	10500	*	*	2.5	*	0.997	0.992-1.002	
Hexa	PCB-153	3.81e+07	1.35	y 43:31	1.25	31000	*	*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-168	*	*	n NotF η	1.45	*	*	2380	2.5	53.0	*	1.001-1.011	
Hexa	PCB-141	7.45e+06	1.33	y 44:16	1.09	6660	*	*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-137	1.83e+06	1.36	y 44:40	1.06	1670	*	*	2.5	*	1.009	1.004-1.014	
Hexa	PCB-130	1.85e+06	1.35	y 44:45	0.96	1860	*	*	2.5	*	1.011	1.006-1.016	
Hexa	PCB-138/163/164	4.17e+07	1.33	y 45:07	1.29	31900	*	*	2.5	*	1.001	0.996-1.006	
Hexa	PCB-158/160	4.74e+06	1.38	y 45:21	1.34	3500	*	*	2.5	*	1.006	1.001-1.011	
Hexa	PCB-129	1.44e+06	1.40	y 45:36	0.85	1670	*	*	2.5	*	1.011	1.007-1.017	
Hexa	PCB-166	1.38e+05	1.32	y 46:05	1.19	105	*	*	2.5	*	0.993	0.988-0.998	
Hexa	PCB-159	*	*	n NotF η	1.11	*	*	2380	2.5	57.0	*	0.996-1.006	
Hexa	PCB-128/162	6.03e+06	1.27	y 46:41	1.05	5190	*	*	2.5	*	1.006	1.002-1.012	
Hexa	PCB-167	1.73e+06	1.36	y 47:05	1.20	1290	*	*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-156	4.27e+06	1.33	y 48:23	1.14	3130	*	*	2.5	*	1.000	0.996-1.006	
Hexa	PCB-157	9.64e+05	1.31	y 48:39	1.16	664	*	*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-169	*	*	n NotF η	1.12	*	*	2380	2.5	65.0	*	0.995-1.005	
Hepta	PCB-188	*	*	n NotF η	1.58	*	*	2140	2.5	29.2	*	0.996-1.006	
Hepta	PCB-184	*	*	n NotF η	1.63	*	*	2140	2.5	28.3	*	1.006-1.016	
Hepta	PCB-179	5.73e+06	1.06	y 44:22	1.30	5280	*	*	2.5	*	1.029	1.024-1.034	
Hepta	PCB-176	1.76e+06	1.03	y 44:51	1.48	1430	*	*	2.5	*	1.040	1.035-1.045	
Hepta	PCB-186	*	*	n NotF η	1.45	*	*	2140	2.5	31.8	*	1.050-1.060	
Hepta	PCB-178	2.01e+06	1.04	y 45:57	1.03	2330	*	*	2.5	*	1.065	1.061-1.071	
Hepta	PCB-175	3.62e+05	1.11	y 46:17	1.01	430	*	*	2.5	*	1.073	1.069-1.079	
Hepta	PCB-182/187	1.47e+07	1.08	y 46:27	1.25	14100	*	*	2.5	*	1.077	1.073-1.083	
Hepta	PCB-183	6.49e+06	1.10	y 46:48	1.21	6450	*	*	2.5	*	1.085	1.081-1.091	
Hepta	PCB-185	1.41e+06	1.07	y 47:27	1.80	1230	*	*	2.5	*	0.955	0.951-0.961	
Hepta	PCB-174	1.13e+07	1.12	y 47:49	1.38	12800	*	*	2.5	*	0.963	0.958-0.968	
Hepta	PCB-181	*	*	n NotF η	1.38	*	*	2140	2.5	47.3	*	0.960-0.970	
Hepta	PCB-177	5.96e+06	1.09	y 48:05	1.26	7440	*	*	2.5	*	0.968	0.963-0.973	
Hepta	PCB-171	2.63e+06	1.07	y 48:23	1.58	2610	*	*	2.5	*	0.974	0.970-0.980	
Hepta	PCB-173	2.11e+05	0.95	y 48:48	1.11	298	*	*	2.5	*	0.983	0.978-0.988	
Hepta	PCB-172	1.65e+06	1.03	y 49:16	1.63	1580	*	*	2.5	*	0.992	0.987-0.997	
Hepta	PCB-192	*	*	n NotF η	1.74	*	*	2140	2.5	37.5	*	0.991-1.001	
Hepta	PCB-180	2.57e+07	1.09	y 49:40	1.34	30000	*	*	2.5	*	1.000	0.995-1.005	

Analyst: DMS

Date: 9/26/14

Client ID: UG-FD-01-20140911-S
Lab ID: 1400665-03RE1 DL 1:20

Filename: 140919E2 S:11 Acq:20-SEP-14 10:27:16
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.048

ConCal: ST140919E2-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	1.38e+06	1.13	y 49:52	1.72	1260	*		2.5	*	1.004	0.999-1.009	
Hepta	PCB-191	4.90e+05	1.03	y 50:07	1.69	453	*		2.5	*	1.009	1.004-1.014	
Hepta	PCB-170	8.14e+06	1.08	y 51:07	1.60	10700	*		2.5	*	1.000	0.995-1.005	
Hepta	PCB-190	2.10e+06	1.13	y 51:17	2.21	2000	*		2.5	*	1.004	0.998-1.008	
Hepta	PCB-189	1.40e+04	1.10	y 52:16	1.55	439 * ^{see} Rejection	*		2.5	*	*	0.995-1.005	
Octa	PCB-202	1.29e+06	0.98	y 48:34	1.08	1380	*		2.5	*	1.000	0.995-1.005	
Octa	PCB-201	9.03e+05	0.96	y 49:04	1.15	912	*		2.5	*	1.010	1.005-1.015	
Octa	PCB-204	*	*	n NotF η	1.14	*		2140	2.5	59.2	*	1.008-1.018	
Octa	PCB-197	2.69e+05	0.82	y 49:32	1.07	291	*		2.5	*	1.020	1.015-1.025	
Octa	PCB-200	8.43e+05	0.91	y 50:23	1.06	921	*		2.5	*	1.037	1.032-1.044	
Octa	PCB-198	2.31e+05	1.02	y 51:40	0.76	355	*		2.5	*	1.064	1.059-1.069	
Octa	PCB-199	4.45e+06	0.92	y 51:47	0.80	6480	*		2.5	*	1.066	1.061-1.071	
Octa	PCB-196/203	5.15e+06	0.96	y 52:04	0.80	7470	*		2.5	*	1.072	1.066-1.076	
Octa	PCB-195	1.51e+06	0.92	y 53:13	1.23	2400	*		2.5	*	0.984	0.979-0.989	
Octa	PCB-194	3.89e+06	0.92	y 54:06	1.21	6280	*		2.5	*	1.000	0.995-1.005	
Octa	PCB-205	2.38e+05	0.94	y 54:23	1.54	301	*		2.5	*	1.006	1.001-1.011	
Nona	PCB-208	3.98e+05	1.28	y 53:21	0.93	656	*		2.5	*	1.000	0.995-1.005	
Nona	PCB-207	2.07e+05	1.19	y 53:40	1.08	293	*		2.5	*	1.006	1.001-1.011	
Nona	PCB-206	1.08e+06	1.50	y 55:46	1.02	2870	*		2.5	*	1.000	0.995-1.005	
Deca	PCB-209	3.49e+05	1.27	y 57:07	1.17	804	*		2.5	*	1.000	0.995-1.005	

Analyst: DMS

Date: 9/26/14

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	4.08e+06	3.17 y	16:23	1.27	1192.10	
Total Di-PCB	4.41e+07	1.50 y	20:21	1.21	19891.8	
Total Tri-PCB	6.69e+07	1.10 y	24:30	1.10	37124.8	
Total Tri-PCB	1.01e+08	1.14 y	28:13	1.21	49183.0	Sum:86307.8
Total Tetra-PCB	1.83e+08	0.81 y	28:15	1.09	121039	
Total Penta-PCB	1.92e+08	1.50 y	34:13	1.18	168471	
Total Penta-PCB	1.54e+07	1.74 y	42:31	1.25	11418.4	Sum:179889
Total Hexa-PCB	4.14e+07	1.07 y	38:35	0.90	49131.0	
Total Hexa-PCB	1.30e+08	1.42 y	42:27	1.11	106950	Sum:156081
Total Hepta-PCB	9.20e+07	1.06 y	44:22	1.42	100384	+ 438.963 = 100822.96
Total Octa-PCB	1.31e+07	0.98 y	48:34	0.96	17805.2	
Total Octa-PCB	5.64e+06	0.92 y	53:13	1.33	8984.74	Sum:26789.9
Total Nona-PCB	1.68e+06	1.28 y	53:21	1.01	3819.31	
Total Deca-PCB	3.49e+05	1.27 y	57:07	1.17	803.683	

Total PCB Conc:696412.117173 + 439 = 696851.12
697000

* = See ReInjection

Integrations
by
Analyst: *DMS*
Date: *9/26/14*

Client ID: UG-FD-01-20140911-S
 Lab ID: 1400665-03RE1 DL 1:20

Filename: 140919E2 S:11 Acq:20-SEP-14 10:27:16
 GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.04%

ConCal: ST140919E2-1
 EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS
13C-PCB-1	2.63e+06	3.15 y	0.87	16:22	0.624	0.629-0.635		1160	116	
13C-PCB-3	2.74e+06	3.14 y	0.91	18:59	0.724	0.725-0.733		1150	116	
13C-PCB-4	1.16e+06	1.46 y	0.59	20:19	0.775	0.775-0.783		761	76.4	13C-PCB-79 1.62e+06 0.85 y 1.02 38:06 1.028 1.023-1.034 745 74.9
13C-PCB-9	1.87e+06	1.60 y	0.90	22:07	0.844	0.842-0.850		802	80.6	13C-PCB-178 6.10e+05 0.40 y 0.61 45:56 0.985 0.979-0.990 845 84.9
13C-PCB-11	1.93e+06	1.60 y	0.94	25:31	0.973	0.968-0.978		790	79.3	
13C-PCB-19	1.92e+06	1.16 y	0.53	24:29	0.934	0.930-0.940		1390	140	
13C-PCB-28	1.57e+06	1.07 y	0.93	29:21	1.004	0.999-1.009		764	76.8	
13C-PCB-32	2.06e+06	1.14 y	0.80	27:24	1.045	1.040-1.050		993	99.7	
13C-PCB-37	1.50e+06	1.16 y	0.84	33:15	1.137	1.131-1.143		812	81.5	
13C-PCB-47	1.34e+06	0.81 y	0.81	32:17	0.871	0.866-0.874		774	77.8	
13C-PCB-52	1.29e+06	0.87 y	0.77	31:46	0.857	0.853-0.861		784	78.8	
13C-PCB-54	1.54e+06	0.75 y	0.97	28:14	0.762	0.758-0.766		743	74.6	
13C-PCB-70	1.61e+06	0.88 y	1.00	35:48	0.966	0.961-0.971		754	75.8	
13C-PCB-77	1.54e+06	0.84 y	0.94	39:55	1.077	1.073-1.083		767	77.1	
13C-PCB-80	1.53e+06	0.85 y	1.03	36:13	0.978	0.972-0.982		694	69.8	
13C-PCB-81	1.47e+06	0.88 y	0.92	39:19	1.061	1.057-1.067		747	75.1	
13C-PCB-95	8.43e+05	1.44 y	0.74	36:06	0.914	0.908-0.918		861	86.5	
13C-PCB-97	7.96e+05	1.33 y	0.70	39:05	0.989	0.984-0.994		854	85.8	
13C-PCB-101	1.01e+06	1.54 y	0.78	37:47	0.956	0.951-0.961		971	97.5	
13C-PCB-104	1.14e+06	1.57 y	1.00	32:57	0.834	0.828-0.836		863	86.7	
13C-PCB-105	1.03e+06	1.57 y	1.37	43:22	0.930	0.924-0.934		640	64.3	
13C-PCB-114	1.15e+06	1.78 y	1.36	42:30	0.911	0.905-0.915		719	72.3	
13C-PCB-118	1.00e+06	1.60 y	0.96	41:50	1.059	1.054-1.064		792	79.6	
13C-PCB-123	1.05e+06	1.55 y	0.89	41:40	1.054	1.050-1.060		887	89.1	
13C-PCB-126	1.01e+06	1.61 y	1.31	45:36	0.977	0.972-0.982		658	66.1	
13C-PCB-127	1.04e+06	1.61 y	1.47	43:43	0.937	0.931-0.941		598	60.1	
13C-PCB-138	1.01e+06	1.39 y	1.10	45:05	0.966	0.961-0.971		778	78.2	
13C-PCB-141	1.02e+06	1.41 y	1.07	44:15	0.949	0.943-0.953		810	81.4	
13C-PCB-153	9.81e+05	1.33 y	1.15	43:30	0.932	0.927-0.937		727	73.1	
13C-PCB-155	1.05e+06	1.07 y	0.84	37:20	0.945	0.939-0.949		948	95.2	
13C-PCB-156	1.20e+06	1.28 y	1.30	48:22	1.037	1.032-1.042		784	78.7	
13C-PCB-157	1.24e+06	1.25 y	1.36	48:38	1.043	1.038-1.048		777	78.1	
13C-PCB-159	1.10e+06	1.32 y	1.25	46:24	0.995	0.989-0.999		752	75.6	
13C-PCB-167	1.11e+06	1.24 y	1.35	47:04	1.009	1.004-1.014		701	70.4	
13C-PCB-169	9.45e+05	1.32 y	1.29	50:45	1.088	1.083-1.093		625	62.8	
13C-PCB-170	4.75e+05	0.43 y	0.54	51:06	1.095	1.089-1.101		744	74.7	
13C-PCB-180	6.35e+05	0.43 y	0.68	49:40	1.065	1.060-1.070		790	79.4	
13C-PCB-188	8.28e+05	0.43 y	0.92	43:08	0.925	0.919-0.929		767	77.1	
13C-PCB-189	*	* n	0.72	Not Fnd	*	1.120-1.132		*	46.3*	
13C-PCB-194	5.09e+05	0.94 y	0.80	54:05	0.995	0.990-1.000		830	83.4	
13C-PCB-202	8.57e+05	0.93 y	0.84	48:34	1.041	1.036-1.046		869	87.3	
13C-PCB-206	3.65e+05	0.84 y	0.65	55:46	1.026	1.021-1.031		731	73.5	
13C-PCB-208	6.50e+05	0.74 y	1.08	53:21	0.981	0.976-0.986		782	78.5	
13C-PCB-209	3.70e+05	1.11 y	0.61	57:06	1.050	1.045-1.055		787	79.1	

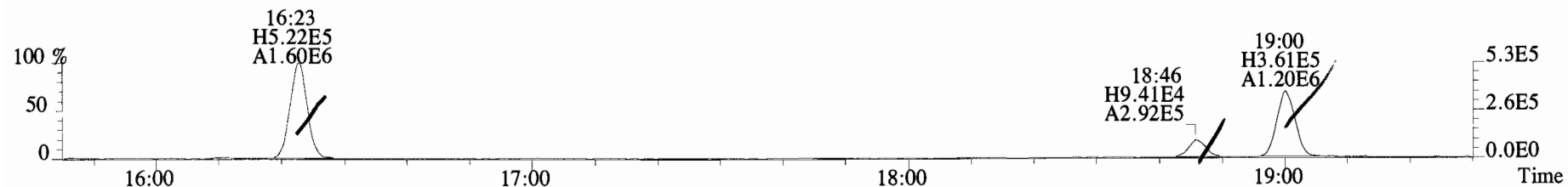
* RRT limits used for DATA processing only.
 RRT's within 166% method limits!

* 46.3* see REINJECTION

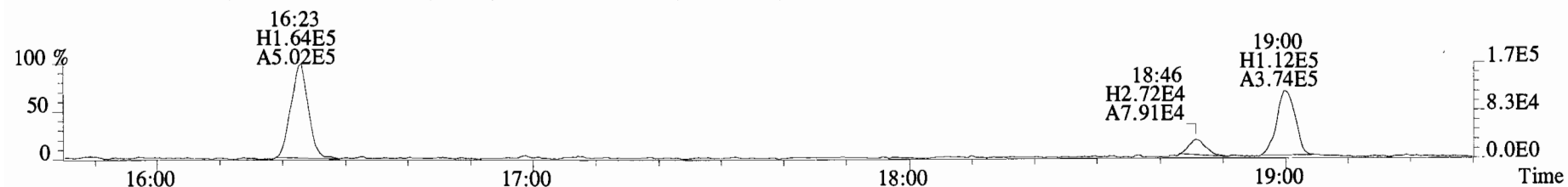
Analyst: DMS

Date: 9/26/14

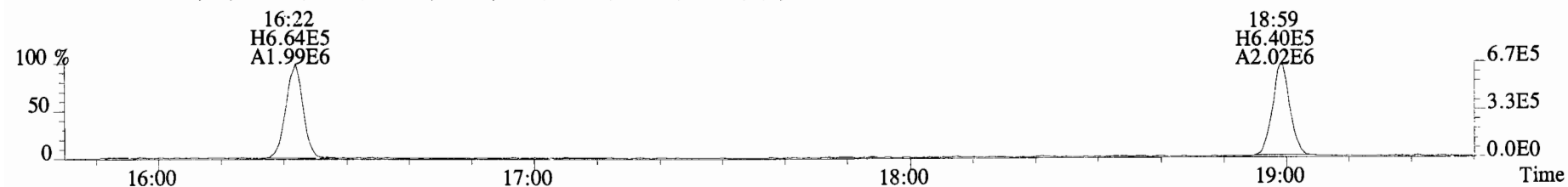
File:140919E2 #1-728 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
 188.0393 S:11 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3124.0,0.00%,F,F)



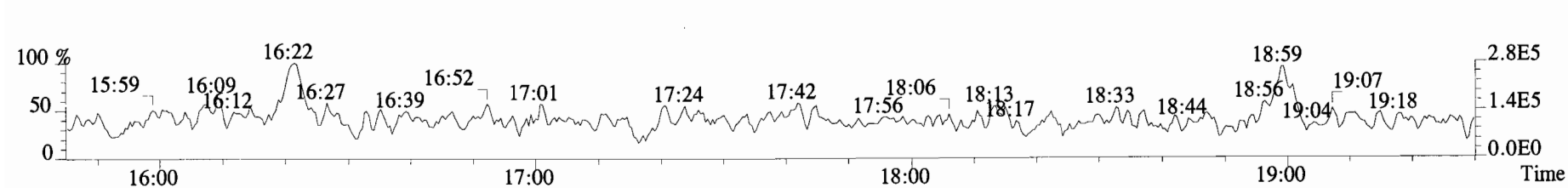
190.0363 S:11 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3276.0,0.00%,F,F)



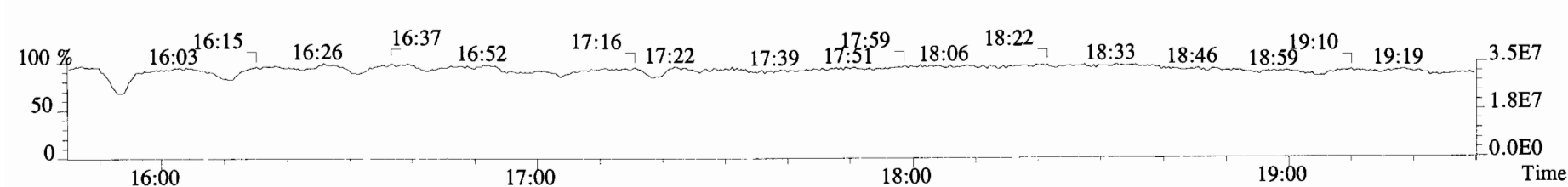
200.0795 S:11 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6712.0,0.00%,F,F)



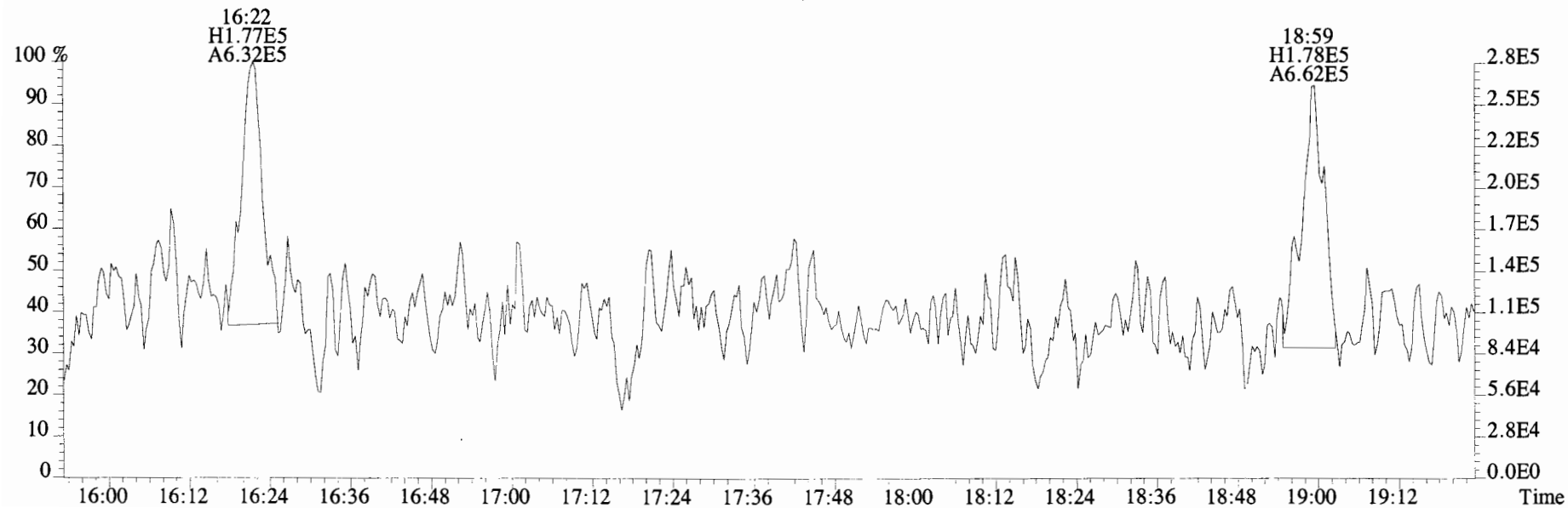
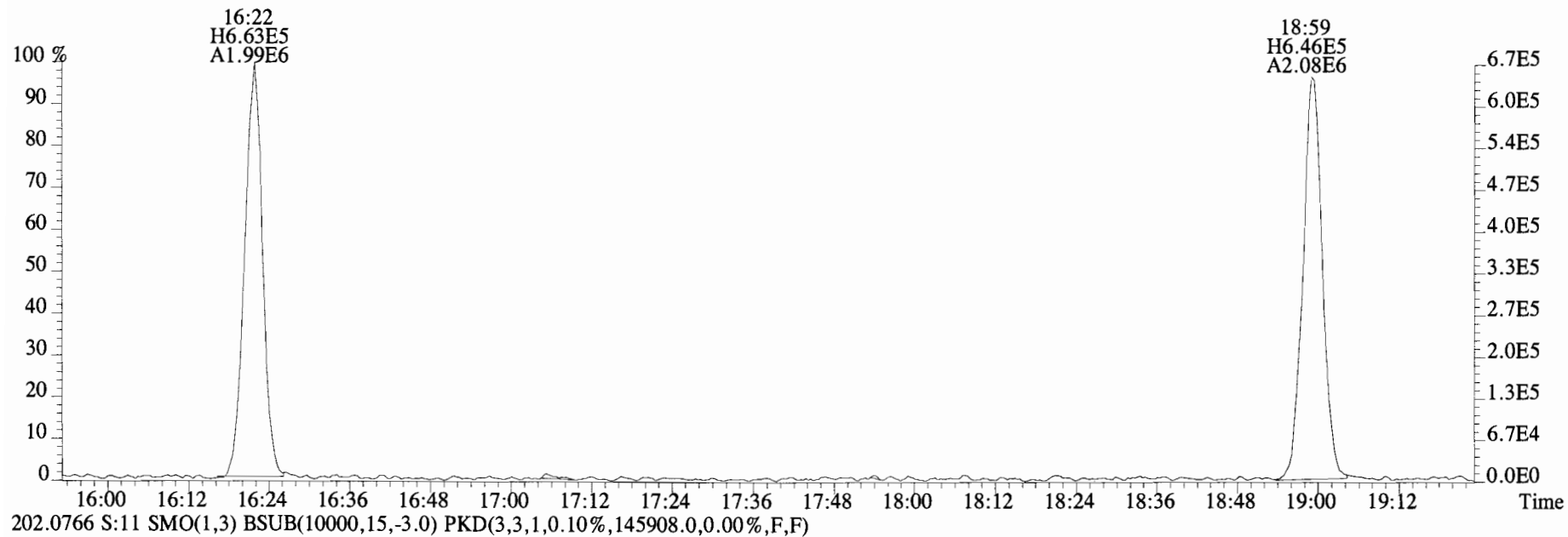
202.0766 S:11 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,145908.0,0.00%,F,F)



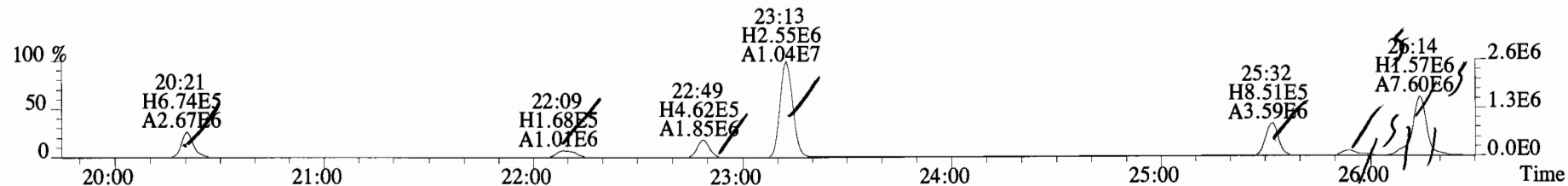
180.9880 S:11



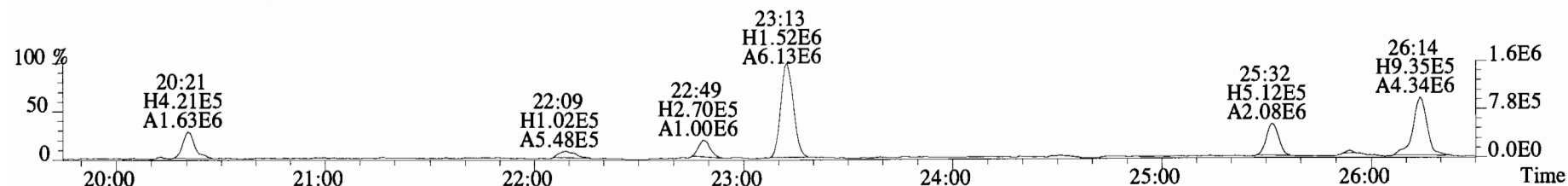
File:140919E2 #1-728 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 ÜG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
200.0795 S:11 SMO(1,3) BSUB(10000,15,-3.0)



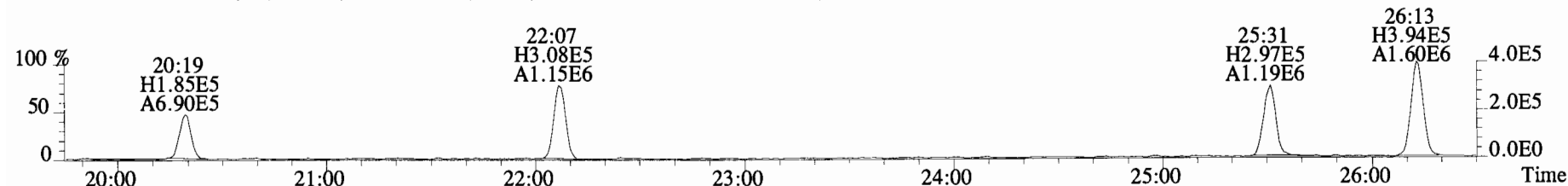
File:140919E2 #1-757 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
 222.0003 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3864.0,0.00%,F,F)



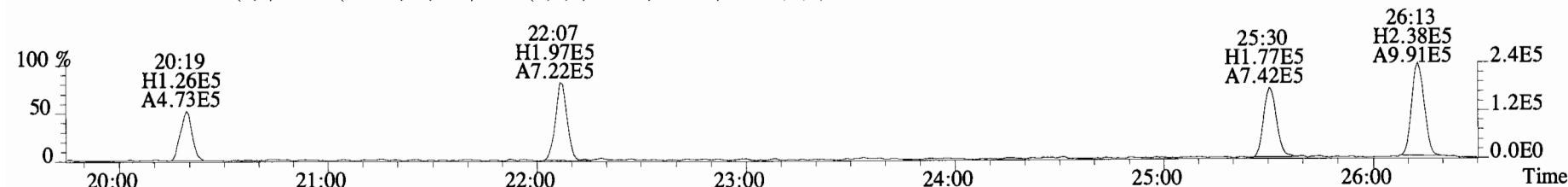
223.9974 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,30244.0,0.00%,F,F)



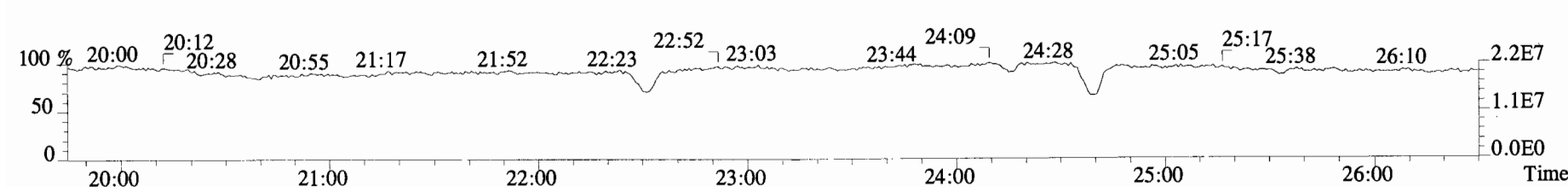
234.0406 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5132.0,0.00%,F,F)



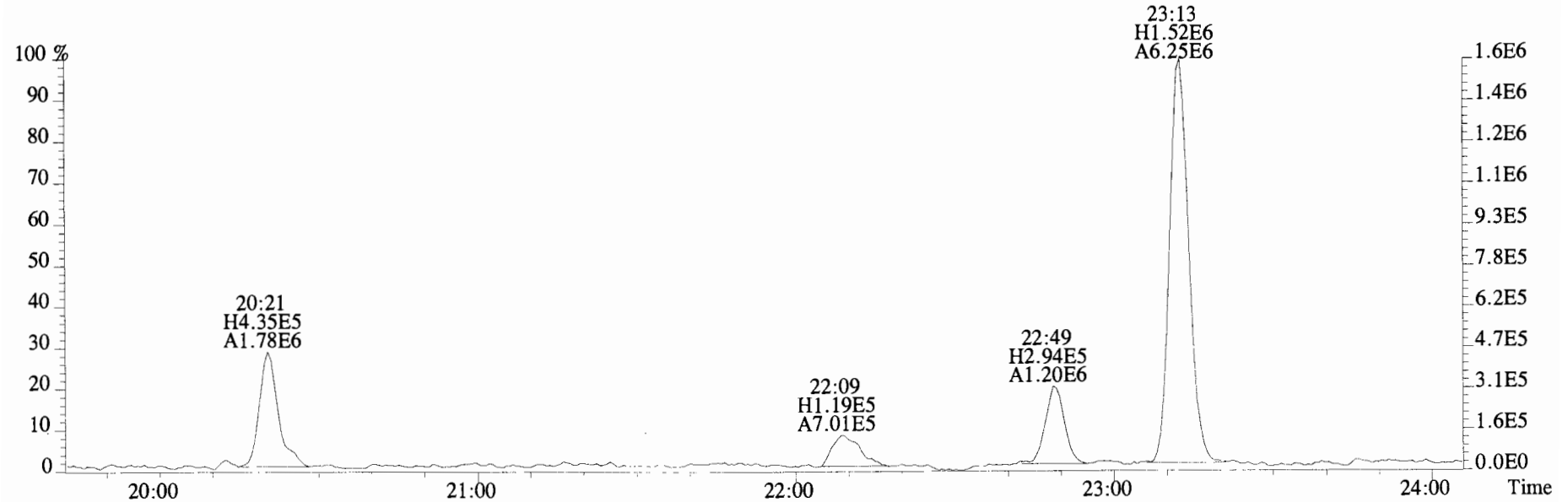
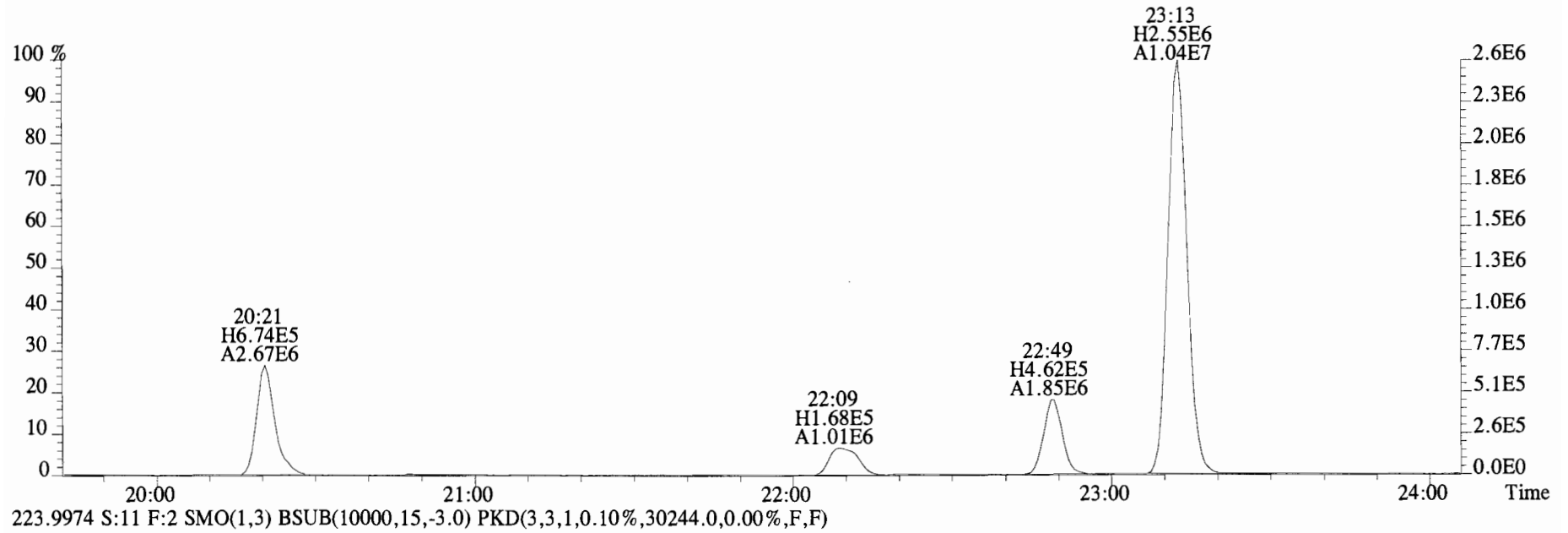
236.0376 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3632.0,0.00%,F,F)



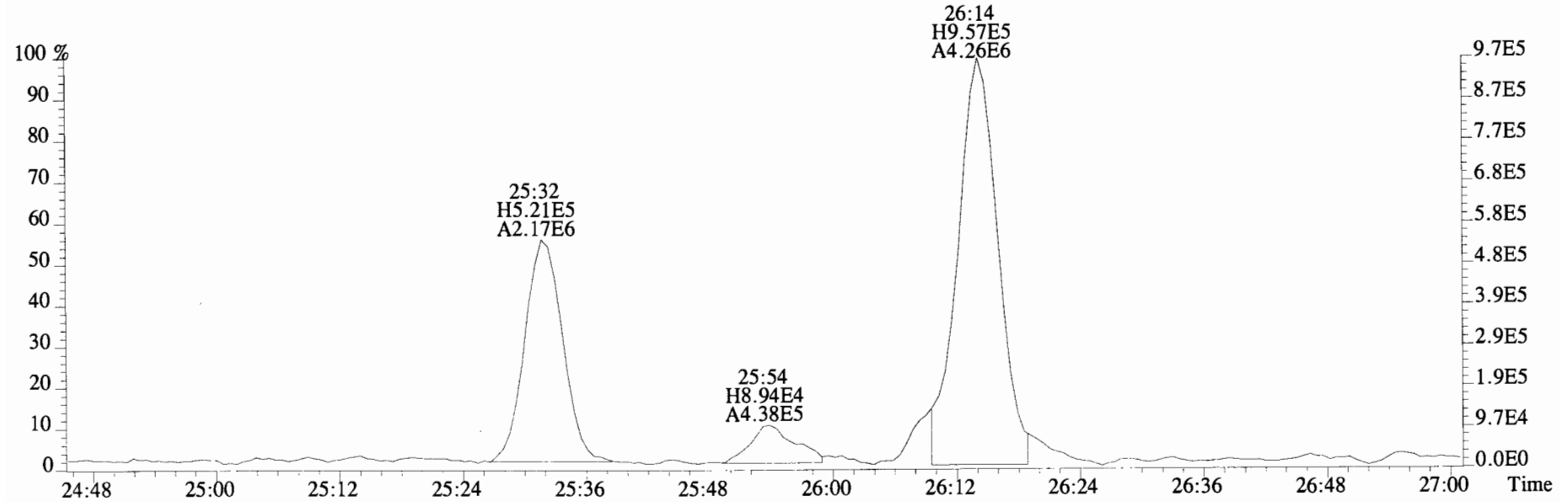
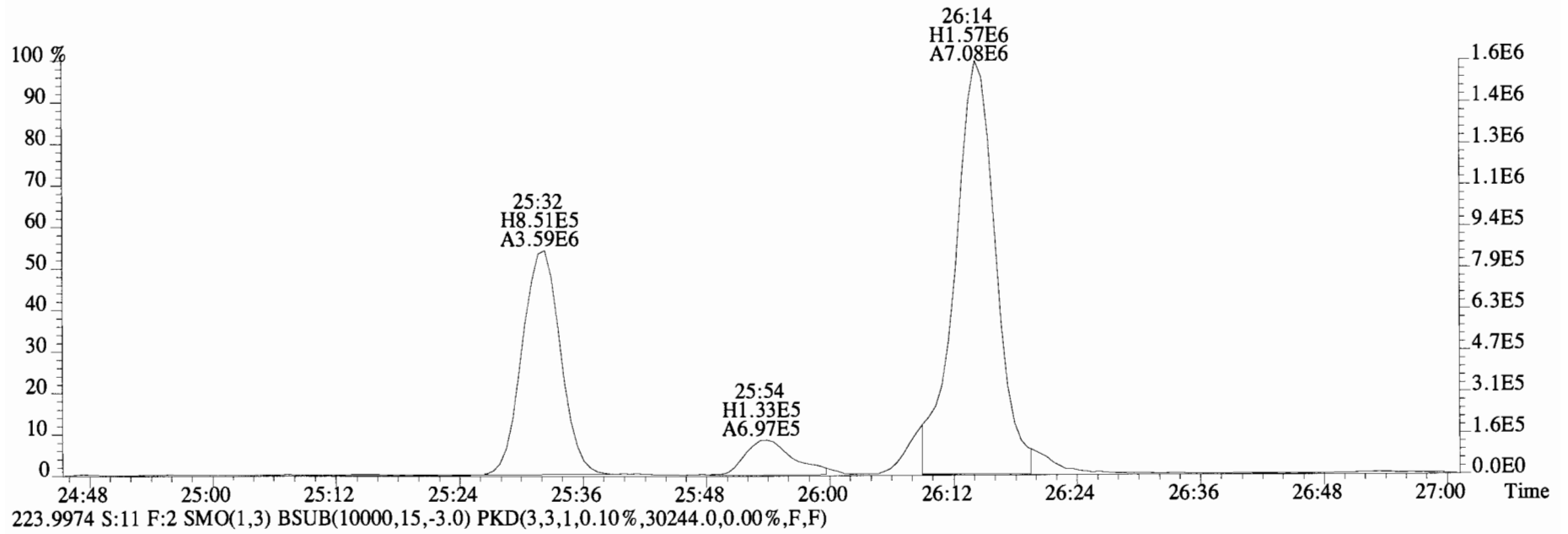
230.9856 S:11 F:2



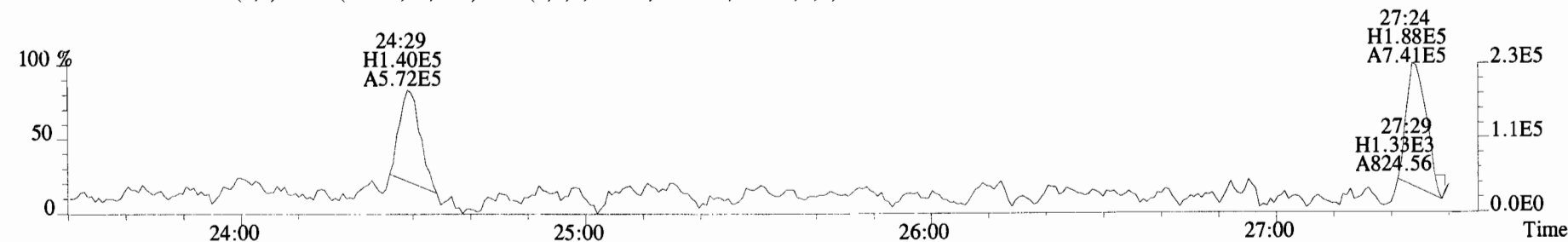
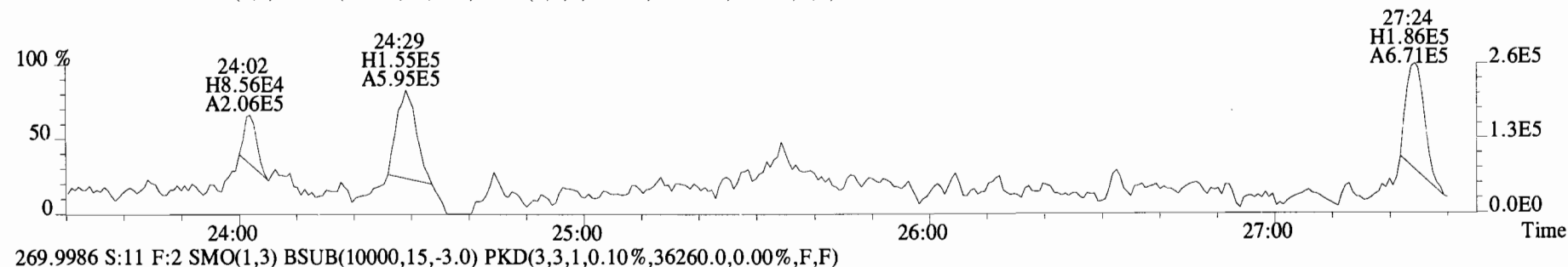
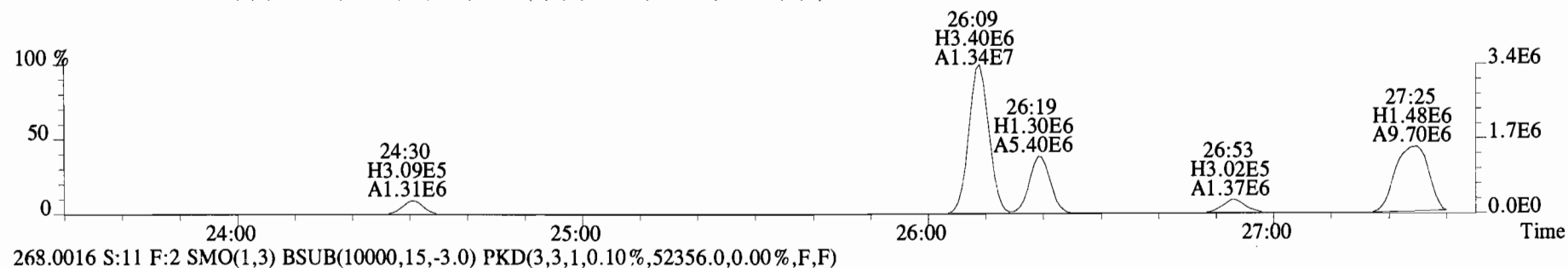
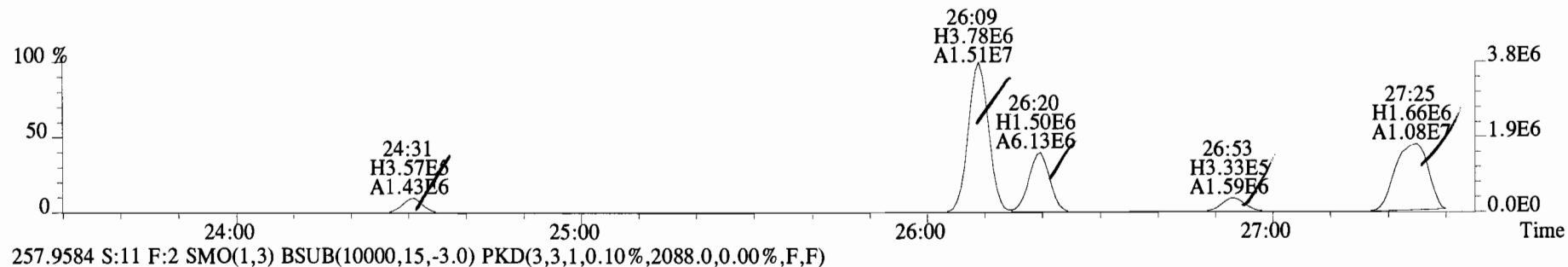
File:140919E2 #1-757 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
222.0003 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3864.0,0.00%,F,F)



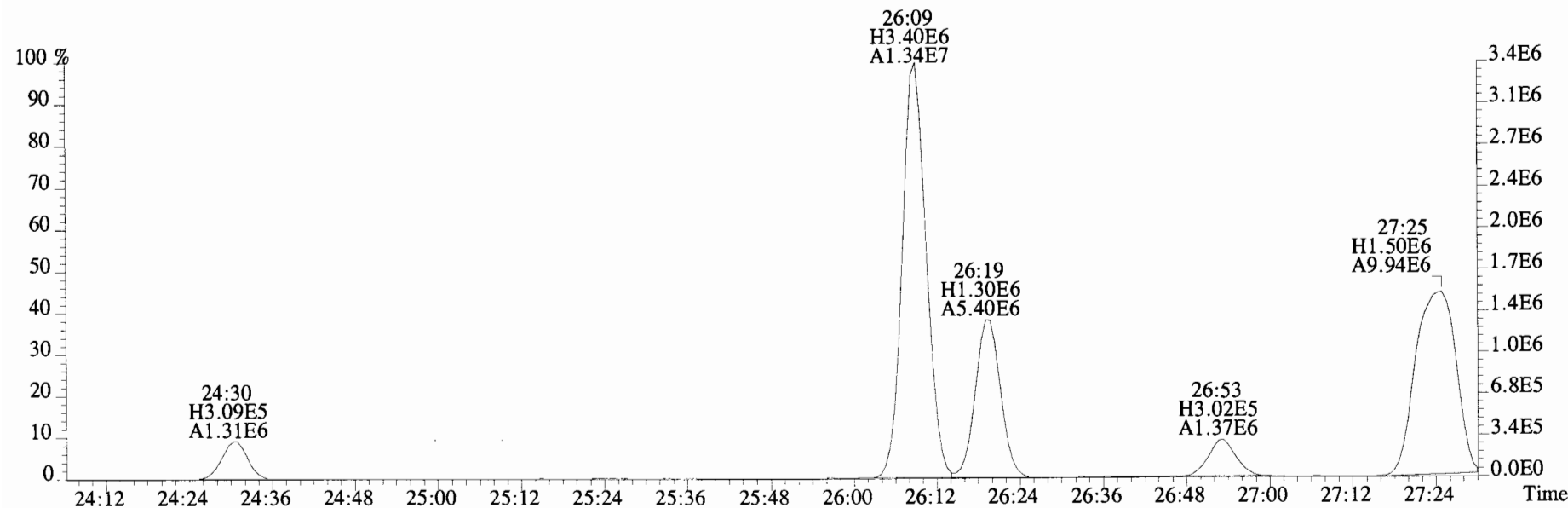
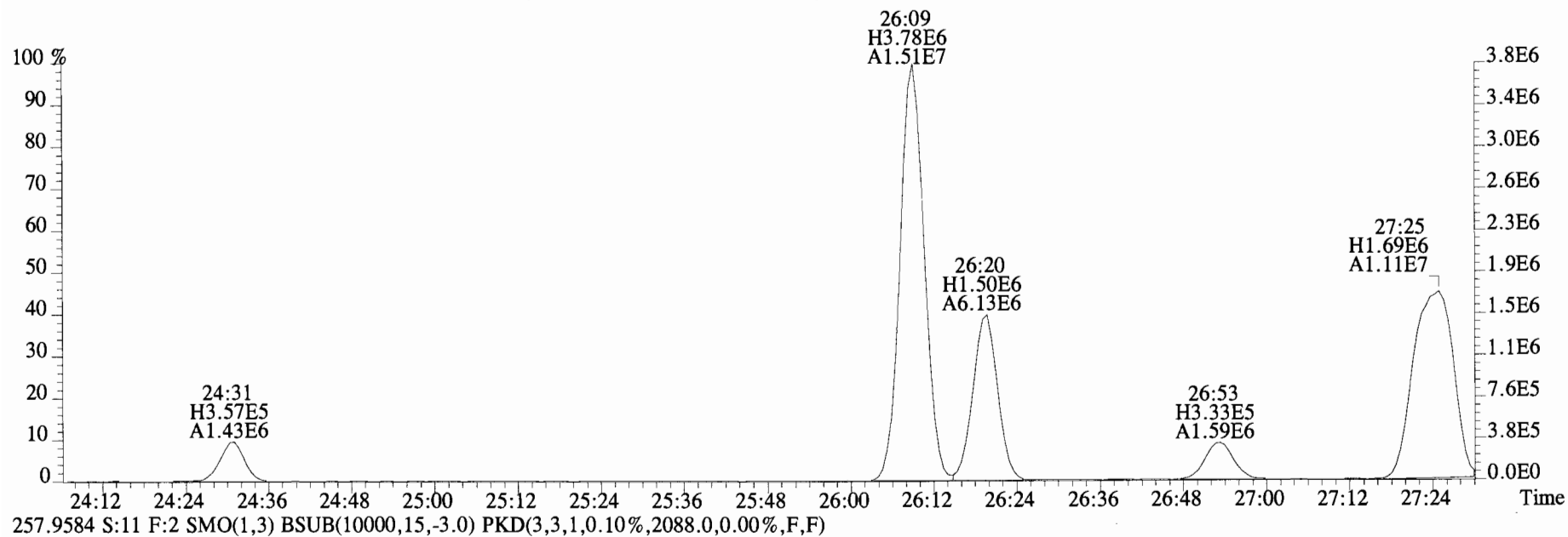
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Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
222.0003 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3864.0,0.00%,F,F)



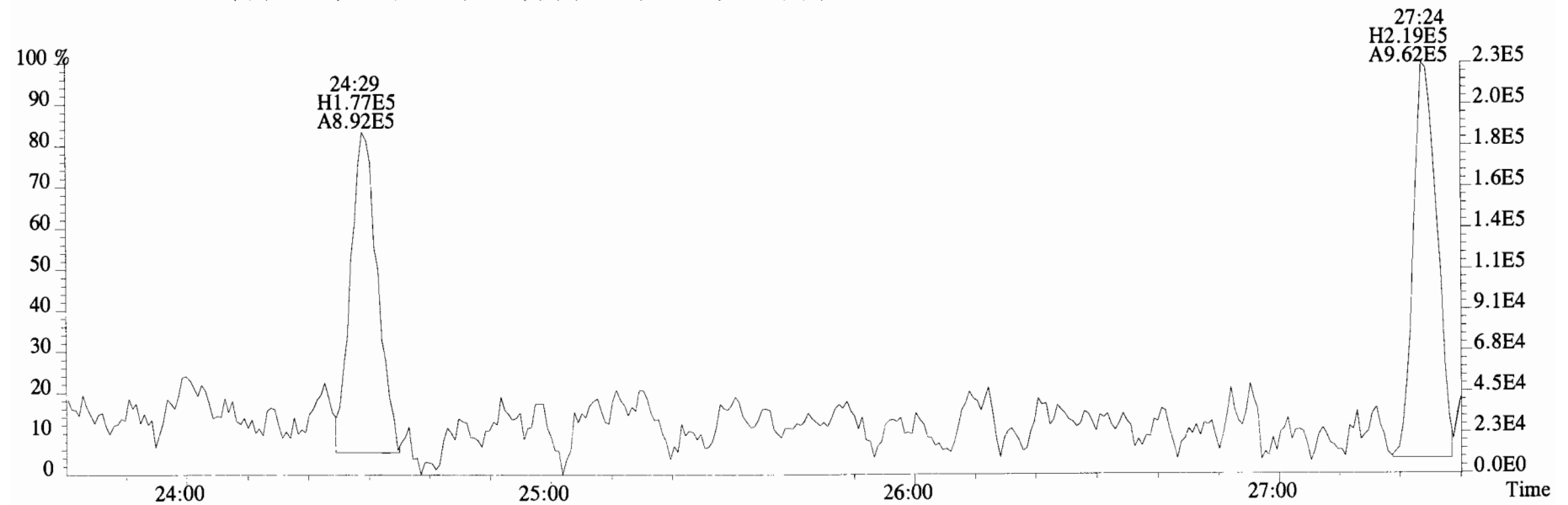
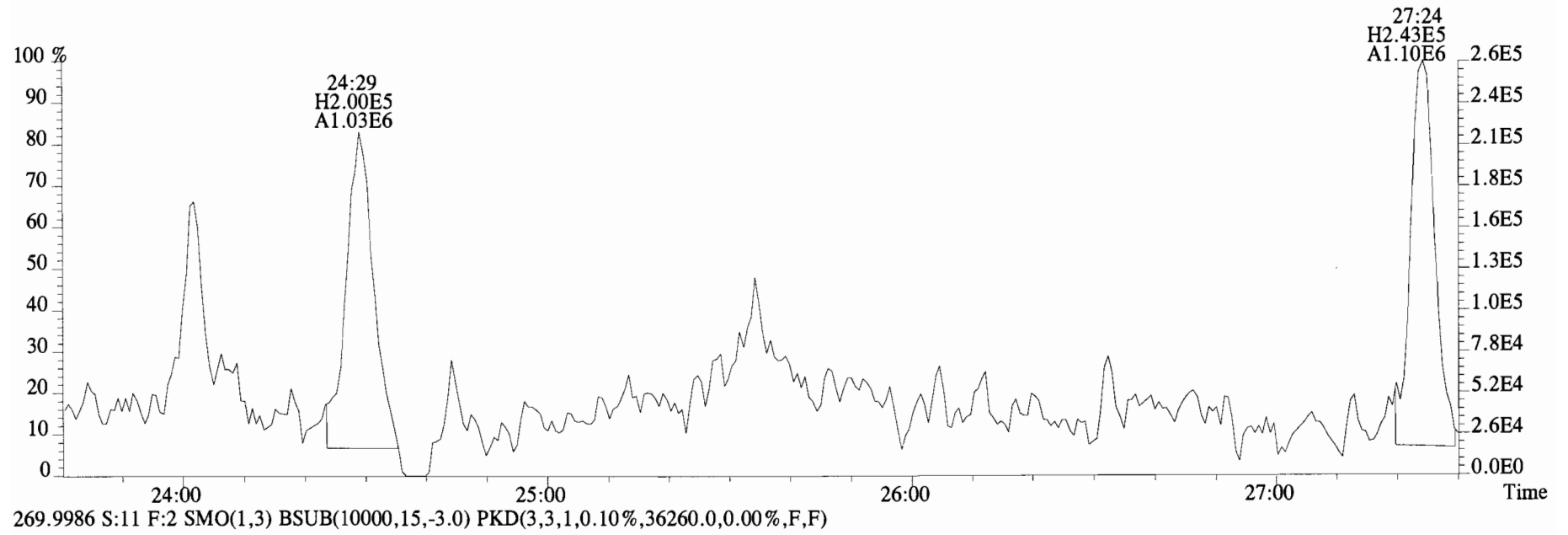
File:140919E2 #1-757 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
 255.9613 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3884.0,0.00%,F,F)



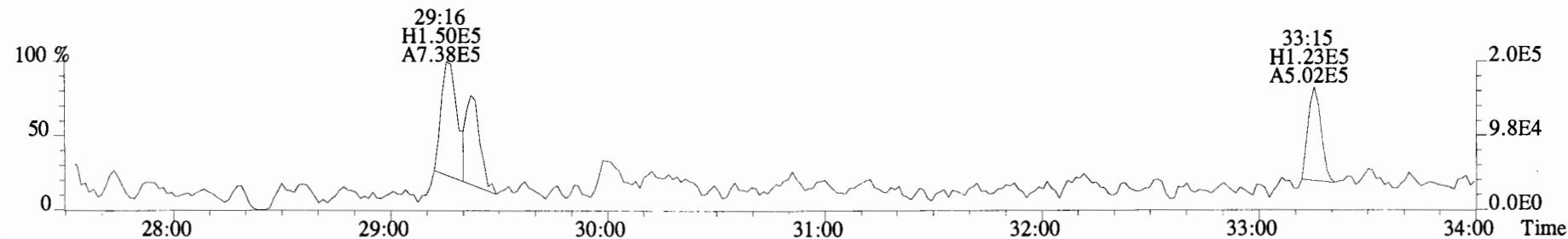
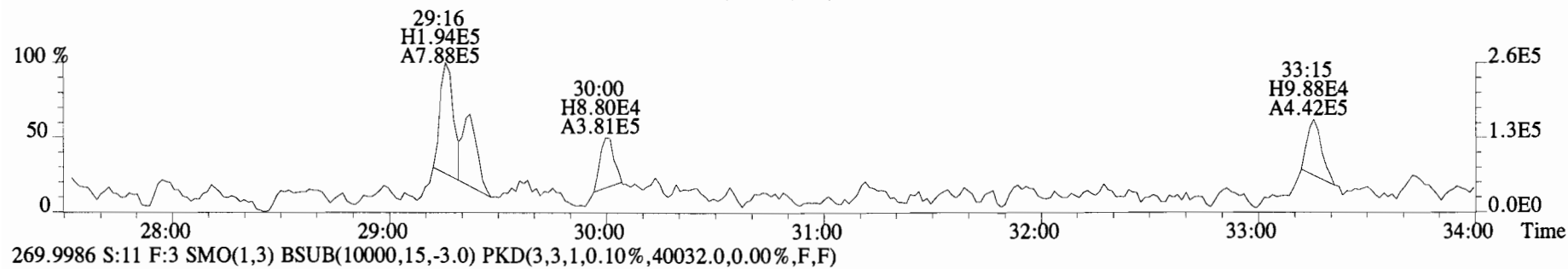
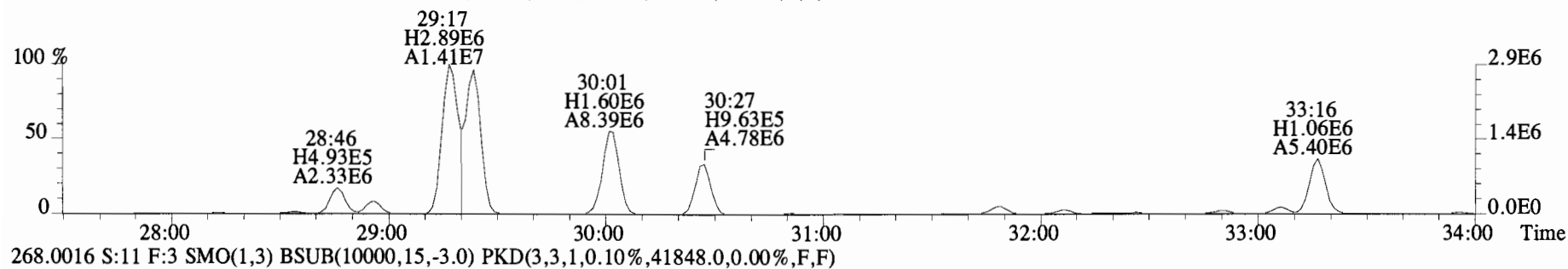
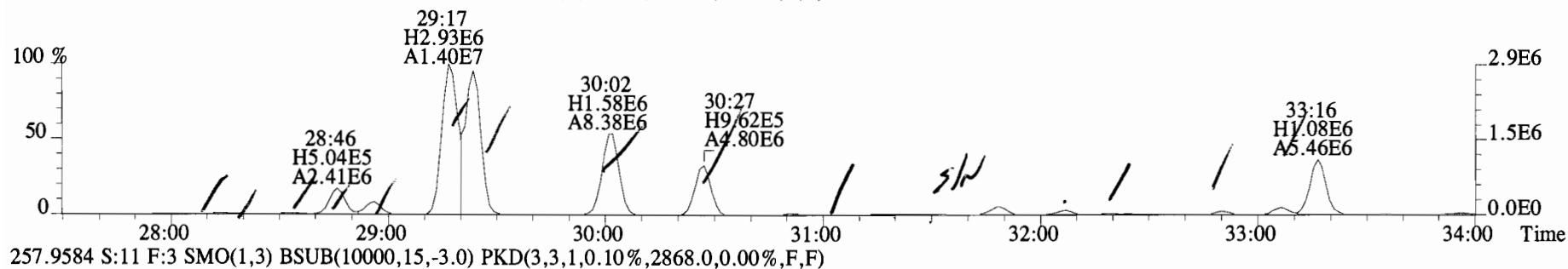
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Sample#11 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
255.9613 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3884.0,0.00%,F,F)



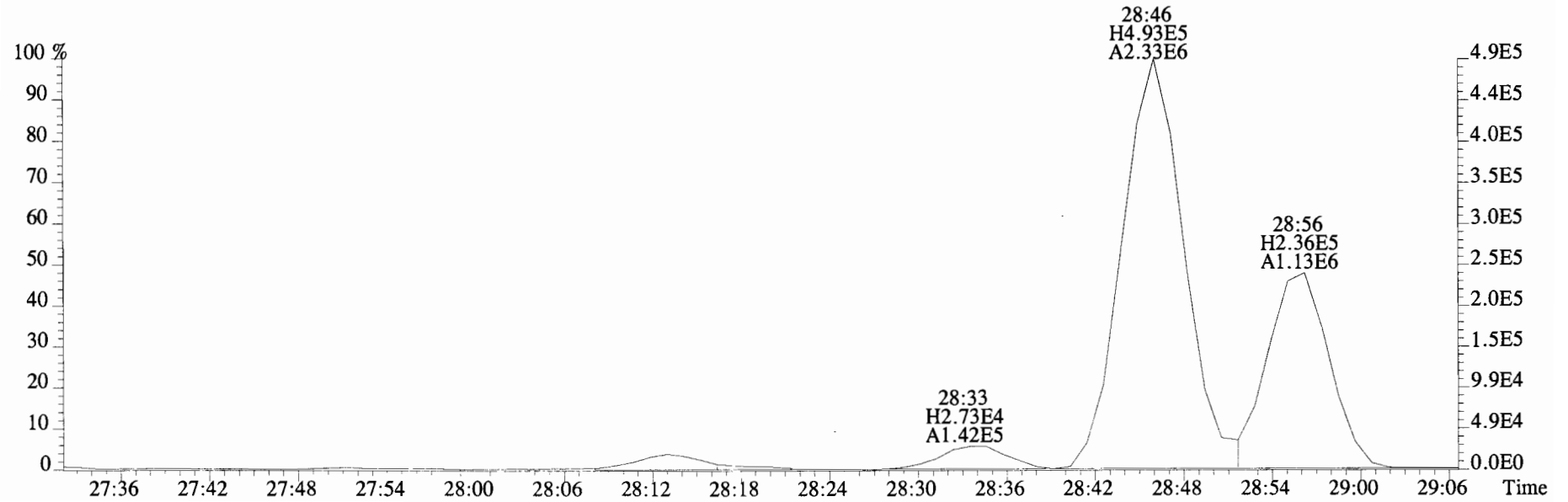
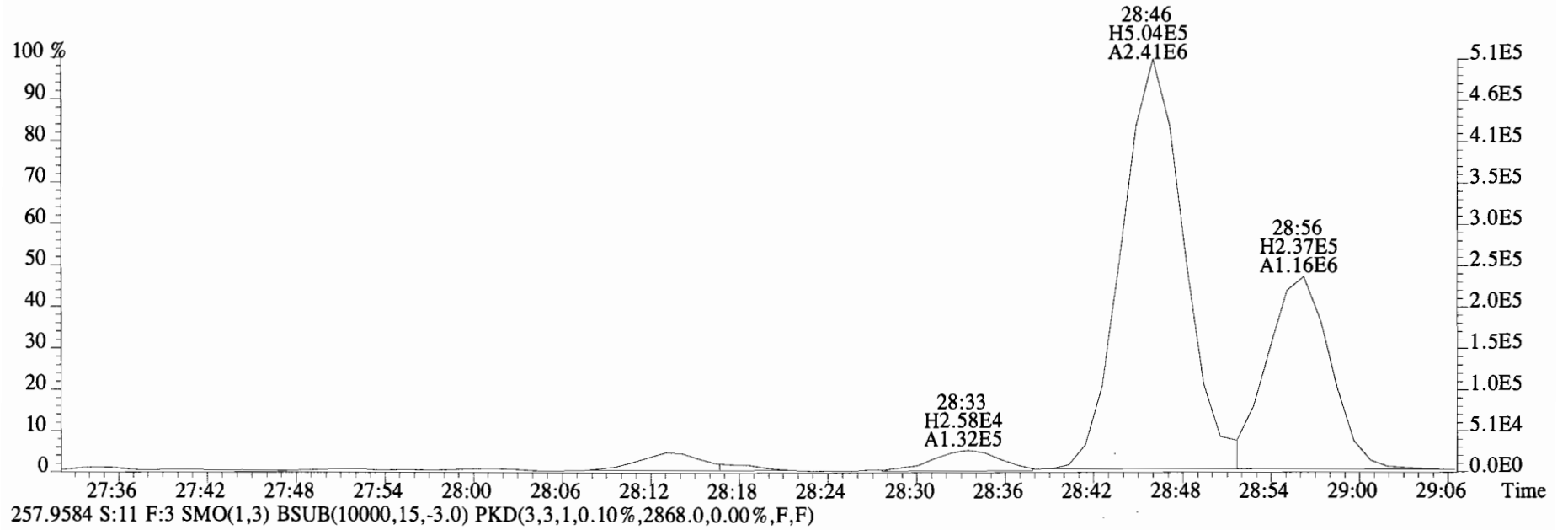
File:140919E2 #1-757 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
268.0016 S:11 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,52356.0,0.00%,F,F)



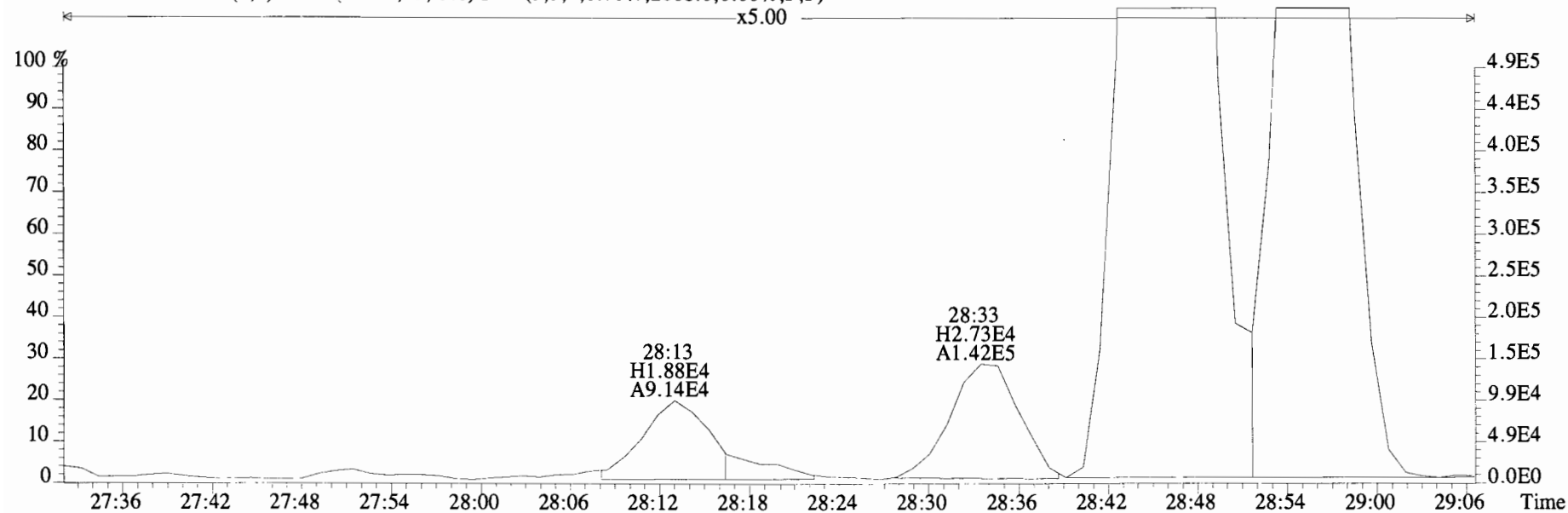
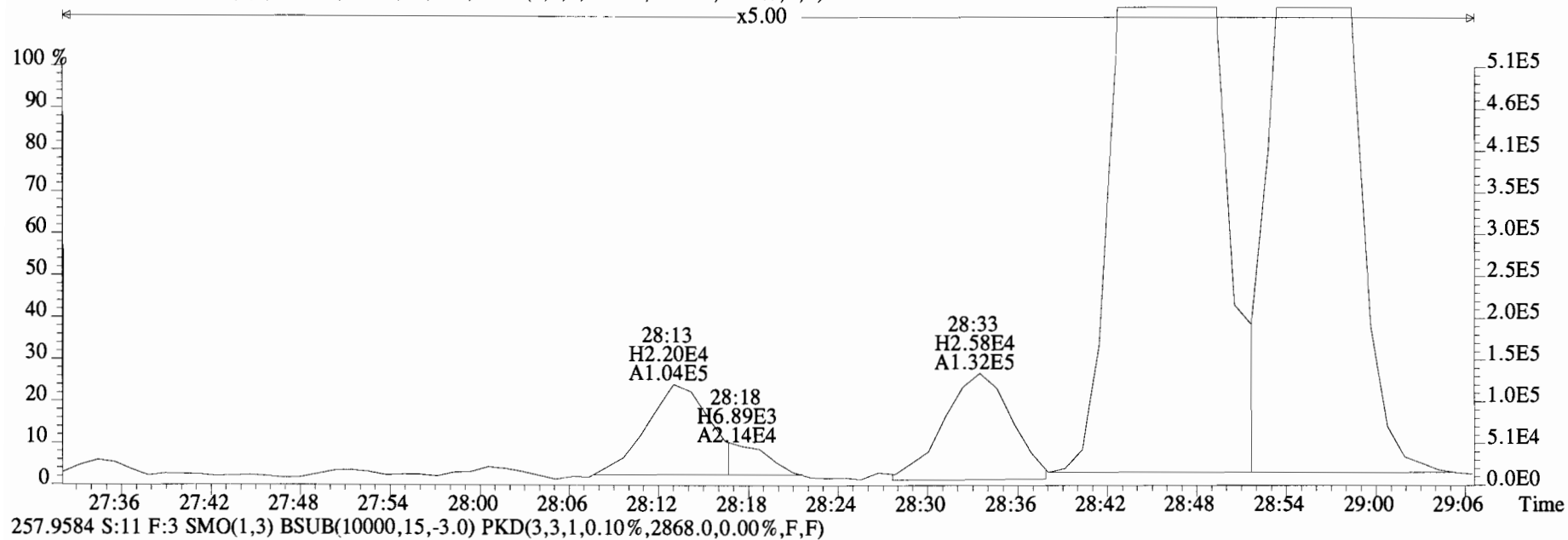
File:140919E2 #1-770 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
255.9613 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4296.0,0.00%,F,F)



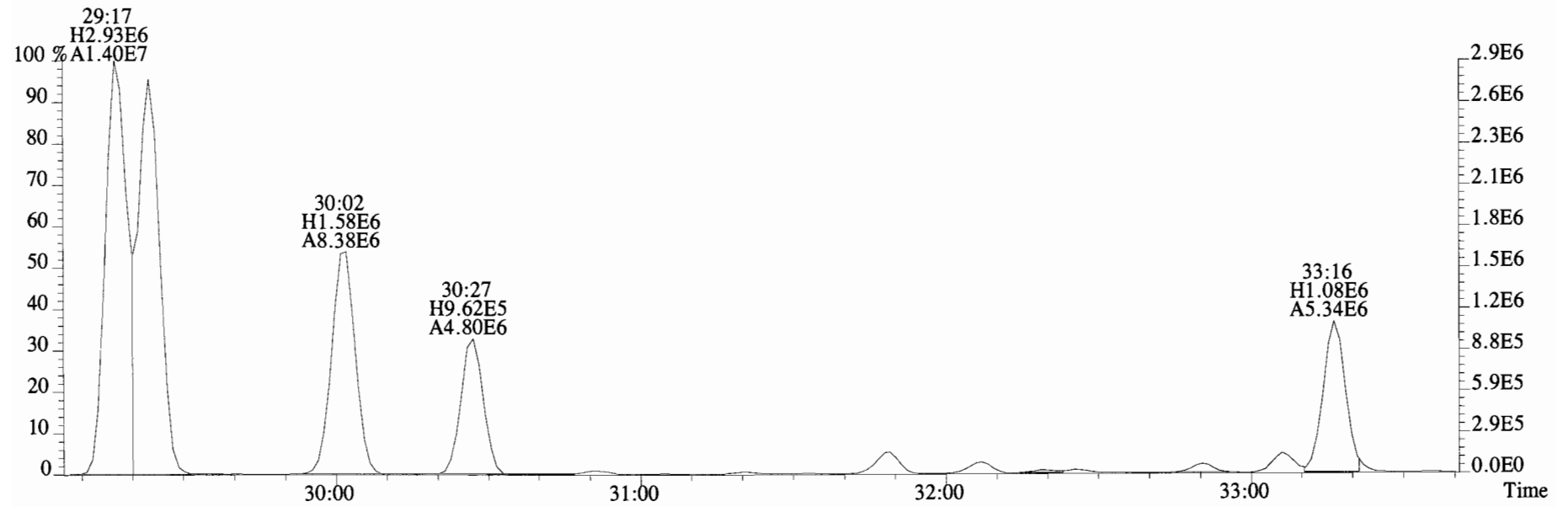
File:140919E2 #1-770 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
255.9613 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4296.0,0.00%,F,F)



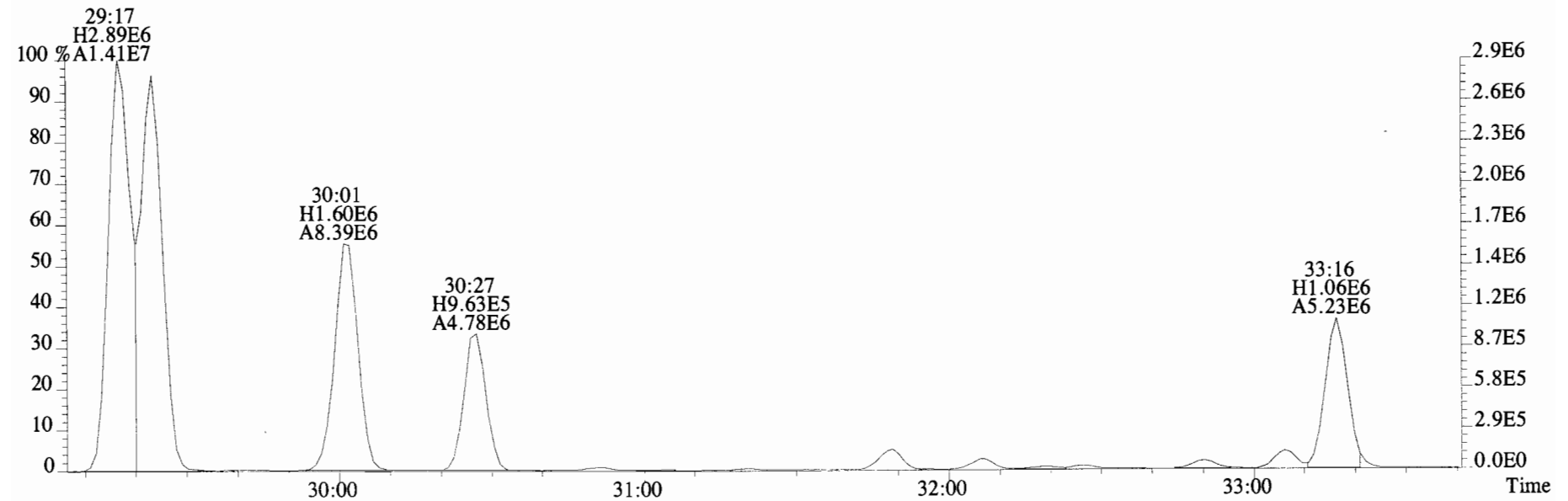
File:140919E2 #1-770 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
 255.9613 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4296.0,0.00%,F,F)



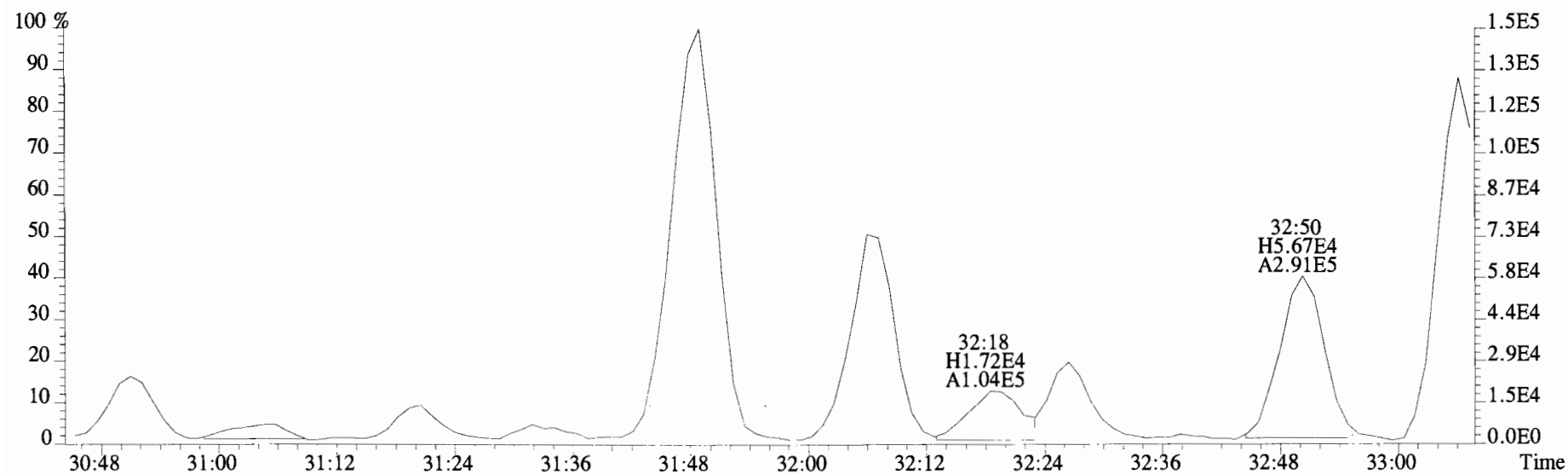
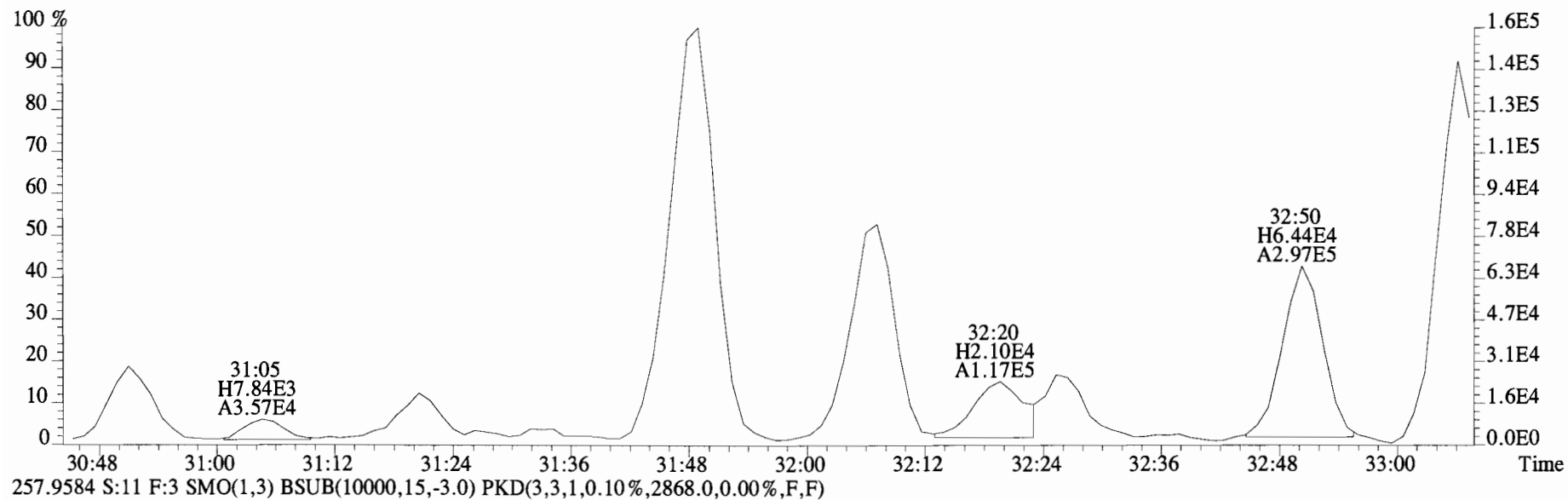
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255.9613 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4296.0,0.00%,F,F)



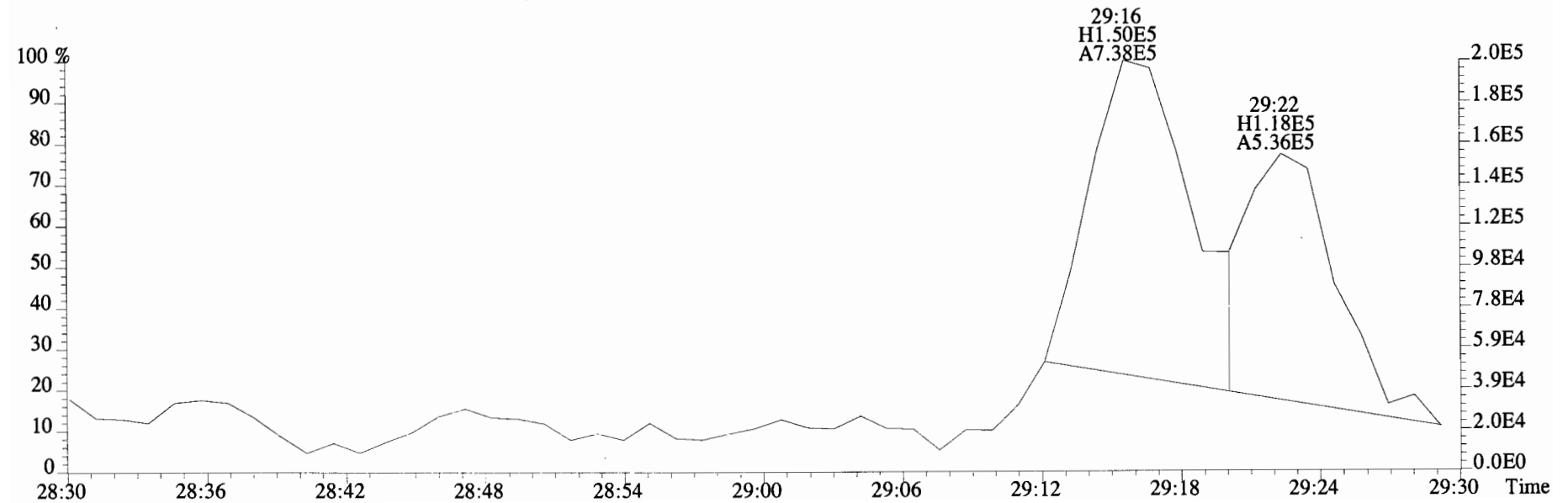
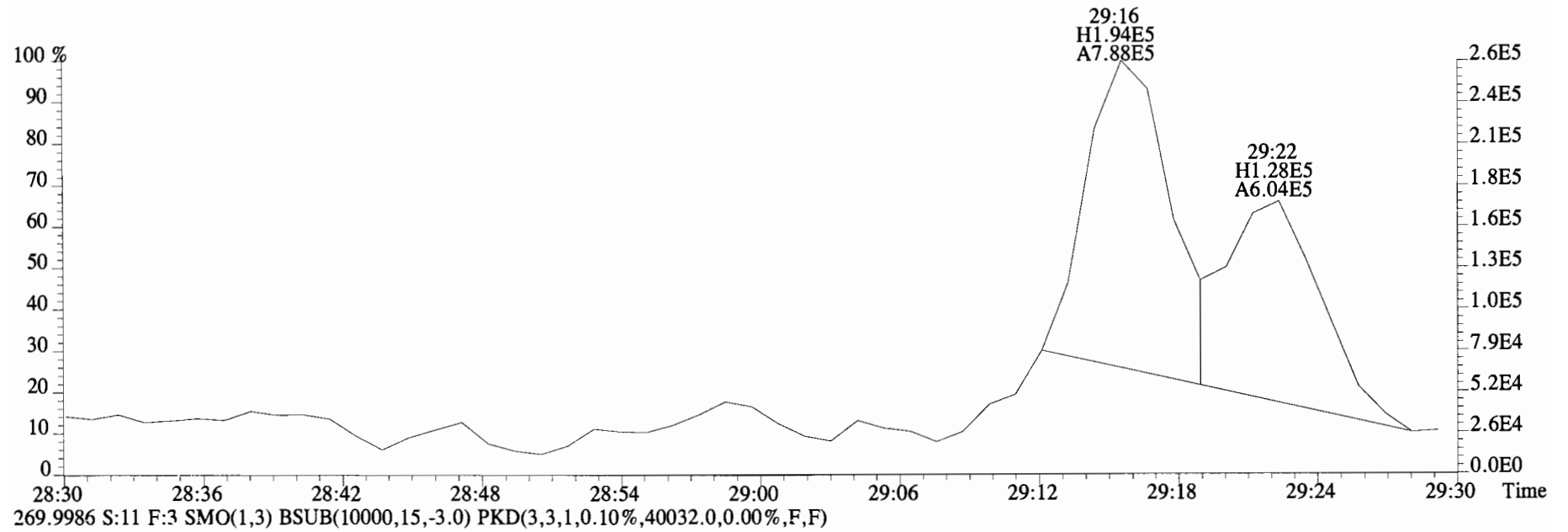
257.9584 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2868.0,0.00%,F,F)



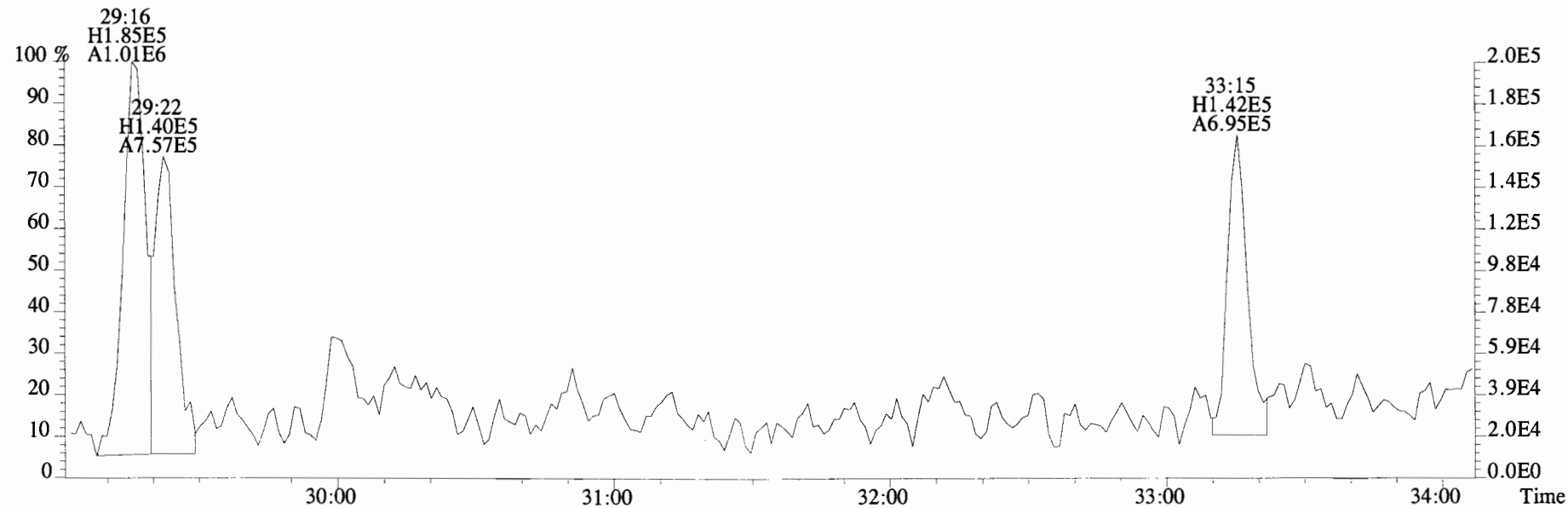
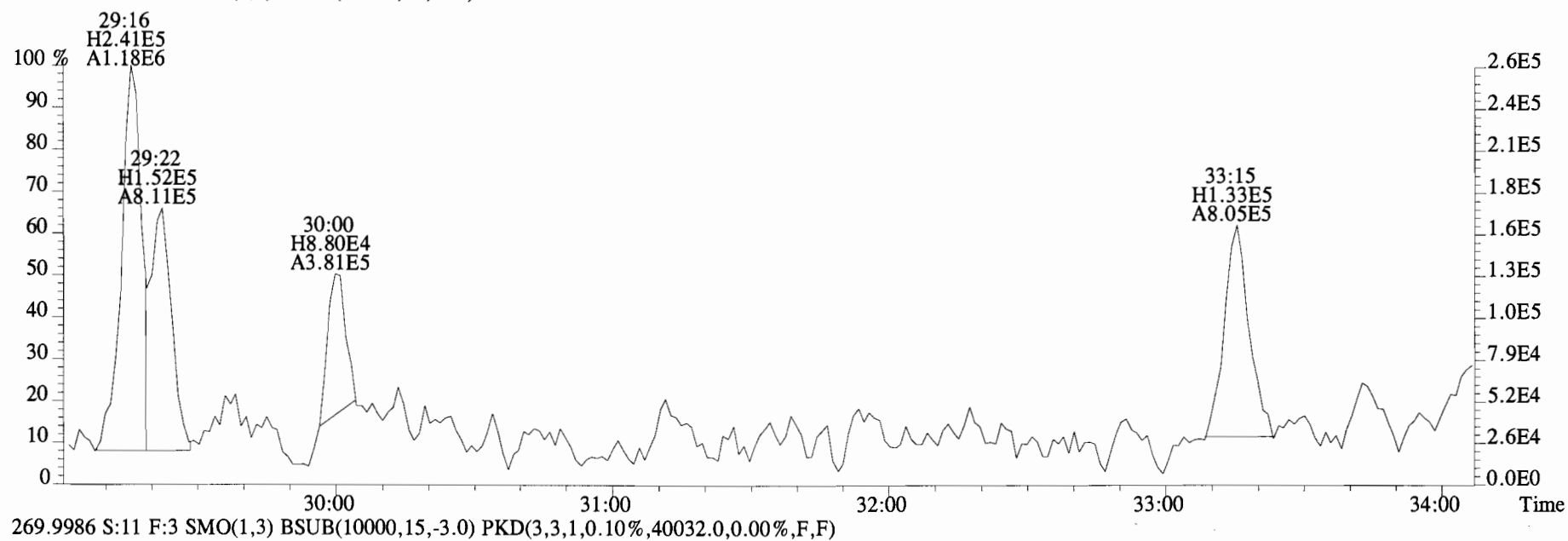
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255.9613 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4296.0,0.00%,F,F)



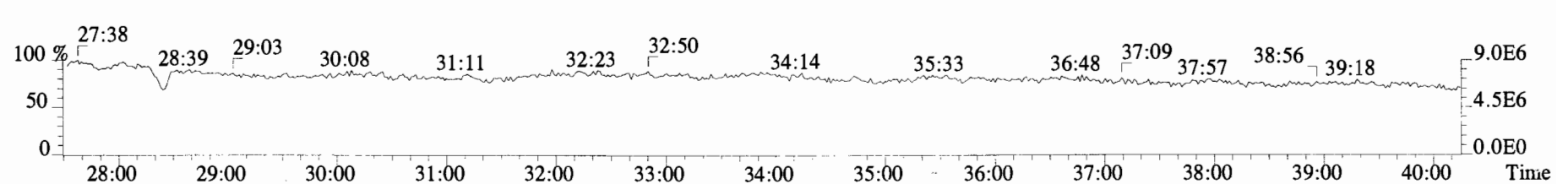
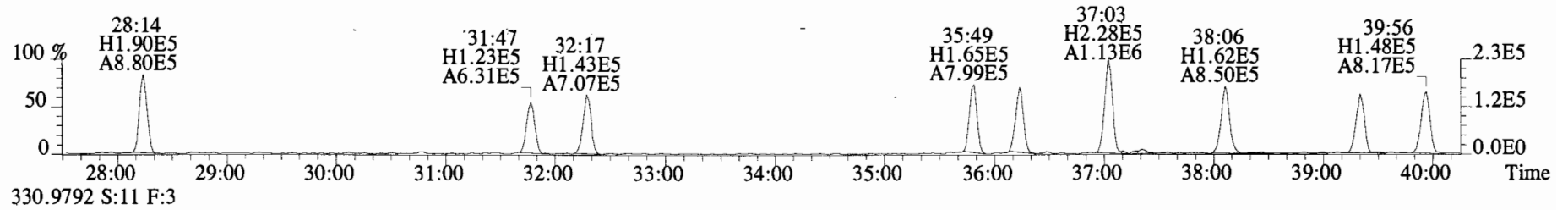
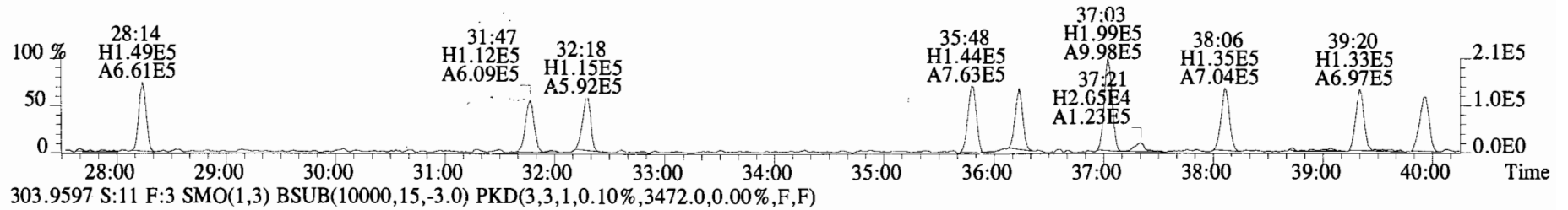
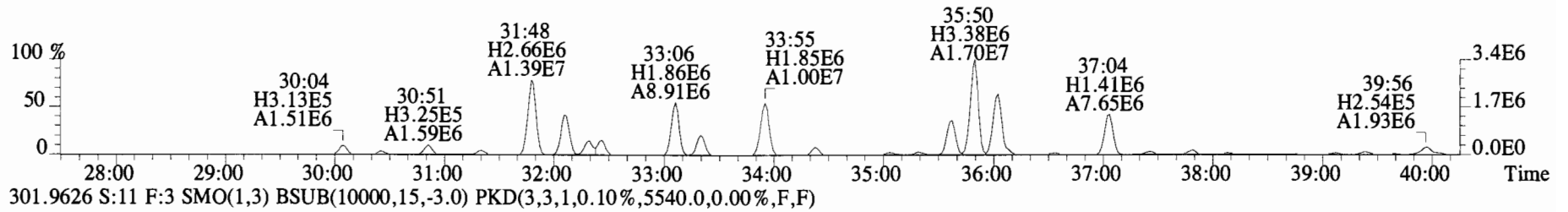
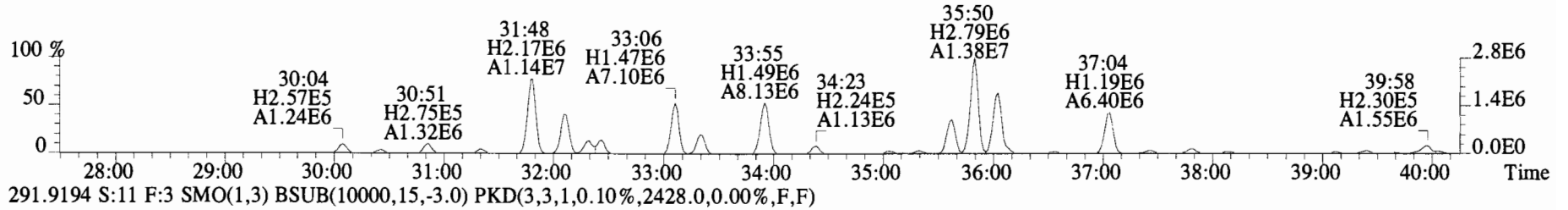
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Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
268.0016 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,41848.0,0.00%,F,F)



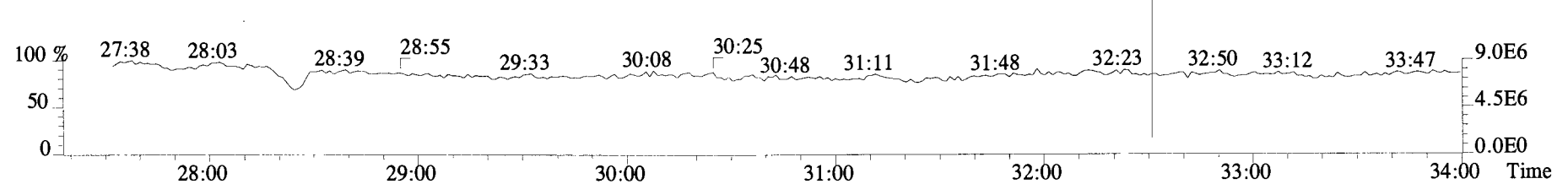
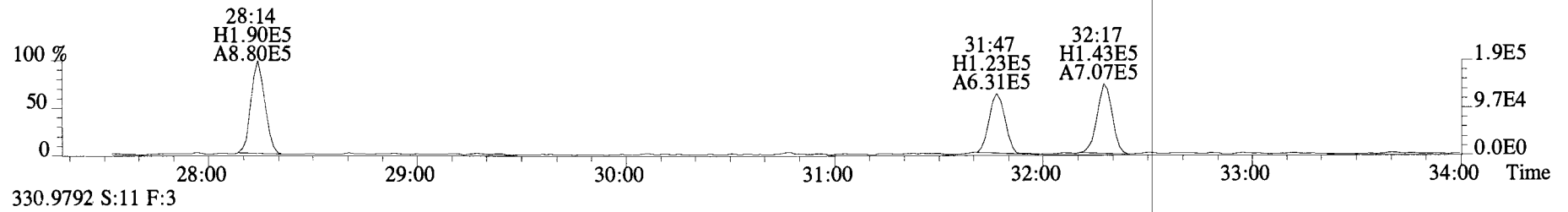
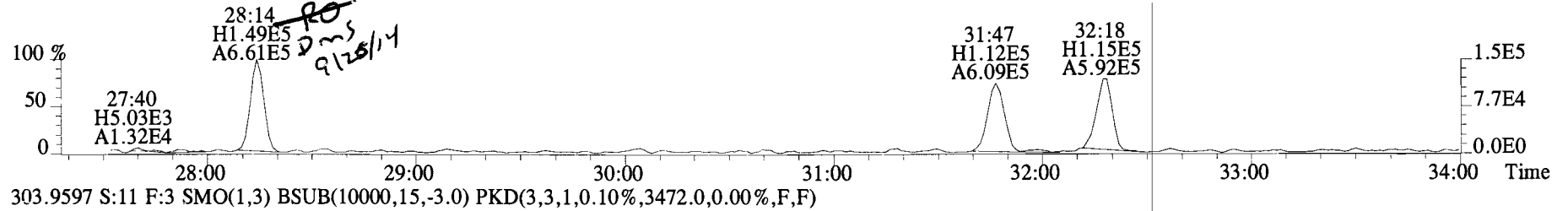
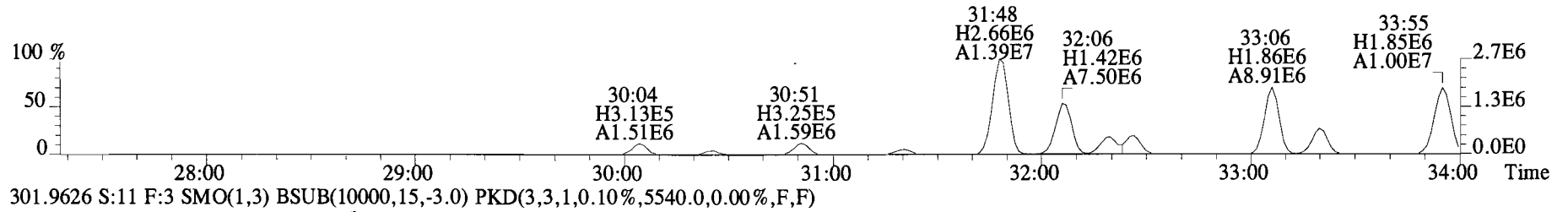
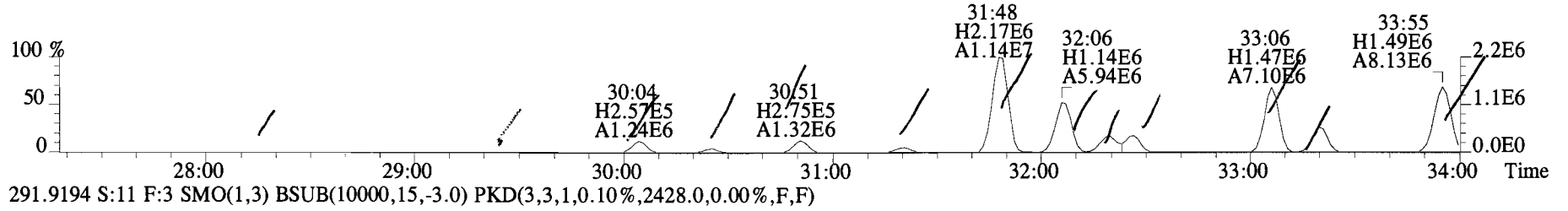
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Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
268.0016 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0)



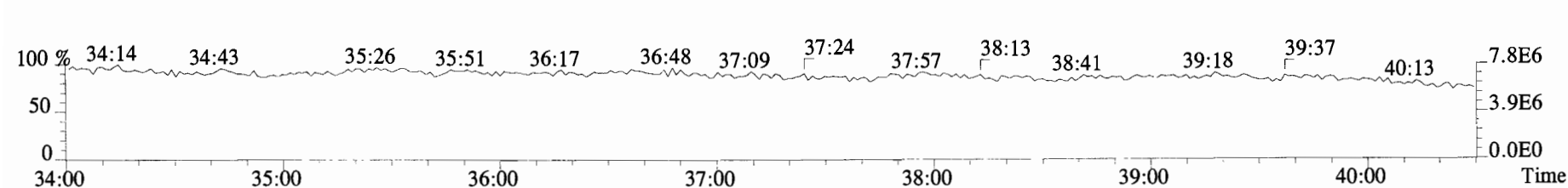
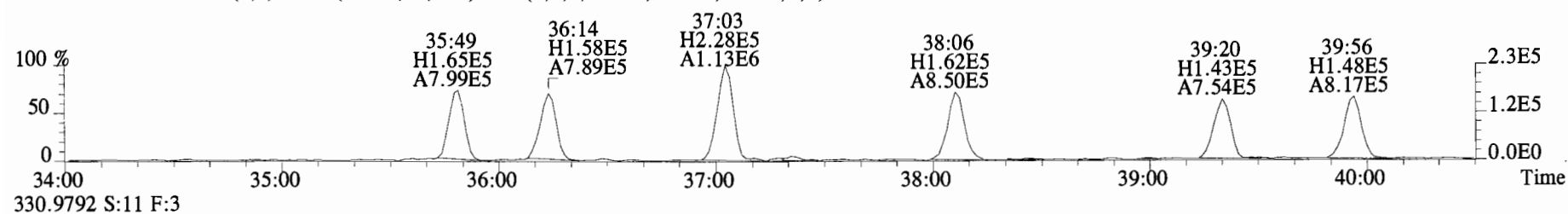
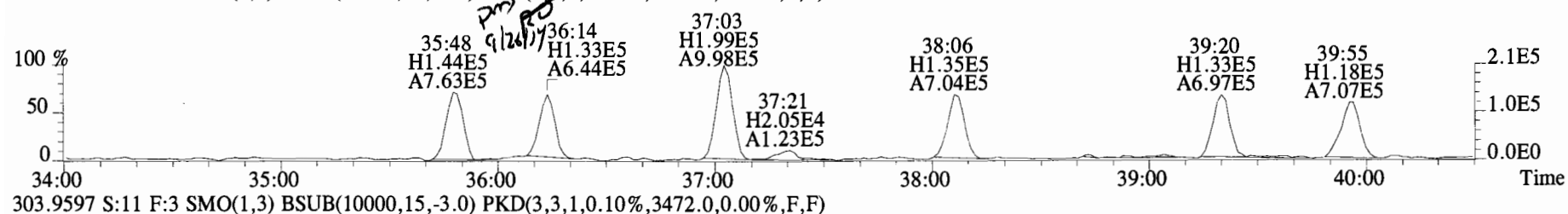
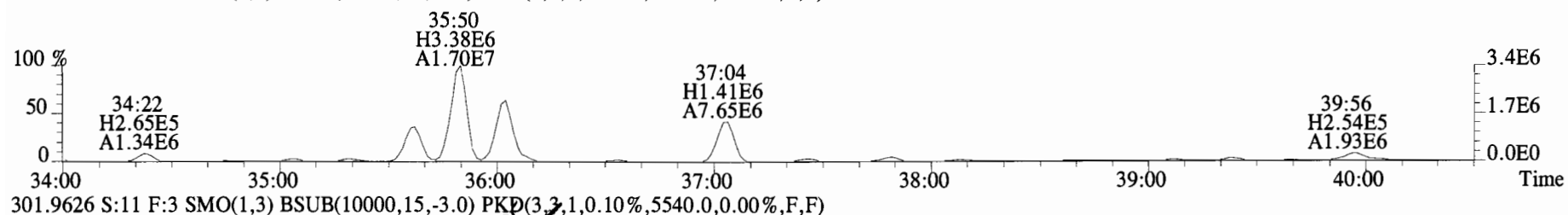
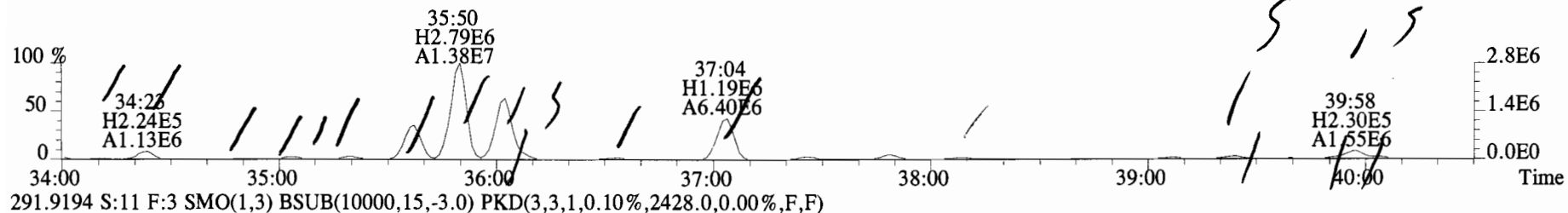
File:140919E2 #1-770 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
289.9224 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2492.0,0.00%,F,F)



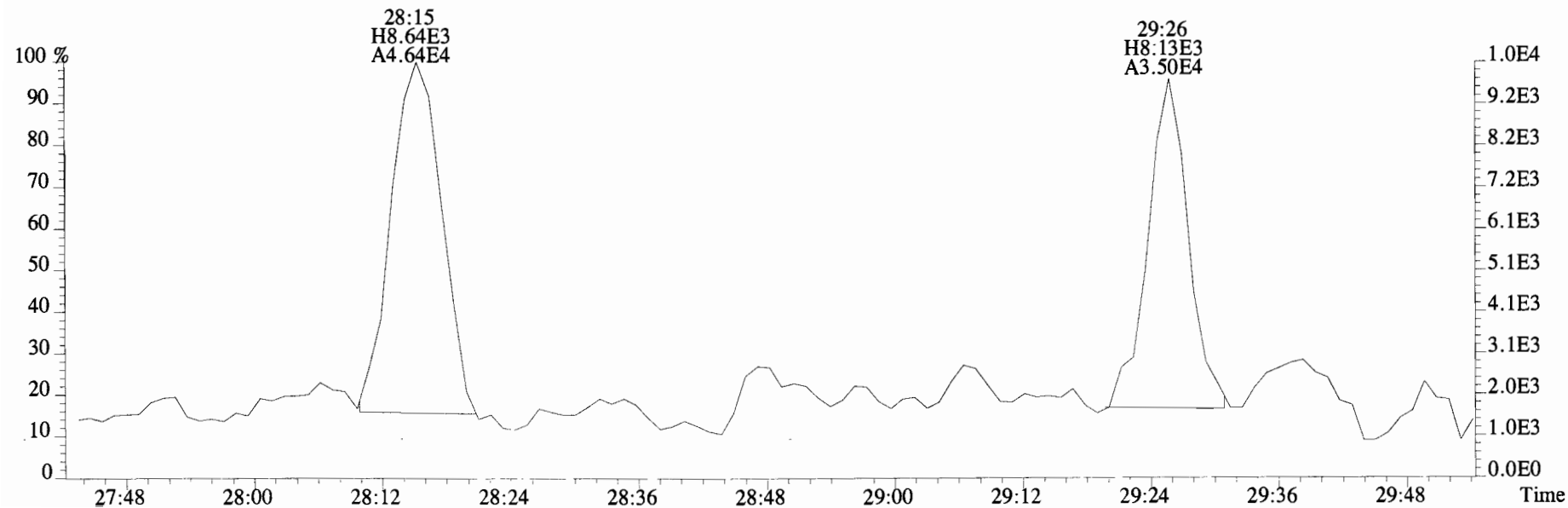
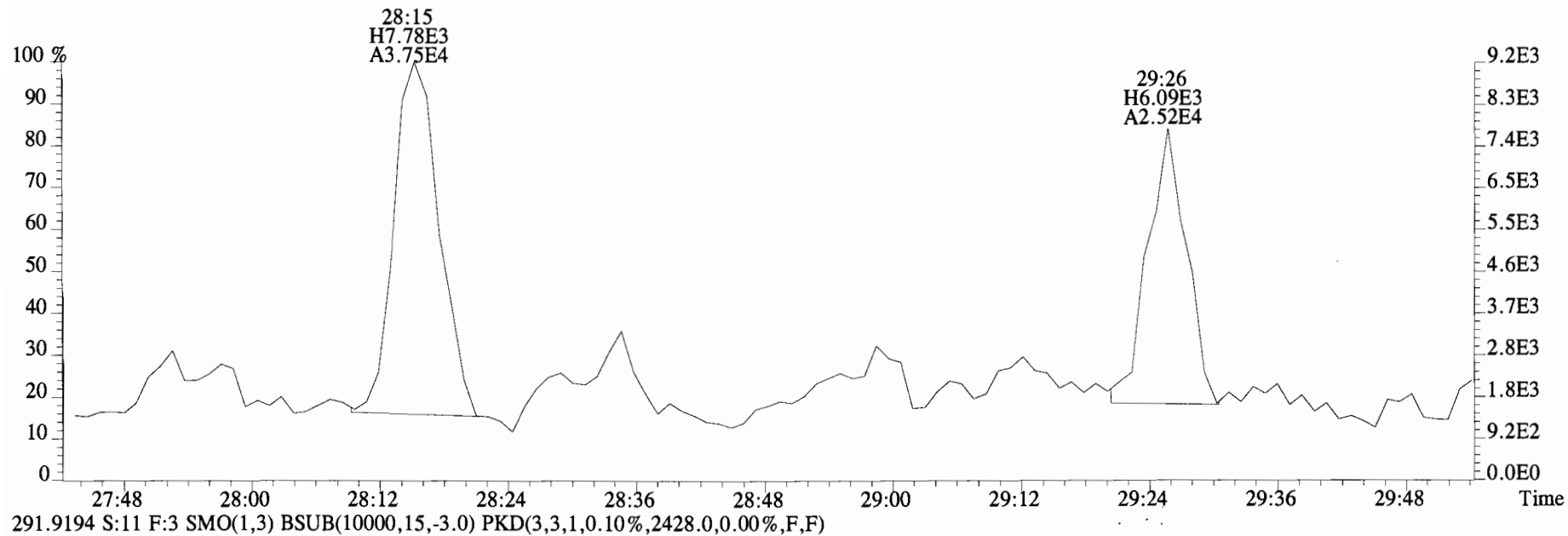
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 Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
 289.9224 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2492.0,0.00%,F,F)



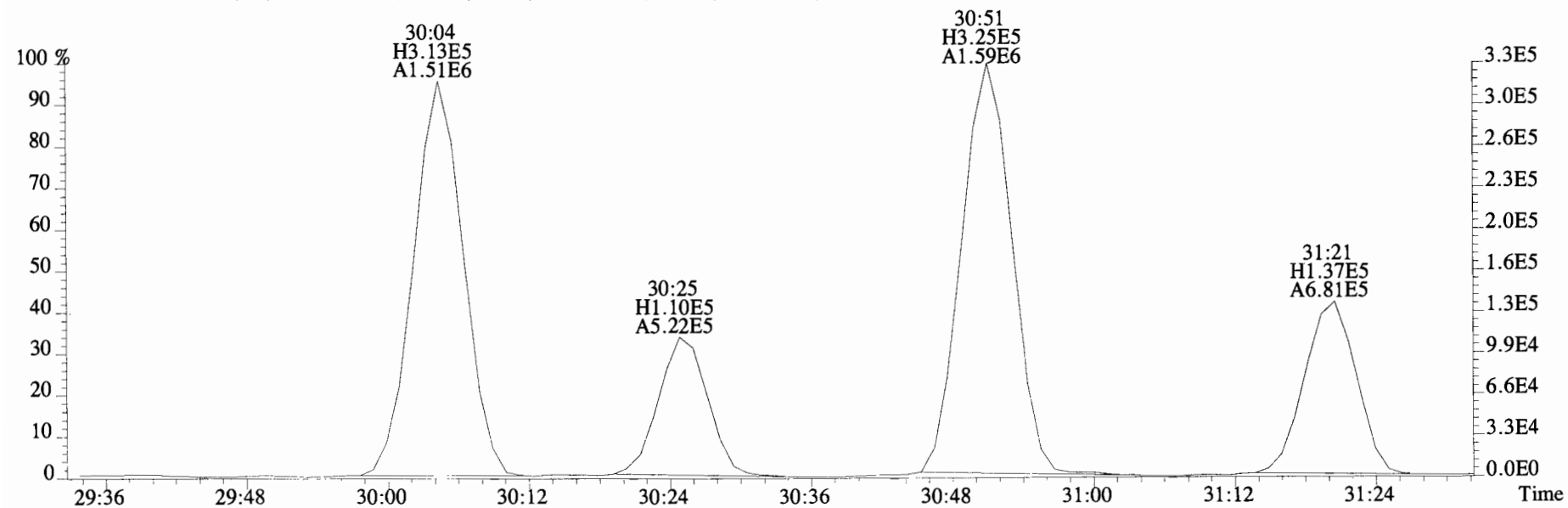
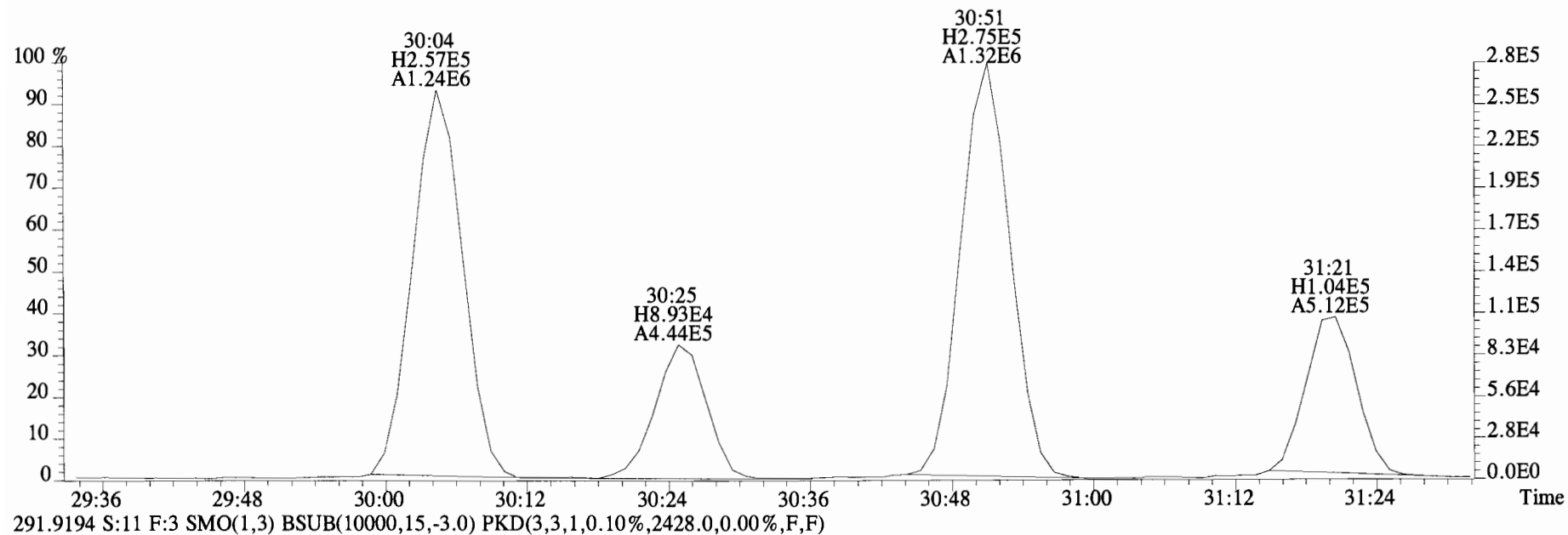
File:140919E2 #1-770 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
289.9224 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2492.0,0.00%,F,F)



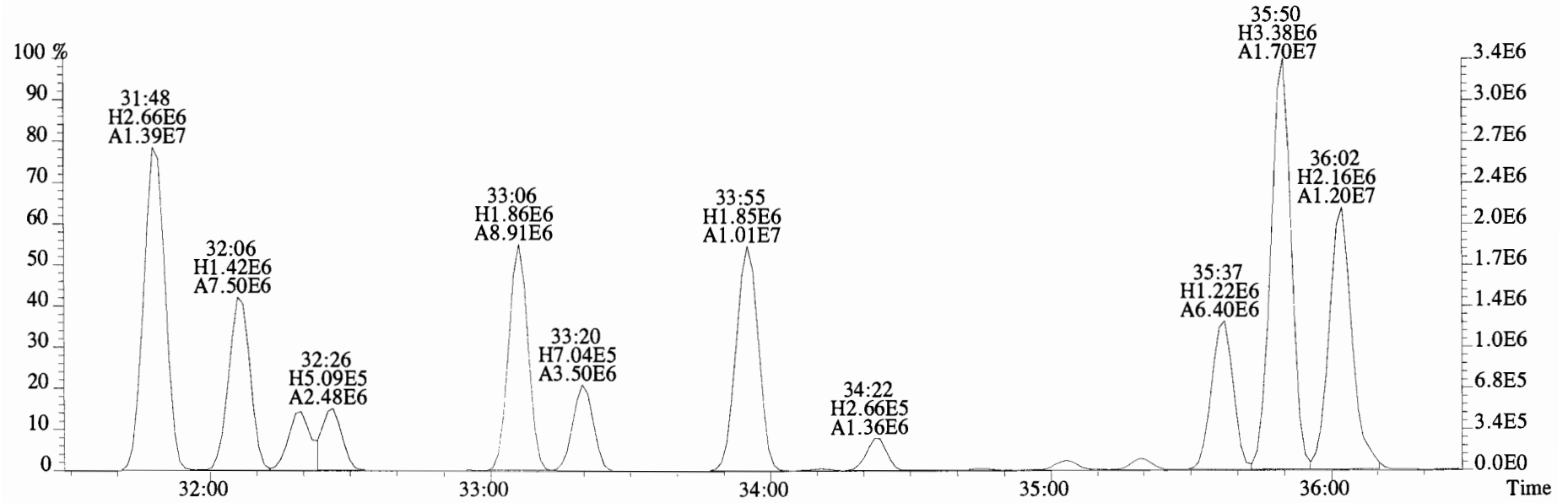
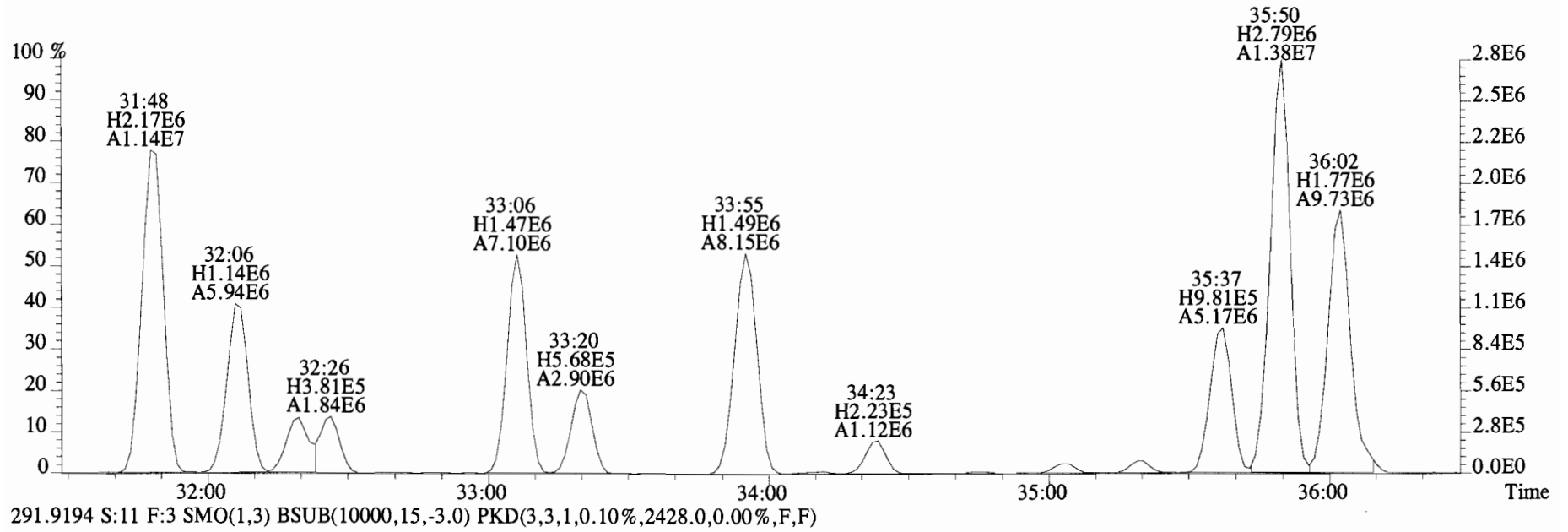
File:140919E2 #1-770 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
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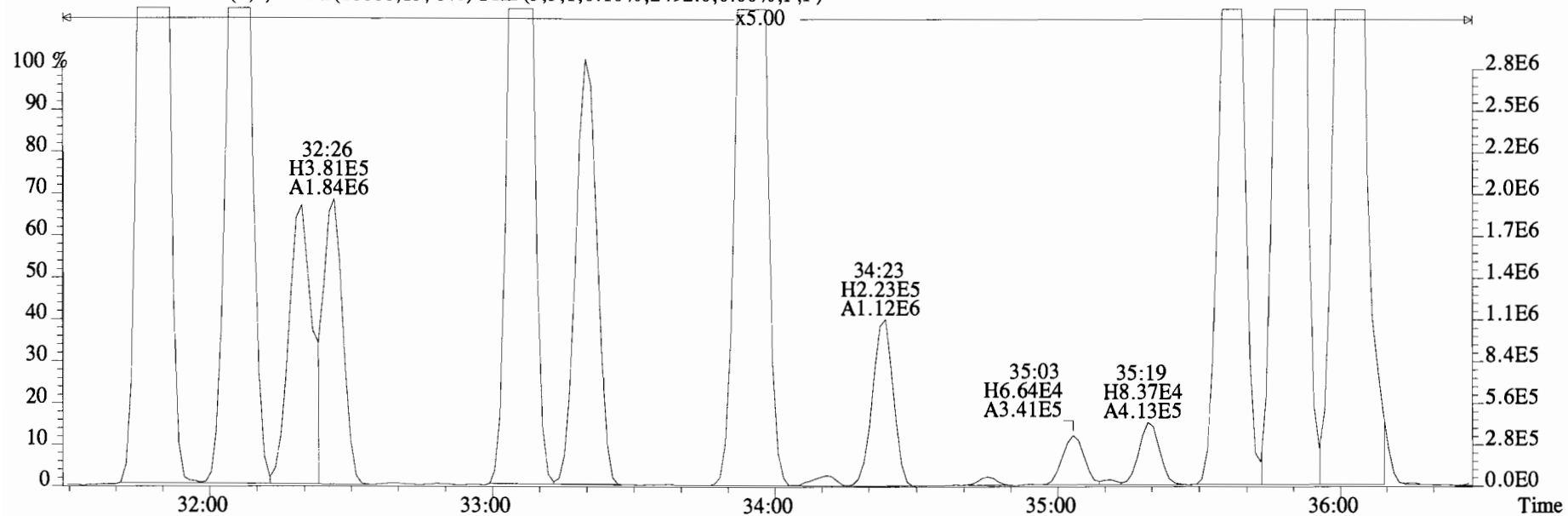
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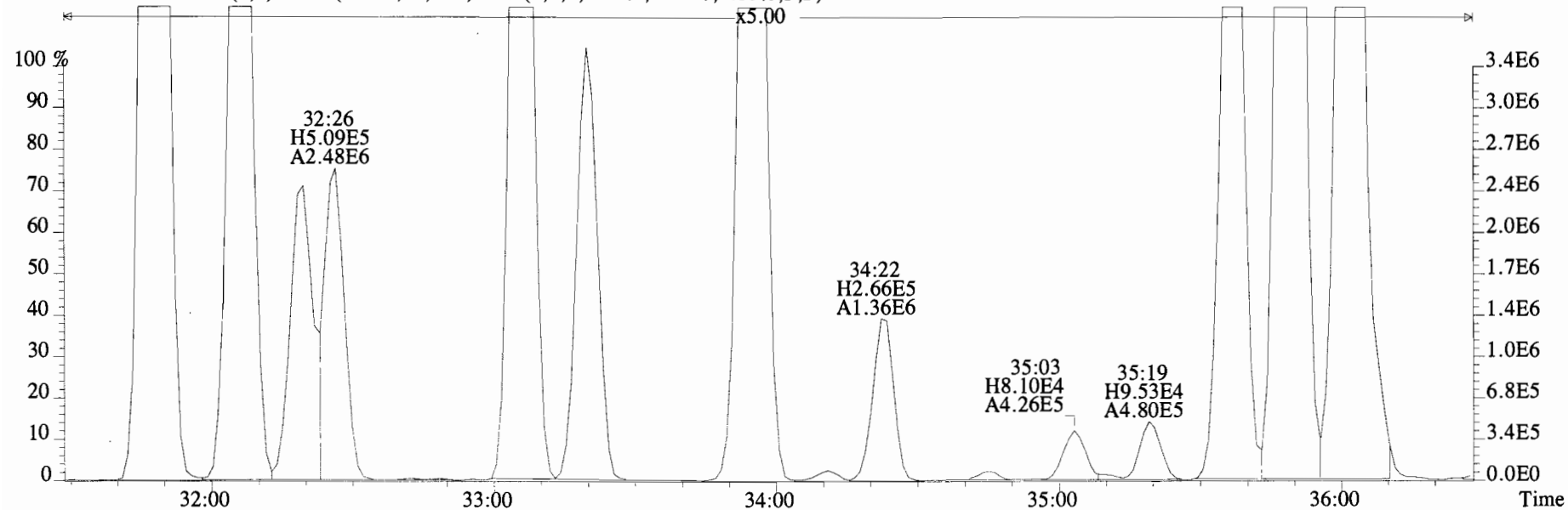
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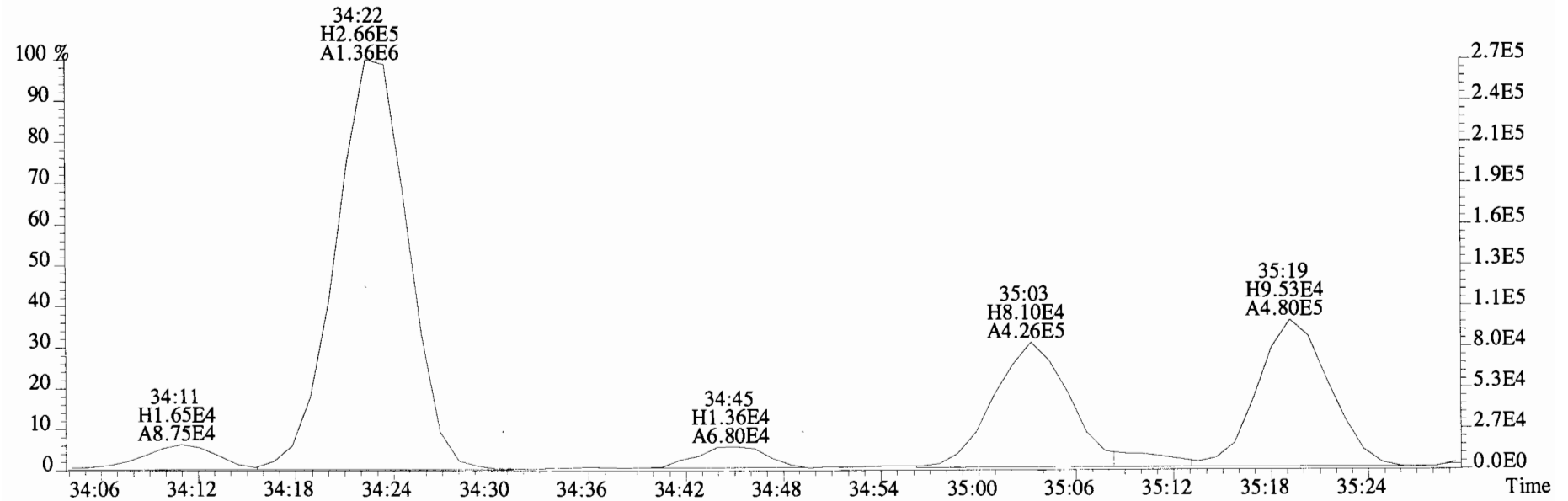
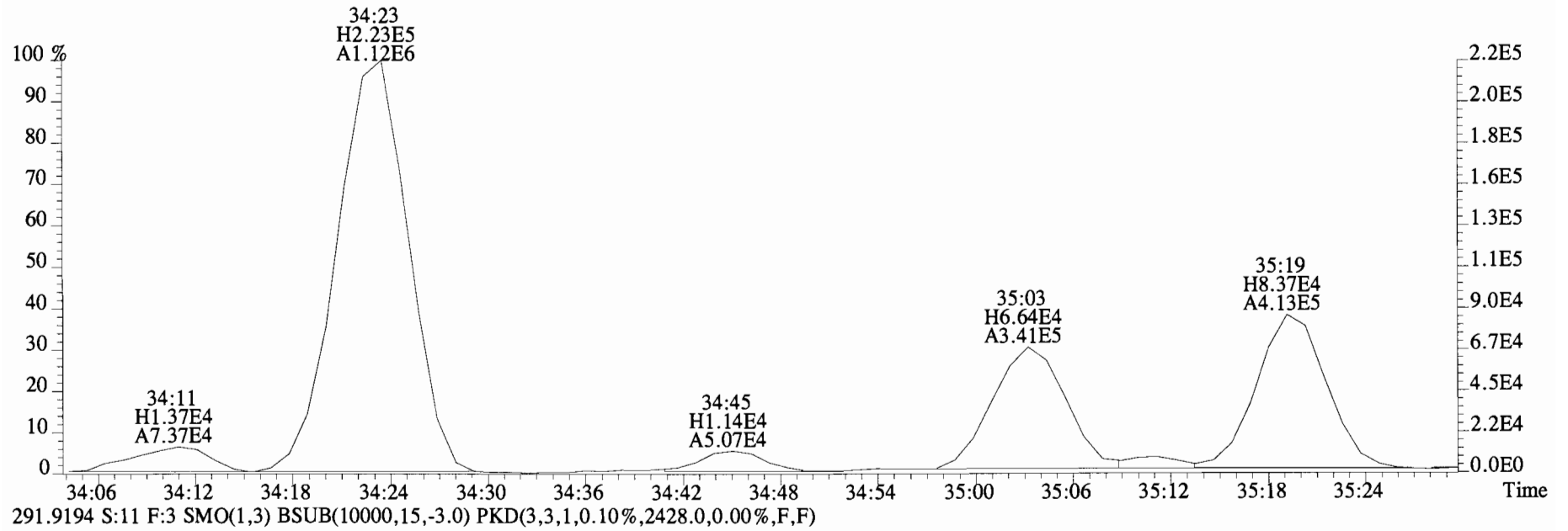
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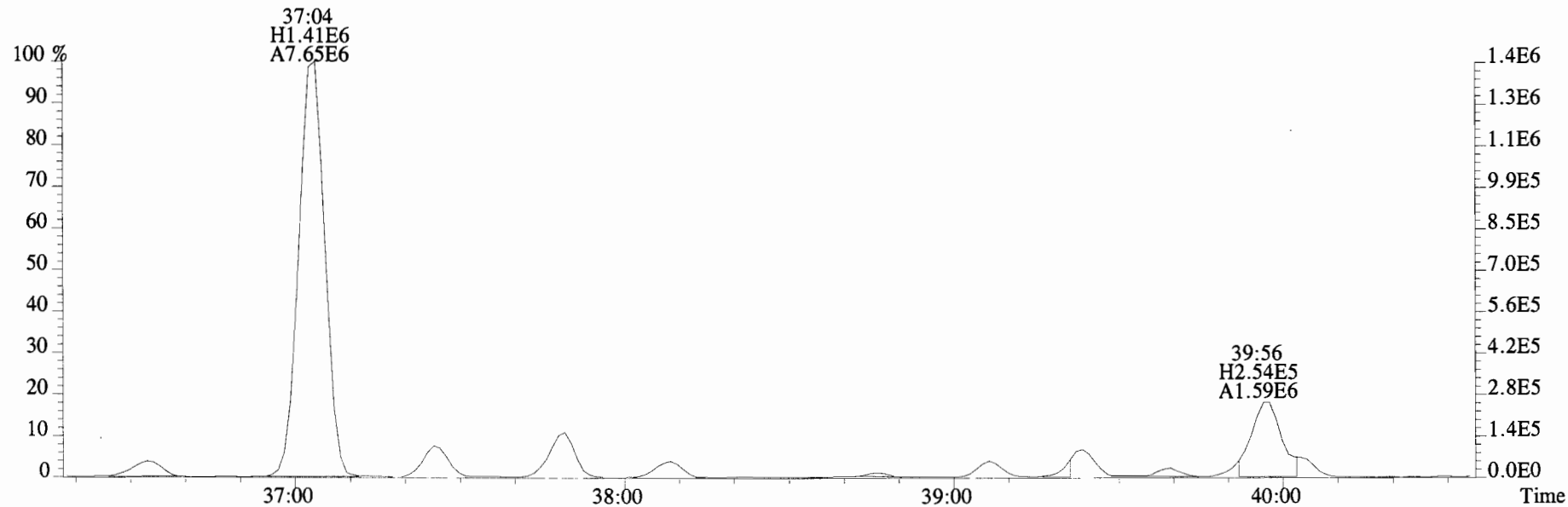
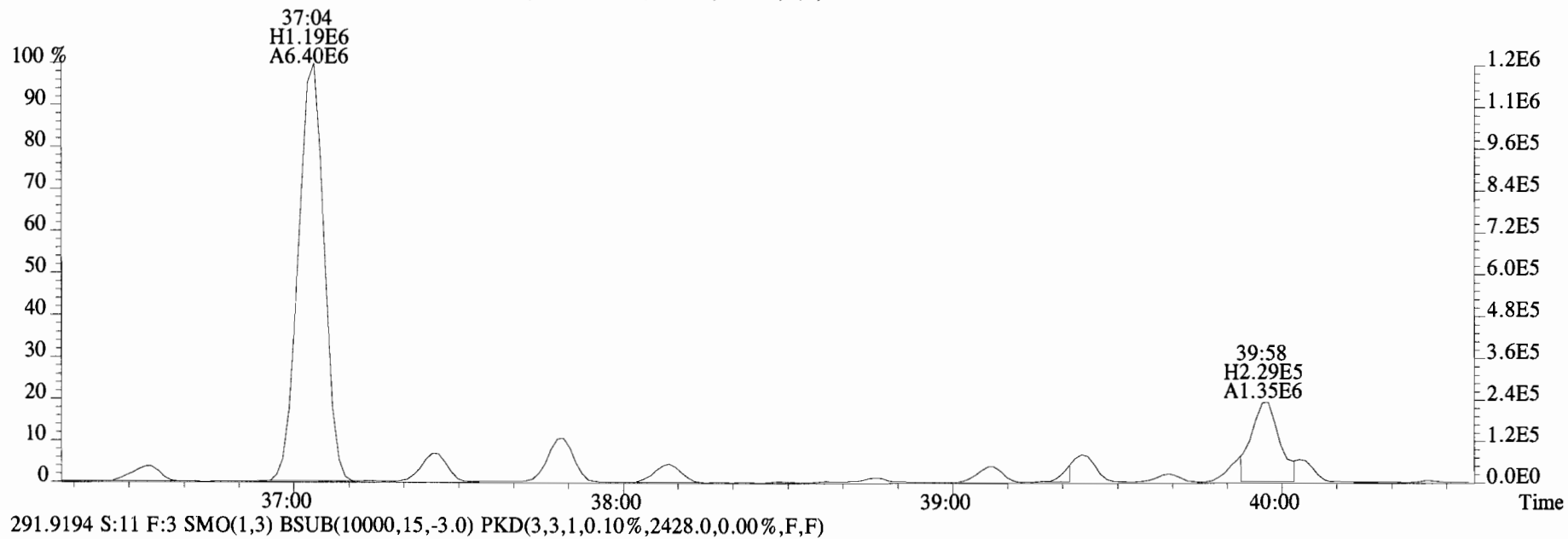
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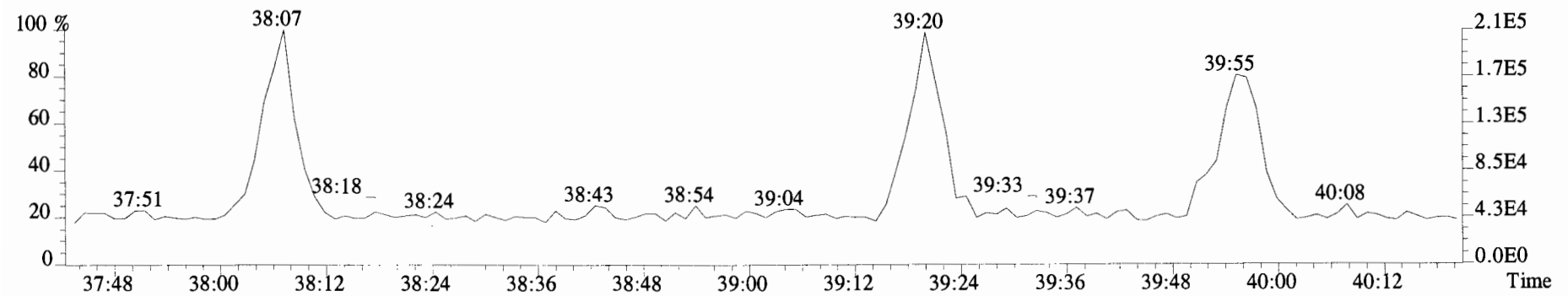
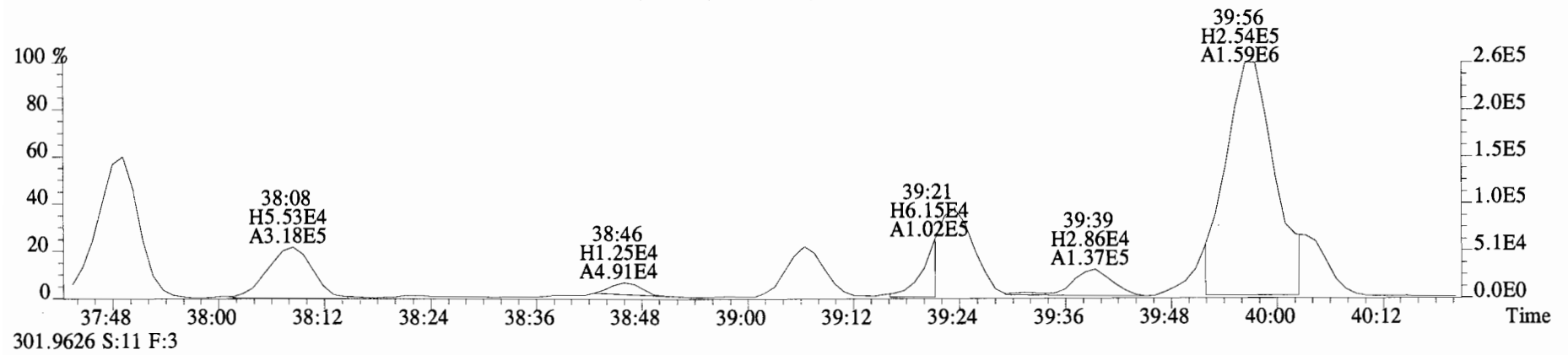
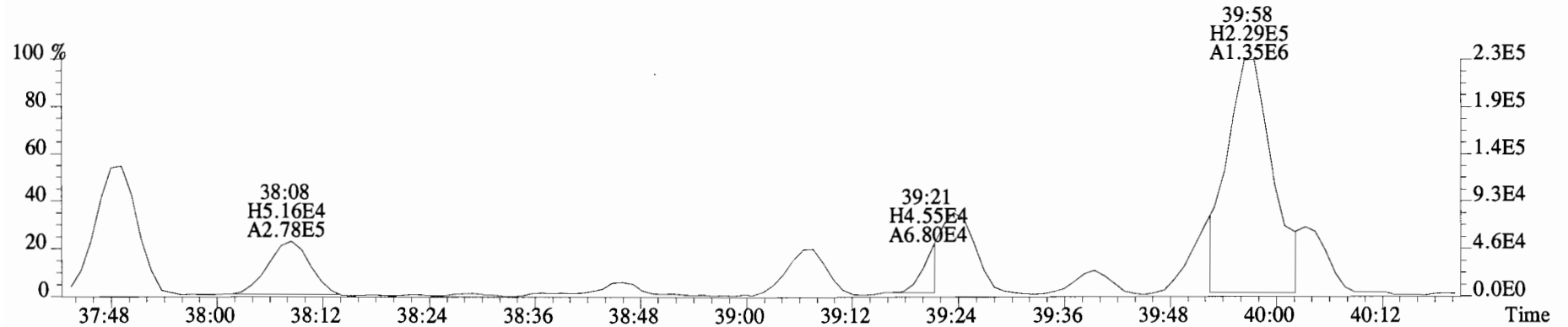
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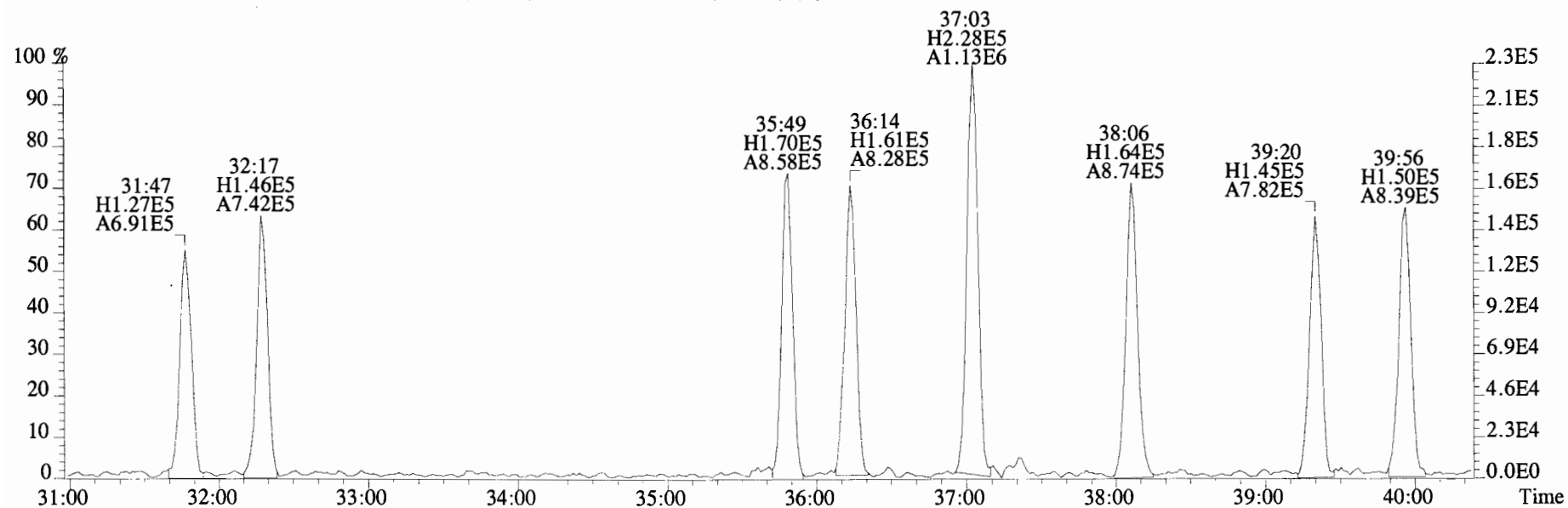
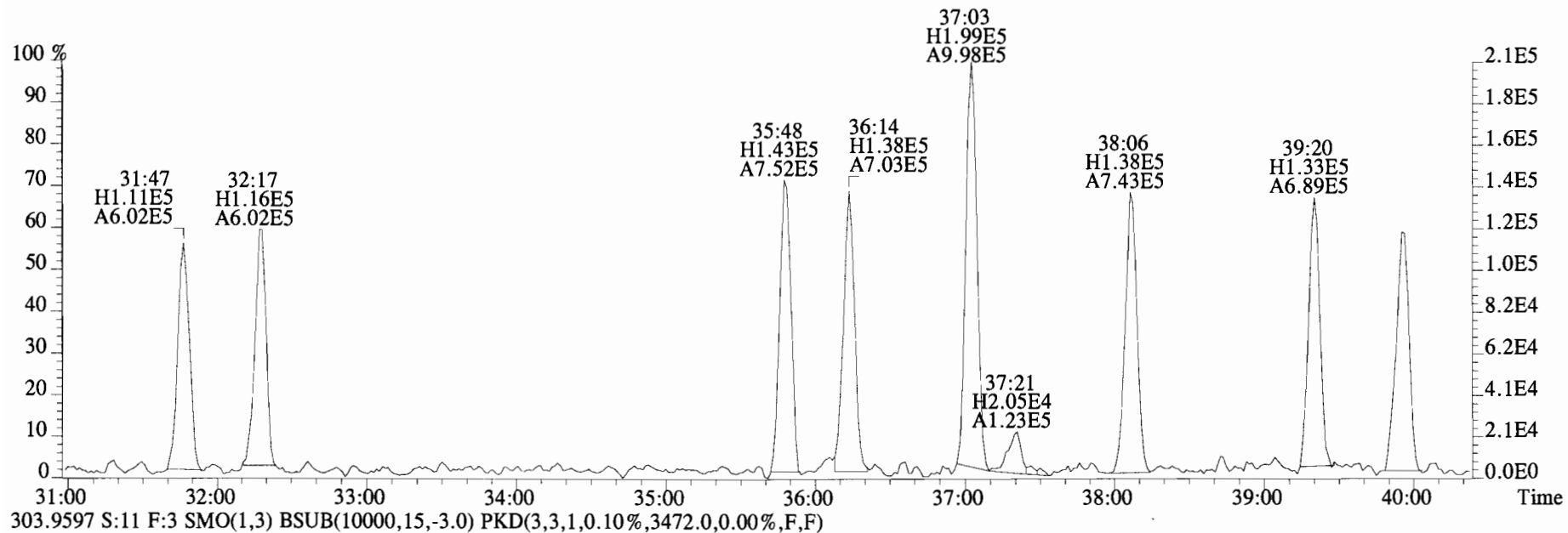
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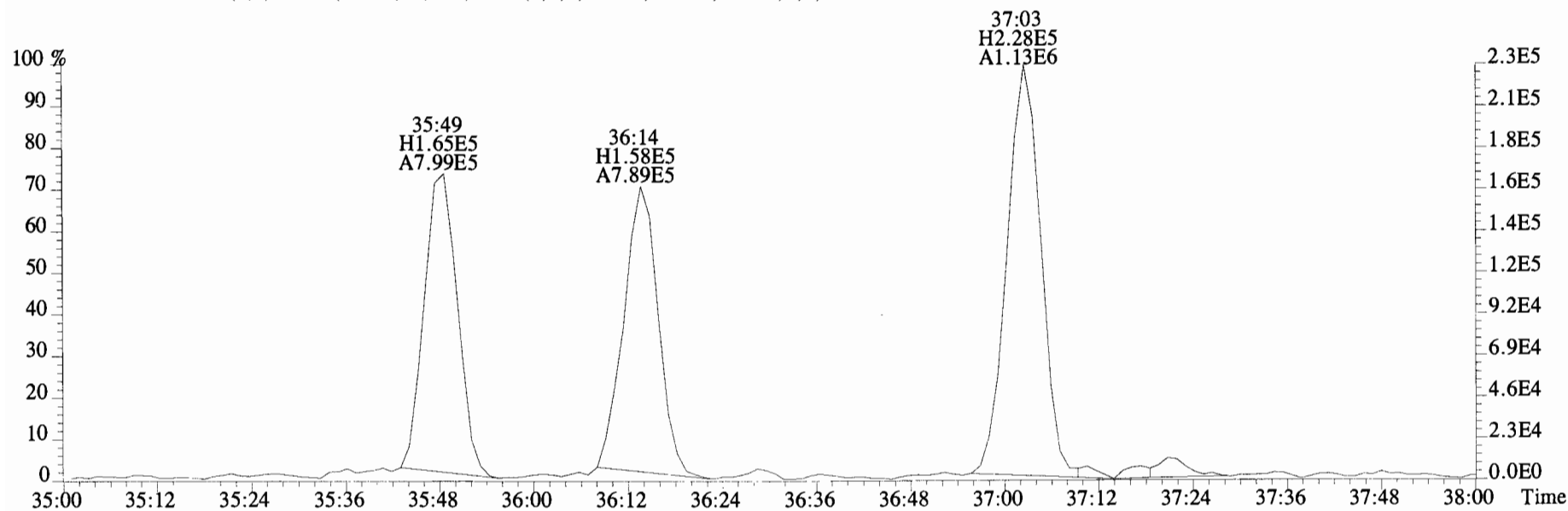
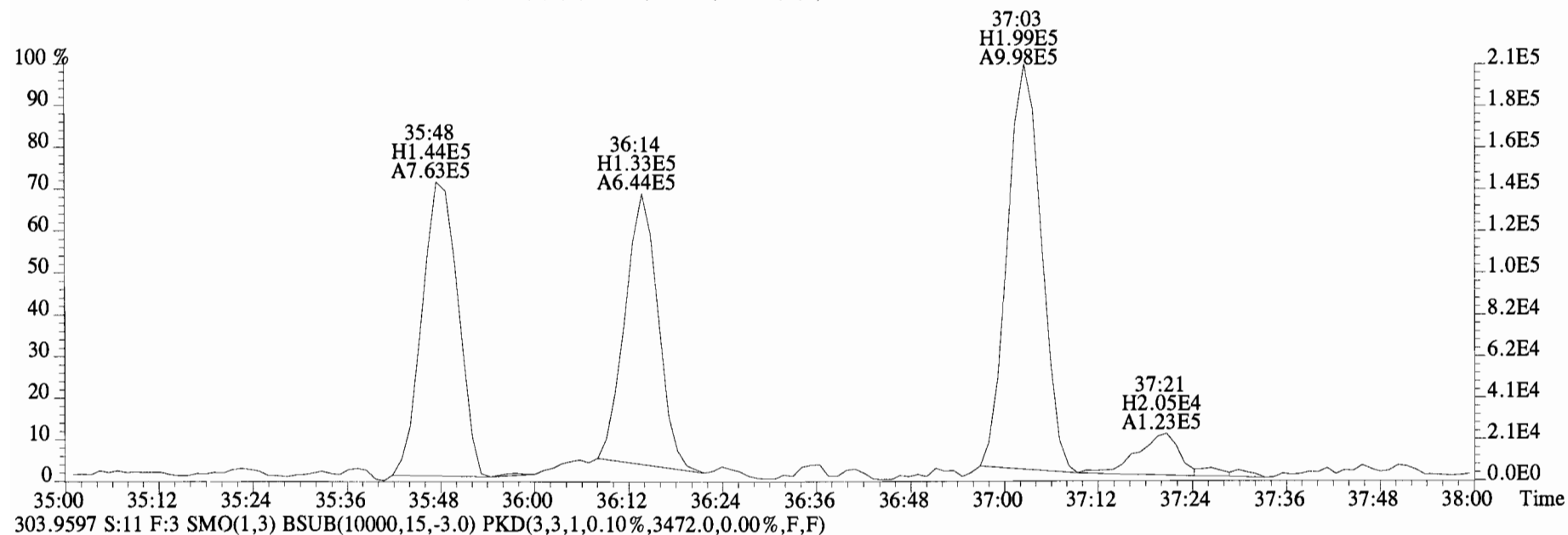
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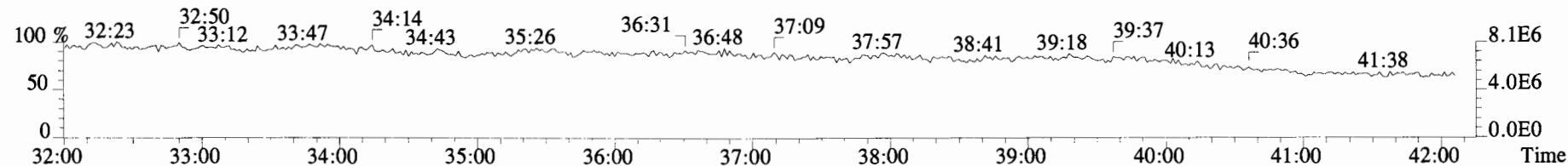
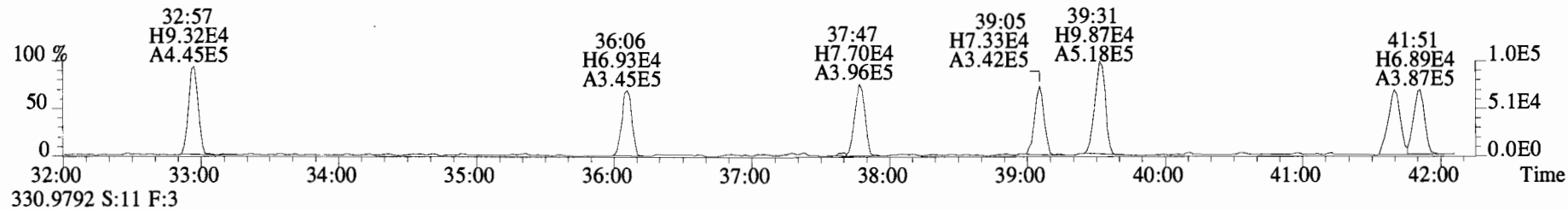
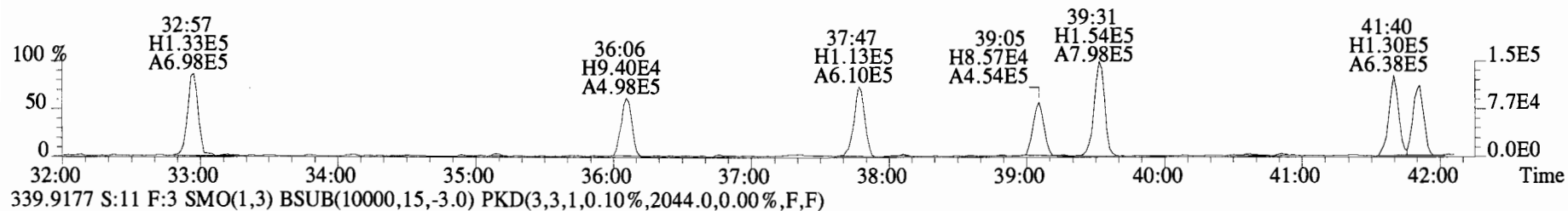
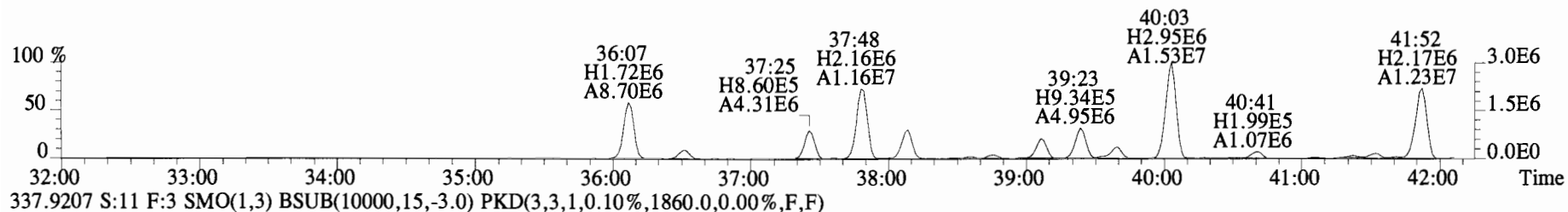
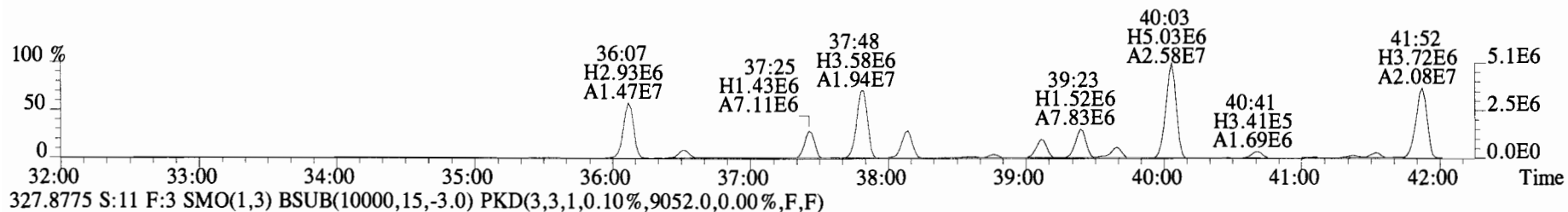
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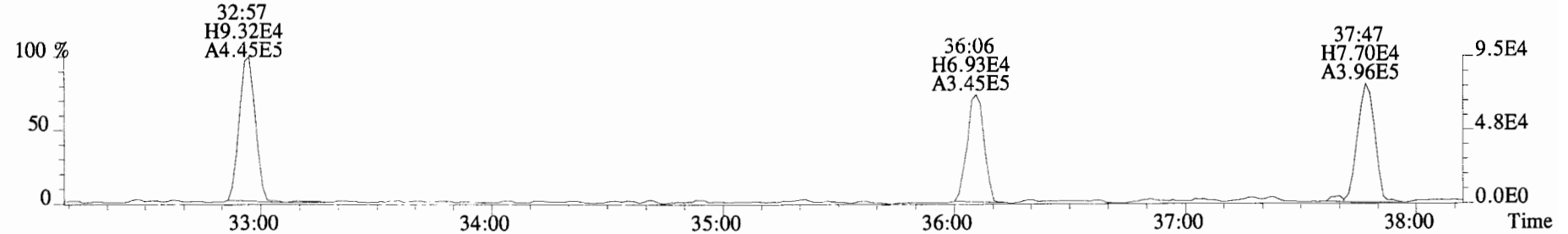
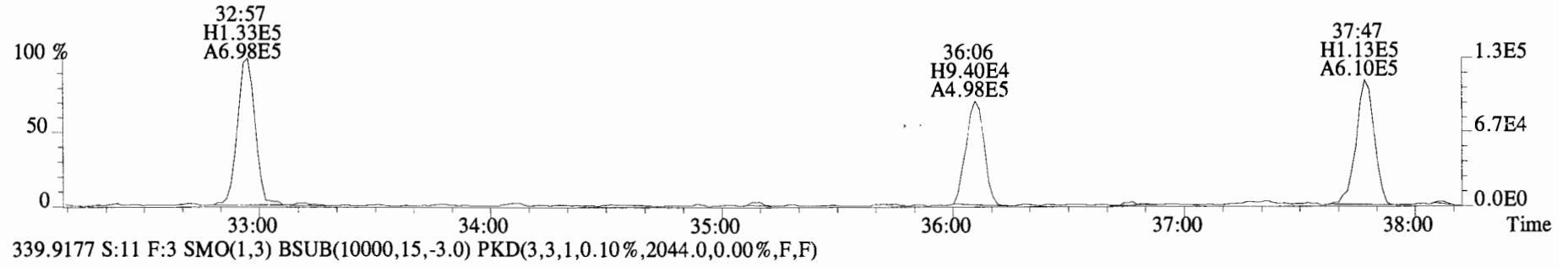
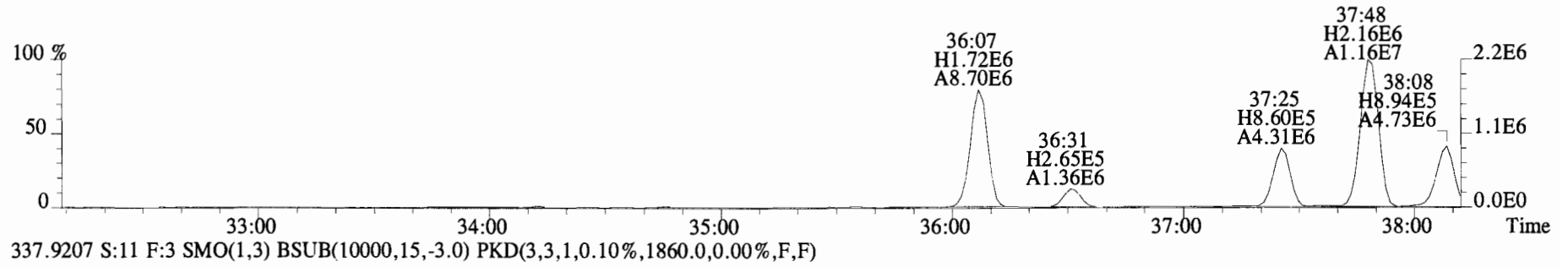
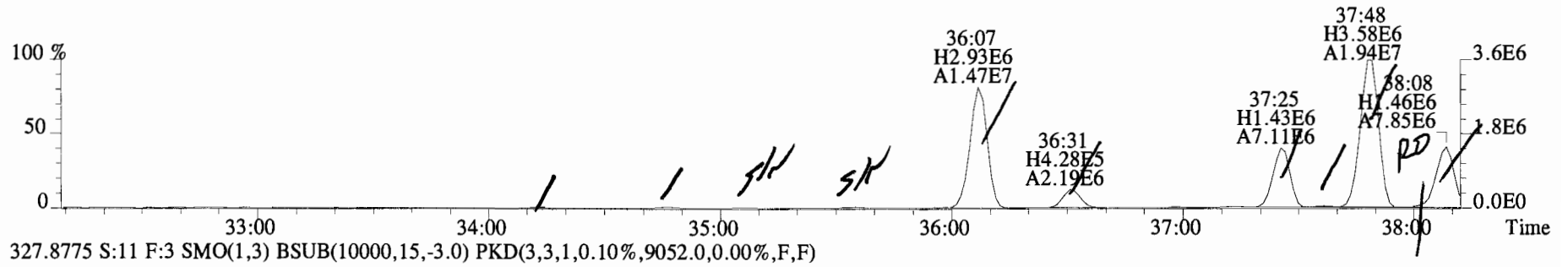
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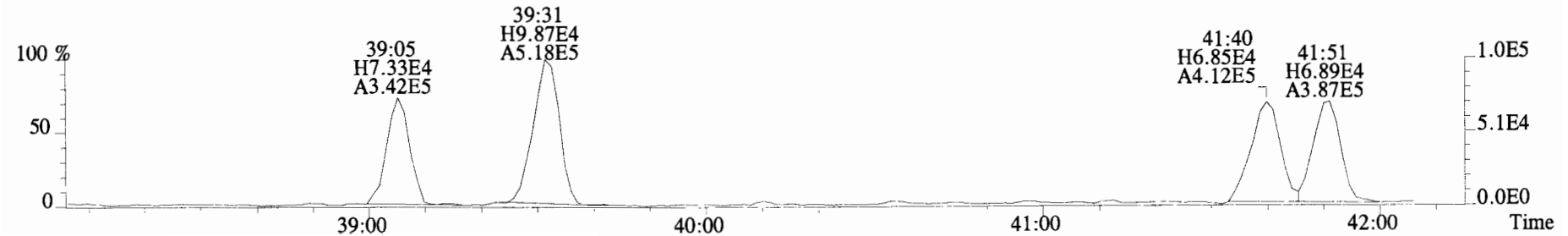
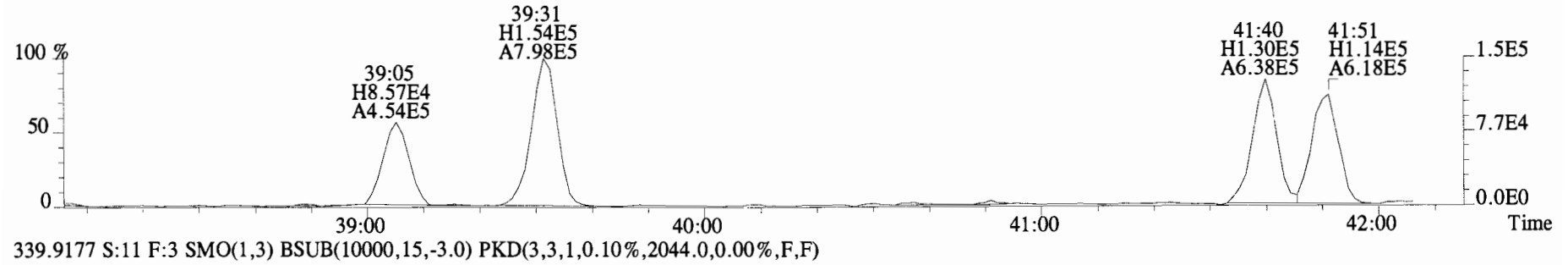
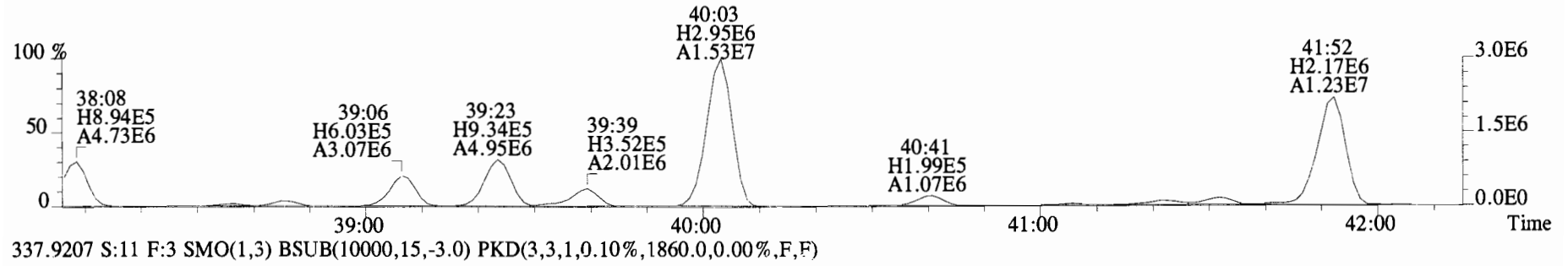
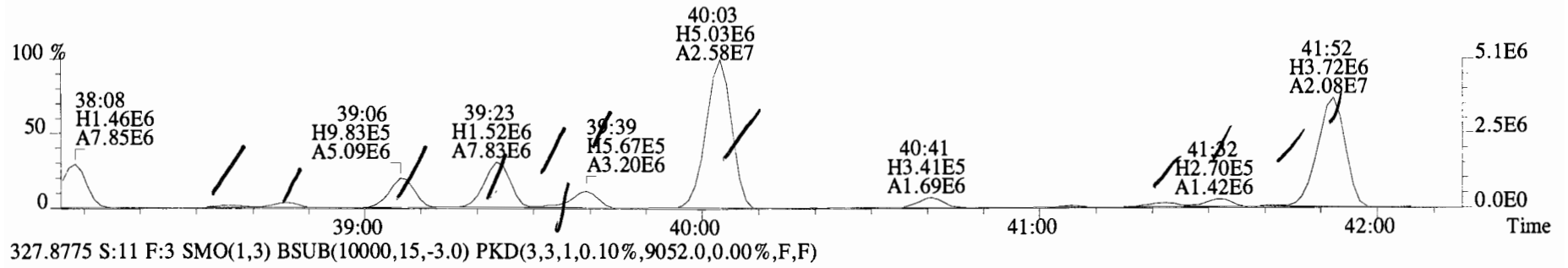
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 Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
 325.8804 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,17236.0,0.00%,F,F)



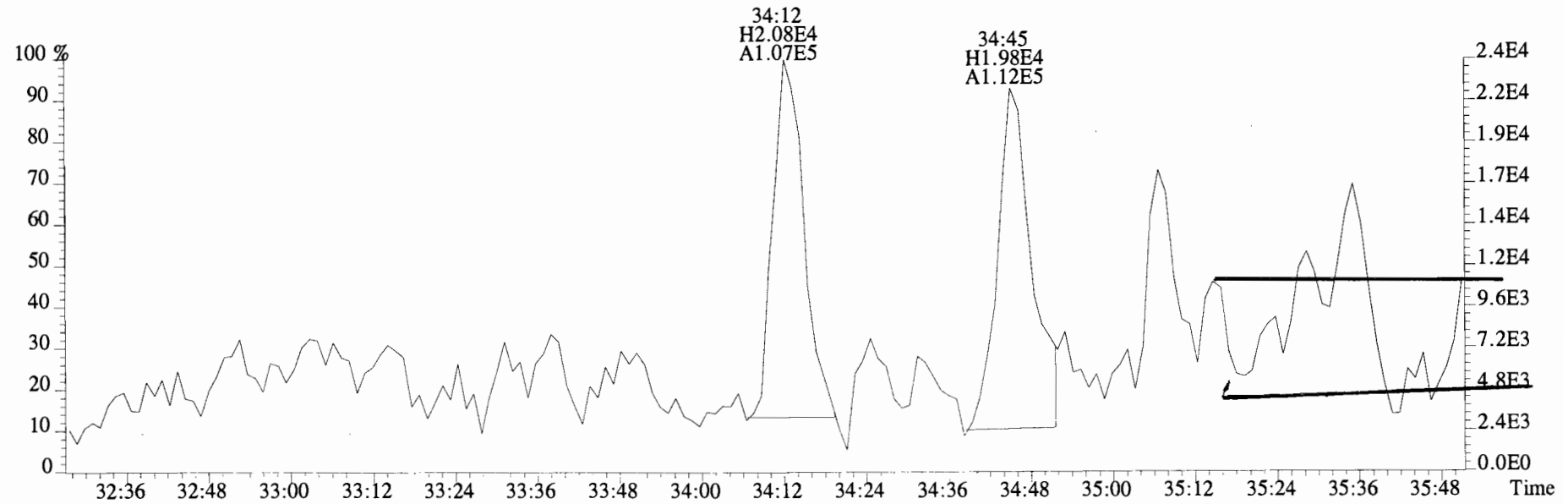
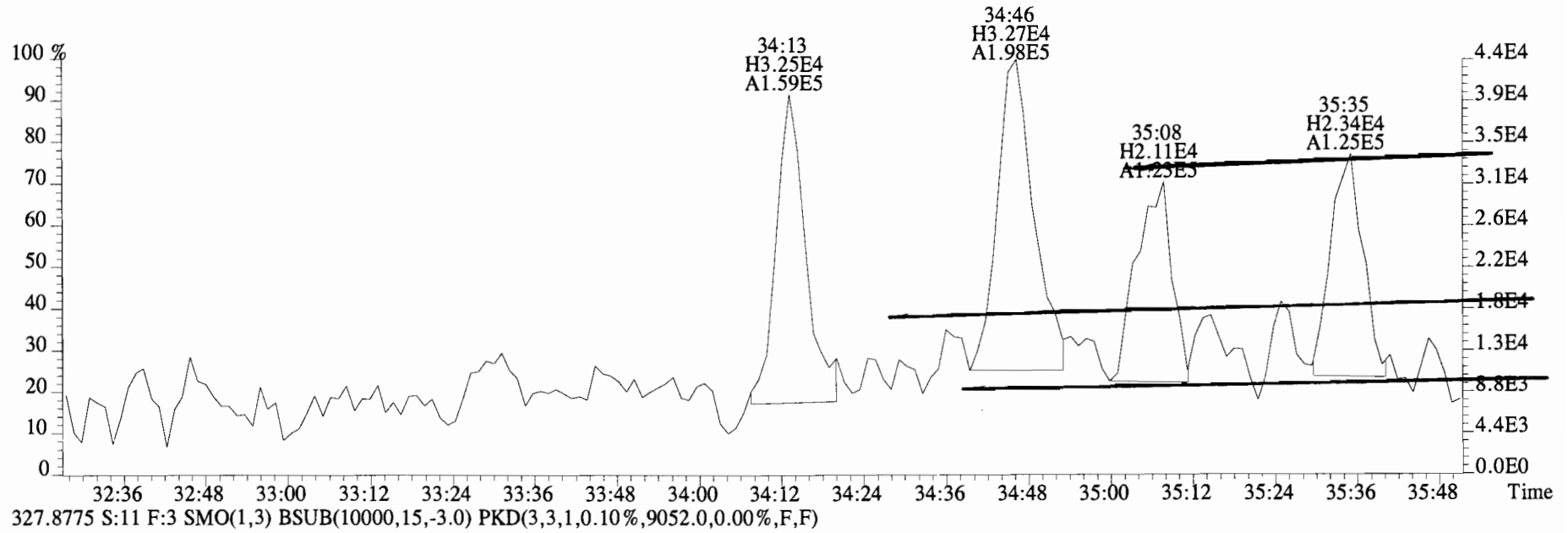
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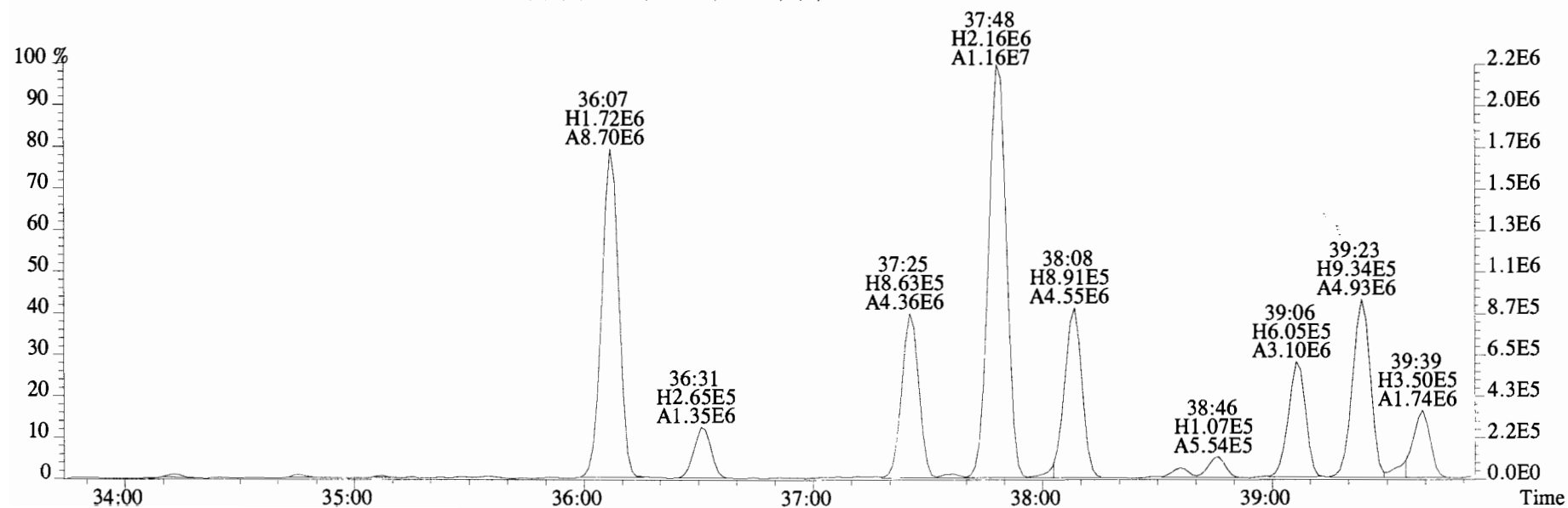
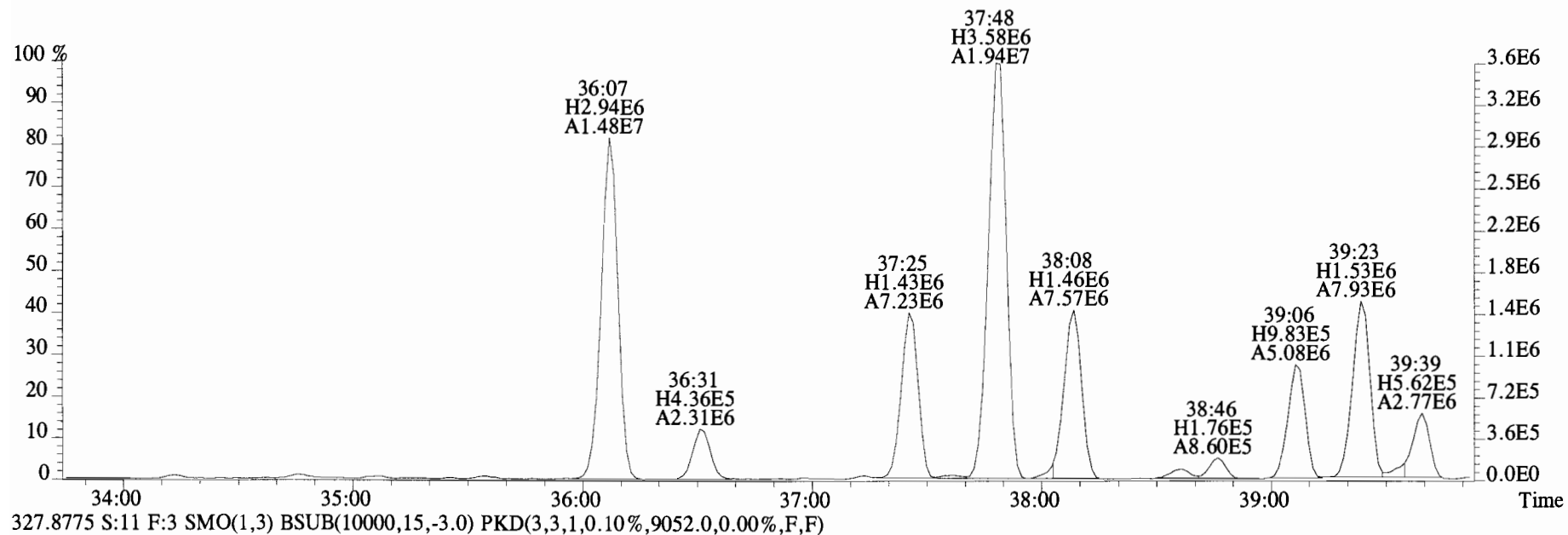
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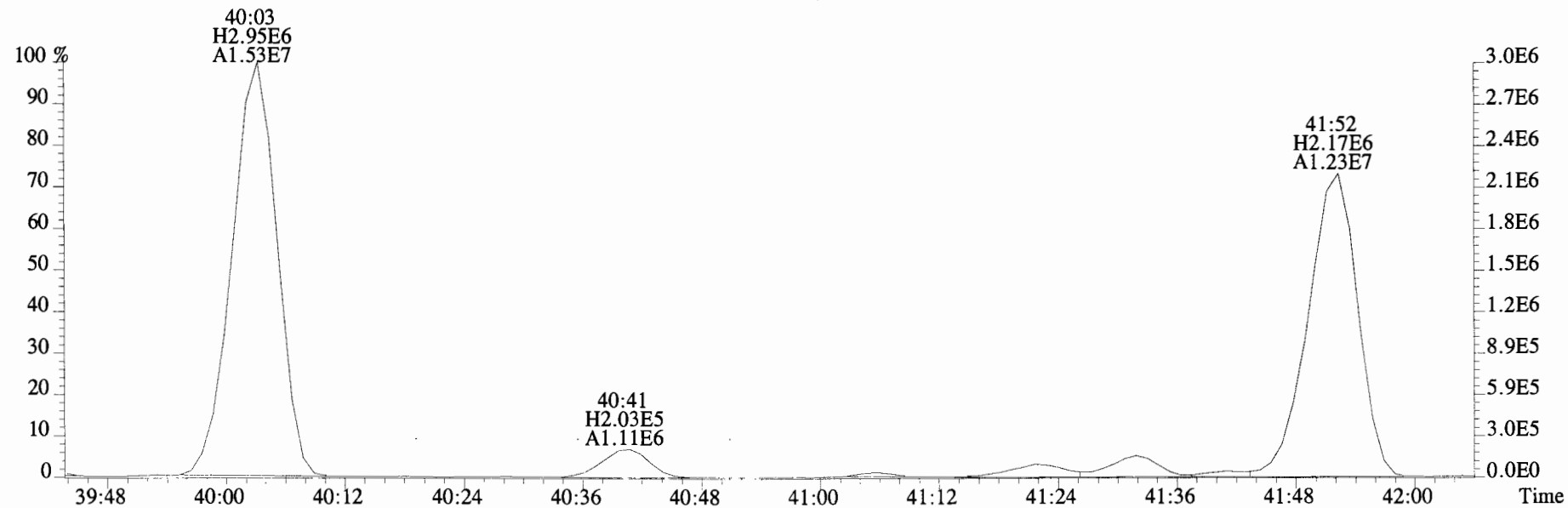
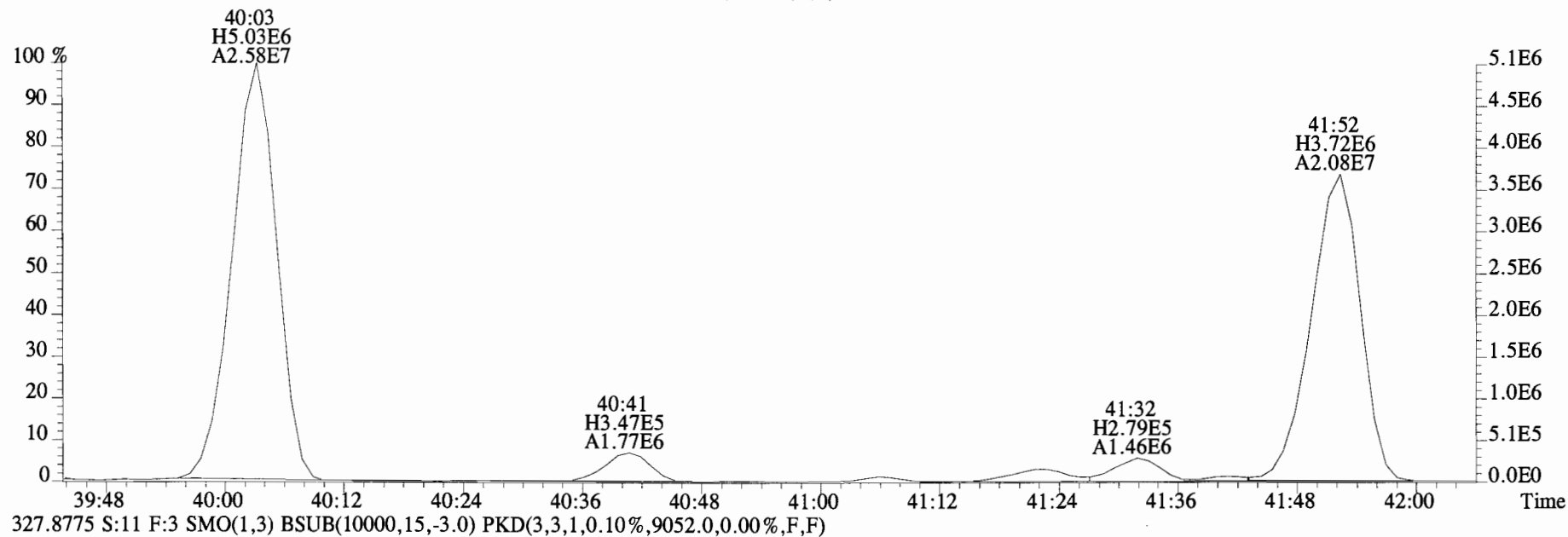
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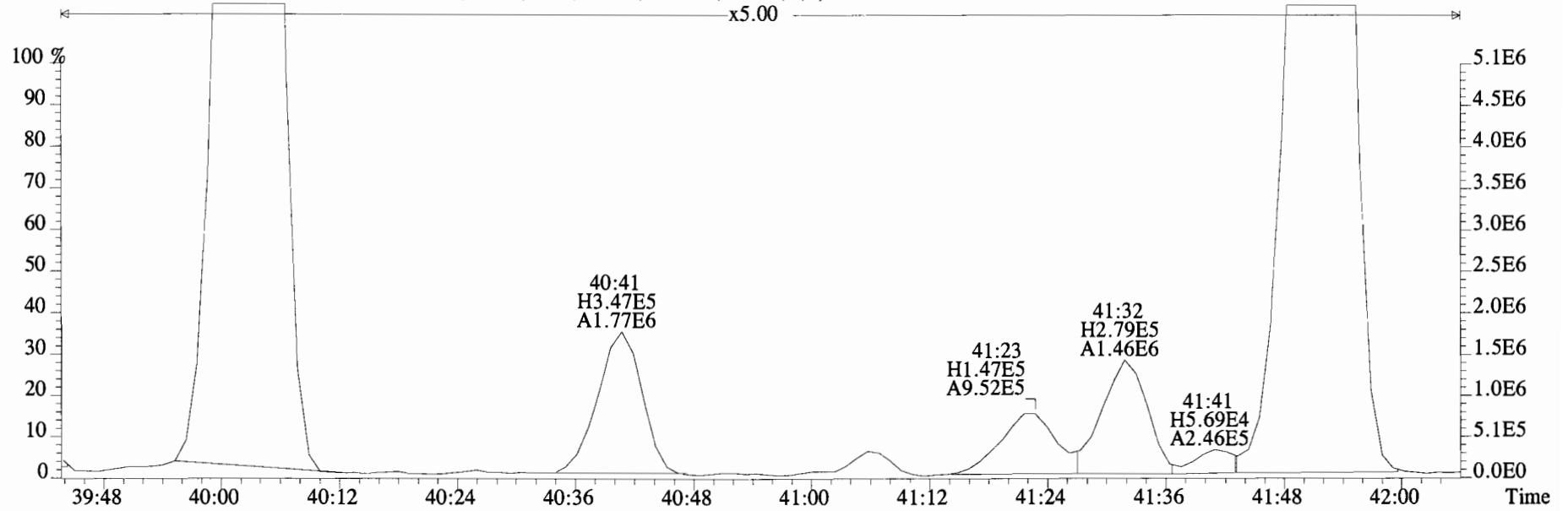
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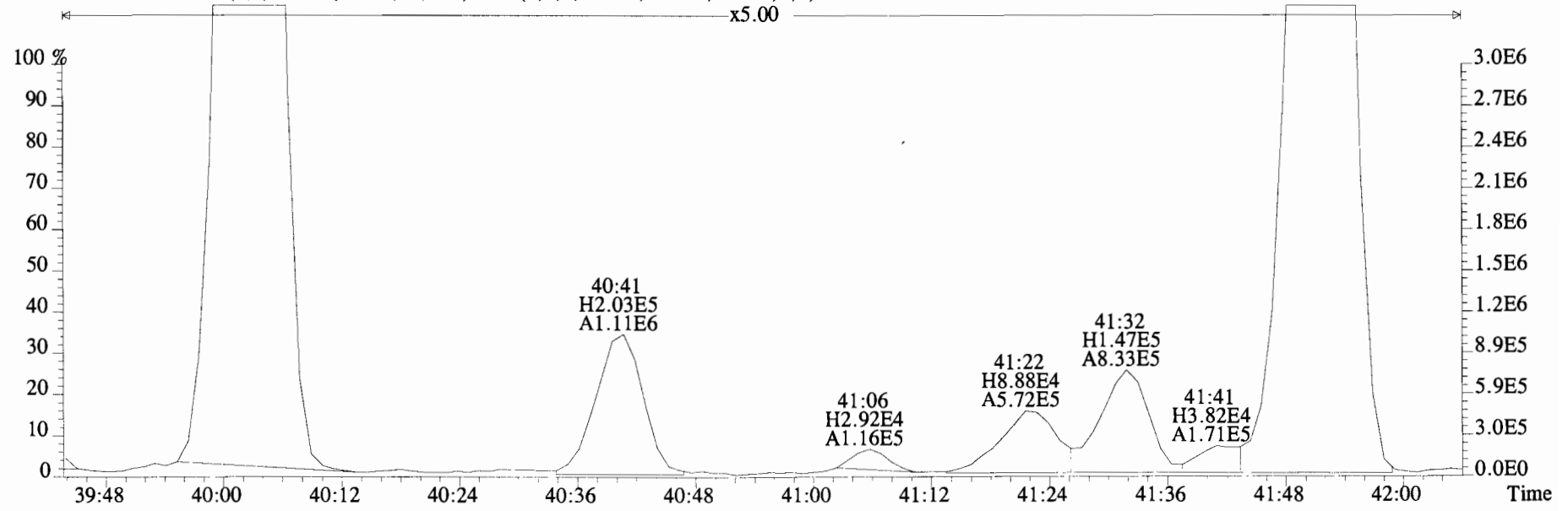
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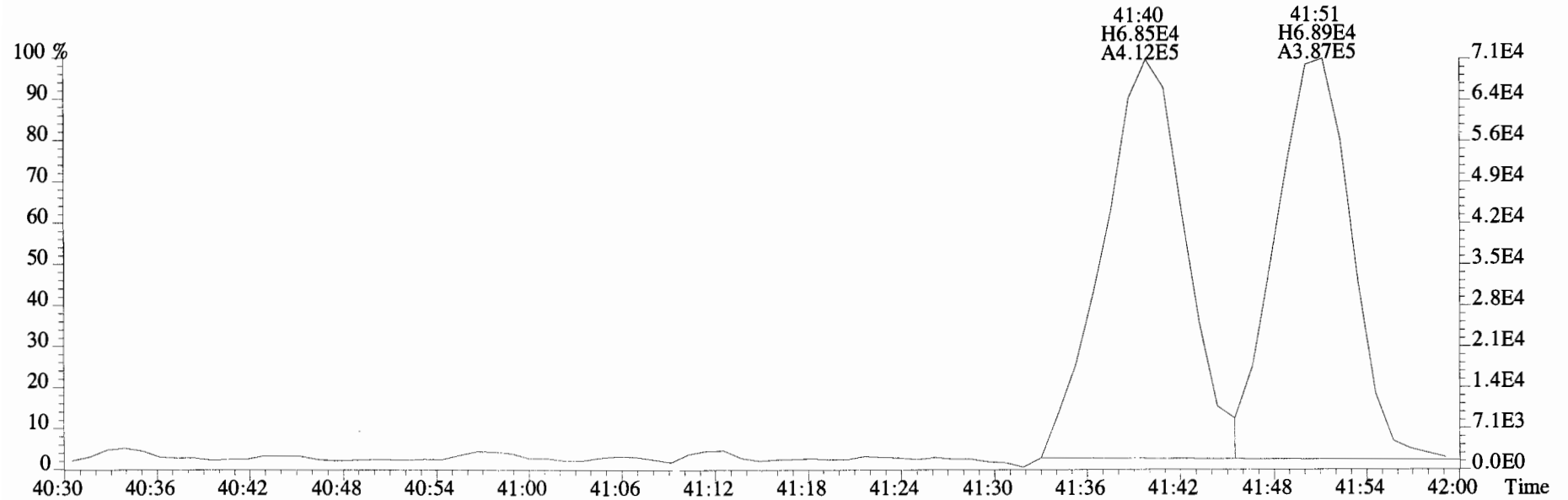
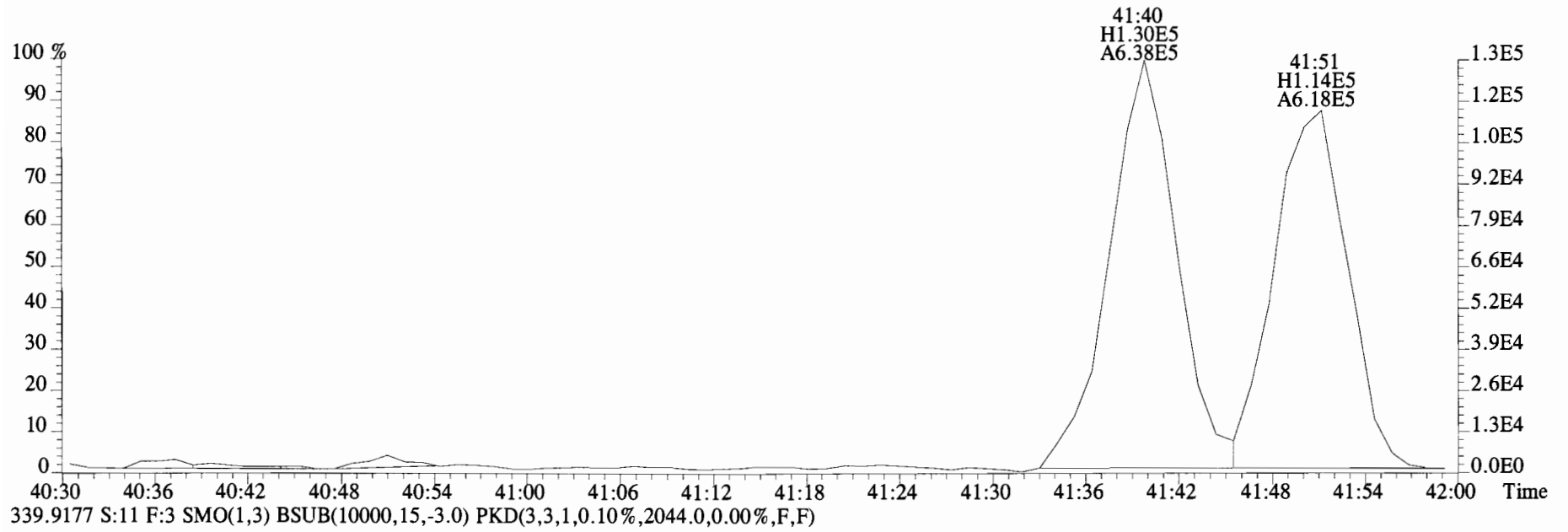
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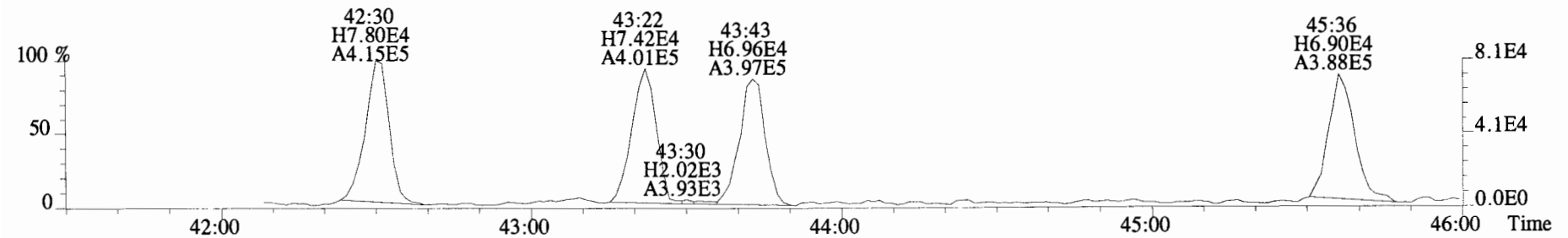
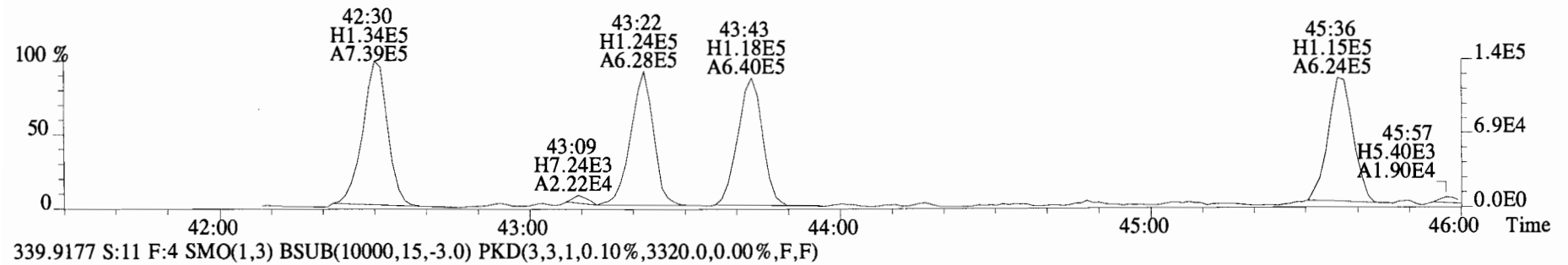
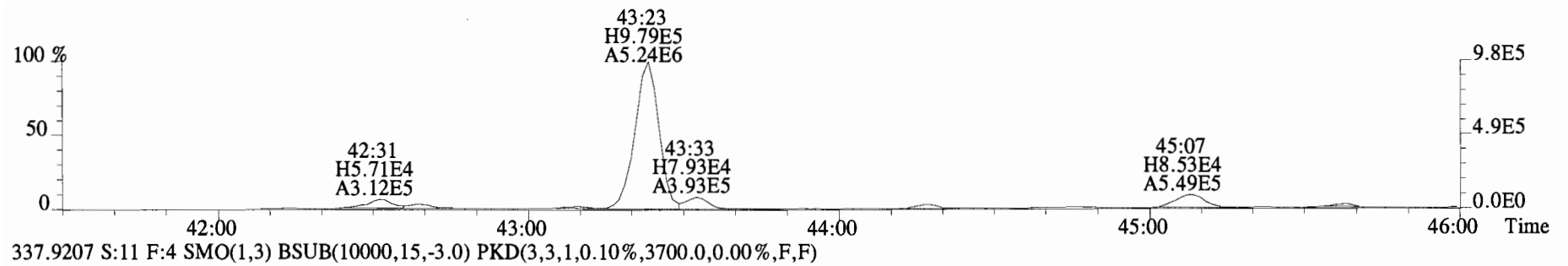
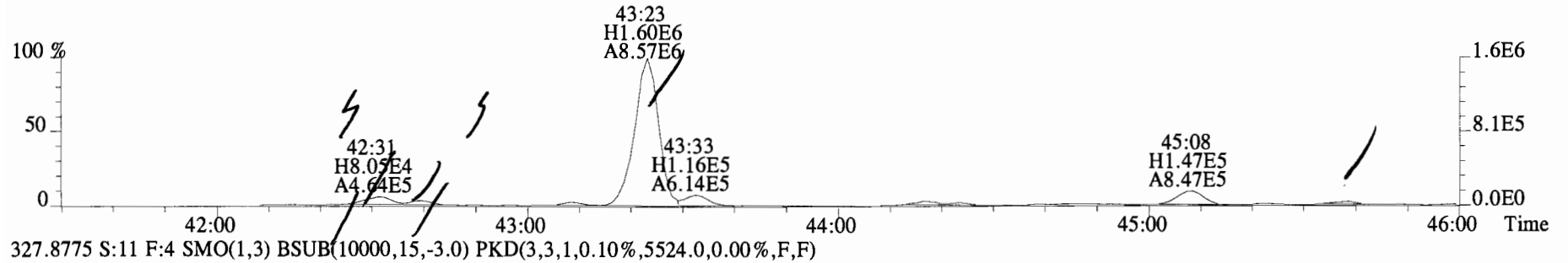
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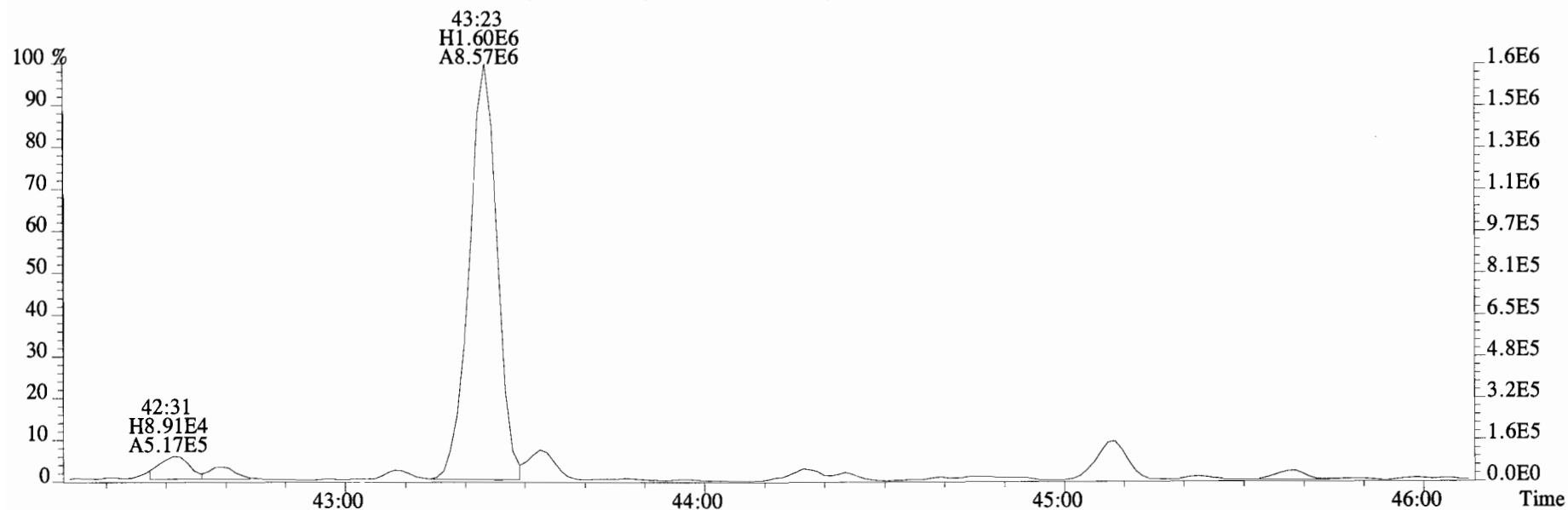
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Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
337.9207 S:11 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1860.0,0.00%,F,F)



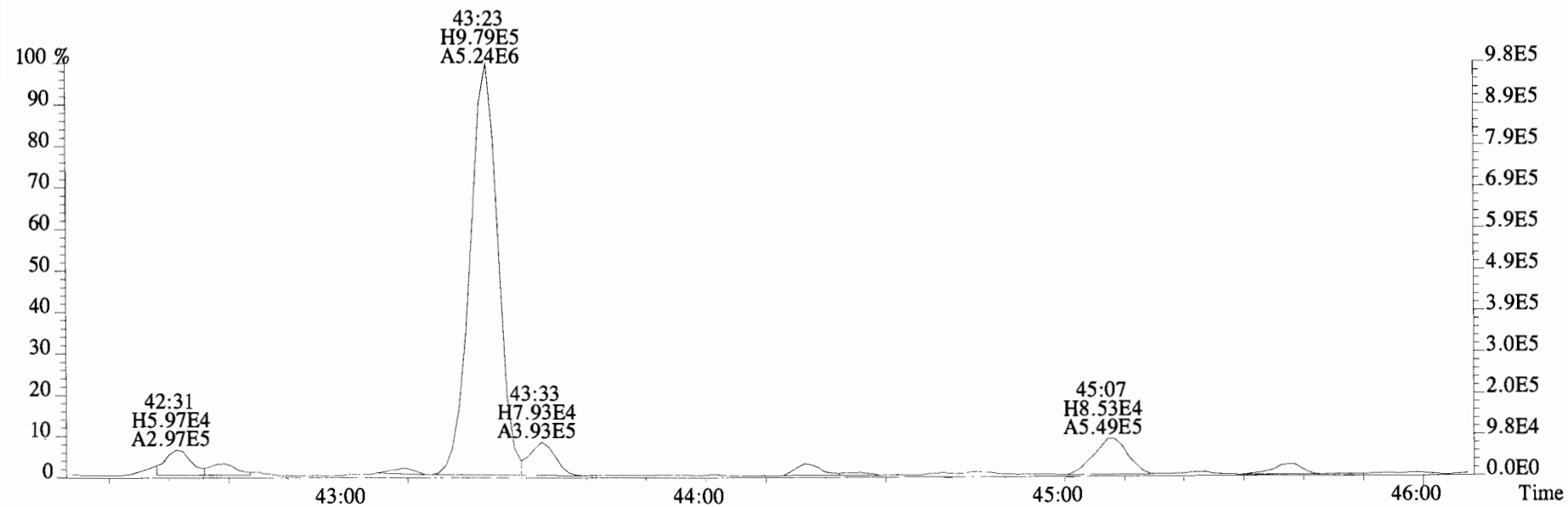
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 325.8804 S:11 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10688.0,0.00%,F,F)



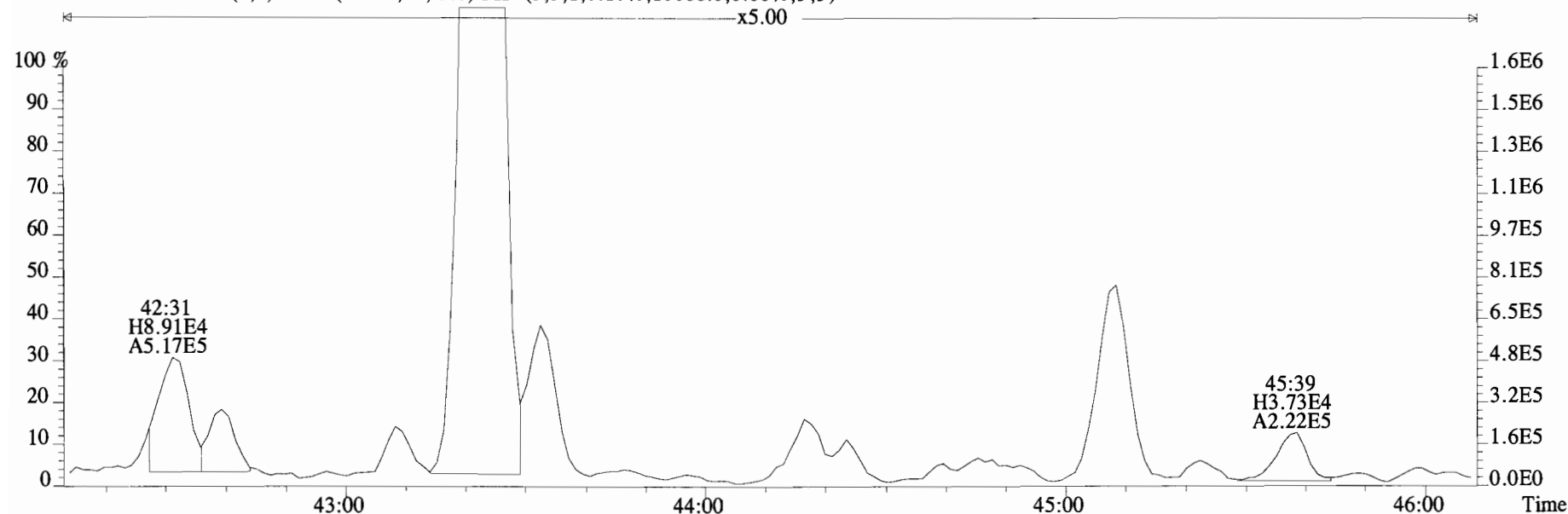
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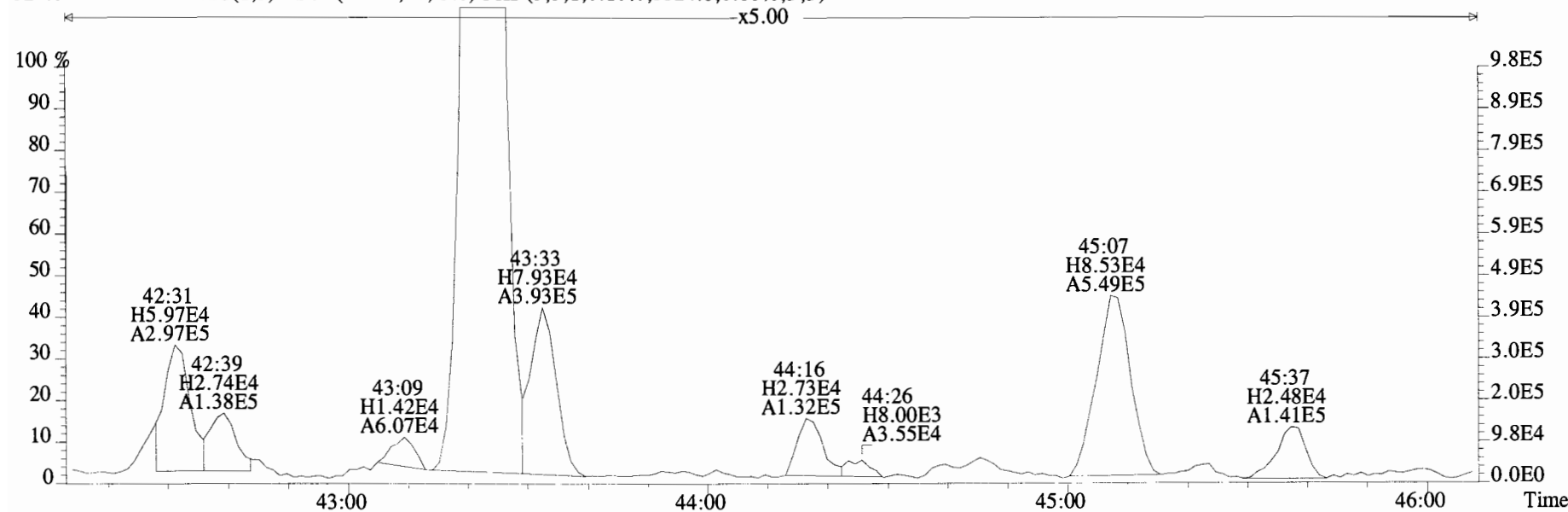
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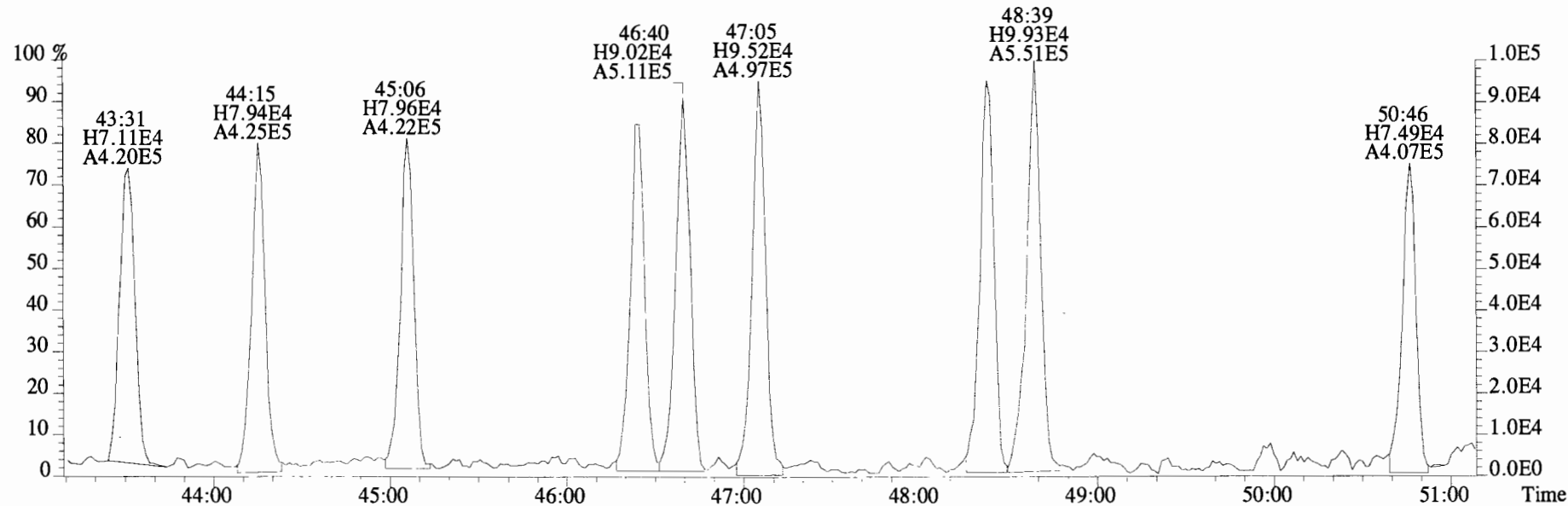
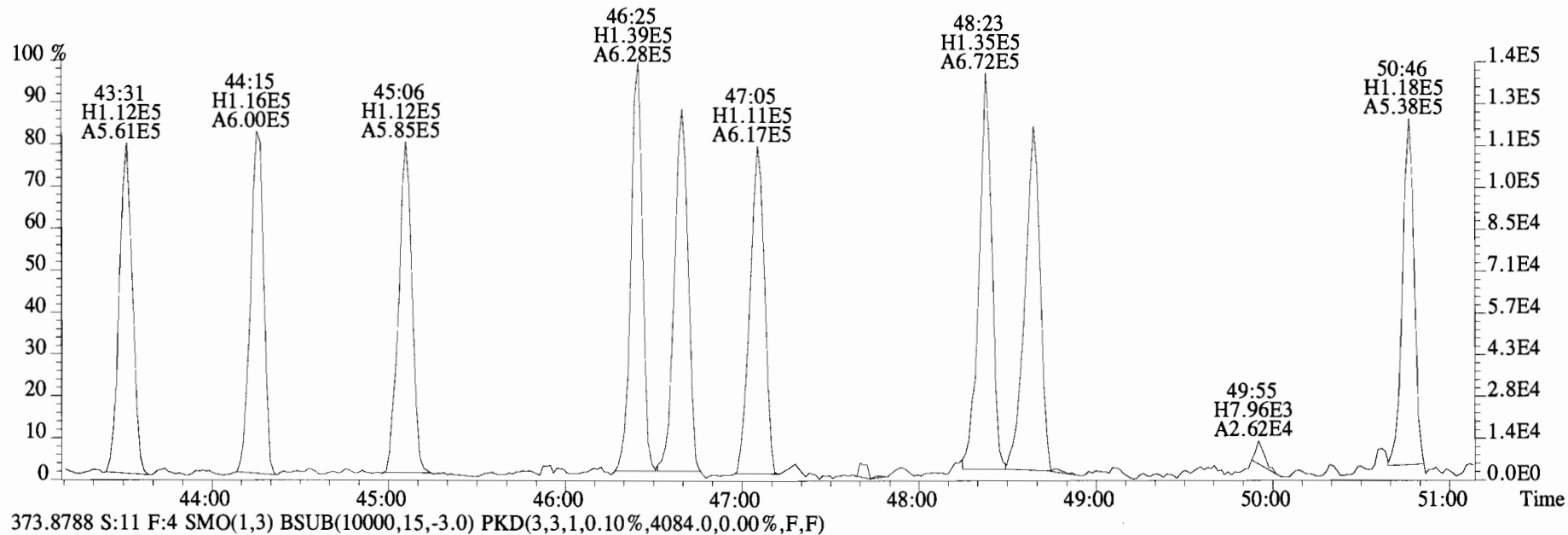
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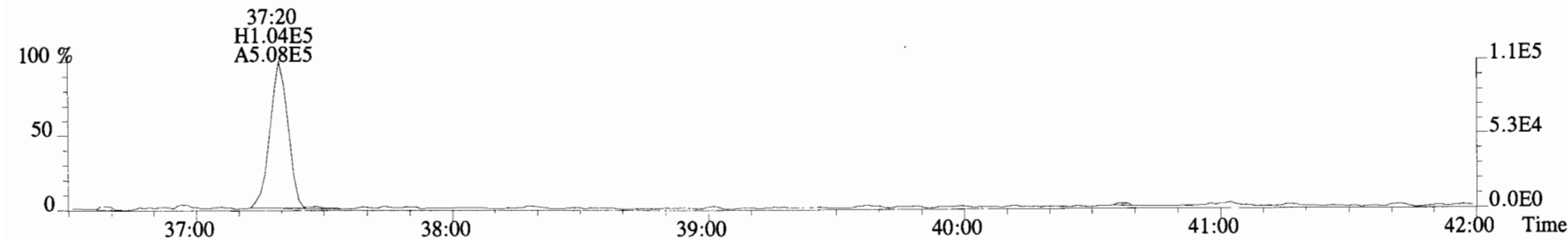
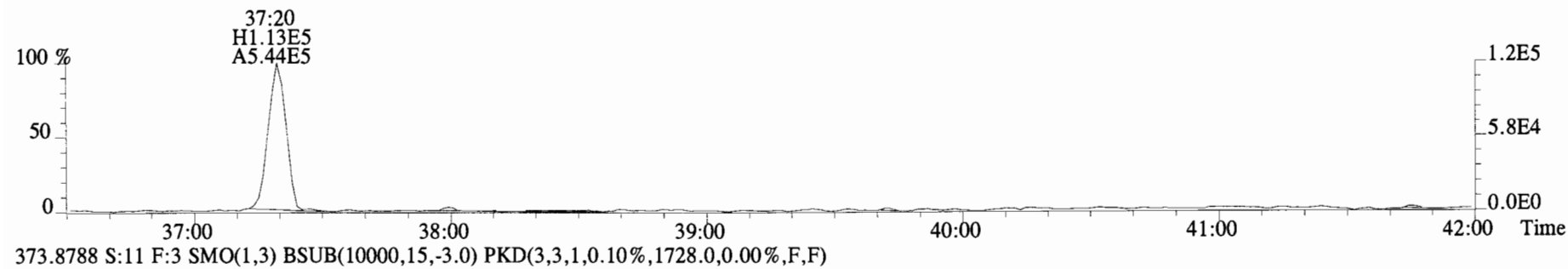
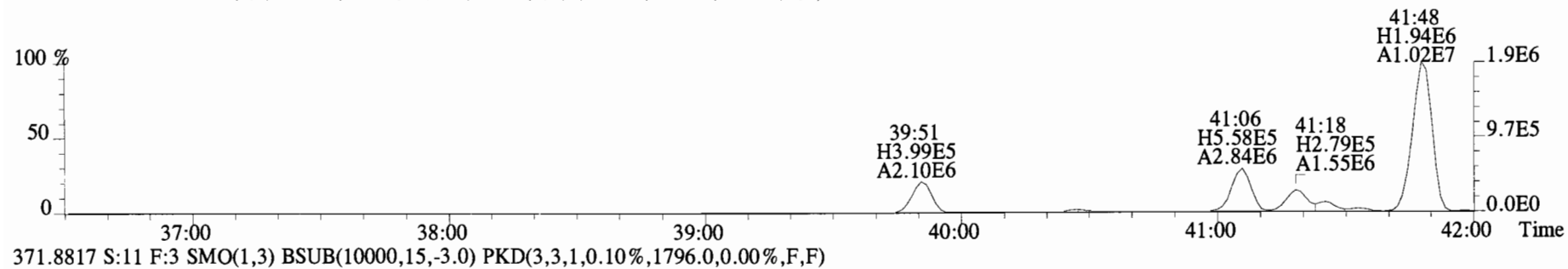
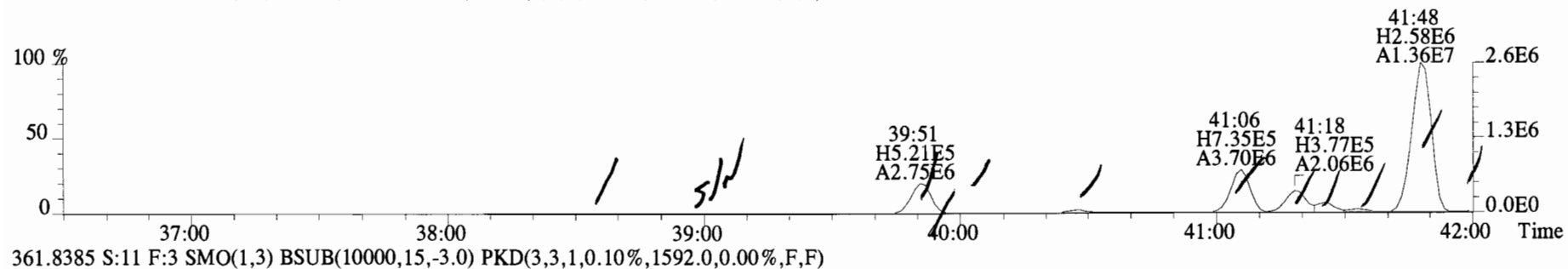
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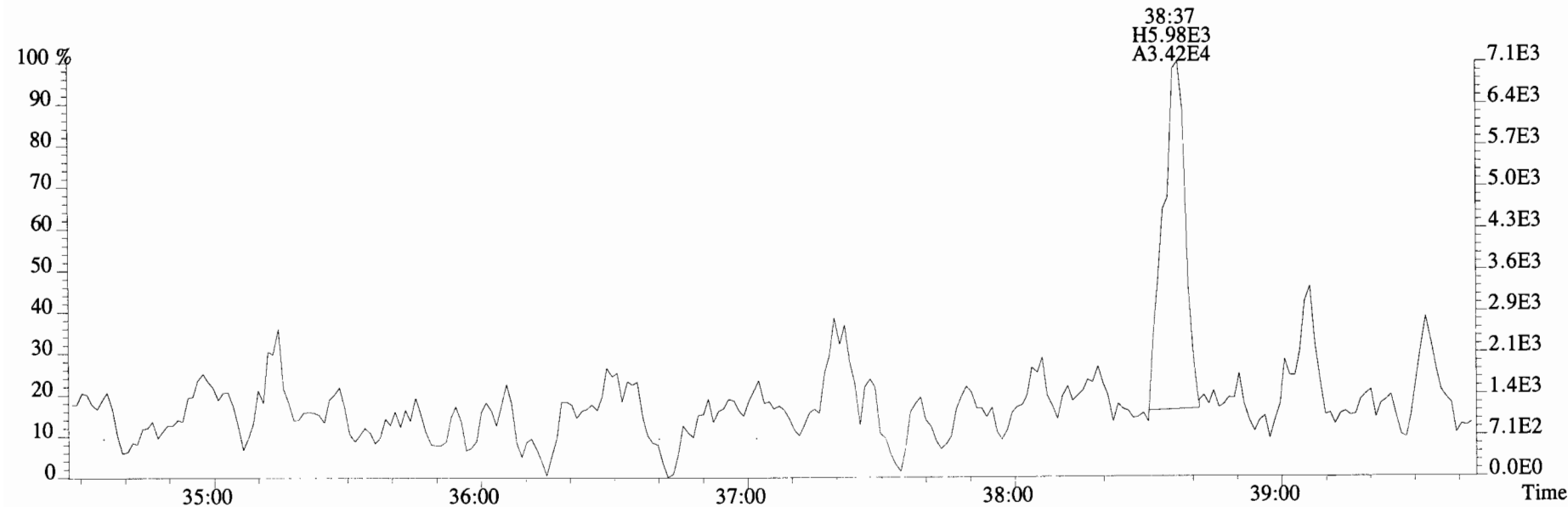
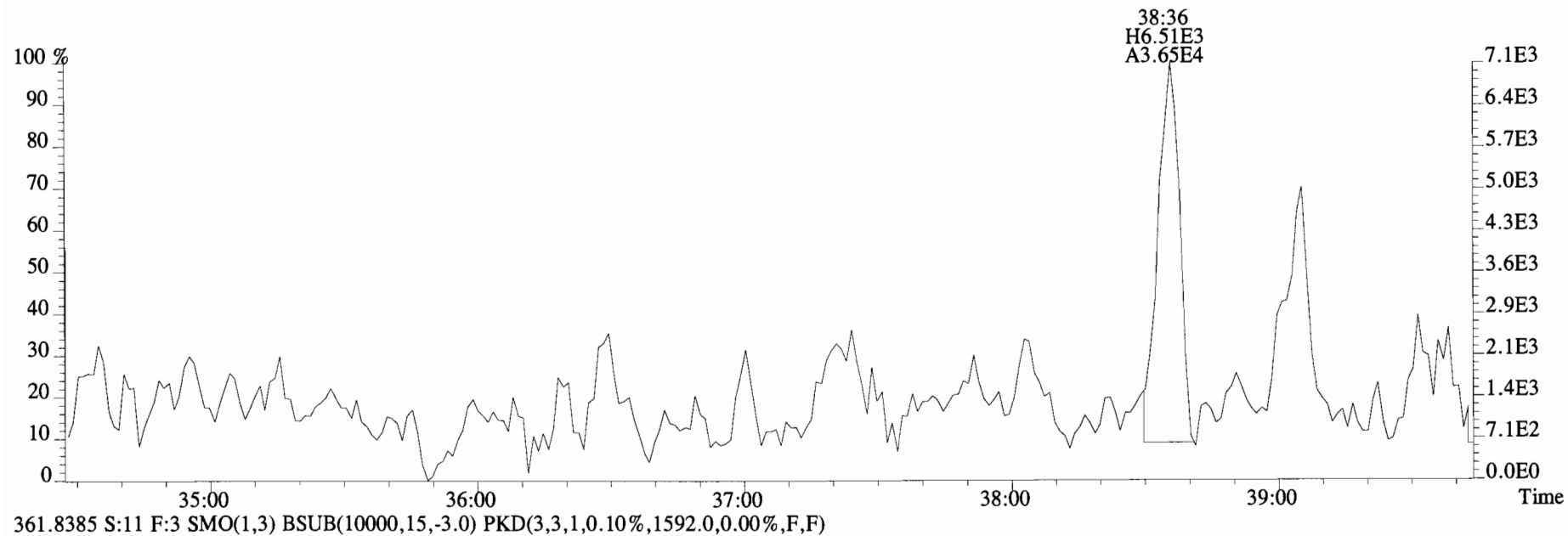
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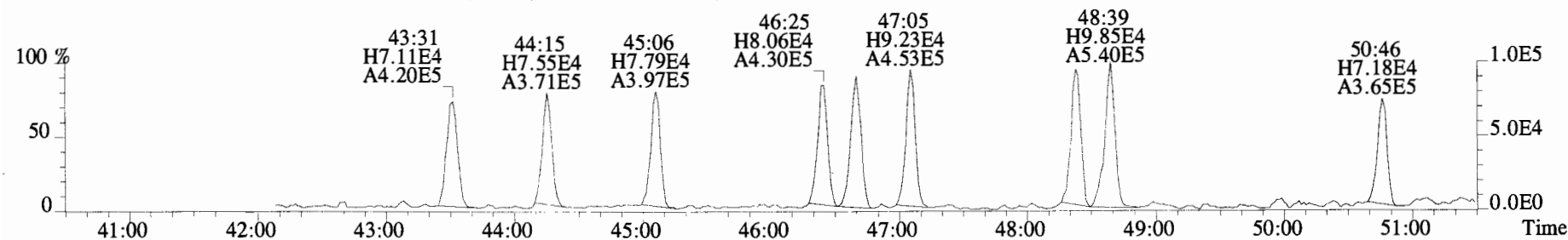
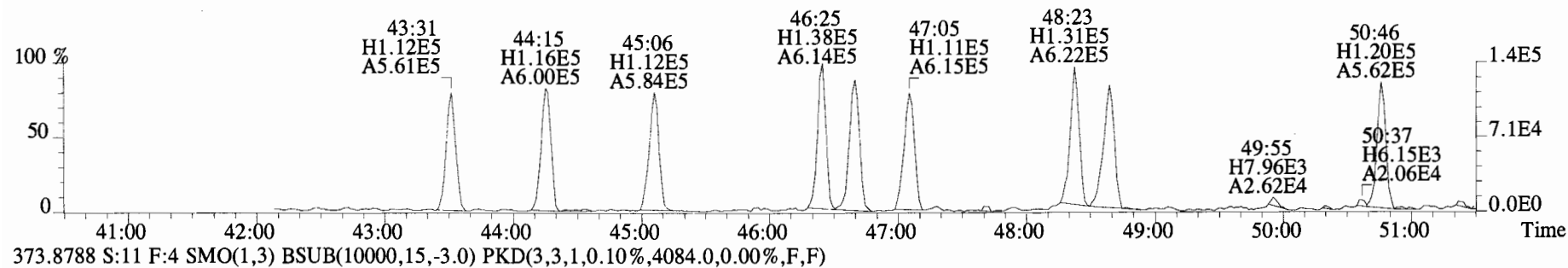
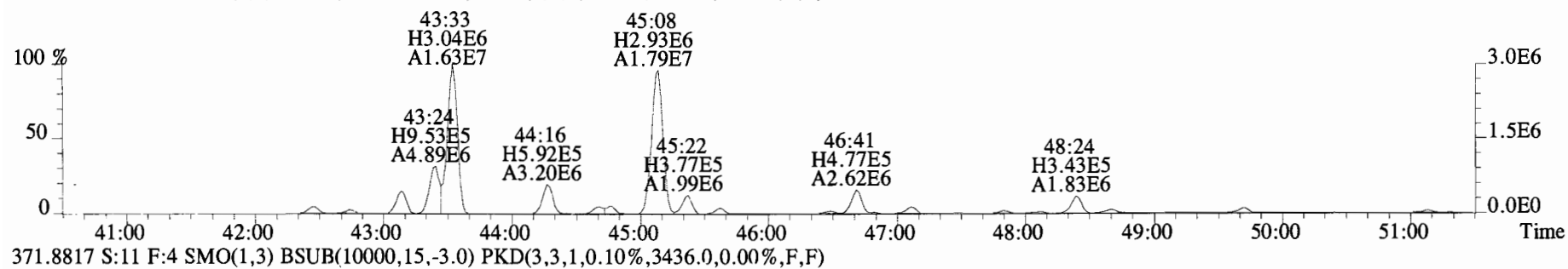
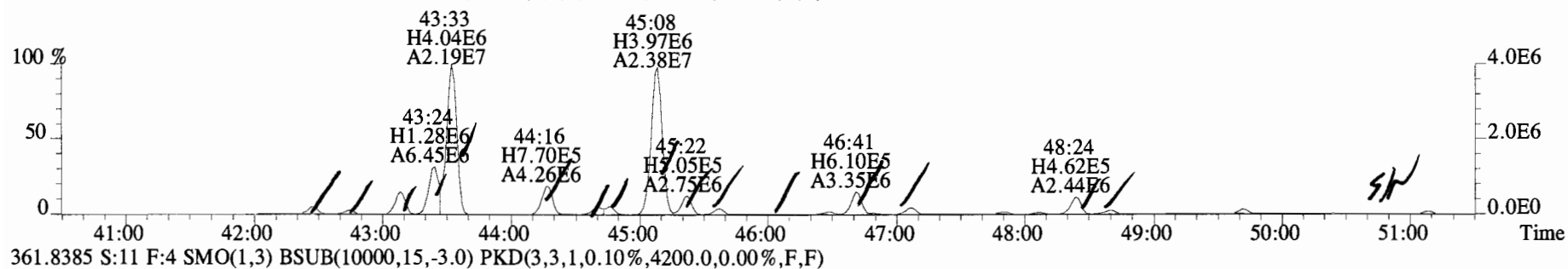
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Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
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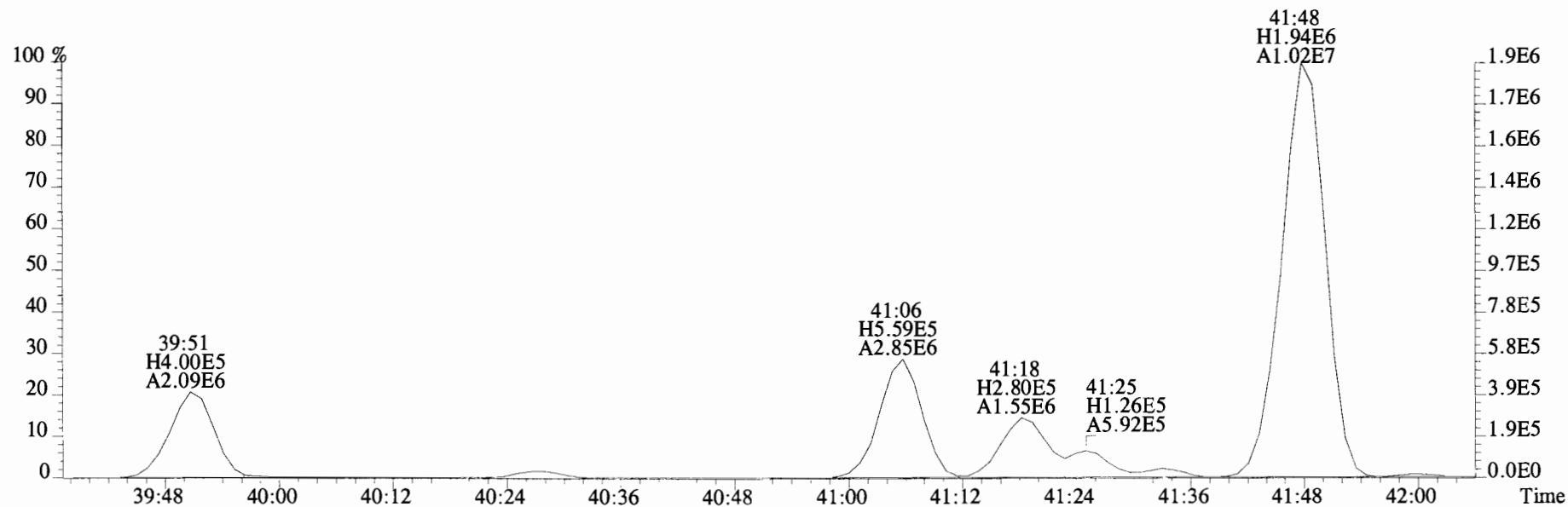
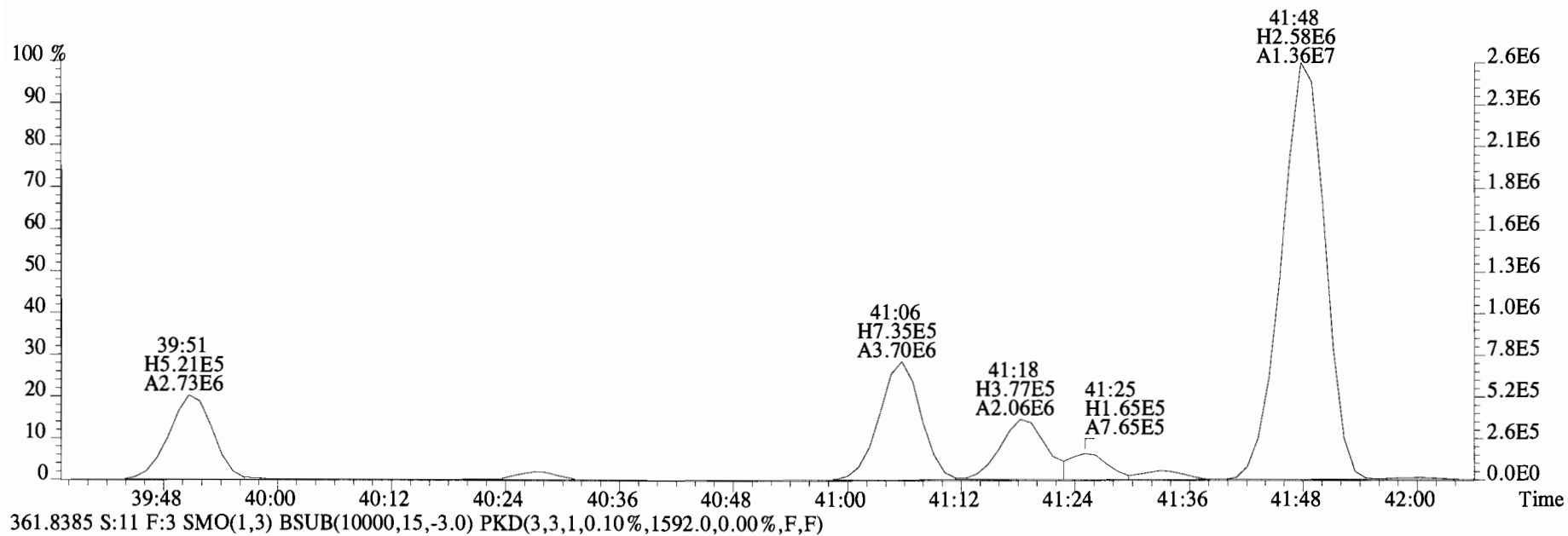
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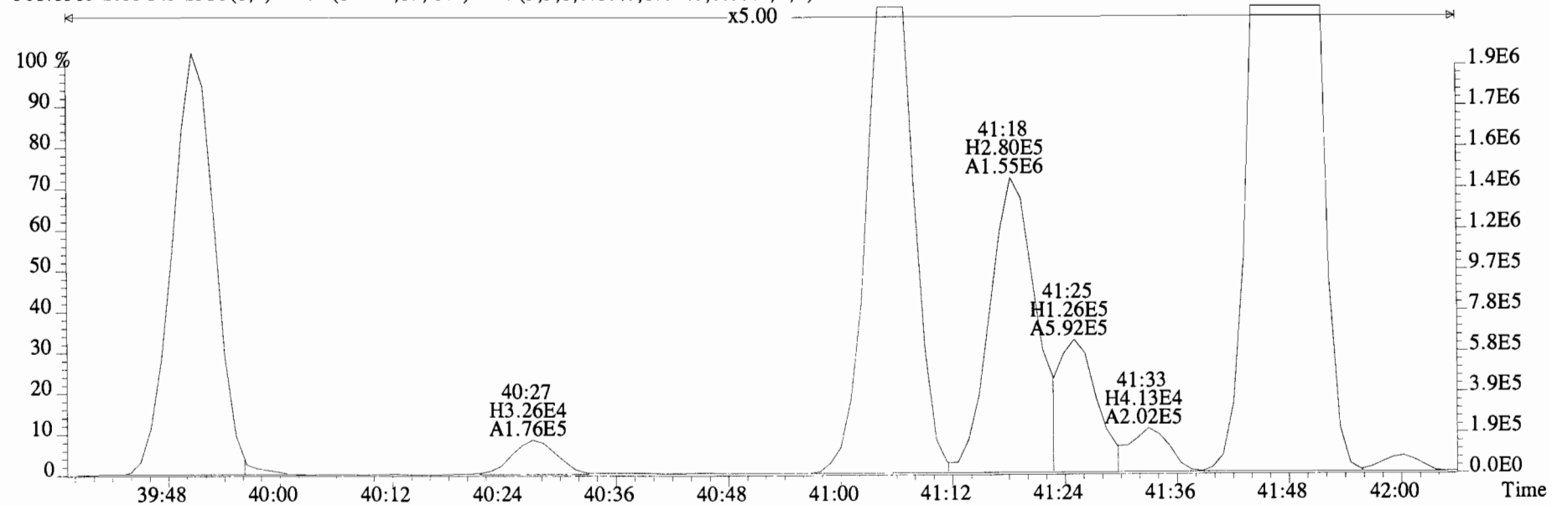
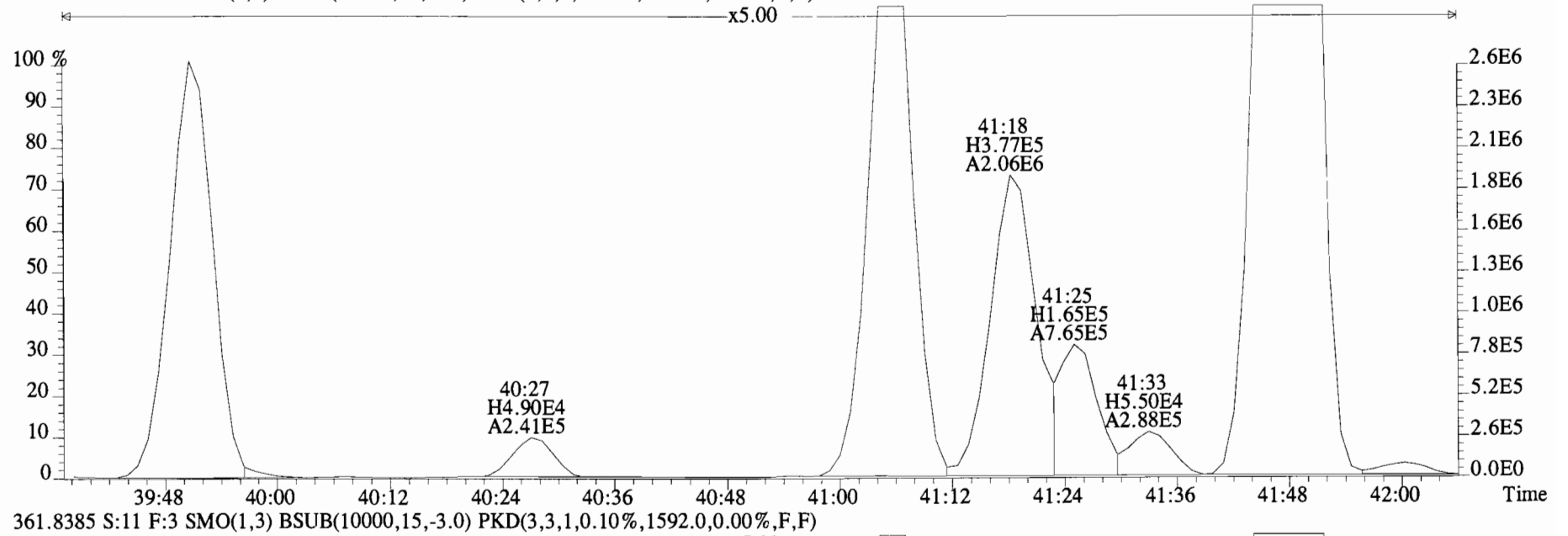
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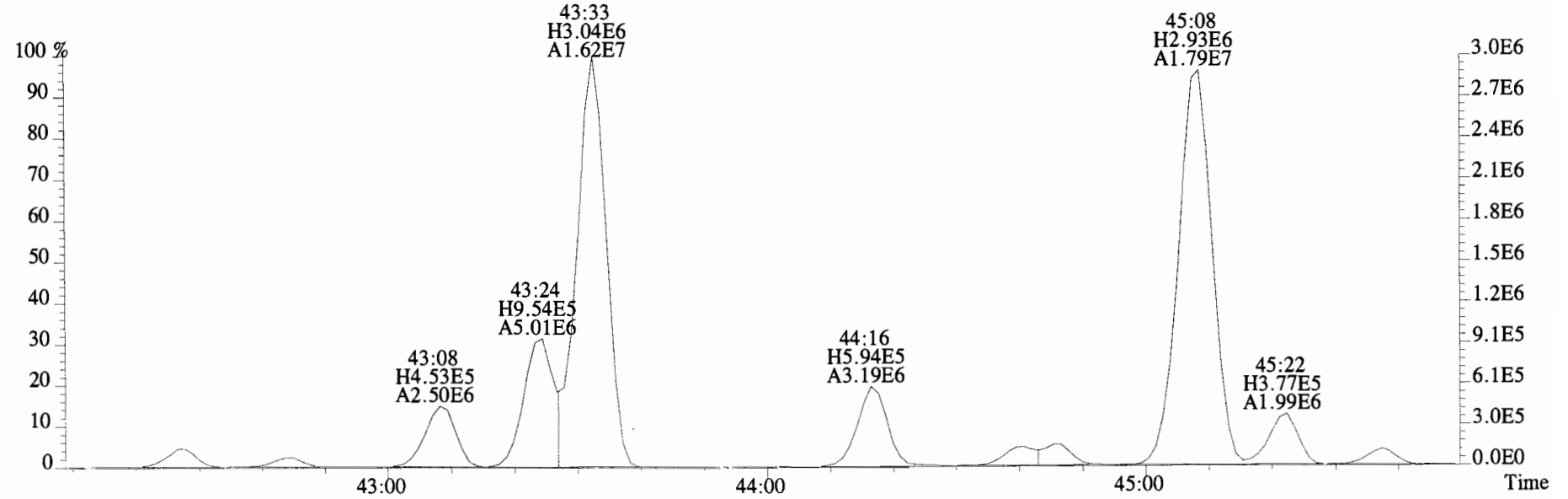
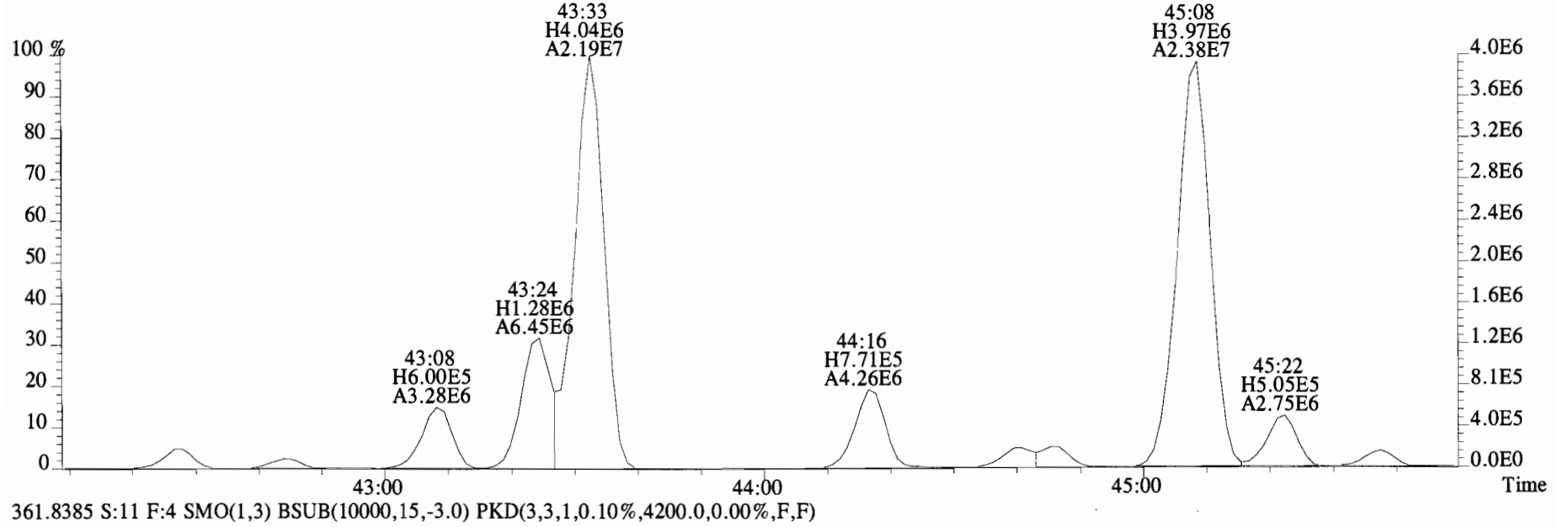
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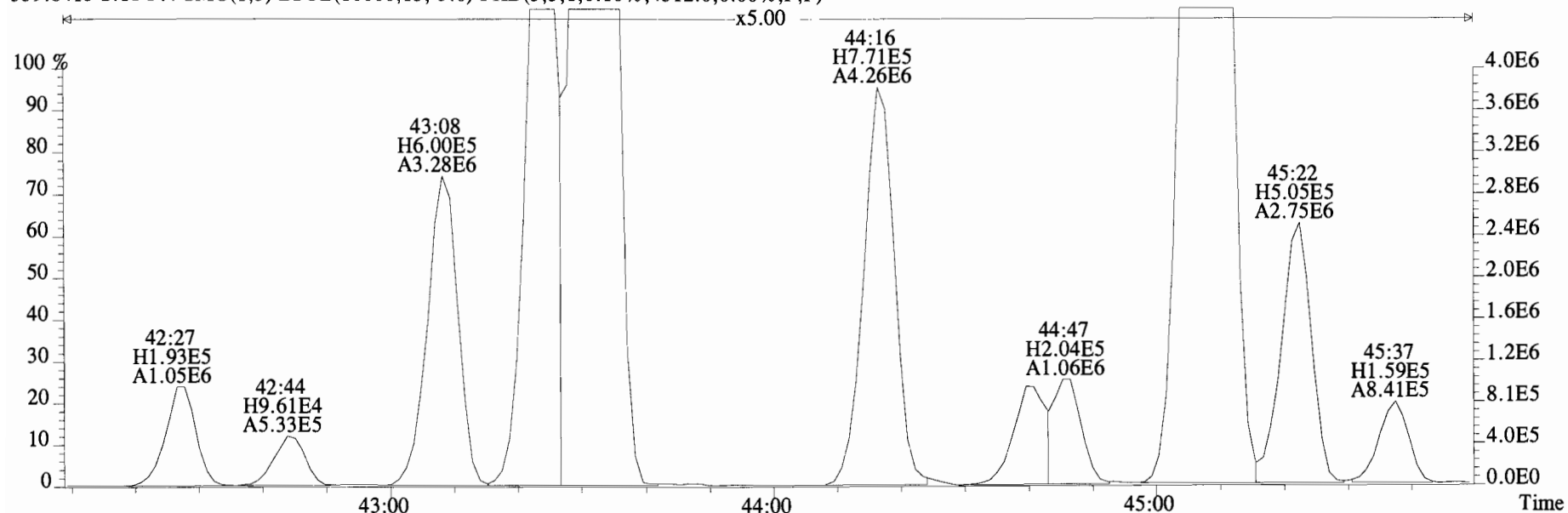
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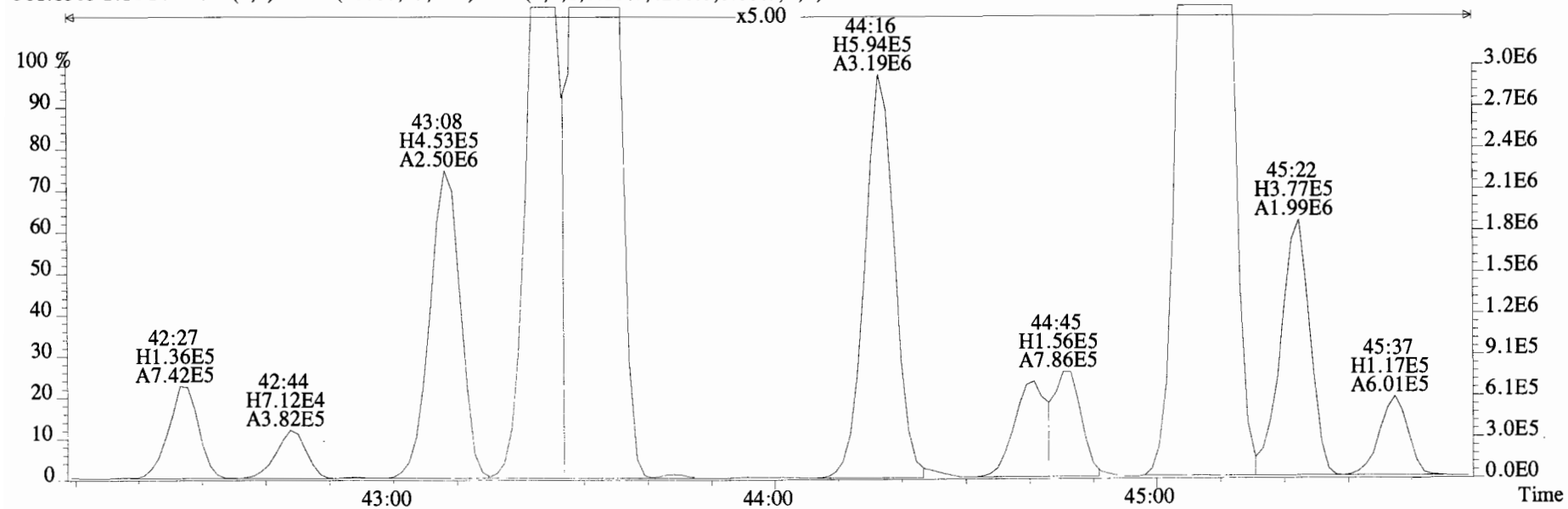
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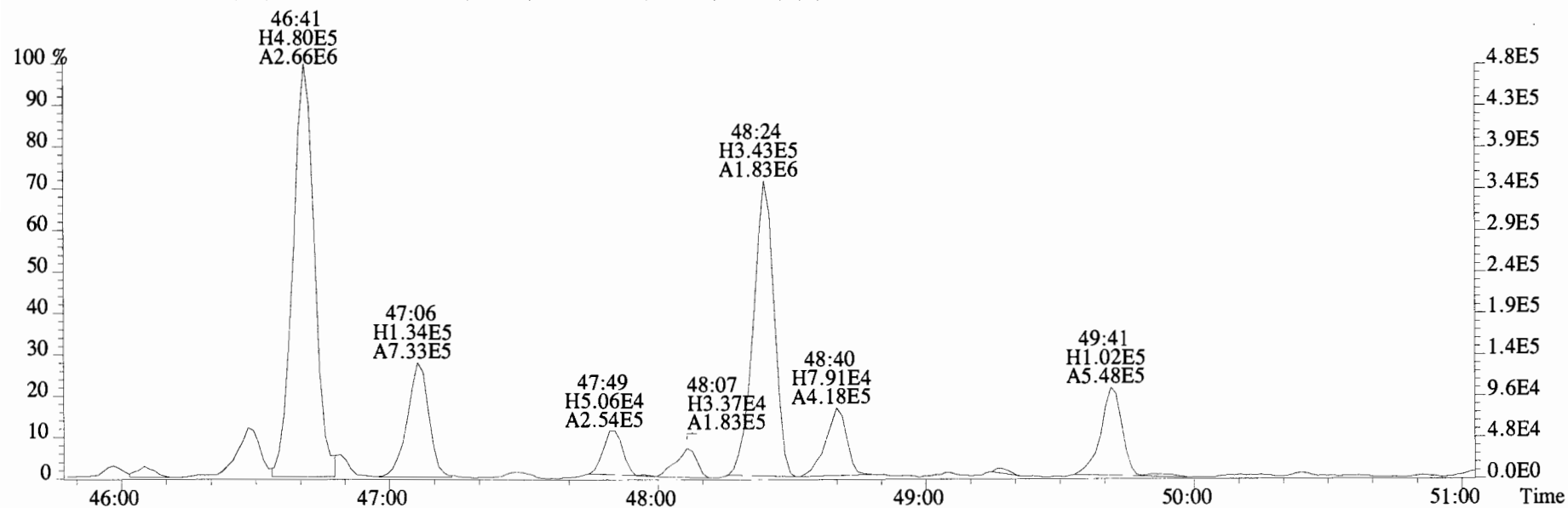
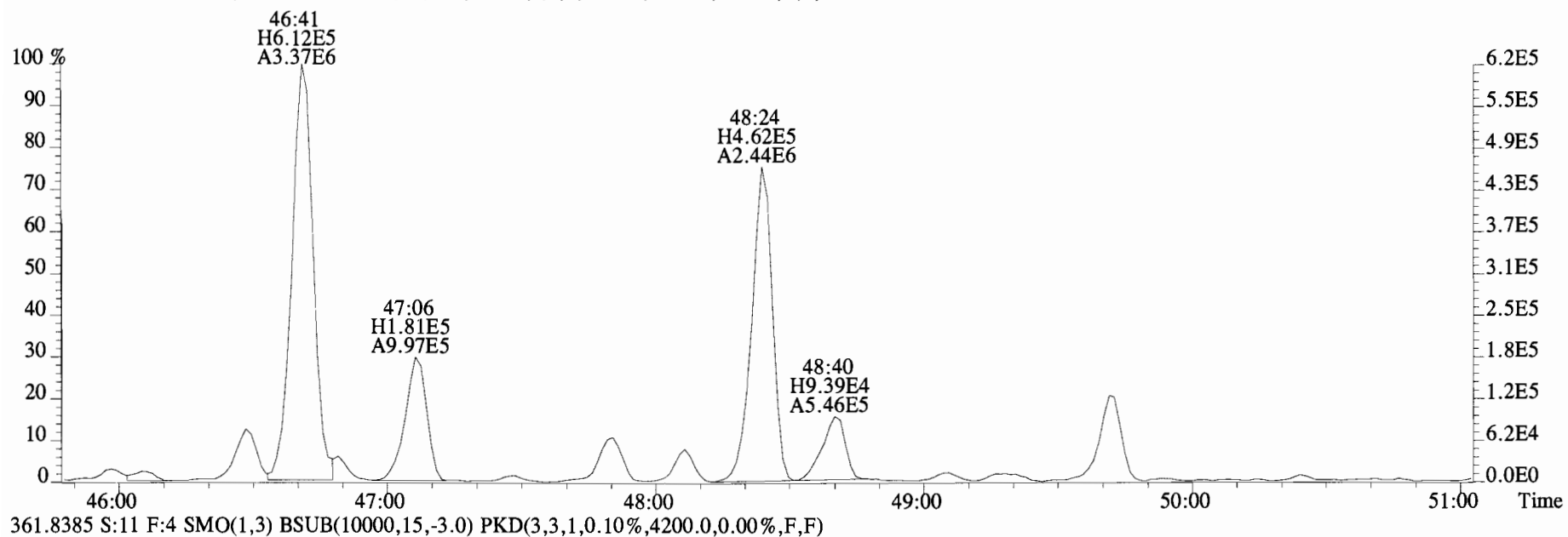
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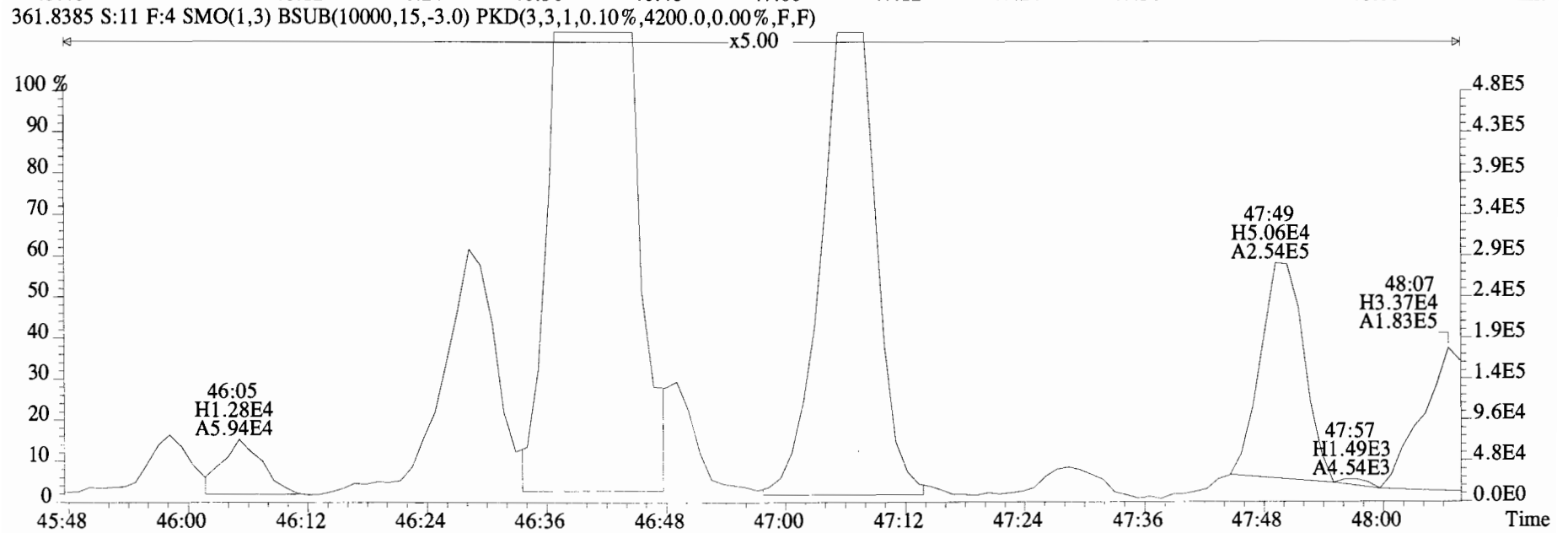
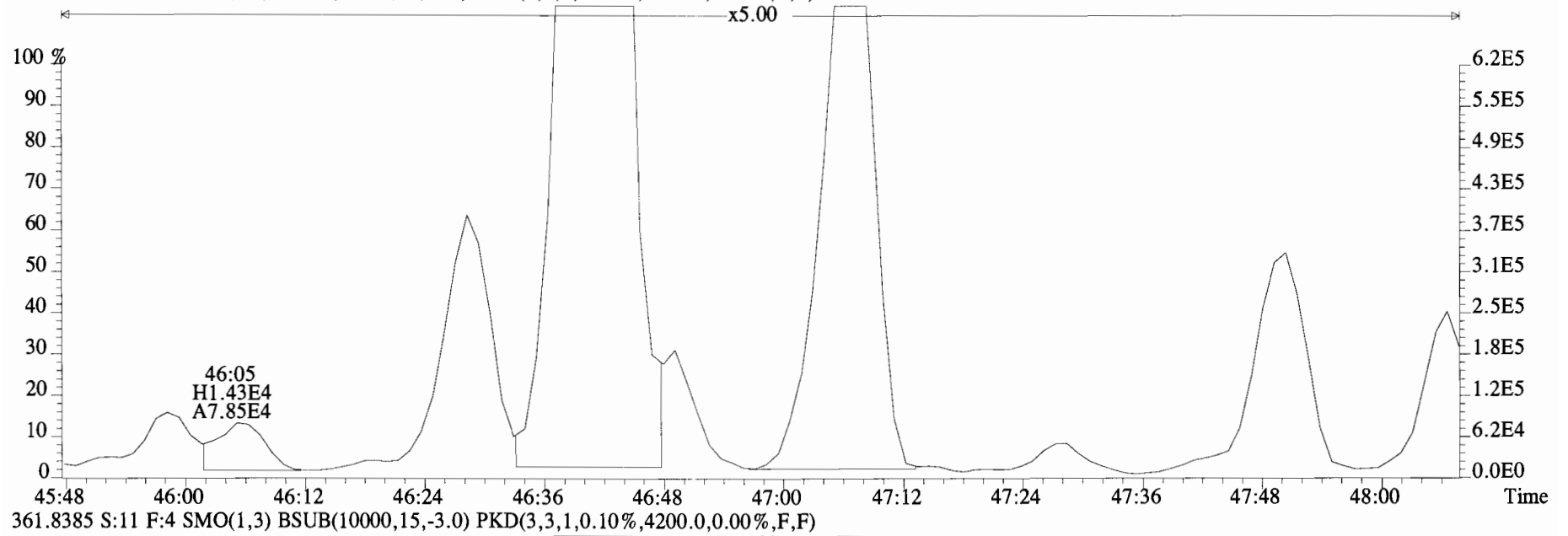
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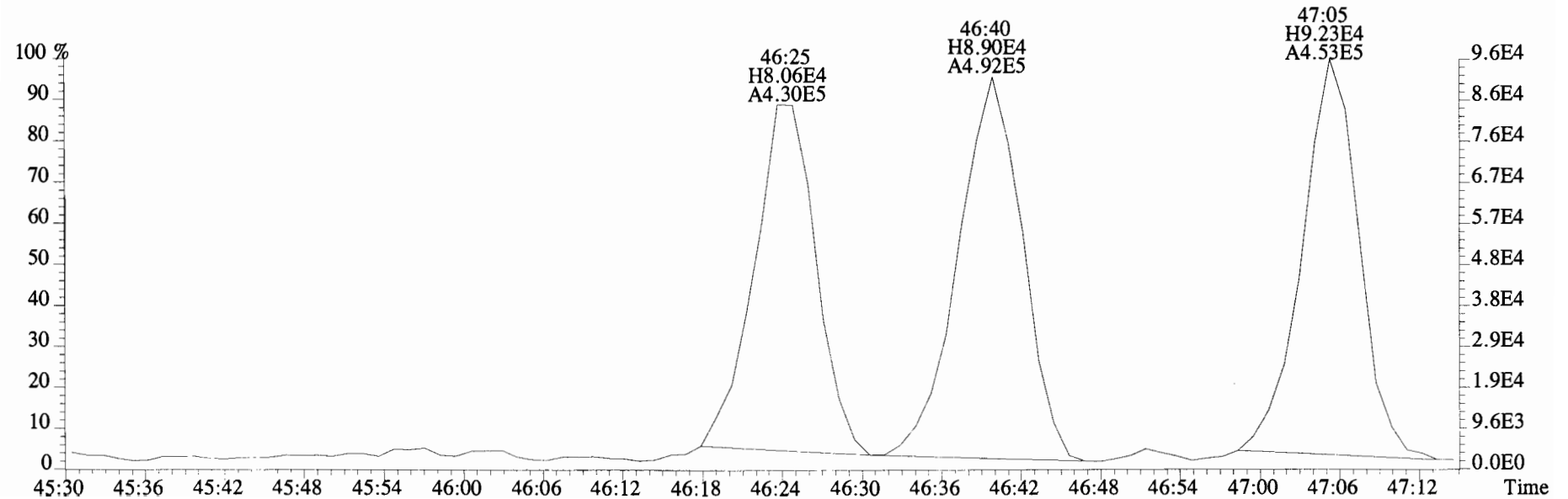
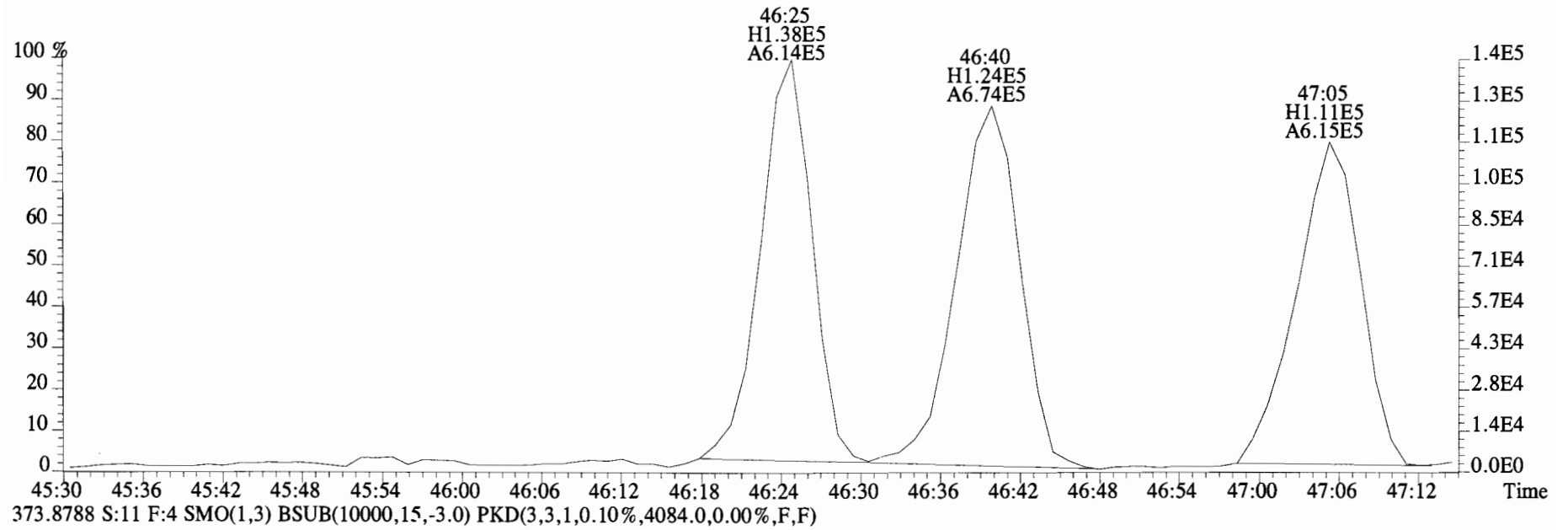
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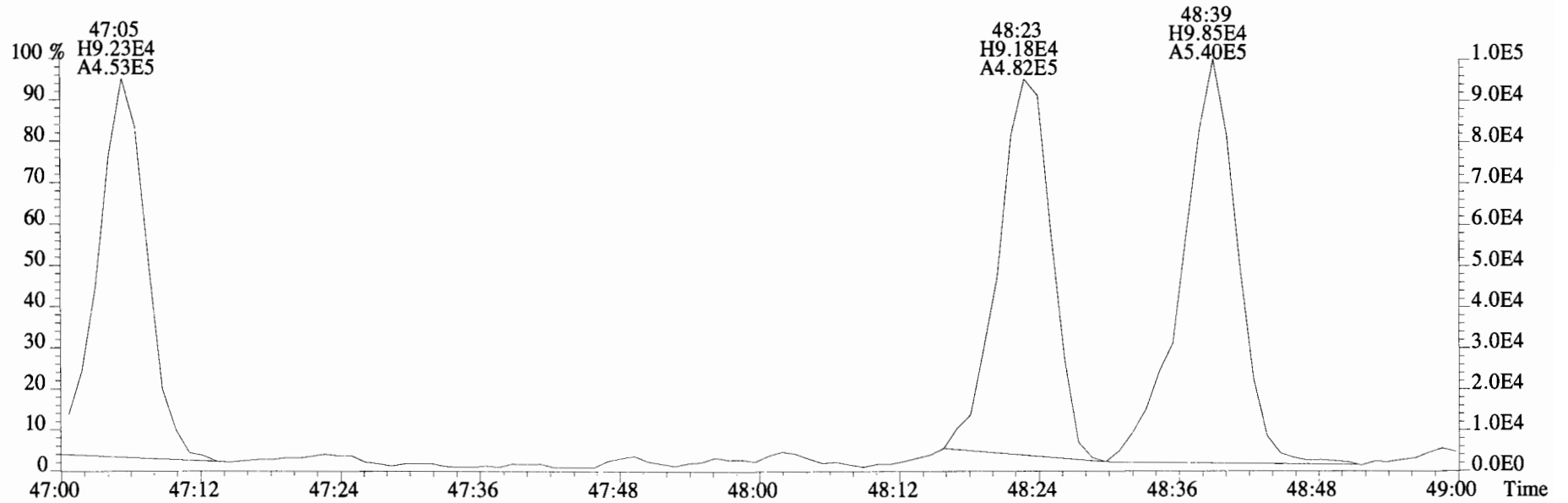
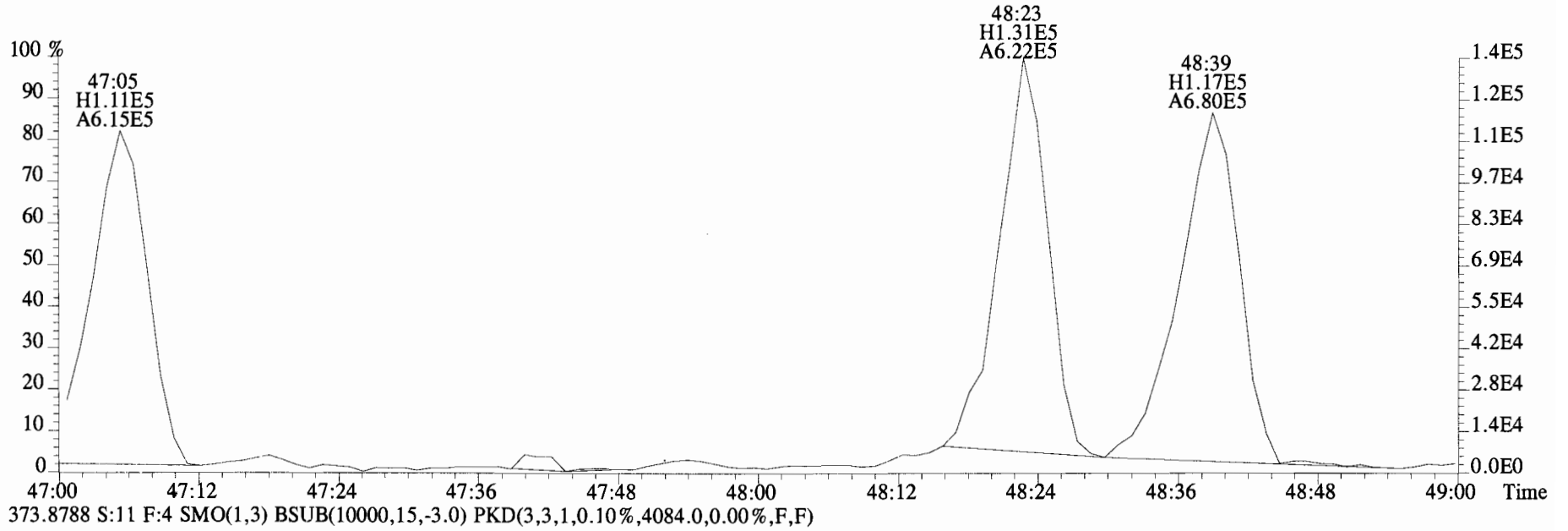
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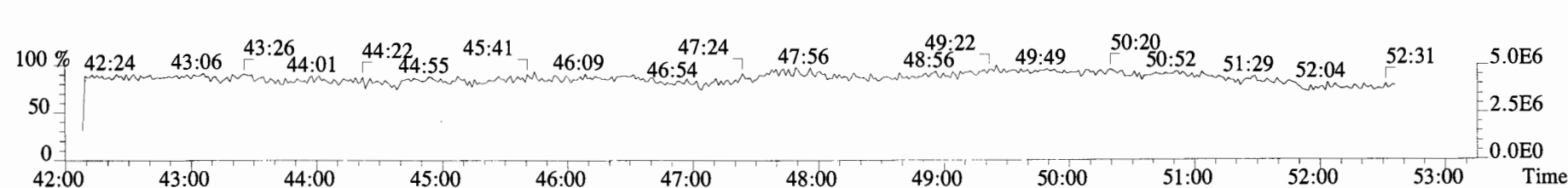
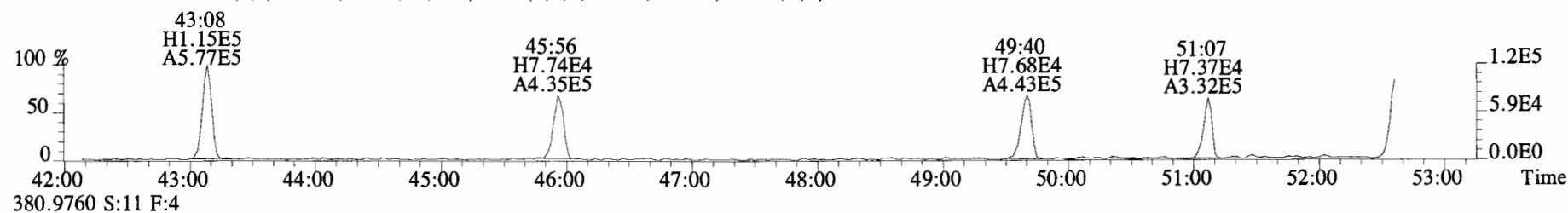
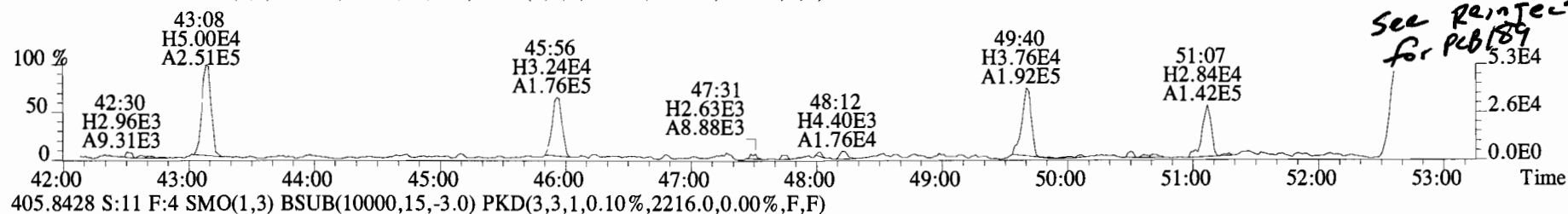
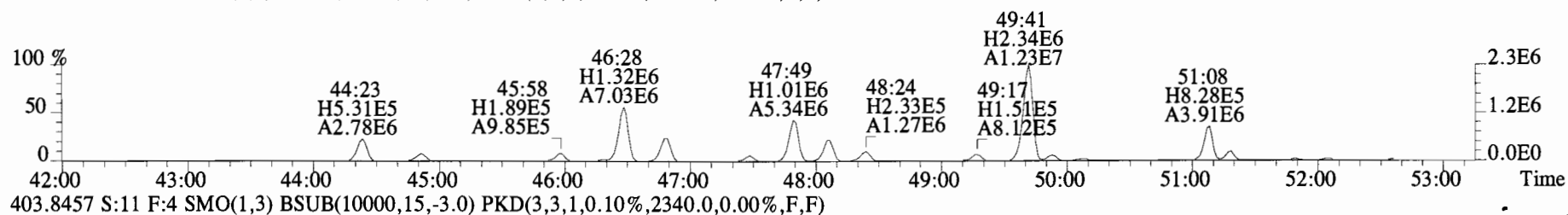
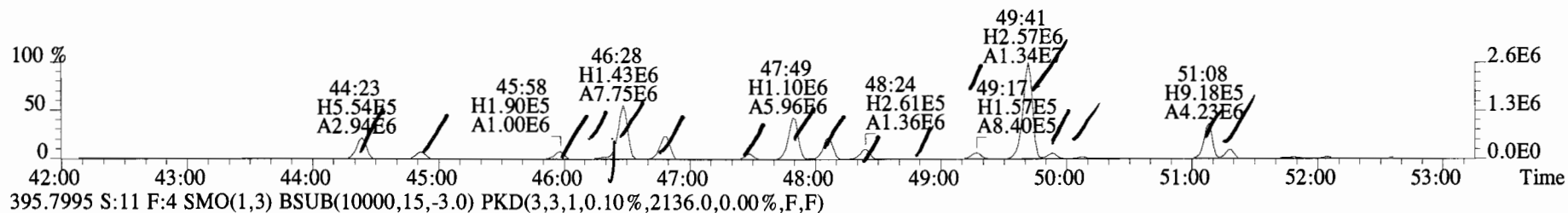
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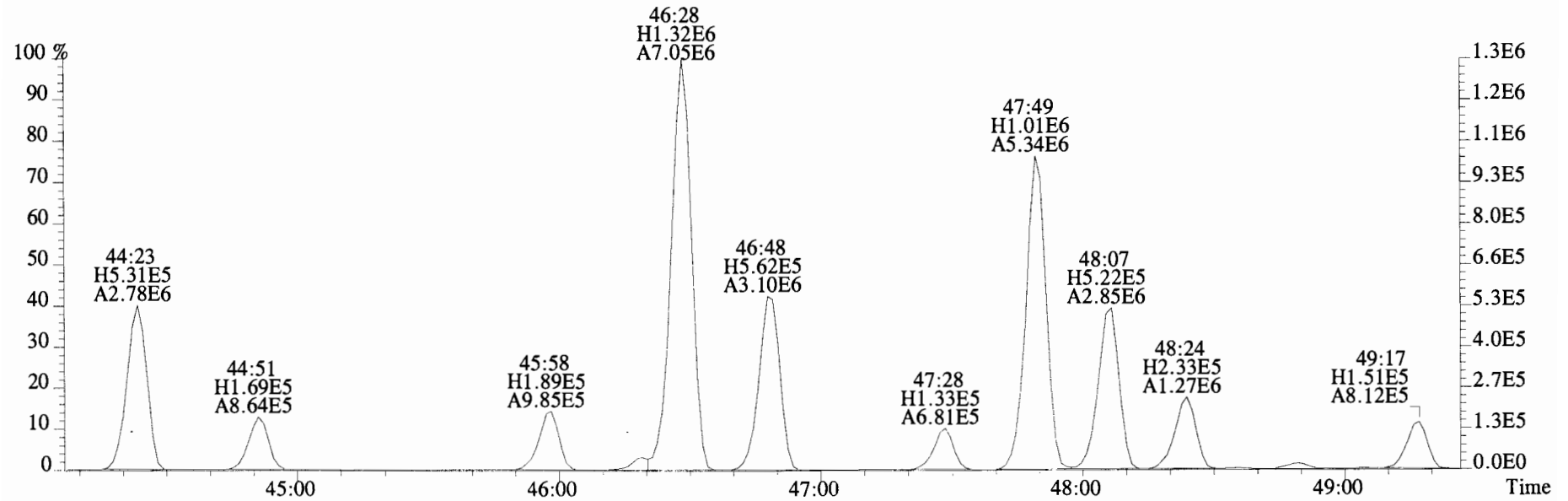
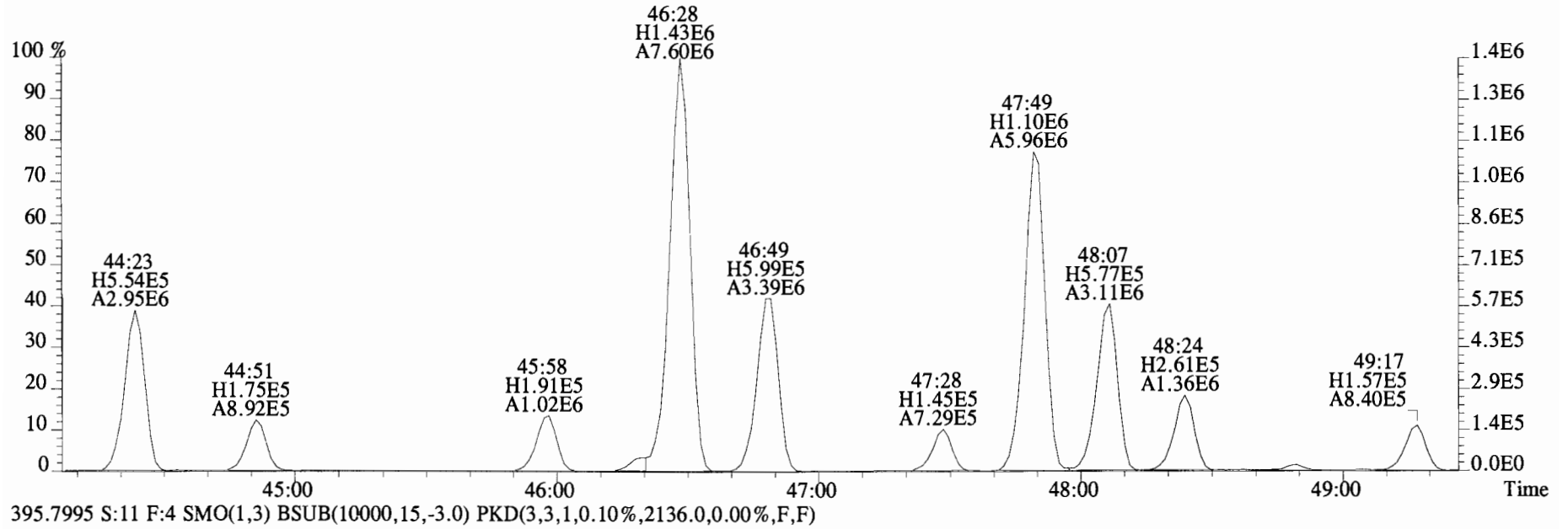
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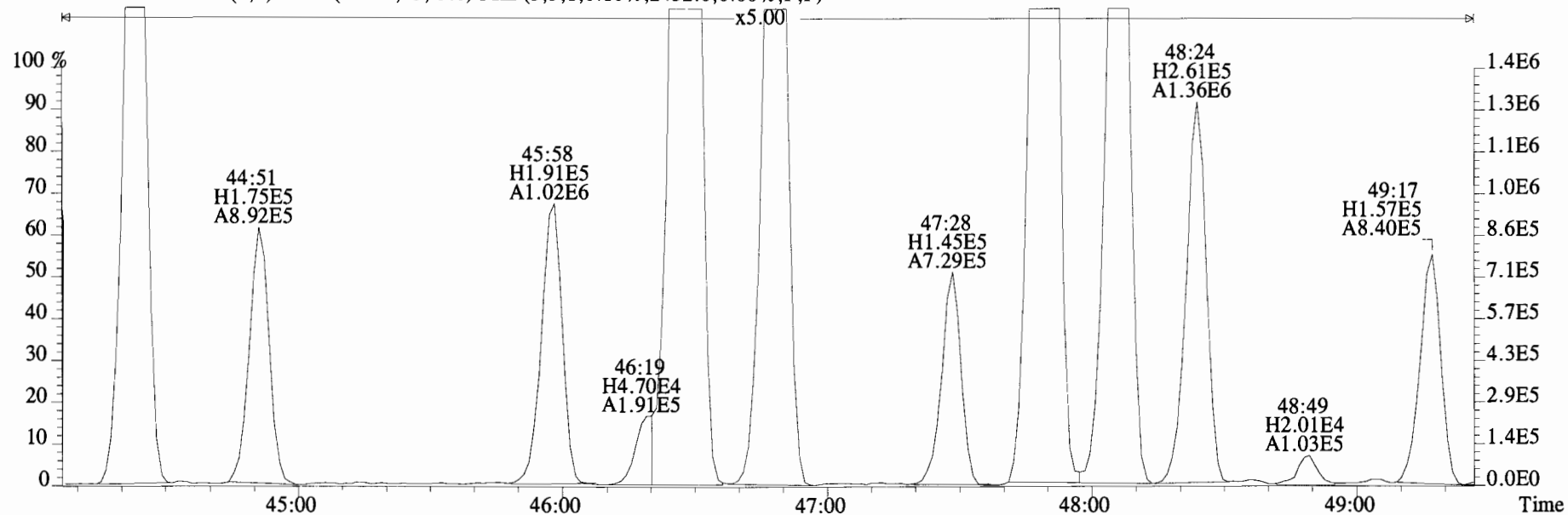
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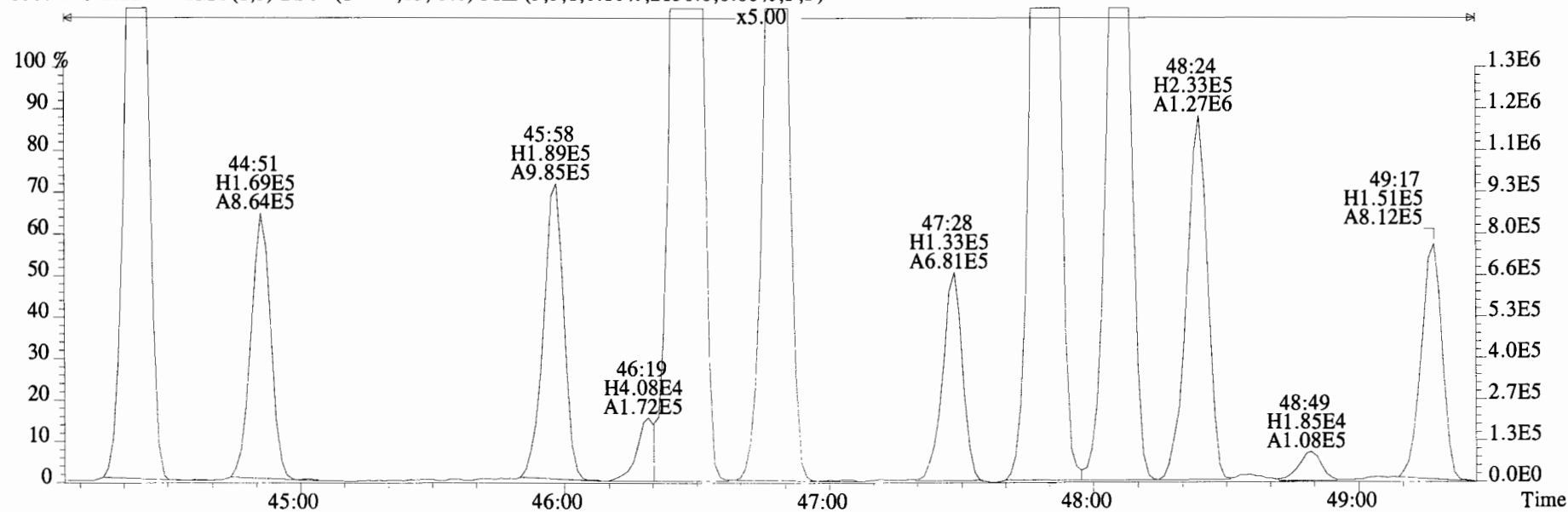
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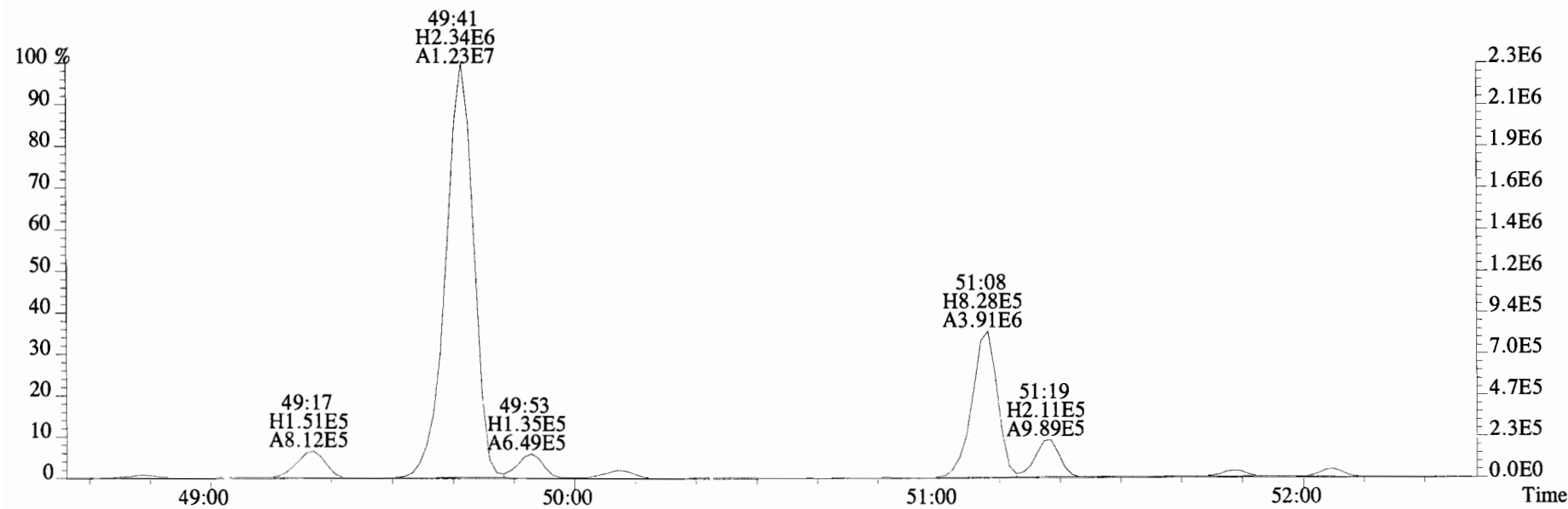
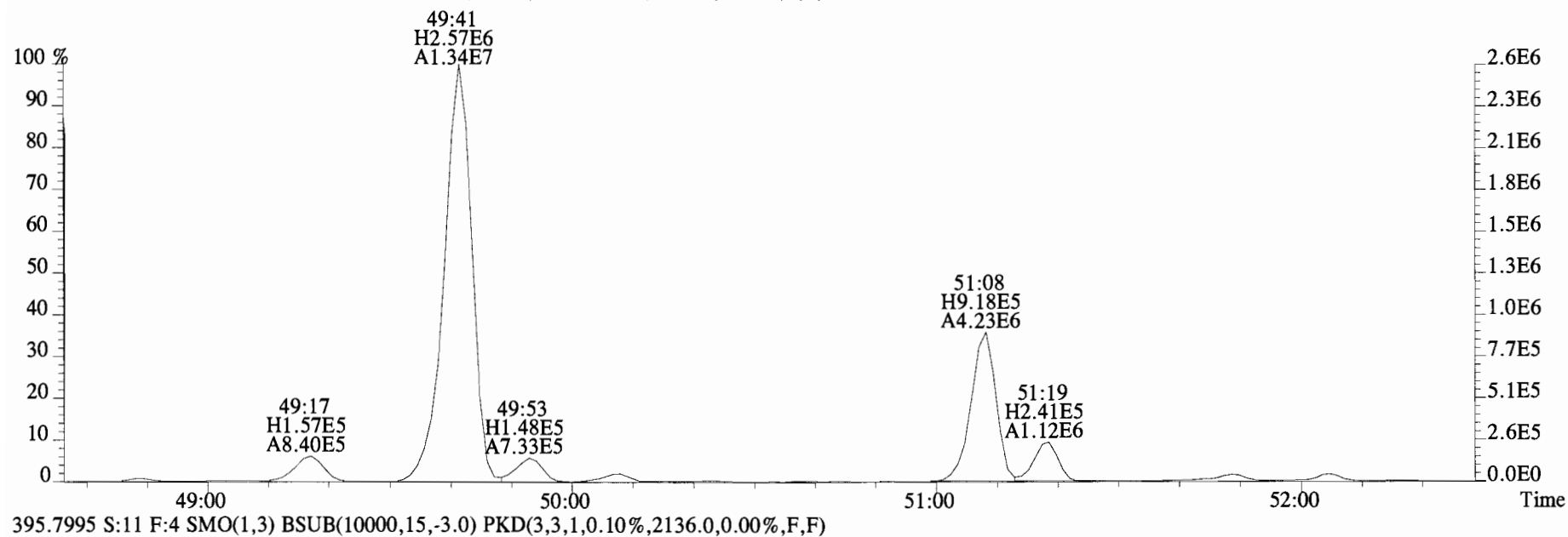
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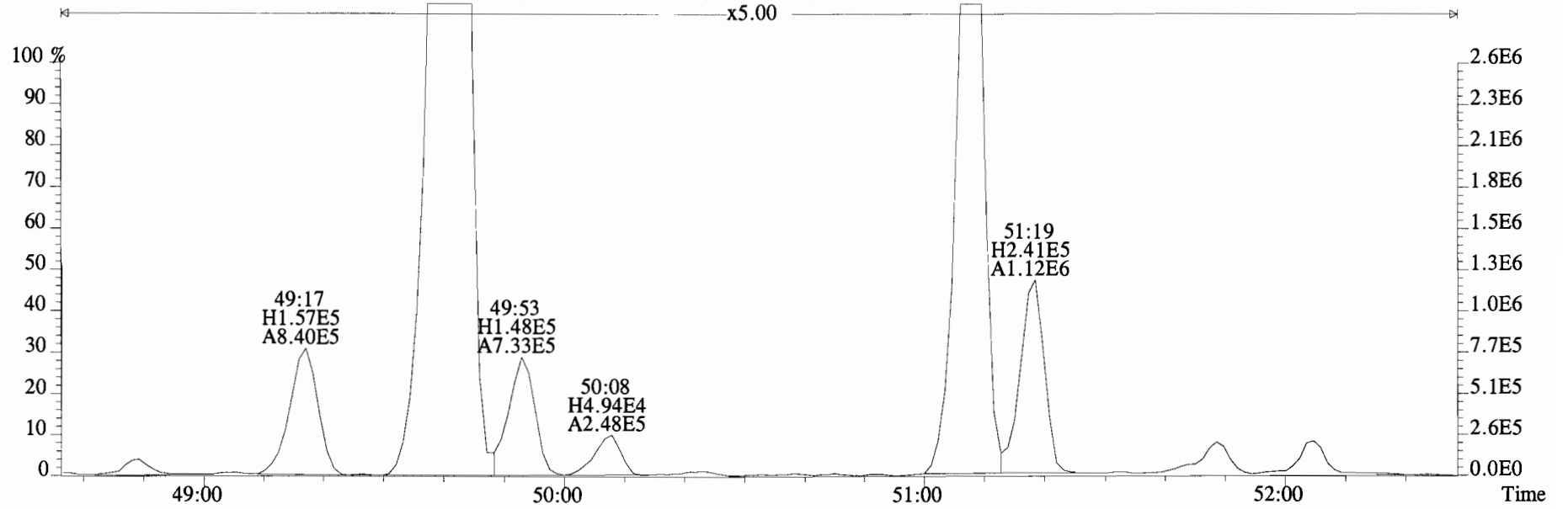
395.7995 S:11 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2136.0,0.00%,F,F)



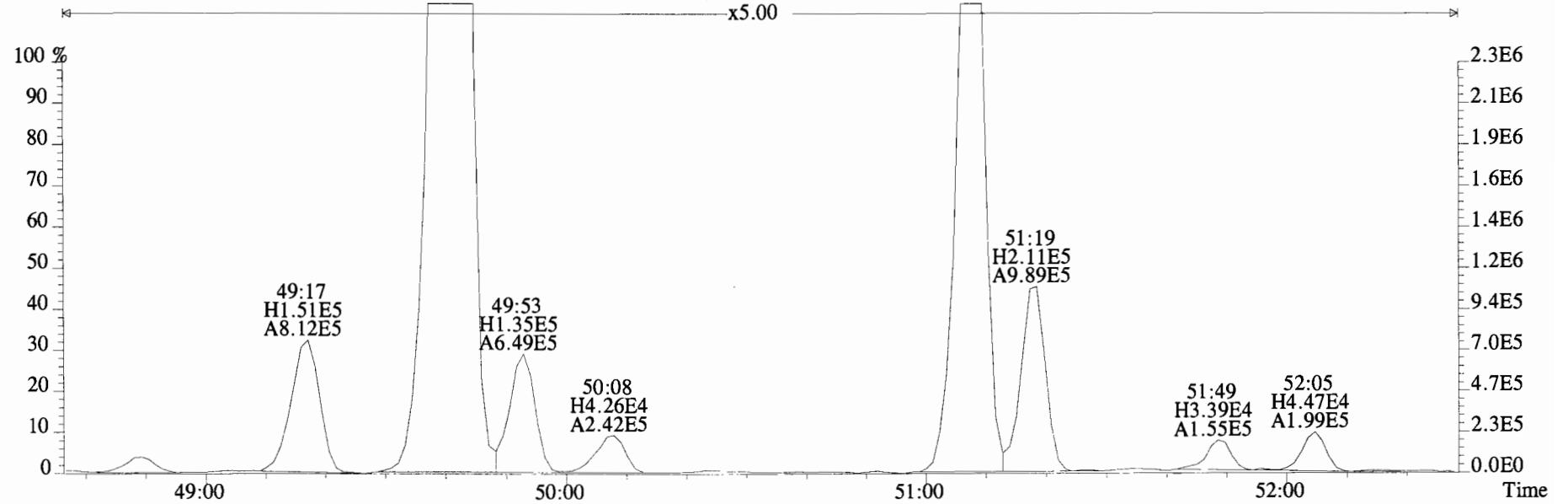
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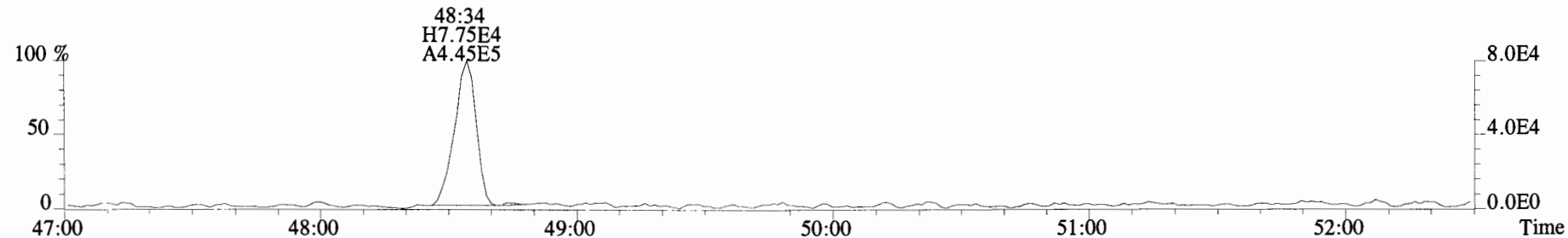
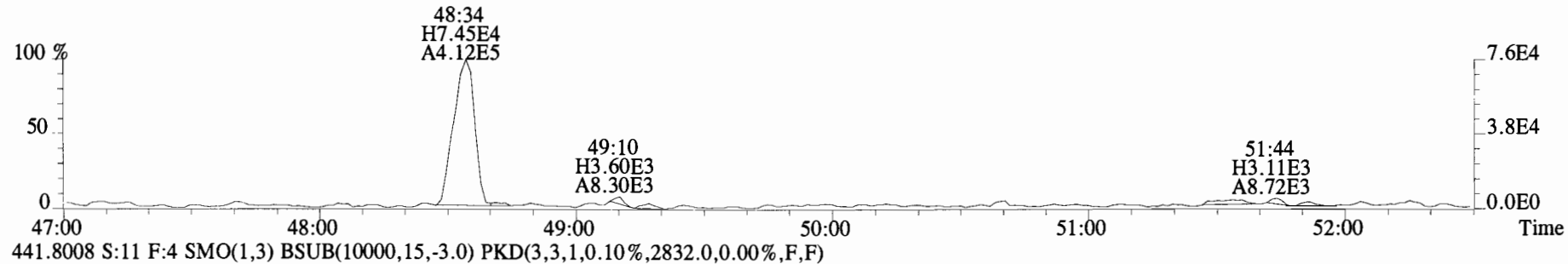
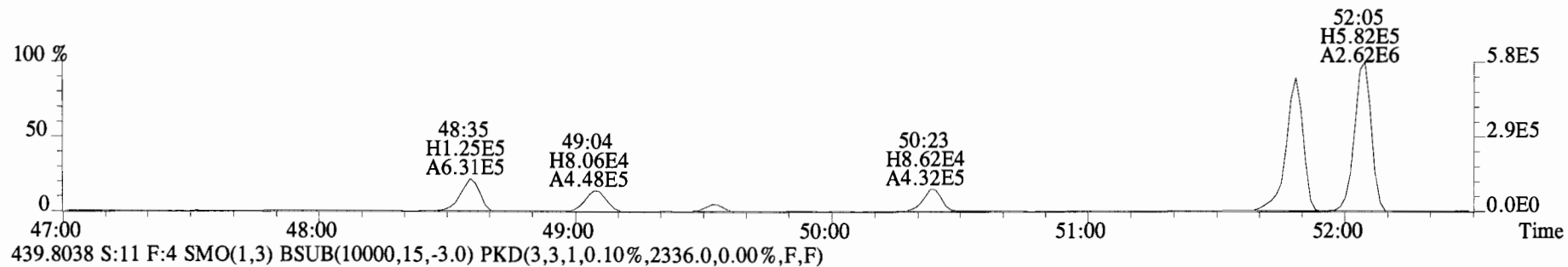
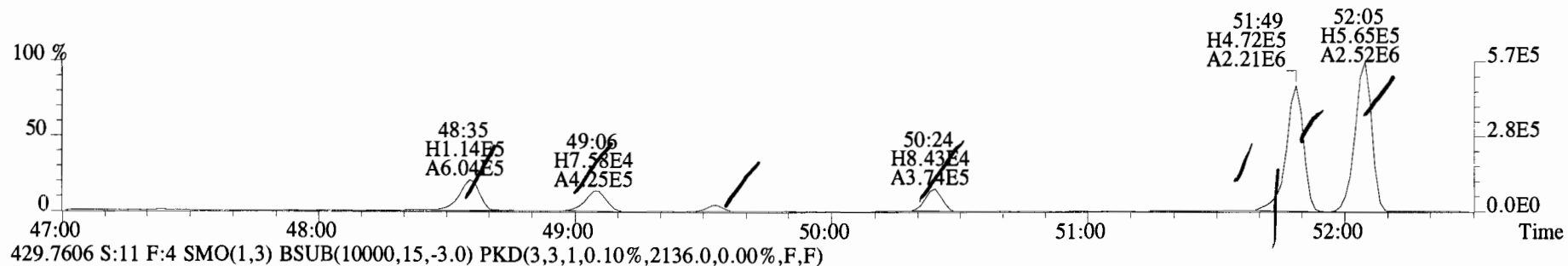
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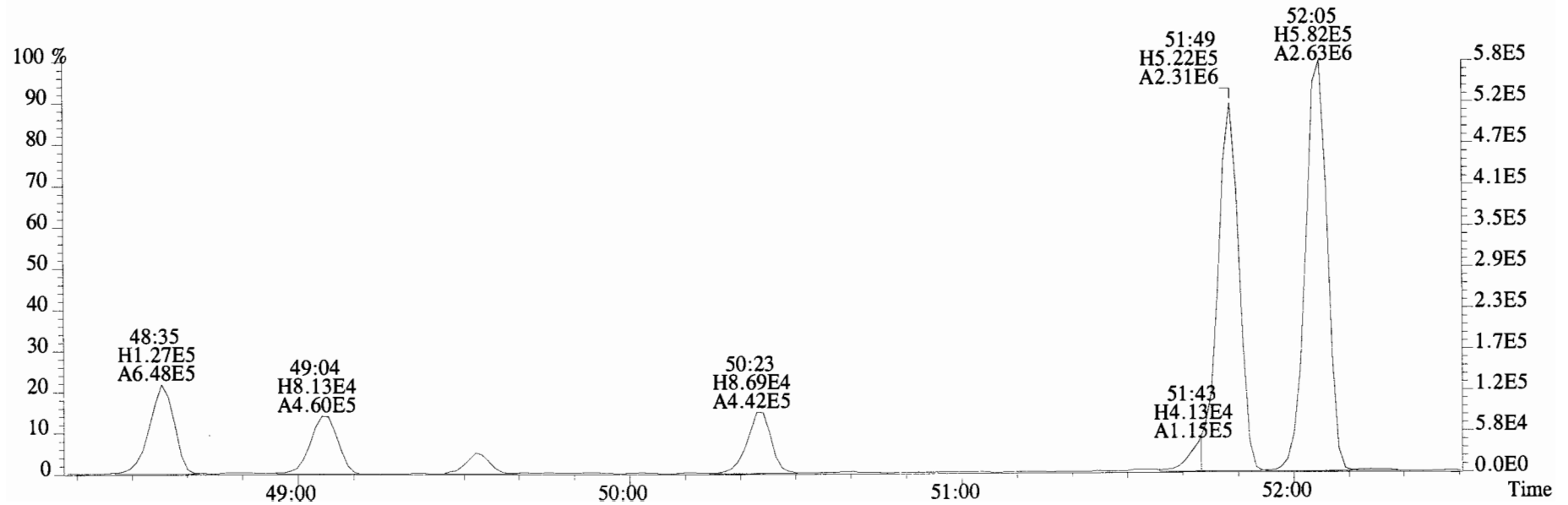
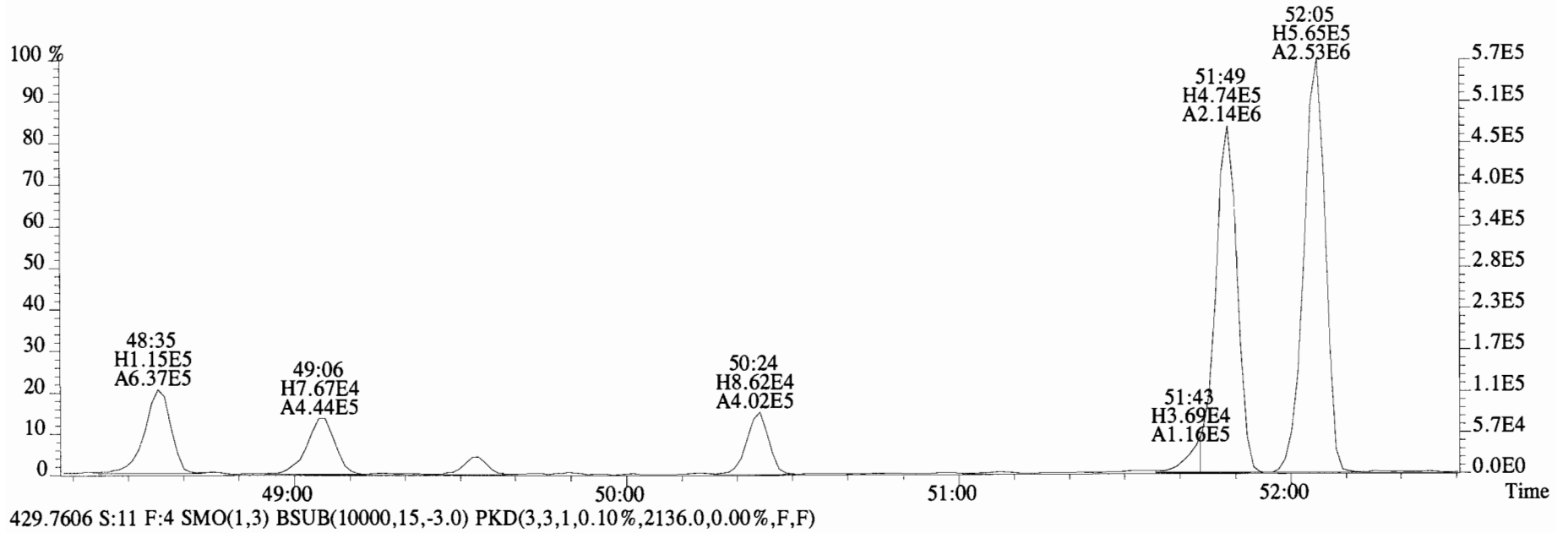
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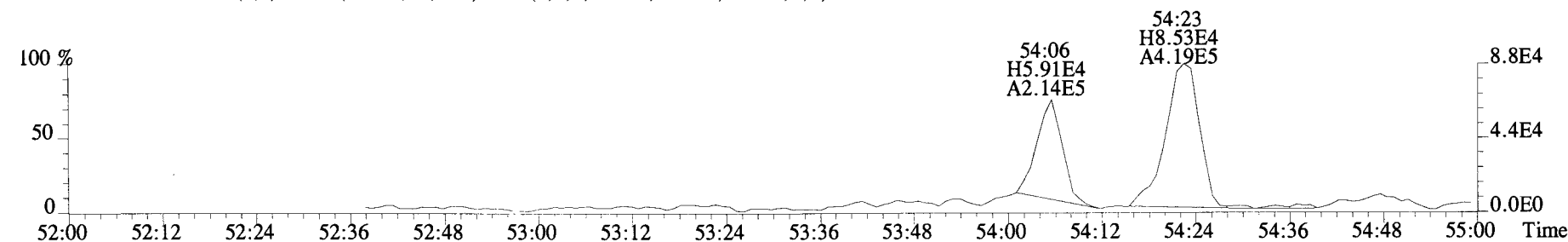
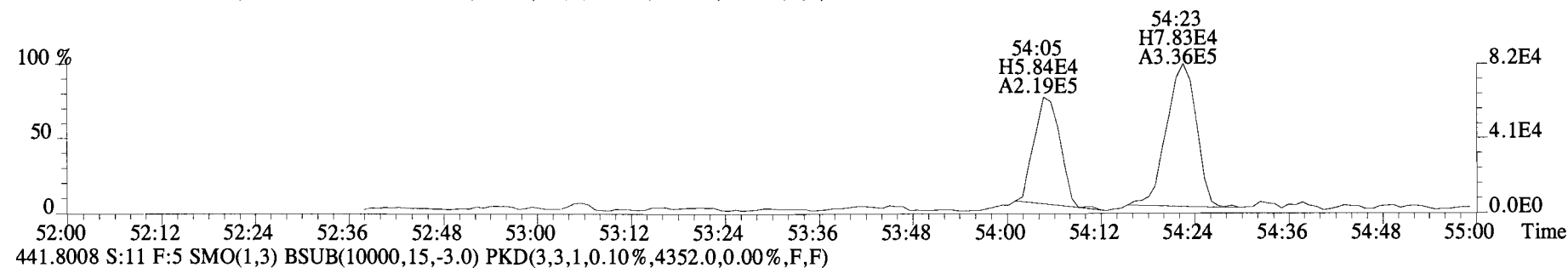
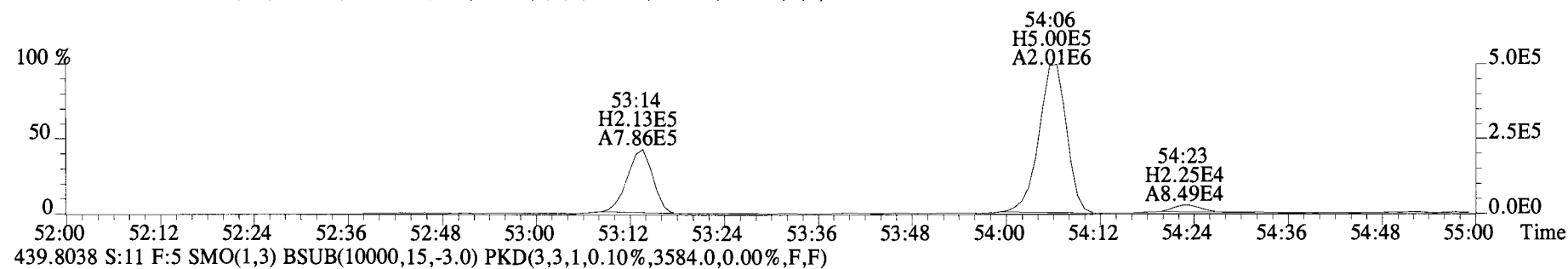
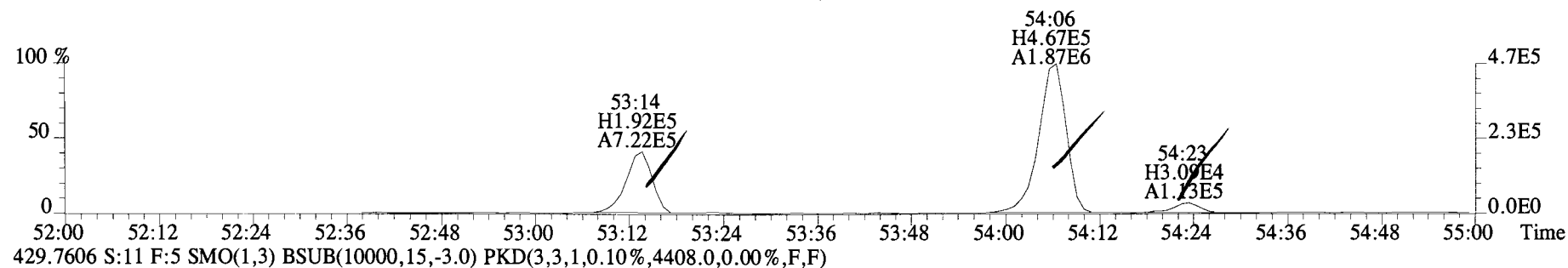
File:140919E2 #1-544 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
427.7635 S:11 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2024.0,0.00%,F,F)



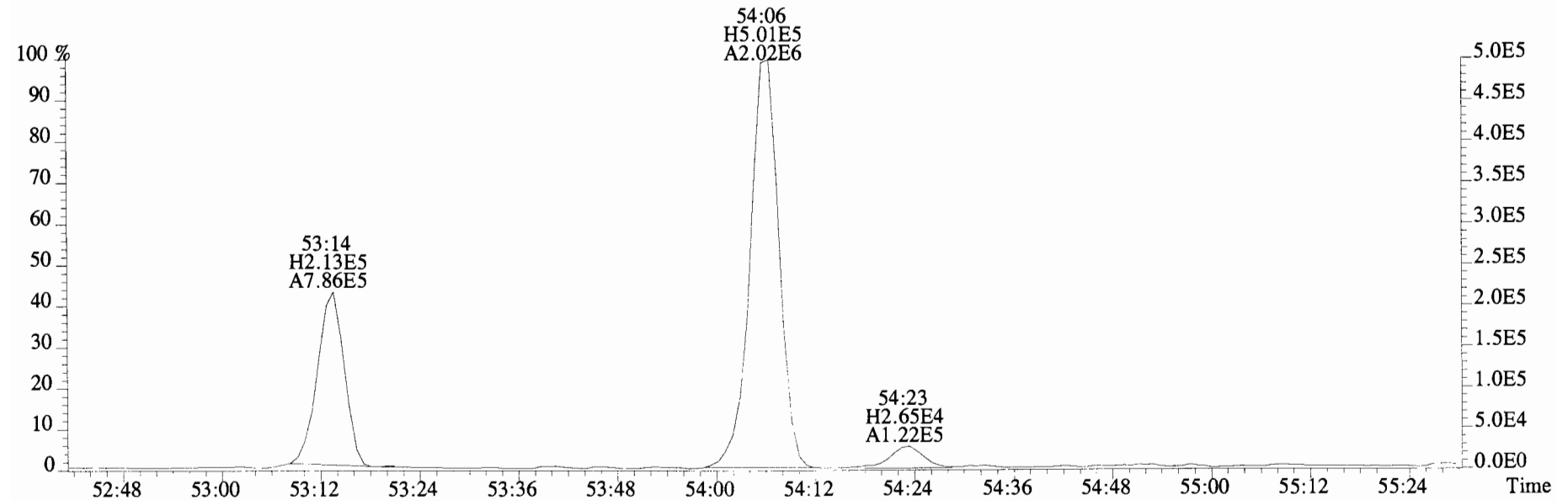
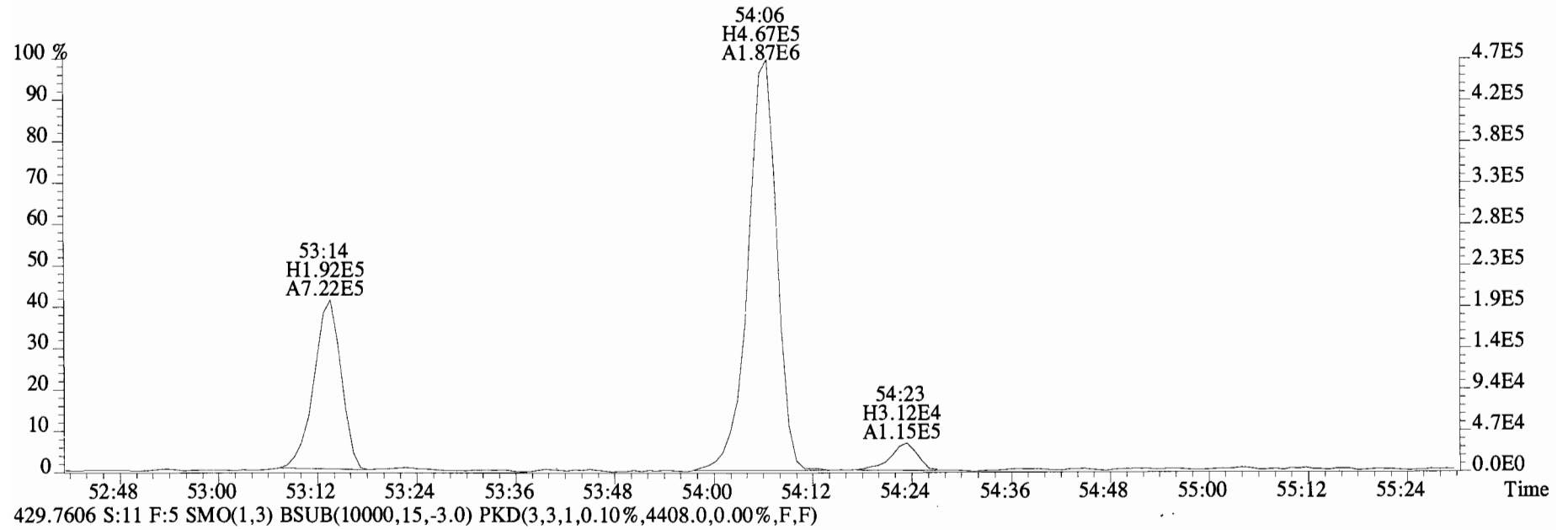
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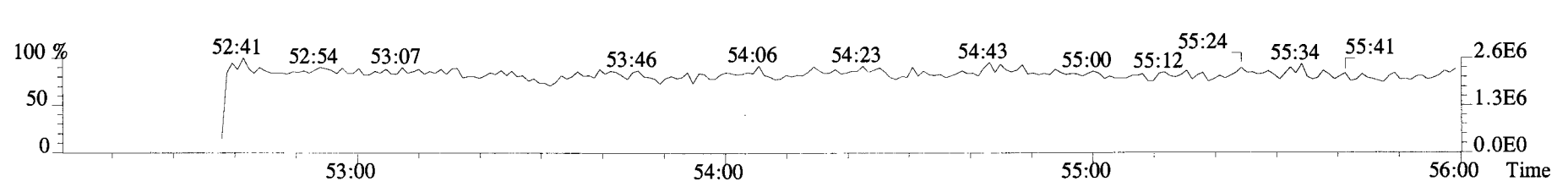
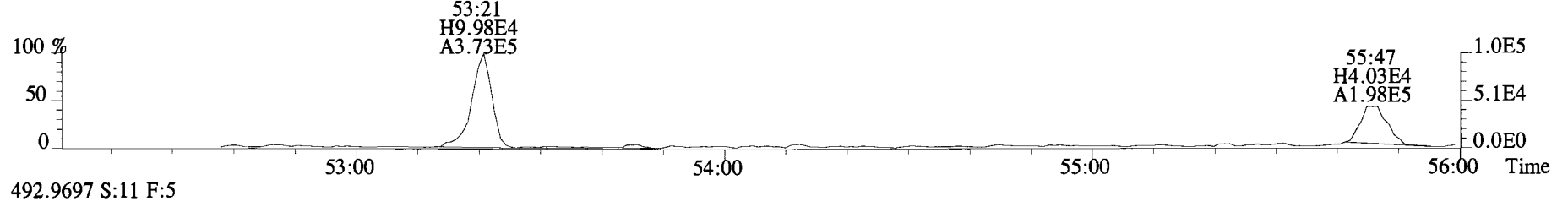
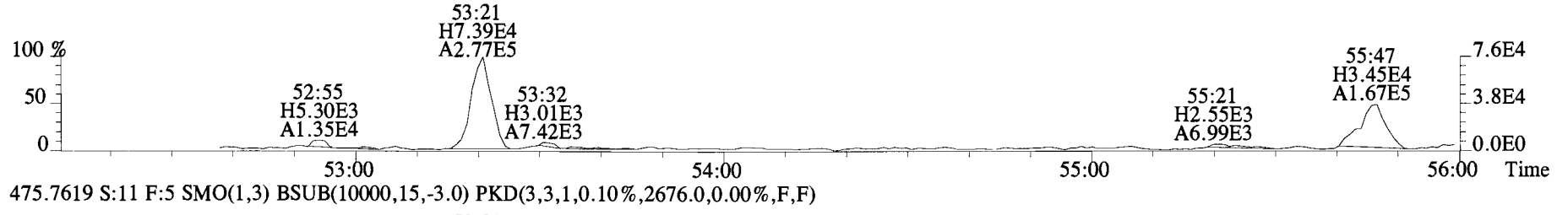
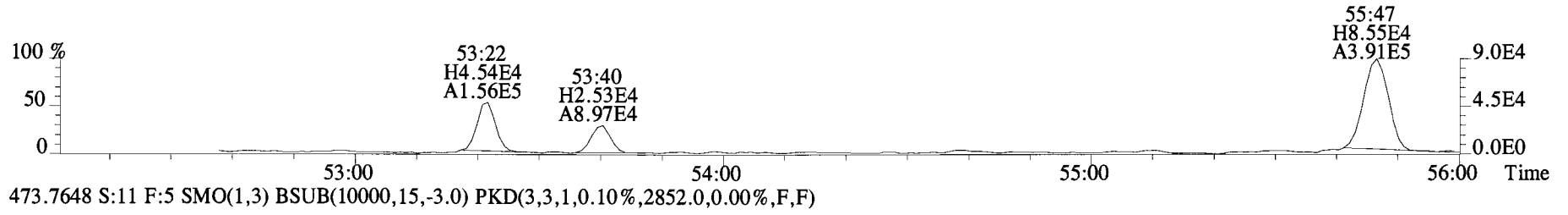
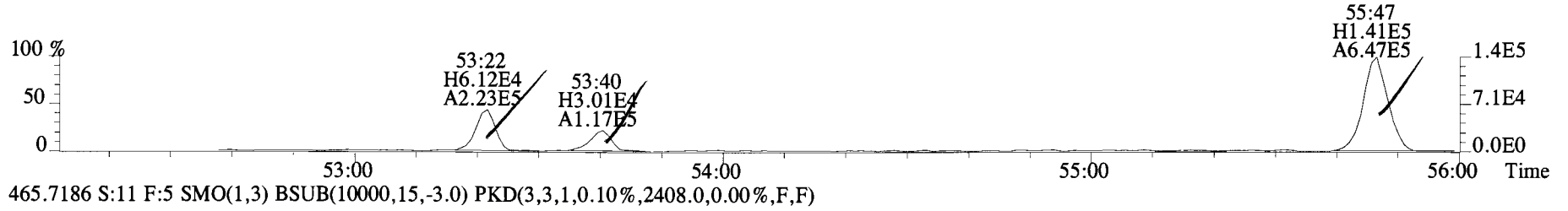
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429.7635 S:11 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3192.0,0.00%,F,F)



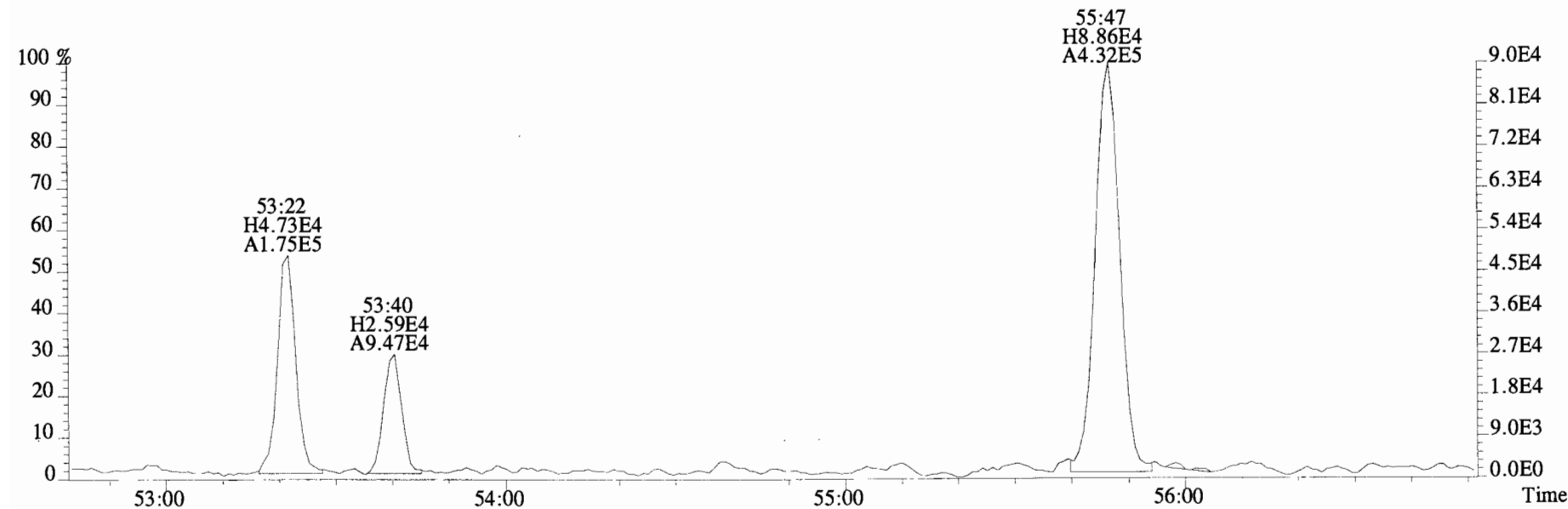
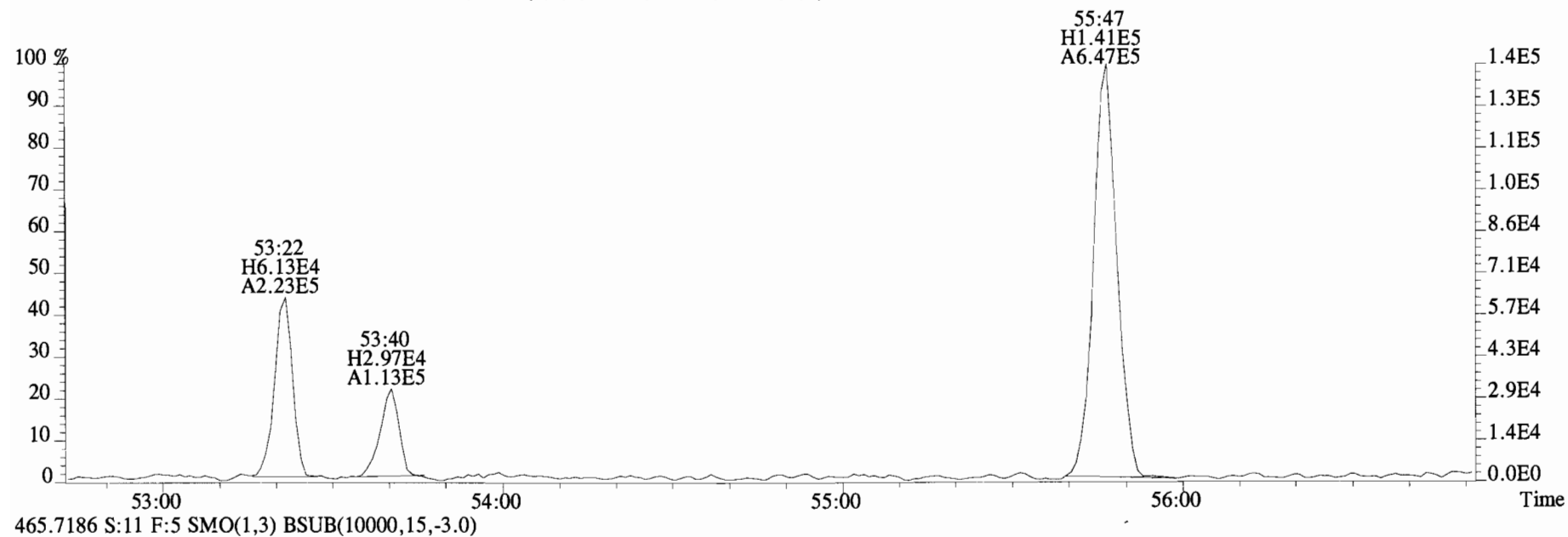
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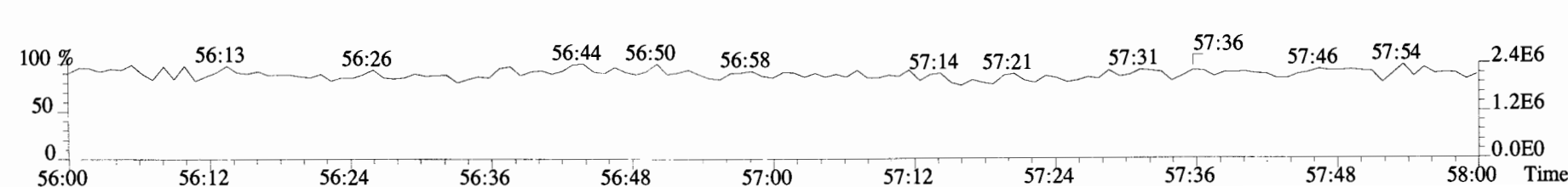
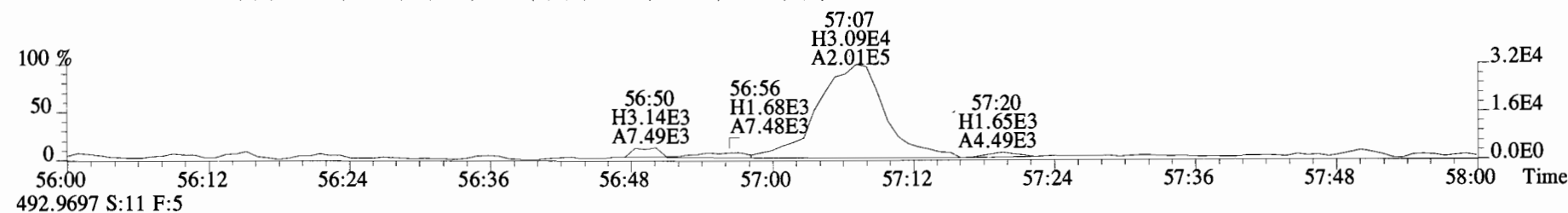
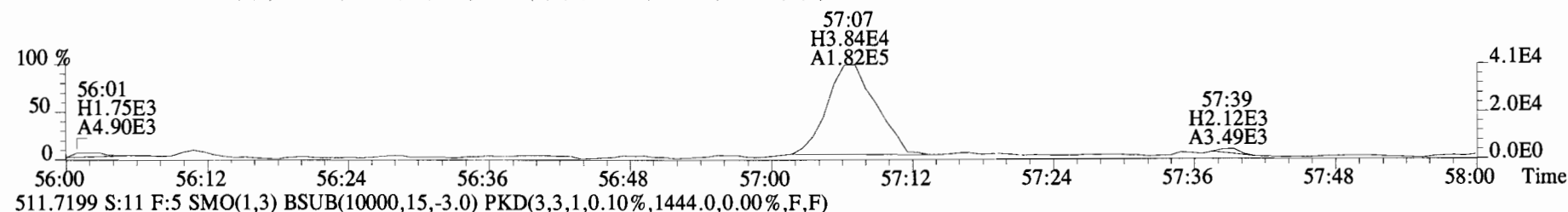
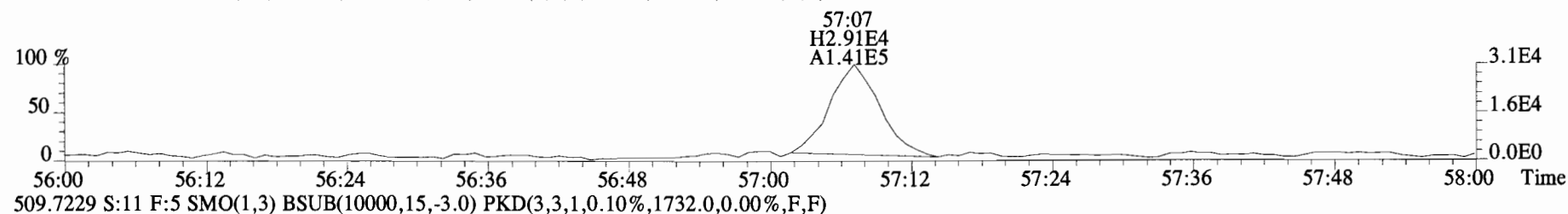
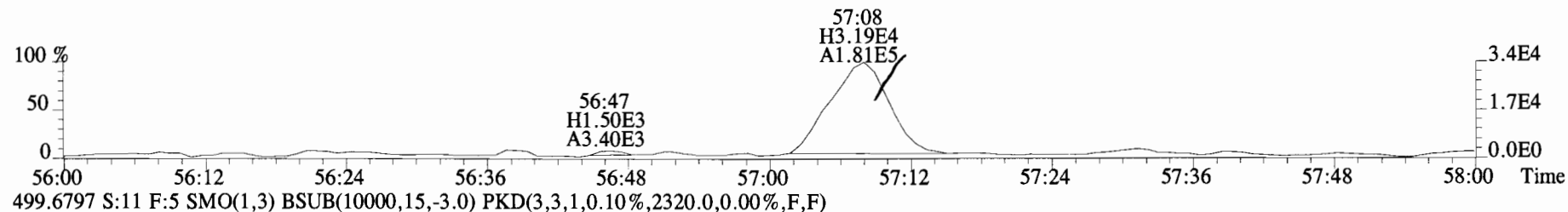
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Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
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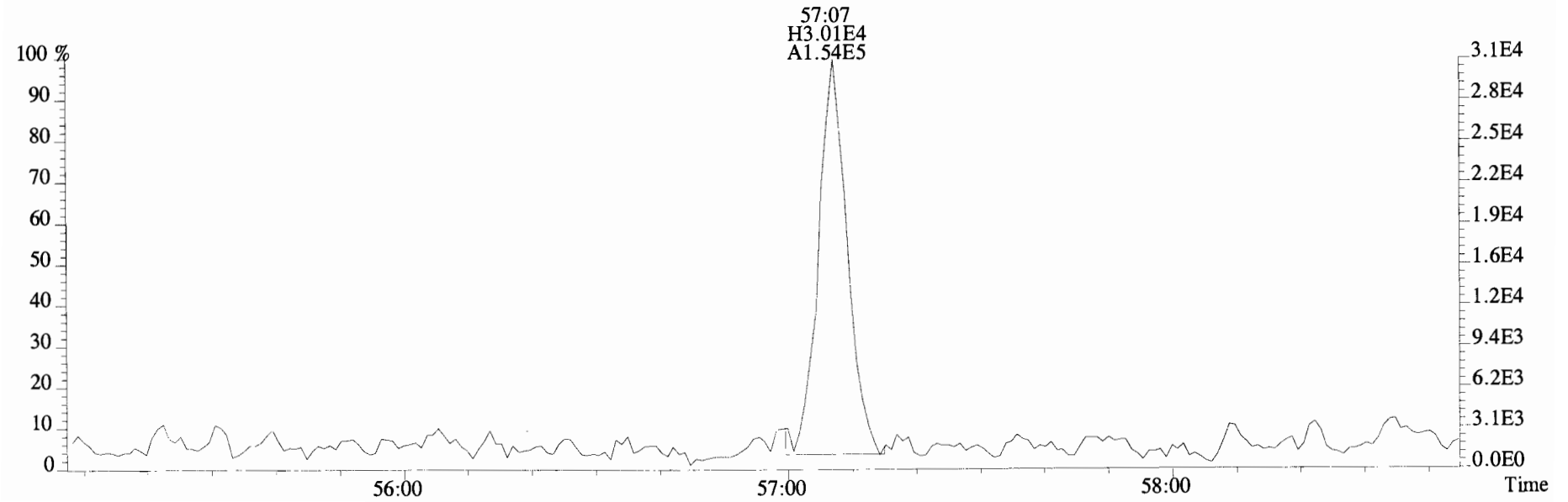
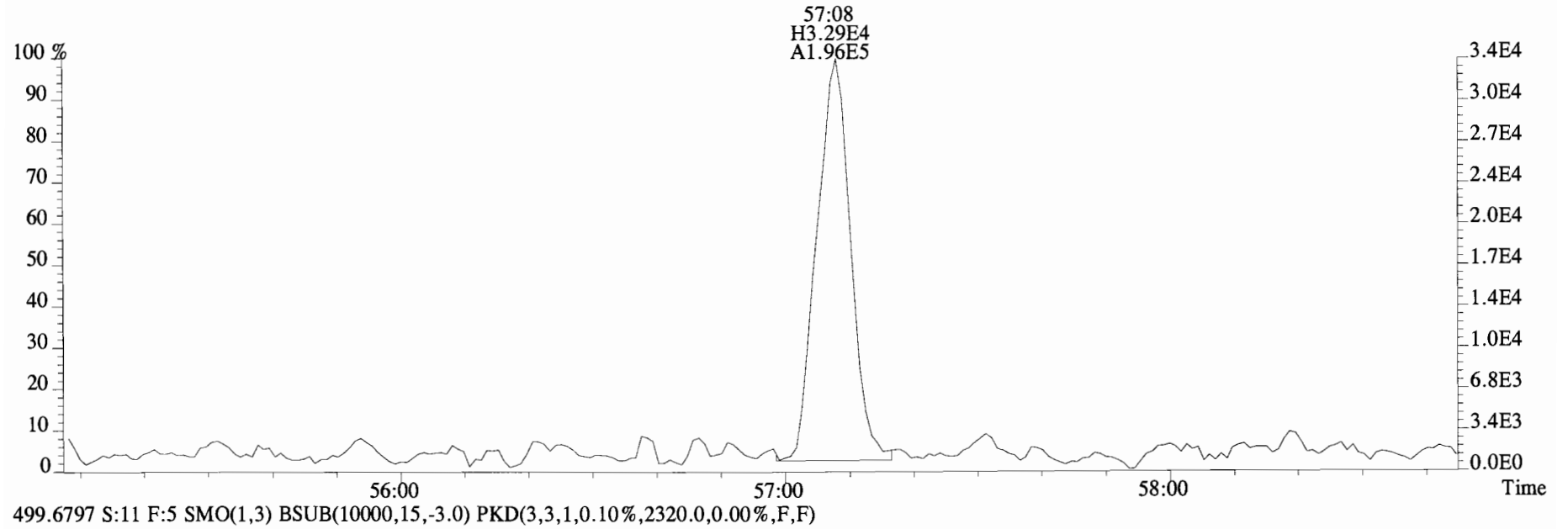
File:140919E2 #1-429 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
463.7216 S:11 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2364.0,0.00%,F,F)



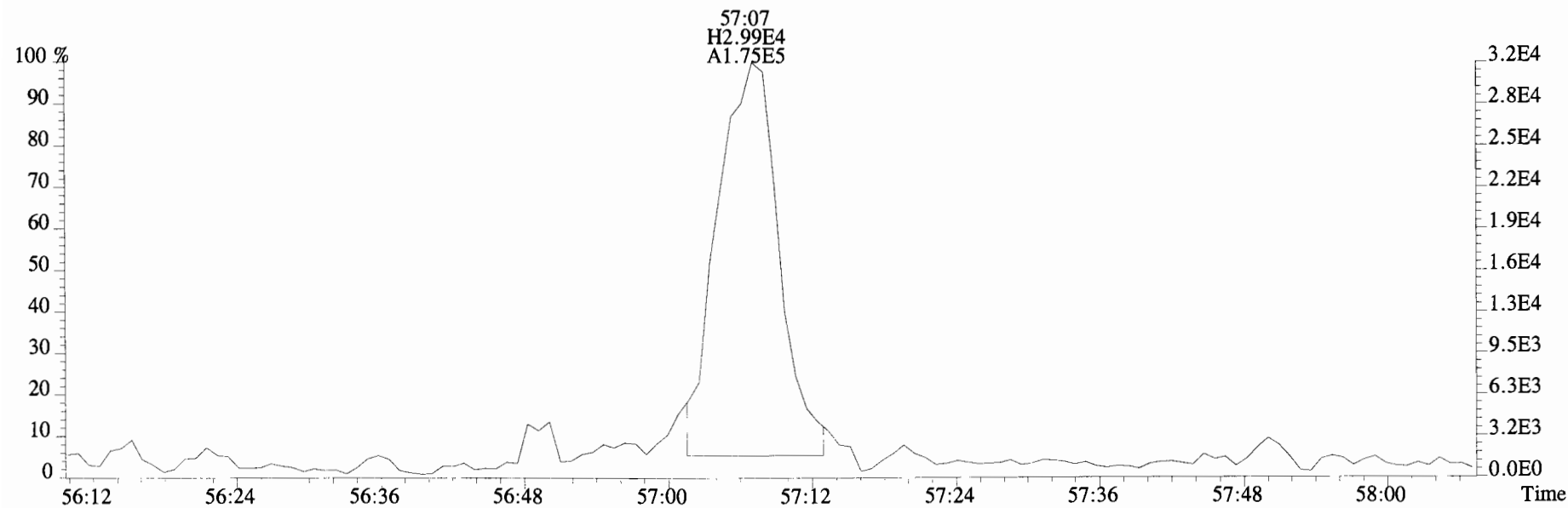
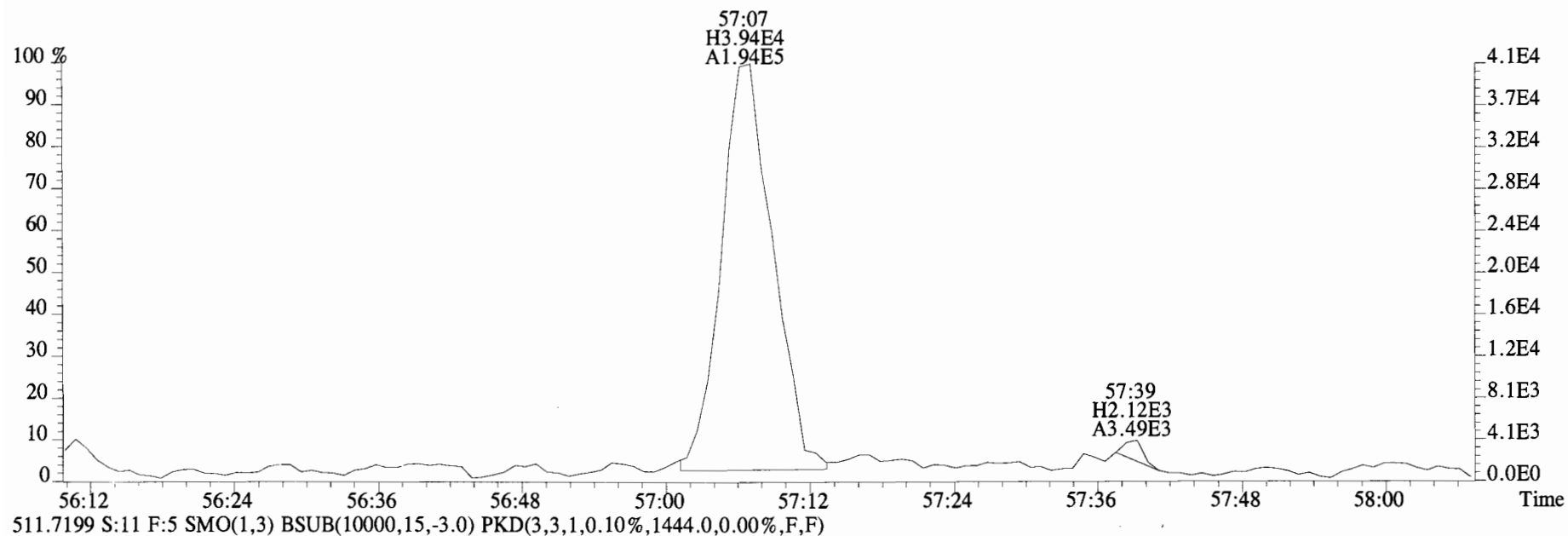
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 Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
 497.6826 S:11 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1988.0,0.00%,F,F)



File:140919E2 #1-429 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
497.6826 S:11 F:5 SMO(1,3) BSUB(10000,15,-3.0)



File:140919E2 #1-429 Acq:20-SEP-2014 10:27:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 UG-FD-01-20140911-S 28.2 Exp:PCB_ZB1
509.7229 S:11 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1732.0,0.00%,F,F)



Client ID: UG-FD-01-20140911-S
Lab ID: 1400665-03RE1 DL 1:20

Filename: 140924E1 S:10 Acq:24-SEP-14 20:48:44
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol:10.048

ConCal: ST140924E1-2
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	*	n NotFη	1.72	*		*	2.5	*	*	0.999-1.009	
Hepta	PCB-191	*	*	n NotFη	1.69	*		*	2.5	*	*	1.004-1.014	
Hepta	PCB-170	*	*	n NotFη	1.60	*		*	2.5	*	*	0.995-1.005	
Hepta	PCB-190	*	*	n NotFη	2.21	*		*	2.5	*	*	0.998-1.008	
Hepta	PCB-189	1.20e+05	1.04	y 52:33	1.55	439		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-202	*	*	n NotFη	1.08	*		*	2.5	*	*	0.995-1.005	
Octa	PCB-201	*	*	n NotFη	1.15	*		*	2.5	*	*	1.005-1.015	
Octa	PCB-204	*	*	n NotFη	1.14	*		*	2.5	*	*	1.008-1.018	
Octa	PCB-197	*	*	n NotFη	1.07	*		*	2.5	*	*	1.015-1.025	
Octa	PCB-200	*	*	n NotFη	1.06	*		*	2.5	*	*	1.032-1.044	
Octa	PCB-198	*	*	n NotFη	0.76	*		*	2.5	*	*	1.059-1.069	
Octa	PCB-199	*	*	n NotFη	0.80	*		*	2.5	*	*	1.061-1.071	
Octa	PCB-196/203	*	*	n NotFη	0.80	*		*	2.5	*	*	1.066-1.076	
Octa	PCB-195	*	*	n NotFη	1.23	*		*	2.5	*	*	0.979-0.989	
Octa	PCB-194	*	*	n NotFη	1.21	*		*	2.5	*	*	0.995-1.005	
Octa	PCB-205	*	*	n NotFη	1.54	*		*	2.5	*	*	1.001-1.011	
Nona	PCB-208	*	*	n NotFη	0.93	*		*	2.5	*	*	0.995-1.005	
Nona	PCB-207	*	*	n NotFη	1.08	*		*	2.5	*	*	1.001-1.011	
Nona	PCB-206	*	*	n NotFη	1.02	*		*	2.5	*	*	0.995-1.005	
Deca	PCB-209	*	*	n NotFη	1.17	*		*	2.5	*	*	0.995-1.005	

Analyst: DMS

Date: 9/26/14

Handwritten signature and date:
9/26/14

Client ID: UG-FD-01-20140911-S
Lab ID: 1400665-03RE1 DL 1:20

Filename: 140924E1 S:10 Acq:24-SEP-14 20:48:44
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 10.0477 EndCAL: NA

ConCal: ST140924E1-2

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	*	* n	NotFnd	1.09	*
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	*	* n	NotFnd	1.11	* Sum:0.00000
Total Hepta-PCB	1.20e+05	1.04 y	52:33	1.42	438.963
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:438.963248000

Integrations

by

Analyst: *DMS*

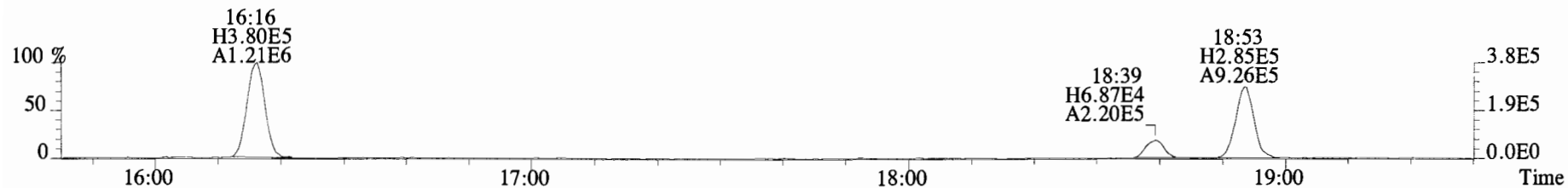
Date: *9/26/14*

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	1.84e+06	2.70 y	0.87	16:15	0.623	0.629-0.635		1050	106												
13C-PCB-3	1.77e+06	3.38 y	0.91	18:52	0.723	0.725-0.733		964	96.9		13C-PCB-79	9.46e+05	0.81 y	1.02	38:01	1.029	1.023-1.034		908	91.2	
13C-PCB-4	9.49e+05	1.64 y	0.59	20:13	0.775	0.775-0.783		805	80.9		13C-PCB-178	1.62e+05	0.34 n	0.61	45:52	0.985	0.979-0.990		498	50.0	
13C-PCB-9	1.61e+06	1.53 y	0.90	22:00	0.843	0.842-0.850		892	89.6												
13C-PCB-11	1.46e+06	1.64 y	0.94	25:24	0.973	0.968-0.978		776	78.0												
13C-PCB-19	1.14e+06	1.13 y	0.53	24:23	0.934	0.930-0.940		1060	107	PS vs. IS											
13C-PCB-28	1.10e+06	0.91 y	0.93	29:15	1.004	0.999-1.009		916	92.0		13C-PCB-79	9.46e+05	0.81 y	1.10	38:01	0.969	0.964-0.974		1060	107	
13C-PCB-32	1.53e+06	1.10 y	0.80	27:17	1.045	1.040-1.050		955	95.9		13C-PCB-178	1.62e+05	0.34 n	0.90	45:52	0.925	0.920-0.930		774	77.8	
13C-PCB-37	1.11e+06	1.13 y	0.84	33:07	1.137	1.131-1.143		1030	103												
13C-PCB-47	8.74e+05	0.76 y	0.81	32:11	0.871	0.866-0.874		1050	105												
13C-PCB-52	8.07e+05	0.67 y	0.77	31:40	0.857	0.853-0.861		1020	103												
13C-PCB-54	1.00e+06	0.79 y	0.97	28:08	0.762	0.758-0.766		1010	101												
13C-PCB-70	9.22e+05	0.75 y	1.00	35:42	0.967	0.961-0.971		901	90.5												
13C-PCB-77	7.33e+05	0.73 y	0.94	39:50	1.079	1.073-1.083		758	76.2												
13C-PCB-80	8.89e+05	0.73 y	1.03	36:07	0.978	0.972-0.982		840	84.4												
13C-PCB-81	8.03e+05	0.82 y	0.92	39:15	1.063	1.057-1.067		850	85.4												
13C-PCB-95	3.85e+05	1.58 y	0.74	35:59	0.913	0.908-0.918		860	86.4	RS											
13C-PCB-97	4.21e+05	1.63 y	0.70	38:59	0.989	0.984-0.994		989	99.3		Name	Resp	RA	RRF	RT	Conc					
13C-PCB-101	3.53e+05	1.96 n	0.78	37:41	0.956	0.951-0.961		745	74.9		13C-PCB-15	2.00e+06	1.55 y	1.00	26:06	995					
13C-PCB-104	6.47e+05	1.74 y	1.00	32:50	0.833	0.828-0.836		1070	108		13C-PCB-31	1.28e+06	1.23 n	1.00	29:08	995					
13C-PCB-105	5.25e+05	1.74 y	1.37	43:16	0.929	0.924-0.934		725	72.9		13C-PCB-60	1.02e+06	0.64 n	1.00	36:56	995					
13C-PCB-114	5.40e+05	1.55 y	1.36	42:24	0.911	0.905-0.915		747	75.0		13C-PCB-111	6.01e+05	1.82 n	1.00	39:26	995					
13C-PCB-118	4.74e+05	1.35 y	0.96	41:45	1.059	1.054-1.064		818	82.2		13C-PCB-128	5.27e+05	1.12 y	1.00	46:34	995					
13C-PCB-123	4.49e+05	1.23 n	0.89	41:34	1.054	1.050-1.060		832	83.6		13C-PCB-205	1.44e+05	0.84 y	1.00	54:04	995					
13C-PCB-126	3.83e+05	1.30 n	1.31	45:31	0.977	0.972-0.982		552	55.5												
13C-PCB-127	5.73e+05	1.60 y	1.47	43:37	0.937	0.931-0.941		734	73.7												
13C-PCB-138	4.04e+05	1.04 n	1.10	45:00	0.966	0.961-0.971		693	69.6												
13C-PCB-141	4.26e+05	1.52 n	1.07	44:10	0.948	0.943-0.953		748	75.2												
13C-PCB-153	5.53e+05	1.39 y	1.15	43:25	0.932	0.927-0.937		910	91.4												
13C-PCB-155	4.82e+05	1.23 y	0.84	37:13	0.944	0.939-0.949		951	95.5												
13C-PCB-156	4.30e+05	1.05 n	1.30	48:18	1.037	1.032-1.042		626	62.9												
13C-PCB-157	4.70e+05	1.37 y	1.36	48:33	1.043	1.038-1.048		654	65.7												
13C-PCB-159	4.33e+05	1.64 n	1.25	46:19	0.995	0.989-0.999		655	65.8												
13C-PCB-167	5.26e+05	1.22 y	1.35	47:00	1.009	1.004-1.014		734	73.7												
13C-PCB-169	3.15e+05	1.17 y	1.29	50:42	1.089	1.083-1.093		463	46.5												
13C-PCB-170	1.35e+05	0.59 n	0.54	51:02	1.096	1.089-1.101		469	47.1												
13C-PCB-180	2.32e+05	0.40 y	0.68	49:35	1.065	1.060-1.070		639	64.3												
13C-PCB-188	3.44e+05	0.38 n	0.92	43:03	0.924	0.919-0.929		708	71.2												
13C-PCB-189	1.75e+05	0.50 y	0.72	52:32	1.128	1.120-1.132		461	46.3	* used only											
13C-PCB-194	*	* n	0.80	NotFnd	*	0.990-1.000		*	*												
13C-PCB-202	2.72e+05	0.95 y	0.84	48:29	1.041	1.036-1.046		612	61.5												
13C-PCB-206	*	* n	0.65	NotFnd	*	1.021-1.031		*	*												
13C-PCB-208	*	* n	1.08	NotFnd	*	0.976-0.986		*	*												
13C-PCB-209	1.41e+05	1.30 y	0.61	57:08	1.057	1.045-1.055		1600	160												

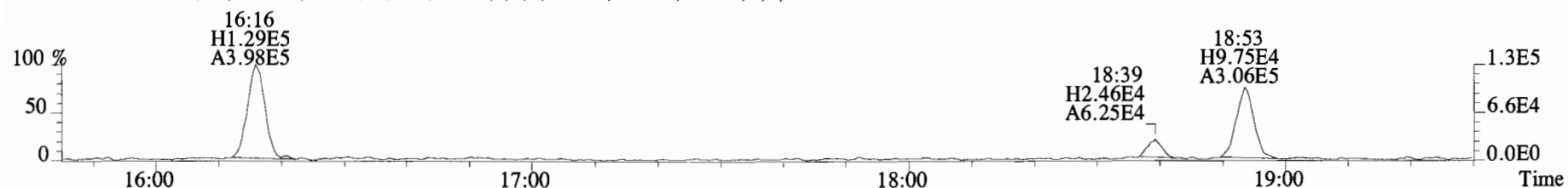
Analyst: DMS

Date: 9/26/14

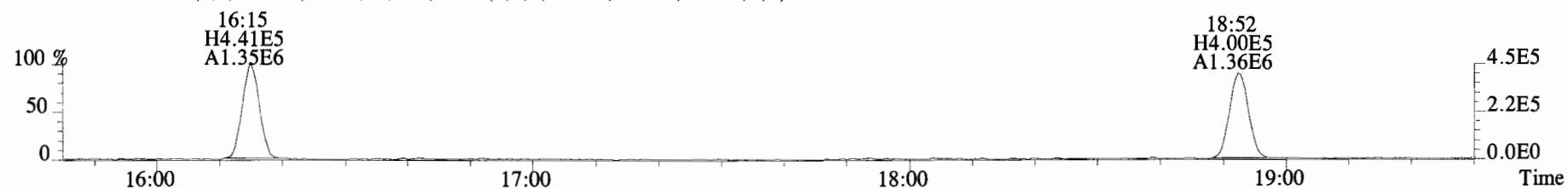
File:140924E1 #1-728 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
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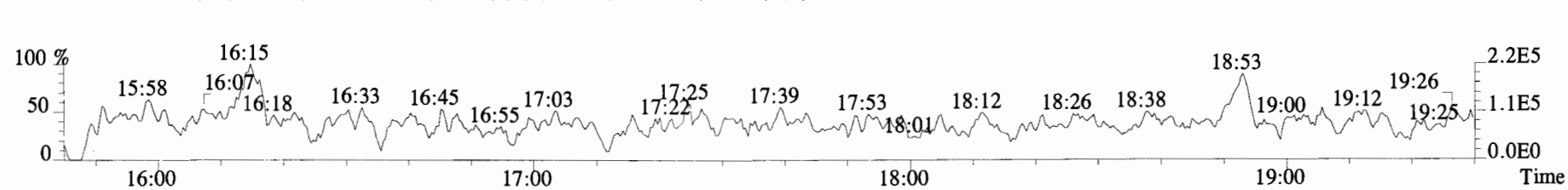
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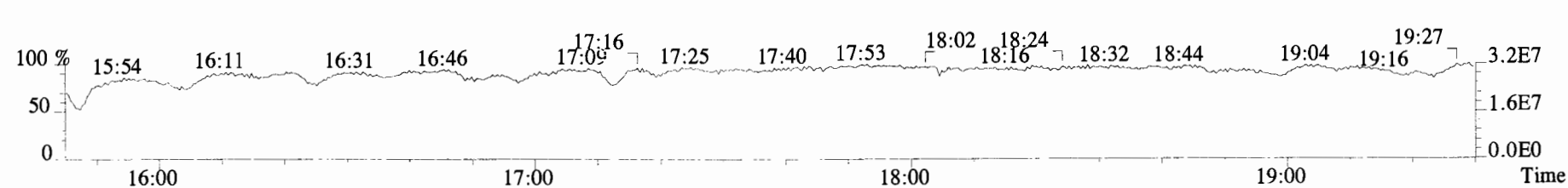
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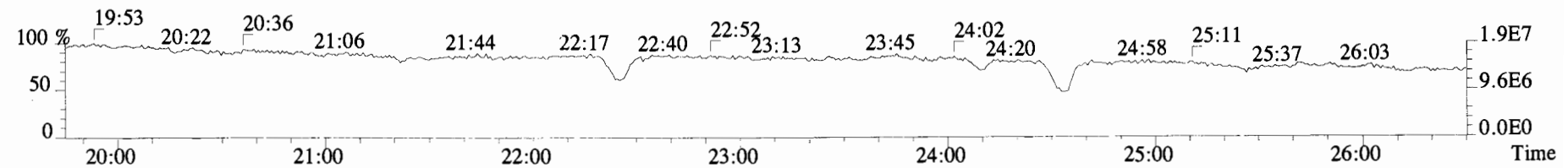
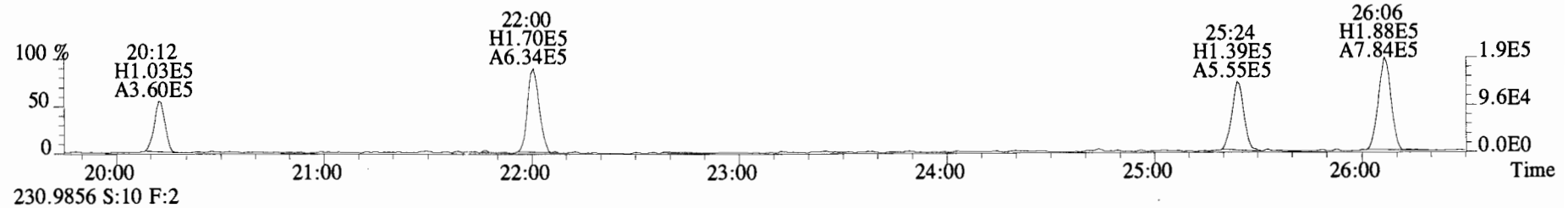
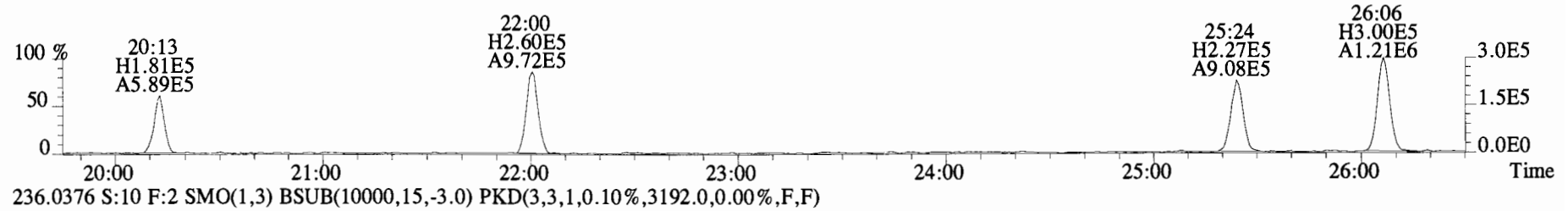
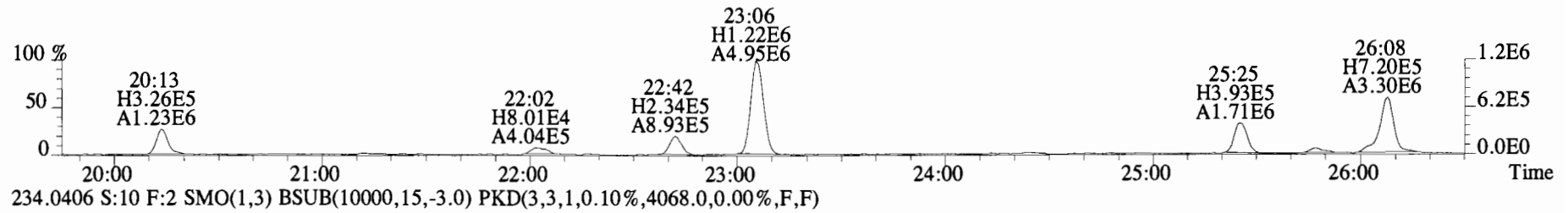
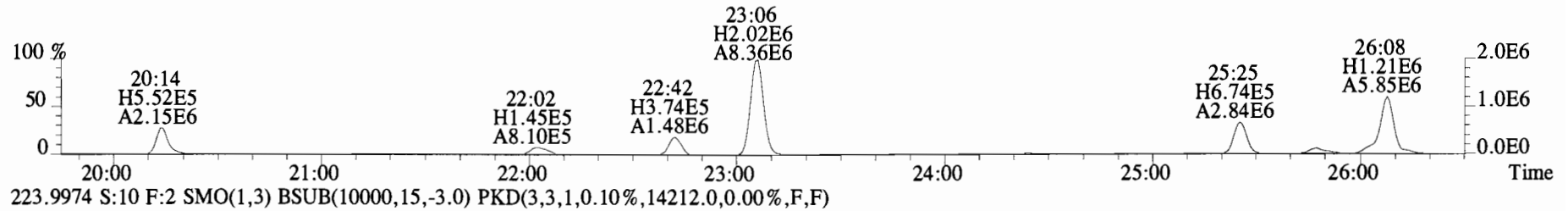
202.0766 S:10 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,109608.0,0.00%,F,F)



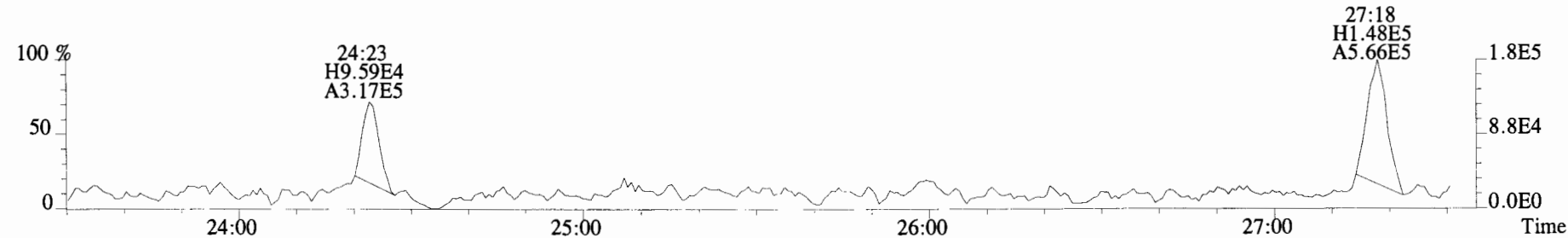
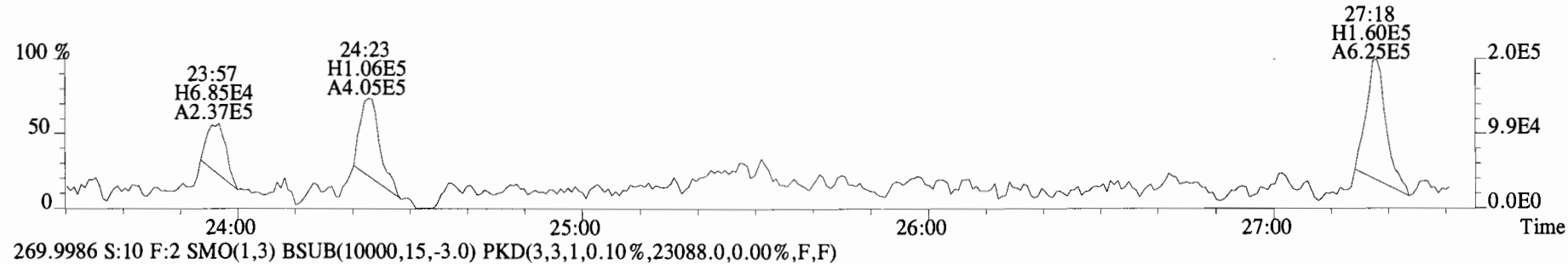
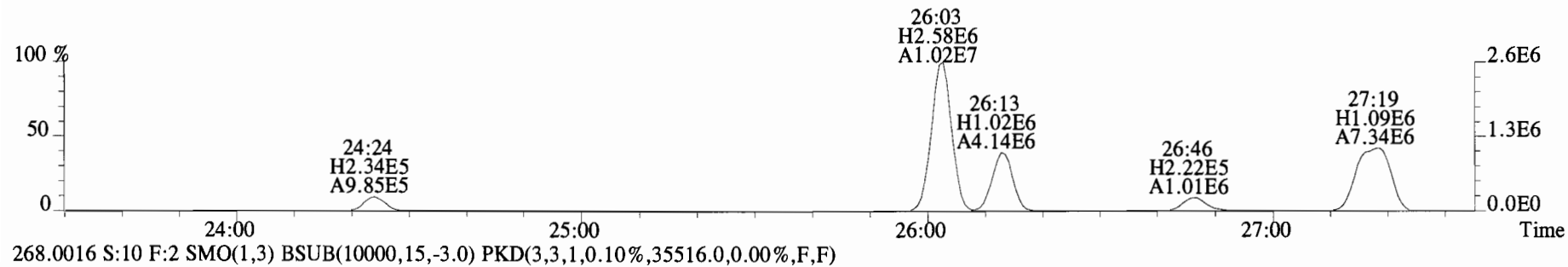
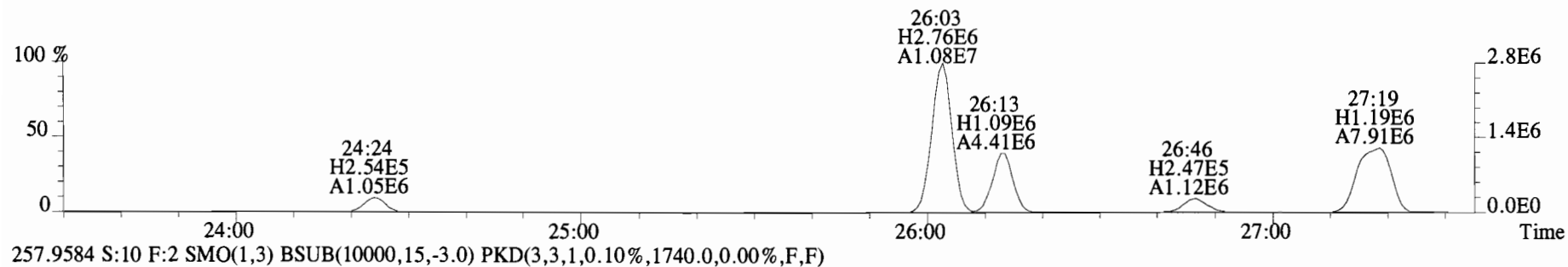
180.9880 S:10



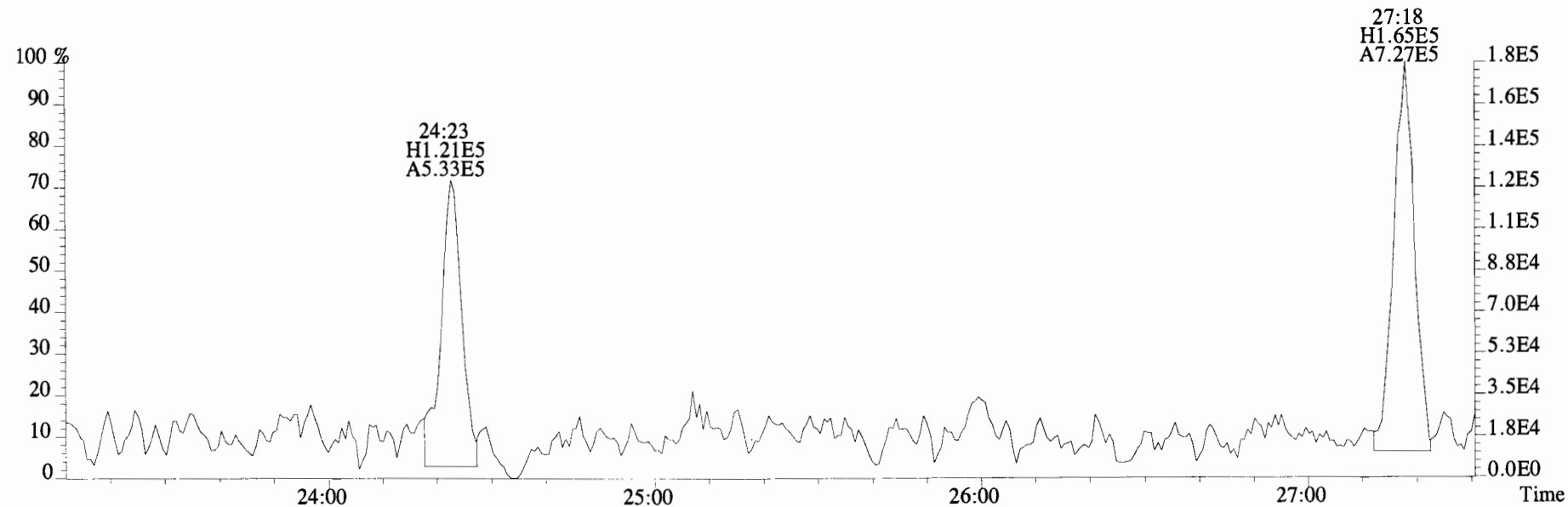
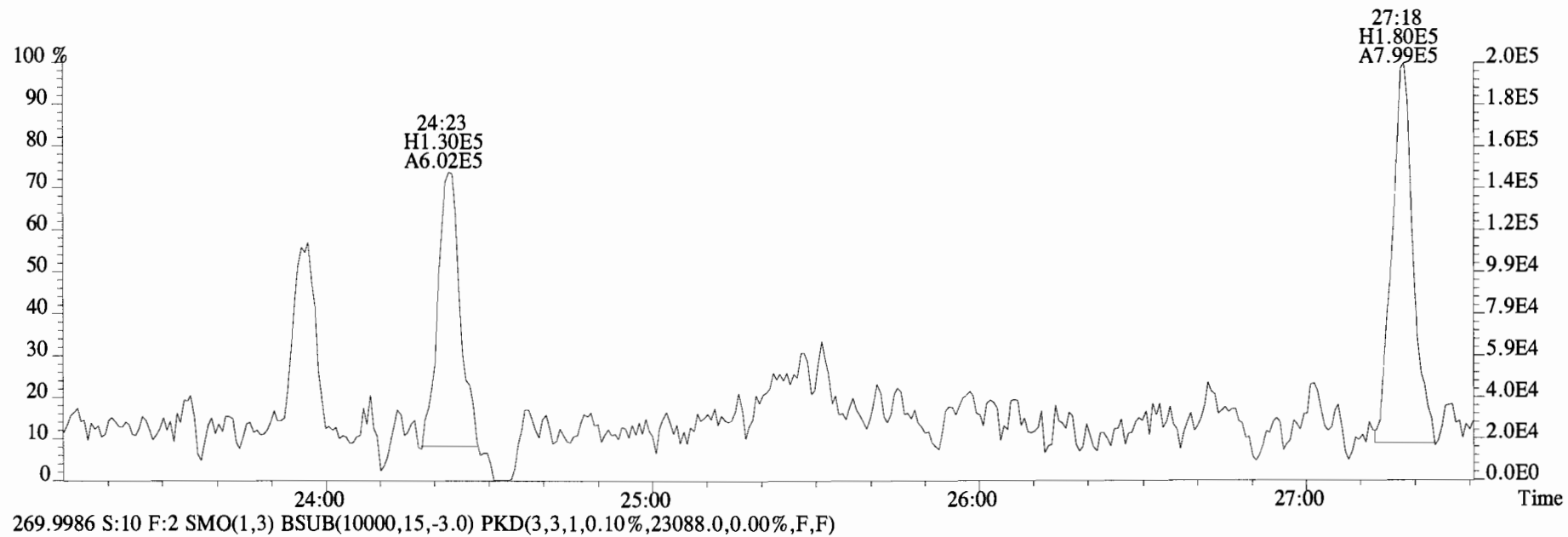
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Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
222.0003 S:10 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2976.0,0.00%,F,F)



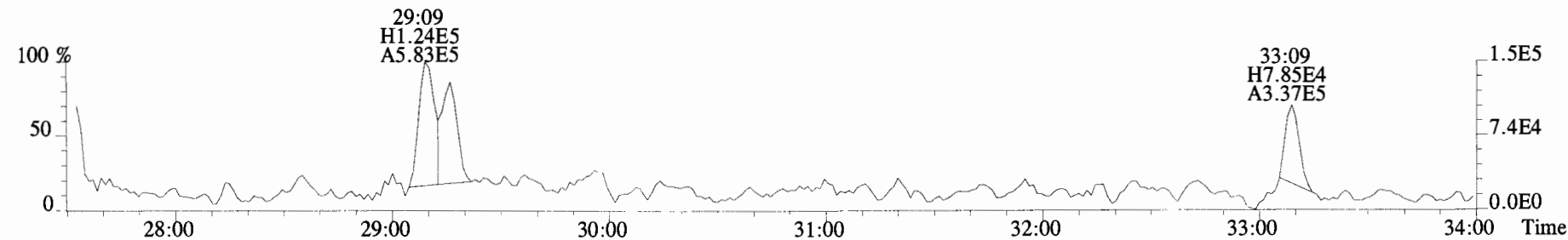
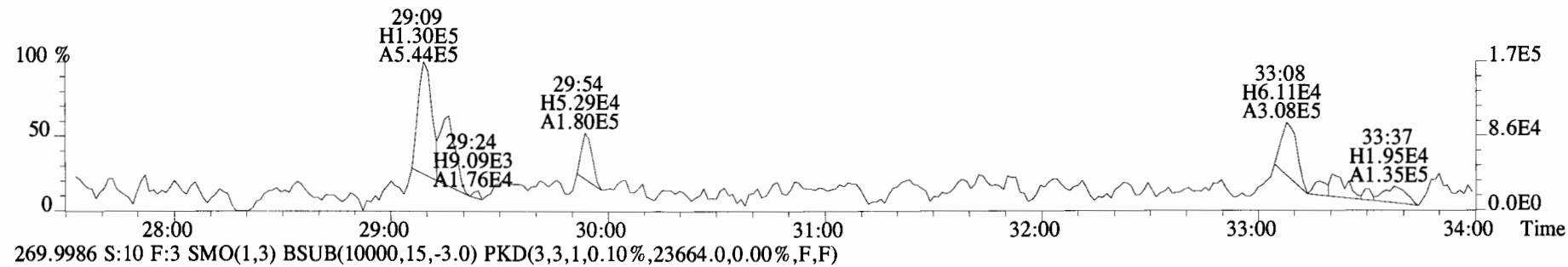
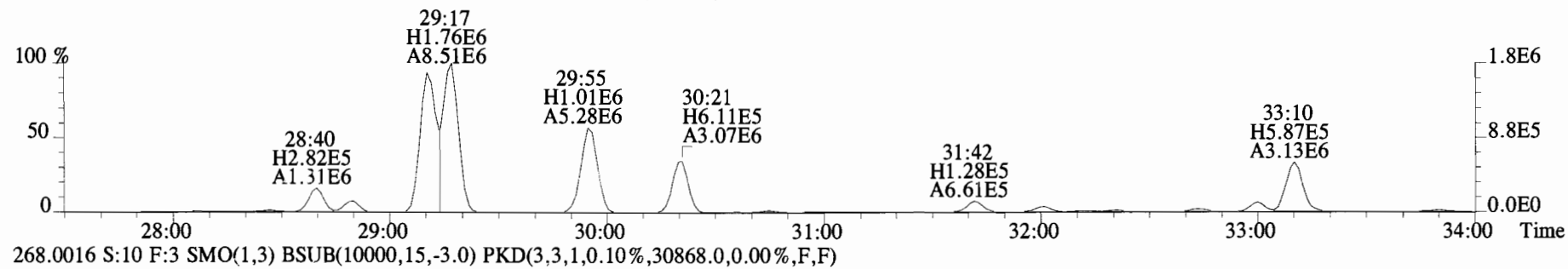
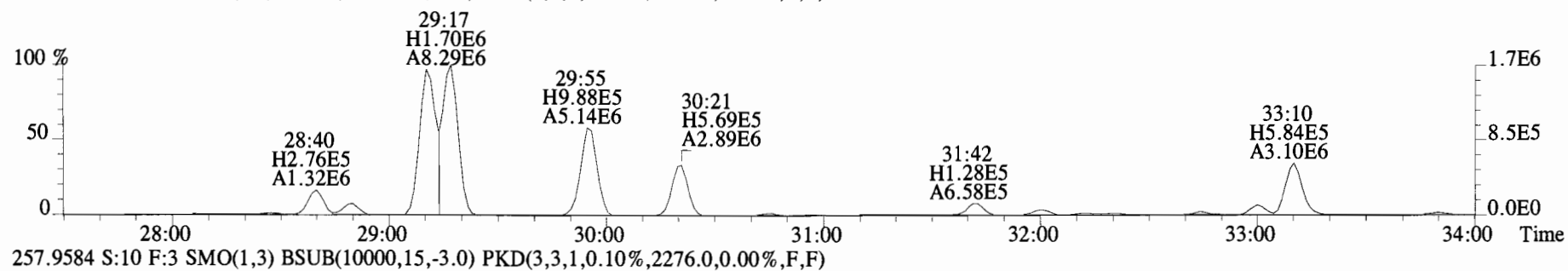
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255.9613 S:10 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3332.0,0.00%,F,F)



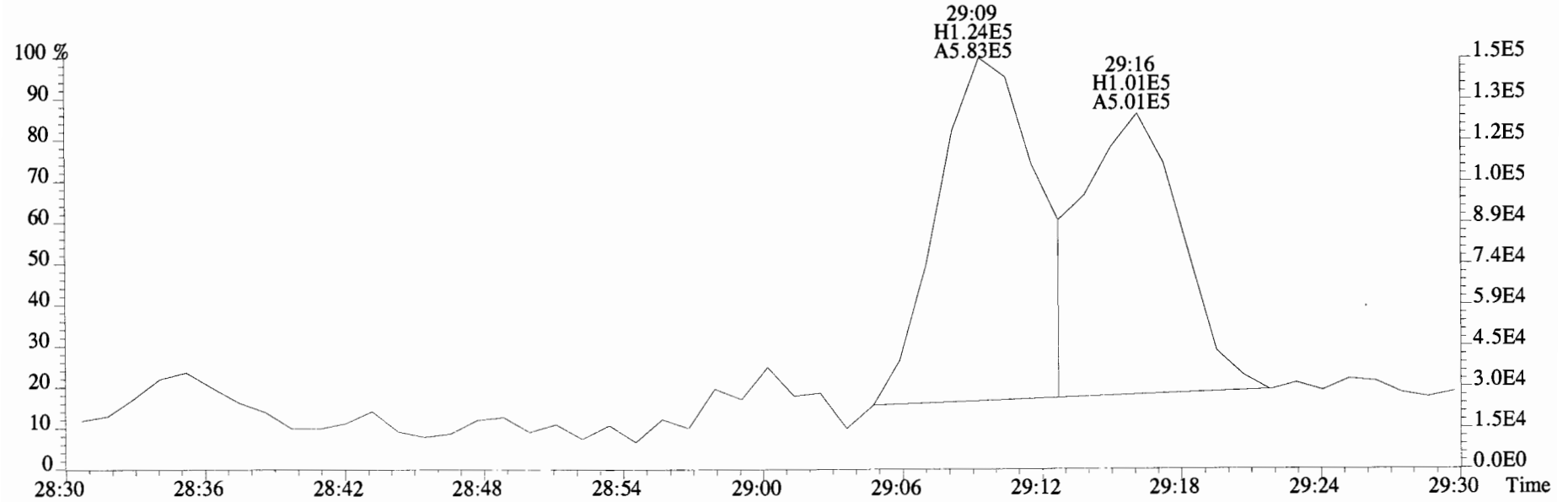
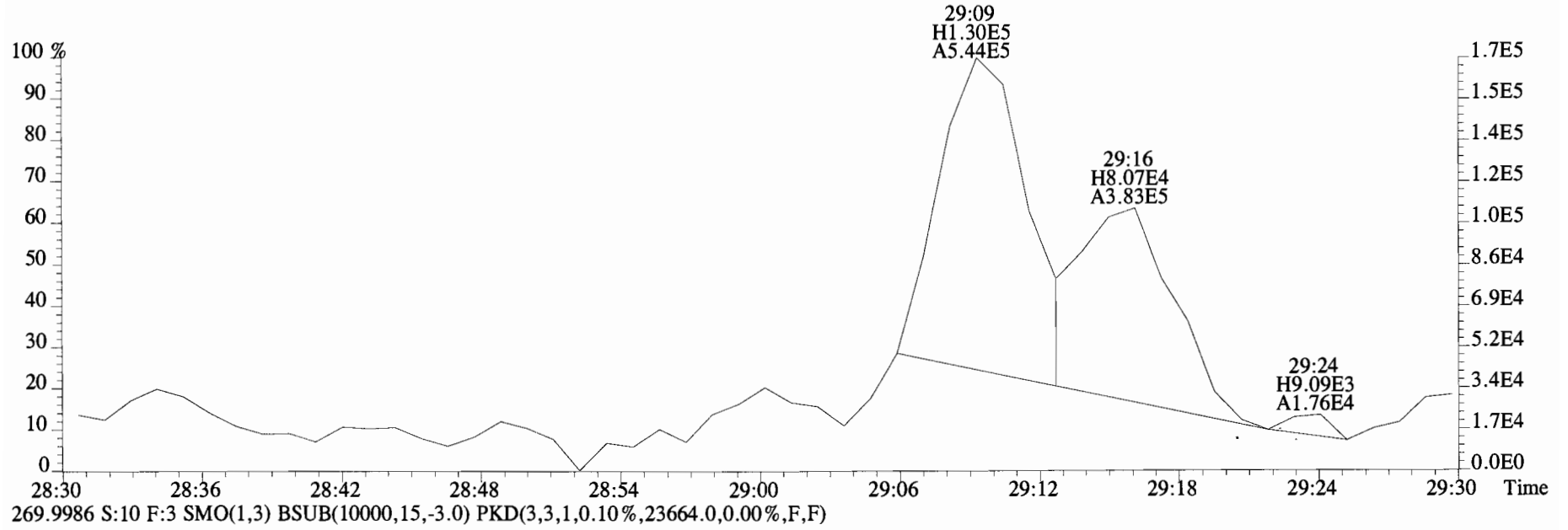
File:140924E1 #1-758 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
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268.0016 S:10 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,35516.0,0.00%,F,F)



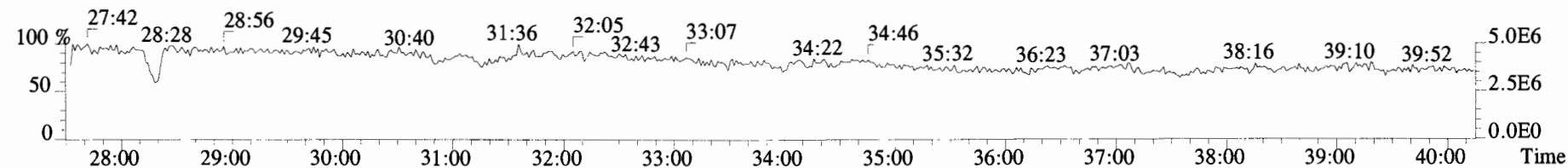
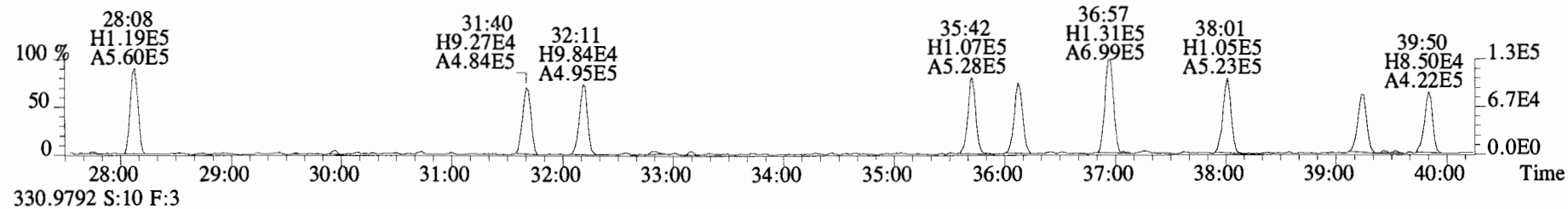
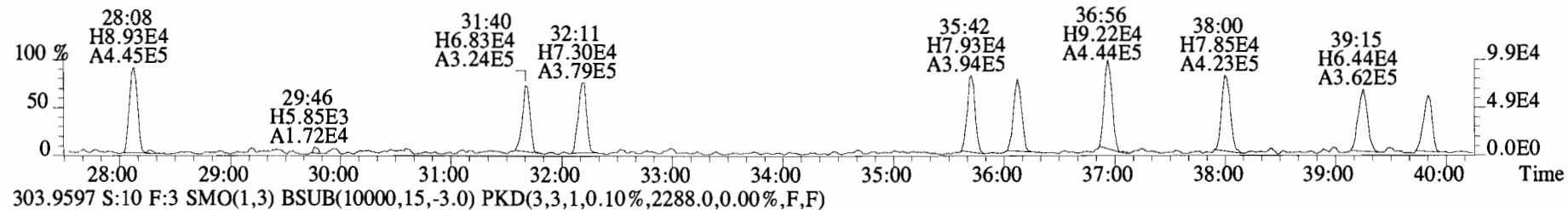
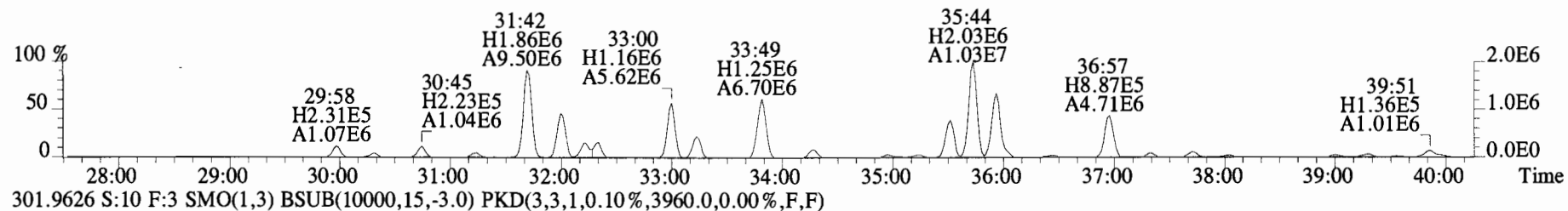
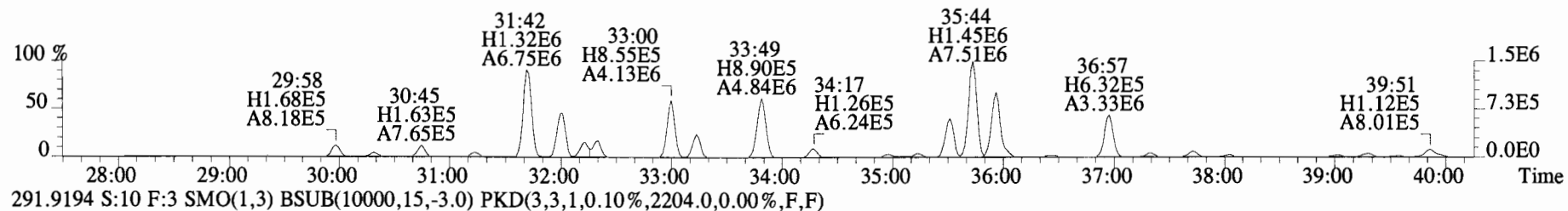
File:140924E1 #1-761 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
255.9613 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2968.0,0.00%,F,F)



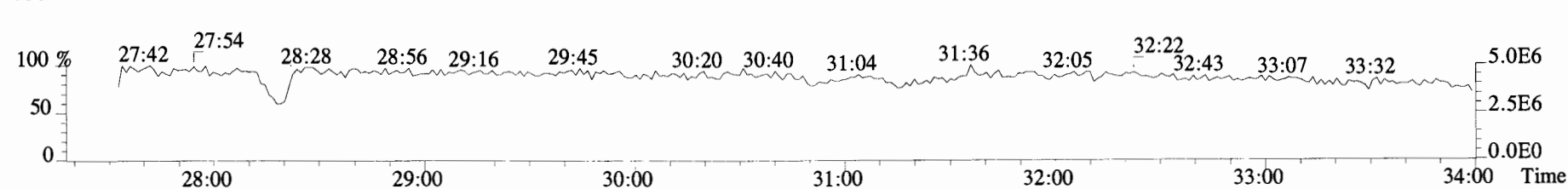
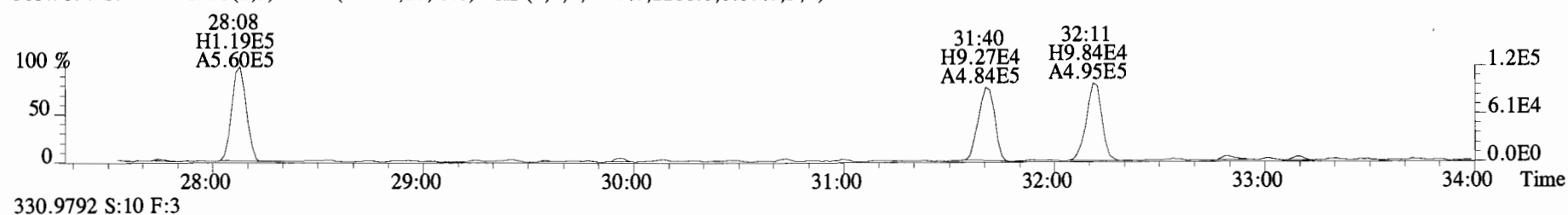
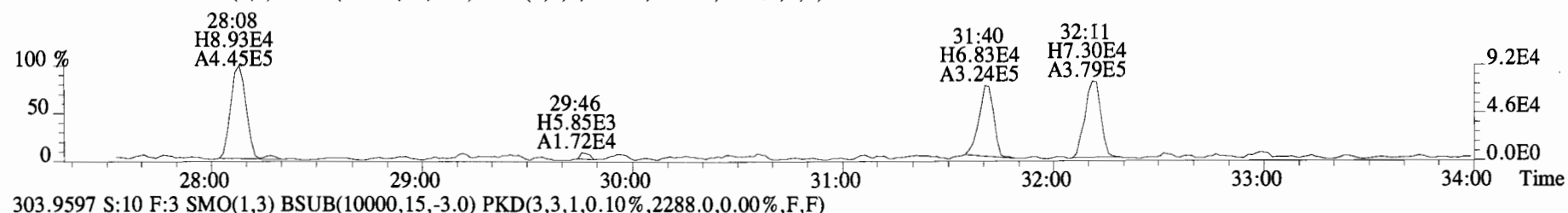
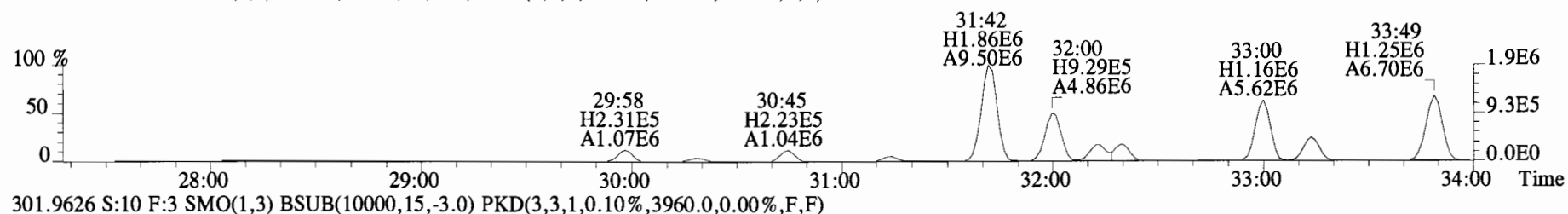
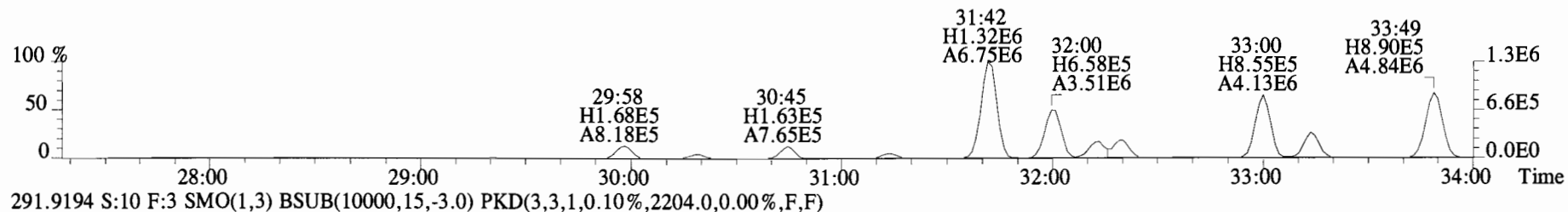
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Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
268.0016 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,30868.0,0.00%,F,F)



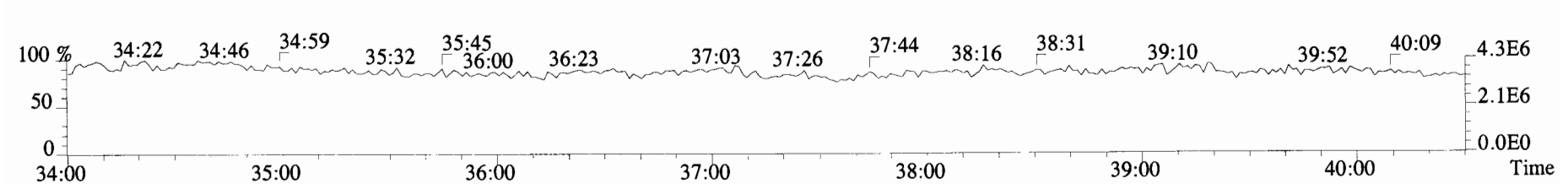
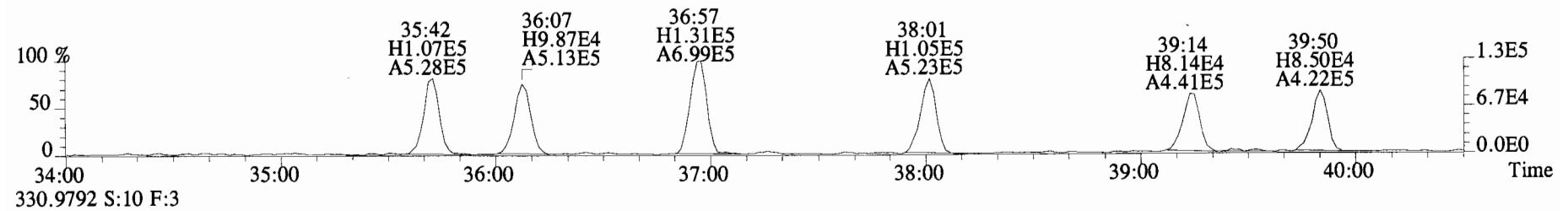
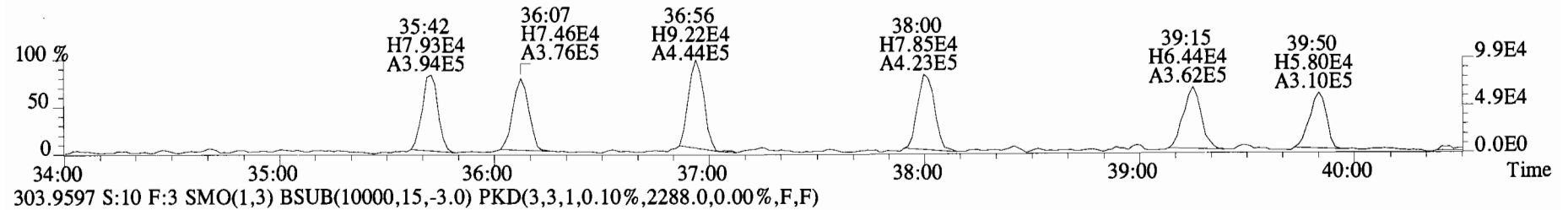
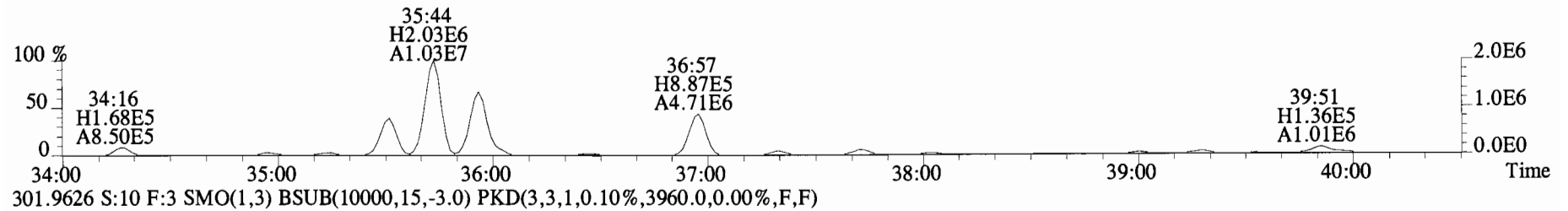
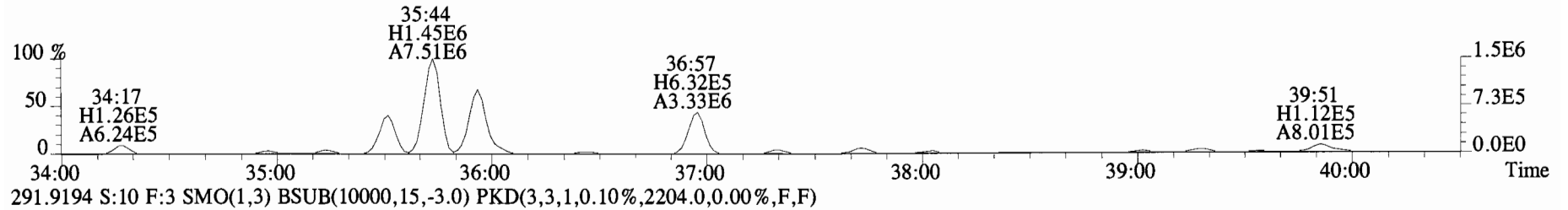
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 Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
 289.9224 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2208.0,0.00%,F,F)



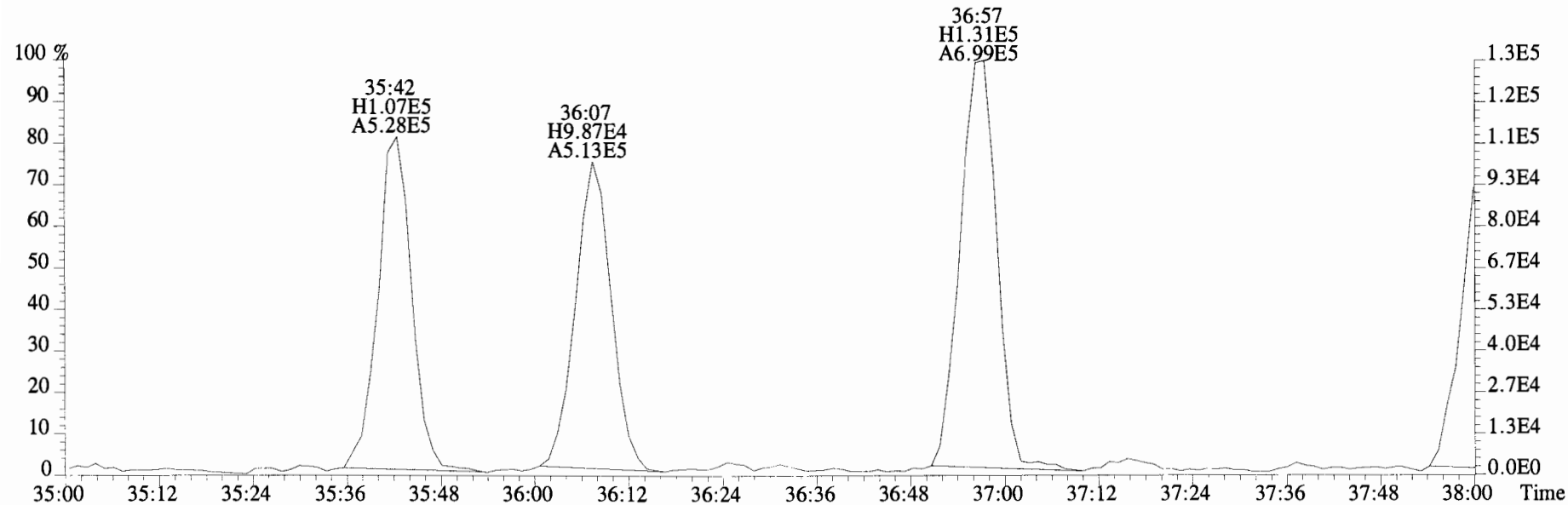
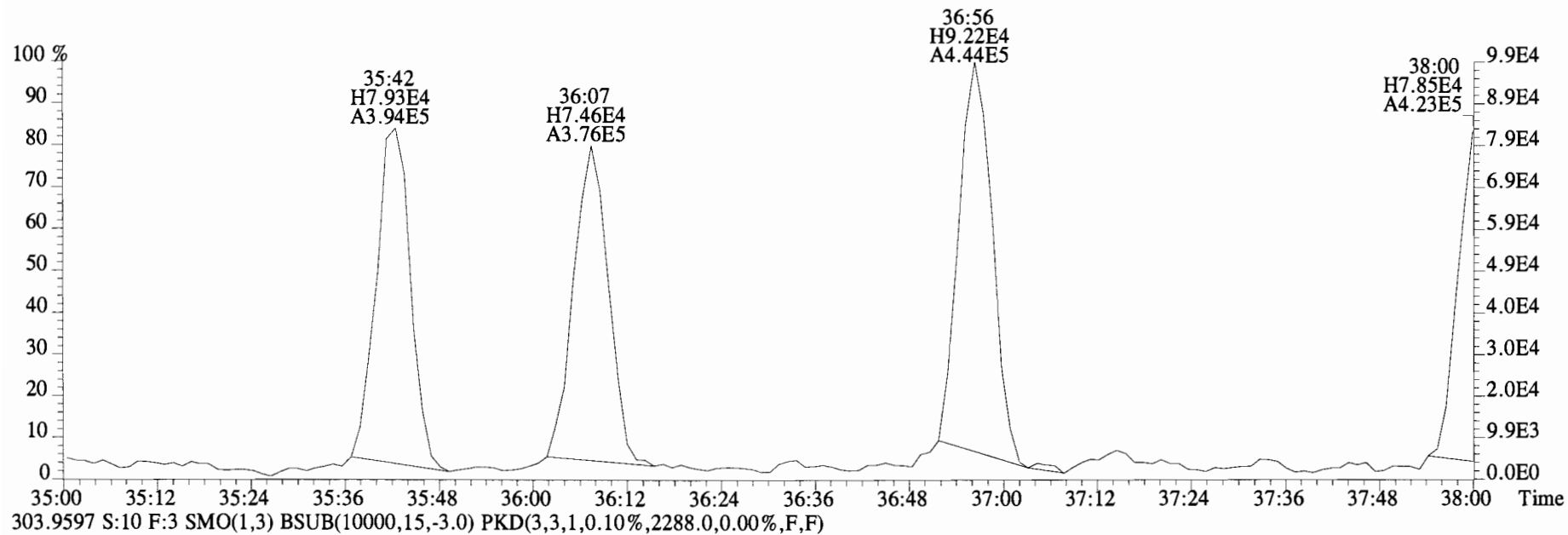
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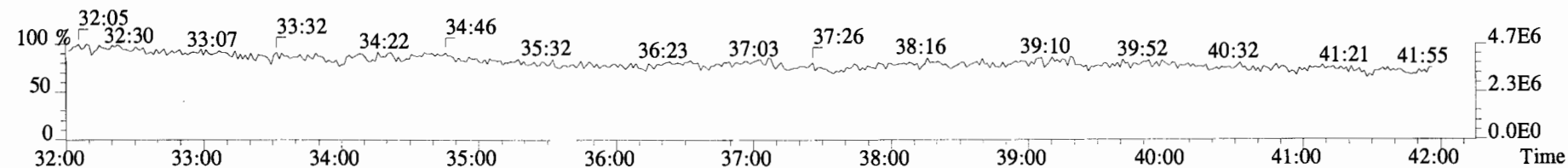
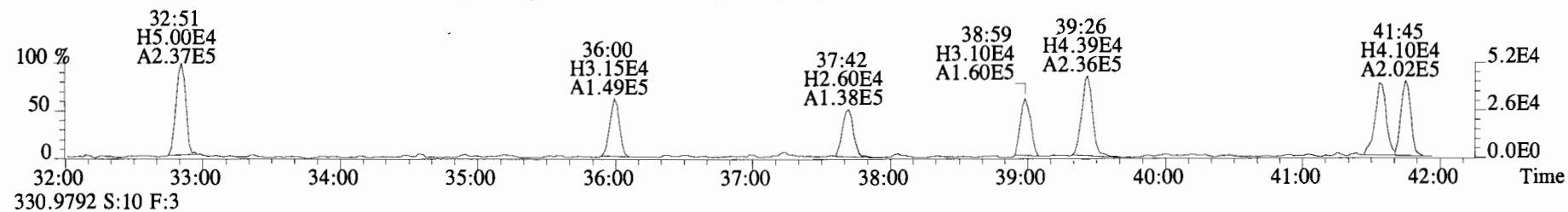
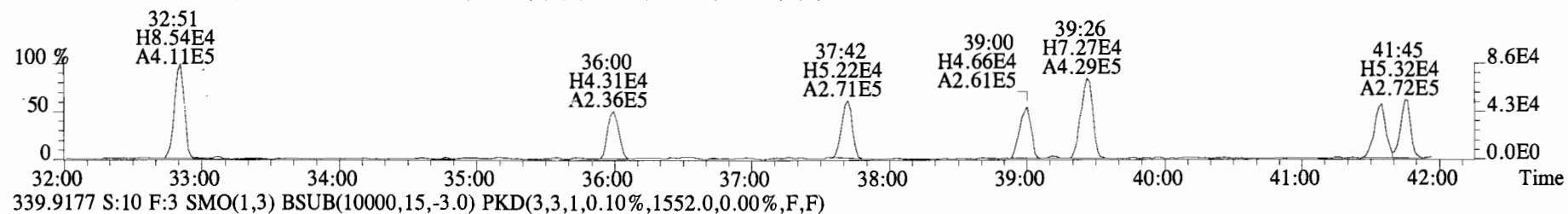
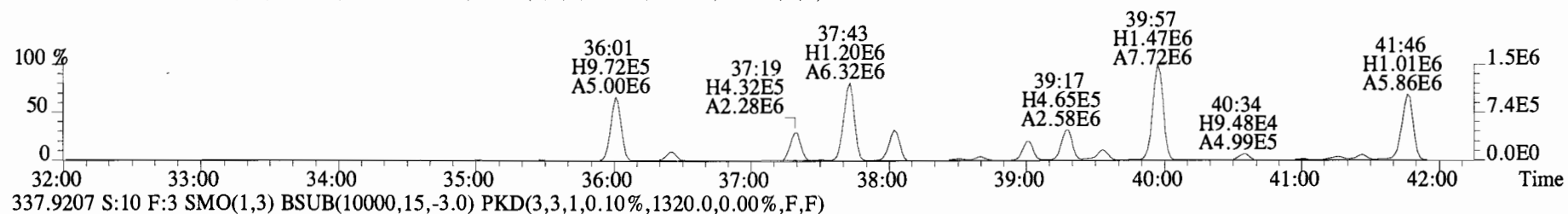
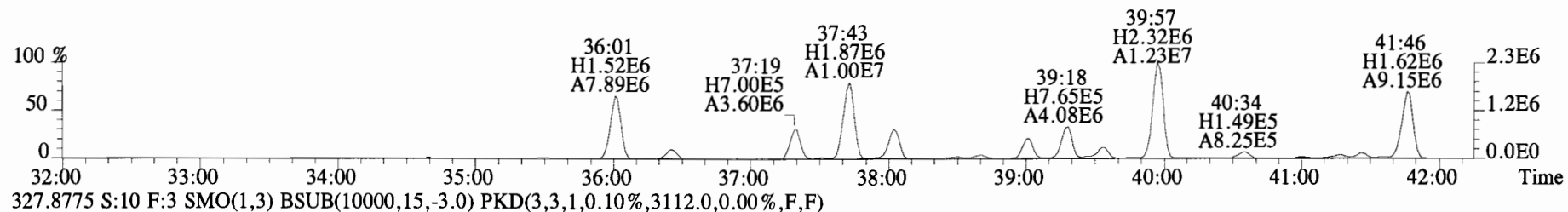
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Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
289.9224 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2208.0,0.00%,F,F)



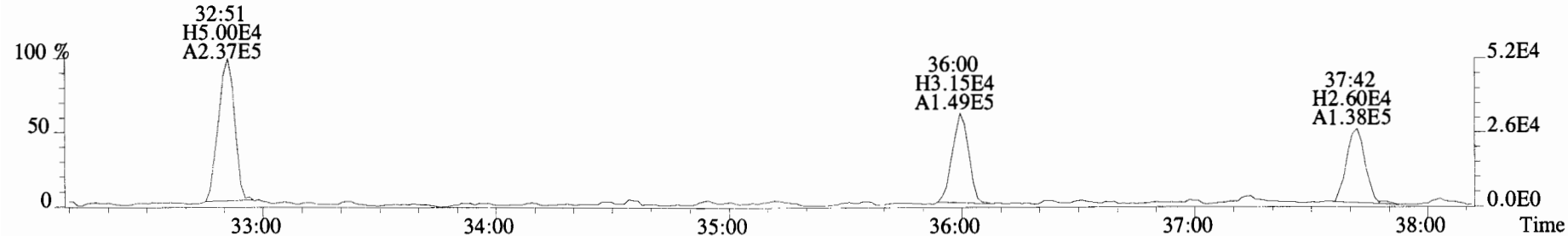
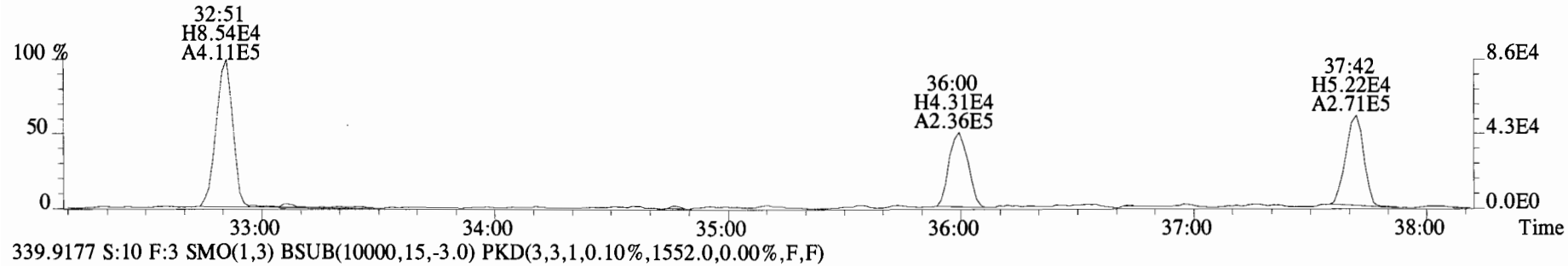
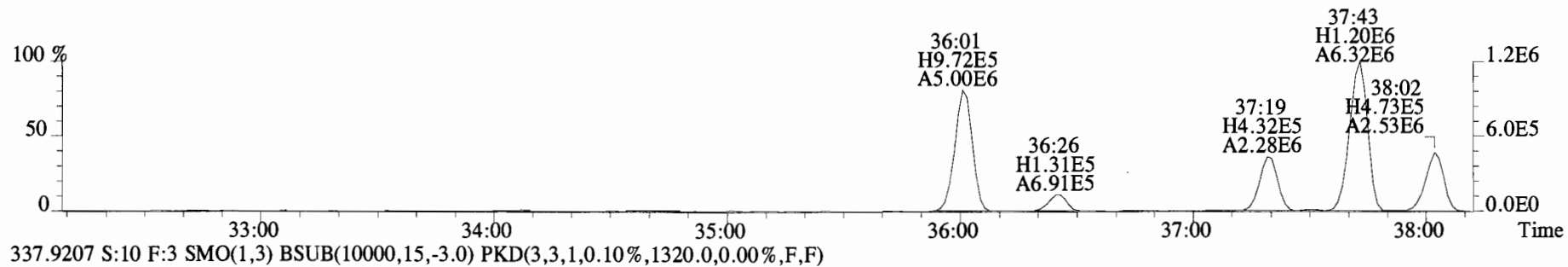
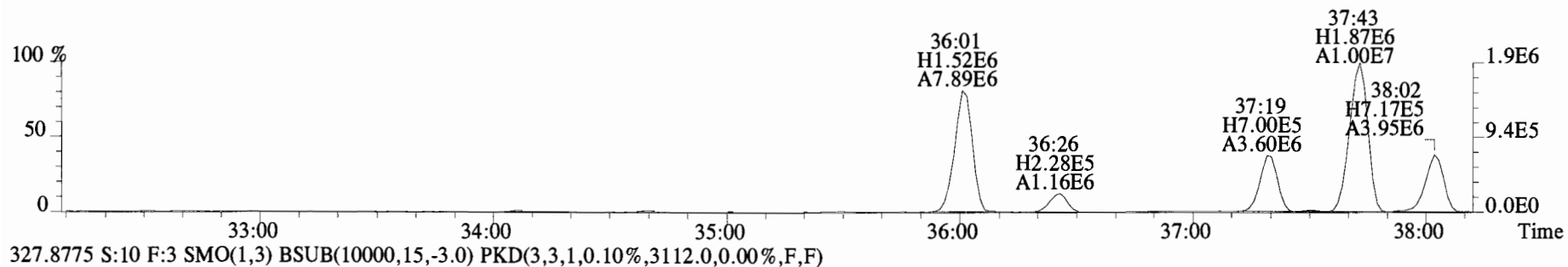
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Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
301.9626 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3960.0,0.00%,F,F)



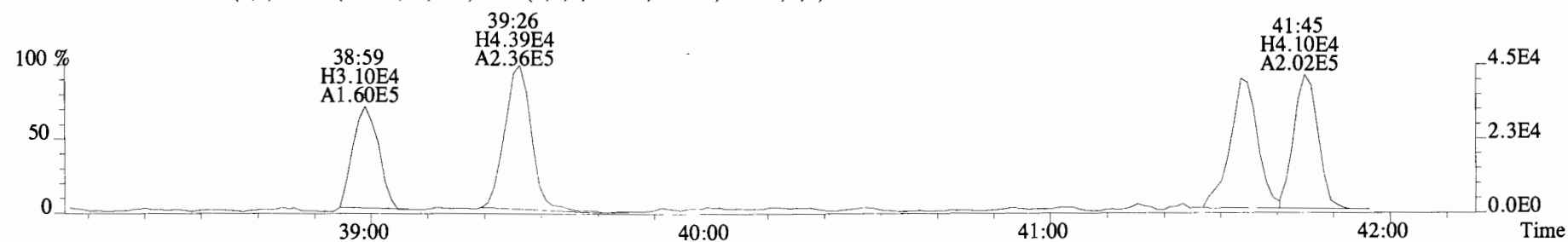
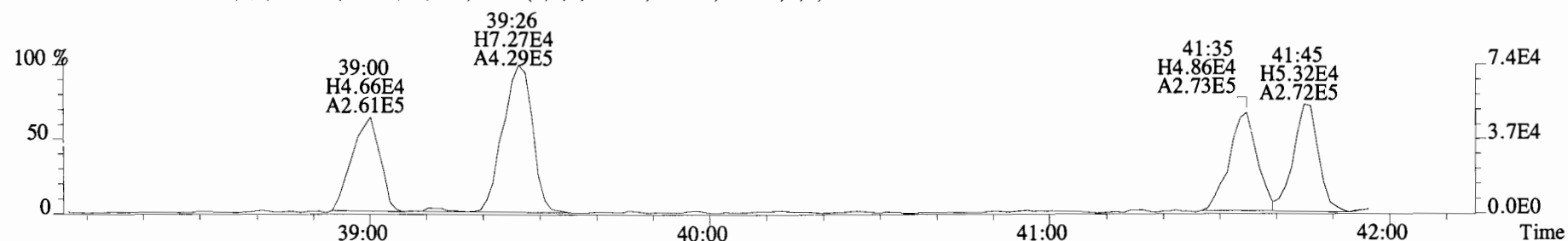
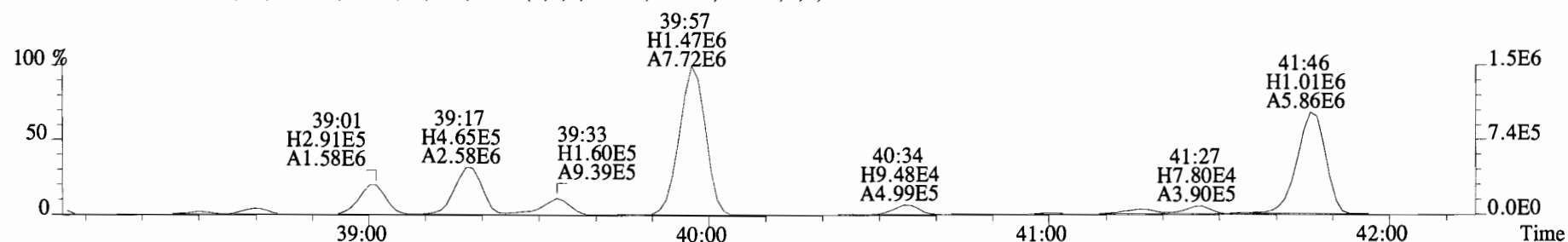
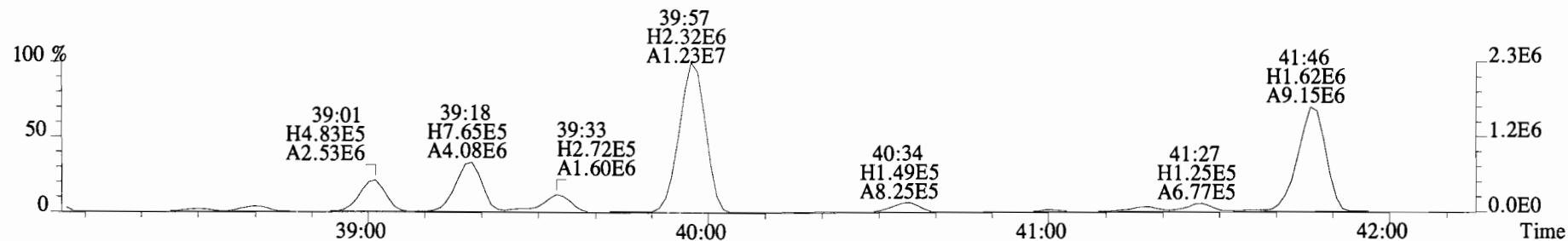
File:140924E1 #1-761 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
325.8804 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4680.0,0.00%,F,F)



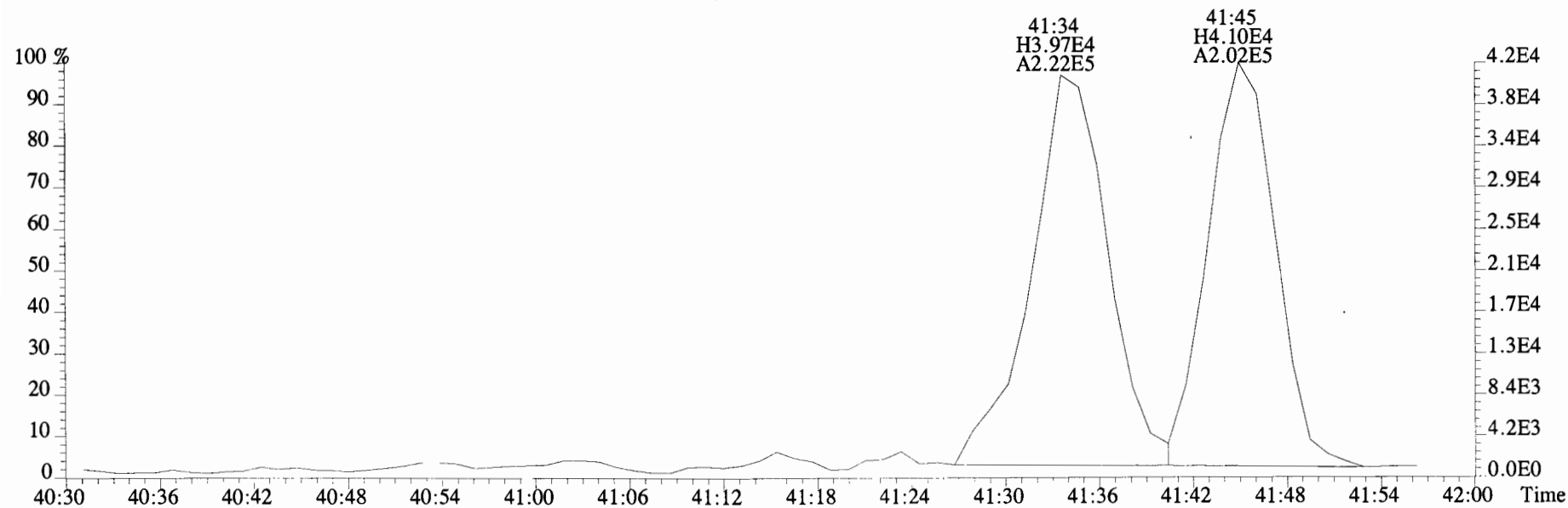
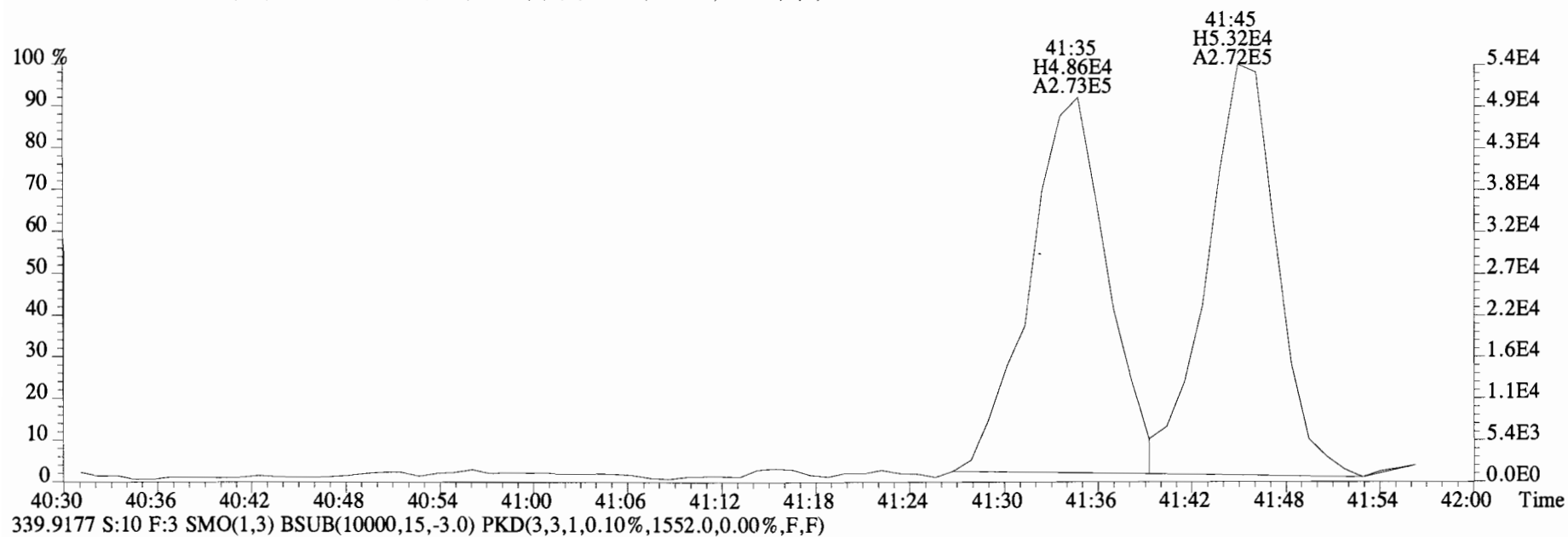
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 325.8804 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4680.0,0.00%,F,F)



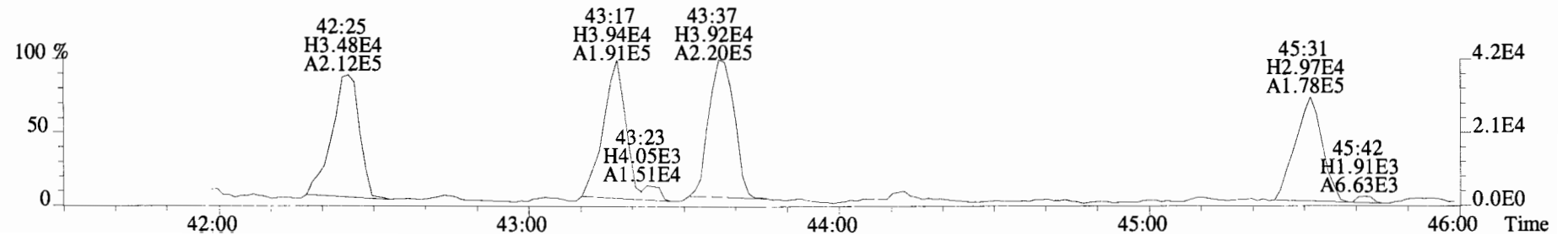
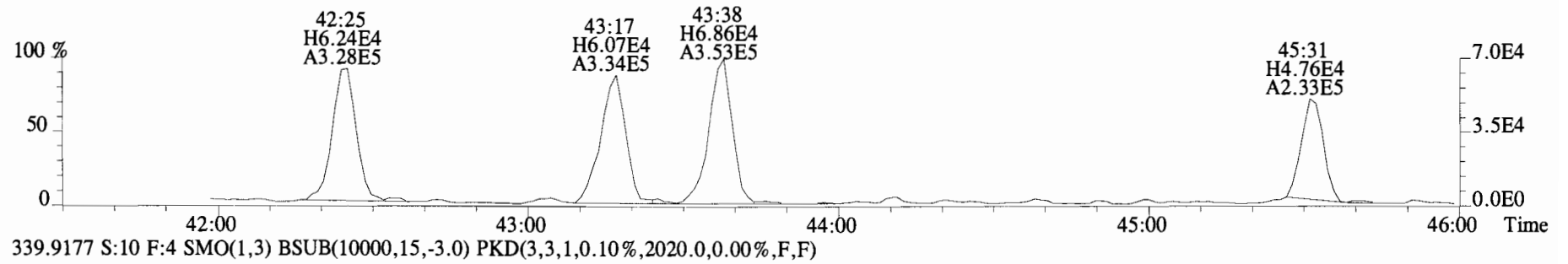
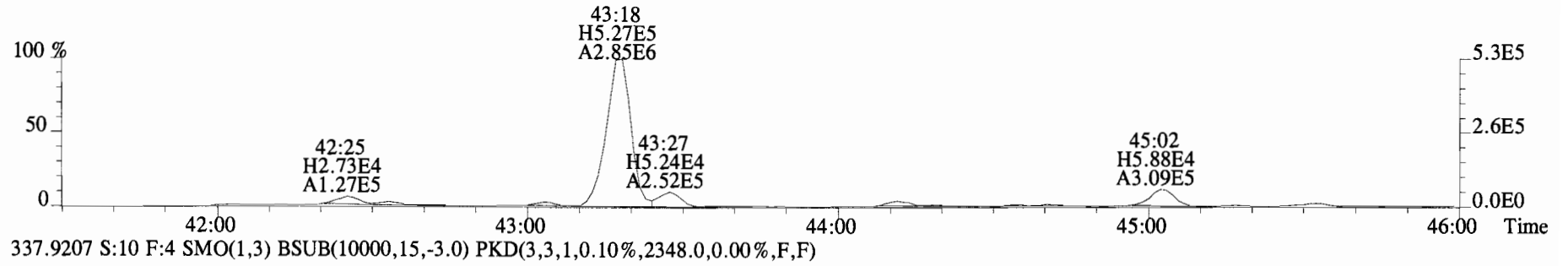
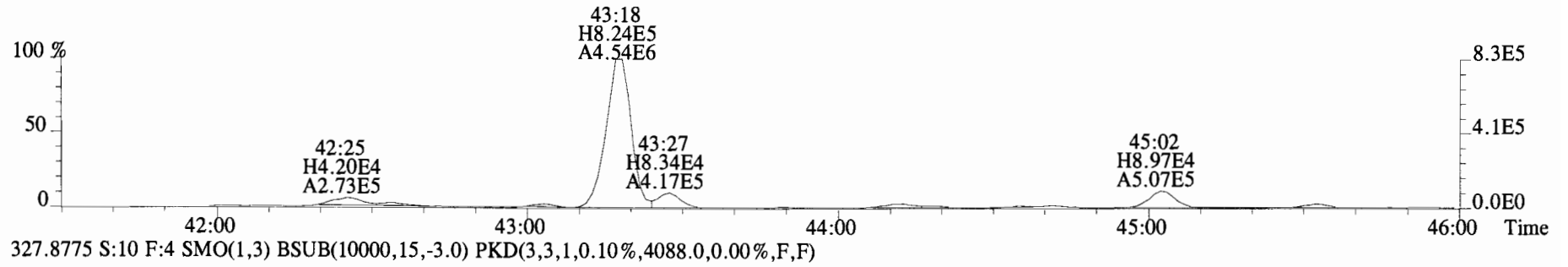
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325.8804 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4680.0,0.00%,F,F)



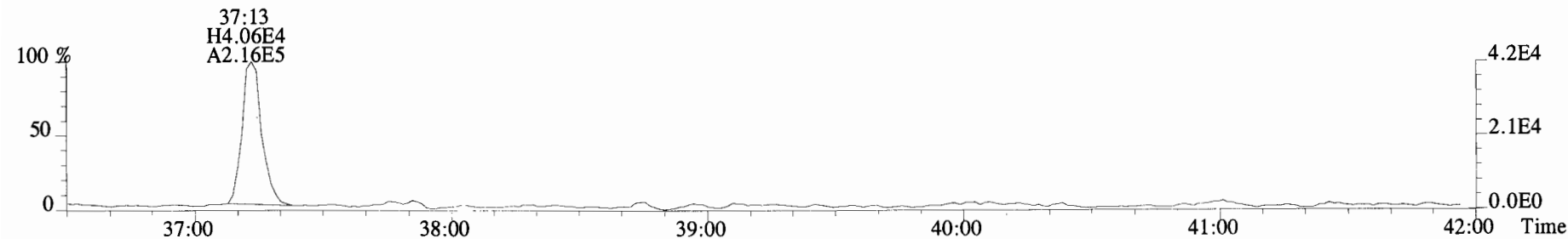
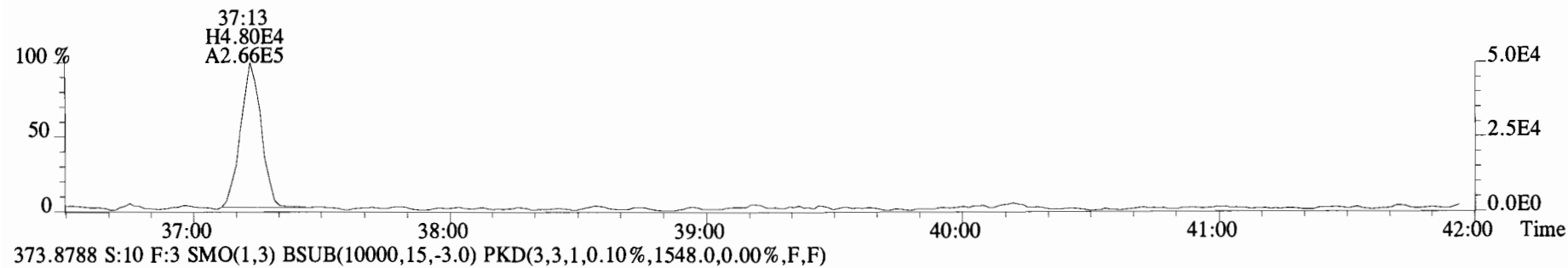
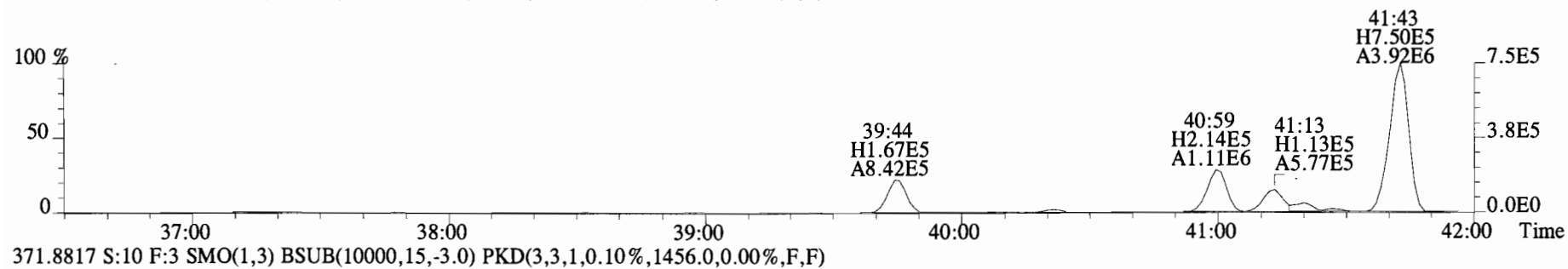
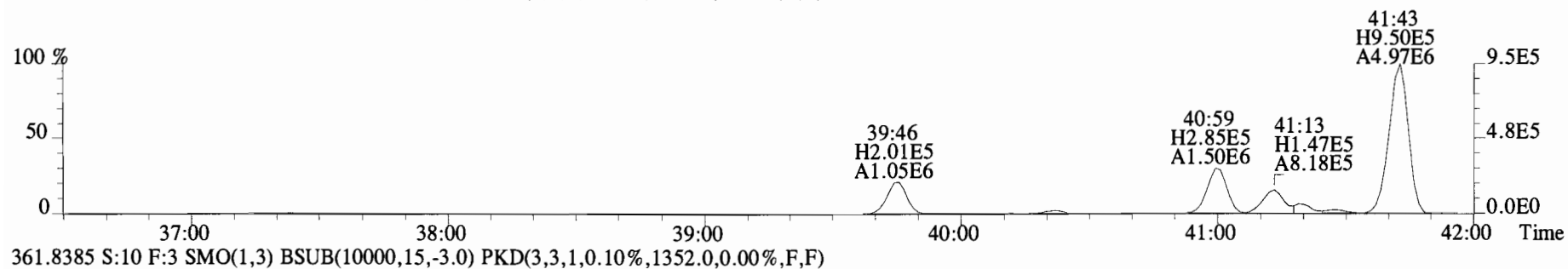
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Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
337.9207 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1320.0,0.00%,F,F)



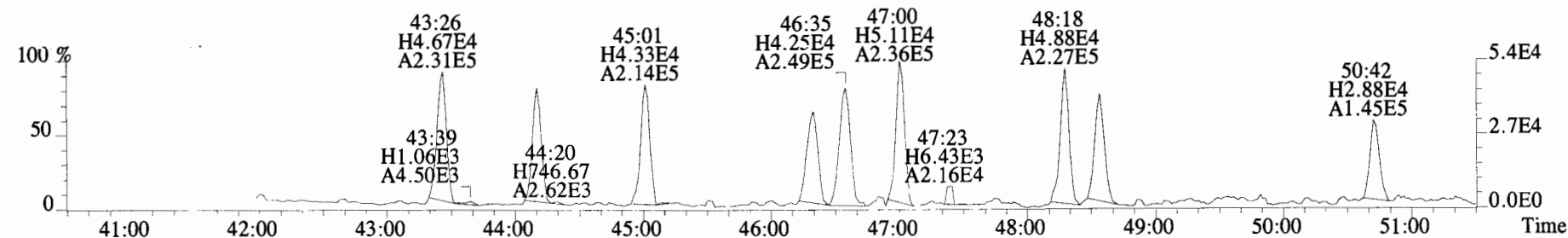
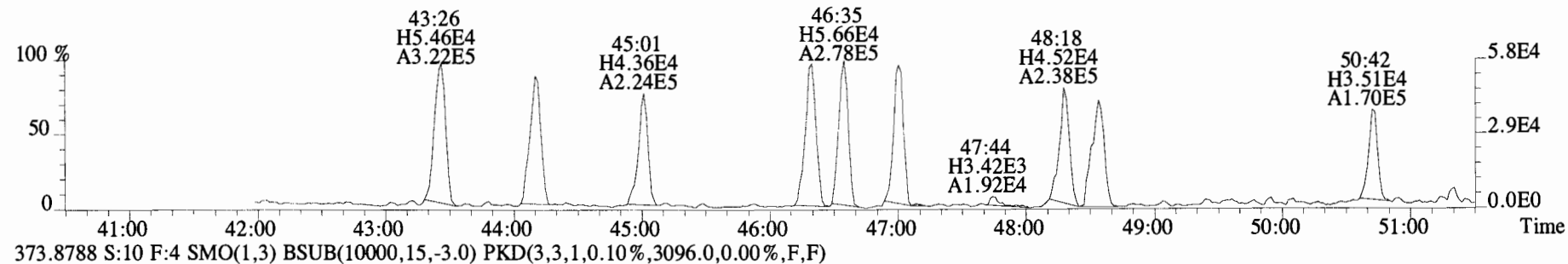
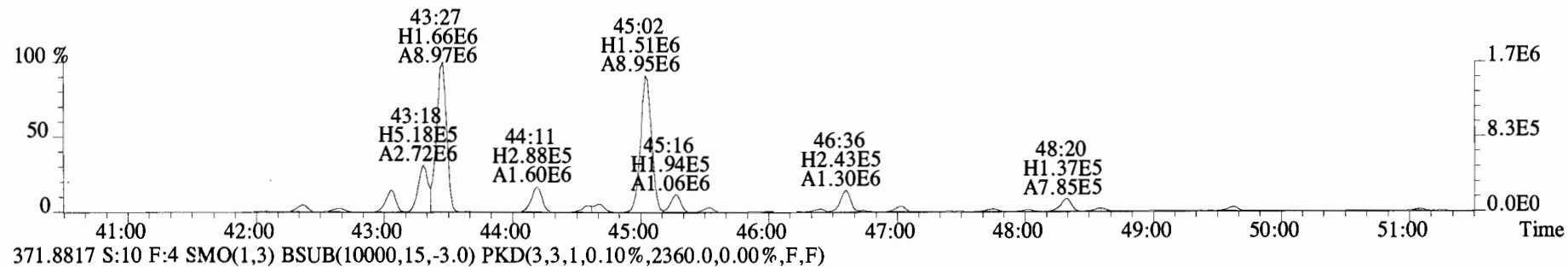
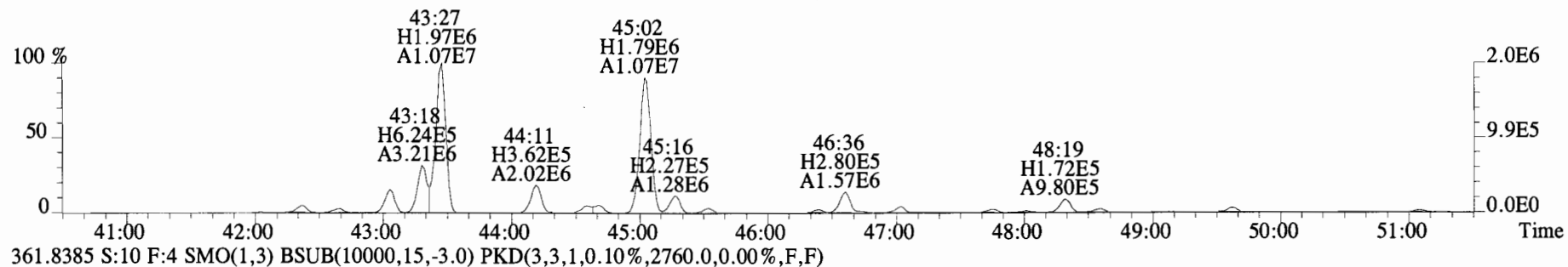
File:140924E1 #1-561 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
325.8804 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5212.0,0.00%,F,F)



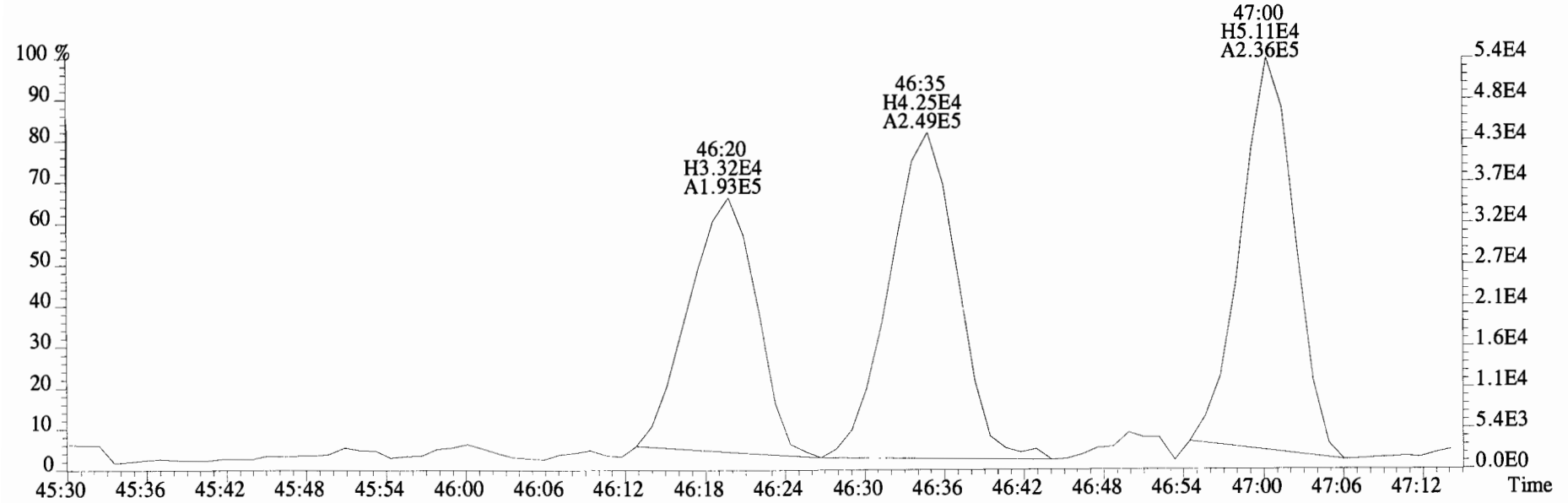
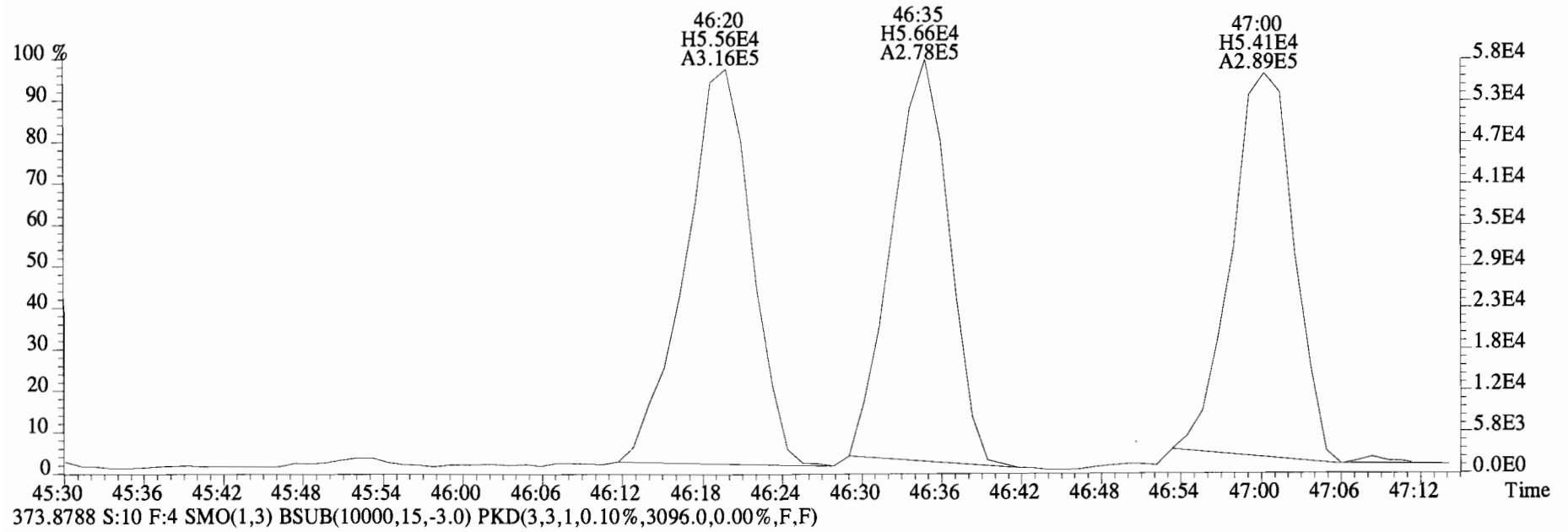
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Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
359.8415 S:10 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1392.0,0.00%,F,F)



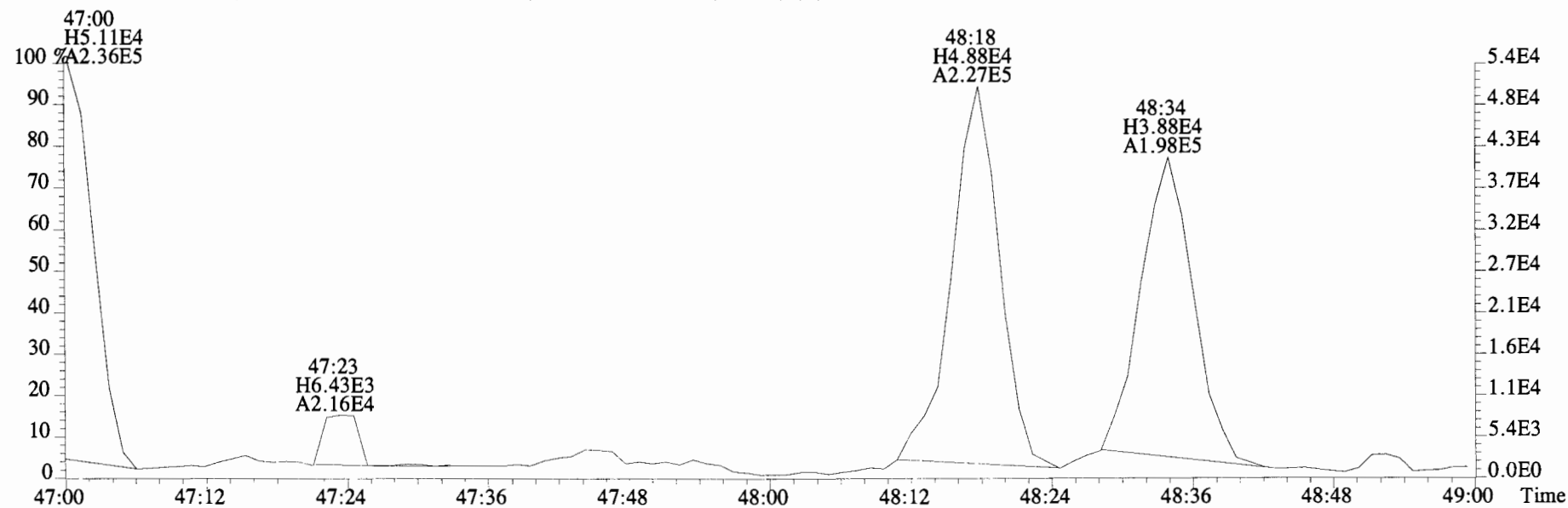
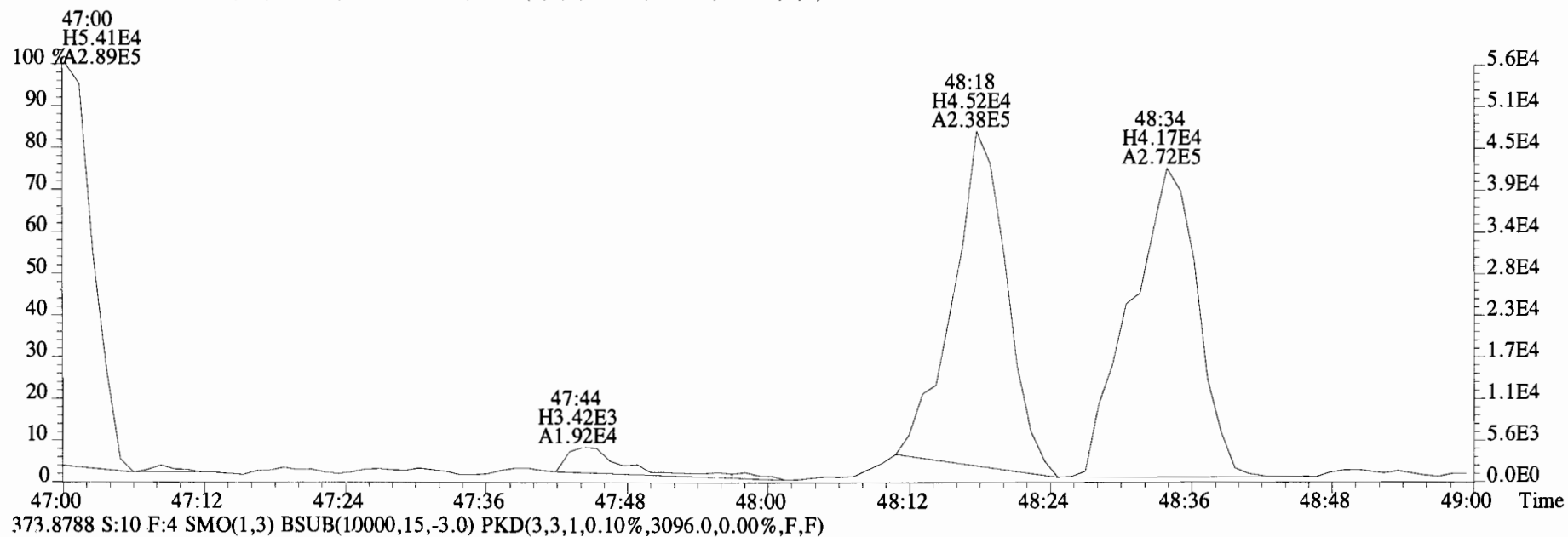
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359.8415 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3152.0,0.00%,F,F)



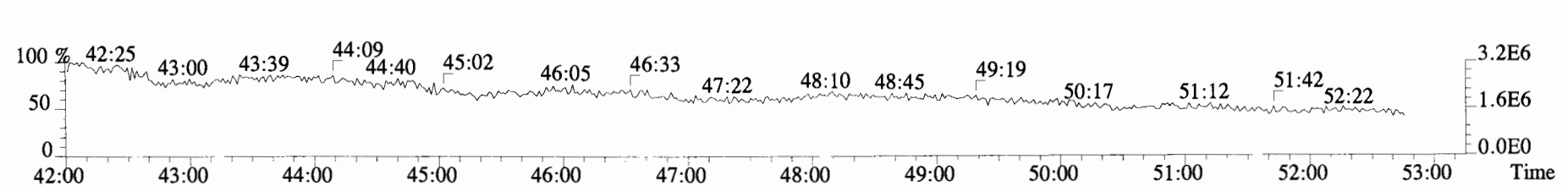
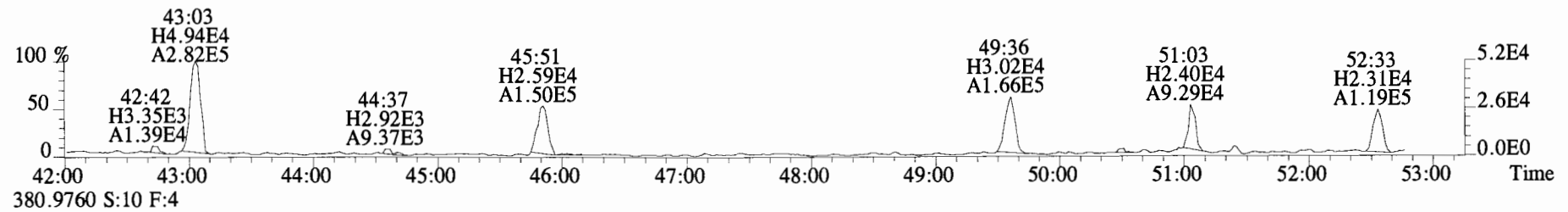
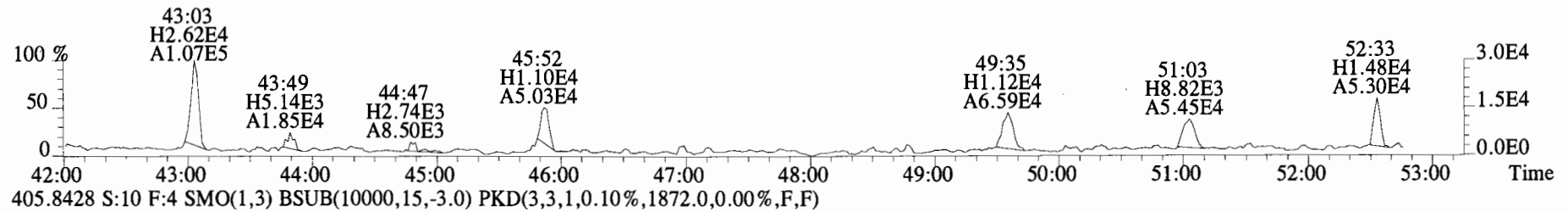
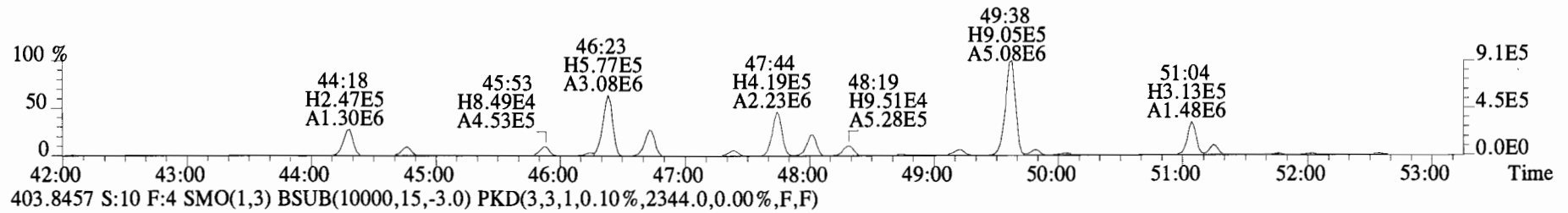
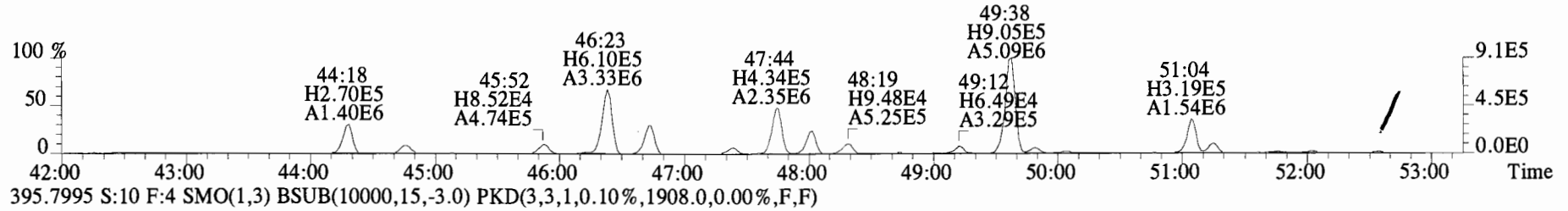
File:140924E1 #1-561 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
371.8817 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2360.0,0.00%,F,F)



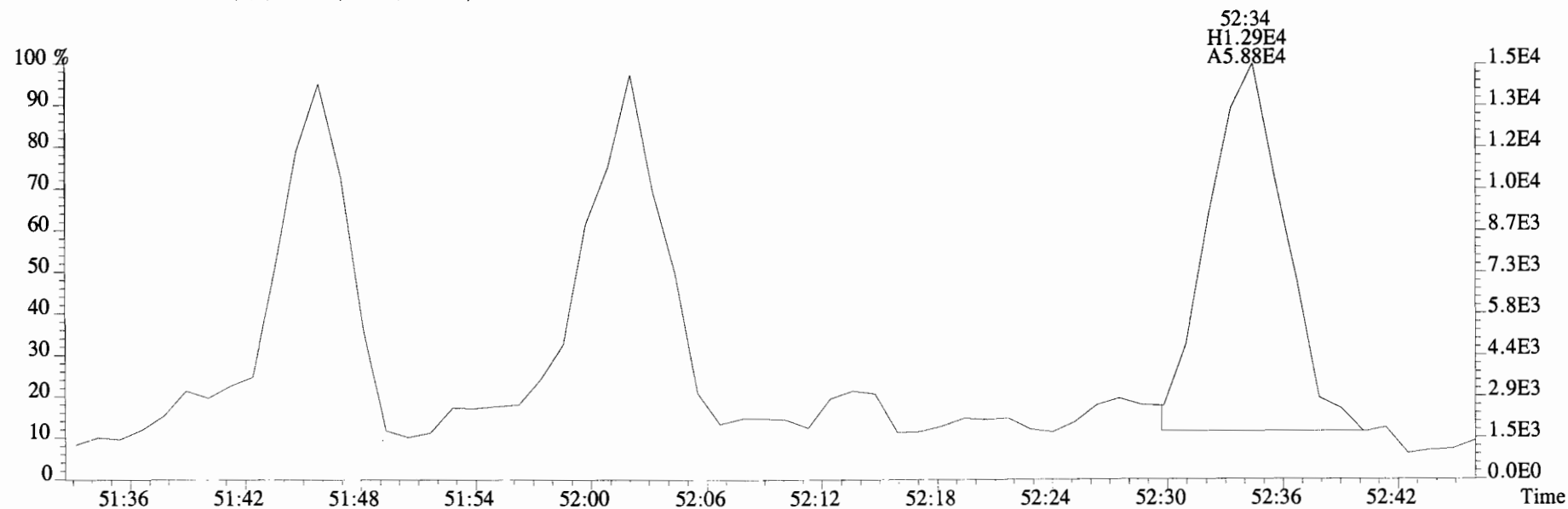
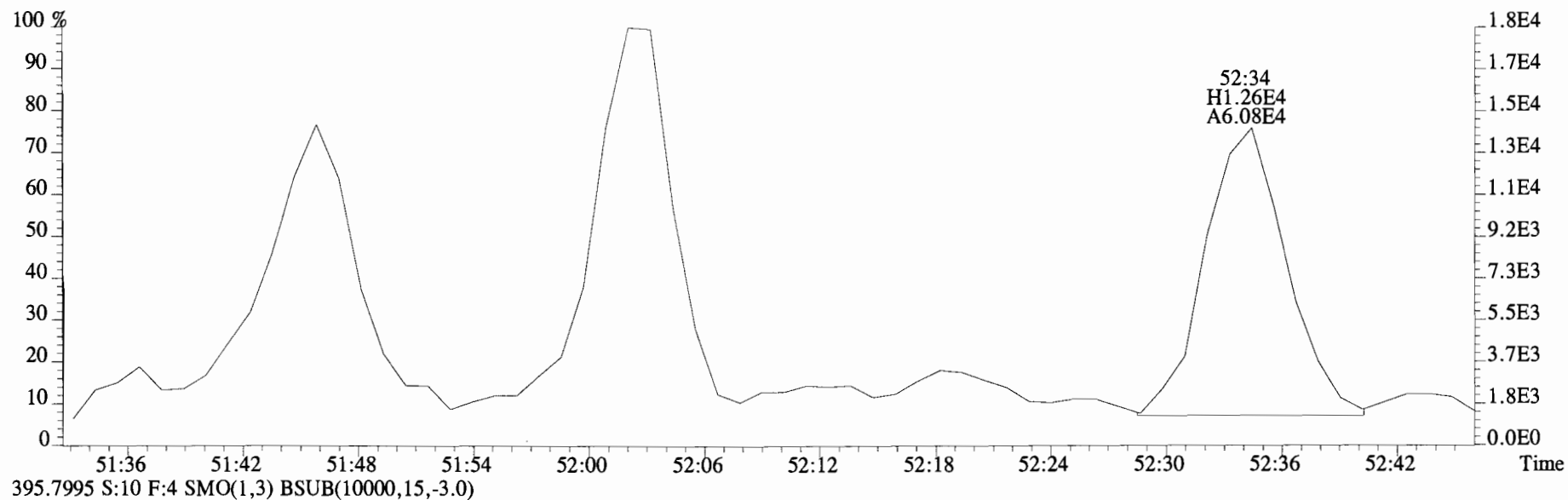
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Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
371.8817 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2360.0,0.00%,F,F)



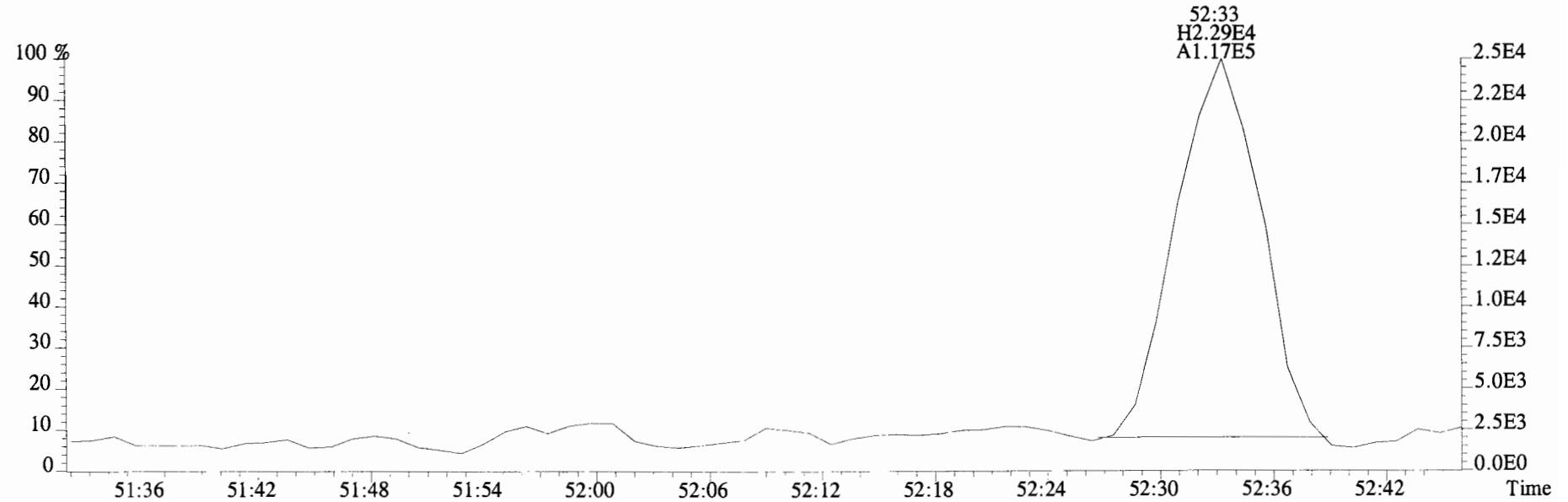
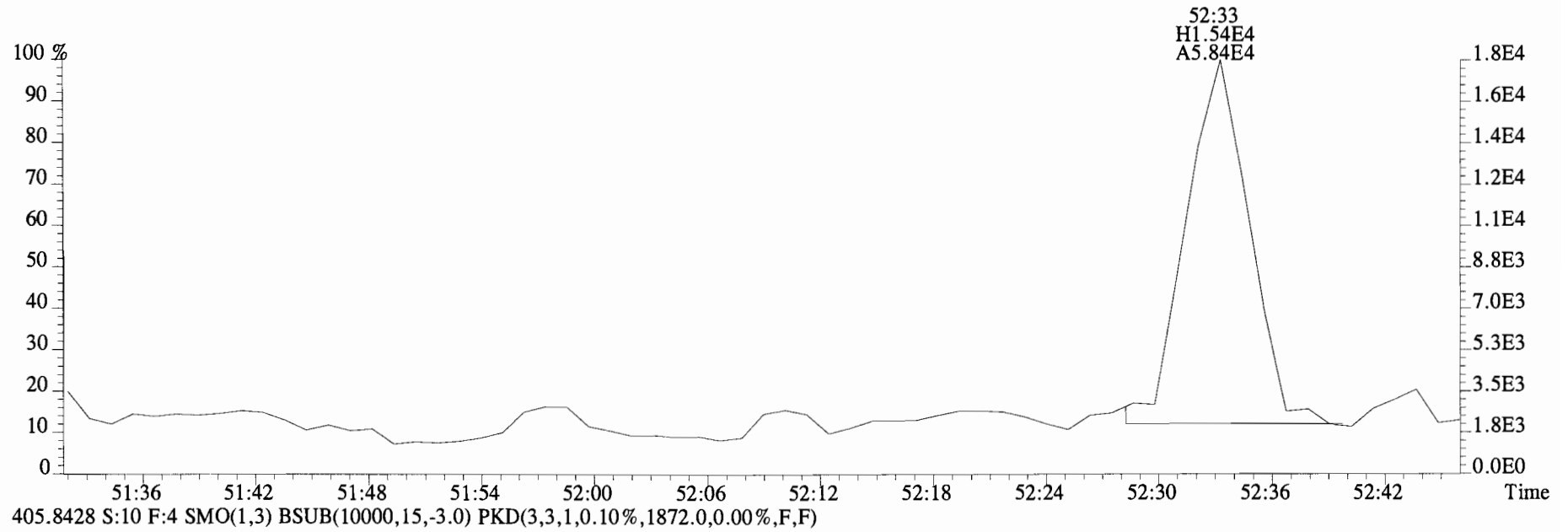
File:140924E1 #1-561 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
 393.8025 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2456.0,0.00%,F,F)



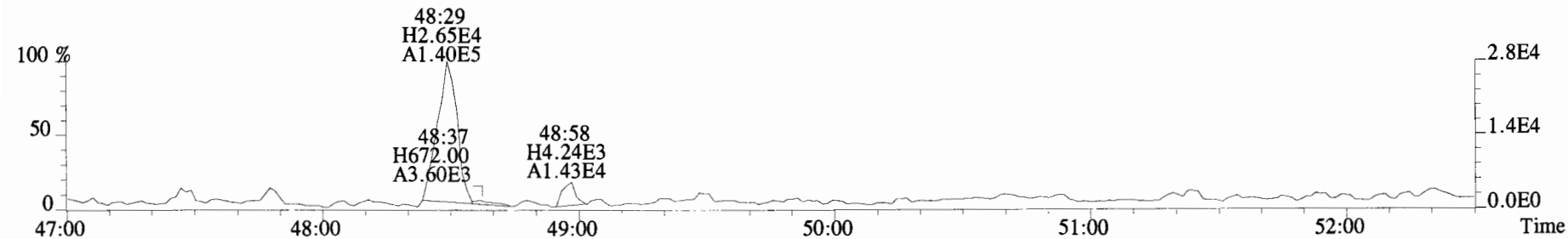
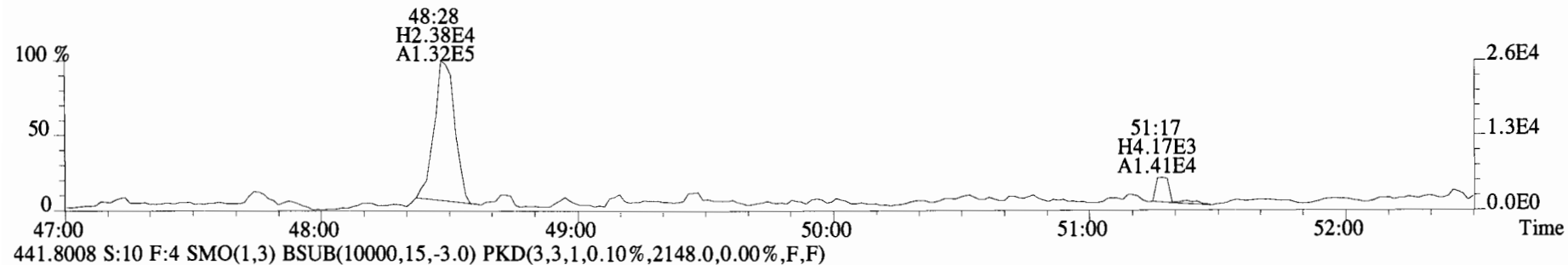
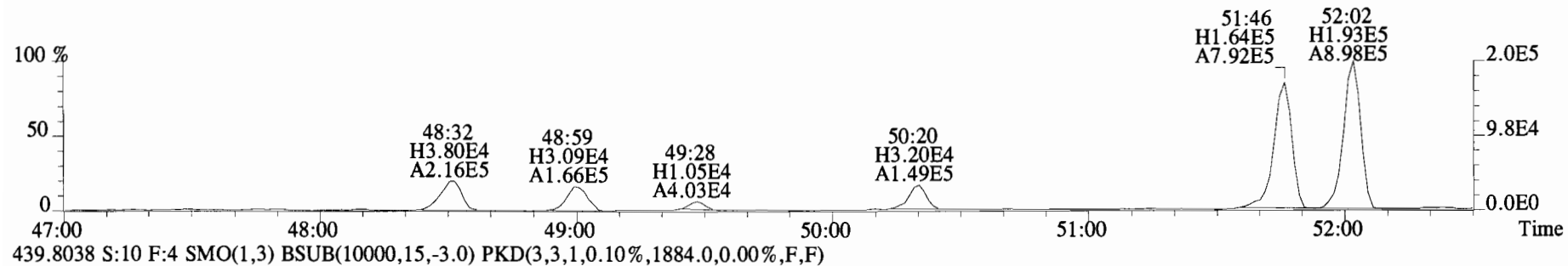
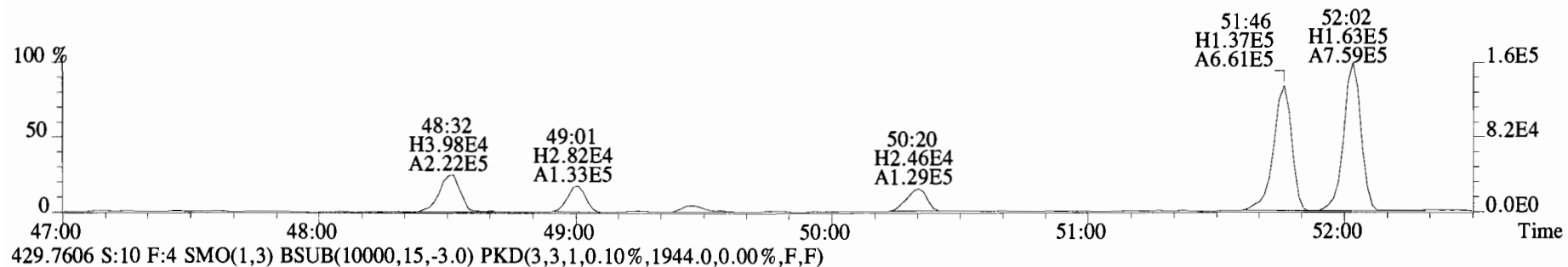
File:140924E1 #1-561 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
393.8025 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0)



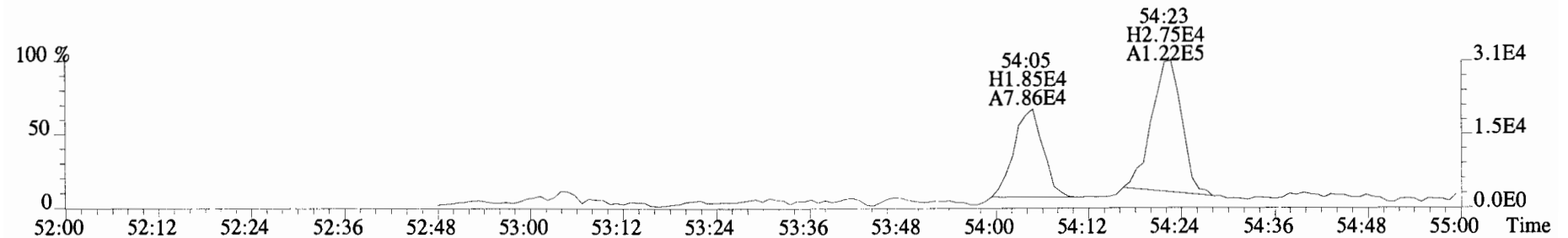
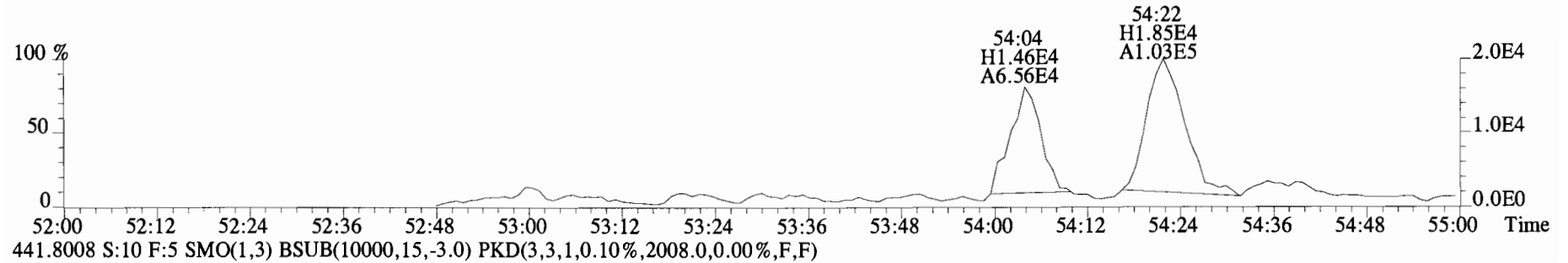
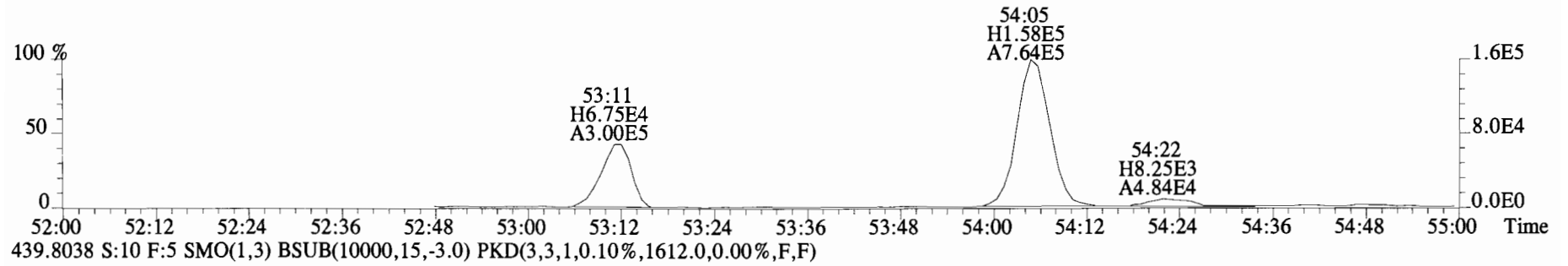
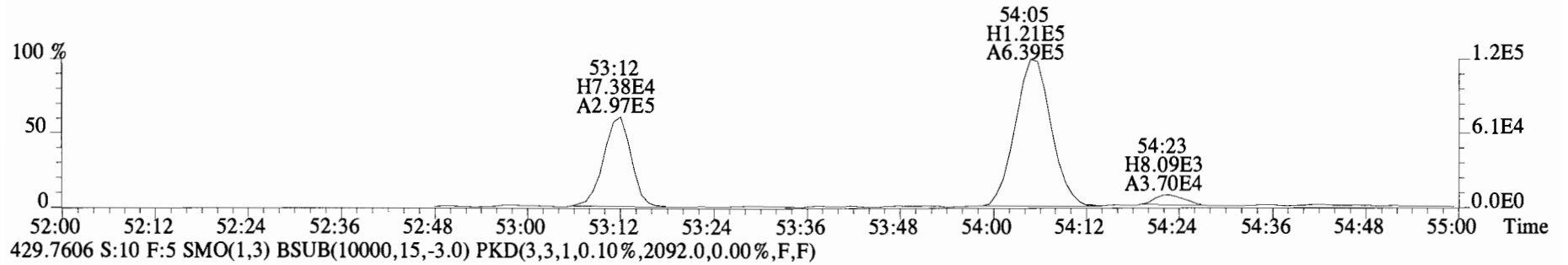
File:140924E1 #1-561 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
403.8457 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2344.0,0.00%,F,F)



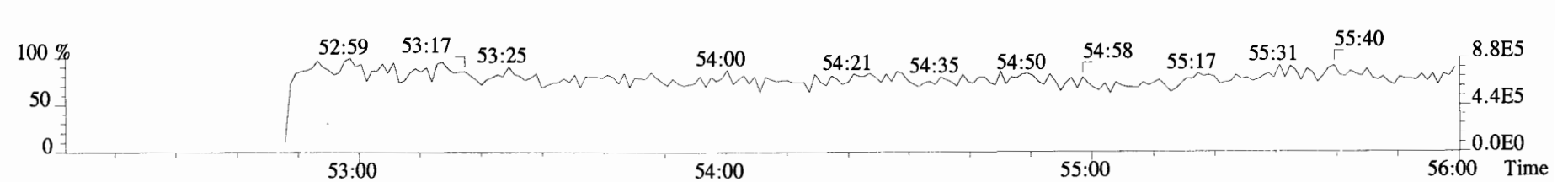
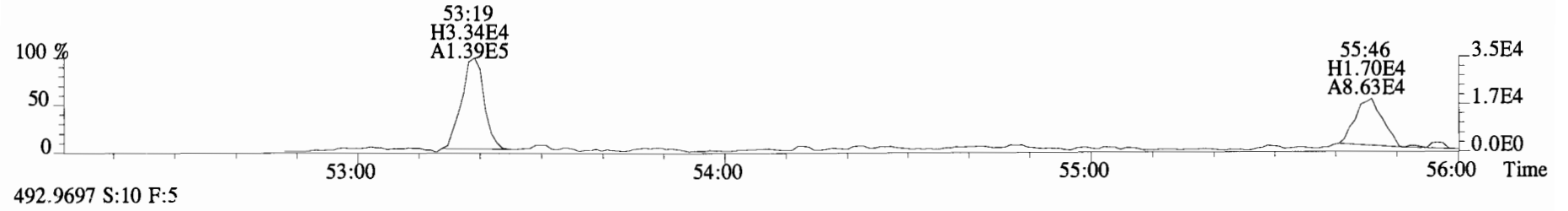
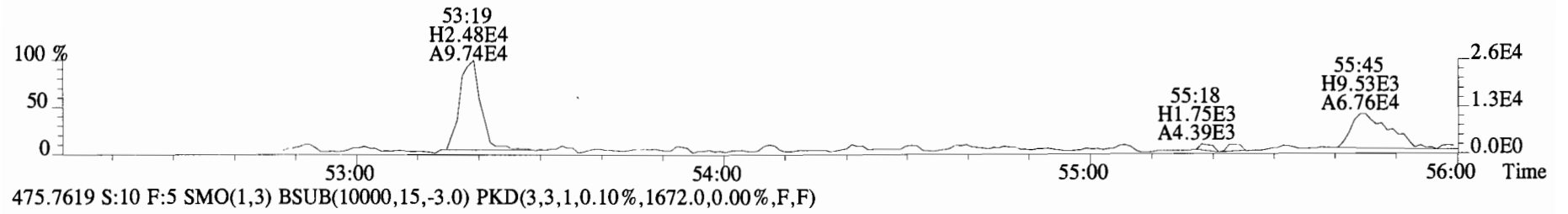
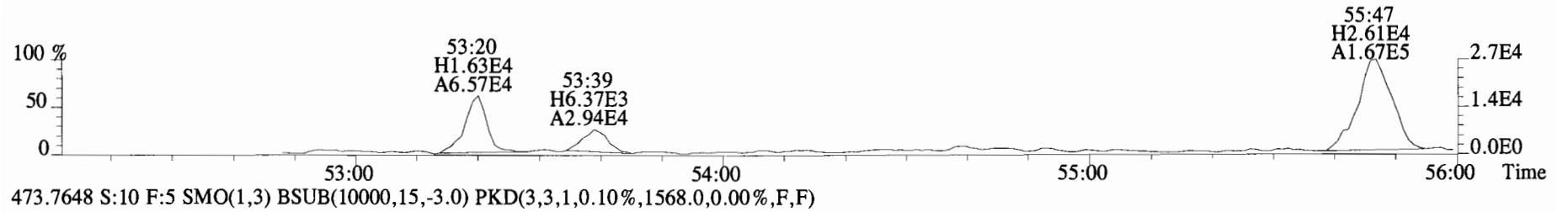
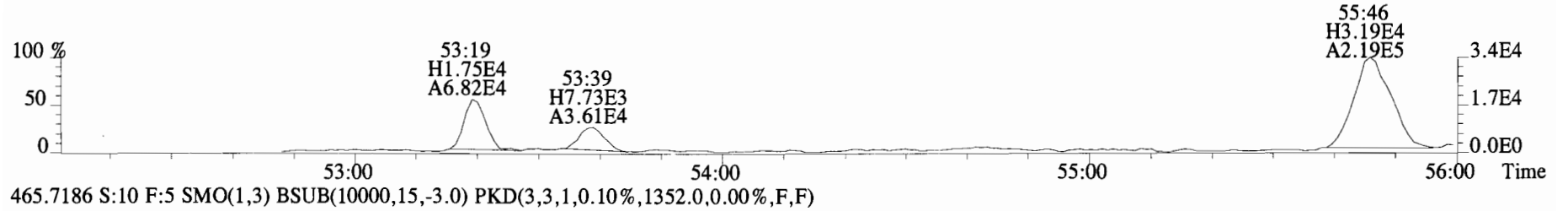
File:140924E1 #1-561 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1-DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
429.7635 S:10 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1720.0,0.00%,F,F)



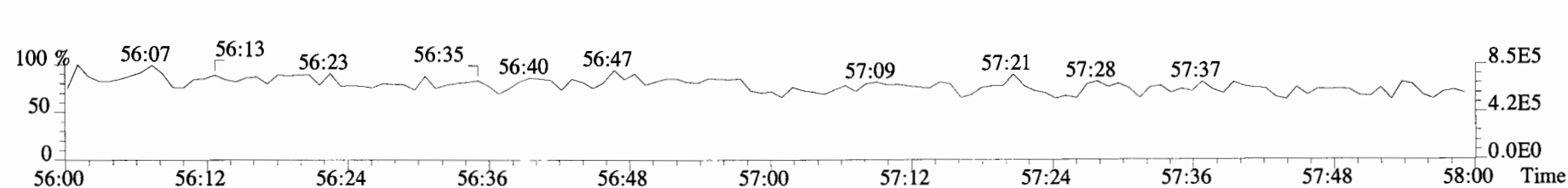
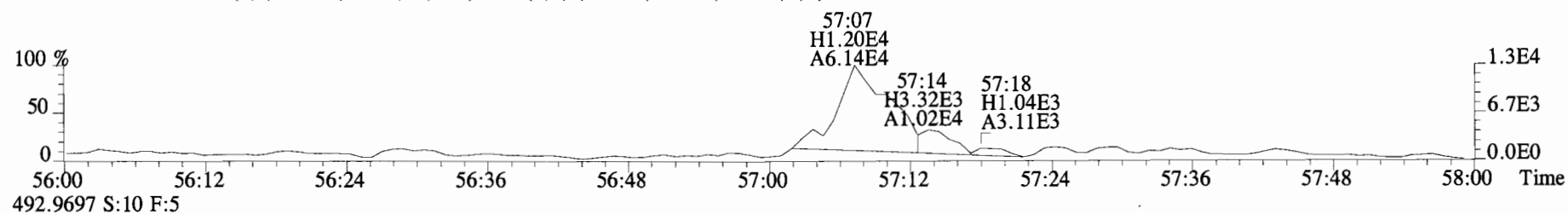
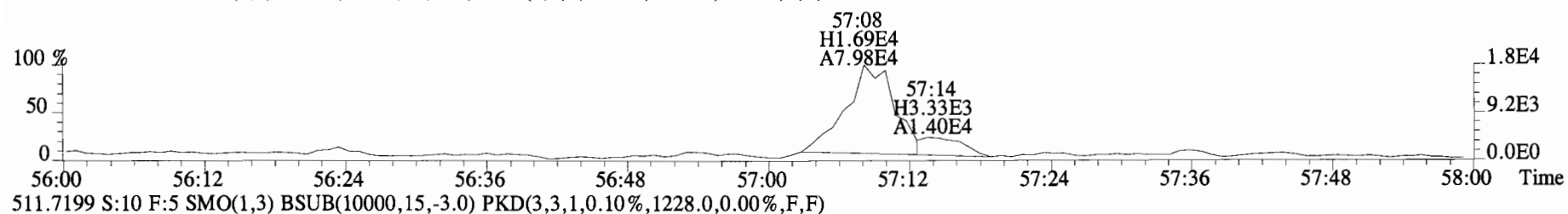
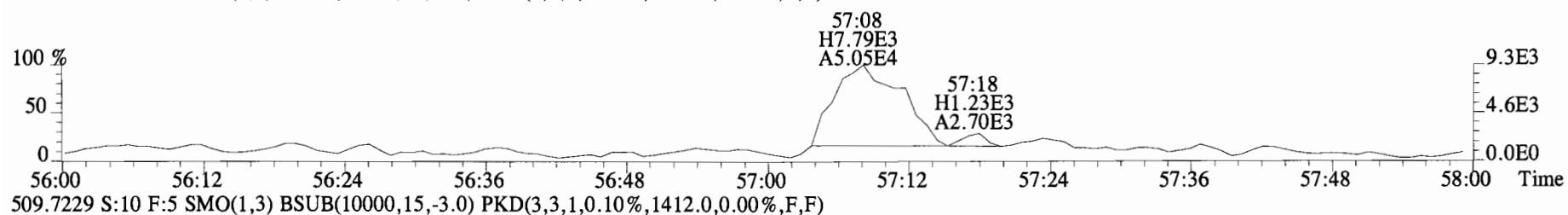
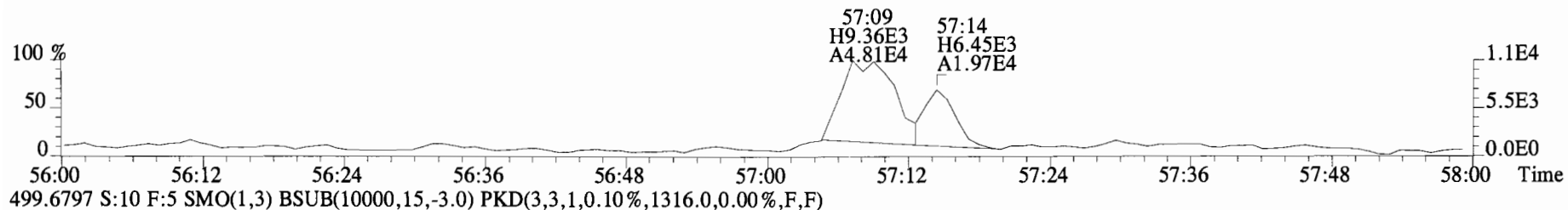
File:140924E1 #1-418 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
427.7635 S:10 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1772.0,0.00%,F,F)



File:140924E1 #1-418 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 File Text: Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
463.7216 S:10 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1304.0,0.00%,F,F)



File:140924E1 #1-418 Acq:24-SEP-2014 20:48:44 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#10 File Text:Vista Analytical Laboratory VG-8 Text:1400665-03RE1 DL 1:20 UG-FD-01-20140911-S Exp:PCB_ZB1
 497.6826 S:10 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: 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

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	*	* n	NotFη	1.25	*		4090	2.5	2.28	*	0.996-1.006	
Mono	PCB-2	*	* n	NotFη	1.18	*		4090	2.5	2.76	*	0.983-0.993	
Mono	PCB-3	*	* n	NotFη	1.22	*		4090	2.5	2.68	*	0.996-1.006	
Di	PCB-4/10	*	* n	NotFη	1.55	*		28100	2.5	11.8	*	0.998-1.008	
Di	PCB-7/9	*	* n	NotFη	1.27	*		28100	2.5	9.63	*	0.865-0.873	
Di	PCB-6	*	* n	NotFη	1.26	*		28100	2.5	9.70	*	0.890-0.899	
Di	PCB-5/8	*	* n	NotFη	1.23	*		28100	2.5	9.91	*	0.906-0.916	
Di	PCB-14	*	* n	NotFη	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	NotFη	1.10	*		28100	2.5	9.37	*	1.010-1.020	
Di	PCB-15	*	* n	NotFη	1.21	*		28100	2.5	8.53	*	1.024-1.034	
Tri	PCB-19	*	* n	NotFη	1.30	*		1820	2.5	0.929	*	0.996-1.006	
Tri	PCB-30	*	* n	NotFη	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	NotFη	0.90	*		1820	2.5	0.814	*	0.955-0.965	
Tri	PCB-24/27	*	* n	NotFη	1.18	*		1820	2.5	0.623	*	0.976-0.986	
Tri	PCB-16/32	*	* n	NotFη	1.03	*		1820	2.5	0.712	*	0.995-1.005	
Tri	PCB-34	*	* n	NotFη	1.26	*		1630	2.5	0.879	*	0.956-0.966	
Tri	PCB-23	*	* n	NotFη	1.31	*		1630	2.5	0.845	*	0.959-0.969	
Tri	PCB-29	*	* n	NotFη	1.33	*		1630	2.5	0.834	*	0.967-0.977	
Tri	PCB-26	*	* n	NotFη	1.29	*		1630	2.5	0.858	*	0.974-0.984	
Tri	PCB-25	*	* n	NotFη	1.34	*		1630	2.5	0.825	*	0.980-0.990	
Tri	PCB-31	*	* n	NotFη	1.42	*		1630	2.5	0.781	*	0.992-1.002	
Tri	PCB-28	*	* n	NotFη	1.38	*		1630	2.5	0.804	*	0.996-1.006	
Tri	PCB-20/21/33	*	* n	NotFη	1.31	*		1630	2.5	0.845	*	1.017-1.027	
Tri	PCB-22	*	* n	NotFη	1.32	*		1630	2.5	0.838	*	1.032-1.042	
Tri	PCB-36	*	* n	NotFη	1.38	*		1630	2.5	0.774	*	0.929-0.939	
Tri	PCB-39	*	* n	NotFη	1.42	*		1630	2.5	0.751	*	0.943-0.953	
Tri	PCB-38	*	* n	NotFη	1.35	*		1630	2.5	0.787	*	0.967-0.976	
Tri	PCB-35	*	* n	NotFη	1.38	*		1630	2.5	0.774	*	0.982-0.992	
Tri	PCB-37	*	* n	NotFη	1.39	*		1630	2.5	0.766	*	0.996-1.006	
Tetra	PCB-54	*	* n	NotFη	1.20	*		1910	2.5	0.713	*	0.996-1.006	
Tetra	PCB-50	*	* n	NotFη	0.97	*		1910	2.5	0.884	*	1.037-1.047	
Tetra	PCB-53	*	* n	NotFη	1.19	*		1910	2.5	0.874	*	0.941-0.951	
Tetra	PCB-51	*	* n	NotFη	1.15	*		1910	2.5	0.901	*	0.952-0.962	
Tetra	PCB-45	*	* n	NotFη	0.97	*		1910	2.5	1.08	*	0.966-0.976	
Tetra	PCB-46	*	* n	NotFη	0.95	*		1910	2.5	1.09	*	0.982-0.992	

Integrations by:

Analyst: DMS

Date: 9/23/14

Reviewed by: A/2

Date: 9/24/14

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

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	*	*	n	Not F ₇	1.28	*	1910	2.5	0.812	*	0.996-1.006	
Tetra	PCB-73	*	*	n	Not F ₇	1.37	*	1910	2.5	0.757	*	1.000-1.010	
Tetra	PCB-43/49	*	*	n	Not F ₇	1.11	*	1910	2.5	0.933	*	1.005-1.015	
Tetra	PCB-47	*	*	n	Not F ₇	1.13	*	1910	2.5	0.884	*	0.996-1.006	
Tetra	PCB-48/75	*	*	n	Not F ₇	1.30	*	1910	2.5	0.768	*	0.999-1.009	
Tetra	PCB-65	*	*	n	Not F ₇	1.33	*	1910	2.5	0.750	*	1.007-1.017	
Tetra	PCB-62	*	*	n	Not F ₇	1.29	*	1910	2.5	0.775	*	1.011-1.021	
Tetra	PCB-44	*	*	n	Not F ₇	0.94	*	1910	2.5	1.07	*	1.020-1.030	
Tetra	PCB-42/59	*	*	n	Not F ₇	1.22	*	1910	2.5	0.823	*	1.028-1.038	
Tetra	PCB-41/64/71/72	*	*	n	Not F ₇	1.31	*	1910	2.5	0.763	*	1.046-1.056	
Tetra	PCB-68	*	*	n	Not F ₇	1.49	*	1910	2.5	0.674	*	1.054-1.064	
Tetra	PCB-40	*	*	n	Not F ₇	0.82	*	1910	2.5	1.22	*	1.061-1.071	
Tetra	PCB-57	*	*	n	Not F ₇	1.11	*	1910	2.5	0.625	*	0.965-0.975	
Tetra	PCB-67	*	*	n	Not F ₇	1.07	*	1910	2.5	0.649	*	0.974-0.984	
Tetra	PCB-58	*	*	n	Not F ₇	1.10	*	1910	2.5	0.633	*	0.977-0.987	
Tetra	PCB-63	*	*	n	Not F ₇	1.12	*	1910	2.5	0.624	*	0.982-0.992	
Tetra	PCB-74	*	*	n	Not F ₇	1.20	*	1910	2.5	0.579	*	0.990-1.000	
Tetra	PCB-61/70	*	*	n	Not F ₇	1.08	*	1910	2.5	0.645	*	0.994-1.004	
Tetra	PCB-76/66	*	*	n	Not F ₇	1.14	*	1910	2.5	0.613	*	1.001-1.011	
Tetra	PCB-80	*	*	n	Not F ₇	1.28	*	1910	2.5	0.549	*	0.996-1.006	
Tetra	PCB-55	*	*	n	Not F ₇	1.11	*	1910	2.5	0.632	*	1.005-1.015	
Tetra	PCB-56/60	*	*	n	Not F ₇	1.09	*	1910	2.5	0.645	*	1.018-1.028	
Tetra	PCB-79	*	*	n	Not F ₇	1.12	*	1910	2.5	0.624	*	1.048-1.058	
Tetra	PCB-78	*	*	n	Not F ₇	1.24	*	1910	2.5	0.694	*	0.982-0.992	
Tetra	PCB-81	*	*	n	Not F ₇	1.38	*	1910	2.5	0.621	*	0.995-1.005	
Tetra	PCB-77	*	*	n	Not F ₇	1.21	*	1910	2.5	0.676	*	0.995-1.005	
Penta	PCB-104	*	*	n	Not F ₇	1.26	*	2020	2.5	1.12	*	0.996-1.006	
Penta	PCB-96	*	*	n	Not F ₇	1.09	*	2020	2.5	1.29	*	1.034-1.044	
Penta	PCB-103	*	*	n	Not F ₇	0.93	*	2020	2.5	1.51	*	1.050-1.060	
Penta	PCB-100	*	*	n	Not F ₇	1.00	*	2020	2.5	1.40	*	1.061-1.071	
Penta	PCB-94	*	*	n	Not F ₇	1.11	*	2020	2.5	1.59	*	0.981-0.991	
Penta	PCB-95/98/102	*	*	n	Not F ₇	1.21	*	2020	2.5	1.45	*	0.994-1.004	
Penta	PCB-93	*	*	n	Not F ₇	1.13	*	2020	2.5	1.56	*	0.998-1.008	
Penta	PCB-88/91	*	*	n	Not F ₇	1.02	*	2020	2.5	1.73	*	1.006-1.016	
Penta	PCB-121	*	*	n	Not F ₇	1.90	*	2020	2.5	0.927	*	1.009-1.019	
Penta	PCB-84/92	*	*	n	Not F ₇	1.05	*	2020	2.5	1.59	*	0.986-0.996	
Penta	PCB-89	*	*	n	Not F ₇	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

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	*	* n	NotF η	1.19	*		2020	2.5	1.40	*	0.996-1.006	
Penta	PCB-113	*	* n	NotF η	1.35	*		2020	2.5	1.23	*	1.002-1.012	
Penta	PCB-99	*	* n	NotF η	1.29	*		2020	2.5	1.29	*	1.005-1.015	
Penta	PCB-119	*	* n	NotF η	1.72	*		2020	2.5	1.04	*	0.982-0.992	
Penta	PCB-108/112	*	* n	NotF η	1.29	*		2020	2.5	1.38	*	0.986-0.996	
Penta	PCB-83	*	* n	NotF η	1.52	*		2020	2.5	1.17	*	0.991-1.001	
Penta	PCB-97	*	* n	NotF η	1.25	*		2020	2.5	1.43	*	0.996-1.006	
Penta	PCB-86	*	* n	NotF η	1.02	*		2020	2.5	1.74	*	1.000-1.010	
Penta	PCB-87/117/125	*	* n	NotF η	1.56	*		2020	2.5	1.14	*	1.002-1.012	
Penta	PCB-111/115	*	* n	NotF η	1.75	*		2020	2.5	1.02	*	1.007-1.017	
Penta	PCB-85/116	*	* n	NotF η	1.30	*		2020	2.5	1.37	*	1.010-1.020	
Penta	PCB-120	*	* n	NotF η	1.78	*		2020	2.5	1.00	*	1.016-1.026	
Penta	PCB-110	*	* n	NotF η	1.68	*		2020	2.5	1.06	*	1.020-1.030	
Penta	PCB-82	*	* n	NotF η	0.74	*		2020	2.5	1.76	*	0.972-0.982	
Penta	PCB-124	*	* n	NotF η	1.32	*		2020	2.5	0.985	*	0.988-0.998	
Penta	PCB-107/109	*	* n	NotF η	1.22	*		2020	2.5	1.07	*	0.991-1.001	
Penta	PCB-123	*	* n	NotF η	1.22	*		2020	2.5	1.07	*	0.995-1.005	
Penta	PCB-106/118	*	* n	NotF η	1.22	*		2020	2.5	1.06	*	0.996-1.006	
Penta	PCB-114	*	* n	NotF η	1.36	*		2100	2.5	1.14	*	0.995-1.005	
Penta	PCB-122	*	* n	NotF η	1.24	*		2100	2.5	1.25	*	0.999-1.009	
Penta	PCB-105	*	* n	NotF η	1.28	*		2100	2.5	1.24	*	0.995-1.005	
Penta	PCB-127	*	* n	NotF η	1.14	*		2100	2.5	1.20	*	0.995-1.005	
Penta	PCB-126	*	* n	NotF η	1.28	*		2100	2.5	1.35	*	0.995-1.005	
Hexa	PCB-155	*	* n	NotF η	1.14	*		1640	2.5	1.00	*	0.966-1.006	
Hexa	PCB-150	*	* n	NotF η	1.06	*		1640	2.5	1.07	*	1.030-1.040	
Hexa	PCB-152	*	* n	NotF η	1.10	*		1640	2.5	1.04	*	1.043-1.053	
Hexa	PCB-145	*	* n	NotF η	1.09	*		1640	2.5	1.04	*	1.055-1.065	
Hexa	PCB-136	*	* n	NotF η	1.08	*		1640	2.5	1.05	*	1.064-1.074	
Hexa	PCB-148	*	* n	NotF η	0.74	*		1640	2.5	1.54	*	1.066-1.076	
Hexa	PCB-154	*	* n	NotF η	0.88	*		1640	2.5	1.29	*	1.079-1.089	
Hexa	PCB-151	*	* n	NotF η	0.81	*		1640	2.5	1.41	*	1.097-1.107	
Hexa	PCB-135	*	* n	NotF η	0.78	*		1640	2.5	1.46	*	1.101-1.113	
Hexa	PCB-144	*	* n	NotF η	0.82	*		1640	2.5	1.39	*	1.105-1.116	
Hexa	PCB-147	*	* n	NotF η	0.83	*		1640	2.5	1.37	*	1.011-1.120	
Hexa	PCB-139/149	*	* n	NotF η	0.84	*		1640	2.5	1.35	*	1.115-1.127	
Hexa	PCB-140	*	* n	NotF η	0.79	*		1640	2.5	1.45	*	1.120-1.132	
Hexa	PCB-134/143	*	* n	NotF η	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

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	*	*	n NotF η	0.95	*		1010	2.5	0.626	*	0.977-0.987	
Hexa	PCB-131	*	*	n NotF η	0.91	*		1010	2.5	0.647	*	0.981-0.991	
Hexa	PCB-146/165	*	*	n NotF η	1.16	*		1010	2.5	0.511	*	0.986-0.996	
Hexa	PCB-132/161	*	*	n NotF η	1.11	*		1010	2.5	0.531	*	0.992-1.002	
Hexa	PCB-153	*	*	n NotF η	1.18	*		1010	2.5	0.502	*	0.995-1.005	
Hexa	PCB-168	*	*	n NotF η	1.37	*		1010	2.5	0.432	*	1.000-1.010	
Hexa	PCB-141	*	*	n NotF η	0.97	*		1010	2.5	0.602	*	0.996-1.005	
Hexa	PCB-137	*	*	n NotF η	1.07	*		1010	2.5	0.548	*	1.004-1.014	
Hexa	PCB-130	*	*	n NotF η	0.85	*		1010	2.5	0.692	*	1.007-1.017	
Hexa	PCB-138/163/164	*	*	n NotF η	1.23	*		1010	2.5	0.484	*	0.996-1.006	
Hexa	PCB-158/160	*	*	n NotF η	1.29	*		1010	2.5	0.460	*	1.001-1.011	
Hexa	PCB-129	*	*	n NotF η	0.92	*		1010	2.5	0.641	*	1.007-1.017	
Hexa	PCB-166	*	*	n NotF η	1.12	*		1010	2.5	0.494	*	0.988-0.998	
Hexa	PCB-159	*	*	n NotF η	1.16	*		1010	2.5	0.473	*	0.995-1.005	
Hexa	PCB-128/162	*	*	n NotF η	1.02	*		1010	2.5	0.541	*	1.002-1.012	
Hexa	PCB-167	*	*	n NotF η	1.06	*		1010	2.5	0.476	*	0.995-1.005	
Hexa	PCB-156	*	*	n NotF η	1.18	*		1010	2.5	0.440	*	0.995-1.005	
Hexa	PCB-157	*	*	n NotF η	1.08	*		1010	2.5	0.466	*	0.995-1.005	
Hexa	PCB-169	*	*	n NotF η	1.11	*		1010	2.5	0.487	*	0.995-1.005	
Hepta	PCB-188	*	*	n NotF η	1.40	*		1340	2.5	0.443	*	0.995-1.005	
Hepta	PCB-184	*	*	n NotF η	1.24	*		1340	2.5	0.503	*	1.006-1.016	
Hepta	PCB-179	*	*	n NotF η	1.30	*		1340	2.5	0.477	*	1.024-1.034	
Hepta	PCB-176	*	*	n NotF η	1.36	*		1340	2.5	0.456	*	1.035-1.045	
Hepta	PCB-186	*	*	n NotF η	1.28	*		1340	2.5	0.487	*	1.049-1.059	
Hepta	PCB-178	*	*	n NotF η	0.94	*		1340	2.5	0.664	*	1.061-1.071	
Hepta	PCB-175	*	*	n NotF η	0.97	*		1340	2.5	0.642	*	1.069-1.079	
Hepta	PCB-182/187	*	*	n NotF η	1.01	*		1340	2.5	0.613	*	1.073-1.083	
Hepta	PCB-183	*	*	n NotF η	1.08	*		1340	2.5	0.575	*	1.080-1.090	
Hepta	PCB-185	*	*	n NotF η	1.34	*		1340	2.5	0.572	*	0.951-0.961	
Hepta	PCB-174	*	*	n NotF η	1.34	*		1340	2.5	0.574	*	0.958-0.968	
Hepta	PCB-181	*	*	n NotF η	1.36	*		1340	2.5	0.564	*	0.961-0.971	
Hepta	PCB-177	*	*	n NotF η	1.24	*		1340	2.5	0.619	*	0.964-0.974	
Hepta	PCB-171	*	*	n NotF η	1.31	*		1340	2.5	0.585	*	0.970-0.980	
Hepta	PCB-173	*	*	n NotF η	1.16	*		1340	2.5	0.662	*	0.979-0.989	
Hepta	PCB-172	*	*	n NotF η	1.22	*		1340	2.5	0.628	*	0.988-0.998	
Hepta	PCB-192	*	*	n NotF η	1.53	*		1340	2.5	0.503	*	0.991-1.001	
Hepta	PCB-180	*	*	n NotF η	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

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	*	* n	NotF η	1.65	*		1340	2.5	0.464	*	0.999-1.009	
Hepta	PCB-191	*	* n	NotF η	1.67	*		1340	2.5	0.459	*	1.004-1.014	
Hepta	PCB-170	*	* n	NotF η	1.50	*		1340	2.5	0.557	*	0.995-1.005	
Hepta	PCB-190	*	* n	NotF η	2.02	*		1340	2.5	0.414	*	0.998-1.008	
Hepta	PCB-189	*	* n	NotF η	1.54	*		1340	2.5	0.405	*	0.995-1.005	
Octa	PCB-202	*	* n	NotF η	1.04	*		1320	2.5	0.728	*	0.995-1.005	
Octa	PCB-201	*	* n	NotF η	1.10	*		1320	2.5	0.687	*	1.006-1.016	
Octa	PCB-204	*	* n	NotF η	0.99	*		1320	2.5	0.762	*	1.009-1.019	
Octa	PCB-197	*	* n	NotF η	1.07	*		1320	2.5	0.706	*	1.015-1.025	
Octa	PCB-200	*	* n	NotF η	1.02	*		1320	2.5	0.744	*	1.032-1.044	
Octa	PCB-198	*	* n	NotF η	0.74	*		1320	2.5	1.02	*	1.058-1.068	
Octa	PCB-199	*	* n	NotF η	0.73	*		1320	2.5	1.04	*	1.060-1.070	
Octa	PCB-196/203	*	* n	NotF η	0.77	*		1320	2.5	0.980	*	1.066-1.076	
Octa	PCB-195	*	* n	NotF η	1.20	*		1480	2.5	0.705	*	0.979-0.989	
Octa	PCB-194	*	* n	NotF η	1.25	*		1480	2.5	0.679	*	0.995-1.005	
Octa	PCB-205	*	* n	NotF η	1.41	*		1480	2.5	0.599	*	1.001-1.011	
Nona	PCB-208	*	* n	NotF η	0.96	*		1330	2.5	0.501	*	0.995-1.005	
Nona	PCB-207	*	* n	NotF η	0.92	*		1330	2.5	0.525	*	1.001-1.011	
Nona	PCB-206	*	* n	NotF η	1.03	*		1330	2.5	0.953	*	0.995-1.005	
Deca	PCB-209	*	* n	NotF η	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
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

ConCal: ST140919E1-1

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*

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

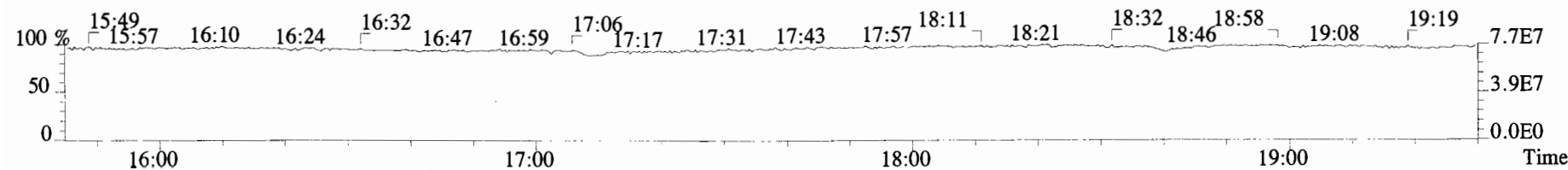
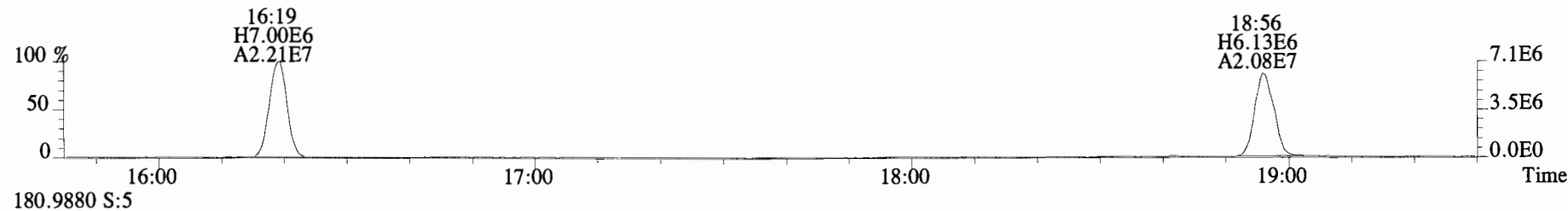
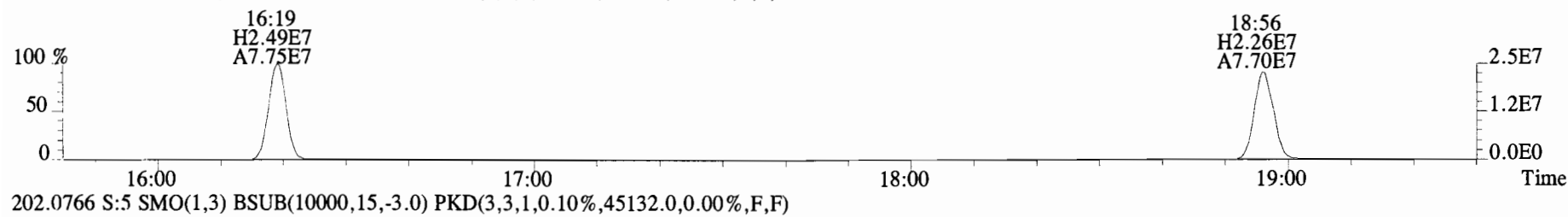
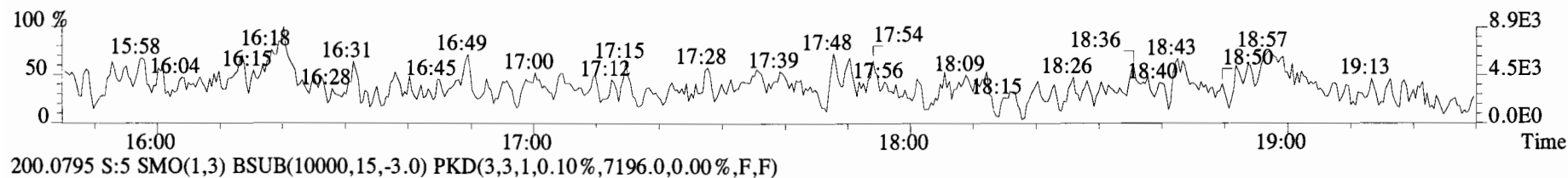
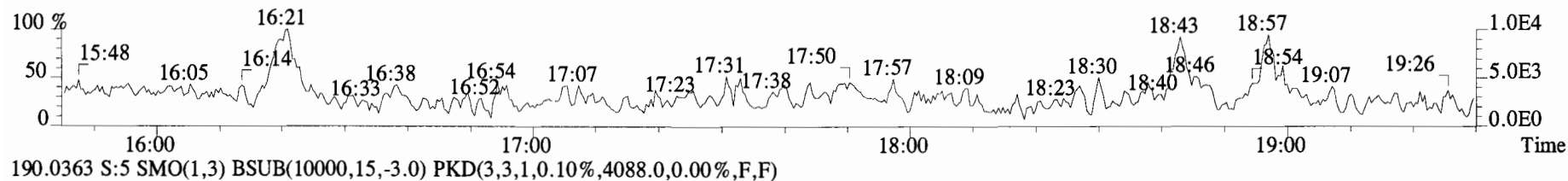
ConCal: ST140919E1-1
EndCAL: NA

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-3	9.83e+07	3.57 y	0.93	18:56	0.724	0.721-0.729		1120	56.1		13C-PCB-79	1.30e+08	0.79 y	1.01	38:01	1.029	1.023-1.033		1820	90.9
13C-PCB-4	7.10e+07	1.58 y	0.55	20:16	0.775	0.772-0.780		1370	68.6		13C-PCB-178	6.43e+07	0.47 y	0.63	45:50	0.985	0.979-0.989		1980	98.8
13C-PCB-9	1.08e+08	1.59 y	0.83	22:03	0.843	0.840-0.848		1380	69.0											
13C-PCB-11	1.37e+08	1.57 y	0.94	25:26	0.973	0.968-0.978		1540	77.1	PS vs. IS										
13C-PCB-19	6.19e+07	1.15 y	0.53	24:26	0.934	0.929-0.939		1230	61.4		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-28	7.01e+07	1.12 y	0.89	29:18	1.004	0.999-1.009		1440	72.2		13C-PCB-79	1.30e+08	0.79 y	1.20	38:01	0.969	0.963-0.973		2170	109
13C-PCB-32	1.07e+08	1.14 y	0.81	27:20	1.045	1.041-1.051		1390	69.7		13C-PCB-178	6.43e+07	0.47 y	0.94	45:50	0.925	0.920-0.930		2170	108
13C-PCB-37	7.71e+07	1.10 y	0.83	33:10	1.136	1.131-1.143		1700	84.8											
13C-PCB-47	8.06e+07	0.80 y	0.74	32:12	0.871	0.867-0.875		1520	76.0											
13C-PCB-52	7.66e+07	0.80 y	0.71	31:42	0.858	0.853-0.861		1520	75.9											
13C-PCB-54	9.45e+07	0.81 y	0.85	28:11	0.763	0.758-0.766		1560	78.1											
13C-PCB-70	1.17e+08	0.80 y	0.94	35:43	0.967	0.961-0.971		1730	86.6											
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-81	1.00e+08	0.80 y	0.84	39:15	1.062	1.057-1.067		1670	83.7											
13C-PCB-95	6.99e+07	1.57 y	0.74	36:01	0.914	0.908-0.918		1640	81.9	RS										
13C-PCB-97	6.87e+07	1.58 y	0.69	39:00	0.989	0.984-0.994		1740	86.9		Name	Resp	RA	RRF	RT	Conc				
13C-PCB-101	7.43e+07	1.59 y	0.79	37:42	0.956	0.951-0.961		1650	82.4		13C-PCB-15	1.89e+08	1.57 y	1.00	26:09	2000				
13C-PCB-104	8.57e+07	1.59 y	1.00	32:52	0.834	0.829-0.837		1500	75.0		13C-PCB-31	1.09e+08	1.10 y	1.00	29:11	2000				
13C-PCB-105	8.51e+07	1.64 y	1.24	43:16	0.929	0.924-0.934		1330	66.6		13C-PCB-60	1.42e+08	0.80 y	1.00	36:57	2000				
13C-PCB-114	8.75e+07	1.65 y	1.21	42:24	0.911	0.905-0.915		1410	70.3		13C-PCB-111	1.15e+08	1.57 y	1.00	39:25	2000				
13C-PCB-118	9.91e+07	1.60 y	0.98	41:45	1.059	1.054-1.064		1750	87.7		13C-PCB-128	1.03e+08	1.29 y	1.00	46:33	2000				
13C-PCB-123	9.56e+07	1.58 y	0.95	41:34	1.055	1.049-1.059		1750	87.7		13C-PCB-205	7.99e+07	0.91 y	1.00	54:15	2000				
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-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-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-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-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-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-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-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-202	7.95e+07	0.91 y	0.83	48:28	1.041	1.036-1.046		1850	92.6											
13C-PCB-206	4.59e+07	0.80 y	0.66	55:36	1.025	1.021-1.031		1740	87.2											
13C-PCB-208	8.30e+07	0.77 y	1.12	53:15	0.982	0.976-0.986		1850	92.5											
13C-PCB-209	4.08e+07	1.19 y	0.61	56:56	1.049	1.044-1.054		1660	83.2											

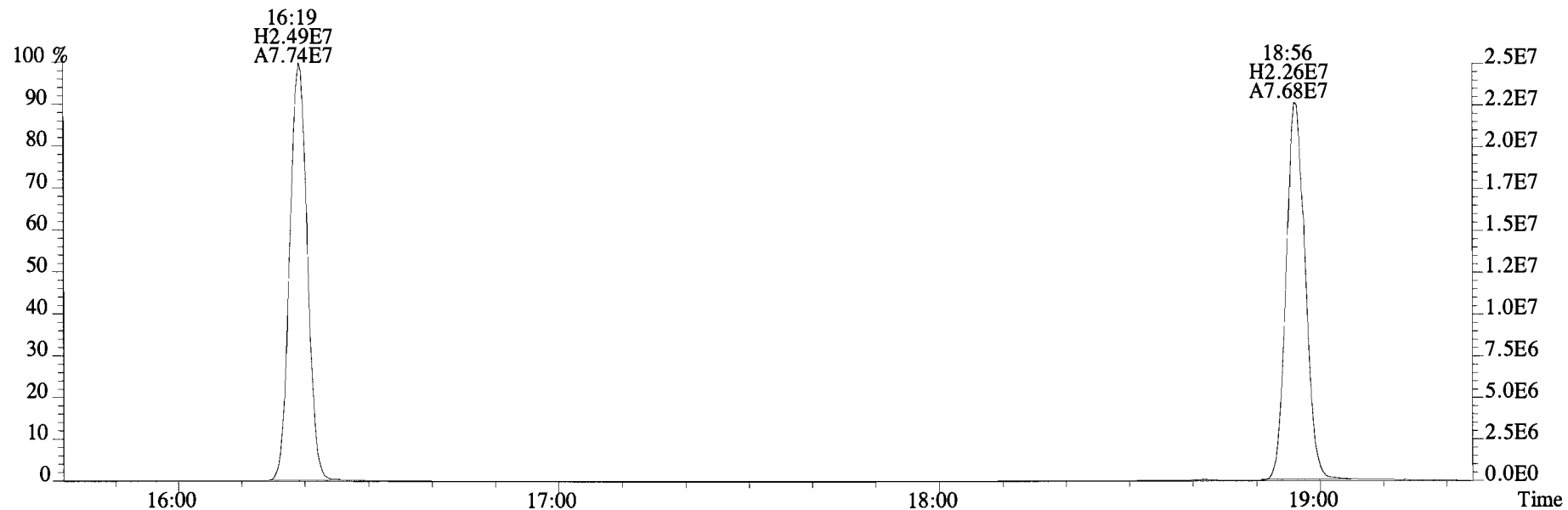
Analyst: DMS

Date: 9/23/14

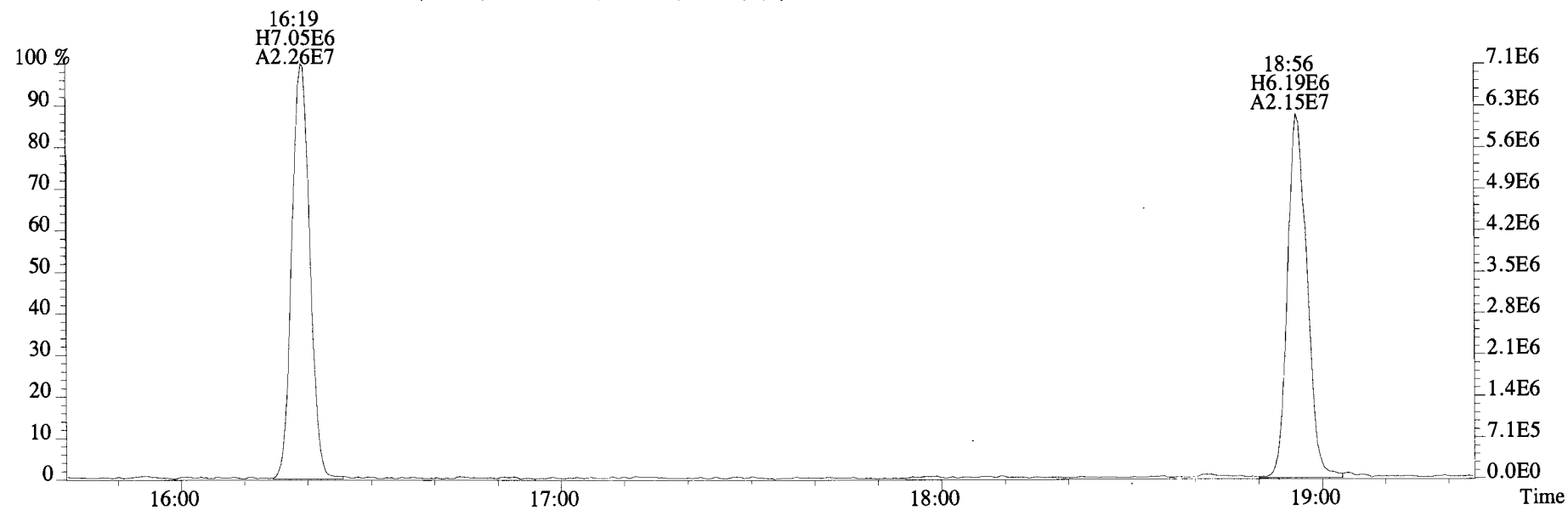
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
188.0393 S:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3820.0,0.00%,F,F)



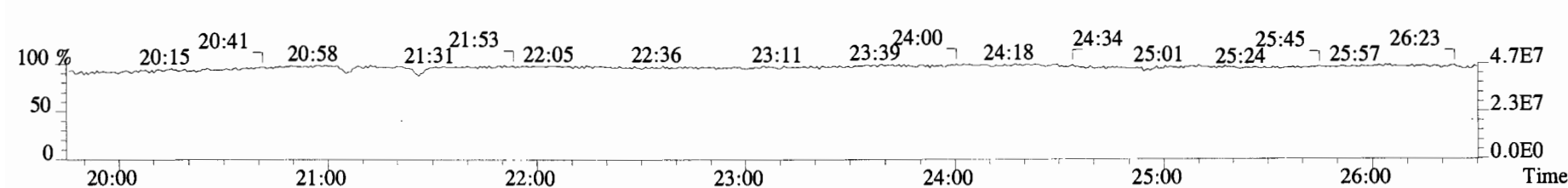
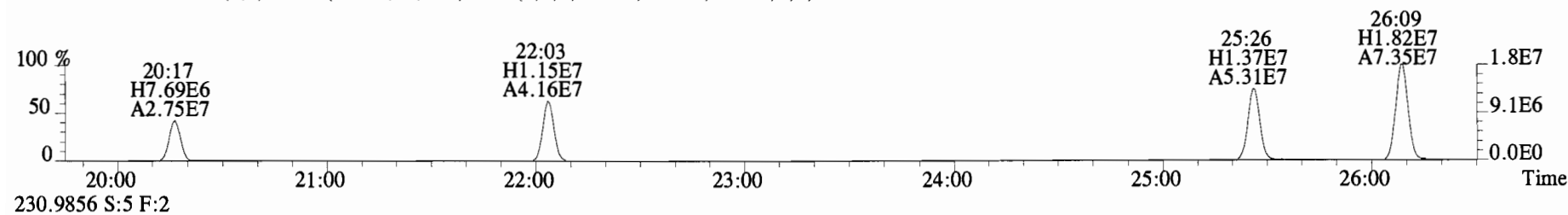
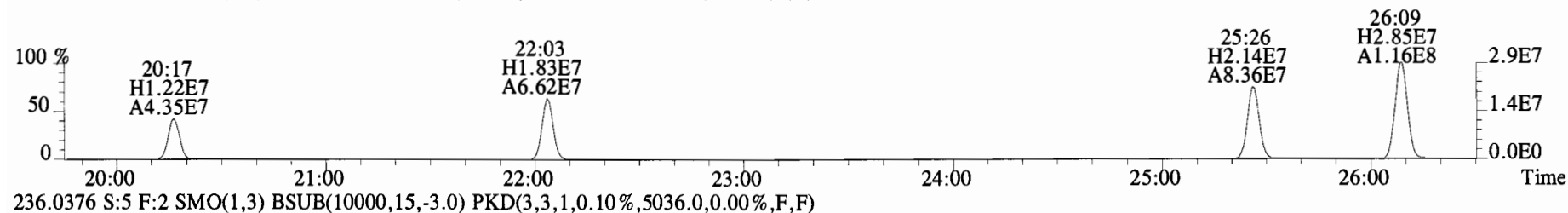
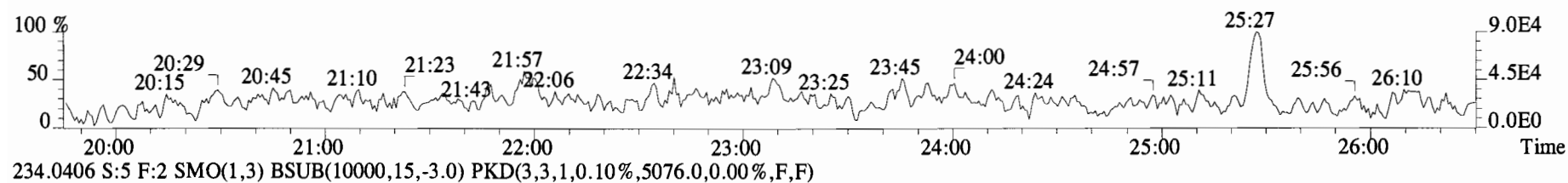
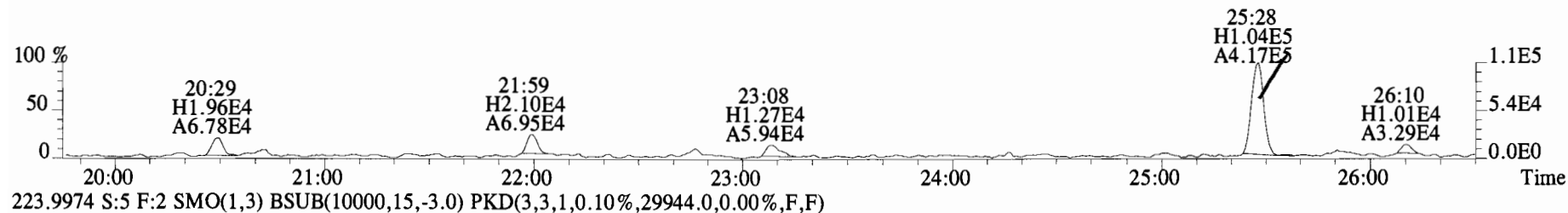
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200.0795 S:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7196.0,0.00%,F,F)



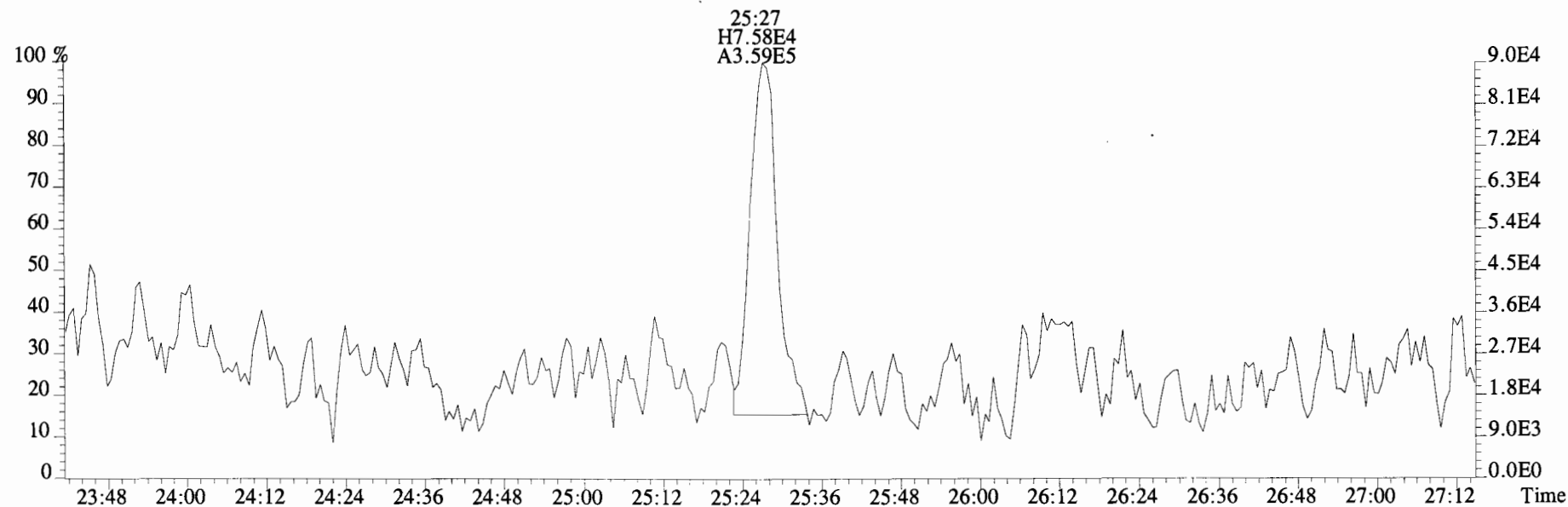
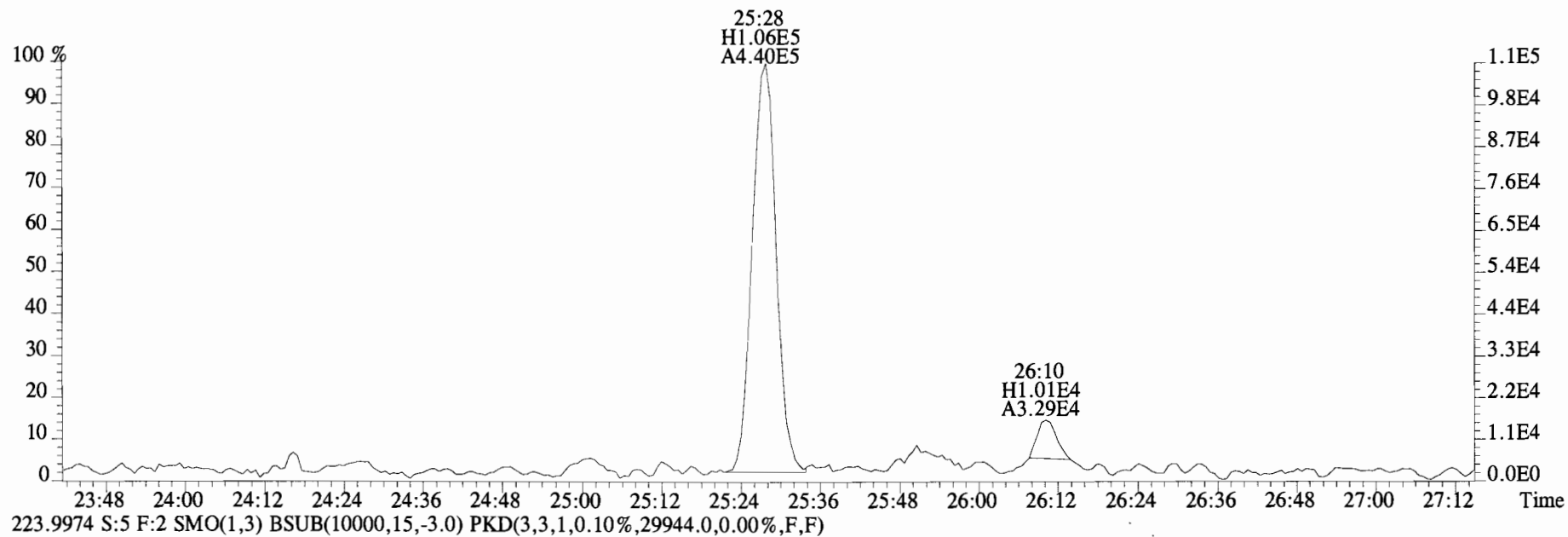
202.0766 S:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,45132.0,0.00%,F,F)



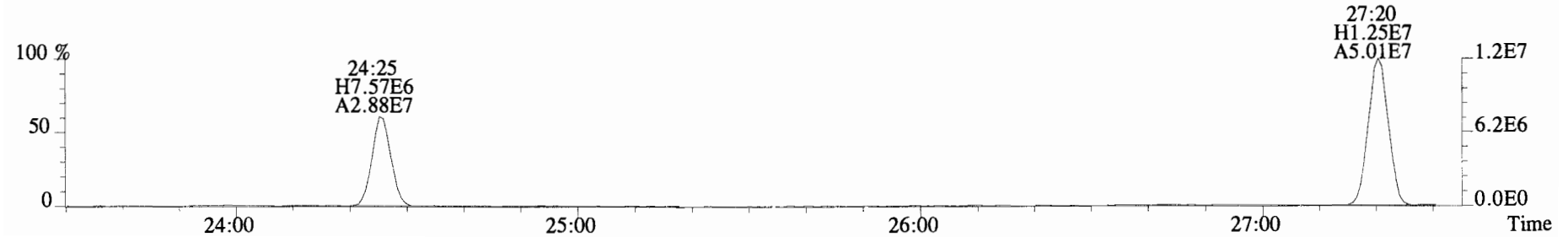
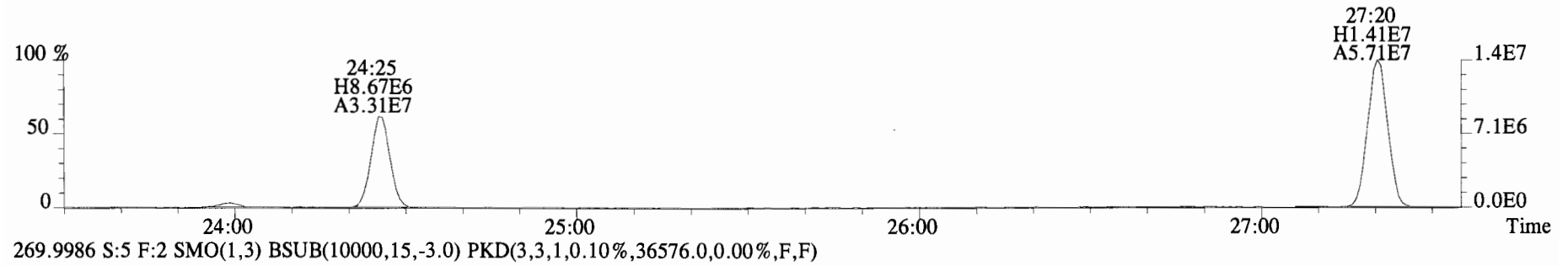
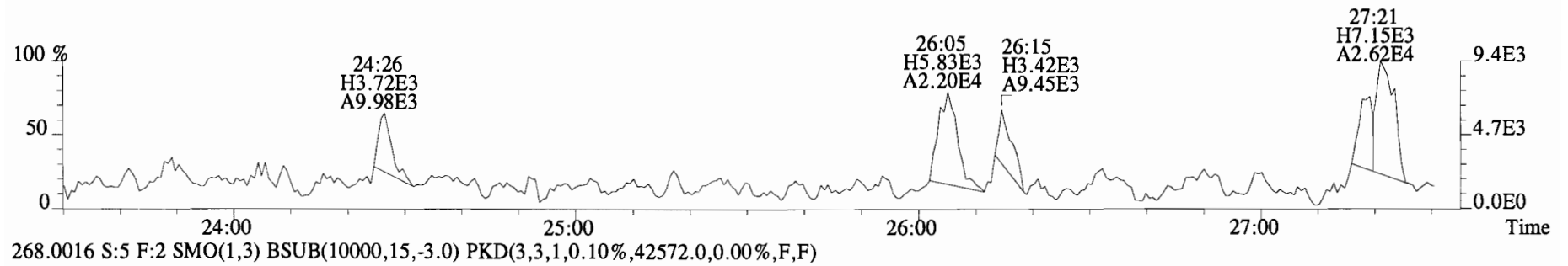
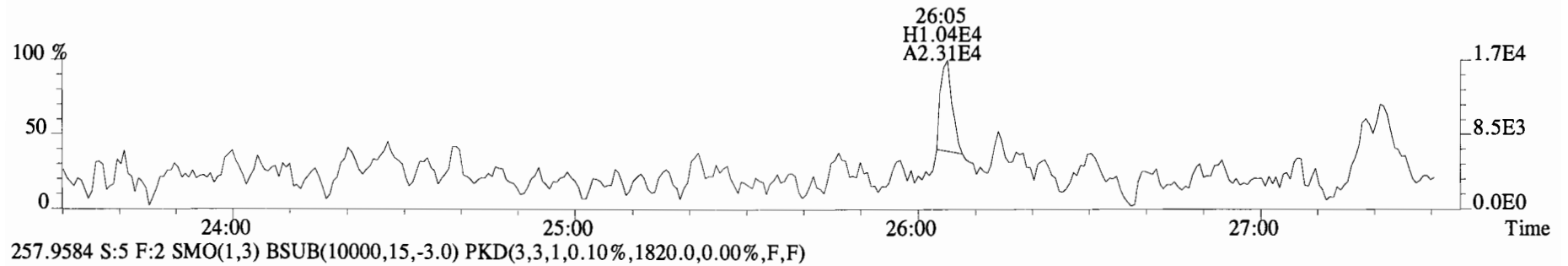
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
222.0003 S:5 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3692.0,0.00%,F,F)



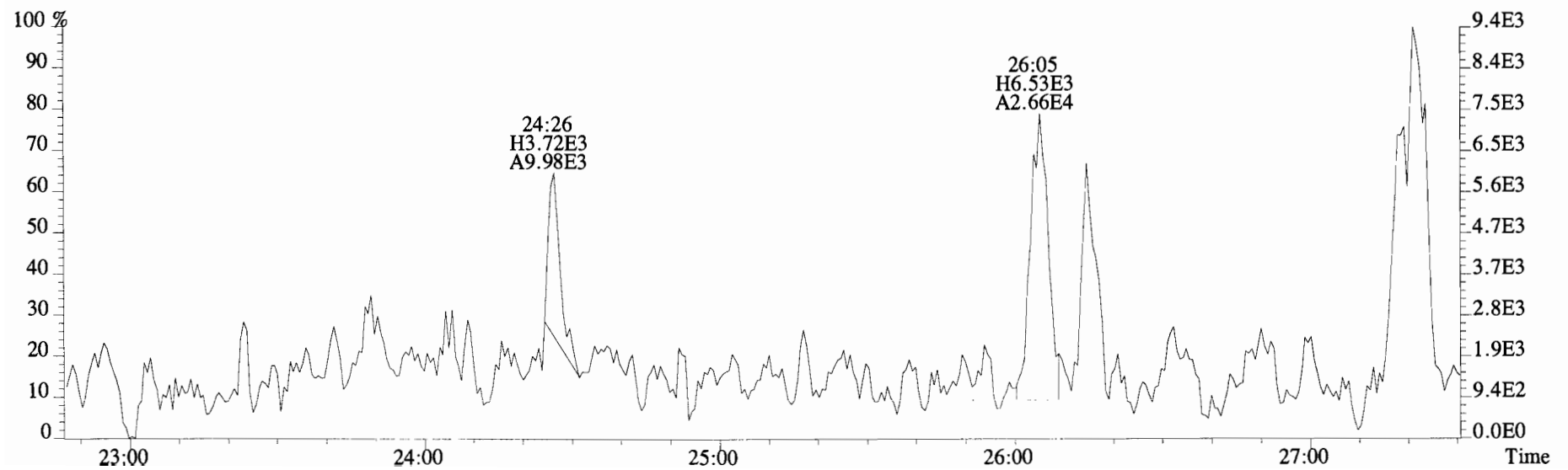
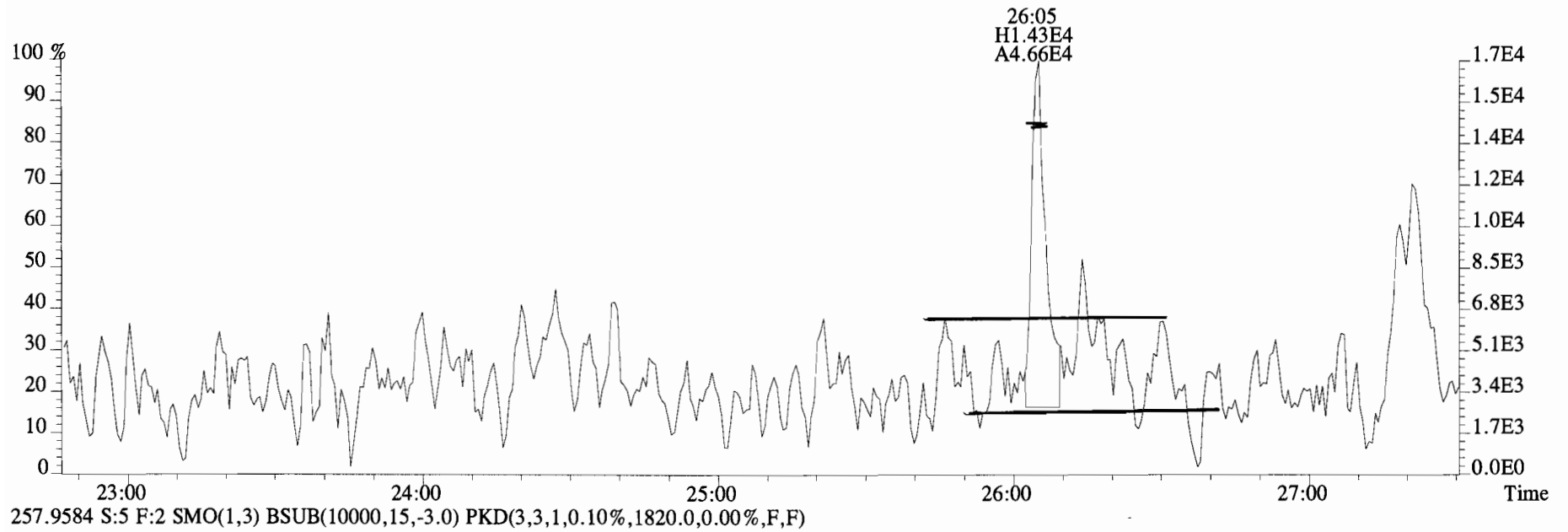
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Sample#5 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
222.0003 S:5 F:2 SMO(1,3) BSUB(10000,15,-3.0)



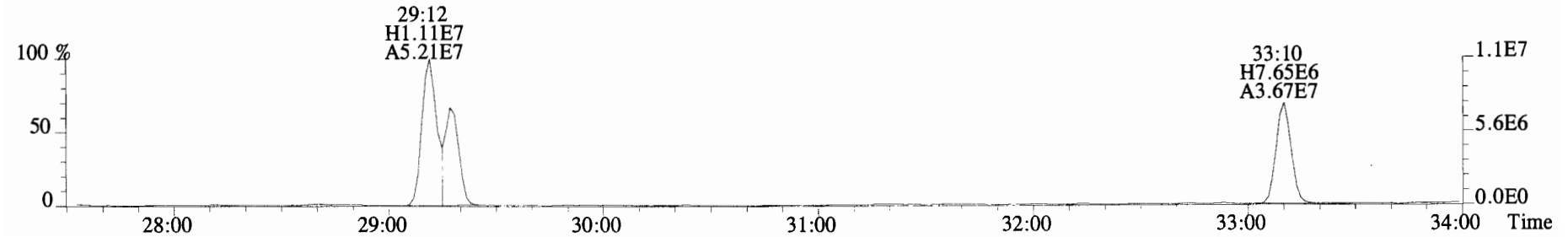
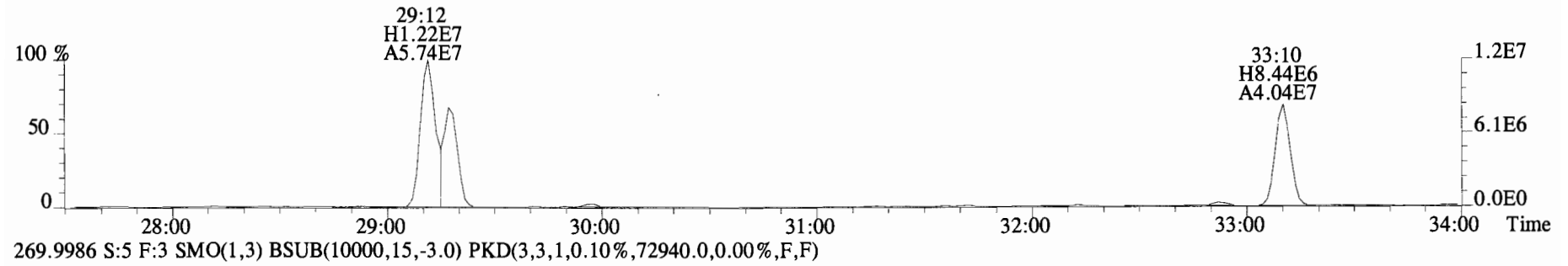
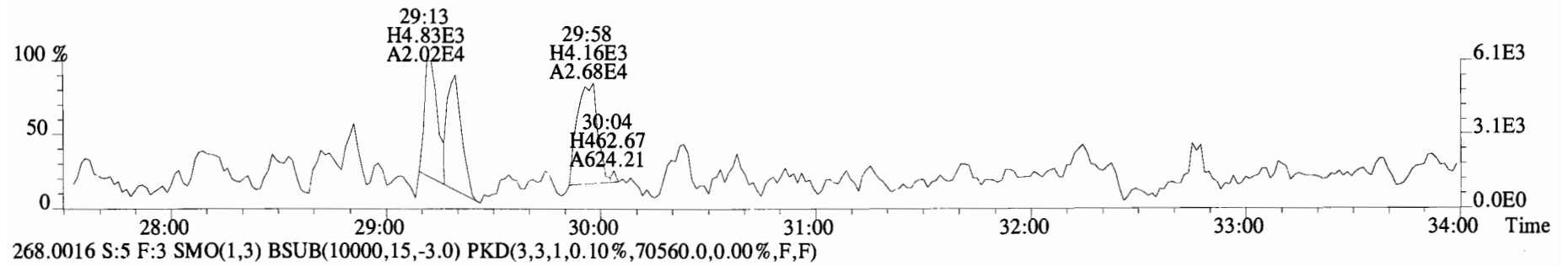
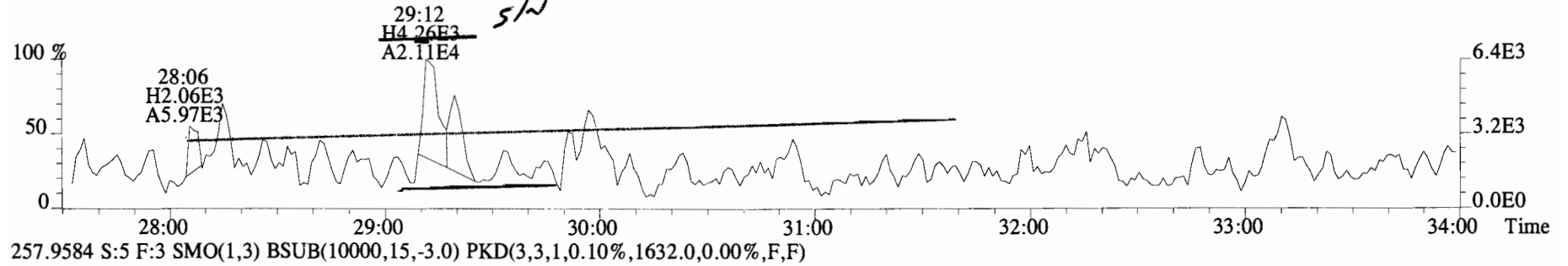
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Sample#5 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
255.9613 S:5 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4864.0,0.00%,F,F)



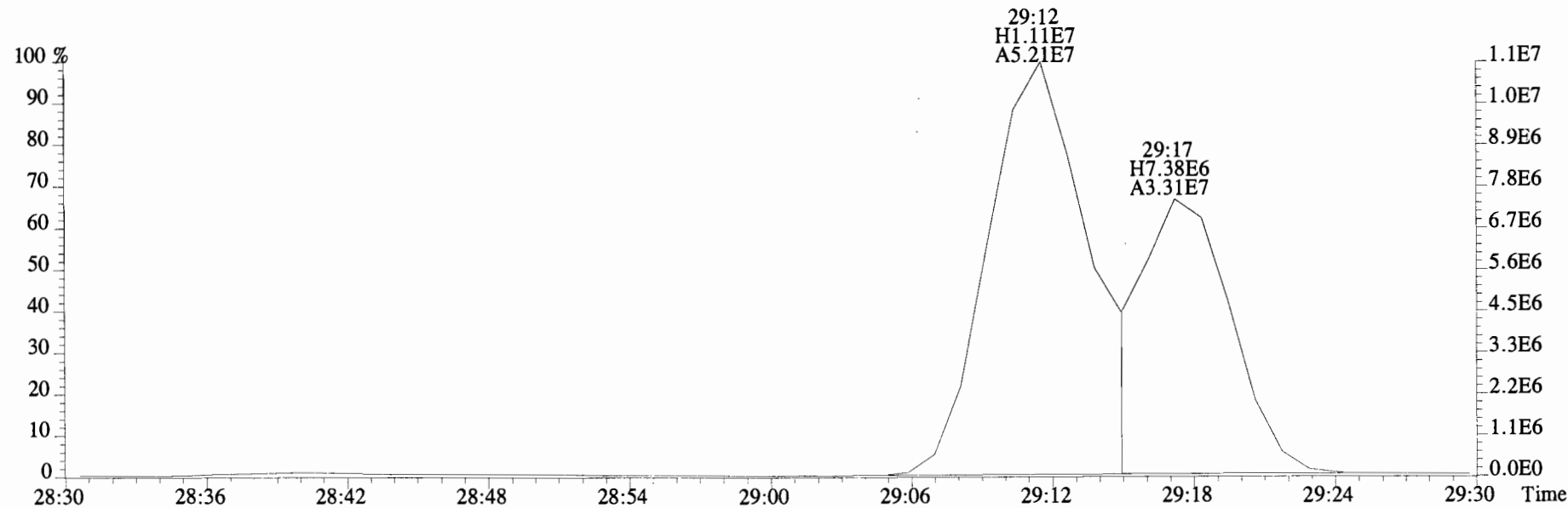
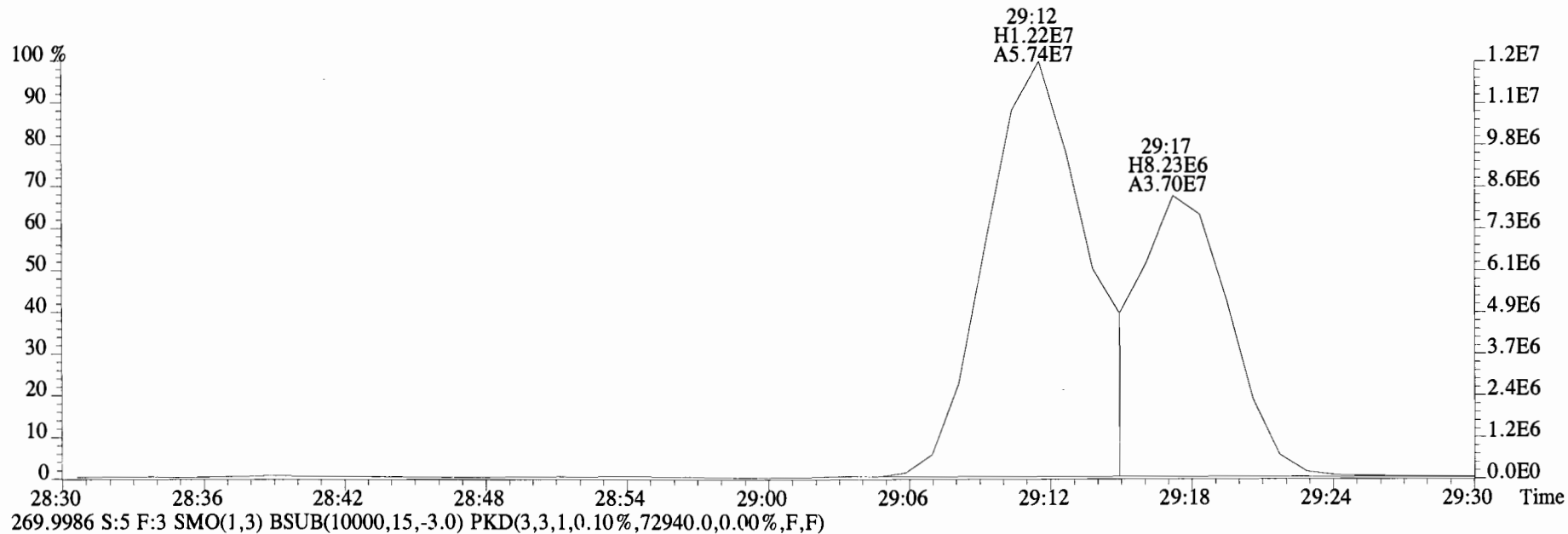
File:140919E1 #1-758 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
255.9613 S:5 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4864.0,0.00%,F,F)



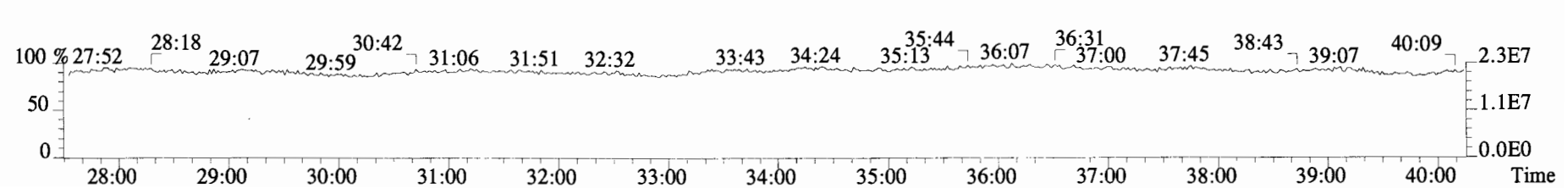
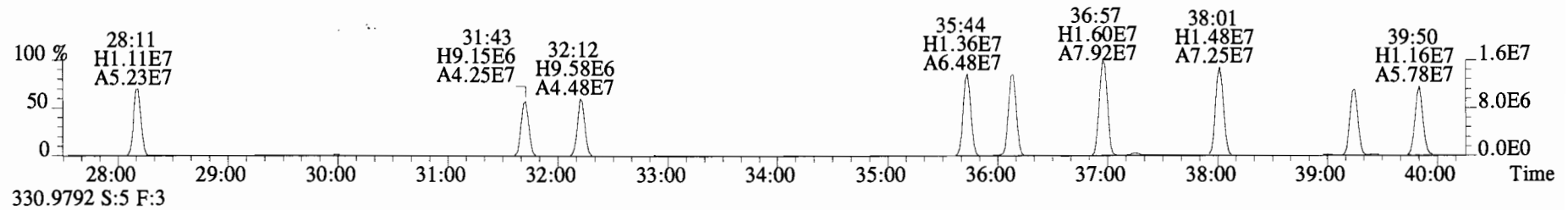
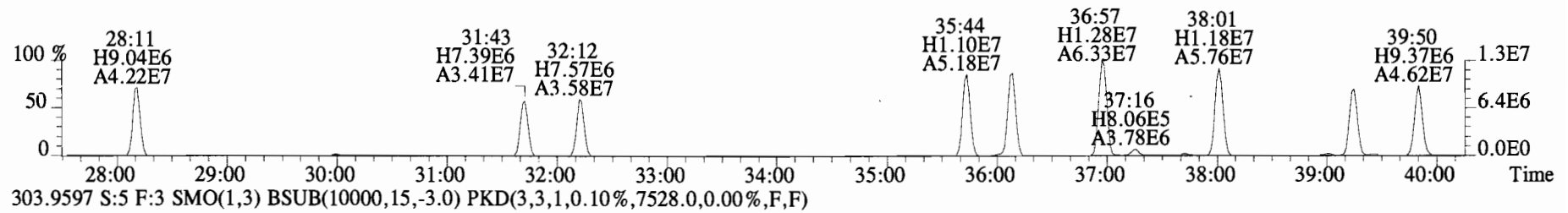
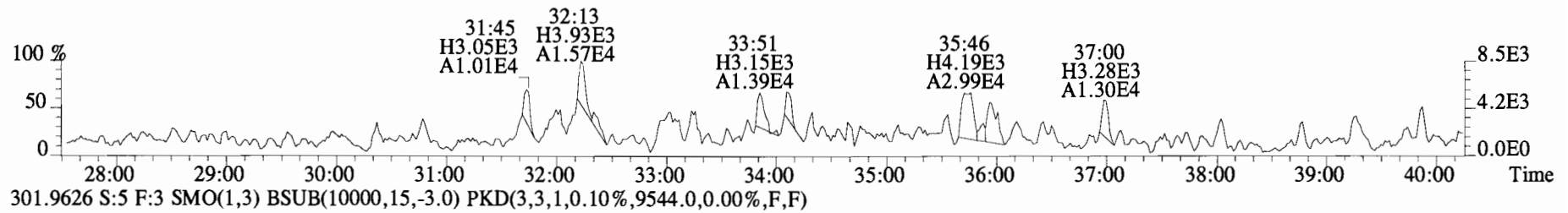
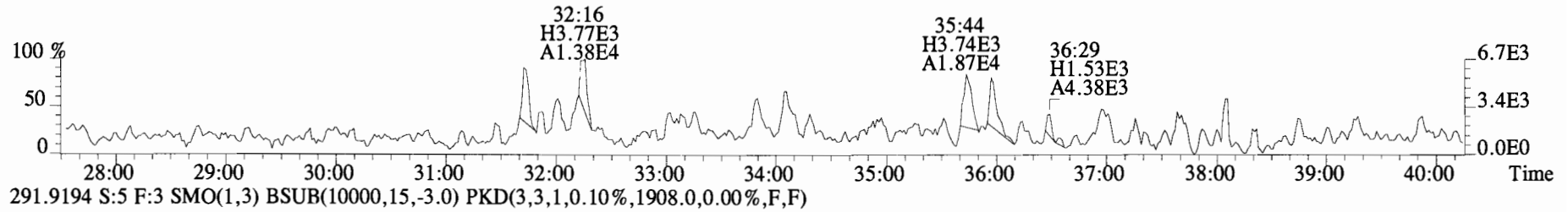
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
255.9613 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2244.0,0.00%,F,F)



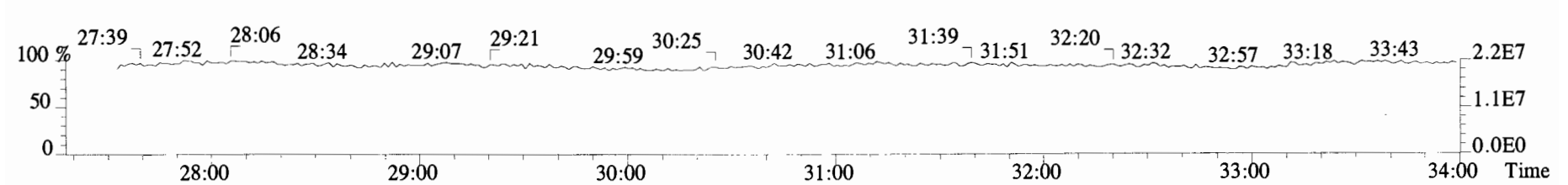
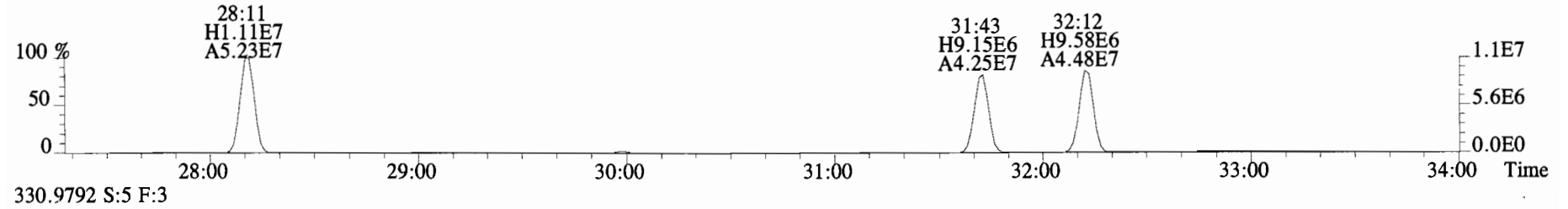
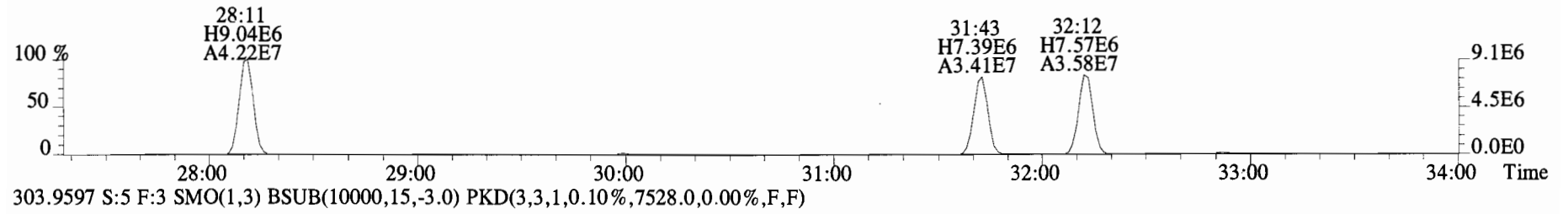
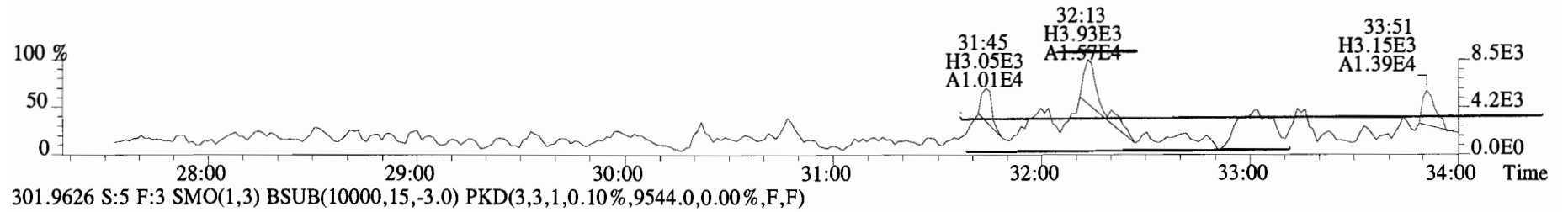
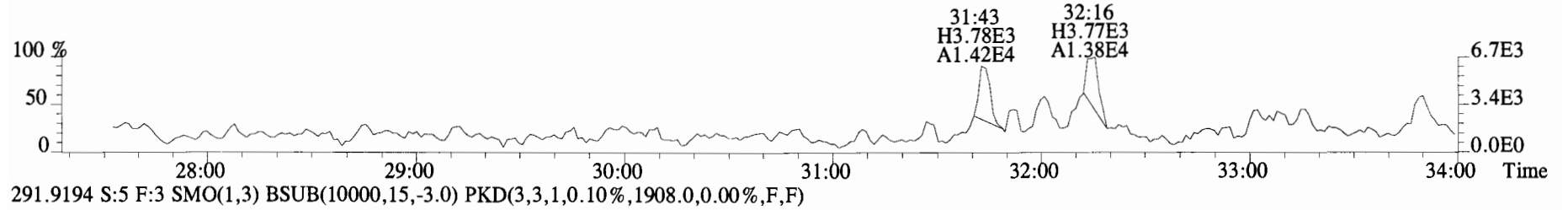
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
268.0016 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,70560.0,0.00%,F,F)



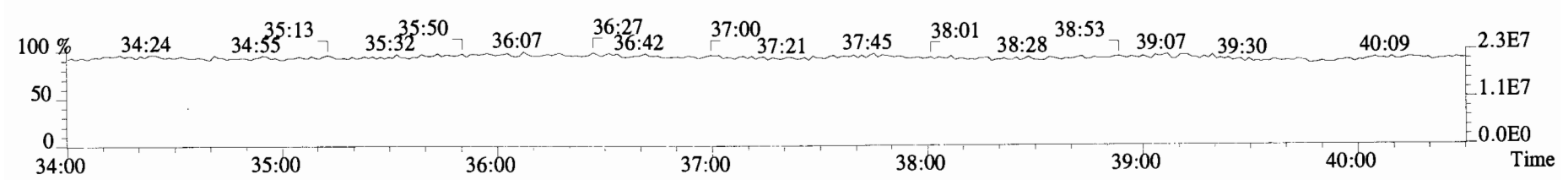
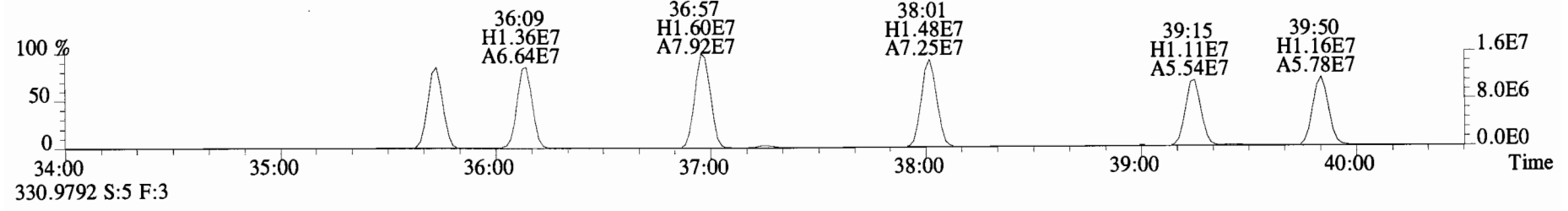
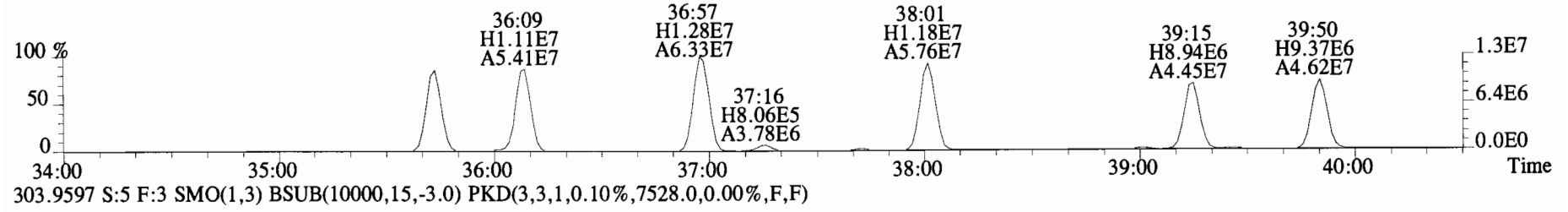
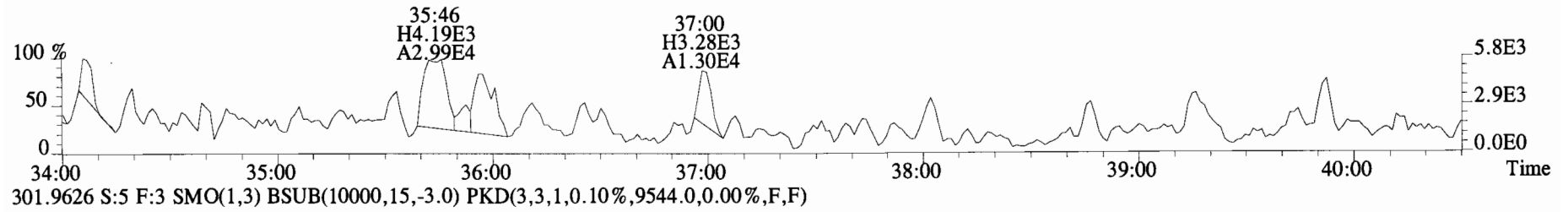
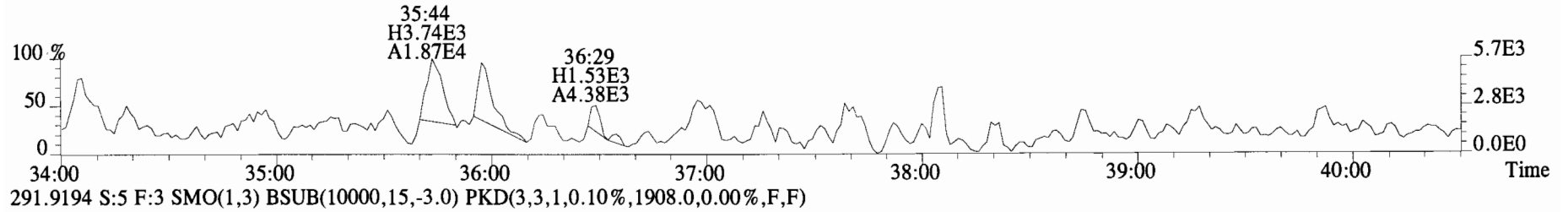
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
289.9224 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1672.0,0.00%,F,F)



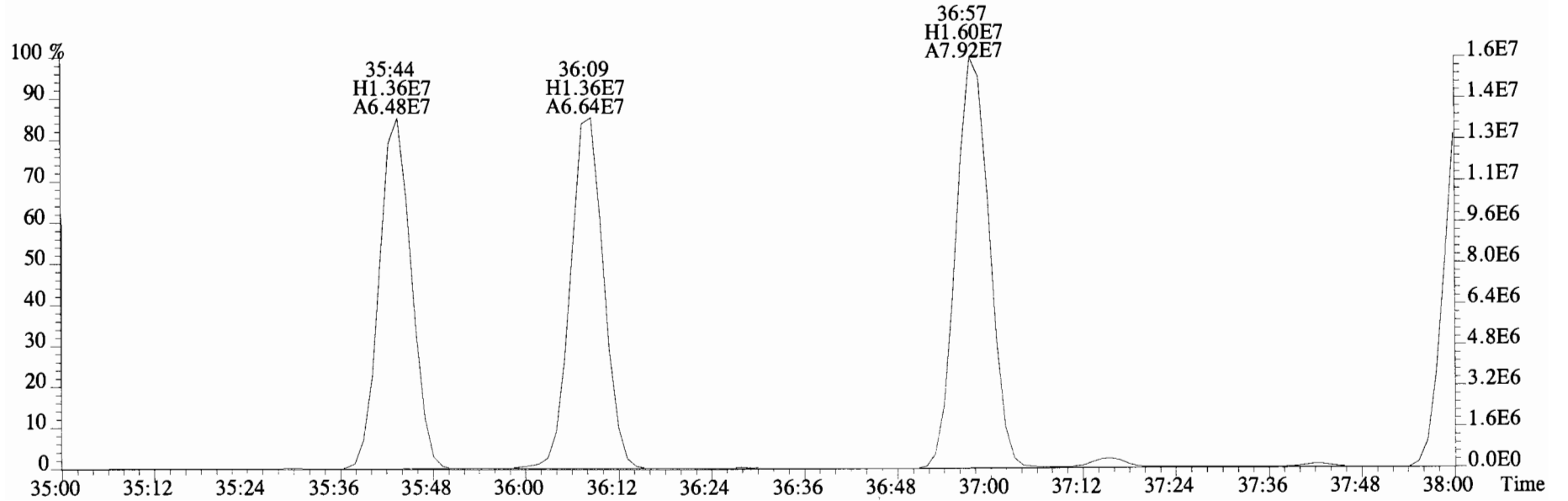
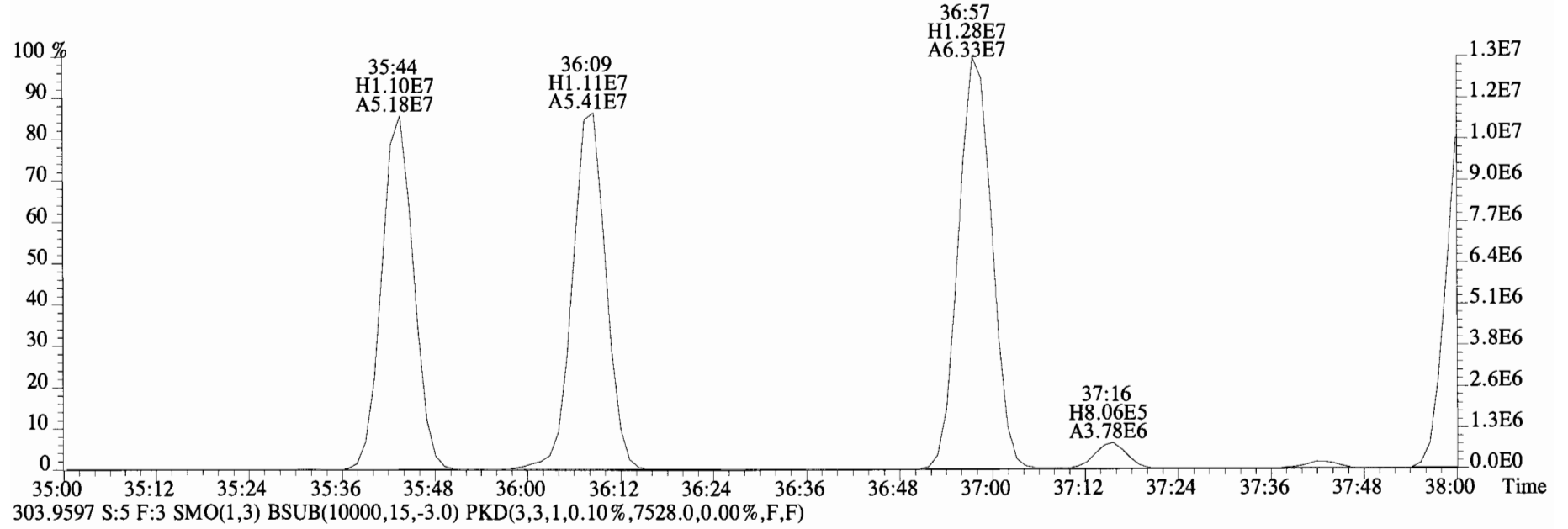
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
289.9224 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1672.0,0.00%,F,F)



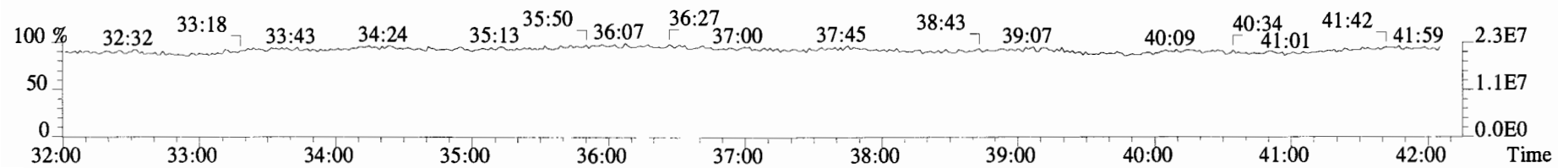
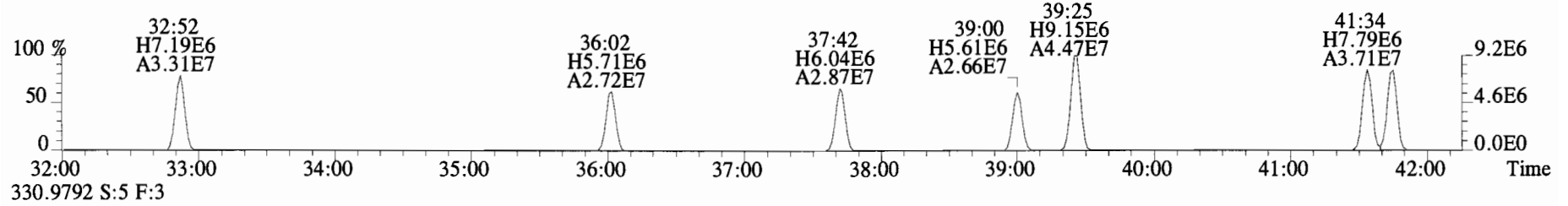
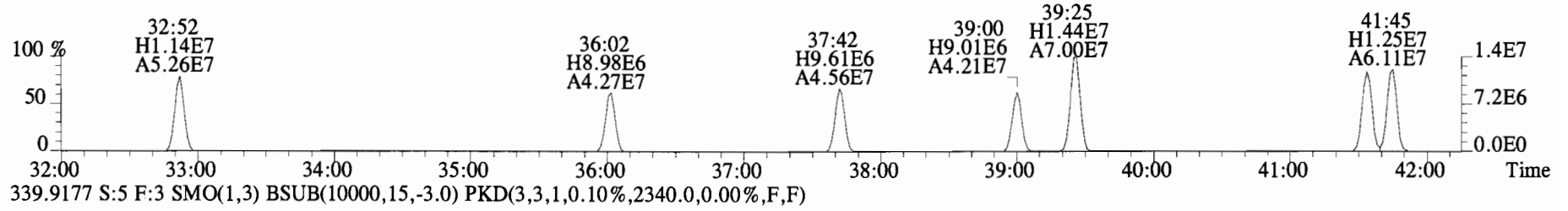
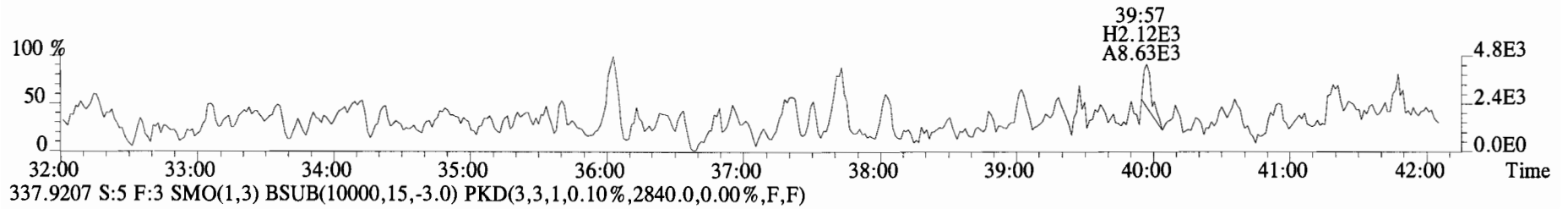
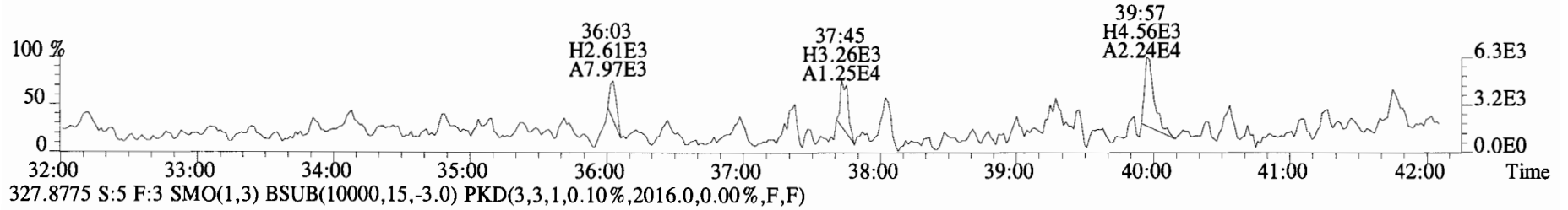
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
289.9224 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1672.0,0.00%,F,F)



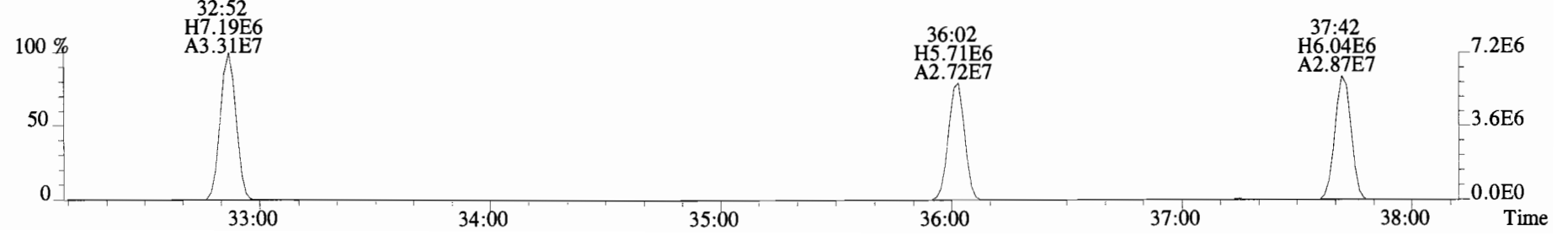
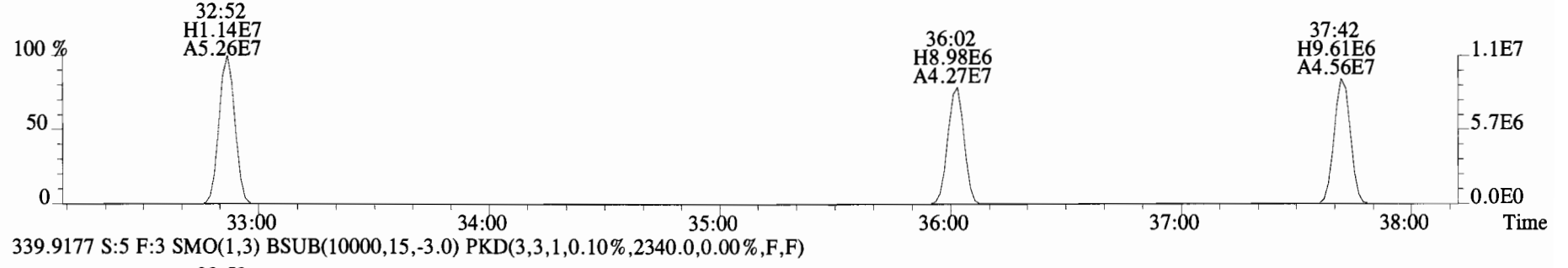
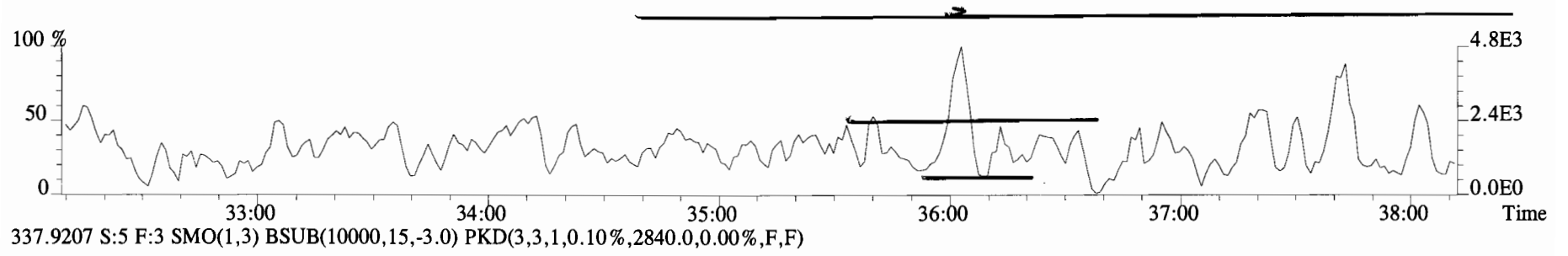
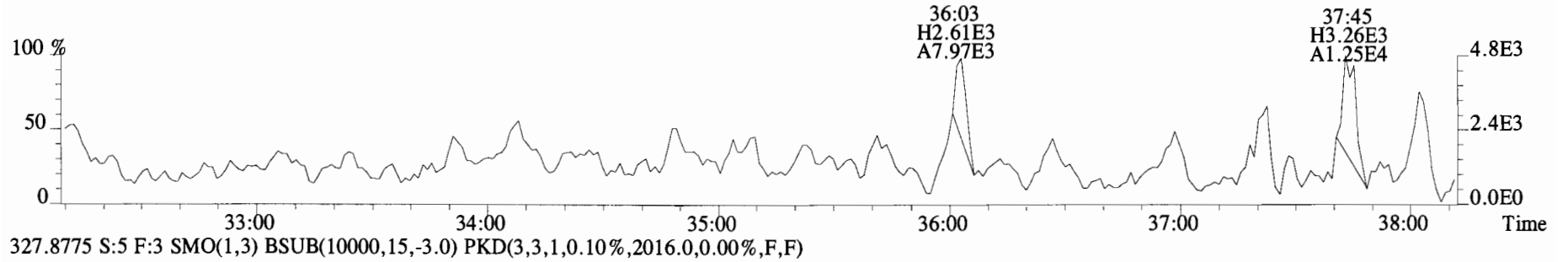
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
301.9626 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,9544.0,0.00%,F,F)



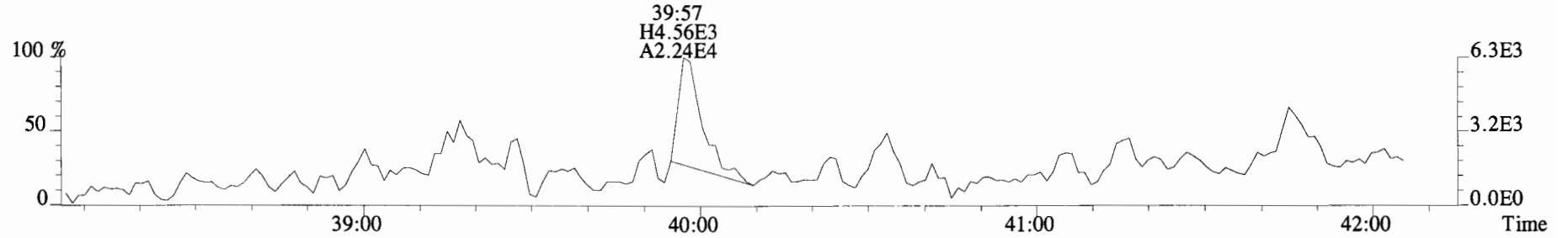
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
325.8804 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1648.0,0.00%,F,F)



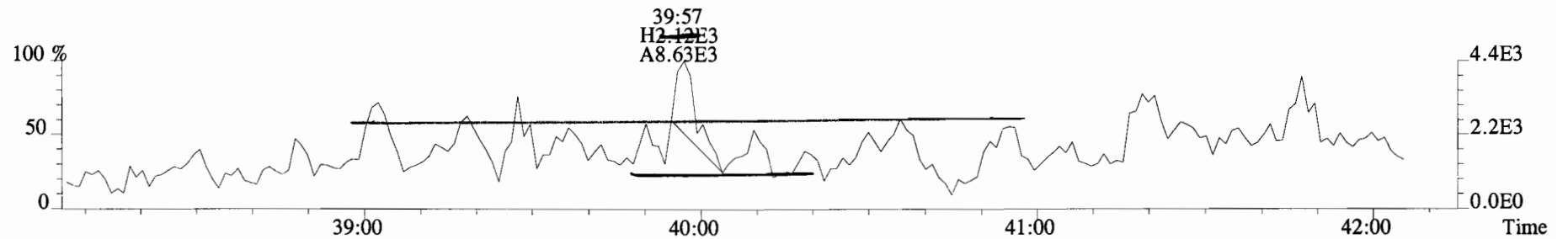
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
325.8804 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1648.0,0.00%,F,F)



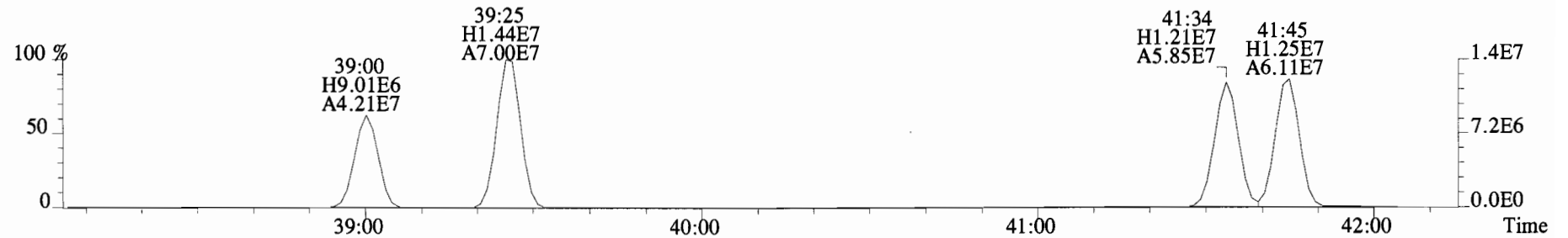
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
325.8804 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1648.0,0.00%,F,F)



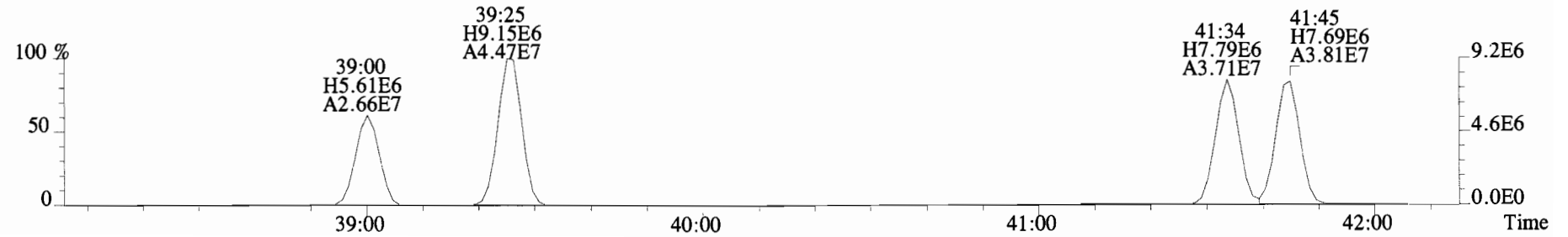
327.8775 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2016.0,0.00%,F,F)



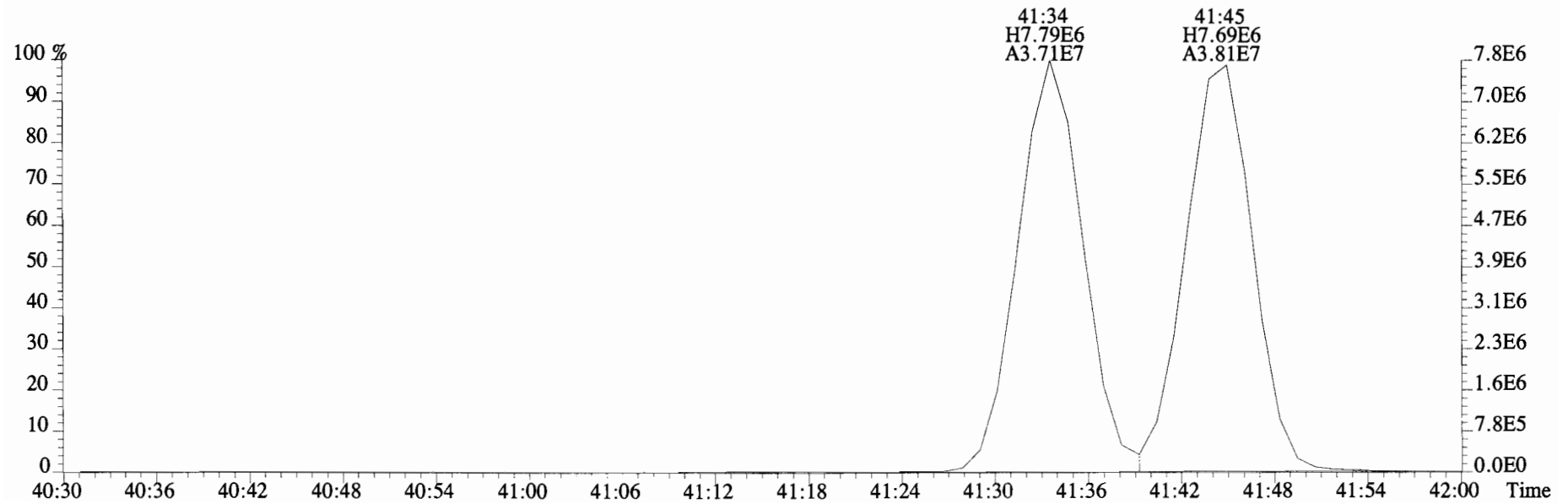
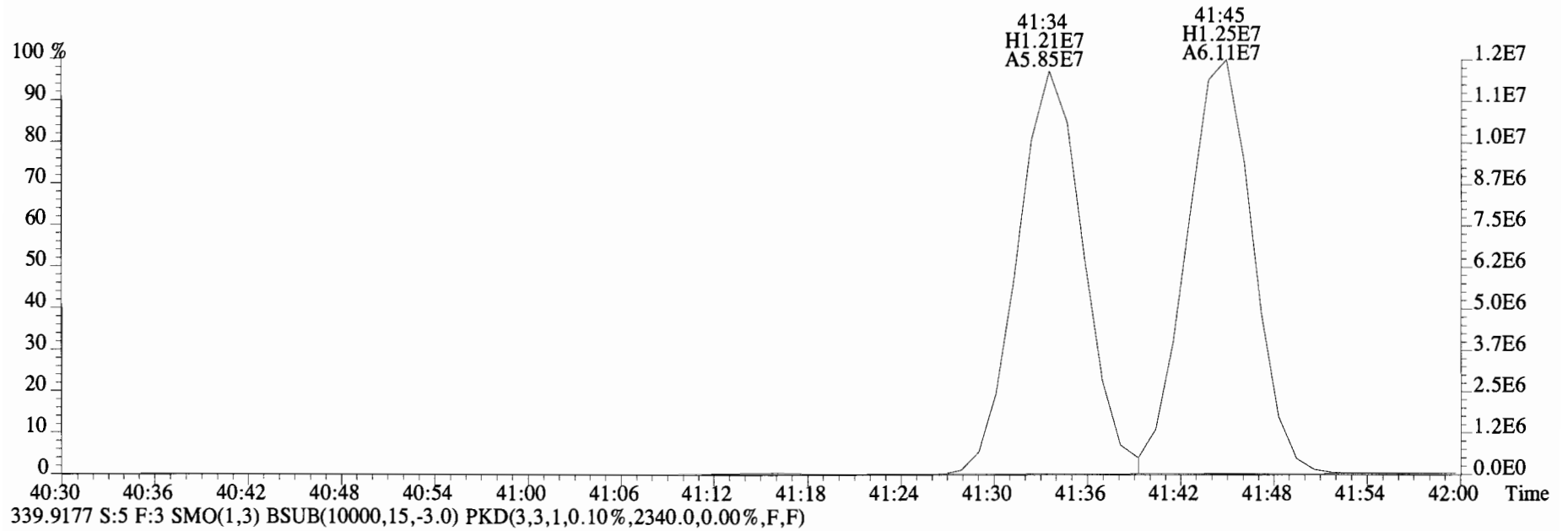
337.9207 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2840.0,0.00%,F,F)



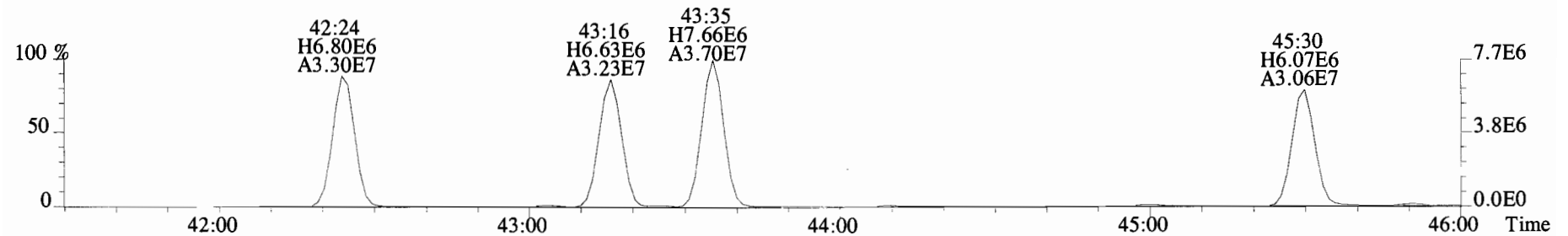
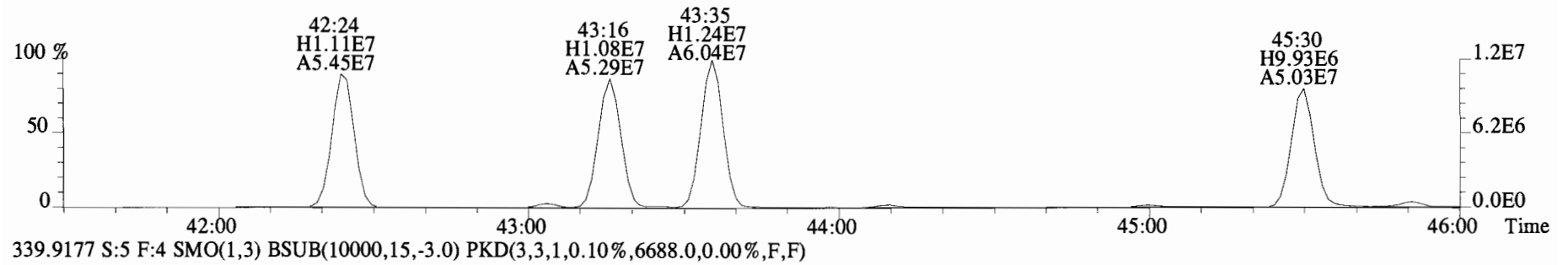
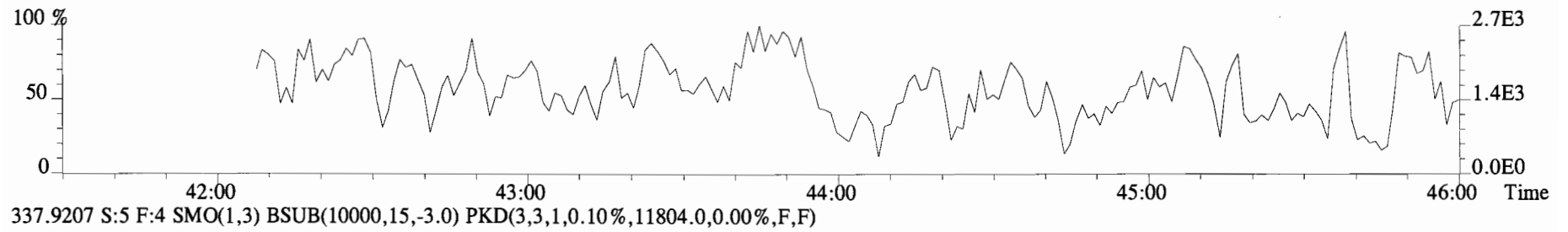
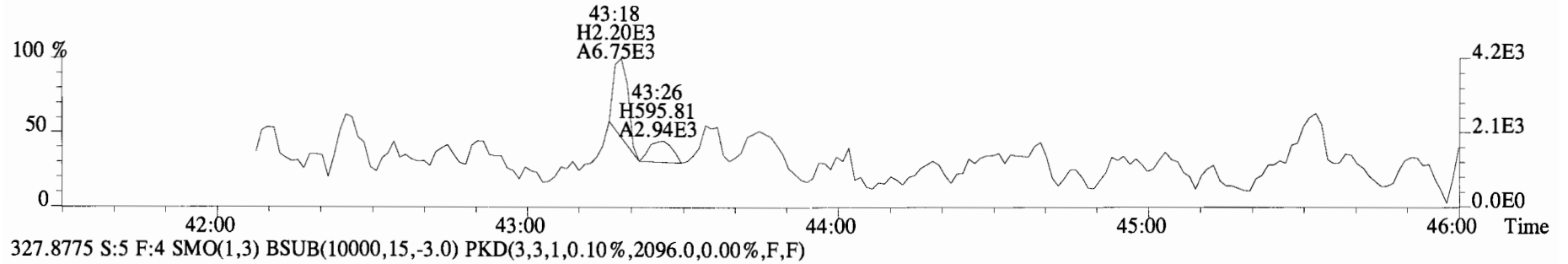
339.9177 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2340.0,0.00%,F,F)



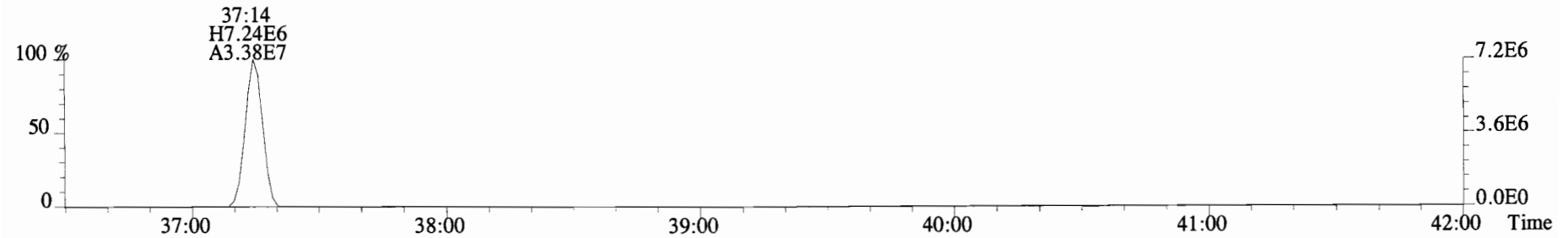
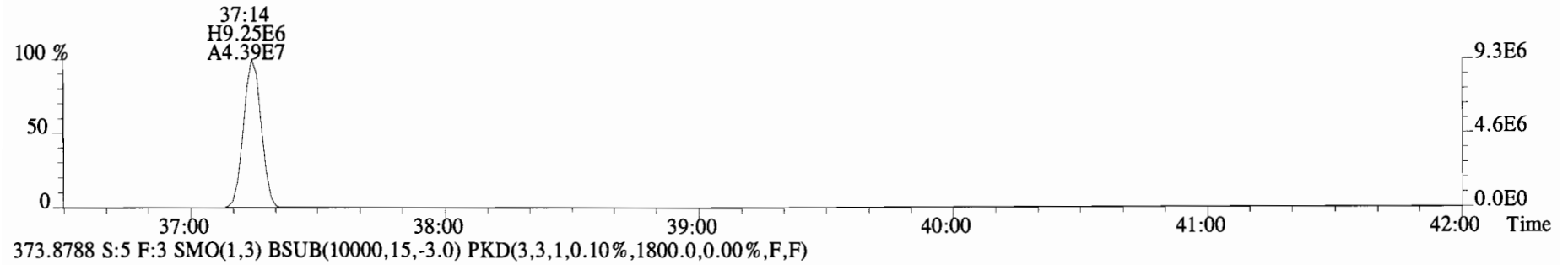
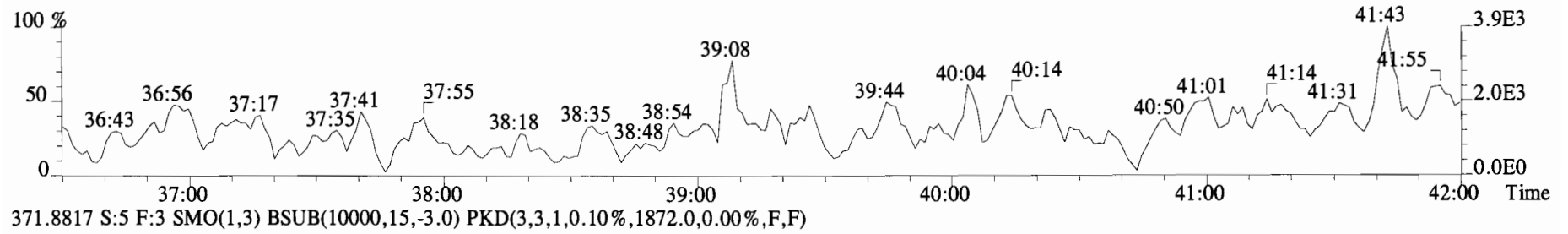
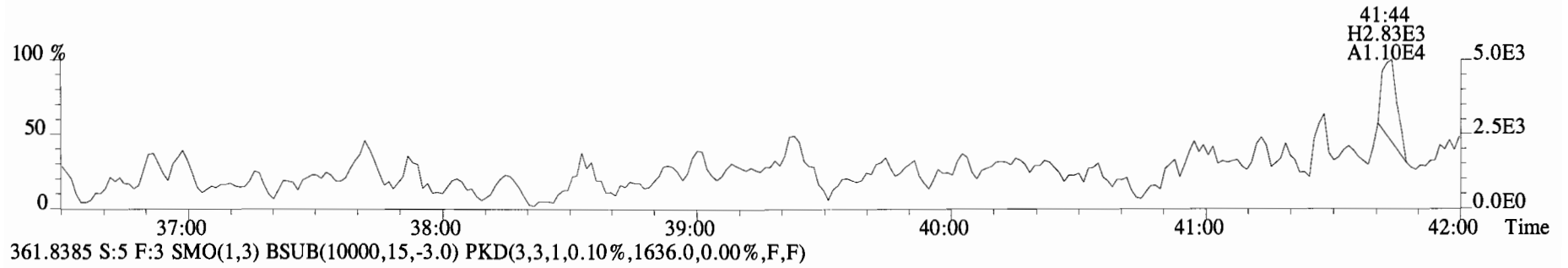
File:140919E1 #1-769 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
337.9207 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2840.0,0.00%,F,F)



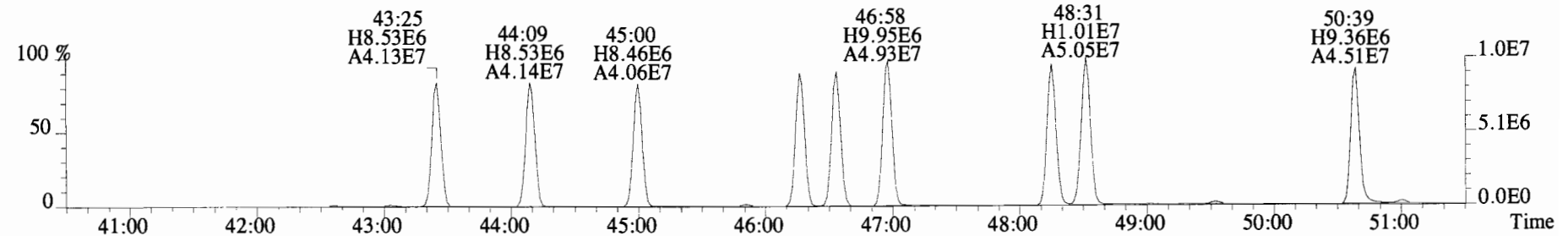
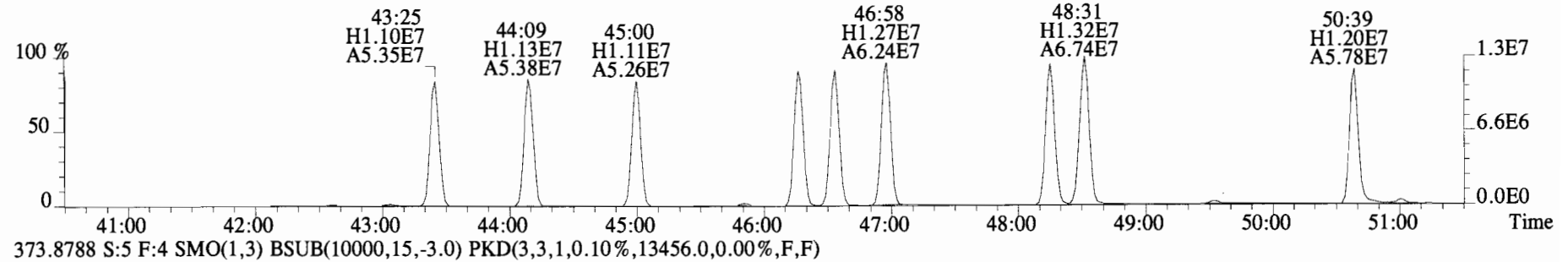
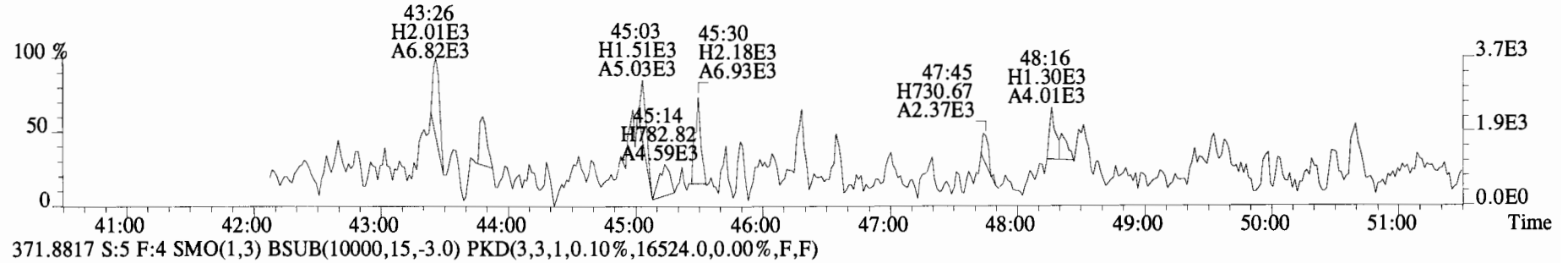
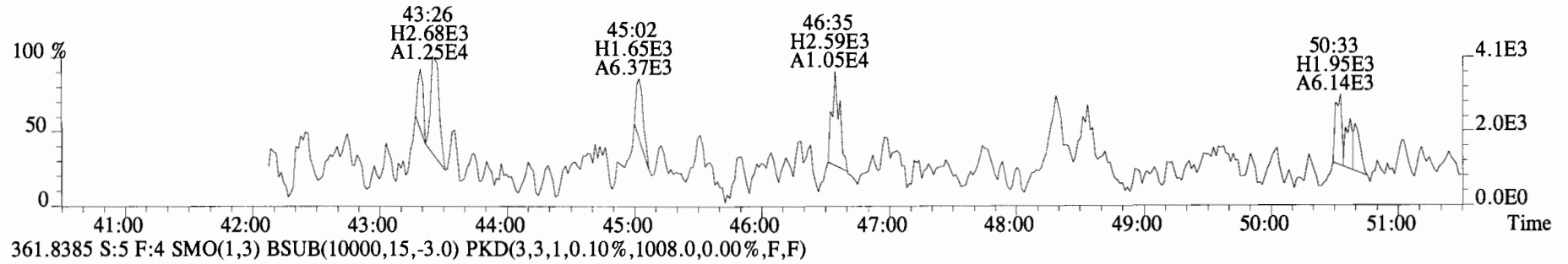
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
325.8804 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1644.0,0.00%,F,F)



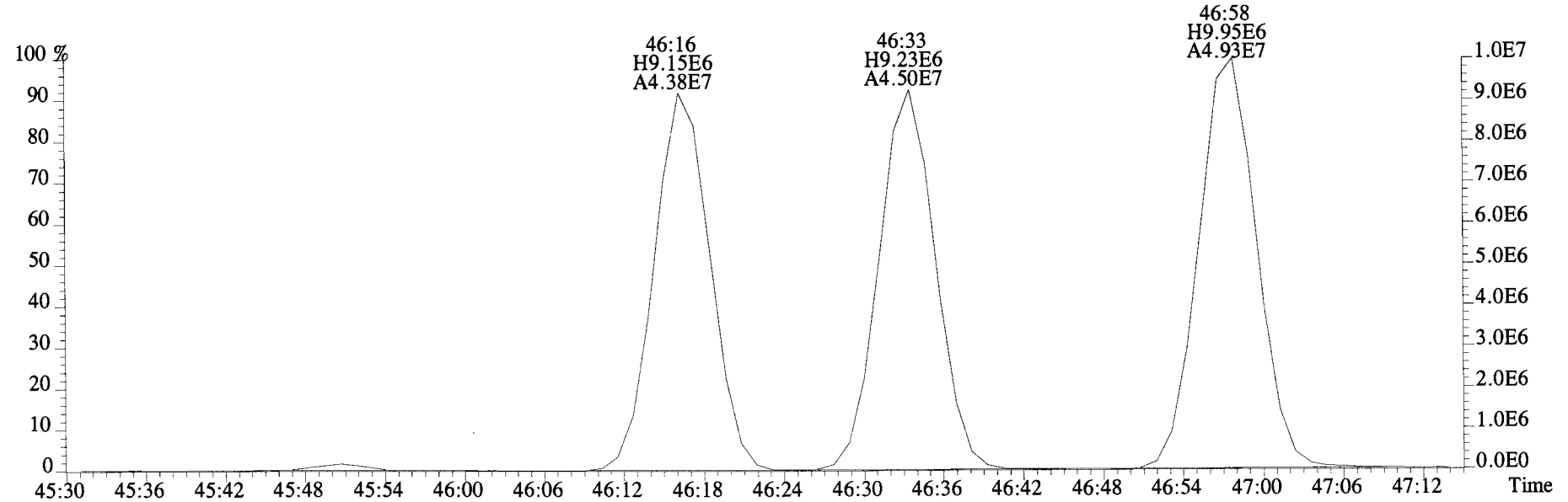
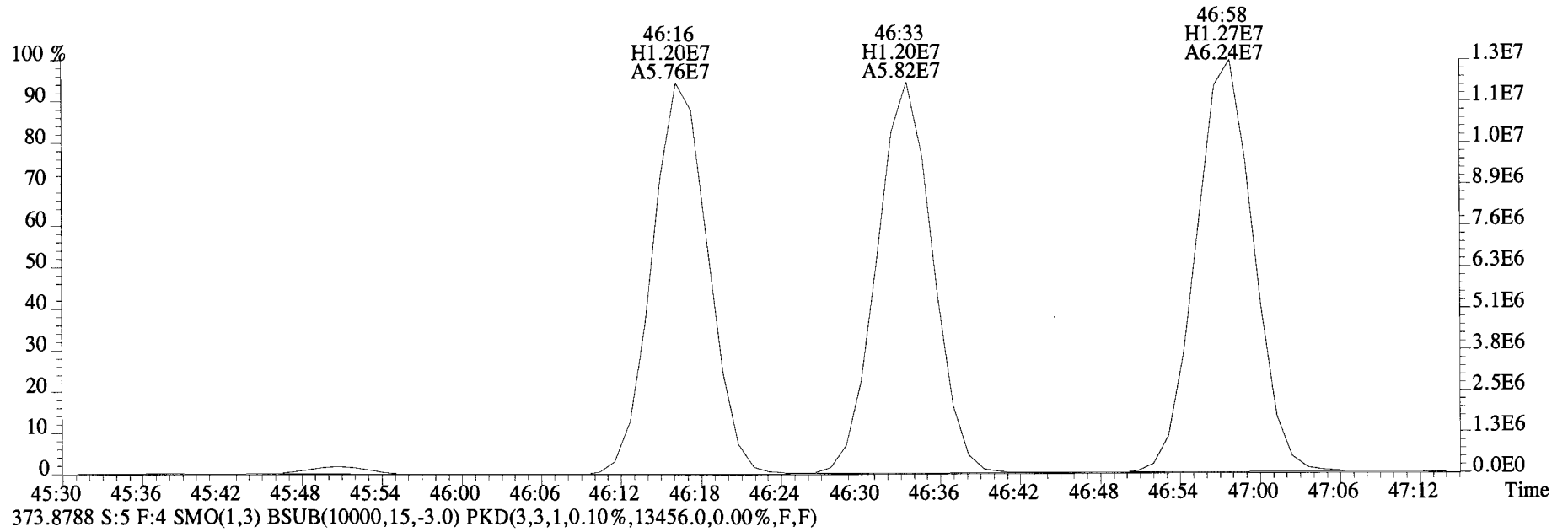
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
359.8415 S:5 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1752.0,0.00%,F,F)



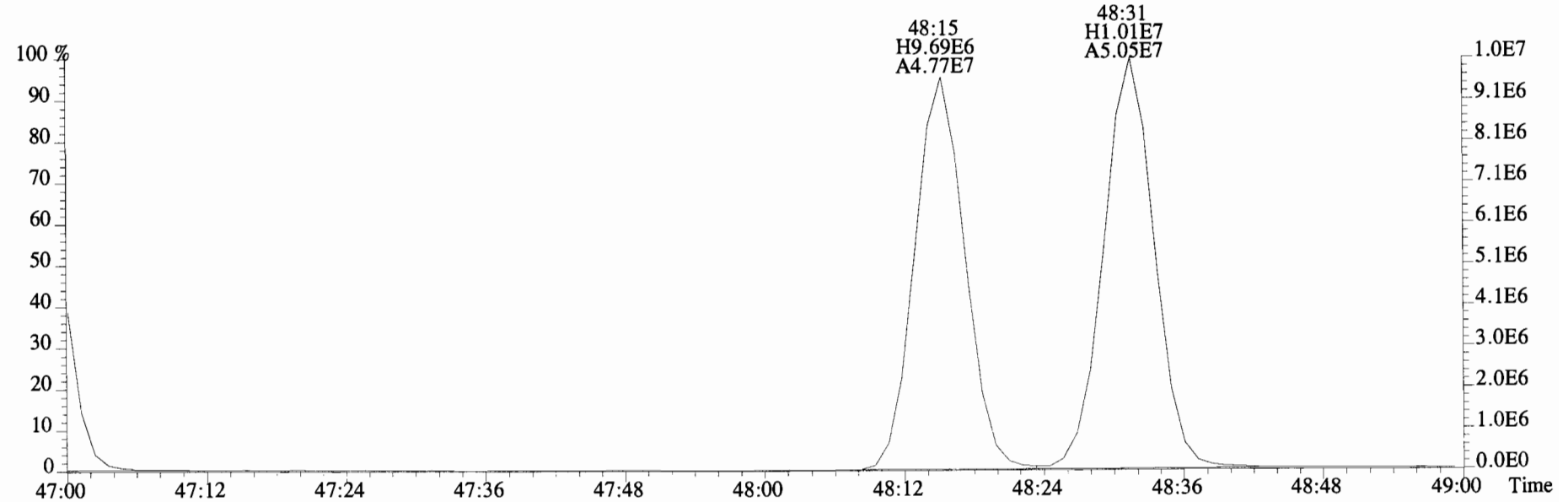
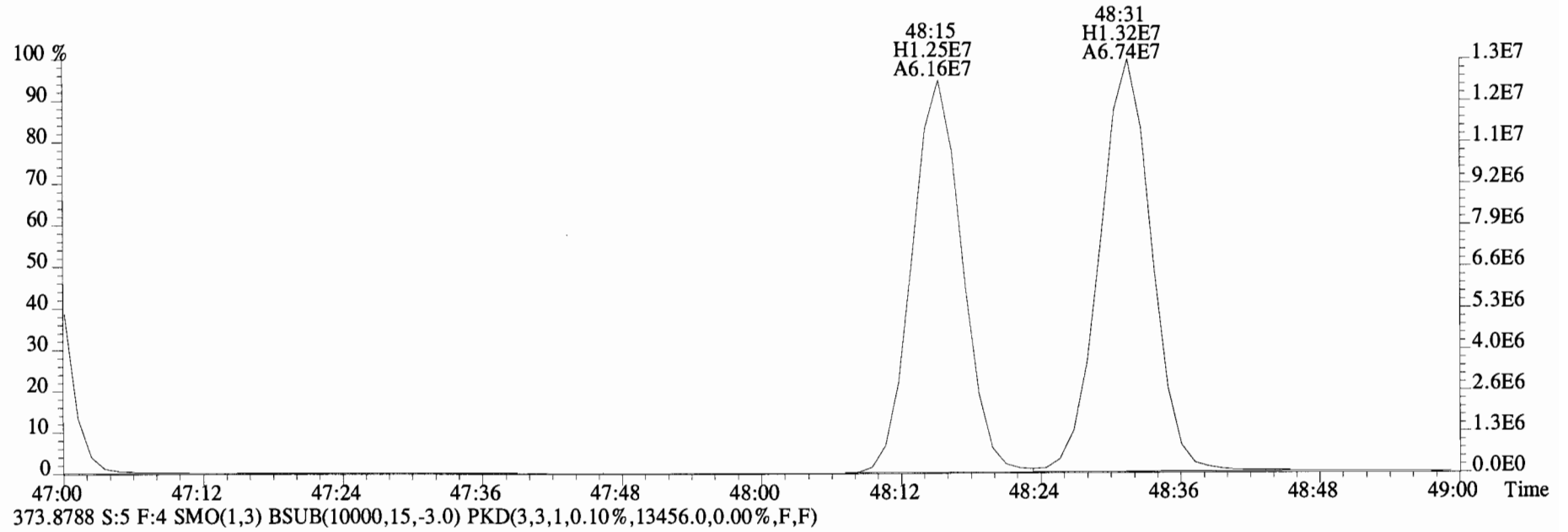
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 Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
 359.8415 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1380.0,0.00%,F,F)



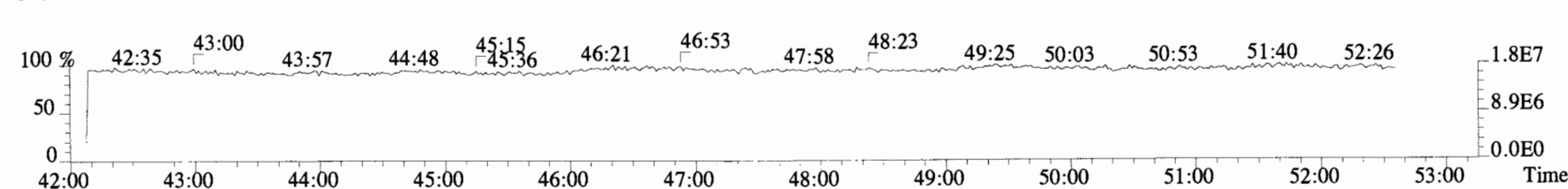
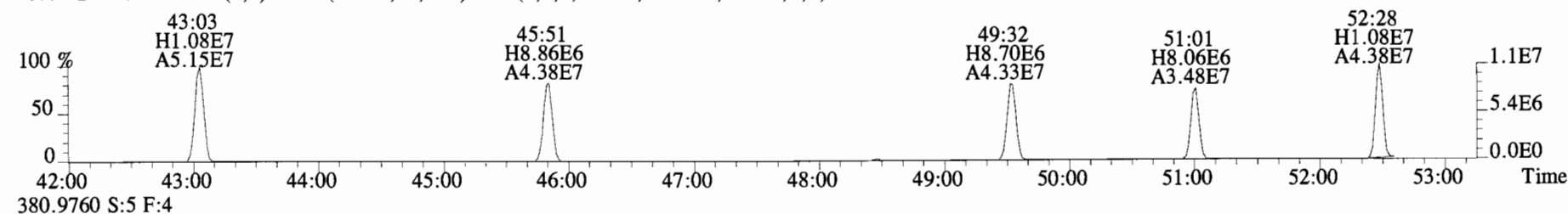
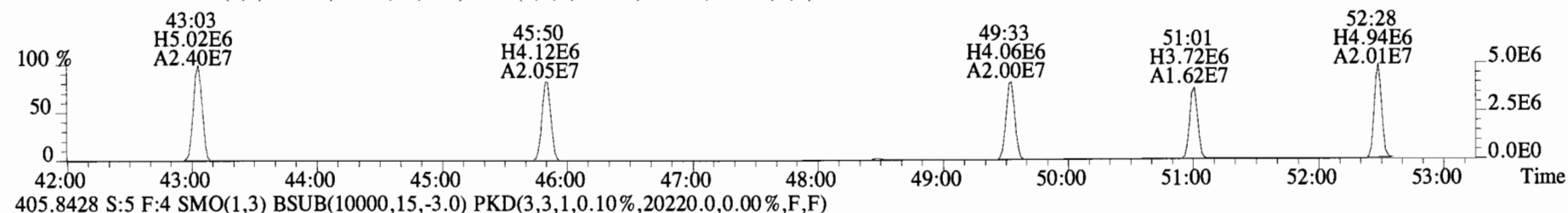
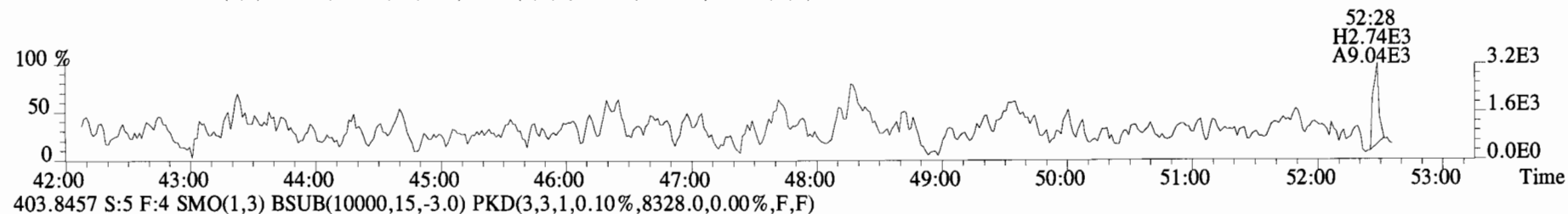
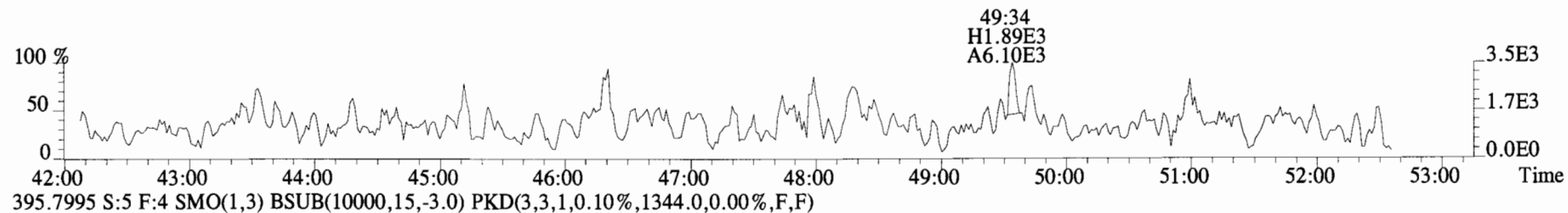
File:140919E1 #1-544 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
371.8817 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,16524.0,0.00%,F,F)



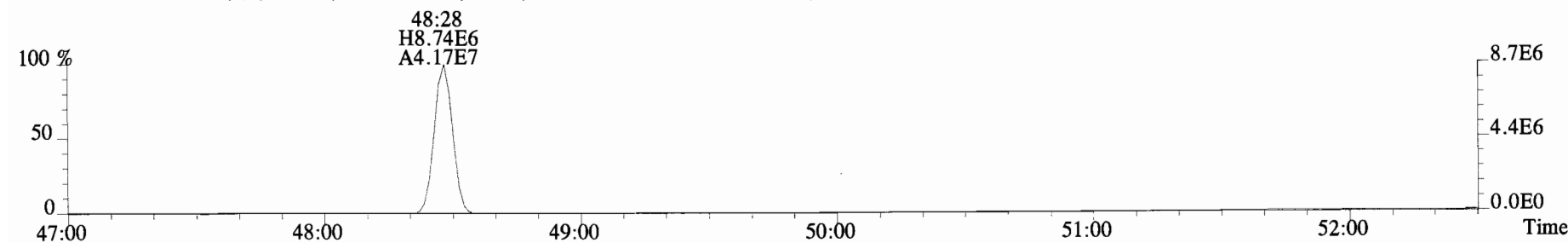
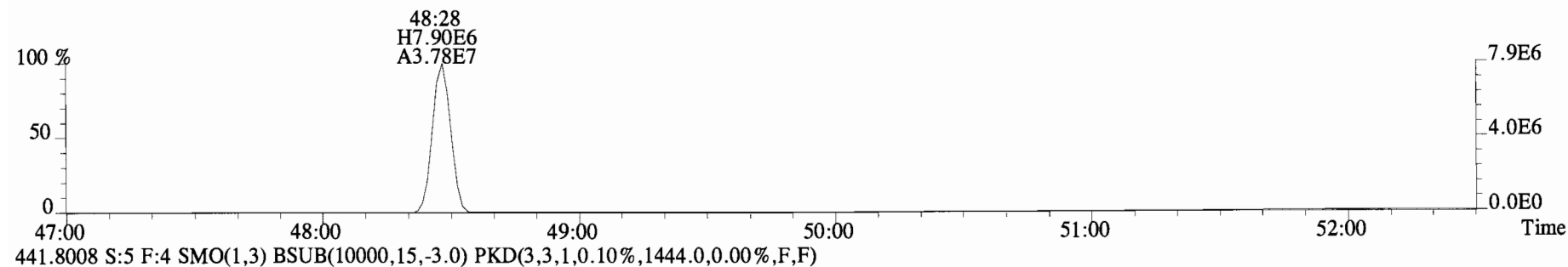
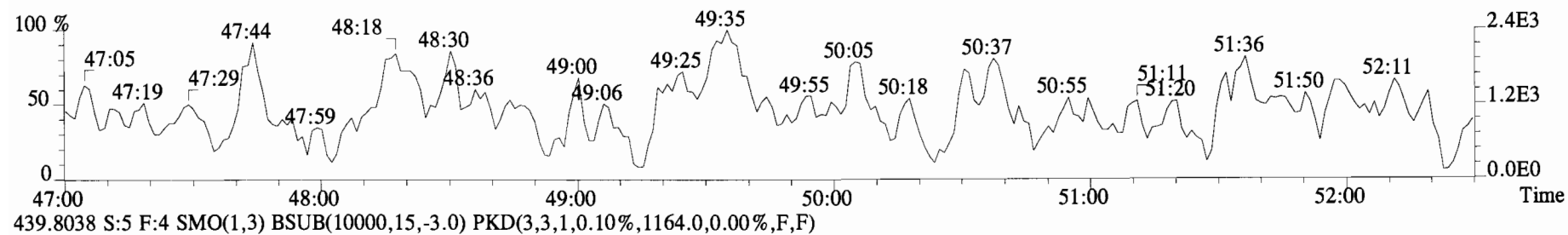
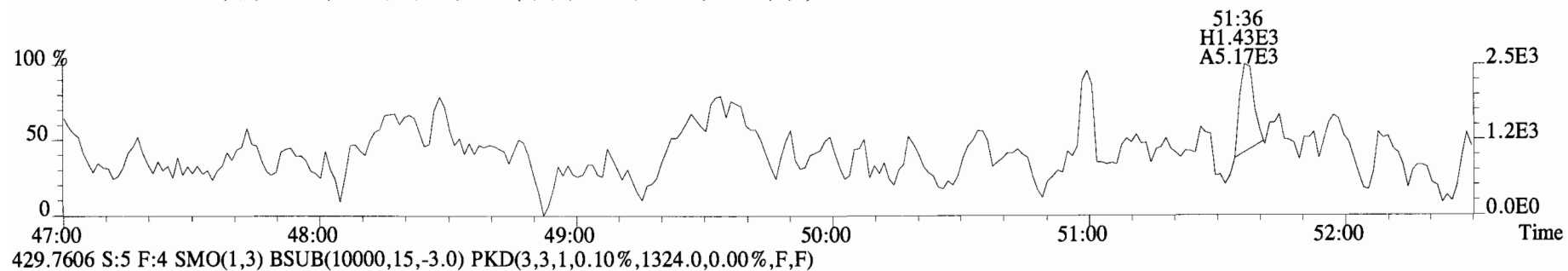
File:140919E1 #1-544 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
371.8817 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,16524.0,0.00%,F,F)



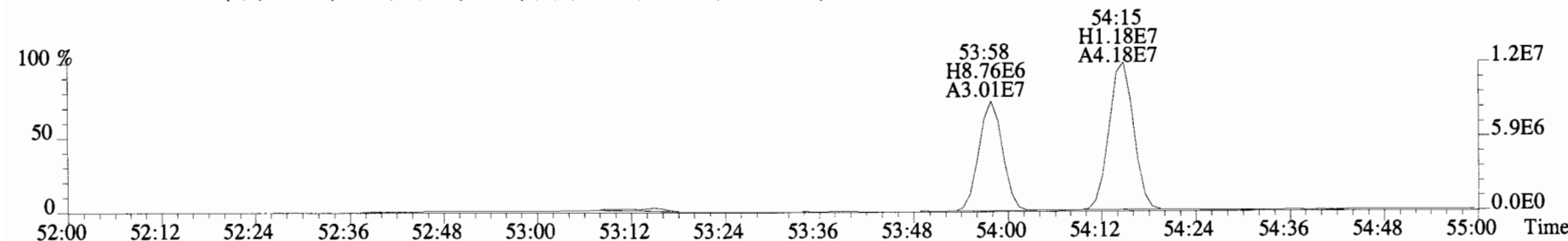
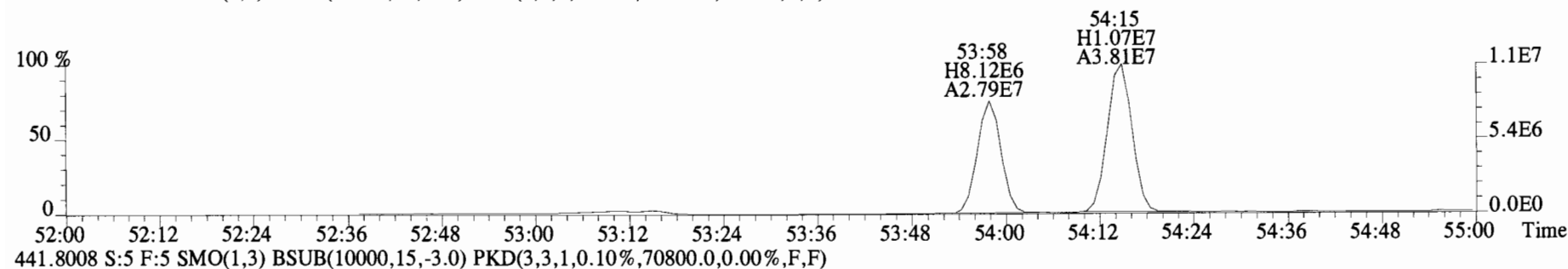
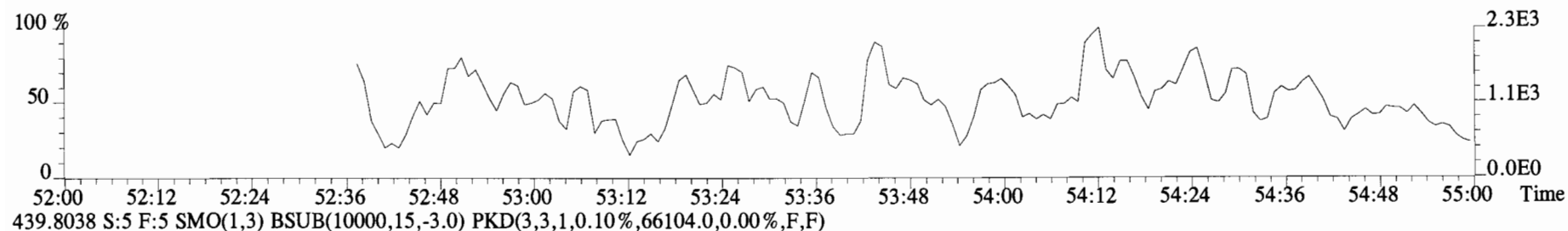
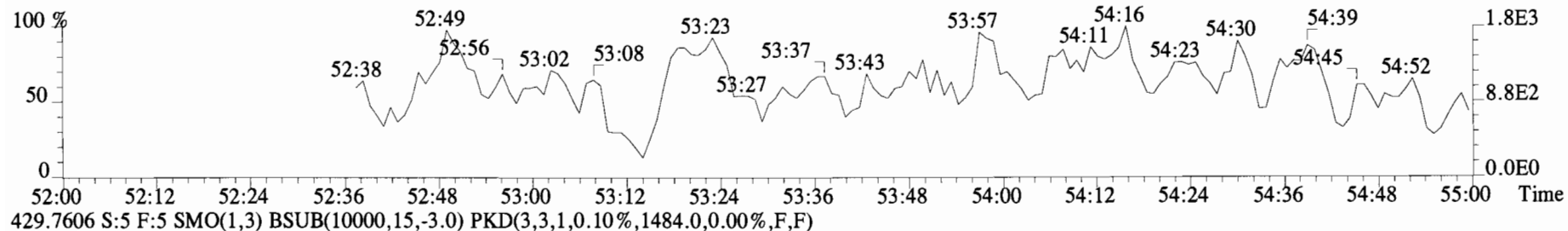
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Sample#5 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BLK1 Method Blank 1 Exp:PCB_ZB1
393.8025 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1540.0,0.00%,F,F)



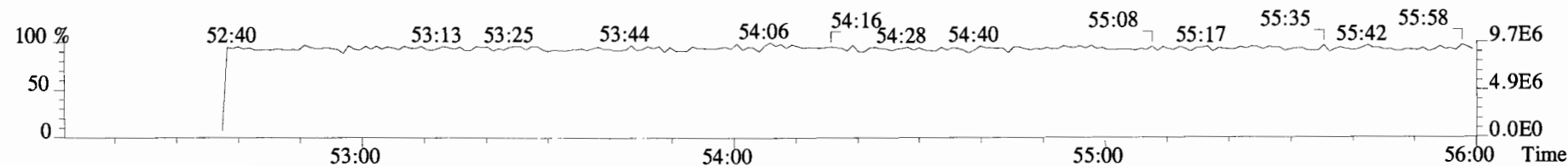
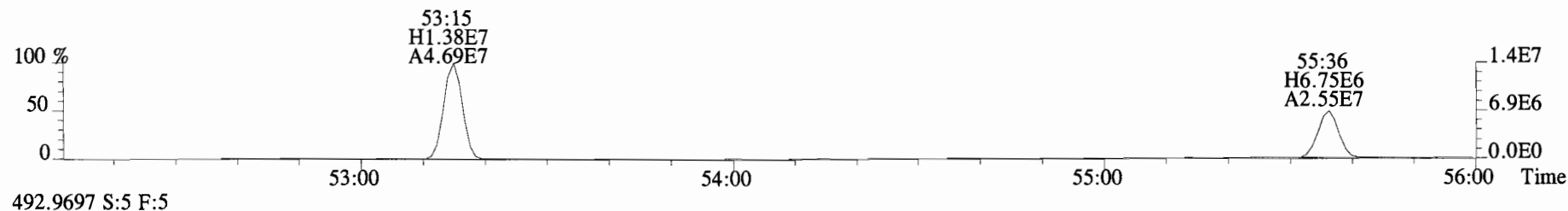
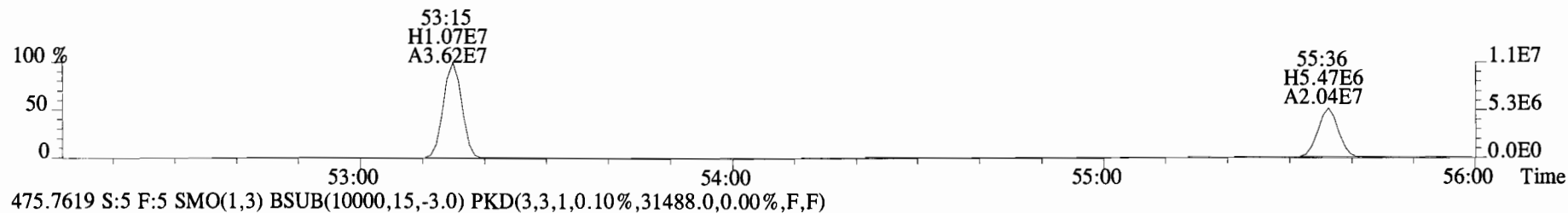
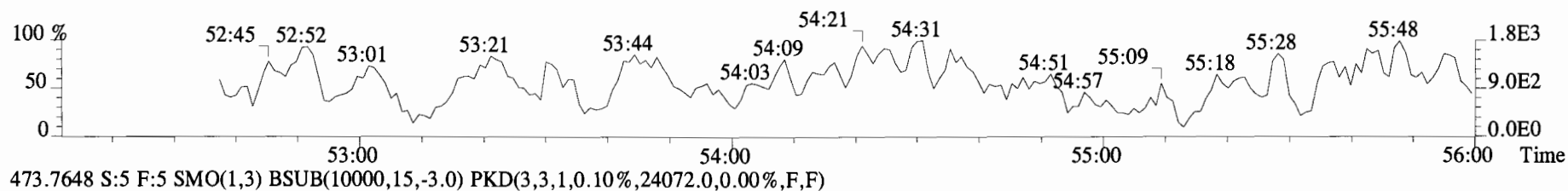
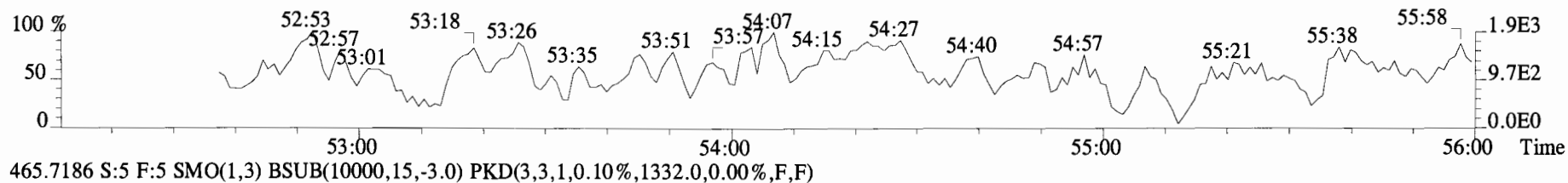
File:140919E1 #1-544 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text: Vista Analytical Laboratory VG-8 Text: B4I0047-BLK1 Method Blank 1 Exp: PCB_ZB1
427.7635 S:5 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1232.0,0.00%,F,F)



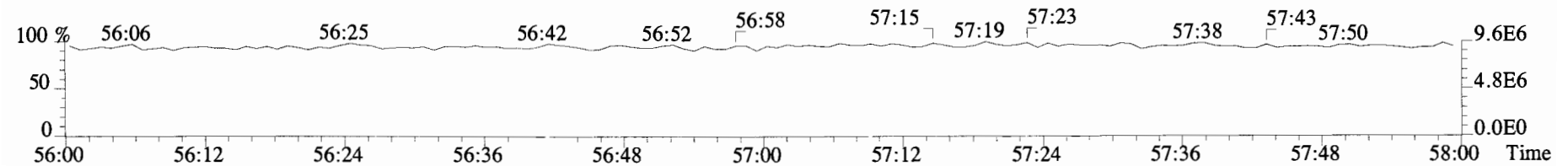
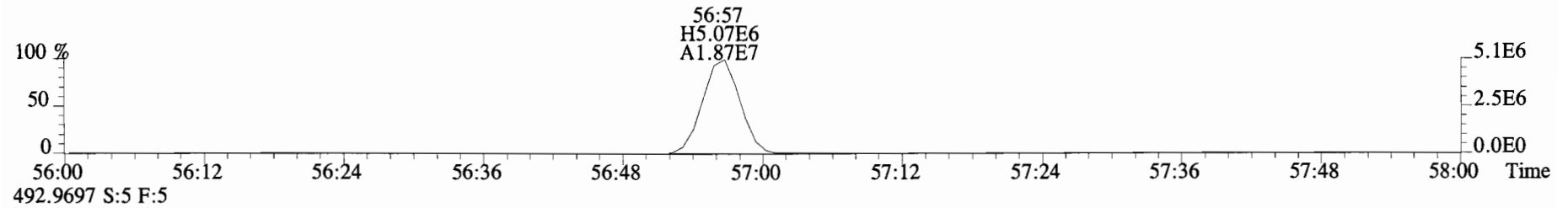
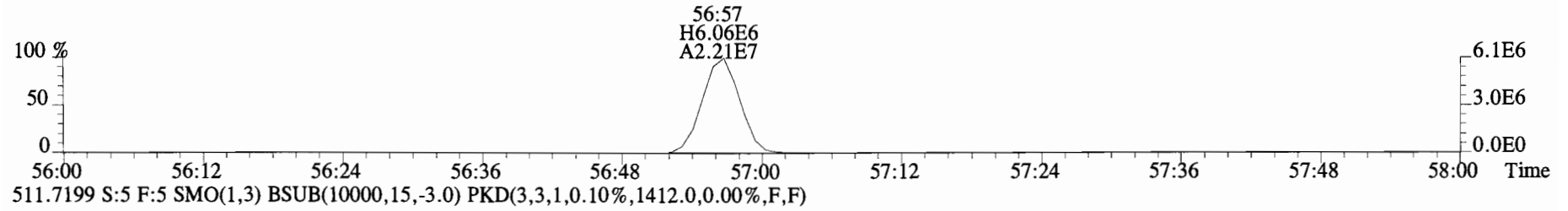
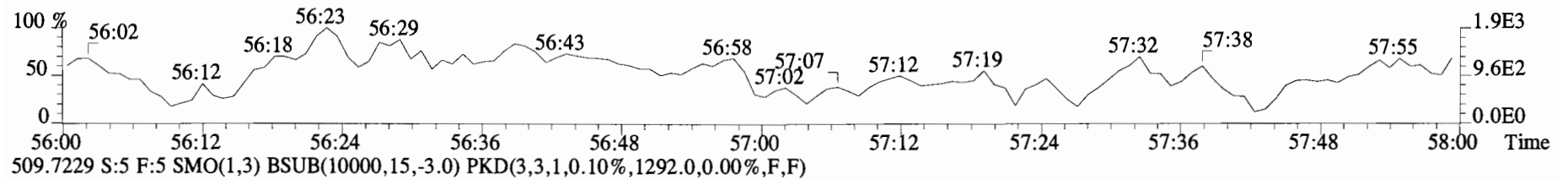
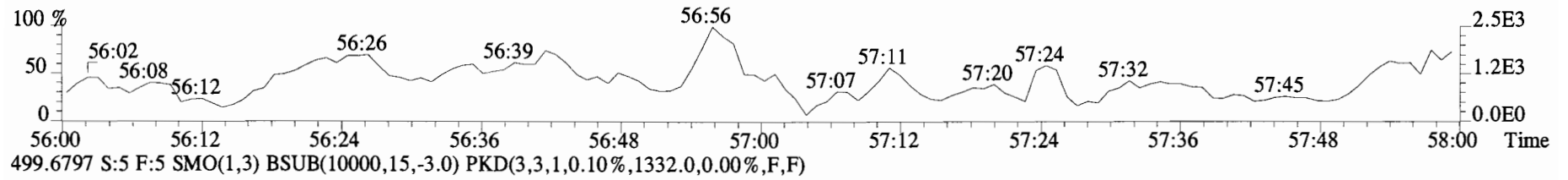
File:140919E1 #1-429 Acq:19-SEP-2014 13:50:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text: Vista Analytical Laboratory VG-8 Text:B410047-BLK1 Method Blank 1 Exp:PCB_ZB1
429.7635 S:5 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1400.0,0.00%,F,F)



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.	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	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

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: *[Signature]*

Date: *9/24/14*

Client ID: OPR
Lab ID: B4I0047-BS1

Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA
ConCal: ST140919E1-1

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	1.65 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

RL: MONO, TRI - DECA: _____

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: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

ConCal: ST140919E1-1

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	163.770
Total Di-PCB	1.56e+09	1.64 y	20:19	1.21	1289.90
Total Tri-PCB	4.70e+08	1.08 y	24:27	1.16	480.331
Total Tri-PCB	6.40e+08	0.95 y	28:09	1.35	668.814
Total Tetra-PCB	2.02e+09	0.79 y	28:12	1.17	1992.58
Total Penta-PCB	1.87e+09	1.61 y	32:53	1.21	2196.05
Total Penta-PCB	2.52e+08	1.60 y	42:25	1.26	280.097
Total Hexa-PCB	5.08e+08	1.30 y	37:16	0.92	832.261
Total Hexa-PCB	1.26e+09	1.28 y	42:21	1.08	1447.20
Total Hepta-PCB	9.76e+08	1.07 y	43:04	1.27	1336.79
Total Octa-PCB	2.99e+08	0.92 y	48:29	0.92	486.787
Total Octa-PCB	9.26e+07	0.91 y	53:08	1.29	162.353
Total Nona-PCB	8.12e+07	1.37 y	53:16	0.96	161.297
Total Deca-PCB	1.96e+07	1.21 y	56:59	1.18	52.8413

Total PCB Conc:11452.8898950

RL: MONO, TRI - DECA: _____

Integrations

by

Analyst: DMS

Date: 9/23/14

Client ID: OPR
Lab ID: B4I0047-BS1

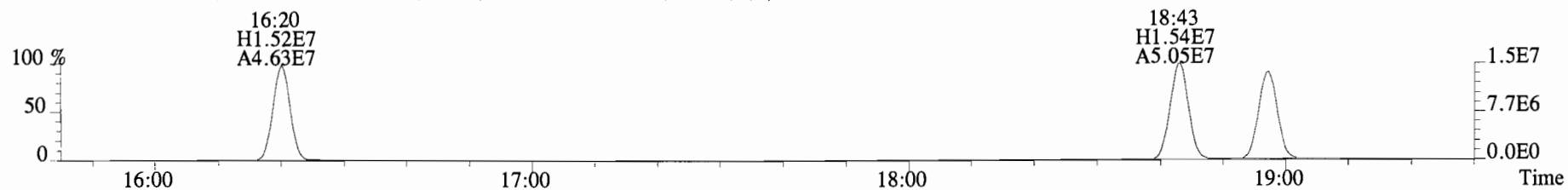
Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000

ConCal: ST140919E1-1
EndCAL: NA

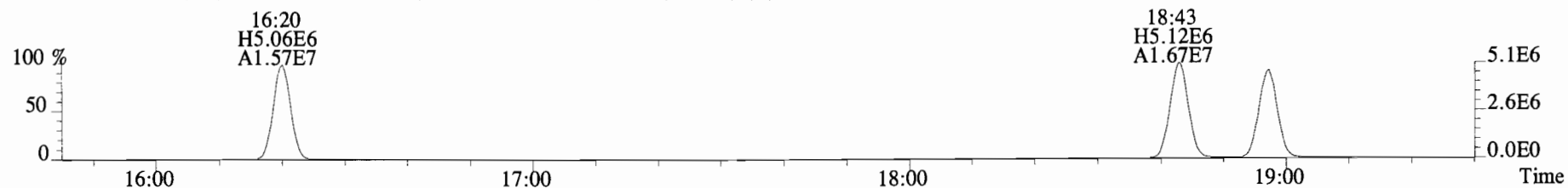
Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec	CRS vs. RS	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-1	9.44e+07	3.46 y	0.89	16:19	0.624	0.622-0.628		69.2	69.2											
13C-PCB-3	9.77e+07	3.53 y	0.93	18:56	0.724	0.721-0.729		68.8	68.8		13C-PCB-79	1.27e+08	0.80 y	1.01	38:01	1.028	1.023-1.033		103	103
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-11	1.17e+08	1.56 y	0.94	25:26	0.973	0.968-0.978		81.8	81.8											
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-28	7.20e+07	1.06 y	0.89	29:18	1.004	0.999-1.009		83.1	83.1		13C-PCB-79	1.27e+08	0.80 y	1.20	38:01	0.969	0.963-0.973		118	118
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-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-54	9.32e+07	0.81 y	0.85	28:11	0.762	0.758-0.766		89.1	89.1											
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-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-95	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-101	6.67e+07	1.59 y	0.79	37:42	0.956	0.951-0.961		86.5	86.5											
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-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-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-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-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-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-157	9.38e+07	1.34 y	1.31	48:31	1.042	1.037-1.047		87.0	87.0											
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-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-180	5.22e+07	0.46 y	0.67	49:32	1.064	1.059-1.069		94.2	94.2											
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-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-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-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											

Analyst: *DMS*
Date: *9/23/14*

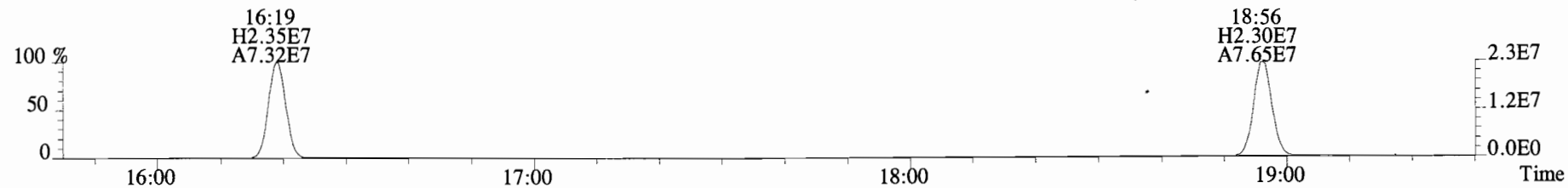
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Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
188.0393 S:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4408.0,0.00%,F,F)



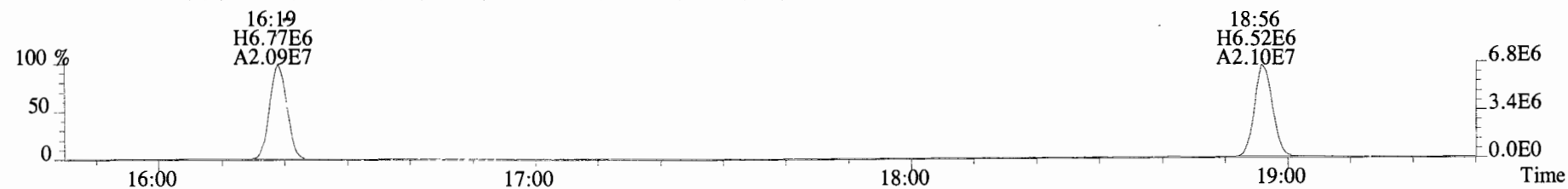
190.0363 S:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4300.0,0.00%,F,F)



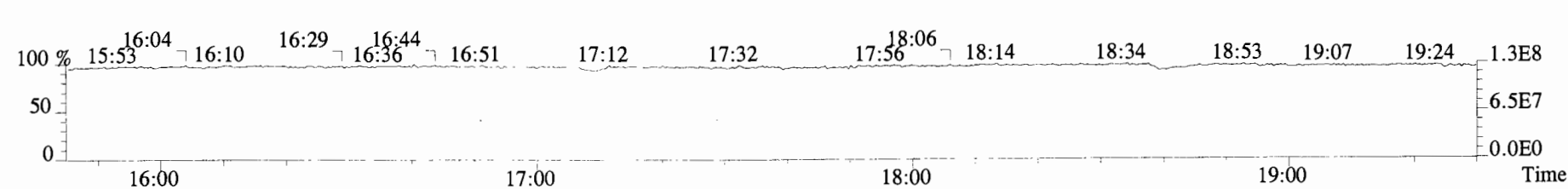
200.0795 S:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7724.0,0.00%,F,F)



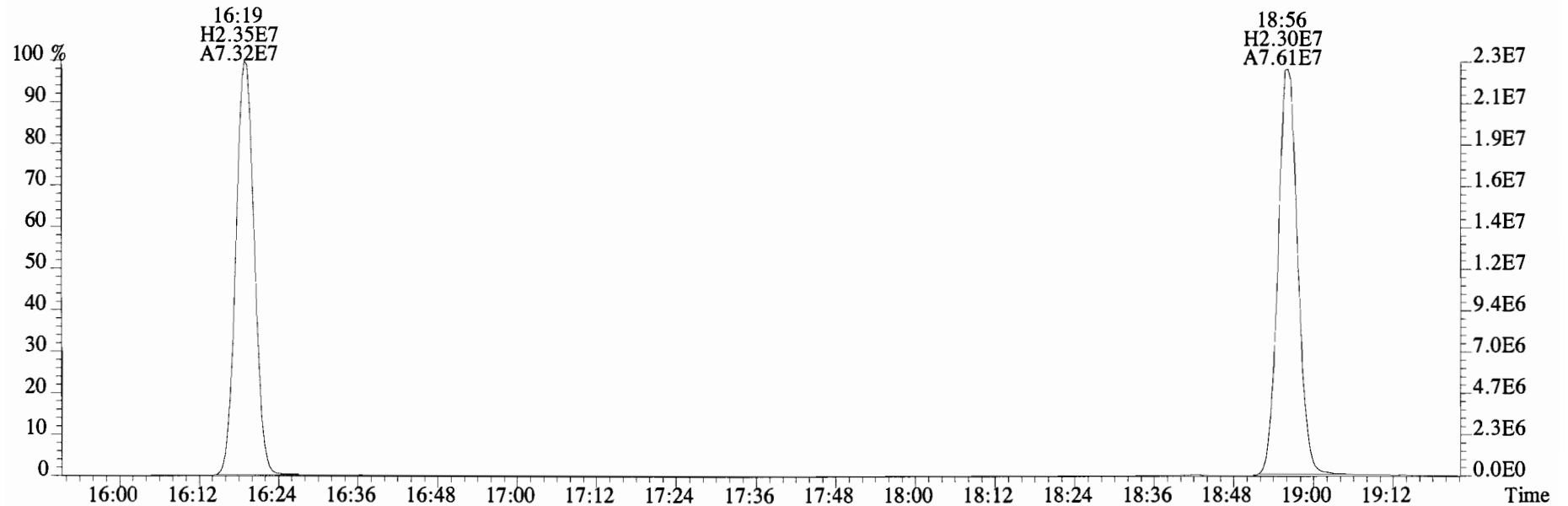
202.0766 S:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,49704.0,0.00%,F,F)



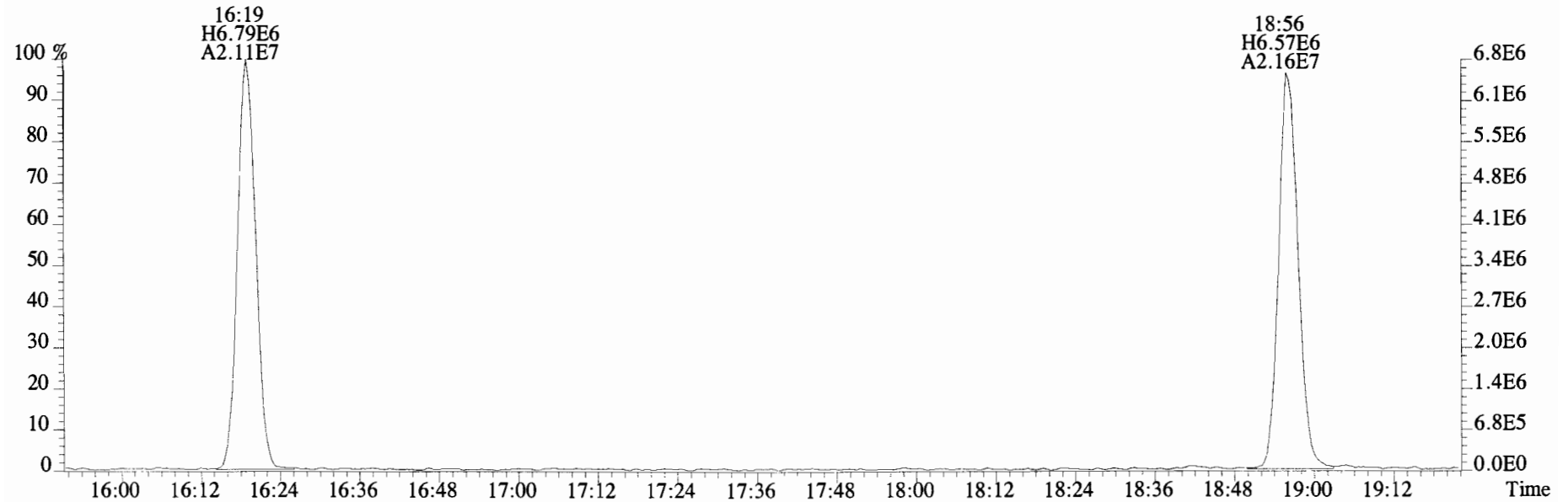
180.9880 S:2



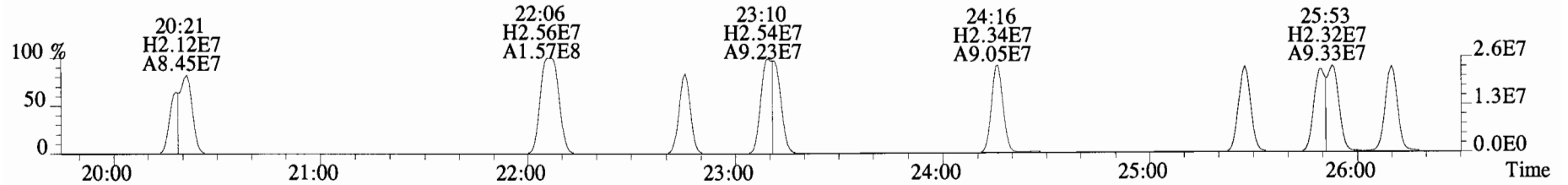
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Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
200.0795 S:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7724.0,0.00%,F,F)



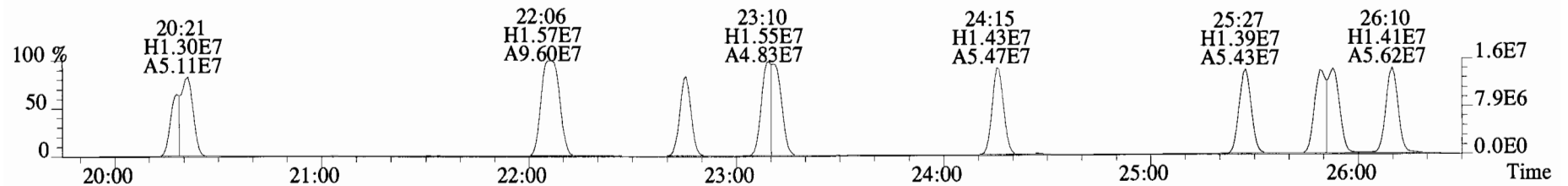
202.0766 S:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,49704.0,0.00%,F,F)



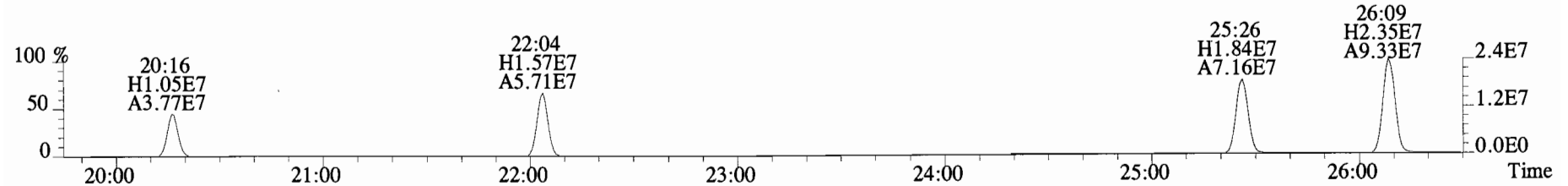
File:140919E1 #1-757 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
222.0003 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7336.0,0.00%,F,F)



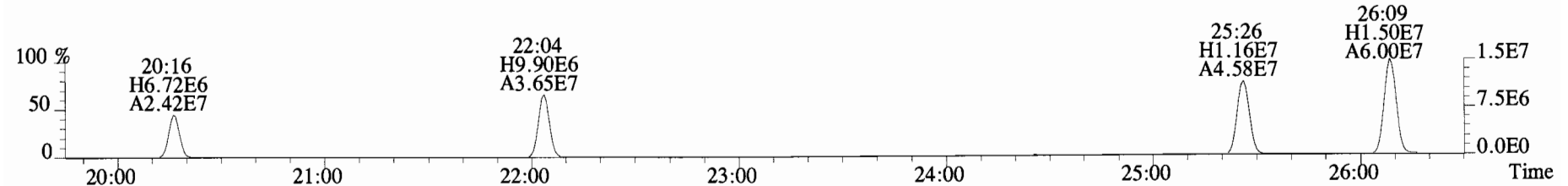
223.9974 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,46020.0,0.00%,F,F)



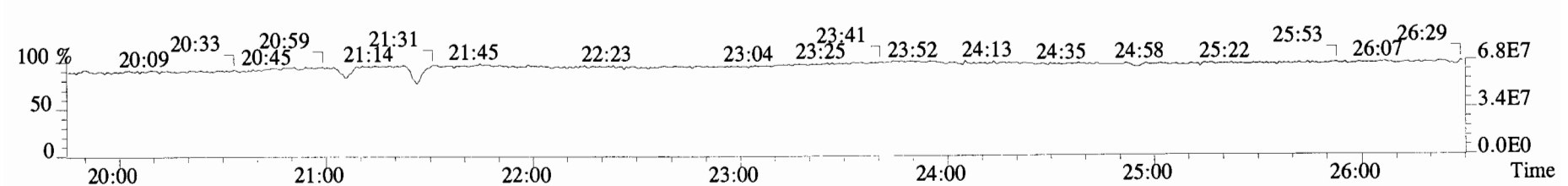
234.0406 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,4884.0,0.00%,F,F)



236.0376 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6356.0,0.00%,F,F)



230.9856 S:2 F:2



Client ID: OPR
Lab ID: B4I0047-BS1

Filename: 140919E1 S:2 Acq:19-SEP-14 10:37:25
GC Column ID: ZB-1 ICal: PCVBG8-6-20-14 wt/vol:1.0000

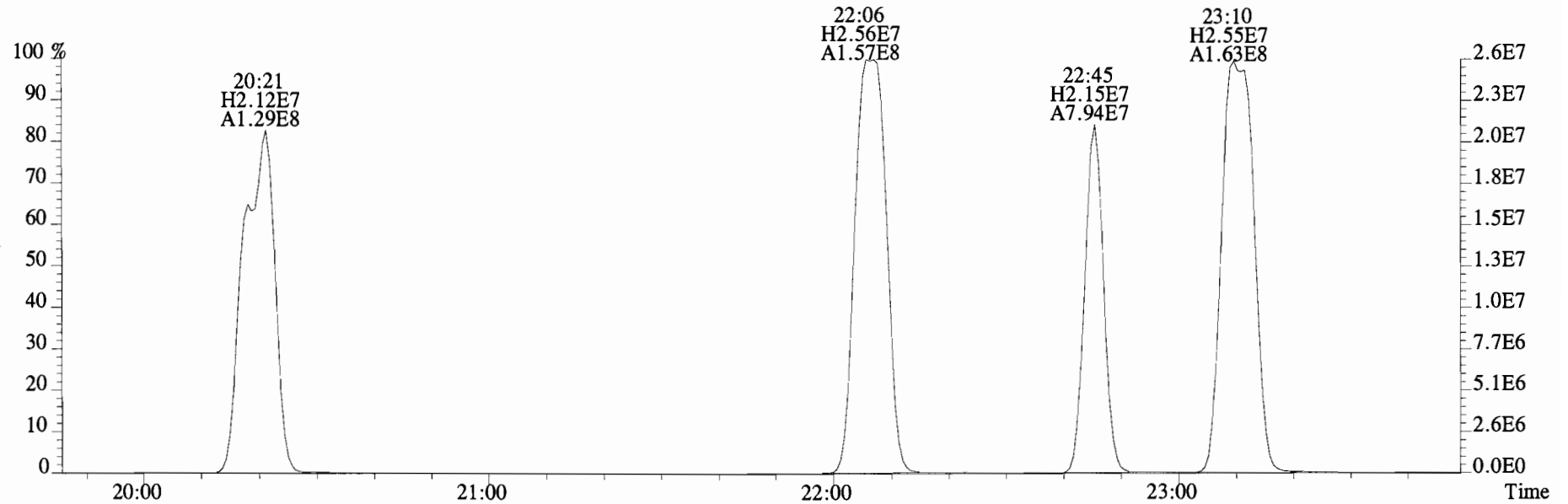
ConCal: ST140919E1-1
EndCAL: NA

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-3	9.77e+07	3.53	y	0.93	18:56	0.724	0.721-0.729	68.8	68.8		13C-PCB-79	1.27e+08	0.80	y	1.01	38:01	1.028	1.023-1.033	103	103
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-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-28	7.20e+07	1.06	y	0.89	29:18	1.004	0.999-1.009	83.1	83.1		13C-PCB-79	1.27e+08	0.80	y	1.20	38:01	0.969	0.963-0.973	118	118
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-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-54	9.32e+07	0.81	y	0.85	28:11	0.762	0.758-0.766	89.1	89.1											
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-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-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-101	6.67e+07	1.59	y	0.79	37:42	0.956	0.951-0.961	86.5	86.5		Name	Resp	RA	RRF	RT	Conc				
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-15	1.53e+08	1.56	y	1.00	26:09	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-31	9.76e+07	1.07	y	1.00	29:11	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-60	1.23e+08	0.80	y	1.00	36:58	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-111	9.82e+07	1.60	y	1.00	39:26	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-128	8.22e+07	1.31	y	1.00	46:33	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			
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-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-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-157	9.38e+07	1.34	y	1.31	48:31	1.042	1.037-1.047	87.0	87.0											
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-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-180	5.22e+07	0.46	y	0.67	49:32	1.064	1.059-1.069	94.2	94.2											
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-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-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-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											

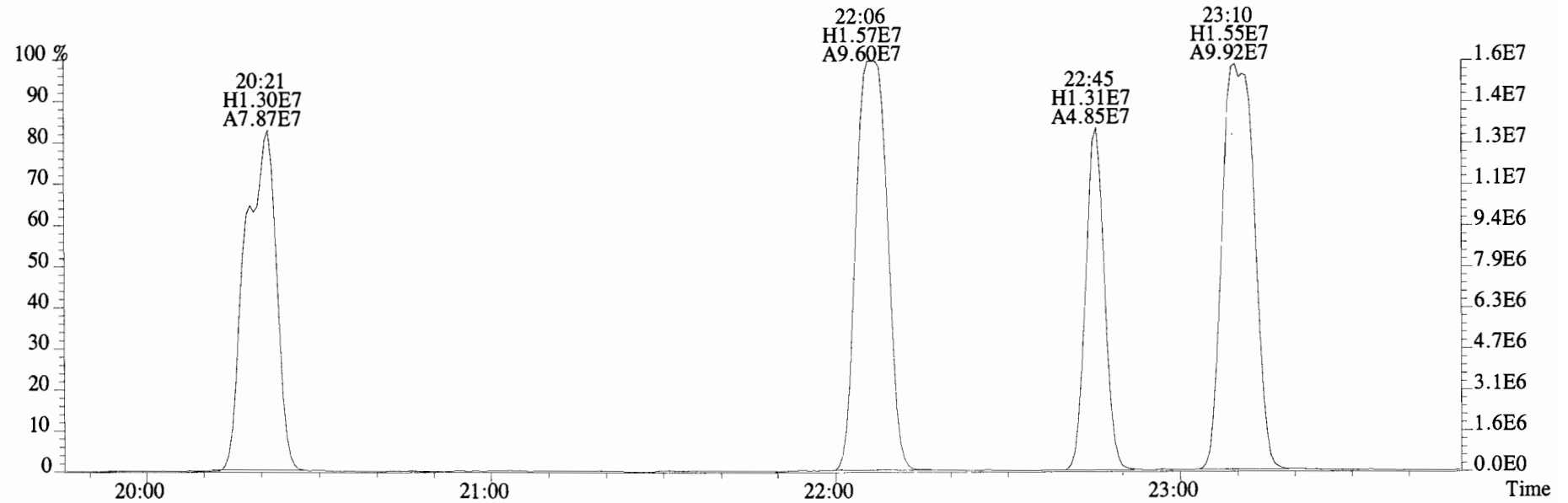
Analyst: _____

Date: _____

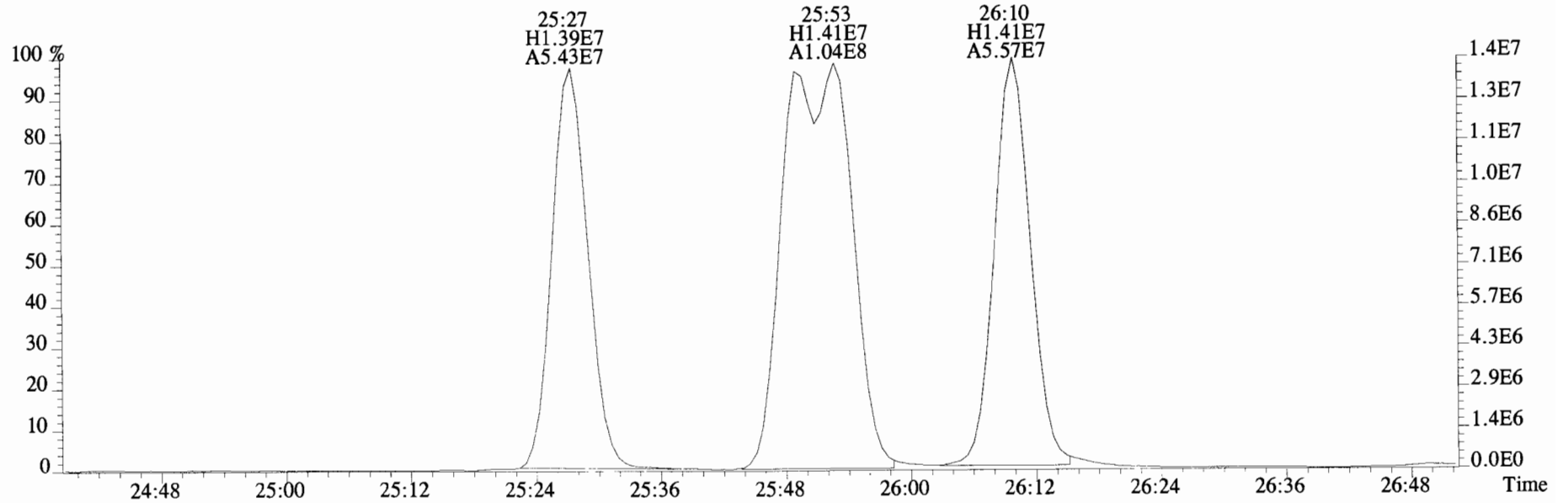
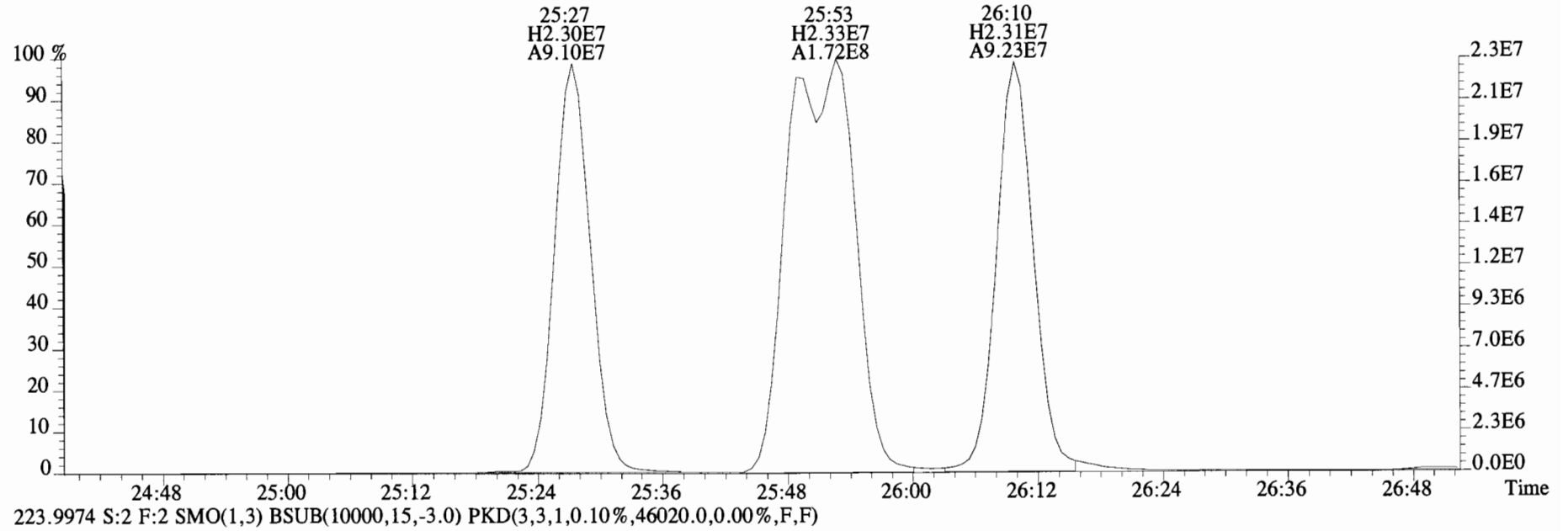
File:140919E1 #1-757 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
222.0003 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7336.0,0.00%,F,F)



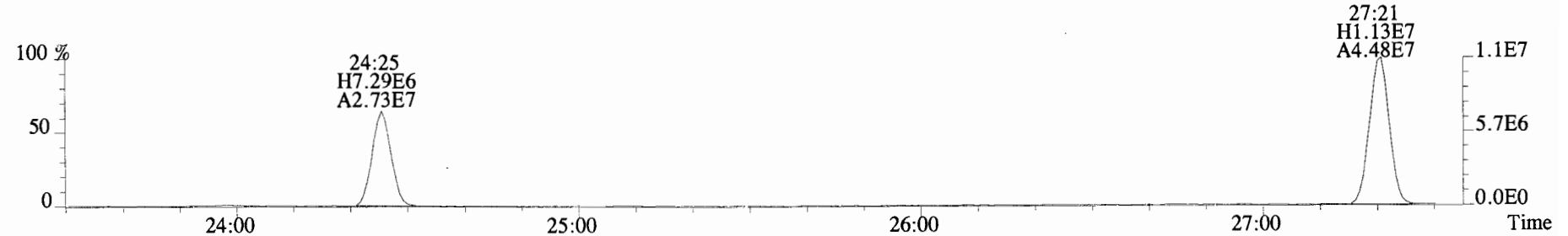
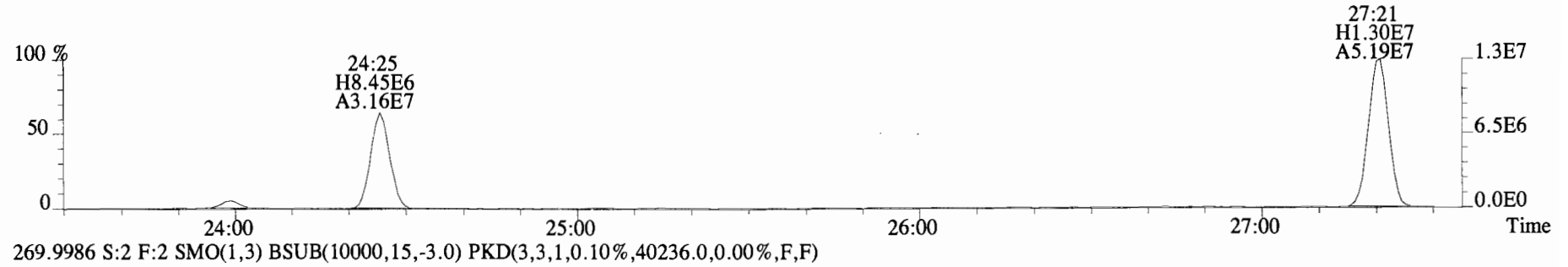
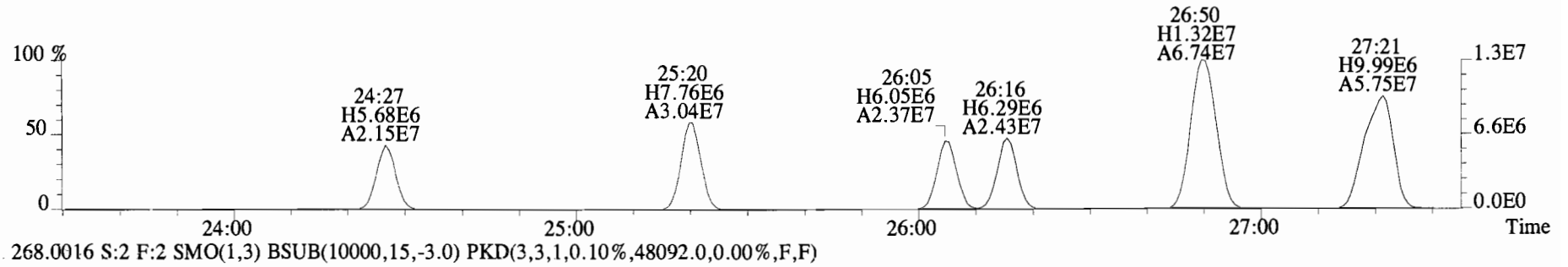
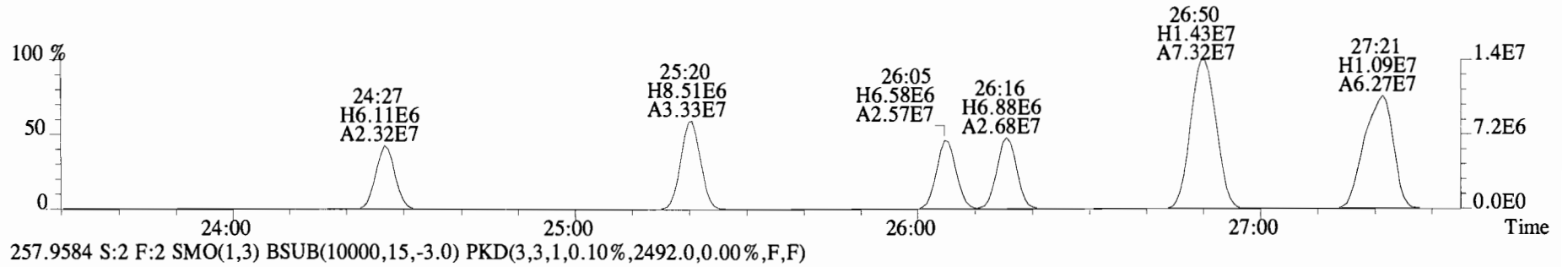
223.9974 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,46020.0,0.00%,F,F)



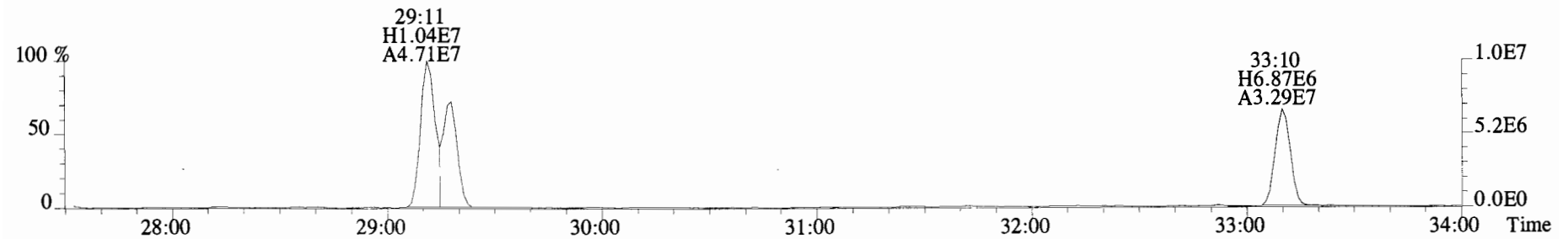
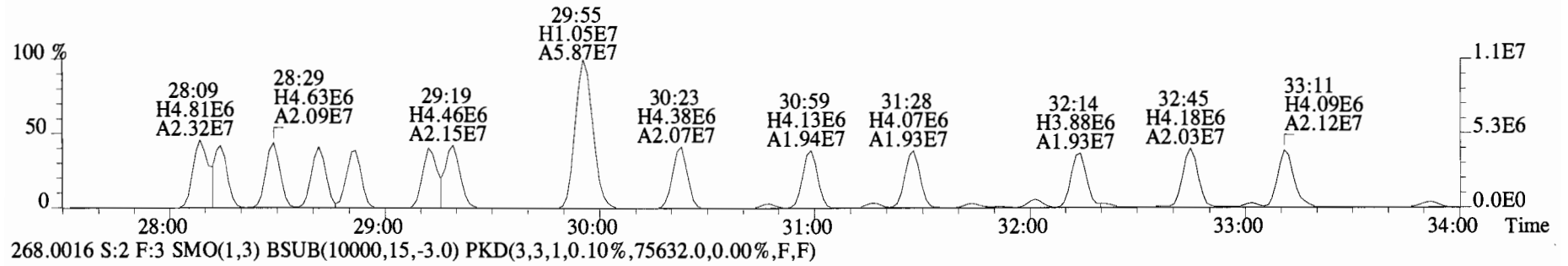
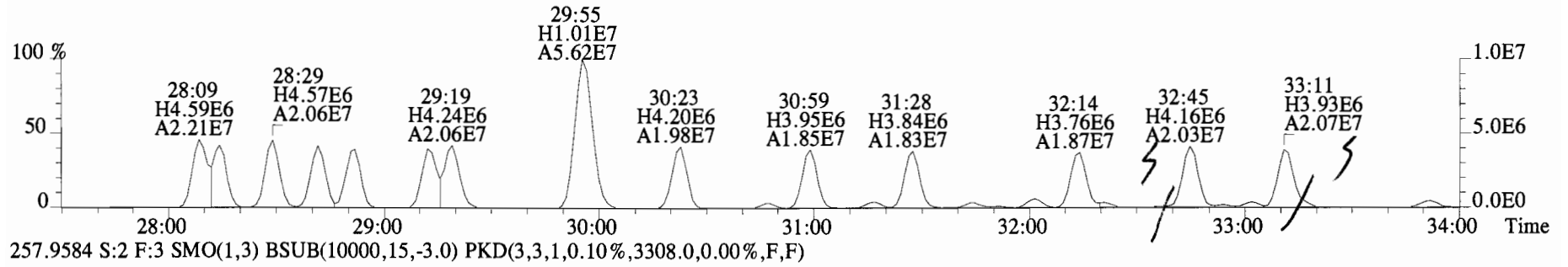
File:140919E1 #1-757 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B410047-BS1 OPR 1 Exp:PCB_ZB1
222.0003 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7336.0,0.00%,F,F)



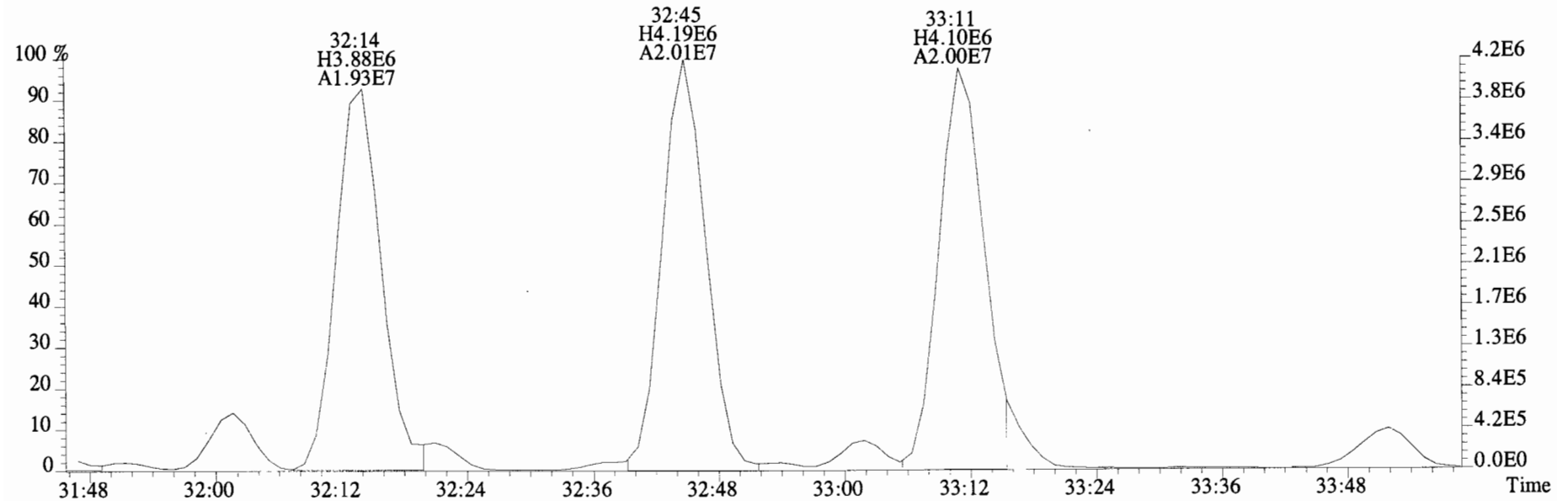
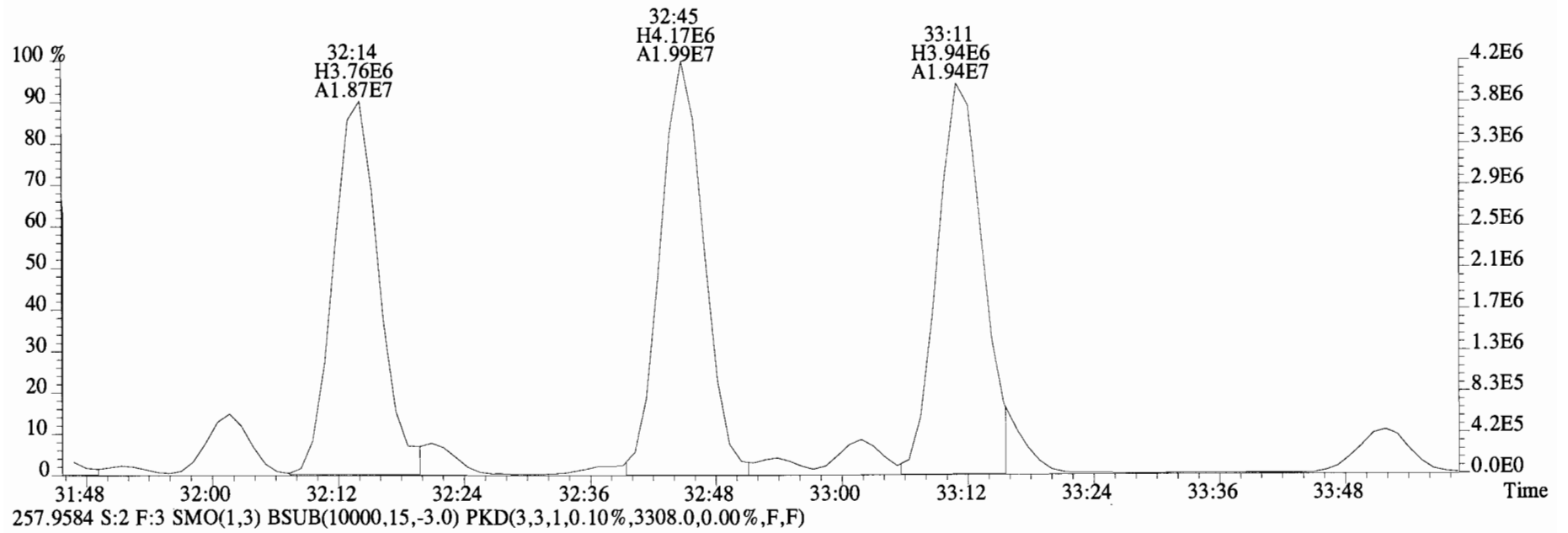
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
255.9613 S:2 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5648.0,0.00%,F,F)



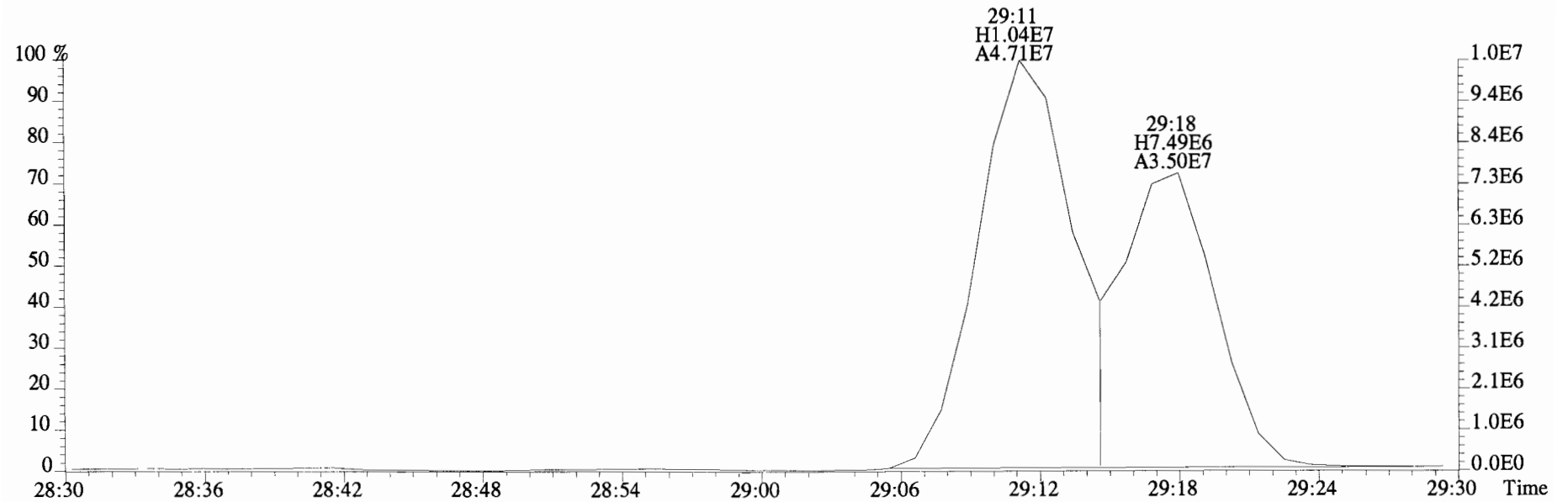
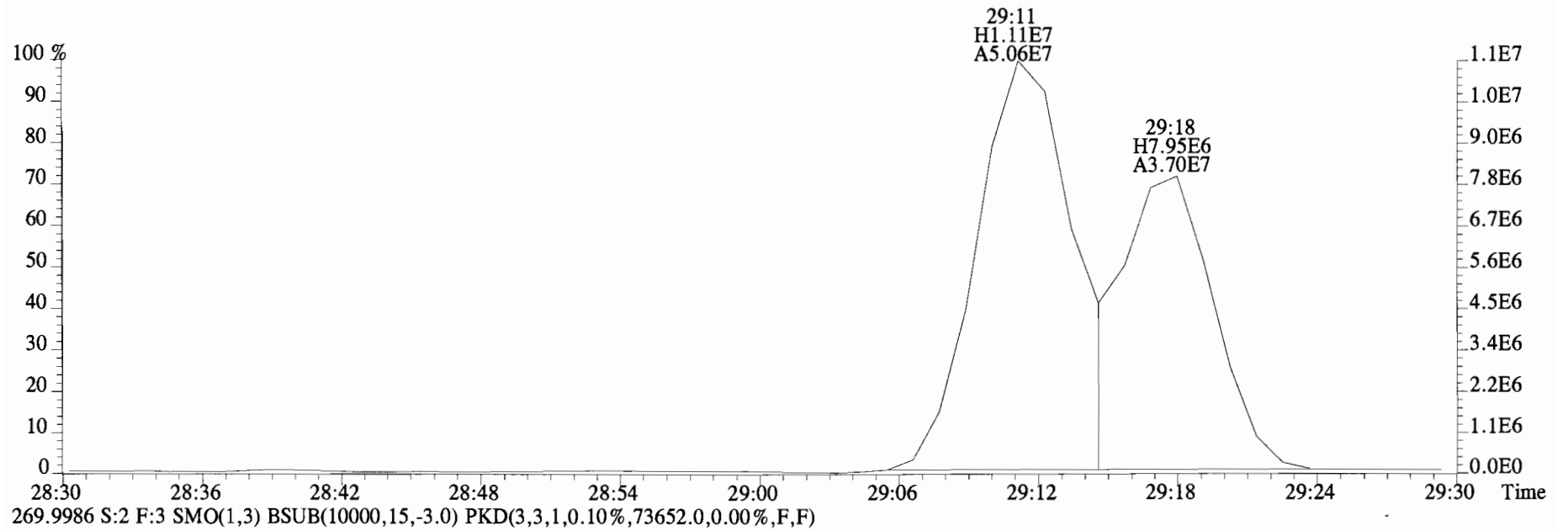
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B410047-BS1 OPR 1 Exp:PCB_ZB1
255.9613 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5704.0,0.00%,F,F)



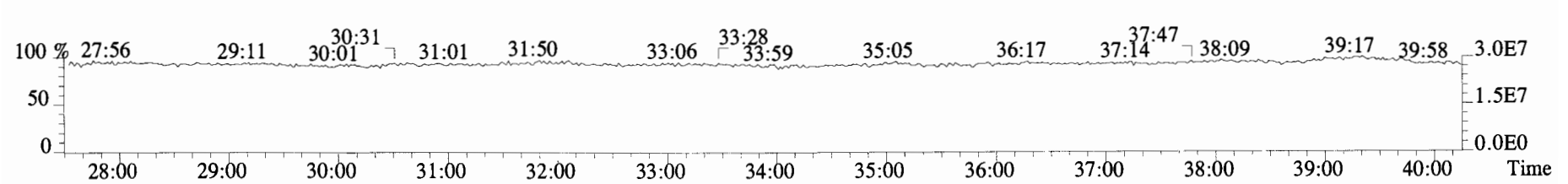
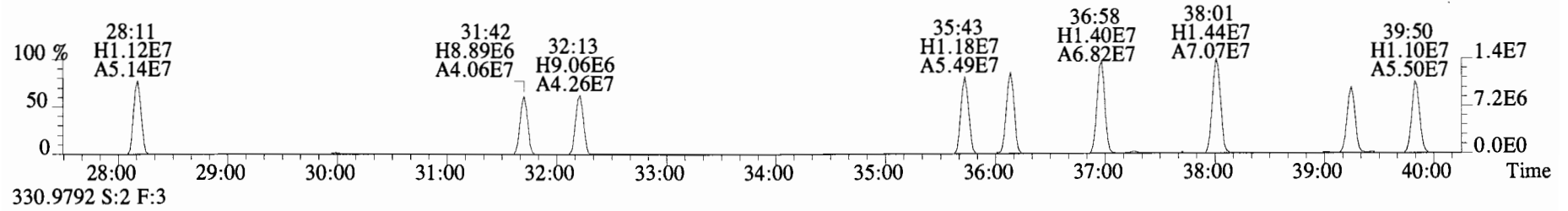
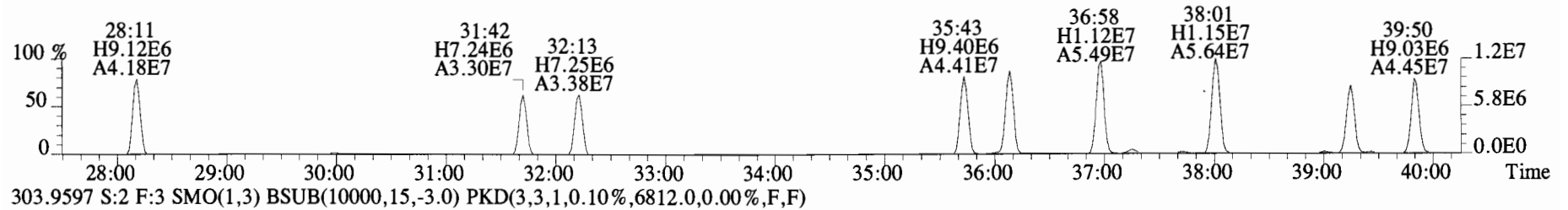
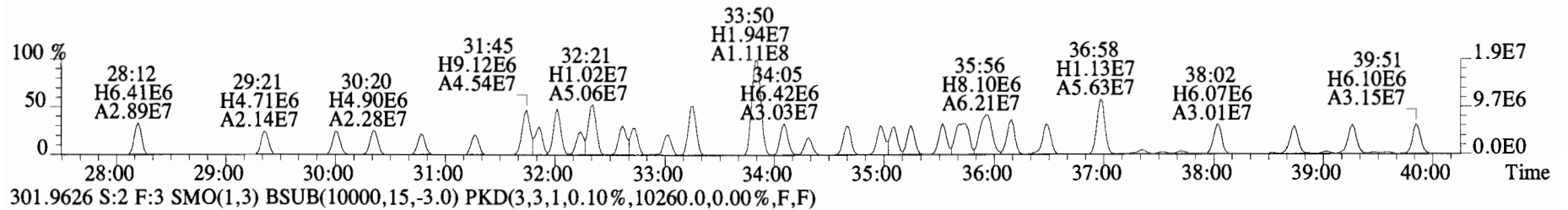
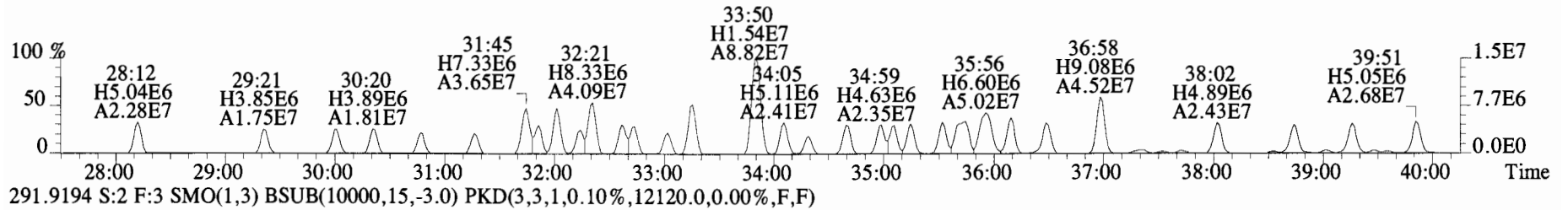
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Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
255.9613 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5704.0,0.00%,F,F)



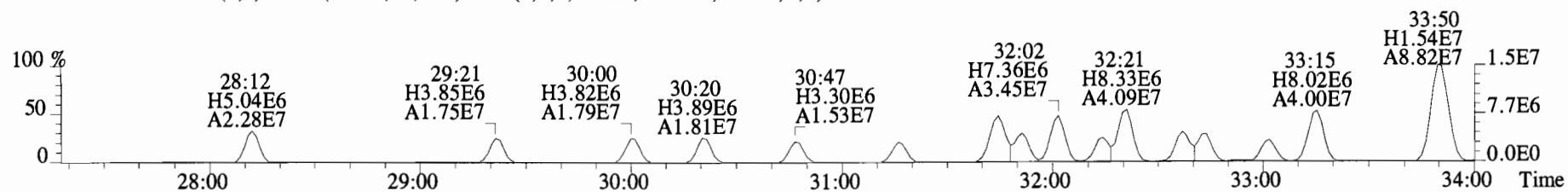
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
268.0016 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,75632.0,0.00%,F,F)



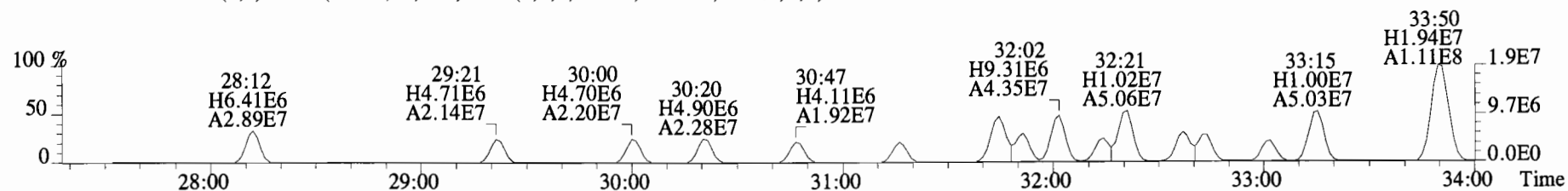
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
289.9224 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10372.0,0.00%,F,F)



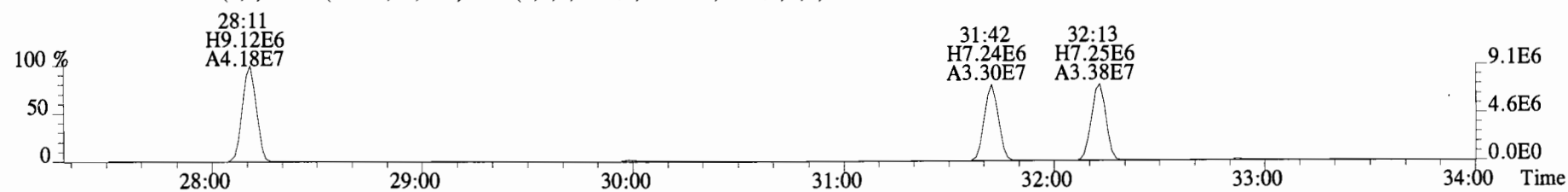
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 Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 289.9224 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10372.0,0.00%,F,F)



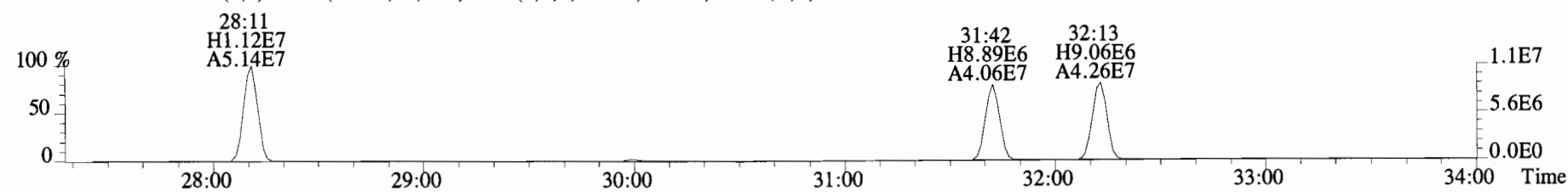
291.9194 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12120.0,0.00%,F,F)



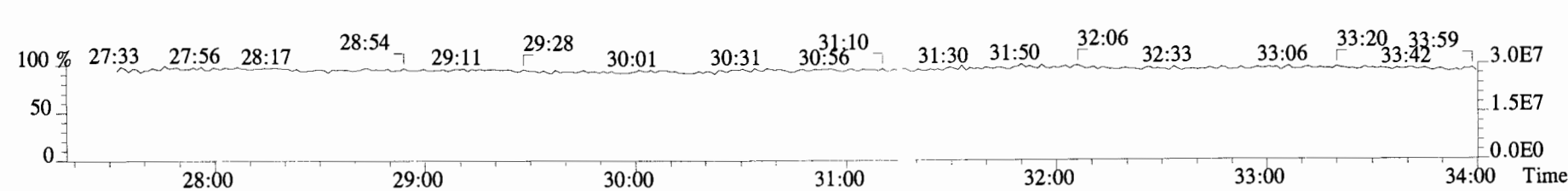
301.9626 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10260.0,0.00%,F,F)



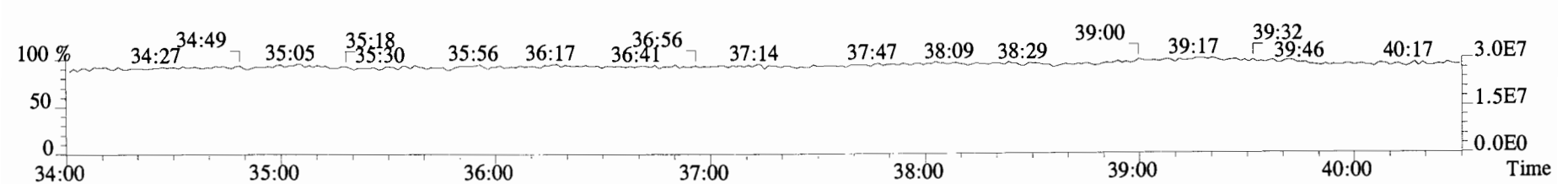
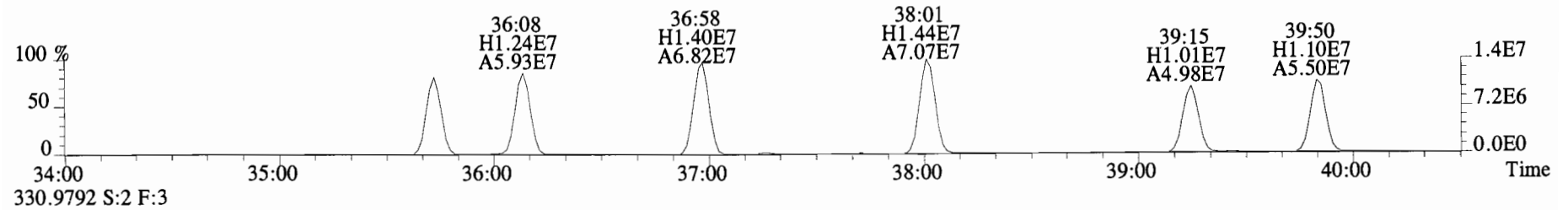
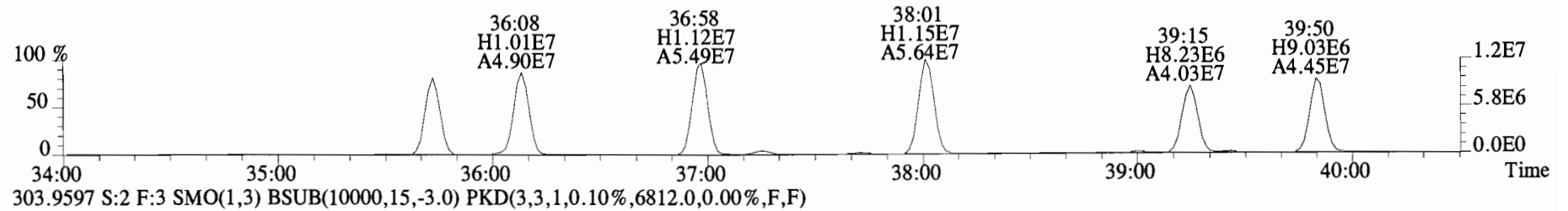
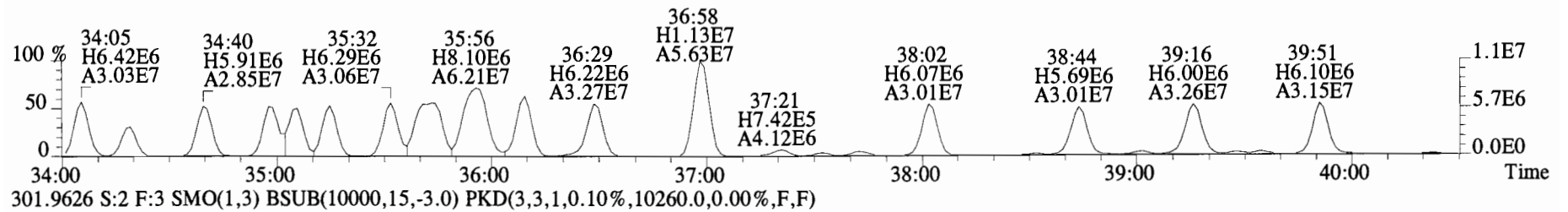
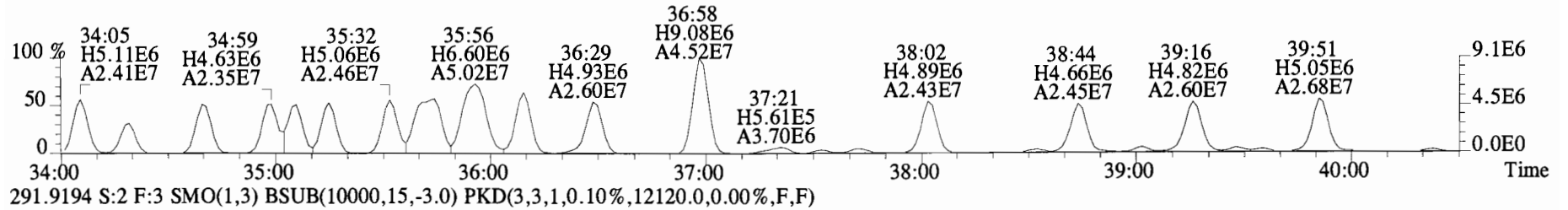
303.9597 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6812.0,0.00%,F,F)



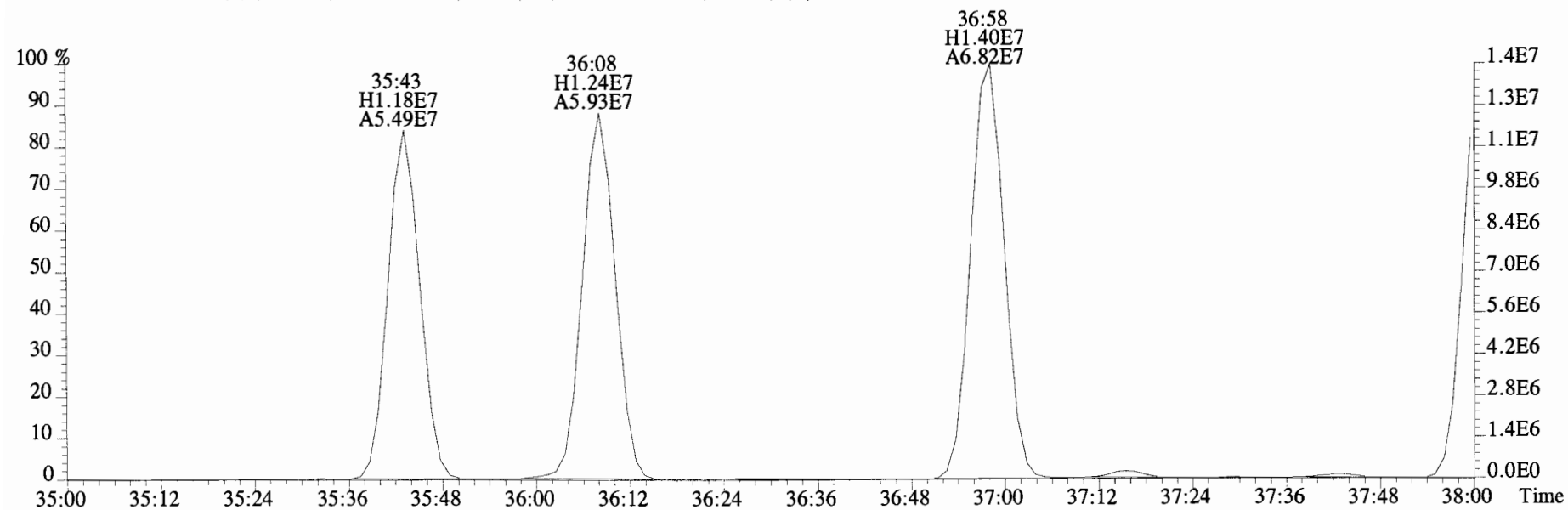
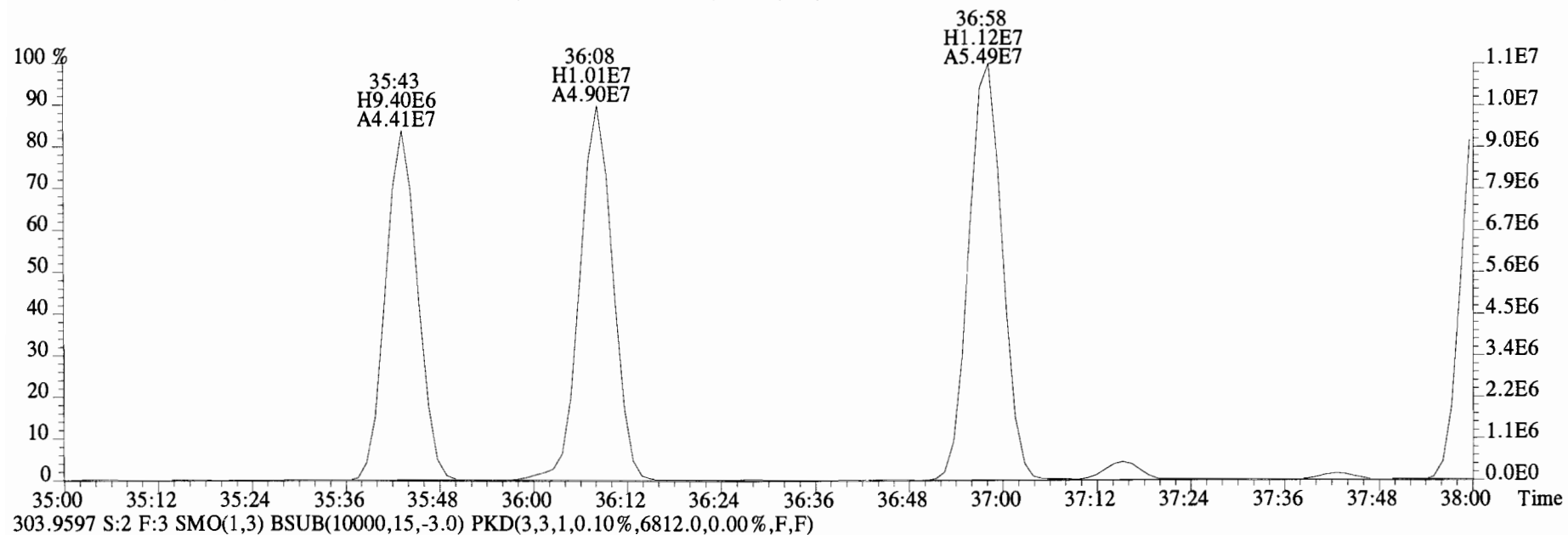
330.9792 S:2 F:3



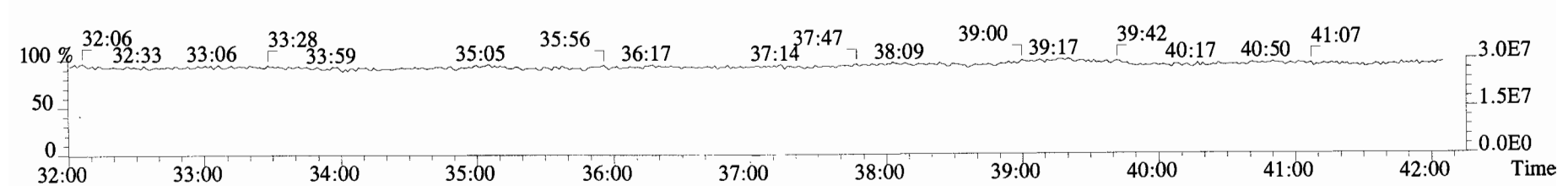
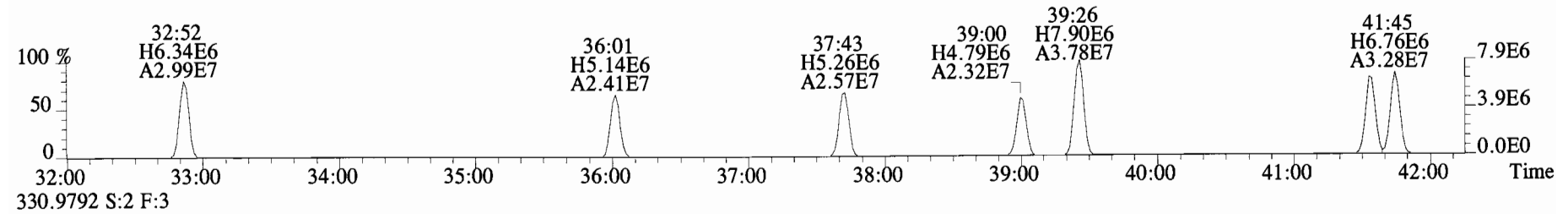
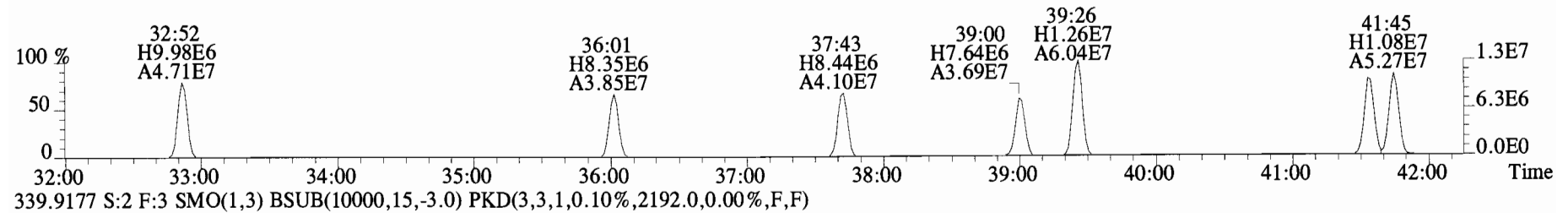
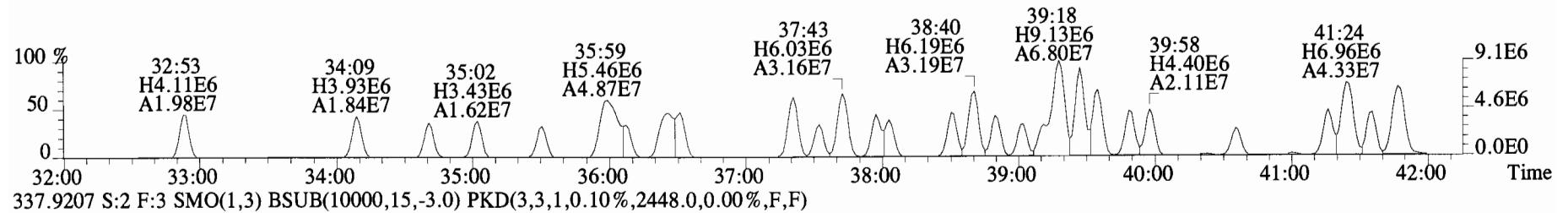
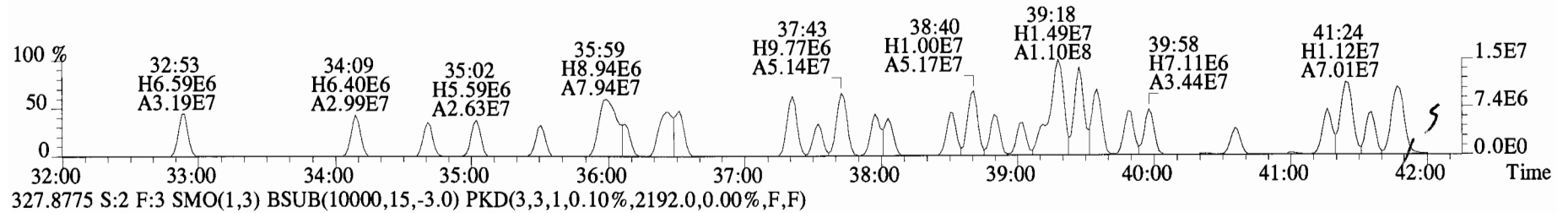
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 289.9224 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10372.0,0.00%,F,F)



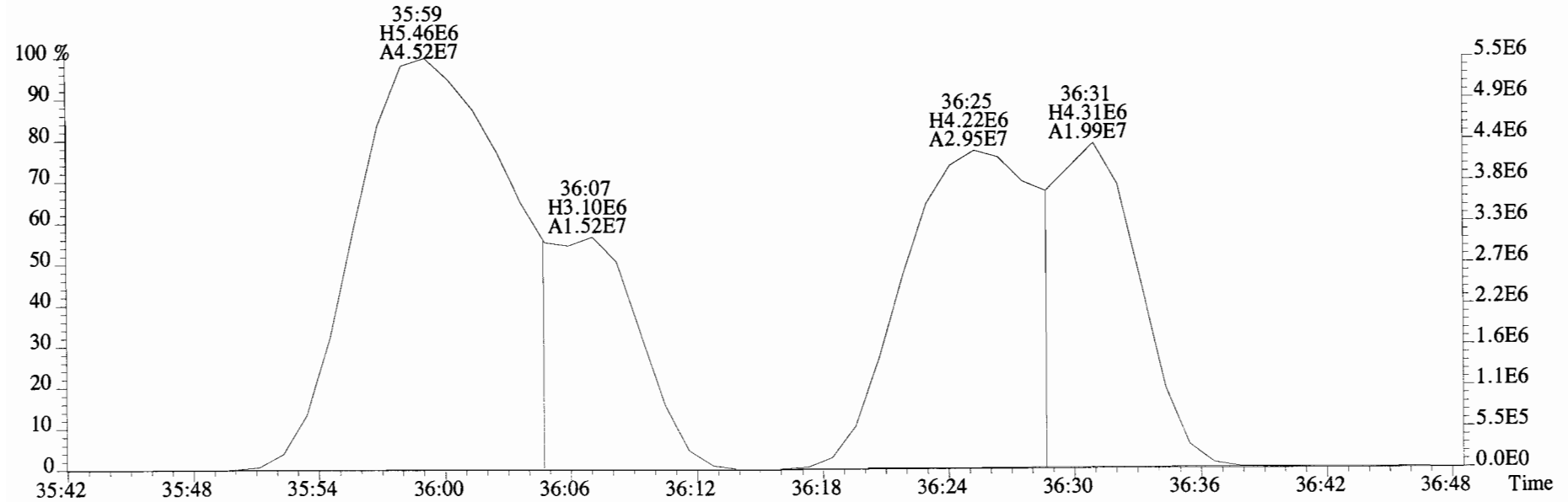
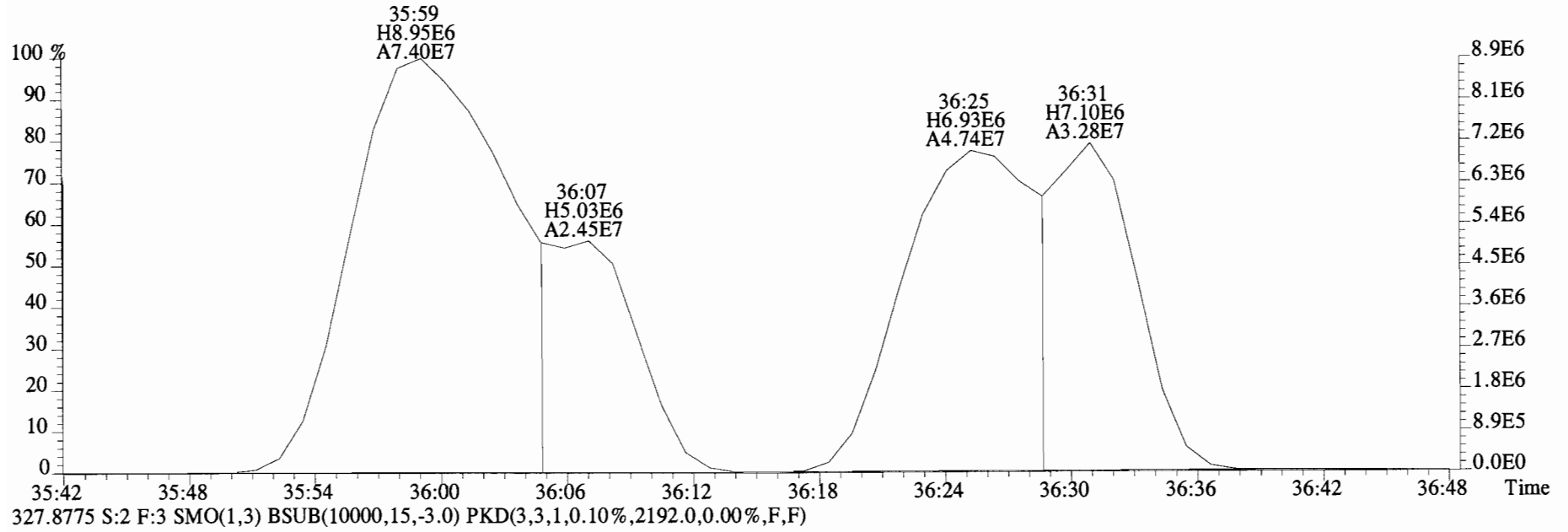
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-8 Text: B4I0047-BS1 OPR 1 Exp: PCB_ZB1
301.9626 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10260.0,0.00%,F,F)



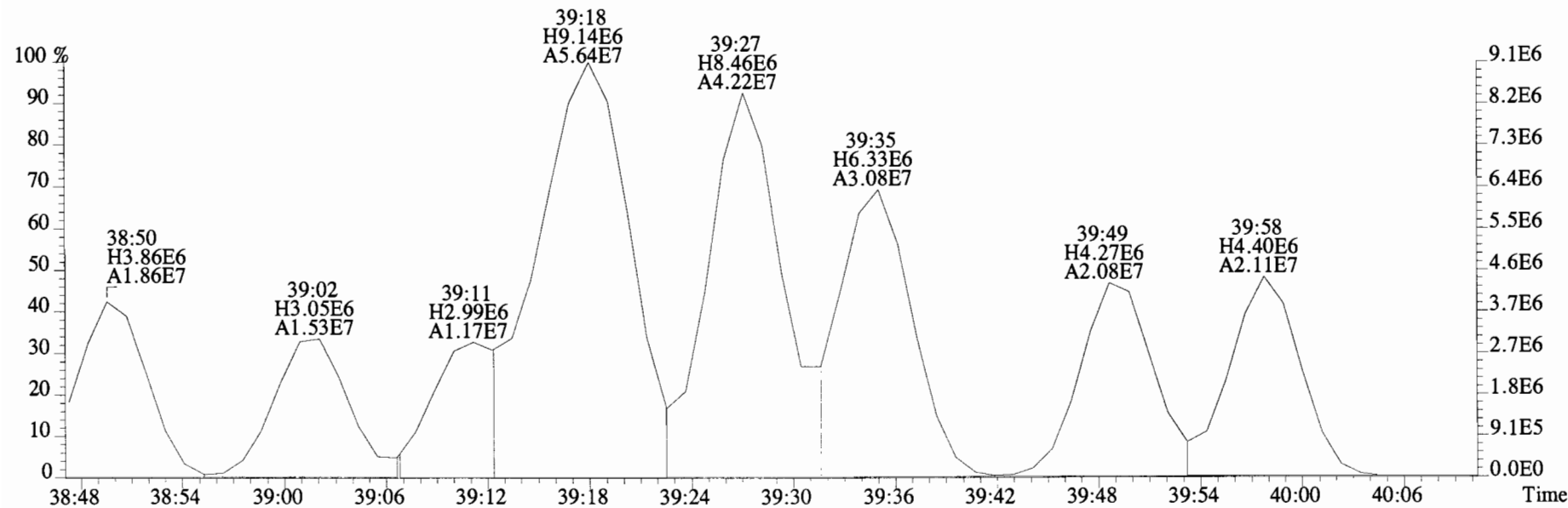
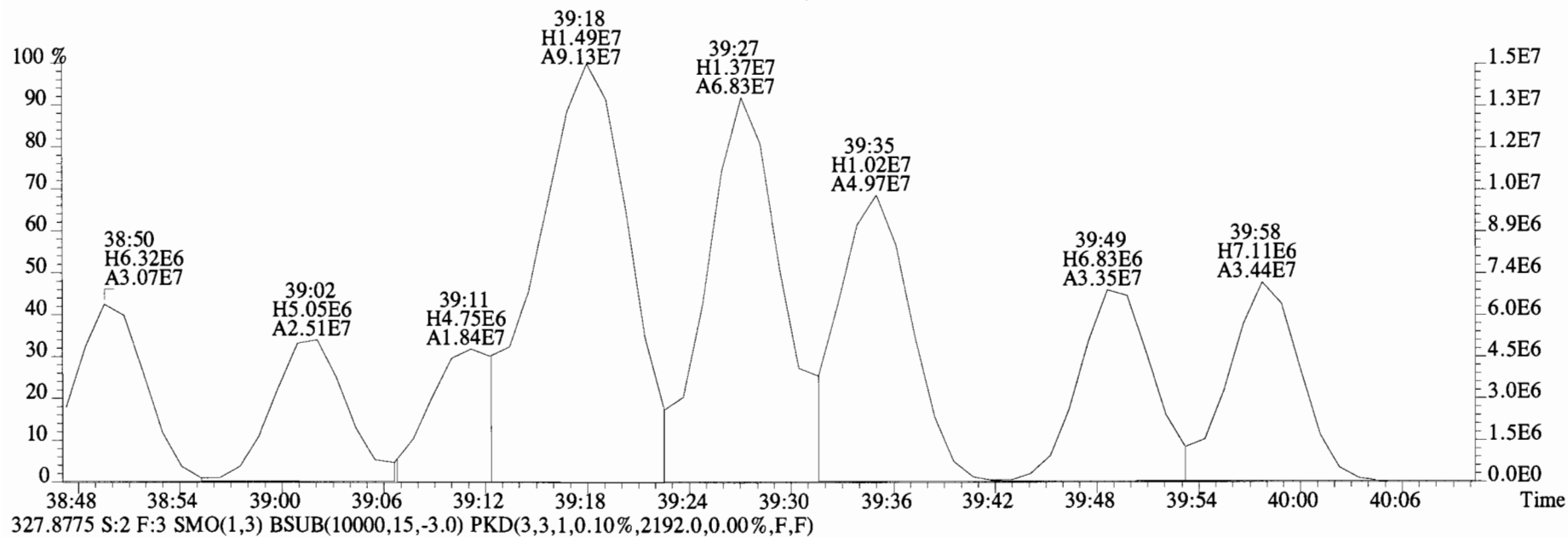
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
325.8804 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2568.0,0.00%,F,F)



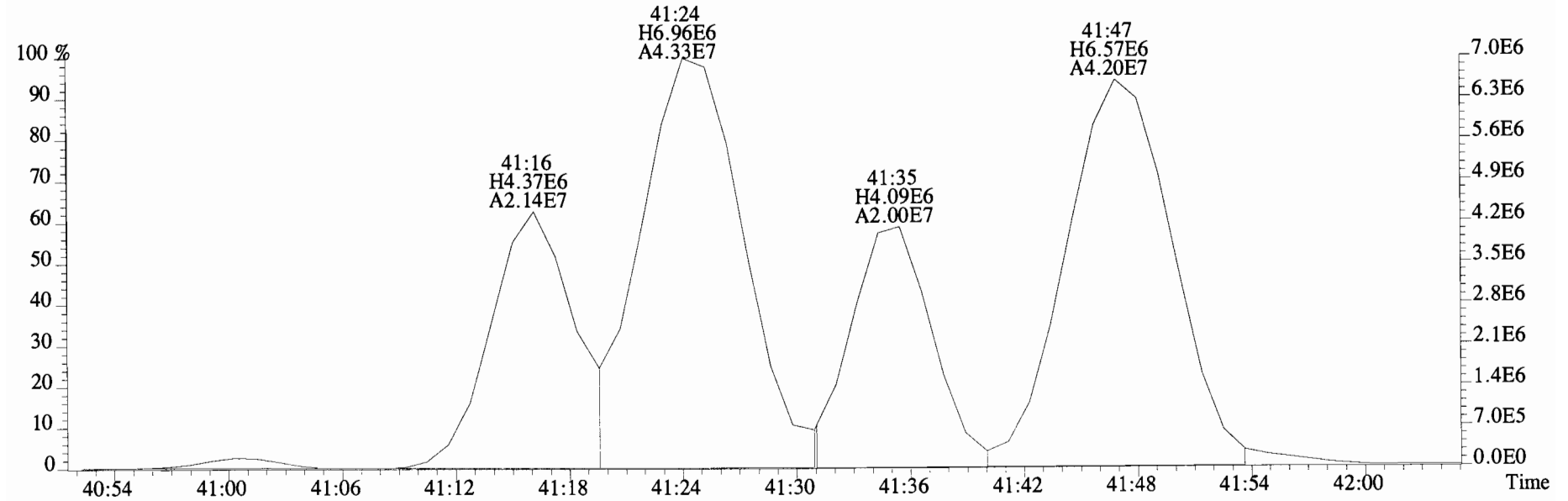
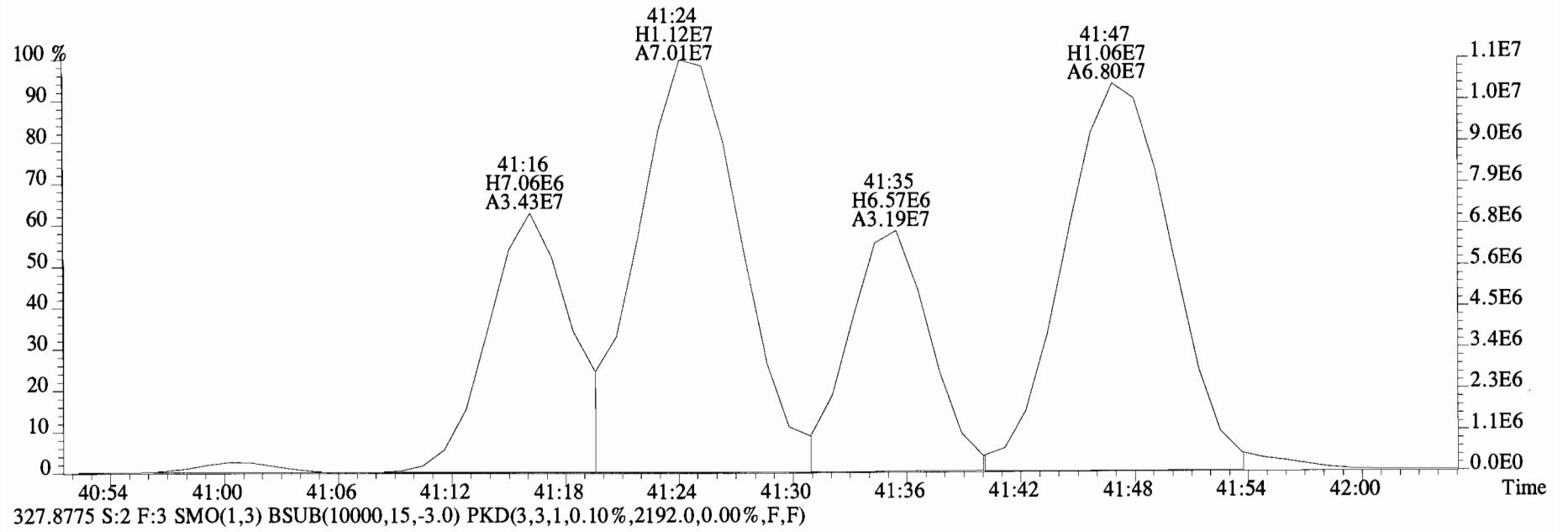
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B410047-BS1 OPR 1 Exp:PCB_ZB1
325.8804 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2568.0,0.00%,F,F)



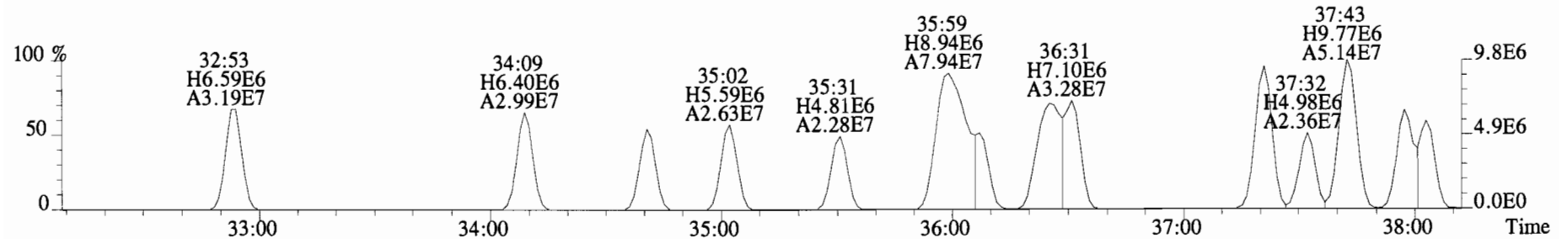
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 Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 325.8804 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2568.0,0.00%,F,F)



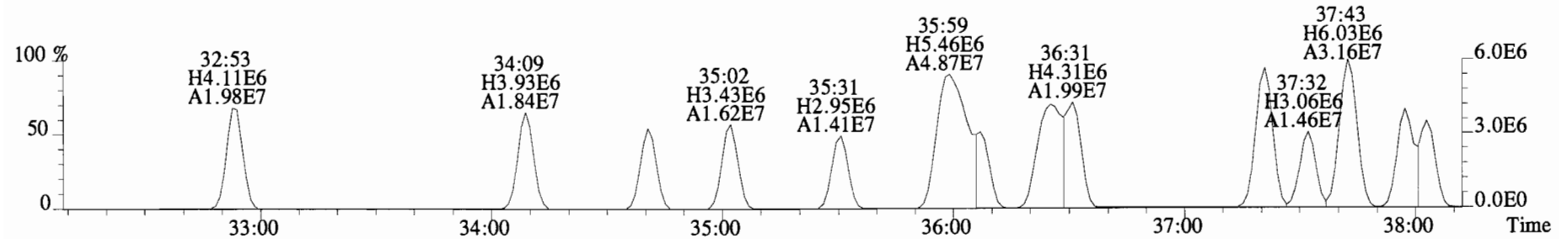
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
325.8804 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2568.0,0.00%,F,F)



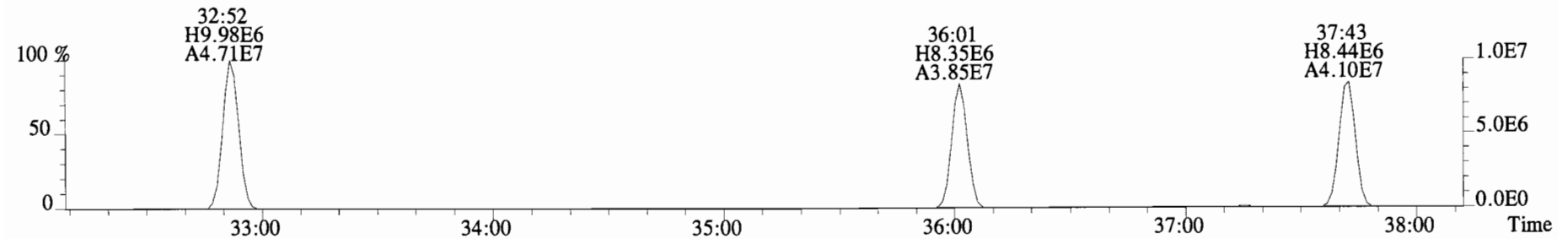
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
325.8804 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2568.0,0.00%,F,F)



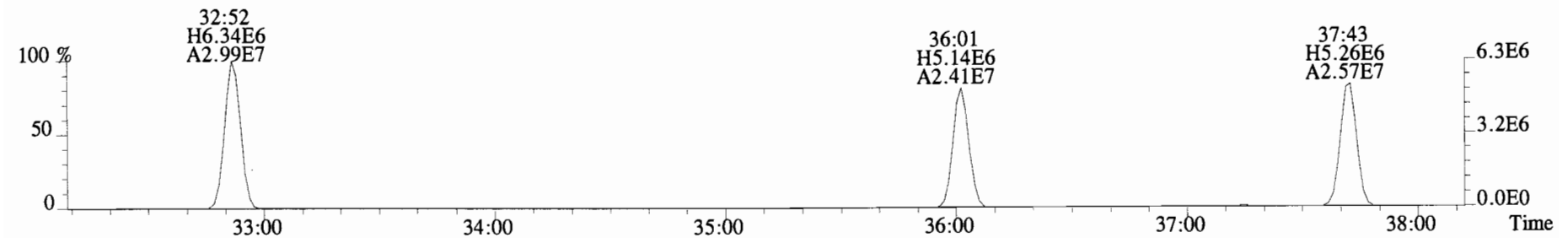
327.8775 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2192.0,0.00%,F,F)



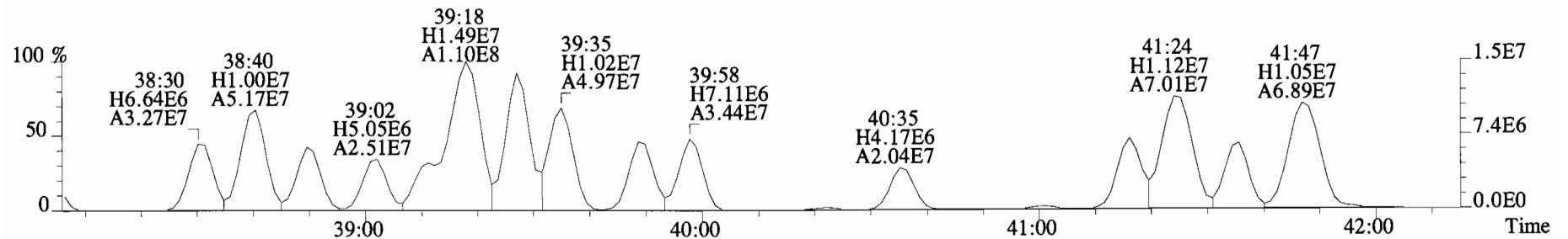
337.9207 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2448.0,0.00%,F,F)



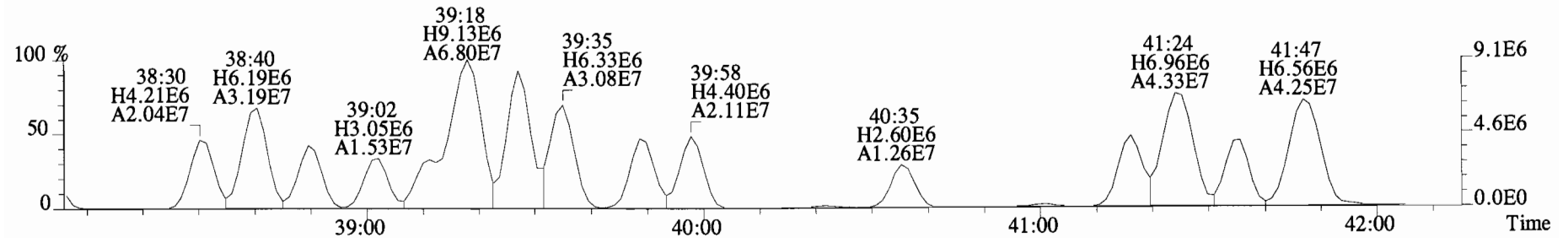
339.9177 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2192.0,0.00%,F,F)



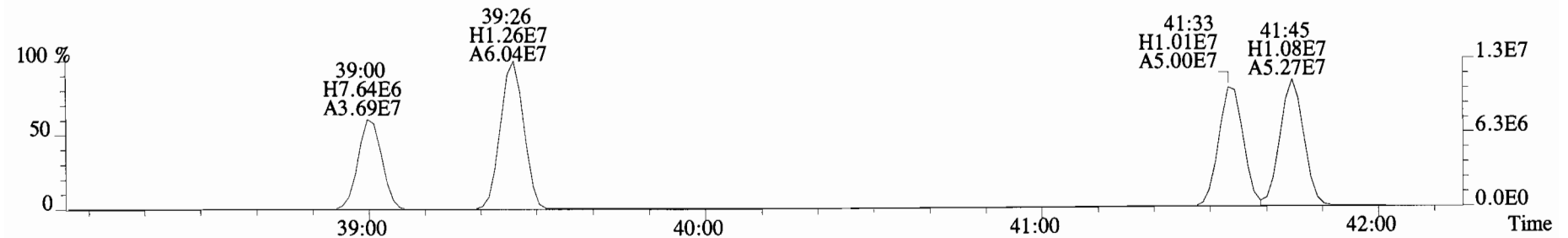
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
325.8804 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2568.0,0.00%,F,F)



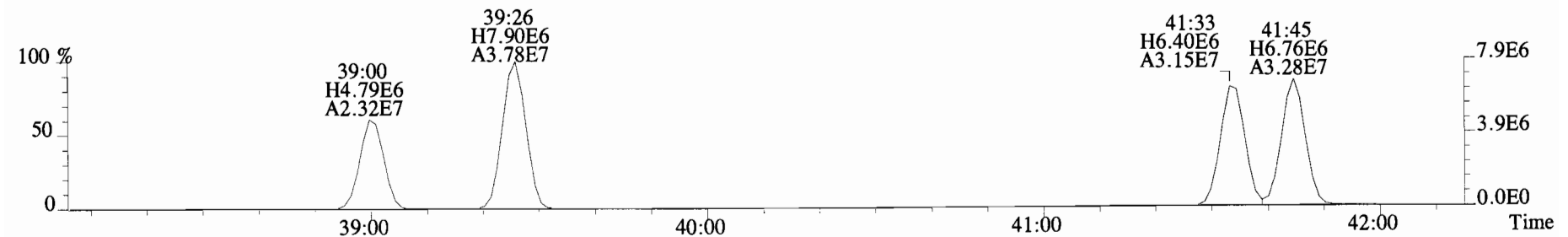
327.8775 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2192.0,0.00%,F,F)



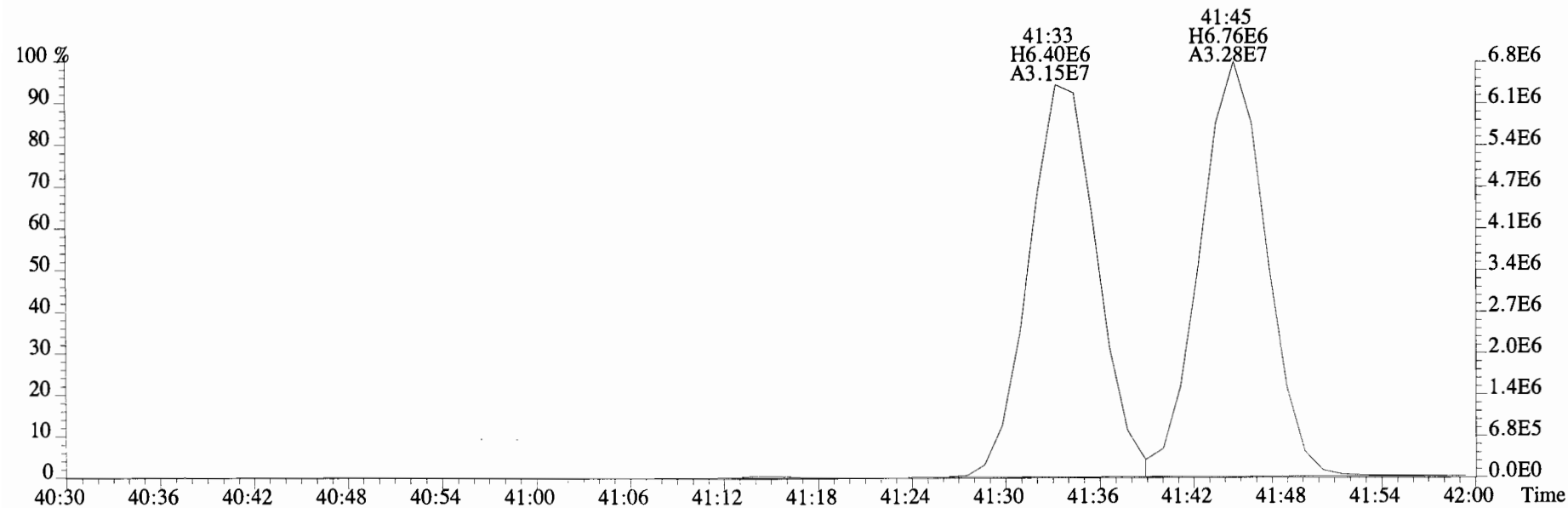
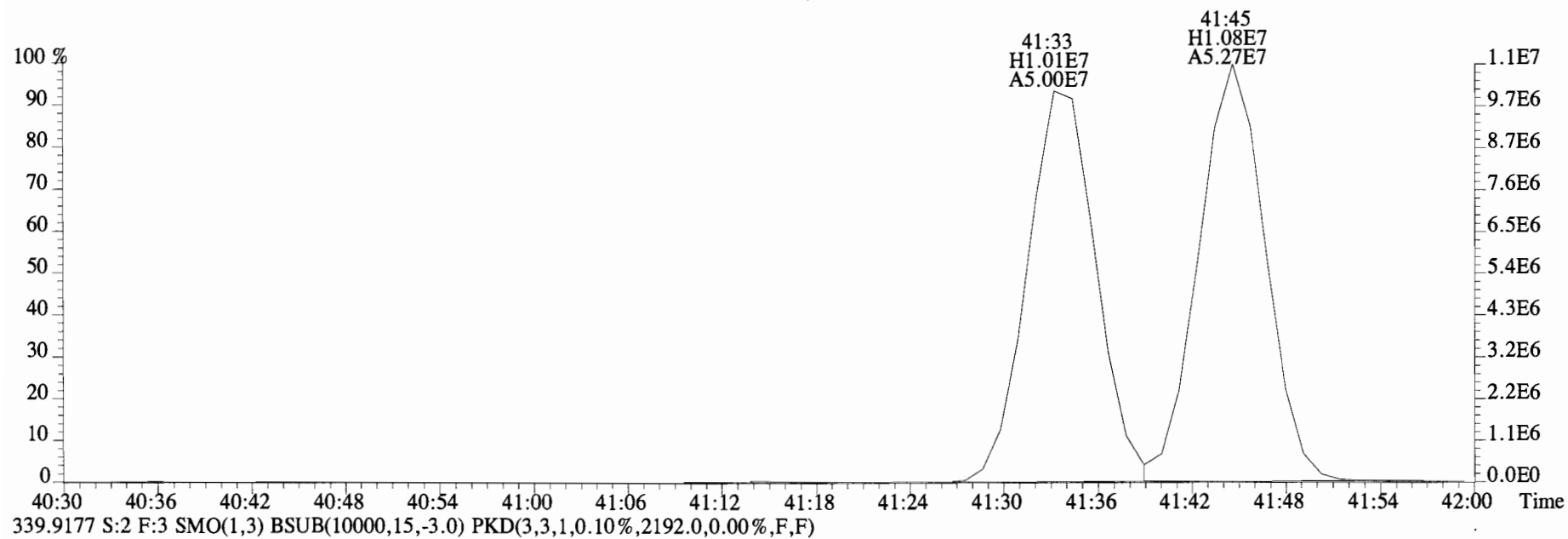
337.9207 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2448.0,0.00%,F,F)



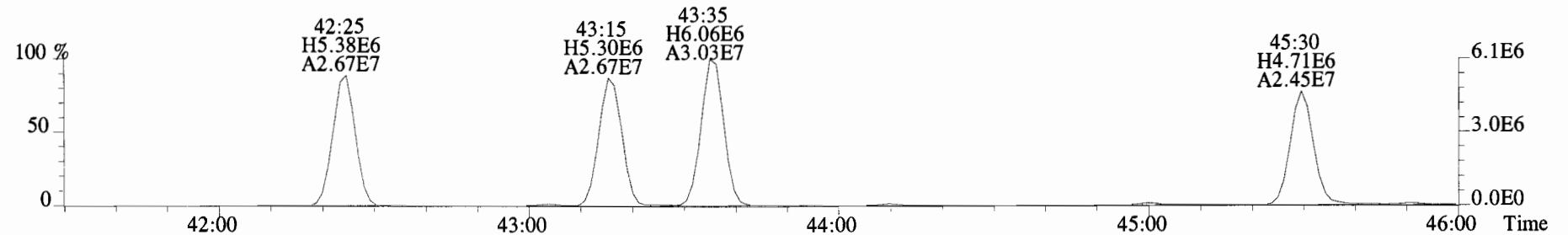
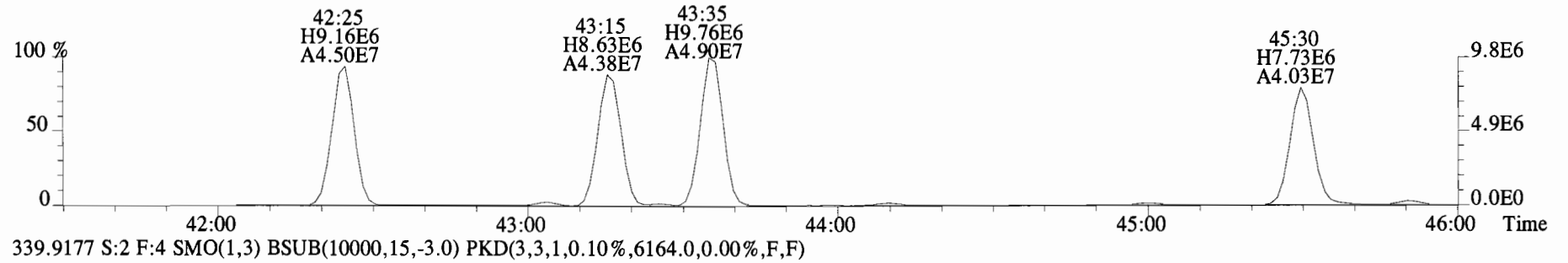
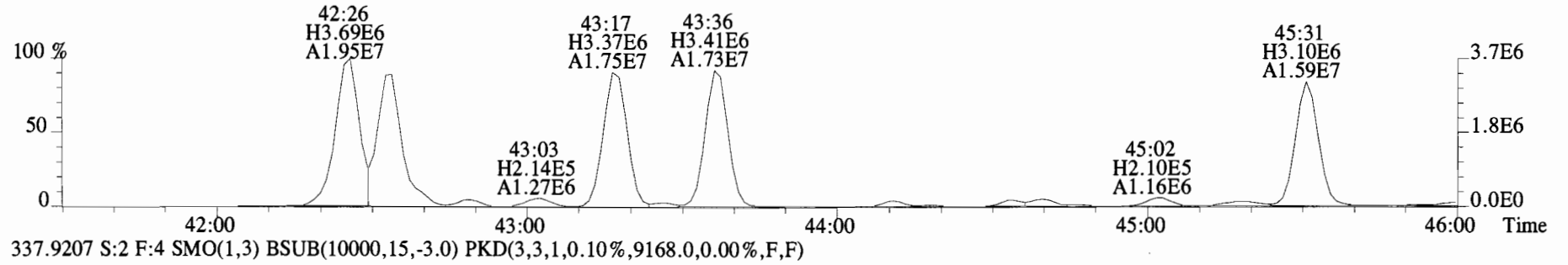
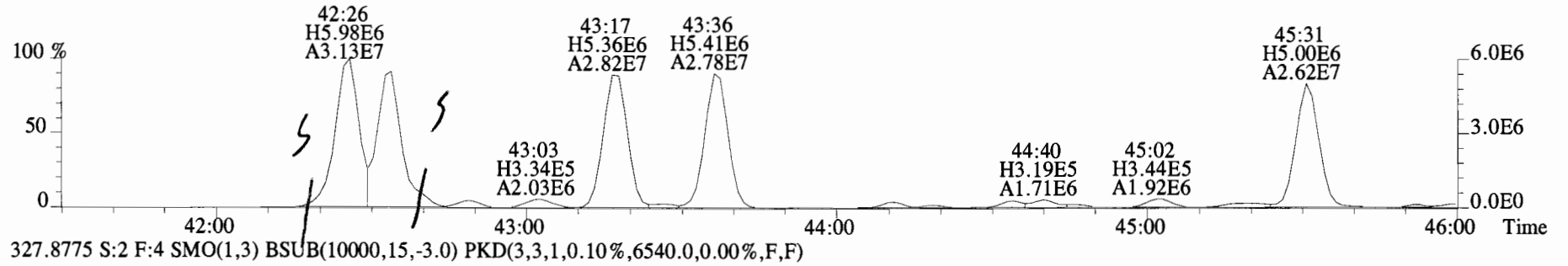
339.9177 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2192.0,0.00%,F,F)



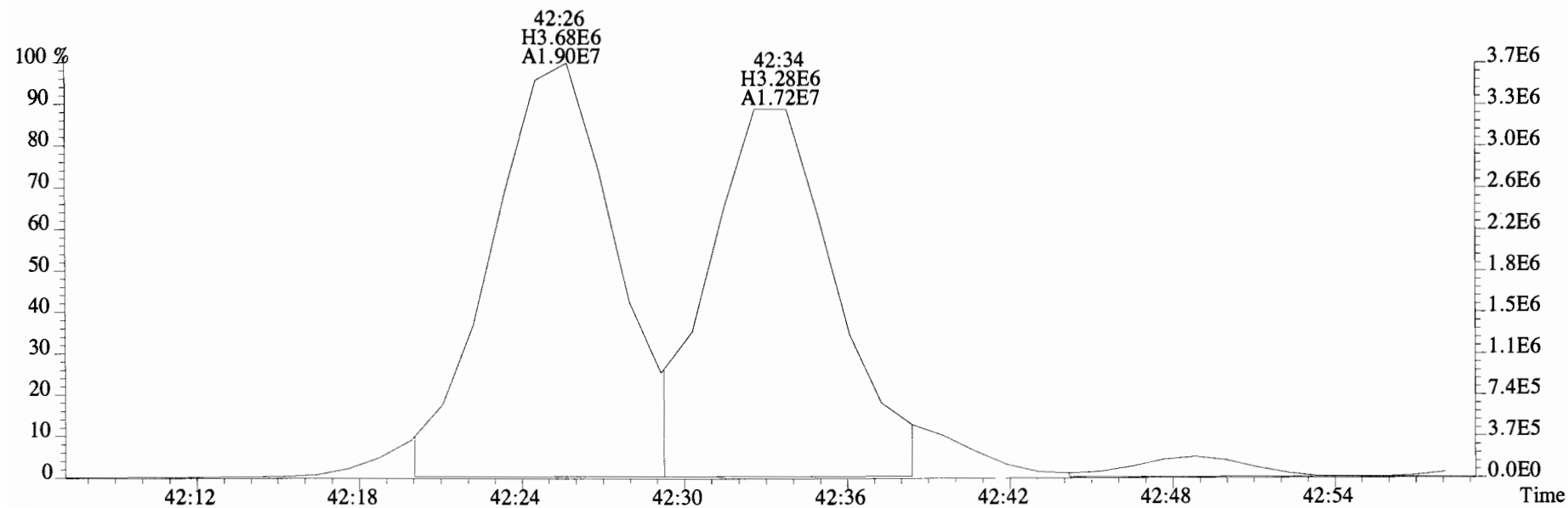
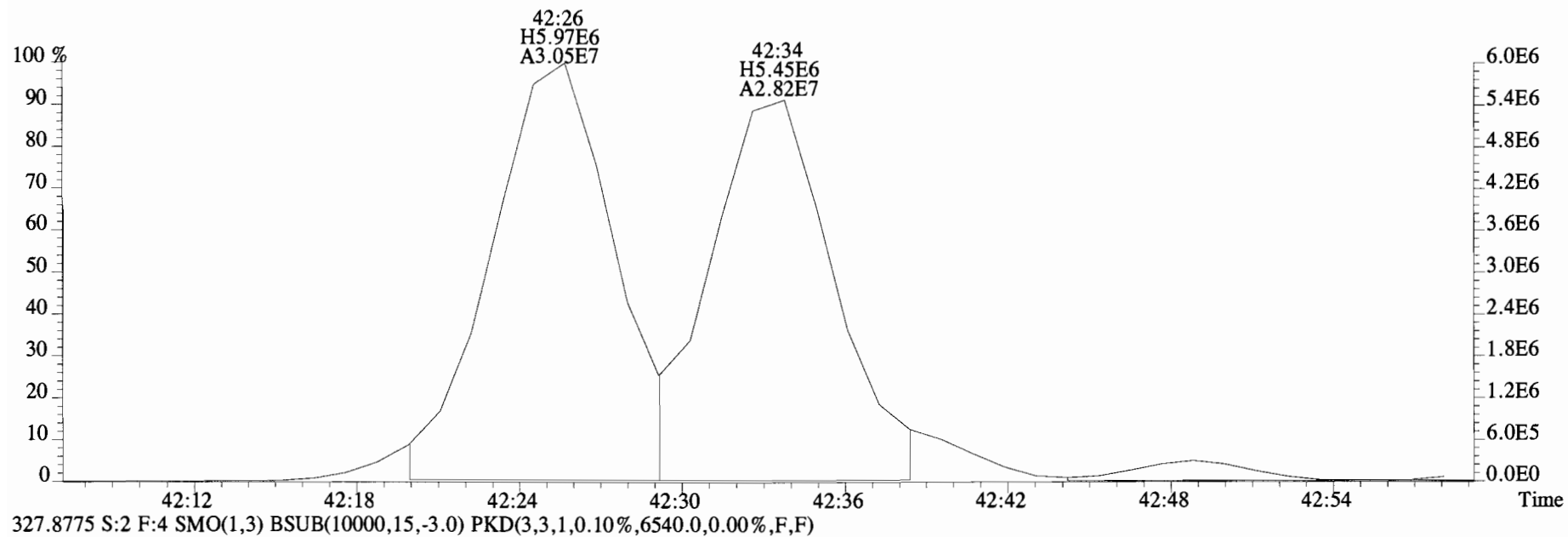
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
337.9207 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2448.0,0.00%,F,F)



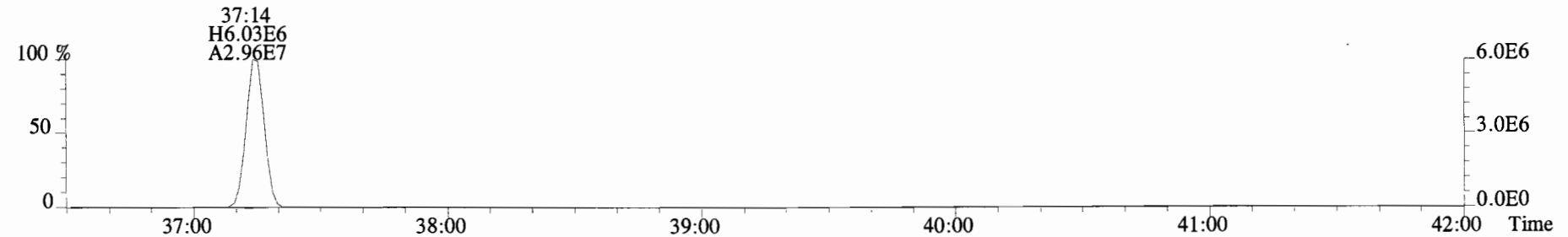
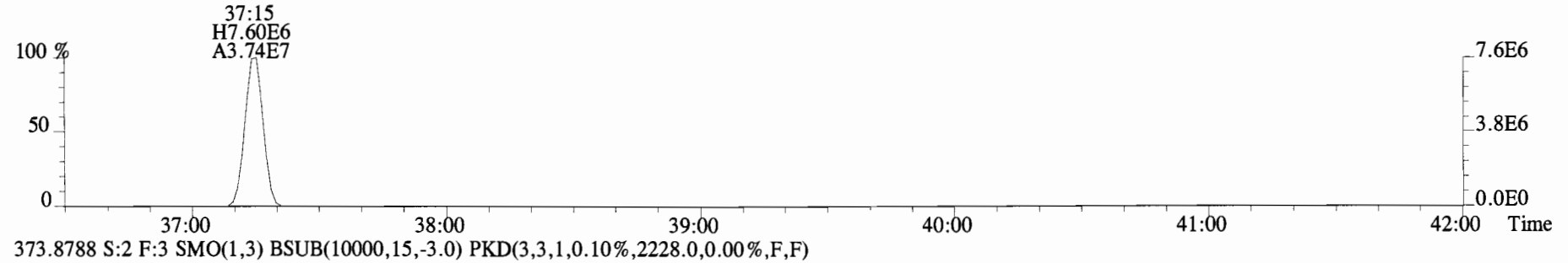
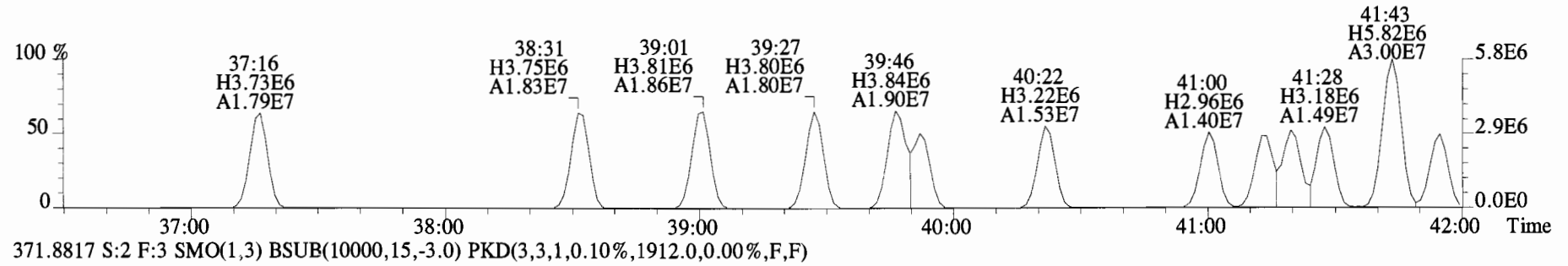
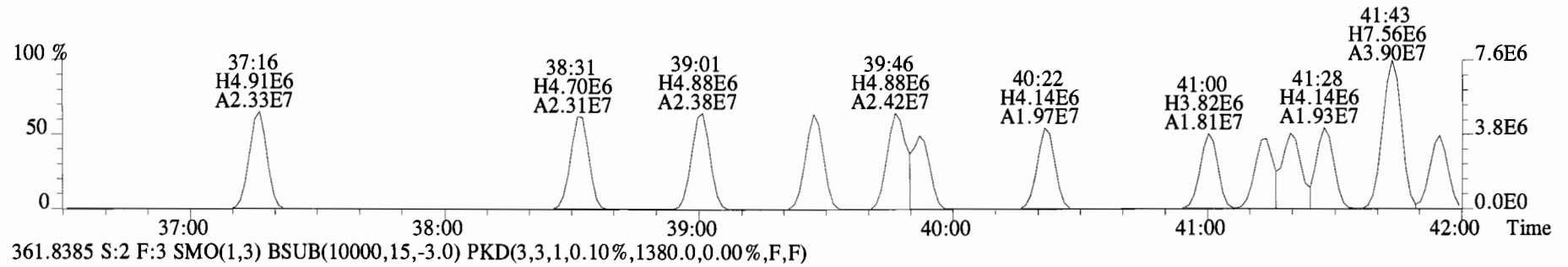
File:140919E1 #1-544 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
325.8804 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12308.0,0.00%,F,F)



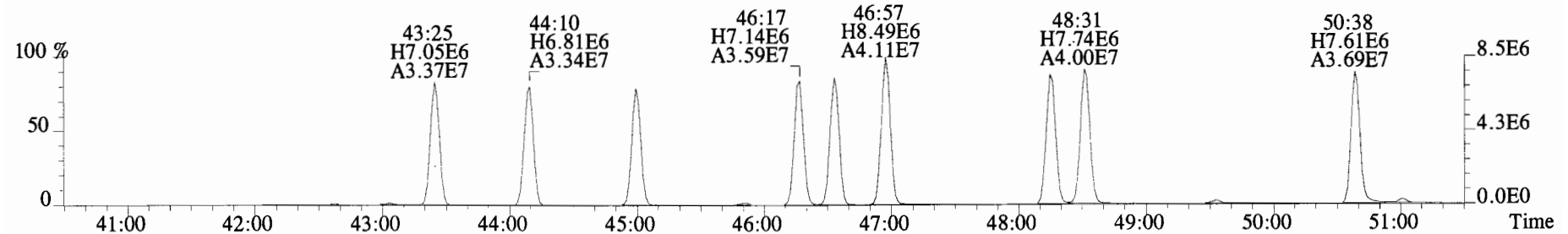
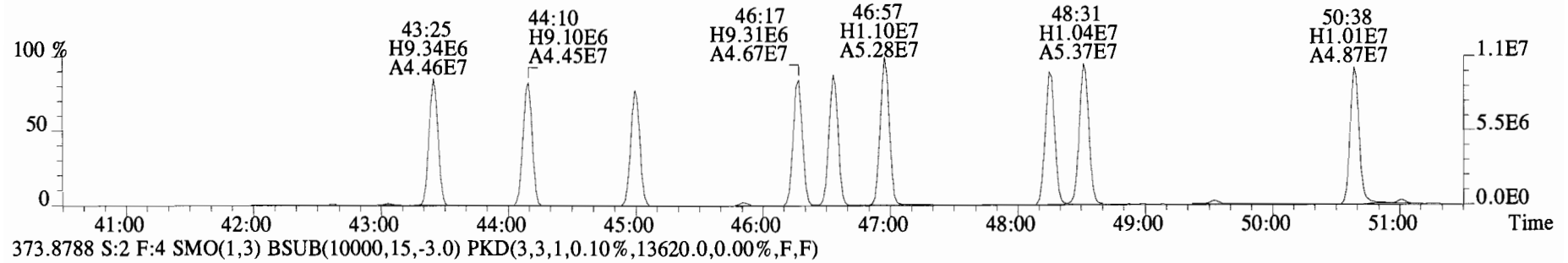
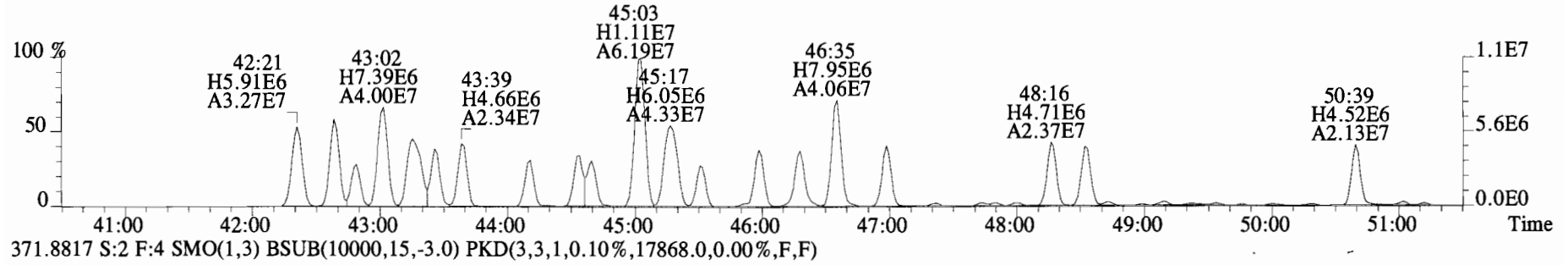
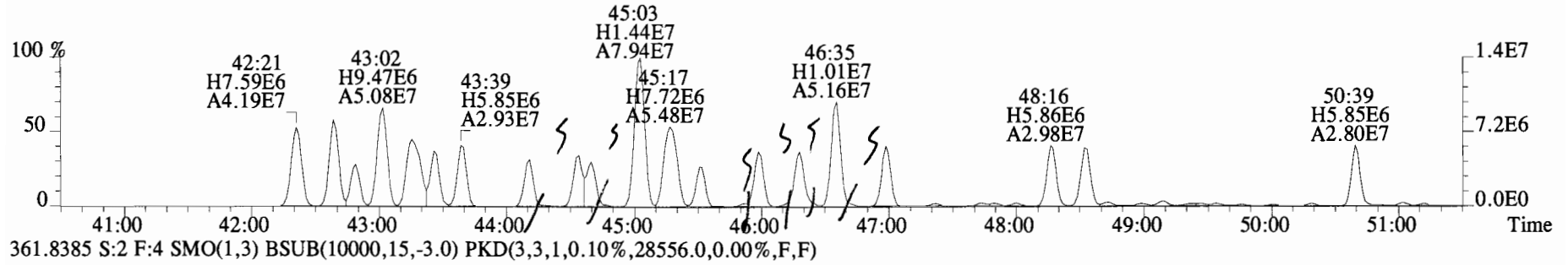
File:140919E1 #1-544 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
325.8804 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,12308.0,0.00%,F,F)



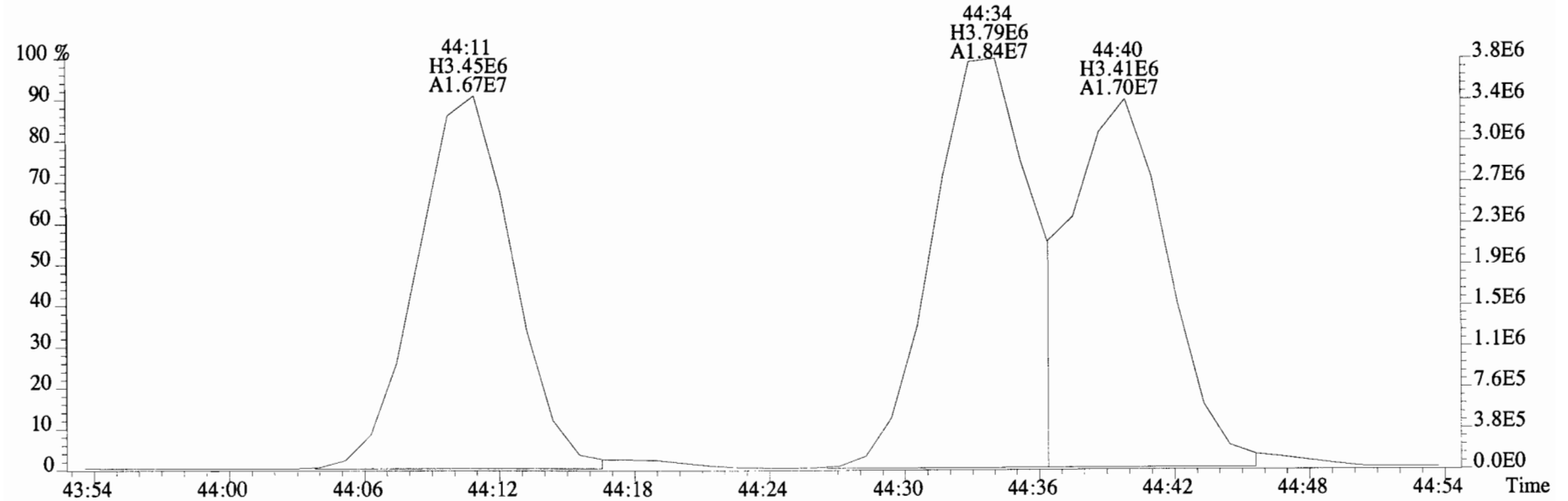
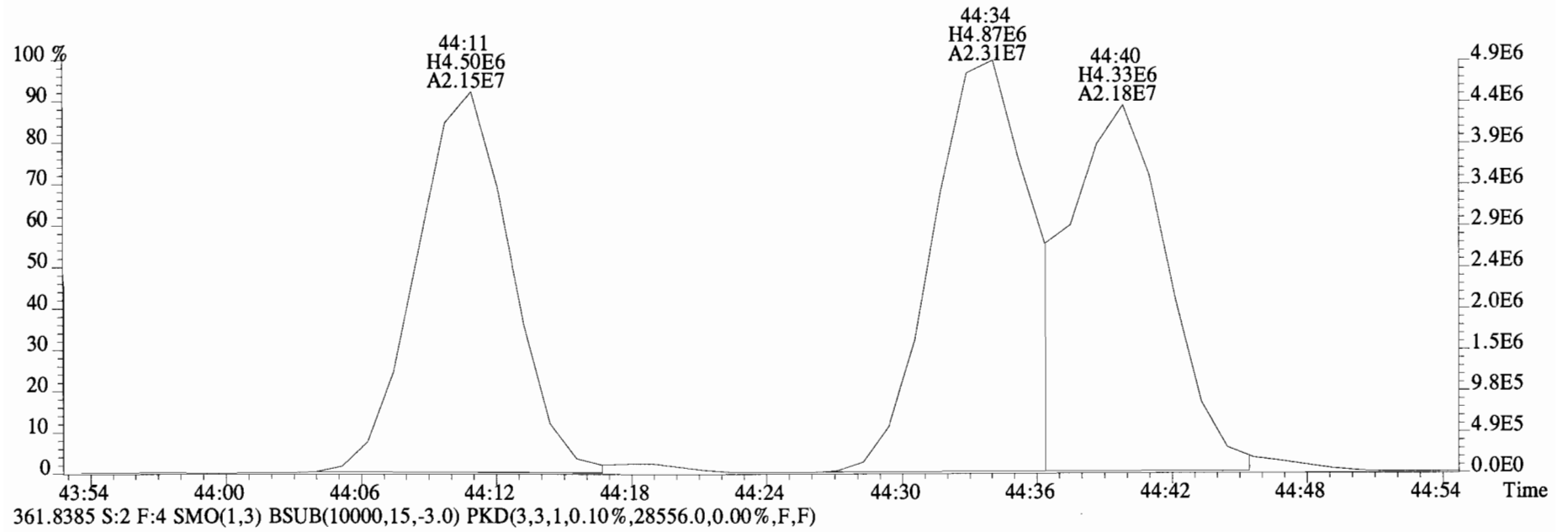
File:140919E1 #1-769 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
359.8415 S:2 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1460.0,0.00%,F,F)



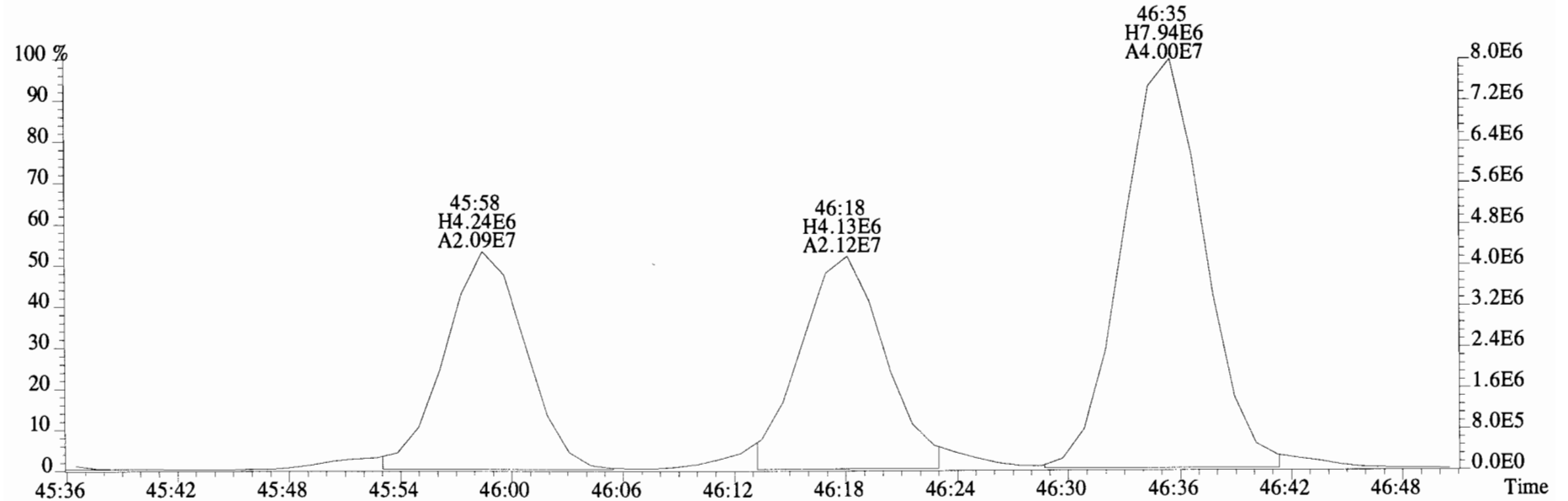
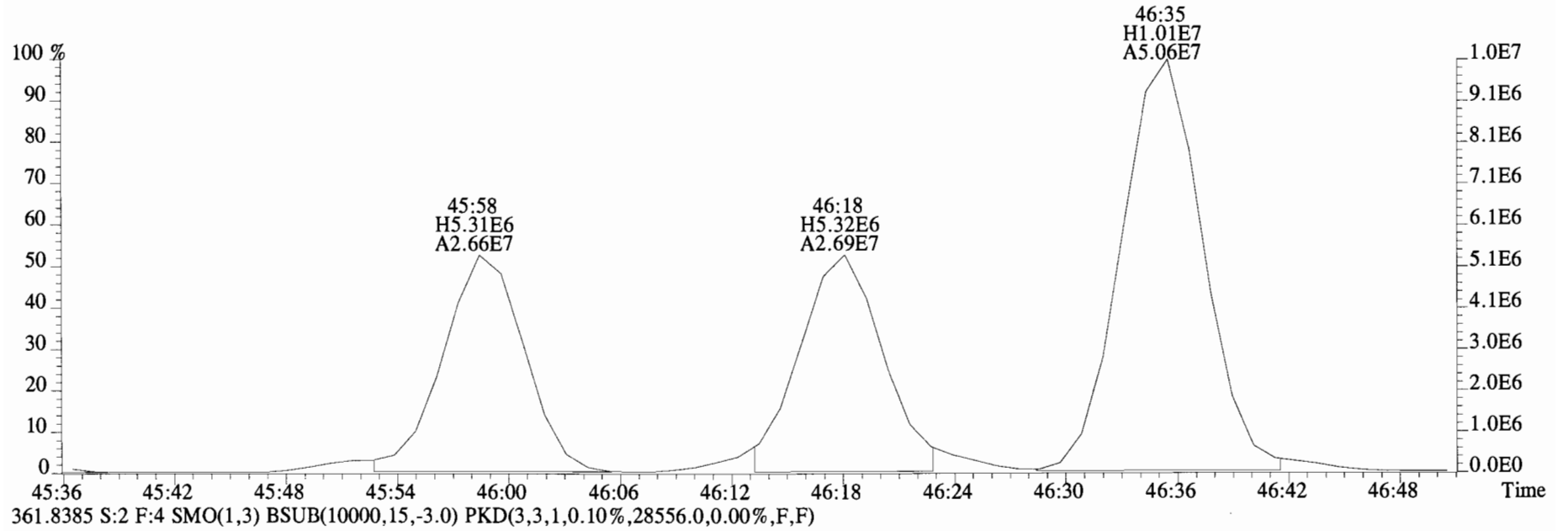
File:140919E1 #1-544 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B410047-BS1 OPR 1 Exp:PCB_ZB1
359.8415 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15832.0,0.00%,F,F)



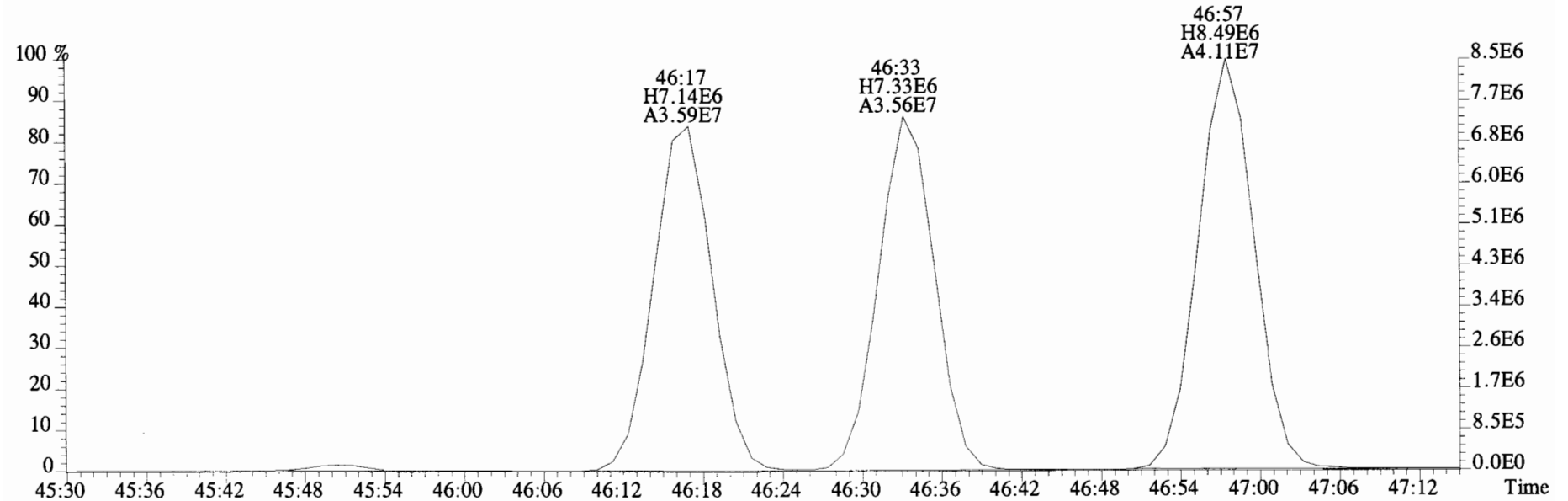
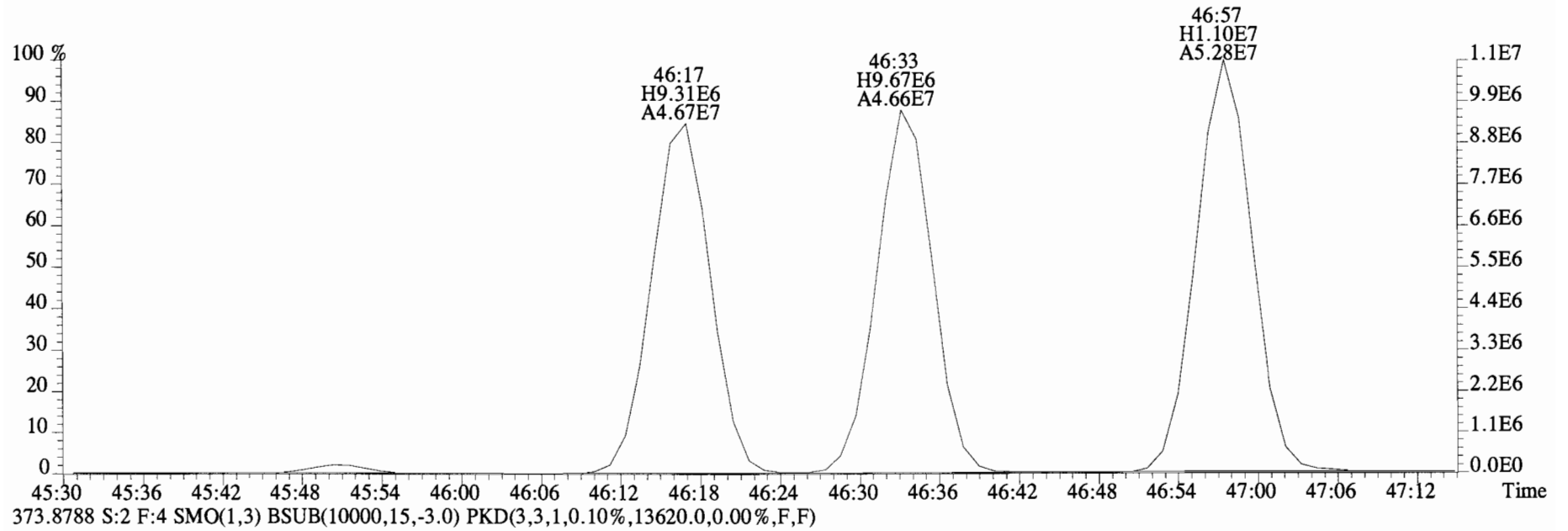
File:140919E1 #1-544 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
359.8415 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15832.0,0.00%,F,F)



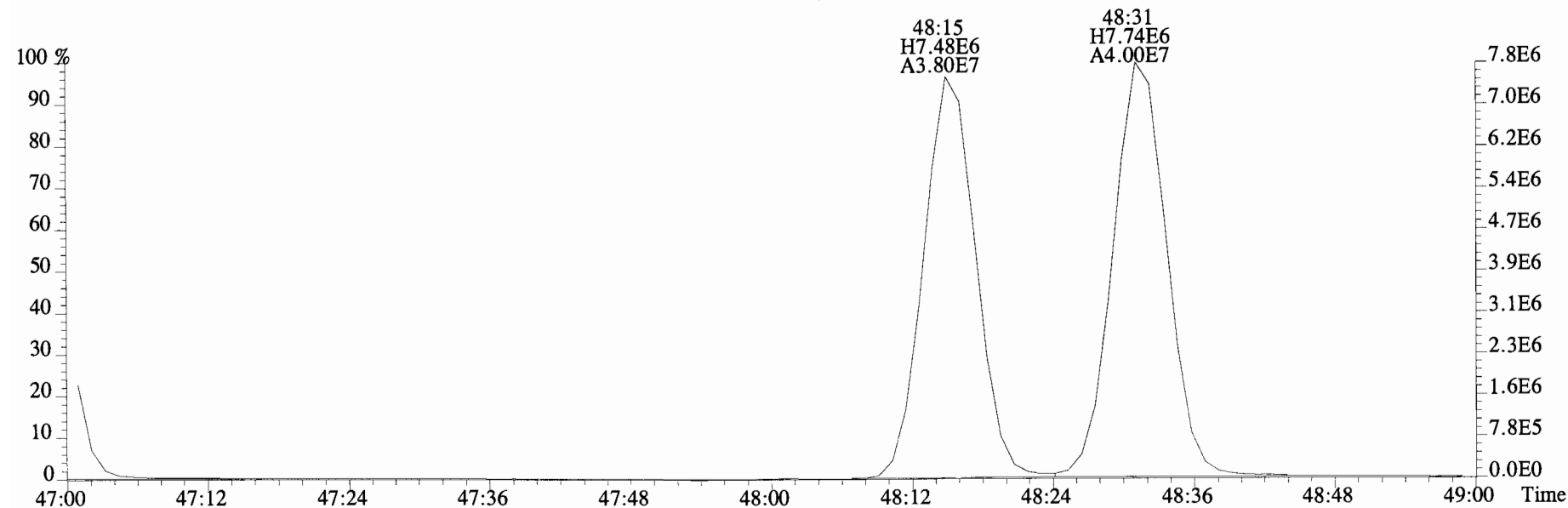
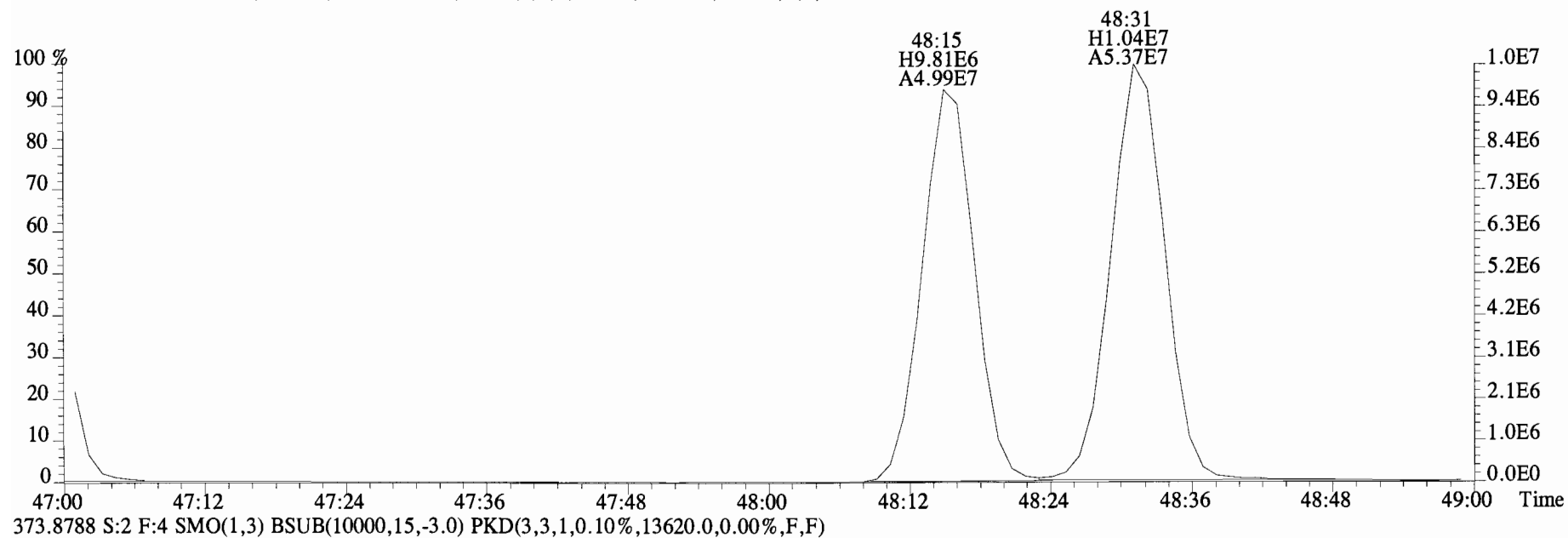
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
359.8415 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,15832.0,0.00%,F,F)



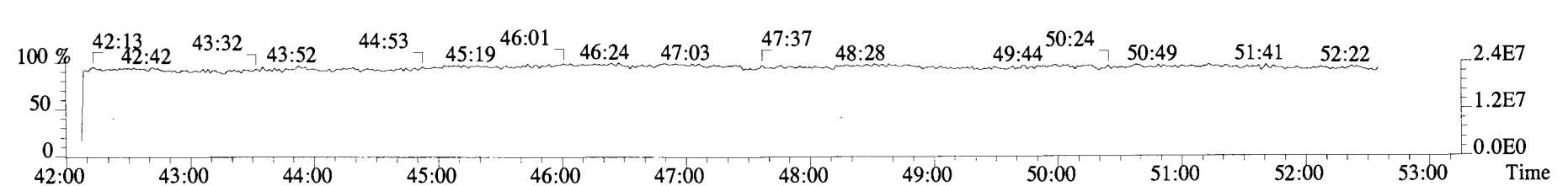
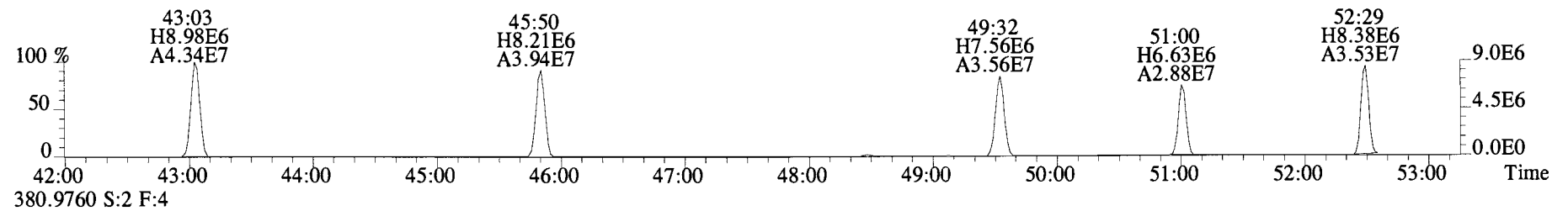
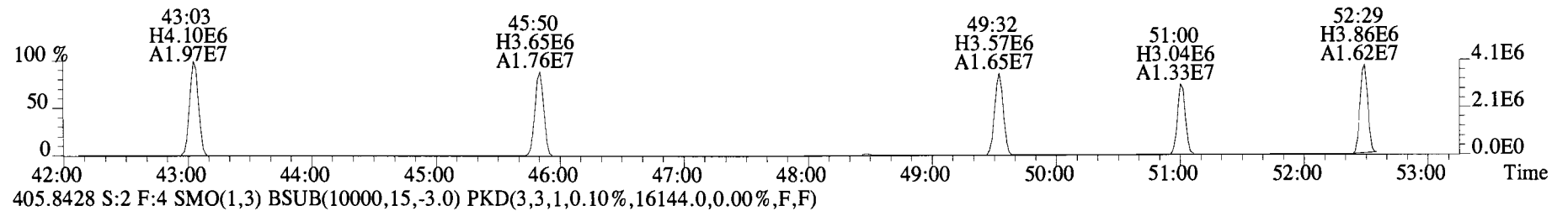
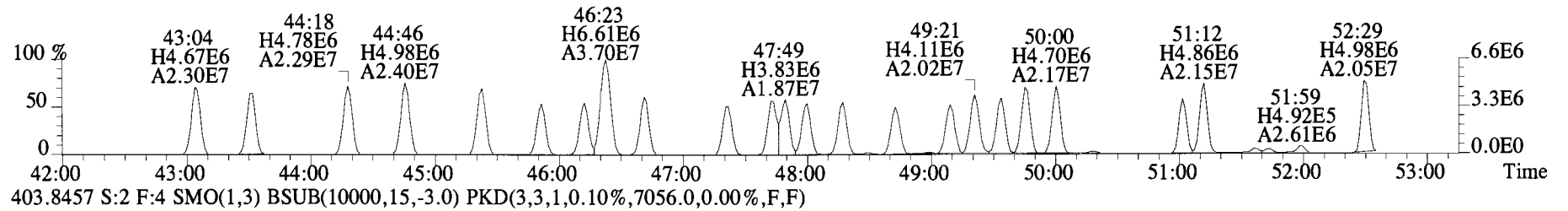
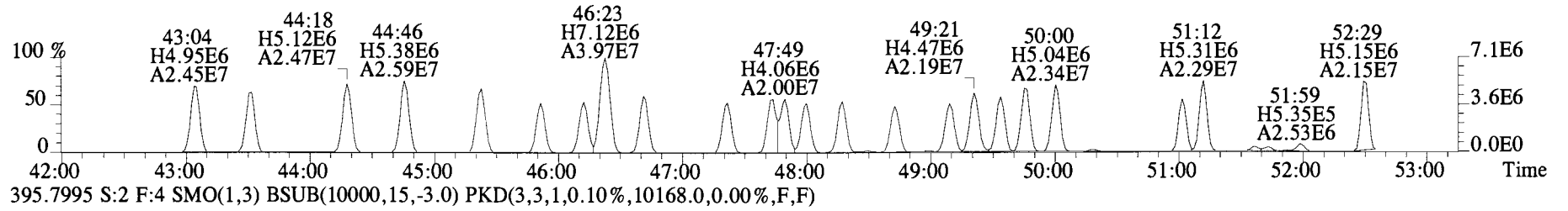
File:140919E1 #1-544 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
371.8817 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,17868.0,0.00%,F,F)



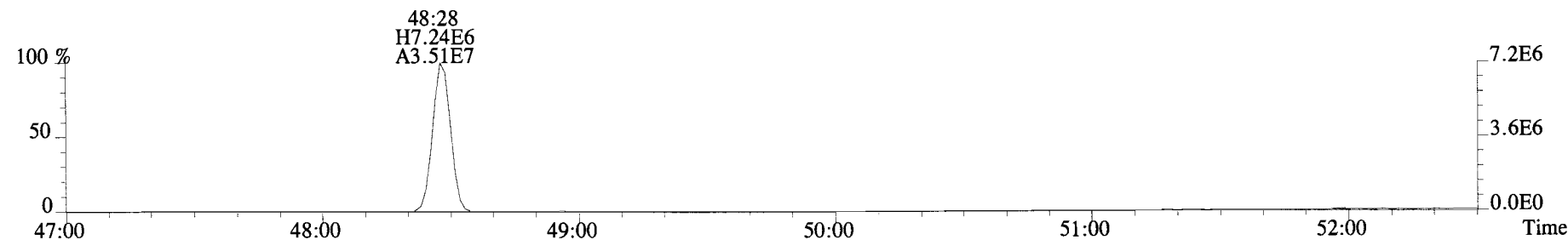
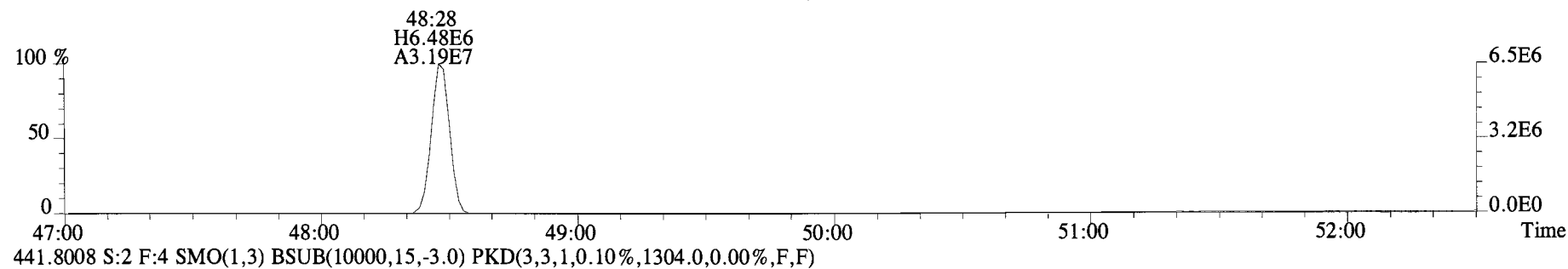
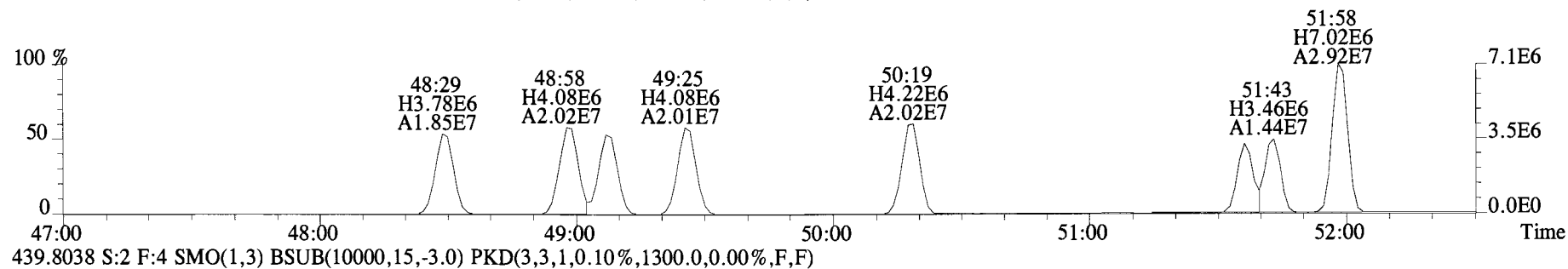
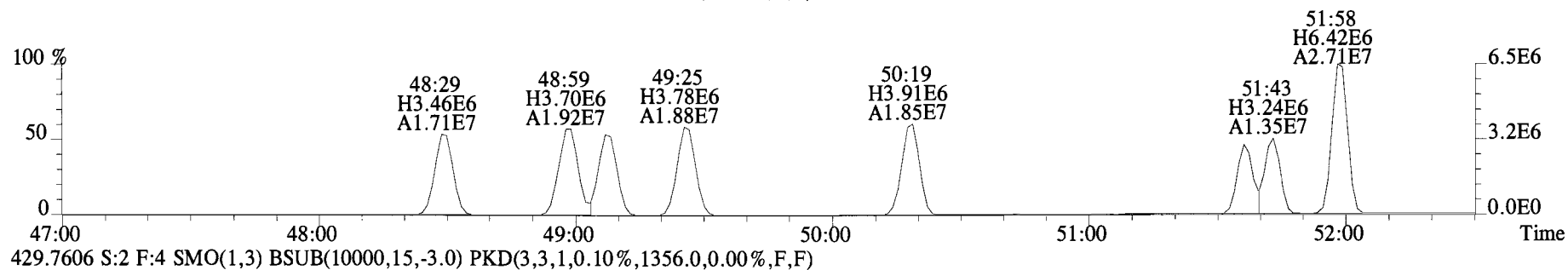
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
371.8817 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,17868.0,0.00%,F,F)



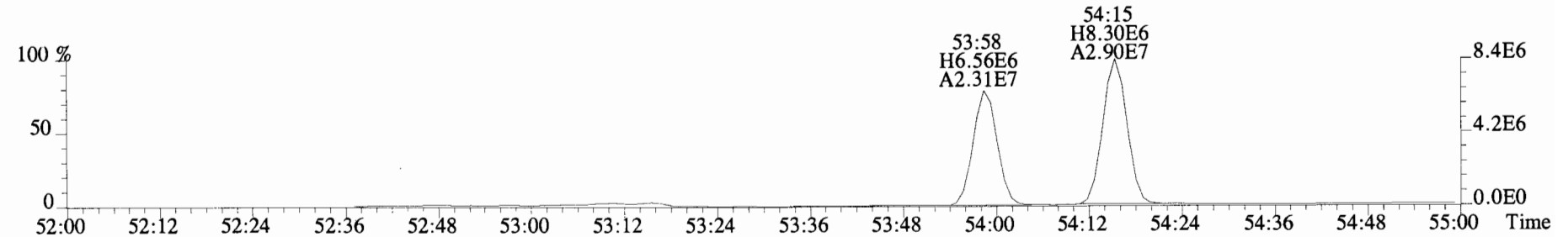
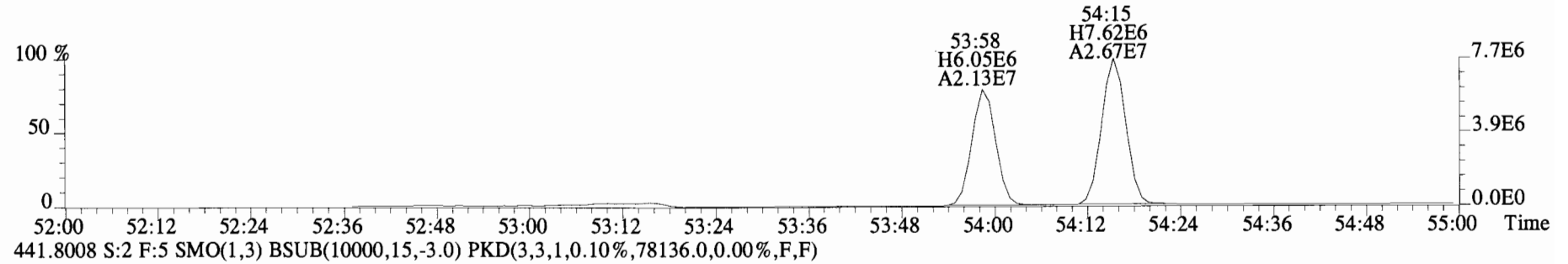
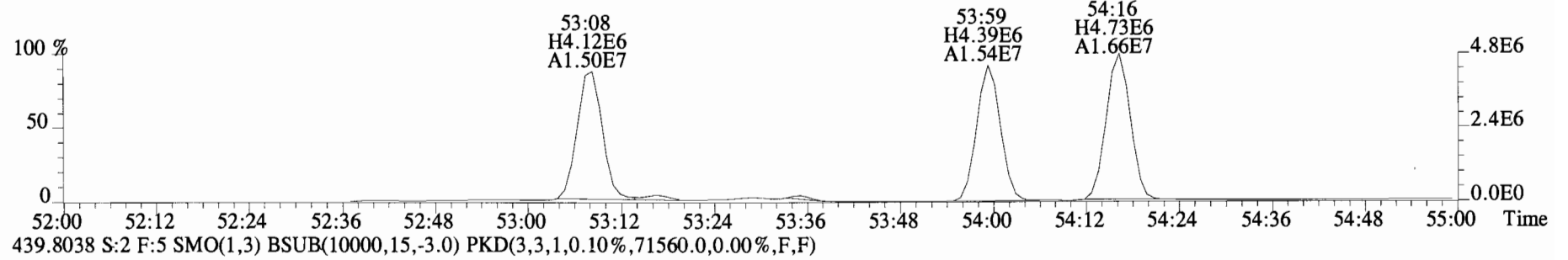
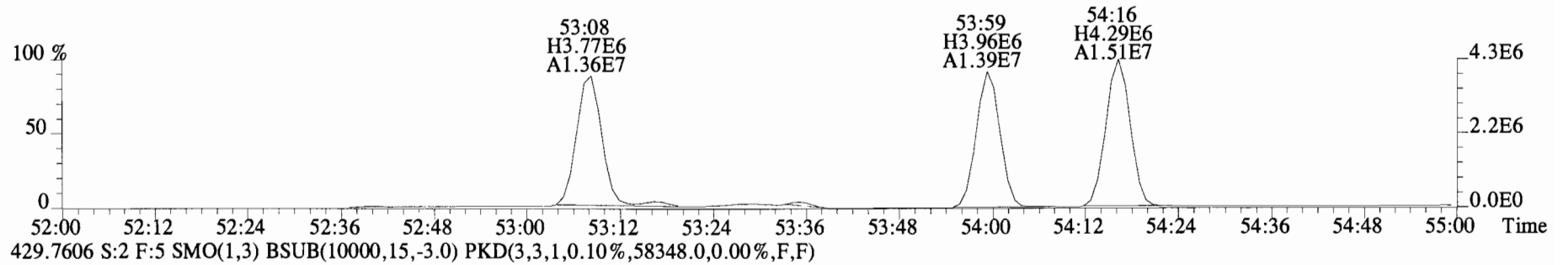
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
393.8025 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,10980.0,0.00%,F,F)



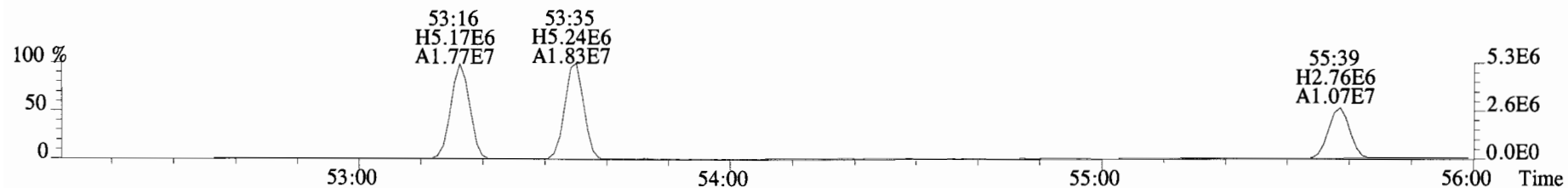
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Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
427.7635 S:2 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1356.0,0.00%,F,F)



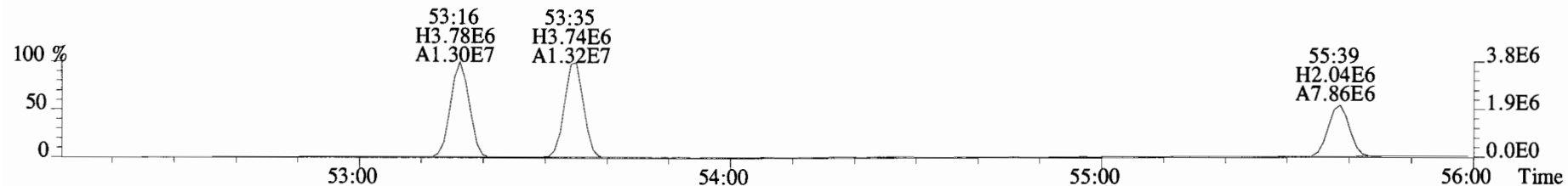
File:140919E1 #1-430 Acq:19-SEP-2014 10:37:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text: Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
427.7635 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,52796.0,0.00%,F,F)



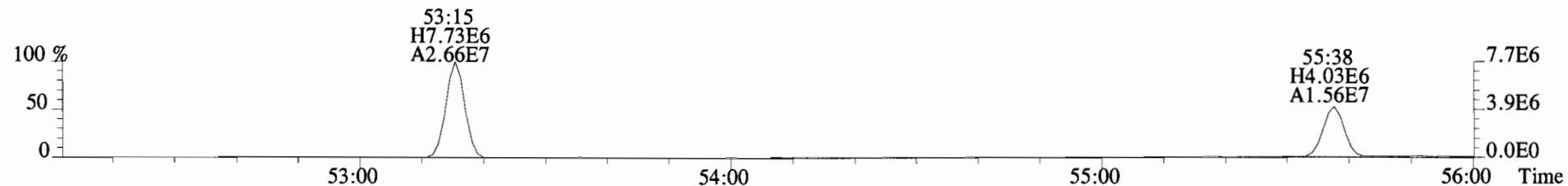
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 Sample#2 File Text:Vista Analytical Laboratory VG-8 Text:B4I0047-BS1 OPR 1 Exp:PCB_ZB1
 463.7216 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,16708.0,0.00%,F,F)



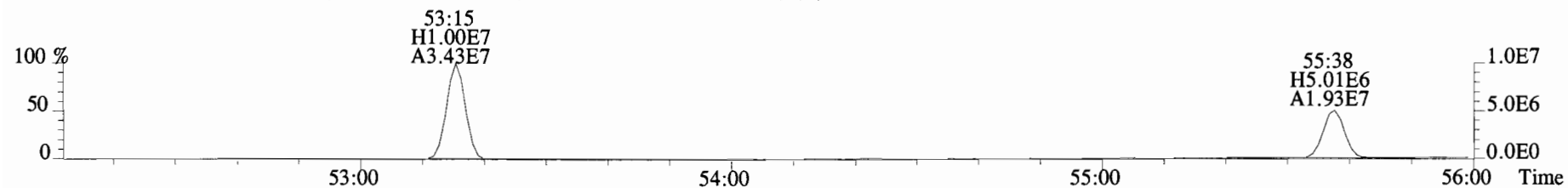
465.7186 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,11132.0,0.00%,F,F)



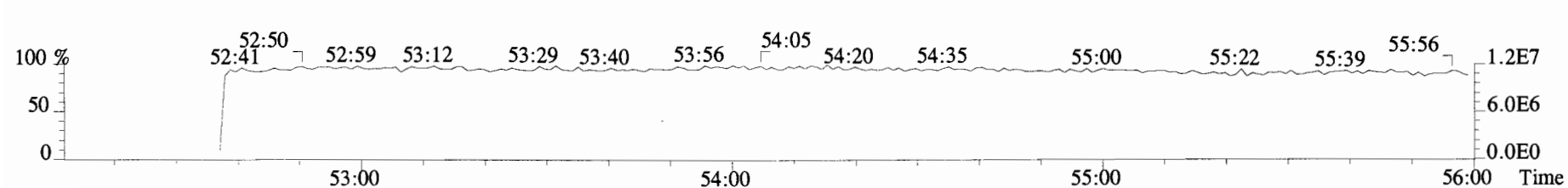
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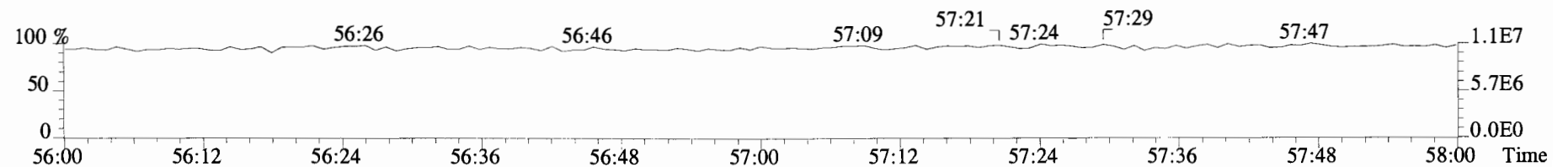
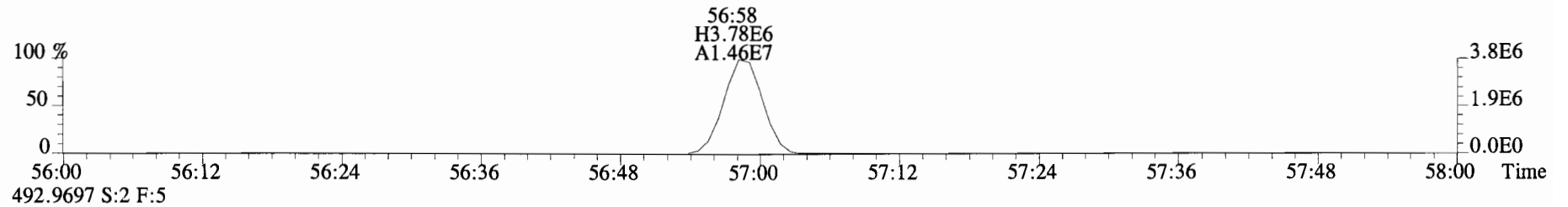
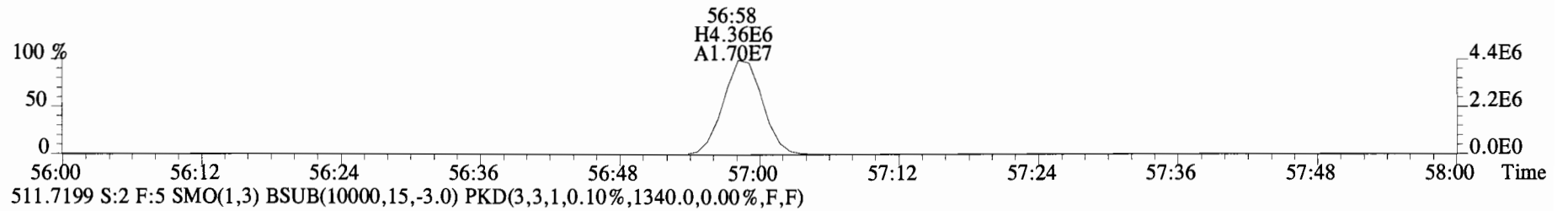
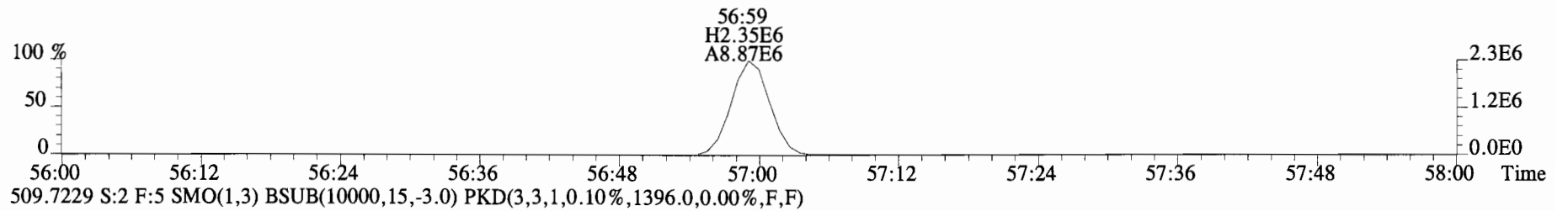
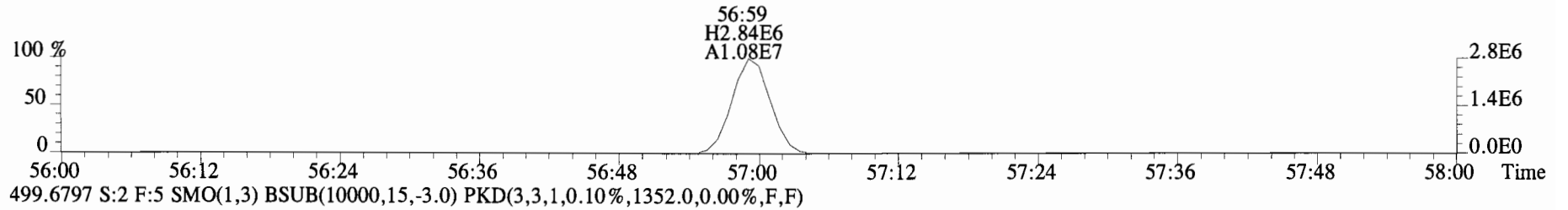
475.7619 S:2 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,25284.0,0.00%,F,F)



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)



Client ID: UG-MH-60-20140911-W
Lab ID: 1400665-04

Filename: 140924E1
GC Column ID: ZB-1

S:4 Acq:24-SEP-14 14:22:21
ICal: PCBVG8-6-20-14 wt/vol: 1.026

ConCal: ST140924E1-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Mono	PCB-1	1.39e+05	2.96	y 16:14	1.25	2.70		*	2.5	*	1.001	0.996-1.006	
Mono	PCB-2	6.63e+04	2.37	n 18:37	1.18	1.25	R	*	2.5	*	0.989	0.983-0.993	
Mono	PCB-3	*	*	n NotF η	1.22	*		2820	2.5	1.83	*	0.996-1.006	
Di	PCB-4/10	*	*	n NotF η	1.55	*		18300	2.5	10.9	*	0.998-1.008	
Di	PCB-7/9	*	*	n NotF η	1.27	*		18300	2.5	8.46	*	0.865-0.873	
Di	PCB-6	*	*	n NotF η	1.26	*		18300	2.5	8.52	*	0.890-0.899	
Di	PCB-5/8	6.51e+05	1.33	y 23:02	1.23	13.3		*	2.5	*	0.909	0.906-0.916	
Di	PCB-14	*	*	n NotF η	1.23	*		18300	2.5	7.77	*	0.949-0.959	
Di	PCB-11	3.31e+06	1.52	y 25:21	1.16	58.4		*	2.5	*	1.001	0.996-1.006	
Di	PCB-12/13	*	*	n NotF η	1.10	*		18300	2.5	8.71	*	1.010-1.020	
Di	PCB-15	4.91e+05	1.77	y 26:03	1.21	8.31		*	2.5	*	1.028	1.024-1.034	
Tri	PCB-19	9.15e+04	1.02	y 24:21	1.30	2.49		*	2.5	*	1.001	0.996-1.006	
Tri	PCB-30	*	*	n NotF η	1.83	*		1650	2.5	0.617	*	1.032-1.042	
Tri	PCB-18	8.87e+05	1.09	y 25:58	0.86	22.1		*	2.5	*	0.953	0.949-0.959	
Tri	PCB-17	3.74e+05	1.00	y 26:09	0.90	8.91		*	2.5	*	0.960	0.955-0.965	
Tri	PCB-24/27	1.17e+05	1.04	y 26:42	1.18	2.13		*	2.5	*	0.980	0.976-0.986	
Tri	PCB-16/32	7.68e+05	1.10	y 27:13	1.03	16.0		*	2.5	*	0.999	0.995-1.005	
Tri	PCB-34	*	*	n NotF η	1.26	*		1600	2.5	0.685	*	0.956-0.966	
Tri	PCB-23	*	*	n NotF η	1.31	*		1600	2.5	0.659	*	0.959-0.969	
Tri	PCB-29	*	*	n NotF η	1.33	*		1600	2.5	0.650	*	0.967-0.977	
Tri	PCB-26	2.16e+05	1.14	y 28:35	1.29	3.71		*	2.5	*	0.979	0.974-0.984	
Tri	PCB-25	9.50e+04	1.14	y 28:45	1.34	1.57		*	2.5	*	0.985	0.980-0.990	
Tri	PCB-31	1.27e+06	1.12	y 29:06	1.42	19.8		*	2.5	*	0.997	0.992-1.002	
Tri	PCB-28	1.38e+06	0.96	y 29:11	1.38	22.2		*	2.5	*	1.000	0.996-1.006	
Tri	PCB-20/21/33	9.01e+05	1.05	y 29:50	1.31	15.3		*	2.5	*	1.022	1.017-1.027	
Tri	PCB-22	5.39e+05	1.11	y 30:16	1.32	9.05		*	2.5	*	1.037	1.032-1.042	
Tri	PCB-36	*	*	n NotF η	1.38	*		1600	2.5	0.681	*	0.929-0.939	
Tri	PCB-39	*	*	n NotF η	1.42	*		1600	2.5	0.661	*	0.943-0.953	
Tri	PCB-38	*	*	n NotF η	1.35	*		1600	2.5	0.693	*	0.967-0.976	
Tri	PCB-35	1.28e+05	1.14	y 32:39	1.38	2.18		*	2.5	*	0.987	0.982-0.992	
Tri	PCB-37	6.37e+05	1.16	y 33:06	1.39	10.7		*	2.5	*	1.001	0.996-1.006	
Tetra	PCB-54	*	*	n NotF η	1.20	*		2340	2.5	1.10	*	0.996-1.006	
Tetra	PCB-50	*	*	n NotF η	0.97	*		2340	2.5	1.36	*	1.037-1.047	
Tetra	PCB-53	1.37e+05	0.83	y 29:54	1.19	3.69		*	2.5	*	0.946	0.941-0.951	
Tetra	PCB-51	8.02e+04	0.89	y 30:14	1.15	2.23		*	2.5	*	0.957	0.952-0.962	
Tetra	PCB-45	1.40e+05	0.69	y 30:40	0.97	4.63		*	2.5	*	0.970	0.966-0.976	
Tetra	PCB-46	7.37e+04	0.72	y 31:10	0.95	2.48		*	2.5	*	0.986	0.982-0.992	

Integrations by:

Analyst: DMS

Date: 9/25/14

Reviewed by: [Signature]

Date: 9/25/14

Client ID: UG-MH-60-20140911-W
Lab ID: 1400665-04

Filename: 140924E1 S:4 Acq:24-SEP-14 14:22:21
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.026

ConCal: ST140924E1-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Tetra	PCB-52/69	1.20e+06	0.78	y 31:37	1.28	30.1	*	2.5	*	*	1.000	0.996-1.006	
Tetra	PCB-73	*	*	n NotF η	1.37	*	2340	2.5	1.20	*	*	1.000-1.010	
Tetra	PCB-43/49	6.44e+05	0.73	y 31:55	1.11	18.5	*	2.5	*	*	1.010	1.005-1.015	
Tetra	PCB-47	3.62e+05	0.83	y 32:08	1.13	9.61	*	2.5	*	*	1.000	0.996-1.006	
Tetra	PCB-48/75	2.38e+05	0.73	y 32:16	1.30	5.49	*	2.5	*	*	1.005	0.999-1.009	
Tetra	PCB-65	*	*	n NotF η	1.33	*	2340	2.5	1.15	*	*	1.007-1.017	
Tetra	PCB-62	*	*	n NotF η	1.29	*	2340	2.5	1.19	*	*	1.011-1.021	
Tetra	PCB-44	7.62e+05	0.71	y 32:55	0.94	24.4	*	2.5	*	*	1.025	1.020-1.030	
Tetra	PCB-42/59	3.25e+05	0.79	y 33:09	1.22	8.02	*	2.5	*	*	1.032	1.028-1.038	
Tetra	PCB-41/64/71/72	9.34e+05	0.70	y 33:44	1.31	21.4	*	2.5	*	*	1.050	1.046-1.056	
Tetra	PCB-68	5.41e+04	0.80	y 33:59	1.49	1.09	*	2.5	*	*	1.058	1.054-1.064	
Tetra	PCB-40	1.20e+05	0.77	y 34:11	0.82	4.39	*	2.5	*	*	1.064	1.061-1.071	
Tetra	PCB-57	*	*	n NotF η	1.11	*	2340	2.5	1.08	*	*	0.965-0.975	
Tetra	PCB-67	*	*	n NotF η	1.07	*	2340	2.5	1.12	*	*	0.974-0.984	
Tetra	PCB-58	*	*	n NotF η	1.10	*	2340	2.5	1.09	*	*	0.977-0.987	
Tetra	PCB-63	*	*	n NotF η	1.12	*	2340	2.5	1.08	*	*	0.982-0.992	
Tetra	PCB-74	5.78e+05	0.75	y 35:25	1.20	11.2	*	2.5	*	*	0.994	0.990-1.000	
Tetra	PCB-61/70	1.55e+06	0.73	y 35:38	1.08	33.4	*	2.5	*	*	1.000	0.994-1.004	
Tetra	PCB-76/66	1.01e+06	0.78	y 35:50	1.14	20.7	*	2.5	*	*	1.006	1.001-1.011	
Tetra	PCB-80	*	*	n NotF η	1.28	*	2340	2.5	0.909	*	*	0.996-1.006	
Tetra	PCB-55	*	*	n NotF η	1.11	*	2340	2.5	1.05	*	*	1.005-1.015	
Tetra	PCB-56/60	7.75e+05	0.76	y 36:52	1.09	16.0	*	2.5	*	*	1.023	1.018-1.028	
Tetra	PCB-79	*	*	n NotF η	1.12	*	2340	2.5	1.03	*	*	1.048-1.058	
Tetra	PCB-78	*	*	n NotF η	1.24	*	2340	2.5	1.10	*	*	0.982-0.992	
Tetra	PCB-81	*	*	n NotF η	1.38	*	2340	2.5	0.982	*	*	0.995-1.005	
Tetra	PCB-77	2.26e+05	0.86	y 39:46	1.21	4.74	*	2.5	*	*	1.001	0.995-1.005	
Penta	PCB-104	*	*	n NotF η	1.26	*	1420	2.5	1.21	*	*	0.996-1.006	
Penta	PCB-96	*	*	n NotF η	1.09	*	1420	2.5	1.39	*	*	1.034-1.044	
Penta	PCB-103	*	*	n NotF η	0.93	*	1420	2.5	1.62	*	*	1.050-1.060	
Penta	PCB-100	*	*	n NotF η	1.00	*	1420	2.5	1.51	*	*	1.061-1.071	
Penta	PCB-94	*	*	n NotF η	1.11	*	1420	2.5	1.90	*	*	0.981-0.991	
Penta	PCB-95/98/102	1.33e+06	1.51	y 35:56	1.21	51.2	*	2.5	*	*	1.001	0.994-1.004	
Penta	PCB-93	*	*	n NotF η	1.13	*	1420	2.5	1.86	*	*	0.998-1.008	
Penta	PCB-88/91	1.85e+05	1.76	y 36:20	1.02	8.48	*	2.5	*	*	1.012	1.006-1.016	
Penta	PCB-121	*	*	n NotF η	1.90	*	1420	2.5	1.11	*	*	1.009-1.019	
Penta	PCB-84/92	6.79e+05	1.78	y 37:14	1.05	27.8	*	2.5	*	*	0.990	0.986-0.996	
Penta	PCB-89	*	*	n NotF η	1.02	*	1420	2.5	1.89	*	*	0.991-1.001	

Analyst: DMS

Date: 9/25/14

Client ID: UG-MH-60-20140911-W
Lab ID: 1400665-04

Filename: 140924E1 S:4 Acq:24-SEP-14 14:22:21
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.026

ConCal: ST140924E1-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Penta	PCB-90/101	1.88e+06	1.67	y 37:37	1.19	67.8		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-113	8.13e+04	2.19	n 37:49	1.35	2.59	R	*	2.5	*	1.006	1.002-1.012	
Penta	PCB-99	6.88e+05	1.69	y 37:56	1.29	23.0		*	2.5	*	1.009	1.005-1.015	
Penta	PCB-119	3.69e+04	1.22	n 38:25	1.72	1.02	R	*	2.5	*	0.987	0.982-0.992	
Penta	PCB-108/112	9.67e+04	1.33	y 38:35	1.29	3.59		*	2.5	*	0.992	0.986-0.996	
Penta	PCB-83	*	*	n NotF η	1.52	*		1420	2.5	1.39	*	0.991-1.001	
Penta	PCB-97	4.59e+05	1.50	y 38:56	1.25	17.6		*	2.5	*	1.001	0.996-1.006	
Penta	PCB-86	*	*	n NotF η	1.02	*		1420	2.5	2.06	*	1.000-1.010	
Penta	PCB-87/117/125	7.65e+05	1.52	y 39:13	1.56	23.4		*	2.5	*	1.008	1.002-1.012	
Penta	PCB-111/115	4.49e+04	1.46	y 39:21	1.75	1.22		*	2.5	*	1.011	1.007-1.017	
Penta	PCB-85/116	2.85e+05	1.65	y 39:29	1.30	10.5		*	2.5	*	1.015	1.010-1.020	
Penta	PCB-120	*	*	n NotF η	1.78	*		1420	2.5	1.18	*	1.016-1.026	
Penta	PCB-110	2.44e+06	1.53	y 39:52	1.68	69.4		*	2.5	*	1.025	1.020-1.030	
Penta	PCB-82	1.77e+05	1.37	y 40:29	0.74	8.80		*	2.5	*	0.976	0.972-0.982	
Penta	PCB-124	1.20e+05	1.45	y 41:10	1.32	3.34		*	2.5	*	0.993	0.988-0.998	
Penta	PCB-107/109	1.59e+05	1.77	y 41:20	1.22	4.76		*	2.5	*	0.997	0.991-1.001	
Penta	PCB-123	3.59e+04	1.81	n 41:30	1.22	1.08	R	*	2.5	*	1.001	0.995-1.005	
Penta	PCB-106/118	2.18e+06	1.61	y 41:40	1.22	61.6		*	2.5	*	1.000	0.996-1.006	
Penta	PCB-114	6.43e+04	1.88	n 42:19	1.36	1.56	R	*	2.5	*	1.000	0.995-1.005	
Penta	PCB-122	2.80e+04	1.72	y 42:27	1.24	0.747		*	2.5	*	1.003	0.999-1.009	
Penta	PCB-105	1.04e+06	1.66	y 43:11	1.28	26.1		*	2.5	*	1.000	0.995-1.005	
Penta	PCB-127	*	*	n NotF η	1.14	*		2180	2.5	1.88	*	0.995-1.005	
Penta	PCB-126	8.86e+04	1.21	n 45:25	1.28	2.42	R	*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-155	*	*	n NotF η	1.14	*		1260	2.5	1.35	*	0.966-1.006	
Hexa	PCB-150	*	*	n NotF η	1.06	*		1260	2.5	1.44	*	1.030-1.040	
Hexa	PCB-152	*	*	n NotF η	1.10	*		1260	2.5	1.39	*	1.043-1.053	
Hexa	PCB-145	*	*	n NotF η	1.09	*		1260	2.5	1.40	*	1.055-1.065	
Hexa	PCB-136	2.40e+05	1.41	y 39:40	1.08	9.75		*	2.5	*	1.068	1.064-1.074	
Hexa	PCB-148	*	*	n NotF η	0.74	*		1260	2.5	2.07	*	1.066-1.076	
Hexa	PCB-154	*	*	n NotF η	0.88	*		1260	2.5	1.73	*	1.079-1.089	
Hexa	PCB-151	3.41e+05	1.14	y 40:54	0.81	18.6		*	2.5	*	1.101	1.097-1.107	
Hexa	PCB-135	1.86e+05	1.37	y 41:07	0.78	10.5		*	2.5	*	1.107	1.101-1.113	
Hexa	PCB-144	5.72e+04	1.57	n 41:14	0.82	3.07	R	*	2.5	*	1.110	1.105-1.116	
Hexa	PCB-147	3.75e+04	1.24	y 41:22	0.83	1.99		*	2.5	*	1.114	1.011-1.120	
Hexa	PCB-139/149	1.30e+06	1.13	y 41:37	0.84	67.8		*	2.5	*	1.120	1.115-1.127	
Hexa	PCB-140	*	*	n NotF η	0.79	*		1260	2.5	1.95	*	1.120-1.132	
Hexa	PCB-134/143	1.27e+05	1.42	y 42:16	0.93	4.48		*	2.5	*	0.976	0.970-0.980	

Analyst: DMJ

Date: 9/25/14

Client ID: UG-MH-60-20140911-W
Lab ID: 1400665-04

Filename: 140924E1 S:4 Acq:24-SEP-14 14:22:21
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.026

ConCal: ST140924E1-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hexa	PCB-133/142	7.68e+04	1.11	y 42:33	0.95	2.66		*	2.5	*	0.982	0.977-0.987	
Hexa	PCB-131	*	*	n NotF η	0.91	*		1500	2.5	1.54	*	0.981-0.991	
Hexa	PCB-146/165	4.23e+05	1.28	y 42:56	1.16	12.0		*	2.5	*	0.991	0.986-0.996	
Hexa	PCB-132/161	7.44e+05	1.07	y 43:12	1.11	21.8		*	2.5	*	0.997	0.992-1.002	
Hexa	PCB-153	2.68e+06	1.21	y 43:20	1.18	74.3		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-168	*	*	n NotF η	1.37	*		1500	2.5	1.03	*	1.000-1.010	
Hexa	PCB-141	5.46e+05	1.35	y 44:06	0.97	19.2		*	2.5	*	1.001	0.996-1.005	
Hexa	PCB-137	1.45e+05	1.20	y 44:28	1.07	4.61		*	2.5	*	1.009	1.004-1.014	
Hexa	PCB-130	1.34e+05	1.56	n 44:35	0.85	5.42	R	*	2.5	*	1.012	1.007-1.017	
Hexa	PCB-138/163/164	3.16e+06	1.28	y 44:56	1.23	90.0		*	2.5	*	1.000	0.996-1.006	
Hexa	PCB-158/160	4.02e+05	1.11	y 45:10	1.29	10.9		*	2.5	*	1.006	1.001-1.011	
Hexa	PCB-129	1.26e+05	1.63	n 45:25	0.92	4.77	R	*	2.5	*	1.011	1.007-1.017	
Hexa	PCB-166	*	*	n NotF η	1.12	*		1500	2.5	1.16	*	0.988-0.998	
Hexa	PCB-159	*	*	n NotF η	1.16	*		1500	2.5	1.11	*	0.995-1.005	
Hexa	PCB-128/162	5.38e+05	1.10	y 46:29	1.02	15.9		*	2.5	*	1.006	1.002-1.012	
Hexa	PCB-167	1.65e+05	1.48	n 46:54	1.06	4.44	R	*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-156	3.46e+05	1.26	y 48:12	1.18	8.66		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-157	1.17e+05	1.11	y 48:27	1.08	3.04		*	2.5	*	1.000	0.995-1.005	
Hexa	PCB-169	3.66e+04	1.16	y 50:36	1.11	1.11		*	2.5	*	1.000	0.995-1.005	
Hepta	PCB-188	*	*	n NotF η	1.40	*		1740	2.5	0.918	*	0.995-1.005	
Hepta	PCB-184	*	*	n NotF η	1.24	*		1740	2.5	1.04	*	1.006-1.016	
Hepta	PCB-179	3.79e+05	1.06	y 44:11	1.30	11.7		*	2.5	*	1.029	1.024-1.034	
Hepta	PCB-176	1.03e+05	0.98	y 44:40	1.36	3.03		*	2.5	*	1.040	1.035-1.045	
Hepta	PCB-186	*	*	n NotF η	1.28	*		1740	2.5	1.01	*	1.049-1.059	
Hepta	PCB-178	1.49e+05	0.90	y 45:46	0.94	6.37		*	2.5	*	1.065	1.061-1.071	
Hepta	PCB-175	3.98e+04	1.28	n 46:07	0.97	1.65	R	*	2.5	*	1.074	1.069-1.079	
Hepta	PCB-182/187	9.03e+05	1.13	y 46:16	1.01	35.7		*	2.5	*	1.077	1.073-1.083	
Hepta	PCB-183	4.19e+05	1.06	y 46:36	1.08	15.5		*	2.5	*	1.085	1.080-1.090	
Hepta	PCB-185	1.06e+05	0.90	y 47:16	1.34	4.17		*	2.5	*	0.955	0.951-0.961	
Hepta	PCB-174	7.26e+05	1.10	y 47:37	1.34	28.6		*	2.5	*	0.963	0.958-0.968	
Hepta	PCB-181	*	*	n NotF η	1.36	*		1740	2.5	1.23	*	0.961-0.971	
Hepta	PCB-177	3.41e+05	0.92	y 47:55	1.24	14.5		*	2.5	*	0.969	0.964-0.974	
Hepta	PCB-171	1.89e+05	1.18	y 48:12	1.31	7.58		*	2.5	*	0.974	0.970-0.980	
Hepta	PCB-173	*	*	n NotF η	1.16	*		1740	2.5	1.44	*	0.979-0.989	
Hepta	PCB-172	1.03e+05	1.04	y 49:04	1.22	4.46		*	2.5	*	0.992	0.988-0.998	
Hepta	PCB-192	*	*	n NotF η	1.53	*		1740	2.5	1.09	*	0.991-1.001	
Hepta	PCB-180	1.69e+06	1.15	y 49:29	1.43	62.5		*	2.5	*	1.000	0.995-1.005	

Analyst: DMJ

Date: 9/25/14

Client ID: UG-MH-60-20140911-W
Lab ID: 1400665-04

Filename: 140924E1 S:4 Acq:24-SEP-14 14:22:21
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.026

ConCal: ST140924E1-1
EndCAL: NA

Type	Name	Resp	RA	RT	RRF	Conc	Qual	noise	Fac	DL	RRT	LCL	UCL
Hepta	PCB-193	9.23e+04	1.19	y 49:41	1.65	2.95		*	2.5	*	1.004	0.999-1.009	
Hepta	PCB-191	*	*	n NotF η	1.67	*		1740	2.5	0.998	*	1.004-1.014	
Hepta	PCB-170	5.15e+05	1.20	y 50:57	1.50	23.9		*	2.5	*	1.000	0.995-1.005	
Hepta	PCB-190	1.95e+05	1.01	y 51:08	2.02	6.72		*	2.5	*	1.004	0.998-1.008	
Hepta	PCB-189	5.03e+04	1.15	y 52:26	1.54	1.76		8.00	2.5	0.00440	1.000	0.995-1.005	
Octa	PCB-202	9.50e+04	0.83	y 48:25	1.04	4.03		*	2.5	*	1.001	0.995-1.005	
Octa	PCB-201	4.59e+04	0.99	y 48:54	1.10	1.84		*	2.5	*	1.011	1.006-1.016	
Octa	PCB-204	*	*	n NotF η	0.99	*		1350	2.5	1.41	*	1.009-1.019	
Octa	PCB-197	*	*	n NotF η	1.07	*		1350	2.5	1.31	*	1.015-1.025	
Octa	PCB-200	5.17e+04	1.18	n 50:13	1.02	2.24	R	*	2.5	*	1.038	1.032-1.044	
Octa	PCB-198	*	*	n NotF η	0.74	*		1350	2.5	1.88	*	1.058-1.068	
Octa	PCB-199	2.65e+05	1.00	y 51:39	0.73	16.1		*	2.5	*	1.067	1.060-1.070	
Octa	PCB-196/203	3.25e+05	0.82	y 51:55	0.77	18.6		*	2.5	*	1.073	1.066-1.076	
Octa	PCB-195	1.42e+05	0.92	y 53:05	1.20	6.67		*	2.5	*	0.984	0.979-0.989	
Octa	PCB-194	3.43e+05	0.84	y 53:58	1.25	15.6		*	2.5	*	1.000	0.995-1.005	
Octa	PCB-205	2.26e+04	0.98	y 54:15	1.41	0.903		*	2.5	*	1.006	1.001-1.011	
Nona	PCB-208	5.80e+04	1.53	y 53:13	0.96	2.34		*	2.5	*	1.000	0.995-1.005	
Nona	PCB-207	3.04e+04	1.52	y 53:32	0.92	1.28		*	2.5	*	1.006	1.001-1.011	
Nona	PCB-206	1.25e+05	1.23	y 55:36	1.03	7.26		*	2.5	*	1.000	0.995-1.005	
Deca	PCB-209	6.83e+04	1.00	y 56:56	1.18	3.29		*	2.5	*	1.000	0.995-1.005	

Analyst: *Dms*

Date: *9/25/14*

Client ID: UG-MH-60-20140911-W
Lab ID: 1400665-04

Filename: 140924E1 S:4 Acq:24-SEP-14 14:22:21
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0262 EndCAL: NA

ConCal: ST140924E1-1

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	1.39e+05	2.96 y	16:14	1.22	2.69779	
Total Di-PCB	4.45e+06	1.33 y	23:02	1.21	80.0675	
Total Tri-PCB	2.24e+06	1.02 y	24:21	1.16	51.6654	
Total Tri-PCB	5.16e+06	1.14 y	28:35	1.35	84.5456	Sum:136.211
Total Tetra-PCB	9.21e+06	0.83 y	29:54	1.17	222.011	
Total Penta-PCB	1.15e+07	1.51 y	35:56	1.21	382.481	
Total Penta-PCB	1.07e+06	1.72 y	42:27	1.26	26.8006	Sum:409.281
Total Hexa-PCB	2.10e+06	1.41 y	39:40	0.92	108.583	
Total Hexa-PCB	9.34e+06	1.42 y	42:16	1.08	268.625	Sum:377.208
Total Hepta-PCB	5.96e+06	1.06 y	44:11	1.27	229.459	
Total Octa-PCB	7.31e+05	0.83 y	48:25	0.92	40.5133	
Total Octa-PCB	5.07e+05	0.92 y	53:05	1.29	23.1445	Sum:63.6577
Total Nona-PCB	2.13e+05	1.53 y	53:13	0.96	10.8767	
Total Deca-PCB	6.83e+04	1.00 y	56:56	1.18	3.28706	

Total PCB Conc: ~~1566.2~~ 7889300

1530

Integrations

by

Analyst: DMS

Date: 9/25/14

Client ID: UG-MH-60-20140911-W
Lab ID: 1400665-04

Filename: 140924E1 S:4 Acq:24-SEP-14 14:22:21
GC Column ID: ZB-1 ICal: PCVBG8-6-20-14 wt/vol:1.0262

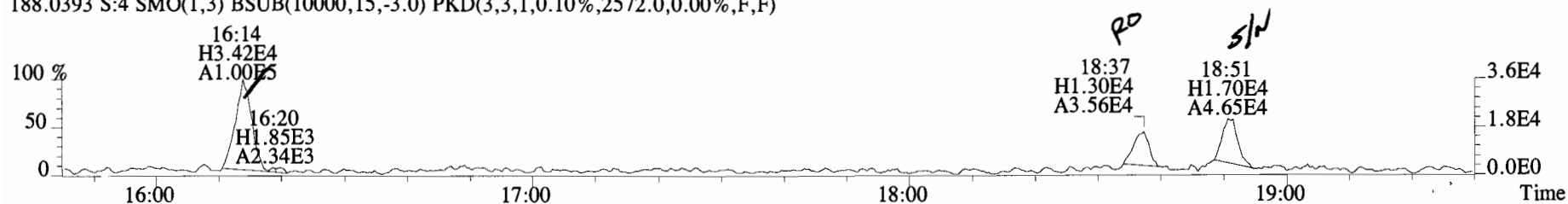
ConCal: ST140924E1-1
EndCAL: NA

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	8.02e+07	3.25	y	0.89	16:13	0.623	0.622-0.628	1410	72.3											
13C-PCB-3	8.72e+07	3.29	y	0.93	18:50	0.723	0.721-0.729	1470	75.5		13C-PCB-79	1.04e+08	0.79	y	1.01	37:55	1.029	1.023-1.033	1990	102
13C-PCB-4	4.96e+07	1.60	y	0.55	20:10	0.774	0.772-0.780	1410	72.6		13C-PCB-178	3.93e+07	0.47	y	0.63	45:45	0.984	0.979-0.989	2080	107
13C-PCB-9	7.73e+07	1.59	y	0.83	21:57	0.843	0.840-0.848	1460	75.1											
13C-PCB-11	9.52e+07	1.59	y	0.94	25:20	0.973	0.968-0.978	1590	81.5	PS vs. IS										
13C-PCB-19	5.52e+07	1.07	y	0.53	24:19	0.934	0.929-0.939	1620	83.2											
13C-PCB-28	8.77e+07	1.05	y	0.89	29:11	1.004	0.999-1.009	1810	92.8		13C-PCB-79	1.04e+08	0.79	y	1.20	37:55	0.969	0.963-0.973	2260	116
13C-PCB-32	9.09e+07	1.06	y	0.81	27:14	1.046	1.041-1.051	1750	89.6		13C-PCB-178	3.93e+07	0.47	y	0.94	45:45	0.925	0.920-0.930	2210	113
13C-PCB-37	8.33e+07	1.08	y	0.83	33:04	1.137	1.131-1.143	1830	94.1											
13C-PCB-47	6.49e+07	0.77	y	0.74	32:07	0.871	0.867-0.875	1680	86.1											
13C-PCB-52	6.10e+07	0.79	y	0.71	31:36	0.857	0.853-0.861	1660	85.1											
13C-PCB-54	7.00e+07	0.79	y	0.85	28:04	0.762	0.758-0.766	1590	81.4											
13C-PCB-70	8.35e+07	0.79	y	0.94	35:37	0.966	0.961-0.971	1700	87.4											
13C-PCB-77	7.68e+07	0.78	y	0.89	39:44	1.078	1.073-1.083	1660	84.9											
13C-PCB-80	8.70e+07	0.79	y	0.96	36:02	0.978	0.972-0.982	1740	89.3											
13C-PCB-81	7.48e+07	0.79	y	0.84	39:09	1.062	1.057-1.067	1720	88.2											
13C-PCB-95	4.16e+07	1.59	y	0.74	35:55	0.913	0.908-0.918	1680	86.0	RS										
13C-PCB-97	4.08e+07	1.60	y	0.69	38:54	0.989	0.984-0.994	1770	90.9											
13C-PCB-101	4.53e+07	1.59	y	0.79	37:36	0.956	0.951-0.961	1730	88.7											
13C-PCB-104	5.45e+07	1.62	y	1.00	32:46	0.833	0.829-0.837	1640	84.2		13C-PCB-15	1.25e+08	1.57	y	1.00	26:02			1950	
13C-PCB-105	6.07e+07	1.58	y	1.24	43:10	0.929	0.924-0.934	1640	84.3		13C-PCB-31	1.06e+08	1.06	y	1.00	29:05			1950	
13C-PCB-114	5.91e+07	1.59	y	1.21	42:19	0.910	0.905-0.915	1640	84.1		13C-PCB-60	1.01e+08	0.79	y	1.00	36:52			1950	
13C-PCB-118	5.63e+07	1.63	y	0.98	41:39	1.059	1.054-1.064	1710	87.9		13C-PCB-111	6.51e+07	1.58	y	1.00	39:20			1950	
13C-PCB-123	5.31e+07	1.61	y	0.95	41:28	1.054	1.049-1.059	1680	86.0		13C-PCB-128	5.82e+07	1.24	y	1.00	46:29			1950	
13C-PCB-126	5.55e+07	1.59	y	1.16	45:25	0.977	0.972-0.982	1600	82.0		13C-PCB-205	4.80e+07	0.91	y	1.00	54:14			1950	
13C-PCB-127	6.53e+07	1.59	y	1.34	43:31	0.936	0.931-0.941	1630	83.6											
13C-PCB-138	5.59e+07	1.25	y	1.04	44:55	0.966	0.961-0.971	1790	92.0											
13C-PCB-141	5.70e+07	1.27	y	1.07	44:04	0.948	0.943-0.953	1780	91.4											
13C-PCB-153	5.96e+07	1.25	y	1.11	43:19	0.932	0.927-0.937	1790	92.0											
13C-PCB-155	4.43e+07	1.30	y	0.83	37:09	0.944	0.939-0.949	1590	81.8											
13C-PCB-156	6.59e+07	1.28	y	1.24	48:11	1.037	1.032-1.042	1770	91.0											
13C-PCB-157	6.93e+07	1.31	y	1.31	48:27	1.042	1.037-1.047	1770	90.8											
13C-PCB-159	6.47e+07	1.26	y	1.20	46:12	0.994	0.989-0.999	1810	92.6											
13C-PCB-167	6.81e+07	1.26	y	1.32	46:53	1.009	1.004-1.014	1730	88.5											
13C-PCB-169	5.81e+07	1.27	y	1.22	50:35	1.088	1.082-1.092	1600	82.2											
13C-PCB-170	2.80e+07	0.47	y	0.54	50:57	1.096	1.089-1.101	1750	89.9											
13C-PCB-180	3.69e+07	0.46	y	0.67	49:28	1.064	1.059-1.069	1840	94.2											
13C-PCB-188	4.85e+07	0.47	y	0.94	42:57	0.924	0.919-0.929	1740	89.1											
13C-PCB-189	3.61e+07	0.47	y	0.72	52:26	1.128	1.120-1.132	1690	86.7											
13C-PCB-194	3.45e+07	0.91	y	0.81	53:57	0.995	0.990-1.000	1730	88.7											
13C-PCB-202	4.41e+07	0.90	y	0.83	48:23	1.041	1.036-1.046	1770	91.0											
13C-PCB-206	3.27e+07	0.80	y	0.66	55:35	1.025	1.021-1.031	2020	103											
13C-PCB-208	5.03e+07	0.77	y	1.12	53:13	0.981	0.976-0.986	1820	93.3											
13C-PCB-209	3.45e+07	1.21	y	0.61	56:56	1.050	1.044-1.054	2280	117											

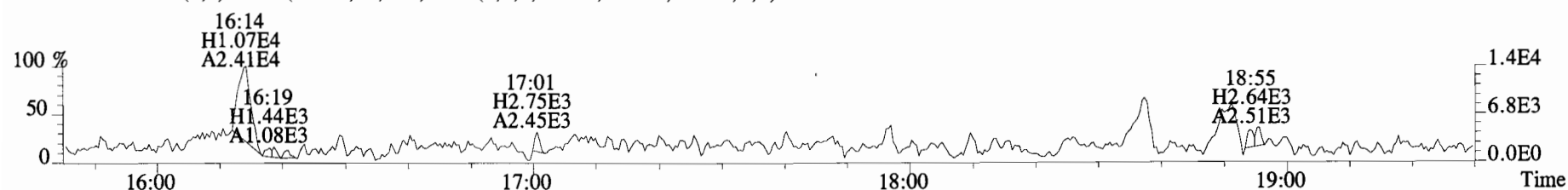
Analyst: *Dms*

Date: *9/24/15*

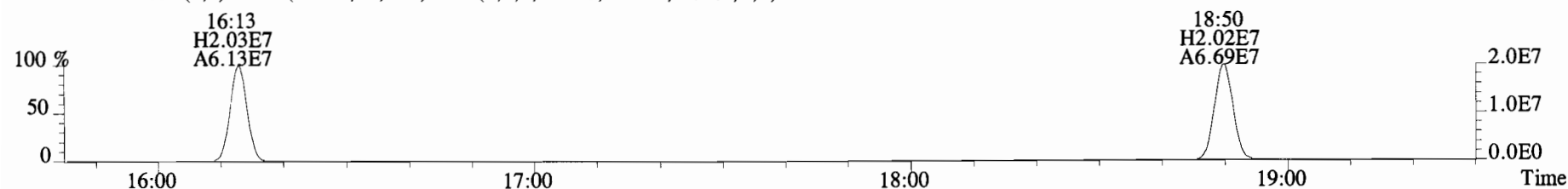
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 Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
 188.0393 S:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2572.0,0.00%,F,F)



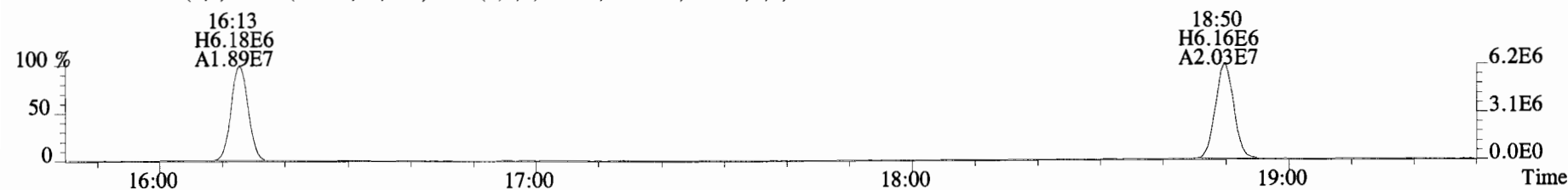
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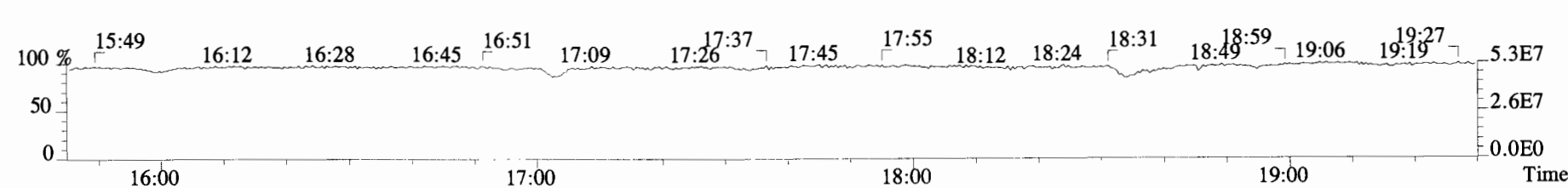
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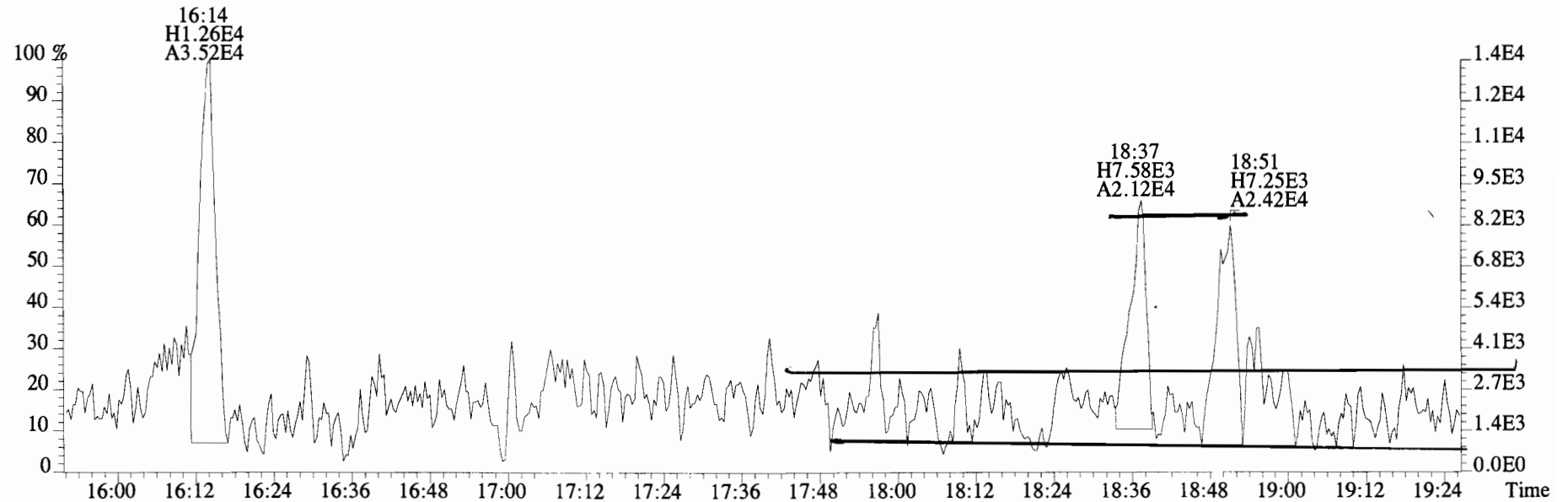
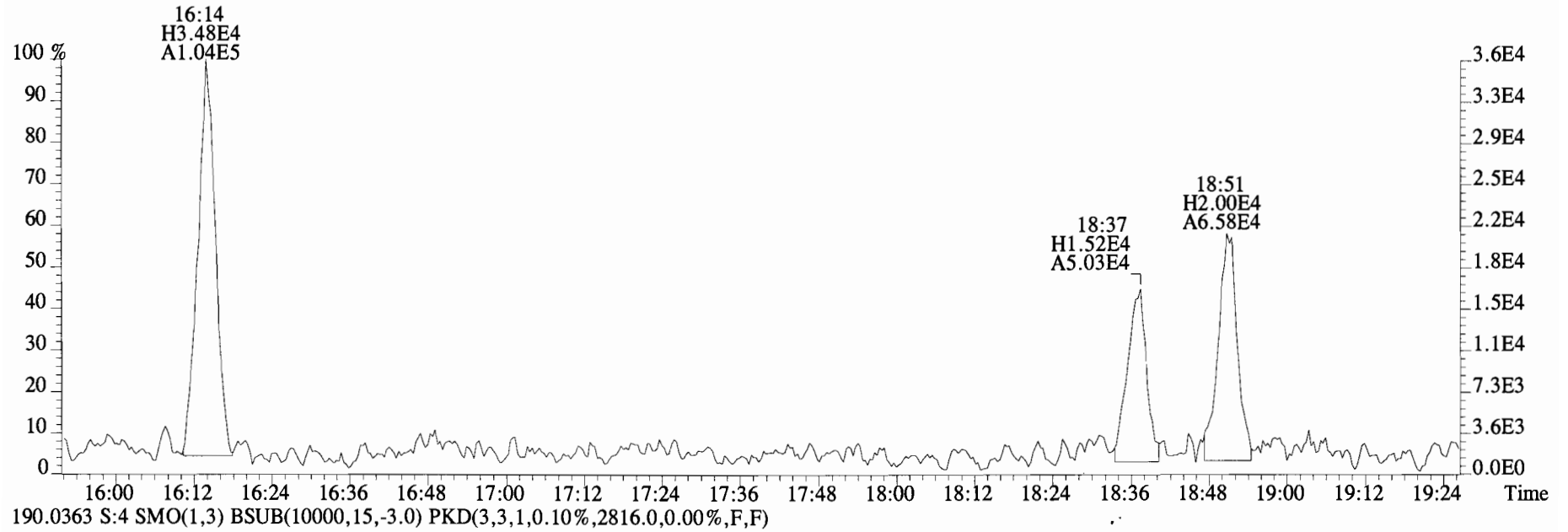
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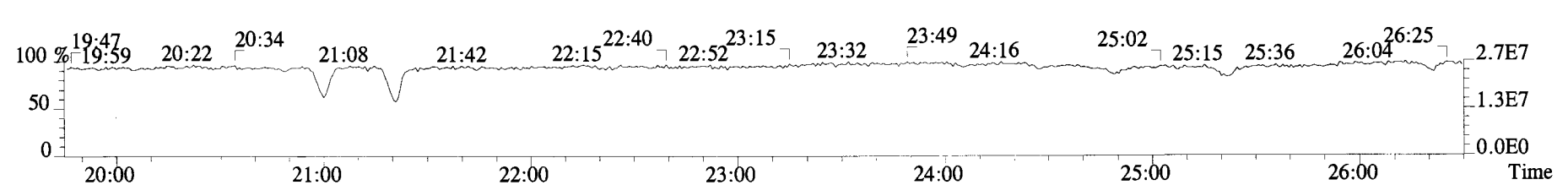
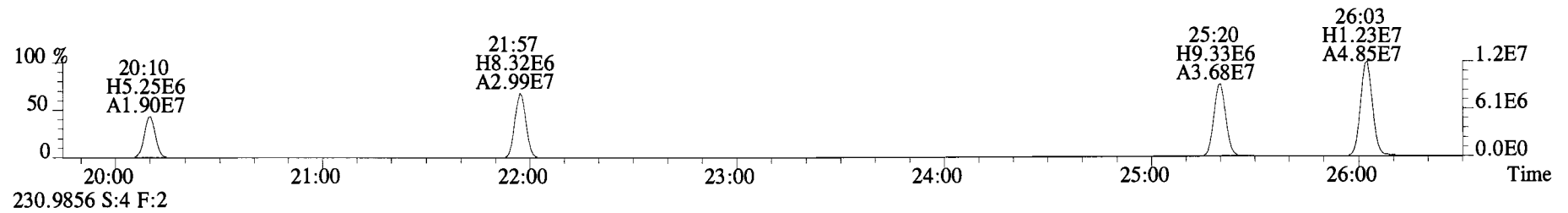
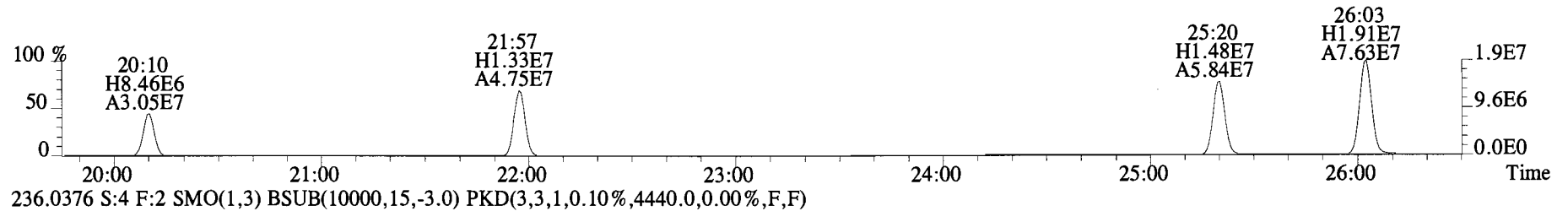
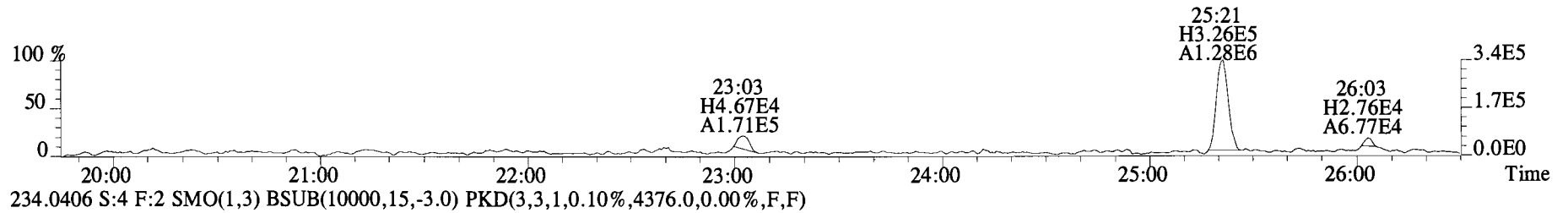
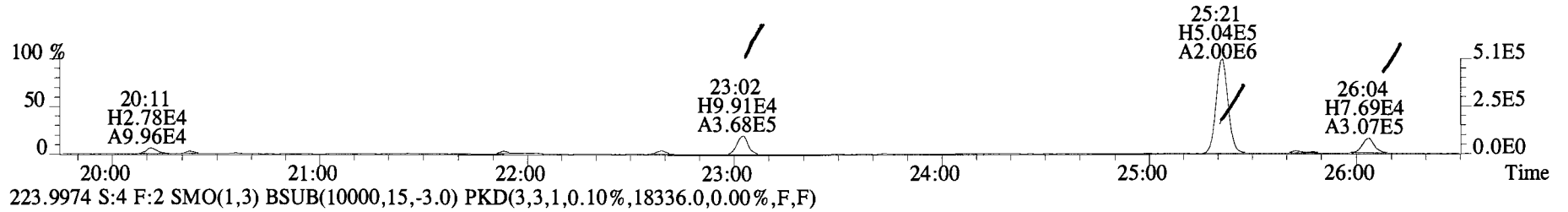
180.9880 S:4



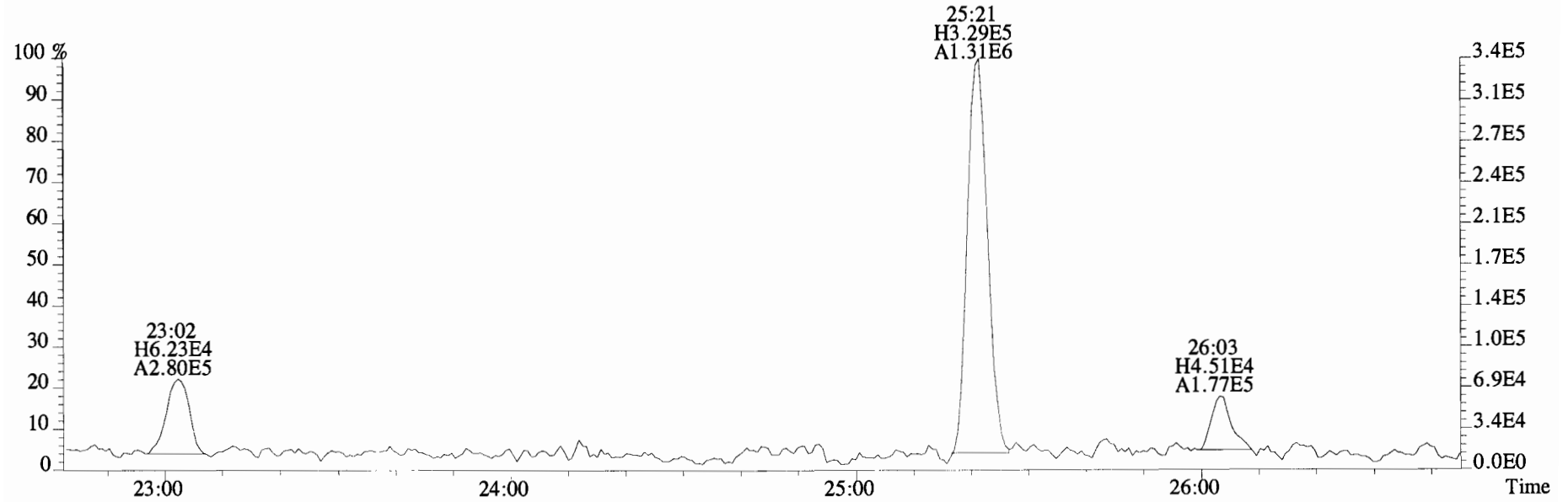
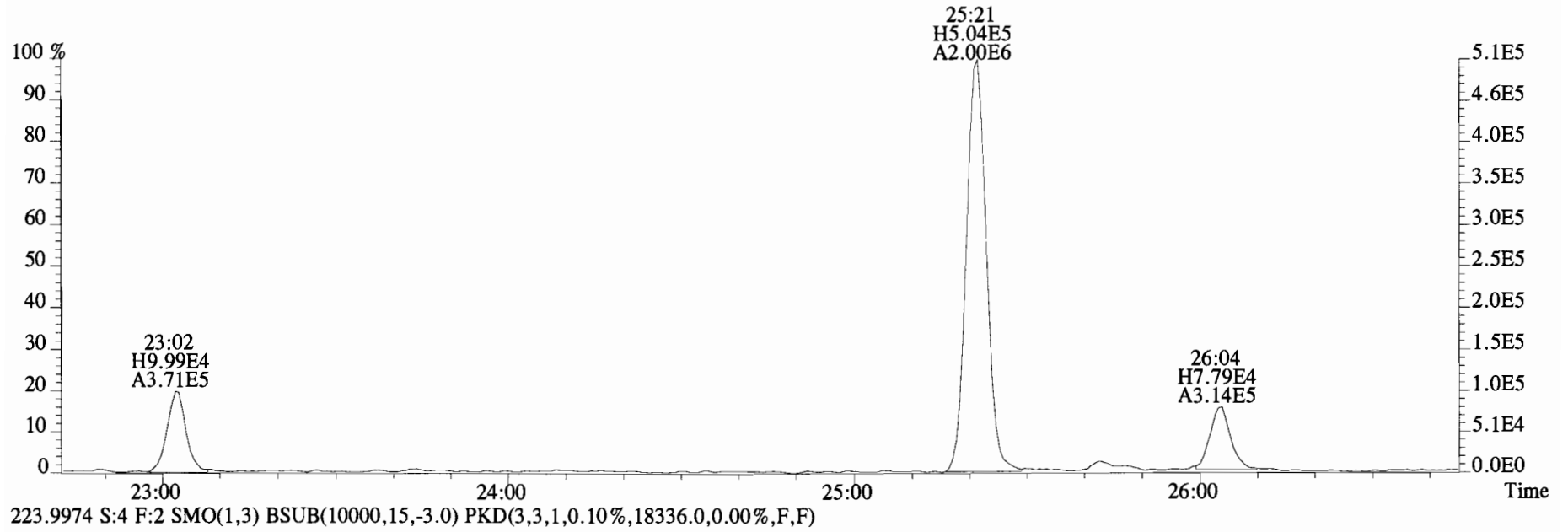
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
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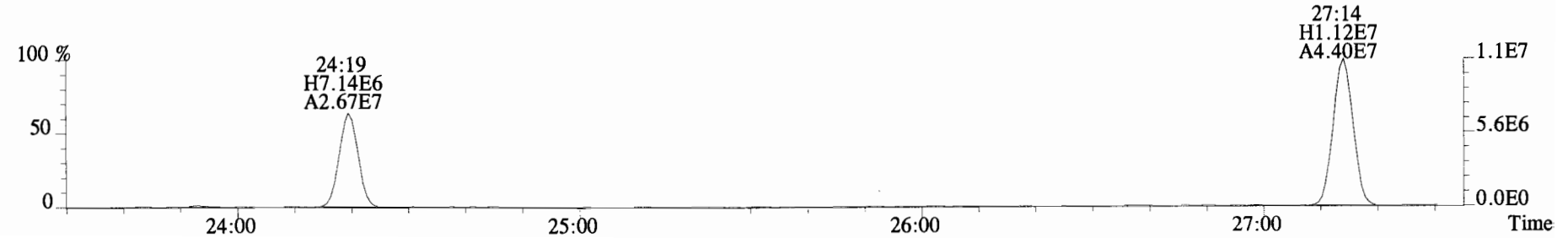
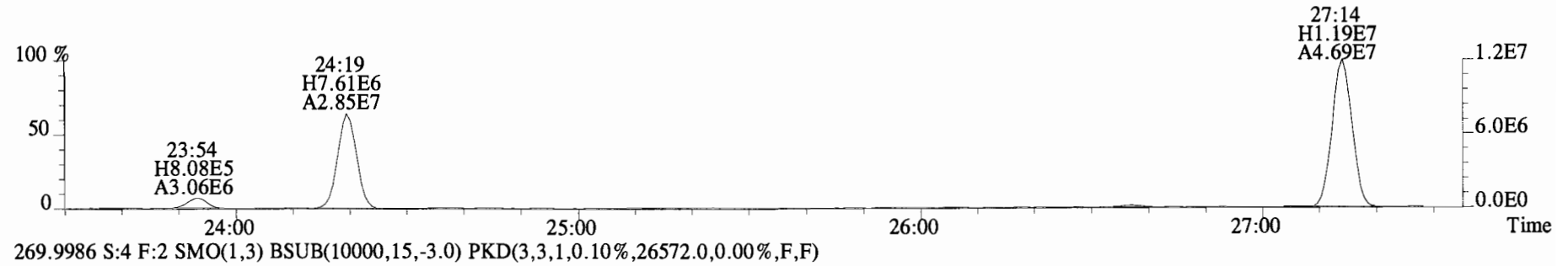
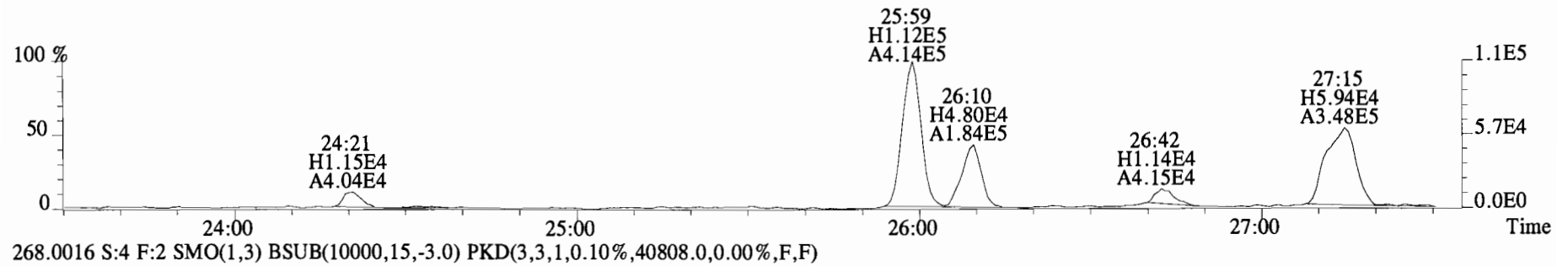
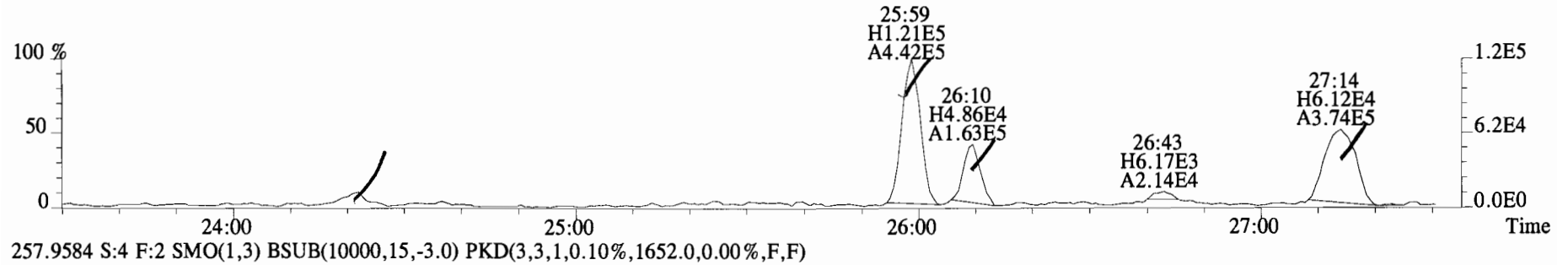
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
222.0003 S:4 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2856.0,0.00%,F,F)



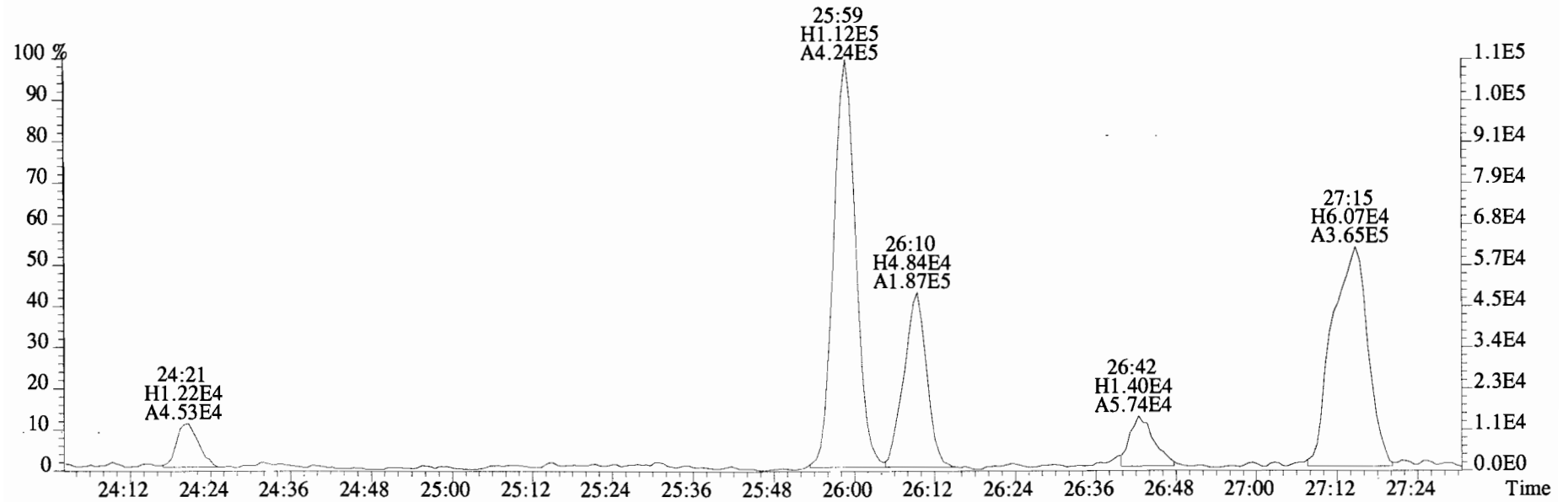
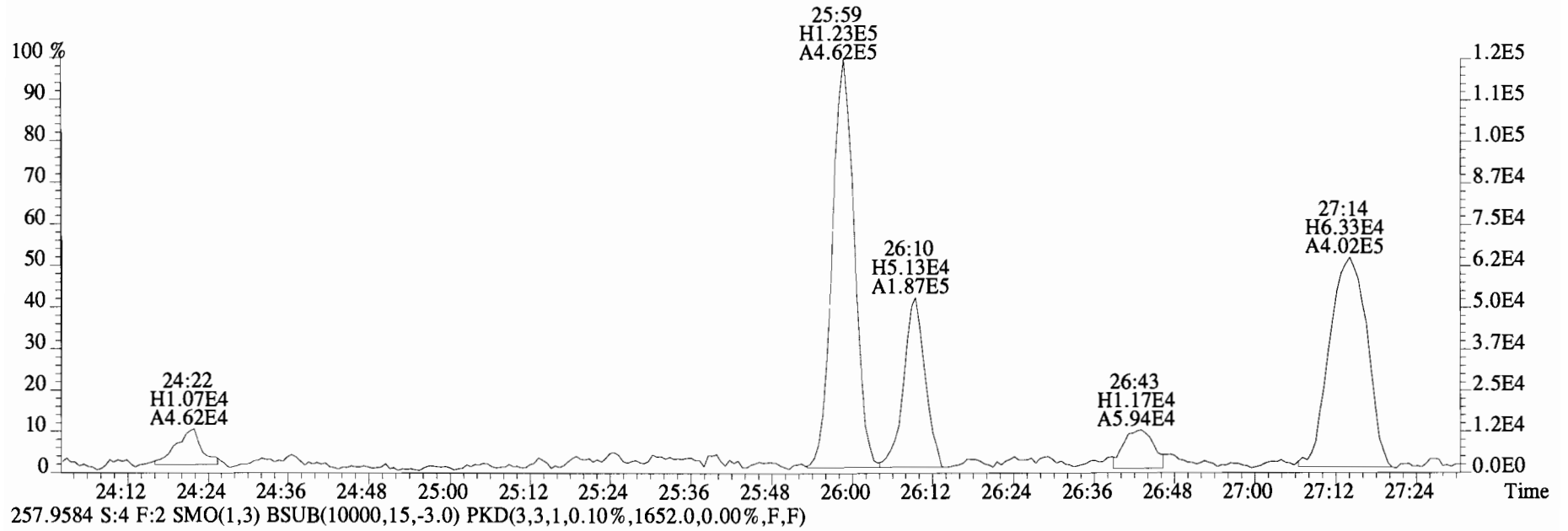
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
222.0003 S:4 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2856.0,0.00%,F,F)



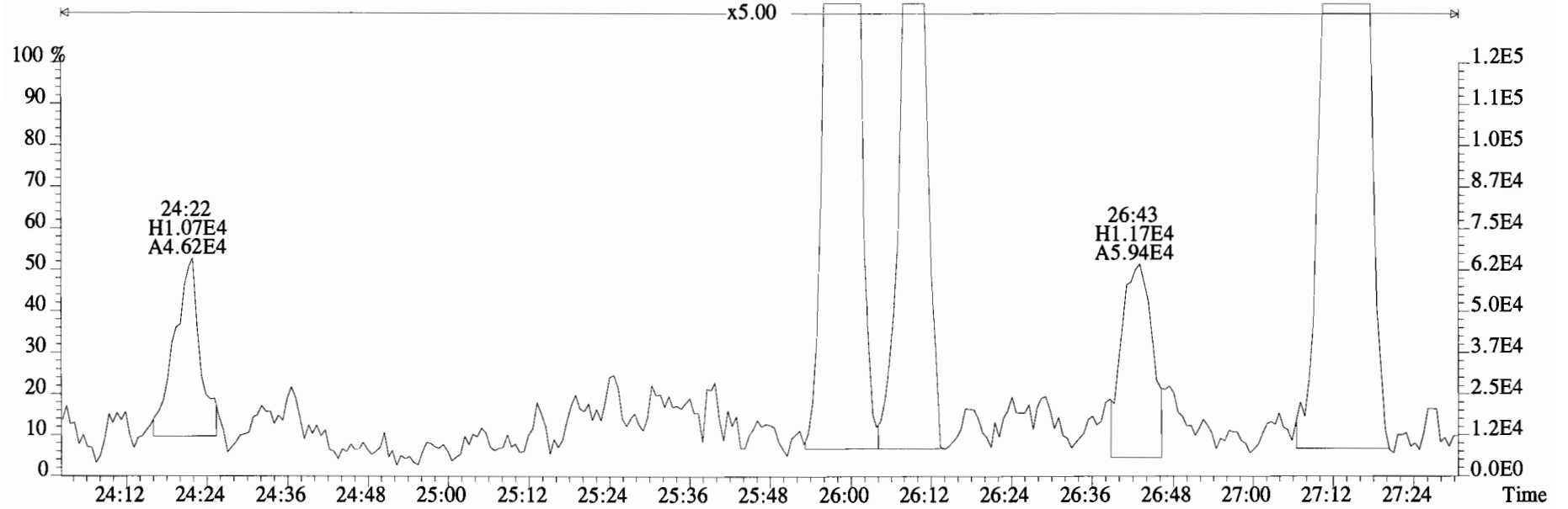
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
255.9613 S:4 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3644.0,0.00%,F,F)



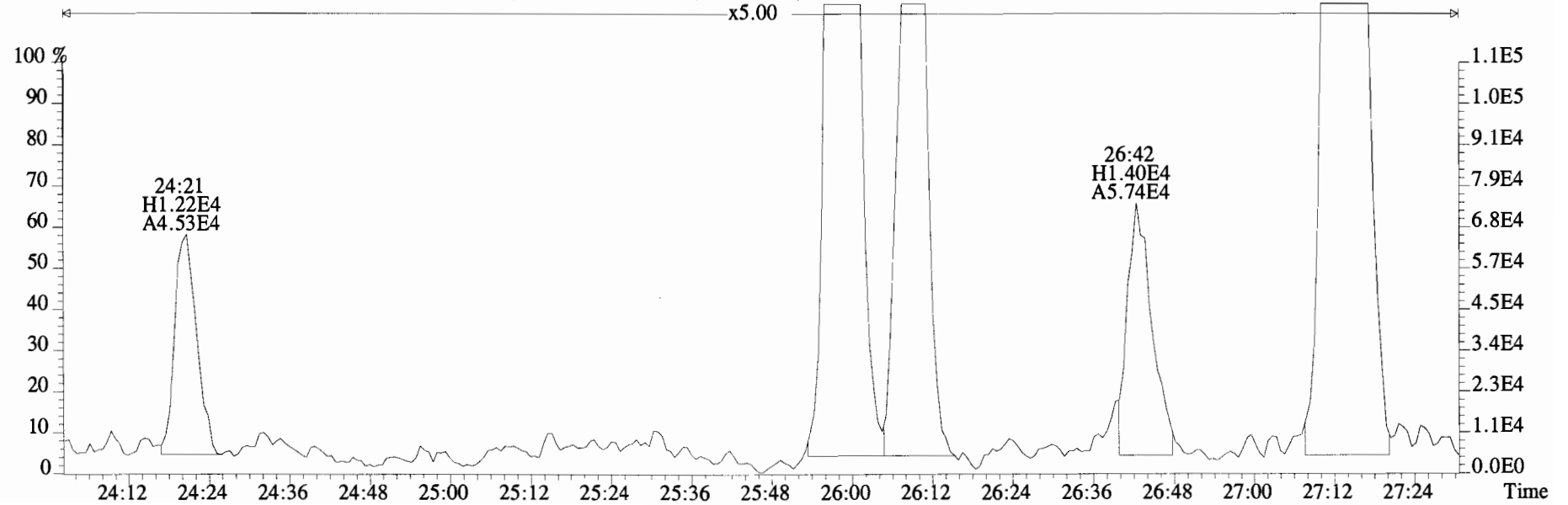
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
255.9613 S:4 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3644.0,0.00%,F,F)



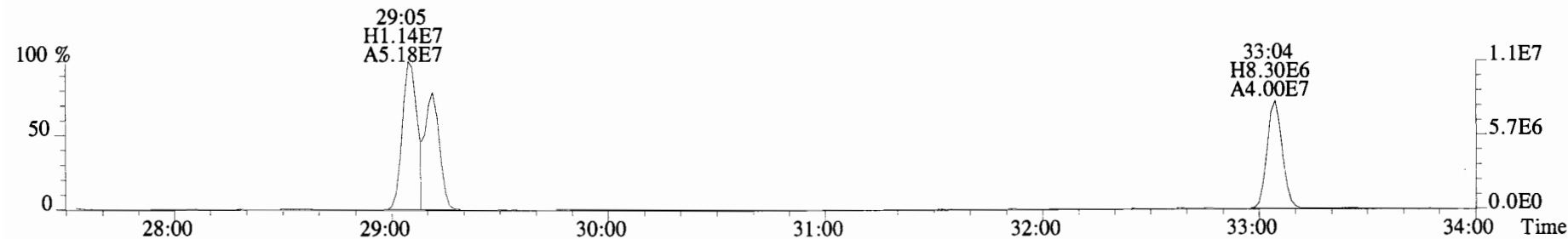
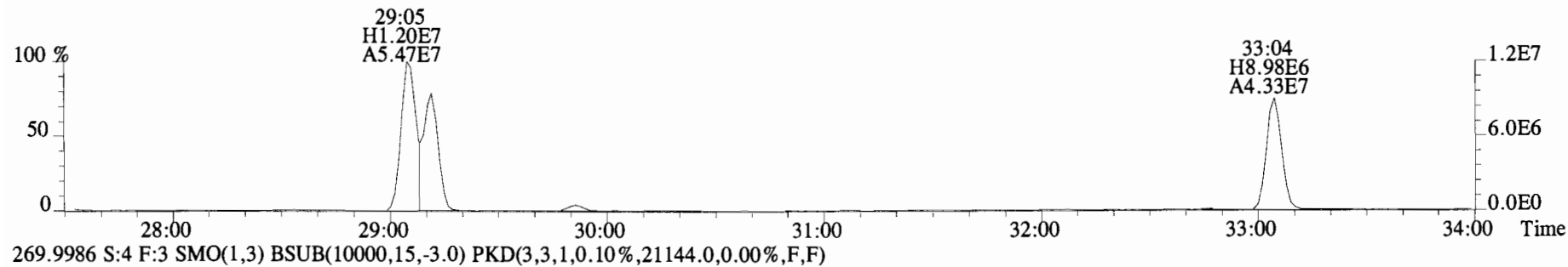
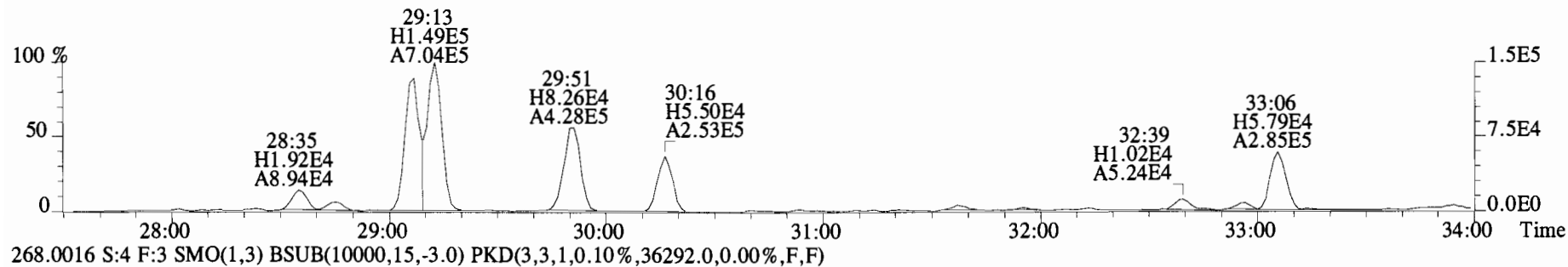
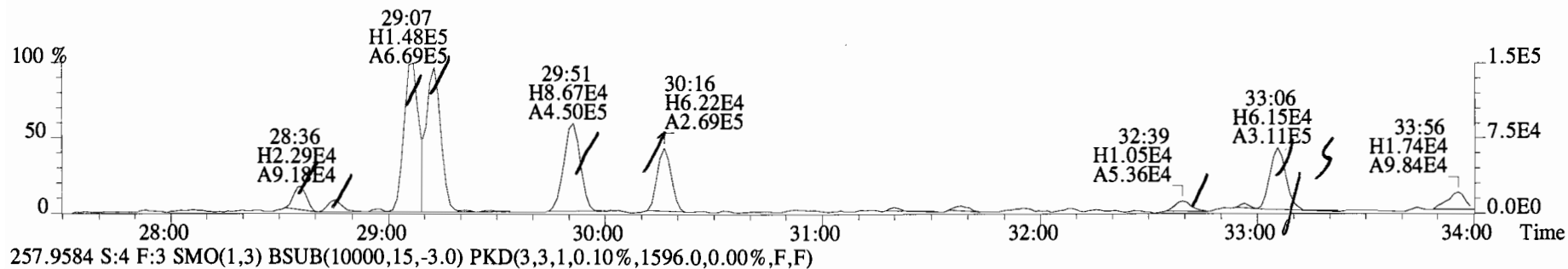
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
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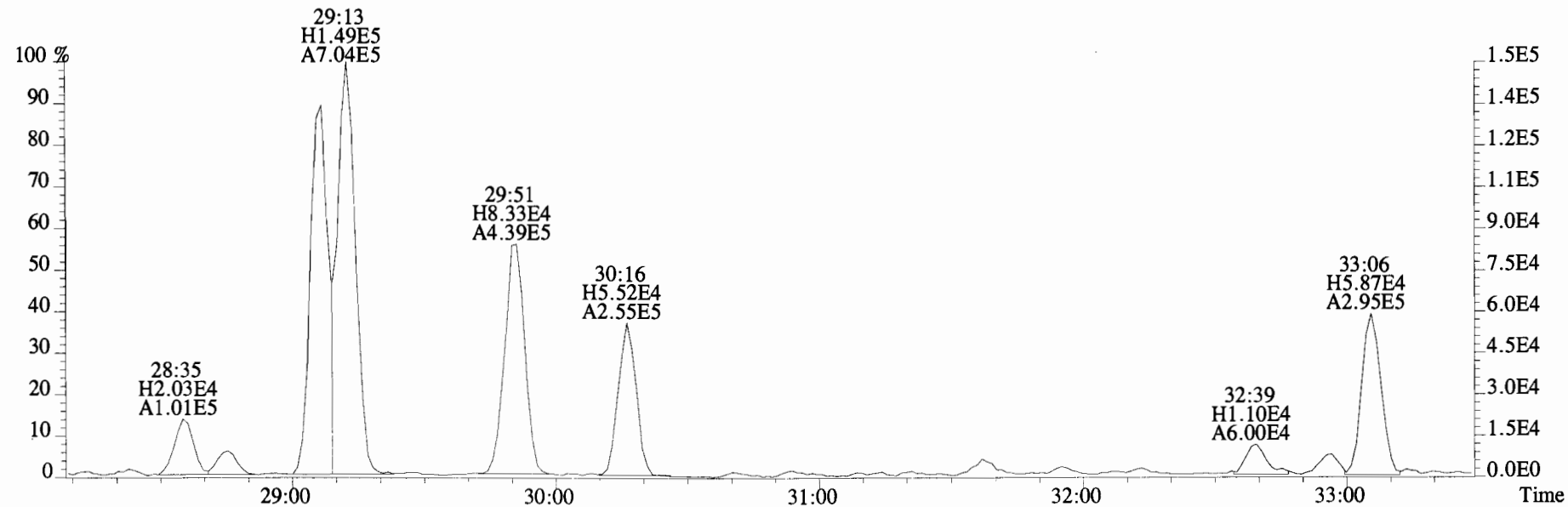
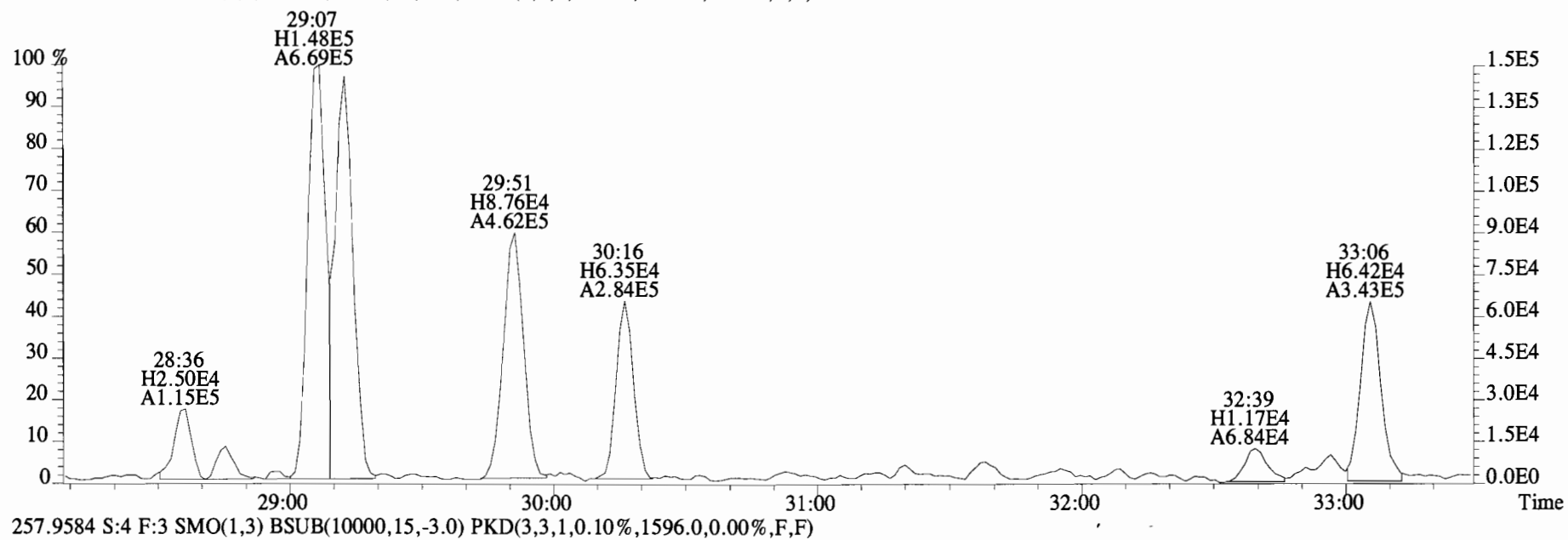
257.9584 S:4 F:2 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1652.0,0.00%,F,F)



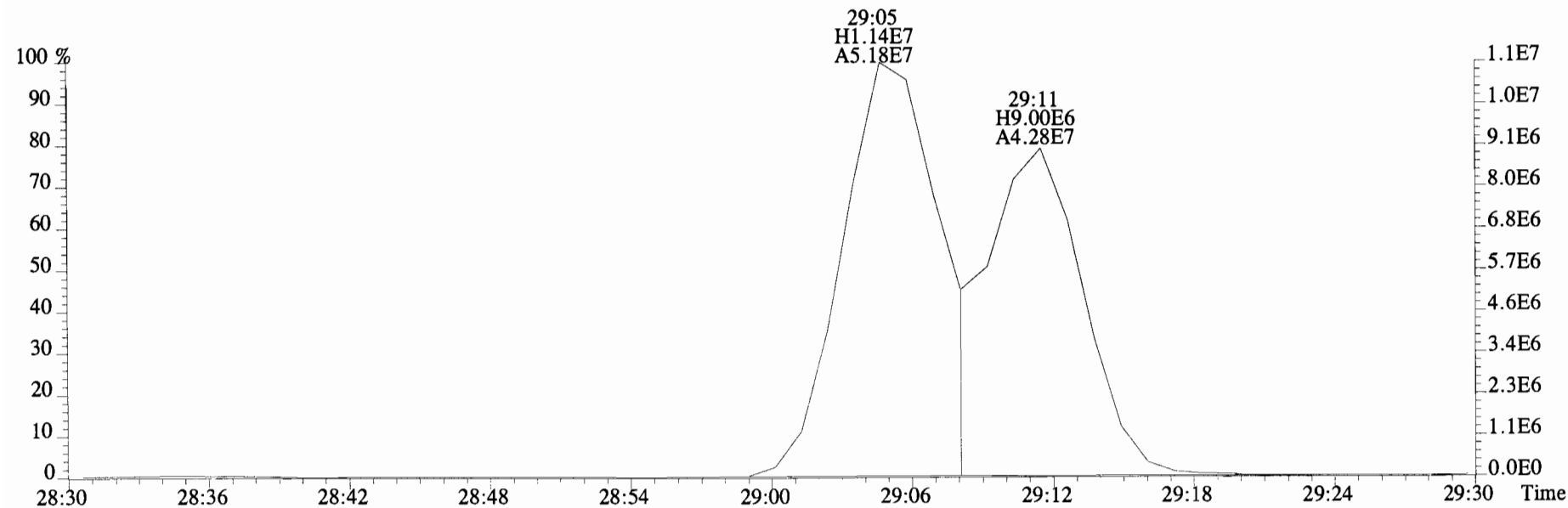
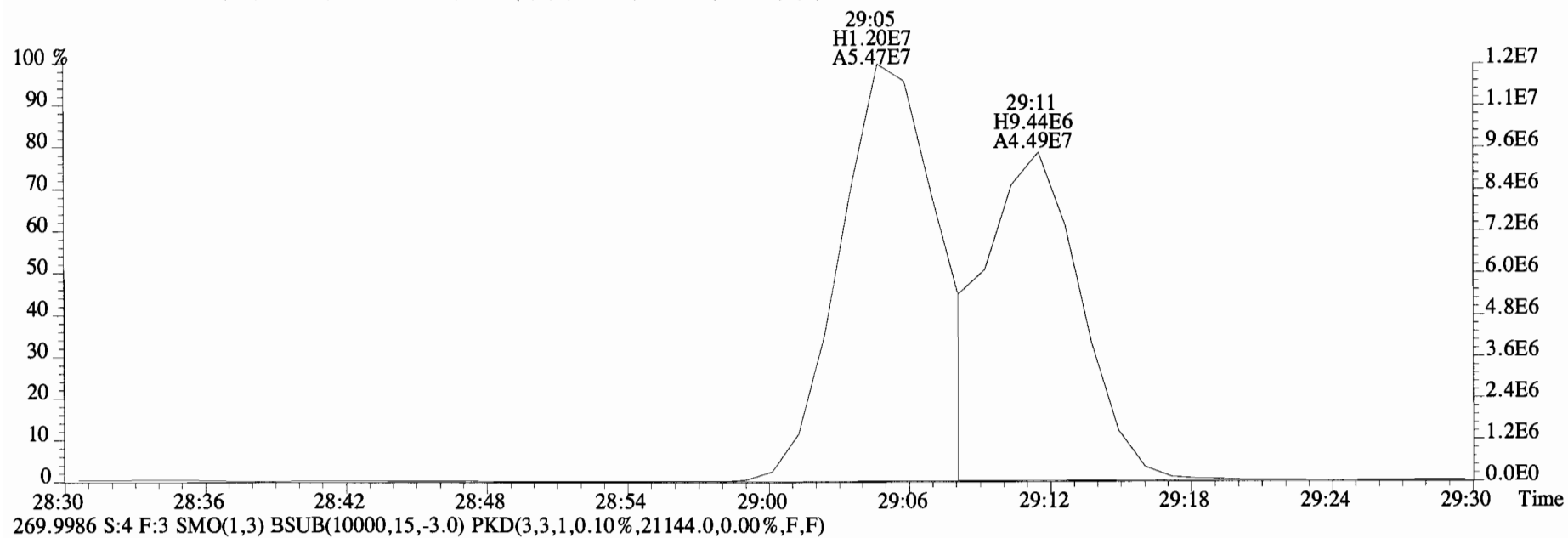
File:140924E1 #1-761 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
255.9613 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3192.0,0.00%,F,F)



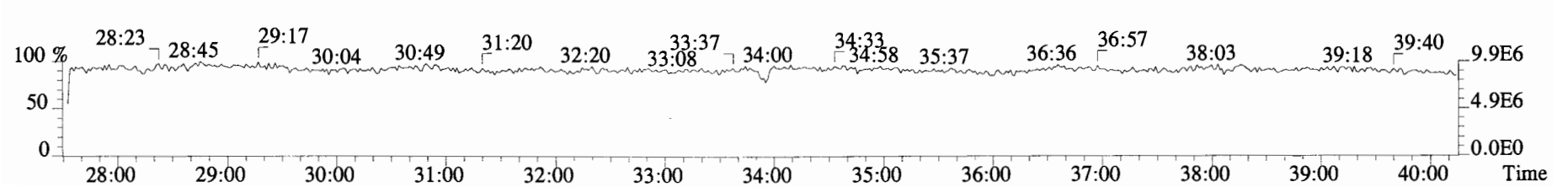
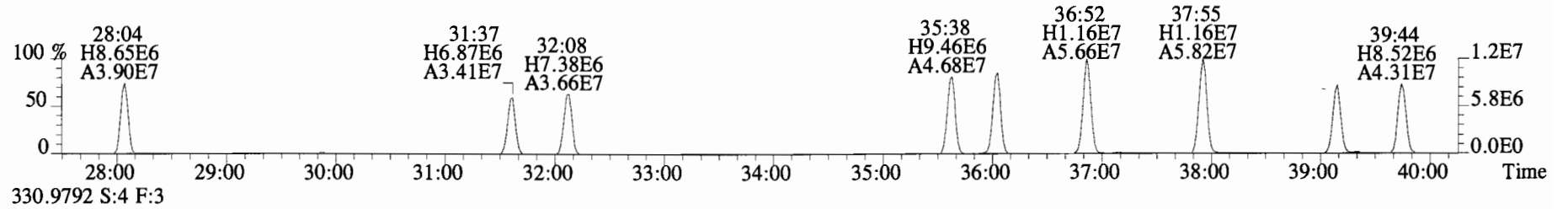
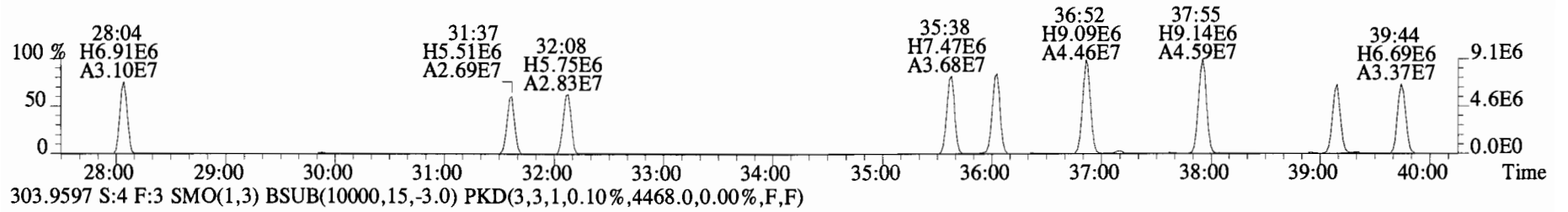
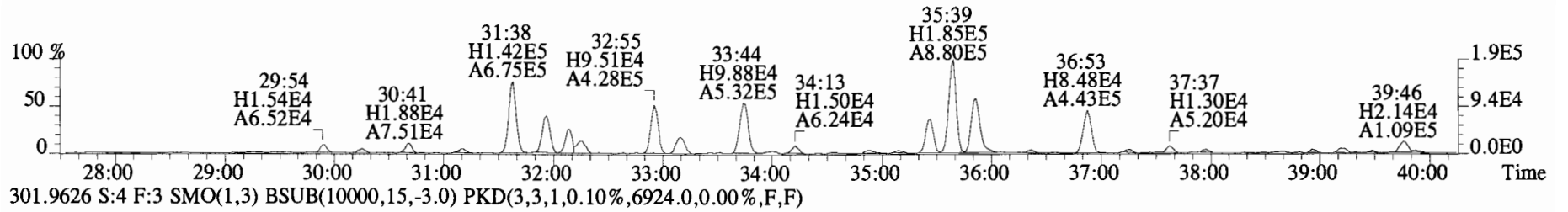
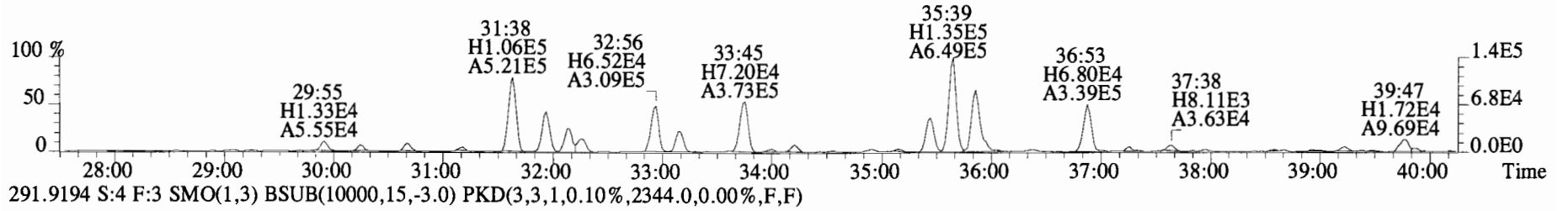
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Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
255.9613 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,3192.0,0.00%,F,F)



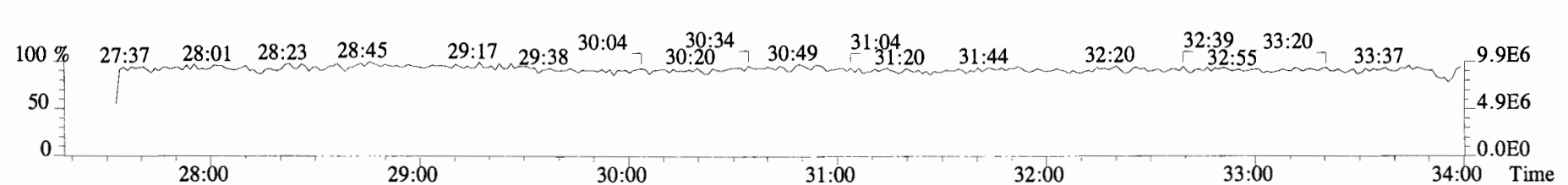
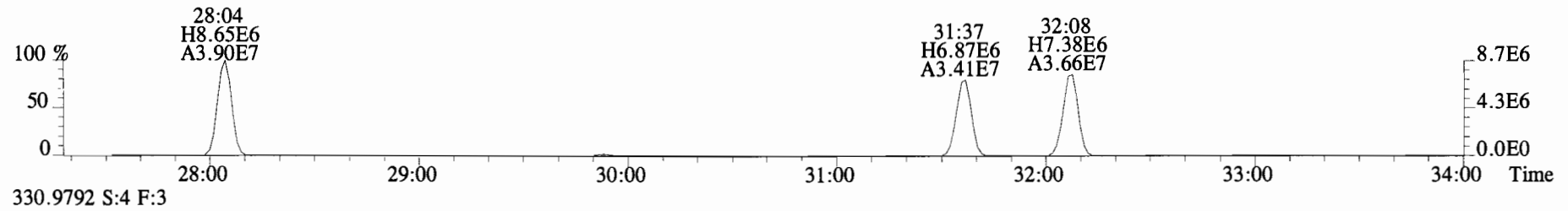
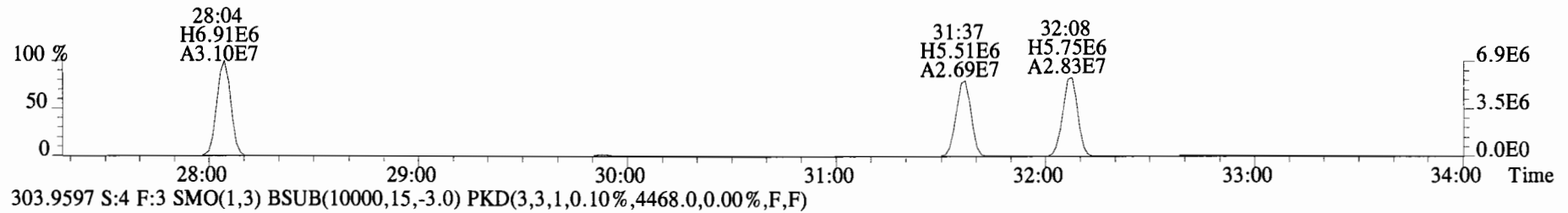
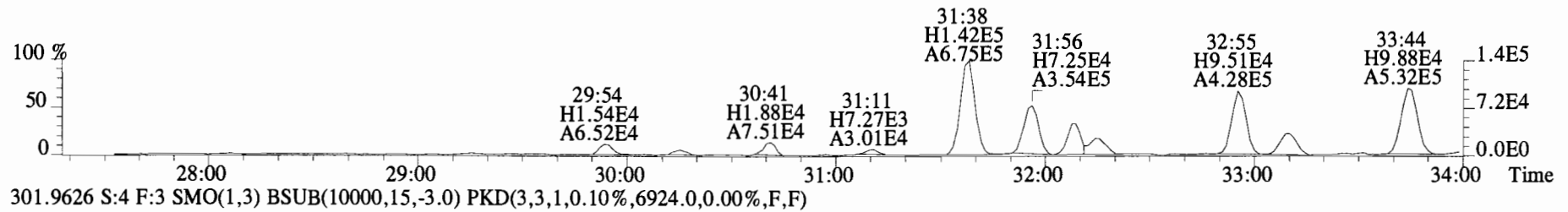
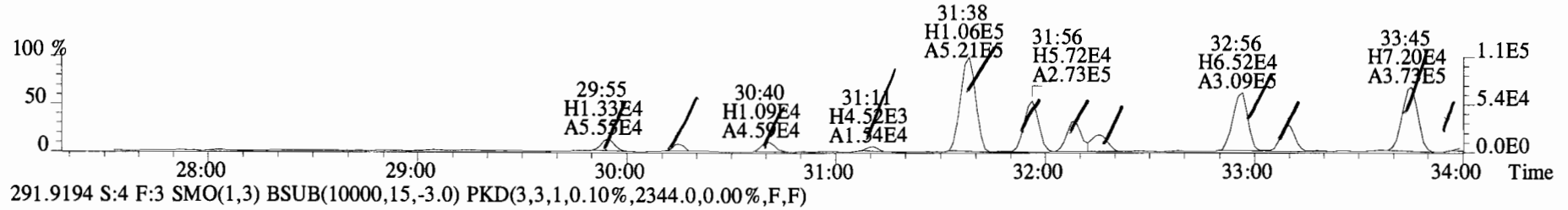
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
268.0016 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,36292.0,0.00%,F,F)



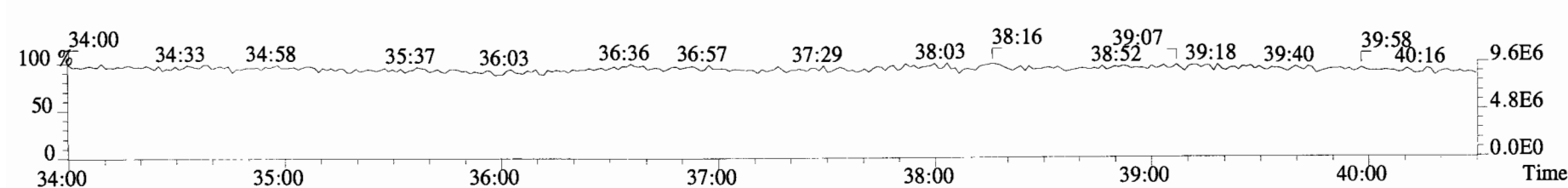
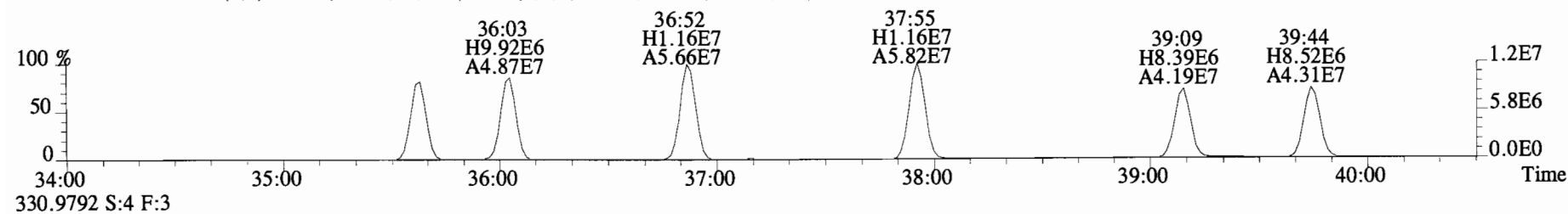
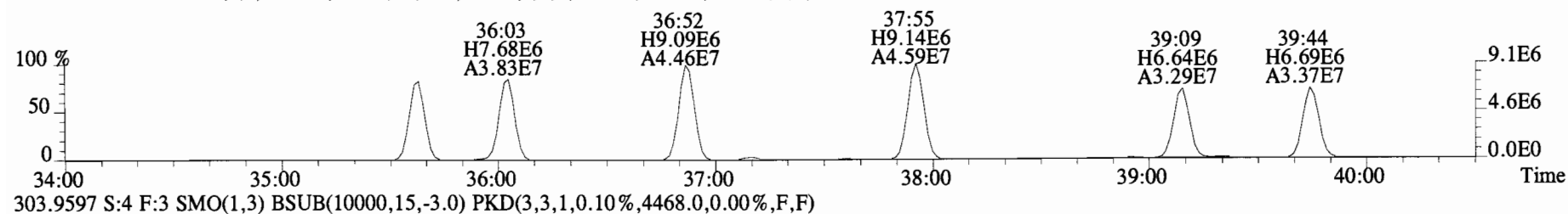
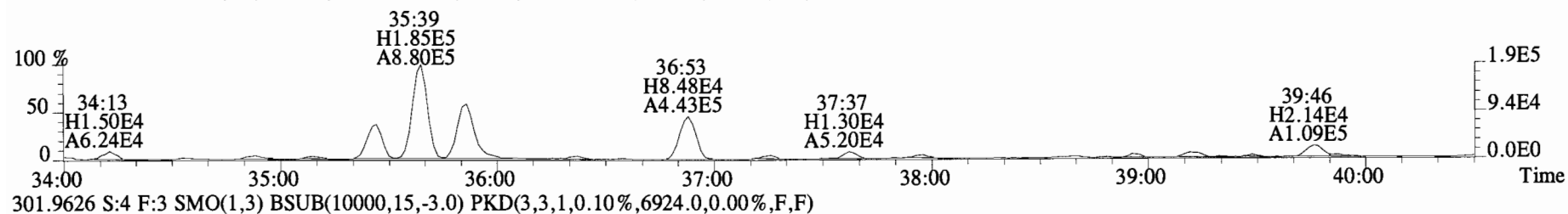
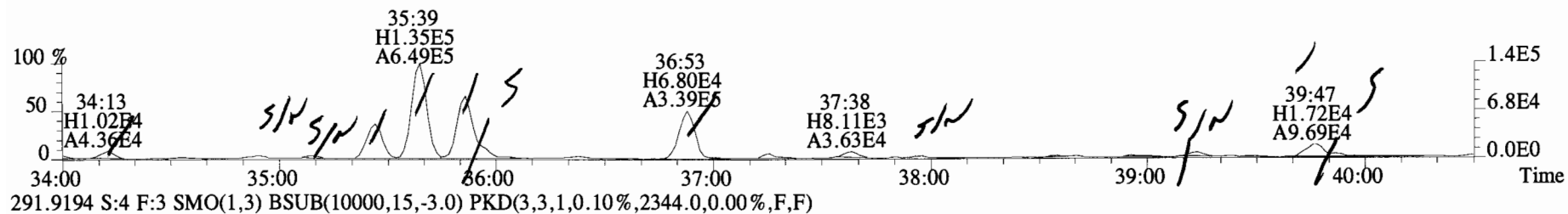
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
289.9224 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1664.0,0.00%,F,F)



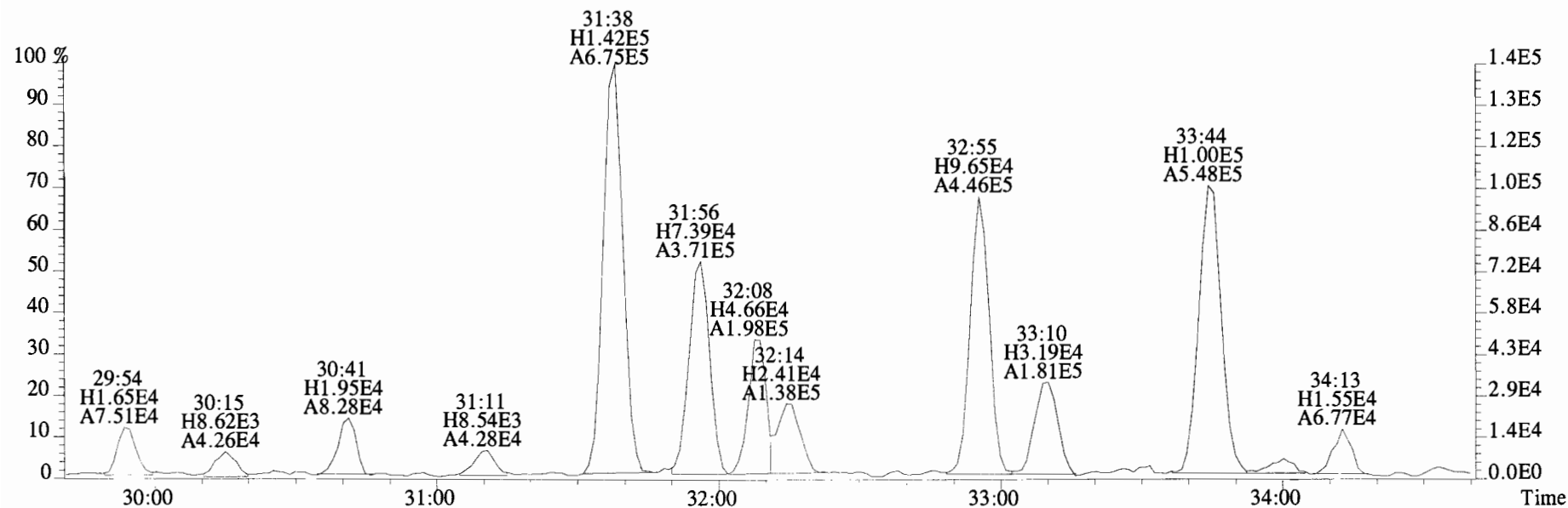
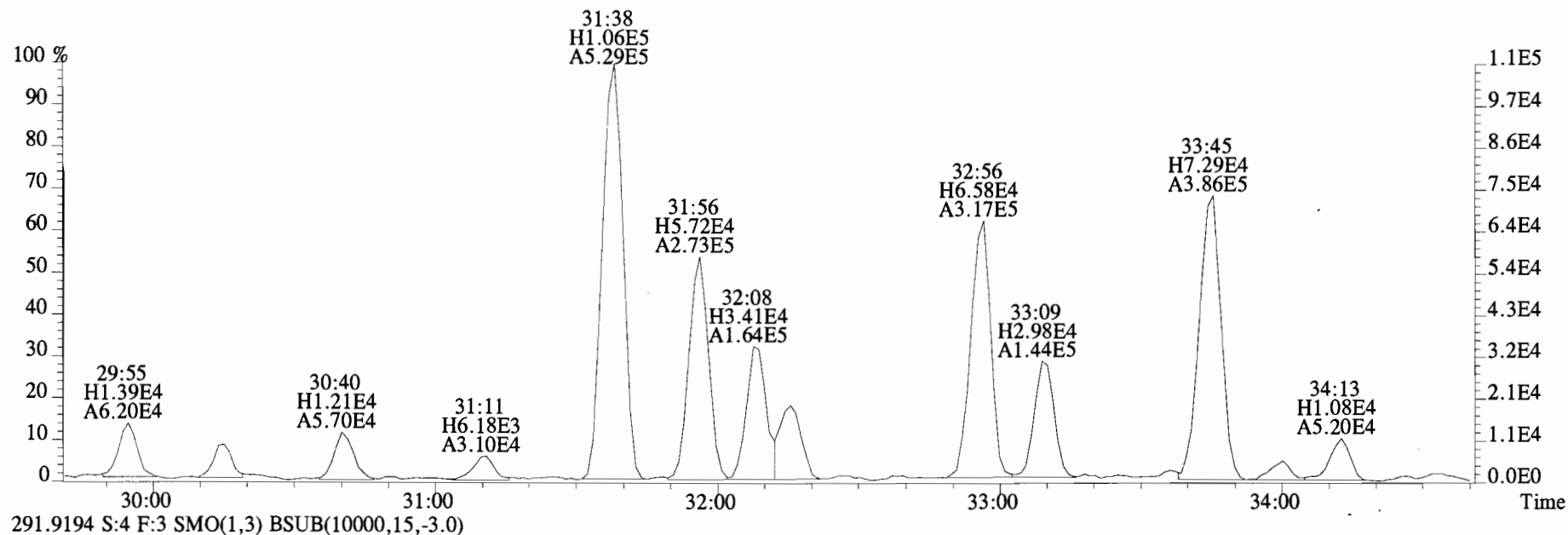
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
289.9224 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1664.0,0.00%,F,F)



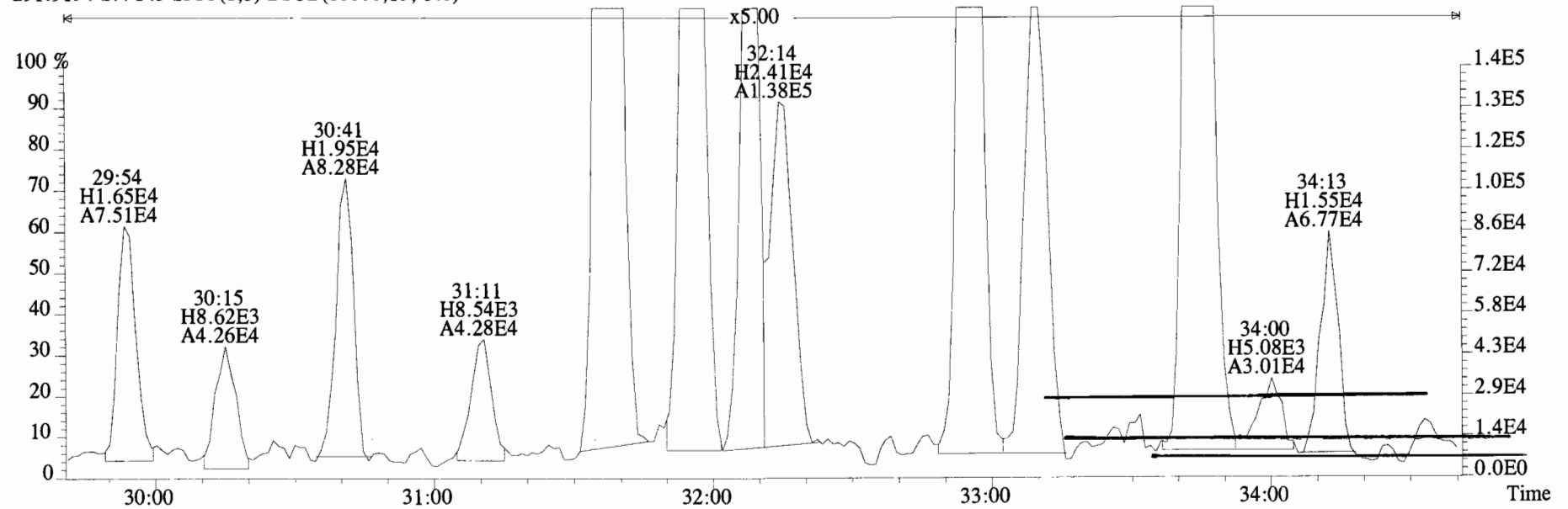
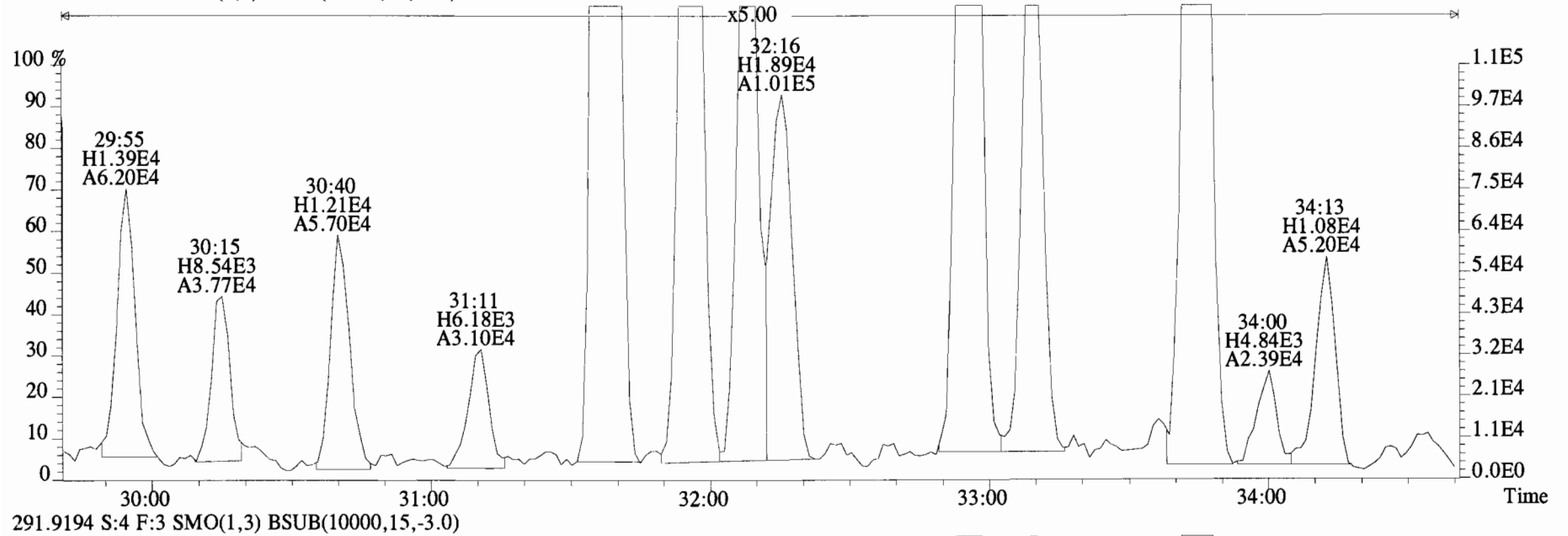
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Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
289.9224 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1664.0,0.00%,F,F)



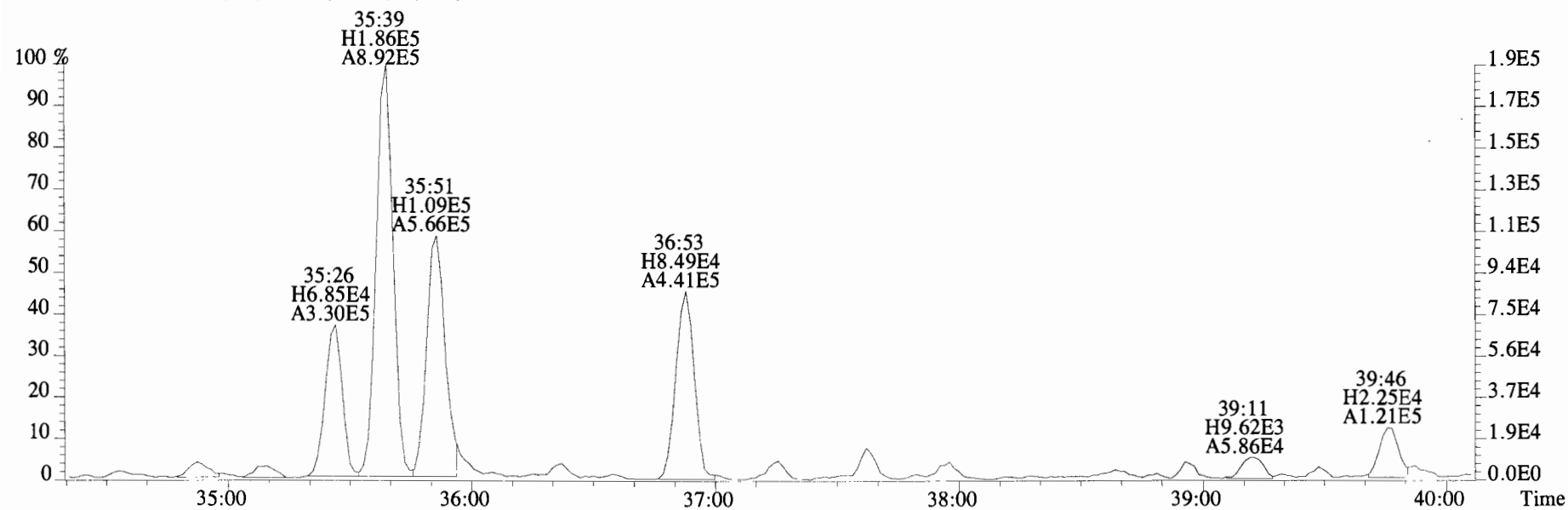
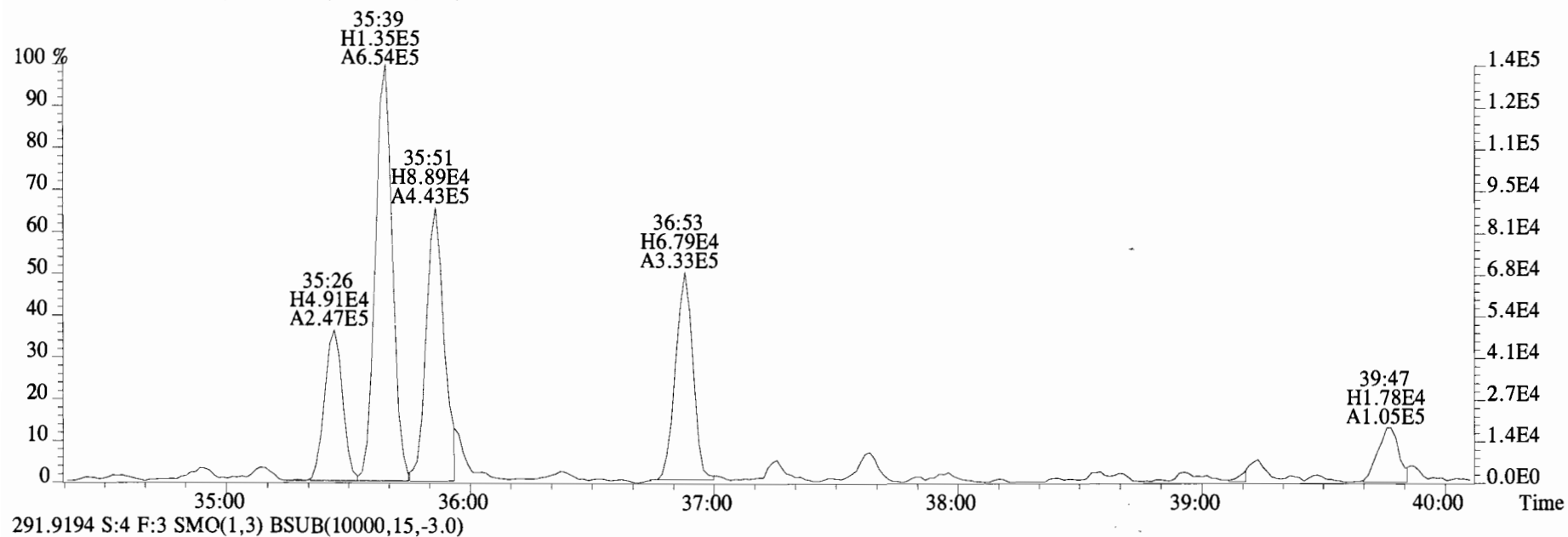
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 289.9224 S:4 F:3 SMO(1,3) BSub(10000,15,-3.0)



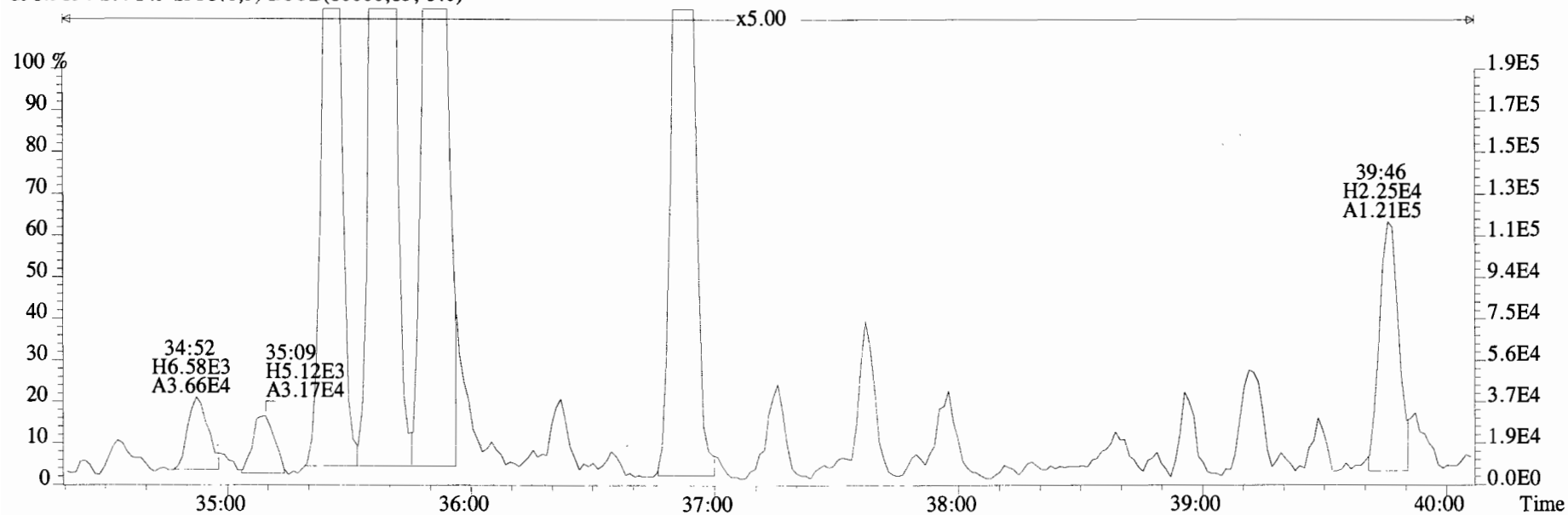
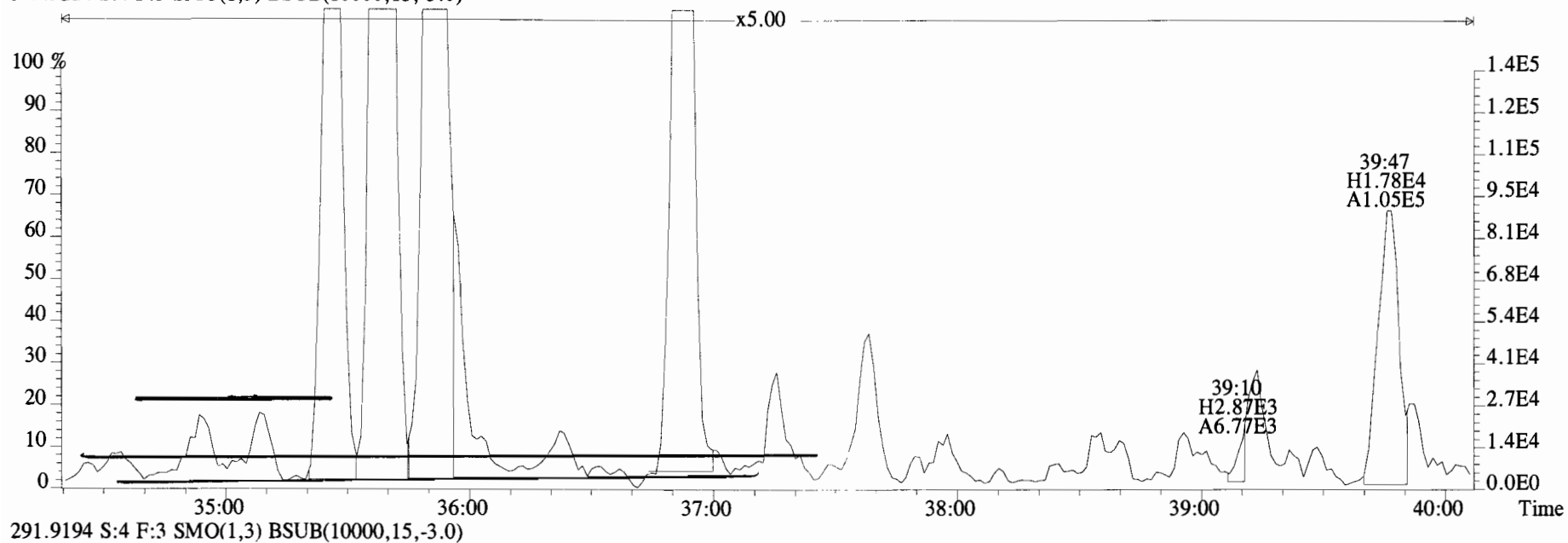
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 Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
 289.9224 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0)



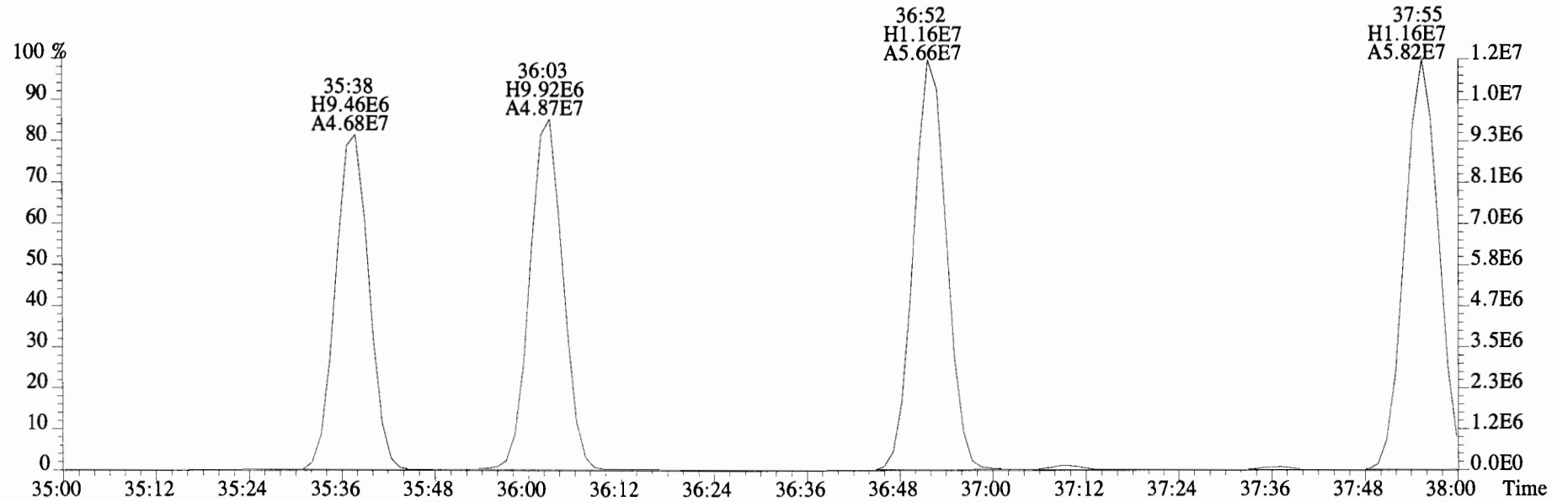
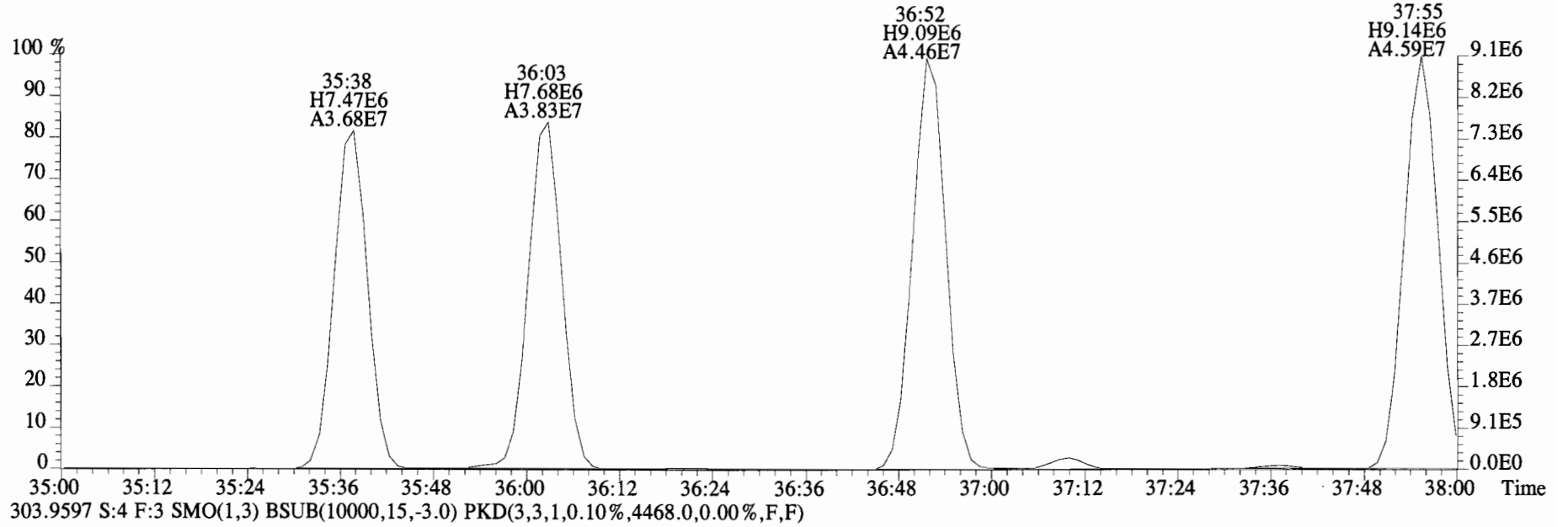
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Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
289.9224 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0)



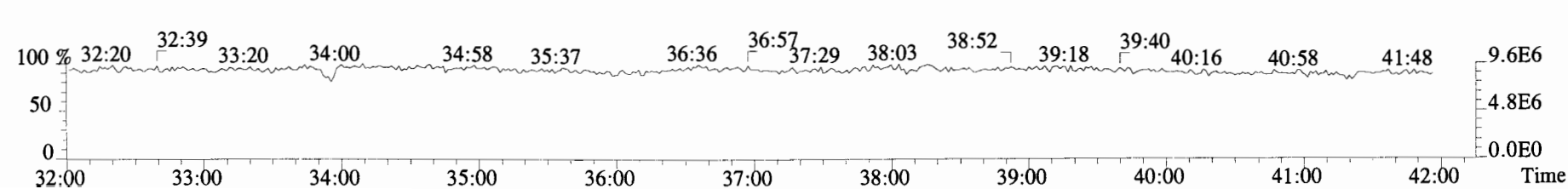
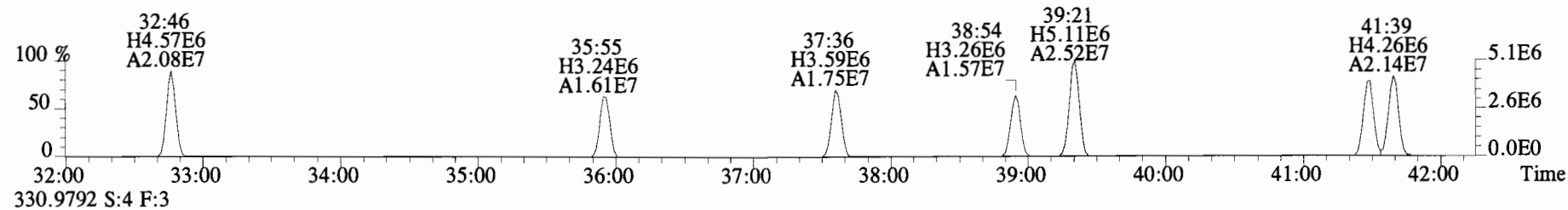
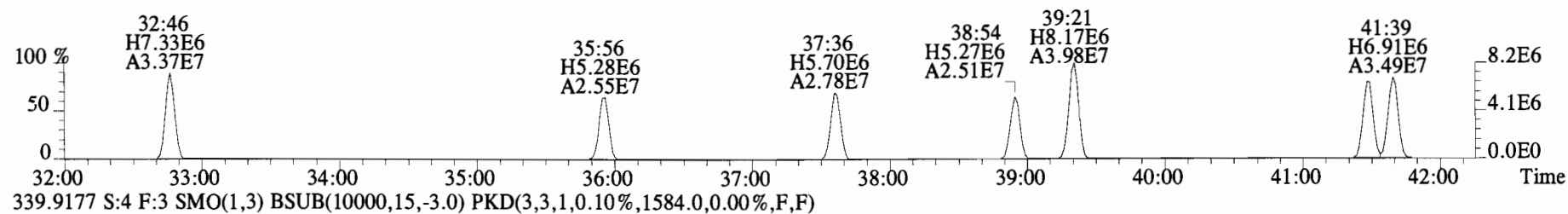
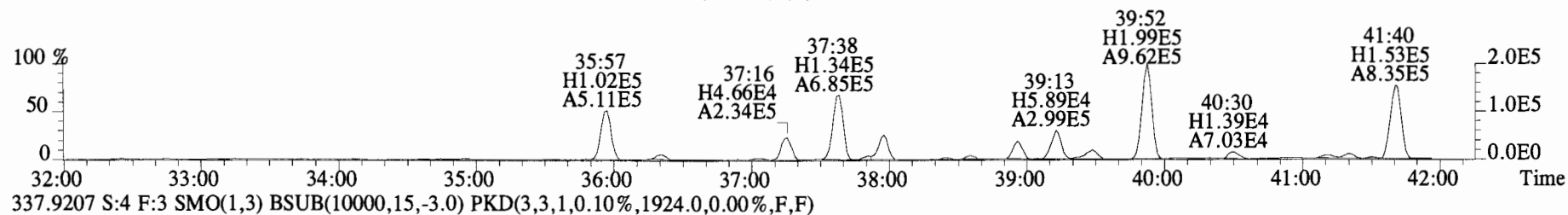
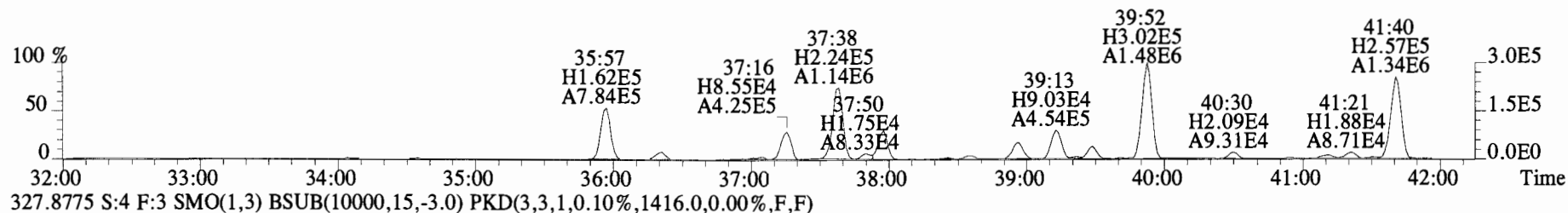
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
289.9224 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0)



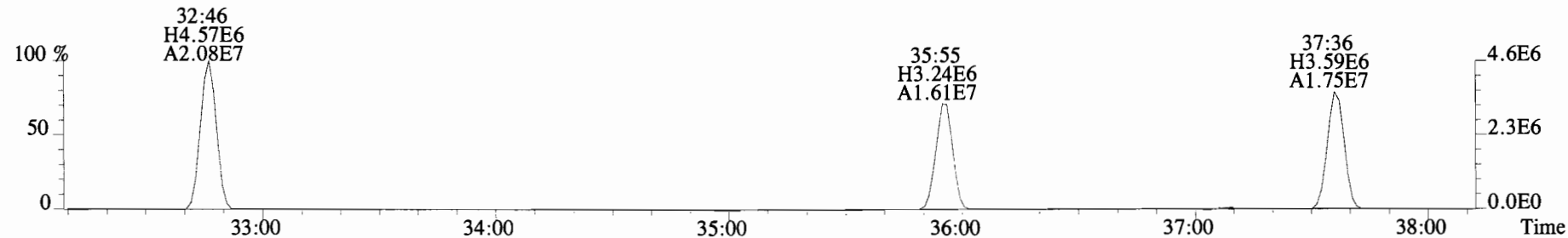
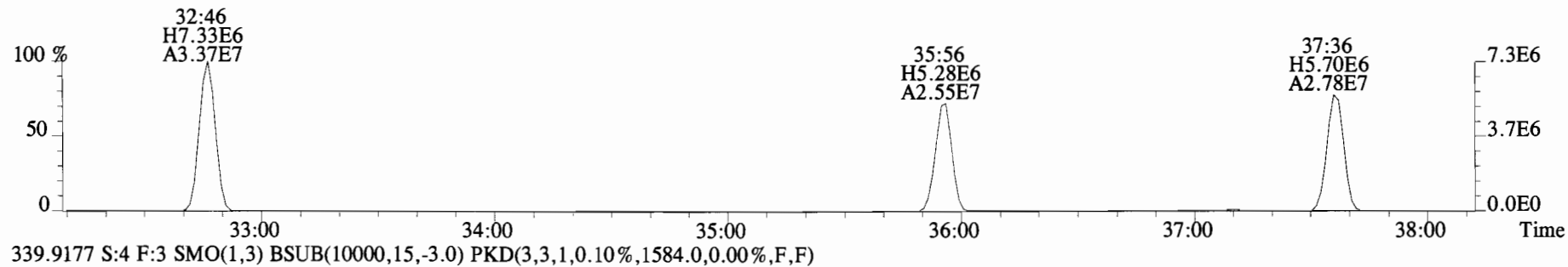
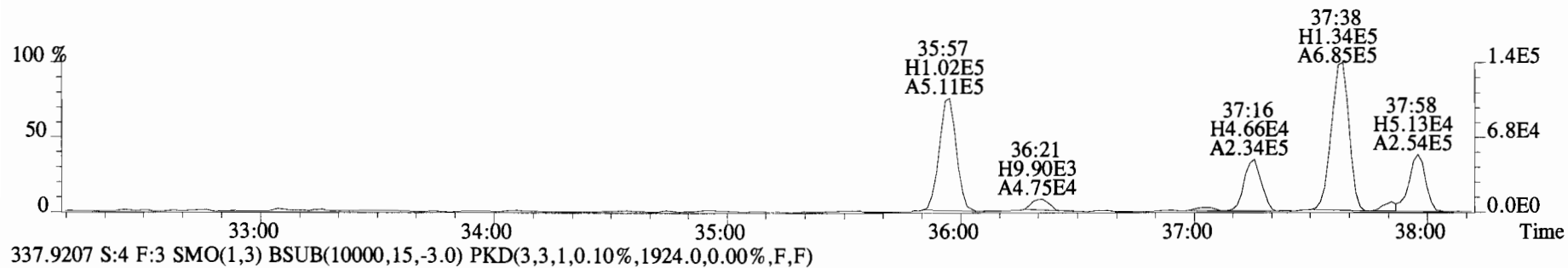
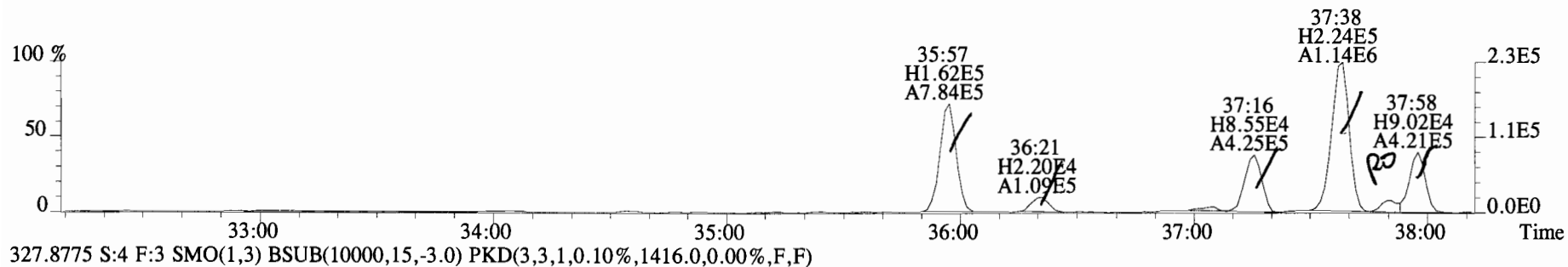
File:140924E1 #1-761 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
301.9626 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6924.0,0.00%,F,F)



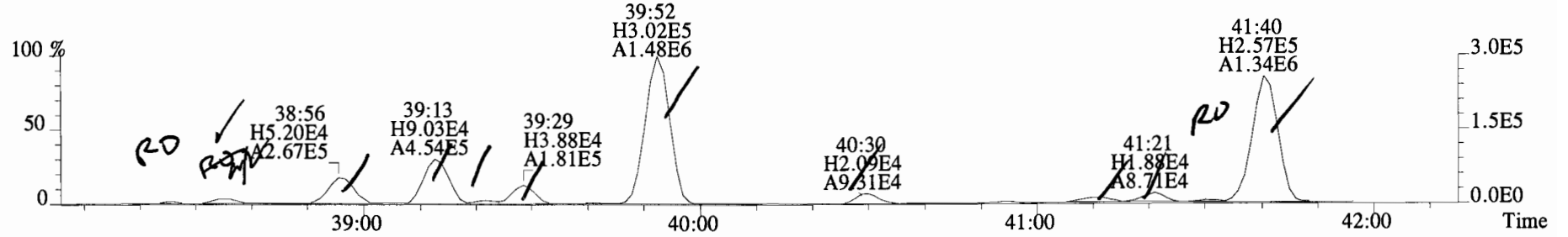
File:140924E1 #1-761 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
325.8804 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1716.0,0.00%,F,F)



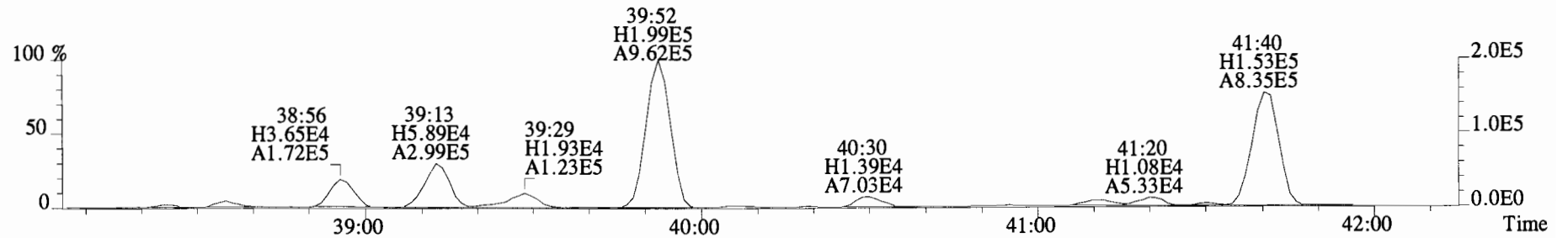
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
325.8804 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1716.0,0.00%,F,F)



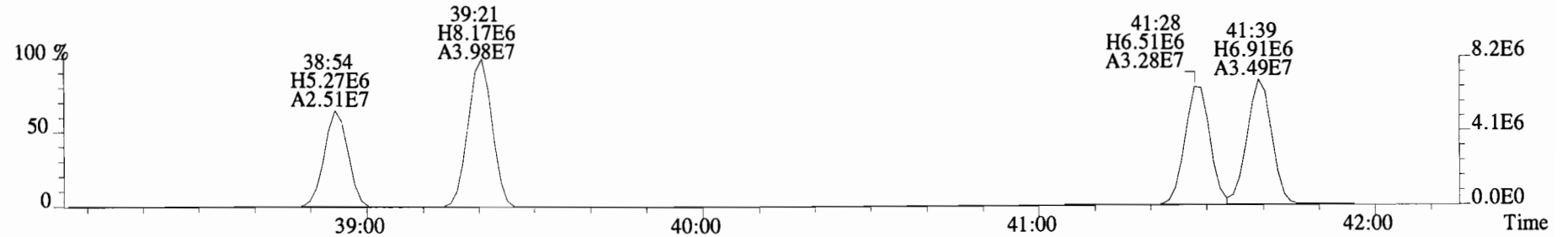
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 Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
 325.8804 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1716.0,0.00%,F,F)



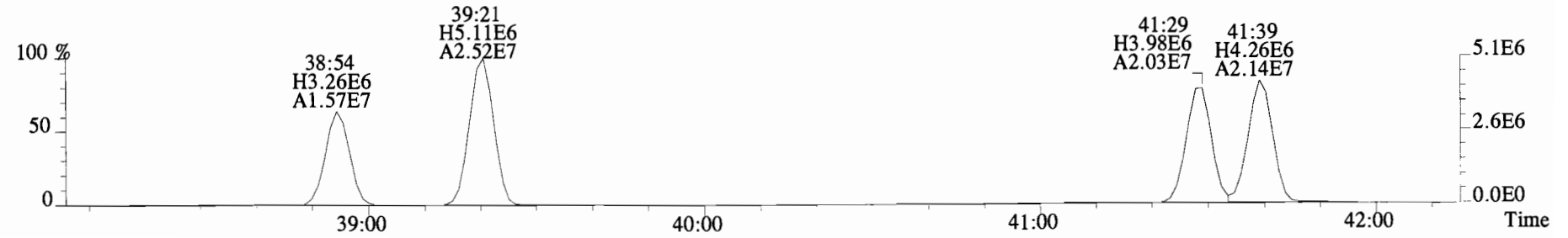
327.8775 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1416.0,0.00%,F,F)



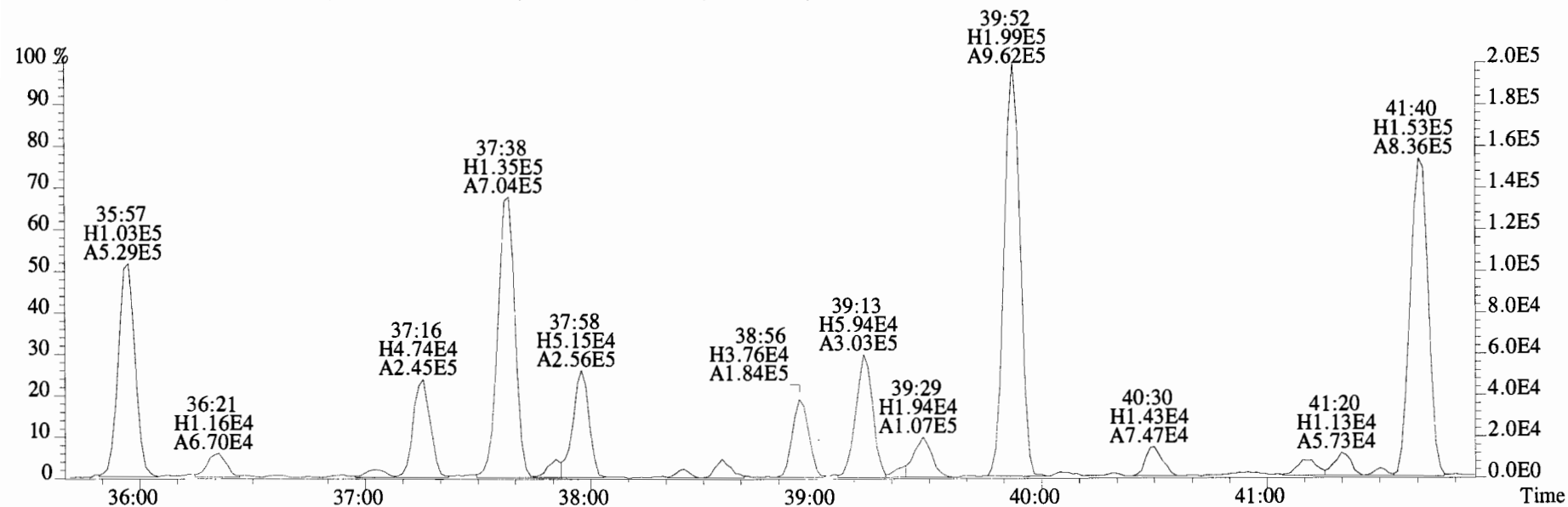
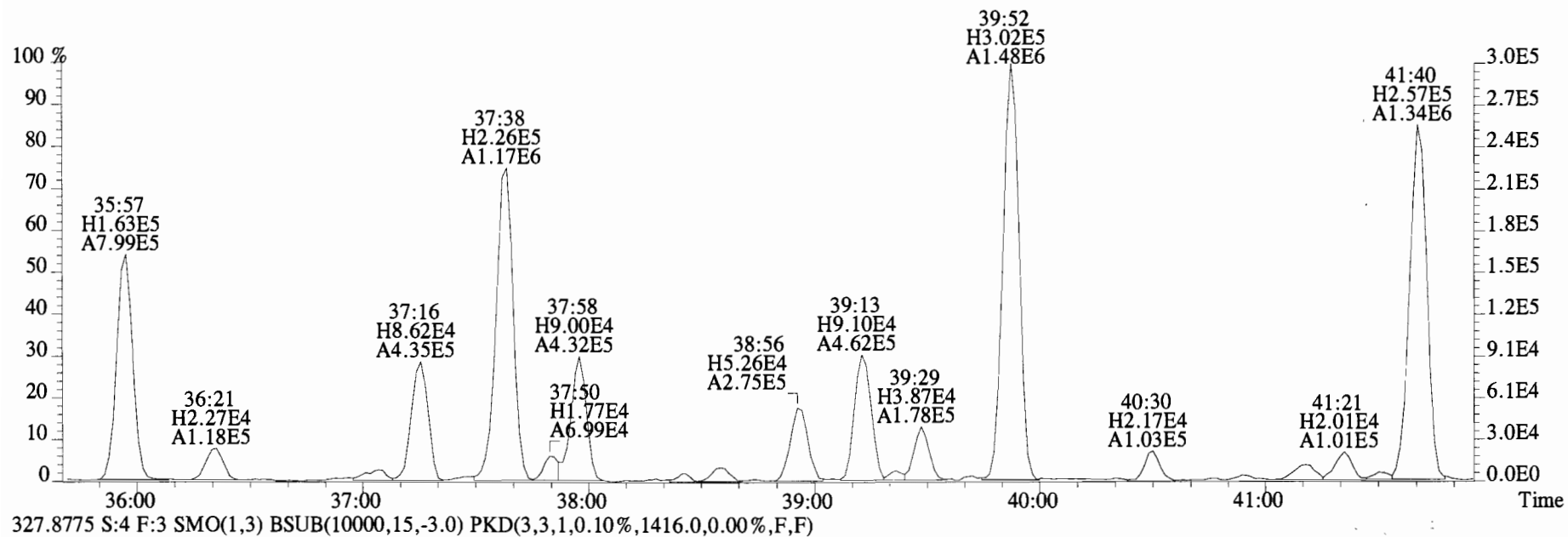
337.9207 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1924.0,0.00%,F,F)



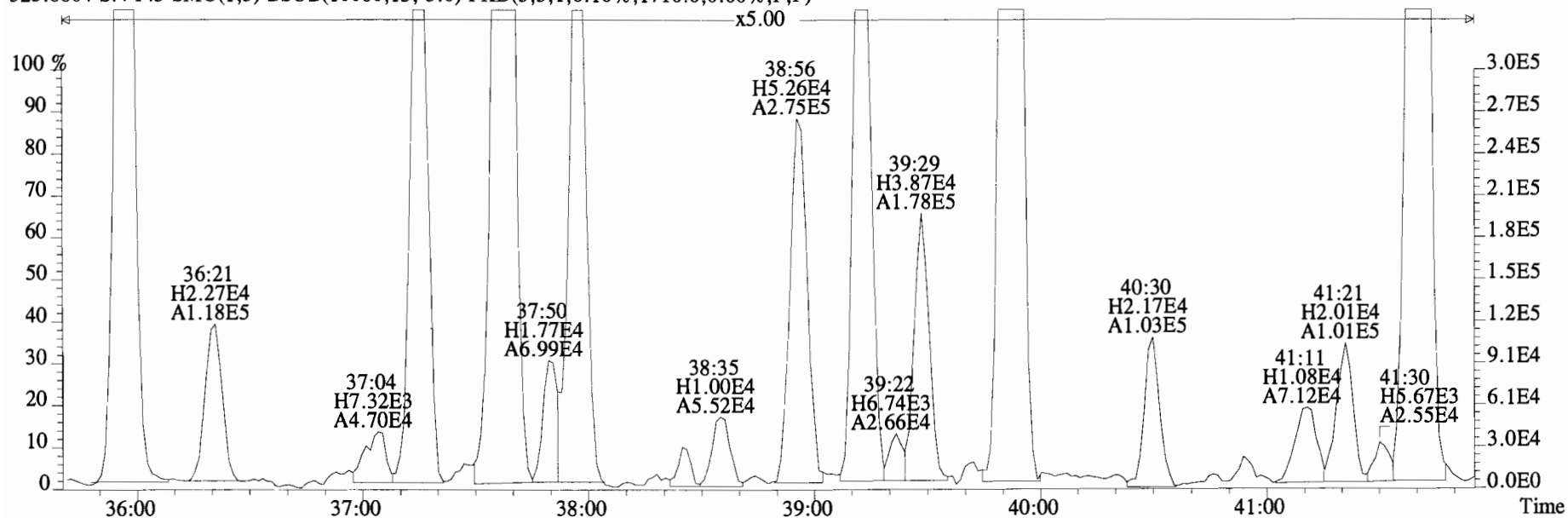
339.9177 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1584.0,0.00%,F,F)



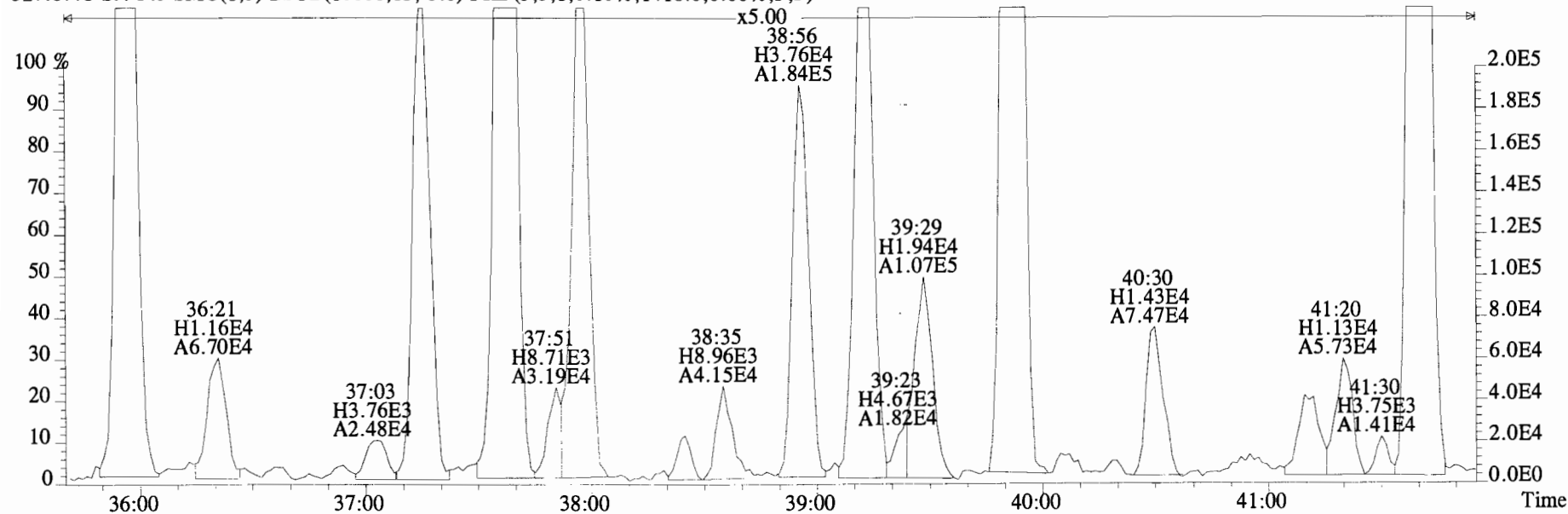
File:140924E1 #1-761 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
 325.8804 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1716.0,0.00%,F,F)



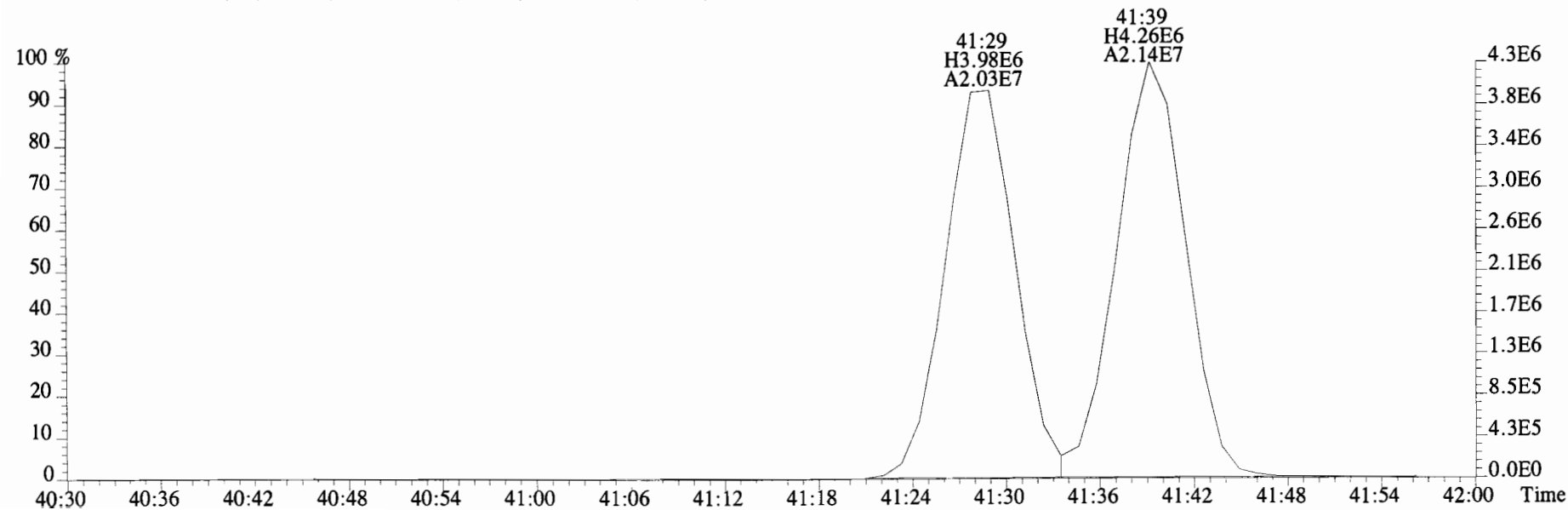
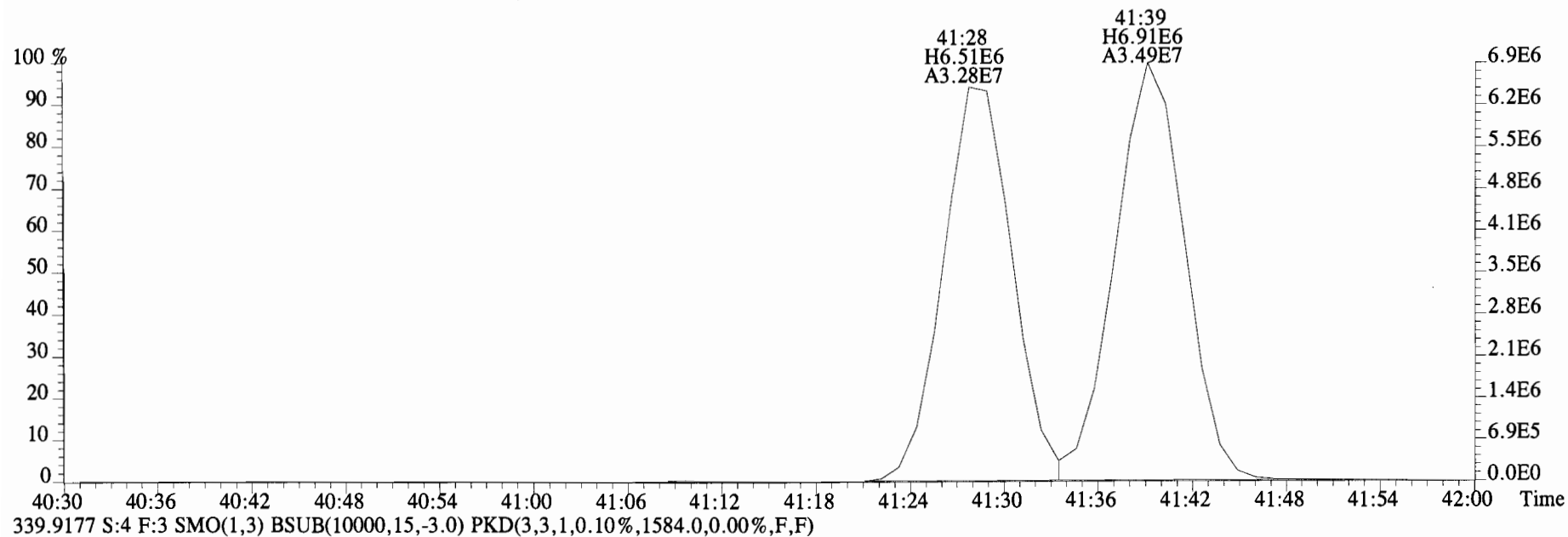
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 Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
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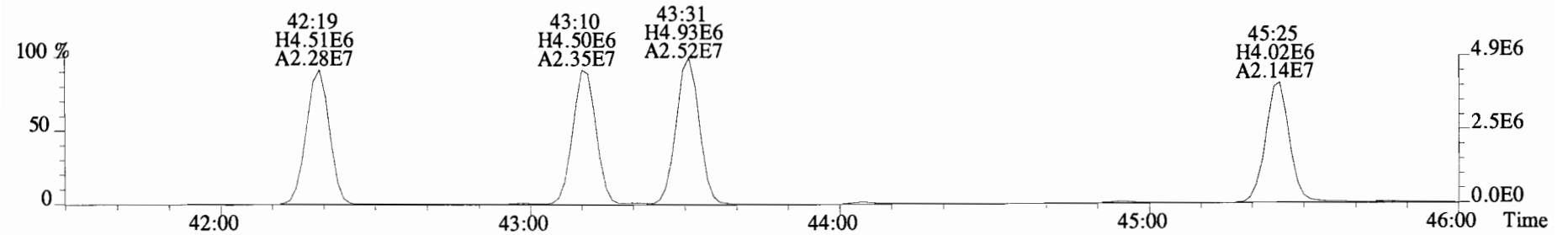
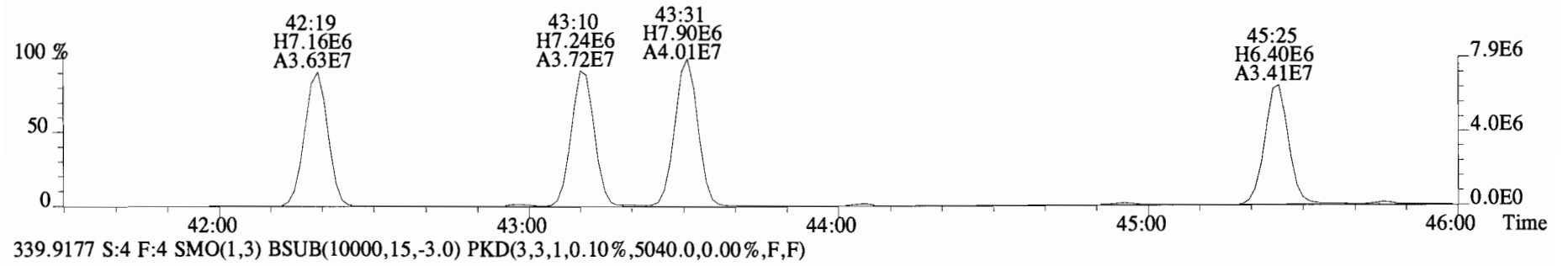
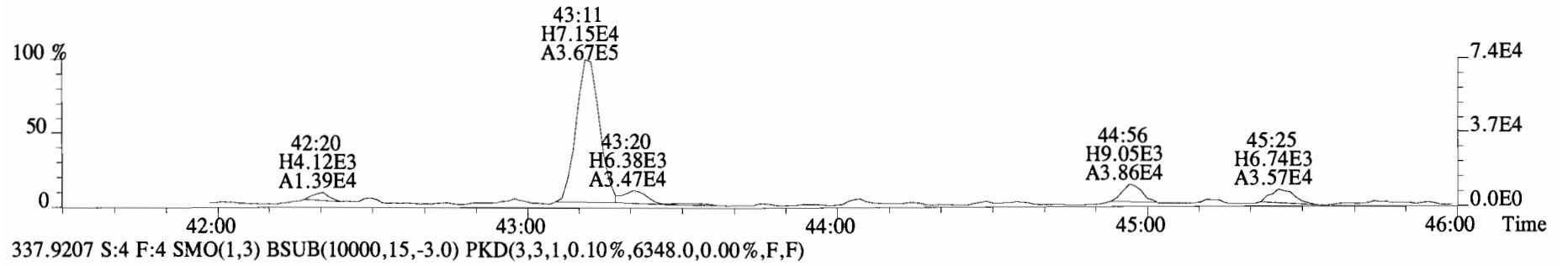
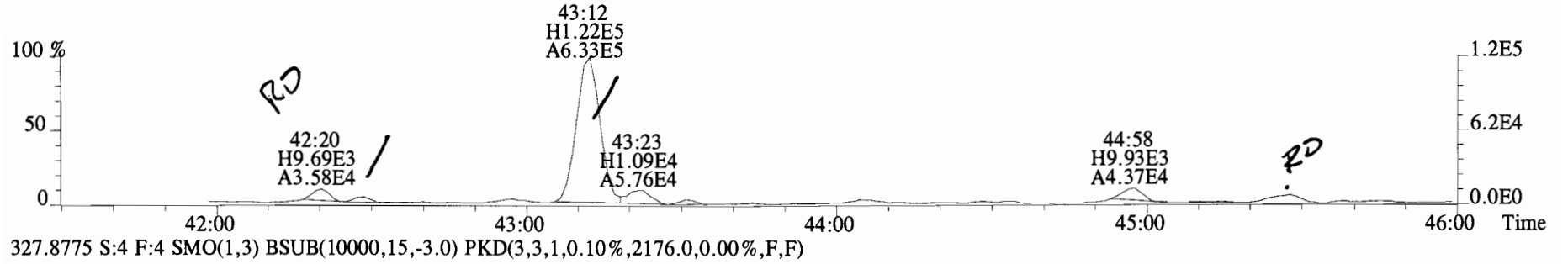
327.8775 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1416.0,0.00%,F,F)



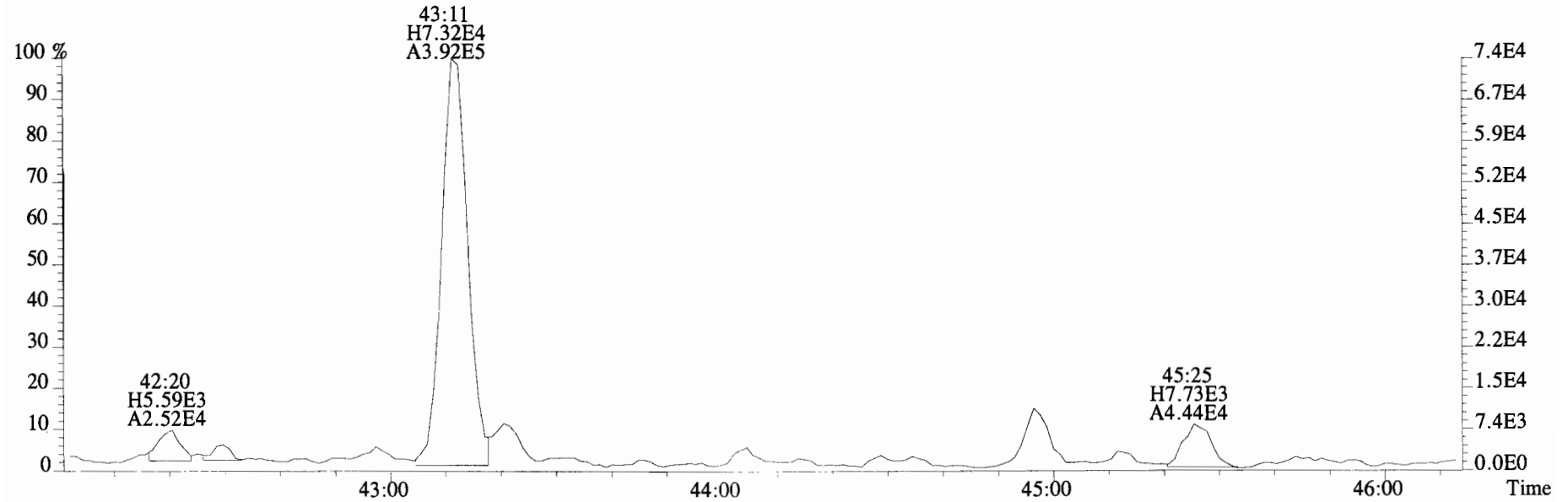
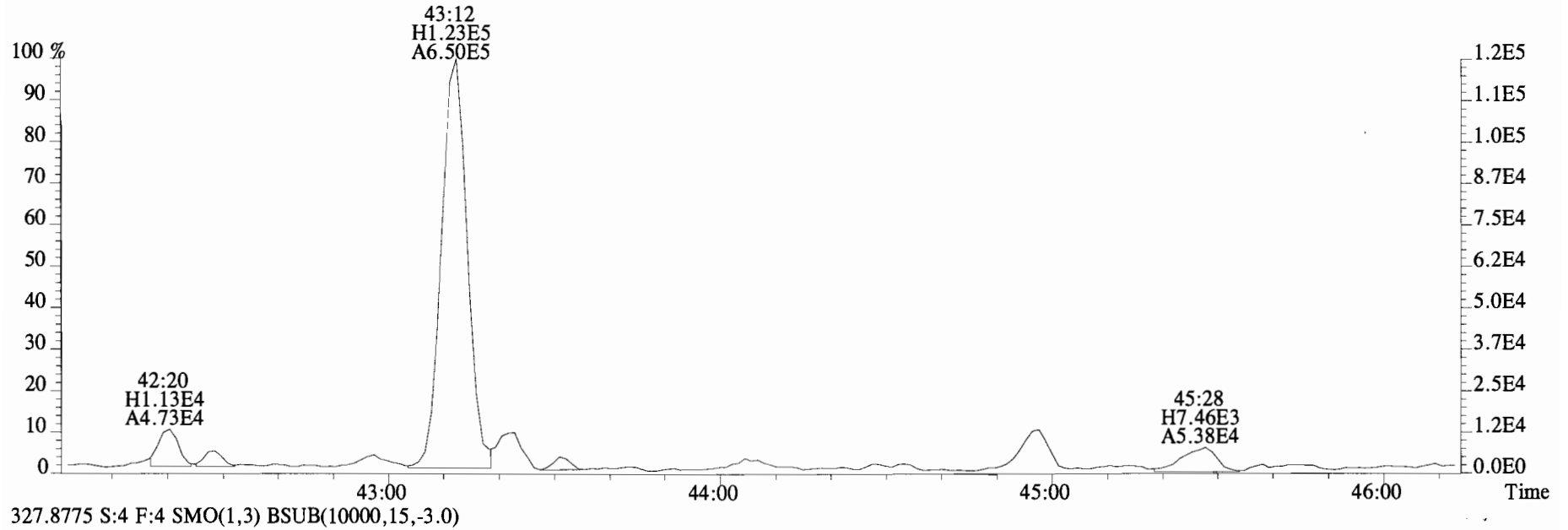
File:140924E1 #1-761 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
337.9207 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1924.0,0.00%,F,F)



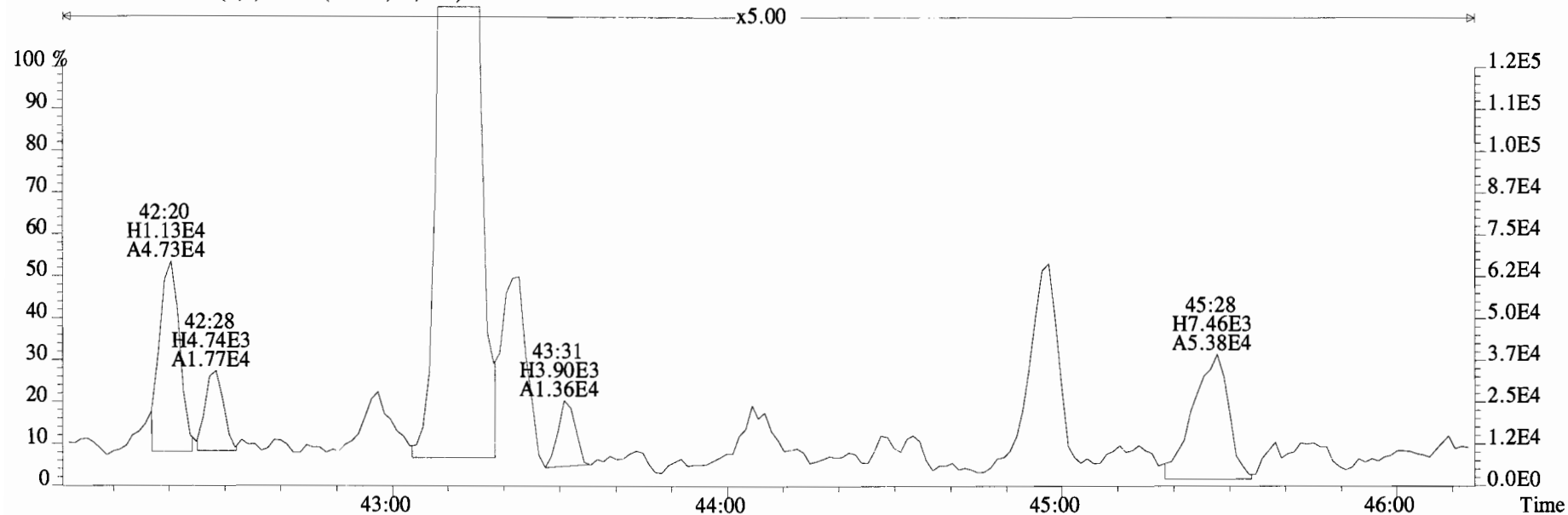
File:140924E1 #1-561 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
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325.8804 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,2676.0,0.00%,F,F)



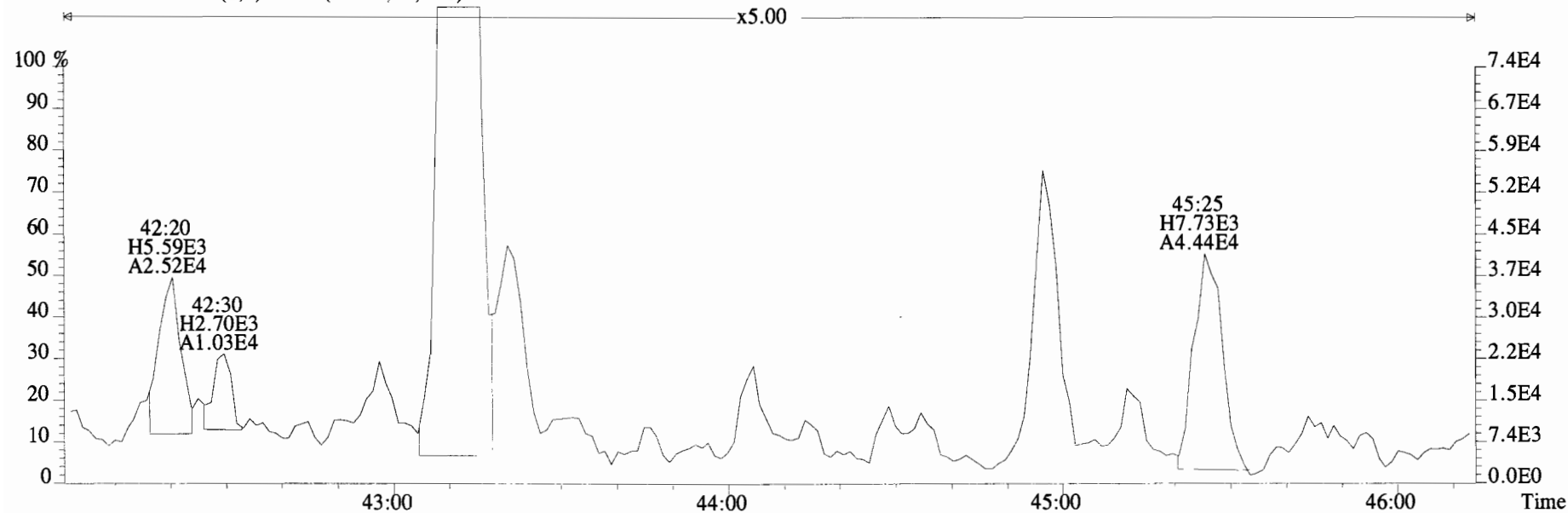
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
325.8804 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0)



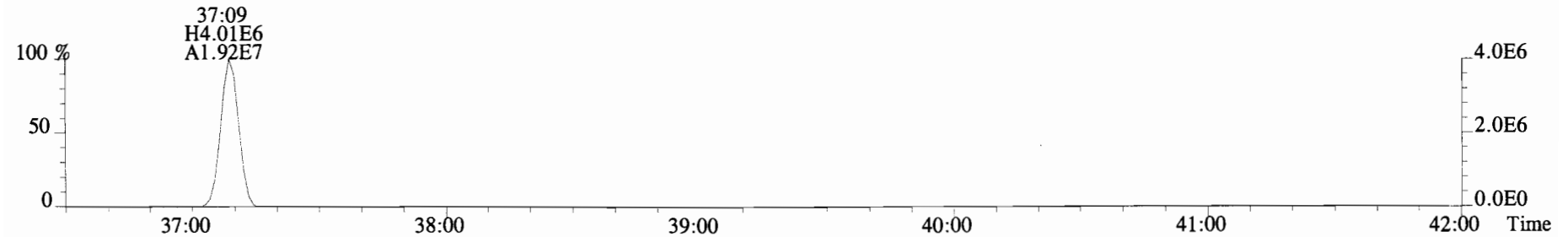
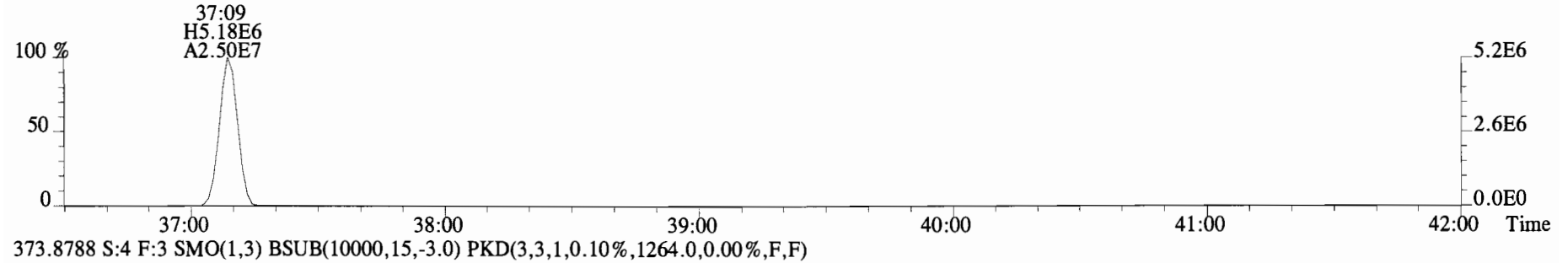
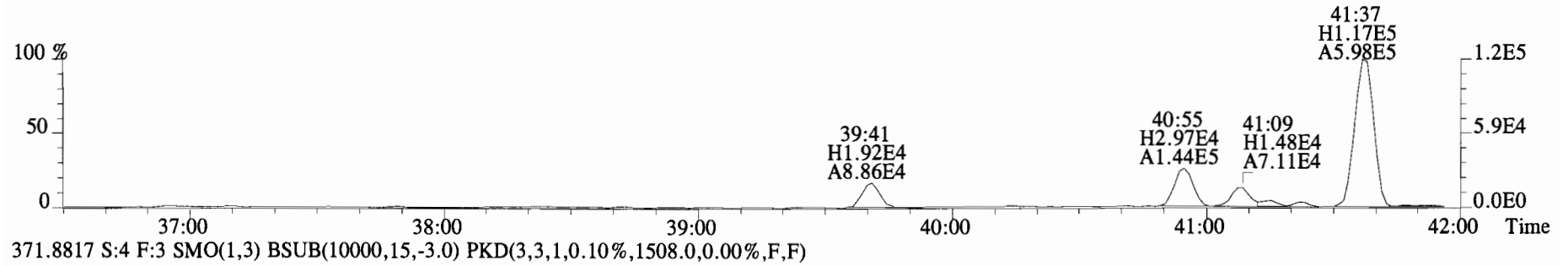
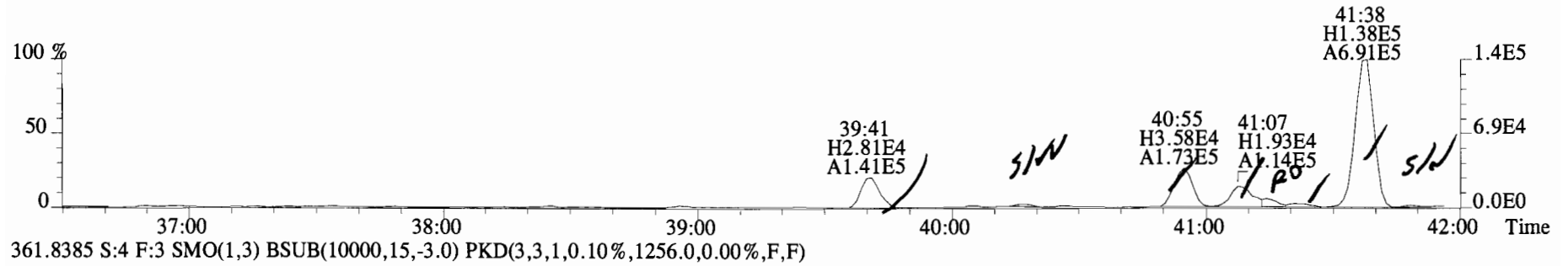
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Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
325.8804 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0)



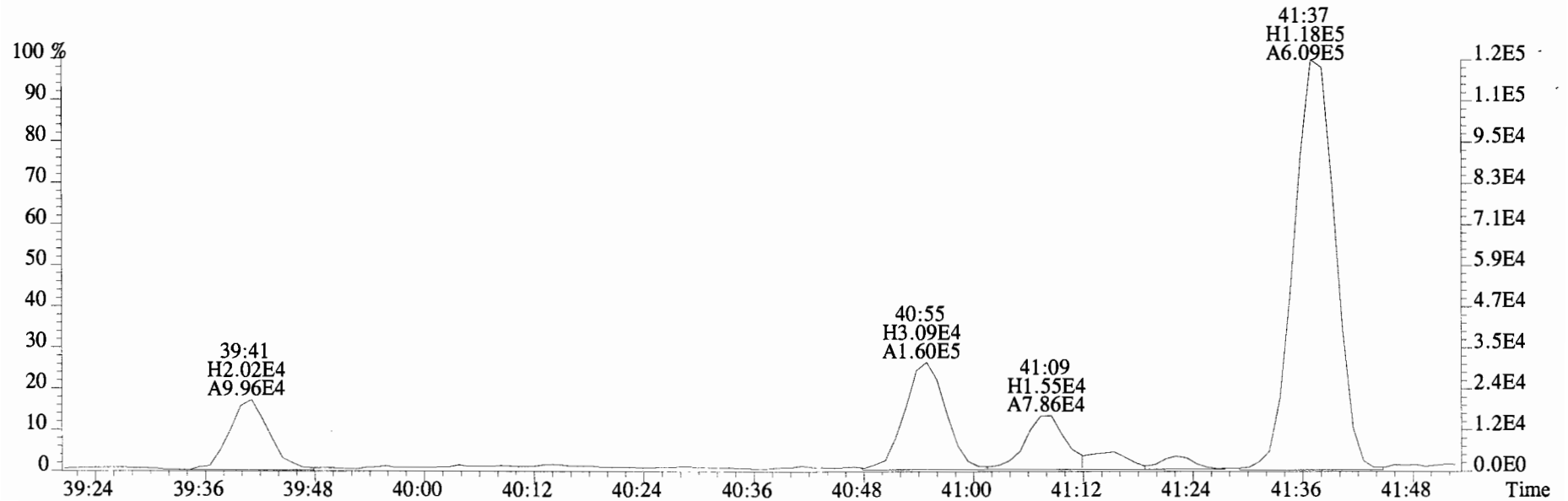
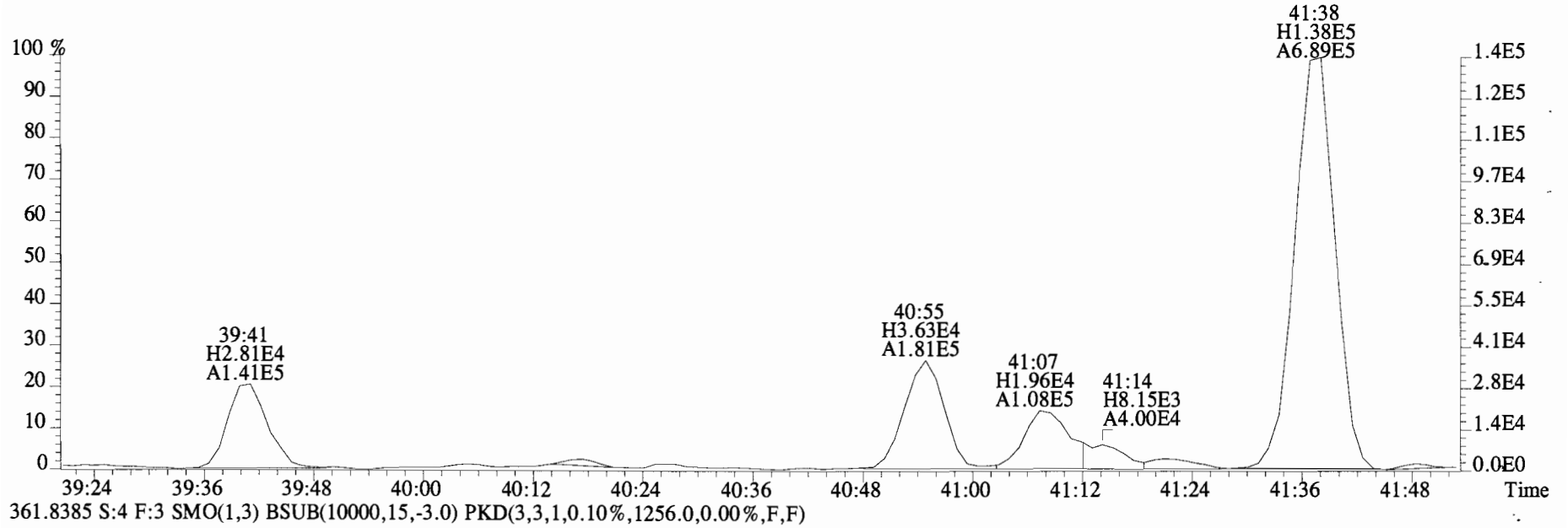
327.8775 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0)



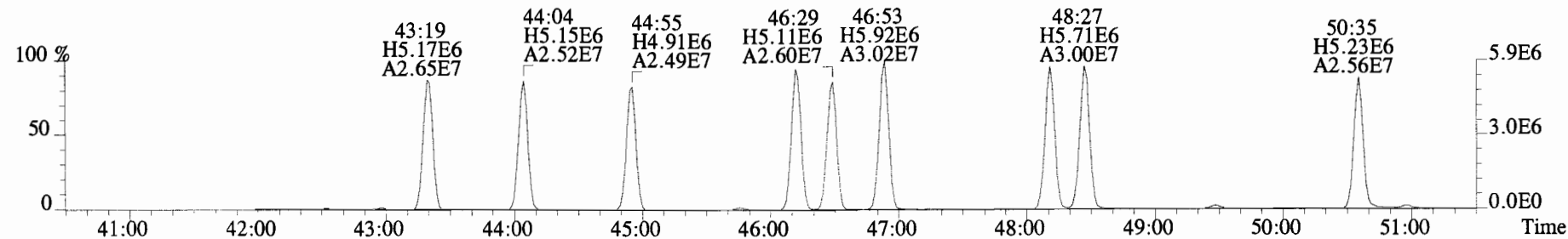
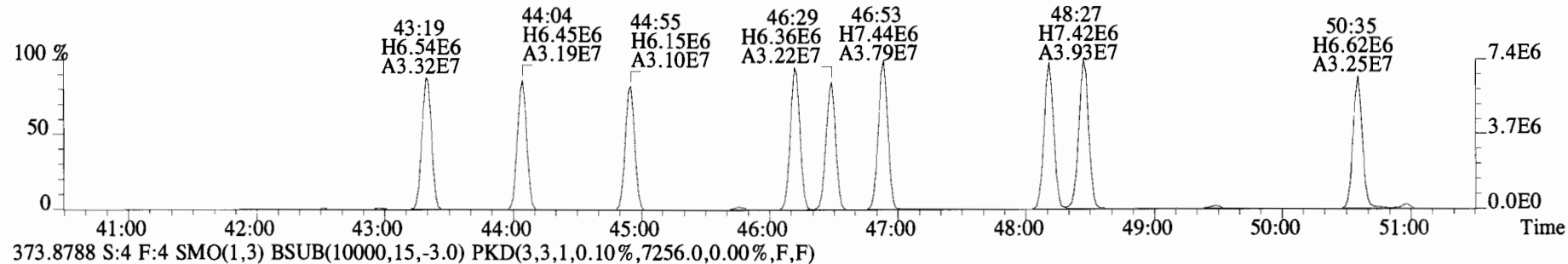
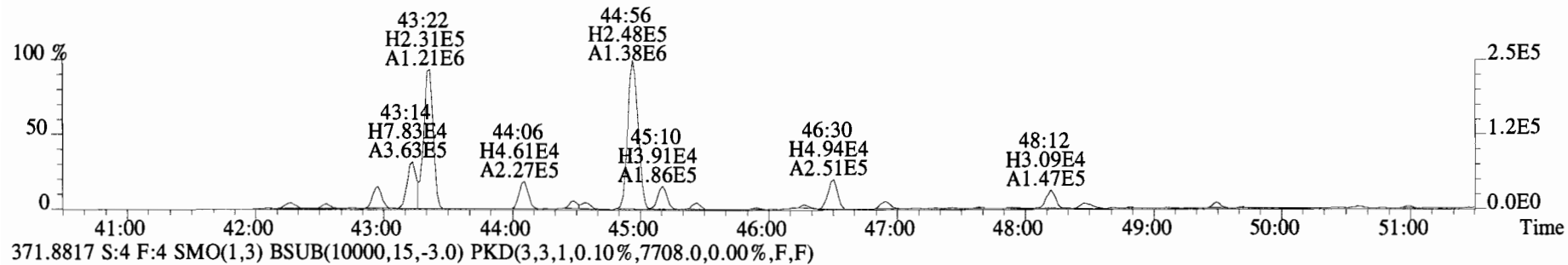
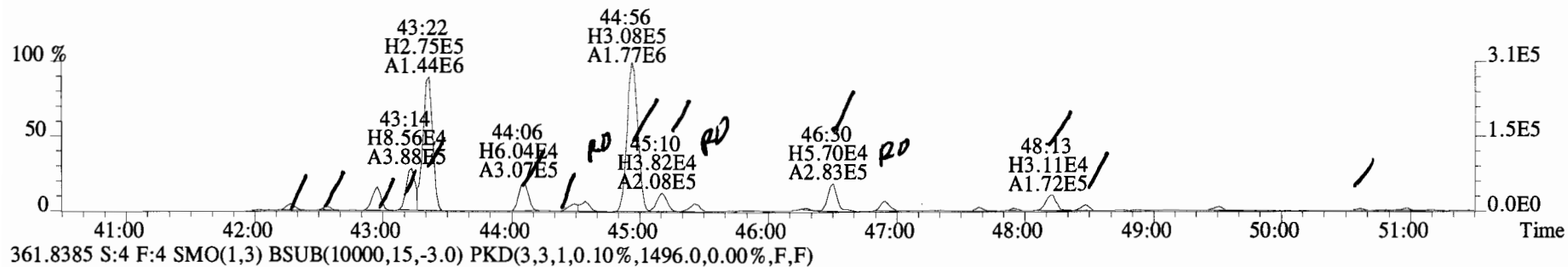
File:140924E1 #1-761 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
359.8415 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1208.0,0.00%,F,F)



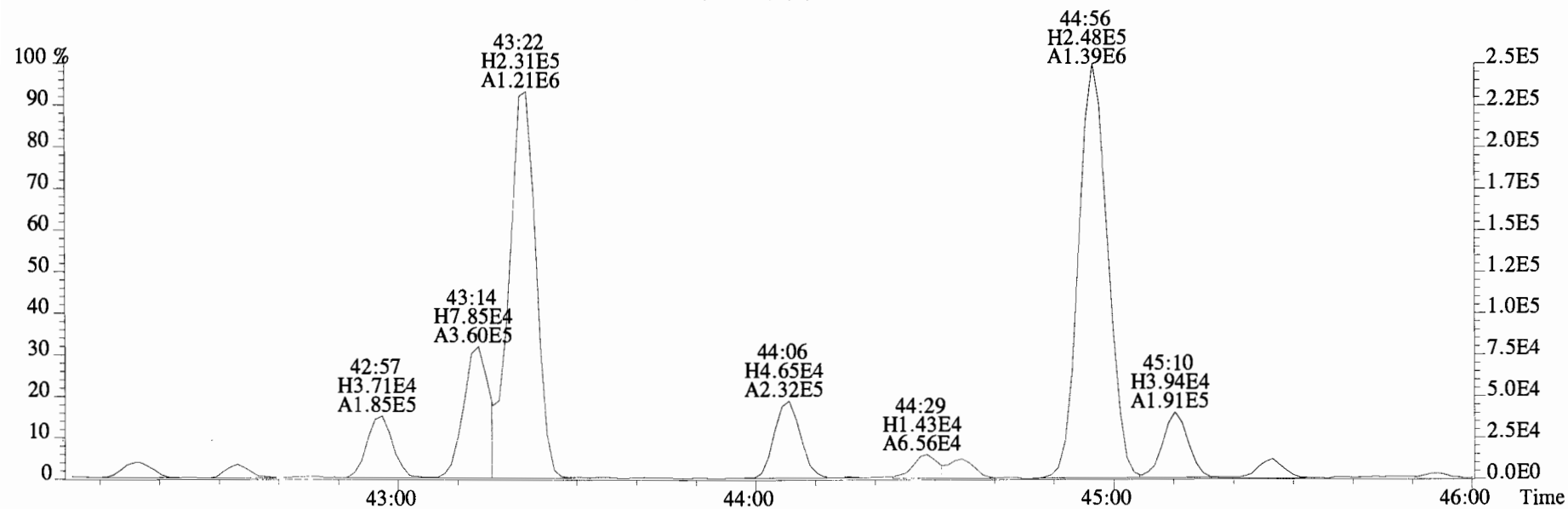
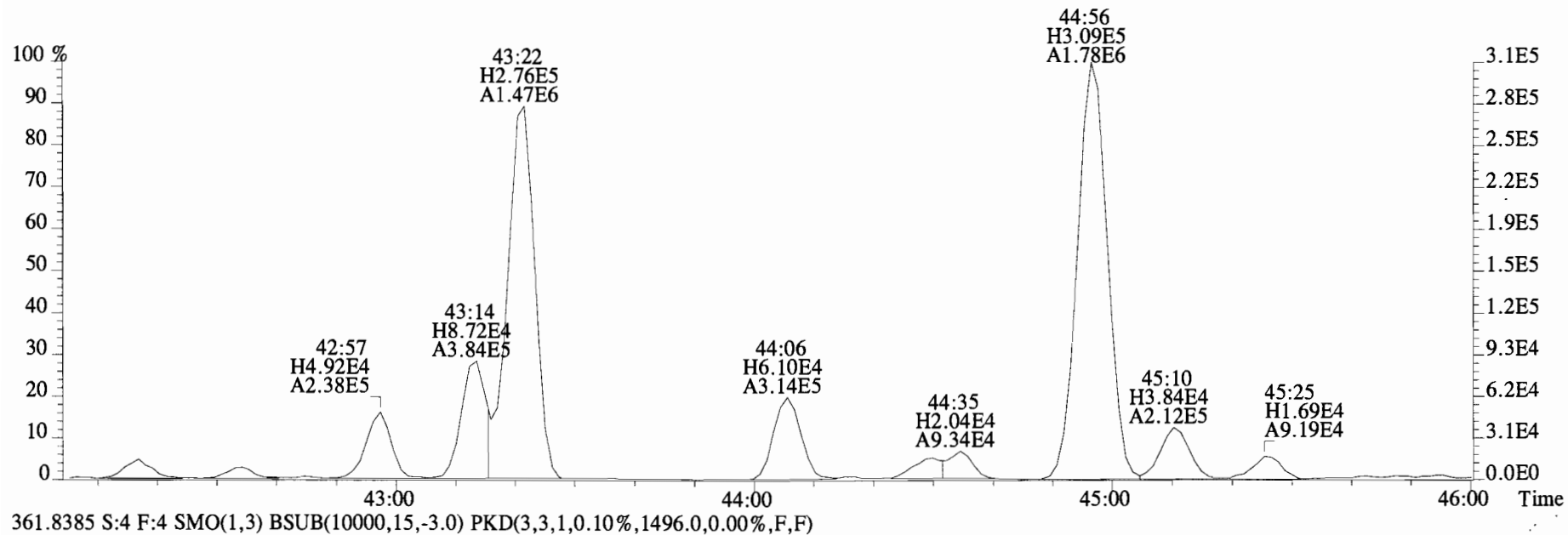
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
359.8415 S:4 F:3 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1208.0,0.00%,F,F)



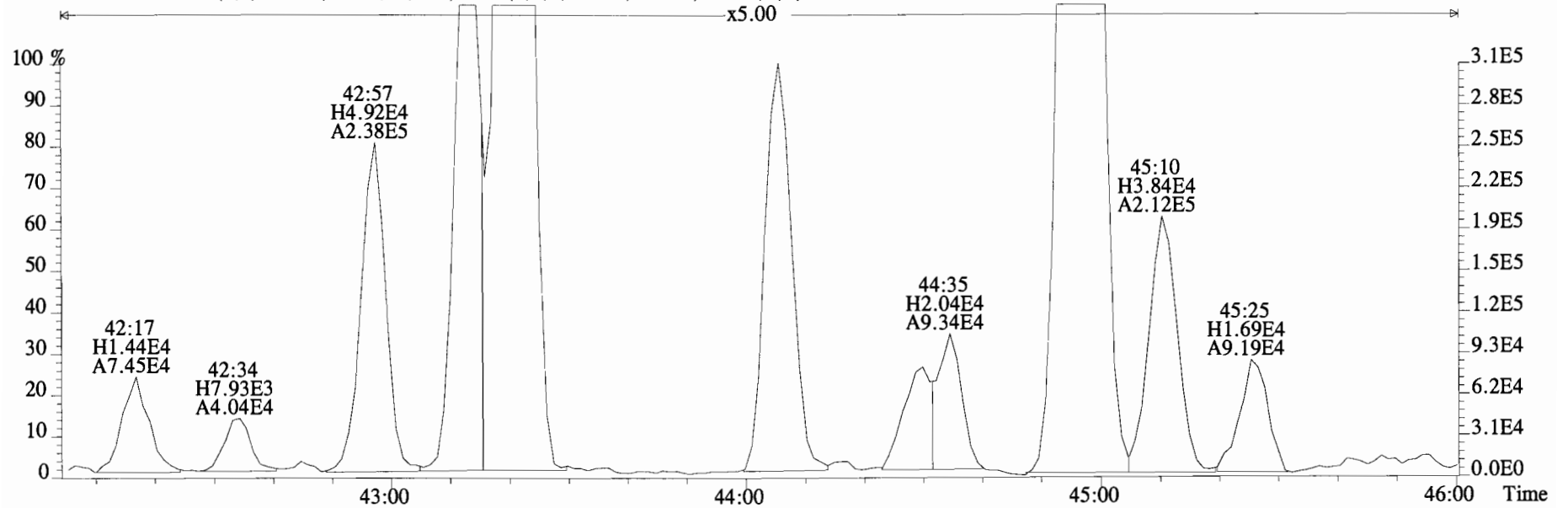
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
359.8415 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1792.0,0.00%,F,F)



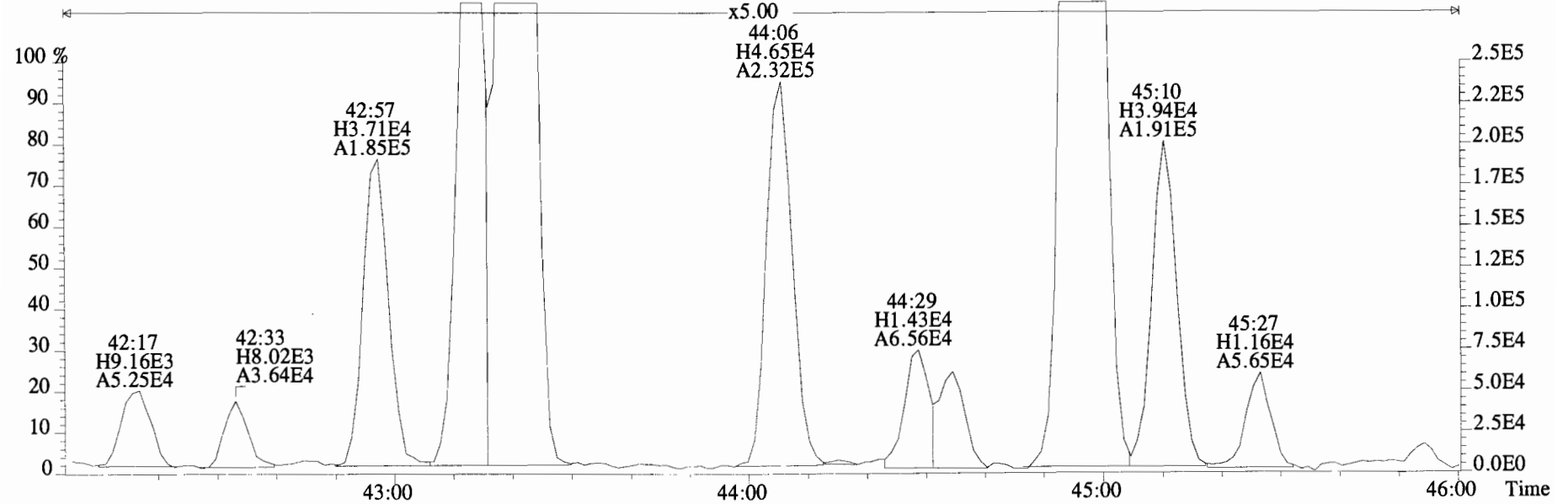
File:140924E1 #1-561 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
 359.8415 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1792.0,0.00%,F,F)



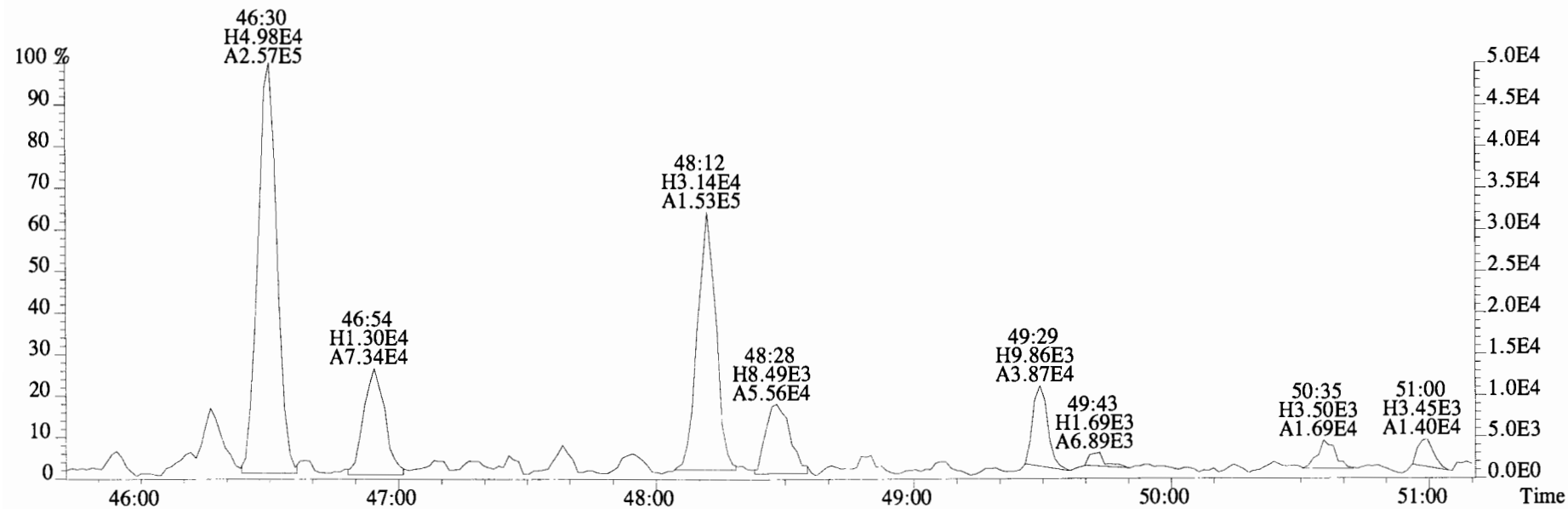
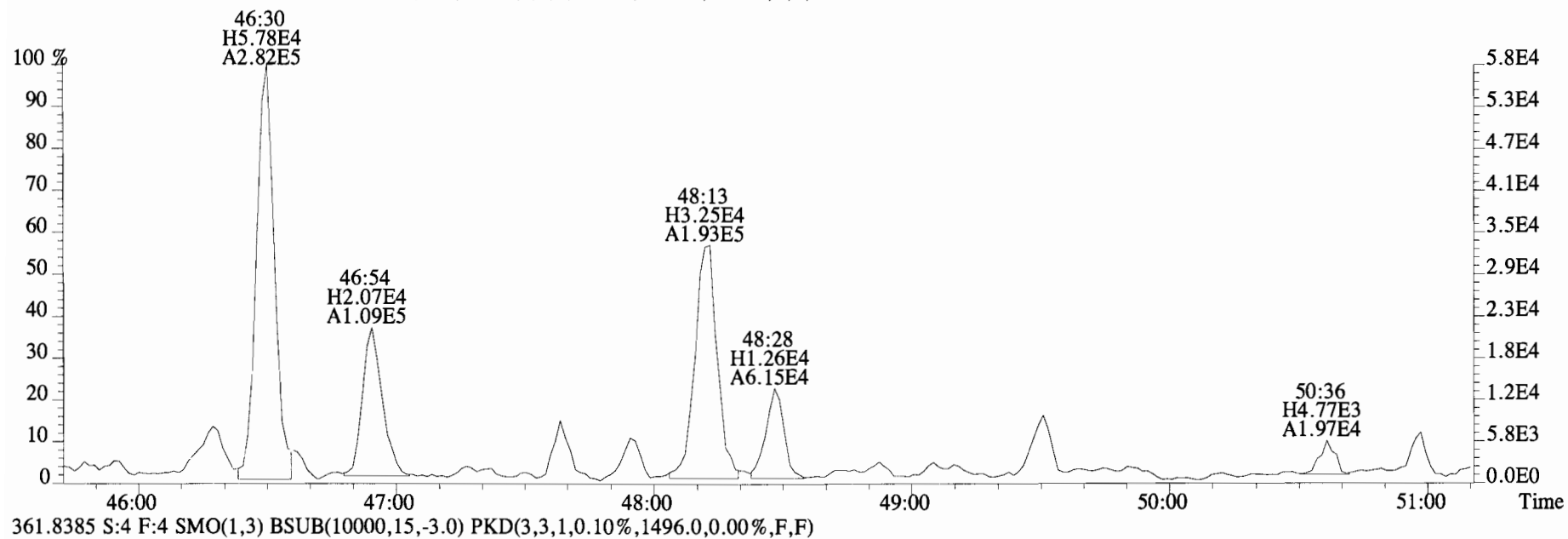
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
359.8415 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1792.0,0.00%,F,F)



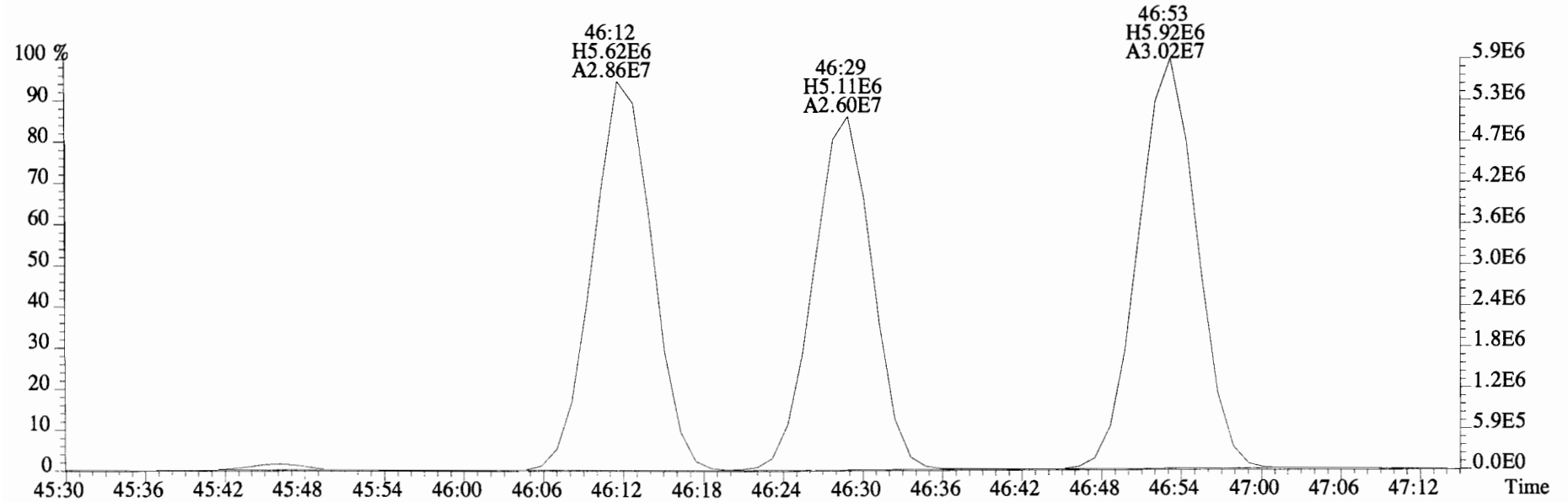
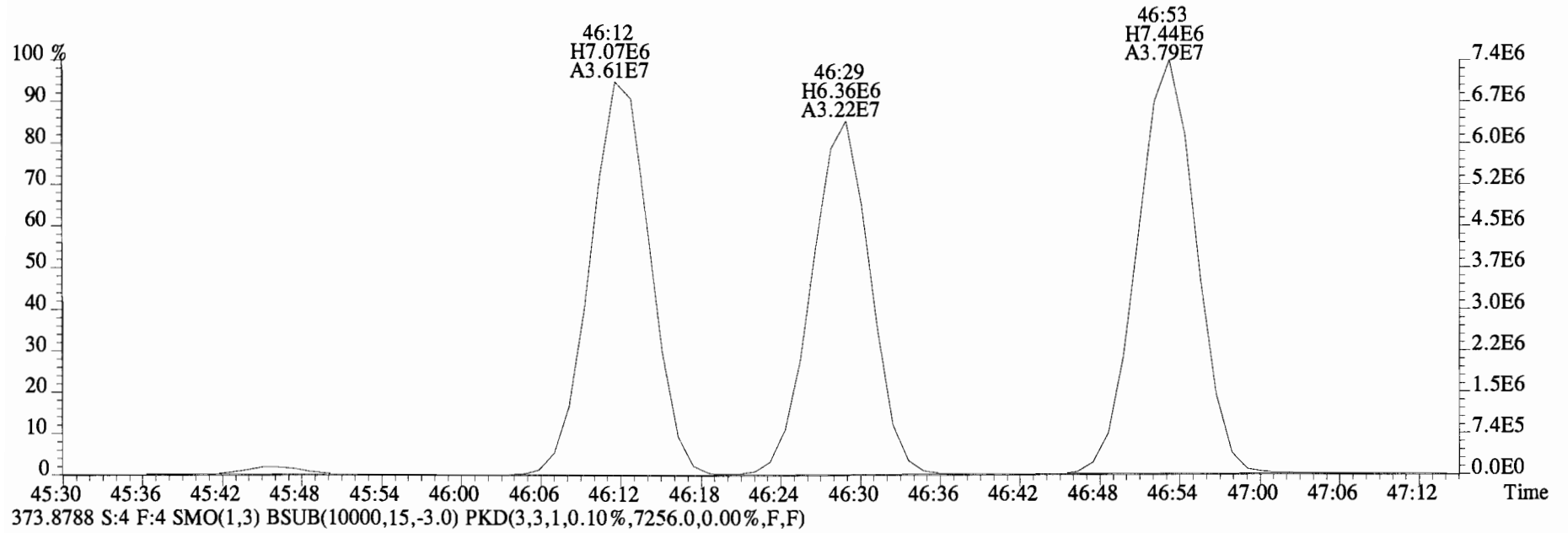
361.8385 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1496.0,0.00%,F,F)



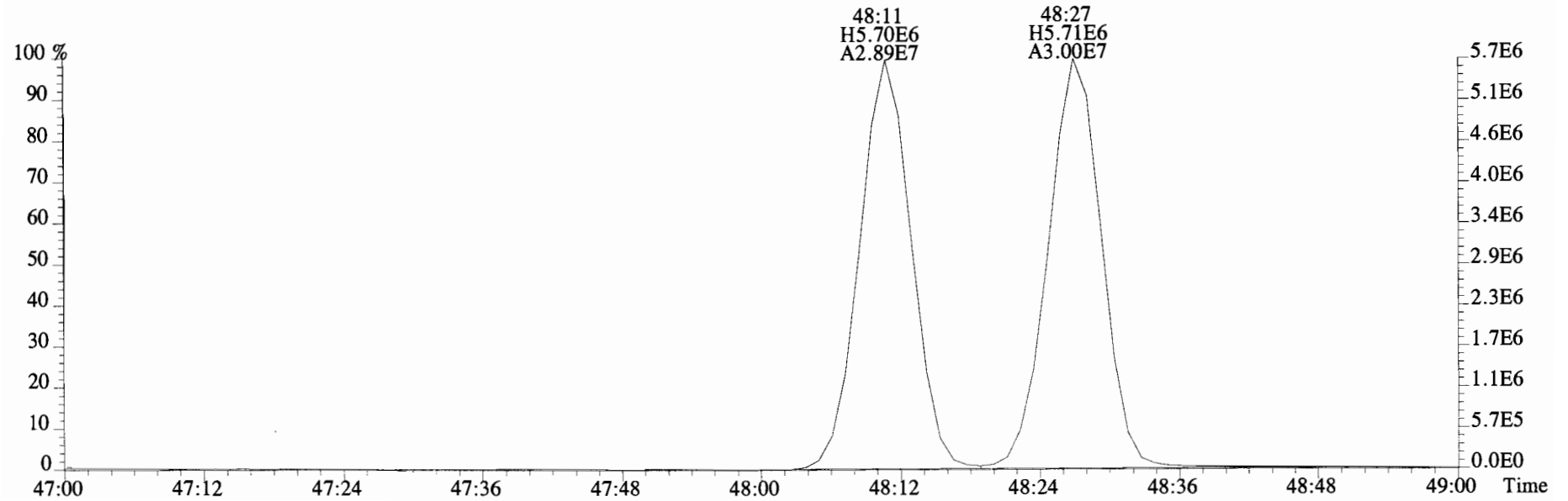
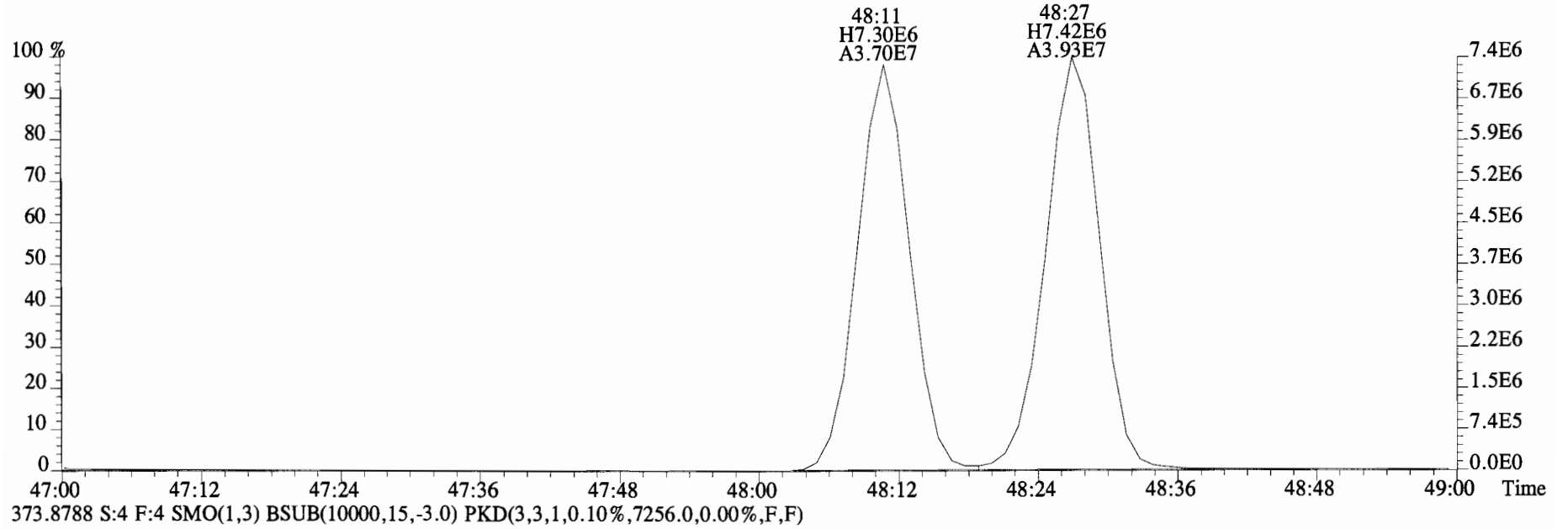
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 359.8415 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1792.0,0.00%,F,F)



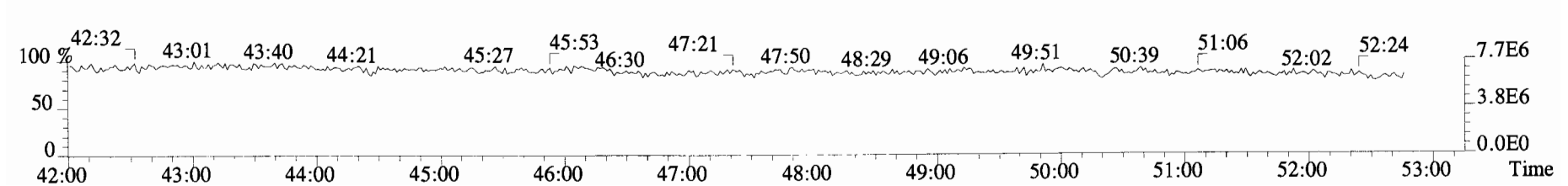
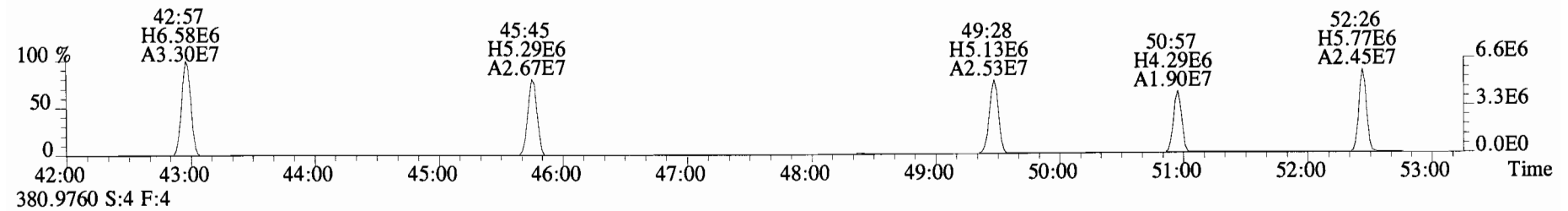
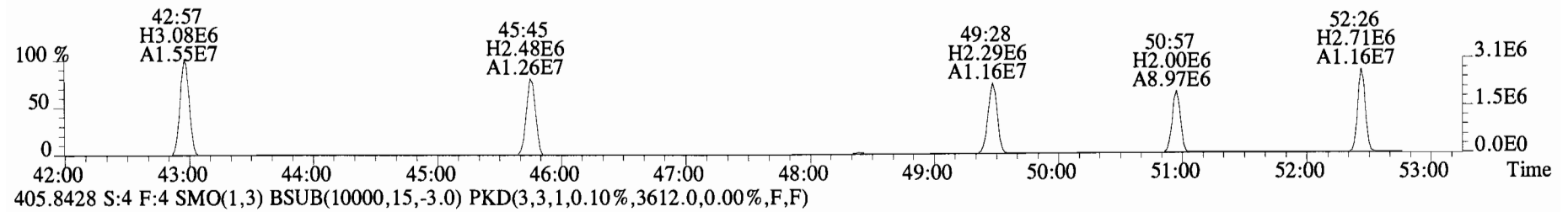
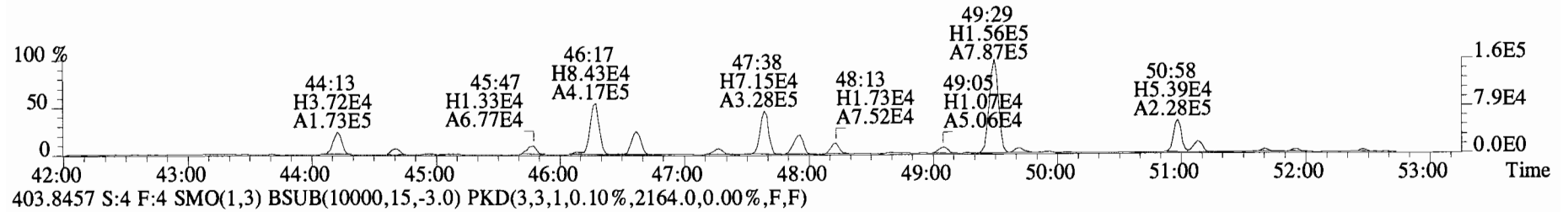
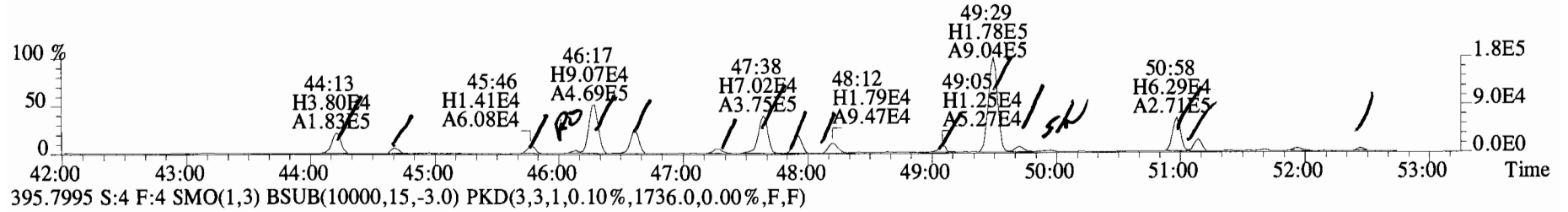
File:140924E1 #1-561 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
371.8817 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7708.0,0.00%,F,F)



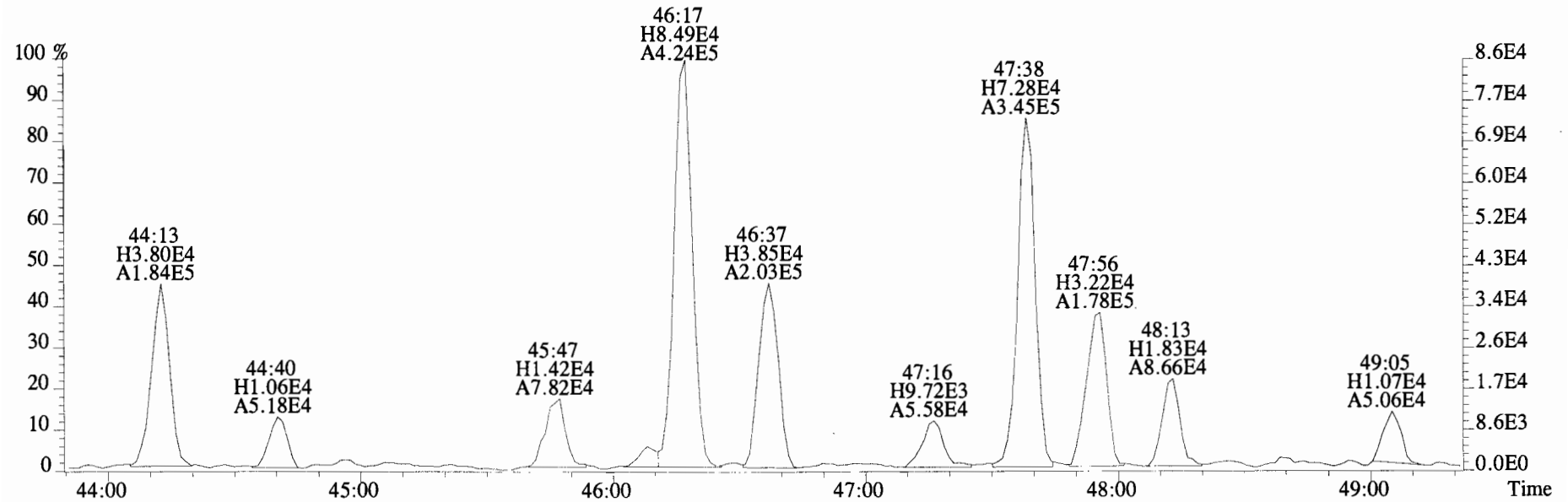
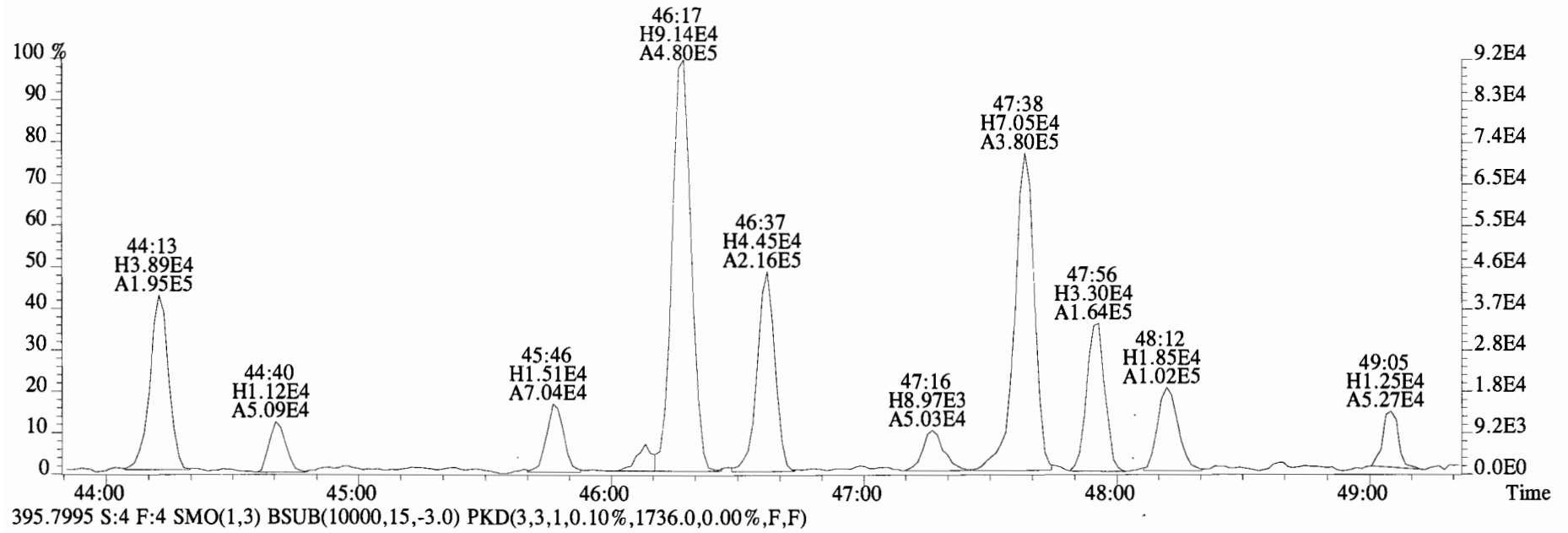
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371.8817 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,7708.0,0.00%,F,F)



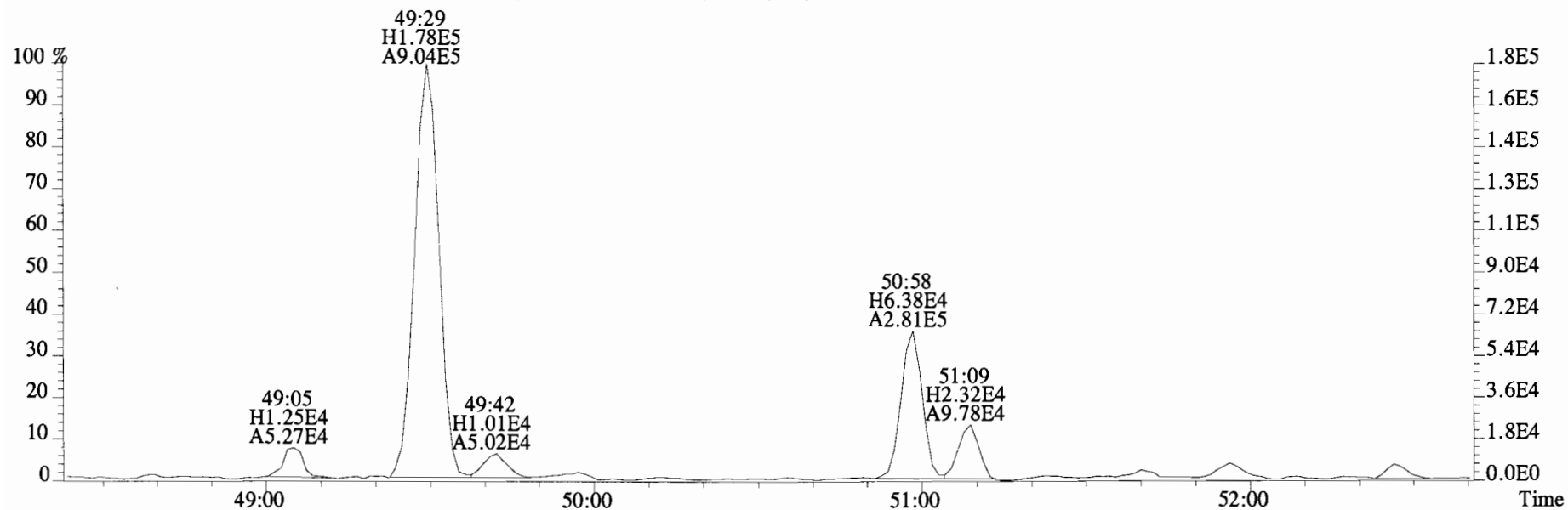
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
393.8025 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1612.0,0.00%,F,F)



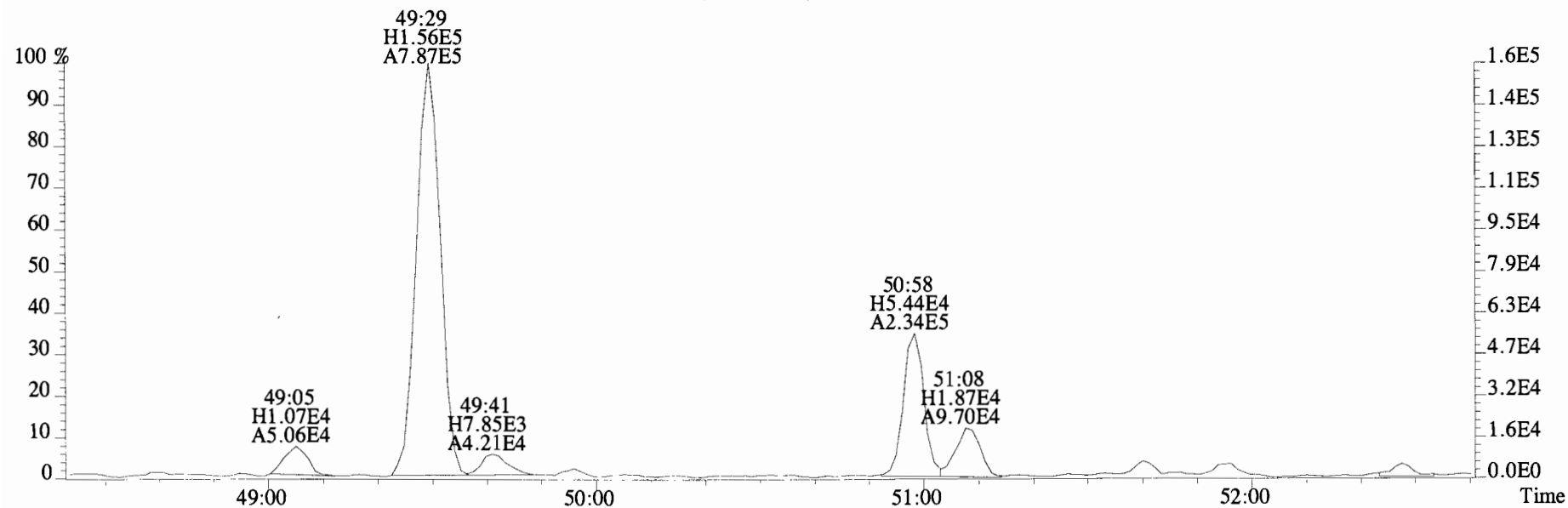
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
393.8025 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1612.0,0.00%,F,F)



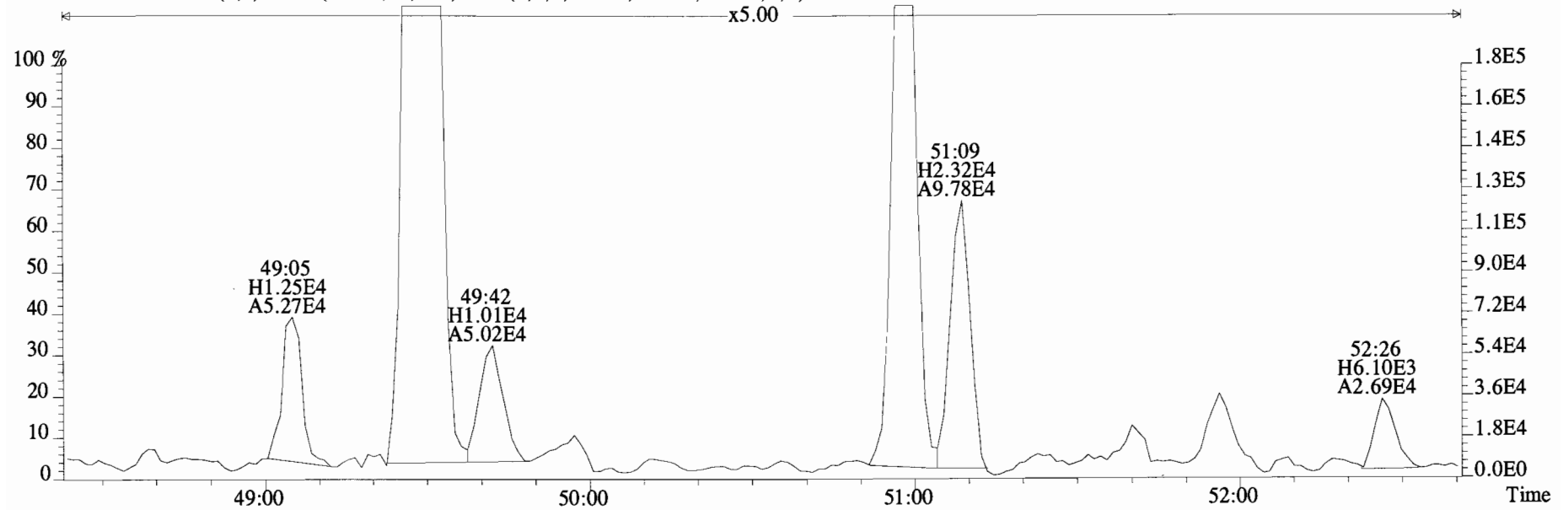
File:140924E1 #1-561 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
 393.8025 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1612.0,0.00%,F,F)



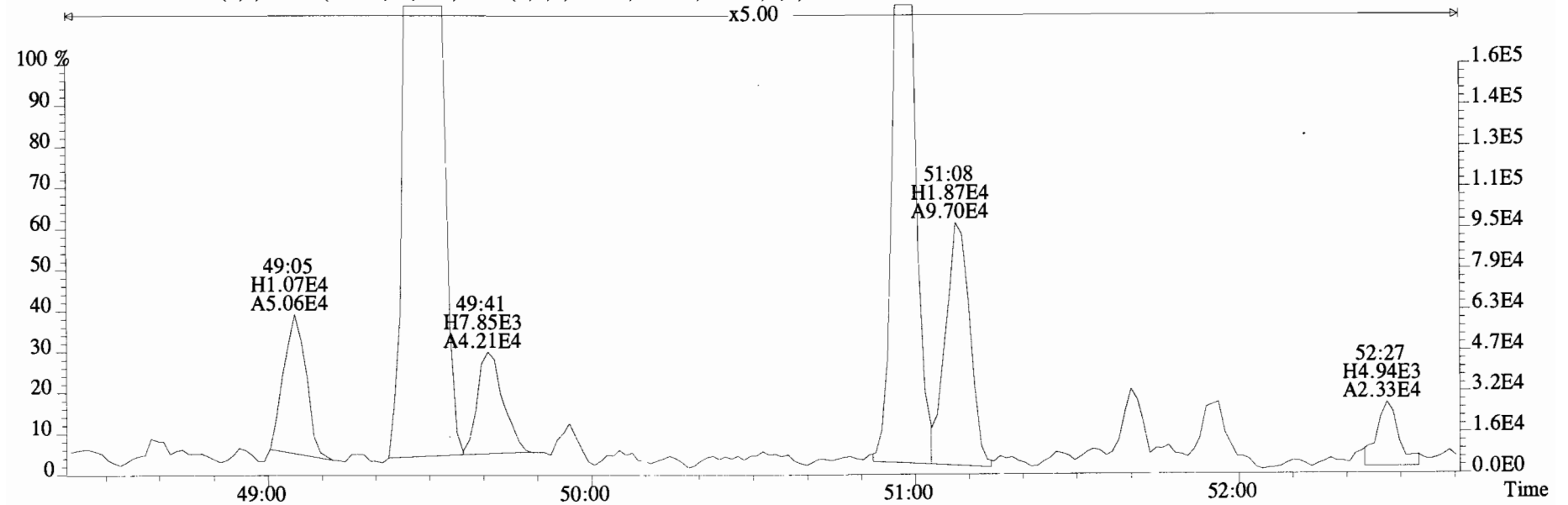
395.7995 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1736.0,0.00%,F,F)



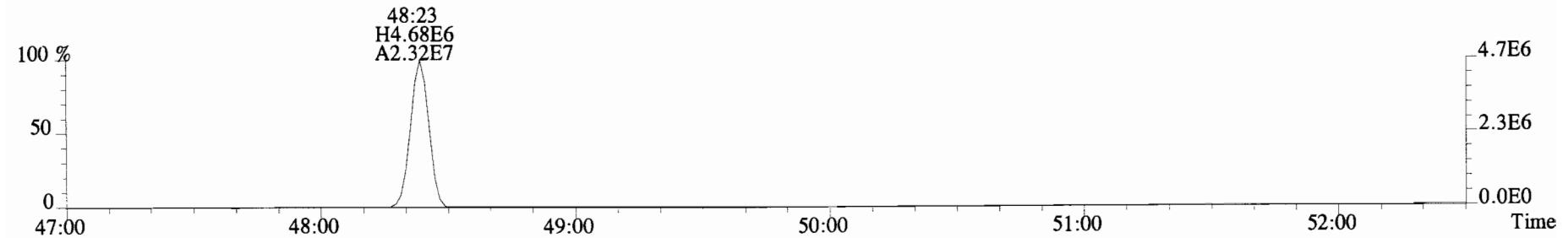
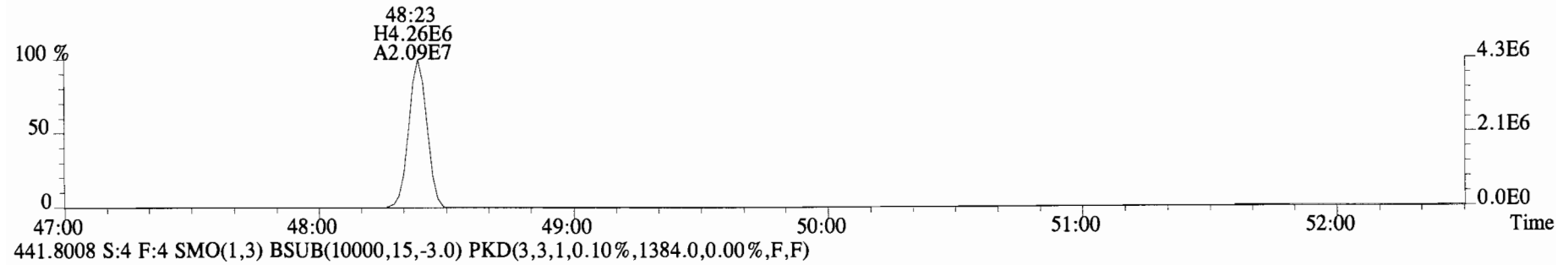
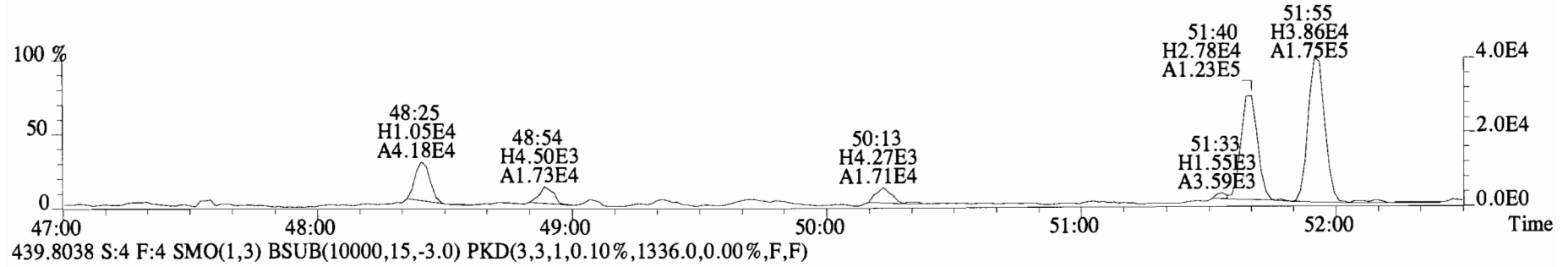
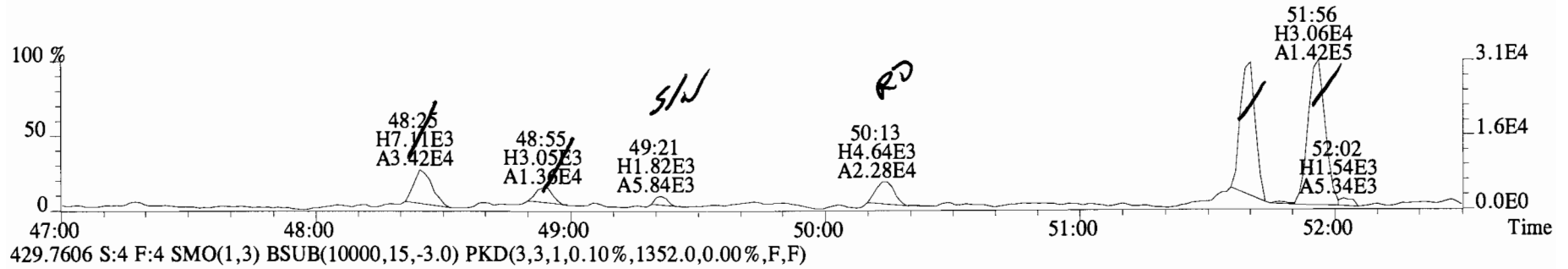
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Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
393.8025 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1612.0,0.00%,F,F)



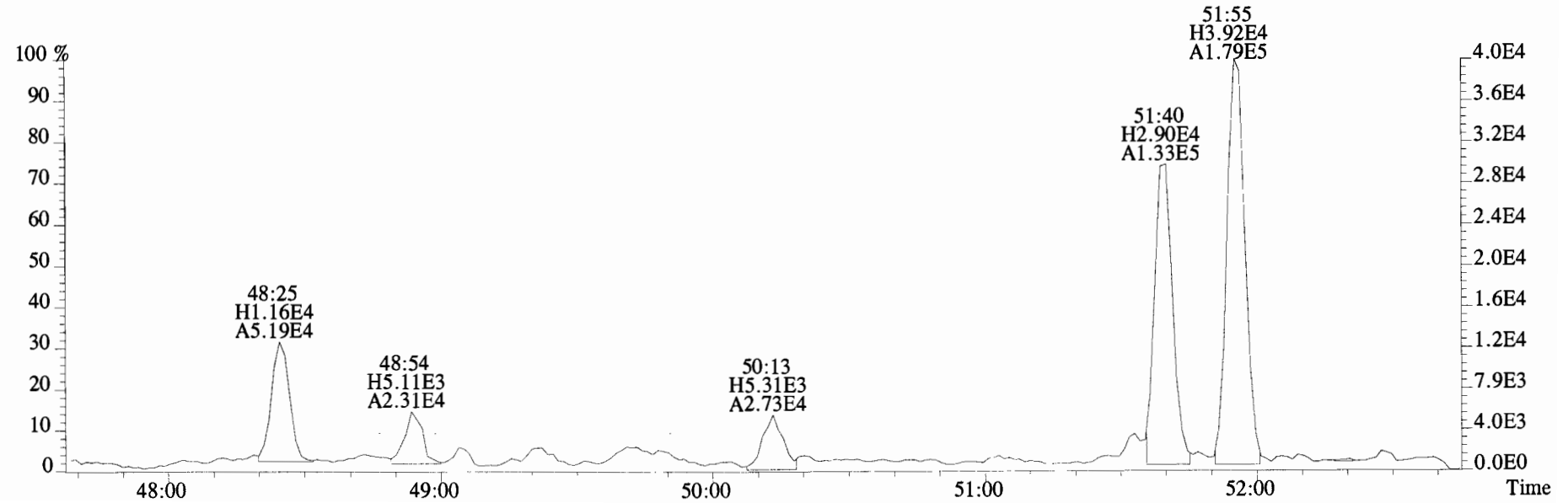
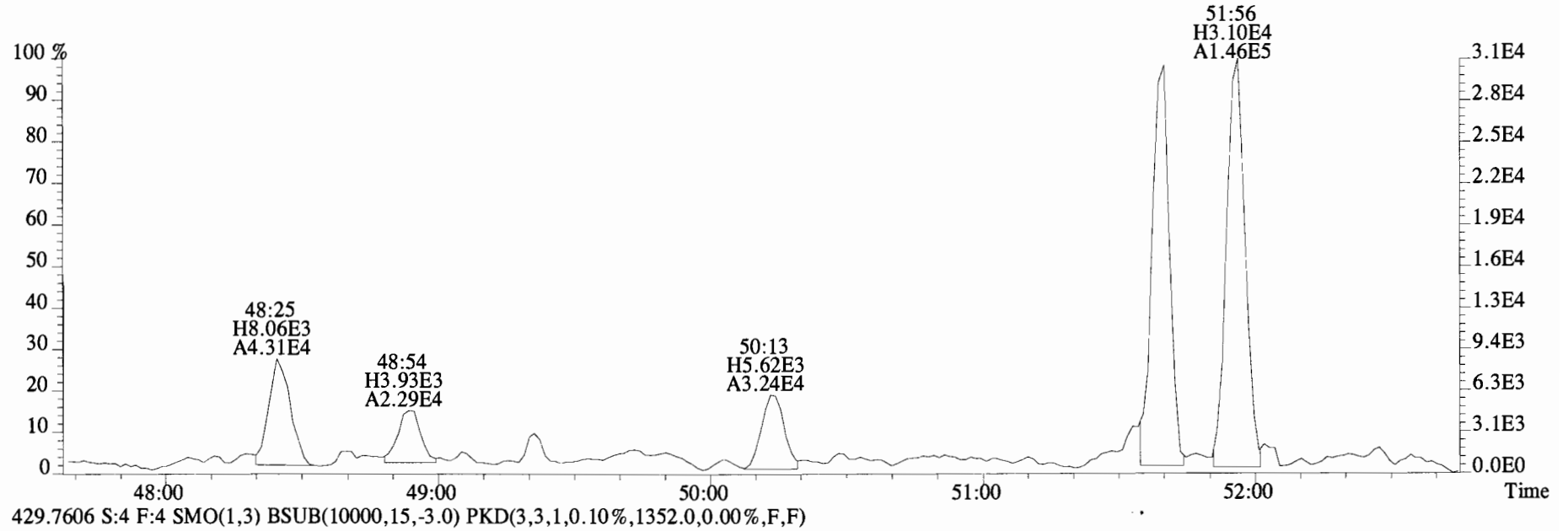
395.7995 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1736.0,0.00%,F,F)



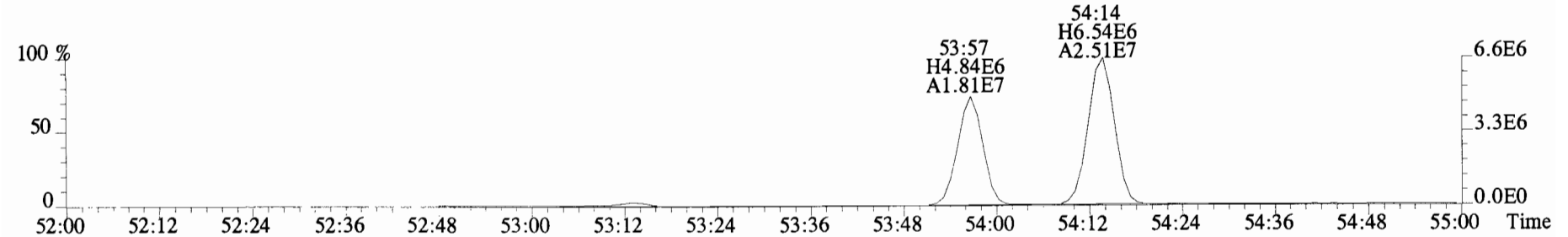
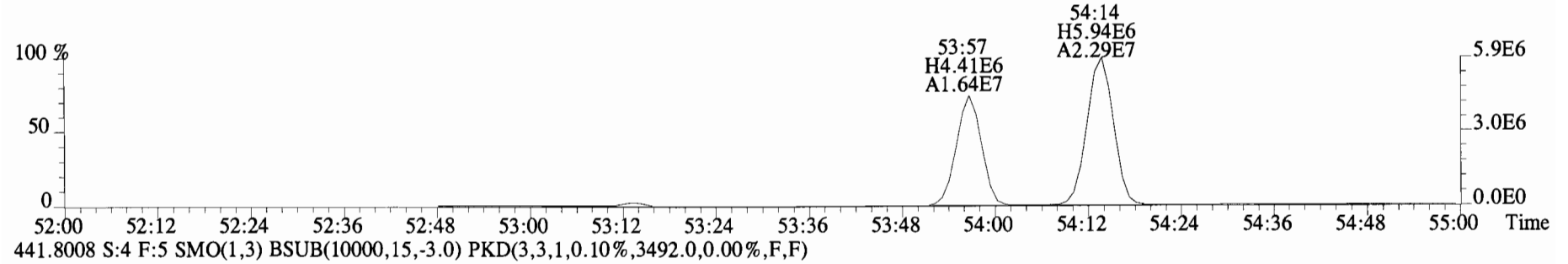
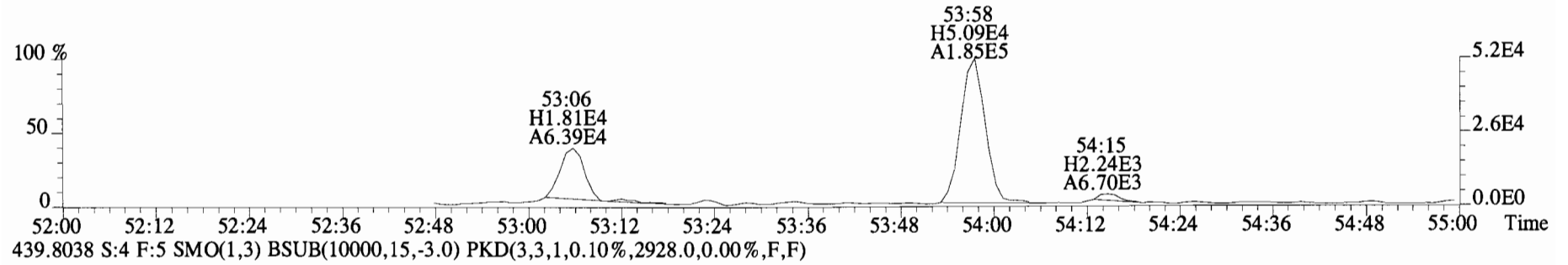
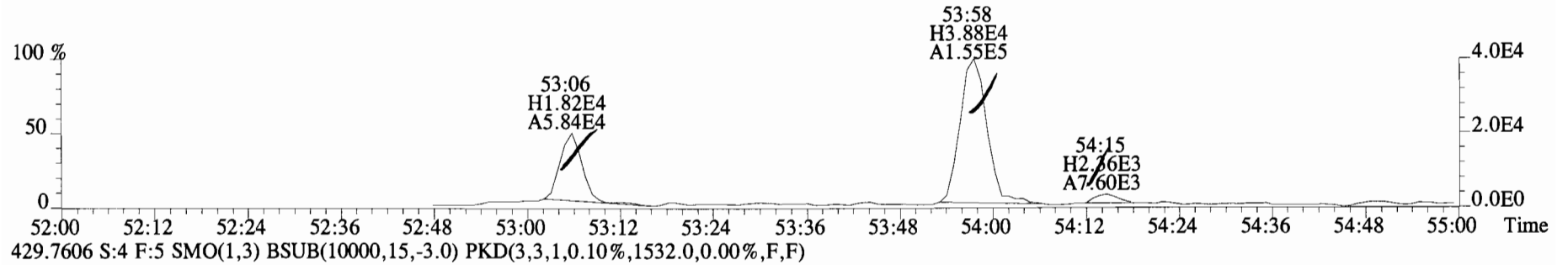
File:140924E1 #1-561 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
427.7635 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1372.0,0.00%,F,F)



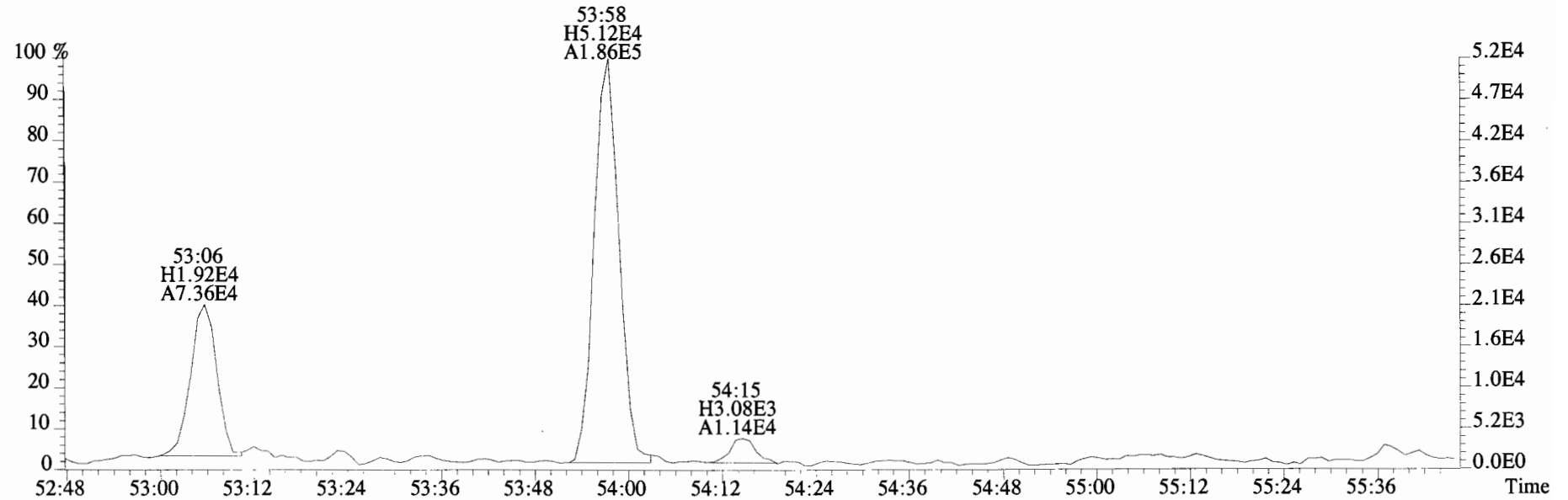
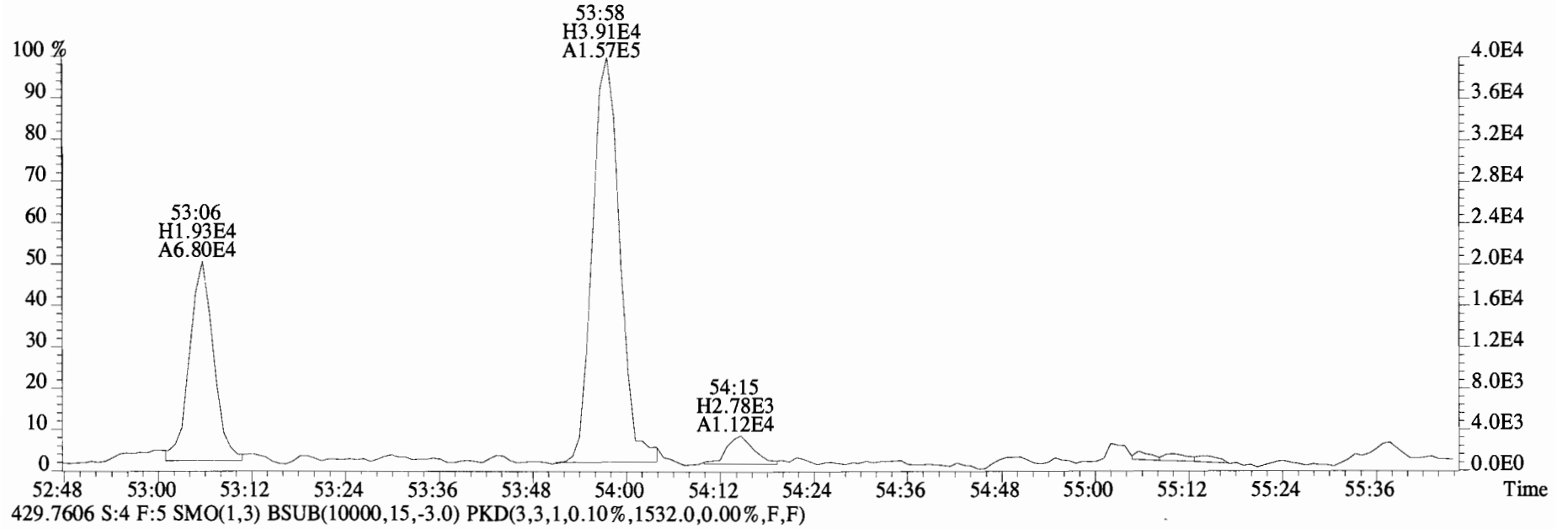
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Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
427.7635 S:4 F:4 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1372.0,0.00%,F,F)



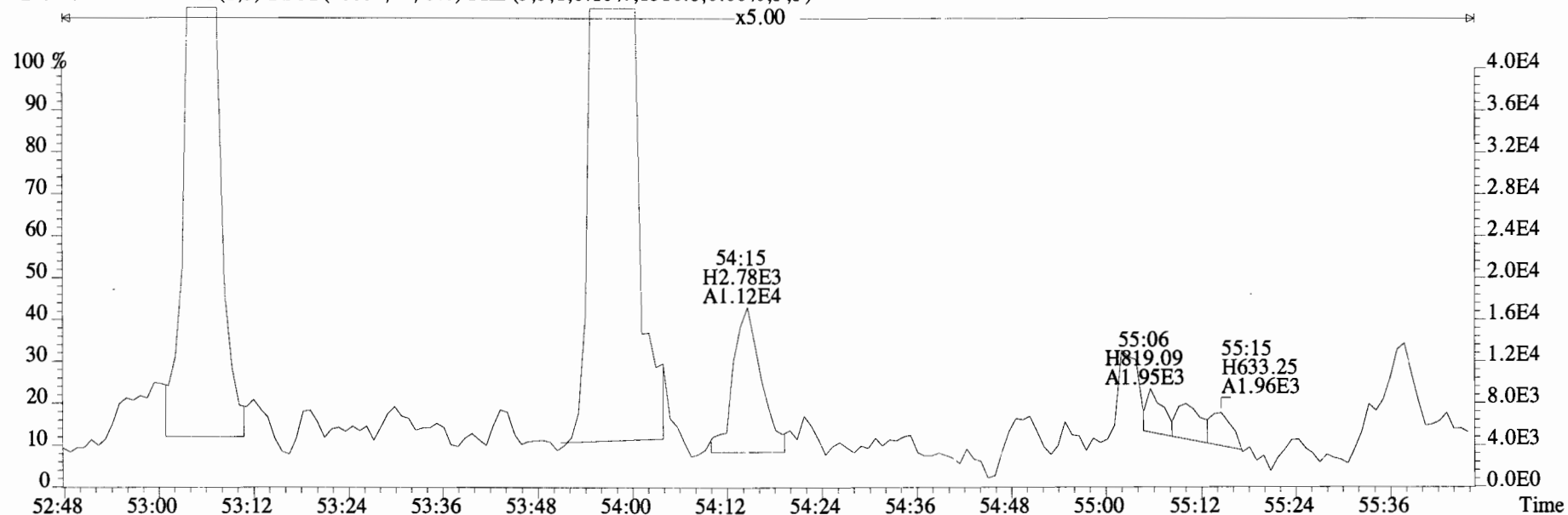
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Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
427.7635 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1316.0,0.00%,F,F)



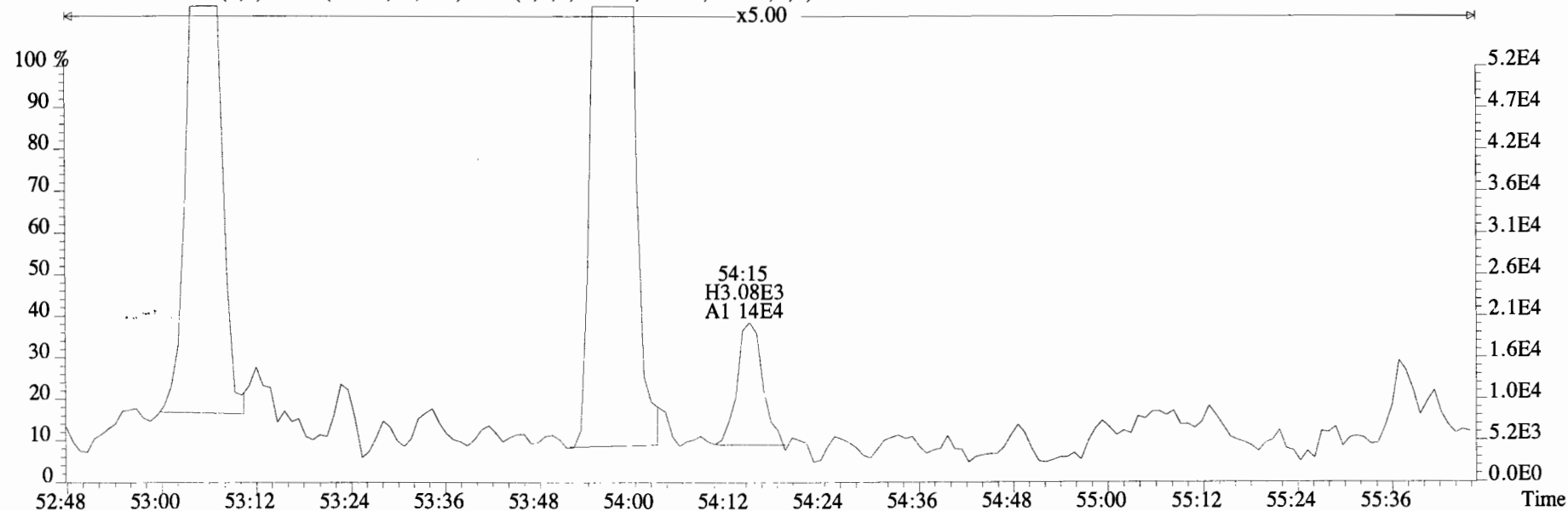
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Sample#4 File Text: Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
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File:140924E1 #1-418 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
427.7635 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1316.0,0.00%,F,F)



429.7606 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1532.0,0.00%,F,F)



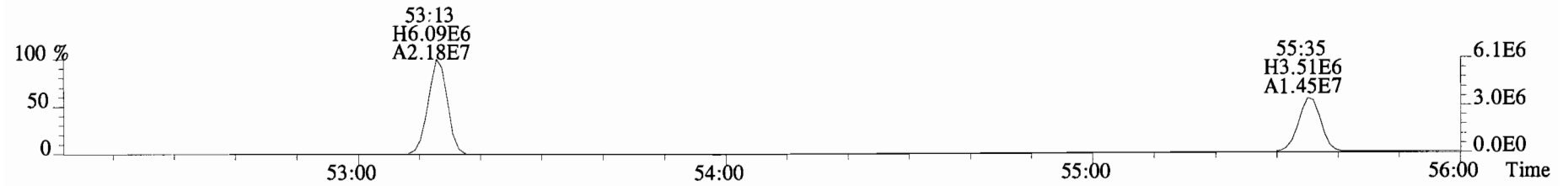
File:140924E1 #1-418 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
463.7216 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1284.0,0.00%,F,F)



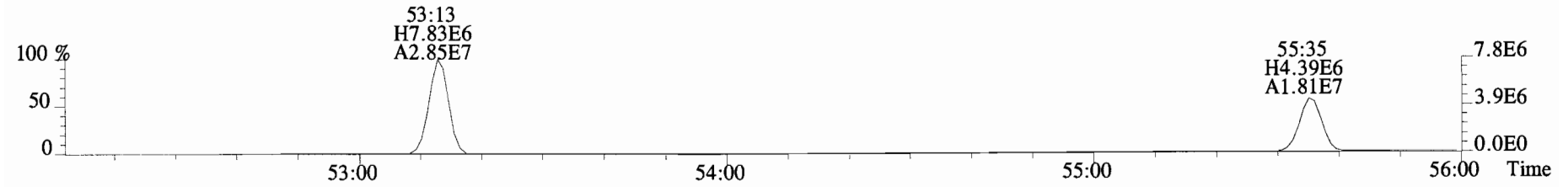
465.7186 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1700.0,0.00%,F,F)



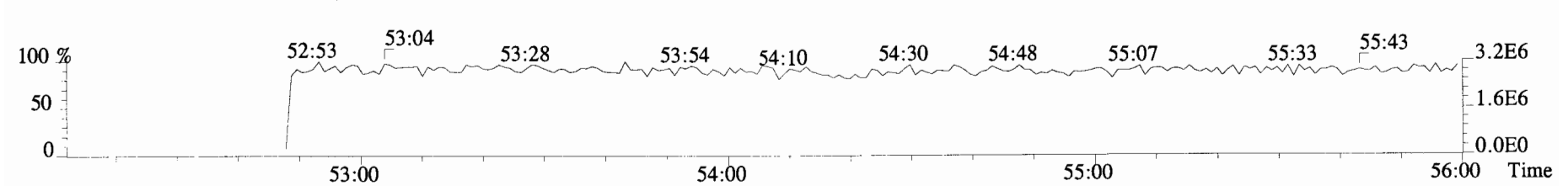
473.7648 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,6416.0,0.00%,F,F)



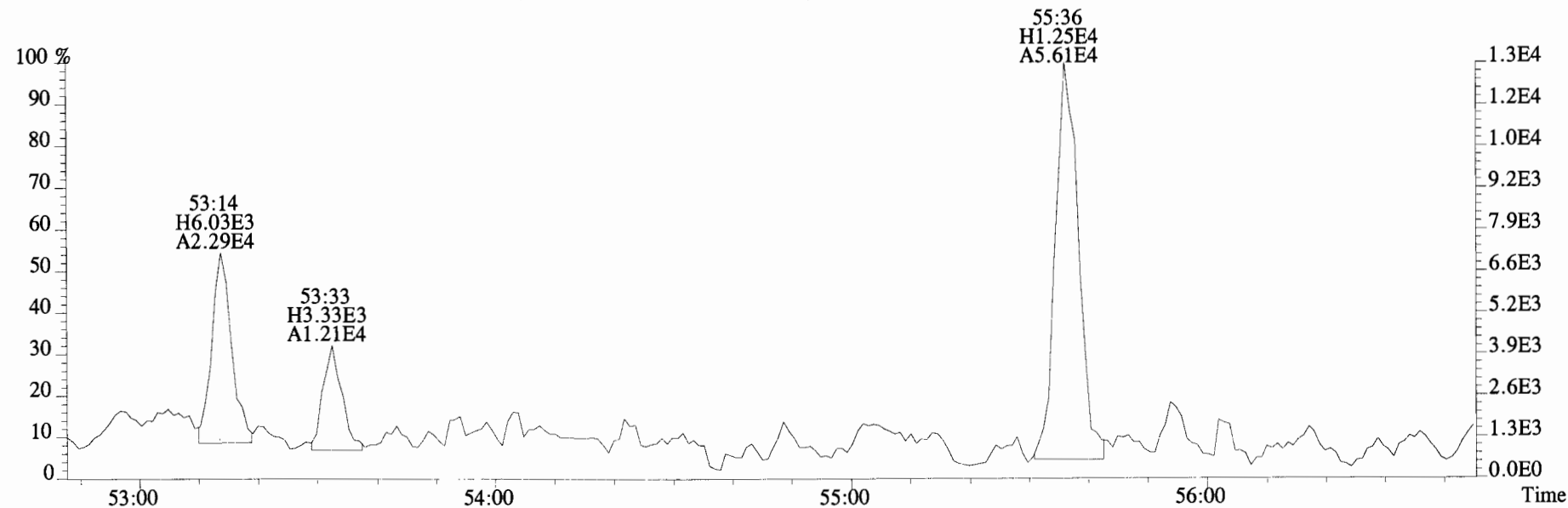
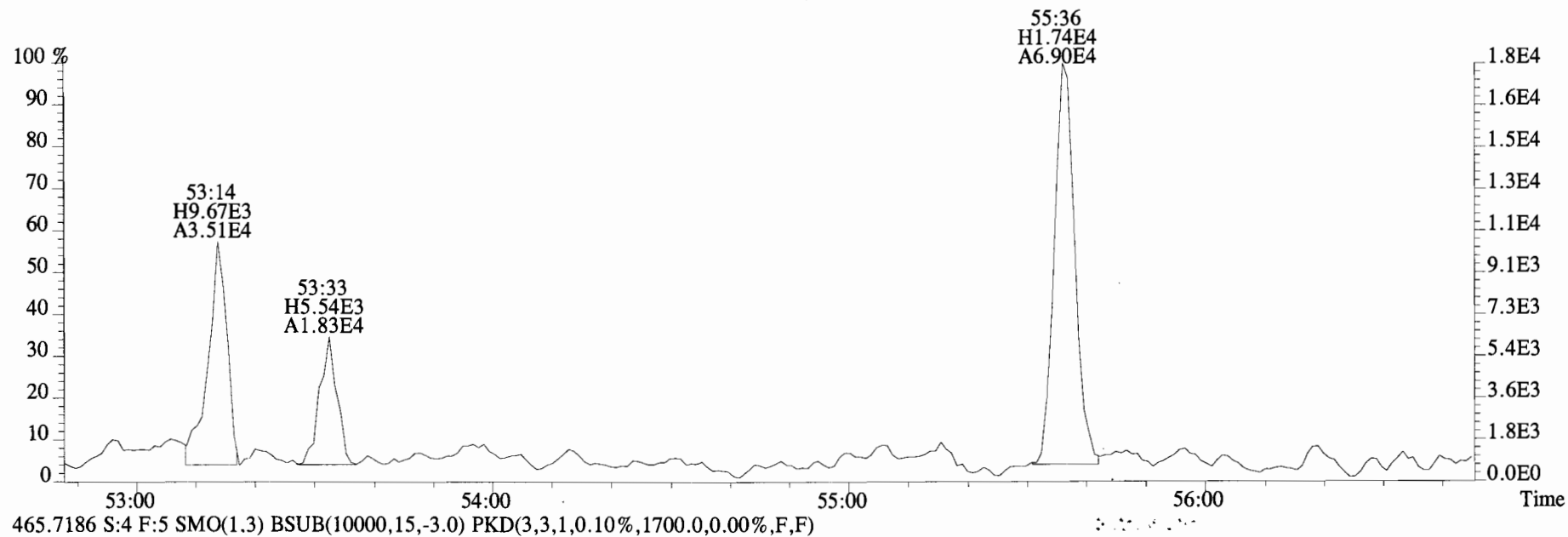
475.7619 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,5852.0,0.00%,F,F)



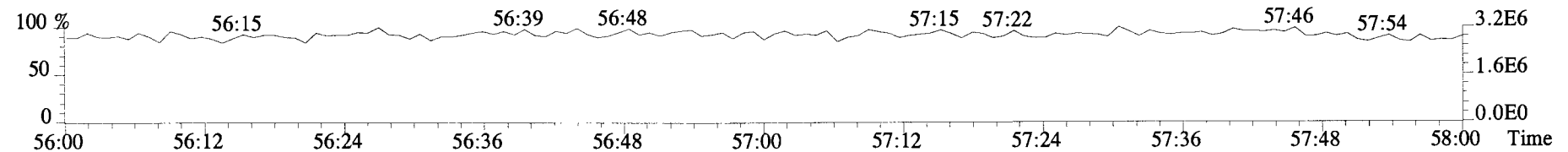
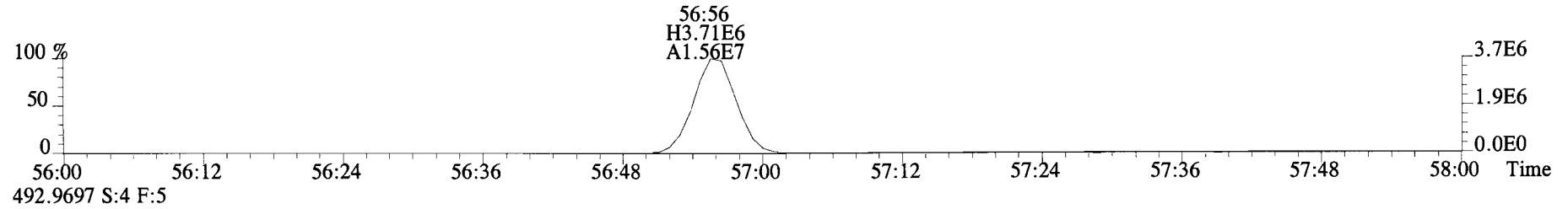
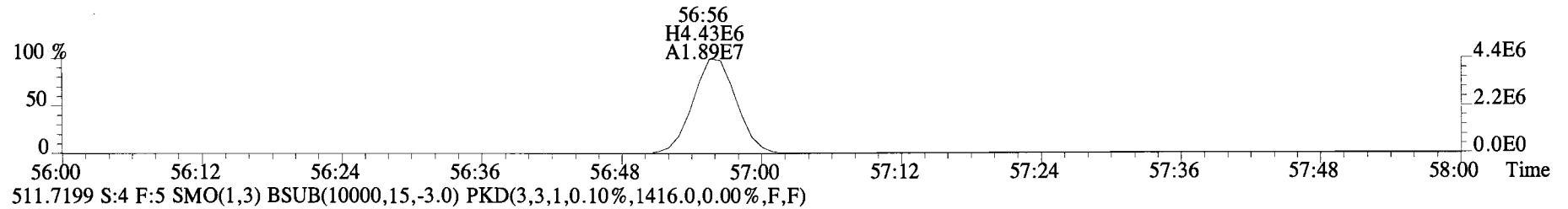
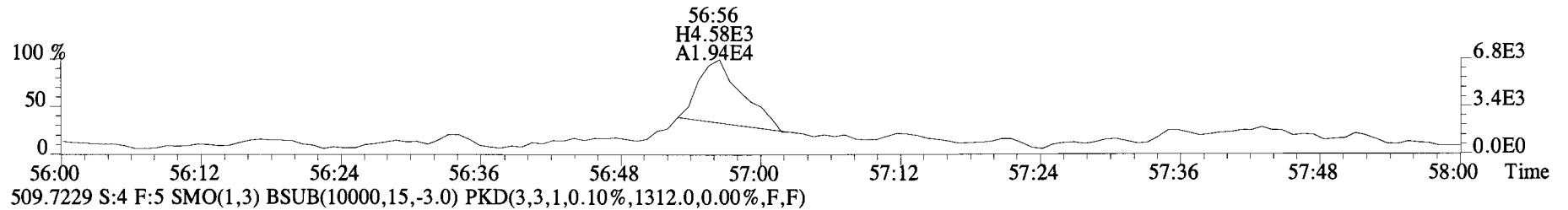
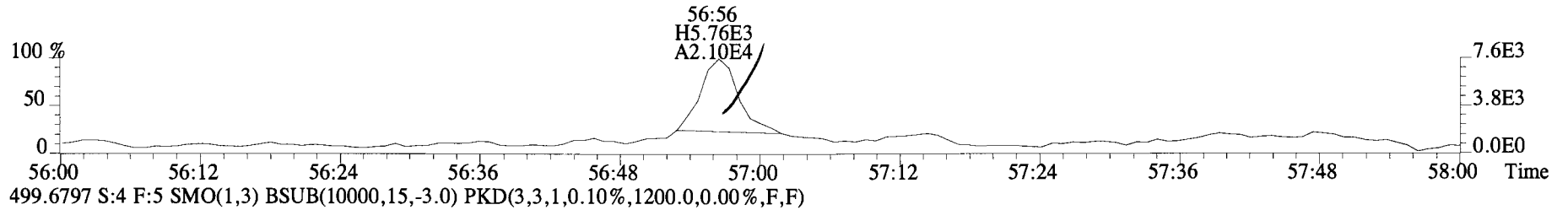
492.9697 S:4 F:5



File:140924E1 #1-418 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
463.7216 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1284.0,0.00%,F,F)



File:140924E1 #1-418 Acq:24-SEP-2014 14:22:21 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-8 Text:1400665-04 UG-MH-60-20140911-W Exp:PCB_ZB1
497.6826 S:4 F:5 SMO(1,3) BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,1120.0,0.00%,F,F)



CONFIRMATION

Client ID: UG-MH-76-20140911-S
Lab ID: 1400665-01RE1

Filename: 140918D1 S:6 Acq:18-SEP-14 14:50:04
GC Column ID: DB-225 ICal: 1613TCDFVG7-3-10-14 wt/vol:10.048

ConCal: ST140918D1-1
EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	4.32e+07	0.79 y	15:27	1.00	199.1	-
13C-2,3,7,8-TCDF	3.86e+07	0.79 y	17:46	0.93	192.0	96.4
2,3,7,8-TCDF	1.92e+05	0.88 y	17:47	1.16	0.8521	

Integrations

by

Analyst: vms

Date: 9/10/14

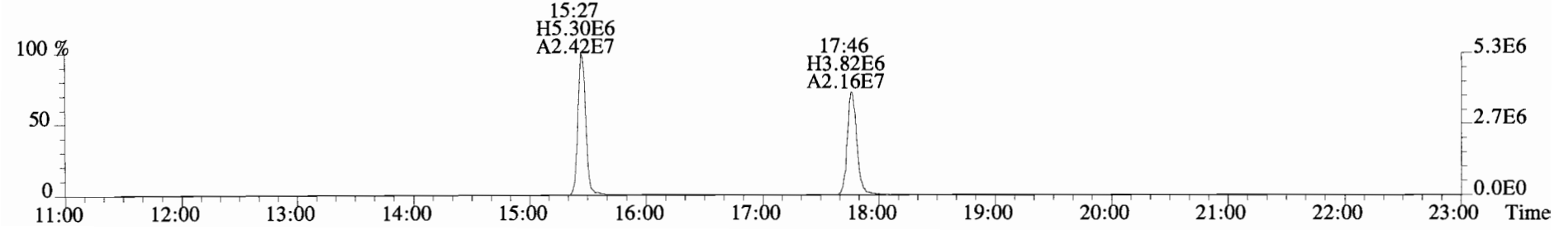
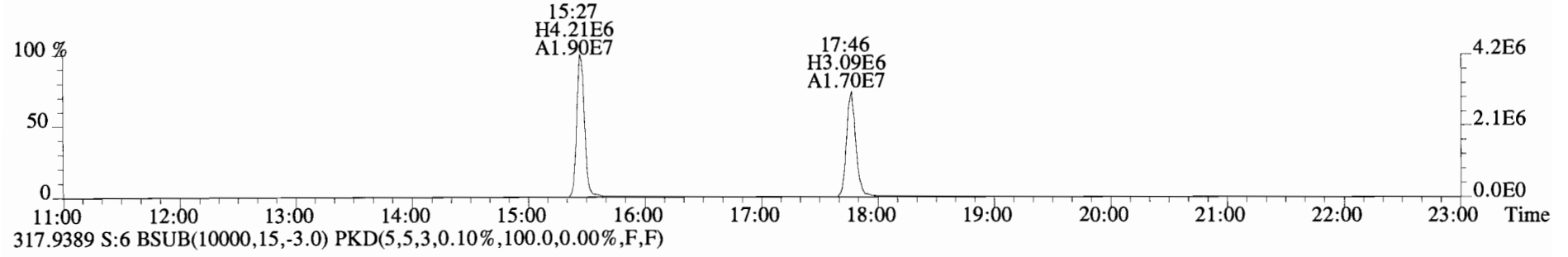
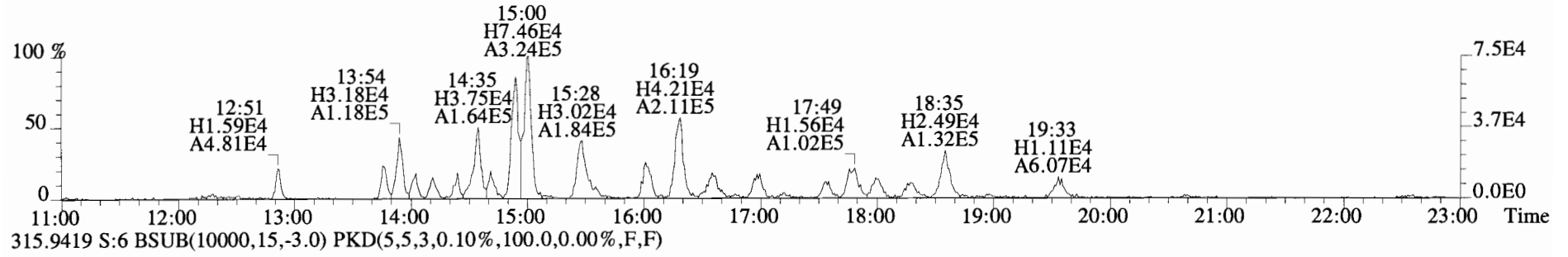
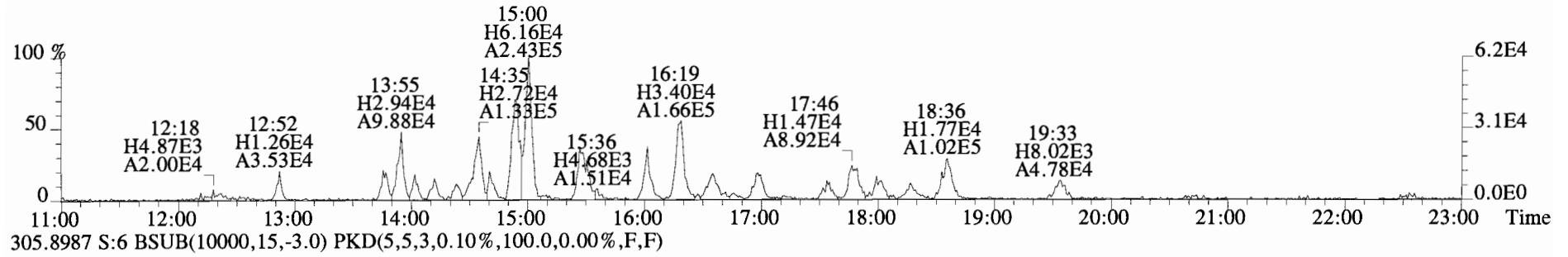
Reviewed

by

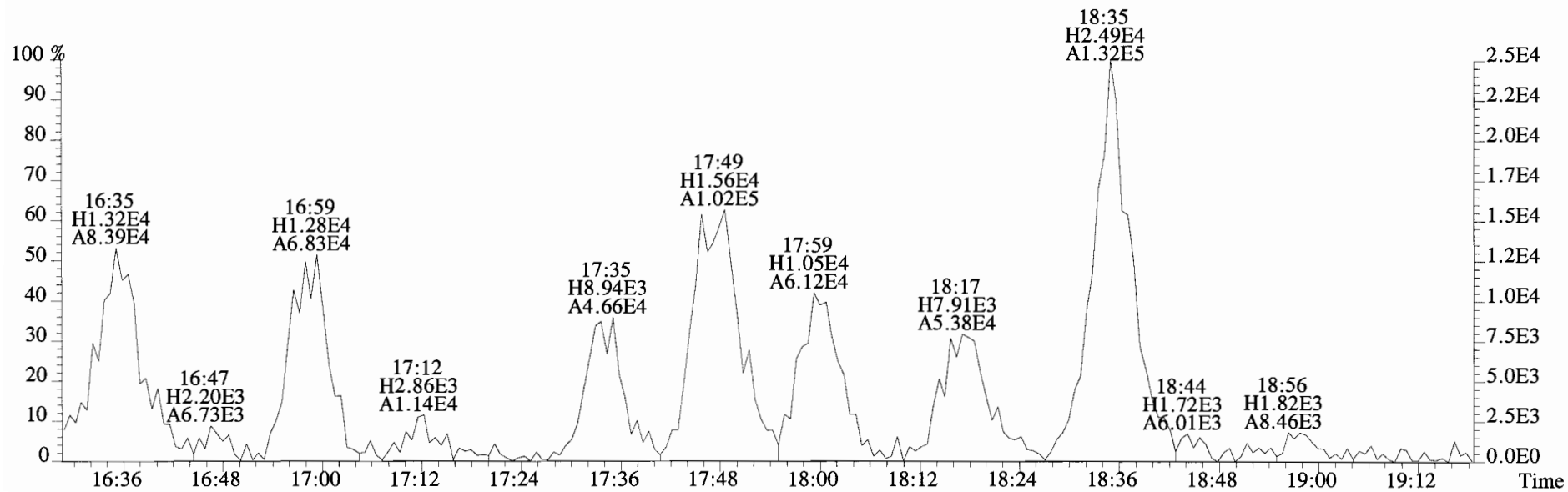
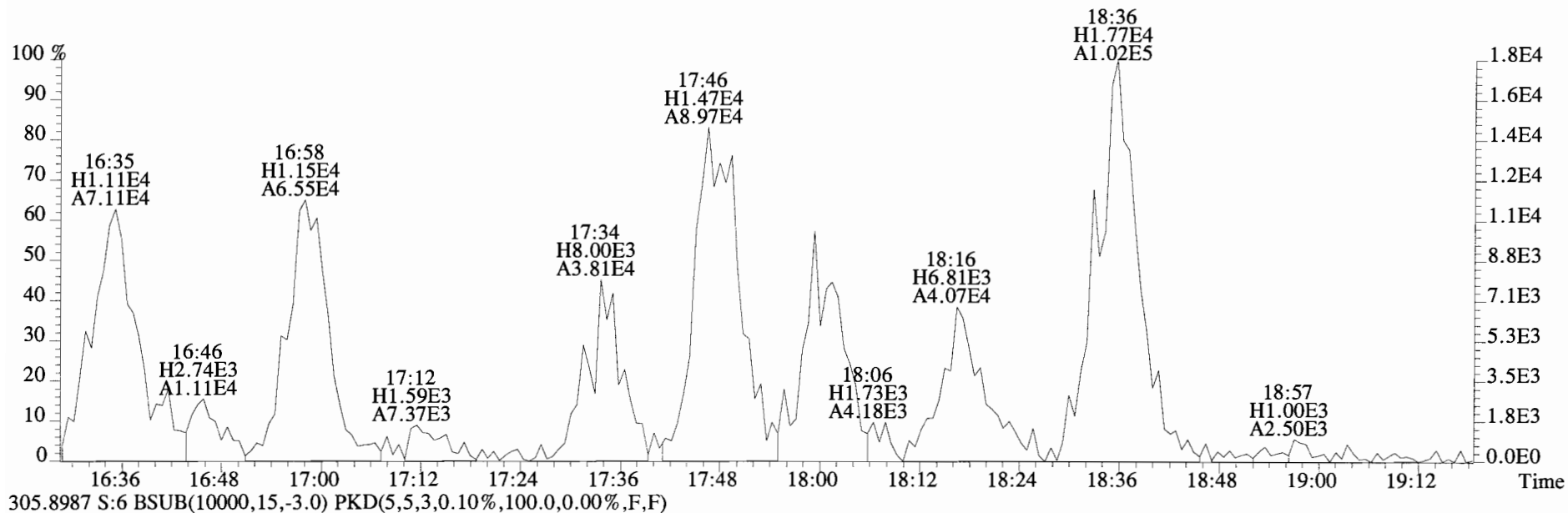
Analyst: 42

Date: 9/23/14

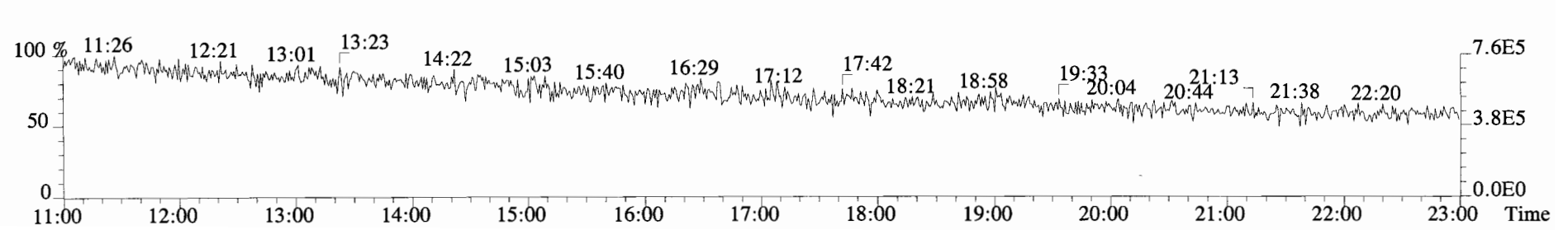
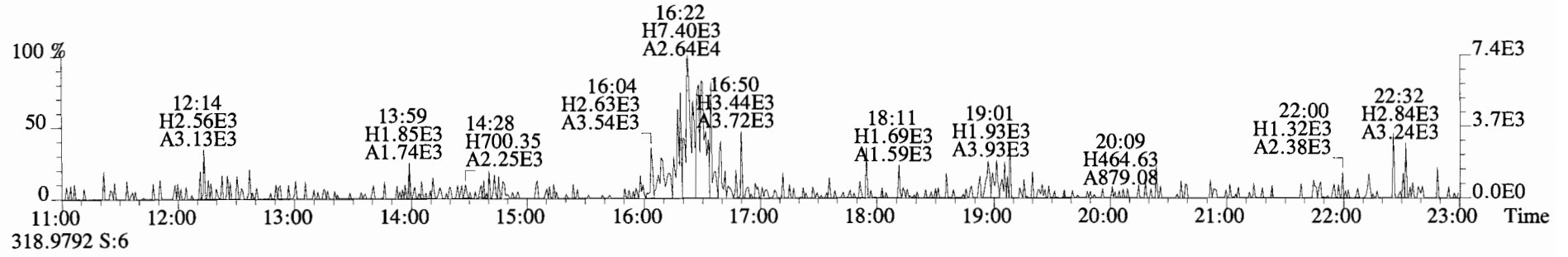
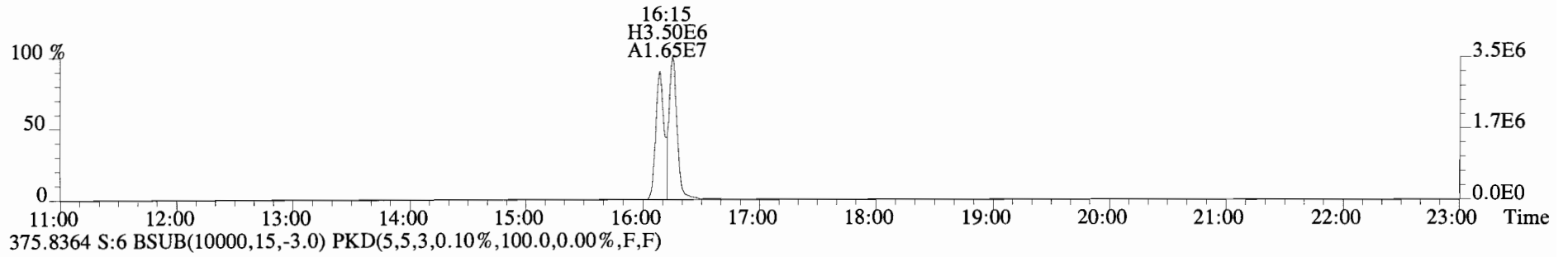
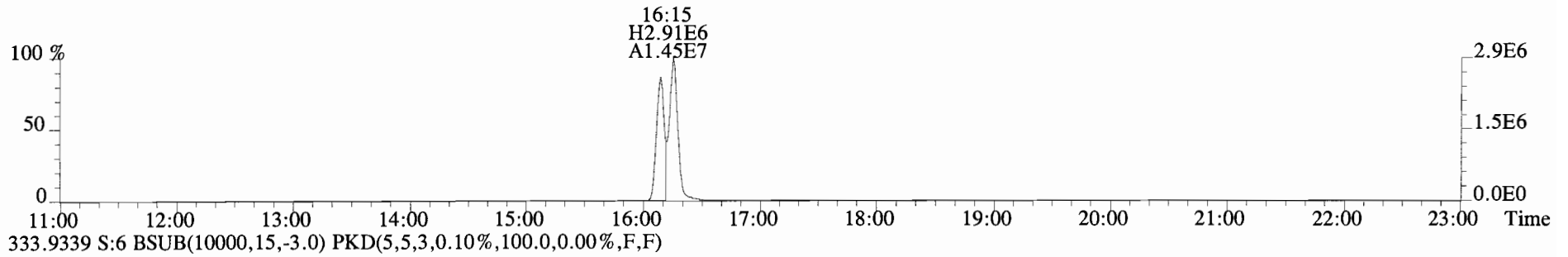
File:140918D1 #1-1683 Acq:18-SEP-2014 14:50:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01RE1 UG-MH-76-20140911-S C 15.58 Exp:TCDF_DB225
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140918D1 #1-1683 Acq:18-SEP-2014 14:50:04 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01RE1 UG-MH-76-20140911-S C 15.58 Exp:TCDF_DB225
 303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140918D1 #1-1683 Acq:18-SEP-2014 14:50:04 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-7 Text:1400665-01RE1 UG-MH-76-20140911-S C 15.58 Exp:TCDF_DB225
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: UG-MH-60-20140911-S
Lab ID: 1400665-02RE1

Filename: 140918D1 S:7 Acq:18-SEP-14 15:22:10
GC Column ID: DB-225 ICal: 1613TCDFVG7-3-10-14 wt/vol:10.046

ConCal: ST140918D1-1
EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	4.56e+07	0.78 y	15:27	1.00	199.1	-
13C-2,3,7,8-TCDF	3.75e+07	0.78 y	17:46	0.93	176.5	88.7
2,3,7,8-TCDF	1.22e+06	0.74 y	17:48	1.16	5.589	

Integrations

by
Analyst: RM

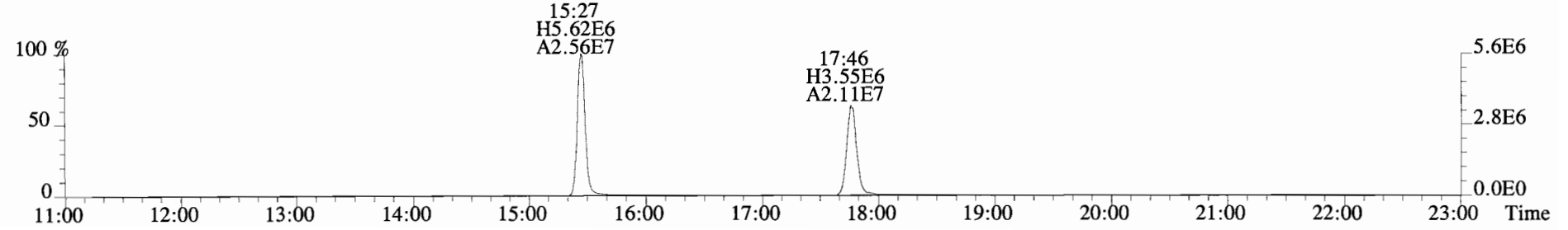
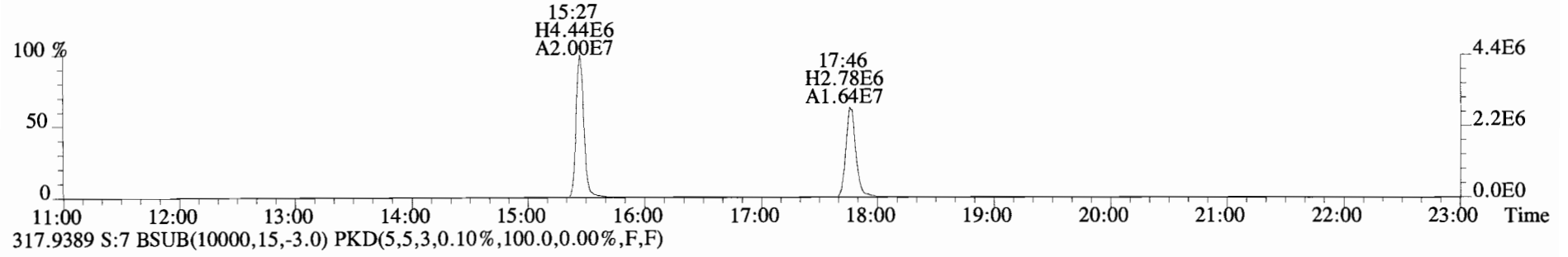
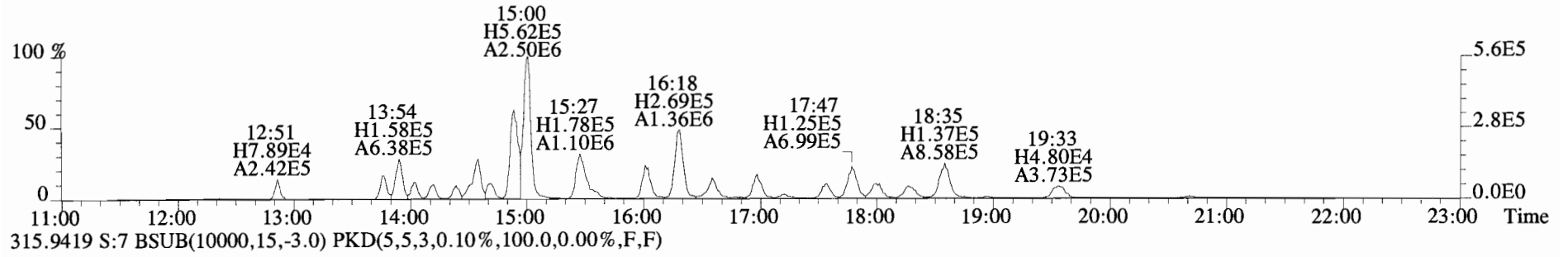
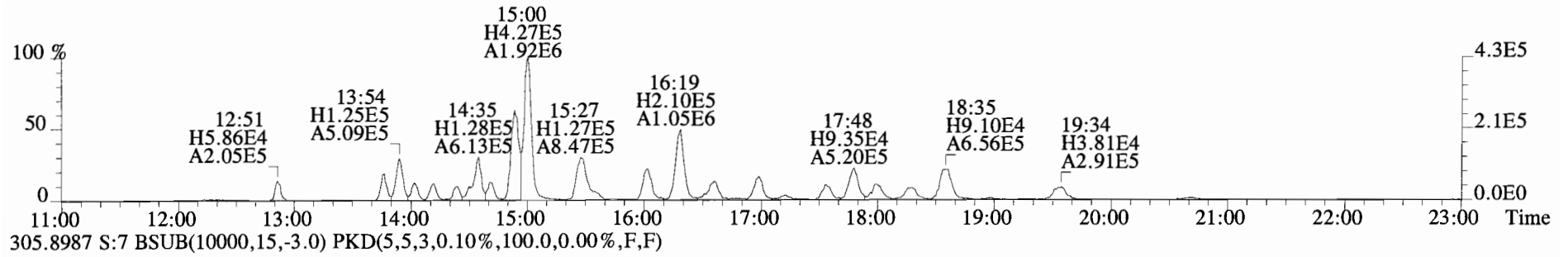
Date: 9/19/14

Reviewed

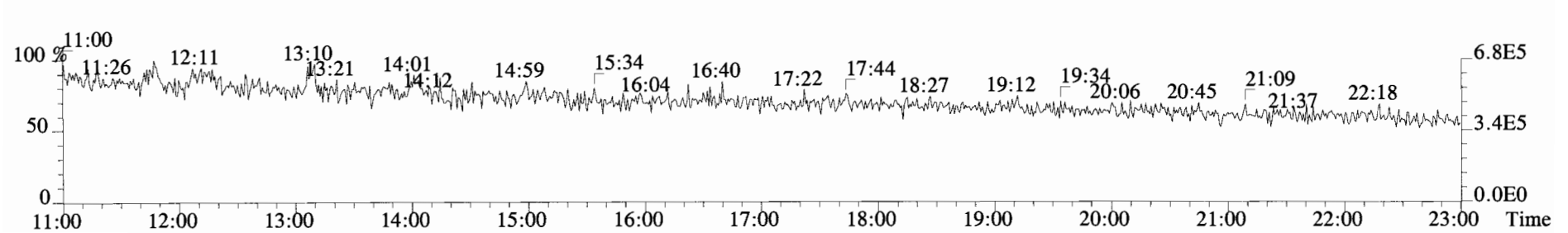
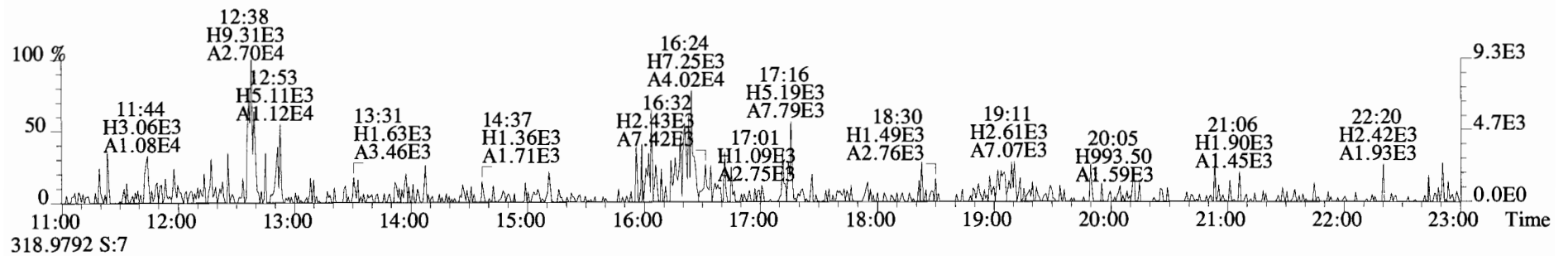
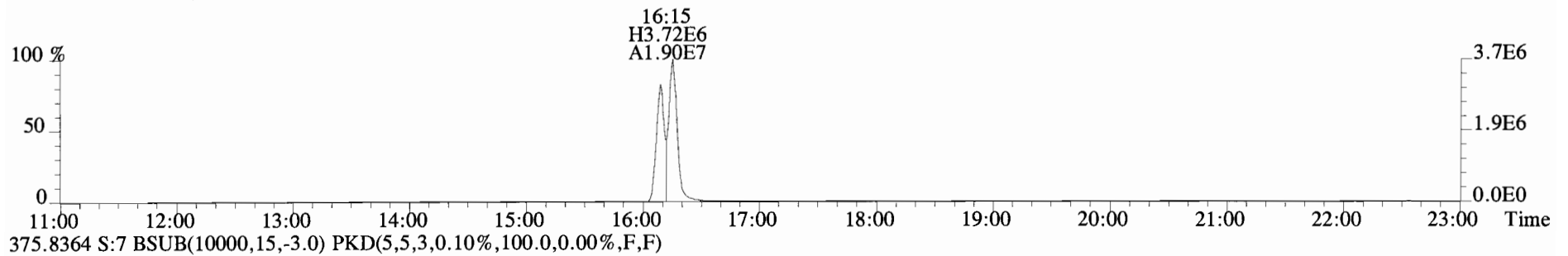
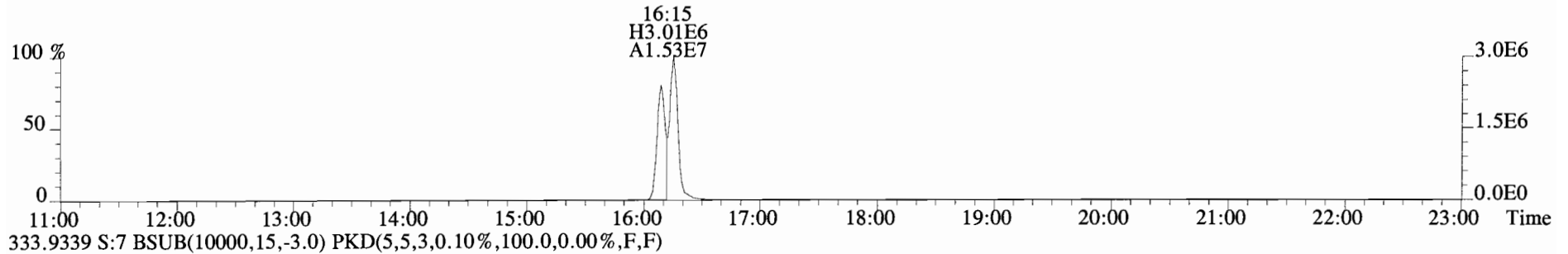
by
Analyst: [Signature]

Date: 9/23/14

File:140918D1 #1-1683 Acq:18-SEP-2014 15:22:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02RE1 UG-MH-60-20140911-S C 28.77 Exp:TCDF_DB225
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140918D1 #1-1683 Acq:18-SEP-2014 15:22:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-7 Text:1400665-02RE1 UG-MH-60-20140911-S C 28.77 Exp:TCDF_DB225
331.9368 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: UG-FD-01-20140911-S
Lab ID: 1400665-03RE1

Filename: 140918D1 S:8 Acq:18-SEP-14 15:54:16
GC Column ID: DB-225 ICal: 1613TCDFVG7-3-10-14 wt/vol:10.073

ConCal: ST140918D1-1
EndCAL: NA

Name	Resp	RA	RT	RRF	Conc	Rec
13C-1,2,3,4-TCDF	5.62e+07	0.78 y	15:27	1.00	198.6	-
13C-2,3,7,8-TCDF	3.74e+07	0.78 y	17:46	0.93	142.5	71.8
2,3,7,8-TCDF	1.21e+06	0.82 y	17:47	1.16	5.523	

Integrations

by
Analyst: ms

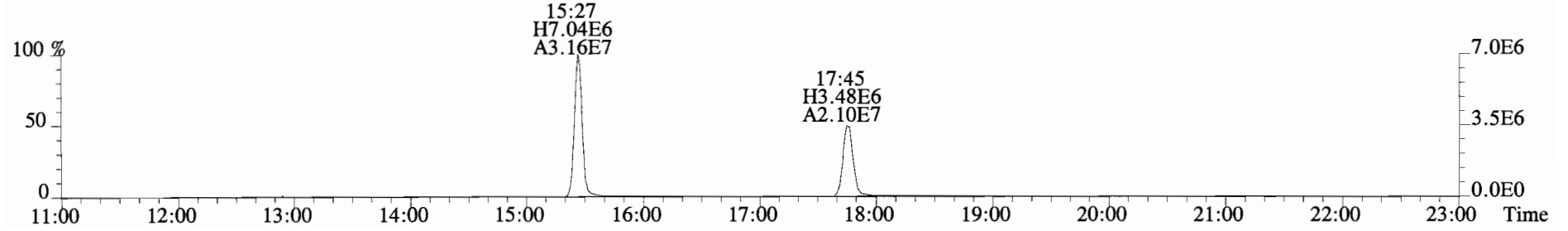
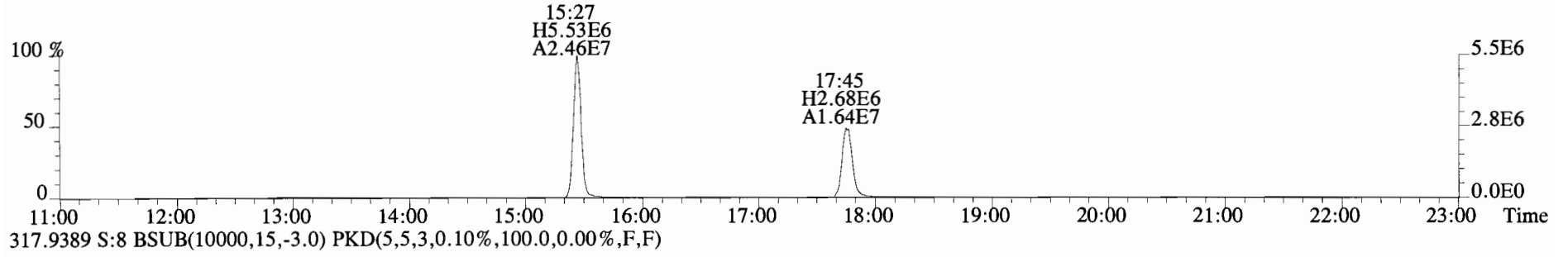
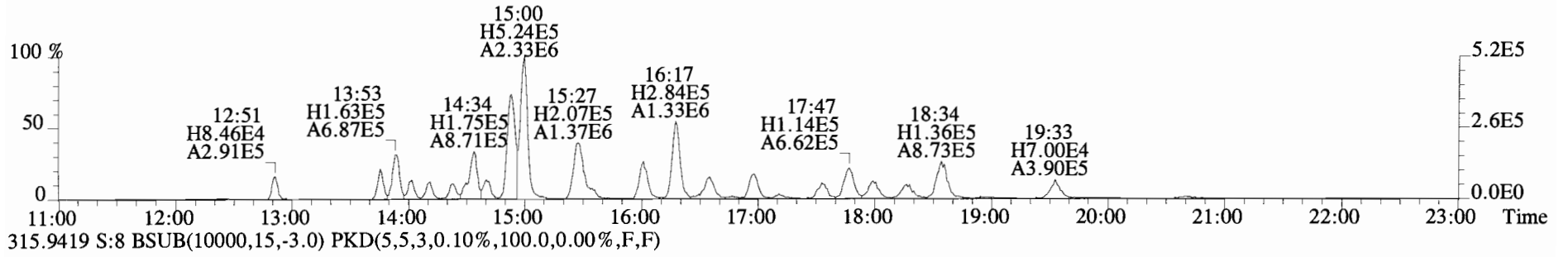
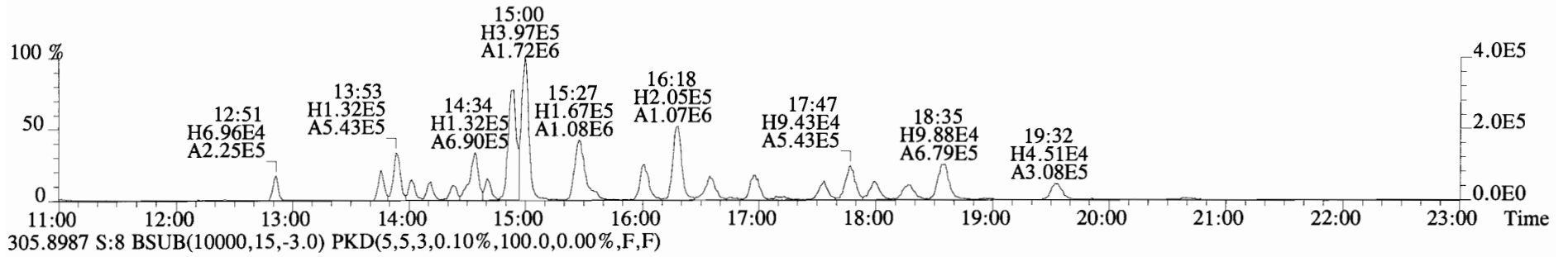
Date: 9/19/14

Reviewed

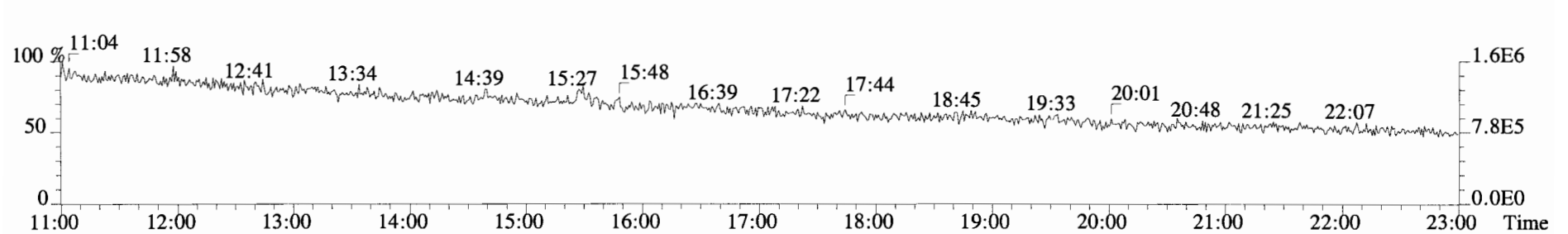
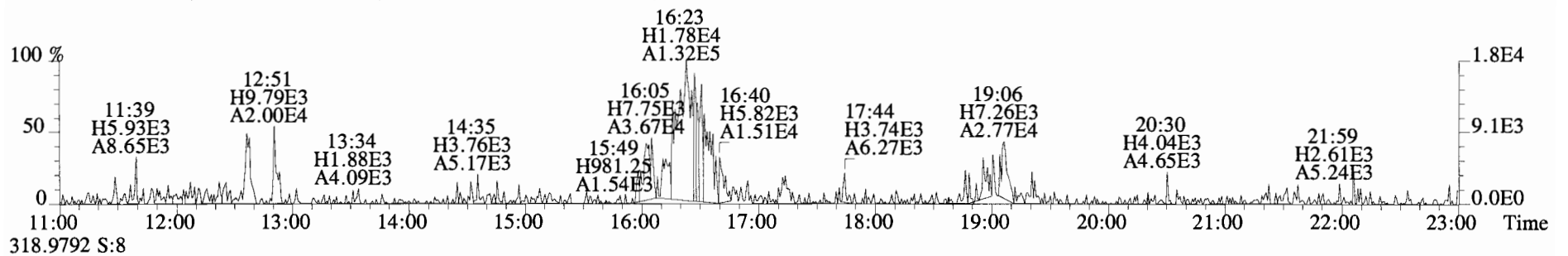
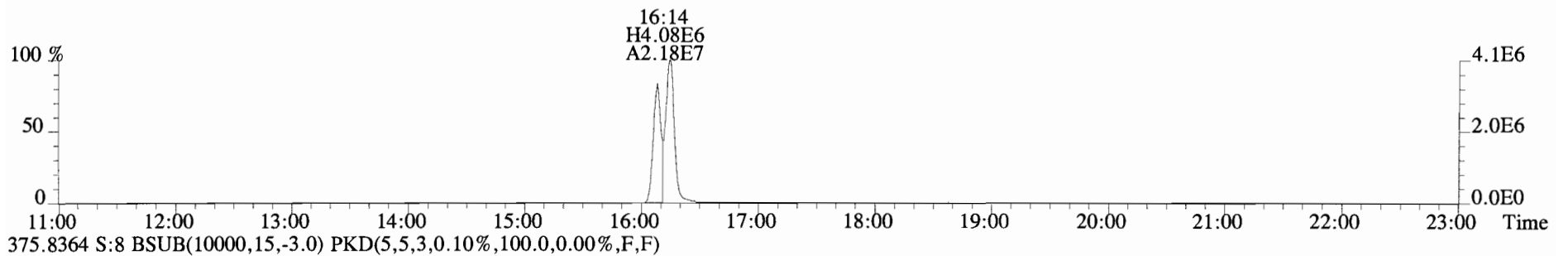
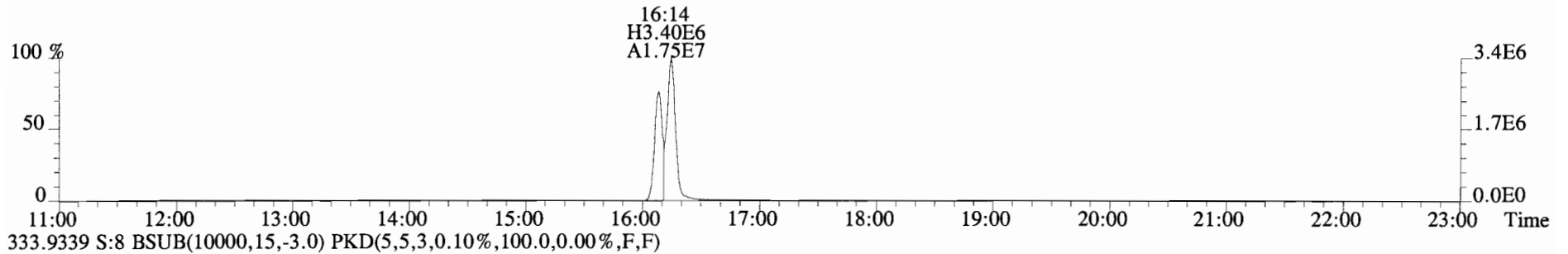
by
Analyst: [Signature]

Date: 9/27/14

File:140918D1 #1-1683 Acq:18-SEP-2014 15:54:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03RE1 UG-FD-01-20140911-S C 28.27 Exp:TCDF_DB225
303.9016 S:8 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:140918D1 #1-1683 Acq:18-SEP-2014 15:54:16 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 File Text:Vista Analytical Laboratory VG-7 Text:1400665-03RE1 UG-FD-01-20140911-S C 28.27 Exp:TCDF_DB225
331.9368 S:8 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

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.76	0.65-0.89	y	9.79	7.8 - 12.9
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	y	53.1	8.2 - 12.3 (4) 39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	49.8	39.0 - 64.0
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
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
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
OCDF	M+2/M+4	0.93	0.76-1.02	y	99.3	63.0 - 159.0

(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 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: (M)Date: 9/17/14

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	CONC. 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
13C-1,2,3,7,8-PeCDD	M/M+2	0.64	0.54-0.72	y	94.6	62.0 - 160.0
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
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) 37C1-2,3,7,8-TCDD					10.4	7.9 - 12.7

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified

(3) No ion abundance ratio; report concentration found.

Analyst: MI

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%

(1) To meet contract requirements, %Valley Height Between Compared
Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: MTDate: 9/18/14

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: 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	RRT
	REFERENCE		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	0.991	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: ms

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 REFERENCE	RRT	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

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

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: RM

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	*	*	
											Total Hepta-Furans	94.2	95.3	*	*	
2,3,7,8-TCDF	2.56e+06	0.78 y	0.91	26:16	1.001	9.8475		*	2.5	*						
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	*						
IS	13C-2,3,7,8-TCDD	1.95e+07	0.79 y	1.06	27:02	1.021	97.486				Rec	Qual				
IS	13C-1,2,3,7,8-PeCDD	1.93e+07	0.64 y	1.08	31:31	1.190	94.599				97.5	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	113				
IS	13C-1,2,3,6,7,8-HxCDD	1.72e+07	1.26 y	0.75	34:59	1.017	112.87				117	117				
IS	13C-1,2,3,7,8,9-HxCDD	2.12e+07	1.24 y	0.89	35:17	1.026	117.32				96.1	105				
IS	13C-1,2,3,4,6,7,8-HpCDD	1.37e+07	1.05 y	0.70	38:44	1.126	96.076				103	103				
IS	13C-OCDD	2.51e+07	0.88 y	0.59	42:05	1.224	209.93				95.4	98.4				
IS	13C-2,3,7,8-TCDF	2.86e+07	0.77 y	0.97	26:15	0.991	103.10				105	103				
IS	13C-1,2,3,7,8-PeCDF	2.71e+07	1.60 y	0.99	30:21	1.146	95.439				98.4	105				
IS	13C-2,3,4,7,8-PeCDF	2.84e+07	1.58 y	1.01	31:14	1.180	98.449				85.9	85.9				
IS	13C-1,2,3,4,7,8-HxCDF	2.01e+07	0.51 y	0.94	33:58	0.988	105.29				96.0	101				
IS	13C-1,2,3,6,7,8-HxCDF	2.14e+07	0.51 y	1.23	34:06	0.991	85.908				103	103				
IS	13C-2,3,4,6,7,8-HxCDF	2.01e+07	0.52 y	1.03	34:42	1.009	95.998				107	107				
IS	13C-1,2,3,7,8,9-HxCDF	1.82e+07	0.50 y	0.89	35:40	1.037	101.39				102	102				
IS	13C-1,2,3,4,6,7,8-HpCDF	1.48e+07	0.43 y	0.71	37:33	1.092	103.33									
IS	13C-1,2,3,4,7,8,9-HpCDF	1.40e+07	0.44 y	0.64	39:17	1.142	107.22									
IS	13C-OCDF	3.13e+07	0.90 y	0.76	42:19	1.230	203.93									
C/Up	37C1-2,3,7,8-TCDD	2.05e+06		1.04	27:03	1.021	10.437				26.1					
RS/RT	13C-1,2,3,4-TCDD	1.88e+07	0.80 y	1.00	26:29	*	100.00									
RS	13C-1,2,3,4-TCDF	2.86e+07	0.75 y	1.00	25:04	*	100.00									
RS/RT	13C-1,2,3,4,6,9-HxCDF	2.03e+07	0.52 y	1.00	34:24	*	100.00									

Integrations
by ms
Analyst: ms
Date: 9/17/14
Reviewed
by ms
Analyst: ms
Date: 9/18/14

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: ST140917D1-1

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Concentration within range?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Run Log:		
-Data file matches Conc Cal ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-Correct instrument listed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-Samples within 12-hour clock?	<input checked="" type="checkbox"/> y	<input type="checkbox"/> n

	<u>Beg.</u>	<u>End</u>
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TCDD/TCDF valleys < 25%?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Peaks integrated correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Manual integrations included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8280 CS1 Ending Standard		
-Ratios within limits		<input type="checkbox"/>
-S/N > 2.5:1		<input type="checkbox"/>
-CS1 within 12-hour clock		<input checked="" type="checkbox"/>

Comments:

Reviewed by: [Signature] 9/18/14
Initials & Date

* Ending standard criteria applicable to 8290 only.

Vista Analytical Laboratory
 El Dorado Hills, CA 95762

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

ANALYTES	M/Z'S	ION	QC	CONC.	CONC. RANGE	CONC. RANGE
	FORMING	ABUND.	LIMITS		1613	8290
	RATIO (1)	RATIO	(2)	FOUND	(ng/mL)	(ng/mL)
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)	8.0 - 12.0
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)	70.0 - 130.0

* Tetra-oxa 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

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	108.4
2,3,7,8-TCDF	3.39e+06	0.77 y	17:47	1.16	8.501	

Integrations

by
Analyst: ms

Date: 9/14/14

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>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Concentration within range?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input type="checkbox"/> NA	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Run Log:		
-Data file matches Conc Cal ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
-Samples within 12-hour clock?	<input type="checkbox"/> y	<input type="checkbox"/> n

	<u>Beg.</u>	<u>End</u>
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TCDD/TCDF valleys < 25%?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Peaks integrated correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Manual integrations included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8280 CS1 Ending Standard		
-Ratios within limits		<input type="checkbox"/>
-S/N > 2.5:1		<input type="checkbox"/>
-CS1 within 12-hour clock		<input checked="" type="checkbox"/>

Comments: * Tetra → Octa only m 9/19/14

Reviewed by:  9/19/14
Initials & Date

* Ending standard criteria applicable to 8290 only.

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

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 ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (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: DMS

Date: 9/22/14

NATIVE 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

ANALYTES	ION	QC	PASS	CONC.	CONC.	ANALYTES	ION	QC	PASS	CONC.	CONC.
	ABUND.	LIMITS		RANGE			ABUND.	LIMITS		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: DMS

Date: 9/22/14

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 ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (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: *DMS*

Date: *9/22/14*

NATIVE 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 #1 Analysis Date: 19-SEP-14 Time: 23:43:03

ANALYTES	ION	QC	PASS	CONC.	CONC.
	ABUND.	LIMITS		FOUND	RANGE
	RATIO				(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

LABELED 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

LABELED IS	ION			CONC.		LABELED IS	ION			CONC.	
	ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	RANGE (ng/mL)		ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	RANGE (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						

CRS vs. RS

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 ConCal: ST140919E2-1
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	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-52/69	1.53e+08	0.82 y	1.28	31:43	1.001	0.996-1.006	100.493	
PCB-2	1.15e+08	3.13 y	1.18	18:42	0.989	0.984-0.994	39.7109		PCB-73	7.76e+07	0.83 y	1.35	31:50	1.005	1.000-1.010	48.2342	
PCB-3	1.37e+08	3.07 y	1.43	18:56	1.001	0.996-1.006	39.1959		PCB-43/49	1.14e+08	0.83 y	0.99	32:00	1.010	1.005-1.015	96.2901	
PCB-4/10	3.53e+08	1.63 y	1.57	20:18	1.003	0.997-1.007	201.893		PCB-47	5.64e+07	0.96 n	1.06	32:13	1.001	0.996-1.006	42.4969	
PCB-7/9	4.23e+08	1.65 y	1.21	22:05	0.869	0.866-0.874	203.572		PCB-48/75	1.55e+08	0.77 y	1.23	32:20	1.004	0.999-1.009	100.647	
PCB-6	2.19e+08	1.66 y	1.30	22:44	0.894	0.890-0.899	97.4930		PCB-65	7.50e+07	0.81 y	1.22	32:36	1.013	1.008-1.018	48.8214	
PCB-5/8	4.04e+08	1.64 y	1.15	23:09	0.911	0.907-0.917	204.664		PCB-62	7.69e+07	0.84 y	1.22	32:41	1.015	1.011-1.021	50.1886	
PCB-14	2.10e+08	1.65 y	1.11	24:15	0.954	0.949-0.959	103.816		PCB-44	5.36e+07	0.81 y	0.86	33:01	1.026	1.021-1.031	49.6890	
PCB-11	2.02e+08	1.66 y	1.09	25:26	1.001	0.995-1.005	102.316		PCB-42/59	1.42e+08	0.81 y	1.14	33:13	1.032	1.028-1.038	99.2925	
PCB-12/13	4.41e+08	1.65 y	1.19	25:49	1.016	1.011-1.021	202.849		PCB-41/64/71/72	2.99e+08	0.82 y	1.21	33:48	1.050	1.046-1.056	197.303	
PCB-15	2.34e+08	1.67 y	1.28	26:08	1.028	1.023-1.033	100.275		PCB-68	8.61e+07	0.82 y	1.35	34:04	1.058	1.054-1.064	50.9281	
PCB-19	5.95e+07	1.10 y	1.04	24:26	1.001	0.996-1.006	46.4094		PCB-40	4.57e+07	0.82 y	0.70	34:18	1.065	1.061-1.071	51.9284	
PCB-30	9.90e+07	1.09 y	1.71	25:19	1.037	1.032-1.042	47.0091		PCB-57	7.83e+07	0.82 y	0.98	34:38	0.970	0.965-0.975	49.9521	
PCB-18	6.94e+07	1.08 y	0.78	26:04	0.954	0.949-0.959	47.3299		PCB-67	8.42e+07	0.82 y	1.11	34:56	0.978	0.974-0.984	47.5147	
PCB-17	8.10e+07	1.09 y	0.92	26:14	0.960	0.956-0.966	46.8122		PCB-58	7.55e+07	0.83 y	0.93	35:04	0.982	0.977-0.987	50.8489	
PCB-24/27	2.10e+08	1.09 y	1.19	26:49	0.981	0.977-0.987	93.9988		PCB-63	7.55e+07	0.83 y	0.95	35:14	0.987	0.982-0.992	49.5047	
PCB-16/32	1.65e+08	1.10 y	0.94	27:19	1.000	0.995-1.005	93.3408		PCB-74	9.70e+07	0.81 y	1.24	35:31	0.995	0.990-1.000	48.7249	
PCB-34	1.02e+08	1.06 y	1.14	28:07	0.960	0.955-0.965	57.4954		PCB-61/70	1.56e+08	0.83 y	0.95	35:41	0.999	0.995-1.005	102.162	
PCB-23	9.78e+07	1.07 y	1.28	28:13	0.964	0.959-0.969	48.9323		PCB-76/66	1.63e+08	0.82 y	1.04	35:54	1.005	1.001-1.011	97.6861	
PCB-29	8.96e+07	1.06 y	1.08	28:28	0.972	0.967-0.977	53.0876		PCB-80	1.01e+08	0.83 y	1.19	36:08	1.000	0.996-1.006	49.4841	
PCB-26	9.81e+07	1.09 y	1.21	28:40	0.979	0.974-0.984	52.0184		PCB-55	8.62e+07	0.83 y	1.04	36:27	1.009	1.005-1.015	48.5257	
PCB-25	1.05e+08	1.05 y	1.26	28:49	0.984	0.979-0.989	53.3545		PCB-56/60	1.72e+08	0.82 y	1.01	36:57	1.023	1.019-1.029	99.8359	
PCB-31	1.00e+08	1.05 y	1.28	29:11	0.997	0.992-1.002	49.7953		PCB-79	9.17e+07	0.82 y	1.08	38:01	1.053	1.048-1.058	49.8075	
PCB-28	1.41e+08	1.06 y	1.71	29:18	1.001	0.995-1.005	52.5660		PCB-78	9.24e+07	0.82 y	1.27	38:43	0.987	0.982-0.992	47.5758	
PCB-20/21/33	2.68e+08	1.07 y	1.08	29:54	1.021	1.017-1.027	158.720		PCB-81	9.54e+07	0.82 y	1.33	39:14	1.000	0.995-1.005	46.9330	
PCB-22	1.01e+08	1.06 y	1.21	30:21	1.037	1.032-1.042	53.7242		PCB-77	8.52e+07	0.86 y	1.10	39:50	1.000	0.995-1.005	50.1527	
PCB-36	8.96e+07	1.06 y	1.14	30:58	0.934	0.928-0.938	55.3638		PCB-104	6.86e+07	1.63 y	1.18	32:51	1.000	0.996-1.006	51.3735	
PCB-39	8.72e+07	1.05 y	1.12	31:26	0.948	0.943-0.953	55.1536		PCB-96	6.58e+07	1.65 y	1.14	34:08	1.039	1.034-1.044	51.2370	
PCB-38	8.87e+07	1.07 y	1.20	32:13	0.972	0.966-0.976	52.1638		PCB-103	5.60e+07	1.61 y	0.96	34:39	1.055	1.050-1.060	51.8620	
PCB-35	1.02e+08	1.07 y	1.23	32:44	0.987	0.982-0.992	58.2204		PCB-100	5.63e+07	1.65 y	0.94	35:01	1.066	1.061-1.071	53.2722	
PCB-37	9.34e+07	1.06 y	1.23	33:10	1.000	0.995-1.005	53.6121		PCB-94	4.61e+07	1.65 y	1.06	35:29	0.986	0.980-0.990	49.9645	
PCB-54	7.39e+07	0.81 y	1.10	28:11	1.001	0.996-1.006	47.3802		PCB-95/98/102	1.61e+08	1.63 y	1.22	35:59	0.999	0.995-1.005	150.602	
PCB-50	6.20e+07	0.81 y	0.88	29:20	1.042	1.037-1.047	49.7845		PCB-93	4.22e+07	1.74 y	0.84	36:07	1.003	0.997-1.007	57.2422	
PCB-53	6.04e+07	0.83 y	1.06	29:59	0.946	0.942-0.952	47.7193		PCB-88/91	9.75e+07	1.62 y	1.12	36:23	1.011	1.005-1.015	99.9804	
PCB-51	5.71e+07	0.81 y	0.99	30:19	0.957	0.952-0.962	48.4308		PCB-121	8.12e+07	1.66 y	1.62	36:30	1.014	1.009-1.019	57.5594	
PCB-45	5.16e+07	0.82 y	0.86	30:45	0.971	0.966-0.976	50.1711		PCB-84/92	1.02e+08	1.64 y	1.05	37:20	0.991	0.985-0.995	102.316	
PCB-46	4.88e+07	0.82 y	0.85	31:15	0.986	0.981-0.991	48.5466		PCB-89	5.53e+07	1.65 y	1.13	37:31	0.995	0.991-1.001	51.3810	

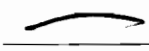
RL: MONO, TRI - DECA: _____
RL: DI : _____

Integrations
by
Analyst: DMS
Date: 9/22/14
Reviewed
by
Analyst: _____
Date: _____

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

RL: MONO, TRI - DECA: 

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 EndCAL: NA

ConCal: ST140919E2-1

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	118.880
Total Di-PCB	2.49e+09	1.63 y	20:18	1.21	1218.22
Total Tri-PCB	6.83e+08	1.10 y	24:26	1.10	374.900
Total Tetra-PCB	1.58e+09	1.06 y	28:07	1.21	862.867
Total Penta-PCB	3.11e+09	0.81 y	28:11	1.09	2043.57
Total Hexa-PCB	2.53e+09	1.63 y	32:51	1.18	2104.16
Total Hepta-PCB	4.05e+08	1.61 y	42:24	1.25	265.576
Total Octa-PCB	7.14e+08	1.31 y	37:15	0.90	718.055
Total Nona-PCB	1.82e+09	1.29 y	42:20	1.11	1316.10
Total Deca-PCB	1.56e+09	1.07 y	43:04	1.42	1194.99
	4.84e+08	0.93 y	48:29	0.96	454.516
	1.67e+08	0.93 y	53:07	1.33	146.056
	1.58e+08	1.39 y	53:16	1.01	153.968
	4.56e+07	1.19 y	56:58	1.17	49.4577

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: PCBG8-6-23-14 wt/vol:1.0000

ConCal: ST140919E2-1
EndCAL: NA

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-3	2.46e+08	3.46 y	0.91	18:55	0.724	0.725-0.733	↓	137	137
13C-PCB-4	1.12e+08	1.58 y	0.59	20:15	0.775	0.775-0.783		96.5	96.5
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-11	1.82e+08	1.57 y	0.94	25:25	0.973	0.968-0.978		98.5	98.5
13C-PCB-19	1.23e+08	1.12 y	0.53	24:24	0.934	0.930-0.940		117	117
13C-PCB-28	1.56e+08	1.11 y	0.93	29:17	1.004	0.999-1.009		102	102
13C-PCB-32	1.88e+08	1.14 y	0.80	27:19	1.046	1.040-1.050		120	120
13C-PCB-37	1.42e+08	1.13 y	0.84	33:09	1.137	1.131-1.143		103	103
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-52	1.19e+08	0.83 y	0.77	31:41	0.858	0.853-0.861		91.0	91.0
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-70	1.60e+08	0.85 y	1.00	35:43	0.966	0.961-0.971		94.6	94.6
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-80	1.70e+08	0.86 y	1.03	36:07	0.977	0.972-0.982		97.5	97.5
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-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

CRS vs. RS									
Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-79	1.74e+08	0.84 y	1.02	38:00	1.029	1.023-1.034		101	101
13C-PCB-178	7.10e+07	0.46 y	0.61	45:50	0.984	0.979-0.990		104	104

PS vs. IS									
Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
13C-PCB-79	1.74e+08	0.84 y	1.10	38:00	0.969	0.964-0.974		103	103
13C-PCB-178	7.10e+07	0.46 y	0.90	45:50	0.925	0.920-0.930		94.2	94.2

RS						
Name	Resp	RA	RRF	RT	Conc	Rec
13C-PCB-15	1.97e+08	1.57 y	1.00	26:08	100	
13C-PCB-31	1.64e+08	1.11 y	1.00	29:10	100	
13C-PCB-60	1.69e+08	0.86 y	1.00	36:57	100	
13C-PCB-111	1.23e+08	1.61 y	1.00	39:25	100	
13C-PCB-128	1.12e+08	1.32 y	1.00	46:33	100	
13C-PCB-205	1.06e+08	0.93 y	1.00	54:15	100	

⊗ = RRT limits used for DATA processing only, RRT within 1668 method limit.
DMS 9/22/14

Analyst: DMS

Date: 9/22/14

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: ST140919E2-1

End Calibration ID: NA

	Beg.	End
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Concentration within range?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/> DMS 9/22/14	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Run Log:		
-Data file matches Conc Cal ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
-Samples within 12-hour clock?	<input checked="" type="checkbox"/> y	<input type="checkbox"/> n

	* Beg.	End*
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TCDD/TCDF valleys < 25%?	<input type="checkbox"/> NA	<input type="checkbox"/> NA
Peaks integrated correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Manual integrations included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8280 CS1 Ending Standard		
-Ratios within limits		<input type="checkbox"/>
-S/N > 2.5:1		<input type="checkbox"/>
-CS1 within 12-hour clock		<input checked="" type="checkbox"/>

Comments: * OK'd by WJL.
DMS 9/22/14

Reviewed by: DMS 9/22/14
Initials & Date

* 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

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89	y	9.85	7.8 - 12.9
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	y	49.7	8.2 - 12.3 (4) 39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	51.3	39.0 - 64.0
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
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
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
OCDF	M+2/M+4	0.91	0.76-1.02	y	97.3	63.0 - 159.0

(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 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MSDate: 9/22/14

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

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. 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
13C-1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	87.0	62.0 - 160.0
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
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

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified

(3) No ion abundance ratio; report concentration found.

Analyst: MY

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: MSDate: 9/22/14

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: 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 REFERENCE	RRT	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: √m)

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	QC LIMITS (1)
	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) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94
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: mi

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

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	27:07	1.021	96.548					96.5					
IS	13C-1,2,3,7,8-PeCDD	1.73e+07	0.63 y	31:36	1.190	86.979					87.0					
IS	13C-1,2,3,4,7,8-HxCDD	1.22e+07	1.26 y	34:57	1.014	96.412					96.4					
IS	13C-1,2,3,6,7,8-HxCDD	1.25e+07	1.24 y	35:03	1.017	97.874					97.9					
IS	13C-1,2,3,7,8,9-HxCDD	1.43e+07	1.20 y	35:21	1.026	94.035					94.0					
IS	13C-1,2,3,4,6,7,8-HpCDD	1.09e+07	1.05 y	38:48	1.126	91.382					91.4					
IS	13C-OCDD	1.83e+07	0.91 y	42:10	1.224	181.78					90.9					
IS	13C-2,3,7,8-TCDF	2.59e+07	0.78 y	26:21	0.992	103.46					103					
IS	13C-1,2,3,7,8-PeCDF	2.40e+07	1.57 y	30:26	1.146	93.580					93.6					
IS	13C-2,3,4,7,8-PeCDF	2.33e+07	1.59 y	31:19	1.179	89.217					89.2					
IS	13C-1,2,3,4,7,8-HxCDF	1.66e+07	0.51 y	34:02	0.988	103.27					103					
IS	13C-1,2,3,6,7,8-HxCDF	1.95e+07	0.51 y	34:10	0.991	93.008					93.0					
IS	13C-2,3,4,6,7,8-HxCDF	1.69e+07	0.52 y	34:46	1.009	96.169					96.2					
IS	13C-1,2,3,7,8,9-HxCDF	1.50e+07	0.50 y	35:45	1.037	99.092					99.1					
IS	13C-1,2,3,4,6,7,8-HpCDF	1.26e+07	0.44 y	37:37	1.092	104.29					104					
IS	13C-1,2,3,4,7,8,9-HpCDF	1.06e+07	0.44 y	39:21	1.142	96.522					96.5					
IS	13C-OCDF	2.30e+07	0.92 y	42:24	1.230	177.66					88.8					
C/Up	37C1-2,3,7,8-TCDD	2.00e+06		27:09	1.022	10.471					26.2					
			1.04													
RS/RT	13C-1,2,3,4-TCDD	1.83e+07	0.81 y	26:34	*	100.00										
RS	13C-1,2,3,4-TCDF	2.59e+07	0.75 y	25:09	*	100.00										
RS/RT	13C-1,2,3,4,6,9-HxCDF	1.70e+07	0.52 y	34:28	*	100.00										

Integrations
by
Analyst: MAJ
Date: 9/22/14
Reviewed
by
Analyst: MP
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

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Concentration within range?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Run Log:		
-Data file matches Conc Cal ID?	<input type="checkbox"/>	<input type="checkbox"/>
-Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
-Samples within 12-hour clock?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	<u>Beg.</u>	<u>End</u>
Mass resolution > <u>10,000</u> ? ▪ Method 1614 > 5,000; CARB 429 > 8,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>TCDD/TCDF</u> valleys < 25%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Peaks integrated correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Manual integrations included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8280 CS1 Ending Standard		
-Ratios within limits		<input type="checkbox"/>
-S/N > 2.5:1		<input type="checkbox"/>
-CS1 within 12-hour clock		<input checked="" type="checkbox"/>

Comments:

Reviewed by: [Signature] 9/23/14
Initials & Date

* Ending standard criteria applicable to 8290 only.

Lab Name: Vista Analytical Laboratory Lab ID: ST140924E1-1 Instrument ID: VG-8

Initial Calibration Date: 6-20-14 ICal ID: PCBVG8-6-20-14 GC Column ID: ZB-1

VER Data Filename: 140924E1 S#1 Analysis Date: 24-SEP-14 Time: 11:09:07

ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	2.96	2.66-3.60	y	47.1	37.5-62.5	PCB-52/69	0.74	0.65-0.89	y	99.0	75.0-125
PCB-2	2.99	2.66-3.60	y	47.7	37.5-62.5	PCB-73	0.75	0.65-0.89	y	47.3	37.5-62.5
PCB-3	3.00	2.66-3.60	y	47.3	37.5-62.5	PCB-43/49	0.75	0.65-0.89	y	94.6	75.0-125
PCB-4/10	1.61	1.33-1.79	y	204.8	150-250	PCB-47	0.73	0.65-0.89	y	44.0	37.5-62.5
PCB-7/9	1.61	1.33-1.79	y	202.5	150-250	PCB-48/75	0.74	0.65-0.89	y	98.7	75.0-125
PCB-6	1.61	1.33-1.79	y	97.4	75.0-125	PCB-65	0.74	0.65-0.89	y	47.7	37.5-62.5
PCB-5/8	1.61	1.33-1.79	y	204.4	150-250	PCB-62	0.75	0.65-0.89	y	49.3	37.5-62.5
PCB-14	1.61	1.33-1.79	y	102.2	75.0-125	PCB-44	0.75	0.65-0.89	y	48.6	37.5-62.5
PCB-11	1.61	1.33-1.79	y	101.3	75.0-125	PCB-42/59	0.75	0.65-0.89	y	98.2	75.0-125
PCB-12/13	1.62	1.33-1.79	y	203.4	150-250	PCB-41/64/71/72	0.75	0.65-0.89	y	184.8	150-250
PCB-15	1.61	1.33-1.79	y	98.2	75.0-125	PCB-68	0.75	0.65-0.89	y	46.8	37.5-62.5
PCB-19	1.05	0.88-1.20	y	49.6	37.5-62.5	PCB-40	0.76	0.65-0.89	y	47.1	37.5-62.5
PCB-30	1.05	0.88-1.20	y	50.8	37.5-62.5	PCB-57	0.74	0.65-0.89	y	49.6	37.5-62.5
PCB-18	1.05	0.88-1.20	y	51.0	37.5-62.5	PCB-67	0.75	0.65-0.89	y	50.4	37.5-62.5
PCB-17	1.05	0.88-1.20	y	51.5	37.5-62.5	PCB-58	0.75	0.65-0.89	y	48.3	37.5-62.5
PCB-24/27	1.06	0.88-1.20	y	103.7	75.0-125	PCB-63	0.74	0.65-0.89	y	49.4	37.5-62.5
PCB-16/32	1.06	0.88-1.20	y	101.4	75.0-125	PCB-74	0.74	0.65-0.89	y	49.5	37.5-62.5
PCB-34	0.99	0.88-1.20	y	48.1	37.5-62.5	PCB-61/70	0.74	0.65-0.89	y	97.3	75.0-125
PCB-23	0.98	0.88-1.20	y	40.2	37.5-62.5	PCB-76/66	0.75	0.65-0.89	y	98.0	75.0-125
PCB-29	1.01	0.88-1.20	y	44.0	37.5-62.5	PCB-80	0.75	0.65-0.89	y	49.8	37.5-62.5
PCB-26	1.04	0.88-1.20	y	42.9	37.5-62.5	PCB-55	0.75	0.65-0.89	y	49.5	37.5-62.5
PCB-25	0.98	0.88-1.20	y	44.6	37.5-62.5	PCB-56/60	0.75	0.65-0.89	y	95.4	75.0-125
PCB-31	1.00	0.88-1.20	y	40.2	37.5-62.5	PCB-79	0.75	0.65-0.89	y	47.3	37.5-62.5
PCB-28	1.03	0.88-1.20	y	46.7	37.5-62.5	PCB-78	0.75	0.65-0.89	y	49.8	37.5-62.5
PCB-20/21/33	1.01	0.88-1.20	y	126.9	112.5-225	PCB-81	0.74	0.65-0.89	y	49.6	37.5-62.5
PCB-22	1.02	0.88-1.20	y	44.6	37.5-62.5	PCB-77	0.76	0.65-0.89	y	50.2	37.5-62.5
PCB-36	1.00	0.88-1.20	y	49.3	37.5-62.5	PCB-104	1.57	1.32-1.78	y	50.6	37.5-62.5
PCB-39	1.01	0.88-1.20	y	45.2	37.5-62.5	PCB-96	1.56	1.32-1.78	y	49.8	37.5-62.5
PCB-38	1.03	0.88-1.20	y	47.0	37.5-62.5	PCB-103	1.58	1.32-1.78	y	50.2	37.5-62.5
PCB-35	1.00	0.88-1.20	y	46.0	37.5-62.5	PCB-100	1.59	1.32-1.78	y	49.5	37.5-62.5
PCB-37	1.02	0.88-1.20	y	46.8	37.5-62.5	PCB-94	1.58	1.32-1.78	y	52.5	37.5-62.5
PCB-54	0.74	0.65-0.89	y	49.5	37.5-62.5	PCB-95/98/102	1.56	1.32-1.78	y	158.6	112.5-225
PCB-50	0.75	0.65-0.89	y	48.1	37.5-62.5	PCB-93	1.64	1.32-1.78	y	47.2	37.5-62.5
PCB-53	0.75	0.65-0.89	y	49.1	37.5-62.5	PCB-88/91	1.57	1.32-1.78	y	106.6	75.0-125
PCB-51	0.75	0.65-0.89	y	50.7	37.5-62.5	PCB-121	1.59	1.32-1.78	y	49.0	37.5-62.5
PCB-45	0.74	0.65-0.89	y	51.9	37.5-62.5						
PCB-46	0.73	0.65-0.89	y	46.8	37.5-62.5						

Analyst: DMS
Date: 9/24/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Lab ID: ST140924E1-1 Instrument ID: VG-8

Initial Calibration Date: 6-20-14 ICal ID: PCBVG8-6-20-14 GC Column ID: ZB-1

VER Data Filename: 140924E1 S#1 Analysis Date: 24-SEP-14 Time: 11:09:07

ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. CONC. FOUND	RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. CONC. FOUND	RANGE (ng/mL)
PCB-84/92	1.59	1.32-1.78	Y	103.4	75.0-125	PCB-140	1.31	1.05-1.43	Y	48.7	37.5-62.5
PCB-89	1.59	1.32-1.78	Y	52.5	37.5-62.5	PCB-134/143	1.21	1.05-1.43	Y	102.2	75.0-125
PCB-90/101	1.58	1.32-1.78	Y	102.0	75.0-125	PCB-133/142	1.21	1.05-1.43	Y	99.4	75.0-125
PCB-113	1.53	1.32-1.78	Y	50.8	37.5-62.5	PCB-131	1.24	1.05-1.43	Y	48.6	37.5-62.5
PCB-99	1.58	1.32-1.78	Y	53.2	37.5-62.5	PCB-146/165	1.24	1.05-1.43	Y	98.6	75.0-125
PCB-119	1.56	1.32-1.78	Y	51.0	37.5-62.5	PCB-132/161	1.23	1.05-1.43	Y	101.0	75.0-125
PCB-108/112	1.57	1.32-1.78	Y	104.0	75.0-125	PCB-153	1.23	1.05-1.43	Y	49.5	37.5-62.5
PCB-83	1.60	1.32-1.78	Y	51.7	37.5-62.5	PCB-168	1.21	1.05-1.43	Y	48.7	37.5-62.5
PCB-97	1.59	1.32-1.78	Y	51.7	37.5-62.5	PCB-141	1.22	1.05-1.43	Y	51.3	37.5-62.5
PCB-86	1.51	1.32-1.78	Y	51.5	37.5-62.5	PCB-137	1.21	1.05-1.43	Y	44.6	37.5-62.5
PCB-87/117/125	1.56	1.32-1.78	Y	154.3	112.5-225	PCB-130	1.23	1.05-1.43	Y	54.5	37.5-62.5
PCB-111/115	1.57	1.32-1.78	Y	98.2	75.0-125	PCB-138/163/164	1.21	1.05-1.43	Y	154.1	112.5-225
PCB-85/116	1.60	1.32-1.78	Y	108.3	75.0-125	PCB-158/160	1.23	1.05-1.43	Y	97.8	75.0-125
PCB-120	1.57	1.32-1.78	Y	49.6	37.5-62.5	PCB-129	1.20	1.05-1.43	Y	49.3	37.5-62.5
PCB-110	1.60	1.32-1.78	Y	51.1	37.5-62.5	PCB-166	1.20	1.05-1.43	Y	50.4	37.5-62.5
PCB-82	1.60	1.32-1.78	Y	54.1	37.5-62.5	PCB-159	1.19	1.05-1.43	Y	49.5	37.5-62.5
PCB-124	1.55	1.32-1.78	Y	52.1	37.5-62.5	PCB-128/162	1.21	1.05-1.43	Y	101.0	75.0-125
PCB-107/109	1.58	1.32-1.78	Y	105.1	75.0-125	PCB-167	1.20	1.05-1.43	Y	50.8	37.5-62.5
PCB-123	1.56	1.32-1.78	Y	53.4	37.5-62.5	PCB-156	1.20	1.05-1.43	Y	50.4	37.5-62.5
PCB-106/118	1.58	1.32-1.78	Y	102.6	75.0-125	PCB-157	1.25	1.05-1.43	Y	50.6	37.5-62.5
PCB-114	1.61	1.32-1.78	Y	52.1	37.5-62.5	PCB-169	1.21	1.05-1.43	Y	50.4	37.5-62.5
PCB-122	1.63	1.32-1.78	Y	52.2	37.5-62.5	PCB-188	1.06	0.89-1.21	Y	50.8	37.5-62.5
PCB-105	1.59	1.32-1.78	Y	53.2	37.5-62.5	PCB-184	1.05	0.89-1.21	Y	51.0	37.5-62.5
PCB-127	1.60	1.32-1.78	Y	52.2	37.5-62.5	PCB-179	1.05	0.89-1.21	Y	48.9	37.5-62.5
PCB-126	1.59	1.32-1.78	Y	52.8	37.5-62.5	PCB-176	1.05	0.89-1.21	Y	48.4	37.5-62.5
PCB-155	1.27	1.05-1.43	Y	54.2	37.5-62.5	PCB-186	1.06	0.89-1.21	Y	50.4	37.5-62.5
PCB-150	1.26	1.05-1.43	Y	53.3	37.5-62.5	PCB-178	1.05	0.89-1.21	Y	50.1	37.5-62.5
PCB-152	1.29	1.05-1.43	Y	52.2	37.5-62.5	PCB-175	1.05	0.89-1.21	Y	49.8	37.5-62.5
PCB-145	1.28	1.05-1.43	Y	52.0	37.5-62.5	PCB-182/187	1.05	0.89-1.21	Y	102.5	75.0-125
PCB-136	1.28	1.05-1.43	Y	52.9	37.5-62.5	PCB-183	1.07	0.89-1.21	Y	48.9	37.5-62.5
PCB-148	1.31	1.05-1.43	Y	51.3	37.5-62.5	PCB-185	1.06	0.89-1.21	Y	50.9	37.5-62.5
PCB-154	1.27	1.05-1.43	Y	50.9	37.5-62.5	PCB-174	1.04	0.89-1.21	Y	47.4	37.5-62.5
PCB-151	1.29	1.05-1.43	Y	48.4	37.5-62.5	PCB-181	1.06	0.89-1.21	Y	55.1	37.5-62.5
PCB-135	1.25	1.05-1.43	Y	47.0	37.5-62.5	PCB-177	1.06	0.89-1.21	Y	51.1	37.5-62.5
PCB-144	1.37	1.05-1.43	Y	50.8	37.5-62.5	PCB-171	1.08	0.89-1.21	Y	51.9	37.5-62.5
PCB-147	1.22	1.05-1.43	Y	48.4	37.5-62.5	PCB-173	1.03	0.89-1.21	Y	51.3	37.5-62.5
PCB-139/149	1.26	1.05-1.43	Y	100.7	75.0-125	PCB-172	1.05	0.89-1.21	Y	50.5	37.5-62.5

Analyst: DMS

Date: 9/24/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

Page 3 of

Lab Name: Vista Analytical Laboratory Lab ID: ST140924E1-1 Instrument ID: VG-8

Initial Calibration Date: 6-20-14 ICal ID: PCBVG8-6-20-14 GC Column ID: ZB-1

VER Data Filename: 140924E1 S#1 Analysis Date: 24-SEP-14 Time: 11:09:07

ANALYTES	ION	QC	PASS	CONC.	CONC.
	ABUND.	LIMITS		FOUND	RANGE
	RATIO				(ng/mL)
PCB-192	1.07	0.89-1.21	Y	50.6	37.5-62.5
PCB-180	1.06	0.89-1.21	Y	50.2	37.5-62.5
PCB-193	1.06	0.89-1.21	Y	49.2	37.5-62.5
PCB-191	1.06	0.89-1.21	Y	48.6	37.5-62.5
PCB-170	1.05	0.89-1.21	Y	50.7	37.5-62.5
PCB-190	1.07	0.89-1.21	Y	49.7	37.5-62.5
PCB-189	1.04	0.89-1.21	Y	52.4	37.5-62.5
PCB-202	0.89	0.76-1.02	Y	50.7	37.5-62.5
PCB-201	0.90	0.76-1.02	Y	49.6	37.5-62.5
PCB-204	0.89	0.76-1.02	Y	50.3	37.5-62.5
PCB-197	0.90	0.76-1.02	Y	50.1	37.5-62.5
PCB-200	0.89	0.76-1.02	Y	50.9	37.5-62.5
PCB-198	0.97	0.76-1.02	Y	45.2	37.5-62.5
PCB-199	0.82	0.76-1.02	Y	50.7	37.5-62.5
PCB-196/203	0.90	0.76-1.02	Y	97.0	75.0-125
PCB-195	0.89	0.76-1.02	Y	55.1	37.5-62.5
PCB-194	0.91	0.76-1.02	Y	52.1	37.5-62.5
PCB-205	0.90	0.76-1.02	Y	51.9	37.5-62.5
PCB-208	1.31	1.14-1.54	Y	48.5	37.5-62.5
PCB-207	1.29	1.14-1.54	Y	46.4	37.5-62.5
PCB-206	1.30	1.14-1.54	Y	47.9	37.5-62.5
PCB-209	1.19	0.99-1.33	Y	52.5	37.5-62.5

Analyst: DMSDate: 9/24/14

LABELED 1668C CONTINUING CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Lab ID: ST140924E1-1 Instrument ID: VG-8

Initial Calibration Date: 6-20-14 ICal ID: PCBVG8-6-20-14 GC Column ID: ZB-1

VER Data Filename: 140924E1 S#1 Analysis Date: 24-SEP-14 Time: 11:09:07

LABELED IS	ION ABUND. RATIO	QC LIMITS	PASS	CONC. CONC. FOUND	CONC. RANGE (ng/mL)	LABELED IS	ION ABUND. RATIO	QC LIMITS	PASS	CONC. CONC. FOUND	CONC. RANGE (ng/mL)
13C-PCB-1	3.28	2.66-3.60	y	121.8	50.0-145	13C-PCB-169	1.26	1.05-1.43	y	86.0	50 - 145
13C-PCB-3	3.31	2.66-3.60	y	121.4	50.0-145	13C-PCB-188	0.47	0.38-0.52	y	108.0	50 - 145
13C-PCB-4	1.59	1.33-1.79	y	104.0	50.0-145	13C-PCB-180	0.47	0.38-0.52	y	99.1	50 - 145
13C-PCB-9	1.59	1.33-1.79	y	102.6	50.0-145	13C-PCB-170	0.47	0.38-0.52	y	97.5	50 - 145
13C-PCB-11	1.57	1.33-1.79	y	100.5	50.0-145	13C-PCB-189	0.46	0.38-0.52	y	90.0	50 - 145
13C-PCB-19	1.06	0.88-1.20	y	107.2	50.0-145	13C-PCB-202	0.92	0.76-1.02	y	98.1	50 - 145
13C-PCB-32	1.07	0.88-1.20	y	105.0	50.0-145	13C-PCB-194	0.92	0.76-1.02	y	99.3	50 - 145
13C-PCB-28	1.04	0.88-1.20	y	106.2	50.0-145	13C-PCB-208	0.77	0.65-0.89	y	122.3	50 - 145
13C-PCB-37	1.06	0.88-1.20	y	98.1	50.0-145	13C-PCB-206	0.79	0.65-0.89	y	115.8	50 - 145
13C-PCB-54	0.78	0.65-0.89	y	110.9	50.0-145	13C-PCB-209	1.17	0.99-1.33	y	129.9	50 - 145
13C-PCB-52	0.78	0.65-0.89	y	105.3	50.0-145						
13C-PCB-47	0.78	0.65-0.89	y	106.1	50.0-145						
13C-PCB-70	0.77	0.65-0.89	y	101.2	50.0-145						
13C-PCB-80	0.79	0.65-0.89	y	100.0	50.0-145						
13C-PCB-81	0.78	0.65-0.89	y	97.0	50.0-145						
13C-PCB-77	0.78	0.65-0.89	y	94.8	50.0-145						
13C-PCB-104	1.63	1.32-1.78	y	104.6	50.0-145						
13C-PCB-95	1.66	1.32-1.78	y	99.8	50.0-145						
13C-PCB-101	1.59	1.32-1.78	y	98.0	50.0-145	CRS vs. RS					
13C-PCB-97	1.60	1.32-1.78	y	99.7	50.0-145						
13C-PCB-123	1.62	1.32-1.78	y	90.9	50.0-145	13C-PCB-79	0.79	0.65-0.89	y	106.4	75 - 125
13C-PCB-118	1.63	1.32-1.78	y	92.7	50.0-145	13C-PCB-178	0.47	0.38-0.52	y	115.9	75 - 125
13C-PCB-114	1.56	1.32-1.78	y	93.1	50.0-145						
13C-PCB-105	1.56	1.32-1.78	y	93.2	50.0-145						
13C-PCB-127	1.55	1.32-1.78	y	89.2	50.0-145						
13C-PCB-126	1.55	1.32-1.78	y	85.3	50.0-145						
13C-PCB-155	1.30	1.05-1.43	y	94.6	50.0-145						
13C-PCB-153	1.26	1.05-1.43	y	102.4	50.0-145						
13C-PCB-141	1.28	1.05-1.43	y	102.0	50.0-145						
13C-PCB-138	1.25	1.05-1.43	y	102.5	50.0-145						
13C-PCB-159	1.23	1.05-1.43	y	98.8	50.0-145						
13C-PCB-167	1.27	1.05-1.43	y	96.9	50.0-145						
13C-PCB-156	1.23	1.05-1.43	y	91.4	50.0-145						
13C-PCB-157	1.27	1.05-1.43	y	93.9	50.0-145						

Analyst: *Dms*

Date: 9/24/14

Client ID: PCB CS3 14F1901
Lab ID: ST140924E1-1

Filename: 140924E1 S:1 Acq:24-SEP-14 11:09:07 ConCal: ST140924E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-1	9.66e+07	2.96 y	1.25	16:13	1.001	0.996-1.006	47.0606		PCB-52/69	1.01e+08	0.74 y	1.28	31:38	1.001	0.996-1.006	99.0255	
PCB-2	9.58e+07	2.99 y	1.18	18:36	0.988	0.983-0.993	47.7152		PCB-73	5.17e+07	0.75 y	1.37	31:44	1.005	1.000-1.010	47.3318	
PCB-3	9.81e+07	3.00 y	1.22	18:50	1.001	0.996-1.006	47.3472		PCB-43/49	8.38e+07	0.75 y	1.11	31:55	1.010	1.005-1.015	94.5710	
PCB-4/10	2.74e+08	1.61 y	1.55	20:13	1.003	0.998-1.008	204.843		PCB-47	4.19e+07	0.73 y	1.13	32:06	1.000	0.996-1.006	43.9574	
PCB-7/9	3.29e+08	1.61 y	1.27	21:59	0.868	0.865-0.873	202.502		PCB-48/75	1.08e+08	0.74 y	1.30	32:13	1.004	0.999-1.009	98.7021	
PCB-6	1.57e+08	1.61 y	1.26	22:38	0.894	0.890-0.899	97.3721		PCB-65	5.37e+07	0.74 y	1.33	32:30	1.012	1.007-1.017	47.7417	
PCB-5/8	3.23e+08	1.61 y	1.23	23:03	0.910	0.906-0.916	204.430		PCB-62	5.37e+07	0.75 y	1.29	32:36	1.016	1.011-1.021	49.3438	
PCB-14	1.79e+08	1.61 y	1.23	24:09	0.954	0.949-0.959	102.162		PCB-44	3.85e+07	0.75 y	0.94	32:55	1.025	1.020-1.030	48.6233	
PCB-11	1.67e+08	1.61 y	1.16	25:20	1.000	0.996-1.006	101.263		PCB-42/59	1.01e+08	0.75 y	1.22	33:07	1.032	1.028-1.038	98.1960	
PCB-12/13	3.18e+08	1.62 y	1.10	25:44	1.016	1.010-1.020	203.404		PCB-41/64/71/72	2.04e+08	0.75 y	1.31	33:43	1.050	1.046-1.056	184.762	
PCB-15	1.69e+08	1.61 y	1.21	26:03	1.029	1.024-1.034	98.2246		PCB-68	5.86e+07	0.75 y	1.49	33:58	1.058	1.054-1.064	46.7762	
PCB-19	5.53e+07	1.05 y	1.30	24:20	1.001	0.996-1.006	49.5550		PCB-40	3.25e+07	0.76 y	0.82	34:12	1.065	1.061-1.071	47.0968	
PCB-30	8.01e+07	1.05 y	1.83	25:13	1.038	1.032-1.042	50.8159		PCB-57	5.65e+07	0.74 y	1.11	34:33	0.970	0.965-0.975	49.6049	
PCB-18	5.64e+07	1.05 y	0.86	25:58	0.954	0.949-0.959	50.9654		PCB-67	5.53e+07	0.75 y	1.07	34:51	0.979	0.974-0.984	50.4177	
PCB-17	5.97e+07	1.05 y	0.90	26:08	0.960	0.955-0.965	51.4705		PCB-58	5.44e+07	0.75 y	1.10	34:59	0.982	0.977-0.987	48.3388	
PCB-24/27	1.57e+08	1.06 y	1.18	26:43	0.981	0.976-0.986	103.695		PCB-63	5.64e+07	0.74 y	1.12	35:08	0.987	0.982-0.992	49.3923	
PCB-16/32	1.35e+08	1.06 y	1.03	27:14	1.000	0.995-1.005	101.395		PCB-74	6.09e+07	0.74 y	1.20	35:25	0.994	0.990-1.000	49.5276	
PCB-34	6.86e+07	0.99 y	1.26	28:02	0.961	0.956-0.966	48.0539		PCB-61/70	1.07e+08	0.74 y	1.08	35:35	0.999	0.994-1.004	97.2561	
PCB-23	5.97e+07	0.98 y	1.31	28:07	0.964	0.959-0.969	40.2384		PCB-76/66	1.14e+08	0.75 y	1.14	35:49	1.006	1.001-1.011	98.0143	
PCB-29	6.62e+07	1.01 y	1.33	28:22	0.972	0.967-0.977	44.0162		PCB-80	6.53e+07	0.75 y	1.28	36:02	1.000	0.996-1.006	49.7563	
PCB-26	6.27e+07	1.04 y	1.29	28:35	0.980	0.974-0.984	42.8662		PCB-55	5.65e+07	0.75 y	1.11	36:22	1.010	1.005-1.015	49.5129	
PCB-25	6.78e+07	0.98 y	1.34	28:44	0.985	0.980-0.990	44.6357		PCB-56/60	1.07e+08	0.75 y	1.09	36:51	1.023	1.018-1.028	95.3688	
PCB-31	6.46e+07	1.00 y	1.42	29:05	0.997	0.992-1.002	40.2290		PCB-79	5.46e+07	0.75 y	1.12	37:55	1.053	1.048-1.058	47.2767	
PCB-28	7.28e+07	1.03 y	1.38	29:12	1.001	0.996-1.006	46.7213		PCB-78	5.35e+07	0.75 y	1.24	38:37	0.987	0.982-0.992	49.7566	
PCB-20/21/33	1.88e+08	1.01 y	1.31	29:48	1.021	1.017-1.027	126.927		PCB-81	5.95e+07	0.74 y	1.38	39:09	1.000	0.995-1.005	49.6096	
PCB-22	6.68e+07	1.02 y	1.32	30:15	1.037	1.032-1.042	44.6447		PCB-77	5.49e+07	0.76 y	1.21	39:45	1.000	0.995-1.005	50.2179	
PCB-36	6.64e+07	1.00 y	1.38	30:52	0.934	0.929-0.939	49.2699		PCB-104	4.62e+07	1.57 y	1.26	32:46	1.001	0.996-1.006	50.5655	
PCB-39	6.27e+07	1.01 y	1.42	31:21	0.948	0.943-0.953	45.1629		PCB-96	3.95e+07	1.56 y	1.09	34:02	1.039	1.034-1.044	49.8386	
PCB-38	6.23e+07	1.03 y	1.35	32:07	0.972	0.967-0.976	47.0296		PCB-103	3.40e+07	1.58 y	0.93	34:34	1.056	1.050-1.060	50.1651	
PCB-35	6.19e+07	1.00 y	1.38	32:38	0.987	0.982-0.992	45.9765		PCB-100	3.60e+07	1.59 y	1.00	34:55	1.066	1.061-1.071	49.5237	
PCB-37	6.37e+07	1.02 y	1.39	33:04	1.000	0.996-1.006	46.7756		PCB-94	3.01e+07	1.58 y	1.11	35:24	0.986	0.981-0.991	52.4903	
PCB-54	5.96e+07	0.74 y	1.20	28:05	1.001	0.996-1.006	49.4911		PCB-95/98/102	9.98e+07	1.56 y	1.21	35:52	0.999	0.994-1.004	158.636	
PCB-50	4.68e+07	0.75 y	0.97	29:14	1.042	1.037-1.047	48.1224		PCB-93	2.77e+07	1.64 y	1.13	36:01	1.003	0.998-1.008	47.2486	
PCB-53	4.65e+07	0.75 y	1.19	29:53	0.946	0.941-0.951	49.1296		PCB-88/91	5.63e+07	1.57 y	1.02	36:17	1.010	1.006-1.016	106.559	
PCB-51	4.66e+07	0.75 y	1.15	30:13	0.957	0.952-0.962	50.7162		PCB-121	4.83e+07	1.59 y	1.90	36:24	1.014	1.009-1.019	49.0383	
PCB-45	3.99e+07	0.74 y	0.97	30:40	0.971	0.966-0.976	51.8612		PCB-84/92	5.83e+07	1.59 y	1.05	37:14	0.990	0.986-0.996	103.375	
PCB-46	3.55e+07	0.73 y	0.95	31:09	0.986	0.982-0.992	46.8120		PCB-89	2.87e+07	1.59 y	1.02	37:25	0.995	0.991-1.001	52.4781	

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations

by

Analyst: *DMS*

Date: *9/24/14*

Reviewed

by

Analyst: _____

Date: _____

Client ID: PCB CS3 14F1901
Lab ID: ST140924E1-1

Filename: 140924E1 S:1 Acq:24-SEP-14 11:09:07 ConCal: ST140924E1-1
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-90/101	6.51e+07	1.58 y	1.19	37:36	1.000	0.996-1.006	101.968		PCB-133/142	6.35e+07	1.21 y	0.95	42:33	0.982	0.977-0.987	99.4059	
PCB-113	3.69e+07	1.53 y	1.35	37:50	1.006	1.002-1.012	50.8384		PCB-131	3.00e+07	1.24 y	0.91	42:42	0.986	0.981-0.991	48.5701	
PCB-99	3.68e+07	1.58 y	1.29	37:56	1.009	1.005-1.015	53.1917		PCB-146/165	7.70e+07	1.24 y	1.16	42:55	0.991	0.986-0.996	98.5666	
PCB-119	4.21e+07	1.56 y	1.72	38:24	0.987	0.982-0.992	51.0471		PCB-132/161	7.60e+07	1.23 y	1.11	43:10	0.997	0.992-1.002	101.046	
PCB-108/112	6.42e+07	1.57 y	1.29	38:33	0.991	0.986-0.996	103.994		PCB-153	3.94e+07	1.23 y	1.18	43:20	1.000	0.995-1.005	49.4639	
PCB-83	3.77e+07	1.60 y	1.52	38:43	0.995	0.991-1.001	51.7324		PCB-168	4.50e+07	1.21 y	1.37	43:33	1.005	1.000-1.010	48.7087	
PCB-97	3.10e+07	1.59 y	1.25	38:55	1.000	0.996-1.006	51.7253		PCB-141	3.24e+07	1.22 y	0.97	44:04	1.000	0.996-1.005	51.3444	
PCB-86	2.52e+07	1.51 y	1.02	39:03	1.004	1.000-1.010	51.4563		PCB-137	3.10e+07	1.21 y	1.07	44:27	1.009	1.004-1.014	44.6251	
B-87/117/125	1.15e+08	1.56 y	1.56	39:11	1.007	1.002-1.012	154.308		PCB-130	2.99e+07	1.23 y	0.85	44:33	1.011	1.007-1.017	54.5107	
PCB-111/115	8.24e+07	1.57 y	1.75	39:20	1.011	1.007-1.017	98.1637		PCB-138/163/164	1.20e+08	1.21 y	1.23	44:56	1.001	0.996-1.006	154.070	
PCB-85/116	6.75e+07	1.60 y	1.30	39:28	1.015	1.010-1.020	108.263		PCB-158/160	8.00e+07	1.23 y	1.29	45:11	1.006	1.001-1.011	97.8281	
PCB-120	4.24e+07	1.57 y	1.78	39:43	1.021	1.016-1.026	49.5970		PCB-129	2.89e+07	1.20 y	0.92	45:25	1.012	1.007-1.017	49.3136	
PCB-110	4.11e+07	1.60 y	1.68	39:51	1.024	1.020-1.030	51.0810		PCB-166	3.95e+07	1.20 y	1.12	45:53	0.994	0.988-0.998	50.4281	
PCB-82	2.40e+07	1.60 y	0.74	40:28	0.976	0.972-0.982	54.0692		PCB-159	4.05e+07	1.19 y	1.16	46:12	1.000	0.995-1.005	49.5486	
PCB-124	4.14e+07	1.55 y	1.32	41:09	0.993	0.988-0.998	52.0751		PCB-128/162	7.23e+07	1.21 y	1.02	46:30	1.007	1.002-1.012	100.969	
PCB-107/109	7.73e+07	1.58 y	1.22	41:18	0.996	0.991-1.001	105.125		PCB-167	4.09e+07	1.20 y	1.06	46:53	1.001	0.995-1.005	50.8220	
PCB-123	3.91e+07	1.56 y	1.22	41:28	1.000	0.995-1.005	53.3930		PCB-156	4.02e+07	1.20 y	1.18	48:10	1.000	0.995-1.005	50.4489	
- PCB-106/118	8.00e+07	1.58 y	1.22	41:41	1.001	0.996-1.006	102.556		PCB-157	4.00e+07	1.25 y	1.08	48:26	1.000	0.995-1.005	50.5989	
- PCB-114	4.70e+07	1.61 y	1.36	42:19	1.000	0.995-1.005	52.1363		PCB-169	3.45e+07	1.21 y	1.11	50:35	1.000	0.995-1.005	50.3745	
PCB-122	4.30e+07	1.63 y	1.24	42:27	1.003	0.999-1.009	52.1557										
PCB-105	4.67e+07	1.59 y	1.28	43:11	1.001	0.995-1.005	53.1924		PCB-188	4.28e+07	1.06 y	1.40	42:58	1.000	0.995-1.005	50.8449	
PCB-127	4.22e+07	1.60 y	1.14	43:30	1.000	0.995-1.005	52.1964		PCB-184	3.78e+07	1.05 y	1.24	43:25	1.011	1.006-1.016	50.9868	
PCB-126	3.98e+07	1.59 y	1.28	45:25	1.000	0.995-1.005	52.7691		PCB-179	3.82e+07	1.05 y	1.30	44:12	1.029	1.024-1.034	48.9068	
									PCB-176	3.95e+07	1.05 y	1.36	44:40	1.040	1.035-1.045	48.3943	
PCB-155	3.38e+07	1.27 y	1.14	37:09	1.001	0.966-1.006	54.2028		PCB-186	3.85e+07	1.06 y	1.28	45:17	1.054	1.049-1.059	50.3891	
PCB-150	3.12e+07	1.26 y	1.06	38:26	1.035	1.030-1.040	53.3041		PCB-178	2.81e+07	1.05 y	0.94	45:46	1.066	1.061-1.071	50.1235	
PCB-152	3.15e+07	1.29 y	1.10	38:54	1.047	1.043-1.053	52.2397		PCB-175	2.89e+07	1.05 y	0.97	46:06	1.074	1.069-1.079	49.8090	
PCB-145	3.12e+07	1.28 y	1.09	39:21	1.060	1.055-1.065	52.0441		PCB-182/187	6.23e+07	1.05 y	1.01	46:17	1.078	1.073-1.083	102.535	
PCB-136	3.15e+07	1.28 y	1.08	39:40	1.068	1.064-1.074	52.8603		PCB-183	3.17e+07	1.07 y	1.08	46:35	1.085	1.080-1.090	48.8697	
PCB-148	2.09e+07	1.31 y	0.74	39:46	1.071	1.066-1.076	51.3341		PCB-185	2.70e+07	1.06 y	1.34	47:16	0.956	0.951-0.961	50.8686	
PCB-154	2.47e+07	1.27 y	0.88	40:16	1.084	1.079-1.089	50.9329		PCB-174	2.51e+07	1.04 y	1.34	47:37	0.963	0.958-0.968	47.3659	
PCB-151	2.15e+07	1.29 y	0.81	40:54	1.101	1.097-1.107	48.4400		PCB-181	2.97e+07	1.06 y	1.36	47:44	0.965	0.961-0.971	55.1058	
PCB-135	2.01e+07	1.25 y	0.78	41:07	1.107	1.101-1.113	47.0182		PCB-177	2.51e+07	1.06 y	1.24	47:54	0.969	0.964-0.974	51.1330	
PCB-144	2.29e+07	1.37 y	0.82	41:14	1.110	1.105-1.116	50.7703		PCB-171	2.70e+07	1.08 y	1.31	48:11	0.975	0.970-0.980	51.9034	
PCB-147	2.20e+07	1.22 y	0.83	41:22	1.114	1.011-1.120	48.3959		PCB-173	2.36e+07	1.03 y	1.16	48:37	0.983	0.979-0.989	51.2776	
PCB-139/149	4.67e+07	1.26 y	0.84	41:38	1.121	1.115-1.127	100.672		PCB-172	2.44e+07	1.05 y	1.22	49:03	0.992	0.988-0.998	50.5160	
- PCB-140	2.10e+07	1.31 y	0.79	41:49	1.126	1.120-1.132	48.6570		PCB-192	3.06e+07	1.07 y	1.53	49:16	0.996	0.991-1.001	50.6073	
- PCB-134/143	6.40e+07	1.21 y	0.93	42:14	0.975	0.970-0.980	102.249		PCB-180	2.84e+07	1.06 y	1.43	49:28	1.000	0.995-1.005	50.2470	

Integrations

by

RL: MONO, TRI - DECA: _____

Analyst: Dms

Date: 9/24/14

Client ID: PCB CS3 14F1901
Lab ID: ST140924E1-1

Filename: 140924E1 S:1 Acq:24-SEP-14 11:09:07
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol: 1.0000 EndCAL: NA

ConCal: ST140924E1-1

Page 3 of

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc
PCB-193	3.22e+07	1.06 y	1.65	49:40	1.005	0.999-1.009		49.2207
PCB-191	3.22e+07	1.06 y	1.67	49:55	1.010	1.004-1.014		48.5840
PCB-170	2.35e+07	1.05 y	1.50	50:57	1.000	0.995-1.005		50.6866
PCB-190	3.10e+07	1.07 y	2.02	51:07	1.004	0.998-1.008		49.7305
PCB-189	3.08e+07	1.04 y	1.54	52:26	1.000	0.995-1.005		52.4108
PCB-202	2.55e+07	0.89 y	1.04	48:24	1.000	0.995-1.005		50.7042
PCB-201	2.65e+07	0.90 y	1.10	48:53	1.010	1.006-1.016		49.6129
PCB-204	2.42e+07	0.89 y	0.99	49:02	1.014	1.009-1.019		50.3207
PCB-197	2.60e+07	0.90 y	1.07	49:21	1.020	1.015-1.025		50.1316
PCB-200	2.51e+07	0.89 y	1.02	50:13	1.038	1.032-1.044		50.8895
PCB-198	1.63e+07	0.97 y	0.74	51:32	1.065	1.058-1.068		45.1999
PCB-199	1.79e+07	0.82 y	0.73	51:38	1.067	1.060-1.070		50.7044
- PCB-196/203	3.63e+07	0.90 y	0.77	51:55	1.073	1.066-1.076		96.9744
- PCB-195	2.42e+07	0.89 y	1.20	53:04	0.984	0.979-0.989		55.1350
PCB-194	2.38e+07	0.91 y	1.25	53:56	1.000	0.995-1.005		52.1169
PCB-205	2.69e+07	0.90 y	1.41	54:13	1.005	1.001-1.011		51.8636
PCB-208	2.93e+07	1.31 y	0.96	53:13	1.000	0.995-1.005		48.5439
PCB-207	2.67e+07	1.29 y	0.92	53:31	1.006	1.001-1.011		46.4248
PCB-206	1.71e+07	1.30 y	1.03	55:35	1.000	0.995-1.005		47.9094
PCB-209	2.24e+07	1.19 y	1.18	56:56	1.000	0.995-1.005		52.4501

Name	Resp	RA	RT	RRF	Conc	
Total Mono-PCB	2.90e+08	2.96 y	16:13	1.22	142.123	
Total Di-PCB	1.92e+09	1.61 y	20:13	1.21	1218.05	
Total Tri-PCB	5.44e+08	1.05 y	24:20	1.16	407.897	
Total Tri-PCB	1.05e+09	0.99 y	28:02	1.35	723.937	Sum:1131.83
Total Tetra-PCB	2.17e+09	0.74 y	28:05	1.17	2050.96	
Total Penta-PCB	1.46e+09	1.57 y	32:46	1.21	2119.31	
Total Penta-PCB	2.40e+08	1.61 y	42:19	1.26	288.087	Sum:2407.39
Total Hexa-PCB	3.59e+08	1.27 y	37:09	0.92	710.871	
Total Hexa-PCB	1.04e+09	1.21 y	42:14	1.08	1423.45	Sum:2134.32
Total Hepta-PCB	7.47e+08	1.06 y	42:58	1.27	1223.67	
Total Octa-PCB	1.98e+08	0.89 y	48:24	0.92	444.537	
Total Octa-PCB	7.72e+07	0.89 y	53:04	1.29	164.072	Sum:608.609
Total Nona-PCB	7.43e+07	1.31 y	53:13	0.96	145.326	
Total Deca-PCB	2.24e+07	1.19 y	56:56	1.18	52.4501	

Total PCB Conc:11013.2909670

RL: MONO, TRI - DECA: _____

Integrations

by

Analyst: *DMS*

Date: *9/24/14*

Client ID: PCB CS3 14F1901
Lab ID: ST140924E1-1

Filename: 140924E1 S:1 Acq:24-SEP-14 11:09:07
GC Column ID: ZB-1 ICal: PCBVG8-6-20-14 wt/vol:1.0000

ConCal: ST140924E1-1
EndCAL: NA

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	1.64e+08	3.28 y	0.89	16:12	0.623	0.622-0.628		122	122											
13C-PCB-3	1.70e+08	3.31 y	0.93	18:49	0.723	0.721-0.729		121	121		13C-PCB-79	1.14e+08	0.79 y	1.01	37:55	1.029	1.023-1.033		106	106
13C-PCB-4	8.60e+07	1.59 y	0.55	20:10	0.774	0.772-0.780		104	104		13C-PCB-178	4.33e+07	0.47 y	0.63	45:44	0.985	0.979-0.989		116	116
13C-PCB-9	1.28e+08	1.59 y	0.83	21:57	0.843	0.840-0.848		103	103											
13C-PCB-11	1.42e+08	1.57 y	0.94	25:19	0.973	0.968-0.978		101	101											
13C-PCB-19	8.62e+07	1.06 y	0.53	24:19	0.934	0.929-0.939		107	107											
13C-PCB-28	1.13e+08	1.04 y	0.89	29:11	1.004	0.999-1.009		106	106		13C-PCB-79	1.14e+08	0.79 y	1.20	37:55	0.969	0.963-0.973		110	110
13C-PCB-32	1.29e+08	1.07 y	0.81	27:14	1.046	1.041-1.051		105	105		13C-PCB-178	4.33e+07	0.47 y	0.94	45:44	0.925	0.920-0.930		117	117
13C-PCB-37	9.79e+07	1.06 y	0.83	33:03	1.137	1.131-1.143		98.1	98.1											
13C-PCB-47	8.43e+07	0.78 y	0.74	32:06	0.871	0.867-0.875		106	106											
13C-PCB-52	7.96e+07	0.78 y	0.71	31:35	0.857	0.853-0.861		105	105											
13C-PCB-54	1.01e+08	0.78 y	0.85	28:04	0.762	0.758-0.766		111	111											
13C-PCB-70	1.02e+08	0.77 y	0.94	35:37	0.966	0.961-0.971		101	101											
13C-PCB-77	9.04e+07	0.78 y	0.89	39:44	1.078	1.073-1.083		94.8	94.8											
13C-PCB-80	1.03e+08	0.79 y	0.96	36:01	0.977	0.972-0.982		100	100											
13C-PCB-81	8.68e+07	0.78 y	0.84	39:08	1.062	1.057-1.067		97.0	97.0											
13C-PCB-95	5.18e+07	1.66 y	0.74	35:54	0.913	0.908-0.918		99.8	99.8											
13C-PCB-97	4.79e+07	1.60 y	0.69	38:54	0.989	0.984-0.994		99.7	99.7											
13C-PCB-101	5.37e+07	1.59 y	0.79	37:36	0.956	0.951-0.961		98.0	98.0											
13C-PCB-104	7.26e+07	1.63 y	1.00	32:45	0.833	0.829-0.837		105	105		13C-PCB-15	1.51e+08	1.59 y	1.00	26:02			100		
13C-PCB-105	6.84e+07	1.56 y	1.24	43:10	0.929	0.924-0.934		93.2	93.2		13C-PCB-31	1.20e+08	1.04 y	1.00	29:04			100		
13C-PCB-114	6.66e+07	1.56 y	1.21	42:18	0.911	0.905-0.915		93.1	93.1		13C-PCB-60	1.07e+08	0.78 y	1.00	36:51			100		
13C-PCB-118	6.37e+07	1.63 y	0.98	41:39	1.059	1.054-1.064		92.7	92.7		13C-PCB-111	6.98e+07	1.61 y	1.00	39:20			100		
13C-PCB-123	6.02e+07	1.62 y	0.95	41:27	1.054	1.049-1.059		90.9	90.9		13C-PCB-128	5.93e+07	1.27 y	1.00	46:27			100		
13C-PCB-126	5.88e+07	1.55 y	1.16	45:24	0.977	0.972-0.982		85.3	85.3		13C-PCB-205	4.56e+07	0.93 y	1.00	54:12			100		
13C-PCB-127	7.09e+07	1.55 y	1.34	43:29	0.936	0.931-0.941		89.2	89.2											
13C-PCB-138	6.34e+07	1.25 y	1.04	44:54	0.966	0.961-0.971		102	102											
13C-PCB-141	6.48e+07	1.28 y	1.07	44:03	0.948	0.943-0.953		102	102											
13C-PCB-153	6.76e+07	1.26 y	1.11	43:19	0.932	0.927-0.937		102	102											
13C-PCB-155	5.49e+07	1.30 y	0.83	37:08	0.944	0.939-0.949		94.6	94.6											
13C-PCB-156	6.74e+07	1.23 y	1.24	48:10	1.037	1.032-1.042		91.4	91.4											
13C-PCB-157	7.30e+07	1.27 y	1.31	48:26	1.043	1.037-1.047		93.9	93.9											
13C-PCB-159	7.02e+07	1.23 y	1.20	46:11	0.994	0.989-0.999		98.8	98.8											
13C-PCB-167	7.59e+07	1.27 y	1.32	46:52	1.009	1.004-1.014		96.9	96.9											
13C-PCB-169	6.19e+07	1.26 y	1.22	50:34	1.089	1.082-1.092		86.0	86.0											
13C-PCB-170	3.09e+07	0.47 y	0.54	50:56	1.096	1.089-1.101		97.5	97.5											
13C-PCB-180	3.96e+07	0.47 y	0.67	49:27	1.064	1.059-1.069		99.1	99.1											
13C-PCB-188	5.99e+07	0.47 y	0.94	42:57	0.924	0.919-0.929		108	108											
13C-PCB-189	3.82e+07	0.46 y	0.72	52:25	1.128	1.120-1.132		90.0	90.0											
13C-PCB-194	3.67e+07	0.92 y	0.81	53:55	0.995	0.990-1.000		99.3	99.3											
13C-PCB-202	4.84e+07	0.92 y	0.83	48:23	1.041	1.036-1.046		98.1	98.1											
13C-PCB-206	3.47e+07	0.79 y	0.66	55:34	1.025	1.021-1.031		116	116											
13C-PCB-208	6.26e+07	0.77 y	1.12	53:12	0.982	0.976-0.986		122	122											
13C-PCB-209	3.63e+07	1.17 y	0.61	56:55	1.050	1.044-1.054		130	130											

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: ST140924E1-1

End Calibration ID: NA

	Beg.	End
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Concentration within range?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/> <i>DMS 9/25/14</i>	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Run Log:		
-Data file matches Conc Cal ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
-Samples within 12-hour clock?	<input checked="" type="checkbox"/> <i>y</i>	<input type="checkbox"/> <i>n</i>

	Beg.	End
Mass resolution \geq 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> *
TCDD/TCDF valleys < 25%?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Peaks integrated correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Manual integrations included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8280 CS1 Ending Standard		
-Ratios within limits		<input type="checkbox"/>
-S/N > 2.5:1		<input type="checkbox"/>
-CS1 within 12-hour clock		<input checked="" type="checkbox"/>

Comments: * = Filament failed AND lost SIDS connection. Replaced filament and printed END RES. Check from saved parameters. DMS 9/25/14

Reviewed by: *MS 9/25/14*
Initials & Date

* Ending standard criteria applicable to 8290 only.

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 ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (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
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
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						

Analyst: *DMS*

Date: *9/24/14*

NATIVE 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 #2 Analysis Date: 24-SEP-14 Time: 12:13:31

ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)
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: DMS

Date: 9/24/14

NATIVE 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

ANALYTES	ION	QC	PASS	CONC.	CONC.
	ABUND.	LIMITS		FOUND	RANGE
	RATIO			(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: DMS

Date: 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. RATIO	QC LIMITS	PASS	CONC. FOUND	RANGE (ng/mL)		ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	RANGE (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	CRS vs. RS					
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: *DMS*

Date: *9/24/14*

NATIVE PCB 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

ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)
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						
PCB-46	0.74	0.65-0.89	Y	48.0	35.0-65.0						

Analyst: DMS

Date: 9/24/14

NATIVE PCB 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

ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)
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: DMS

Date: 9/24/14

NATIVE PCB 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

ANALYTES	ION	QC	PASS	CONC.	CONC.
	ABUND.	LIMITS		FOUND	RANGE
	RATIO			(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: Dms

Date: 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			CONC.		LABELED IS	ION			CONC.	
	ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	RANGE (ng/mL)		ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	RANGE (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						
13C-PCB-97	1.59	1.32-1.78	y	100.6	50.0-150	CRS vs. RS					
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: 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 ConCal: ST140924E1-2
GC Column ID: ZB-1 ICal: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	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-52/69	1.43e+08	0.75 y	1.28	31:38	1.001	0.996-1.006	99.1746	
PCB-2	1.24e+08	2.98 y	1.18	18:37	0.988	0.984-0.994	41.6252		PCB-73	7.30e+07	0.74 y	1.35	31:45	1.005	1.000-1.010	47.8036	
PCB-3	1.50e+08	2.94 y	1.43	18:51	1.001	0.996-1.006	41.7083		PCB-43/49	1.08e+08	0.73 y	0.99	31:55	1.010	1.005-1.015	96.3649	
PCB-4/10	3.92e+08	1.61 y	1.57	20:13	1.003	0.997-1.007	195.300		PCB-47	6.50e+07	0.74 y	1.06	32:07	1.001	0.996-1.006	51.0878	
PCB-7/9	4.53e+08	1.61 y	1.21	21:59	0.868	0.866-0.874	194.903		PCB-48/75	1.40e+08	0.75 y	1.23	32:14	1.004	0.999-1.009	94.9313	
PCB-6	2.36e+08	1.61 y	1.30	22:38	0.894	0.890-0.899	94.0821		PCB-65	7.13e+07	0.74 y	1.22	32:30	1.012	1.008-1.018	48.4940	
PCB-5/8	4.28e+08	1.61 y	1.15	23:03	0.910	0.907-0.917	193.830		PCB-62	7.24e+07	0.75 y	1.22	32:37	1.016	1.011-1.021	49.3617	
PCB-14	2.20e+08	1.62 y	1.11	24:09	0.954	0.949-0.959	101.288		PCB-44	5.04e+07	0.75 y	0.86	32:55	1.025	1.021-1.031	48.7393	
PCB-11	2.11e+08	1.62 y	1.09	25:20	1.000	0.995-1.005	99.2970		PCB-42/59	1.33e+08	0.75 y	1.14	33:09	1.032	1.028-1.038	97.4409	
PCB-12/13	4.53e+08	1.62 y	1.19	25:44	1.016	1.011-1.021	194.230		PCB-41/64/71/72	2.78e+08	0.74 y	1.21	33:44	1.051	1.046-1.056	191.951	
PCB-15	2.42e+08	1.63 y	1.28	26:03	1.029	1.023-1.033	96.7477		PCB-68	7.77e+07	0.75 y	1.35	33:59	1.059	1.054-1.064	48.0079	
PCB-19	6.45e+07	1.06 y	1.04	24:20	1.001	0.996-1.006	49.3984		PCB-40	4.27e+07	0.76 y	0.70	34:12	1.065	1.061-1.071	50.6490	
PCB-30	1.05e+08	1.05 y	1.71	25:13	1.037	1.032-1.042	49.1649		PCB-57	7.02e+07	0.74 y	0.98	34:34	0.970	0.965-0.975	49.8147	
PCB-18	7.38e+07	1.05 y	0.78	25:58	0.954	0.949-0.959	50.9414		PCB-67	7.30e+07	0.74 y	1.11	34:52	0.979	0.974-0.984	45.8145	
PCB-17	8.54e+07	1.05 y	0.92	26:09	0.960	0.956-0.966	49.9925		PCB-58	6.69e+07	0.75 y	0.93	34:59	0.982	0.977-0.987	50.1500	
PCB-24/27	2.20e+08	1.05 y	1.19	26:43	0.981	0.977-0.987	99.6977		PCB-63	6.52e+07	0.75 y	0.95	35:08	0.986	0.982-0.992	47.5964	
PCB-16/32	1.73e+08	1.05 y	0.94	27:14	1.000	0.995-1.005	99.1490		PCB-74	8.47e+07	0.76 y	1.24	35:25	0.995	0.990-1.000	47.2906	
PCB-34	7.85e+07	1.01 y	1.14	28:02	0.961	0.955-0.965	41.4903		PCB-61/70	1.36e+08	0.75 y	0.95	35:36	1.000	0.995-1.005	98.9159	
PCB-23	9.41e+07	0.99 y	1.28	28:07	0.963	0.959-0.969	44.1561		PCB-76/66	1.42e+08	0.75 y	1.04	35:49	1.006	1.001-1.011	94.3998	
PCB-29	7.99e+07	1.00 y	1.08	28:22	0.972	0.967-0.977	44.3991		PCB-80	8.92e+07	0.74 y	1.19	36:02	1.000	0.996-1.006	50.7645	
PCB-26	9.28e+07	1.01 y	1.21	28:35	0.979	0.974-0.984	46.1622		PCB-55	7.62e+07	0.75 y	1.04	36:22	1.010	1.005-1.015	49.6283	
PCB-25	9.69e+07	1.00 y	1.26	28:44	0.985	0.979-0.989	46.0855		PCB-56/60	1.46e+08	0.74 y	1.01	36:52	1.023	1.019-1.029	97.7619	
PCB-31	9.53e+07	1.01 y	1.28	29:05	0.997	0.992-1.002	44.5393		PCB-79	8.04e+07	0.76 y	1.08	37:56	1.053	1.048-1.058	50.5242	
PCB-28	1.36e+08	1.01 y	1.71	29:12	1.001	0.995-1.005	47.6113		PCB-78	8.25e+07	0.74 y	1.27	38:38	0.987	0.982-0.992	47.7667	
PCB-20/21/33	2.48e+08	1.00 y	1.08	29:49	1.022	1.017-1.027	137.456		PCB-81	8.79e+07	0.76 y	1.33	39:10	1.000	0.995-1.005	48.5916	
PCB-22	9.29e+07	1.01 y	1.21	30:16	1.037	1.032-1.042	46.1323		PCB-77	7.25e+07	0.78 y	1.10	39:45	1.000	0.995-1.005	49.2003	
PCB-36	7.71e+07	0.99 y	1.14	30:52	0.934	0.928-0.938	48.7284		PCB-104	6.33e+07	1.57 y	1.18	32:46	1.000	0.996-1.006	52.3953	
PCB-39	7.46e+07	0.99 y	1.12	31:21	0.948	0.943-0.953	48.2468		PCB-96	5.98e+07	1.57 y	1.14	34:02	1.039	1.034-1.044	51.4402	
PCB-38	7.99e+07	0.99 y	1.20	32:07	0.971	0.966-0.976	48.0689		PCB-103	4.89e+07	1.58 y	0.96	34:34	1.055	1.050-1.060	50.0184	
PCB-35	8.96e+07	0.99 y	1.23	32:38	0.987	0.982-0.992	52.4920		PCB-100	4.83e+07	1.57 y	0.94	34:55	1.066	1.061-1.071	50.4753	
PCB-37	8.30e+07	1.01 y	1.23	33:04	1.000	0.995-1.005	48.7318		PCB-94	4.01e+07	1.57 y	1.06	35:24	0.986	0.980-0.990	50.4630	
PCB-54	7.46e+07	0.74 y	1.10	28:05	1.001	0.996-1.006	47.5959		PCB-95/98/102	1.37e+08	1.56 y	1.22	35:53	0.999	0.995-1.005	148.687	
PCB-50	6.13e+07	0.74 y	0.88	29:15	1.042	1.037-1.047	48.9121		PCB-93	3.85e+07	1.64 y	0.84	36:01	1.003	0.997-1.007	60.7389	
PCB-53	6.08e+07	0.76 y	1.06	29:54	0.946	0.942-0.952	50.6207		PCB-88/91	8.41e+07	1.56 y	1.12	36:18	1.011	1.005-1.015	100.241	
PCB-51	5.62e+07	0.75 y	0.99	30:14	0.957	0.952-0.962	50.2429		PCB-121	6.35e+07	1.60 y	1.62	36:24	1.013	1.009-1.019	52.3757	
PCB-45	4.71e+07	0.74 y	0.86	30:40	0.971	0.966-0.976	48.3443		PCB-84/92	8.33e+07	1.58 y	1.05	37:14	0.990	0.985-0.995	102.232	
PCB-46	4.58e+07	0.74 y	0.85	31:09	0.986	0.981-0.991	48.0155		PCB-89	4.57e+07	1.58 y	1.13	37:25	0.995	0.991-1.001	51.9212	

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations

by

Analyst: Dms

Date: 9/24/14

Reviewed

by

Analyst: JJ

Date: 9/25/14

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

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

RL: MONO, TRI - DECA: _____

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 EndCAL: NA

ConCal: ST140924E1-2

Page 9 of

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	125.494
Total Di-PCB	2.64e+09	1.61 y	20:13	1.21	1173.01
Total Tri-PCB	7.21e+08	1.06 y	24:20	1.10	398.344
Total Tri-PCB	1.44e+09	1.01 y	28:02	1.21	758.361
Total Tetra-PCB	2.90e+09	0.74 y	28:05	1.09	2069.33
Total Penta-PCB	2.11e+09	1.57 y	32:46	1.18	2119.81
Total Penta-PCB	3.58e+08	1.59 y	42:19	1.25	291.398
Total Hexa-PCB	5.25e+08	1.29 y	37:09	0.90	736.219
Total Hexa-PCB	1.47e+09	1.20 y	42:14	1.11	1342.05
Total Hepta-PCB	1.16e+09	1.04 y	42:58	1.42	1168.62
Total Octa-PCB	3.01e+08	0.90 y	48:24	0.96	419.079
Total Octa-PCB	1.17e+08	0.90 y	53:04	1.33	158.405
Total Nona-PCB	1.15e+08	1.31 y	53:13	1.01	145.783
Total Deca-PCB	3.11e+07	1.18 y	56:55	1.17	50.0964

Total PCB Conc:10842.3309240

Integrations
by

RL: MONO, TRI - DECA: _____

Analyst: DMS

Date: 9/24/14

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-3	2.52e+08	3.34 y	0.91	18:50	0.723	0.725-0.733	↕	133	133		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-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											
13C-PCB-19	1.25e+08	1.09 y	0.53	24:19	0.934	0.930-0.940		113	113											
13C-PCB-28	1.67e+08	1.03 y	0.93	29:11	1.004	0.999-1.009		108	108		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-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											
13C-PCB-97	7.28e+07	1.59 y	0.70	38:54	0.989	0.984-0.994		101	101											
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-104	1.02e+08	1.55 y	1.00	32:45	0.833	0.828-0.836		99.2	99.2		13C-PCB-15	2.09e+08	1.56 y	1.00	26:02			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-31	1.65e+08	1.04 y	1.00	29:04			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-60	1.45e+08	0.78 y	1.00	36:51			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-111	1.03e+08	1.61 y	1.00	39:20			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-128	8.81e+07	1.25 y	1.00	46:27			100		
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-205	7.16e+07	0.90 y	1.00	54:12			100		
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: ST140924E1-2

End Calibration ID: NA

	<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/> NA
Concentration within range?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First and last eluters present?	<input type="checkbox"/> NA	<input type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/> DMS 9/24/14	<input type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forms signed and dated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct ICAL referenced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Run Log:		
-Data file matches Conc Cal ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-Correct instrument listed?	<input checked="" type="checkbox"/>	<input type="checkbox"/> v
-Samples within 12-hour clock?	<input type="checkbox"/> (y)	<input type="checkbox"/> n

	<u>Beg.</u>	<u>End</u>
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> *
TCDD/TCDF valleys < 25%?	<input type="checkbox"/> NA	<input type="checkbox"/> NA
Peaks integrated correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Manual integrations included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8280 CS1 Ending Standard		
-Ratios within limits		<input type="checkbox"/>
-S/N > 2.5:1		<input type="checkbox"/>
-CS1 within 12-hour clock		<input checked="" type="checkbox"/>

Comments: * = Filament failed and lost SIDS connection. Replaced filament and printed END RES. Check from saved parameters. DMS 9/25/14

Reviewed by: cy 9/25/14
Initials & Date

* Ending standard criteria applicable to 8290 only.

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
MP 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 CS0 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

37Cl-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:

Results:

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 CS5 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-HpCDD	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

Name	RRT Limits		Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
	Lower	Upper	10	0.25	0.50	2.0	40	200
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	1.142	1.143	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	1.023	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	ION	QC	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)			
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89	y	9.73	7.8 - 12.9
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	y	51.2	8.2 - 12.3 (4) 39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.31	1.05-1.43	y	50.3	39.0 - 64.0
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
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
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

(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 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: (M)Date: 4/18/14

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-SMS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

Labeled Compounds	M/Z'S	ION	QC	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)			
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

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified

(3) No ion abundance ratio; report concentration found.

Analyst: MJ

Date: 4/19/14

EPA METHOD 8290

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-SMS

VER Data Filename: 140417D1 S#1 Analysis Date: 17-APR-14 Time: 13:06:06

	M/Z'S	ION	QC	Pass	CONC.	CONC.
	FORMING	ABUND.	LIMITS		FOUND	RANGE
NATIVE ANALYTES	RATIO	RATIO				(ng/mL)
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: MDate: 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	QC	Pass	CONC.	CONC.
	FORMING	ABUND.	LIMITS		FOUND	RANGE
	RATIO	RATIO				(ng/mL)
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: msDate: 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 RT	ISOMERS	ABSOLUTE 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: ms

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	RETENTION TIME	RRT	RRT
	REFERENCE		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	1.000	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: ms

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	RRT
	REFERENCE		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

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

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: MS

Date: 4/13/14

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

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 37C1-2,3,7,8-TCDD	3.62e+06		1.04	27:04	1.023	9.5628					95.6					
											Integrations					
											by					
RS/RT 13C-1,2,3,4-TCDD	3.62e+07	0.81 y	1.00	26:28	*	100.00					Analyst: <i>ms</i>					
RS 13C-1,2,3,4-TCDF	5.51e+07	0.76 y	1.00	25:00	*	100.00										
RS/RT 13C-1,2,3,4,6,9-HxCDF	3.84e+07	0.52 y	1.00	34:29	*	100.00										
											Date: <i>4/18/14</i>					
											Date: <i>4/18/17</i>					

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

ANALYTES	M/Z'S	ION	QC	CONC.	CONC. RANGE	CONC. RANGE
	FORMING	ABUND.	LIMITS		1613	8290
	RATIO (1)	RATIO	(2)	FOUND	(ng/mL)	(ng/mL)
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: m Date: 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

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	98.5
2,3,7,8-TCDF	2.42e+06	0.83 y	17:47	1.16	9.504	

Integrations

by
Analyst: MI

Date: 3/11/14

Reviewed

by
Analyst: _____

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	Samp# 2	Samp# 3	Samp# 4	Samp# 5	Samp# 6
			0.25	1.0	2.5	5.0	400	750
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
[Signature] 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	0.69
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 Hexa-PCB	1.26	9.64 %	1.42	1.29	1.26	1.29	1.05	1.24
Total Hepta-PCB	0.92	8.86 %	1.03	0.90	0.89	0.96	0.78	0.93
Total Octa-PCB	1.08	8.82 %	1.20	1.12	1.08	1.10	0.91	1.07
Total Nona-PCB	1.27	10.02 %	1.44	1.31	1.27	1.30	1.05	1.26
Total Deca-PCB	0.92	9.46 %	1.04	0.94	0.89	0.95	0.77	0.91
Total Tri-PCB	1.29	11.68 %	1.54	1.29	1.26	1.30	1.08	1.24
Total Tetra-PCB	0.96	11.85 %	1.15	0.98	0.94	0.96	0.79	0.93
Total Penta-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 η	Total Mono-PCB	0.00	-	- n	-	-	1.32
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.35

171	Tot	η	Total Tri-PCB	0.00	-	- n	-	-	1.36
172	Tot	η	Total Tri-PCB	0.00	-	- n	-	-	1.58
173	Tot	η	Total Tetra-PCB	0.00	-	- n	-	-	1.32
174	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.33
175	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.42
176	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	1.03
177	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	1.20
178	Tot	η	Total Hepta-PCB	0.00	-	- n	-	-	1.44
179	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	1.04
180	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	1.54
181	Tot	η	Total Nona-PCB	0.00	-	- n	-	-	1.15
182	Tot	η	Total Deca-PCB	0.25	9.69e+04	1.15 y	56:37	-	1.27
183	Mono	η	13C-PCB-1	100.00	1.27e+08	3.28 y	16:13	-	0.97
184	Mono	η	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-IS		13C-PCB-11	100.00	1.24e+08	1.57 y	25:15	-	0.94
188	Tri-η		13C-PCB-19	100.00	7.18e+07	1.06 y	24:15	-	0.55
189	Tri-η		13C-PCB-32	100.00	1.08e+08	1.08 y	27:09	-	0.83
190	Tri-η		13C-PCB-28	100.00	1.00e+08	1.05 y	29:05	-	0.79
191	Tri-η		13C-PCB-37	100.00	1.01e+08	1.07 y	32:57	-	0.80
192	Tetrη		13C-PCB-54	100.00	9.33e+07	0.80 y	27:59	-	0.86
193	Tetrη		13C-PCB-52	100.00	7.77e+07	0.81 y	31:30	-	0.72
194	Tetrη		13C-PCB-47	100.00	8.03e+07	0.78 y	32:00	-	0.74
195	Tetrη		13C-PCB-70	100.00	1.04e+08	0.80 y	35:31	-	0.96
196	Tetrη		13C-PCB-80	100.00	1.05e+08	0.80 y	35:55	-	0.96
197	Tetrη		13C-PCB-81	100.00	8.95e+07	0.80 y	39:02	-	0.83
198	Tetrη		13C-PCB-77	100.00	9.58e+07	0.80 y	39:37	-	0.88
199	Pentη		13C-PCB-104	100.00	6.72e+07	1.63 y	32:39	-	0.99
200	Pentη		13C-PCB-95	100.00	5.03e+07	1.61 y	35:49	-	0.74
201	Pentη		13C-PCB-101	100.00	5.37e+07	1.61 y	37:29	-	0.79
202	Pentη		13C-PCB-97	100.00	4.74e+07	1.63 y	38:47	-	0.70
203	Pentη		13C-PCB-123	100.00	5.97e+07	1.63 y	41:21	-	0.88
204	Pentη		13C-PCB-118	100.00	6.28e+07	1.61 y	41:32	-	0.92
205	Pentη		13C-PCB-114	100.00	7.04e+07	1.59 y	42:11	-	1.26
206	Pentη		13C-PCB-105	100.00	7.09e+07	1.60 y	43:03	-	1.26
207	Pentη		13C-PCB-127	100.00	7.69e+07	1.57 y	43:22	-	1.37
208	Pentη		13C-PCB-126	100.00	6.51e+07	1.55 y	45:17	-	1.16
209	Hexaη		13C-PCB-155	100.00	5.81e+07	1.27 y	37:02	-	0.86
210	Hexaη		13C-PCB-153	100.00	6.40e+07	1.30 y	43:12	-	1.14
211	Hexaη		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	Hexaη		13C-PCB-159	100.00	6.79e+07	1.28 y	46:04	-	1.21
214	Hexaη		13C-PCB-167	100.00	7.42e+07	1.28 y	46:45	-	1.32
215	Hexaη		13C-PCB-156	100.00	6.87e+07	1.28 y	48:02	-	1.23
216	Hexaη		13C-PCB-157	100.00	7.37e+07	1.28 y	48:18	-	1.31
217	Hexaη		13C-PCB-169	100.00	6.83e+07	1.27 y	50:23	-	1.22
218	Heptη		13C-PCB-188	100.00	5.45e+07	0.46 y	42:50	-	0.97
219	Heptη		13C-PCB-180	100.00	3.96e+07	0.47 y	49:19	-	0.71
220	Heptη		13C-PCB-170	100.00	3.06e+07	0.46 y	50:44	-	0.55
221	Heptη		13C-PCB-189	100.00	4.02e+07	0.46 y	52:11	-	0.72

222	Octaη	13C-PCB-202	100.00	4.83e+07	0.91 y	48:15	-	0.86
223	Octaη	13C-PCB-194	100.00	4.22e+07	0.90 y	53:39	-	0.82
224	Nonaη	13C-PCB-208	100.00	5.69e+07	0.78 y	52:56	-	1.10
225	Nonaη	13C-PCB-206	100.00	3.28e+07	0.79 y	55:19	-	0.63
226	Decaη	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-η	13C-PCB-31	100.00	1.27e+08	1.06 y	28:59	-	1.00
229	Tetrη	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	Hexaη	13C-PCB-128	100.00	5.60e+07	1.28 y	46:20	-	1.00

232	Octaη	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 Results:
 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 ¶	Total Mono-PCB	0.00	-	- n	-	-	1.27
170	Tot ¶	Total Di-PCB	0.00	-	- n	-	-	1.24
171	Tot ¶	Total Tri-PCB	0.00	-	- n	-	-	1.20

172	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.38
173	Tot η	Total Tetra-PCB	0.00	-	- n	-	-	1.21
174	Tot η	Total Penta-PCB	0.00	-	- n	-	-	1.27
175	Tot η	Total Penta-PCB	0.00	-	- n	-	-	1.29
176	Tot η	Total Hexa-PCB	0.00	-	- n	-	-	0.90
177	Tot η	Total Hexa-PCB	0.00	-	- n	-	-	1.12
178	Tot η	Total Hepta-PCB	0.00	-	- n	-	-	1.31
179	Tot η	Total Octa-PCB	0.00	-	- n	-	-	0.94
180	Tot η	Total Octa-PCB	0.00	-	- n	-	-	1.29
181	Tot η	Total Nona-PCB	0.00	-	- n	-	-	0.98
182	Tot η	Total Deca-PCB	1.00	4.65e+05	1.13 y	56:37	-	1.19
183	Monoη	13C-PCB-1	100.00	1.56e+08	3.23 y	16:15	-	0.94
184	Monoη	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-η	13C-PCB-19	100.00	9.18e+07	1.06 y	24:16	-	0.55
189	Tri-η	13C-PCB-32	100.00	1.37e+08	1.08 y	27:10	-	0.82
190	Tri-η	13C-PCB-28	100.00	1.40e+08	1.05 y	29:07	-	0.91
191	Tri-η	13C-PCB-37	100.00	1.28e+08	1.06 y	32:59	-	0.83
192	Tetrη	13C-PCB-54	100.00	1.18e+08	0.81 y	28:00	-	0.89
193	Tetrη	13C-PCB-52	100.00	9.78e+07	0.79 y	31:30	-	0.74
194	Tetrη	13C-PCB-47	100.00	1.03e+08	0.79 y	32:01	-	0.78
195	Tetrη	13C-PCB-70	100.00	1.28e+08	0.80 y	35:31	-	0.97
196	Tetrη	13C-PCB-80	100.00	1.32e+08	0.81 y	35:56	-	1.00
197	Tetrη	13C-PCB-81	100.00	1.09e+08	0.81 y	39:03	-	0.82
198	Tetrη	13C-PCB-77	100.00	1.16e+08	0.80 y	39:38	-	0.87
199	Pentη	13C-PCB-104	100.00	8.57e+07	1.62 y	32:41	-	1.06
200	Pentη	13C-PCB-95	100.00	6.25e+07	1.56 y	35:50	-	0.78
201	Pentη	13C-PCB-101	100.00	6.52e+07	1.58 y	37:30	-	0.81
202	Pentη	13C-PCB-97	100.00	5.55e+07	1.65 y	38:48	-	0.69
203	Pentη	13C-PCB-123	100.00	7.42e+07	1.57 y	41:21	-	0.92
204	Pentη	13C-PCB-118	100.00	7.69e+07	1.66 y	41:33	-	0.95
205	Pentη	13C-PCB-114	100.00	8.65e+07	1.61 y	42:12	-	1.20
206	Pentη	13C-PCB-105	100.00	8.97e+07	1.59 y	43:03	-	1.24
207	Pentη	13C-PCB-127	100.00	9.70e+07	1.57 y	43:23	-	1.34
208	Pentη	13C-PCB-126	100.00	8.43e+07	1.60 y	45:18	-	1.17
209	Hexaη	13C-PCB-155	100.00	7.04e+07	1.28 y	37:03	-	0.87
210	Hexaη	13C-PCB-153	100.00	8.00e+07	1.28 y	43:13	-	1.11
211	Hexaη	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	Hexaη	13C-PCB-159	100.00	8.60e+07	1.28 y	46:05	-	1.19
214	Hexaη	13C-PCB-167	100.00	9.61e+07	1.31 y	46:45	-	1.33
215	Hexaη	13C-PCB-156	100.00	9.01e+07	1.28 y	48:03	-	1.25
216	Hexaη	13C-PCB-157	100.00	9.47e+07	1.27 y	48:19	-	1.31
217	Hexaη	13C-PCB-169	100.00	8.76e+07	1.27 y	50:24	-	1.21
218	Heptη	13C-PCB-188	100.00	6.71e+07	0.47 y	42:51	-	0.93
219	Heptη	13C-PCB-180	100.00	4.84e+07	0.47 y	49:19	-	0.67
220	Heptη	13C-PCB-170	100.00	3.88e+07	0.48 y	50:45	-	0.54
221	Heptη	13C-PCB-189	100.00	5.08e+07	0.46 y	52:10	-	0.70
222	Octaη	13C-PCB-202	100.00	5.96e+07	0.91 y	48:16	-	0.83

223	Octaη	13C-PCB-194	100.00	5.30e+07	0.91 y	53:40	-	0.82
224	Nonaη	13C-PCB-208	100.00	7.41e+07	0.77 y	52:56	-	1.14
225	Nonaη	13C-PCB-206	100.00	4.24e+07	0.79 y	55:20	-	0.65
226	Decaη	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-η	13C-PCB-31	100.00	1.54e+08	1.06 y	29:00	-	1.00
229	Tetraη	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	Hexaη	13C-PCB-128	100.00	7.22e+07	1.30 y	46:21	-	1.00
232	Octaη	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: PCBVGS-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 η	Total Mono-PCB	0.00	-	- n	-	-	1.21
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.21
171	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.15

172	Tot	η	Total Tri-PCB	0.00	-	- n	-	-	1.36
173	Tot	η	Total Tetra-PCB	0.00	-	- n	-	-	1.17
174	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.21
175	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.26
176	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	0.89
177	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	1.08
178	Tot	η	Total Hepta-PCB	0.00	-	- n	-	-	1.27
179	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	0.89
180	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	1.26
181	Tot	η	Total Nona-PCB	0.00	-	- n	-	-	0.94
182	Tot	η	Total Deca-PCB	2.50	2.82e+06	1.17 y	56:37	-	1.21
183	Mono	η	13C-PCB-1	100.00	3.46e+08	3.25 y	16:14	-	0.91
184	Mono	η	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-η		13C-PCB-19	100.00	2.07e+08	1.06 y	24:16	-	0.55
189	Tri-η		13C-PCB-32	100.00	3.14e+08	1.08 y	27:10	-	0.83
190	Tri-η		13C-PCB-28	100.00	3.07e+08	1.06 y	29:07	-	0.83
191	Tri-η		13C-PCB-37	100.00	2.95e+08	1.07 y	32:58	-	0.80
192	Tetrη		13C-PCB-54	100.00	2.71e+08	0.81 y	28:00	-	0.91
193	Tetrη		13C-PCB-52	100.00	2.25e+08	0.80 y	31:31	-	0.75
194	Tetrη		13C-PCB-47	100.00	2.33e+08	0.79 y	32:01	-	0.78
195	Tetrη		13C-PCB-70	100.00	2.87e+08	0.80 y	35:32	-	0.96
196	Tetrη		13C-PCB-80	100.00	2.96e+08	0.81 y	35:56	-	0.99
197	Tetrη		13C-PCB-81	100.00	2.52e+08	0.80 y	39:03	-	0.84
198	Tetrη		13C-PCB-77	100.00	2.67e+08	0.80 y	39:38	-	0.90
199	Pentη		13C-PCB-104	100.00	1.94e+08	1.60 y	32:40	-	1.07
200	Pentη		13C-PCB-95	100.00	1.37e+08	1.60 y	35:50	-	0.75
201	Pentη		13C-PCB-101	100.00	1.44e+08	1.61 y	37:30	-	0.79
202	Pentη		13C-PCB-97	100.00	1.27e+08	1.61 y	38:48	-	0.70
203	Pentη		13C-PCB-123	100.00	1.77e+08	1.58 y	41:22	-	0.98
204	Pentη		13C-PCB-118	100.00	1.80e+08	1.61 y	41:33	-	0.99
205	Pentη		13C-PCB-114	100.00	2.01e+08	1.59 y	42:12	-	1.21
206	Pentη		13C-PCB-105	100.00	2.08e+08	1.59 y	43:04	-	1.25
207	Pentη		13C-PCB-127	100.00	2.30e+08	1.60 y	43:23	-	1.38
208	Pentη		13C-PCB-126	100.00	2.00e+08	1.58 y	45:18	-	1.20
209	Hexaη		13C-PCB-155	100.00	1.53e+08	1.28 y	37:03	-	0.84
210	Hexaη		13C-PCB-153	100.00	1.87e+08	1.28 y	43:13	-	1.13
211	Hexaη		13C-PCB-141	100.00	1.81e+08	1.27 y	43:57	-	1.09
212	Hexa		13C-PCB-138	100.00	1.75e+08	1.26 y	44:48	-	1.06
213	Hexaη		13C-PCB-159	100.00	2.03e+08	1.26 y	46:04	-	1.22
214	Hexaη		13C-PCB-167	100.00	2.26e+08	1.29 y	46:46	-	1.36
215	Hexaη		13C-PCB-156	100.00	2.13e+08	1.27 y	48:03	-	1.28
216	Hexaη		13C-PCB-157	100.00	2.22e+08	1.29 y	48:20	-	1.34
217	Hexaη		13C-PCB-169	100.00	2.08e+08	1.29 y	50:23	-	1.25
218	Heptη		13C-PCB-188	100.00	1.54e+08	0.47 y	42:51	-	0.93
219	Heptη		13C-PCB-180	100.00	1.11e+08	0.47 y	49:20	-	0.67
220	Heptη		13C-PCB-170	100.00	8.90e+07	0.47 y	50:44	-	0.54
221	Heptη		13C-PCB-189	100.00	1.21e+08	0.46 y	52:11	-	0.73
222	Octaη		13C-PCB-202	100.00	1.38e+08	0.91 y	48:16	-	0.83

223	Octaη	13C-PCB-194	100.00	1.24e+08	0.92 y	53:39	-	0.82
224	Nonaη	13C-PCB-208	100.00	1.70e+08	0.78 y	52:56	-	1.13
225	Nonaη	13C-PCB-206	100.00	1.00e+08	0.81 y	55:19	-	0.66
226	Decaη	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-η	13C-PCB-31	100.00	3.70e+08	1.06 y	29:01	-	1.00
229	Tetrη	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	Hexaη	13C-PCB-128	100.00	1.66e+08	1.28 y	46:22	-	1.00
232	Octaη	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 η	Total Mono-PCB	0.00	-	- n	-	-	1.27
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.25
171	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.18

172	Tot	η	Total Tri-PCB	0.00	-	-	n	-	-	1.39
173	Tot	η	Total Tetra-PCB	0.00	-	-	n	-	-	1.21
174	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.24
175	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.29
176	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	0.96
177	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	1.10
178	Tot	η	Total Hepta-PCB	0.00	-	-	n	-	-	1.30
179	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	0.95
180	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	1.30
181	Tot	η	Total Nona-PCB	0.00	-	-	n	-	-	0.96
182	Tot	η	Total Deca-PCB	50.00	2.28e+07	1.19	y	56:38	-	1.23
183	Mono	η	13C-PCB-1	100.00	1.19e+08	3.24	y	16:14	-	0.88
184	Mono	η	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-η		13C-PCB-19	100.00	7.23e+07	1.06	y	24:16	-	0.53
189	Tri-η		13C-PCB-32	100.00	1.09e+08	1.07	y	27:10	-	0.81
190	Tri-η		13C-PCB-28	100.00	1.07e+08	1.05	y	29:07	-	0.85
191	Tri-η		13C-PCB-37	100.00	1.00e+08	1.07	y	32:59	-	0.80
192	Tetrη		13C-PCB-54	100.00	9.29e+07	0.81	y	28:00	-	0.84
193	Tetrη		13C-PCB-52	100.00	7.70e+07	0.79	y	31:30	-	0.70
194	Tetrη		13C-PCB-47	100.00	8.12e+07	0.80	y	32:01	-	0.73
195	Tetrη		13C-PCB-70	100.00	1.02e+08	0.79	y	35:31	-	0.93
196	Tetrη		13C-PCB-80	100.00	1.05e+08	0.80	y	35:56	-	0.95
197	Tetrη		13C-PCB-81	100.00	9.11e+07	0.80	y	39:03	-	0.82
198	Tetrη		13C-PCB-77	100.00	9.78e+07	0.81	y	39:38	-	0.88
199	Pentη		13C-PCB-104	100.00	6.97e+07	1.58	y	32:40	-	0.98
200	Pentη		13C-PCB-95	100.00	5.18e+07	1.63	y	35:49	-	0.73
201	Pentη		13C-PCB-101	100.00	5.42e+07	1.60	y	37:30	-	0.77
202	Pentη		13C-PCB-97	100.00	4.87e+07	1.60	y	38:48	-	0.69
203	Pentη		13C-PCB-123	100.00	7.09e+07	1.58	y	41:21	-	1.00
204	Pentη		13C-PCB-118	100.00	7.31e+07	1.59	y	41:32	-	1.03
205	Pentη		13C-PCB-114	100.00	7.90e+07	1.61	y	42:12	-	1.18
206	Pentη		13C-PCB-105	100.00	8.02e+07	1.61	y	43:03	-	1.20
207	Pentη		13C-PCB-127	100.00	8.65e+07	1.59	y	43:23	-	1.29
208	Pentη		13C-PCB-126	100.00	7.48e+07	1.61	y	45:18	-	1.12
209	Hexaη		13C-PCB-155	100.00	5.86e+07	1.27	y	37:02	-	0.83
210	Hexaη		13C-PCB-153	100.00	7.35e+07	1.25	y	43:13	-	1.10
211	Hexaη		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	Hexaη		13C-PCB-159	100.00	7.82e+07	1.30	y	46:05	-	1.17
214	Hexaη		13C-PCB-167	100.00	8.59e+07	1.26	y	46:45	-	1.29
215	Hexaη		13C-PCB-156	100.00	8.11e+07	1.27	y	48:03	-	1.21
216	Hexaη		13C-PCB-157	100.00	8.59e+07	1.29	y	48:19	-	1.28
217	Hexaη		13C-PCB-169	100.00	7.93e+07	1.27	y	50:24	-	1.19
218	Heptη		13C-PCB-188	100.00	6.19e+07	0.46	y	42:51	-	0.93
219	Heptη		13C-PCB-180	100.00	4.49e+07	0.47	y	49:19	-	0.67
220	Heptη		13C-PCB-170	100.00	3.58e+07	0.45	y	50:45	-	0.53
221	Heptη		13C-PCB-189	100.00	4.91e+07	0.46	y	52:11	-	0.73
222	Octaη		13C-PCB-202	100.00	5.62e+07	0.92	y	48:16	-	0.84

223	Octaη	13C-PCB-194	100.00	4.69e+07	0.91 y	53:40	-	0.80
224	Nonaη	13C-PCB-208	100.00	6.66e+07	0.78 y	52:56	-	1.14
225	Nonaη	13C-PCB-206	100.00	4.07e+07	0.77 y	55:20	-	0.70
226	Decaη	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-η	13C-PCB-31	100.00	1.25e+08	1.06 y	29:00	-	1.00
229	Tetrη	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	Hexaη	13C-PCB-128	100.00	6.69e+07	1.26 y	46:21	-	1.00
232	Octaη	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 η	Total Mono-PCB	0.00	-	- n	-	-	1.02
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.03
171	Tot η	Total Tri-PCB	0.00	-	- n	-	-	0.96

172	Tot	η	Total Tri-PCB	0.00	-	- n	-	-	1.11
173	Tot	η	Total Tetra-PCB	0.00	-	- n	-	-	0.99
174	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.03
175	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.05
176	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	0.78
177	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	0.91
178	Tot	η	Total Hepta-PCB	0.00	-	- n	-	-	1.05
179	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	0.77
180	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	1.08
181	Tot	η	Total Nona-PCB	0.00	-	- n	-	-	0.79
182	Tot	η	Total Deca-PCB	400.00	1.83e+08	1.19 y	56:38	-	0.99
183	Mono	η	13C-PCB-1	100.00	1.66e+08	3.23 y	16:14	-	0.88
184	Mono	η	13C-PCB-3	100.00	1.71e+08	3.33 y	18:49	-	0.91
185	Di-IS		13C-PCB-4	100.00	1.00e+08	1.57 y	20:08	-	0.53
186	Di-IS		13C-PCB-9	100.00	1.51e+08	1.58 y	21:55	-	0.80
187	Di-IS		13C-PCB-11	100.00	1.75e+08	1.57 y	25:16	-	0.93
188	Tri-η		13C-PCB-19	100.00	9.71e+07	1.07 y	24:16	-	0.52
189	Tri-η		13C-PCB-32	100.00	1.52e+08	1.07 y	27:10	-	0.81
190	Tri-η		13C-PCB-28	100.00	1.54e+08	1.06 y	29:06	-	0.96
191	Tri-η		13C-PCB-37	100.00	1.41e+08	1.06 y	32:58	-	0.87
192	Tetra	η	13C-PCB-54	100.00	1.29e+08	0.81 y	27:60	-	0.83
193	Tetra	η	13C-PCB-52	100.00	1.07e+08	0.80 y	31:31	-	0.68
194	Tetra	η	13C-PCB-47	100.00	1.15e+08	0.80 y	32:00	-	0.73
195	Tetra	η	13C-PCB-70	100.00	1.48e+08	0.80 y	35:31	-	0.94
196	Tetra	η	13C-PCB-80	100.00	1.49e+08	0.80 y	35:56	-	0.95
197	Tetra	η	13C-PCB-81	100.00	1.35e+08	0.82 y	39:03	-	0.86
198	Tetra	η	13C-PCB-77	100.00	1.43e+08	0.81 y	39:38	-	0.91
199	Pent	η	13C-PCB-104	100.00	9.47e+07	1.61 y	32:40	-	0.96
200	Pent	η	13C-PCB-95	100.00	7.32e+07	1.57 y	35:49	-	0.74
201	Pent	η	13C-PCB-101	100.00	7.72e+07	1.62 y	37:30	-	0.78
202	Pent	η	13C-PCB-97	100.00	6.76e+07	1.59 y	38:48	-	0.69
203	Pent	η	13C-PCB-123	100.00	9.35e+07	1.62 y	41:21	-	0.95
204	Pent	η	13C-PCB-118	100.00	9.95e+07	1.59 y	41:32	-	1.01
205	Pent	η	13C-PCB-114	100.00	1.08e+08	1.58 y	42:12	-	1.25
206	Pent	η	13C-PCB-105	100.00	1.12e+08	1.60 y	43:04	-	1.29
207	Pent	η	13C-PCB-127	100.00	1.18e+08	1.58 y	43:23	-	1.36
208	Pent	η	13C-PCB-126	100.00	1.03e+08	1.56 y	45:18	-	1.19
209	Hexa	η	13C-PCB-155	100.00	7.98e+07	1.30 y	37:03	-	0.81
210	Hexa	η	13C-PCB-153	100.00	9.94e+07	1.27 y	43:12	-	1.15
211	Hexa	η	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	η	13C-PCB-159	100.00	1.06e+08	1.27 y	46:04	-	1.22
214	Hexa	η	13C-PCB-167	100.00	1.14e+08	1.27 y	46:45	-	1.32
215	Hexa	η	13C-PCB-156	100.00	1.09e+08	1.27 y	48:03	-	1.26
216	Hexa	η	13C-PCB-157	100.00	1.15e+08	1.31 y	48:19	-	1.33
217	Hexa	η	13C-PCB-169	100.00	1.06e+08	1.26 y	50:23	-	1.22
218	Hept	η	13C-PCB-188	100.00	8.49e+07	0.47 y	42:50	-	0.98
219	Hept	η	13C-PCB-180	100.00	5.82e+07	0.47 y	49:20	-	0.67
220	Hept	η	13C-PCB-170	100.00	4.66e+07	0.46 y	50:44	-	0.54
221	Hept	η	13C-PCB-189	100.00	6.18e+07	0.46 y	52:11	-	0.71
222	Octa	η	13C-PCB-202	100.00	7.25e+07	0.90 y	48:16	-	0.84

223	Octaη	13C-PCB-194	100.00	6.13e+07	0.91 y	53:40	-	0.81
224	Nonaη	13C-PCB-208	100.00	8.58e+07	0.78 y	52:56	-	1.14
225	Nonaη	13C-PCB-206	100.00	4.92e+07	0.81 y	55:20	-	0.65
226	Decaη	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-η	13C-PCB-31	100.00	1.61e+08	1.07 y	28:60	-	1.00
229	Tetrη	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	Hexaη	13C-PCB-128	100.00	8.68e+07	1.28 y	46:21	-	1.00
232	Octaη	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	η	Total Tri-PCB	0.00	-	- n	-	-	1.26
173	Tot	η	Total Tetra-PCB	0.00	-	- n	-	-	1.15
174	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.21
175	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.24
176	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	0.93
177	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	1.07
178	Tot	η	Total Hepta-PCB	0.00	-	- n	-	-	1.26
179	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	0.91
180	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	1.24
181	Tot	η	Total Nona-PCB	0.00	-	- n	-	-	0.93
182	Tot	η	Total Deca-PCB	750.00	4.91e+08	1.19 y	56:35	-	1.16
183	Mono	η	13C-PCB-1	100.00	1.50e+08	3.31 y	16:14	-	0.76
184	Mono	η	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-η		13C-PCB-19	100.00	9.83e+07	1.04 y	24:16	-	0.50
189	Tri-η		13C-PCB-32	100.00	1.56e+08	1.07 y	27:10	-	0.79
190	Tri-η		13C-PCB-28	100.00	1.66e+08	1.06 y	29:07	-	0.98
191	Tri-η		13C-PCB-37	100.00	1.50e+08	1.08 y	32:58	-	0.89
192	Tetrη		13C-PCB-54	100.00	1.33e+08	0.80 y	27:59	-	0.77
193	Tetrη		13C-PCB-52	100.00	1.13e+08	0.80 y	31:31	-	0.66
194	Tetrη		13C-PCB-47	100.00	1.19e+08	0.80 y	32:01	-	0.70
195	Tetrη		13C-PCB-70	100.00	1.56e+08	0.81 y	35:31	-	0.91
196	Tetrη		13C-PCB-80	100.00	1.58e+08	0.80 y	35:56	-	0.92
197	Tetrη		13C-PCB-81	100.00	1.47e+08	0.81 y	39:03	-	0.86
198	Tetrη		13C-PCB-77	100.00	1.56e+08	0.81 y	39:38	-	0.91
199	Pentη		13C-PCB-104	100.00	9.67e+07	1.59 y	32:40	-	0.90
200	Pentη		13C-PCB-95	100.00	7.69e+07	1.59 y	35:49	-	0.72
201	Pentη		13C-PCB-101	100.00	8.24e+07	1.61 y	37:30	-	0.77
202	Pentη		13C-PCB-97	100.00	7.23e+07	1.63 y	38:48	-	0.67
203	Pentη		13C-PCB-123	100.00	1.04e+08	1.60 y	41:22	-	0.97
204	Pentη		13C-PCB-118	100.00	1.07e+08	1.61 y	41:33	-	0.99
205	Pentη		13C-PCB-114	100.00	1.19e+08	1.61 y	42:12	-	1.15
206	Pentη		13C-PCB-105	100.00	1.23e+08	1.59 y	43:04	-	1.19
207	Pentη		13C-PCB-127	100.00	1.34e+08	1.58 y	43:23	-	1.30
208	Pentη		13C-PCB-126	100.00	1.17e+08	1.57 y	45:18	-	1.14
209	Hexaη		13C-PCB-155	100.00	8.39e+07	1.28 y	37:03	-	0.78
210	Hexaη		13C-PCB-153	100.00	1.09e+08	1.28 y	43:13	-	1.06
211	Hexaη		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	Hexaη		13C-PCB-159	100.00	1.22e+08	1.26 y	46:04	-	1.19
214	Hexaη		13C-PCB-167	100.00	1.35e+08	1.27 y	46:45	-	1.31
215	Hexaη		13C-PCB-156	100.00	1.28e+08	1.27 y	48:03	-	1.24
216	Hexaη		13C-PCB-157	100.00	1.33e+08	1.28 y	48:19	-	1.29
217	Hexaη		13C-PCB-169	100.00	1.24e+08	1.28 y	50:23	-	1.20
218	Heptη		13C-PCB-188	100.00	9.09e+07	0.46 y	42:51	-	0.88
219	Heptη		13C-PCB-180	100.00	6.73e+07	0.47 y	49:20	-	0.65
220	Heptη		13C-PCB-170	100.00	5.38e+07	0.46 y	50:44	-	0.52
221	Heptη		13C-PCB-189	100.00	7.24e+07	0.47 y	52:11	-	0.70
222	Octaη		13C-PCB-202	100.00	8.28e+07	0.92 y	48:16	-	0.80

223	Octaη	13C-PCB-194	100.00	7.14e+07	0.92 y	53:39	-	0.79
224	Nonaη	13C-PCB-208	100.00	9.82e+07	0.76 y	52:56	-	1.09
225	Nonaη	13C-PCB-206	100.00	5.84e+07	0.80 y	55:19	-	0.65
226	Decaη	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-η	13C-PCB-31	100.00	1.69e+08	1.06 y	28:60	-	1.00
229	Tetraη	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	Hexaη	13C-PCB-128	100.00	1.03e+08	1.28 y	46:21	-	1.00
232	Octaη	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

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 ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (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: *DMS*

Date: *6/23/14*

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

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 ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (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: DMS

Date: 6/23/14

NATIVE 1668C CONTINUING CALIBRATION VERIFICATION

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	PASS	CONC	CONC.
	ABUND.	LIMITS		FOUND	RANGE
	RATIO				(ng/mL)
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: 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 EndCAL: ST140620E1-8

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-84/92	5.90e+07	1.59	y	1.05	37:08	0.990	0.986-0.996	103.399
PCB-50	4.61e+07	0.77	y	0.97	29:11	1.042	1.037-1.047	51.4094	PCB-89	2.93e+07	1.61	y	1.02	37:19	0.995	0.991-1.001	53.0820
PCB-53	4.59e+07	0.78	y	1.19	29:49	0.946	0.941-0.951	50.2276									
PCB-51	4.72e+07	0.78	y	1.15	30:10	0.957	0.952-0.962	53.1558									
PCB-45	3.92e+07	0.78	y	0.97	30:35	0.971	0.966-0.976	52.7585									
PCB-46	3.67e+07	0.76	y	0.95	31:04	0.986	0.982-0.992	50.0611									

RL: MONO, TRI - DECA: _____

RL: DI : _____

Integrations
by

Analyst: *DMS*

Date: *6/23/14*

Reviewed
by

Analyst: _____

Date: _____

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 EndCAL: ST140620E1-8

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	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-133/142	7.08e+07	1.23	y	0.95	42:26	0.982	0.977-0.987	102.037
PCB-113	4.11e+07	1.58	y	1.35	37:45	1.007	1.002-1.012	56.0520	PCB-131	3.32e+07	1.22	y	0.91	42:36	0.986	0.981-0.991	49.4221
PCB-99	3.22e+07	1.64	y	1.29	37:51	1.010	1.005-1.015	46.1415	PCB-146/165	8.56e+07	1.24	y	1.16	42:48	0.991	0.986-0.996	100.884
PCB-119	4.21e+07	1.61	y	1.72	38:18	0.987	0.982-0.992	50.2990	PCB-132/161	8.34e+07	1.22	y	1.11	43:03	0.996	0.992-1.002	102.031
PCB-108/112	6.45e+07	1.63	y	1.29	38:27	0.991	0.986-0.996	102.978	PCB-153	4.34e+07	1.22	y	1.18	43:14	1.001	0.995-1.005	50.1872
PCB-83	3.85e+07	1.62	y	1.52	38:38	0.996	0.991-1.001	52.0737	PCB-168	5.04e+07	1.21	y	1.37	43:27	1.006	1.000-1.010	50.1556
PCB-97	3.19e+07	1.60	y	1.25	38:49	1.000	0.996-1.006	52.5654	PCB-141	3.48e+07	1.21	y	0.97	43:58	1.001	0.996-1.005	50.4291
PCB-86	2.39e+07	1.58	y	1.02	38:58	1.004	1.000-1.010	48.0340	PCB-137	3.66e+07	1.24	y	1.07	44:21	1.009	1.004-1.014	48.2814
B-87/117/125	1.17e+08	1.60	y	1.56	39:05	1.007	1.002-1.012	154.194	PCB-130	3.25e+07	1.26	y	0.85	44:27	1.012	1.007-1.017	54.2556
PCB-111/115	8.69e+07	1.68	y	1.75	39:15	1.012	1.007-1.017	101.981	PCB-138/163/164	1.29e+08	1.23	y	1.23	44:50	1.001	0.996-1.006	154.435
PCB-85/116	6.45e+07	1.48	y	1.30	39:23	1.015	1.010-1.020	101.910	PCB-158/160	9.17e+07	1.23	y	1.29	45:05	1.007	1.001-1.011	104.238
PCB-120	4.26e+07	1.57	y	1.78	39:37	1.021	1.016-1.026	49.1740	PCB-129	3.19e+07	1.25	y	0.92	45:19	1.012	1.007-1.017	50.5660
PCB-110	4.18e+07	1.61	y	1.68	39:46	1.025	1.020-1.030	51.1450	PCB-166	4.45e+07	1.22	y	1.12	45:46	0.993	0.988-0.998	51.1070
PCB-82	2.58e+07	1.59	y	0.74	40:23	0.976	0.972-0.982	49.2945	PCB-159	4.79e+07	1.23	y	1.16	46:05	1.000	0.995-1.005	52.6640
PCB-124	4.68e+07	1.60	y	1.32	41:03	0.993	0.988-0.998	49.9220	PCB-128/162	8.32e+07	1.22	y	1.02	46:22	1.006	1.002-1.012	104.591
PCB-107/109	8.79e+07	1.59	y	1.22	41:12	0.996	0.991-1.001	101.669	PCB-167	4.69e+07	1.21	y	1.06	46:47	1.001	0.995-1.005	51.5594
PCB-123	4.52e+07	1.59	y	1.22	41:22	1.000	0.995-1.005	52.4448	PCB-156	4.73e+07	1.22	y	1.18	48:04	1.000	0.995-1.005	49.4312
PCB-106/118	9.37e+07	1.62	y	1.22	41:35	1.001	0.996-1.006	104.679	PCB-157	4.74e+07	1.22	y	1.08	48:20	1.000	0.995-1.005	51.2216
PCB-114	5.41e+07	1.64	y	1.36	42:13	1.000	0.995-1.005	50.6622	PCB-169	4.38e+07	1.22	y	1.11	50:24	1.000	0.995-1.005	49.8867
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-188	4.41e+07	1.02	y	1.40	42:52	1.000	0.995-1.005	50.7803
PCB-127	5.04e+07	1.64	y	1.14	43:24	1.000	0.995-1.005	51.1125	PCB-184	3.92e+07	1.04	y	1.24	43:18	1.011	1.006-1.016	51.2869
PCB-126	4.91e+07	1.62	y	1.28	45:19	1.001	0.995-1.005	51.0683	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-155	3.50e+07	1.27	y	1.14	37:04	1.001	0.966-1.006	52.6727	PCB-186	4.04e+07	1.04	y	1.28	45:10	1.054	1.049-1.059	51.1676
PCB-150	3.23e+07	1.28	y	1.06	38:20	1.035	1.030-1.040	51.8920	PCB-178	2.94e+07	1.04	y	0.94	45:39	1.066	1.061-1.071	50.8281
PCB-152	3.28e+07	1.27	y	1.10	38:49	1.048	1.043-1.053	51.0615	PCB-175	3.16e+07	1.04	y	0.97	46:00	1.074	1.069-1.079	52.7165
PCB-145	3.24e+07	1.26	y	1.09	39:15	1.060	1.055-1.065	50.6281	PCB-182/187	6.54e+07	1.04	y	1.01	46:11	1.078	1.073-1.083	104.234
PCB-136	3.31e+07	1.27	y	1.08	39:35	1.069	1.064-1.074	52.0720	PCB-183	3.41e+07	1.04	y	1.08	46:29	1.085	1.080-1.090	50.9232
PCB-148	2.22e+07	1.30	y	0.74	39:40	1.071	1.066-1.076	51.2670	PCB-185	3.03e+07	1.04	y	1.34	47:09	0.956	0.951-0.961	50.2993
PCB-154	2.71e+07	1.25	y	0.88	40:10	1.084	1.079-1.089	52.4052	PCB-174	2.95e+07	1.03	y	1.34	47:31	0.963	0.958-0.968	49.0649
PCB-151	2.51e+07	1.30	y	0.81	40:48	1.102	1.097-1.107	52.9183	PCB-181	3.20e+07	1.06	y	1.36	47:37	0.966	0.961-0.971	52.3684
PCB-135	2.36e+07	1.28	y	0.78	41:01	1.107	1.101-1.113	51.8361	PCB-177	2.85e+07	1.05	y	1.24	47:48	0.969	0.964-0.974	51.2147
PCB-144	2.64e+07	1.36	y	0.82	41:08	1.110	1.105-1.116	54.9912	PCB-171	2.93e+07	1.04	y	1.31	48:05	0.975	0.970-0.980	49.7433
PCB-147	2.56e+07	1.18	y	0.83	41:16	1.114	1.011-1.120	52.8823	PCB-173	2.59e+07	1.05	y	1.16	48:31	0.984	0.979-0.989	49.7232
PCB-139/149	5.32e+07	1.27	y	0.84	41:31	1.121	1.115-1.127	107.613	PCB-172	2.73e+07	1.02	y	1.22	48:57	0.993	0.988-0.998	49.7746
PCB-140	2.51e+07	1.28	y	0.79	41:43	1.126	1.120-1.132	54.6052	PCB-192	3.46e+07	1.05	y	1.53	49:09	0.996	0.991-1.001	50.4921
PCB-134/143	7.01e+07	1.24	y	0.93	42:08	0.975	0.970-0.980	102.949	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

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RT	RRF	Conc
PCB-193	3.74e+07	1.05 y	1.65	49:32	1.004	0.999-1.009		50.3769	Total Mono-PCB	2.34e+08	2.96 y	16:15	1.22	156.271
PCB-191	3.75e+07	1.06 y	1.67	49:47	1.009	1.004-1.014		49.9945	Total Di-PCB	1.69e+09	1.64 y	20:12	1.21	1228.91
PCB-170	2.66e+07	1.03 y	1.50	50:46	1.000	0.995-1.005		49.6074	Total Tri-PCB	4.56e+08	1.05 y	24:17	1.16	405.942
PCB-190	3.64e+07	1.02 y	2.02	50:55	1.003	0.998-1.008		50.4804	Total Tri-PCB	1.17e+09	1.08 y	27:58	1.35	834.371
PCB-189	3.90e+07	1.04 y	1.54	52:12	1.000	0.995-1.005		51.6684	Total Tetra-PCB	2.26e+09	0.76 y	28:01	1.17	2169.09
									Total Penta-PCB	1.49e+09	1.61 y	32:41	1.21	2099.97
PCB-202	2.92e+07	0.91 y	1.04	48:17	1.000	0.995-1.005		49.9695	Total Penta-PCB	2.69e+08	1.64 y	42:13	1.26	267.736
PCB-201	3.12e+07	0.93 y	1.10	48:46	1.011	1.006-1.016		50.3688	Total Hexa-PCB	3.94e+08	1.27 y	37:04	0.92	736.844
PCB-204	2.91e+07	0.88 y	0.99	48:56	1.014	1.009-1.019		52.0459	Total Hexa-PCB	1.17e+09	1.24 y	42:08	1.08	1448.04
PCB-197	3.14e+07	0.91 y	1.07	49:13	1.020	1.015-1.025		51.9828	Total Hepta-PCB	8.19e+08	1.02 y	42:52	1.27	1225.74
PCB-200	3.00e+07	0.91 y	1.02	50:03	1.037	1.032-1.044		52.4432	Total Octa-PCB	2.40e+08	0.91 y	48:17	0.92	465.773
PCB-198	2.15e+07	0.90 y	0.74	51:20	1.063	1.058-1.068		51.5297	Total Octa-PCB	9.28e+07	0.90 y	52:49	1.29	154.410
PCB-199	2.15e+07	0.89 y	0.73	51:25	1.065	1.060-1.070		52.5143	Total Nona-PCB	8.35e+07	1.33 y	52:57	0.96	149.999
- PCB-196/203	4.56e+07	0.90 y	0.77	51:41	1.071	1.066-1.076		104.918	Total Deca-PCB	2.28e+07	1.19 y	56:38	1.18	52.4674
- 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						
														Total PCB Conc:11327.5526340
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						

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

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-9	1.11e+08	1.59 y	0.83	21:55	0.844	0.840-0.848		100.0	100.0												
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-19	7.19e+07	1.04 y	0.53	24:16	0.934	0.929-0.939		100	100		13C-PCB-79	1.21e+08	0.80 y	1.20	37:49	0.968	0.963-0.973		110	110	
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-178	4.58e+07	0.46 y	0.94	45:38	0.925	0.920-0.930		109	109	
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-37	9.94e+07	1.06 y	0.83	32:59	1.137	1.131-1.143		95.3	95.3												
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-52	7.70e+07	0.79 y	0.71	31:30	0.857	0.853-0.861		98.5	98.5												
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-70	1.02e+08	0.79 y	0.94	35:31	0.966	0.961-0.971		98.1	98.1												
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-80	1.05e+08	0.80 y	0.96	35:56	0.977	0.972-0.982		99.0	99.0												
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-95	5.18e+07	1.63 y	0.74	35:49	0.913	0.908-0.918		98.4	98.4	RS											
13C-PCB-97	4.86e+07	1.60 y	0.69	38:48	0.989	0.984-0.994		99.7	99.7		Name	Resp	RA	RRF	RT	Conc					
13C-PCB-101	5.42e+07	1.60 y	0.79	37:30	0.956	0.951-0.961		97.6	97.6		13C-PCB-15	1.35e+08	1.56 y	1.00	25:58	100					
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-31	1.25e+08	1.07 y	1.00	29:00	100					
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-60	1.10e+08	0.80 y	1.00	36:46	100					
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-111	7.08e+07	1.59 y	1.00	39:14	100					
13C-PCB-118	7.31e+07	1.59 y	0.98	41:32	1.059	1.054-1.064		105	105		13C-PCB-128	6.69e+07	1.27 y	1.00	46:21	100					
13C-PCB-123	7.08e+07	1.58 y	0.95	41:21	1.054	1.049-1.059		105	105		13C-PCB-205	5.82e+07	0.91 y	1.00	53:57	100					
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-127	8.64e+07	1.59 y	1.34	43:23	0.936	0.931-0.941		96.3	96.3												
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-141	7.08e+07	1.28 y	1.07	43:57	0.948	0.943-0.953		98.8	98.8												
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-155	5.85e+07	1.27 y	0.83	37:02	0.944	0.939-0.949		99.4	99.4												
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-157	8.55e+07	1.28 y	1.31	48:19	1.042	1.037-1.047		97.5	97.5												
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-167	8.57e+07	1.25 y	1.32	46:45	1.009	1.004-1.014		97.0	97.0												
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-170	3.58e+07	0.46 y	0.54	50:45	1.095	1.089-1.101		99.9	99.9												
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-188	6.18e+07	0.46 y	0.94	42:51	0.924	0.919-0.929		98.8	98.8												
13C-PCB-189	4.90e+07	0.46 y	0.72	52:11	1.126	1.120-1.132		102	102												
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-202	5.62e+07	0.92 y	0.83	48:16	1.041	1.036-1.046		101	101												
13C-PCB-206	4.05e+07	0.78 y	0.66	55:20	1.026	1.021-1.031		106	106												
13C-PCB-208	6.67e+07	0.78 y	1.12	52:56	0.981	0.976-0.986		102	102												
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

Run: 140623E2

Analyte: PCBNEW

Cal: PCBVG8-6-23-14

Inst. ID: VG R

Data filename: 140623E2

Name	Mean RRF	%RSD	Samp# 1	Samp# 2	Samp# 3	Samp# 4	Samp# 5	Samp# 6
			0.25	1.0	2.5	50	400	750
			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	1.60	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	0.89	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-82	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 η	Total Mono-PCB	0.00	-	- n	-	-	1.15
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.19

171	Tot	η	Total Tri-PCB	0.00	-	-	n	-	-	1.06
172	Tot	η	Total Tri-PCB	0.00	-	-	n	-	-	1.33
173	Tot	η	Total Tetra-PCB	0.00	-	-	n	-	-	1.14
174	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.18
175	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.28
176	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	0.90
177	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	1.13
178	Tot	η	Total Hepta-PCB	0.00	-	-	n	-	-	1.41
179	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	0.92
180	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	1.33
181	Tot	η	Total Nona-PCB	0.00	-	-	n	-	-	1.03
182	Tot	η	Total Deca-PCB	0.25	1.20e+05	1.18	y	56:37	-	1.15
183	Mono	η	13C-PCB-1	100.00	1.84e+08	3.30	y	16:23	-	1.00
184	Mono	η	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	-η	13C-PCB-19	100.00	1.07e+08	1.08	y	24:13	-	0.58
189	Tri	-η	13C-PCB-32	100.00	1.60e+08	1.07	y	27:05	-	0.87
190	Tri	-η	13C-PCB-28	100.00	1.55e+08	1.06	y	29:00	-	0.92
191	Tri	-η	13C-PCB-37	100.00	1.46e+08	1.07	y	32:51	-	0.87
192	Tetr	η	13C-PCB-54	100.00	1.29e+08	0.80	y	27:54	-	0.96
193	Tetr	η	13C-PCB-52	100.00	1.08e+08	0.80	y	31:23	-	0.80
194	Tetr	η	13C-PCB-47	100.00	1.14e+08	0.80	y	31:53	-	0.85
195	Tetr	η	13C-PCB-70	100.00	1.38e+08	0.80	y	35:24	-	1.03
196	Tetr	η	13C-PCB-80	100.00	1.41e+08	0.80	y	35:48	-	1.05
197	Tetr	η	13C-PCB-81	100.00	1.22e+08	0.80	y	38:55	-	0.91
198	Tetr	η	13C-PCB-77	100.00	1.28e+08	0.80	y	39:31	-	0.95
199	Pent	η	13C-PCB-104	100.00	9.53e+07	1.55	y	32:33	-	1.02
200	Pent	η	13C-PCB-95	100.00	6.94e+07	1.58	y	35:42	-	0.74
201	Pent	η	13C-PCB-101	100.00	7.42e+07	1.61	y	37:22	-	0.79
202	Pent	η	13C-PCB-97	100.00	6.72e+07	1.62	y	38:40	-	0.72
203	Pent	η	13C-PCB-123	100.00	8.66e+07	1.59	y	41:15	-	0.92
204	Pent	η	13C-PCB-118	100.00	9.00e+07	1.59	y	41:25	-	0.96
205	Pent	η	13C-PCB-114	100.00	9.79e+07	1.62	y	42:05	-	1.33
206	Pent	η	13C-PCB-105	100.00	9.84e+07	1.62	y	42:57	-	1.34
207	Pent	η	13C-PCB-127	100.00	1.04e+08	1.60	y	43:17	-	1.42
208	Pent	η	13C-PCB-126	100.00	9.44e+07	1.59	y	45:11	-	1.29
209	Hexa	η	13C-PCB-155	100.00	8.36e+07	1.29	y	36:55	-	0.89
210	Hexa	η	13C-PCB-153	100.00	8.47e+07	1.26	y	43:06	-	1.15
211	Hexa	η	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	η	13C-PCB-159	100.00	9.21e+07	1.27	y	45:58	-	1.26
214	Hexa	η	13C-PCB-167	100.00	9.97e+07	1.26	y	46:40	-	1.36
215	Hexa	η	13C-PCB-156	100.00	9.50e+07	1.29	y	47:58	-	1.30
216	Hexa	η	13C-PCB-157	100.00	1.00e+08	1.32	y	48:14	-	1.37
217	Hexa	η	13C-PCB-169	100.00	9.71e+07	1.27	y	50:19	-	1.32
218	Hept	η	13C-PCB-188	100.00	7.00e+07	0.47	y	42:44	-	0.95
219	Hept	η	13C-PCB-180	100.00	5.49e+07	0.46	y	49:15	-	0.75
220	Hept	η	13C-PCB-170	100.00	4.33e+07	0.46	y	50:40	-	0.59
221	Hept	η	13C-PCB-189	100.00	5.61e+07	0.46	y	52:07	-	0.77

222	Octaη	13C-PCB-202	100.00	6.86e+07	0.93 y	48:10	-	0.94
223	Octaη	13C-PCB-194	100.00	5.37e+07	0.93 y	53:37	-	0.79
224	Nonaη	13C-PCB-208	100.00	7.40e+07	0.78 y	52:53	-	1.09
225	Nonaη	13C-PCB-206	100.00	4.38e+07	0.78 y	55:20	-	0.65
226	Decaη	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-η	13C-PCB-31	100.00	1.69e+08	1.07 y	28:54	-	1.00
229	Tetrη	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	Hexaη	13C-PCB-128	100.00	7.33e+07	1.25 y	46:16	-	1.00

232	Octaη	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 η	Total Mono-PCB	0.00	-	- n	-	-	1.21
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.18
171	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.08

172	Tot	η	Total Tri-PCB	0.00	-	-	n	-	-	1.23
173	Tot	η	Total Tetra-PCB	0.00	-	-	n	-	-	1.10
174	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.16
175	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.24
176	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	0.87
177	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	1.08
178	Tot	η	Total Hepta-PCB	0.00	-	-	n	-	-	1.40
179	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	0.93
180	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	1.31
181	Tot	η	Total Nona-PCB	0.00	-	-	n	-	-	1.00
182	Tot	η	Total Deca-PCB	1.00	4.74e+05	1.30	y	56:37	-	1.12
183	Mono	η	13C-PCB-1	100.00	1.69e+08	3.26	y	16:23	-	0.92
184	Mono	η	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	-η	13C-PCB-19	100.00	1.03e+08	1.08	y	24:13	-	0.56
189	Tri	-η	13C-PCB-32	100.00	1.51e+08	1.08	y	27:05	-	0.82
190	Tri	-η	13C-PCB-28	100.00	1.49e+08	1.05	y	29:01	-	0.91
191	Tri	-η	13C-PCB-37	100.00	1.36e+08	1.07	y	32:51	-	0.84
192	Tetr	η	13C-PCB-54	100.00	1.25e+08	0.80	y	27:55	-	0.96
193	Tetr	η	13C-PCB-52	100.00	1.00e+08	0.79	y	31:24	-	0.77
194	Tetr	η	13C-PCB-47	100.00	1.04e+08	0.79	y	31:54	-	0.80
195	Tetr	η	13C-PCB-70	100.00	1.29e+08	0.80	y	35:24	-	0.99
196	Tetr	η	13C-PCB-80	100.00	1.33e+08	0.79	y	35:49	-	1.02
197	Tetr	η	13C-PCB-81	100.00	1.18e+08	0.79	y	38:55	-	0.91
198	Tetr	η	13C-PCB-77	100.00	1.20e+08	0.79	y	39:30	-	0.93
199	Pent	η	13C-PCB-104	100.00	9.09e+07	1.57	y	32:33	-	1.02
200	Pent	η	13C-PCB-95	100.00	6.52e+07	1.56	y	35:42	-	0.73
201	Pent	η	13C-PCB-101	100.00	7.00e+07	1.57	y	37:22	-	0.79
202	Pent	η	13C-PCB-97	100.00	6.28e+07	1.60	y	38:40	-	0.71
203	Pent	η	13C-PCB-123	100.00	8.04e+07	1.57	y	41:15	-	0.90
204	Pent	η	13C-PCB-118	100.00	8.60e+07	1.62	y	41:25	-	0.97
205	Pent	η	13C-PCB-114	100.00	9.51e+07	1.64	y	42:05	-	1.33
206	Pent	η	13C-PCB-105	100.00	9.62e+07	1.60	y	42:57	-	1.34
207	Pent	η	13C-PCB-127	100.00	1.06e+08	1.61	y	43:17	-	1.48
208	Pent	η	13C-PCB-126	100.00	9.30e+07	1.60	y	45:11	-	1.30
209	Hexa	η	13C-PCB-155	100.00	7.57e+07	1.27	y	36:55	-	0.85
210	Hexa	η	13C-PCB-153	100.00	8.33e+07	1.30	y	43:06	-	1.16
211	Hexa	η	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	Hexa	η	13C-PCB-159	100.00	9.11e+07	1.28	y	45:59	-	1.27
214	Hexa	η	13C-PCB-167	100.00	9.84e+07	1.27	y	46:40	-	1.37
215	Hexa	η	13C-PCB-156	100.00	9.34e+07	1.28	y	47:58	-	1.30
216	Hexa	η	13C-PCB-157	100.00	9.73e+07	1.29	y	48:14	-	1.36
217	Hexa	η	13C-PCB-169	100.00	9.18e+07	1.27	y	50:19	-	1.28
218	Hept	η	13C-PCB-188	100.00	6.44e+07	0.46	y	42:44	-	0.90
219	Hept	η	13C-PCB-180	100.00	5.02e+07	0.46	y	49:15	-	0.70
220	Hept	η	13C-PCB-170	100.00	4.02e+07	0.48	y	50:40	-	0.56
221	Hept	η	13C-PCB-189	100.00	5.29e+07	0.47	y	52:06	-	0.74
222	Octa	η	13C-PCB-202	100.00	6.22e+07	0.90	y	48:10	-	0.87

223	Octaη	13C-PCB-194	100.00	5.51e+07	0.92 y	53:37	-	0.81
224	Nonaη	13C-PCB-208	100.00	7.43e+07	0.77 y	52:53	-	1.09
225	Nonaη	13C-PCB-206	100.00	4.47e+07	0.79 y	55:19	-	0.66
226	Decaη	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-η	13C-PCB-31	100.00	1.63e+08	1.05 y	28:54	-	1.00
229	Tetraη	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	Hexaη	13C-PCB-128	100.00	7.17e+07	1.30 y	46:16	-	1.00
232	Octaη	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 η	Total Mono-PCB	0.00	-	- n	-	-	1.24
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.20
171	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.09

172	Tot	η	Total Tri-PCB	0.00	-	- n	-	-	1.24
173	Tot	η	Total Tetra-PCB	0.00	-	- n	-	-	1.08
174	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.17
175	Tot	η	Total Penta-PCB	0.00	-	- n	-	-	1.26
176	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	0.88
177	Tot	η	Total Hexa-PCB	0.00	-	- n	-	-	1.10
178	Tot	η	Total Hepta-PCB	0.00	-	- n	-	-	1.42
179	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	0.95
180	Tot	η	Total Octa-PCB	0.00	-	- n	-	-	1.32
181	Tot	η	Total Nona-PCB	0.00	-	- n	-	-	0.98
182	Tot	η	Total Deca-PCB	2.50	1.17e+06	1.22 y	56:39	-	1.17
183	Mono	η	13C-PCB-1	100.00	1.61e+08	3.34 y	16:23	-	0.91
184	Mono	η	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-η		13C-PCB-19	100.00	9.81e+07	1.09 y	24:13	-	0.56
189	Tri-η		13C-PCB-32	100.00	1.41e+08	1.10 y	27:05	-	0.80
190	Tri-η		13C-PCB-28	100.00	1.45e+08	1.05 y	29:00	-	0.93
191	Tri-η		13C-PCB-37	100.00	1.23e+08	1.05 y	32:51	-	0.79
192	Tetrη		13C-PCB-54	100.00	1.19e+08	0.80 y	27:55	-	0.97
193	Tetrη		13C-PCB-52	100.00	9.54e+07	0.79 y	31:24	-	0.77
194	Tetrη		13C-PCB-47	100.00	9.99e+07	0.78 y	31:53	-	0.81
195	Tetrη		13C-PCB-70	100.00	1.22e+08	0.79 y	35:24	-	0.99
196	Tetrη		13C-PCB-80	100.00	1.26e+08	0.79 y	35:48	-	1.02
197	Tetrη		13C-PCB-81	100.00	1.13e+08	0.80 y	38:55	-	0.92
198	Tetrη		13C-PCB-77	100.00	1.13e+08	0.81 y	39:31	-	0.92
199	Pentη		13C-PCB-104	100.00	8.51e+07	1.58 y	32:33	-	1.01
200	Pentη		13C-PCB-95	100.00	6.16e+07	1.60 y	35:42	-	0.73
201	Pentη		13C-PCB-101	100.00	6.46e+07	1.61 y	37:22	-	0.77
202	Pentη		13C-PCB-97	100.00	5.95e+07	1.56 y	38:40	-	0.71
203	Pentη		13C-PCB-123	100.00	7.57e+07	1.60 y	41:14	-	0.90
204	Pentη		13C-PCB-118	100.00	7.96e+07	1.58 y	41:25	-	0.95
205	Pentη		13C-PCB-114	100.00	9.23e+07	1.63 y	42:05	-	1.35
206	Pentη		13C-PCB-105	100.00	9.25e+07	1.61 y	42:57	-	1.36
207	Pentη		13C-PCB-127	100.00	1.01e+08	1.61 y	43:17	-	1.48
208	Pentη		13C-PCB-126	100.00	8.91e+07	1.60 y	45:11	-	1.31
209	Hexaη		13C-PCB-155	100.00	7.08e+07	1.28 y	36:55	-	0.84
210	Hexaη		13C-PCB-153	100.00	7.84e+07	1.29 y	43:06	-	1.15
211	Hexaη		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	Hexaη		13C-PCB-159	100.00	8.52e+07	1.28 y	45:58	-	1.25
214	Hexaη		13C-PCB-167	100.00	9.23e+07	1.29 y	46:40	-	1.35
215	Hexaη		13C-PCB-156	100.00	8.80e+07	1.30 y	47:58	-	1.29
216	Hexaη		13C-PCB-157	100.00	9.23e+07	1.29 y	48:14	-	1.35
217	Hexaη		13C-PCB-169	100.00	8.83e+07	1.28 y	50:19	-	1.29
218	Heptη		13C-PCB-188	100.00	6.20e+07	0.47 y	42:44	-	0.91
219	Heptη		13C-PCB-180	100.00	4.56e+07	0.47 y	49:15	-	0.67
220	Heptη		13C-PCB-170	100.00	3.64e+07	0.46 y	50:40	-	0.53
221	Heptη		13C-PCB-189	100.00	4.86e+07	0.48 y	52:07	-	0.71
222	Octaη		13C-PCB-202	100.00	5.66e+07	0.90 y	48:10	-	0.83

223	Octaη	13C-PCB-194	100.00	5.12e+07	0.92 y	53:38	-	0.80
224	Nonaη	13C-PCB-208	100.00	6.94e+07	0.78 y	52:53	-	1.09
225	Nonaη	13C-PCB-206	100.00	4.16e+07	0.79 y	55:20	-	0.65
226	Decaη	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-η	13C-PCB-31	100.00	1.55e+08	1.05 y	28:54	-	1.00
229	Tetrη	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	Hexaη	13C-PCB-128	100.00	6.82e+07	1.27 y	46:16	-	1.00
232	Octaη	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	-	0.51
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	1.66 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 η	Total Mono-PCB	0.00	-	- n	-	-	1.31
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.21
171	Tot η	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	Tetη	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	Octaη	13C-PCB-194	100.00	5.16e+07	0.92 y	53:36	-	0.79
224	Nonaη	13C-PCB-208	100.00	7.00e+07	0.78 y	52:53	-	1.08
225	Nonaη	13C-PCB-206	100.00	4.23e+07	0.78 y	55:19	-	0.65
226	Decaη	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-η	13C-PCB-31	100.00	1.52e+08	1.05 y	28:55	-	1.00
229	Tetraη	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	Hexaη	13C-PCB-128	100.00	6.93e+07	1.27 y	46:16	-	1.00
232	Octaη	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 η	Total Mono-PCB	0.00	-	- n	-	-	1.35
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.22
171	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.10

172	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.15
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	-	-	0.90
177	Tot η	Total Hexa-PCB	0.00	-	- n	-	-	1.11
178	Tot η	Total Hepta-PCB	0.00	-	- n	-	-	1.41
179	Tot η	Total Octa-PCB	0.00	-	- n	-	-	0.99
180	Tot η	Total Octa-PCB	0.00	-	- n	-	-	1.32
181	Tot η	Total Nona-PCB	0.00	-	- n	-	-	1.02
182	Tot η	Total Deca-PCB	400.00	2.00e+08	1.19 y	56:35	-	1.17
183	Monoη	13C-PCB-1	100.00	1.43e+08	3.35 y	16:24	-	0.77
184	Monoη	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-η	13C-PCB-19	100.00	9.04e+07	1.10 y	24:14	-	0.48
189	Tri-η	13C-PCB-32	100.00	1.43e+08	1.10 y	27:06	-	0.77
190	Tri-η	13C-PCB-28	100.00	1.36e+08	1.05 y	29:02	-	0.89
191	Tri-η	13C-PCB-37	100.00	1.26e+08	1.06 y	32:52	-	0.82
192	Tetrη	13C-PCB-54	100.00	1.26e+08	0.81 y	27:55	-	0.97
193	Tetrη	13C-PCB-52	100.00	9.82e+07	0.78 y	31:24	-	0.76
194	Tetrη	13C-PCB-47	100.00	1.05e+08	0.77 y	31:55	-	0.81
195	Tetrη	13C-PCB-70	100.00	1.29e+08	0.79 y	35:25	-	1.00
196	Tetrη	13C-PCB-80	100.00	1.35e+08	0.80 y	35:50	-	1.04
197	Tetrη	13C-PCB-81	100.00	1.20e+08	0.78 y	38:56	-	0.93
198	Tetrη	13C-PCB-77	100.00	1.27e+08	0.80 y	39:32	-	0.98
199	Pentη	13C-PCB-104	100.00	8.83e+07	1.55 y	32:34	-	1.00
200	Pentη	13C-PCB-95	100.00	6.77e+07	1.62 y	35:43	-	0.77
201	Pentη	13C-PCB-101	100.00	7.03e+07	1.56 y	37:23	-	0.80
202	Pentη	13C-PCB-97	100.00	6.24e+07	1.61 y	38:42	-	0.71
203	Pentη	13C-PCB-123	100.00	7.82e+07	1.58 y	41:16	-	0.88
204	Pentη	13C-PCB-118	100.00	8.64e+07	1.60 y	41:26	-	0.98
205	Pentη	13C-PCB-114	100.00	1.01e+08	1.61 y	42:06	-	1.37
206	Pentη	13C-PCB-105	100.00	1.02e+08	1.58 y	42:58	-	1.38
207	Pentη	13C-PCB-127	100.00	1.09e+08	1.60 y	43:18	-	1.48
208	Pentη	13C-PCB-126	100.00	9.62e+07	1.57 y	45:12	-	1.30
209	Hexaη	13C-PCB-155	100.00	7.37e+07	1.30 y	36:56	-	0.83
210	Hexaη	13C-PCB-153	100.00	8.26e+07	1.29 y	43:07	-	1.12
211	Hexaη	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	Hexaη	13C-PCB-159	100.00	9.15e+07	1.26 y	46:00	-	1.24
214	Hexaη	13C-PCB-167	100.00	1.01e+08	1.25 y	46:40	-	1.37
215	Hexaη	13C-PCB-156	100.00	9.58e+07	1.27 y	47:59	-	1.30
216	Hexaη	13C-PCB-157	100.00	1.01e+08	1.31 y	48:15	-	1.36
217	Hexaη	13C-PCB-169	100.00	9.47e+07	1.29 y	50:19	-	1.28
218	Heptη	13C-PCB-188	100.00	6.72e+07	0.46 y	42:45	-	0.91
219	Heptη	13C-PCB-180	100.00	4.95e+07	0.46 y	49:15	-	0.67
220	Heptη	13C-PCB-170	100.00	3.88e+07	0.47 y	50:41	-	0.53
221	Heptη	13C-PCB-189	100.00	5.10e+07	0.48 y	52:07	-	0.69
222	Octaη	13C-PCB-202	100.00	5.93e+07	0.90 y	48:11	-	0.80

223	Octaη	13C-PCB-194	100.00	5.48e+07	0.91 y	53:37	-	0.80
224	Nonaη	13C-PCB-208	100.00	7.31e+07	0.78 y	52:53	-	1.07
225	Nonaη	13C-PCB-206	100.00	4.59e+07	0.80 y	55:18	-	0.67
226	Decaη	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-η	13C-PCB-31	100.00	1.53e+08	1.05 y	28:55	-	1.00
229	Tetrη	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	Hexaη	13C-PCB-128	100.00	7.38e+07	1.22 y	46:17	-	1.00
232	Octaη	13C-PCB-205	100.00	6.83e+07	0.90 y	53:54	-	1.00

233	CRS	13C-PCB-79	100.00	1.31e+08	0.78 y	37:43	-	1.01
234	CRS	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 η	Total Mono-PCB	0.00	-	- n	-	-	1.36
170	Tot η	Total Di-PCB	0.00	-	- n	-	-	1.25
171	Tot η	Total Tri-PCB	0.00	-	- n	-	-	1.15

172	Tot	η	Total Tri-PCB	0.00	-	-	n	-	-	1.12
173	Tot	η	Total Tetra-PCB	0.00	-	-	n	-	-	1.09
174	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.23
175	Tot	η	Total Penta-PCB	0.00	-	-	n	-	-	1.25
176	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	0.96
177	Tot	η	Total Hexa-PCB	0.00	-	-	n	-	-	1.14
178	Tot	η	Total Hepta-PCB	0.00	-	-	n	-	-	1.46
179	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	1.03
180	Tot	η	Total Octa-PCB	0.00	-	-	n	-	-	1.36
181	Tot	η	Total Nona-PCB	0.00	-	-	n	-	-	1.03
182	Tot	η	Total Deca-PCB	750.00	3.89e+08	1.19	y	56:40	-	1.22
183	Mono	η	13C-PCB-1	100.00	1.51e+08	3.37	y	16:24	-	0.77
184	Mono	η	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-η		13C-PCB-19	100.00	9.33e+07	1.09	y	24:14	-	0.48
189	Tri-η		13C-PCB-32	100.00	1.45e+08	1.09	y	27:05	-	0.74
190	Tri-η		13C-PCB-28	100.00	1.37e+08	1.03	y	29:01	-	1.02
191	Tri-η		13C-PCB-37	100.00	1.25e+08	1.07	y	32:52	-	0.93
192	Tetrη		13C-PCB-54	100.00	1.30e+08	0.80	y	27:56	-	0.98
193	Tetrη		13C-PCB-52	100.00	9.99e+07	0.80	y	31:25	-	0.75
194	Tetrη		13C-PCB-47	100.00	1.04e+08	0.77	y	31:55	-	0.78
195	Tetrη		13C-PCB-70	100.00	1.35e+08	0.78	y	35:24	-	1.02
196	Tetrη		13C-PCB-80	100.00	1.39e+08	0.80	y	35:49	-	1.05
197	Tetrη		13C-PCB-81	100.00	1.30e+08	0.79	y	38:56	-	0.98
198	Tetrη		13C-PCB-77	100.00	1.29e+08	0.80	y	39:32	-	0.97
199	Pentη		13C-PCB-104	100.00	8.83e+07	1.59	y	32:34	-	0.96
200	Pentη		13C-PCB-95	100.00	6.79e+07	1.55	y	35:43	-	0.74
201	Pentη		13C-PCB-101	100.00	7.25e+07	1.55	y	37:23	-	0.79
202	Pentη		13C-PCB-97	100.00	6.44e+07	1.57	y	38:42	-	0.70
203	Pentη		13C-PCB-123	100.00	8.18e+07	1.58	y	41:16	-	0.89
204	Pentη		13C-PCB-118	100.00	9.11e+07	1.59	y	41:27	-	0.99
205	Pentη		13C-PCB-114	100.00	1.10e+08	1.61	y	42:06	-	1.45
206	Pentη		13C-PCB-105	100.00	1.10e+08	1.59	y	42:58	-	1.45
207	Pentη		13C-PCB-127	100.00	1.18e+08	1.61	y	43:18	-	1.54
208	Pentη		13C-PCB-126	100.00	1.02e+08	1.57	y	45:13	-	1.34
209	Hexaη		13C-PCB-155	100.00	7.27e+07	1.27	y	36:56	-	0.79
210	Hexaη		13C-PCB-153	100.00	8.79e+07	1.29	y	43:07	-	1.15
211	Hexaη		13C-PCB-141	100.00	8.18e+07	1.28	y	43:52	-	1.07
212	Hexa		13C-PCB-138	100.00	8.32e+07	1.27	y	44:43	-	1.09
213	Hexaη		13C-PCB-159	100.00	9.51e+07	1.28	y	45:59	-	1.25
214	Hexaη		13C-PCB-167	100.00	1.01e+08	1.26	y	46:41	-	1.33
215	Hexaη		13C-PCB-156	100.00	1.01e+08	1.27	y	47:59	-	1.32
216	Hexaη		13C-PCB-157	100.00	1.05e+08	1.31	y	48:15	-	1.38
217	Hexaη		13C-PCB-169	100.00	9.82e+07	1.28	y	50:20	-	1.29
218	Heptη		13C-PCB-188	100.00	6.91e+07	0.47	y	42:45	-	0.91
219	Heptη		13C-PCB-180	100.00	4.94e+07	0.48	y	49:16	-	0.65
220	Heptη		13C-PCB-170	100.00	3.94e+07	0.46	y	50:41	-	0.52
221	Heptη		13C-PCB-189	100.00	5.34e+07	0.46	y	52:08	-	0.70
222	Octaη		13C-PCB-202	100.00	5.91e+07	0.90	y	48:12	-	0.78

223	Octaη	13C-PCB-194	100.00	5.78e+07	0.93 y	53:39	-	0.79
224	Nonaη	13C-PCB-208	100.00	7.83e+07	0.77 y	52:54	-	1.07
225	Nonaη	13C-PCB-206	100.00	4.57e+07	0.77 y	55:21	-	0.62
226	Decaη	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-η	13C-PCB-31	100.00	1.34e+08	1.04 y	28:55	-	1.00
229	Tetraη	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	Hexaη	13C-PCB-128	100.00	7.63e+07	1.27 y	46:17	-	1.00
232	Octaη	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

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	PASS	CONC.		ANALYTES	ION	QC	PASS	CONC.	
	ABUND.	LIMITS		FOUND	RANGE		ABUND.	LIMITS		FOUND	RANGE
	RATIO			(ng/mL)		RATIO				(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
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
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						

Analyst: *DMS*

Date: 6/24/14

NATIVE 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

ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)	ANALYTES	ION ABUND. RATIO	QC LIMITS	PASS	CONC. FOUND	CONC. RANGE (ng/mL)
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-89	1.58	1.32-1.78	y	50.3	37.5-62.5	PCB-134/143	1.25	1.05-1.43	y	97.1	75.0-125
PCB-90/101	1.56	1.32-1.78	y	100.3	75.0-125	PCB-133/142	1.24	1.05-1.43	y	97.4	75.0-125
PCB-113	1.57	1.32-1.78	y	52.7	37.5-62.5	PCB-131	1.23	1.05-1.43	y	49.1	37.5-62.5
PCB-99	1.60	1.32-1.78	y	47.7	37.5-62.5	PCB-146/165	1.25	1.05-1.43	y	98.5	75.0-125
PCB-119	1.56	1.32-1.78	y	49.8	37.5-62.5	PCB-132/161	1.31	1.05-1.43	y	98.0	75.0-125
PCB-108/112	1.58	1.32-1.78	y	100.2	75.0-125	PCB-153	1.16	1.05-1.43	y	49.2	37.5-62.5
PCB-83	1.57	1.32-1.78	y	49.2	37.5-62.5	PCB-168	1.25	1.05-1.43	y	50.1	37.5-62.5
PCB-97	1.55	1.32-1.78	y	49.4	37.5-62.5	PCB-141	1.24	1.05-1.43	y	48.7	37.5-62.5
PCB-86	1.55	1.32-1.78	y	47.3	37.5-62.5	PCB-137	1.23	1.05-1.43	y	49.3	37.5-62.5
PCB-87/117/125	1.62	1.32-1.78	y	153.7	112.5-225	PCB-130	1.23	1.05-1.43	y	50.2	37.5-62.5
PCB-111/115	1.51	1.32-1.78	y	98.7	75.0-125	PCB-138/163/164	1.24	1.05-1.43	y	147.8	112.5-225
PCB-85/116	1.58	1.32-1.78	y	100.6	75.0-125	PCB-158/160	1.23	1.05-1.43	y	99.9	75.0-125
PCB-120	1.59	1.32-1.78	y	48.7	37.5-62.5	PCB-129	1.24	1.05-1.43	y	49.1	37.5-62.5
PCB-110	1.57	1.32-1.78	y	50.0	37.5-62.5	PCB-166	1.24	1.05-1.43	y	49.5	37.5-62.5
PCB-82	1.55	1.32-1.78	y	49.8	37.5-62.5	PCB-159	1.23	1.05-1.43	y	49.9	37.5-62.5
PCB-124	1.58	1.32-1.78	y	48.7	37.5-62.5	PCB-128/162	1.23	1.05-1.43	y	97.4	75.0-125
PCB-107/109	1.59	1.32-1.78	y	102.0	75.0-125	PCB-167	1.22	1.05-1.43	y	50.2	37.5-62.5
PCB-123	1.59	1.32-1.78	y	50.6	37.5-62.5	PCB-156	1.25	1.05-1.43	y	50.3	37.5-62.5
PCB-106/118	1.59	1.32-1.78	y	100.2	75.0-125	PCB-157	1.24	1.05-1.43	y	48.4	37.5-62.5
PCB-114	1.65	1.32-1.78	y	50.6	37.5-62.5	PCB-169	1.27	1.05-1.43	y	48.4	37.5-62.5
PCB-122	1.66	1.32-1.78	y	49.6	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-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-179	1.06	0.89-1.21	y	49.7	37.5-62.5
PCB-126	1.63	1.32-1.78	y	49.7	37.5-62.5	PCB-176	1.04	0.89-1.21	y	49.5	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-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-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-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-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-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-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-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-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-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-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-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

Analyst: *Dms*

Date: *6/24/14*

NATIVE 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

ANALYTES	ION	QC	PASS	CONC.	CONC.
	ABUND.	LIMITS		FOUND	RANGE
	RATIO				(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: DMS

Date: 6/24/14

LABELED 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

LABELED IS	ION			CONC. FOUND	CONC. RANGE (ng/mL)	LABELED IS	ION			CONC. FOUND	CONC. RANGE (ng/mL)
	ABUND. RATIO	QC LIMITS	PASS				ABUND. RATIO	QC LIMITS	PASS		
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						
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						

CRS vs. RS

Analyst: DMJ

Date: 6/24/14

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: PCBVG8-6-23-14 wt/vol: 1.0000 EndCAL: NA

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-47	5.35e+07	0.76	y	1.06	31:55	1.001	0.996-1.006	49.2976
PCB-4/10	3.27e+08	1.65	y	1.57	20:14	1.002	0.997-1.007	200.078	PCB-48/75	1.20e+08	0.77	y	1.23	32:02	1.004	0.999-1.009	95.5705
PCB-7/9	3.82e+08	1.65	y	1.21	21:57	0.870	0.866-0.874	199.310	PCB-65	6.30e+07	0.76	y	1.22	32:19	1.013	1.008-1.018	50.1860
PCB-6	2.07e+08	1.66	y	1.30	22:35	0.895	0.890-0.899	100.033	PCB-62	5.58e+07	0.76	y	1.22	32:26	1.016	1.011-1.021	44.5973
PCB-5/8	3.65e+08	1.64	y	1.15	23:00	0.912	0.907-0.917	200.175	PCB-44	4.12e+07	0.77	y	0.86	32:43	1.026	1.021-1.031	46.6811
PCB-14	1.87e+08	1.66	y	1.11	24:04	0.954	0.949-0.959	102.750	PCB-42/59	1.11e+08	0.76	y	1.14	32:57	1.033	1.028-1.038	95.2591
PCB-11	1.81e+08	1.65	y	1.09	25:14	1.000	0.995-1.005	101.723	PCB-41/64/71/72	2.33e+08	0.77	y	1.21	33:32	1.051	1.046-1.056	187.913
PCB-12/13	3.92e+08	1.65	y	1.19	25:38	1.016	1.011-1.021	200.431	PCB-68	6.63e+07	0.76	y	1.35	33:47	1.059	1.054-1.064	47.9757
PCB-15	2.11e+08	1.66	y	1.28	25:56	1.028	1.023-1.033	100.196	PCB-40	3.48e+07	0.77	y	0.70	34:00	1.066	1.061-1.071	48.4517
									PCB-57	6.06e+07	0.76	y	0.98	34:22	0.970	0.965-0.975	50.6920
PCB-19	4.92e+07	1.05	y	1.04	24:15	1.001	0.996-1.006	49.8495	PCB-67	6.65e+07	0.76	y	1.11	34:40	0.979	0.974-0.984	49.1755
PCB-30	7.99e+07	1.06	y	1.71	25:07	1.037	1.032-1.042	49.3635	PCB-58	5.67e+07	0.79	y	0.93	34:47	0.982	0.977-0.987	50.1141
PCB-18	5.58e+07	1.05	y	0.78	25:51	0.954	0.949-0.959	51.2756	PCB-63	5.70e+07	0.76	y	0.95	34:56	0.987	0.982-0.992	48.9977
PCB-17	6.48e+07	1.05	y	0.92	26:02	0.961	0.956-0.966	50.4844	PCB-74	7.34e+07	0.77	y	1.24	35:13	0.995	0.990-1.000	48.3011
PCB-24/27	1.68e+08	1.05	y	1.19	26:36	0.982	0.977-0.987	101.312	PCB-61/70	1.16e+08	0.77	y	0.95	35:24	1.000	0.995-1.005	99.8888
PCB-16/32	1.31e+08	1.06	y	0.94	27:06	1.000	0.995-1.005	100.158	PCB-76/66	1.26e+08	0.77	y	1.04	35:37	1.006	1.001-1.011	99.0361
PCB-34	7.59e+07	1.03	y	1.14	27:52	0.960	0.955-0.965	47.8540	PCB-80	7.72e+07	0.77	y	1.19	35:50	1.001	0.996-1.006	51.1089
PCB-23	8.55e+07	1.06	y	1.28	27:58	0.964	0.959-0.969	47.9079	PCB-55	6.84e+07	0.77	y	1.04	36:10	1.010	1.005-1.015	51.7926
PCB-29	7.42e+07	1.04	y	1.08	28:13	0.972	0.967-0.977	49.2142	PCB-56/60	1.27e+08	0.77	y	1.01	36:40	1.024	1.019-1.029	98.8614
PCB-26	8.24e+07	1.04	y	1.21	28:25	0.975	0.974-0.984	48.9217	PCB-79	6.79e+07	0.78	y	1.08	37:43	1.053	1.048-1.058	49.6313
PCB-25	8.85e+07	1.06	y	1.26	28:34	0.984	0.979-0.989	50.2567	PCB-78	6.97e+07	0.77	y	1.27	38:25	0.987	0.982-0.992	49.0861
PCB-31	8.64e+07	1.02	y	1.28	28:56	0.997	0.992-1.002	48.1924	PCB-81	7.20e+07	0.78	y	1.33	38:57	1.000	0.995-1.005	48.4278
PCB-28	1.19e+08	1.04	y	1.71	29:02	1.000	0.995-1.005	49.7990	PCB-77	6.19e+07	0.79	y	1.10	39:33	1.000	0.995-1.005	49.2464
PCB-20/21/33	2.26e+08	1.03	y	1.08	29:39	1.022	1.017-1.027	149.601									
PCB-22	8.60e+07	1.04	y	1.21	30:05	1.037	1.032-1.042	50.9455	PCB-104	5.11e+07	1.57	y	1.18	32:35	1.001	0.996-1.006	50.6145
PCB-36	7.12e+07	1.03	y	1.14	30:40	0.933	0.928-0.938	51.8469	PCB-96	4.80e+07	1.56	y	1.14	33:50	1.039	1.034-1.044	49.4868
PCB-39	7.20e+07	1.02	y	1.12	31:09	0.948	0.943-0.953	53.6838	PCB-103	3.98e+07	1.56	y	0.96	34:22	1.055	1.050-1.060	48.8016
PCB-38	7.37e+07	1.03	y	1.20	31:55	0.971	0.966-0.976	51.1156	PCB-100	3.93e+07	1.58	y	0.94	34:42	1.066	1.061-1.071	49.1824
PCB-35	7.10e+07	1.03	y	1.23	32:26	0.987	0.982-0.992	47.9376	PCB-94	3.18e+07	1.55	y	1.06	35:11	0.985	0.980-0.990	48.0705
PCB-37	7.16e+07	1.02	y	1.23	32:53	1.000	0.995-1.005	48.3854	PCB-95/98/102	1.14e+08	1.55	y	1.22	35:42	1.000	0.995-1.005	149.073
									PCB-93	2.65e+07	1.58	y	0.84	35:48	1.002	0.997-1.007	50.1439
PCB-54	6.73e+07	0.78	y	1.10	27:57	1.001	0.996-1.006	49.6981	PCB-88/91	7.03e+07	1.58	y	1.12	36:05	1.010	1.005-1.015	100.529
PCB-50	5.38e+07	0.77	y	0.88	29:05	1.042	1.037-1.047	49.7280	PCB-121	5.08e+07	1.60	y	1.62	36:12	1.014	1.009-1.019	50.2163
PCB-53	5.23e+07	0.75	y	1.06	29:44	0.947	0.942-0.952	50.5493	PCB-84/92	6.82e+07	1.56	y	1.05	37:01	0.990	0.985-0.995	99.2072
PCB-51	4.77e+07	0.77	y	0.99	30:04	0.957	0.952-0.962	49.5846	PCB-89	3.73e+07	1.58	y	1.13	37:14	0.996	0.991-1.001	50.2710
PCB-45	4.32e+07	0.77	y	0.86	30:30	0.971	0.966-0.976	51.4204									
PCB-46	4.05e+07	0.76	y	0.85	30:59	0.986	0.981-0.991	49.2764									

Integrations by _____ Reviewed by _____
RL: MONO, TRI - DECA: _____ Analyst: *Dms*
RL: DI : _____ Date: *6/24/14* 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

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-105	5.88e+07	1.64	y	1.30	42:59	1.000	0.995-1.005	49.4039	PCB-188	4.99e+07	1.05	y	1.58	42:46	1.001	0.996-1.006	49.3061
PCB-127	6.36e+07	1.67	y	1.33	43:19	1.001	0.996-1.006	47.5787	PCB-184	5.13e+07	1.06	y	1.63	43:13	1.011	1.006-1.016	49.1029
PCB-126	5.32e+07	1.63	y	1.18	45:13	1.000	0.995-1.005	49.7195	PCB-179	4.15e+07	1.06	y	1.30	44:00	1.029	1.024-1.034	49.7059
									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

RL: MONO, TRI - DECA: _____

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: 1.0000
ConCal: NA EndCAL: NA

Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Name	Resp	RA	RT	RRF	Conc	
PCB-193	3.98e+07	1.07 y	1.72	49:27	1.004	0.999-1.009		50.0826	Total Mono-PCB	3.01e+08	3.00 y	16:25	1.27	154.481	
PCB-191	3.90e+07	1.07 y	1.69	49:42	1.009	1.004-1.014		49.6416	Total Di-PCB	2.26e+09	1.65 y	20:14	1.21	1208.89	
PCB-170	2.97e+07	1.05 y	1.60	50:41	1.000	0.995-1.005		50.7863	Total Tri-PCB	5.48e+08	1.05 y	24:15	1.10	402.442	
PCB-190	4.08e+07	1.06 y	2.21	50:51	1.003	0.998-1.008		50.4671	Total Tri-PCB	1.30e+09	1.03 y	27:52	1.21	807.063	Sum:1209.50
PCB-189	3.71e+07	1.05 y	1.55	52:08	1.000	0.995-1.005		50.0142	Total Tetra-PCB	2.49e+09	0.78 y	27:57	1.09	2080.43	
									Total Penta-PCB	1.69e+09	1.57 y	32:35	1.18	2047.61	
PCB-202	3.01e+07	0.94 y	1.08	48:12	1.000	0.995-1.005		49.1569	Total Penta-PCB	3.13e+08	1.65 y	42:07	1.25	268.155	Sum:2315.77
PCB-201	3.19e+07	0.91 y	1.15	48:41	1.010	1.005-1.015		49.1361	Total Hexa-PCB	4.35e+08	1.27 y	36:57	0.90	682.032	
PCB-204	3.22e+07	0.91 y	1.14	48:50	1.014	1.008-1.018		50.0554	Total Hexa-PCB	1.26e+09	1.25 y	42:02	1.11	1398.33	Sum:2080.36
PCB-197	3.03e+07	0.91 y	1.07	49:09	1.020	1.015-1.025		49.8625	Total Hepta-PCB	9.18e+08	1.05 y	42:46	1.42	1205.33	
PCB-200	3.01e+07	0.90 y	1.06	49:59	1.037	1.032-1.044		50.0631	Total Octa-PCB	2.43e+08	0.94 y	48:12	0.96	447.388	
PCB-198	2.18e+07	0.92 y	0.76	51:15	1.064	1.059-1.069		51.1487	Total Octa-PCB	1.04e+08	0.89 y	52:45	1.33	151.653	Sum:599.041
PCB-199	2.16e+07	0.91 y	0.80	51:21	1.066	1.061-1.071		47.8578	Total Nona-PCB	9.23e+07	1.34 y	52:53	1.01	150.101	
- PCB-196/203	4.53e+07	0.92 y	0.80	51:37	1.071	1.066-1.076		100.108	Total Deca-PCB	2.30e+07	1.21 y	56:38	1.17	51.1001	
- 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							Total PCB Conc:10960.1670500
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							

Integrations
by
Analyst: DMS
Date: 6/24/14
RL: MONO, TRI - DECA: _____

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: 1.000 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	1.53e+08	3.37 y	0.87	16:24	0.632	0.629-0.635		98.7	98.7											
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-79	1.25e+08	0.79 y	1.02	37:42	1.028	1.023-1.034		98.3	98.3
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-178	4.30e+07	0.46 y	0.61	45:33	0.984	0.979-0.990		101	101
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-11	1.64e+08	1.57 y	0.94	25:13	0.973	0.968-0.978		98.2	98.2											
13C-PCB-19	9.46e+07	1.07 y	0.53	24:14	0.935	0.930-0.940		99.8	99.8	PS vs. IS										
13C-PCB-28	1.40e+08	1.06 y	0.93	29:01	1.004	0.999-1.009		98.7	98.7		Name	Resp	RA	RRF	RT	RRT	LCL	UCL	Conc	Rec
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-79	1.25e+08	0.79 y	1.10	37:42	0.968	0.963-0.973		102	102
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-178	4.30e+07	0.46 y	0.90	45:33	0.925	0.920-0.930		103	103
13C-PCB-47	1.02e+08	0.79 y	0.81	31:54	0.870	0.866-0.874		101	101											
13C-PCB-52	9.72e+07	0.80 y	0.77	31:24	0.857	0.853-0.861		101	101											
13C-PCB-54	1.23e+08	0.81 y	0.97	27:55	0.762	0.758-0.766		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											
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											
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	RS										
13C-PCB-97	5.89e+07	1.59 y	0.70	38:42	0.989	0.984-0.994		98.2	98.2		Name	Resp	RA	RRF	RT	Conc				
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-15	1.78e+08	1.59 y	1.00	25:55	100				
13C-PCB-104	8.52e+07	1.57 y	1.00	32:34	0.832	0.828-0.836	100.0	100.0	100.0		13C-PCB-31	1.52e+08	1.05 y	1.00	28:55	100				
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-60	1.25e+08	0.79 y	1.00	36:39	100				
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-111	8.51e+07	1.57 y	1.00	39:07	100				
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-128	6.93e+07	1.27 y	1.00	46:16	100				
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-205	6.51e+07	0.91 y	1.00	53:54	100				
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											
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	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											
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											
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											
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											
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											
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											
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											
13C-PCB-206	4.23e+07	0.78 y	0.65	55:19	1.026	1.021-1.031	100.0	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											
13C-PCB-209	3.85e+07	1.23 y	0.61	56:37	1.050	1.045-1.055		96.9	96.9											

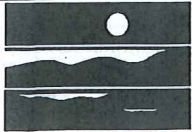
Analyst: Dms

Date: 6/24/14

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 N-5
Ecology Inspection Report



State of Washington Department of Ecology
Northwest Regional Office
**STORMWATER COMPLIANCE INSPECTION
REPORT**

WADOE Stormwater
Compliance Inspection Form
(last file update 4-04.)

Facility Type:
 Industrial Boatyard
 Construction S & G

Section A: General Data

Inspection Date 09-11-2014	NPDES Permit # WAR002040	County King	Receiving Waters Duwamish River
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Discharges to: Surface Water Ground Water Weather at time of inspection: Clear

Section B: Facility Data

Name and Location of Facility Inspected Unified Grocers 3301 S. Norfolk Street Seattle, WA 98118	Entry Time 08:30 am	Permit Effective Date 1-01-10
	Exit Time 03:30 pm	Permit Expiration Date 1-01-15

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Steve Johnson/ Manager, Environment, Health & Safety/ 206-571-6140 Sherwin Chinn/Logistics John Breed/Maintenance Engineer	Other Participants: Greg Villanueva, NPDES Coordinator, City of Tukwila Public Works Mahbub Alam, Ecology Toxics Cleanup Program Christine Nancarrow, Cory Wilson and Melissa Ivancevich, Leidos
Name, Address of Responsible Official/Title/Phone and Fax Number. Steven Johnson/ EH&S Manager Unified Grocers P.O. Box 3763 Seattle, WA 90124 Phone Number 206-767-8126 Fax 206-764-7612 Contacted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Taken? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Photos Taken? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section C: Areas Evaluated During Inspection.

<input checked="" type="checkbox"/> NPDES Permit Available	<input type="checkbox"/> Wet & Dry Season Inspection Reports	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Effluent/Receiving Water
<input checked="" type="checkbox"/> Storm Water Pollution Prevention Plan Available	<input checked="" type="checkbox"/> Employee Training Records	<input checked="" type="checkbox"/> Oil/Water Separator	<input type="checkbox"/> Pretreatment
<input checked="" type="checkbox"/> SPCC Plan & Equipment	<input type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Solid Waste Disposal	<input type="checkbox"/> Laboratory
<input type="checkbox"/> Erosion and Sediment Control Plans	<input checked="" type="checkbox"/> Monitoring Plan	<input checked="" type="checkbox"/> Catch Basins	<input type="checkbox"/> 0.5 inch Inspection Logs
<input checked="" type="checkbox"/> DMR Submittals	<input checked="" type="checkbox"/> Fuel/Chemical Storage	<input type="checkbox"/> Track out / Wheel wash	<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"/>

Section D: Summary of Findings/Comments

Background:

This compliance inspection was conducted as part of a Department of Ecology inspection program to control the potential sources of pollutants discharged to the Duwamish waterway through storm drainage systems. The last stormwater permit compliance inspection by Ecology was in January of 2011. As part of this current inspection, storm drain lines and structures were reviewed and compared with existing site maps, and source trace samples of catch basin solids and storm water were collected. Ecology will review sample results and consider the need to monitor for additional parameters or conduct further source tracing.

Inspection/Observations:

Alex White, Water Quality Inspector with the Water Quality Program (WQ) and I arrived at the facility at approximately 08:30 am on September 11, 2014, where we met Greg Villanueva, NPDES Coordinator with the City of Tukwila. None of the responsible officials were initially on site and available to assist in the inspection. John Breed, Maintenance Engineer, initially escorted us, and we were subsequently joined by Sherwin Chinn, Logistics, to review the associated permit paperwork, and then later by Steve Johnson, Environmental Health & Safety Manger for the facility inspection and walk-around. We were assigned someone from the maintenance shop who allowed us to access the facility and assisted us with the initial inspection.

The Stormwater Pollution Prevention Plan (SWPPP) was dated 2008 but the SWPPP Certification form was signed and dated January 5, 2013. The SWPPP needs to be updated to include a revised monitoring plan and site map. Site drainage could not be accurately determined by the existing site map. One of the discharge monitoring locations (S1, on the northern side of the administrative building adjacent to S Norfolk Street) is not representative of industrial stormwater discharges from the northern portion of the facility and must be relocated to manhole located in the courtyard area along the southeastern side of the same administrative building (see photos #1, 2, and 16). A Stormwater Permit Discharge/Sample Point Update form must be completed and submitted to Ecology. The form can be found on Ecology's Industrial Stormwater Webpage: <https://fortress.wa.gov/ecy/publications/publications/ecy070373.pdf>

All of the vehicle and truck maintenance is contracted out to third parties. The Unified Grocers maintenance shop is primarily for facility maintenance. The shop has miscellaneous materials stored outside, some without cover. Scrap metal bins or dumpsters must be covered (see Photos #3 & 4). The facility is primarily engaged in wholesale distribution of food products and non-food items to retail markets and stores. The facility has a large amount of truck traffic. Truck loading and unloading docks are located throughout the site. All liquid chemical and petroleum products and wastes stored outside must be provided with proper cover and containment. The truck wash is operated by a subcontractor (J.L.E.). Wastewater generated by this facility must not be allowed to flow to storm drains. The truck wash area must be frequently policed to ensure that wash water does not get "dragged out" or the drip off is not significant enough to flow to nearby storm drains. The storm drain inlets near the truck wash (see Photos #5 & 6) should be checked weekly and be provided with adequate inlet protection. The tractor/trailer maintenance area, other maintenance areas, and the waste oil storage shed, lacked properly labeled spill kits of any kind. Spill kits should be identified in the SWPPP and clearly labeled and kept in conspicuous places for areas that present a risk of spilled oil, fuel, chemicals, or other liquid product or waste. All paved areas of the facility must be swept with a vacuum type sweeper to remove accumulated pollutants a minimum of once per quarter.

Maintenance logs of catch basin and storm drain line maintenance work must be kept as part of the SWPPP. Outside sheds used to store liquid petroleum and chemical products and wastes, such as the waste oil shed, must be able to prevent spills and leaks from getting outside (see Photos #7, 8 & 15). The wastewater generated by indoor equipment cleaning activities must be "closed-loop" or discharged to the sanitary sewer with proper authorization from King County Industrial Waste. The area around the garbage dumpster located near storm drain must be checked for debris, wastes and fluids on the ground. Given the proximity of the garbage dumpster (see Photos #13 & 14) to this storm drain catch basin, it must be provided with adequate inlet protection and be maintained on a regular basis.

All liquid petroleum and chemical products and wastes stored outside or near doorways that would allow spills or leaks to flow to storm drains must be provided with adequate cover and containment. The permit requires that all dumpsters be kept under cover or fit with a lid that must remain closed when not in use (see Photos #3 & 4). The facility must make sure that there are no interior floor drains inside any of the buildings that are connected to the storm drainage system. Spill pallets don't always prevent leaks in drums from getting onto the ground and then possibly flowing outside (see Photos #9 & 10).

The fuel island must be evaluated to determine if the design meets the Stormwater Management Manual for Western Washington Volume IV Chapter 2 (page 2-19). The manual states: If a roof or canopy is impractical the concrete fueling pad must be equipped with emergency spill control, which includes a shutoff valve for the drainage from the fueling area. The mobile fuel truck must be parked at a location that provides a spill control and containment strategy. The fuel island is ringed by an asphalt berm. There is a cut in this berm (see Photos #11 & 12) that prevents its function as a secondary containment berm, and would allow spills to reach the adjacent catch basin.

The facility monitors stormwater discharges at two locations S1 and S2. The sampling location S1 identified by Unified Grocers staff is not representative of industrial stormwater discharges from the northern portion of the facility. A more appropriate location was identified by Ecology staff, with the assistance of the sampling contractor (see Photos # 1 & 2). This location is identified as '60' on the facility-provided site map. Additionally, the facility map provided did not adequately represent the site drainage infrastructure. While catch basins were indicated, their connections to major aggregating lines were absent, and the flow direction of major aggregating lines was, in some cases, ambiguous.

Issues & Requirements:

(1) The SWPPP must be reviewed and updated as necessary to meet all of the requirements of the current permit and be submitted to Ecology within 30 days. The SWPPP Certification form must be signed and dated as necessary. The monitoring plan must be revised to reflect the new sample location.

(2) The facility site map in the SWPPP must be updated to clearly identify and label all catch basins, their connections to aggregating lines, and the flow directions of all lines. This facility diagram must also clearly indicate sampling location(s) at the facility. Spill kit locations should be identified in the SWPPP, and on the facility diagram.

(3) All liquid chemical and petroleum products and wastes stored outside or near doorways must be provided with proper cover and containment.

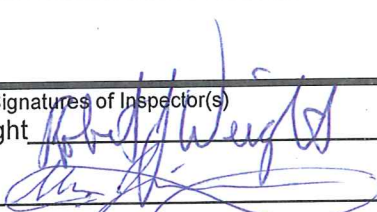


(4) The fuel island must be evaluated to determine if the design meets the Stormwater Management Manual for Western Washington Volume IV Chapter 2 (page 2-19). Submit to Ecology within 30 days a plan and schedule for upgrading the fuel island to meet Stormwater Manual guidelines.

(5) Areas with the potential for spills shall maintain a properly labeled spill kit, identified in the SWPPP.

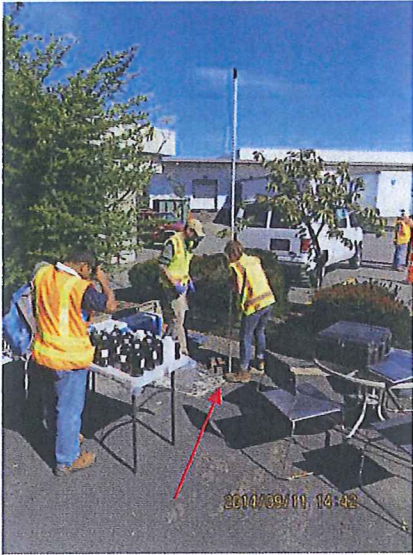
(6) All dumpsters and scrap metal bins must be kept under cover or fit with a lid that must remain closed when not in use.

(7) Unified Grocers should take note that the new permit requirements will go into effect on January 1st, 2015.

Contact Robert Wright at 206-909-6640 with any questions or concerns regarding this report.

Name(s) and Signatures of Inspector(s) Robert Wright  Alex White 	Agency/Office/Telephone WA Dept. of Ecology/ NW Regional Office/ 425-649-7060 3190 160 th Ave SE, Bellevue, WA 98008-5452	Date 11-18-14 11-18-2014
Signature of Management Q A Reviewer 	Agency/Office/Phone and Fax Numbers WA Dept. of Ecology/NWRO/ (425) 649-7000 Fax (425) 649-7098	11/22/14

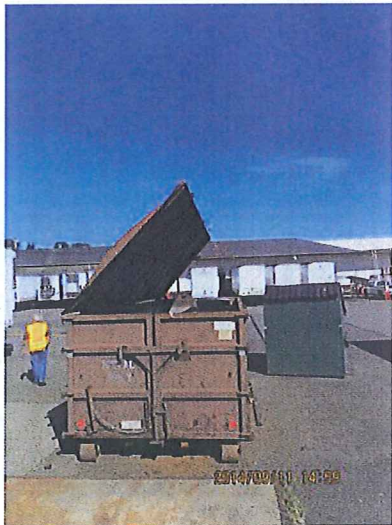
ANNOUNCED Inspection



#1. DESCRIPTION: Ecology-determined sampling location to replace inadequate sampling location S-1. The manhole is located along the SE side of the administrative building. (Looking Northeast)



#2. DESCRIPTION: Ecology-determined sampling location to replace inadequate sampling location S-1. (Looking Southwest)



#3. DESCRIPTION: Dumpsters left uncovered when not engaged in active filling/unloading – showing staining of concrete/asphalt.



#4. DESCRIPTION: Scrap-metal dumpsters left uncovered when not engaged in active filling/unloading.



#5. DESCRIPTION: Truck wash area.



#6. DESCRIPTION: Truck wash area.



#7. DESCRIPTION: Waste Oil Shed, showing containment for waste oil tank. No berm or raised lip on floor of shed to prevent potentially spilled oil from reaching outdoor area.



#8. DESCRIPTION: Storage of petroleum product/waste containers in the Waste Oil Shed.

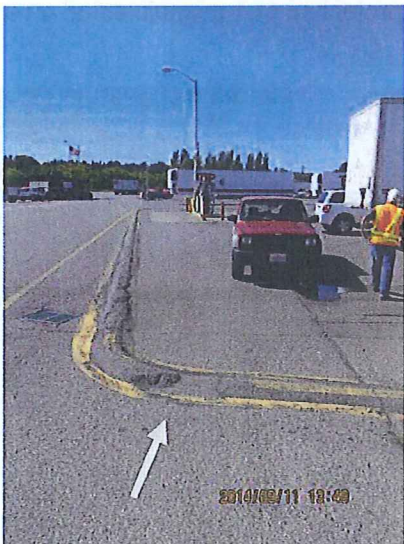
Unified Grocers, Seattle



#9. DESCRIPTION: Drums stored in secondary containment trays.



#10. DESCRIPTION: Drums stored on spill pallets.



#11. DESCRIPTION: Asphalt berm surrounding fuel island. White arrow indicates cut in berm.

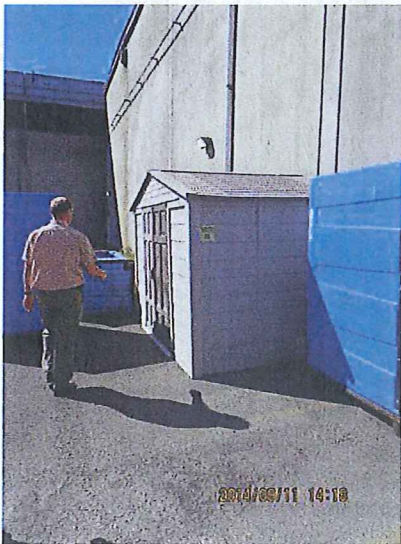


#12. DESCRIPTION: Asphalt berm surrounding fuel island. White arrow indicates cut in berm.



#13. DESCRIPTION: The area around this dumpster must be checked for debris, wastes and fluids on the ground. The nearby storm drain catch basin must be provided with adequate inlet protection and be maintained on a regular basis.

#14. DESCRIPTION: The area around these dumpsters must be checked for debris, wastes and fluids on the ground. The nearby storm drain catch basin must be provided with adequate inlet protection and be maintained on a regular basis.



#15. DESCRIPTION: Waste Oil Shed, showing lack of berm or raised lip on floor of shed to prevent potentially spilled oil from reaching outdoor area.

#16. DESCRIPTION: White arrow indicates approximate location of Ecology-determined sampling location to replace inadequate sampling location S-1. (Looking West toward administrative building)