KPDES FORM C

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KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

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PERMIT APPLICATION

A complete application consists of this form and Form 1.
For additional information, contact KPDES Branch, (502) 564-3410.

Name of Facility: Commonwealth Aluminum Lewisport	County: Hancock							
I. OUTFALL LOCATION	AGENCY USE							

For each outfall list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

Outfall No. (list)	LATITUDE			LONGITUDE			RECEIVING WATER (name)
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	
001	37	56	40	86	51	15	Thrasher Creek
002	37	57	00	86	50	55	Front Industrial ditch (to 001)
003	37	56	55	86	50	40	Industrial ditch (to 001)
004	37	56	55	86	50	35	Industrial ditch (to 001)
005	37	56	50	86	50	45	Industrial ditch (to 001)
006	37	56	55	86	50	45	Industrial ditch (to 001)
007	37	56	50	86	50	50	Industrial ditch (to 001)
008	37	57	10	86	50	35	Industrial ditch (to 001)
010	37	57	05	86	50	40	Industrial ditch (to 001)
011	37	57	50	86	50	45	Industrial ditch (to 001)
012	37	56	55	86	50	40	Industrial ditch (to 001)

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfall. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) the average flow contributed by each operation; and (3) the treatment received by the wastewater. Continue on additional sheets if necessary.

OUTFALL NO. (list)	OPERATION(S) CONTRIBUTING FLOW		TREATMENT	
	Operation (list)	Avg/Design Flow (include units)	Description	List Codes from Table C-1
001	Total Facility Effluent (including Stormwater) which Outfalls to Thrasher Creek	6500 Gallons Per Minute (GPM)	N/A	N/A
002	Paintline Wastewater Treatment System	35 GPM	Chromium Reduction Neutralization, flocculation, Settling, Chlorination	2-L,2-K,1-G, 1-U, 2-F
003	Industrial Mill Water Tower Spillover (Non-contact) used primarily for heat exchange	3500 GPM	N/A	N/A
004	Non-contact Water, Reverse Osmosis/Boiler Process blowdown and Stormwater	200 GPM	N/A	N/A
005	Non-contact Water used in Annealing operations for heat exchange	250 GPM	Reuse (Spillover goes to Outfall)	N/A
006	Stormwater collection basin used for runoff from south area of facility	1200 GPM	Oil Seperation	1H
007	Wastewater Treatment Facility	25 GPM	Grinding (Comminutor) Activated Sludge, Filtration Disinfection (Chlorination)	1L 3A,1O 2F
008	North Casthouse Cooling Water Closed Loop system spillover/blowdown	30 GPM	Flotation, Flocculation Disinfection (Chlorination)	1H, 2D 2F
010	Non-contact Water used for Heat exchange at North Casting and Metal Preparation Stromwater runoff from srap metal storage area.	30 GPM	N/A	N/A
011	Non-contact cooling water and condensate from system	300 GPM	N/A	N/A
012	Water used directly in casting process of South Casthouse for cooling purposes and hotline coolant	1700 GPM	Oil seperation	1-H

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES (Continued)

C. Except for storm water runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ Yes (Complete the following table.) X☐ No (Go to Section III.)

OUTFALL NUMBER (list)	OPERATIONS CONTRIBUTING FLOW (list)	FREQUENCY		FLOW				
		Days Per Week (specify average)	Months Per Year (specify average)	Flow Rate (in mgd)		Total volume (specify with units)		Duration (in days)
				Long-Term Average	Maximum Daily	Long-Term Average	Maximum Daily	

III. MAXIMUM PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

X☐ Yes (Complete Item III-B) List effluent guideline category:

☐ No (Go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measures of operation)?

X☐ Yes (Complete Item III-C) ☐ No (Go to Section IV)

C. If you answered "Yes" to Item III-B, list the quantity which represents the actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

MAXIMUM QUANTITY			Affected Outfalls (list outfall numbers)
Quantity Per Day	**Units of Measure**	**Operation, Product, Material, Etc. (specify)**	
2.0	$x10^6$ ft^2 Al/ Day	Coil Coating Operations	002
1.1	$x10^6$ lbs Al/Day	Direct Chill Casting (North)	008
2.2	$x10^6$ lbs Al/Day	Direct Chill Casting (South)	012
20	$x10^6$ lbs Al/Day	Rolling Process (Emulsions)	012

IV. IMPROVEMENTS

A. Are you now required by any federal, state or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders and grant or loan conditions.

☐ Yes (Complete the following table) X☐ No (Go to Item IV-B)

IDENTIFICATION OF CONDITION AGREEMENT, ETC.	AFFECTED OUTFALLS		BRIEF DESCRIPTION OF PROJECT	FINAL COMPLIANCE DATE	
	No.	Source of Discharge		Required	Projected

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered 5-18.

D. Use the space below to list any of the pollutants (refer to SARA Title III, Section 313) listed in Table C-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

POLLUTANT	SOURCE	POLLUTANT	SOURCE

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

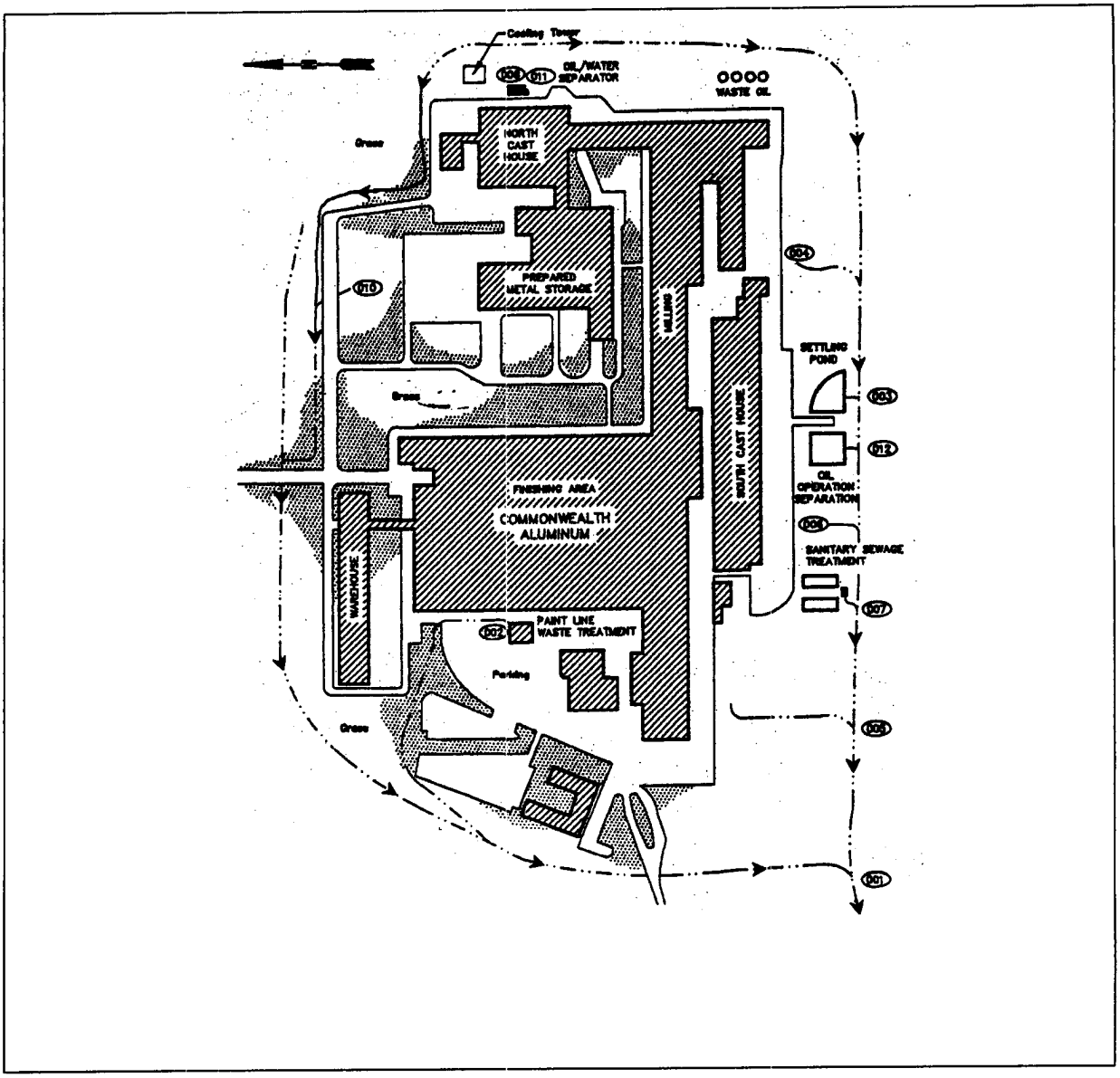
A. Is any pollutant listed in Item V-C a substance or a component of a substance which you use or produce, or expect to use or produce over the next 5 years as an immediate or final product or byproduct?

☐ Yes (List all such pollutants below) X☐ No (Go to Item VI-B)

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharge of pollutants may during the next 5 years exceed two times the maximum values reported in Item V?

☐ Yes (Complete Item VI-C) X☐ No (Go to Item VII)

C. If you answered "Yes" to Item VI-B, explain below and describe in detail to the best of your ability at this time the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years. Continue on additional sheets if you need more space.


Cooling Tower
OIL/WATER SEPARATOR
WASTE OIL
NORTH CAST HOUSE
PREPARED METAL STORAGE
SOUTH CAST HOUSE
SETTLING POND
OIL OPERATION SEPARATION
SANITARY SEWAGE TREATMENT
FINISHING AREA
COMMONWEALTH ALUMINUM
WAREHOUSE
PAINT LINE WASTE TREATMENT
Parking
Grass
001
002
003
004
005
006
007
010
011
012

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge of or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

X☐ Yes (Identify the test(s) and describe their purposes below) ☐ No (Go to Section VIII)

Quarterly bio-monitoring is conducted at this facility using the organism Pimephales Promelas. Acute toxicity data for the past four years (2001-2004) do not indicate any acute toxicity. The first year of the current permit CALI tested quarterly for both Pimephales Promelas and Ceriodaphnia species. The analytical results for this period was negative for toxicity.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

X☐ Yes (list the name, address, and telephone number of, and pollutants analyzed by each such laboratory or firm below) ☐ No (Go to Section IX)

NAME	ADDRESS	TELEPHONE (Area code & number)	POLLUTANTS ANALYZED (list)
Test America	2960 Foster Creighton Drive Nashville , TN 37204	800-765-0980	TSS, CBOD, Total Cyanide, Oil and Grease, Total Metals, BNA, Volatile Organics, COD, Miscellaneous chemicals

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print):	TELEPHONE NUMBER (area code and number):
Mike Baker Facility Manager	270-295-3451
SIGNATURE Kay Bailey for Mike Baker	DATE 9/17/04

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. (See instructions)

V. INTAKE AND EFFLUENT CHARACTERISTICS (Continued from page 3 of Form C) — **OUTFALL NO. 001**

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No of Analyses
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
a. Biochemical Oxygen Demand (BOD)	ND						1	Mg/l				
b. Chemical Oxygen Demand (COD)	ND						1	Mg/l				
c. Total Organic Carbon (TOC)	1.36						1	Mg/l				
d. Total Suspended Solids (TSS)	25.2	1209	8.2	415			25	Mg/l	Lbs.			
e. Ammonia (as N)	0.12	Mg/l					1	Mg/l				
f. Flow (in units of MGD)	VALUE 17.3		VALUE 11.3		VALUE 9.4		25	MGD		VALUE		
g. Temperature (winter)	VALUE 19.8		VALUE 19.5		VALUE 18.8		25	°c		VALUE		
h. Temperature (summer)	VALUE 28.0		VALUE 26.5		VALUE 24.3		25	°c		VALUE		
i. pH	MINIMUM 7.3	MAXIMUM 8.5	MINIMUM 7.5	MAXIMUM 7.9			25	STANDARD UNITS				

Part B - In the MARK "X" column, place an "X" in the Believed Present column for each pollutant you know or have reason to believe is present. Place an "X" in the Believed Absent column for each pollutant you believe to be absent. If you mark the Believed Present column for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		6. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
a. Bromide (24959-67-9)		X							1					
b. Bromine Total Residual		X							1					
c. Chloride	X		27.6						1	MG/L				
d. Chlorine, Total Residual		X							25	Mg/l				
e. Color		X							1					
f. Fecal Coliform		X							1					
g. Fluoride (16984-48-8)		X							1					
h. Hardness (as $CaCO_3$)	X		260		220		215		25	MG/L				
i. Nitrate – Nitrite (as N)	X		2.4						1	MG/L				
j. Nitrogen, Total Organic (as N)	X		0.169						1	MG/L				
k. Oil and Grease	X		22.9	1510	12.0	326			25	MG/L	Lbs.			
l. Phosphorous (as P), Total 7723-14-0	X		0.254						1	MG/L				
m. Radioactivity														
(1) Alpha, Total		X							1					
(2) Beta, Total		X							1					
(3) Radium Total		X							1					
(4) Radium, 226, Total		X							1					

Part B - Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
n. Sulfate (as SO_4) (14808-79-8)	X		40.4						1	MG/L				
o. Sulfide (as S)		X							1					
p. Sulfite (as SO_4) (14286-46-3)		X							1					
q. Surfactants	X		0.0593						1	MG/L				
r. Aluminum, Total (7429-90)	X		0.54	31.2	0.16	15.8			25	MG/L	Lbs.			
s. Barium, Total (7440-39-3)	X		0.029	MG/L					1	MG/L				
t. Boron, Total (7440-42-8)		X							1					
u. Cobalt, Total (7440-48-4)		X							1					
v. Iron, Total (7439-89-6)	X		0.074						1	MG/L				
w. Magnesium Total (7439-96-4)	X		16.0						1	MG/L				
x. Molybdenum Total (7439-98-7)		X							1					
y. Manganese, Total (7439-96-6)	X		0.061						1	MG/L				
z. Tin, Total (7440-31-5)		X							1					
aa. Titanium, Total (7440-32-6)		X							1					

Part C – If you are a primary industry and this outfall contains process wastewater, refer to Table C-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in the **Testing Required** column for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark this column (secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions), mark "X" in the **Believed Present** column for each pollutant you know or have reason to believe is present. Mark "X: in the **Believed Absent** column for each pollutant you believe to be absent. If you mark either the **Testing Required** or **Believed Present** columns for any pollutant, you must provide the result of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
METALS, CYANIDE AND TOTAL PHENOLS															
1M. Antimony Total (7440-36-0)	X		X							1					
2M. Arsenic, Total (7440-38-2)	X		X							1					
3M. Beryllium Total (7440-41-7)	X		X							1					
4M. Cadmium Total (7440-43-9)	X		X							1					
5M. Chromium Total (7440-43-9)	X	X		0.009	0.49	0.002	0.10			25	MG/L	lbs			
6M. Copper Total (7550-50-8)	X		X							1					
7M. Lead Total (7439-92-1)	X		X							1					
8M. Mercury Total (7439-97-6)	X		X							1					
9M. Nickel, Total (7440-02-0)	X		X							1					
10M. Selenium, Total (7782-49-2)	X		X							1					
11M. Silver, Total (7440-28-0)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
METALS, CYANIDE AND TOTAL PHENOLS (Continued)															
12M. Thallium, Total (7440-28-0)	X		X							1					
13M. Zinc, Total (7440-66-6)	X	X		0.056	4.83	2.42				25	Mg/l	Lbs.			
14M. Cyanide, Total (57-12-5)	X		X							25	MG/L	Lbs.			
15M. Phenols, Total	X		X							1					
DIOXIN															
2,3,7,8 Tetra-chlorodibenzo, P, Dioxin (1784-01-6)			X	DESCRIBE RESULTS:											
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X		X							1					
2V. Acrylonitrile (107-13-1)	X		X							1					
3V. Benzene (71-43-2)	X		X							1					
5V. Bromoform (75-25-2)	X		X							1					
6V. Carbon Tetrachloride (56-23-5)	X		X							1					
7V. Chloro-benzene (108-90-7)	X		X							1					
8V. Chlorodibro-momethane (124-48-1)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
9V. Chloroethane (74-00-3)	X		X							1					
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X		X							1					
11V. Chloroform (67-66-3)	X		X							1					
12V. Dichloro-bromomethane (75-71-8)	X		X							1					
14V. 1,1-Dichloroethane (75-34-3)	X		X							1					
15V. 1,2-Dichloroethane (107-06-2)	X		X							1					
16V. 1,1-Dichlorethylene (75-35-4)	X		X							1					
17V. 1,2-Di-chloropropane (78-87-5)	X		X							1					
18V. 1,3-Dichloropro-pylene (452-75-6)	X		X							1					
19V. Ethyl-benzene (100-41-4)	X		X							1					
20V. Methyl Bromide (74-83-9)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
21V. Methyl Chloride (74-87-3)	X		X							1					
22V. Methylene Chloride (75-00-2)	X		X							1					
23V. 1,1,2,2-Tetrachloro-ethane (79-34-5)	X		X							1					
24V. Tetrachloro-ethylene (127-18-4)	X		X							1					
25V. Toluene (108-88-3)	X		X							1					
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X		X							1					
27V. 1,1,1-Tri-chloroethane (71-55-6)	X		X							1					
28V. 1,1,2-Tri-chloroethane (79-00-5)	X		X							1					
29V. Trichloro-ethylene (79-01-6)	X		X							1					
30V. Vinyl Chloride (75-01-4)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chloro-phenol (95-57-8)	X		X							1					
2A. 2,4-Dichlor-Orophenol (120-83-2)	X		X							1					
3A. 2,4-Dimeth-ylphenol (105-67-9)	X		X							1					
4A. 4,6-Dinitro-o-cresol (534-52-1)	X		X							1					
5A. 2,4-Dinitro-phenol (51-28-5)	X		X							1					
6A. 2-Nitro-phenol (88-75-5)	X		X							1					
7A. 4-Nitro-phenol (100-02-7)	X		X							1					
8A. P-chloro-m-cresol (59-50-7)	X		X							1					
9A. Pentachloro-phenol (87-88-5)	X		X							1					
10A. Phenol (108-05-2)	X		X							1					
11A. 2,4,6-Tri-chlorophenol (88-06-2)	X		X							1					
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acena-phthene (83-32-9)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
2B. Acenaphtylene (208-96-8)	X		X							1					
3B. Anthracene (120-12-7)	X		X							1					
4B. Benzidine (92-87-5)	X		X							1					
5B. Benzo(a)-anthracene (56-55-3)	X		X							1					
6B. Benzo(a)-pyrene (50-32-8)	X		X							1					
7B. 3,4-Benzo-fluoranthene (205-99-2)	X		X							1					
8B. Benzo(ghl) perylene (191-24-2)	X		X							1					
9B. Benzo(k)-fluoranthene (207-08-9)	X		X							1					
10B. Bis(2-chlor-oethoxy)-methane (111-91-1)	X		X							1					
11B. Bis (2-chlor-oisopropyl)-Ether	X		X							1					
12B. Bis (2-ethyl-hexyl)-phthalate (117-81-7)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
13B. 4-Bromo-phenyl Phenyl ether (101-55-3)	X		X							1					
14B. Butyl-benzyl phthalate (85-68-7)	X		X							1					
15B. 2-Chloro-naphthalene (7005-72-3)	X		X							1					
16B. 4-Chloro-phenyl phenyl ether (7005-72-3)	X		X							1					
17B. Chrysene (218-01-9)	X		X							1					
18B. Dibenzo-(a,h) Anthracene (53-70-3)	X		X							1					
19B. 1,2-Dichloro-benzene (95-50-1)	X		X							1					
20B. 1,3-Dichloro-Benzene (541-73-1)	X		X							1					
21B. 1,4-Dichloro-benzene (106-46-7)	X		X							1					
22B. 3,3-Dichloro-benzidene (91-94-1)	X		X							1					
23B. Diethyl Phthalate (84-66-2)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
24B. Dimethyl Phthalate (131-11-3)	X		X							1					
25B. Di-N-butyl Phthalate (84-74-2)	X		X							1					
26B. 2,4-Dinitro-toluene (121-14-2)	X		X							1					
27B. 2,6-Dinitro-toluene (606-20-2)	X		X							1					
28B. Di-n-octyl Phthalate (117-84-0)	X		X							1					
29B. 1,2-diphenyl-hydrazine (as azonbenzene) (122-66-7)	X		X							1					
30B. Fluoranthene (208-44-0)	X		X							1					
31B. Fluorene (86-73-7)	X		X							1					
32B. Hexachloro-benzene (118-71-1)	X		X							1					
33B. Hexachloro-butadiene (87-68-3)	X		X							1					
34B. Hexachloro-cyclopenta-diene (77-47-4)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
35B. Hexachloroethane (67-72-1)	X		X							1					
36B. Indneo-(1,2,3-oc)-Pyrene (193-39-5)	X		X							1					
37B. Isophorone (78-59-1)	X		X							1					
38B. Napthalene (91-20-3)	X		X							1					
39B. Nitrobenzene (98-95-3)	X		X							1					
40B. N-Nitrosodimethylamine (62-75-9)	X		X							1					
41B. N-nitrosodi-n-propylamine (621-64-7)	X		X							1					
42B. N-nitrosodiphenylamine (86-30-6)	X		X							1					
43B. Phenanthrene (85-01-8)	X		X							1					
44B. Pyrene (129-00-0)	X		X							1					
45B. 1,2,4 Trichlorobenzene (120-82-1)	X		X							1					

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (58-89-9)															
4P. gamma-BHC (58-89-9)															
5P. δ-BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – PESTICIDES															
15P. Endrin Aldehyde (7421-93-4)															
16P Heptachlor (76-44-8)															
17P. Heptaclor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)															
19P. PCB-1254 (11097-69-1)															
20P. PCB-1221 (11104-28-2)															
21P. PCB-1232 (11141-16-5)															
22P. PCB-1248 (12672-29-6)															
23P. PCB-1260 (11096-82-5)															
24P. PCB-1016 (12674-11-2)															
25P. Toxaphene (8001-35-2)															

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7/28/04

CASE NARRATIVE

COMMONWEALTH ALUMINUM 11058
DALE ROBERTS
1372 STATE RD 1957
LEWISPORT, KY 42351-0480

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: KPDES SAMPLING
Project Number: .
Laboratory Project Number: 381184.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
001 PLANT OUTFALL	04-A103271	
001 PLANT OUTFALL	04-A103272	7/ 1/04

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
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Report Approved By: _____ Report Date: 7/28/04

Johnny A. Mitchell, Operations Manager
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Technical Services
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Technical Services
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 90038

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ANALYTICAL REPORT

COMMONWEALTH ALUMINUM 11058
DALE ROBERTS
1372 STATE RD 1957
LEWISPORT, KY 42351-0480

Project:
Project Name: KPDES SAMPLING
Sampler: RICHARD RALPH

Lab Number: 04-A103271
Sample ID: 001 PLANT OUTFALL
Sample Type: Water
Site ID:

Date Collected:
Time Collected:
Date Received: 7/ 3/04
Time Received: 8:05
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
BOD Set Up					7/ 3/04	22:20			
BOD 5 Day	ND	mg/l	2.00	1	7/ 8/04	21:05	J. Hill	405.1	6751
EXTRACTABLE ORGANICS									
Acenaphthene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Acenaphthylene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Anthracene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Benzo(a)anthracene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Benzo(a)pyrene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Benzo(b)fluoranthene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Benzo(g,h,i)perylene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Benzo(k)fluoranthene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
4-Bromophenyl-phenylether	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Butylbenzylphthalate	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
4-Chloro-3-methylphenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Bis(2-chloroethoxy)methane	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Bis(2-chloroisopropyl)ether	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2-Chloronaphthalene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2-Chlorophenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
4-Chlorophenyl-phenylether	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Chrysene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Dibenz(a,h)anthracene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
1,2-Dichlorobenzene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
1,3-Dichlorobenzene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A103271
Sample ID: 001 PLANT OUTFALL
Project:

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,4-Dichlorobenzene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
3,3'-Dichlorobenzidine	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2,4-Dichlorophenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Diethylphthalate	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2,4-Dimethylphenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Dimethylphthalate	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Di-n-Butylphthalate	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
4,6-Dinitro-2-methylphenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2,4-Dinitrophenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2,4-dinitrotoluene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2,6-Dinitrotoluene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Di-n-octylphthalate	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
1,2-Diphenylhydrazine	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Fluoranthene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Fluorene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Hexachlorobenzene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Hexachlorobutadiene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Hexachlorocyclopentadiene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Hexachloroethane	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Isophorone	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Naphthalene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Nitrobenzene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2-Nitrophenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
4-Nitrophenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
N-Nitroso-Di-n-Propylamine	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
N-Nitrosodiphenylamine	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
N-nitrosodimethylamine	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Pentachlorophenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Phenanthrene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Phenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Pyrene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
Bis(2-ethylhexyl)phthalate	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
1,2,4-Trichlorobenzene	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002
2,4,6-Trichlorophenol	ND	mg/l	0.0100	1	7/ 9/04	8:47	M.Schott	625	1002

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A103271
Sample ID: 001 PLANT OUTFALL
Project:

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Acrolein	ND	mg/l	0.0500	1	7/ 6/04	23:28	T McCollum	624	285
Acrylonitrile	ND	mg/l	0.0050	1	7/ 6/04	23:28	T McCollum	624	285
Benzene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Bromoform	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Bromomethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Carbon tetrachloride	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Chlorobenzene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Chloroethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
2-Chloroethylvinylether	ND	mg/l	0.0050	1	7/ 6/04	23:28	T McCollum	624	285
Chloroform	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Chloromethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Dibromochloromethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
1,1-Dichloroethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
1,2-Dichloroethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
1,1-Dichloroethene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
trans-1,2-Dichloroethene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
1,2-Dichloropropane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
cis-1,3-Dichloropropene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
trans-1,3-Dichloropropene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Ethylbenzene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Methylene chloride	ND	mg/l	0.0025	1	7/ 6/04	23:28	T McCollum	624	285
1,1,2,2-Tetrachloroethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Tetrachloroethene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Toluene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
1,1,1-Trichloroethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
1,1,2-Trichloroethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Trichloroethene	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Vinyl chloride	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
Bromodichloromethane	ND	mg/l	0.0010	1	7/ 6/04	23:28	T McCollum	624	285
METALS									
Mercury	ND	mg/l	0.0002	1	7/ 7/04	15:17	K. Keller	245.1	8631
Antimony	ND	mg/l	0.0100	1	7/ 6/04	15:14	G.McCord	200.7	7803

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A103271
Sample ID: 001 PLANT OUTFALL
Project:

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Arsenic	ND	mg/l	0.0100	1	7/ 6/04	15:14	G.McCord	200.7	7803
Barium	0.0290	mg/l	0.0100	1	7/ 6/04	15:14	G.McCord	200.7	7803
Beryllium	ND	mg/l	0.0040	1	7/ 6/04	15:14	G.McCord	200.7	7803
Cadmium	ND	mg/l	0.0010	1	7/ 6/04	15:14	G.McCord	200.7	7803
Cobalt	ND	mg/l	0.0200	1	7/ 6/04	15:14	G.McCord	200.7	7803
Copper	ND	mg/l	0.0100	1	7/ 6/04	15:14	G.McCord	200.7	7803
Iron, total	0.0740	mg/l	0.0500	1	7/ 6/04	15:14	G.McCord	200.7	7803
Lead	ND	mg/l	0.0050	1	7/ 6/04	15:14	G.McCord	200.7	7803
Magnesium	16.0	mg/l	1.00	1	7/ 6/04	15:14	G.McCord	200.7	7803
Manganese	0.0610	mg/l	0.0150	1	7/ 6/04	15:14	G.McCord	200.7	7803
Molybdenum	ND	mg/l	0.0500	1	7/ 6/04	15:14	G.McCord	200.7	7803
Nickel	ND	mg/l	0.0100	1	7/ 6/04	15:14	G.McCord	200.7	7803
Selenium	ND	mg/l	0.0100	1	7/ 6/04	15:14	G.McCord	200.7	7803
Silver	ND	mg/l	0.0050	1	7/ 6/04	15:14	G.McCord	200.7	7803
Thallium	ND	mg/l	0.0100	1	7/ 6/04	15:14	G.McCord	200.7	7803
Tin	ND	mg/l	0.0500	1	7/ 6/04	15:14	G.McCord	200.7	7803
Titanium	ND	mg/l	0.0500	1	7/ 6/04	15:14	G.McCord	200.7	7803
Boron	ND	mg/l	0.0500	1	7/ 6/04	15:14	G.McCord	200.7	7803
MISCELLANEOUS CHEMISTRY									
Chemical Oxygen Demand	ND	mg/l	3.00	1	7/ 7/04	14:02	S. Overton	410.4 Mod	8745
Nitrate-N as N	2.40	mg/l	0.100	1	7/ 3/04	23:40	W. Choate	353.2	7144
Nitrite-N as N	ND	mg/l	0.100	1	7/ 4/04	0:03	W. Choate	353.2	7145
Fluoride	ND	mg/l	0.200	1	7/ 8/04	12:10	T. Beverly	340.2MOD	9801
Sulfate	40.4	mg/l	2.00	2	7/ 8/04	10:15	M.Shockley	375.4	9940
Apparent Color	ND	Color Unit			7/ 3/04	14:00	G. Baun	110.2	6645
Phosphorus	0.254	mg/l	0.100	1	7/ 8/04	11:21	K.Saiyasak	365.4	9029
Detergents (MBAS)	0.0593	mg/l	0.0500	1	7/ 3/04	20:58	S. Gibson	425.1	6887
Ammonia Nitrogen as N	0.120	mg/l	0.100	1	7/ 8/04	12:09	K.Saiyasak	350.1M	9343
Total Organic Carbon	1.36	mg/l	1.00	1	7/ 5/04	0:51	M.Checolle	415.1	6808
Phenolics	ND	mg/l	0.0500	1	7/ 6/04	17:34	K.Saiyasak	420.2M	7591
Gross Alpha	Comment	pCi/l						9310	
Gross Beta	Comment	pCi/l						9310	
Radium, Total	Comment	pCi/l						9315	
Sulfite	ND	mg/l	5.00	1	7/ 3/04	16:00	S. Gibson	377.1	6888

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A103271
Sample ID: 001 PLANT OUTFALL
Project:

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Sulfide	ND	mg/l	1.00	1	7/ 7/04	14:55	I. Barwari	376.1	9167
Organic Nitrogen	0.169	mg/l	0.100	1	7/ 8/04	9:33	K.Saiyasak	351.4	8417
Chloride	27.6	mg/l	2.00	2	7/ 8/04	19:00	W. Choate	325.2	860
Bromide	ND	mg/l	1.00	1	7/ 3/04	17:57	S. Overton	300	6775
Radium-226	Comment	PCi/L						HASL 300	

MBAS calculated as LAS, molecular weight 320.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	1000 ml	1.0 ml	7/ 7/04		K. Turner	3510/625

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	112.	71. - 128.
VOA Surr Toluene-d8	105.	77. - 119.
VOA Surr, 4-BFB	114.	79. - 123.
VOA Surr, DBFM	112.	78. - 124.
BNA Surr-Nitrobenzene-d5	58.	25. - 121.
BNA Surr-2-Fluorobiphenyl	62.	33. - 111.
BNA Surr-Terphenyl-d14	78.	11. - 139.
BNA Surr-Phenol-d5	21.	4. - 52.
BNA Surr-2-Fluorophenol	27.	5. - 78.
BNA Surr-2,4,6-Tribromophenol	64.	31. - 144.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A103271
Sample ID: 001 PLANT OUTFALL
Project:

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = COD method modified for HACH Method 8000.
M = Distillation not performed, results may not be suitable for regulatory reporting.
M = Method 350.1 modified for manual distillation with Lachat procedure.
M = Phenolics method modified for manual distillation per 40CFR 136 Table IB and Lachat procedure.
See attached report for radiochemistry results.

End of Sample Report.

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ANALYTICAL REPORT

COMMONWEALTH ALUMINUM 11058
DALE ROBERTS
1372 STATE RD 1957
LEWISPORT, KY 42351-0480

Project:
Project Name: KPDES SAMPLING
Sampler: RICHARD RALPH

Lab Number: 04-A103272
Sample ID: 001 PLANT OUTFALL
Sample Type: Water
Site ID:

Date Collected: 7/ 1/04
Time Collected: 10:00
Date Received: 7/ 3/04
Time Received: 8:05
Page: 1

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
See attached report for Dioxins results.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: KPDES SAMPLING
Page: 1
Laboratory Receipt Date: 7/ 3/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	0.0706	0.133	0.0500	125	73 - 135	285	04-A103950
Toluene	mg/l	< 0.0010	0.0514	0.0500	103	69 - 139	285	04-A103950
EXTRACTABLE PARAMETERS								
1,4-Dichlorobenzene	mg/l	< 0.00060	0.0270	0.0500	54	23 - 94	1002	blank
N-Nitroso-Di-n-Propylamine	mg/l	< 0.00050	0.0340	0.0500	68	34 - 124	1002	blank
1,2,4-Trichlorobenzene	mg/l	< 0.00100	0.0250	0.0500	50	23 - 101	1002	blank
4-Chloro-3-methylphenol	mg/l	< 0.00110	0.0290	0.0500	58	20 - 125	1002	blank
Acenaphthene	mg/l	< 0.00110	0.0340	0.0500	68	33 - 116	1002	blank
2,4-dinitrotoluene	mg/l	< 0.00120	0.0410	0.0500	82	50 - 133	1002	blank
Pyrene	mg/l	< 0.00060	0.0380	0.0500	76	42 - 128	1002	blank
2-Chlorophenol	mg/l	< 0.00050	0.0300	0.0500	60	10 - 131	1002	blank
4-Nitrophenol	mg/l	< 0.00070	0.0170	0.0500	34	10 - 87	1002	blank
Pentachlorophenol	mg/l	< 0.00640	0.0460	0.0500	92	10 - 165	1002	blank
BNA Surr-Nitrobenzene-d5	% Rec				62	25 - 121	1002	
BNA Surr-2-Fluorobiphenyl	% Rec				73	33 - 111	1002	
BNA Surr-Terphenyl-d14	% Rec				78	11 - 139	1002	
BNA Surr-Phenol-d5	% Rec				28	4 - 52	1002	
BNA Surr-2-Fluorophenol	% Rec				40	5 - 78	1002	
BNA Surr-2,4,6-Tribromopheno	% Rec				79	31 - 144	1002	
METALS								
Mercury	mg/l	< 0.00020	0.00092	0.00100	92	70. - 130.	8631	04-A102328
Antimony	mg/l	< 0.0100	0.0980	0.100	98	70. - 130.	7803	'103271
Arsenic	mg/l	< 0.0100	0.0540	0.0500	108	70. - 130.	7803	'103271
Barium	mg/l	0.0290	2.08	2.00	103	70. - 130.	7803	'103271
Beryllium	mg/l	< 0.0040	0.0520	0.0500	104	70. - 130.	7803	'103271
Cadmium	mg/l	< 0.0010	0.0500	0.0500	100	70. - 130.	7803	'103271

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number:
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Laboratory Receipt Date: 7/ 3/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
Cobalt	mg/l	< 0.0200	0.472	0.500	94	70. - 130.	7803	'103271
Copper	mg/l	< 0.0100	0.235	0.250	94	70. - 130.	7803	'103271
Iron, total	mg/l	0.0680	1.01	1.00	94	70. - 130.	7803	'103271
Lead	mg/l	< 0.0050	0.0480	0.0500	96	70. - 130.	7803	'103271
Manganese	mg/l	0.0610	0.523	0.500	92	70. - 130.	7803	'103271
Molybdenum	mg/l	< 0.0500	0.488	0.500	98	70. - 130.	7803	'103271
Nickel	mg/l	< 0.0100	0.502	0.500	100	70. - 130.	7803	'103271
Selenium	mg/l	< 0.0100	0.0540	0.0500	108	70. - 130.	7803	'103271
Silver	mg/l	< 0.0050	0.0480	0.0500	96	70. - 130.	7803	'103271
Thallium	mg/l	< 0.0100	0.0480	0.0500	96	70. - 130.	7803	'103271
Tin	mg/l	< 0.0500	0.928	1.00	93	70. - 130.	7803	'103271
Titanium	mg/l	< 0.0500	0.943	1.00	94	70. - 130.	7803	'103271
Boron	mg/l	< 0.0500	1.03	1.00	103	70. - 130.	7803	'103271
MISC PARAMETERS								
Chemical Oxygen Demand	mg/l	< 3.00	50.0	50.0	100	90. - 110.	8745	04-A102069
Chemical Oxygen Demand	mg/l	< 3.00	52.0	50.0	104	90. - 110.	8745	04-A103056
Nitrate-N as N	mg/l	< 0.100	5.75	6.00	96	81. - 116.	7144	04-A103316
Nitrate-N as N	mg/l	< 0.100	5.82	6.00	97	81. - 116.	7144	04-A103316
Nitrite-N as N	mg/l	< 0.100	2.92	3.00	97	76. - 119.	7145	04-A103271
Fluoride	mg/l	< 0.200	2.06	2.00	103	80. - 120.	9801	04-A102917
Sulfate	mg/l	21.9	63.0	40.0	103	67. - 118.	9940	04-A102091
Phosphorus	mg/l	2.03	4.12	2.00	104	80. - 120.	9029	04-A100629
Detergents (MBAS)	mg/l	0.0593	0.821	0.750	102	71. - 117.	6887	04-A103271
Ammonia Nitrogen as N	mg/l	0.120	4.70	5.00	92	80. - 121.	9343	04-A103271
Phenolics	mg/l	< 0.050	0.336	0.750	45#	80. - 120.	7591	04-A103271
Sulfite	mg/l	< 5.0	41.6	40.0	104	80. - 112.	6888	04-A103271
Sulfide	mg/l	< 1.000	19.30	20.00	96	77. - 111.	9167	04-A103271
Chloride	mg/l	27.6	45.0	20.0	87	71. - 123.	860	04-A103271

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
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Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.133	0.135	1.49	21.	285
Chlorobenzene	mg/l	0.0508	0.0526	3.48	19.	285
1,1-Dichloroethene	mg/l	0.0484	0.0519	6.98	21.	285
Toluene	mg/l	0.0514	0.0519	0.97	24.	285
Trichloroethene	mg/l	0.0530	0.0556	4.79	21.	285
Tetrachloroethene	mg/l	0.0509	0.0528	3.66	21.	285
VOA Surr 1,2-DCA-d4	% Rec		109.			285
VOA Surr Toluene-d8	% Rec		103.			285
VOA Surr, 4-BFB	% Rec		111.			285
VOA Surr, DBFM	% Rec		108.			285
EXTRACTABLE PARAMETERS						
1,4-Dichlorobenzene	mg/l	0.0270	0.0230	16.00	40.	1002
N-Nitroso-Di-n-Propylamine	mg/l	0.0340	0.0300	12.50	40.	1002
1,2,4-Trichlorobenzene	mg/l	0.0250	0.0220	12.77	44.	1002
4-Chloro-3-methylphenol	mg/l	0.0290	0.0270	7.14	39.	1002
Acenaphthene	mg/l	0.0340	0.0300	12.50	37.	1002
2,4-dinitrotoluene	mg/l	0.0410	0.0430	4.76	42.	1002
Pyrene	mg/l	0.0380	0.0430	12.35	36.	1002
2-Chlorophenol	mg/l	0.0300	0.0270	10.53	48.	1002
4-Nitrophenol	mg/l	0.0170	0.0180	5.71	53.	1002
Pentachlorophenol	mg/l	0.0460	0.0520	12.24	52.	1002
BNA Surr-Nitrobenzene-d5	% Rec		56.			1002
BNA Surr-2-Fluorobiphenyl	% Rec		66.			1002
BNA Surr-Terphenyl-d14	% Rec		89.			1002
BNA Surr-Phenol-d5	% Rec		26.			1002
BNA Surr-2-Fluorophenol	% Rec		34.			1002
BNA Surr-2,4,6-Tribromophenol	% Rec		85.			1002

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
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METALS						
Mercury	mg/l	0.00092	0.00093	1.08	20	8631
Antimony	mg/l	0.0980	0.0970	1.03	20	7803
Arsenic	mg/l	0.0540	0.0520	3.77	20	7803
Barium	mg/l	2.08	2.04	1.94	20	7803
Beryllium	mg/l	0.0520	0.0520	0.00	20	7803
Cadmium	mg/l	0.0500	0.0500	0.00	20	7803
Cobalt	mg/l	0.472	0.468	0.85	20	7803
Copper	mg/l	0.235	0.231	1.72	20	7803
Iron, total	mg/l	1.01	1.00	1.00	20	7803
Lead	mg/l	0.0480	0.0480	0.00	20	7803
Magnesium	mg/l	16.1	15.8	1.88	20	7803
Manganese	mg/l	0.523	0.518	0.96	20	7803
Molybdenum	mg/l	0.488	0.486	0.41	20	7803
Nickel	mg/l	0.502	0.500	0.40	20	7803
Selenium	mg/l	0.0540	0.0600	10.53	20	7803
Silver	mg/l	0.0480	0.0470	2.11	20	7803
Thallium	mg/l	0.0480	0.0490	2.06	20	7803
Tin	mg/l	0.928	0.913	1.63	20	7803
Titanium	mg/l	0.943	0.929	1.50	20	7803
Boron	mg/l	1.03	1.03	0.00	20	7803
Nitrate-N as N	mg/l	5.75	5.82	1.21	20	7144
Nitrite-N as N	mg/l	2.92	2.95	1.02	20	7145
Fluoride	mg/l	2.06	2.15	4.28	20	9801
Sulfate	mg/l	63.0	62.0	1.60	20	9940
Phosphorus	mg/l	4.12	3.95	4.21	20	9029
Detergents (MBAS)	mg/l	0.821	0.814	0.86	20	6887
Phenolics	mg/l	0.336	0.383	13.07	20	7591
Sulfite	mg/l	41.6	42.0	0.96	20	6888
Sulfide	mg/l	19.30	19.40	0.52	20	9167
Chloride	mg/l	45.0	44.6	0.89	20	860
Bromide	mg/l	10.1	10.1	0.00	20	6775

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number:
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Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Acrolein	mg/l	0.250	0.222	89	44 - 144	285
Acrylonitrile	mg/l	0.250	0.233	93	58 - 144	285
Benzene	mg/l	0.0500	0.0540	108	81 - 121	285
Bromoform	mg/l	0.0500	0.0472	94	54 - 127	285
Bromomethane	mg/l	0.0500	0.0623	125	54 - 160	285
Carbon tetrachloride	mg/l	0.0500	0.0618	124	70 - 131	285
Chlorobenzene	mg/l	0.0500	0.0510	102	87 - 120	285
Chloroethane	mg/l	0.0500	0.0483	97	65 - 145	285
2-Chloroethylvinylether	mg/l	0.250	0.228	91	35 - 149	285
Chloroform	mg/l	0.0500	0.0541	108	77 - 128	285
Chloromethane	mg/l	0.0500	0.0535	107	46 - 147	285
Dibromochloromethane	mg/l	0.0500	0.0499	100	63 - 132	285
1,1-Dichloroethane	mg/l	0.0500	0.0525	105	76 - 129	285
1,2-Dichloroethane	mg/l	0.0500	0.0550	110	70 - 136	285
1,1-Dichloroethene	mg/l	0.0500	0.0525	105	77 - 133	285
trans-1,2-Dichloroethene	mg/l	0.0500	0.0550	110	73 - 135	285
1,2-Dichloropropane	mg/l	0.0500	0.0551	110	74 - 130	285
cis-1,3-Dichloropropene	mg/l	0.0500	0.0563	113	59 - 136	285
trans-1,3-Dichloropropene	mg/l	0.0500	0.0473	95	59 - 135	285
Ethylbenzene	mg/l	0.0500	0.0525	105	78 - 126	285
Methylene chloride	mg/l	0.0500	0.0482	96	68 - 132	285
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0491	98	62 - 142	285
Tetrachloroethene	mg/l	0.0500	0.0514	103	77 - 129	285
Toluene	mg/l	0.0500	0.0514	103	77 - 125	285
1,1,1-Trichloroethane	mg/l	0.0500	0.0576	115	66 - 139	285
1,1,2-Trichloroethane	mg/l	0.0500	0.0523	105	77 - 132	285
Trichloroethene	mg/l	0.0500	0.0545	109	80 - 132	285

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
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Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Vinyl chloride	mg/l	0.0500	0.0475	95	69 - 139	285
Bromodichloromethane	mg/l	0.0500	0.0584	117	67 - 135	285
VOA Surr 1,2-DCA-d4	% Rec			113	71 - 128	285
VOA Surr Toluene-d8	% Rec			108	77 - 119	285
VOA Surr, 4-BFB	% Rec			109	79 - 123	285
VOA Surr, DBFM	% Rec			109	78 - 124	285
EXTRACTABLE PARAMETERS						
Acenaphthene	mg/l	0.0500	0.0270	54	43 - 108	1002
Acenaphthylene	mg/l	0.0500	0.0270	54	43 - 110	1002
Anthracene	mg/l	0.0500	0.0410	82	51 - 124	1002
Benzo(a)anthracene	mg/l	0.0500	0.0430	86	47 - 128	1002
Benzo(a)pyrene	mg/l	0.0500	0.0420	84	48 - 125	1002
Benzo(b)fluoranthene	mg/l	0.0500	0.0430	86	45 - 123	1002
Benzo(g,h,i)perylene	mg/l	0.0500	0.0430	86	32 - 139	1002
Benzo(k)fluoranthene	mg/l	0.0500	0.0430	86	48 - 131	1002
4-Bromophenyl-phenylether	mg/l	0.0500	0.0310	62	53 - 124	1002
Butylbenzylphthalate	mg/l	0.0500	0.0460	92	45 - 136	1002
4-Chloro-3-methylphenol	mg/l	0.0500	0.0210	42	41 - 121	1002
Bis(2-chloroethoxy)methane	mg/l	0.0500	0.0270	54	44 - 113	1002
Bis(2-chloroisopropyl)ether	mg/l	0.0500	0.0270	54	37 - 111	1002
2-Chloronaphthalene	mg/l	0.0500	0.0250	50	37 - 108	1002
4-Chlorophenyl-phenylether	mg/l	0.0500	0.0310	62	47 - 121	1002
Chrysene	mg/l	0.0500	0.0380	76	47 - 128	1002
Dibenz(a,h)anthracene	mg/l	0.0500	0.0400	80	40 - 135	1002
1,2-Dichlorobenzene	mg/l	0.0500	0.0230	46	40 - 95	1002
1,3-Dichlorobenzene	mg/l	0.0500	0.0220	44	38 - 91	1002
1,4-Dichlorobenzene	mg/l	0.0500	0.0210	42	38 - 92	1002
3,3'-Dichlorobenzidine	mg/l	0.0500	0.0300	60	39 - 159	1002
Diethylphthalate	mg/l	0.0500	0.0390	78	49 - 130	1002
Dimethylphthalate	mg/l	0.0500	0.0350	70	51 - 126	1002
2,4-dinitrotoluene	mg/l	0.0500	0.0440	88	55 - 130	1002

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
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Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
2,6-Dinitrotoluene	mg/l	0.0500	0.0400	80	51 - 132	1002
Di-n-octylphthalate	mg/l	0.0500	0.0500	100	41 - 140	1002
1,2-Diphenylhydrazine	mg/l	0.0500	0.0350	70	39 - 105	1002
Fluoranthene	mg/l	0.0500	0.0420	84	54 - 125	1002
Fluorene	mg/l	0.0500	0.0330	66	46 - 120	1002
Hexachlorobenzene	mg/l	0.0500	0.0410	82	54 - 128	1002
Hexachlorobutadiene	mg/l	0.0500	0.0230	46	37 - 98	1002
Hexachlorocyclopentadiene	mg/l	0.0500	0.0180	36	24 - 85	1002
Hexachloroethane	mg/l	0.0500	0.0220	44	36 - 91	1002
Indeno(1,2,3-cd)pyrene	mg/l	0.0500	0.0430	86	35 - 138	1002
Isophorone	mg/l	0.0500	0.0250	50	44 - 113	1002
Naphthalene	mg/l	0.0500	0.0210	42	31 - 101	1002
Nitrobenzene	mg/l	0.0500	0.0270	54	34 - 117	1002
N-Nitroso-Di-n-Propylamine	mg/l	0.0500	0.0270	54	40 - 120	1002
N-Nitrosodiphenylamine	mg/l	0.0500	0.0330	66	56 - 126	1002
N-nitrosodimethylamine	mg/l	0.0500	0.0160	32	21 - 85	1002
Phenanthrene	mg/l	0.0500	0.0390	78	52 - 120	1002
Pyrene	mg/l	0.0500	0.0420	84	46 - 128	1002
Bis(2-ethylhexyl)phthalate	mg/l	0.0500	0.0460	92	45 - 136	1002
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0200	40	40 - 99	1002
2,4,6-Trichlorophenol	mg/l	0.0500	0.0330	66	32 - 133	1002
2-Chlorophenol	mg/l	0.0500	0.0230	46	32 - 122	1002
2,4-Dichlorophenol	mg/l	0.0500	0.0240	48	41 - 130	1002
2,4-Dimethylphenol	mg/l	0.0500	0.00200	4 #	40 - 109	1002
4,6-Dinitro-2-methylphenol	mg/l	0.0500	0.0250	50	35 - 140	1002
2,4-Dinitrophenol	mg/l	0.0500	0.0270	54	47 - 128	1002
2-Nitrophenol	mg/l	0.0500	0.0250	50	32 - 125	1002
4-Nitrophenol	mg/l	0.0500	0.0200	40	12 - 82	1002
Pentachlorophenol	mg/l	0.0500	0.0510	102	36 - 136	1002
Phenol	mg/l	0.0500	0.0120	24	20 - 59	1002

Project QC continued . . .

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BNA Surr-Nitrobenzene-d5	% Rec			50	25 - 121	1002
BNA Surr-2-Fluorobiphenyl	% Rec			57	33 - 111	1002
BNA Surr-Terphenyl-d14	% Rec			88	11 - 139	1002
BNA Surr-Phenol-d5	% Rec			24	4 - 52	1002
BNA Surr-2-Fluorophenol	% Rec			30	5 - 78	1002
BNA Surr-2,4,6-Tribromophenol	% Rec			76	31 - 144	1002
METALS						
Mercury	mg/l	0.00100	0.00115	115	85 - 115	8631
Antimony	mg/l	0.100	0.100	100	85 - 115	7803
Arsenic	mg/l	0.0500	0.0570	114	85 - 115	7803
Barium	mg/l	2.00	2.15	108	85 - 115	7803
Beryllium	mg/l	0.0500	0.0550	110	85 - 115	7803
Cadmium	mg/l	0.0500	0.0520	104	85 - 115	7803
Cobalt	mg/l	0.500	0.506	101	85 - 115	7803
Copper	mg/l	0.250	0.241	96	85 - 115	7803
Iron, total	mg/l	1.00	1.01	101	85 - 115	7803
Lead	mg/l	0.0500	0.0480	96	85 - 115	7803
Magnesium	mg/l	5.00	5.20	104	85 - 115	7803
Manganese	mg/l	0.500	0.499	100	85 - 115	7803
Molybdenum	mg/l	0.500	0.506	101	85 - 115	7803
Nickel	mg/l	0.500	0.526	105	85 - 115	7803
Selenium	mg/l	0.0500	0.0520	104	85 - 115	7803
Silver	mg/l	0.0500	0.0510	102	85 - 115	7803
Thallium	mg/l	0.0500	0.0550	110	85 - 115	7803
Tin	mg/l	1.00	1.01	101	85 - 115	7803
Titanium	mg/l	1.00	0.998	100	85 - 115	7803
Boron	mg/l	1.00	1.09	109	85 - 115	7803
MISC PARAMETERS						
Chemical Oxygen Demand	mg/l	20.0	21.0	105	90 - 110	8745
Chemical Oxygen Demand	mg/l	20.0	21.0	105	90 - 110	8745
Nitrate-N as N	mg/l	6.00	5.78	96	88 - 113	7144
Nitrite-N as N	mg/l	3.00	2.94	98	83 - 111	7145
Fluoride	mg/l	2.00	2.06	103	90 - 110	9801
Sulfate	mg/l	25.0	24.7	99	91 - 105	9940
Apparent Color	Color Unit	20.	20.	100	-	6645
Phosphorus	mg/l	2.00	2.11	106	90 - 110	9029

Project QC continued . . .

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Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
BOD 5 Day	mg/l	198.	212.	107	85 - 115	6751
Detergents (MBAS)	mg/l	0.750	0.691	92	82 - 115	6887
Ammonia Nitrogen as N	mg/l	5.00	5.13	103	85 - 116	9343
Total Organic Carbon	mg/l	200.	217.	108	90 - 110	6808
Phenolics	mg/l	0.750	0.688	92	90 - 110	7591
Sulfite	mg/l	40.0	42.0	105	90 - 110	6888
Sulfide	mg/l	20.00	19.40	97	90 - 110	9167
Organic Nitrogen	mg/l	2.50	2.51	100	90 - 110	8417
Chloride	mg/l	10.0	10.2	102	86 - 112	860
Bromide	mg/l	10.0	9.90	99	90 - 110	6775

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Chemical Oxygen Demand	mg/l	< 3.00	< 3.00	N/A	15.	8745	04-A103055
Chemical Oxygen Demand	mg/l	346.	320.	7.81	15.	8745	04-A102170
Nitrate-N as N	mg/l	< 0.100	< 0.100	N/A	15.	7144	04-A103331
Fluoride	mg/l	< 0.200	< 0.200	N/A	15.	9801	04-A103059
Sulfate	mg/l	19.4	20.6	6.00	15.	9940	04-A102090
Apparent Color	Color Unit	< 5.	< 5.	N/A	15.	6645	04-A103271
Phosphorus	mg/l	0.254	0.346	30.67 #	15.	9029	04-A103271
BOD 5 Day	mg/l	< 2.00	< 2.00	N/A	15.	6751	04-A103271
Detergents (MBAS)	mg/l	0.0593	0.0616	3.80	15.	6887	04-A103271
Ammonia Nitrogen as N	mg/l	12.3	12.3	0.00	15.	9343	04-A104518
Total Organic Carbon	mg/l	1.36	1.24	9.23	15.	6808	04-A103271
Phenolics	mg/l	6.68	6.40	4.28	15.	7591	04-A103739
Sulfite	mg/l	< 5.0	< 5.0	N/A	15.	6888	04-A103271

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Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Sulfide	mg/l	< 1.000	< 1.000	N/A	15.	9167	04-A104285
Chloride	mg/l	12.9	12.9	0.00	15.	860	04-A104834

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Acrolein	< 0.00480	mg/l	285	7/ 6/04	22:07
Acrylonitrile	< 0.00210	mg/l	285	7/ 6/04	22:07
Benzene	< 0.0005	mg/l	285	7/ 6/04	22:07
Bromoform	< 0.00060	mg/l	285	7/ 6/04	22:07
Bromomethane	< 0.00060	mg/l	285	7/ 6/04	22:07
Carbon tetrachloride	< 0.00040	mg/l	285	7/ 6/04	22:07
Chlorobenzene	< 0.00020	mg/l	285	7/ 6/04	22:07
Chloroethane	< 0.00100	mg/l	285	7/ 6/04	22:07
2-Chloroethylvinylether	< 0.00390	mg/l	285	7/ 6/04	22:07
Chloroform	< 0.00080	mg/l	285	7/ 6/04	22:07
Chloromethane	< 0.00070	mg/l	285	7/ 6/04	22:07
Dibromochloromethane	< 0.00050	mg/l	285	7/ 6/04	22:07
1,1-Dichloroethane	< 0.00020	mg/l	285	7/ 6/04	22:07
1,2-Dichloroethane	< 0.00060	mg/l	285	7/ 6/04	22:07
1,1-Dichloroethene	< 0.00060	mg/l	285	7/ 6/04	22:07
trans-1,2-Dichloroethene	< 0.00050	mg/l	285	7/ 6/04	22:07
1,2-Dichloropropane	< 0.00040	mg/l	285	7/ 6/04	22:07
cis-1,3-Dichloropropene	< 0.00030	mg/l	285	7/ 6/04	22:07
trans-1,3-Dichloropropene	< 0.00050	mg/l	285	7/ 6/04	22:07
Ethylbenzene	< 0.0003	mg/l	285	7/ 6/04	22:07
Methylene chloride	< 0.00240	mg/l	285	7/ 6/04	22:07

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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,1,2,2-Tetrachloroethane	< 0.00040	mg/l	285	7/ 6/04	22:07
Tetrachloroethene	0.00050	mg/l	285	7/ 6/04	22:07
Toluene	< 0.0006	mg/l	285	7/ 6/04	22:07
1,1,1-Trichloroethane	< 0.00070	mg/l	285	7/ 6/04	22:07
1,1,2-Trichloroethane	< 0.00040	mg/l	285	7/ 6/04	22:07
Trichloroethene	< 0.00040	mg/l	285	7/ 6/04	22:07
Vinyl chloride	< 0.00050	mg/l	285	7/ 6/04	22:07
Bromodichloromethane	< 0.00030	mg/l	285	7/ 6/04	22:07
VOA Surr 1,2-DCA-d4	110.	% Rec	285	7/ 6/04	22:07
VOA Surr Toluene-d8	107.	% Rec	285	7/ 6/04	22:07
VOA Surr, 4-BFB	111.	% Rec	285	7/ 6/04	22:07
VOA Surr, DBFM	113.	% Rec	285	7/ 6/04	22:07
EXTRACTABLE PARAMETERS					
Acenaphthene	< 0.00110	mg/l	1002	7/ 9/04	6:22
Acenaphthylene	< 0.0011	mg/l	1002	7/ 9/04	6:22
Anthracene	< 0.00110	mg/l	1002	7/ 9/04	6:22
Benzo(a)anthracene	< 0.00120	mg/l	1002	7/ 9/04	6:22
Benzo(a)pyrene	< 0.00120	mg/l	1002	7/ 9/04	6:22
Benzo(b)fluoranthene	< 0.00100	mg/l	1002	7/ 9/04	6:22
Benzo(g,h,i)perylene	< 0.00120	mg/l	1002	7/ 9/04	6:22
Benzo(k)fluoranthene	< 0.00050	mg/l	1002	7/ 9/04	6:22
4-Bromophenyl-phenylether	< 0.00060	mg/l	1002	7/ 9/04	6:22
Butylbenzylphthalate	< 0.00060	mg/l	1002	7/ 9/04	6:22
4-Chloro-3-methylphenol	< 0.00110	mg/l	1002	7/ 9/04	6:22
Bis(2-chloroethoxy)methane	< 0.00110	mg/l	1002	7/ 9/04	6:22
Bis(2-chloroisopropyl)ether	< 0.00050	mg/l	1002	7/ 9/04	6:22
2-Chloronaphthalene	< 0.00110	mg/l	1002	7/ 9/04	6:22
2-Chlorophenol	< 0.00050	mg/l	1002	7/ 9/04	6:22
4-Chlorophenyl-phenylether	< 0.00120	mg/l	1002	7/ 9/04	6:22
Chrysene	< 0.00060	mg/l	1002	7/ 9/04	6:22
Dibenz(a,h)anthracene	< 0.00060	mg/l	1002	7/ 9/04	6:22

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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,2-Dichlorobenzene	< 0.00050	mg/l	1002	7/ 9/04	6:22
1,3-Dichlorobenzene	< 0.00060	mg/l	1002	7/ 9/04	6:22
1,4-Dichlorobenzene	< 0.00060	mg/l	1002	7/ 9/04	6:22
3,3'-Dichlorobenzidine	< 0.00170	mg/l	1002	7/ 9/04	6:22
2,4-Dichlorophenol	< 0.00120	mg/l	1002	7/ 9/04	6:22
Diethylphthalate	< 0.00130	mg/l	1002	7/ 9/04	6:22
2,4-Dimethylphenol	< 0.00100	mg/l	1002	7/ 9/04	6:22
Dimethylphthalate	< 0.00120	mg/l	1002	7/ 9/04	6:22
Di-n-Butylphthalate	< 0.00130	mg/l	1002	7/ 9/04	6:22
4,6-Dinitro-2-methylphenol	< 0.00300	mg/l	1002	7/ 9/04	6:22
2,4-Dinitrophenol	< 0.00060	mg/l	1002	7/ 9/04	6:22
2,4-dinitrotoluene	< 0.00120	mg/l	1002	7/ 9/04	6:22
2,6-Dinitrotoluene	< 0.0100	mg/l	1002	7/ 9/04	6:22
Di-n-octylphthalate	< 0.00140	mg/l	1002	7/ 9/04	6:22
1,2-Diphenylhydrazine	< 0.00100	mg/l	1002	7/ 9/04	6:22
Fluoranthene	< 0.00130	mg/l	1002	7/ 9/04	6:22
Fluorene	< 0.00100	mg/l	1002	7/ 9/04	6:22
Hexachlorobenzene	< 0.00050	mg/l	1002	7/ 9/04	6:22
Hexachlorobutadiene	< 0.00050	mg/l	1002	7/ 9/04	6:22
Hexachlorocyclopentadiene	< 0.00060	mg/l	1002	7/ 9/04	6:22
Hexachloroethane	< 0.00060	mg/l	1002	7/ 9/04	6:22
Indeno(1,2,3-cd)pyrene	< 0.00110	mg/l	1002	7/ 9/04	6:22
Isophorone	< 0.00110	mg/l	1002	7/ 9/04	6:22
Naphthalene	< 0.00160	mg/l	1002	7/ 9/04	6:22
Nitrobenzene	< 0.00100	mg/l	1002	7/ 9/04	6:22
2-Nitrophenol	< 0.00050	mg/l	1002	7/ 9/04	6:22
4-Nitrophenol	< 0.00070	mg/l	1002	7/ 9/04	6:22
N-Nitroso-Di-n-Propylamine	< 0.00050	mg/l	1002	7/ 9/04	6:22
N-Nitrosodiphenylamine	< 0.00120	mg/l	1002	7/ 9/04	6:22
N-nitrosodimethylamine	< 0.00290	mg/l	1002	7/ 9/04	6:22
Pentachlorophenol	< 0.00640	mg/l	1002	7/ 9/04	6:22

Project QC continued . . .

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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Phenanthrene	< 0.00050	mg/l	1002	7/ 9/04	6:22
Phenol	< 0.00190	mg/l	1002	7/ 9/04	6:22
Pyrene	< 0.00060	mg/l	1002	7/ 9/04	6:22
Bis(2-ethylhexyl)phthalate	< 0.00140	mg/l	1002	7/ 9/04	6:22
1,2,4-Trichlorobenzene	< 0.00100	mg/l	1002	7/ 9/04	6:22
2,4,6-Trichlorophenol	< 0.00100	mg/l	1002	7/ 9/04	6:22
BNA Surr-Nitrobenzene-d5	56.	% Rec	1002	7/ 9/04	6:22
BNA Surr-2-Fluorobiphenyl	58.	% Rec	1002	7/ 9/04	6:22
BNA Surr-Terphenyl-d14	83.	% Rec	1002	7/ 9/04	6:22
BNA Surr-Phenol-d5	25.	% Rec	1002	7/ 9/04	6:22
BNA Surr-2-Fluorophenol	32.	% Rec	1002	7/ 9/04	6:22
BNA Surr-2,4,6-Tribromophenol	64.	% Rec	1002	7/ 9/04	6:22
METALS					
Mercury	< 0.00015	mg/l	8631	7/ 7/04	15:17
Antimony	< 0.0042	mg/l	7803	7/ 6/04	15:14
Arsenic	< 0.0042	mg/l	7803	7/ 6/04	15:14
Barium	< 0.0020	mg/l	7803	7/ 6/04	15:14
Beryllium	< 0.0005	mg/l	7803	7/ 6/04	15:14
Cadmium	< 0.0005	mg/l	7803	7/ 6/04	15:14
Cobalt	< 0.0016	mg/l	7803	7/ 6/04	15:14
Copper	< 0.0016	mg/l	7803	7/ 6/04	15:14
Iron, total	< 0.0150	mg/l	7803	7/ 6/04	15:14
Lead	< 0.0029	mg/l	7803	7/ 6/04	15:14
Magnesium	< 0.0180	mg/l	7803	7/ 6/04	15:14
Manganese	< 0.0005	mg/l	7803	7/ 6/04	15:14
Molybdenum	< 0.0030	mg/l	7803	7/ 6/04	15:14
Nickel	< 0.0032	mg/l	7803	7/ 6/04	15:14
Selenium	< 0.0036	mg/l	7803	7/ 6/04	15:14
Silver	< 0.0007	mg/l	7803	7/ 6/04	15:14
Thallium	< 0.0019	mg/l	7803	7/ 6/04	15:14
Tin	< 0.0035	mg/l	7803	7/ 6/04	15:14

Project QC continued . . .

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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Titanium	< 0.0005	mg/l	7803	7/ 6/04	15:14
Boron	< 0.0015	mg/l	7803	7/ 6/04	15:14
MISC PARAMETERS					
Chemical Oxygen Demand	< 3.00	mg/l	8745	7/ 7/04	14:02
Chemical Oxygen Demand	< 3.00	mg/l	8745	7/ 7/04	14:02
Nitrate-N as N	< 0.100	mg/l	7144	7/ 3/04	23:23
Nitrite-N as N	< 0.100	mg/l	7145	7/ 4/04	0:01
Fluoride	< 0.200	mg/l	9801	7/ 8/04	12:10
Sulfate	< 1.00	mg/l	9940	7/ 8/04	10:15
Apparent Color	< 5.	Color Unit	6645	7/ 3/04	14:00
Phosphorus	< 0.100	mg/l	9029	7/ 8/04	11:21
BOD 5 Day	< 2.00	mg/l	6751	7/ 8/04	21:05
Detergents (MBAS)	< 0.0500	mg/l	6887	7/ 3/04	20:58
Ammonia Nitrogen as N	< 0.100	mg/l	9343	7/ 8/04	12:09
Total Organic Carbon	< 1.00	mg/l	6808	7/ 5/04	0:51
Phenolics	< 0.050	mg/l	7591	7/ 6/04	17:34
Sulfite	< 5.0	mg/l	6888	7/ 3/04	16:00
Sulfide	< 1.000	mg/l	9167	7/ 7/04	14:55
Organic Nitrogen	< 0.100	mg/l	8417	7/ 8/04	9:33
Chloride	< 1.00	mg/l	860	7/ 8/04	18:41
Bromide	< 1.00	mg/l	6775	7/ 3/04	17:57

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 381184

RSA Laboratories

A Division of Radiation Safety Associates

Radiochemistry Analysis Data Sheet

COC #: **17284MWL** Rpt:23

Client: **Test America**

Client Samp. No.: **04a103271**

Location: **Not Indicated**

RSA Lab. Samp. No. **17628**

Project: **381184**

Date Collected: **07/01/04**

Sample Type: **water**

Date Received: **07/07/04**

Matrix: **Water**

State of Connecticut Laboratory Cert # : PH-0111

Parameter	Method	Result	LLD	Units	Date
Gross Alpha	900.0	-1.19 +/- 0.29	0.90	pCi/L	07/24/04
Gross Beta	900.0	5.41 +/- 0.70	1.28	pCi/L	07/24/04
Radium 226	903.0	-0.18 +/- 0.27	1.17	pCi/L	07/28/04
Radium 228	904.0	4.04 +/- 0.84	1.22	pCi/L	07/28/04

Jay R. Dockendorff
Laboratory Director

PARADIGM ANALYTICAL LABORATORIES, INC.
5500 Business Drive
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

Laboratory Results

Ms. Jennifier Chapman
Test America
2960 Foster Creighton Drive
Nashville TN 37204

Phone: 800-765-0980
Fax: 615-726-3404

Dear Ms. Chapman:

Enclosed is a full data package containing the final results for the sample received by Paradigm Analytical Labs, Inc. on July 7, 2004 under your project name "KPDES Sampling 381184". The sample was analyzed by Method 8290 TCDD following Paradigm's Standard Operating Procedures and is certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards.

Number of Samples Received:	1
Your Project Reference:	KPDES Sampling 381184
PAL Project Number:	G579-3

We appreciate your business and look forward to working with you again. Please contact me at 910-350-1903 if you have questions or need additional technical support.

Sincerely,

Christopher K. Cornwell
Assistant Director

7/21/04
Date

DC136.091003.1

N.C. Certification #481 S.C. Certification #99029

PARADIGM ANALYTICAL LABORATORIES, INC.

Case Narrative
Paradigm Project **G579-3**

For Method: 8290 for 2,3,7,8-TCDD only

- Data meet QA/QC requirements.

Craig R. Tronzo 7/21/04
Craig R. Tronzo Date
Data Reviewer

Secondary Review
W. Mike Larkins 7/21/04 Date Or _____ Date
W. Mike Larkins
Technical Director

Greg Dickinson
QA Officer

N.C. Certification #481 S.C. Certification #99029

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

Paradigm Analytical Laboratories

List of Certifications

Ultra-Trace Analysis

US Army Corps of Engineers
Dioxins/Furans
Methods:
1613 Water
8290 Water, Solids
Expires September 4, 2004

State of Arkansas
Dioxins/Furans
Expires May 19, 2005

State of Connecticut
Potable Water, Wastewater, Drinking Water, Solid Waste/Soil for Dioxins/Furans
Certification #PH-0258
Expires December 31, 2005

State of California
1613,8290
Certification No: 2451
Expires February 28, 2005

State of Kansas
Solids/Haz Waste
PCDDs/PCDFs by 8290, 8280A
Wastewater
Dioxin by 1613
Drinking Water
2,3,7,8-TCDD by 1613
Certification Number: E-10330
Expires January 31, 2005

Commonwealth of Kentucky
Dioxin by HRGC/MS
2378-TCDD
Laboratory Identification Number: 90120
Expires December 31, 2004

Alabama
Dioxin in Drinking Water
Lab ID#41520
Expires June 30, 2005

State of New Jersey
PCDDs/PCDFs by 8290, 1613B
PCBs by 1668A
NELAC Lab ID Number: NC100
Expires June 30, 2004
Renewal Pending

Georgia
Dioxins in Water
Certification Number: 946
Expires July 31, 2004

State of Utah
CWA 1613B
RCRA 8280A, 8290
SDWA 1613
Expires June 30, 2004
Renewal Pending

State of Maryland
SOC2 Dioxin
Certification Number: 299
Expires June 30, 2004
Renewal Pending

State of New York
NELAC NY Lab Code:11685
Non-potable Water
2378-TCDD by EPA1613
Potable Water
2378-TCDD by EPA1613
Expires April 1, 2005

State of North Carolina
Drinking Water
2378-TCDD by 1613
Laboratory Identification Number: 37776
Expires July 31, 2004

State of South Carolina
Solid & Hazardous Waste
Method 8290
Certification Number: 99029002
Expires December 31, 2004

Commonwealth of Virginia
Drinking Water
2378-TCDD
Laboratory Identification Number: 00235
Expires June 30, 2005

State of West Virginia
Dioxins/Furans
Methods: 8280A, 8290, 1613
Certification Number: 293
Expires December 31, 2004

State of Florida
NELAC (Primary State)
8280, 8290, 1613, 1668
DOH# E87634
Expires June 30, 2005

Wisconsin
PCDDs/PCDFs
SDWA 2378-TCDD
Lab ID Number: 399001350
Expires August 31, 2004

Pennsylvania
1613 Dioxin
ID Number 68-579
Expires December 3, 2004

Navy IR QA Program
8280, 8290, 1668, 1613 Drinking Water
ID Number: NFESC 413
Expires July 24, 2004

USDA Soil Permit
Permit #S-68146
Expires June 30, 2009

State of Michigan
2378-TCDD SDWA
Lab ID: 9950
Expires July 31, 2004

List of Qualifiers

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* See case narrative

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Calibration Limit.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation generally results in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

Table 1: Toxic Equivalency Factors

Analyte	World Health Organization	International-89	MADEP
2,3,7,8-TCDD	1	1	1
1,2,3,7,8-PeCDD	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.1
OCDD	0.0001	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.1
OCDF	0.0001	0.001	0.001

TestAmerica INCORPORATED

Nashville Division CHAIN OF CUSTODY RECORD
2960 Foster Creighton
Nashville, TN 37204

Toll Free: 800-765-0980
Fax: 615-726-3404

6579-3

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? Yes No

Enforcement Action? Yes No

Client Name/Account #: TestAmerica Inc.

Address: 2960 Foster Creighton Drive

City/State/Zip: Nashville, TN 37204

Report To: Ashley Morris/Jennifer Chapman

Project Manager: Jennifer Chapman

P.O. #

Telephone Number: 615-301-5041 **Fax No.:** 615-726-3404

TA Quote #:

Sampler Name: (Print)

Project ID:

Sampler Signature:

Project #: 381184

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red Label)	Preservative: HCl (Blue Label)	Preservative: NaOH (Orange Label)	Preservative: H_2SO_4 Plastic (Yellow Label)	Preservative: H_2SO_4 Glass(Yellow Label)	Preservative: None (Black Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: Dioxin	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
04a103272	7/2/2004	10:00	2																		x				

Special Instructions:

Please run 2,3,7,8 Tetrachlorodibenzo,P,Dioxin

Method of Shipment: FEDEX

Relinquished by:	Date	Time	Received by:	Date	Time
Jennifer Chapman	7/6/2004	14:08	Julie Johnson	7/7/04	1040
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time

Laboratory Comments:

Temperature Upon Receipt: 0.8°C

VOCs Free of Headspace? Y N

7

381184

TestAmerica ANALYTICAL TESTING CORPORATION

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: COMMONWEALTH ALUMINUM Client #: 11058
Address: 1372 STATE ROAD 1957
City/State/Zip Code: LEWISPORT KY 42351
Project Manager: DALE ROBERTS
Telephone Number: 270-295-5270 Fax: 295-5595
Sampler Name: (Print Name) RICHARD RALPH
Sampler Signature: R Ralph

Project Name: KPDES Sampling
Project #:
Site/Location ID: State:
Report To:
Invoice To:
Quote #: PO#:

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other
Preservation & # of Containers
Analyze For:

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	RADIOACTIVITY	TTL NITROGEN ORG NITRATE - NITRITE N TTL PHOS P	BROMIDE - BROMINE FLUORIDE CHLORIDE	SULFATE SO4 TTL RES SULFITE SO3 SULFACANS	COD Q AMMONIA	BOD	SULFIDE	VOAS	DIOXINE	REMARKS
001 plant outfall	7-1-04	1030	C	N	WW	4							X									103271
									1					X								
											1				X	X	X					
									1									X				
											1								X			
								2												X		
							9														X	
001 plant outfall	7-2-04	1000									4										X	103272

Special Instructions:
SEE ATTACHED SHEET - Analyze for All parameters not blacked out

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	7/2/04	1315	[signature]	7/3/04	8:45
			[signature]	7/7/04	1040

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 3.0
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

8

TestAmerica
ANALYTICAL TESTING CORPORATION
Nashville Division

COOLER RECEIPT FORM **BC#** 381184

Client Name : Commonwealth

Cooler Received/Opened On: 7/3/04 **Accessioned By:** Mark Beasley

M. Bly
Log-in Personnel Signature

1. **Temperature of Cooler when triaged:** 3.0 **Degrees Celsius**
2. **Were custody seals on outside of cooler?**..... YES...NO...NA
   a. **If yes, how many, what kind and where:** 1 Front
3. **Were custody seals on containers and intact?**..... NO...YES...NA
4. **Were the seals intact, signed, and dated correctly?**..... YES...NO...NA
5. **Were custody papers inside cooler?**..... YES...NO...NA
6. **Were custody papers properly filled out (ink, signed, etc)?**..... YES...NO...NA
7. **Did you sign the custody papers in the appropriate place?**..... YES...NO...NA
8. **What kind of packing material used?** Bubblewrap Peanuts Vermiculite Other None
9. **Cooling process:** Ice Ice-pack Ice (direct contact) Dry Ice Other None
10. **Did all containers arrive in good condition (unbroken)?**..... YES...NO...NA
11. **Were all container labels complete (#, date, signed, pres., etc)?**..... YES...NO...NA
12. **Did all container labels and tags agree with custody papers?**..... YES...NO...NA
13. **Were correct containers used for the analysis requested?**..... YES...NO...NA
14. a. **Were VOA vials received?**..... YES...NO...NA
    b. **Was there any observable head space present in any VOA vial?**..... NO...YES...NA
15. **Was sufficient amount of sample sent in each container?**..... YES...NO...NA
16. **Were correct preservatives used?**..... YES...NO...NA

    If not, record standard ID of preservative used here_____
17. **Was residual chlorine present?**..... NO...YES...NA
18. **Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:**

UPS	Velocity	Airborne	Route	Off-street	Fedex	Misc.
8852	1821					

19. **If a Non-Conformance exists, see attached or comments below:**

Paradigm Analytical Laboratories

Cust Proj ID: KPDES Sampling 381184
Client Name: Test America

G579-3

Due Date: 2004-07-21 17:00:00
Login Date: 2004-07-07 12:03:38

Sample ID		Cust Sample ID	PRI	Date Collected	Date Received	Date Due	Matrix	LOC	Report	Analysis	Status
G579-3-1	A	04a103272	RUSH	2004-07-02 10:00:00	2004-07-07	2004-07-21	Water	W2	Full	8290 TCDD Only	LG::REVW
	B							W2	Full	8290 TCDD Only	

10

Sample Receipt Checklist (SRC)

Paradigm Analytical Labs

Client: **Test America** Lab Proj. ID: **G579-3**

Client Proj. ID: **KPDES Sampling 381184**

1. X Shipped
   __ Hand Delivered
   Notes:

2. __ Proper, full, and complete documentation
   (unique sample identification on durable label with indelible ink, location of collection, date/time of collection, collector's name, preservation type, sample type (method/matrix))
   X Acceptable documentation (but, incomplete)
   __ Unacceptable documentation
   Notes:

3. __ Custody Tape on Container
   X No Custody Tape
   Notes:

4. X Samples Intact*
   (are in appropriate container, are not damaged, and do not show signs of contamination)
   __ Samples Broken / Leaking
   __ VOA Vials Checked for Air Bubbles
   Notes:

5. X Chilled on Receipt* Actual Temp.(s) in °C: 0.8
   __ Ambient on Receipt
   __ Walk-in on Ice; Coming down to temp.
   __ Received out of temperature protocol
   Notes:

6. X Sufficient Sample Submitted
   __ Insufficient Sample Submitted
   Notes:

7. __ Samples Preserved Correctly*
   (see preservative checklist where applicable)
   __ Improper Preservative(s)
   X None recommended (N/A)
   Notes:

8. X Received Within Holding Time
   __ Not Received Within Holding Time
   __ N/A
   Notes:

9. X No Discrepancies Noted
   __ Discrepancies Noted
   Notes:

Comments: No location.

* = Rejection of sample is required when not marked; Contact client services immediately for a resolution.

Inspected and Logged in by: [signature]

DC27.091503.3 Date / Time: Wed-7/7/04 12:20

Method 8290

04a103272

Test America

Analytical Data Summary Sheet

Analyte	Amount (ng/L)	DL (ng/L)	EMPC (ng/L)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.00459				

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1.0	0.839	83.9	30:48	0.79	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.2	0.174	87.0	30:50		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD				30:06	0.79	

Client Information

Project Name: KPDES Sampling 381184

Sample ID: 04a103272

Laboratory Information

Project ID: G579-3

Sample ID: G579-3-1C

Collection Date/Time: 02-Jul-04 10:00

Receipt Date: 07-Jul-04

Extraction Date: 12-Jul-04

Analysis Date: 20-Jul-04

Sample Information

Matrix: Aqueous

Weight / Volume: 501 mL

Solids / Lipids: NA

Original pH : 10

Batch ID: WG10415

Filename: a20jul04b-6

Retchk: a20jul04b-1

Begin ConCal: a20jul04b-1

End ConCal: a20jul04b-15

Initial Cal: m8290-122203b

Analyzed by: JWP

Date: 07-21-04

Reviewed by: [illegible]

Date: 7/21/04

```
       Filename ; a20jul04b
         Sample ; 6
       Acquired ; 20-JUL-04  20:07:23
      Processed ; 21-JUL-04  08:13:57
      Sample ID ; G579-3-1C
      Cal Table ; m8290-122203b
  Results Table ; m8290-072004b
       Comments ;
Typ  ;                Name;     Resp;    Ion 1;    Ion 2;   RA;?;    RT;      Conc;      DL;    S/N1;?;    S/N2;? ; mod?
Unk  ;         2,3,7,8-TCDD;        *;        *;        *;   *;n;NotFnd;        *;  0.2302;      *;n;      *;n ;   no
ES/RT;      13C-2,3,7,8-TCDD; 6.10e+07; 2.69e+07; 3.41e+07; 0.79;y; 30:48;   41.931;  0.1112;   1090;y;   1671;y ;   no
JS   ;      13C-1,2,3,4-TCDD; 1.40e+08; 6.18e+07; 7.79e+07; 0.79;y; 30:06;  225.754;      -;   2062;y;   3259;y ;   no

CS   ;      37Cl-2,3,7,8-TCDD; 1.39e+07; 1.39e+07;       -;    -;-;NotFnd;    8.703;  0.0408;    731;y;      -; -;   no
```

;*8290*

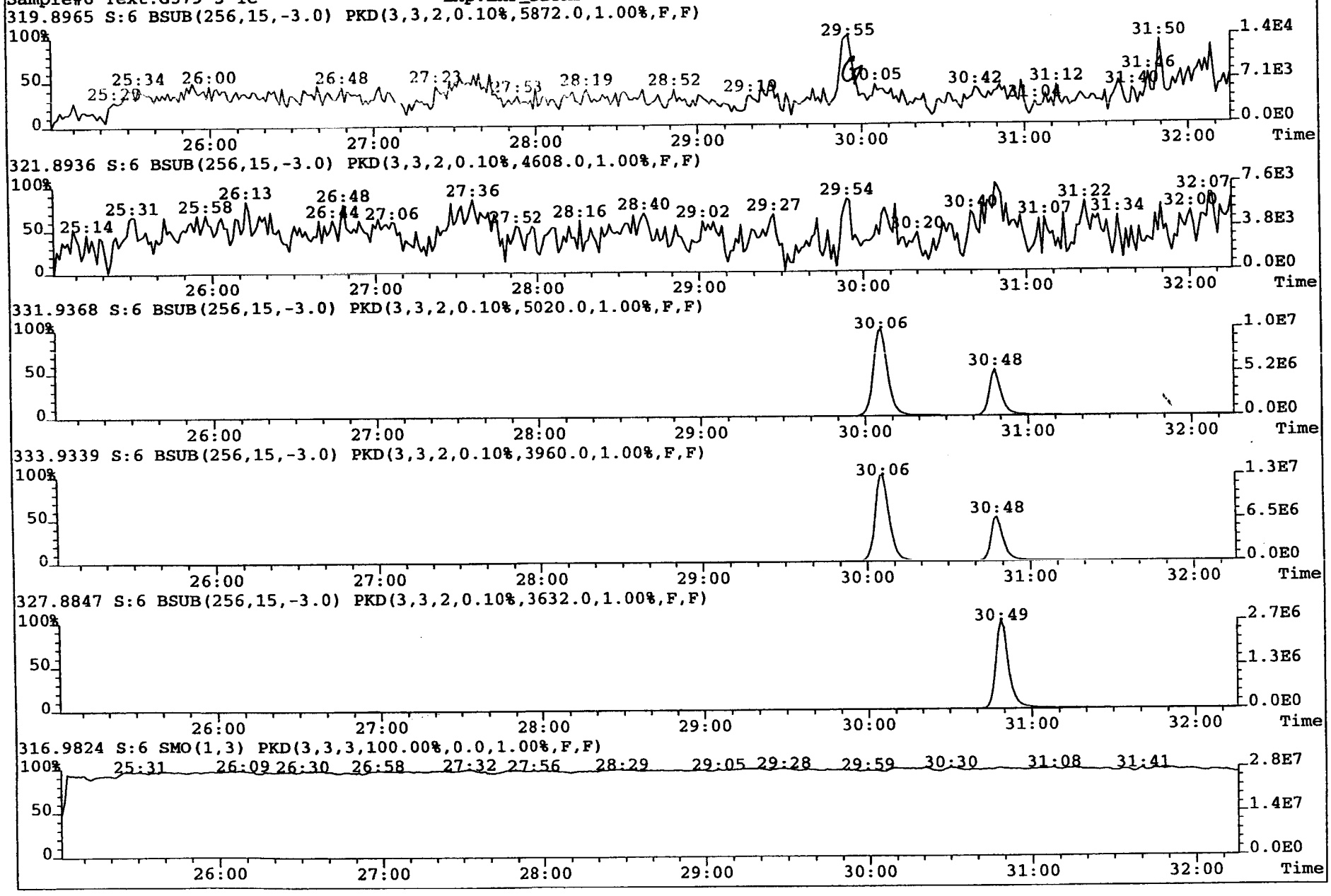
Filename ; a20jul04b
Sample ; 6
Acquired ; 20-JUL-04 20:07:23
Processed ; 21-JUL-04 08:13:57
Sample ID ; G579-3-1C
Cal Table ; m8290-122203b
Results Table ; M8290-072004B
Comments ;

Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M;	Signal1;	Noise 1;	Signal2;	Noise 2
1 ;	2,3,7,8-TCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2302;	*;n;	*;n;n;	*;5.87e+03;		*;4.61e+03	
2 ;	1,2,3,7,8-PeCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.1966;	*;n;	*;n;n;	*;6.76e+03;		*;5.78e+03	
3 ;	1,2,3,4,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.5011;	*;n;	*;n;n;	*;1.15e+04;		*;9.18e+03	
4 ;	1,2,3,6,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.4423;	*;n;	*;n;n;	*;1.15e+04;		*;9.18e+03	
5 ;	1,2,3,7,8,9-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.4809;	*;n;	*;n;n;	*;1.15e+04;		*;9.18e+03	
6 ;	1,2,3,4,6,7,8-HpCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3419;	*;n;	*;n;n;	*;4.08e+03;		*;4.29e+03	
7 ;	OCDD;	*;	*;	*;	*;n;	NotFnd;	*;	1.2258;	*;n;	*;n;n;	*;6.92e+03;		*;5.36e+03	
8 ;	2,3,7,8-TCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1523;	*;n;	*;n;n;	*;3.69e+03;		*;4.11e+03	
9 ;	1,2,3,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1026;	*;n;	*;n;n;	*;5.75e+03;		*;5.60e+03	
10 ;	2,3,4,7,8-PeCDF;	3.11e+04;	2.07e+04;	1.04e+04;	1.99;n;	33:37;	0.027;	0.0956;	1;n;	1;n;n;	7.57e+03;	5.75e+03;	5.62e+03;	5.60e+03
11 ;	1,2,3,4,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2279;	*;n;	*;n;n;	*;7.86e+03;		*;7.05e+03	
12 ;	1,2,3,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2010;	*;n;	*;n;n;	*;7.86e+03;		*;7.05e+03	
13 ;	2,3,4,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2181;	*;n;	*;n;n;	*;7.86e+03;		*;7.05e+03	
14 ;	1,2,3,7,8,9-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2662;	*;n;	*;n;n;	*;7.86e+03;		*;7.05e+03	
15 ;	1,2,3,4,6,7,8-HpCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1805;	*;n;	*;n;n;	*;3.99e+03;		*;4.53e+03	
16 ;	1,2,3,4,7,8,9-HpCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2305;	*;n;	*;n;n;	*;3.99e+03;		*;4.53e+03	
17 ;	OCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.6184;	*;n;	*;n;n;	*;3.70e+03;		*;4.52e+03	
Extraction Standards														
18 ;	13C-2,3,7,8-TCDD;	6.10e+07;	2.69e+07;	3.41e+07;	0.79;y;	30:48;	41.931;	0.1112;	1090;y;	1671;y;n;	5.47e+06;	5.02e+03;	6.62e+06;	3.96e+03
19 ;	13C-1,2,3,7,8-PeCDD;	5.77e+07;	3.51e+07;	2.26e+07;	1.55;y;	33:48;	48.783;	0.1882;	1672;y;	1199;y;n;	1.09e+07;	6.54e+03;	6.97e+06;	5.81e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	5.15e+07;	2.79e+07;	2.36e+07;	1.18;y;	36:23;	43.699;	0.1692;	919;y;	763;y;n;	7.68e+06;	8.35e+03;	6.53e+06;	8.56e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	3.44e+07;	1.71e+07;	1.72e+07;	0.99;y;	39:35;	41.239;	0.3077;	201;y;	524;y;n;	3.18e+06;	1.58e+04;	3.12e+06;	5.96e+03
22 ;	13C-OCDD;	4.15e+07;	1.91e+07;	2.24e+07;	0.85;y;	43:41;	57.273;	0.1164;	648;y;	904;y;n;	2.57e+06;	3.96e+03;	2.88e+06;	3.18e+03
23 ;	13C-2,3,7,8-TCDF;	9.24e+07;	4.23e+07;	5.01e+07;	0.84;y;	29:55;	39.576;	0.1240;	1370;y;	683;y;n;	6.47e+06;	4.72e+03;	7.75e+06;	1.13e+04
24 ;	13C-1,2,3,7,8-PeCDF;	9.92e+07;	6.11e+07;	3.81e+07;	1.60;y;	33:01;	48.976;	0.1680;	1842;y;	1396;y;n;	1.91e+07;	1.04e+04;	1.19e+07;	8.52e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	7.01e+07;	2.37e+07;	4.64e+07;	0.51;y;	35:43;	42.440;	0.3160;	220;y;	810;y;n;	6.38e+06;	2.90e+04;	1.24e+07;	1.53e+04
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	4.58e+07;	1.43e+07;	3.16e+07;	0.45;y;	38:22;	38.342;	0.1231;	535;y;	1002;y;n;	3.10e+06;	5.80e+03;	6.70e+06;	6.69e+03
Injection Standards														
27 ;	13C-1,2,3,4-TCDD;	1.40e+08;	6.18e+07;	7.79e+07;	0.79;y;	30:06;	225.754;	-;	2062;y;	3259;y;n;	1.04e+07;	5.02e+03;	1.29e+07;	3.96e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	1.06e+08;	5.76e+07;	4.85e+07;	1.19;y;	36:38;	203.673;	-;	1773;y;	1428;y;n;	1.48e+07;	8.35e+03;	1.22e+07;	8.56e+03
Cleanup Standards														
29 ;	37Cl-2,3,7,8-TCDD;	1.39e+07;	1.39e+07;	-;	-;-;	30:50;	8.703;	0.0408;	731;y;	-;-;n;	2.66e+06;	3.63e+03;	-;	-
30 ;	13C-2,3,4,7,8-PeCDF;	2.05e+07;	1.27e+07;	7.82e+06;	1.62;y;	33:37;	9.831;	0.1634;	379;y;	291;y;n;	3.93e+06;	1.04e+04;	2.48e+06;	8.52e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	9.33e+06;	5.07e+06;	4.26e+06;	1.19;y;	36:18;	9.564;	0.2044;	193;y;	152;y;n;	1.61e+06;	8.35e+03;	1.30e+06;	8.56e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	1.26e+07;	4.18e+06;	8.46e+06;	0.49;y;	35:37;	9.294;	0.3841;	50;y;	189;y;n;	1.45e+06;	2.90e+04;	2.90e+06;	1.53e+04
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	7.88e+06;	2.41e+06;	5.47e+06;	0.44;y;	40:14;	7.779;	0.1453;	72;y;	130;y;n;	4.19e+05;	5.80e+03;	8.68e+05;	6.69e+03
Sampling Standards														
34 ;	37Cl-2,3,7,8-TCDD;	1.39e+07;	1.39e+07;	-;	-;-;	30:50;	20.750;	0.0816;	731;y;	-;-;n;	2.66e+06;	3.63e+03;	-;	-
35 ;	13C-2,3,4,7,8-PeCDF;	2.05e+07;	1.27e+07;	7.82e+06;	1.62;y;	33:37;	20.072;	0.1779;	379;y;	291;y;n;	3.93e+06;	1.04e+04;	2.48e+06;	8.52e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	9.33e+06;	5.07e+06;	4.26e+06;	1.19;y;	36:18;	21.873;	0.4311;	193;y;	152;y;n;	1.61e+06;	8.35e+03;	1.30e+06;	8.56e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	1.26e+07;	4.18e+06;	8.46e+06;	0.49;y;	35:37;	21.902;	0.8598;	50;y;	189;y;n;	1.45e+06;	2.90e+04;	2.90e+06;	1.53e+04
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	7.88e+06;	2.41e+06;	5.47e+06;	0.44;y;	40:14;	20.275;	0.4487;	72;y;	130;y;n;	4.19e+05;	5.80e+03;	8.68e+05;	6.69e+03

D.8373S

D.1732

File:A20JUL04B #1-437 Acq:20-JUL-2004 20:07:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G579-3-1C Exp:EXP_DB5MS



Method 8290LMB

LMB

Analytical Data Summary Sheet

Analyte	Amount (ng/L)	DL (ng/L)	EMPC (ng/L)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.00432				

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1.0	0.904	90.4	30:47	0.82	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.2	0.190	95.0	30:49		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD				30:06	0.83	

Sample Information

Matrix:	Aqueous	
Weight / Volume:	500	mL
Solids / Lipids:	NA	
Original pH :	5	
Batch ID:	WG10415	

Laboratory Information

Sample ID:	LMB10415	Filename:	a15jul04b_2-3
		Retchk:	a15jul04b-15
		Begin ConCal:	a15jul04b-15
Extraction Date:	12-Jul-04	End ConCal:	a15jul04b_2-14
Analysis Date:	16-Jul-04	Initial Cal:	m8290-122203b

Analyzed by: JW

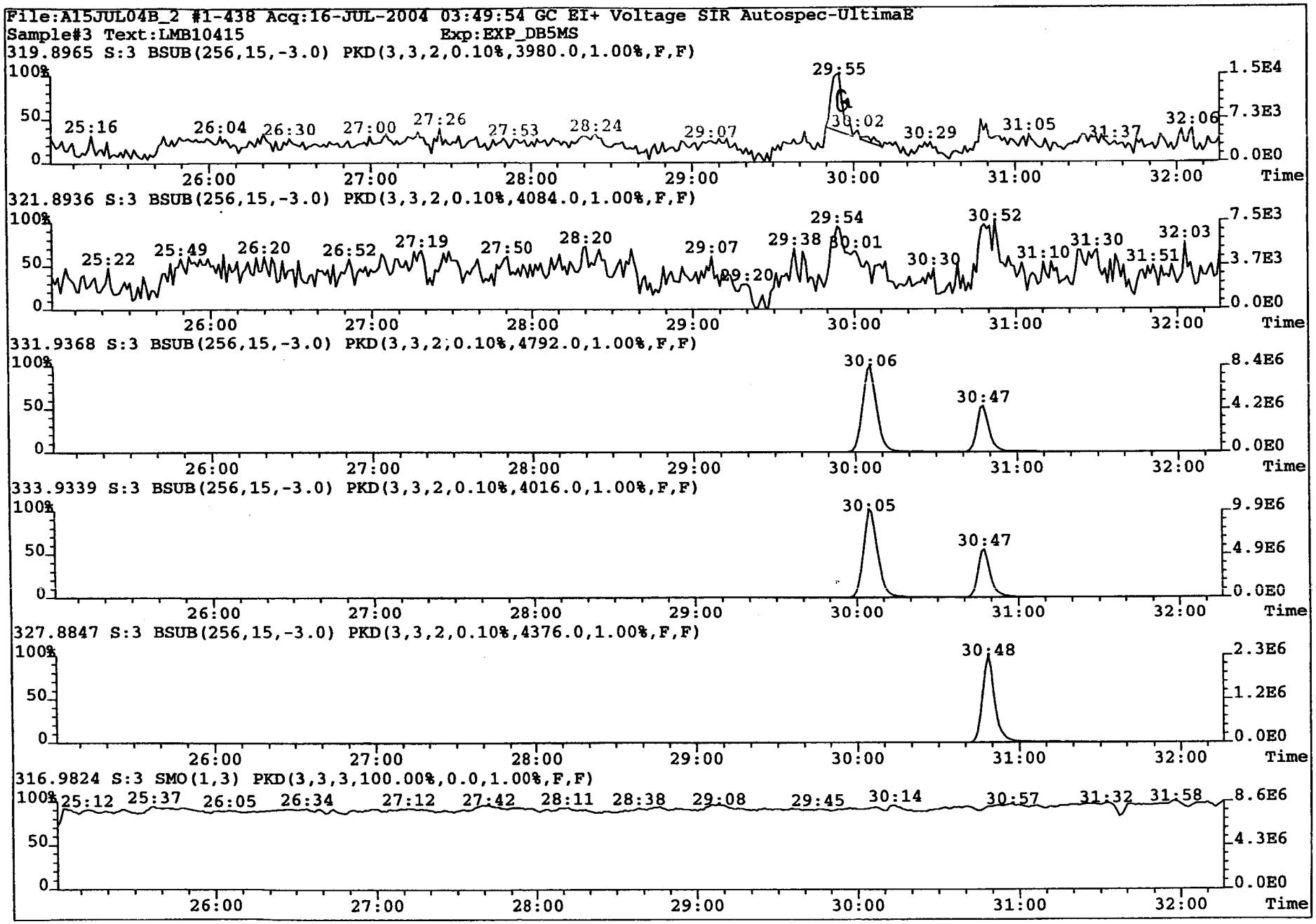
Date: 07-21-04

Reviewed by: [illegible]

Date: 7/21/04

Filename ; a15jul04b_2
Sample ; 3
Acquired ; 16-JUL-04 03:49:54
Processed ; 16-JUL-04 14:51:48
Sample ID ; LMB10415
Cal Table ; m8290-122203b
Results Table ; m8290-071504b_2
Comments ;

Typ ;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	DL;	S/N1;?;	S/N2;? ;	mod?
Unk ;	2,3,7,8-TCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2161;	*;n;	*;n ;	no
ES/RT;	13C-2,3,7,8-TCDD;	5.13e+07;	2.32e+07;	2.81e+07;	0.82;y;	30:47;	45.176;	0.1389;	935;y;	1358;y ;	no
JS ;	13C-1,2,3,4-TCDD;	1.09e+08;	4.96e+07;	5.95e+07;	0.83;y;	30:06;	176.276;	-;	1753;y;	2455;y ;	no
CS ;	37Cl-2,3,7,8-TCDD;	1.19e+07;	1.19e+07;	-;	-;-;	NotFnd;	9.489;	0.0626;	526;y;	-; -;	no


File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 03:49:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:LMB10415 Exp:EXP_DB5MS
319.8965 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3980.0,1.00%,F,F)
25:16 26:04 26:30 27:00 27:26 27:53 28:24 29:07 29:55 30:02 30:29 31:05 31:37 32:06
1.5E4 7.3E3 0.0E0
321.8936 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4084.0,1.00%,F,F)
25:22 25:49 26:20 26:52 27:19 27:50 28:20 29:07 29:20 29:38 29:54 30:01 30:30 30:52 31:10 31:30 31:51 32:03
7.5E3 3.7E3 0.0E0
331.9368 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4792.0,1.00%,F,F)
30:06 30:47
8.4E6 4.2E6 0.0E0
333.9339 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4016.0,1.00%,F,F)
30:05 30:47
9.9E6 4.9E6 0.0E0
327.8847 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4376.0,1.00%,F,F)
30:48
2.3E6 1.2E6 0.0E0
316.9824 S:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:12 25:37 26:05 26:34 27:12 27:42 28:11 28:38 29:08 29:45 30:14 30:57 31:32 31:58
8.6E6 4.3E6 0.0E0
100% 50 0
26:00 27:00 28:00 29:00 30:00 31:00 32:00 Time

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked pg/ul	AMT pg/ul	REC %	Range % Lower	Range % Upper	FLAG
2,3,7,8-TCDD	5.00	5.65	113	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPR10415
Extraction Date:	12-Jul-04
Analysis Date:	16-JUL-04
Method:	8290

File Information

OPR Filename :	a15jul04b_2-1
Retchk:	a15jul04b-15
Begin ConCal:	a15jul04b-15
End ConCal:	a15jul04b_2-14
Initial Cal:	m8290-122203b

Sample Information

Matrix:	Water

Analytical Results
for
Ongoing Precision Result (OPR)

Analytical Data Summary Sheet

Labeled Standard	Spiked pg/ul	AMT pg/ul	REC %	Range % Lower	Range % Upper	FLAG
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	50.0	41.9	83.7	40.0	135	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	10.0	9.10	91.0	NA	NA	

QC Information

OPR Project No: OPR10415
Extraction Date: 12-Jul-04
Analysis Date: 16-JUL-04
Method: 8290

File Information

OPR Filename : a15jul04b_2-1
Retchk: a15jul04b-15
Begin ConCal: a15jul04b-15
End ConCal: a15jul04b_2-14
Initial Cal: m8290-122203b

Sample Information

Matrix: Water

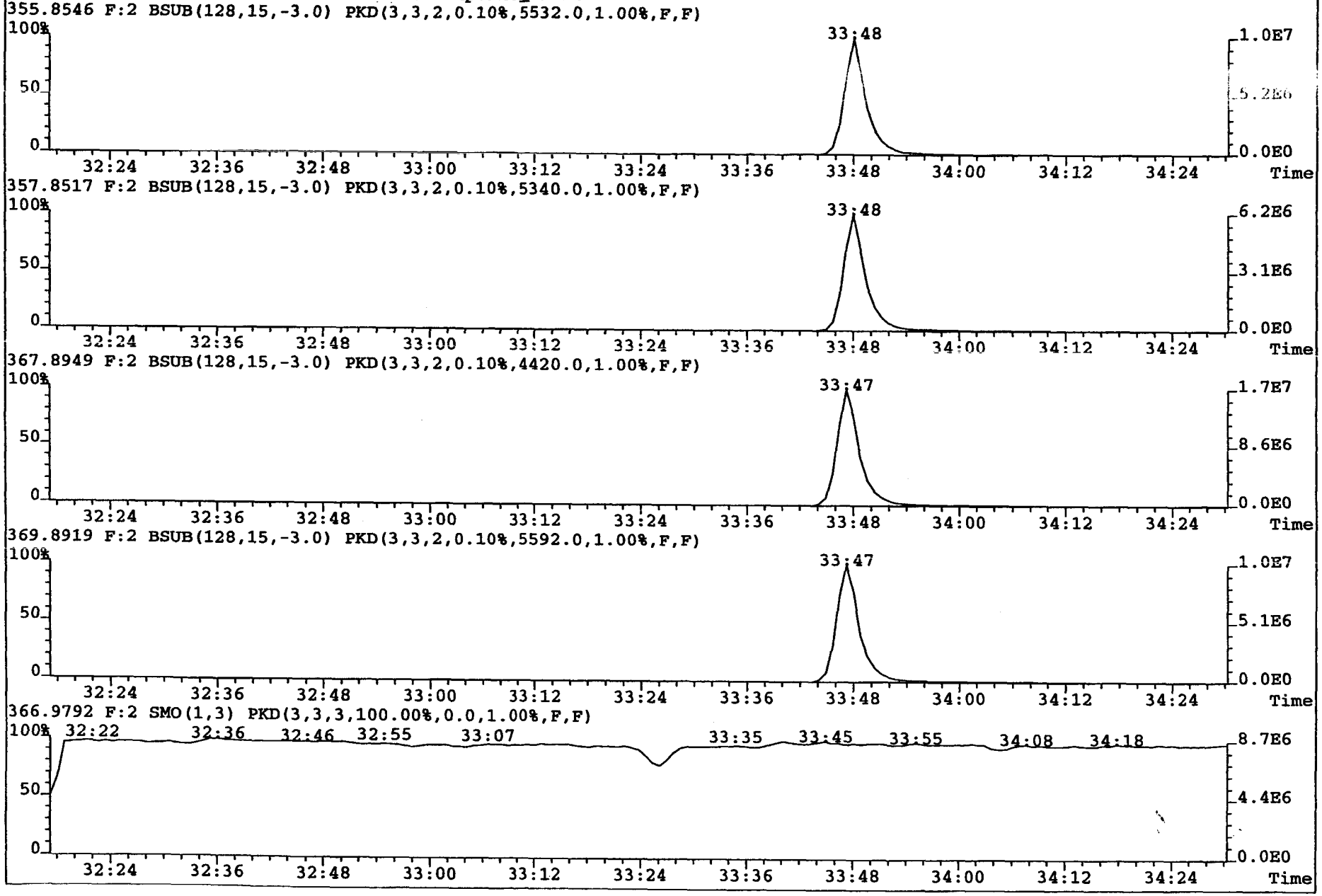
Reviewed by: [signature]

Date Reviewed: 7/21/04

Filename ; a15jul04b_2
Sample ; 1
Acquired ; 16-JUL-04 02:11:14
Processed ; 16-JUL-04 14:50:59
Sample ID ; OPR10415
Cal Table ; m8290-122203b
Results Table ; m8290-071504b_2
Comments ;

Typ ;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	DL;	S/N1;?;	S/N2;? ;	mod?
Unk ;	2,3,7,8-TCDD;	1.01e+07;	4.56e+06;	5.50e+06;	0.83;y;	30:49;	11.300;	0.1323;	221;y;	278;y ;	no
ES/RT;	13C-2,3,7,8-TCDD;	7.90e+07;	3.60e+07;	4.31e+07;	0.83;y;	30:48;	41.853;	0.0773;	1677;y;	2416;y ;	no
JS ;	13C-1,2,3,4-TCDD;	1.81e+08;	8.19e+07;	9.95e+07;	0.82;y;	30:05;	293.098;	-;	3105;y;	4471;y ;	no
CS ;	37Cl-2,3,7,8-TCDD;	1.89e+07;	1.89e+07;	-;	-;-;	30:49;	9.098;	0.0349;	905;y;	-; -;	no

File:A15JUL04B_2 #1-171 Acq:16-JUL-2004 02:11:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:OPR10415 Exp:EXP_DB5MS



Extraction by Modified Method 3520C

(Continuous Liquid/Liquid - CLLE)

Analytical Method: 8290 1613 8280 1613DW 1668A 680 Other _____

QC Date	QC Batch*	Prev. WG	Workgroup*	Logbook#	Page#
12-Jul-04	10415	N/A	WG	10	415

Glassware #	QC #/20	Sample Identification: Client ID* ID	Project* ID	Sample* ID	Container* ID	Volume* (mL)	Sample* pH	pH* (<2?)	ES Amt.* (µL)	MX Amt. (µL)	Tridecane (100 µL)	CS Amt. (µL)	Analyst (initials)
28		N/A	N/A	LMB10415	A	500	5.00	✓	20 ✓	0	✓ 100	20 ✓	mn
31	1	G579	3	1	A	501 ✓	7	✓	20 ✓	0	✓ 100	20 ✓	
1	2	G414	23	1	A	502 ✓	10	✓	20 ✓	0	✓ 100	20 ✓	
22	3	G414	23	2	A	512 ✓	10	✓	20 ✓	0	✓ 100	20 ✓	
29		G414	23	3	Ams	514 ✓	11	✓	20 ✓	20 ✓	✓ 100	20 ✓	
14		G414	23	4	Amsd	522 ✓	11	✓	20 ✓	20 ✓	✓ 100	20 ✓	
11	4	G414	23	5	A	504 ✓	10	✓	20 ✓	0	✓ 100	20 ✓	
6	5	G414	23	6	A	529 ✓	10	✓	20 ✓	0	✓ 100	20 ✓	
17	6	G414	23	7	A	502 ✓	10	✓	20 ✓	0	✓ 100	20 ✓	
7	7	G414	23	8	A	511 ✓	10	✓	20 ✓	0	✓ 100	20 ✓	
21	8	G414	23	9	A	510 ✓	10	✓	20 ✓	0	✓ 100	20 ✓	
3		N/A	N/A	OPR10415	A	500	5.00	✓	20 ✓	20 ✓	✓ 100	20 ✓	
24		N/A	N/A	OPRD10415	A	500	5.00	✓	20 ✓	20 ✓	✓ 100	20 ✓	

7-12-04

Items	Lot #	Conc. (ng/µL)	Witness
MeCl	CL013		
Tridecane	SPL1-48		
Salt	44040416		
H_2SO_4	Y09046		
Extraction Std.	519-261	0.05	BWS
Matrix Spike	519-263	0.005	BWS
Clean-up Std.	519-259	0.01	BWS

☐ Pre-Sox? ☑ Tridecane added?

Start Date/Time: 7-12-04 1130

Finish Date/Time: 7-12-04 1530

Comments: _____

DC61.121503.4

* = To be entered in the Prep Table.

☐ Data in prep table?

Extract cleanup by modified method 3630/3620

Silica/florisil

	Sample Identification											
	Client ID	Project ID	Sample ID	Container ID	Train	CS Amt.* (µL)	Witness (initials)	Analyzed (%)	Analyst (initials)	Date	Method	Matrix
					1							
A	N/A	N/A	LMB10416	B	2	40	mk	100	BWS	12-Jul-04	8280	Soil
	G515	760	1	B	3	40		100		12-Jul-04	8280	Soil
	N/A	N/A	OPR10416	B	4	40		100		12-Jul-04	8280	Soil
	N/A	N/A	OPRD10416	B	5	40		100		12-Jul-04	8280	Soil
B	G414	2~~1~~8	9	B	6	0	N/A	100		12-Jul-04	8290	Water
		BWS 7-14-04			7							
					8							
					9							
C					10							
					11							
					12							

Item	Lot #'s
Hexane	CF787
Methylene Chloride	CL338
Acid Silica	SPL1-49
Base Silica	SPL1-50
Silica	SPL1-18A
Florisil	SPO2905
Salt	44040416
Tridecane	N/A
Cleanup Std.	5/9.264

Conc. (ng/µL)
1.626

☑ PCU 1

☑ PCU 2

BWS 7-13-04

Comments:

DC1.090203.6

* = to be entered in the Prep table.

Log Book: 17 Page: 005

Extract cleanup by modified method 3630/3620

Silica/florisil

	Sample Identification											
	Client ID	Project ID	Sample ID	Container ID	Train	CS Amt.* (µL)	Witness (initials)	Analyzed (%)	Analyst (initials)	Date	Method	Matrix
	N/A	N/A	LMB10415	B	1	0	N/A	100	BWS	13-Jul-04	8290	Water
A	G579	3	1	C	2	0	N/A	100		13-Jul-04	8290	Water
	G414	23 8	1	B	3	0	N/A	100		13-Jul-04	8290	Water
	G414	23 8	2	B	4	0	N/A	100		13-Jul-04	8290	Water
	G414	23 8	3	B	5	0	N/A	100		13-Jul-04	8290	Water
B	G414	23 8	4	B	6	0	N/A	100		13-Jul-04	8290	Water
	G414	23 8	5	B	7	0	N/A	100		13-Jul-04	8290	Water
	G414	23 8	6	B	8	0	N/A	100		13-Jul-04	8290	Water
	G414	23 8	7	B	9	0	N/A	100		13-Jul-04	8290	Water
C	G414	23 8	8	B	10	0	N/A	100		13-Jul-04	8290	Water
	N/A	N/A	OPR10415	B	11	0	N/A	100		13-Jul-04	8290	Water
	N/A	N/A	OPRD10415	B	12	0	N/A	100		13-Jul-04	8290	Water

BWS 7-14-04

Item	Lot #'s	Conc. (ng/µL)
Hexane	CF787	
Methylene Chloride	CL338	
Acid Silica	SPL1-49	
Base Silica	SPL1-50	
Silica	SPL1-18A	
Florisil	SPO2905	
Salt	44040416	
Tridecane	N/A	
Cleanup Std.	N/A	

☐ PCU 1

☑ PCU 2

Comments: All columns clear + colorless.

DC1.090203.6

* = to be entered in the Prep table.

Log Book: 17 Page: 007

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Cleanup Observation Form

Reference: PCU Log

Log:	Page:
17	005

	Train 1	Train 2	Train 3	Train 4	Train 5	Train 6
Silica	☐ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☐ Clear/Colorless ☑ Brown 2 ☐ ____ ____ ☐ ____ ____ Travel 1	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____
Acid	☐ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☐ Clear/Colorless ☑ brown 1 ☐ ____ ____ ☐ ____ ____ Travel 3	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____
Base	☐ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____
Florisil	☐ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____	☑ Clear/Colorless ☐ ____ ____ ☐ ____ ____ ☐ ____ ____ Travel____
Extract	☐ Clear/Colorless ☐ ____ ____	☑ Clear/Colorless ☐ ____ ____	☑ Clear/Colorless ☐ ____ ____	☑ Clear/Colorless ☐ ____ ____	☑ Clear/Colorless ☐ ____ ____	☑ Clear/Colorless ☐ ____ ____
Sx	--	LMB10416-B	G515-760-1B	OPR10416-B	OPRD10416-B	G414-~~23~~-9B
Comments						28 BJS 7-14-04

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DC29.072500.3

☐ Continued on next page.

Cal: m8290-122203b Results: Version: V3.6 6-JAN-2000 17:51:42

Ent	Name	Mean RRF	Std	%RSD	a22dec03b-2 RRF#1	a22dec03b-3 RRF#2	a22dec03b-4 RRF#3	a22dec03b-5 RRF#4	a22dec03b-6 RRF#5
1	2,3,7,8-TCDD	1.1269	18	2.70 %	1.17	1.10	1.10	1.12	1.14
2	1,2,3,7,8-PeCDD	1.0699	19	2.09 %	1.03	1.06	1.09	1.08	1.09
3	1,2,3,4,7,8-HxCDD	0.8708	20	5.92 %	0.78	0.89	0.88	0.88	0.92
4	1,2,3,6,7,8-HxCDD	0.9866	20	2.91 %	0.94	1.00	1.01	1.01	0.98
5	1,2,3,7,8,9-HxCDD	0.9075	20	2.01 %	0.89	0.94	0.91	0.90	0.90
6	1,2,3,4,6,7,8-HpCDD	1.1657	21	5.70 %	1.28	1.15	1.13	1.13	1.14
7	OCDD	1.1027	22	6.04 %	1.22	1.08	1.08	1.08	1.05
8	2,3,7,8-TCDF	1.0813	23	2.27 %	1.12	1.07	1.07	1.07	1.07
9	1,2,3,7,8-PeCDF	1.0717	24	2.23 %	1.11	1.06	1.06	1.06	1.06
10	2,3,4,7,8-PeCDF	1.1502	24	2.39 %	1.20	1.14	1.14	1.14	1.13
11	1,2,3,4,7,8-HxCDF	1.0442	25	3.50 %	1.11	1.02	1.05	1.03	1.02
12	1,2,3,6,7,8-HxCDF	1.1840	25	2.06 %	1.23	1.19	1.16	1.17	1.18
13	2,3,4,6,7,8-HxCDF	1.0911	25	2.74 %	1.05	1.13	1.08	1.10	1.10
14	1,2,3,7,8,9-HxCDF	0.8941	25	1.47 %	0.88	0.91	0.88	0.89	0.91
15	1,2,3,4,6,7,8-HpCDF	1.4383	26	1.44 %	1.41	1.44	1.45	1.46	1.43
16	1,2,3,4,7,8,9-HpCDF	1.1259	26	0.77 %	1.12	1.12	1.13	1.14	1.13
17	OCDF	1.4619	22	7.27 %	1.31	1.41	1.47	1.53	1.59
18	13C-2,3,7,8-TCDD	1.0407	27	4.02 %	1.07	1.00	1.01	1.03	1.10
19	13C-1,2,3,7,8-PeCDD	0.8458	27	8.41 %	0.83	0.79	0.80	0.84	0.97
20	13C-1,2,3,6,7,8-HxCDD	1.1105	28	1.70 %	1.14	1.09	1.11	1.12	1.10
21	13C-1,2,3,4,6,7,8-HpCDD	0.7861	28	3.07 %	0.83	0.78	0.77	0.78	0.77
22	13C-OCDD	0.6823	28	2.55 %	0.68	0.68	0.66	0.68	0.71
23	13C-2,3,7,8-TCDF	1.6709	27	2.06 %	1.70	1.64	1.65	1.64	1.72
24	13C-1,2,3,7,8-PeCDF	1.4495	27	8.34 %	1.43	1.36	1.37	1.43	1.66
25	13C-1,2,3,6,7,8-HxCDF	1.5578	28	2.32 %	1.60	1.55	1.56	1.57	1.50
26	13C-1,2,3,4,6,7,8-HpCDF	1.1269	28	4.45 %	1.21	1.13	1.10	1.10	1.10
27	13C-1,2,3,4-TCDD	-		- %	-	-	-	-	-
28	13C-1,2,3,7,8,9-HxCDD	-		- %	-	-	-	-	-
29	37Cl-2,3,7,8-TCDD	1.1465	27	4.74 %	1.11	1.13	1.11	1.14	1.24
30	13C-2,3,4,7,8-PeCDF	1.4903	27	8.34 %	1.47	1.39	1.40	1.49	1.70
31	13C-1,2,3,4,7,8-HxCDD	0.9191	28	4.11 %	0.86	0.93	0.92	0.94	0.95
32	13C-1,2,3,4,7,8-HxCDF	1.2815	28	3.13 %	1.34	1.29	1.28	1.27	1.23
33	13C-1,2,3,4,7,8,9-HpCDF	0.9553	28	2.64 %	1.00	0.96	0.93	0.94	0.95
34	37Cl-2,3,7,8-TCDD	1.1020	18	3.66 %	1.03	1.13	1.11	1.11	1.13
35	13C-2,3,4,7,8-PeCDF	1.0282	24	0.73 %	1.03	1.02	1.02	1.04	1.03
36	13C-1,2,3,4,7,8-HxCDD	0.8281	20	5.34 %	0.75	0.85	0.83	0.84	0.87
37	13C-1,2,3,4,7,8-HxCDF	0.8226	25	1.37 %	0.83	0.83	0.82	0.81	0.82
38	13C-1,2,3,4,7,8,9-HpCDF	0.8483	26	2.10 %	0.82	0.85	0.85	0.85	0.87
39	Total Tetra-Furans	1.0813		2.27 %	1.12	1.07	1.07	1.07	1.07
40	Total Tetra-Dioxins	1.1269		2.70 %	1.17	1.10	1.10	1.12	1.14
41	Total Penta-Furans Fn1	1.1109	9 10	2.31 %	1.16	1.10	1.10	1.10	1.10
42	Total Penta-Furans Fn2	1.1109		2.31 %	1.16	1.10	1.10	1.10	1.10
43	Total Penta-Dioxins	1.0699		2.09 %	1.03	1.06	1.09	1.08	1.09
44	Total Hexa-Furans	1.0534		0.86 %	1.07	1.06	1.04	1.05	1.05
45	Total Hexa-Dioxins	0.9216		3.14 %	0.87	0.94	0.93	0.93	0.93

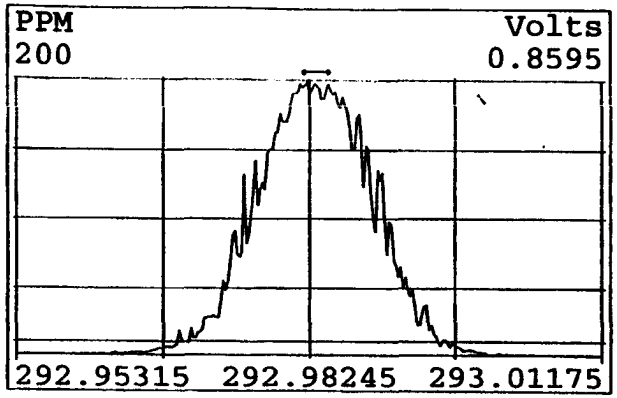
$\bar{x}$ = 1.16598

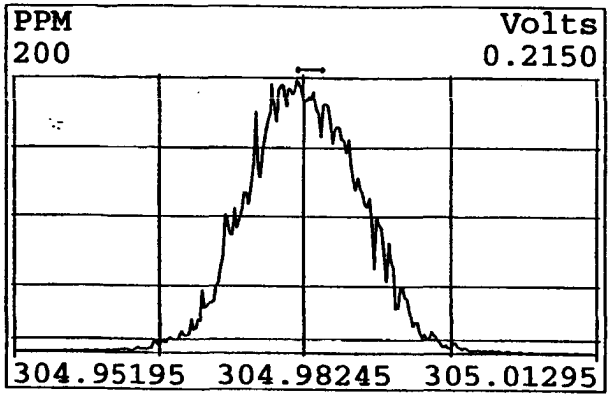
12/23/03

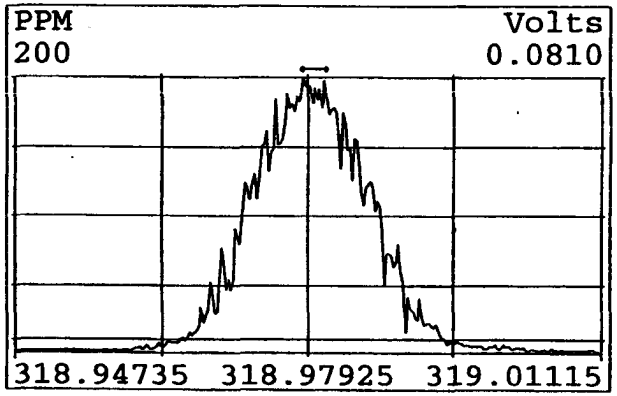
Paradigm Sample Log

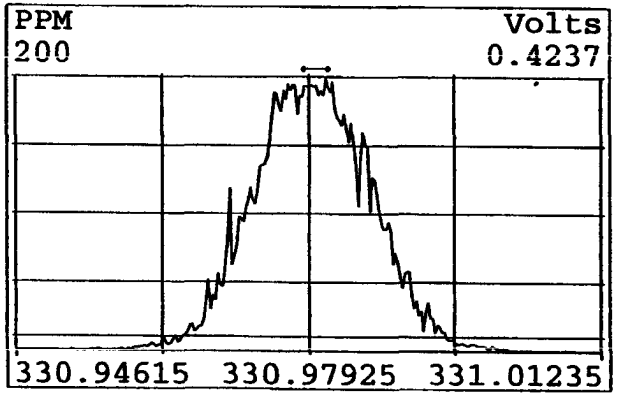
Data File S	Sample ID	Analyst	Acq. Date	Time
a22dec03b;1	;RETCON S17-217K	;HMP	22-DEC-03	10:00:58
a22dec03b;2	;CS0.5	;HMP	22-DEC-03	10:50:15
a22dec03b;3	;CS2	;HMP	22-DEC-03	11:39:33
a22dec03b;4	;CS3	;HMP	22-DEC-03	12:28:50
a22dec03b;5	;CS4	;HMP	22-DEC-03	13:18:08
a22dec03b;6	;CS5	;HMP	22-DEC-03	14:07:25

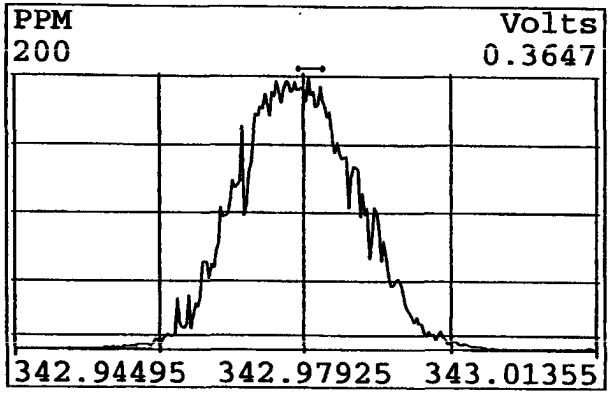
Peak Locate Examination:22-DEC-2003:09:58 File:A22DEC03B_L
Experiment:EXP_DB5MS Function:1 Reference:PFK

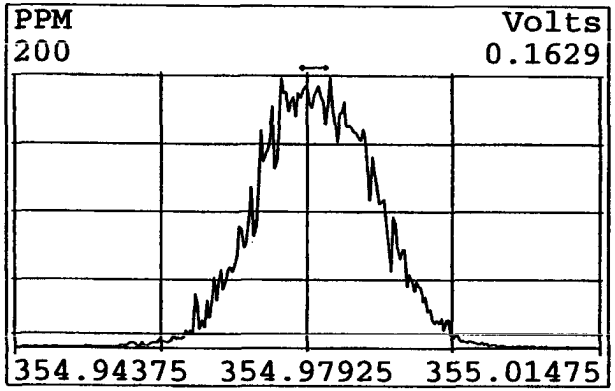


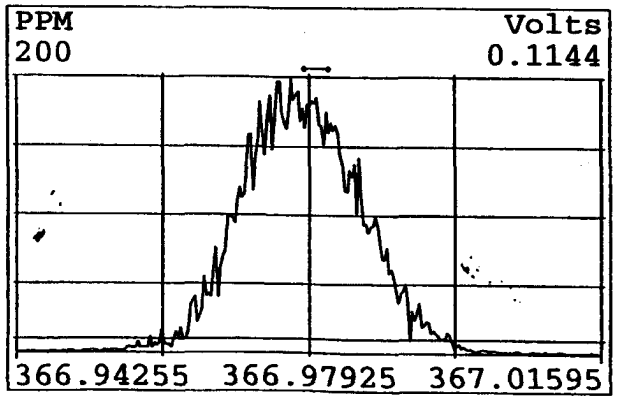


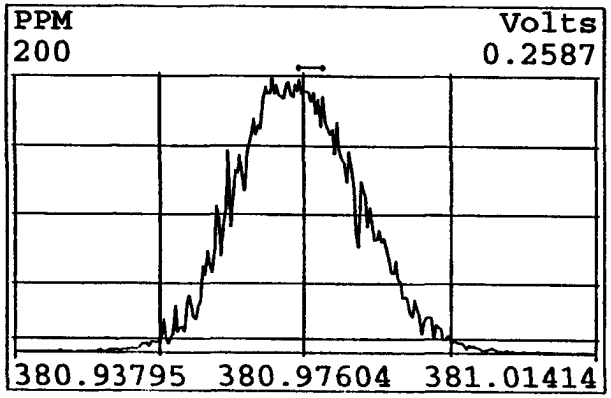




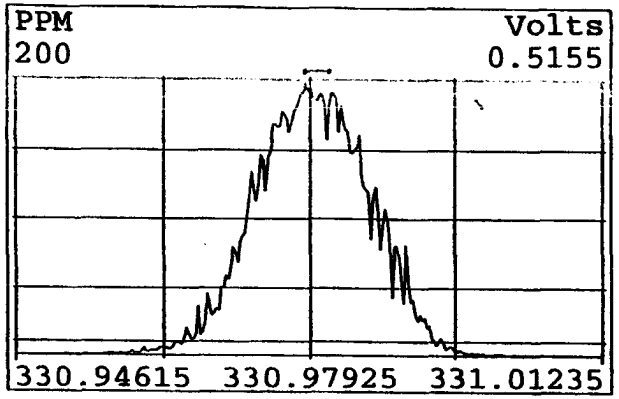


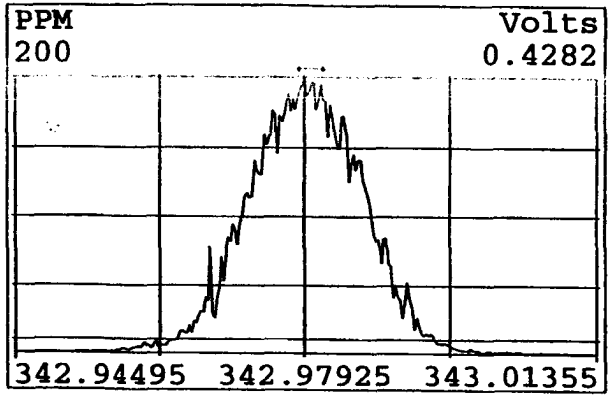


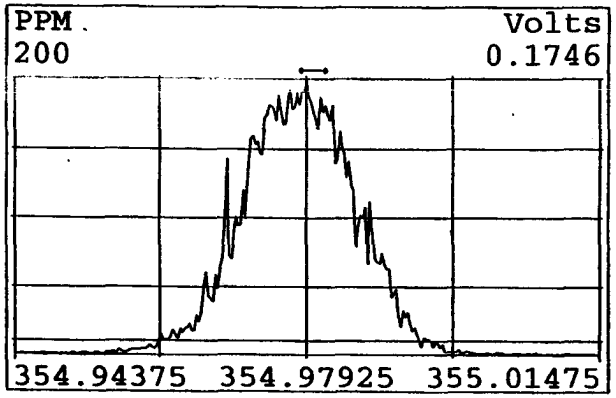


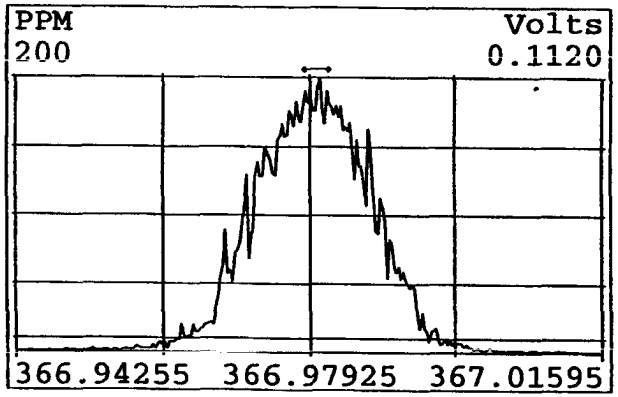


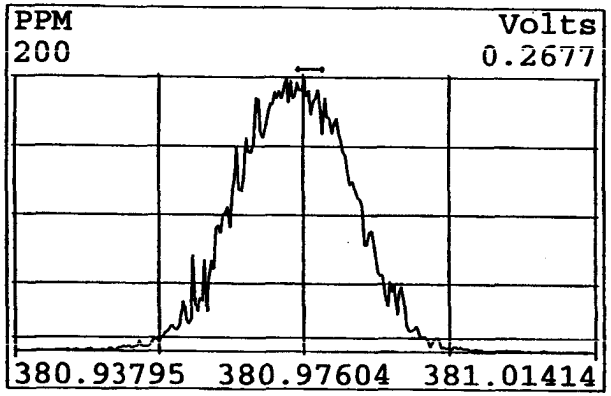
Peak Locate Examination:22-DEC-2003:09:58 File:A22DEC03B_L
Experiment:EXP_DB5MS Function:2 Reference:PFK

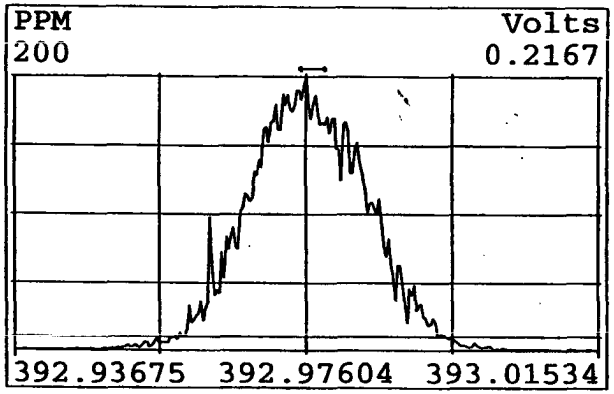


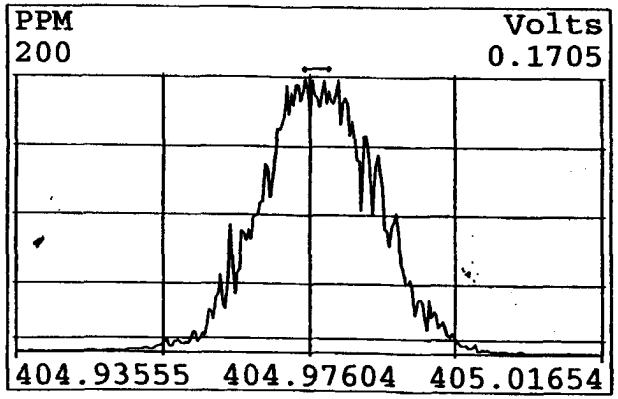


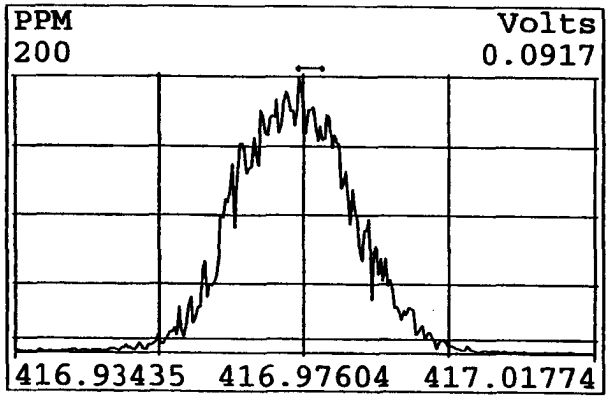




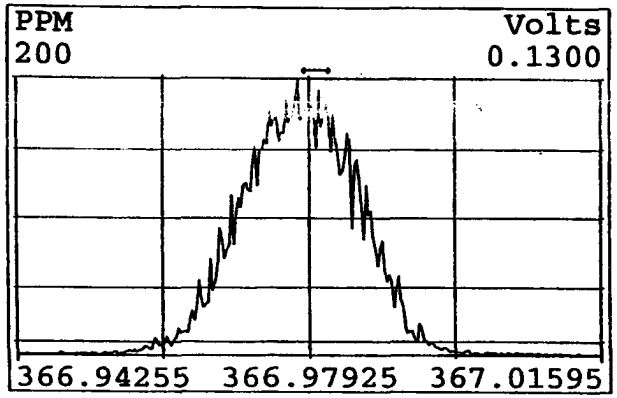


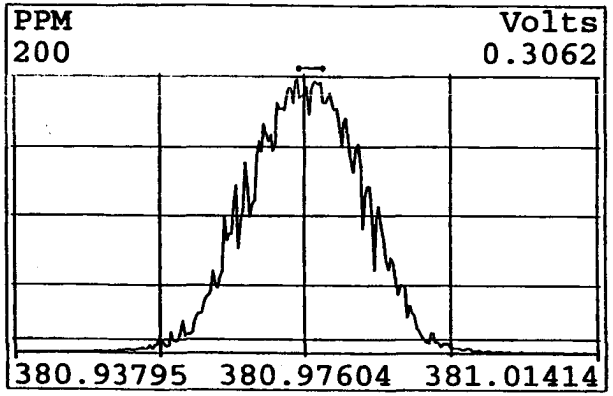


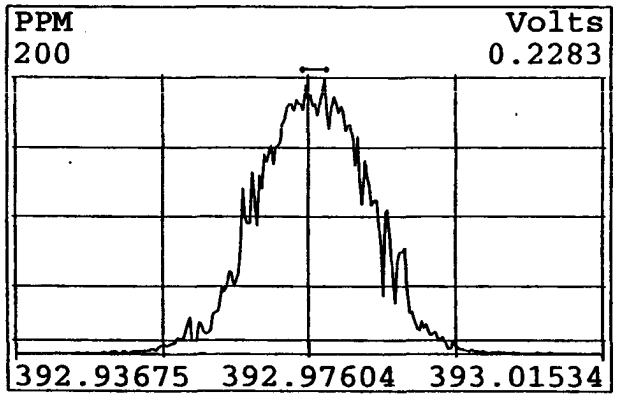


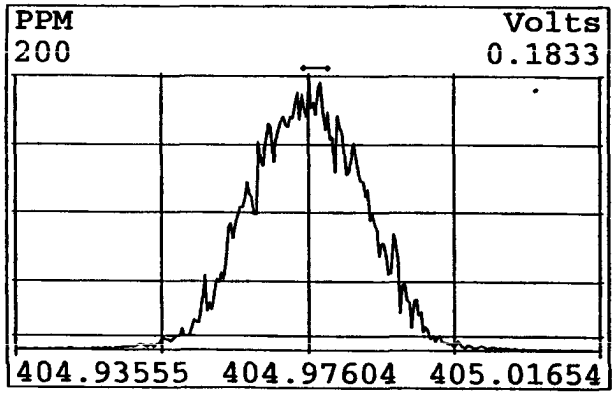


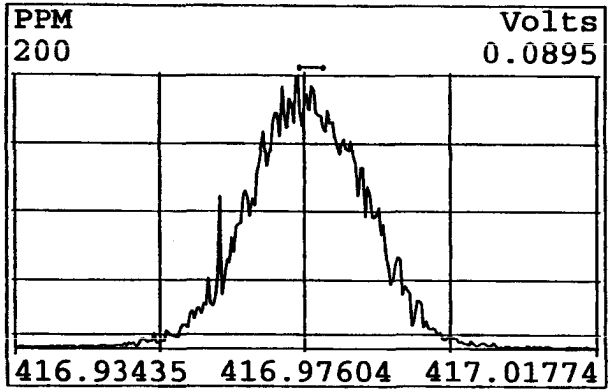
Peak Locate Examination:22-DEC-2003:09:58 File:A22DEC03B_L
Experiment:EXP_DB5MS Function:3 Reference:PFK

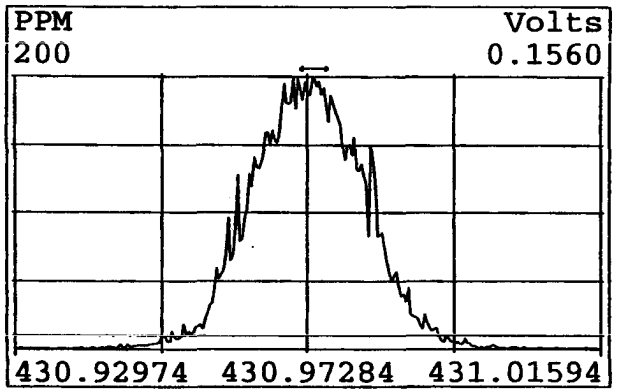


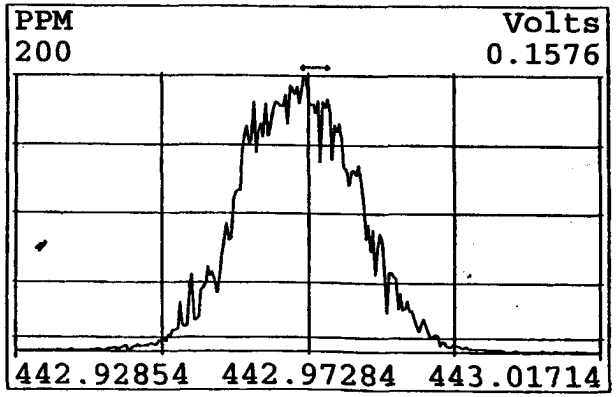


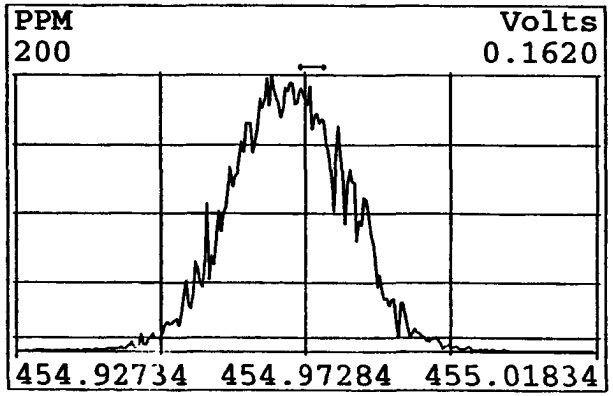




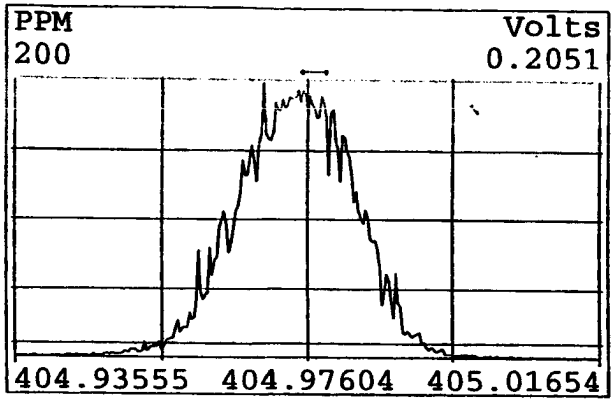


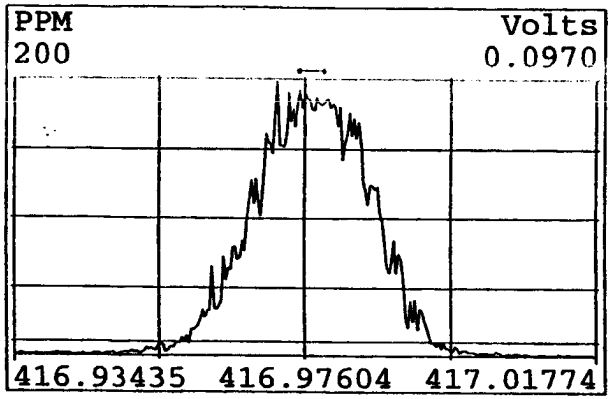


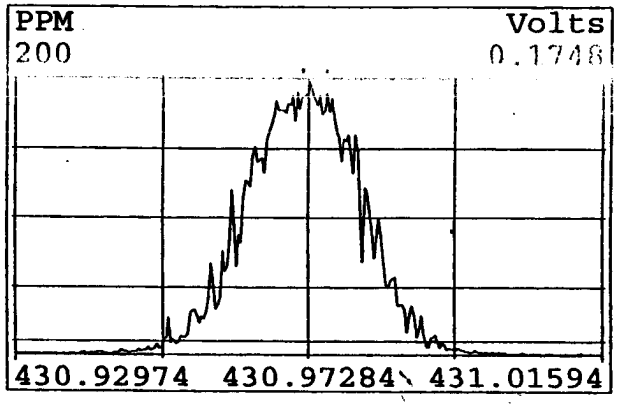


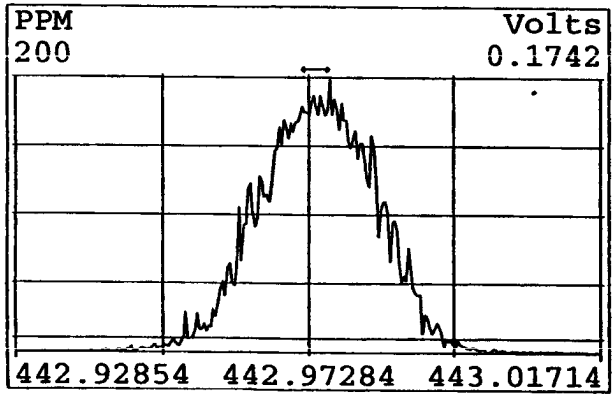


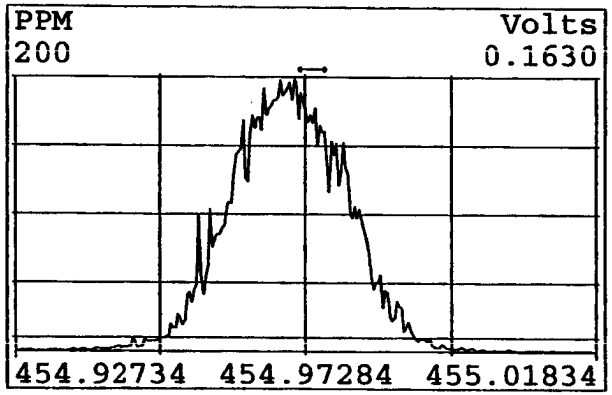
Peak Locate Examination:22-DEC-2003:09:59 File:A22DEC03B_L
Experiment:EXP_DB5MS Function:4 Reference:PFK

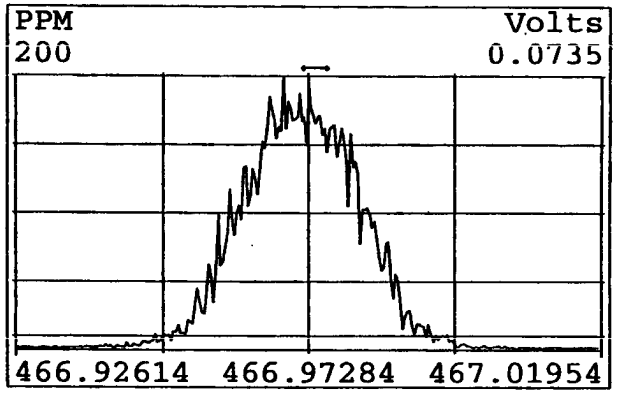


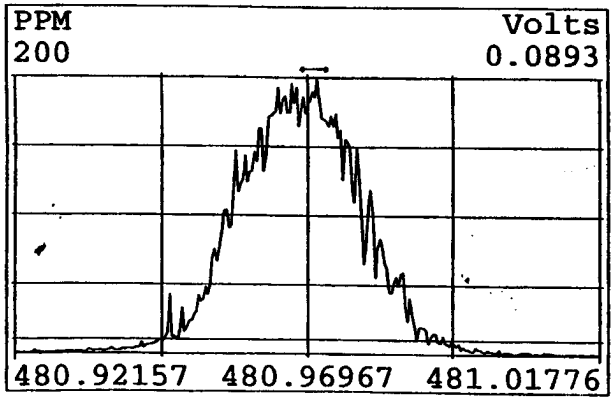




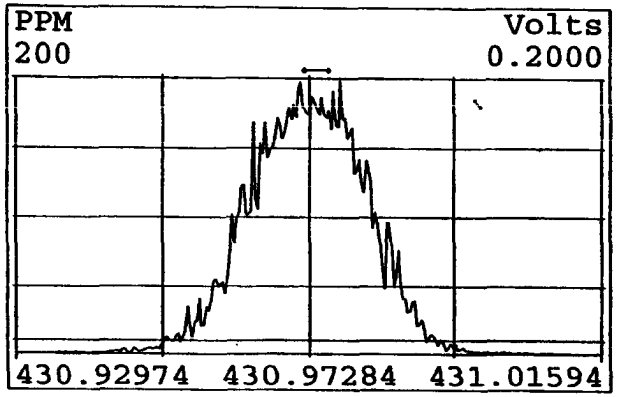


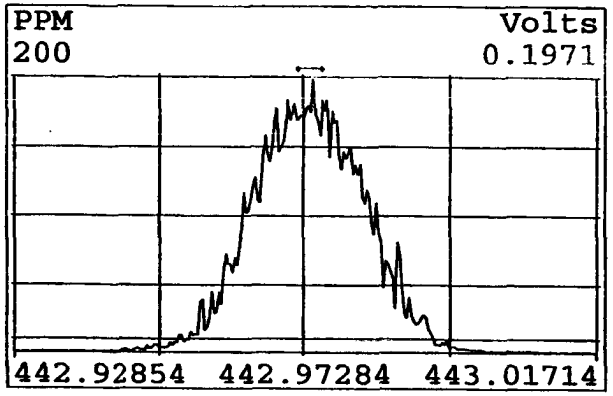


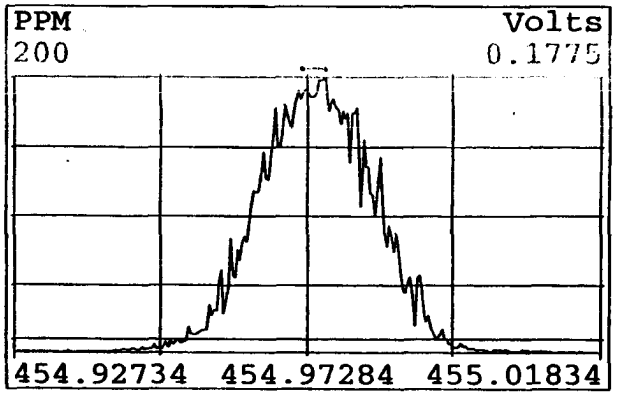


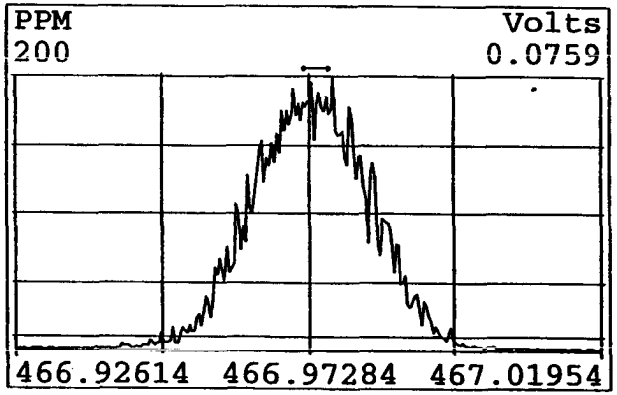


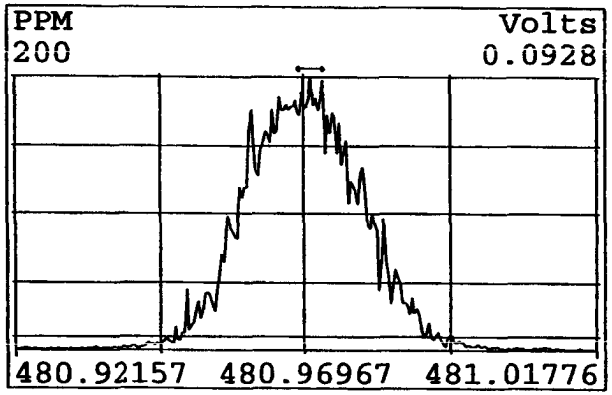
Peak Locate Examination:22-DEC-2003:09:59 File:A22DEC03B_L
Experiment:EXP_DB5MS Function:5 Reference:PFK

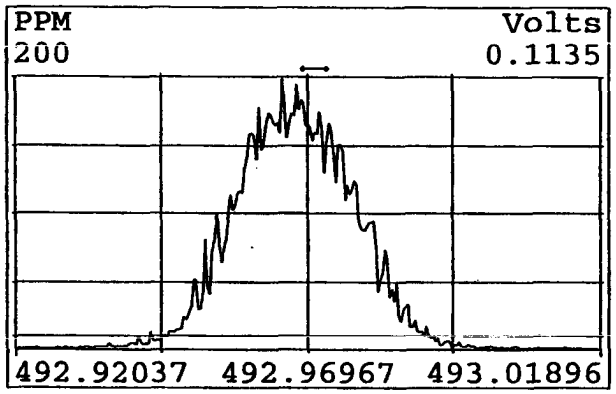


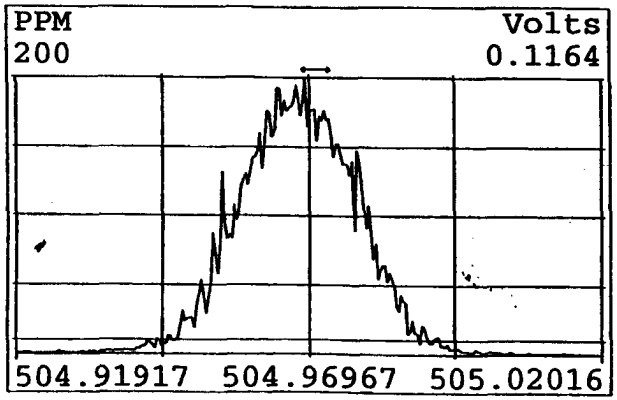


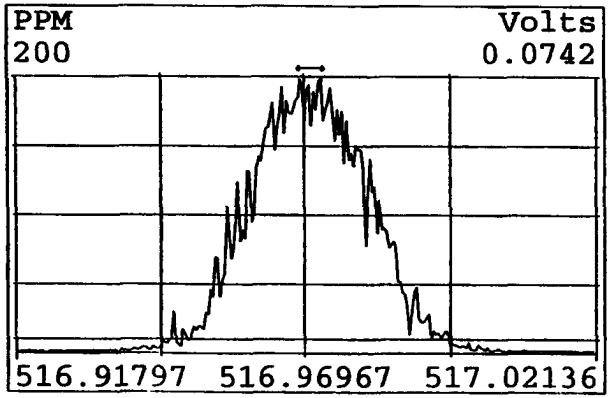




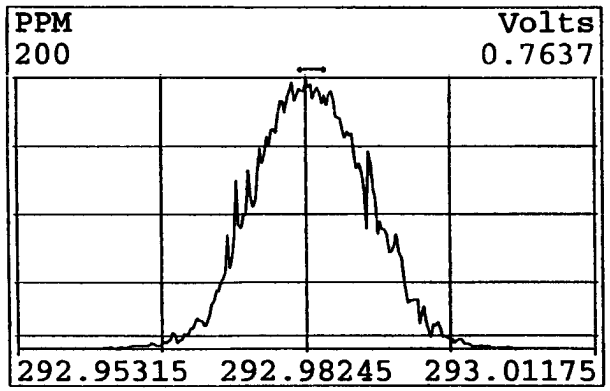


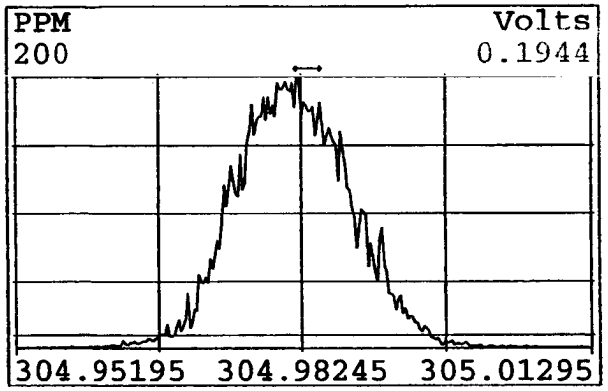


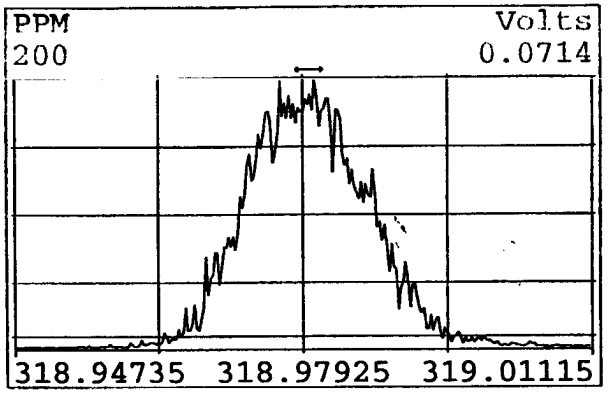


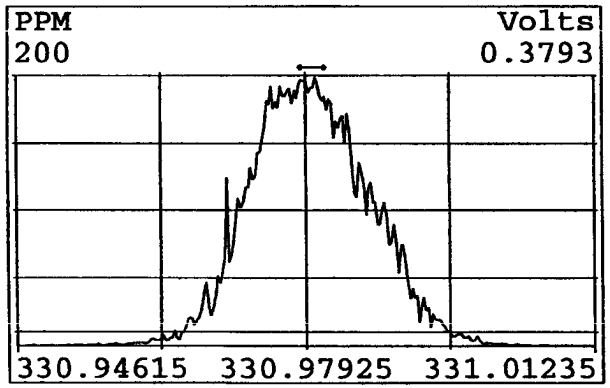


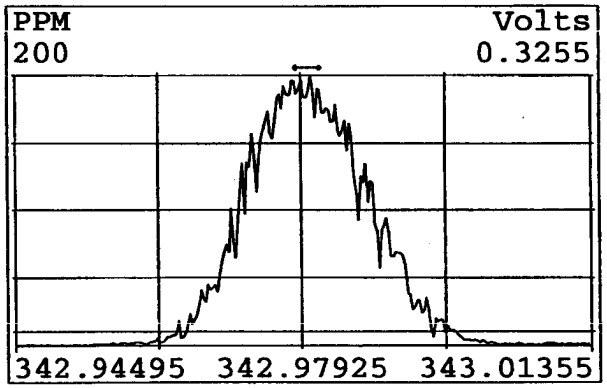
Peak Locate Examination:22-DEC-2003:14:56 File:A22DEC03B_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK

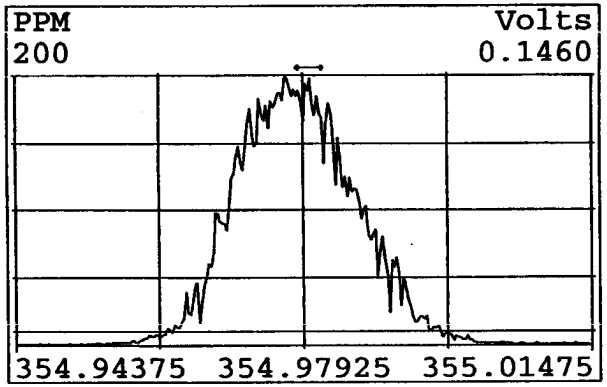


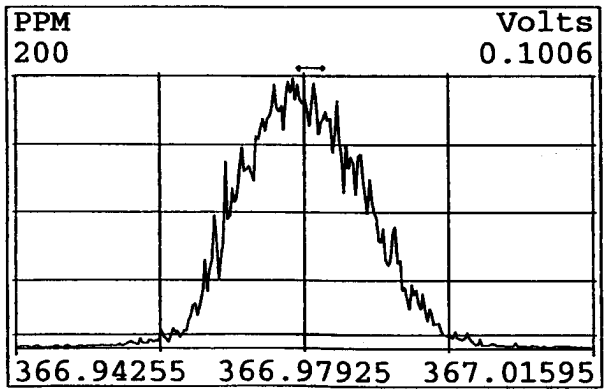


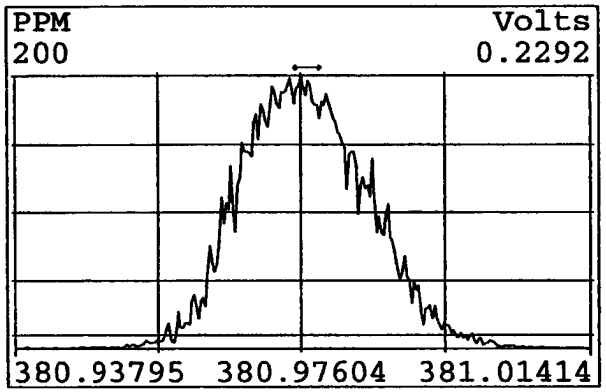




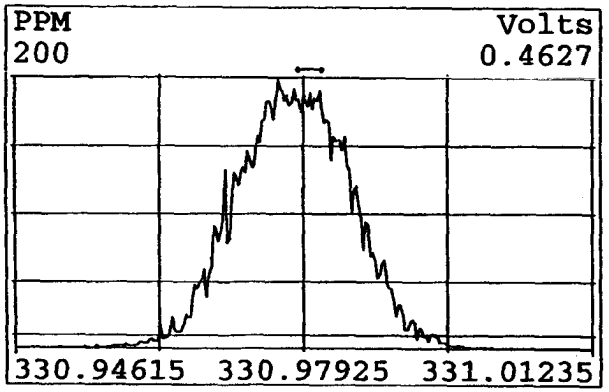


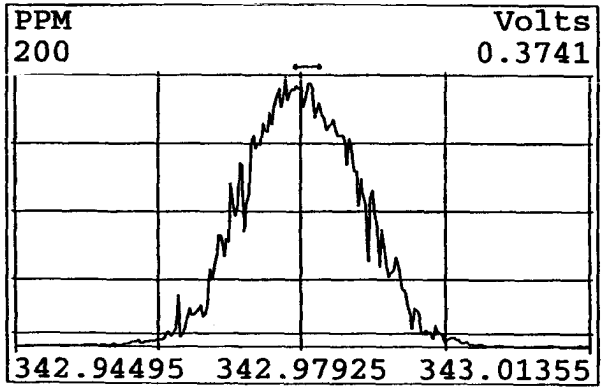


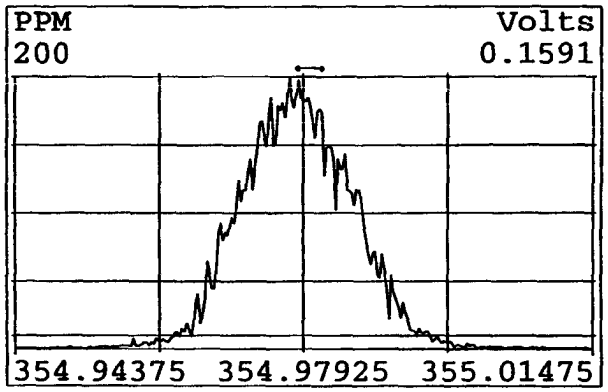


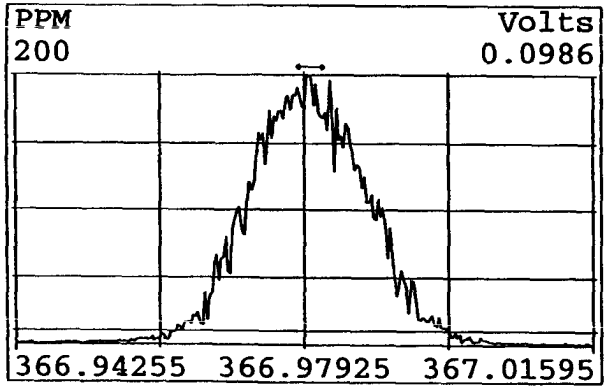


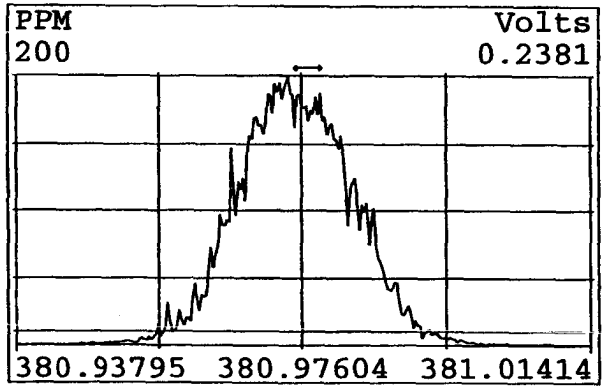
Peak Locate Examination:22-DEC-2003:14:57 File:A22DEC03B_RES_CHECK
Experiment:EXP_DB5MS Function:2 Reference:PFK

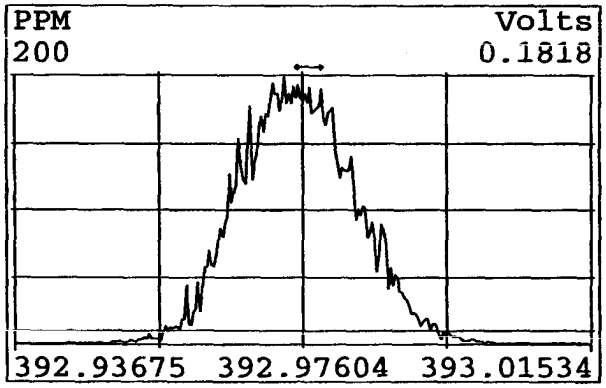


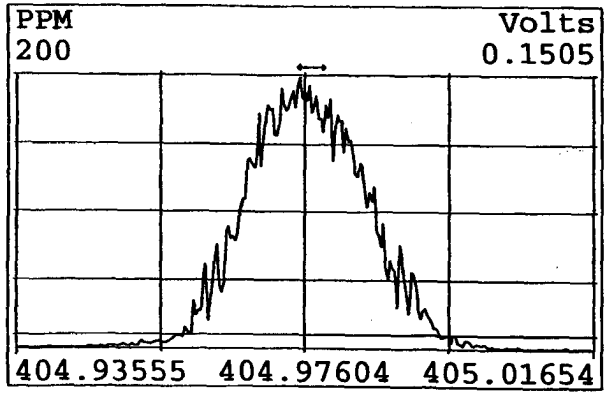


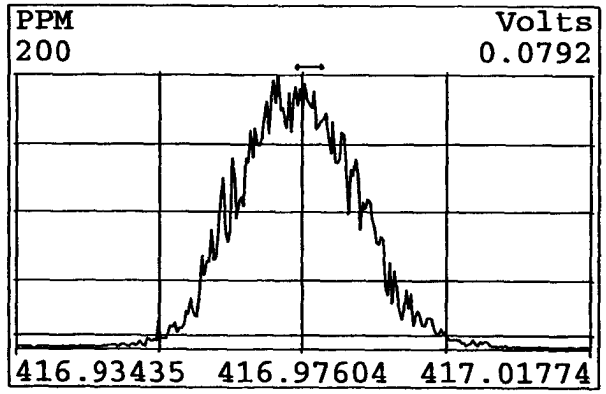




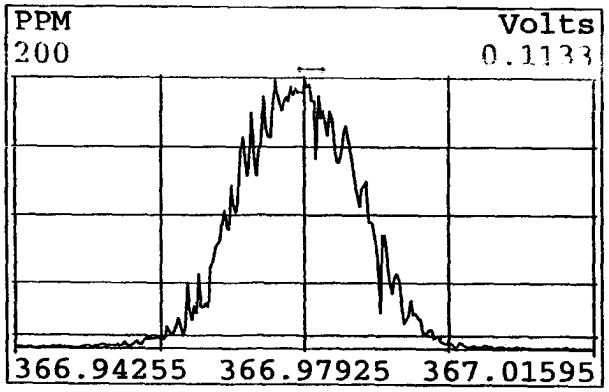


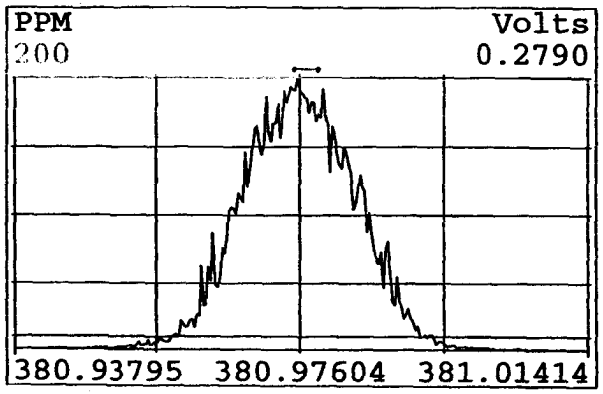


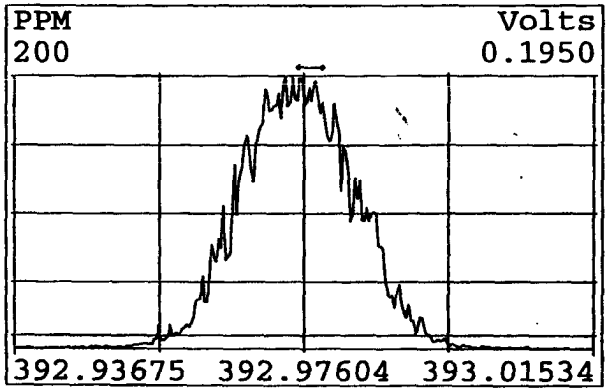


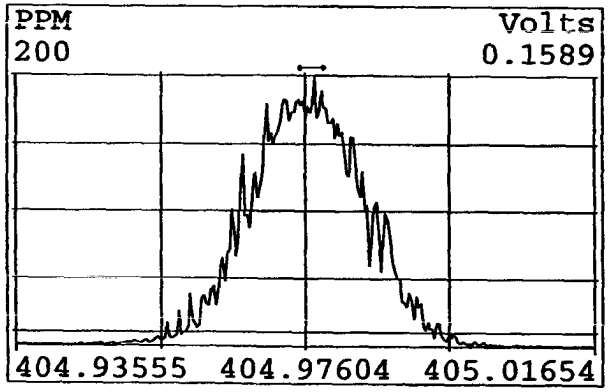


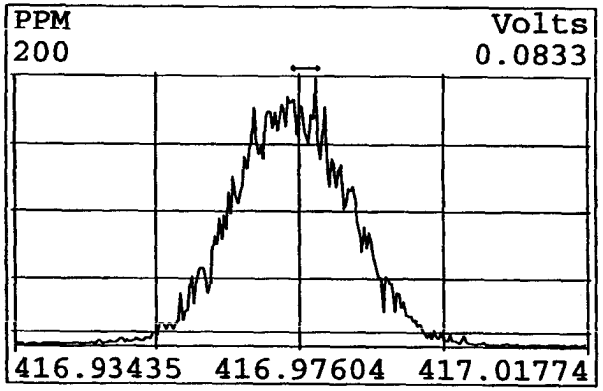
Peak Locate Examination:22-DEC-2003:14:58 File:A22DEC03B_RES_CHECK
Experiment:EXP_DB5MS Function:3 Reference:PFK

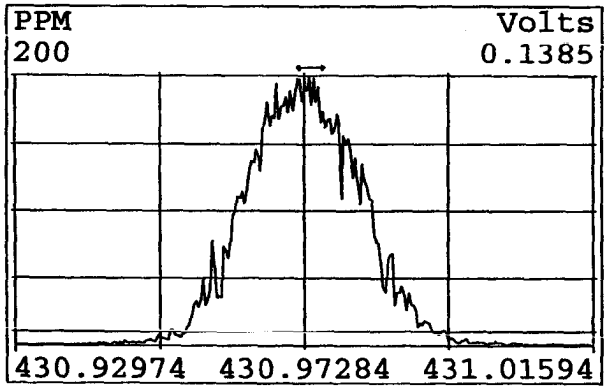


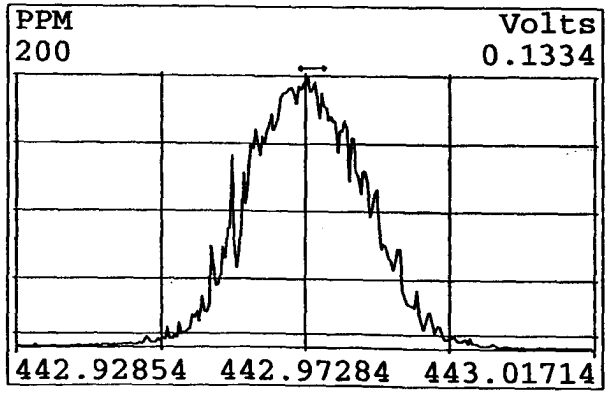


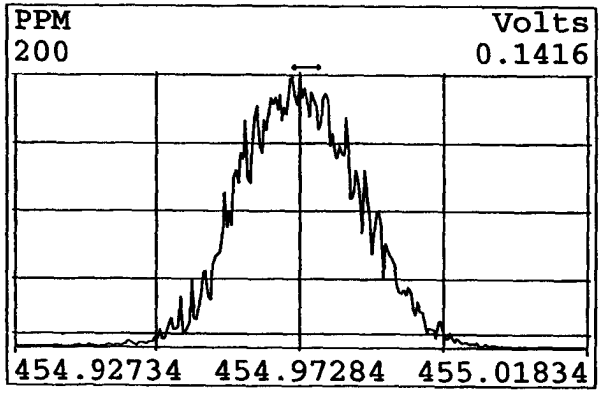




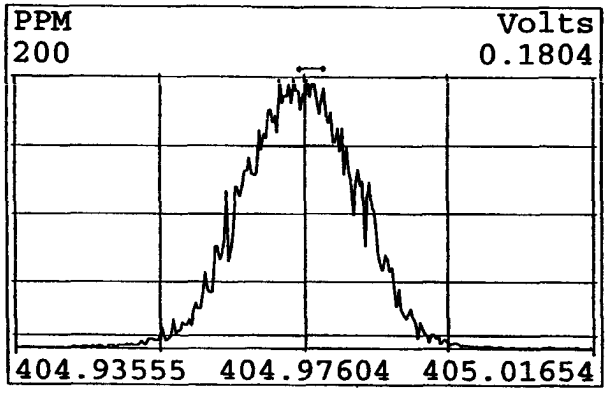


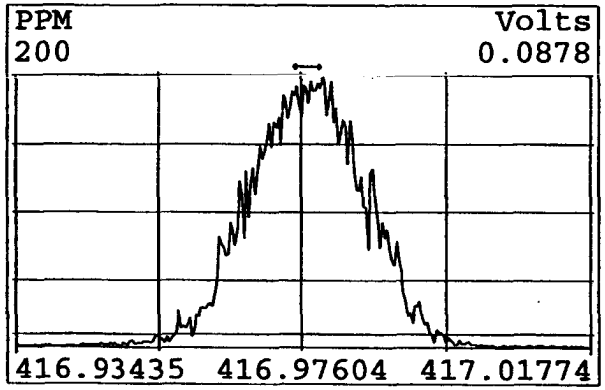


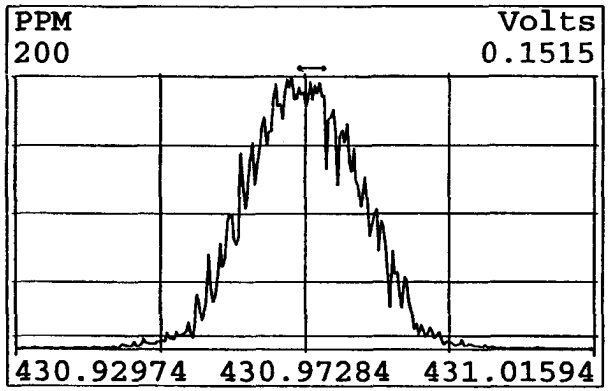


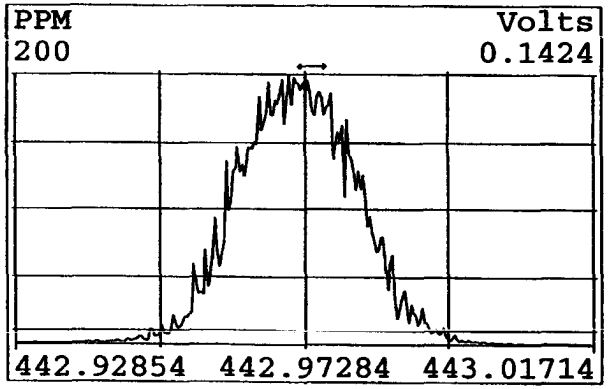


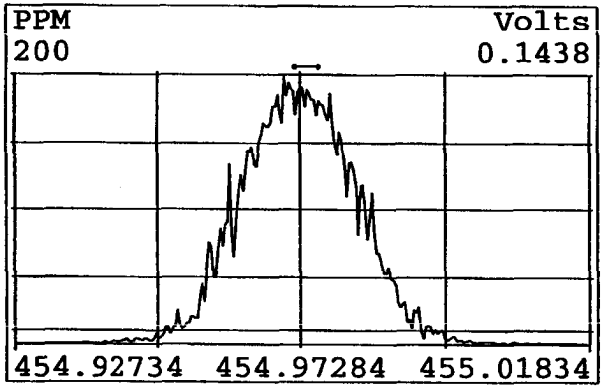
Peak Locate Examination:22-DEC-2003:14:59 File:A22DEC03B_RES_CHECK
Experiment:EXP_DB5MS Function:4 Reference:PFK

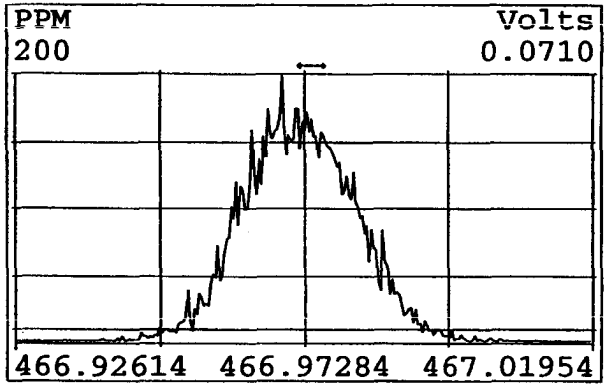


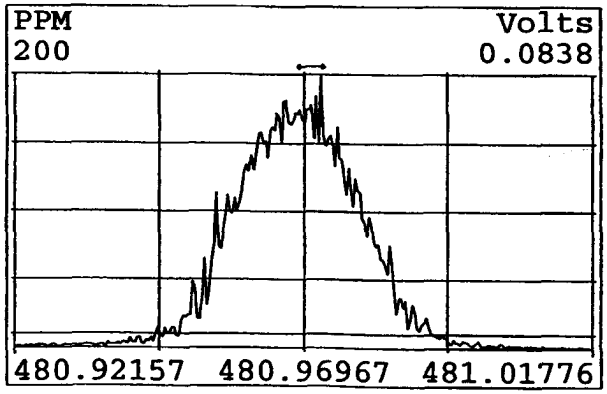




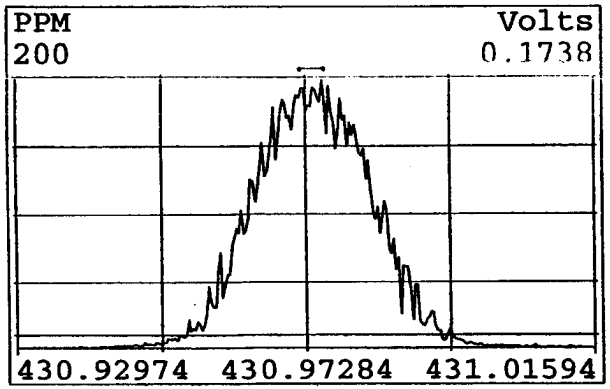


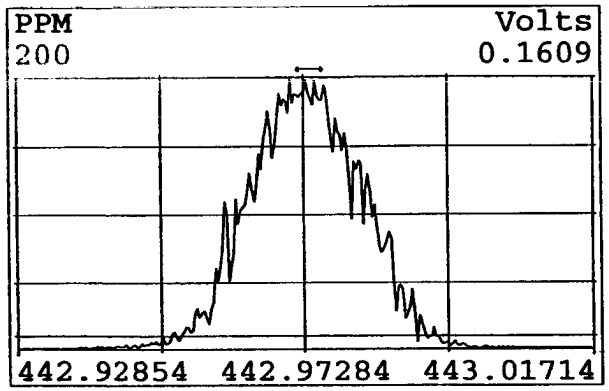


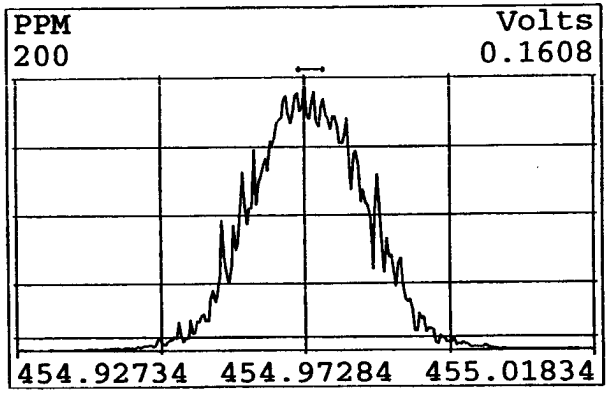


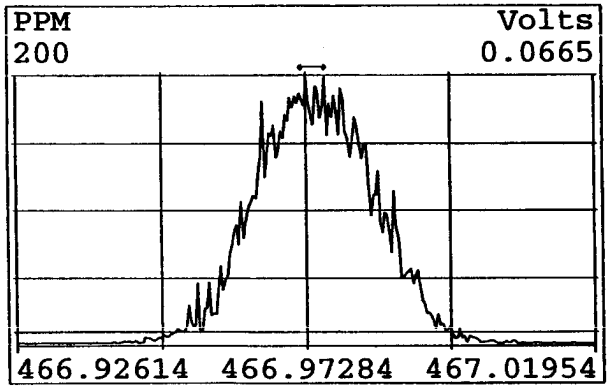


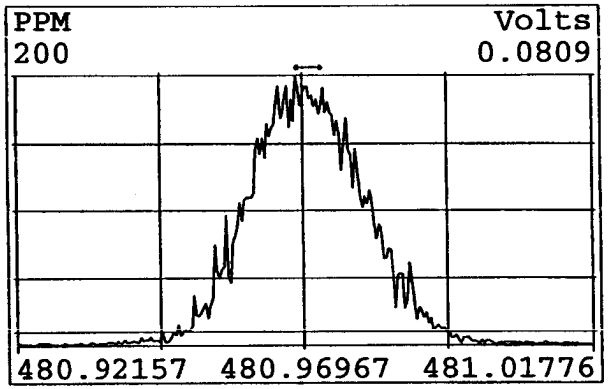
Peak Locate Examination:22-DEC-2003:15:00 File:A22DEC03B_RES_CHECK
Experiment:EXP_DB5MS Function:5 Reference:PFK

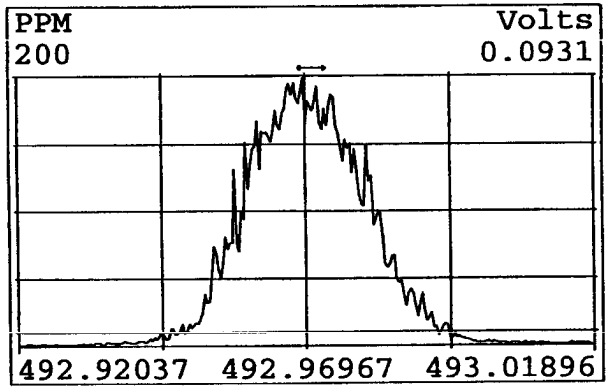


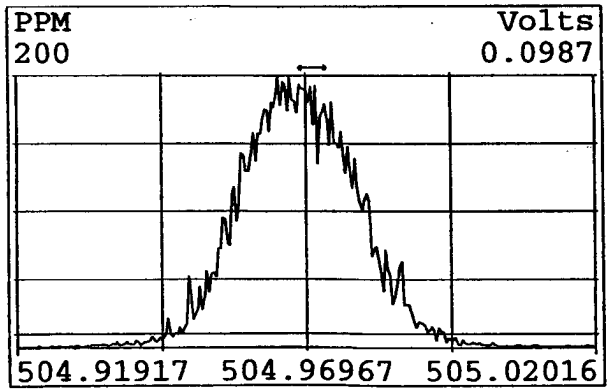


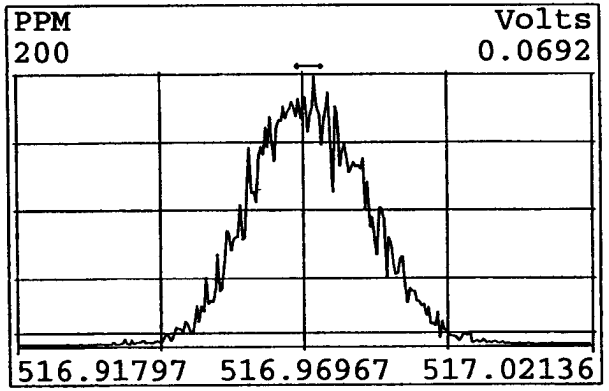






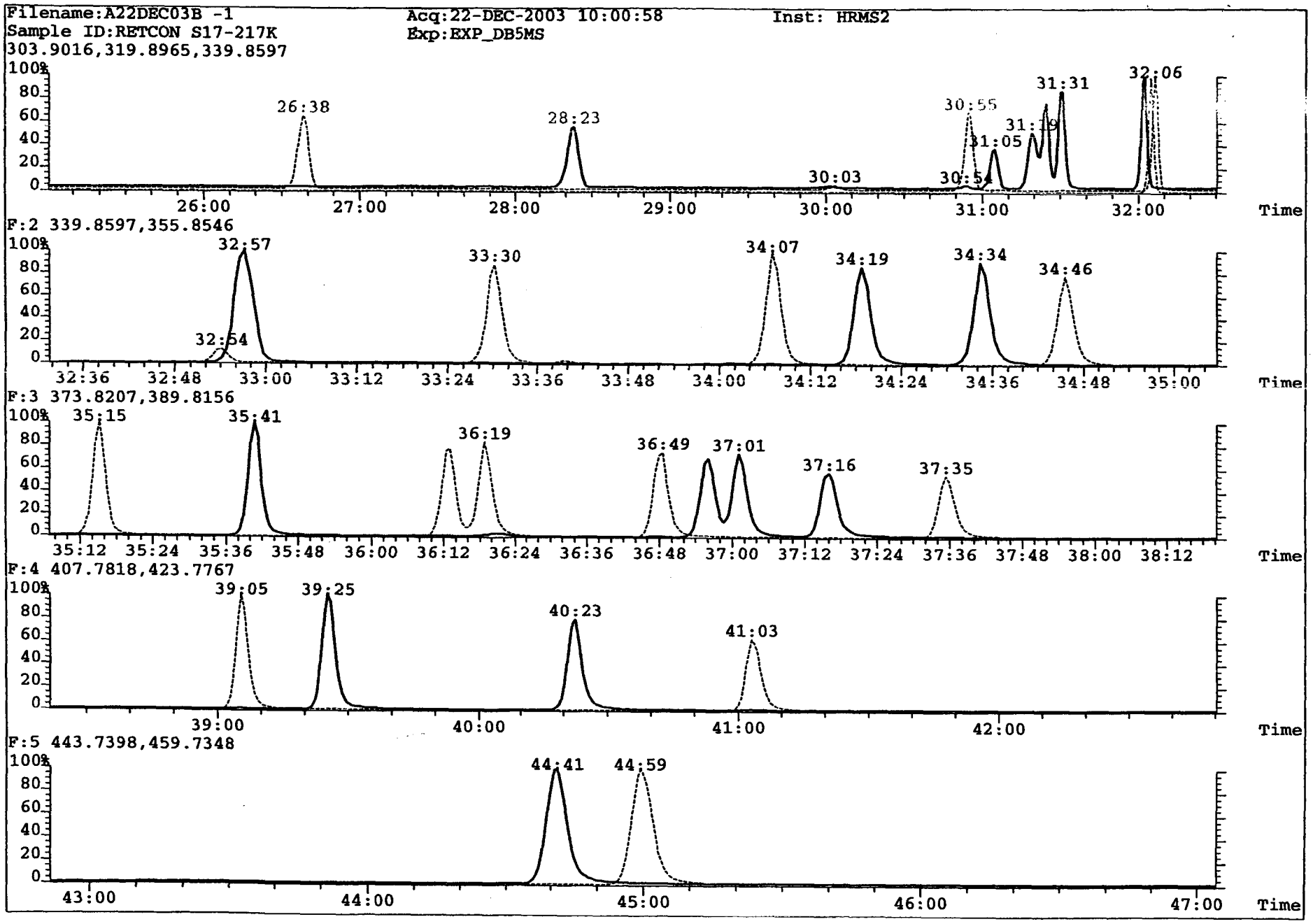




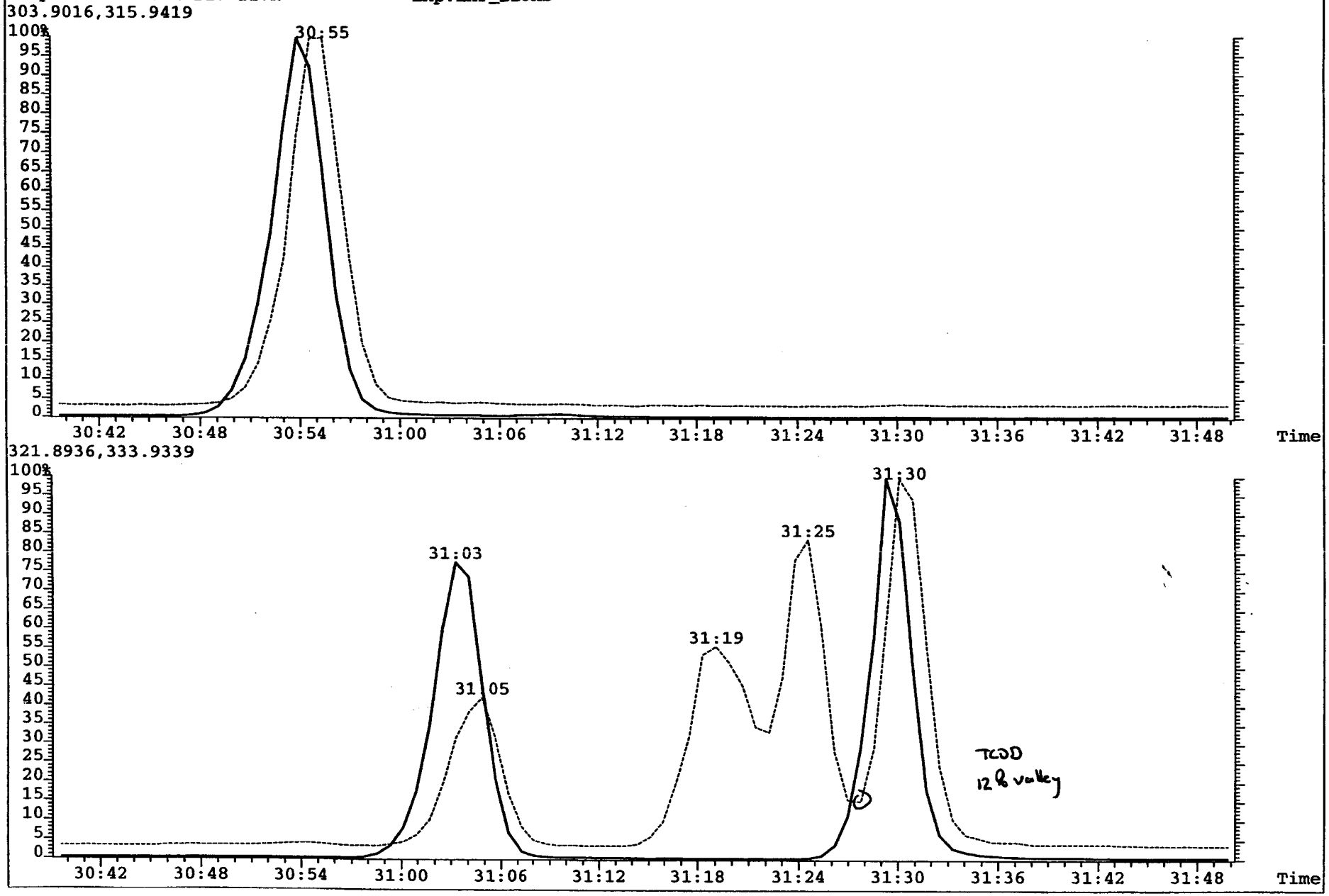


Filename ; a22dec03b
Sample ; 1
Acquired ; 22-DEC-03 10:00:58
Processed ; 22-DEC-03 15:17:34
Sample ID ; RETCON S17-217K

Name	First Eluter RT	Last Eluter RT
TCDD	28:23	32:02
PeCDD	32:57	34:34
HxCDD	35:41	37:16
HpCDD	39:25	40:23
OCDD	44:41	
TCDF	26:38	32:06
PeCDF	32:05	34:46
HxCDF	35:15	37:35
HpCDF	39:05	41:03
OCDF	44:59	


Filename:A22DEC03B -1
Acq:22-DEC-2003 10:00:58
Inst: HRMS2
Sample ID:RETCON S17-217K
Exp:EXP_DB5MS
303.9016,319.8965,339.8597
26:38
28:23
30:03
30:55
30:54
31:05
31:19
31:31
32:06
Time
F:2 339.8597,355.8546
32:57
32:54
33:30
34:07
34:19
34:34
34:46
Time
F:3 373.8207,389.8156
35:15
35:41
36:19
36:49
37:01
37:16
37:35
Time
F:4 407.7818,423.7767
39:05
39:25
40:23
41:03
Time
F:5 443.7398,459.7348
44:41
44:59
Time

Filename:A22DEC03B -1
Sample ID:RETCON S17-217K
Acq:22-DEC-2003 10:00:58
Exp:EXP_DB5MS
Inst: HRMS2

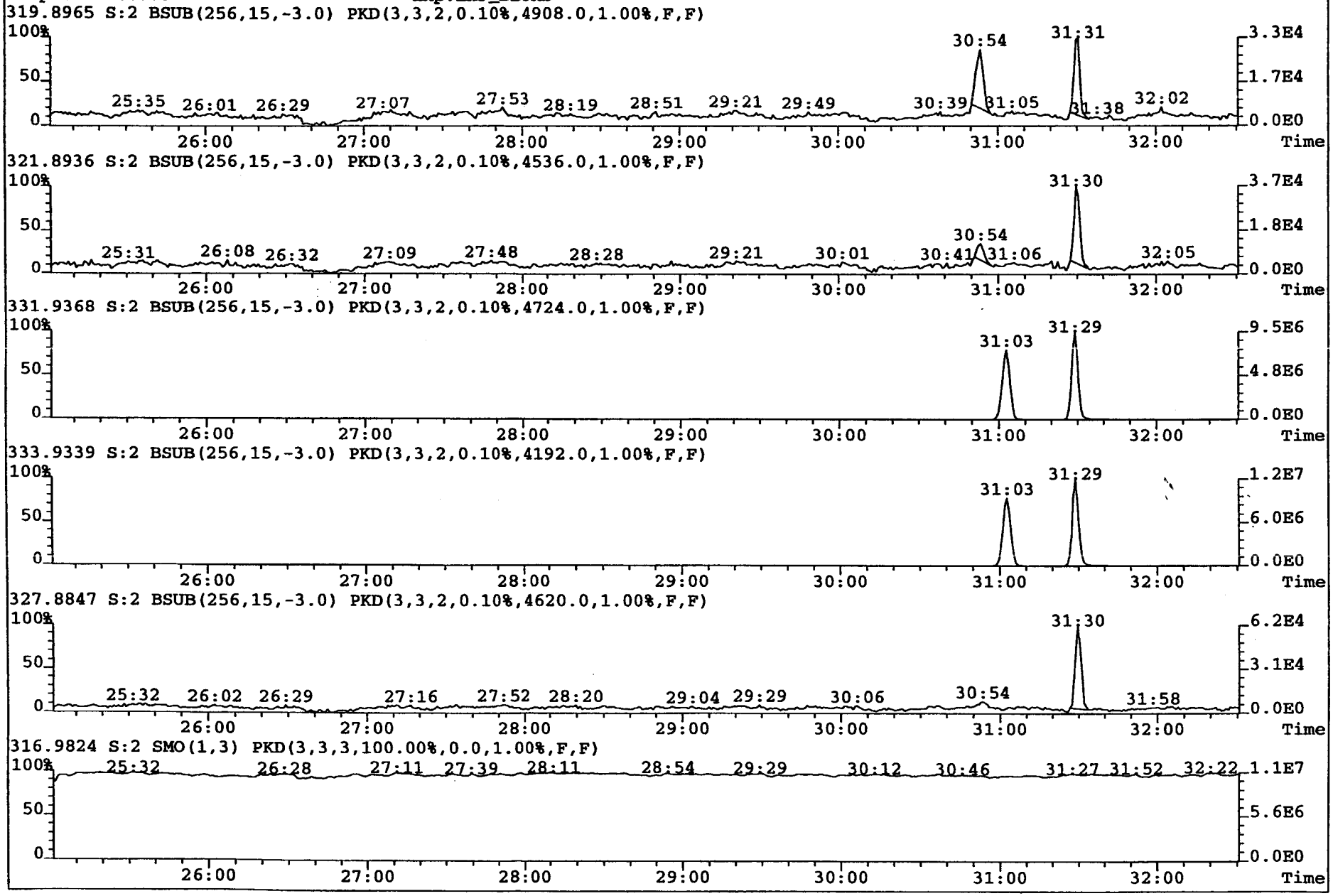


Run #1 Filename a22dec03b S: 2 I: 1 Acquired: 22-DEC-03 10:50:15 Processed: 22-DEC-03 15:03:02
Run: Analyte: m8290-121» Cal: Results: Version: V3.6 6-JAN-2000 17:51:42
Sample text: CS0.5 Comments:

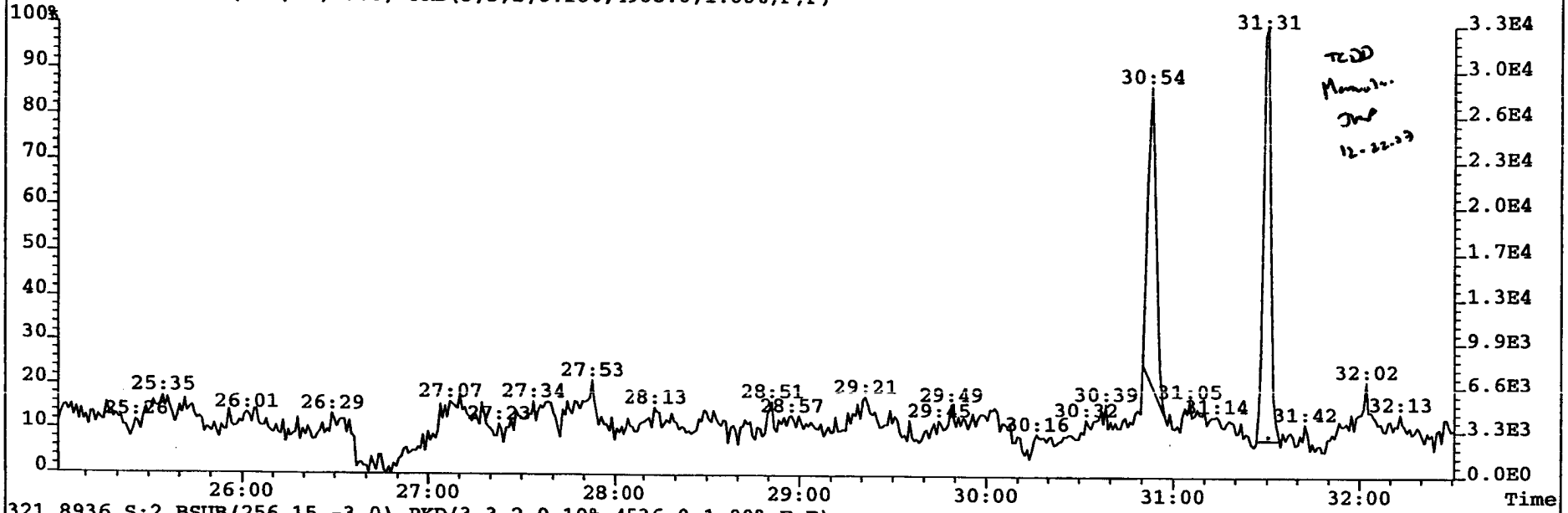
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	0.25	1.77e+05	0.88 y	31:30	-	1.17	n	y
2	Unk	1,2,3,7,8-PeCDD	1.25	6.06e+05	1.77 y	34:18	-	1.03	n	n
3	Unk	1,2,3,4,7,8-HxCDD	1.25	5.01e+05	1.12 y	36:55	-	0.78	n	n
4	Unk	1,2,3,6,7,8-HxCDD	1.25	6.03e+05	1.27 y	37:01	-	0.94	n	n
5	Unk	1,2,3,7,8,9-HxCDD	1.25	5.67e+05	1.11 y	37:16	-	0.89	n	n
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	5.99e+05	1.10 y	40:22	-	1.28	n	n
7	Unk	OCDD	2.50	9.39e+05	0.95 y	44:41	-	1.22	n	y
8	Unk	2,3,7,8-TCDF	0.25	2.69e+05	0.82 y	30:54	-	1.12	n	y
9	Unk	1,2,3,7,8-PeCDF	1.25	1.13e+06	1.49 y	33:29	-	1.11	n	n
10	Unk	2,3,4,7,8-PeCDF	1.25	1.21e+06	1.75 y	34:07	-	1.20	n	n
11	Unk	1,2,3,4,7,8-HxCDF	1.25	1.00e+06	1.21 y	36:12	-	1.11	n	n
12	Unk	1,2,3,6,7,8-HxCDF	1.25	1.11e+06	1.19 y	36:19	-	1.23	n	n
13	Unk	2,3,4,6,7,8-HxCDF	1.25	9.45e+05	1.29 y	36:48	-	1.05	n	n
14	Unk	1,2,3,7,8,9-HxCDF	1.25	7.99e+05	1.22 y	37:35	-	0.88	n	n
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	9.64e+05	1.00 y	39:05	-	1.41	n	n
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	7.64e+05	1.15 y	41:03	-	1.12	n	n
17	Unk	OCDF	2.50	1.01e+06	0.88 y	44:59	-	1.31	n	y
18	ES/RT	13C-2,3,7,8-TCDD	100.00	6.04e+07	0.79 y	31:29	-	1.07	n	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	4.69e+07	1.63 y	34:17	-	0.83	n	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	5.12e+07	1.22 y	37:00	-	1.14	n	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	3.73e+07	1.04 y	40:21	-	0.83	n	n
22	ES	13C-OCDD	200.00	6.16e+07	0.89 y	44:40	-	0.68	n	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	9.58e+07	0.82 y	30:53	-	1.70	n	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	8.08e+07	1.63 y	33:29	-	1.43	n	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	7.23e+07	0.51 y	36:18	-	1.60	n	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	5.47e+07	0.45 y	39:05	-	1.21	n	n
27	JS	13C-1,2,3,4-TCDD	100.00	5.64e+07	0.79 y	31:03	5.64e+05	-	n	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	4.51e+07	1.20 y	37:15	4.51e+05	-	n	n
29	CS	37Cl-2,3,7,8-TCDD	0.25	1.56e+05		31:30	-	1.11	n	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	8.29e+07	1.61 y	34:06	-	1.47	n	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	3.86e+07	1.22 y	36:55	-	0.86	n	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	6.03e+07	0.51 y	36:12	-	1.34	n	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.49e+07	0.47 y	41:02	-	1.00	n	n
34	SS	37Cl-2,3,7,8-TCDD	0.25	1.56e+05		31:30	-	1.03	n	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	8.29e+07	1.61 y	34:06	-	1.03	n	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	3.86e+07	1.22 y	36:55	-	0.75	n	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	6.03e+07	0.51 y	36:12	-	0.83	n	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.49e+07	0.47 y	41:02	-	0.82	n	n
39	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.12	n	n
40	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.17	n	n
41	Tot	Total Penta-Furans Fn1	0.00	-	- n	-	-	1.16	n	n
42	Tot	Total Penta-Furans Fn2	0.00	-	- n	-	-	1.16	n	n
43	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.03	n	n
44	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.07	n	n

=1.28472

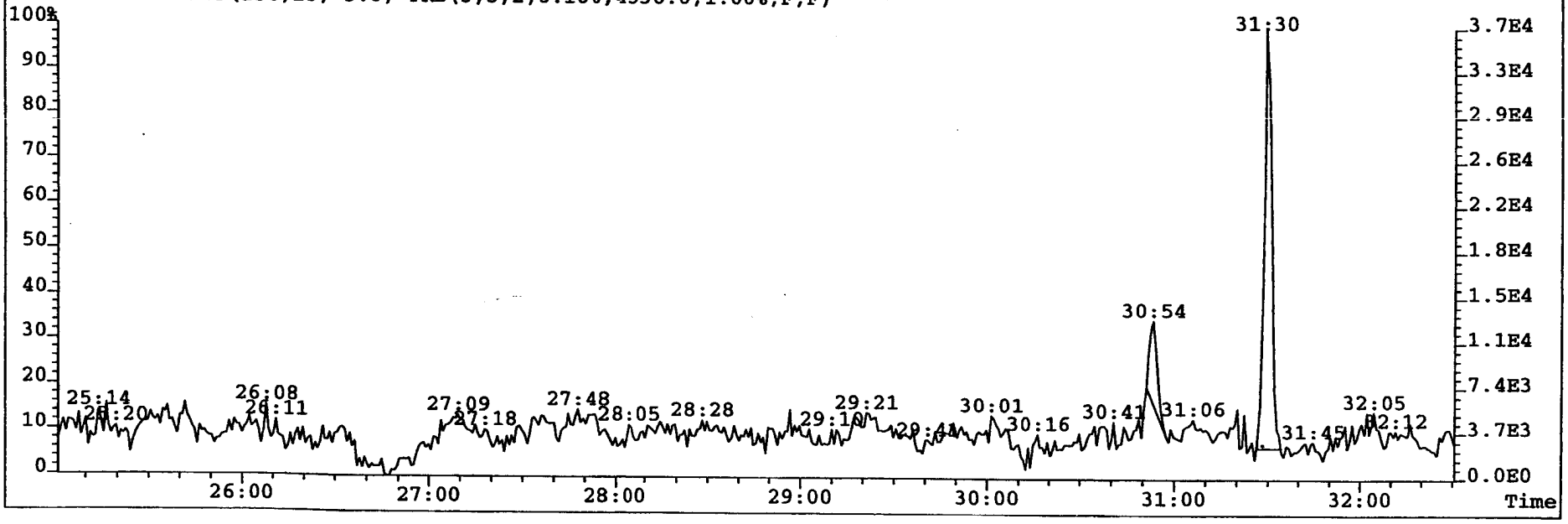
Filename:A22DEC03B -2 Acq:22-DEC-2003 10:50:15 Inst: HRMS2
Sample ID:CS0.5 Exp:EXP_DB5MS

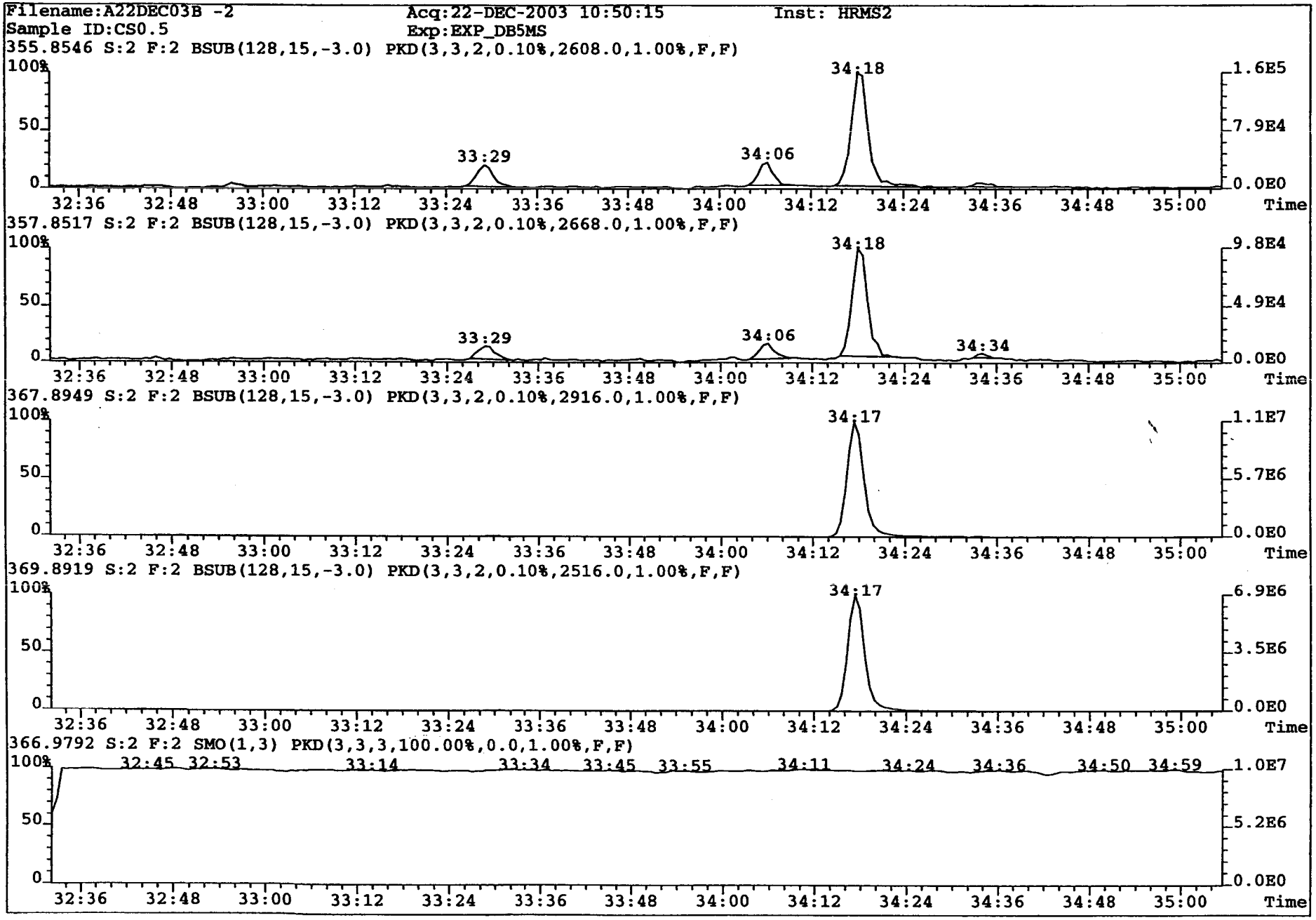


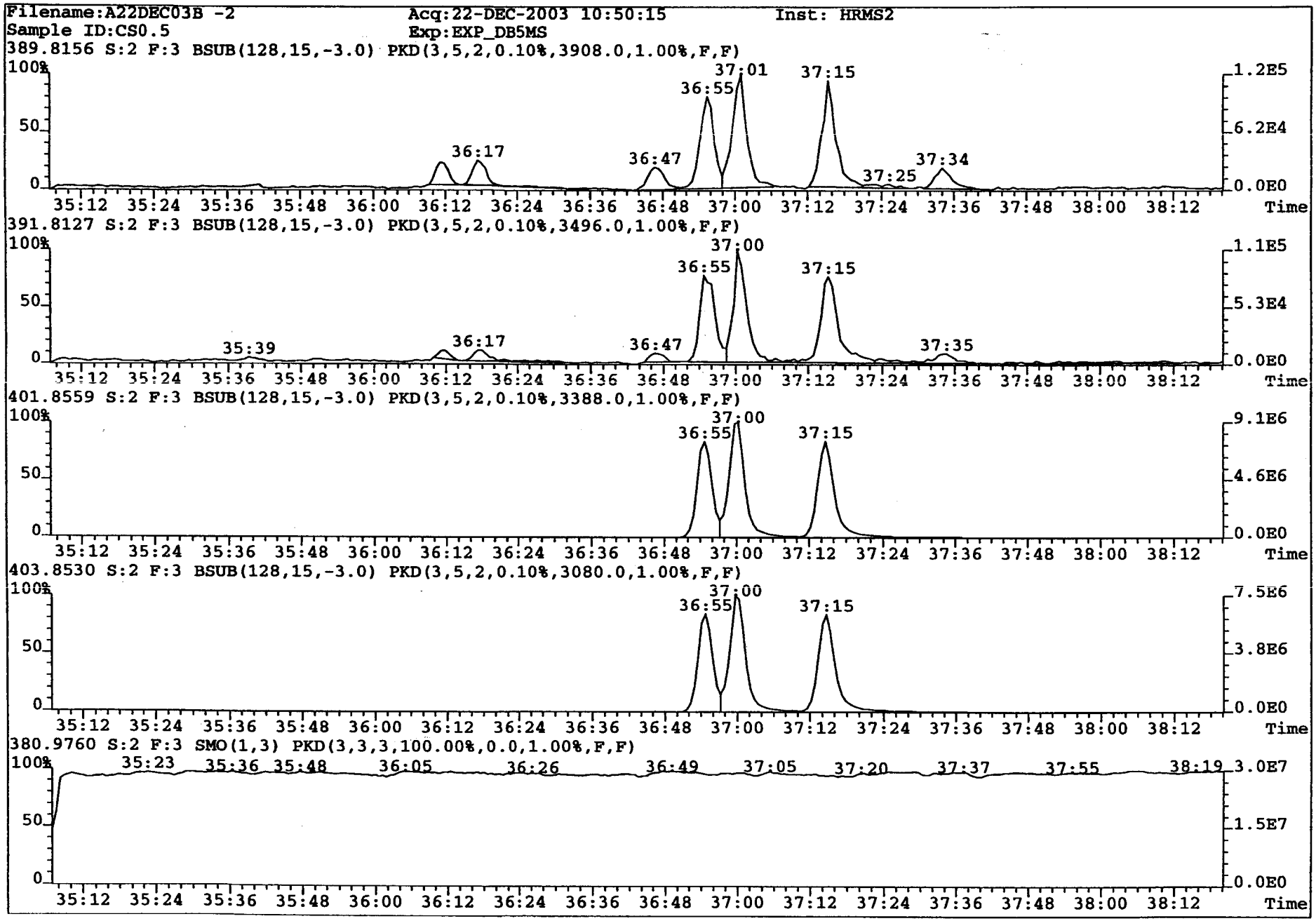
Filename:A22DEC03B -2 Acq:22-DEC-2003 10:50:15 Inst: HRMS2
Sample ID:CS0.5 Exp:EXP_DB5MS
319.8965 S:2 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4908.0,1.00%,F,F)

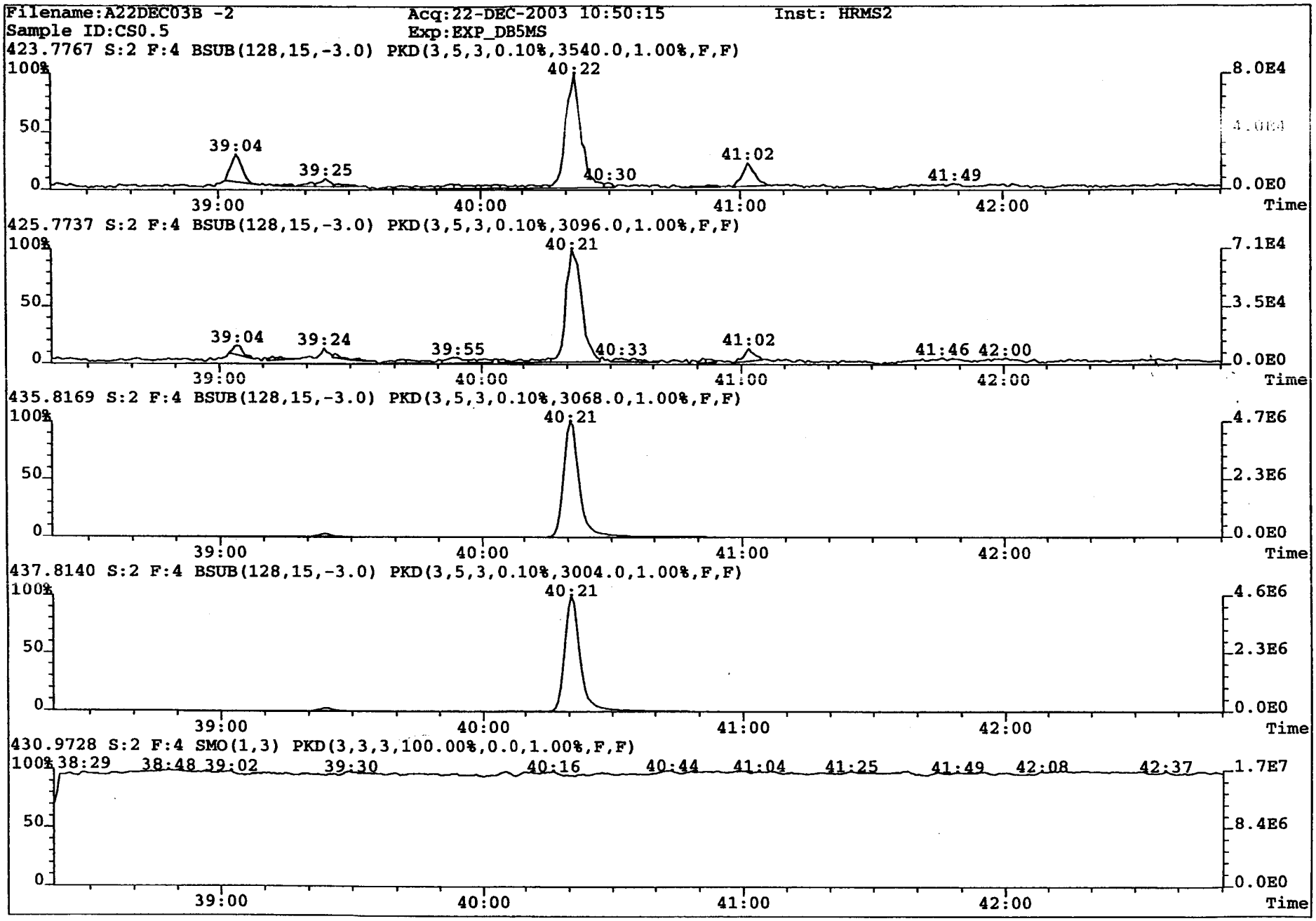


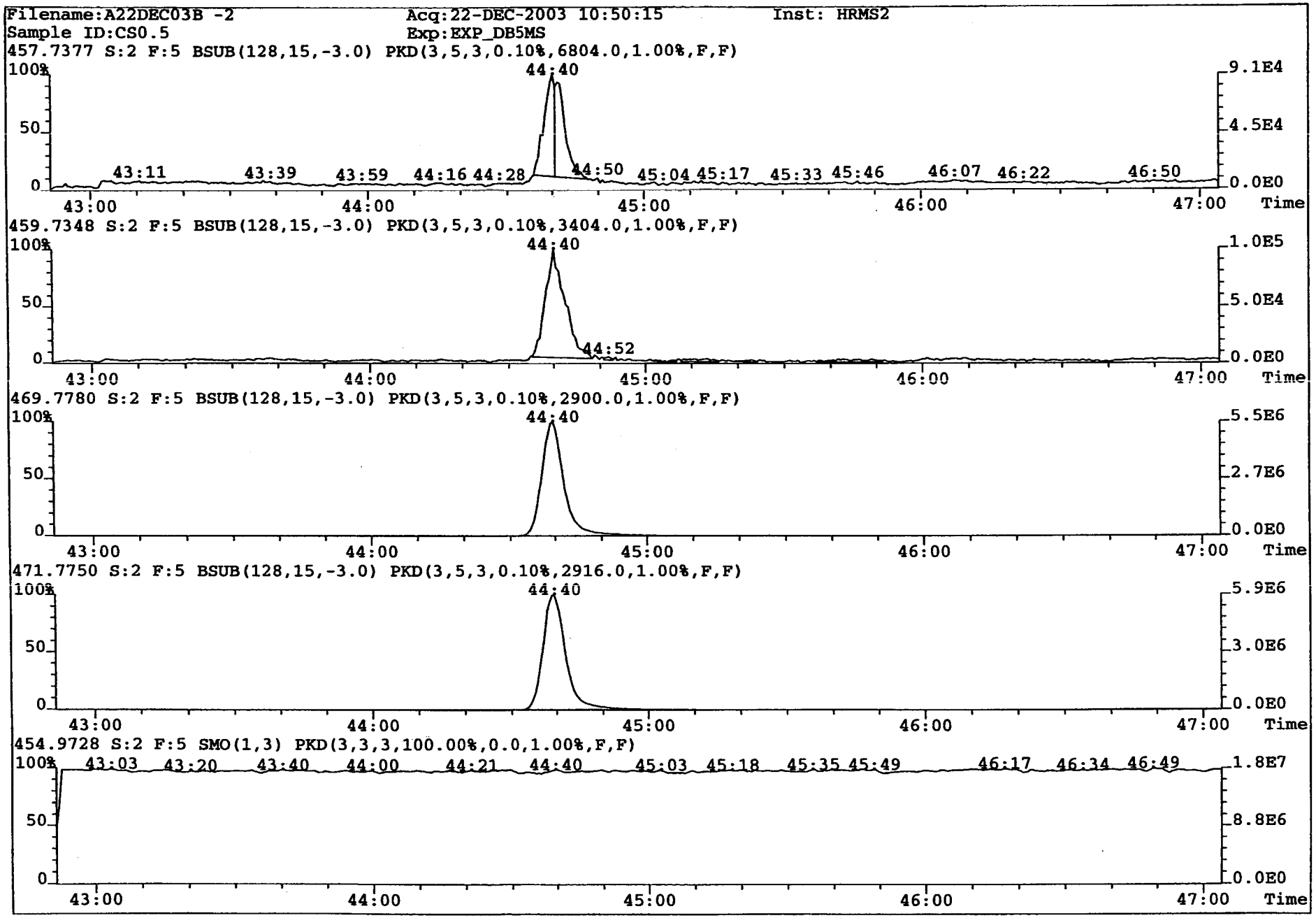
321.8936 S:2 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4536.0,1.00%,F,F)



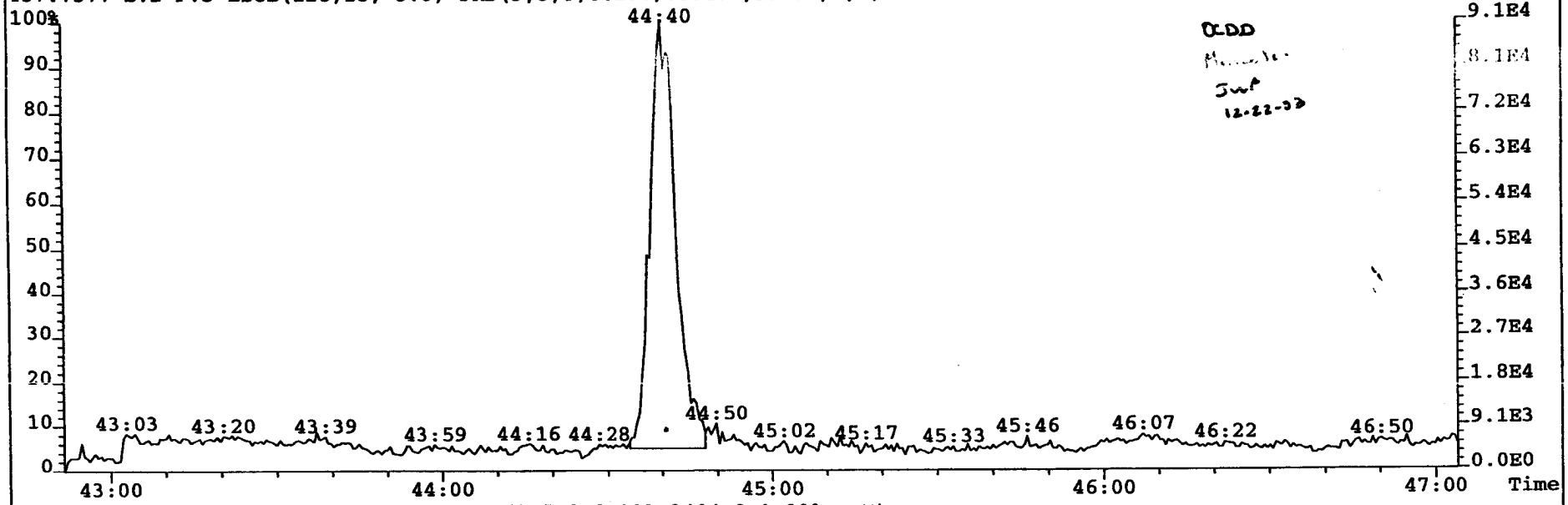

Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
355.8546 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2608.0,1.00%,F,F)
34:18
33:29
34:06
1.6E5
7.9E4
0.0E0
357.8517 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2668.0,1.00%,F,F)
34:18
33:29
34:06
34:34
9.8E4
4.9E4
0.0E0
367.8949 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2916.0,1.00%,F,F)
34:17
1.1E7
5.7E6
0.0E0
369.8919 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2516.0,1.00%,F,F)
34:17
6.9E6
3.5E6
0.0E0
366.9792 S:2 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:45 32:53 33:14 33:34 33:45 33:55 34:11 34:24 34:36 34:50 34:59
1.0E7
5.2E6
0.0E0
100%
50
0
32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time


Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
389.8156 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,3908.0,1.00%,F,F)
36:17
36:47
36:55
37:01
37:15
37:25
37:34
1.2E5
6.2E4
0.0E0
391.8127 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,3496.0,1.00%,F,F)
35:39
36:17
36:47
36:55
37:00
37:15
37:35
1.1E5
5.3E4
0.0E0
401.8559 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,3388.0,1.00%,F,F)
36:55
37:00
37:15
9.1E6
4.6E6
0.0E0
403.8530 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,3080.0,1.00%,F,F)
36:55
37:00
37:15
7.5E6
3.8E6
0.0E0
380.9760 S:2 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:23
35:36
35:48
36:05
36:26
36:49
37:05
37:20
37:37
37:55
38:19
3.0E7
1.5E7
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

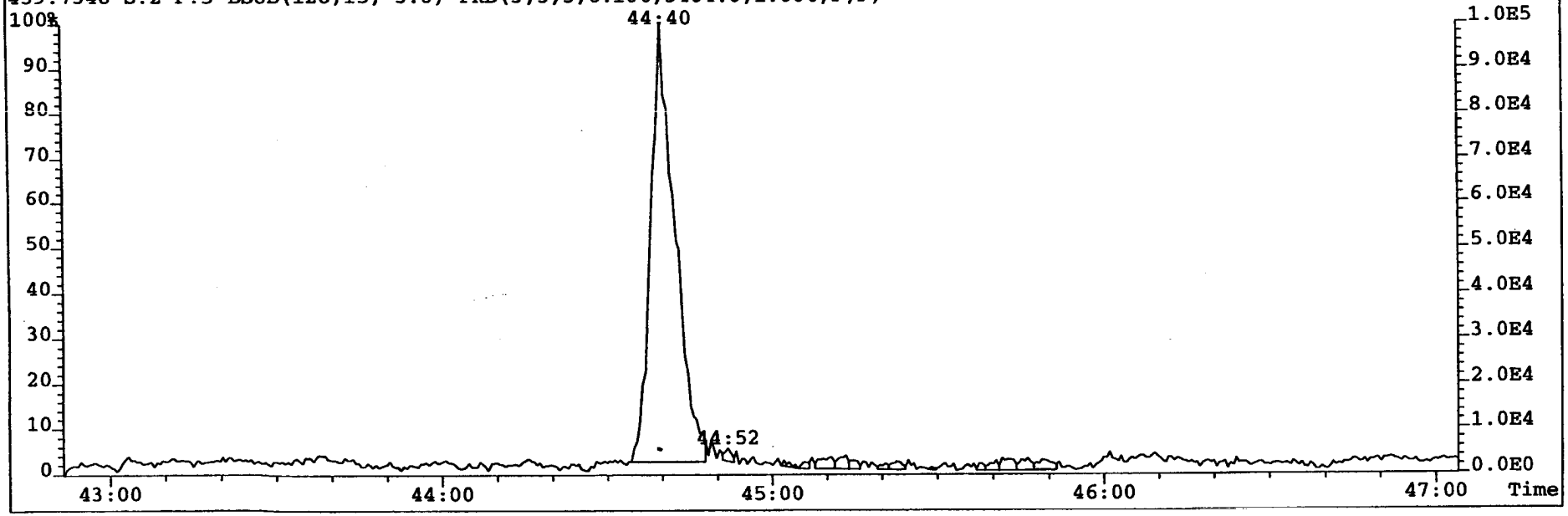

Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
423.7767 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3540.0,1.00%,F,F)
40:22
39:04
39:25
40:30
41:02
41:49
8.0E4
0.0E0
425.7737 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3096.0,1.00%,F,F)
40:21
39:04
39:24
39:55
40:33
41:02
41:46
42:00
7.1E4
3.5E4
0.0E0
435.8169 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3068.0,1.00%,F,F)
40:21
4.7E6
2.3E6
0.0E0
437.8140 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3004.0,1.00%,F,F)
40:21
4.6E6
2.3E6
0.0E0
430.9728 S:2 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:29
38:48
39:02
39:30
40:16
40:44
41:04
41:25
41:49
42:08
42:37
1.7E7
8.4E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
457.7377 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6804.0,1.00%,F,F)
44:40
43:11 43:39 43:59 44:16 44:28 44:50 45:04 45:17 45:33 45:46 46:07 46:22 46:50
9.1E4
4.5E4
0.0E0
459.7348 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3404.0,1.00%,F,F)
44:40
44:52
1.0E5
5.0E4
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2900.0,1.00%,F,F)
44:40
5.5E6
2.7E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2916.0,1.00%,F,F)
44:40
5.9E6
3.0E6
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:03 43:20 43:40 44:00 44:21 44:40 45:03 45:18 45:35 45:49 46:17 46:34 46:49
1.8E7
8.8E6
0.0E0
100%
50
0
43:00 44:00 45:00 46:00 47:00 Time

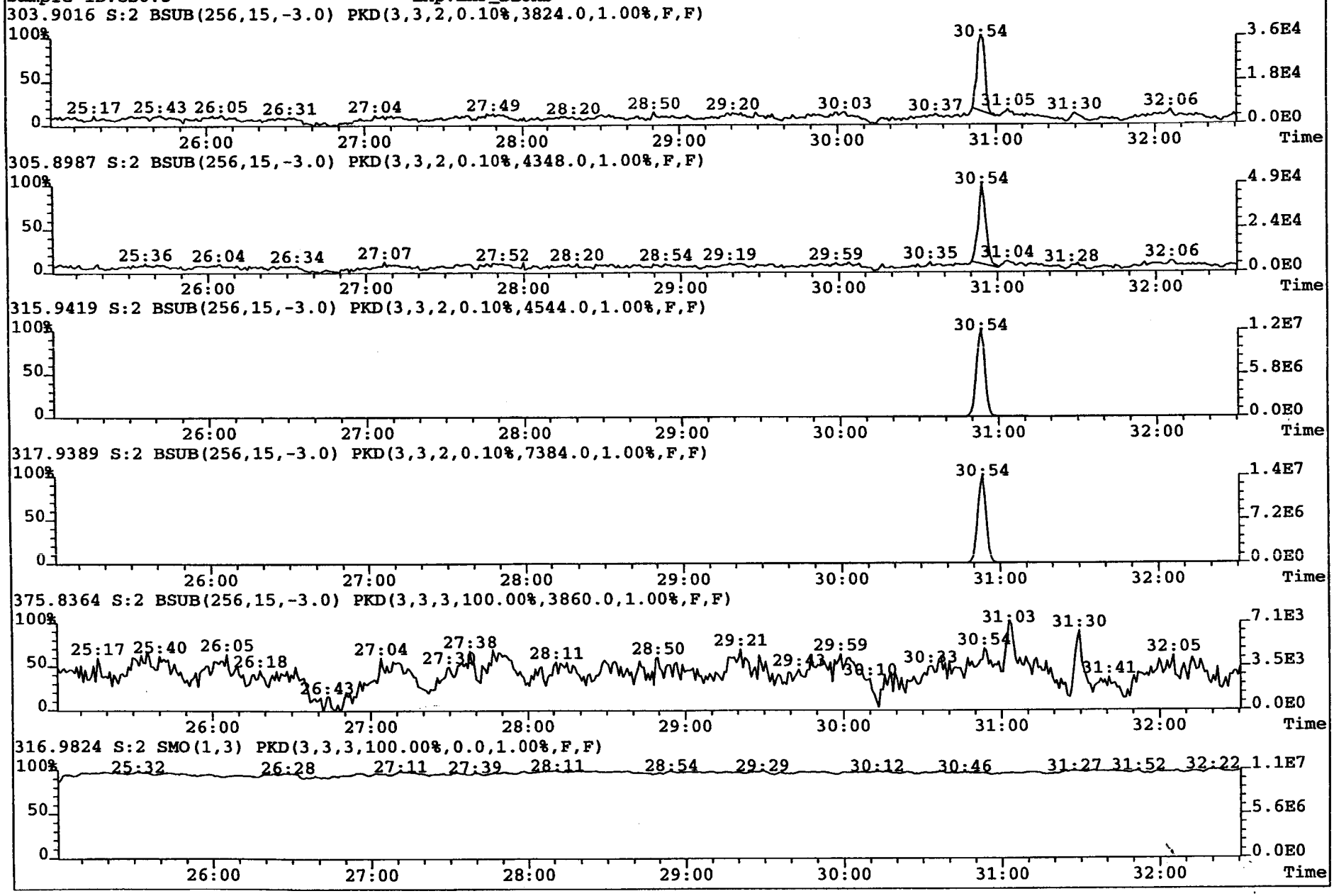
Filename:A22DEC03B -2 Acq:22-DEC-2003 10:50:15 Inst: HRMS2
Sample ID:CS0.5 Exp:EXP_DB5MS
457.7377 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6804.0,1.00%,F,F)



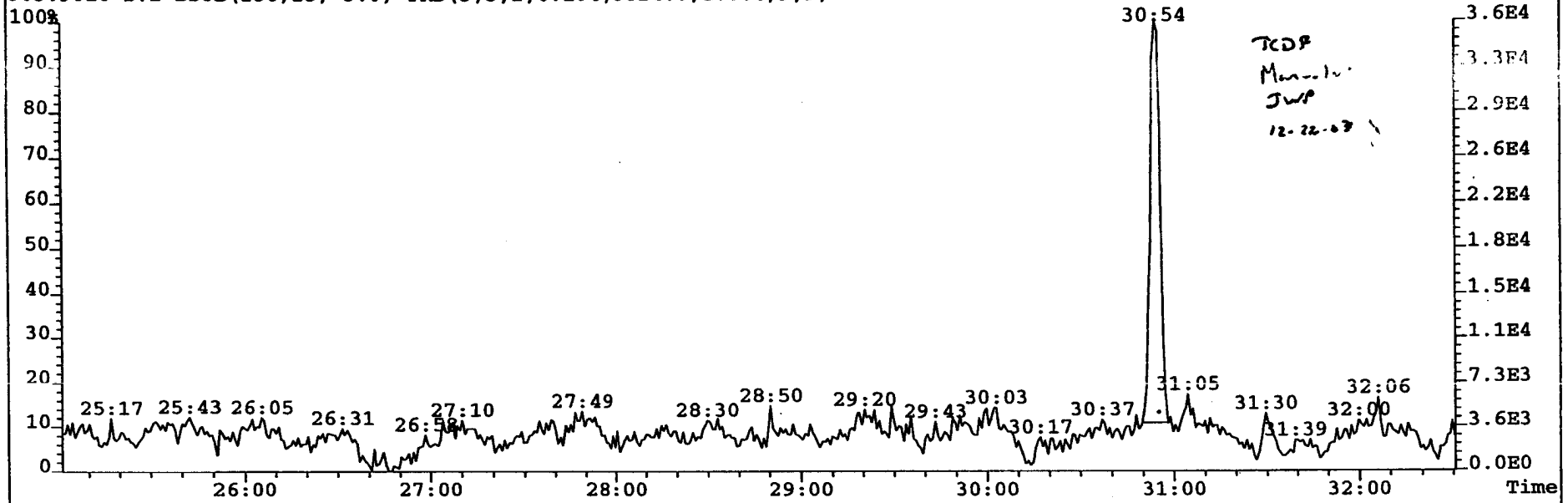
459.7348 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3404.0,1.00%,F,F)



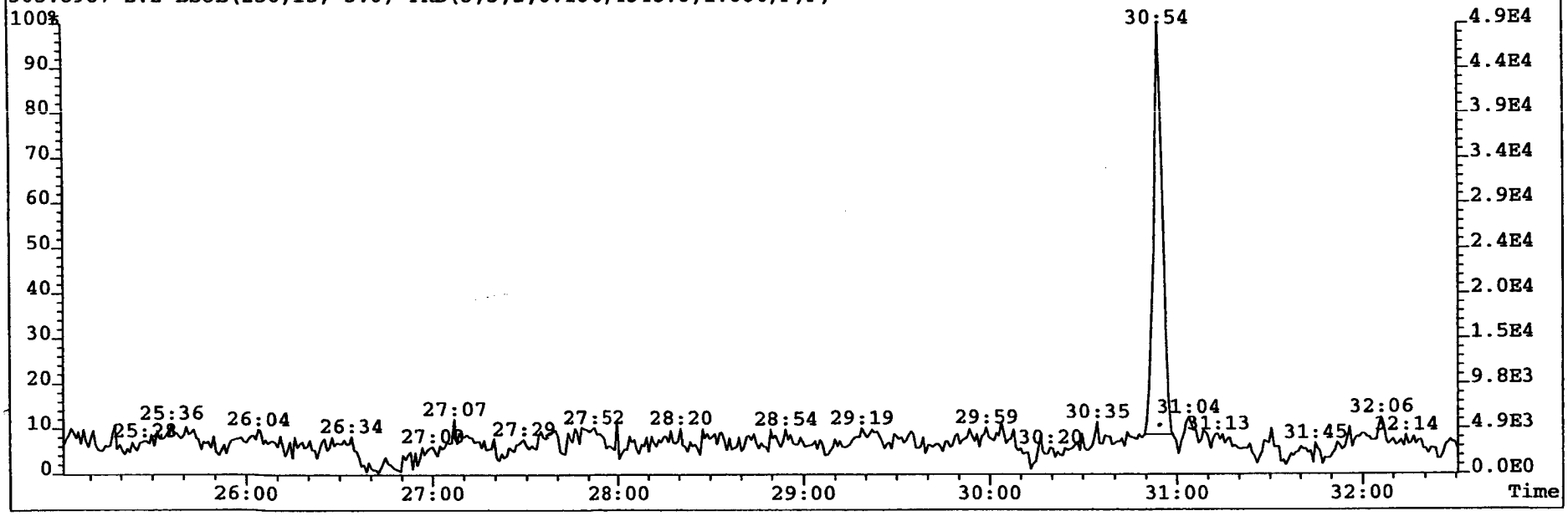
Filename:A22DEC03B -2 Acq:22-DEC-2003 10:50:15 Inst: HRMS2
Sample ID:CS0.5 Exp:EXP_DB5MS

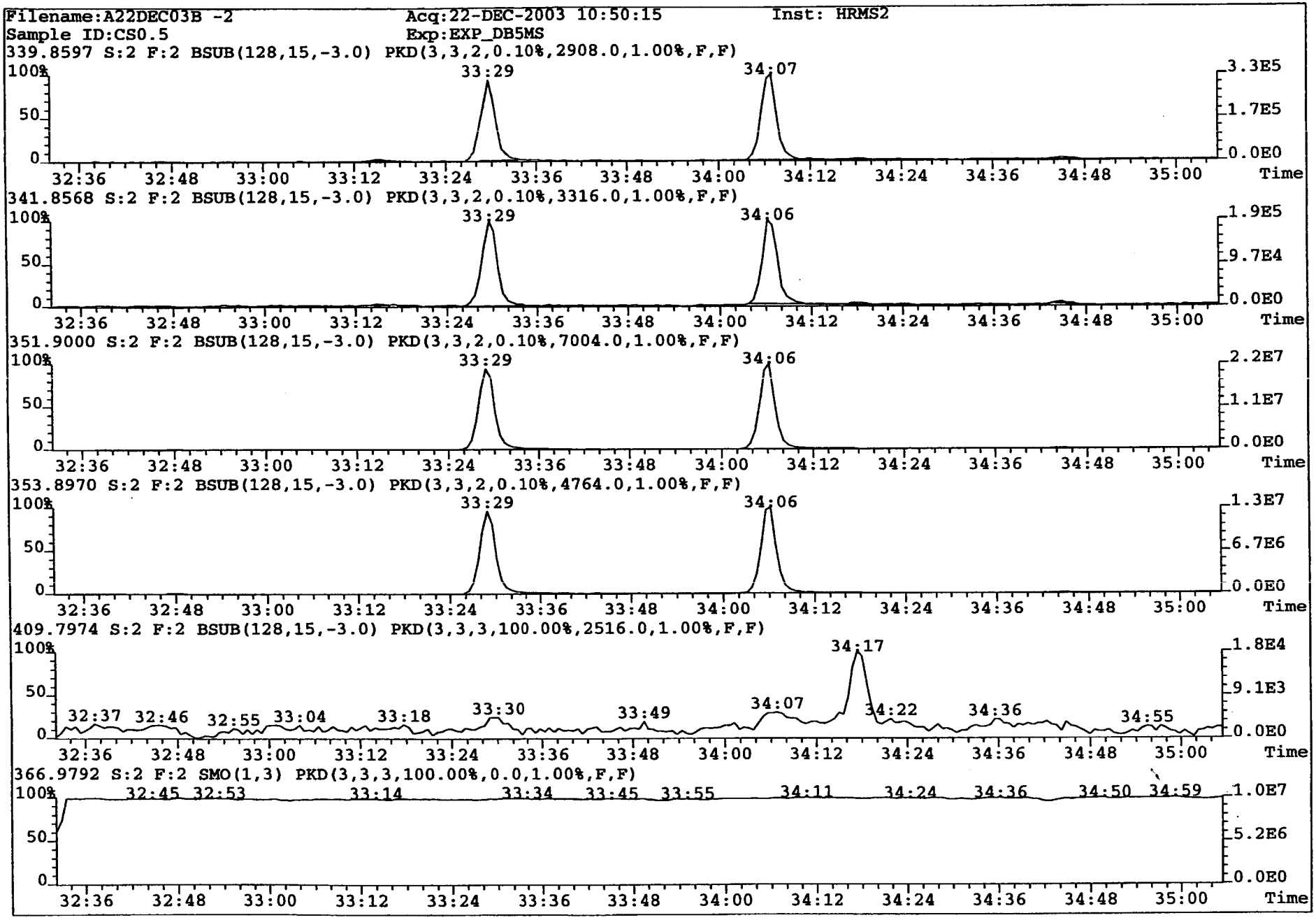


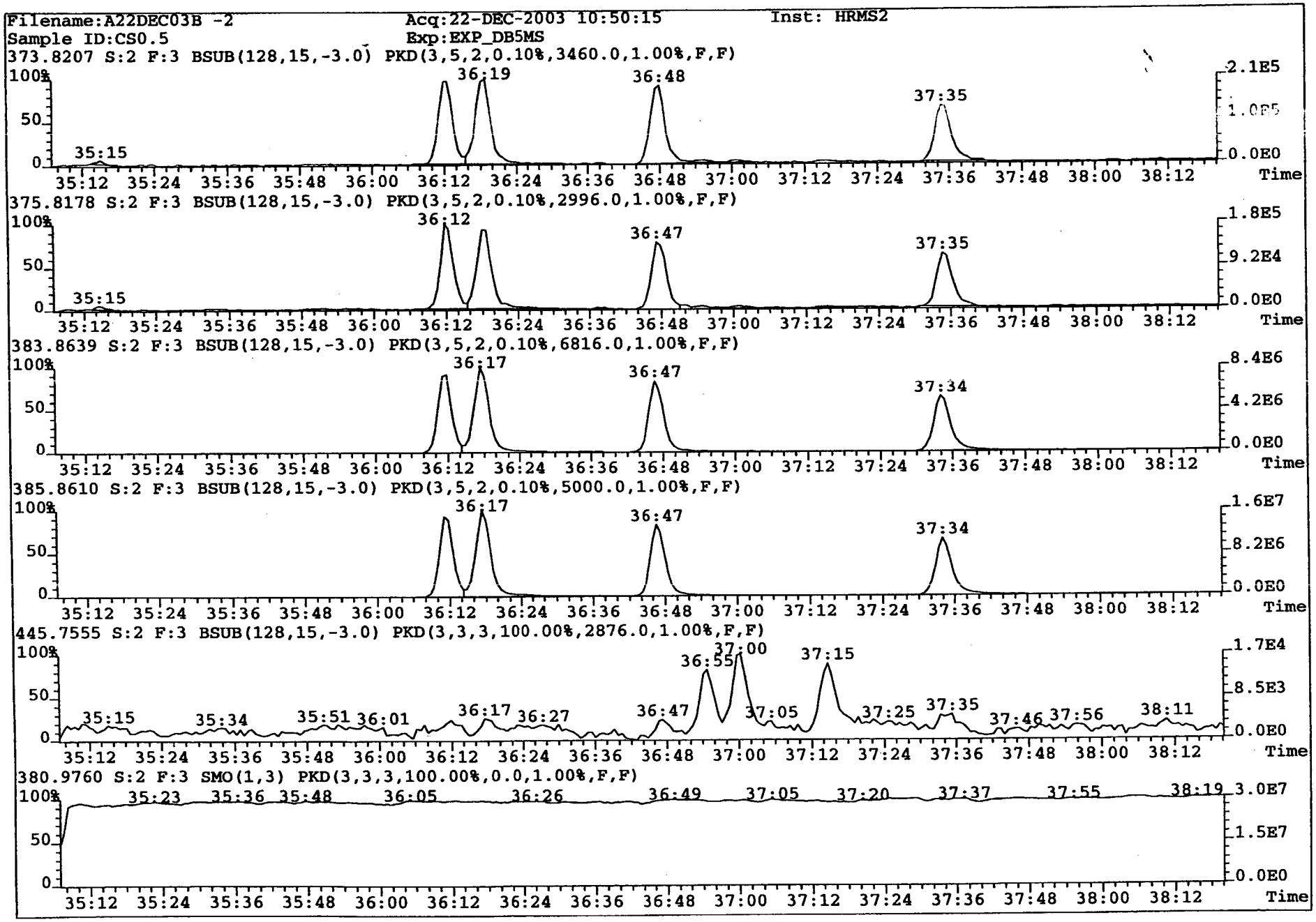
Filename:A22DEC03B -2 Acq:22-DEC-2003 10:50:15 Inst: HRMS2
Sample ID:CS0.5 Exp:EXP_DB5MS
303.9016 S:2 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3824.0,1.00%,F,F)

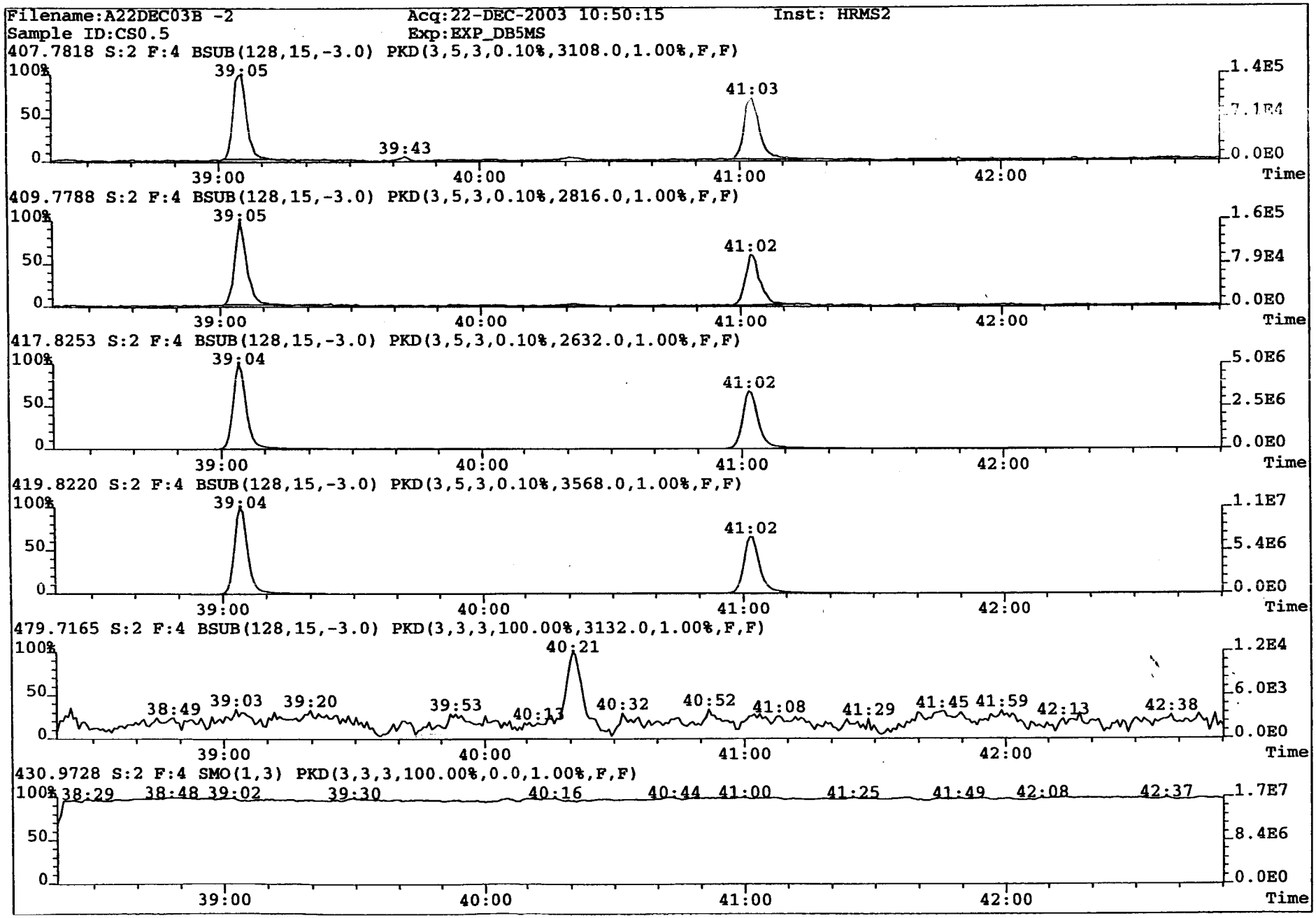


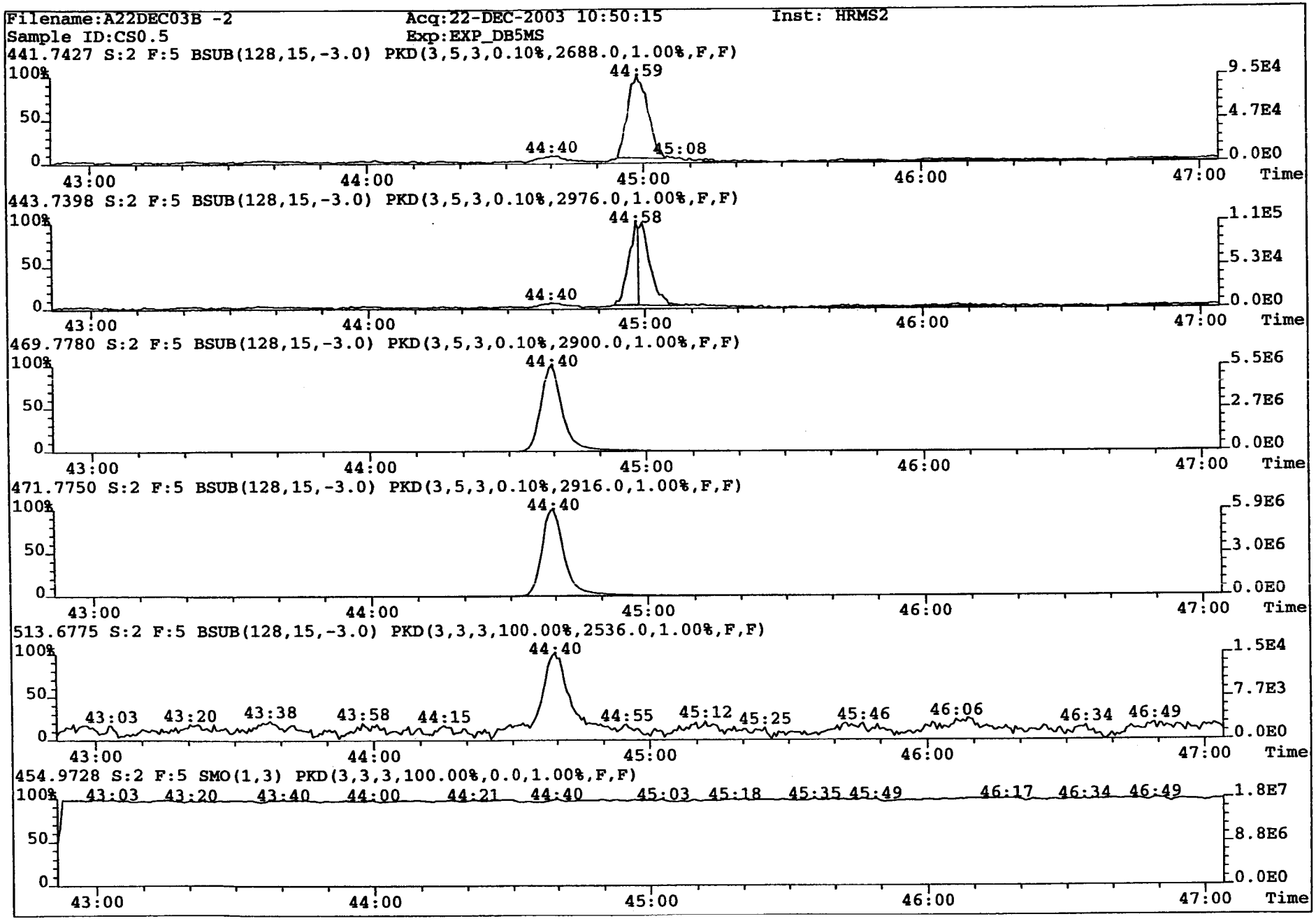
305.8987 S:2 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4348.0,1.00%,F,F)



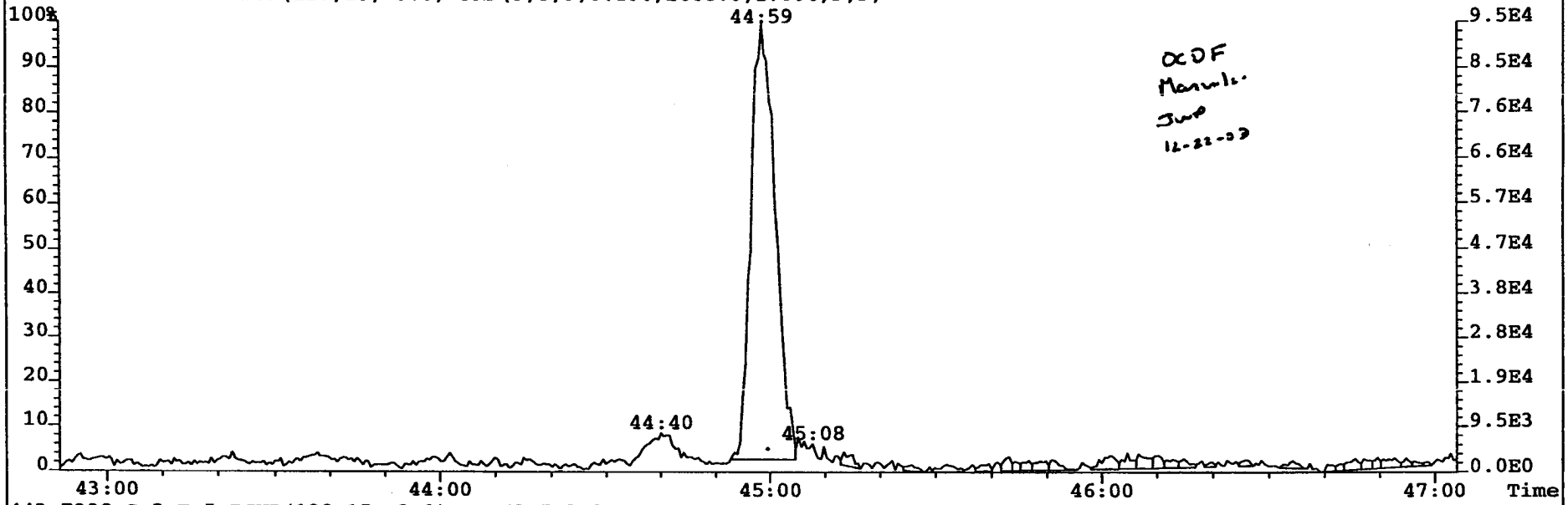

Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
339.8597 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2908.0,1.00%,F,F)
33:29
34:07
3.3E5
1.7E5
0.0E0
341.8568 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3316.0,1.00%,F,F)
33:29
34:06
1.9E5
9.7E4
0.0E0
351.9000 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7004.0,1.00%,F,F)
33:29
34:06
2.2E7
1.1E7
0.0E0
353.8970 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4764.0,1.00%,F,F)
33:29
34:06
1.3E7
6.7E6
0.0E0
409.7974 S:2 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2516.0,1.00%,F,F)
34:17
32:37 32:46 32:55 33:04 33:18 33:30 33:49 34:07 34:22 34:36 34:55
1.8E4
9.1E3
0.0E0
366.9792 S:2 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:45 32:53 33:14 33:34 33:45 33:55 34:11 34:24 34:36 34:50 34:59
1.0E7
5.2E6
0.0E0
100%
50
0
32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time


Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
373.8207 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,3460.0,1.00%,F,F)
375.8178 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,2996.0,1.00%,F,F)
383.8639 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6816.0,1.00%,F,F)
385.8610 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5000.0,1.00%,F,F)
445.7555 S:2 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2876.0,1.00%,F,F)
380.9760 S:2 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time


Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
407.7818 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3108.0,1.00%,F,F)
39:05
41:03
39:43
1.4E5
7.1E4
0.0E0
409.7788 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2816.0,1.00%,F,F)
39:05
41:02
1.6E5
7.9E4
0.0E0
417.8253 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2632.0,1.00%,F,F)
39:04
41:02
5.0E6
2.5E6
0.0E0
419.8220 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3568.0,1.00%,F,F)
39:04
41:02
1.1E7
5.4E6
0.0E0
479.7165 S:2 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3132.0,1.00%,F,F)
40:21
38:49 39:03 39:20 39:53 40:13 40:32 40:52 41:08 41:29 41:45 41:59 42:13 42:38
1.2E4
6.0E3
0.0E0
430.9728 S:2 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:29 38:48 39:02 39:30 40:16 40:44 41:00 41:25 41:49 42:08 42:37
1.7E7
8.4E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

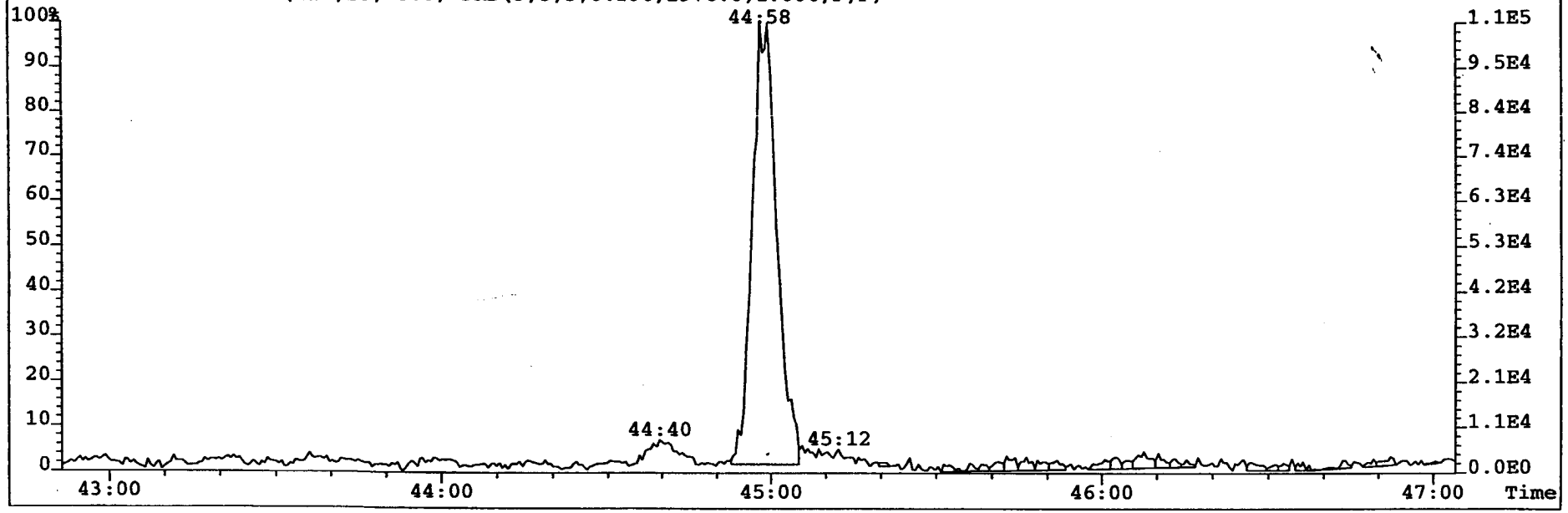

Filename:A22DEC03B -2
Acq:22-DEC-2003 10:50:15
Inst: HRMS2
Sample ID:CS0.5
Exp:EXP_DB5MS
441.7427 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2688.0,1.00%,F,F)
44:59
44:40
45:08
9.5E4
4.7E4
0.0E0
443.7398 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2976.0,1.00%,F,F)
44:58
44:40
1.1E5
5.3E4
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2900.0,1.00%,F,F)
44:40
5.5E6
2.7E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2916.0,1.00%,F,F)
44:40
5.9E6
3.0E6
0.0E0
513.6775 S:2 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2536.0,1.00%,F,F)
44:40
43:03 43:20 43:38 43:58 44:15 44:55 45:12 45:25 45:46 46:06 46:34 46:49
1.5E4
7.7E3
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:03 43:20 43:40 44:00 44:21 44:40 45:03 45:18 45:35 45:49 46:17 46:34 46:49
1.8E7
8.8E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time

Filename:A22DEC03B -2 Acq:22-DEC-2003 10:50:15 Inst: HRMS2
Sample ID:CS0.5 Exp:EXP_DB5MS
441.7427 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2688.0,1.00%,F,F)



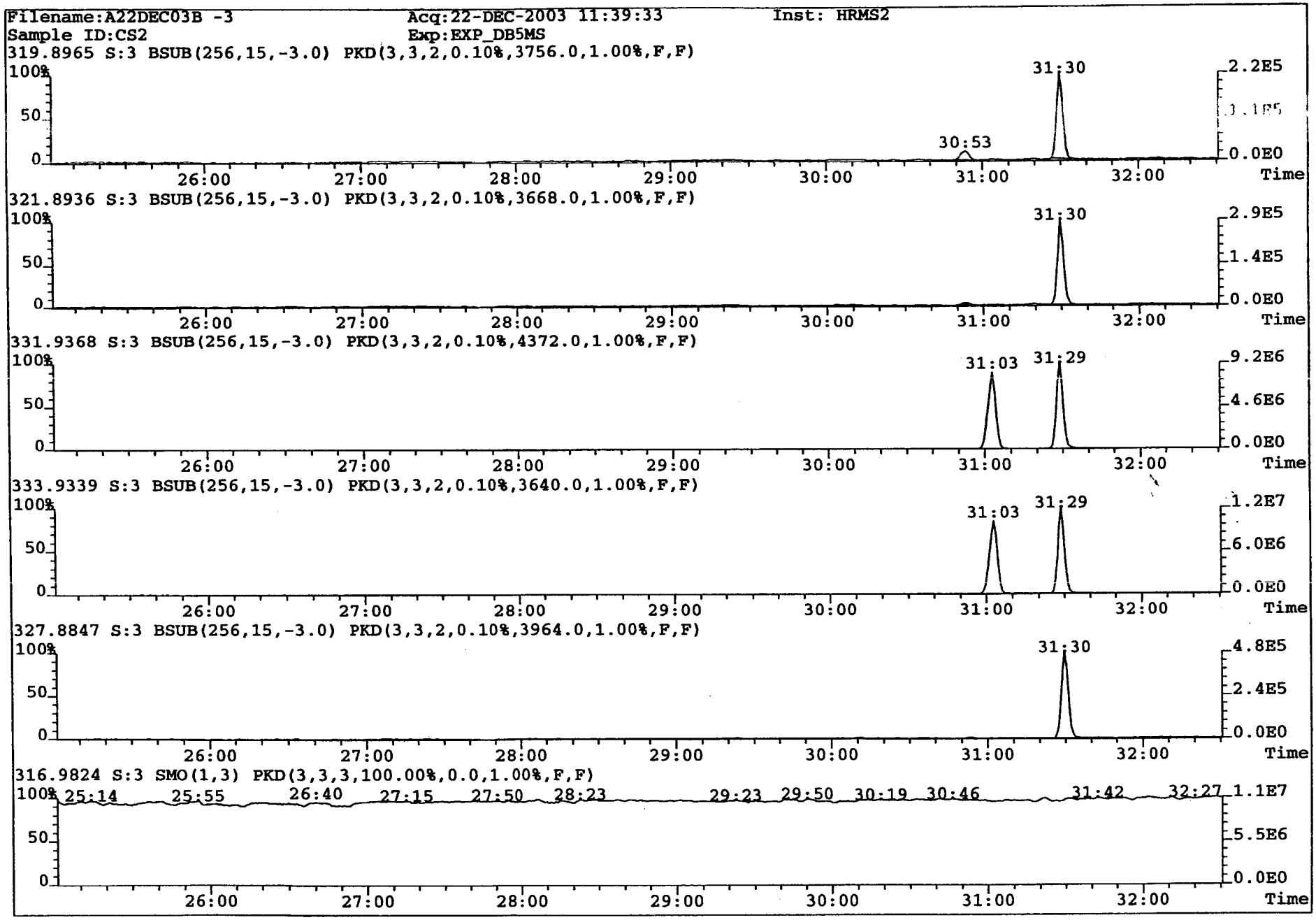
OCDF
Manual.
JWP
12-22-03

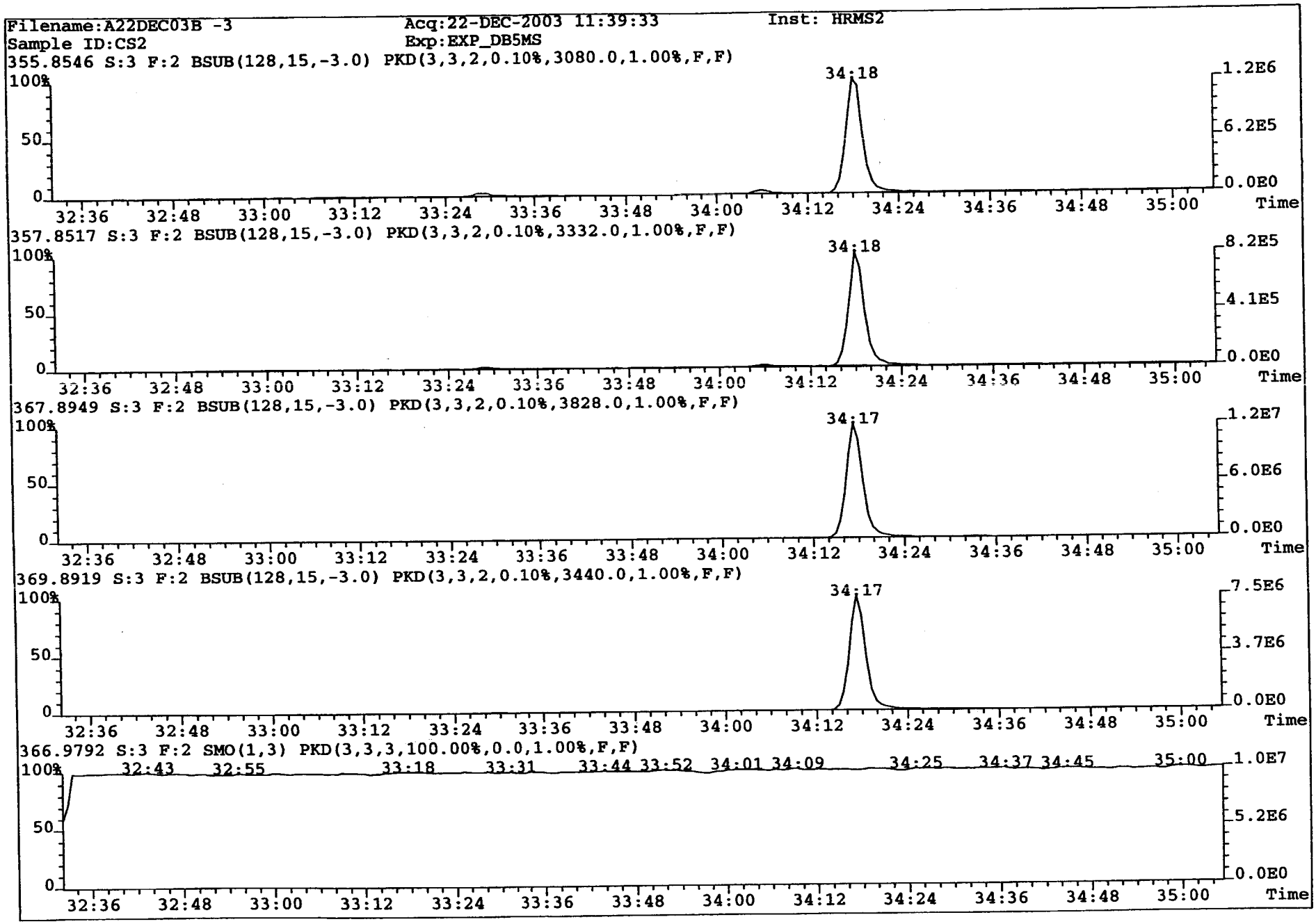
443.7398 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2976.0,1.00%,F,F)



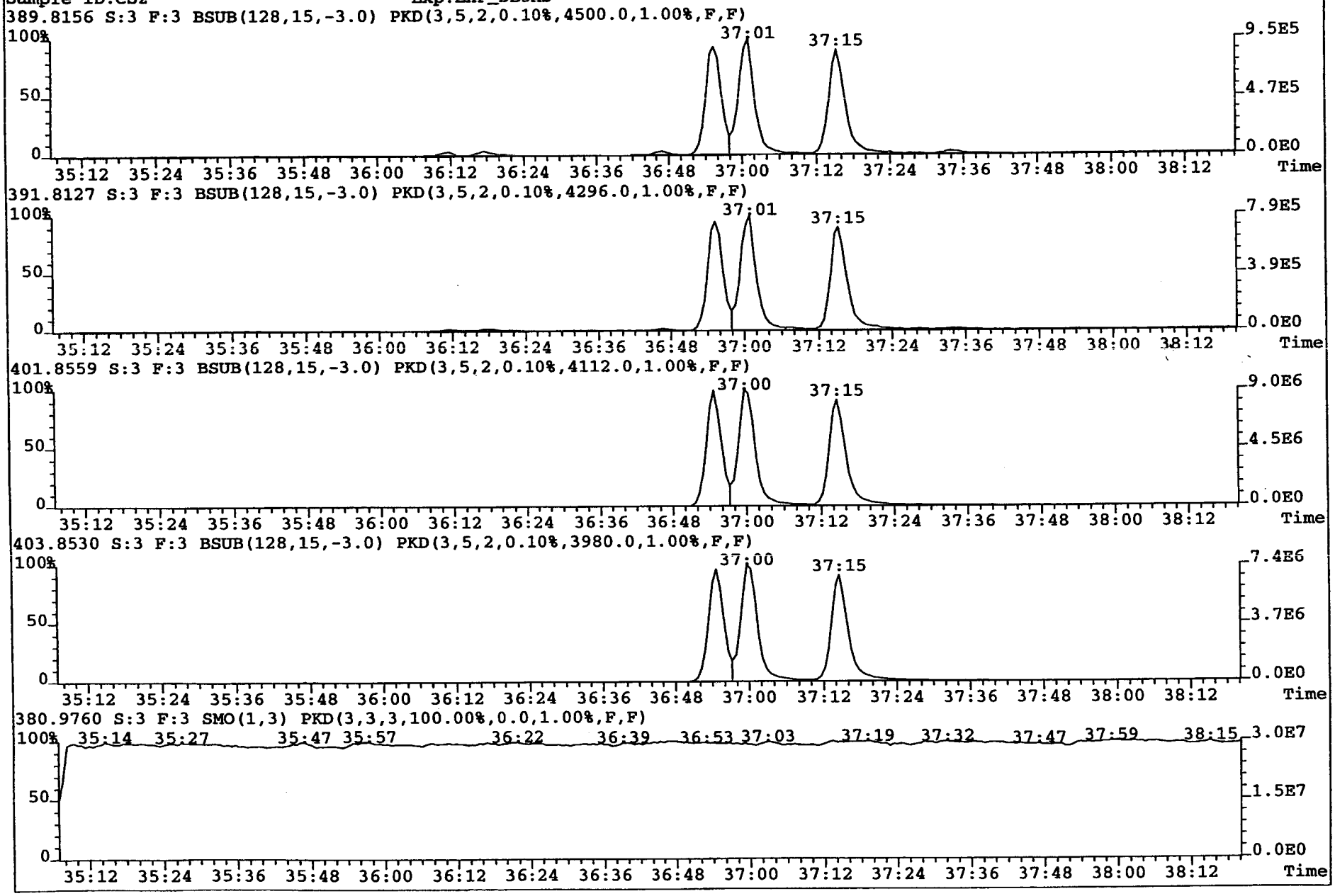
Run #2 Filename a22dec03b S: 3 I: 1 Acquired: 22-DEC-03 11:39:33 Processed: 22-DEC-03 14:26:36
Run: Analyte: m8290-121» Cal: Results: Version: V3.6 6-JAN-2000 17:51:42
Sample text: CS2 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?	
1	Unk	2,3,7,8-TCDD	2.00	1.35e+06	0.77	y	31:30	-	1.10	y	n	
2	Unk	1,2,3,7,8-PeCDD	10.00	5.14e+06	1.61	y	34:18	-	1.06	y	n	
3	Unk	1,2,3,4,7,8-HxCDD	10.00	4.66e+06	1.20	y	36:55	-	0.89	y	n	
4	Unk	1,2,3,6,7,8-HxCDD	10.00	5.22e+06	1.21	y	37:01	-	1.00	y	n	
5	Unk	1,2,3,7,8,9-HxCDD	10.00	4.90e+06	1.21	y	37:16	-	0.94	y	n	
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	4.33e+06	1.04	y	40:22	-	1.15	y	n	= 1.1455
7	Unk	OCDD	20.00	7.03e+06	0.89	y	44:41	-	1.08	y	n	
8	Unk	2,3,7,8-TCDF	2.00	2.15e+06	0.84	y	30:54	-	1.07	y	n	
9	Unk	1,2,3,7,8-PeCDF	10.00	8.80e+06	1.60	y	33:29	-	1.06	y	n	
10	Unk	2,3,4,7,8-PeCDF	10.00	9.50e+06	1.60	y	34:07	-	1.14	y	n	
11	Unk	1,2,3,4,7,8-HxCDF	10.00	7.64e+06	1.22	y	36:12	-	1.02	y	n	
12	Unk	1,2,3,6,7,8-HxCDF	10.00	8.86e+06	1.22	y	36:18	-	1.19	y	n	
13	Unk	2,3,4,6,7,8-HxCDF	10.00	8.42e+06	1.22	y	36:48	-	1.13	y	n	
14	Unk	1,2,3,7,8,9-HxCDF	10.00	6.77e+06	1.25	y	37:35	-	0.91	y	n	
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	7.84e+06	1.04	y	39:05	-	1.44	y	n	
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	6.06e+06	1.07	y	41:03	-	1.12	y	n	
17	Unk	OCDF	20.00	9.18e+06	0.90	y	44:59	-	1.41	y	n	
18	ES/RT	13C-2,3,7,8-TCDD	100.00	6.11e+07	0.78	y	31:29	-	1.00	y	n	
19	ES	13C-1,2,3,7,8-PeCDD	100.00	4.84e+07	1.62	y	34:17	-	0.79	y	n	
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	5.24e+07	1.22	y	37:00	-	1.09	y	n	
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	3.78e+07	1.04	y	40:21	-	0.78	y	n	
22	ES	13C-OCDD	200.00	6.51e+07	0.88	y	44:40	-	0.68	y	n	
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.00e+08	0.82	y	30:53	-	1.64	y	n	
24	ES	13C-1,2,3,7,8-PeCDF	100.00	8.30e+07	1.62	y	33:29	-	1.36	y	n	
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	7.48e+07	0.51	y	36:18	-	1.55	y	n	
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	5.43e+07	0.46	y	39:04	-	1.13	y	n	
27	JS	13C-1,2,3,4-TCDD	100.00	6.11e+07	0.79	y	31:03	6.11e+05	-	n	n	
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	4.82e+07	1.23	y	37:15	4.82e+05	-	n	n	
29	CS	37Cl-2,3,7,8-TCDD	2.00	1.38e+06			31:30	-	1.13	y	n	
30	CS	13C-2,3,4,7,8-PeCDF	100.00	8.50e+07	1.63	y	34:06	-	1.39	y	n	
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	4.46e+07	1.23	y	36:55	-	0.93	y	n	
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	6.23e+07	0.51	y	36:11	-	1.29	y	n	
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.62e+07	0.47	y	41:02	-	0.96	y	n	
34	SS	37Cl-2,3,7,8-TCDD	2.00	1.38e+06			31:30	-	1.13	y	n	
35	SS	13C-2,3,4,7,8-PeCDF	100.00	8.50e+07	1.63	y	34:06	-	1.02	y	n	
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	4.46e+07	1.23	y	36:55	-	0.85	y	n	
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	6.23e+07	0.51	y	36:11	-	0.83	y	n	
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.62e+07	0.47	y	41:02	-	0.85	y	n	
39	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.07	y	n	
40	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.10	y	n	
41	Tot	Total Penta-Furans Fn1	0.00	-	-	n	-	-	1.10	y	n	
42	Tot	Total Penta-Furans Fn2	0.00	-	-	n	-	-	1.10	y	n	
43	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.06	y	n	
44	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.06	y	n	

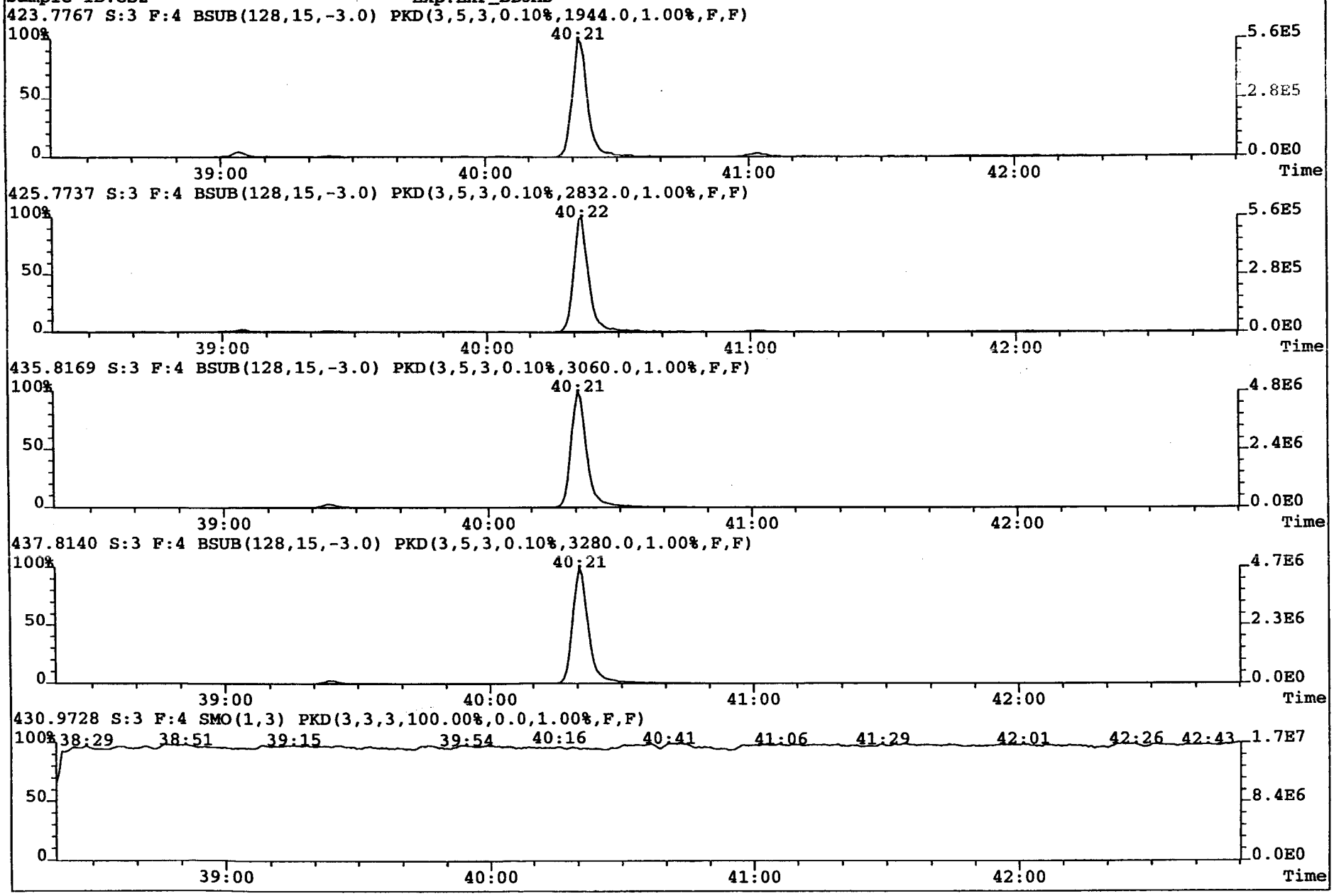

Filename:A22DEC03B -3
Acq:22-DEC-2003 11:39:33
Inst: HRMS2
Sample ID:CS2
Exp:EXP_DB5MS
319.8965 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3756.0,1.00%,F,F)
31:30
30:53
2.2E5
0.0E0
321.8936 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3668.0,1.00%,F,F)
31:30
2.9E5
1.4E5
0.0E0
331.9368 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4372.0,1.00%,F,F)
31:03
31:29
9.2E6
4.6E6
0.0E0
333.9339 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3640.0,1.00%,F,F)
31:03
31:29
1.2E7
6.0E6
0.0E0
327.8847 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3964.0,1.00%,F,F)
31:30
4.8E5
2.4E5
0.0E0
316.9824 S:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:14
25:55
26:40
27:15
27:50
28:23
29:23
29:50
30:19
30:46
31:42
32:27
1.1E7
5.5E6
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time


Filename:A22DEC03B -3
Acq:22-DEC-2003 11:39:33
Inst: HRMS2
Sample ID:CS2
Exp:EXP_DB5MS
355.8546 S:3 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3080.0,1.00%,F,F)
34:18
1.2E6
6.2E5
0.0E0
357.8517 S:3 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3332.0,1.00%,F,F)
34:18
8.2E5
4.1E5
0.0E0
367.8949 S:3 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3828.0,1.00%,F,F)
34:17
1.2E7
6.0E6
0.0E0
369.8919 S:3 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3440.0,1.00%,F,F)
34:17
7.5E6
3.7E6
0.0E0
366.9792 S:3 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:43 32:55 33:18 33:31 33:44 33:52 34:01 34:09 34:25 34:37 34:45 35:00
1.0E7
5.2E6
0.0E0
100%
50
0
32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

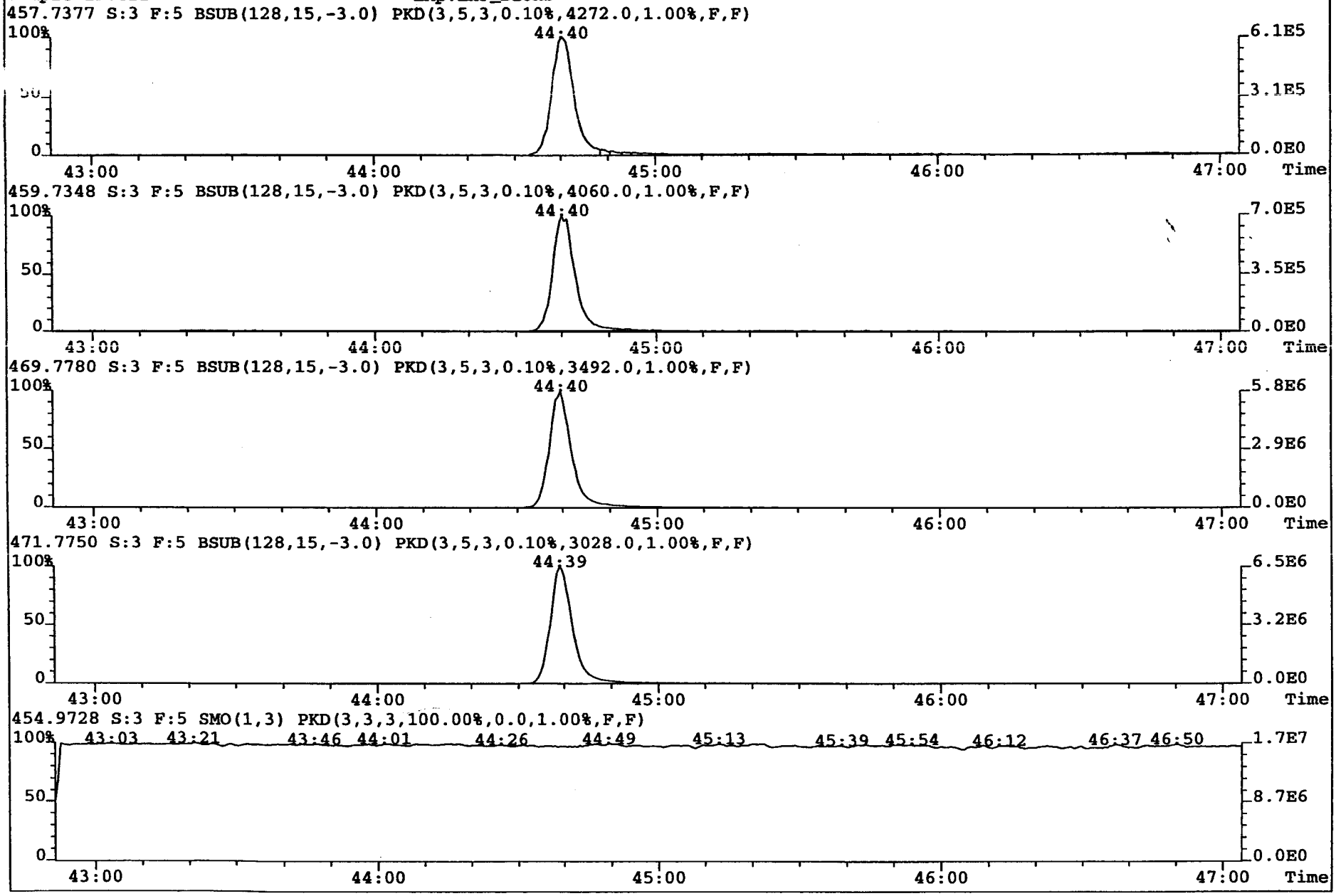
Filename:A22DEC03B -3 Acq:22-DEC-2003 11:39:33 Inst: HRMS2
Sample ID:CS2 Exp:EXP_DB5MS

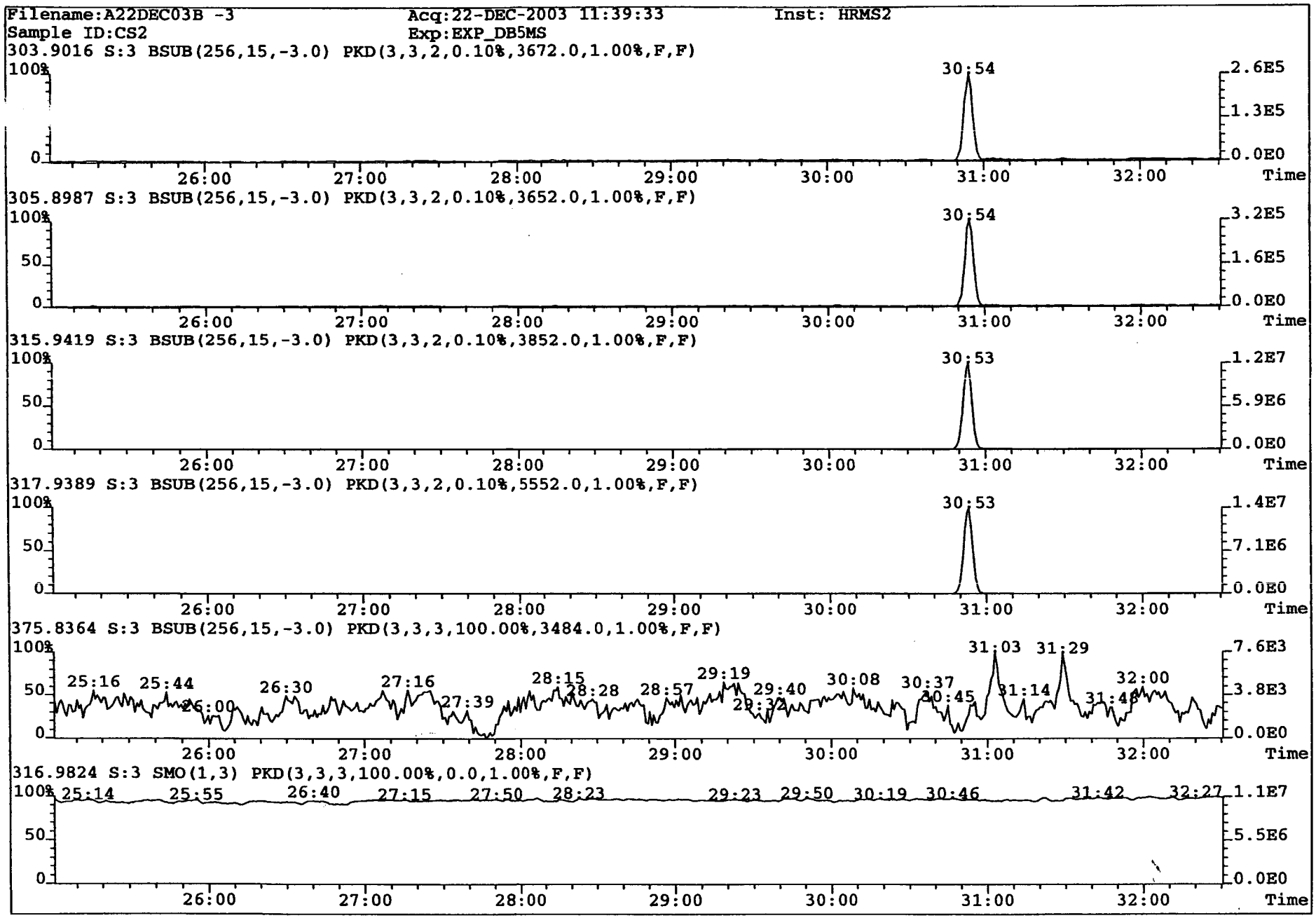


Filename:A22DEC03B -3 Acq:22-DEC-2003 11:39:33 Inst: HRMS2
Sample ID:CS2 Exp:EXP_DB5MS

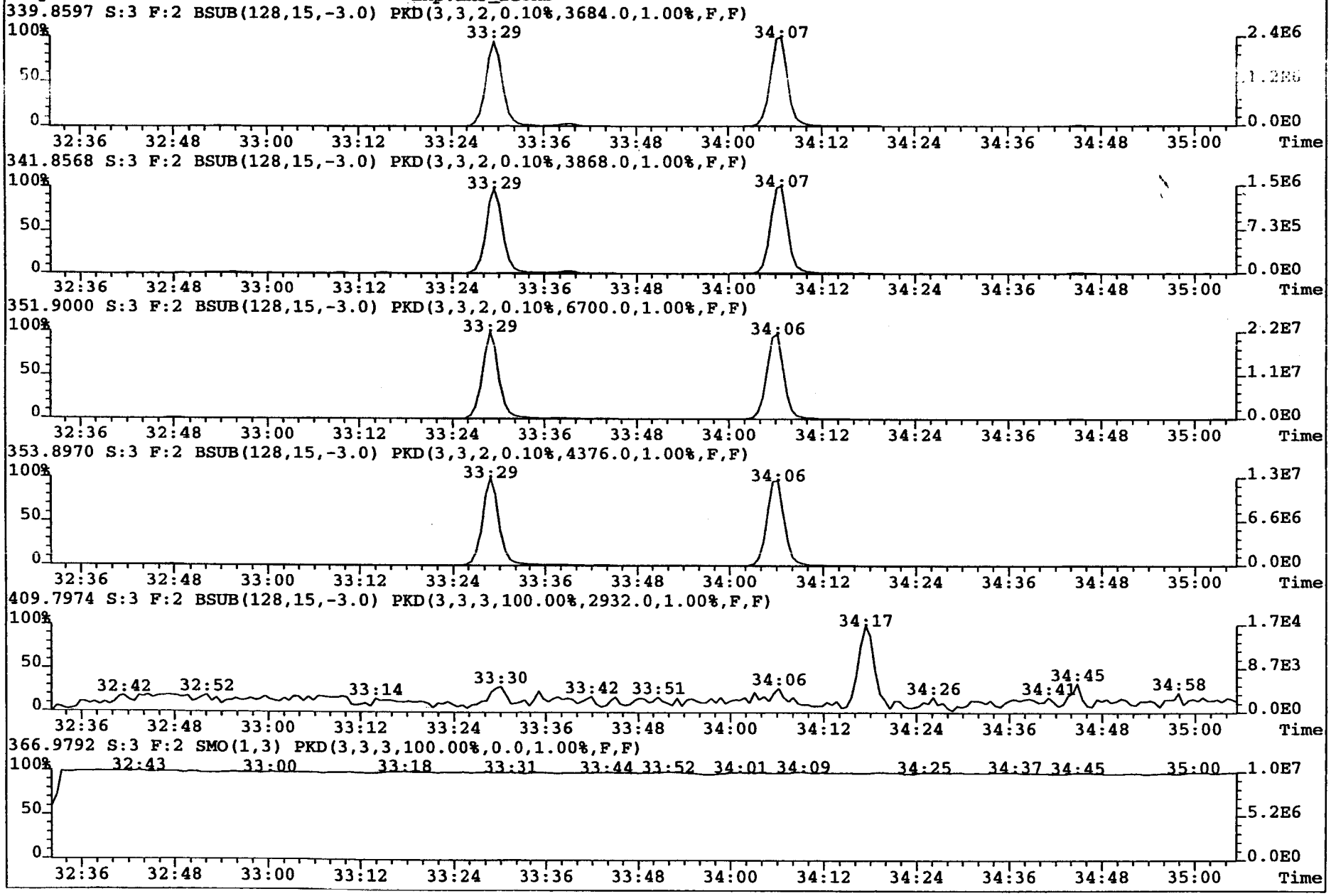


Filename:A22DEC03B -3 Acq:22-DEC-2003 11:39:33 Inst: HRMS2
Sample ID:CS2 Exp:EXP_DB5MS

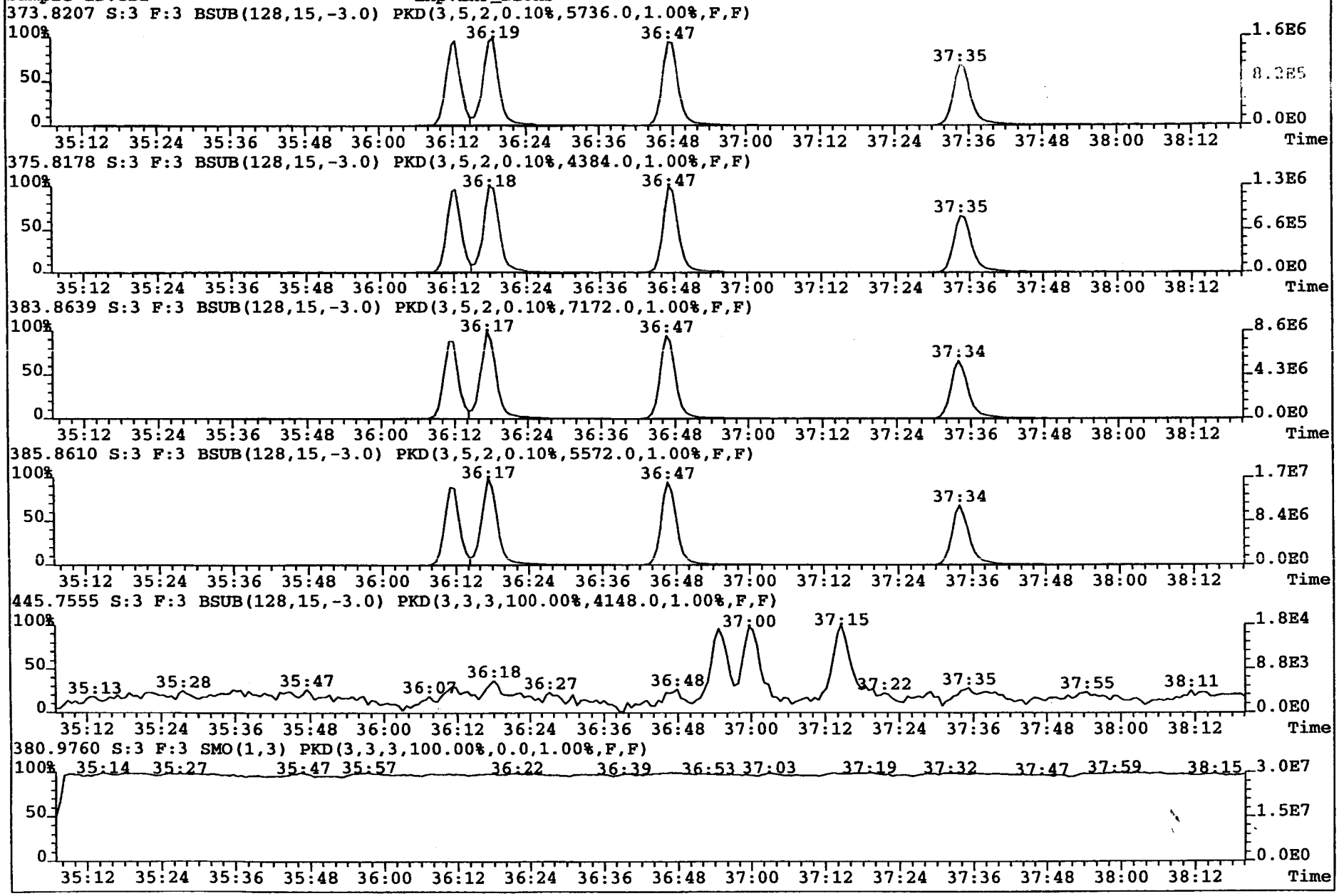



Filename:A22DEC03B -3
Acq:22-DEC-2003 11:39:33
Inst: HRMS2
Sample ID:CS2
Exp:EXP_DB5MS
303.9016 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3672.0,1.00%,F,F)
30:54
2.6E5
1.3E5
0.0E0
305.8987 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3652.0,1.00%,F,F)
30:54
3.2E5
1.6E5
0.0E0
315.9419 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3852.0,1.00%,F,F)
30:53
1.2E7
5.9E6
0.0E0
317.9389 S:3 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,5552.0,1.00%,F,F)
30:53
1.4E7
7.1E6
0.0E0
375.8364 S:3 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3484.0,1.00%,F,F)
25:16 25:44 26:00 26:30 27:16 27:39 28:15 28:28 28:57 29:19 29:32 29:40 30:08 30:37 30:45 31:03 31:14 31:29 31:48 32:00
7.6E3
3.8E3
0.0E0
316.9824 S:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:14 25:55 26:40 27:15 27:50 28:23 29:23 29:50 30:19 30:46 31:42 32:27
1.1E7
5.5E6
0.0E0
Time

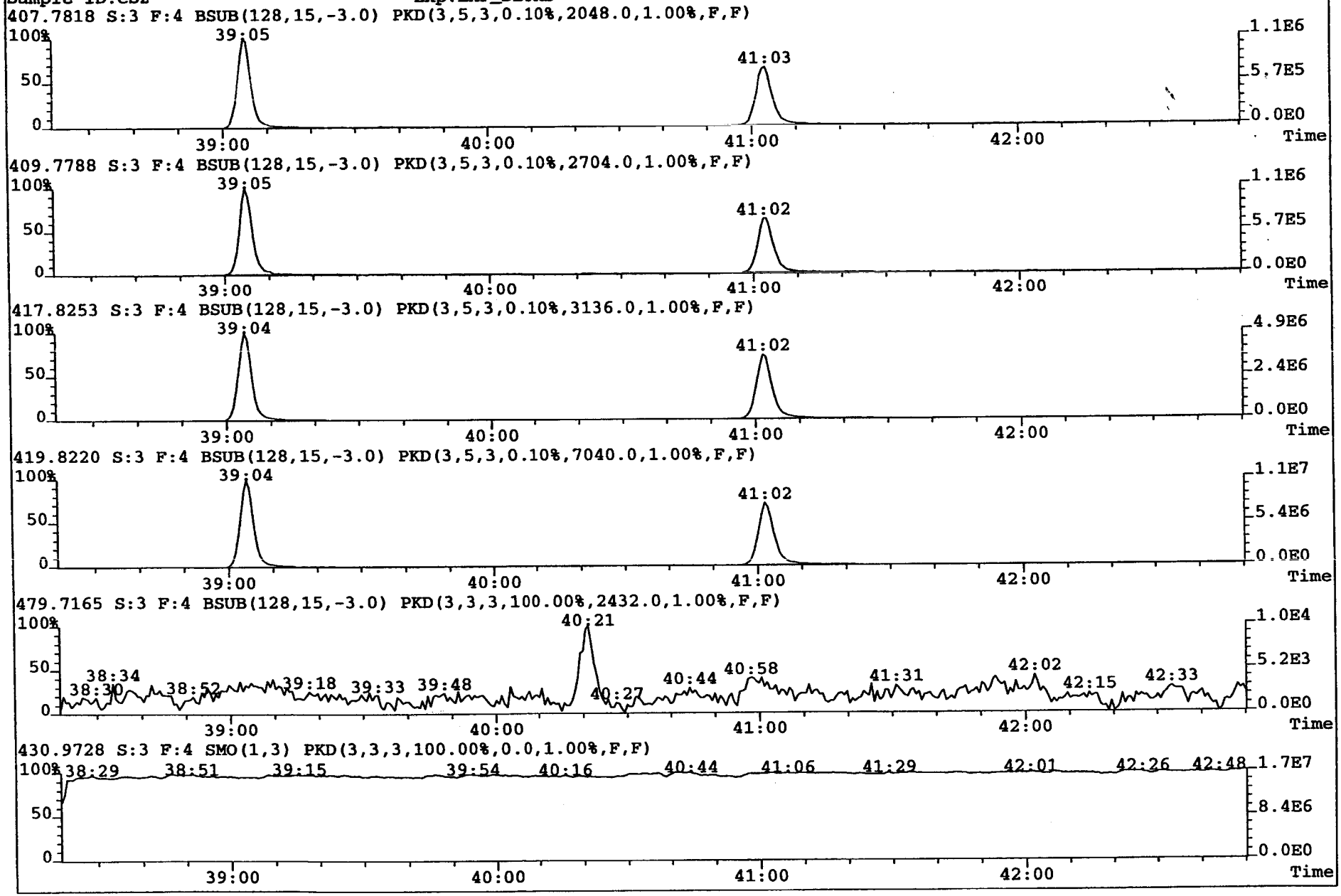
Filename:A22DEC03B -3 Acq:22-DEC-2003 11:39:33 Inst: HRMS2
Sample ID:CS2 Exp:EXP_DB5MS

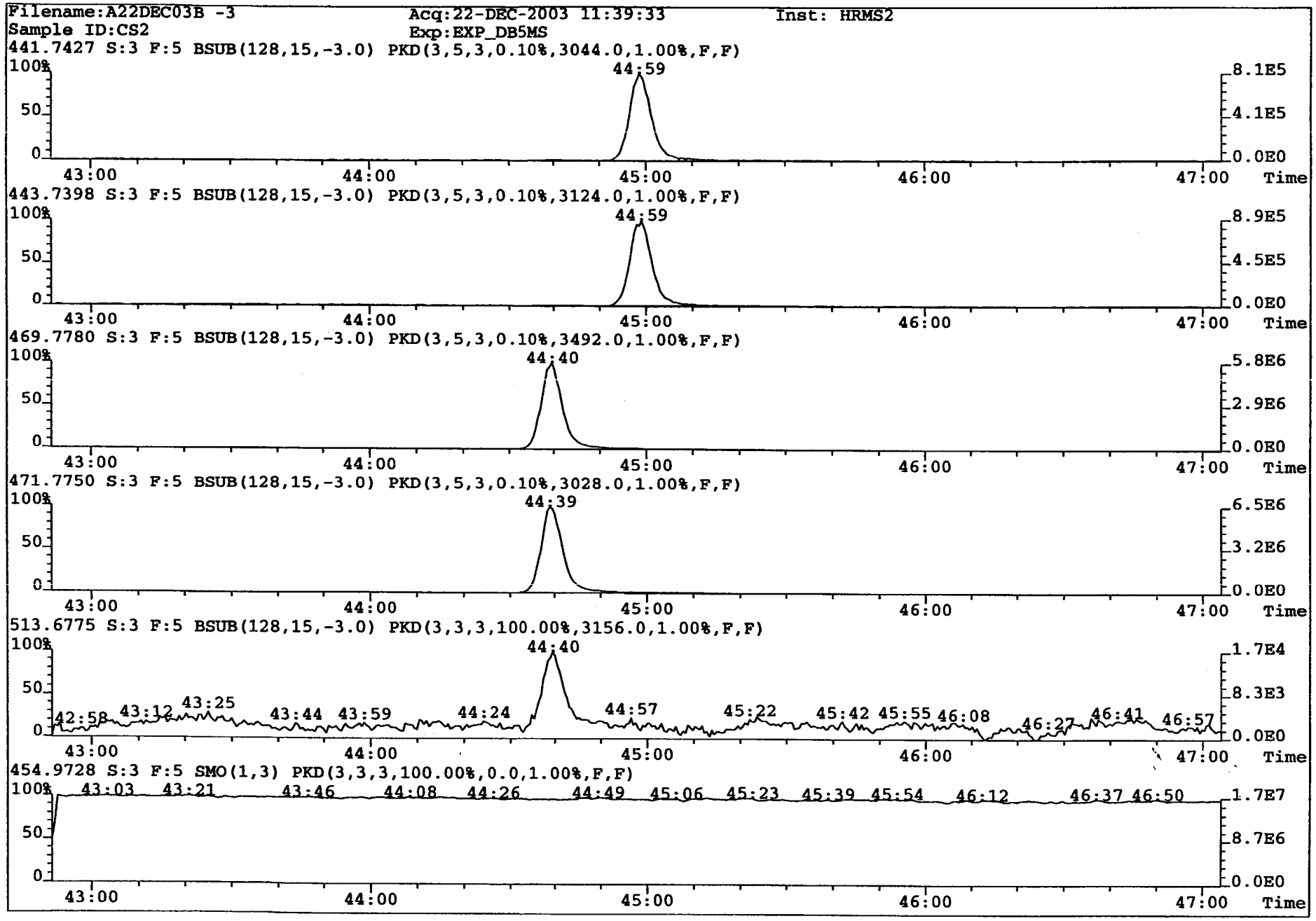


Filename:A22DEC03B -3 Acq:22-DEC-2003 11:39:33 Inst: HRMS2
Sample ID:CS2 Exp:EXP_DB5MS



Filename:A22DEC03B -3 Acq:22-DEC-2003 11:39:33 Inst: HRMS2
Sample ID:CS2 Exp:EXP_DB5MS

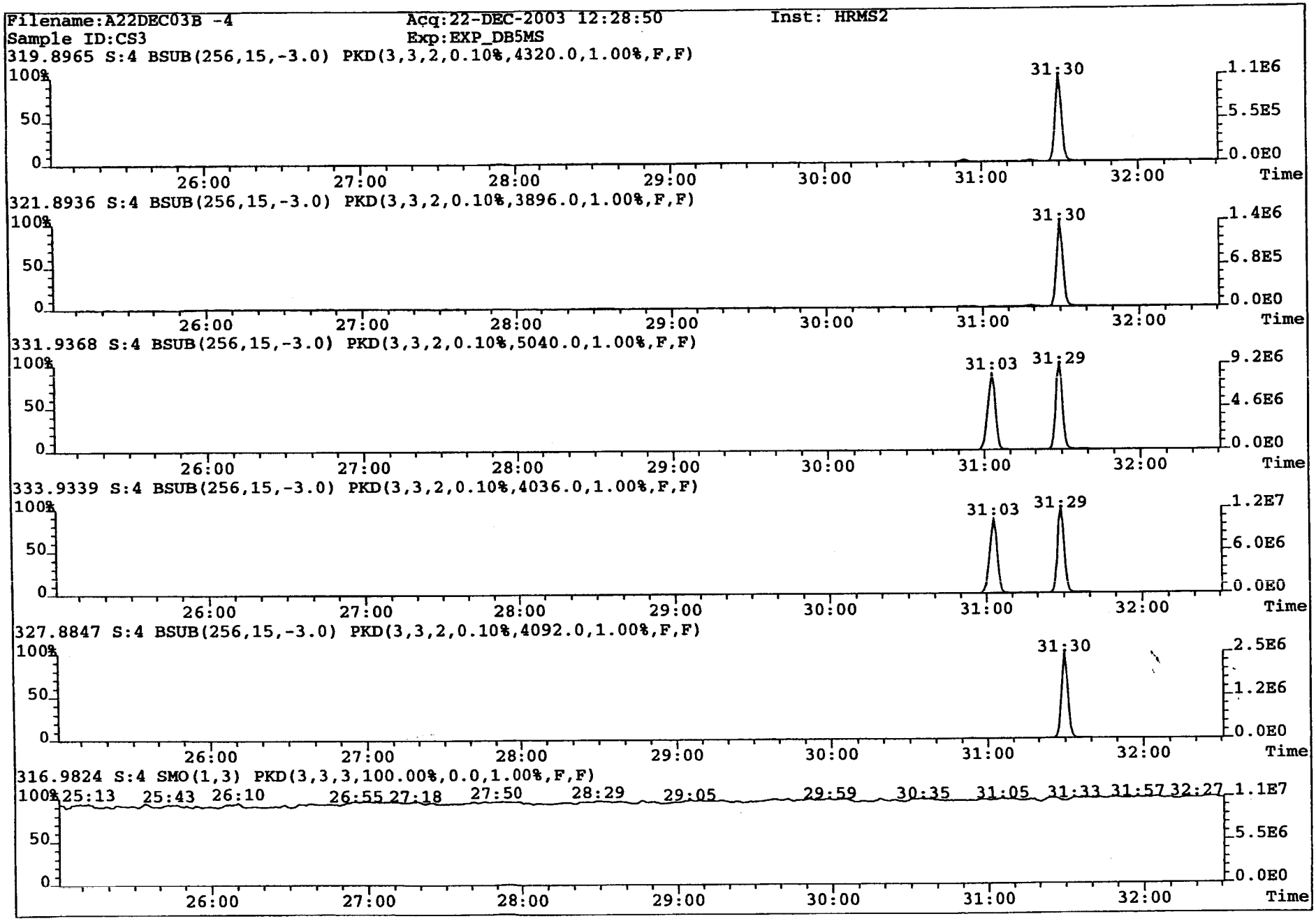



Filename:A22DEC03B -3
Acq:22-DEC-2003 11:39:33
Inst: HRMS2
Sample ID:CS2
Exp:EXP_DB5MS
441.7427 S:3 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3044.0,1.00%,F,F)
44:59
8.1E5
4.1E5
0.0E0
443.7398 S:3 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3124.0,1.00%,F,F)
44:59
8.9E5
4.5E5
0.0E0
469.7780 S:3 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3492.0,1.00%,F,F)
44:40
5.8E6
2.9E6
0.0E0
471.7750 S:3 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3028.0,1.00%,F,F)
44:39
6.5E6
3.2E6
0.0E0
513.6775 S:3 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3156.0,1.00%,F,F)
44:40
42:58 43:12 43:25 43:44 43:59 44:24 44:57 45:22 45:42 45:55 46:08 46:27 46:41 46:57
1.7E4
8.3E3
0.0E0
454.9728 S:3 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:03 43:21 43:46 44:08 44:26 44:49 45:06 45:23 45:39 45:54 46:12 46:37 46:50
1.7E7
8.7E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time

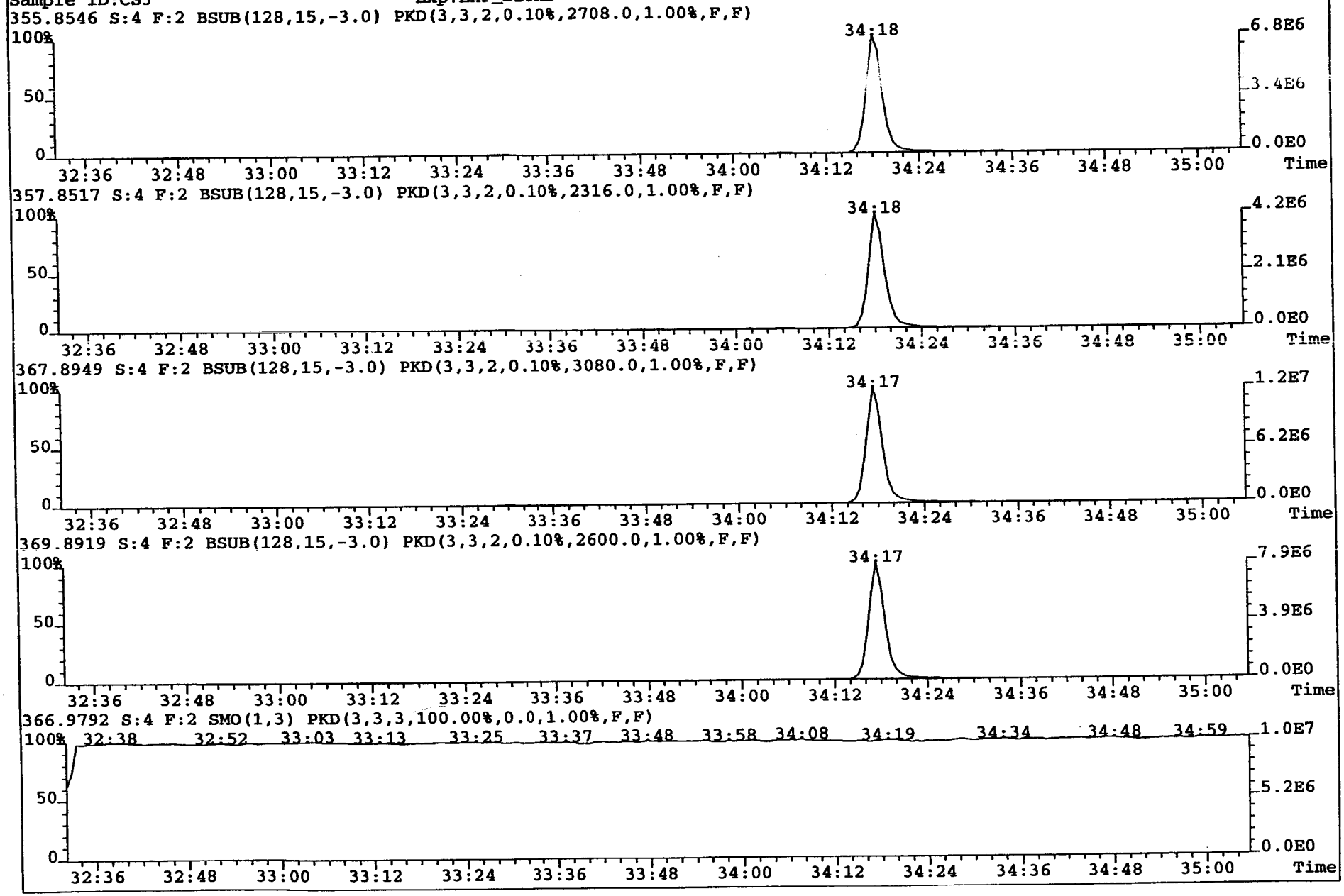
Run #3 Filename a22dec03b S: 4 I: 1 Acquired: 22-DEC-03 12:28:50 Processed: 22-DEC-03 14:29:32
Run: Analyte: m8290-121» Cal: Results: Version: V3.6 6-JAN-2000 17:51:42
Sample text: CS3 Comments:

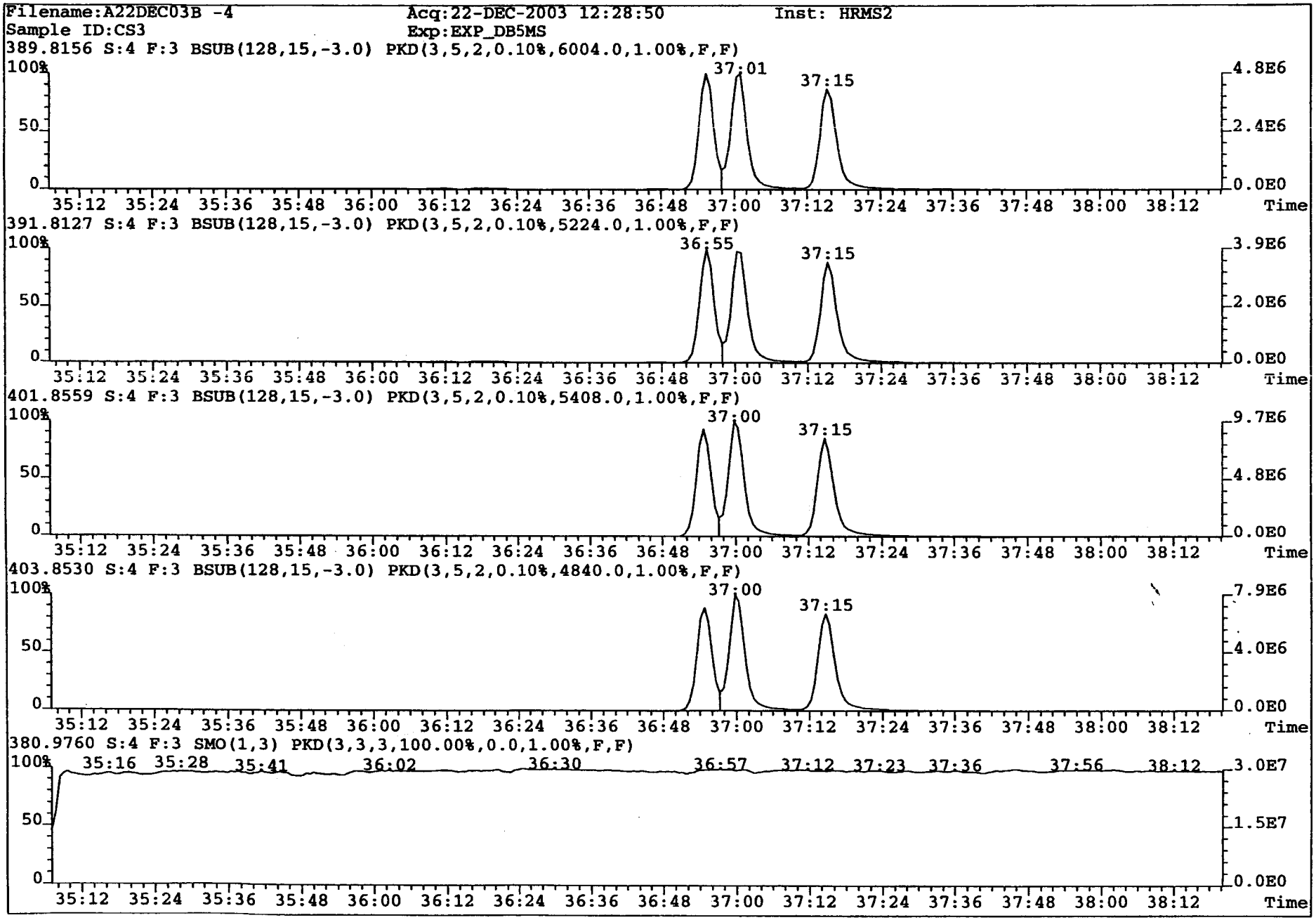
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	10.00	6.74e+06	0.81 y	31:30	-	1.10	y	n
2	Unk	1,2,3,7,8-PeCDD	50.00	2.62e+07	1.62 y	34:18	-	1.09	y	n
3	Unk	1,2,3,4,7,8-HxCDD	50.00	2.35e+07	1.22 y	36:55	-	0.88	y	n
4	Unk	1,2,3,6,7,8-HxCDD	50.00	2.71e+07	1.22 y	37:01	-	1.01	y	n
5	Unk	1,2,3,7,8,9-HxCDD	50.00	2.42e+07	1.20 y	37:16	-	0.91	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	2.10e+07	1.06 y	40:22	-	1.13	y	n
7	Unk	OCDD	~~100.00~~	~~3.44e+07~~	0.90 y	44:41	-	1.08	y	n
8	Unk	2,3,7,8-TCDF	10.00	1.07e+07	0.79 y	30:54	-	1.07	y	n
9	Unk	1,2,3,7,8-PeCDF	50.00	4.40e+07	1.58 y	33:30	-	1.06	y	n
10	Unk	2,3,4,7,8-PeCDF	50.00	4.72e+07	1.56 y	34:07	-	1.14	y	n
11	Unk	1,2,3,4,7,8-HxCDF	50.00	3.92e+07	1.22 y	36:12	-	1.05	y	n
12	Unk	1,2,3,6,7,8-HxCDF	50.00	4.37e+07	1.22 y	36:19	-	1.16	y	n
13	Unk	2,3,4,6,7,8-HxCDF	50.00	4.06e+07	1.22 y	36:48	-	1.08	y	n
14	Unk	1,2,3,7,8,9-HxCDF	50.00	3.32e+07	1.23 y	37:35	-	0.88	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	3.83e+07	1.03 y	39:05	-	1.45	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	2.98e+07	1.04 y	41:03	-	1.13	y	n
17	Unk	OCDF	100.00	4.67e+07	0.89 y	44:60	-	•1.47	y	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	6.12e+07	0.78 y	31:29	-	1.01	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	4.83e+07	1.59 y	34:17	-	0.80	y	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	5.34e+07	1.24 y	37:00	-	1.11	y	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	3.71e+07	1.06 y	40:21	-	0.77	y	n
22	ES	13C-OCDD	~~200.00~~	~~6.38e+07~~	0.90 y	44:40	-	0.66	y	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.00e+08	0.84 y	30:53	-	1.65	y	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	8.31e+07	1.62 y	33:29	-	1.37	y	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	7.50e+07	0.53 y	36:18	-	1.56	y	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	5.28e+07	0.46 y	39:05	-	1.10	y	n
27	JS	13C-1,2,3,4-TCDD	100.00	6.07e+07	0.79 y	31:03	6.07e+05	-	n	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	4.81e+07	1.23 y	37:15	4.81e+05	-	n	n
29	CS	37Cl-2,3,7,8-TCDD	10.00	6.76e+06		31:30	-	1.11	y	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	8.51e+07	1.63 y	34:06	-	1.40	y	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	4.44e+07	1.25 y	36:55	-	0.92	y	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	6.17e+07	0.52 y	36:12	-	1.28	y	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.48e+07	0.47 y	41:02	-	0.93	y	n
34	SS	37Cl-2,3,7,8-TCDD	10.00	6.76e+06		31:30	-	1.11	y	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	8.51e+07	1.63 y	34:06	-	1.02	y	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	4.44e+07	1.25 y	36:55	-	0.83	y	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	6.17e+07	0.52 y	36:12	-	0.82	y	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.48e+07	0.47 y	41:02	-	0.85	y	n
39	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.07	y	n
40	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.10	y	n
41	Tot	Total Penta-Furans Fn1	0.00	-	- n	-	-	1.10	y	n
42	Tot	Total Penta-Furans Fn2	0.00	-	- n	-	-	1.10	y	n
43	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.09	y	n
44	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.04	y	n

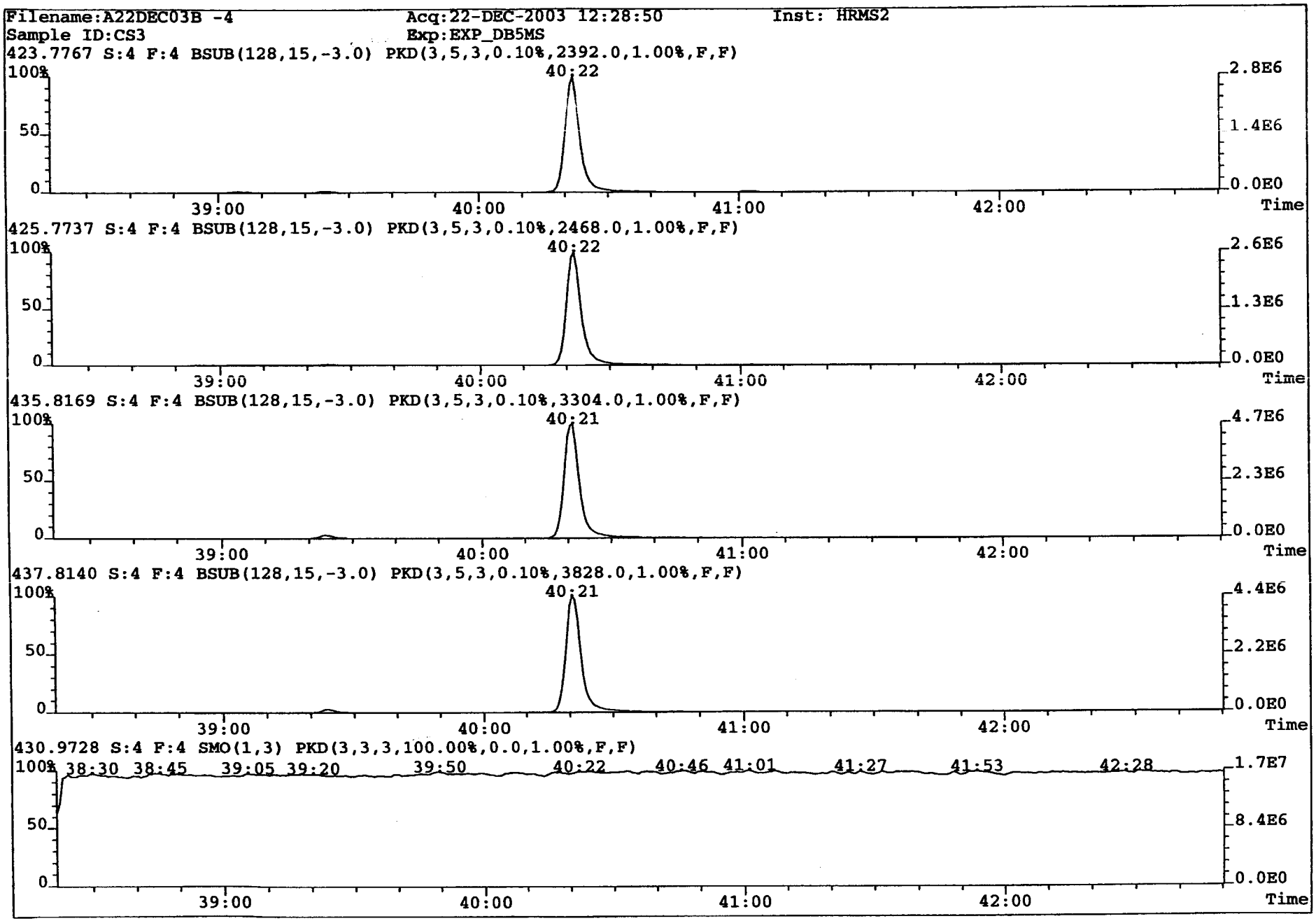
= 1.1321


Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
319.8965 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4320.0,1.00%,F,F)
31:30
1.1E6
5.5E5
0.0E0
321.8936 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3896.0,1.00%,F,F)
31:30
1.4E6
6.8E5
0.0E0
331.9368 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,5040.0,1.00%,F,F)
31:03
31:29
9.2E6
4.6E6
0.0E0
333.9339 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4036.0,1.00%,F,F)
31:03
31:29
1.2E7
6.0E6
0.0E0
327.8847 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4092.0,1.00%,F,F)
31:30
2.5E6
1.2E6
0.0E0
316.9824 S:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:13 25:43 26:10 26:55 27:18 27:50 28:29 29:05 29:59 30:35 31:05 31:33 31:57 32:27
1.1E7
5.5E6
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

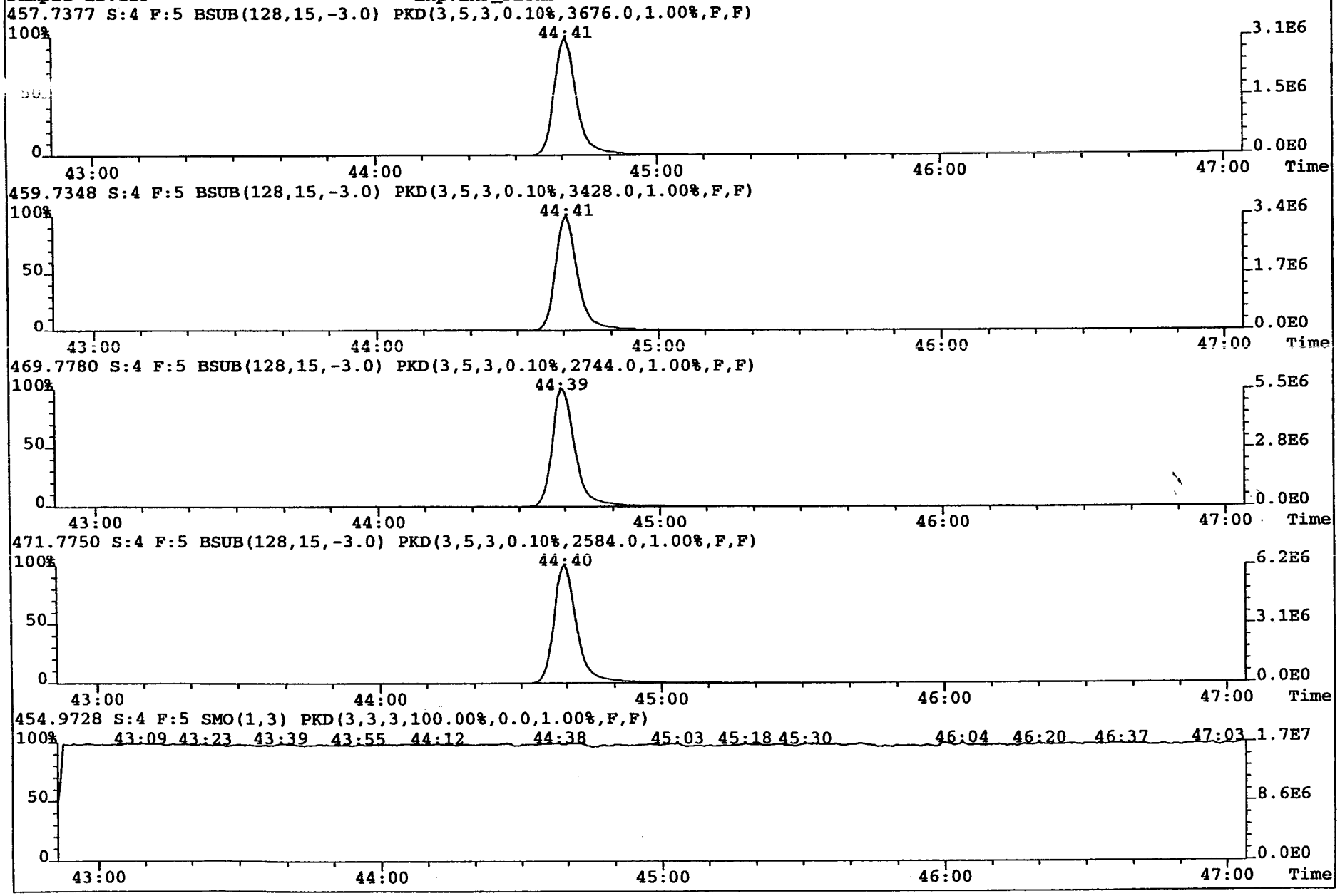
Filename:A22DEC03B -4 Acq:22-DEC-2003 12:28:50 Inst: HRMS2
Sample ID:CS3 Exp:EXP_DB5MS

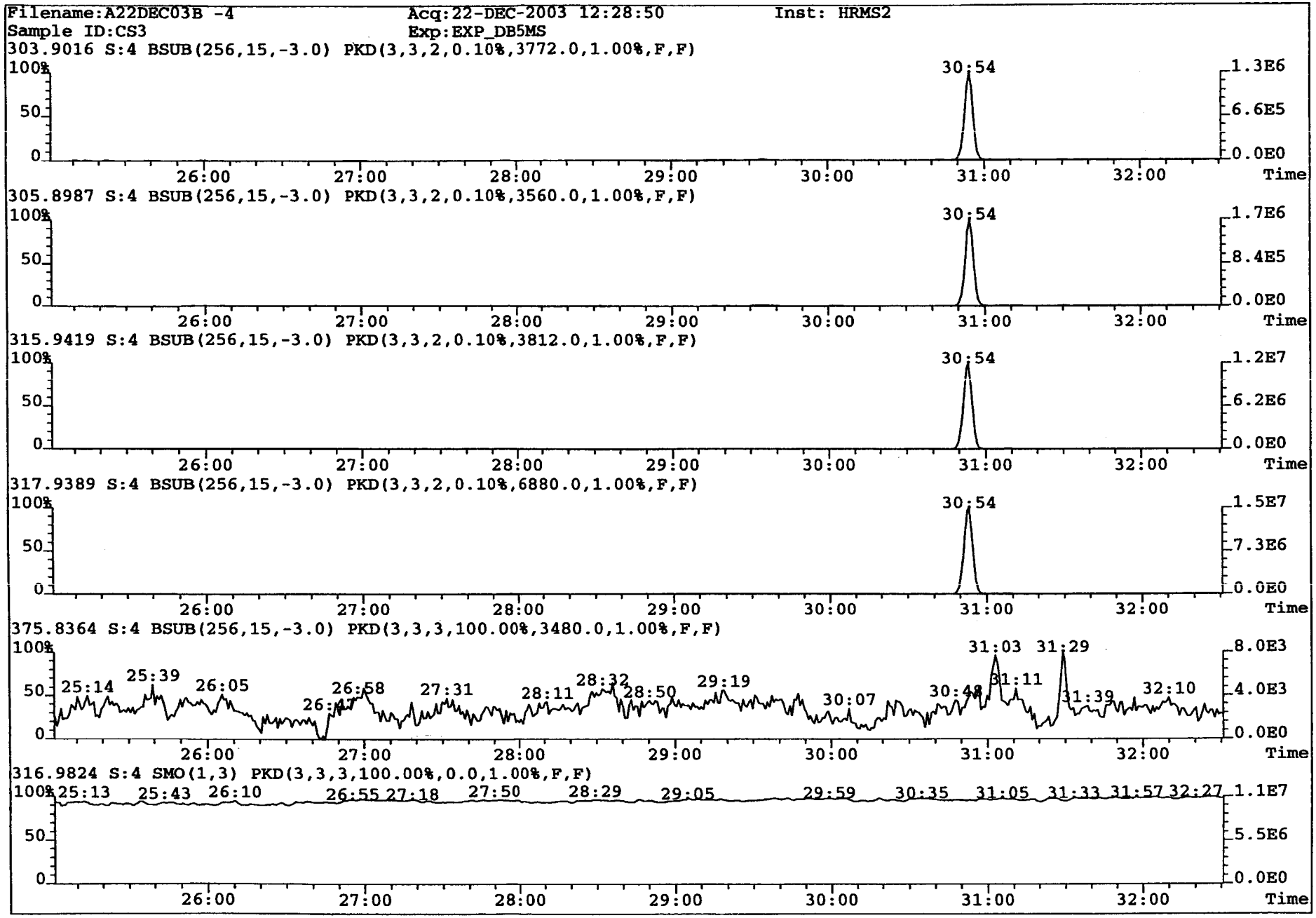


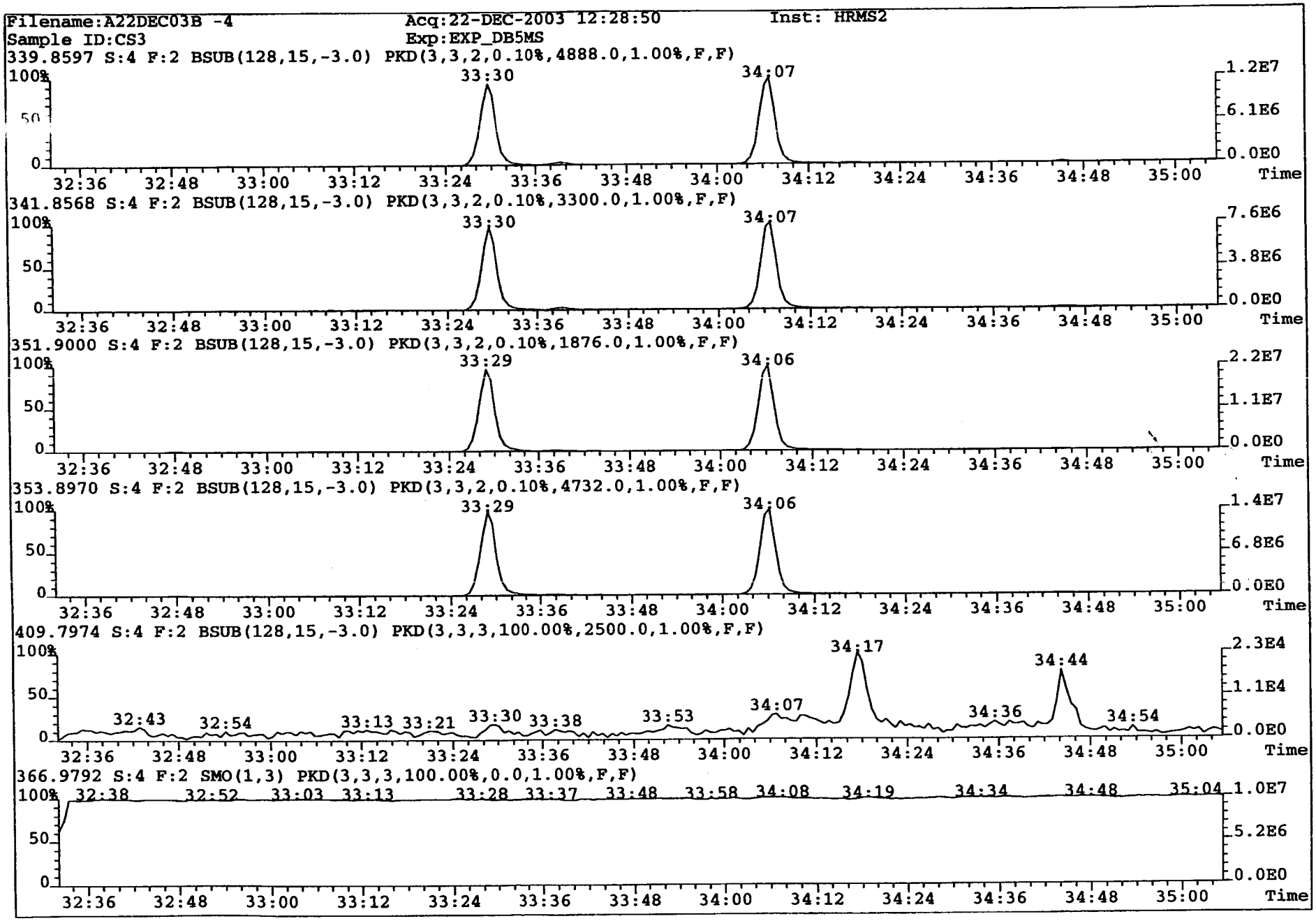

Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
389.8156 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6004.0,1.00%,F,F)
37:01
37:15
4.8E6
2.4E6
0.0E0
391.8127 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5224.0,1.00%,F,F)
36:55
37:15
3.9E6
2.0E6
0.0E0
401.8559 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5408.0,1.00%,F,F)
37:00
37:15
9.7E6
4.8E6
0.0E0
403.8530 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4840.0,1.00%,F,F)
37:00
37:15
7.9E6
4.0E6
0.0E0
380.9760 S:4 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:16 35:28 35:41 36:02 36:30 36:57 37:12 37:23 37:36 37:56 38:12
3.0E7
1.5E7
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

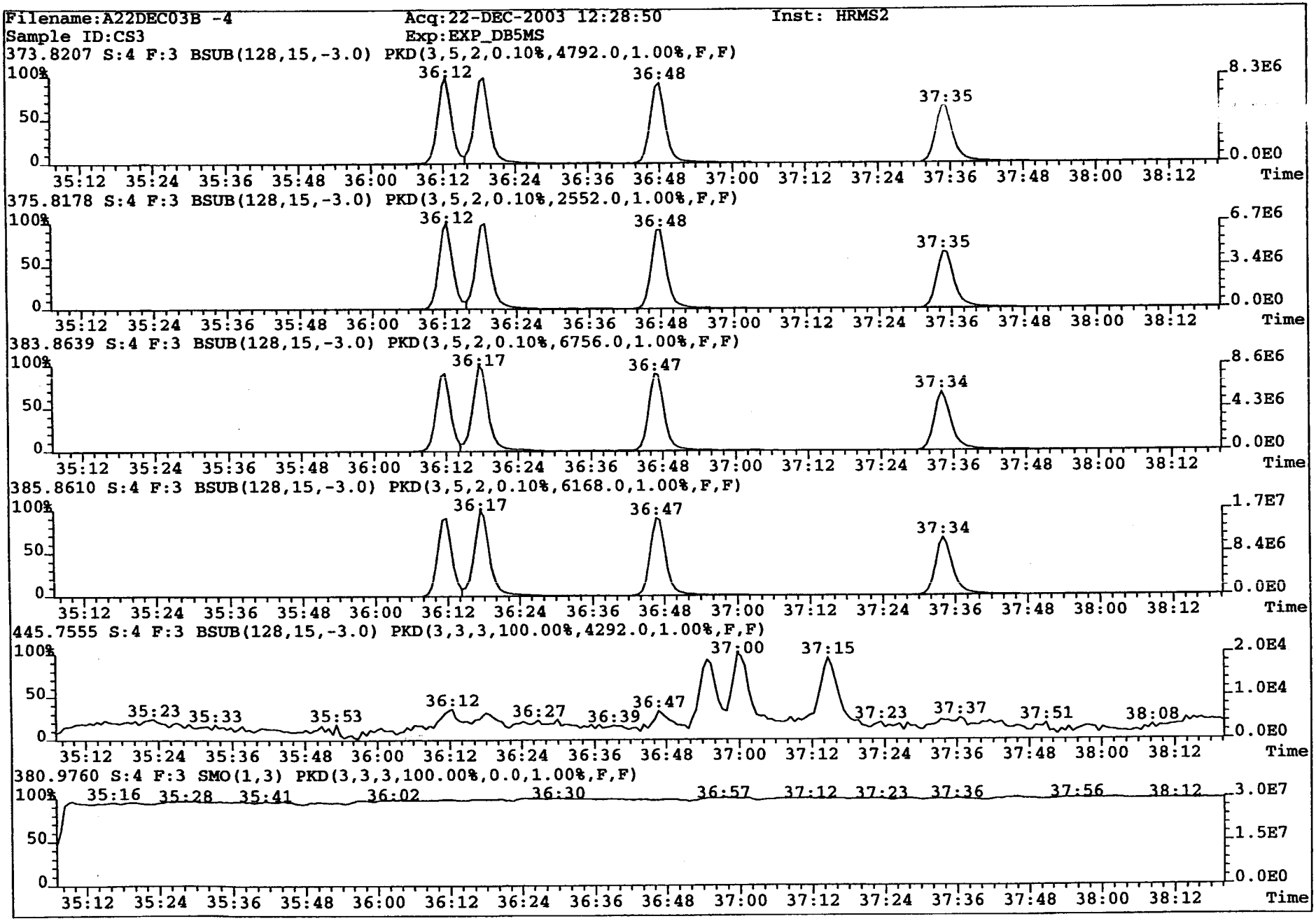

Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
423.7767 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2392.0,1.00%,F,F)
40:22
2.8E6
1.4E6
0.0E0
425.7737 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2468.0,1.00%,F,F)
40:22
2.6E6
1.3E6
0.0E0
435.8169 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3304.0,1.00%,F,F)
40:21
4.7E6
2.3E6
0.0E0
437.8140 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3828.0,1.00%,F,F)
40:21
4.4E6
2.2E6
0.0E0
430.9728 S:4 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:30 38:45 39:05 39:20 39:50 40:22 40:46 41:01 41:27 41:53 42:28
1.7E7
8.4E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

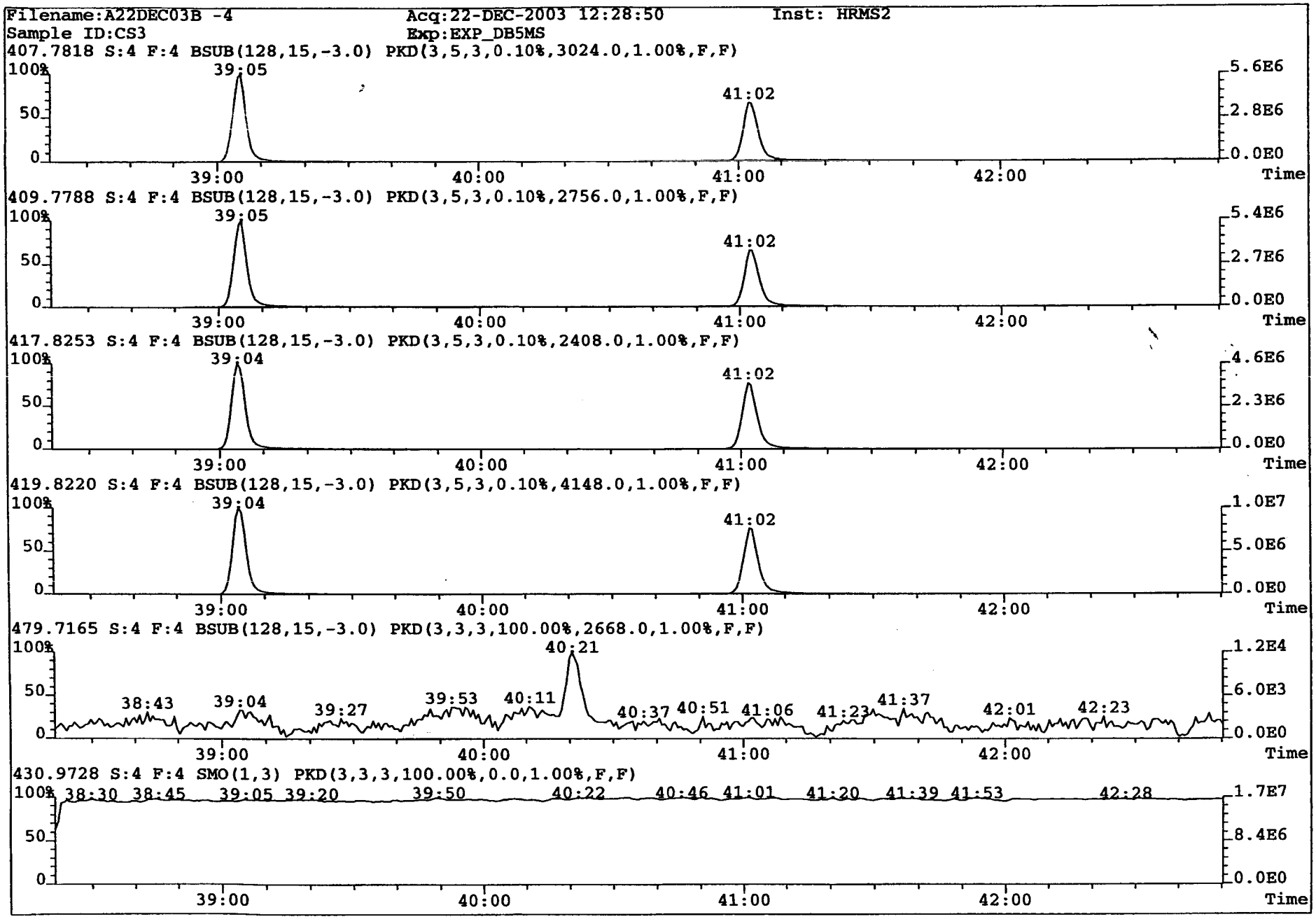
Filename:A22DEC03B -4 Acq:22-DEC-2003 12:28:50 Inst: HRMS2
Sample ID:CS3 Exp:EXP_DB5MS

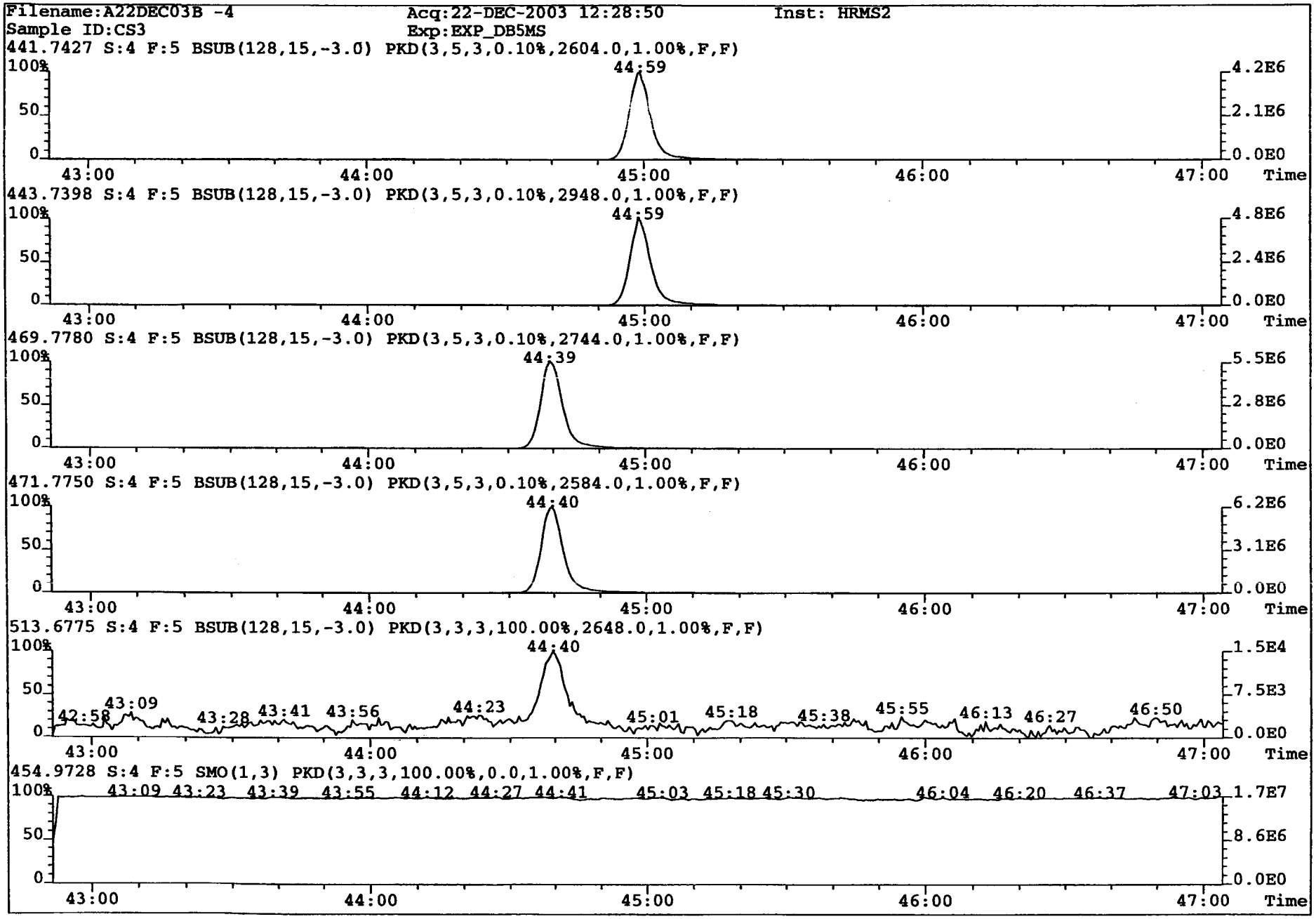



Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
303.9016 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3772.0,1.00%,F,F)
30:54
1.3E6
6.6E5
0.0E0
305.8987 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3560.0,1.00%,F,F)
30:54
1.7E6
8.4E5
0.0E0
315.9419 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3812.0,1.00%,F,F)
30:54
1.2E7
6.2E6
0.0E0
317.9389 S:4 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,6880.0,1.00%,F,F)
30:54
1.5E7
7.3E6
0.0E0
375.8364 S:4 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3480.0,1.00%,F,F)
25:14 25:39 26:05 26:17 26:58 27:31 28:11 28:32 28:50 29:19 30:07 30:48 31:03 31:11 31:29 31:39 32:10
8.0E3
4.0E3
0.0E0
316.9824 S:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:13 25:43 26:10 26:55 27:18 27:50 28:29 29:05 29:59 30:35 31:05 31:33 31:57 32:27
1.1E7
5.5E6
0.0E0
100%
50
0
26:00 27:00 28:00 29:00 30:00 31:00 32:00
Time


Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
339.8597 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4888.0,1.00%,F,F)
33:30
34:07
1.2E7
6.1E6
0.0E0
341.8568 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3300.0,1.00%,F,F)
33:30
34:07
7.6E6
3.8E6
0.0E0
351.9000 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,1876.0,1.00%,F,F)
33:29
34:06
2.2E7
1.1E7
0.0E0
353.8970 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4732.0,1.00%,F,F)
33:29
34:06
1.4E7
6.8E6
0.0E0
409.7974 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2500.0,1.00%,F,F)
32:43
32:54
33:13
33:21
33:30
33:38
33:53
34:07
34:17
34:36
34:44
34:54
2.3E4
1.1E4
0.0E0
366.9792 S:4 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:38
32:52
33:03
33:13
33:28
33:37
33:48
33:58
34:08
34:19
34:34
34:48
35:04
1.0E7
5.2E6
0.0E0
100%
50
0
32:36
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
373.8207 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4792.0,1.00%,F,F)
36:12
36:48
37:35
8.3E6
0.0E0
375.8178 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,2552.0,1.00%,F,F)
36:12
36:48
37:35
6.7E6
3.4E6
0.0E0
383.8639 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6756.0,1.00%,F,F)
36:17
36:47
37:34
8.6E6
4.3E6
0.0E0
385.8610 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6168.0,1.00%,F,F)
36:17
36:47
37:34
1.7E7
8.4E6
0.0E0
445.7555 S:4 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4292.0,1.00%,F,F)
35:23
35:33
35:53
36:12
36:27
36:39
36:47
37:00
37:15
37:23
37:37
37:51
38:08
2.0E4
1.0E4
0.0E0
380.9760 S:4 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:16
35:28
35:41
36:02
36:30
36:57
37:12
37:23
37:36
37:56
38:12
3.0E7
1.5E7
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

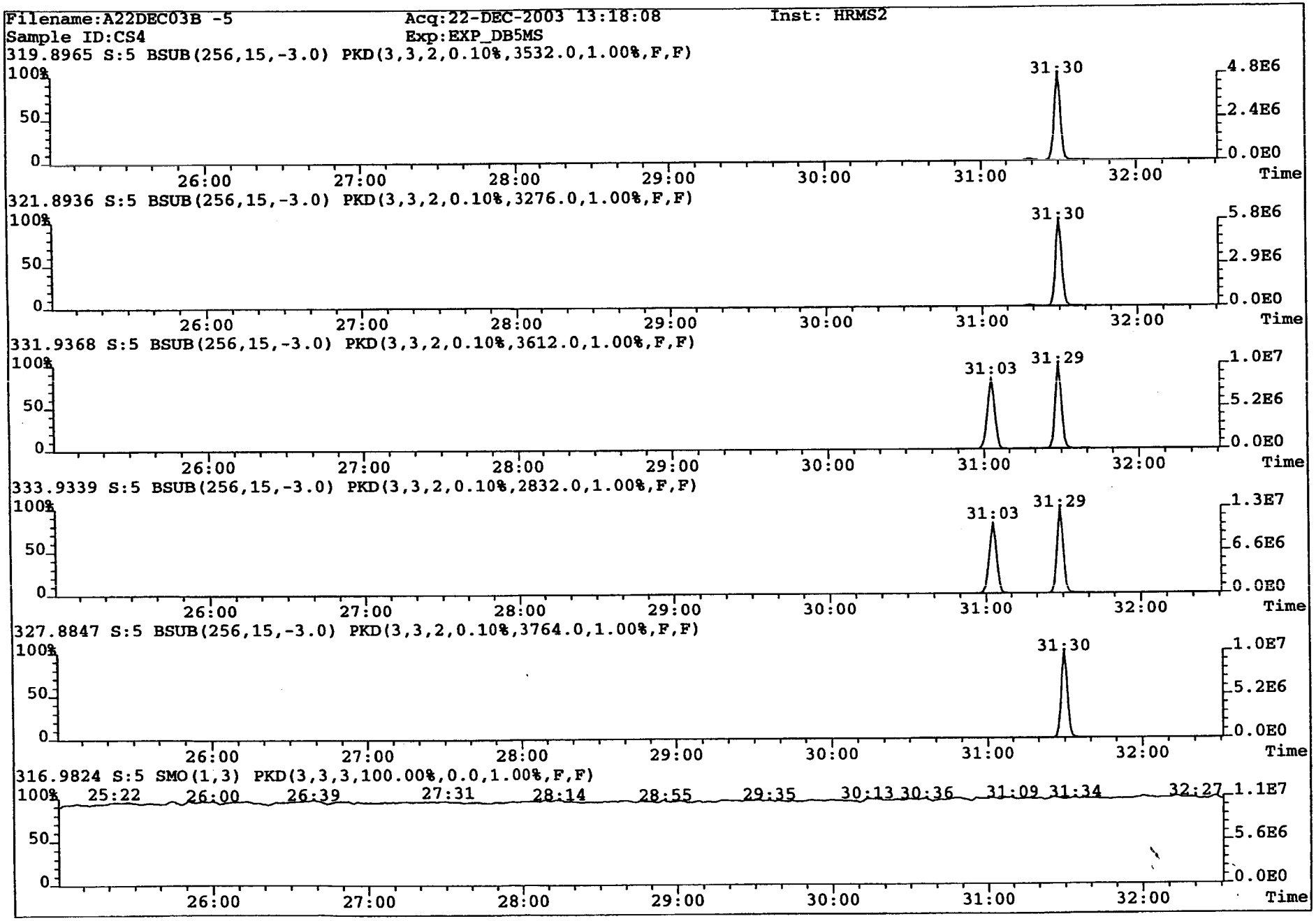

Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3024.0,1.00%,F,F)
39:05
41:02
5.6E6
2.8E6
0.0E0
409.7788 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2756.0,1.00%,F,F)
39:05
41:02
5.4E6
2.7E6
0.0E0
417.8253 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2408.0,1.00%,F,F)
39:04
41:02
4.6E6
2.3E6
0.0E0
419.8220 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4148.0,1.00%,F,F)
39:04
41:02
1.0E7
5.0E6
0.0E0
479.7165 S:4 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2668.0,1.00%,F,F)
40:21
38:43 39:04 39:27 39:53 40:11 40:37 40:51 41:06 41:23 41:37 42:01 42:23
1.2E4
6.0E3
0.0E0
430.9728 S:4 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:30 38:45 39:05 39:20 39:50 40:22 40:46 41:01 41:20 41:39 41:53 42:28
1.7E7
8.4E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

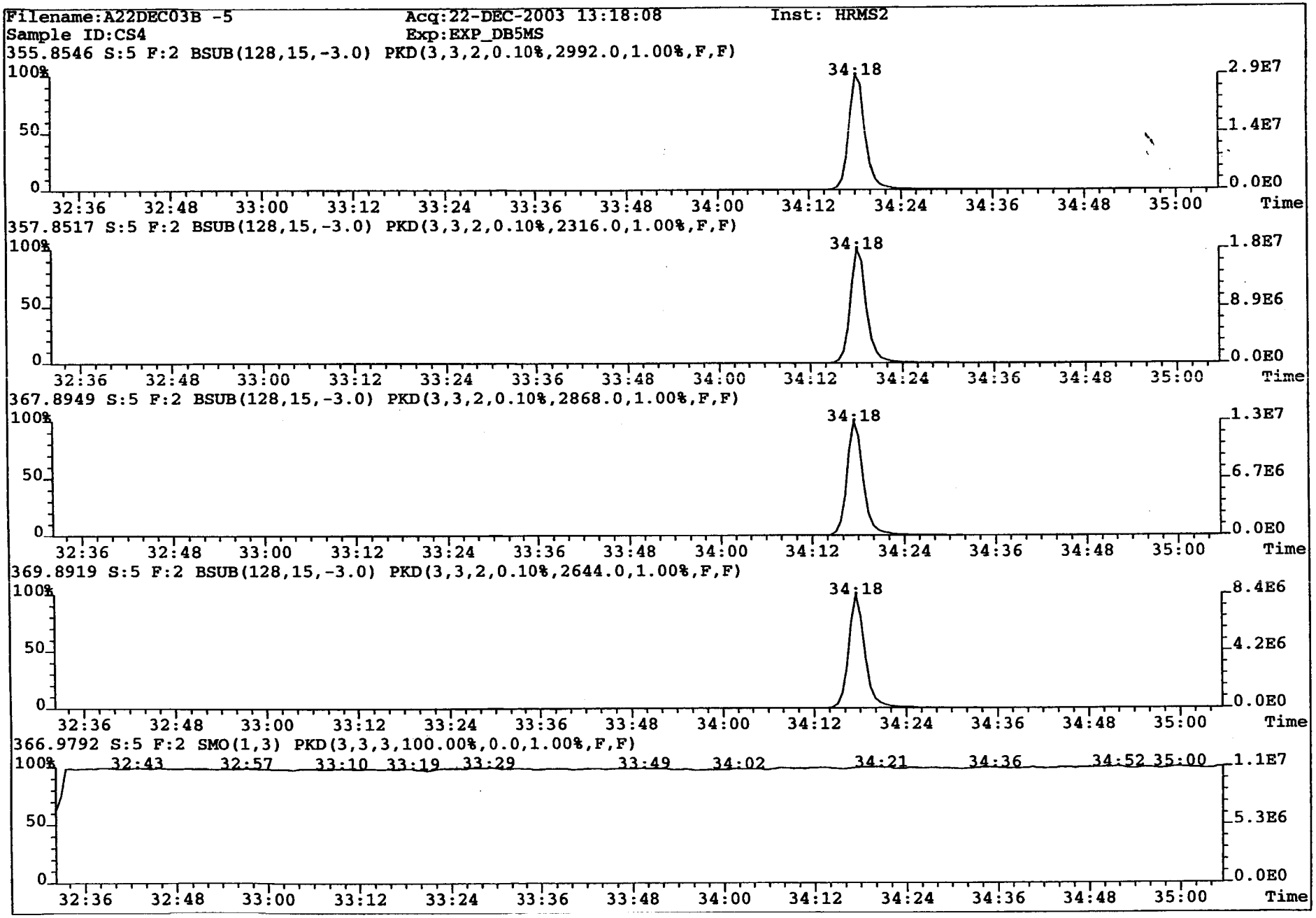

Filename:A22DEC03B -4
Acq:22-DEC-2003 12:28:50
Inst: HRMS2
Sample ID:CS3
Exp:EXP_DB5MS
441.7427 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2604.0,1.00%,F,F)
44:59
4.2E6
2.1E6
0.0E0
443.7398 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2948.0,1.00%,F,F)
44:59
4.8E6
2.4E6
0.0E0
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2744.0,1.00%,F,F)
44:39
5.5E6
2.8E6
0.0E0
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2584.0,1.00%,F,F)
44:40
6.2E6
3.1E6
0.0E0
513.6775 S:4 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2648.0,1.00%,F,F)
44:40
42:58 43:09 43:28 43:41 43:56 44:23 45:01 45:18 45:38 45:55 46:13 46:27 46:50
1.5E4
7.5E3
0.0E0
454.9728 S:4 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:09 43:23 43:39 43:55 44:12 44:27 44:41 45:03 45:18 45:30 46:04 46:20 46:37 47:03
1.7E7
8.6E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time

Run #4 Filename a22dec03b S: 5 I: 1 Acquired: 22-DEC-03 13:18:08 Processed: 22-DEC-03 14:33:37
Run: Analyte: m8290-121» Cal: . Results: Version: V3.6 6-JAN-2000 17:51:42
Sample text: CS4 Comments:

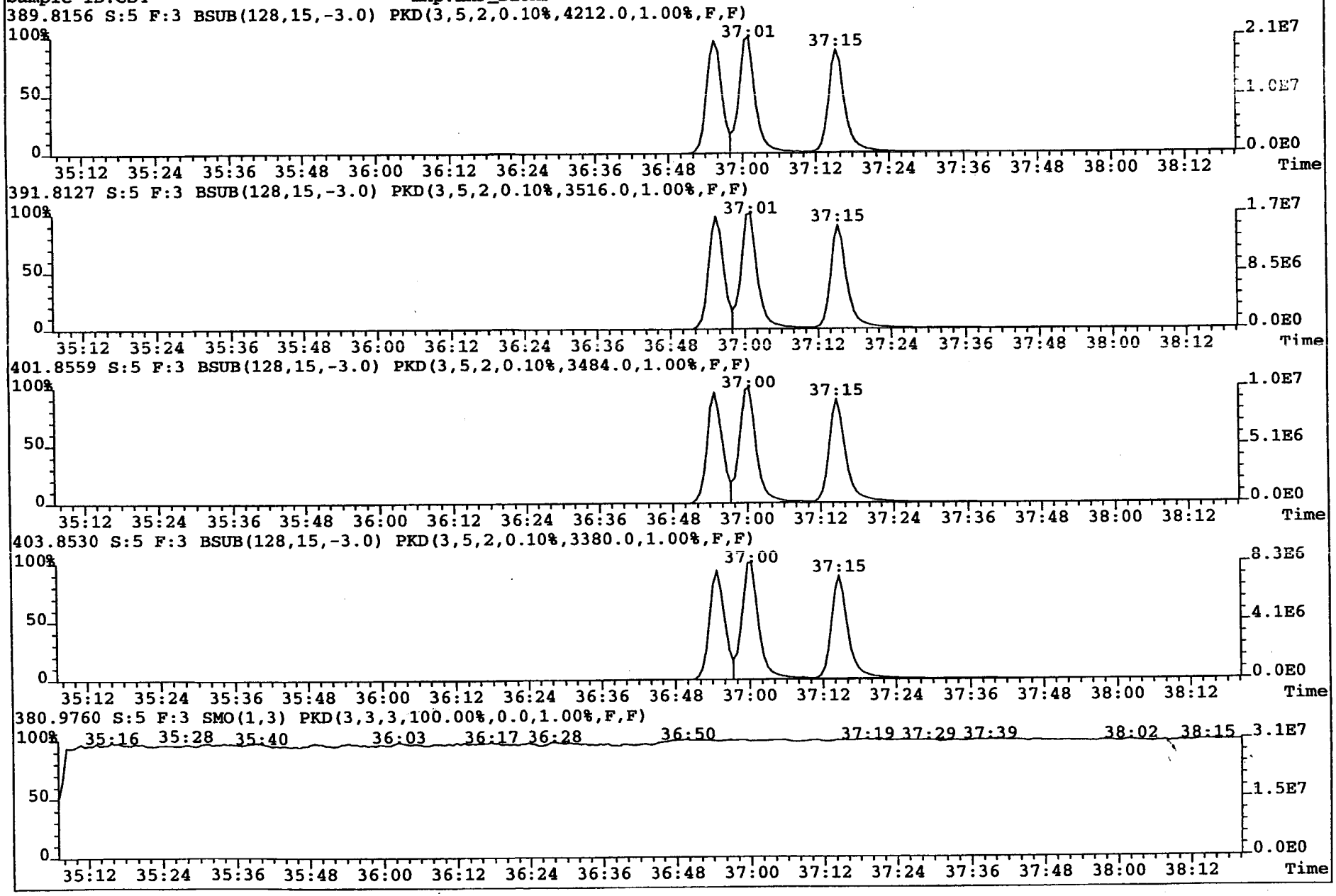
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	40.00	2.86e+07	0.81 y	31:30	-	1.12	y	n
2	Unk	1,2,3,7,8-PeCDD	200.00	1.13e+08	1.61 y	34:18	-	1.08	y	n
3	Unk	1,2,3,4,7,8-HxCDD	200.00	1.01e+08	1.22 y	36:55	-	0.88	y	n
4	Unk	1,2,3,6,7,8-HxCDD	200.00	1.15e+08	1.20 y	37:01	-	1.01	y	n
5	Unk	1,2,3,7,8,9-HxCDD	200.00	1.03e+08	1.19 y	37:16	-	0.90	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	9.03e+07	1.04 y	40:22	-	1.13	y	n
7	Unk	OCDD	400.00	1.50e+08	0.90 y	44:41	-	1.08	y	n
8	Unk	2,3,7,8-TCDF	40.00	4.38e+07	0.79 y	30:54	-	1.07	y	n
9	Unk	1,2,3,7,8-PeCDF	200.00	1.89e+08	1.58 y	33:30	-	1.06	y	n
10	Unk	2,3,4,7,8-PeCDF	200.00	2.02e+08	1.56 y	34:07	-	1.14	y	n
11	Unk	1,2,3,4,7,8-HxCDF	200.00	1.65e+08	1.21 y	36:12	-	1.03	y	n
12	Unk	1,2,3,6,7,8-HxCDF	200.00	1.87e+08	1.23 y	36:19	-	1.17	y	n
13	Unk	2,3,4,6,7,8-HxCDF	200.00	1.76e+08	1.23 y	36:48	-	1.10	y	n
14	Unk	1,2,3,7,8,9-HxCDF	200.00	1.42e+08	1.22 y	37:35	-	0.89	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	1.64e+08	1.06 y	39:05	-	1.46	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	1.28e+08	1.06 y	41:03	-	1.14	y	n
17	Unk	OCDF	400.00	2.13e+08	0.89 y	44:60	-	1.53	y	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	6.38e+07	0.78 y	31:29	-	1.03	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	5.23e+07	1.62 y	34:18	-	0.84	y	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	5.72e+07	1.23 y	37:00	-	1.12	y	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	3.99e+07	1.05 y	40:21	-	0.78	y	n
22	ES	13C-OCDD	200.00	6.94e+07	0.90 y	44:40	-	0.68	y	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.02e+08	0.84 y	30:53	-	1.64	y	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	8.88e+07	1.63 y	33:29	-	1.43	y	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	8.02e+07	0.51 y	36:18	-	1.57	y	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	5.62e+07	0.47 y	39:05	-	1.10	y	n
27	JS	13C-1,2,3,4-TCDD	100.00	6.21e+07	0.79 y	31:03	6.21e+05	-	n	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	5.10e+07	1.25 y	37:15	5.10e+05	-	n	n
29	CS	37Cl-2,3,7,8-TCDD	40.00	2.83e+07		31:30	-	1.14	y	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	9.25e+07	1.59 y	34:06	-	1.49	y	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	4.79e+07	1.25 y	36:55	-	0.94	y	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	6.48e+07	0.50 y	36:12	-	1.27	y	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.79e+07	0.47 y	41:02	-	0.94	y	n
34	SS	37Cl-2,3,7,8-TCDD	40.00	2.83e+07		31:30	-	1.11	y	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	9.25e+07	1.59 y	34:06	-	1.04	y	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	4.79e+07	1.25 y	36:55	-	0.84	y	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	6.48e+07	0.50 y	36:12	-	0.81	y	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	4.79e+07	0.47 y	41:02	-	0.85	y	n
39	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.07	y	n
40	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.12	y	n
41	Tot	Total Penta-Furans Fn1	0.00	-	- n	-	-	1.10	y	n
42	Tot	Total Penta-Furans Fn2	0.00	-	- n	-	-	1.10	y	n
43	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.08	y	n
44	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.05	y	n

= 1.13/88

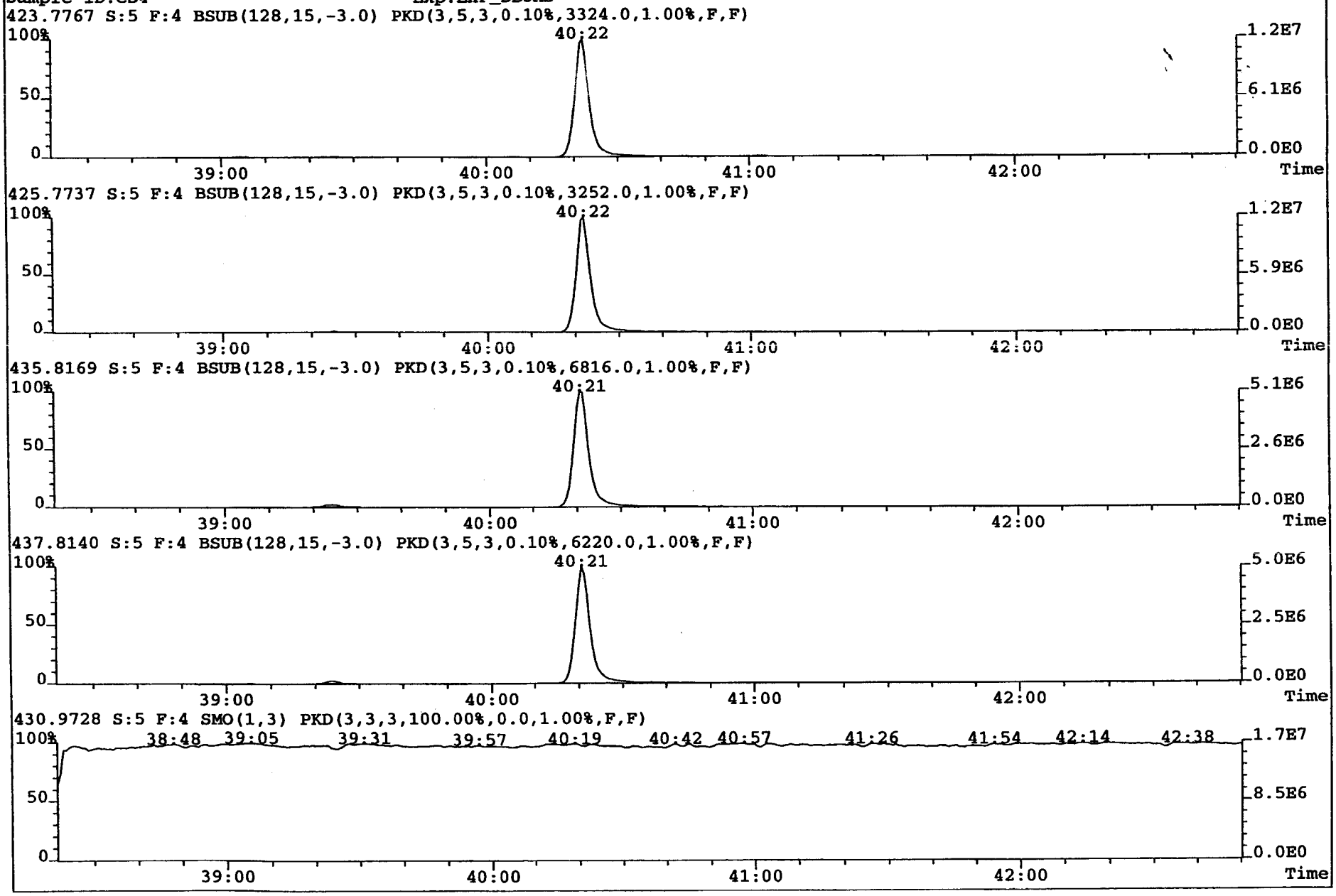

Filename:A22DEC03B -5
Acq:22-DEC-2003 13:18:08
Inst: HRMS2
Sample ID:CS4
Exp:EXP_DB5MS
319.8965 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3532.0,1.00%,F,F)
31:30
4.8E6
2.4E6
0.0E0
321.8936 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3276.0,1.00%,F,F)
31:30
5.8E6
2.9E6
0.0E0
331.9368 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3612.0,1.00%,F,F)
31:03
31:29
1.0E7
5.2E6
0.0E0
333.9339 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,2832.0,1.00%,F,F)
31:03
31:29
1.3E7
6.6E6
0.0E0
327.8847 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3764.0,1.00%,F,F)
31:30
1.0E7
5.2E6
0.0E0
316.9824 S:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:22
26:00
26:39
27:31
28:14
28:55
29:35
30:13
30:36
31:09
31:34
32:27
1.1E7
5.6E6
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

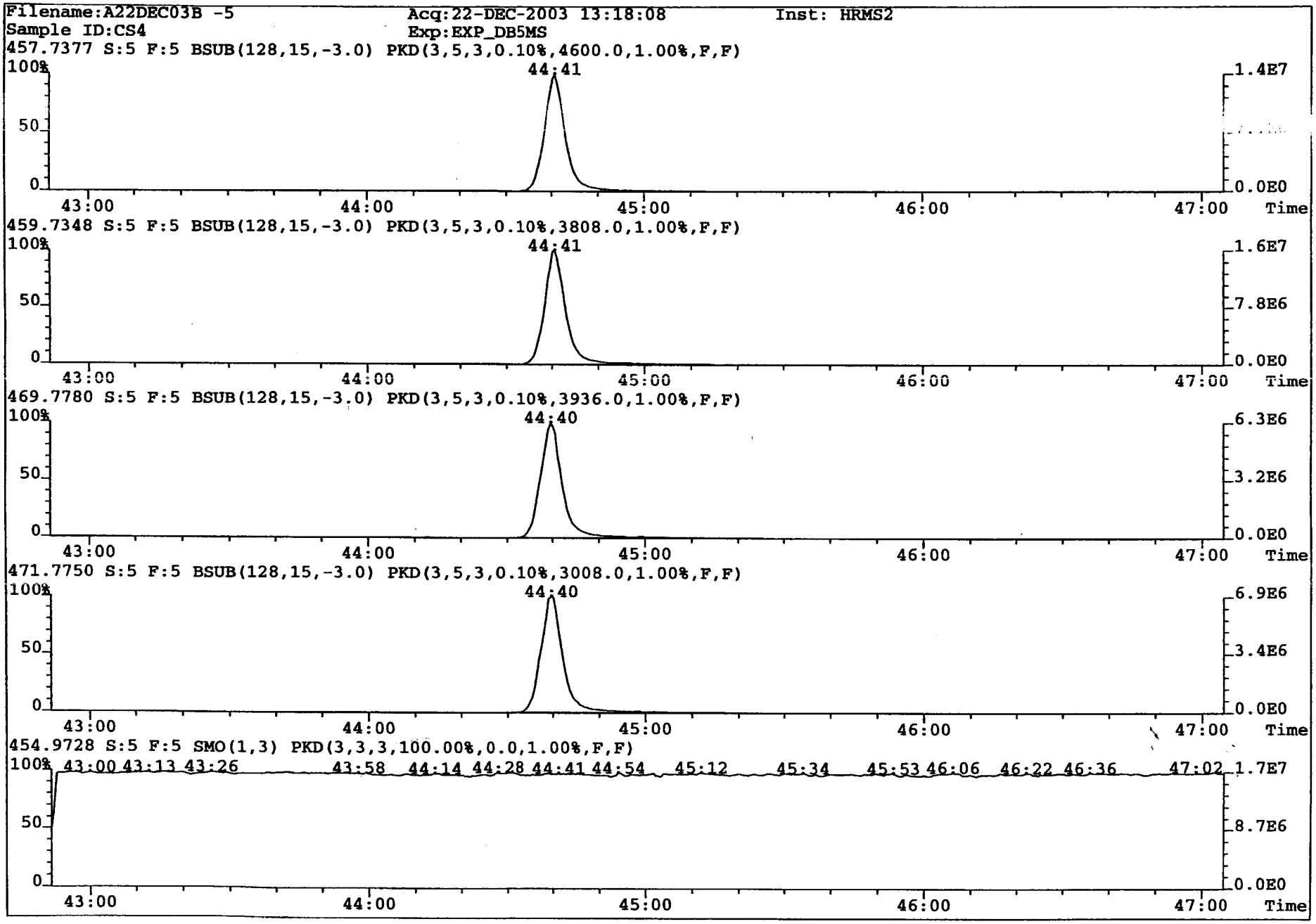

Filename:A22DEC03B -5
Acq:22-DEC-2003 13:18:08
Inst: HRMS2
Sample ID:CS4
Exp:EXP_DB5MS
355.8546 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2992.0,1.00%,F,F)
34:18
2.9E7
1.4E7
0.0E0
357.8517 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2316.0,1.00%,F,F)
34:18
1.8E7
8.9E6
0.0E0
367.8949 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2868.0,1.00%,F,F)
34:18
1.3E7
6.7E6
0.0E0
369.8919 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2644.0,1.00%,F,F)
34:18
8.4E6
4.2E6
0.0E0
366.9792 S:5 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:43 32:57 33:10 33:19 33:29 33:49 34:02 34:21 34:36 34:52 35:00
1.1E7
5.3E6
0.0E0
100%
50
0
32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

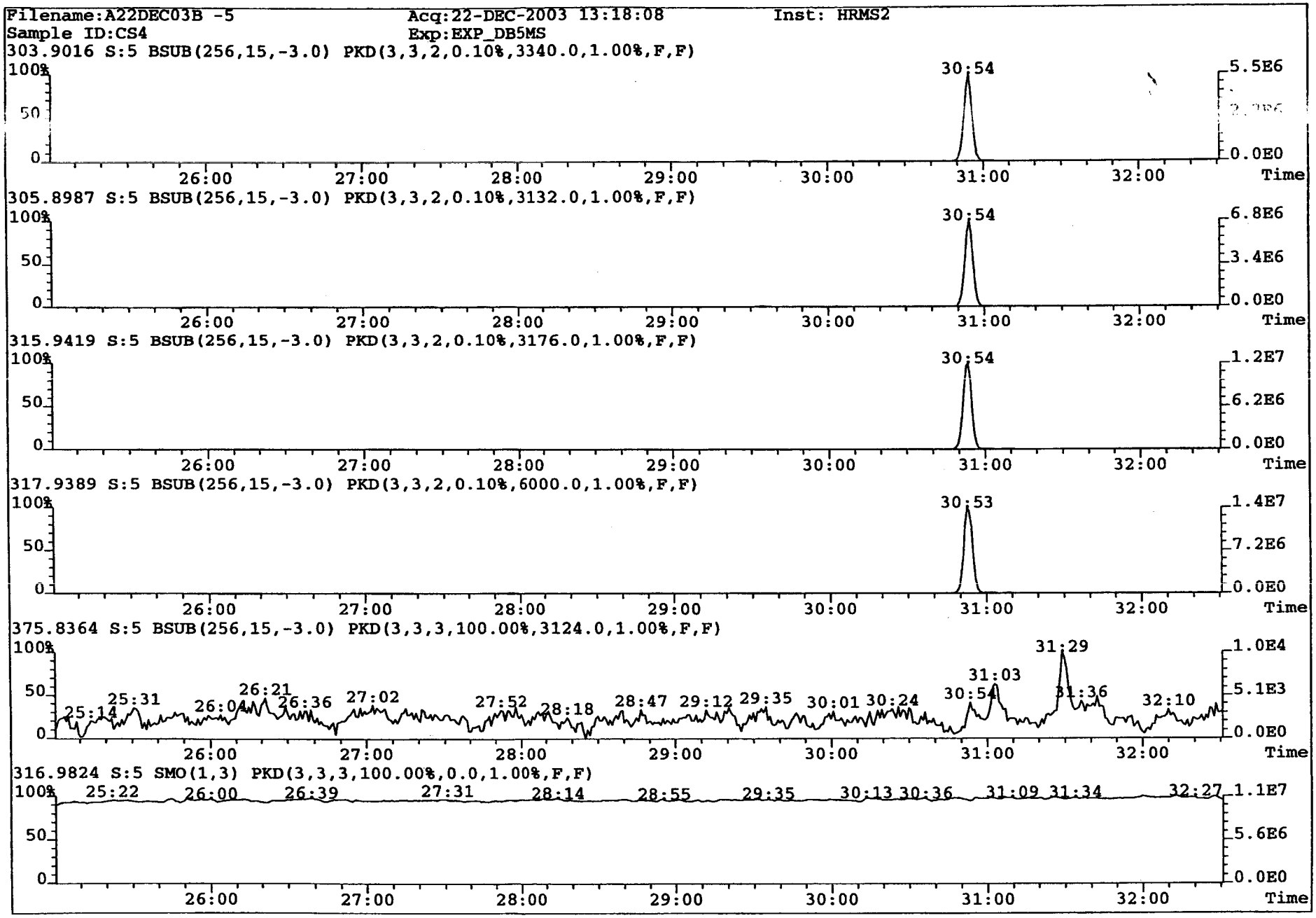
Filename:A22DEC03B -5 Acq:22-DEC-2003 13:18:08 Inst: HRMS2
Sample ID:CS4 Exp:EXP_DB5MS

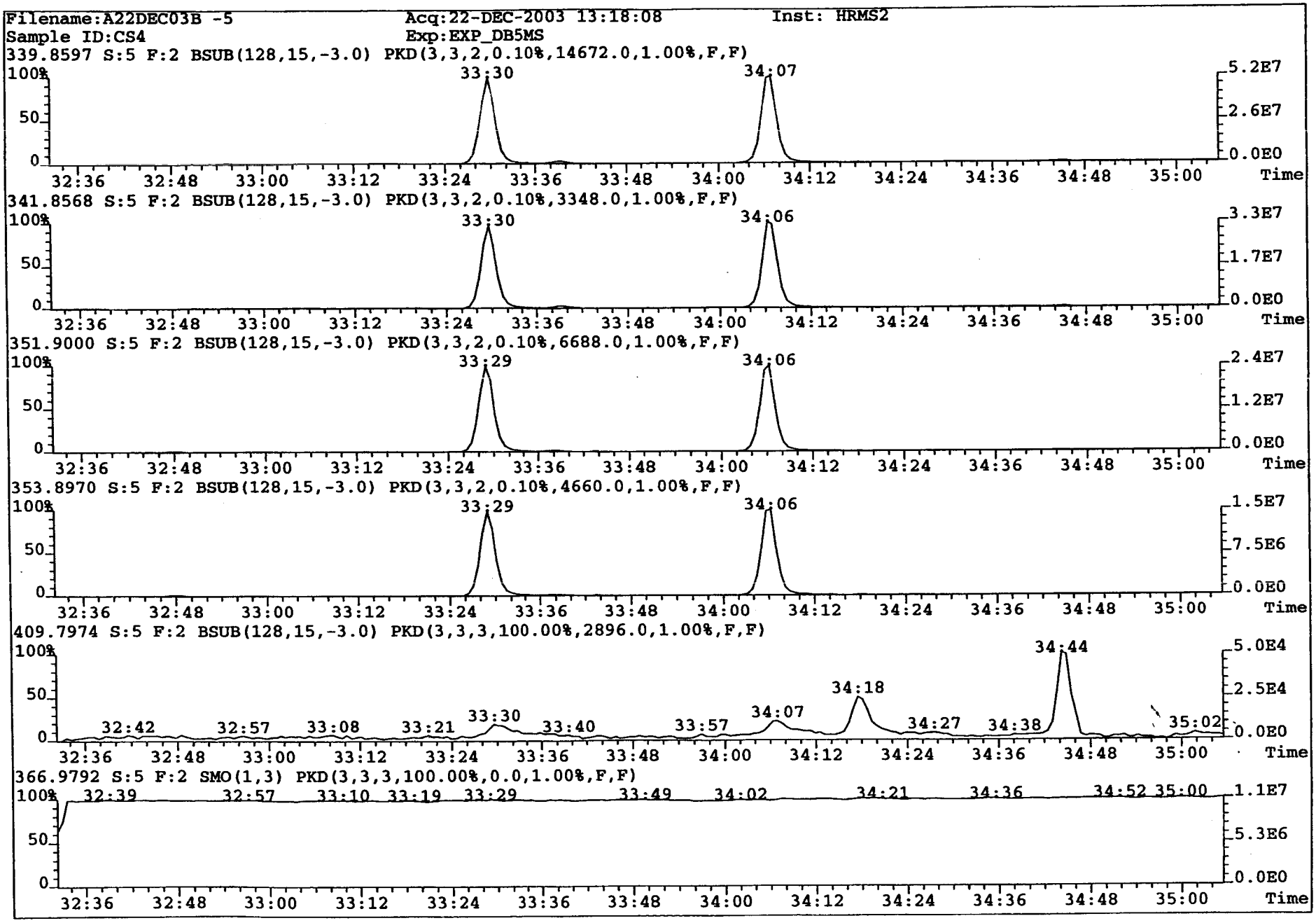


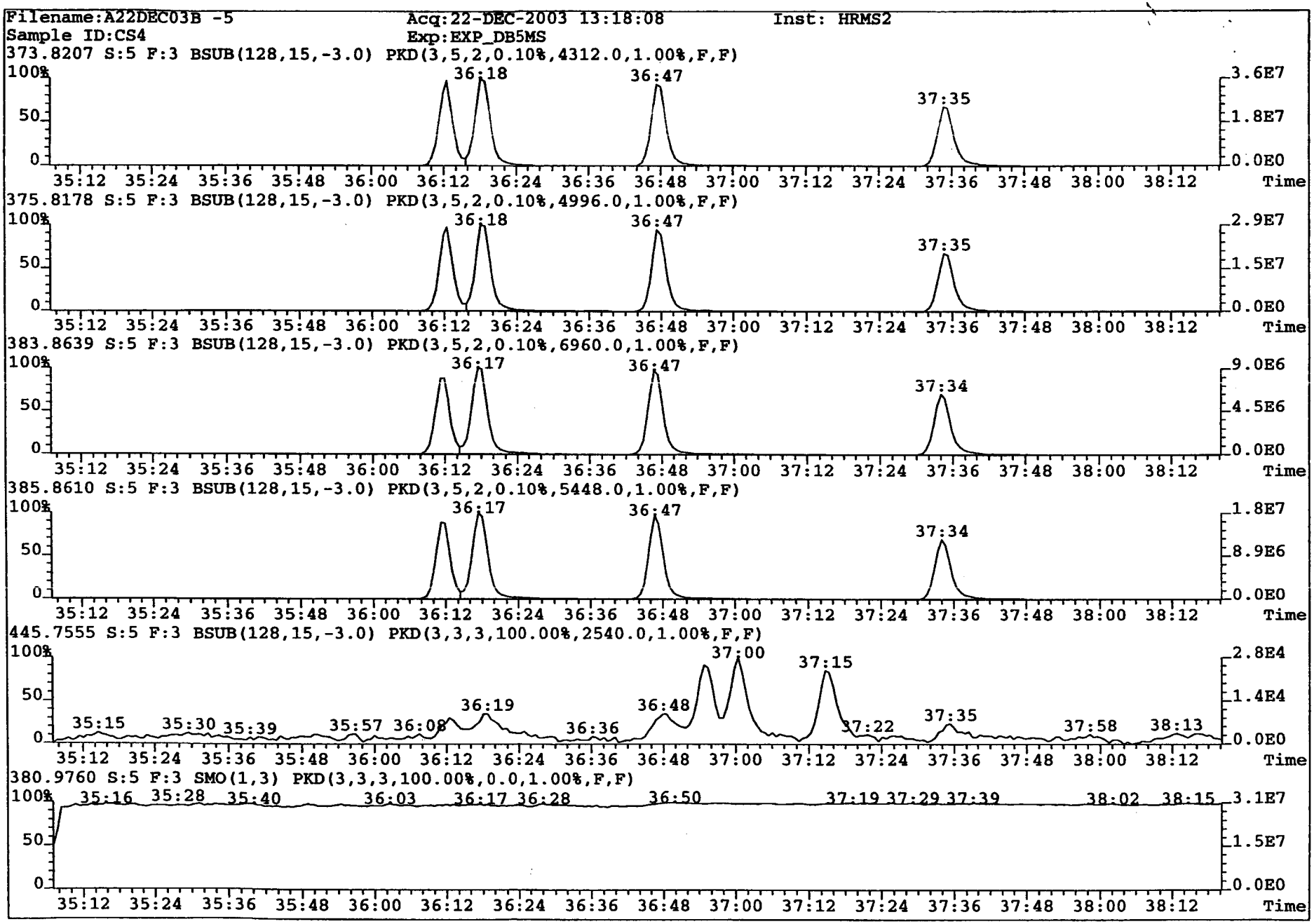
Filename:A22DEC03B -5 Acq:22-DEC-2003 13:18:08 Inst: HRMS2
Sample ID:CS4 Exp:EXP_DB5MS



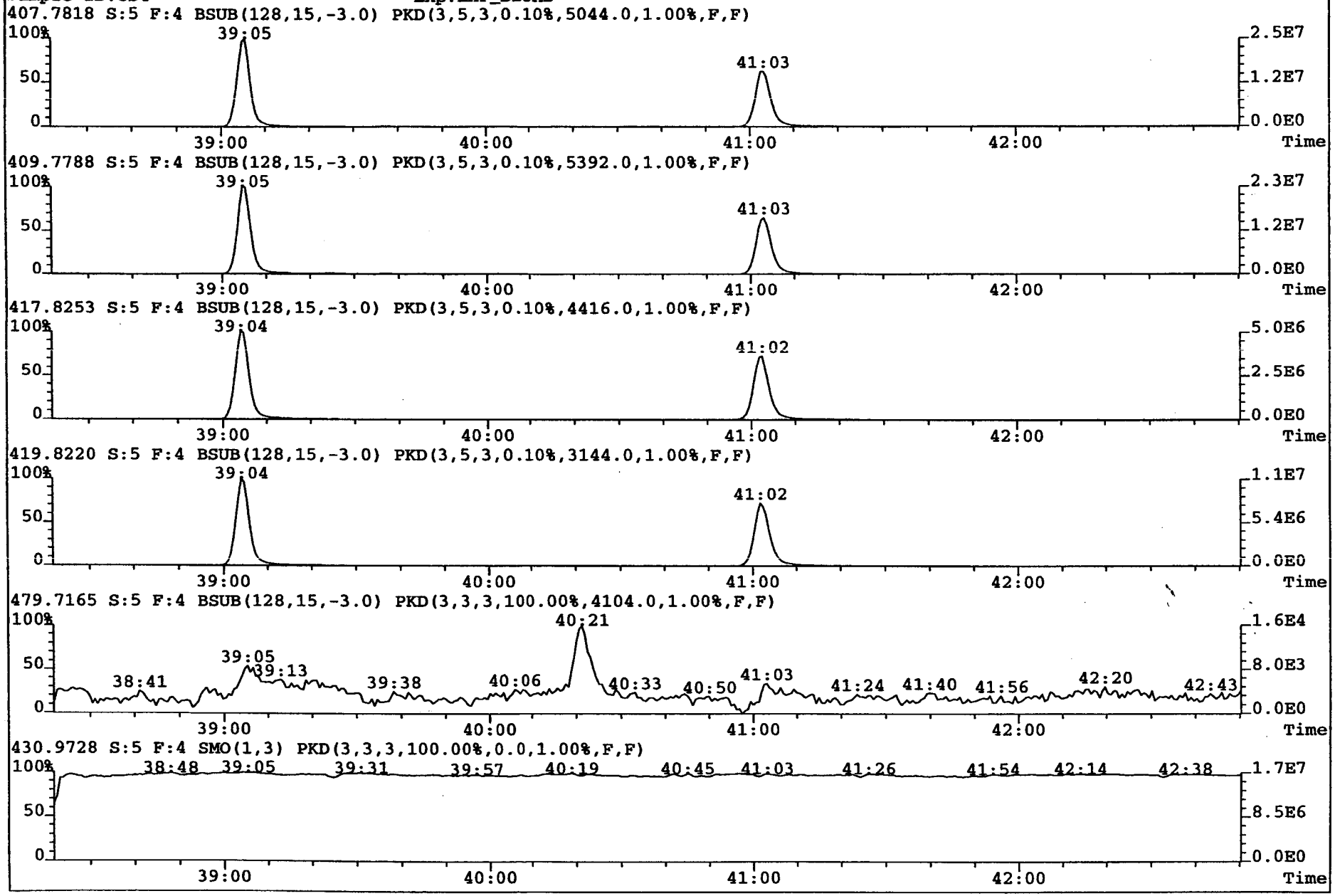

Filename:A22DEC03B -5
Acq:22-DEC-2003 13:18:08
Inst: HRMS2
Sample ID:CS4
Exp:EXP_DB5MS
457.7377 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4600.0,1.00%,F,F)
44:41
1.4E7
0.0E0
459.7348 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3808.0,1.00%,F,F)
44:41
1.6E7
7.8E6
0.0E0
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3936.0,1.00%,F,F)
44:40
6.3E6
3.2E6
0.0E0
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3008.0,1.00%,F,F)
44:40
6.9E6
3.4E6
0.0E0
454.9728 S:5 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:00 43:13 43:26 43:58 44:14 44:28 44:41 44:54 45:12 45:34 45:53 46:06 46:22 46:36 47:02
1.7E7
8.7E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time

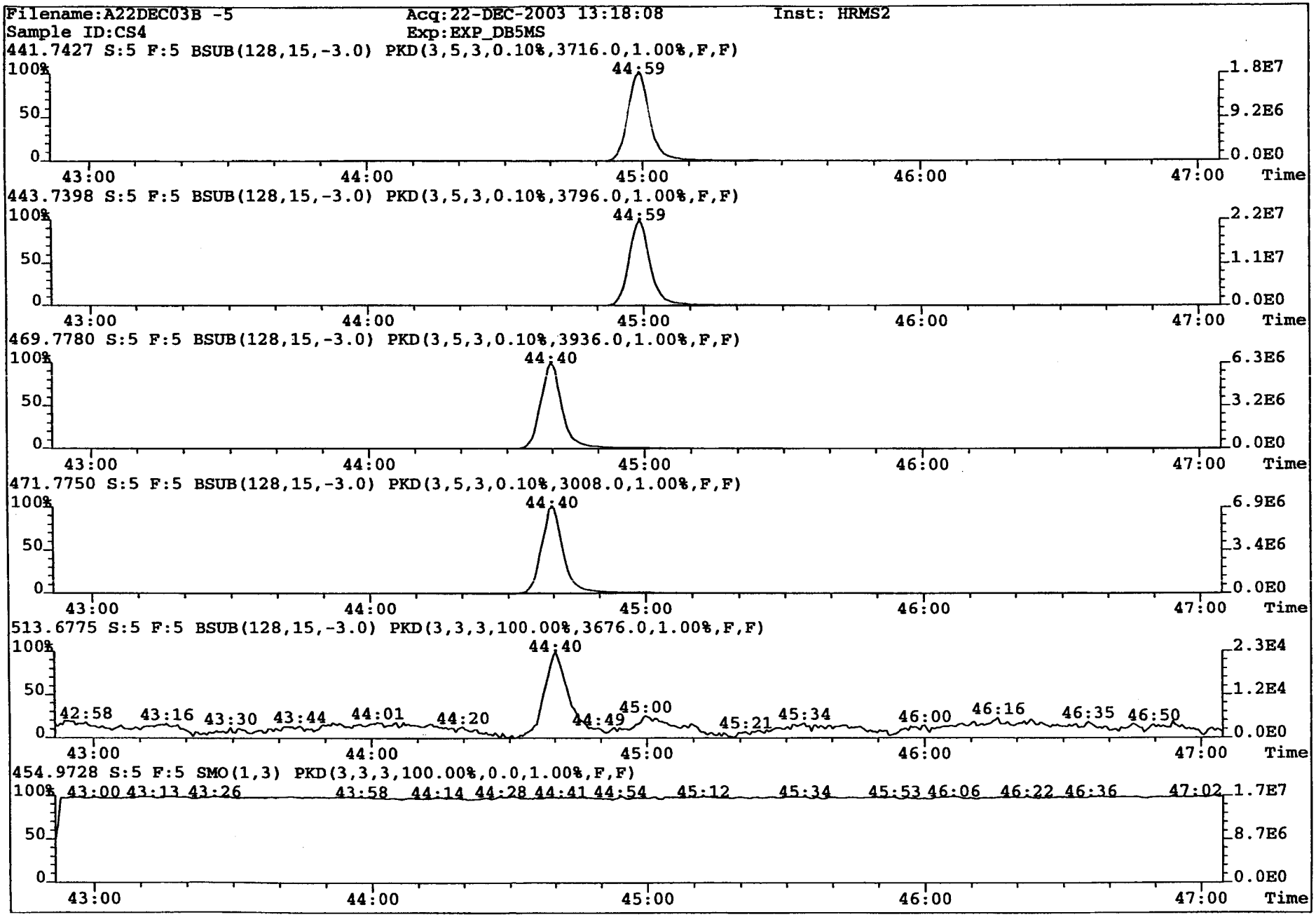

Filename:A22DEC03B -5
Acq:22-DEC-2003 13:18:08
Inst: HRMS2
Sample ID:CS4
Exp:EXP_DB5MS
303.9016 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3340.0,1.00%,F,F)
30:54
5.5E6
0.0E0
305.8987 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3132.0,1.00%,F,F)
30:54
6.8E6
3.4E6
0.0E0
315.9419 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3176.0,1.00%,F,F)
30:54
1.2E7
6.2E6
0.0E0
317.9389 S:5 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,6000.0,1.00%,F,F)
30:53
1.4E7
7.2E6
0.0E0
375.8364 S:5 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3124.0,1.00%,F,F)
25:14 25:31 26:04 26:21 26:36 27:02 27:52 28:18 28:47 29:12 29:35 30:01 30:24 30:54 31:03 31:29 31:36 32:10
1.0E4
5.1E3
0.0E0
316.9824 S:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:22 26:00 26:39 27:31 28:14 28:55 29:35 30:13 30:36 31:09 31:34 32:27
1.1E7
5.6E6
0.0E0
100%
50
0
26:00 27:00 28:00 29:00 30:00 31:00 32:00
Time


Filename:A22DEC03B -5
Acq:22-DEC-2003 13:18:08
Inst: HRMS2
Sample ID:CS4
Exp:EXP_DB5MS
339.8597 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,14672.0,1.00%,F,F)
33:30
34:07
5.2E7
2.6E7
0.0E0
341.8568 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3348.0,1.00%,F,F)
33:30
34:06
3.3E7
1.7E7
0.0E0
351.9000 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6688.0,1.00%,F,F)
33:29
34:06
2.4E7
1.2E7
0.0E0
353.8970 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4660.0,1.00%,F,F)
33:29
34:06
1.5E7
7.5E6
0.0E0
409.7974 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2896.0,1.00%,F,F)
32:42
32:57
33:08
33:21
33:30
33:40
33:57
34:07
34:18
34:27
34:38
34:44
35:02
5.0E4
2.5E4
0.0E0
366.9792 S:5 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:39
32:57
33:10
33:19
33:29
33:49
34:02
34:21
34:36
34:52
35:00
1.1E7
5.3E6
0.0E0
100%
50
0
32:36
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


Filename:A22DEC03B -5
Acq:22-DEC-2003 13:18:08
Inst: HRMS2
Sample ID:CS4
Exp:EXP_DB5MS
373.8207 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4312.0,1.00%,F,F)
36:18
36:47
37:35
3.6E7
1.8E7
0.0E0
375.8178 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4996.0,1.00%,F,F)
36:18
36:47
37:35
2.9E7
1.5E7
0.0E0
383.8639 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6960.0,1.00%,F,F)
36:17
36:47
37:34
9.0E6
4.5E6
0.0E0
385.8610 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5448.0,1.00%,F,F)
36:17
36:47
37:34
1.8E7
8.9E6
0.0E0
445.7555 S:5 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2540.0,1.00%,F,F)
35:15
35:30
35:39
35:57
36:08
36:19
36:36
36:48
37:00
37:15
37:22
37:35
37:58
38:13
2.8E4
1.4E4
0.0E0
380.9760 S:5 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:16
35:28
35:40
36:03
36:17
36:28
36:50
37:19
37:29
37:39
38:02
38:15
3.1E7
1.5E7
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

Filename:A22DEC03B -5 Acq:22-DEC-2003 13:18:08 Inst: HRMS2
Sample ID:CS4 Exp:EXP_DB5MS

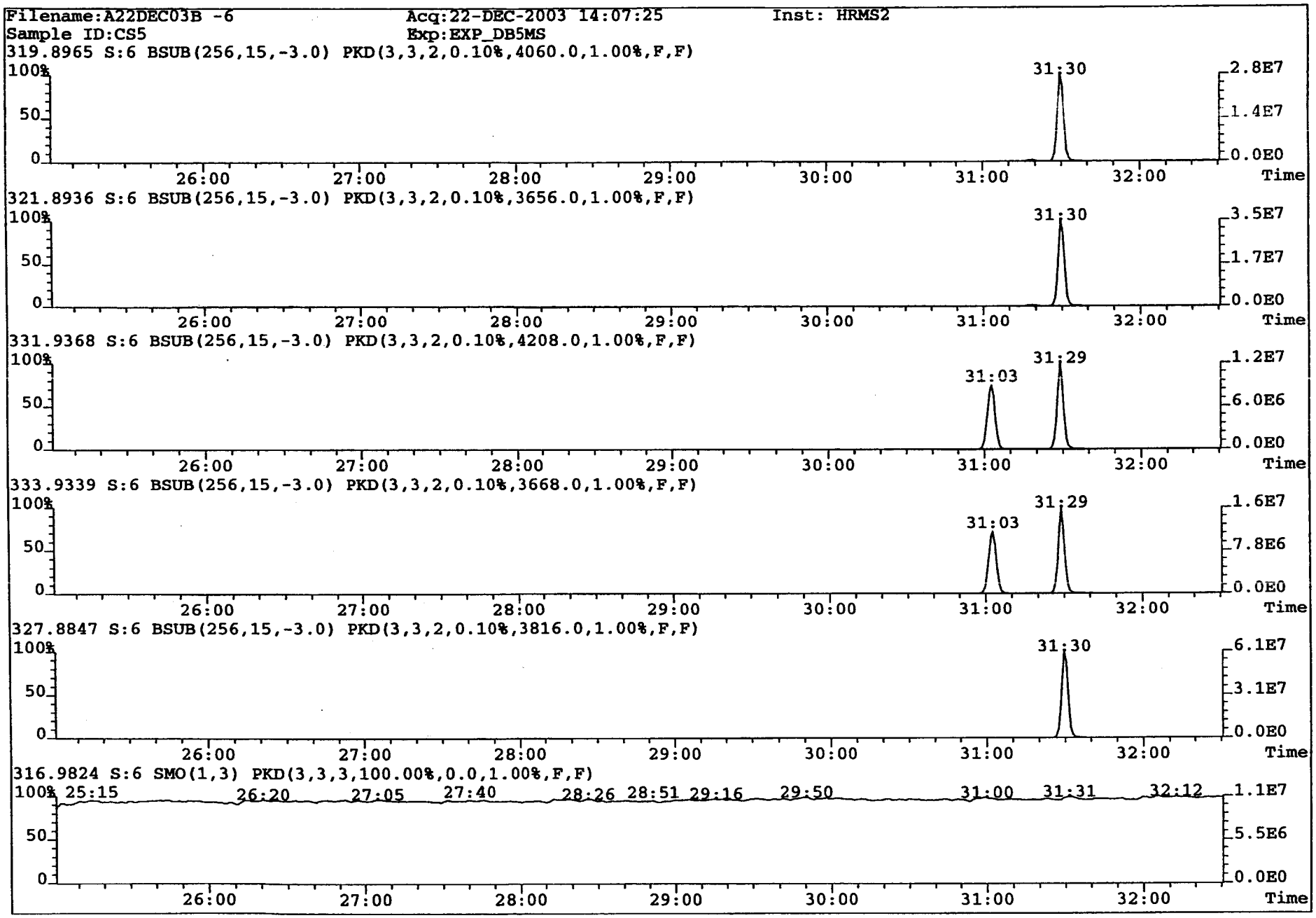



Filename:A22DEC03B -5
Acq:22-DEC-2003 13:18:08
Inst: HRMS2
Sample ID:CS4
Exp:EXP_DB5MS
441.7427 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3716.0,1.00%,F,F)
44:59
1.8E7
9.2E6
0.0E0
443.7398 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3796.0,1.00%,F,F)
44:59
2.2E7
1.1E7
0.0E0
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3936.0,1.00%,F,F)
44:40
6.3E6
3.2E6
0.0E0
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3008.0,1.00%,F,F)
44:40
6.9E6
3.4E6
0.0E0
513.6775 S:5 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3676.0,1.00%,F,F)
44:40
42:58 43:16 43:30 43:44 44:01 44:20 44:49 45:00 45:21 45:34 46:00 46:16 46:35 46:50
2.3E4
1.2E4
0.0E0
454.9728 S:5 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:00 43:13 43:26 43:58 44:14 44:28 44:41 44:54 45:12 45:34 45:53 46:06 46:22 46:36 47:02
1.7E7
8.7E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time

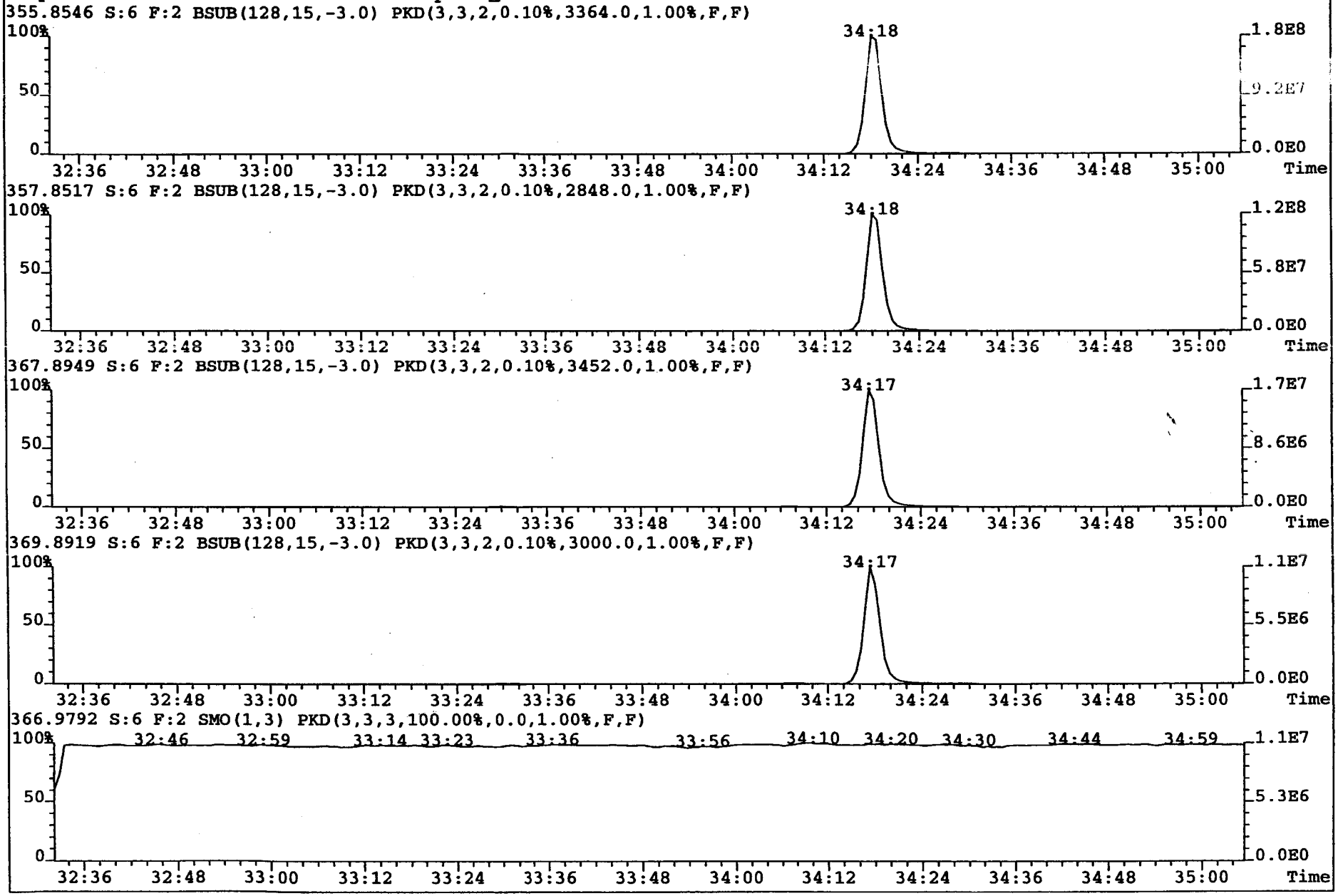
Run #5 Filename a22dec03b S: 6 I: 1 Acquired: 22-DEC-03 14:07:25 Processed: 22-DEC-03 15:08:33
Run: Analyte: m8290-121» Cal: m8290-122» Results: Version: V3.6 6-JAN-2000 17:51:42
Sample text: CS5 Comments:

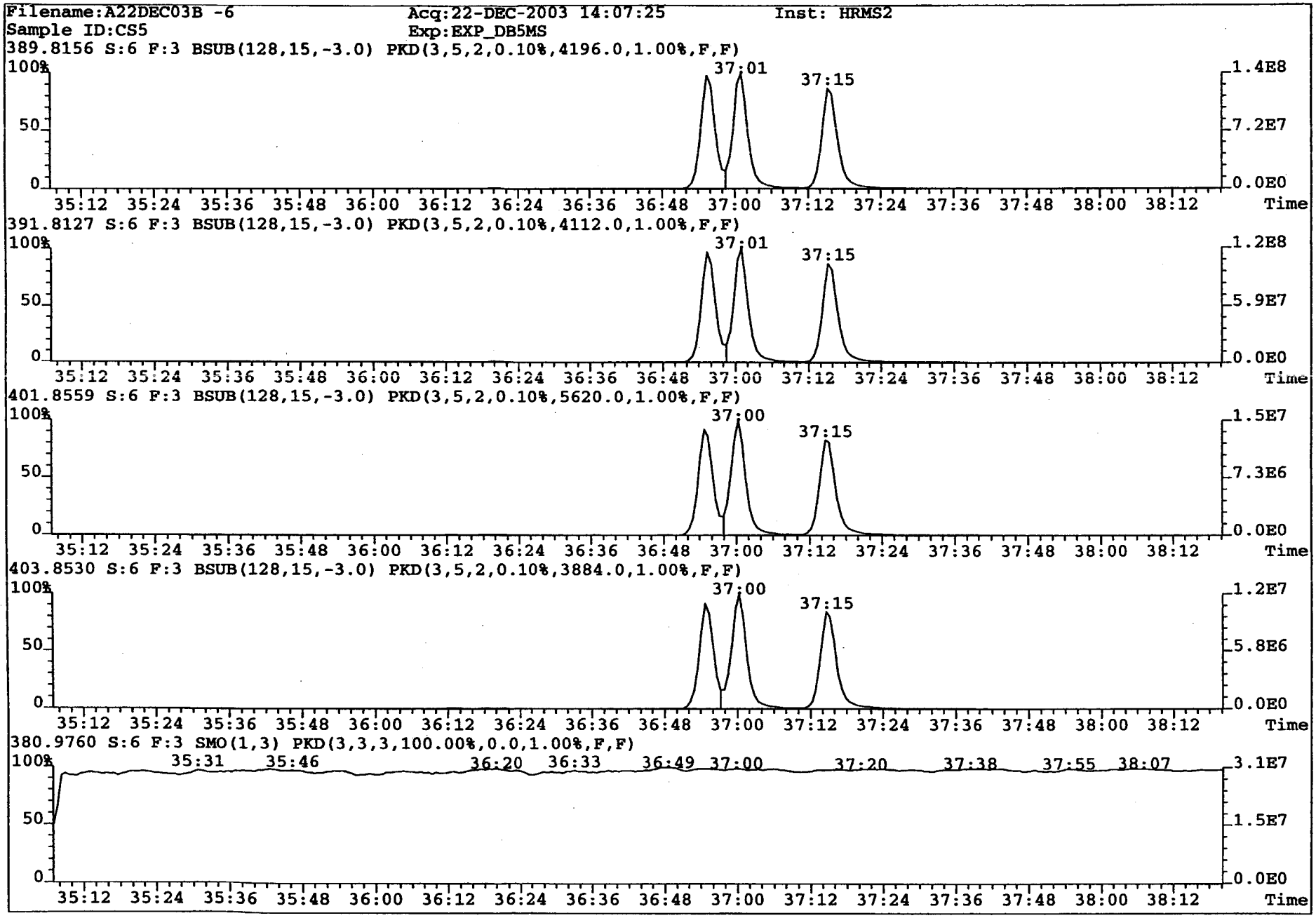
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	[illegible]	200.00	1.73e+08	0.81 y	31:30	-	1.14	y	n
2	Unk	1,2,3,7,8-PeCDD	1000.00	7.28e+08	1.60 y	34:18	-	1.09	y	n
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	6.88e+08	1.22 y	36:55	-	0.92	y	n
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	7.30e+08	1.22 y	37:01	-	0.98	y	n
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	6.75e+08	1.22 y	37:16	-	0.90	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	5.93e+08	1.05 y	40:22	-	1.14	y	n
7	Unk	OCDD	2000.00	1.02e+09	0.90 y	44:42	-	1.05	y	n
8	Unk	2,3,7,8-TCDF	200.00	2.55e+08	0.79 y	30:54	-	1.07	y	n
9	Unk	1,2,3,7,8-PeCDF	1000.00	1.22e+09	1.58 y	33:30	-	1.06	y	n
10	Unk	2,3,4,7,8-PeCDF	1000.00	1.30e+09	1.57 y	34:07	-	1.13	y	n
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	1.04e+09	1.20 y	36:12	-	1.02	y	n
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	1.20e+09	1.22 y	36:19	-	1.18	y	n
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	1.13e+09	1.24 y	36:48	-	1.10	y	n
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	9.32e+08	1.22 y	37:35	-	0.91	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	1.06e+09	1.03 y	39:05	-	1.43	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	8.44e+08	1.05 y	41:03	-	1.13	y	n
17	Unk	OCDF	2000.00	1.53e+09	0.89 y	45:00	-	1.59	y	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	7.60e+07	0.78 y	31:29	-	1.10	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	6.69e+07	1.59 y	34:18	-	0.97	y	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	7.48e+07	1.20 y	37:00	-	1.10	y	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.22e+07	1.06 y	40:21	-	0.77	y	n
22	ES	13C-OCDD	200.00	9.67e+07	0.91 y	44:41	-	0.71	y	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.19e+08	0.84 y	30:53	-	1.72	y	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	1.15e+08	1.62 y	33:29	-	1.66	y	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	1.02e+08	0.52 y	36:18	-	1.50	y	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	7.45e+07	0.47 y	39:05	-	1.10	y	n
27	JS	13C-1,2,3,4-TCDD	100.00	6.92e+07	0.80 y	31:03	6.92e+05	-	n	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	6.80e+07	1.24 y	37:15	6.80e+05	-	n	n
29	CS	37Cl-2,3,7,8-TCDD	200.00	1.72e+08		31:30	-	1.24	y	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	1.18e+08	1.62 y	34:06	-	1.70	y	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	6.49e+07	1.32 y	36:55	-	0.95	y	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	8.34e+07	0.51 y	36:12	-	1.23	y	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.48e+07	0.48 y	41:03	-	0.95	y	n
34	SS	37Cl-2,3,7,8-TCDD	200.00	1.72e+08		31:30	-	1.13	y	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	1.18e+08	1.62 y	34:06	-	1.03	y	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	6.49e+07	1.32 y	36:55	-	0.87	y	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	8.34e+07	0.51 y	36:12	-	0.82	y	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.48e+07	0.48 y	41:03	-	0.87	y	n
39	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.07	y	n
40	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.14	y	n
41	Tot	Total Penta-Furans Fn1	0.00	-	- n	-	-	1.10	y	n
42	Tot	Total Penta-Furans Fn2	0.00	-	- n	-	-	1.10	y	n
43	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.09	y	n
44	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.05	y	n

=1.18602

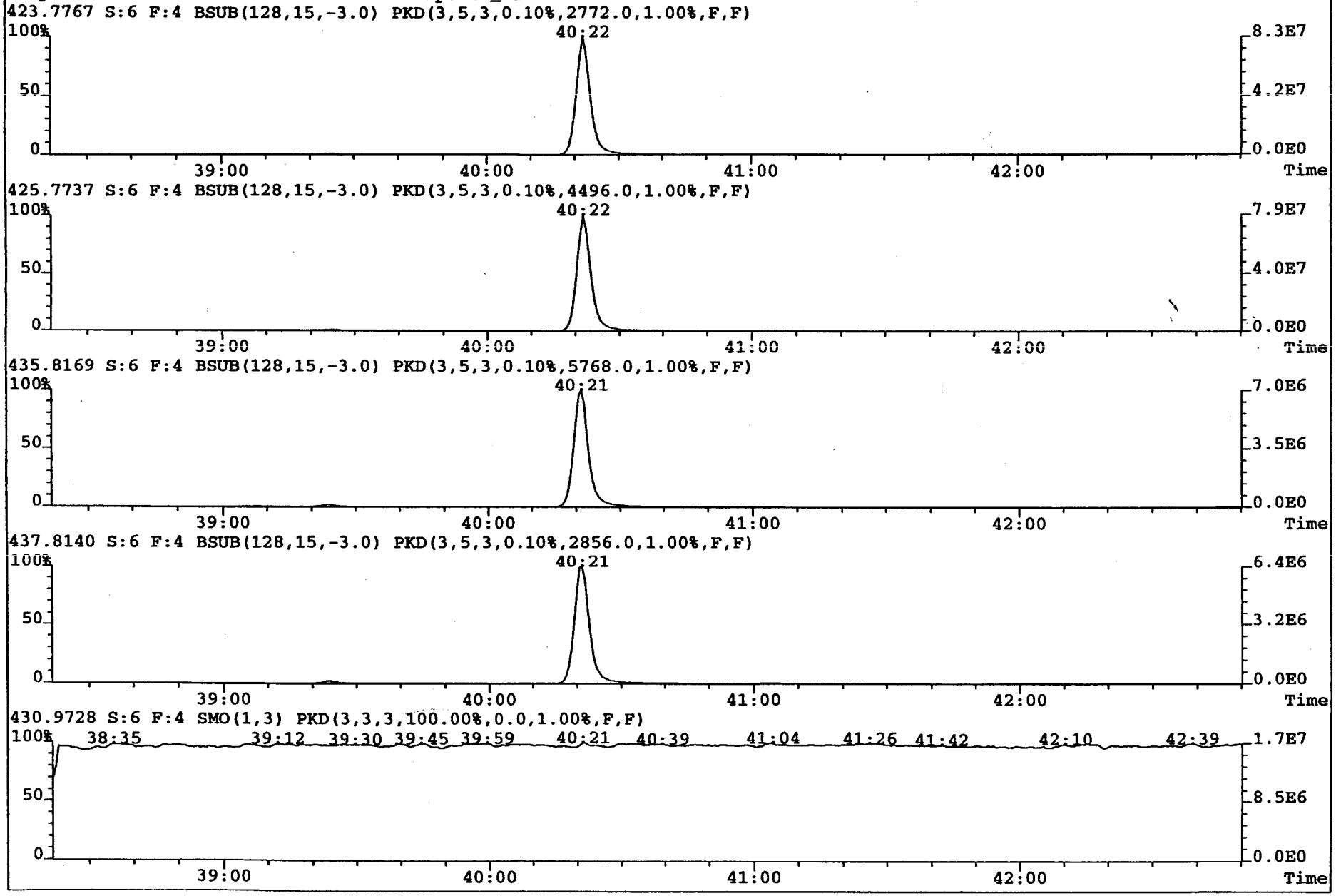

Filename:A22DEC03B -6
Acq:22-DEC-2003 14:07:25
Inst: HRMS2
Sample ID:CS5
Exp:EXP_DB5MS
319.8965 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4060.0,1.00%,F,F)
31:30
2.8E7
1.4E7
0.0E0
321.8936 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3656.0,1.00%,F,F)
31:30
3.5E7
1.7E7
0.0E0
331.9368 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4208.0,1.00%,F,F)
31:03
31:29
1.2E7
6.0E6
0.0E0
333.9339 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3668.0,1.00%,F,F)
31:03
31:29
1.6E7
7.8E6
0.0E0
327.8847 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3816.0,1.00%,F,F)
31:30
6.1E7
3.1E7
0.0E0
316.9824 S:6 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:15
26:20
27:05
27:40
28:26
28:51
29:16
29:50
31:00
31:31
32:12
1.1E7
5.5E6
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

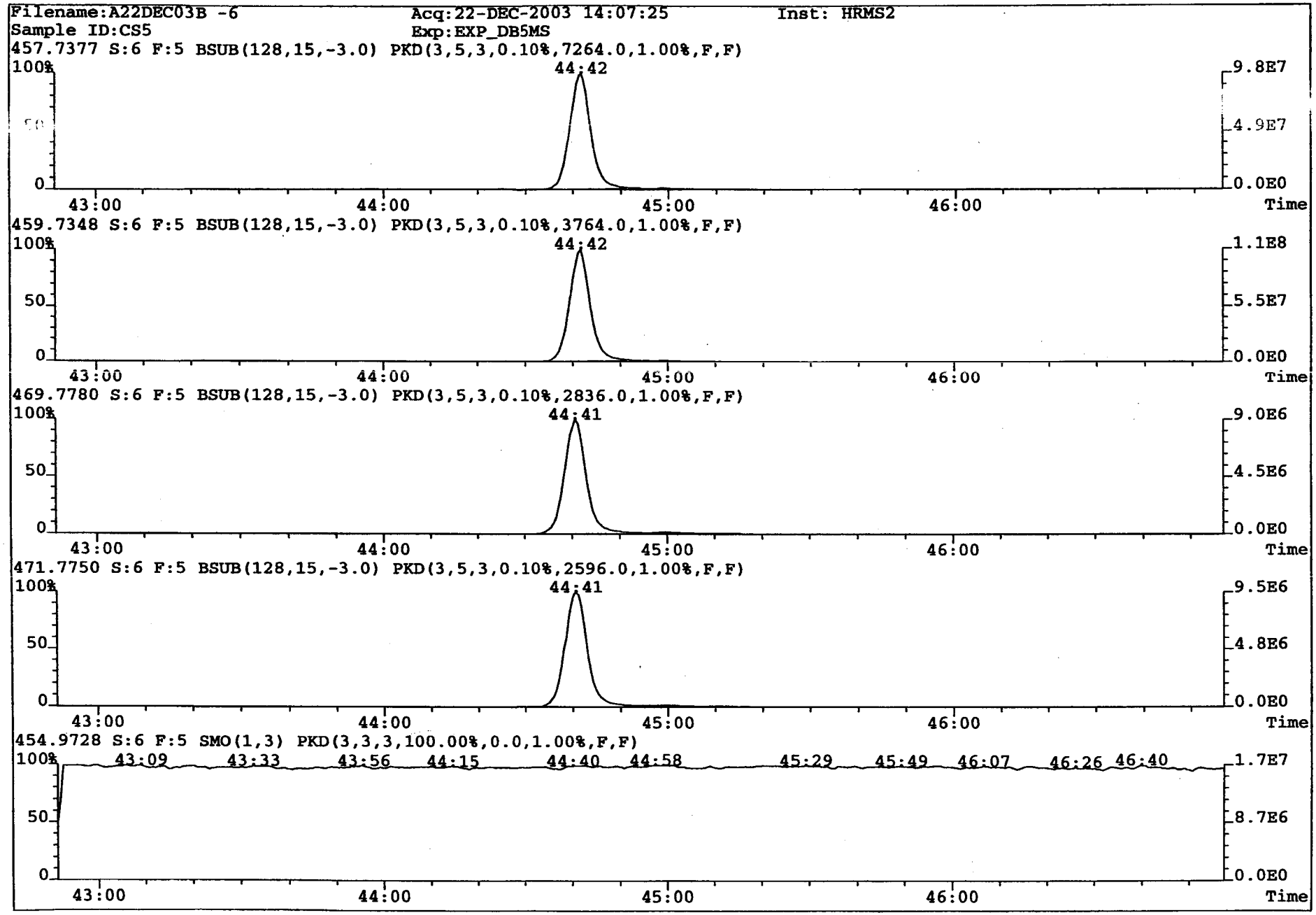
Filename:A22DEC03B -6 Acq:22-DEC-2003 14:07:25 Inst: HRMS2
Sample ID:CS5 Exp:EXP_DB5MS

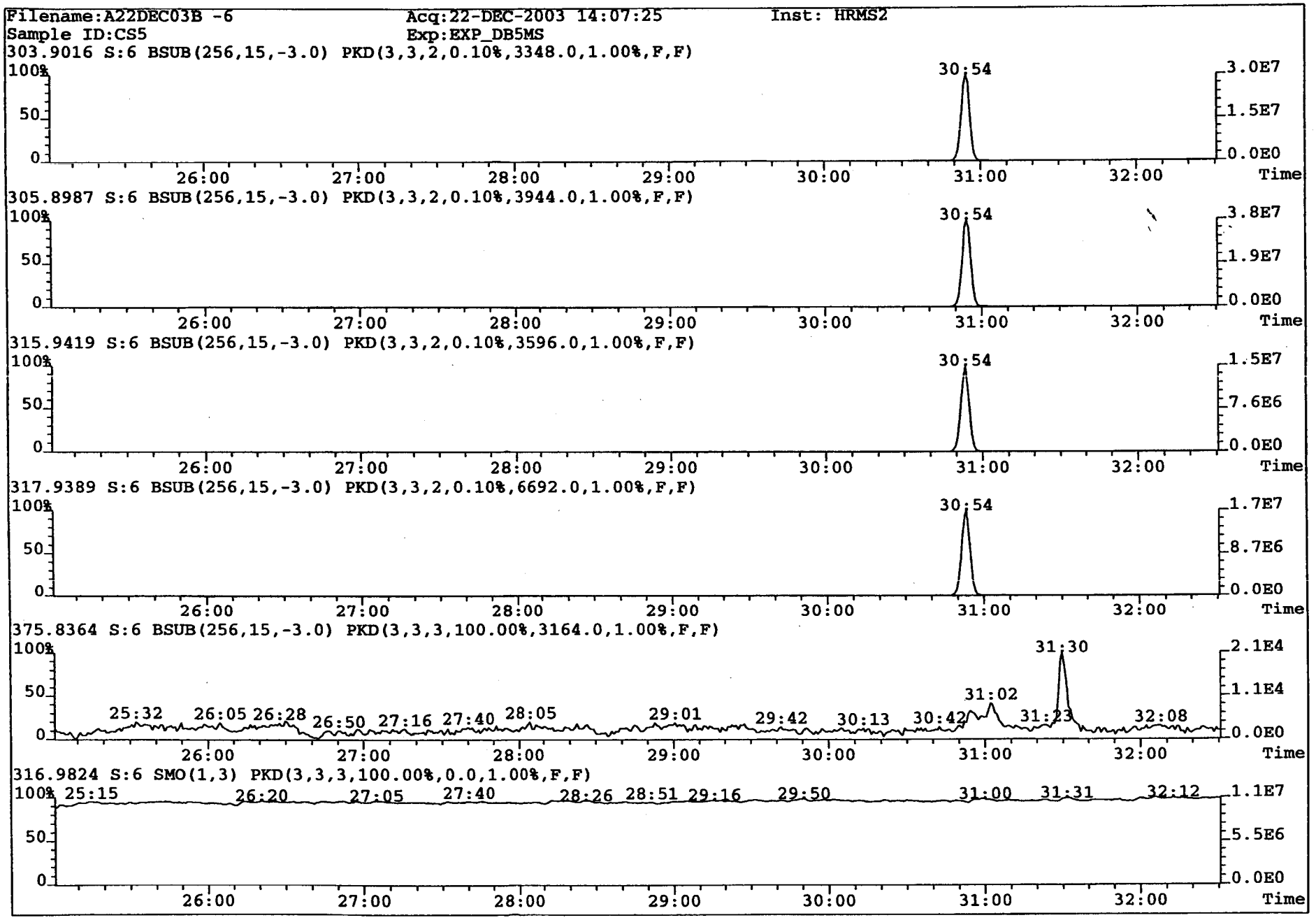


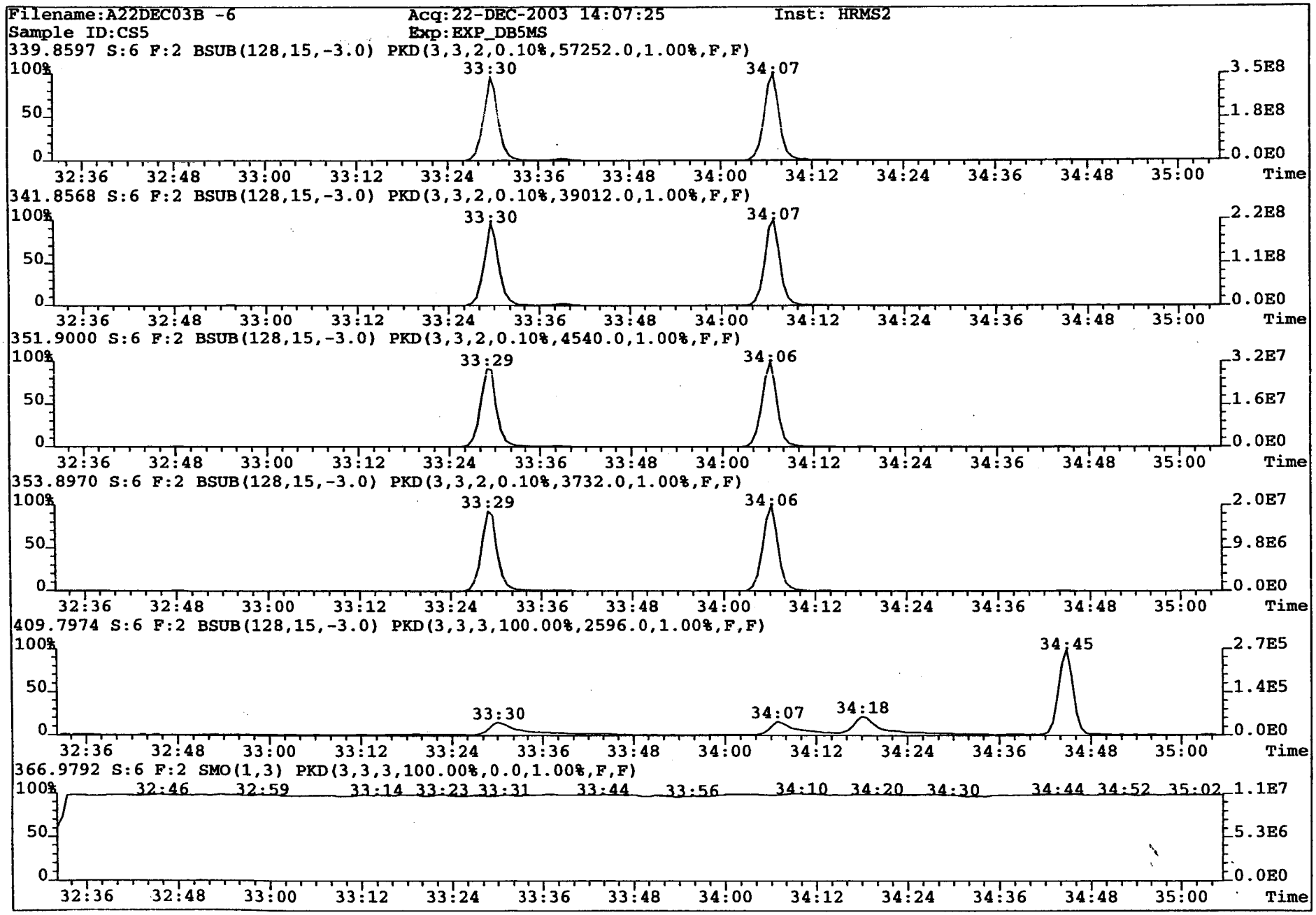

Filename:A22DEC03B -6
Acq:22-DEC-2003 14:07:25
Inst: HRMS2
Sample ID:CS5
Exp:EXP_DB5MS
389.8156 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4196.0,1.00%,F,F)
37:01
37:15
1.4E8
7.2E7
0.0E0
391.8127 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4112.0,1.00%,F,F)
37:01
37:15
1.2E8
5.9E7
0.0E0
401.8559 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5620.0,1.00%,F,F)
37:00
37:15
1.5E7
7.3E6
0.0E0
403.8530 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,3884.0,1.00%,F,F)
37:00
37:15
1.2E7
5.8E6
0.0E0
380.9760 S:6 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:31 35:46 36:20 36:33 36:49 37:00 37:20 37:38 37:55 38:07
3.1E7
1.5E7
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

Filename:A22DEC03B -6 Acq:22-DEC-2003 14:07:25 Inst: HRMS2
Sample ID:CS5 Exp:EXP_DB5MS

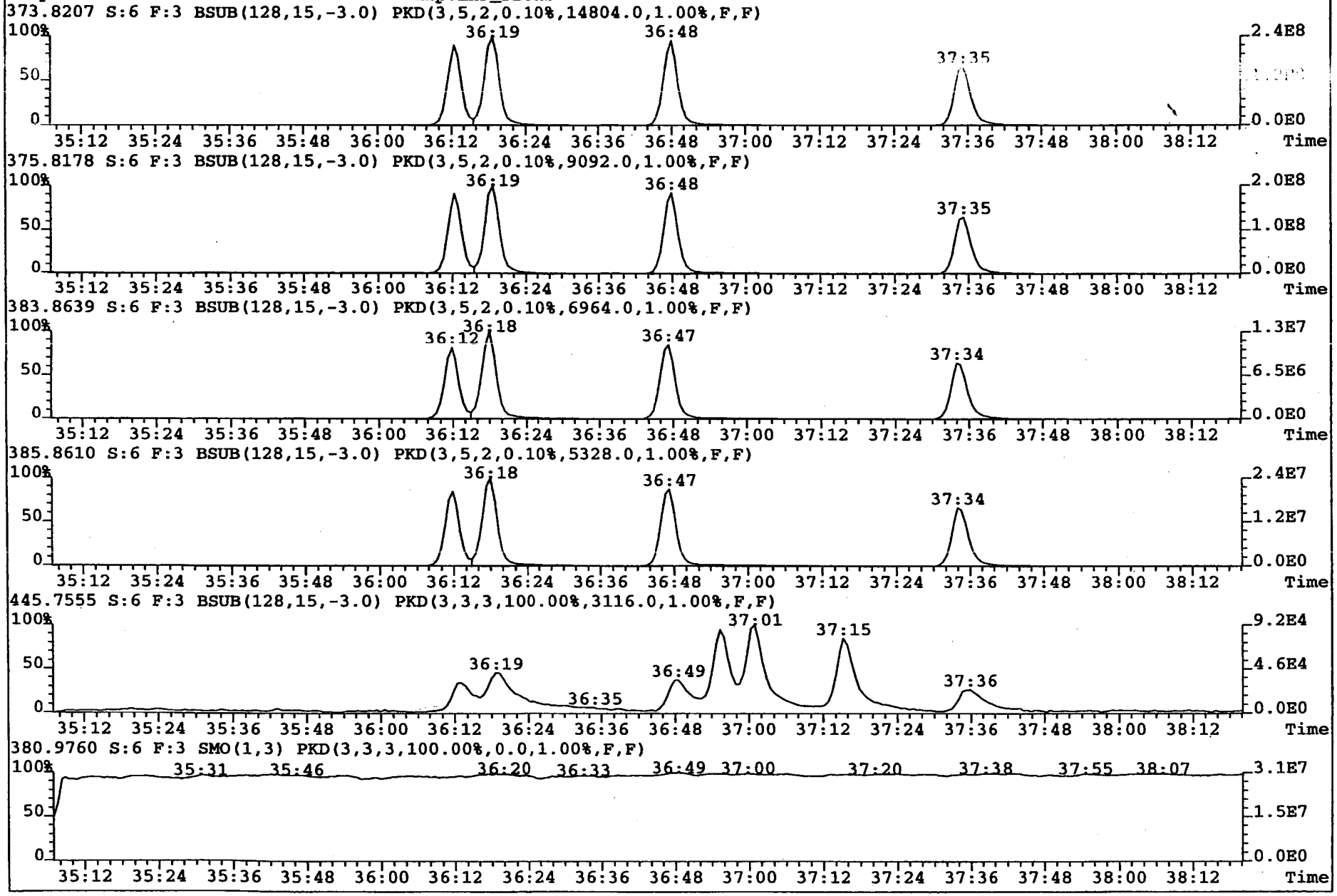


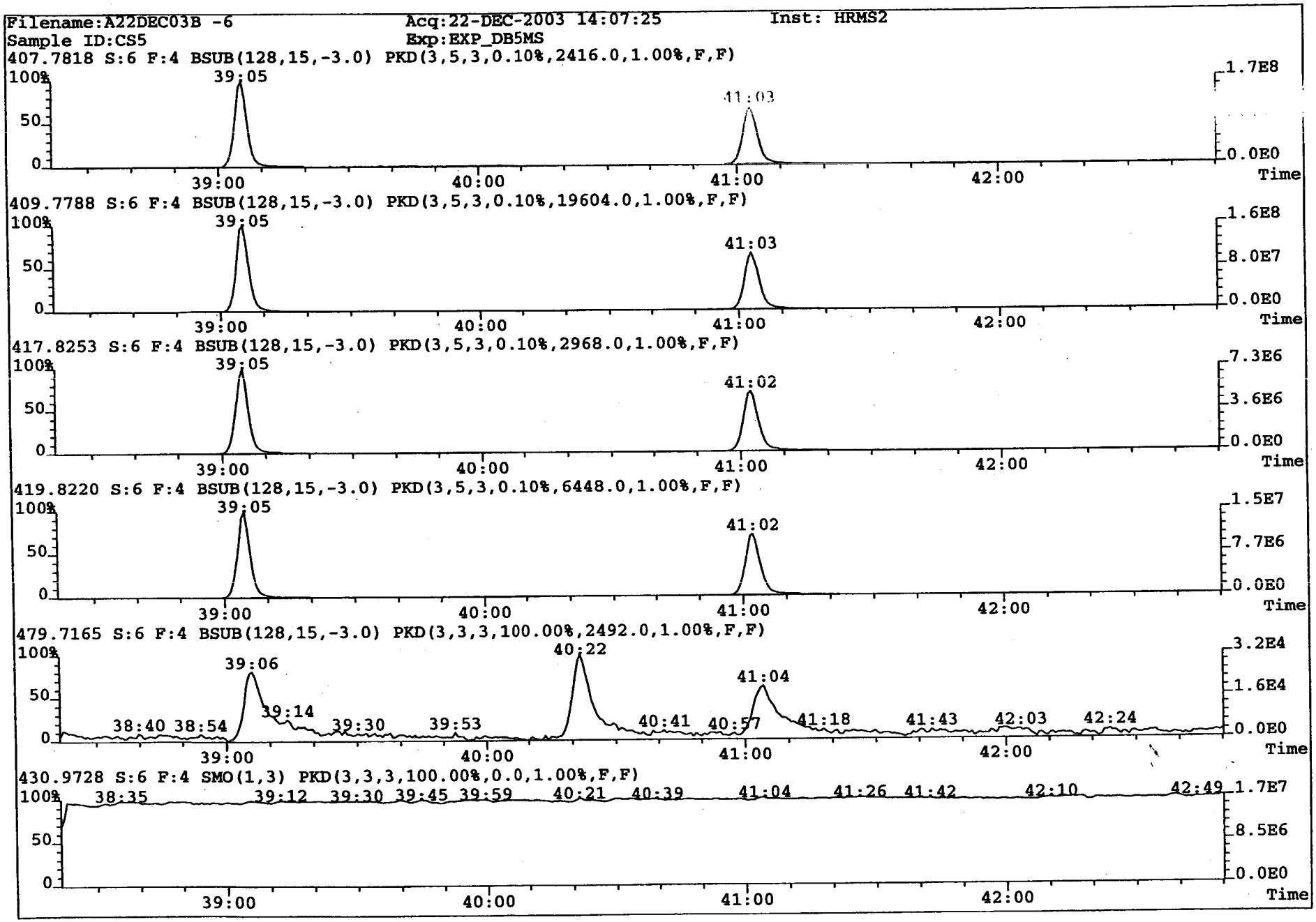

Filename:A22DEC03B -6
Acq:22-DEC-2003 14:07:25
Inst: HRMS2
Sample ID:CS5
Exp:EXP_DB5MS
457.7377 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7264.0,1.00%,F,F)
44:42
9.8E7
4.9E7
0.0E0
459.7348 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3764.0,1.00%,F,F)
44:42
1.1E8
5.5E7
0.0E0
469.7780 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2836.0,1.00%,F,F)
44:41
9.0E6
4.5E6
0.0E0
471.7750 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2596.0,1.00%,F,F)
44:41
9.5E6
4.8E6
0.0E0
454.9728 S:6 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:09 43:33 43:56 44:15 44:40 44:58 45:29 45:49 46:07 46:26 46:40
1.7E7
8.7E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

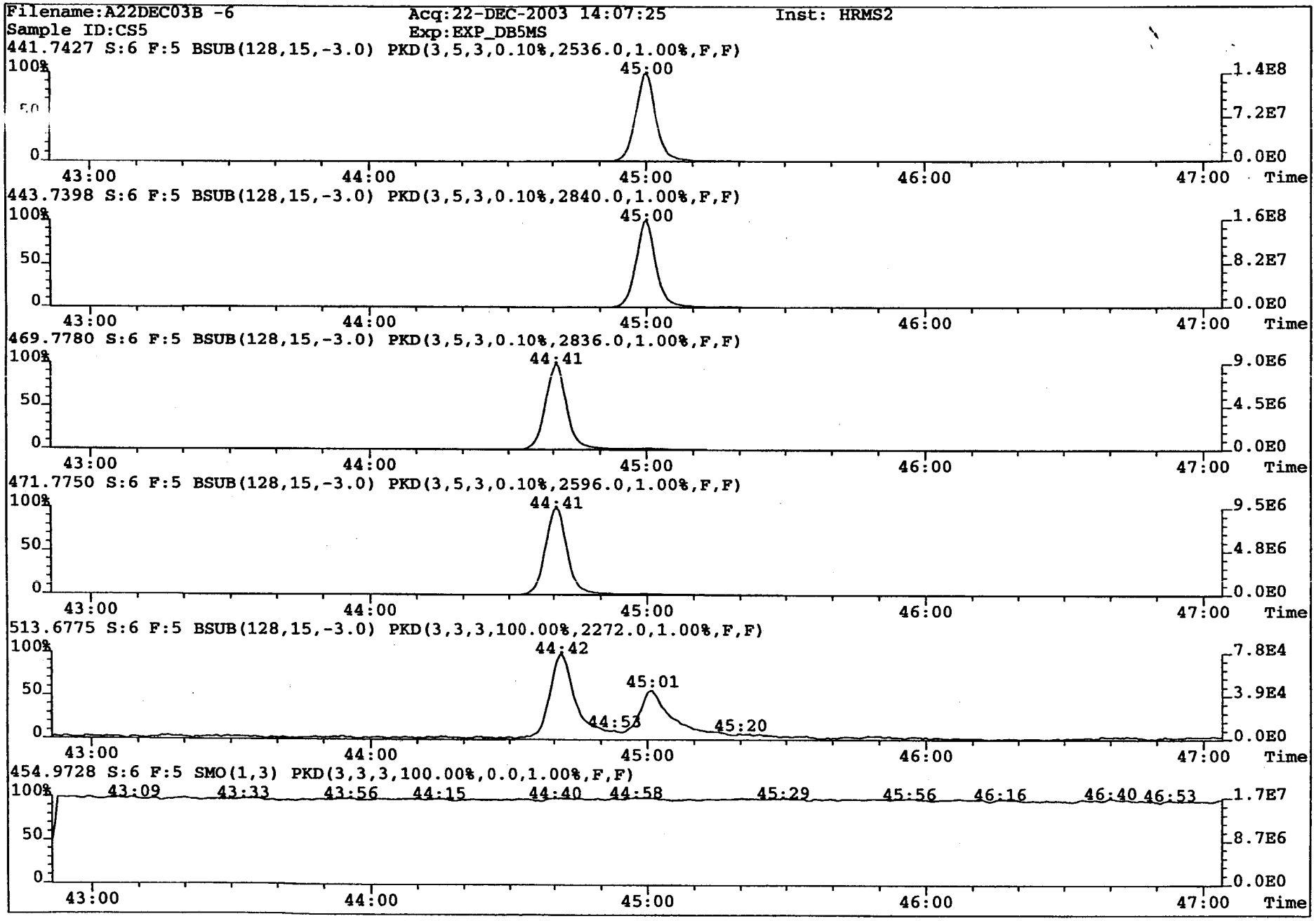

Filename:A22DEC03B -6
Acq:22-DEC-2003 14:07:25
Inst: HRMS2
Sample ID:CS5
Exp:EXP_DB5MS
303.9016 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3348.0,1.00%,F,F)
30:54
3.0E7
1.5E7
0.0E0
305.8987 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3944.0,1.00%,F,F)
30:54
3.8E7
1.9E7
0.0E0
315.9419 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3596.0,1.00%,F,F)
30:54
1.5E7
7.6E6
0.0E0
317.9389 S:6 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,6692.0,1.00%,F,F)
30:54
1.7E7
8.7E6
0.0E0
375.8364 S:6 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3164.0,1.00%,F,F)
31:30
31:02
25:32 26:05 26:28 26:50 27:16 27:40 28:05 29:01 29:42 30:13 30:42 31:23 32:08
2.1E4
1.1E4
0.0E0
316.9824 S:6 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:15 26:20 27:05 27:40 28:26 28:51 29:16 29:50 31:00 31:31 32:12
1.1E7
5.5E6
0.0E0
100%
50
0
26:00 27:00 28:00 29:00 30:00 31:00 32:00
Time


Filename:A22DEC03B -6
Acq:22-DEC-2003 14:07:25
Inst: HRMS2
Sample ID:CS5
Exp:EXP_DB5MS
339.8597 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,57252.0,1.00%,F,F)
33:30
34:07
3.5E8
1.8E8
0.0E0
341.8568 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,39012.0,1.00%,F,F)
33:30
34:07
2.2E8
1.1E8
0.0E0
351.9000 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4540.0,1.00%,F,F)
33:29
34:06
3.2E7
1.6E7
0.0E0
353.8970 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3732.0,1.00%,F,F)
33:29
34:06
2.0E7
9.8E6
0.0E0
409.7974 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2596.0,1.00%,F,F)
33:30
34:07
34:18
34:45
2.7E5
1.4E5
0.0E0
366.9792 S:6 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:46 32:59 33:14 33:23 33:31 33:44 33:56 34:10 34:20 34:30 34:44 34:52 35:02
1.1E7
5.3E6
0.0E0
100%
50
0
32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

Filename:A22DEC03B -6 Acq:22-DEC-2003 14:07:25 Inst: HRMS2
Sample ID:CS5 Exp:EXP_DB5MS




Filename:A22DEC03B -6
Acq:22-DEC-2003 14:07:25
Inst: HRMS2
Sample ID:CS5
Exp:EXP_DB5MS
407.7818 S:6 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2416.0,1.00%,F,F)
39:05
41:03
1.7E8
0.0E0
409.7788 S:6 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,19604.0,1.00%,F,F)
39:05
41:03
1.6E8
8.0E7
0.0E0
417.8253 S:6 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2968.0,1.00%,F,F)
39:05
41:02
7.3E6
3.6E6
0.0E0
419.8220 S:6 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6448.0,1.00%,F,F)
39:05
41:02
1.5E7
7.7E6
0.0E0
479.7165 S:6 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2492.0,1.00%,F,F)
39:06
40:22
41:04
38:40 38:54
39:14
39:30
39:53
40:41
40:57
41:18
41:43
42:03
42:24
3.2E4
1.6E4
0.0E0
430.9728 S:6 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:35
39:12
39:30
39:45
39:59
40:21
40:39
41:04
41:26
41:42
42:10
42:49
1.7E7
8.5E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

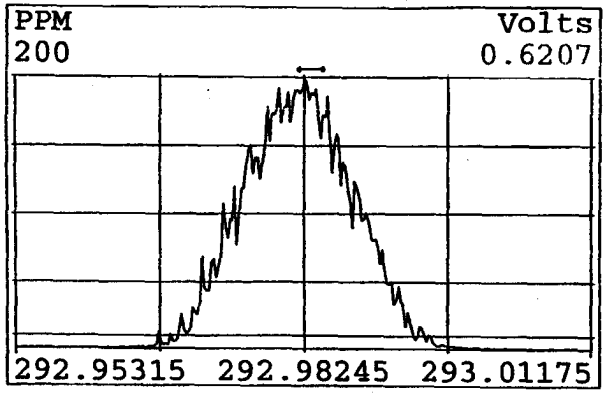

Filename:A22DEC03B -6
Acq:22-DEC-2003 14:07:25
Inst: HRMS2
Sample ID:CS5
Exp:EXP_DB5MS
441.7427 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2536.0,1.00%,F,F)
45:00
1.4E8
7.2E7
0.0E0
443.7398 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2840.0,1.00%,F,F)
45:00
1.6E8
8.2E7
0.0E0
469.7780 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2836.0,1.00%,F,F)
44:41
9.0E6
4.5E6
0.0E0
471.7750 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2596.0,1.00%,F,F)
44:41
9.5E6
4.8E6
0.0E0
513.6775 S:6 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2272.0,1.00%,F,F)
44:42
45:01
44:53
45:20
7.8E4
3.9E4
0.0E0
454.9728 S:6 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
43:09
43:33
43:56
44:15
44:40
44:58
45:29
45:56
46:16
46:40
46:53
1.7E7
8.7E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time

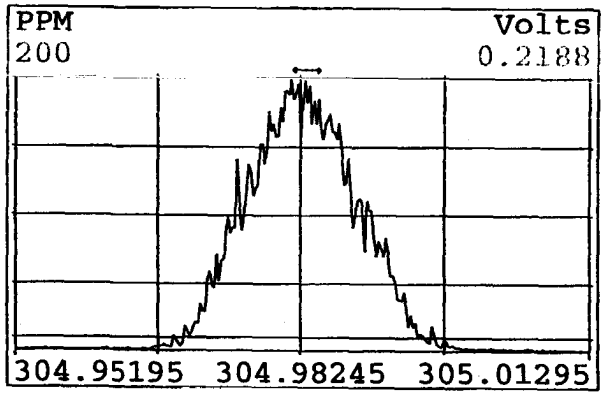
Paradigm Sample Log

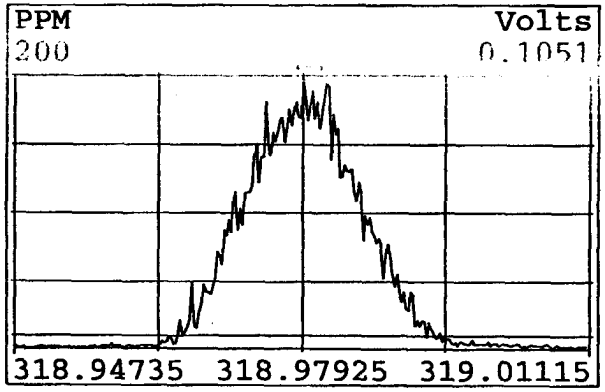
Data File S	Sample ID	Analyst	Acq. Date	Time
a15jul04b;1	✓RETCON S18-240A pass 1613	;JWP	15-JUL-04	13:46:45
a15jul04b;2	;OPR10417	;JWP	15-JUL-04	14:36:06
a15jul04b;3	;OPRD10417	;JWP	15-JUL-04	15:25:25
a15jul04b;4	;LMB10417	;JWP	15-JUL-04	16:14:48
a15jul04b;5	;G556-11-7B	;JWP	15-JUL-04	17:04:09
a15jul04b;6	;G556-11-8B	;JWP	15-JUL-04	17:53:27
a15jul04b;7	;G556-11-9B	;JWP	15-JUL-04	18:42:49
a15jul04b;8	✓G556-11-10B reshoot	;JWP	15-JUL-04	19:32:10
a15jul04b;9	;G556-12-1B	;JWP	15-JUL-04	20:21:29
a15jul04b;10	;G556-12-2B	;JWP	15-JUL-04	21:10:50
a15jul04b;11	;G556-12-3B	;JWP	15-JUL-04	22:00:08
a15jul04b;12	;G556-12-4B	;JWP	15-JUL-04	22:49:31
a15jul04b;13	;G556-12-5B	;JWP	15-JUL-04	23:38:47
a15jul04b;14	✓G556-12-6B reshoot	;JWP	16-JUL-04	00:28:08
a15jul04b;15	✓RETCON S18-240A pass 8390 1613	;JWP	16-JUL-04	01:17:28
a15jul04b_2;1	;OPR10415	;JWP	16-JUL-04	02:11:14
a15jul04b_2;2	;OPRD10415	;JWP	16-JUL-04	03:00:31
a15jul04b_2;3	;LMB10415	;JWP	16-JUL-04	03:49:54
a15jul04b_2;4	;G414-28-1B	;JWP	16-JUL-04	04:39:16
a15jul04b_2;5	;G414-28-2B	;JWP	16-JUL-04	05:28:39
a15jul04b_2;6	;G414-28-3B	;JWP	16-JUL-04	06:17:59
a15jul04b_2;7	;G414-28-4B	;JWP	16-JUL-04	07:07:18
a15jul04b_2;8	;G414-28-5B	;JWP	16-JUL-04	07:56:36
a15jul04b_2;9	;G414-28-6B	;JWP	16-JUL-04	08:45:56
a15jul04b_2;10	;G414-28-7B	;JWP	16-JUL-04	09:35:14
a15jul04b_2;11	;G414-28-8B	;JWP	16-JUL-04	10:24:32
a15jul04b_2;12	;G414-28-9B	;JWP	16-JUL-04	11:13:53
a15jul04b_2;13	;G556-12-7B	;JWP	16-JUL-04	12:03:12
a15jul04b_2;14	✓RETCON S18-240A pass 8390	;JWP	16-JUL-04	12:52:30

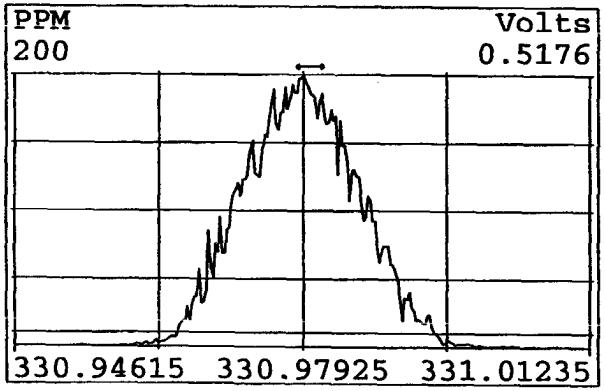
7/19/04

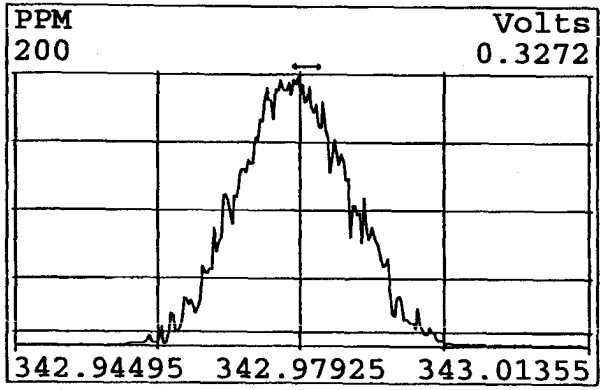
Peak Locate Examination:15-JUL-2004:13:41 File:A15JUL04B_L
Experiment:EXP_DB5MS Function:1 Reference:PFK

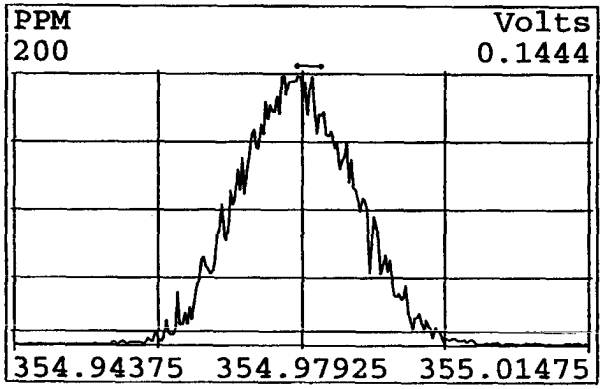


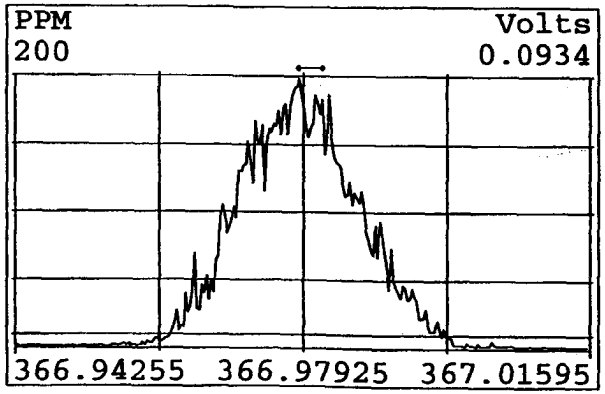


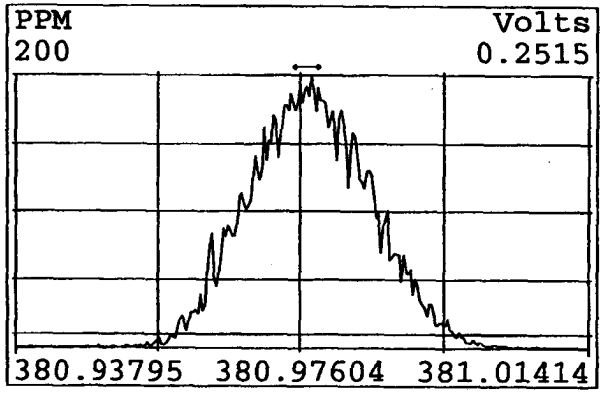




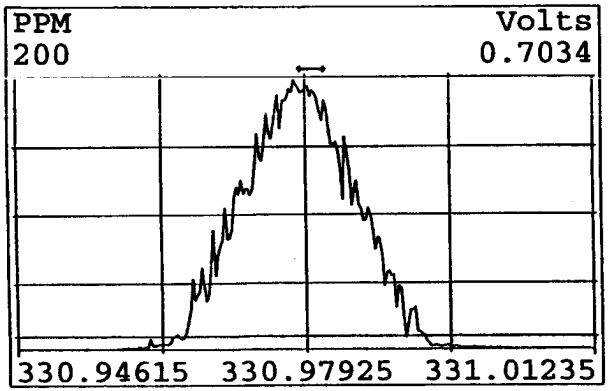


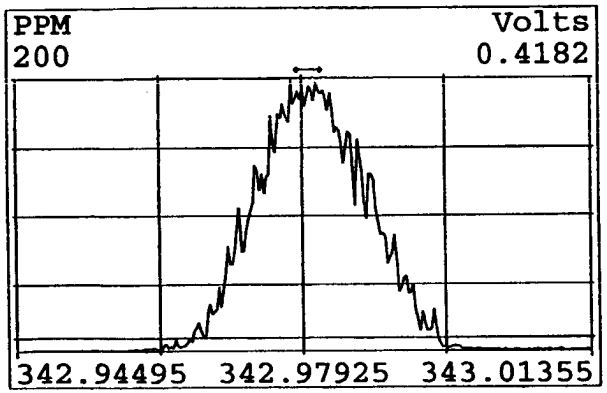


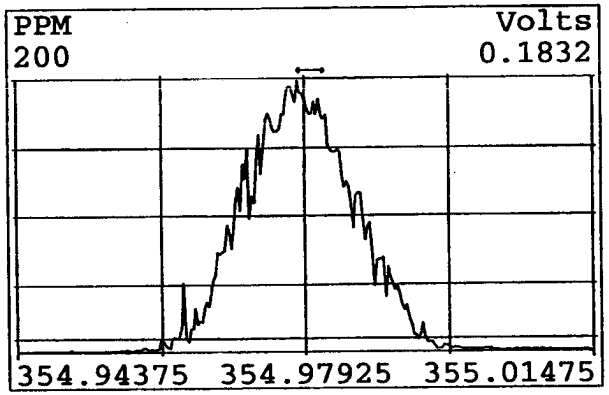


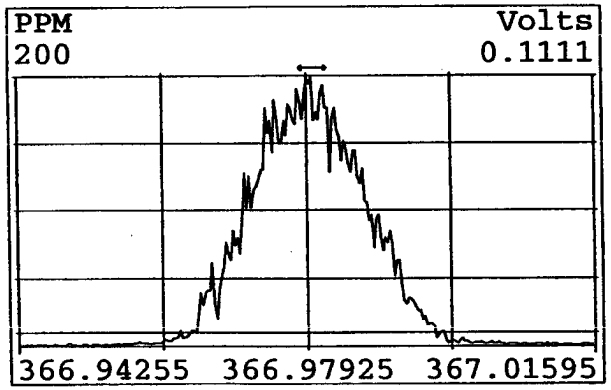


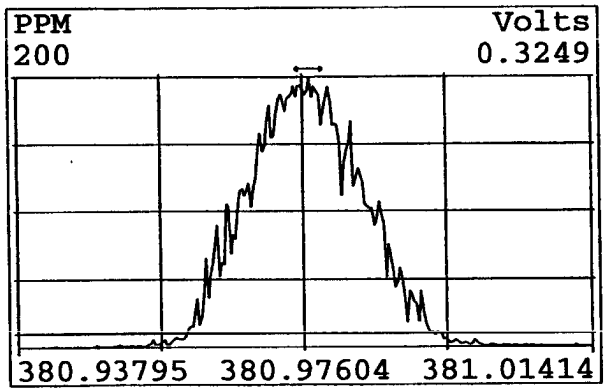
Peak Locate Examination:15-JUL-2004:13:42 File:A15JUL04B_L
Experiment:EXP_DB5MS Function:2 Reference:PFK

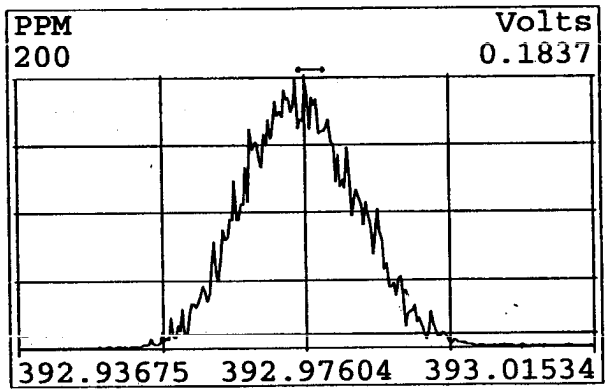


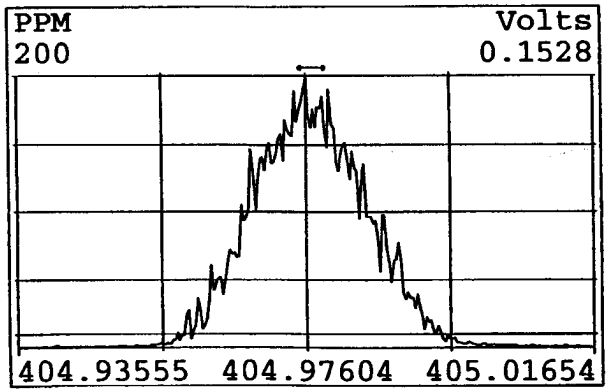


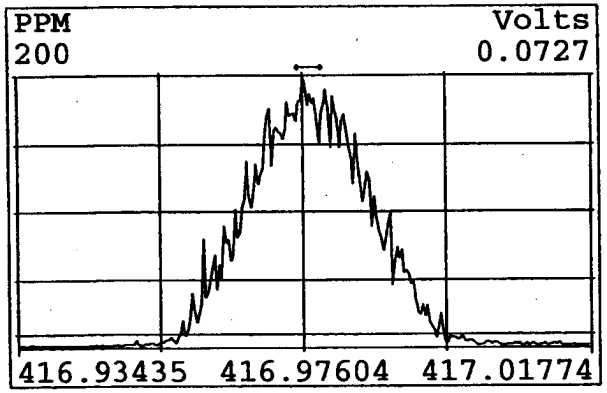




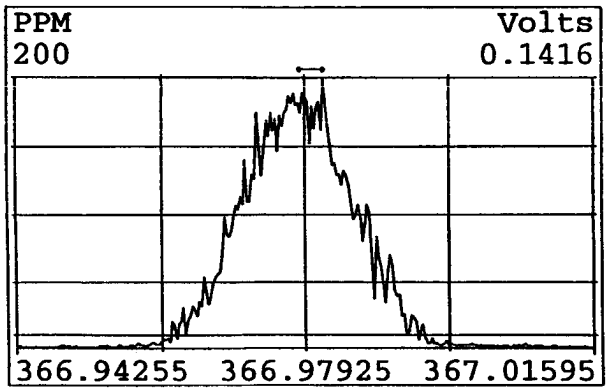


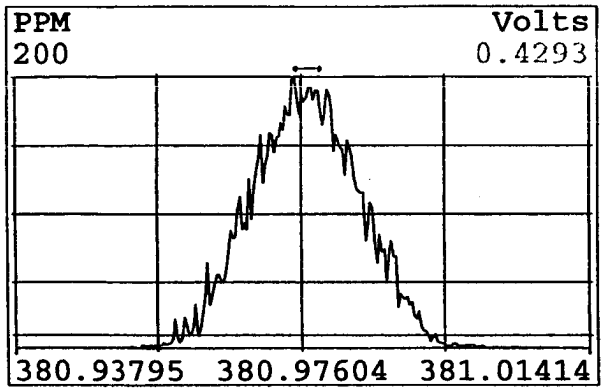


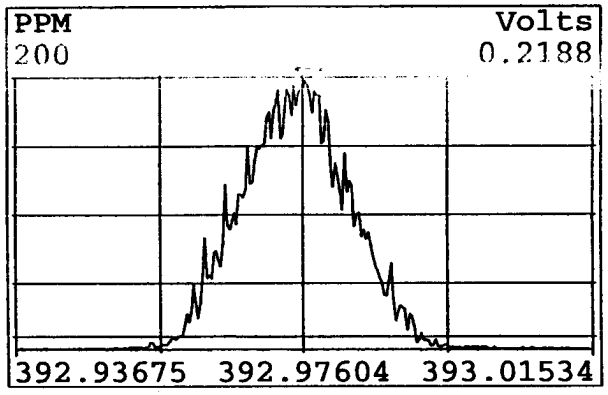


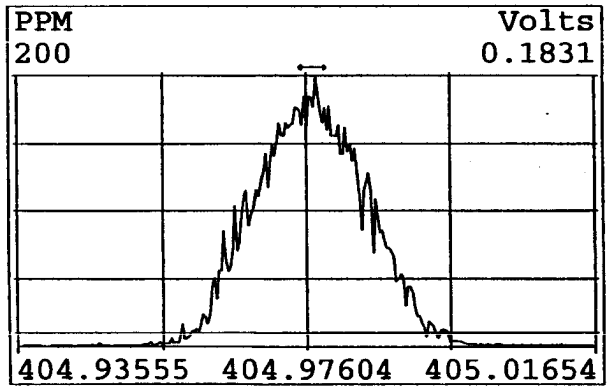


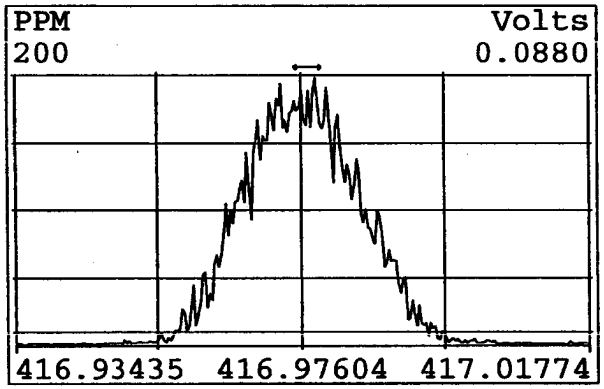
Peak Locate Examination:15-JUL-2004:13:42 File:A15JUL04B_L
Experiment:EXP_DB5MS Function:3 Reference:PFK

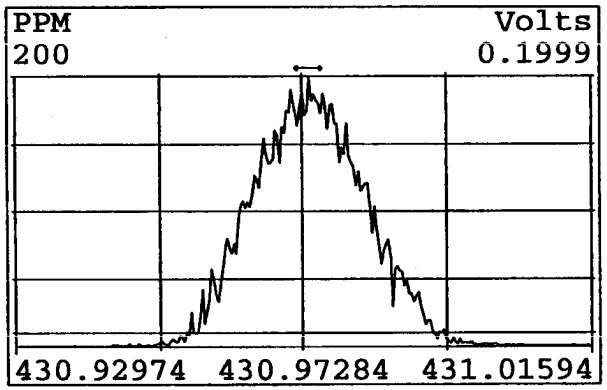


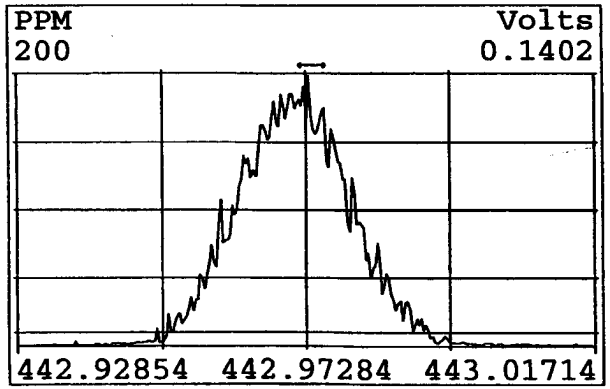


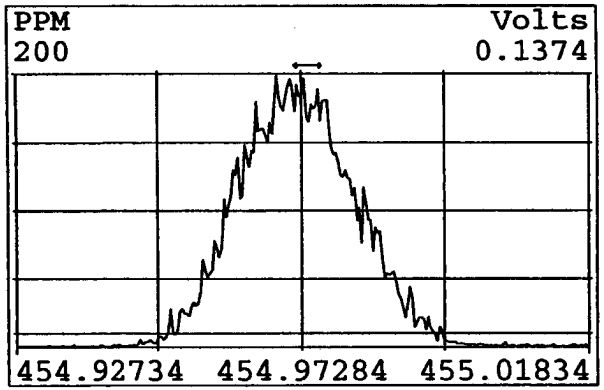




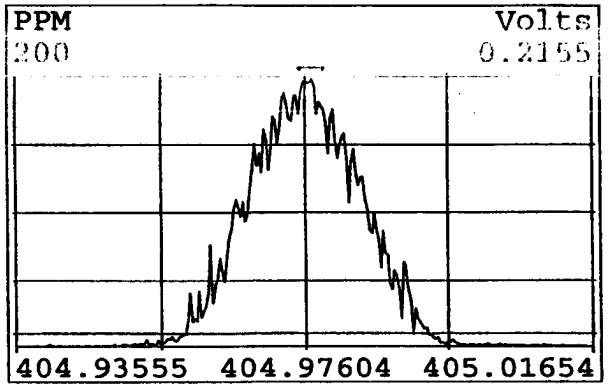


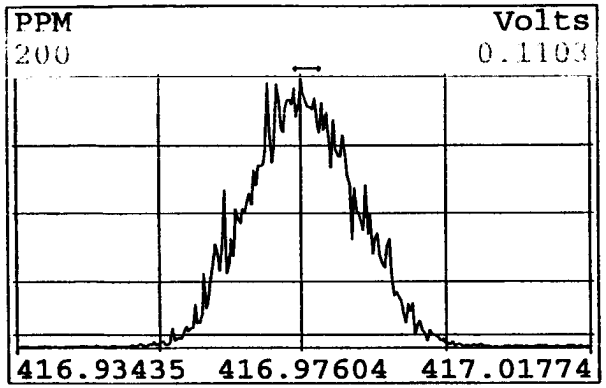


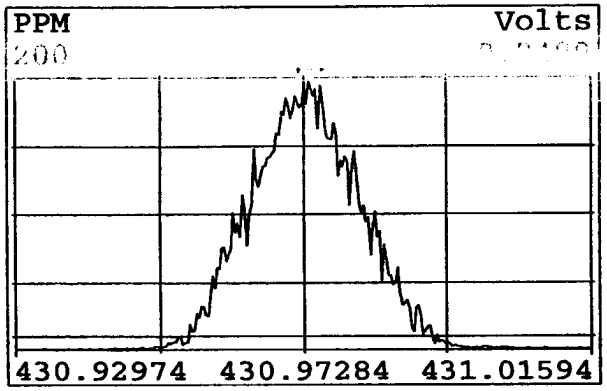


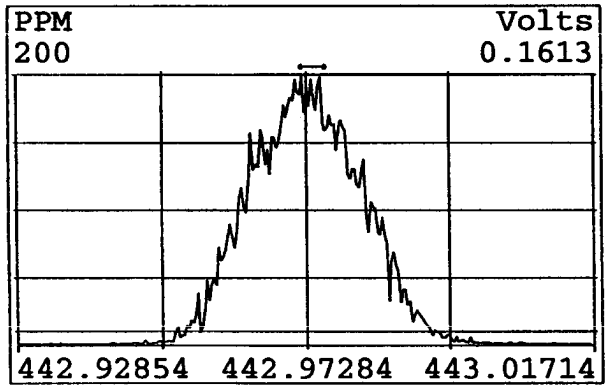


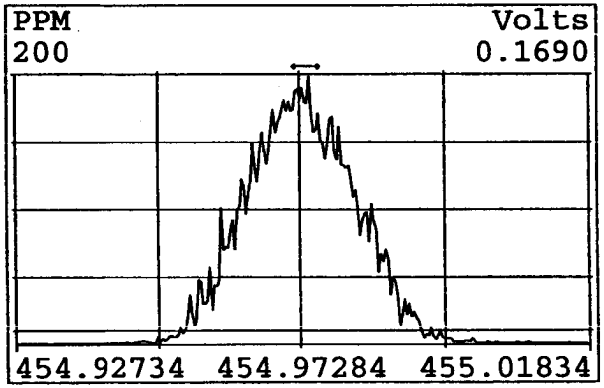
Peak Locate Examination:15-JUL-2004:13:43 File:A15JUL04B_L
Experiment:EXP_DB5MS Function:4 Reference:PFK

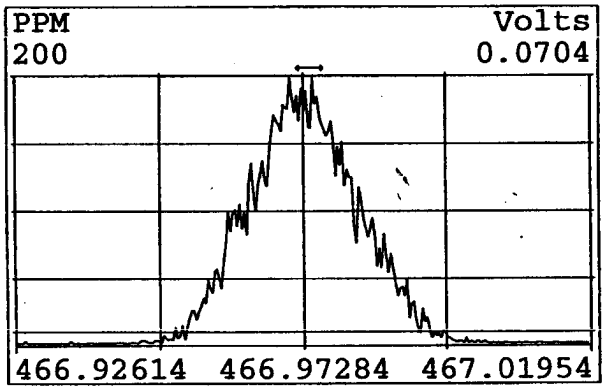


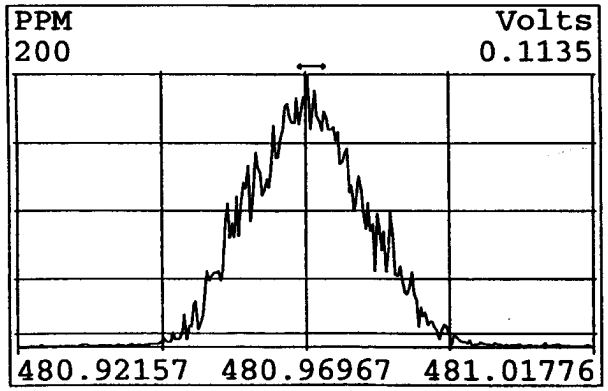




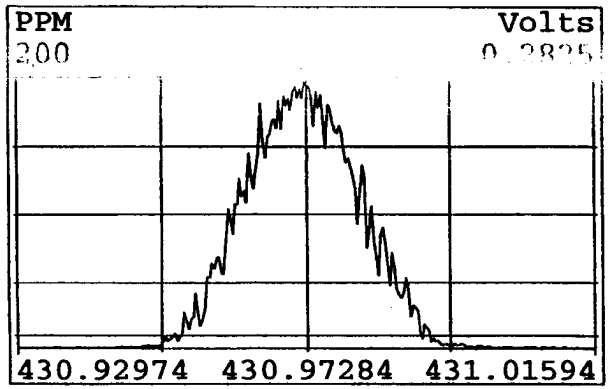


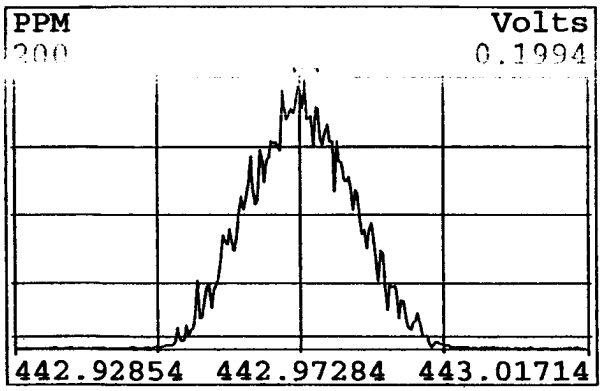


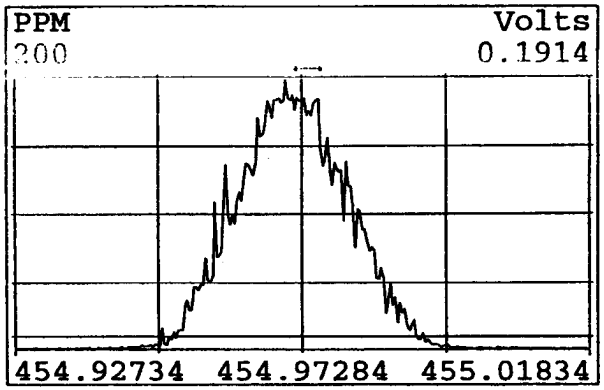


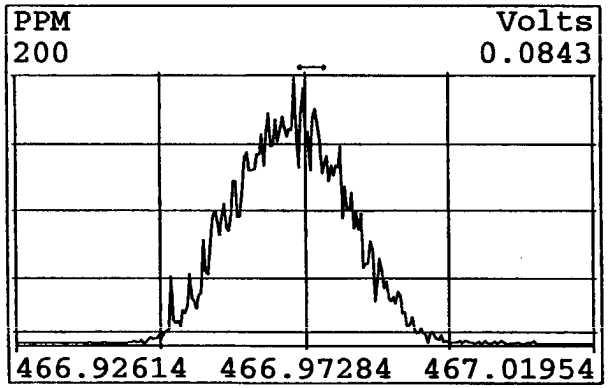


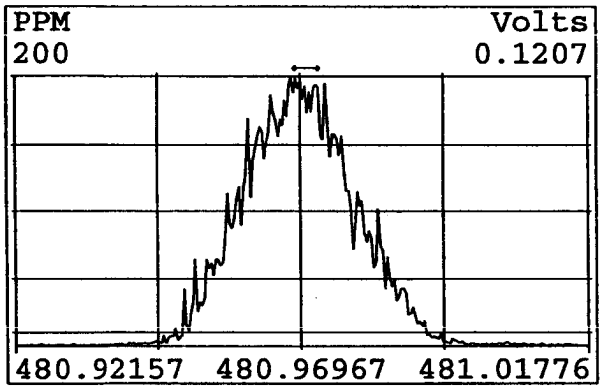
Peak Locate Examination:15-JUL-2004:13:43 File:A15JUL04B_L
Experiment:EXP_DB5MS Function:5 Reference:PFK

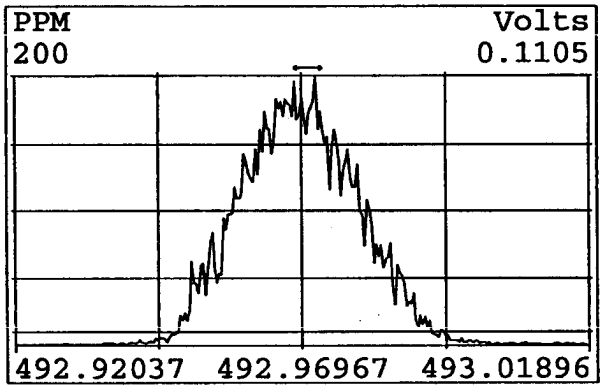


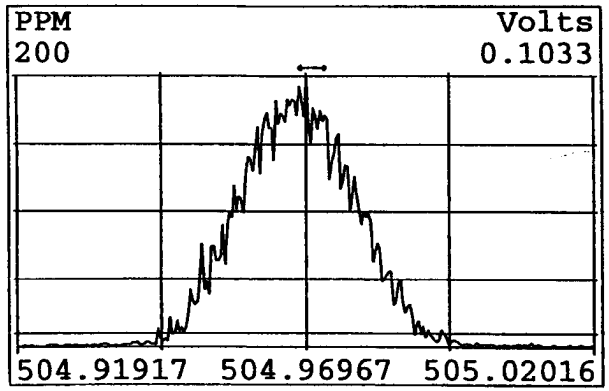


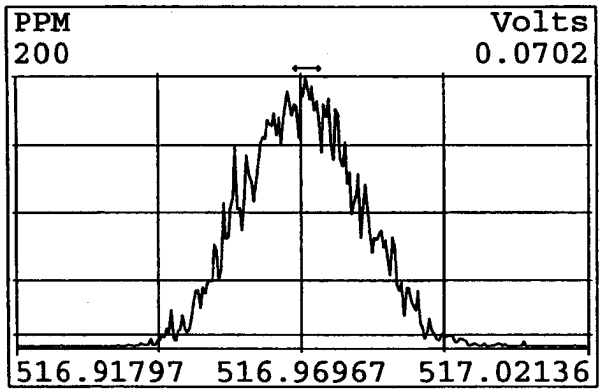




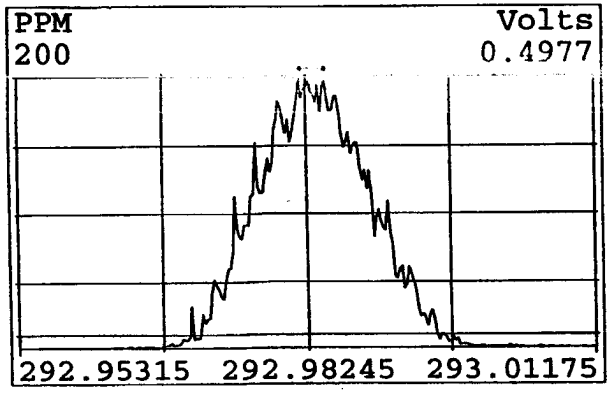


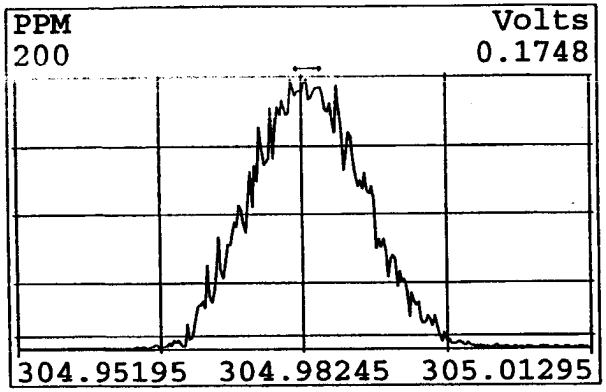


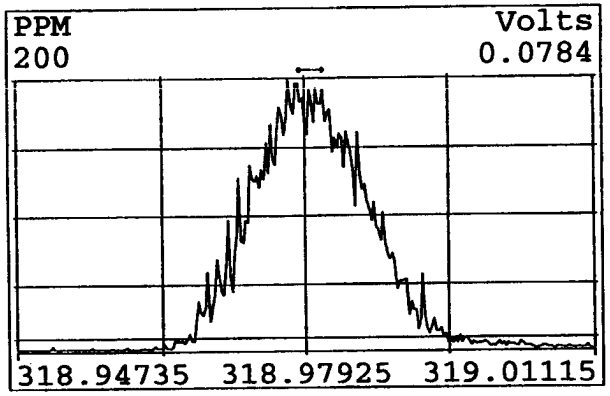


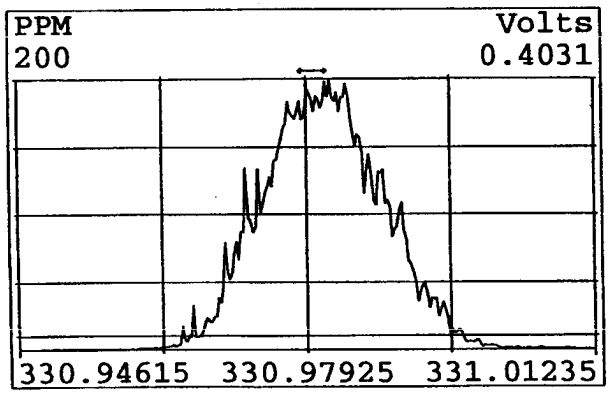


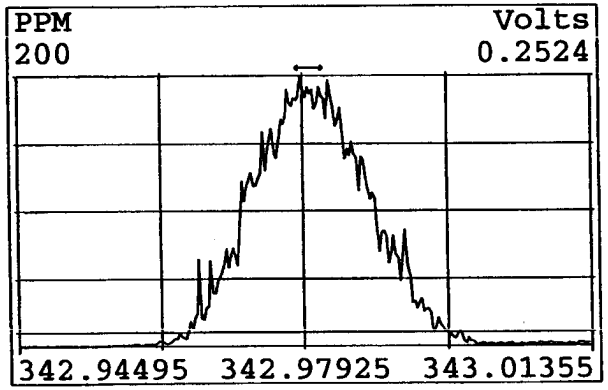
Peak Locate Examination:16-JUL-2004:02:06 File:A15JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK

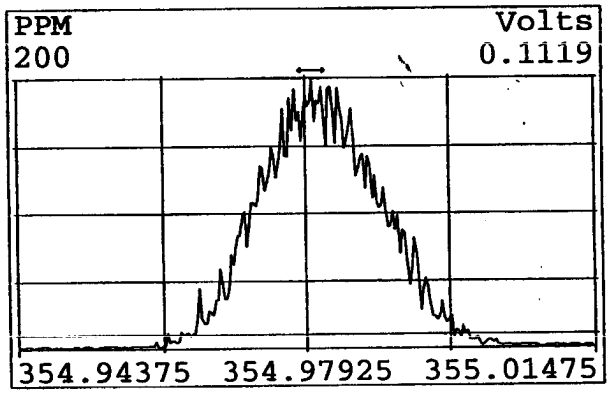


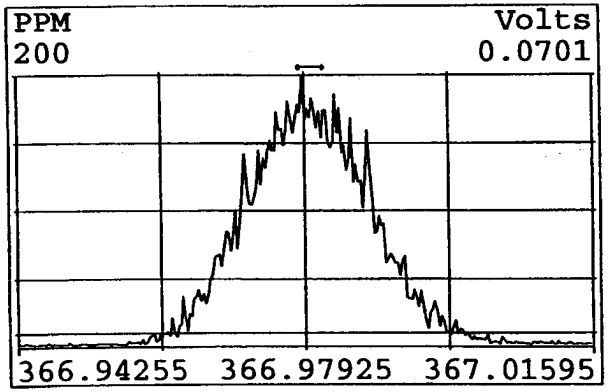


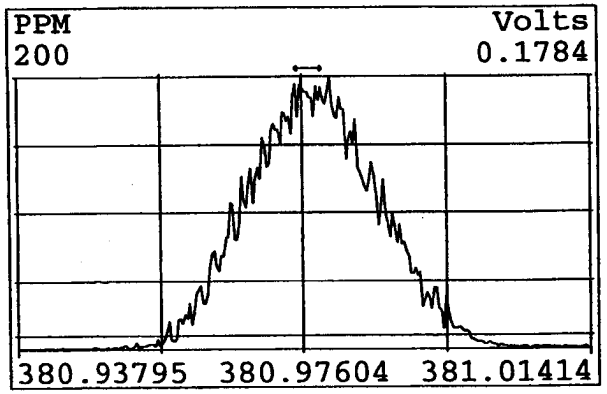




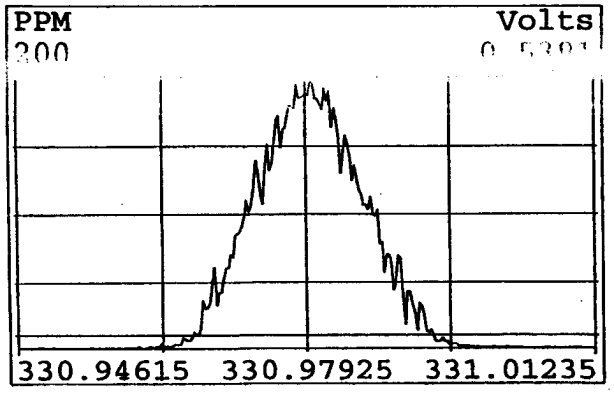


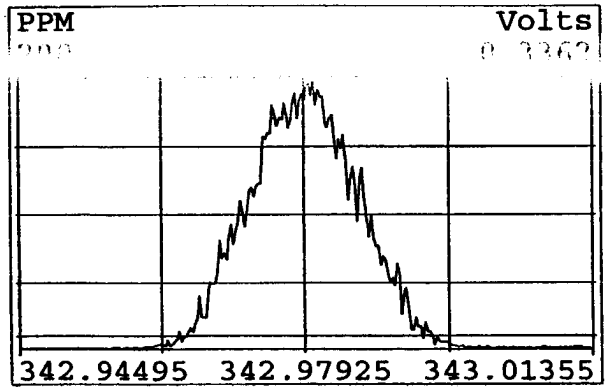


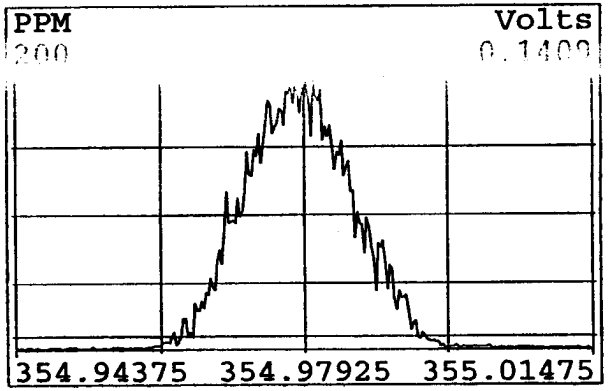


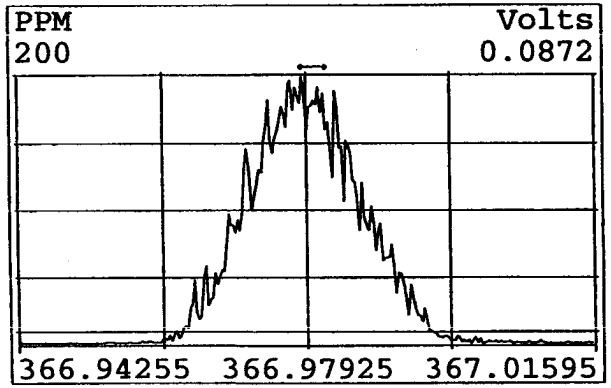


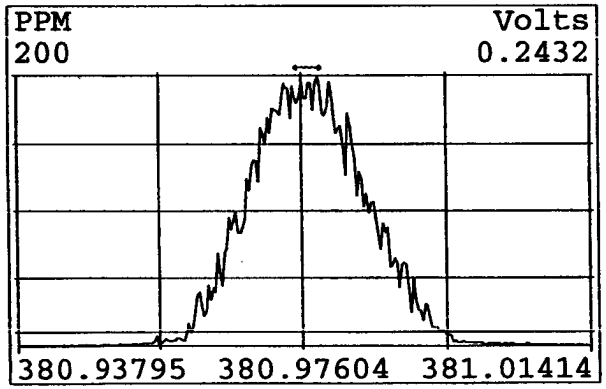
Peak Locate Examination:16-JUL-2004:02:07 File:A15JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:2 Reference:PFK

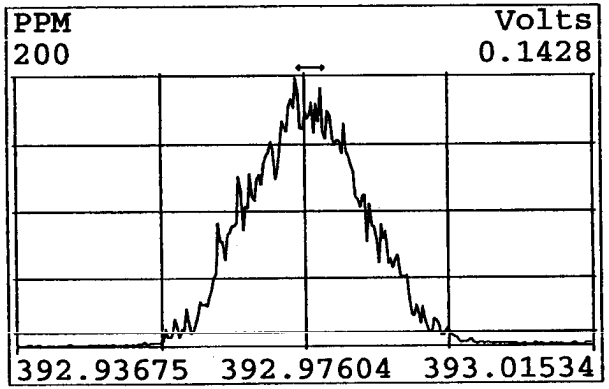


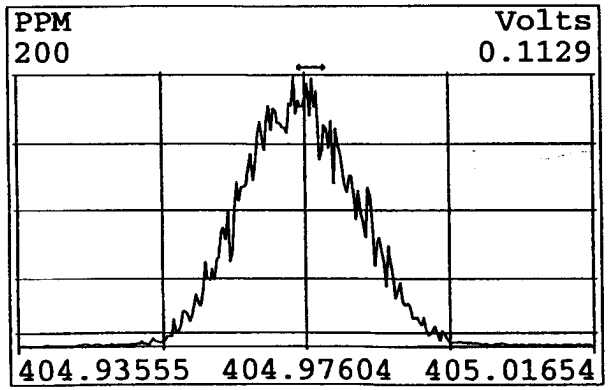


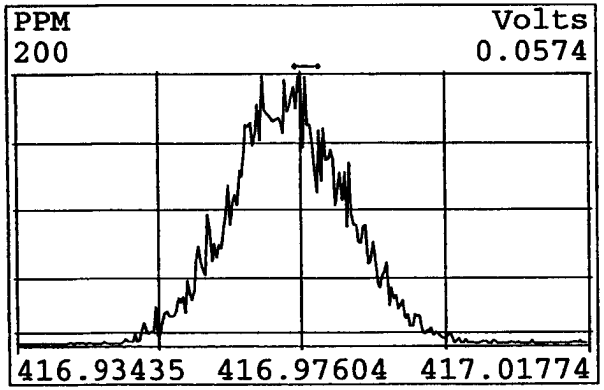




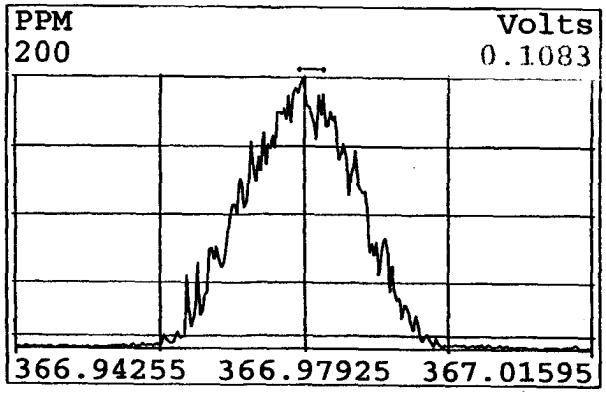


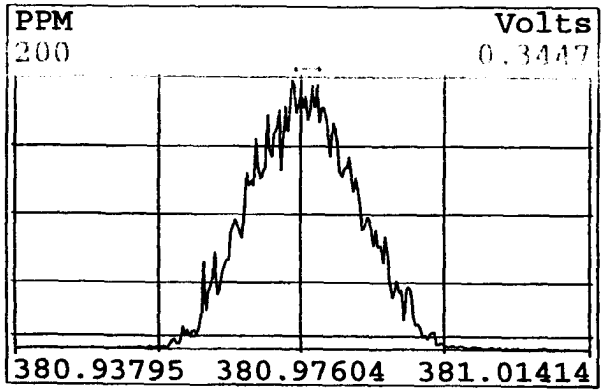


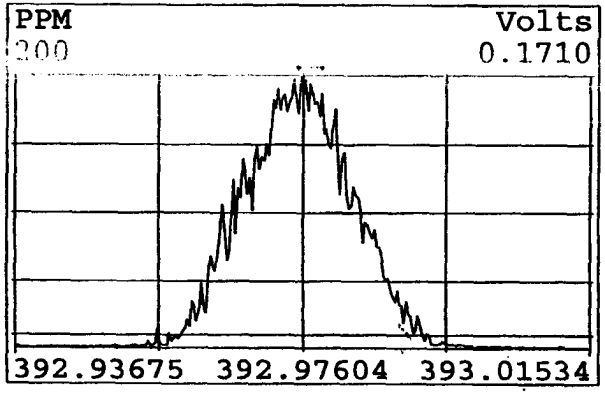


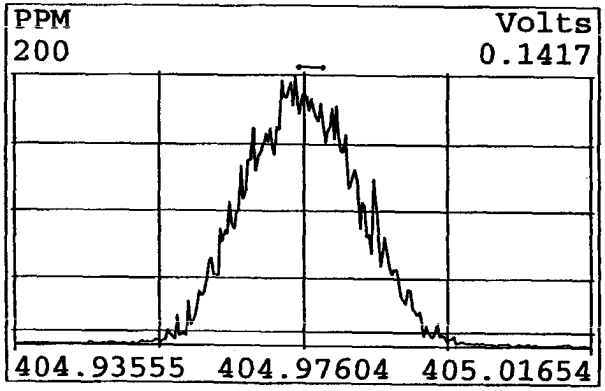


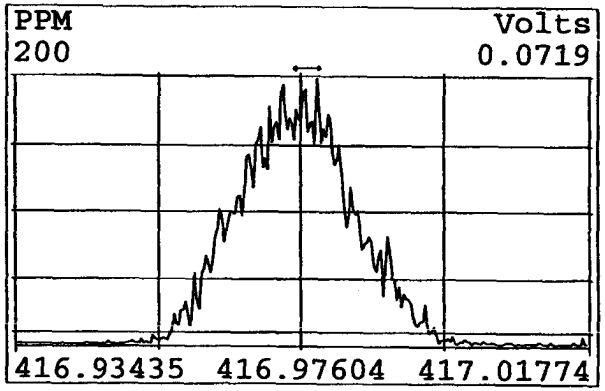
Peak Locate Examination:16-JUL-2004:02:08 File:A15JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:3 Reference:PFK

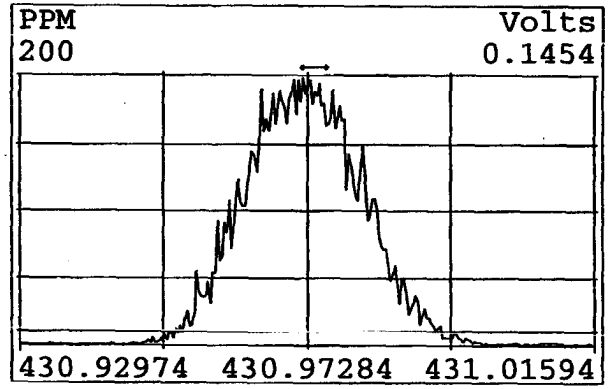


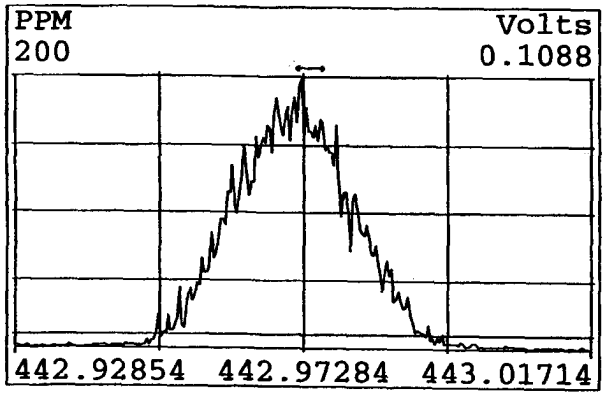


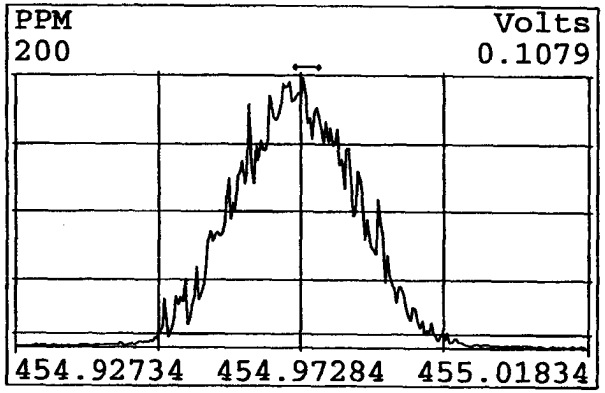




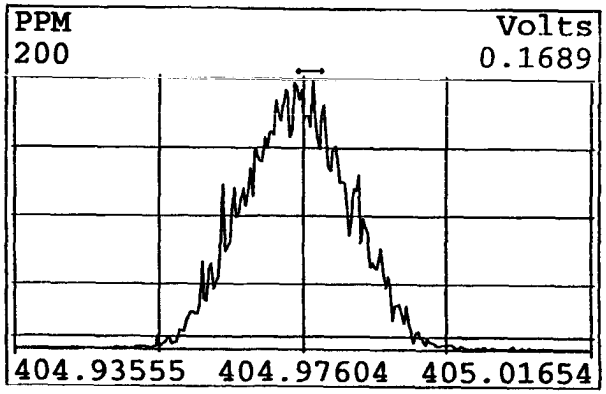


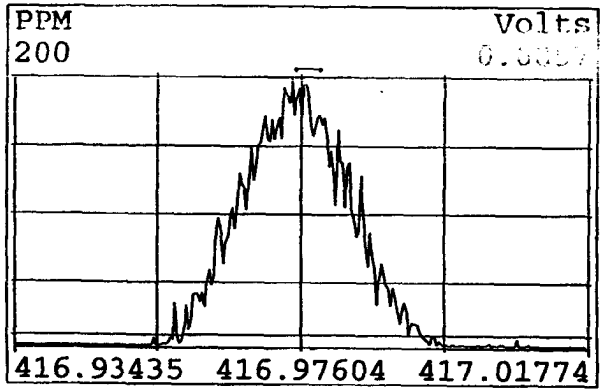


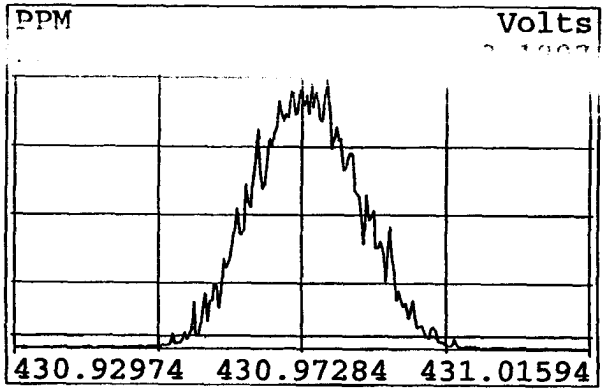


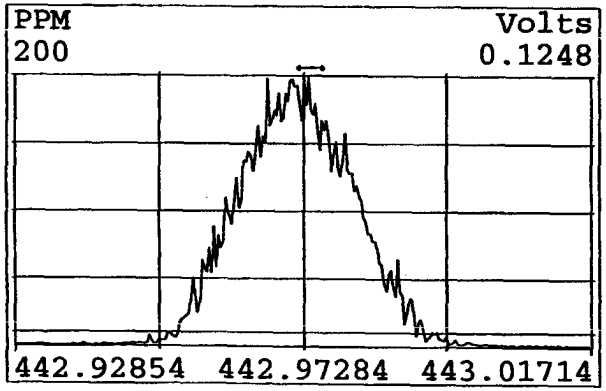


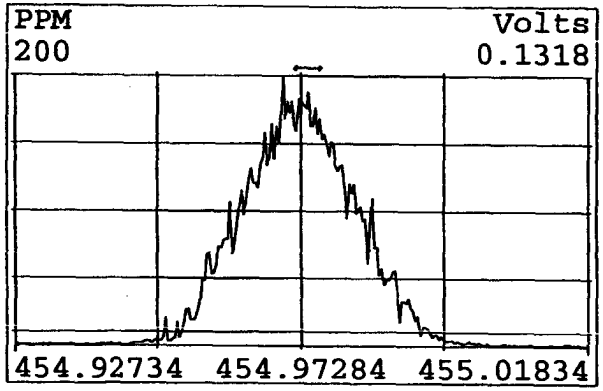
Peak Locate Examination:16-JUL-2004:02:09 File:A15JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:4 Reference:PFK

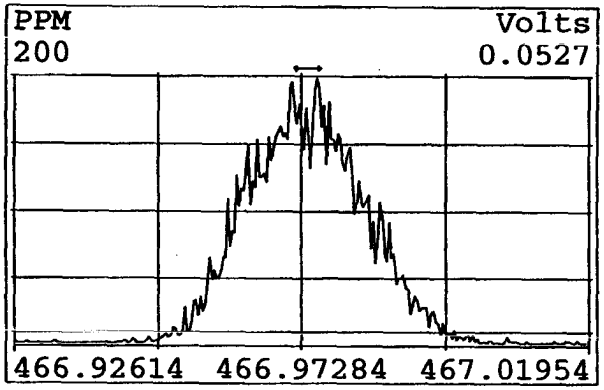


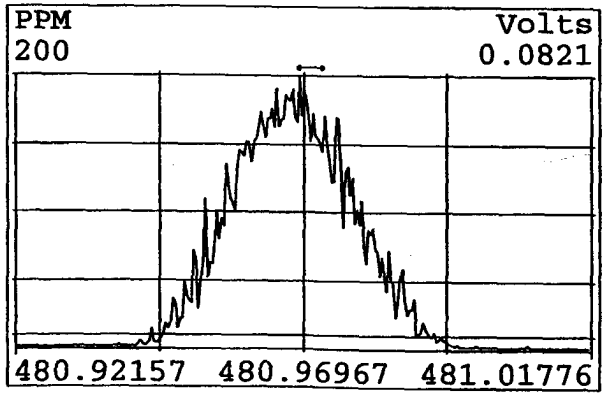




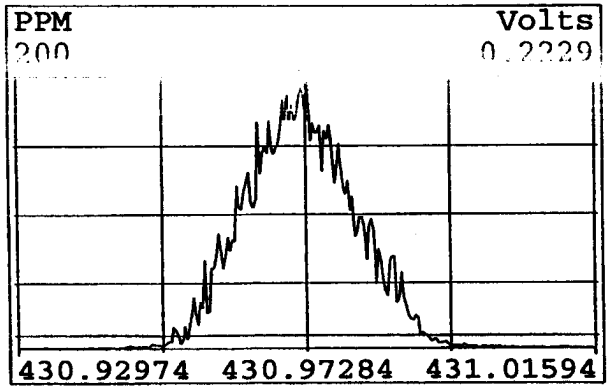


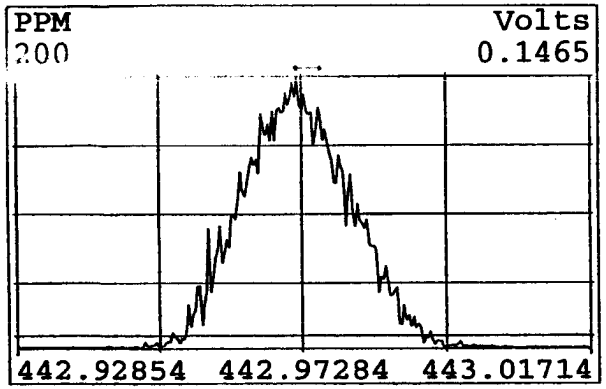


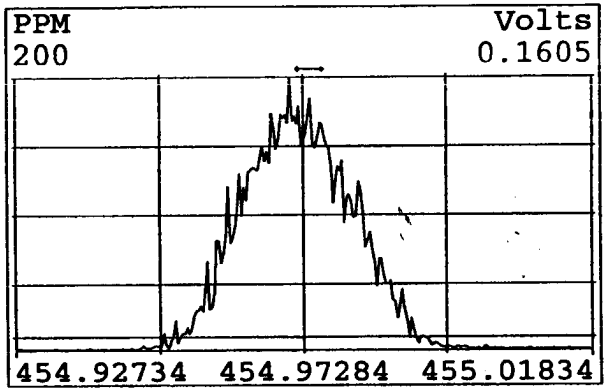


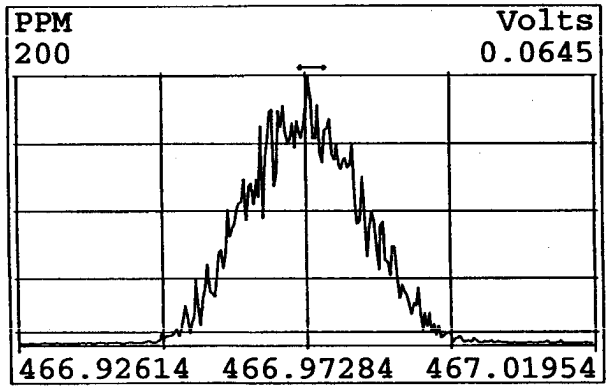


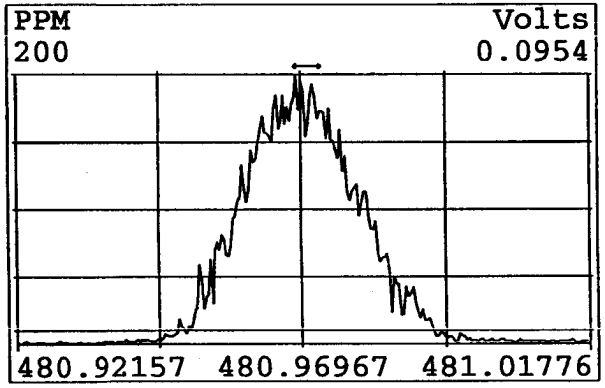
Peak Locate Examination:16-JUL-2004:02:10 File:A15JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:5 Reference:PFK

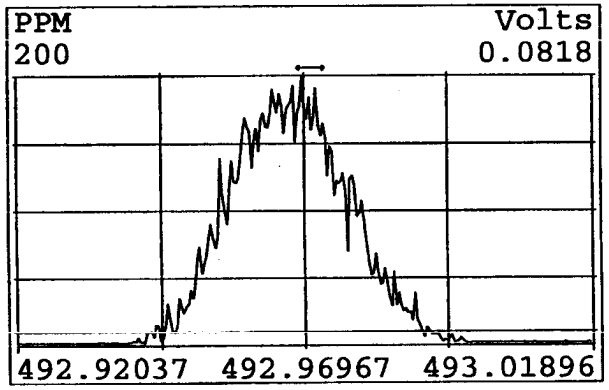


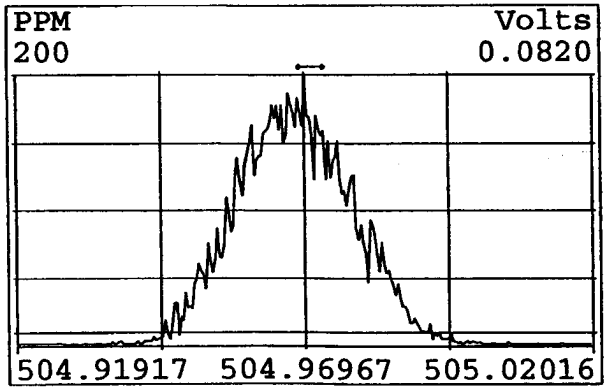


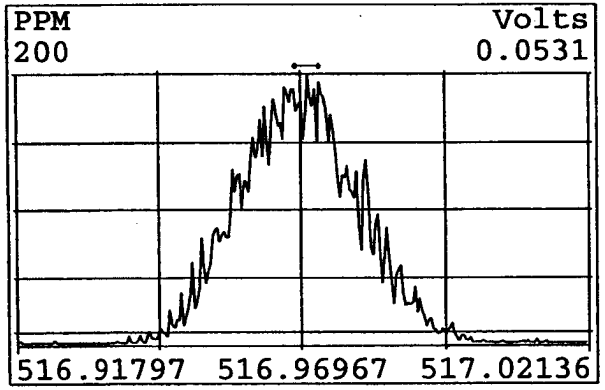




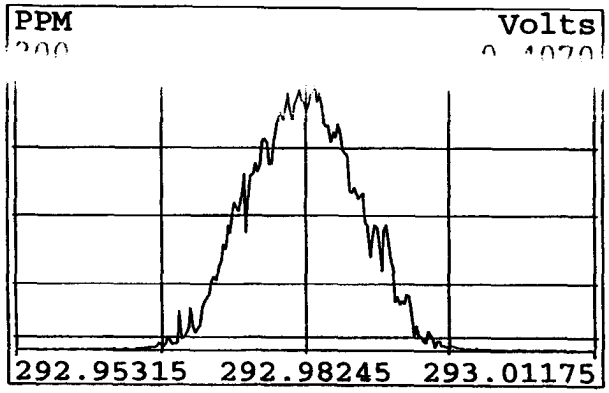


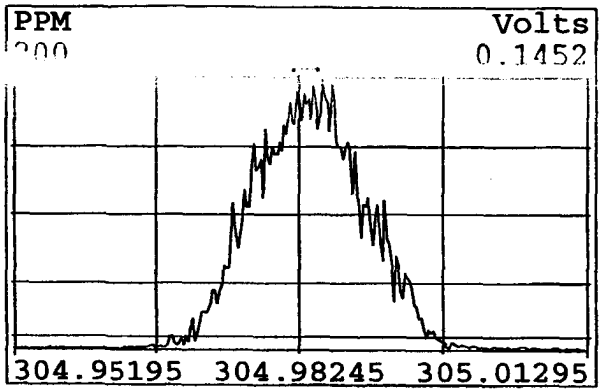


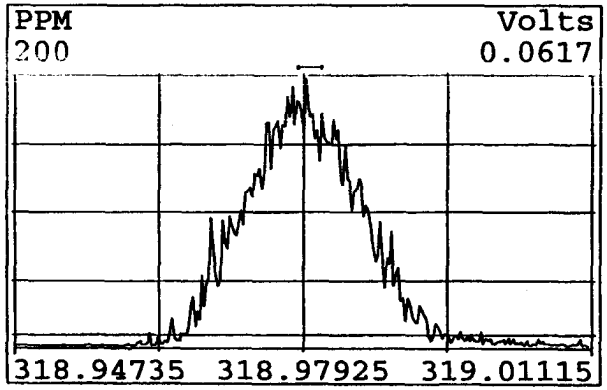


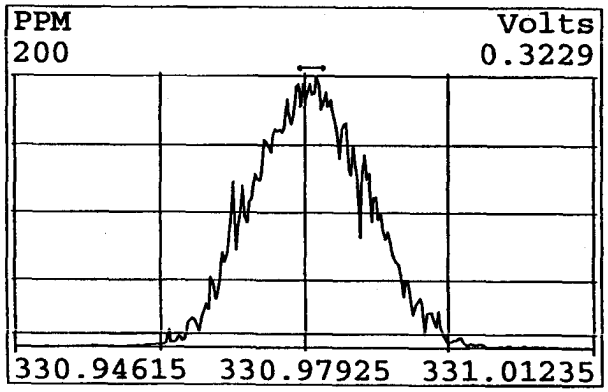


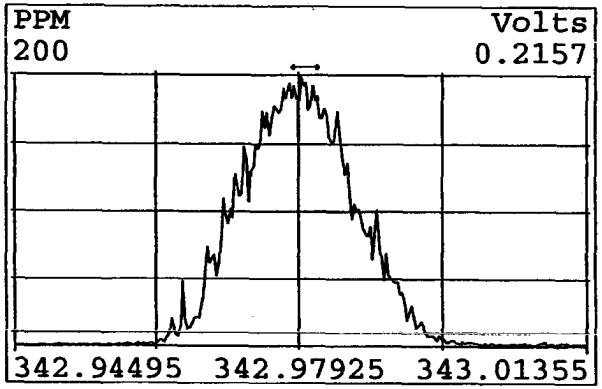
Peak Locate Examination:16-JUL-2004:13:42 File:A15JUL04B_2_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK

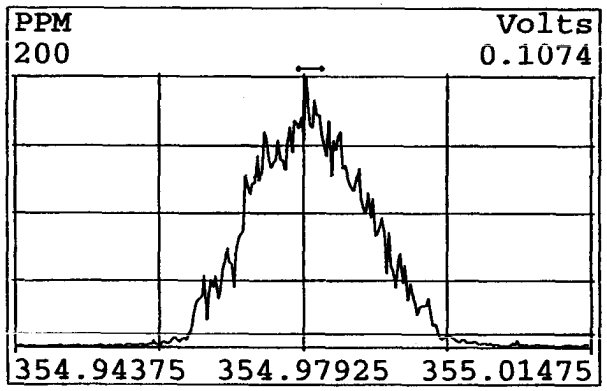


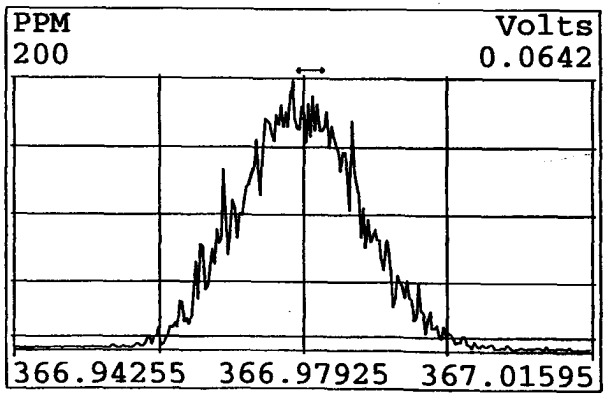


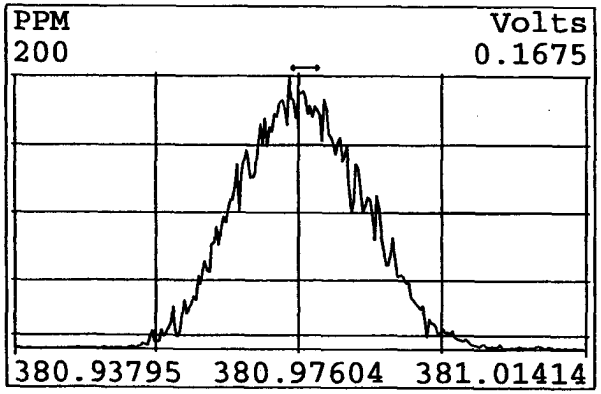




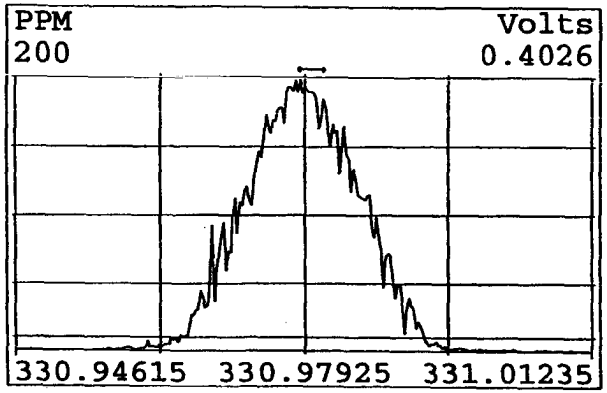


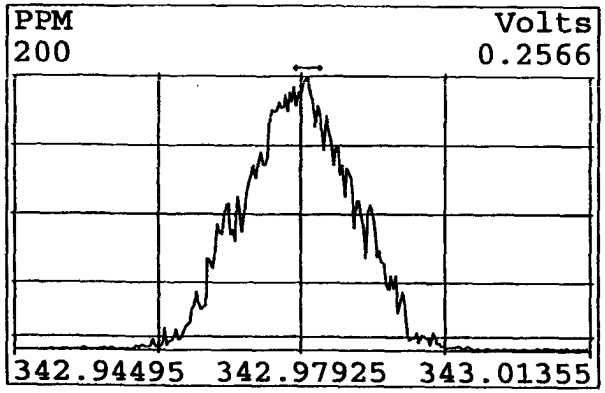


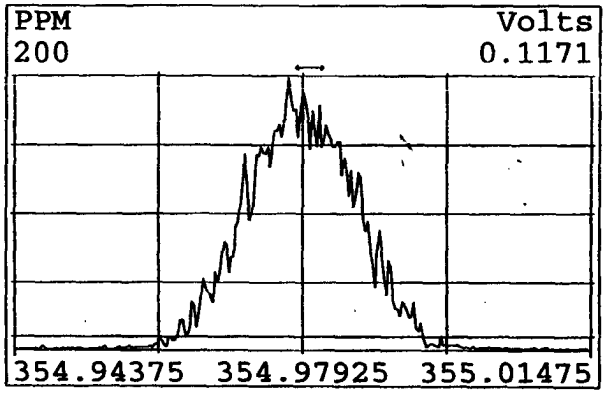


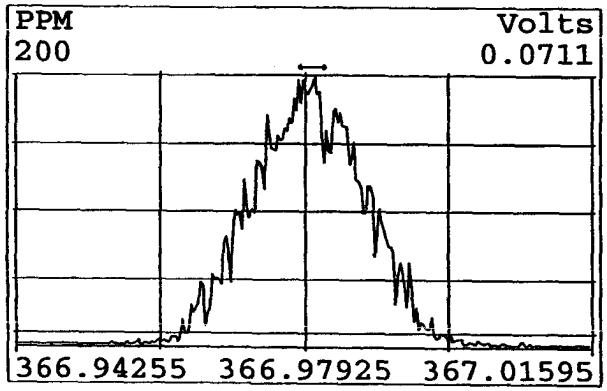


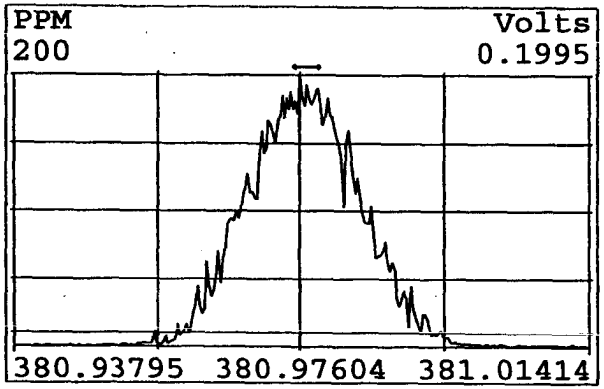
Peak Locate Examination:16-JUL-2004:13:43 File:A15JUL04B_2_RES_CHECK
Experiment:EXP_DB5MS Function:2 Reference:PFK

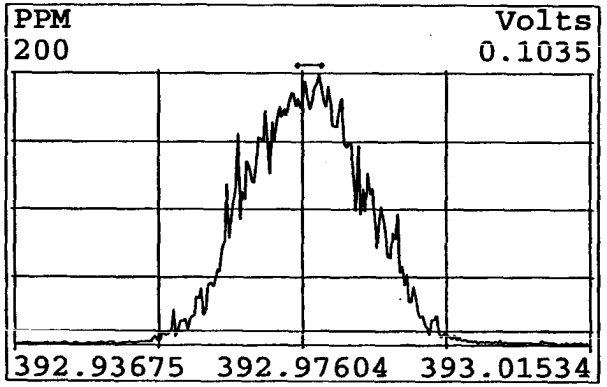


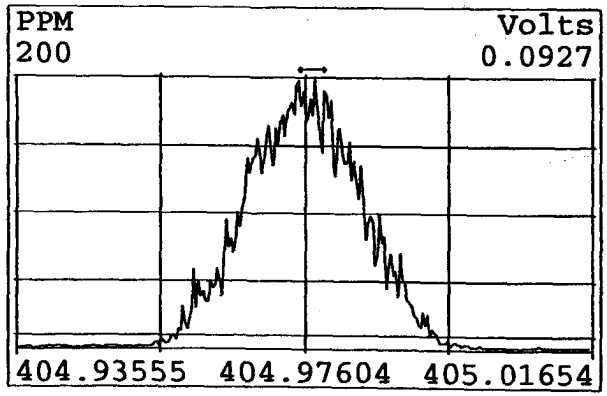


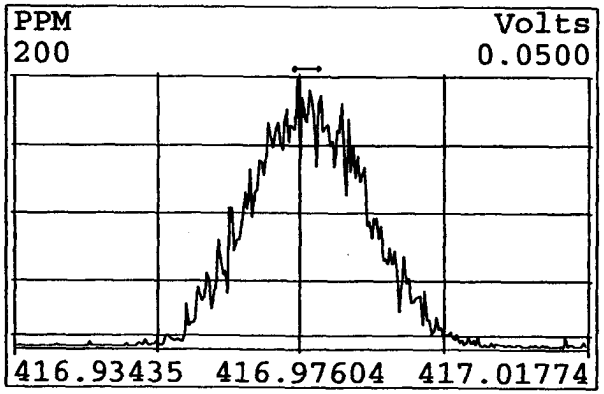




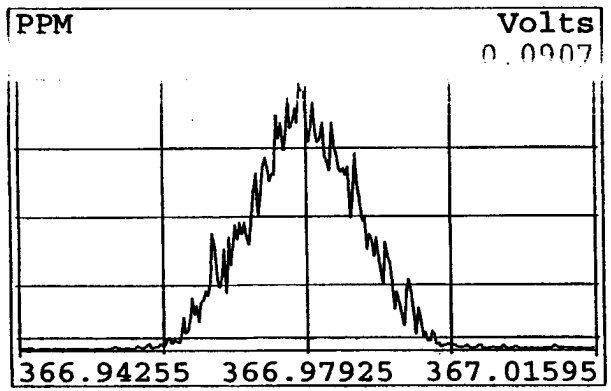


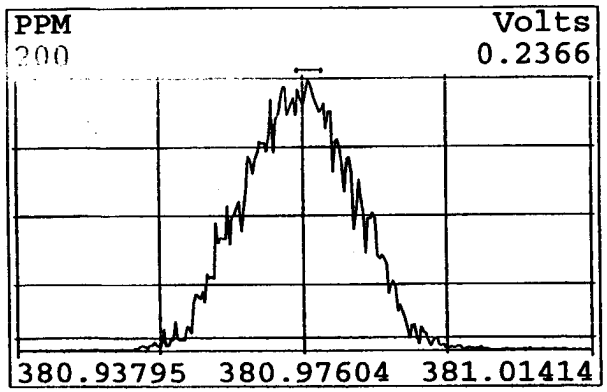


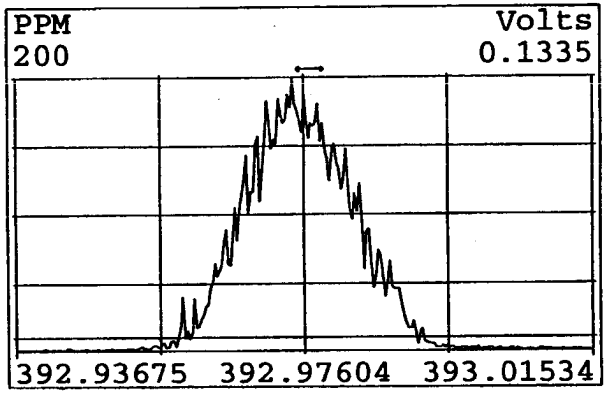


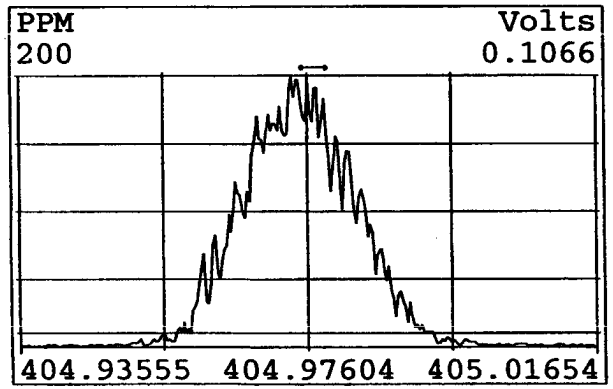


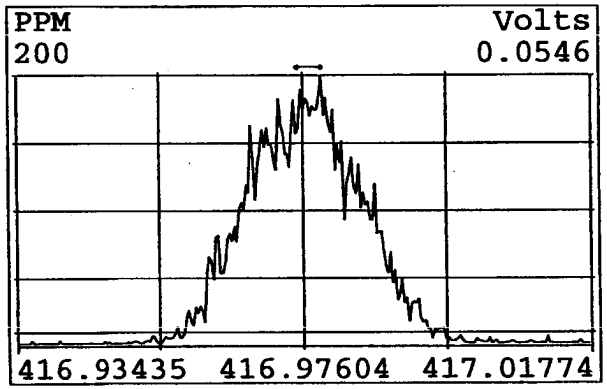
Peak Locate Examination:16-JUL-2004:13:44 File:A15JUL04B_2_RES_CHECK
Experiment:EXP_DB5MS Function:3 Reference:PFK

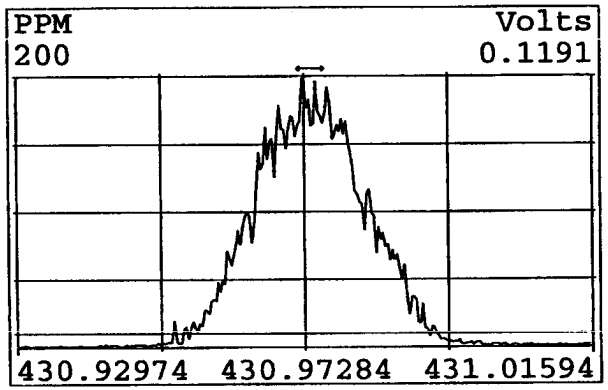


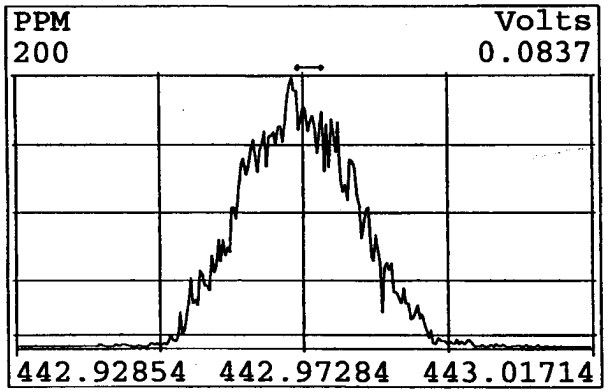


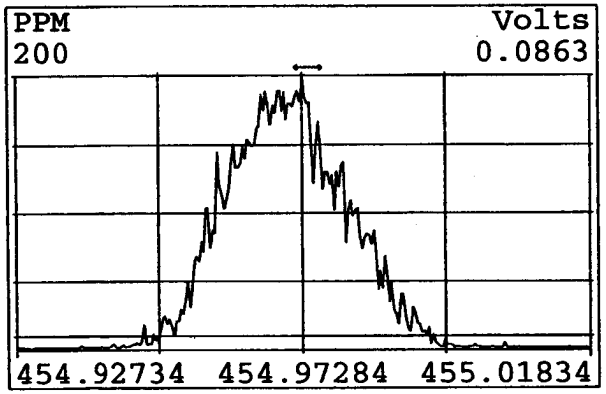




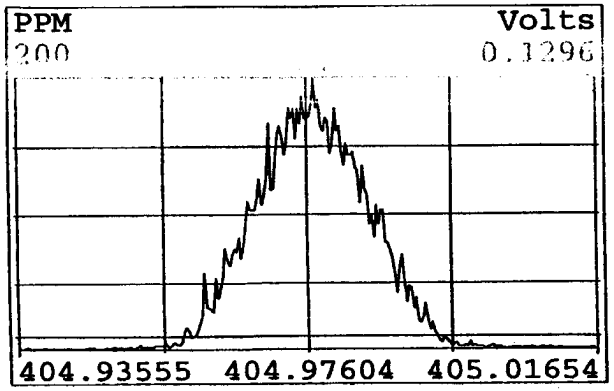


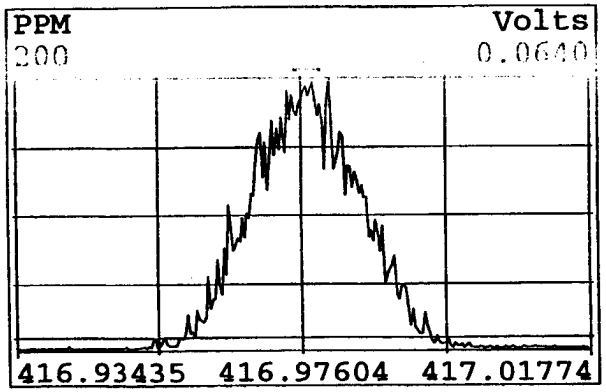


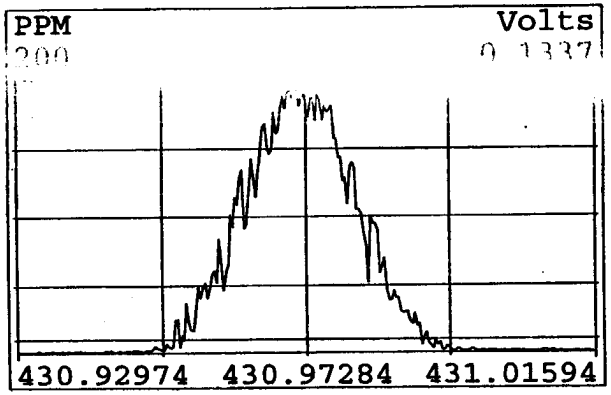


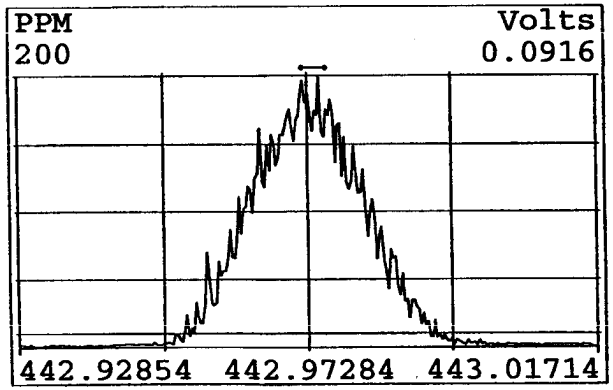


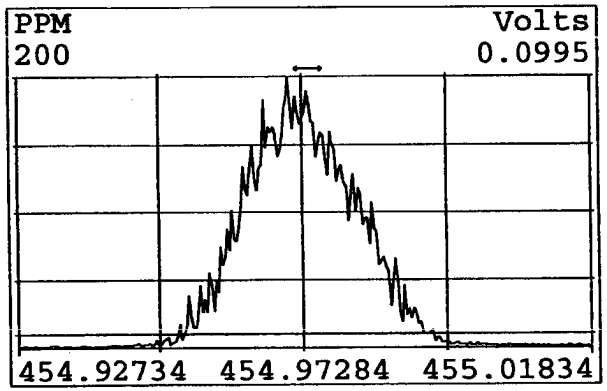
Peak Locate Examination:16-JUL-2004:13:45 File:A15JUL04B_2_RES_CHECK
Experiment:EXP_DB5MS Function:4 Reference:PFK

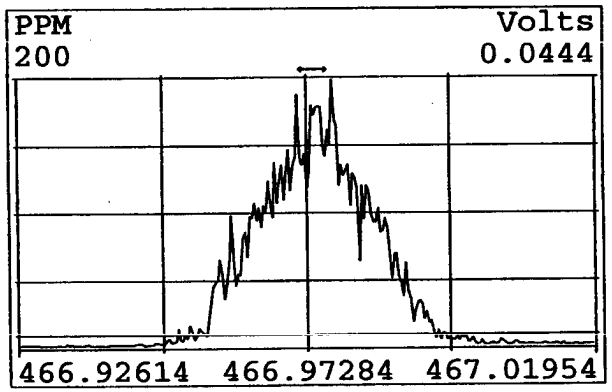


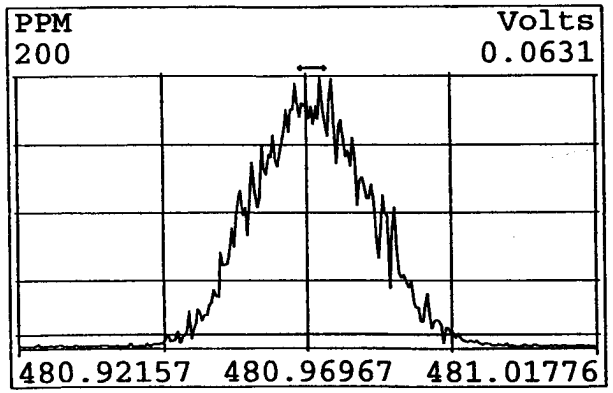




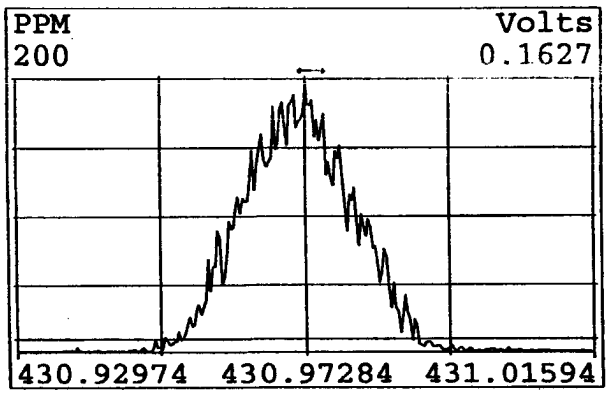


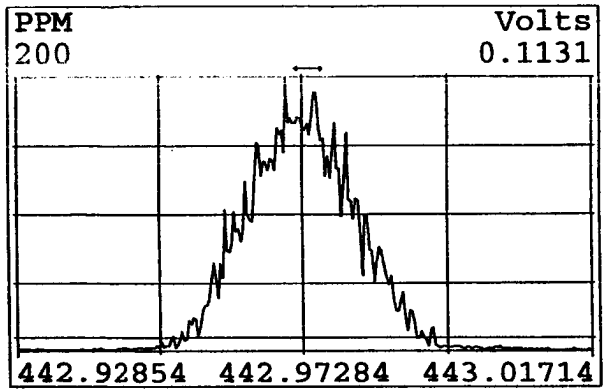


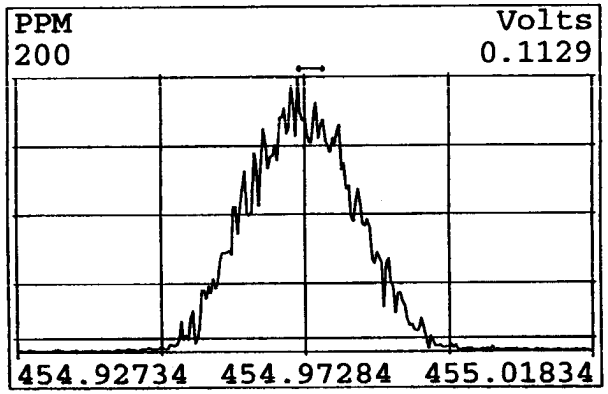


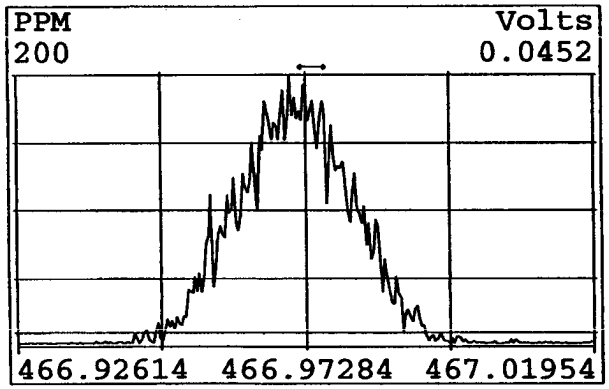


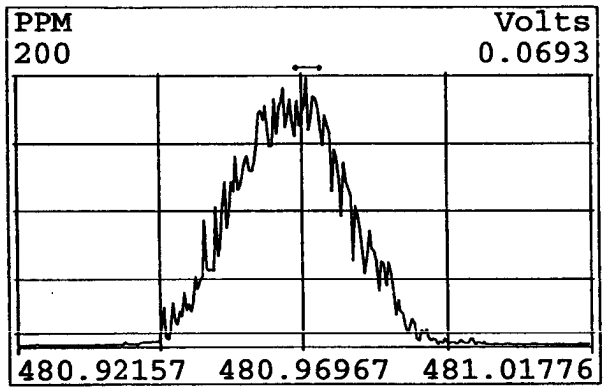
Peak Locate Examination:16-JUL-2004:13:46 File:A15JUL04B_2_RES_CHECK
Experiment:EXP_DB5MS Function:5 Reference:PFK

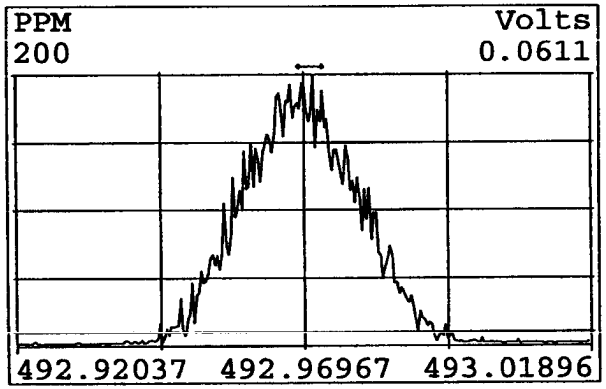


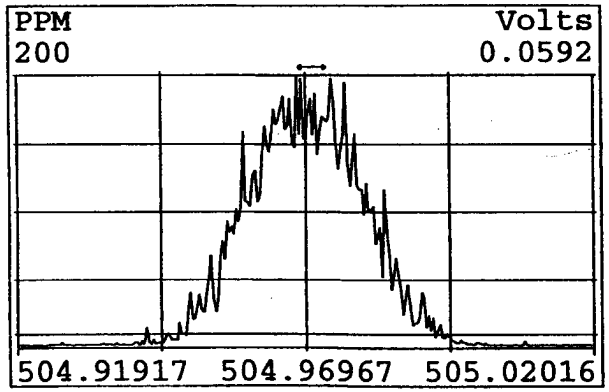


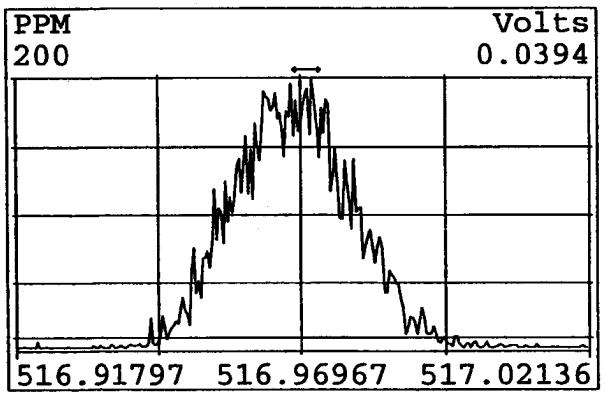






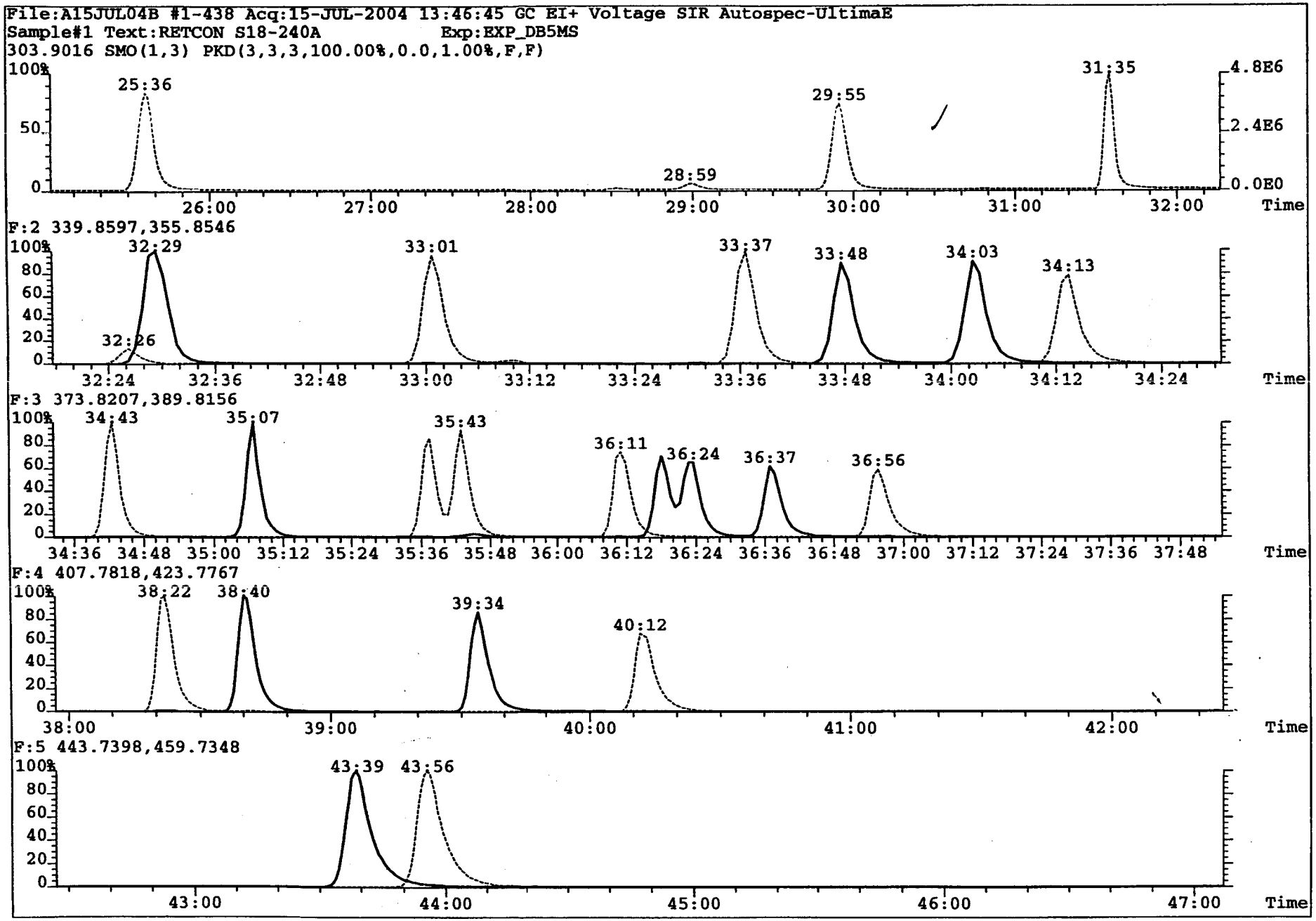




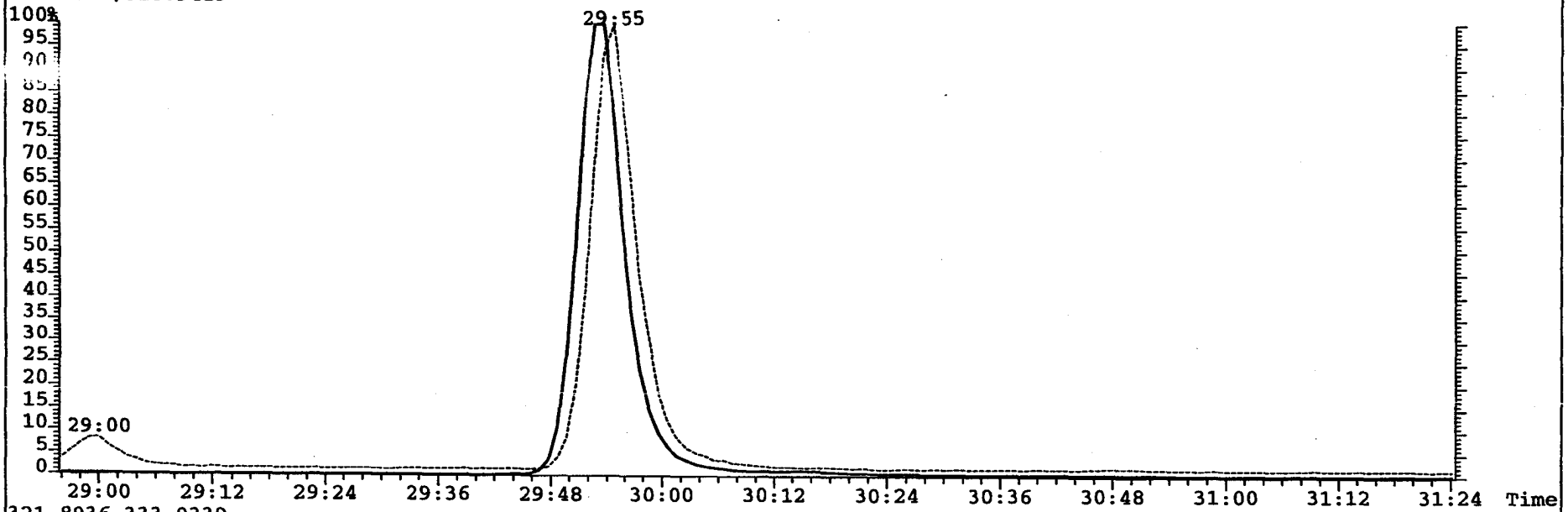


Filename ; a15jul04b
Sample ; 1
Acquired ; 15-JUL-04 13:46:45
Processed ; 19-JUL-04 10:15:39
Sample ID ; RETCON S18-240A

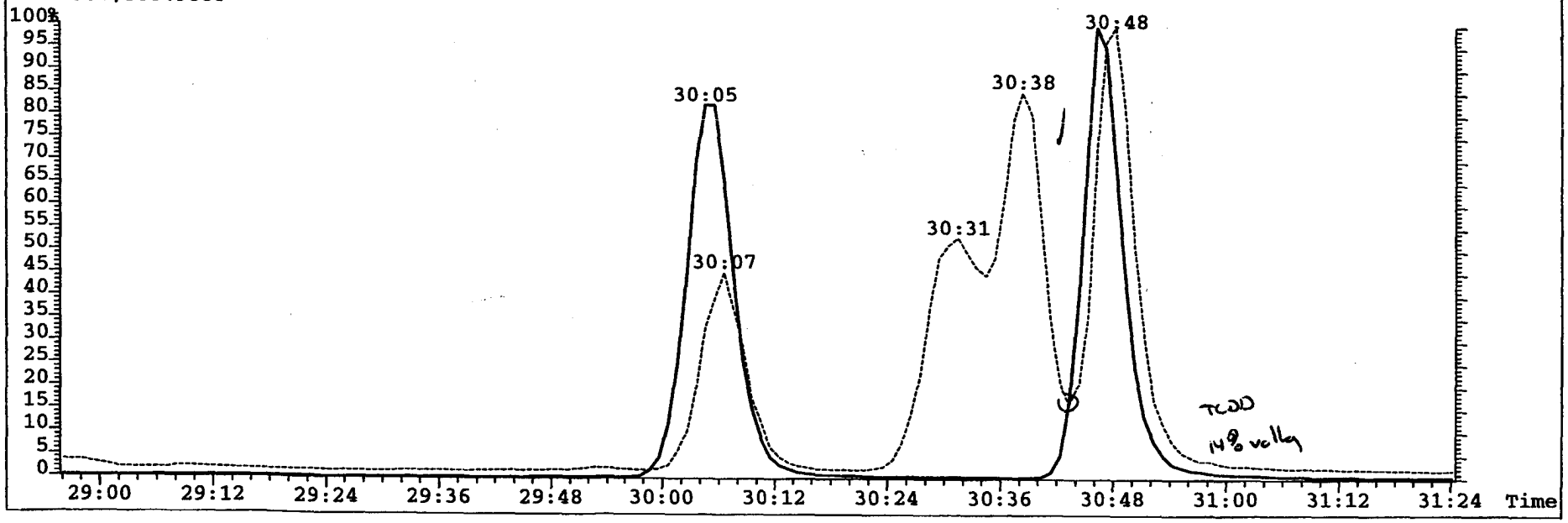
Name	First Eluter RT	Last Eluter RT
TCDD	27:20	31:29
PeCDD	32:29	34:03
HxCDD	35:07	36:37
HpCDD	38:40	39:34
OCDD	43:39	
TCDF	25:36	31:35
PeCDF	31:34	34:13
HxCDF	34:43	36:56
HpCDF	38:22	40:12
OCDF	43:56	


File:A15JUL04B #1-438 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
303.9016 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:36
28:59
29:55
31:35
4.8E6
2.4E6
0.0E0
Time
F:2 339.8597,355.8546
32:29
32:26
33:01
33:37
33:48
34:03
34:13
F:3 373.8207,389.8156
34:43
35:07
35:43
36:11
36:24
36:37
36:56
F:4 407.7818,423.7767
38:22
38:40
39:34
40:12
F:5 443.7398,459.7348
43:39
43:56

File:A15JUL04B #1-438 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
303.9016,315.9419



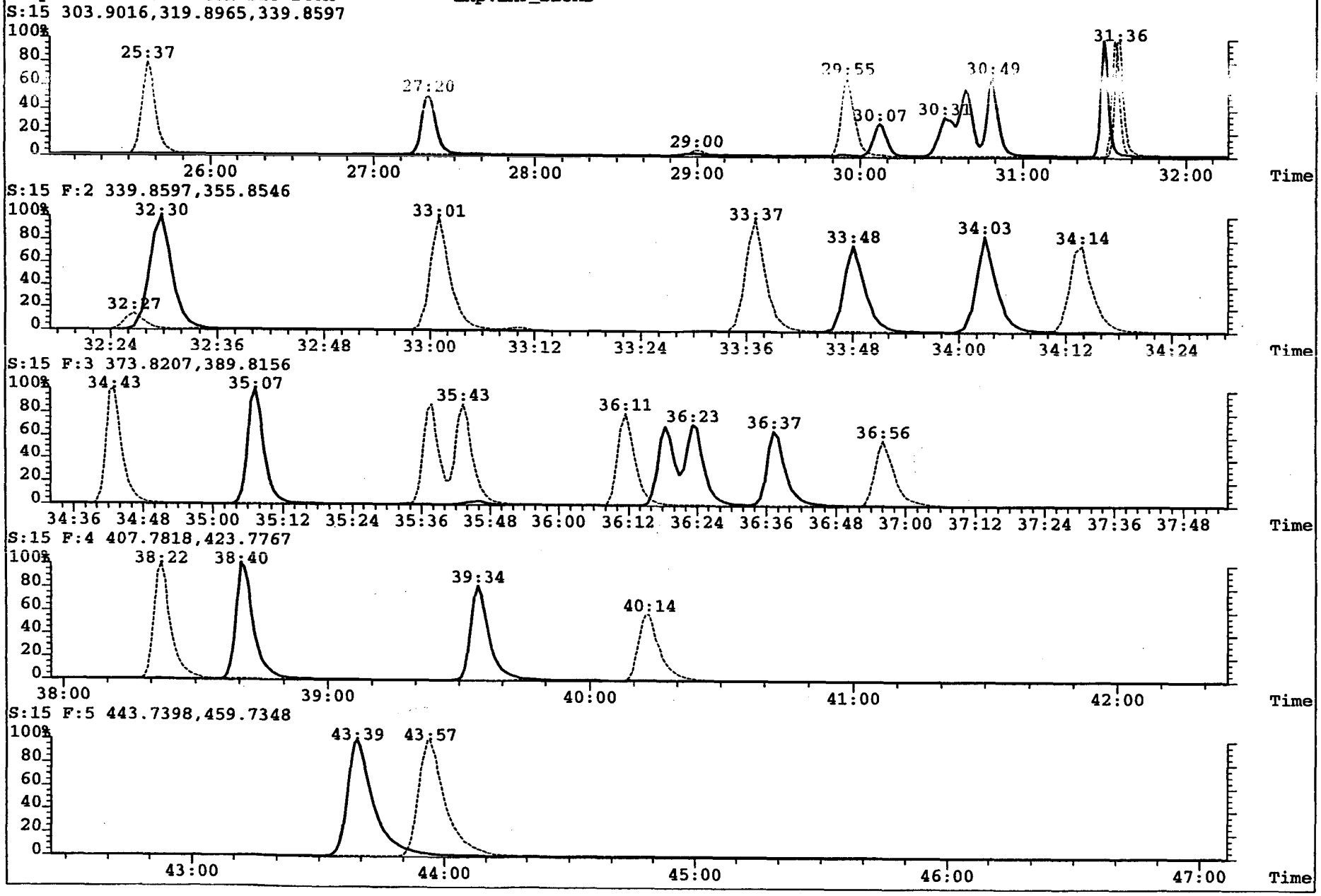
321.8936,333.9339



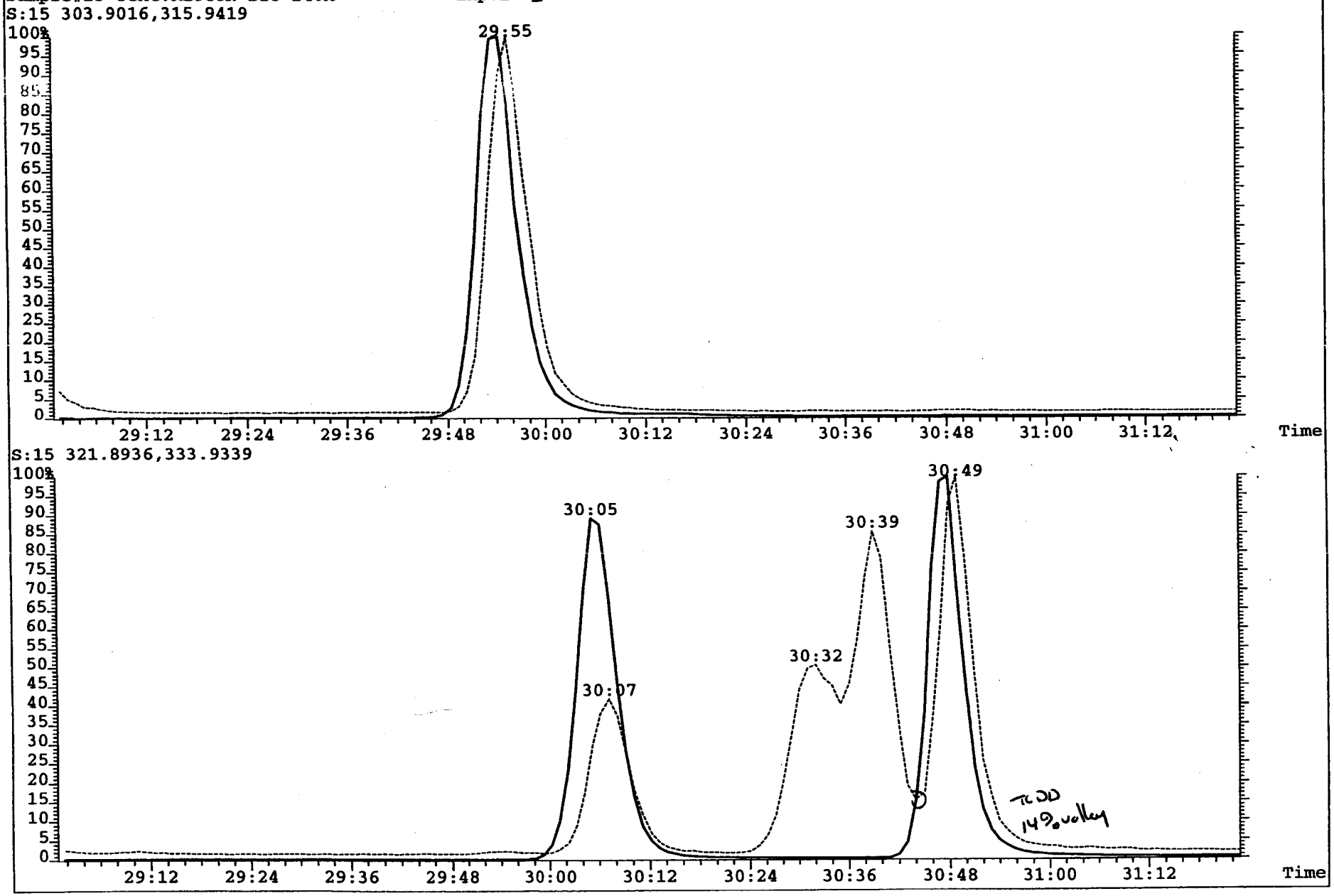
Filename ; a15jul04b
Sample ; 15
Acquired ; 16-JUL-04 01:17:28
Processed ; 19-JUL-04 10:15:47
Sample ID ; RETCON S18-240A

Name	First Eluter RT	Last Eluter RT
TCDD	27:20	31:30
PeCDD	32:30	34:03
HxCDD	35:07	36:37
HpCDD	38:40	39:34
OCDD	43:39	
TCDF	25:37	31:36
PeCDF	31:34	34:14
HxCDF	34:43	36:56
HpCDF	38:22	40:14
OCDF	43:57	

File:A15JUL04B #1-438 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS



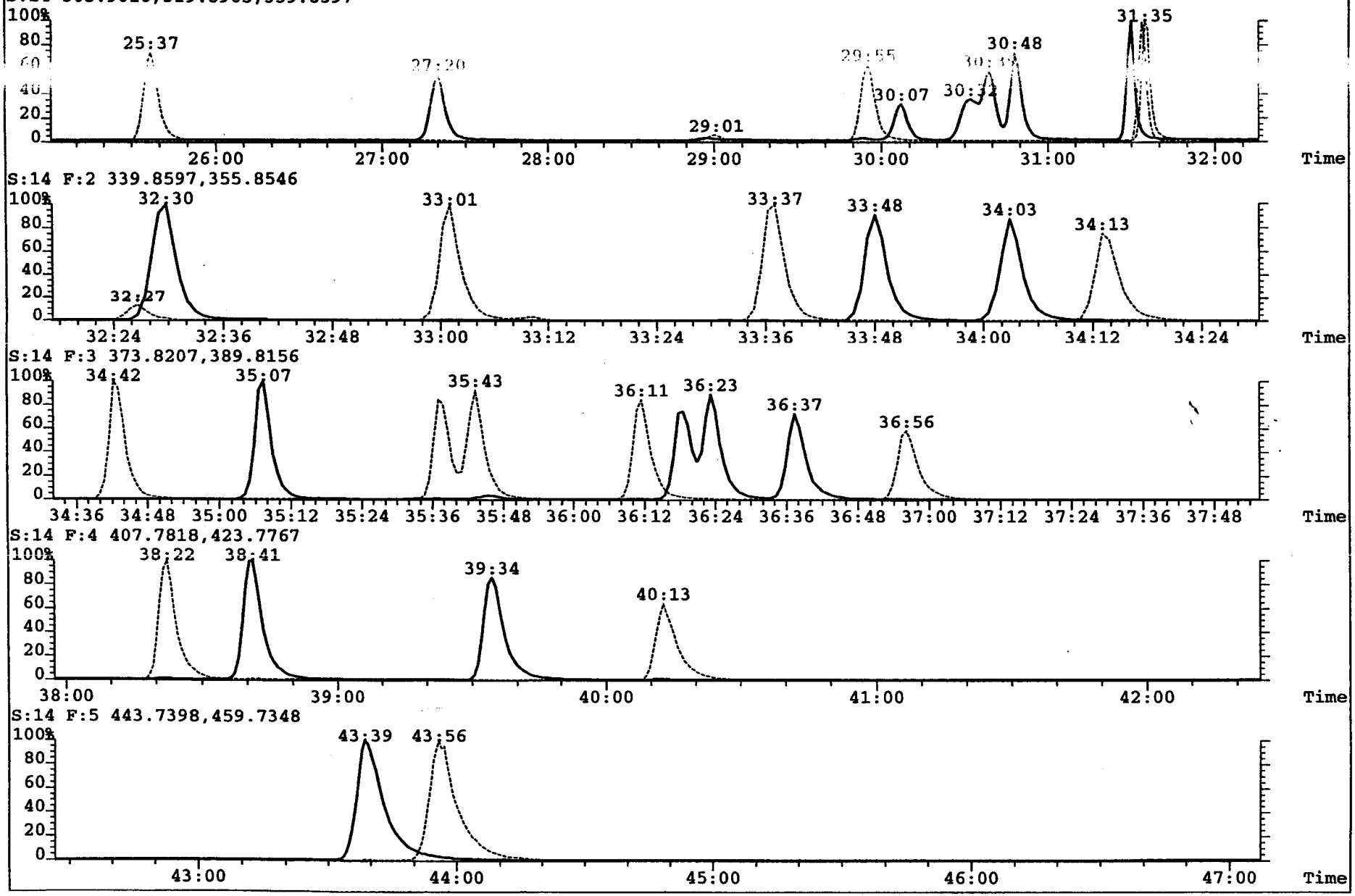
File:A15JUL04B #1-438 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS



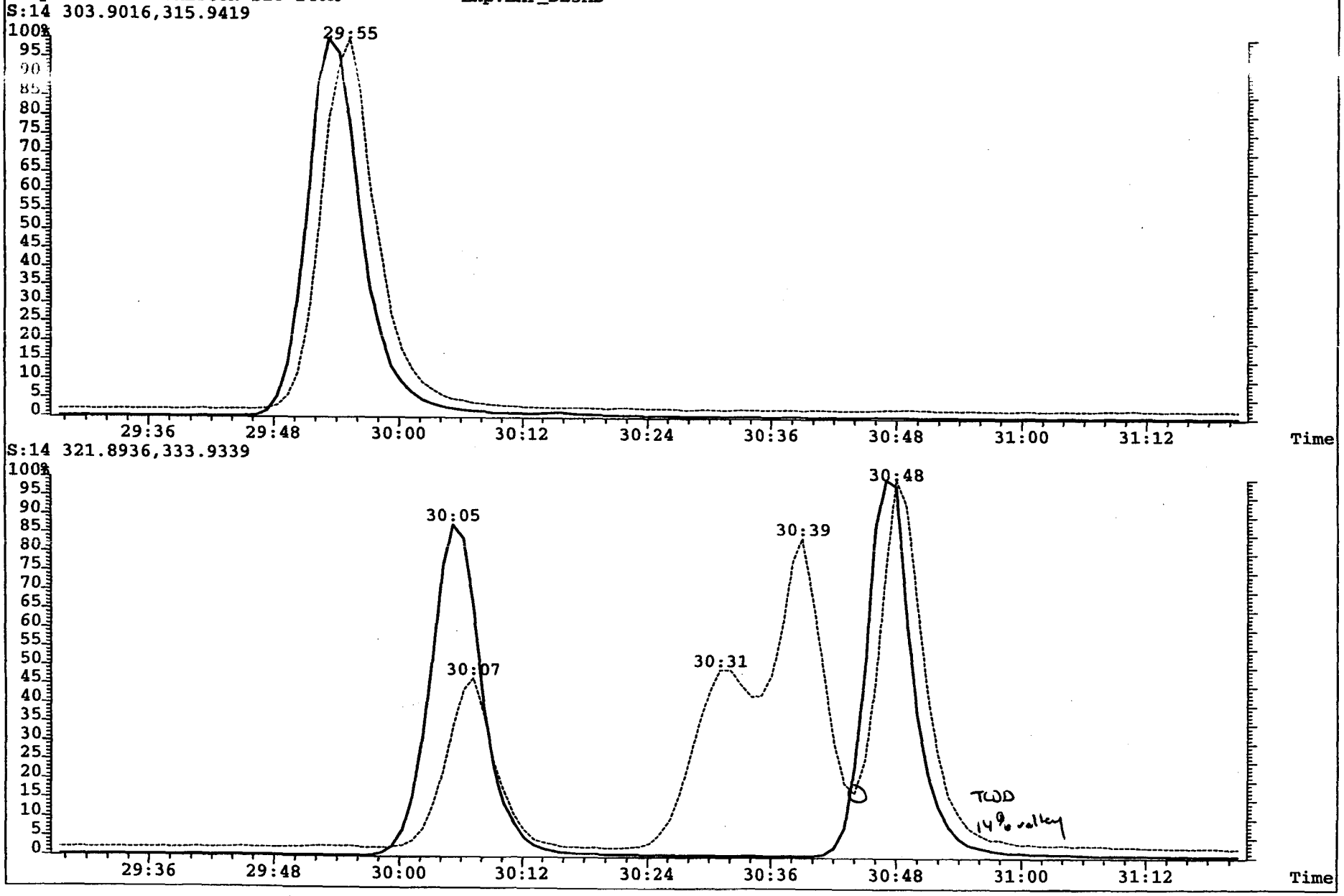
Filename ; a15jul04b_2
Sample ; 14
Acquired ; 16-JUL-04 12:52:30
Processed ; 19-JUL-04 10:16:43
Sample ID ; RETCON S18-240A

Name	First Eluter RT	Last Eluter RT
TCDD	27:20	31:30
PeCDD	32:30	34:03
HxCDD	35:07	36:37
HpCDD	38:41	39:34
OCDD	43:39	
TCDF	25:37	31:35
PeCDF	31:34	34:13
HxCDF	34:42	36:56
HpCDF	38:22	40:13
OCDF	43:56	

File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS

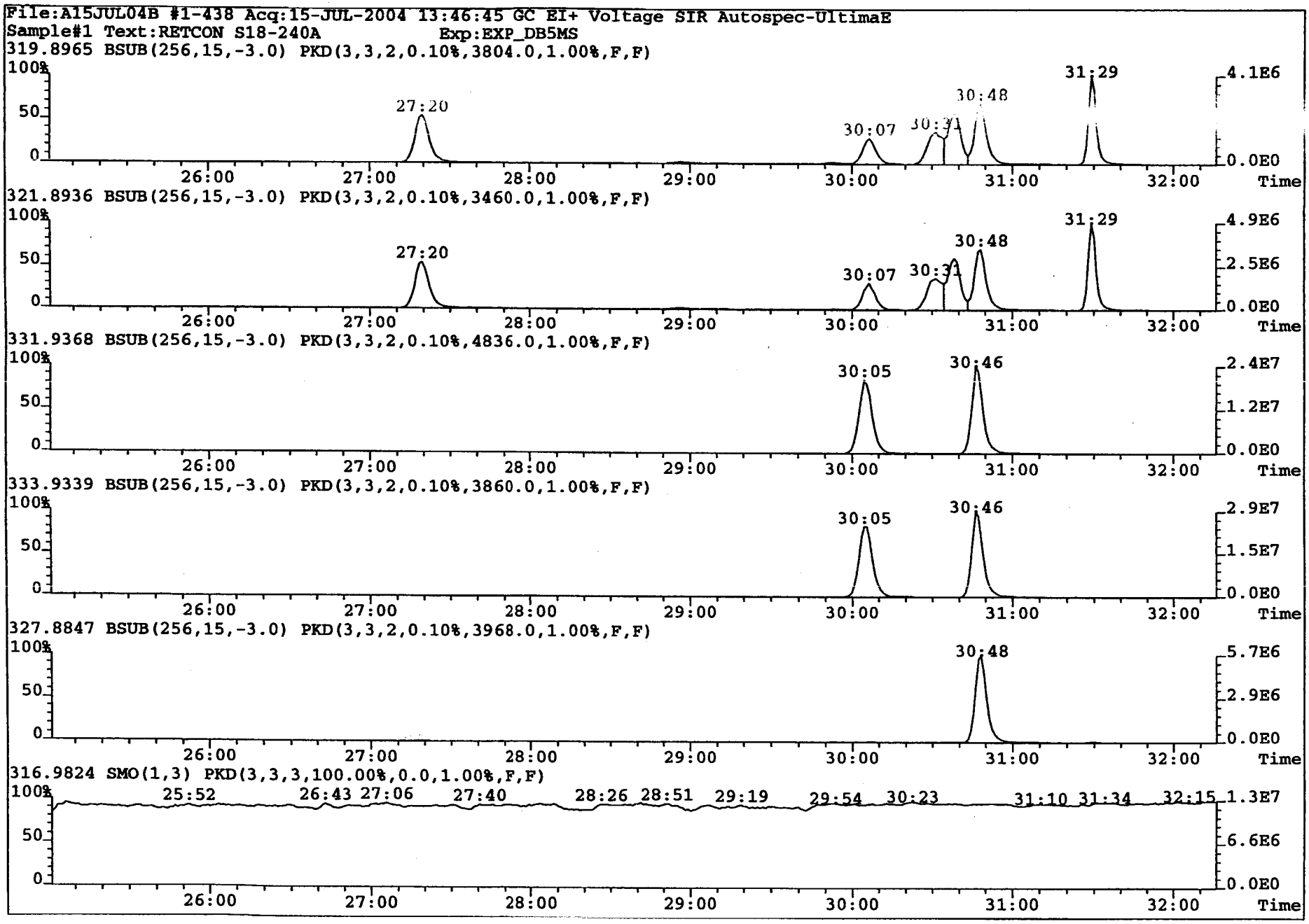


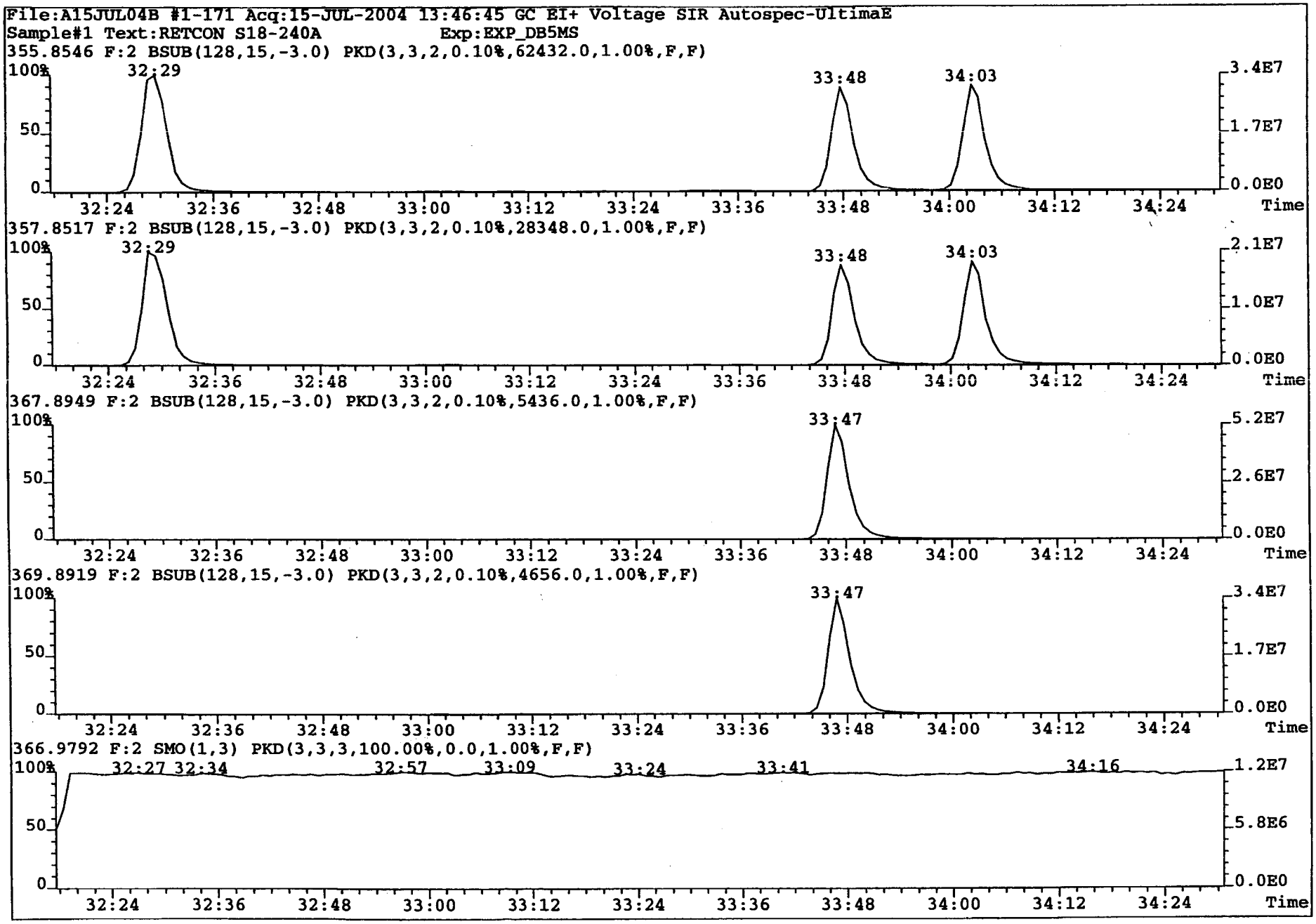
File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS

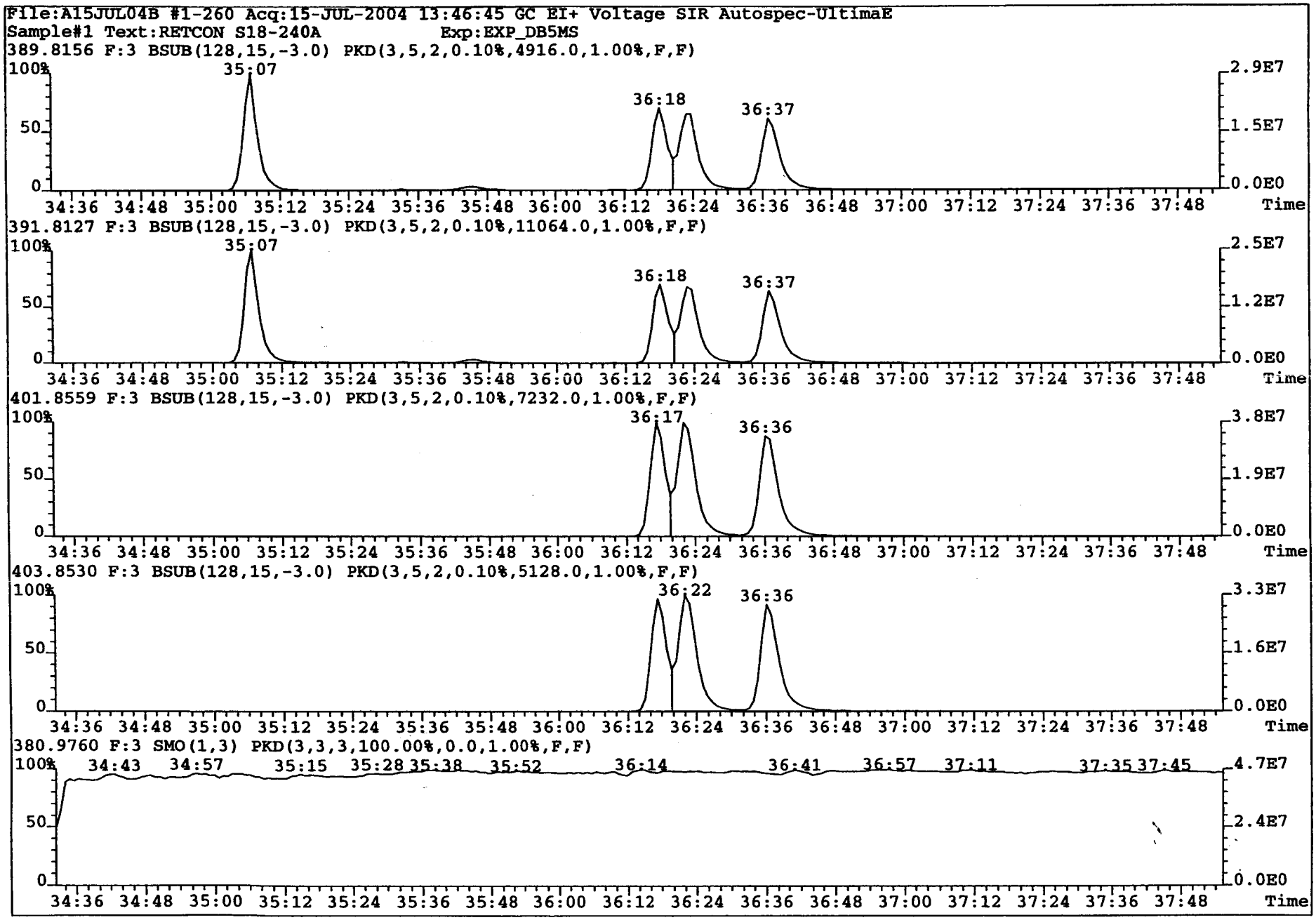


Filename ; a15jul04b
Sample ; 1
Acquired ; 15-JUL-04 13:46:45
Processed ; 15-JUL-04 14:37:48
Sample ID ; RETCON S18-240A
Cal Table ; m1613-122203b
Results Table ;
Comments ;

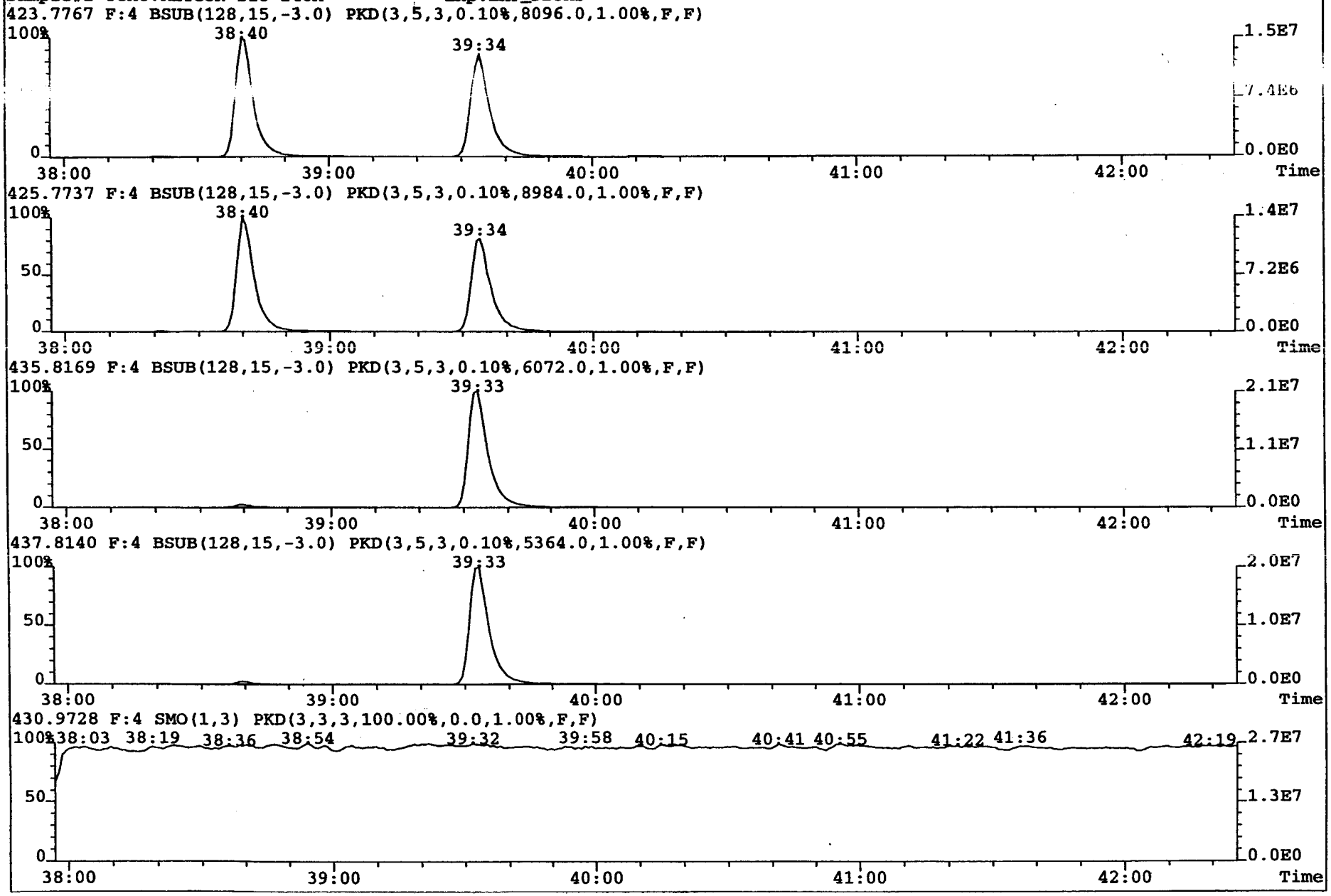
Typ	Name	Resp	RA;?;	RT	S/N1;?;	S/N;?;	Conc	Limits	mod?
Unk	2,3,7,8-TCDD	3.35e+07	0.83;y;	30:48	786;y;	92;y;	11.247	7.8 - 12.9	no
Unk	1,2,3,7,8-PeCDD	1.38e+08	1.61;y;	33:48	483;y;	65;y;	53.927	39 - 65	no
Unk	1,2,3,4,7,8-HxCDD	1.12e+08	1.17;y;	36:18	4198;y;	156;y;	51.967	39 - 64	no
Unk	1,2,3,6,7,8-HxCDD	1.38e+08	1.16;y;	36:24	3874;y;	151;y;	51.917	39 - 64	no
Unk	1,2,3,7,8,9-HxCDD	1.24e+08	1.14;y;	36:38	3670;y;	143;y;	52.792	41 - 61	no
Unk	1,2,3,4,6,7,8-HpCDD	1.21e+08	1.05;y;	39:35	1580;y;	130;y;	49.770	43 - 58	no
Unk	OCDD	1.92e+08	0.88;y;	43:40	1810;y;	356;y;	104.197	79 - 126	no
Unk	2,3,7,8-TCDF	5.17e+07	0.77;y;	29:55	774;y;	91;y;	9.999	8.4 - 12.0	no
Unk	1,2,3,7,8-PeCDF	2.37e+08	1.59;y;	33:01	850;y;	83;y;	50.235	41 - 60	no
Unk	2,3,4,7,8-PeCDF	2.44e+08	1.57;y;	33:37	882;y;	86;y;	50.331	41 - 61	no
Unk	1,2,3,4,7,8-HxCDF	1.97e+08	1.23;y;	35:37	246;y;	24;y;	48.129	45 - 56	no
Unk	1,2,3,6,7,8-HxCDF	2.32e+08	1.13;y;	35:43	267;y;	25;y;	48.906	44 - 57	no
Unk	2,3,4,6,7,8-HxCDF	2.05e+08	1.15;y;	36:12	212;y;	21;y;	47.338	45 - 56	no
Unk	1,2,3,7,8,9-HxCDF	1.80e+08	1.19;y;	36:56	170;y;	16;y;	48.615	44 - 57	no
Unk	1,2,3,4,6,7,8-HpCDF	2.08e+08	1.00;y;	38:23	2121;y;	380;y;	49.836	45 - 55	no
Unk	1,2,3,4,7,8,9-HpCDF	1.72e+08	1.00;y;	40:13	1441;y;	253;y;	49.907	43 - 58	no
Unk	OCDF	2.68e+08	0.88;y;	43:57	5612;y;	601;y;	109.617	63 - 159	no
ES/RT	13C-2,3,7,8-TCDD	2.62e+08	0.82;y;	30:47	4987;y;	909;y;	98.428	82 - 121	no
ES	13C-1,2,3,7,8-PeCDD	2.39e+08	1.59;y;	33:47	9560;y;	721;y;	110.544	62 - 160	no
ES	13C-1,2,3,4,7,8-HxCDD	2.05e+08	1.18;y;	36:17	5303;y;	618;y;	92.555	85 - 117	no
ES	13C-1,2,3,6,7,8-HxCDD	2.70e+08	1.18;y;	36:23	5273;y;	637;y;	100.796	85 - 118	no
ES	13C-1,2,3,4,6,7,8-HpCDD	2.09e+08	1.05;y;	39:34	3474;y;	377;y;	110.430	72 - 138	no
ES	13C-OCDD	3.34e+08	0.81;y;	43:39	5449;y;	928;y;	203.269	96 - 415	no
ES/RT	13C-2,3,7,8-TCDF	4.71e+08	0.82;y;	29:54	7427;y;	1031;y;	110.204	71 - 140	no
ES	13C-1,2,3,7,8-PeCDF	4.40e+08	1.61;y;	33:01	1100;y;	87;y;	118.549	76 - 130	no
ES	13C-2,3,4,7,8-PeCDF	4.34e+08	1.61;y;	33:36	1118;y;	85;y;	113.730	77 - 130	no
ES	13C-1,2,3,4,7,8-HxCDF	3.22e+08	0.54;y;	35:37	3414;y;	812;y;	104.338	76 - 131	no
ES	13C-1,2,3,6,7,8-HxCDF	4.00e+08	0.49;y;	35:43	3613;y;	849;y;	106.569	70 - 143	no
ES	13C-2,3,4,6,7,8-HxCDF	3.57e+08	0.51;y;	36:11	3558;y;	815;y;	105.475	73 - 137	no
ES	13C-1,2,3,7,8,9-HxCDF	3.10e+08	0.51;y;	36:56	2432;y;	565;y;	110.187	74 - 135	no
ES	13C-1,2,3,4,6,7,8-HpCDF	2.90e+08	0.46;y;	38:22	1610;y;	215;y;	106.725	78 - 129	no
ES	13C-1,2,3,4,7,8,9-HpCDF	2.59e+08	0.47;y;	40:12	1243;y;	160;y;	112.467	77 - 129	no
JS	13C-1,2,3,4-TCDD	2.56e+08	0.83;y;	30:05	4247;y;	749;y;	413.517		no
JS	13C-1,2,3,7,8,9-HxCDD	2.41e+08	1.16;y;	36:37	4666;y;	585;y;	462.559		no
CS	37Cl-2,3,7,8-TCDD	2.90e+07	;	30:48	1455;y	;	9.865	7.9 - 12.7	no
Tot	Total Tetra-Furans	1.63e+08	0.81;y;	25:37	848;y;	98;y;	31.451		no
Tot	Total Tetra-Dioxins	1.65e+08	0.85;y;	27:20	616;y;	71;y;	55.447		no
Tot	Total Penta-Furans Fn1	1.60e+08	0.62;y;	31:34	6703;y;	929;y;	33.345		no
Tot	Total Penta-Furans Fn2	7.37e+08	1.59;y;	32:26	118;y;	11;y;	153.939		no
Tot	Total Penta-Dioxins	4.59e+08	1.62;y;	32:29	538;y;	73;y;	179.290		no
Tot	Total Hexa-Furans	1.05e+09	1.13;y;	34:43	286;y;	28;y;	248.223		no
Tot	Total Hexa-Dioxins	5.36e+08	1.14;y;	35:07	5938;y;	222;y;	224.218		no


File:A15JUL04B #1-438 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
319.8965 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3804.0,1.00%,F,F)
27:20
30:07
30:31
30:48
31:29
4.1E6
0.0E0
321.8936 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3460.0,1.00%,F,F)
27:20
30:07
30:31
30:48
31:29
4.9E6
2.5E6
0.0E0
331.9368 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4836.0,1.00%,F,F)
30:05
30:46
2.4E7
1.2E7
0.0E0
333.9339 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3860.0,1.00%,F,F)
30:05
30:46
2.9E7
1.5E7
0.0E0
327.8847 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3968.0,1.00%,F,F)
30:48
5.7E6
2.9E6
0.0E0
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:52
26:43
27:06
27:40
28:26
28:51
29:19
29:54
30:23
31:10
31:34
32:15
1.3E7
6.6E6
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

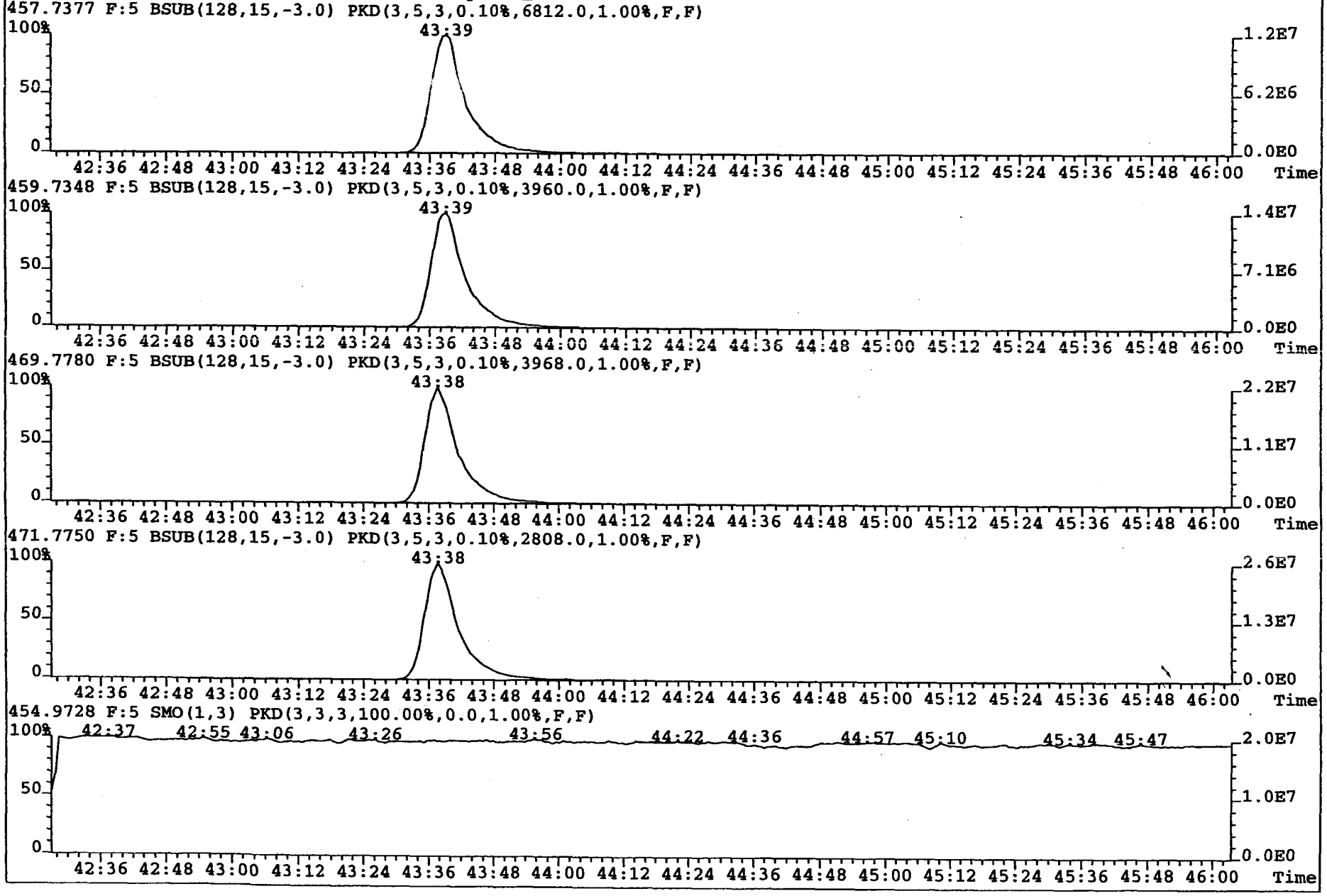

File:A15JUL04B #1-171 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
355.8546 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,62432.0,1.00%,F,F)
32:29
33:48
34:03
3.4E7
1.7E7
0.0E0
357.8517 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,28348.0,1.00%,F,F)
32:29
33:48
34:03
2.1E7
1.0E7
0.0E0
367.8949 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5436.0,1.00%,F,F)
33:47
5.2E7
2.6E7
0.0E0
369.8919 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4656.0,1.00%,F,F)
33:47
3.4E7
1.7E7
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:27 32:34
32:57
33:09
33:24
33:41
34:16
1.2E7
5.8E6
0.0E0
100%
50
0
32:24
32:36
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
Time

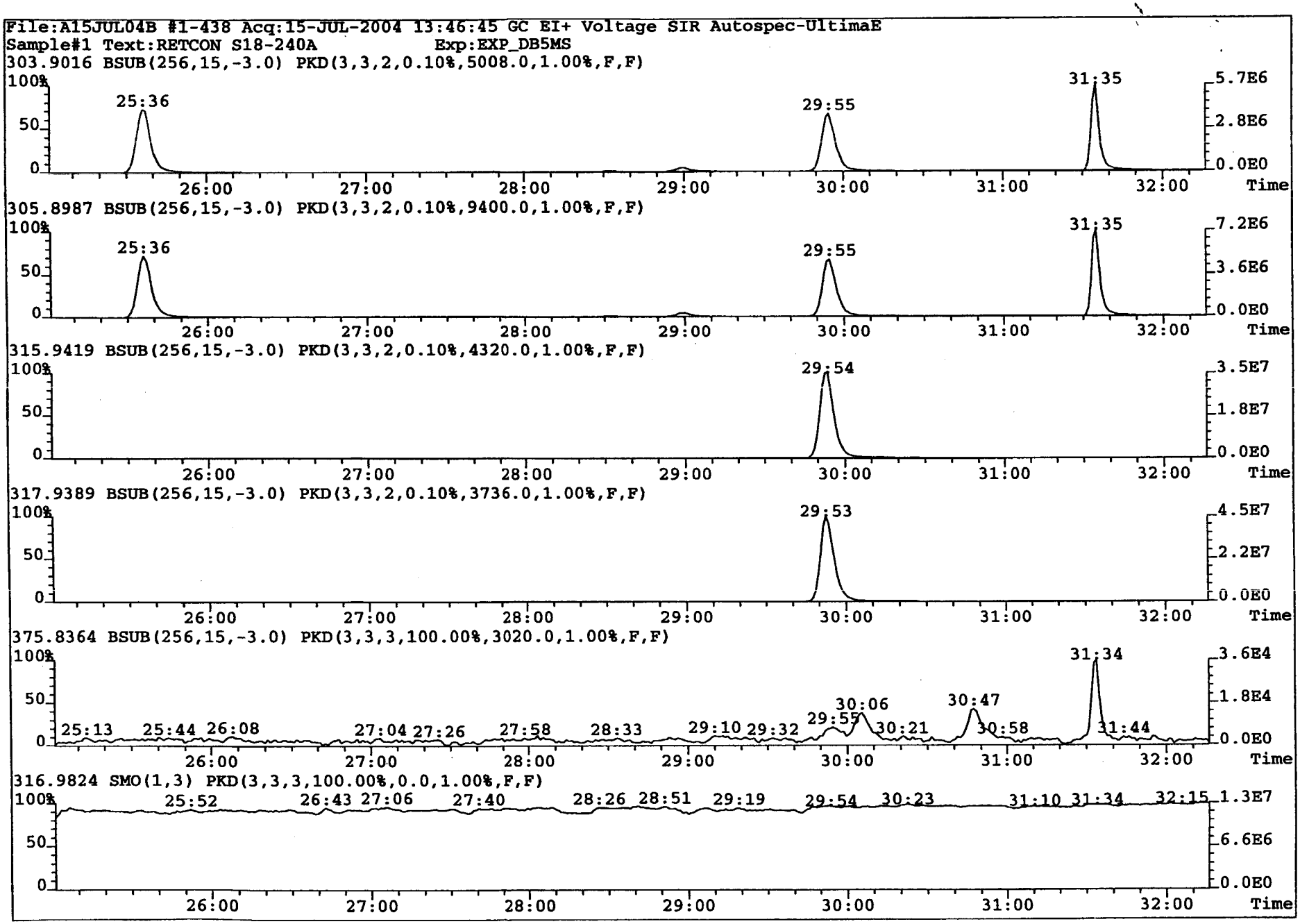

File:A15JUL04B #1-260 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
389.8156 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4916.0,1.00%,F,F)
35:07
36:18
36:37
2.9E7
1.5E7
0.0E0
391.8127 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,11064.0,1.00%,F,F)
35:07
36:18
36:37
2.5E7
1.2E7
0.0E0
401.8559 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7232.0,1.00%,F,F)
36:17
36:36
3.8E7
1.9E7
0.0E0
403.8530 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5128.0,1.00%,F,F)
36:22
36:36
3.3E7
1.6E7
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:43 34:57 35:15 35:28 35:38 35:52 36:14 36:41 36:57 37:11 37:35 37:45
4.7E7
2.4E7
0.0E0
100%
50
0
34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48
Time

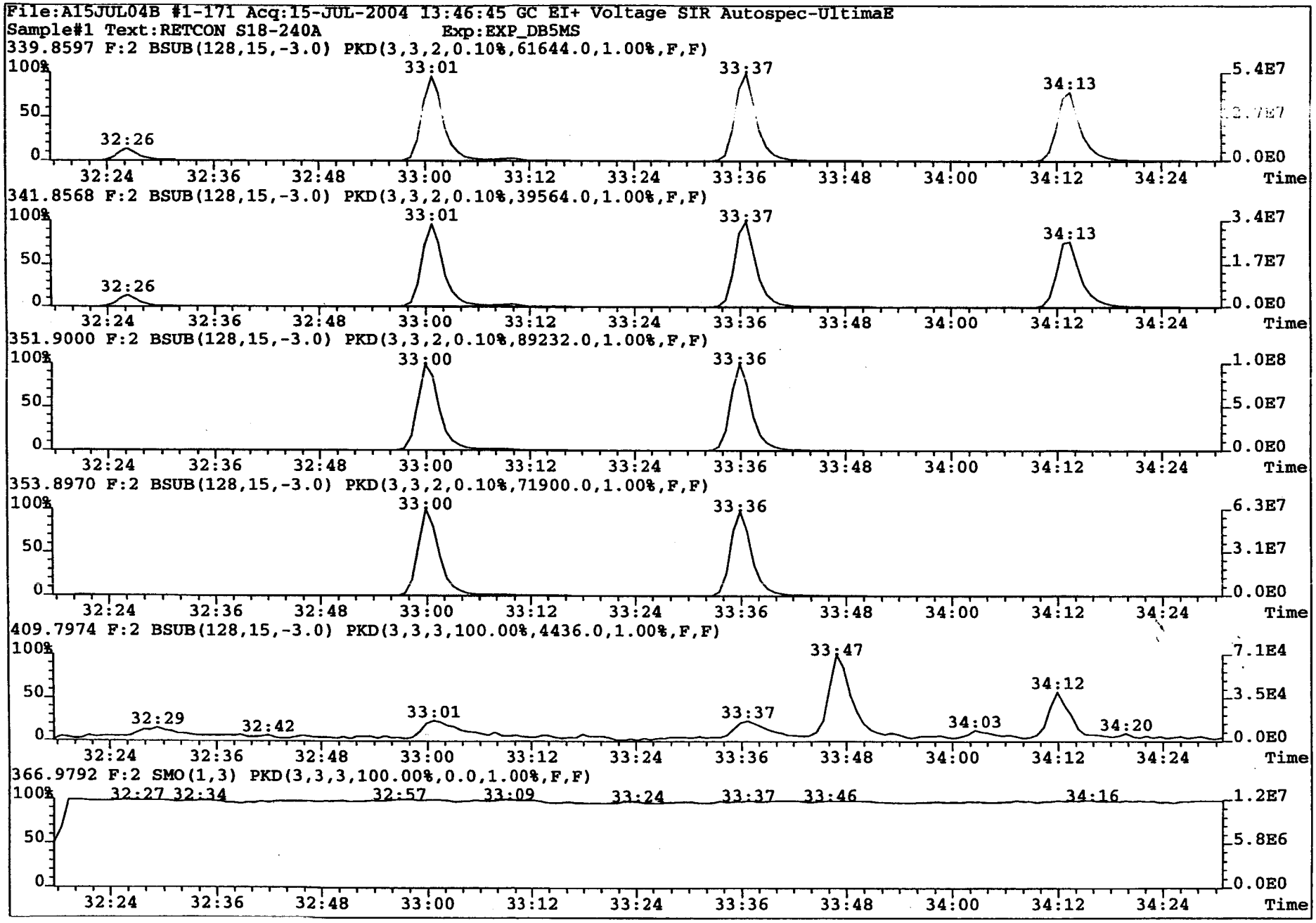
File:A15JUL04B #1-344 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS

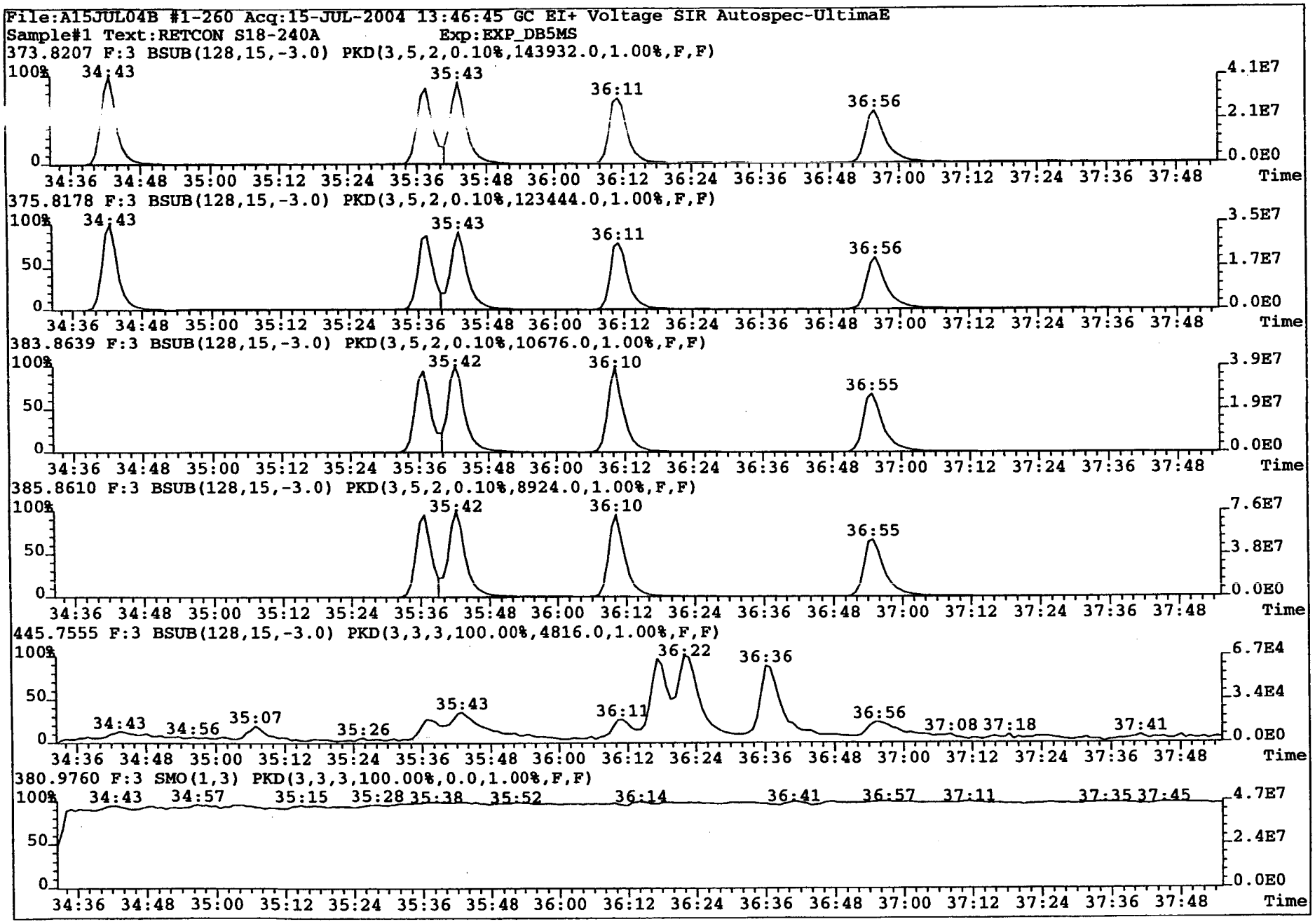


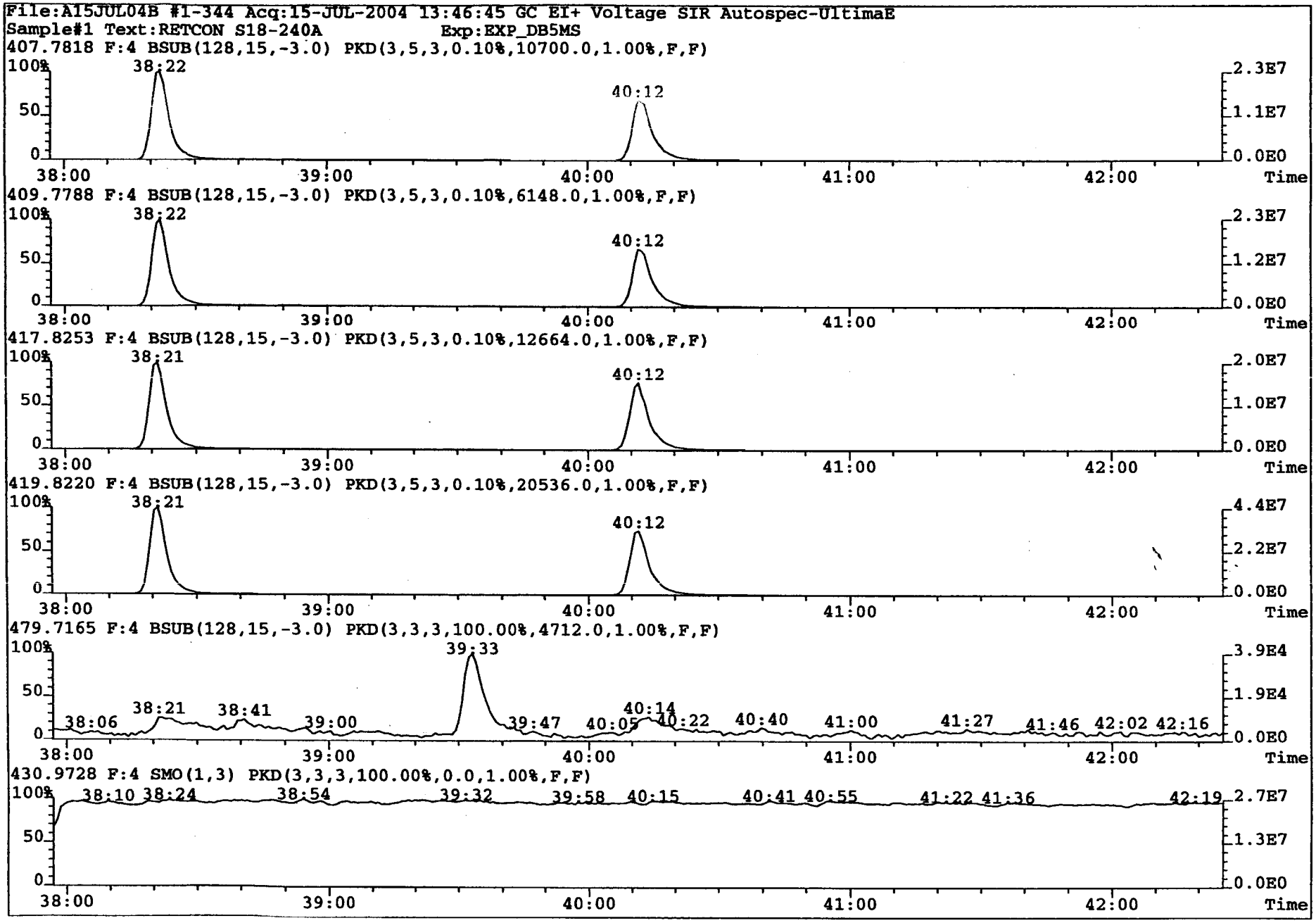
File:A15JUL04B #1-337 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS

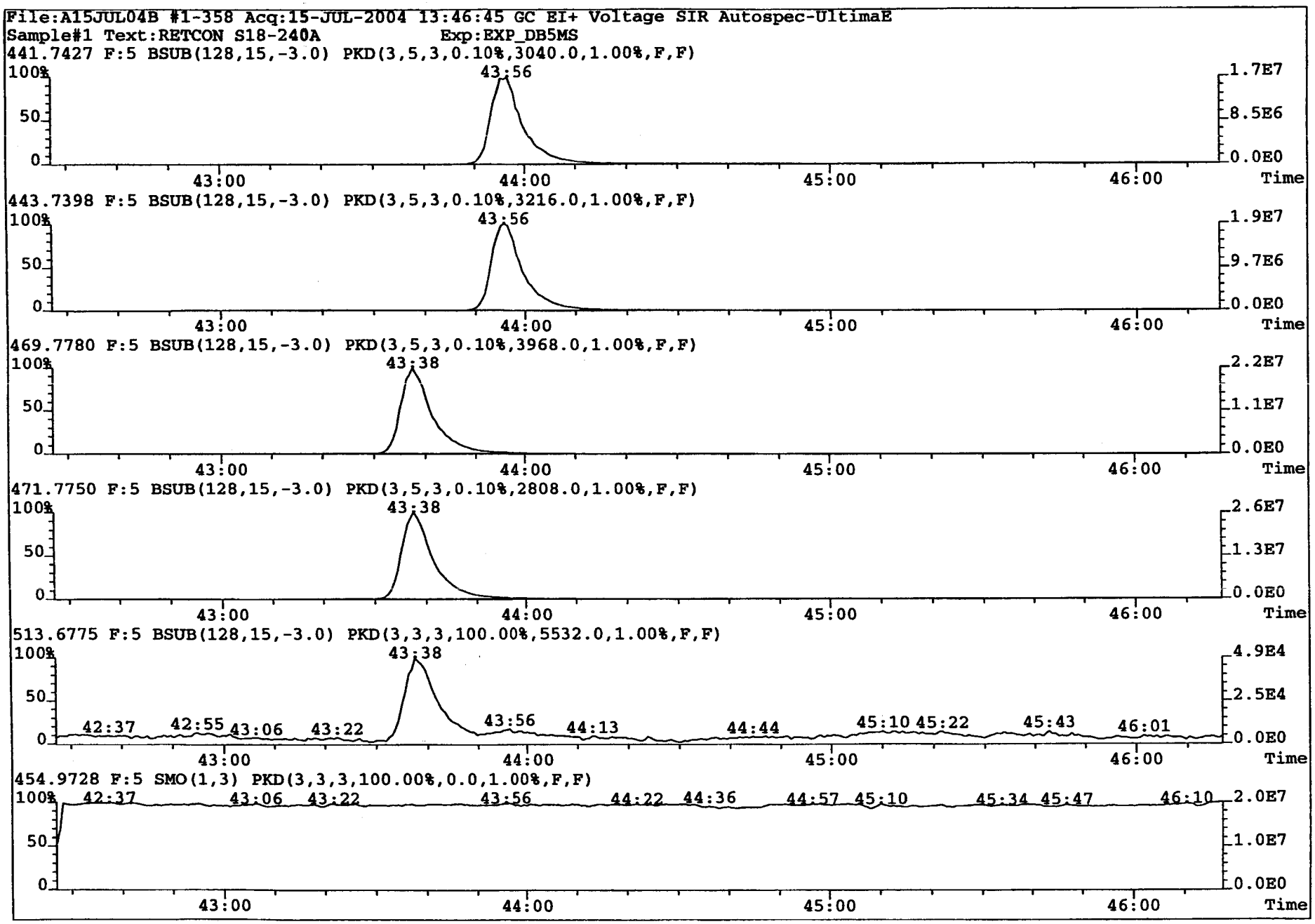


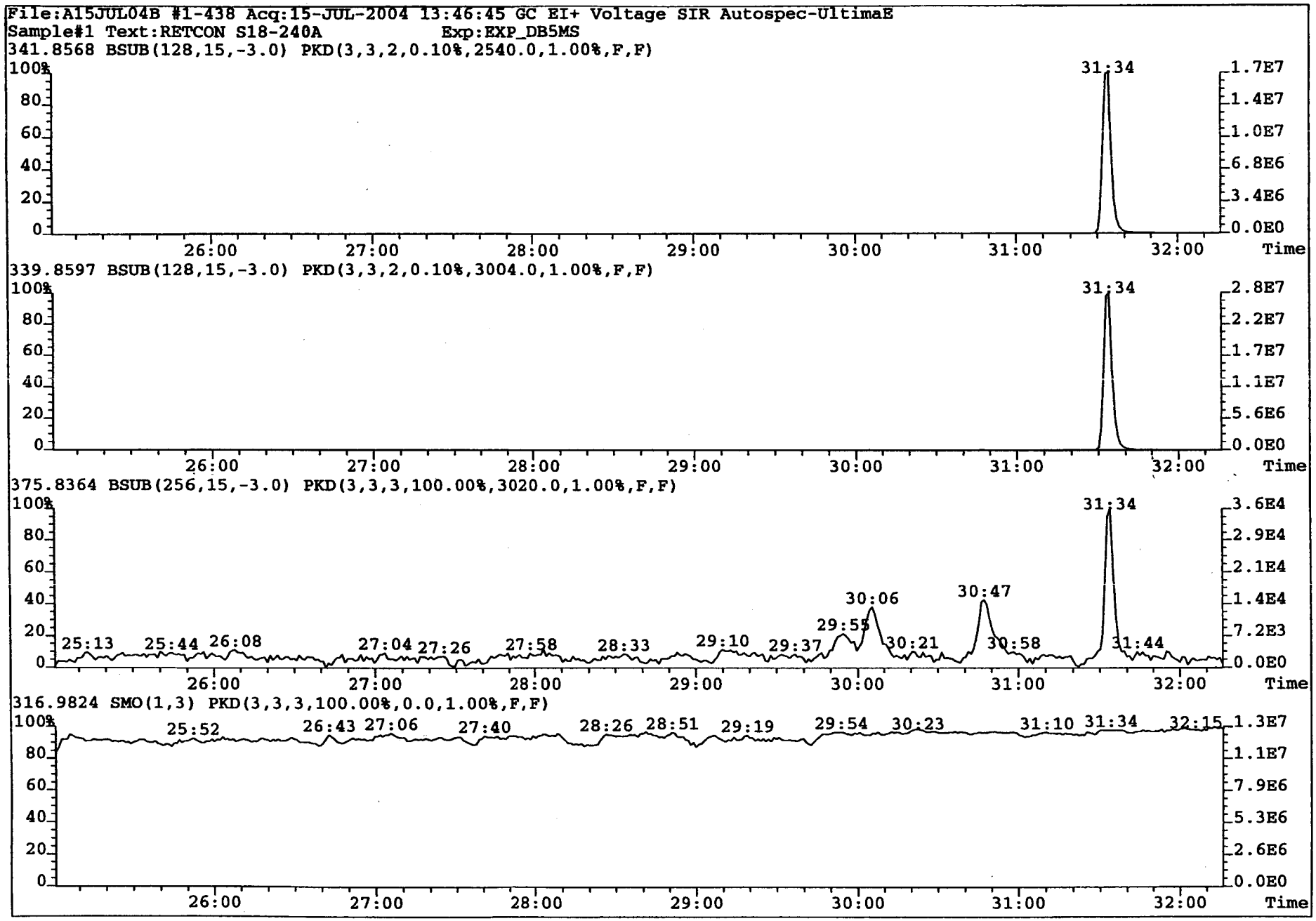

File:A15JUL04B #1-438 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
303.9016 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,5008.0,1.00%,F,F)
25:36
29:55
31:35
5.7E6
2.8E6
0.0E0
305.8987 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,9400.0,1.00%,F,F)
25:36
29:55
31:35
7.2E6
3.6E6
0.0E0
315.9419 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4320.0,1.00%,F,F)
29:54
3.5E7
1.8E7
0.0E0
317.9389 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,3736.0,1.00%,F,F)
29:53
4.5E7
2.2E7
0.0E0
375.8364 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3020.0,1.00%,F,F)
25:13 25:44 26:08 27:04 27:26 27:58 28:33 29:10 29:32 29:55 30:06 30:21 30:47 30:58 31:34 31:44
3.6E4
1.8E4
0.0E0
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:52 26:43 27:06 27:40 28:26 28:51 29:19 29:54 30:23 31:10 31:34 32:15
1.3E7
6.6E6
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A15JUL04B #1-171 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
339.8597 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,61644.0,1.00%,F,F)
32:26
33:01
33:37
34:13
5.4E7
2.7E7
0.0E0
341.8568 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,39564.0,1.00%,F,F)
32:26
33:01
33:37
34:13
3.4E7
1.7E7
0.0E0
351.9000 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,89232.0,1.00%,F,F)
33:00
33:36
1.0E8
5.0E7
0.0E0
353.8970 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,71900.0,1.00%,F,F)
33:00
33:36
6.3E7
3.1E7
0.0E0
409.7974 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4436.0,1.00%,F,F)
32:29
32:42
33:01
33:37
33:47
34:03
34:12
34:20
7.1E4
3.5E4
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:27 32:34
32:57
33:09
33:24
33:37
33:46
34:16
1.2E7
5.8E6
0.0E0
100%
50
0
32:24
32:36
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
Time


File:A15JUL04B #1-260 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
373.8207 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,143932.0,1.00%,F,F)
34:43
35:43
36:11
36:56
4.1E7
2.1E7
0.0E0
375.8178 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,123444.0,1.00%,F,F)
34:43
35:43
36:11
36:56
3.5E7
1.7E7
0.0E0
383.8639 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,10676.0,1.00%,F,F)
35:42
36:10
36:55
3.9E7
1.9E7
0.0E0
385.8610 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8924.0,1.00%,F,F)
35:42
36:10
36:55
7.6E7
3.8E7
0.0E0
445.7555 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4816.0,1.00%,F,F)
34:43
34:56
35:07
35:26
35:43
36:11
36:22
36:36
36:56
37:08
37:18
37:41
6.7E4
3.4E4
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:43
34:57
35:15
35:28
35:38
35:52
36:14
36:41
36:57
37:11
37:35
37:45
4.7E7
2.4E7
0.0E0
100%
50
0
34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48
Time


File:A15JUL04B #1-344 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
407.7818 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,10700.0,1.00%,F,F)
38:22
40:12
2.3E7
1.1E7
0.0E0
409.7788 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6148.0,1.00%,F,F)
38:22
40:12
2.3E7
1.2E7
0.0E0
417.8253 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,12664.0,1.00%,F,F)
38:21
40:12
2.0E7
1.0E7
0.0E0
419.8220 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,20536.0,1.00%,F,F)
38:21
40:12
4.4E7
2.2E7
0.0E0
479.7165 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4712.0,1.00%,F,F)
39:33
38:06 38:21 38:41 39:00 39:47 40:05 40:14 40:22 40:40 41:00 41:27 41:46 42:02 42:16
3.9E4
1.9E4
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:10 38:24 38:54 39:32 39:58 40:15 40:41 40:55 41:22 41:36 42:19
2.7E7
1.3E7
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time


File:A15JUL04B #1-358 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
441.7427 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3040.0,1.00%,F,F)
43:56
1.7E7
8.5E6
0.0E0
443.7398 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3216.0,1.00%,F,F)
43:56
1.9E7
9.7E6
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3968.0,1.00%,F,F)
43:38
2.2E7
1.1E7
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2808.0,1.00%,F,F)
43:38
2.6E7
1.3E7
0.0E0
513.6775 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5532.0,1.00%,F,F)
43:38
42:37 42:55 43:06 43:22 43:56 44:13 44:44 45:10 45:22 45:43 46:01
4.9E4
2.5E4
0.0E0
454.9728 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:37 43:06 43:22 43:56 44:22 44:36 44:57 45:10 45:34 45:47 46:10
2.0E7
1.0E7
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A15JUL04B #1-438 Acq:15-JUL-2004 13:46:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
341.8568 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2540.0,1.00%,F,F)
31:34
339.8597 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3004.0,1.00%,F,F)
31:34
375.8364 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3020.0,1.00%,F,F)
31:34
25:13 25:44 26:08 27:04 27:26 27:58 28:33 29:10 29:37 29:55 30:06 30:21 30:47 30:58 31:44
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:52 26:43 27:06 27:40 28:26 28:51 29:19 29:54 30:23 31:10 31:34 32:15
Time

Run #20 Filename a15jul04b S: 15 I: 1 Acquired: 16-JUL-04 01:17:28 Processed: 16-JUL-04 15:09:11
Run: Analyte: m8290-061» Cal: m8290-122» Results: m8290-071» Quan : V3.6 6-JAN-2000 17:51:42
Sample text: RETCON S18-240A Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

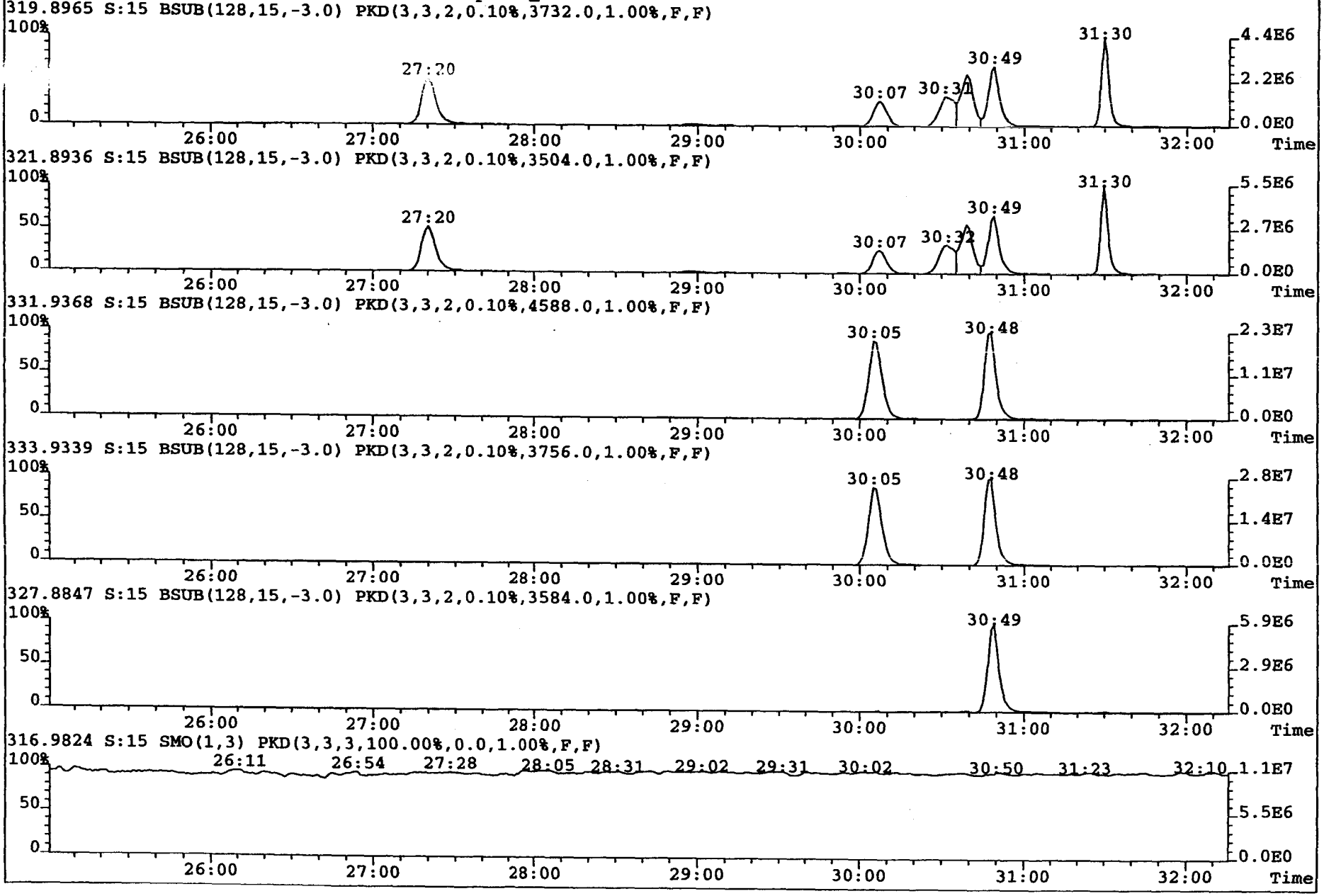
Typ	Name	Resp	RA		RT	Conc	Dev'n	CCAL RRF	ICAL RRF	Mod?
Unk	2,3,7,8-TCDD	3.2e+07	0.82	y	30:49	11.40	14.0	1.2842	1.1265	n
Unk	1,2,3,7,8-PeCDD	1.4e+08	1.61	y	33:48	54.90	9.8	1.1747	1.0699	n
Unk	1,2,3,4,7,8-HxCDD	1.1e+08	1.16	y	36:19	48.38	-3.2	0.8426	0.8708	n
Unk	1,2,3,6,7,8-HxCDD	1.4e+08	1.16	y	36:24	53.18	6.4	1.0493	0.9866	n
Unk	1,2,3,7,8,9-HxCDD	1.3e+08	1.15	y	36:38	52.79	5.6	0.9582	0.9075	n
Unk	1,2,3,4,6,7,8-HpCDD	1.1e+08	1.02	y	39:35	50.71	1.4	1.1822	1.1657	n
Unk	OCDD	1.7e+08	0.88	y	43:41	104.5	4.5	1.1524	1.1027	n
Unk	2,3,7,8-TCDF	5.0e+07	0.76	y	29:56	10.09	0.9	1.0910	1.0813	n
Unk	1,2,3,7,8-PeCDF	2.6e+08	1.57	y	33:01	50.07	0.1	1.0731	1.0717	n
Unk	2,3,4,7,8-PeCDF	2.6e+08	1.57	y	33:37	46.58	-6.8	1.0715	1.1502	n
Unk	1,2,3,4,7,8-HxCDF	2.1e+08	1.24	y	35:38	48.13	-3.7	1.0052	1.0442	n
Unk	1,2,3,6,7,8-HxCDF	2.3e+08	1.11	y	35:44	48.29	3.4	1.1435	1.1840	n
Unk	2,3,4,6,7,8-HxCDF	2.1e+08	1.15	y	36:12	47.86	-4.3	1.0444	1.0911	n
Unk	1,2,3,7,8,9-HxCDF	1.7e+08	1.18	y	36:57	47.10	-5.8	0.8422	0.8941	n
Unk	1,2,3,4,6,7,8-HpCDF	2.1e+08	1.00	y	38:23	50.39	0.8	1.4496	1.4383	n
Unk	1,2,3,4,7,8,9-HpCDF	1.6e+08	1.00	y	40:14	50.07	0.1	1.1275	1.1259	n
Unk	OCDF	2.3e+08	0.87	y	43:58	111.7	11.7	1.6325	1.4619	n
ES/RT	13C-2,3,7,8-TCDD	2.5e+08	0.81	y	30:48	95.22	-4.8	0.9910	1.0407	n
ES	13C-1,2,3,7,8-PeCDD	2.4e+08	1.63	y	33:48	112.3	12.3	0.9502	0.8458	n
ES	13C-1,2,3,6,7,8-HxCDD	2.7e+08	1.17	y	36:23	99.40	-0.6	1.1038	1.1105	n
ES	13C-1,2,3,4,6,7,8-HpCDD	1.9e+08	1.03	y	39:34	102.3	2.3	0.8041	0.7861	n
ES	13C-OCDD	2.9e+08	0.84	y	43:40	174.4	-12.8	0.5950	0.6823	n
ES/RT	13C-2,3,7,8-TCDF	4.6e+08	0.84	y	29:54	107.6	7.6	1.7983	1.6709	n
ES	13C-1,2,3,7,8-PeCDF	4.8e+08	1.62	y	33:01	129.5	29.5	1.8769	1.4495	n
ES	13C-1,2,3,6,7,8-HxCDF	4.1e+08	0.48	y	35:43	108.8	8.8	1.6954	1.5578	n
ES	13C-1,2,3,4,6,7,8-HpCDF	2.9e+08	0.47	y	38:22	105.6	5.6	1.1895	1.1269	n
JS	13C-1,2,3,4-TCDD	2.5e+08	0.81	y	30:06	411.4	-	-	-	n
JS	13C-1,2,3,7,8,9-HxCDD	2.4e+08	1.17	y	36:37	463.9	-	-	-	n
CS	37Cl-2,3,7,8-TCDD	2.8e+07	1.59	y	30:49	9.610	-3.9	1.1018	1.1465	n
CS	13C-2,3,4,7,8-PeCDF	4.5e+08	1.18	y	33:36	119.5	19.5	1.7804	1.4903	n
CS	13C-1,2,3,4,7,8-HxCDD	2.0e+08	0.54	y	36:18	90.39	-9.6	0.8308	0.9191	n
CS	13C-1,2,3,4,7,8-HxCDF	3.3e+08	0.46	y	35:37	107.1	7.1	1.3720	1.2815	n
CS	13C-1,2,3,4,7,8,9-HpCDF	2.4e+08			40:13	105.3	5.3	1.0060	0.9553	n
			1.59	y						
SS	37Cl-2,3,7,8-TCDD	2.8e+07	1.18	y	30:49	10.09	0.9	1.1118	1.1020	n
SS	13C-2,3,4,7,8-PeCDF	4.5e+08	0.54	y	33:36	92.25	-7.7	0.9485	1.0282	n
SS	13C-1,2,3,4,7,8-HxCDD	2.0e+08	0.46	y	36:18	90.88	-9.1	0.7526	0.8281	n
SS	13C-1,2,3,4,7,8-HxCDF	3.3e+08			35:37	98.37	-1.6	0.8092	0.8226	n
SS	13C-1,2,3,4,7,8,9-HpCDF	2.4e+08			40:13	99.70	-0.3	0.8457	0.8483	n
DPE	HxCDPE	*			NotFnd	*	-	-	-	n
DPE	HpCDPE	*			NotFnd	*	-	-	-	n
DPE	OCDPE	*			NotFnd	*	-	-	-	n
DPE	NCDPE	*			NotFnd	*	-	-	-	n
DPE	DCDPE	*			NotFnd	*	-	-	-	n

Filename ; a15jul04b
Sample ; 15
Acquired ; 16-JUL-04 01:17:28
Processed ; 16-JUL-04 08:27:29
Sample ID ; RETCON S18-240A
Cal File ; a1613 122203b

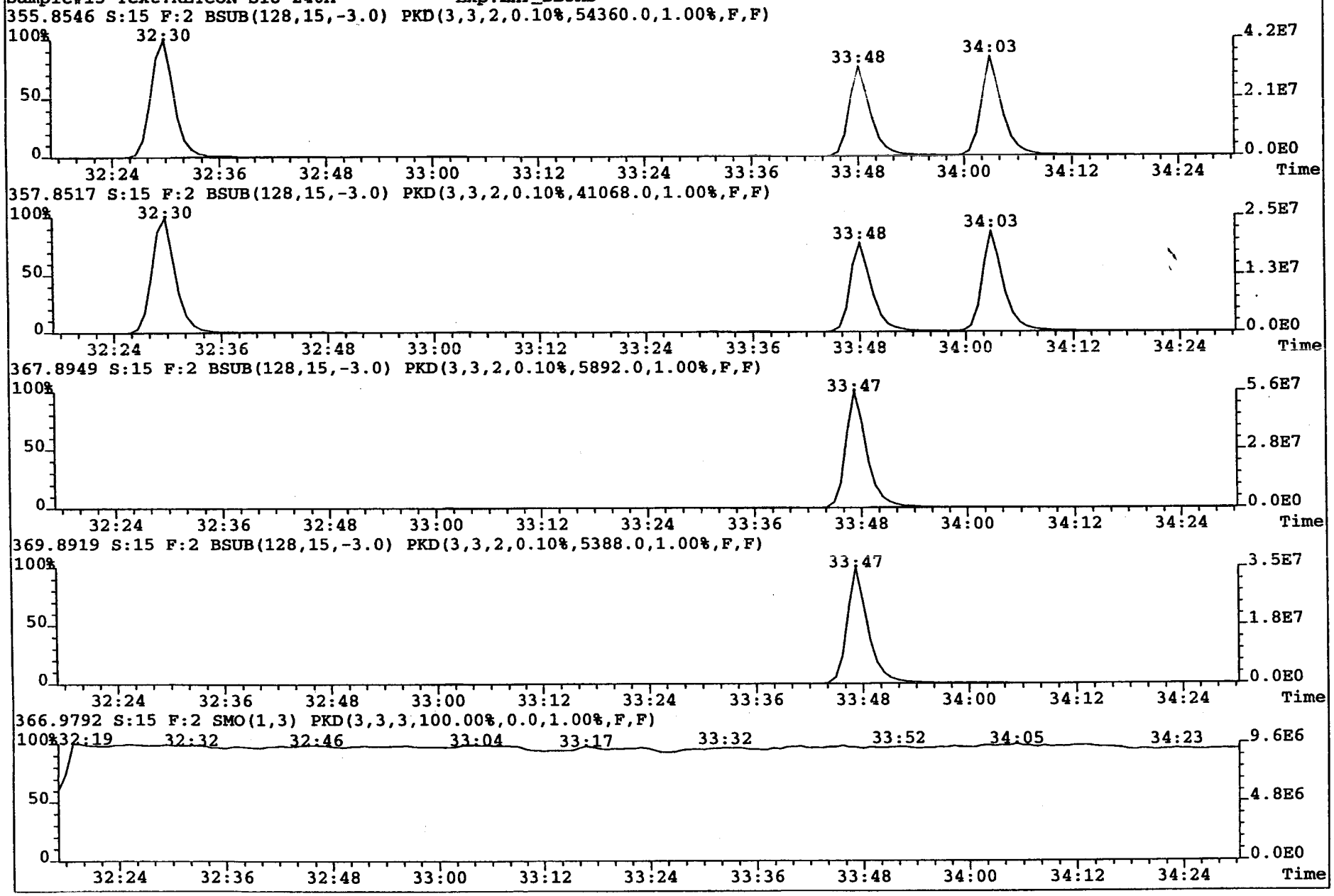
Comments ;

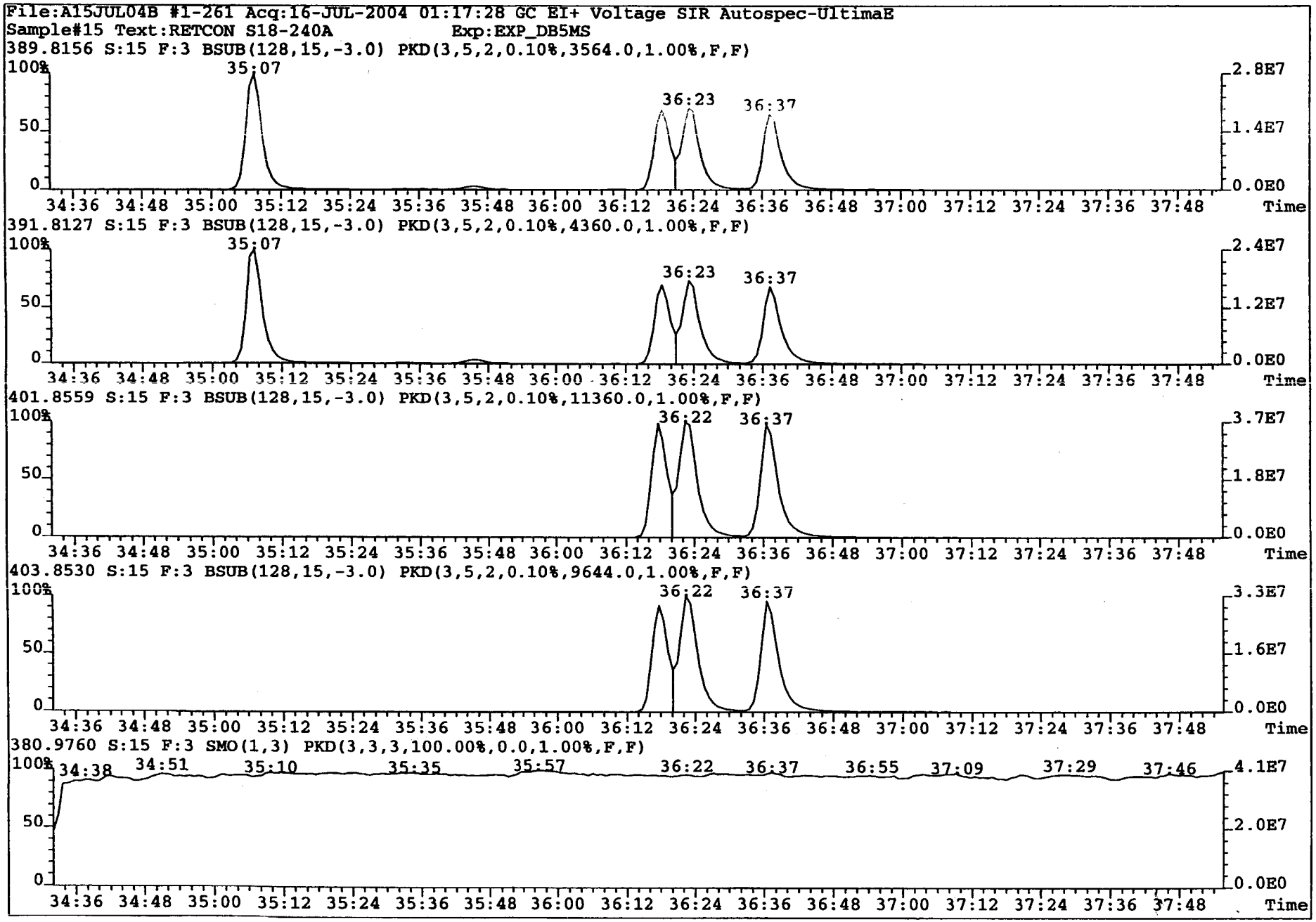
Typ	Name	Resp	RA;?;	RT	S/N1;?;	S/N;?;	Conc	Limits	mod?
Unk	2,3,7,8-TCDD	3.24e+07	0.82;y;	30:49	807;y;	103;y;	11.302	7.8 - 12.9	no
Unk	1,2,3,7,8-PeCDD	1.42e+08	1.61;y;	33:48	590;y;	47;y;	54.898	39 - 65	no
Unk	1,2,3,4,7,8-HxCDD	1.12e+08	1.16;y;	36:19	5473;y;	381;y;	53.251	39 - 64	no
Unk	1,2,3,6,7,8-HxCDD	1.40e+08	1.16;y;	36:24	5577;y;	400;y;	53.176	39 - 64	no
Unk	1,2,3,7,8,9-HxCDD	1.28e+08	1.15;y;	36:38	5170;y;	373;y;	55.056	41 - 61	no
Unk	1,2,3,4,6,7,8-HpCDD	1.15e+08	1.02;y;	39:35	3091;y;	111;y;	50.709	43 - 58	no
Unk	OCDD	1.66e+08	0.88;y;	43:41	1984;y;	246;y;	104.613	79 - 126	no
Unk	2,3,7,8-TCDF	5.02e+07	0.77;y;	29:56	627;y;	75;y;	9.997	8.4 - 12.0	no
Unk	1,2,3,7,8-PeCDF	2.56e+08	1.57;y;	33:01	1022;y;	119;y;	50.065	41 - 60	no
Unk	2,3,4,7,8-PeCDF	2.56e+08	1.57;y;	33:37	1005;y;	115;y;	50.487	41 - 61	no
Unk	1,2,3,4,7,8-HxCDF	2.06e+08	1.24;y;	35:38	224;y;	20;y;	48.931	45 - 56	no
Unk	1,2,3,6,7,8-HxCDF	2.34e+08	1.11;y;	35:44	224;y;	20;y;	48.291	44 - 57	no
Unk	2,3,4,6,7,8-HxCDF	2.14e+08	1.15;y;	36:12	204;y;	18;y;	47.863	45 - 56	no
Unk	1,2,3,7,8,9-HxCDF	1.73e+08	1.18;y;	36:57	147;y;	13;y;	48.265	44 - 57	no
Unk	1,2,3,4,6,7,8-HpCDF	2.08e+08	1.00;y;	38:23	1576;y;	341;y;	50.392	45 - 55	no
Unk	1,2,3,4,7,8,9-HpCDF	1.62e+08	1.00;y;	40:14	909;y;	203;y;	50.206	43 - 58	no
Unk	OCDF	2.35e+08	0.87;y;	43:58	3304;y;	410;y;	111.468	63 - 159	no
ES/RT	13C-2,3,7,8-TCDD	2.52e+08	0.81;y;	30:48	4978;y;	752;y;	95.222	82 - 121	no
ES	13C-1,2,3,7,8-PeCDD	2.42e+08	1.63;y;	33:48	9519;y;	648;y;	112.347	62 - 160	no
ES	13C-1,2,3,4,7,8-HxCDD	2.01e+08	1.18;y;	36:18	3209;y;	311;y;	90.392	85 - 117	no
ES	13C-1,2,3,6,7,8-HxCDD	2.67e+08	1.17;y;	36:23	3245;y;	338;y;	99.401	85 - 118	no
ES	13C-1,2,3,4,6,7,8-HpCDD	1.94e+08	1.03;y;	39:34	2886;y;	335;y;	102.293	72 - 138	no
ES	13C-OCDD	2.88e+08	0.84;y;	43:40	4050;y;	469;y;	174.431	96 - 415	no
ES/RT	13C-2,3,7,8-TCDF	4.58e+08	0.84;y;	29:54	7733;y;	965;y;	107.633	71 - 140	no
ES	13C-1,2,3,7,8-PeCDF	4.78e+08	1.62;y;	33:01	1135;y;	90;y;	129.500	76 - 130	no
ES	13C-2,3,4,7,8-PeCDF	4.53e+08	1.59;y;	33:36	1058;y;	84;y;	119.469	77 - 130	no
ES	13C-1,2,3,4,7,8-HxCDF	3.32e+08	0.54;y;	35:37	3116;y;	767;y;	107.055	76 - 131	no
ES	13C-1,2,3,6,7,8-HxCDF	4.10e+08	0.48;y;	35:43	3511;y;	853;y;	108.837	70 - 143	no
ES	13C-2,3,4,6,7,8-HxCDF	3.69e+08	0.50;y;	36:11	3053;y;	763;y;	108.786	73 - 137	no
ES	13C-1,2,3,7,8,9-HxCDF	3.00e+08	0.51;y;	36:56	2092;y;	518;y;	106.228	74 - 135	no
ES	13C-1,2,3,4,6,7,8-HpCDF	2.87e+08	0.47;y;	38:22	715;y;	259;y;	105.560	78 - 129	no
ES	13C-1,2,3,4,7,8,9-HpCDF	2.43e+08	0.46;y;	40:13	460;y;	173;y;	105.313	77 - 129	no
JS	13C-1,2,3,4-TCDD	2.55e+08	0.81;y;	30:06	4476;y;	672;y;	411.382		no
JS	13C-1,2,3,7,8,9-HxCDD	2.42e+08	1.17;y;	36:37	3196;y;	325;y;	463.864		no
CS	37Cl-2,3,7,8-TCDD	2.81e+07		30:49	1632;y		9.612	7.9 - 12.7	no
Tot	Total Tetra-Furans	1.62e+08	0.79;y;	25:38	733;y;	87;y;	32.261		no
Tot	Total Tetra-Dioxins	1.66e+08	0.83;y;	27:21	610;y;	80;y;	57.877		no
Tot	Total Penta-Furans Fn1	1.62e+08	0.63;y;	31:34	5379;y;	947;y;	31.811		no
Tot	Total Penta-Furans Fn2	7.85e+08	1.62;y;	32:27	146;y;	16;y;	153.918		no
Tot	Total Penta-Dioxins	4.97e+08	1.65;y;	32:30	773;y;	61;y;	191.819		no
Tot	Total Hexa-Furans	1.07e+09	1.14;y;	34:43	256;y;	23;y;	250.703		no
Tot	Total Hexa-Dioxins	5.57e+08	1.18;y;	35:07	7886;y;	544;y;	236.508		no

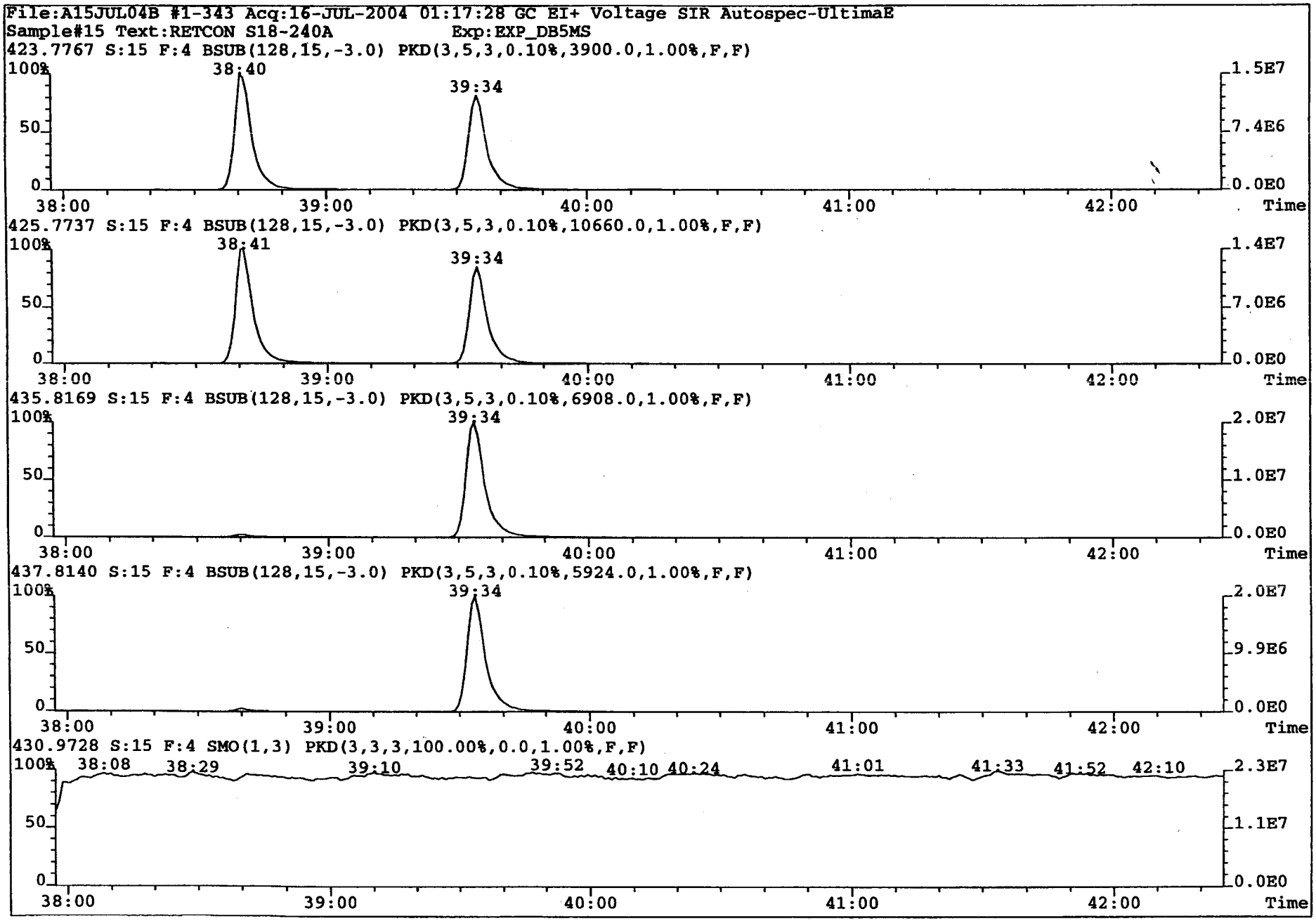
File:A15JUL04B #1-438 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS



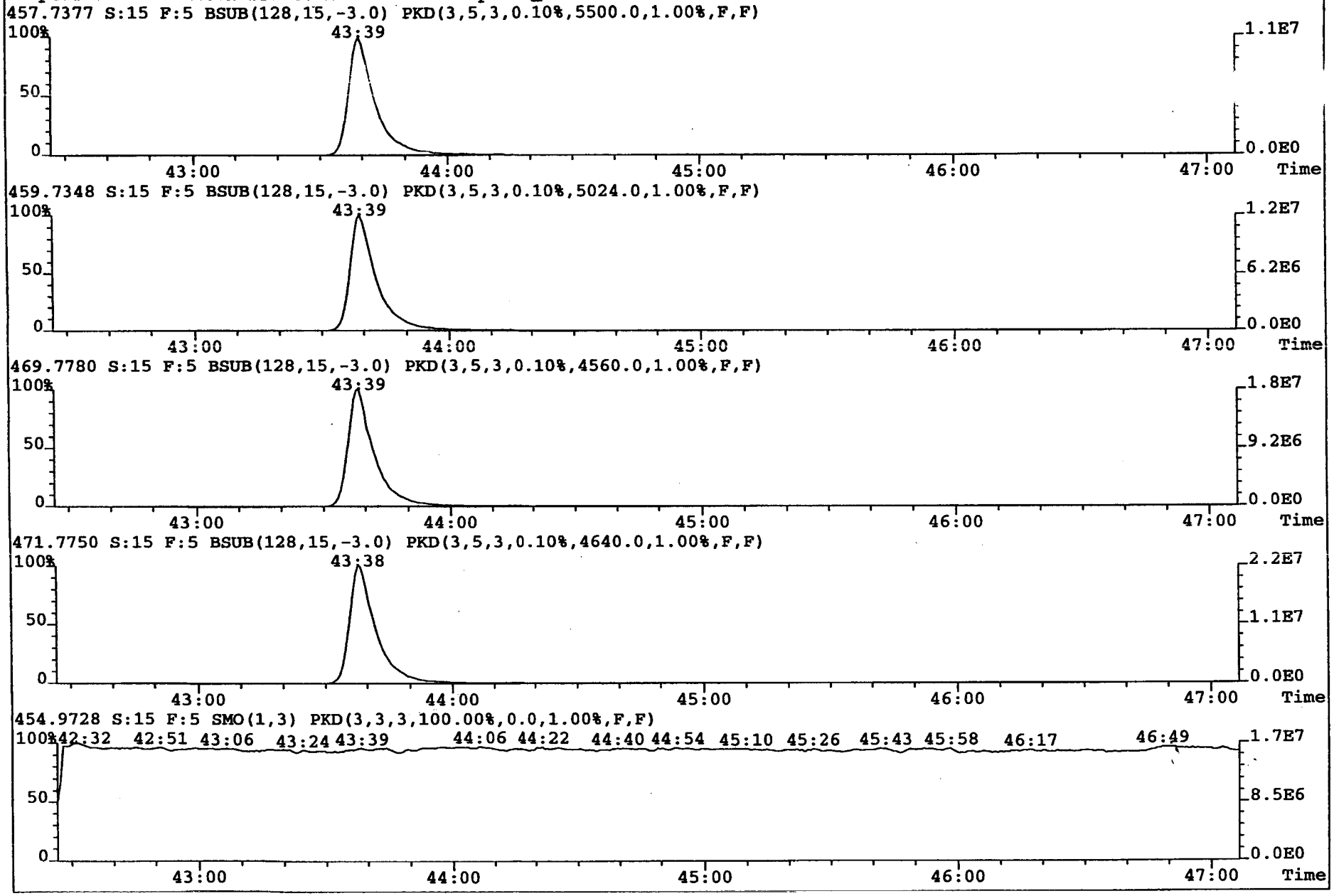
File:A15JUL04B #1-171 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS



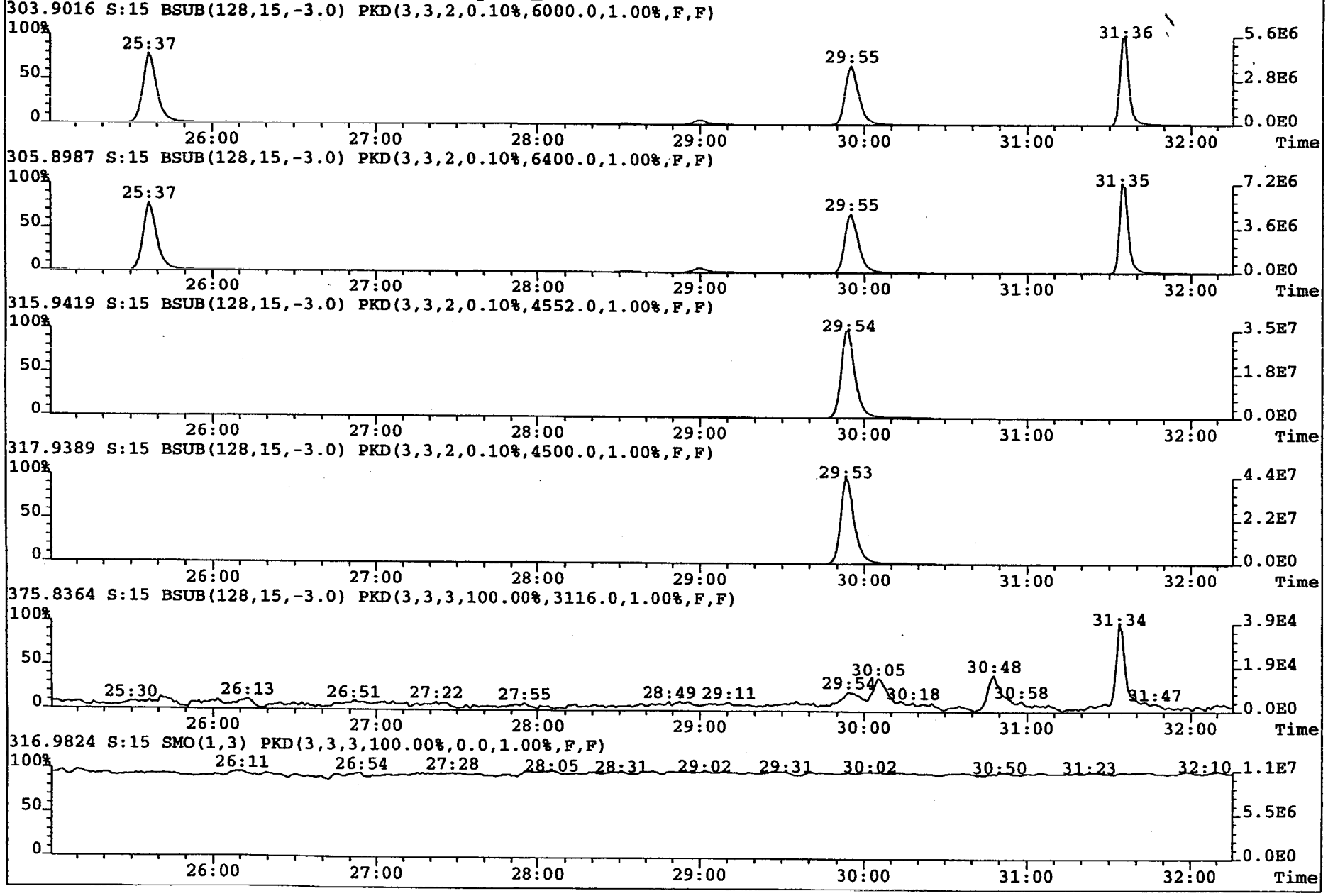

File:A15JUL04B #1-261 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
389.8156 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,3564.0,1.00%,F,F)
35:07
36:23
36:37
2.8E7
1.4E7
0.0E0
391.8127 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4360.0,1.00%,F,F)
35:07
36:23
36:37
2.4E7
1.2E7
0.0E0
401.8559 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,11360.0,1.00%,F,F)
36:22
36:37
3.7E7
1.8E7
0.0E0
403.8530 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,9644.0,1.00%,F,F)
36:22
36:37
3.3E7
1.6E7
0.0E0
380.9760 S:15 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:38
34:51
35:10
35:35
35:57
36:22
36:37
36:55
37:09
37:29
37:46
4.1E7
2.0E7
0.0E0
100%
50
0
34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48
Time


File:A15JUL04B #1-343 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
423.7767 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3900.0,1.00%,F,F)
38:40
39:34
1.5E7
7.4E6
0.0E0
425.7737 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,10660.0,1.00%,F,F)
38:41
39:34
1.4E7
7.0E6
0.0E0
435.8169 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6908.0,1.00%,F,F)
39:34
2.0E7
1.0E7
0.0E0
437.8140 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5924.0,1.00%,F,F)
39:34
2.0E7
9.9E6
0.0E0
430.9728 S:15 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:08 38:29 39:10 39:52 40:10 40:24 41:01 41:33 41:52 42:10
2.3E7
1.1E7
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time

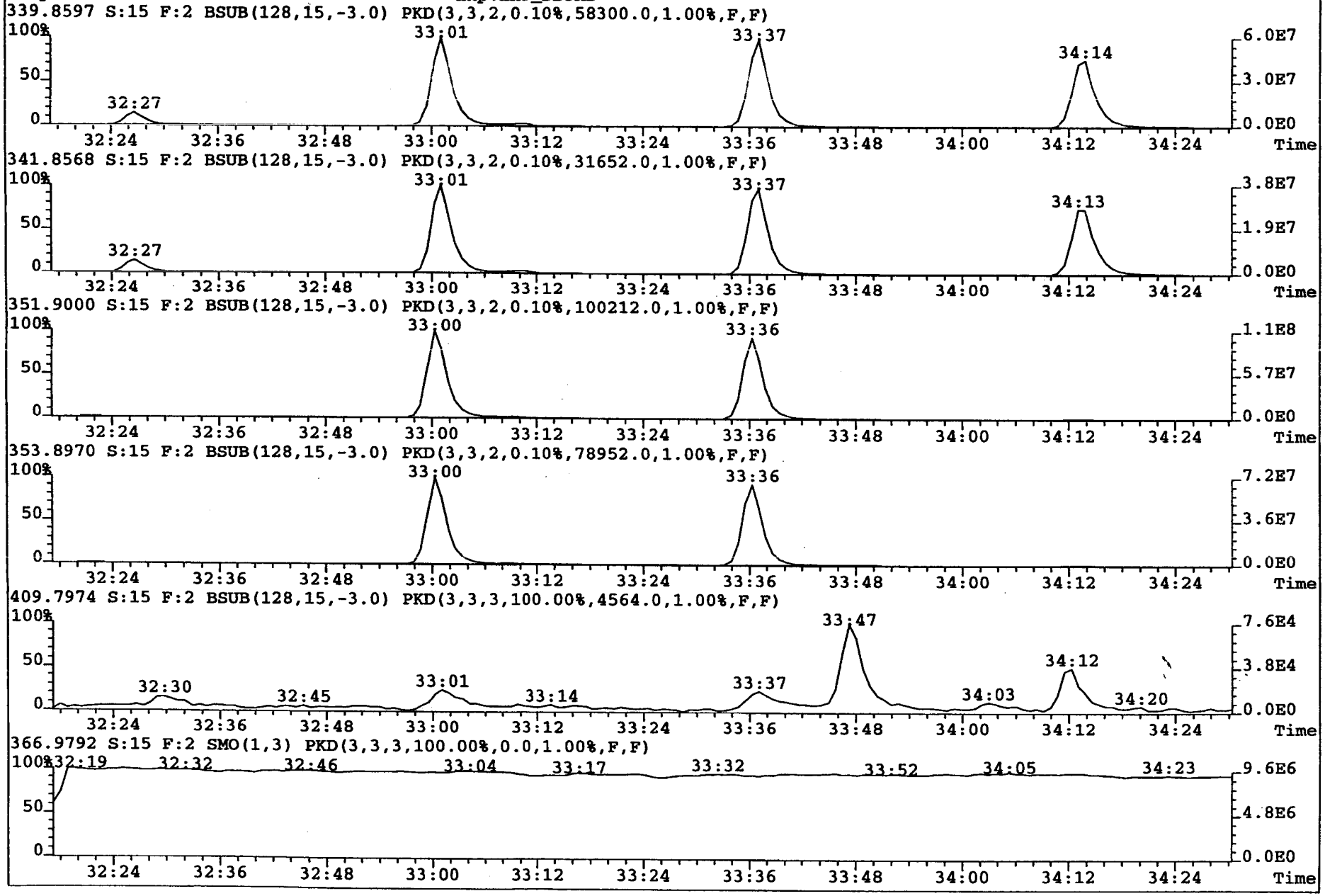
File:A15JUL04B #1-437 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS



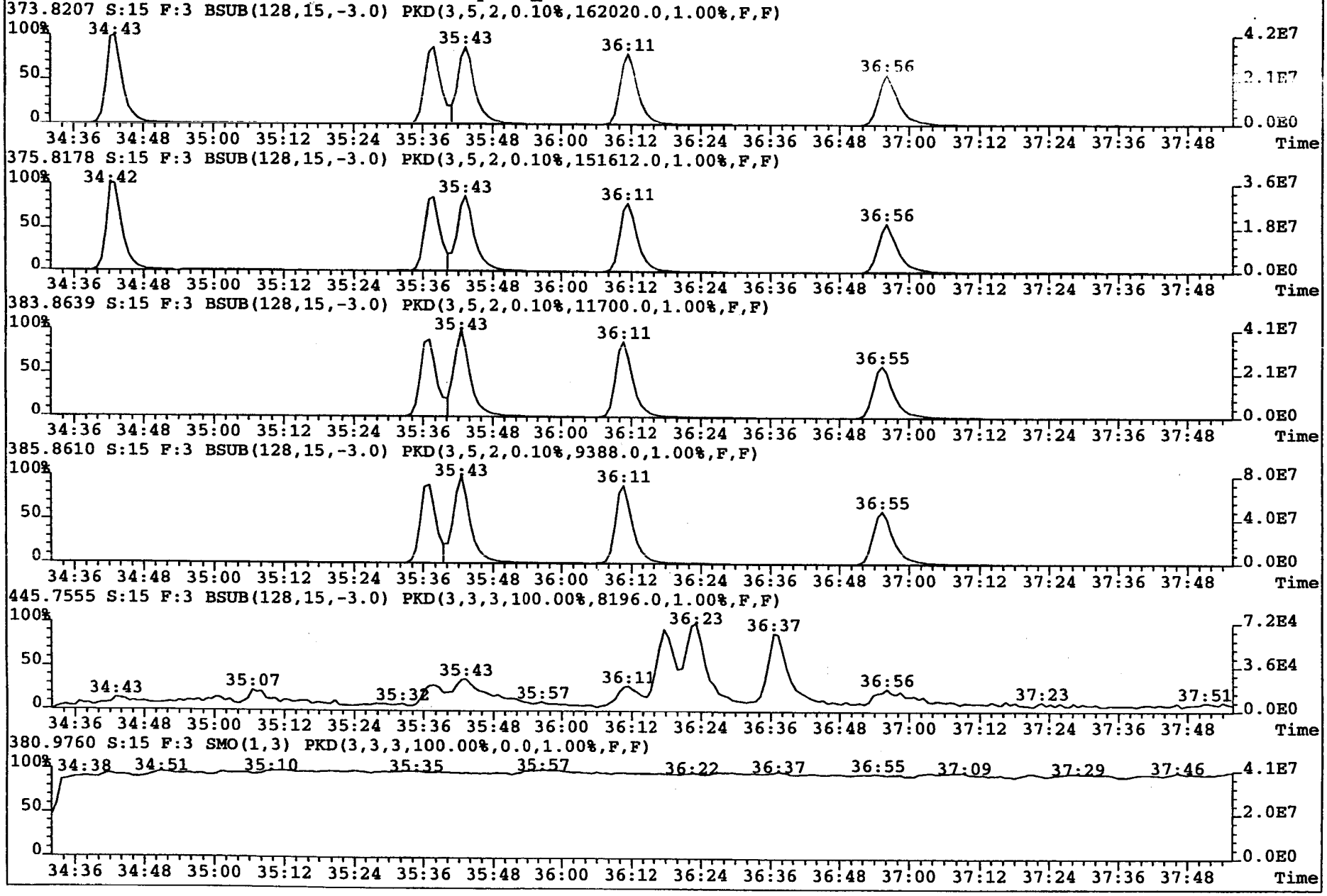
File:A15JUL04B #1-438 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS

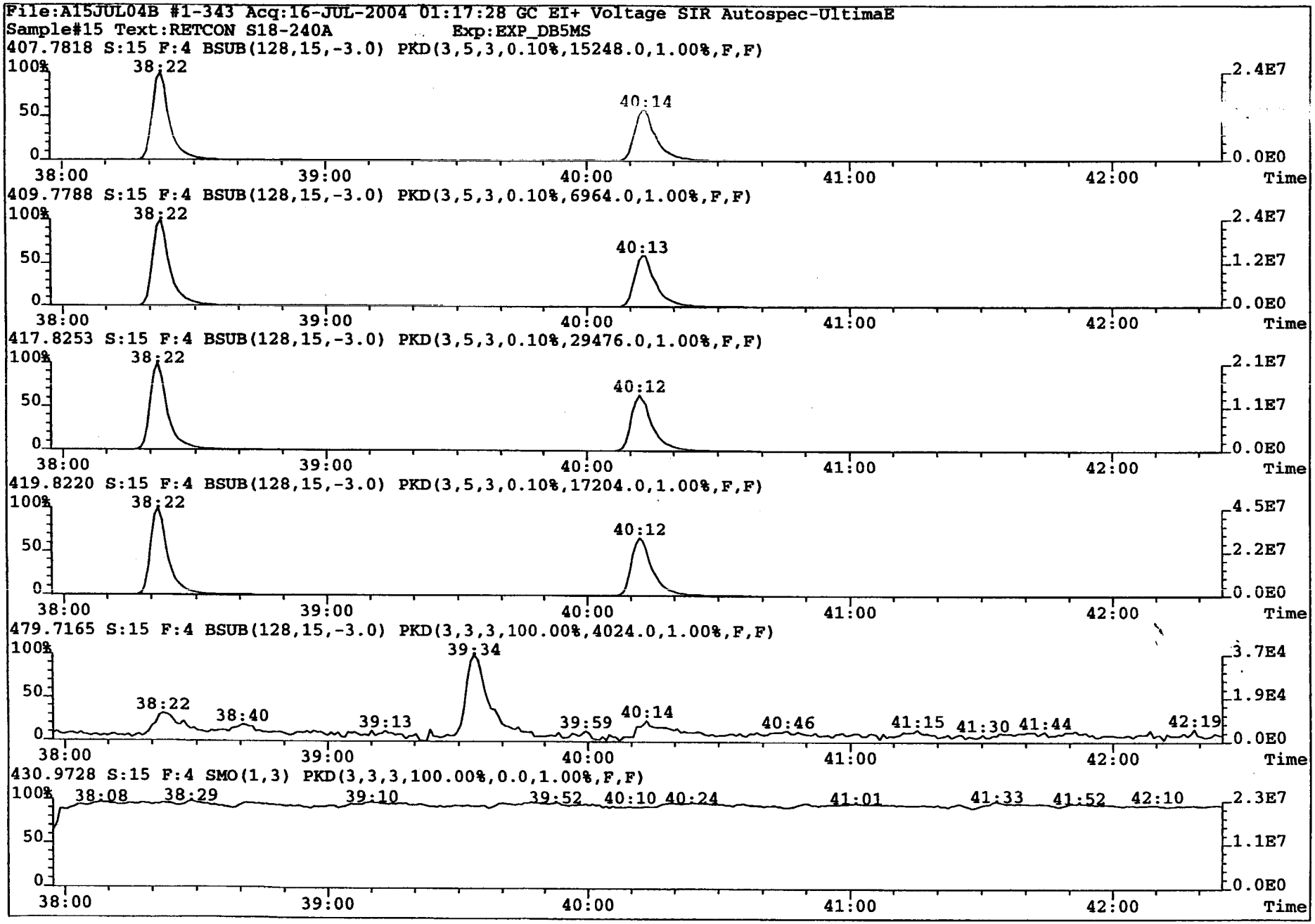


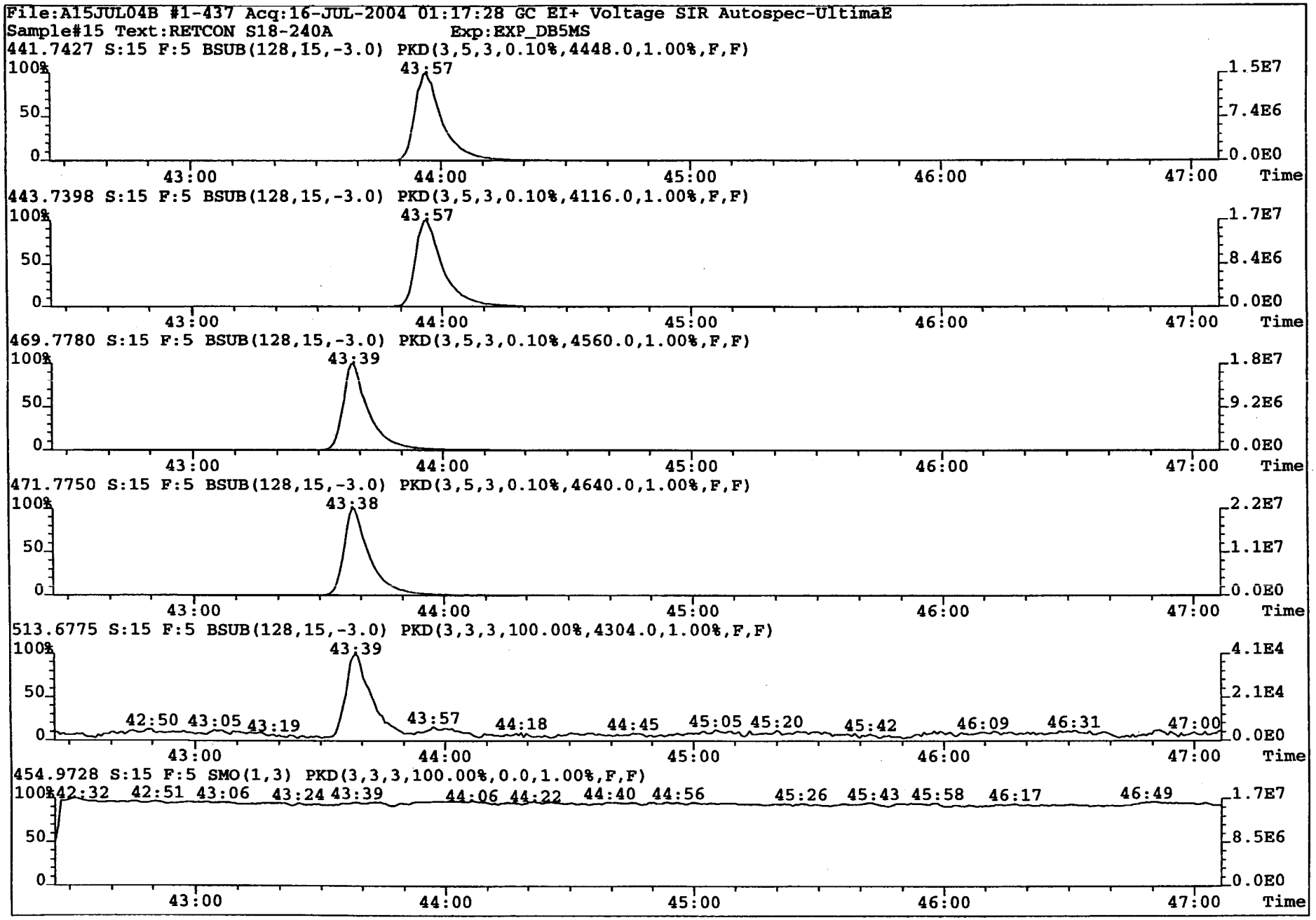
File:A15JUL04B #1-171 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS

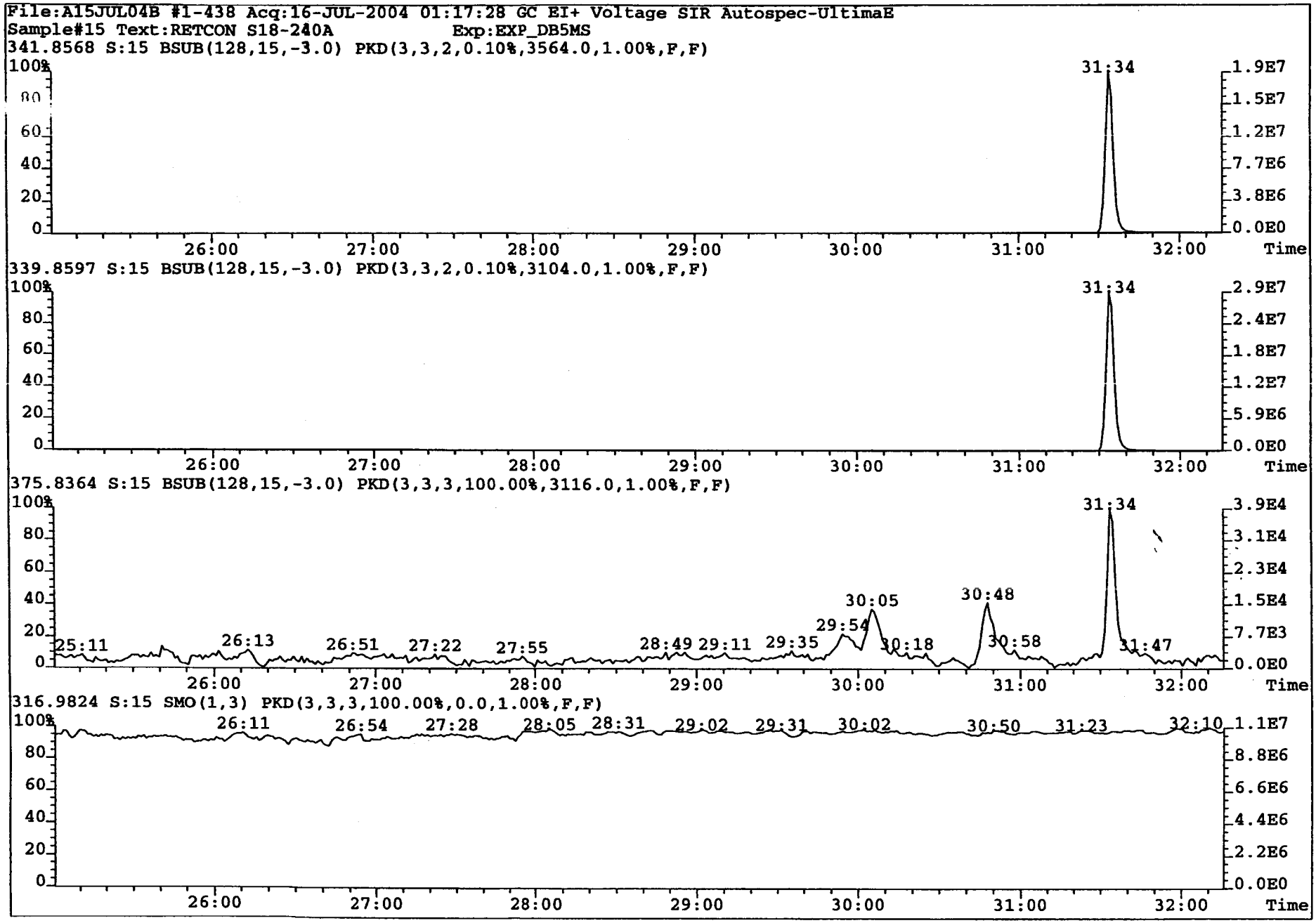


File:A15JUL04B #1-261 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS




File:A15JUL04B #1-343 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
407.7818 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,15248.0,1.00%,F,F)
38:22
40:14
2.4E7
0.0E0
409.7788 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6964.0,1.00%,F,F)
38:22
40:13
2.4E7
1.2E7
0.0E0
417.8253 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,29476.0,1.00%,F,F)
38:22
40:12
2.1E7
1.1E7
0.0E0
419.8220 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,17204.0,1.00%,F,F)
38:22
40:12
4.5E7
2.2E7
0.0E0
479.7165 S:15 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4024.0,1.00%,F,F)
39:34
38:22
38:40
39:13
39:59
40:14
40:46
41:15
41:30
41:44
42:19
3.7E4
1.9E4
0.0E0
430.9728 S:15 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:08
38:29
39:10
39:52
40:10
40:24
41:01
41:33
41:52
42:10
2.3E7
1.1E7
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time


File:A15JUL04B #1-437 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
441.7427 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4448.0,1.00%,F,F)
43:57
1.5E7
7.4E6
0.0E0
443.7398 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4116.0,1.00%,F,F)
43:57
1.7E7
8.4E6
0.0E0
469.7780 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4560.0,1.00%,F,F)
43:39
1.8E7
9.2E6
0.0E0
471.7750 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4640.0,1.00%,F,F)
43:38
2.2E7
1.1E7
0.0E0
513.6775 S:15 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4304.0,1.00%,F,F)
43:39
42:50 43:05 43:19 43:57 44:18 44:45 45:05 45:20 45:42 46:09 46:31 47:00
4.1E4
2.1E4
0.0E0
454.9728 S:15 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:32 42:51 43:06 43:24 43:39 44:06 44:22 44:40 44:56 45:26 45:43 45:58 46:17 46:49
1.7E7
8.5E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time


File:A15JUL04B #1-438 Acq:16-JUL-2004 01:17:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
341.8568 S:15 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3564.0,1.00%,F,F)
31:34
339.8597 S:15 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3104.0,1.00%,F,F)
31:34
375.8364 S:15 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3116.0,1.00%,F,F)
31:34
25:11
26:13
26:51
27:22
27:55
28:49
29:11
29:35
29:54
30:05
30:18
30:48
30:58
31:47
316.9824 S:15 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:11
26:54
27:28
28:05
28:31
29:02
29:31
30:02
30:50
31:23
32:10
Time

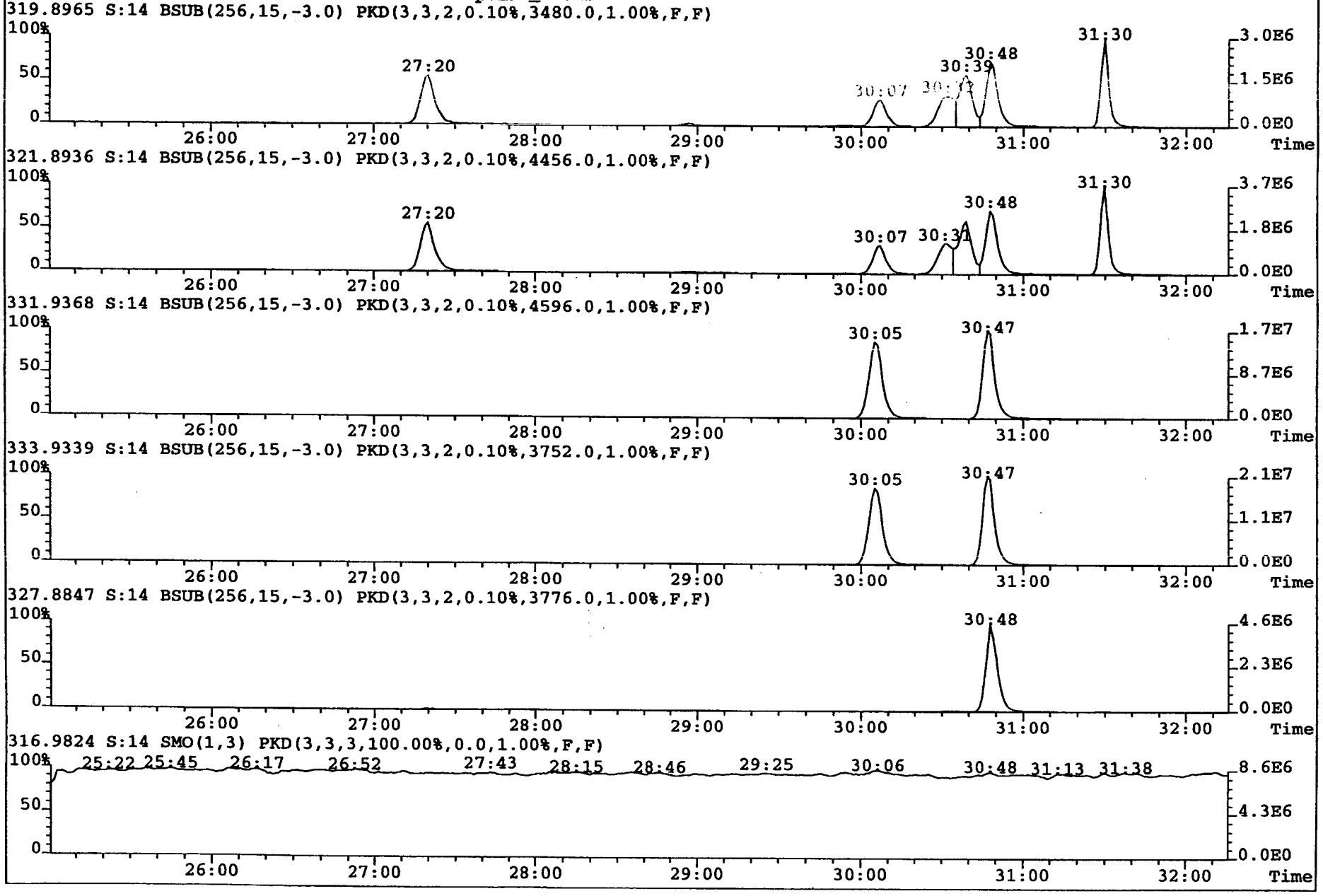
Run #6 Filename a15jul04b_2 S: 14 I: 1 Acquired: 16-JUL-04 12:52:30 Processed: 16-JUL-04 13:41:09
Run: Analyte: m8290-061» Cal: m8290-122» Results: Quan : V3.6 6-JAN-2000 17:51:42
Sample text: RETCON S18-240A Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

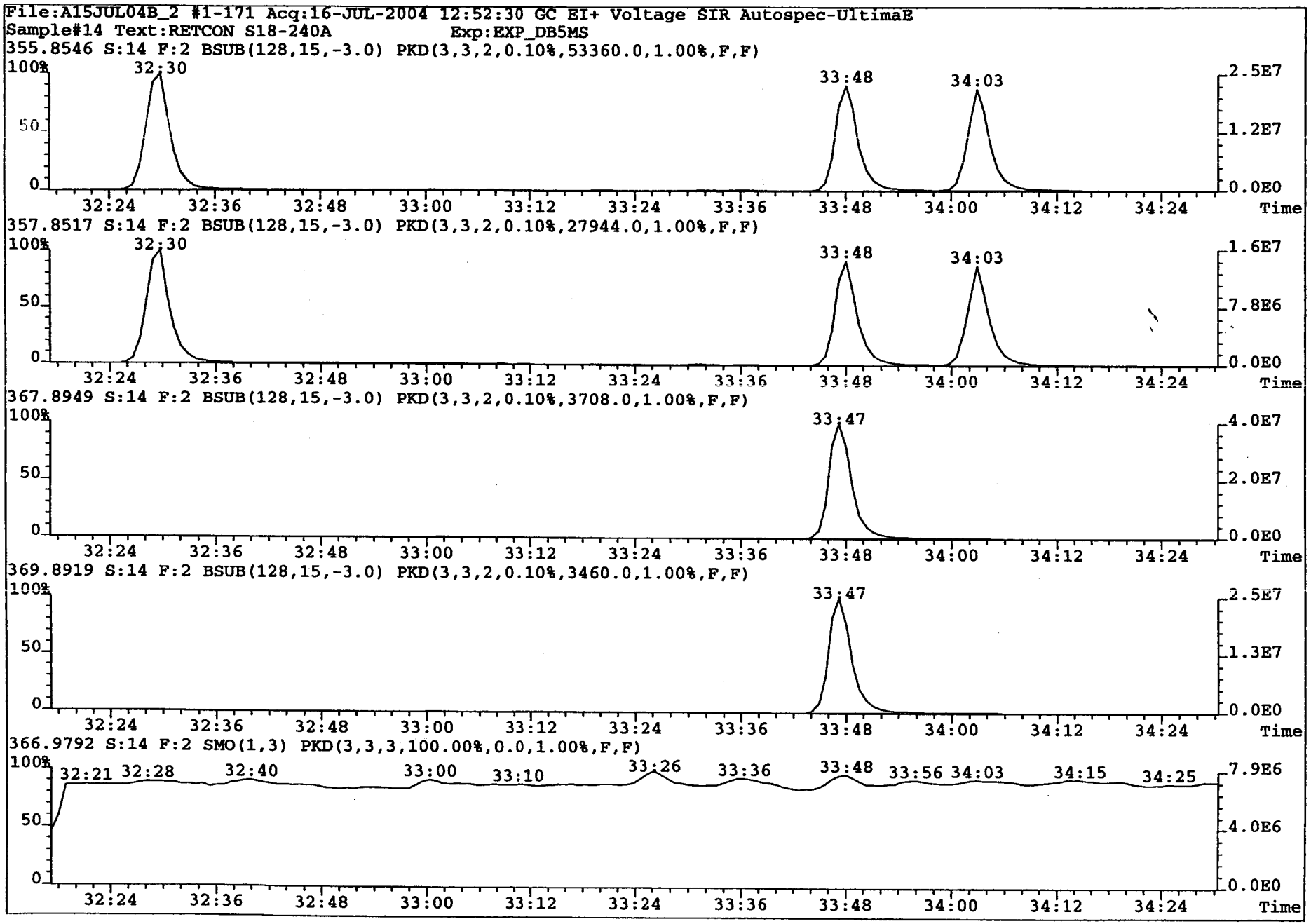
Typ	Name	Resp	RA		RT	Conc	Dev'n	CCAL RRF	ICAL RRF	Mod?
Unk	2,3,7,8-TCDD	2.5e+07	0.82	y	30:49	11.13	11.3	1.2539	1.1269	n
Unk	1,2,3,7,8-PeCDD	1.1e+08	1.62	y	33:48	52.15	4.3	1.1159	1.0699	n
Unk	1,2,3,4,7,8-HxCDD	8.0e+07	1.15	y	36:18	43.53	-12.9	0.7581	0.8708	n
Unk	1,2,3,6,7,8-HxCDD	1.0e+08	1.16	y	36:24	49.36	-1.3	0.9739	0.9866	n
Unk	1,2,3,7,8,9-HxCDD	8.9e+07	1.15	y	36:38	46.58	-6.8	0.8455	0.9075	n
Unk	1,2,3,4,6,7,8-HpCDD	8.2e+07	1.06	y	39:35	49.05	-1.9	1.1435	1.1657	n
Unk	OCDD	1.3e+08	0.87	y	43:41	99.66	-0.3	1.0990	1.1027	n
Unk	2,3,7,8-TCDF	3.8e+07	0.77	y	29:55	9.911	-0.9	1.0717	1.0813	n
Unk	1,2,3,7,8-PeCDF	1.7e+08	1.54	y	33:01	47.96	-4.1	1.0280	1.0717	n
Unk	2,3,4,7,8-PeCDF	1.8e+08	1.56	y	33:37	47.30	-5.4	1.0881	1.1502	n
Unk	1,2,3,4,7,8-HxCDF	1.3e+08	1.13	y	35:38	43.95	-12.1	0.9178	1.0442	n
Unk	1,2,3,6,7,8-HxCDF	1.7e+08	1.12	y	35:43	48.49	-3.0	1.1483	1.1840	n
Unk	2,3,4,6,7,8-HxCDF	1.5e+08	1.13	y	36:12	47.43	-5.1	1.0351	1.0911	n
Unk	1,2,3,7,8,9-HxCDF	1.2e+08	1.13	y	36:57	47.48	-5.0	0.8490	0.8941	n
Unk	1,2,3,4,6,7,8-HpCDF	1.4e+08	0.98	y	38:23	48.61	-2.8	1.3982	1.4383	n
Unk	1,2,3,4,7,8,9-HpCDF	1.1e+08	0.99	y	40:14	49.91	-0.2	1.1239	1.1259	n
Unk	OCDF	1.6e+08	0.85	y	43:58	96.23	-3.8	1.4068	1.4619	n
ES/RT	13C-2,3,7,8-TCDD	2.0e+08	0.82	y	30:48	97.27	-2.7	1.0123	1.0407	n
ES	13C-1,2,3,7,8-PeCDD	1.9e+08	1.59	y	33:48	116.0	16.0	0.9814	0.8458	n
ES	13C-1,2,3,6,7,8-HxCDD	2.1e+08	1.23	y	36:23	103.4	3.4	1.1480	1.1105	n
ES	13C-1,2,3,4,6,7,8-HpCDD	1.4e+08	1.05	y	39:34	99.33	-0.7	0.7808	0.7861	n
ES	13C-OCDD	2.3e+08	0.85	y	43:40	186.2	-6.9	0.6350	0.6823	n
ES/RT	13C-2,3,7,8-TCDF	3.5e+08	0.84	y	29:54	107.4	7.4	1.7952	1.6709	n
ES	13C-1,2,3,7,8-PeCDF	3.4e+08	1.59	y	33:01	118.5	18.5	1.7173	1.4495	n
ES	13C-1,2,3,6,7,8-HxCDF	2.9e+08	0.49	y	35:43	102.5	2.5	1.5964	1.5578	n
ES	13C-1,2,3,4,6,7,8-HpCDF	2.0e+08	0.45	y	38:22	95.29	-4.7	1.0738	1.1269	n
JS	13C-1,2,3,4-TCDD	2.0e+08	0.83	y	30:06	316.5	-	-	-	n
JS	13C-1,2,3,7,8,9-HxCDD	1.8e+08	1.21	y	36:37	351.0	-	-	-	n
CS	37Cl-2,3,7,8-TCDD	2.1e+07	1.65	y	30:49	9.476	-5.2	1.0865	1.1465	n
CS	13C-2,3,4,7,8-PeCDF	3.3e+08	1.22	y	33:36	113.1	13.1	1.6852	1.4903	n
CS	13C-1,2,3,4,7,8-HxCDD	1.5e+08	0.49	y	36:18	92.09	-7.9	0.8464	0.9191	n
CS	13C-1,2,3,4,7,8-HxCDF	2.3e+08	0.46	y	35:37	96.04	-4.0	1.2309	1.2815	n
CS	13C-1,2,3,4,7,8,9-HpCDF	1.7e+08			40:14	96.78	-3.2	0.9245	0.9553	n
			1.65	y						
SS	37Cl-2,3,7,8-TCDD	2.1e+07	1.22	y	30:49	9.739	-2.6	1.0733	1.1020	n
SS	13C-2,3,4,7,8-PeCDF	3.3e+08	0.49	y	33:36	95.44	-4.6	0.9813	1.0282	n
SS	13C-1,2,3,4,7,8-HxCDD	1.5e+08	0.46	y	36:18	89.02	-11.0	0.7372	0.8281	n
SS	13C-1,2,3,4,7,8-HxCDF	2.3e+08			35:37	93.73	-6.3	0.7710	0.8226	n
SS	13C-1,2,3,4,7,8,9-HpCDF	1.7e+08			40:14	101.5	1.5	0.8609	0.8483	n
DPE	HxCDPE	*			NotFnd	*	-	-	-	n
DPE	HpCDPE	*			NotFnd	*	-	-	-	n
DPE	OCDPE	*			NotFnd	*	-	-	-	n
DPE	NCDPE	*			NotFnd	*	-	-	-	n
DPE	DCDPE	*			NotFnd	*	-	-	-	n

Filename ; a15jul04b_2
Sample ; 14
Acquired ; 16-JUL-04 12:52:30
Processed ; 16-JUL-04 15:04:15
Sample ID ; RETCON S18-240A
Cal Table ; m1613-122203b
Results Table ; m1613-071504b_2
Comments ;

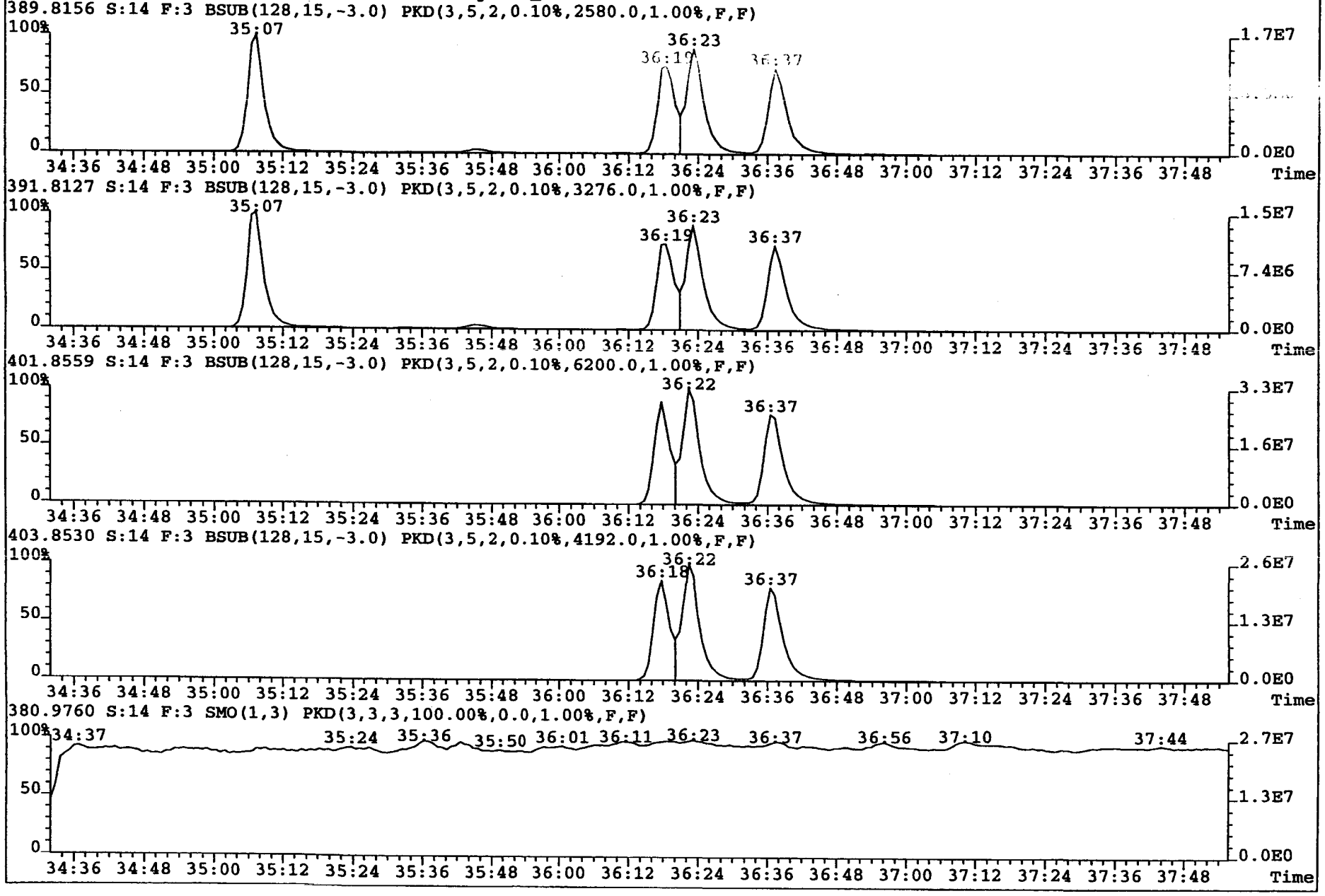
Typ	Name	Resp	RA;?	RT	S/N1;?	S/N;?	Conc	Limits	mod?
Unk	2,3,7,8-TCDD	2.49e+07	0.81;y	30:49	730;y	89;y	11.057	7.8 - 12.9	no
Unk	1,2,3,7,8-PeCDD	1.07e+08	1.62;y	33:48	426;y	51;y	52.152	39 - 65	no
Unk	1,2,3,4,7,8-HxCDD	7.96e+07	1.15;y	36:18	4930;y	335;y	48.907	39 - 64	no
Unk	1,2,3,6,7,8-HxCDD	1.02e+08	1.16;y	36:24	5926;y	407;y	49.359	39 - 64	no
Unk	1,2,3,7,8,9-HxCDD	8.87e+07	1.15;y	36:38	4841;y	330;y	49.010	41 - 61	no
Unk	1,2,3,4,6,7,8-HpCDD	8.16e+07	1.06;y	39:35	1437;y	118;y	49.047	43 - 58	no
Unk	OCDD	1.28e+08	0.87;y	43:41	2061;y	323;y	99.765	79 - 126	no
Unk	2,3,7,8-TCDF	3.77e+07	0.77;y	29:55	391;y	41;y	9.765	8.4 - 12.0	no
Unk	1,2,3,7,8-PeCDF	1.73e+08	1.54;y	33:01	697;y	71;y	47.961	41 - 60	no
Unk	2,3,4,7,8-PeCDF	1.83e+08	1.56;y	33:37	702;y	72;y	49.557	41 - 61	no
Unk	1,2,3,4,7,8-HxCDF	1.34e+08	1.13;y	35:38	137;y	282;y	46.889	45 - 56	no
Unk	1,2,3,6,7,8-HxCDF	1.68e+08	1.12;y	35:43	150;y	306;y	48.493	44 - 57	no
Unk	2,3,4,6,7,8-HxCDF	1.51e+08	1.13;y	36:12	138;y	277;y	47.956	45 - 56	no
Unk	1,2,3,7,8,9-HxCDF	1.24e+08	1.13;y	36:57	95;y	188;y	47.674	44 - 57	no
Unk	1,2,3,4,6,7,8-HpCDF	1.37e+08	0.98;y	38:23	1930;y	188;y	48.606	45 - 55	no
Unk	1,2,3,4,7,8,9-HpCDF	1.10e+08	0.99;y	40:14	1243;y	122;y	49.160	43 - 58	no
Unk	OCDF	1.63e+08	0.85;y	43:58	4159;y	506;y	96.061	63 - 159	no
ES/RT	13C-2,3,7,8-TCDD	1.98e+08	0.82;y	30:48	3670;y	612;y	97.190	82 - 121	no
ES	13C-1,2,3,7,8-PeCDD	1.92e+08	1.59;y	33:48	10724;y	727;y	116.040	62 - 160	no
ES	13C-1,2,3,4,7,8-HxCDD	1.55e+08	1.22;y	36:18	4630;y	541;y	92.092	85 - 117	no
ES	13C-1,2,3,6,7,8-HxCDD	2.10e+08	1.23;y	36:23	5239;y	630;y	103.383	85 - 118	no
ES	13C-1,2,3,4,6,7,8-HpCDD	1.43e+08	1.05;y	39:34	4446;y	381;y	99.326	72 - 138	no
ES	13C-OCDD	2.32e+08	0.85;y	43:40	5384;y	697;y	186.158	96 - 415	no
ES/RT	13C-2,3,7,8-TCDF	3.52e+08	0.84;y	29:54	6354;y	1622;y	107.453	71 - 140	no
ES	13C-1,2,3,7,8-PeCDF	3.36e+08	1.59;y	33:01	1358;y	98;y	118.490	76 - 130	no
ES	13C-2,3,4,7,8-PeCDF	3.30e+08	1.65;y	33:36	1303;y	89;y	113.088	77 - 130	no
ES	13C-1,2,3,4,7,8-HxCDF	2.25e+08	0.49;y	35:37	3180;y	788;y	96.044	76 - 131	no
ES	13C-1,2,3,6,7,8-HxCDF	2.92e+08	0.49;y	35:43	3333;y	844;y	102.481	70 - 143	no
ES	13C-2,3,4,6,7,8-HxCDF	2.60e+08	0.50;y	36:11	3215;y	802;y	101.330	73 - 137	no
ES	13C-1,2,3,7,8,9-HxCDF	2.18e+08	0.50;y	36:56	2326;y	571;y	102.087	74 - 135	no
ES	13C-1,2,3,4,6,7,8-HpCDF	1.96e+08	0.45;y	38:22	1204;y	158;y	95.291	78 - 129	no
ES	13C-1,2,3,4,7,8,9-HpCDF	1.69e+08	0.46;y	40:14	845;y	112;y	96.781	77 - 129	no
JS	13C-1,2,3,4-TCDD	1.96e+08	0.83;y	30:06	3258;y	536;y	316.451		no
JS	13C-1,2,3,7,8,9-HxCDD	1.83e+08	1.21;y	36:37	4065;y	506;y	350.995		no
CS	37Cl-2,3,7,8-TCDD	2.13e+07		30:49	1523;y		9.470	7.9 - 12.7	no
Tot	Total Tetra-Furans	1.20e+08	0.79;y	25:37	452;y	48;y	30.996		no
Tot	Total Tetra-Dioxins	1.22e+08	0.82;y	27:20	551;y	69;y	54.395		no
Tot	Total Penta-Furans Fn1	1.25e+08	0.65;y	31:34	3718;y	662;y	34.302		no
Tot	Total Penta-Furans Fn2	5.40e+08	1.56;y	32:27	90;y	9;y	147.946		no
Tot	Total Penta-Dioxins	3.37e+08	1.63;y	32:30	466;y	55;y	163.878		no
Tot	Total Hexa-Furans	7.42e+08	1.13;y	34:43	163;y	332;y	245.968		no
Tot	Total Hexa-Dioxins	3.82e+08	1.14;y	35:07	6604;y	448;y	207.822		no

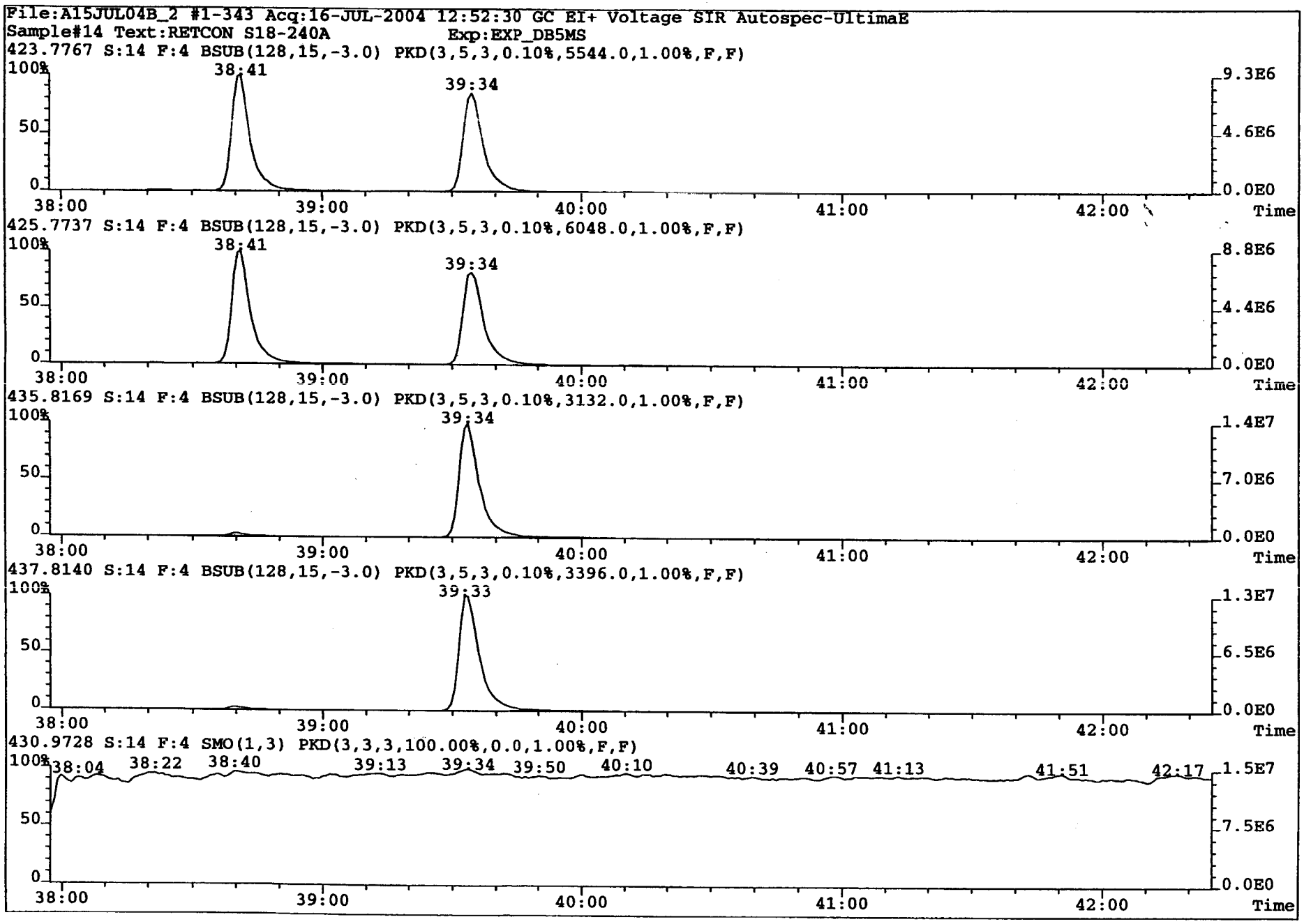
File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS

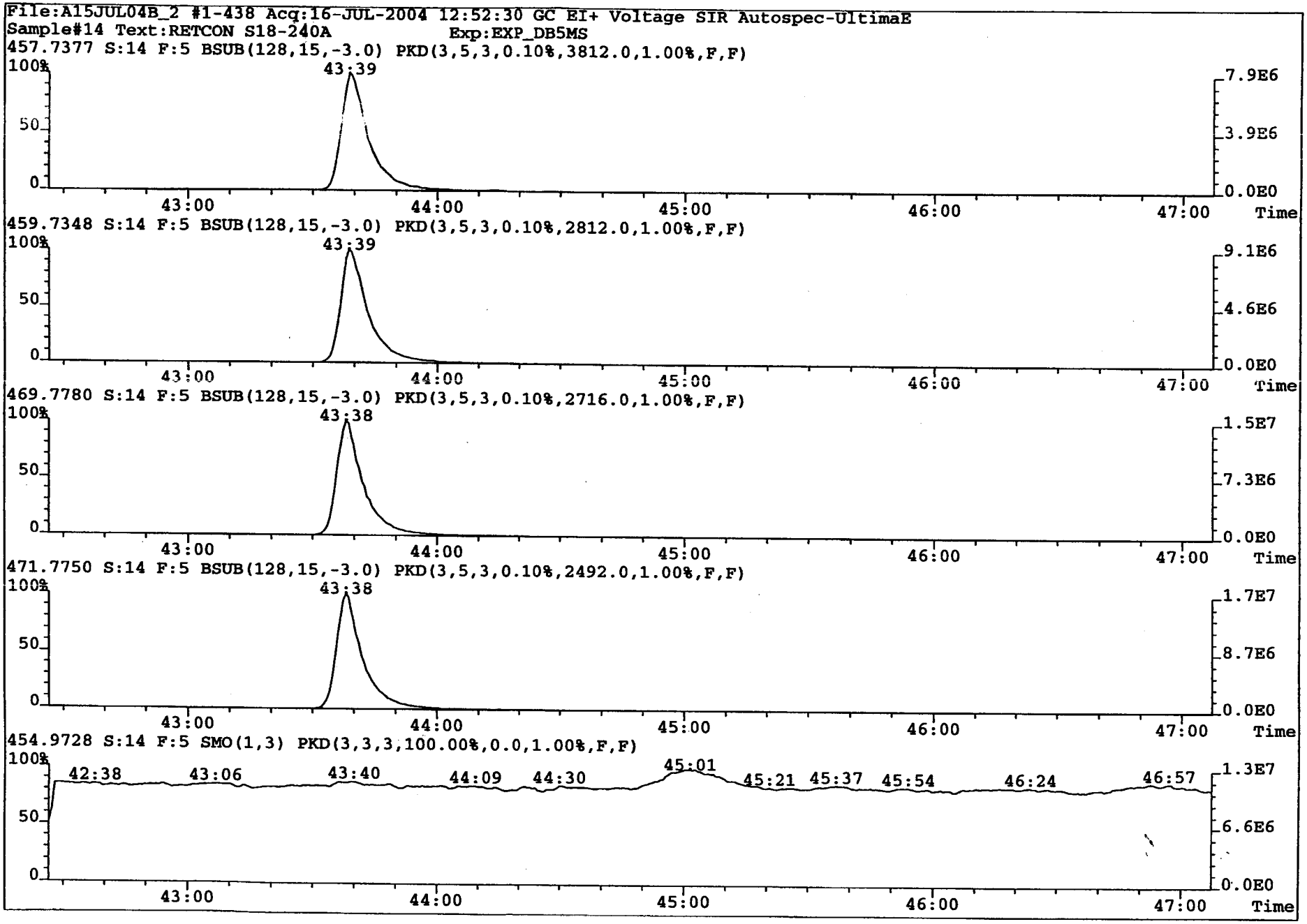



File:A15JUL04B_2 #1-171 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS
355.8546 S:14 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,53360.0,1.00%,F,F)
32:30
33:48
34:03
2.5E7
1.2E7
0.0E0
357.8517 S:14 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,27944.0,1.00%,F,F)
32:30
33:48
34:03
1.6E7
7.8E6
0.0E0
367.8949 S:14 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3708.0,1.00%,F,F)
33:47
4.0E7
2.0E7
0.0E0
369.8919 S:14 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3460.0,1.00%,F,F)
33:47
2.5E7
1.3E7
0.0E0
366.9792 S:14 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:21 32:28 32:40 33:00 33:10 33:26 33:36 33:48 33:56 34:03 34:15 34:25
7.9E6
4.0E6
0.0E0
100%
50
0
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24
Time

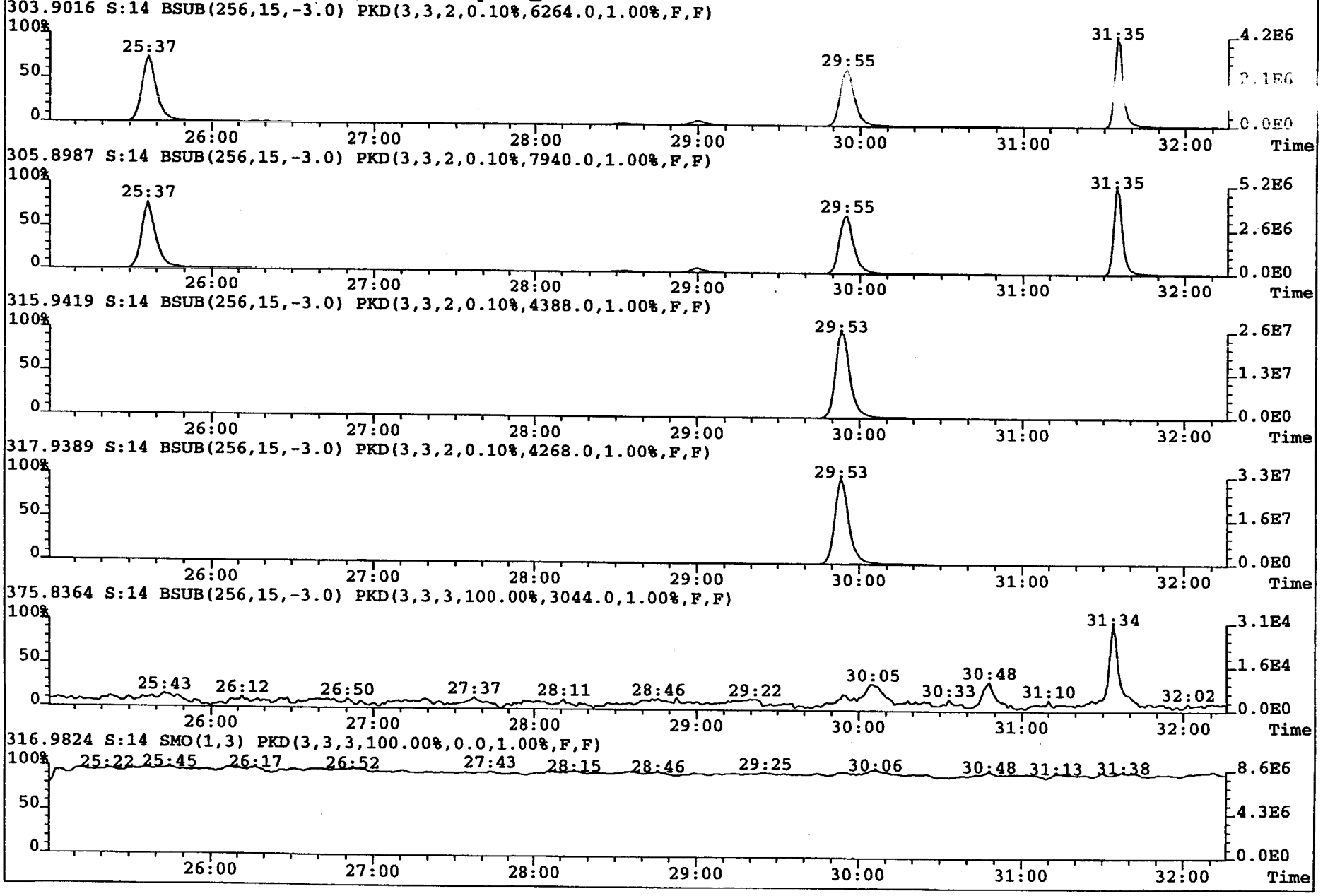
File:A15JUL04B_2 #1-261 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS



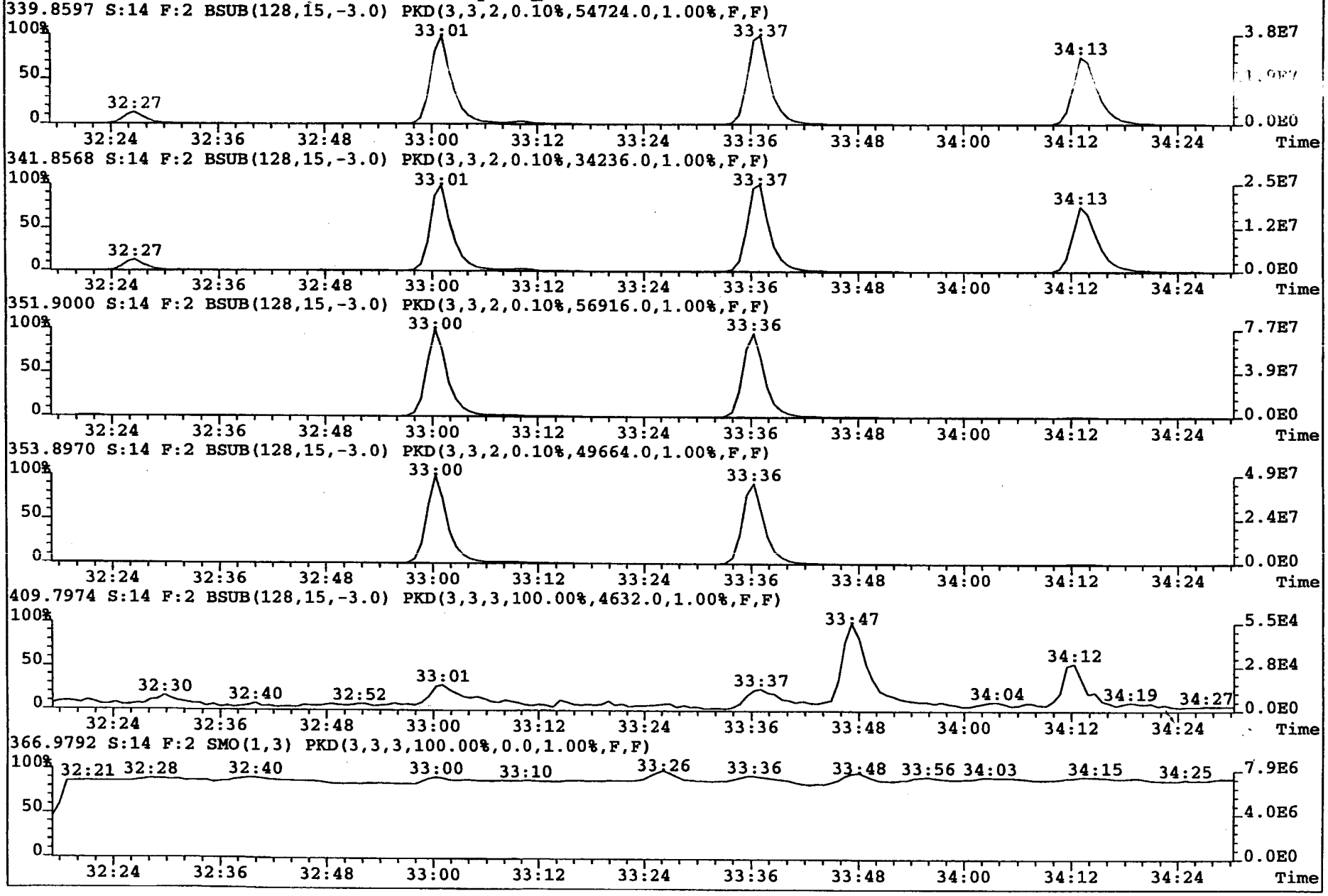

File:A15JUL04B_2 #1-343 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS
423.7767 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5544.0,1.00%,F,F)
38:41
39:34
9.3E6
4.6E6
0.0E0
425.7737 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6048.0,1.00%,F,F)
38:41
39:34
8.8E6
4.4E6
0.0E0
435.8169 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3132.0,1.00%,F,F)
39:34
1.4E7
7.0E6
0.0E0
437.8140 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3396.0,1.00%,F,F)
39:33
1.3E7
6.5E6
0.0E0
430.9728 S:14 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:04 38:22 38:40 39:13 39:34 39:50 40:10 40:39 40:57 41:13 41:51 42:17
1.5E7
7.5E6
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time

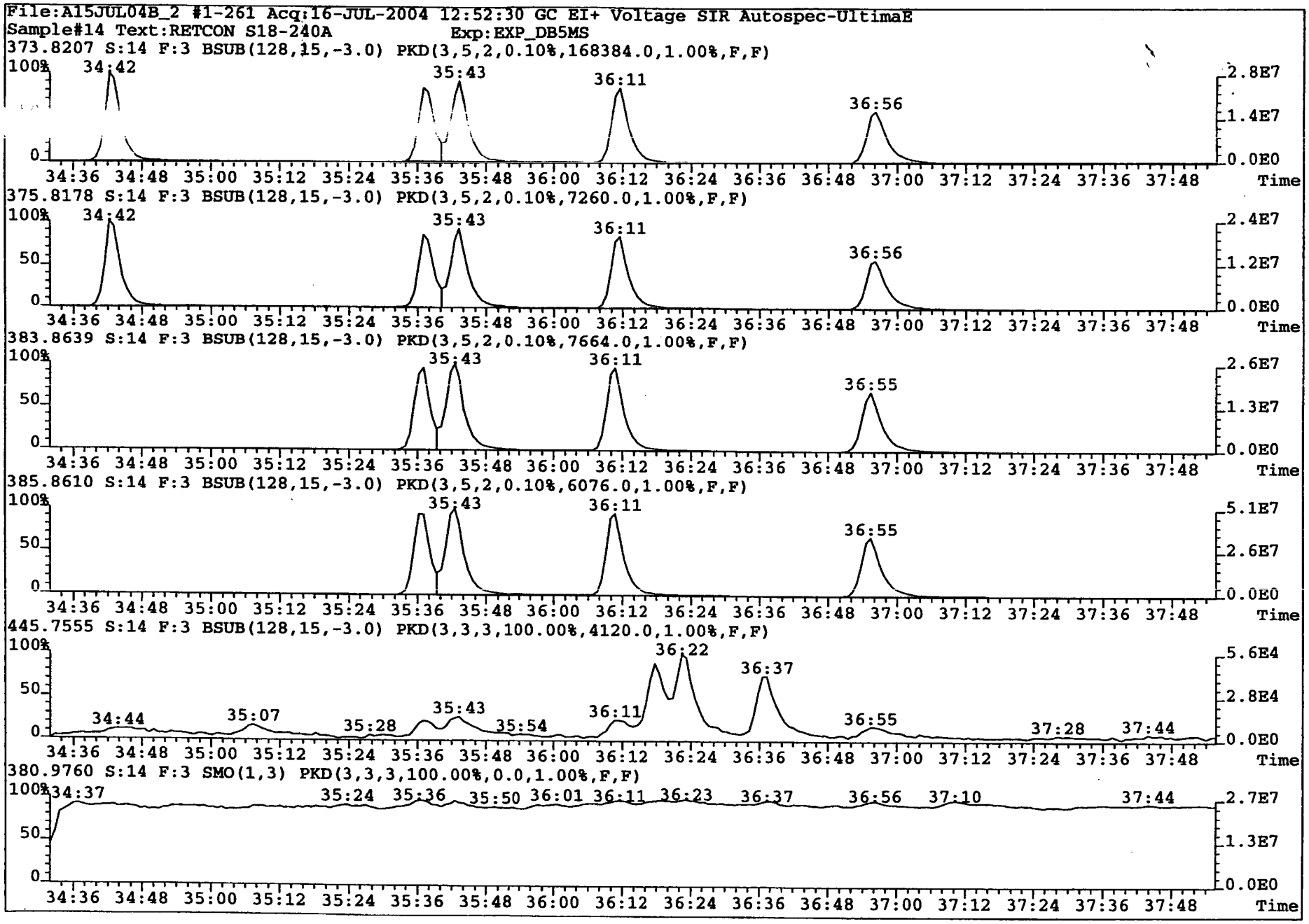

File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS
457.7377 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3812.0,1.00%,F,F)
43:39
7.9E6
3.9E6
0.0E0
459.7348 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2812.0,1.00%,F,F)
43:39
9.1E6
4.6E6
0.0E0
469.7780 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2716.0,1.00%,F,F)
43:38
1.5E7
7.3E6
0.0E0
471.7750 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2492.0,1.00%,F,F)
43:38
1.7E7
8.7E6
0.0E0
454.9728 S:14 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:38 43:06 43:40 44:09 44:30 45:01 45:21 45:37 45:54 46:24 46:57
1.3E7
6.6E6
0.0E0
100%
50
0
43:00 44:00 45:00 46:00 47:00 Time

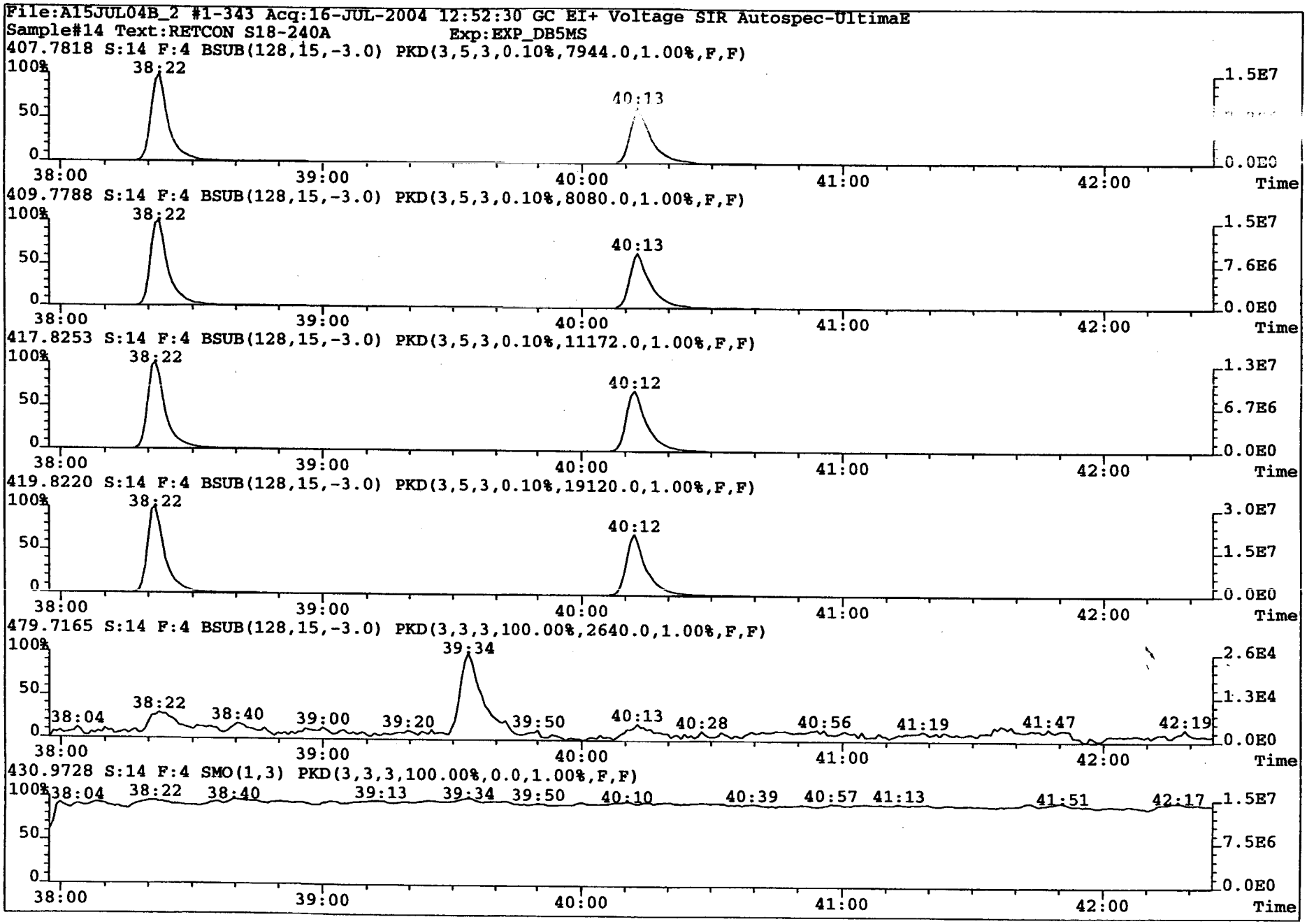
File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS

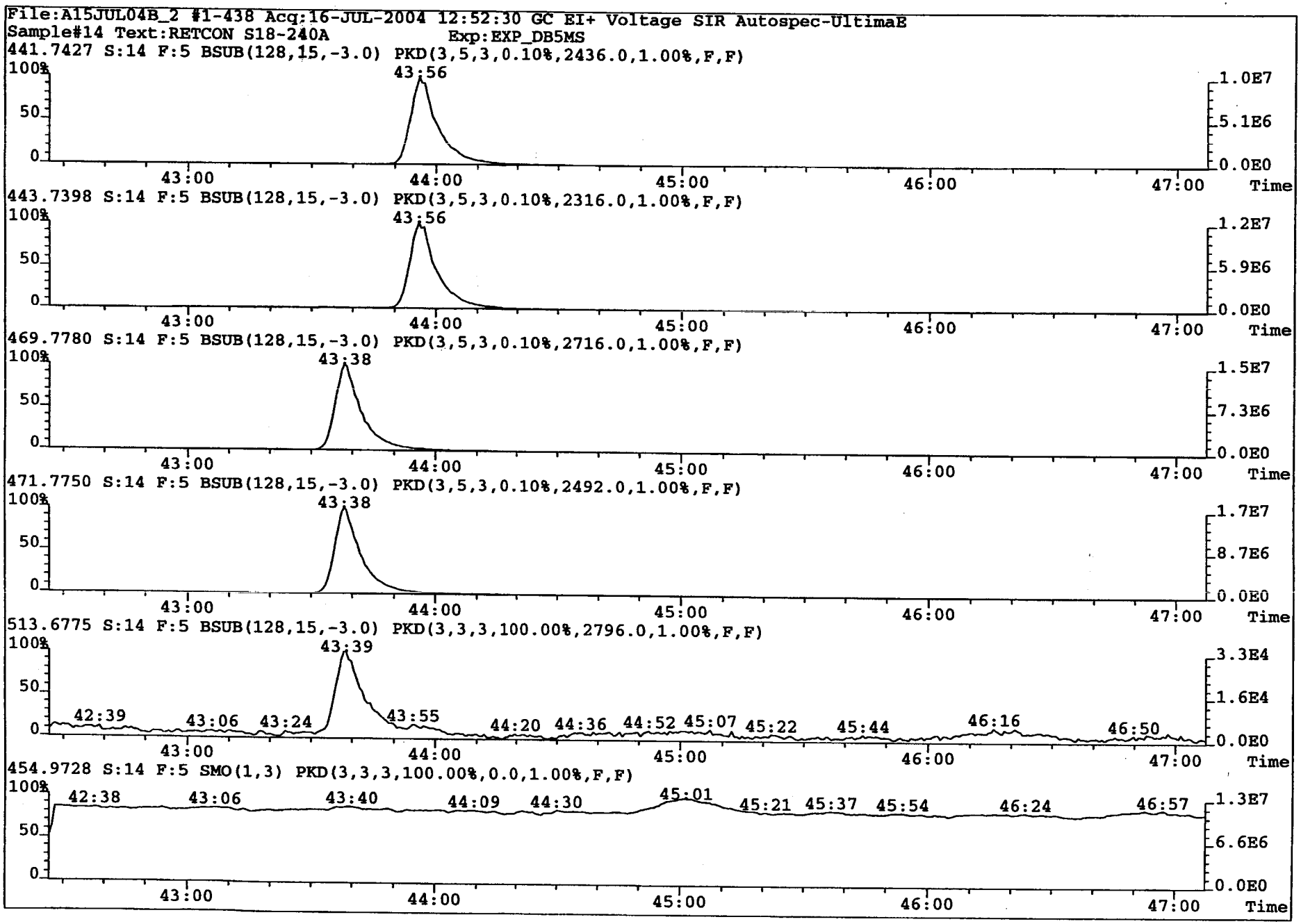


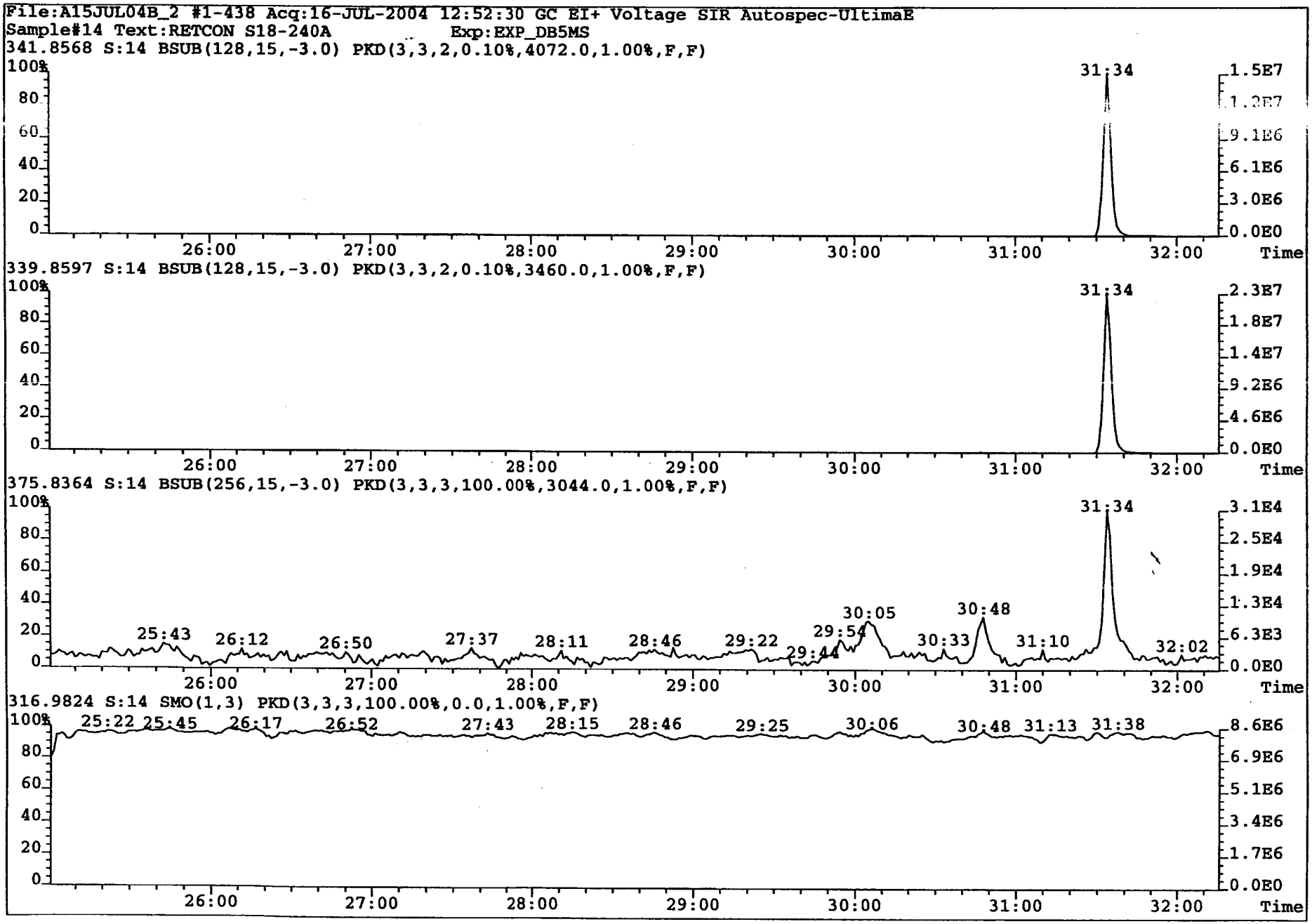
File:A15JUL04B_2 #1-171 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS




File:A15JUL04B_2 #1-261 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS
373.8207 S:14 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,168384.0,1.00%,F,F)
375.8178 S:14 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7260.0,1.00%,F,F)
383.8639 S:14 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7664.0,1.00%,F,F)
385.8610 S:14 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6076.0,1.00%,F,F)
445.7555 S:14 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4120.0,1.00%,F,F)
380.9760 S:14 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:42
35:43
36:11
36:56
36:55
36:22
36:37
34:44
35:07
35:28
35:54
37:28
37:44
34:37
35:24
35:36
35:50
36:01
36:23
37:10
100%
50
0
2.8E7
1.4E7
2.4E7
1.2E7
2.6E7
1.3E7
5.1E7
5.6E4
2.8E4
2.7E7
0.0E0
34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48
Time


File:A15JUL04B_2 #1-343 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS
407.7818 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7944.0,1.00%,F,F)
38:22
40:13
1.5E7
0.0E0
409.7788 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,8080.0,1.00%,F,F)
38:22
40:13
1.5E7
7.6E6
0.0E0
417.8253 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,11172.0,1.00%,F,F)
38:22
40:12
1.3E7
6.7E6
0.0E0
419.8220 S:14 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,19120.0,1.00%,F,F)
38:22
40:12
3.0E7
1.5E7
0.0E0
479.7165 S:14 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2640.0,1.00%,F,F)
39:34
38:04 38:22 38:40 39:00 39:20 39:50 40:13 40:28 40:56 41:19 41:47 42:19
2.6E4
1.3E4
0.0E0
430.9728 S:14 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:04 38:22 38:40 39:13 39:34 39:50 40:10 40:39 40:57 41:13 41:51 42:17
1.5E7
7.5E6
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time


File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS
441.7427 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2436.0,1.00%,F,F)
43:56
1.0E7
5.1E6
0.0E0
443.7398 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2316.0,1.00%,F,F)
43:56
1.2E7
5.9E6
0.0E0
469.7780 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2716.0,1.00%,F,F)
43:38
1.5E7
7.3E6
0.0E0
471.7750 S:14 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2492.0,1.00%,F,F)
43:38
1.7E7
8.7E6
0.0E0
513.6775 S:14 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2796.0,1.00%,F,F)
43:39
42:39 43:06 43:24 43:55 44:20 44:36 44:52 45:07 45:22 45:44 46:16 46:50
3.3E4
1.6E4
0.0E0
454.9728 S:14 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:38 43:06 43:40 44:09 44:30 45:01 45:21 45:37 45:54 46:24 46:57
1.3E7
6.6E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time


File:A15JUL04B_2 #1-438 Acq:16-JUL-2004 12:52:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:RETCON S18-240A Exp:EXP_DB5MS
341.8568 S:14 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4072.0,1.00%,F,F)
31:34
1.5E7
1.2E7
9.1E6
6.1E6
3.0E6
0.0E0
339.8597 S:14 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3460.0,1.00%,F,F)
31:34
2.3E7
1.8E7
1.4E7
9.2E6
4.6E6
0.0E0
375.8364 S:14 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3044.0,1.00%,F,F)
31:34
3.1E4
2.5E4
1.9E4
1.3E4
6.3E3
0.0E0
25:43
26:12
26:50
27:37
28:11
28:46
29:22
29:44
29:54
30:05
30:33
30:48
31:10
32:02
316.9824 S:14 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:22
25:45
26:17
26:52
27:43
28:15
28:46
29:25
30:06
30:48
31:13
31:38
8.6E6
6.9E6
5.1E6
3.4E6
1.7E6
0.0E0
100%
80
60
40
20
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6515-759-1B	519.268	100	0.5	100	JWP	07-12-04	
2	6515-759-2B	↓	↓	↓	↓	↓	↓	
3	6515-759-3B	↓	↓	↓	↓	↓	↓	
4	D0290	519.268	20	0.1	20	JWP	07-12-04	
5	6556-11-1B	↓	↓	↓	↓	↓	↓	
6	6556-11-2B	↓	↓	↓	↓	↓	↓	
7	6556-11-3B	↓	↓	↓	↓	↓	↓	
8	6556-11-4B	↓	↓	↓	↓	↓	↓	
9	6556-11-5B	↓	↓	↓	↓	↓	↓	
10	6556-11-6B	↓	↓	↓	↓	↓	↓	
11	6556-11-7B	↓	↓	↓	↓	↓	↓	
12	6556-11-8B	↓	↓	↓	↓	↓	↓	
13	6556-11-9B	↓	↓	↓	↓	↓	↓	
14	OPR10416	519-265	100	0.5	100	JWP	07-13-04	
15	OPRD10416	↓	↓	↓	↓	↓	↓	
16	LMB10416	↓	↓	↓	↓	↓	↓	
17	6515-760-1B	↓	↓	↓	↓	↓	↓	
18	OPR10412	519-268	20	0.1	20	JWP	07-13-04	
19	OPRD10412	519-272	↓	↓	↓	↓	↓	
20	LMB10412	↓	↓	↓	↓	↓	↓	

DC17.021800.1

* = to be entered in the Prep table.

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Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6556-11-3C MS	519-272	20	0.1	20	JWP	07-13-04	
2	[illegible]							
3	6556-11-10B							
4	6579-3-1C							
5	6414-28-1B JWP 07-14-04							
6	6414-28-2B JWP 07-14-04							
7	6414-28-3B JWP 07-14-04							
8	6414-28-4B JWP 07-14-04							
9	6414-28-5B JWP 07-14-04							
10	6414-28-6B JWP 07-14-04							
11	OPR10415							
12	OPRD10415							
13	LMB10415							
14	6414-28-7B JWP 07-14-04							
15	6414-28-8B JWP 07-14-04							
16	6414-28-9B JWP 07-14-04							
17	6577-4-1C							
18	6577-4-2C							
19	6577-4-3C							
20	6577-4-4C							

DC17.021800.1

* = to be entered in the Prep table.

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Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6577-4-5C	519-272	20	0.1	20	JWP	07-14-04	
2	6577-4-6C	↓	↓	↓	↓	↓	↓	
3	6577-4-7C	↓	↓	↓	↓	↓	↓	
4	OPR10420	519-272	20	0.1	20	JWP	07-14-04	
5	OPRD10420	↓	↓	↓	↓	↓	↓	
6	LMB10420	↓	↓	↓	↓	↓	↓	
7	6383-283-7C	↓	↓	↓	↓	↓	↓	
8	OPR10419	↓	↓	↓	↓	↓	↓	
9	OPRD10419	↓	↓	↓	↓	↓	↓	
10	LMB10419	↓	↓	↓	↓	↓	↓	
11	6556-12-1B	↓	↓	↓	↓	↓	↓	
12	6556-12-2B	↓	↓	↓	↓	↓	↓	
13	6556-12-3B	↓	↓	↓	↓	↓	↓	
14	6556-12-4B	↓	↓	↓	↓	↓	↓	
15	6556-12-5B	↓	↓	↓	↓	↓	↓	
16	6556-12-6B	↓	↓	↓	↓	↓	↓	
17	6556-12-7B	↓	↓	↓	↓	↓	↓	
18	6714-27-2B	519-254	20	0.1	20	JWP	07-14-04	not recorded when injected and spiked 07-07-04
19								
20						JWP 07-15-04		

DC17.021800.1

* = to be entered in the Prep table.

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Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	OPR10417	S19-272	20	0.1	20	JWP	07-15-04	
2	OPRD10417	↓	↓	↓	↓	↓	↓	
3	LMB10417	↓	↓	↓	↓	↓	↓	
4	OPR10422	S19-265	100	0.5	100	JWP	07-15-04	
5	OPRD10422	↓	↓	↓	↓	↓	↓	
6	LMB10422	↓	↓	↓	↓	↓	↓	
7	GS15-761-1B	↓	↓	↓	↓	↓	↓	
8	OPR10424	S19-265	100	0.5	100	JWP	07-16-04	
9	OPRD10424	↓	↓	↓	↓	↓	↓	
10	LMB10424	↓	↓	↓	↓	↓	↓	
11	GS15-762-1B	S19-286	↓	↓	↓	↓	↓	
12	GS56-12-8B	S19-272	20	0.1	20	JWP	07-16-04	
13	GS56-12-9B	↓	↓	↓	↓	↓	↓	
14	G383-284-1B	↓	↓	↓	↓	↓	↓	
15	G383-286-1B	S19-287	↓	↓	↓	↓	↓	
16	OPR10423	S19-287	20	0.1	20	JWP	07-16-04	
17	OPRD10423	↓	↓	↓	↓	↓	↓	
18	LMB10423	↓	↓	↓	↓	↓	↓	
19	LMB10421	↓	↓	↓	↓	↓	↓	
20	G100-527-1B	↓	↓	↓	↓	↓	↓	

DC17.021800.1

* = to be entered in the Prep table.

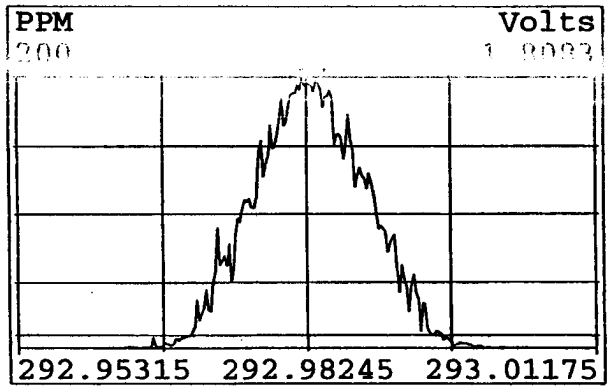
Logbook: 9 Page: 91

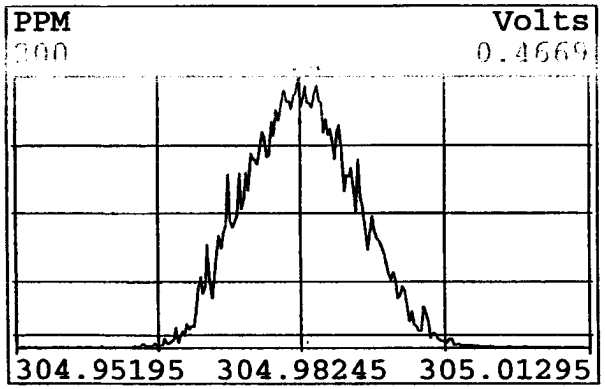
Paradigm Sample Log

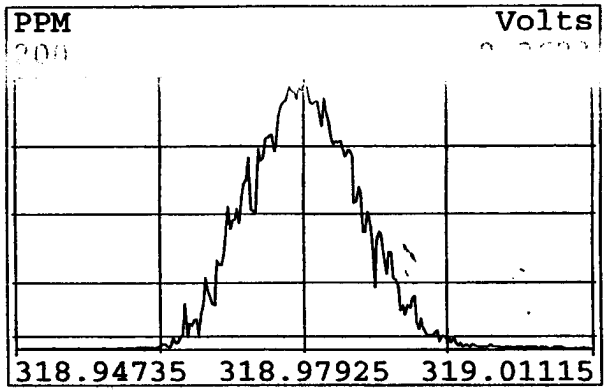
Data File S	Sample ID	Analyst	Acq. Date	Time
a20jul04b;1	RETCON S18-240A	;JWP	20-JUL-04	16:00:57
a20jul04b;2	OPR10423	;JWP	20-JUL-04	16:50:14
a20jul04b;3	OPRD10423	;JWP	20-JUL-04	17:39:31
a20jul04b;4	LMB10423	;JWP	20-JUL-04	18:28:46
a20jul04b;5	G383-284-1B	;JWP	20-JUL-04	19:18:05
a20jul04b;6	G579-3-1C	;JWP	20-JUL-04	20:07:23
a20jul04b;7	G556-11-2B d10	;JWP	20-JUL-04	20:56:41
a20jul04b;8	G556-11-3C MS	;JWP	20-JUL-04	21:45:57
a20jul04b;9	G556-11-3D MSD	;JWP	20-JUL-04	22:35:17
a20jul04b;10	G556-11-10B	;JWP	20-JUL-04	23:24:36
a20jul04b;11	G326-153-1C	;JWP	21-JUL-04	00:13:57
a20jul04b;12	G326-153-2C	;JWP	21-JUL-04	01:03:15
a20jul04b;13	G326-153-3C	;JWP	21-JUL-04	01:52:31
a20jul04b;14	G326-153-4C	;JWP	21-JUL-04	02:41:48
a20jul04b;15	RETCON S18-240A	;JWP	21-JUL-04	03:31:07

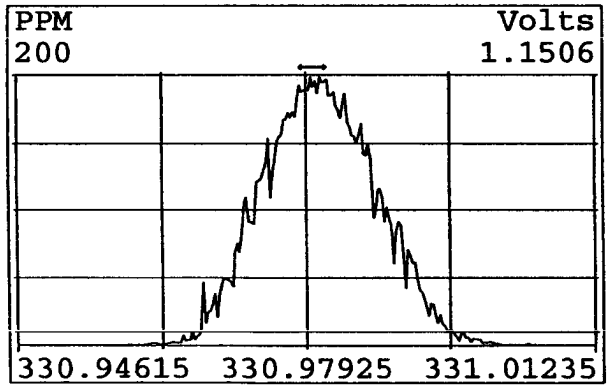
7/21/04

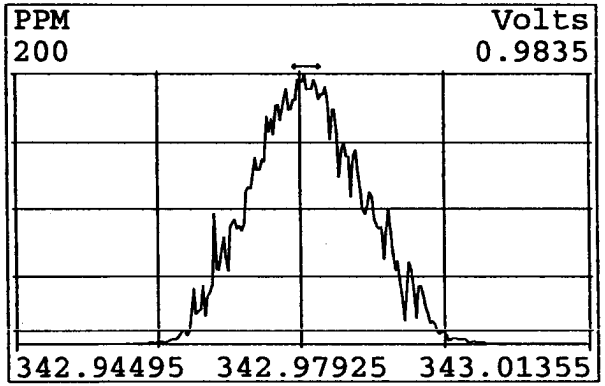
Peak Locate Examination:20-JUL-2004:15:57 File:A20JUL04B_L
Experiment:EXP_DB5MS Function:1 Reference:PFK

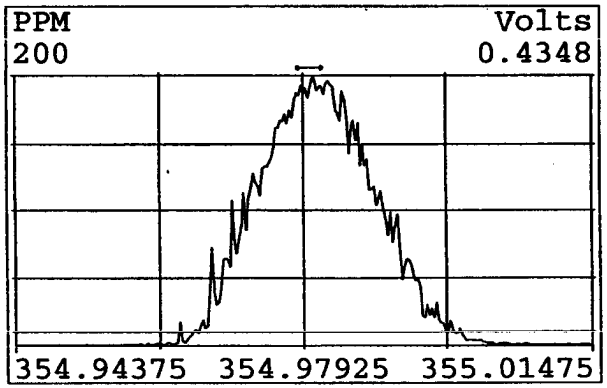


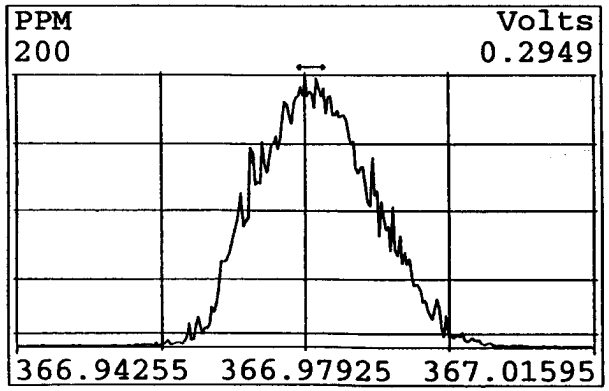


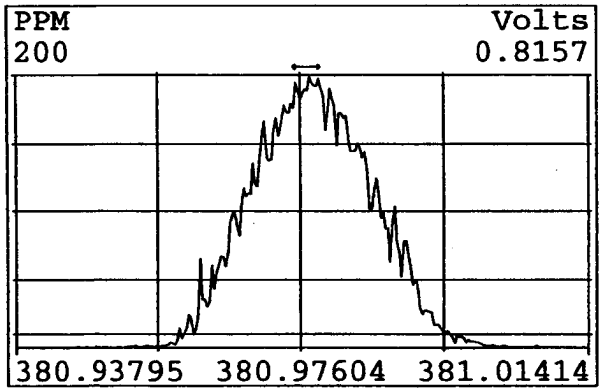




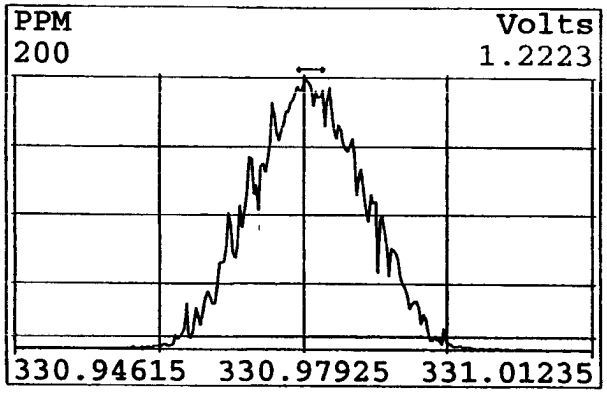


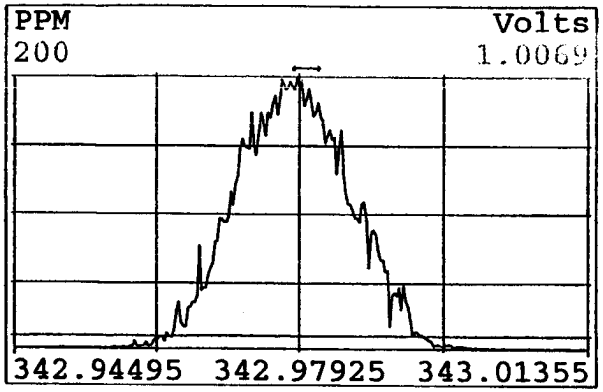


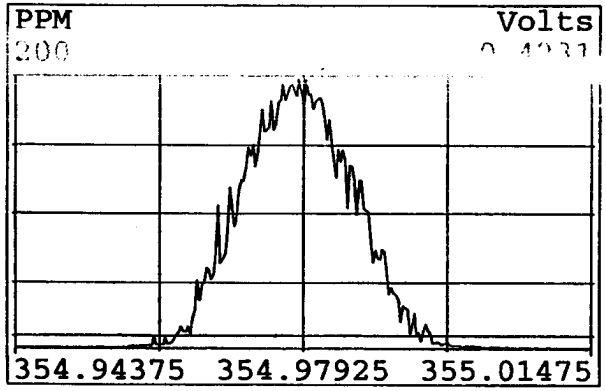


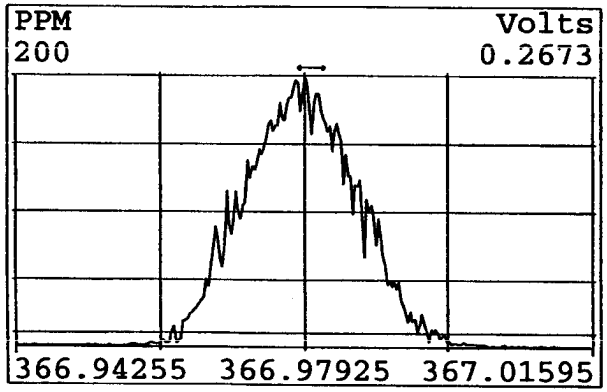


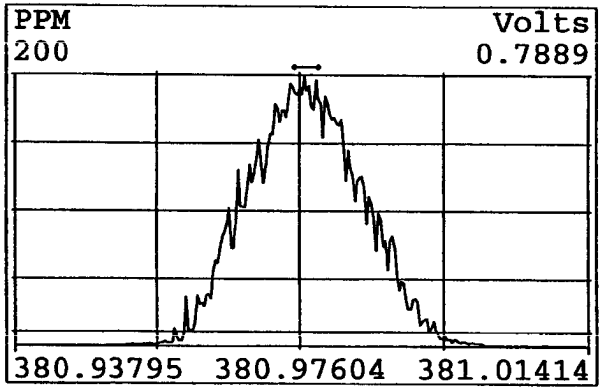
Peak Locate Examination:20-JUL-2004:15:58 File:A20JUL04B_L
Experiment:EXP_DB5MS Function:2 Reference:PFK

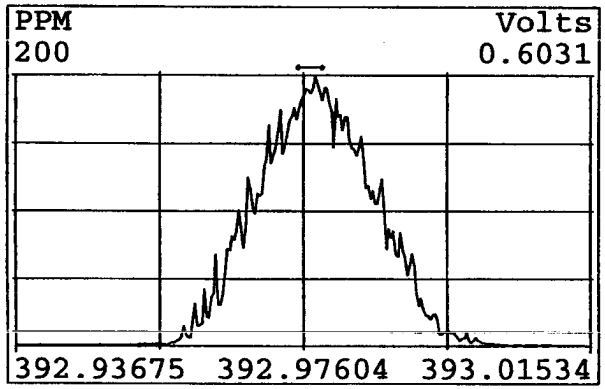


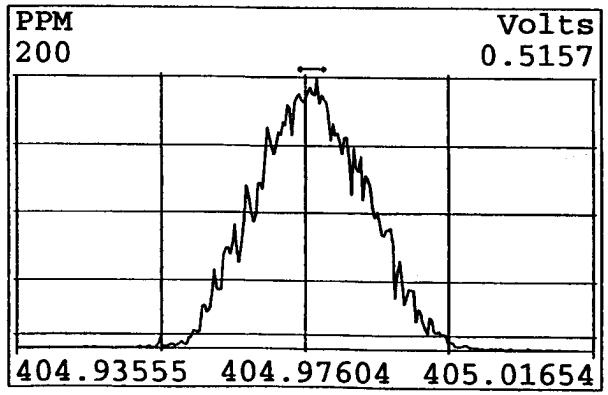


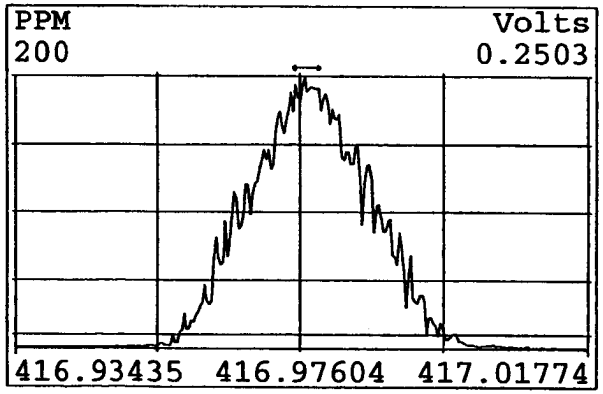




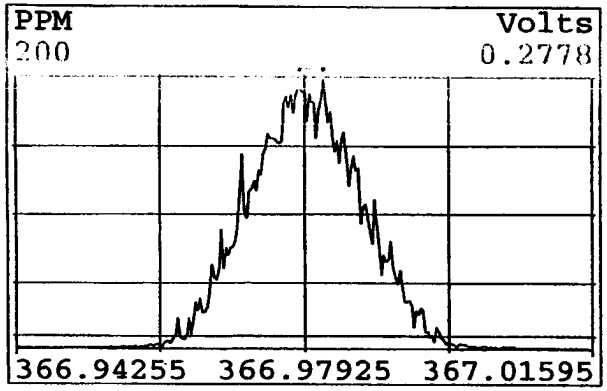


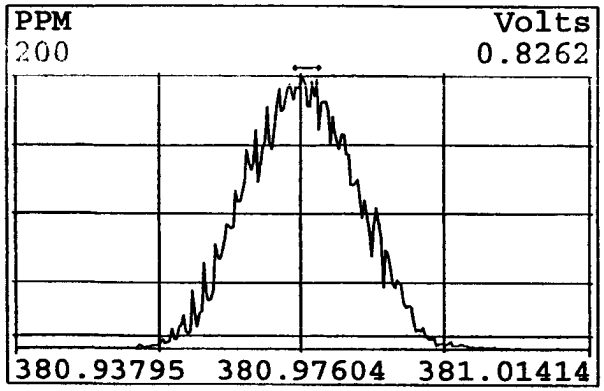


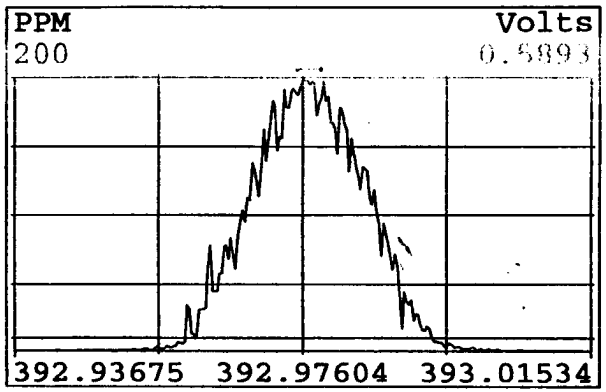


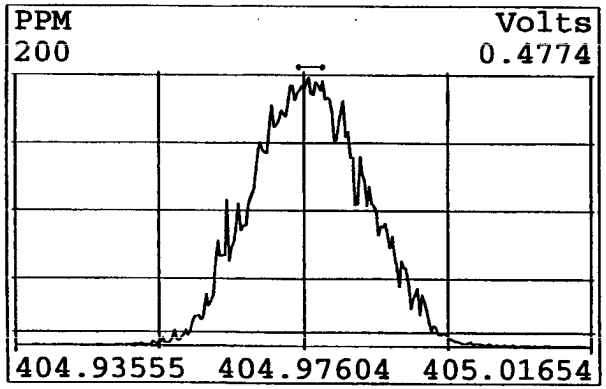


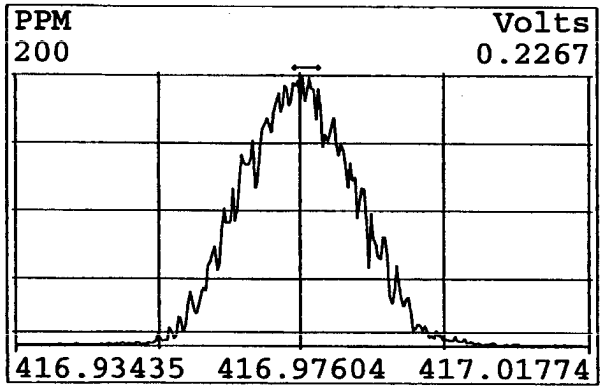
Peak Locate Examination:20-JUL-2004:15:58 File:A20JUL04B_L
Experiment:EXP_DB5MS Function:3 Reference:PFK

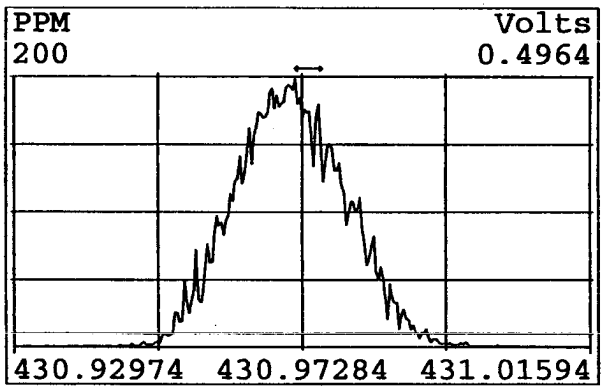


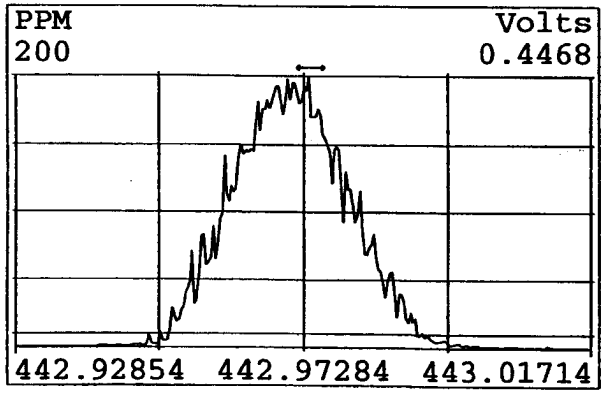


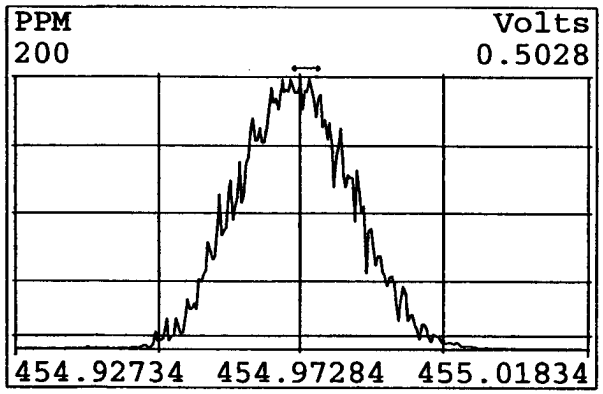




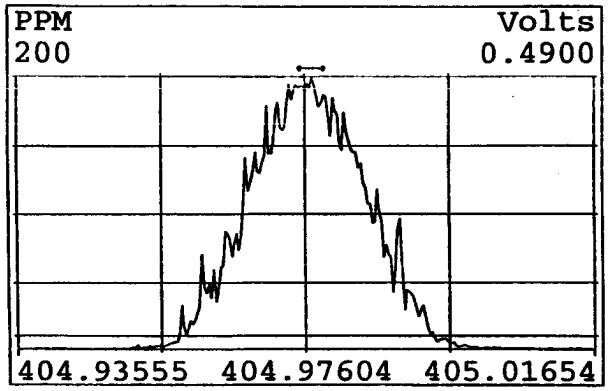


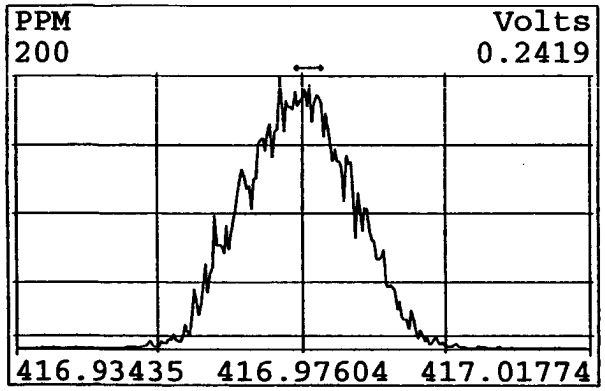


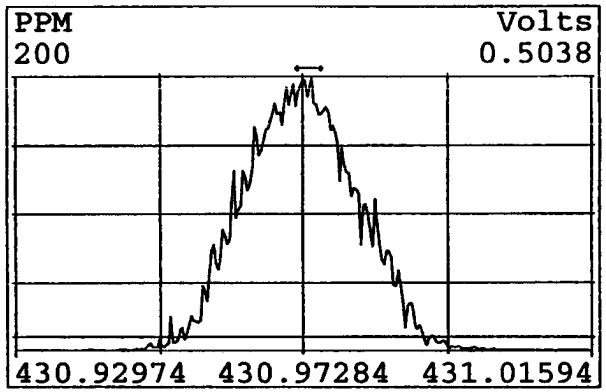


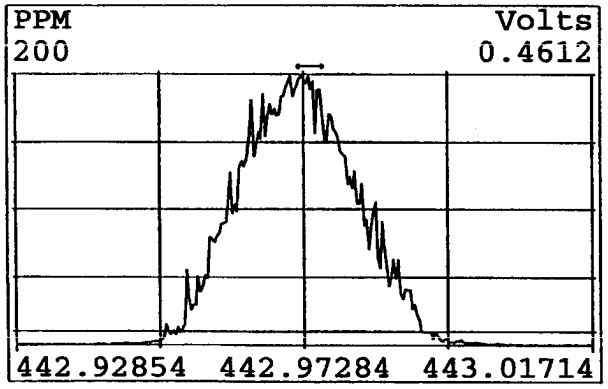


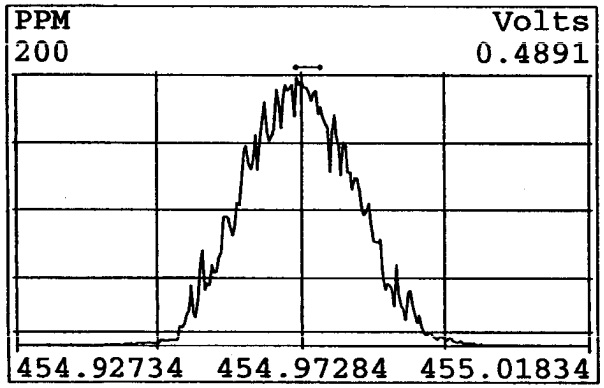
Peak Locate Examination:20-JUL-2004:15:58 File:A20JUL04B_L
Experiment:EXP_DB5MS Function:4 Reference:PFK

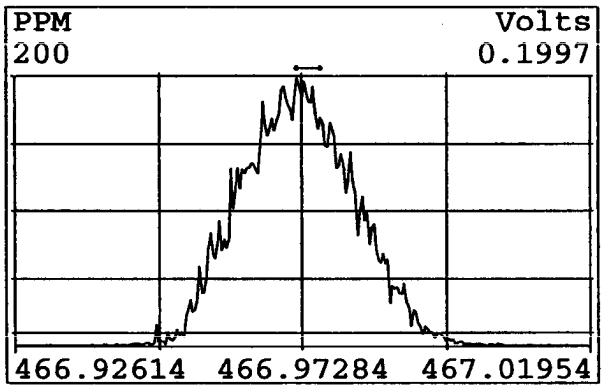


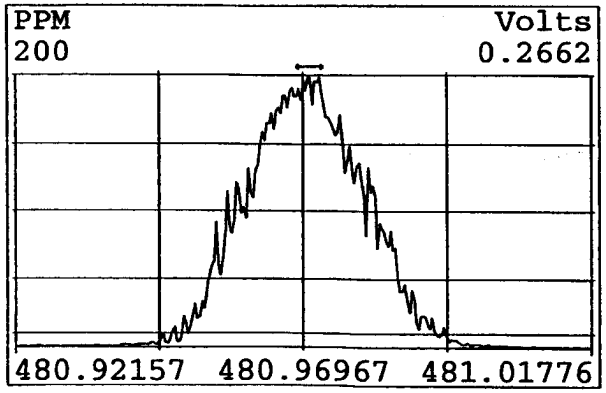




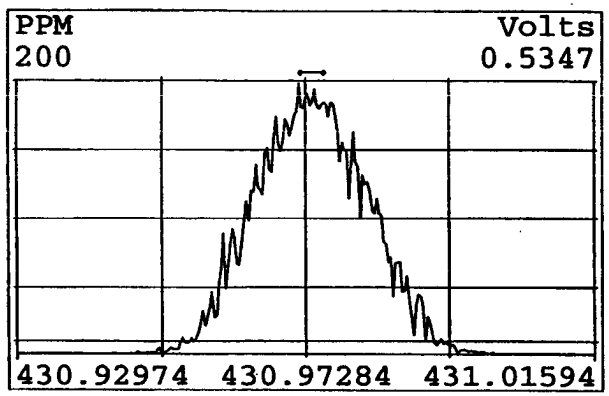


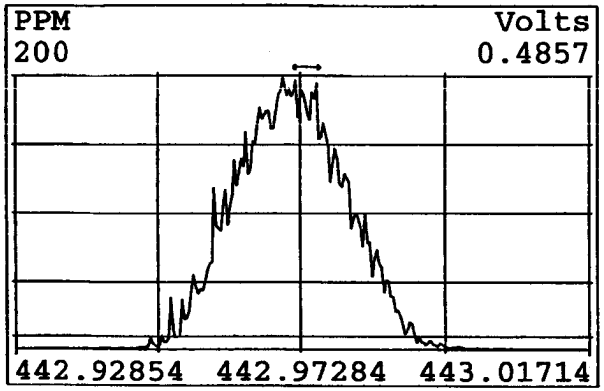


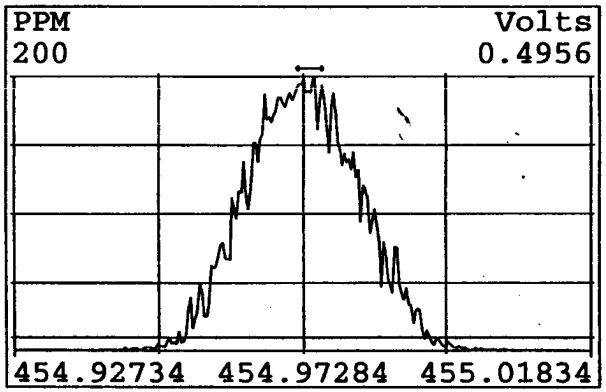


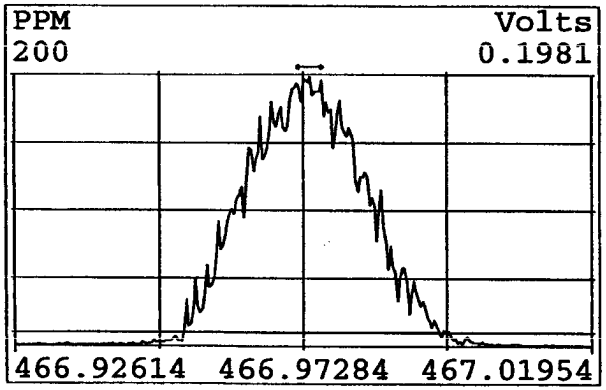


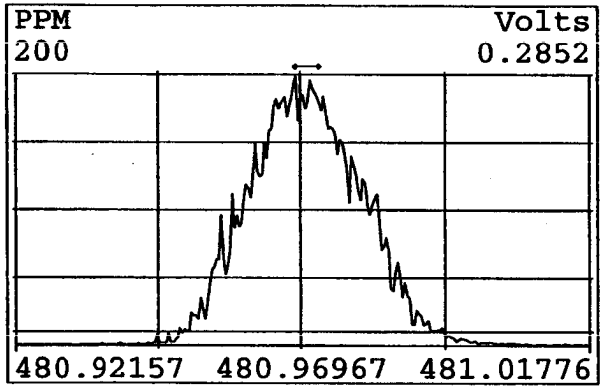
Peak Locate Examination:20-JUL-2004:15:59 File:A20JUL04B_L
Experiment:EXP_DB5MS Function:5 Reference:PFK

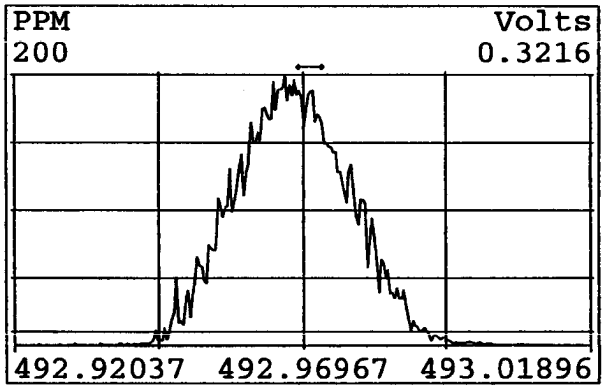


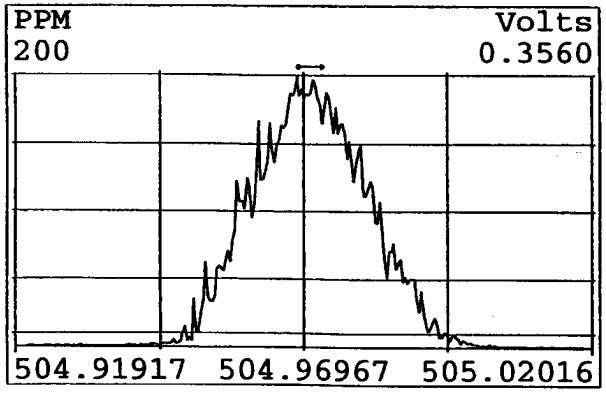


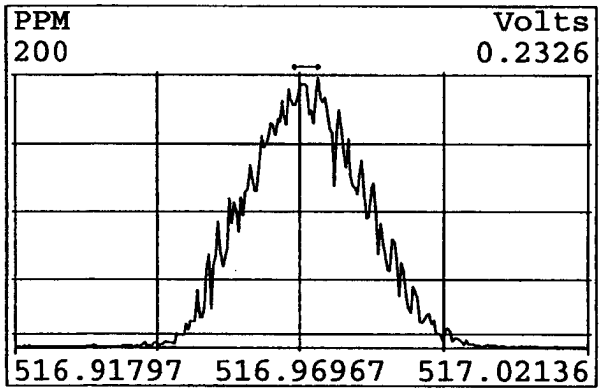




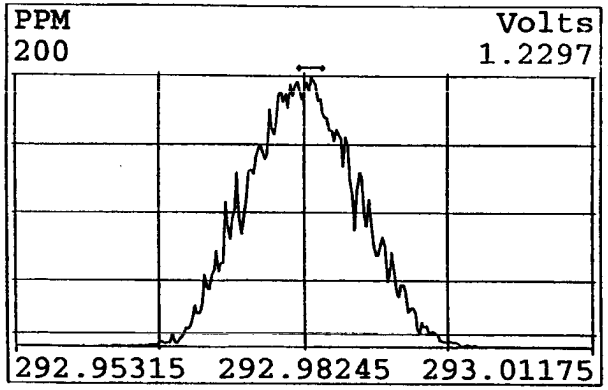


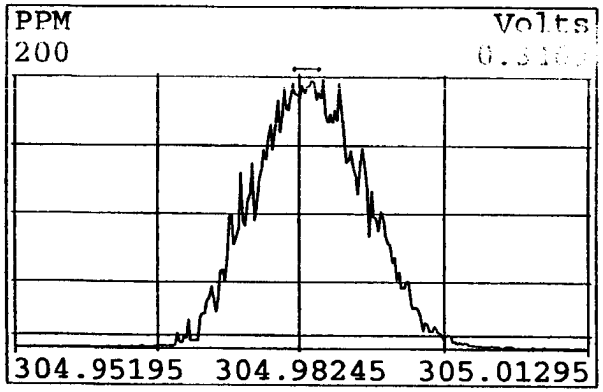


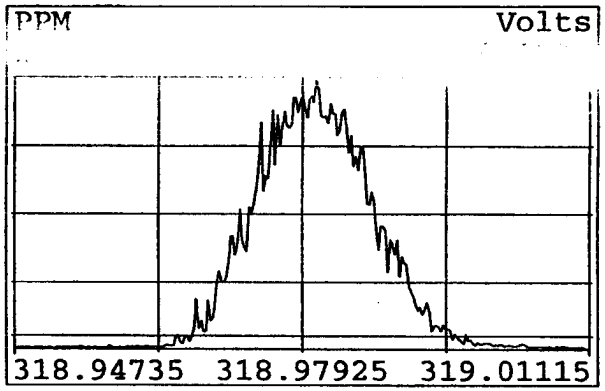


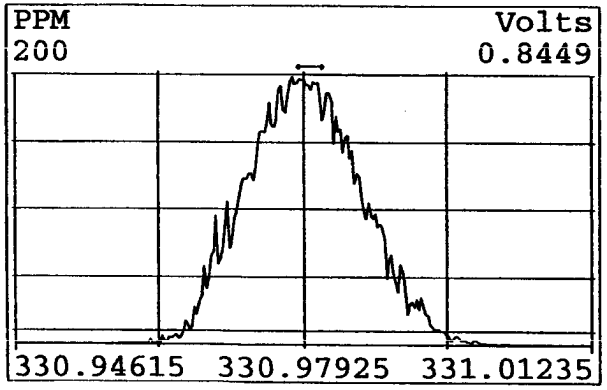


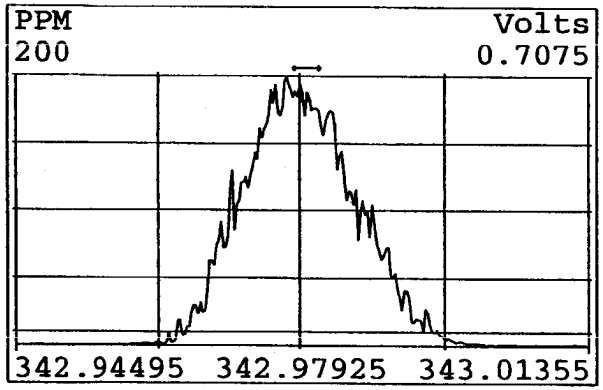
Peak Locate Examination:21-JUL-2004:04:20 File:A20JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK

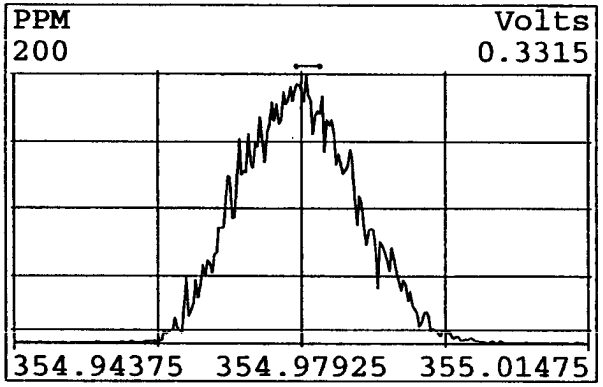


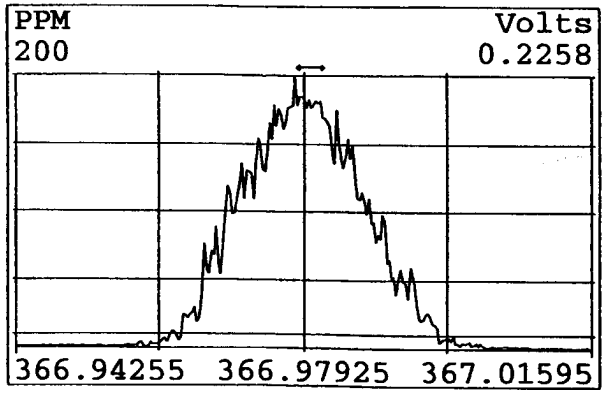


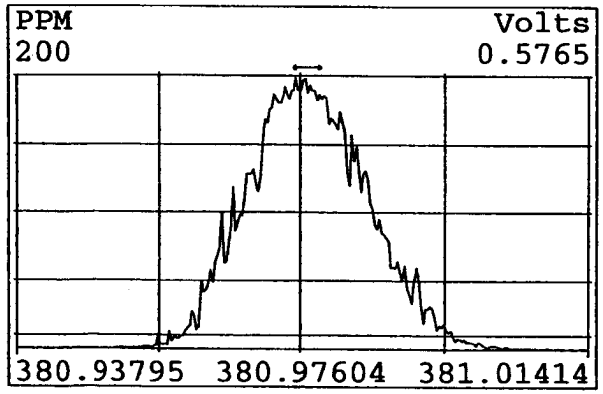




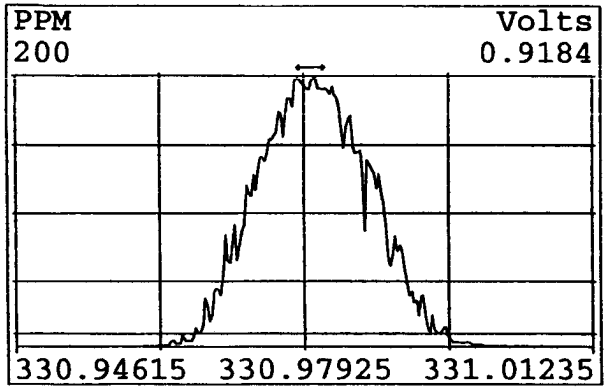


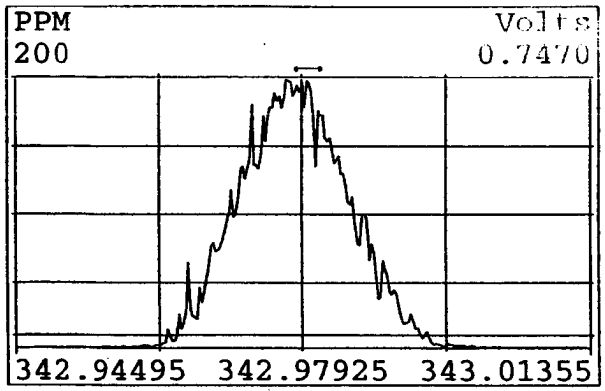


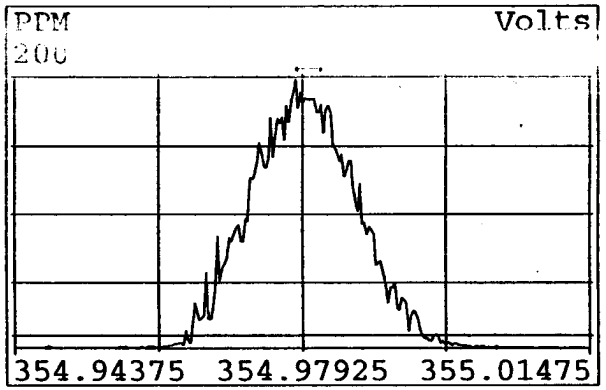


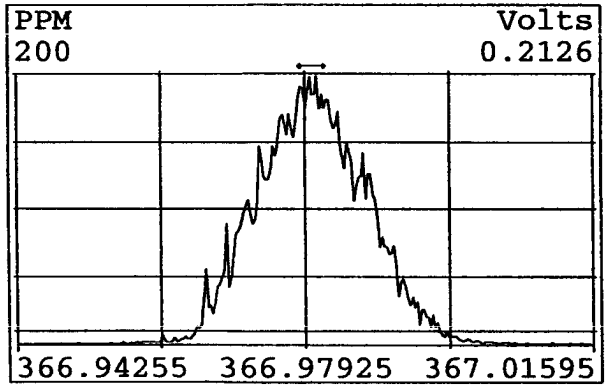


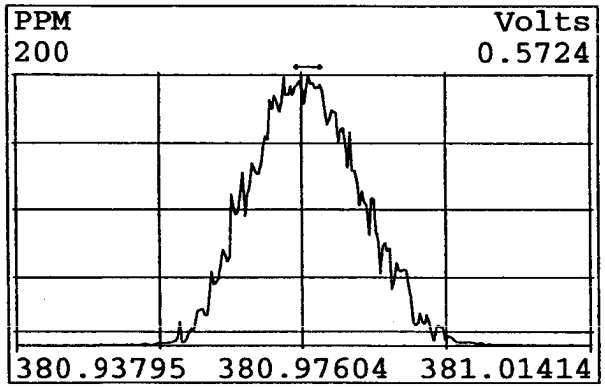
Peak Locate Examination:21-JUL-2004:04:21 File:A20JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:2 Reference:PFK

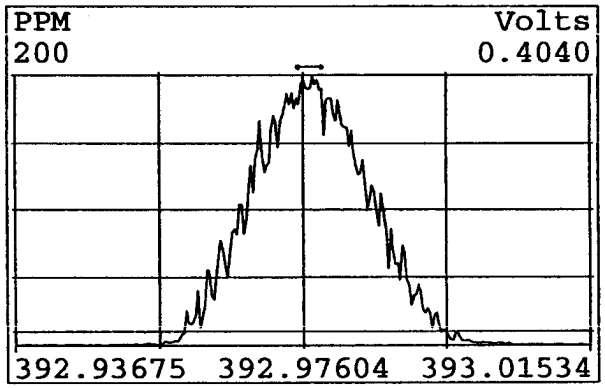


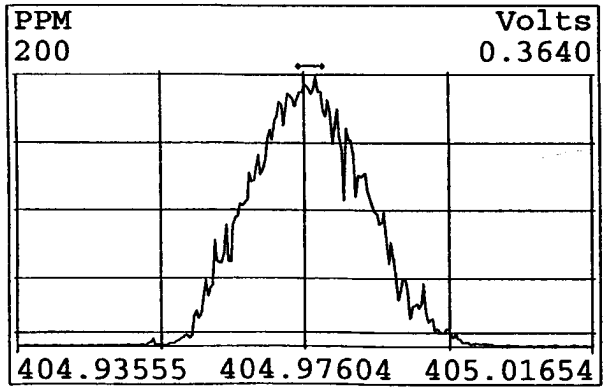


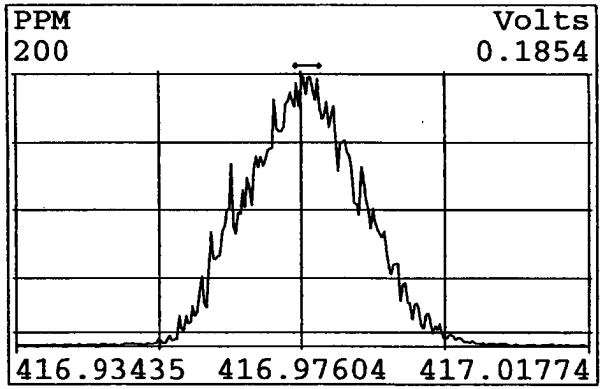




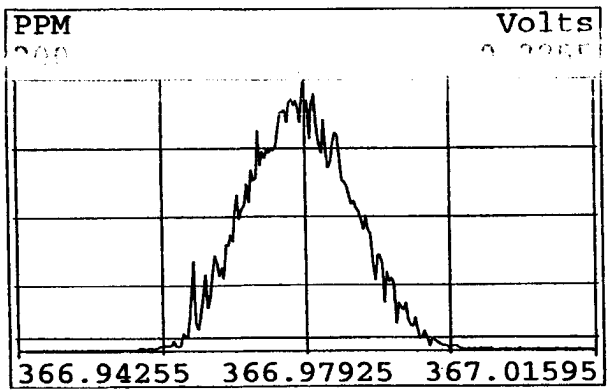


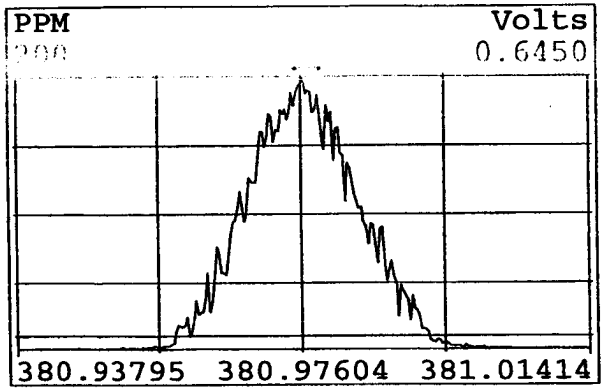


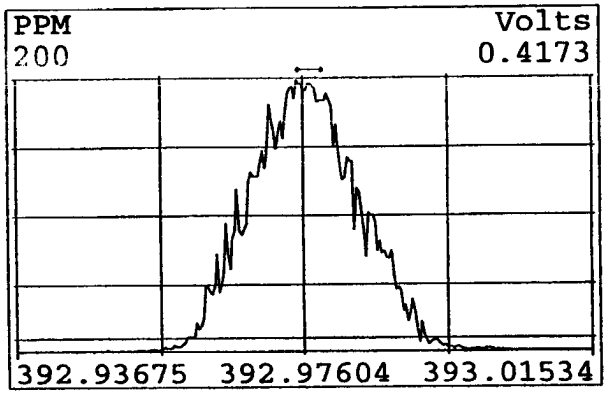


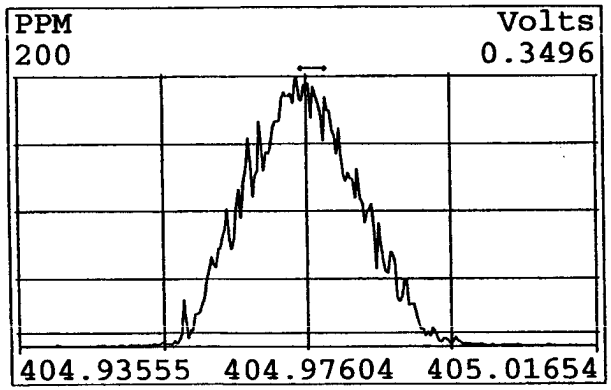


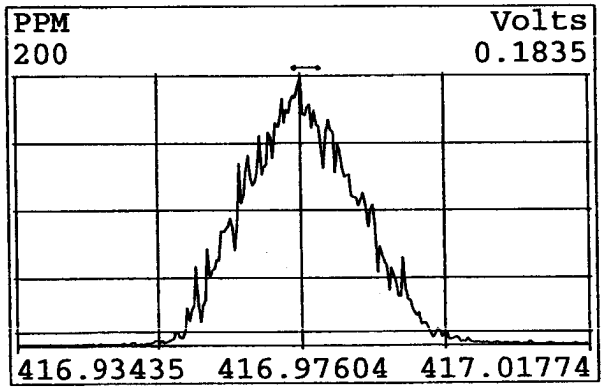
Peak Locate Examination:21-JUL-2004:04:22 File:A20JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:3 Reference:PFK

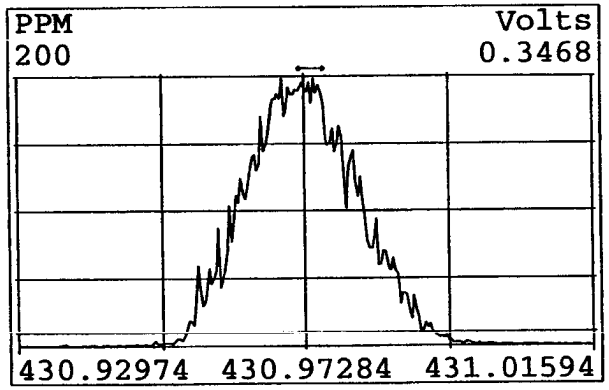


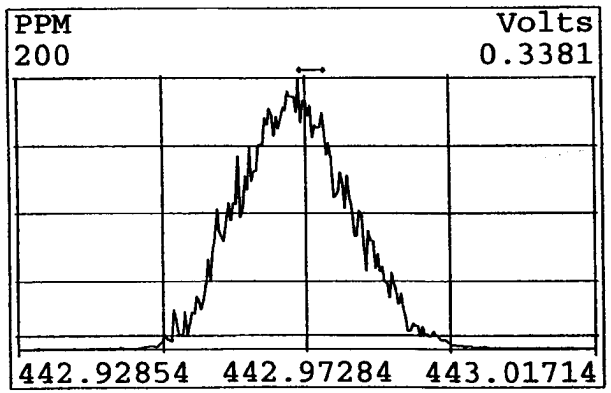


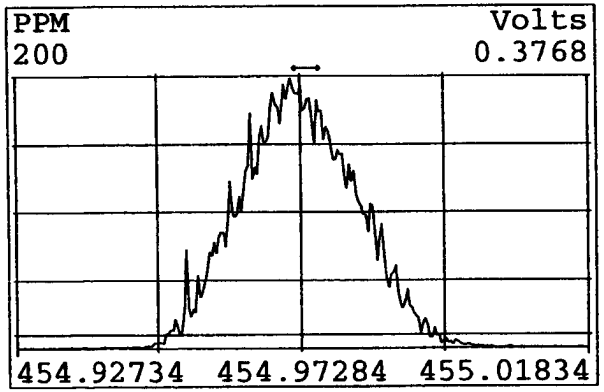




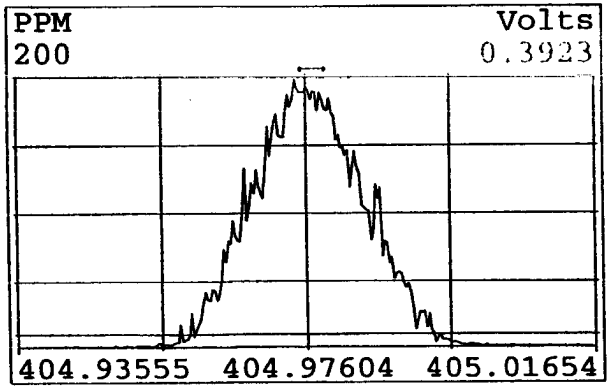


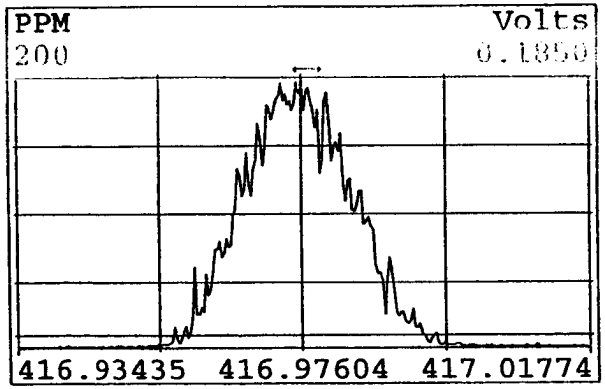


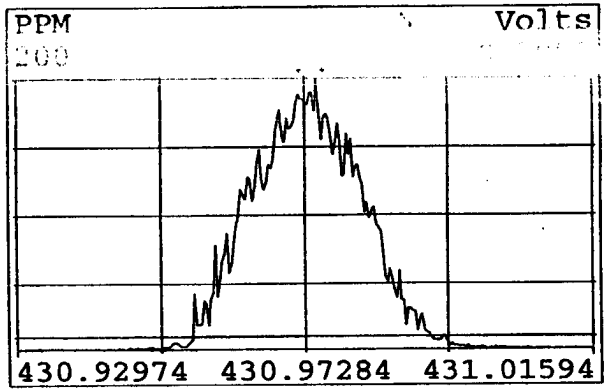


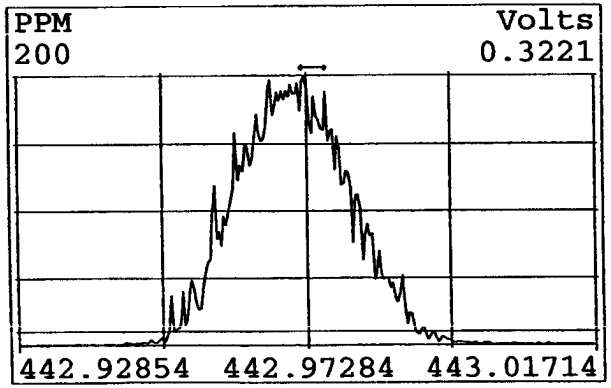


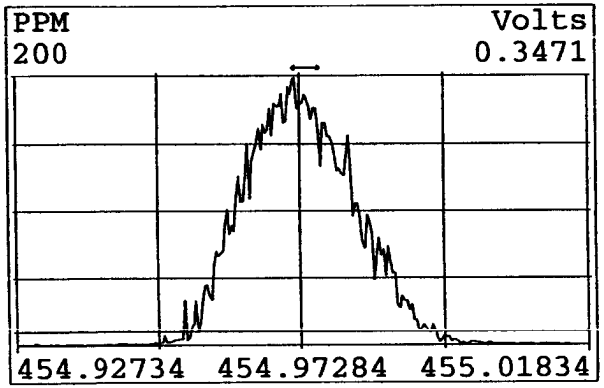
Peak Locate Examination:21-JUL-2004:04:23 File:A20JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:4 Reference:PFK

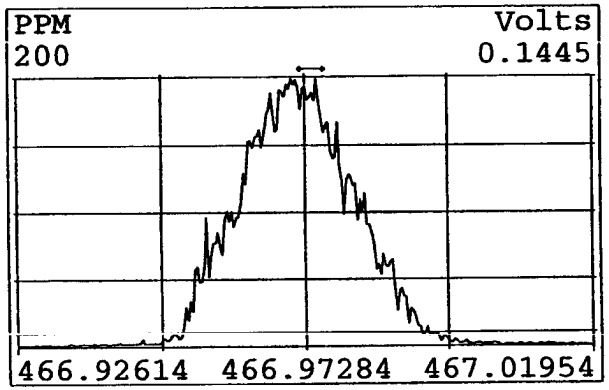


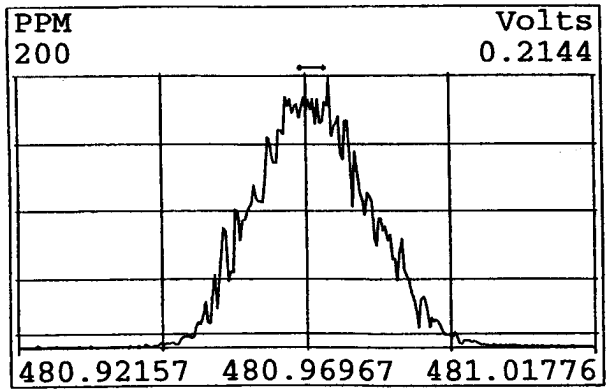




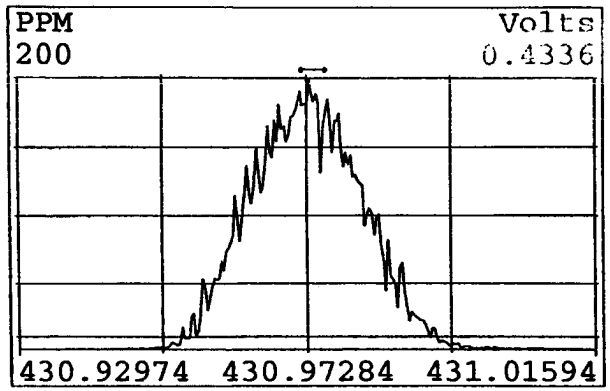


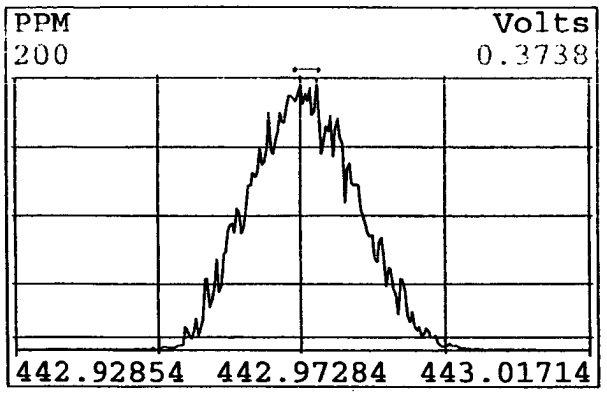


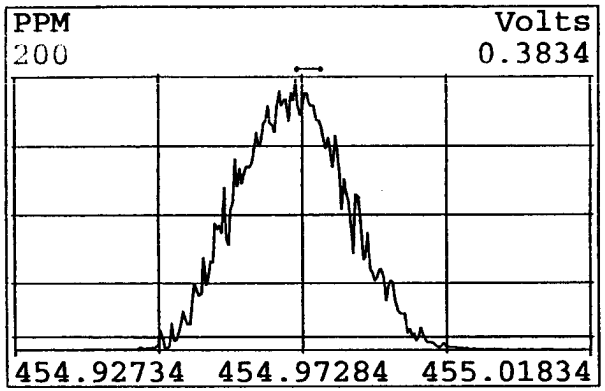


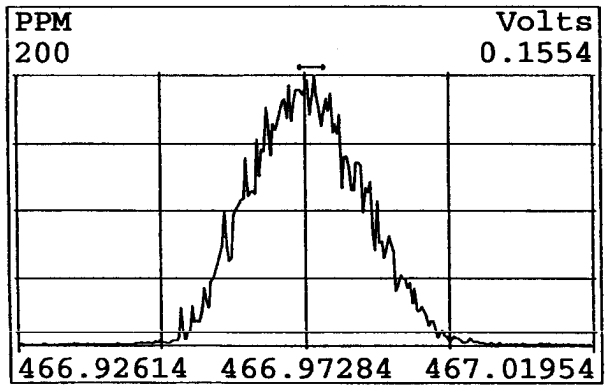


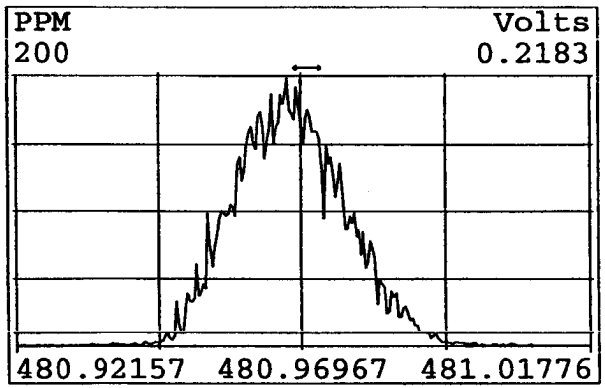
Peak Locate Examination:21-JUL-2004:04:24 File:A20JUL04B_RES_CHECK
Experiment:EXP_DB5MS Function:5 Reference:PFK

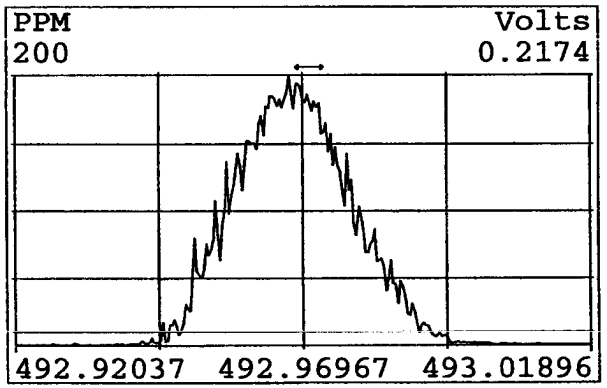


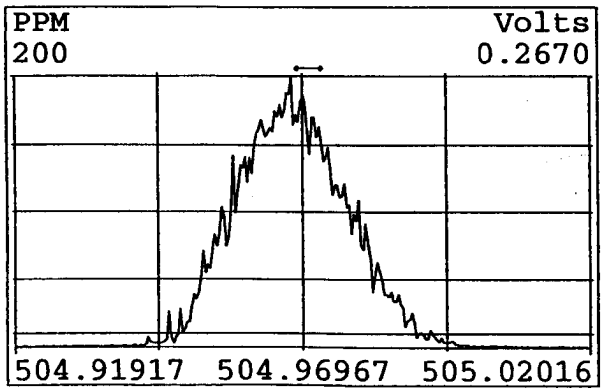


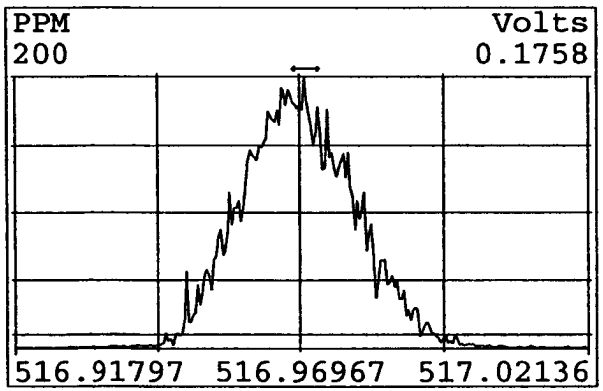






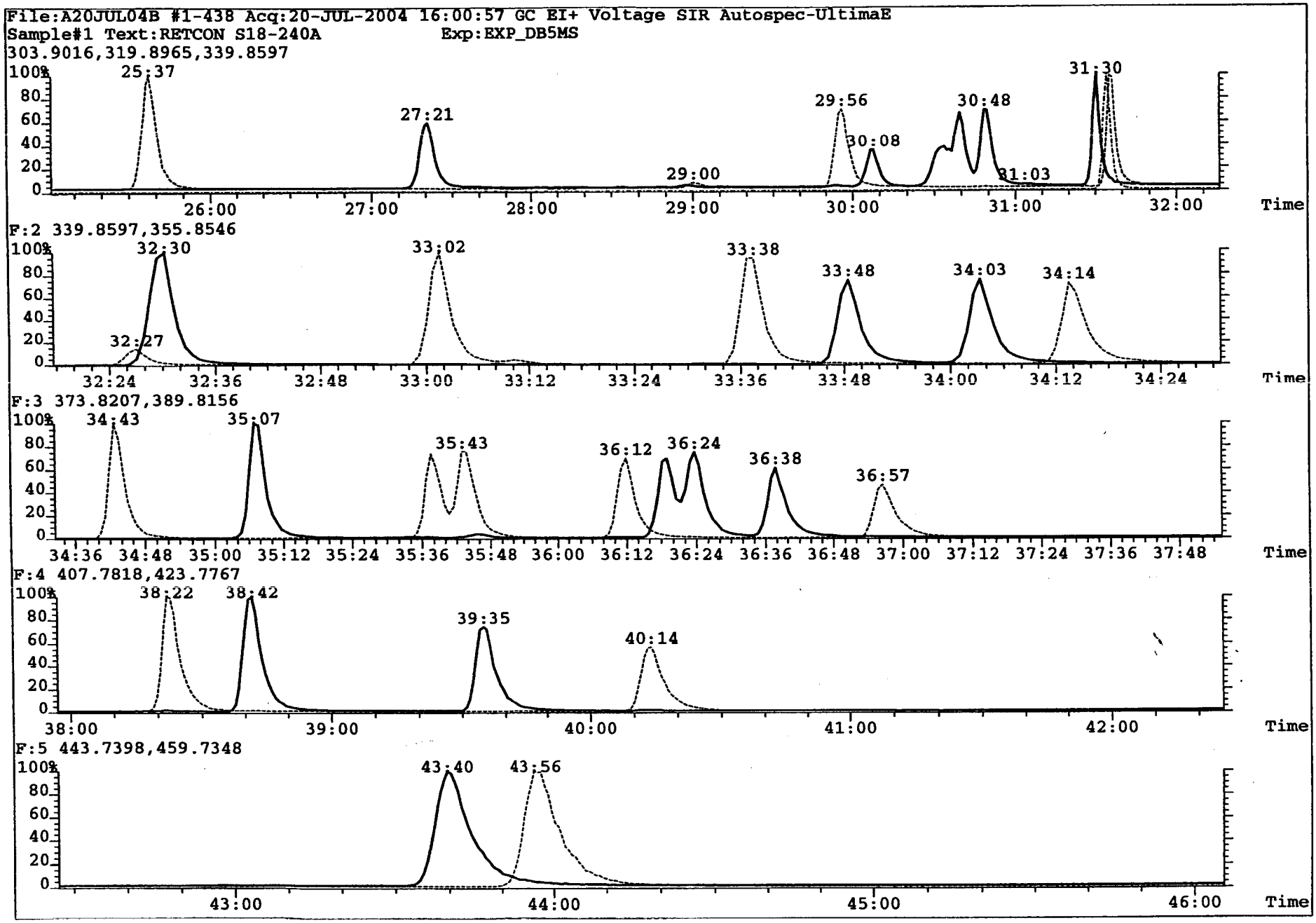




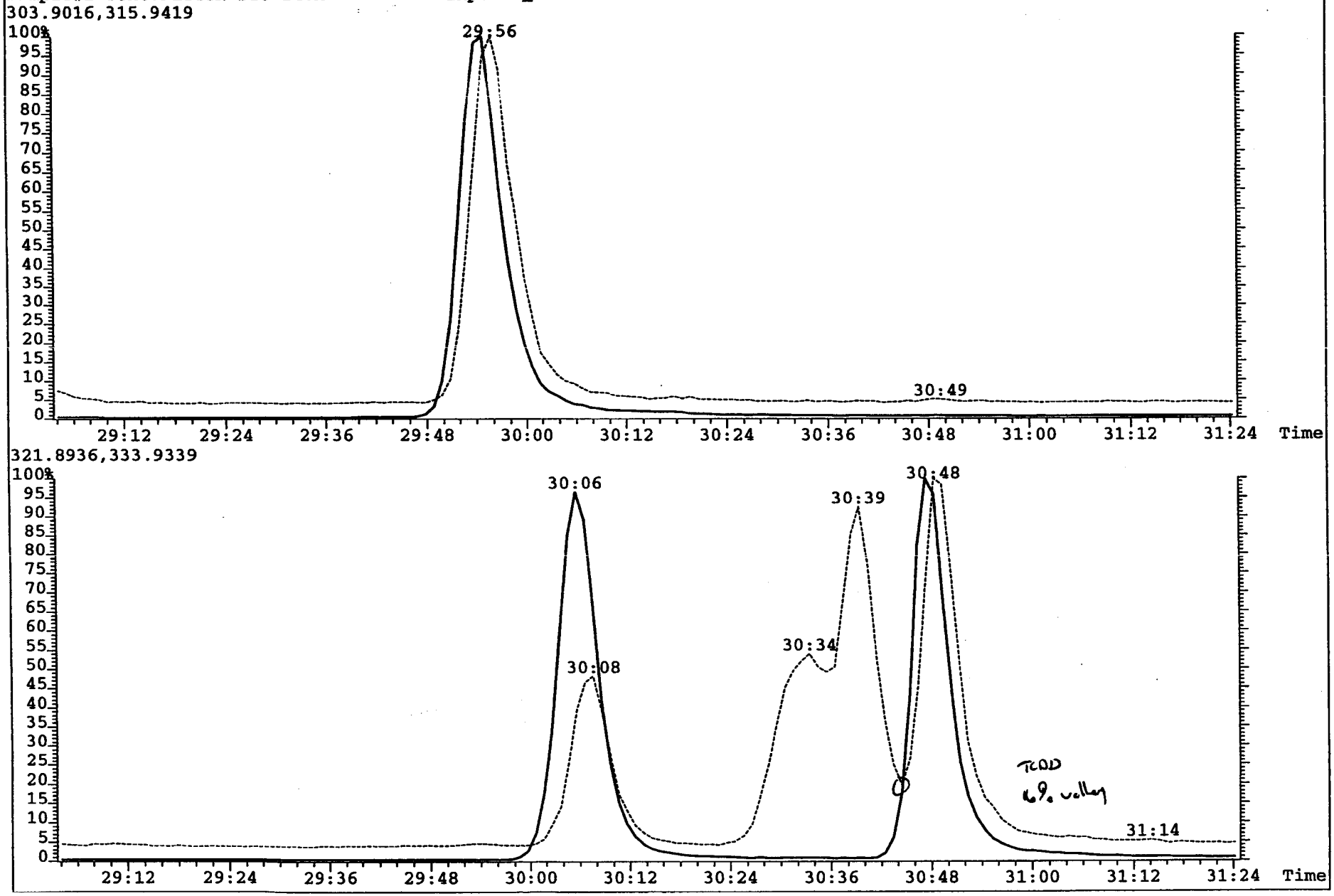


Filename ; a20jul04b
Sample ; 1
Acquired ; 20-JUL-04 16:00:57
Processed ; 21-JUL-04 11:05:16
Sample ID ; RETCON S18-240A

Name	First Eluter RT	Last Eluter RT
TCDD	27:21	31:30
PeCDD	32:30	34:03
HxCDD	35:07	36:38
HpCDD	38:42	39:35
OCDD	43:40	
TCDF	25:37	31:35
PeCDF	31:34	34:14
HxCDF	34:43	36:57
HpCDF	38:22	40:14
OCDF	43:56	

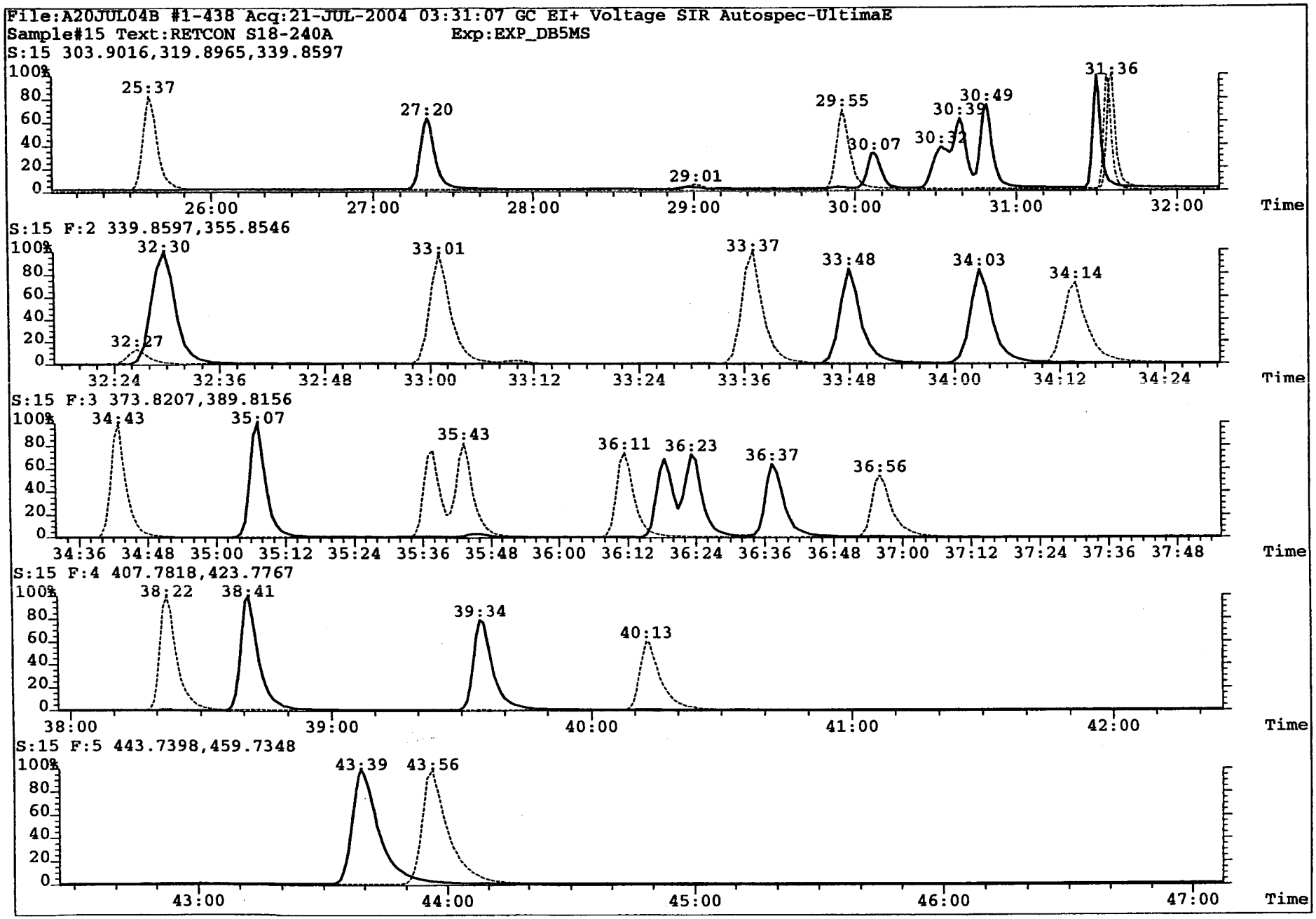

File:A20JUL04B #1-438 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
303.9016,319.8965,339.8597
25:37
27:21
29:00
29:56
30:08
30:48
31:03
31:30
Time
F:2 339.8597,355.8546
32:27
32:30
33:02
33:38
33:48
34:03
34:14
Time
F:3 373.8207,389.8156
34:43
35:07
35:43
36:12
36:24
36:38
36:57
Time
F:4 407.7818,423.7767
38:22
38:42
39:35
40:14
Time
F:5 443.7398,459.7348
43:40
43:56
Time

File:A20JUL04B #1-438 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS

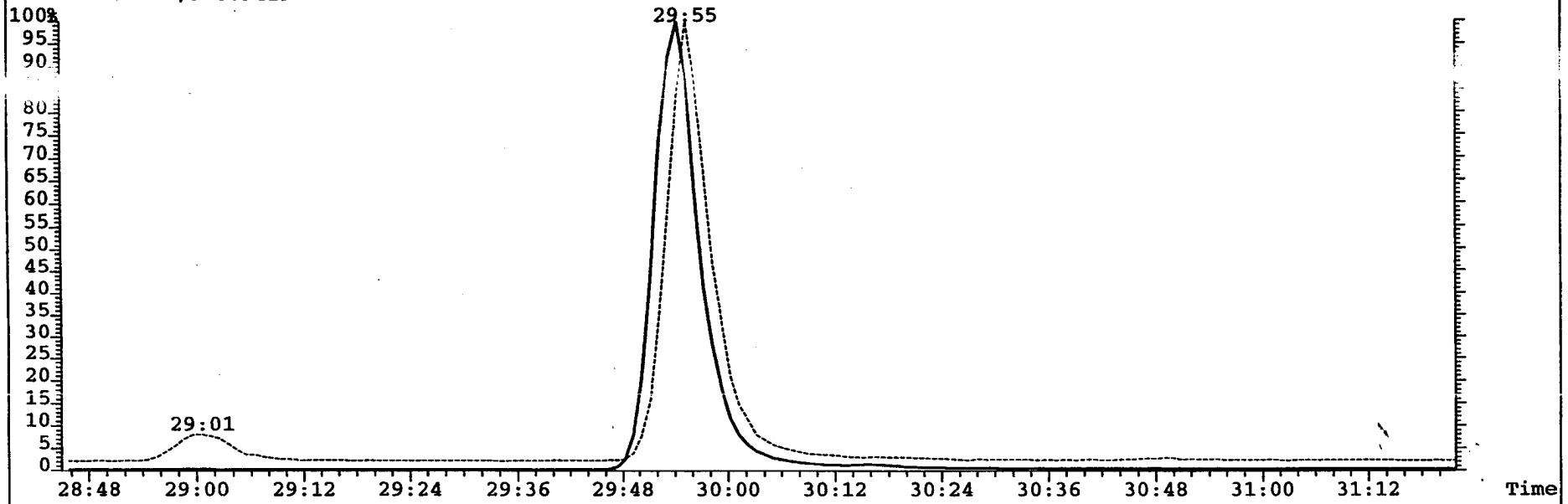


Filename ; a20jul04b
Sample ; 15
Acquired ; 21-JUL-04 03:31:07
Processed ; 21-JUL-04 11:05:23
Sample ID ; RETCON S18-240A

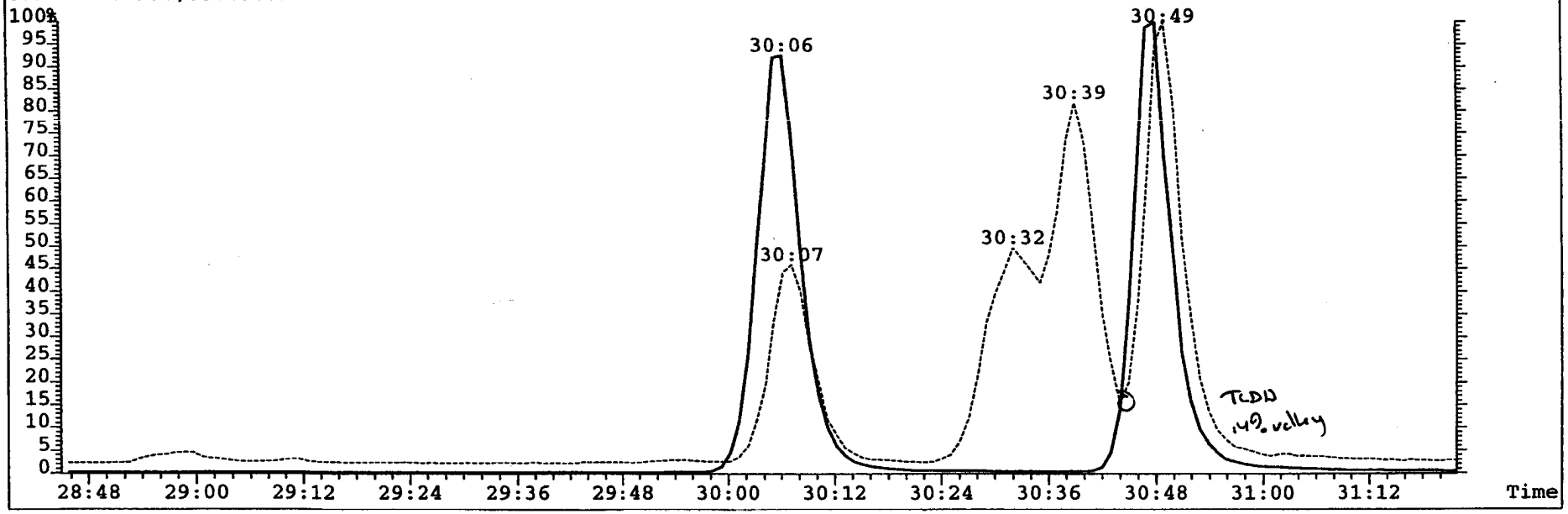
Name	First Eluter RT	Last Eluter RT
TCDD	27:20	31:30
PeCDD	32:30	34:03
HxCDD	35:07	36:37
HpCDD	38:41	39:34
OCDD	43:39	
TCDF	25:37	31:36
PeCDF	31:34	34:14
HxCDF	34:43	36:56
HpCDF	38:22	40:13
OCDF	43:56	


File:A20JUL04B #1-438 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
S:15 303.9016,319.8965,339.8597
25:37
27:20
29:01
29:55
30:07
30:32
30:39
30:49
31:36
Time
S:15 F:2 339.8597,355.8546
32:27
32:30
33:01
33:37
33:48
34:03
34:14
Time
S:15 F:3 373.8207,389.8156
34:43
35:07
35:43
36:11
36:23
36:37
36:56
Time
S:15 F:4 407.7818,423.7767
38:22
38:41
39:34
40:13
Time
S:15 F:5 443.7398,459.7348
43:39
43:56
Time

File:A20JUL04B #1-438 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
S:15 303.9016,315.9419



S:15 321.8936,333.9339



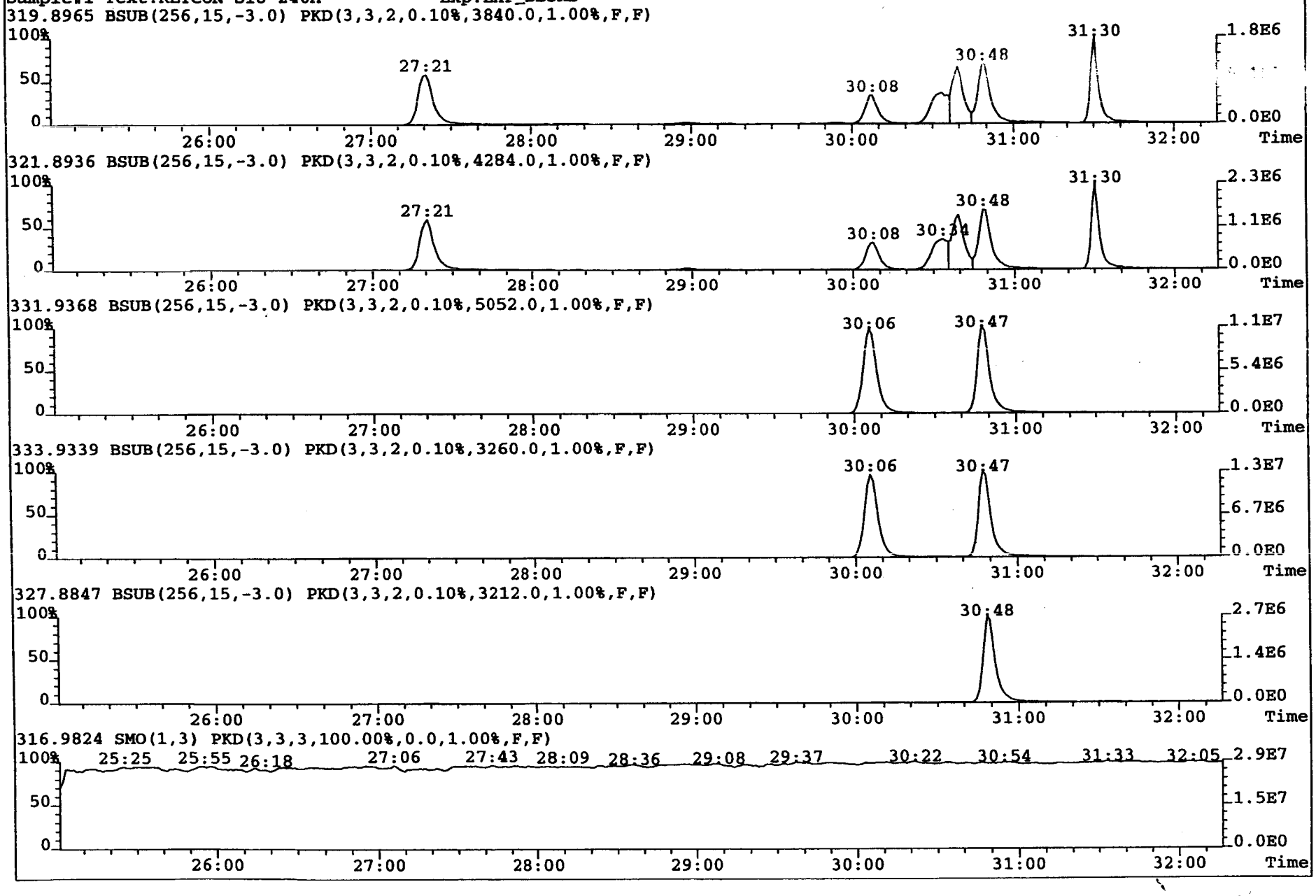
Run #6 Filename a20jul04b S: 1 I: 1 Acquired: 20-JUL-04 16:00:57 Processed: 20-JUL-04 16:47:02
Run: Analyte: m8290-061» Cal: m8290-122» Results: Quan : V3.6 6-JAN-2000 17:51:42
Sample text: RETCON S18-240A Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

Typ	Name	Resp	RA		RT	Conc	Dev'n	CCAL RRF	ICAL RRF	Mod?
Unk	2,3,7,8-TCDD	1.6e+07	0.79	y	30:49	10.73	7.3	1.2096	1.1269	n
Unk	1,2,3,7,8-PeCDD	5.6e+07	1.61	y	33:49	49.42	-1.2	1.0574	1.0699	n
Unk	1,2,3,4,7,8-HxCDD	4.1e+07	1.18	y	36:19	41.68	-16.6	0.7259	0.8708	n
Unk	1,2,3,6,7,8-HxCDD	5.3e+07	1.17	y	36:24	47.63	-4.7	0.9399	0.9866	n
Unk	1,2,3,7,8,9-HxCDD	4.5e+07	1.15	y	36:39	44.69	-10.6	0.8112	0.9075	n
Unk	1,2,3,4,6,7,8-HpCDD	3.8e+07	1.07	y	39:36	49.72	-0.6	1.1591	1.1657	n
Unk	OCDD	5.4e+07	0.88	y	43:42	95.04	-5.0	1.0479	1.1027	n
Unk	2,3,7,8-TCDF	2.0e+07	0.78	y	29:57	8.956	-10.4	0.9684	1.0813	n
Unk	1,2,3,7,8-PeCDF	9.5e+07	1.57	y	33:02	48.61	-2.8	1.0419	1.0717	n
Unk	2,3,4,7,8-PeCDF	9.6e+07	1.57	y	33:38	45.69	-8.6	1.0511	1.1502	n
Unk	1,2,3,4,7,8-HxCDF	6.7e+07	1.18	y	35:38	41.82	-16.4	0.8733	1.0442	n
Unk	1,2,3,6,7,8-HxCDF	8.9e+07	1.20	y	35:44	49.21	-1.6	1.1653	1.1840	n
Unk	2,3,4,6,7,8-HxCDF	7.3e+07	1.23	y	36:13	43.53	-12.9	0.9499	1.0911	n
Unk	1,2,3,7,8,9-HxCDF	6.0e+07	1.22	y	36:58	43.99	-12.0	0.7867	0.8941	n
Unk	1,2,3,4,6,7,8-HpCDF	6.6e+07	0.97	y	38:24	47.22	-5.6	1.3583	1.4383	n
Unk	1,2,3,4,7,8,9-HpCDF	4.8e+07	0.98	y	40:15	43.79	-12.4	0.9861	1.1259	n
Unk	OCDF	6.7e+07	0.84	y	43:59	88.90	-11.1	1.2996	1.4619	n
ES/RT	13C-2,3,7,8-TCDD	1.3e+08	0.81	y	30:48	91.46	-8.5	0.9518	1.0407	n
ES	13C-1,2,3,7,8-PeCDD	1.1e+08	1.60	y	33:48	92.86	-7.1	0.7854	0.8458	n
ES	13C-1,2,3,6,7,8-HxCDD	1.1e+08	1.22	y	36:24	106.6	6.6	1.1833	1.1105	n
ES	13C-1,2,3,4,6,7,8-HpCDD	6.5e+07	1.02	y	39:35	87.80	-12.2	0.6901	0.7861	n
ES	13C-OCDD	1.0e+08	0.87	y	43:41	159.7	-20.2	0.5447	0.6823	n
ES/RT	13C-2,3,7,8-TCDF	2.1e+08	0.83	y	29:56	91.79	-8.2	1.5338	1.6709	n
ES	13C-1,2,3,7,8-PeCDF	1.8e+08	1.63	y	33:02	92.36	-7.6	1.3387	1.4495	n
ES	13C-1,2,3,6,7,8-HxCDF	1.5e+08	0.52	y	35:44	103.7	3.7	1.6158	1.5578	n
ES	13C-1,2,3,4,6,7,8-HpCDF	9.7e+07	0.46	y	38:23	91.31	-8.7	1.0289	1.1269	n
JS	13C-1,2,3,4-TCDD	1.4e+08	0.82	y	30:06	219.6	-	-	-	n
JS	13C-1,2,3,7,8,9-HxCDD	9.5e+07	1.20	y	36:38	181.8	-	-	-	n
CS	37Cl-2,3,7,8-TCDD	1.4e+07	1.60	y	30:49	9.059	-9.4	1.0387	1.1465	n
CS	13C-2,3,4,7,8-PeCDF	1.7e+08	1.22	y	33:37	85.91	-14.1	1.2803	1.4903	n
CS	13C-1,2,3,4,7,8-HxCDD	8.0e+07	0.50	y	36:18	91.88	-8.1	0.8445	0.9191	n
CS	13C-1,2,3,4,7,8-HxCDF	1.1e+08	0.46	y	35:37	91.30	-8.7	1.1700	1.2815	n
CS	13C-1,2,3,4,7,8,9-HpCDF	7.8e+07			40:15	85.81	-14.2	0.8197	0.9553	n
			1.60	y						
SS	37Cl-2,3,7,8-TCDD	1.4e+07	1.22	y	30:49	9.902	-1.0	1.0913	1.1020	n
SS	13C-2,3,4,7,8-PeCDF	1.7e+08	0.50	y	33:37	93.02	-7.0	0.9564	1.0282	n
SS	13C-1,2,3,4,7,8-HxCDD	8.0e+07	0.46	y	36:18	86.17	-13.8	0.7136	0.8281	n
SS	13C-1,2,3,4,7,8-HxCDF	1.1e+08			35:37	88.03	-12.0	0.7241	0.8226	n
SS	13C-1,2,3,4,7,8,9-HpCDF	7.8e+07			40:15	93.92	-6.1	0.7967	0.8483	n
DPE	HxCDPE	*			NotFnd	*	-	-	-	n
DPE	HpCDPE	*			NotFnd	*	-	-	-	n
DPE	OCDPE	*			NotFnd	*	-	-	-	n
DPE	NCDPE	*			NotFnd	*	-	-	-	n
DPE	DCDPE	*			NotFnd	*	-	-	-	n

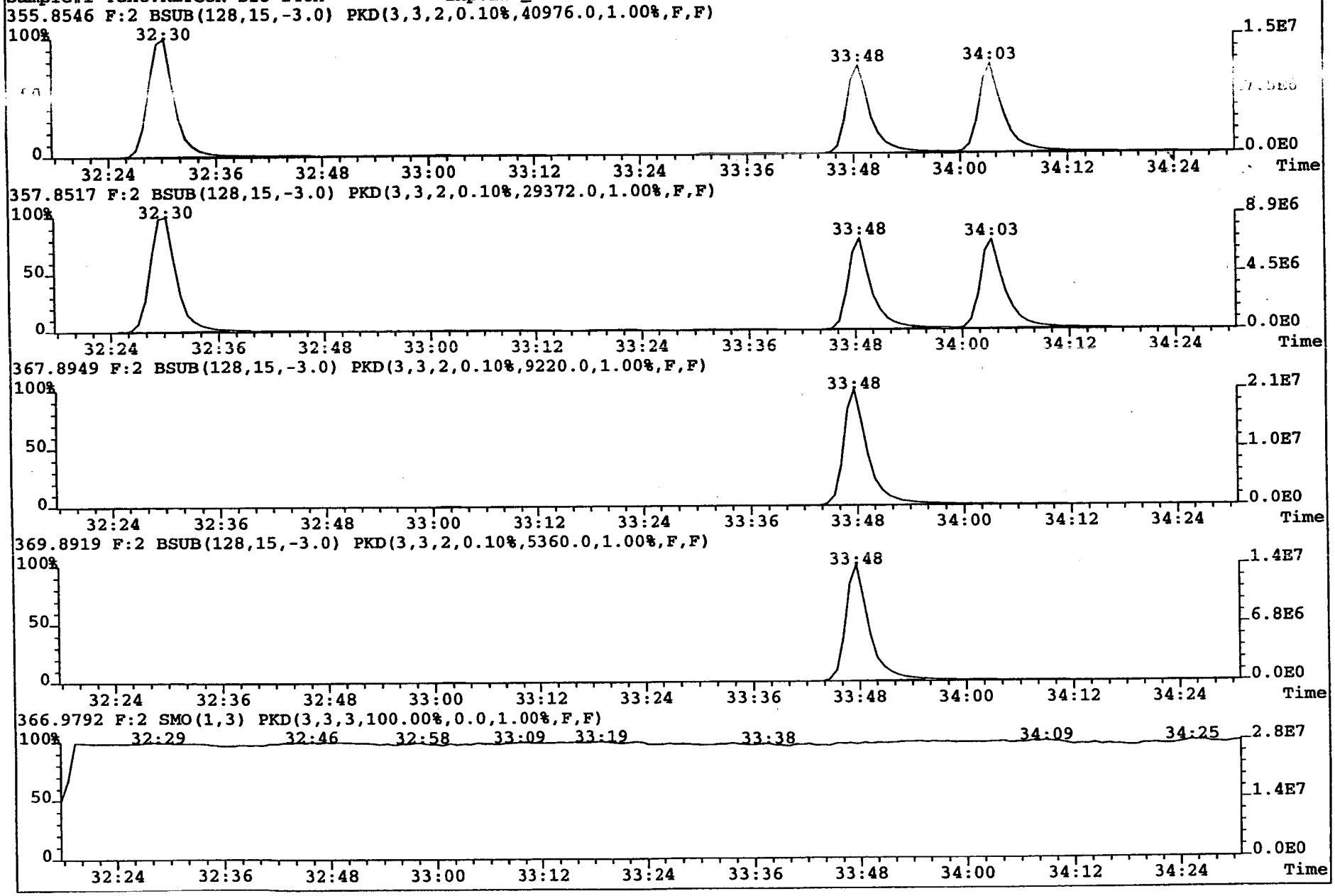
Filename ; a20jul04b
Sample ; 1
Acquired ; 20-JUL-04 16:00:57
Processed ; 20-JUL-04 16:49:40
Sample ID ; RETCON S18-240A
Cal Table ; ml613-122203b
Results Table ;
Comments ;

Typ	Name	Resp	RA;?;	RT	S/N1;?;	S/N;?;	Conc	Limits	mod?
Unk	2,3,7,8-TCDD	1.56e+07	0.79;y;	30:49	350;y;	45;y;	10.693	7.8 - 12.9	no
Unk	1,2,3,7,8-PeCDD	5.64e+07	1.61;y;	33:49	273;y;	24;y;	49.416	39 - 65	no
Unk	1,2,3,4,7,8-HxCDD	4.07e+07	1.18;y;	36:19	713;y;	54;y;	48.377	39 - 64	no
Unk	1,2,3,6,7,8-HxCDD	5.27e+07	1.17;y;	36:24	775;y;	61;y;	47.633	39 - 64	no
Unk	1,2,3,7,8,9-HxCDD	4.55e+07	1.15;y;	36:39	631;y;	50;y;	47.670	41 - 61	no
Unk	1,2,3,4,6,7,8-HpCDD	3.79e+07	1.07;y;	39:36	770;y;	70;y;	49.717	43 - 58	no
Unk	OCDD	5.41e+07	0.88;y;	43:42	241;y;	45;y;	95.212	79 - 126	no
Unk	2,3,7,8-TCDF	2.02e+07	0.78;y;	29:57	282;y;	44;y;	8.842	8.4 - 12.0	no
Unk	1,2,3,7,8-PeCDF	9.48e+07	1.57;y;	33:02	306;y;	31;y;	48.609	41 - 60	no
Unk	2,3,4,7,8-PeCDF	9.56e+07	1.57;y;	33:38	287;y;	31;y;	49.121	41 - 61	no
Unk	1,2,3,4,7,8-HxCDF	6.68e+07	1.18;y;	35:38	414;y;	10;y;	47.507	45 - 56	no
Unk	1,2,3,6,7,8-HxCDF	8.92e+07	1.20;y;	35:44	425;y;	10;y;	49.210	44 - 57	no
Unk	2,3,4,6,7,8-HxCDF	7.27e+07	1.23;y;	36:13	392;y;	9;y;	47.864	45 - 56	no
Unk	1,2,3,7,8,9-HxCDF	6.02e+07	1.22;y;	36:58	262;y;	6;y;	49.695	44 - 57	no
Unk	1,2,3,4,6,7,8-HpCDF	6.62e+07	0.97;y;	38:24	932;y;	86;y;	47.217	45 - 55	no
Unk	1,2,3,4,7,8,9-HpCDF	4.80e+07	0.98;y;	40:15	525;y;	47;y;	46.616	43 - 58	no
Unk	OCDF	6.72e+07	0.84;y;	43:59	876;y;	108;y;	89.013	63 - 159	no
ES/RT	13C-2,3,7,8-TCDD	1.29e+08	0.81;y;	30:48	2063;y;	407;y;	91.224	82 - 121	no
ES	13C-1,2,3,7,8-PeCDD	1.07e+08	1.60;y;	33:48	2270;y;	253;y;	93.170	62 - 160	no
ES	13C-1,2,3,4,7,8-HxCDD	8.00e+07	1.22;y;	36:18	1899;y;	165;y;	91.883	85 - 117	no
ES	13C-1,2,3,6,7,8-HxCDD	1.12e+08	1.22;y;	36:24	2155;y;	189;y;	106.559	85 - 118	no
ES	13C-1,2,3,4,6,7,8-HpCDD	6.54e+07	1.02;y;	39:35	864;y;	114;y;	87.796	72 - 138	no
ES	13C-OCDD	1.03e+08	0.87;y;	43:41	1015;y;	179;y;	159.542	96 - 415	no
ES/RT	13C-2,3,7,8-TCDF	2.08e+08	0.83;y;	29:56	4137;y;	398;y;	92.105	71 - 140	no
ES	13C-1,2,3,7,8-PeCDF	1.82e+08	1.63;y;	33:02	498;y;	201;y;	92.668	76 - 130	no
ES	13C-2,3,4,7,8-PeCDF	1.74e+08	1.60;y;	33:37	484;y;	195;y;	86.196	77 - 130	no
ES	13C-1,2,3,4,7,8-HxCDF	1.11e+08	0.50;y;	35:37	802;y;	200;y;	91.297	76 - 131	no
ES	13C-1,2,3,6,7,8-HxCDF	1.53e+08	0.52;y;	35:44	856;y;	196;y;	103.724	70 - 143	no
ES	13C-2,3,4,6,7,8-HxCDF	1.25e+08	0.50;y;	36:12	723;y;	167;y;	94.298	73 - 137	no
ES	13C-1,2,3,7,8,9-HxCDF	1.02e+08	0.54;y;	36:57	464;y;	108;y;	91.841	74 - 135	no
ES	13C-1,2,3,4,6,7,8-HpCDF	9.74e+07	0.46;y;	38:23	916;y;	113;y;	91.308	78 - 129	no
ES	13C-1,2,3,4,7,8,9-HpCDF	7.76e+07	0.46;y;	40:15	530;y;	66;y;	85.813	77 - 129	no
JS	13C-1,2,3,4-TCDD	1.35e+08	0.82;y;	30:06	2034;y;	394;y;	218.831		no
JS	13C-1,2,3,7,8,9-HxCDD	9.47e+07	1.20;y;	36:38	1720;y;	153;y;	181.792		no
CS	37Cl-2,3,7,8-TCDD	1.41e+07	;	30:49	872;y	;	9.087	7.9 - 12.7	no
Tot	Total Tetra-Furans	6.94e+07	0.84;y;	25:38	405;y;	58;y;	30.321		no
Tot	Total Tetra-Dioxins	7.80e+07	0.84;y;	27:21	298;y;	38;y;	53.438		no
Tot	Total Penta-Furans Fn1	8.85e+07	0.62;y;	31:34	3041;y;	467;y;	45.372		no
Tot	Total Penta-Furans Fn2	2.86e+08	1.57;y;	32:27	43;y;	4;y;	146.802		no
Tot	Total Penta-Dioxins	1.92e+08	1.64;y;	32:30	363;y;	30;y;	168.329		no
Tot	Total Hexa-Furans	3.82e+08	1.17;y;	34:43	563;y;	14;y;	257.007		no
Tot	Total Hexa-Dioxins	2.06e+08	1.17;y;	35:08	1031;y;	83;y;	213.054		no

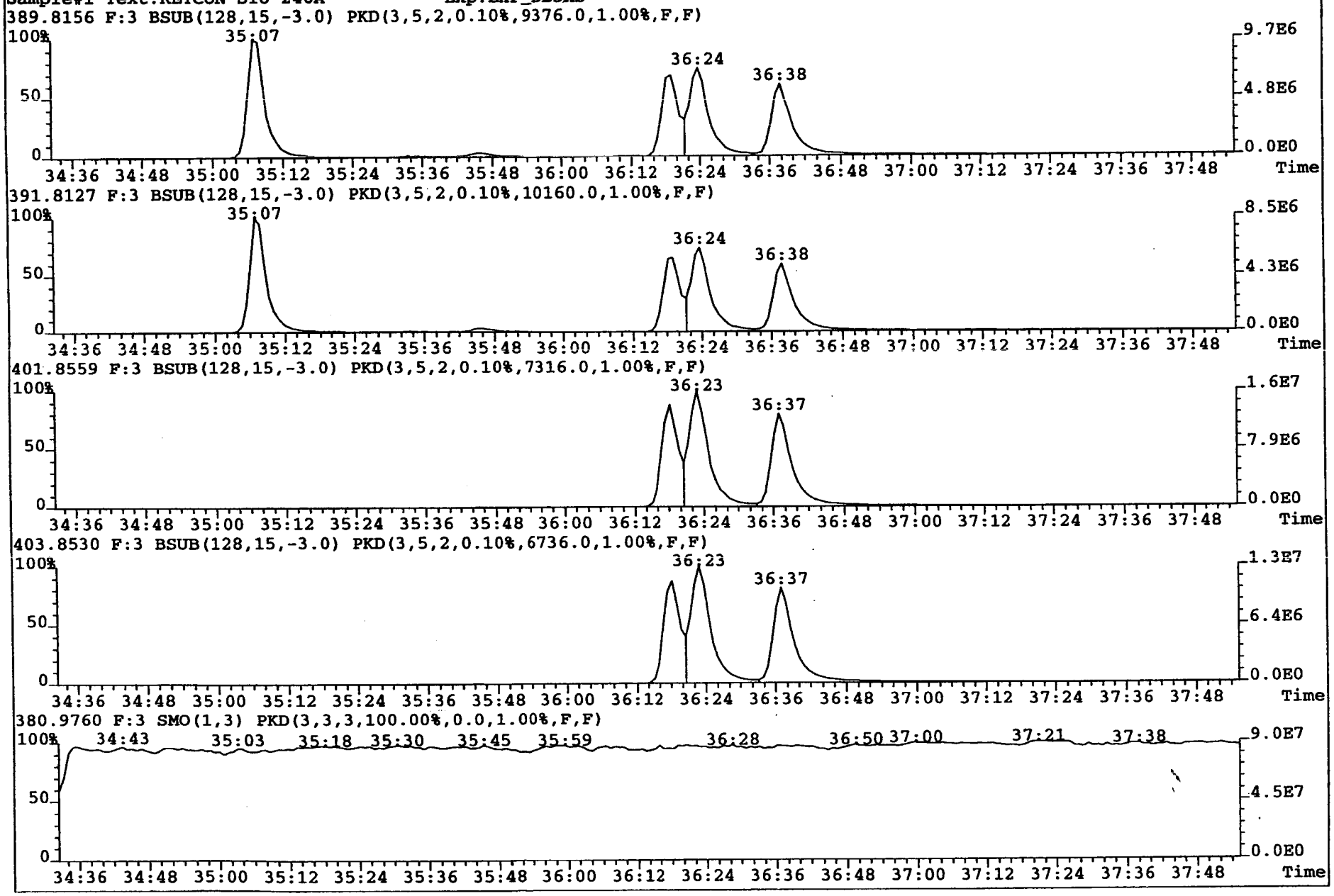
File:A20JUL04B #1-438 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS

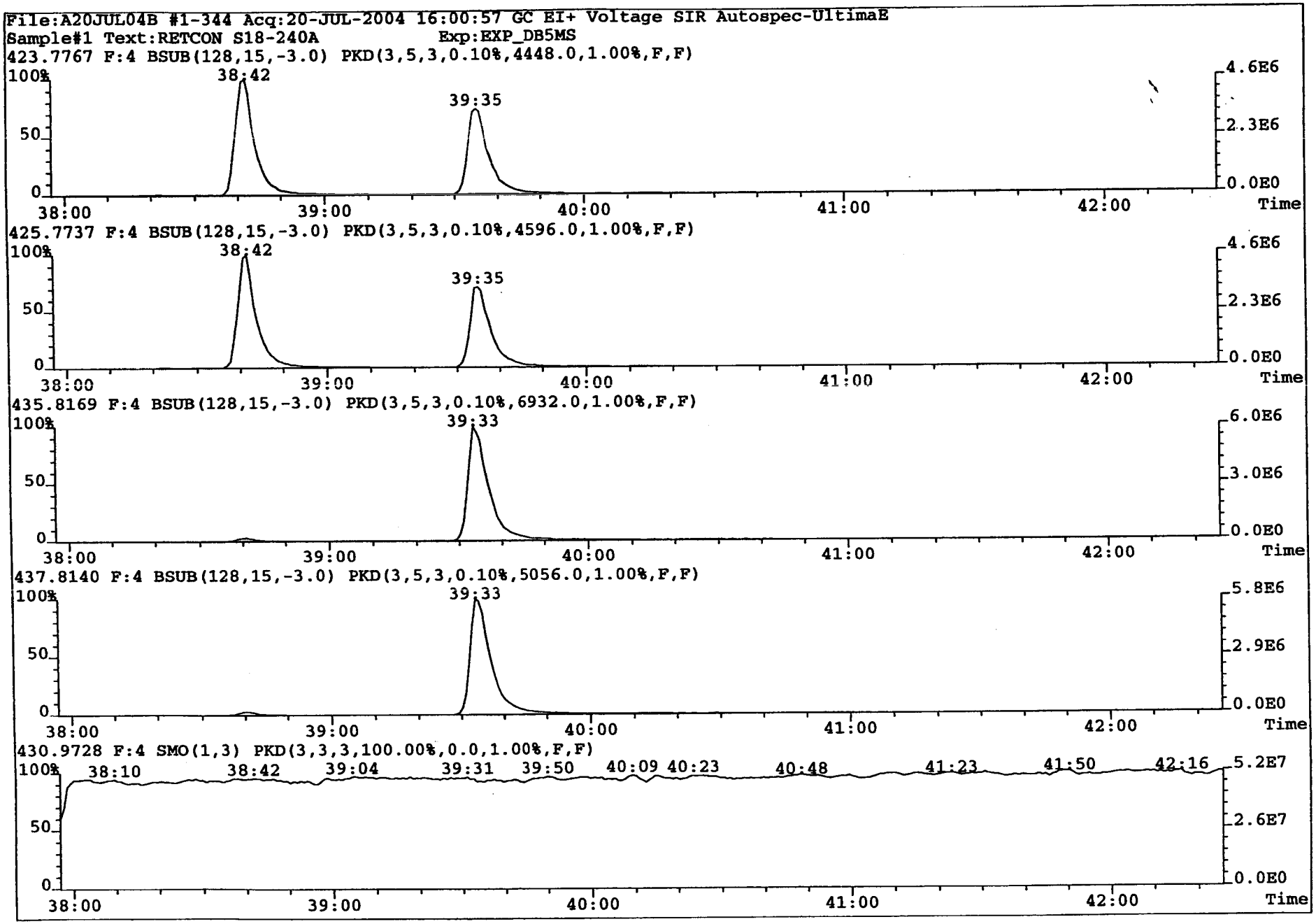


File:A20JUL04B #1-171 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS

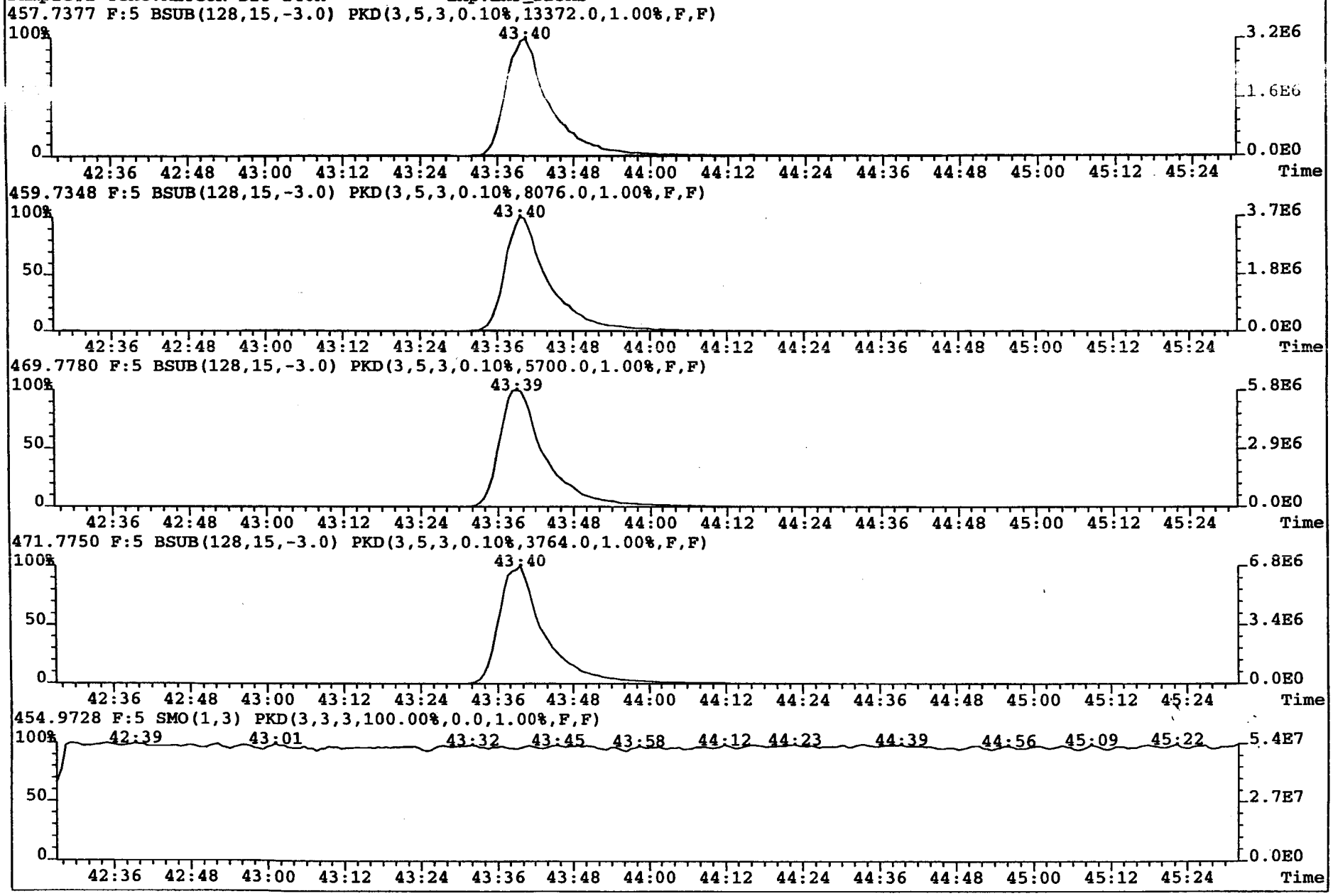


File:A20JUL04B #1-260 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS

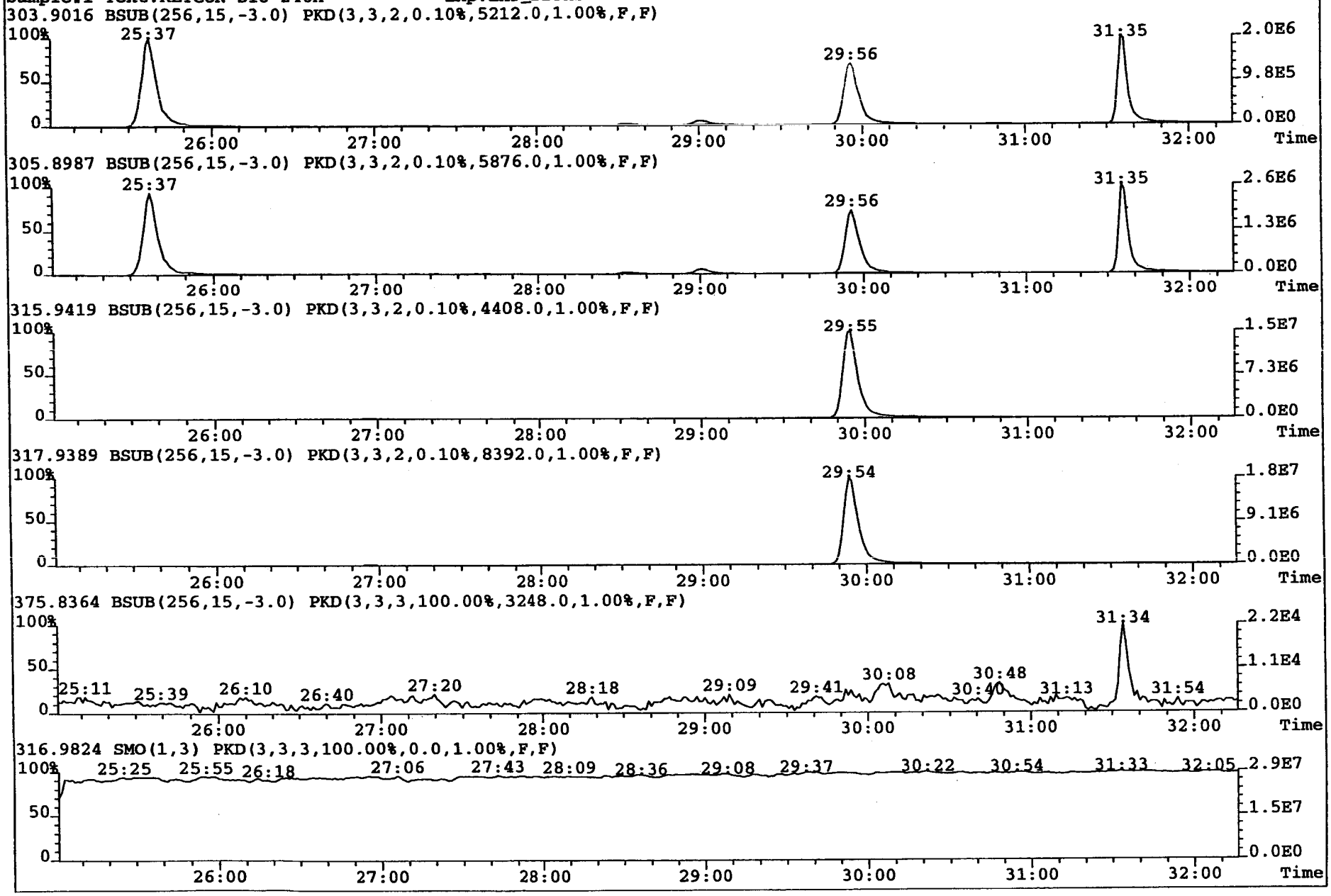


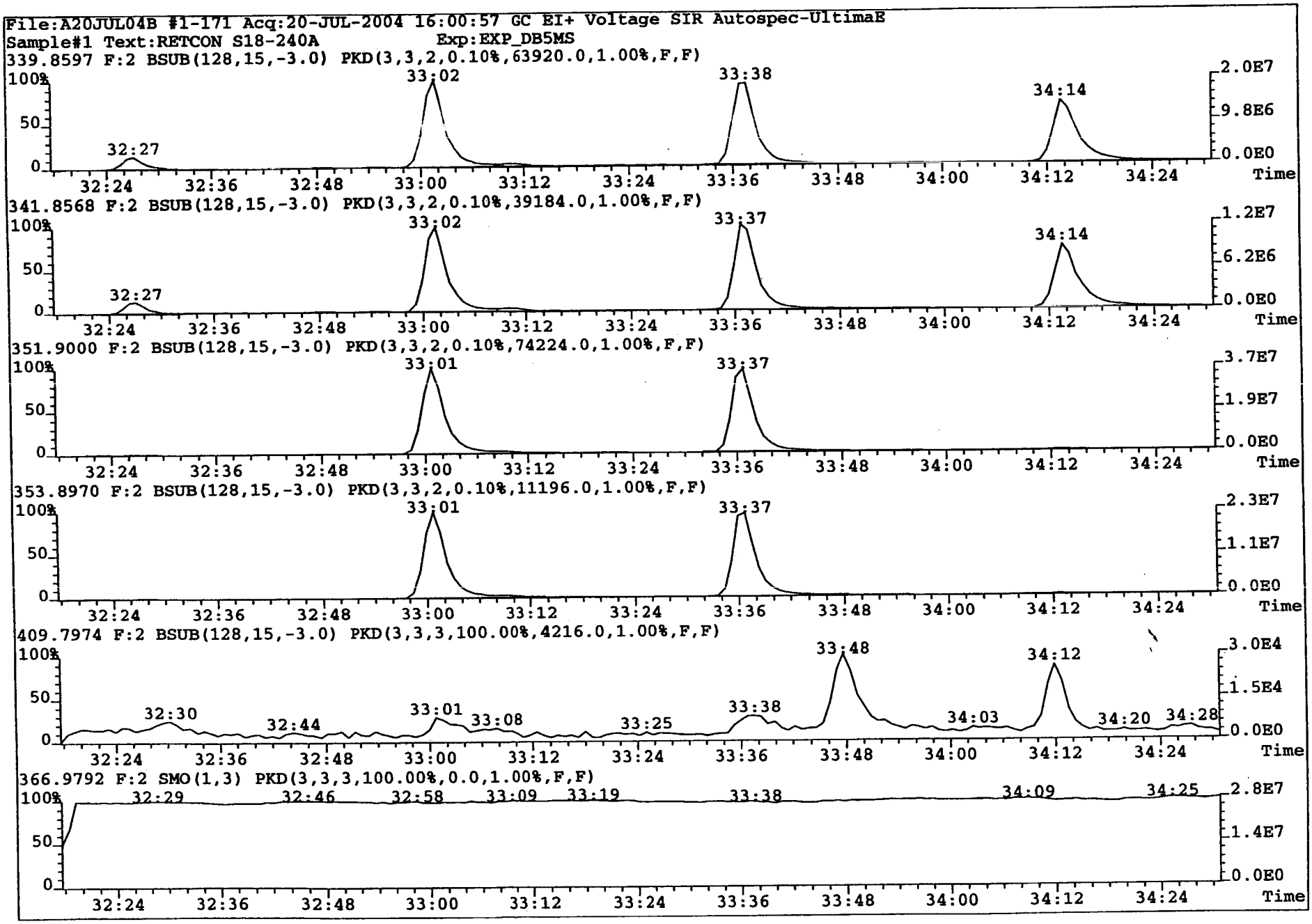

File:A20JUL04B #1-344 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
423.7767 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4448.0,1.00%,F,F)
38:42
39:35
4.6E6
2.3E6
0.0E0
425.7737 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4596.0,1.00%,F,F)
38:42
39:35
4.6E6
2.3E6
0.0E0
435.8169 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6932.0,1.00%,F,F)
39:33
6.0E6
3.0E6
0.0E0
437.8140 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5056.0,1.00%,F,F)
39:33
5.8E6
2.9E6
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:10 38:42 39:04 39:31 39:50 40:09 40:23 40:48 41:23 41:50 42:16
5.2E7
2.6E7
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time

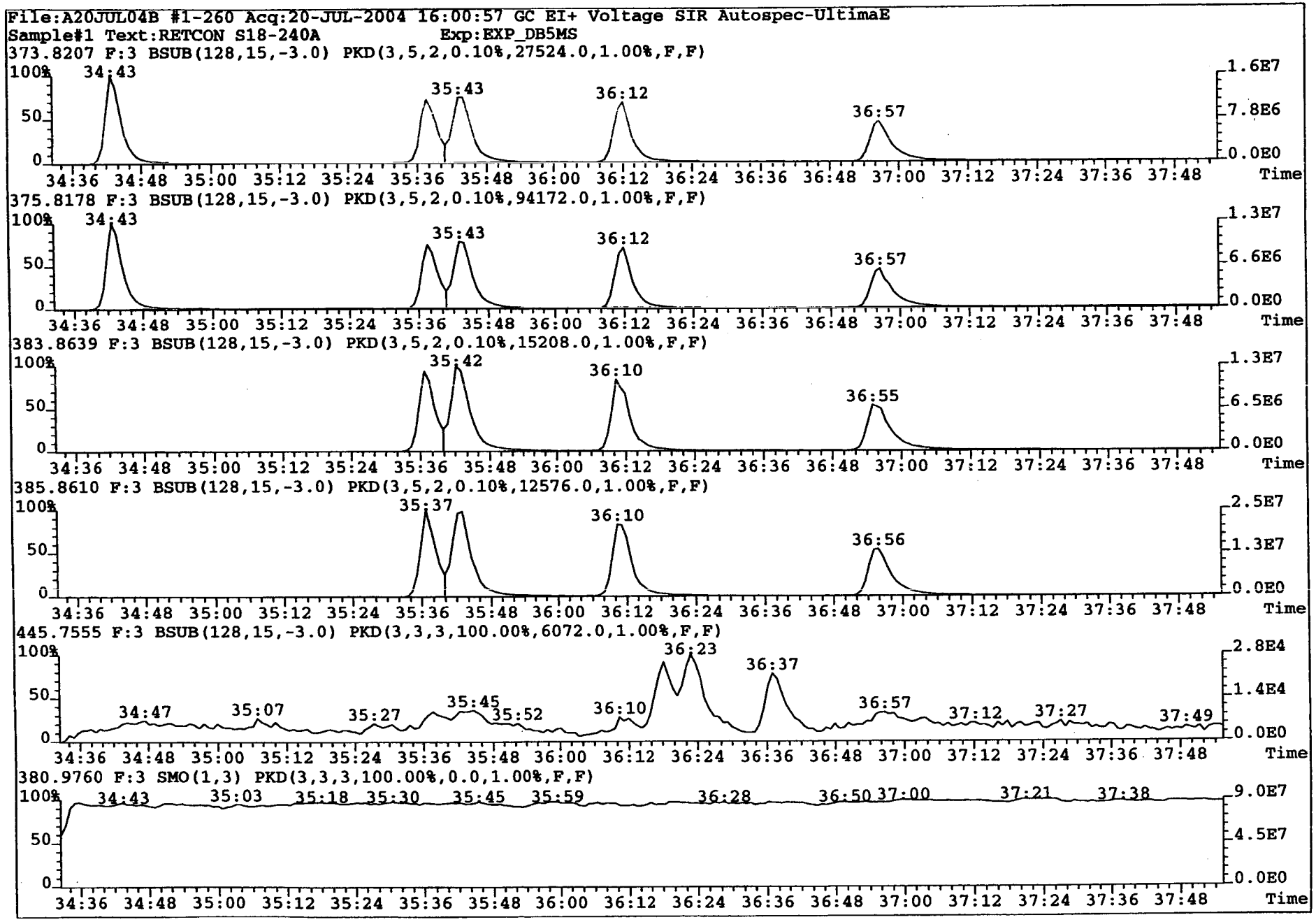
File:A20JUL04B #1-287 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS



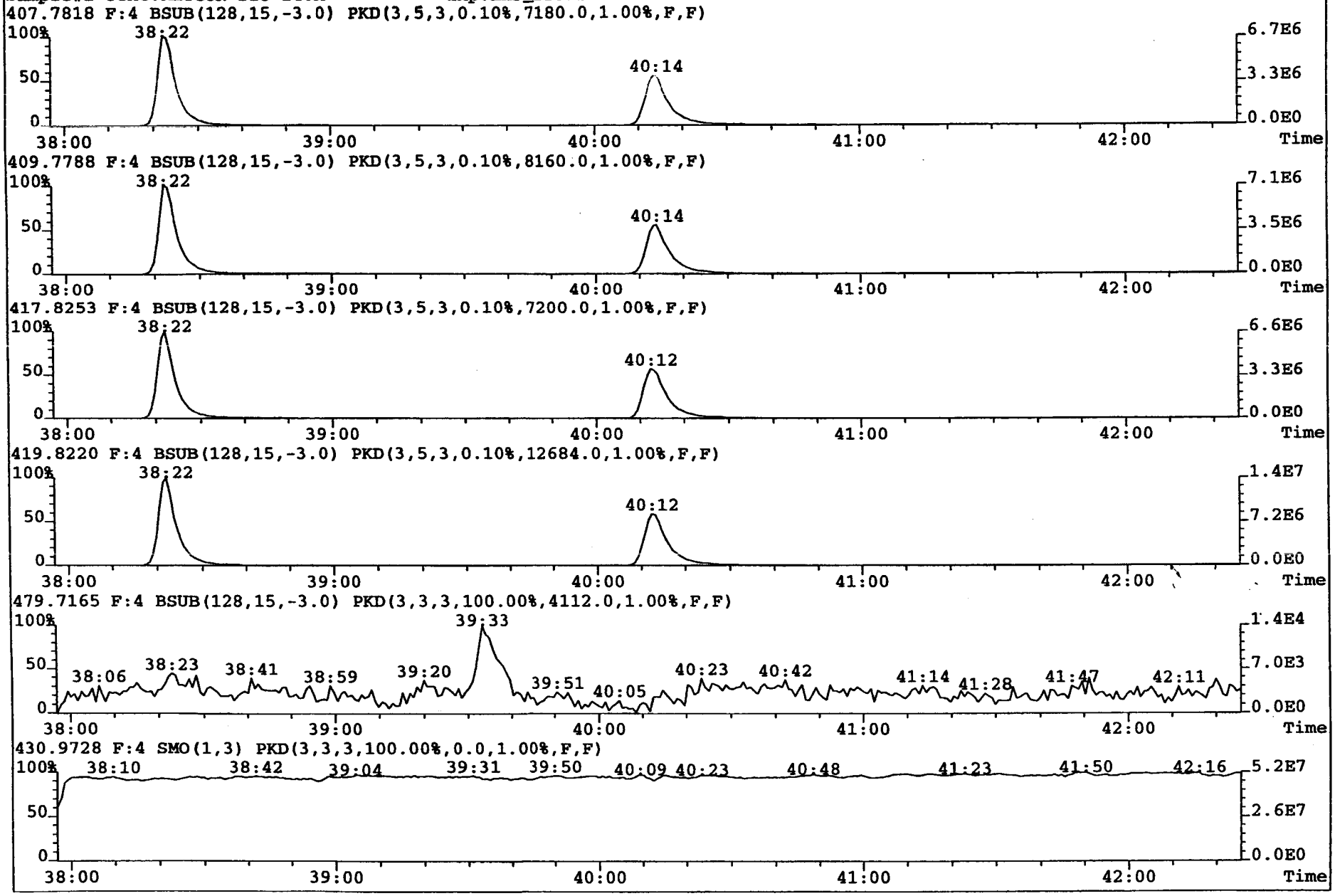
File:A20JUL04B #1-438 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS

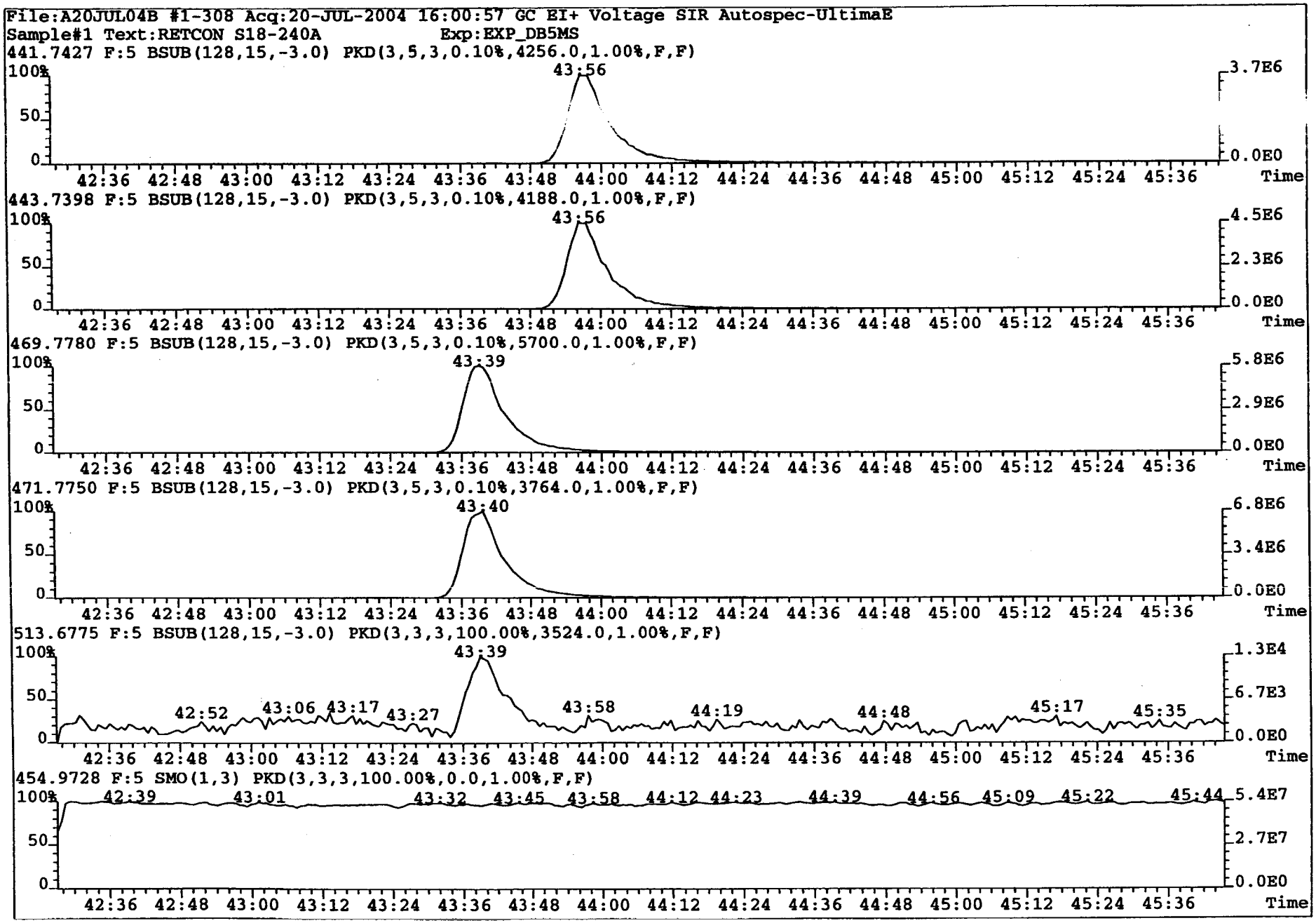


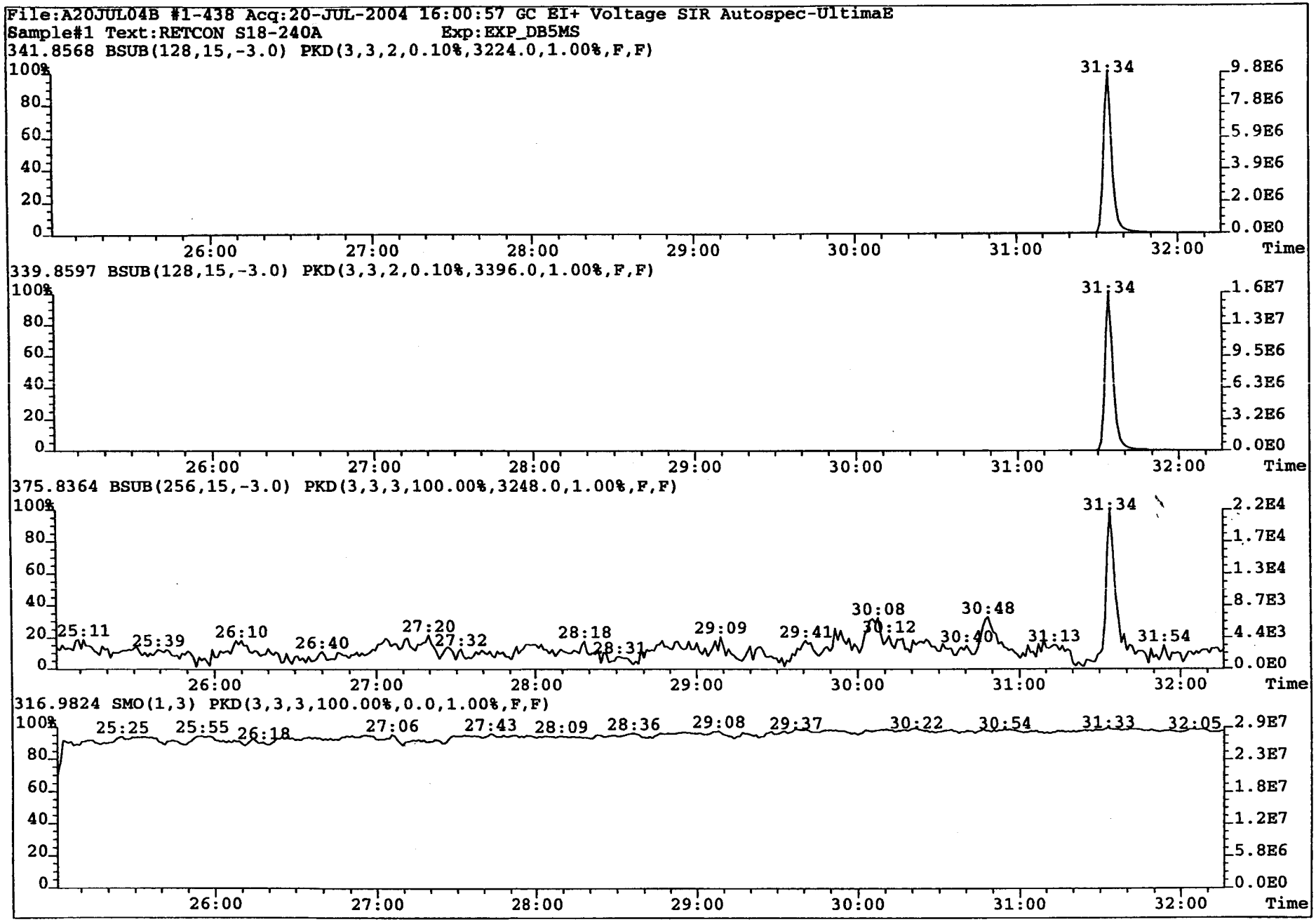

File:A20JUL04B #1-171 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
339.8597 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,63920.0,1.00%,F,F)
32:27
33:02
33:38
34:14
2.0E7
9.8E6
0.0E0
341.8568 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,39184.0,1.00%,F,F)
32:27
33:02
33:37
34:14
1.2E7
6.2E6
0.0E0
351.9000 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,74224.0,1.00%,F,F)
33:01
33:37
3.7E7
1.9E7
0.0E0
353.8970 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,11196.0,1.00%,F,F)
33:01
33:37
2.3E7
1.1E7
0.0E0
409.7974 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4216.0,1.00%,F,F)
32:30
32:44
33:01
33:08
33:25
33:38
33:48
34:03
34:12
34:20
34:28
3.0E4
1.5E4
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:29
32:46
32:58
33:09
33:19
33:38
34:09
34:25
2.8E7
1.4E7
0.0E0
100%
50
0
32:24
32:36
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
Time


File:A20JUL04B #1-260 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
373.8207 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,27524.0,1.00%,F,F)
34:43
35:43
36:12
36:57
1.6E7
7.8E6
0.0E0
375.8178 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,94172.0,1.00%,F,F)
34:43
35:43
36:12
36:57
1.3E7
6.6E6
0.0E0
383.8639 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,15208.0,1.00%,F,F)
35:42
36:10
36:55
1.3E7
6.5E6
0.0E0
385.8610 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,12576.0,1.00%,F,F)
35:37
36:10
36:56
2.5E7
1.3E7
0.0E0
445.7555 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,6072.0,1.00%,F,F)
34:47
35:07
35:27
35:45
35:52
36:10
36:23
36:37
36:57
37:12
37:27
37:49
2.8E4
1.4E4
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:43
35:03
35:18
35:30
35:45
35:59
36:28
36:50
37:00
37:21
37:38
9.0E7
4.5E7
0.0E0
100%
50
0
34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48
Time

File:A20JUL04B #1-344 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS




File:A20JUL04B #1-308 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
441.7427 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4256.0,1.00%,F,F)
43:56
3.7E6
0.0E0
443.7398 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4188.0,1.00%,F,F)
43:56
4.5E6
2.3E6
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5700.0,1.00%,F,F)
43:39
5.8E6
2.9E6
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3764.0,1.00%,F,F)
43:40
6.8E6
3.4E6
0.0E0
513.6775 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3524.0,1.00%,F,F)
43:39
42:52
43:06
43:17
43:27
43:58
44:19
44:48
45:17
45:35
1.3E4
6.7E3
0.0E0
454.9728 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:39
43:01
43:32
43:45
43:58
44:12
44:23
44:39
44:56
45:09
45:22
45:44
5.4E7
2.7E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36
Time


File:A20JUL04B #1-438 Acq:20-JUL-2004 16:00:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S18-240A Exp:EXP_DB5MS
341.8568 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3224.0,1.00%,F,F)
31:34
9.8E6
7.8E6
5.9E6
3.9E6
2.0E6
0.0E0
339.8597 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3396.0,1.00%,F,F)
31:34
1.6E7
1.3E7
9.5E6
6.3E6
3.2E6
0.0E0
375.8364 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3248.0,1.00%,F,F)
31:34
2.2E4
1.7E4
1.3E4
8.7E3
4.4E3
0.0E0
25:11 25:39 26:10 26:40 27:20 27:32 28:18 28:31 29:09 29:41 30:08 30:12 30:40 30:48 31:13 31:54
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:25 25:55 26:18 27:06 27:43 28:09 28:36 29:08 29:37 30:22 30:54 31:33 32:05
2.9E7
2.3E7
1.8E7
1.2E7
5.8E6
0.0E0
100%
80
60
40
20
0
26:00 27:00 28:00 29:00 30:00 31:00 32:00
Time

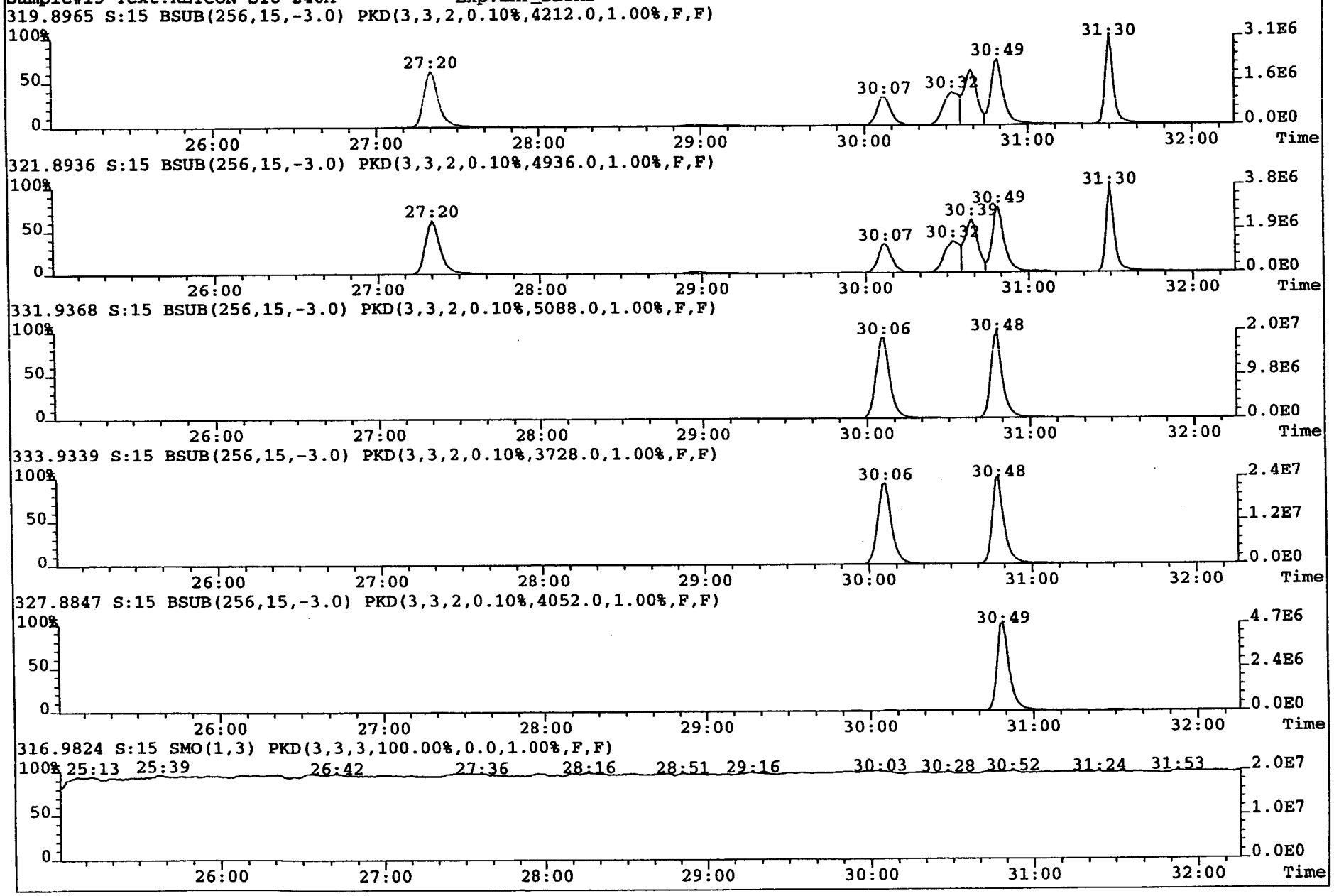
Run #7 Filename a20jul04b S: 15 I: 1 Acquired: 21-JUL-04 03:31:07 Processed: 21-JUL-04 08:06:17
Run: Analyte: m8290-061» Cal: m8290-122» Results: m8290-072» Quan : V3.6 6-JAN-2000 17:51:42
Sample text: RETCON S18-240A Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

Typ	Name	Resp	RA		RT	Conc	Dev'n	CCAL RRF	ICAL RRF	Mod?
Unk	2,3,7,8-TCDD	2.8e+07	0.81	y	30:49	11.31	13.1	1.2739	1.1269	n
Unk	1,2,3,7,8-PeCDD	1.1e+08	1.58	y	33:48	49.51	-1.0	1.0595	1.0699	n
Unk	1,2,3,4,7,8-HxCDD	8.2e+07	1.13	y	36:18	44.67	-10.7	0.7780	0.8708	n
Unk	1,2,3,6,7,8-HxCDD	1.0e+08	1.14	y	36:24	48.43	-3.1	0.9556	0.9866	n
Unk	1,2,3,7,8,9-HxCDD	9.3e+07	1.16	y	36:38	48.54	-2.9	0.8809	0.9075	n
Unk	1,2,3,4,6,7,8-HpCDD	7.8e+07	1.04	y	39:36	47.27	-5.5	1.1021	1.1657	n
Unk	OCDD	1.2e+08	0.87	y	43:41	94.79	-5.2	1.0452	1.1027	n
Unk	2,3,7,8-TCDF	3.8e+07	0.76	y	29:56	9.323	-6.8	1.0081	1.0813	n
Unk	1,2,3,7,8-PeCDF	1.7e+08	1.57	y	33:01	46.46	-7.1	0.9958	1.0717	n
Unk	2,3,4,7,8-PeCDF	1.7e+08	1.54	y	33:37	44.47	-11.1	1.0229	1.1502	n
Unk	1,2,3,4,7,8-HxCDF	1.2e+08	1.15	y	35:38	42.13	-15.7	0.8799	1.0442	n
Unk	1,2,3,6,7,8-HxCDF	1.6e+08	1.16	y	35:43	46.79	-6.4	1.1080	1.1840	n
Unk	2,3,4,6,7,8-HxCDF	1.4e+08	1.19	y	36:12	44.51	-11.0	0.9714	1.0911	n
Unk	1,2,3,7,8,9-HxCDF	1.1e+08	1.21	y	36:57	45.24	-9.5	0.8090	0.8941	n
Unk	1,2,3,4,6,7,8-HpCDF	1.3e+08	0.99	y	38:23	47.58	-4.8	1.3687	1.4383	n
Unk	1,2,3,4,7,8,9-HpCDF	9.7e+07	0.99	y	40:14	46.50	-7.0	1.0472	1.1259	n
Unk	OCDF	1.4e+08	0.83	y	43:58	83.77	-16.2	1.2246	1.4619	n
ES/RT	13C-2,3,7,8-TCDD	2.2e+08	0.79	y	30:48	90.49	-9.5	0.9417	1.0407	n
ES	13C-1,2,3,7,8-PeCDD	2.0e+08	1.56	y	33:48	104.9	4.9	0.8871	0.8458	n
ES	13C-1,2,3,6,7,8-HxCDD	2.1e+08	1.16	y	36:23	99.70	-0.3	1.1072	1.1105	n
ES	13C-1,2,3,4,6,7,8-HpCDD	1.4e+08	1.03	y	39:34	95.05	-4.9	0.7472	0.7861	n
ES	13C-OCDD	2.2e+08	0.85	y	43:40	173.1	-13.5	0.5904	0.6823	n
ES/RT	13C-2,3,7,8-TCDF	3.8e+08	0.81	y	29:55	98.47	-1.5	1.6453	1.6709	n
ES	13C-1,2,3,7,8-PeCDF	3.3e+08	1.62	y	33:01	100.4	0.4	1.4552	1.4495	n
ES	13C-1,2,3,6,7,8-HxCDF	2.8e+08	0.49	y	35:43	95.70	-4.3	1.4908	1.5578	n
ES	13C-1,2,3,4,6,7,8-HpCDF	1.9e+08	0.45	y	38:22	86.48	-13.5	0.9745	1.1269	n
JS	13C-1,2,3,4-TCDD	2.3e+08	0.81	y	30:06	371.7	-	-	-	n
JS	13C-1,2,3,7,8,9-HxCDD	1.9e+08	1.16	y	36:37	364.5	-	-	-	n
CS	37Cl-2,3,7,8-TCDD	2.4e+07	1.59	y	30:49	9.156	-8.4	1.0498	1.1465	n
CS	13C-2,3,4,7,8-PeCDF	3.3e+08	1.15	y	33:36	96.60	-3.4	1.4396	1.4903	n
CS	13C-1,2,3,4,7,8-HxCDD	1.6e+08	0.48	y	36:18	92.26	-7.7	0.8479	0.9191	n
CS	13C-1,2,3,4,7,8-HxCDF	2.1e+08	0.46	y	35:37	87.53	-12.5	1.1218	1.2815	n
CS	13C-1,2,3,4,7,8,9-HpCDF	1.5e+08			40:14	84.74	-15.3	0.8095	0.9553	n
			1.59	y						
SS	37Cl-2,3,7,8-TCDD	2.4e+07	1.15	y	30:49	10.11	1.1	1.1147	1.1020	n
SS	13C-2,3,4,7,8-PeCDF	3.3e+08	0.48	y	33:36	96.22	-3.8	0.9893	1.0282	n
SS	13C-1,2,3,4,7,8-HxCDD	1.6e+08	0.46	y	36:18	92.48	-7.5	0.7658	0.8281	n
SS	13C-1,2,3,4,7,8-HxCDF	2.1e+08			35:37	91.47	-8.5	0.7524	0.8226	n
SS	13C-1,2,3,4,7,8,9-HpCDF	1.5e+08			40:14	97.93	-2.1	0.8307	0.8483	n
DPE	HxCDPE	*			NotFnd	*	-	-	-	n
DPE	HpCDPE	*			NotFnd	*	-	-	-	n
DPE	OCDPE	*			NotFnd	*	-	-	-	n
DPE	NCDPE	*			NotFnd	*	-	-	-	n
DPE	DCDPE	*			NotFnd	*	-	-	-	n

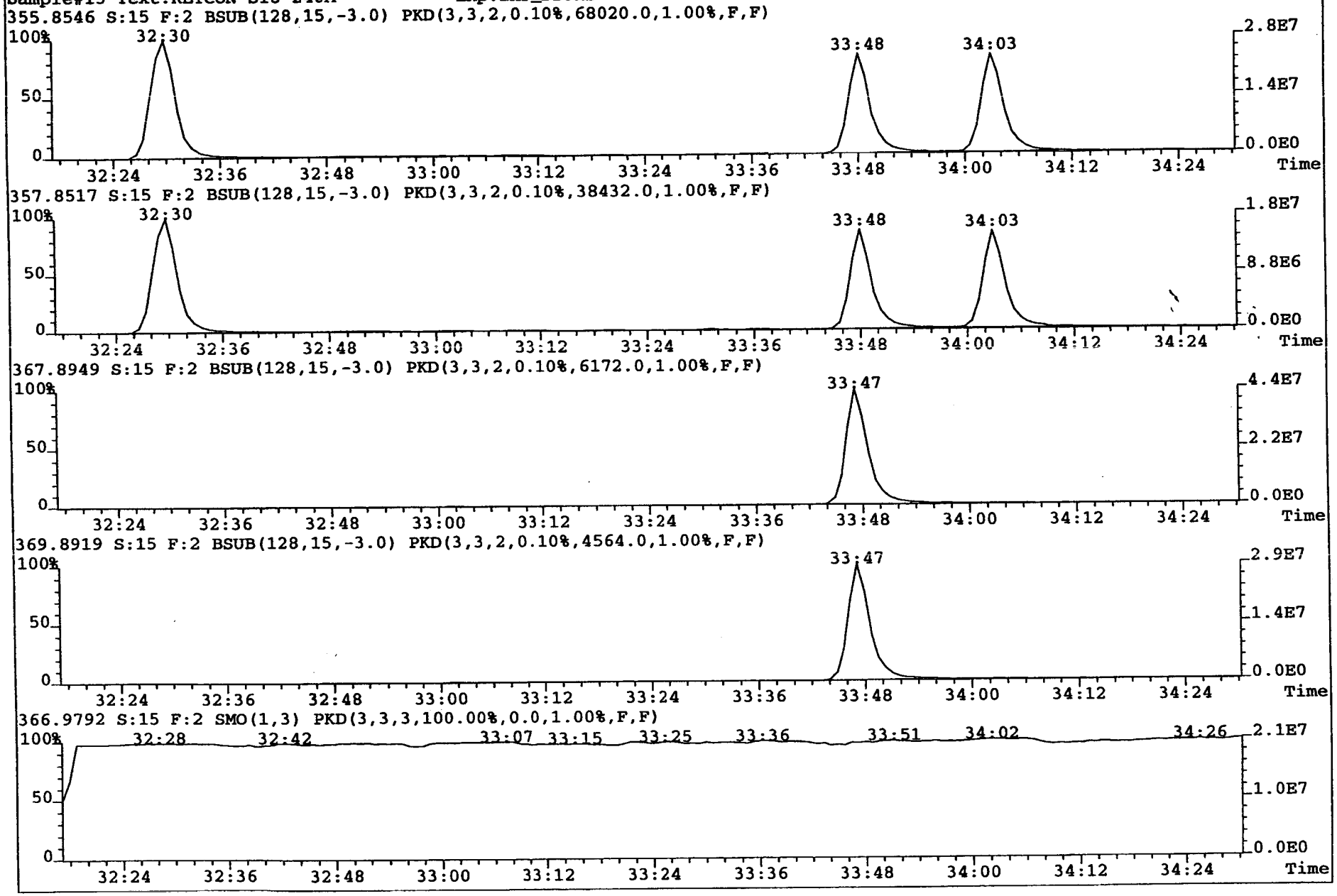
Filename ; a20jul04b
Sample ; 15
Acquired ; 21-JUL-04 03:31:07
Processed ; 21-JUL-04 08:37:28
Sample ID ; RETCON S18-240A
Cal Table ; m1613-122203b
Results Table ; [illegible]
Comments ;

Typ	Name	Resp	RA;?;	RT	S/N1;?;	S/N;?;	Conc	Limits	mod?
Unk	2,3,7,8-TCDD	2.74e+07	0.81;y;	30:49	572;y;	74;y;	11.163	7.8 - 12.9	no
Unk	1,2,3,7,8-PeCDD	1.08e+08	1.58;y;	33:48	351;y;	39;y;	49.514	39 - 65	no
Unk	1,2,3,4,7,8-HxCDD	8.18e+07	1.13;y;	36:18	1388;y;	145;y;	48.320	39 - 64	no
Unk	1,2,3,6,7,8-HxCDD	1.00e+08	1.14;y;	36:24	1459;y;	153;y;	48.430	39 - 64	no
Unk	1,2,3,7,8,9-HxCDD	9.26e+07	1.16;y;	36:38	1290;y;	135;y;	50.239	41 - 61	no
Unk	1,2,3,4,6,7,8-HpCDD	7.82e+07	1.04;y;	39:36	880;y;	99;y;	47.274	43 - 58	no
Unk	OCDD	1.17e+08	0.87;y;	43:41	498;y;	80;y;	94.884	79 - 126	no
Unk	2,3,7,8-TCDF	3.82e+07	0.76;y;	29:56	470;y;	44;y;	9.185	8.4 - 12.0	no
Unk	1,2,3,7,8-PeCDF	1.67e+08	1.57;y;	33:01	821;y;	61;y;	46.462	41 - 60	no
Unk	2,3,4,7,8-PeCDF	1.71e+08	1.54;y;	33:37	838;y;	63;y;	46.211	41 - 61	no
Unk	1,2,3,4,7,8-HxCDF	1.25e+08	1.15;y;	35:38	144;y;	14;y;	46.062	45 - 56	no
Unk	1,2,3,6,7,8-HxCDF	1.57e+08	1.16;y;	35:43	156;y;	15;y;	46.790	44 - 57	no
Unk	2,3,4,6,7,8-HxCDF	1.38e+08	1.19;y;	36:12	140;y;	13;y;	46.136	45 - 56	no
Unk	1,2,3,7,8,9-HxCDF	1.15e+08	1.21;y;	36:57	102;y;	9;y;	46.176	44 - 57	no
Unk	1,2,3,4,6,7,8-HpCDF	1.27e+08	0.99;y;	38:23	1905;y;	209;y;	47.579	45 - 55	no
Unk	1,2,3,4,7,8,9-HpCDF	9.69e+07	0.99;y;	40:14	1147;y;	128;y;	47.473	43 - 58	no
Unk	OCDF	1.37e+08	0.83;y;	43:58	2810;y;	392;y;	83.617	63 - 159	no
ES/RT	13C-2,3,7,8-TCDD	2.17e+08	0.79;y;	30:48	3786;y;	701;y;	90.458	82 - 121	no
ES	13C-1,2,3,7,8-PeCDD	2.04e+08	1.56;y;	33:48	7169;y;	623;y;	104.887	62 - 160	no
ES	13C-1,2,3,4,7,8-HxCDD	1.61e+08	1.15;y;	36:18	3882;y;	333;y;	92.256	85 - 117	no
ES	13C-1,2,3,6,7,8-HxCDD	2.10e+08	1.16;y;	36:23	4065;y;	359;y;	99.701	85 - 118	no
ES	13C-1,2,3,4,6,7,8-HpCDD	1.42e+08	1.03;y;	39:34	1364;y;	259;y;	95.051	72 - 138	no
ES	13C-OCDD	2.24e+08	0.85;y;	43:40	2694;y;	459;y;	173.083	96 - 415	no
ES/RT	13C-2,3,7,8-TCDF	3.79e+08	0.81;y;	29:55	8557;y;	461;y;	98.471	71 - 140	no
ES	13C-1,2,3,7,8-PeCDF	3.35e+08	1.62;y;	33:01	805;y;	74;y;	100.397	76 - 130	no
ES	13C-2,3,4,7,8-PeCDF	3.31e+08	1.59;y;	33:36	824;y;	78;y;	96.601	77 - 130	no
ES	13C-1,2,3,4,7,8-HxCDF	2.13e+08	0.48;y;	35:37	1516;y;	401;y;	87.534	76 - 131	no
ES	13C-1,2,3,6,7,8-HxCDF	2.83e+08	0.49;y;	35:43	1683;y;	451;y;	95.704	70 - 143	no
ES	13C-2,3,4,6,7,8-HxCDF	2.46e+08	0.49;y;	36:11	1547;y;	399;y;	92.302	73 - 137	no
ES	13C-1,2,3,7,8,9-HxCDF	2.08e+08	0.52;y;	36:56	1153;y;	286;y;	93.791	74 - 135	no
ES	13C-1,2,3,4,6,7,8-HpCDF	1.85e+08	0.45;y;	38:22	2244;y;	259;y;	86.478	78 - 129	no
ES	13C-1,2,3,4,7,8,9-HpCDF	1.54e+08	0.46;y;	40:14	1461;y;	169;y;	84.743	77 - 129	no
JS	13C-1,2,3,4-TCDD	2.30e+08	0.81;y;	30:06	3489;y;	650;y;	371.732		no
JS	13C-1,2,3,7,8,9-HxCDD	1.90e+08	1.16;y;	36:37	3684;y;	315;y;	364.529		no
CS	37Cl-2,3,7,8-TCDD	2.42e+07	;	30:49	1177;y	;	9.167	7.9 - 12.7	no
Tot	Total Tetra-Furans	1.27e+08	0.76;y;	25:38	557;y;	56;y;	30.465		no
Tot	Total Tetra-Dioxins	1.35e+08	0.81;y;	27:21	487;y;	61;y;	55.122		no
Tot	Total Penta-Furans Fn1	1.43e+08	0.66;y;	31:34	4515;y;	756;y;	39.106		no
Tot	Total Penta-Furans Fn2	5.12e+08	1.63;y;	32:27	112;y;	8;y;	140.360		no
Tot	Total Penta-Dioxins	3.63e+08	1.64;y;	32:30	413;y;	45;y;	166.190		no
Tot	Total Hexa-Furans	6.96e+08	1.17;y;	34:43	190;y;	18;y;	241.564		no
Tot	Total Hexa-Dioxins	4.01e+08	1.15;y;	35:07	2008;y;	203;y;	214.479		no

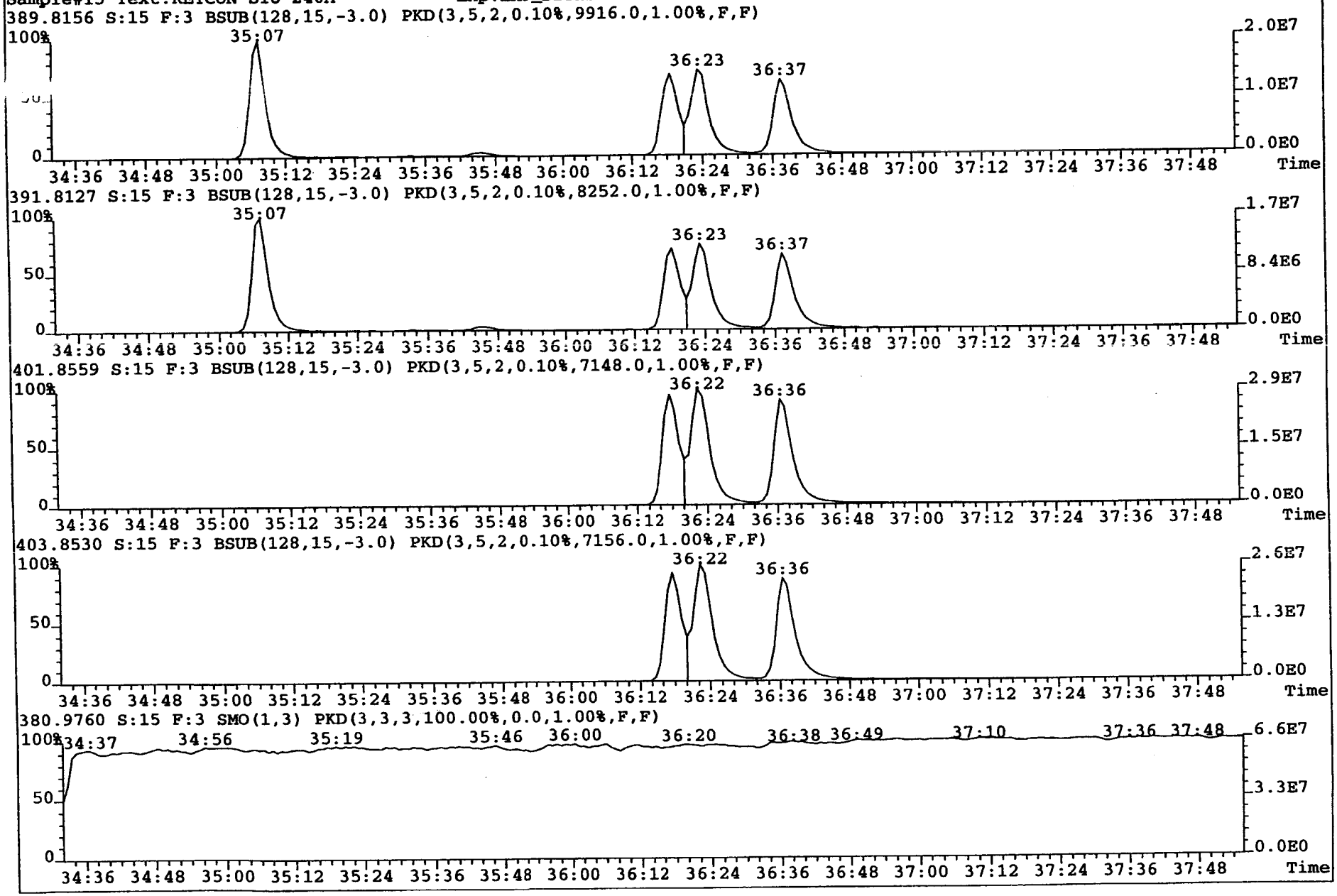
File:A20JUL04B #1-438 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS

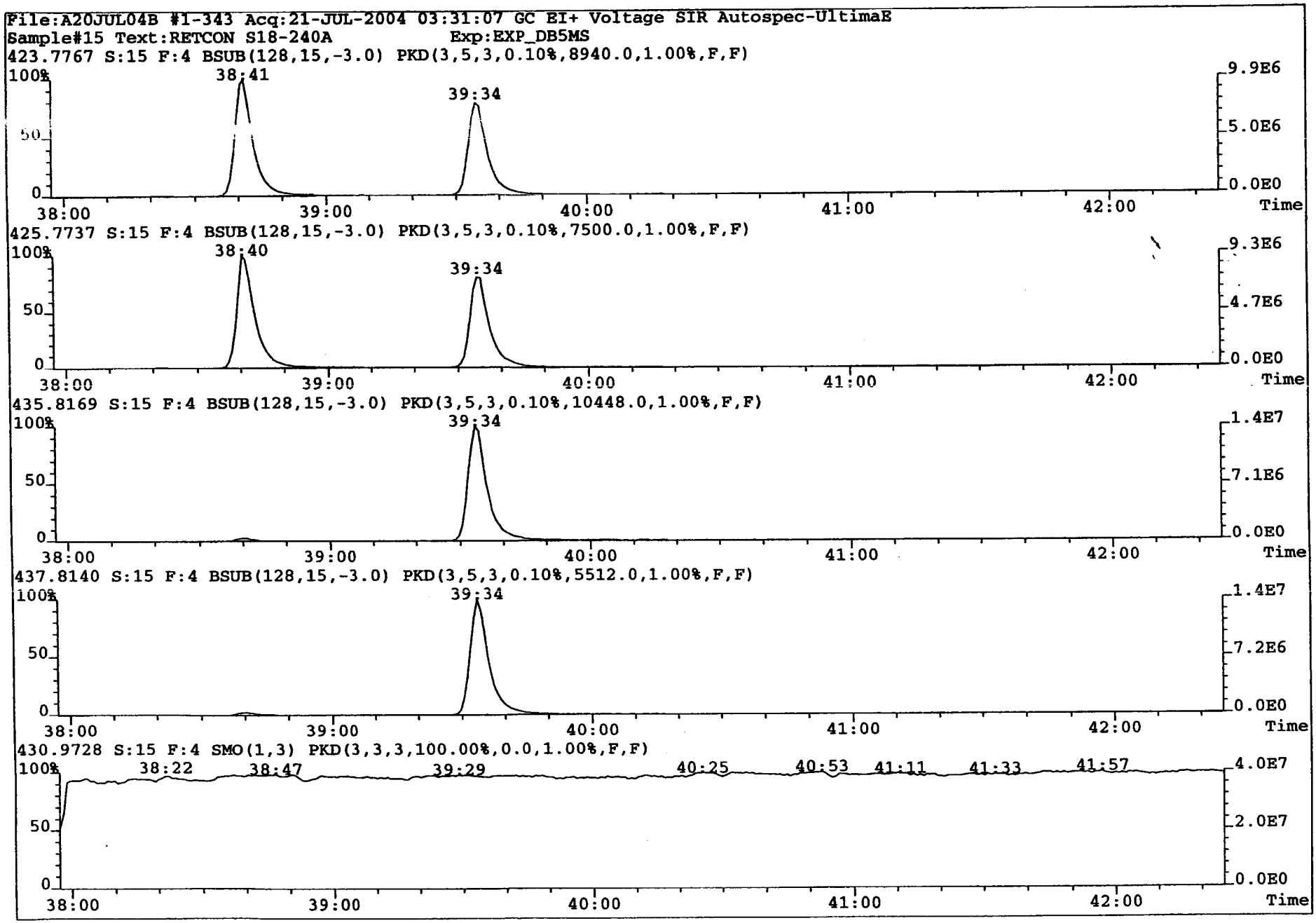


File:A20JUL04B #1-171 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS

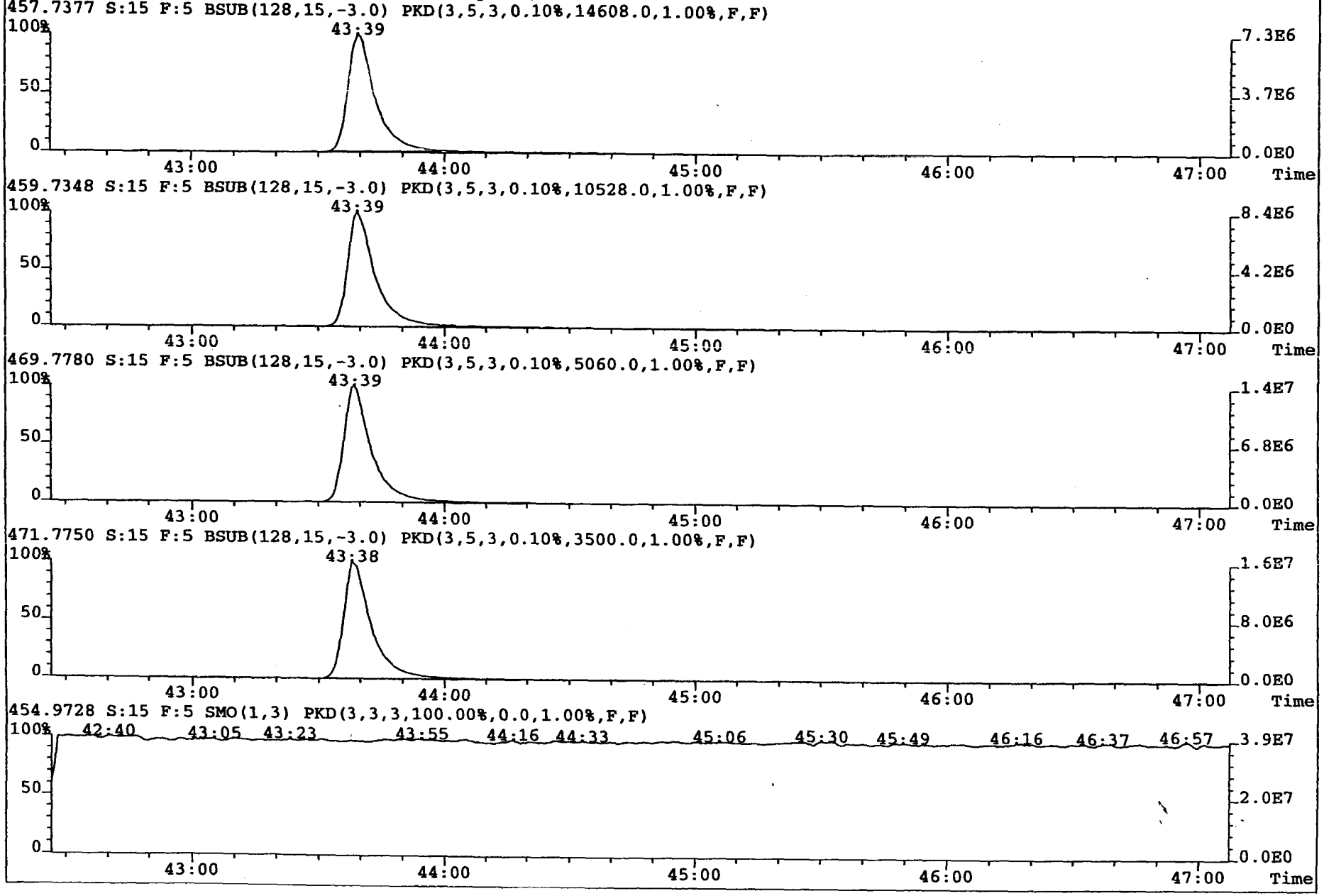


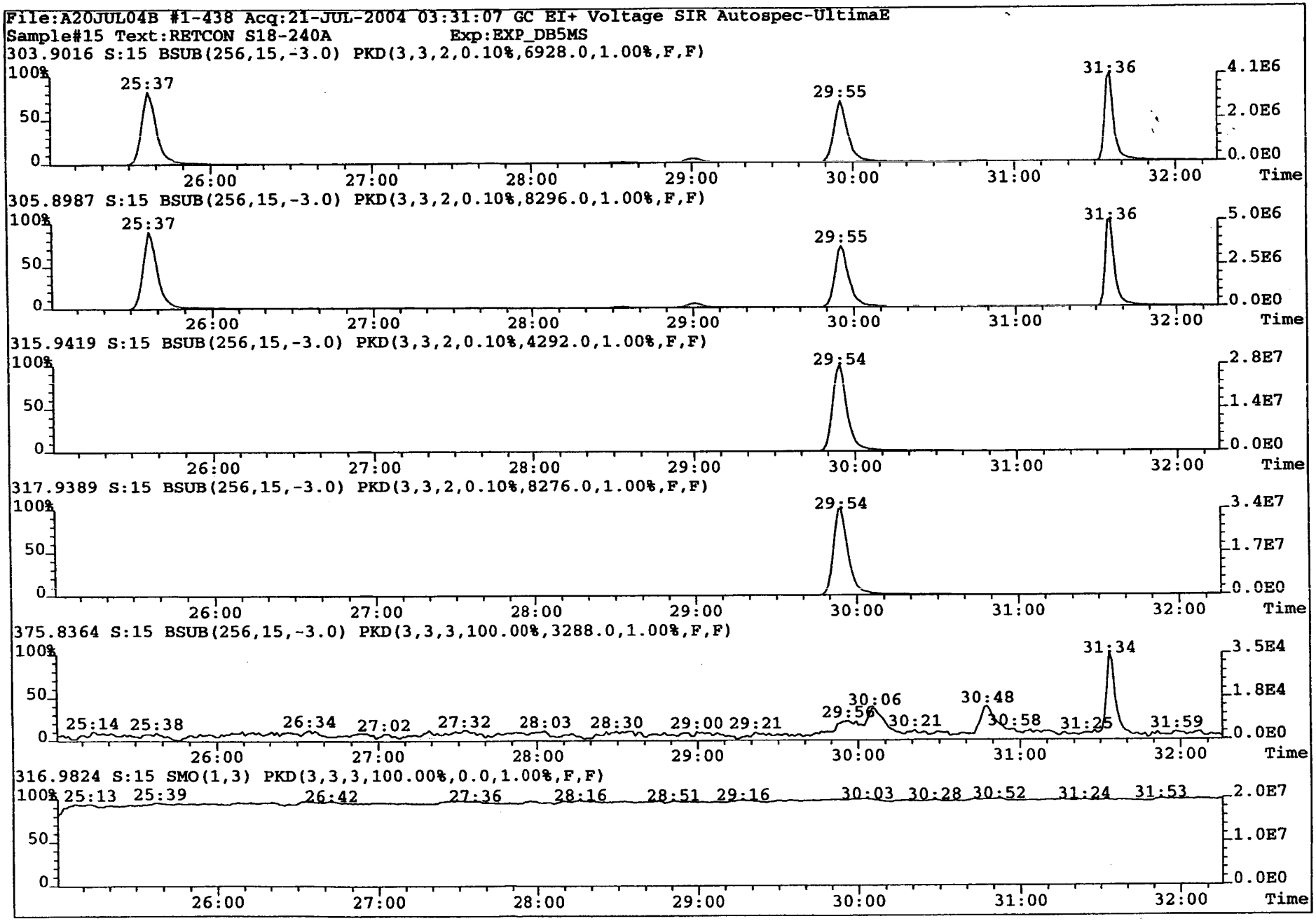
File:A20JUL04B #1-261 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS

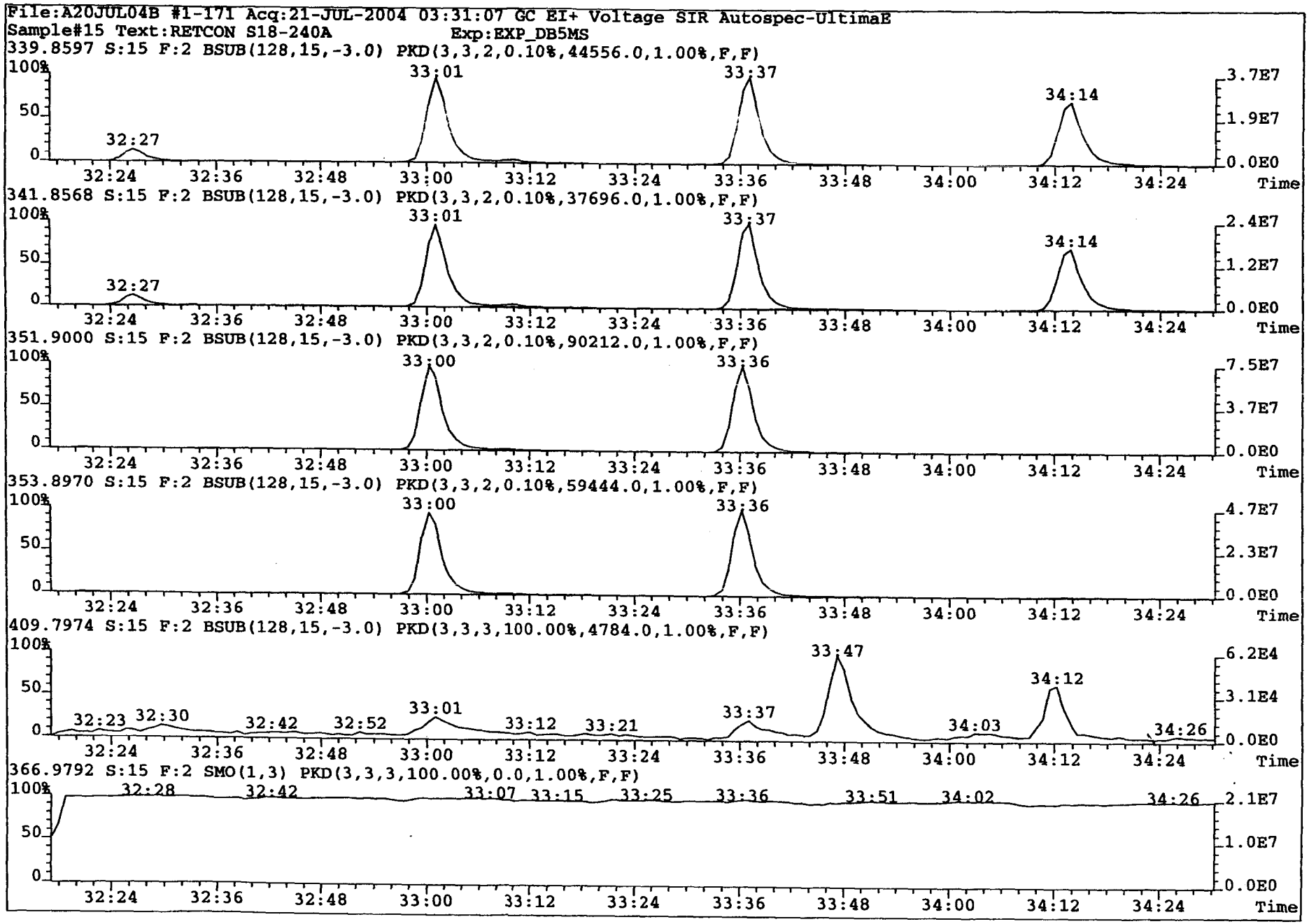



File:A20JUL04B #1-343 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
423.7767 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,8940.0,1.00%,F,F)
38:41
39:34
9.9E6
5.0E6
0.0E0
425.7737 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7500.0,1.00%,F,F)
38:40
39:34
9.3E6
4.7E6
0.0E0
435.8169 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,10448.0,1.00%,F,F)
39:34
1.4E7
7.1E6
0.0E0
437.8140 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5512.0,1.00%,F,F)
39:34
1.4E7
7.2E6
0.0E0
430.9728 S:15 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:22
38:47
39:29
40:25
40:53
41:11
41:33
41:57
4.0E7
2.0E7
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time

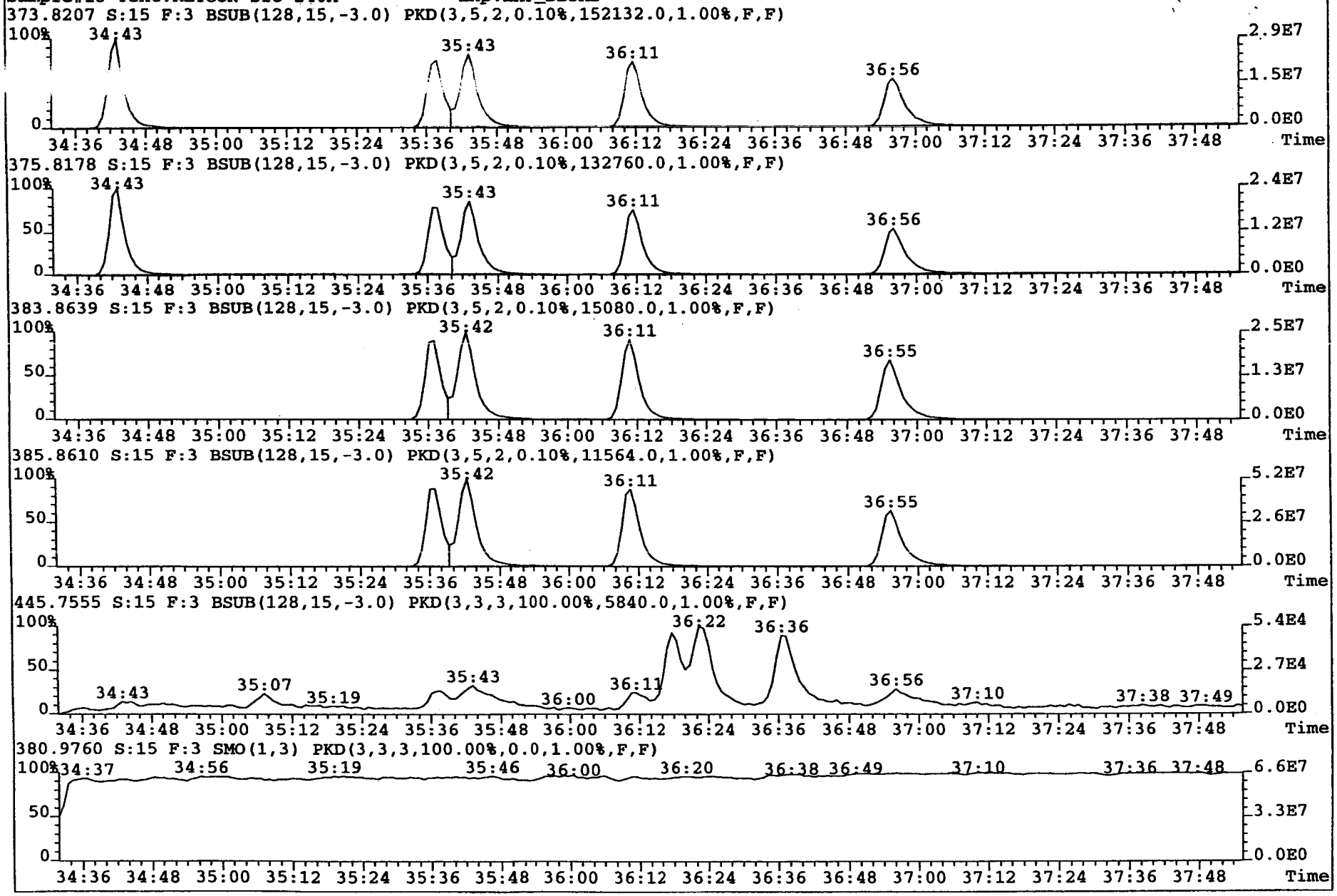
File:A20JUL04B #1-438 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS

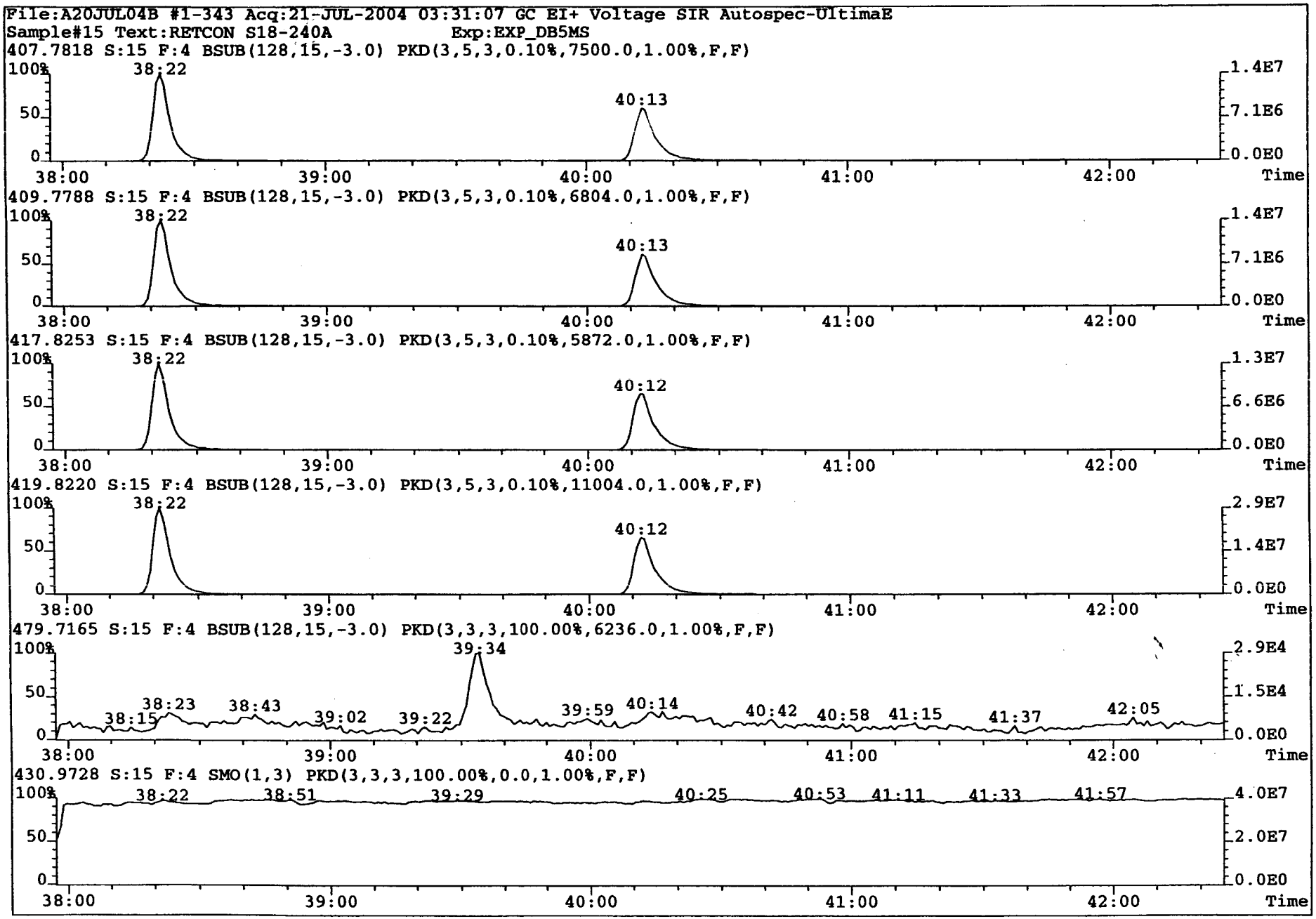


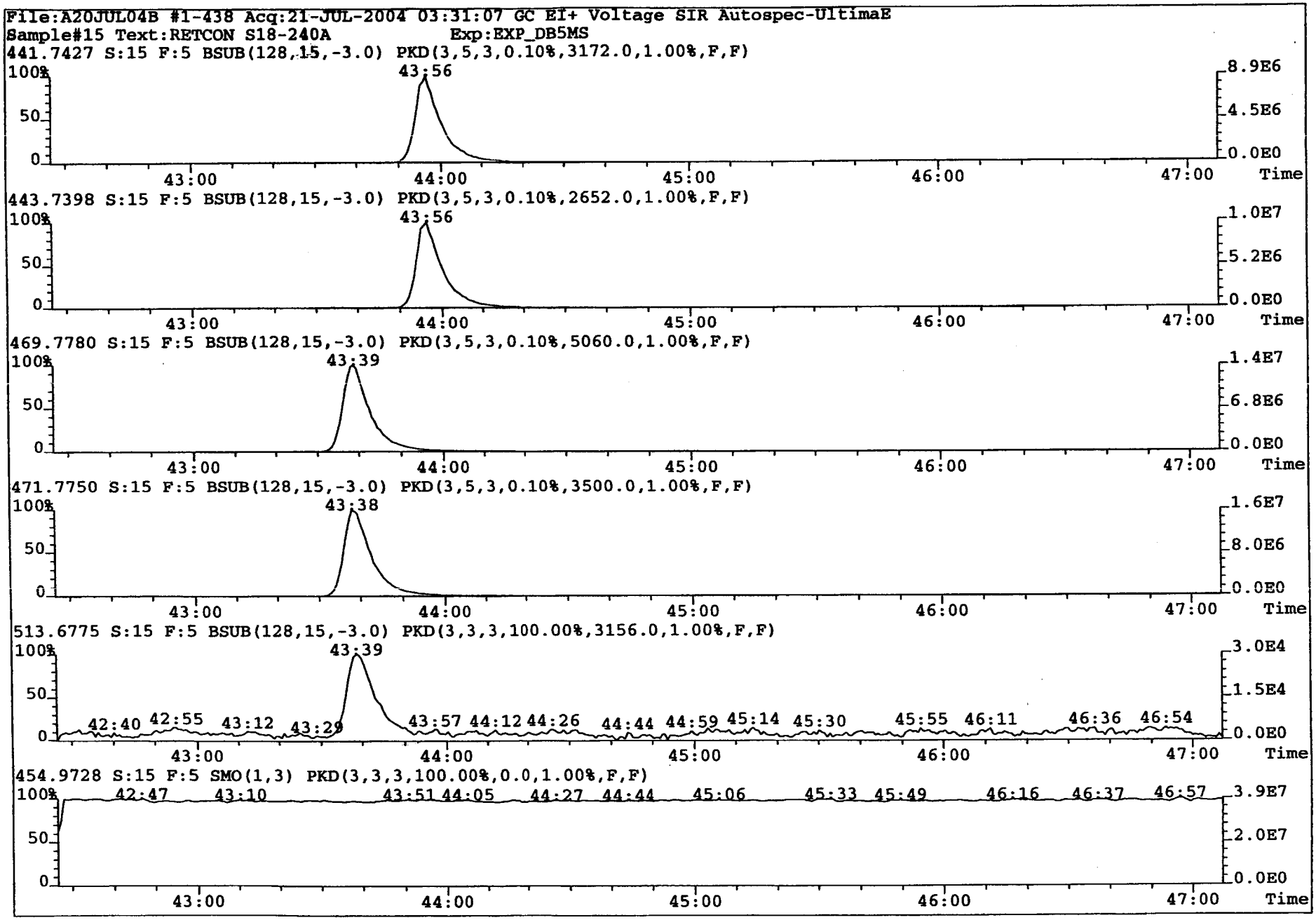

File:A20JUL04B #1-438 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
303.9016 S:15 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,6928.0,1.00%,F,F)
25:37
29:55
31:36
4.1E6
2.0E6
0.0E0
305.8987 S:15 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,8296.0,1.00%,F,F)
25:37
29:55
31:36
5.0E6
2.5E6
0.0E0
315.9419 S:15 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,4292.0,1.00%,F,F)
29:54
2.8E7
1.4E7
0.0E0
317.9389 S:15 BSUB(256,15,-3.0) PKD(3,3,2,0.10%,8276.0,1.00%,F,F)
29:54
3.4E7
1.7E7
0.0E0
375.8364 S:15 BSUB(256,15,-3.0) PKD(3,3,3,100.00%,3288.0,1.00%,F,F)
25:14 25:38 26:34 27:02 27:32 28:03 28:30 29:00 29:21 29:56 30:06 30:21 30:48 30:58 31:25 31:34 31:59
3.5E4
1.8E4
0.0E0
316.9824 S:15 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:13 25:39 26:42 27:36 28:16 28:51 29:16 30:03 30:28 30:52 31:24 31:53
2.0E7
1.0E7
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A20JUL04B #1-171 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
339.8597 S:15 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,44556.0,1.00%,F,F)
341.8568 S:15 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,37696.0,1.00%,F,F)
351.9000 S:15 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,90212.0,1.00%,F,F)
353.8970 S:15 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,59444.0,1.00%,F,F)
409.7974 S:15 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4784.0,1.00%,F,F)
366.9792 S:15 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
32:27
33:01
33:37
34:14
33:00
33:36
33:47
34:12
32:23
32:30
32:42
32:52
33:12
33:21
34:03
34:26
32:28
33:07
33:15
33:25
33:51
34:02
32:24
32:36
32:48
34:00
34:24
Time
3.7E7
1.9E7
0.0E0
2.4E7
1.2E7
7.5E7
3.7E7
4.7E7
2.3E7
6.2E4
3.1E4
2.1E7
1.0E7

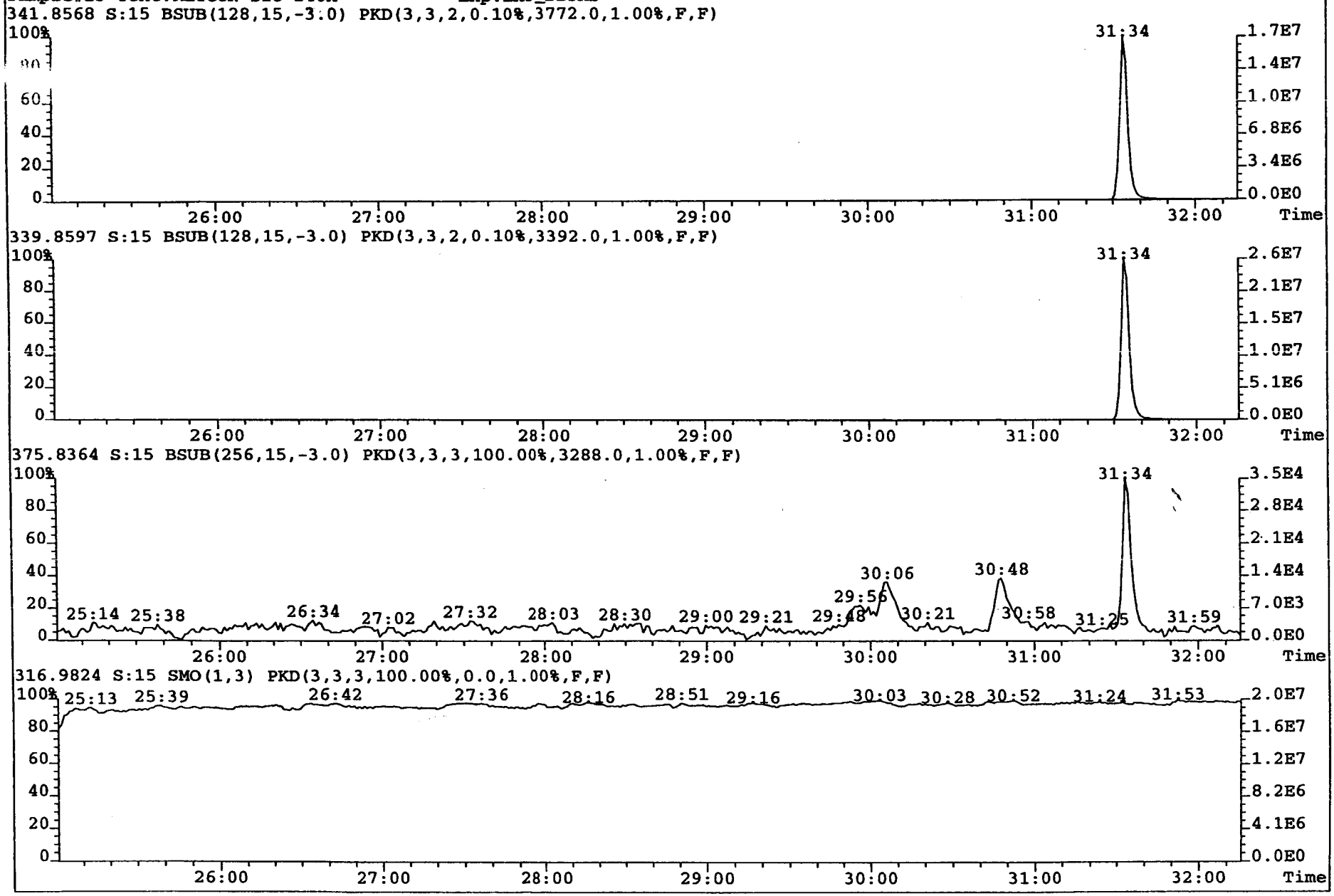
File:A20JUL04B #1-261 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS




File:A20JUL04B #1-343 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
407.7818 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7500.0,1.00%,F,F)
38:22
40:13
1.4E7
7.1E6
0.0E0
409.7788 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6804.0,1.00%,F,F)
38:22
40:13
1.4E7
7.1E6
0.0E0
417.8253 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5872.0,1.00%,F,F)
38:22
40:12
1.3E7
6.6E6
0.0E0
419.8220 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,11004.0,1.00%,F,F)
38:22
40:12
2.9E7
1.4E7
0.0E0
479.7165 S:15 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,6236.0,1.00%,F,F)
39:34
38:15 38:23 38:43 39:02 39:22 39:59 40:14 40:42 40:58 41:15 41:37 42:05
2.9E4
1.5E4
0.0E0
430.9728 S:15 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:22 38:51 39:29 40:25 40:53 41:11 41:33 41:57
4.0E7
2.0E7
0.0E0
100%
50
0
38:00
39:00
40:00
41:00
42:00
Time


File:A20JUL04B #1-438 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS
441.7427 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3172.0,1.00%,F,F)
43:56
8.9E6
4.5E6
0.0E0
443.7398 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2652.0,1.00%,F,F)
43:56
1.0E7
5.2E6
0.0E0
469.7780 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5060.0,1.00%,F,F)
43:39
1.4E7
6.8E6
0.0E0
471.7750 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3500.0,1.00%,F,F)
43:38
1.6E7
8.0E6
0.0E0
513.6775 S:15 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3156.0,1.00%,F,F)
43:39
42:40 42:55 43:12 43:29 43:57 44:12 44:26 44:44 44:59 45:14 45:30 45:55 46:11 46:36 46:54
3.0E4
1.5E4
0.0E0
454.9728 S:15 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:47 43:10 43:51 44:05 44:27 44:44 45:06 45:33 45:49 46:16 46:37 46:57
3.9E7
2.0E7
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
47:00
Time

File:A20JUL04B #1-438 Acq:21-JUL-2004 03:31:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON S18-240A Exp:EXP_DB5MS



Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6556-11-3C MS	519-272	20	0.1	20	JWP	07-13-04	
2	6556-11-3D MSD							
3	6556-11-10B							
4	6579-3-1C							
5	6414-23-1B JWP 07-14-04							
6	6414-23-2B JWP 07-14-04							
7	6414-23-3B JWP 07-14-04							
8	6414-23-4B JWP 07-14-04							
9	6414-23-5B JWP 07-14-04							
10	6414-23-6B JWP 07-14-04							
11	OPR10415							
12	OPRD10415							
13	LMB10415							
14	6414-23-7B JWP 07-14-04							
15	6414-23-8B JWP 07-14-04							
16	6414-23-9B JWP 07-14-04							
17	6577-4-1C							
18	6577-4-2C							
19	6577-4-3C							
20	6577-4-4C							

DC17.021800.1

* = to be entered in the Prep table.

Logbook: 9 Page: 89

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	OPR10417	S19-272	20	0.1	20	JWP	07-15-04	
2	OPRD10417	↓	↓	↓	↓	↓	↓	
3	LMB10417	↓	↓	↓	↓	↓	↓	
4	OPR10422	S19-265	100	0.5	100	JWP	07-15-04	
5	OPRD10422	↓	↓	↓	↓	↓	↓	
6	LMB10422	↓	↓	↓	↓	↓	↓	
7	GS15-761-1B	↓	↓	↓	↓	↓	↓	
8	OPR10424	S19-265	100	0.5	100	JWP	07-16-04	
9	OPRD10424	↓	↓	↓	↓	↓	↓	
10	LMB10424	↓	↓	↓	↓	↓	↓	
11	GS15-762-1B	S19-286	↓	↓	↓	↓	↓	
12	GS56-12-8B	S19-272	20	0.1	20	JWP	07-16-04	
13	GS56-12-9B	↓	↓	↓	↓	↓	↓	
14	G383-284-1B	↓	↓	↓	↓	↓	↓	
15	G383-286-1B	S19-287	↓	↓	↓	↓	↓	
16	OPR10423	S19-287	20	0.1	20	JWP	07-16-04	
17	OPRD10423	↓	↓	↓	↓	↓	↓	
18	LMB10423	↓	↓	↓	↓	↓	↓	
19	LMB10421	↓	↓	↓	↓	↓	↓	
20	G100-527-1B	↓	↓	↓	↓	↓	↓	

DC17.021800.1

* = to be entered in the Prep table.

Logbook: 9 Page: 91

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6100-527-2B	519-287	20	0.1	20	JWP	07-16-04	
2	6100-527-3B	↓	↓	↓	↓	↓	↓	
3	6100-527-4B							
4	6100-527-5B							
5	6100-527-6B							
6	6100-527-7B							
7	OPR10431	519-287	20	0.1	20	JWP	07-20-04	
8	OPRD10431	↓	↓	↓	↓	↓	↓	
9	LMB10431							
10	6414-28-7C							
11	6326-153-1C	519-287	20	0.1	20	JWP	07-20-04	
12	6326-153-2C	↓	↓	↓	↓	↓	↓	
13	6326-153-3C							
14	6326-153-4C							
15	OPR10425							
16	OPRD10425							
17	LMB10425							
18								
19								
20								

DC17.021800.1

* = to be entered in the Prep table.

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Injection Prep Log

(for external dilutions)

	Sample ID*	Dilution	Made From Container ID	Amount Extract (µL)	Amount of ES (µL)	Amount Solvent (µL)	Final Volume (µL)	Analyst (initials)	Comments
1	6556-11-2B	d10	B	2.0	0	18	20	JWP	
2									
3									
4									
5									
6									
7									
8					JWP 07-21-04				
9									
10									
11									
12									
13									
14									
15									
16									
17									

	Description	Lot Number	Concentration (ng/µL)
Solvent	nonane	S17-131E	
Extraction Standard	–	–	–

DC168.052504.1

* = to be entered in the Prep table.

Logbook: 9 Page: 98

381184

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: COMMONWEALTH ALUMINUM Client #: 11058
Address: 1372 STATE ROAD 1957
City/State/Zip Code: LEWISPORT KY 42351
Project Manager: DALE ROBERTS
Telephone Number: 270-295-5270 Fax: 295-5595
Sampler Name: (Print Name) RICHARD RALPH
Sampler Signature: [signature]

Project Name: KPDES SAMPLING
Project #:
Site/Location ID: State:
Report To:
Invoice To:
Quote #: PO#:

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: RADIOACTIVITY	TTL NITROGEN ORG NITRATE - NITRITE N TTL PH O P	BROMIDE - BROMINE FLUORIDE CHLORIDE	SULFATE SO4 TTL RES SULFITES SO4	SURFACANTS	COD & AMMONIA	BOD	SULFIDE	VOAS	DIOXINE	REMARKS
001 plant outfall	7-1-04	1030	C	N	WW	4							X										103271
									1					X									
											1				X	X	X						
									1									X					
											1								X				
								2												X			
							9														X		
001 plant outfall	7-2-04	1000									4											X	103272

Special Instructions:
SEE ATTACHED SHEET — Analyze for All parameters not blacked out

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	7/2/04	1315	[signature]	7/3/04	8:45

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 3.0
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. (See instructions)

V. INTAKE AND EFFLUENT CHARACTERISTICS (Continued from page 3 of Form C) | **OUTFALL NO.**

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No of Analyses
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
[redacted]												
e. Ammonia (as N)												
[redacted]	VALUE		VALUE		VALUE			MGD		VALUE		
g. [redacted]	VALUE		VALUE		VALUE			°C		VALUE		
[redacted]	VALUE		VALUE		VALUE			°C		VALUE		
[redacted]	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

Part B - In the MARK "X" column, place an "X" in the Believed Present column for each pollutant you know or have reason to believe is present. Place an "X" in the Believed Absent column for each pollutant you believe to be absent. If you mark the Believed Present column for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		6. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
a. Bromide (24959-67-9)														
b. Bromine Total Residual														
c. Chloride														
[redacted]														
e. Color														
[redacted]														
g. Fluoride (16984-48-8)														
[redacted]														
i. Nitrate – Nitrite (as N)														
j. Nitrogen, Total Organic (as N)														
[redacted]														
l. Phosphorous (as P), Total 7723-14-0														
m. Radioactivity														
(1) Alpha, Total														
(2) Beta, Total														
(3) Radium Total														
(4) Radium, 226, Total														

Part B - Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
n. Sulfate (as SO_4) (14808-79-8)														
o. Sulfide (as S)														
p. Sulfite (as SO_4) (14286-46-3)														
q. Surfactants														
[redacted] (7429-90)														
s. Barium, Total (7440-39-3)														
t. Boron, Total (7440-42-8)														
u. Cobalt, Total (7440-48-4)														
v. Iron, Total (7439-89-6)														
w. Magnesium Total (7439-96-4)														
x. Molybdenum Total (7439-98-7)														
y. Manganese, Total (7439-96-6)														
z. Tin, Total (7440-31-5)														
aa. Titanium, Total (7440-32-6)														

Part C – If you are a primary industry and this outfall contains process wastewater, refer to Table C-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in the **Testing Required** column for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark this column (secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions), mark "X" in the **Believed Present** column for each pollutant you know or have reason to believe is present. Mark "X: in the **Believed Absent** column for each pollutant you believe to be absent. If you mark either the **Testing Required** or **Believed Present** columns for any pollutant, you must provide the result of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
METALS, CYANIDE AND TOTAL PHENOLS															
1M. Antimony Total (7440-36-0)															
2M. Arsenic, Total (7440-38-2)															
3M. Beryllium Total (7440-41-7)															
4M. Cadmium Total (7440-43-9)															
[redacted] (7440-43-9)															
6M. Copper Total (7550-50-8)															
7M. Lead Total (7439-92-1)															
8M. Mercury Total (7439-97-6)															
9M. Nickel, Total (7440-02-0)															
10M. Selenium, Total (7782-49-2)															
11M. Silver, Total (7440-28-0)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
METALS, CYANIDE AND TOTAL PHENOLS (Continued)															
12M. Thallium, Total (7440-28-0)															
[redacted] (7440-66-6)															
[redacted] (57-12-5)															
15M. Phenols, Total															
DIOXIN															
2,3,7,8 Tetra-chlorodibenzo, P, Dioxin (1784-01-6)				DESCRIBE RESULTS:											
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)															
2V. Acrylonitrile (107-13-1)															
3V. Benzene (71-43-2)															
5V. Bromoform (75-25-2)															
6V. Carbon Tetrachloride (56-23-5)															
7V. Chloro-benzene (108-90-7)															
8V. Chlorodibro-momethane (124-48-1)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
9V. Chloroethane (74-00-3)															
10V. 2-Chloro-ethylvinyl Ether (110-75-8)															
11V. Chloroform (67-66-3)															
12V. Dichloro-bromomethane (75-71-8)															
14V. 1,1-Dichloroethane (75-34-3)															
15V. 1,2-Dichloroethane (107-06-2)															
16V. 1,1-Dichlorethylene (75-35-4)															
17V. 1,2-Di-chloropropane (78-87-5)															
18V. 1,3-Dichloropro-pylene (452-75-6)															
19V. Ethyl-benzene (100-41-4)															
20V. Methyl Bromide (74-83-9)															

ontinued

ANT NO. ble)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
yl de -3)															
ylene de -2)															
,2- hloro- -5)															
hloro- ne 8-4)															
ene 8-3)															
Trans- ro- ne 0-5)															
-Tri- ne -6)															
-Tri- ne -5)															
hloro- lene -6)															
l ride -4)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chloro-phenol (95-57-8)															
2A. 2,4-Dichlor-Orophenol (120-83-2)															
3A. 2,4-Dimeth-ylphenol (105-67-9)															
4A. 4,6-Dinitro-o-cresol (534-52-1)															
5A. 2,4-Dinitro-phenol (51-28-5)															
6A. 2-Nitro-phenol (88-75-5)															
7A. 4-Nitro-phenol (100-02-7)															
8A. P-chloro-m-cresol (59-50-7)															
9A. Pentachloro-phenol (87-88-5)															
10A. Phenol (108-05-2)															
11A. 2,4,6-Tri-chlorophenol (88-06-2)															
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acena-phthene (83-32-9)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
2B. Acenaphtylene (208-96-8)															
3B. Anthracene (120-12-7)															
4B. Benzidine (92-87-5)															
5B. Benzo(a)-anthracene (56-55-3)															
6B. Benzo(a)-pyrene (50-32-8)															
7B. 3,4-Benzo-fluoranthene (205-99-2)															
8B. Benzo(ghl) perylene (191-24-2)															
9B. Benzo(k)-fluoranthene (207-08-9)															
10B. Bis(2-chlor-oethoxy)-methane (111-91-1)															
11B. Bis (2-chlor-oisopropyl)-Ether															
12B. Bis (2-ethyl-hexyl)-phthalate (117-81-7)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
13B. 4-Bromo-phenyl Phenyl ether (101-55-3)															
14B. Butyl-benzyl phthalate (85-68-7)															
15B. 2-Chloro-naphthalene (7005-72-3)															
16B. 4-Chloro-phenyl phenyl ether (7005-72-3)															
17B. Chrysene (218-01-9)															
18B. Dibenzo-(a,h) Anthracene (53-70-3)															
19B. 1,2-Dichloro-benzene (95-50-1)															
20B. 1,3-Dichloro-Benzene (541-73-1)															
21B. 1,4-Dichloro-benzene (106-46-7)															
22B. 3,3-Dichloro-benzidene (91-94-1)															
23B. Diethyl Phthalate (84-66-2)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
24B. Dimethyl Phthalate (131-11-3)															
25B. Di-N-butyl Phthalate (84-74-2)															
26B. 2,4-Dinitro-toluene (121-14-2)															
27B. 2,6-Dinitro-toluene (606-20-2)															
28B. Di-n-octyl Phthalate (117-84-0)															
29B. 1,2-diphenyl-hydrazine (as azonbenzene) (122-66-7)															
30B. Fluoranthene (208-44-0)															
31B. Fluorene (86-73-7)															
32B. Hexachloro-benzene (118-71-1)															
33B. Hexachloro-butadiene (87-68-3)															
34B. Hexachloro-cyclopenta-diene (77-47-4)															

Part C – Continued

1. POLLUTANT And CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)															
35B. Hexachloroethane (67-72-1)															
36B. Indneo-(1,2,3-oc)-Pyrene (193-39-5)															
37B. Isophorone (78-59-1)															
38B. Napthalene (91-20-3)															
39B. Nitrobenzene (98-95-3)															
40B. N-Nitrosodimethylamine (62-75-9)															
41B. N-nitrosodi-n-propylamine (621-64-7)															
42B. N-nitrosodiphenylamine (86-30-6)															
43B. Phenanthrene (85-01-8)															
44B. Pyrene (129-00-0)															
45B. 1,2,4 Trichlorobenzene (120-82-1)															

TestAmerica INCORPORATED

Sample NonConformance/COC Revision Form

Initiated by:	Mbeasley	**Phone:**	270-295-5025	NC Closed	☑
Client Name:	COMMONWEALT	**Sample Range:**	103271-72	Date Closed	7/7/2004
Client Contact:	DALE ROBERTS	**SDG:**	381184		
Client Account:	11058	**Analyst:**	5		
Date Created:	7/3/2004	**Supervisor:**	Paul Buckingham		
NC #:	103272	**NC Type:**	NC Analytical 1		
Project Name:	KPDES Sampling	**Terminal Manager:**			
Project Number:					
Project Origin	KY				
Regulatory :					

Process:	Subcontract Samples?	**Corrected By:**	Jennifer Ann Chap
Action:	Corrected action not chosen	**Closed:** ☑	jachapman

Process:	Other NC/Process: See Comment Section Below	**Corrected By:**	Jennifer Ann Chap
Action:	Corrected action not chosen	**Closed:** ☑	jachapman

Comments:

Comment added by: Pbuckingham on 7/7/2004 10:23:08 AM
NC closed with out comments

****

Comment added by: jachapman on 7/6/2004 2:50:04 PM
Process Closed without Comment

****

Comment added by: jachapman on 7/6/2004 2:49:48 PM
Radioactivity subbed to RSA. Dioxin subbed to Paradigm.

****

Sub out Radiologicals & dioxins
Had to use a dioxin liter for BNAS