ATTACHMENT 7

FILTER DRUM INFLUENT AND EFFLUENT DATA
09/14/06

PT-INF2 (BAG FILTER INFLUENT), LEAF COMPOST, PEAT MOSS AND BARLEY STRAW

FILTER DRUM INFLUENT AND EFFLUENT DATA

09/14/06

PT-INF2 (BAG FILTER INFLUENT), LEAF COMPOST, PEAT MOSS AND BARLEY STRAW

TestAmerica
ANALYTICAL TESTING CORPORATION
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LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test

Sampled: 09/14/06
Received: 09/14/06
Issued: 09/28/06 18:03

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IPI1293-01	LC-EFF	Water

Reviewed By:

TestAmerica - Irvine, CA
Amy Windham For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1293	 Sampled: 09/14/06 Received: 09/14/06

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1293-01 (LC-EFF - Water)									
Reporting Units: mg/l									
Iron	EPA 200.7	6I18075	0.015	0.040	**0.30**	1	09/18/06	09/20/06	
Sample ID: IPI1293-01 (LC-EFF - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	6I18070	0.050	2.0	**0.19**	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7	6I18075	4.4	5.0	ND	1	09/18/06	09/20/06	
Beryllium	EPA 200.7	6I18075	0.90	2.0	ND	1	09/18/06	09/20/06	
Cadmium	EPA 200.8	6I18070	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7	6I18075	2.0	5.0	ND	1	09/18/06	09/20/06	
Copper	EPA 200.8	6I19133	0.25	2.0	**0.55**	1	09/19/06	09/20/06	B, J
Lead	EPA 200.8	6I18070	0.040	1.0	**0.17**	1	09/18/06	09/18/06	J
Manganese	EPA 200.7	6I18075	7.0	20	**210**	1	09/18/06	09/20/06	
Mercury	EPA 245.1	6I15062	0.15	0.20	ND	1	09/15/06	09/15/06	
Nickel	EPA 200.7	6I18075	2.0	10	ND	1	09/18/06	09/20/06	
Selenium	EPA 200.8	6I18070	0.30	2.0	**0.44**	1	09/18/06	09/18/06	J
Silver	EPA 200.8	6I18070	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8	6I18070	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7	6I18075	15	20	ND	1	09/18/06	09/20/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1293	Sampled: 09/14/06 Received: 09/14/06

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1293-01 (LC-EFF - Water) - cont.									
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	6I15121	0.015	0.040	**0.17**	1	09/15/06	09/23/06	
Sample ID: IPI1293-01 (LC-EFF - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	6I18073	0.050	2.0	**0.27**	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7-Diss	6I15121	4.4	5.0	ND	1	09/15/06	09/23/06	
Beryllium	EPA 200.7-Diss	6I15121	0.90	2.0	ND	1	09/15/06	09/23/06	
Cadmium	EPA 200.8-Diss	6I18073	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7-Diss	6I15121	2.0	5.0	ND	1	09/15/06	09/23/06	
Copper	EPA 200.8-Diss	6I18073	0.25	2.0	**0.76**	1	09/18/06	09/18/06	B, J
Lead	EPA 200.8-Diss	6I18073	0.040	1.0	**0.073**	1	09/18/06	09/18/06	J
Manganese	EPA 200.7-Diss	6I15121	7.0	20	**140**	1	09/15/06	09/23/06	
Mercury	EPA 245.1-Diss	6I18082	0.15	0.20	ND	1	09/18/06	09/18/06	
Nickel	EPA 200.7-Diss	6I15121	2.0	10	**2.8**	1	09/15/06	09/23/06	J
Selenium	EPA 200.8-Diss	6I18073	0.30	2.0	**0.44**	1	09/18/06	09/18/06	J
Silver	EPA 200.8-Diss	6I18073	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8-Diss	6I18073	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7-Diss	6I15121	15	20	ND	1	09/15/06	09/23/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1293	Sampled: 09/14/06 Received: 09/14/06

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1293-01 (LC-EFF - Water) - cont.									
Reporting Units: g/cc									
Density	Displacement	6I22108	N/A	NA	**1.0**	1	09/22/06	09/22/06	
Sample ID: IPI1293-01 (LC-EFF - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	6I25082	10	10	ND	1	09/25/06	09/25/06	
Total Kjeldahl Nitrogen	EPA 351.3	6I20101	0.43	0.50	**0.56**	1	09/20/06	09/20/06	
Alkalinity as CaCO3	EPA 310.1	6I20071	2.0	2.0	**150**	1	09/20/06	09/20/06	
Ammonia-N (Distilled)	EPA 350.2	6I16057	0.30	0.50	ND	1	09/16/06	09/16/06	
Hardness (as CaCO3)	SM2340B	6I18075	1.0	1.0	**190**	1	09/18/06	09/20/06	
Nitrate-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Nitrite-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Nitrate/Nitrite-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Oil & Grease	EPA 413.1	6I16001	0.89	4.7	ND	1	09/16/06	09/16/06	
Sulfate	EPA 300.0	6I15041	2.2	2.5	**81**	5	09/15/06	09/15/06	
Total Dissolved Solids	SM2540C	6I15073	10	10	**370**	1	09/15/06	09/15/06	
Total Organic Carbon	EPA 415.1	6I20145	0.50	1.0	**11**	1	09/20/06	09/20/06	
Total Suspended Solids	EPA 160.2	6I20128	10	10	ND	1	09/20/06	09/20/06	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1293-01 (LC-EFF - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	6I15115	0.040	1.0	**1.6**	1	09/15/06	09/15/06	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1293-01 (LC-EFF - Water) - cont.									
Reporting Units: pH Units									
pH	EPA 150.1	6I15082	N/A	NA	**7.54**	1	09/15/06	09/15/06	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1293-01 (LC-EFF - Water) - cont.									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	6I15074	N/A	1.0	**620**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1293	Received: 09/14/06
Attention: Bronwyn Kelly			

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: LC-EFF (IPI1293-01) - Water					
EPA 150.1	1	09/14/2006 08:55	09/14/2006 18:15	09/15/2006 09:25	09/15/2006 10:45
EPA 180.1	2	09/14/2006 08:55	09/14/2006 18:15	09/15/2006 14:00	09/15/2006 15:35
EPA 300.0	2	09/14/2006 08:55	09/14/2006 18:15	09/14/2006 21:00	09/15/2006 00:43
Filtration	1	09/14/2006 08:55	09/14/2006 18:15	09/15/2006 16:50	09/15/2006 16:50

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15062 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15062-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/15/2006 (6I15062-BS1)											
Mercury	8.40	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/15/2006 (6I15062-MS1)					**Source: IPI1162-01**						
Mercury	8.20	0.20	0.15	ug/l	8.00	ND	102	70-130			
Matrix Spike Dup Analyzed: 09/15/2006 (6I15062-MSD1)					**Source: IPI1162-01**						
Mercury	8.24	0.20	0.15	ug/l	8.00	ND	103	70-130	1	20	
Batch: 6I18070 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18070-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18070-BS1)											
Antimony	78.2	2.0	0.050	ug/l	80.0		98	85-115			
Cadmium	78.0	1.0	0.025	ug/l	80.0		98	85-115			
Lead	79.6	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	78.8	2.0	0.30	ug/l	80.0		98	85-115			
Silver	78.3	1.0	0.025	ug/l	80.0		98	85-115			
Thallium	80.0	1.0	0.15	ug/l	80.0		100	85-115			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18070 Extracted: 09/18/06											
Matrix Spike Analyzed: 09/18/2006 (6I18070-MS1)					**Source: IPI1353-01**						
Antimony	79.4	2.0	0.050	ug/l	80.0	0.053	99	70-130			
Cadmium	73.3	1.0	0.025	ug/l	80.0	ND	92	70-130			
Lead	75.8	1.0	0.040	ug/l	80.0	1.1	93	70-130			
Selenium	75.2	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	72.3	1.0	0.025	ug/l	80.0	ND	90	70-130			
Thallium	74.9	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Analyzed: 09/18/2006 (6I18070-MS2)					**Source: IPI1353-02**						
Antimony	79.4	2.0	0.050	ug/l	80.0	ND	99	70-130			
Cadmium	73.0	1.0	0.025	ug/l	80.0	ND	91	70-130			
Lead	76.8	1.0	0.040	ug/l	80.0	1.8	94	70-130			
Selenium	75.4	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	72.5	1.0	0.025	ug/l	80.0	ND	91	70-130			
Thallium	75.1	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Dup Analyzed: 09/18/2006 (6I18070-MSD1)					**Source: IPI1353-01**						
Antimony	79.3	2.0	0.050	ug/l	80.0	0.053	99	70-130	0	20	
Cadmium	73.6	1.0	0.025	ug/l	80.0	ND	92	70-130	0	20	
Lead	75.6	1.0	0.040	ug/l	80.0	1.1	93	70-130	0	20	
Selenium	77.2	2.0	0.30	ug/l	80.0	ND	96	70-130	3	20	
Silver	72.3	1.0	0.025	ug/l	80.0	ND	90	70-130	0	20	
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130	0	20	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							

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Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1293

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18075 Extracted: 09/18/06											
LCS Analyzed: 09/20/2006 (6I18075-BS1)											
Arsenic	484	5.0	4.4	ug/l	500		97	85-115			
Beryllium	473	2.0	0.90	ug/l	500		95	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Iron	0.491	0.040	0.015	mg/l	0.500		98	85-115			
Manganese	479	20	7.0	ug/l	500		96	85-115			
Nickel	475	10	2.0	ug/l	500		95	85-115			
Zinc	483	20	15	ug/l	500		97	85-115			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS1)					**Source: IPI1294-01**						
Arsenic	500	5.0	4.4	ug/l	500	4.7	99	70-130			
Beryllium	493	2.0	0.90	ug/l	500	ND	99	70-130			
Chromium	472	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	0.571	0.040	0.015	mg/l	0.500	0.095	95	70-130			
Manganese	534	20	7.0	ug/l	500	50	97	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Zinc	478	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS2)					**Source: IPI1298-01**						
Arsenic	498	5.0	4.4	ug/l	500	4.9	99	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Chromium	473	5.0	2.0	ug/l	500	ND	95	70-130			
Iron	0.635	0.040	0.015	mg/l	0.500	0.15	97	70-130			
Manganese	576	20	7.0	ug/l	500	100	95	70-130			
Nickel	467	10	2.0	ug/l	500	2.0	93	70-130			
Zinc	480	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Dup Analyzed: 09/20/2006 (6I18075-MSD1)					**Source: IPI1294-01**						
Arsenic	492	5.0	4.4	ug/l	500	4.7	97	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	3	20	
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Iron	0.566	0.040	0.015	mg/l	0.500	0.095	94	70-130	1	20	
Manganese	524	20	7.0	ug/l	500	50	95	70-130	2	20	
Nickel	459	10	2.0	ug/l	500	ND	92	70-130	1	20	
Zinc	475	20	15	ug/l	500	ND	95	70-130	1	20	

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Report Number: IPI1293

Sampled: 09/14/06
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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I19133 Extracted: 09/19/06											
Blank Analyzed: 09/20/2006 (6I19133-BLK1)											
Copper	1.73	2.0	0.25	ug/l							*J*
LCS Analyzed: 09/20/2006 (6I19133-BS1)											
Copper	80.8	2.0	0.25	ug/l	80.0		101	85-115			
Matrix Spike Analyzed: 09/20/2006 (6I19133-MS1)						**Source: IPI1286-01**					
Copper	77.1	2.0	0.25	ug/l	80.0	0.82	95	70-130			
Matrix Spike Dup Analyzed: 09/20/2006 (6I19133-MSD1)						**Source: IPI1286-01**					
Copper	75.6	2.0	0.25	ug/l	80.0	0.82	93	70-130	2	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15121 Extracted: 09/15/06											
Blank Analyzed: 09/23/2006 (6I15121-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							
LCS Analyzed: 09/23/2006 (6I15121-BS1)											
Arsenic	1040	5.0	4.4	ug/l	1000		104	85-115			
Beryllium	1040	2.0	0.90	ug/l	1000		104	85-115			
Chromium	1020	5.0	2.0	ug/l	1000		102	85-115			
Iron	1.03	0.040	0.015	mg/l	1.00		103	85-115			
Manganese	1030	20	7.0	ug/l	1000		103	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Zinc	1040	20	15	ug/l	1000		104	85-115			
Matrix Spike Analyzed: 09/23/2006 (6I15121-MS1)					**Source: IPI1286-01**						
Arsenic	1050	5.0	4.4	ug/l	1000	6.3	104	70-130			
Beryllium	1040	2.0	0.90	ug/l	1000	ND	104	70-130			
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Iron	1.04	0.040	0.015	mg/l	1.00	0.032	101	70-130			
Manganese	1060	20	7.0	ug/l	1000	49	101	70-130			
Nickel	993	10	2.0	ug/l	1000	2.3	99	70-130			
Zinc	1030	20	15	ug/l	1000	36	99	70-130			
Matrix Spike Dup Analyzed: 09/23/2006 (6I15121-MSD1)					**Source: IPI1286-01**						
Arsenic	1070	5.0	4.4	ug/l	1000	6.3	106	70-130	2	20	
Beryllium	1060	2.0	0.90	ug/l	1000	ND	106	70-130	2	20	
Chromium	1030	5.0	2.0	ug/l	1000	ND	103	70-130	2	20	
Iron	1.06	0.040	0.015	mg/l	1.00	0.032	103	70-130	2	20	
Manganese	1070	20	7.0	ug/l	1000	49	102	70-130	1	20	
Nickel	1020	10	2.0	ug/l	1000	2.3	102	70-130	3	20	
Zinc	1050	20	15	ug/l	1000	36	101	70-130	2	20	

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1293

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18073-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.303	2.0	0.25	ug/l							*J*
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18073-BS1)											
Antimony	74.5	2.0	0.050	ug/l	80.0		93	85-115			
Cadmium	74.9	1.0	0.025	ug/l	80.0		94	85-115			
Copper	79.0	2.0	0.25	ug/l	80.0		99	85-115			
Lead	80.4	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	77.2	2.0	0.30	ug/l	80.0		96	85-115			
Silver	77.2	1.0	0.025	ug/l	80.0		96	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS1)					**Source: IPI1226-01**						
Antimony	74.1	2.0	0.050	ug/l	80.0	0.22	92	70-130			
Cadmium	68.4	1.0	0.025	ug/l	80.0	0.096	85	70-130			
Copper	73.2	2.0	0.25	ug/l	80.0	6.8	83	70-130			
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130			
Selenium	76.1	2.0	0.30	ug/l	80.0	6.1	88	70-130			
Silver	69.4	1.0	0.025	ug/l	80.0	ND	87	70-130			
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS2)					**Source: IPI1286-01**						
Antimony	76.7	2.0	0.050	ug/l	80.0	1.0	95	70-130			
Cadmium	73.5	1.0	0.025	ug/l	80.0	ND	92	70-130			
Copper	74.3	2.0	0.25	ug/l	80.0	6.1	85	70-130			
Lead	76.3	1.0	0.040	ug/l	80.0	0.093	95	70-130			
Selenium	73.8	2.0	0.30	ug/l	80.0	0.77	91	70-130			
Silver	74.5	1.0	0.025	ug/l	80.0	ND	93	70-130			
Thallium	76.5	1.0	0.15	ug/l	80.0	0.36	95	70-130			

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1293	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Matrix Spike Dup Analyzed: 09/18/2006 (6I18073-MSD1)						**Source: IPI1226-01**					
Antimony	75.1	2.0	0.050	ug/l	80.0	0.22	94	70-130	1	20	
Cadmium	69.1	1.0	0.025	ug/l	80.0	0.096	86	70-130	1	20	
Copper	71.7	2.0	0.25	ug/l	80.0	6.8	81	70-130	2	20	
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130	0	20	
Selenium	77.3	2.0	0.30	ug/l	80.0	6.1	89	70-130	2	20	
Silver	70.2	1.0	0.025	ug/l	80.0	ND	88	70-130	1	20	
Thallium	74.4	1.0	0.15	ug/l	80.0	ND	93	70-130	1	20	
Batch: 6I18082 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18082-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18082-BS1)											
Mercury	8.42	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18082-MS1)						**Source: IPI1321-01**					
Mercury	8.28	0.20	0.15	ug/l	8.00	ND	104	70-130			
Matrix Spike Dup Analyzed: 09/18/2006 (6I18082-MSD1)						**Source: IPI1321-01**					
Mercury	8.17	0.20	0.15	ug/l	8.00	ND	102	70-130	1	20	

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Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1293

Sampled: 09/14/06
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I14139 Extracted: 09/14/06											
Blank Analyzed: 09/14/2006 (6I14139-BLK1)											
Nitrate-N	ND	0.15	0.080	mg/l							
Nitrite-N	ND	0.15	0.080	mg/l							
Nitrate/Nitrite-N	ND	0.15	0.080	mg/l							
LCS Analyzed: 09/14/2006 (6I14139-BS1)											
Nitrate-N	1.09	0.15	0.080	mg/l	1.13		96	90-110			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52		95	90-110			
Matrix Spike Analyzed: 09/14/2006 (6I14139-MS1)					**Source: IPI1286-01**						
Nitrate-N	1.13	0.15	0.080	mg/l	1.13	ND	100	80-120			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52	ND	95	80-120			
Matrix Spike Dup Analyzed: 09/14/2006 (6I14139-MSD1)					**Source: IPI1286-01**						
Nitrate-N	1.14	0.15	0.080	mg/l	1.13	ND	101	80-120	1	20	
Nitrite-N	1.46	0.15	0.080	mg/l	1.52	ND	96	80-120	1	20	
Batch: 6I15041 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15041-BLK1)											
Sulfate	ND	0.50	0.45	mg/l							
LCS Analyzed: 09/15/2006 (6I15041-BS1)											
Sulfate	10.1	0.50	0.45	mg/l	10.0		101	90-110			
Matrix Spike Analyzed: 09/15/2006 (6I15041-MS1)					**Source: IPI1302-02**						
Sulfate	183	2.5	2.2	mg/l	10.0	180	30	80-120			*M-HA*

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1293	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15041 Extracted: 09/15/06											
Matrix Spike Dup Analyzed: 09/15/2006 (6I15041-MSD1)						**Source: IPI1302-02**					
Sulfate	184	2.5	2.2	mg/l	10.0	180	40	80-120	1	20	*M-HA*
Batch: 6I15073 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15073-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 09/15/2006 (6I15073-BS1)											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 09/15/2006 (6I15073-DUP1)						**Source: IPI1076-01**					
Total Dissolved Solids	1480	10	10	mg/l		1500			1	10	
Batch: 6I15074 Extracted: 09/15/06											
Duplicate Analyzed: 09/15/2006 (6I15074-DUP1)						**Source: IPI1120-01**					
Specific Conductance	1820	1.0	N/A	umhos/cm		1800			1	5	
Batch: 6I15082 Extracted: 09/15/06											
Duplicate Analyzed: 09/15/2006 (6I15082-DUP1)						**Source: IPI1268-01**					
pH	6.87	NA	N/A	pH Units		6.85			0	5	
Duplicate Analyzed: 09/15/2006 (6I15082-DUP2)						**Source: IPI1293-01**					
pH	7.55	NA	N/A	pH Units		7.54			0	5	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15115 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15115-BLK1)											
Turbidity	ND	1.0	0.040	NTU							
Duplicate Analyzed: 09/15/2006 (6I15115-DUP1)					**Source: IPI1266-01**						
Turbidity	3.33	1.0	0.040	NTU		3.4			2	20	
Duplicate Analyzed: 09/15/2006 (6I15115-DUP2)					**Source: IPI1293-01**						
Turbidity	1.63	1.0	0.040	NTU		1.6			2	20	
Batch: 6I16001 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16001-BLK1)											
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 09/16/2006 (6I16001-BS1)											
Oil & Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120			*M-NR1*
LCS Dup Analyzed: 09/16/2006 (6I16001-BSD1)											
Oil & Grease	18.1	5.0	0.94	mg/l	20.0		90	65-120	1	20	
Batch: 6I16057 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16057-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/16/2006 (6I16057-BS1)											
Ammonia-N (Distilled)	10.9	0.50	0.30	mg/l	10.0		109	80-115			

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R-2A Pond Pilot Test
Report Number: IPI1293

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I16057 Extracted: 09/16/06											
Matrix Spike Analyzed: 09/16/2006 (6I16057-MS1)					**Source: IPI1286-01**						
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120			
Matrix Spike Dup Analyzed: 09/16/2006 (6I16057-MSD1)					**Source: IPI1286-01**						
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120	0	15	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
Batch: 6I20071 Extracted: 09/20/06											
Duplicate Analyzed: 09/20/2006 (6I20071-DUP1)					**Source: IPI1125-01**						
Alkalinity as CaCO3	348	2.0	2.0	mg/l		350			1	20	
Reference Analyzed: 09/20/2006 (6I20071-SRM1)											
Alkalinity as CaCO3	224	2.0	2.0	mg/l	231		97	90-110			
Batch: 6I20101 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20101-BLK1)											
Total Kjeldahl Nitrogen	ND	0.50	0.43	mg/l							
LCS Analyzed: 09/20/2006 (6I20101-BS1)											
Total Kjeldahl Nitrogen	19.6	0.50	0.43	mg/l	20.0		98	85-120			

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1293	Received: 09/14/06
Attention: Bronwyn Kelly			

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20101 Extracted: 09/20/06											
LCS Dup Analyzed: 09/20/2006 (6I20101-BSD1)											
Total Kjeldahl Nitrogen	19.9	0.50	0.43	mg/l	20.0		100	85-120	2	15	
Matrix Spike Analyzed: 09/20/2006 (6I20101-MS1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	10.6	0.50	0.43	mg/l	10.0	0.84	98	85-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20101-MSD1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	11.2	0.50	0.43	mg/l	10.0	0.84	104	85-120	6	15	
Batch: 6I20128 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20128-BLK2)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/20/2006 (6I20128-BS2)											
Total Suspended Solids	1040	10	10	mg/l	1000		104	85-115			
Duplicate Analyzed: 09/20/2006 (6I20128-DUP2)					**Source: IPI1285-02**						
Total Suspended Solids	2270	10	10	mg/l		2100			8	10	
Batch: 6I20145 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20145-BLK1)											
Total Organic Carbon	ND	1.0	0.25	mg/l							
LCS Analyzed: 09/20/2006 (6I20145-BS1)											
Total Organic Carbon	10.7	1.0	0.25	mg/l	10.0		107	90-110			

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1293	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20145 Extracted: 09/20/06											
Matrix Spike Analyzed: 09/20/2006 (6I20145-MS1)						**Source: IPI1211-01**					
Total Organic Carbon	6.34	1.0	0.25	mg/l	5.00	1.5	97	80-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20145-MSD1)						**Source: IPI1211-01**					
Total Organic Carbon	6.52	1.0	0.25	mg/l	5.00	1.5	100	80-120	3	20	
Batch: 6I22108 Extracted: 09/22/06											
Duplicate Analyzed: 09/22/2006 (6I22108-DUP1)						**Source: IPI0964-02**					
Density	0.999	NA	N/A	g/cc		1.0			0	20	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1293	Received: 09/14/06
Attention: Bronwyn Kelly			

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M-HA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
M-NR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1293	Received: 09/14/06
Attention: Bronwyn Kelly			

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
1613A/1613B	Water		
ASTM D3977	Water		
Displacement	Water		
EPA 120.1	Water	X	X
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 310.1	Water	X	X
EPA 350.2	Water		X
EPA 351.3	Water		
EPA 413.1	Water	X	X
EPA 415.1	Water	X	X
Filtration	Water	N/A	N/A
SM2340B	Water	X	X
SM2540C	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Alta Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IPI1293-01

TestAmerica - Irvine, CA
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IPI1243

Del Mar Analytical Version 04/28/06 CHAIN OF CUSTODY FORM

Client Name/Address:
MWH-Pasadena
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101

Project Manager: Bronwyn Kelly

Sampler: BANAGA

Project:
Boeing-SSFL BMP/NPDES
R-2A Pond Filtration Pilot Test

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

Field readings:
Temp = 69°
pH = ~~6.8~~ 7.2 NOS

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle * #	Total Recoverable Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn, Hardness	Total Dissolved Solids, pH, Alkalinity, Suspended Sediments Concentration (ASTM Method)	Total Organic Carbon	Oil & Grease (EPA 413.1)	Total Kjeldhal Nitrogen	SO4, NO3+NO2-N, Nitrate-N, Nitrite-N (NO3 + NO2-N)	Turbidity, TSS, Conductivity	Ammonia-N (NH3-N)	Total Dissolved Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn	TCDD (and all congeners)					Comments
LC-EFF	W	Poly-1L	1	9/14/06 0855	HNO3	1	X														
LC-EFF	W	Poly-1L	1		None	2		X													
LC-EFF	W	VOAs	2		HCl	3A, 3B			X												
LC-EFF	W	1L Amber	2		HCl	4A, 4B				X											
LC-EFF	W	Poly-500 ml	1		H2SO4	5					X										
LC-EFF	W	Poly-500 ml	1		None	6						X									
LC-EFF	W	Poly-500 ml	2		None	7A, 7B							X								
LC-EFF	W	Poly-500 ml	1		H2SO4	8								X							
LC-EFF	W	Poly-1L	1		None	9									X						
LC-EFF	W	1L Amber	2		None	10A, 10B										X					
				9/14/06 0855																	

Relinquished By	Date/Time	Received By	Date/Time
[signature]	9-14-06 1500	[signature]	9-14-06 1500
[signature]	9-14-06 1815		
		Eduardo N. [signature]	9/14/06 ~~1800~~ 1815

Turn around Time: (check)
24 Hours ______ 5 Days ______
48 Hours ______ 10 Days ______
72 Hours ______ Normal X
Perchlorate Only 72 Hours ______
Metals Only 72 Hours ______
Sample Integrity: (Check)
Intact ✓ On Ice: 6

DNZ100

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LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test

Sampled: 09/14/06
Received: 09/14/06
Issued: 09/28/06 17:59

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IPI1294-01	PM-P-EFF	Water

Reviewed By:

Amy Windham

TestAmerica - Irvine, CA
Amy Windham For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1294	Received: 09/14/06
Attention: Bronwyn Kelly			

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1294-01 (PM-P-EFF - Water)									
Reporting Units: mg/l									
Iron	EPA 200.7	6I18075	0.015	0.040	**0.095**	1	09/18/06	09/20/06	
Sample ID: IPI1294-01 (PM-P-EFF - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	6I18071	0.050	2.0	**0.58**	1	09/18/06	09/19/06	J
Arsenic	EPA 200.7	6I18075	4.4	5.0	**4.7**	1	09/18/06	09/20/06	J
Beryllium	EPA 200.7	6I18075	0.90	2.0	ND	1	09/18/06	09/20/06	
Cadmium	EPA 200.8	6I18071	0.025	1.0	ND	1	09/18/06	09/19/06	
Chromium	EPA 200.7	6I18075	2.0	5.0	ND	1	09/18/06	09/20/06	
Copper	EPA 200.8	6I18071	0.25	2.0	**4.2**	1	09/18/06	09/19/06	
Lead	EPA 200.8	6I18071	0.040	1.0	**0.10**	1	09/18/06	09/19/06	J
Manganese	EPA 200.7	6I18075	7.0	20	**50**	1	09/18/06	09/20/06	
Mercury	EPA 245.1	6I15062	0.15	0.20	ND	1	09/15/06	09/15/06	
Nickel	EPA 200.7	6I18075	2.0	10	ND	1	09/18/06	09/20/06	
Selenium	EPA 200.8	6I18071	0.30	2.0	**0.46**	1	09/18/06	09/19/06	J
Silver	EPA 200.8	6I18071	0.025	1.0	ND	1	09/18/06	09/19/06	
Thallium	EPA 200.8	6I18071	0.15	1.0	**0.20**	1	09/18/06	09/19/06	J
Zinc	EPA 200.7	6I18075	15	20	ND	1	09/18/06	09/20/06	

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1294

Sampled: 09/14/06
Received: 09/14/06

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1294-01 (PM-P-EFF - Water) - cont.									
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	6I15121	0.015	0.040	ND	1	09/15/06	09/23/06	
Sample ID: IPI1294-01 (PM-P-EFF - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	6I18073	0.050	2.0	**0.46**	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7-Diss	6I15121	4.4	5.0	ND	1	09/15/06	09/23/06	
Beryllium	EPA 200.7-Diss	6I15121	0.90	2.0	ND	1	09/15/06	09/23/06	
Cadmium	EPA 200.8-Diss	6I18073	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7-Diss	6I15121	2.0	5.0	ND	1	09/15/06	09/23/06	
Copper	EPA 200.8-Diss	6I18073	0.25	2.0	**1.8**	1	09/18/06	09/18/06	B, J
Lead	EPA 200.8-Diss	6I18073	0.040	1.0	ND	1	09/18/06	09/18/06	
Manganese	EPA 200.7-Diss	6I15121	7.0	20	**10**	1	09/15/06	09/23/06	J
Mercury	EPA 245.1-Diss	6I18082	0.15	0.20	ND	1	09/18/06	09/18/06	
Nickel	EPA 200.7-Diss	6I15121	2.0	10	**2.2**	1	09/15/06	09/23/06	J
Selenium	EPA 200.8-Diss	6I18073	0.30	2.0	**0.42**	1	09/18/06	09/18/06	J
Silver	EPA 200.8-Diss	6I18073	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8-Diss	6I18073	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7-Diss	6I15121	15	20	ND	1	09/15/06	09/23/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1294	Sampled: 09/14/06 Received: 09/14/06

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1294-01 (PM-P-EFF - Water) - cont.									
Reporting Units: g/cc									
Density	Displacement	6I22108	N/A	NA	**1.0**	1	09/22/06	09/22/06	
Sample ID: IPI1294-01 (PM-P-EFF - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	6I25082	10	10	ND	1	09/25/06	09/25/06	
Total Kjeldahl Nitrogen	EPA 351.3	6I20101	0.43	0.50	**0.84**	1	09/20/06	09/20/06	
Alkalinity as CaCO3	EPA 310.1	6I20071	2.0	2.0	**150**	1	09/20/06	09/20/06	
Ammonia-N (Distilled)	EPA 350.2	6I16057	0.30	0.50	**0.56**	1	09/16/06	09/16/06	
Hardness (as CaCO3)	SM2340B	6I18075	1.0	1.0	**170**	1	09/18/06	09/20/06	
Nitrate-N	EPA 300.0	6I14139	0.080	0.15	**0.16**	1	09/14/06	09/15/06	
Nitrite-N	EPA 300.0	6I14139	0.080	0.15	**0.12**	1	09/14/06	09/15/06	J
Nitrate/Nitrite-N	EPA 300.0	6I14139	0.080	0.15	**0.28**	1	09/14/06	09/15/06	
Oil & Grease	EPA 413.1	6I16001	0.89	4.7	ND	1	09/16/06	09/16/06	
Sulfate	EPA 300.0	6I15041	2.2	2.5	**83**	5	09/15/06	09/15/06	
Total Dissolved Solids	SM2540C	6I18061	10	10	**340**	1	09/18/06	09/18/06	
Total Organic Carbon	EPA 415.1	6I20145	0.50	1.0	**10**	1	09/20/06	09/20/06	
Total Suspended Solids	EPA 160.2	6I20128	10	10	ND	1	09/20/06	09/20/06	

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MWH-Pasadena/Boeing	Project ID: Boeing-SSFL BMP/NPDES		
300 North Lake Avenue, Suite 1200	R-2A Pond Pilot Test	Sampled:	09/14/06
Pasadena, CA 91101	Report Number: IPI1294	Received:	09/14/06
Attention: Bronwyn Kelly			

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1294-01 (PM-P-EFF - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	6I15115	0.040	1.0	**1.5**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1294	Sampled: 09/14/06 Received: 09/14/06

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1294-01 (PM-P-EFF - Water) - cont.									
Reporting Units: pH Units									
pH	EPA 150.1	6I15082	N/A	NA	**7.40**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1294		Sampled: 09/14/06 Received: 09/14/06

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1294-01 (PM-P-EFF - Water) - cont.									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	6I18059	N/A	1.0	**600**	1	09/18/06	09/18/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1294	Sampled: 09/14/06 Received: 09/14/06

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: PM-P-EFF (IPI1294-01) - Water					
EPA 150.1	1	09/14/2006 08:35	09/14/2006 18:15	09/15/2006 09:25	09/15/2006 10:45
EPA 180.1	2	09/14/2006 08:35	09/14/2006 18:15	09/15/2006 14:00	09/15/2006 15:35
EPA 300.0	2	09/14/2006 08:35	09/14/2006 18:15	09/14/2006 21:00	09/15/2006 00:59
Filtration	1	09/14/2006 08:35	09/14/2006 18:15	09/15/2006 16:50	09/15/2006 16:50

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1294	Received: 09/14/06
Attention: Bronwyn Kelly			

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15062 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15062-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/15/2006 (6I15062-BS1)											
Mercury	8.40	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/15/2006 (6I15062-MS1)					**Source: IPI1162-01**						
Mercury	8.20	0.20	0.15	ug/l	8.00	ND	102	70-130			
Matrix Spike Dup Analyzed: 09/15/2006 (6I15062-MSD1)					**Source: IPI1162-01**						
Mercury	8.24	0.20	0.15	ug/l	8.00	ND	103	70-130	1	20	
Batch: 6I18071 Extracted: 09/18/06											
Blank Analyzed: 09/19/2006 (6I18071-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.400	2.0	0.25	ug/l							*J*
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/19/2006 (6I18071-BS1)											
Antimony	80.1	2.0	0.050	ug/l	80.0		100	85-115			
Cadmium	81.5	1.0	0.025	ug/l	80.0		102	85-115			
Copper	80.5	2.0	0.25	ug/l	80.0		101	85-115			
Lead	82.3	1.0	0.040	ug/l	80.0		103	85-115			
Selenium	80.9	2.0	0.30	ug/l	80.0		101	85-115			
Silver	80.3	1.0	0.025	ug/l	80.0		100	85-115			
Thallium	84.3	1.0	0.15	ug/l	80.0		105	85-115			

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1294	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18071 Extracted: 09/18/06											
Matrix Spike Analyzed: 09/19/2006 (6I18071-MS1)					**Source: IPI1509-01**						
Antimony	80.6	2.0	0.050	ug/l	80.0	0.15	101	70-130			
Cadmium	80.6	1.0	0.025	ug/l	80.0	ND	101	70-130			
Copper	81.9	2.0	0.25	ug/l	80.0	3.3	98	70-130			
Lead	77.8	1.0	0.040	ug/l	80.0	0.088	97	70-130			
Selenium	77.2	2.0	0.30	ug/l	80.0	ND	96	70-130			
Silver	78.0	1.0	0.025	ug/l	80.0	ND	98	70-130			
Thallium	79.0	1.0	0.15	ug/l	80.0	0.19	99	70-130			
Matrix Spike Analyzed: 09/19/2006 (6I18071-MS2)					**Source: IPI1509-02**						
Antimony	79.9	2.0	0.050	ug/l	80.0	0.16	100	70-130			
Cadmium	79.5	1.0	0.025	ug/l	80.0	ND	99	70-130			
Copper	86.5	2.0	0.25	ug/l	80.0	0.90	107	70-130			
Lead	77.5	1.0	0.040	ug/l	80.0	0.060	97	70-130			
Selenium	76.3	2.0	0.30	ug/l	80.0	ND	95	70-130			
Silver	76.9	1.0	0.025	ug/l	80.0	ND	96	70-130			
Thallium	74.6	1.0	0.15	ug/l	80.0	0.20	93	70-130			
Matrix Spike Dup Analyzed: 09/19/2006 (6I18071-MSD1)					**Source: IPI1509-01**						
Antimony	80.3	2.0	0.050	ug/l	80.0	0.15	100	70-130	0	20	
Cadmium	80.9	1.0	0.025	ug/l	80.0	ND	101	70-130	0	20	
Copper	78.1	2.0	0.25	ug/l	80.0	3.3	94	70-130	5	20	
Lead	77.9	1.0	0.040	ug/l	80.0	0.088	97	70-130	0	20	
Selenium	76.4	2.0	0.30	ug/l	80.0	ND	96	70-130	1	20	
Silver	77.7	1.0	0.025	ug/l	80.0	ND	97	70-130	0	20	
Thallium	82.4	1.0	0.15	ug/l	80.0	0.19	103	70-130	4	20	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1294	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18075 Extracted: 09/18/06											
LCS Analyzed: 09/20/2006 (6I18075-BS1)											
Arsenic	484	5.0	4.4	ug/l	500		97	85-115			
Beryllium	473	2.0	0.90	ug/l	500		95	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Iron	0.491	0.040	0.015	mg/l	0.500		98	85-115			
Manganese	479	20	7.0	ug/l	500		96	85-115			
Nickel	475	10	2.0	ug/l	500		95	85-115			
Zinc	483	20	15	ug/l	500		97	85-115			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS1)					**Source: IPI1294-01**						
Arsenic	500	5.0	4.4	ug/l	500	4.7	99	70-130			
Beryllium	493	2.0	0.90	ug/l	500	ND	99	70-130			
Chromium	472	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	0.571	0.040	0.015	mg/l	0.500	0.095	95	70-130			
Manganese	534	20	7.0	ug/l	500	50	97	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Zinc	478	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS2)					**Source: IPI1298-01**						
Arsenic	498	5.0	4.4	ug/l	500	4.9	99	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Chromium	473	5.0	2.0	ug/l	500	ND	95	70-130			
Iron	0.635	0.040	0.015	mg/l	0.500	0.15	97	70-130			
Manganese	576	20	7.0	ug/l	500	100	95	70-130			
Nickel	467	10	2.0	ug/l	500	2.0	93	70-130			
Zinc	480	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Dup Analyzed: 09/20/2006 (6I18075-MSD1)					**Source: IPI1294-01**						
Arsenic	492	5.0	4.4	ug/l	500	4.7	97	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	3	20	
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Iron	0.566	0.040	0.015	mg/l	0.500	0.095	94	70-130	1	20	
Manganese	524	20	7.0	ug/l	500	50	95	70-130	2	20	
Nickel	459	10	2.0	ug/l	500	ND	92	70-130	1	20	
Zinc	475	20	15	ug/l	500	ND	95	70-130	1	20	

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Amy Windham For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1294

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15121 Extracted: 09/15/06											
Blank Analyzed: 09/23/2006 (6I15121-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							
LCS Analyzed: 09/23/2006 (6I15121-BS1)											
Arsenic	1040	5.0	4.4	ug/l	1000		104	85-115			
Beryllium	1040	2.0	0.90	ug/l	1000		104	85-115			
Chromium	1020	5.0	2.0	ug/l	1000		102	85-115			
Iron	1.03	0.040	0.015	mg/l	1.00		103	85-115			
Manganese	1030	20	7.0	ug/l	1000		103	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Zinc	1040	20	15	ug/l	1000		104	85-115			
Matrix Spike Analyzed: 09/23/2006 (6I15121-MS1)					**Source: IPI1286-01**						
Arsenic	1050	5.0	4.4	ug/l	1000	6.3	104	70-130			
Beryllium	1040	2.0	0.90	ug/l	1000	ND	104	70-130			
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Iron	1.04	0.040	0.015	mg/l	1.00	0.032	101	70-130			
Manganese	1060	20	7.0	ug/l	1000	49	101	70-130			
Nickel	993	10	2.0	ug/l	1000	2.3	99	70-130			
Zinc	1030	20	15	ug/l	1000	36	99	70-130			
Matrix Spike Dup Analyzed: 09/23/2006 (6I15121-MSD1)					**Source: IPI1286-01**						
Arsenic	1070	5.0	4.4	ug/l	1000	6.3	106	70-130	2	20	
Beryllium	1060	2.0	0.90	ug/l	1000	ND	106	70-130	2	20	
Chromium	1030	5.0	2.0	ug/l	1000	ND	103	70-130	2	20	
Iron	1.06	0.040	0.015	mg/l	1.00	0.032	103	70-130	2	20	
Manganese	1070	20	7.0	ug/l	1000	49	102	70-130	1	20	
Nickel	1020	10	2.0	ug/l	1000	2.3	102	70-130	3	20	
Zinc	1050	20	15	ug/l	1000	36	101	70-130	2	20	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1294	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18073-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.303	2.0	0.25	ug/l							J
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18073-BS1)											
Antimony	74.5	2.0	0.050	ug/l	80.0		93	85-115			
Cadmium	74.9	1.0	0.025	ug/l	80.0		94	85-115			
Copper	79.0	2.0	0.25	ug/l	80.0		99	85-115			
Lead	80.4	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	77.2	2.0	0.30	ug/l	80.0		96	85-115			
Silver	77.2	1.0	0.025	ug/l	80.0		96	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS1)					**Source: IPI1226-01**						
Antimony	74.1	2.0	0.050	ug/l	80.0	0.22	92	70-130			
Cadmium	68.4	1.0	0.025	ug/l	80.0	0.096	85	70-130			
Copper	73.2	2.0	0.25	ug/l	80.0	6.8	83	70-130			
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130			
Selenium	76.1	2.0	0.30	ug/l	80.0	6.1	88	70-130			
Silver	69.4	1.0	0.025	ug/l	80.0	ND	87	70-130			
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS2)					**Source: IPI1286-01**						
Antimony	76.7	2.0	0.050	ug/l	80.0	1.0	95	70-130			
Cadmium	73.5	1.0	0.025	ug/l	80.0	ND	92	70-130			
Copper	74.3	2.0	0.25	ug/l	80.0	6.1	85	70-130			
Lead	76.3	1.0	0.040	ug/l	80.0	0.093	95	70-130			
Selenium	73.8	2.0	0.30	ug/l	80.0	0.77	91	70-130			
Silver	74.5	1.0	0.025	ug/l	80.0	ND	93	70-130			
Thallium	76.5	1.0	0.15	ug/l	80.0	0.36	95	70-130			

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1294	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Matrix Spike Dup Analyzed: 09/18/2006 (6I18073-MSD1)						**Source: IPI1226-01**					
Antimony	75.1	2.0	0.050	ug/l	80.0	0.22	94	70-130	1	20	
Cadmium	69.1	1.0	0.025	ug/l	80.0	0.096	86	70-130	1	20	
Copper	71.7	2.0	0.25	ug/l	80.0	6.8	81	70-130	2	20	
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130	0	20	
Selenium	77.3	2.0	0.30	ug/l	80.0	6.1	89	70-130	2	20	
Silver	70.2	1.0	0.025	ug/l	80.0	ND	88	70-130	1	20	
Thallium	74.4	1.0	0.15	ug/l	80.0	ND	93	70-130	1	20	
Batch: 6I18082 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18082-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18082-BS1)											
Mercury	8.42	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18082-MS1)						**Source: IPI1321-01**					
Mercury	8.28	0.20	0.15	ug/l	8.00	ND	104	70-130			
Matrix Spike Dup Analyzed: 09/18/2006 (6I18082-MSD1)						**Source: IPI1321-01**					
Mercury	8.17	0.20	0.15	ug/l	8.00	ND	102	70-130	1	20	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1294	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I14139 Extracted: 09/14/06											
Blank Analyzed: 09/14/2006 (6I14139-BLK1)											
Nitrate-N	ND	0.15	0.080	mg/l							
Nitrite-N	ND	0.15	0.080	mg/l							
Nitrate/Nitrite-N	ND	0.15	0.080	mg/l							
LCS Analyzed: 09/14/2006 (6I14139-BS1)											
Nitrate-N	1.09	0.15	0.080	mg/l	1.13		96	90-110			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52		95	90-110			
Matrix Spike Analyzed: 09/14/2006 (6I14139-MS1)					**Source: IPI1286-01**						
Nitrate-N	1.13	0.15	0.080	mg/l	1.13	ND	100	80-120			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52	ND	95	80-120			
Matrix Spike Dup Analyzed: 09/14/2006 (6I14139-MSD1)					**Source: IPI1286-01**						
Nitrate-N	1.14	0.15	0.080	mg/l	1.13	ND	101	80-120	1	20	
Nitrite-N	1.46	0.15	0.080	mg/l	1.52	ND	96	80-120	1	20	
Batch: 6I15041 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15041-BLK1)											
Sulfate	ND	0.50	0.45	mg/l							
LCS Analyzed: 09/15/2006 (6I15041-BS1)											
Sulfate	10.1	0.50	0.45	mg/l	10.0		101	90-110			
Matrix Spike Analyzed: 09/15/2006 (6I15041-MS1)					**Source: IPI1302-02**						
Sulfate	183	2.5	2.2	mg/l	10.0	180	30	80-120			*M-HA*

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Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1294

Sampled: 09/14/06
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15041 Extracted: 09/15/06											
Matrix Spike Dup Analyzed: 09/15/2006 (6I15041-MSD1)					**Source: IPI1302-02**						
Sulfate	184	2.5	2.2	mg/l	10.0	180	40	80-120	1	20	*M-HA*
Batch: 6I15082 Extracted: 09/15/06											
Duplicate Analyzed: 09/15/2006 (6I15082-DUP1)					**Source: IPI1268-01**						
pH	6.87	NA	N/A	pH Units		6.85			0	5	
Duplicate Analyzed: 09/15/2006 (6I15082-DUP2)					**Source: IPI1293-01**						
pH	7.55	NA	N/A	pH Units		7.54			0	5	
Batch: 6I15115 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15115-BLK1)											
Turbidity	ND	1.0	0.040	NTU							
Duplicate Analyzed: 09/15/2006 (6I15115-DUP1)					**Source: IPI1266-01**						
Turbidity	3.33	1.0	0.040	NTU		3.4			2	20	
Duplicate Analyzed: 09/15/2006 (6I15115-DUP2)					**Source: IPI1293-01**						
Turbidity	1.63	1.0	0.040	NTU		1.6			2	20	
Batch: 6I16001 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16001-BLK1)											
Oil & Grease	ND	5.0	0.94	mg/l							

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1294	Received: 09/14/06
Attention: Bronwyn Kelly			

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I16001 Extracted: 09/16/06											
LCS Analyzed: 09/16/2006 (6I16001-BS1)											
Oil & Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120			*M-NR1*
LCS Dup Analyzed: 09/16/2006 (6I16001-BSD1)											
Oil & Grease	18.1	5.0	0.94	mg/l	20.0		90	65-120	1	20	
Batch: 6I16057 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16057-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/16/2006 (6I16057-BS1)											
Ammonia-N (Distilled)	10.9	0.50	0.30	mg/l	10.0		109	80-115			
Matrix Spike Analyzed: 09/16/2006 (6I16057-MS1)					**Source: IPI1286-01**						
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120			
Matrix Spike Dup Analyzed: 09/16/2006 (6I16057-MSD1)					**Source: IPI1286-01**						
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120	0	15	
Batch: 6I18059 Extracted: 09/18/06											
Duplicate Analyzed: 09/18/2006 (6I18059-DUP1)					**Source: IPI1351-01**						
Specific Conductance	2030	1.0	N/A	umhos/cm		2000			1	5	
Batch: 6I18061 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18061-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
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Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1294

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18061 Extracted: 09/18/06											
LCS Analyzed: 09/18/2006 (6I18061-BS1)											
Total Dissolved Solids	994	10	10	mg/l	1000		99	90-110			
Duplicate Analyzed: 09/18/2006 (6I18061-DUP1)					**Source: IPI1321-01**						
Total Dissolved Solids	343	10	10	mg/l		350			2	10	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
Batch: 6I20071 Extracted: 09/20/06											
Duplicate Analyzed: 09/20/2006 (6I20071-DUP1)					**Source: IPI1125-01**						
Alkalinity as CaCO3	348	2.0	2.0	mg/l		350			1	20	
Reference Analyzed: 09/20/2006 (6I20071-SRM1)											
Alkalinity as CaCO3	224	2.0	2.0	mg/l	231		97	90-110			
Batch: 6I20101 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20101-BLK1)											
Total Kjeldahl Nitrogen	ND	0.50	0.43	mg/l							
LCS Analyzed: 09/20/2006 (6I20101-BS1)											
Total Kjeldahl Nitrogen	19.6	0.50	0.43	mg/l	20.0		98	85-120			

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Report Number: IPI1294

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20101 Extracted: 09/20/06											
LCS Dup Analyzed: 09/20/2006 (6I20101-BSD1)											
Total Kjeldahl Nitrogen	19.9	0.50	0.43	mg/l	20.0		100	85-120	2	15	
Matrix Spike Analyzed: 09/20/2006 (6I20101-MS1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	10.6	0.50	0.43	mg/l	10.0	0.84	98	85-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20101-MSD1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	11.2	0.50	0.43	mg/l	10.0	0.84	104	85-120	6	15	
Batch: 6I20128 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20128-BLK2)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/20/2006 (6I20128-BS2)											
Total Suspended Solids	1040	10	10	mg/l	1000		104	85-115			
Duplicate Analyzed: 09/20/2006 (6I20128-DUP2)					**Source: IPI1285-02**						
Total Suspended Solids	2270	10	10	mg/l		2100			8	10	
Batch: 6I20145 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20145-BLK1)											
Total Organic Carbon	ND	1.0	0.25	mg/l							
LCS Analyzed: 09/20/2006 (6I20145-BS1)											
Total Organic Carbon	10.7	1.0	0.25	mg/l	10.0		107	90-110			

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1294	Received: 09/14/06
Attention: Bronwyn Kelly			

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20145 Extracted: 09/20/06											
Matrix Spike Analyzed: 09/20/2006 (6I20145-MS1)					**Source: IPI1211-01**						
Total Organic Carbon	6.34	1.0	0.25	mg/l	5.00	1.5	97	80-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20145-MSD1)					**Source: IPI1211-01**						
Total Organic Carbon	6.52	1.0	0.25	mg/l	5.00	1.5	100	80-120	3	20	
Batch: 6I22108 Extracted: 09/22/06											
Duplicate Analyzed: 09/22/2006 (6I22108-DUP1)					**Source: IPI0964-02**						
Density	0.999	NA	N/A	g/cc		1.0			0	20	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1294	Received: 09/14/06
Attention: Bronwyn Kelly			

DATA QUALIFIERS AND DEFINITIONS

B Analyte was detected in the associated Method Blank.

J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.

M-HA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

M-NR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

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Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
1613A/1613B	Water		
ASTM D3977	Water		
Displacement	Water		
EPA 120.1	Water	X	X
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 310.1	Water	X	X
EPA 350.2	Water		X
EPA 351.3	Water		
EPA 413.1	Water	X	X
EPA 415.1	Water	X	X
Filtration	Water	N/A	N/A
SM2340B	Water	X	X
SM2540C	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Alta Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*
1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta
Samples: IPI1294-01

TestAmerica - Irvine, CA
Amy Windham For Michele Chamberlin
Project Manager

IPI1294

Del Mar Analytical Version 04/28/06 CHAIN OF CUSTODY FORM

Client Name/Address:

MWH-Pasadena
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101

Project Manager: Bronwyn Kelly

Sampler: Bronwyn

Project:
Boeing-SSFL BMP/NPDES
R-2A Pond Filtration Pilot Test

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle * #	Total Recoverable Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn, Hardness	Total Dissolved Solids, pH, Alkalinity, Suspended Sediments Concentration (ASTM Method)	Total Organic Carbon	Oil & Grease (EPA 413.1)	Total Kjeldhal Nitrogen	SO4, NO3+NO2-N, Nitrate-N, Nitrite-N (NO3 + NO2-N)	Turbidity, TSS, Conductivity	Ammonia-N (NH3-N)	Total Dissolved Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn	TCDD (and all congeners)					Comments
PM-P-EFF	W	Poly-1L	1	9/14/06 0835	HNO3	1	X														Field readings: 0
PM-P-EFF	W	Poly-1L	1		None	2		X													Temp = 66
PM-P-EFF	W	VOAs	2		HCl	3A, 3B			X												pH= 7.0
PM-P-EFF	W	1L Amber	2		HCl	4A, 4B				X											
PM-P-EFF	W	Poly-500 ml	1		H2SO4	5					X										
PM-P-EFF	W	Poly-500 ml	1		None	6						X									
PM-P-EFF	W	Poly-500 ml	2		None	7A, 7B							X								
PM-P-EFF	W	Poly-500 ml	1		H2SO4	8								X							
PM-P-EFF	W	Poly-1L	1		None	9									X						
PM-P-EFF	W	1L Amber	2	9/14/06 0835	None	10A, 10B										X					

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	9-14-06 1500	[signature]	9-14-06 1500
[signature]	9-14-06 1815		
		Edward [signature]	9/14/06 1815

Turn around Time: (check)
24 Hours ______ 5 Days ______
48 Hours ______ 10 Days ______
72 Hours ______ Normal X
Perchlorate Only 72 Hours______
Metals Only 72 Hours______
Sample Integrity: (Check)
Intact X On Ice: 6

DNZ100

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test

Sampled: 09/14/06
Received: 09/14/06
Issued: 09/26/06 13:43

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IPI1295-01	BST-EFF	Water

Reviewed By:

Lisa Reightley

TestAmerica - Irvine, CA
Lisa Reightley For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1295

Sampled: 09/14/06
Received: 09/14/06

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1295-01 (BST-EFF - Water)									
Reporting Units: mg/l									
Iron	EPA 200.7	6I18075	0.015	0.040	**0.38**	1	09/18/06	09/20/06	
Sample ID: IPI1295-01 (BST-EFF - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	6I18071	0.050	2.0	**0.47**	1	09/18/06	09/19/06	J
Arsenic	EPA 200.7	6I18075	4.4	5.0	ND	1	09/18/06	09/20/06	
Beryllium	EPA 200.7	6I18075	0.90	2.0	ND	1	09/18/06	09/20/06	
Cadmium	EPA 200.8	6I18071	0.025	1.0	ND	1	09/18/06	09/19/06	
Chromium	EPA 200.7	6I18075	2.0	5.0	ND	1	09/18/06	09/20/06	
Copper	EPA 200.8	6I18071	0.25	2.0	**2.2**	1	09/18/06	09/19/06	
Lead	EPA 200.8	6I18071	0.040	1.0	**0.18**	1	09/18/06	09/19/06	J
Manganese	EPA 200.7	6I18075	7.0	20	**220**	1	09/18/06	09/20/06	
Mercury	EPA 245.1	6I15062	0.15	0.20	ND	1	09/15/06	09/15/06	
Nickel	EPA 200.7	6I18075	2.0	10	**2.1**	1	09/18/06	09/20/06	J
Selenium	EPA 200.8	6I18071	0.30	2.0	**0.33**	1	09/18/06	09/19/06	J
Silver	EPA 200.8	6I18071	0.025	1.0	ND	1	09/18/06	09/19/06	
Thallium	EPA 200.8	6I18071	0.15	1.0	ND	1	09/18/06	09/19/06	
Zinc	EPA 200.7	6I18075	15	20	ND	1	09/18/06	09/20/06	

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1295

Sampled: 09/14/06
Received: 09/14/06

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1295-01 (BST-EFF - Water) - cont.									
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	6I15121	0.015	0.040	**0.10**	1	09/15/06	09/23/06	
Sample ID: IPI1295-01 (BST-EFF - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	6I18073	0.050	2.0	**0.41**	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7-Diss	6I15121	4.4	5.0	ND	1	09/15/06	09/23/06	
Beryllium	EPA 200.7-Diss	6I15121	0.90	2.0	ND	1	09/15/06	09/23/06	
Cadmium	EPA 200.8-Diss	6I18073	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7-Diss	6I15121	2.0	5.0	ND	1	09/15/06	09/23/06	
Copper	EPA 200.8-Diss	6I18073	0.25	2.0	**1.1**	1	09/18/06	09/18/06	J
Lead	EPA 200.8-Diss	6I18073	0.040	1.0	**0.048**	1	09/18/06	09/18/06	J
Manganese	EPA 200.7-Diss	6I15121	7.0	20	**130**	1	09/15/06	09/23/06	
Mercury	EPA 245.1-Diss	6I18082	0.15	0.20	ND	1	09/18/06	09/18/06	
Nickel	EPA 200.7-Diss	6I15121	2.0	10	**2.5**	1	09/15/06	09/23/06	J
Selenium	EPA 200.8-Diss	6I18073	0.30	2.0	**0.41**	1	09/18/06	09/18/06	J
Silver	EPA 200.8-Diss	6I18073	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8-Diss	6I18073	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7-Diss	6I15121	15	20	**33**	1	09/15/06	09/23/06	

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Lisa Reightley For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1295	Received: 09/14/06
Attention: Bronwyn Kelly			

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1295-01 (BST-EFF - Water) - cont.									
Reporting Units: g/cc									
Density	Displacement	6I22108	N/A	NA	**1.0**	1	09/22/06	09/22/06	
Sample ID: IPI1295-01 (BST-EFF - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	6I25082	10	10	ND	1	09/25/06	09/25/06	
Total Kjeldahl Nitrogen	EPA 351.3	6I20101	0.43	0.50	**1.1**	1	09/20/06	09/20/06	
Alkalinity as CaCO3	EPA 310.1	6I20071	2.0	2.0	**150**	1	09/20/06	09/20/06	
Ammonia-N (Distilled)	EPA 350.2	6I16057	0.30	0.50	ND	1	09/16/06	09/16/06	
Hardness (as CaCO3)	SM2340B	6I18075	1.0	1.0	**180**	1	09/18/06	09/20/06	
Nitrate-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Nitrite-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Nitrate/Nitrite-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Oil & Grease	EPA 413.1	6I16001	0.89	4.7	ND	1	09/16/06	09/16/06	
Sulfate	EPA 300.0	6I15041	2.2	2.5	**77**	5	09/15/06	09/15/06	
Total Dissolved Solids	SM2540C	6I18061	10	10	**370**	1	09/18/06	09/18/06	
Total Organic Carbon	EPA 415.1	6I20145	0.50	1.0	**13**	1	09/20/06	09/20/06	
Total Suspended Solids	EPA 160.2	6I20128	10	10	ND	1	09/20/06	09/20/06	

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1295

Sampled: 09/14/06
Received: 09/14/06

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1295-01 (BST-EFF - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	6I15115	0.040	1.0	**3.4**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1295	Received: 09/14/06
Attention: Bronwyn Kelly			

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1295-01 (BST-EFF - Water) - cont.									
Reporting Units: pH Units									
pH	EPA 150.1	6I15082	N/A	NA	**7.41**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1295	Sampled: 09/14/06 Received: 09/14/06

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1295-01 (BST-EFF - Water) - cont.									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	6I18059	N/A	1.0	**590**	1	09/18/06	09/18/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1295	Sampled: 09/14/06 Received: 09/14/06

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: BST-EFF (IPI1295-01) - Water					
EPA 150.1	1	09/14/2006 08:30	09/14/2006 18:15	09/15/2006 09:25	09/15/2006 10:45
EPA 180.1	2	09/14/2006 08:30	09/14/2006 18:15	09/15/2006 14:00	09/15/2006 15:35
EPA 300.0	2	09/14/2006 08:30	09/14/2006 18:15	09/14/2006 21:00	09/15/2006 01:16
Filtration	1	09/14/2006 08:30	09/14/2006 18:15	09/15/2006 16:50	09/15/2006 16:50

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1295

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15062 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15062-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/15/2006 (6I15062-BS1)											
Mercury	8.40	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/15/2006 (6I15062-MS1)					**Source: IPI1162-01**						
Mercury	8.20	0.20	0.15	ug/l	8.00	ND	102	70-130			
Matrix Spike Dup Analyzed: 09/15/2006 (6I15062-MSD1)					**Source: IPI1162-01**						
Mercury	8.24	0.20	0.15	ug/l	8.00	ND	103	70-130	1	20	
Batch: 6I18071 Extracted: 09/18/06											
Blank Analyzed: 09/19/2006 (6I18071-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.400	2.0	0.25	ug/l							*J*
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/19/2006 (6I18071-BS1)											
Antimony	80.1	2.0	0.050	ug/l	80.0		100	85-115			
Cadmium	81.5	1.0	0.025	ug/l	80.0		102	85-115			
Copper	80.5	2.0	0.25	ug/l	80.0		101	85-115			
Lead	82.3	1.0	0.040	ug/l	80.0		103	85-115			
Selenium	80.9	2.0	0.30	ug/l	80.0		101	85-115			
Silver	80.3	1.0	0.025	ug/l	80.0		100	85-115			
Thallium	84.3	1.0	0.15	ug/l	80.0		105	85-115			

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Lisa Reightley For Michele Chamberlin
Project Manager

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18071 Extracted: 09/18/06											
Matrix Spike Analyzed: 09/19/2006 (6I18071-MS1)						**Source: IPI1509-01**					
Antimony	80.6	2.0	0.050	ug/l	80.0	0.15	101	70-130			
Cadmium	80.6	1.0	0.025	ug/l	80.0	ND	101	70-130			
Copper	81.9	2.0	0.25	ug/l	80.0	3.3	98	70-130			
Lead	77.8	1.0	0.040	ug/l	80.0	0.088	97	70-130			
Selenium	77.2	2.0	0.30	ug/l	80.0	ND	96	70-130			
Silver	78.0	1.0	0.025	ug/l	80.0	ND	98	70-130			
Thallium	79.0	1.0	0.15	ug/l	80.0	0.19	99	70-130			
Matrix Spike Analyzed: 09/19/2006 (6I18071-MS2)						**Source: IPI1509-02**					
Antimony	79.9	2.0	0.050	ug/l	80.0	0.16	100	70-130			
Cadmium	79.5	1.0	0.025	ug/l	80.0	ND	99	70-130			
Copper	86.5	2.0	0.25	ug/l	80.0	0.90	107	70-130			
Lead	77.5	1.0	0.040	ug/l	80.0	0.060	97	70-130			
Selenium	76.3	2.0	0.30	ug/l	80.0	ND	95	70-130			
Silver	76.9	1.0	0.025	ug/l	80.0	ND	96	70-130			
Thallium	74.6	1.0	0.15	ug/l	80.0	0.20	93	70-130			
Matrix Spike Dup Analyzed: 09/19/2006 (6I18071-MSD1)						**Source: IPI1509-01**					
Antimony	80.3	2.0	0.050	ug/l	80.0	0.15	100	70-130	0	20	
Cadmium	80.9	1.0	0.025	ug/l	80.0	ND	101	70-130	0	20	
Copper	78.1	2.0	0.25	ug/l	80.0	3.3	94	70-130	5	20	
Lead	77.9	1.0	0.040	ug/l	80.0	0.088	97	70-130	0	20	
Selenium	76.4	2.0	0.30	ug/l	80.0	ND	96	70-130	1	20	
Silver	77.7	1.0	0.025	ug/l	80.0	ND	97	70-130	0	20	
Thallium	82.4	1.0	0.15	ug/l	80.0	0.19	103	70-130	4	20	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							

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Lisa Reightley For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1295	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18075 Extracted: 09/18/06											
LCS Analyzed: 09/20/2006 (6I18075-BS1)											
Arsenic	484	5.0	4.4	ug/l	500		97	85-115			
Beryllium	473	2.0	0.90	ug/l	500		95	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Iron	0.491	0.040	0.015	mg/l	0.500		98	85-115			
Manganese	479	20	7.0	ug/l	500		96	85-115			
Nickel	475	10	2.0	ug/l	500		95	85-115			
Zinc	483	20	15	ug/l	500		97	85-115			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS1)					**Source: IPI1294-01**						
Arsenic	500	5.0	4.4	ug/l	500	4.7	99	70-130			
Beryllium	493	2.0	0.90	ug/l	500	ND	99	70-130			
Chromium	472	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	0.571	0.040	0.015	mg/l	0.500	0.095	95	70-130			
Manganese	534	20	7.0	ug/l	500	50	97	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Zinc	478	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS2)					**Source: IPI1298-01**						
Arsenic	498	5.0	4.4	ug/l	500	4.9	99	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Chromium	473	5.0	2.0	ug/l	500	ND	95	70-130			
Iron	0.635	0.040	0.015	mg/l	0.500	0.15	97	70-130			
Manganese	576	20	7.0	ug/l	500	100	95	70-130			
Nickel	467	10	2.0	ug/l	500	2.0	93	70-130			
Zinc	480	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Dup Analyzed: 09/20/2006 (6I18075-MSD1)					**Source: IPI1294-01**						
Arsenic	492	5.0	4.4	ug/l	500	4.7	97	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	3	20	
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Iron	0.566	0.040	0.015	mg/l	0.500	0.095	94	70-130	1	20	
Manganese	524	20	7.0	ug/l	500	50	95	70-130	2	20	
Nickel	459	10	2.0	ug/l	500	ND	92	70-130	1	20	
Zinc	475	20	15	ug/l	500	ND	95	70-130	1	20	

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1295

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15121 Extracted: 09/15/06											
Blank Analyzed: 09/23/2006 (6I15121-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							
LCS Analyzed: 09/23/2006 (6I15121-BS1)											
Arsenic	1040	5.0	4.4	ug/l	1000		104	85-115			
Beryllium	1040	2.0	0.90	ug/l	1000		104	85-115			
Chromium	1020	5.0	2.0	ug/l	1000		102	85-115			
Iron	1.03	0.040	0.015	mg/l	1.00		103	85-115			
Manganese	1030	20	7.0	ug/l	1000		103	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Zinc	1040	20	15	ug/l	1000		104	85-115			
Matrix Spike Analyzed: 09/23/2006 (6I15121-MS1)					**Source: IPI1286-01**						
Arsenic	1050	5.0	4.4	ug/l	1000	6.3	104	70-130			
Beryllium	1040	2.0	0.90	ug/l	1000	ND	104	70-130			
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Iron	1.04	0.040	0.015	mg/l	1.00	0.032	101	70-130			
Manganese	1060	20	7.0	ug/l	1000	49	101	70-130			
Nickel	993	10	2.0	ug/l	1000	2.3	99	70-130			
Zinc	1030	20	15	ug/l	1000	36	99	70-130			
Matrix Spike Dup Analyzed: 09/23/2006 (6I15121-MSD1)					**Source: IPI1286-01**						
Arsenic	1070	5.0	4.4	ug/l	1000	6.3	106	70-130	2	20	
Beryllium	1060	2.0	0.90	ug/l	1000	ND	106	70-130	2	20	
Chromium	1030	5.0	2.0	ug/l	1000	ND	103	70-130	2	20	
Iron	1.06	0.040	0.015	mg/l	1.00	0.032	103	70-130	2	20	
Manganese	1070	20	7.0	ug/l	1000	49	102	70-130	1	20	
Nickel	1020	10	2.0	ug/l	1000	2.3	102	70-130	3	20	
Zinc	1050	20	15	ug/l	1000	36	101	70-130	2	20	

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Report Number: IPI1295

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18073-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.303	2.0	0.25	ug/l							*J*
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18073-BS1)											
Antimony	74.5	2.0	0.050	ug/l	80.0		93	85-115			
Cadmium	74.9	1.0	0.025	ug/l	80.0		94	85-115			
Copper	79.0	2.0	0.25	ug/l	80.0		99	85-115			
Lead	80.4	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	77.2	2.0	0.30	ug/l	80.0		96	85-115			
Silver	77.2	1.0	0.025	ug/l	80.0		96	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS1)					**Source: IPI1226-01**						
Antimony	74.1	2.0	0.050	ug/l	80.0	0.22	92	70-130			
Cadmium	68.4	1.0	0.025	ug/l	80.0	0.096	85	70-130			
Copper	73.2	2.0	0.25	ug/l	80.0	6.8	83	70-130			
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130			
Selenium	76.1	2.0	0.30	ug/l	80.0	6.1	88	70-130			
Silver	69.4	1.0	0.025	ug/l	80.0	ND	87	70-130			
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS2)					**Source: IPI1286-01**						
Antimony	76.7	2.0	0.050	ug/l	80.0	1.0	95	70-130			
Cadmium	73.5	1.0	0.025	ug/l	80.0	ND	92	70-130			
Copper	74.3	2.0	0.25	ug/l	80.0	6.1	85	70-130			
Lead	76.3	1.0	0.040	ug/l	80.0	0.093	95	70-130			
Selenium	73.8	2.0	0.30	ug/l	80.0	0.77	91	70-130			
Silver	74.5	1.0	0.025	ug/l	80.0	ND	93	70-130			
Thallium	76.5	1.0	0.15	ug/l	80.0	0.36	95	70-130			

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1295	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Matrix Spike Dup Analyzed: 09/18/2006 (6I18073-MSD1)						**Source: IPI1226-01**					
Antimony	75.1	2.0	0.050	ug/l	80.0	0.22	94	70-130	1	20	
Cadmium	69.1	1.0	0.025	ug/l	80.0	0.096	86	70-130	1	20	
Copper	71.7	2.0	0.25	ug/l	80.0	6.8	81	70-130	2	20	
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130	0	20	
Selenium	77.3	2.0	0.30	ug/l	80.0	6.1	89	70-130	2	20	
Silver	70.2	1.0	0.025	ug/l	80.0	ND	88	70-130	1	20	
Thallium	74.4	1.0	0.15	ug/l	80.0	ND	93	70-130	1	20	
Batch: 6I18082 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18082-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18082-BS1)											
Mercury	8.42	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18082-MS1)						**Source: IPI1321-01**					
Mercury	8.28	0.20	0.15	ug/l	8.00	ND	104	70-130			
Matrix Spike Dup Analyzed: 09/18/2006 (6I18082-MSD1)						**Source: IPI1321-01**					
Mercury	8.17	0.20	0.15	ug/l	8.00	ND	102	70-130	1	20	

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Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1295

Sampled: 09/14/06
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I14139 Extracted: 09/14/06											
Blank Analyzed: 09/14/2006 (6I14139-BLK1)											
Nitrate-N	ND	0.15	0.080	mg/l							
Nitrite-N	ND	0.15	0.080	mg/l							
Nitrate/Nitrite-N	ND	0.15	0.080	mg/l							
LCS Analyzed: 09/14/2006 (6I14139-BS1)											
Nitrate-N	1.09	0.15	0.080	mg/l	1.13		96	90-110			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52		95	90-110			
Matrix Spike Analyzed: 09/14/2006 (6I14139-MS1)					**Source: IPI1286-01**						
Nitrate-N	1.13	0.15	0.080	mg/l	1.13	ND	100	80-120			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52	ND	95	80-120			
Matrix Spike Dup Analyzed: 09/14/2006 (6I14139-MSD1)					**Source: IPI1286-01**						
Nitrate-N	1.14	0.15	0.080	mg/l	1.13	ND	101	80-120	1	20	
Nitrite-N	1.46	0.15	0.080	mg/l	1.52	ND	96	80-120	1	20	
Batch: 6I15041 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15041-BLK1)											
Sulfate	ND	0.50	0.45	mg/l							
LCS Analyzed: 09/15/2006 (6I15041-BS1)											
Sulfate	10.1	0.50	0.45	mg/l	10.0		101	90-110			
Matrix Spike Analyzed: 09/15/2006 (6I15041-MS1)					**Source: IPI1302-02**						
Sulfate	183	2.5	2.2	mg/l	10.0	180	30	80-120			*M-HA*

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15041 Extracted: 09/15/06											
Matrix Spike Dup Analyzed: 09/15/2006 (6I15041-MSD1)					**Source: IPI1302-02**						
Sulfate	184	2.5	2.2	mg/l	10.0	180	40	80-120	1	20	*M-HA*
Batch: 6I15082 Extracted: 09/15/06											
Duplicate Analyzed: 09/15/2006 (6I15082-DUP1)					**Source: IPI1268-01**						
pH	6.87	NA	N/A	pH Units		6.85			0	5	
Duplicate Analyzed: 09/15/2006 (6I15082-DUP2)					**Source: IPI1293-01**						
pH	7.55	NA	N/A	pH Units		7.54			0	5	
Batch: 6I15115 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15115-BLK1)											
Turbidity	ND	1.0	0.040	NTU							
Duplicate Analyzed: 09/15/2006 (6I15115-DUP1)					**Source: IPI1266-01**						
Turbidity	3.33	1.0	0.040	NTU		3.4			2	20	
Duplicate Analyzed: 09/15/2006 (6I15115-DUP2)					**Source: IPI1293-01**						
Turbidity	1.63	1.0	0.040	NTU		1.6			2	20	
Batch: 6I16001 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16001-BLK1)											
Oil & Grease	ND	5.0	0.94	mg/l							

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Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1295

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I16001 Extracted: 09/16/06											
LCS Analyzed: 09/16/2006 (6I16001-BS1)											
Oil & Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120			*M-NR1*
LCS Dup Analyzed: 09/16/2006 (6I16001-BSD1)											
Oil & Grease	18.1	5.0	0.94	mg/l	20.0		90	65-120	1	20	
Batch: 6I16057 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16057-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/16/2006 (6I16057-BS1)											
Ammonia-N (Distilled)	10.9	0.50	0.30	mg/l	10.0		109	80-115			
Matrix Spike Analyzed: 09/16/2006 (6I16057-MS1)					**Source: IPI1286-01**						
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120			
Matrix Spike Dup Analyzed: 09/16/2006 (6I16057-MSD1)					**Source: IPI1286-01**						
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120	0	15	
Batch: 6I18059 Extracted: 09/18/06											
Duplicate Analyzed: 09/18/2006 (6I18059-DUP1)					**Source: IPI1351-01**						
Specific Conductance	2030	1.0	N/A	umhos/cm		2000			1	5	
Batch: 6I18061 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18061-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1295	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18061 Extracted: 09/18/06											
LCS Analyzed: 09/18/2006 (6I18061-BS1)											
Total Dissolved Solids	994	10	10	mg/l	1000		99	90-110			
Duplicate Analyzed: 09/18/2006 (6I18061-DUP1)					**Source: IPI1321-01**						
Total Dissolved Solids	343	10	10	mg/l		350			2	10	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
Batch: 6I20071 Extracted: 09/20/06											
Duplicate Analyzed: 09/20/2006 (6I20071-DUP1)					**Source: IPI1125-01**						
Alkalinity as CaCO3	348	2.0	2.0	mg/l		350			1	20	
Reference Analyzed: 09/20/2006 (6I20071-SRM1)											
Alkalinity as CaCO3	224	2.0	2.0	mg/l	231		97	90-110			
Batch: 6I20101 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20101-BLK1)											
Total Kjeldahl Nitrogen	ND	0.50	0.43	mg/l							
LCS Analyzed: 09/20/2006 (6I20101-BS1)											
Total Kjeldahl Nitrogen	19.6	0.50	0.43	mg/l	20.0		98	85-120			

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20101 Extracted: 09/20/06											
LCS Dup Analyzed: 09/20/2006 (6I20101-BSD1)											
Total Kjeldahl Nitrogen	19.9	0.50	0.43	mg/l	20.0		100	85-120	2	15	
Matrix Spike Analyzed: 09/20/2006 (6I20101-MS1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	10.6	0.50	0.43	mg/l	10.0	0.84	98	85-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20101-MSD1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	11.2	0.50	0.43	mg/l	10.0	0.84	104	85-120	6	15	
Batch: 6I20128 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20128-BLK2)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/20/2006 (6I20128-BS2)											
Total Suspended Solids	1040	10	10	mg/l	1000		104	85-115			
Duplicate Analyzed: 09/20/2006 (6I20128-DUP2)					**Source: IPI1285-02**						
Total Suspended Solids	2270	10	10	mg/l		2100			8	10	
Batch: 6I20145 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20145-BLK1)											
Total Organic Carbon	ND	1.0	0.25	mg/l							
LCS Analyzed: 09/20/2006 (6I20145-BS1)											
Total Organic Carbon	10.7	1.0	0.25	mg/l	10.0		107	90-110			

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1295	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20145 Extracted: 09/20/06											
Matrix Spike Analyzed: 09/20/2006 (6I20145-MS1)					**Source: IPI1211-01**						
Total Organic Carbon	6.34	1.0	0.25	mg/l	5.00	1.5	97	80-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20145-MSD1)					**Source: IPI1211-01**						
Total Organic Carbon	6.52	1.0	0.25	mg/l	5.00	1.5	100	80-120	3	20	
Batch: 6I22108 Extracted: 09/22/06											
Duplicate Analyzed: 09/22/2006 (6I22108-DUP1)					**Source: IPI0964-02**						
Density	0.999	NA	N/A	g/cc		1.0			0	20	

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DATA QUALIFIERS AND DEFINITIONS

J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M-HA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
M-NR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1295	Received: 09/14/06
Attention: Bronwyn Kelly			

Certification Summary

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Method	Matrix	Nelac	California
1613A/1613B	Water		
ASTM D3977	Water		
Displacement	Water		
EPA 120.1	Water	X	X
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 310.1	Water	X	X
EPA 350.2	Water		X
EPA 351.3	Water		
EPA 413.1	Water	X	X
EPA 415.1	Water	X	X
Filtration	Water	N/A	N/A
SM2340B	Water	X	X
SM2540C	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Alta Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IPI1295-01

TestAmerica - Irvine, CA
Lisa Reightley For Michele Chamberlin
Project Manager

IPI1295

Del Mar Analytical Version 04/28/06 CHAIN OF CUSTODY FORM

Client Name/Address:
MWH-Pasadena
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101

Project Manager: Bronwyn Kelly

Sampler: Bronwyn

Project:
Boeing-SSFL BMP/NPDES
R-2A Pond Filtration Pilot Test

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn, Hardness	Total Dissolved Solids, pH, Alkalinity, Suspended Sediments Concentration (ASTM Method)	Total Organic Carbon	Oil & Grease (EPA 413.1)	Total Kjeldhal Nitrogen	SO4, NO3+NO2-N, Nitrate-N, Nitrite-N (NO3 + NO2-N)	Turbidity, TSS, Conductivity	Ammonia-N (NH3-N)	Total Dissolved Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn	TCDD (and all congeners)					Comments
BST-EFF	W	Poly-1L	1	9/14/06 0830	HNO3	1	X														
BST-EFF	W	Poly-1L	1		None	2		X													
BST-EFF	W	VOAs	2		HCl	3A, 3B			X												
BST-EFF	W	1L Amber	2		HCl	4A, 4B				X											
BST-EFF	W	Poly-500 ml	1		H2SO4	5					X										
BST-EFF	W	Poly-500 ml	1		None	6						X									
BST-EFF	W	Poly-500 ml	2		None	7A, 7B							X								
BST-EFF	W	Poly-500 ml	1		H2SO4	8								X							
BST-EFF	W	Poly-1L	1		None	9									X						
BST-EFF	W	1L Amber	2	9/14/06 0830	None	10A, 10B										X					

Field readings: Temp = 67
pH= 7.0

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	9-14-06 1500	[signature]	9-14-06 1500
[signature]	9-14-06 1815		
		Eduardo R. [signature]	9/14/06 1815

Turn around Time: (check)
24 Hours ______ 5 Days ______
48 Hours ______ 10 Days ______
72 Hours ______ Normal X
Perchlorate Only 72 Hours______
Metals Only 72 Hours______
Sample Integrity: (Check) Intact ✓ On Ice: 6

DN210C

ALTA

September 21, 2006

Alta Project I.D.: 28110

Ms. Michele Chamberlin
Test America-Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614

Dear Ms. Chamberlin,

Enclosed are the results for the one aqueous sample received at Alta Analytical Laboratory on September 16, 2006 under your Project Name "IPI1295". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at mmaier@altalab.com. Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier

Martha M. Maier
Director of HRMS Services

Alta Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. This report should not be reproduced except in full without the written approval of ALTA.

Alta Analytical Laboratory, Inc.
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 933-1640
FAX (916) 673-0106

Section I: Sample Inventory Report

Date Received: **9/16/2006**

Alta Lab. ID	Client Sample ID
28110-001	IPI1295-01

SECTION II

Method Blank					**EPA Method 1613**
Matrix:	Aqueous	QC Batch No.:	8381	Lab Sample:	0-MB001
Sample Size:	1.00 L	Date Extracted:	18-Sep-06	Date Analyzed DB-5: 20-Sep-06	Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers		Labeled Standard	%R	LCL-UCL [d]	Qualifiers
2,3,7,8-TCDD	ND	0.00000120			**IS**	13C-2,3,7,8-TCDD	80.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000185				13C-1,2,3,7,8-PeCDD	71.4	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000114				13C-1,2,3,4,7,8-HxCDD	83.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000119				13C-1,2,3,6,7,8-HxCDD	82.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000113				13C-1,2,3,4,6,7,8-HpCDD	77.1	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000251				13C-OCDD	70.2	17 - 157	
OCDD	ND	0.00000489				13C-2,3,7,8-TCDF	80.1	24 - 169	
2,3,7,8-TCDF	ND	0.00000133				13C-1,2,3,7,8-PeCDF	72.7	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000197				13C-2,3,4,7,8-PeCDF	65.5	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000201				13C-1,2,3,4,7,8-HxCDF	89.4	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000613				13C-1,2,3,6,7,8-HxCDF	85.1	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000579				13C-2,3,4,6,7,8-HxCDF	80.1	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000710				13C-1,2,3,7,8,9-HxCDF	63.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000163				13C-1,2,3,4,6,7,8-HpCDF	70.3	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000121				13C-1,2,3,4,7,8,9-HpCDF	58.0	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000160				13C-OCDF	56.7	17 - 157	
OCDF	ND	0.00000380			**CRS**	37Cl-2,3,7,8-TCDD	81.7	35 - 197	

Totals			**Footnotes**
Total TCDD	ND	0.00000120	a. Sample specific estimated detection limit.
Total PeCDD	ND	0.00000432	b. Estimated maximum possible concentration.
Total HxCDD	ND	0.00000116	c. Method detection limit.
Total HpCDD	ND	0.00000251	d. Lower control limit - upper control limit.
Total TCDF	ND	0.00000133	
Total PeCDF	ND	0.00000342	
Total HxCDF	ND	0.000000802	
Total HpCDF	ND	0.00000137	

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:20

OPR Results | **EPA Method 1613**

Matrix: Aqueous | QC Batch No.: 8381 | Lab Sample: 0-OPR001

Sample Size: 1.00 L | Date Extracted: 18-Sep-06 | Date Analyzed DB-5: 20-Sep-06 | Date Analyzed DB-225: NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	10.0	9.99	6.7 - 15.8	**IS**	13C-2,3,7,8-TCDD	72.8	25 - 164
1,2,3,7,8-PeCDD	50.0	48.5	35 - 71		13C-1,2,3,7,8-PeCDD	62.1	25 - 181
1,2,3,4,7,8-HxCDD	50.0	46.7	35 - 82		13C-1,2,3,4,7,8-HxCDD	79.6	32 - 141
1,2,3,6,7,8-HxCDD	50.0	48.1	38 - 67		13C-1,2,3,6,7,8-HxCDD	76.6	28 - 130
1,2,3,7,8,9-HxCDD	50.0	47.4	32 - 81		13C-1,2,3,4,6,7,8-HpCDD	76.9	23 - 140
1,2,3,4,6,7,8-HpCDD	50.0	51.3	35 - 70		13C-OCDD	68.9	17 - 157
OCDD	100	99.3	78 - 144		13C-2,3,7,8-TCDF	76.1	24 - 169
2,3,7,8-TCDF	10.0	9.77	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	62.3	24 - 185
1,2,3,7,8-PeCDF	50.0	51.9	40 - 67		13C-2,3,4,7,8-PeCDF	59.0	21 - 178
2,3,4,7,8-PeCDF	50.0	51.8	34 - 80		13C-1,2,3,4,7,8-HxCDF	77.8	26 - 152
1,2,3,4,7,8-HxCDF	50.0	51.8	36 - 67		13C-1,2,3,6,7,8-HxCDF	75.4	26 - 123
1,2,3,6,7,8-HxCDF	50.0	50.6	42 - 65		13C-2,3,4,6,7,8-HxCDF	76.0	28 - 136
2,3,4,6,7,8-HxCDF	50.0	50.1	35 - 78		13C-1,2,3,7,8,9-HxCDF	54.3	29 - 147
1,2,3,7,8,9-HxCDF	50.0	51.3	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	64.1	28 - 143
1,2,3,4,6,7,8-HpCDF	50.0	51.1	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	58.8	26 - 138
1,2,3,4,7,8,9-HpCDF	50.0	52.3	39 - 69		13C-OCDF	58.1	17 - 157
OCDF	100	105	63 - 170	**CRS**	37Cl-2,3,7,8-TCDD	81.1	35 - 197

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:20

Sample ID:	IPI1295-01		EPA Method 1613

Client Data

Name:	Test America-Irvine
Project:	IPI1295
Date Collected:	14-Sep-06
Time Collected:	0830

Sample Data

Matrix:	Aqueous
Sample Size:	1.02 L

Laboratory Data

Lab Sample:	28110-001	Date Received:	16-Sep-06
QC Batch No.:	8381	Date Extracted:	18-Sep-06
Date Analyzed DB-5:	20-Sep-06	Date Analyzed DB-225:	NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers		Labeled Standard	%R	LCL-UCL [d]	Qualifiers
2,3,7,8-TCDD	ND	0.00000134			IS	13C-2,3,7,8-TCDD	62.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000323				13C-1,2,3,7,8-PeCDD	51.9	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000254				13C-1,2,3,4,7,8-HxCDD	56.1	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000262				13C-1,2,3,6,7,8-HxCDD	61.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000249				13C-1,2,3,4,6,7,8-HpCDD	68.2	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND		0.00000560			13C-OCDD	60.2	17 - 157	
OCDD	0.0000507					13C-2,3,7,8-TCDF	65.0	24 - 169	
2,3,7,8-TCDF	ND	0.00000148				13C-1,2,3,7,8-PeCDF	49.8	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000316				13C-2,3,4,7,8-PeCDF	46.4	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000339				13C-1,2,3,4,7,8-HxCDF	60.6	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000178				13C-1,2,3,6,7,8-HxCDF	57.3	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000166				13C-2,3,4,6,7,8-HxCDF	55.4	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000208				13C-1,2,3,7,8,9-HxCDF	50.4	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000399				13C-1,2,3,4,6,7,8-HpCDF	60.3	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000227				13C-1,2,3,4,7,8,9-HpCDF	58.6	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000109				13C-OCDF	51.2	17 - 157	
OCDF	ND	0.00000548			CRS	37Cl-2,3,7,8-TCDD	76.9	35 - 197	

Totals

Total TCDD	ND	0.00000134	
Total PeCDD	ND	0.00000588	
Total HxCDD	ND	0.00000255	
Total HpCDD	0.00000572		0.0000113
Total TCDF	ND	0.00000148	
Total PeCDF	ND	0.00000327	
Total HxCDF	ND	0.00000225	
Total HpCDF	ND	0.00000244	

Footnotes

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:20

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
E	The reported value exceeds the calibration range of the instrument.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated Detection Limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that corresponds to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

TestAmerica
ANALYTICAL TESTING CORPORATION

0.1°C, 28110

SUBCONTRACT ORDER - PROJECT # IPI1295

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica - Irvine, CA	Alta Analytical
17461 Derian Avenue. Suite 100	1104 Windfield Way
Irvine, CA 92614	El Dorado Hills, CA 95762
Phone: (949) 261-1022	Phone :(916) 933-1640
Fax: (949) 260-3297	Fax: (916) 673-0106
Project Manager: Michele Chamberlin	

Standard TAT is requested unless specific due date is requested => Due Date:________ Initials:______

Analysis	Expiration	Comments
Sample ID: IPI1295-01 Water Sampled: 09/14/06 08:30		
1613-Dioxin-HR-Alta	09/21/06 08:30	J flags,17 cngnrs,no TEQ,ug/L,sub=Alta, Boeing EDD

Containers Supplied:
1 L Amber (IPI1295-01M)
1 L Amber (IPI1295-01N)

SAMPLE INTEGRITY:

All containers intact: ☑ Yes ☐ No	Sample labels/COC agree: ☑ Yes ☐ No	Samples Received On Ice:: ☑ Yes ☐ No	
Custody Seals Present: ☐ Yes ☐ No N/A	Samples Preserved Properly: ☑ Yes ☐ No	Samples Received at (temp): 0.1°C	

Released By	Date	Time	Received By	Date	Time
[signature]	9/15/06	~~Time~~	[signature]	9/16/06	0830
Released By	Date	Time	Received By	Date	Time

SAMPLE LOG-IN CHECKLIST

Alta Project #: 28110 **TAT** Standard

Samples Arrival:	**Date/Time** 9/16/06 0830	**Initials:** MG	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 9/16/06 0909	**Initials:** FEB	**Location:** WR-2 **Shelf/Rack:** C-3

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other

Preservation:	Ice	Blue Ice	Dry Ice	None

Temp °C 0.1°	**Time:** 0840	**Thermometer ID:** DT-20

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill — Trk # 7911 2401 9182	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?		COC	Sample Container	None	
Shipping Container	Alta	Client	Retain	Return	Dispose

Comments:

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 28110-1 of 1

Prep Due: 9/27/2006 **Project Due:** 10/7/2006

Hold Due: 9/14/2007 **TAT:** 21

Client: Test America-Irvine(TEACA01B)

Client Manager: Martha M. Maier

Method: EPA Method 1613 | PCDD/F (Tetra - Octa) 8381

Split Type:

Matrix: Aqueous

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☑	IPI1295-01		9/16/2006	WR-2	C-3

Instructions:
ugL; no TEQ

Report Options

Report Level: TEQ Type: :

EDD Type:

Report Group: Dioxins NoMDL

Samples Reconciled By: TEH 9/17/06

Vial Box ID: Dr64

Date Requested: 9/26/2006

HRMSGENAR.rpt

Percent Solids

Alta Analytical Laboratory
HRMS Services
El Dorado Hills, CA 95762

Project: 28110-1

Sample ID	Chemist/Date TEH 9/18/06		Chemist/Date TEH 9/19/06	Comments
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	
1	1.28	9.51	1.28	pH: 8 Cl: 0ppm

Procedure:
- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

Aqueous Sample Size Determination

Alta Analytical Laboratory
HRMS Services
El Dorado Hills, CA 95762

Project: 28110-1

	Chemist/Date	Chemist/Date	
	TEH 9/18/06	TEH 9/19/06	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
1	1519.34	497.40	1021.94

Procedure:
- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

** Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

L:/QA/Forms/Extractions/AqWt.pub 9/2005 rmh

Project: 28110

Extraction Set: 8381

Chemist: T. HORNER 9/18/06

Method(s): EPA Method 1613 | 2,3,7,8s Only

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_8381_MB001	NA	1.00	TEH 9/18/06	TEH MOH 9/19/06	NA	TEH 9/19/06	TEH 9/19/06	TEH 9/18/06	TEH FEB 9/18/06
☐	0_8381_OPR001	↓	↓		↓	↓	↓	↓	↓	↓
☐	28110_8381_001	↓	1.022	↓	↓	↓	↓	↓	↓	↓

IS Name V2	NS Name V2	CRS Name V3	RS Name V3	Cycle Time	APP.: SEFUN SOX SDS	Check Out:
PCDD/F 10µl 060110A	PCDD/F 10µl 060110B	PCDD/F 10µl 060110C	PCDD/F 10µl 060110D	9/18 Start: 1230	SOLV: TOL	Chemist: TEH 9/18/06
PCB	PCB	PCB	PCB	9/19 Stop: 0430	Other: SPE	Check-In: Chemist: Empty 9/18/06
PAH	PAH	PAH	PAH		Final Volume(s): 20µl C4	

Comments:

CALIBRATION DATA

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:   CCAL ID: ST060920C2-1

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.37	7.8 - 12.9
						8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.7	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.8	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.9	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.1	43.0 - 58.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	93.2	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.51	8.4 - 12.0
						8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.3	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	48.6	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.4	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.4	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	47.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.6	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.8	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.3	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.8	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MJ

Date: 9/20/06

FORM 4B

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	99.0	82.0 - 121.0
						85.0 - 117.0 (5)
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	92.4	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	100	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	111	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	113	72.0 - 138.0
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	235	96.0 - 415.0
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	110	71.0 - 140.0
						76.0 - 131.0 (5)
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	102	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	97.6	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	111	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	98.9	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.4	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	102	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	109	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	111	77.0 - 129.0
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	216	96.0 - 415.0
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.32	7.9 - 12.7
						8.3 - 12.1 (5)

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613.

(4) No ion abundance ratio; report concentration found.

(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.

Analyst: M

Date: 9/20/06

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Instrument ID: VG-5   Initial Calibration Date: 3/22/06

RT Window Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

DB-5 IS Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:13	1,3,6,8-TCDF (F)	20:07
1,2,8,9-TCDD (L)	27:25	1,2,8,9-TCDF (L)	27:35
1,2,4,7,9-PeCDD (F)	29:12	1,3,4,6,8-PeCDF (F)	27:31
1,2,3,8,9-PeCDD (L)	31:49	1,2,3,8,9-PeCDF (L)	32:04
1,2,4,6,7,9-HxCDD (F)	33:16	1,2,3,4,6,8-HxCDF (F)	32:43
1,2,3,7,8,9-HxCDD (L)	35:09	1,2,3,7,8,9-HxCDF (L)	35:31
1,2,3,4,6,7,9-HpCDD (F)	37:37	1,2,3,4,6,7,8-HpCDF (F)	37:14
1,2,3,4,6,7,8-HpCDD (L)	38:40	1,2,3,4,7,8,9-HpCDF (L)	39:15

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

Analyst: JM

Date: 9/20/06

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.027	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.173	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.211	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.222	1.000-1.567

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: MV

Date: 9/20/06

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.964	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.968	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.989	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.992	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.060	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.100	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.191	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.197	1.032-1.311

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: MN

Date: 9/20/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:   CCAL ID: ST060920C2-1

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.37	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.7	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.8	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.9	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.1	40.0 - 60.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	93.2	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.51	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.3	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	48.6	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.4	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.4	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	47.2	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.6	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.8	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.3	40.0 - 60.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.8	80.0 - 120

Analyst: MJ

Date: 9/20/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	99.0	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	92.4	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	100	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	111	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	113	70.0 - 130
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	235	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	110	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	102	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	97.6	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	111	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	98.9	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.4	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	102	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	109	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	111	70.0 - 130
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	216	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					9.32	7.00 - 13.0

Analyst: JM

Date: 9/20/06

Client ID: 1613 CS3 060110H   Filename: 060920C2   S:1   Acq:20-SEP-06 15:15:02   ConCal: ST060920C2-1

Lab ID: ST060920C2-1   GC Column ID: db-5   ICal: 1613VG5-3-22-06   wt/vol: 1.000   EndCAL: ST060920C2-2

	Name	Resp	RA		RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	5.49e+06	0.79	y	1.08	26:26	9.3694		*	2.5	*
	1,2,3,7,8-PeCDD	2.26e+07	0.62	y	1.03	31:26	45.386		*	2.5	*
	1,2,3,4,7,8-HxCDD	1.85e+07	1.22	y	1.13	34:44	47.733		*	2.5	*
	1,2,3,6,7,8-HxCDD	2.14e+07	1.23	y	1.03	34:51	43.765		*	2.5	*
	1,2,3,7,8,9-HxCDD	2.00e+07	1.23	y	1.12	35:09	43.917		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	1.97e+07	1.05	y	1.02	38:39	49.121		*	2.5	*
	OCDD	3.40e+07	0.89	y	1.06	41:51	93.250		*	2.5	*
	2,3,7,8-TCDF	7.22e+06	0.76	y	1.06	25:31	9.5148		*	2.5	*
	1,2,3,7,8-PeCDF	3.50e+07	1.55	y	1.01	30:09	49.274		*	2.5	*
	2,3,4,7,8-PeCDF	3.35e+07	1.58	y	1.02	31:08	48.551		*	2.5	*
	1,2,3,4,7,8-HxCDF	2.90e+07	1.21	y	1.15	33:53	48.386		*	2.5	*
	1,2,3,6,7,8-HxCDF	3.14e+07	1.22	y	1.14	34:00	48.378		*	2.5	*
	2,3,4,6,7,8-HxCDF	2.85e+07	1.21	y	1.17	34:36	47.177		*	2.5	*
	1,2,3,7,8,9-HxCDF	2.43e+07	1.19	y	1.10	35:31	48.599		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	2.67e+07	1.03	y	1.31	37:14	48.759		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	2.25e+07	1.02	y	1.33	39:15	48.273		*	2.5	*
	OCDF	3.82e+07	0.90	y	0.91	42:03	99.847		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	51.814	52.279		*	*
Total Penta-Dioxins	136.21	136.60		*	*
Total Hexa-Dioxins	187.41	188.23		*	*
Total Hepta-Dioxins	97.872	98.813		*	*
Total Tetra-Furans	31.628	32.078		*	*
Total Penta-Furans	185.47	186.67		*	*
Total Hexa-Furans	245.23	247.32		*	*
Total Hepta-Furans	97.436	98.202		*	*

	Name	Resp	RA		RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	5.42e+07	0.78	y	1.09	26:25	98.980	99.0	
IS	13C-1,2,3,7,8-PeCDD	4.84e+07	0.62	y	1.04	31:25	92.393	92.4	
IS	13C-1,2,3,4,7,8-HxCDD	3.42e+07	1.23	y	0.83	34:44	100.32	100	
IS	13C-1,2,3,6,7,8-HxCDD	4.74e+07	1.25	y	1.04	34:50	110.78	111	
IS	13C-1,2,3,4,6,7,8-HpCDD	3.95e+07	1.06	y	0.85	38:39	112.88	113	
IS	13C-OCDD	6.91e+07	0.89	y	0.71	41:50	235.45	118	
IS	13C-2,3,7,8-TCDF	7.14e+07	0.79	y	0.96	25:30	110.02	110	
IS	13C-1,2,3,7,8-PeCDF	7.04e+07	1.58	y	1.02	30:08	102.23	102	
IS	13C-2,3,4,7,8-PeCDF	6.74e+07	1.58	y	1.02	31:07	97.609	97.6	
IS	13C-1,2,3,4,7,8-HxCDF	5.24e+07	0.52	y	1.14	33:52	111.18	111	
IS	13C-1,2,3,6,7,8-HxCDF	5.69e+07	0.52	y	1.40	33:60	98.914	98.9	
IS	13C-2,3,4,6,7,8-HxCDF	5.16e+07	0.52	y	1.26	34:35	99.387	99.4	
IS	13C-1,2,3,7,8,9-HxCDF	4.57e+07	0.50	y	1.08	35:30	102.47	102	
IS	13C-1,2,3,4,6,7,8-HpCDF	4.18e+07	0.45	y	0.93	37:13	108.64	109	
IS	13C-1,2,3,4,7,8,9-HpCDF	3.51e+07	0.45	y	0.77	39:14	111.35	111	
IS	13C-OCDF	8.40e+07	0.90	y	0.94	42:03	216.24	108	
C/Up	37Cl-2,3,7,8-TCDD	3.62e+06			0.77	26:25	9.3191	23.3	
RS/RT	13C-1,2,3,4-TCDD	5.02e+07	0.80	y	1.00	25:42	100.00		
RS	13C-1,2,3,4-TCDF	6.77e+07	0.80	y	1.00	23:56	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	4.11e+07	1.26	y	1.00	35:08	100.00		

Integrations by Analyst: NN

Date: 9/20/06

Reviewed by Analyst: ________

Date: ____________

Alta Analytical Laboratory - Injection Log   Run file: 060920C2   Instrument ID: VG-5   GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060920C2	1	ST060920C2-1	MAS	20-SEP-06	15:15:02	ST060920C2-1	ST060920C2-2
060920C2	2	0_8381_OPR001	MAS	20-SEP-06	16:04:31	ST060920C2-1	ST060920C2-2
060920C2	3	0_8382_OPR001	MAS	20-SEP-06	16:54:06	ST060920C2-1	ST060920C2-2
060920C2	4	SOLVENT BLANK	MAS	20-SEP-06	17:43:41	ST060920C2-1	ST060920C2-2
060920C2	5	0_8381_MB001	MAS	20-SEP-06	18:33:15	ST060920C2-1	ST060920C2-2
060920C2	6	0_8382_MB001	MAS	20-SEP-06	19:22:48	ST060920C2-1	ST060920C2-2
060920C2	7	28101_8381_001	MAS	20-SEP-06	20:12:26	ST060920C2-1	ST060920C2-2
060920C2	8	28101_8381_002	MAS	20-SEP-06	21:02:04	ST060920C2-1	ST060920C2-2
060920C2	9	28110_8381_001	MAS	20-SEP-06	21:51:37	ST060920C2-1	ST060920C2-2
060920C2	10	28111_8381_001	MAS	20-SEP-06	22:41:10	ST060920C2-1	ST060920C2-2
060920C2	11	28112_8381_001	MAS	20-SEP-06	23:30:43	ST060920C2-1	ST060920C2-2
060920C2	12	28113_8381_001	MAS	21-SEP-06	00:20:15	ST060920C2-1	ST060920C2-2
060920C2	13	28114_8381_001	MAS	21-SEP-06	01:09:54	ST060920C2-1	ST060920C2-2
060920C2	14	28074_8382_001	MAS	21-SEP-06	01:59:27	ST060920C2-1	ST060920C2-2
060920C2	15	SOLVENT BLANK	MAS	21-SEP-06	02:48:56	ST060920C2-1	ST060920C2-2
060920C2	16	ST060920C2-2	MAS	21-SEP-06	03:38:30	ST060920C2-1	ST060920C2-2

Alta Analytical Laboratory
El Dorado Hills, CA 95762

CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST060920C2-1 End Calibration ID: ST0920C2-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	✓	✓
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated?	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Standards named correctly?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	y	n

	Beg.	End
Mass resolution > 10,000?	✓	✓
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	✓
Manual integrations included?	✓	✓
8280 CS1 Ending Standard		
-Ratios within limits		NA
-S/N > 2.5:1		
-CS1 within 12-hour clock		

Comments:

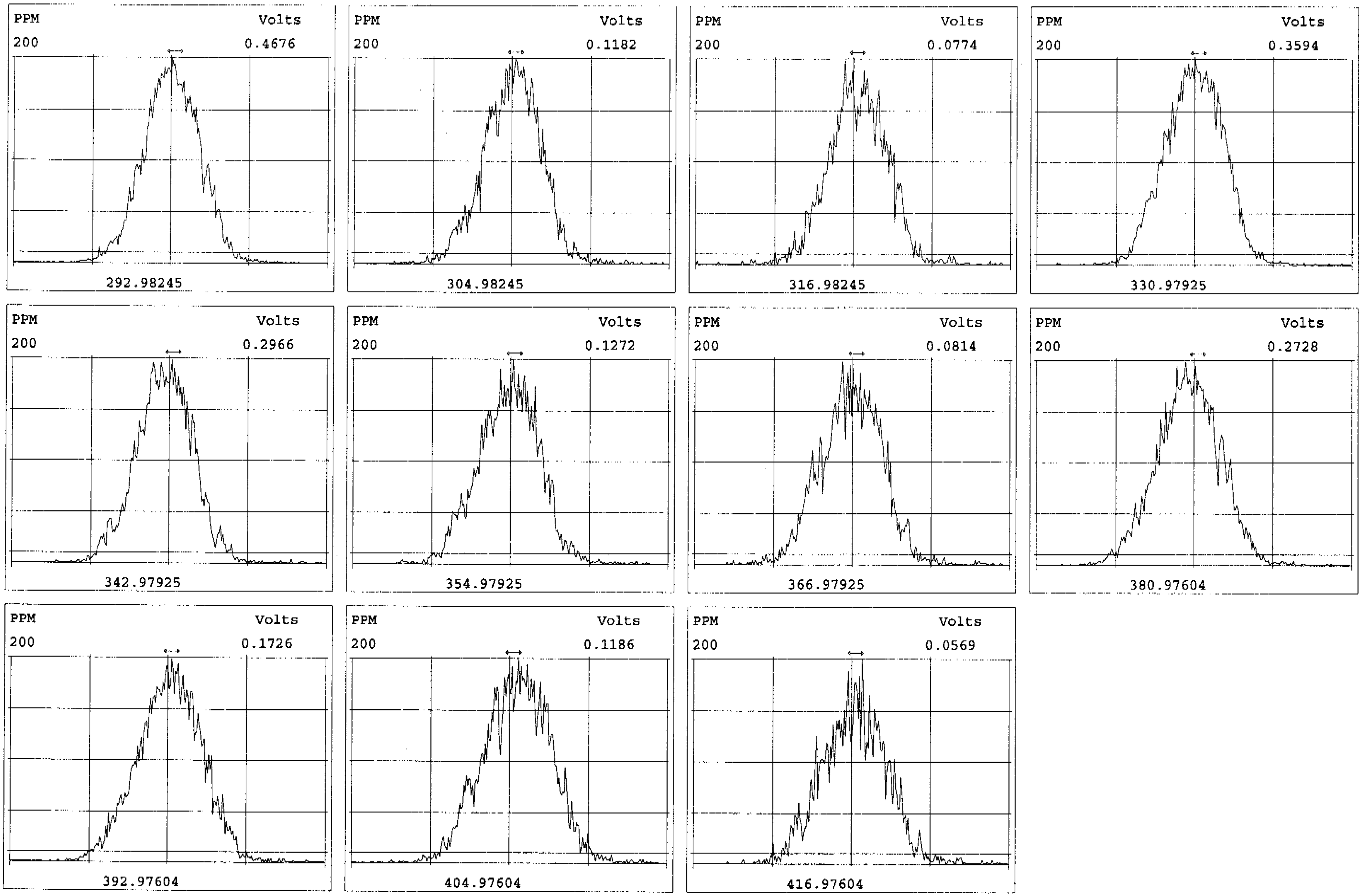
* Ending standard criteria applicable to 8290 only.

Reviewed by: J 9/21/06
Initials & Date

L:\QA\Forms\Calib.Stds.Review 5/2006 rmh

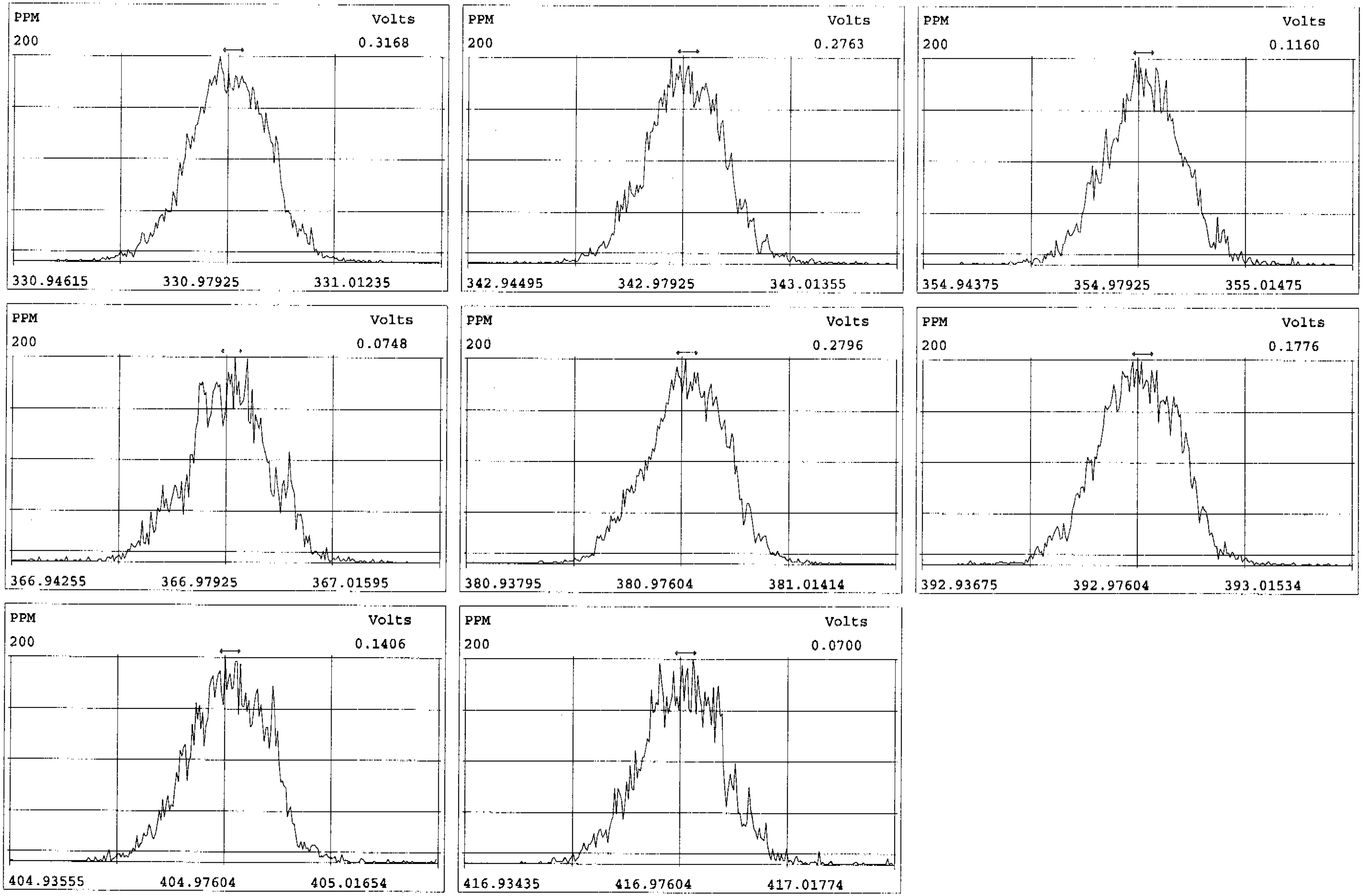
Peak Locate Examination:20-SEP-2006:15:13 File:060920C2

Experiment:OCDD_DB5 Function:1 Reference:PFK



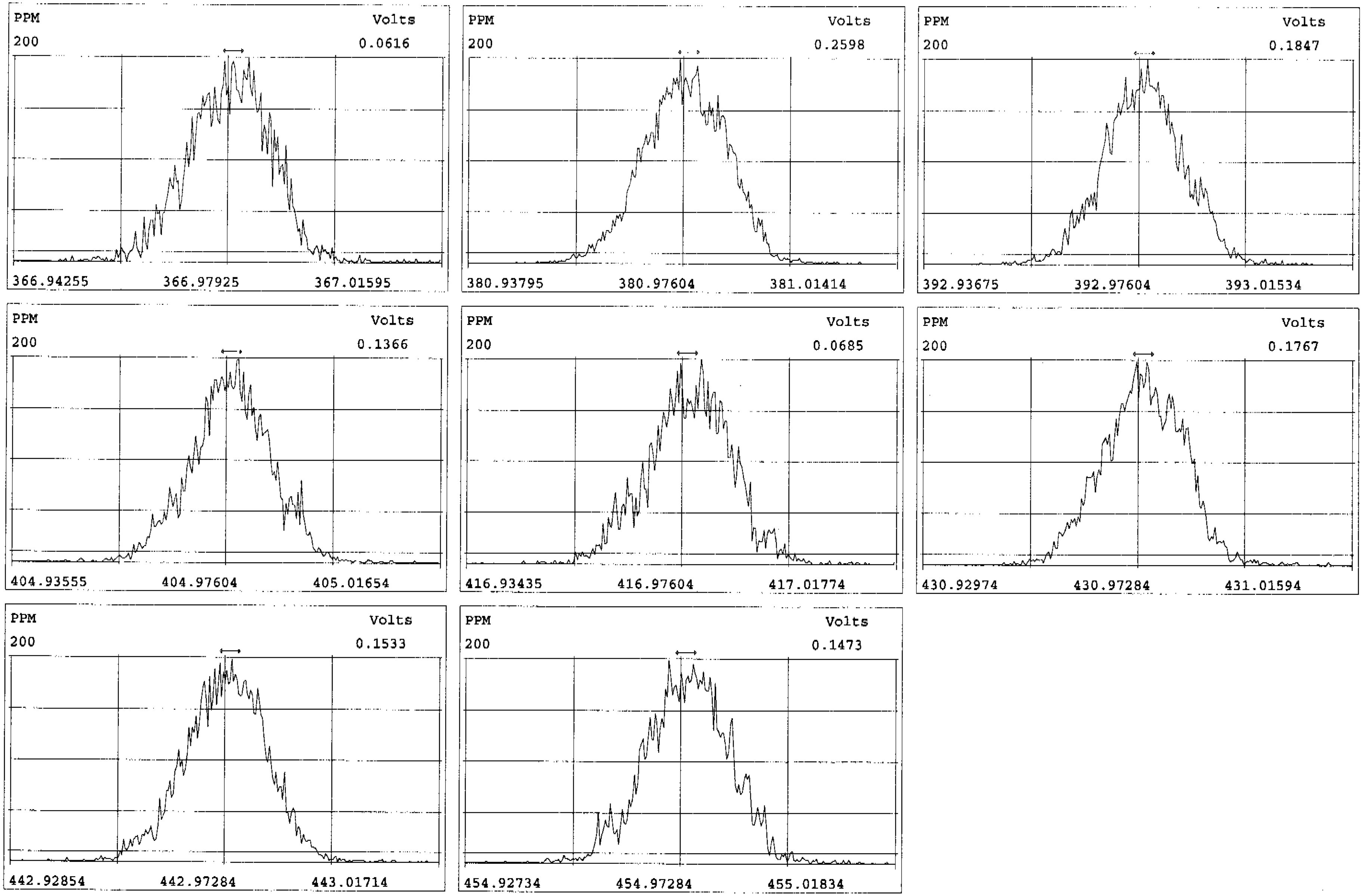
Peak Locate Examination:20-SEP-2006:15:13 File:060920C2

Experiment:OCDD_DB5 Function:2 Reference:PFK



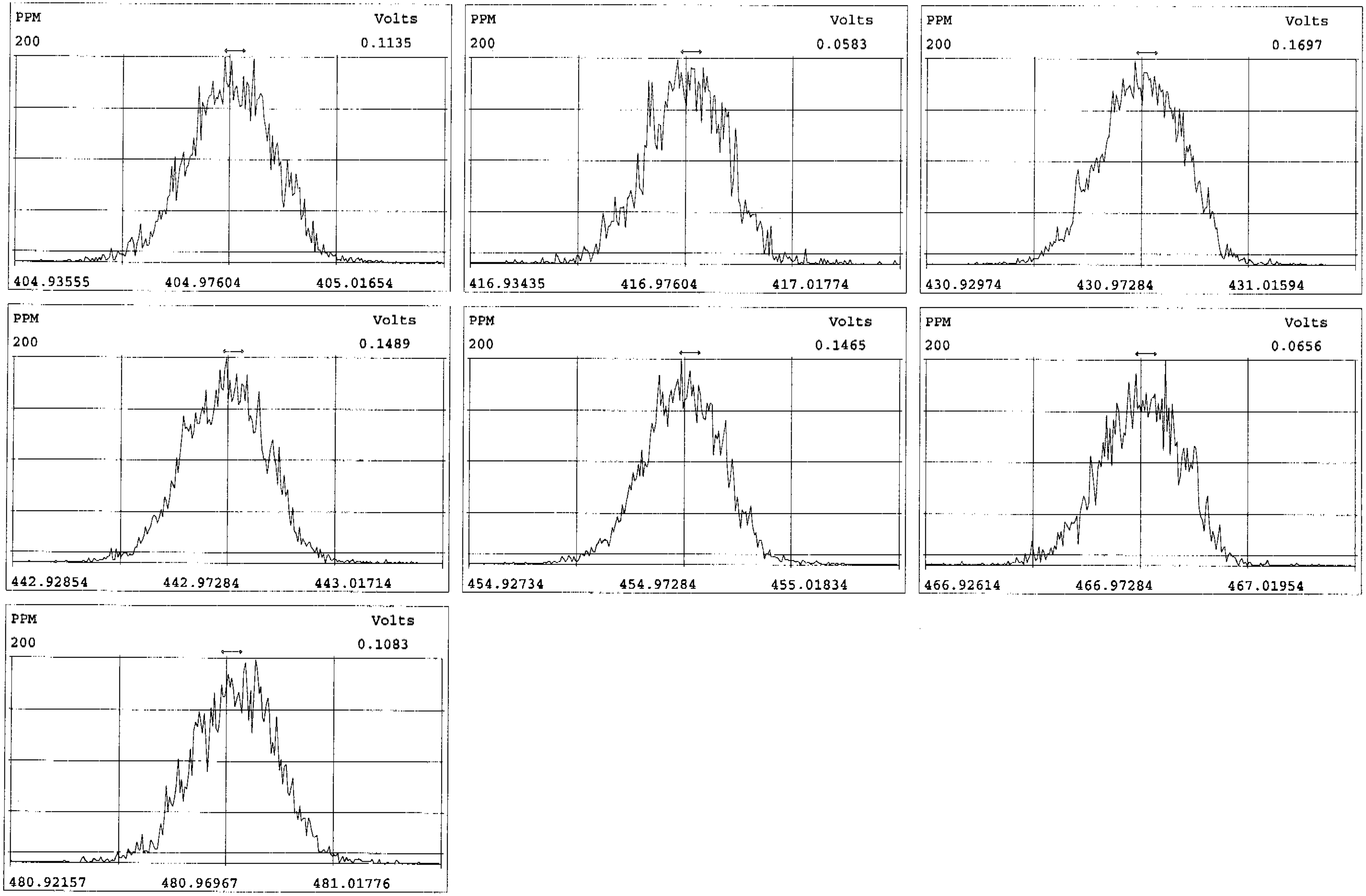
Peak Locate Examination:20-SEP-2006:15:14 File:060920C2

Experiment:OCDD_DB5 Function:3 Reference:PFK



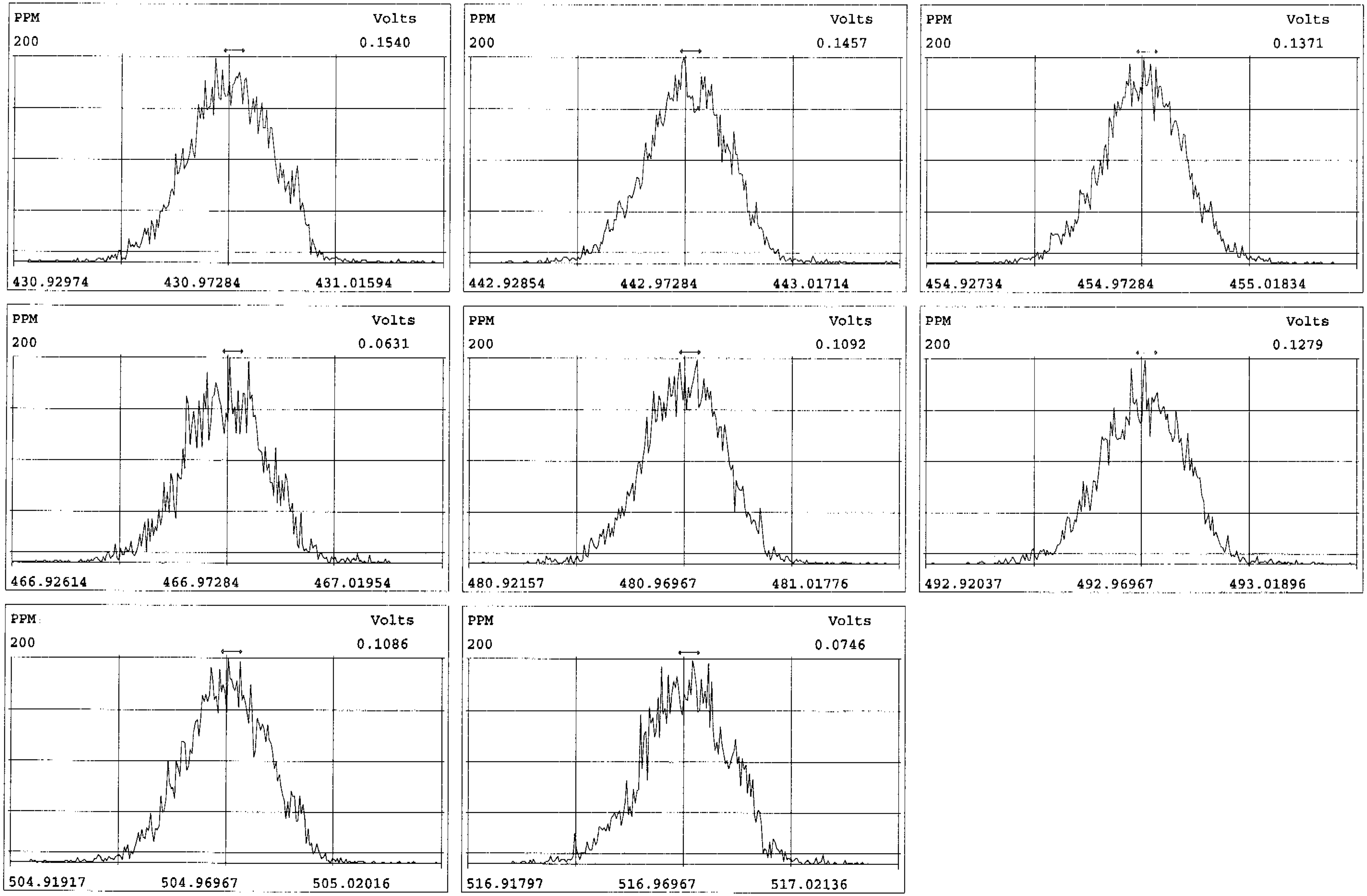
Peak Locate Examination:20-SEP-2006:15:14 File:060920C2

Experiment:OCDD_DB5 Function:4 Reference:PFK

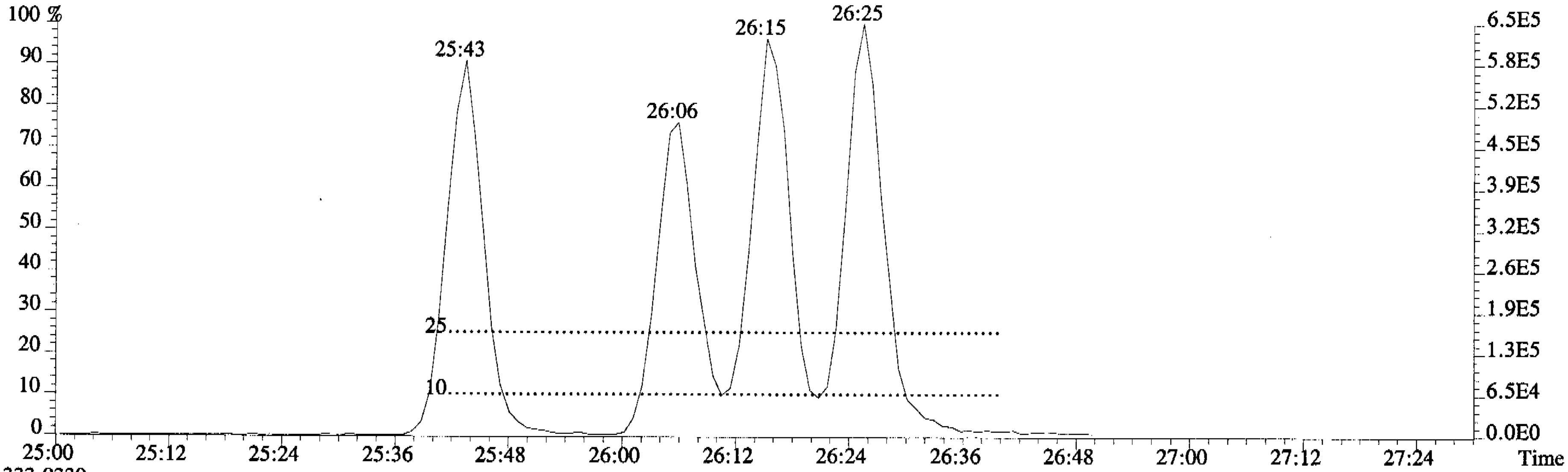


Peak Locate Examination:20-SEP-2006:15:14 File:060920C2

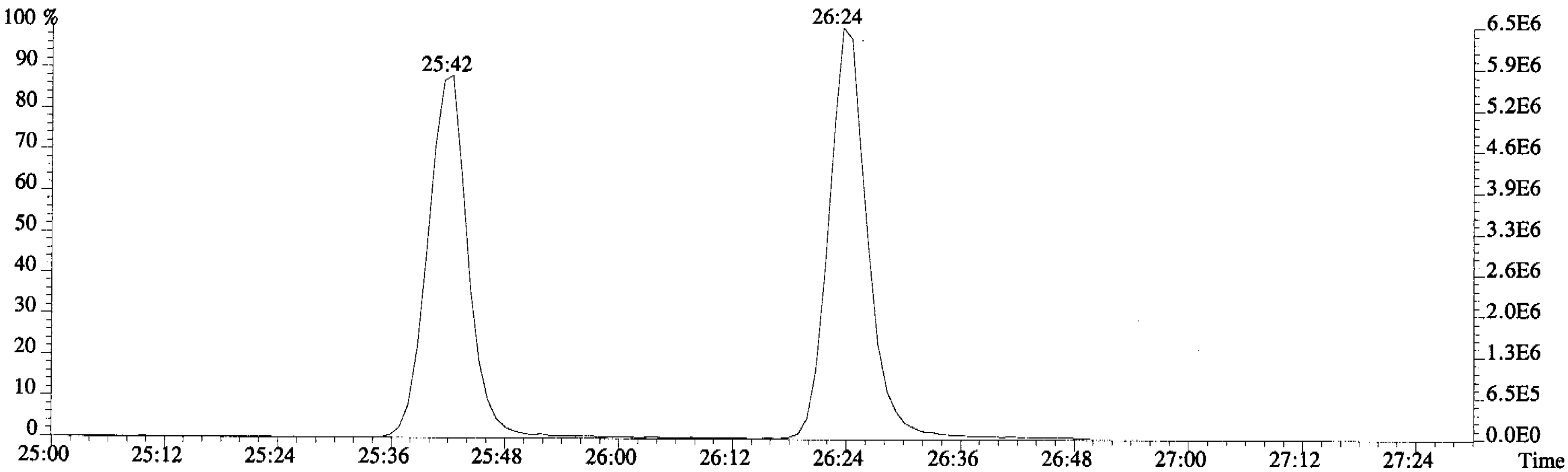
Experiment:OCDD_DB5 Function:5 Reference:PFK



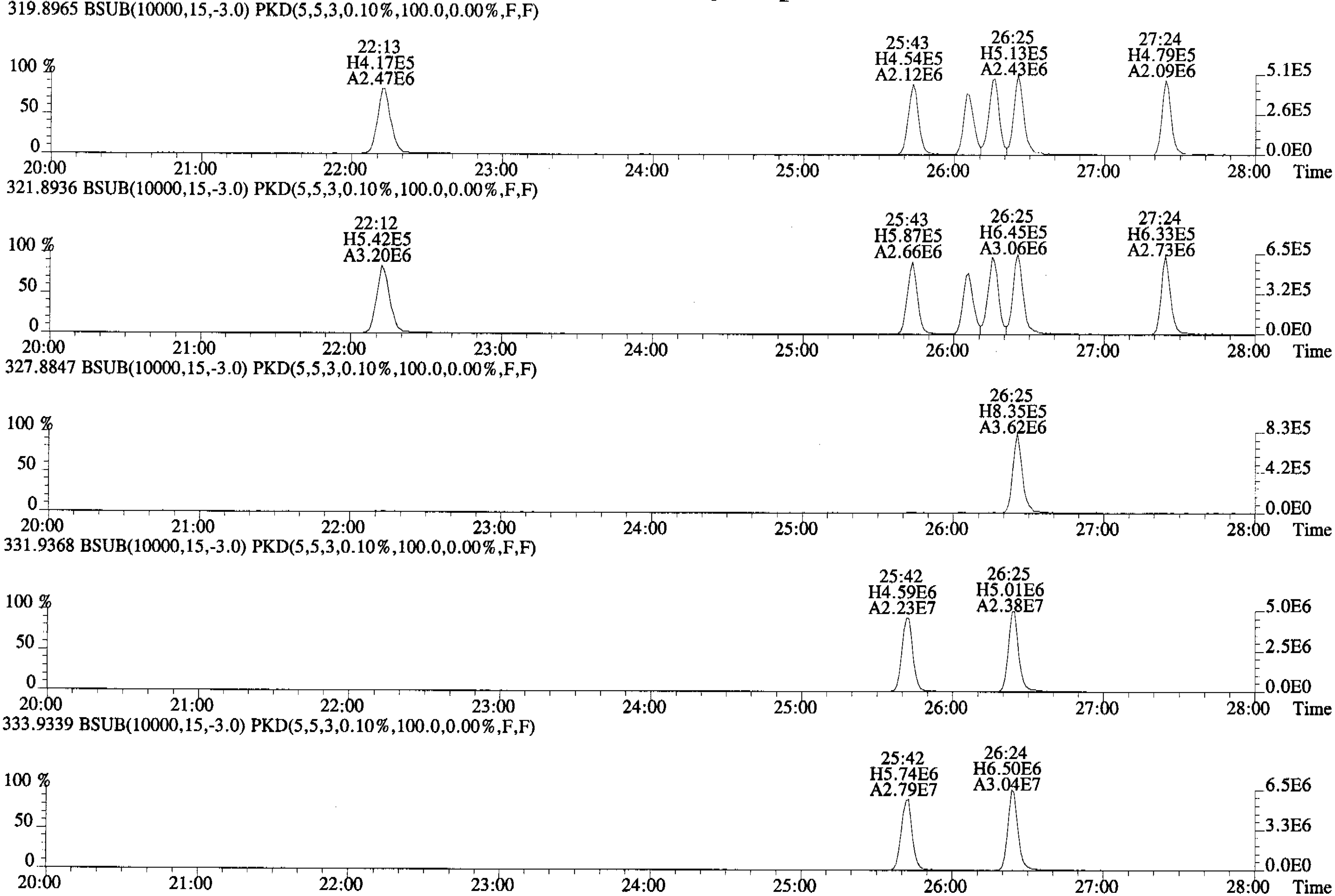
File:060920C2 #1-470 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5
321.8936



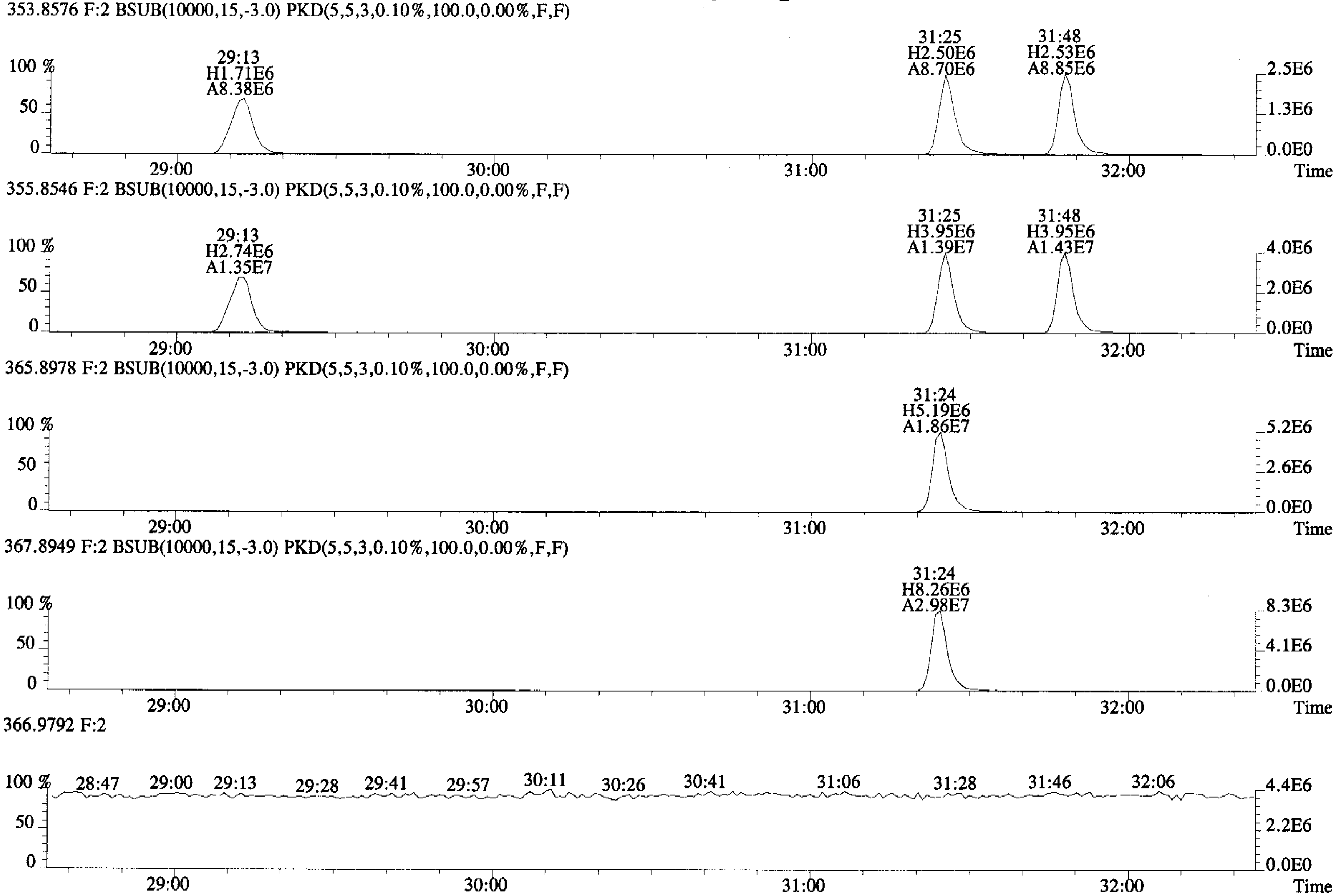
333.9339



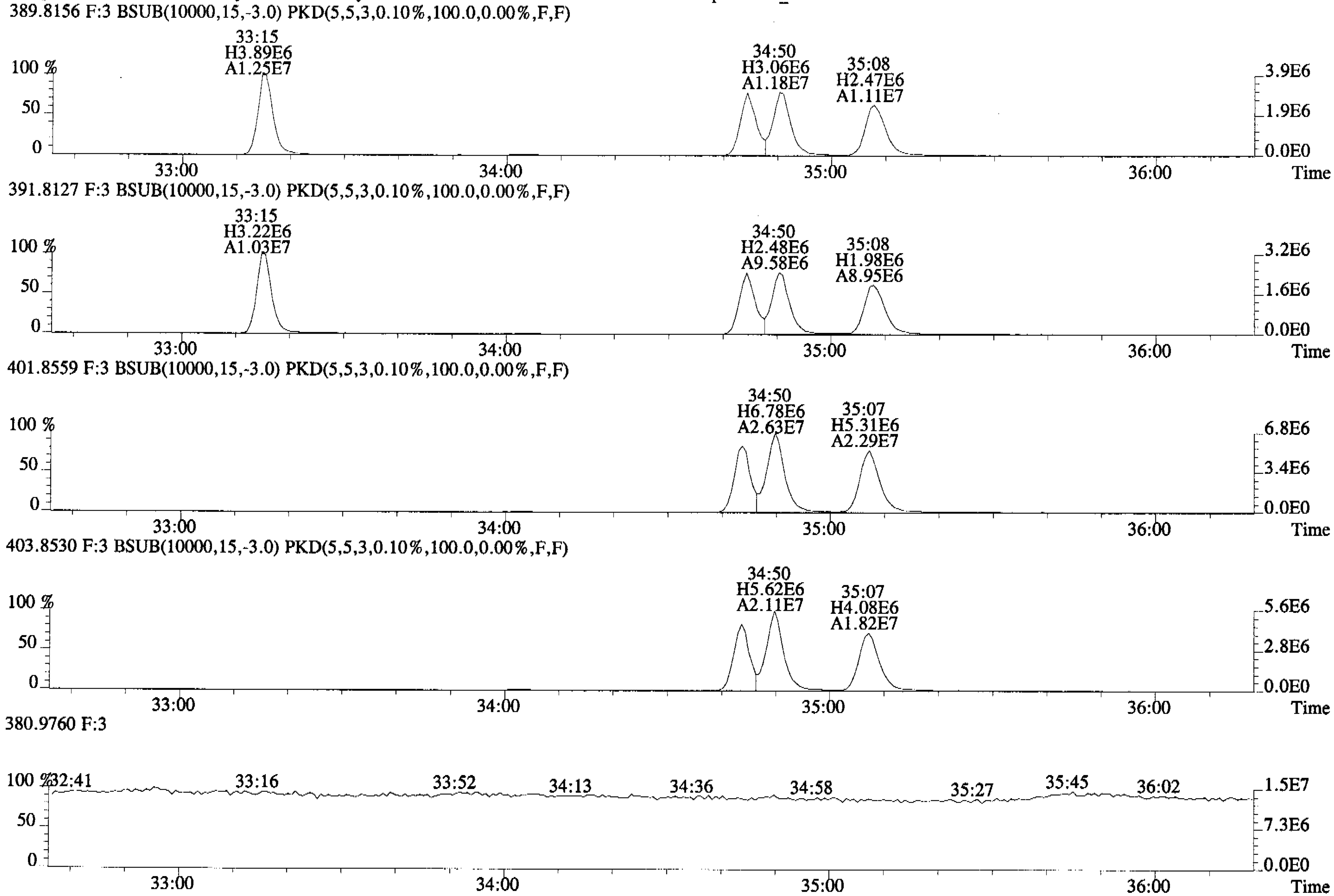
File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



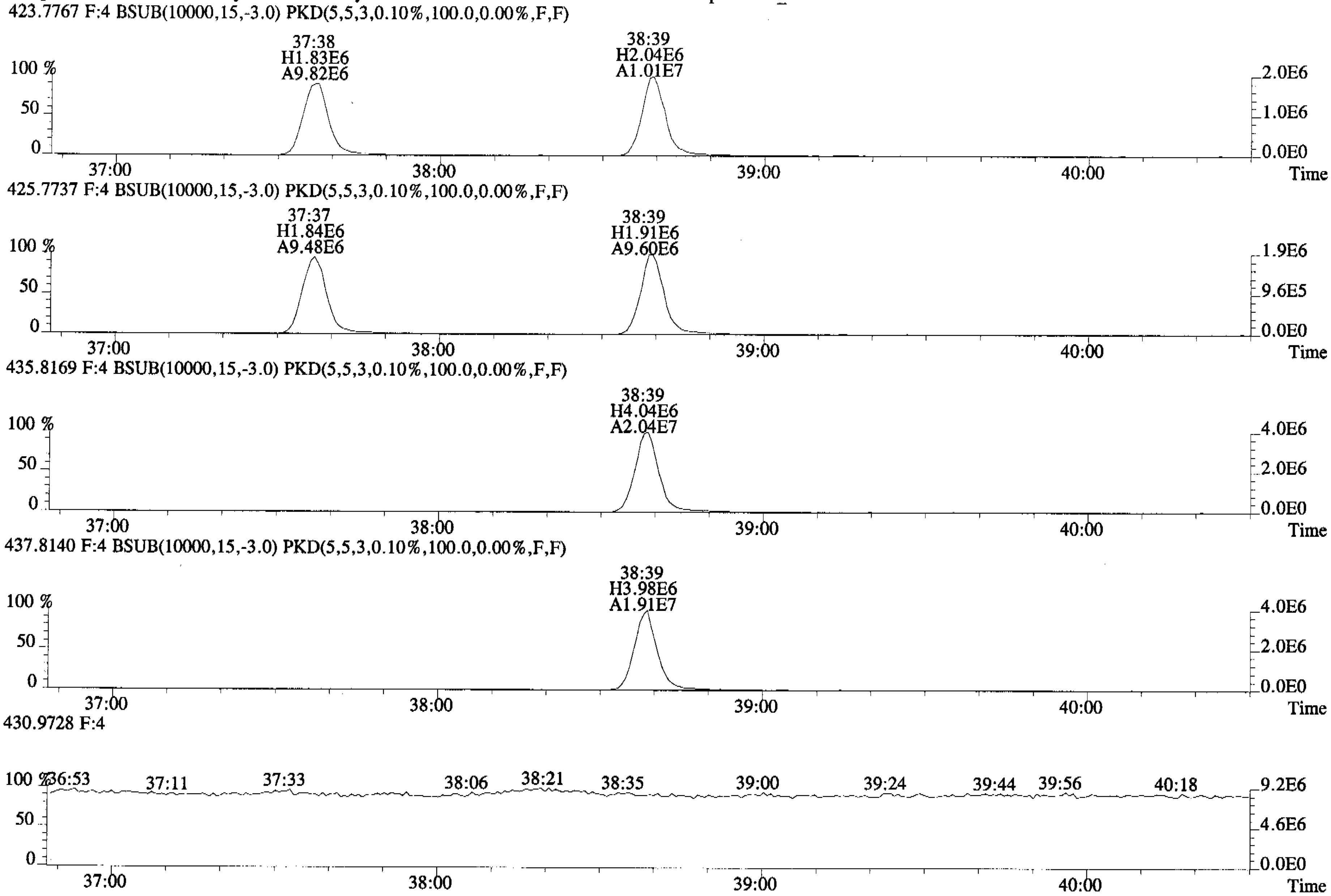
File:060920C2 #1-324 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



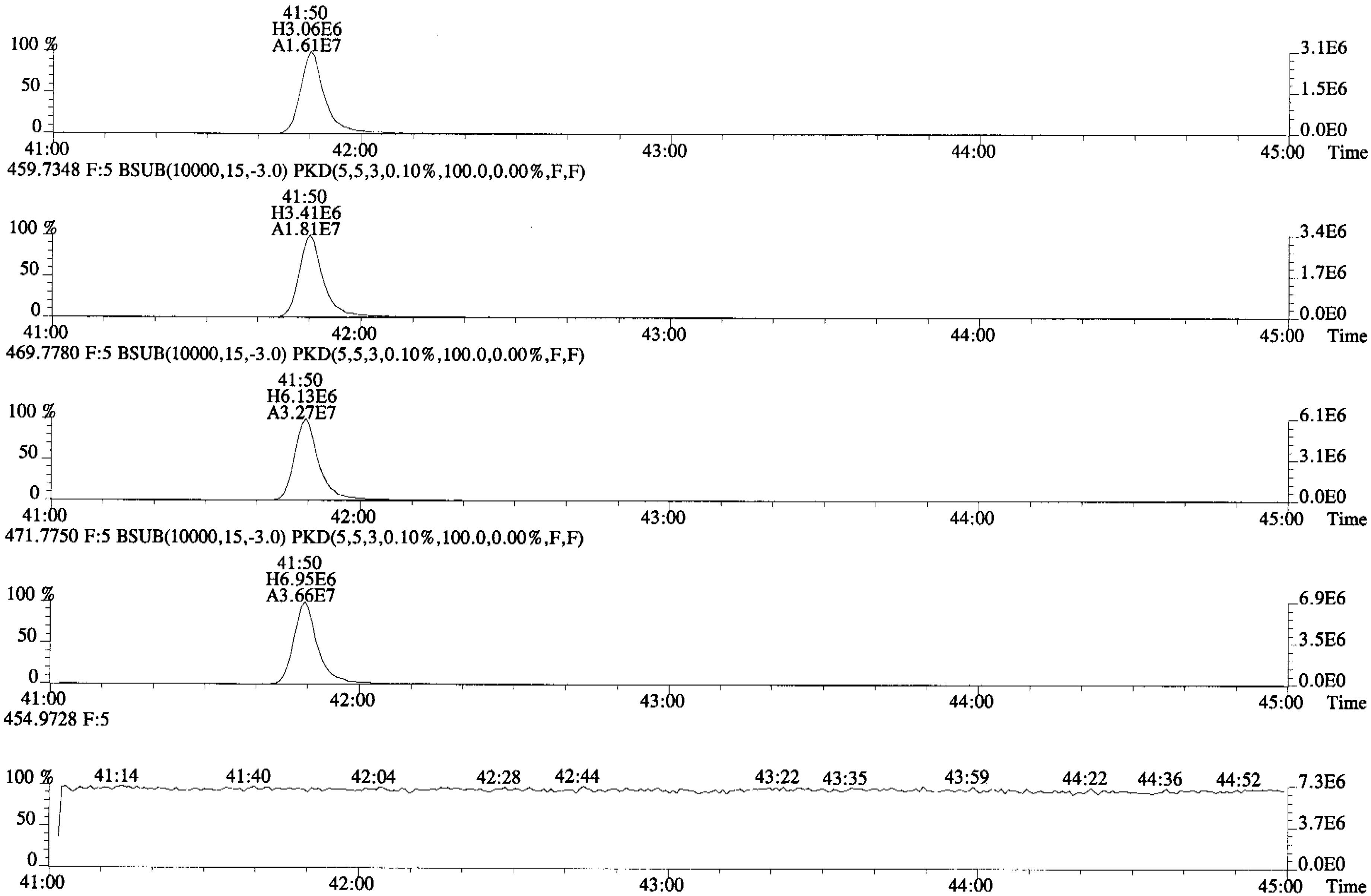
File:060920C2 #1-363 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



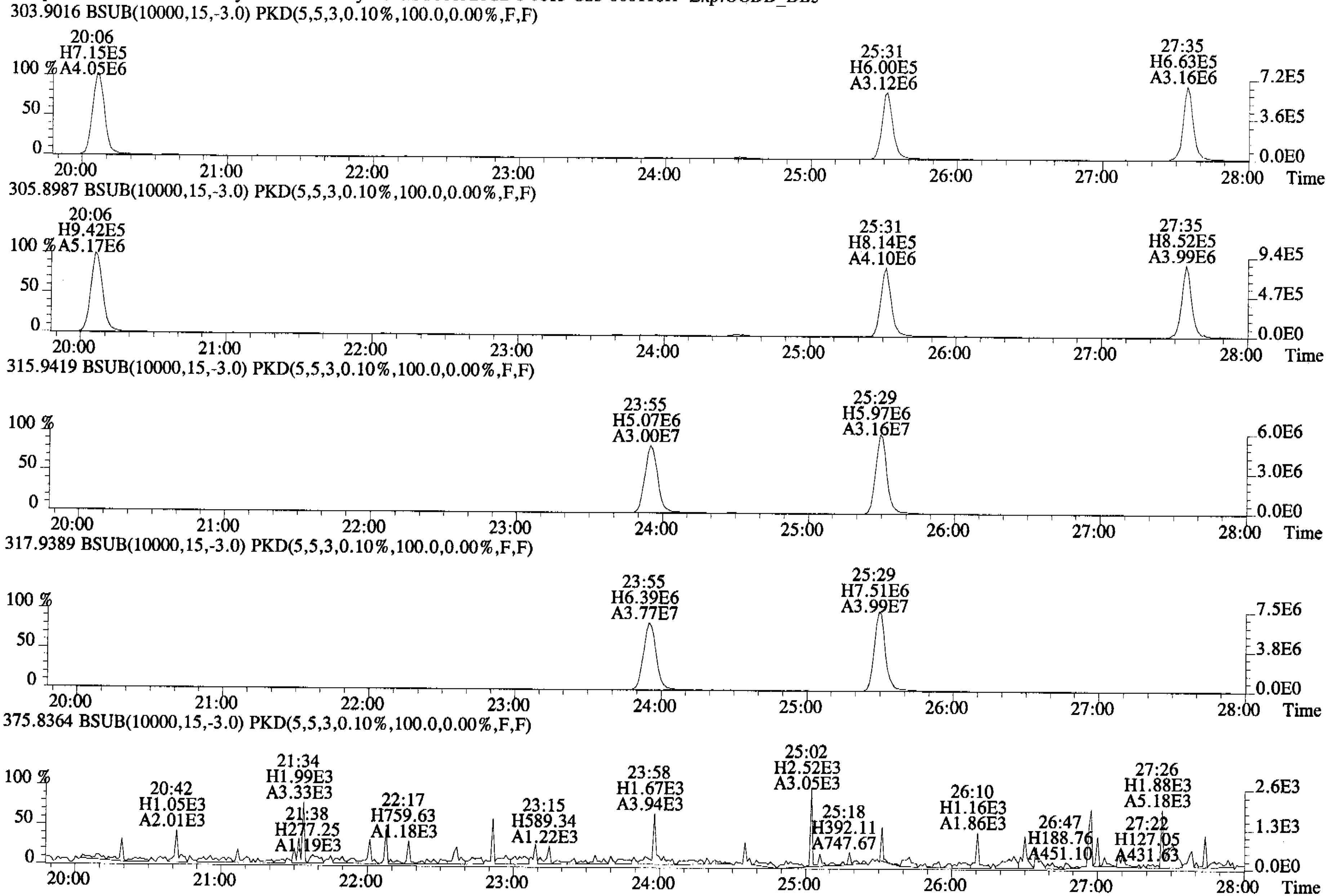
File:060920C2 #1-399 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



File:060920C2 #1-345 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

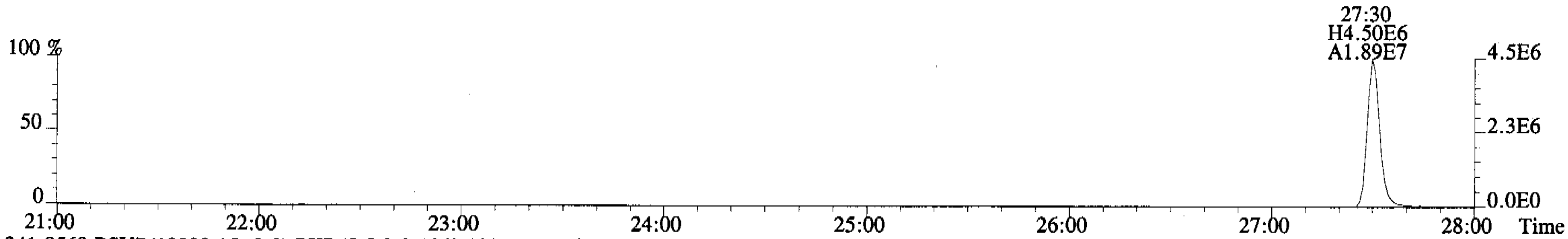


File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5

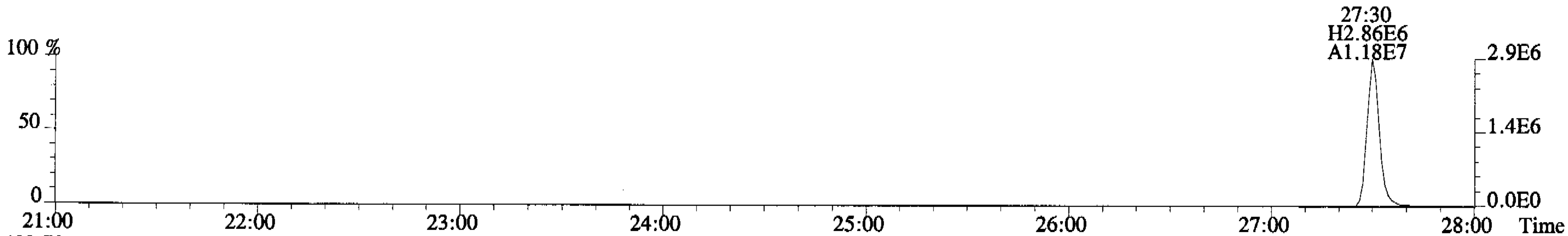


File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5

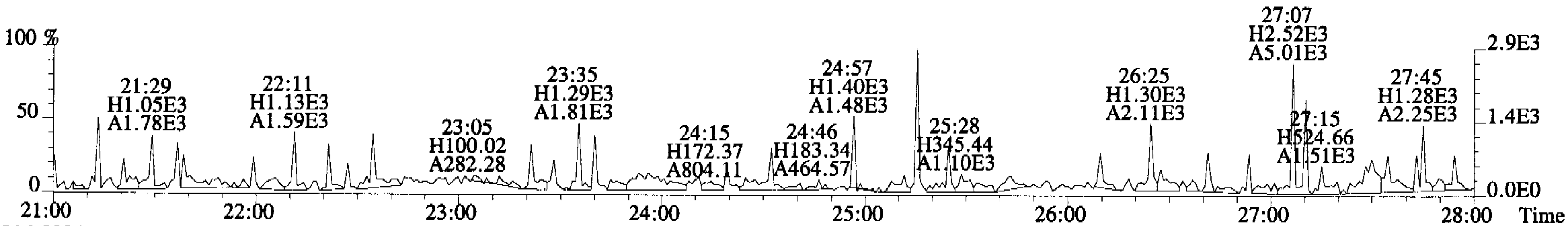
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



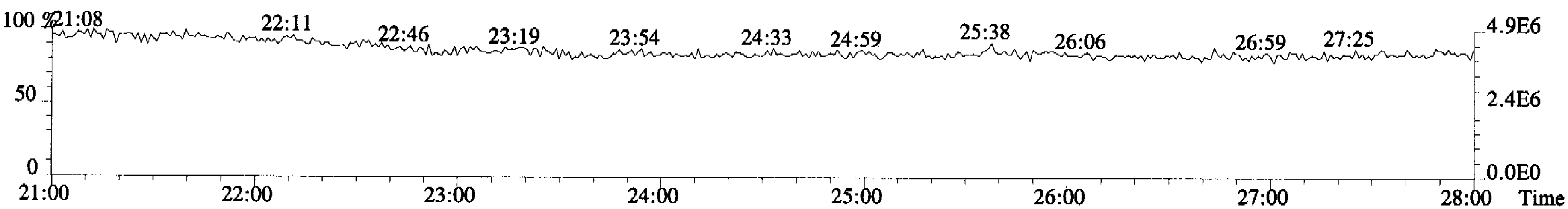
341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



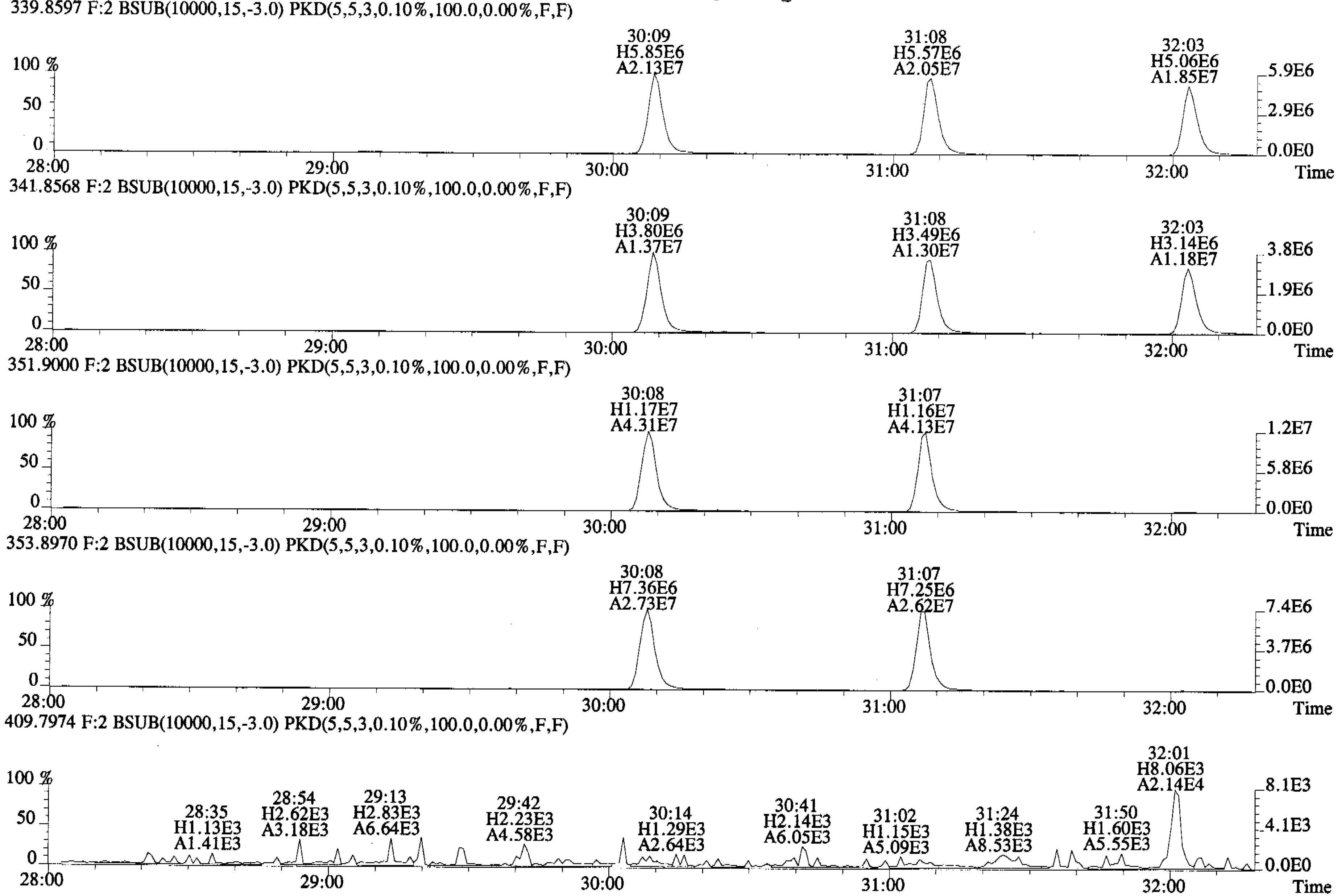
409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



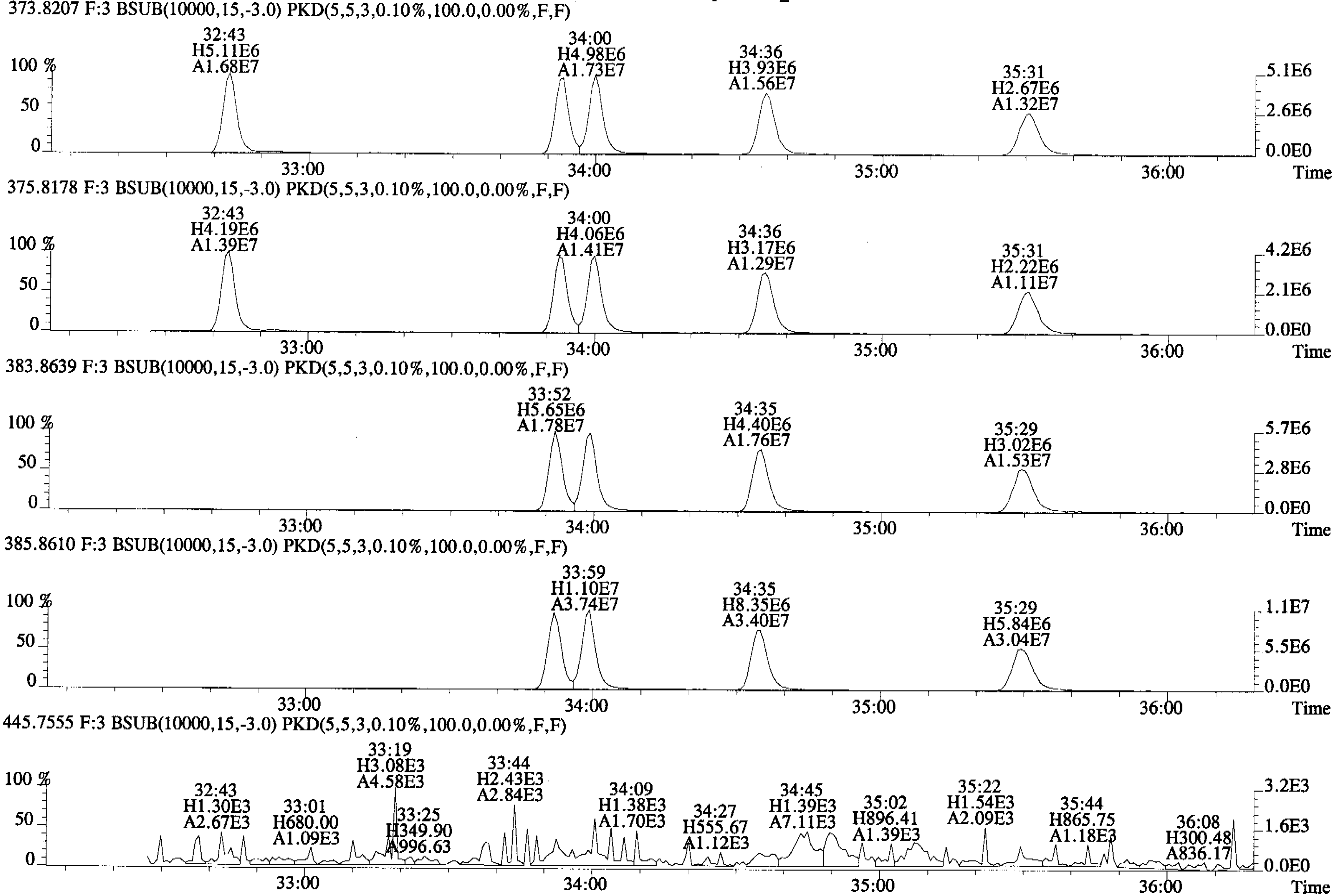
316.9824



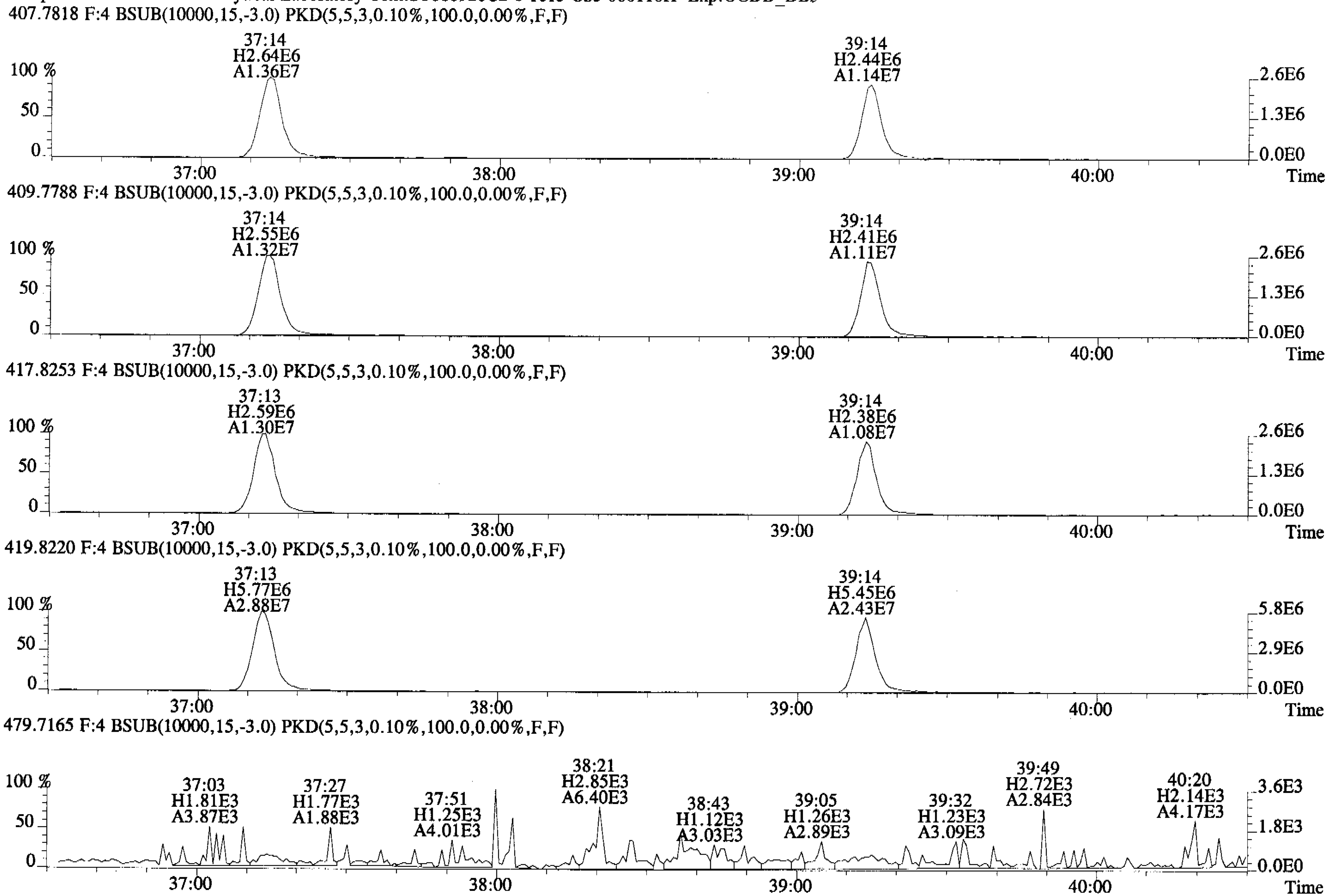
File:060920C2 #1-324 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



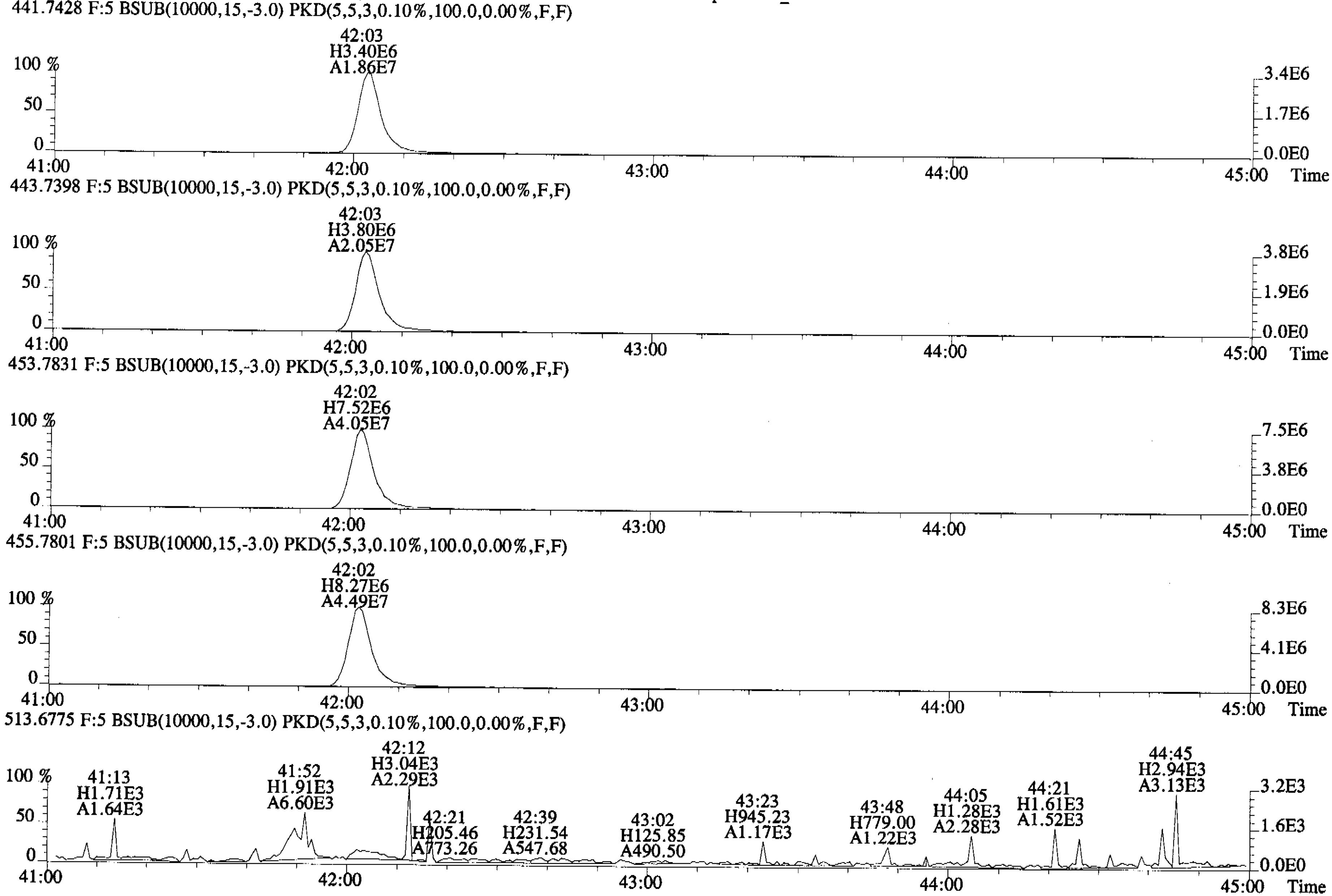
File:060920C2 #1-363 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



File:060920C2 #1-399 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



File:060920C2 #1-345 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.: CCAL ID: ST060920C2-2

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.1	7.8 - 12.9
						8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	44.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	44.2	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.5	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.0	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	49.6	43.0 - 58.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	94.9	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.25	8.4 - 12.0
						8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	48.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	y	47.9	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.9	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.6	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.0	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	47.4	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.5	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.04	0.88-1.20	y	48.3	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.2	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MJ

Date: 9/21/06

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	96.9	82.0 - 121.0
						85.0 - 117.0 (5)
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	89.0	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	95.7	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	104	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	102	72.0 - 138.0
13C-OCDD	M+2/M+4	0.90	0.76-1.02	y	215	96.0 - 415.0
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	101	71.0 - 140.0
						76.0 - 131.0 (5)
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	87.7	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	82.1	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	103	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	96.3	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	99.9	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	99.0	77.0 - 129.0
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	199	96.0 - 415.0
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					8.94	7.9 - 12.7
						8.3 - 12.1 (5)

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613.

(4) No ion abundance ratio; report concentration found.

(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.

Analyst: MS

Date: 9/21/06

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Instrument ID: VG-5   Initial Calibration Date: 3/22/06

RT Window Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

DB-5 IS Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:15	1,3,6,8-TCDF (F)	20:09
1,2,8,9-TCDD (L)	27:27	1,2,8,9-TCDF (L)	27:37
1,2,4,7,9-PeCDD (F)	29:14	1,3,4,6,8-PeCDF (F)	27:32
1,2,3,8,9-PeCDD (L)	31:51	1,2,3,8,9-PeCDF (L)	32:07
1,2,4,6,7,9-HxCDD (F)	33:18	1,2,3,4,6,8-HxCDF (F)	32:46
1,2,3,7,8,9-HxCDD (L)	35:12	1,2,3,7,8,9-HxCDF (L)	35:35
1,2,3,4,6,7,9-HpCDD (F)	37:41	1,2,3,4,6,7,8-HpCDF (F)	37:18
1,2,3,4,6,7,8-HpCDD (L)	38:43	1,2,3,4,7,8,9-HpCDF (L)	39:19

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

Analyst: MJ

Date: 9/21/06

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.993	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.173	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.212	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.223	1.000-1.567

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: MJ

Date: 9/21/06

FORM 6B

PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.964	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.967	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.988	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.991	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.060	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.100	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.191	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.197	1.032-1.311

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: (M)

Date: 9/21/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:   CCAL ID: ST060920C2-2

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.1	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	44.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	44.2	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.5	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.0	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	49.6	40.0 - 60.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	94.9	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.25	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	48.2	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	y	47.9	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.9	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.6	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.0	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	47.4	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.5	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.04	0.88-1.20	y	48.3	40.0 - 60.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.2	80.0 - 120

Analyst: VM

Date: 9/21/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	96.9	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	89.0	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	95.7	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	104	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	102	70.0 - 130
13C-OCDD	M+2/M+4	0.90	0.76-1.02	y	215	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	101	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	87.7	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	82.1	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	103	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	96.3	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	99.9	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	99.0	70.0 - 130
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	199	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					8.94	7.00 - 13.0

Analyst: MM

Date: 9/21/06

Lab ID: ST060920C2-2 GC Column ID: db-5 ICal: 1613VG5-3-22-06 wt/vol: 1.000 EndCAL: ST060920C2-2

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	5.52e+06	0.77 y	1.08	26:28	10.079		*	2.5	*
	1,2,3,7,8-PeCDD	2.04e+07	0.62 y	1.03	31:28	44.445		*	2.5	*
	1,2,3,4,7,8-HxCDD	1.55e+07	1.22 y	1.13	34:47	44.224		*	2.5	*
	1,2,3,6,7,8-HxCDD	2.01e+07	1.24 y	1.03	34:53	46.492		*	2.5	*
	1,2,3,7,8,9-HxCDD	1.91e+07	1.23 y	1.12	35:12	46.993		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	1.70e+07	1.06 y	1.02	38:43	49.591		*	2.5	*
	OCDD	2.98e+07	0.89 y	1.06	41:55	94.889		*	2.5	*
	2,3,7,8-TCDF	6.84e+06	0.77 y	1.06	25:33	9.2501		*	2.5	*
	1,2,3,7,8-PeCDF	3.10e+07	1.57 y	1.01	30:11	48.150		*	2.5	*
	2,3,4,7,8-PeCDF	2.94e+07	1.56 y	1.02	31:11	47.888		*	2.5	*
	1,2,3,4,7,8-HxCDF	2.53e+07	1.19 y	1.15	33:55	48.865		*	2.5	*
	1,2,3,6,7,8-HxCDF	2.96e+07	1.22 y	1.14	34:02	46.639		*	2.5	*
	2,3,4,6,7,8-HxCDF	2.54e+07	1.22 y	1.17	34:39	46.013		*	2.5	*
	1,2,3,7,8,9-HxCDF	2.17e+07	1.20 y	1.10	35:35	47.404		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	2.31e+07	1.03 y	1.31	37:18	48.499		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	1.89e+07	1.04 y	1.33	39:19	48.346		*	2.5	*
	OCDF	3.29e+07	0.90 y	0.91	42:08	99.199		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	53.345	53.895		*	*
Total Penta-Dioxins	138.92	139.22		*	*
Total Hexa-Dioxins	190.35	191.92		*	*
Total Hepta-Dioxins	99.126	100.77		*	*
Total Tetra-Furans	30.569	30.737		*	*
Total Penta-Furans	185.84	187.20		*	*
Total Hexa-Furans	240.85	242.03		*	*
Total Hepta-Furans	97.108	99.126		*	*

	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	5.07e+07	0.80 y	1.09	26:26	96.904	96.9	
IS	13C-1,2,3,7,8-PeCDD	4.45e+07	0.62 y	1.04	31:27	89.038	89.0	
IS	13C-1,2,3,4,7,8-HxCDD	3.08e+07	1.22 y	0.83	34:46	95.738	95.7	
IS	13C-1,2,3,6,7,8-HxCDD	4.19e+07	1.25 y	1.04	34:53	103.73	104	
IS	13C-1,2,3,4,6,7,8-HpCDD	3.38e+07	1.06 y	0.85	38:42	102.32	102	
IS	13C-OCDD	5.96e+07	0.90 y	0.71	41:55	214.99	107	
IS	13C-2,3,7,8-TCDF	6.97e+07	0.80 y	0.96	25:32	101.40	101	
IS	13C-1,2,3,7,8-PeCDF	6.40e+07	1.55 y	1.02	30:10	87.728	87.7	
IS	13C-2,3,4,7,8-PeCDF	6.00e+07	1.57 y	1.02	31:10	82.101	82.1	
IS	13C-1,2,3,4,7,8-HxCDF	4.52e+07	0.54 y	1.14	33:54	101.70	102	
IS	13C-1,2,3,6,7,8-HxCDF	5.58e+07	0.50 y	1.40	34:02	102.69	103	
IS	13C-2,3,4,6,7,8-HxCDF	4.72e+07	0.51 y	1.26	34:38	96.313	96.3	
IS	13C-1,2,3,7,8,9-HxCDF	4.17e+07	0.52 y	1.08	35:34	99.055	99.1	
IS	13C-1,2,3,4,6,7,8-HpCDF	3.62e+07	0.44 y	0.93	37:16	99.869	99.9	
IS	13C-1,2,3,4,7,8,9-HpCDF	2.95e+07	0.44 y	0.77	39:18	99.039	99.0	
IS	13C-OCDF	7.28e+07	0.91 y	0.94	42:07	198.59	99.3	
C/Up	37Cl-2,3,7,8-TCDD	3.32e+06		0.77	26:27	8.9415	22.4	
RS/RT	13C-1,2,3,4-TCDD	4.80e+07	0.79 y	1.00	25:43	100.00		
RS	13C-1,2,3,4-TCDF	7.17e+07	0.80 y	1.00	23:57	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.88e+07	1.25 y	1.00	35:11	100.00		

Integrations by Analyst: M)

Date: 9/21/06

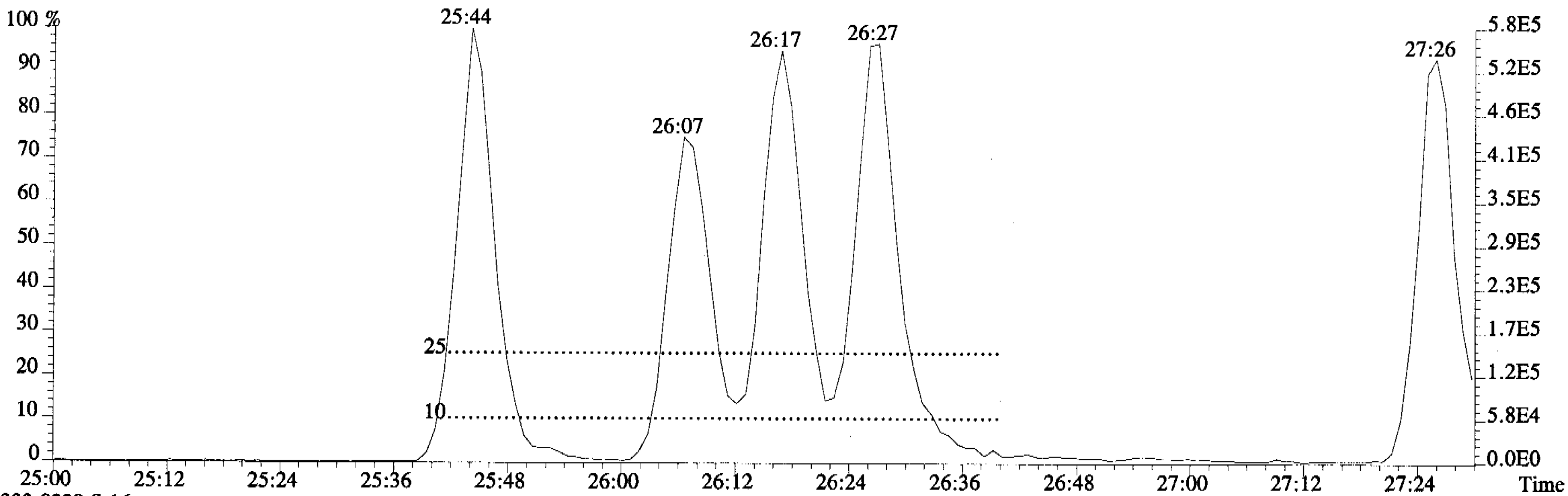
Reviewed by Analyst:

Date:

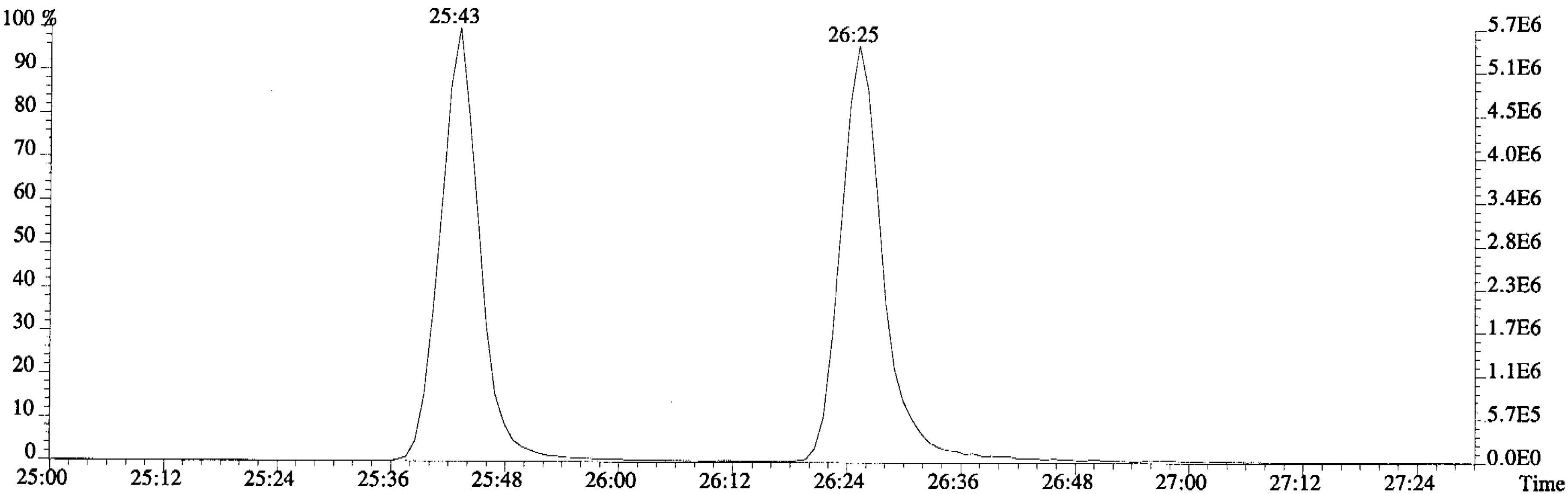
Alta Analytical Laboratory - Injection Log Run file: 060920C2 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060920C2	1	ST060920C2-1	MAS	20-SEP-06	15:15:02	ST060920C2-1	ST060920C2-2
060920C2	2	0_8381_OPR001	MAS	20-SEP-06	16:04:31	ST060920C2-1	ST060920C2-2
060920C2	3	0_8382_OPR001	MAS	20-SEP-06	16:54:06	ST060920C2-1	ST060920C2-2
060920C2	4	SOLVENT BLANK	MAS	20-SEP-06	17:43:41	ST060920C2-1	ST060920C2-2
060920C2	5	0_8381_MB001	MAS	20-SEP-06	18:33:15	ST060920C2-1	ST060920C2-2
060920C2	6	0_8382_MB001	MAS	20-SEP-06	19:22:48	ST060920C2-1	ST060920C2-2
060920C2	7	28101_8381_001	MAS	20-SEP-06	20:12:26	ST060920C2-1	ST060920C2-2
060920C2	8	28101_8381_002	MAS	20-SEP-06	21:02:04	ST060920C2-1	ST060920C2-2
060920C2	9	28110_8381_001	MAS	20-SEP-06	21:51:37	ST060920C2-1	ST060920C2-2
060920C2	10	28111_8381_001	MAS	20-SEP-06	22:41:10	ST060920C2-1	ST060920C2-2
060920C2	11	28112_8381_001	MAS	20-SEP-06	23:30:43	ST060920C2-1	ST060920C2-2
060920C2	12	28113_8381_001	MAS	21-SEP-06	00:20:15	ST060920C2-1	ST060920C2-2
060920C2	13	28114_8381_001	MAS	21-SEP-06	01:09:54	ST060920C2-1	ST060920C2-2
060920C2	14	28074_8382_001	MAS	21-SEP-06	01:59:27	ST060920C2-1	ST060920C2-2
060920C2	15	SOLVENT BLANK	MAS	21-SEP-06	02:48:56	ST060920C2-1	ST060920C2-2
060920C2	16	ST060920C2-2	MAS	21-SEP-06	03:38:30	ST060920C2-1	ST060920C2-2

File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
321.8936 S:16

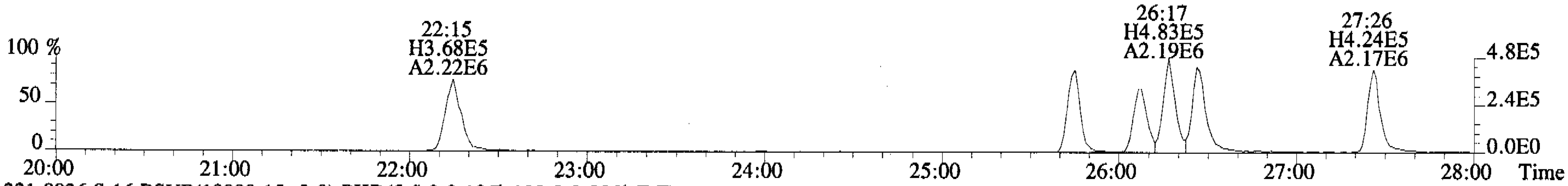


333.9339 S:16

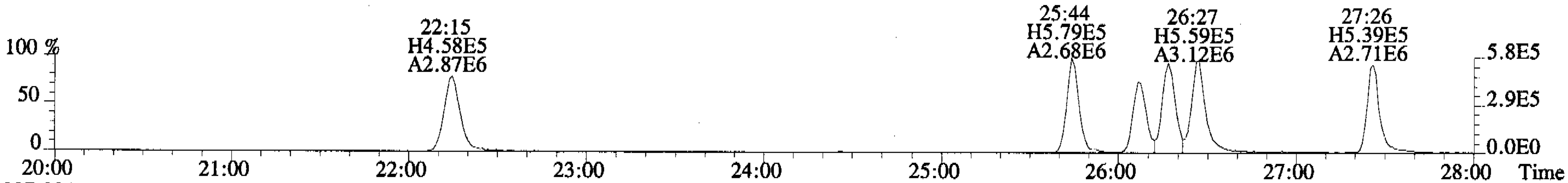


File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5

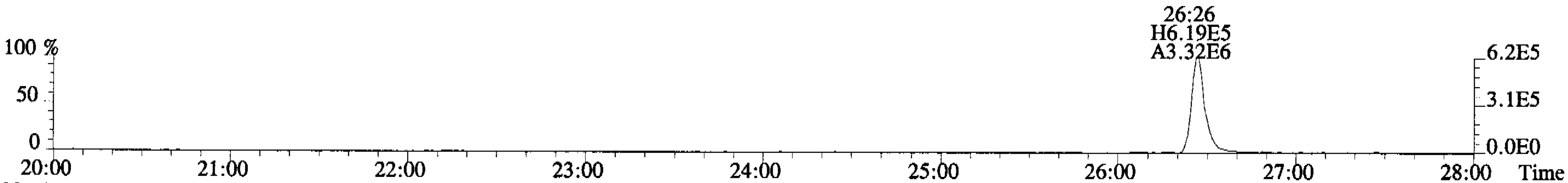
319.8965 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



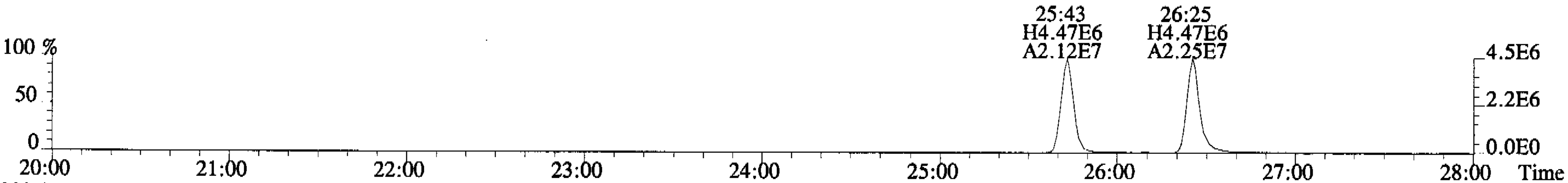
321.8936 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



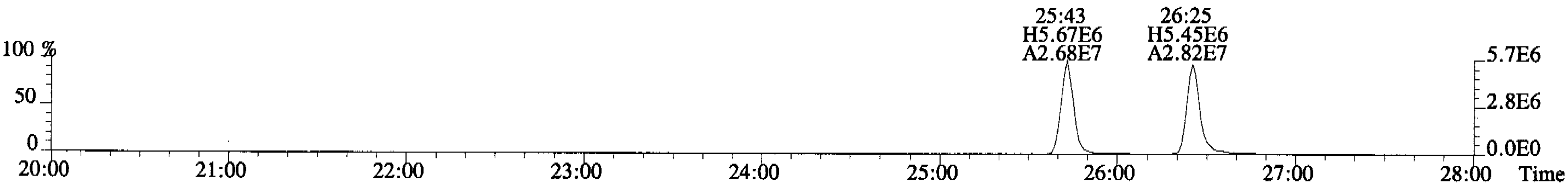
327.8847 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



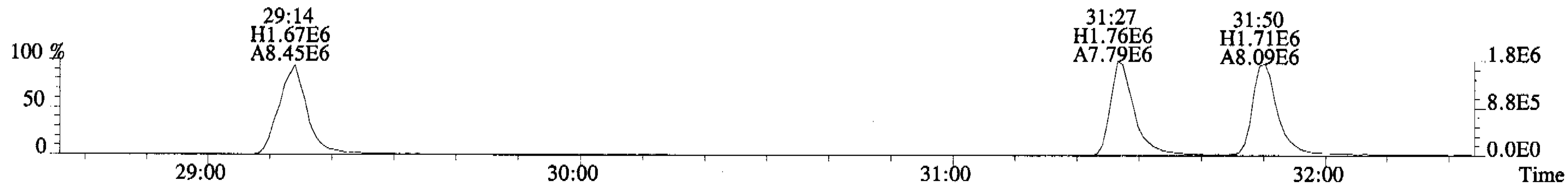
331.9368 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



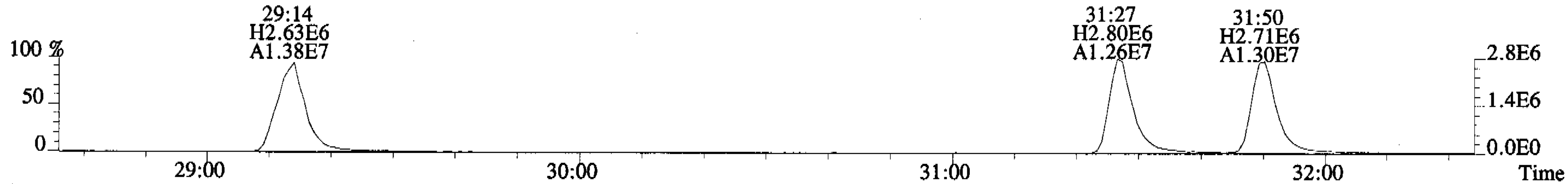
333.9339 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



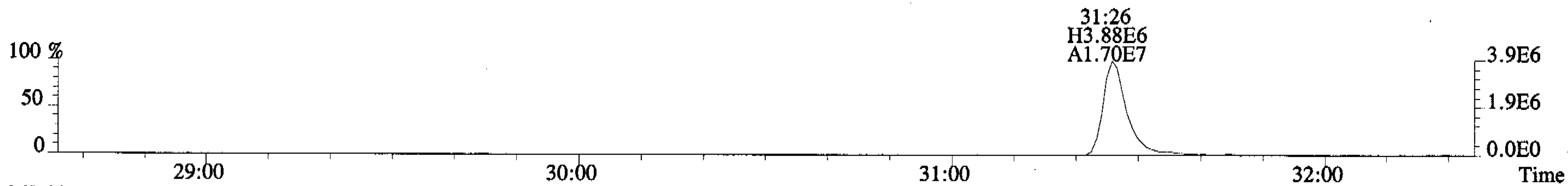
File:060920C2 #1-324 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
353.8576 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



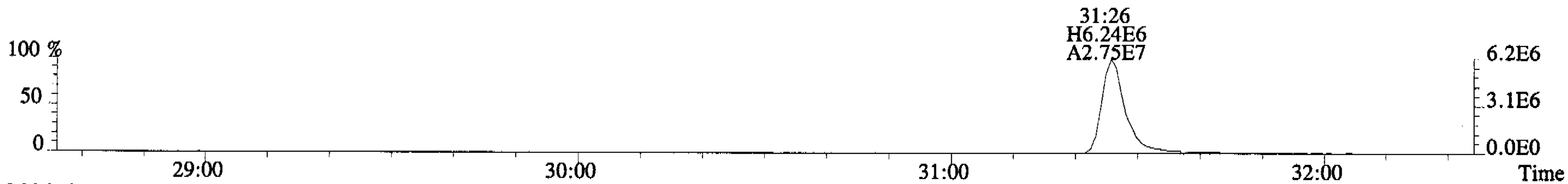
355.8546 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



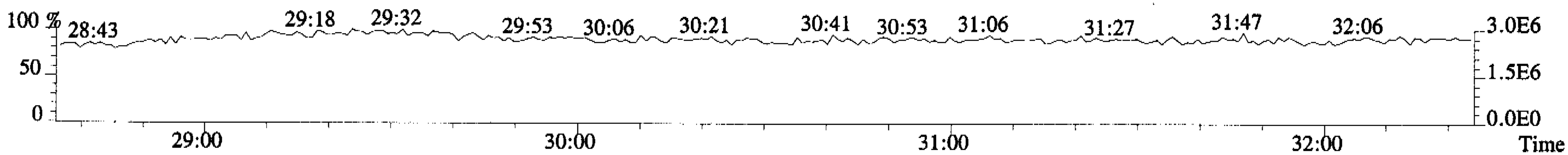
365.8978 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



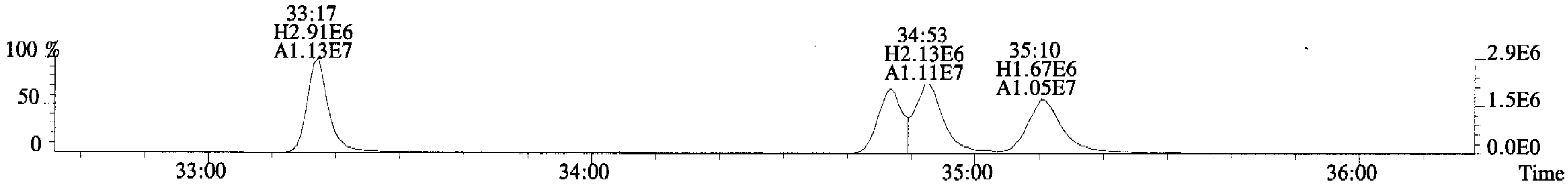
367.8949 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



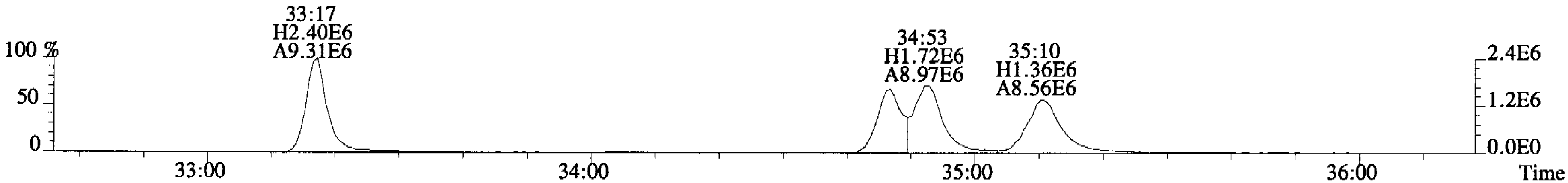
366.9792 S:16 F:2



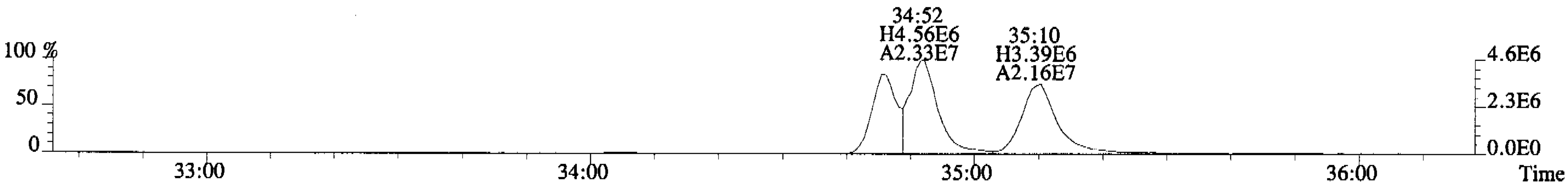
File:060920C2 #1-363 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
389.8156 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



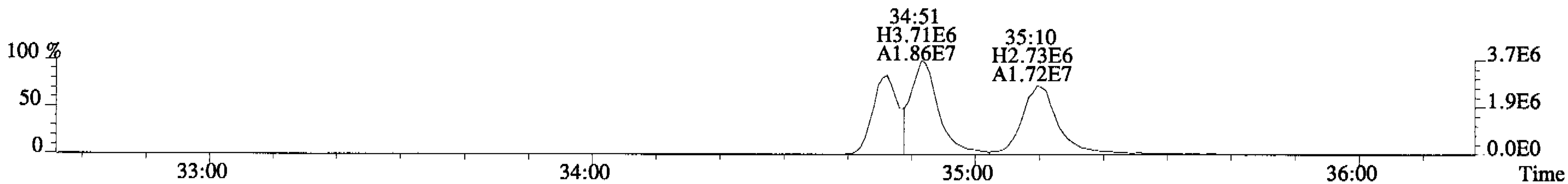
391.8127 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



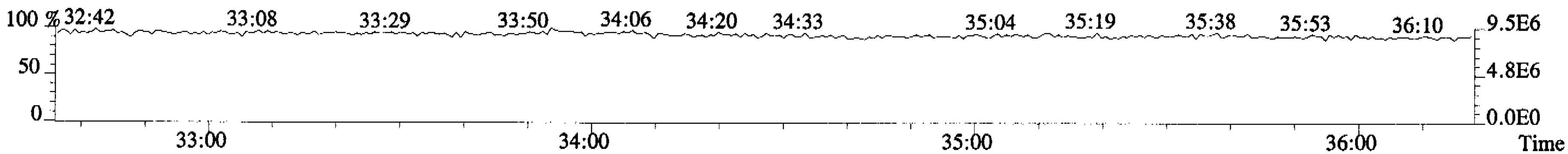
401.8559 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



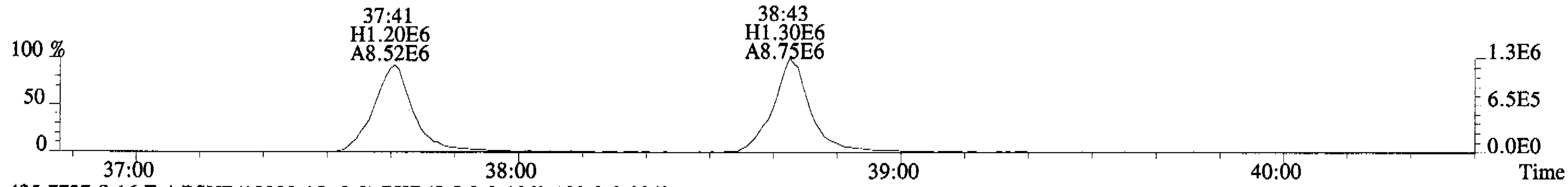
403.8530 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



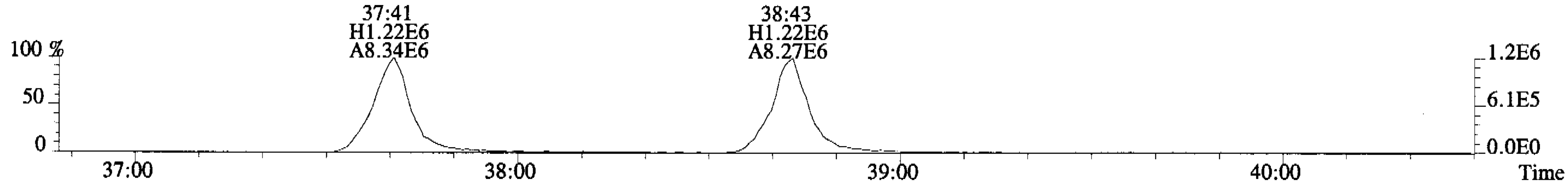
380.9760 S:16 F:3



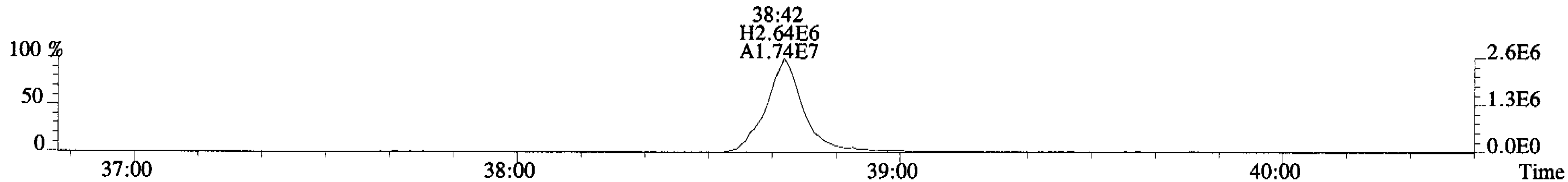
File:060920C2 #1-400 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
423.7767 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



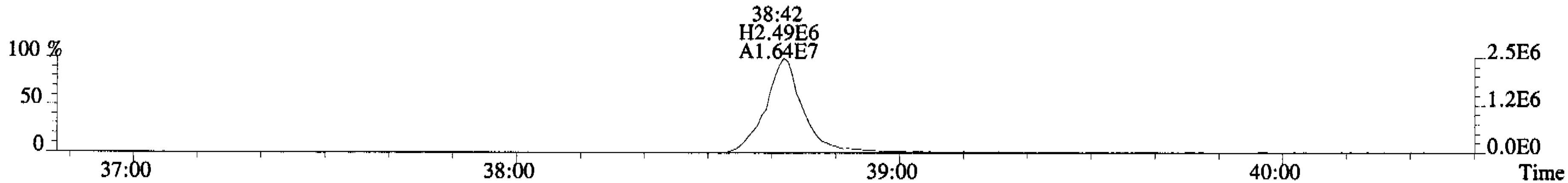
425.7737 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



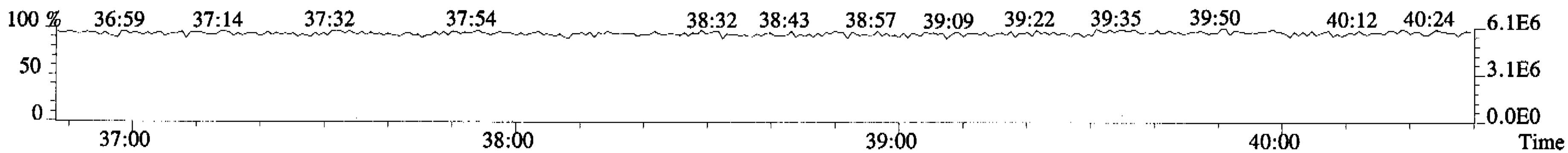
435.8169 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



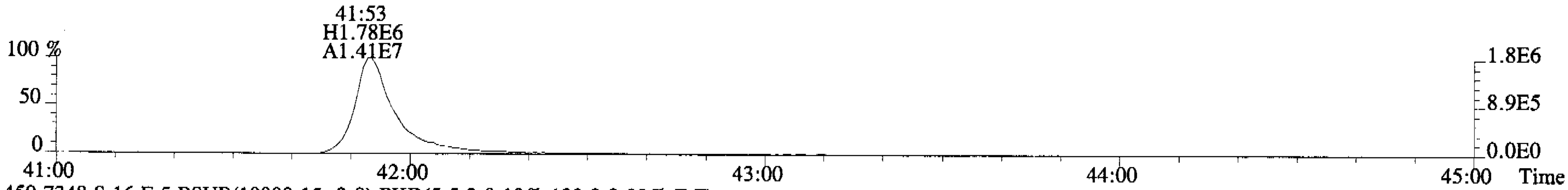
437.8140 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



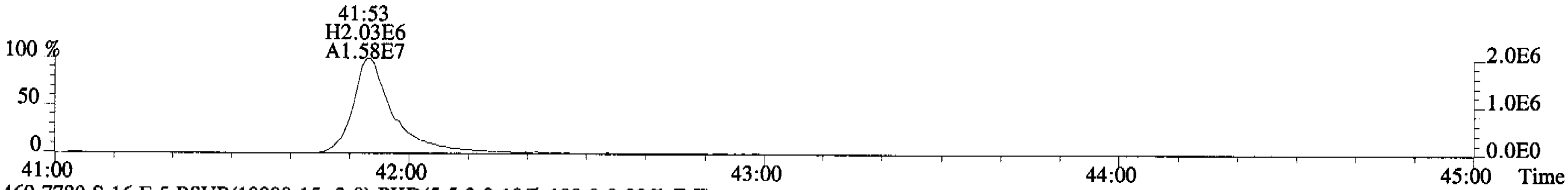
430.9728 S:16 F:4



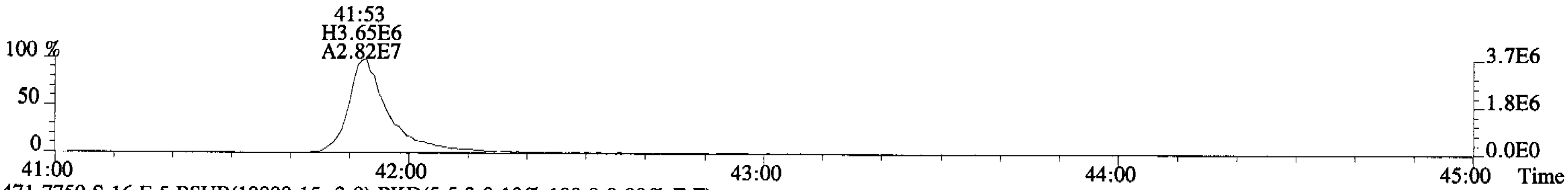
File:060920C2 #1-345 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
457.7377 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



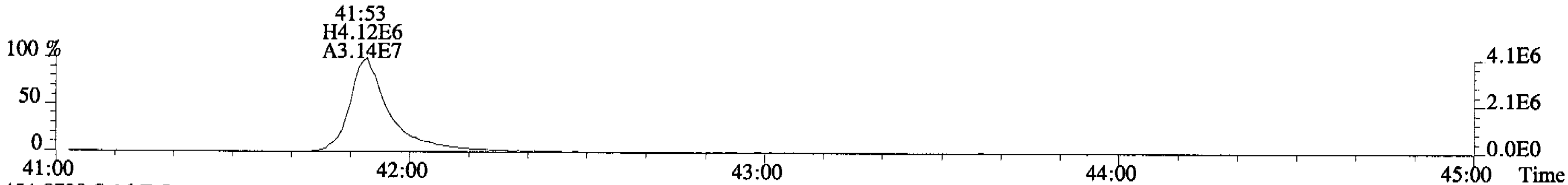
459.7348 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



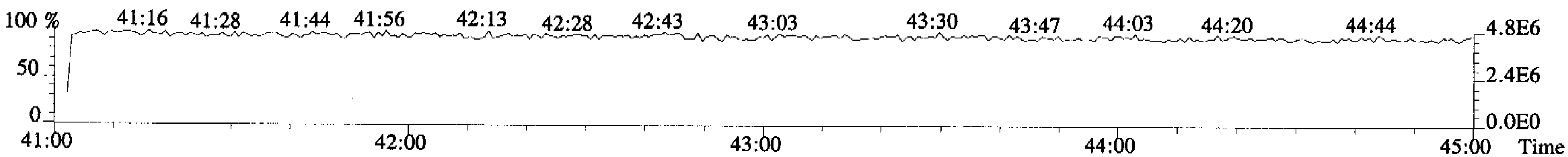
469.7780 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



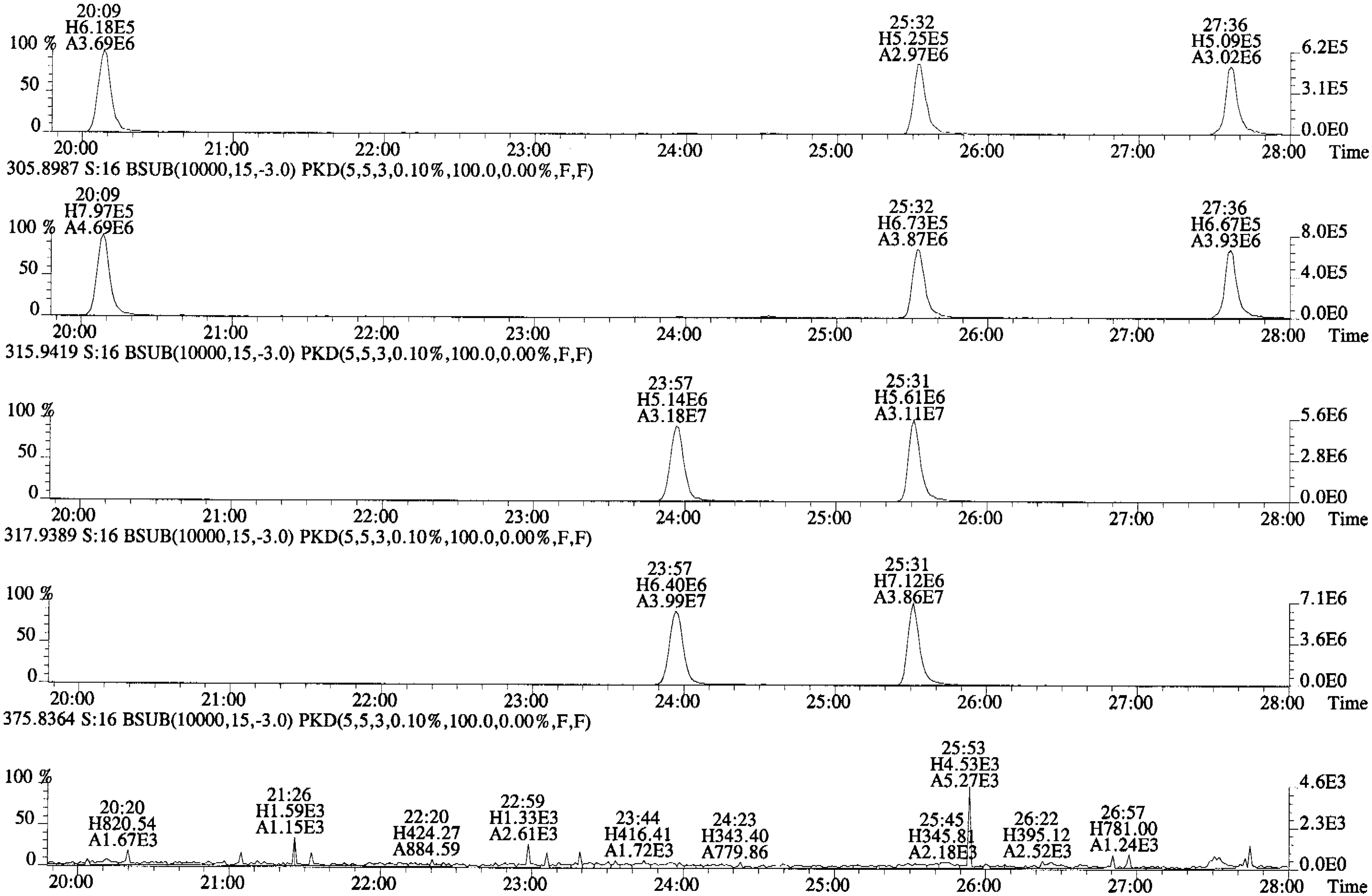
471.7750 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



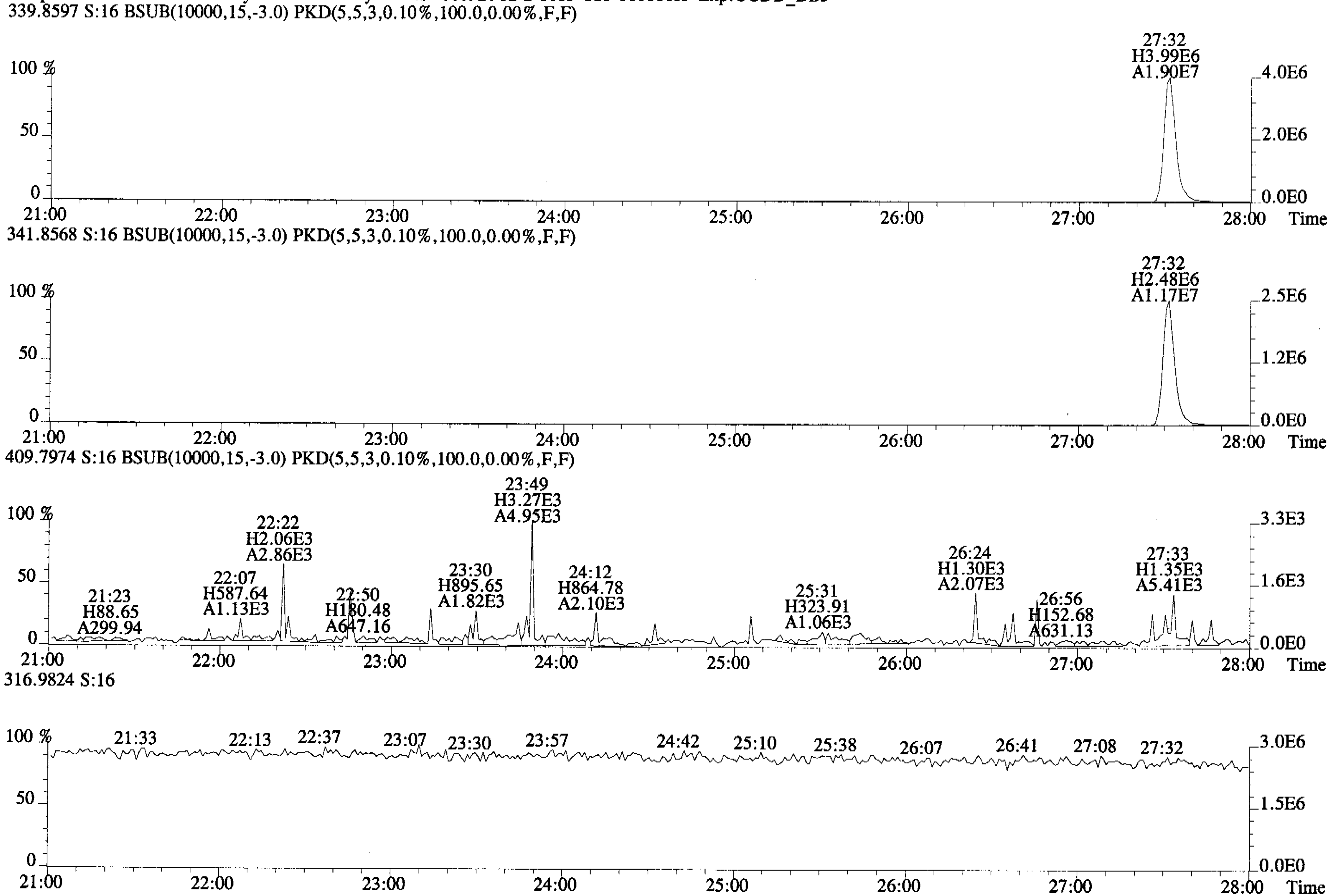
454.9728 S:16 F:5



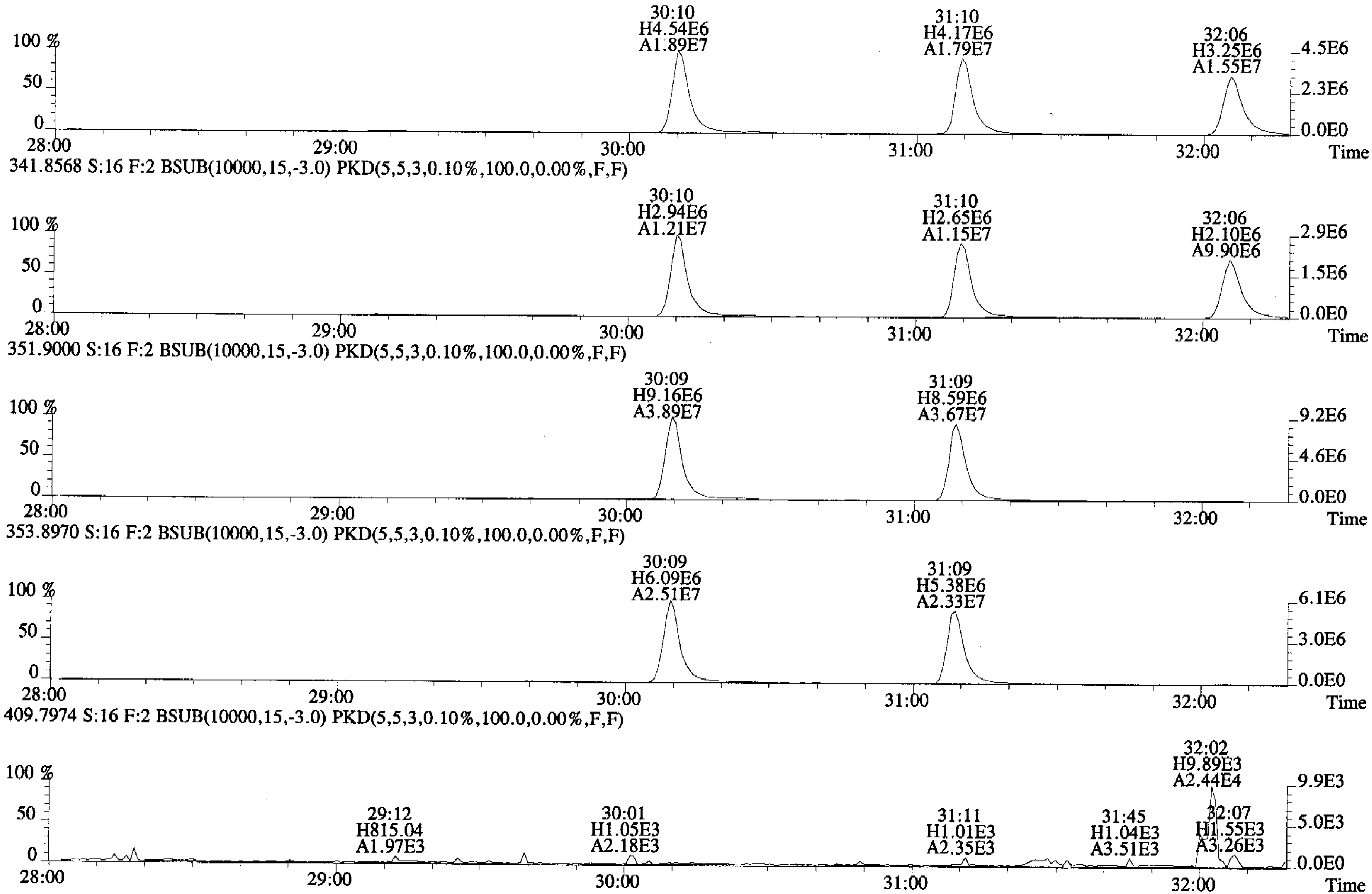
File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
303.9016 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



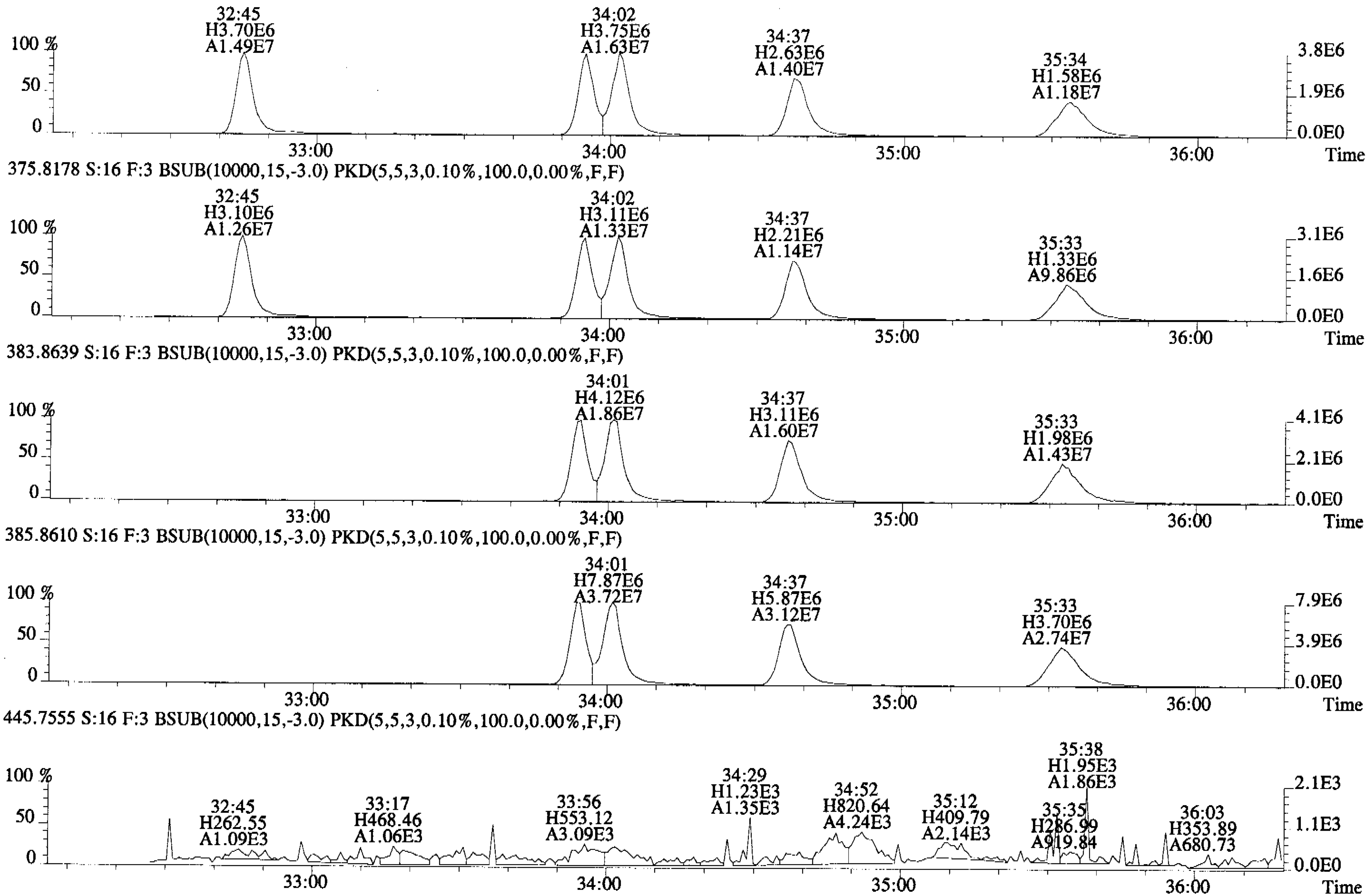
File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5



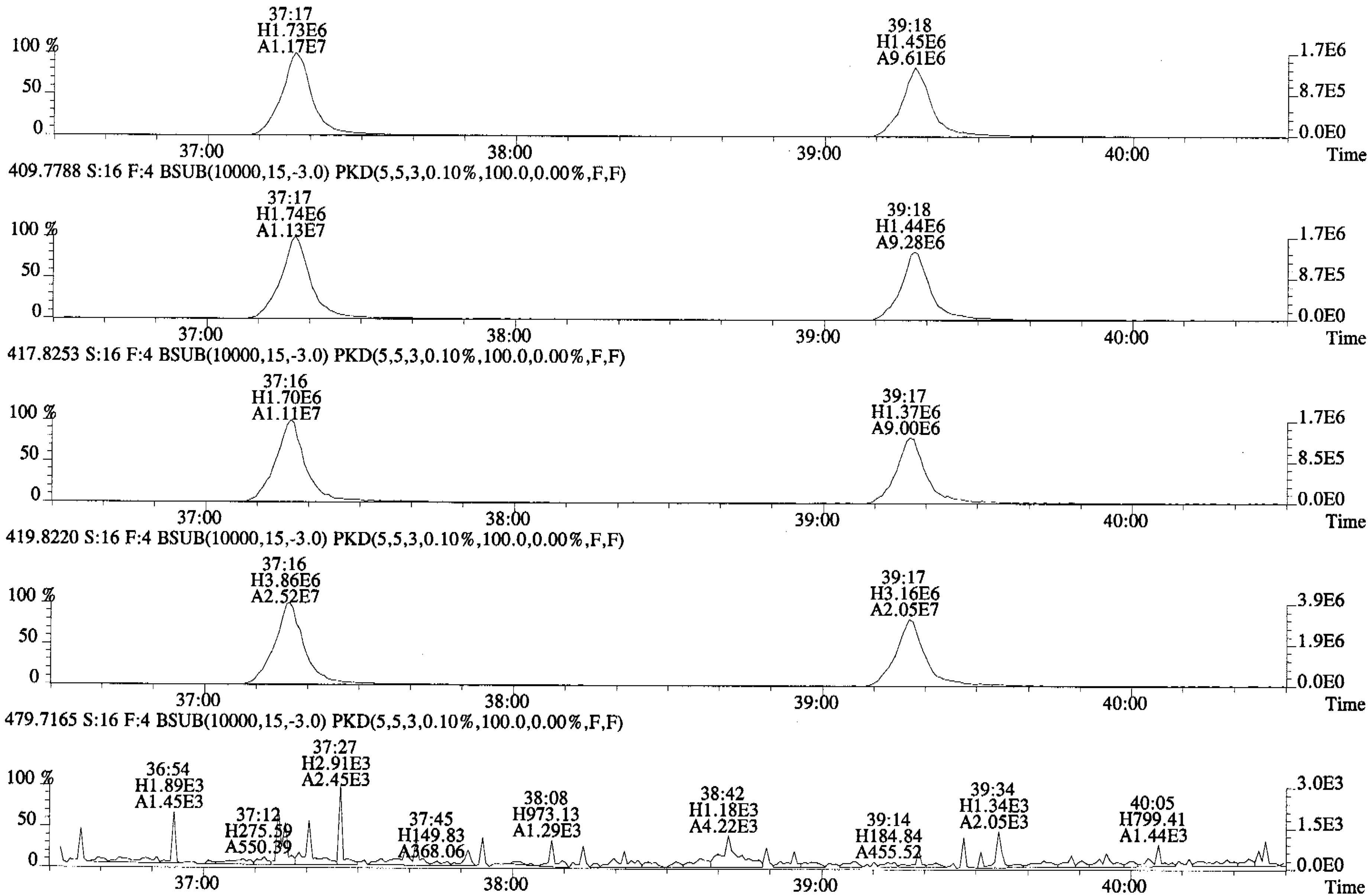
File:060920C2 #1-324 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
339.8597 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



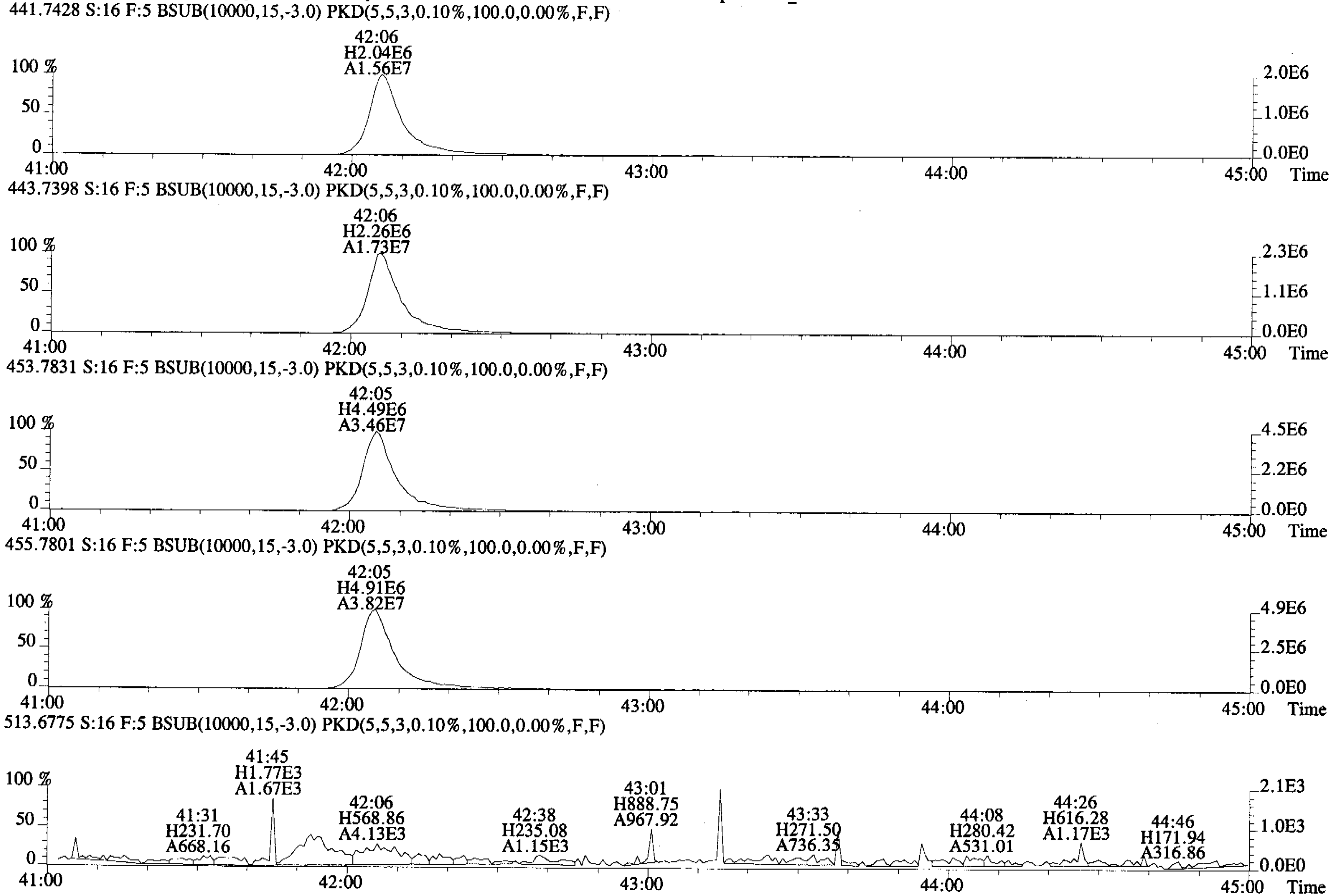
File:060920C2 #1-363 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
373.8207 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-400 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
407.7818 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

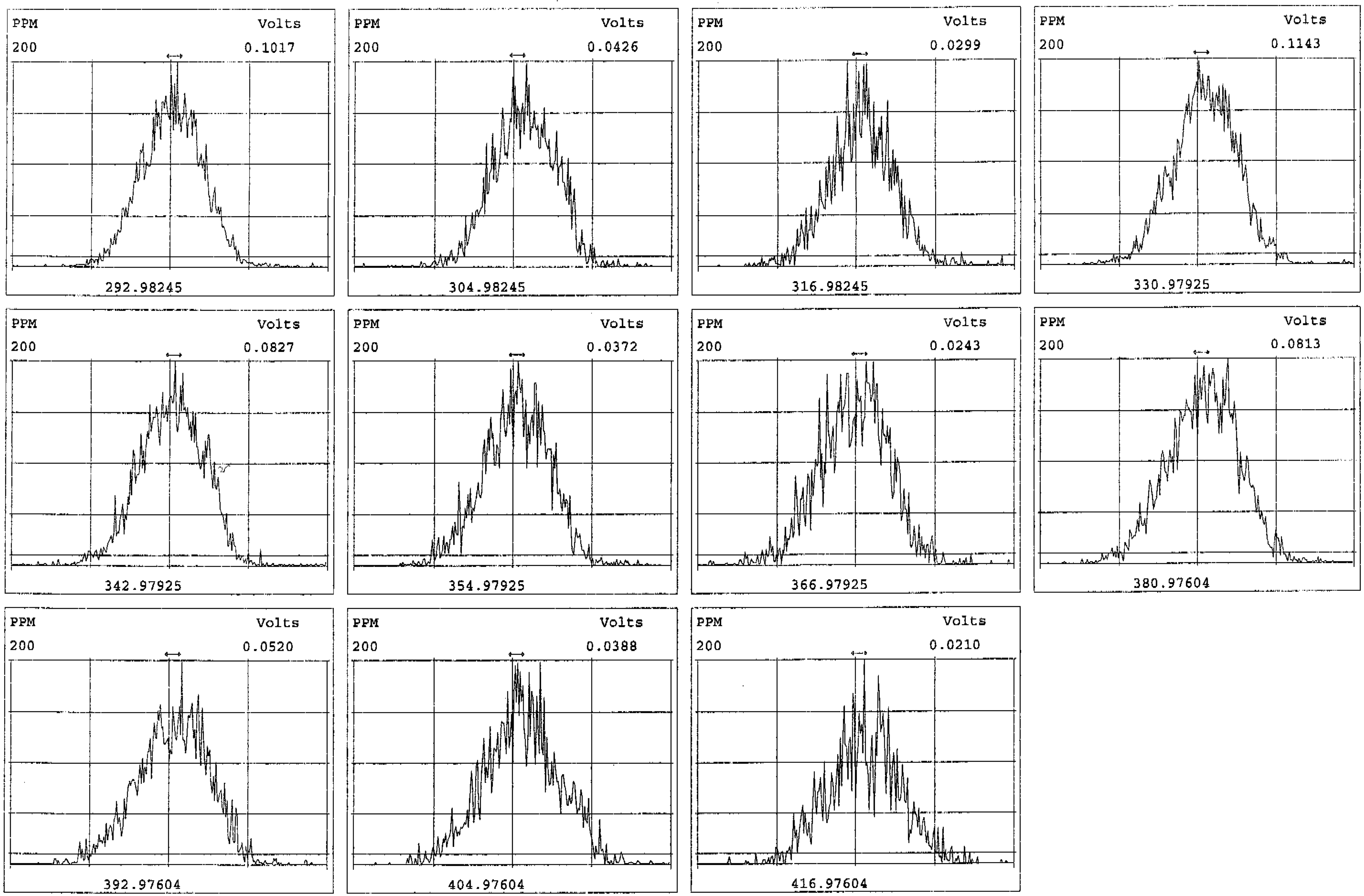


File:060920C2 #1-345 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5



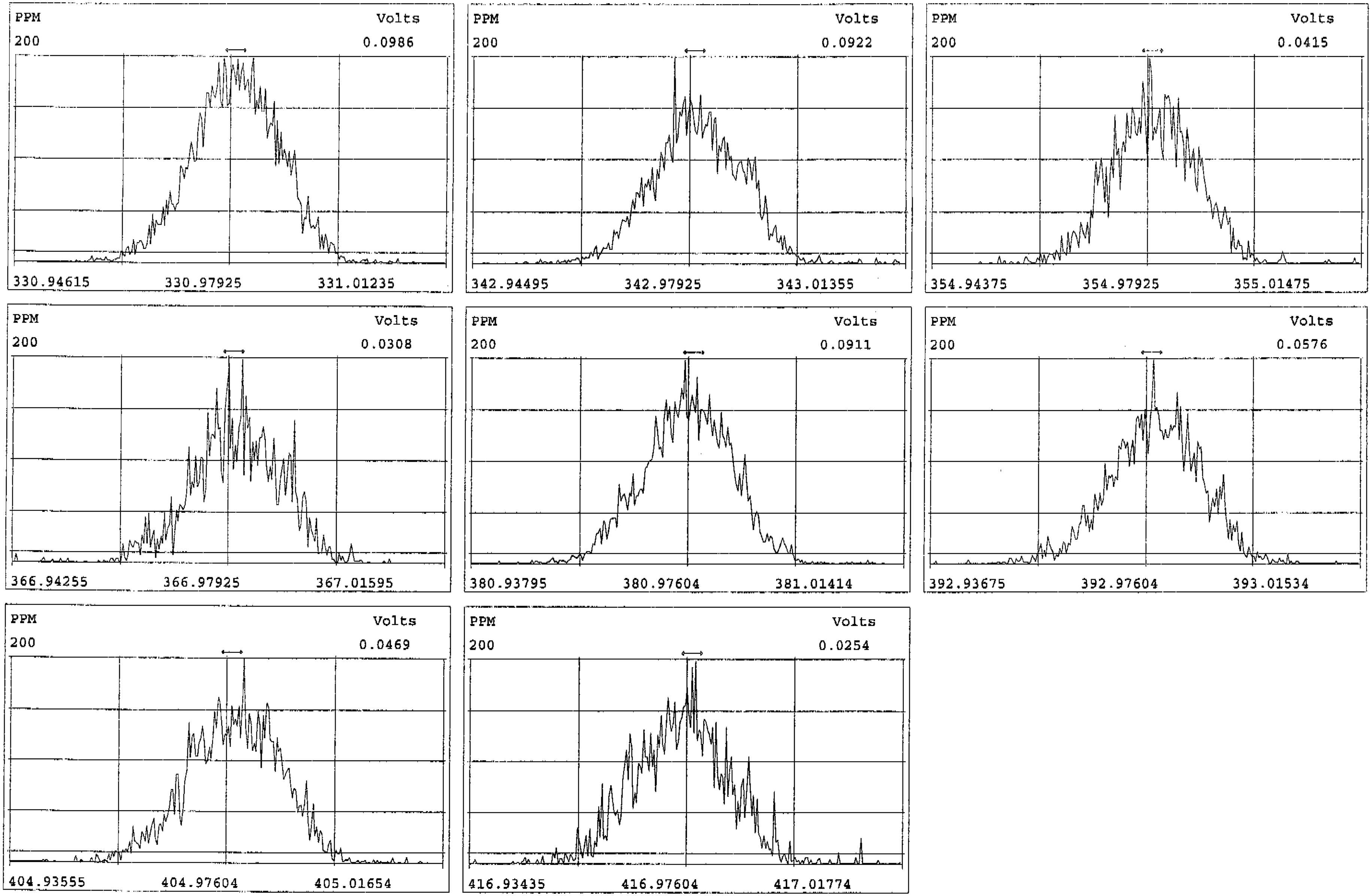
Peak Locate Examination:21-SEP-2006:04:31 File:RES_CHECK

Experiment:OCDD_DB5 Function:1 Reference:PFK



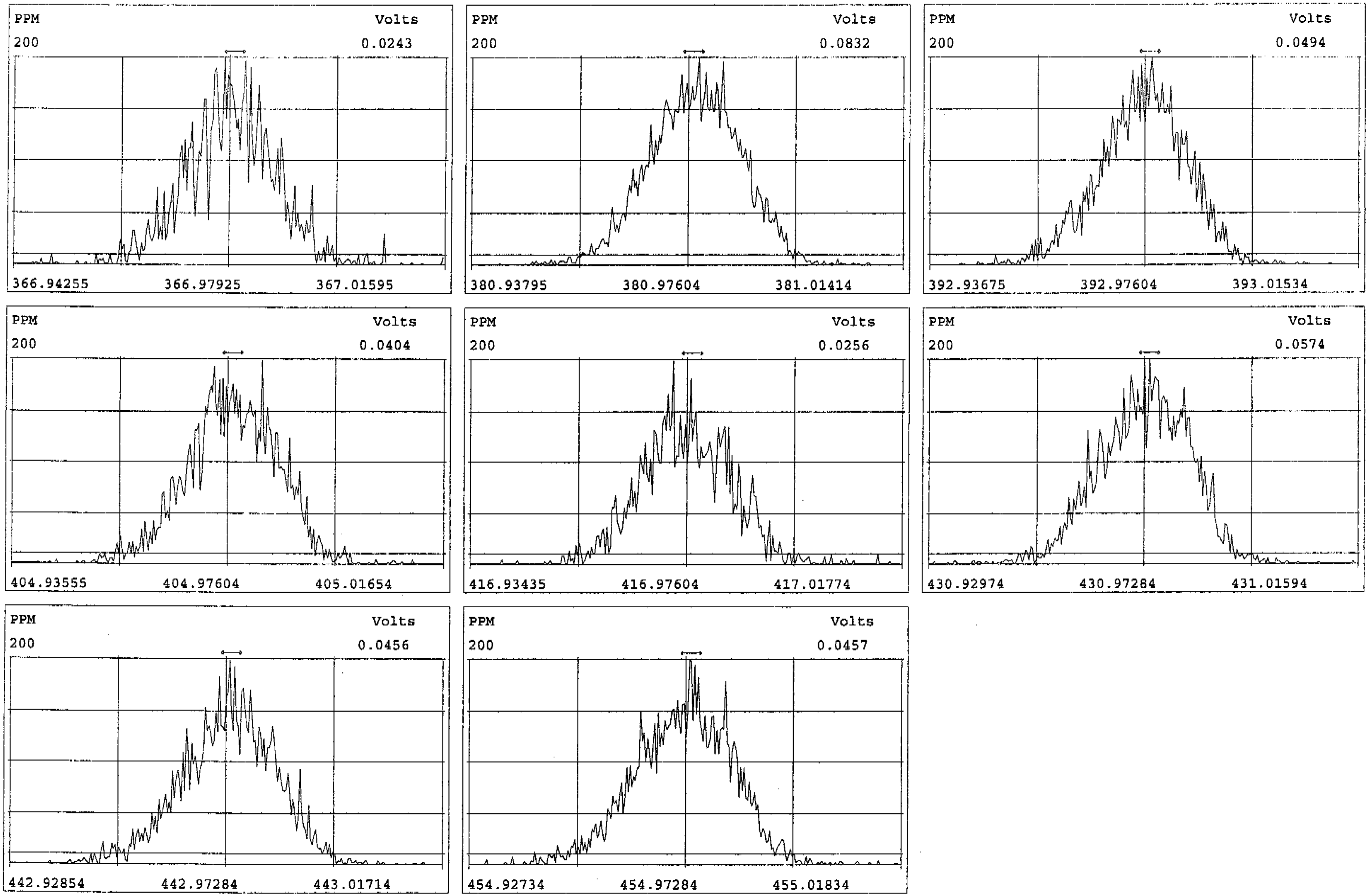
Peak Locate Examination:21-SEP-2006:04:32 File:RES_CHECK

Experiment:OCDD_DB5 Function:2 Reference:PFK



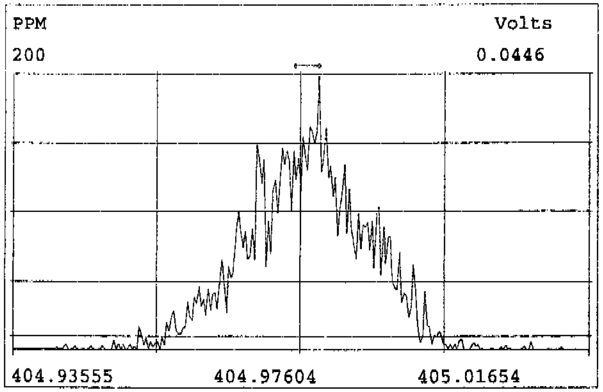
Peak Locate Examination:21-SEP-2006:04:33 File:RES_CHECK

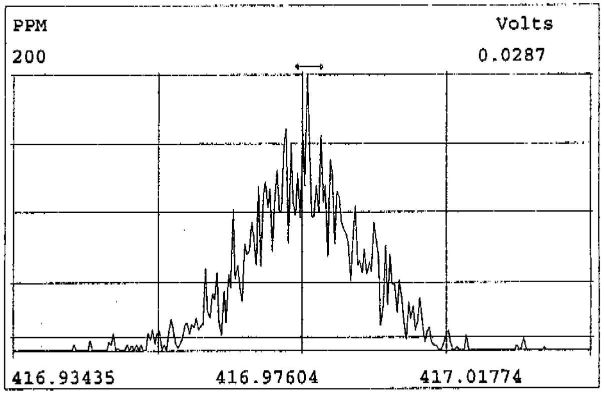
Experiment:OCDD_DB5 Function:3 Reference:PFK

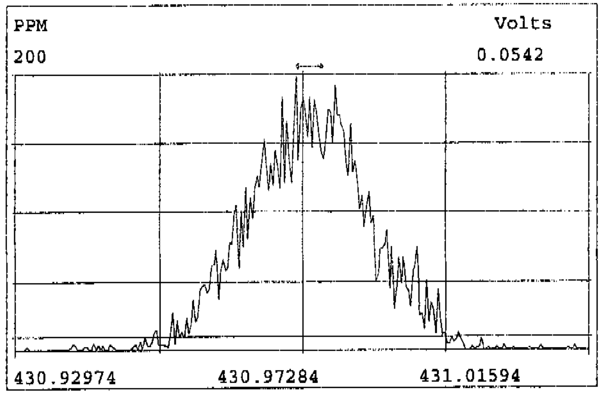


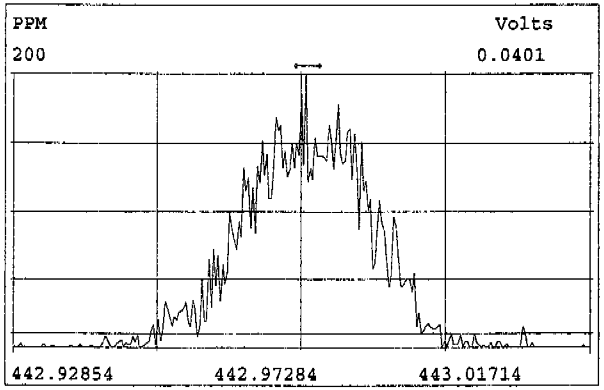
Peak Locate Examination:21-SEP-2006:04:34 File:RES_CHECK

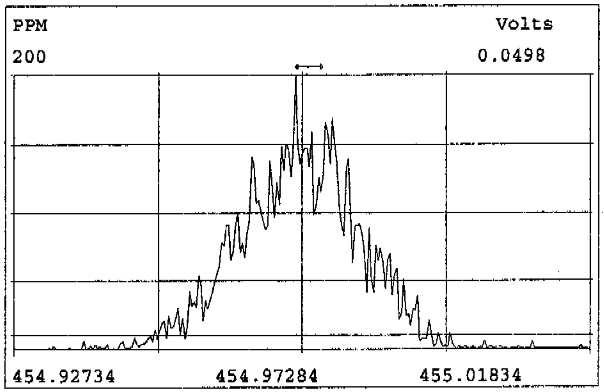
Experiment:OCDD_DB5 Function:4 Reference:PFK

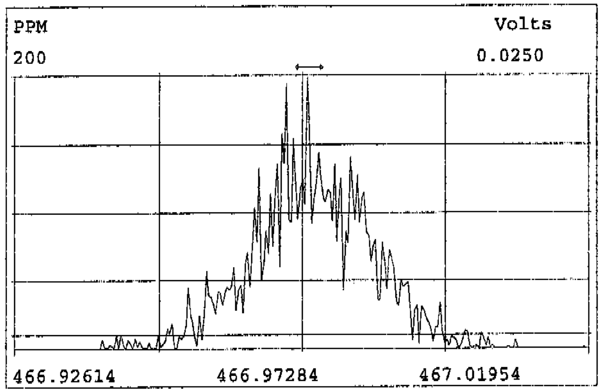


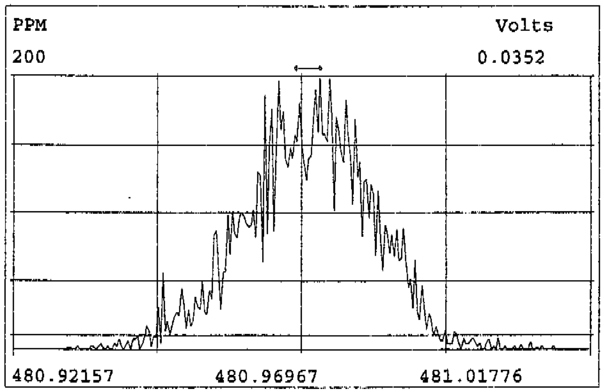






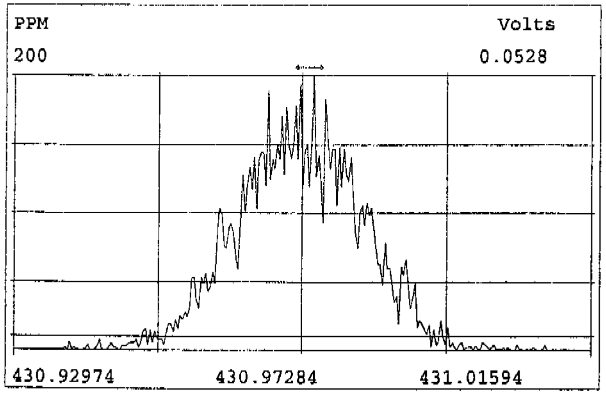


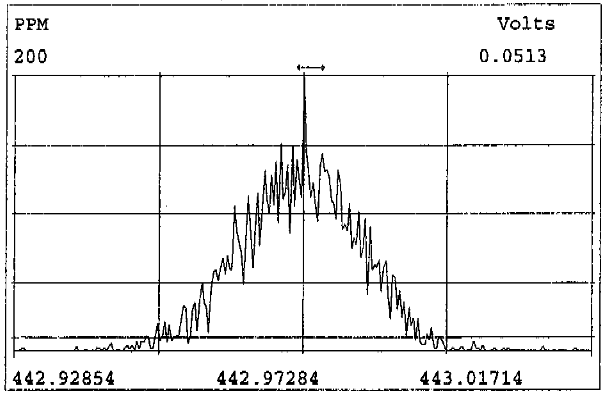


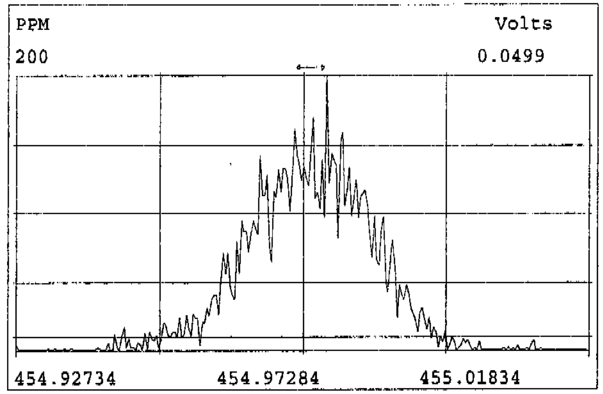


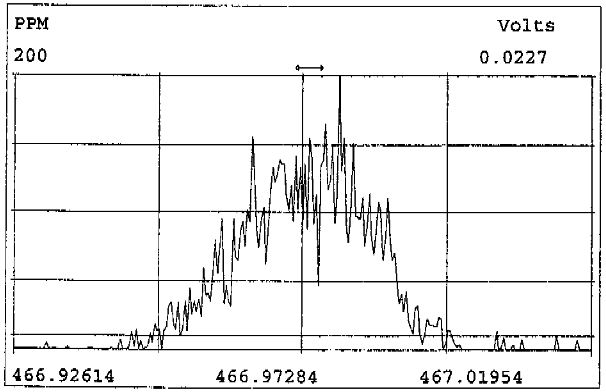
Peak Locate Examination:21-SEP-2006:04:35 File:RES_CHECK

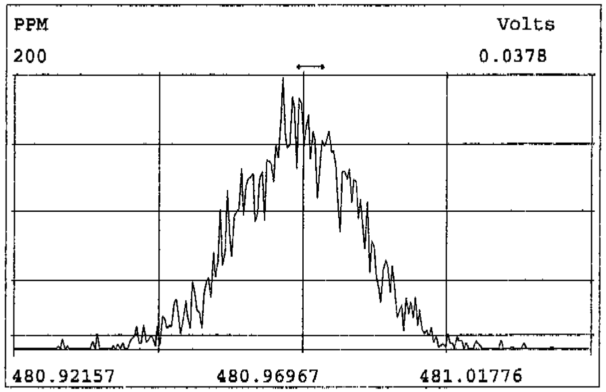
Experiment:OCDD_DB5 Function:5 Reference:PFK

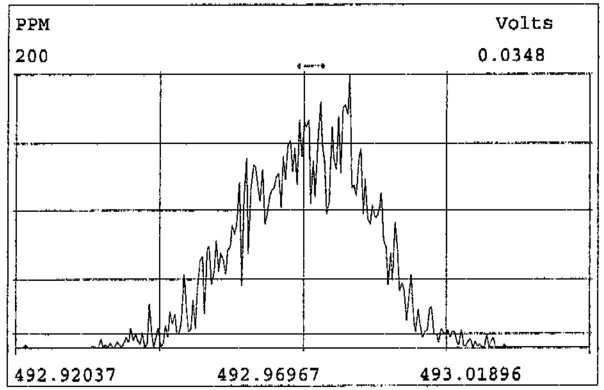


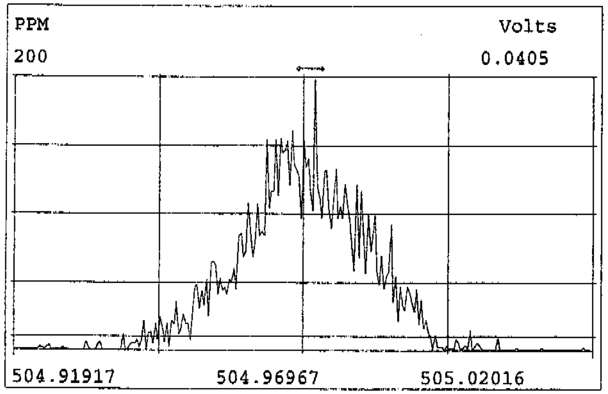


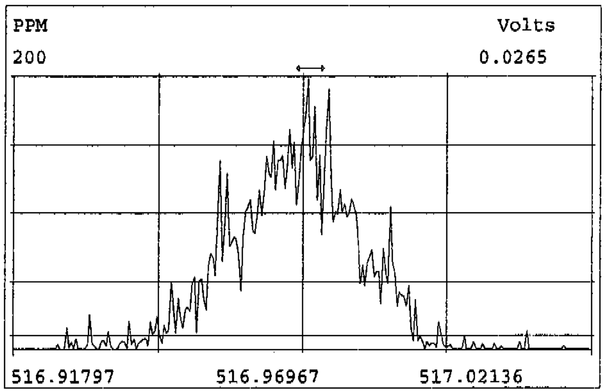












SAMPLE DATA

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	*	* n	1.08	NotFnd	*		1130	2.5	1.20
1,2,3,7,8-PeCDD	*	* n	1.03	NotFnd	*		1970	2.5	1.85
1,2,3,4,7,8-HxCDD	*	* n	1.13	NotFnd	*		775	2.5	1.14
1,2,3,6,7,8-HxCDD	*	* n	1.03	NotFnd	*		775	2.5	1.19
1,2,3,7,8,9-HxCDD	*	* n	1.12	NotFnd	*		775	2.5	1.13
1,2,3,4,6,7,8-HpCDD	*	* n	1.02	NotFnd	*		1030	2.5	2.51
OCDD	*	* n	1.06	NotFnd	*		1640	2.5	4.89
2,3,7,8-TCDF	*	* n	1.06	NotFnd	*		1530	2.5	1.33
1,2,3,7,8-PeCDF	*	* n	1.01	NotFnd	*		1810	2.5	1.97
2,3,4,7,8-PeCDF	*	* n	1.02	NotFnd	*		1810	2.5	2.01
1,2,3,4,7,8-HxCDF	*	* n	1.15	NotFnd	*		961	2.5	0.613
1,2,3,6,7,8-HxCDF	*	* n	1.14	NotFnd	*		961	2.5	0.579
2,3,4,6,7,8-HxCDF	*	* n	1.17	NotFnd	*		961	2.5	0.710
1,2,3,7,8,9-HxCDF	*	* n	1.10	NotFnd	*		961	2.5	1.63
1,2,3,4,6,7,8-HpCDF	*	* n	1.31	NotFnd	*		868	2.5	1.21
1,2,3,4,7,8,9-HpCDF	*	* n	1.33	NotFnd	*		868	2.5	1.60
OCDF	*	* n	0.91	NotFnd	*		1190	2.5	3.80

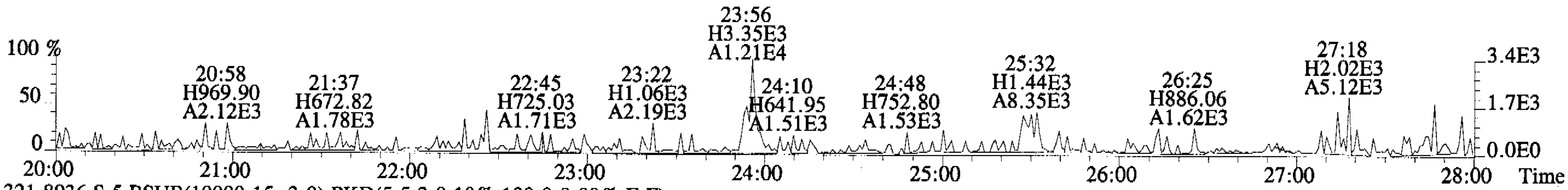
Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		1130	1.20
Total Penta-Dioxins	*	*		4610	4.32
Total Hexa-Dioxins	*	*		775	1.16
Total Hepta-Dioxins	*	*		1030	2.51
Total Tetra-Furans	*	*		1530	1.33
Total Penta-Furans	0.0000	0.0000		3110	3.42
Total Hexa-Furans	*	*		961	0.802
Total Hepta-Furans	*	*		868	1.37

	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	3.65e+07	0.80 y	1.09	26:24	1610.3	80.5	
IS	13C-1,2,3,7,8-PeCDD	3.10e+07	0.61 y	1.04	31:24	1428.4	71.4	
IS	13C-1,2,3,4,7,8-HxCDD	2.67e+07	1.25 y	0.83	34:43	1668.3	83.4	
IS	13C-1,2,3,6,7,8-HxCDD	3.32e+07	1.27 y	1.04	34:50	1654.0	82.7	
IS	13C-1,2,3,4,6,7,8-HpCDD	2.54e+07	1.05 y	0.85	38:39	1542.3	77.1	
IS	13C-OCDD	3.87e+07	0.89 y	0.71	41:51	2809.4	70.2	
IS	13C-2,3,7,8-TCDF	4.93e+07	0.78 y	0.96	25:30	1601.3	80.1	
IS	13C-1,2,3,7,8-PeCDF	4.75e+07	1.60 y	1.02	30:08	1453.4	72.7	
IS	13C-2,3,4,7,8-PeCDF	4.29e+07	1.57 y	1.02	31:07	1310.4	65.5	
IS	13C-1,2,3,4,7,8-HxCDF	3.96e+07	0.52 y	1.14	33:52	1788.7	89.4	
IS	13C-1,2,3,6,7,8-HxCDF	4.61e+07	0.52 y	1.40	33:59	1702.5	85.1	
IS	13C-2,3,4,6,7,8-HxCDF	3.91e+07	0.51 y	1.26	34:35	1603.0	80.1	
IS	13C-1,2,3,7,8,9-HxCDF	2.67e+07	0.51 y	1.08	35:30	1275.4	63.8	
IS	13C-1,2,3,4,6,7,8-HpCDF	2.54e+07	0.45 y	0.93	37:14	1405.3	70.3	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.72e+07	0.42 y	0.77	39:14	1161.0	58.0	
IS	13C-OCDF	4.14e+07	0.88 y	0.94	42:03	2268.3	56.7	
C/Up	37Cl-2,3,7,8-TCDD	1.05e+07		0.77	26:25	653.51	81.7	
RS/RT	13C-1,2,3,4-TCDD	4.16e+07	0.83 y	1.00	25:42	2000.0		
RS	13C-1,2,3,4-TCDF	6.42e+07	0.78 y	1.00	23:56	2000.0		
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.87e+07	1.25 y	1.00	35:07	2000.0		

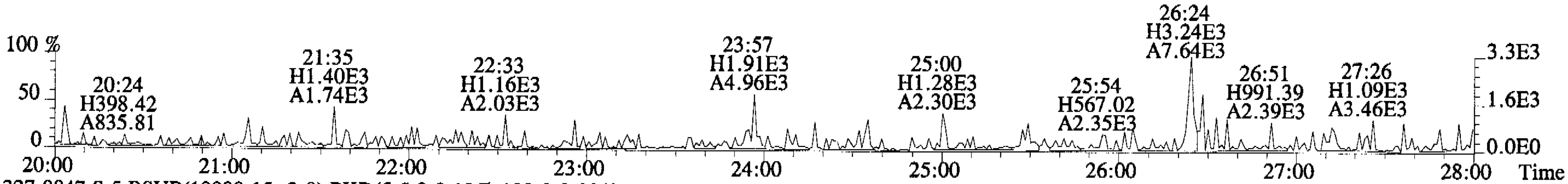
Integrations by Analyst: MD
Date: 9/21/06

Reviewed by Analyst: UK
Date: 9/21/06

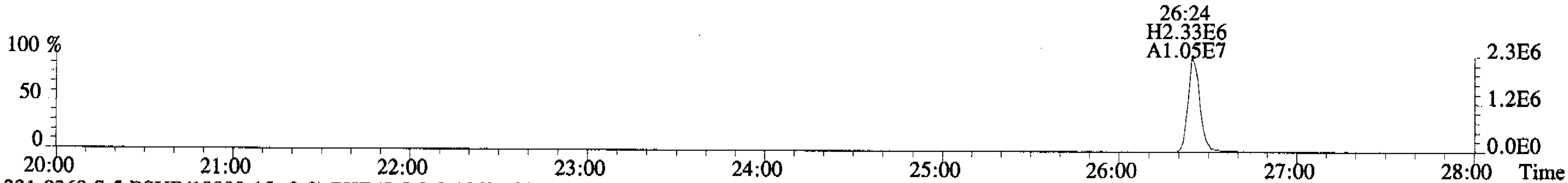
File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



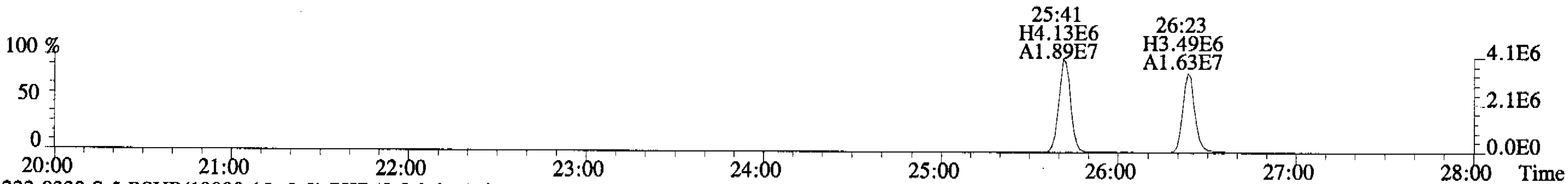
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



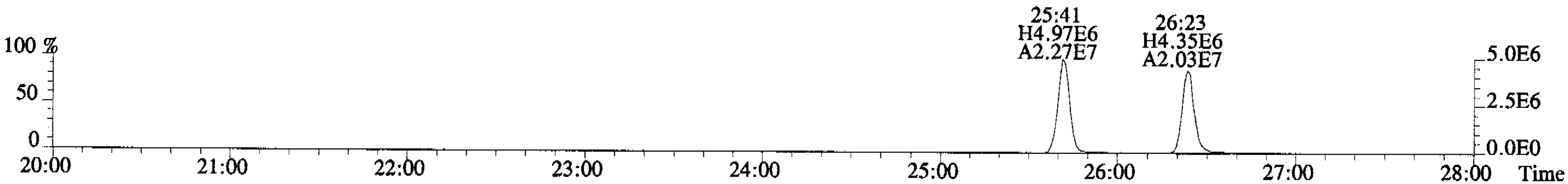
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



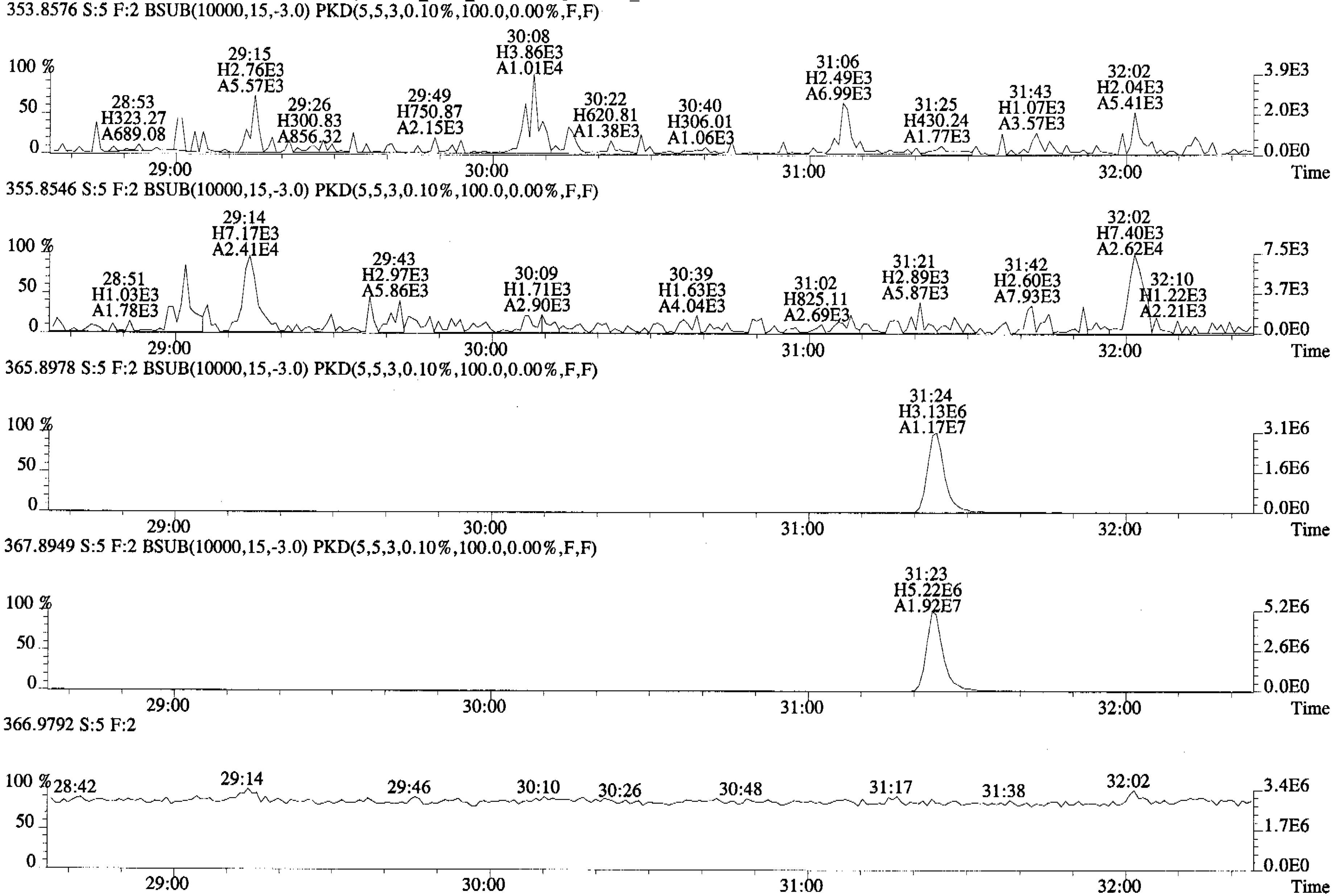
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

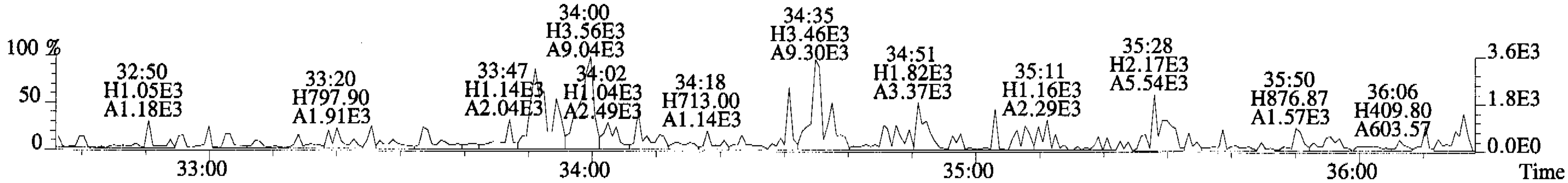


File:060920C2 #1-324 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5

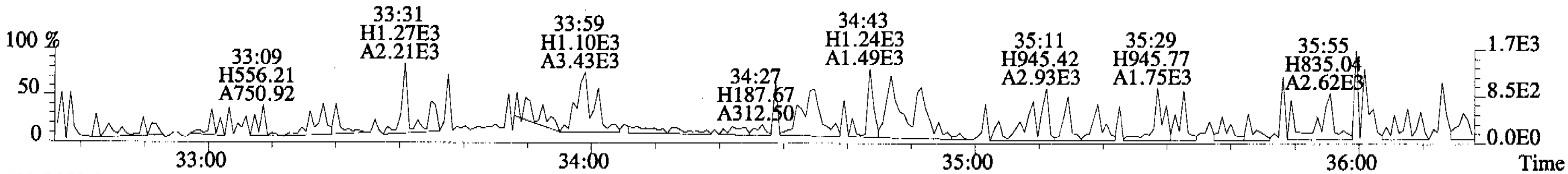


File:060920C2 #1-363 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5

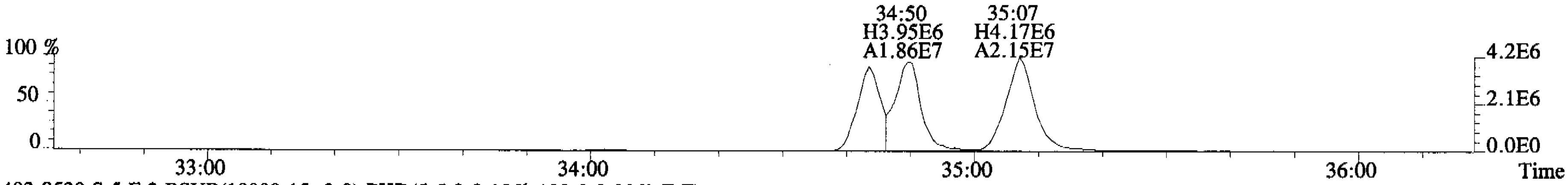
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



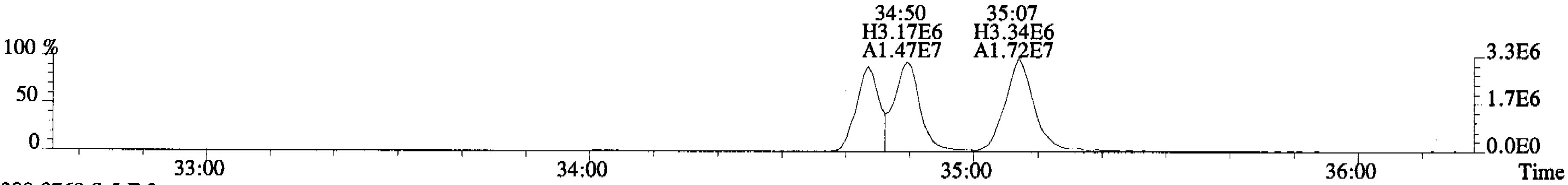
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



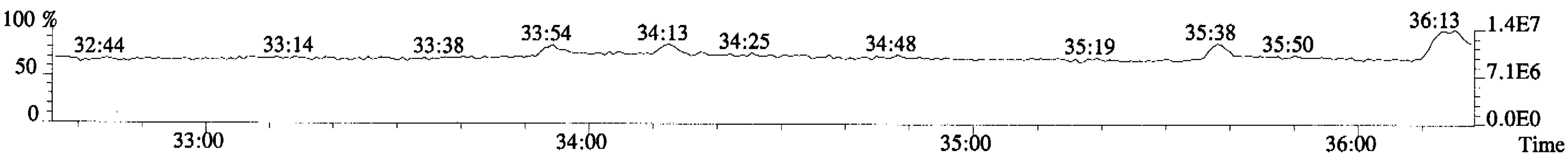
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



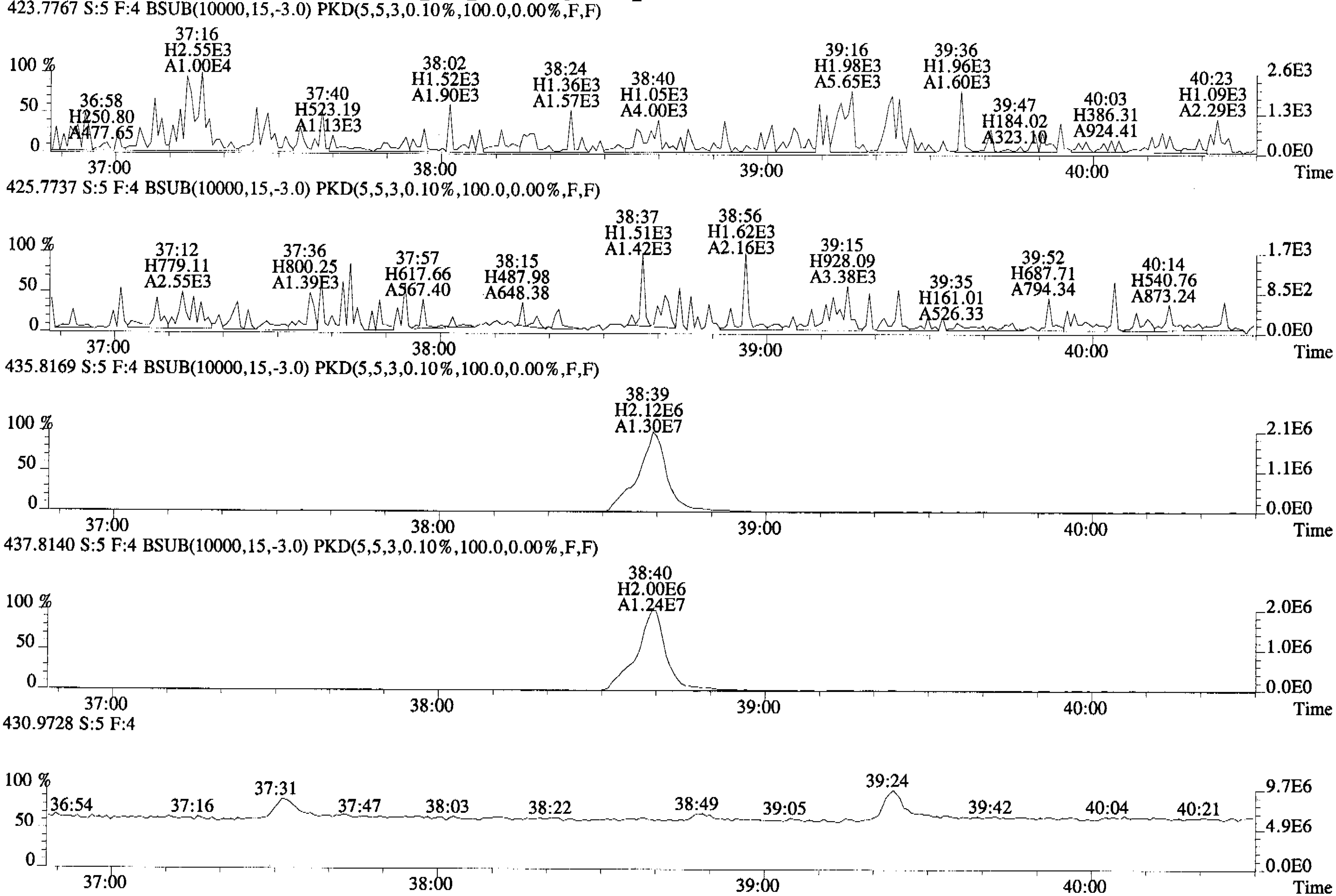
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



380.9760 S:5 F:3

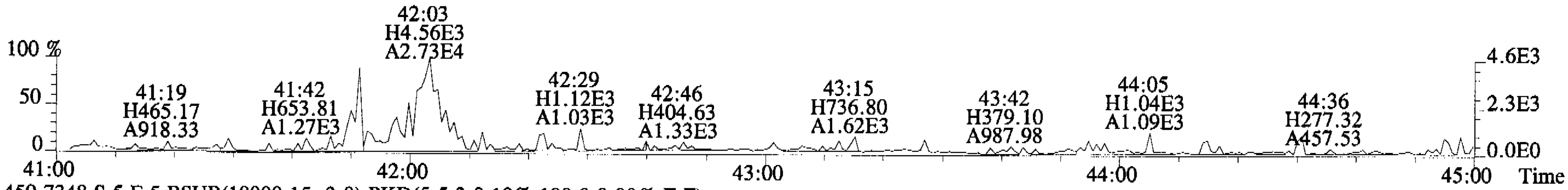


File:060920C2 #1-400 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5

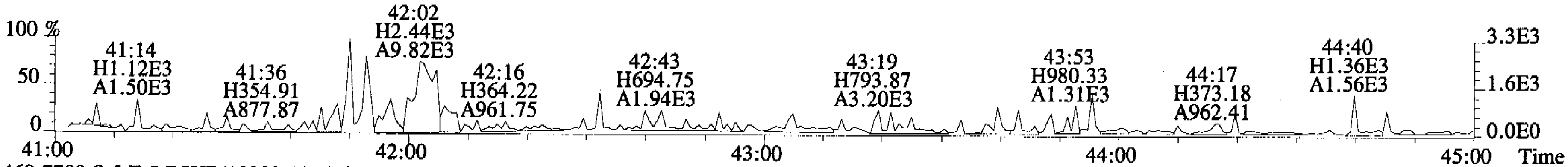


File:060920C2 #1-345 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5

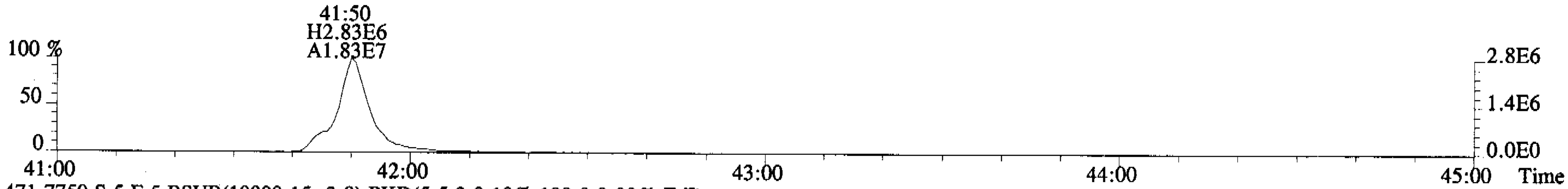
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



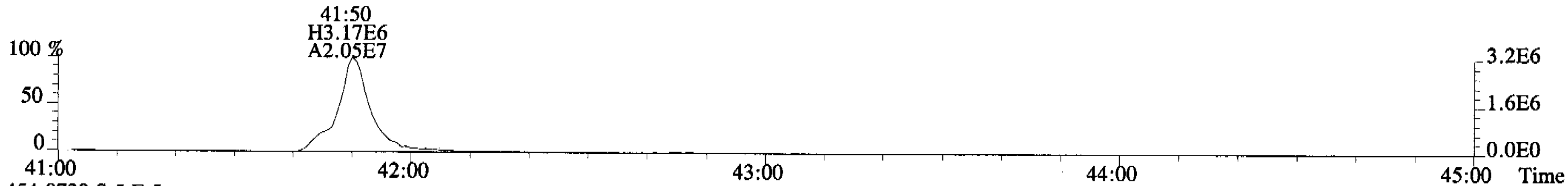
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



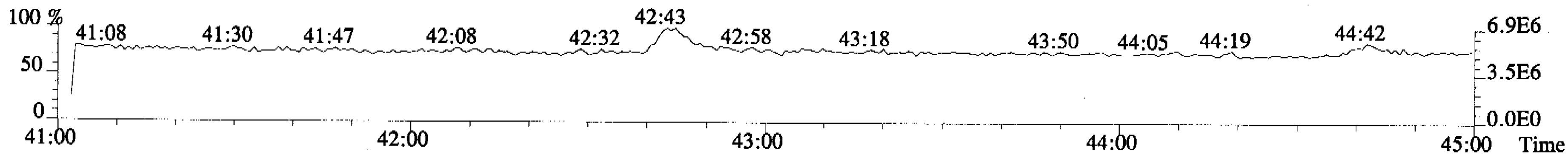
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



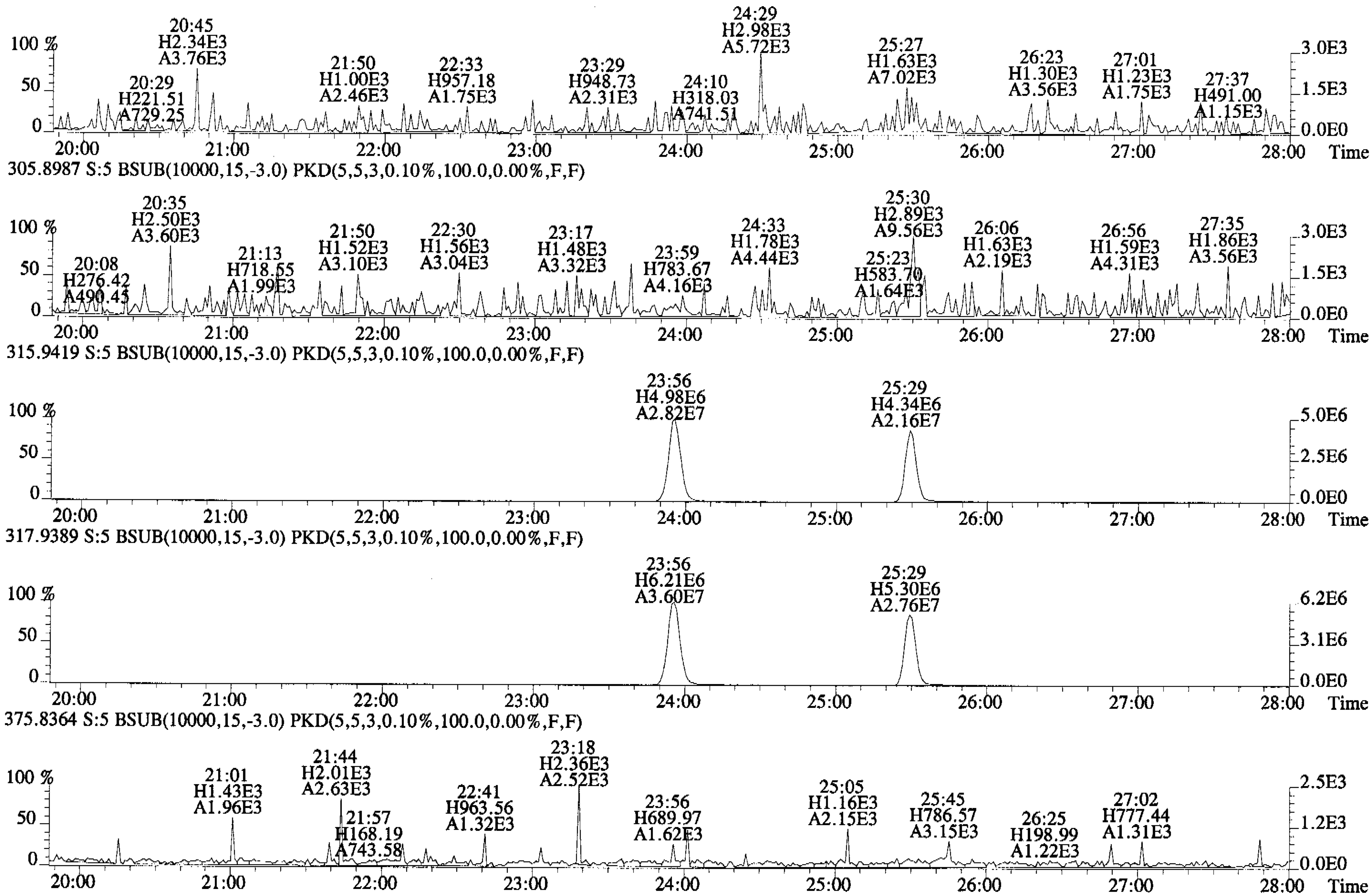
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



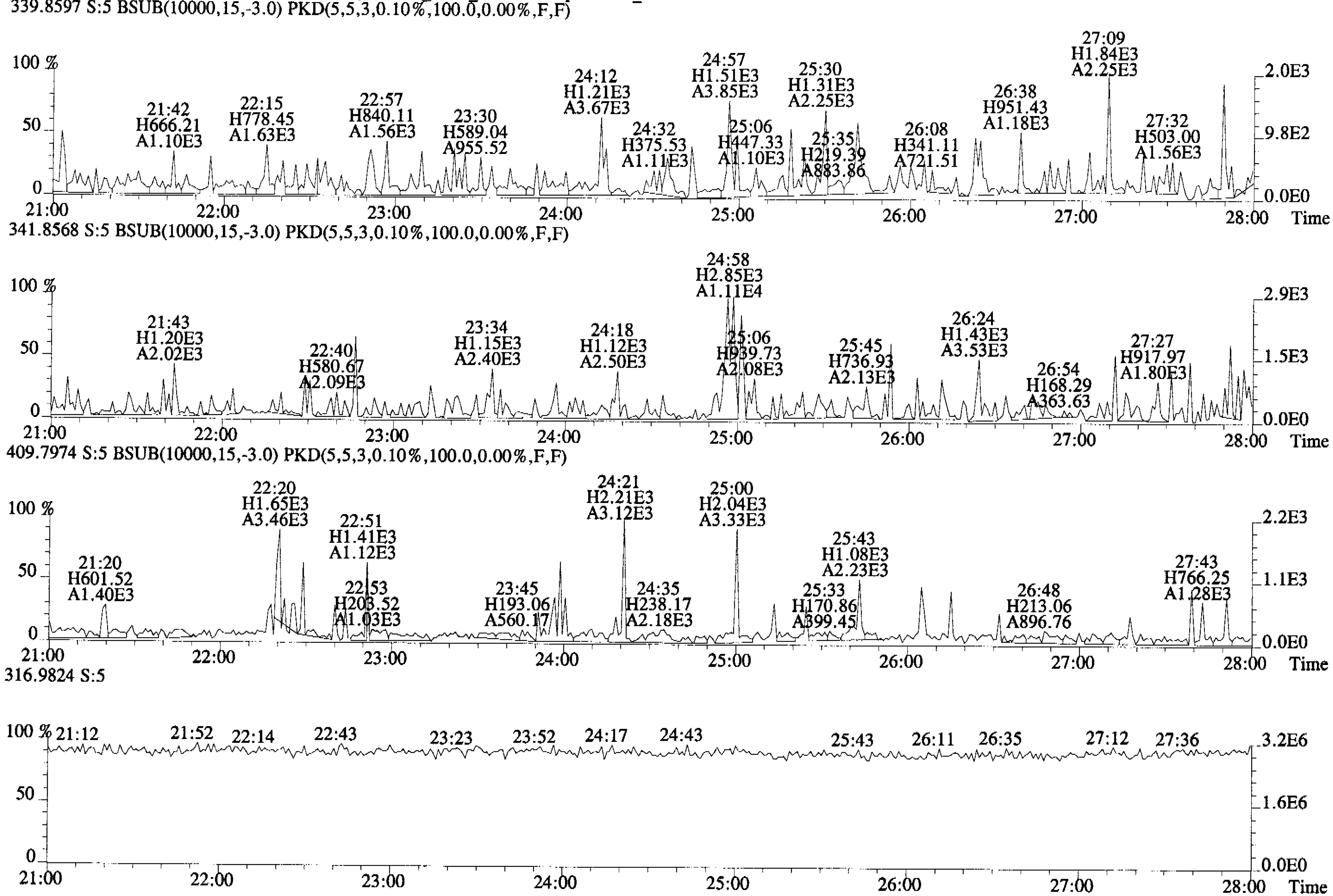
454.9728 S:5 F:5



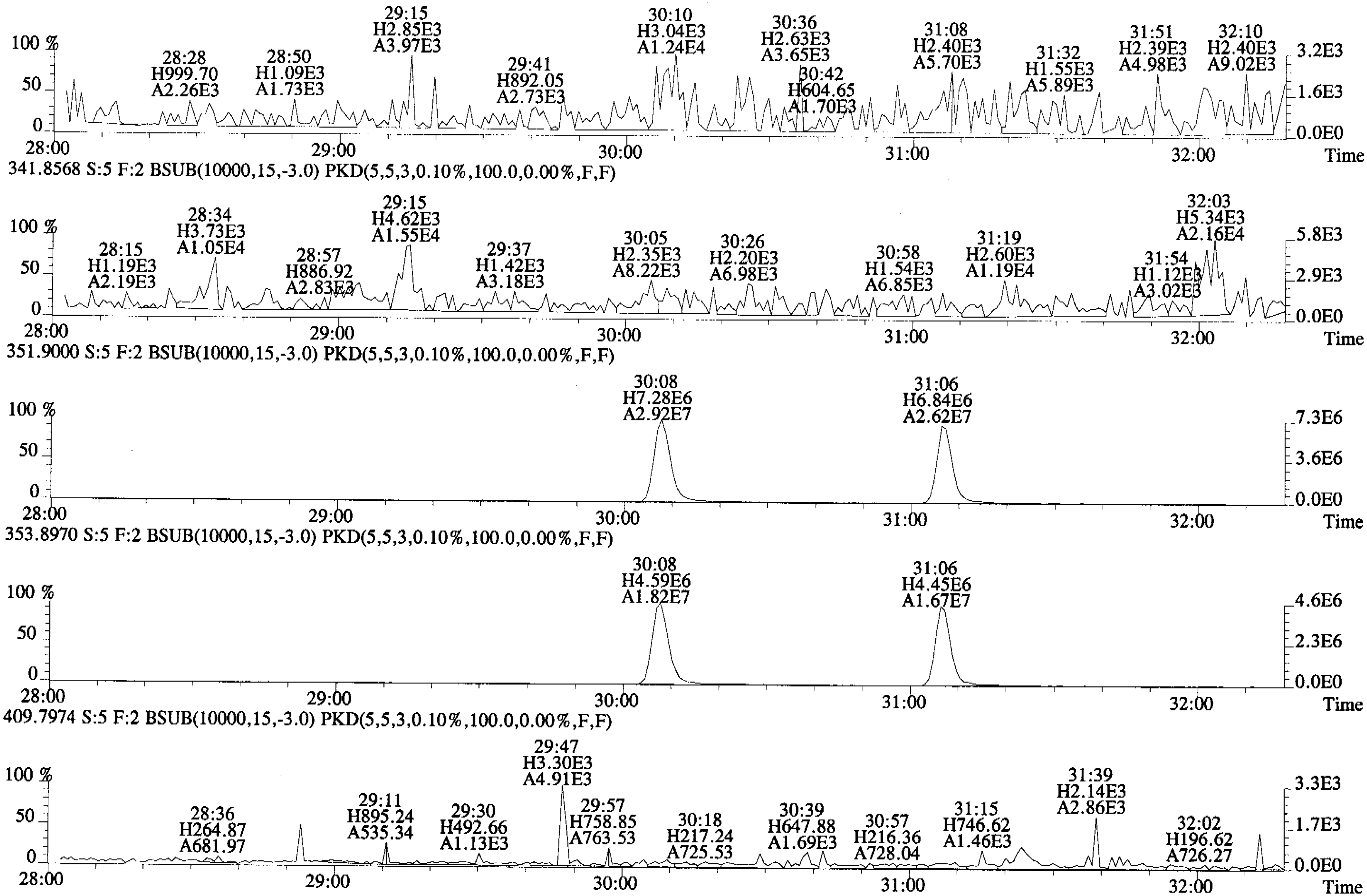
File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



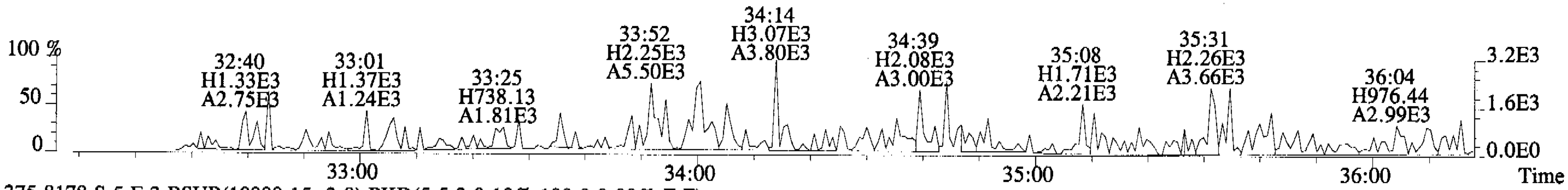
File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5



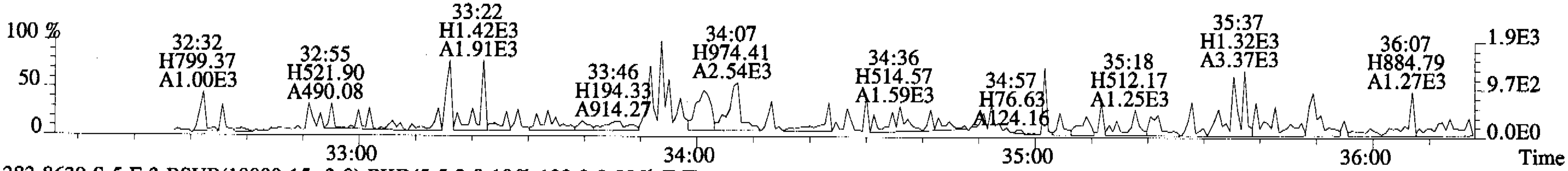
File:060920C2 #1-324 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



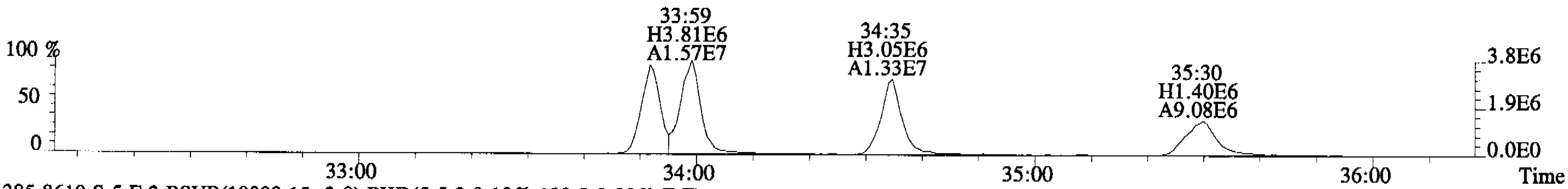
File:060920C2 #1-363 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



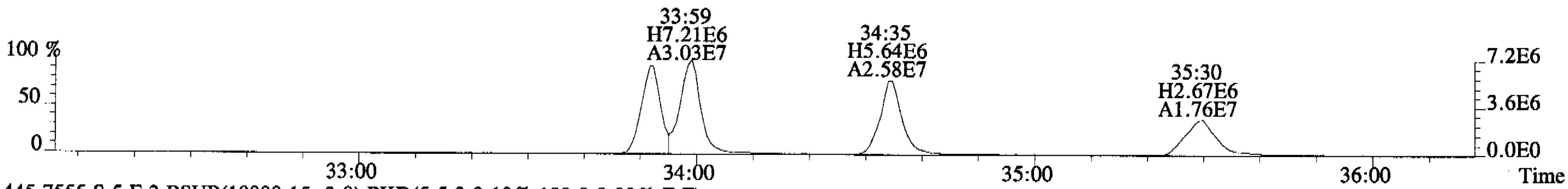
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



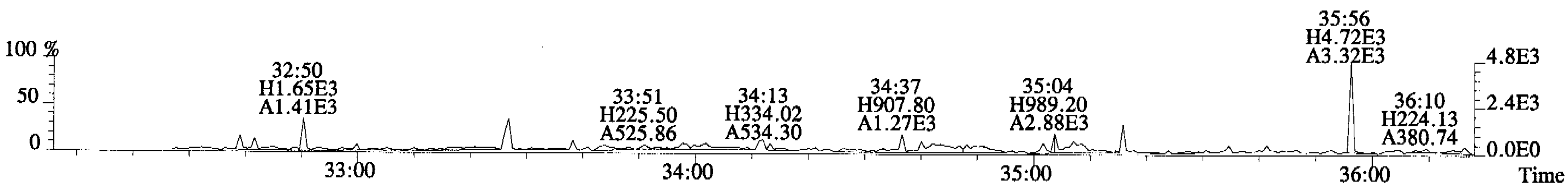
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



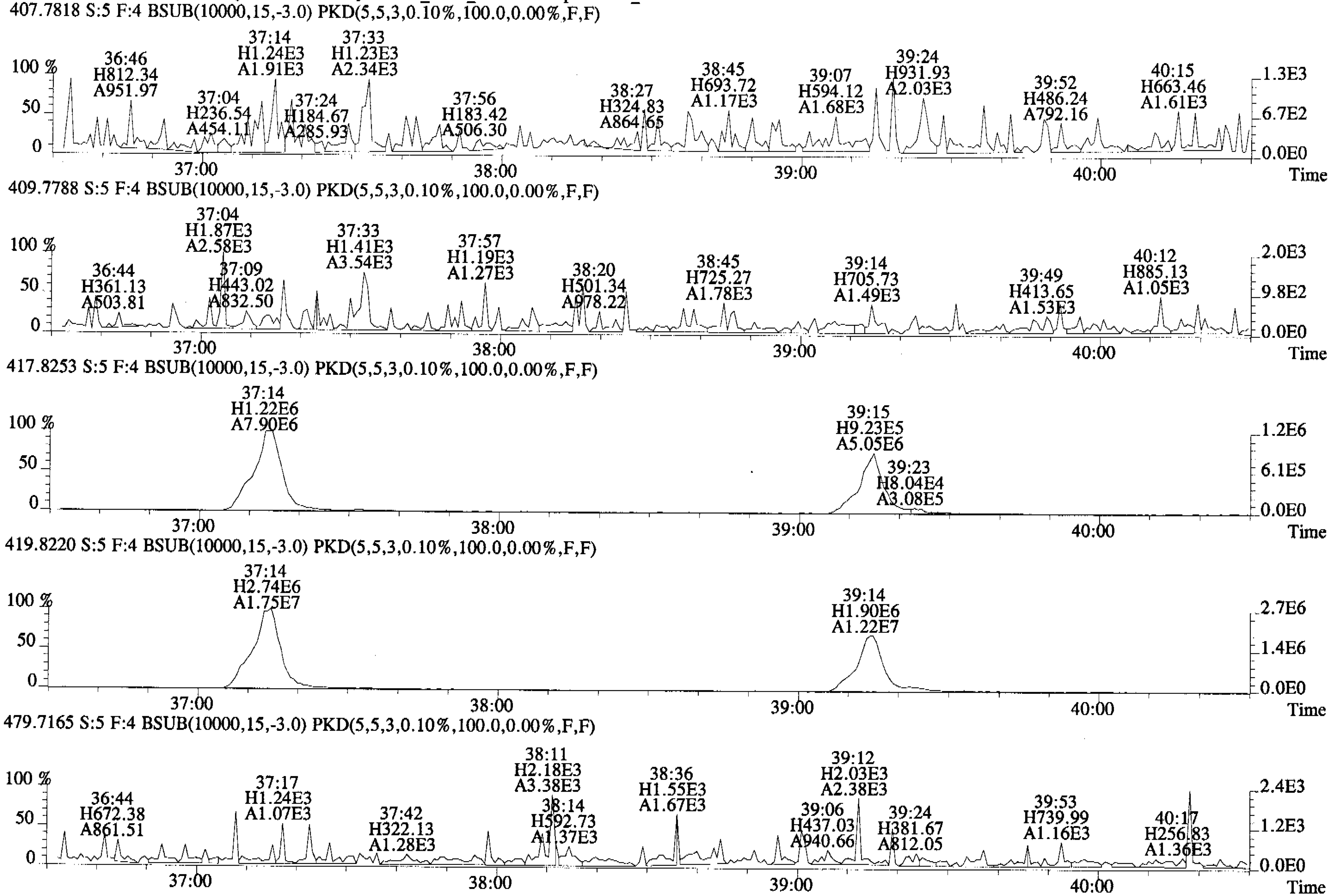
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



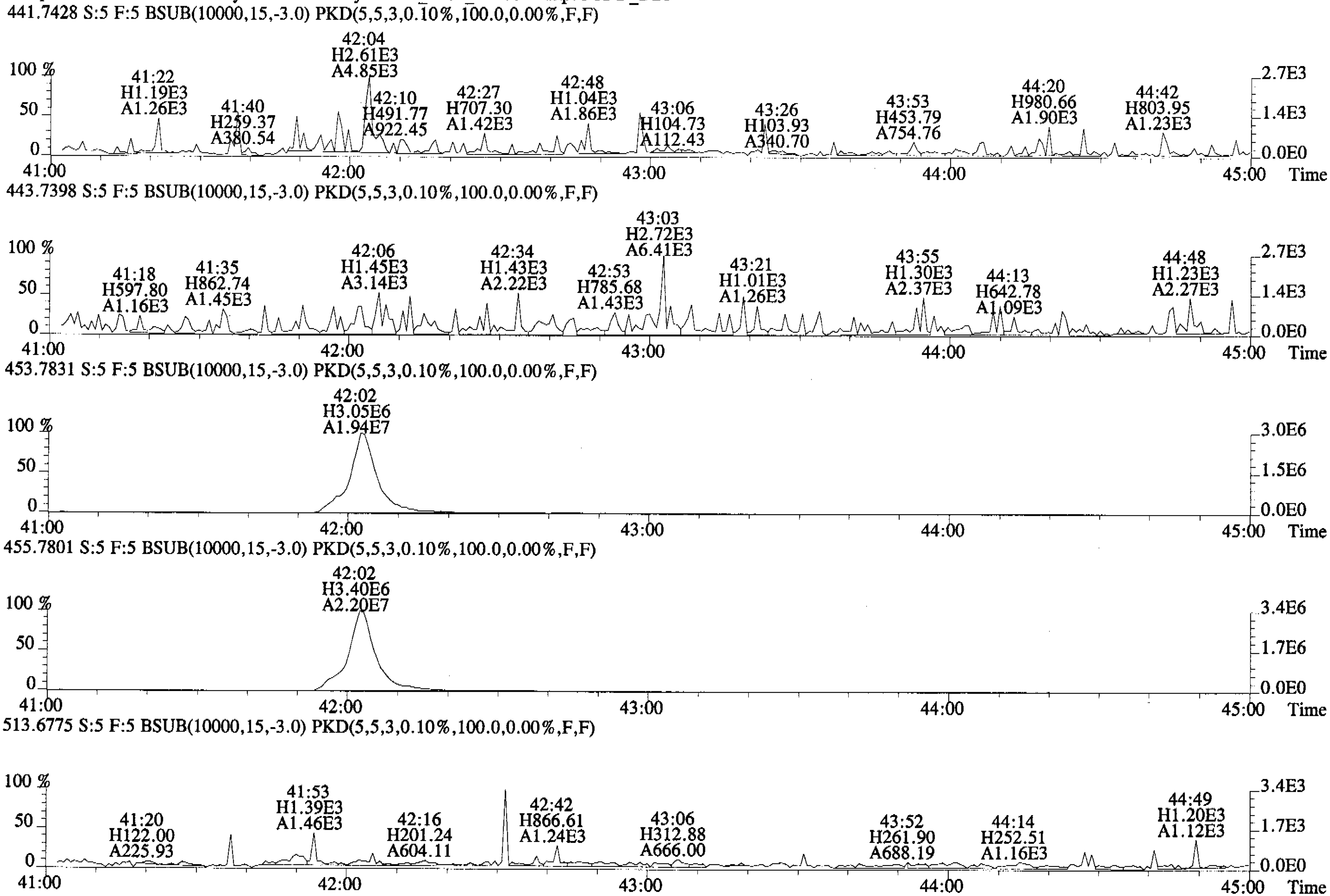
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-400 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5



File:060920C2 #1-345 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5



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

Lab Name: Alta Analytical Laboratory Extraction Batch: 0_8381_OPR001

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS OPR Data Filename: 060920C2-2

Ext. Date: 9/18/06 Shift: Day Analysis Date: 20-SEP-06 Time: 16:04:31

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
2,3,7,8-TCDD	10	9.99	6.7 - 15.8
			7.3 - 14.6 (2)
1,2,3,7,8-PeCDD	50	48.5	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	46.7	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	48.1	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	47.4	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	51.3	35.0 - 70.0
OCDD	100	99.3	78.0 - 144.0
2,3,7,8-TCDF	10	9.77	7.5 - 15.8
			8.0 - 14.7 (2)
1,2,3,7,8-PeCDF	50	51.9	40.0 - 67.0
2,3,4,7,8-PeCDF	50	51.8	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	51.8	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	50.6	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	50.1	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	51.3	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	51.1	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	52.3	39.0 - 69.0
OCDF	100	105	63.0 - 170.0

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613, for tetras only. 10/94

Analyst: M

Date: 9/21/06

FORM 8B

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Alta Analytical Laboratory Extraction Batch: 0_8381_OPR001

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS OPR Data Filename: 060920C2-2

Ext. Date: 9/18/06 Shift: Day Analysis Date: 20-SEP-06 Time: 16:04:31

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

LABELED COMPOUNDS	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
13C-2,3,7,8-TCDD	100	72.8	20.0 - 175.0
			25.0 - 141.0 (2)
13C-1,2,3,7,8-PeCDD	100	62.1	21.0 - 227.0
13C-1,2,3,4,7,8-HxCDD	100	79.6	21.0 - 193.0
13C-1,2,3,6,7,8-HxCDD	100	76.6	25.0 - 163.0
13C-1,2,3,4,6,7,8-HpCDD	100	76.9	26.0 - 166.0
13C-OCDD	200	138	26.0 - 397.0
13C-2,3,7,8-TCDF	100	76.1	22.0 - 152.0
			26.0 - 126.0 (2)
13C-1,2,3,7,8-PeCDF	100	62.3	21.0 - 192.0
13C-2,3,4,7,8-PeCDF	100	59.0	13.0 - 328.0
13C-1,2,3,4,7,8-HxCDF	100	77.8	19.0 - 202.0
13C-1,2,3,6,7,8-HxCDF	100	75.4	21.0 - 159.0
13C-2,3,4,6,7,8-HxCDF	100	76.0	22.0 - 176.0
13C-1,2,3,7,8,9-HxCDF	100	54.3	17.0 - 205.0
13C-1,2,3,4,6,7,8-HpCDF	100	64.1	21.0 - 158.0
13C-1,2,3,4,7,8,9-HpCDF	100	58.8	20.0 - 186.0
13C-OCDF	200	116	26.0 - 397.0
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	32.4	12.4 - 76.4

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94

Analyst: ml

Date: 9/21/06

Client ID: 0_8381_OPR001 Filename: 060920C2 S:2 Acq:20-SEP-06 16:04:31 ConCal: ST060920C2-1
Lab ID: 0_8381_OPR001 GC Column ID: db-5 ICal: 1613VG5-3-22-06 wt/vol: 1.000 EndCAL: ST060920C2-2

	Name	Resp	RA	RRF	RT	Conc	Qual	noise Fac	DL
	2,3,7,8-TCDD	3.52e+06	0.78 y	1.08	26:26	9.9927		* 2.5	*
	1,2,3,7,8-PeCDD	1.33e+07	0.62 y	1.03	31:26	48.498		* 2.5	*
	1,2,3,4,7,8-HxCDD	1.43e+07	1.22 y	1.13	34:44	46.743		* 2.5	*
	1,2,3,6,7,8-HxCDD	1.62e+07	1.23 y	1.03	34:50	48.140		* 2.5	*
	1,2,3,7,8,9-HxCDD	1.58e+07	1.24 y	1.12	35:08	47.374		* 2.5	*
	1,2,3,4,6,7,8-HpCDD	1.39e+07	1.06 y	1.02	38:40	51.285		* 2.5	*
	OCDD	2.11e+07	0.89 y	1.06	41:52	99.315		* 2.5	*
	2,3,7,8-TCDF	4.57e+06	0.76 y	1.06	25:31	9.7742		* 2.5	*
	1,2,3,7,8-PeCDF	2.00e+07	1.57 y	1.01	30:09	51.947		* 2.5	*
	2,3,4,7,8-PeCDF	1.93e+07	1.56 y	1.02	31:08	51.804		* 2.5	*
	1,2,3,4,7,8-HxCDF	2.16e+07	1.21 y	1.15	33:53	51.772		* 2.5	*
	1,2,3,6,7,8-HxCDF	2.49e+07	1.22 y	1.14	34:00	50.622		* 2.5	*
	2,3,4,6,7,8-HxCDF	2.30e+07	1.20 y	1.17	34:36	50.117		* 2.5	*
	1,2,3,7,8,9-HxCDF	1.35e+07	1.23 y	1.10	35:31	51.264		* 2.5	*
	1,2,3,4,6,7,8-HpCDF	1.65e+07	1.04 y	1.31	37:15	51.138		* 2.5	*
	1,2,3,4,7,8,9-HpCDF	1.28e+07	0.97 y	1.33	39:15	52.275		* 2.5	*
	OCDF	2.16e+07	0.90 y	0.91	42:04	105.47		* 2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	10.001	10.349		*	*
Total Penta-Dioxins	48.644	49.132		*	*
Total Hexa-Dioxins	142.66	143.01		*	*
Total Hepta-Dioxins	51.411	52.035		*	*
Total Tetra-Furans	10.181	10.615		*	*
Total Penta-Furans	106.01	106.64		*	*
Total Hexa-Furans	204.44	204.94		*	*
Total Hepta-Furans	104.53	105.79		*	*

	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	3.26e+07	0.80 y	1.09	26:24	72.759	72.8	
IS	13C-1,2,3,7,8-PeCDD	2.66e+07	0.63 y	1.04	31:24	62.107	62.1	
IS	13C-1,2,3,4,7,8-HxCDD	2.70e+07	1.25 y	0.83	34:43	79.643	79.6	
IS	13C-1,2,3,6,7,8-HxCDD	3.26e+07	1.26 y	1.04	34:50	76.607	76.6	
IS	13C-1,2,3,4,6,7,8-HpCDD	2.68e+07	1.07 y	0.85	38:39	76.932	76.9	
IS	13C-OCDD	4.02e+07	0.90 y	0.71	41:51	137.77	68.9	
IS	13C-2,3,7,8-TCDF	4.40e+07	0.78 y	0.96	25:30	76.116	76.1	
IS	13C-1,2,3,7,8-PeCDF	3.83e+07	1.56 y	1.02	30:08	62.340	62.3	
IS	13C-2,3,4,7,8-PeCDF	3.63e+07	1.61 y	1.02	31:07	59.009	59.0	
IS	13C-1,2,3,4,7,8-HxCDF	3.64e+07	0.52 y	1.14	33:52	77.805	77.8	
IS	13C-1,2,3,6,7,8-HxCDF	4.32e+07	0.51 y	1.40	33:59	75.439	75.4	
IS	13C-2,3,4,6,7,8-HxCDF	3.92e+07	0.52 y	1.26	34:35	75.954	76.0	
IS	13C-1,2,3,7,8,9-HxCDF	2.41e+07	0.53 y	1.08	35:30	54.340	54.3	
IS	13C-1,2,3,4,6,7,8-HpCDF	2.45e+07	0.46 y	0.93	37:14	64.142	64.1	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.84e+07	0.46 y	0.77	39:14	58.769	58.8	
IS	13C-OCDF	4.49e+07	0.90 y	0.94	42:03	116.28	58.1	
C/Up	37Cl-2,3,7,8-TCDD	1.03e+07		0.77	26:26	32.425	81.1	
RS/RT	13C-1,2,3,4-TCDD	4.11e+07	0.82 y	1.00	25:42	100.00		
RS	13C-1,2,3,4-TCDF	6.03e+07	0.79 y	1.00	23:55	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	4.09e+07	1.23 y	1.00	35:07	100.00		

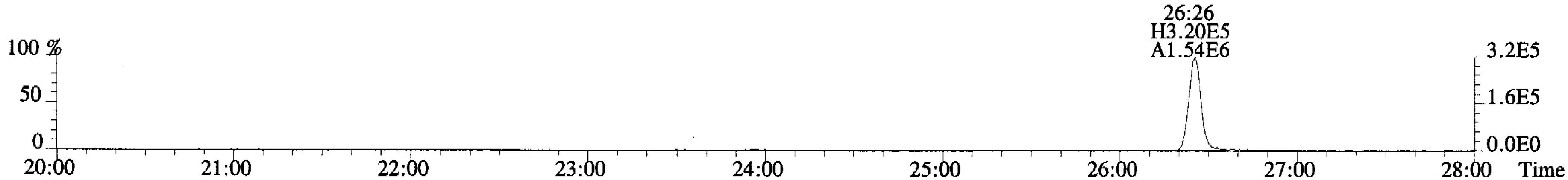
Integrations by Analyst: m

Date: 9/21/06

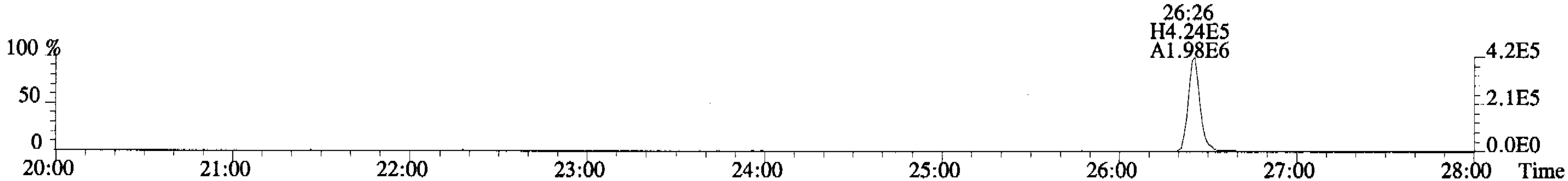
Reviewed by Analyst: WW

Date: 9/21/06

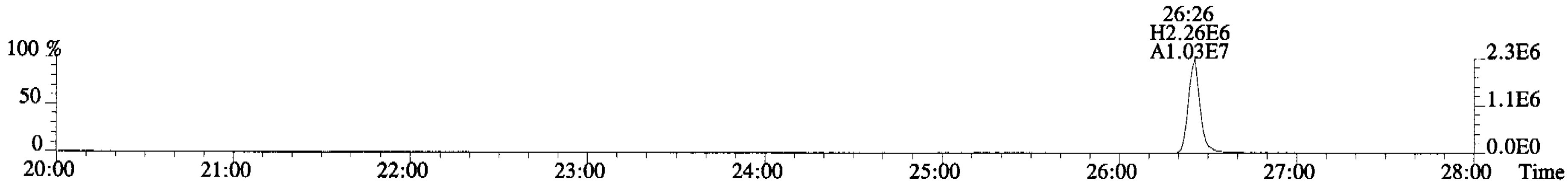
File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



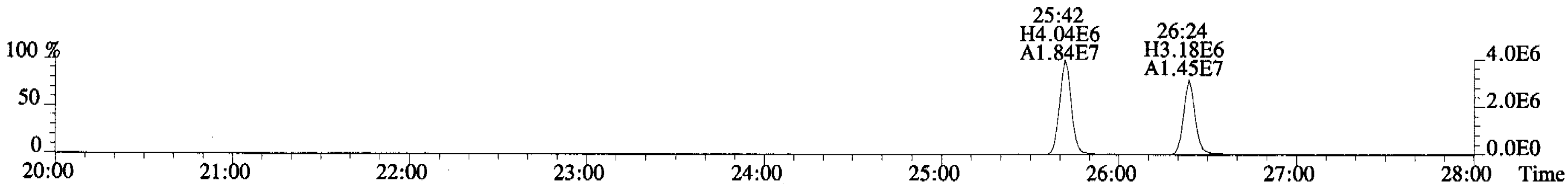
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



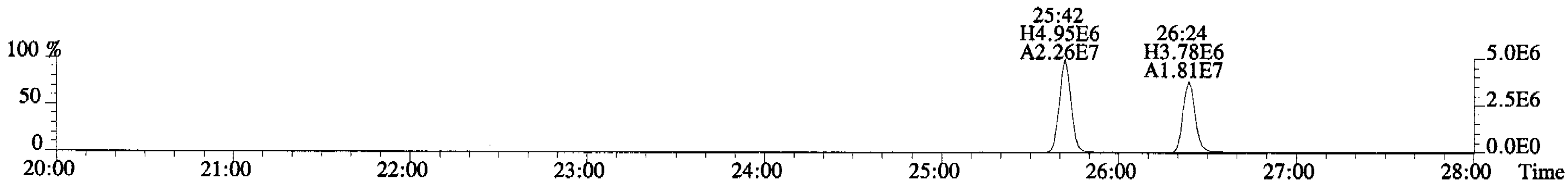
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



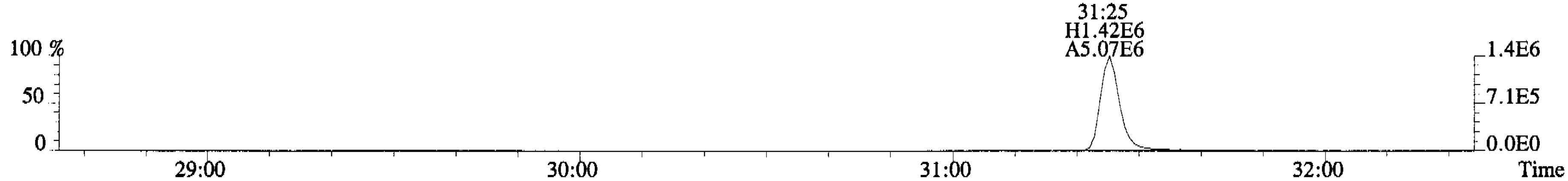
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



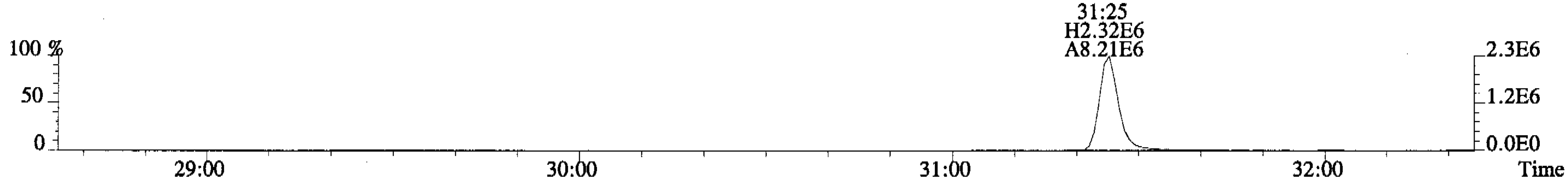
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



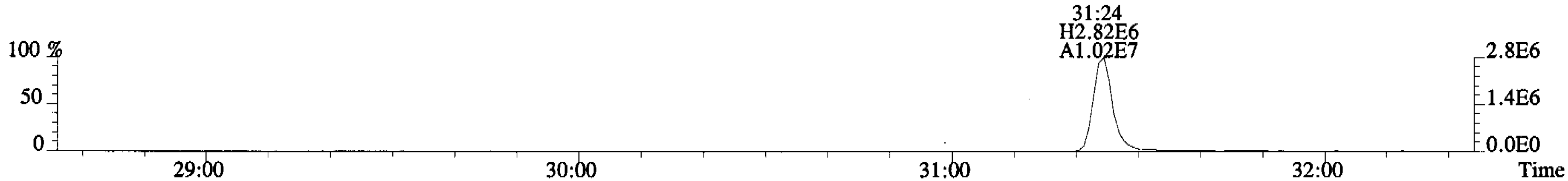
File:060920C2 #1-324 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



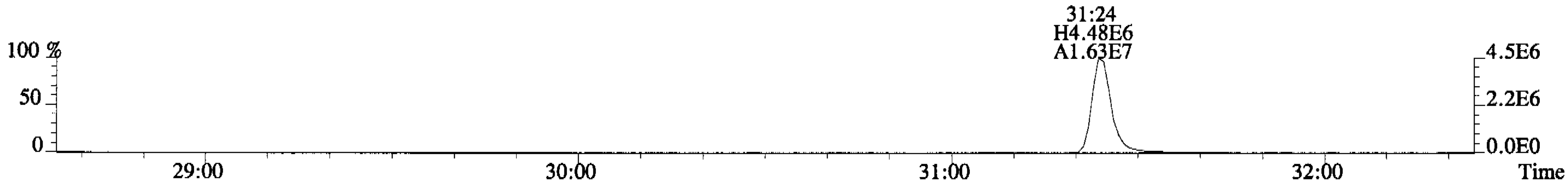
355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



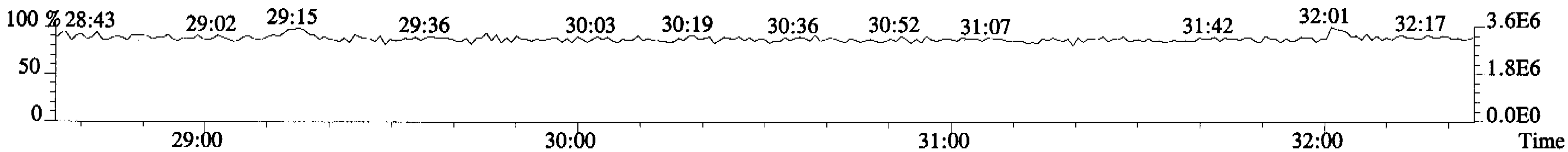
365.8978 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



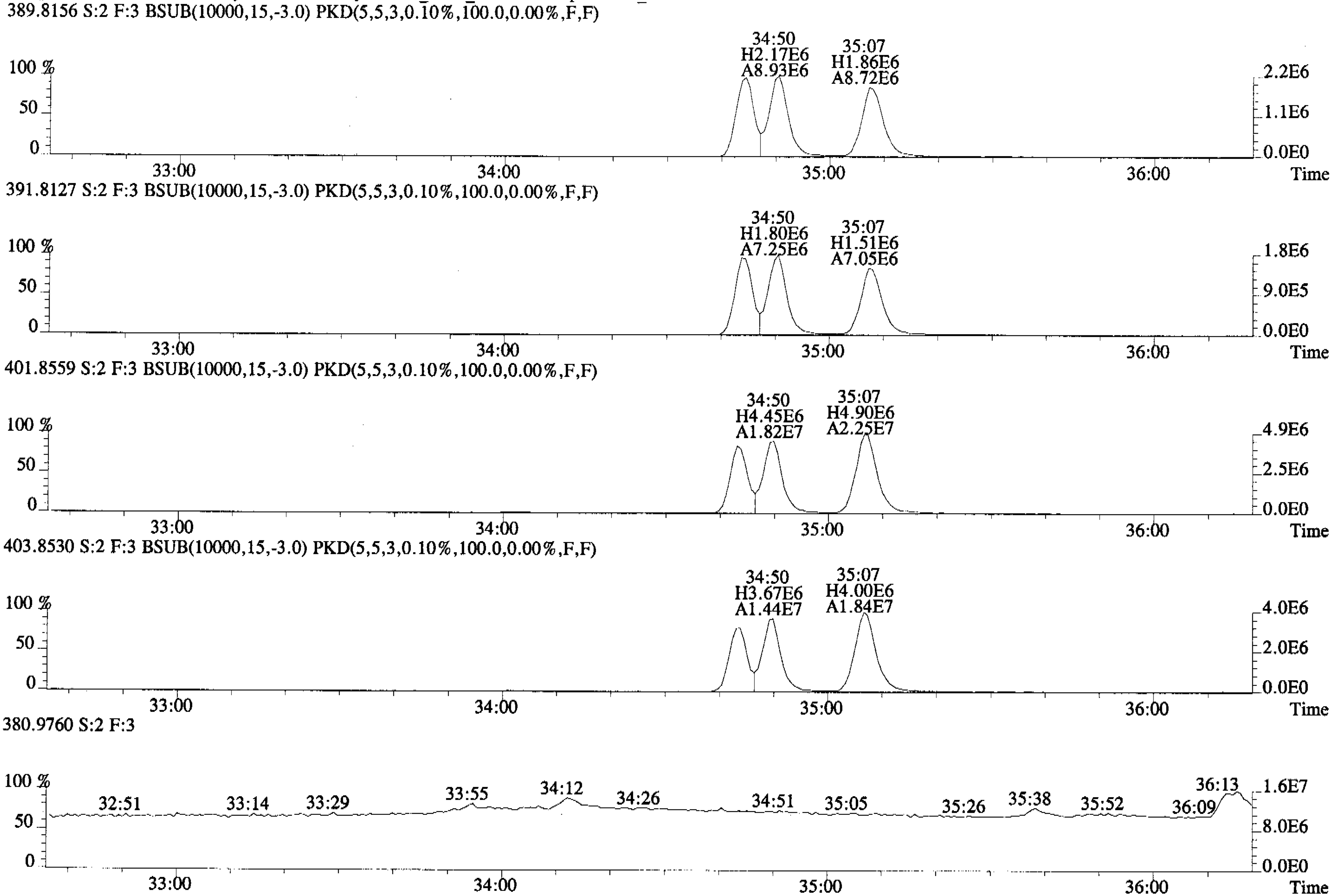
367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



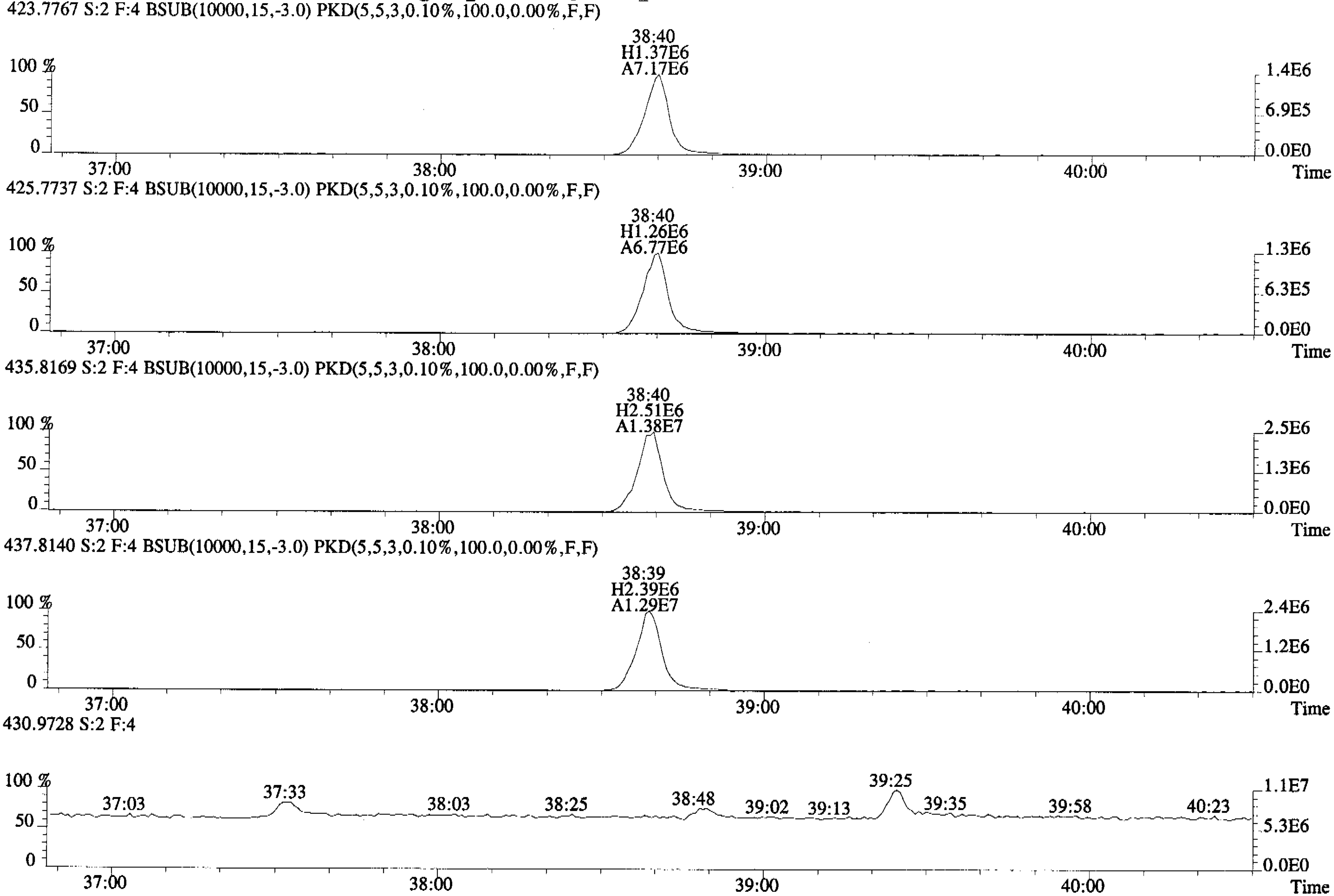
366.9792 S:2 F:2



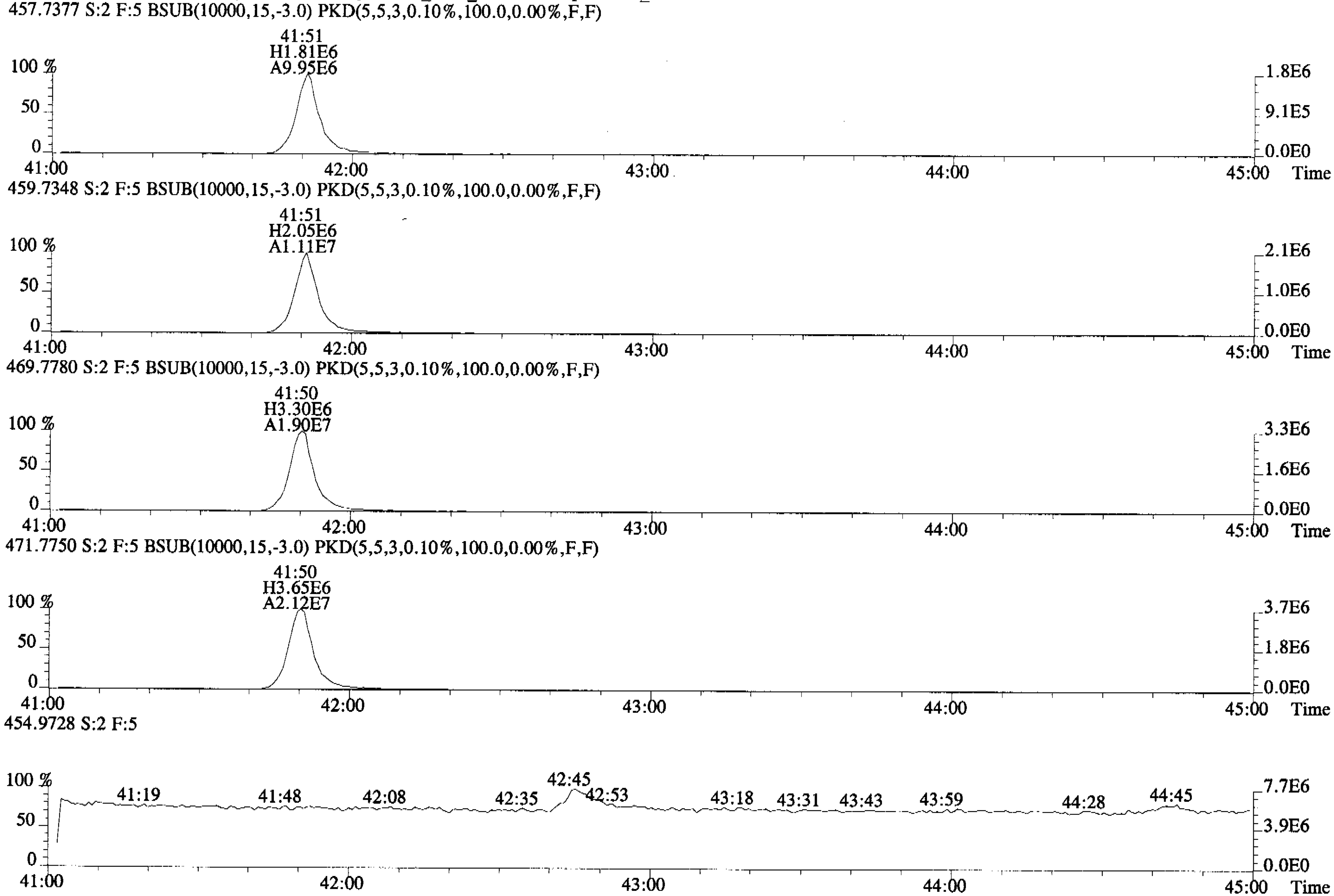
File:060920C2 #1-362 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



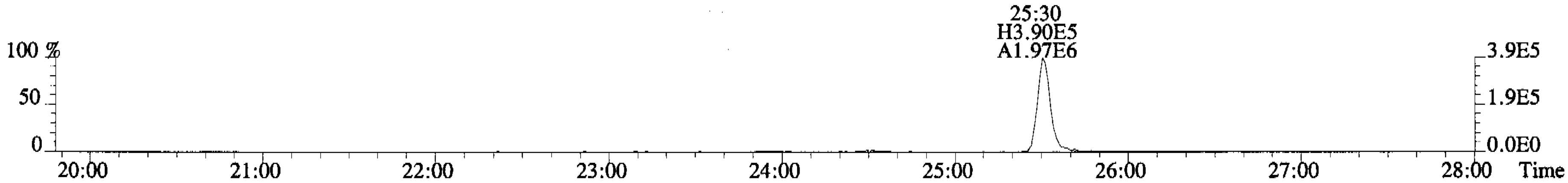
File:060920C2 #1-400 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



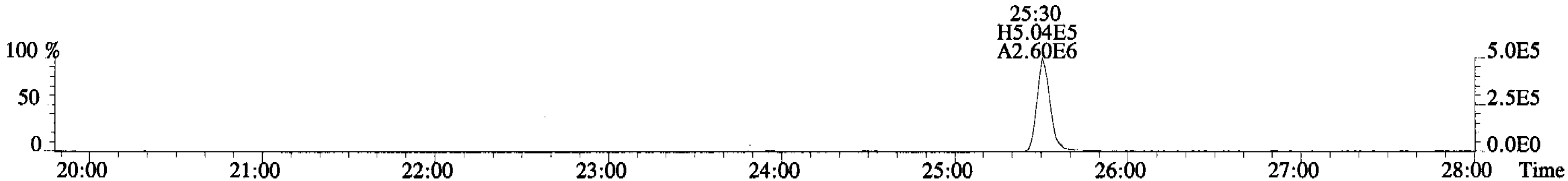
File:060920C2 #1-345 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



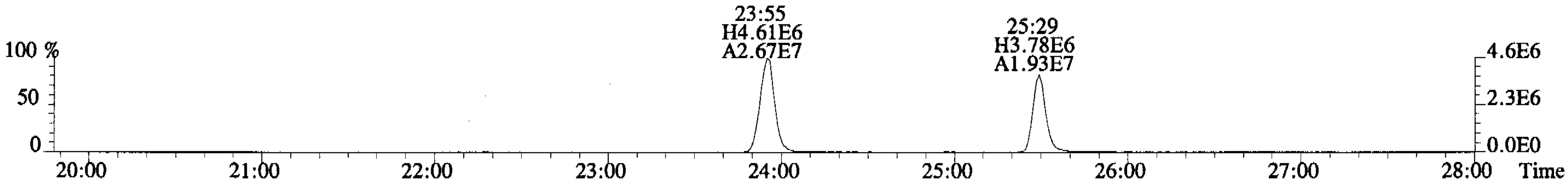
File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



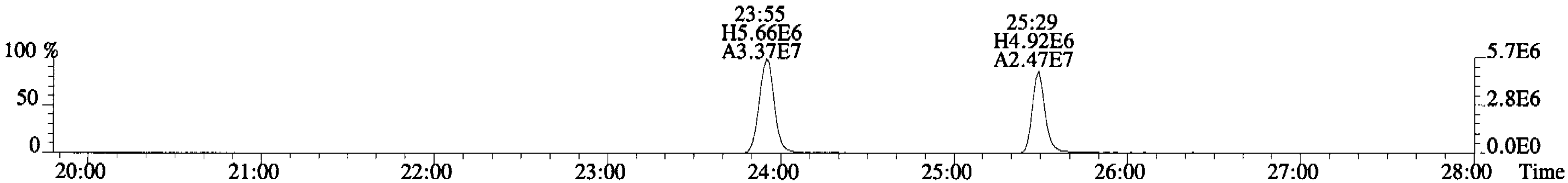
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



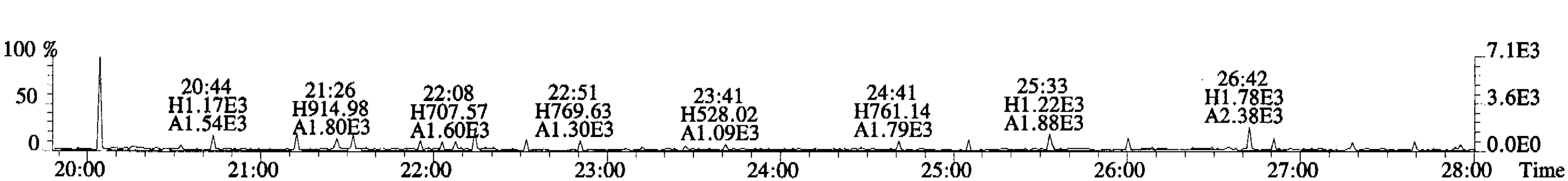
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



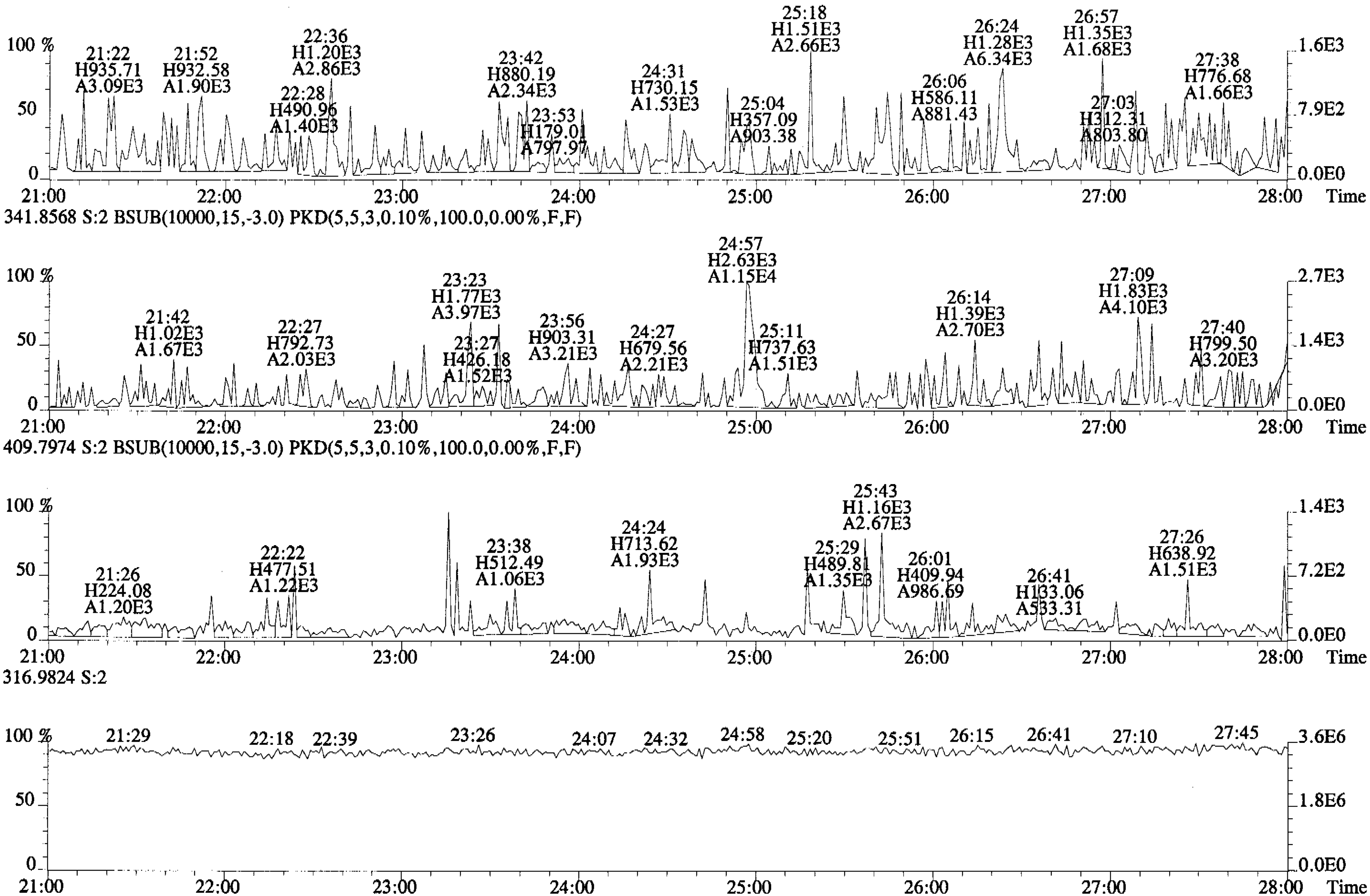
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

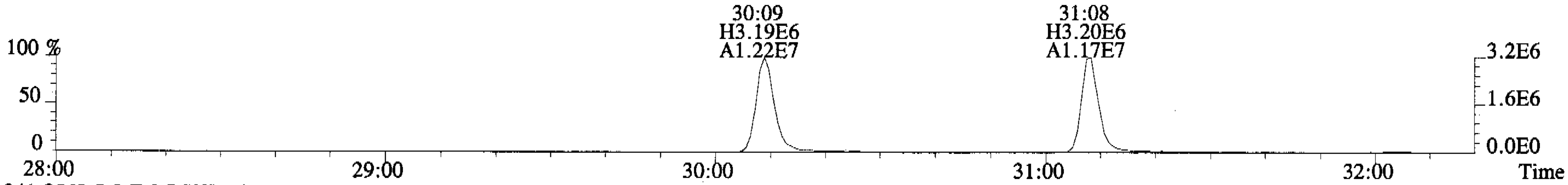


File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

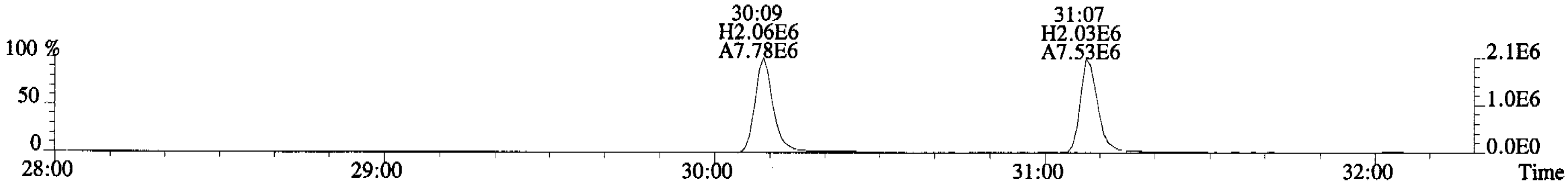


File:060920C2 #1-324 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5

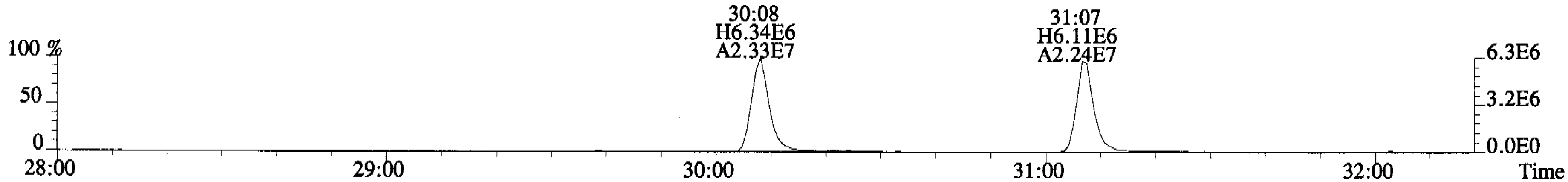
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



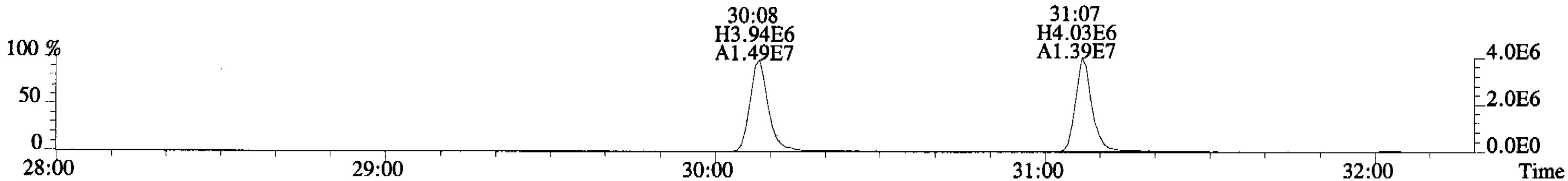
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



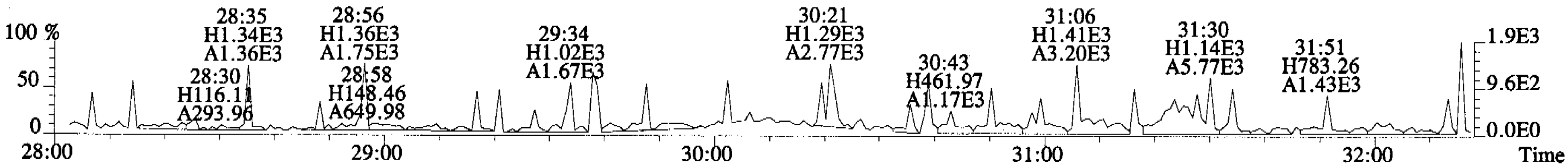
351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

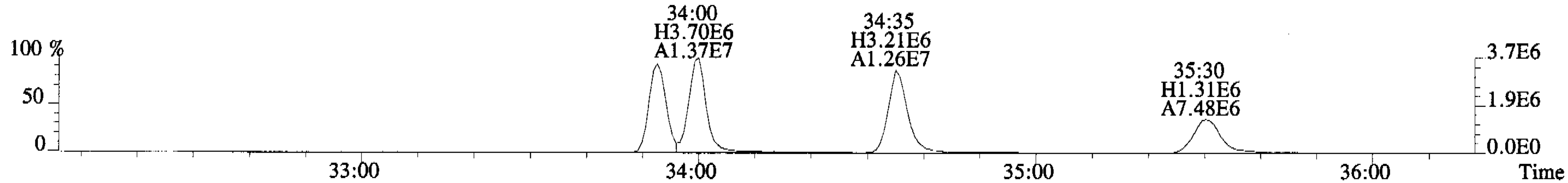


409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

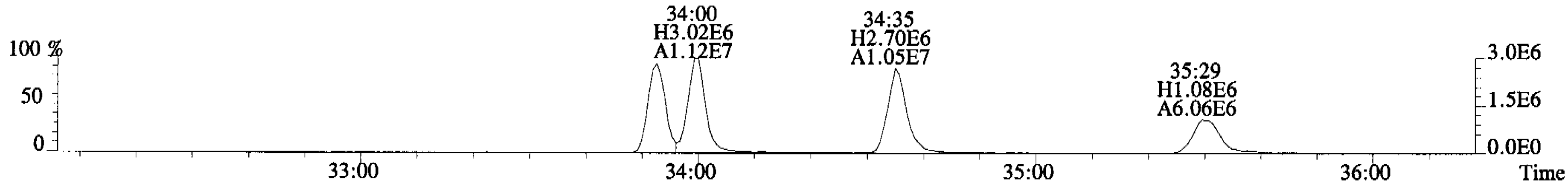


File:060920C2 #1-362 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5

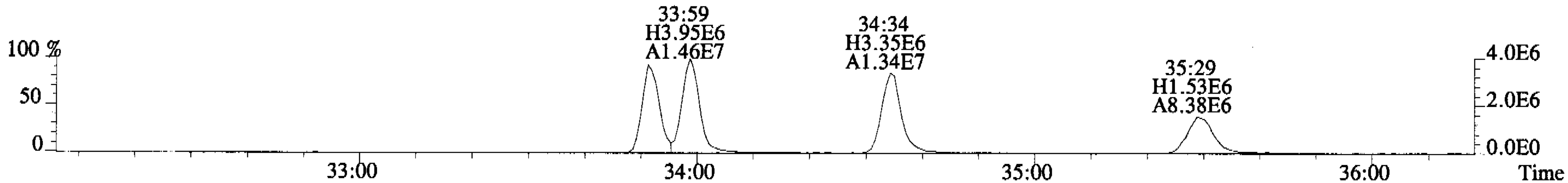
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



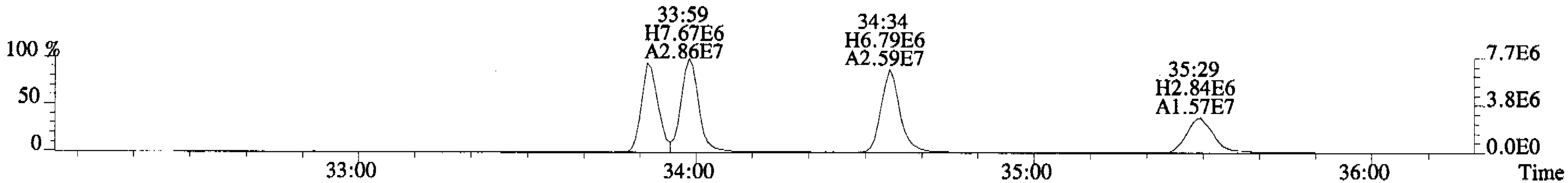
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



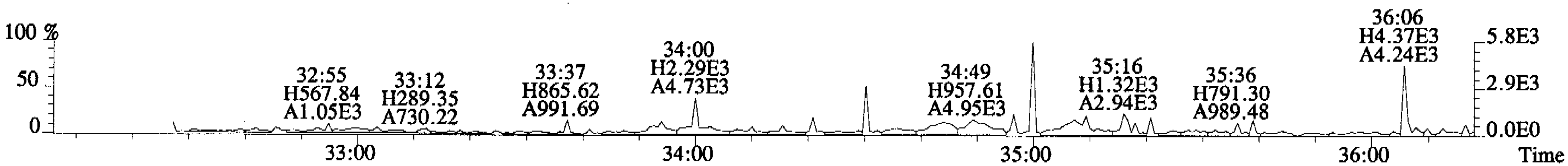
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



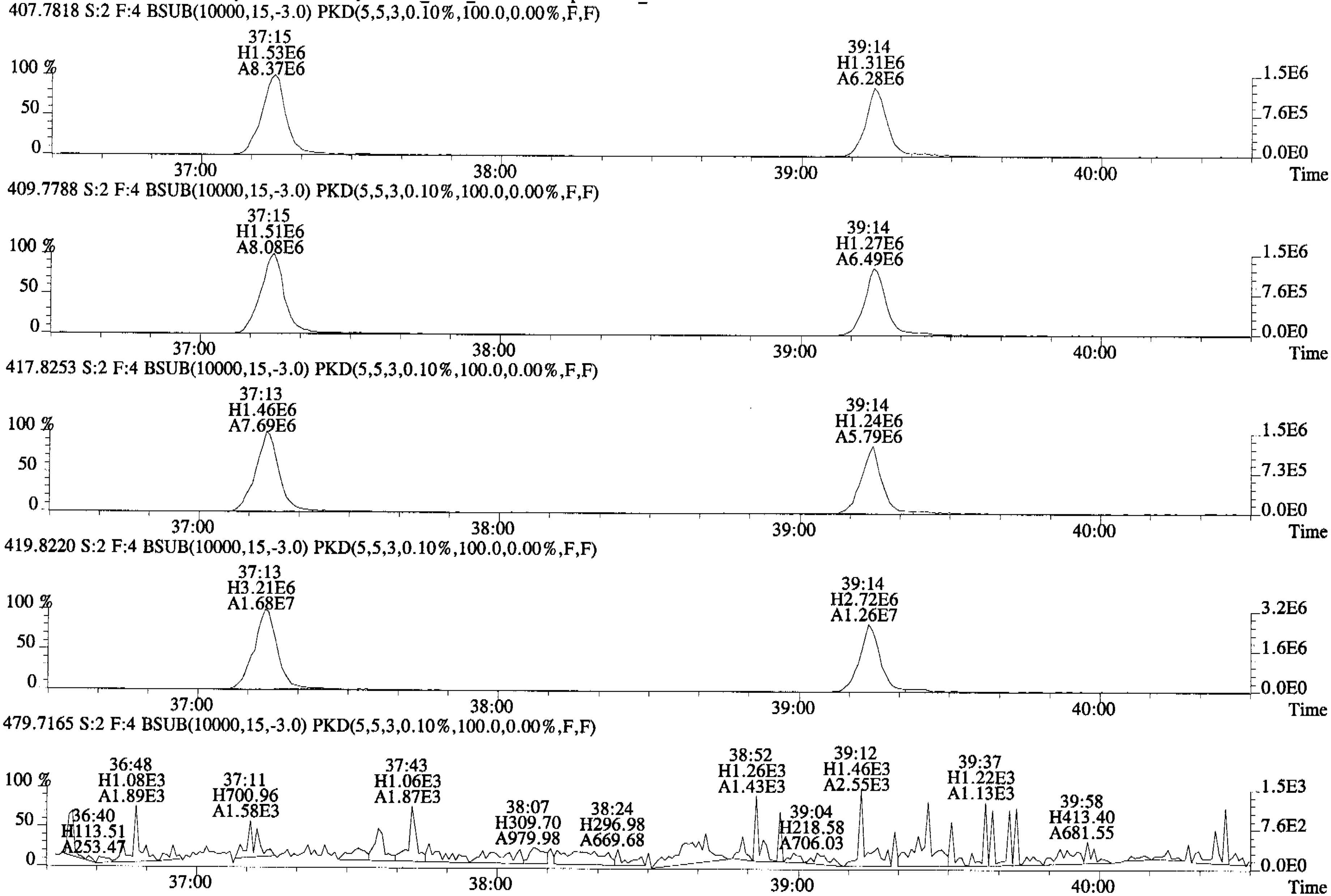
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



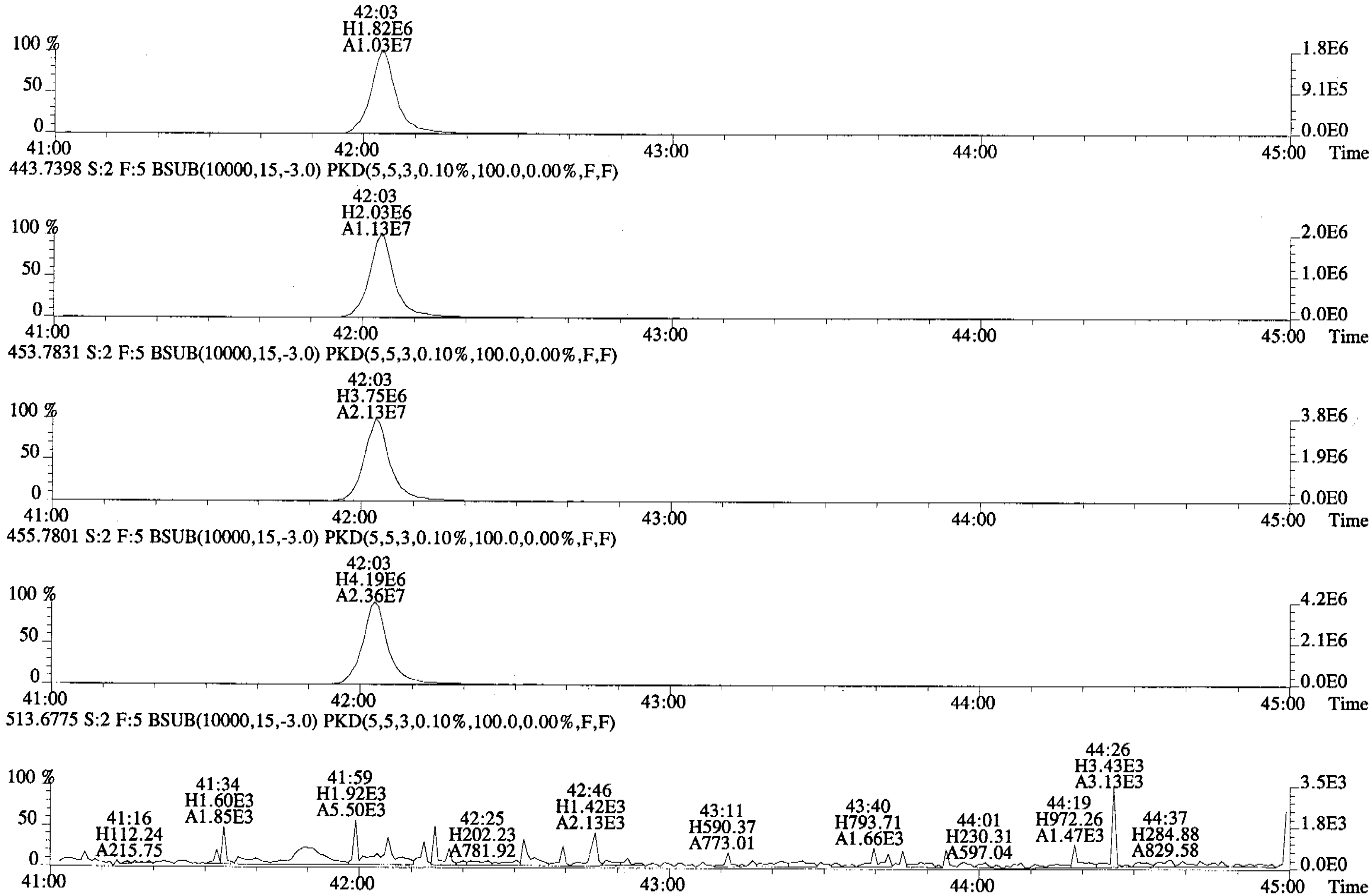
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-400 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



File:060920C2 #1-345 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



	Name	Resp	RA		RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	*	*	n	1.08	NotFnd	*		1030	2.5	1.34
	1,2,3,7,8-PeCDD	*	*	n	1.03	NotFnd	*		2570	2.5	3.23
	1,2,3,4,7,8-HxCDD	*	*	n	1.13	NotFnd	*		1450	2.5	2.54
	1,2,3,6,7,8-HxCDD	*	*	n	1.03	NotFnd	*		1450	2.5	2.62
	1,2,3,7,8,9-HxCDD	*	*	n	1.12	NotFnd	*		1450	2.5	2.49
	1,2,3,4,6,7,8-HpCDD	6.93e+04	1.32	n	1.02	38:42	5.6017		*	2.5	*
	OCDD	4.82e+05	0.81	y	1.06	41:54	50.732		*	2.5	*
	2,3,7,8-TCDF	*	*	n	1.06	NotFnd	*		1450	2.5	1.48
	1,2,3,7,8-PeCDF	*	*	n	1.01	NotFnd	*		2260	2.5	3.16
	2,3,4,7,8-PeCDF	*	*	n	1.02	NotFnd	*		2260	2.5	3.39
	1,2,3,4,7,8-HxCDF	*	*	n	1.15	NotFnd	*		2160	2.5	1.78
	1,2,3,6,7,8-HxCDF	*	*	n	1.14	NotFnd	*		2160	2.5	1.66
	2,3,4,6,7,8-HxCDF	*	*	n	1.17	NotFnd	*		2160	2.5	2.08
	1,2,3,7,8,9-HxCDF	*	*	n	1.10	NotFnd	*		2160	2.5	3.99
	1,2,3,4,6,7,8-HpCDF	*	*	n	1.31	NotFnd	*		1750	2.5	2.27
	1,2,3,4,7,8,9-HpCDF	*	*	n	1.33	NotFnd	*		719	2.5	1.09
	OCDF	*	*	n	0.91	NotFnd	*		1710	2.5	5.48

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		1030	1.34
Total Penta-Dioxins	*	*		4670	5.88
Total Hexa-Dioxins	*	*		1450	2.55
Total Hepta-Dioxins	5.7236	11.325		*	*
Total Tetra-Furans	*	*		1450	1.48
Total Penta-Furans	0.0000	0.0000		2260	3.27
Total Hexa-Furans	*	*		2160	2.25
Total Hepta-Furans	*	*		1750	2.44

	Name	Resp	RA		RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	3.15e+07	0.81	y	1.09	26:26	1218.7	62.3	
IS	13C-1,2,3,7,8-PeCDD	2.51e+07	0.63	y	1.04	31:27	1015.4	51.9	
IS	13C-1,2,3,4,7,8-HxCDD	1.91e+07	1.15	y	0.83	34:45	1098.2	56.1	
IS	13C-1,2,3,6,7,8-HxCDD	2.61e+07	1.28	y	1.04	34:52	1198.3	61.2	
IS	13C-1,2,3,4,6,7,8-HpCDD	2.38e+07	1.05	y	0.85	38:41	1334.5	68.2	
IS	13C-OCDD	3.53e+07	0.90	y	0.71	41:54	2355.9	60.2	
IS	13C-2,3,7,8-TCDF	4.36e+07	0.80	y	0.96	25:32	1272.6	65.0	
IS	13C-1,2,3,7,8-PeCDF	3.54e+07	1.56	y	1.02	30:10	974.41	49.8	
IS	13C-2,3,4,7,8-PeCDF	3.31e+07	1.58	y	1.02	31:10	907.15	46.4	
IS	13C-1,2,3,4,7,8-HxCDF	2.85e+07	0.53	y	1.14	33:54	1185.4	60.6	
IS	13C-1,2,3,6,7,8-HxCDF	3.29e+07	0.53	y	1.40	34:01	1120.5	57.3	
IS	13C-2,3,4,6,7,8-HxCDF	2.87e+07	0.51	y	1.26	34:37	1083.6	55.4	
IS	13C-1,2,3,7,8,9-HxCDF	2.24e+07	0.52	y	1.08	35:33	986.13	50.4	
IS	13C-1,2,3,4,6,7,8-HpCDF	2.31e+07	0.44	y	0.93	37:17	1179.1	60.3	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.84e+07	0.46	y	0.77	39:17	1146.0	58.6	
IS	13C-OCDF	3.97e+07	0.90	y	0.94	42:06	2005.7	51.2	
C/Up	37Cl-2,3,7,8-TCDD	1.10e+07			0.77	26:27	602.05	76.9	
RS/RT	13C-1,2,3,4-TCDD	4.63e+07	0.80	y	1.00	25:43	1956.9		
RS	13C-1,2,3,4-TCDF	6.99e+07	0.79	y	1.00	23:57	1956.9		
RS/RT	13C-1,2,3,7,8,9-HxCDD	4.11e+07	1.25	y	1.00	35:10	1956.9		

Integrations by Analyst: MS

Date: 9/21/06

Reviewed by Analyst: [signature]

Date: 9/21/06

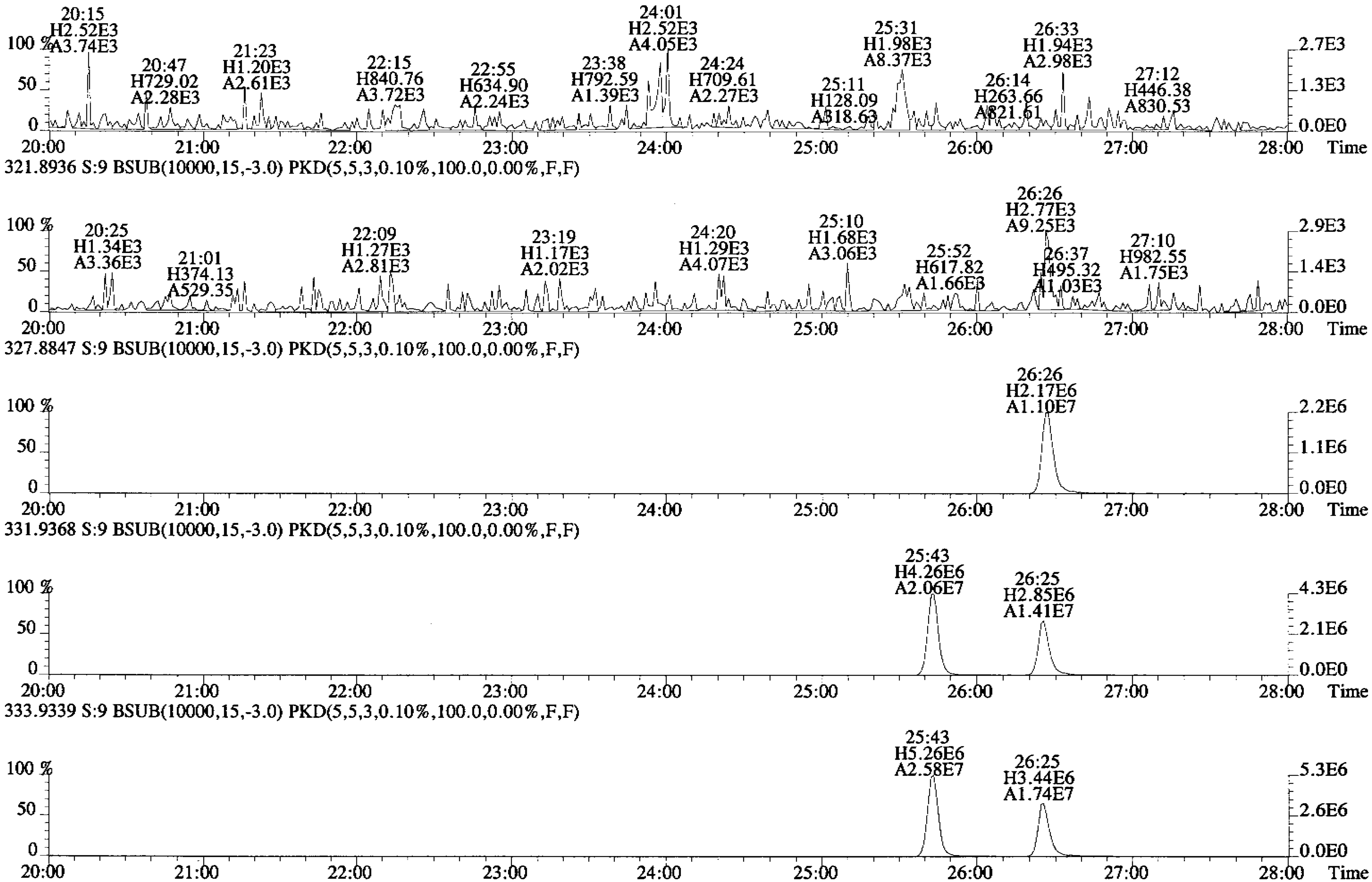
Totals class: HpCDD EMPC Entry #: 25

Run: 14 File: 060920C2 S: 9 I: 1 F: 4
Acquired: 20-SEP-06 21:51:37 Processed: 21-SEP-06 07:06:55

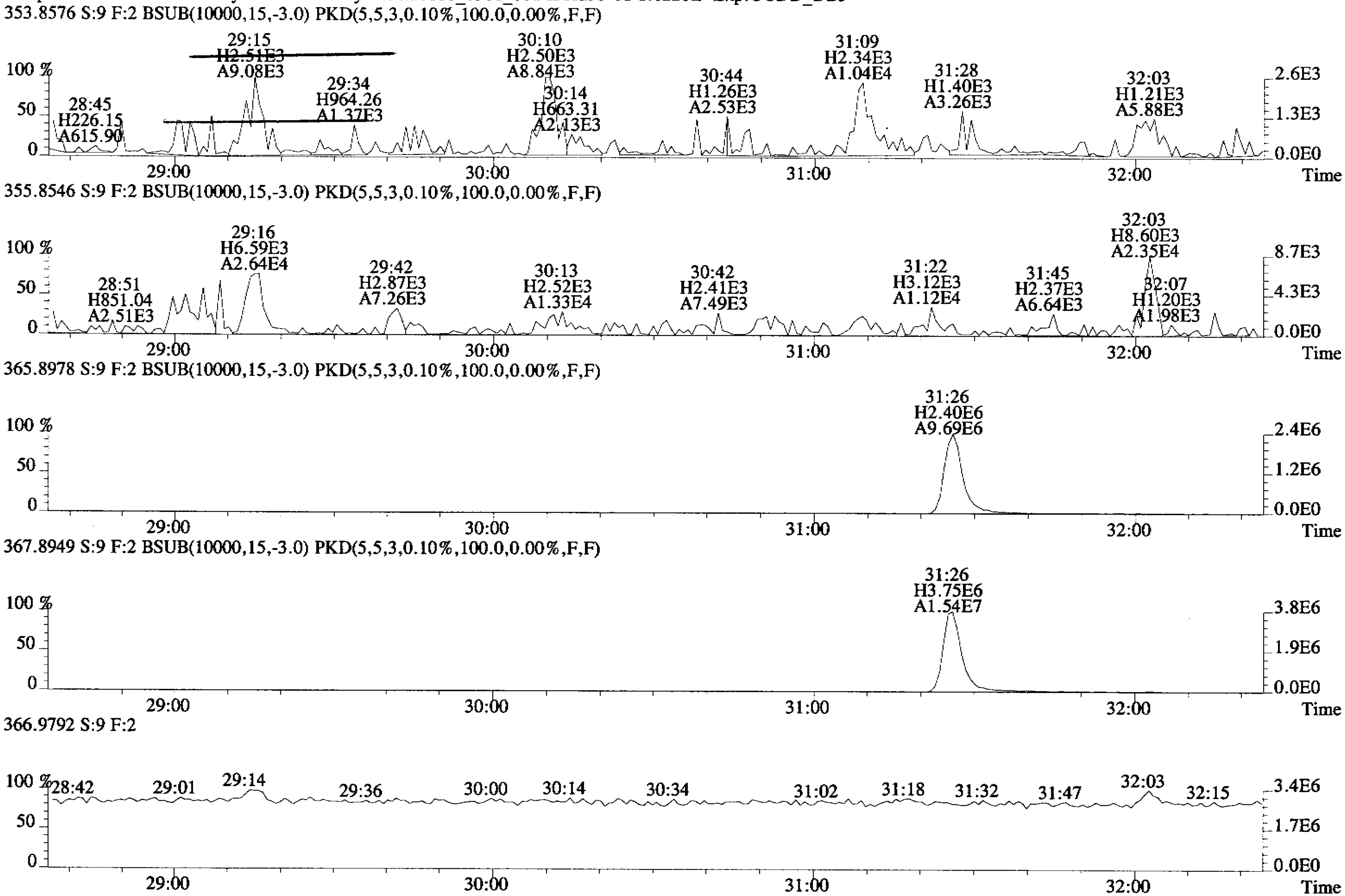
Total Concentration: 11.325 Unnamed Concentration: 5.724

RT	m1 Resp	m2 Resp	RA		Resp	Concentration	Name
37:40	3.681e+04	3.397e+04	1.08	y	7.078e+04	5.7236	
38:42	4.480e+04	3.396e+04	1.32	n	6.927e+04	5.6017	1,2,3,4,6,7,8-HpCDD

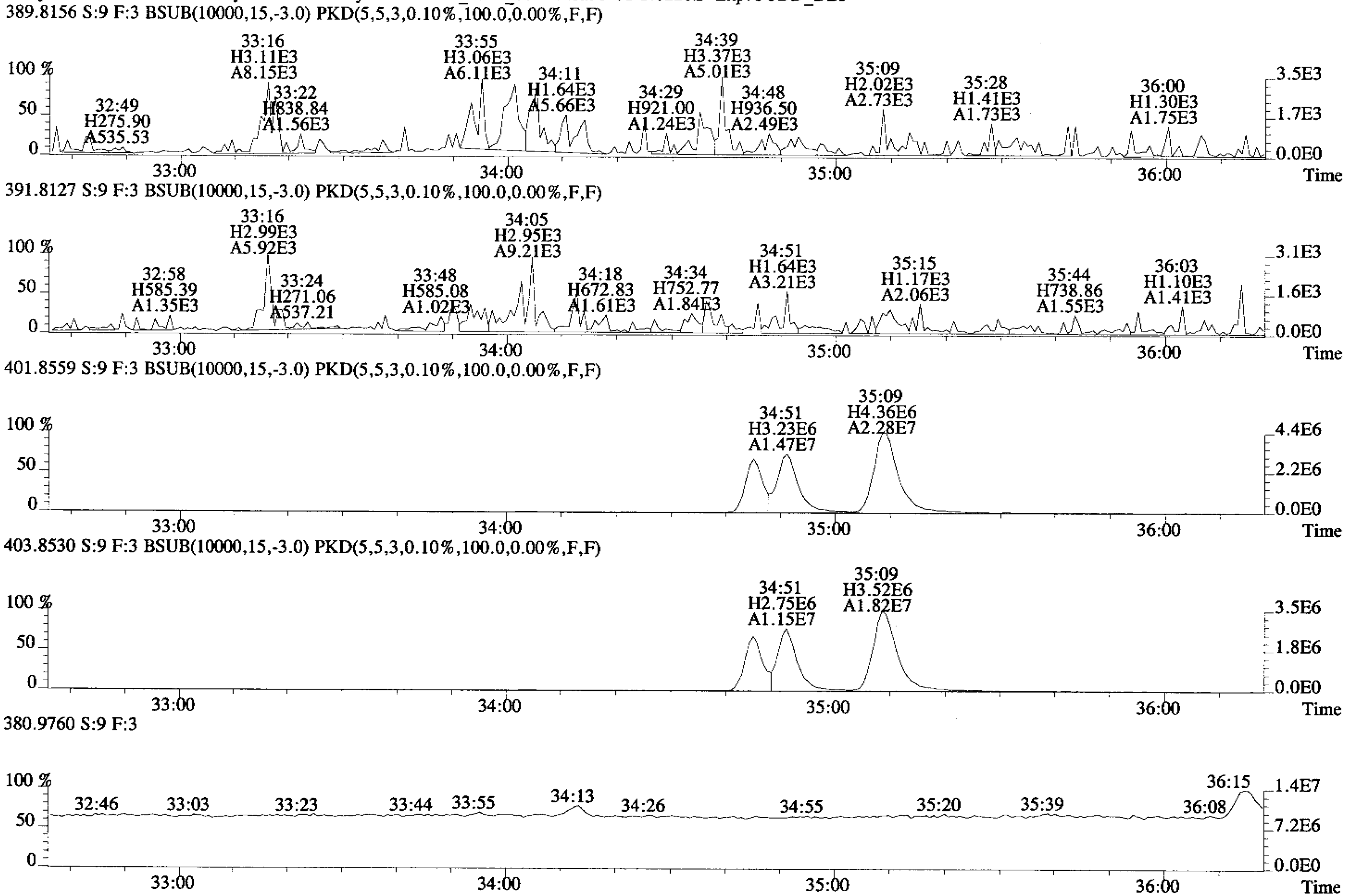
File:060920C2 #1-546 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5
319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



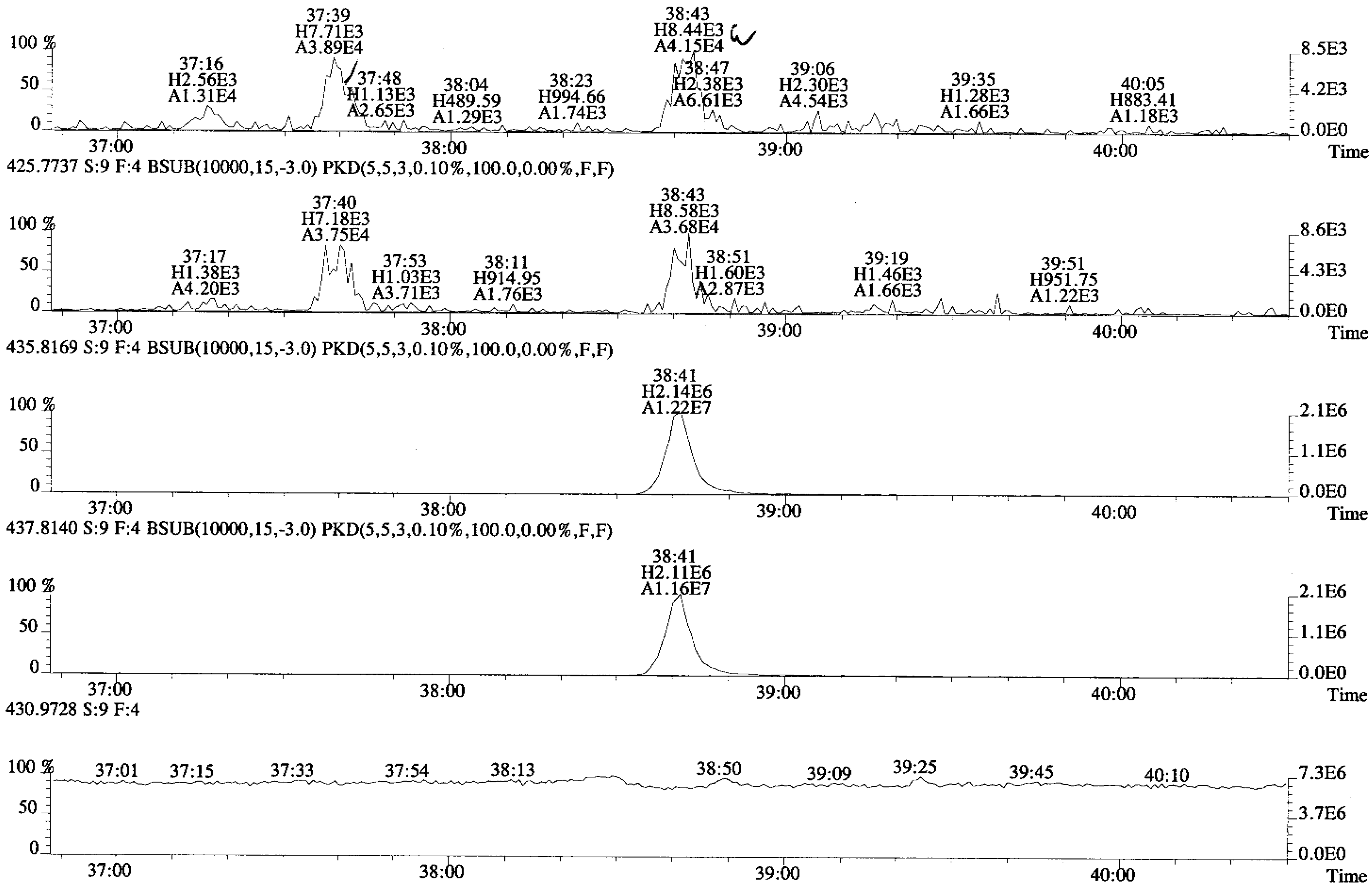
File:060920C2 #1-324 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5



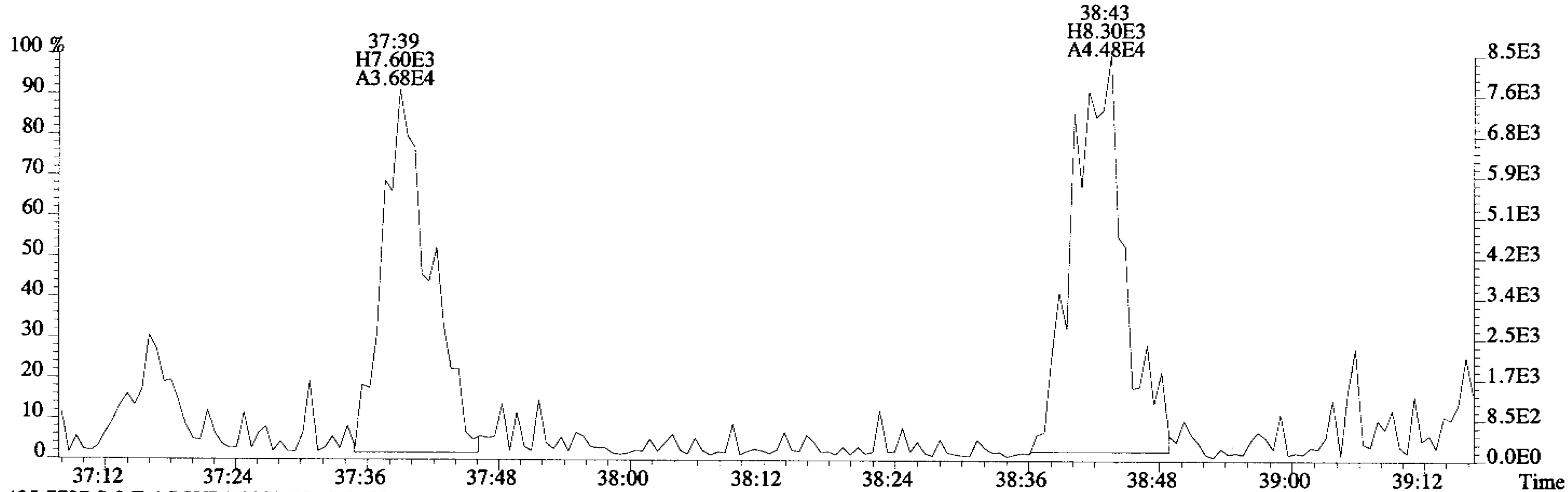
File:060920C2 #1-363 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5



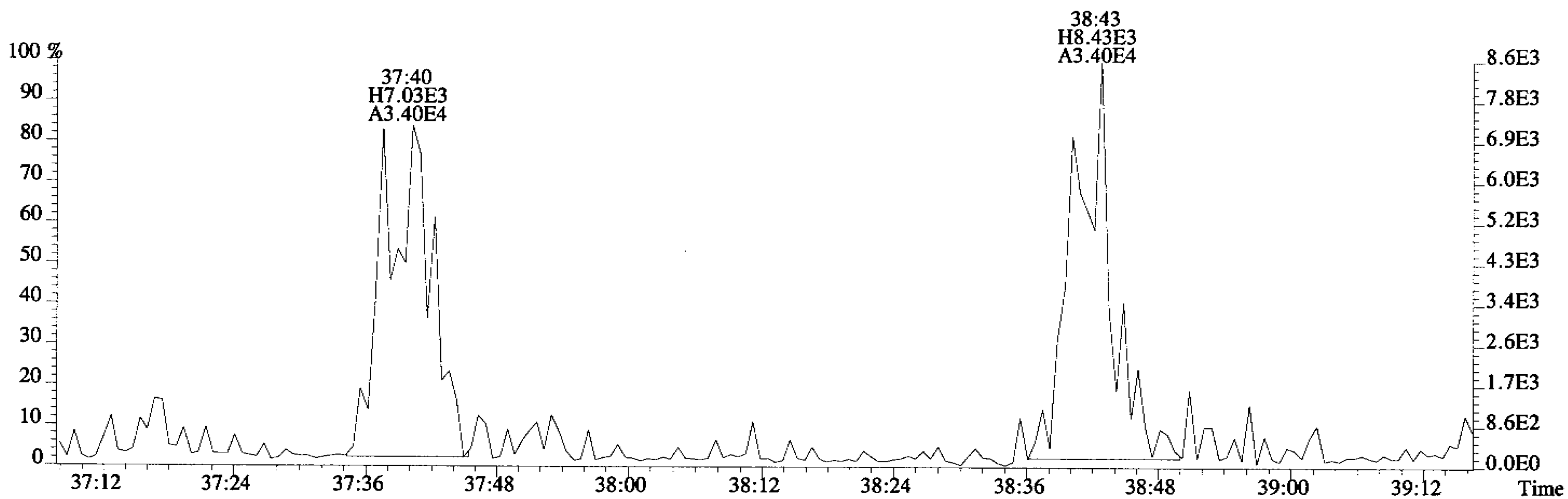
File:060920C2 #1-399 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5
423.7767 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-399 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5
423.7767 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

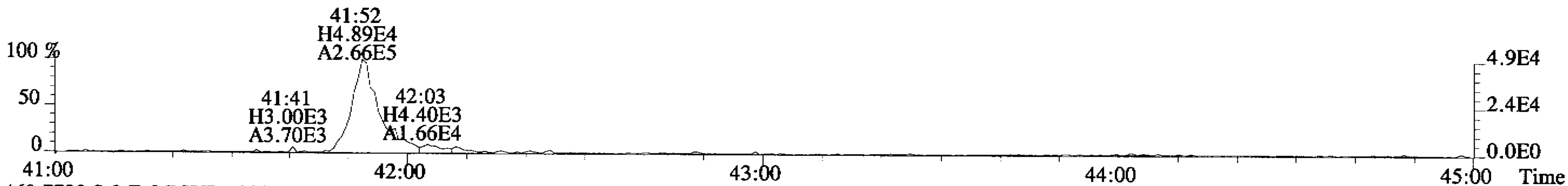


425.7737 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

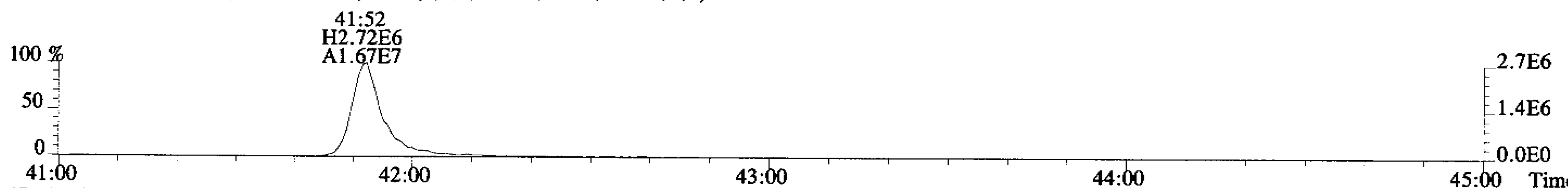


File:060920C2 #1-345 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5
457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

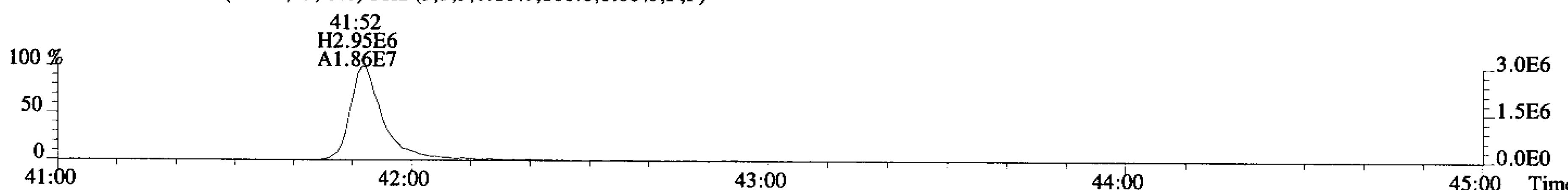
459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



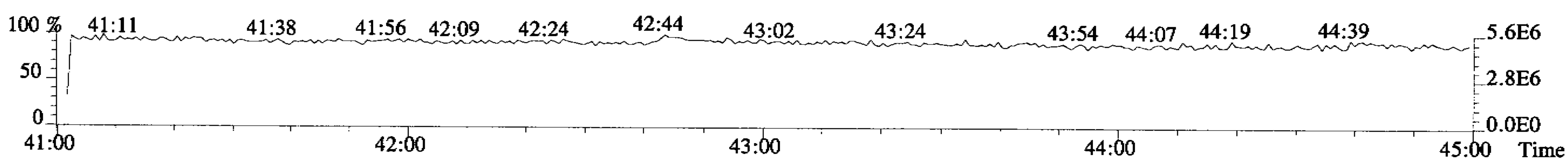
469.7780 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



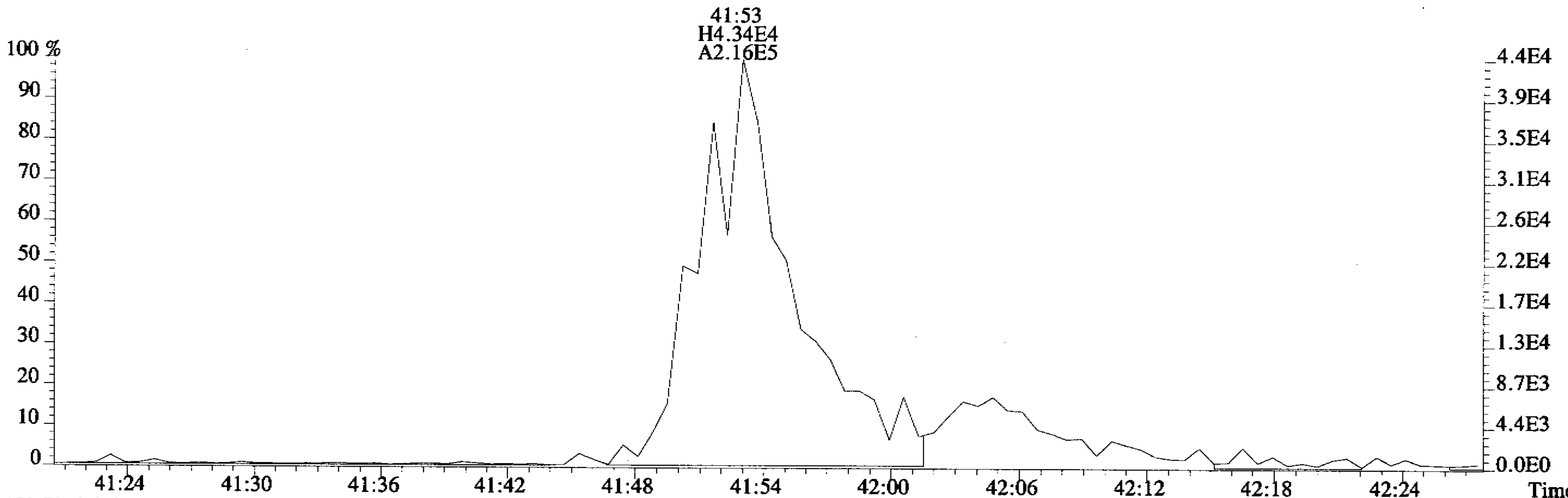
471.7750 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



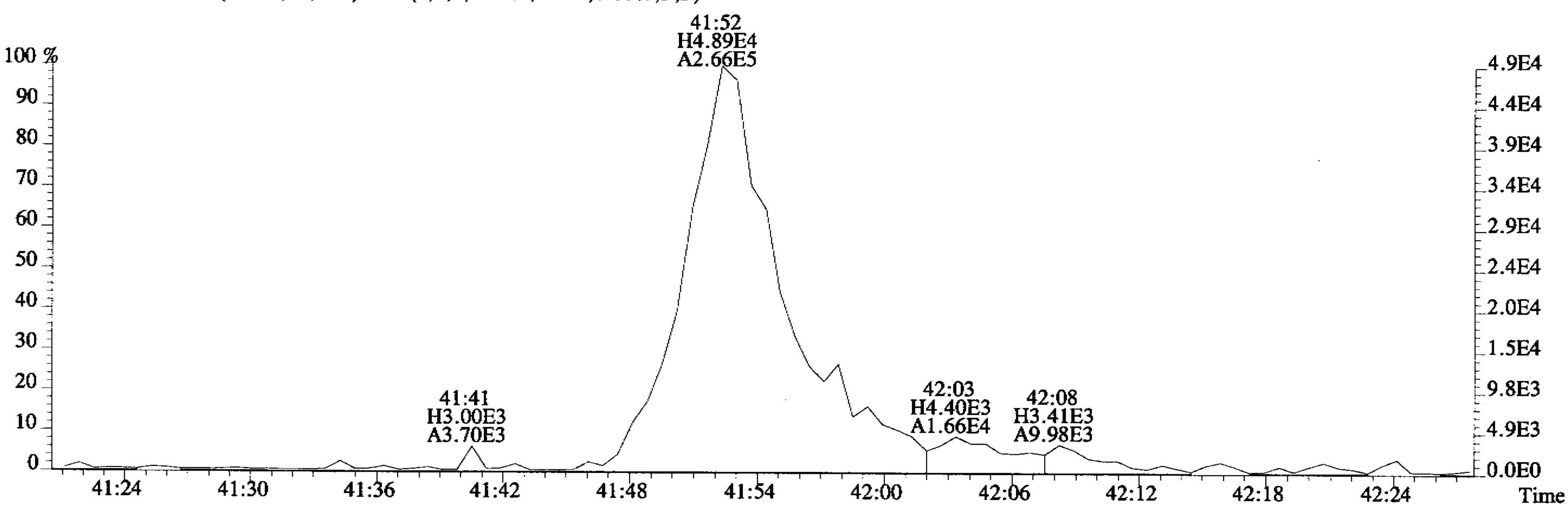
454.9728 S:9 F:5



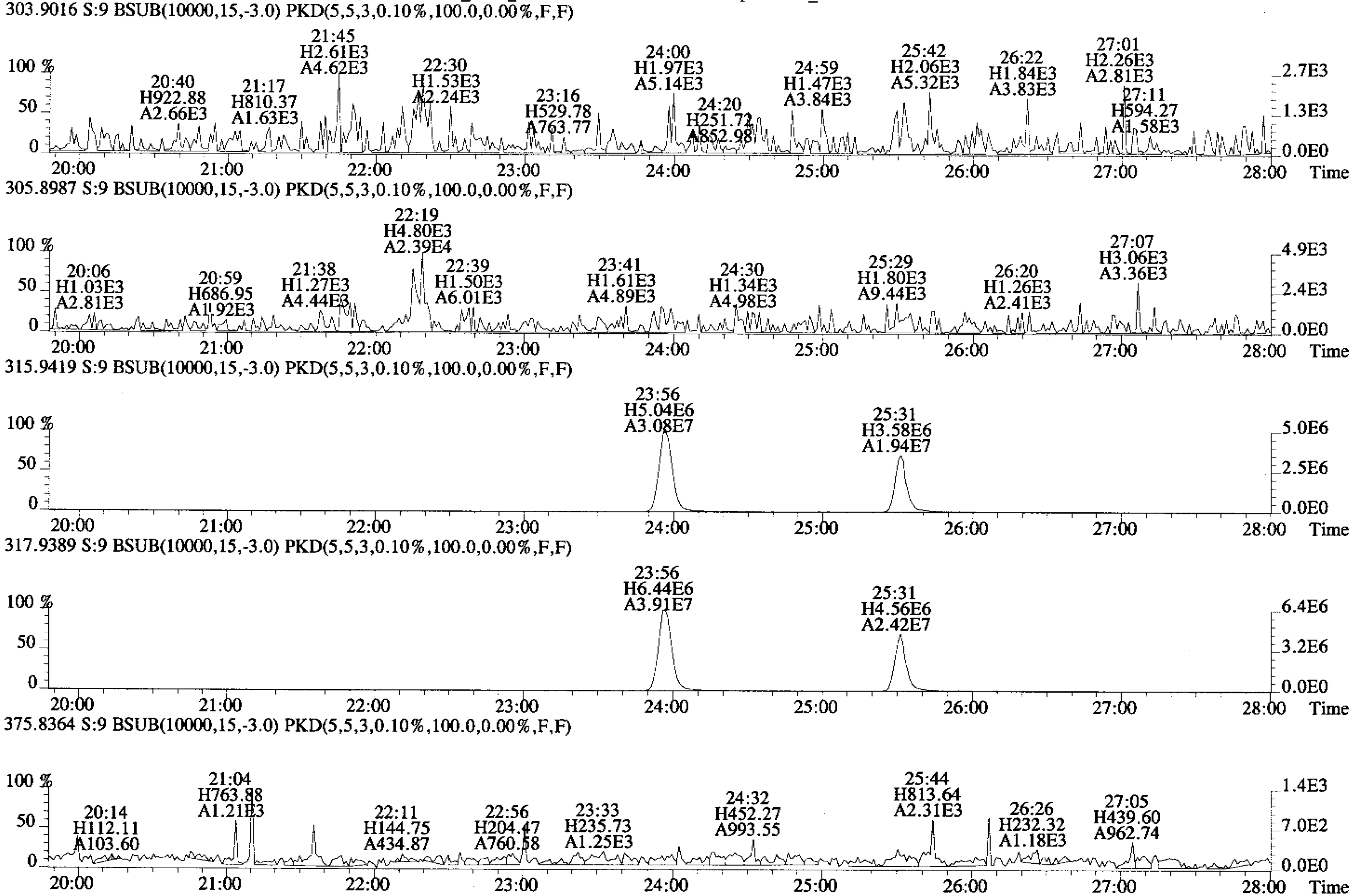
File:060920C2 #1-345 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5
457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



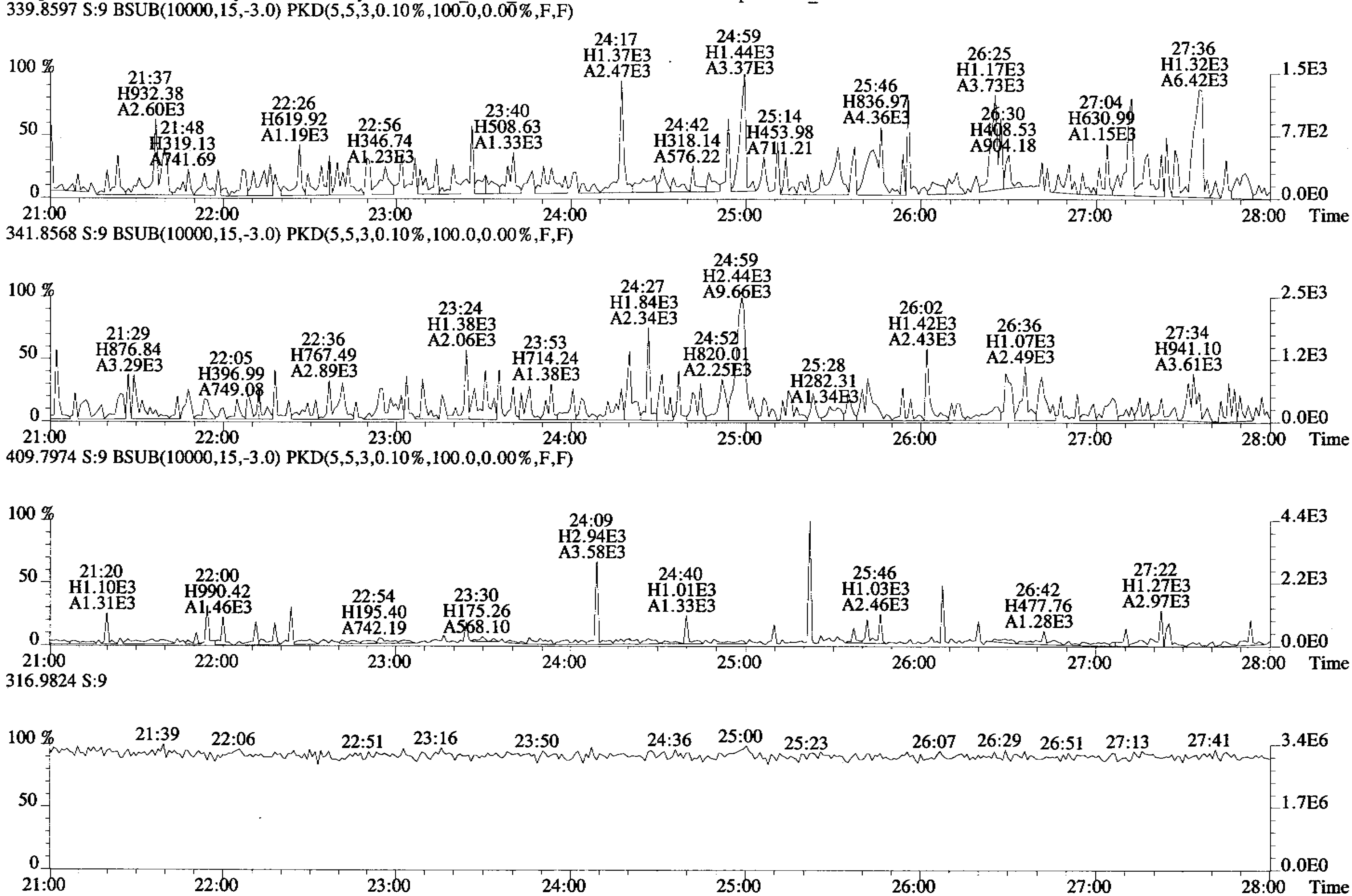
459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



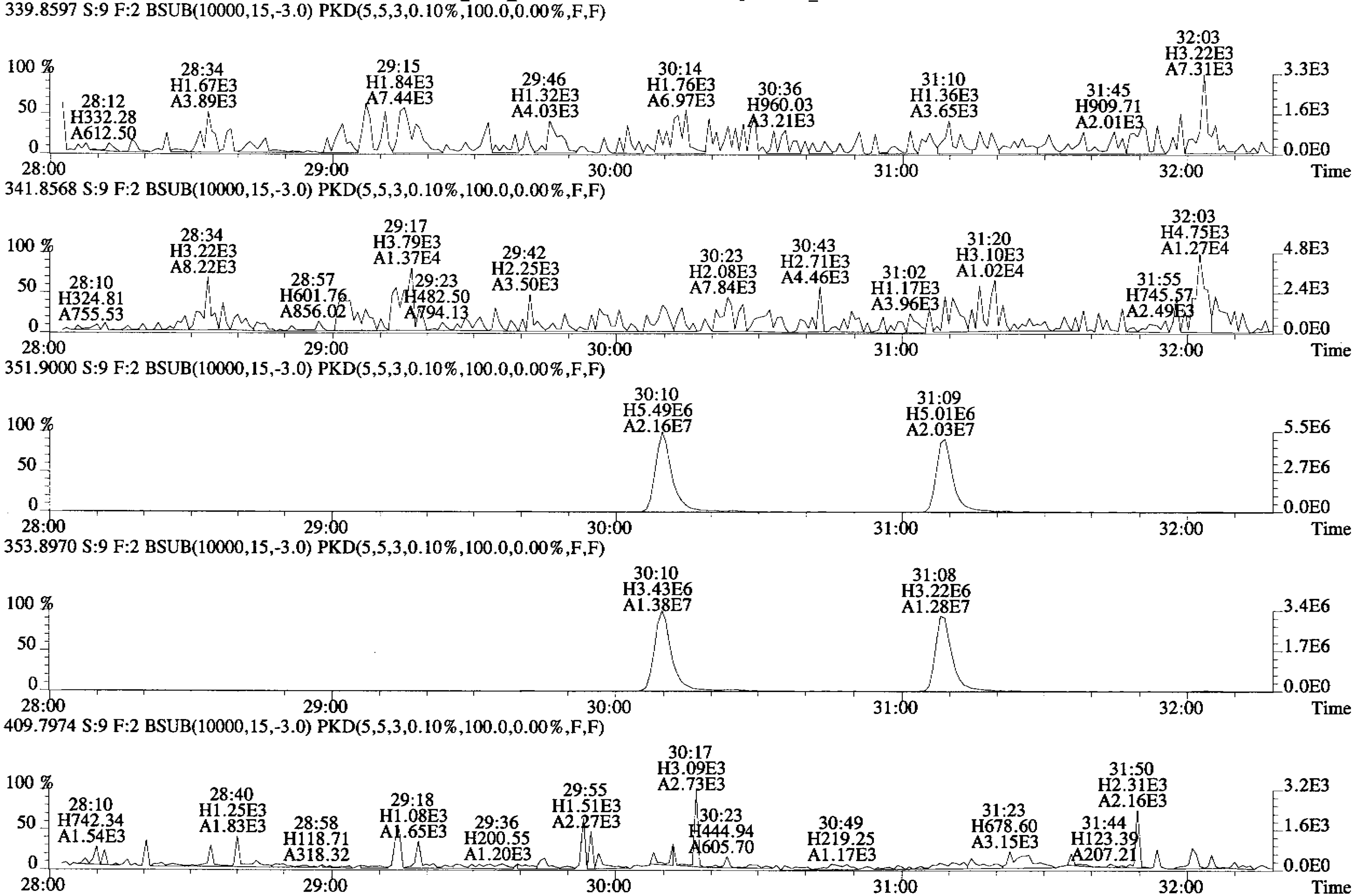
File:060920C2 #1-546 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5



File:060920C2 #1-546 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5

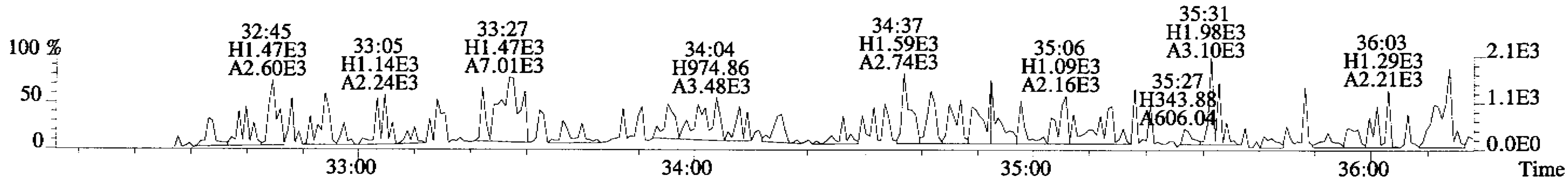


File:060920C2 #1-324 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5

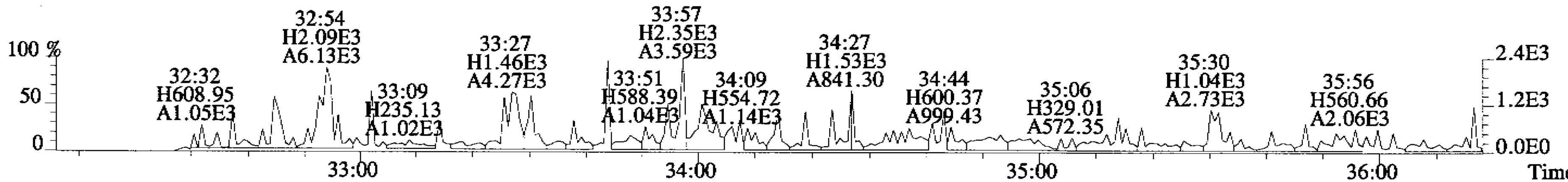


File:060920C2 #1-363 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5

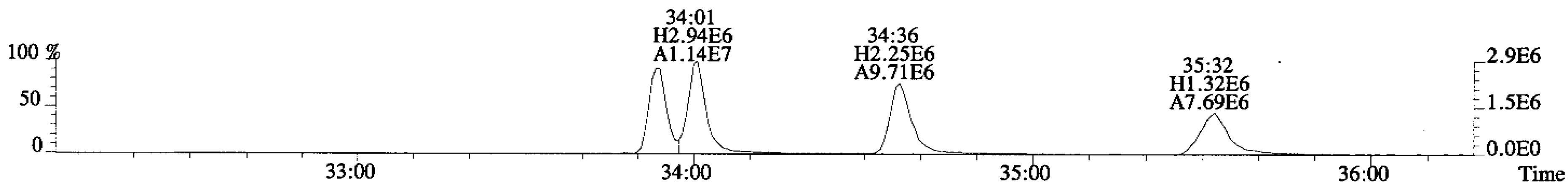
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



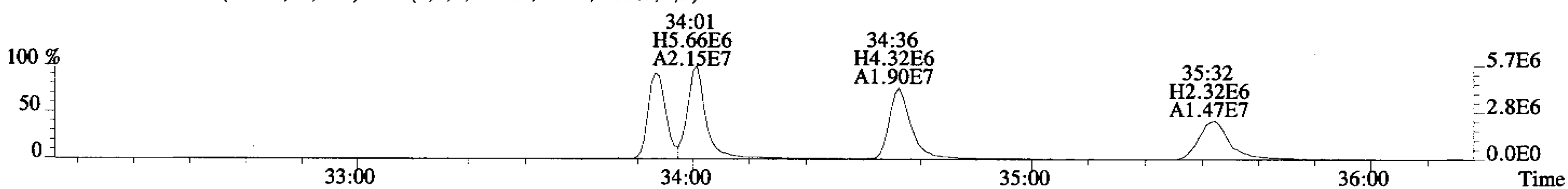
375.8178 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



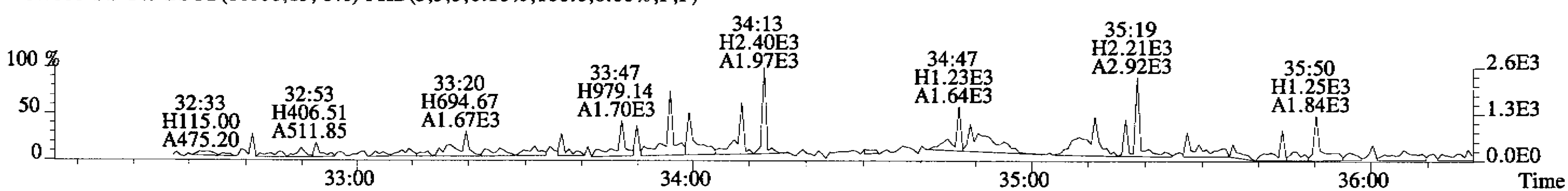
383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



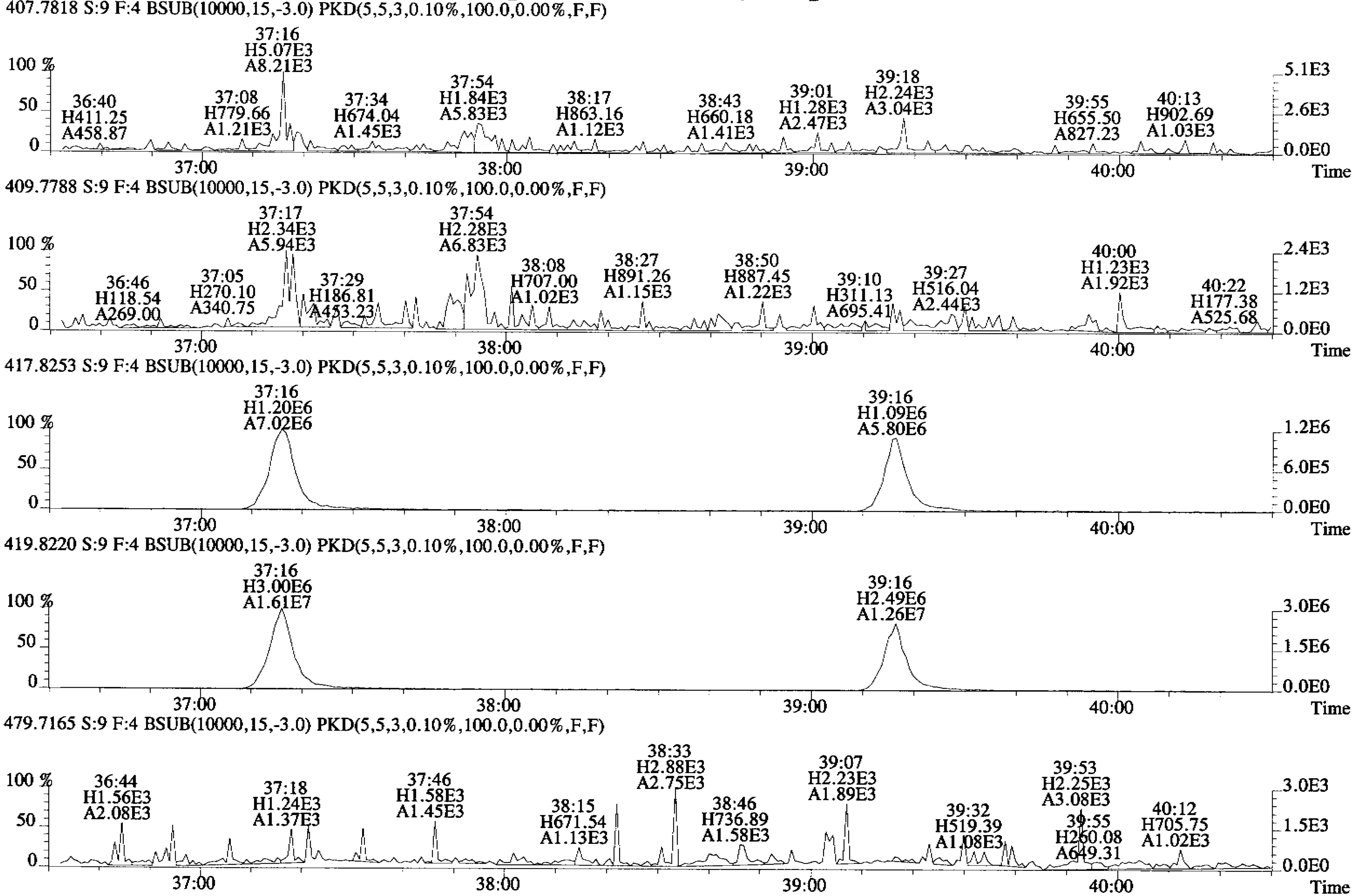
385.8610 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



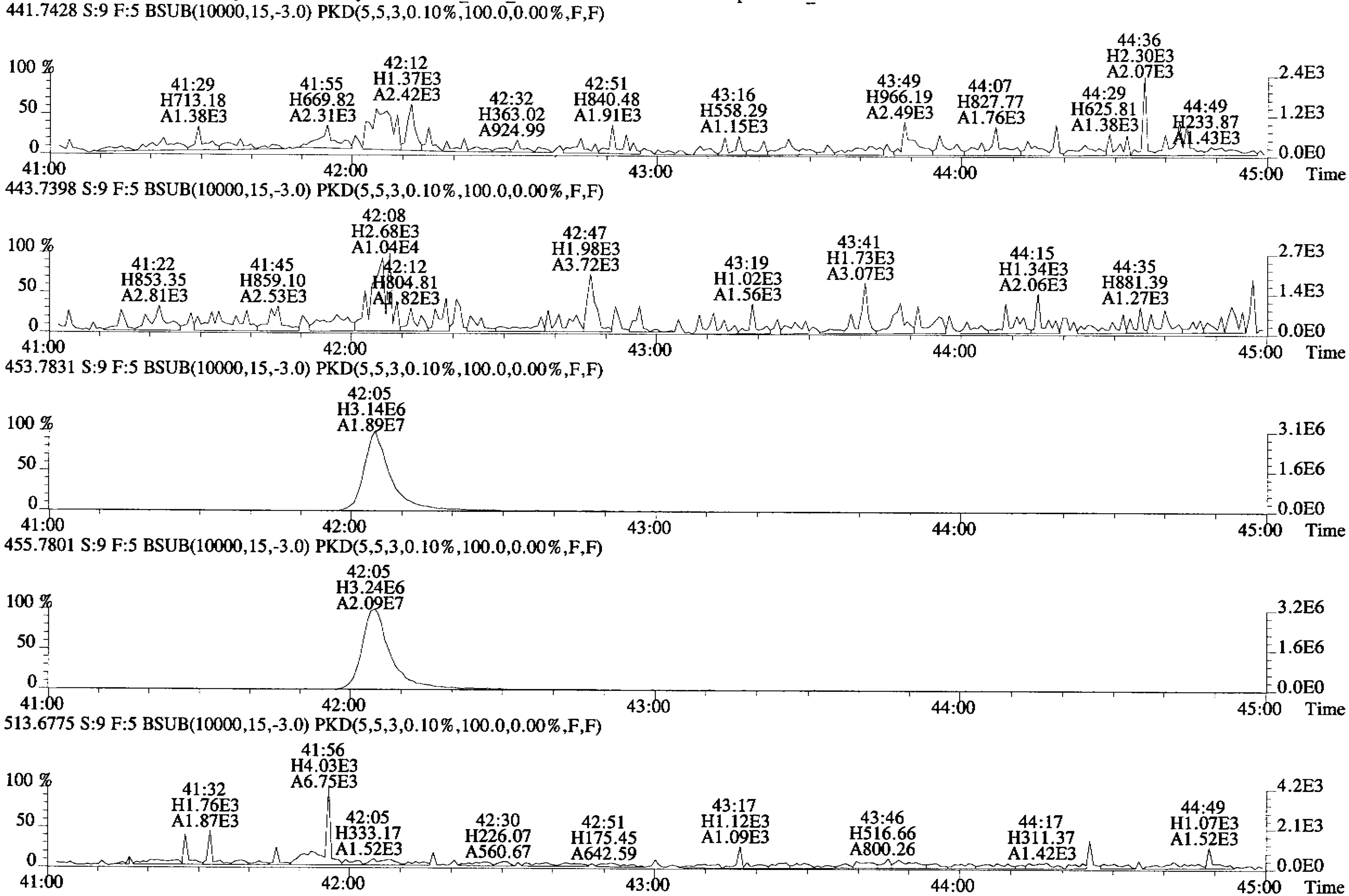
445.7555 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-399 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5



File:060920C2 #1-345 Acq:20-SEP-2006 21:51:37 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:28110_8381_001 IPI1295-01 1.0220L Exp:OCDD_DB5



ICAL

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Inst. ID. VG-5

Data filename: 060322C1

			Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
			10	0.25	0.50	2.0	40	200
Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
2,3,7,8-TCDD	1.08	7.92 %	1.08	1.16	1.05	1.05	1.19	0.95
1,2,3,7,8-PeCDD	1.03	4.40 %	1.00	1.01	1.02	1.02	1.12	1.01
1,2,3,4,7,8-HxCDD	1.13	4.74 %	1.14	1.08	1.11	1.11	1.24	1.13
1,2,3,6,7,8-HxCDD	1.03	7.53 %	0.96	1.10	1.02	1.05	1.13	0.94
1,2,3,7,8,9-HxCDD	1.12	5.45 %	1.11	1.12	1.08	1.09	1.23	1.07
1,2,3,4,6,7,8-HpCDD	1.02	8.12 %	1.02	1.01	1.02	1.03	1.14	0.88
OCDD	1.06	5.69 %	1.04	1.07	0.98	1.08	1.15	1.02
2,3,7,8-TCDF	1.06	7.77 %	1.02	1.13	1.08	1.07	1.15	0.92
1,2,3,7,8-PeCDF	1.01	4.14 %	0.99	1.00	1.01	1.01	1.08	0.95
2,3,4,7,8-PeCDF	1.02	4.24 %	0.99	1.02	1.03	1.04	1.10	0.97
1,2,3,4,7,8-HxCDF	1.15	5.39 %	1.10	1.18	1.13	1.14	1.25	1.08
1,2,3,6,7,8-HxCDF	1.14	5.33 %	1.10	1.11	1.14	1.13	1.26	1.09
2,3,4,6,7,8-HxCDF	1.17	4.53 %	1.12	1.17	1.16	1.16	1.27	1.14
1,2,3,7,8,9-HxCDF	1.10	5.28 %	1.05	1.07	1.09	1.08	1.21	1.07
1,2,3,4,6,7,8-HpCDF	1.31	4.72 %	1.27	1.31	1.28	1.30	1.43	1.28
1,2,3,4,7,8,9-HpCDF	1.33	5.03 %	1.29	1.35	1.28	1.32	1.45	1.27
OCDF	0.91	3.45 %	0.88	0.90	0.91	0.90	0.97	0.90
13C-2,3,7,8-TCDD	1.09	2.67 %	1.13	1.08	1.09	1.08	1.05	1.12
13C-1,2,3,7,8-PeCDD	1.04	3.01 %	1.09	1.00	1.04	1.03	1.03	1.07
13C-1,2,3,4,7,8-HxCDD	0.83	2.39 %	0.79	0.85	0.83	0.83	0.83	0.84
13C-1,2,3,6,7,8-HxCDD	1.04	2.93 %	1.08	1.06	1.01	1.04	1.00	1.04
13C-1,2,3,4,6,7,8-HpCDD	0.85	5.38 %	0.83	0.81	0.87	0.79	0.89	0.91
13C-OCDD	0.71	11.07 %	0.69	0.66	0.70	0.63	0.75	0.85
13C-2,3,7,8-TCDF	0.96	4.18 %	1.02	0.96	0.92	0.99	0.93	0.92
13C-1,2,3,7,8-PeCDF	1.02	3.93 %	1.09	1.00	0.98	1.04	1.01	0.99
13C-2,3,4,7,8-PeCDF	1.02	4.06 %	1.09	1.00	1.00	1.05	1.00	0.98
13C-1,2,3,4,7,8-HxCDF	1.14	2.98 %	1.12	1.19	1.13	1.17	1.15	1.10
13C-1,2,3,6,7,8-HxCDF	1.40	4.36 %	1.43	1.49	1.38	1.43	1.37	1.31
13C-2,3,4,6,7,8-HxCDF	1.26	2.41 %	1.26	1.30	1.25	1.29	1.23	1.23
13C-1,2,3,7,8,9-HxCDF	1.08	1.14 %	1.10	1.07	1.08	1.08	1.07	1.10
13C-1,2,3,4,6,7,8-HpCDF	0.93	3.49 %	0.93	0.92	0.96	0.88	0.96	0.95
13C-1,2,3,4,7,8,9-HpCDF	0.77	6.13 %	0.74	0.74	0.77	0.71	0.80	0.84
13C-OCDF	0.94	9.65 %	0.93	0.89	0.91	0.84	0.98	1.10
37Cl-2,3,7,8-TCDD	0.77	2.76 %	0.78	0.76	0.77	0.74	0.79	0.80
13C-1,2,3,4-TCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4-TCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,7,8,9-HxCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

MS 3/23/06

ok 3/23/06

Filename: 060322C1 S: 1 Acquired: 22-MAR-06 09:32:59
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-1 1613 CS3 060110H

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	10.00	1.79e+07	0.78 y	26:33	-	1.08
2	Unk	1,2,3,7,8-PeCDD	50.00	7.94e+07	0.63 y	31:17	-	1.00
3	Unk	1,2,3,4,7,8-HxCDD	50.00	7.27e+07	1.23 y	34:34	-	1.14
4	Unk	1,2,3,6,7,8-HxCDD	50.00	8.37e+07	1.27 y	34:41	-	0.96
5	Unk	1,2,3,7,8,9-HxCDD	50.00	8.40e+07	1.24 y	34:58	-	1.11
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	6.84e+07	1.03 y	38:31	-	1.02
7	Unk	OCDD	100.00	1.16e+08	0.90 y	41:47	-	1.04
8	Unk	2,3,7,8-TCDF	10.00	2.23e+07	0.77 y	25:42	-	1.02
9	Unk	1,2,3,7,8-PeCDF	50.00	1.15e+08	1.55 y	30:03	-	0.99
10	Unk	2,3,4,7,8-PeCDF	50.00	1.15e+08	1.55 y	30:59	-	0.99
11	Unk	1,2,3,4,7,8-HxCDF	50.00	9.97e+07	1.23 y	33:41	-	1.10
12	Unk	1,2,3,6,7,8-HxCDF	50.00	1.27e+08	1.24 y	33:49	-	1.10
13	Unk	2,3,4,6,7,8-HxCDF	50.00	1.14e+08	1.24 y	34:25	-	1.12
14	Unk	1,2,3,7,8,9-HxCDF	50.00	9.32e+07	1.25 y	35:21	-	1.05
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	9.59e+07	1.01 y	37:07	-	1.27
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	7.72e+07	1.02 y	39:04	-	1.29
17	Unk	OCDF	100.00	1.33e+08	0.89 y	42:00	-	0.88
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.08
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.08
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.00
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.00
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.06
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.06
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.02
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.02
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.02
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.02
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	0.99
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.99
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.99
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	0.99
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.10
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.10
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.28
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.28
36	IS	13C-2,3,7,8-TCDD	100.00	1.66e+08	0.78 y	26:31	-	1.13
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.59e+08	0.65 y	31:16	-	1.09
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.28e+08	1.25 y	34:33	-	0.79

39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.75e+08	1.26 y	34:40	-	1.08
40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.34e+08	1.07 y	38:30	-	0.83
41	IS	13C-OCDD	200.00	2.24e+08	0.89 y	41:46	-	0.69
42	IS	13C-2,3,7,8-TCDF	100.00	2.18e+08	0.79 y	25:41	-	1.02
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.32e+08	1.59 y	30:02	-	1.09
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.32e+08	1.61 y	30:59	-	1.09
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.81e+08	0.52 y	33:40	-	1.12
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.31e+08	0.54 y	33:48	-	1.43
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.04e+08	0.54 y	34:24	-	1.26
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.78e+08	0.53 y	35:20	-	1.10
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.51e+08	0.43 y	37:05	-	0.93
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.20e+08	0.44 y	39:04	-	0.74
51	IS	13C-OCDF	200.00	3.02e+08	0.91 y	41:59	-	0.93

52	C/Up	37Cl-2,3,7,8-TCDD	10.00	1.15e+07		26:32	-	0.78
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.47e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.13e+08	0.78 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.62e+08	1.27 y	34:58	-	1.00

Filename: 060322C1 S: 3 Acquired: 22-MAR-06 11:12:17
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-2 1613 CS0 060110E

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.25	4.63e+05	0.72 y	26:33	-	1.16
2	Unk	1,2,3,7,8-PeCDD	1.25	1.87e+06	0.60 y	31:17	-	1.01
3	Unk	1,2,3,4,7,8-HxCDD	1.25	1.65e+06	1.24 y	34:34	-	1.08
4	Unk	1,2,3,6,7,8-HxCDD	1.25	2.11e+06	1.29 y	34:41	-	1.10
5	Unk	1,2,3,7,8,9-HxCDD	1.25	1.94e+06	1.31 y	34:59	-	1.12
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	1.49e+06	0.96 y	38:32	-	1.01
7	Unk	OCDD	2.50	2.54e+06	0.82 y	41:46	-	1.07
8	Unk	2,3,7,8-TCDF	0.25	5.89e+05	0.73 y	25:43	-	1.13
9	Unk	1,2,3,7,8-PeCDF	1.25	2.72e+06	1.49 y	30:03	-	1.00
10	Unk	2,3,4,7,8-PeCDF	1.25	2.78e+06	1.58 y	30:59	-	1.02
11	Unk	1,2,3,4,7,8-HxCDF	1.25	2.55e+06	1.25 y	33:41	-	1.18
12	Unk	1,2,3,6,7,8-HxCDF	1.25	2.98e+06	1.31 y	33:49	-	1.11
13	Unk	2,3,4,6,7,8-HxCDF	1.25	2.76e+06	1.26 y	34:25	-	1.17
14	Unk	1,2,3,7,8,9-HxCDF	1.25	2.08e+06	1.22 y	35:21	-	1.07
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	2.19e+06	1.00 y	37:07	-	1.31
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	1.82e+06	0.99 y	39:05	-	1.35
17	Unk	OCDF	2.50	2.91e+06	0.90 y	41:59	-	0.90
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.16
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.16
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.01
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.01
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.10
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.10
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.01
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.01
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.13
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.13
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.01
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.01
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.01
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.01
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.13
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.13
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.33
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.33
36	IS	13C-2,3,7,8-TCDD	100.00	1.60e+08	0.80 y	26:32	-	1.08
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.49e+08	0.64 y	31:16	-	1.00
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.23e+08	1.27 y	34:33	-	0.85
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.54e+08	1.27 y	34:40	-	1.06

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.18e+08	1.07	y	38:32	-	0.81
41	IS	13C-OCDD	200.00	1.91e+08	0.90	y	41:47	-	0.66
42	IS	13C-2,3,7,8-TCDF	100.00	2.08e+08	0.79	y	25:41	-	0.96
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.17e+08	1.60	y	30:02	-	1.00
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.17e+08	1.58	y	30:58	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.73e+08	0.54	y	33:41	-	1.19
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.15e+08	0.53	y	33:49	-	1.49
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.89e+08	0.52	y	34:24	-	1.30
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.56e+08	0.53	y	35:20	-	1.07
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.34e+08	0.43	y	37:07	-	0.92
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.08e+08	0.43	y	39:04	-	0.74
51	IS	13C-OCDF	200.00	2.57e+08	0.88	y	41:59	-	0.89

52	C/Up	37Cl-2,3,7,8-TCDD	0.25	2.81e+05		26:33	-	0.76
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.48e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.18e+08	0.79 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.45e+08	1.26 y	34:58	-	1.00

Filename: 060322C1 S: 4 Acquired: 22-MAR-06 12:02:01
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-3 1613 CS1 060110F

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.50	8.69e+05	0.73 y	26:33	-	1.05
2	Unk	1,2,3,7,8-PeCDD	2.50	4.04e+06	0.64 y	31:16	-	1.02
3	Unk	1,2,3,4,7,8-HxCDD	2.50	3.83e+06	1.23 y	34:34	-	1.11
4	Unk	1,2,3,6,7,8-HxCDD	2.50	4.26e+06	1.27 y	34:40	-	1.02
5	Unk	1,2,3,7,8,9-HxCDD	2.50	4.12e+06	1.34 y	34:58	-	1.08
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	3.65e+06	0.98 y	38:30	-	1.02
7	Unk	OCDD	5.00	5.67e+06	0.86 y	41:46	-	0.98
8	Unk	2,3,7,8-TCDF	0.50	1.16e+06	0.79 y	25:43	-	1.08
9	Unk	1,2,3,7,8-PeCDF	2.50	5.73e+06	1.60 y	30:02	-	1.01
10	Unk	2,3,4,7,8-PeCDF	2.50	5.95e+06	1.52 y	30:59	-	1.03
11	Unk	1,2,3,4,7,8-HxCDF	2.50	5.27e+06	1.27 y	33:41	-	1.13
12	Unk	1,2,3,6,7,8-HxCDF	2.50	6.53e+06	1.25 y	33:49	-	1.14
13	Unk	2,3,4,6,7,8-HxCDF	2.50	5.96e+06	1.26 y	34:25	-	1.16
14	Unk	1,2,3,7,8,9-HxCDF	2.50	4.89e+06	1.23 y	35:20	-	1.09
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	5.05e+06	1.01 y	37:06	-	1.28
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	4.06e+06	1.00 y	39:03	-	1.28
17	Unk	OCDF	5.00	6.85e+06	0.87 y	42:00	-	0.91
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.05
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.05
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.02
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.02
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.07
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.07
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.02
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.02
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.08
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.08
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.02
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.02
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.02
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.02
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.13
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.13
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.28
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.28
36	IS	13C-2,3,7,8-TCDD	100.00	1.66e+08	0.78 y	26:31	-	1.09
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.59e+08	0.64 y	31:15	-	1.04
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.37e+08	1.27 y	34:33	-	0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.68e+08	1.27 y	34:39	-	1.01

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.44e+08	1.07 y	38:30	-	0.87
41	IS	13C-OCDD	200.00	2.32e+08	0.91 y	41:46	-	0.70
42	IS	13C-2,3,7,8-TCDF	100.00	2.15e+08	0.80 y	25:42	-	0.92
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.28e+08	1.60 y	30:01	-	0.98
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.32e+08	1.57 y	30:58	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.86e+08	0.52 y	33:40	-	1.13
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.28e+08	0.52 y	33:48	-	1.38
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.06e+08	0.52 y	34:24	-	1.25
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.79e+08	0.52 y	35:19	-	1.08
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.58e+08	0.45 y	37:05	-	0.96
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.27e+08	0.44 y	39:03	-	0.77
51	IS	13C-OCDF	200.00	3.02e+08	0.89 y	41:59	-	0.91

52	C/Up	37Cl-2,3,7,8-TCDD	0.50	5.89e+05		26:33	-	0.77
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.53e+08	0.80 y	25:54	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.32e+08	0.78 y	24:19	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.65e+08	1.29 y	34:57	-	1.00

Filename: 060322C1 S: 5 Acquired: 22-MAR-06 12:51:46
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-4 1613 CS2 060110G

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	2.00	3.64e+06	0.80 y	26:33	-	1.05
2	Unk	1,2,3,7,8-PeCDD	10.00	1.69e+07	0.63 y	31:17	-	1.02
3	Unk	1,2,3,4,7,8-HxCDD	10.00	1.53e+07	1.25 y	34:34	-	1.11
4	Unk	1,2,3,6,7,8-HxCDD	10.00	1.82e+07	1.28 y	34:41	-	1.05
5	Unk	1,2,3,7,8,9-HxCDD	10.00	1.69e+07	1.27 y	34:58	-	1.09
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	1.36e+07	1.05 y	38:32	-	1.03
7	Unk	OCDD	20.00	2.24e+07	0.90 y	41:52	-	1.08
8	Unk	2,3,7,8-TCDF	2.00	4.80e+06	0.77 y	25:43	-	1.07
9	Unk	1,2,3,7,8-PeCDF	10.00	2.39e+07	1.53 y	30:02	-	1.01
10	Unk	2,3,4,7,8-PeCDF	10.00	2.49e+07	1.60 y	30:59	-	1.04
11	Unk	1,2,3,4,7,8-HxCDF	10.00	2.22e+07	1.23 y	33:41	-	1.14
12	Unk	1,2,3,6,7,8-HxCDF	10.00	2.68e+07	1.23 y	33:49	-	1.13
13	Unk	2,3,4,6,7,8-HxCDF	10.00	2.49e+07	1.22 y	34:25	-	1.16
14	Unk	1,2,3,7,8,9-HxCDF	10.00	1.94e+07	1.24 y	35:20	-	1.08
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	1.89e+07	1.04 y	37:08	-	1.30
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	1.55e+07	1.03 y	39:05	-	1.32
17	Unk	OCDF	20.00	2.53e+07	0.87 y	42:03	-	0.90
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.05
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.05
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.02
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.02
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.08
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.08
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.03
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.03
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.07
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.07
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.03
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.03
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.03
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.03
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.13
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.13
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.31
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.31
36	IS	13C-2,3,7,8-TCDD	100.00	1.73e+08	0.79 y	26:32	-	1.08
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.65e+08	0.64 y	31:16	-	1.03
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.38e+08	1.27 y	34:33	-	0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.73e+08	1.27 y	34:40	-	1.04

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.32e+08	1.09 y	38:31	-	0.79
41	IS	13C-OCDD	200.00	2.08e+08	0.89 y	41:51	-	0.63
42	IS	13C-2,3,7,8-TCDF	100.00	2.25e+08	0.79 y	25:42	-	0.99
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.36e+08	1.59 y	30:02	-	1.04
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.39e+08	1.59 y	30:59	-	1.05
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.95e+08	0.52 y	33:40	-	1.17
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.36e+08	0.52 y	33:48	-	1.43
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.14e+08	0.52 y	34:24	-	1.29
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.79e+08	0.53 y	35:20	-	1.08
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.45e+08	0.45 y	37:07	-	0.88
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.18e+08	0.43 y	39:03	-	0.71
51	IS	13C-OCDF	200.00	2.80e+08	0.88 y	42:02	-	0.84

52	C/Up	37Cl-2,3,7,8-TCDD	2.00	2.38e+06		26:33	-	0.74
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.61e+08	0.80 y	25:54	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.27e+08	0.79 y	24:19	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.66e+08	1.26 y	34:57	-	1.00

Filename: 060322C1 S: 6 Acquired: 22-MAR-06 13:41:25
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-5 1613 CS4 060110I

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	40.00	6.96e+07	0.78 y	26:33	-	1.19
2	Unk	1,2,3,7,8-PeCDD	200.00	3.19e+08	0.64 y	31:16	-	1.12
3	Unk	1,2,3,4,7,8-HxCDD	200.00	2.97e+08	1.24 y	34:33	-	1.24
4	Unk	1,2,3,6,7,8-HxCDD	200.00	3.27e+08	1.25 y	34:40	-	1.13
5	Unk	1,2,3,7,8,9-HxCDD	200.00	3.27e+08	1.24 y	34:57	-	1.23
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	2.90e+08	1.03 y	38:31	-	1.14
7	Unk	OCDD	400.00	4.99e+08	0.91 y	41:47	-	1.15
8	Unk	2,3,7,8-TCDF	40.00	8.69e+07	0.76 y	25:42	-	1.15
9	Unk	1,2,3,7,8-PeCDF	200.00	4.43e+08	1.54 y	30:01	-	1.08
10	Unk	2,3,4,7,8-PeCDF	200.00	4.46e+08	1.54 y	30:58	-	1.10
11	Unk	1,2,3,4,7,8-HxCDF	200.00	4.16e+08	1.22 y	33:40	-	1.25
12	Unk	1,2,3,6,7,8-HxCDF	200.00	4.97e+08	1.23 y	33:48	-	1.26
13	Unk	2,3,4,6,7,8-HxCDF	200.00	4.54e+08	1.22 y	34:24	-	1.27
14	Unk	1,2,3,7,8,9-HxCDF	200.00	3.74e+08	1.25 y	35:20	-	1.21
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	3.99e+08	1.02 y	37:06	-	1.43
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	3.35e+08	1.03 y	39:03	-	1.45
17	Unk	OCDF	400.00	5.50e+08	0.87 y	41:59	-	0.97
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.19
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.19
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.12
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.12
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.20
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.20
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.14
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.14
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.15
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.15
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.09
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.09
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.09
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.09
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.25
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.25
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.44
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.44
36	IS	13C-2,3,7,8-TCDD	100.00	1.46e+08	0.79 y	26:31	-	1.05
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.43e+08	0.65 y	31:14	-	1.03
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.20e+08	1.25 y	34:32	-	0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.44e+08	1.26 y	34:39	-	1.00

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.28e+08	1.06	y	38:30	-	0.89
41	IS	13C-OCDD	200.00	2.16e+08	0.91	y	41:46	-	0.75
42	IS	13C-2,3,7,8-TCDF	100.00	1.89e+08	0.80	y	25:41	-	0.93
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.05e+08	1.60	y	30:01	-	1.01
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.04e+08	1.58	y	30:57	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.67e+08	0.52	y	33:39	-	1.15
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.98e+08	0.52	y	33:47	-	1.37
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.78e+08	0.52	y	34:23	-	1.23
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.54e+08	0.54	y	35:19	-	1.07
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.39e+08	0.44	y	37:05	-	0.96
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.16e+08	0.44	y	39:03	-	0.80
51	IS	13C-OCDF	200.00	2.83e+08	0.90	y	41:59	-	0.98

52	C/Up	37Cl-2,3,7,8-TCDD	40.00	4.40e+07		26:32	-	0.79
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.39e+08	0.79 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.03e+08	0.78 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.44e+08	1.27 y	34:57	-	1.00

Filename: 060322C1 S: 7 Acquired: 22-MAR-06 14:31:06
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-6 1613 CS5 060110J

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	200.00	3.53e+08	0.78 y	26:32	-	0.95
2	Unk	1,2,3,7,8-PeCDD	1000.00	1.80e+09	0.63 y	31:16	-	1.01
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	1.85e+09	1.26 y	34:34	-	1.13
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	1.89e+09	1.27 y	34:41	-	0.94
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	1.96e+09	1.25 y	34:58	-	1.07
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	1.56e+09	1.05 y	38:32	-	0.88
7	Unk	OCDD	2000.00	3.39e+09	0.90 y	41:52	-	1.02
8	Unk	2,3,7,8-TCDF	200.00	4.37e+08	0.78 y	25:42	-	0.92
9	Unk	1,2,3,7,8-PeCDF	1000.00	2.42e+09	1.54 y	30:02	-	0.95
10	Unk	2,3,4,7,8-PeCDF	1000.00	2.45e+09	1.55 y	30:59	-	0.97
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	2.31e+09	1.26 y	33:41	-	1.08
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	2.78e+09	1.23 y	33:49	-	1.09
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	2.75e+09	1.24 y	34:25	-	1.14
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	2.30e+09	1.24 y	35:21	-	1.07
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	2.38e+09	1.02 y	37:06	-	1.28
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	2.07e+09	1.02 y	39:06	-	1.27
17	Unk	OCDF	2000.00	3.87e+09	0.88 y	42:04	-	0.90
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	0.95
19	Tot	TCDD EMPC	0.00	-	- n	-	-	0.95
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.01
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.01
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.04
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.04
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	0.88
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	0.88
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	0.92
27	Tot	TCDF EMPC	0.00	-	- n	-	-	0.92
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	0.96
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.96
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.96
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	0.96
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.10
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.10
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.27
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.27
36	IS	13C-2,3,7,8-TCDD	100.00	1.85e+08	0.79 y	26:31	-	1.12
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.78e+08	0.64 y	31:15	-	1.07
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.64e+08	1.27 y	34:33	-	0.84
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.02e+08	1.28 y	34:40	-	1.04

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.78e+08	1.06	y	38:31	-	0.91
41	IS	13C-OCDD	200.00	3.32e+08	0.90	y	41:51	-	0.85
42	IS	13C-2,3,7,8-TCDF	100.00	2.38e+08	0.79	y	25:41	-	0.92
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.54e+08	1.60	y	30:01	-	0.99
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.52e+08	1.61	y	30:58	-	0.98
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	2.15e+08	0.54	y	33:40	-	1.10
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.55e+08	0.52	y	33:48	-	1.31
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.41e+08	0.53	y	34:24	-	1.23
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.14e+08	0.53	y	35:20	-	1.10
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.86e+08	0.44	y	37:06	-	0.95
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.64e+08	0.45	y	39:05	-	0.84
51	IS	13C-OCDF	200.00	4.31e+08	0.89	y	42:03	-	1.10

52	C/Up	37Cl-2,3,7,8-TCDD	200.00	2.64e+08		26:32	-	0.80
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.66e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.57e+08	0.78 y	24:17	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.95e+08	1.25 y	34:57	-	1.00

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.: CCAL ID: ST060322C1-1

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	10.00	7.8 - 12.9
						8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M+2/M+4	0.63	0.54-0.72	y	48.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	50.1	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	46.3	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	49.6	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	50.2	43.0 - 58.0
OCDD	M+2/M+4	0.90	0.76-1.02	y	98.4	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.64	8.4 - 12.0
						8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.1	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	48.2	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.0	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	48.4	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	47.9	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	47.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	48.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.7	43.0 - 58.0
OCDF	M+2/M+4	0.89	0.76-1.02	y	96.7	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MJ

Date: 3/23/06

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	104	82.0 - 121.0
						85.0 - 117.0 (5)
13C-1,2,3,7,8-PeCDD	M+2/M+4	0.65	0.54-0.72	y	104	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	95.4	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	104	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	97.4	72.0 - 138.0
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	194	96.0 - 415.0
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	107	71.0 - 140.0
						76.0 - 131.0 (5)
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	107	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	107	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	97.8	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	99.9	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	101	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	100	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	96.5	77.0 - 129.0
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	198	96.0 - 415.0
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					10.1	7.9 - 12.7
						8.3 - 12.1 (5)

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613.

(4) No ion abundance ratio; report concentration found.

(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.

Analyst: MM

Date: 3/22/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.: CCAL ID: ST060322C1-1

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	10.00	8.00 - 12.0
1,2,3,7,8-PeCDD	M+2/M+4	0.63	0.54-0.72	y	48.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	50.1	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	46.3	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	49.6	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	50.2	40.0 - 60.0
OCDD	M+2/M+4	0.90	0.76-1.02	y	98.4	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.64	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.1	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	48.2	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.0	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	48.4	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	47.9	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	47.9	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	48.3	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.7	40.0 - 60.0
OCDF	M+2/M+4	0.89	0.76-1.02	y	96.7	80.0 - 120

Analyst: MJ

Date: 3/23/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060322C1   S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	104	70.0 - 130
13C-1,2,3,7,8-PeCDD	M+2/M+4	0.65	0.54-0.72	y	104	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	95.4	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	104	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	97.4	70.0 - 130
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	194	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	107	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	107	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	107	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	97.8	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	99.9	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	101	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	100	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	96.5	70.0 - 130
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	198	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					10.1	7.00 - 13.0

Analyst: MM

Date: 3/23/06

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Instrument ID: VG-5   Initial Calibration Date: 3/22/06

RT Window Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

DB-5 IS Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:44	1,3,6,8-TCDF (F)	20:32
1,2,8,9-TCDD (L)	27:27	1,2,8,9-TCDF (L)	27:36
1,2,4,7,9-PeCDD (F)	29:08	1,3,4,6,8-PeCDF (F)	27:31
1,2,3,8,9-PeCDD (L)	31:39	1,2,3,8,9-PeCDF (L)	31:53
1,2,4,6,7,9-HxCDD (F)	33:03	1,2,3,4,6,8-HxCDF (F)	32:31
1,2,3,7,8,9-HxCDD (L)	34:58	1,2,3,7,8,9-HxCDF (L)	35:21
1,2,3,4,6,7,9-HpCDD (F)	37:31	1,2,3,4,6,7,8-HpCDF (F)	37:07
1,2,3,4,6,7,8-HpCDD (L)	38:31	1,2,3,4,7,8,9-HpCDF (L)	39:04

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT BETWEEN COMPARED PEAKS (1)
<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: AM

Date: 3/22/06

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.025	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.026	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.160	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.197	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.208	1.000-1.567

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: VN

Date: 3/23/06

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.001	0.999-1.001
OCDF	13C-OCDF	1.006	0.999-1.008
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.963	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.967	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.988	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.991	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.061	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.101	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.195	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.201	1.032-1.311

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: MM

Date: 3/23/06

Client ID: 1613 CS3 060110H   Filename: 060322C1   S:1   Acq:22-MAR-06 09:32:59   ConCal: NA
Lab ID: ST060322C1-1   GC Column ID: db-5   ICal: 1613VG5-3-22-06   wt/vol: 1.000   EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise Fac	DL
	2,3,7,8-TCDD	1.79e+07	0.78 y	1.08	26:33	9.9986		* 2.5	*
	1,2,3,7,8-PeCDD	7.94e+07	0.63 y	1.03	31:17	48.413		* 2.5	*
	1,2,3,4,7,8-HxCDD	7.27e+07	1.23 y	1.13	34:34	50.100		* 2.5	*
	1,2,3,6,7,8-HxCDD	8.37e+07	1.27 y	1.03	34:41	46.322		* 2.5	*
	1,2,3,7,8,9-HxCDD	8.40e+07	1.24 y	1.12	34:58	49.626		* 2.5	*
	1,2,3,4,6,7,8-HpCDD	6.84e+07	1.03 y	1.02	38:31	50.200		* 2.5	*
	OCDD	1.16e+08	0.90 y	1.06	41:47	98.413		* 2.5	*
	2,3,7,8-TCDF	2.23e+07	0.77 y	1.06	25:42	9.6429		* 2.5	*
	1,2,3,7,8-PeCDF	1.15e+08	1.55 y	1.01	30:03	49.145		* 2.5	*
	2,3,4,7,8-PeCDF	1.15e+08	1.55 y	1.02	30:59	48.157		* 2.5	*
	1,2,3,4,7,8-HxCDF	9.97e+07	1.23 y	1.15	33:41	48.028		* 2.5	*
	1,2,3,6,7,8-HxCDF	1.27e+08	1.24 y	1.14	33:49	48.373		* 2.5	*
	2,3,4,6,7,8-HxCDF	1.14e+08	1.24 y	1.17	34:25	47.928		* 2.5	*
	1,2,3,7,8,9-HxCDF	9.32e+07	1.25 y	1.10	35:21	47.854		* 2.5	*
	1,2,3,4,6,7,8-HpCDF	9.59e+07	1.01 y	1.31	37:07	48.348		* 2.5	*
	1,2,3,4,7,8,9-HpCDF	7.72e+07	1.02 y	1.33	39:04	48.679		* 2.5	*
	OCDF	1.33e+08	0.89 y	0.91	42:00	96.741		* 2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	52.364	52.641		*	*
Total Penta-Dioxins	143.45	143.74		*	*
Total Hexa-Dioxins	202.96	203.37		*	*
Total Hepta-Dioxins	100.70	101.63		*	*
Total Tetra-Furans	30.189	30.289		*	*
Total Penta-Furans	181.82	182.98		*	*
Total Hexa-Furans	243.28	244.86		*	*
Total Hepta-Furans	97.658	99.281		*	*

	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	1.66e+08	0.78 y	1.09	26:31	103.84	104	
IS	13C-1,2,3,7,8-PeCDD	1.59e+08	0.65 y	1.04	31:16	104.12	104	
IS	13C-1,2,3,4,7,8-HxCDD	1.28e+08	1.25 y	0.83	34:33	95.383	95.4	
IS	13C-1,2,3,6,7,8-HxCDD	1.75e+08	1.26 y	1.04	34:40	104.17	104	
IS	13C-1,2,3,4,6,7,8-HpCDD	1.34e+08	1.07 y	0.85	38:30	97.436	97.4	
IS	13C-OCDD	2.24e+08	0.89 y	0.71	41:46	194.01	97.0	
IS	13C-2,3,7,8-TCDF	2.18e+08	0.79 y	0.96	25:41	106.62	107	
IS	13C-1,2,3,7,8-PeCDF	2.32e+08	1.59 y	1.02	30:02	106.81	107	
IS	13C-2,3,4,7,8-PeCDF	2.32e+08	1.61 y	1.02	30:59	106.66	107	
IS	13C-1,2,3,4,7,8-HxCDF	1.81e+08	0.52 y	1.14	33:40	97.782	97.8	
IS	13C-1,2,3,6,7,8-HxCDF	2.31e+08	0.54 y	1.40	33:48	101.93	102	
IS	13C-2,3,4,6,7,8-HxCDF	2.04e+08	0.54 y	1.26	34:24	99.872	99.9	
IS	13C-1,2,3,7,8,9-HxCDF	1.78e+08	0.53 y	1.08	35:20	101.23	101	
IS	13C-1,2,3,4,6,7,8-HpCDF	1.51e+08	0.43 y	0.93	37:05	100.02	100	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.20e+08	0.44 y	0.77	39:04	96.454	96.5	
IS	13C-OCDF	3.02e+08	0.91 y	0.94	41:59	197.99	99.0	
C/Up	37Cl-2,3,7,8-TCDD	1.15e+07		0.77	26:32	10.124	101	
RS/RT	13C-1,2,3,4-TCDD	1.47e+08	0.80 y	1.00	25:53	100.00		
RS	13C-1,2,3,4-TCDF	2.13e+08	0.78 y	1.00	24:18	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	1.62e+08	1.27 y	1.00	34:58	100.00		

Integrations by Analyst: MJ   Reviewed by Analyst: ________

Date: 3/22/06   Date: ________

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Inst. ID. VG-7

Data filename: 060322C1

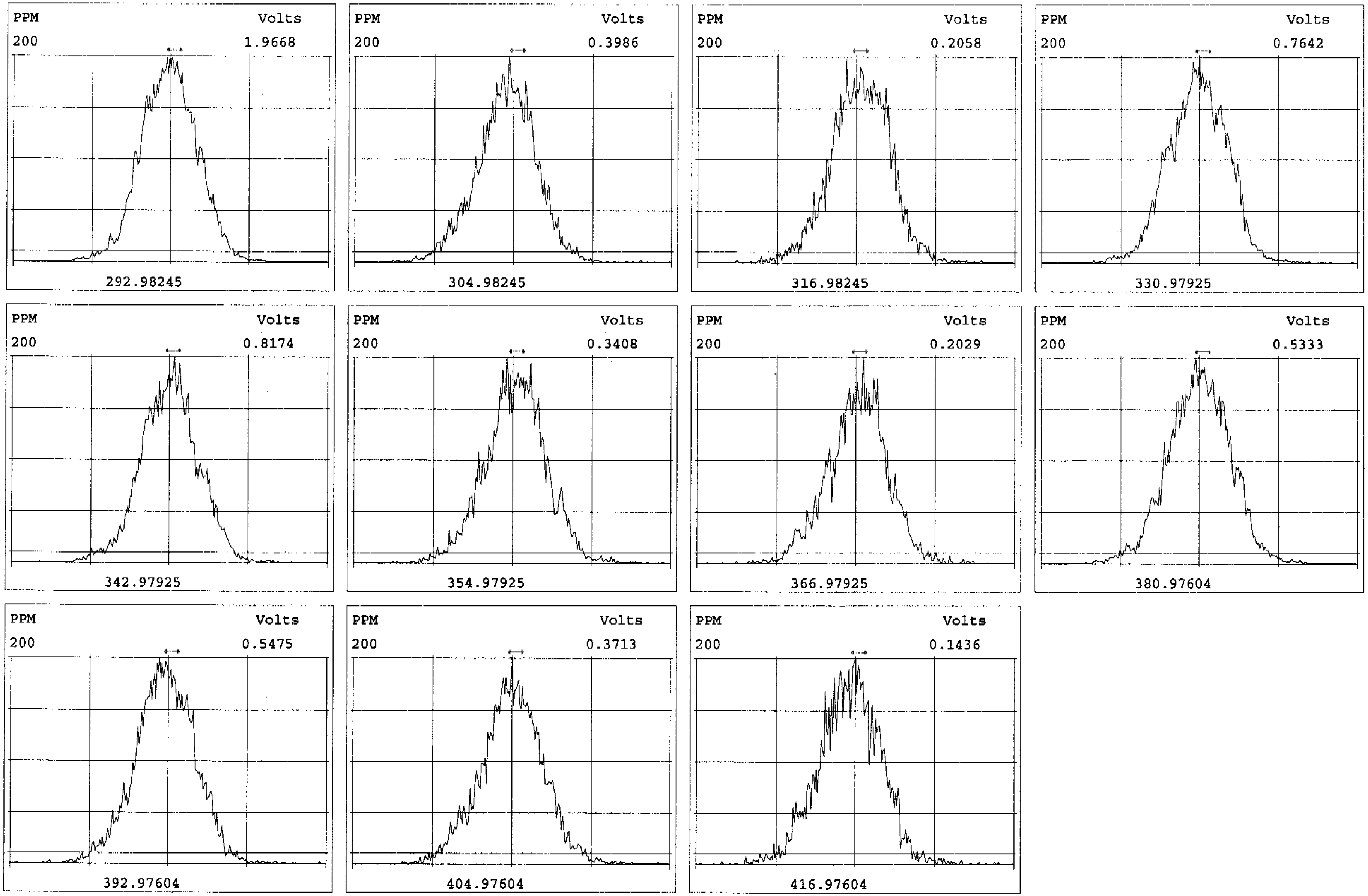
	RRT Limits		Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
			10	0.25	0.50	2.0	40	200
Name	Lower	Upper	RRT#1	RRT#2	RRT#3	RRT#4	RRT#5	RRT#6
2,3,7,8-TCDD	0.999	-1.002	1.001	1.001	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDD	0.999	-1.002	1.000	1.000	1.000	1.000	1.001	1.000
1,2,3,4,7,8-HxCDD	0.999	-1.001	1.000	1.001	1.000	1.000	1.000	1.000
1,2,3,6,7,8-HxCDD	0.998	-1.004	1.000	1.000	1.001	1.000	1.000	1.000
1,2,3,7,8,9-HxCDD	1.000	-1.019	1.009	1.009	1.009	1.009	1.009	1.009
1,2,3,4,6,7,8-HpCDD	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDD	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
2,3,7,8-TCDF	0.999	-1.003	1.001	1.001	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.000
2,3,4,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8-HxCDF	0.999	-1.001	1.001	1.000	1.000	1.001	1.001	1.000
1,2,3,6,7,8-HxCDF	0.997	-1.005	1.000	1.000	1.000	1.000	1.001	1.001
2,3,4,6,7,8-HxCDF	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
1,2,3,7,8,9-HxCDF	0.999	-1.001	1.000	1.000	1.001	1.000	1.001	1.000
1,2,3,4,6,7,8-HpCDF	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8,9-HpCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDF	0.999	-1.008	1.006	1.005	1.005	1.005	1.005	1.005
13C-2,3,7,8-TCDD	0.976	-1.043	1.025	1.025	1.024	1.025	1.024	1.024
13C-1,2,3,7,8-PeCDD	1.000	-1.567	1.208	1.208	1.207	1.207	1.207	1.208
13C-1,2,3,4,7,8-HxCDD	0.977	-1.000	0.988	0.988	0.988	0.988	0.988	0.988
13C-1,2,3,6,7,8-HxCDD	0.981	-1.003	0.991	0.992	0.991	0.992	0.992	0.992
13C-1,2,3,4,6,7,8-HpCDD	1.086	-1.110	1.101	1.102	1.102	1.102	1.102	1.102
13C-OCDD	1.032	-1.311	1.195	1.195	1.195	1.197	1.195	1.197
13C-2,3,7,8-TCDF	0.923	-1.103	0.992	0.992	0.992	0.992	0.992	0.992
13C-1,2,3,7,8-PeCDF	1.000	-1.425	1.160	1.160	1.159	1.160	1.159	1.160
13C-2,3,4,7,8-PeCDF	1.011	-1.526	1.197	1.196	1.196	1.196	1.196	1.197
13C-1,2,3,4,7,8-HxCDF	0.944	-0.970	0.963	0.963	0.963	0.963	0.963	0.963
13C-1,2,3,6,7,8-HxCDF	0.949	-0.975	0.967	0.967	0.967	0.967	0.967	0.967
13C-2,3,4,6,7,8-HxCDF	0.959	-1.021	0.984	0.984	0.984	0.984	0.984	0.984
13C-1,2,3,7,8,9-HxCDF	0.977	-1.047	1.011	1.011	1.010	1.011	1.011	1.011
13C-1,2,3,4,6,7,8-HpCDF	1.043	-1.085	1.061	1.061	1.061	1.062	1.061	1.061
13C-1,2,3,4,7,8,9-HpCDF	1.057	-1.151	1.117	1.117	1.117	1.117	1.117	1.118
13C-OCDF	1.032	-1.311	1.201	1.201	1.201	1.203	1.201	1.203
37Cl-2,3,7,8-TCDD	0.989	-1.052	1.026	1.025	1.025	1.025	1.025	1.026
13C-1,2,3,4-TCDD	0.000	-0.000	*	*	*	*	*	*
13C-1,2,3,4-TCDF	0.923	-1.103	*	*	*	*	*	*
13C-1,2,3,7,8,9-HxCDD	0.000	-0.000	*	*	*	*	*	*

Alta Analytical Laboratory - Injection Log Run file: 060322C1 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060322C1	1	ST060322C1-1	MAS	22-MAR-06	09:32:59	NA	NA
060322C1	2	SOLVENT BLANK	MAS	22-MAR-06	10:22:37	NA	NA
060322C1	3	ST060322C1-2	MAS	22-MAR-06	11:12:17	NA	NA
060322C1	4	ST060322C1-3	MAS	22-MAR-06	12:02:01	NA	NA
060322C1	5	ST060322C1-4	MAS	22-MAR-06	12:51:46	NA	NA
060322C1	6	ST060322C1-5	MAS	22-MAR-06	13:41:25	NA	NA
060322C1	7	ST060322C1-6	MAS	22-MAR-06	14:31:06	NA	NA
060322C1	8	SOLVENT BLANK	MAS	22-MAR-06	15:20:45	NA	NA
060322C1	9	SS060322C1-1	MAS	22-MAR-06	16:10:24	NA	NA

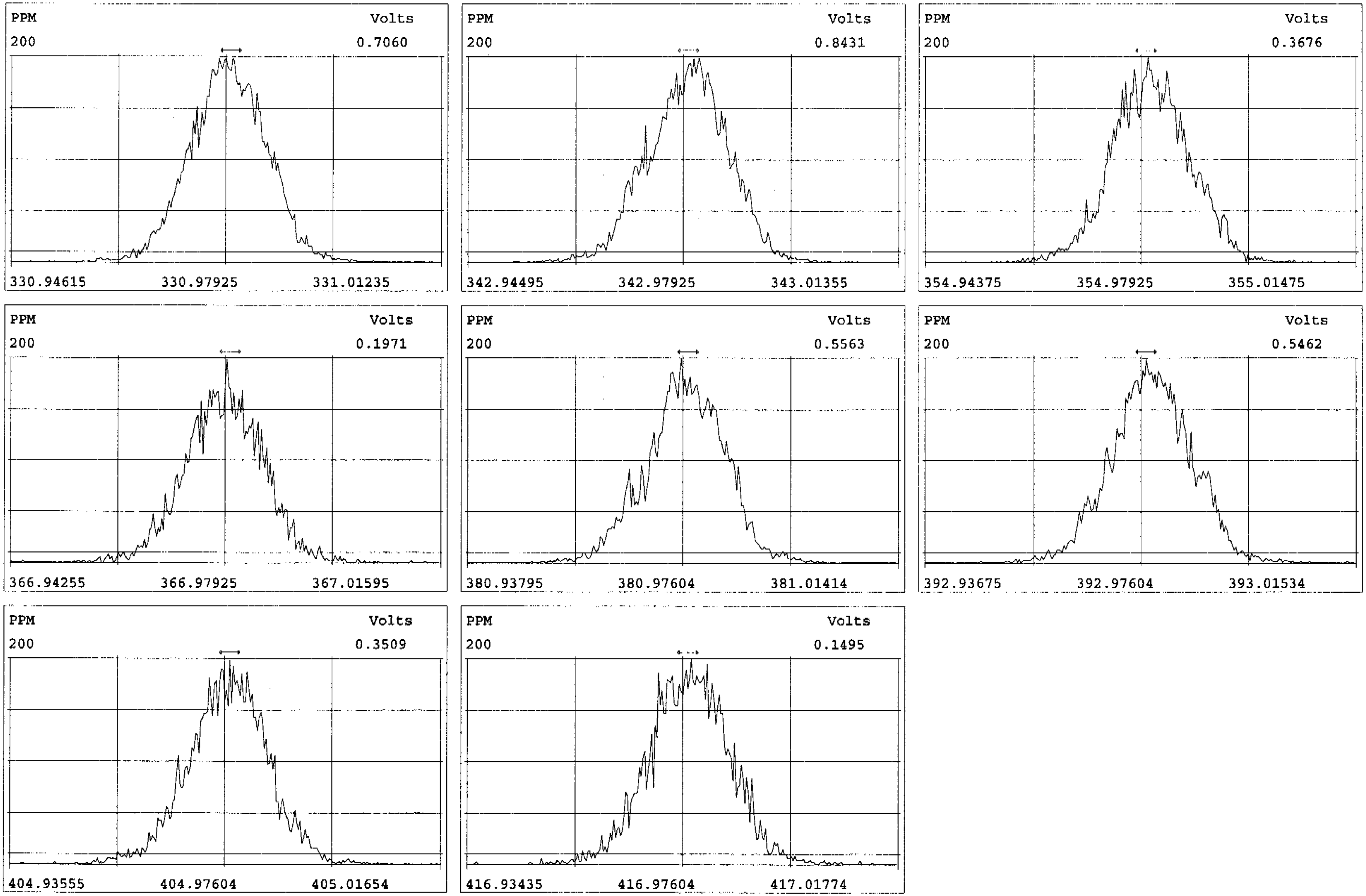
Peak Locate Examination:22-MAR-2006:09:31 File:060322C1

Experiment:OCDD_DB5 Function:1 Reference:PFK



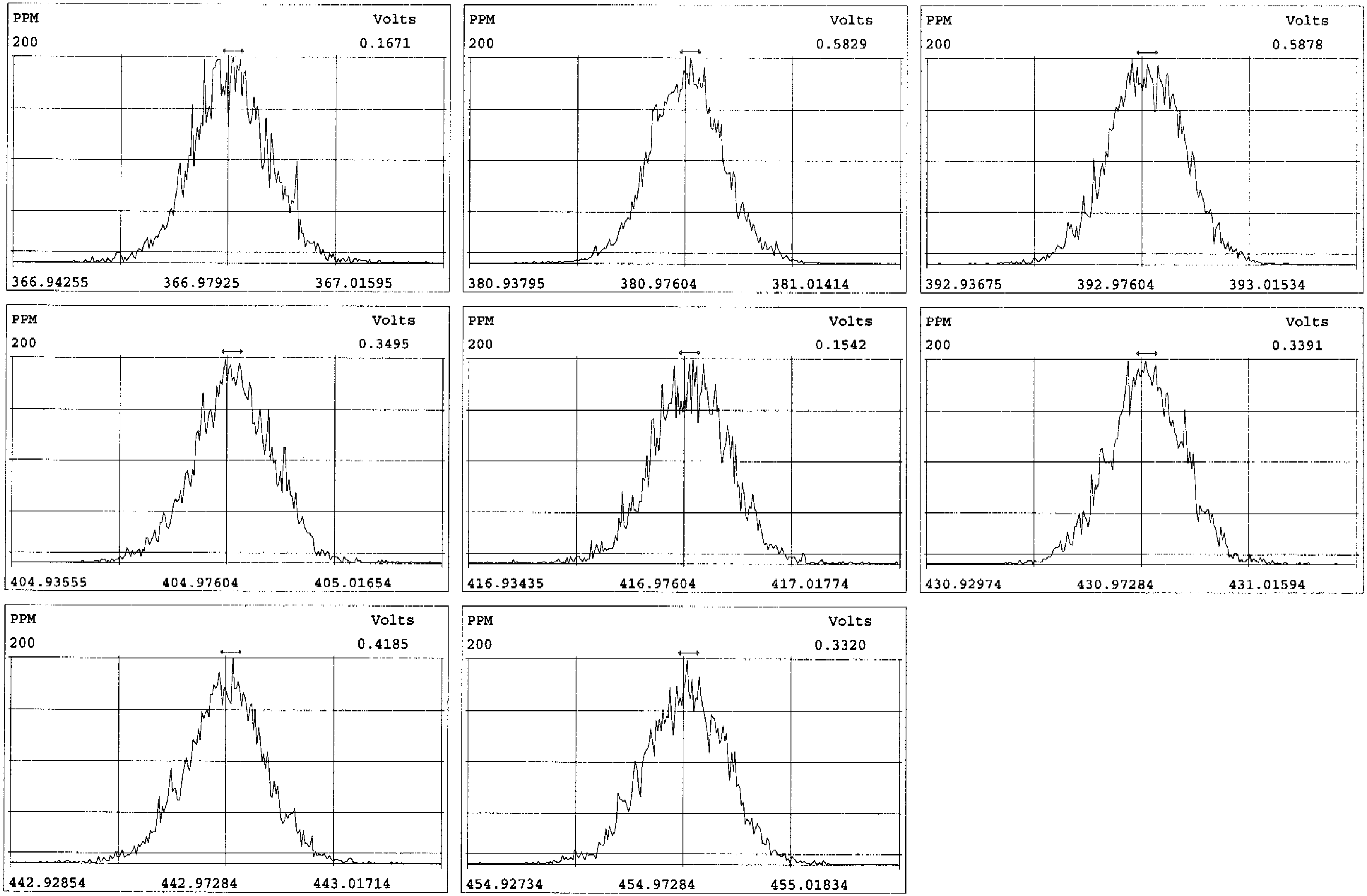
Peak Locate Examination:22-MAR-2006:09:31 File:060322C1

Experiment:OCDD_DB5 Function:2 Reference:PFK



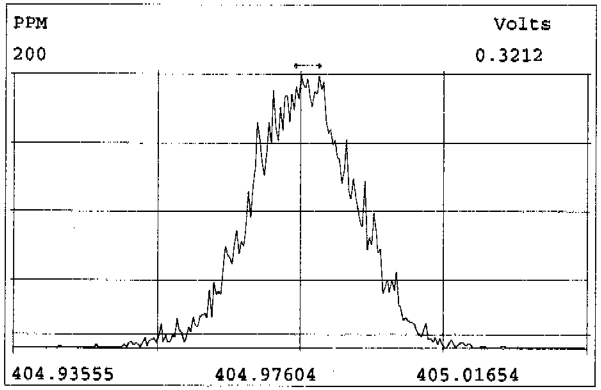
Peak Locate Examination:22-MAR-2006:09:32 File:060322C1

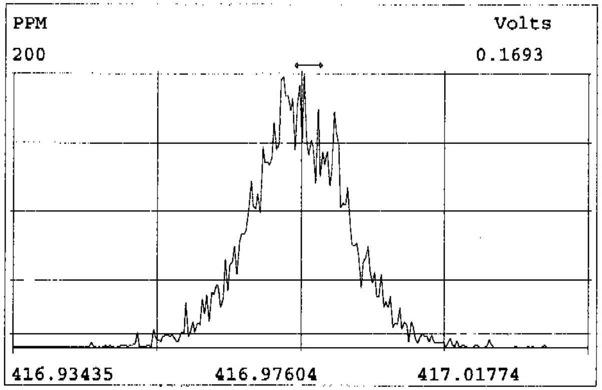
Experiment:OCDD_DB5 Function:3 Reference:PFK

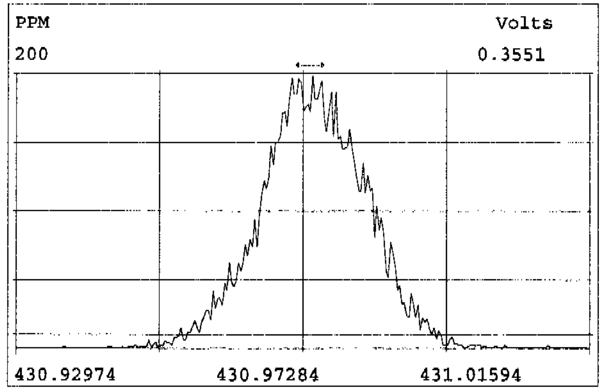


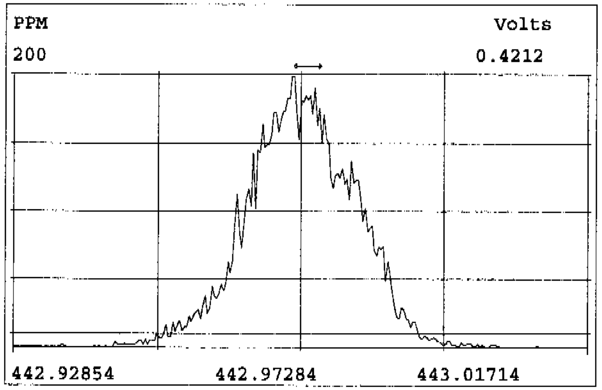
Peak Locate Examination:22-MAR-2006:09:32 File:060322C1

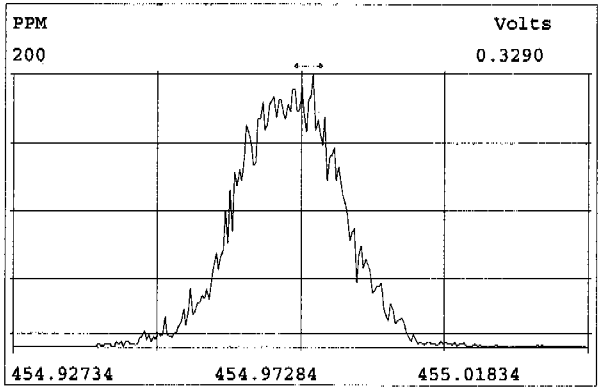
Experiment:OCDD_DB5 Function:4 Reference:PFK

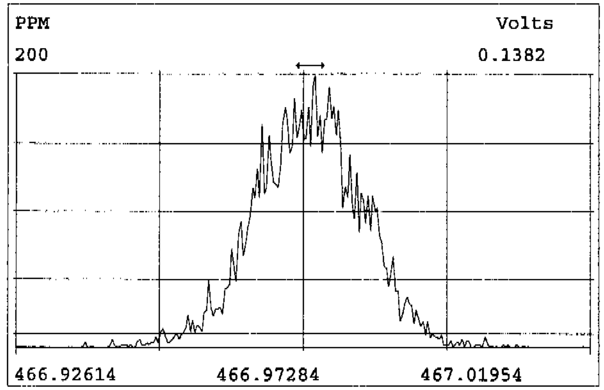


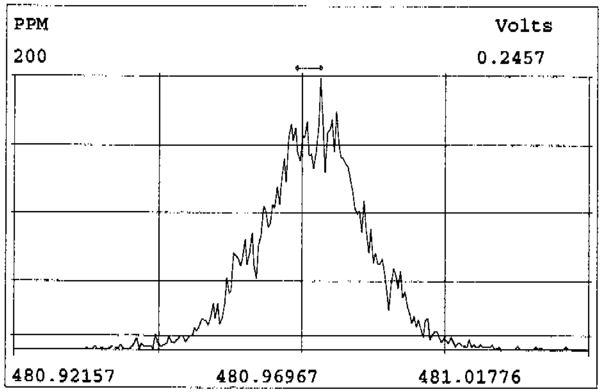






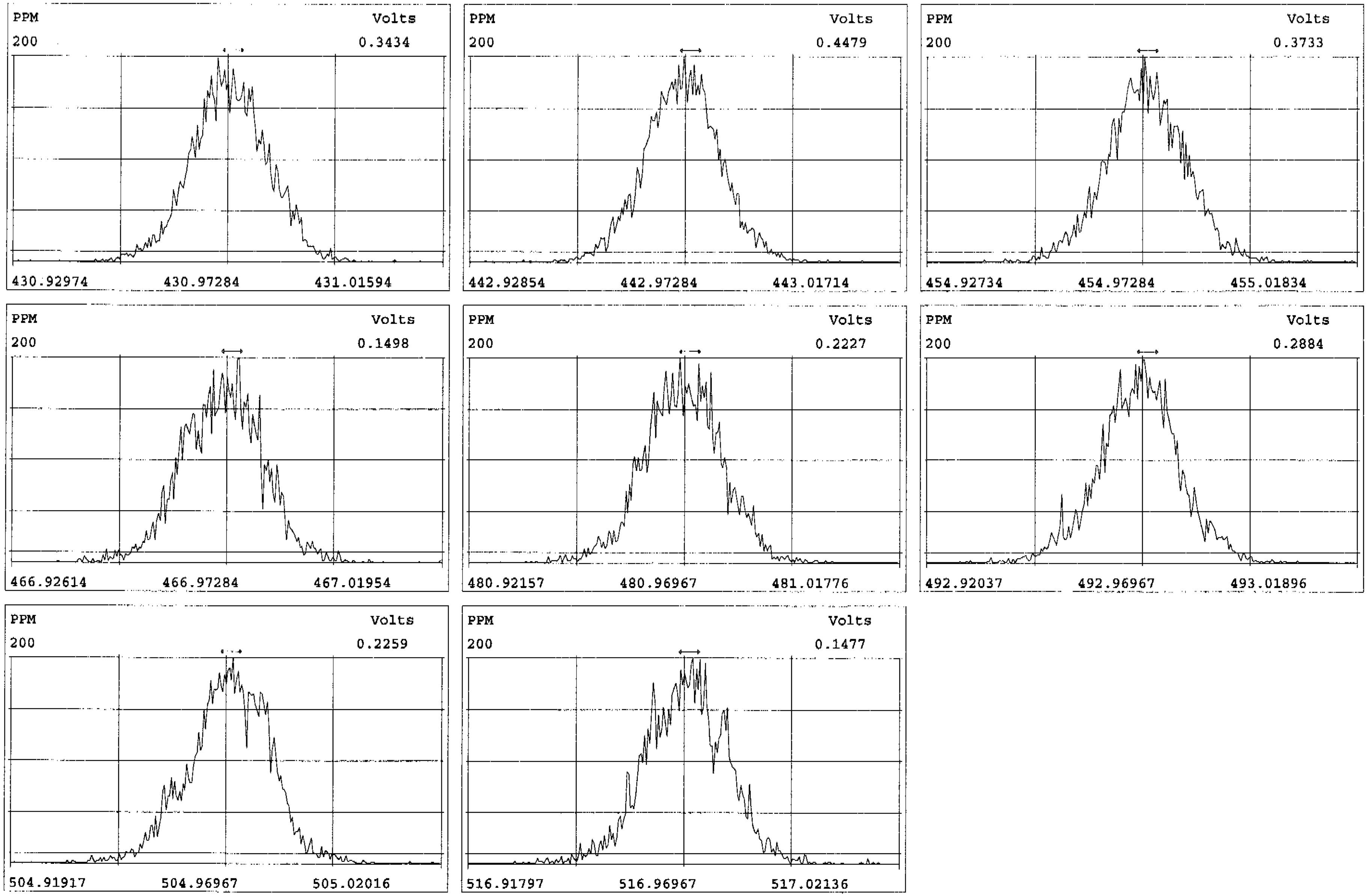




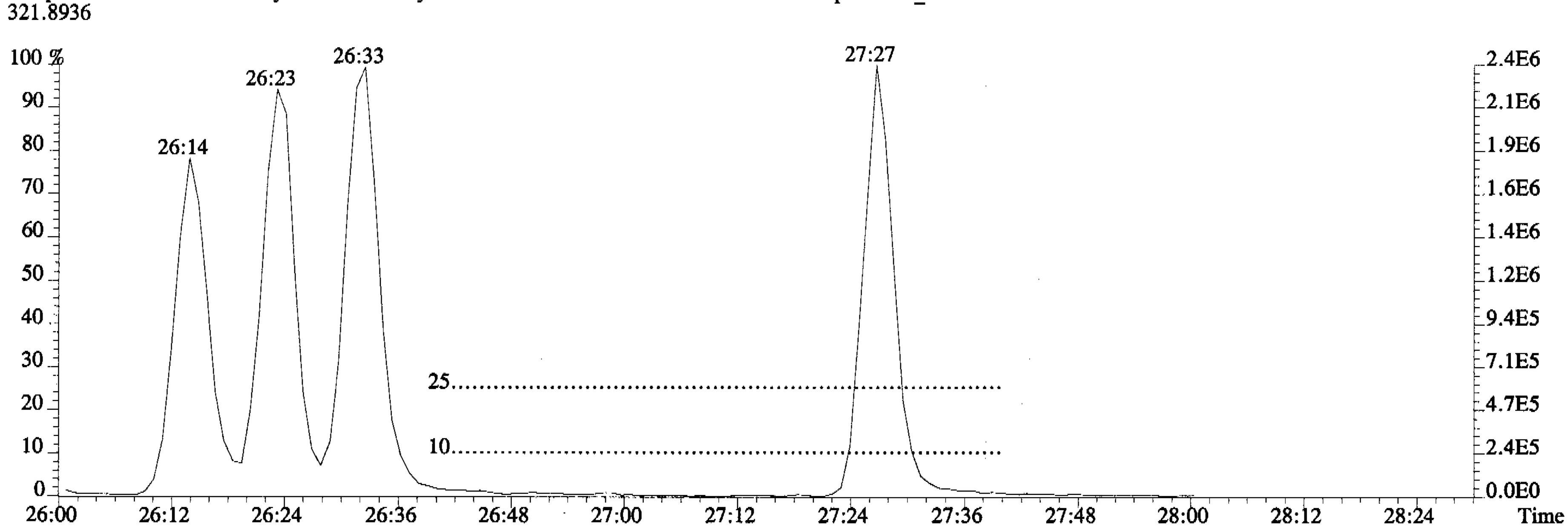


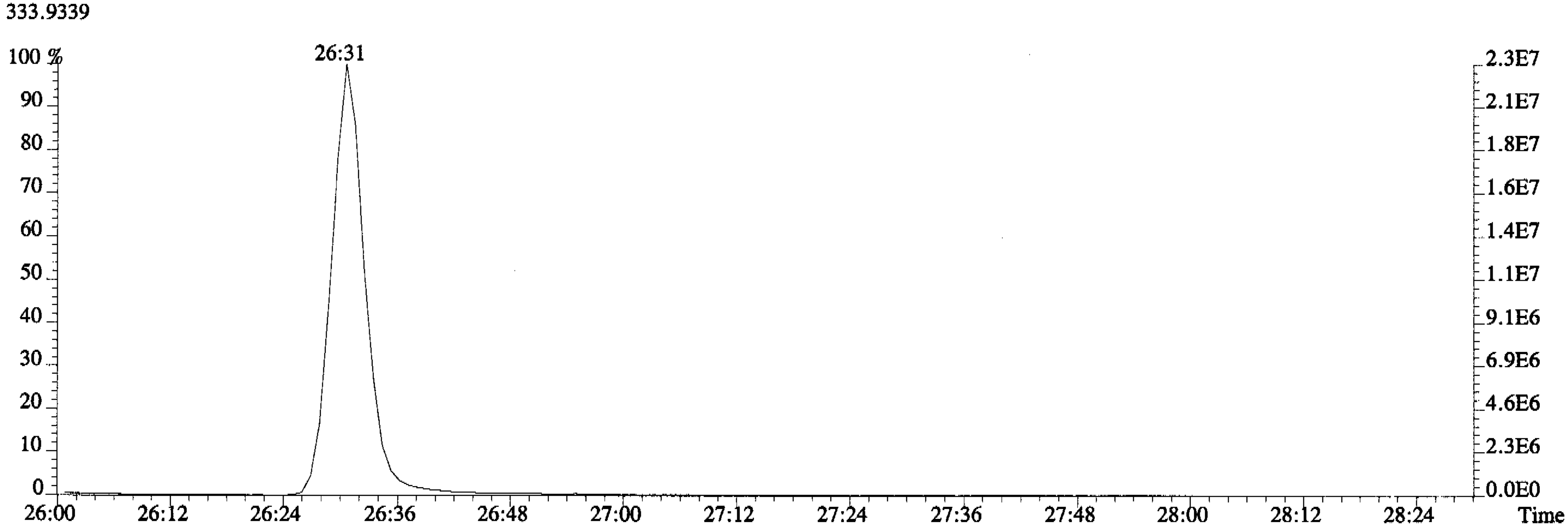
Peak Locate Examination:22-MAR-2006:09:32 File:060322C1

Experiment:OCDD_DB5 Function:5 Reference:PFK

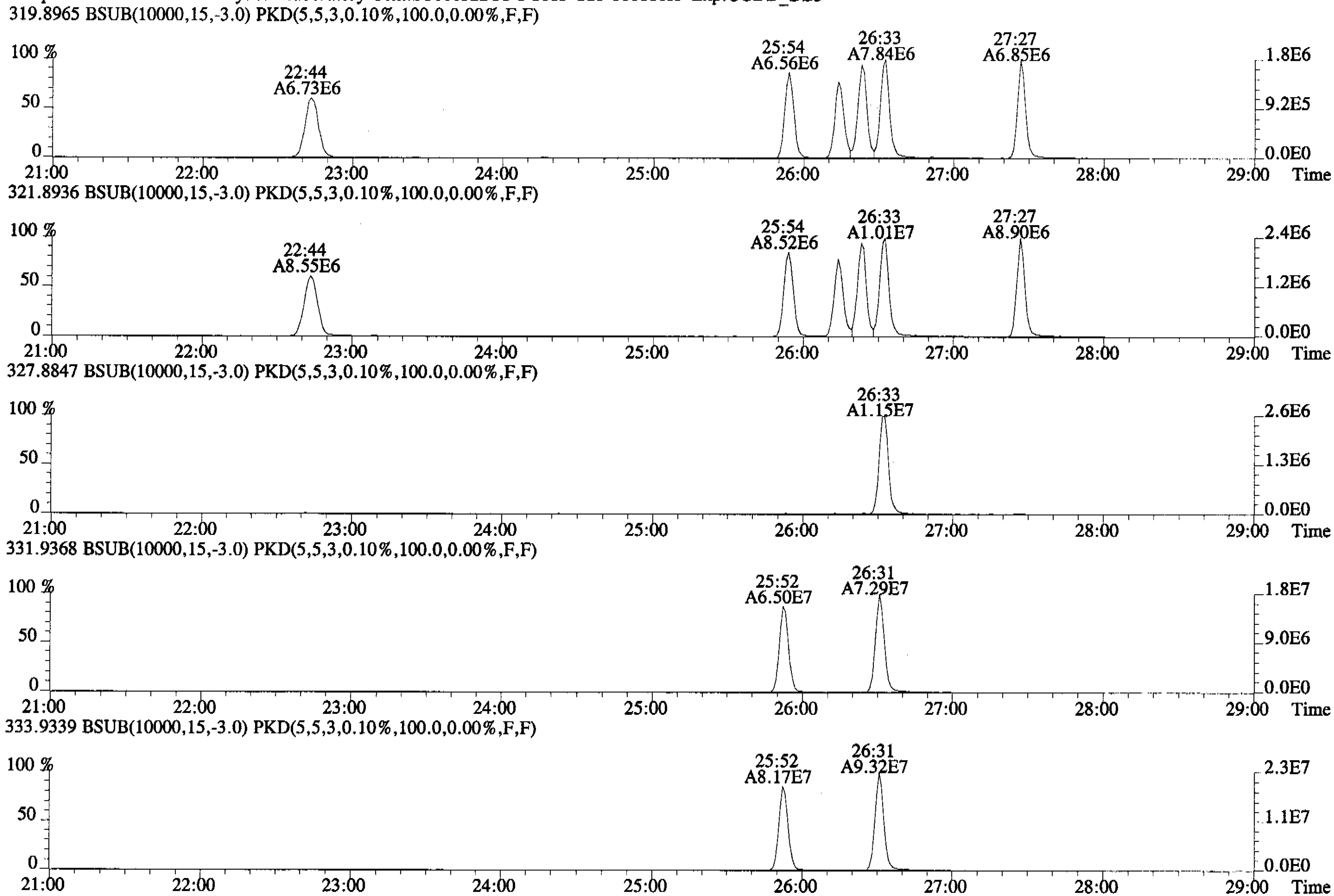


File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

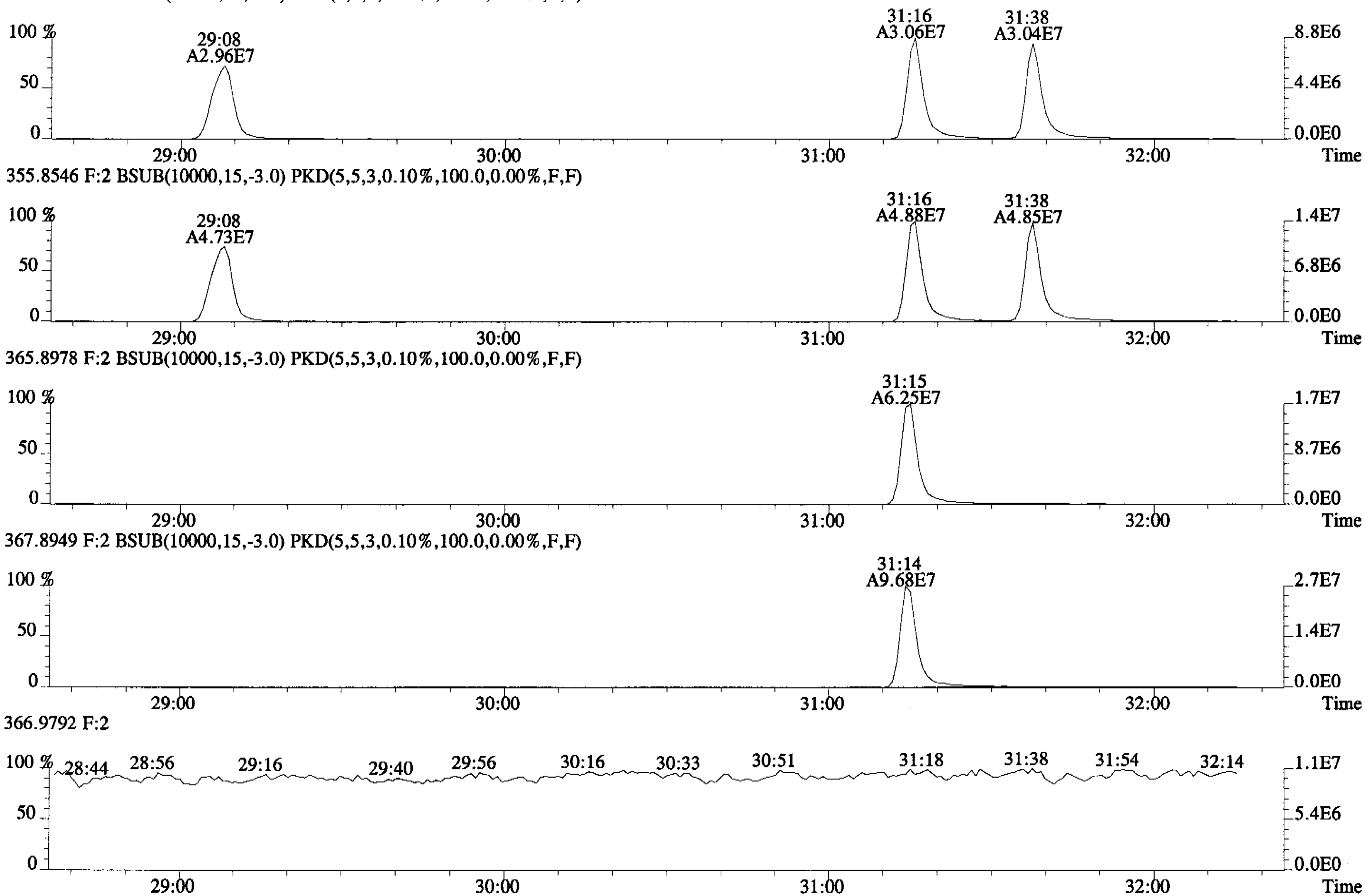




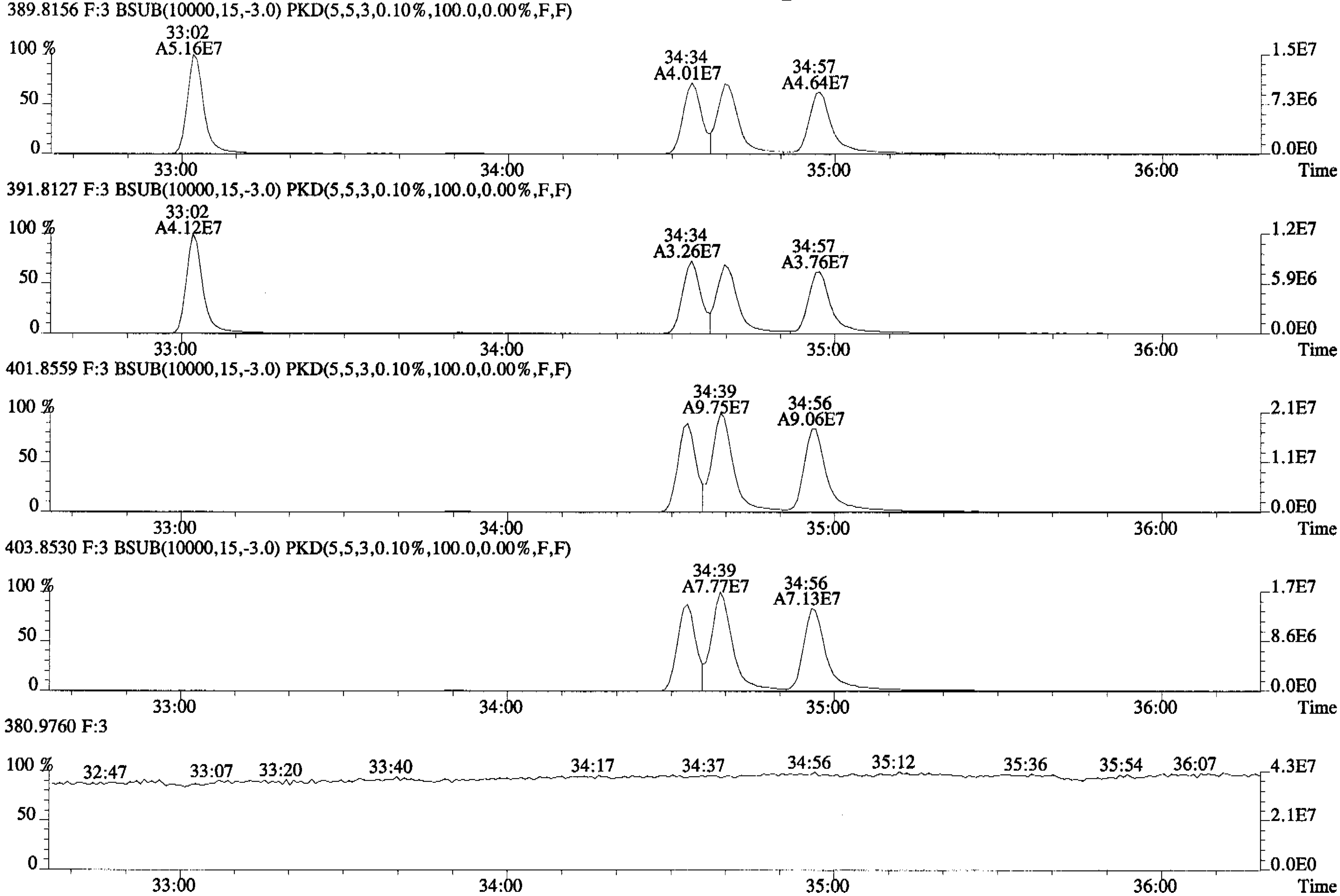
File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5



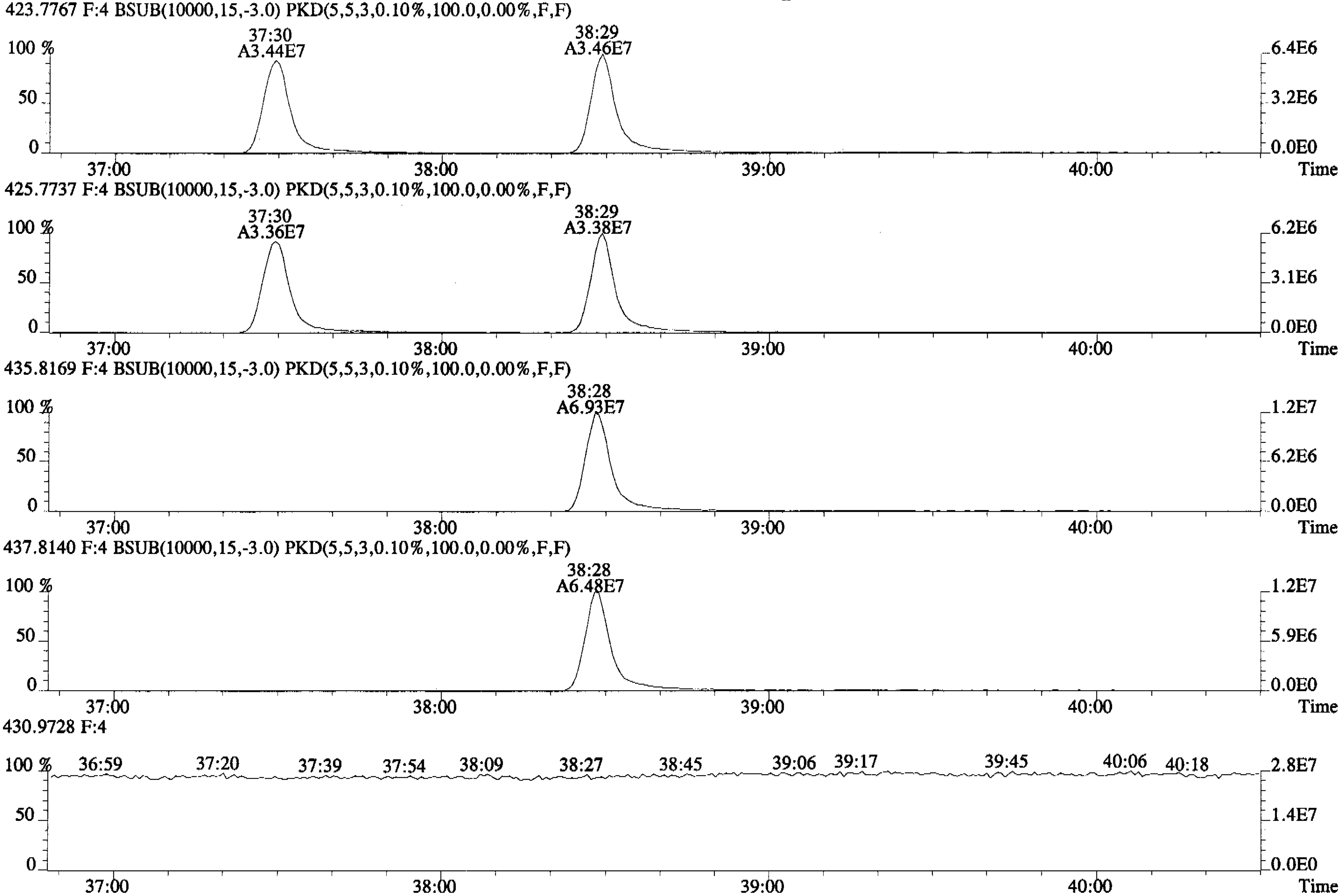
File:060322C1 #1-316 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-378 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

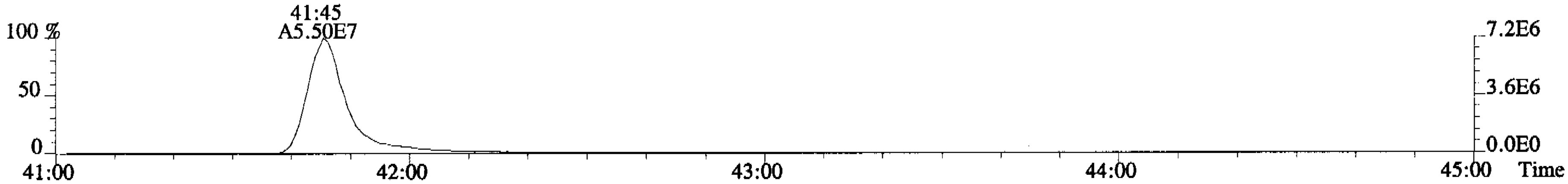


File:060322C1 #1-399 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

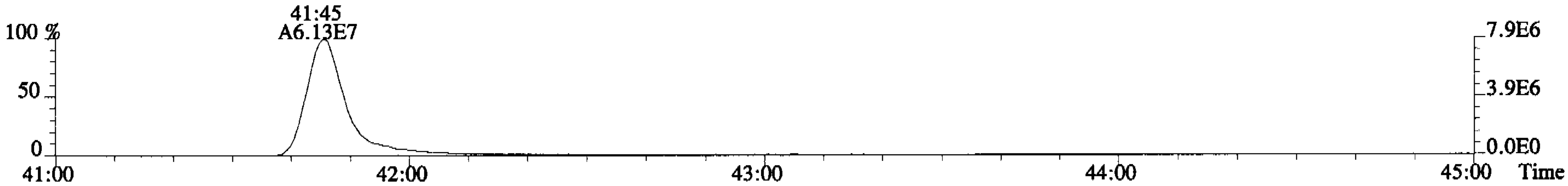


File:060322C1 #1-345 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

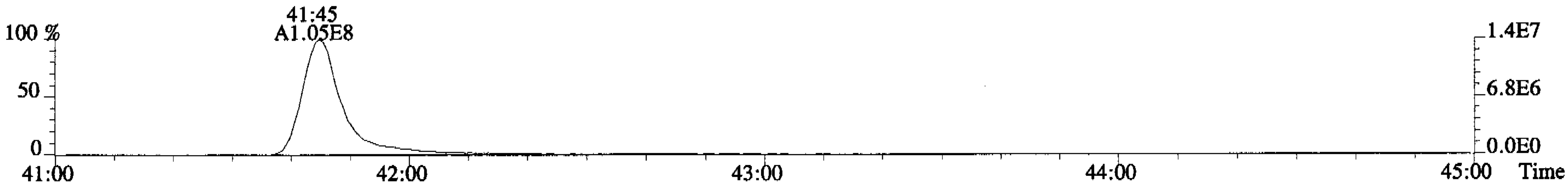
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



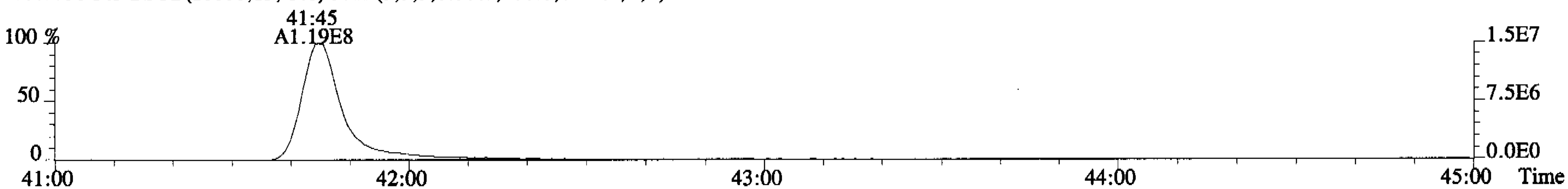
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



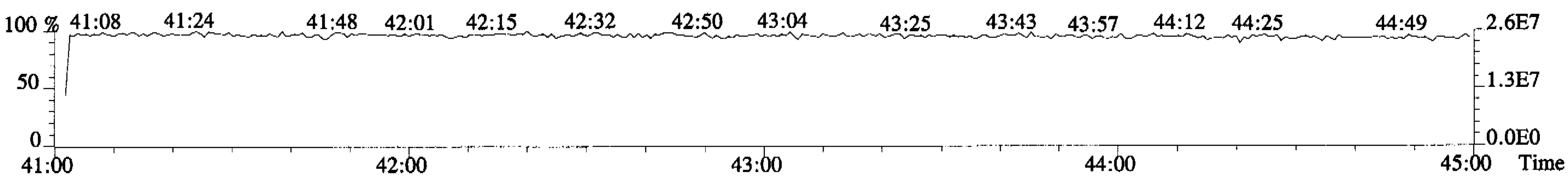
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

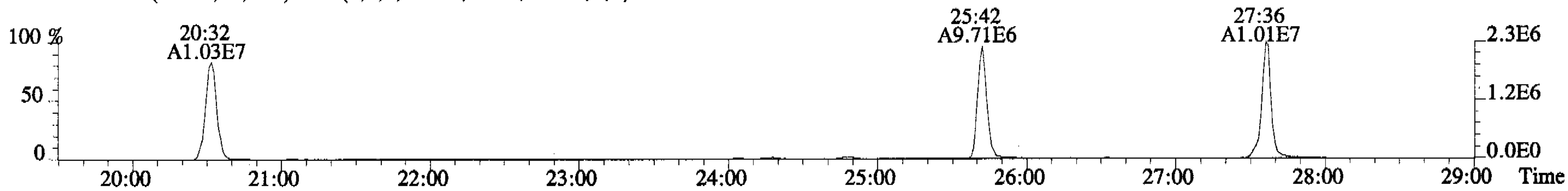


454.9728 F:5

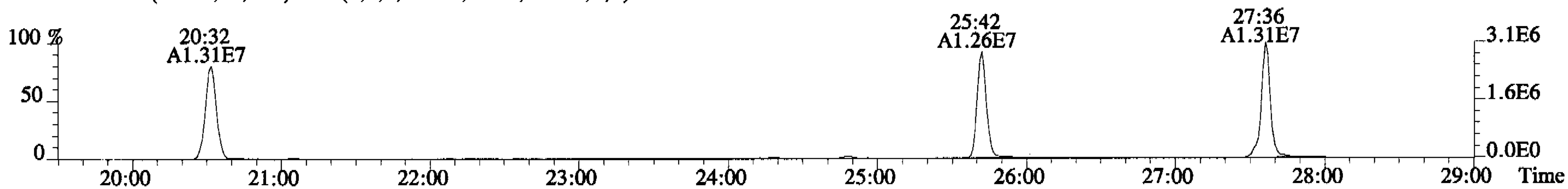


File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

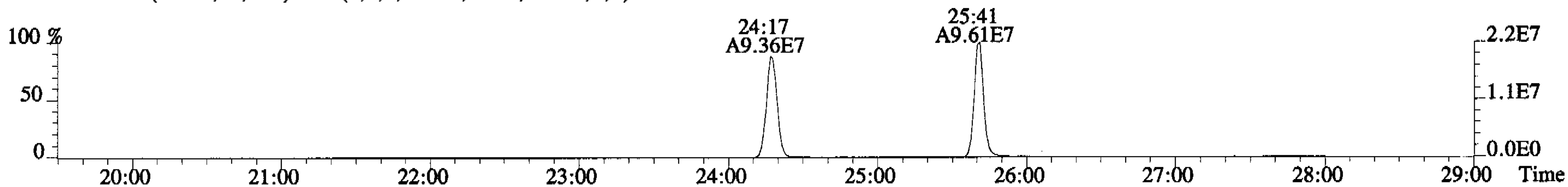
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



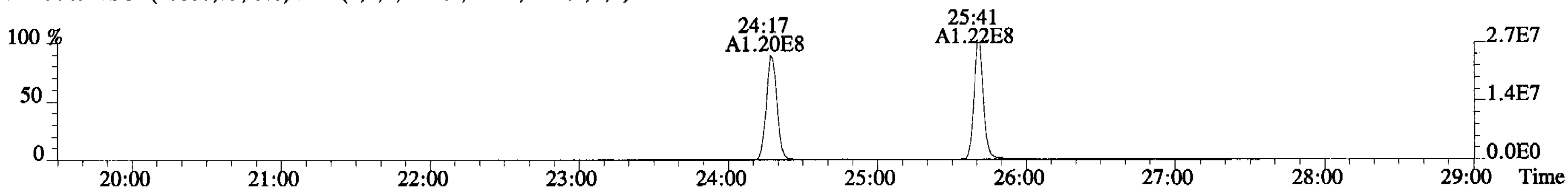
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



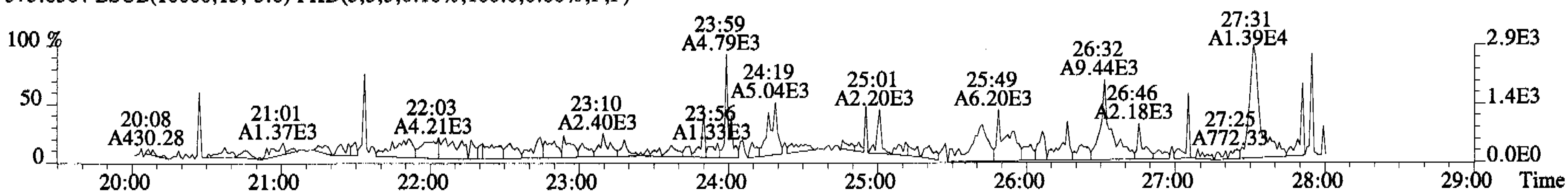
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



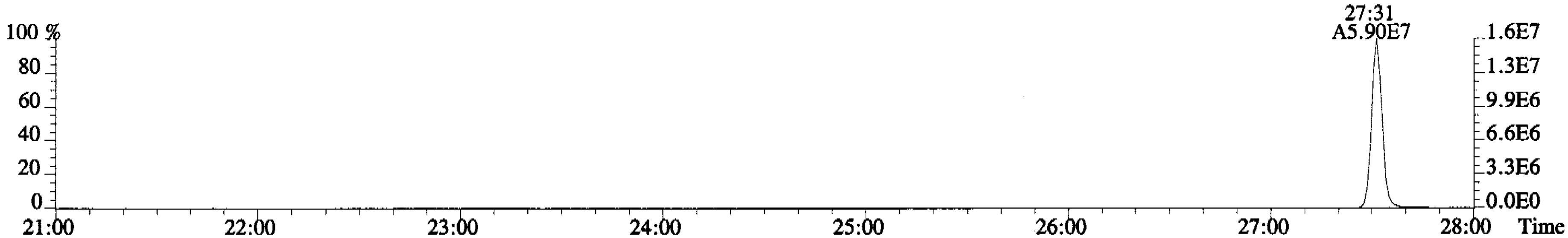
317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



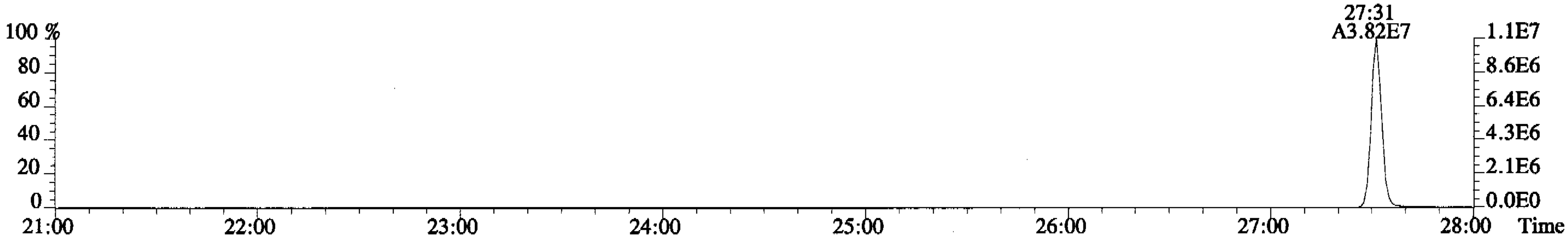
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



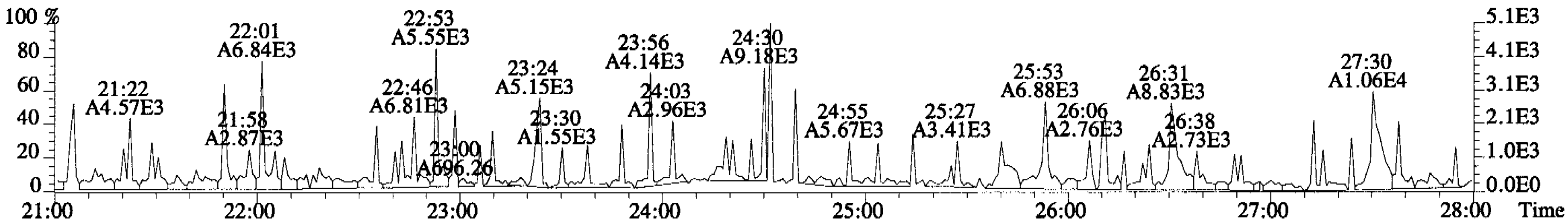
File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



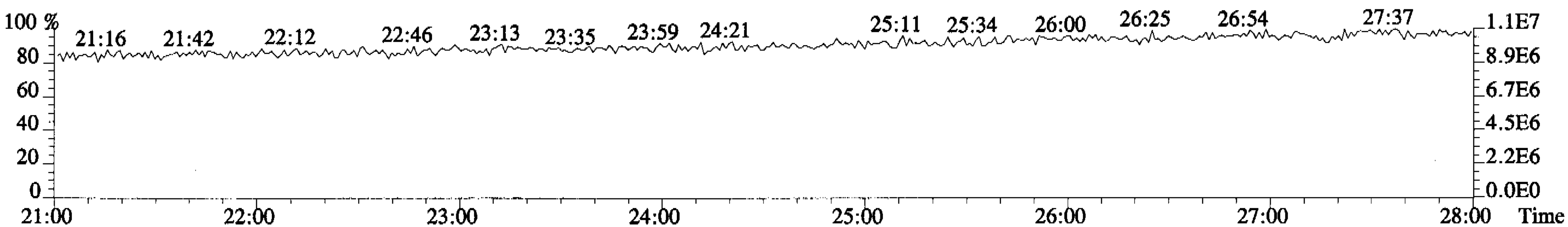
341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



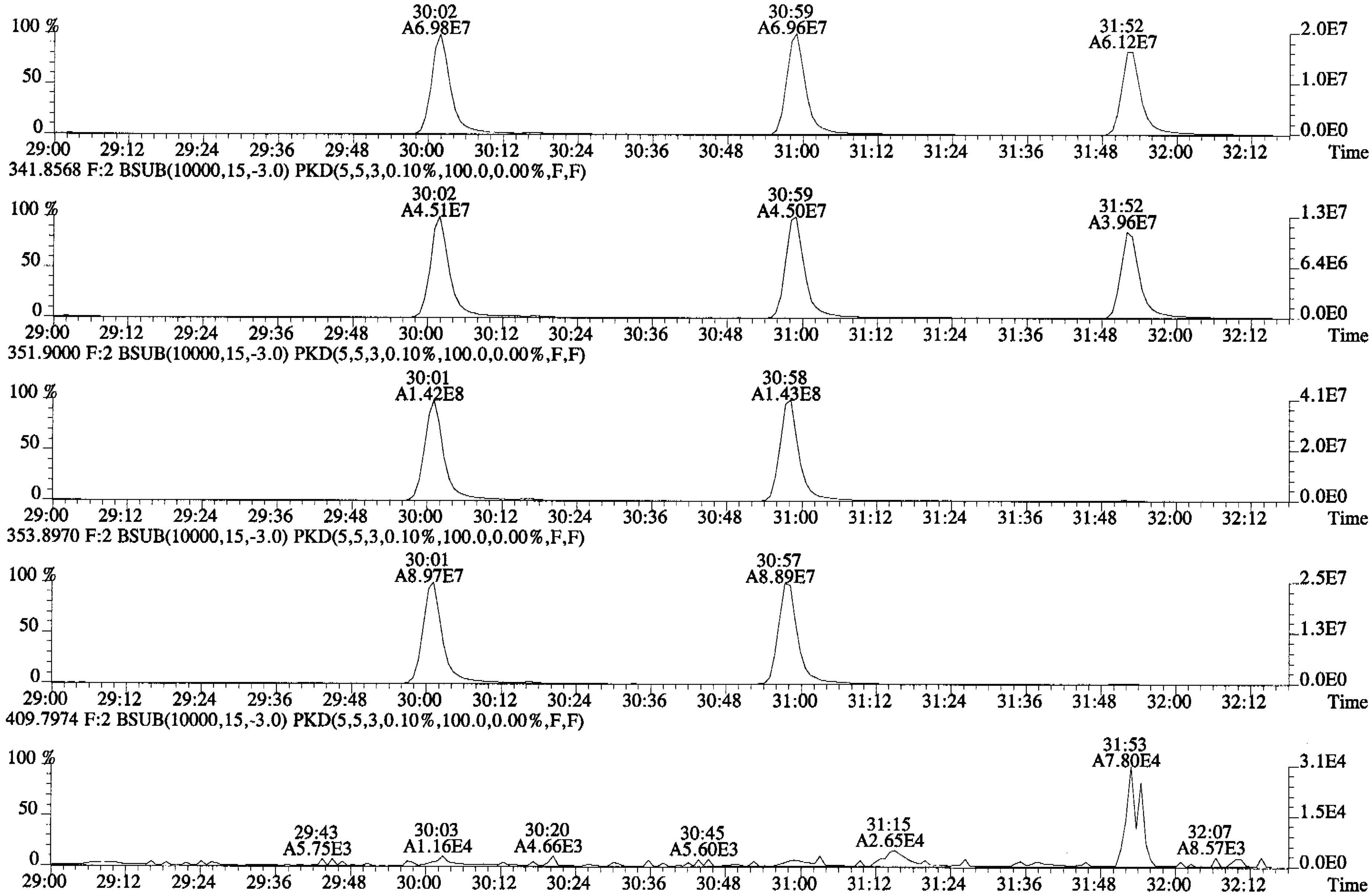
409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



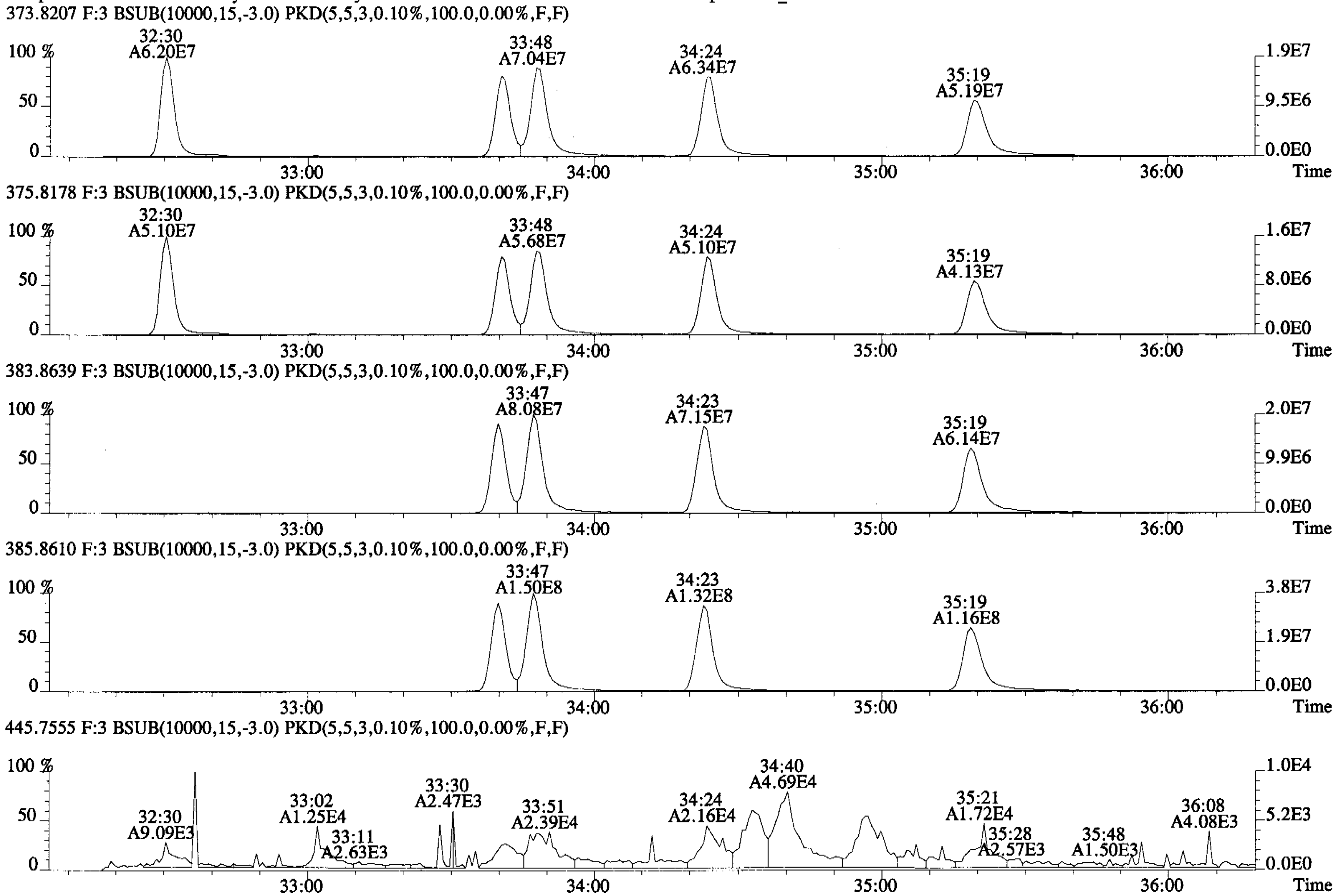
316.9824



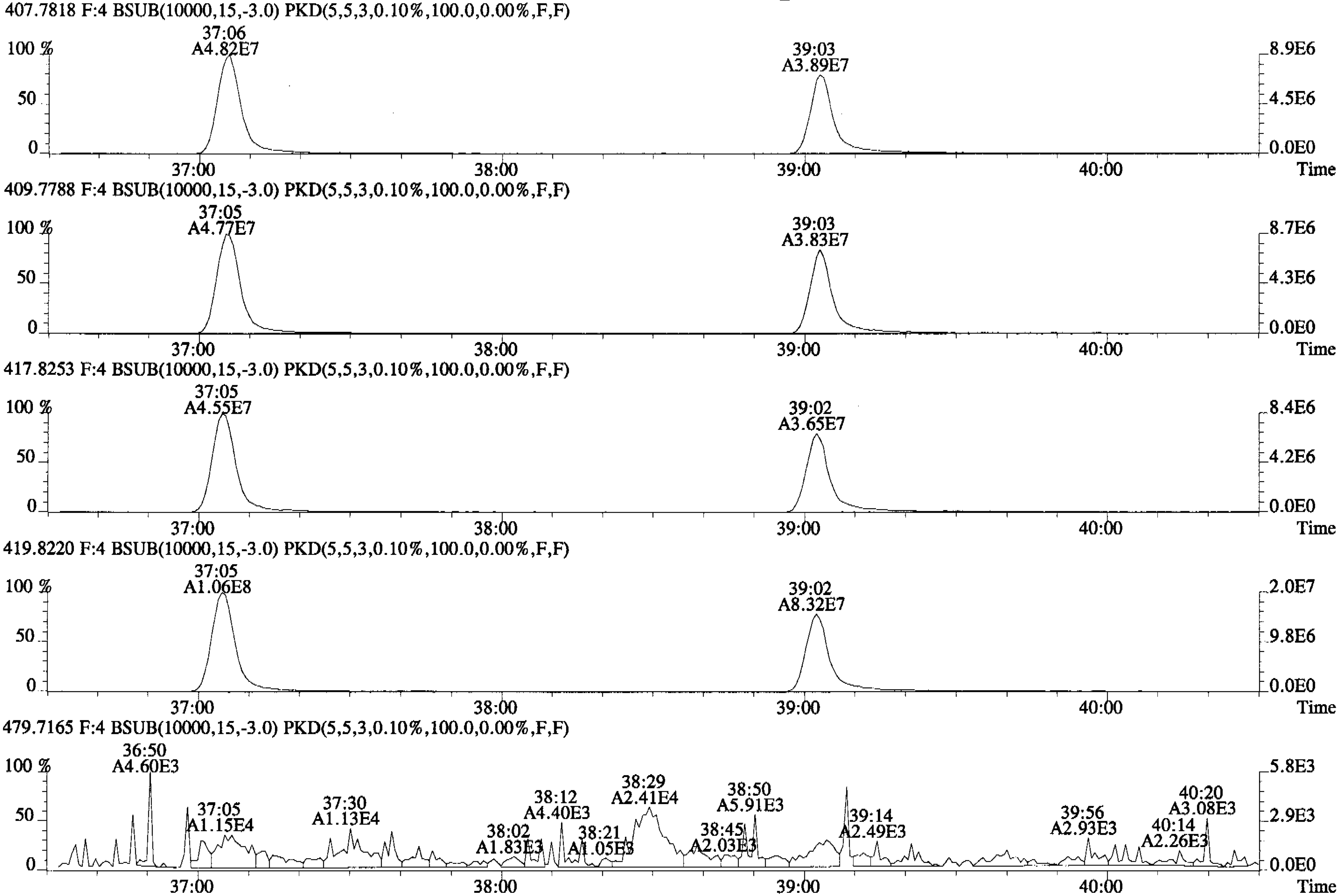
File:060322C1 #1-316 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-378 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

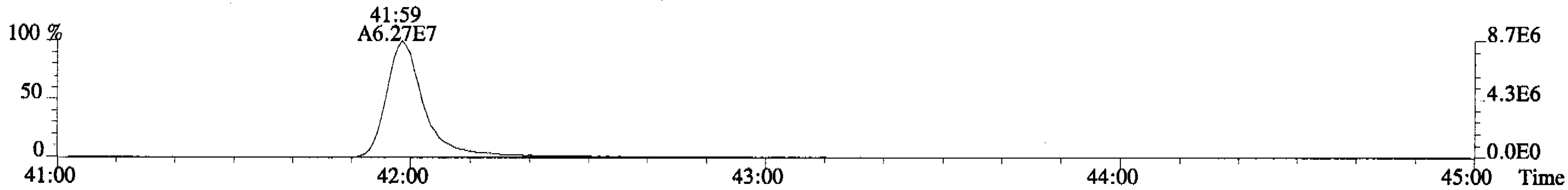


File:060322C1 #1-399 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

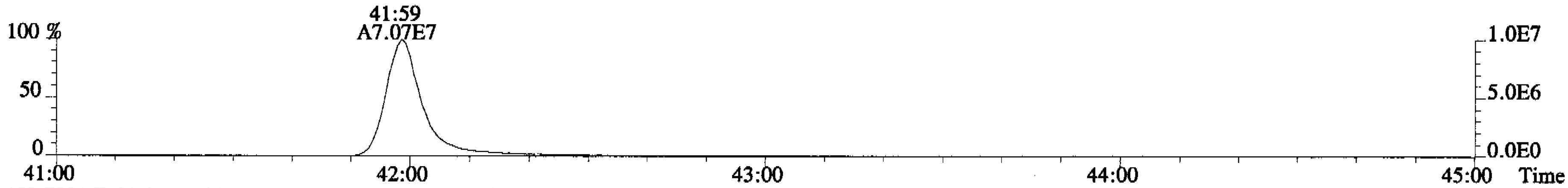


File:060322C1 #1-345 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

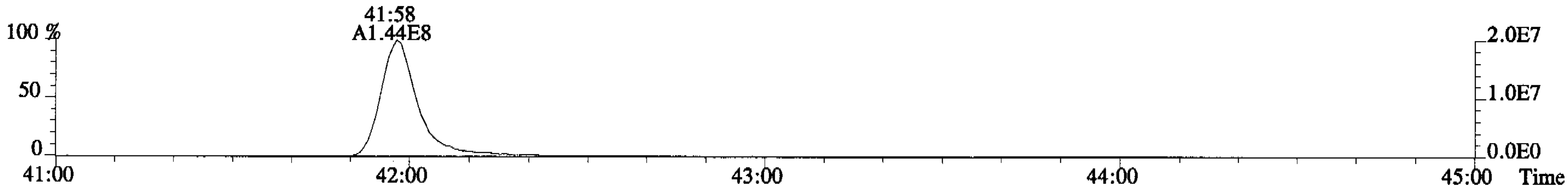
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



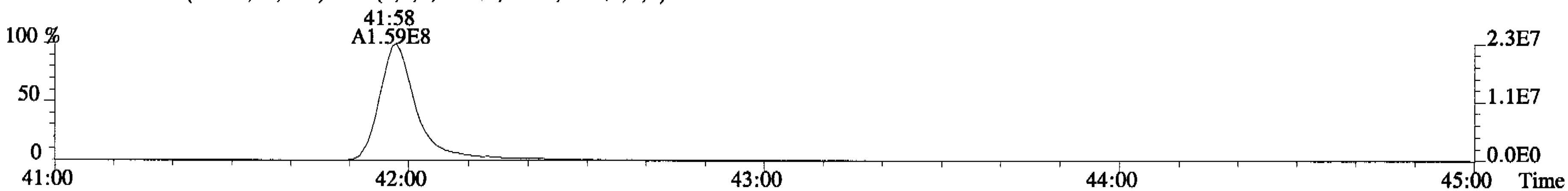
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



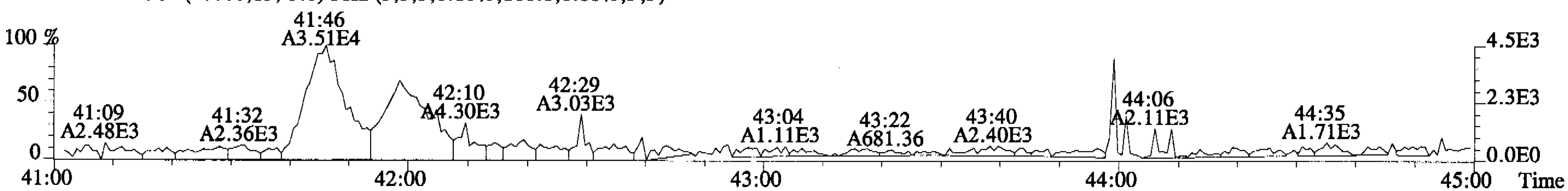
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



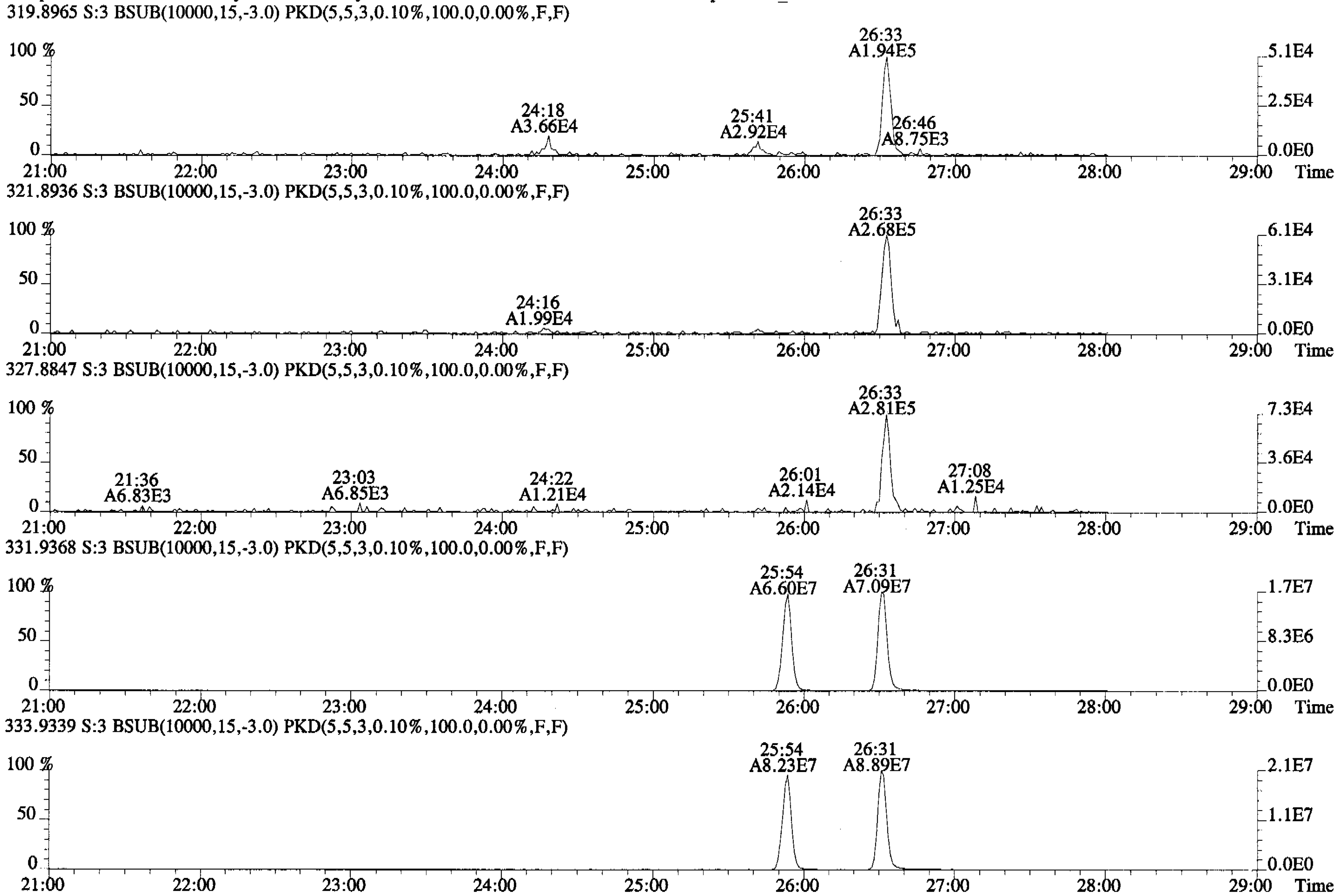
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



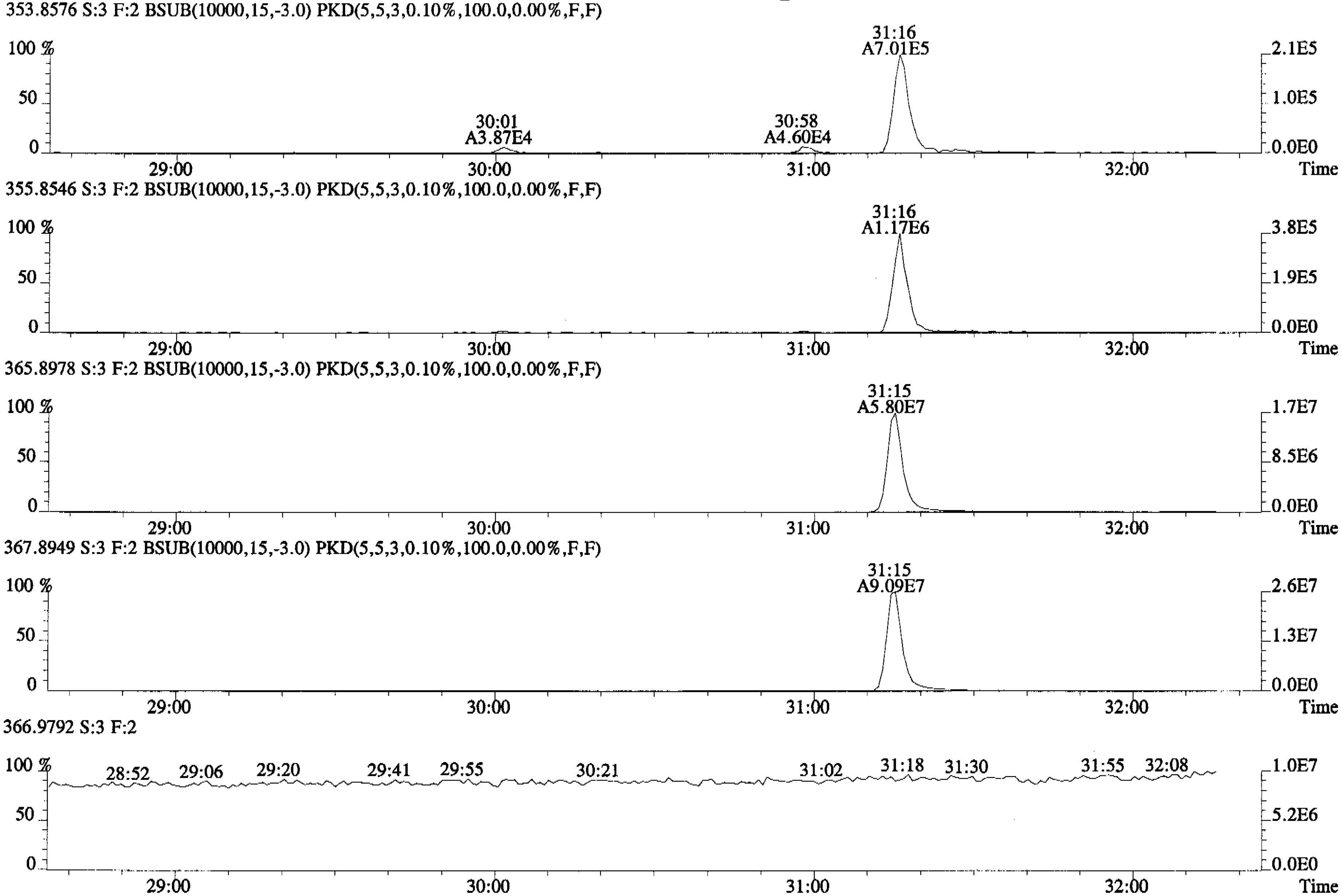
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



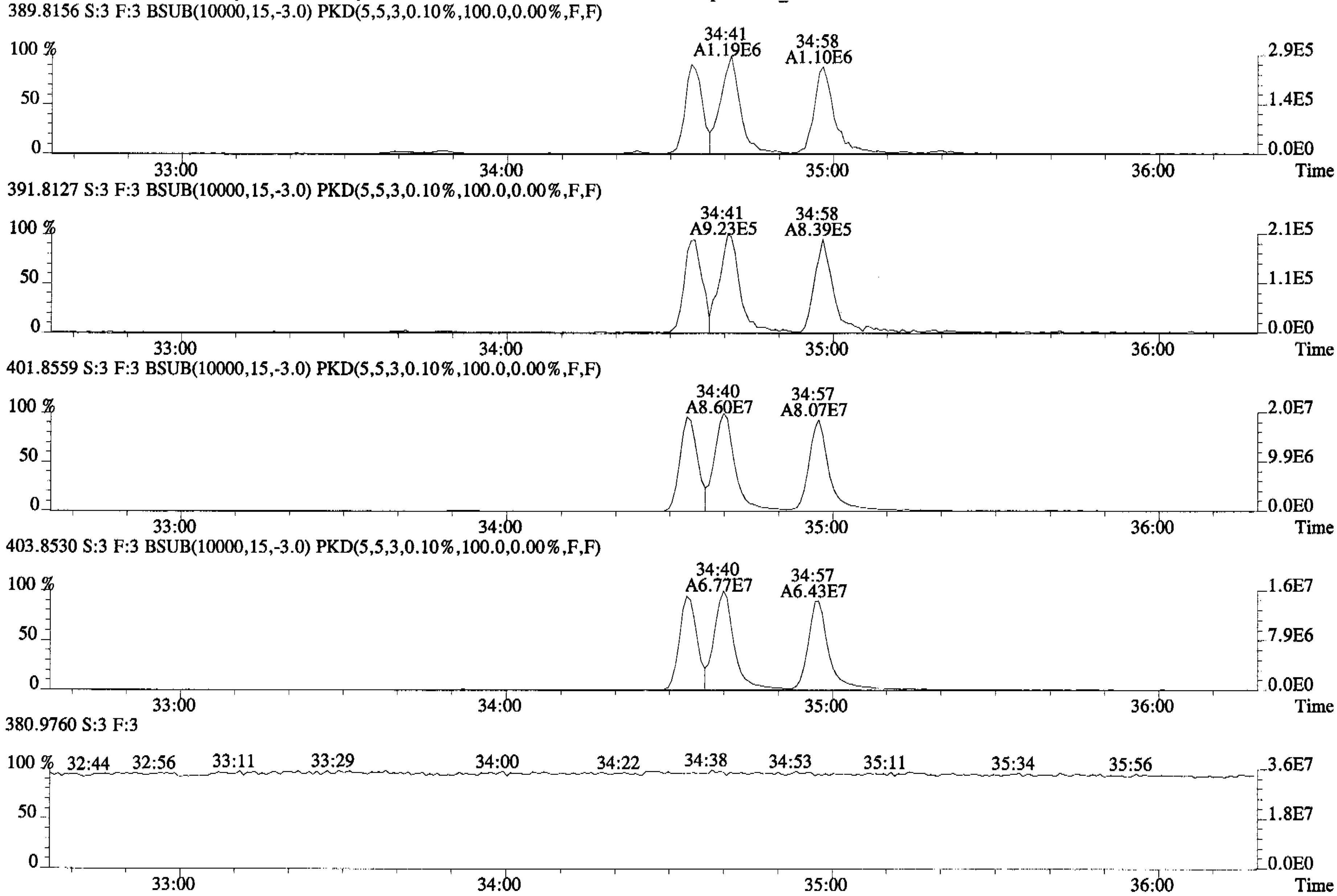
File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



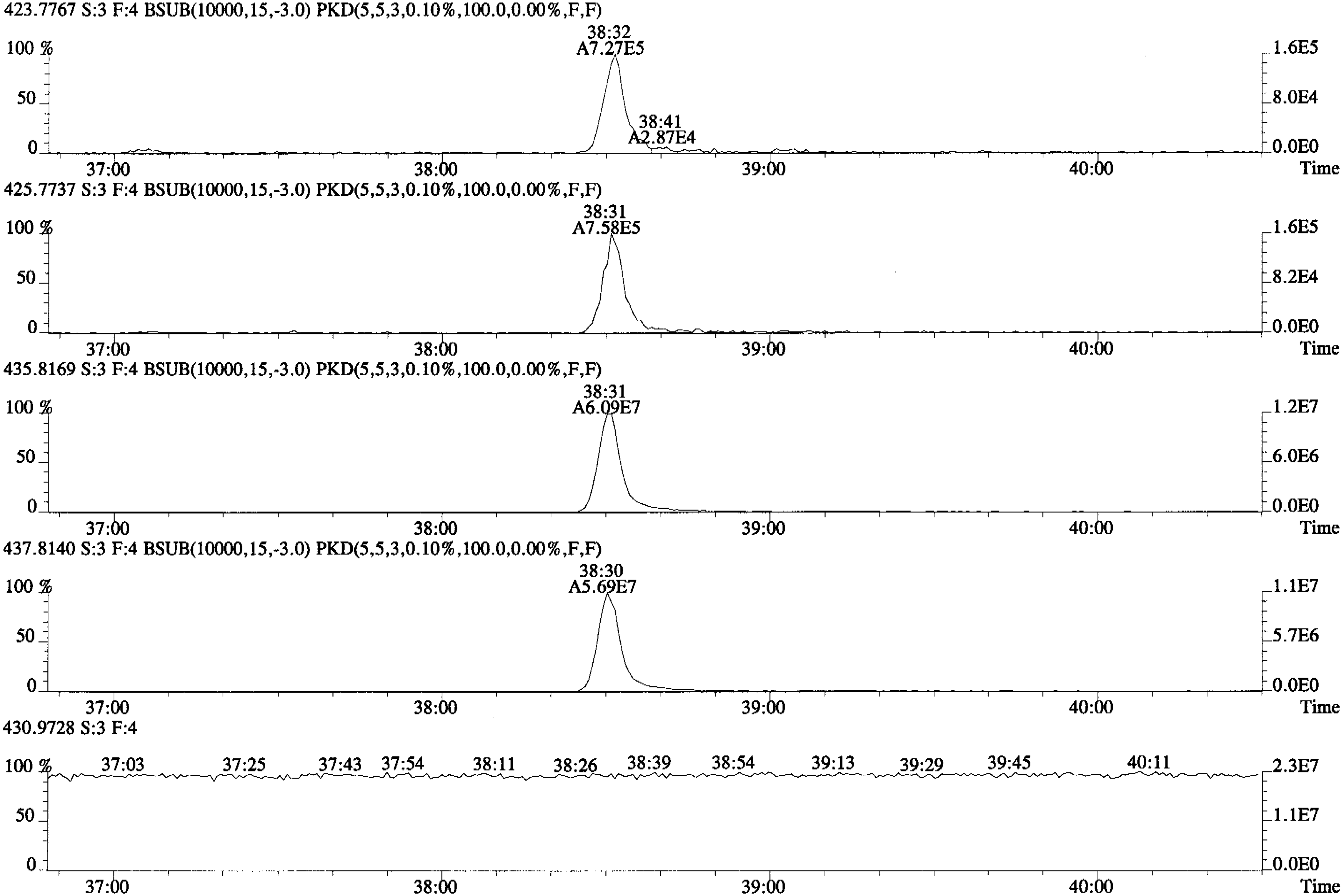
File:060322C1 #1-316 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



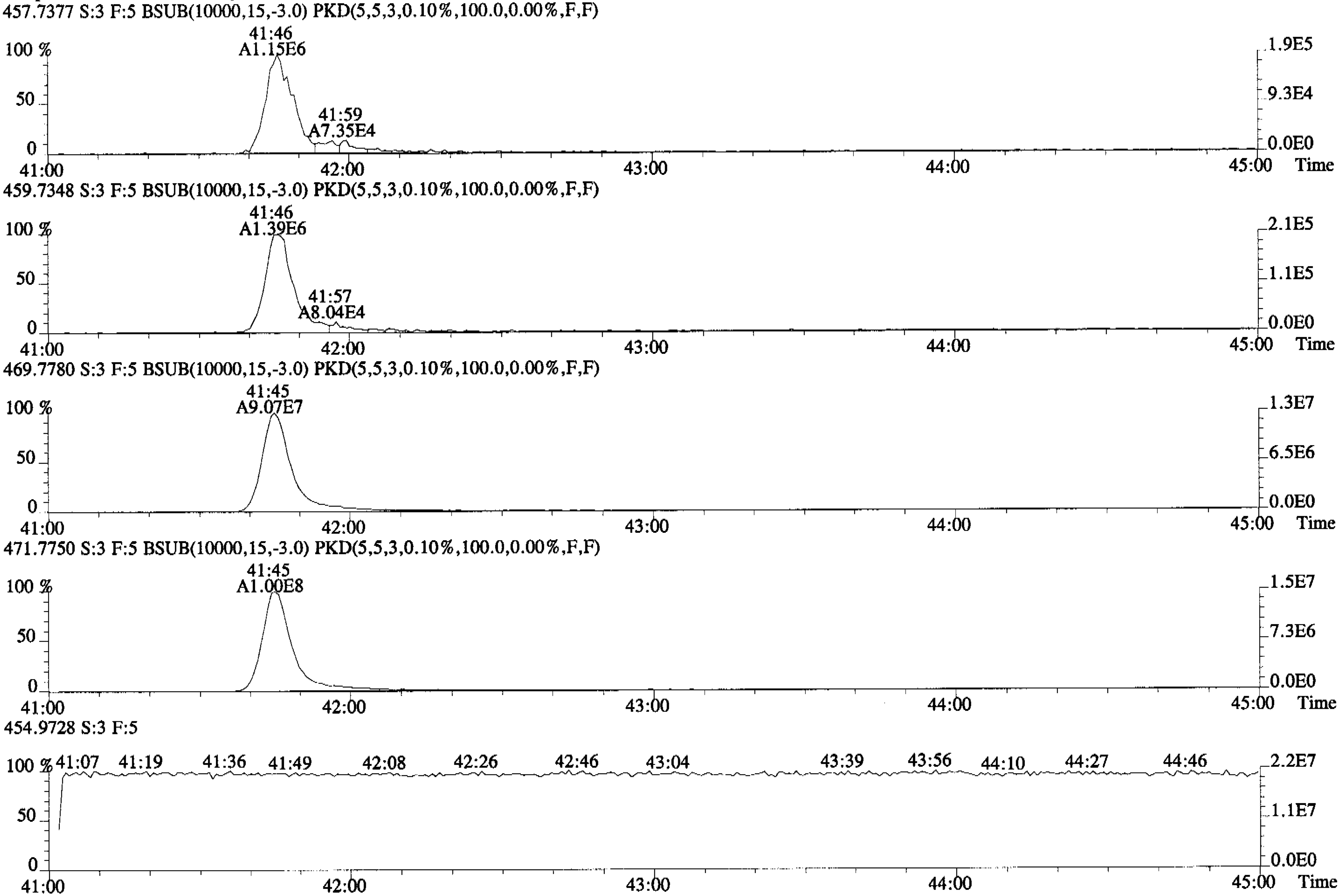
File:060322C1 #1-377 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



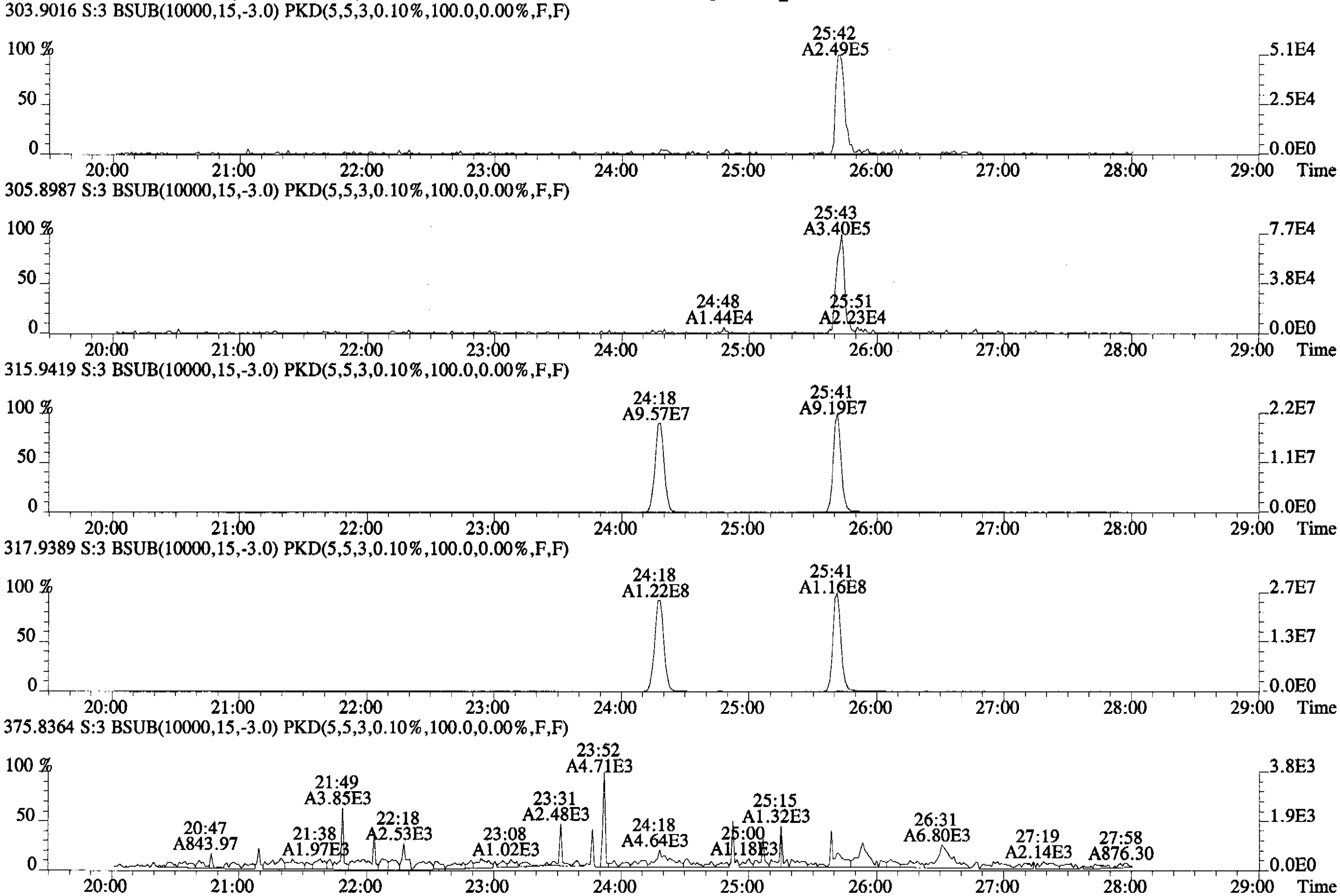
File:060322C1 #1-400 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



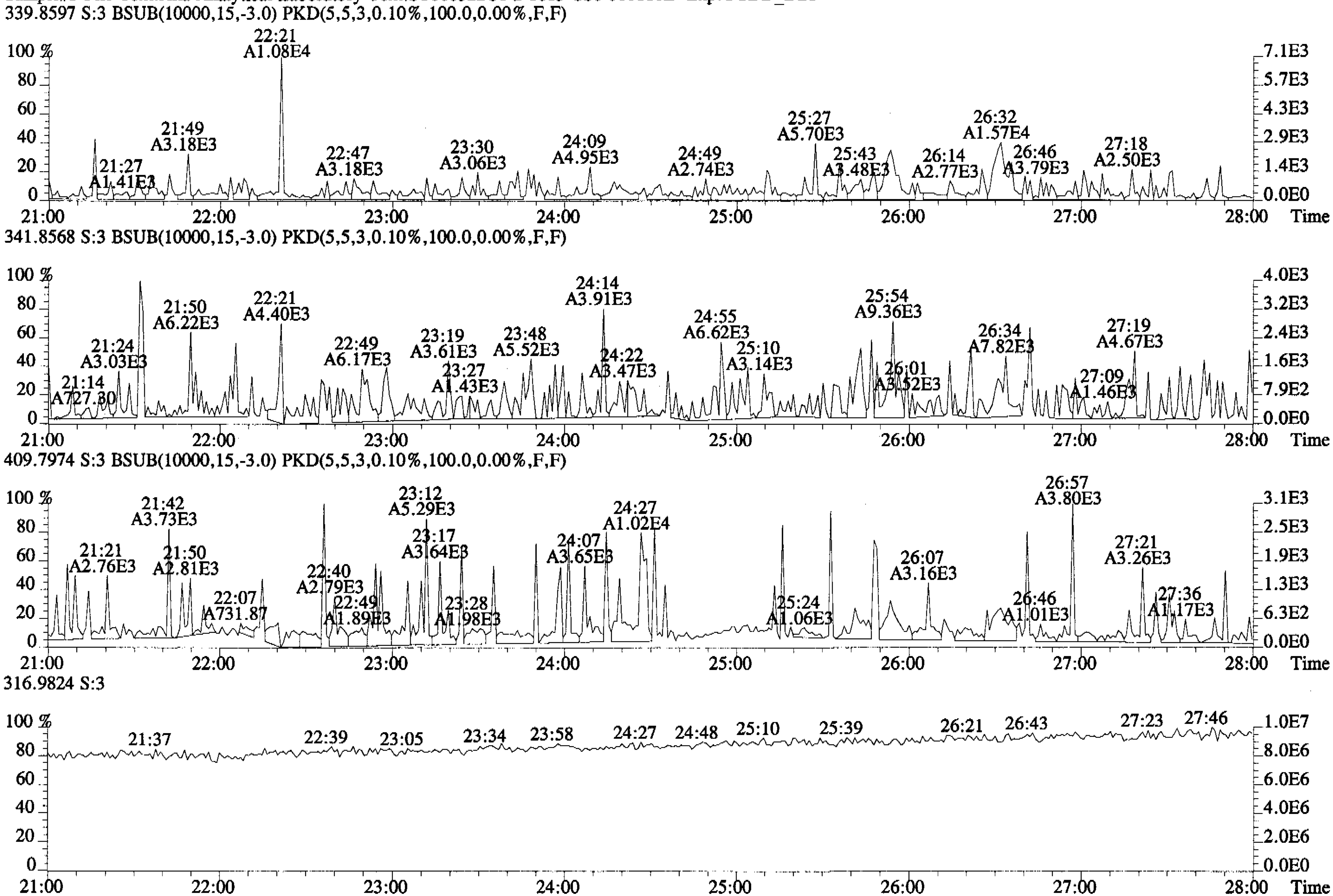
File:060322C1 #1-345 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

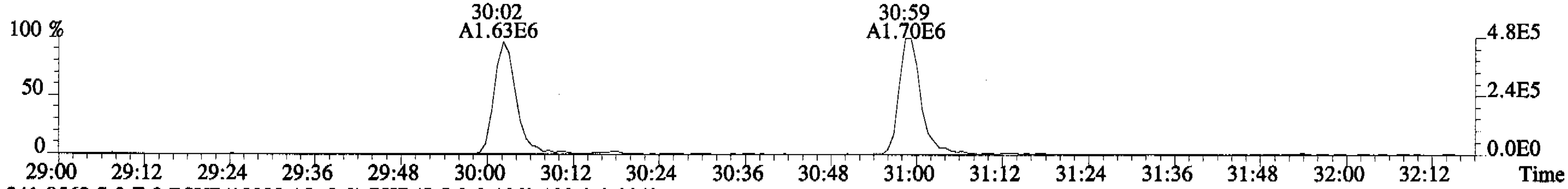


File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

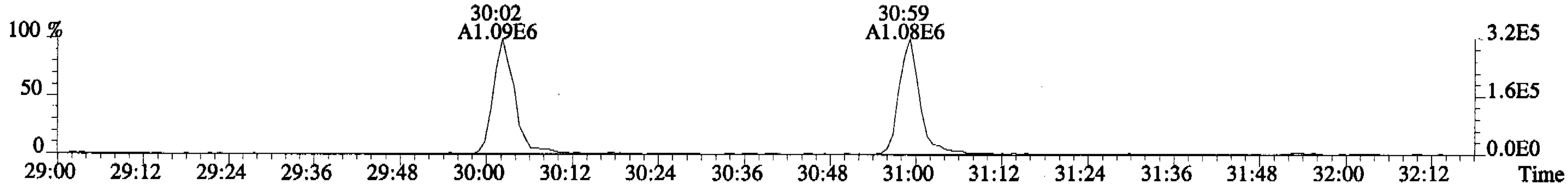


File:060322C1 #1-316 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

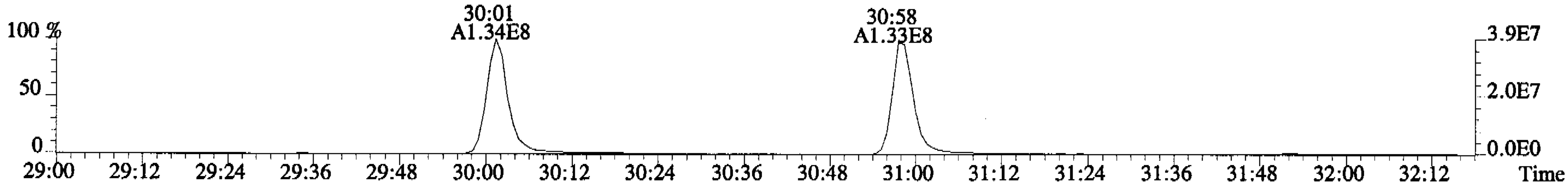
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



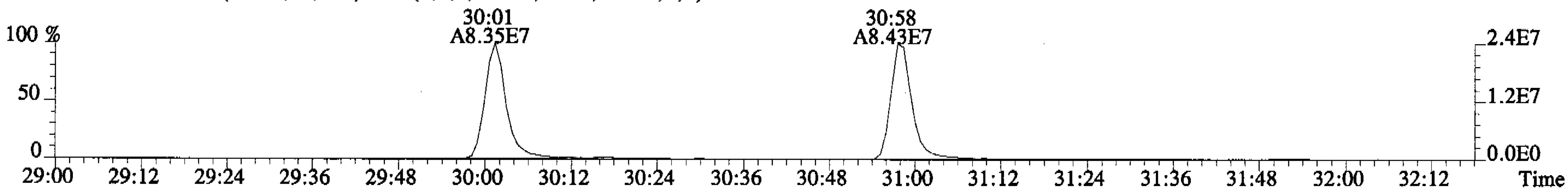
341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



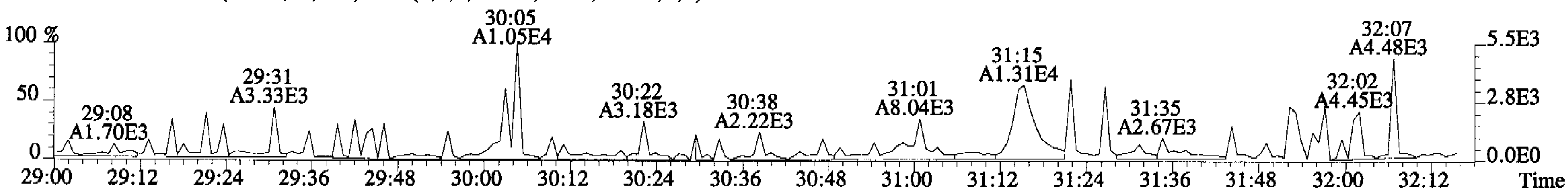
351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



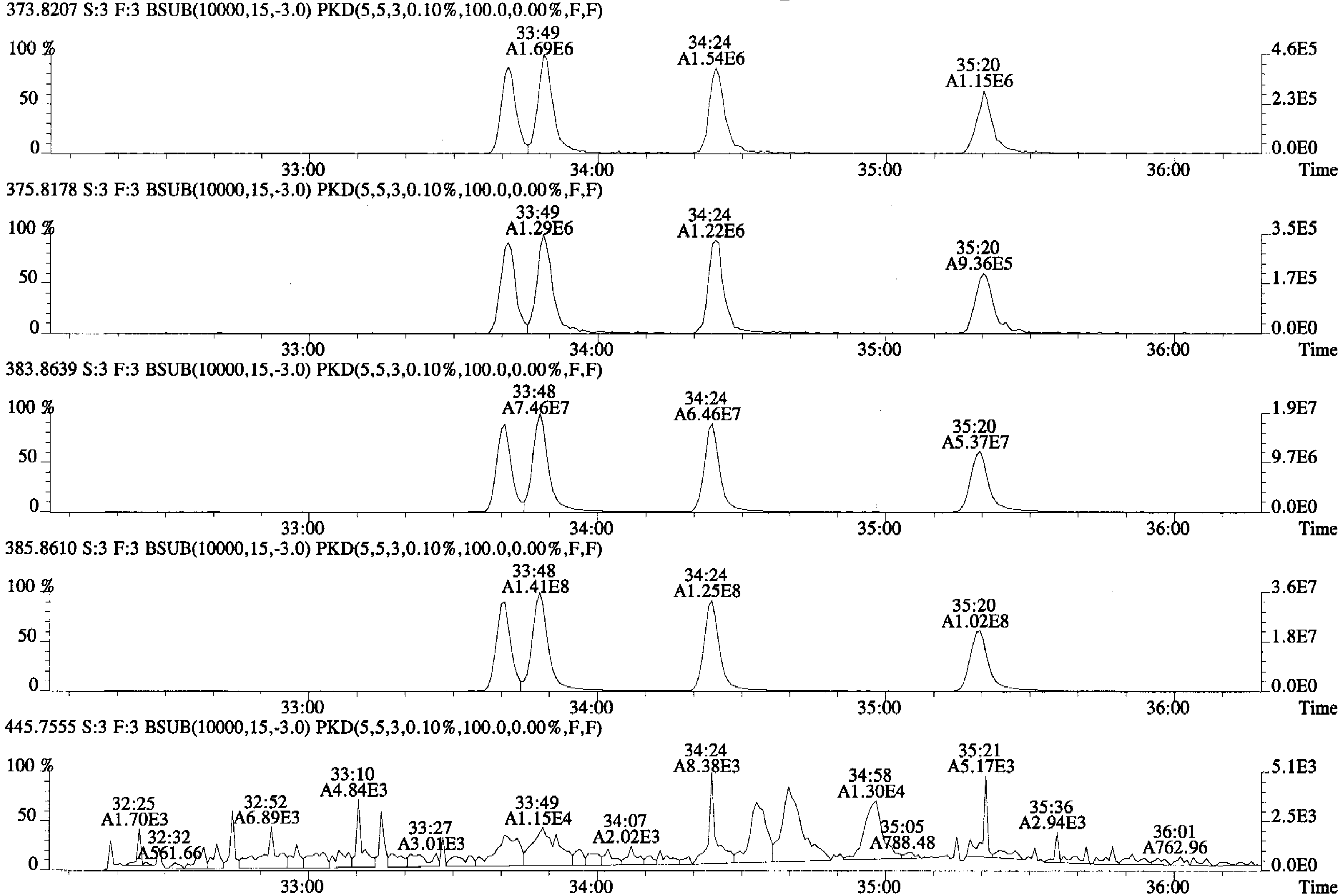
353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

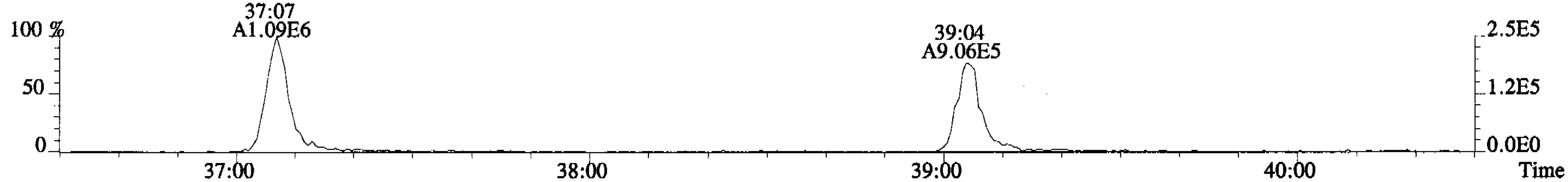


File:060322C1 #1-377 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

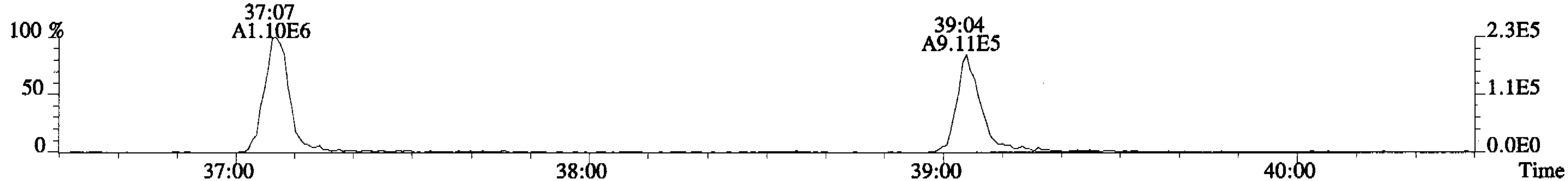


File:060322C1 #1-400 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

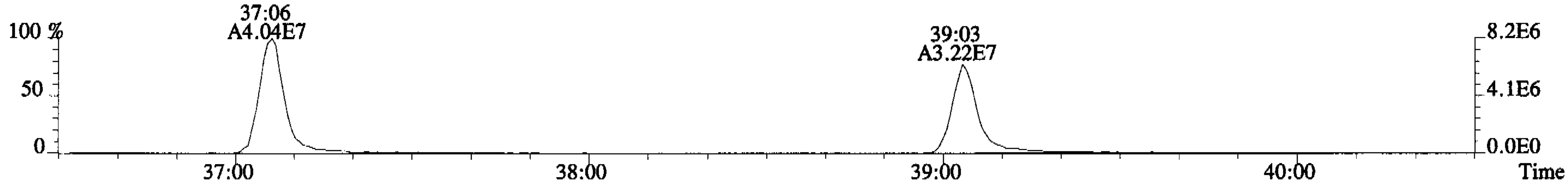
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



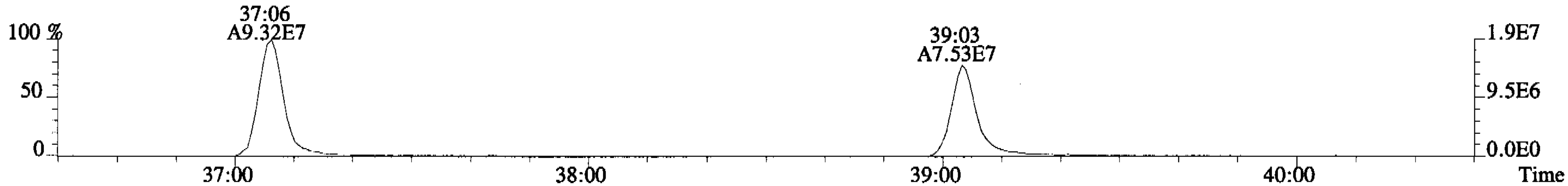
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



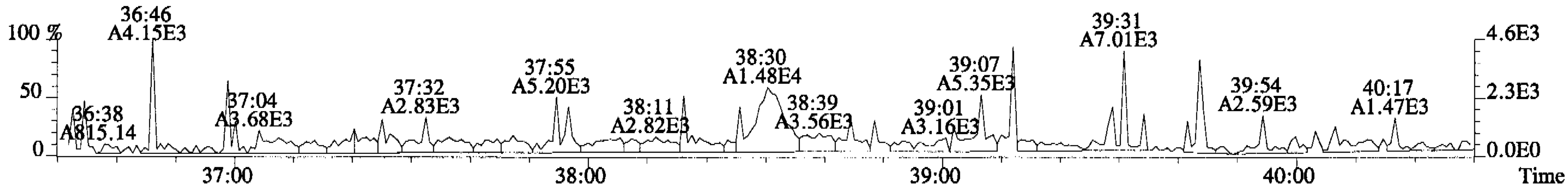
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



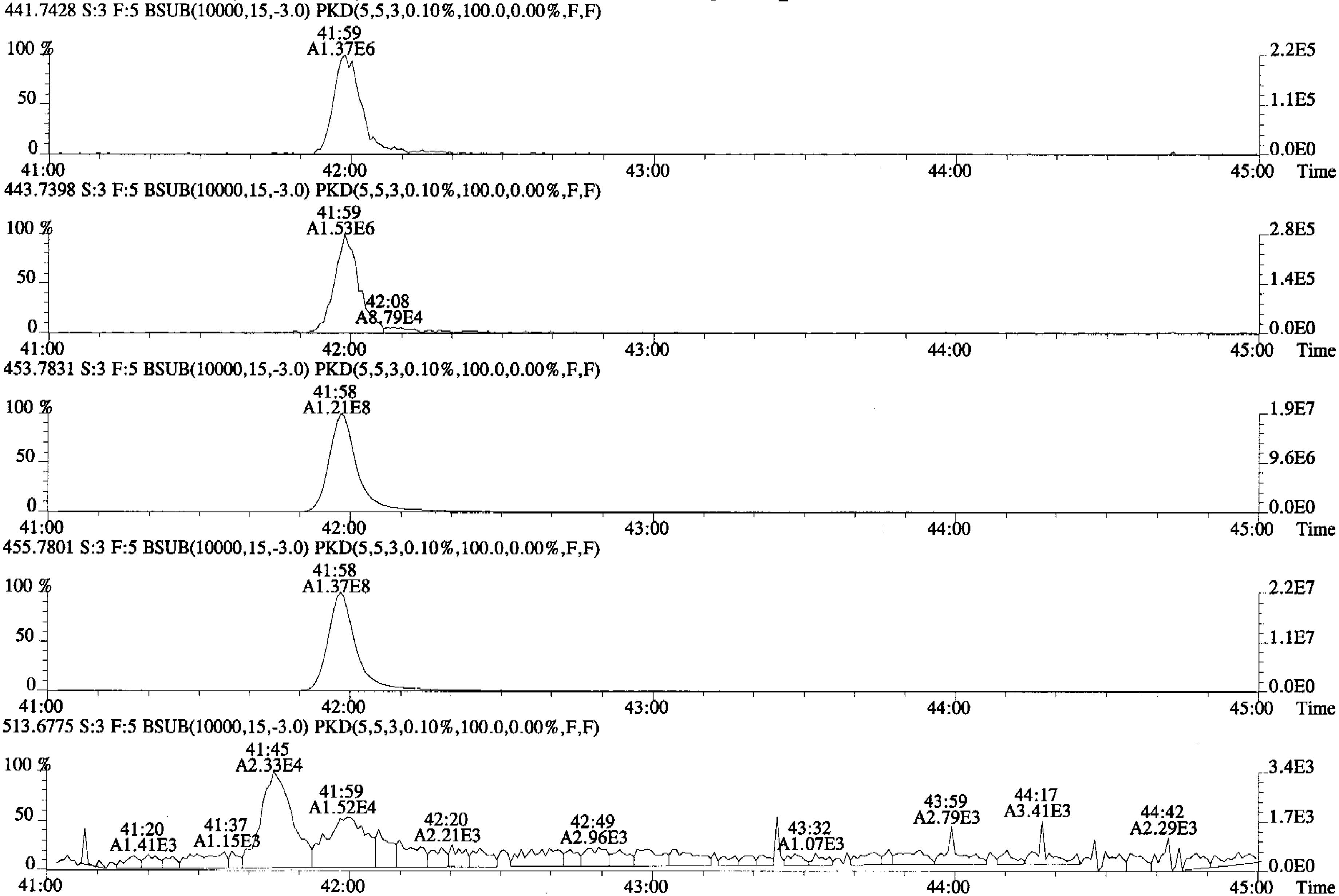
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

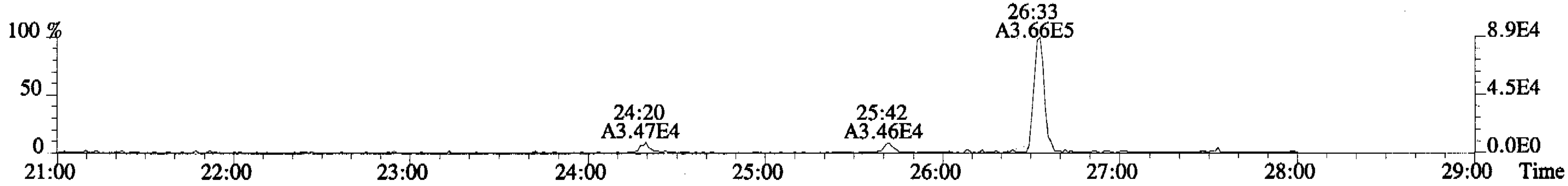


File:060322C1 #1-345 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

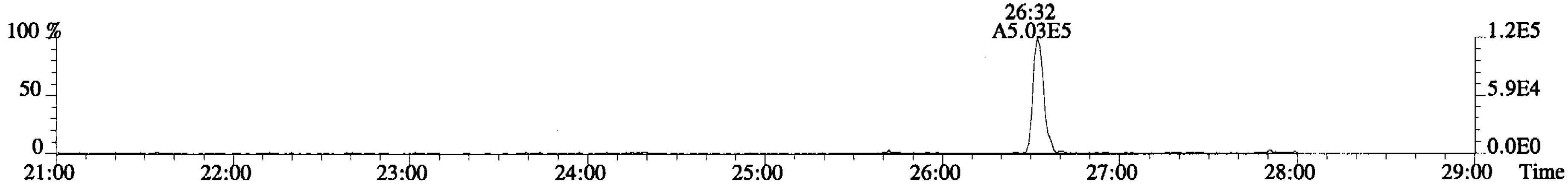


File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

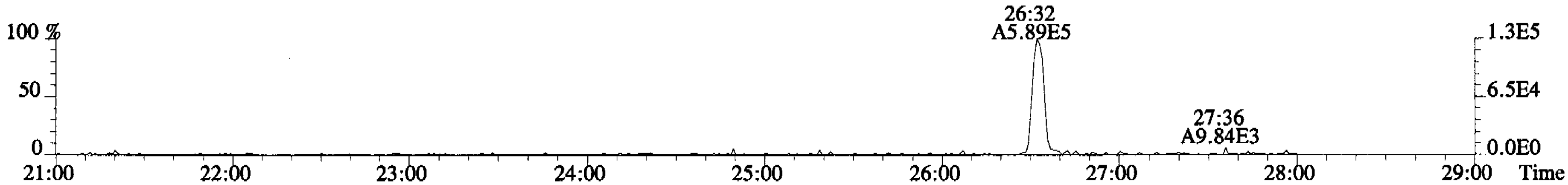
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



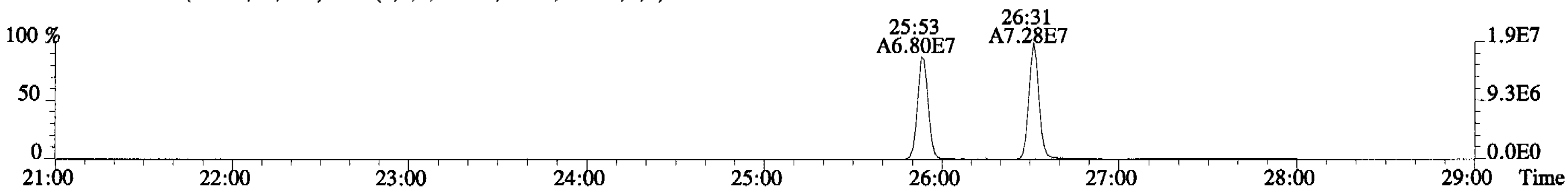
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



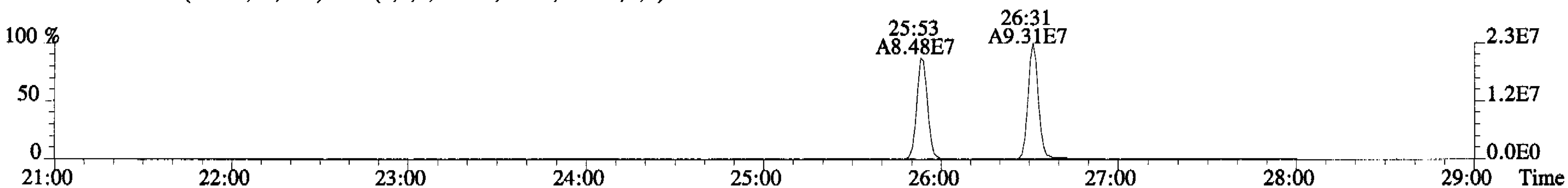
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



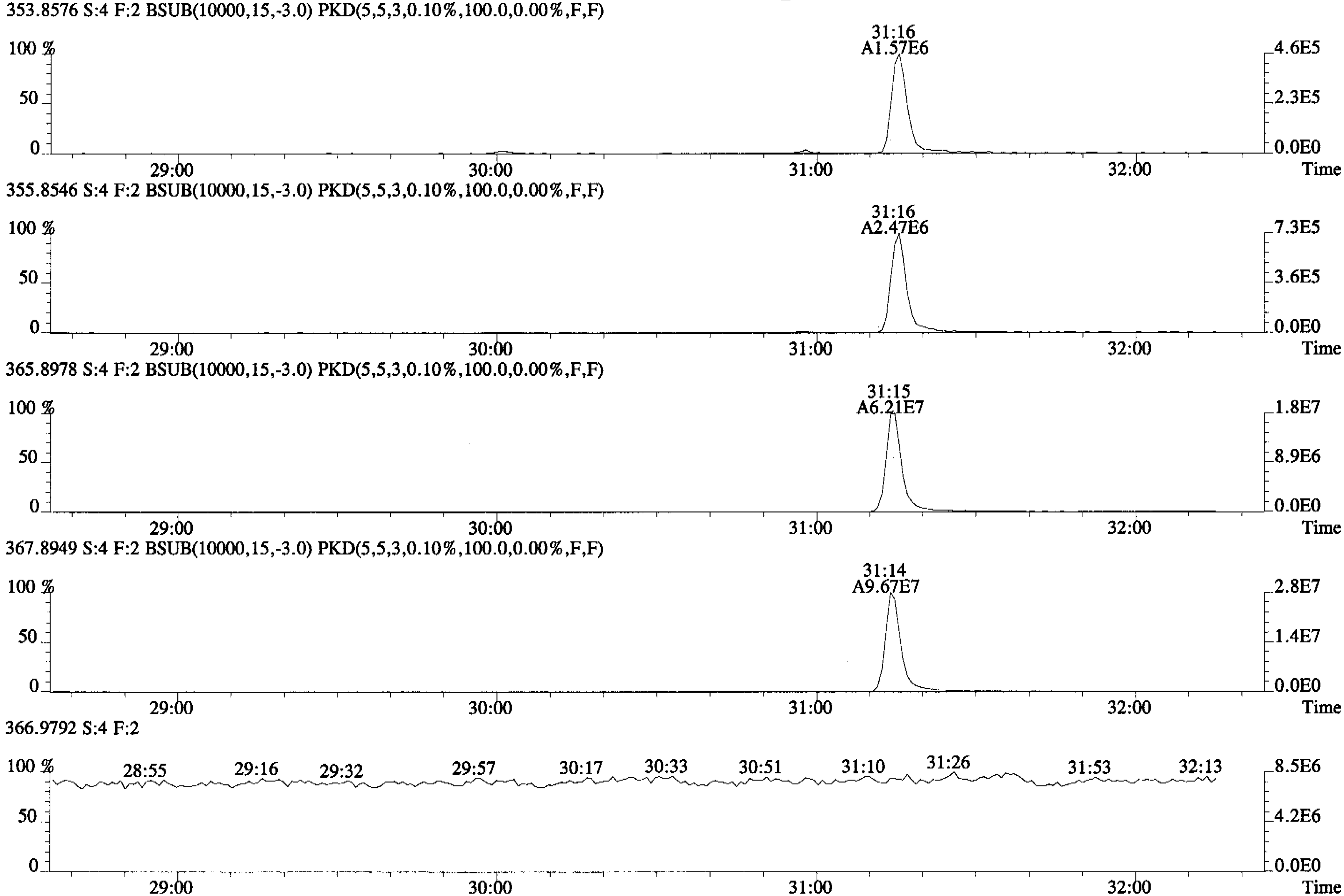
331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



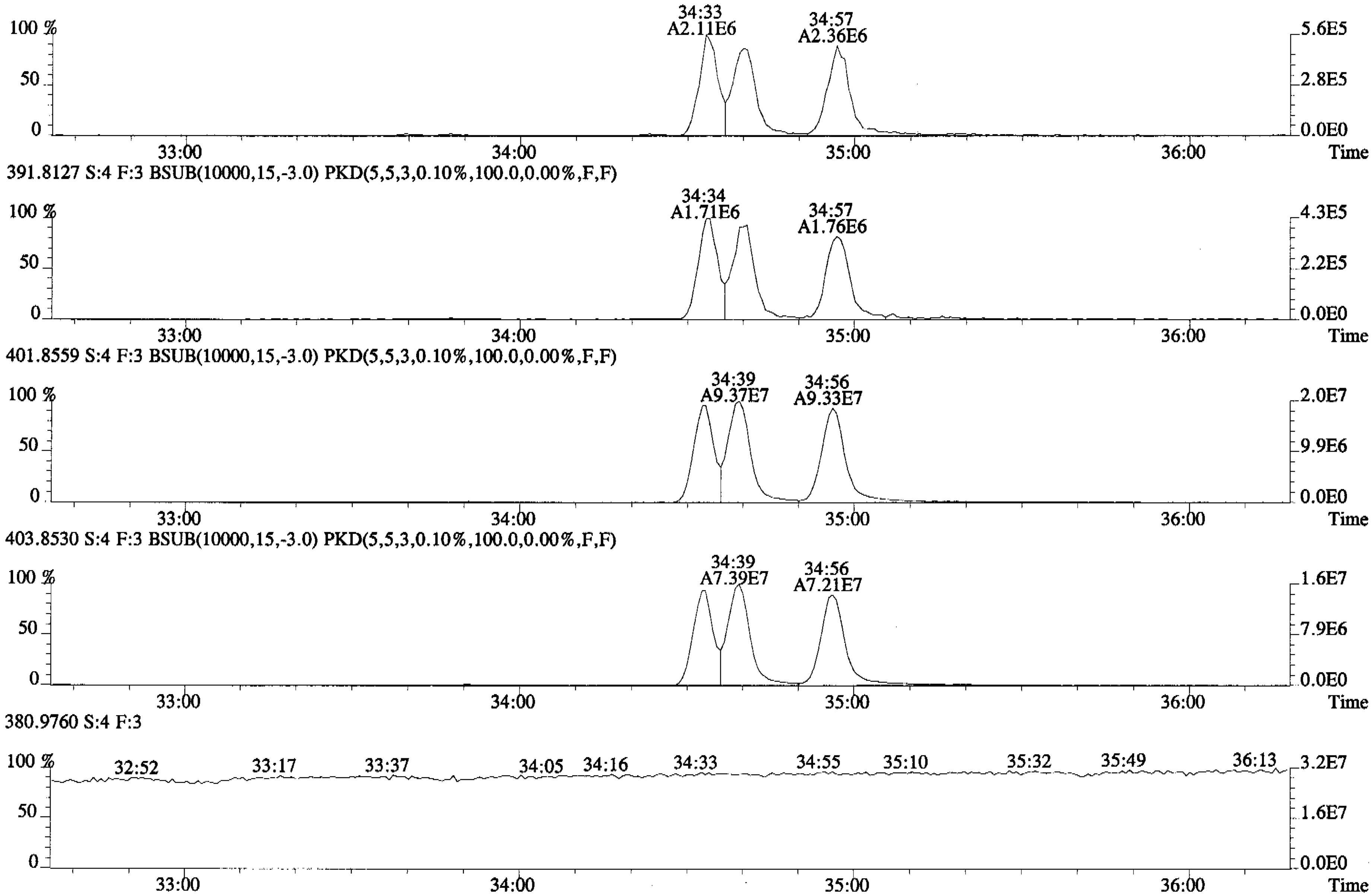
333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



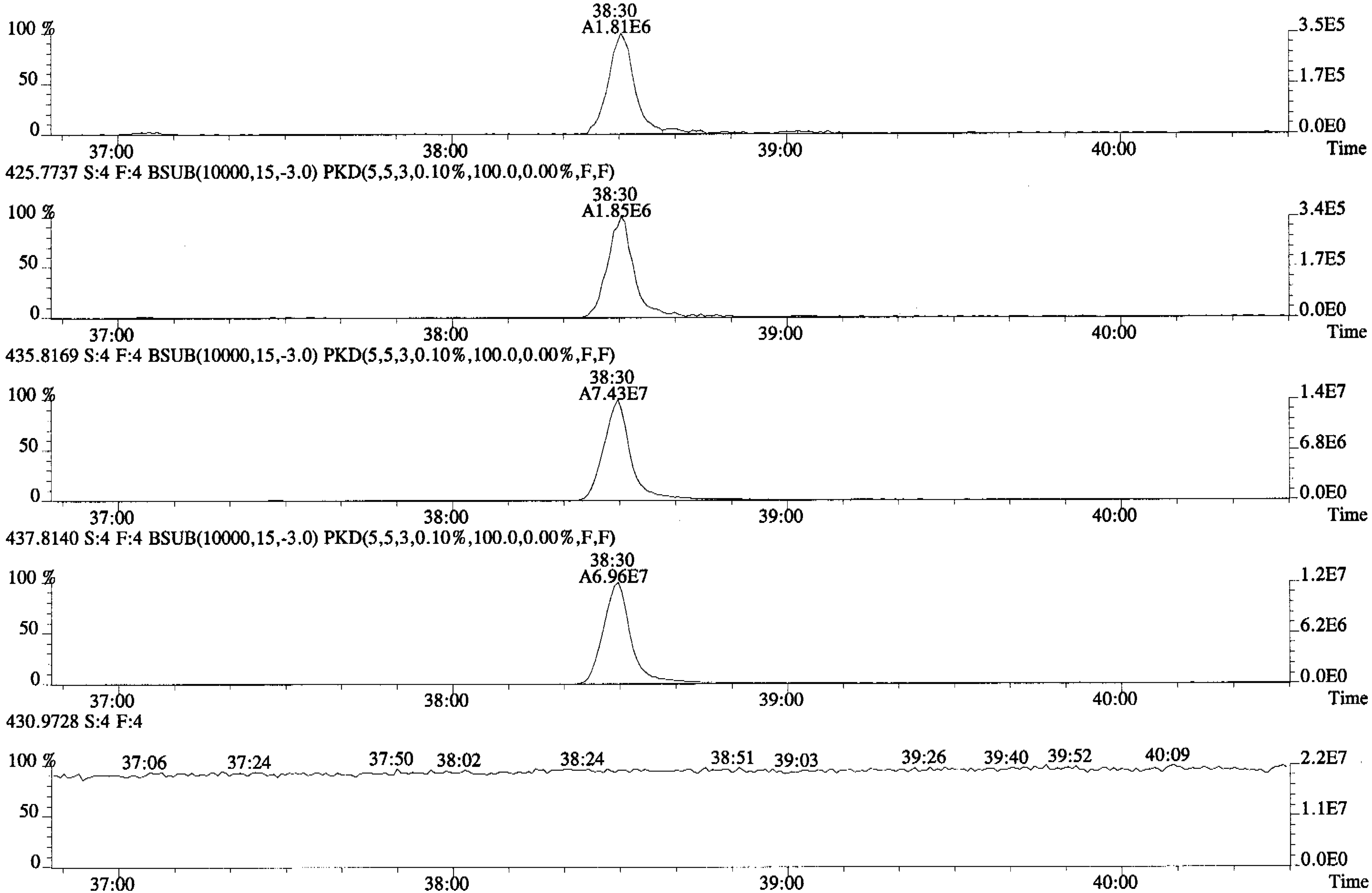
File:060322C1 #1-316 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5



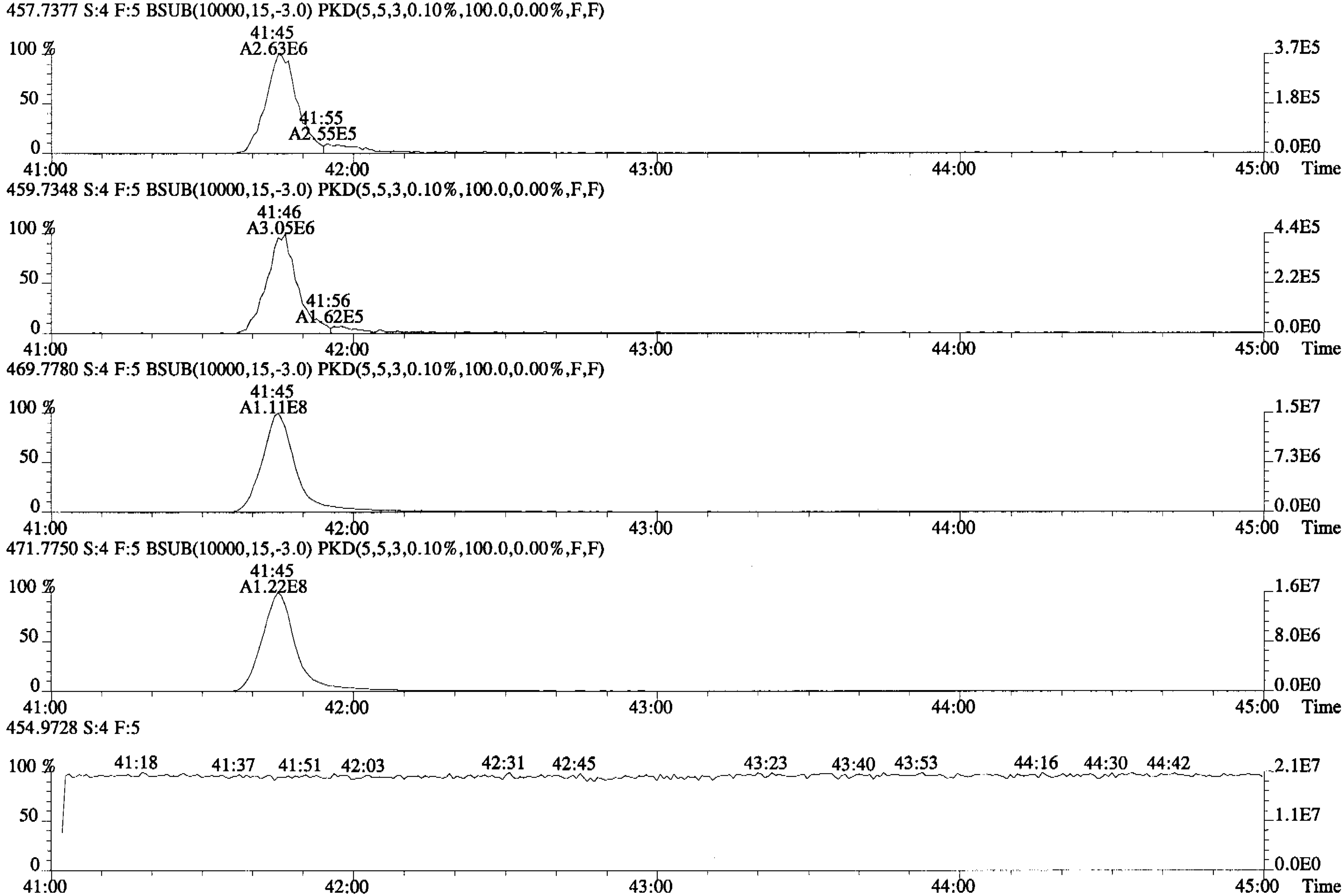
File:060322C1 #1-378 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-400 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

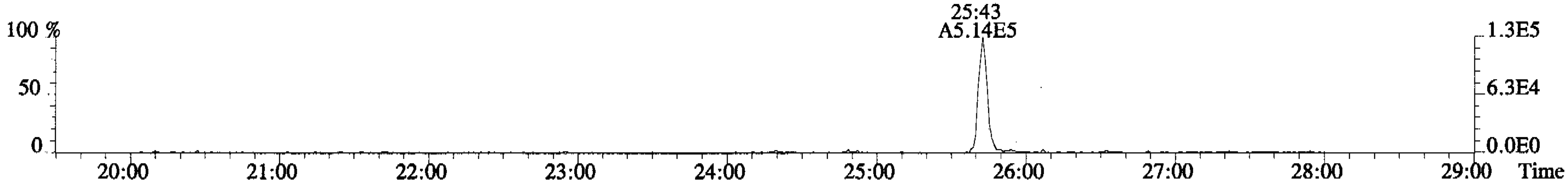


File:060322C1 #1-345 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

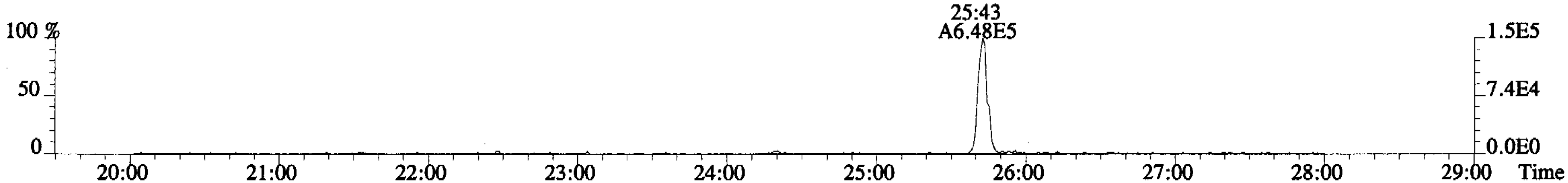


File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

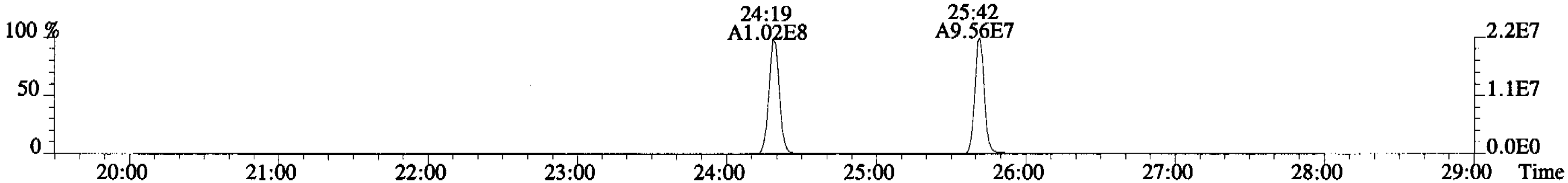
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



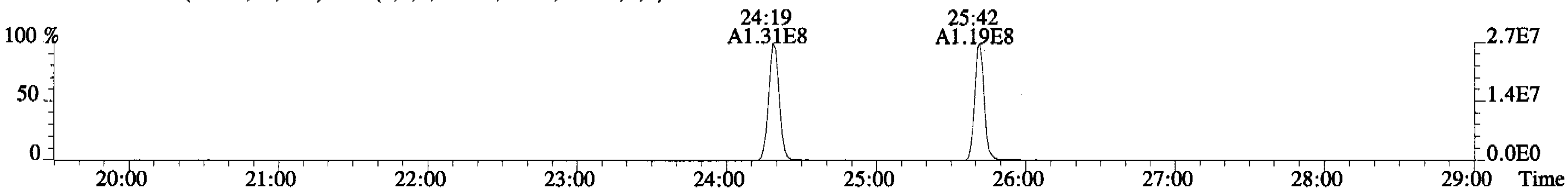
305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



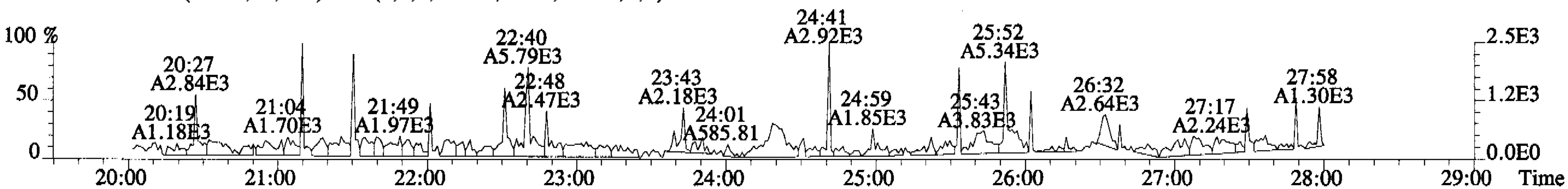
315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



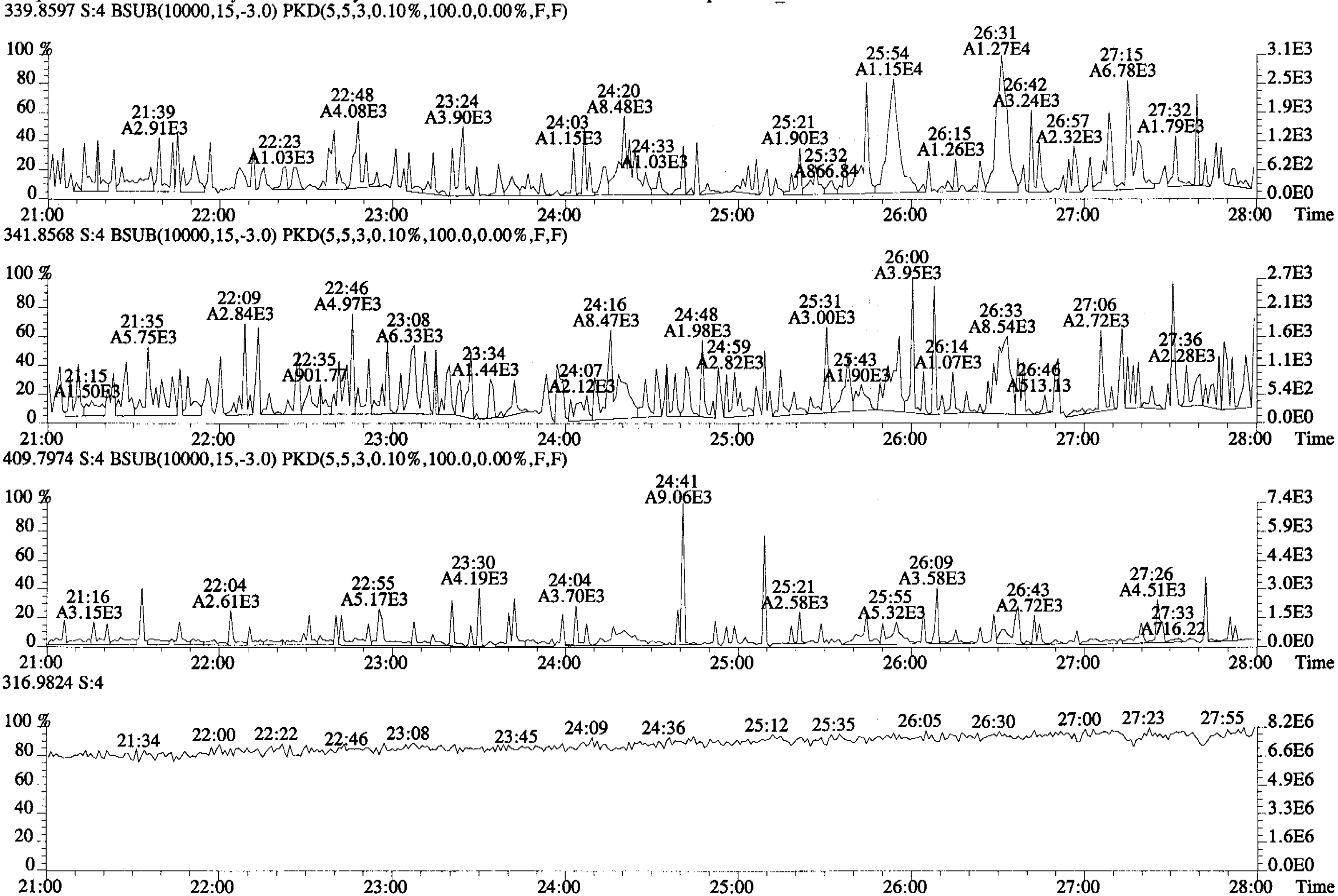
317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



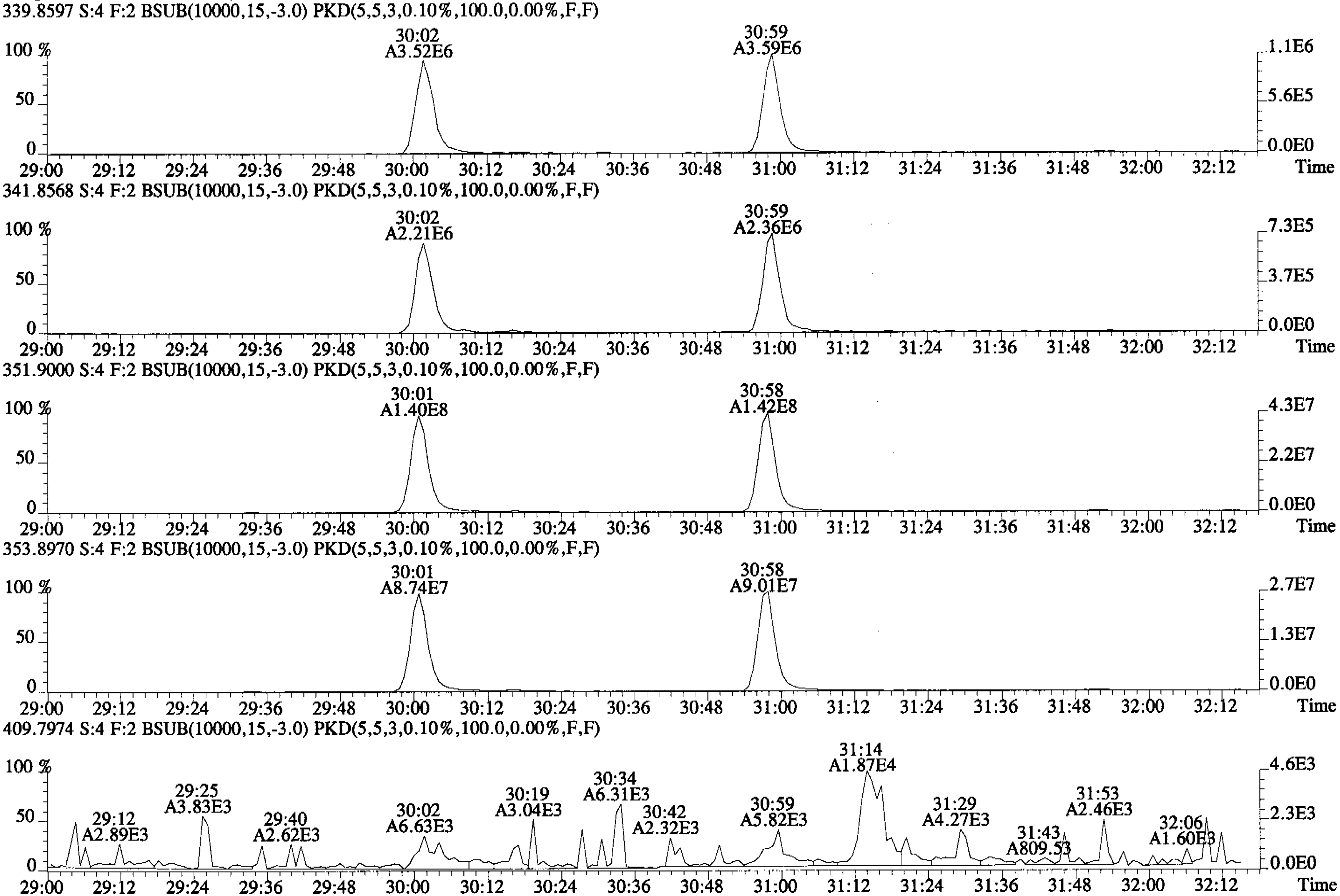
375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



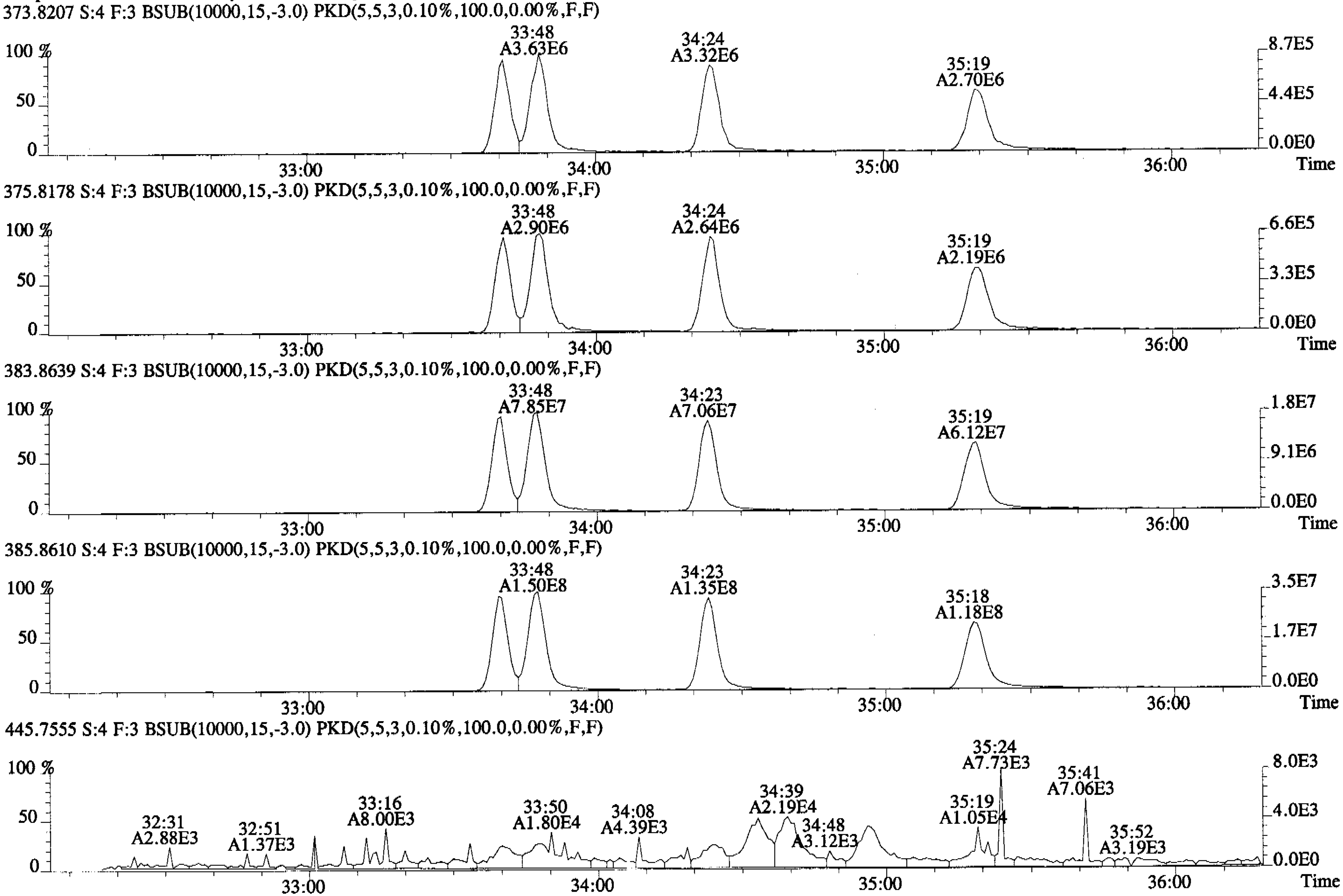
File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5



File:060322C1 #1-316 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

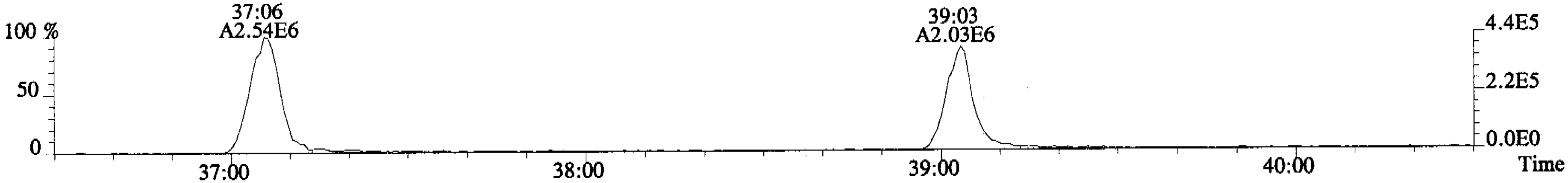


File:060322C1 #1-378 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

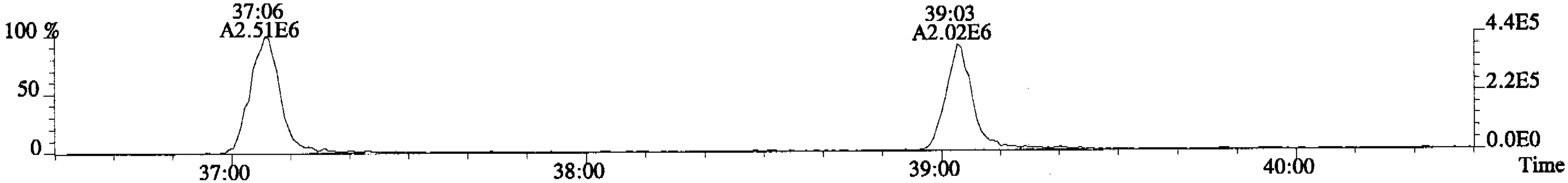


File:060322C1 #1-400 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

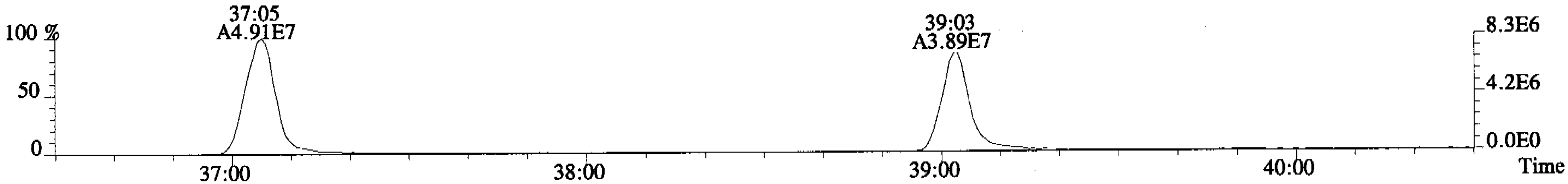
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



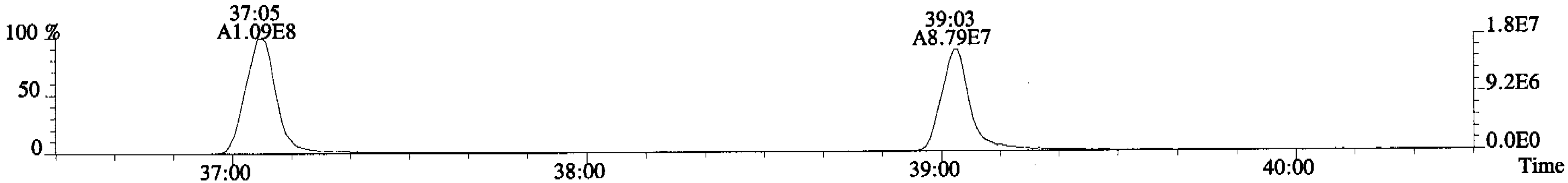
409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



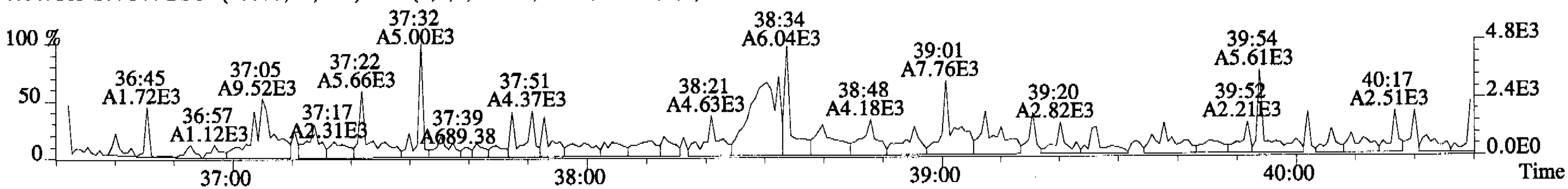
417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-345 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

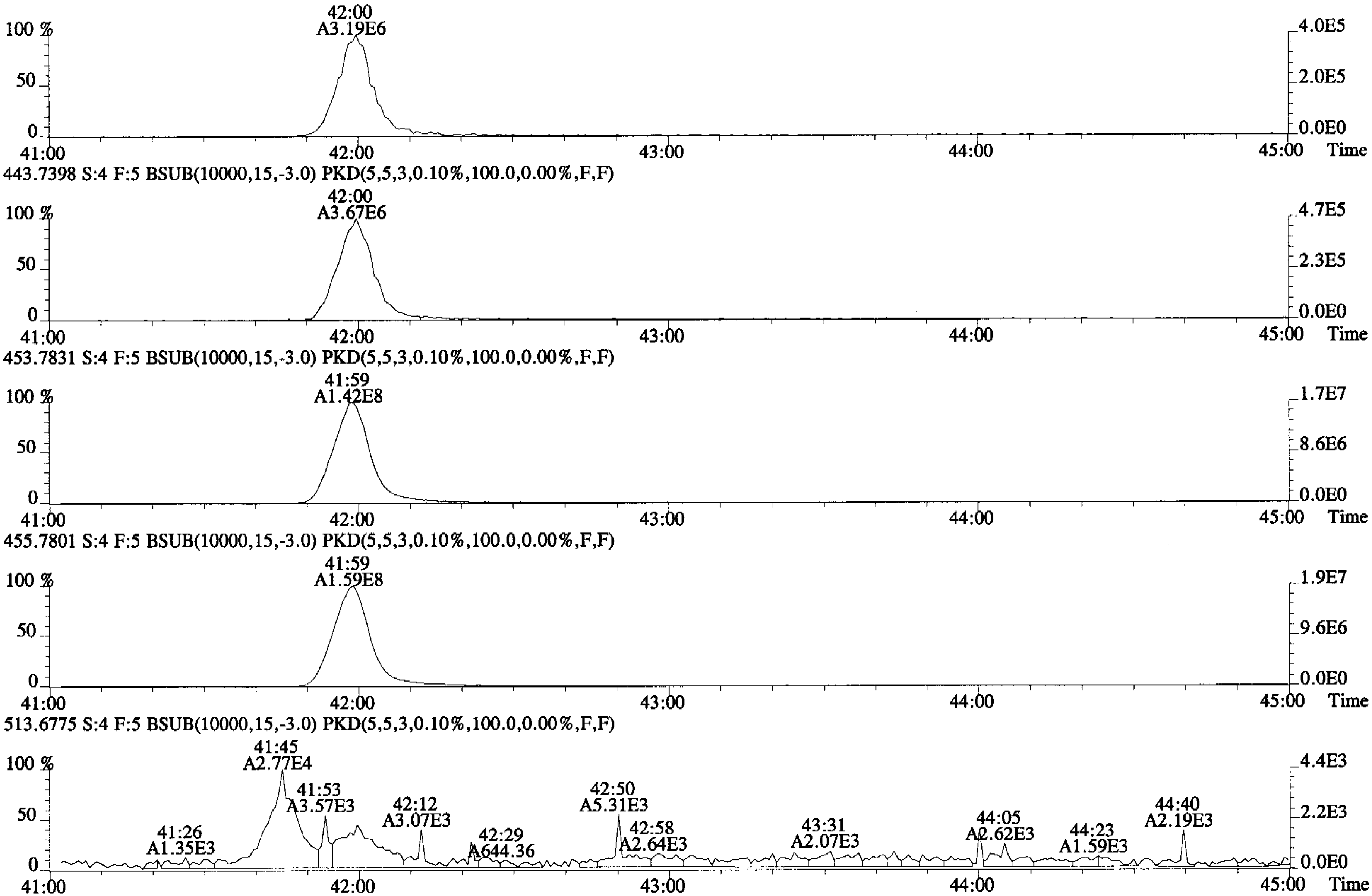
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

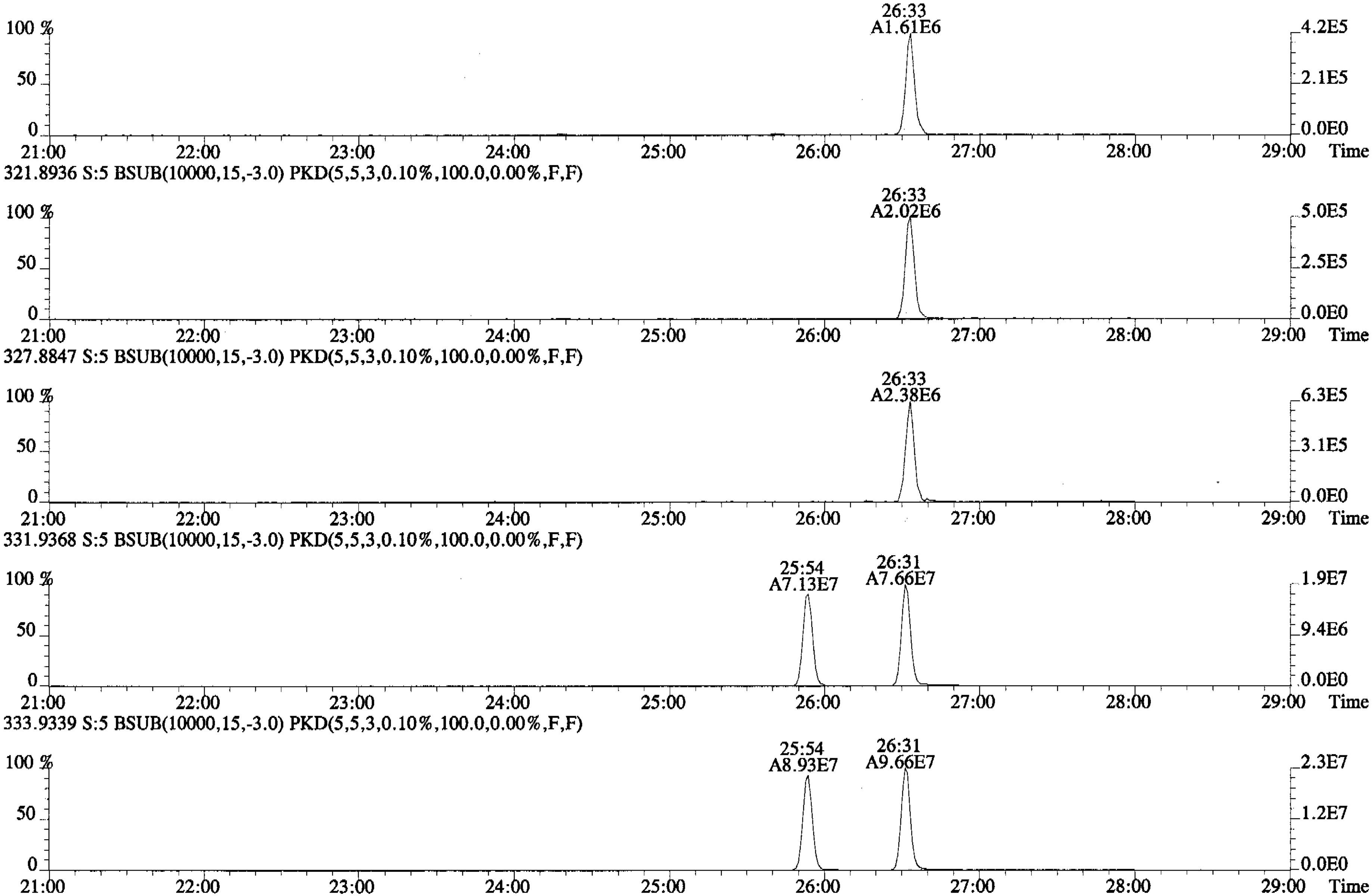
453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

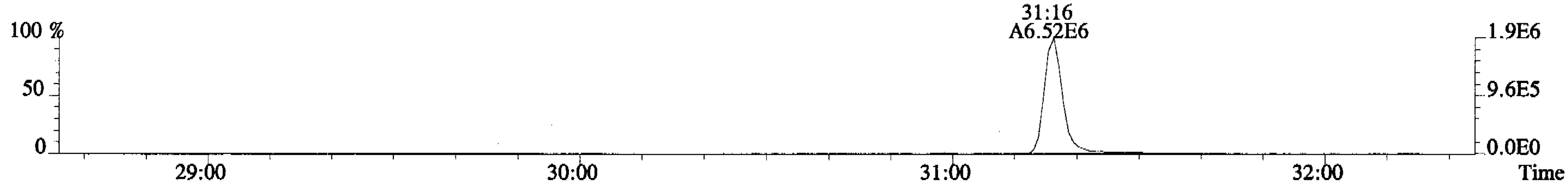
513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



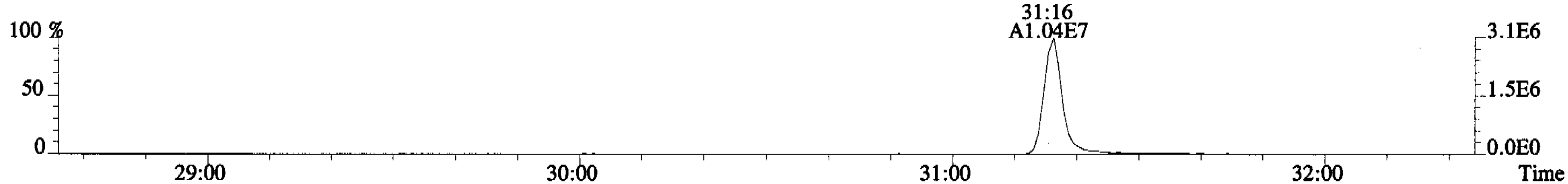
File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



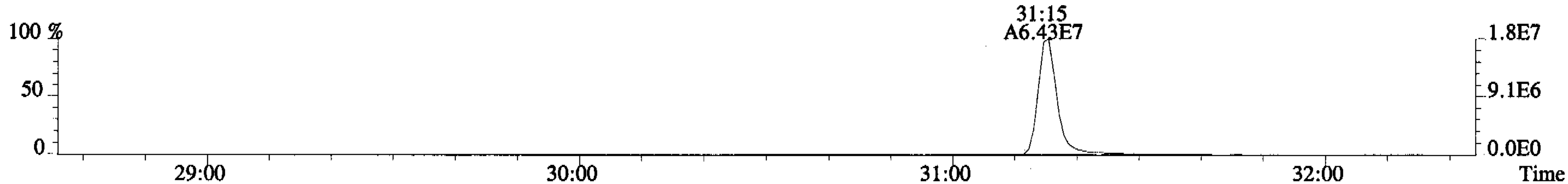
File:060322C1 #1-317 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5
353.8576 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



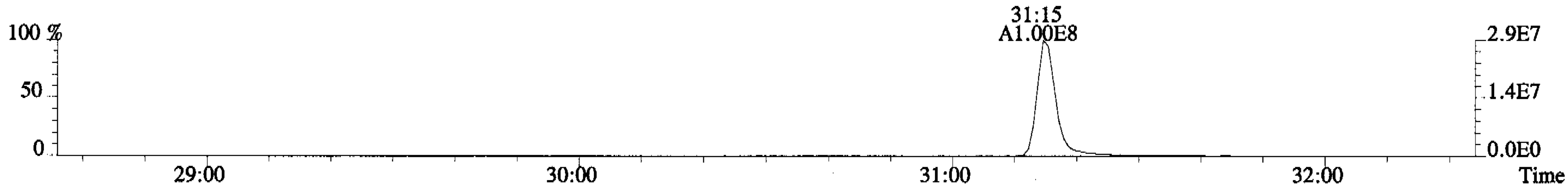
355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



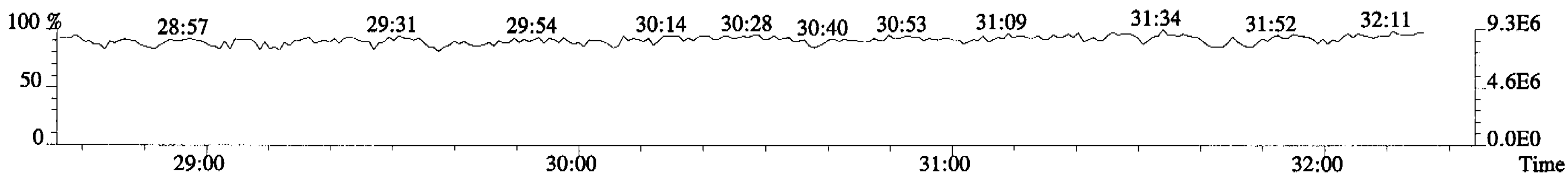
365.8978 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



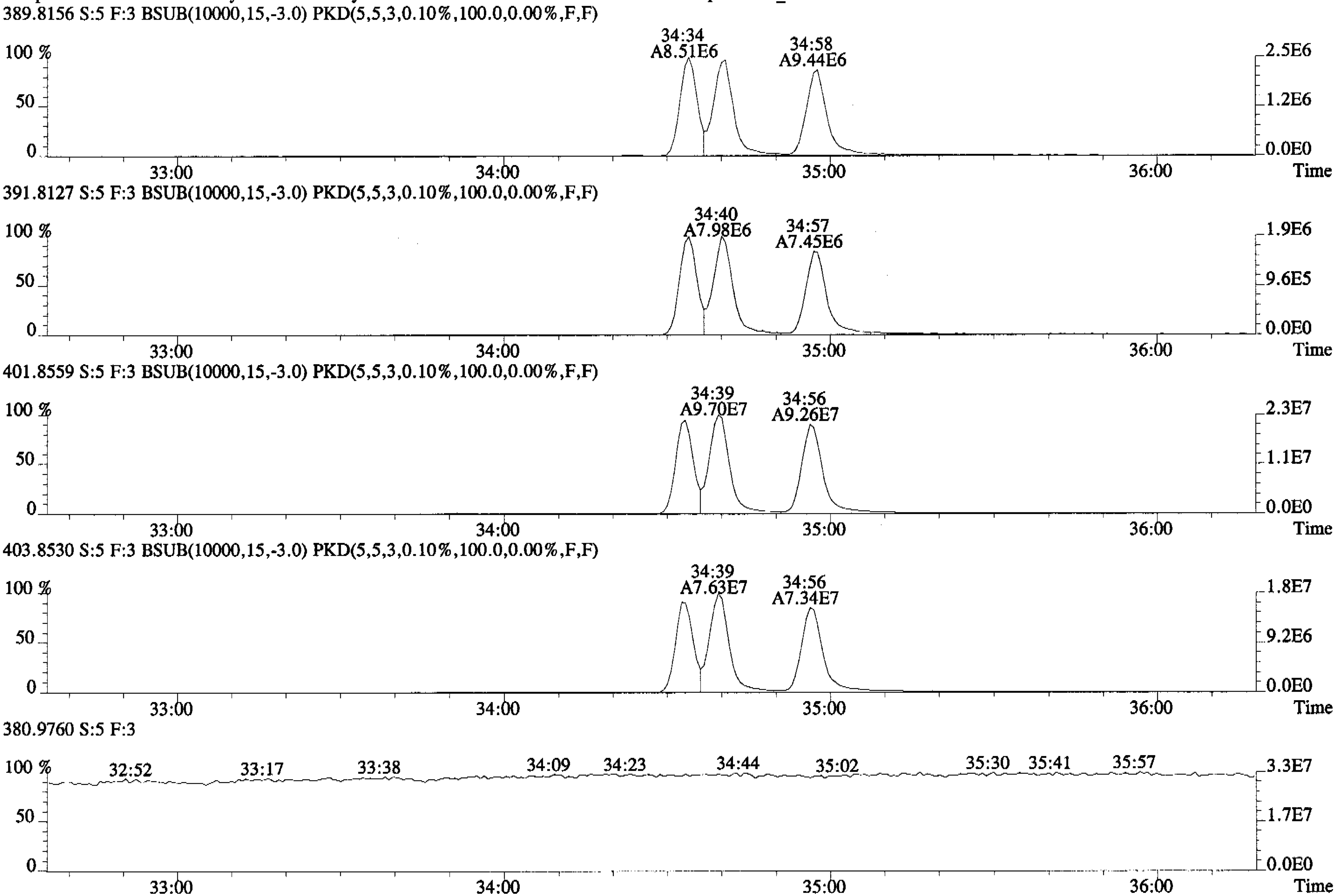
367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



366.9792 S:5 F:2

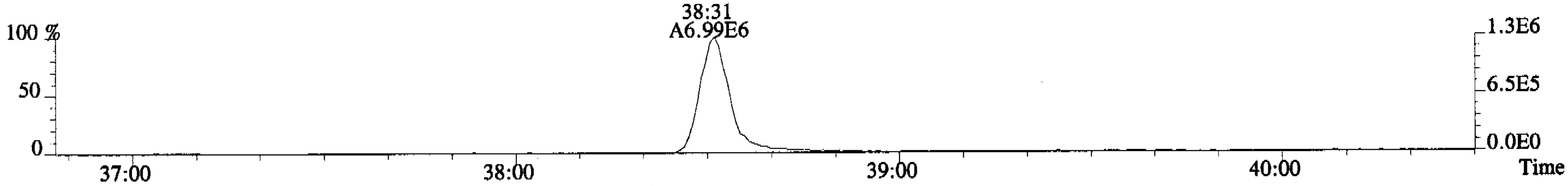


File:060322C1 #1-377 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

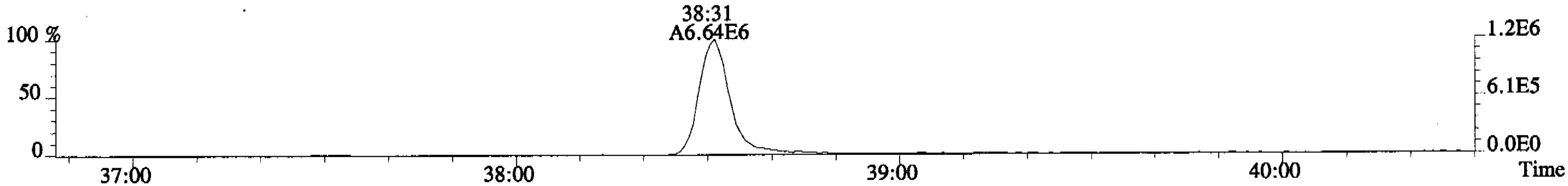


File:060322C1 #1-400 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

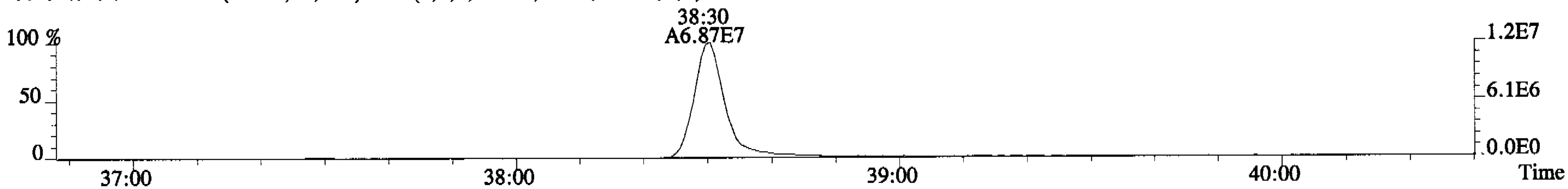
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



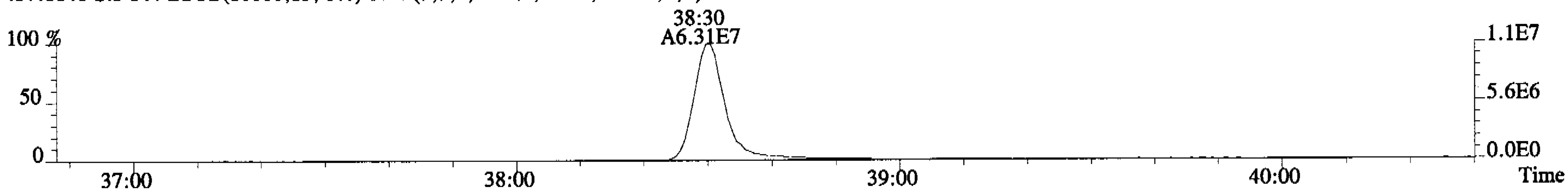
425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



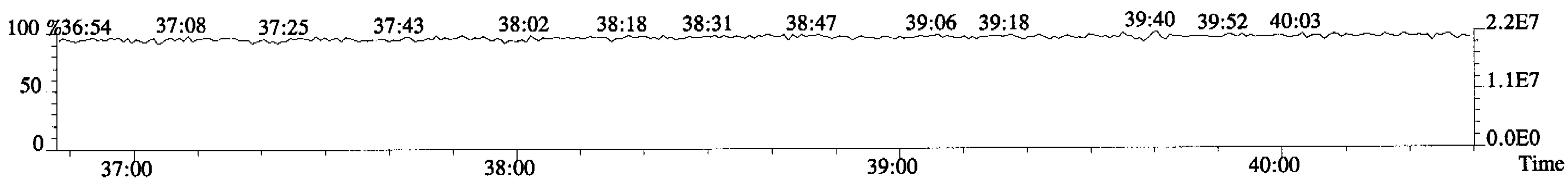
435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



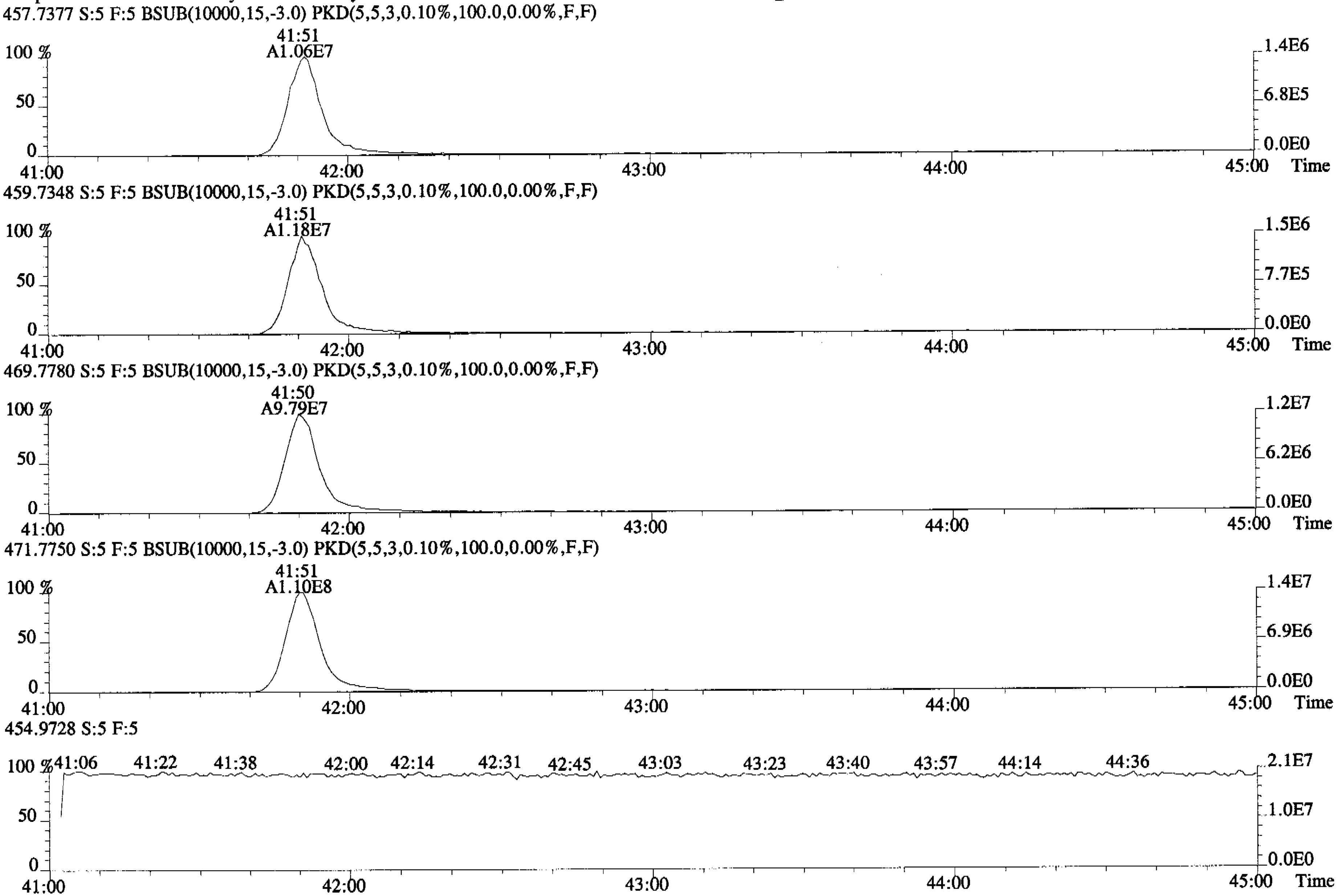
437.8140 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



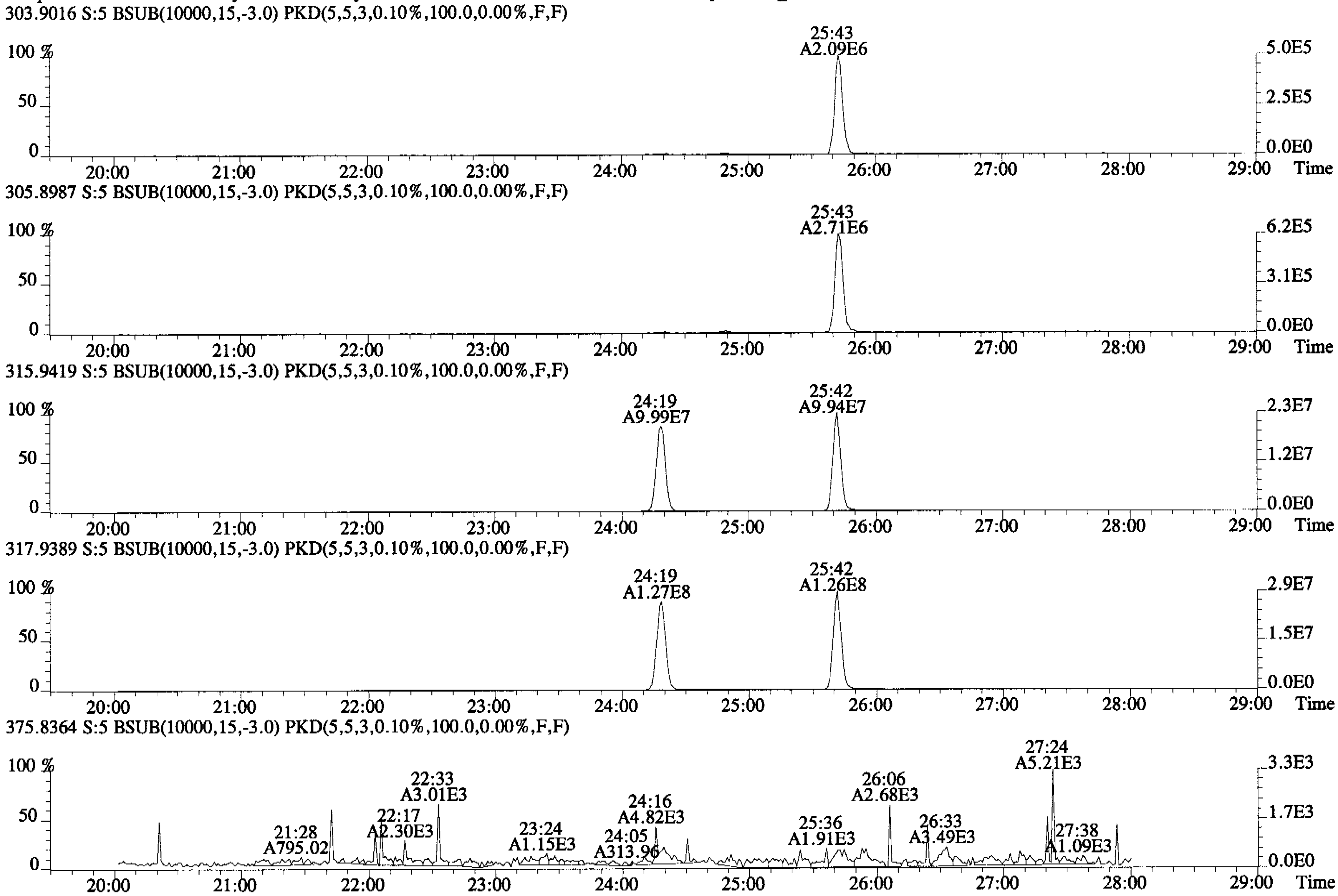
430.9728 S:5 F:4



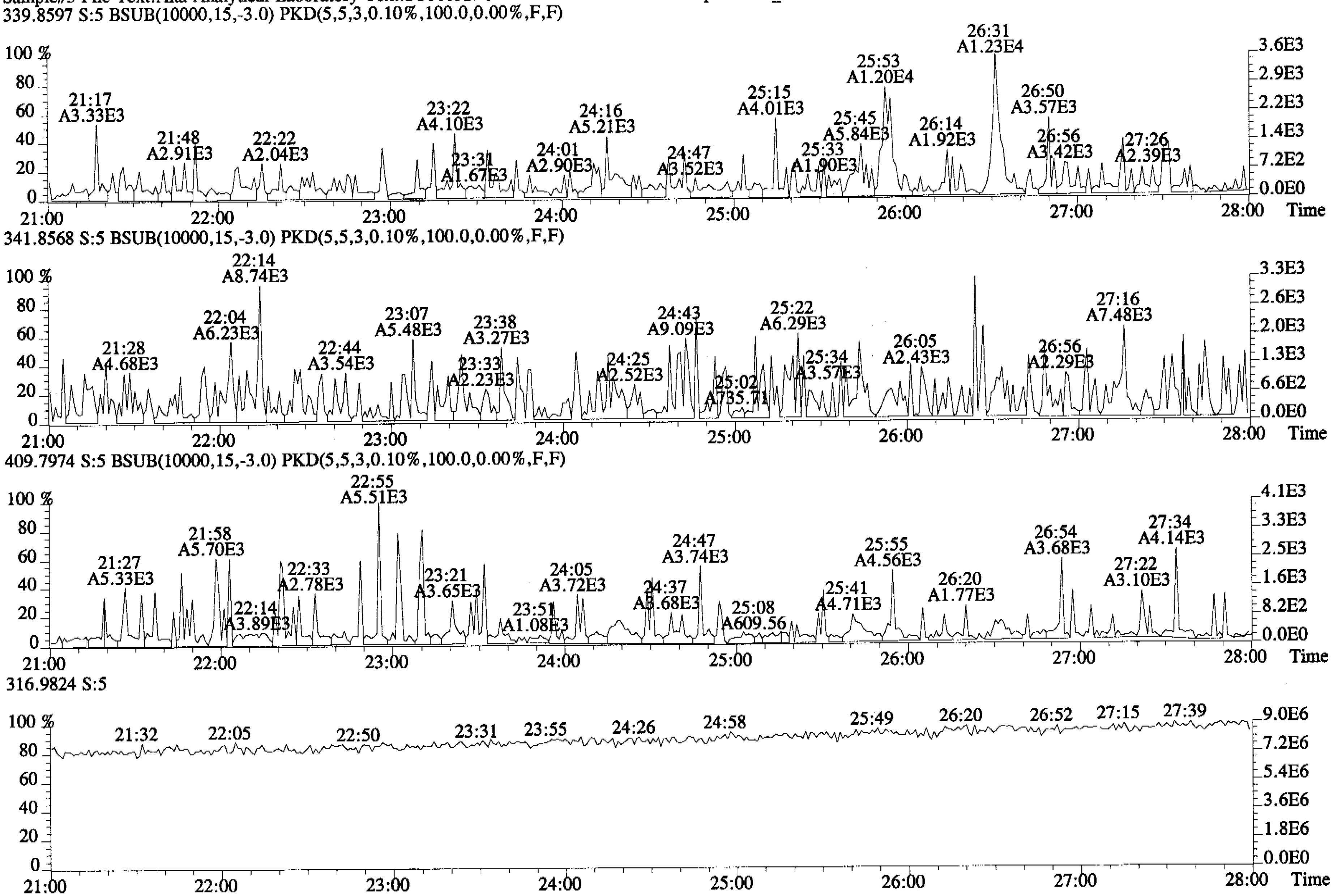
File:060322C1 #1-345 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5



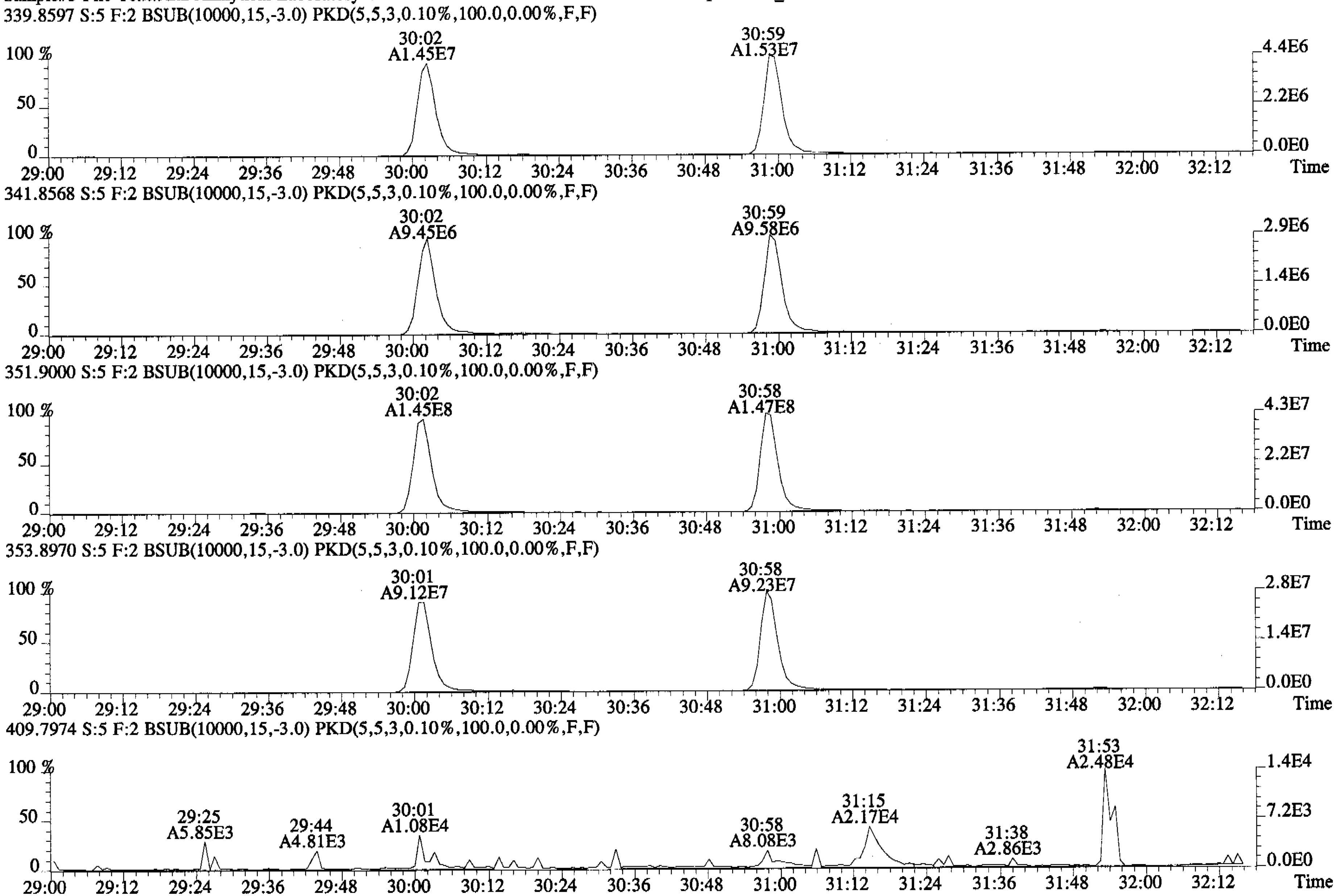
File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5



File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

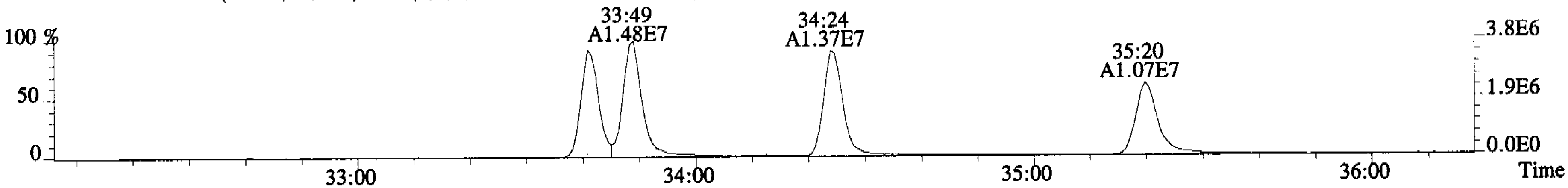


File:060322C1 #1-317 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

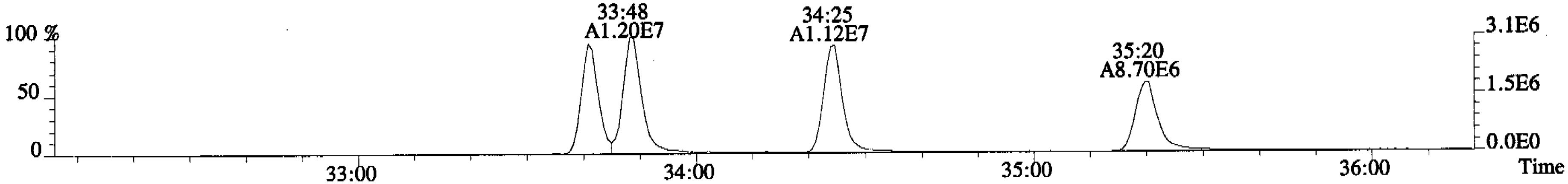


File:060322C1 #1-377 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

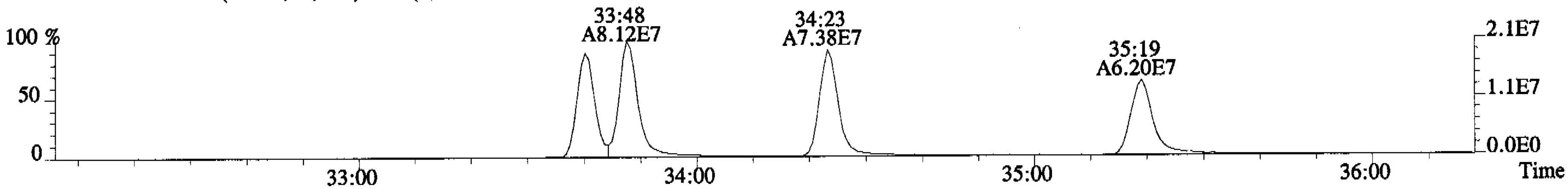
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



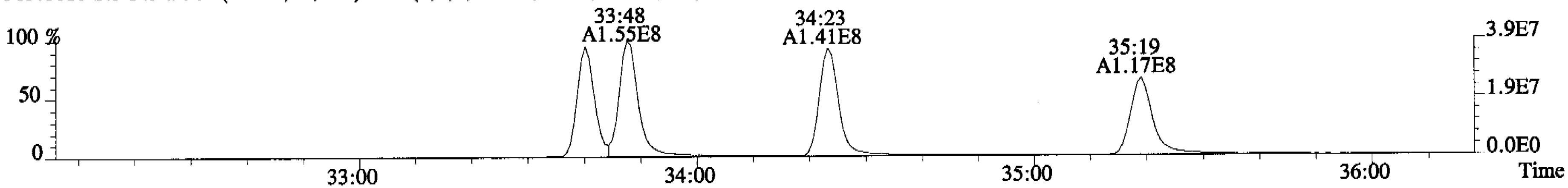
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



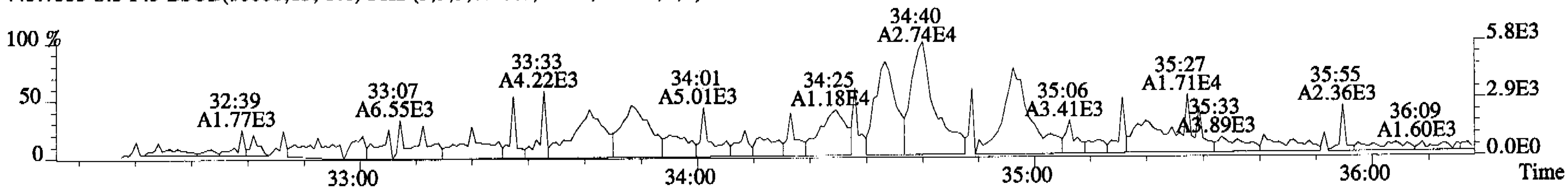
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



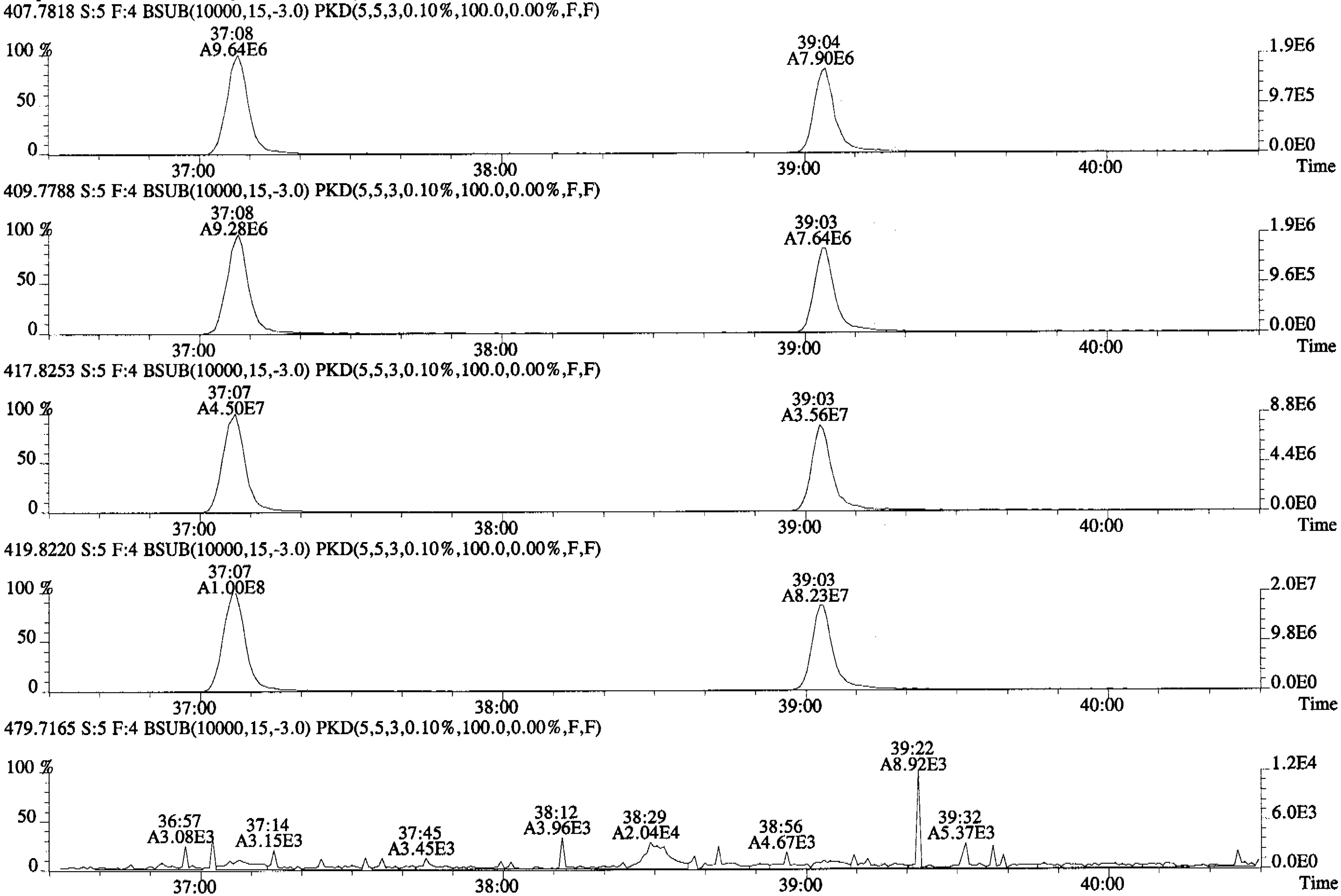
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



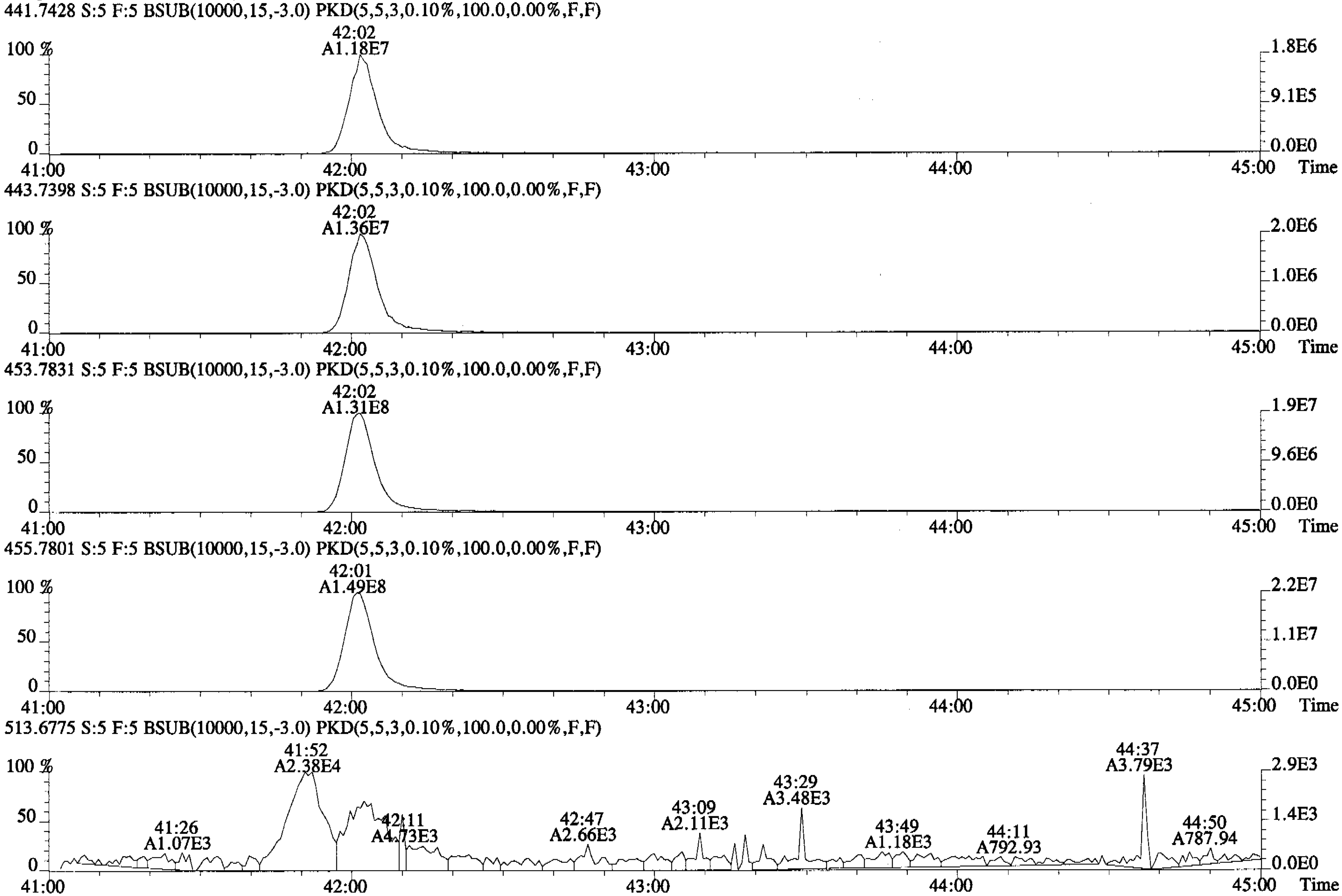
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-400 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

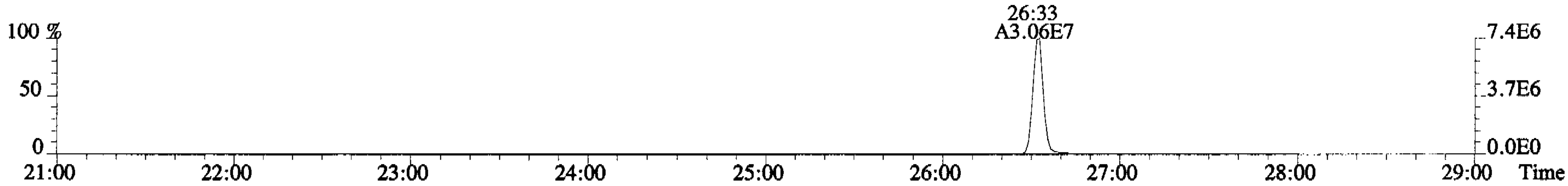


File:060322C1 #1-345 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

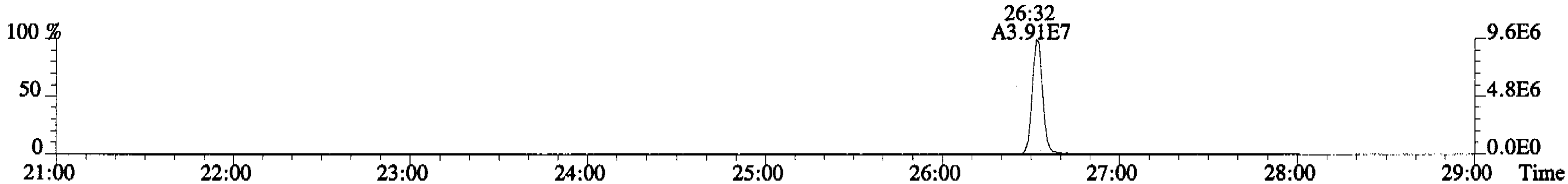


File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

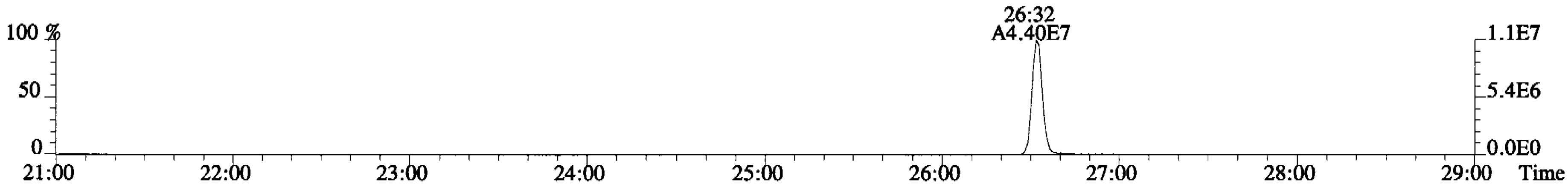
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



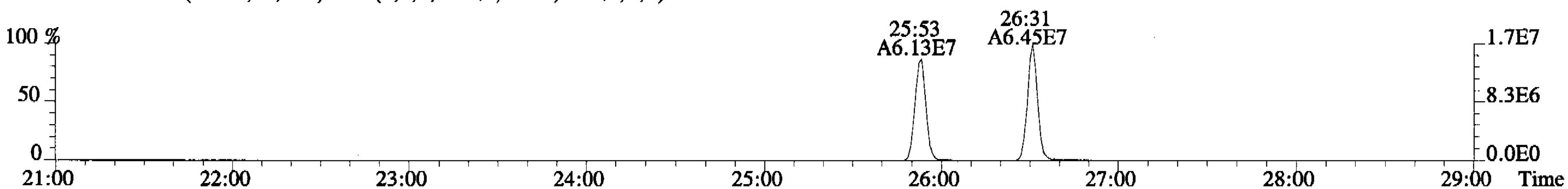
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



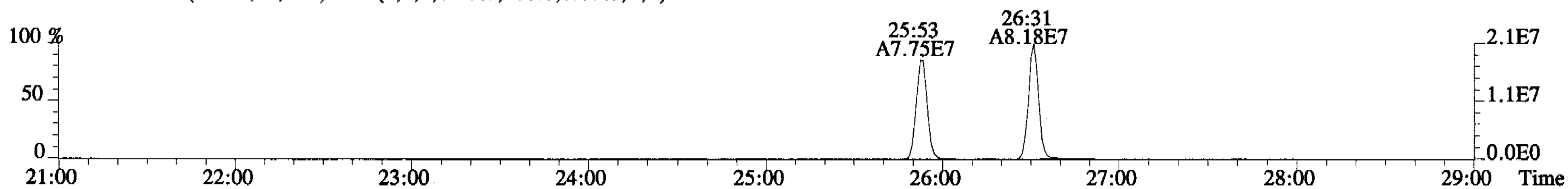
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



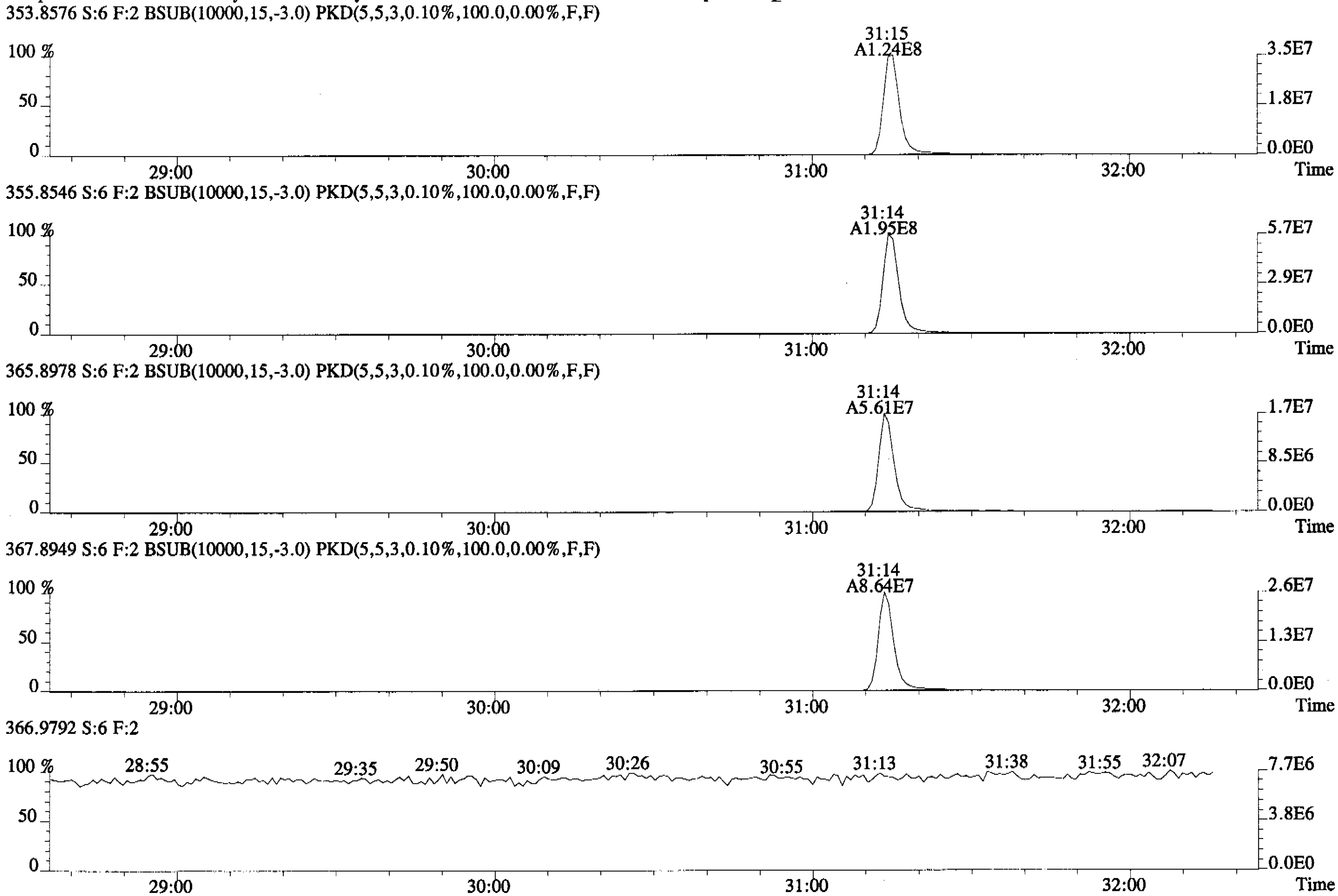
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



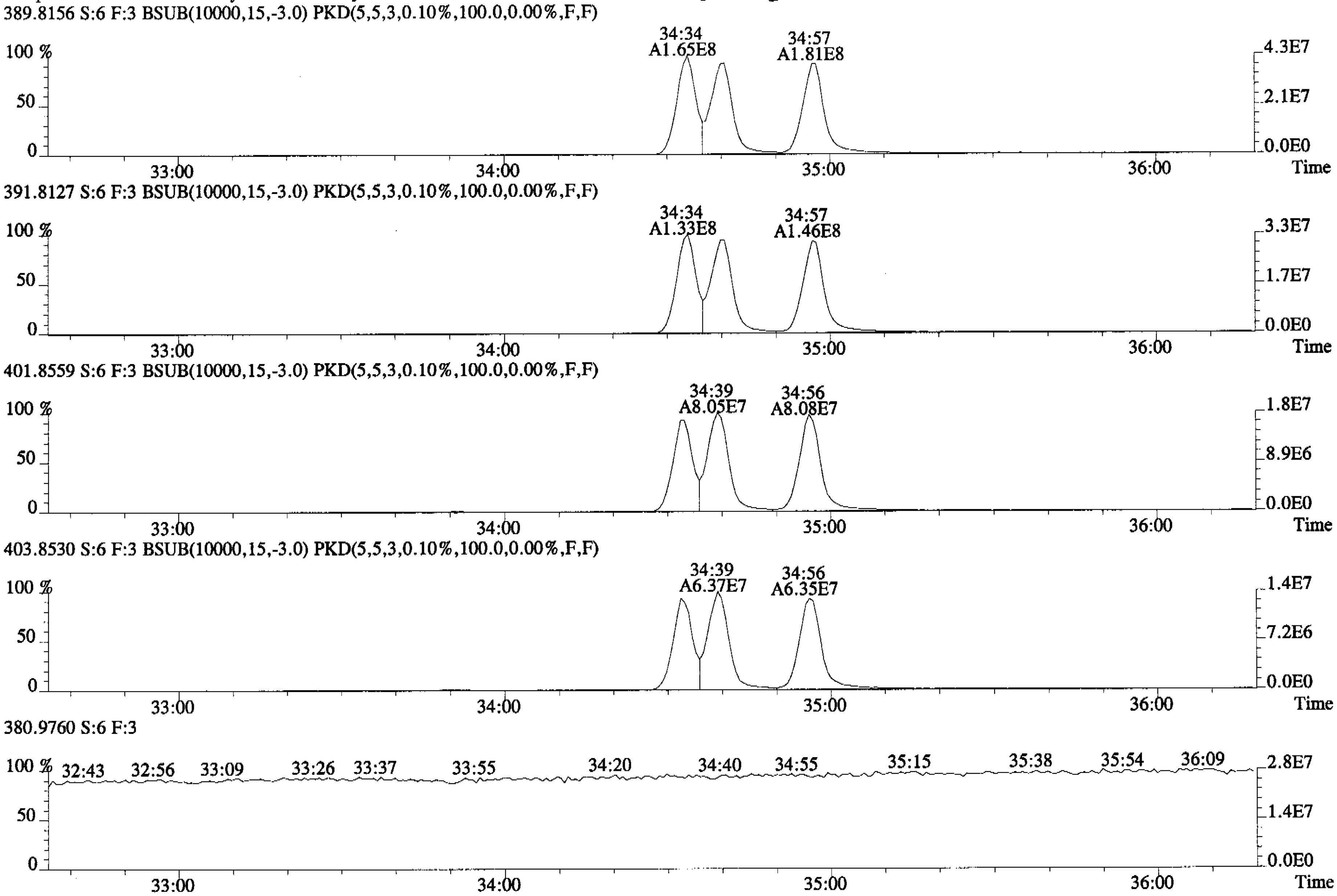
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



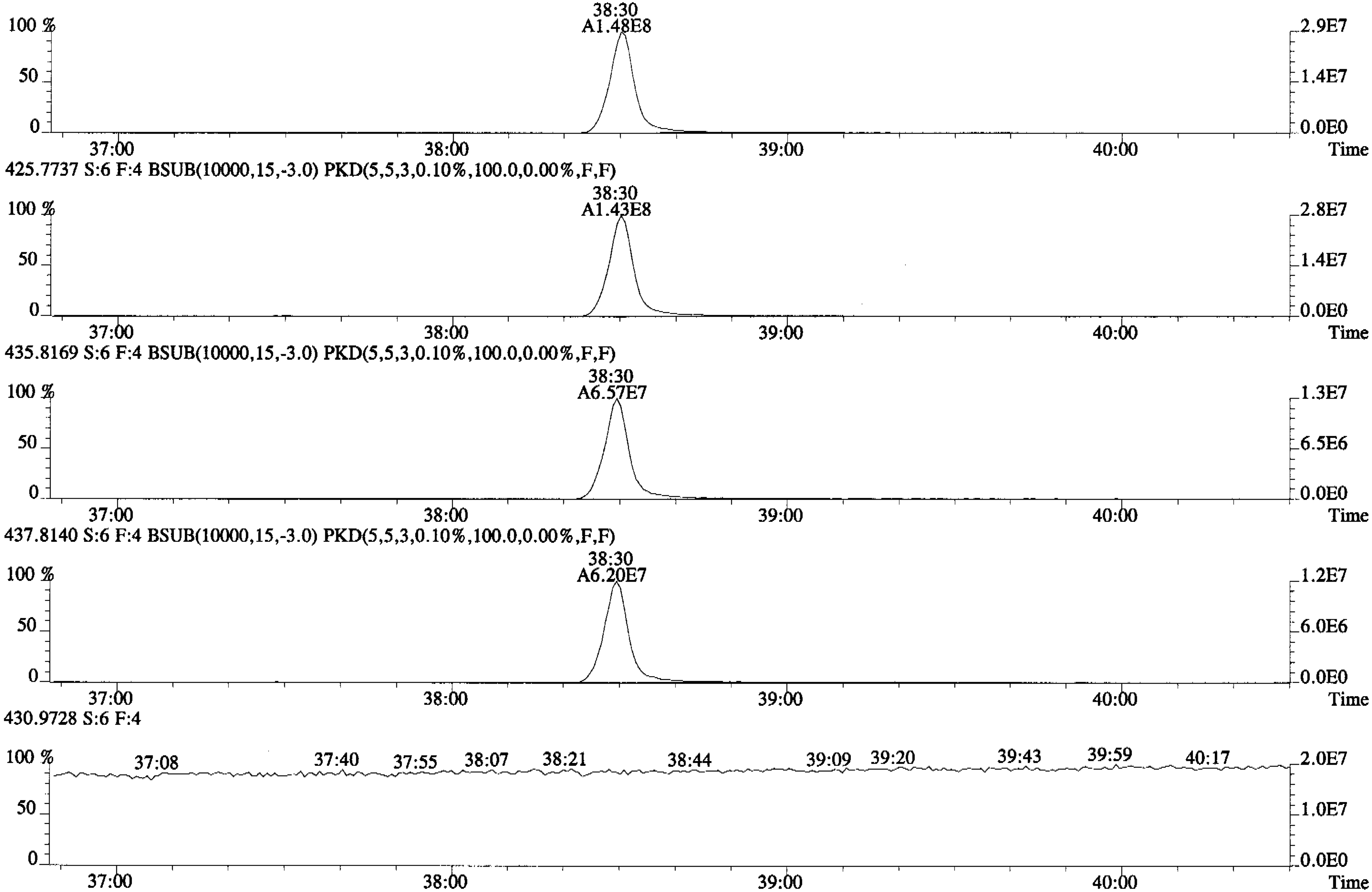
File:060322C1 #1-316 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5



File:060322C1 #1-377 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

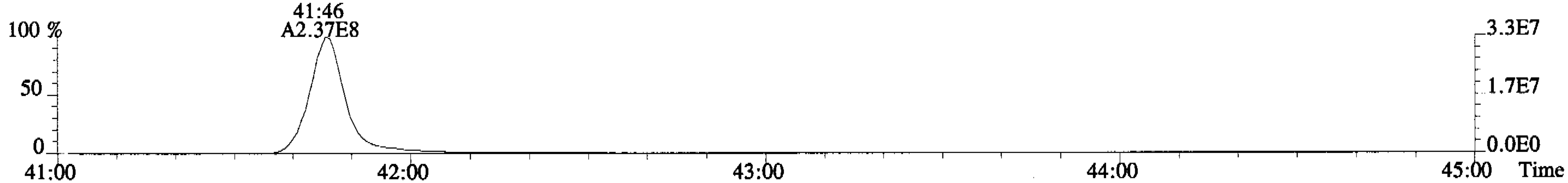


File:060322C1 #1-400 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

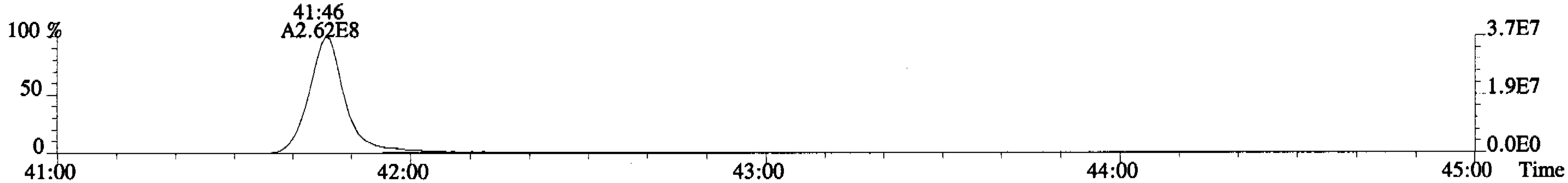


File:060322C1 #1-345 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

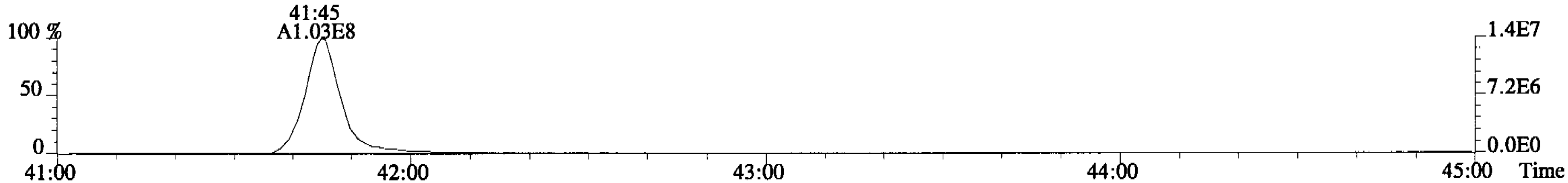
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



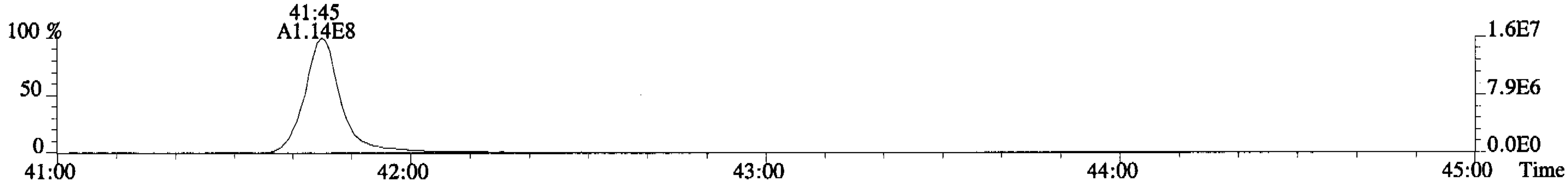
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



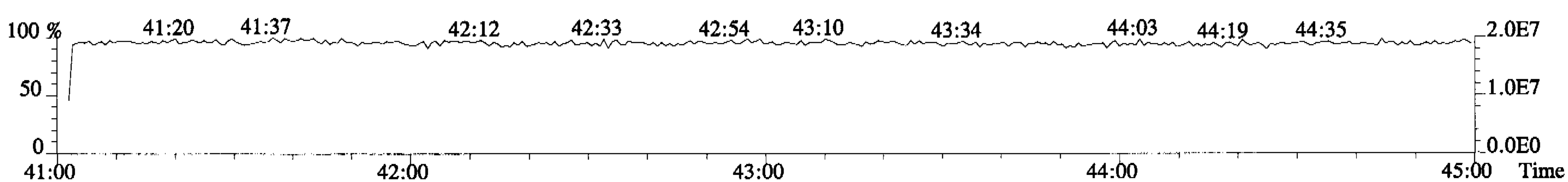
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



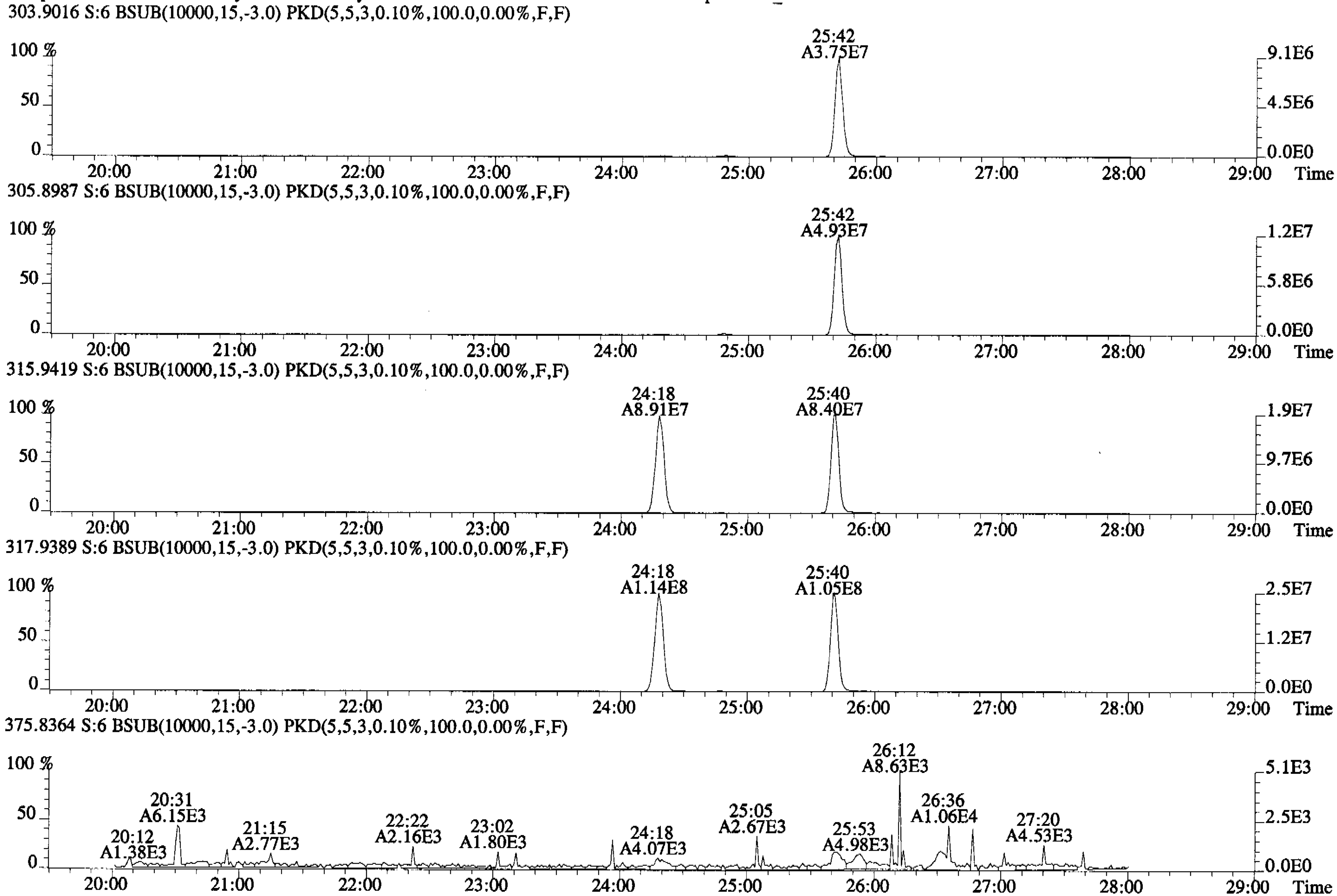
471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



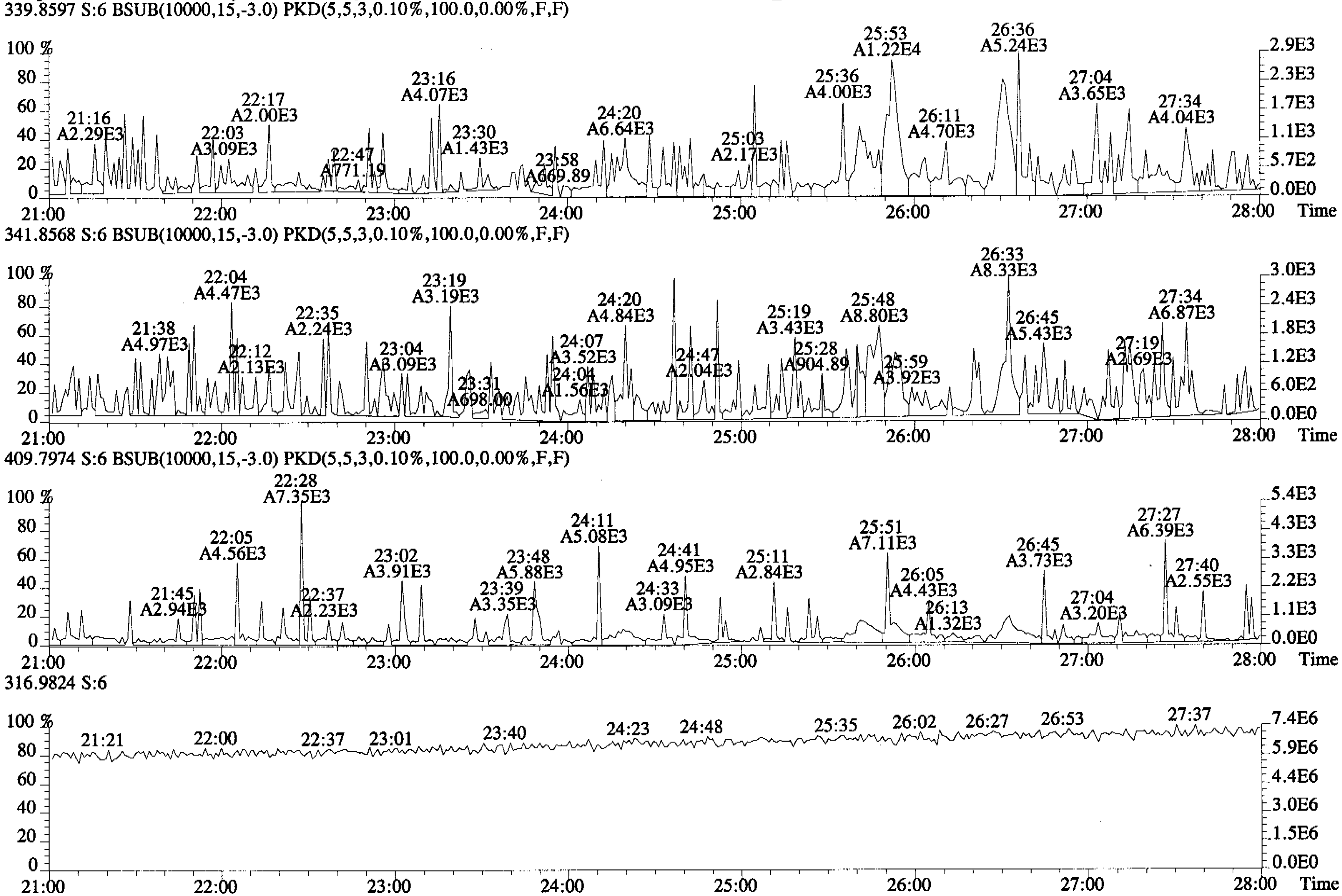
454.9728 S:6 F:5



File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

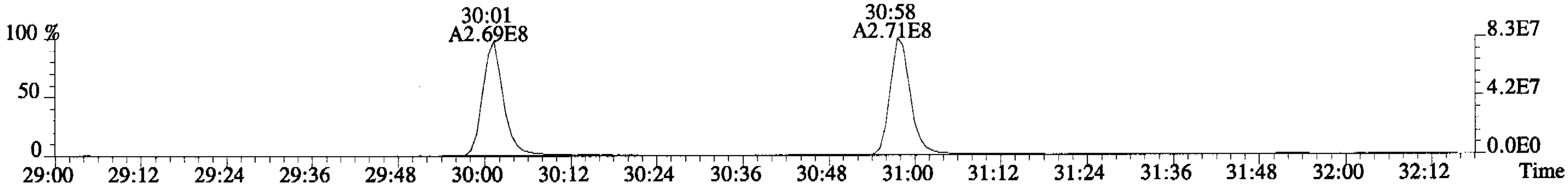


File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

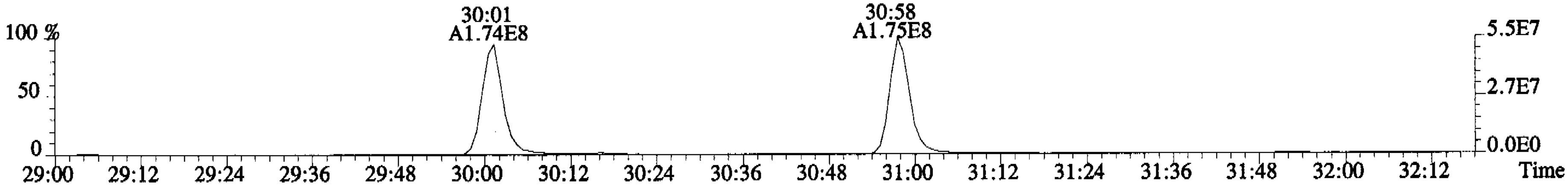


File:060322C1 #1-316 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

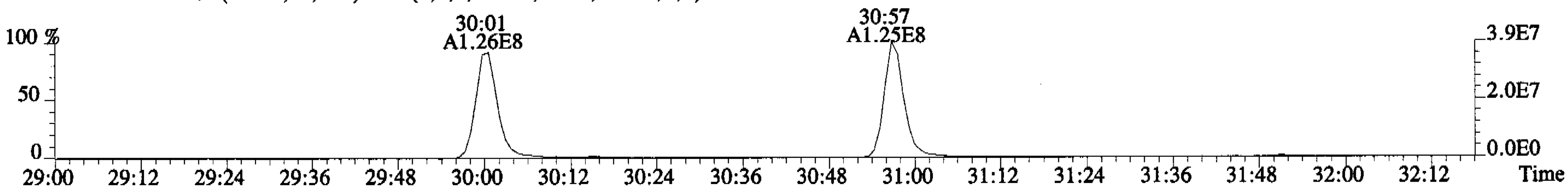
339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



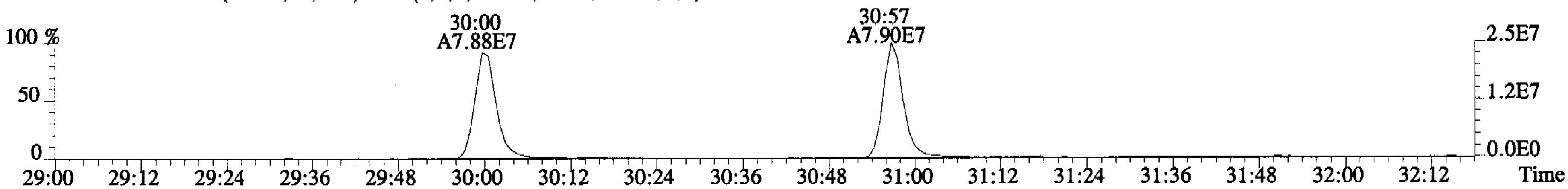
341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



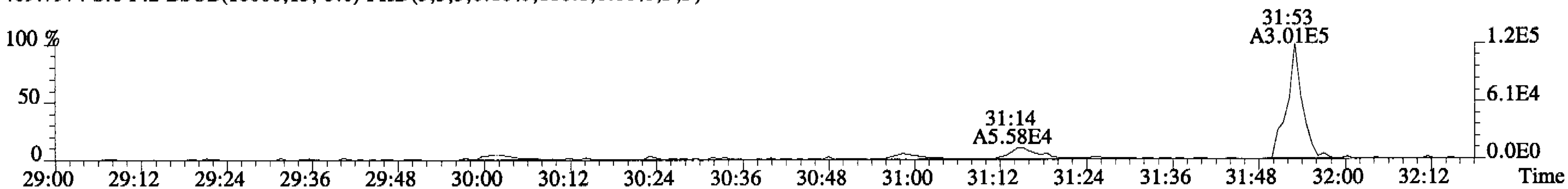
351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

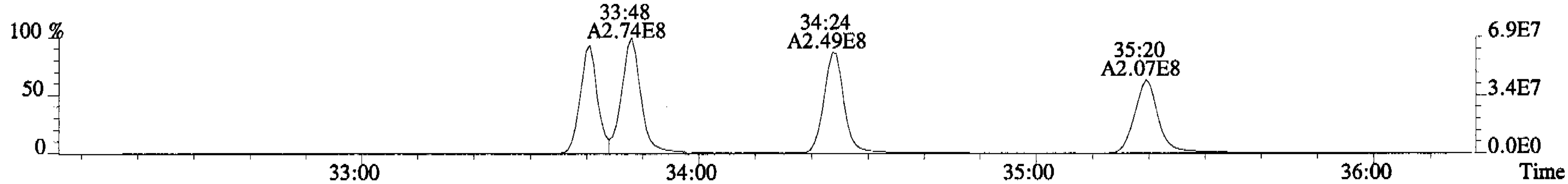


409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

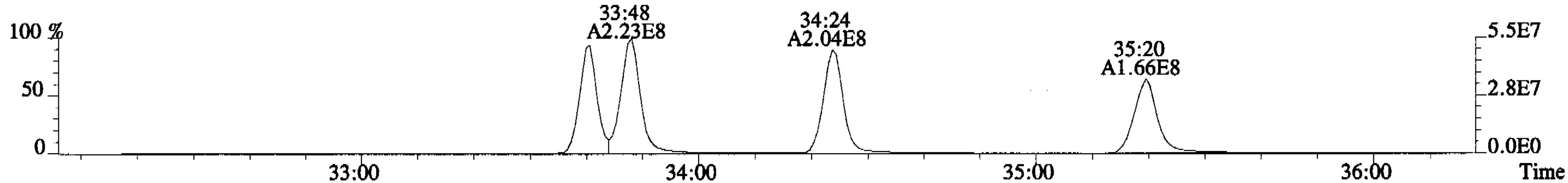


File:060322C1 #1-377 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

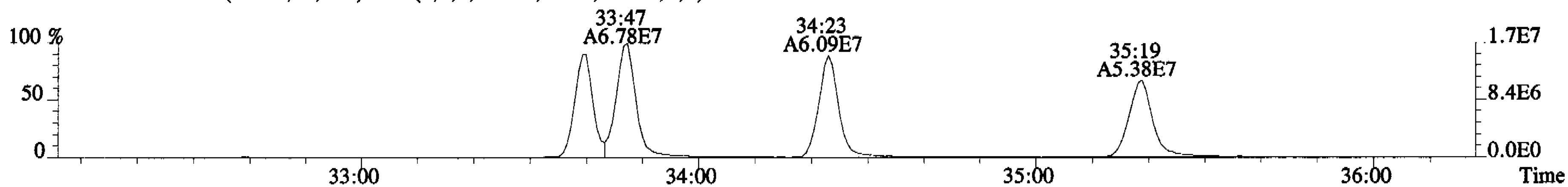
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



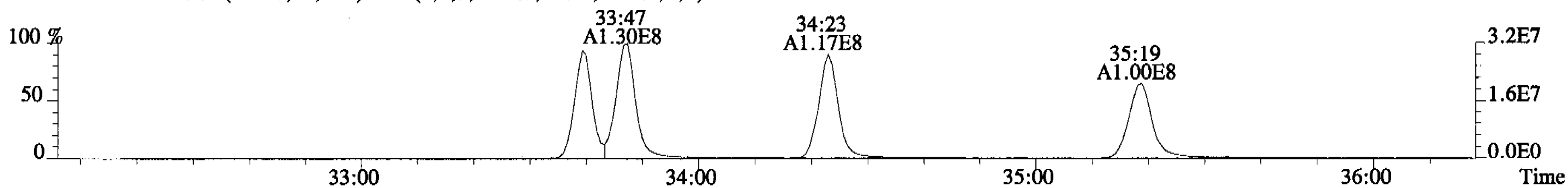
375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



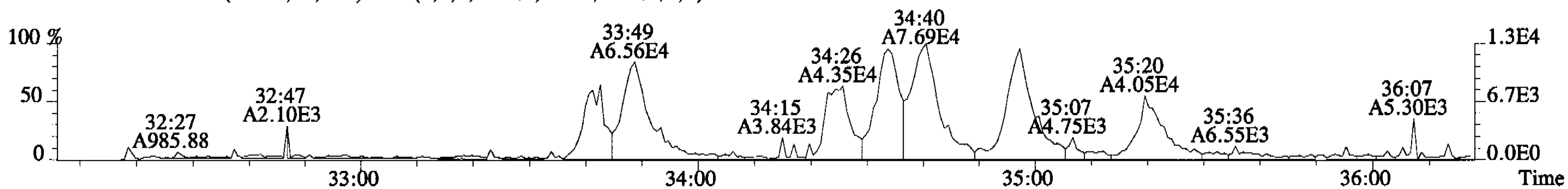
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



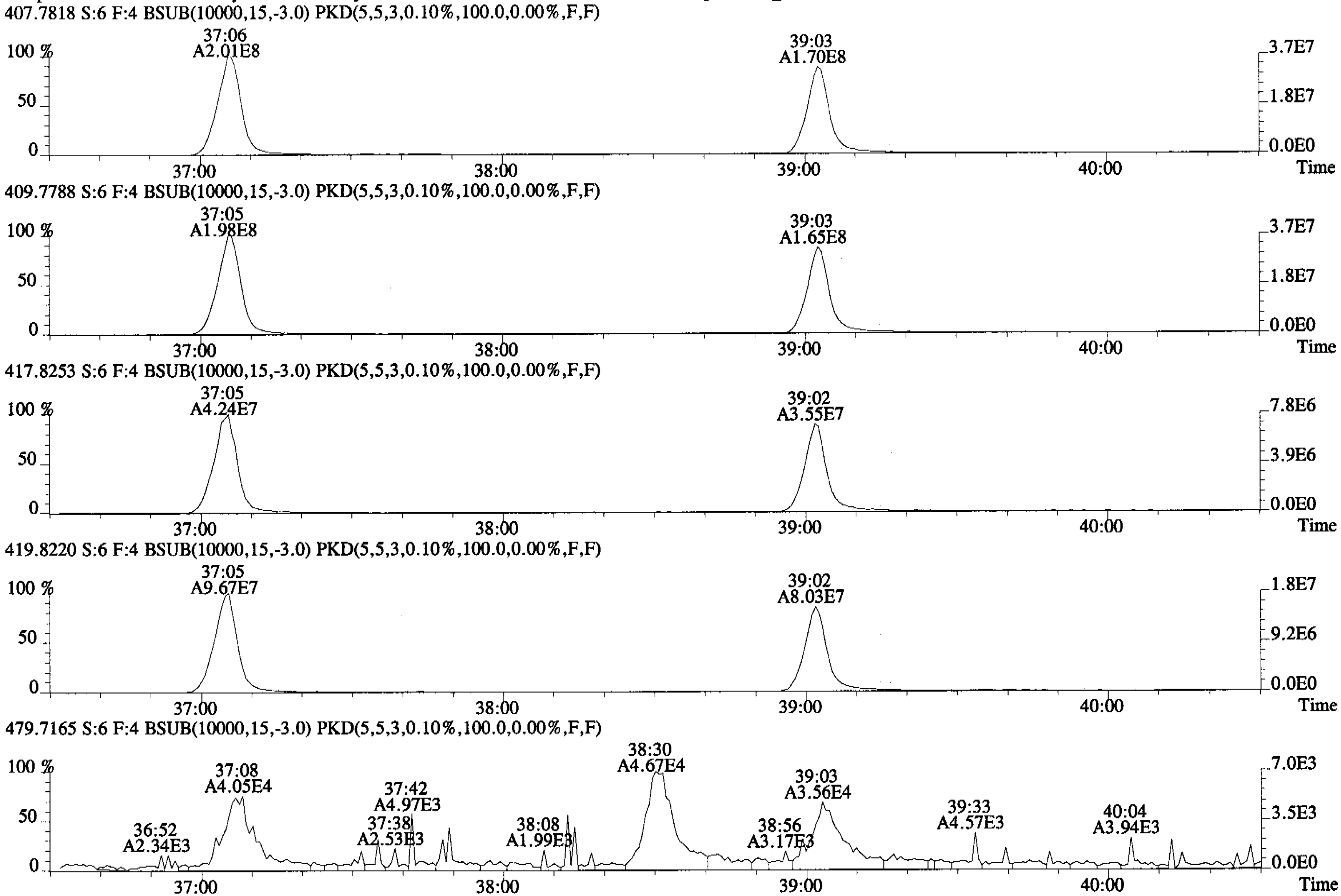
385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



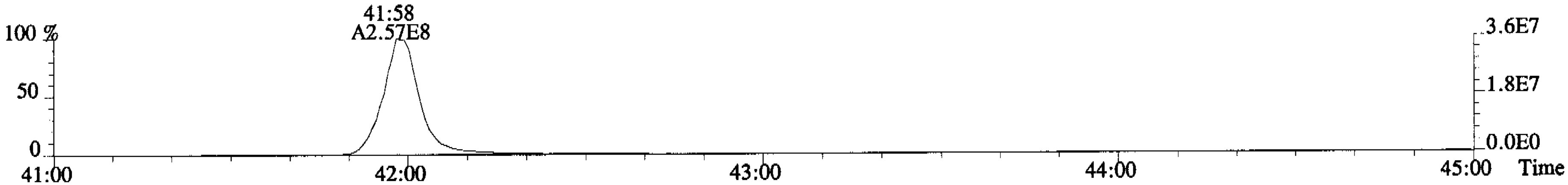
445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



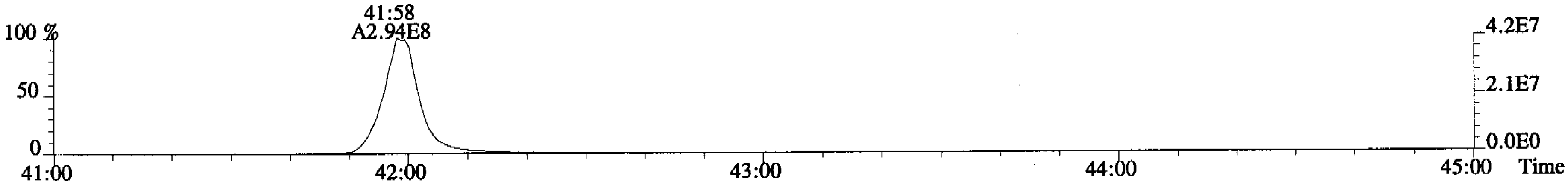
File:060322C1 #1-400 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5



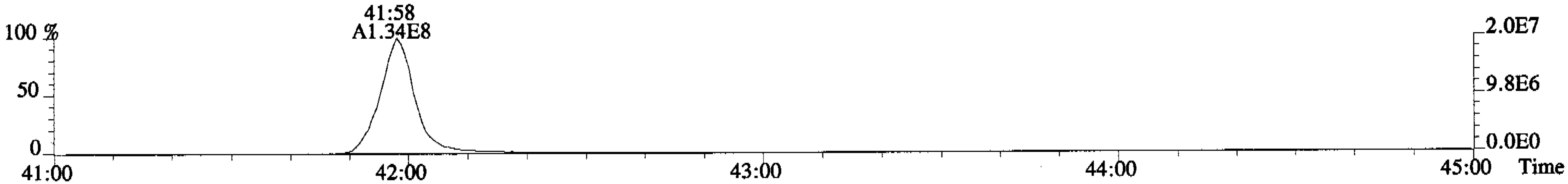
File:060322C1 #1-345 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



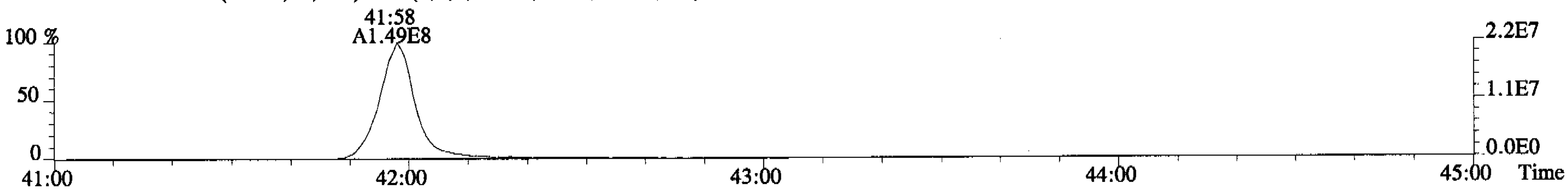
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



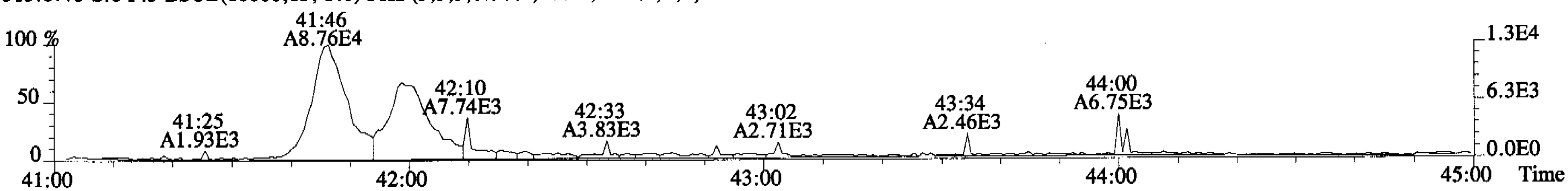
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



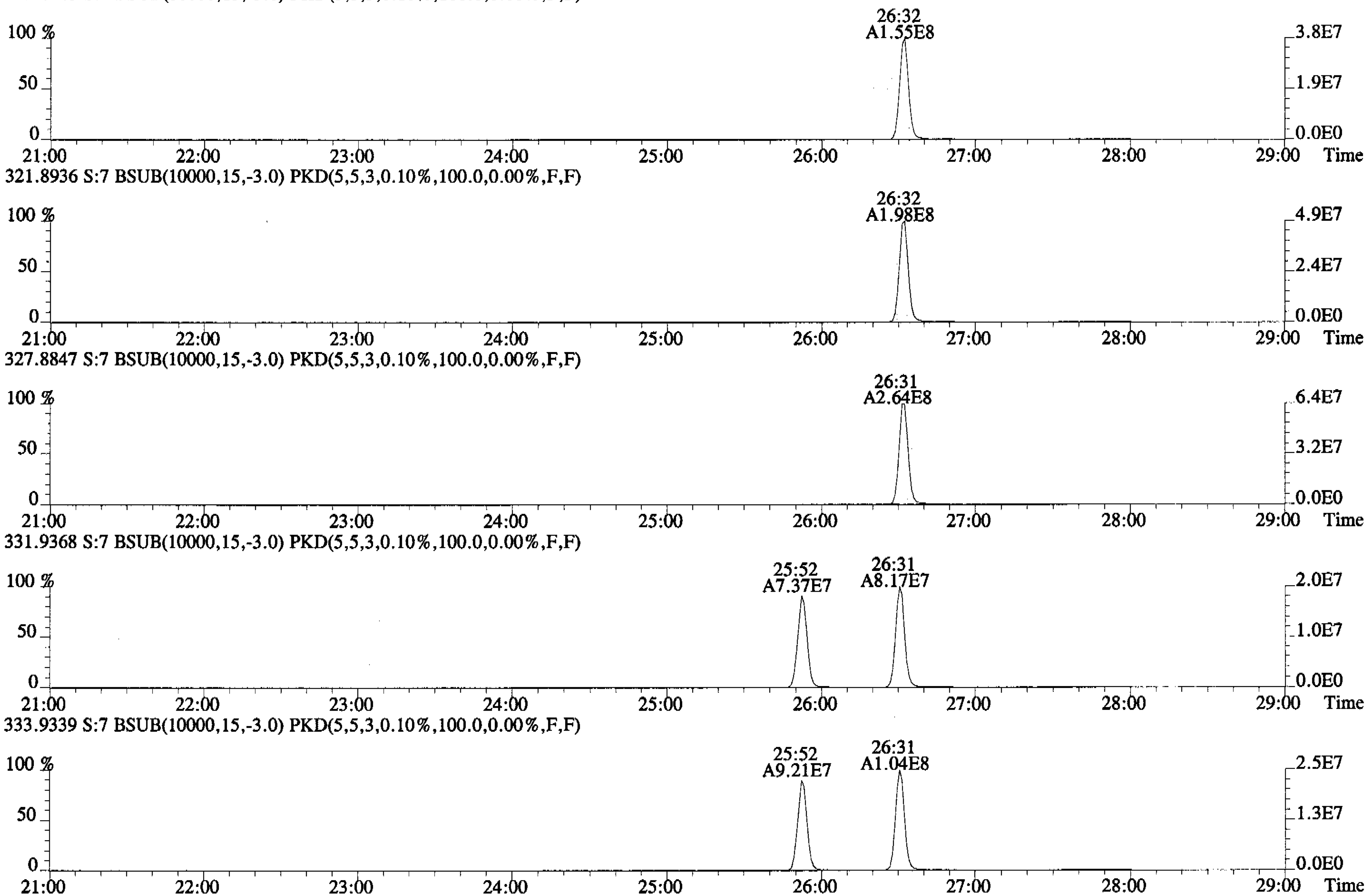
455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

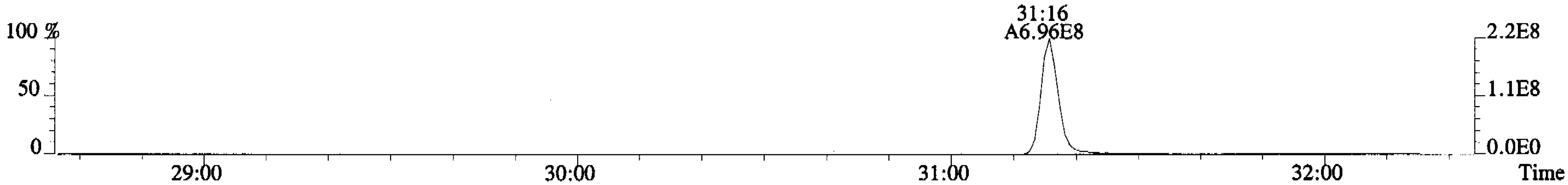


File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5
319.8965 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

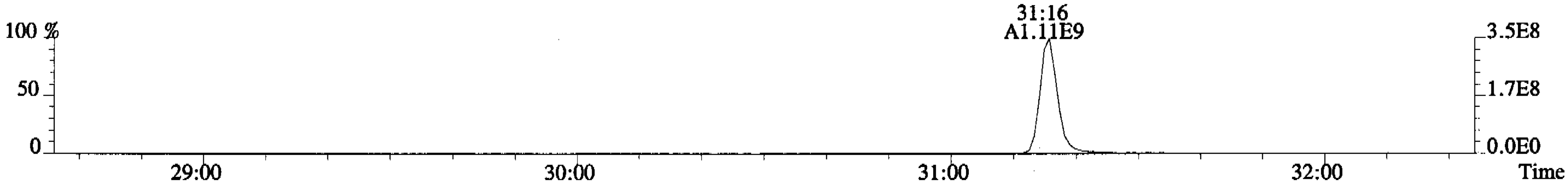


File:060322C1 #1-316 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

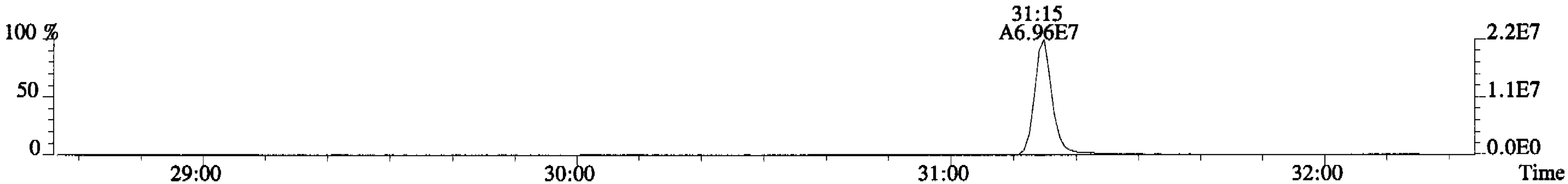
353.8576 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



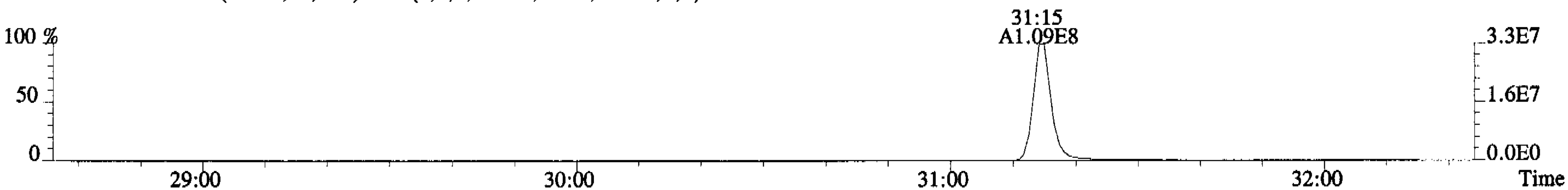
355.8546 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



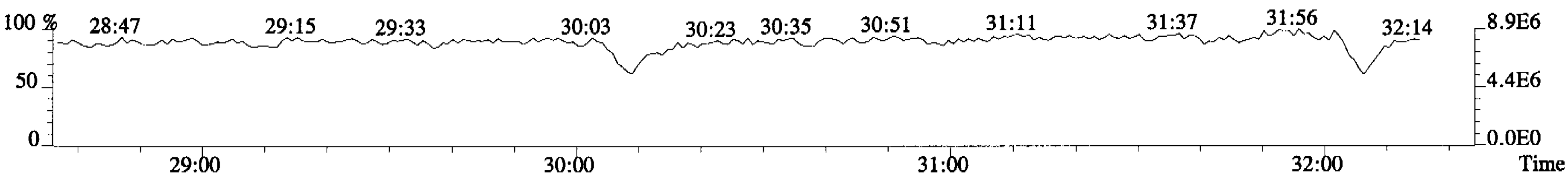
365.8978 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



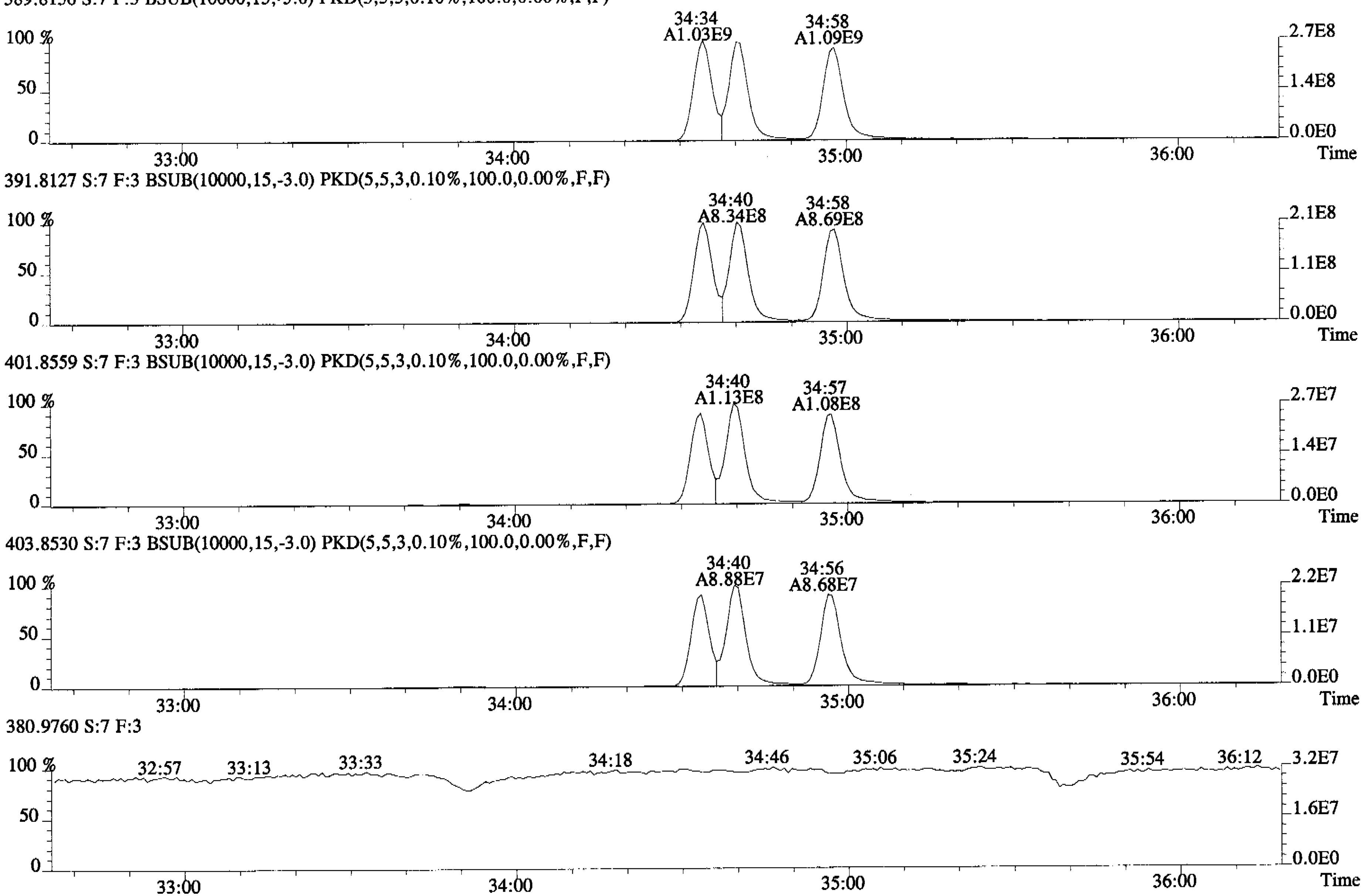
367.8949 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



366.9792 S:7 F:2

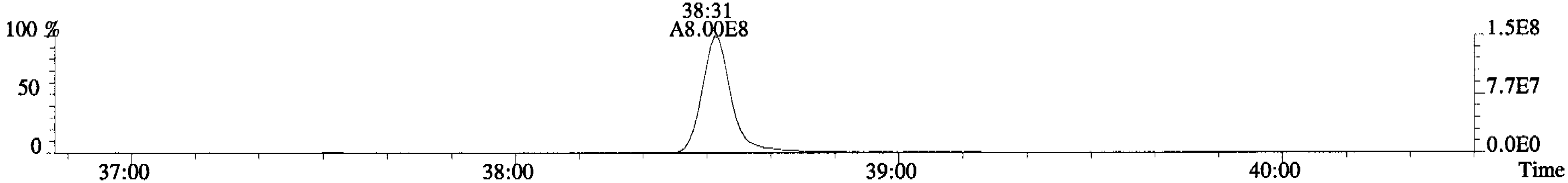


File:060322C1 #1-378 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

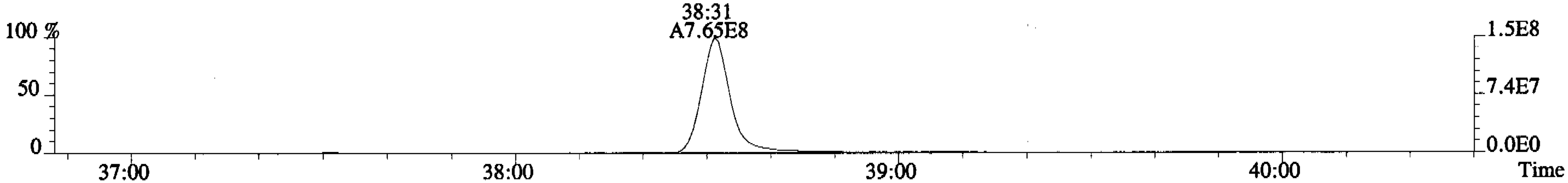


File:060322C1 #1-400 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

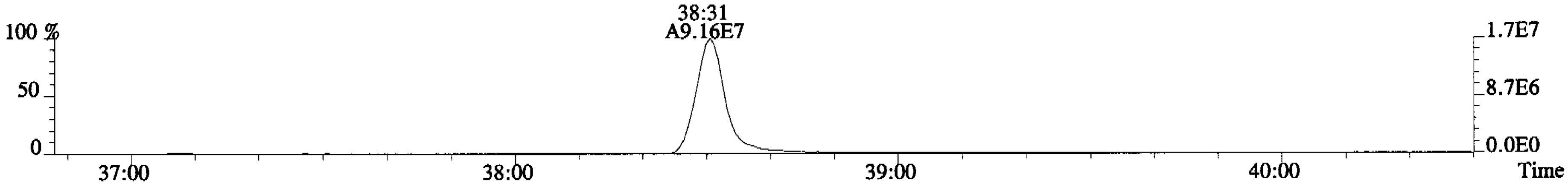
423.7767 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



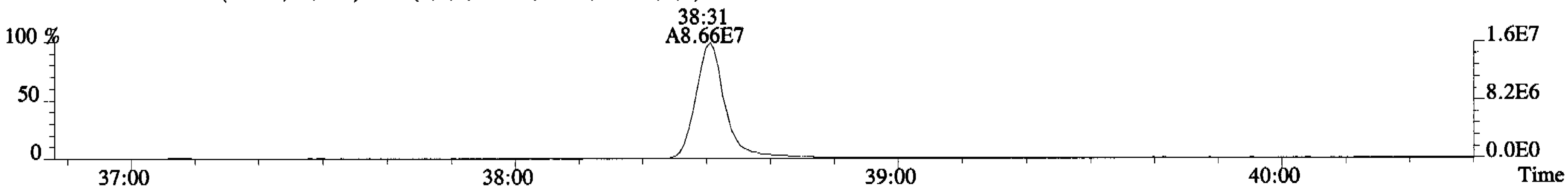
425.7737 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



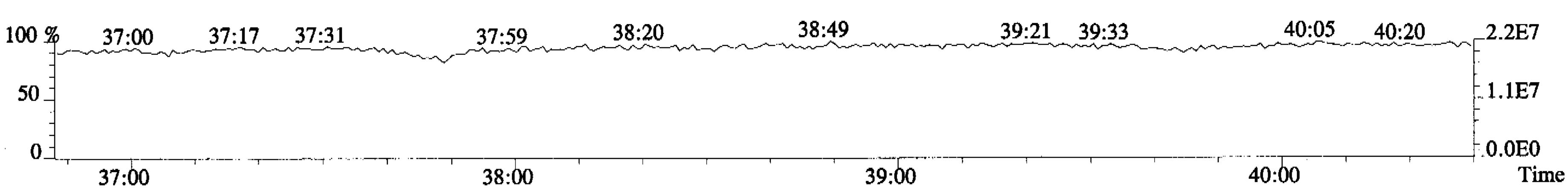
435.8169 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



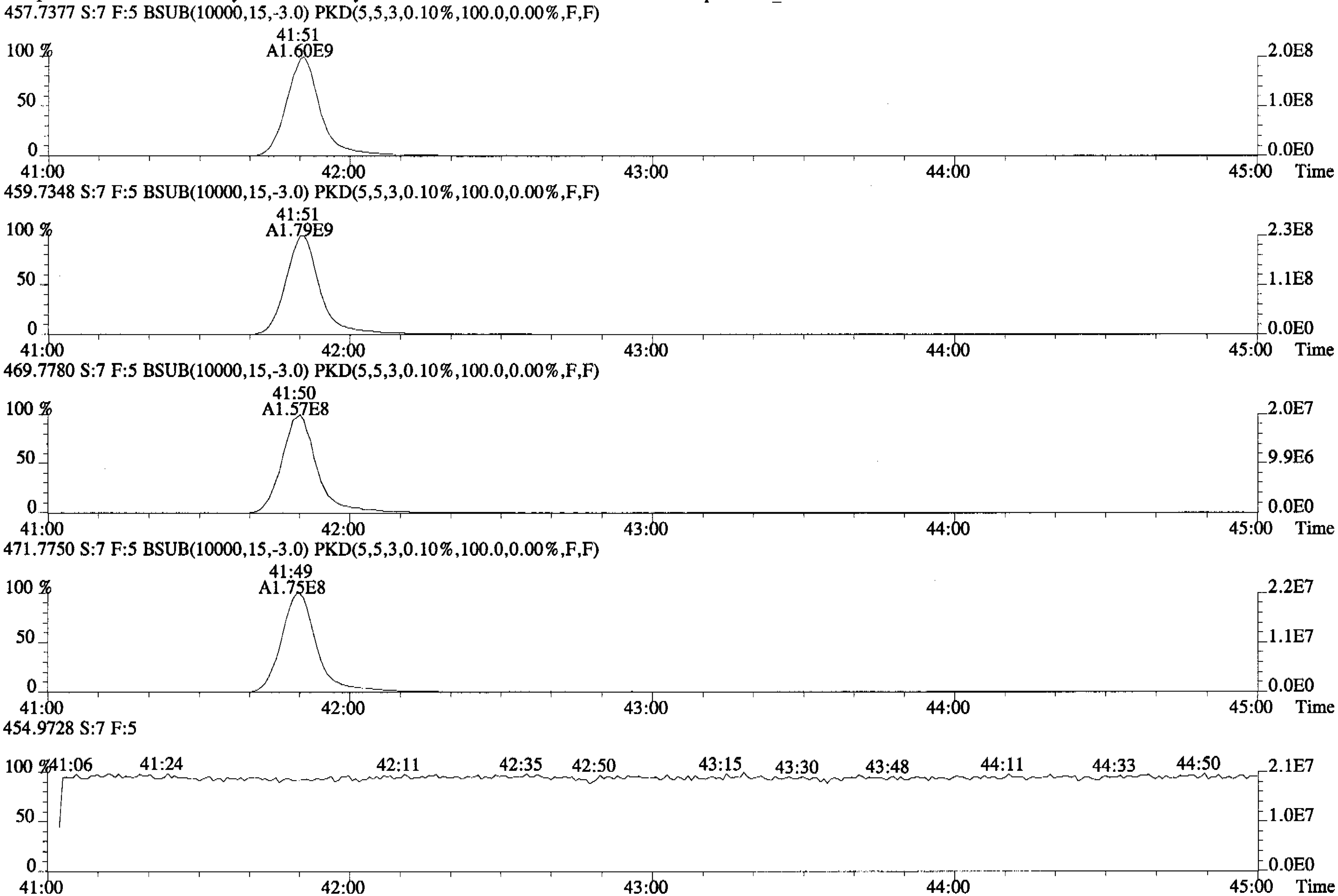
437.8140 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



430.9728 S:7 F:4

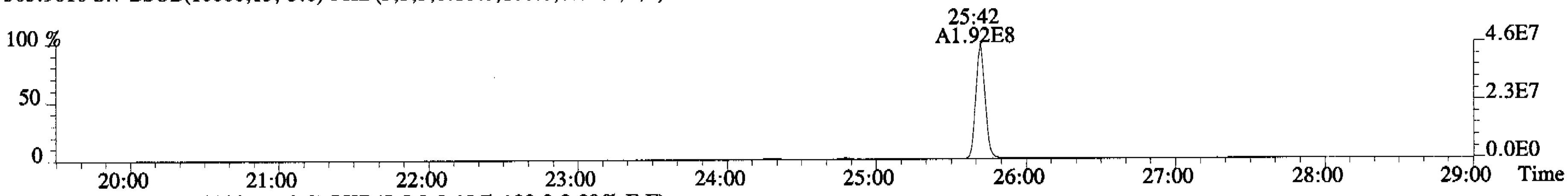


File:060322C1 #1-345 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

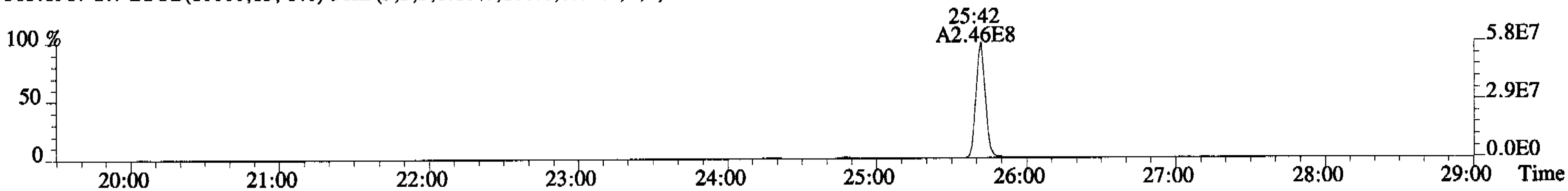


File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

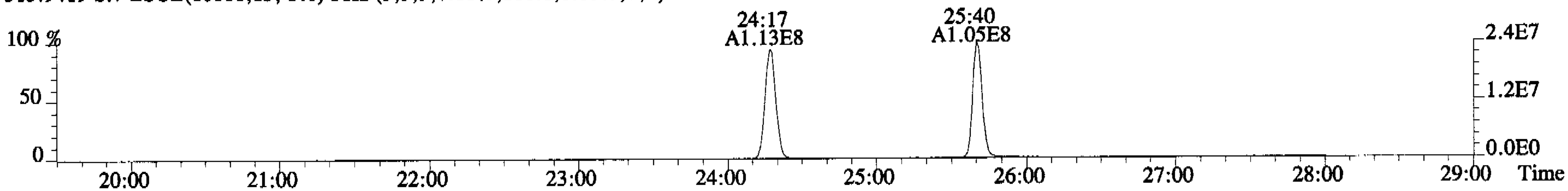
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



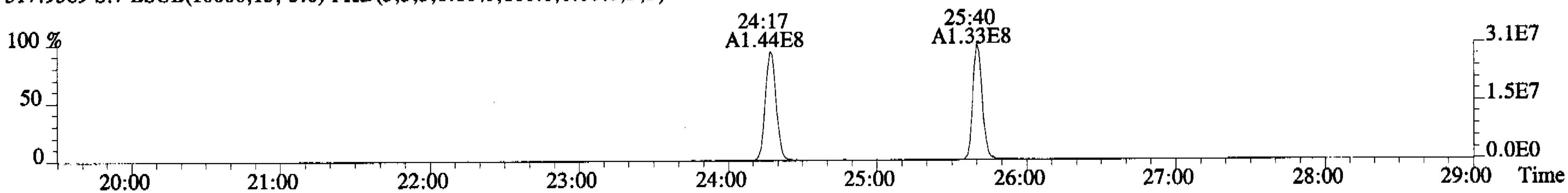
305.8987 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



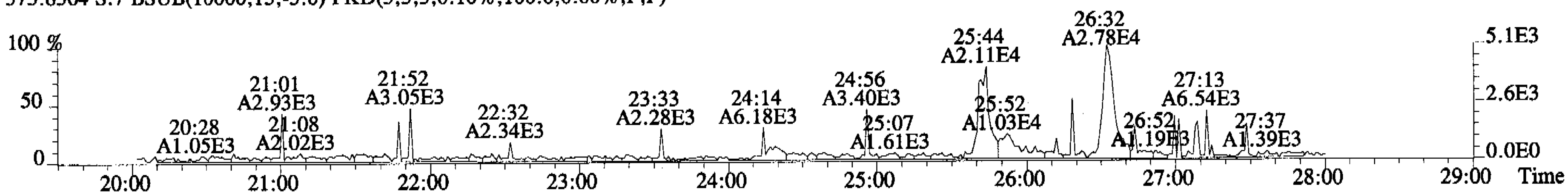
315.9419 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



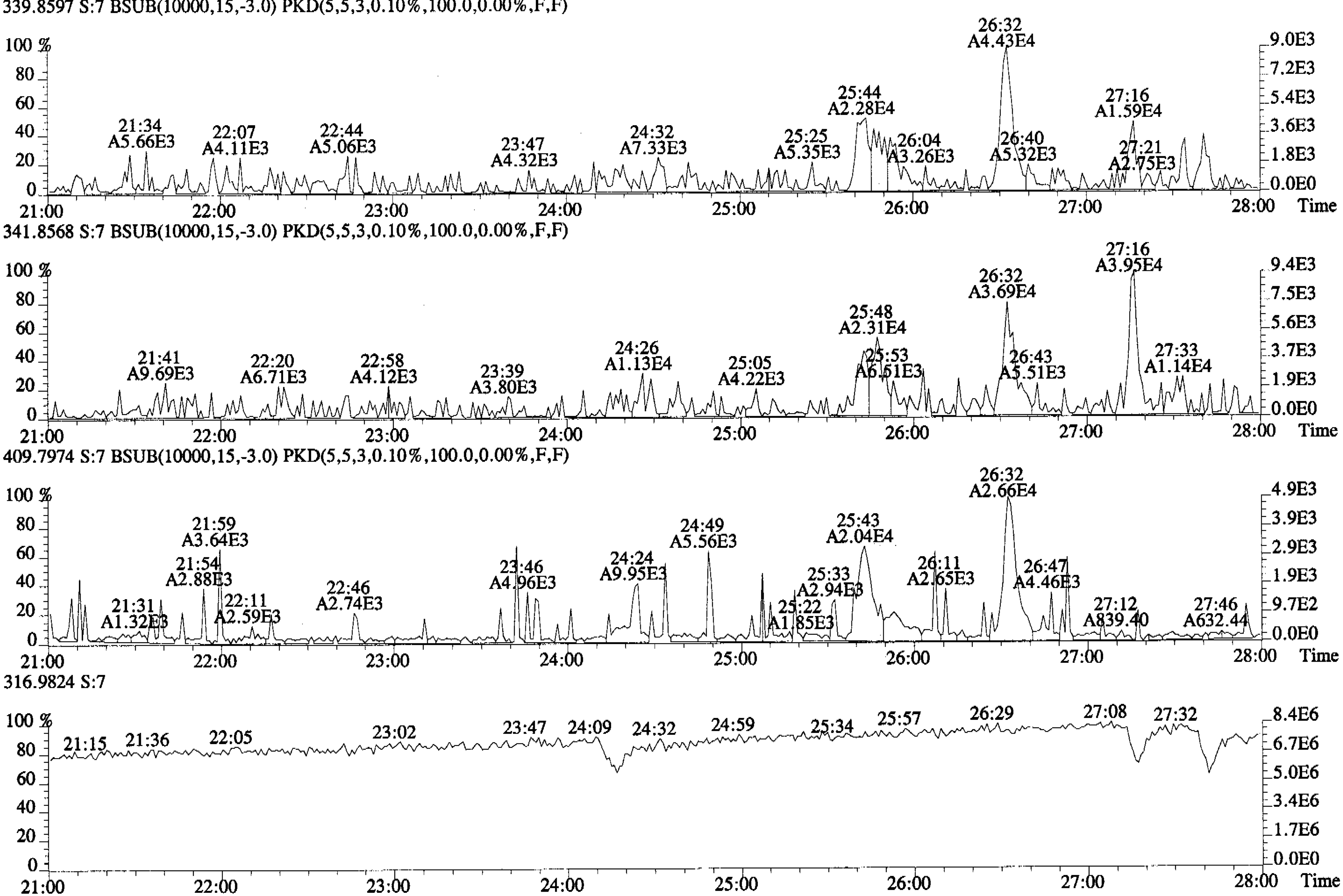
317.9389 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



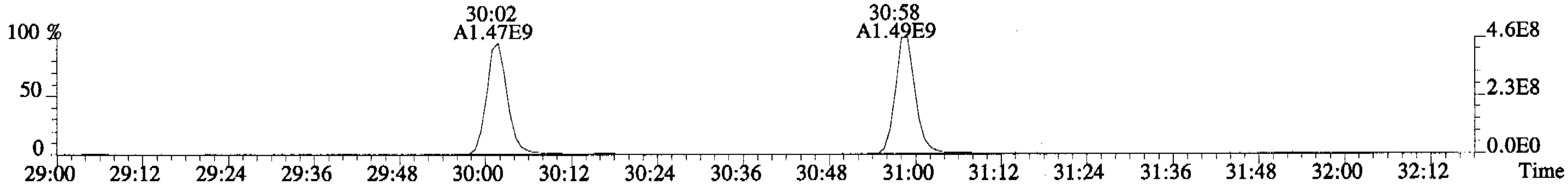
375.8364 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



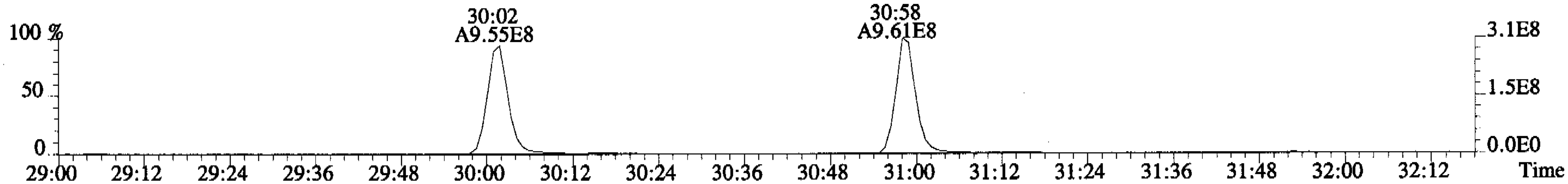
File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5



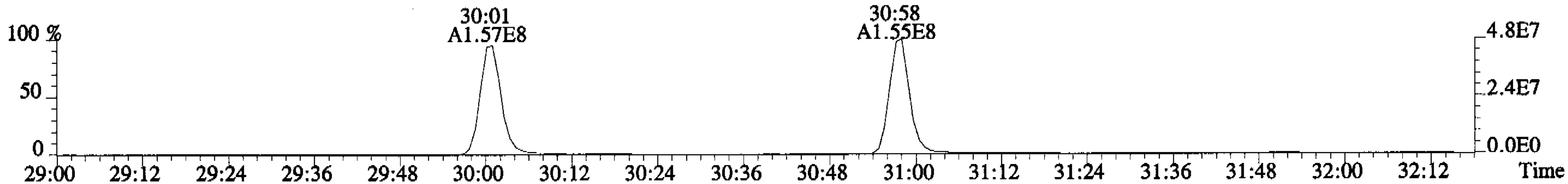
File:060322C1 #1-316 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5
339.8597 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



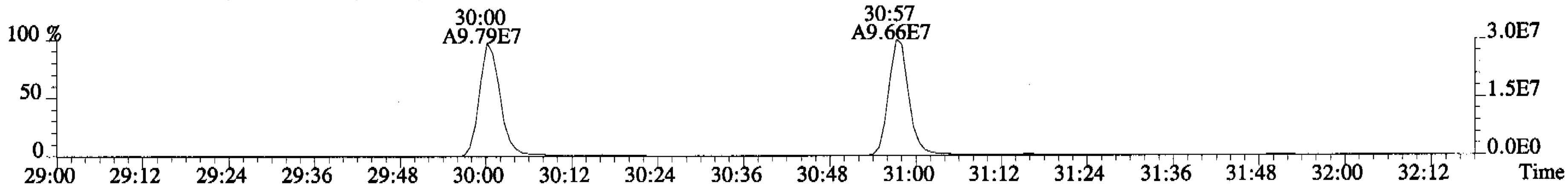
341.8568 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



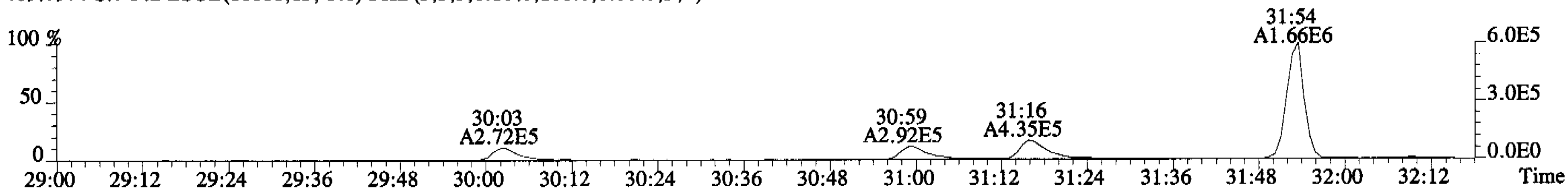
351.9000 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



353.8970 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

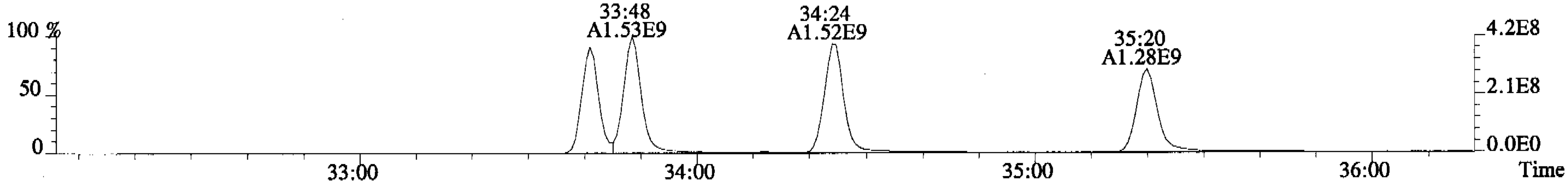


409.7974 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

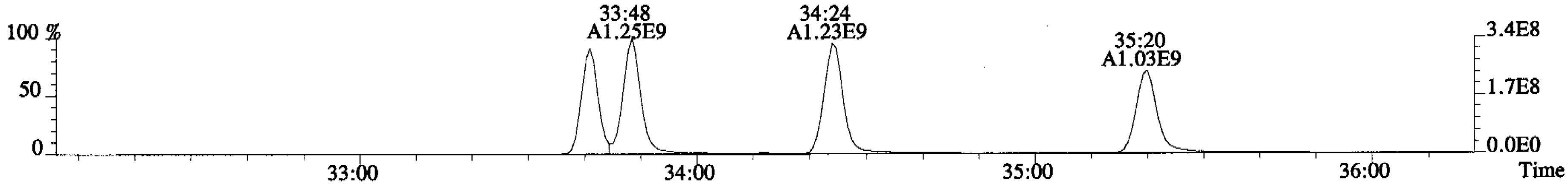


File:060322C1 #1-378 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

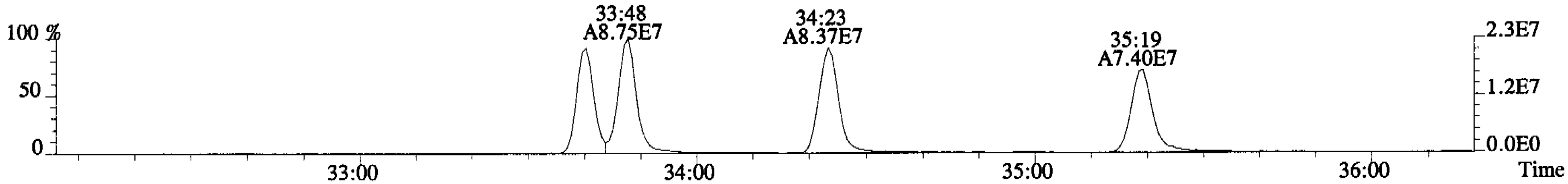
373.8207 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



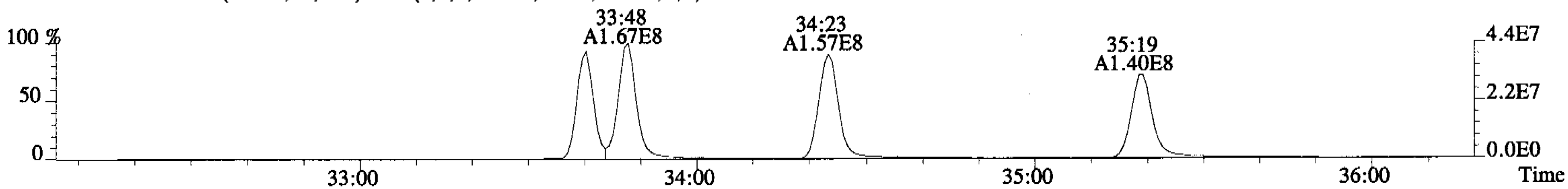
375.8178 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



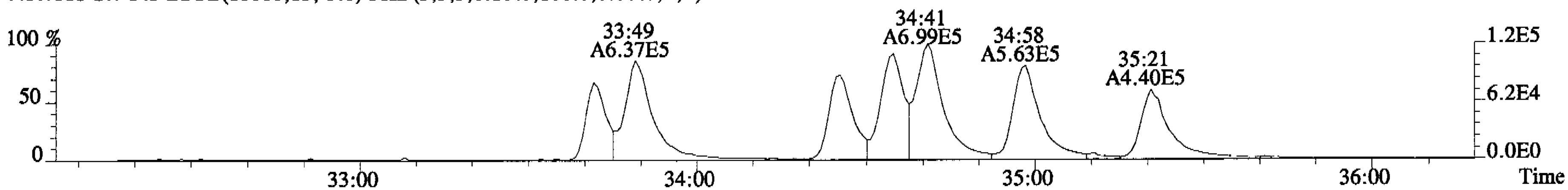
383.8639 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



385.8610 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

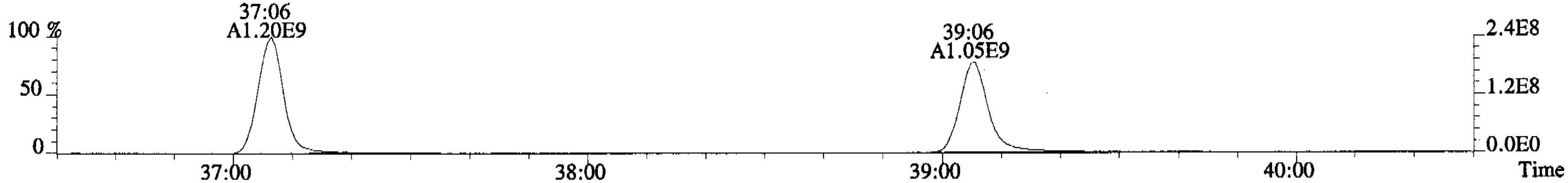


445.7555 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

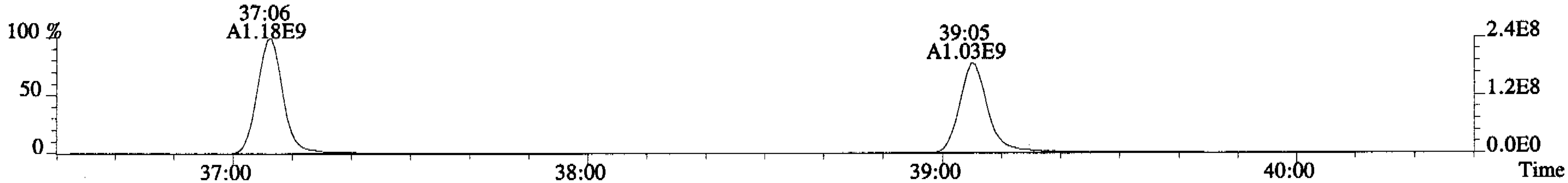


File:060322C1 #1-400 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

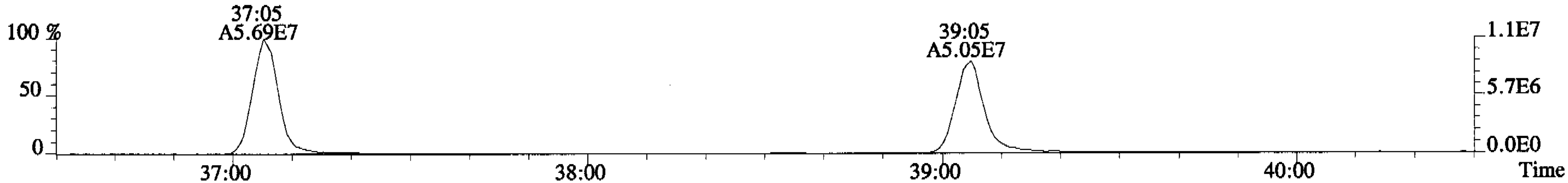
407.7818 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



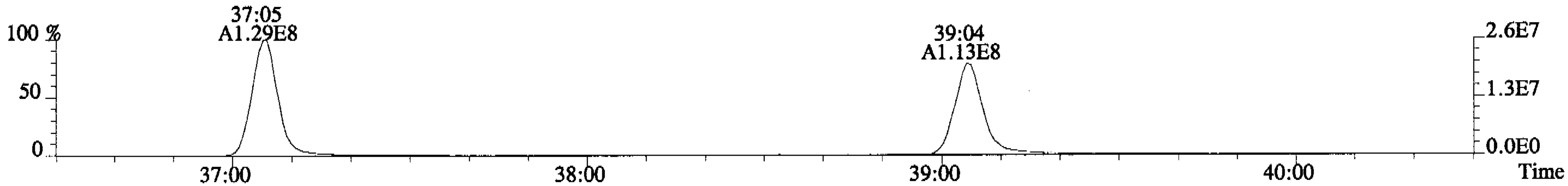
409.7788 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



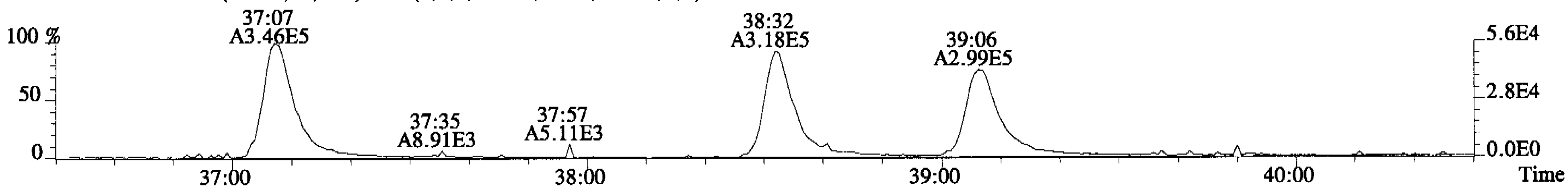
417.8253 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



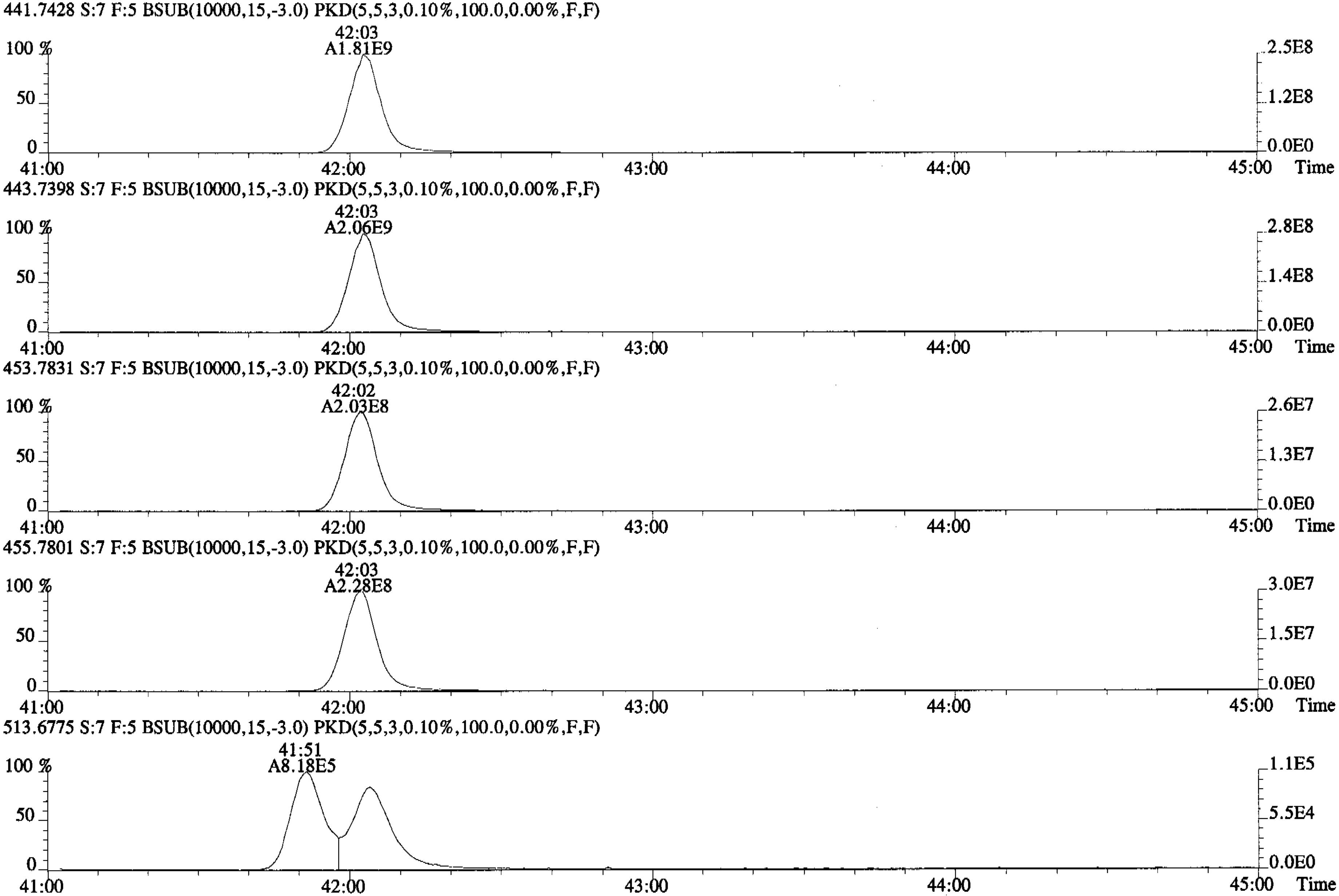
419.8220 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

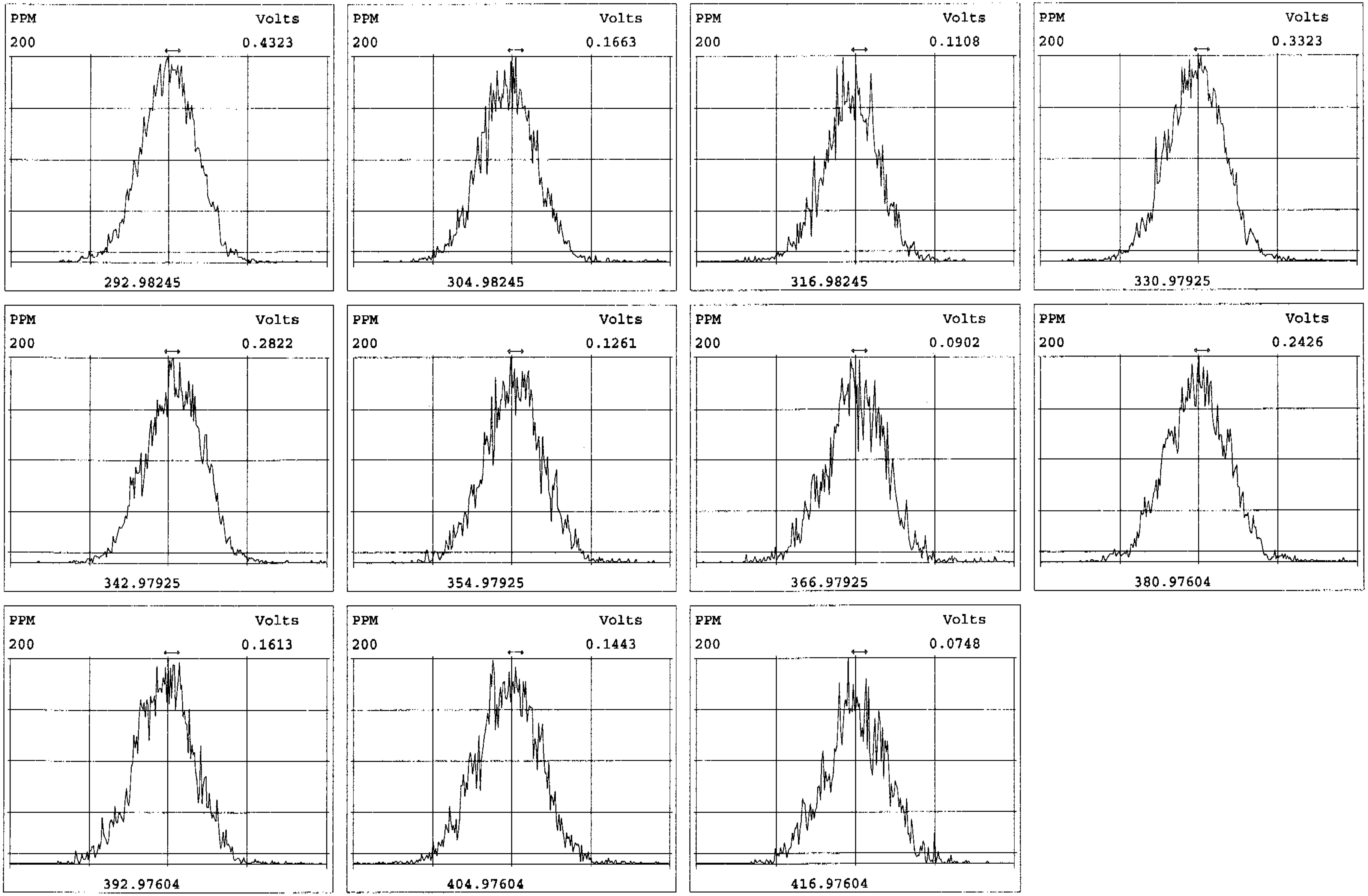


File:060322C1 #1-345 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

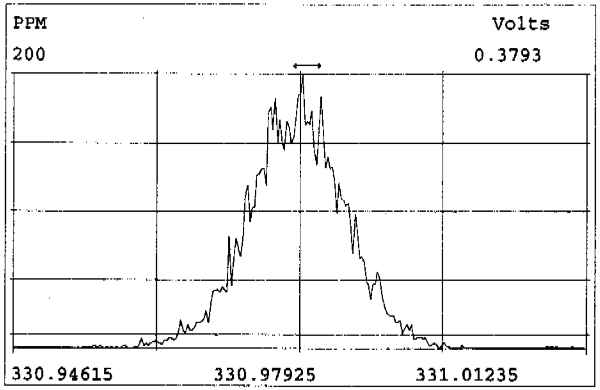


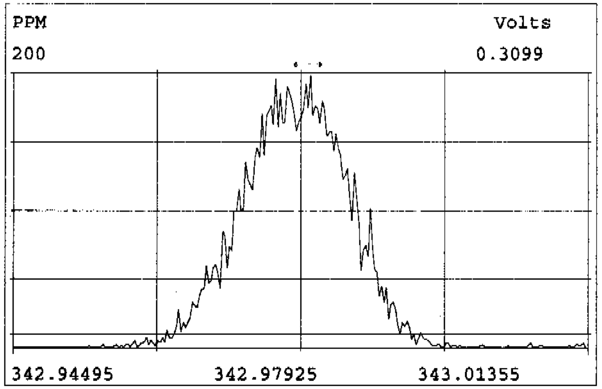
Peak Locate Examination:22-MAR-2006:17:03 File:RES_CHECK

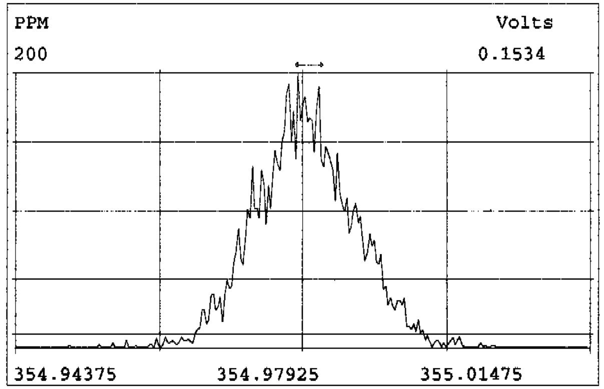
Experiment:OCDD_DB5 Function:1 Reference:PFK

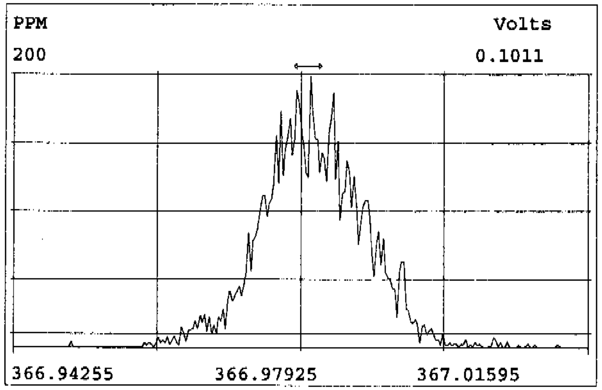


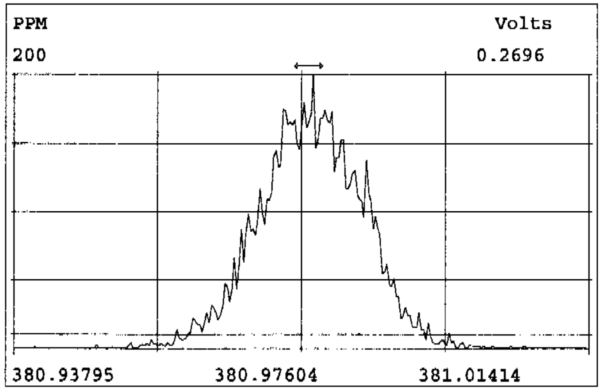
Peak Locate Examination:22-MAR-2006:17:04 File:RES_CHECK
Experiment:OCDD_DB5 Function:2 Reference:PFK

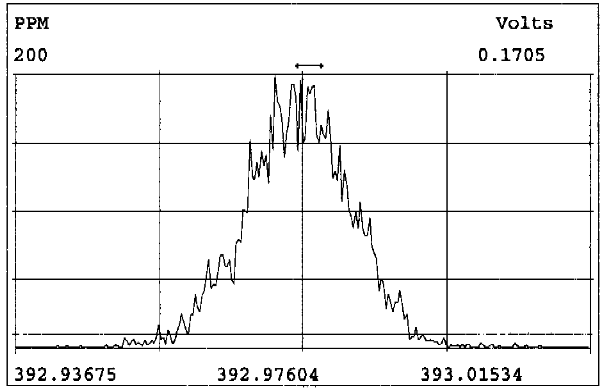


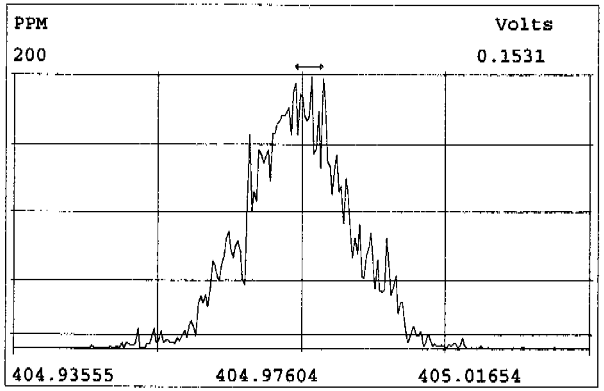


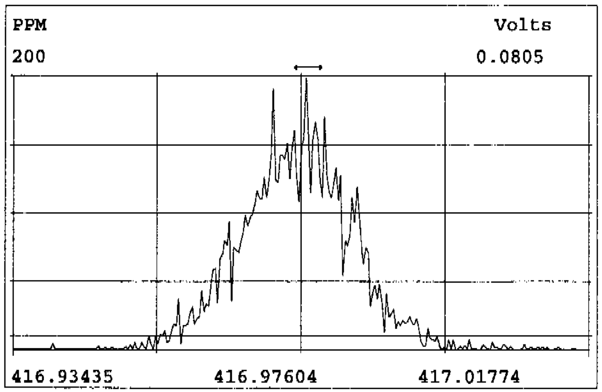






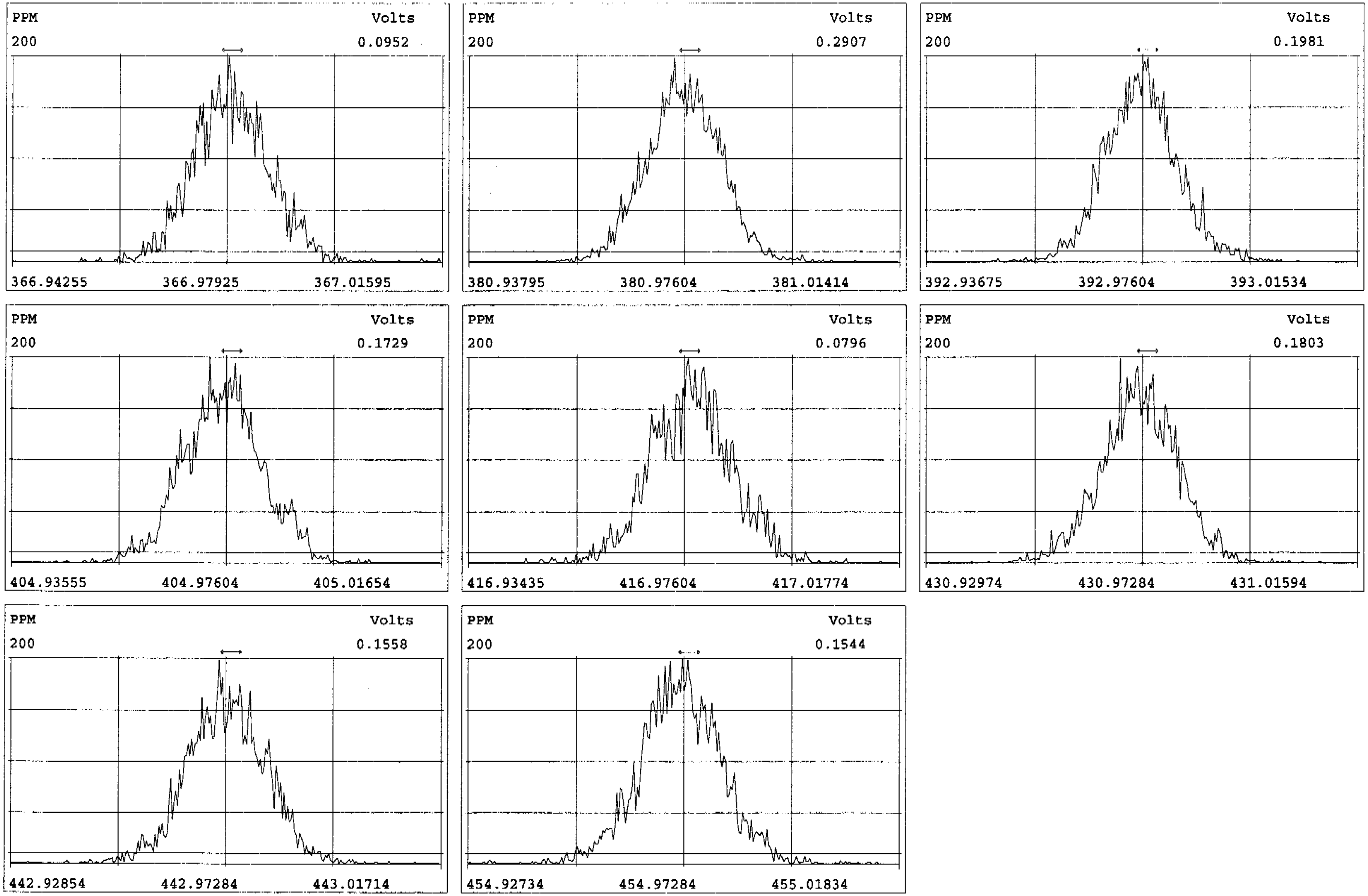






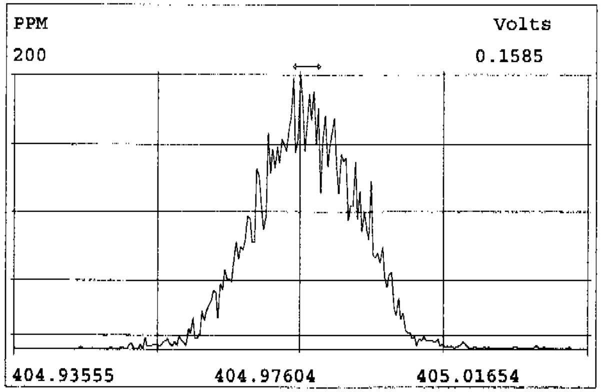
Peak Locate Examination:22-MAR-2006:17:05 File:RES_CHECK

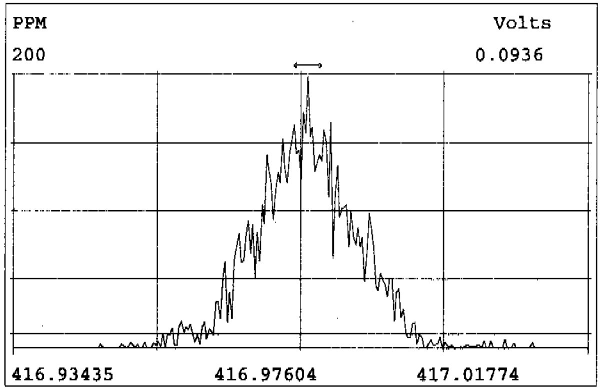
Experiment:OCDD_DB5 Function:3 Reference:PFK

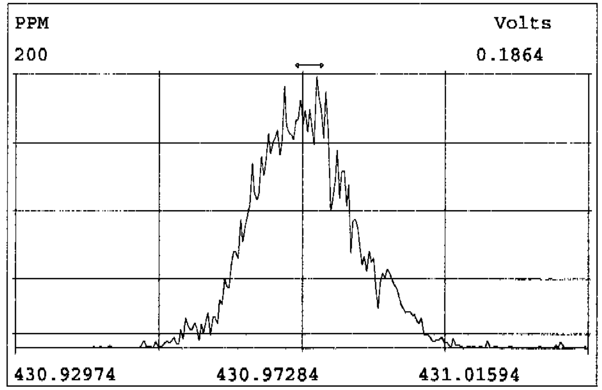


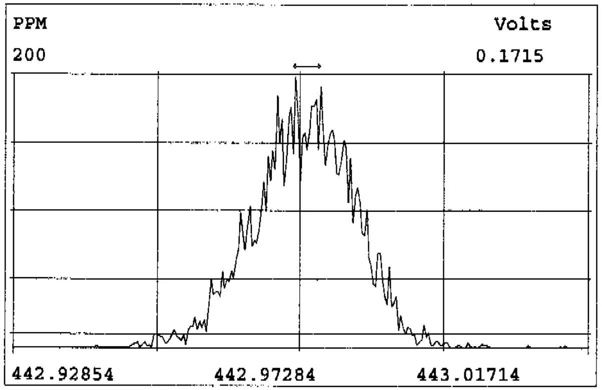
Peak Locate Examination:22-MAR-2006:17:06 File:RES_CHECK

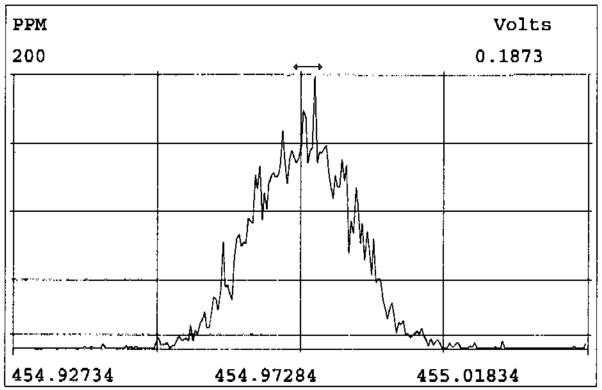
Experiment:OCDD_DB5 Function:4 Reference:PFK

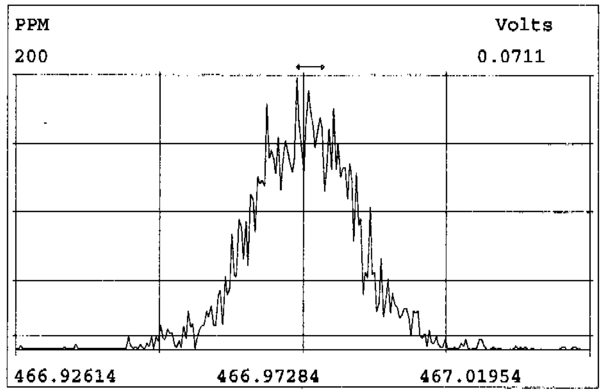


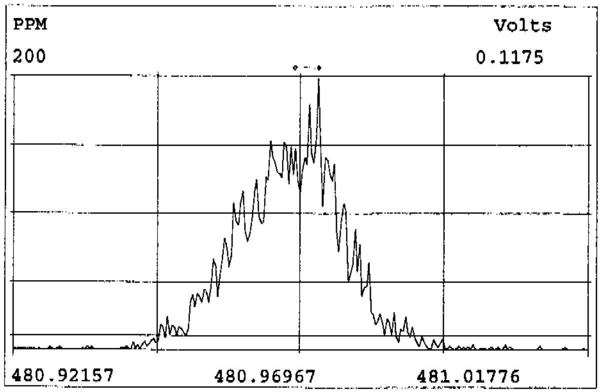






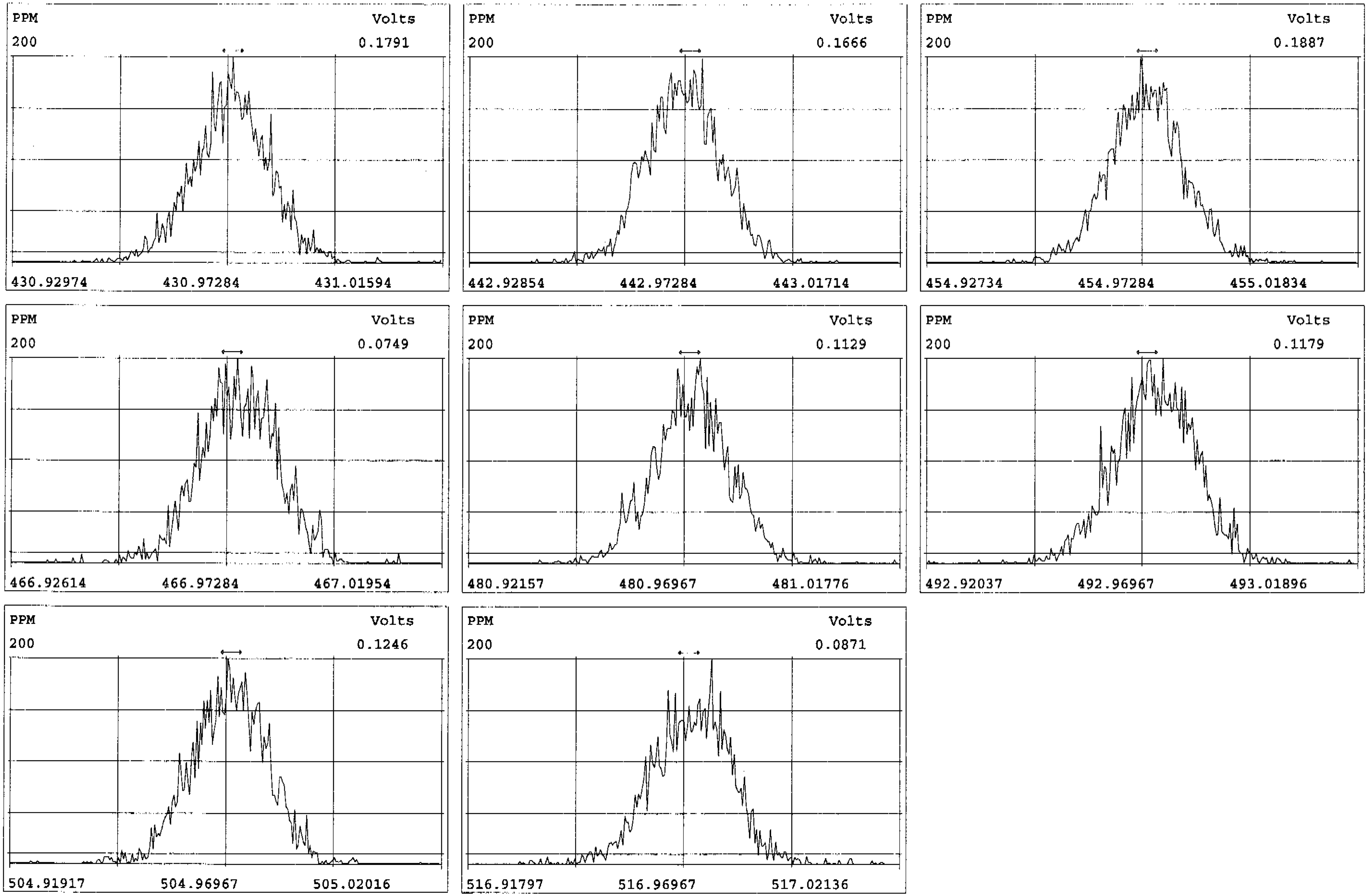






Peak Locate Examination:22-MAR-2006:17:07 File:RES_CHECK

Experiment:OCDD_DB5 Function:5 Reference:PFK



Client ID: SSS L050203A Filename: 060322C1 S:9 Acq:22-MAR-06 16:10:24 ConCal: NA

Lab ID: SS060322C1-1 GC Column ID: db-5 ICal: 1613VG5-3-22-06 wt/vol: 1.000 EndCAL: NA

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	1.73e+07	0.79 y	1.08	26:34	10.177		*	2.5	*
1,2,3,7,8-PeCDD	8.22e+07	0.63 y	1.03	31:17	51.086		*	2.5	*
1,2,3,4,7,8-HxCDD	7.49e+07	1.27 y	1.13	34:34	49.404		*	2.5	*
1,2,3,6,7,8-HxCDD	8.77e+07	1.26 y	1.03	34:41	53.502		*	2.5	*
1,2,3,7,8,9-HxCDD	8.63e+07	1.27 y	1.12	34:59	52.828		*	2.5	*
1,2,3,4,6,7,8-HpCDD	7.21e+07	1.06 y	1.02	38:32	49.541		*	2.5	*
OCDD	1.33e+08	0.89 y	1.06	41:51	97.377		*	2.5	*
2,3,7,8-TCDF	2.25e+07	0.77 y	1.06	25:43	10.004		*	2.5	*
1,2,3,7,8-PeCDF	1.09e+08	1.55 y	1.01	30:03	50.447		*	2.5	*
2,3,4,7,8-PeCDF	1.20e+08	1.54 y	1.02	30:60	51.163		*	2.5	*
1,2,3,4,7,8-HxCDF	1.06e+08	1.20 y	1.15	33:41	50.462		*	2.5	*
1,2,3,6,7,8-HxCDF	1.27e+08	1.22 y	1.14	33:50	49.315		*	2.5	*
2,3,4,6,7,8-HxCDF	1.10e+08	1.23 y	1.17	34:25	46.925		*	2.5	*
1,2,3,7,8,9-HxCDF	9.74e+07	1.25 y	1.10	35:21	51.523		*	2.5	*
1,2,3,4,6,7,8-HpCDF	9.52e+07	1.01 y	1.31	37:08	49.746		*	2.5	*
1,2,3,4,7,8,9-HpCDF	8.39e+07	1.01 y	1.33	39:04	49.924		*	2.5	*
OCDF	1.52e+08	0.87 y	0.91	42:02	*98.84		*	2.5	* Daily RRF= 1.19 using OCDD

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	10.238	10.310		*	*
Total Penta-Dioxins	51.086	51.131		*	*
Total Hexa-Dioxins	155.83	156.52		*	*
Total Hepta-Dioxins	49.585	49.917		*	*
Total Tetra-Furans	10.228	10.271		*	*
Total Penta-Furans	103.59	103.93		*	*
Total Hexa-Furans	198.49	198.65		*	*
Total Hepta-Furans	99.713	100.55		*	*

	Name	Resp	RA	RRF	RT	Conc		Rec	Qual
IS	13C-2,3,7,8-TCDD	1.57e+08	0.78 y	1.09	26:32	94.685		94.7	
IS	13C-1,2,3,7,8-PeCDD	1.56e+08	0.64 y	1.04	31:16	98.317		98.3	
IS	13C-1,2,3,4,7,8-HxCDD	1.34e+08	1.27 y	0.83	34:34	100.36		100	
IS	13C-1,2,3,6,7,8-HxCDD	1.59e+08	1.28 y	1.04	34:40	95.078		95.1	
IS	13C-1,2,3,4,6,7,8-HpCDD	1.43e+08	1.08 y	0.85	38:31	104.81		105	
IS	13C-OCDD	2.59e+08	0.90 y	0.71	41:50	225.79		113	
IS	13C-2,3,7,8-TCDF	2.12e+08	0.80 y	0.96	25:42		*Daily RRF=1.48 using TCDD	*94.0	
IS	13C-1,2,3,7,8-PeCDF	2.14e+08	1.59 y	1.02	30:02		*Daily RRF=1.58 using TCDD	*89.2	
IS	13C-2,3,4,7,8-PeCDF	2.29e+08	1.59 y	1.02	30:59		*Daily RRF=1.58 using TCDD	*95.5	
IS	13C-1,2,3,4,7,8-HxCDF	1.84e+08	0.51 y	1.14	33:41	99.916		99.9	
IS	13C-1,2,3,6,7,8-HxCDF	2.27e+08	0.52 y	1.40	33:49	100.76		101	
IS	13C-2,3,4,6,7,8-HxCDF	2.01e+08	0.52 y	1.26	34:24	99.050		99.0	
IS	13C-1,2,3,7,8,9-HxCDF	1.72e+08	0.52 y	1.08	35:20	98.961		99.0	
IS	13C-1,2,3,4,6,7,8-HpCDF	1.46e+08	0.43 y	0.93	37:08	97.155		97.2	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.27e+08	0.43 y	0.77	39:03	102.95		103	
IS	13C-OCDF	*	* n	0.94	NotFnd	*		*	
C/Up	37Cl-2,3,7,8-TCDD	1.66e+07		0.77	26:33	14.069		141	
RS/RT	13C-1,2,3,4-TCDD	1.52e+08	0.80 y	1.00	25:54	100.00			
RS	13C-1,2,3,4-TCDF	*	* n	1.00	NotFnd	*			
RS/RT	13C-1,2,3,7,8,9-HxCDD	1.61e+08	1.27 y	1.00	34:57	100.00			

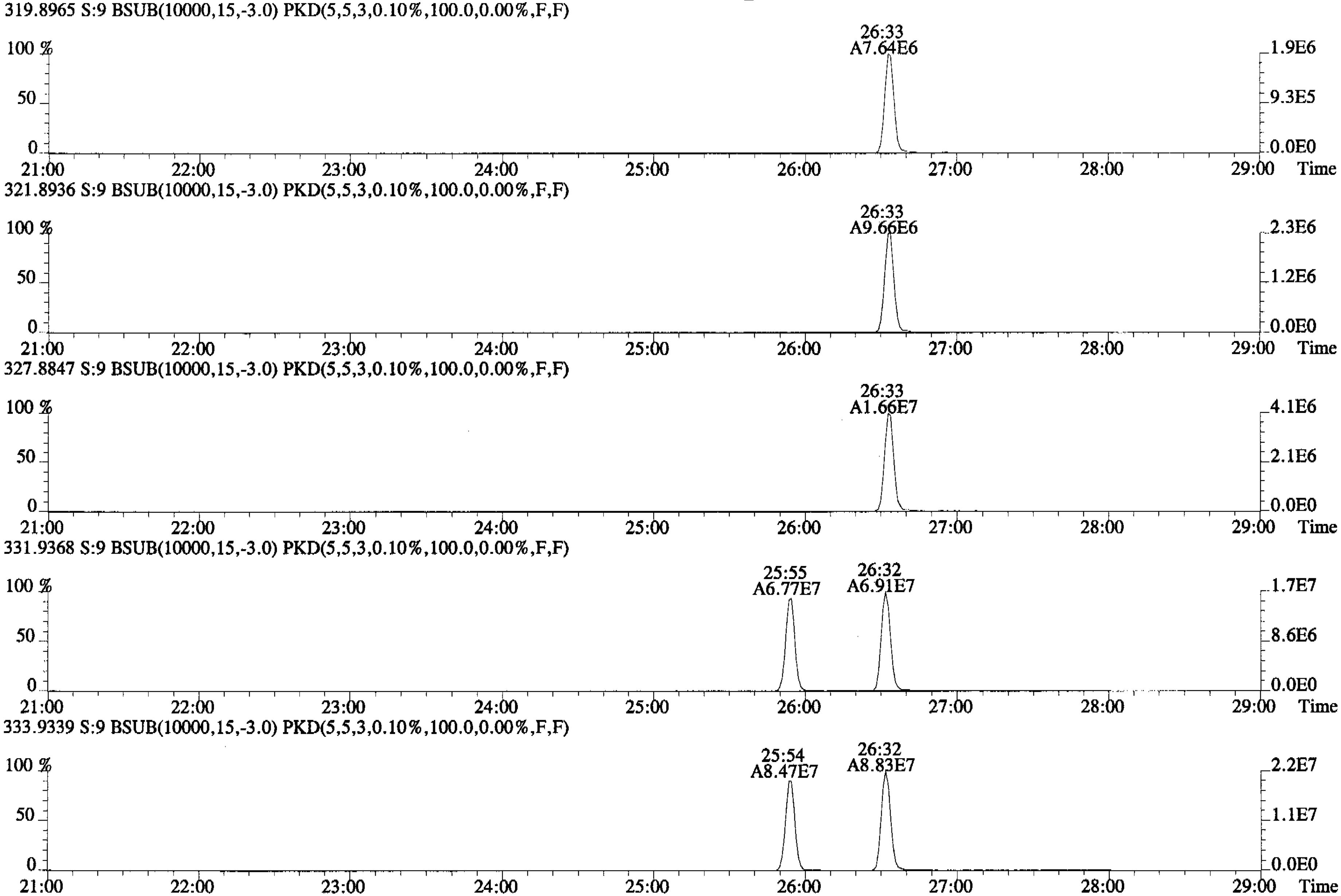
Integrations by Analyst: MJ

Date: 3/23/06

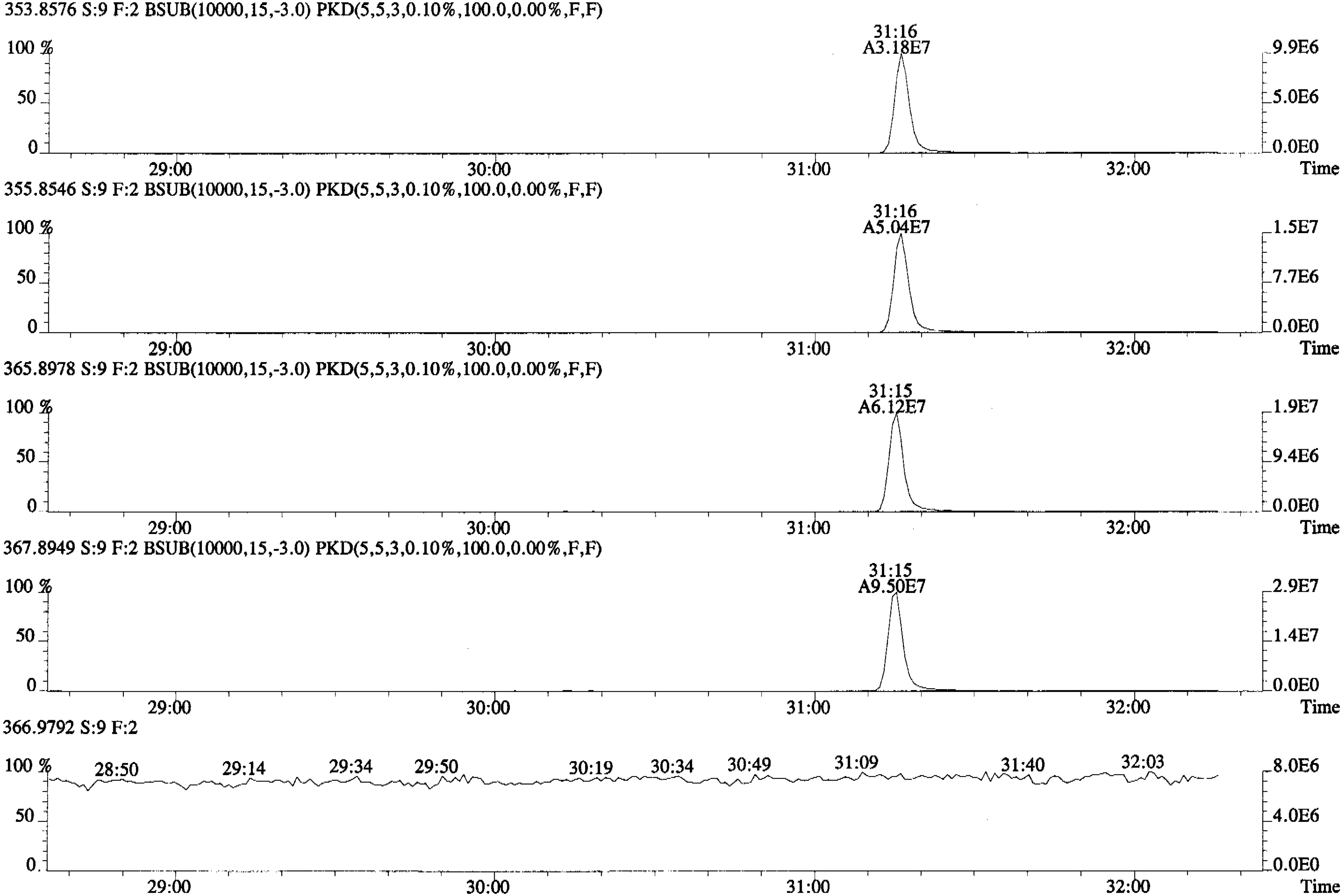
Reviewed by Analyst: ________

Date: ________

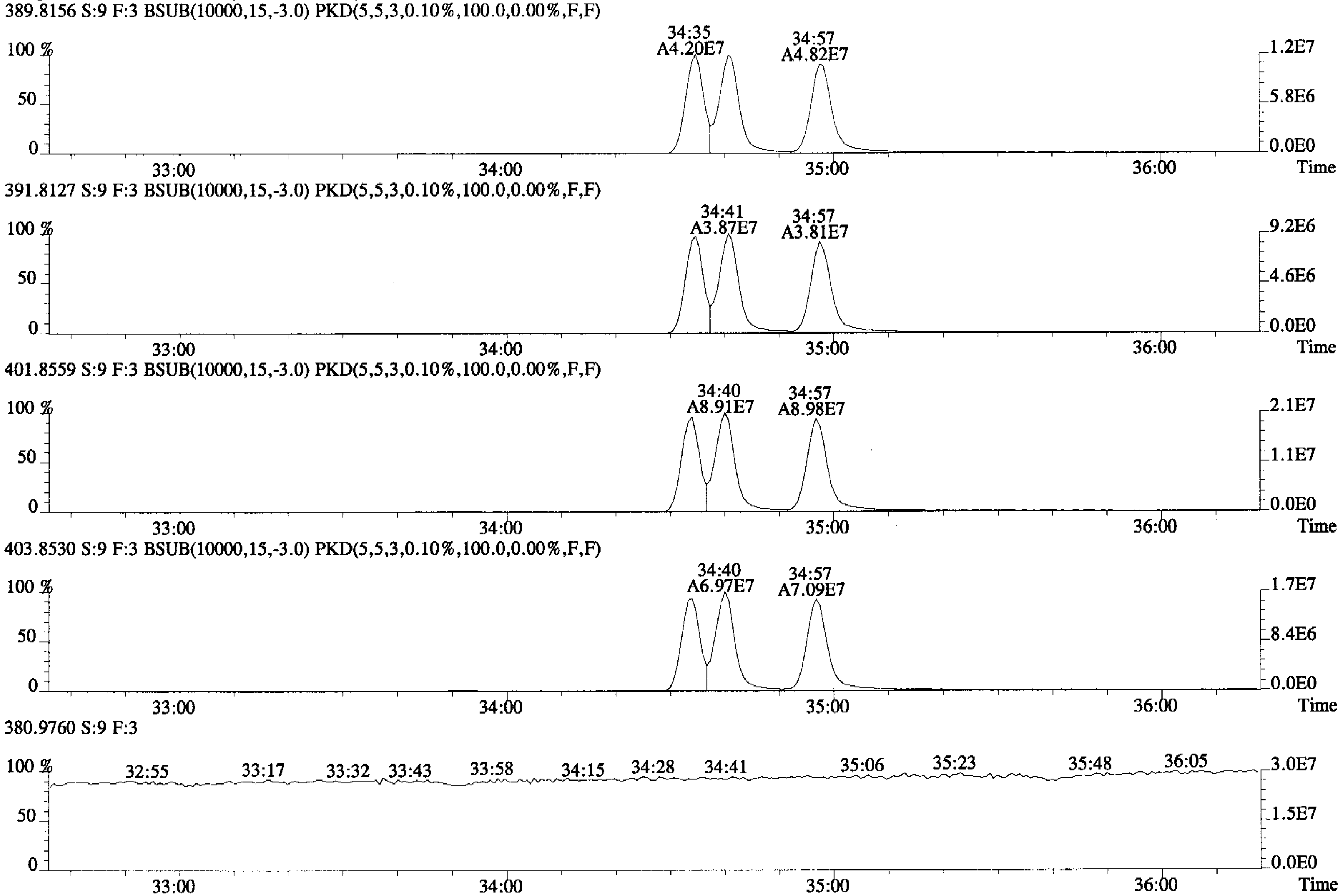
File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



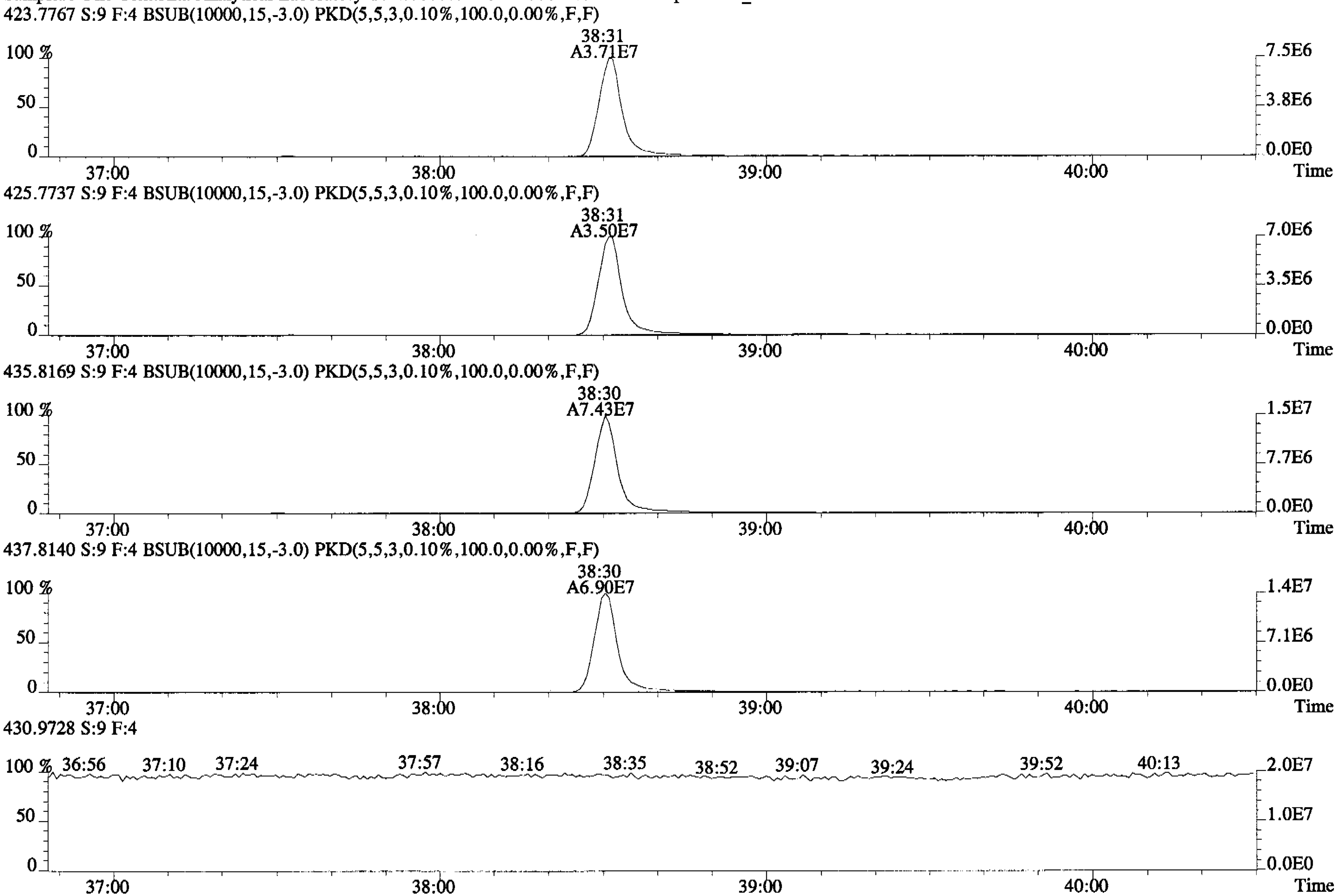
File:060322C1 #1-316 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



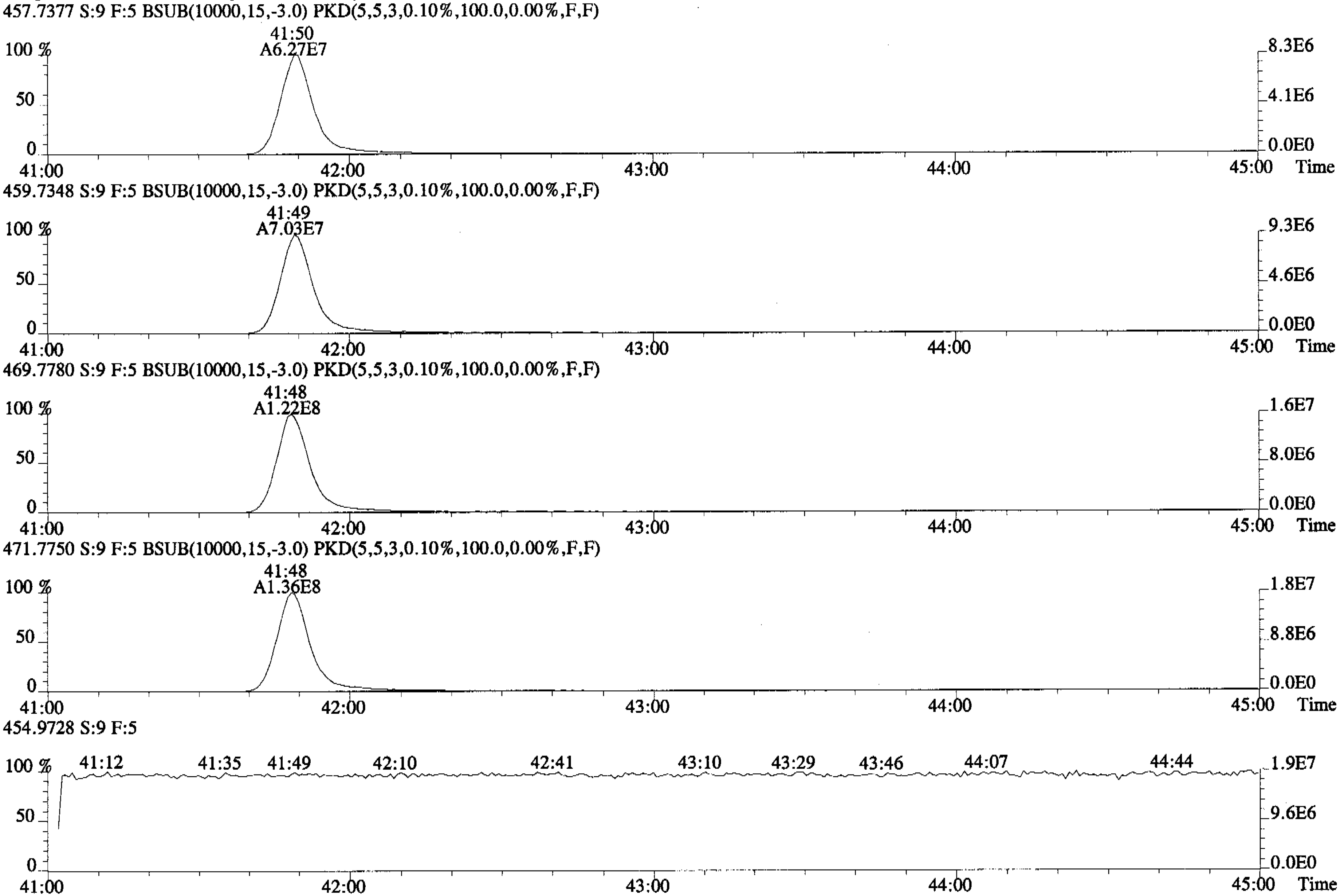
File:060322C1 #1-377 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



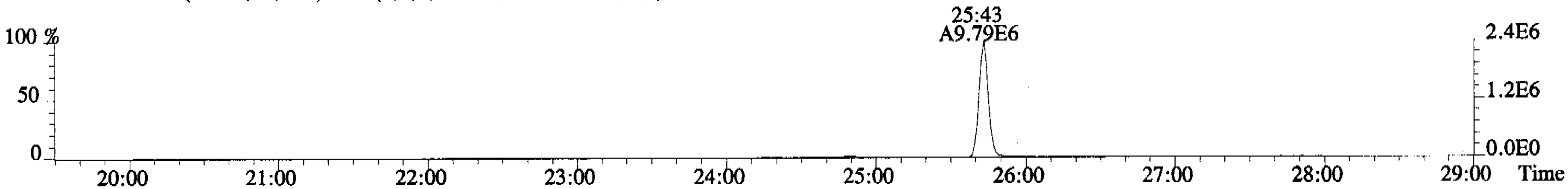
File:060322C1 #1-400 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



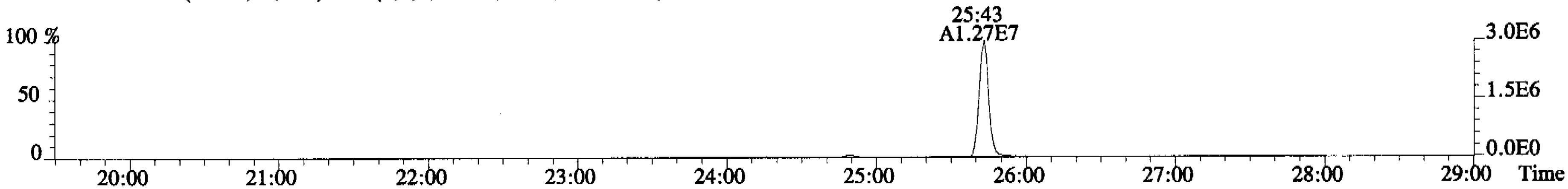
File:060322C1 #1-345 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



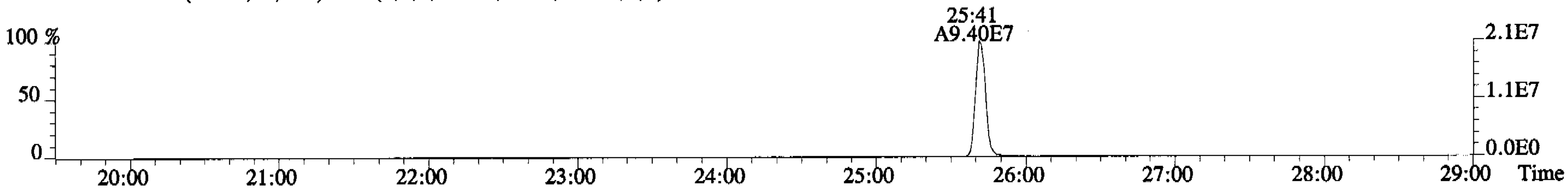
File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5
303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



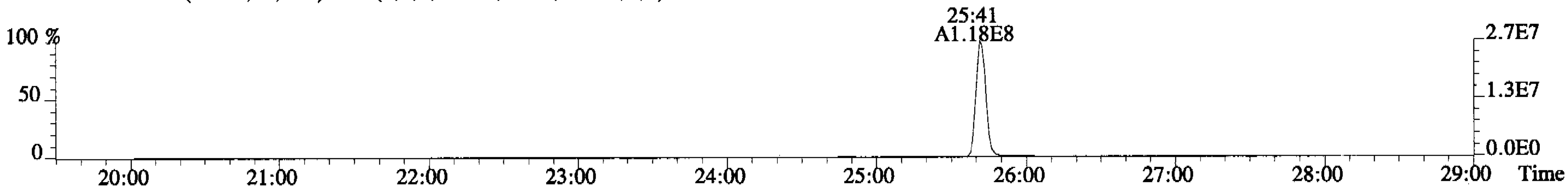
305.8987 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



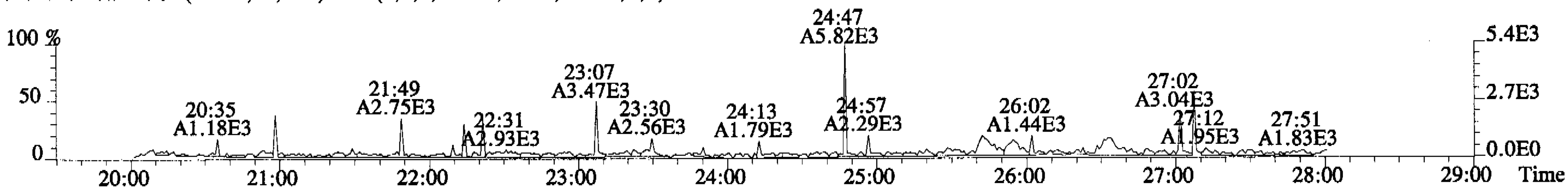
315.9419 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



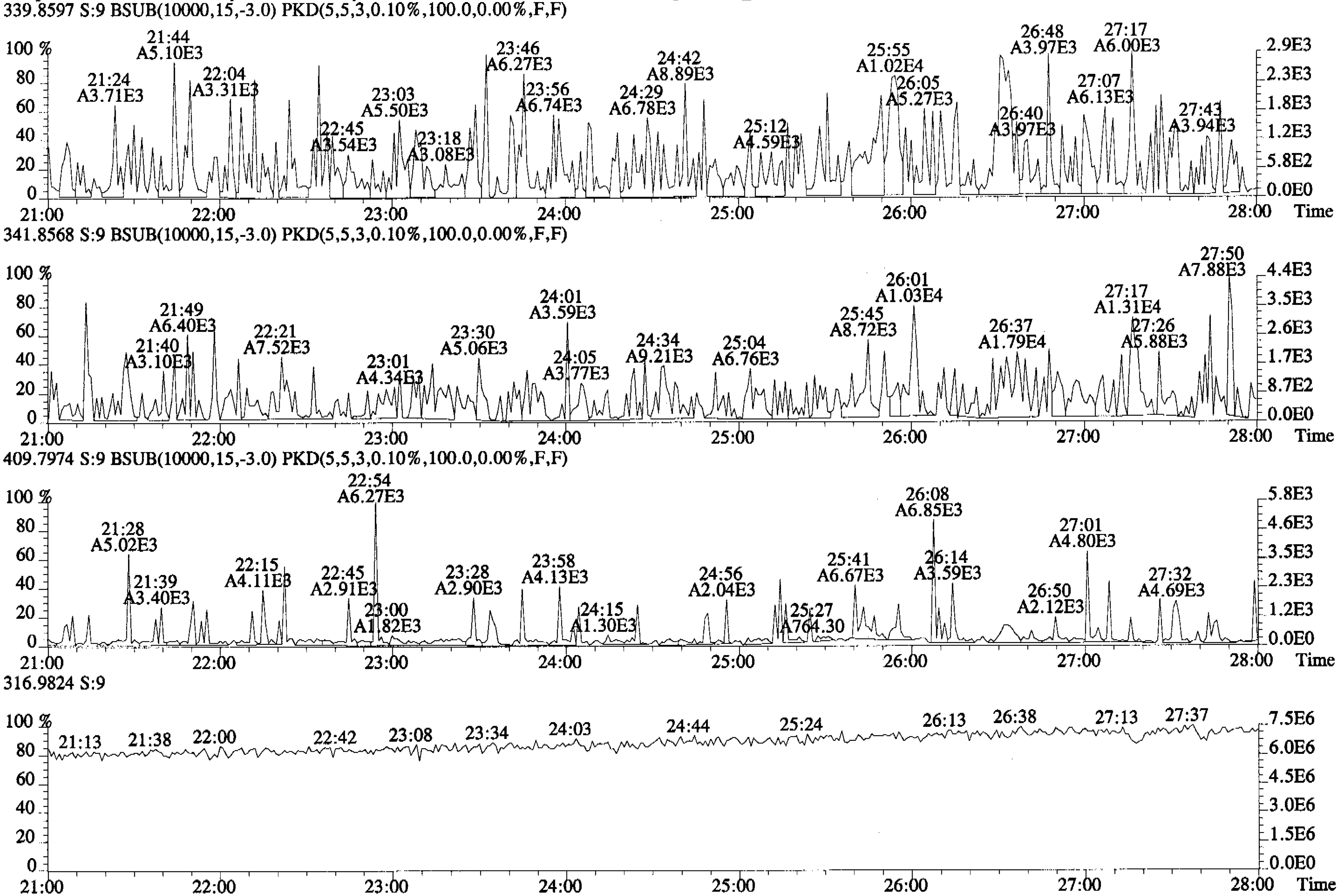
317.9389 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



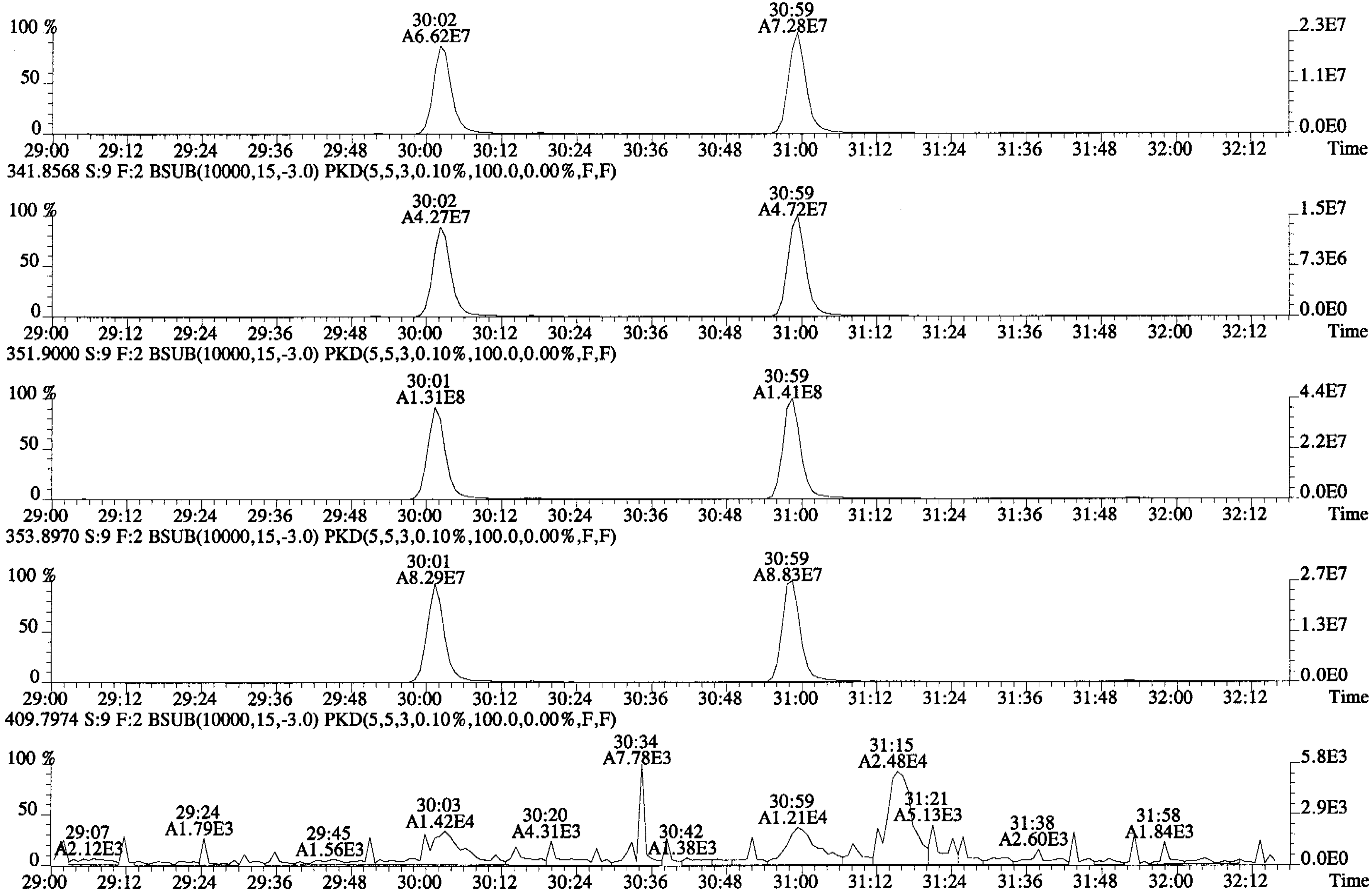
375.8364 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



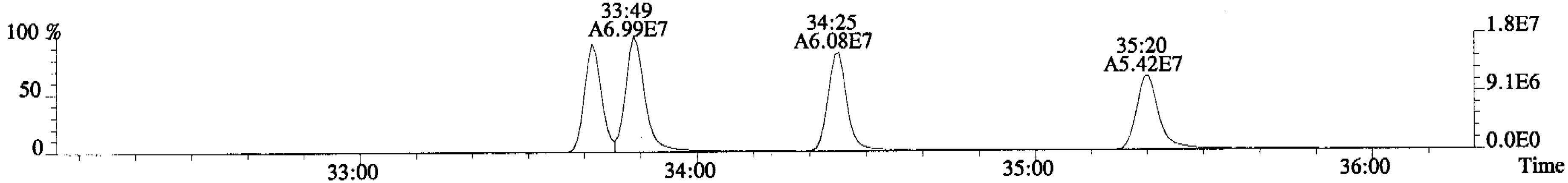
File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



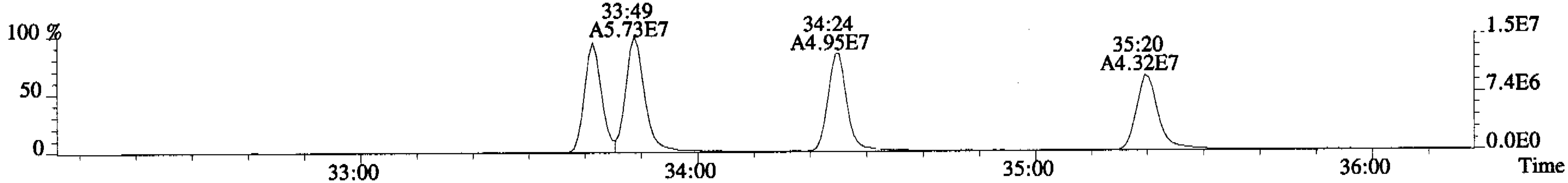
File:060322C1 #1-316 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5
339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



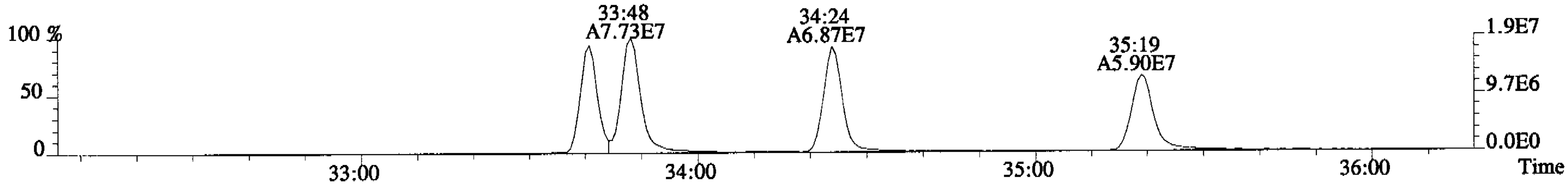
File:060322C1 #1-377 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



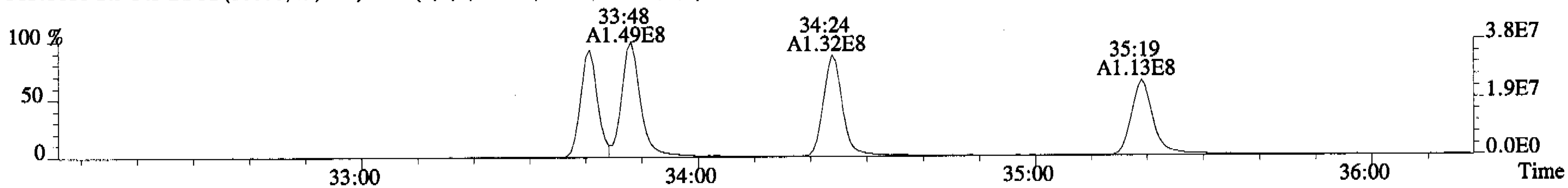
375.8178 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



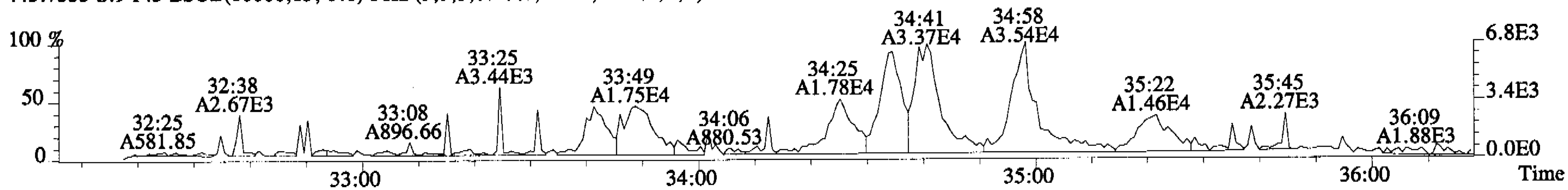
383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



385.8610 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

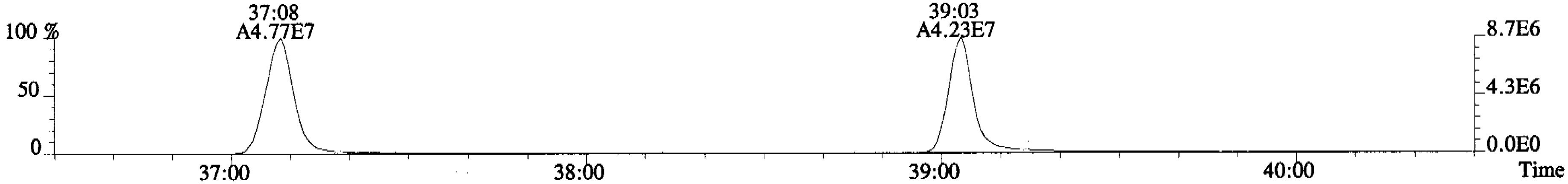


445.7555 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

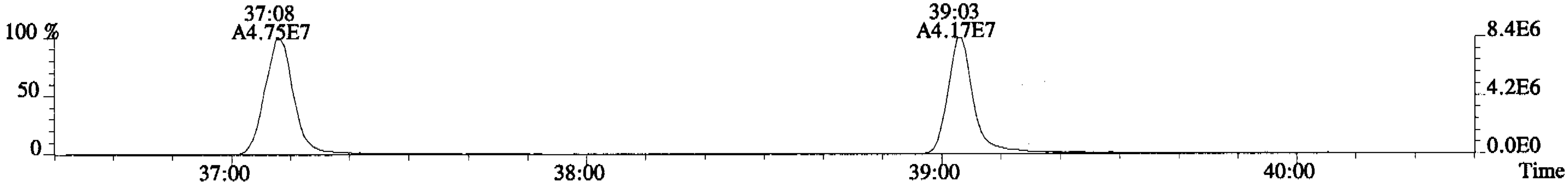


File:060322C1 #1-400 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

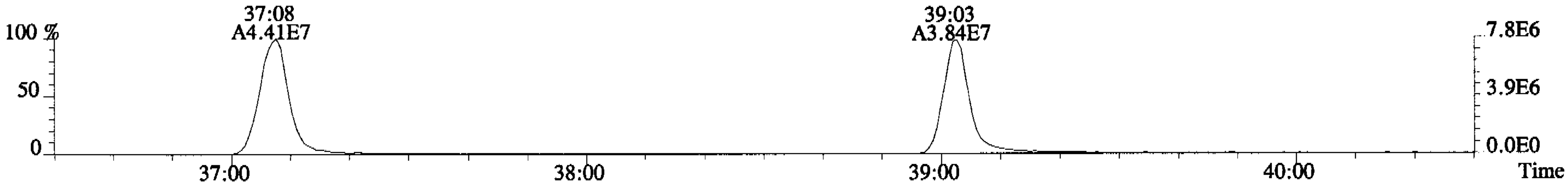
407.7818 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



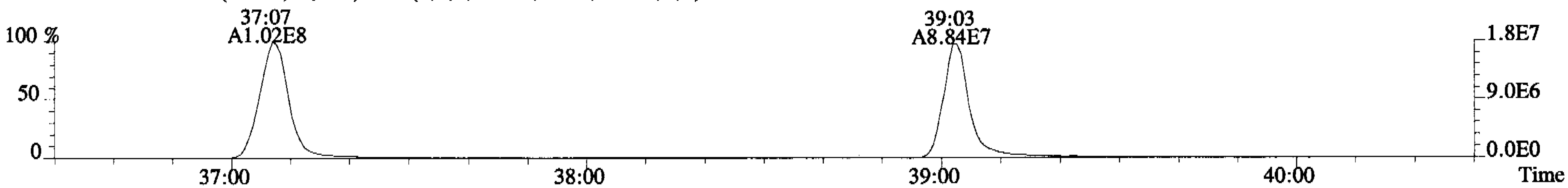
409.7788 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



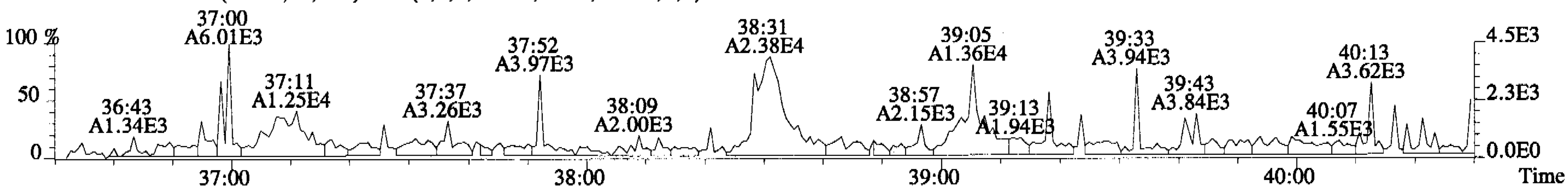
417.8253 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



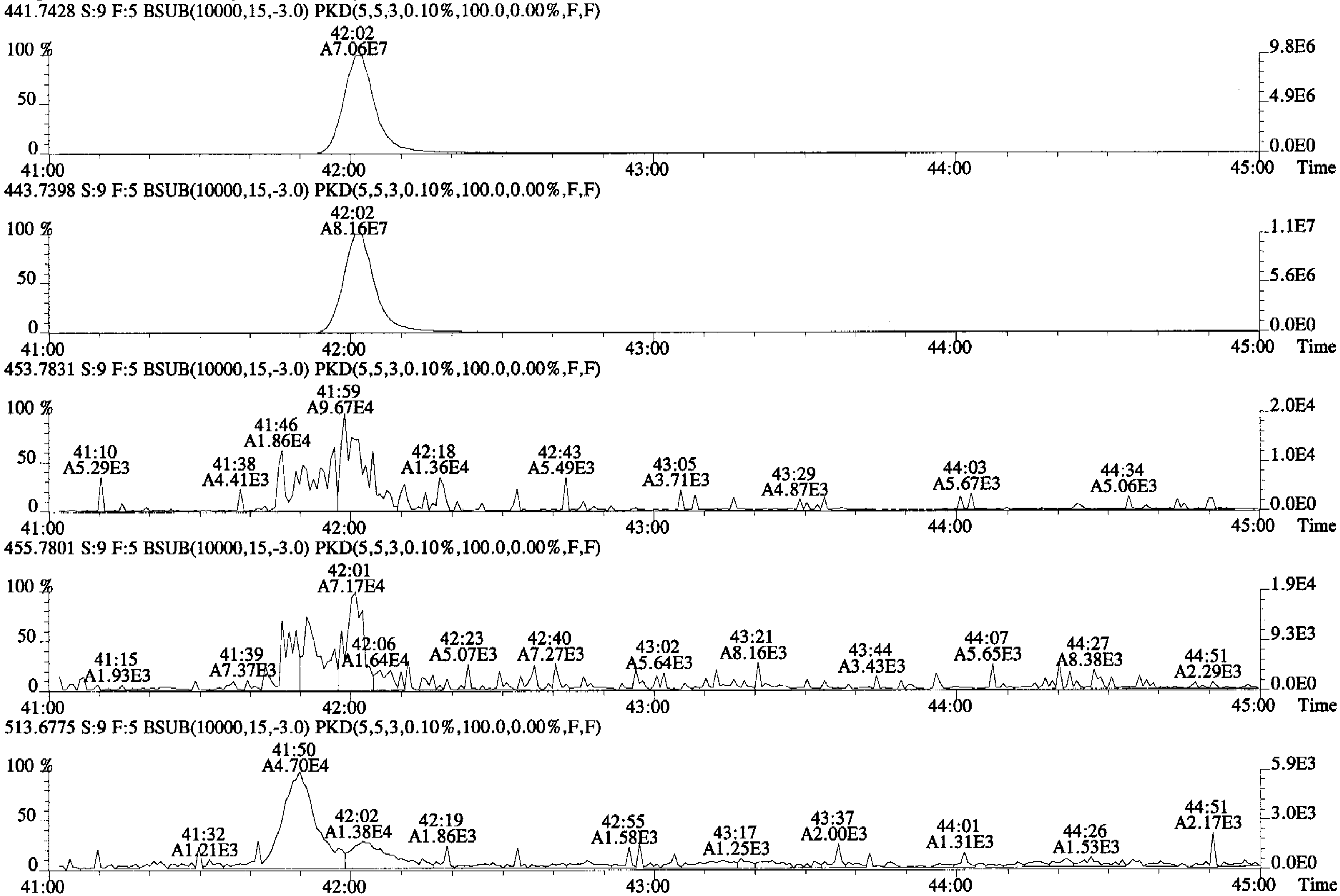
419.8220 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-345 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test

Sampled: 09/14/06
Received: 09/14/06
Issued: 09/26/06 14:29

NELAP #01108CA California ELAP#1197 CSDLAC #10256

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IPI1291-01	PT-INF2	Water

Reviewed By:

TestAmerica - Irvine, CA
Lisa Reightley For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1291-01 (PT-INF2 - Water)									
Reporting Units: mg/l									
Iron	EPA 200.7	6I18075	0.015	0.040	**0.66**	1	09/18/06	09/20/06	
Sample ID: IPI1291-01 (PT-INF2 - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	6I18070	0.050	2.0	**0.36**	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7	6I18075	4.4	5.0	**5.4**	1	09/18/06	09/20/06	
Beryllium	EPA 200.7	6I18075	0.90	2.0	ND	1	09/18/06	09/20/06	
Cadmium	EPA 200.8	6I18070	0.025	1.0	**0.045**	1	09/18/06	09/18/06	J
Chromium	EPA 200.7	6I18075	2.0	5.0	ND	1	09/18/06	09/20/06	
Copper	EPA 200.8	6I19133	0.25	2.0	**1.4**	1	09/19/06	09/20/06	B, J
Lead	EPA 200.8	6I18070	0.040	1.0	**0.65**	1	09/18/06	09/18/06	J
Manganese	EPA 200.7	6I18075	7.0	20	**170**	1	09/18/06	09/20/06	
Mercury	EPA 245.1	6I15062	0.15	0.20	ND	1	09/15/06	09/15/06	
Nickel	EPA 200.7	6I18075	2.0	10	ND	1	09/18/06	09/20/06	
Selenium	EPA 200.8	6I18070	0.30	2.0	**0.39**	1	09/18/06	09/18/06	J
Silver	EPA 200.8	6I18070	0.025	1.0	**0.025**	1	09/18/06	09/18/06	J
Thallium	EPA 200.8	6I18070	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7	6I18075	15	20	**16**	1	09/18/06	09/20/06	J

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300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1291-01 (PT-INF2 - Water) - cont.									
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	6I15121	0.015	0.040	ND	1	09/15/06	09/23/06	
Sample ID: IPI1291-01 (PT-INF2 - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	6I18073	0.050	2.0	**0.42**	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7-Diss	6I15121	4.4	5.0	ND	1	09/15/06	09/23/06	
Beryllium	EPA 200.7-Diss	6I15121	0.90	2.0	ND	1	09/15/06	09/23/06	
Cadmium	EPA 200.8-Diss	6I18073	0.025	1.0	**0.042**	1	09/18/06	09/18/06	J
Chromium	EPA 200.7-Diss	6I15121	2.0	5.0	ND	1	09/15/06	09/23/06	
Copper	EPA 200.8-Diss	6I18073	0.25	2.0	**1.6**	1	09/18/06	09/18/06	B, J
Lead	EPA 200.8-Diss	6I18073	0.040	1.0	**0.055**	1	09/18/06	09/18/06	J
Manganese	EPA 200.7-Diss	6I15121	7.0	20	ND	1	09/15/06	09/23/06	
Mercury	EPA 245.1-Diss	6I18082	0.15	0.20	ND	1	09/18/06	09/18/06	
Nickel	EPA 200.7-Diss	6I15121	2.0	10	**2.0**	1	09/15/06	09/23/06	J
Selenium	EPA 200.8-Diss	6I18073	0.30	2.0	**0.54**	1	09/18/06	09/18/06	J
Silver	EPA 200.8-Diss	6I18073	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8-Diss	6I18073	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7-Diss	6I15121	15	20	ND	1	09/15/06	09/23/06	

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Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1291-01 (PT-INF2 - Water) - cont.									
Reporting Units: g/cc									
Density	Displacement	6I22108	N/A	NA	**1.0**	1	09/22/06	09/22/06	
Sample ID: IPI1291-01 (PT-INF2 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	6I25082	10	10	**22**	1	09/25/06	09/25/06	
Total Kjeldahl Nitrogen	EPA 351.3	6I20101	0.43	0.50	**0.84**	1	09/20/06	09/20/06	
Alkalinity as CaCO3	EPA 310.1	6I20071	2.0	2.0	**140**	1	09/20/06	09/20/06	
Ammonia-N (Distilled)	EPA 350.2	6I16057	0.30	0.50	ND	1	09/16/06	09/16/06	
Hardness (as CaCO3)	SM2340B	6I18075	1.0	1.0	**180**	1	09/18/06	09/20/06	
Nitrate-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Nitrite-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Nitrate/Nitrite-N	EPA 300.0	6I14139	0.080	0.15	ND	1	09/14/06	09/15/06	
Oil & Grease	EPA 413.1	6I16001	0.90	4.8	ND	1	09/16/06	09/16/06	
Sulfate	EPA 300.0	6I15041	2.2	2.5	**84**	5	09/15/06	09/15/06	
Total Dissolved Solids	SM2540C	6I15073	10	10	**360**	1	09/15/06	09/15/06	
Total Organic Carbon	EPA 415.1	6I20145	0.50	1.0	**10**	1	09/20/06	09/20/06	
Total Suspended Solids	EPA 160.2	6I20128	10	10	**22**	1	09/20/06	09/20/06	

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Lisa Reightley For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1291	Received: 09/14/06
Attention: Bronwyn Kelly			

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1291-01 (PT-INF2 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	6I15115	0.040	1.0	**8.8**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1291	Received: 09/14/06
Attention: Bronwyn Kelly			

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1291-01 (PT-INF2 - Water) - cont.									
Reporting Units: pH Units									
pH	EPA 150.1	6I15082	N/A	NA	**7.89**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1291	Received: 09/14/06
Attention: Bronwyn Kelly			

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI1291-01 (PT-INF2 - Water) - cont.									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	6I15074	N/A	1.0	**590**	1	09/15/06	09/15/06	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test Report Number: IPI1291	Sampled: 09/14/06 Received: 09/14/06

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: PT-INF2 (IPI1291-01) - Water					
EPA 150.1	1	09/14/2006 08:00	09/14/2006 18:15	09/15/2006 09:25	09/15/2006 10:45
EPA 180.1	2	09/14/2006 08:00	09/14/2006 18:15	09/15/2006 14:00	09/15/2006 15:35
EPA 300.0	2	09/14/2006 08:00	09/14/2006 18:15	09/14/2006 21:00	09/15/2006 00:10
Filtration	1	09/14/2006 08:00	09/14/2006 18:15	09/15/2006 16:50	09/15/2006 16:50

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15062 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15062-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/15/2006 (6I15062-BS1)											
Mercury	8.40	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/15/2006 (6I15062-MS1)					**Source: IPI1162-01**						
Mercury	8.20	0.20	0.15	ug/l	8.00	ND	102	70-130			
Matrix Spike Dup Analyzed: 09/15/2006 (6I15062-MSD1)					**Source: IPI1162-01**						
Mercury	8.24	0.20	0.15	ug/l	8.00	ND	103	70-130	1	20	
Batch: 6I18070 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18070-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18070-BS1)											
Antimony	78.2	2.0	0.050	ug/l	80.0		98	85-115			
Cadmium	78.0	1.0	0.025	ug/l	80.0		98	85-115			
Lead	79.6	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	78.8	2.0	0.30	ug/l	80.0		98	85-115			
Silver	78.3	1.0	0.025	ug/l	80.0		98	85-115			
Thallium	80.0	1.0	0.15	ug/l	80.0		100	85-115			

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1291	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18070 Extracted: 09/18/06											
Matrix Spike Analyzed: 09/18/2006 (6I18070-MS1)						**Source: IPI1353-01**					
Antimony	79.4	2.0	0.050	ug/l	80.0	0.053	99	70-130			
Cadmium	73.3	1.0	0.025	ug/l	80.0	ND	92	70-130			
Lead	75.8	1.0	0.040	ug/l	80.0	1.1	93	70-130			
Selenium	75.2	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	72.3	1.0	0.025	ug/l	80.0	ND	90	70-130			
Thallium	74.9	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Analyzed: 09/18/2006 (6I18070-MS2)						**Source: IPI1353-02**					
Antimony	79.4	2.0	0.050	ug/l	80.0	ND	99	70-130			
Cadmium	73.0	1.0	0.025	ug/l	80.0	ND	91	70-130			
Lead	76.8	1.0	0.040	ug/l	80.0	1.8	94	70-130			
Selenium	75.4	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	72.5	1.0	0.025	ug/l	80.0	ND	91	70-130			
Thallium	75.1	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Dup Analyzed: 09/18/2006 (6I18070-MSD1)						**Source: IPI1353-01**					
Antimony	79.3	2.0	0.050	ug/l	80.0	0.053	99	70-130	0	20	
Cadmium	73.6	1.0	0.025	ug/l	80.0	ND	92	70-130	0	20	
Lead	75.6	1.0	0.040	ug/l	80.0	1.1	93	70-130	0	20	
Selenium	77.2	2.0	0.30	ug/l	80.0	ND	96	70-130	3	20	
Silver	72.3	1.0	0.025	ug/l	80.0	ND	90	70-130	0	20	
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130	0	20	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18075 Extracted: 09/18/06											
LCS Analyzed: 09/20/2006 (6I18075-BS1)											
Arsenic	484	5.0	4.4	ug/l	500		97	85-115			
Beryllium	473	2.0	0.90	ug/l	500		95	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Iron	0.491	0.040	0.015	mg/l	0.500		98	85-115			
Manganese	479	20	7.0	ug/l	500		96	85-115			
Nickel	475	10	2.0	ug/l	500		95	85-115			
Zinc	483	20	15	ug/l	500		97	85-115			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS1)					**Source: IPI1294-01**						
Arsenic	500	5.0	4.4	ug/l	500	4.7	99	70-130			
Beryllium	493	2.0	0.90	ug/l	500	ND	99	70-130			
Chromium	472	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	0.571	0.040	0.015	mg/l	0.500	0.095	95	70-130			
Manganese	534	20	7.0	ug/l	500	50	97	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Zinc	478	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Analyzed: 09/20/2006 (6I18075-MS2)					**Source: IPI1298-01**						
Arsenic	498	5.0	4.4	ug/l	500	4.9	99	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Chromium	473	5.0	2.0	ug/l	500	ND	95	70-130			
Iron	0.635	0.040	0.015	mg/l	0.500	0.15	97	70-130			
Manganese	576	20	7.0	ug/l	500	100	95	70-130			
Nickel	467	10	2.0	ug/l	500	2.0	93	70-130			
Zinc	480	20	15	ug/l	500	ND	96	70-130			
Matrix Spike Dup Analyzed: 09/20/2006 (6I18075-MSD1)					**Source: IPI1294-01**						
Arsenic	492	5.0	4.4	ug/l	500	4.7	97	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	3	20	
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Iron	0.566	0.040	0.015	mg/l	0.500	0.095	94	70-130	1	20	
Manganese	524	20	7.0	ug/l	500	50	95	70-130	2	20	
Nickel	459	10	2.0	ug/l	500	ND	92	70-130	1	20	
Zinc	475	20	15	ug/l	500	ND	95	70-130	1	20	

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
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Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I19133 Extracted: 09/19/06											
Blank Analyzed: 09/20/2006 (6I19133-BLK1)											
Copper	1.73	2.0	0.25	ug/l							*J*
LCS Analyzed: 09/20/2006 (6I19133-BS1)											
Copper	80.8	2.0	0.25	ug/l	80.0		101	85-115			
Matrix Spike Analyzed: 09/20/2006 (6I19133-MS1)					**Source: IPI1286-01**						
Copper	77.1	2.0	0.25	ug/l	80.0	0.82	95	70-130			
Matrix Spike Dup Analyzed: 09/20/2006 (6I19133-MSD1)					**Source: IPI1286-01**						
Copper	75.6	2.0	0.25	ug/l	80.0	0.82	93	70-130	2	20	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1291	Received: 09/14/06
Attention: Bronwyn Kelly			

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15121 Extracted: 09/15/06											
Blank Analyzed: 09/23/2006 (6I15121-BLK1)											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							
LCS Analyzed: 09/23/2006 (6I15121-BS1)											
Arsenic	1040	5.0	4.4	ug/l	1000		104	85-115			
Beryllium	1040	2.0	0.90	ug/l	1000		104	85-115			
Chromium	1020	5.0	2.0	ug/l	1000		102	85-115			
Iron	1.03	0.040	0.015	mg/l	1.00		103	85-115			
Manganese	1030	20	7.0	ug/l	1000		103	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Zinc	1040	20	15	ug/l	1000		104	85-115			
Matrix Spike Analyzed: 09/23/2006 (6I15121-MS1)					**Source: IPI1286-01**						
Arsenic	1050	5.0	4.4	ug/l	1000	6.3	104	70-130			
Beryllium	1040	2.0	0.90	ug/l	1000	ND	104	70-130			
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Iron	1.04	0.040	0.015	mg/l	1.00	0.032	101	70-130			
Manganese	1060	20	7.0	ug/l	1000	49	101	70-130			
Nickel	993	10	2.0	ug/l	1000	2.3	99	70-130			
Zinc	1030	20	15	ug/l	1000	36	99	70-130			
Matrix Spike Dup Analyzed: 09/23/2006 (6I15121-MSD1)					**Source: IPI1286-01**						
Arsenic	1070	5.0	4.4	ug/l	1000	6.3	106	70-130	2	20	
Beryllium	1060	2.0	0.90	ug/l	1000	ND	106	70-130	2	20	
Chromium	1030	5.0	2.0	ug/l	1000	ND	103	70-130	2	20	
Iron	1.06	0.040	0.015	mg/l	1.00	0.032	103	70-130	2	20	
Manganese	1070	20	7.0	ug/l	1000	49	102	70-130	1	20	
Nickel	1020	10	2.0	ug/l	1000	2.3	102	70-130	3	20	
Zinc	1050	20	15	ug/l	1000	36	101	70-130	2	20	

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MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1291	Sampled: 09/14/06 Received: 09/14/06

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18073-BLK1)											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.303	2.0	0.25	ug/l							*J*
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18073-BS1)											
Antimony	74.5	2.0	0.050	ug/l	80.0		93	85-115			
Cadmium	74.9	1.0	0.025	ug/l	80.0		94	85-115			
Copper	79.0	2.0	0.25	ug/l	80.0		99	85-115			
Lead	80.4	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	77.2	2.0	0.30	ug/l	80.0		96	85-115			
Silver	77.2	1.0	0.025	ug/l	80.0		96	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS1)					**Source: IPI1226-01**						
Antimony	74.1	2.0	0.050	ug/l	80.0	0.22	92	70-130			
Cadmium	68.4	1.0	0.025	ug/l	80.0	0.096	85	70-130			
Copper	73.2	2.0	0.25	ug/l	80.0	6.8	83	70-130			
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130			
Selenium	76.1	2.0	0.30	ug/l	80.0	6.1	88	70-130			
Silver	69.4	1.0	0.025	ug/l	80.0	ND	87	70-130			
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130			
Matrix Spike Analyzed: 09/18/2006 (6I18073-MS2)					**Source: IPI1286-01**						
Antimony	76.7	2.0	0.050	ug/l	80.0	1.0	95	70-130			
Cadmium	73.5	1.0	0.025	ug/l	80.0	ND	92	70-130			
Copper	74.3	2.0	0.25	ug/l	80.0	6.1	85	70-130			
Lead	76.3	1.0	0.040	ug/l	80.0	0.093	95	70-130			
Selenium	73.8	2.0	0.30	ug/l	80.0	0.77	91	70-130			
Silver	74.5	1.0	0.025	ug/l	80.0	ND	93	70-130			
Thallium	76.5	1.0	0.15	ug/l	80.0	0.36	95	70-130			

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I18073 Extracted: 09/18/06											
Matrix Spike Dup Analyzed: 09/18/2006 (6I18073-MSD1)						**Source: IPI1226-01**					
Antimony	75.1	2.0	0.050	ug/l	80.0	0.22	94	70-130	1	20	
Cadmium	69.1	1.0	0.025	ug/l	80.0	0.096	86	70-130	1	20	
Copper	71.7	2.0	0.25	ug/l	80.0	6.8	81	70-130	2	20	
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130	0	20	
Selenium	77.3	2.0	0.30	ug/l	80.0	6.1	89	70-130	2	20	
Silver	70.2	1.0	0.025	ug/l	80.0	ND	88	70-130	1	20	
Thallium	74.4	1.0	0.15	ug/l	80.0	ND	93	70-130	1	20	
Batch: 6I18082 Extracted: 09/18/06											
Blank Analyzed: 09/18/2006 (6I18082-BLK1)											
Mercury	ND	0.20	0.15	ug/l							
LCS Analyzed: 09/18/2006 (6I18082-BS1)											
Mercury	8.42	0.20	0.15	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 09/18/2006 (6I18082-MS1)						**Source: IPI1321-01**					
Mercury	8.28	0.20	0.15	ug/l	8.00	ND	104	70-130			
Matrix Spike Dup Analyzed: 09/18/2006 (6I18082-MSD1)						**Source: IPI1321-01**					
Mercury	8.17	0.20	0.15	ug/l	8.00	ND	102	70-130	1	20	

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MWH-Pasadena/Boeing	Project ID:	Boeing-SSFL BMP/NPDES	
300 North Lake Avenue, Suite 1200		R-2A Pond Pilot Test	Sampled: 09/14/06
Pasadena, CA 91101	Report Number:	IPI1291	Received: 09/14/06
Attention: Bronwyn Kelly			

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I14139 Extracted: 09/14/06											
Blank Analyzed: 09/14/2006 (6I14139-BLK1)											
Nitrate-N	ND	0.15	0.080	mg/l							
Nitrite-N	ND	0.15	0.080	mg/l							
Nitrate/Nitrite-N	ND	0.15	0.080	mg/l							
LCS Analyzed: 09/14/2006 (6I14139-BS1)											
Nitrate-N	1.09	0.15	0.080	mg/l	1.13		96	90-110			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52		95	90-110			
Matrix Spike Analyzed: 09/14/2006 (6I14139-MS1)					**Source: IPI1286-01**						
Nitrate-N	1.13	0.15	0.080	mg/l	1.13	ND	100	80-120			
Nitrite-N	1.45	0.15	0.080	mg/l	1.52	ND	95	80-120			
Matrix Spike Dup Analyzed: 09/14/2006 (6I14139-MSD1)					**Source: IPI1286-01**						
Nitrate-N	1.14	0.15	0.080	mg/l	1.13	ND	101	80-120	1	20	
Nitrite-N	1.46	0.15	0.080	mg/l	1.52	ND	96	80-120	1	20	
Batch: 6I15041 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15041-BLK1)											
Sulfate	ND	0.50	0.45	mg/l							
LCS Analyzed: 09/15/2006 (6I15041-BS1)											
Sulfate	10.1	0.50	0.45	mg/l	10.0		101	90-110			
Matrix Spike Analyzed: 09/15/2006 (6I15041-MS1)					**Source: IPI1302-02**						
Sulfate	183	2.5	2.2	mg/l	10.0	180	30	80-120			*M-HA*

TestAmerica - Irvine, CA
Lisa Reightley For Michele Chamberlin
Project Manager

MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15041 Extracted: 09/15/06											
Matrix Spike Dup Analyzed: 09/15/2006 (6I15041-MSD1)					**Source: IPI1302-02**						
Sulfate	184	2.5	2.2	mg/l	10.0	180	40	80-120	1	20	*M-HA*
Batch: 6I15073 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15073-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 09/15/2006 (6I15073-BS1)											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 09/15/2006 (6I15073-DUP1)					**Source: IPI1076-01**						
Total Dissolved Solids	1480	10	10	mg/l		1500			1	10	
Batch: 6I15074 Extracted: 09/15/06											
Duplicate Analyzed: 09/15/2006 (6I15074-DUP1)					**Source: IPI1120-01**						
Specific Conductance	1820	1.0	N/A	umhos/cm		1800			1	5	
Batch: 6I15082 Extracted: 09/15/06											
Duplicate Analyzed: 09/15/2006 (6I15082-DUP1)					**Source: IPI1268-01**						
pH	6.87	NA	N/A	pH Units		6.85			0	5	
Duplicate Analyzed: 09/15/2006 (6I15082-DUP2)					**Source: IPI1293-01**						
pH	7.55	NA	N/A	pH Units		7.54			0	5	

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Lisa Reightley For Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I15115 Extracted: 09/15/06											
Blank Analyzed: 09/15/2006 (6I15115-BLK1)											
Turbidity	ND	1.0	0.040	NTU							
Duplicate Analyzed: 09/15/2006 (6I15115-DUP1)						**Source: IPI1266-01**					
Turbidity	3.33	1.0	0.040	NTU		3.4			2	20	
Duplicate Analyzed: 09/15/2006 (6I15115-DUP2)						**Source: IPI1293-01**					
Turbidity	1.63	1.0	0.040	NTU		1.6			2	20	
Batch: 6I16001 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16001-BLK1)											
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 09/16/2006 (6I16001-BS1)											
Oil & Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120			*M-NR1*
LCS Dup Analyzed: 09/16/2006 (6I16001-BSD1)											
Oil & Grease	18.1	5.0	0.94	mg/l	20.0		90	65-120	1	20	
Batch: 6I16057 Extracted: 09/16/06											
Blank Analyzed: 09/16/2006 (6I16057-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/16/2006 (6I16057-BS1)											
Ammonia-N (Distilled)	10.9	0.50	0.30	mg/l	10.0		109	80-115			

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I16057 Extracted: 09/16/06											
Matrix Spike Analyzed: 09/16/2006 (6I16057-MS1)						**Source: IPI1286-01**					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120			
Matrix Spike Dup Analyzed: 09/16/2006 (6I16057-MSD1)						**Source: IPI1286-01**					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120	0	15	
Batch: 6I18075 Extracted: 09/18/06											
Blank Analyzed: 09/20/2006 (6I18075-BLK1)											
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
Batch: 6I20071 Extracted: 09/20/06											
Duplicate Analyzed: 09/20/2006 (6I20071-DUP1)						**Source: IPI1125-01**					
Alkalinity as CaCO3	348	2.0	2.0	mg/l		350			1	20	
Reference Analyzed: 09/20/2006 (6I20071-SRM1)											
Alkalinity as CaCO3	224	2.0	2.0	mg/l	231		97	90-110			
Batch: 6I20101 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20101-BLK1)											
Total Kjeldahl Nitrogen	ND	0.50	0.43	mg/l							
LCS Analyzed: 09/20/2006 (6I20101-BS1)											
Total Kjeldahl Nitrogen	19.6	0.50	0.43	mg/l	20.0		98	85-120			

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Lisa Reightley For Michele Chamberlin
Project Manager

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20101 Extracted: 09/20/06											
LCS Dup Analyzed: 09/20/2006 (6I20101-BSD1)											
Total Kjeldahl Nitrogen	19.9	0.50	0.43	mg/l	20.0		100	85-120	2	15	
Matrix Spike Analyzed: 09/20/2006 (6I20101-MS1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	10.6	0.50	0.43	mg/l	10.0	0.84	98	85-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20101-MSD1)					**Source: IPI1210-01**						
Total Kjeldahl Nitrogen	11.2	0.50	0.43	mg/l	10.0	0.84	104	85-120	6	15	
Batch: 6I20128 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20128-BLK2)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/20/2006 (6I20128-BS2)											
Total Suspended Solids	1040	10	10	mg/l	1000		104	85-115			
Duplicate Analyzed: 09/20/2006 (6I20128-DUP2)					**Source: IPI1285-02**						
Total Suspended Solids	2270	10	10	mg/l		2100			8	10	
Batch: 6I20145 Extracted: 09/20/06											
Blank Analyzed: 09/20/2006 (6I20145-BLK1)											
Total Organic Carbon	ND	1.0	0.25	mg/l							
LCS Analyzed: 09/20/2006 (6I20145-BS1)											
Total Organic Carbon	10.7	1.0	0.25	mg/l	10.0		107	90-110			

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES
R-2A Pond Pilot Test
Report Number: IPI1291

Sampled: 09/14/06
Received: 09/14/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6I20145 Extracted: 09/20/06											
Matrix Spike Analyzed: 09/20/2006 (6I20145-MS1)					**Source: IPI1211-01**						
Total Organic Carbon	6.34	1.0	0.25	mg/l	5.00	1.5	97	80-120			
Matrix Spike Dup Analyzed: 09/20/2006 (6I20145-MSD1)					**Source: IPI1211-01**						
Total Organic Carbon	6.52	1.0	0.25	mg/l	5.00	1.5	100	80-120	3	20	
Batch: 6I22108 Extracted: 09/22/06											
Duplicate Analyzed: 09/22/2006 (6I22108-DUP1)					**Source: IPI0964-02**						
Density	0.999	NA	N/A	g/cc		1.0			0	20	

TestAmerica - Irvine, CA
Lisa Reightley For Michele Chamberlin
Project Manager

MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Report Number:	Boeing-SSFL BMP/NPDES R-2A Pond Pilot Test IPI1291	 Sampled: 09/14/06 Received: 09/14/06

DATA QUALIFIERS AND DEFINITIONS

B Analyte was detected in the associated Method Blank.

J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.

M-HA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

M-NR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica - Irvine, CA
Lisa Reightley For Michele Chamberlin
Project Manager

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing	Project ID: Boeing-SSFL BMP/NPDES		
300 North Lake Avenue, Suite 1200	R-2A Pond Pilot Test	Sampled:	09/14/06
Pasadena, CA 91101	Report Number: IPI1291	Received:	09/14/06
Attention: Bronwyn Kelly			

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
1613A/1613B	Water		
ASTM D3977	Water		
Displacement	Water		
EPA 120.1	Water	X	X
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 310.1	Water	X	X
EPA 350.2	Water		X
EPA 351.3	Water		
EPA 413.1	Water	X	X
EPA 415.1	Water	X	X
Filtration	Water	N/A	N/A
SM2340B	Water	X	X
SM2540C	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Alta Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IPI1291-01

TestAmerica - Irvine, CA
Lisa Reightley For Michele Chamberlin
Project Manager

IPI291

Del Mar Analytical Version 04/28/06 CHAIN OF CUSTODY FORM

Client Name/Address:
MWH-Pasadena
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101

Project:
Boeing-SSFL BMP/NPDES
R-2A Pond Filtration Pilot Test

Project Manager: Bronwyn Kelly
Sampler: BANIAGA

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

Field readings:
Temp = 68°
pH= 7.3

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle * #	Total Recoverable Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn, Hardness	Total Dissolved Solids, pH, Alkalinity, Suspended Sediments Concentration (ASTM Method)	Total Organic Carbon	Oil & Grease (EPA 413.1)	Total Kjeldhal Nitrogen	SO4, NO3+NO2-N, Nitrate-N, Nitrite-N (NO3 + NO2-N)	Turbidity, TSS, Conductivity	Ammonia-N (NH3-N)	Total Dissolved Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*, Zn	TCDD (and all congeners)					Comments
PT-INF2	W	Poly-1L	1	9-14-06 08:00	HNO3	1	X														
PT-INF2	W	Poly-1L	1		None	2		X													
PT-INF2	W	VOAs	2		HCl	3A, 3B			X												
PT-INF2	W	1L Amber	2		HCl	4A, 4B				X											
PT-INF2	W	Poly-500 ml	1		H2SO4	5					X										
PT-INF2	W	Poly-500 ml	1		None	6						X									
PT-INF2	W	Poly-500 ml	2		None	7A, 7B							X								
PT-INF2	W	Poly-500 ml	1		H2SO4	8								X							
PT-INF2	W	Poly-1L	1		None	9									X						
PT-INF2	W	1L Amber	2	9-14-06 08:00	None	10A, 10B										X					

Relinquished By	Date/Time	Received By	Date/Time
[signature]	9-14-06 1500	[signature]	9-14-06 1500
[signature]	9-14-06 1815		
		Eduardo N. [signature]	9/14/06 1815

Turn around Time: (check)
24 Hours ______ 5 Days ______
48 Hours ______ 10 Days ______
72 Hours ______ Normal X
Perchlorate Only 72 Hours______
Metals Only 72 Hours______
Sample Integrity: (Check)
Intact ✓ On Ice: 6

DNI10C

ALTA

September 21, 2006

Alta Project I.D.: 28112

Ms. Michele Chamberlin
Test America-Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614

Dear Ms. Chamberlin,

Enclosed are the results for the one aqueous sample received at Alta Analytical Laboratory on September 16, 2006 under your Project Name "IPI1291". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at mmaier@altalab.com. Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier

Martha M. Maier
Director of HRMS Services

Alta Analytical Laboratory, Inc.
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 933-1640
FAX (916) 673-0106

Section I: Sample Inventory Report

Date Received: **9/16/2006**

Alta Lab. ID	Client Sample ID
28112-001	IPI1291-01

SECTION II

Method Blank

EPA Method 1613

Matrix:	Aqueous	QC Batch No.:	8381	Lab Sample:	0-MB001		
Sample Size:	1.00 L	Date Extracted:	18-Sep-06	Date Analyzed DB-5:	20-Sep-06	Date Analyzed DB-225:	NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers		Labeled Standard	%R	LCL-UCL [d]	Qualifiers
2,3,7,8-TCDD	ND	0.00000120			**IS**	13C-2,3,7,8-TCDD	80.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000185				13C-1,2,3,7,8-PeCDD	71.4	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000114				13C-1,2,3,4,7,8-HxCDD	83.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000119				13C-1,2,3,6,7,8-HxCDD	82.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000113				13C-1,2,3,4,6,7,8-HpCDD	77.1	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000251				13C-OCDD	70.2	17 - 157	
OCDD	ND	0.00000489				13C-2,3,7,8-TCDF	80.1	24 - 169	
2,3,7,8-TCDF	ND	0.00000133				13C-1,2,3,7,8-PeCDF	72.7	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000197				13C-2,3,4,7,8-PeCDF	65.5	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000201				13C-1,2,3,4,7,8-HxCDF	89.4	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000613				13C-1,2,3,6,7,8-HxCDF	85.1	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000579				13C-2,3,4,6,7,8-HxCDF	80.1	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000710				13C-1,2,3,7,8,9-HxCDF	63.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000163				13C-1,2,3,4,6,7,8-HpCDF	70.3	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000121				13C-1,2,3,4,7,8,9-HpCDF	58.0	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000160				13C-OCDF	56.7	17 - 157	
OCDF	ND	0.00000380			**CRS**	37Cl-2,3,7,8-TCDD	81.7	35 - 197	

Totals			Footnotes
Total TCDD	ND	0.00000120	a. Sample specific estimated detection limit.
Total PeCDD	ND	0.00000432	b. Estimated maximum possible concentration.
Total HxCDD	ND	0.00000116	c. Method detection limit.
Total HpCDD	ND	0.00000251	d. Lower control limit - upper control limit.
Total TCDF	ND	0.00000133	
Total PeCDF	ND	0.00000342	
Total HxCDF	ND	0.000000802	
Total HpCDF	ND	0.00000137	

Analyst: MAS   Approved By: William J. Luksemburg 21-Sep-2006 14:48

OPR Results

EPA Method 1613

Matrix:	Aqueous	QC Batch No.:	8381	Lab Sample:	0-OPR001
Sample Size:	1.00 L	Date Extracted:	18-Sep-06	Date Analyzed DB-5: 20-Sep-06	Date Analyzed DB-225: NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	10.0	9.99	6.7 - 15.8	**IS**	13C-2,3,7,8-TCDD	72.8	25 - 164
1,2,3,7,8-PeCDD	50.0	48.5	35 - 71		13C-1,2,3,7,8-PeCDD	62.1	25 - 181
1,2,3,4,7,8-HxCDD	50.0	46.7	35 - 82		13C-1,2,3,4,7,8-HxCDD	79.6	32 - 141
1,2,3,6,7,8-HxCDD	50.0	48.1	38 - 67		13C-1,2,3,6,7,8-HxCDD	76.6	28 - 130
1,2,3,7,8,9-HxCDD	50.0	47.4	32 - 81		13C-1,2,3,4,6,7,8-HpCDD	76.9	23 - 140
1,2,3,4,6,7,8-HpCDD	50.0	51.3	35 - 70		13C-OCDD	68.9	17 - 157
OCDD	100	99.3	78 - 144		13C-2,3,7,8-TCDF	76.1	24 - 169
2,3,7,8-TCDF	10.0	9.77	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	62.3	24 - 185
1,2,3,7,8-PeCDF	50.0	51.9	40 - 67		13C-2,3,4,7,8-PeCDF	59.0	21 - 178
2,3,4,7,8-PeCDF	50.0	51.8	34 - 80		13C-1,2,3,4,7,8-HxCDF	77.8	26 - 152
1,2,3,4,7,8-HxCDF	50.0	51.8	36 - 67		13C-1,2,3,6,7,8-HxCDF	75.4	26 - 123
1,2,3,6,7,8-HxCDF	50.0	50.6	42 - 65		13C-2,3,4,6,7,8-HxCDF	76.0	28 - 136
2,3,4,6,7,8-HxCDF	50.0	50.1	35 - 78		13C-1,2,3,7,8,9-HxCDF	54.3	29 - 147
1,2,3,7,8,9-HxCDF	50.0	51.3	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	64.1	28 - 143
1,2,3,4,6,7,8-HpCDF	50.0	51.1	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	58.8	26 - 138
1,2,3,4,7,8,9-HpCDF	50.0	52.3	39 - 69		13C-OCDF	58.1	17 - 157
OCDF	100	105	63 - 170	**CRS**	37Cl-2,3,7,8-TCDD	81.1	35 - 197

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:48

Sample ID:	IPI1291-01		EPA Method 1613

Client Data

Name:	Test America-Irvine
Project:	IPI1291
Date Collected:	14-Sep-06
Time Collected:	0800

Sample Data

Matrix:	Aqueous
Sample Size:	1.01 L

Laboratory Data

Lab Sample:	28112-001	Date Received:	16-Sep-06
QC Batch No.:	8381	Date Extracted:	18-Sep-06
Date Analyzed DB-5:	20-Sep-06	Date Analyzed DB-225:	NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers		Labeled Standard	%R	LCL-UCL [d]	Qualifiers
2,3,7,8-TCDD	ND	0.00000120			IS	13C-2,3,7,8-TCDD	61.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000228				13C-1,2,3,7,8-PeCDD	49.8	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000237				13C-1,2,3,4,7,8-HxCDD	58.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000237				13C-1,2,3,6,7,8-HxCDD	60.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000229				13C-1,2,3,4,6,7,8-HpCDD	72.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.00000683			J		13C-OCDD	64.4	17 - 157	
OCDD	0.0000573					13C-2,3,7,8-TCDF	62.9	24 - 169	
2,3,7,8-TCDF	ND	0.00000153				13C-1,2,3,7,8-PeCDF	51.2	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000208				13C-2,3,4,7,8-PeCDF	47.2	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000198				13C-1,2,3,4,7,8-HxCDF	61.4	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000863				13C-1,2,3,6,7,8-HxCDF	57.7	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000828				13C-2,3,4,6,7,8-HxCDF	57.7	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000109				13C-1,2,3,7,8,9-HxCDF	47.5	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000158				13C-1,2,3,4,6,7,8-HpCDF	64.6	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000252				13C-1,2,3,4,7,8,9-HpCDF	61.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000113				13C-OCDF	52.2	17 - 157	
OCDF	ND	0.00000546			CRS	37Cl-2,3,7,8-TCDD	72.6	35 - 197	

Totals

Total	Conc.	DL
Total TCDD	ND	0.00000120
Total PeCDD	ND	0.00000588
Total HxCDD	ND	0.00000462
Total HpCDD	0.0000143	
Total TCDF	ND	0.00000257
Total PeCDF	ND	0.00000203
Total HxCDF	ND	0.00000118
Total HpCDF	ND	0.00000288

Footnotes

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:48

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
E	The reported value exceeds the calibration range of the instrument.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated Detection Limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that corresponds to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

TestAmerica
ANALYTICAL TESTING CORPORATION

SUBCONTRACT ORDER - PROJECT # IPI1291 28112, 0.1°C

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica - Irvine, CA	Alta Analytical
17461 Derian Avenue. Suite 100	1104 Windfield Way
Irvine, CA 92614	El Dorado Hills, CA 95762
Phone: (949) 261-1022	Phone :(916) 933-1640
Fax: (949) 260-3297	Fax: (916) 673-0106
Project Manager: Michele Chamberlin	

Standard TAT is requested unless specific due date is requested => Due Date:________________ Initials:__________

Analysis	Expiration	Comments
Sample ID: IPI1291-01 Water Sampled: 09/14/06 08:00		
1613-Dioxin-HR-Alta	09/21/06 08:00	J flags,17 cngnrs,no TEQ,ug/L,sub=Alta, Boeing EDD

Containers Supplied:
1 L Amber (IPI1291-01M)
1 L Amber (IPI1291-01N)

SAMPLE INTEGRITY:

All containers intact:	☑ Yes ☐ No	Sample labels/COC agree:	☑ Yes ☐ No
Custody Seals Present:	☐ Yes ☐ No N/A	Samples Preserved Properly:	☑ Yes ☐ No
Samples Received On Ice::	☑ Yes ☐ No	Samples Received at (temp):	0.1°C

Released By	Date	Time	Received By	Date	Time
~~Released By~~	9/15/06		[signature]	9/16/06	0830

SAMPLE LOG-IN CHECKLIST

Alta Project #: 28112 TAT Standard

Samples Arrival:	**Date/Time** 9/16/06 0830	**Initials:** MA	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 9/16/06 0920	**Initials:** FEB	**Location:** WR-2 **Shelf/Rack:** C-3

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other

Preservation:	Ice	Blue Ice	Dry Ice	None

Temp °C 0.1°	**Time:** 0840	**Thermometer ID:** DT-20

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill / Trk # 7911 2401 9182	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?		COC	Sample Container	None
Shipping Container	Alta	Client	Retain	Return	Dispose

Comments:

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 28112-1 of 1

Prep Due: 9/27/2006

Hold Due: 9/14/2007

Client: Test America-Irvine(TEACA01B)

Client Manager: Martha M. Maier

Method: EPA Method 1613 | PCDD/F (Tetra - Octa)

8381

Project Due: 10/7/2006

TAT: 21

Split Type:

Matrix: Aqueous

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☑	IPI1291-01		9/16/2006	WR-2	C-3

Instructions:

ugL; no TEQ

Report Options

Report Level:

EDD Type:

Report Group: Dioxins NoMDL

TEQ Type: :

Samples Reconciled By: TEH 9/17/06

Vial Box ID: Dray

Date Requested: 9/26/2006

HRMSGENAR.rpt

Percent Solids

Alta Analytical Laboratory
HRMS Services
El Dorado Hills, CA 95762

Project: 28112-1

Sample ID	Chemist/Date TEH 9/18/06		Chemist/Date TEH 9/19/06	Comments
	Boat Wt.	**Sample + Boat Wt.**	**Residue + Boat Wt.**	
1	1.31	11.61	1.31	pH: 8 Cl: 0ppm

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

Aqueous Sample Size Determination

ALTA
Alta Analytical Laboratory
HRMS Services
El Dorado Hills, CA 95762

Project: 28112-1

	Chemist/Date	Chemist/Date	
	TEH 9/18/06	TEH 9/19/06	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
1	1511.92	499.99	1011.93

Procedure:
- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

** Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

L:/QA/Forms/Extractions/AqWt.pub 9/2005 rmh

Project: 28112

Extraction Set: 8381

Chemist: T. HORNER 9/18/06

Method(s): EPA Method 1613 | 2,3,7,8s Only

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_8381_MB001	NA	1.00	TEH 9/18/06	TEH MOH 9/19/06	NA	TEH 9/19/06	TEH 9/19/06	TEH 9/19/06	TEH FEB 9/19/06
☐	0_8381_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
☐	28112_8381_001	↓	1.012	↓	↓	↓	↓		↓	↓

IS Name V2
PCDD/F 10µl 060110A
PCB
PAH

NS Name V4
PCDD/F 10µl 060110B
PCB
PAH

CRS Name V3
PCDD/F 10µl 060110C
PCB
PAH

RS Name V3
PCDD/F 10µl 060110D
PCB
PAH

Cycle Time
Start: 9/18 1230
Stop: 9/19 0430

APP.: SEFUN SOX SDS
SOLV: TOL
Other: SPE
Final Volume(s): 20µl C14

Check Out:
Chemist: TEH 9/18/06

Check-In:
Chemist: Empty 9/18/06

Comments:

CALIBRATION DATA

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:   CCAL ID: ST060920C2-1

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.37	7.8 - 12.9
						8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.7	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.8	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.9	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.1	43.0 - 58.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	93.2	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.51	8.4 - 12.0
						8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.3	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	48.6	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.4	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.4	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	47.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.6	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.8	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.3	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.8	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: M)

Date: 9/20/06

FORM 4B

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	99.0	82.0 - 121.0
						85.0 - 117.0 (5)
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	92.4	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	100	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	111	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	113	72.0 - 138.0
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	235	96.0 - 415.0
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	110	71.0 - 140.0
						76.0 - 131.0 (5)
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	102	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	97.6	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	111	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	98.9	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.4	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	102	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	109	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	111	77.0 - 129.0
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	216	96.0 - 415.0
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					9.32	7.9 - 12.7
						8.3 - 12.1 (5)

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613.

(4) No ion abundance ratio; report concentration found.

(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.

Analyst: M

Date: 9/20/06

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Instrument ID: VG-5   Initial Calibration Date: 3/22/06

RT Window Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

DB-5 IS Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:13	1,3,6,8-TCDF (F)	20:07
1,2,8,9-TCDD (L)	27:25	1,2,8,9-TCDF (L)	27:35
1,2,4,7,9-PeCDD (F)	29:12	1,3,4,6,8-PeCDF (F)	27:31
1,2,3,8,9-PeCDD (L)	31:49	1,2,3,8,9-PeCDF (L)	32:04
1,2,4,6,7,9-HxCDD (F)	33:16	1,2,3,4,6,8-HxCDF (F)	32:43
1,2,3,7,8,9-HxCDD (L)	35:09	1,2,3,7,8,9-HxCDF (L)	35:31
1,2,3,4,6,7,9-HpCDD (F)	37:37	1,2,3,4,6,7,8-HpCDF (F)	37:14
1,2,3,4,6,7,8-HpCDD (L)	38:40	1,2,3,4,7,8,9-HpCDF (L)	39:15

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

===

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT BETWEEN COMPARED PEAKS (1)
<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: (M)

Date: 9/20/06

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#1   Analysis Date: 20-SEP-06 Time: 15:15:02

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.027	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.173	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.211	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.222	1.000-1.567

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: MJ

Date: 9/20/06

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#1   Analysis Date: 20-SEP-06 Time: 15:15:02

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.964	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.968	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.989	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.992	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.060	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.100	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.191	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.197	1.032-1.311

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: MN

Date: 9/20/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.: CCAL ID: ST060920C2-1

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.37	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.7	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.8	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.9	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.1	40.0 - 60.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	93.2	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.51	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.3	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	48.6	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.4	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.4	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	47.2	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.6	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.8	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.3	40.0 - 60.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.8	80.0 - 120

Analyst: MS

Date: 9/20/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#1   Analysis Date: 20-SEP-06 Time: 15:15:02

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	99.0	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	92.4	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	100	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	111	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	113	70.0 - 130
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	235	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	110	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	102	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	97.6	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	111	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	98.9	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.4	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	102	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	109	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	111	70.0 - 130
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	216	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					9.32	7.00 - 13.0

Analyst: MM

Date: 9/20/06

Client ID: 1613 CS3 060110H   Filename: 060920C2   S:1   Acq:20-SEP-06 15:15:02   ConCal: ST060920C2-1
Lab ID: ST060920C2-1   GC Column ID: db-5   ICal: 1613VG5-3-22-06   wt/vol: 1.000   EndCAL: ST060920C2-2

	Name	Resp	RA		RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	5.49e+06	0.79	y	1.08	26:26	9.3694		*	2.5	*
	1,2,3,7,8-PeCDD	2.26e+07	0.62	y	1.03	31:26	45.386		*	2.5	*
	1,2,3,4,7,8-HxCDD	1.85e+07	1.22	y	1.13	34:44	47.733		*	2.5	*
	1,2,3,6,7,8-HxCDD	2.14e+07	1.23	y	1.03	34:51	43.765		*	2.5	*
	1,2,3,7,8,9-HxCDD	2.00e+07	1.23	y	1.12	35:09	43.917		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	1.97e+07	1.05	y	1.02	38:39	49.121		*	2.5	*
	OCDD	3.40e+07	0.89	y	1.06	41:51	93.250		*	2.5	*
	2,3,7,8-TCDF	7.22e+06	0.76	y	1.06	25:31	9.5148		*	2.5	*
	1,2,3,7,8-PeCDF	3.50e+07	1.55	y	1.01	30:09	49.274		*	2.5	*
	2,3,4,7,8-PeCDF	3.35e+07	1.58	y	1.02	31:08	48.551		*	2.5	*
	1,2,3,4,7,8-HxCDF	2.90e+07	1.21	y	1.15	33:53	48.386		*	2.5	*
	1,2,3,6,7,8-HxCDF	3.14e+07	1.22	y	1.14	34:00	48.378		*	2.5	*
	2,3,4,6,7,8-HxCDF	2.85e+07	1.21	y	1.17	34:36	47.177		*	2.5	*
	1,2,3,7,8,9-HxCDF	2.43e+07	1.19	y	1.10	35:31	48.599		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	2.67e+07	1.03	y	1.31	37:14	48.759		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	2.25e+07	1.02	y	1.33	39:15	48.273		*	2.5	*
	OCDF	3.82e+07	0.90	y	0.91	42:03	99.847		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	51.814	52.279		*	*
Total Penta-Dioxins	136.21	136.60		*	*
Total Hexa-Dioxins	187.41	188.23		*	*
Total Hepta-Dioxins	97.872	98.813		*	*
Total Tetra-Furans	31.628	32.078		*	*
Total Penta-Furans	185.47	186.67		*	*
Total Hexa-Furans	245.23	247.32		*	*
Total Hepta-Furans	97.436	98.202		*	*

	Name	Resp	RA		RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	5.42e+07	0.78	y	1.09	26:25	98.980	99.0	
IS	13C-1,2,3,7,8-PeCDD	4.84e+07	0.62	y	1.04	31:25	92.393	92.4	
IS	13C-1,2,3,4,7,8-HxCDD	3.42e+07	1.23	y	0.83	34:44	100.32	100	
IS	13C-1,2,3,6,7,8-HxCDD	4.74e+07	1.25	y	1.04	34:50	110.78	111	
IS	13C-1,2,3,4,6,7,8-HpCDD	3.95e+07	1.06	y	0.85	38:39	112.88	113	
IS	13C-OCDD	6.91e+07	0.89	y	0.71	41:50	235.45	118	
IS	13C-2,3,7,8-TCDF	7.14e+07	0.79	y	0.96	25:30	110.02	110	
IS	13C-1,2,3,7,8-PeCDF	7.04e+07	1.58	y	1.02	30:08	102.23	102	
IS	13C-2,3,4,7,8-PeCDF	6.74e+07	1.58	y	1.02	31:07	97.609	97.6	
IS	13C-1,2,3,4,7,8-HxCDF	5.24e+07	0.52	y	1.14	33:52	111.18	111	
IS	13C-1,2,3,6,7,8-HxCDF	5.69e+07	0.52	y	1.40	33:60	98.914	98.9	
IS	13C-2,3,4,6,7,8-HxCDF	5.16e+07	0.52	y	1.26	34:35	99.387	99.4	
IS	13C-1,2,3,7,8,9-HxCDF	4.57e+07	0.50	y	1.08	35:30	102.47	102	
IS	13C-1,2,3,4,6,7,8-HpCDF	4.18e+07	0.45	y	0.93	37:13	108.64	109	
IS	13C-1,2,3,4,7,8,9-HpCDF	3.51e+07	0.45	y	0.77	39:14	111.35	111	
IS	13C-OCDF	8.40e+07	0.90	y	0.94	42:03	216.24	108	
C/Up	37Cl-2,3,7,8-TCDD	3.62e+06			0.77	26:25	9.3191	23.3	
RS/RT	13C-1,2,3,4-TCDD	5.02e+07	0.80	y	1.00	25:42	100.00		
RS	13C-1,2,3,4-TCDF	6.77e+07	0.80	y	1.00	23:56	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	4.11e+07	1.26	y	1.00	35:08	100.00		

Integrations by Analyst: MS
Date: 9/20/06

Reviewed by Analyst: ________
Date: ________________

Alta Analytical Laboratory - Injection Log Run file: 060920C2 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060920C2	1	ST060920C2-1	MAS	20-SEP-06	15:15:02	ST060920C2-1	ST060920C2-2
060920C2	2	0_8381_OPR001	MAS	20-SEP-06	16:04:31	ST060920C2-1	ST060920C2-2
060920C2	3	0_8382_OPR001	MAS	20-SEP-06	16:54:06	ST060920C2-1	ST060920C2-2
060920C2	4	SOLVENT BLANK	MAS	20-SEP-06	17:43:41	ST060920C2-1	ST060920C2-2
060920C2	5	0_8381_MB001	MAS	20-SEP-06	18:33:15	ST060920C2-1	ST060920C2-2
060920C2	6	0_8382_MB001	MAS	20-SEP-06	19:22:48	ST060920C2-1	ST060920C2-2
060920C2	7	28101_8381_001	MAS	20-SEP-06	20:12:26	ST060920C2-1	ST060920C2-2
060920C2	8	28101_8381_002	MAS	20-SEP-06	21:02:04	ST060920C2-1	ST060920C2-2
060920C2	9	28110_8381_001	MAS	20-SEP-06	21:51:37	ST060920C2-1	ST060920C2-2
060920C2	10	28111_8381_001	MAS	20-SEP-06	22:41:10	ST060920C2-1	ST060920C2-2
060920C2	11	28112_8381_001	MAS	20-SEP-06	23:30:43	ST060920C2-1	ST060920C2-2
060920C2	12	28113_8381_001	MAS	21-SEP-06	00:20:15	ST060920C2-1	ST060920C2-2
060920C2	13	28114_8381_001	MAS	21-SEP-06	01:09:54	ST060920C2-1	ST060920C2-2
060920C2	14	28074_8382_001	MAS	21-SEP-06	01:59:27	ST060920C2-1	ST060920C2-2
060920C2	15	SOLVENT BLANK	MAS	21-SEP-06	02:48:56	ST060920C2-1	ST060920C2-2
060920C2	16	ST060920C2-2	MAS	21-SEP-06	03:38:30	ST060920C2-1	ST060920C2-2

Alta Analytical Laboratory
El Dorado Hills, CA 95762

CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST060920C2-1 End Calibration ID: ST0920C2-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	✓	✓
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated?	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Standards named correctly?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	y	n

	Beg.	End
Mass resolution > 10,000?	✓	✓
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	✓
Manual integrations included?	✓	✓
8280 CS1 Ending Standard		
-Ratios within limits		NA
-S/N > 2.5:1		
-CS1 within 12-hour clock		

Comments:

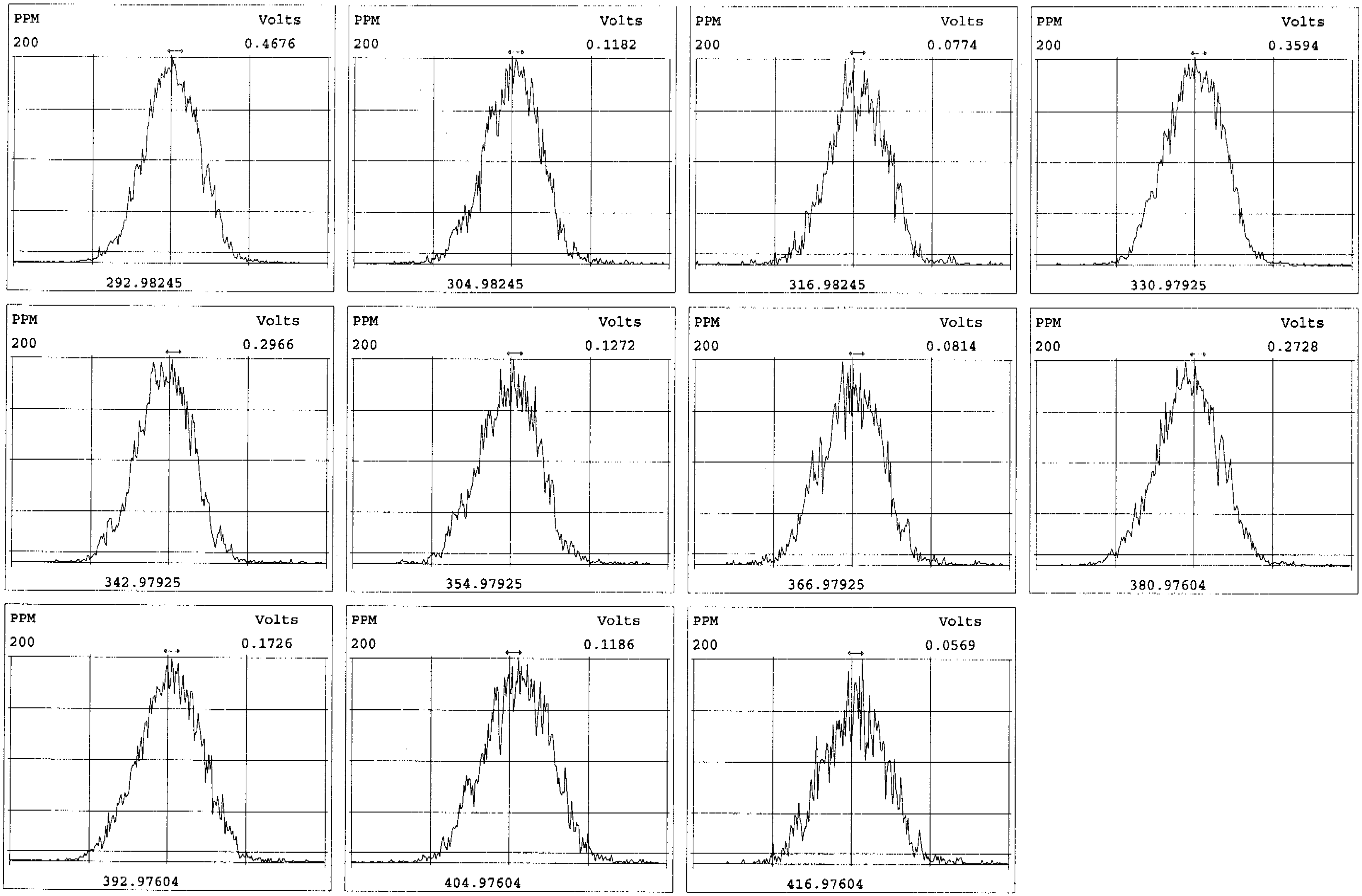
Reviewed by: 9/21/06
Initials & Date

** Ending standard criteria applicable to 8290 only.*

L:\QA\Forms\Calib.Stds.Review 5/2006 rmh

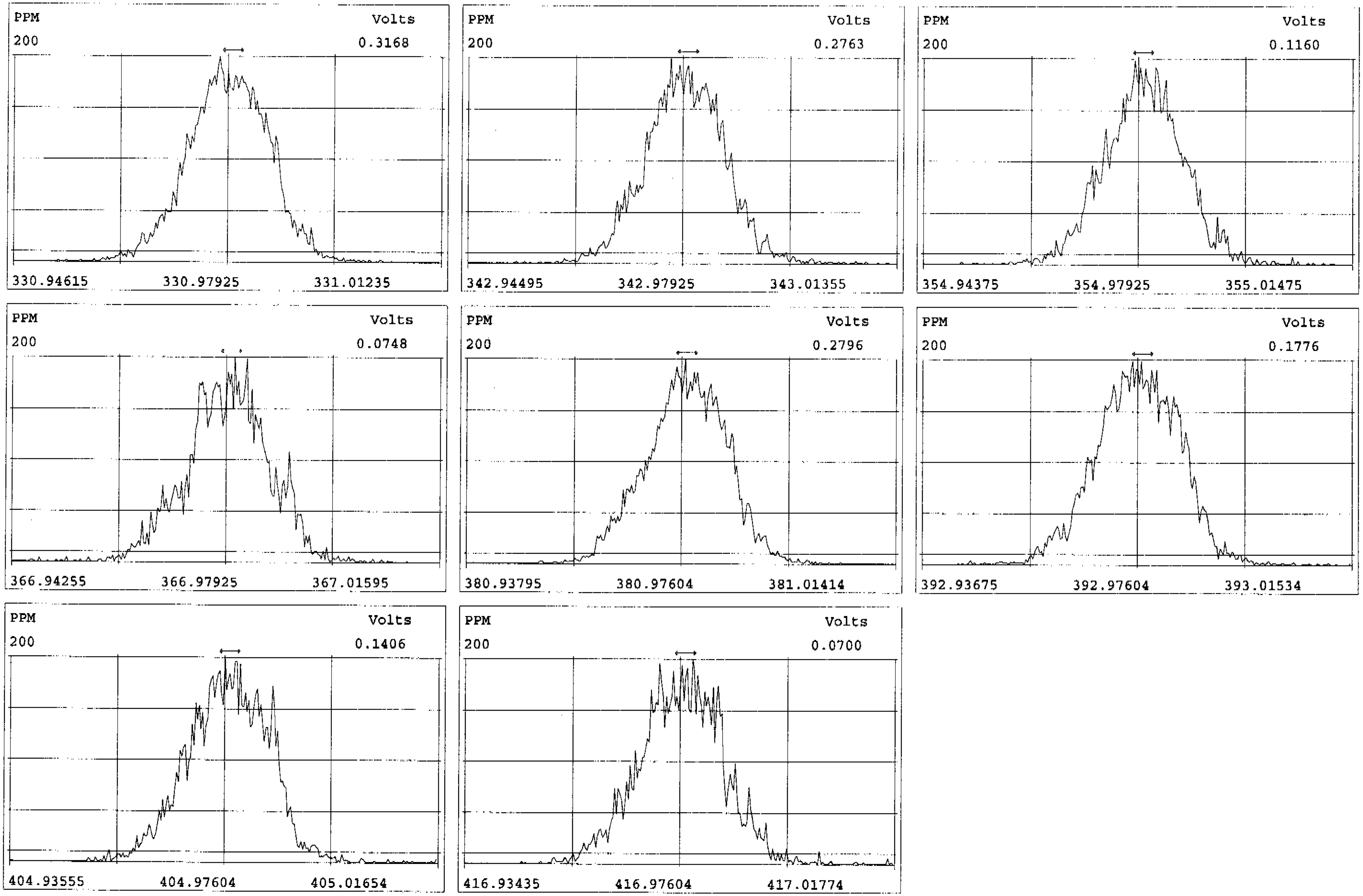
Peak Locate Examination:20-SEP-2006:15:13 File:060920C2

Experiment:OCDD_DB5 Function:1 Reference:PFK



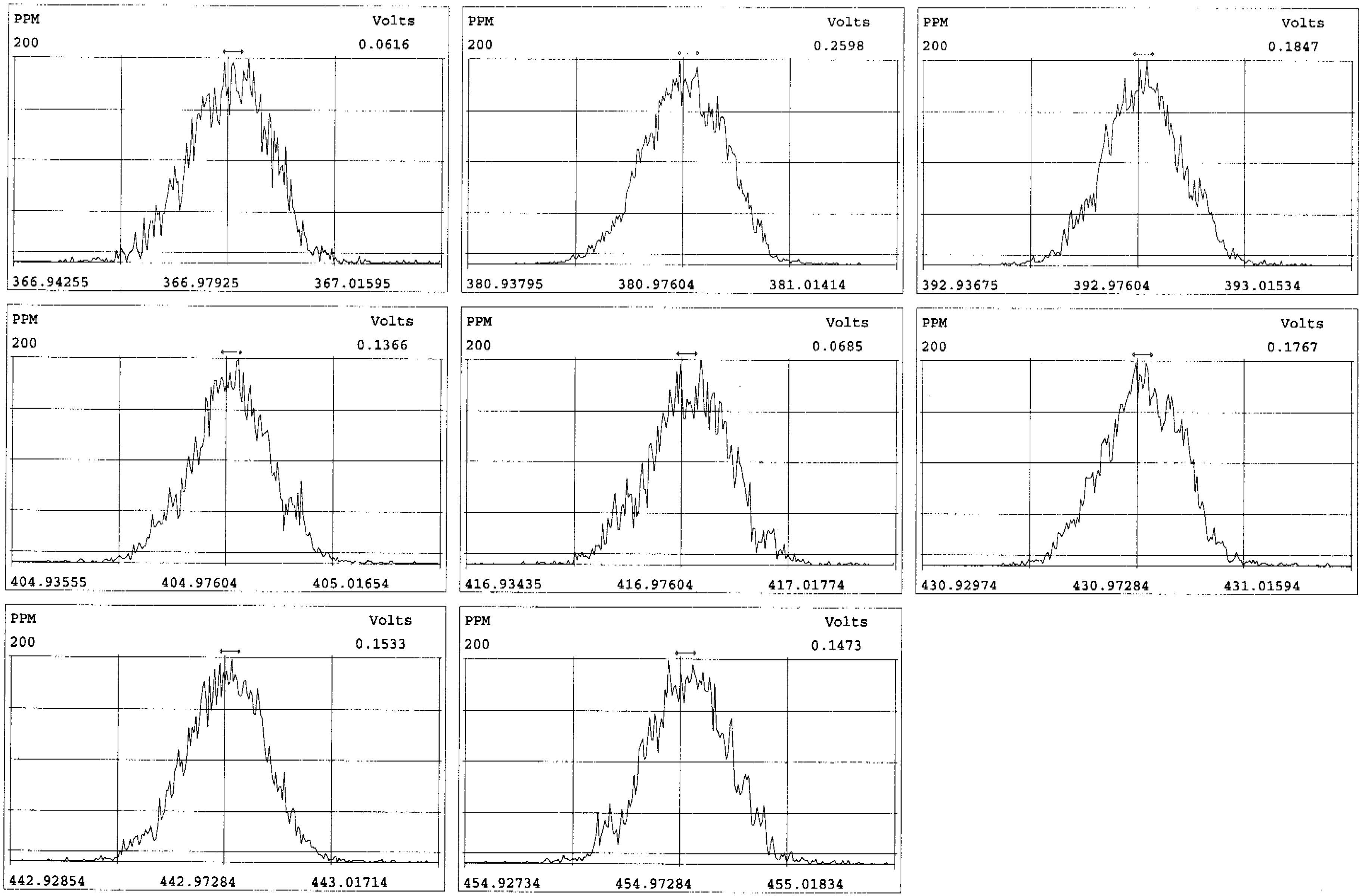
Peak Locate Examination:20-SEP-2006:15:13 File:060920C2

Experiment:OCDD_DB5 Function:2 Reference:PFK



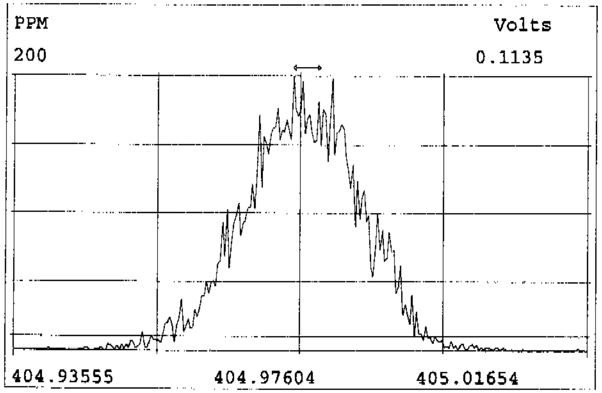
Peak Locate Examination:20-SEP-2006:15:14 File:060920C2

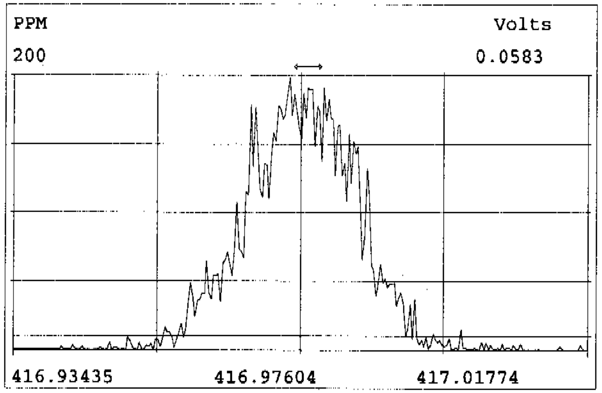
Experiment:OCDD_DB5 Function:3 Reference:PFK

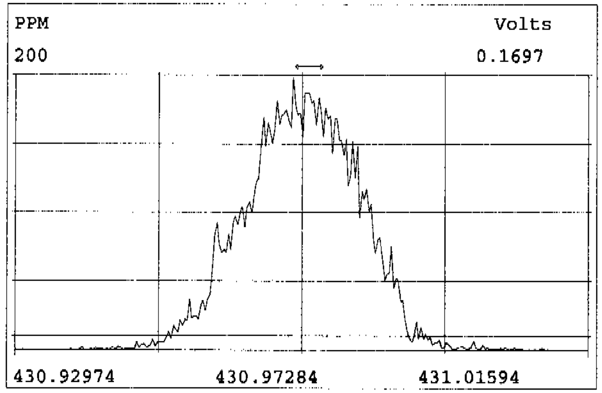


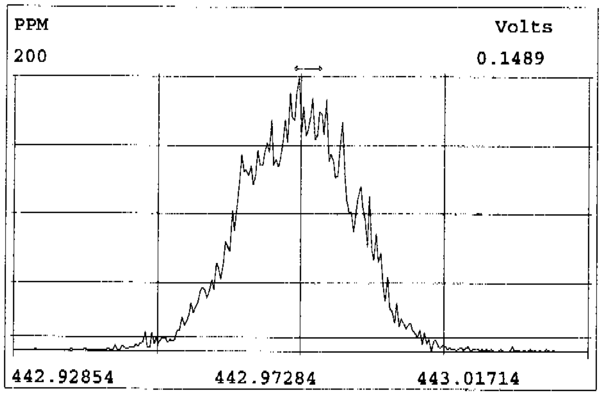
Peak Locate Examination:20-SEP-2006:15:14 File:060920C2

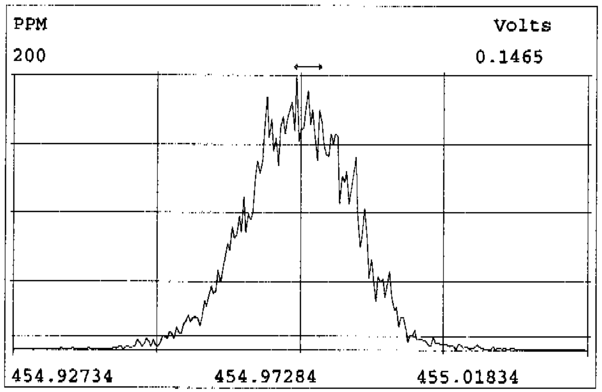
Experiment:OCDD_DB5 Function:4 Reference:PFK

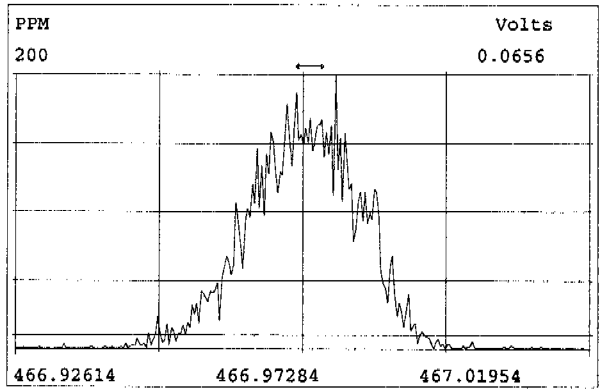


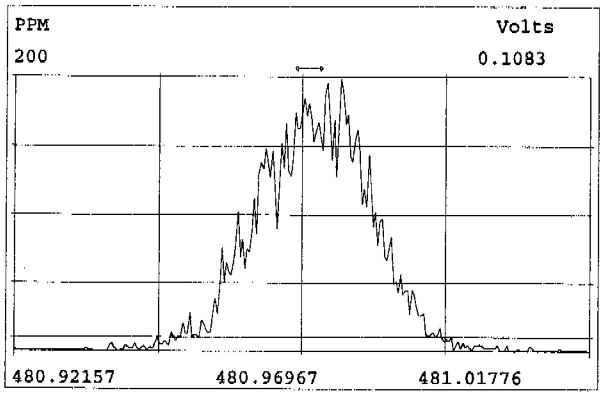






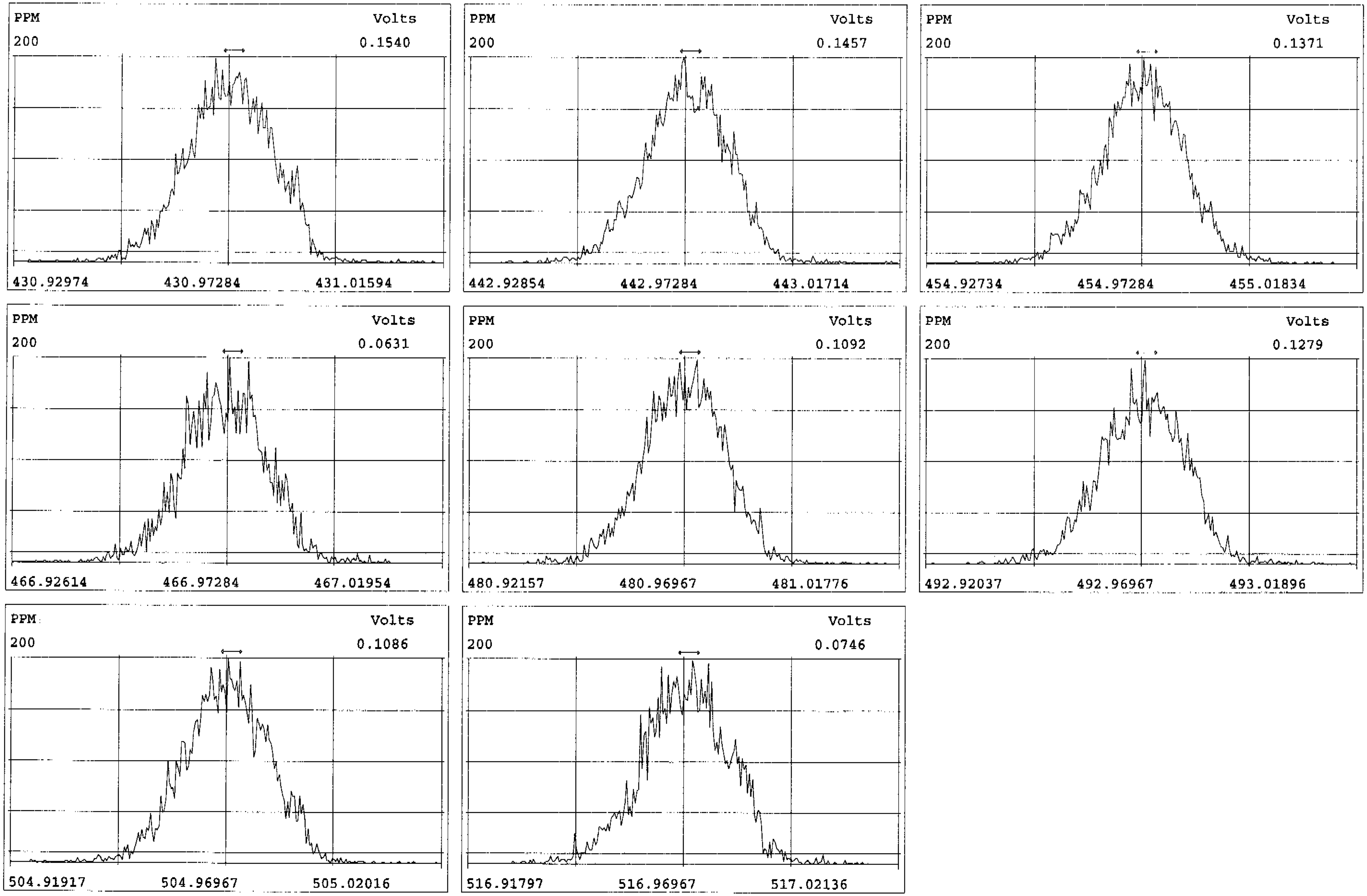




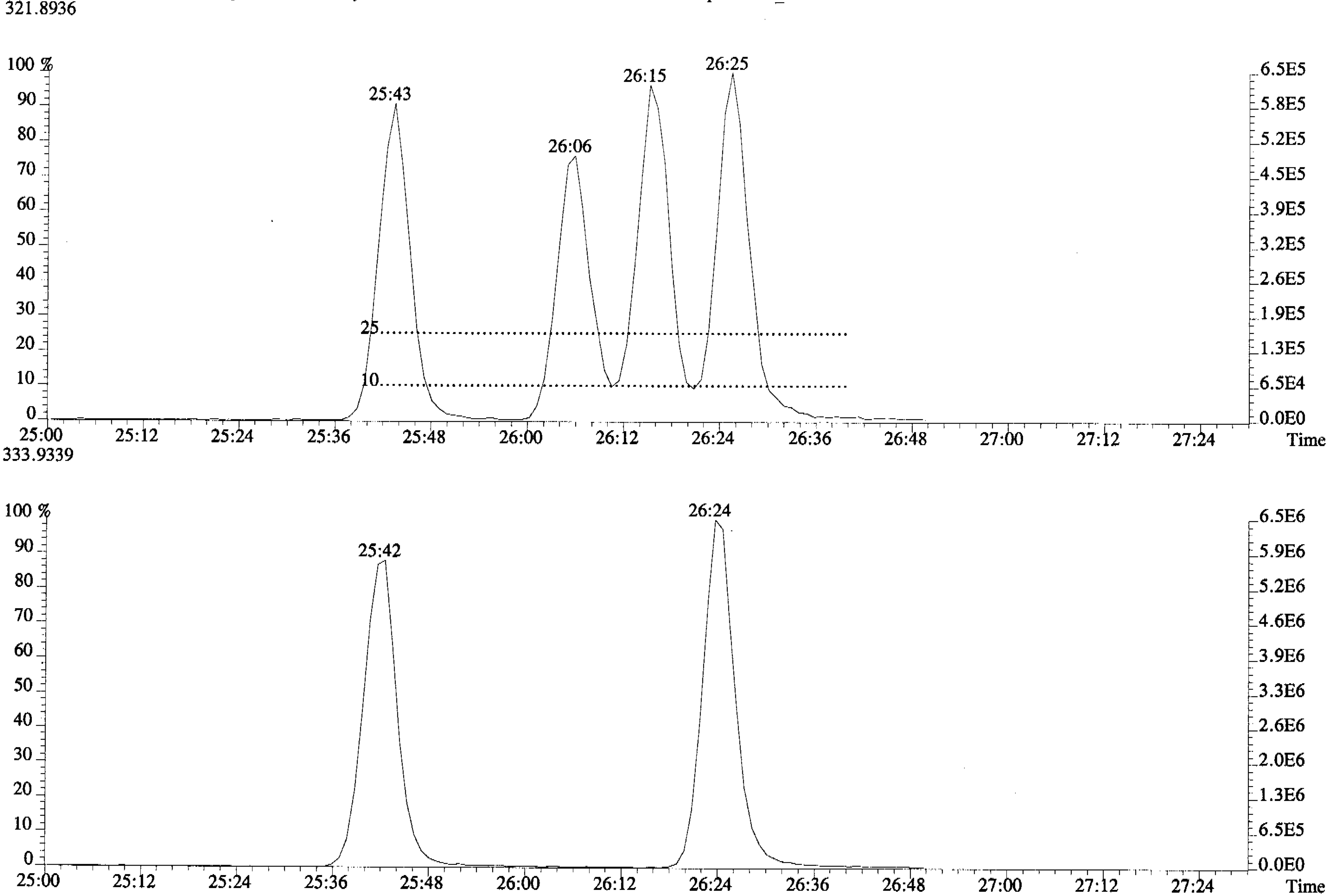


Peak Locate Examination:20-SEP-2006:15:14 File:060920C2

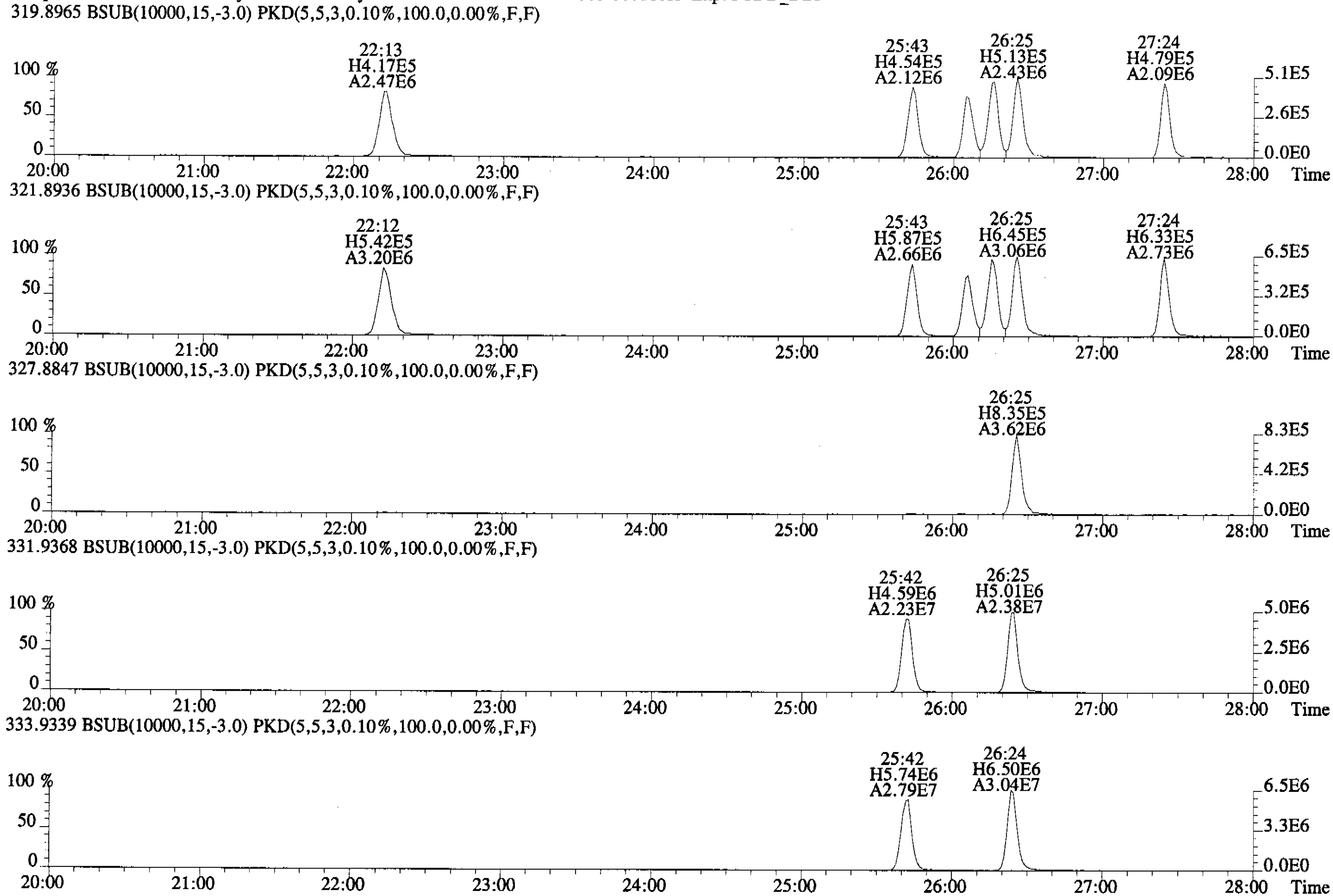
Experiment:OCDD_DB5 Function:5 Reference:PFK



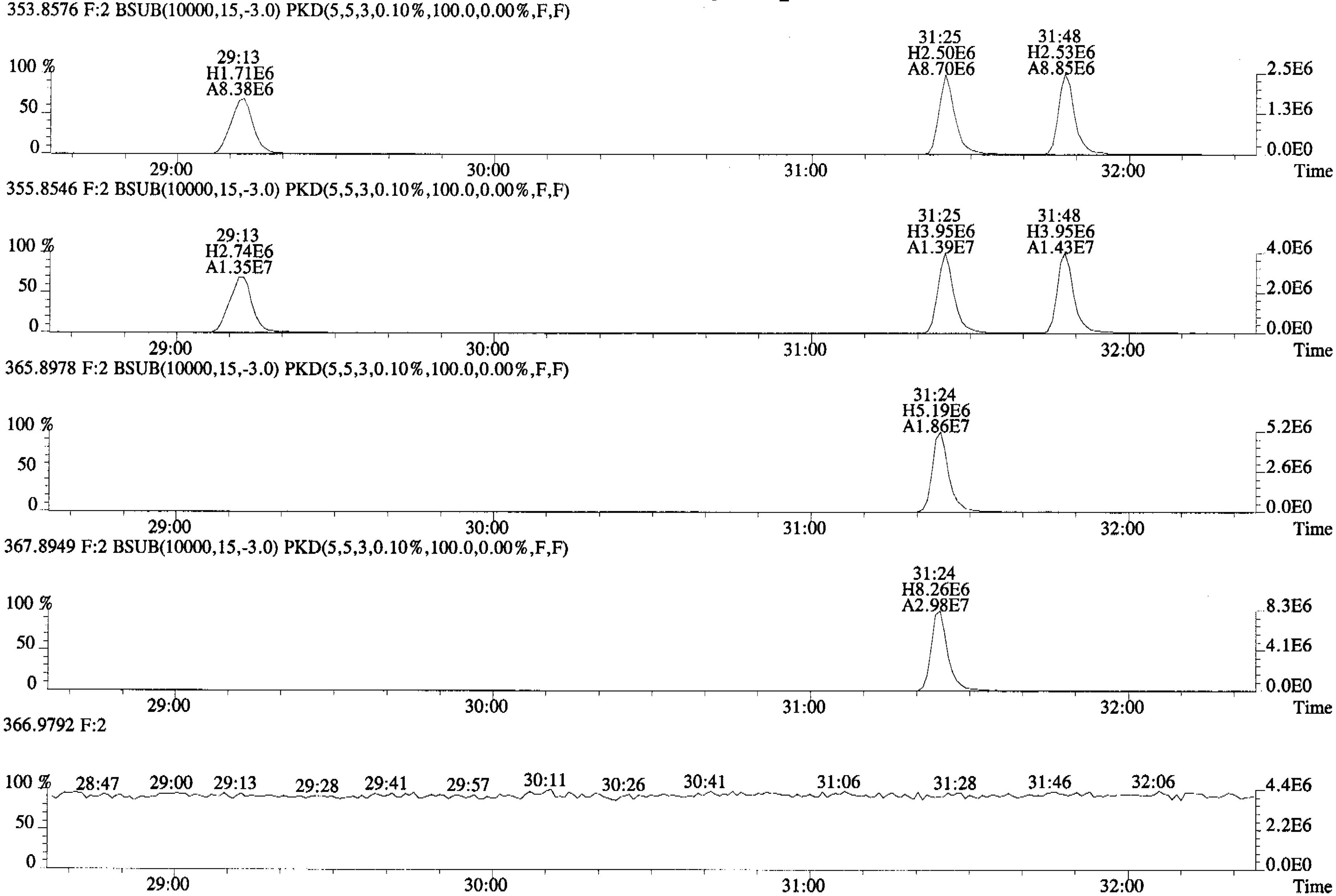
File:060920C2 #1-470 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



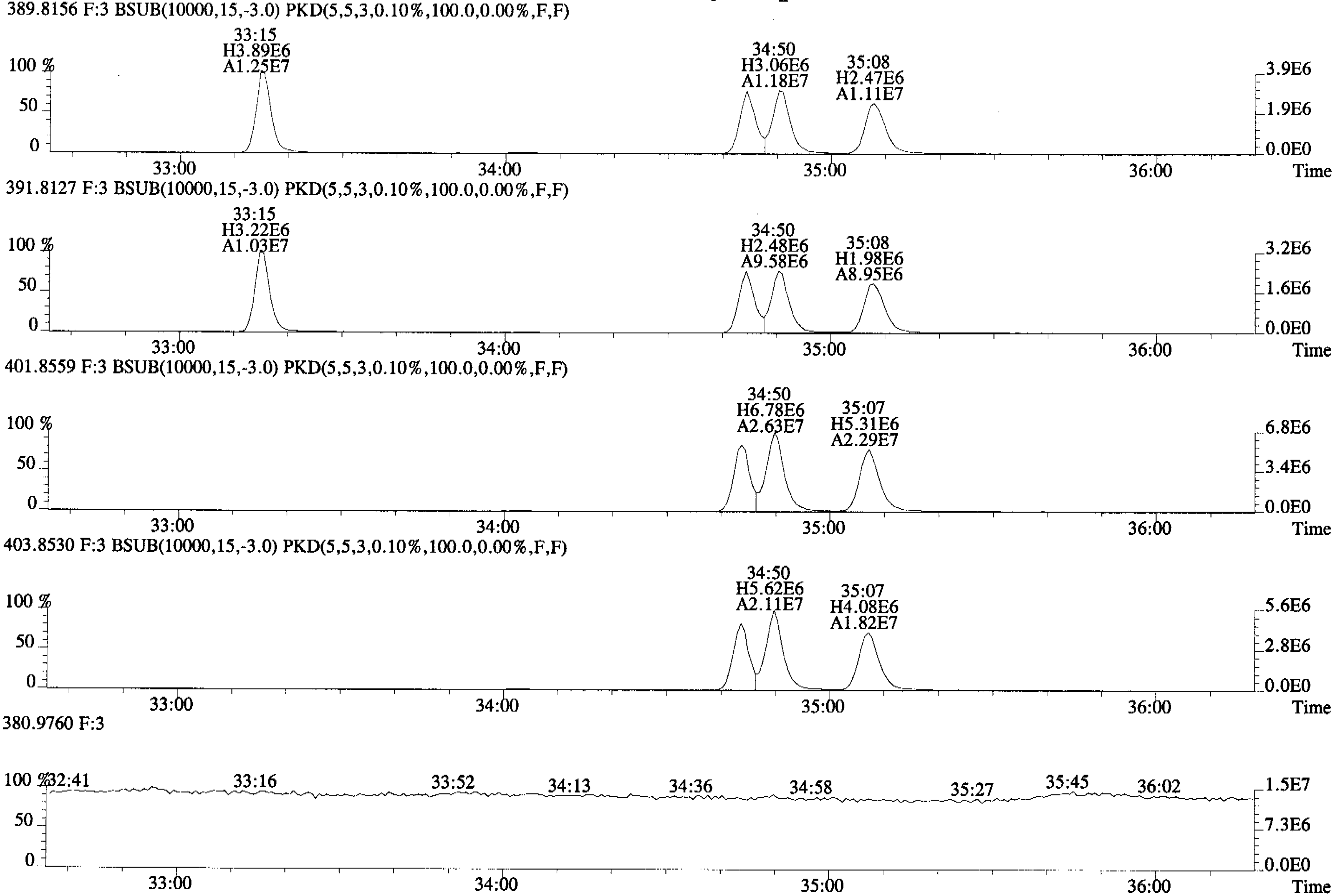
File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



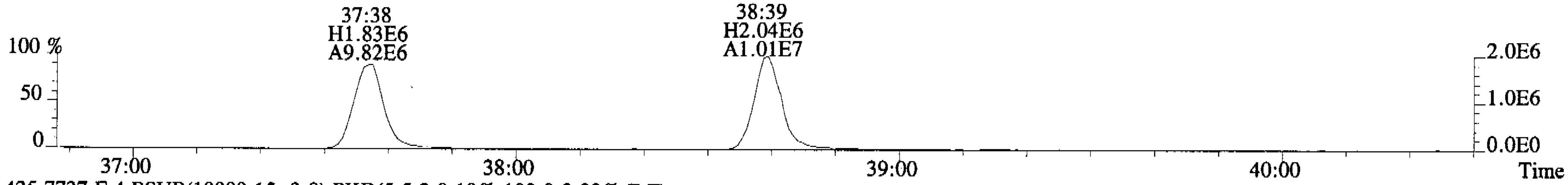
File:060920C2 #1-324 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



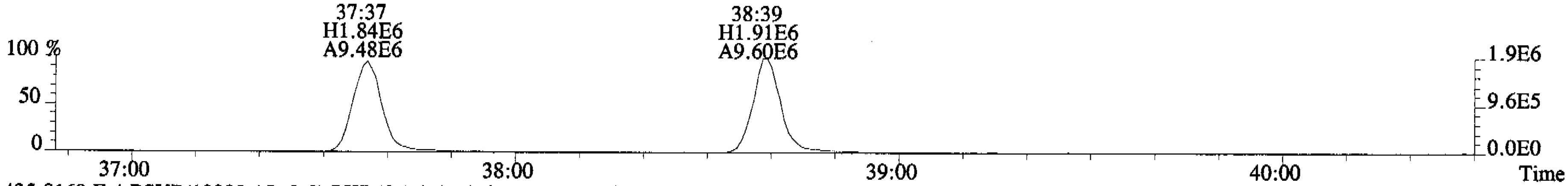
File:060920C2 #1-363 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



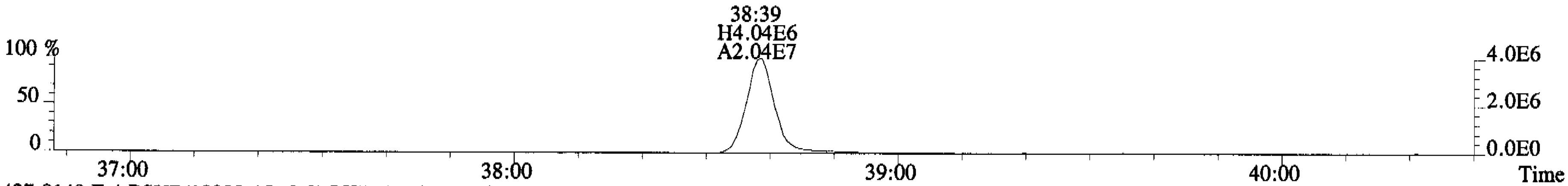
File:060920C2 #1-399 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



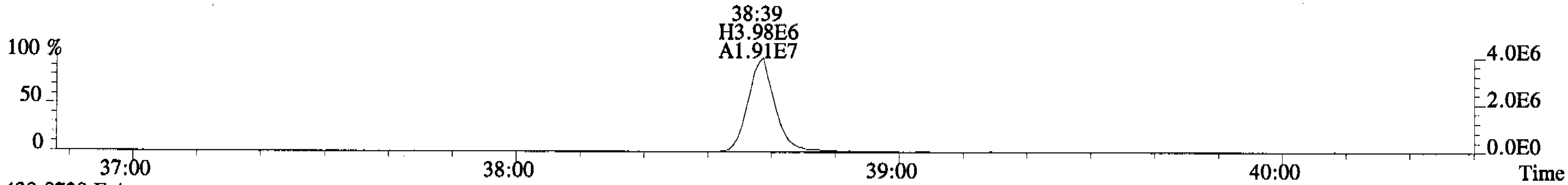
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



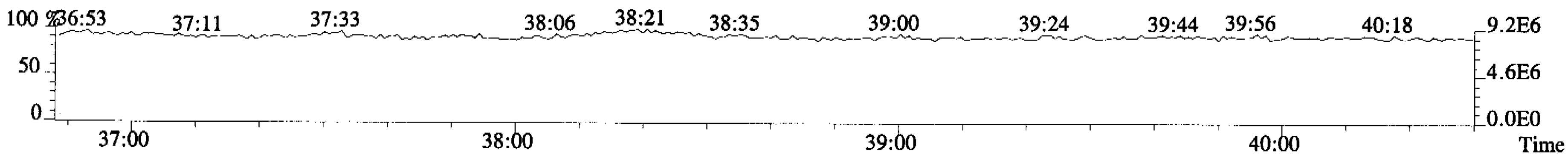
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



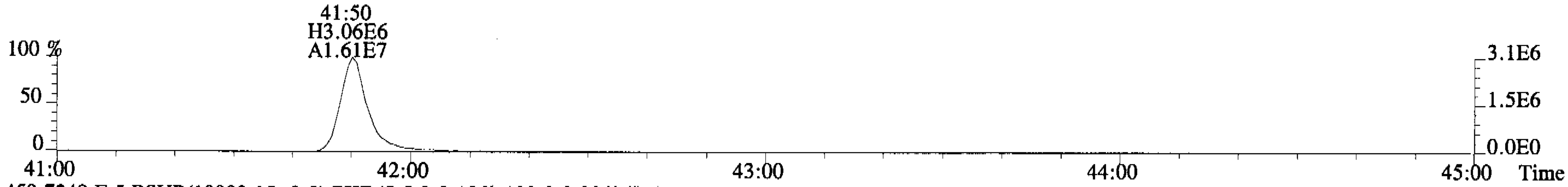
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



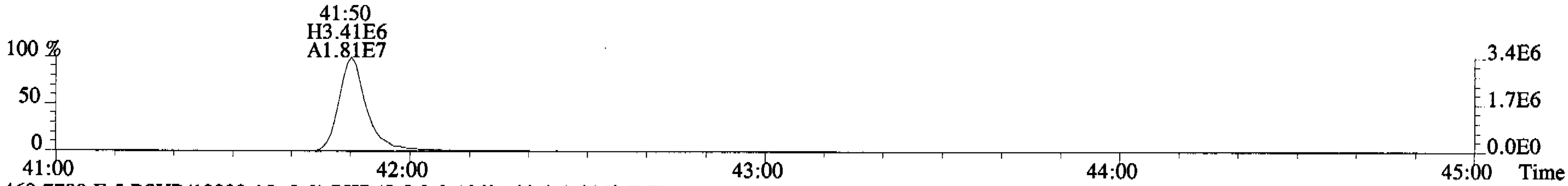
430.9728 F:4



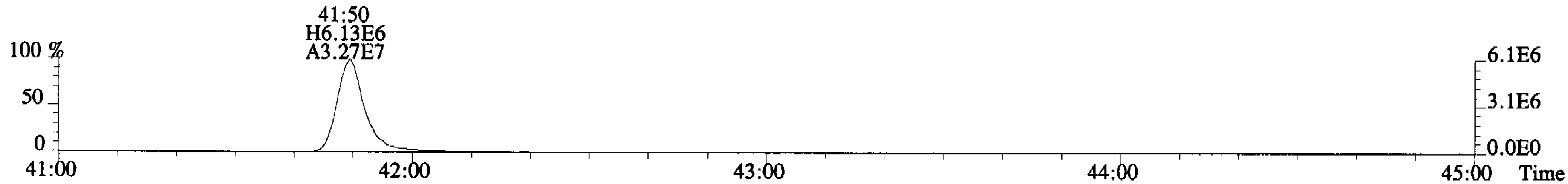
File:060920C2 #1-345 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



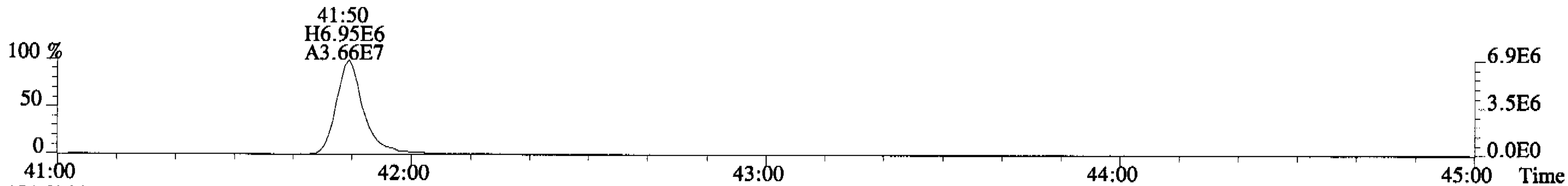
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



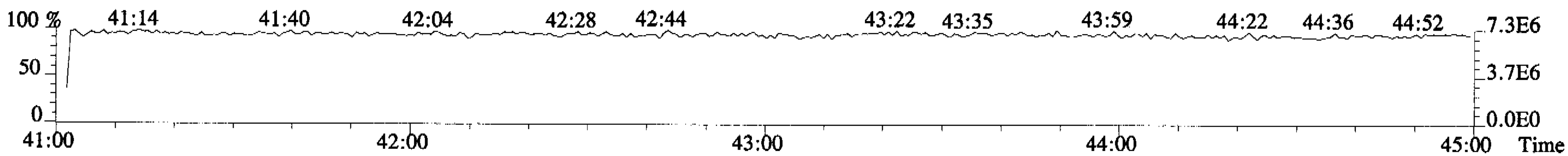
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



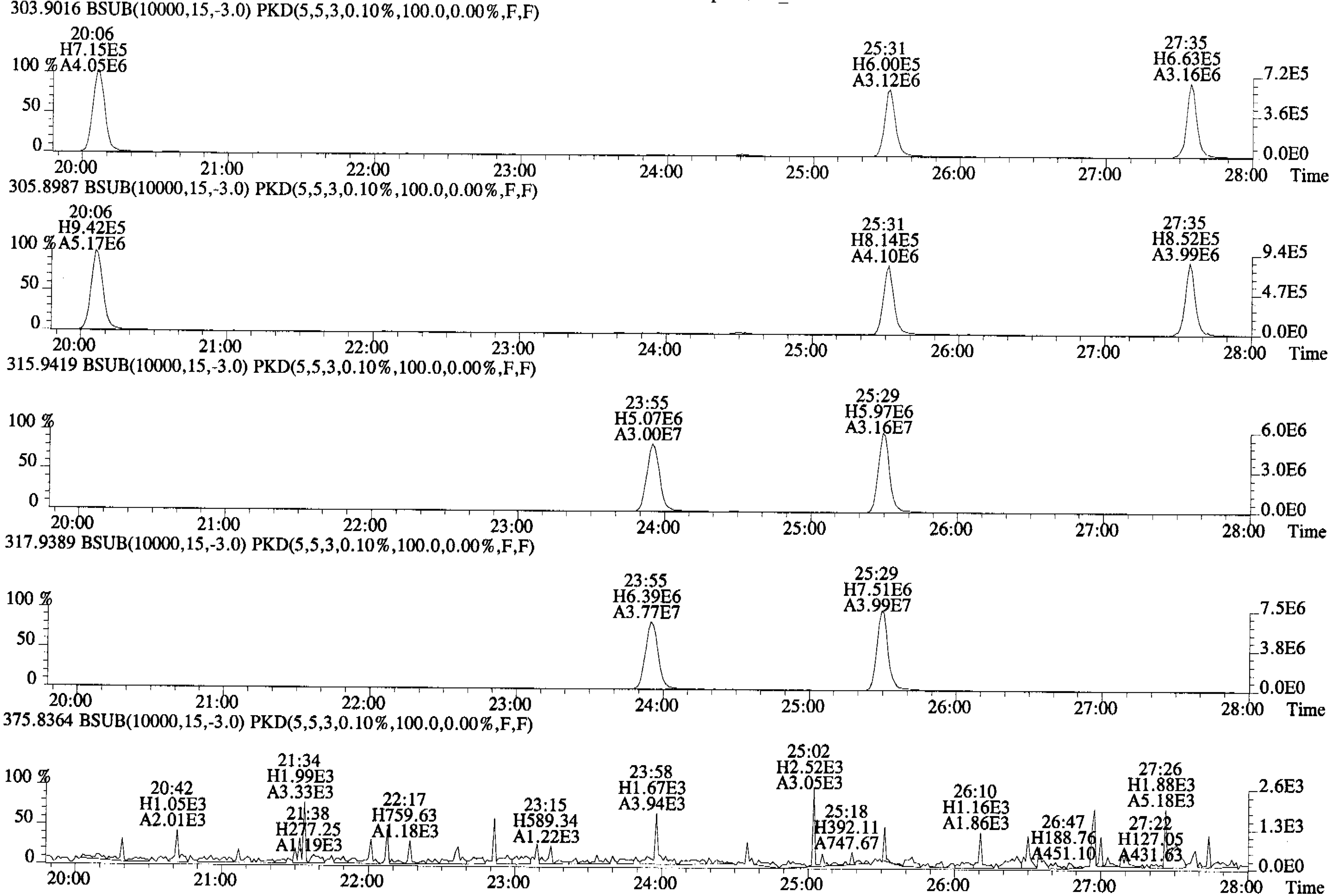
471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



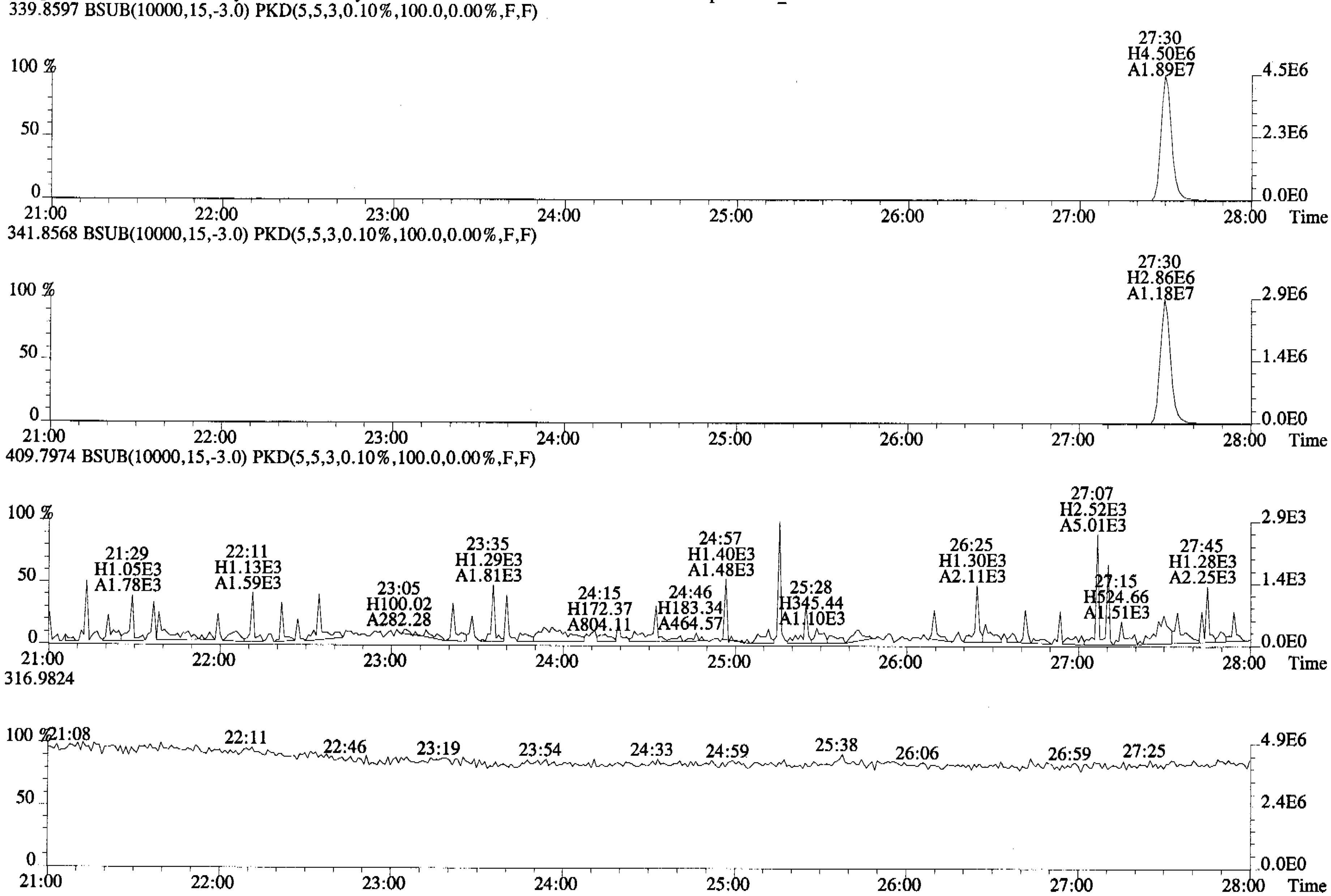
454.9728 F:5



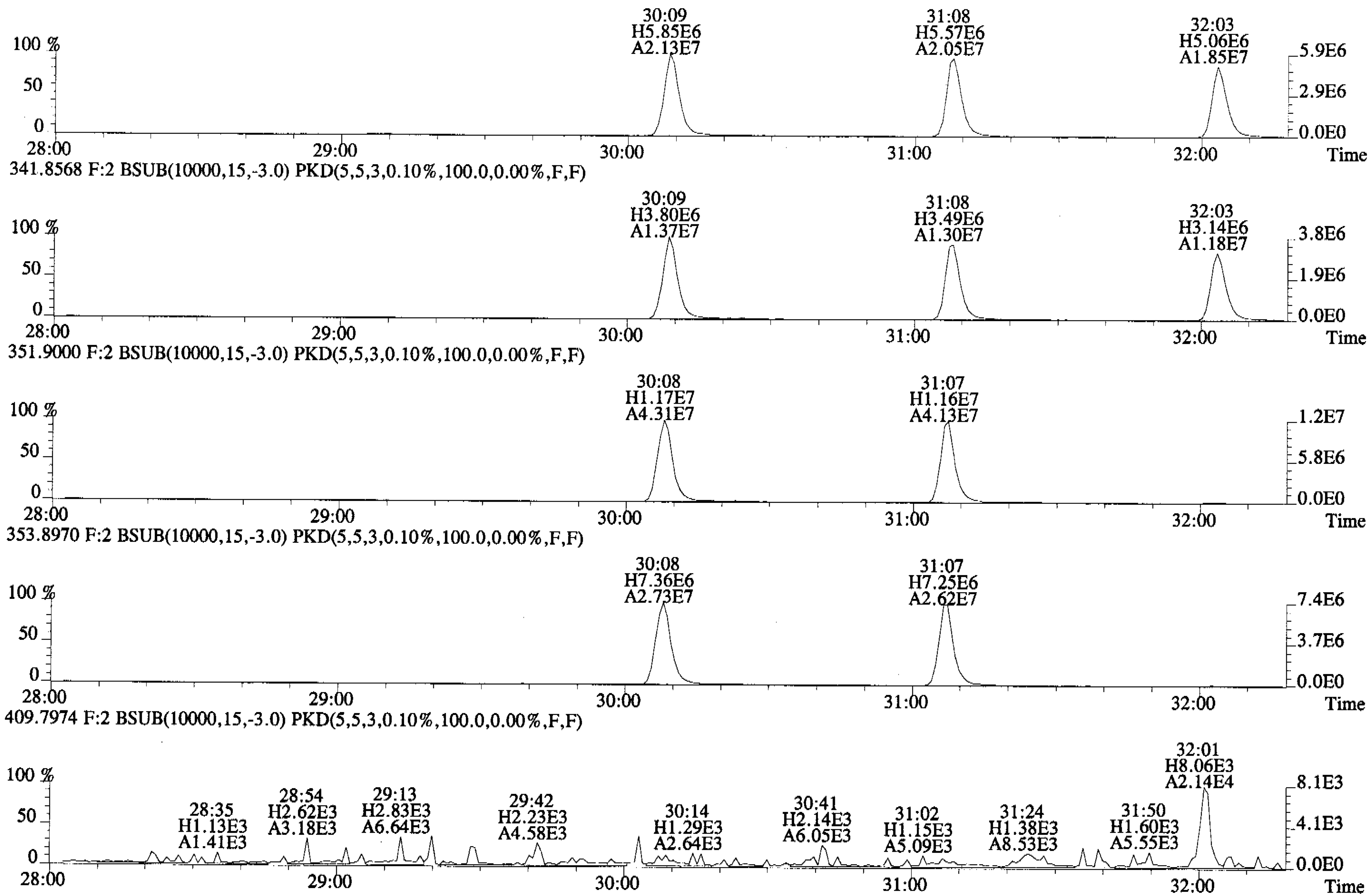
File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5

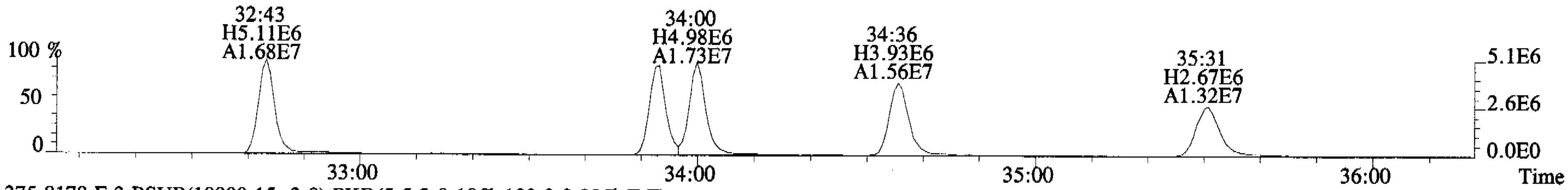


File:060920C2 #1-324 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

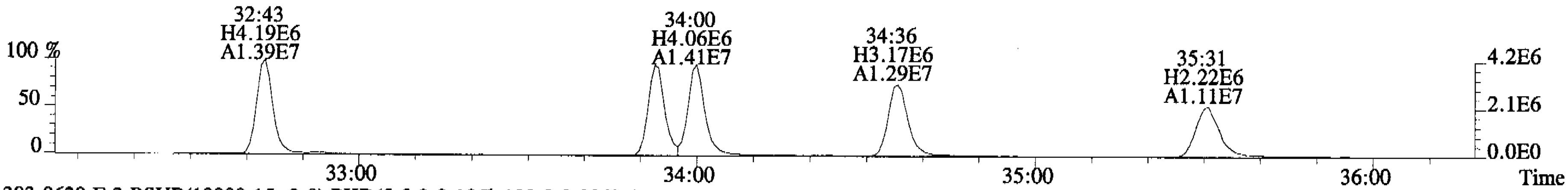


File:060920C2 #1-363 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5

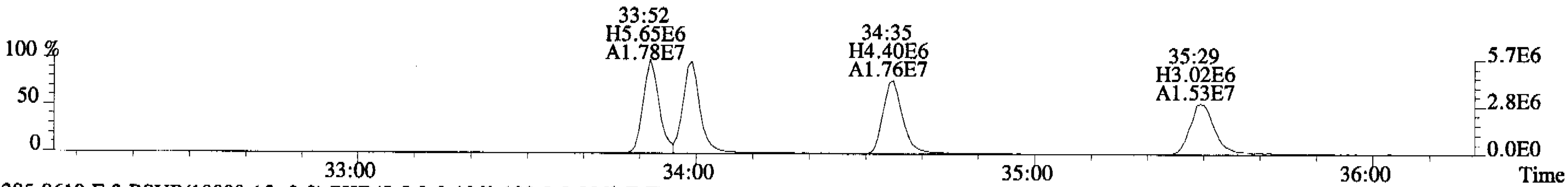
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



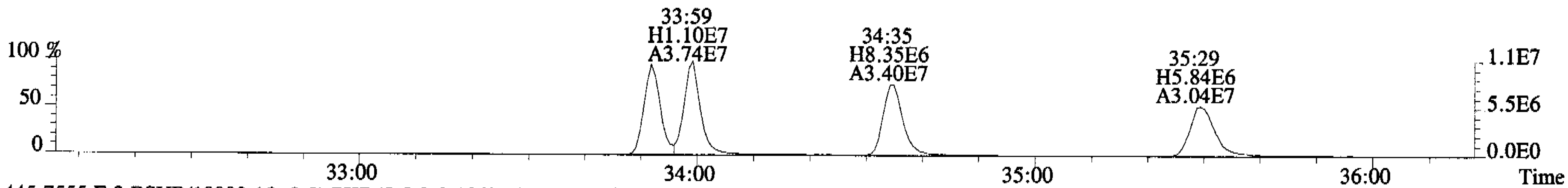
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



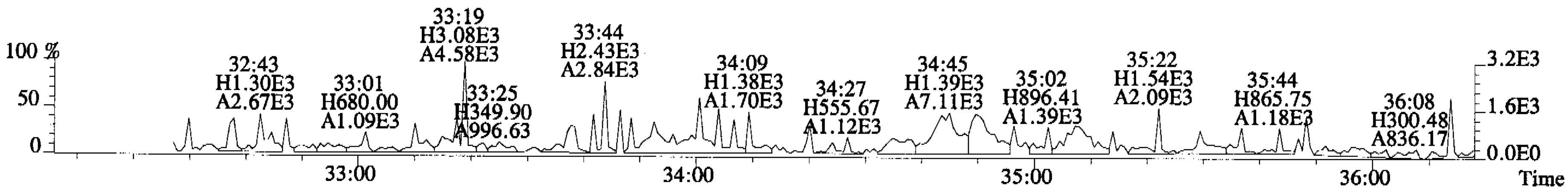
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



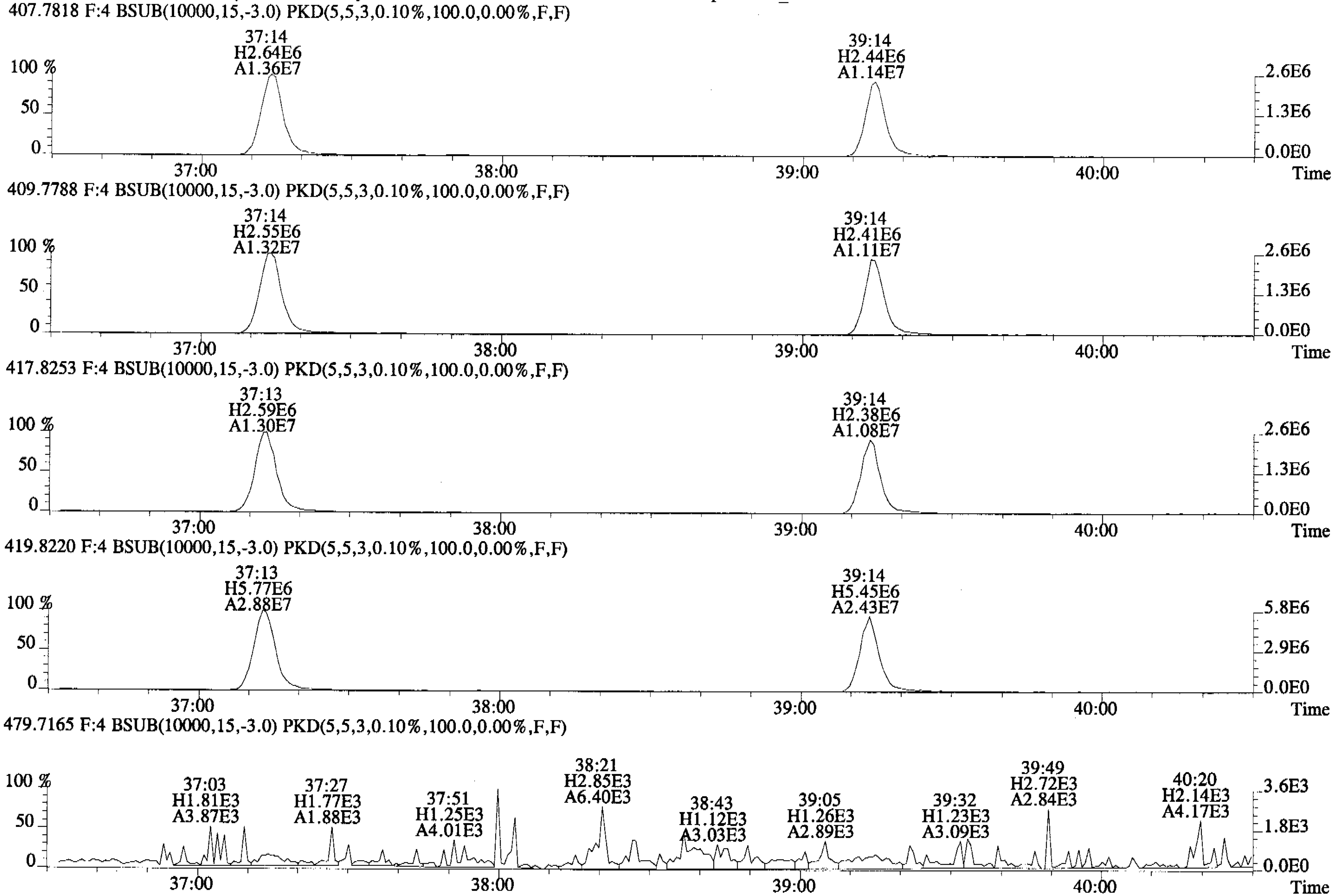
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



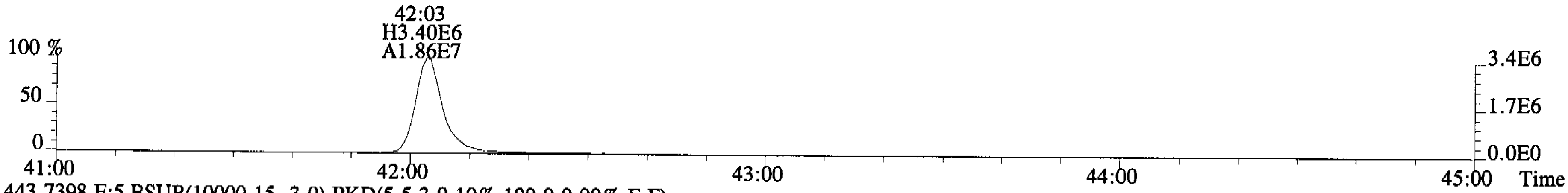
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



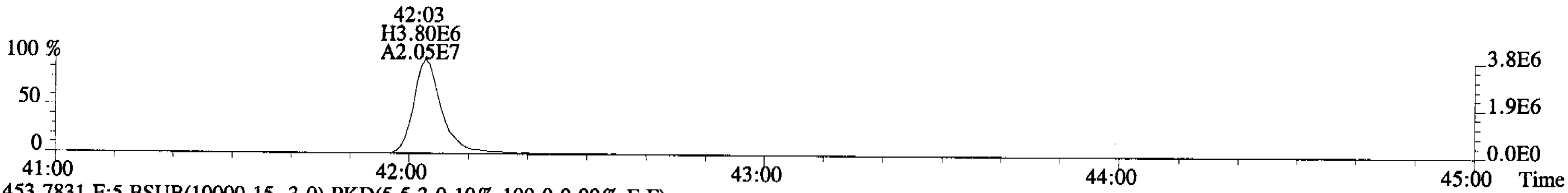
File:060920C2 #1-399 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5



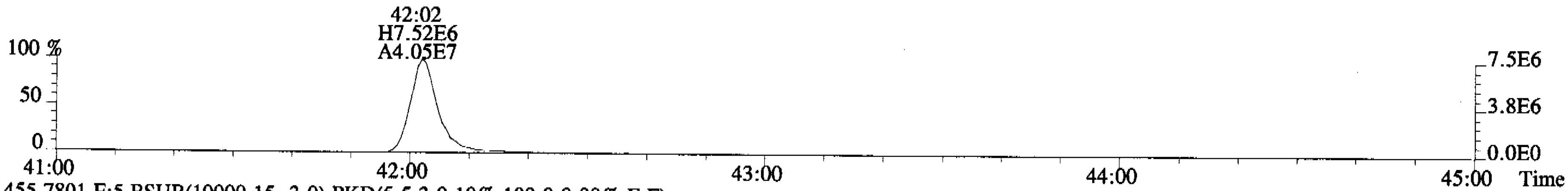
File:060920C2 #1-345 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD_DB5
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



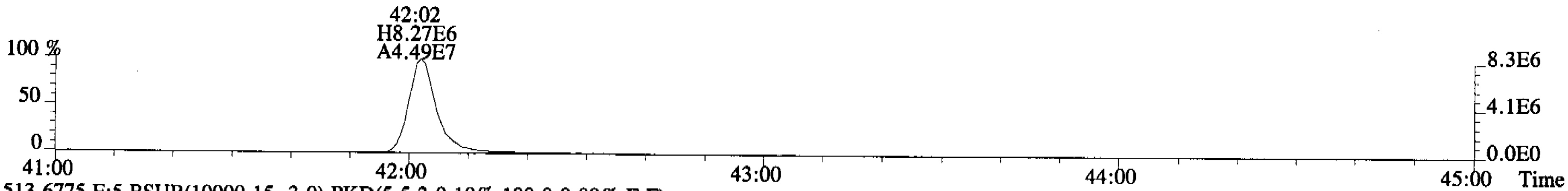
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



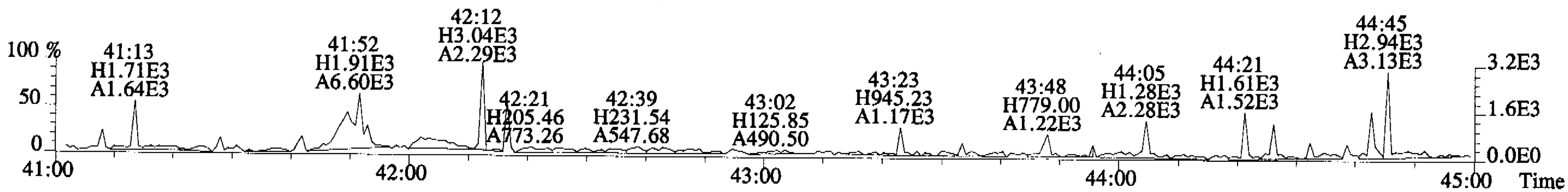
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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



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



FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.: CCAL ID: ST060920C2-2

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.1	7.8 - 12.9
						8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	44.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	44.2	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.5	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.0	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	49.6	43.0 - 58.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	94.9	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.25	8.4 - 12.0
						8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	48.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	y	47.9	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.9	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.6	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.0	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	47.4	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.5	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.04	0.88-1.20	y	48.3	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.2	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MW

Date: 9/21/06

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	96.9	82.0 - 121.0
						85.0 - 117.0 (5)
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	89.0	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	95.7	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	104	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	102	72.0 - 138.0
13C-OCDD	M+2/M+4	0.90	0.76-1.02	y	215	96.0 - 415.0
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	101	71.0 - 140.0
						76.0 - 131.0 (5)
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	87.7	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	82.1	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	103	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	96.3	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	99.9	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	99.0	77.0 - 129.0
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	199	96.0 - 415.0
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					8.94	7.9 - 12.7
						8.3 - 12.1 (5)

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613.

(4) No ion abundance ratio; report concentration found.

(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.

Analyst: MS

Date: 9/21/06

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Instrument ID: VG-5   Initial Calibration Date: 3/22/06

RT Window Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

DB-5 IS Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:15	1,3,6,8-TCDF (F)	20:09
1,2,8,9-TCDD (L)	27:27	1,2,8,9-TCDF (L)	27:37
1,2,4,7,9-PeCDD (F)	29:14	1,3,4,6,8-PeCDF (F)	27:32
1,2,3,8,9-PeCDD (L)	31:51	1,2,3,8,9-PeCDF (L)	32:07
1,2,4,6,7,9-HxCDD (F)	33:18	1,2,3,4,6,8-HxCDF (F)	32:46
1,2,3,7,8,9-HxCDD (L)	35:12	1,2,3,7,8,9-HxCDF (L)	35:35
1,2,3,4,6,7,9-HpCDD (F)	37:41	1,2,3,4,6,7,8-HpCDF (F)	37:18
1,2,3,4,6,7,8-HpCDD (L)	38:43	1,2,3,4,7,8,9-HpCDF (L)	39:19

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: MJ

Date: 9/21/06

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.993	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.173	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.212	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.223	1.000-1.567

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: MJ

Date: 9/21/06

FORM 6B

PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2   S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.964	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.967	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.988	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.991	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.060	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.100	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.191	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.197	1.032-1.311

Analyst: MS

Date: 9/21/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:   CCAL ID: ST060920C2-2

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.1	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	44.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	44.2	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.5	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.0	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	49.6	40.0 - 60.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	94.9	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.25	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	48.2	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	y	47.9	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.9	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.6	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.0	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	47.4	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.5	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.04	0.88-1.20	y	48.3	40.0 - 60.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.2	80.0 - 120

Analyst: VM

Date: 9/21/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	96.9	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	89.0	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	95.7	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	104	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	102	70.0 - 130
13C-OCDD	M+2/M+4	0.90	0.76-1.02	y	215	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	101	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	87.7	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	82.1	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	103	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	96.3	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	99.9	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	99.0	70.0 - 130
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	199	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					8.94	7.00 - 13.0

Analyst: VM

Date: 9/21/06

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	5.52e+06	0.77 y	1.08	26:28	10.079		*	2.5	*
	1,2,3,7,8-PeCDD	2.04e+07	0.62 y	1.03	31:28	44.445		*	2.5	*
	1,2,3,4,7,8-HxCDD	1.55e+07	1.22 y	1.13	34:47	44.224		*	2.5	*
	1,2,3,6,7,8-HxCDD	2.01e+07	1.24 y	1.03	34:53	46.492		*	2.5	*
	1,2,3,7,8,9-HxCDD	1.91e+07	1.23 y	1.12	35:12	46.993		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	1.70e+07	1.06 y	1.02	38:43	49.591		*	2.5	*
	OCDD	2.98e+07	0.89 y	1.06	41:55	94.889		*	2.5	*
	2,3,7,8-TCDF	6.84e+06	0.77 y	1.06	25:33	9.2501		*	2.5	*
	1,2,3,7,8-PeCDF	3.10e+07	1.57 y	1.01	30:11	48.150		*	2.5	*
	2,3,4,7,8-PeCDF	2.94e+07	1.56 y	1.02	31:11	47.888		*	2.5	*
	1,2,3,4,7,8-HxCDF	2.53e+07	1.19 y	1.15	33:55	48.865		*	2.5	*
	1,2,3,6,7,8-HxCDF	2.96e+07	1.22 y	1.14	34:02	46.639		*	2.5	*
	2,3,4,6,7,8-HxCDF	2.54e+07	1.22 y	1.17	34:39	46.013		*	2.5	*
	1,2,3,7,8,9-HxCDF	2.17e+07	1.20 y	1.10	35:35	47.404		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	2.31e+07	1.03 y	1.31	37:18	48.499		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	1.89e+07	1.04 y	1.33	39:19	48.346		*	2.5	*
	OCDF	3.29e+07	0.90 y	0.91	42:08	99.199		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	53.345	53.895		*	*
Total Penta-Dioxins	138.92	139.22		*	*
Total Hexa-Dioxins	190.35	191.92		*	*
Total Hepta-Dioxins	99.126	100.77		*	*
Total Tetra-Furans	30.569	30.737		*	*
Total Penta-Furans	185.84	187.20		*	*
Total Hexa-Furans	240.85	242.03		*	*
Total Hepta-Furans	97.108	99.126		*	*

	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	5.07e+07	0.80 y	1.09	26:26	96.904	96.9	
IS	13C-1,2,3,7,8-PeCDD	4.45e+07	0.62 y	1.04	31:27	89.038	89.0	
IS	13C-1,2,3,4,7,8-HxCDD	3.08e+07	1.22 y	0.83	34:46	95.738	95.7	
IS	13C-1,2,3,6,7,8-HxCDD	4.19e+07	1.25 y	1.04	34:53	103.73	104	
IS	13C-1,2,3,4,6,7,8-HpCDD	3.38e+07	1.06 y	0.85	38:42	102.32	102	
IS	13C-OCDD	5.96e+07	0.90 y	0.71	41:55	214.99	107	
IS	13C-2,3,7,8-TCDF	6.97e+07	0.80 y	0.96	25:32	101.40	101	
IS	13C-1,2,3,7,8-PeCDF	6.40e+07	1.55 y	1.02	30:10	87.728	87.7	
IS	13C-2,3,4,7,8-PeCDF	6.00e+07	1.57 y	1.02	31:10	82.101	82.1	
IS	13C-1,2,3,4,7,8-HxCDF	4.52e+07	0.54 y	1.14	33:54	101.70	102	
IS	13C-1,2,3,6,7,8-HxCDF	5.58e+07	0.50 y	1.40	34:02	102.69	103	
IS	13C-2,3,4,6,7,8-HxCDF	4.72e+07	0.51 y	1.26	34:38	96.313	96.3	
IS	13C-1,2,3,7,8,9-HxCDF	4.17e+07	0.52 y	1.08	35:34	99.055	99.1	
IS	13C-1,2,3,4,6,7,8-HpCDF	3.62e+07	0.44 y	0.93	37:16	99.869	99.9	
IS	13C-1,2,3,4,7,8,9-HpCDF	2.95e+07	0.44 y	0.77	39:18	99.039	99.0	
IS	13C-OCDF	7.28e+07	0.91 y	0.94	42:07	198.59	99.3	
C/Up	37Cl-2,3,7,8-TCDD	3.32e+06		0.77	26:27	8.9415	22.4	
RS/RT	13C-1,2,3,4-TCDD	4.80e+07	0.79 y	1.00	25:43	100.00		
RS	13C-1,2,3,4-TCDF	7.17e+07	0.80 y	1.00	23:57	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.88e+07	1.25 y	1.00	35:11	100.00		

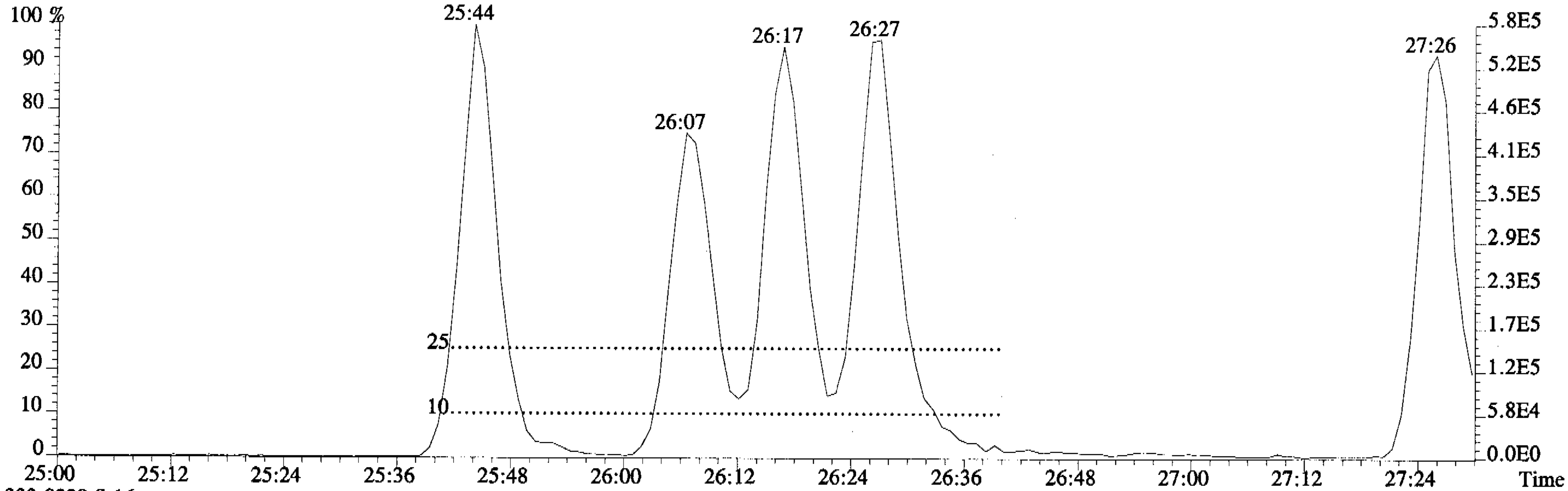
Integrations by Analyst: MN
Date: 9/21/06

Reviewed by Analyst: ______
Date: ______

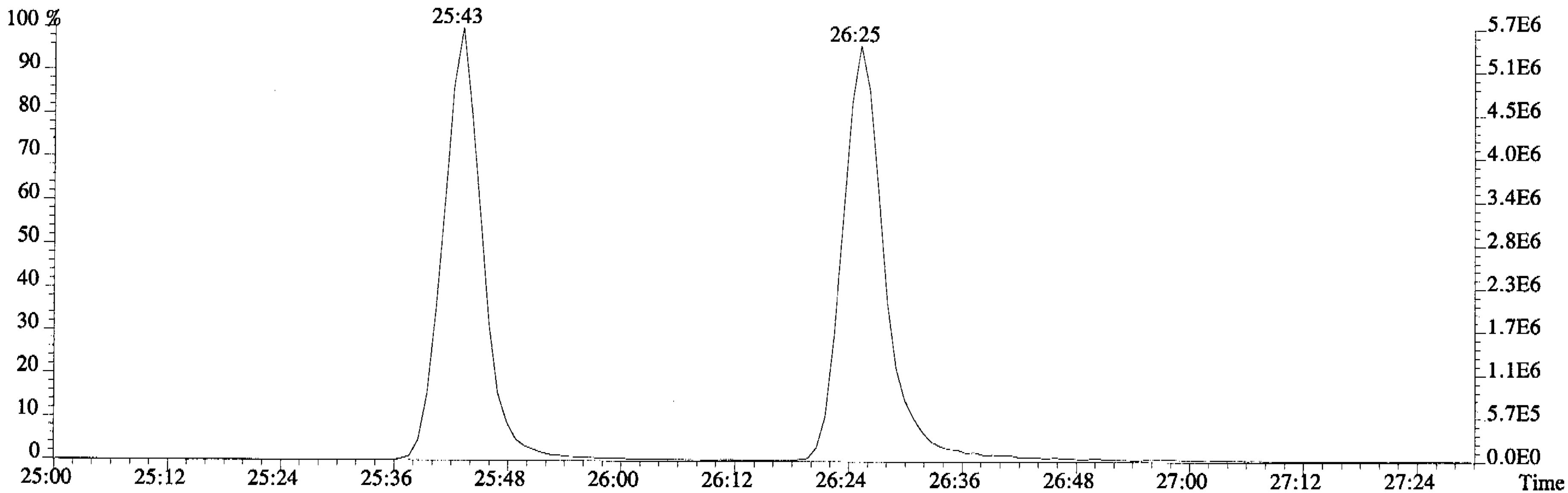
Alta Analytical Laboratory - Injection Log Run file: 060920C2 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060920C2	1	ST060920C2-1	MAS	20-SEP-06	15:15:02	ST060920C2-1	ST060920C2-2
060920C2	2	0_8381_OPR001	MAS	20-SEP-06	16:04:31	ST060920C2-1	ST060920C2-2
060920C2	3	0_8382_OPR001	MAS	20-SEP-06	16:54:06	ST060920C2-1	ST060920C2-2
060920C2	4	SOLVENT BLANK	MAS	20-SEP-06	17:43:41	ST060920C2-1	ST060920C2-2
060920C2	5	0_8381_MB001	MAS	20-SEP-06	18:33:15	ST060920C2-1	ST060920C2-2
060920C2	6	0_8382_MB001	MAS	20-SEP-06	19:22:48	ST060920C2-1	ST060920C2-2
060920C2	7	28101_8381_001	MAS	20-SEP-06	20:12:26	ST060920C2-1	ST060920C2-2
060920C2	8	28101_8381_002	MAS	20-SEP-06	21:02:04	ST060920C2-1	ST060920C2-2
060920C2	9	28110_8381_001	MAS	20-SEP-06	21:51:37	ST060920C2-1	ST060920C2-2
060920C2	10	28111_8381_001	MAS	20-SEP-06	22:41:10	ST060920C2-1	ST060920C2-2
060920C2	11	28112_8381_001	MAS	20-SEP-06	23:30:43	ST060920C2-1	ST060920C2-2
060920C2	12	28113_8381_001	MAS	21-SEP-06	00:20:15	ST060920C2-1	ST060920C2-2
060920C2	13	28114_8381_001	MAS	21-SEP-06	01:09:54	ST060920C2-1	ST060920C2-2
060920C2	14	28074_8382_001	MAS	21-SEP-06	01:59:27	ST060920C2-1	ST060920C2-2
060920C2	15	SOLVENT BLANK	MAS	21-SEP-06	02:48:56	ST060920C2-1	ST060920C2-2
060920C2	16	ST060920C2-2	MAS	21-SEP-06	03:38:30	ST060920C2-1	ST060920C2-2

File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
321.8936 S:16



333.9339 S:16



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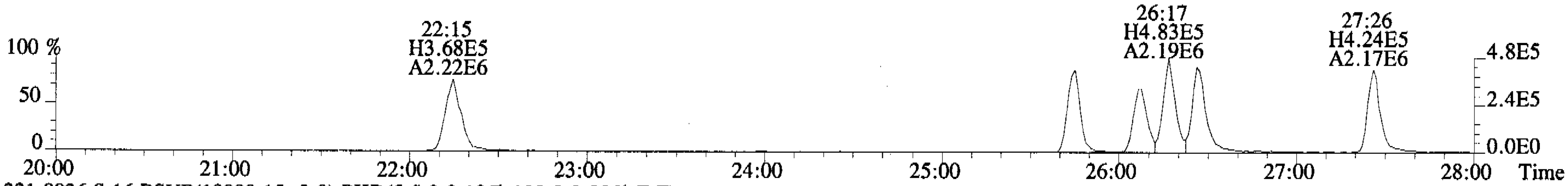
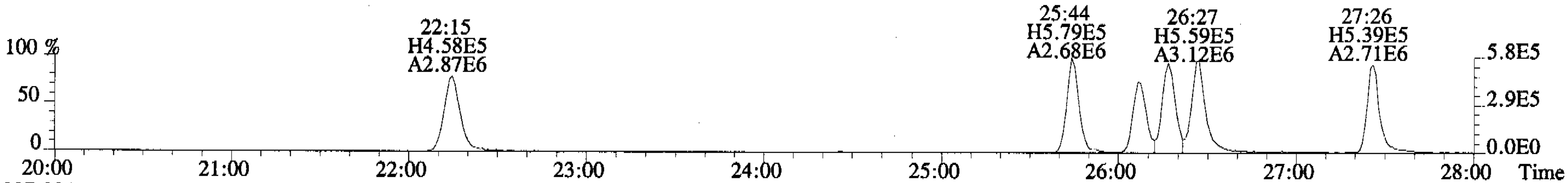
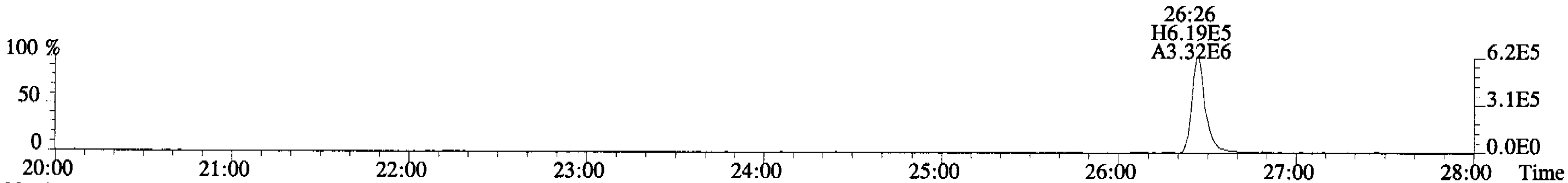
319.8965 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



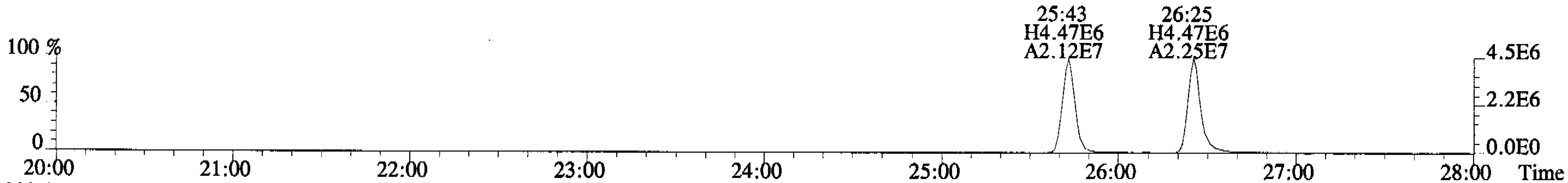
321.8936 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



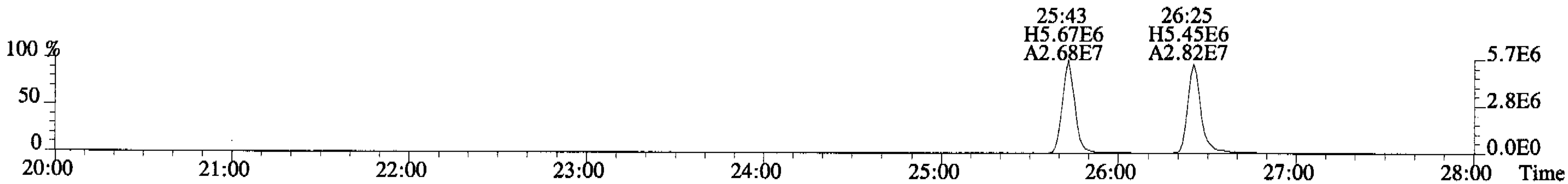
327.8847 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



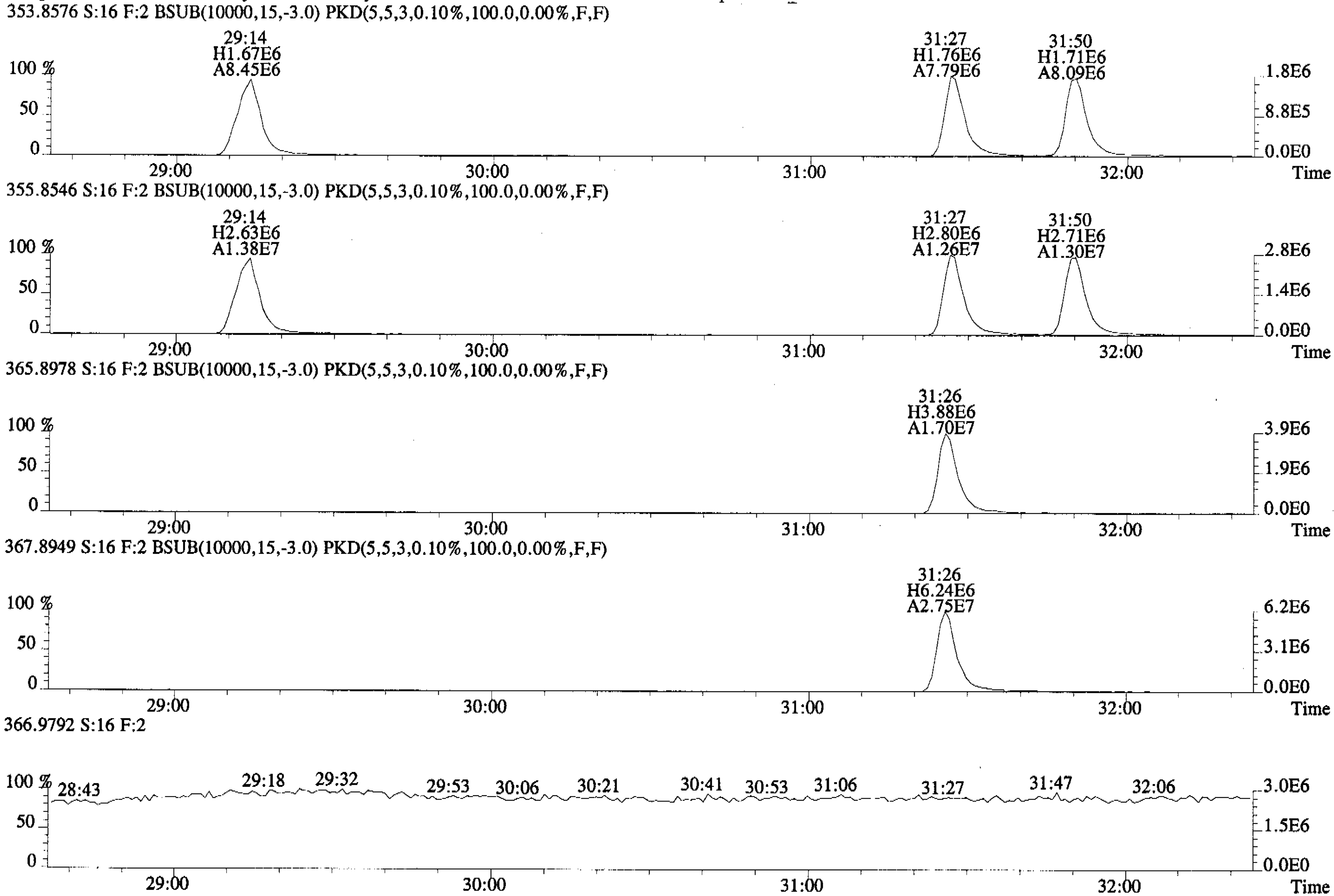
331.9368 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



333.9339 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

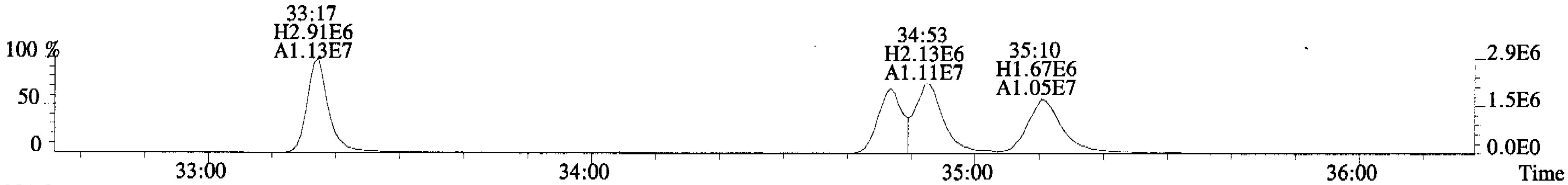


File:060920C2 #1-324 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5

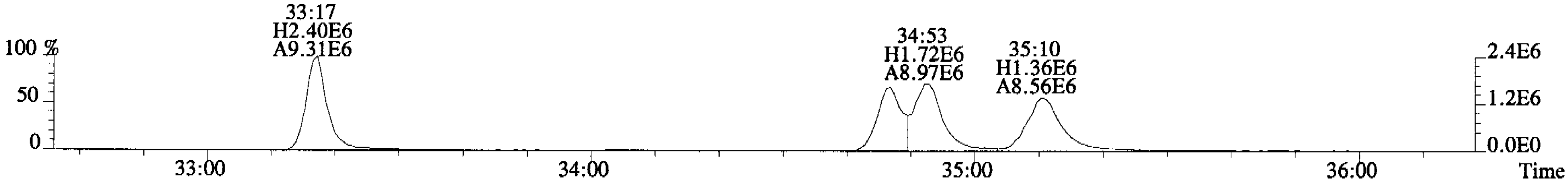


File:060920C2 #1-363 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5

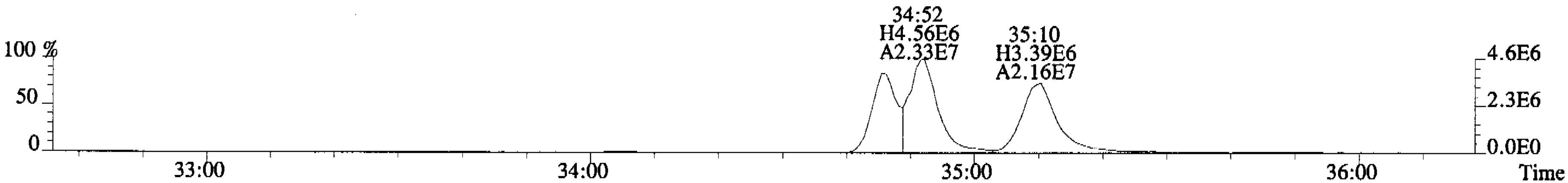
389.8156 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



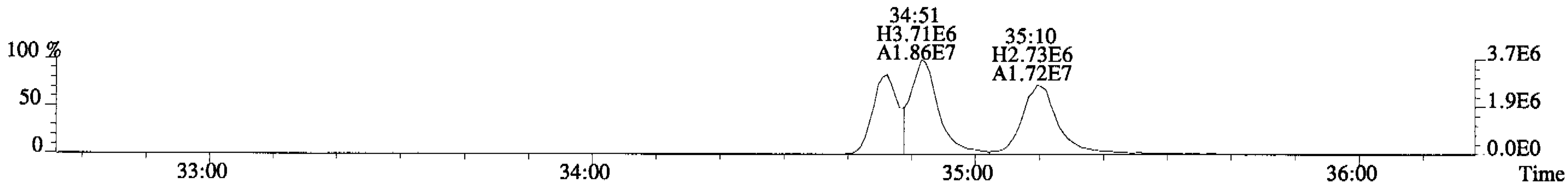
391.8127 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



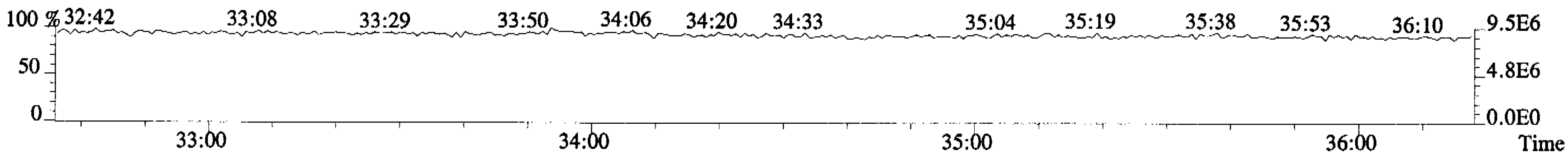
401.8559 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



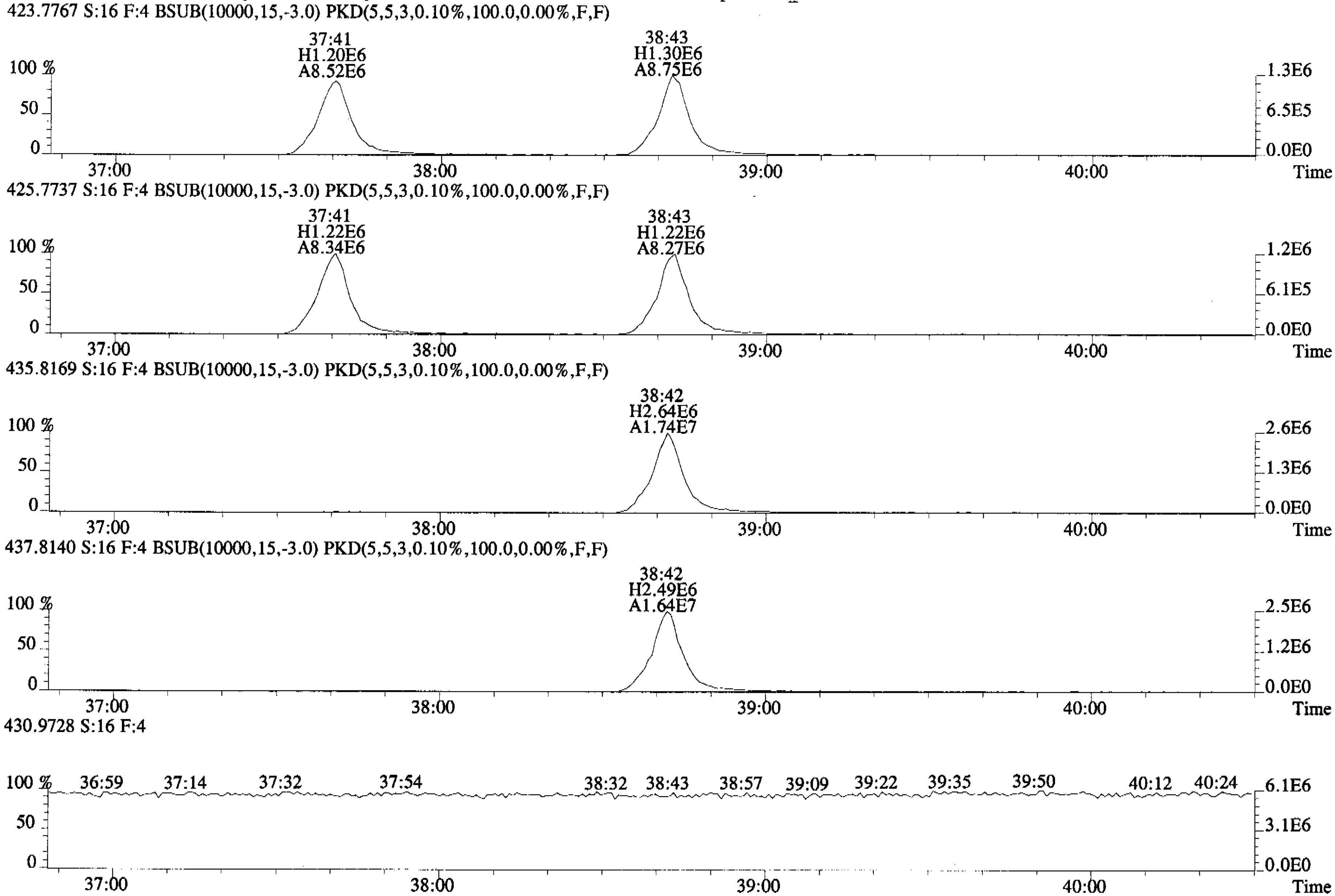
403.8530 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



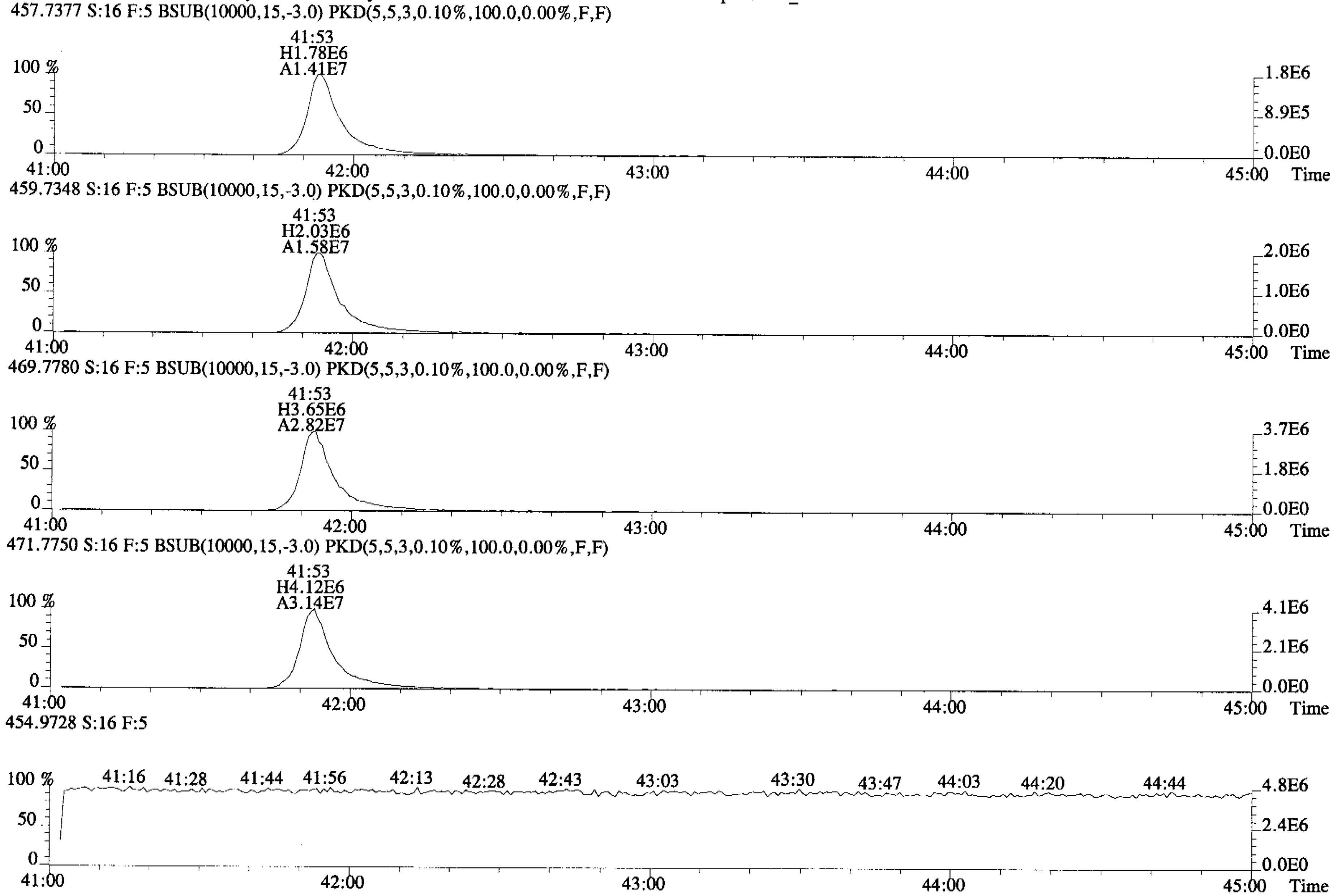
380.9760 S:16 F:3



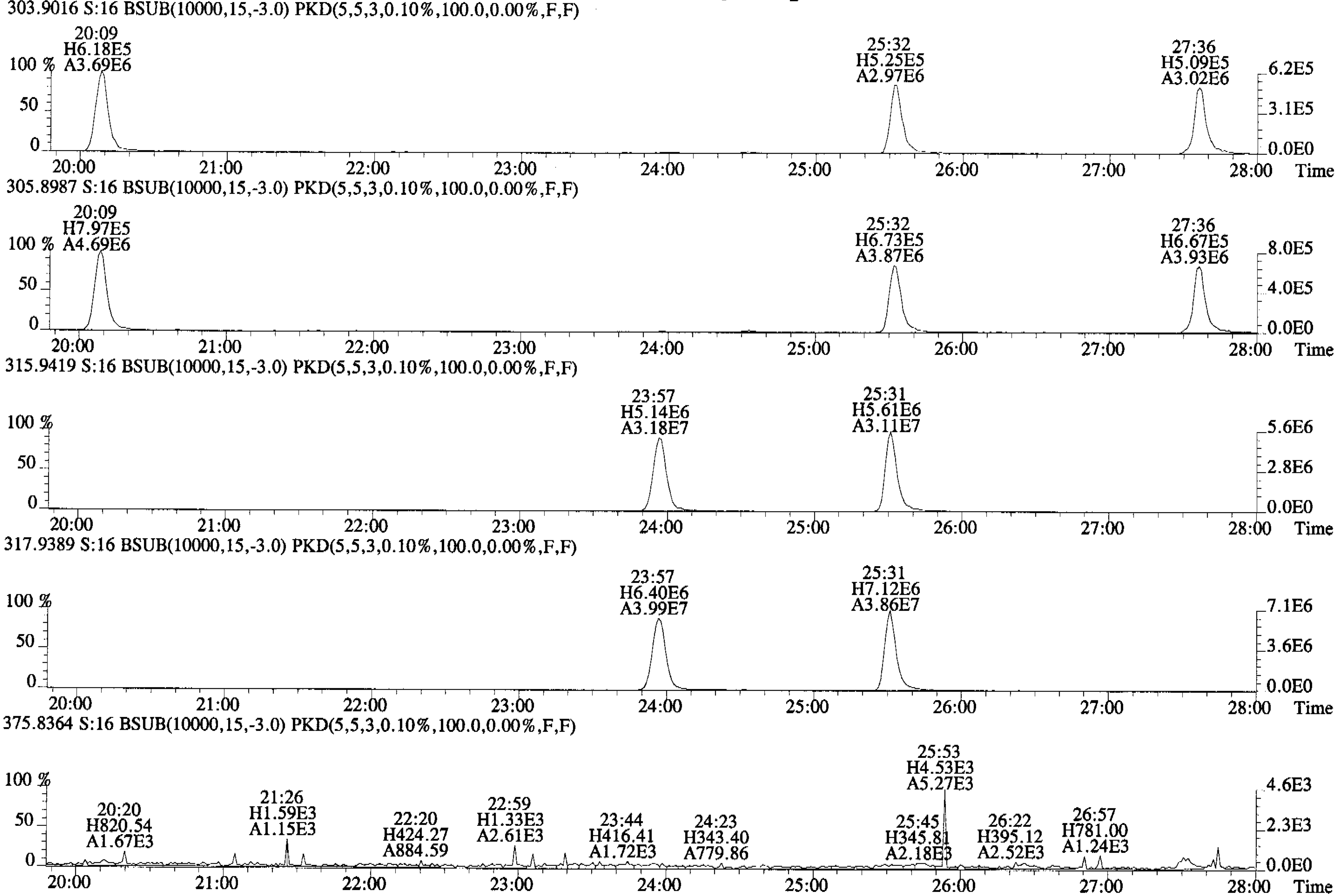
File:060920C2 #1-400 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5



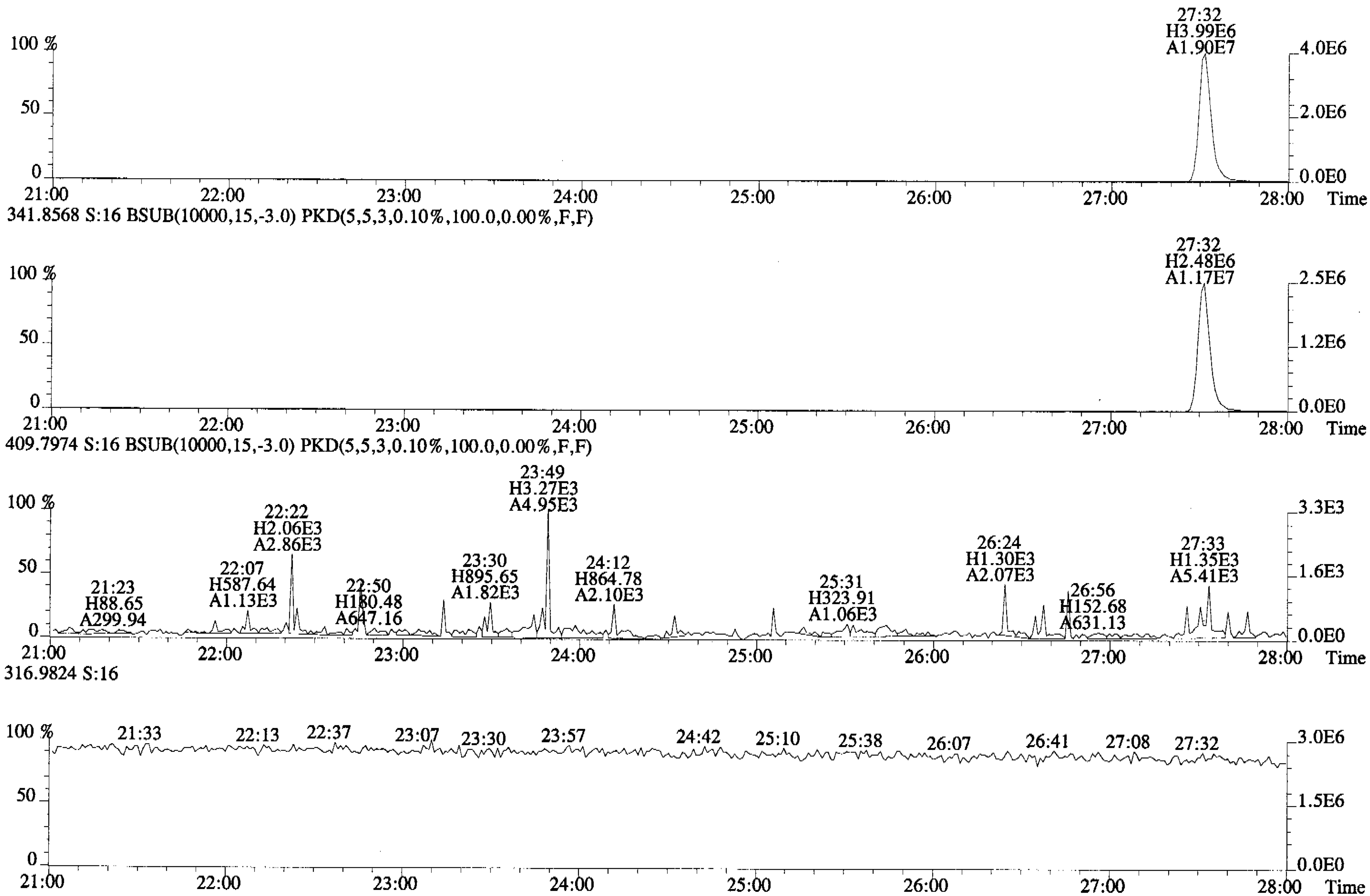
File:060920C2 #1-345 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5



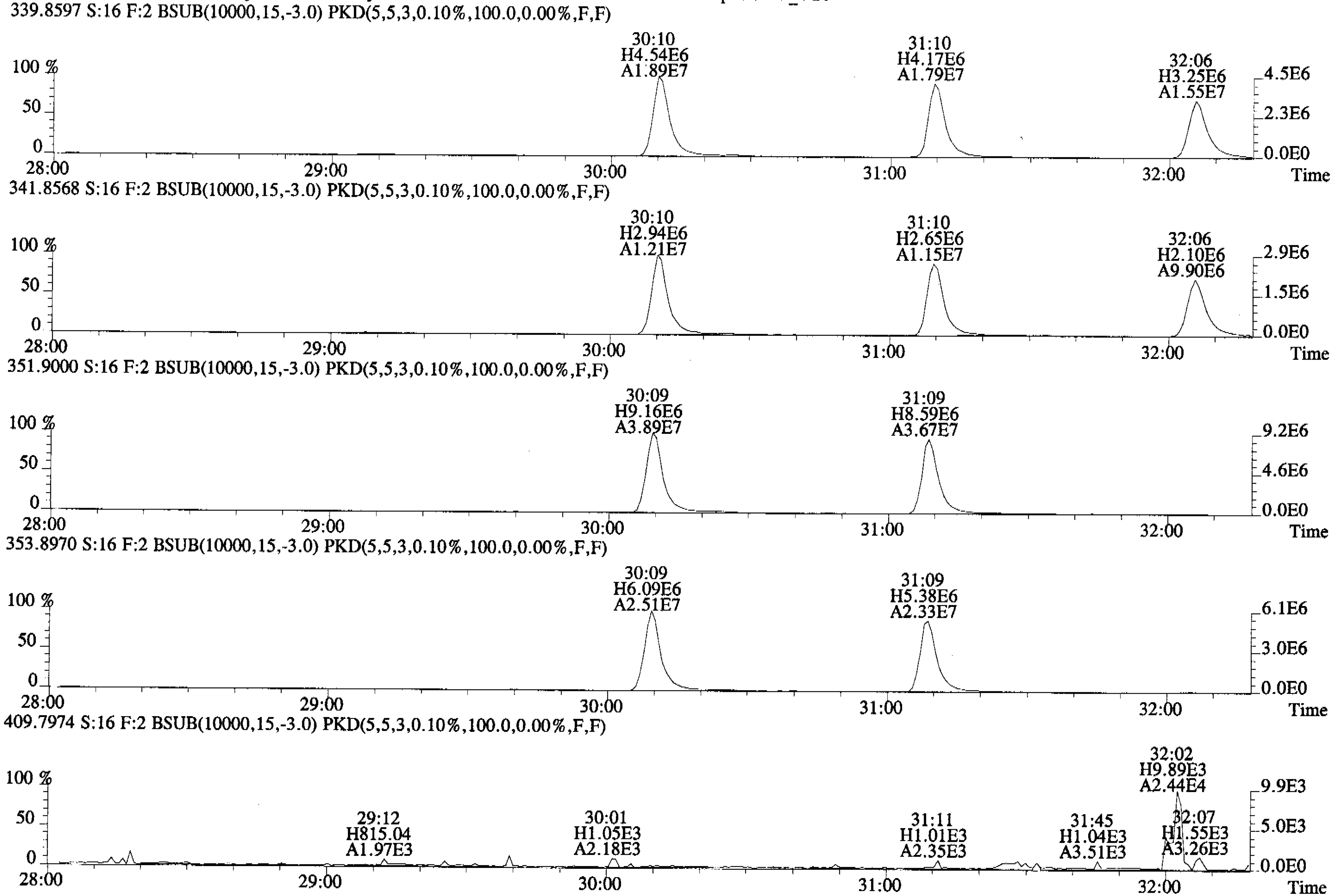
File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5



File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
339.8597 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

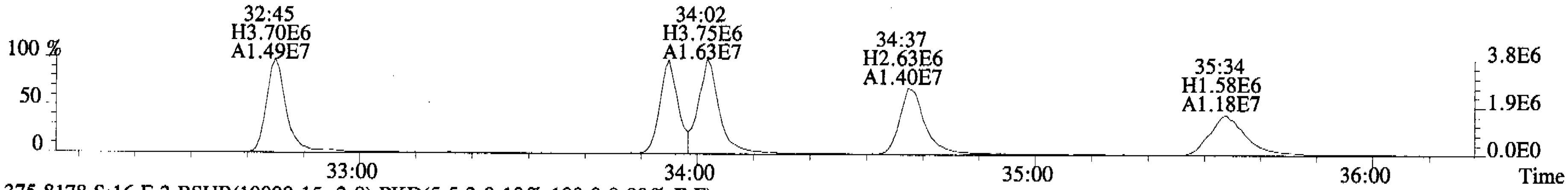


File:060920C2 #1-324 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5

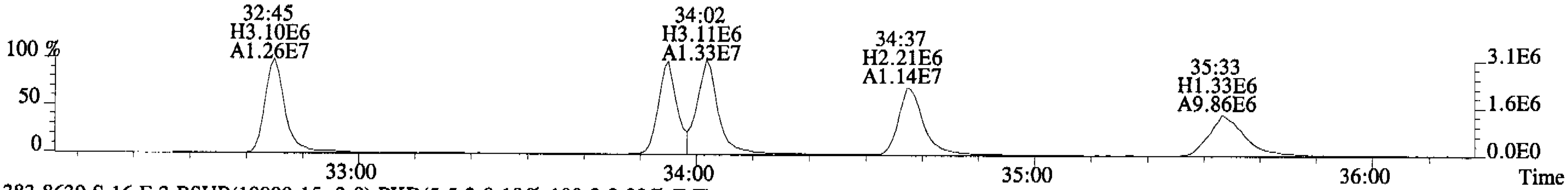


File:060920C2 #1-363 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5

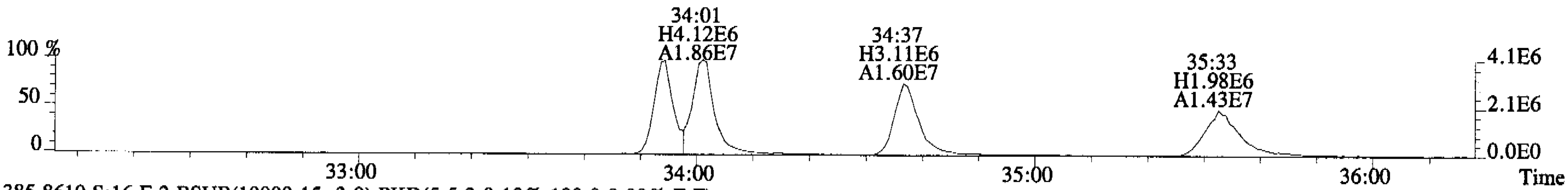
373.8207 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



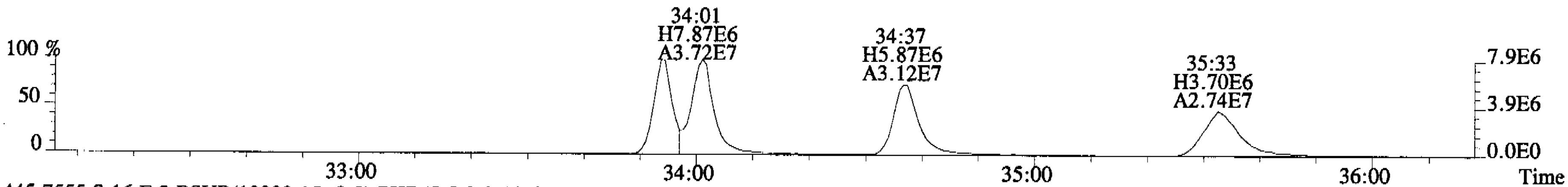
375.8178 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



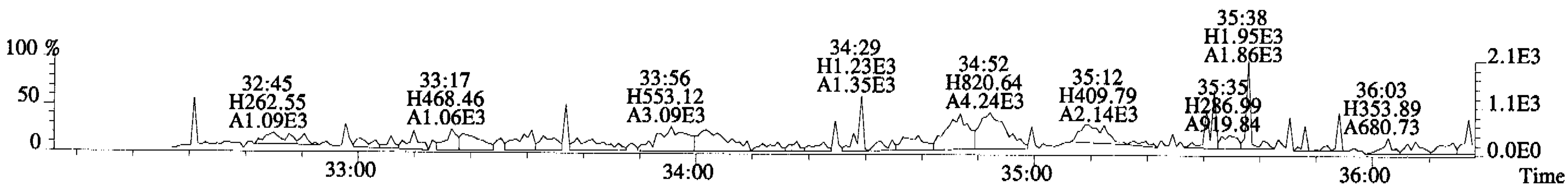
383.8639 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



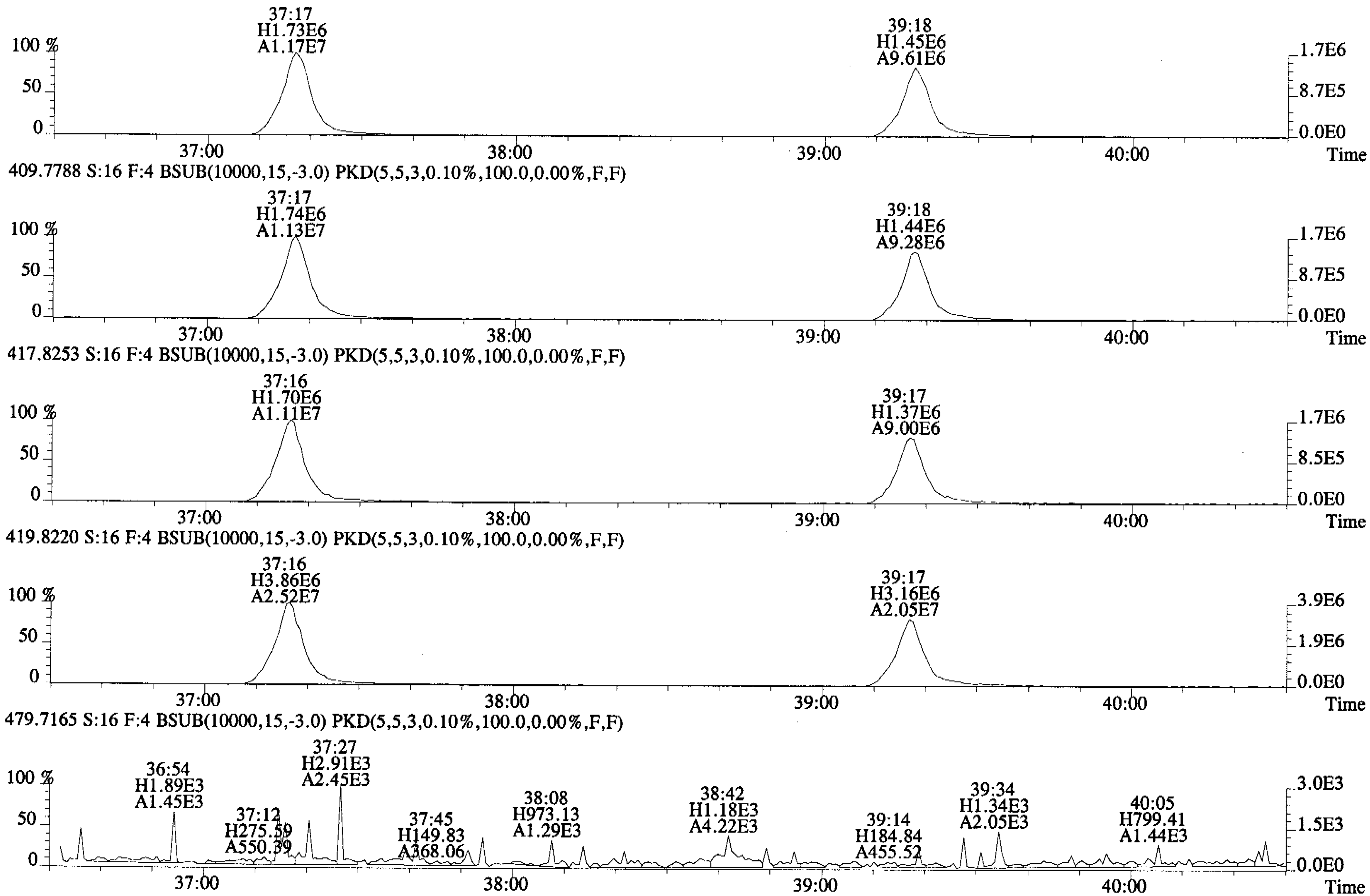
385.8610 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



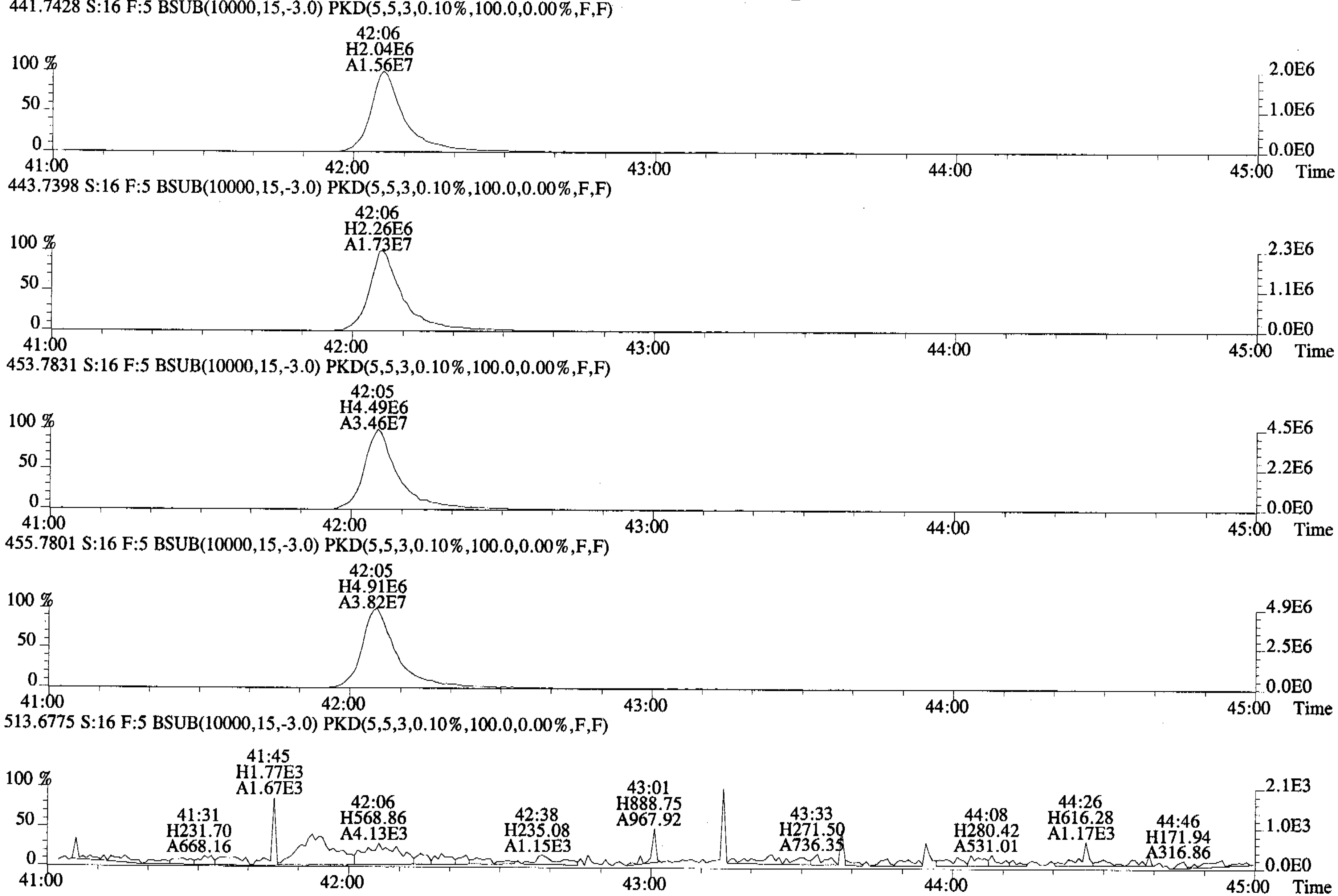
445.7555 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-400 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5
407.7818 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

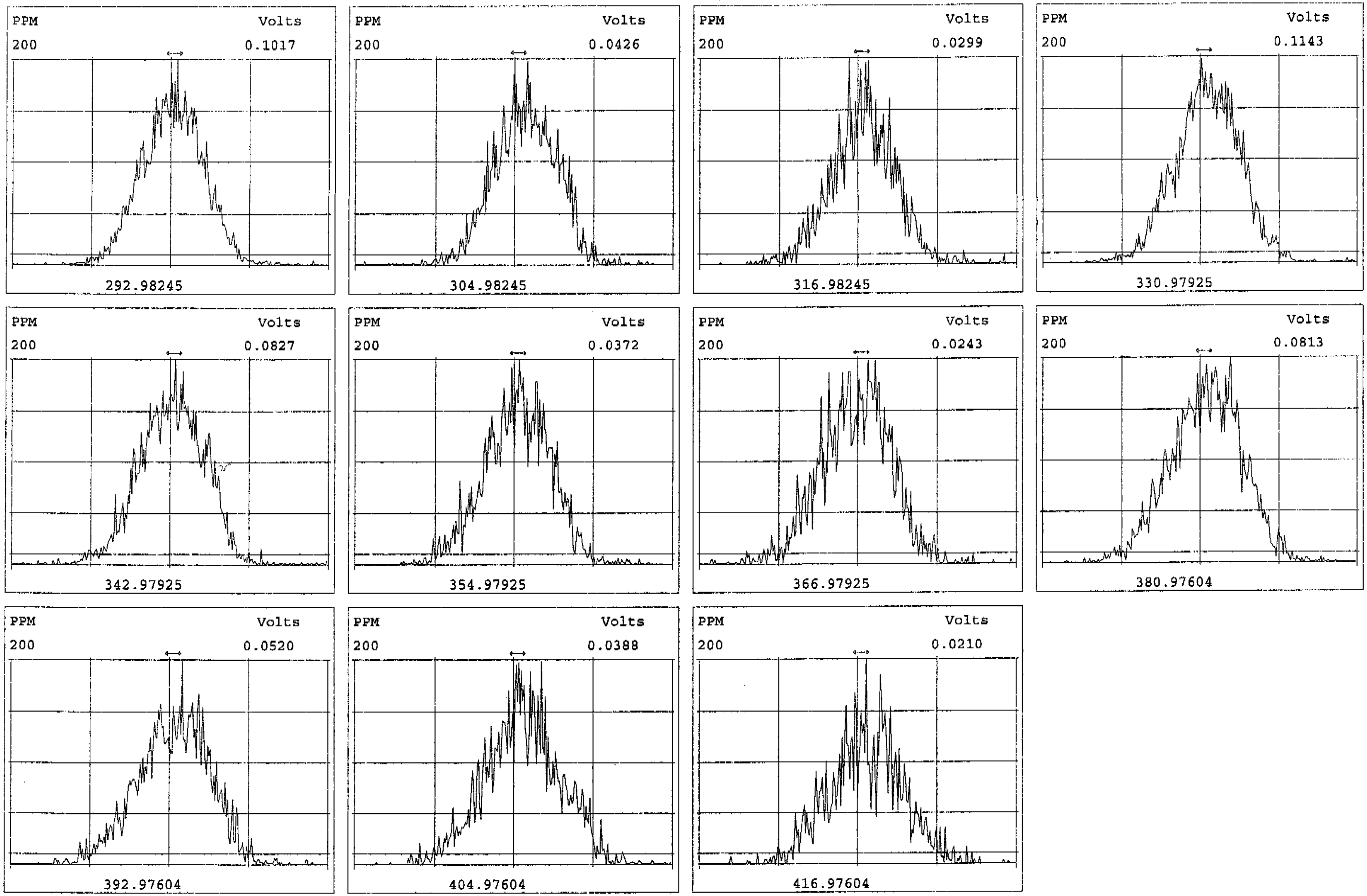


File:060920C2 #1-345 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD_DB5



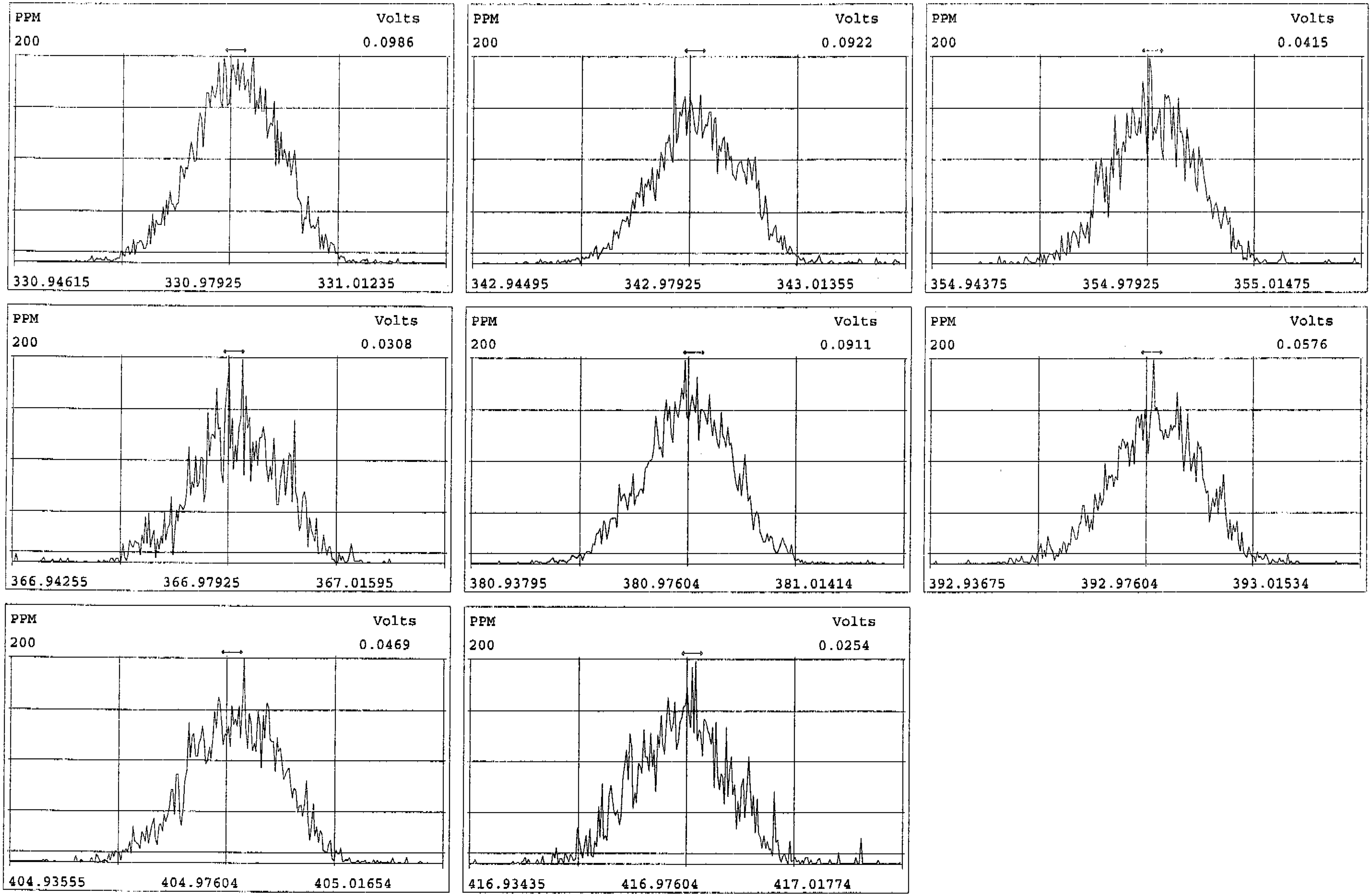
Peak Locate Examination:21-SEP-2006:04:31 File:RES_CHECK

Experiment:OCDD_DB5 Function:1 Reference:PFK



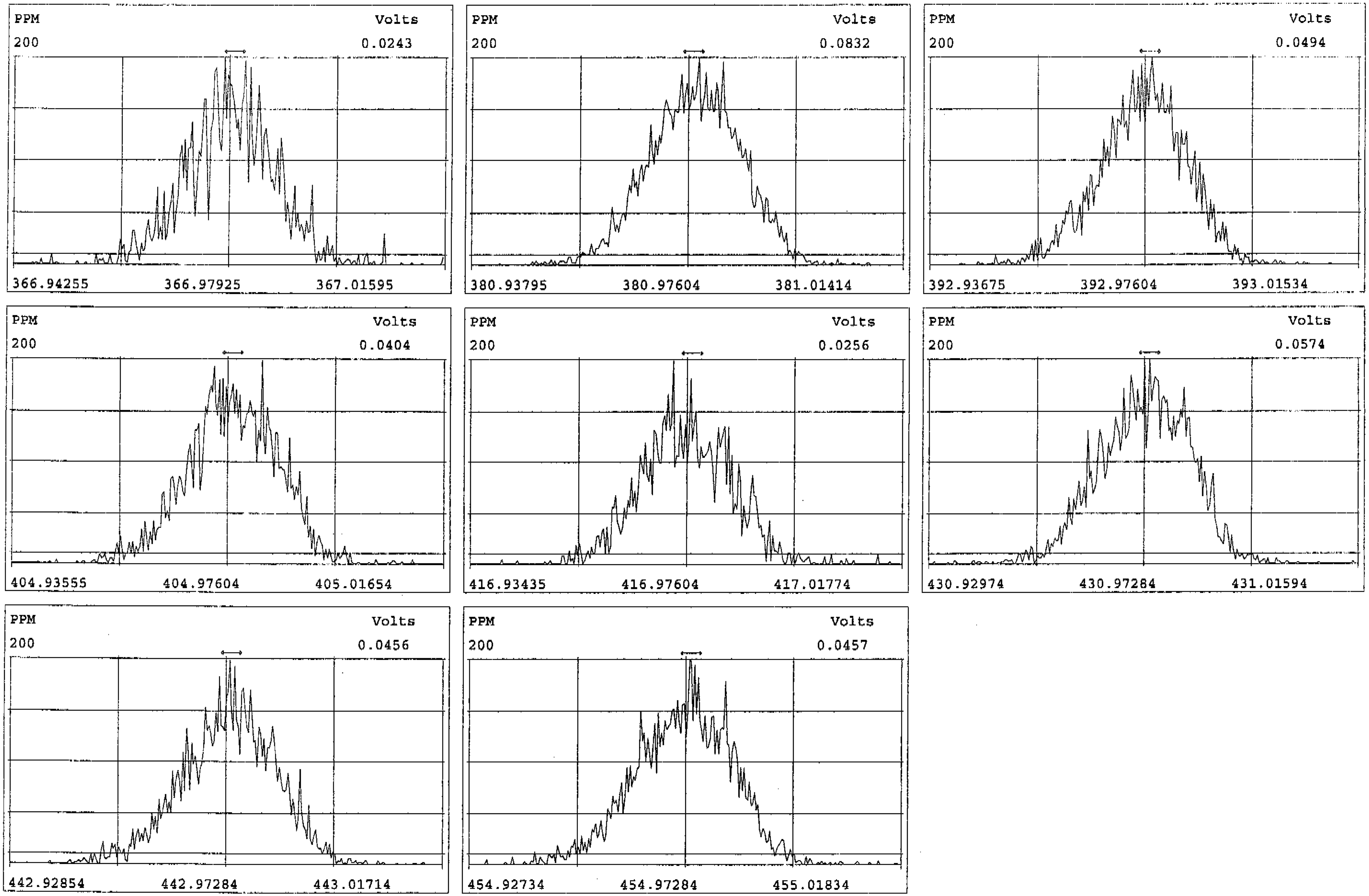
Peak Locate Examination:21-SEP-2006:04:32 File:RES_CHECK

Experiment:OCDD_DB5 Function:2 Reference:PFK



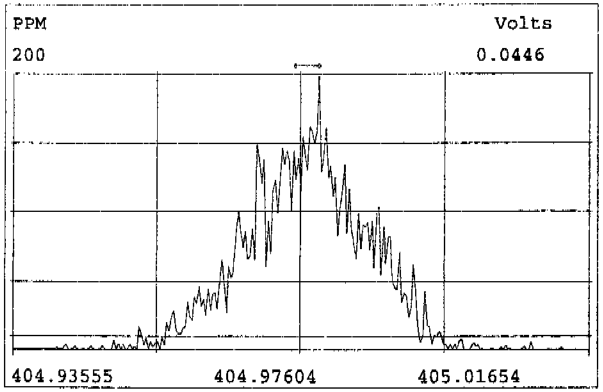
Peak Locate Examination:21-SEP-2006:04:33 File:RES_CHECK

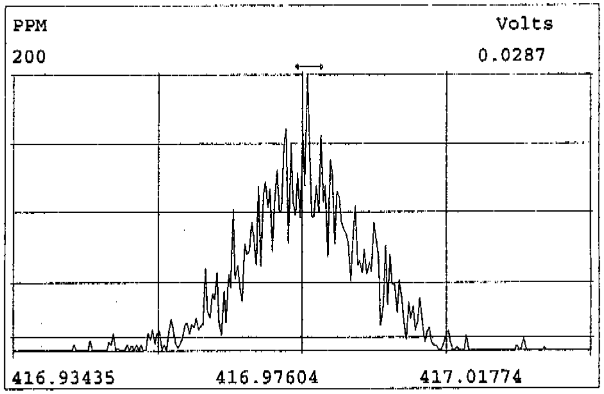
Experiment:OCDD_DB5 Function:3 Reference:PFK

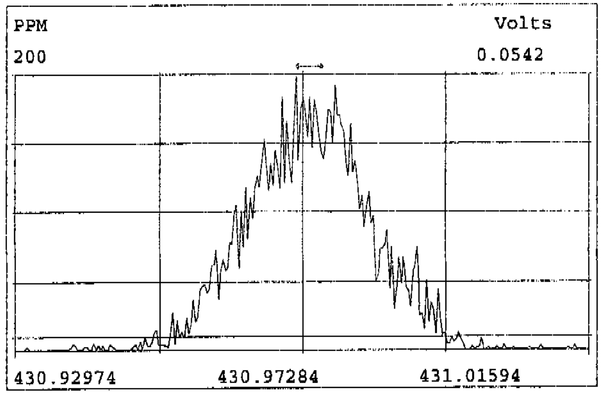


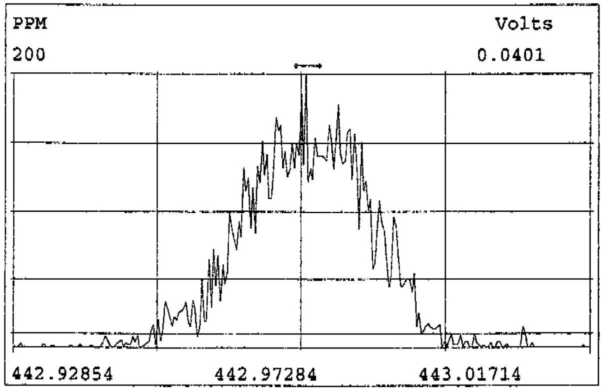
Peak Locate Examination:21-SEP-2006:04:34 File:RES_CHECK

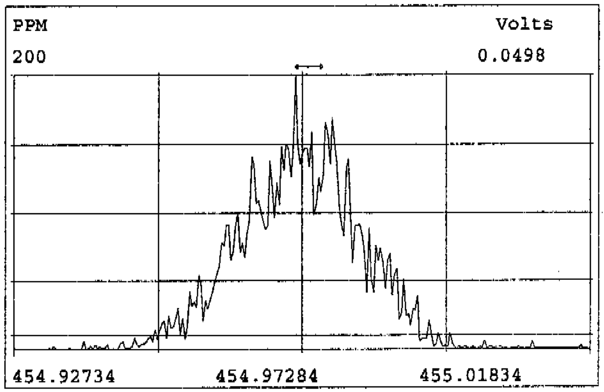
Experiment:OCDD_DB5 Function:4 Reference:PFK

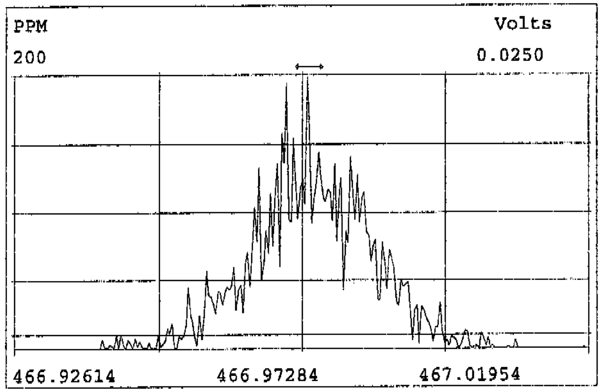


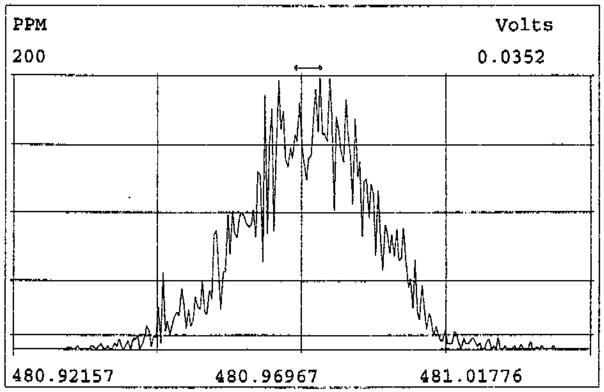






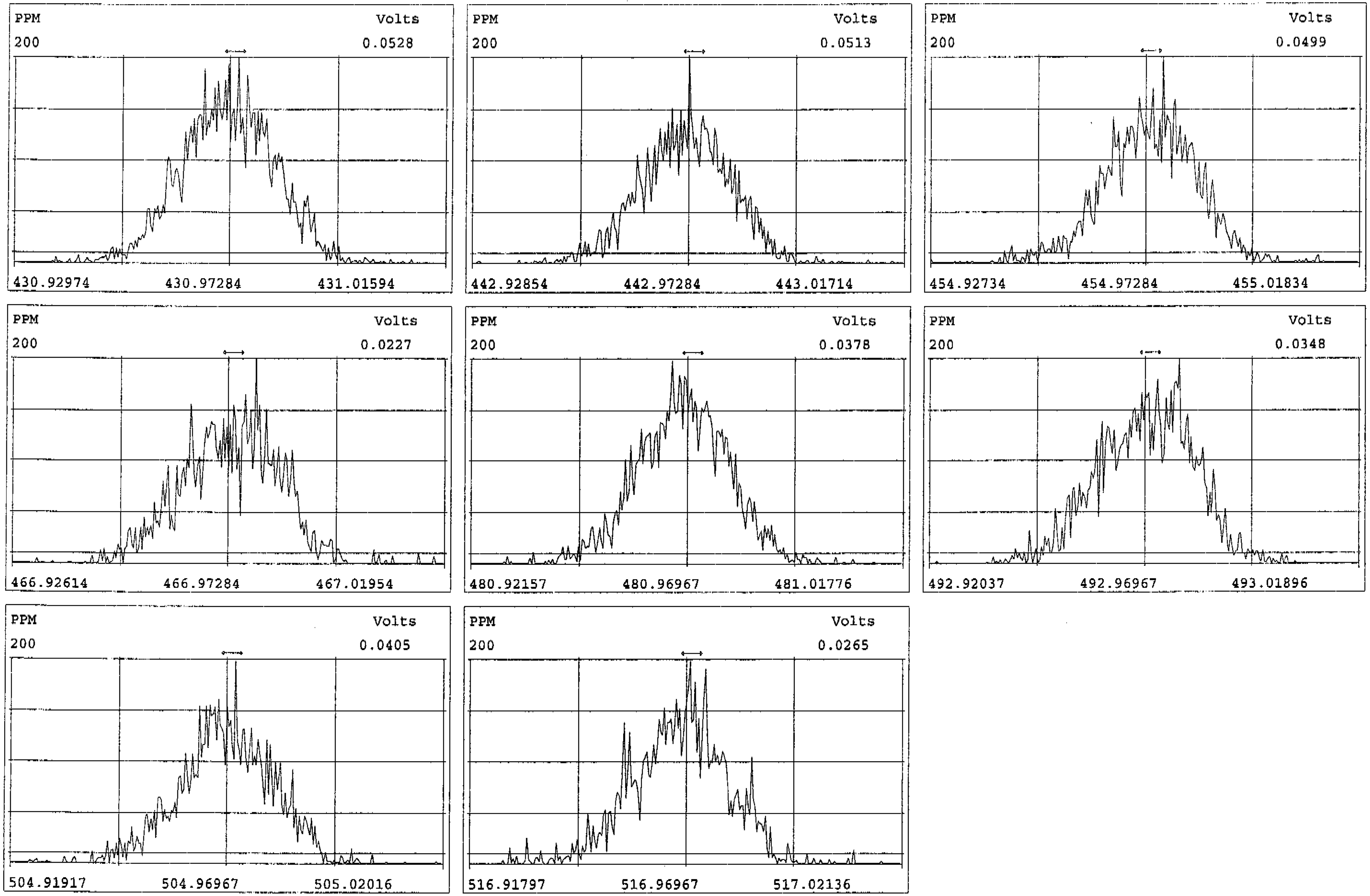






Peak Locate Examination:21-SEP-2006:04:35 File:RES_CHECK

Experiment:OCDD_DB5 Function:5 Reference:PFK



SAMPLE DATA

	Name	Resp	RA		RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	*	*	n	1.08	NotFnd	*		1130	2.5	1.20
	1,2,3,7,8-PeCDD	*	*	n	1.03	NotFnd	*		1970	2.5	1.85
	1,2,3,4,7,8-HxCDD	*	*	n	1.13	NotFnd	*		775	2.5	1.14
	1,2,3,6,7,8-HxCDD	*	*	n	1.03	NotFnd	*		775	2.5	1.19
	1,2,3,7,8,9-HxCDD	*	*	n	1.12	NotFnd	*		775	2.5	1.13
	1,2,3,4,6,7,8-HpCDD	*	*	n	1.02	NotFnd	*		1030	2.5	2.51
	OCDD	*	*	n	1.06	NotFnd	*		1640	2.5	4.89
	2,3,7,8-TCDF	*	*	n	1.06	NotFnd	*		1530	2.5	1.33
	1,2,3,7,8-PeCDF	*	*	n	1.01	NotFnd	*		1810	2.5	1.97
	2,3,4,7,8-PeCDF	*	*	n	1.02	NotFnd	*		1810	2.5	2.01
	1,2,3,4,7,8-HxCDF	*	*	n	1.15	NotFnd	*		961	2.5	0.613
	1,2,3,6,7,8-HxCDF	*	*	n	1.14	NotFnd	*		961	2.5	0.579
	2,3,4,6,7,8-HxCDF	*	*	n	1.17	NotFnd	*		961	2.5	0.710
	1,2,3,7,8,9-HxCDF	*	*	n	1.10	NotFnd	*		961	2.5	1.63
	1,2,3,4,6,7,8-HpCDF	*	*	n	1.31	NotFnd	*		868	2.5	1.21
	1,2,3,4,7,8,9-HpCDF	*	*	n	1.33	NotFnd	*		868	2.5	1.60
	OCDF	*	*	n	0.91	NotFnd	*		1190	2.5	3.80

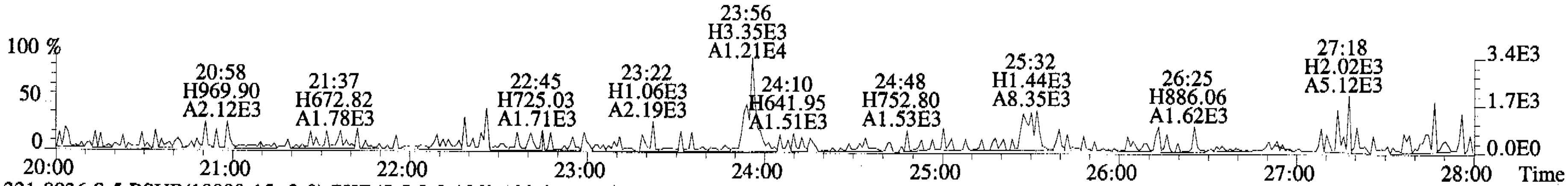
Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		1130	1.20
Total Penta-Dioxins	*	*		4610	4.32
Total Hexa-Dioxins	*	*		775	1.16
Total Hepta-Dioxins	*	*		1030	2.51
Total Tetra-Furans	*	*		1530	1.33
Total Penta-Furans	0.0000	0.0000		3110	3.42
Total Hexa-Furans	*	*		961	0.802
Total Hepta-Furans	*	*		868	1.37

	Name	Resp	RA		RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	3.65e+07	0.80	y	1.09	26:24	1610.3	80.5	
IS	13C-1,2,3,7,8-PeCDD	3.10e+07	0.61	y	1.04	31:24	1428.4	71.4	
IS	13C-1,2,3,4,7,8-HxCDD	2.67e+07	1.25	y	0.83	34:43	1668.3	83.4	
IS	13C-1,2,3,6,7,8-HxCDD	3.32e+07	1.27	y	1.04	34:50	1654.0	82.7	
IS	13C-1,2,3,4,6,7,8-HpCDD	2.54e+07	1.05	y	0.85	38:39	1542.3	77.1	
IS	13C-OCDD	3.87e+07	0.89	y	0.71	41:51	2809.4	70.2	
IS	13C-2,3,7,8-TCDF	4.93e+07	0.78	y	0.96	25:30	1601.3	80.1	
IS	13C-1,2,3,7,8-PeCDF	4.75e+07	1.60	y	1.02	30:08	1453.4	72.7	
IS	13C-2,3,4,7,8-PeCDF	4.29e+07	1.57	y	1.02	31:07	1310.4	65.5	
IS	13C-1,2,3,4,7,8-HxCDF	3.96e+07	0.52	y	1.14	33:52	1788.7	89.4	
IS	13C-1,2,3,6,7,8-HxCDF	4.61e+07	0.52	y	1.40	33:59	1702.5	85.1	
IS	13C-2,3,4,6,7,8-HxCDF	3.91e+07	0.51	y	1.26	34:35	1603.0	80.1	
IS	13C-1,2,3,7,8,9-HxCDF	2.67e+07	0.51	y	1.08	35:30	1275.4	63.8	
IS	13C-1,2,3,4,6,7,8-HpCDF	2.54e+07	0.45	y	0.93	37:14	1405.3	70.3	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.72e+07	0.42	y	0.77	39:14	1161.0	58.0	
IS	13C-OCDF	4.14e+07	0.88	y	0.94	42:03	2268.3	56.7	
C/Up	37Cl-2,3,7,8-TCDD	1.05e+07			0.77	26:25	653.51	81.7	
RS/RT	13C-1,2,3,4-TCDD	4.16e+07	0.83	y	1.00	25:42	2000.0		
RS	13C-1,2,3,4-TCDF	6.42e+07	0.78	y	1.00	23:56	2000.0		
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.87e+07	1.25	y	1.00	35:07	2000.0		

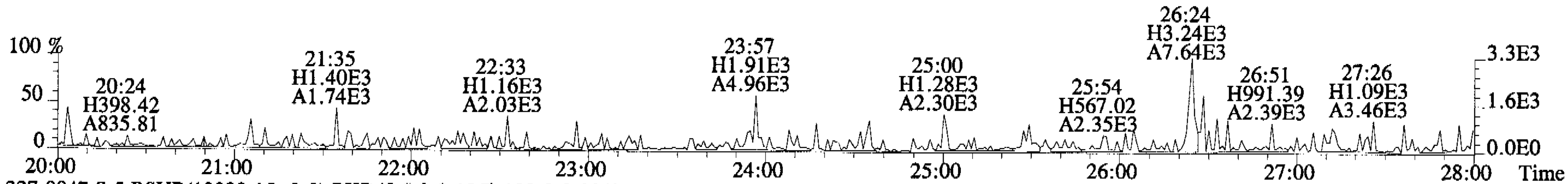
Integrations by Analyst: MD
Date: 9/21/06

Reviewed by Analyst: UK
Date: 9/21/06

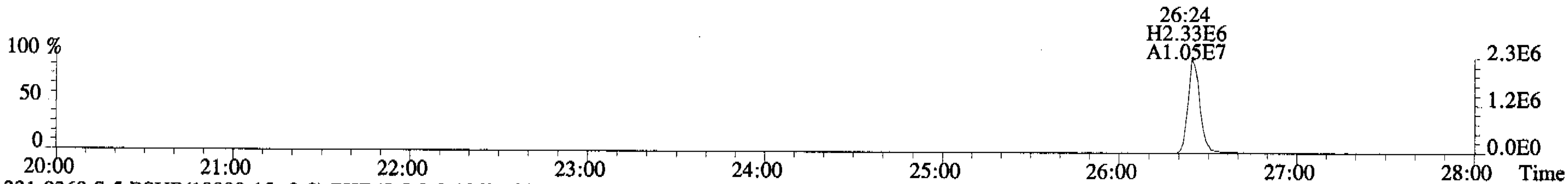
File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



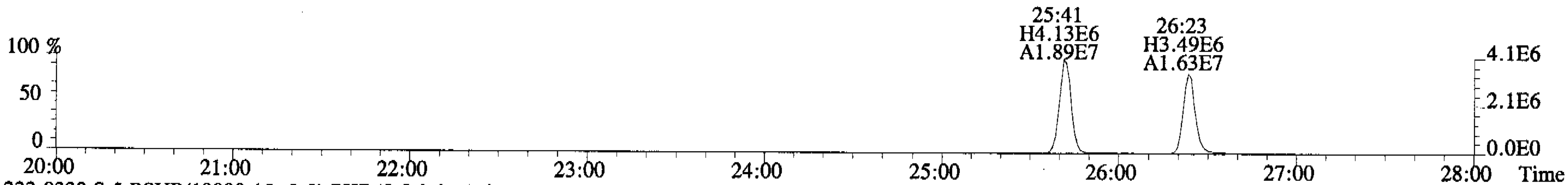
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



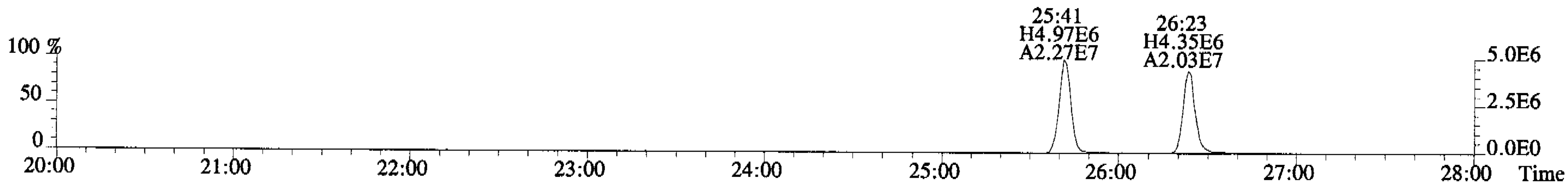
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



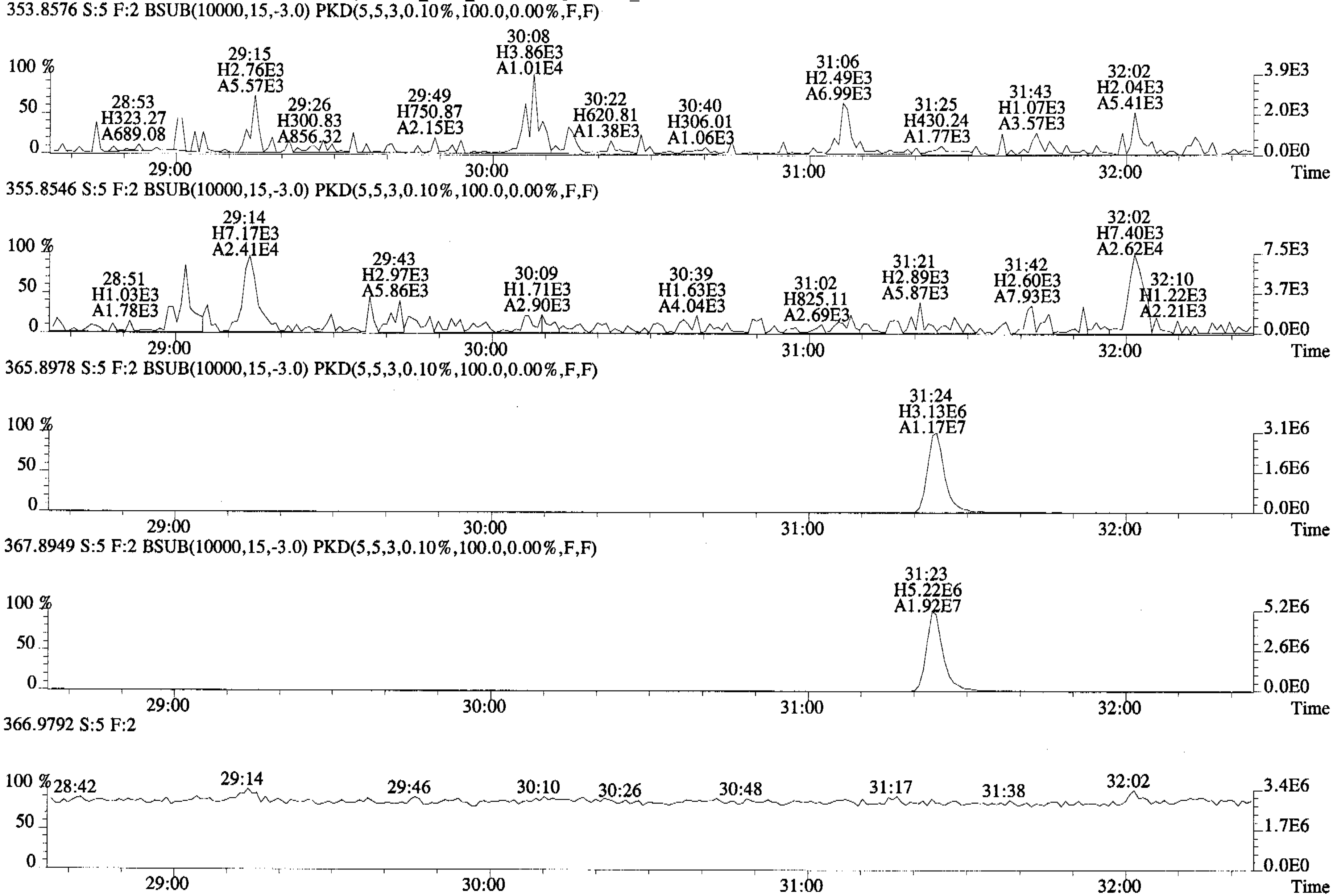
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



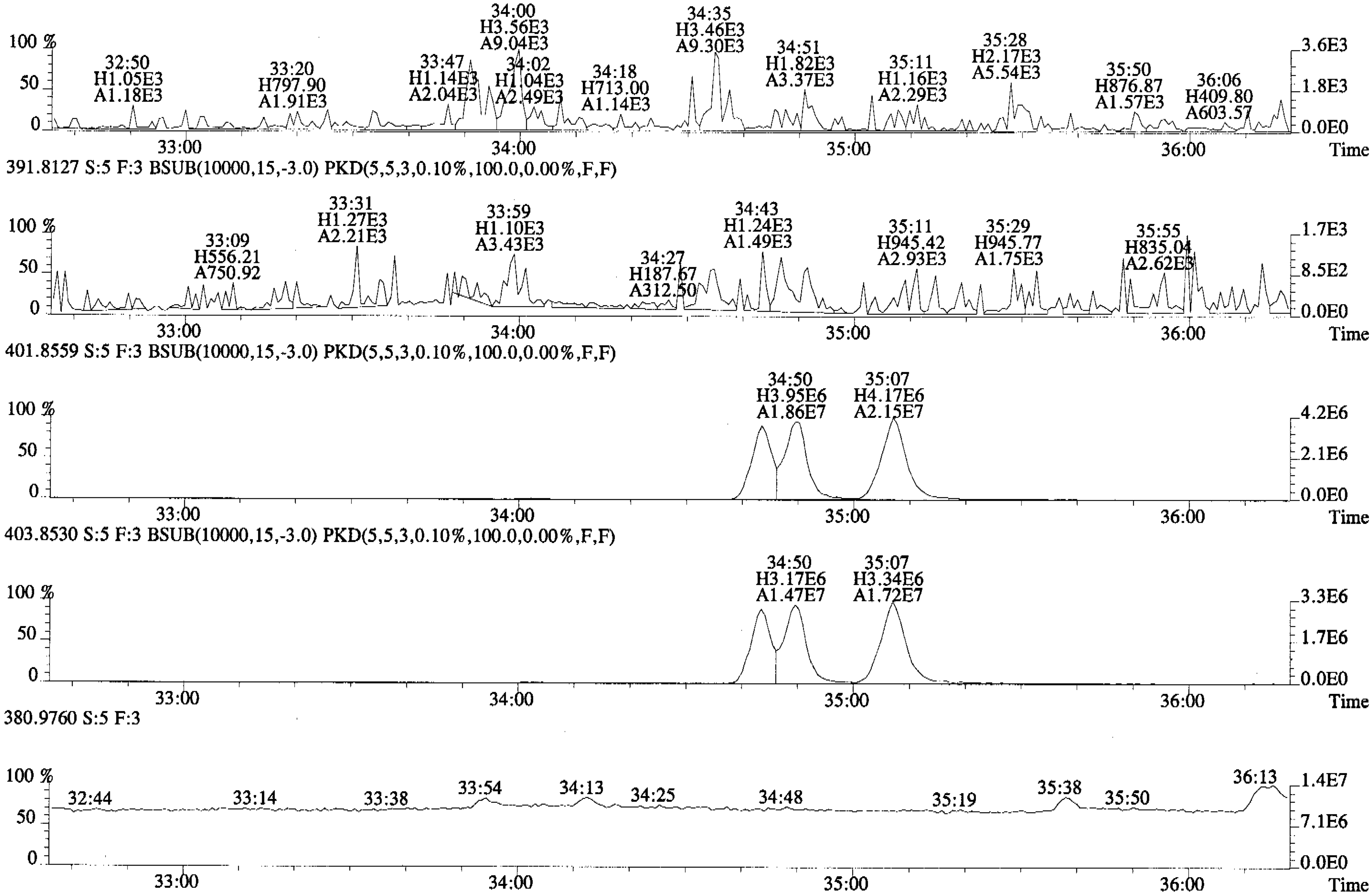
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



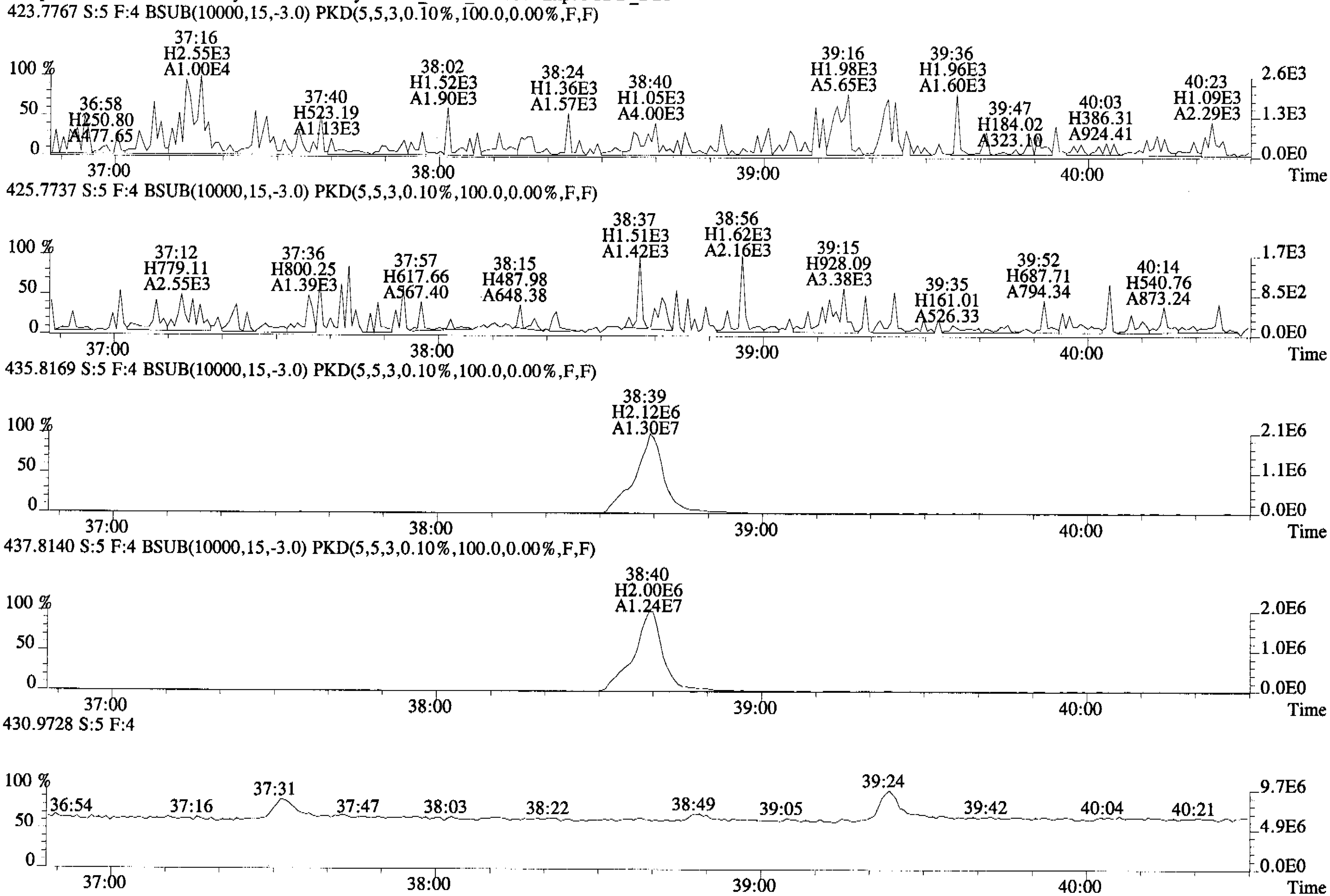
File:060920C2 #1-324 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5



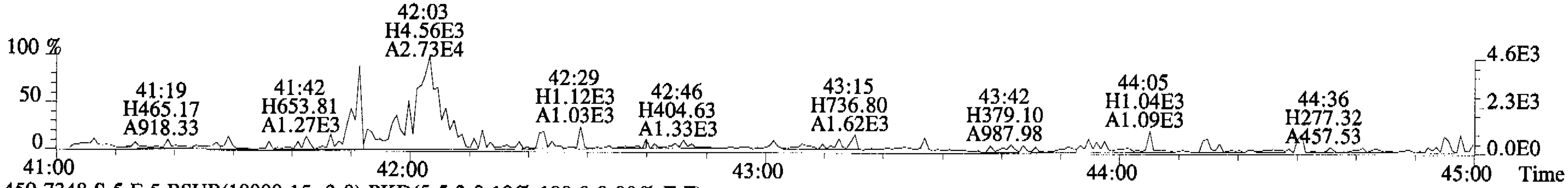
File:060920C2 #1-363 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



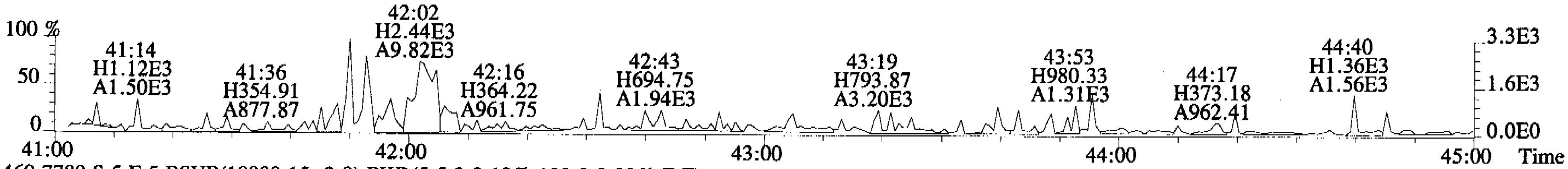
File:060920C2 #1-400 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5



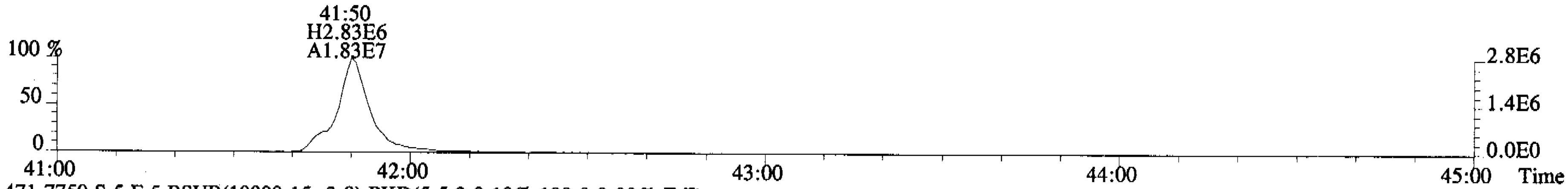
File:060920C2 #1-345 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



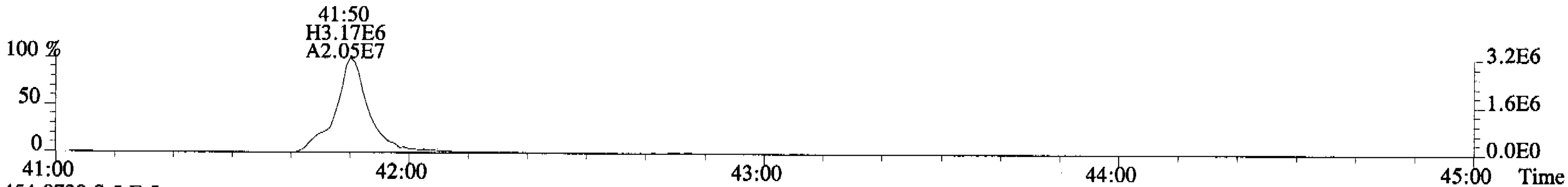
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



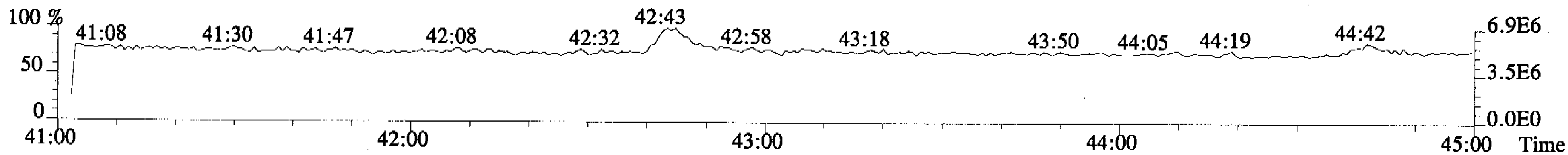
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

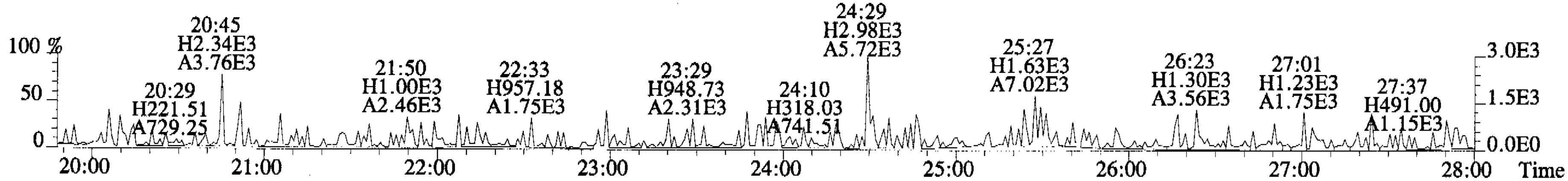


454.9728 S:5 F:5

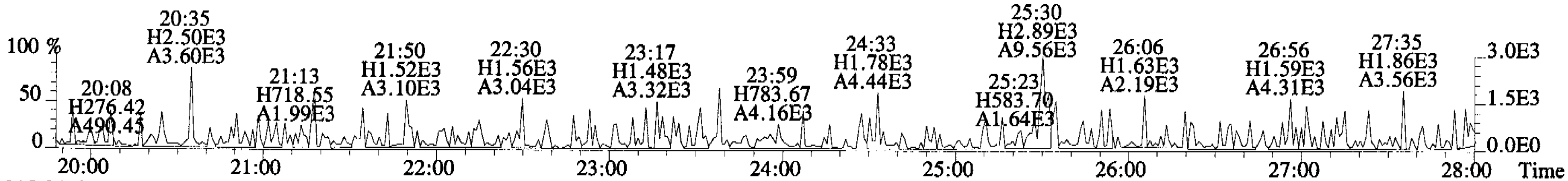


File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5

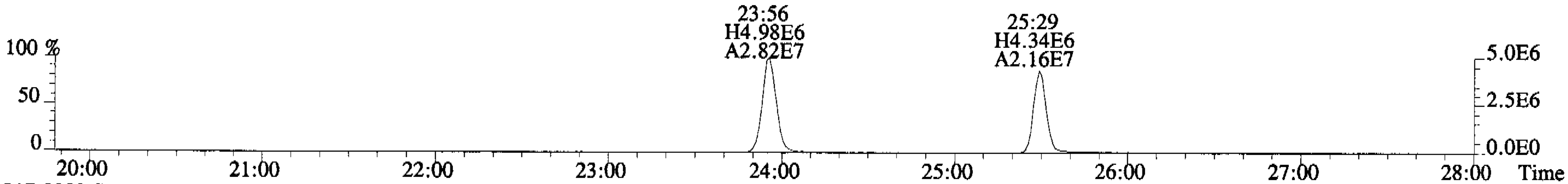
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



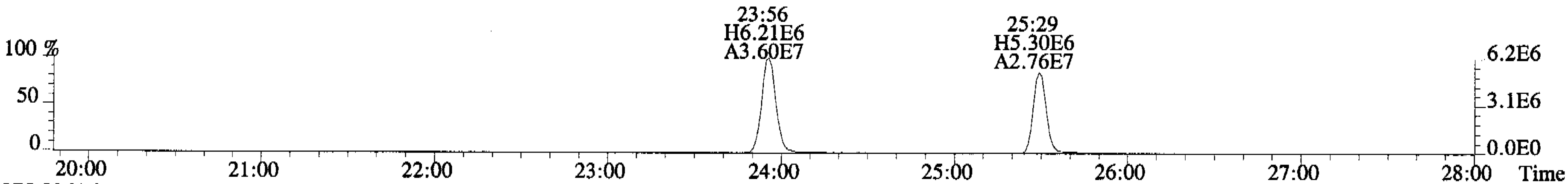
305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



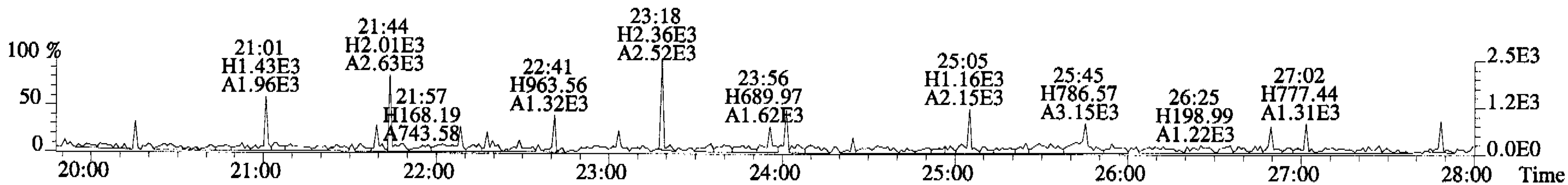
315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



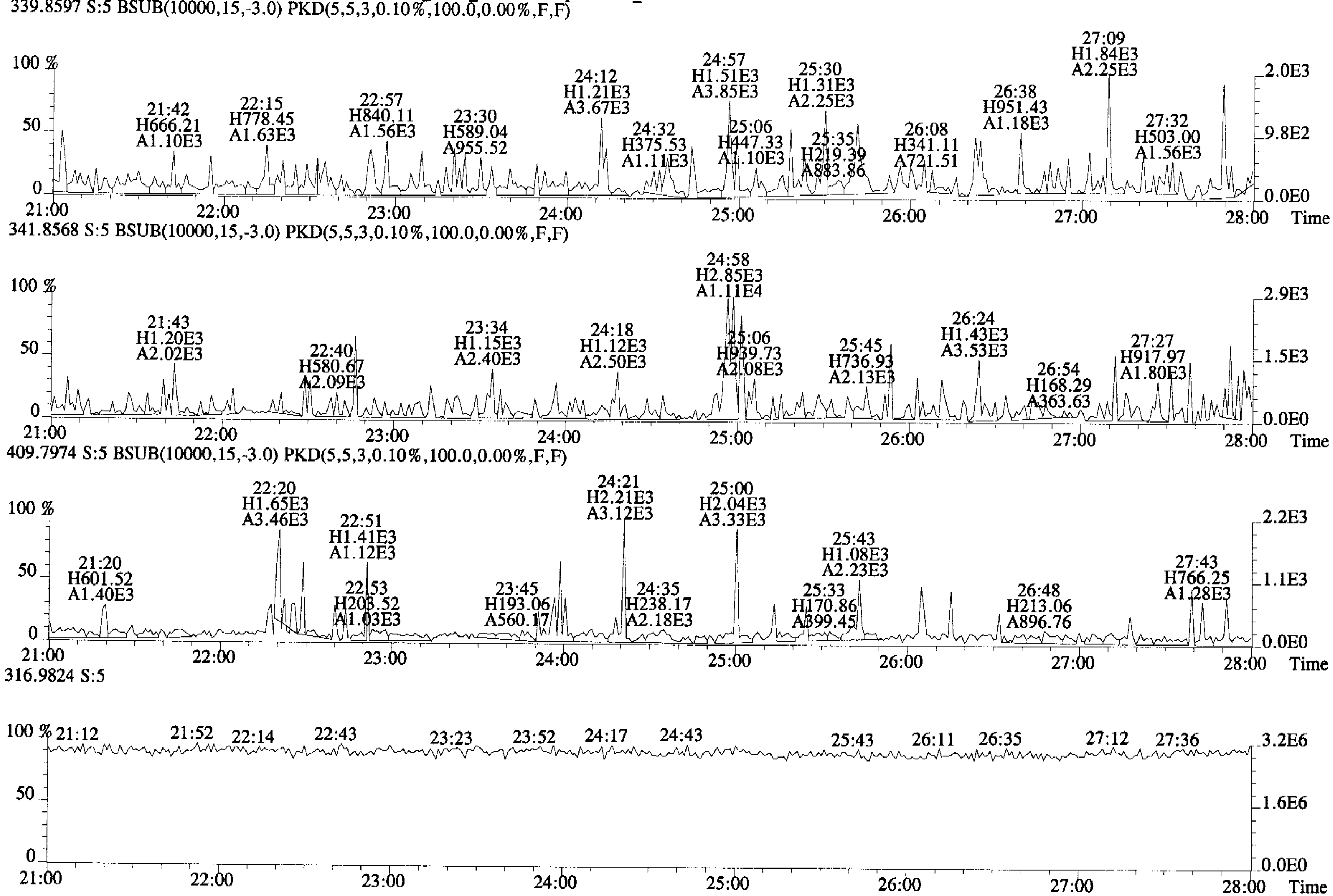
317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



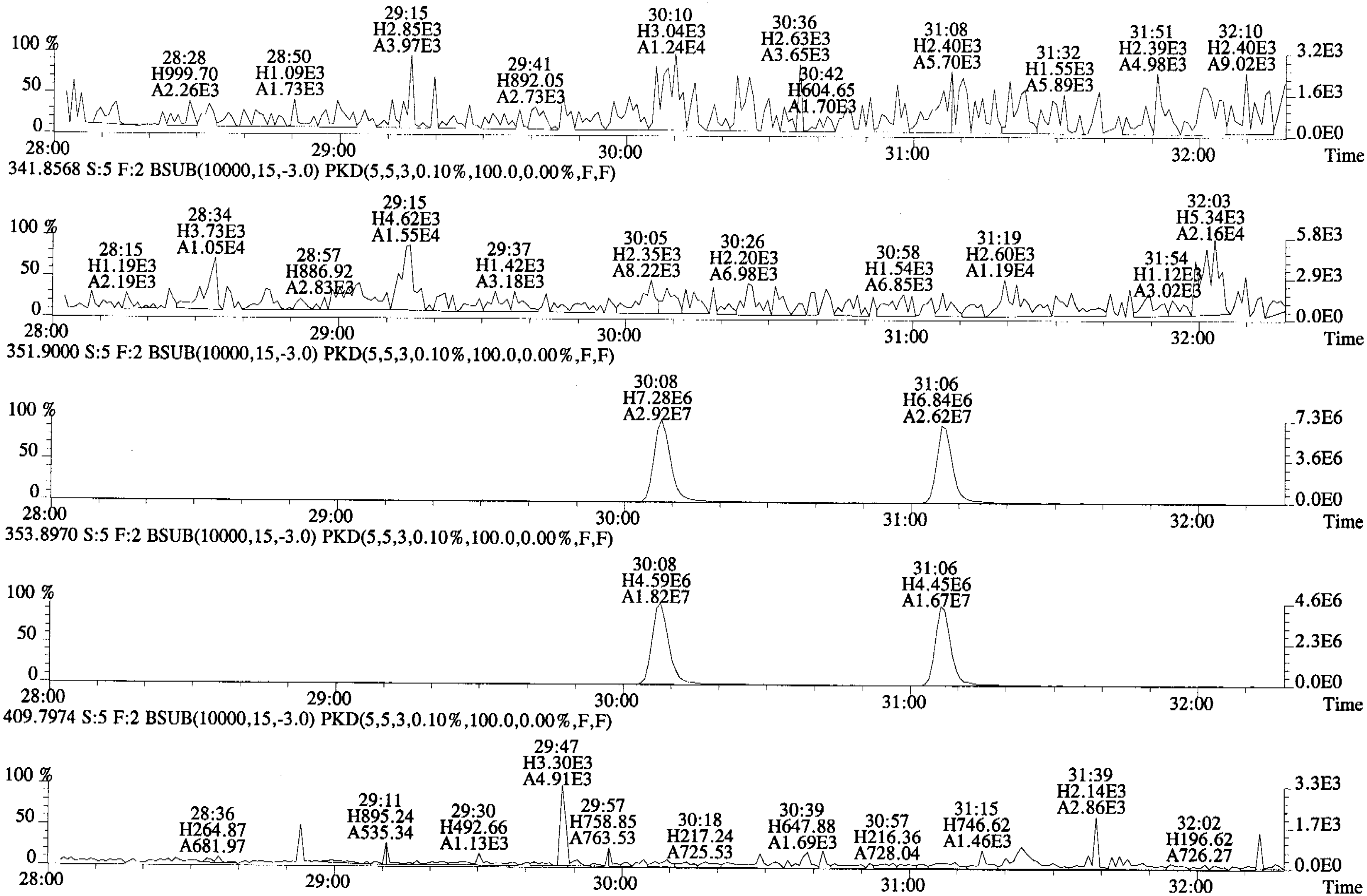
375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

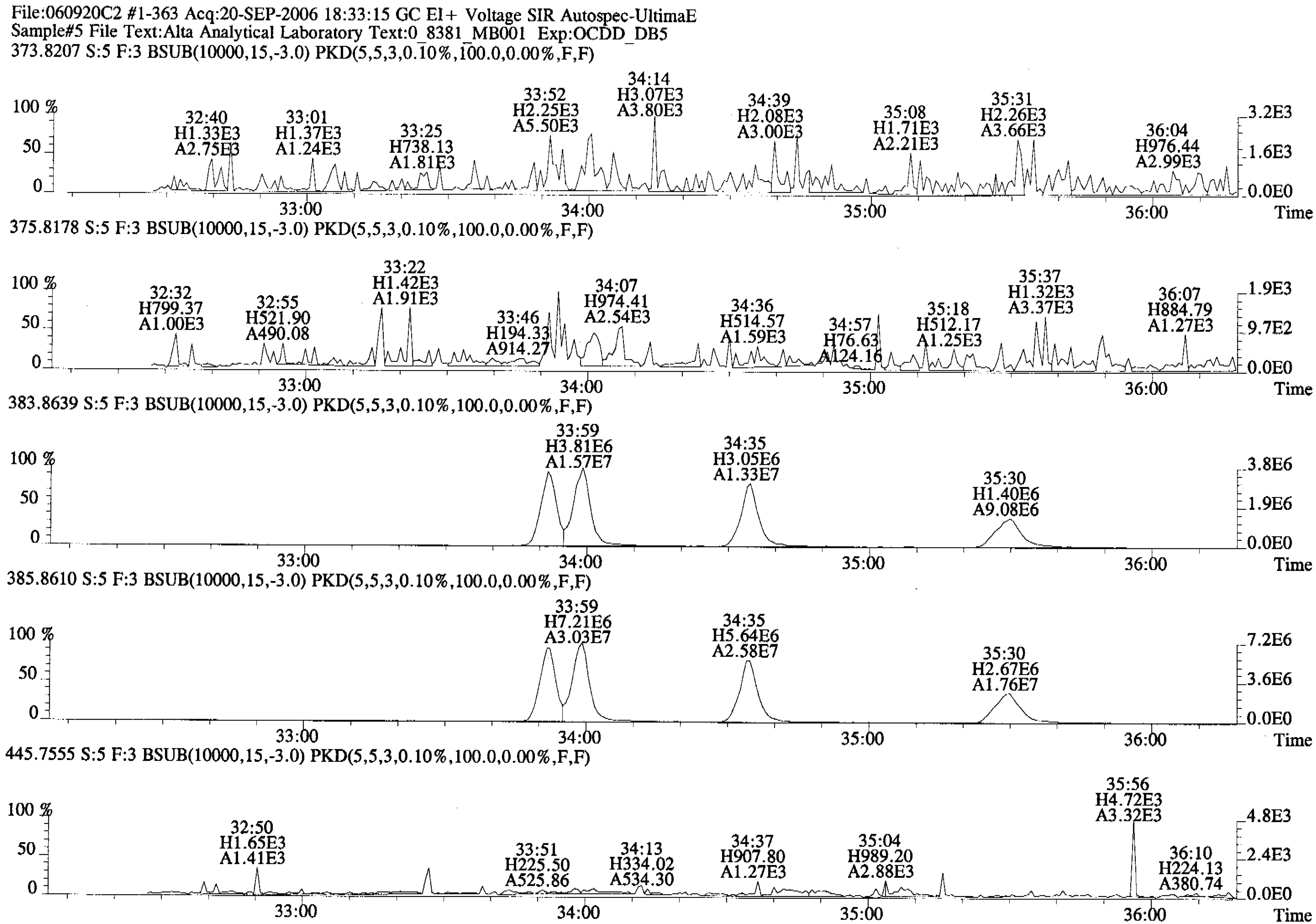


File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5

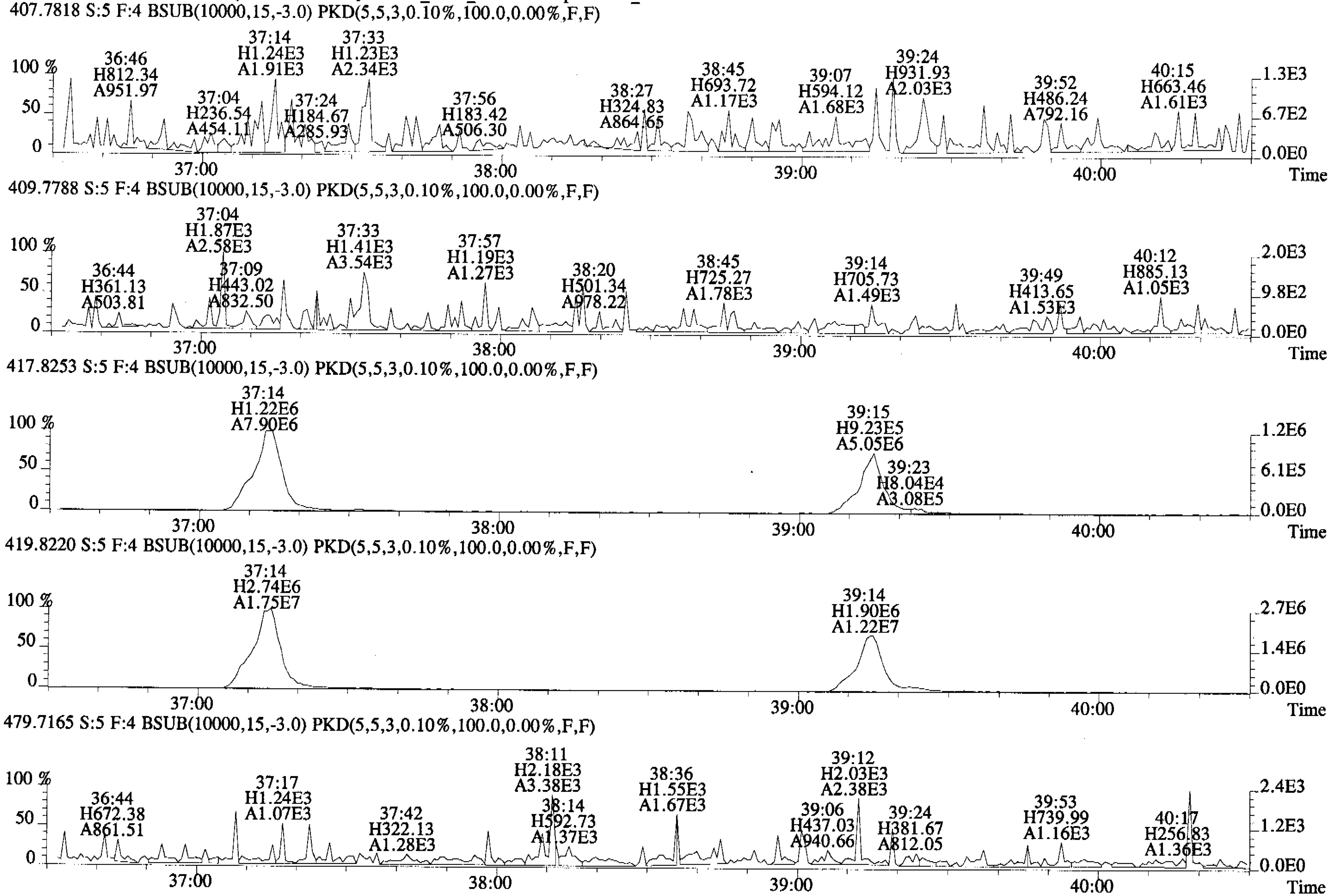


File:060920C2 #1-324 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

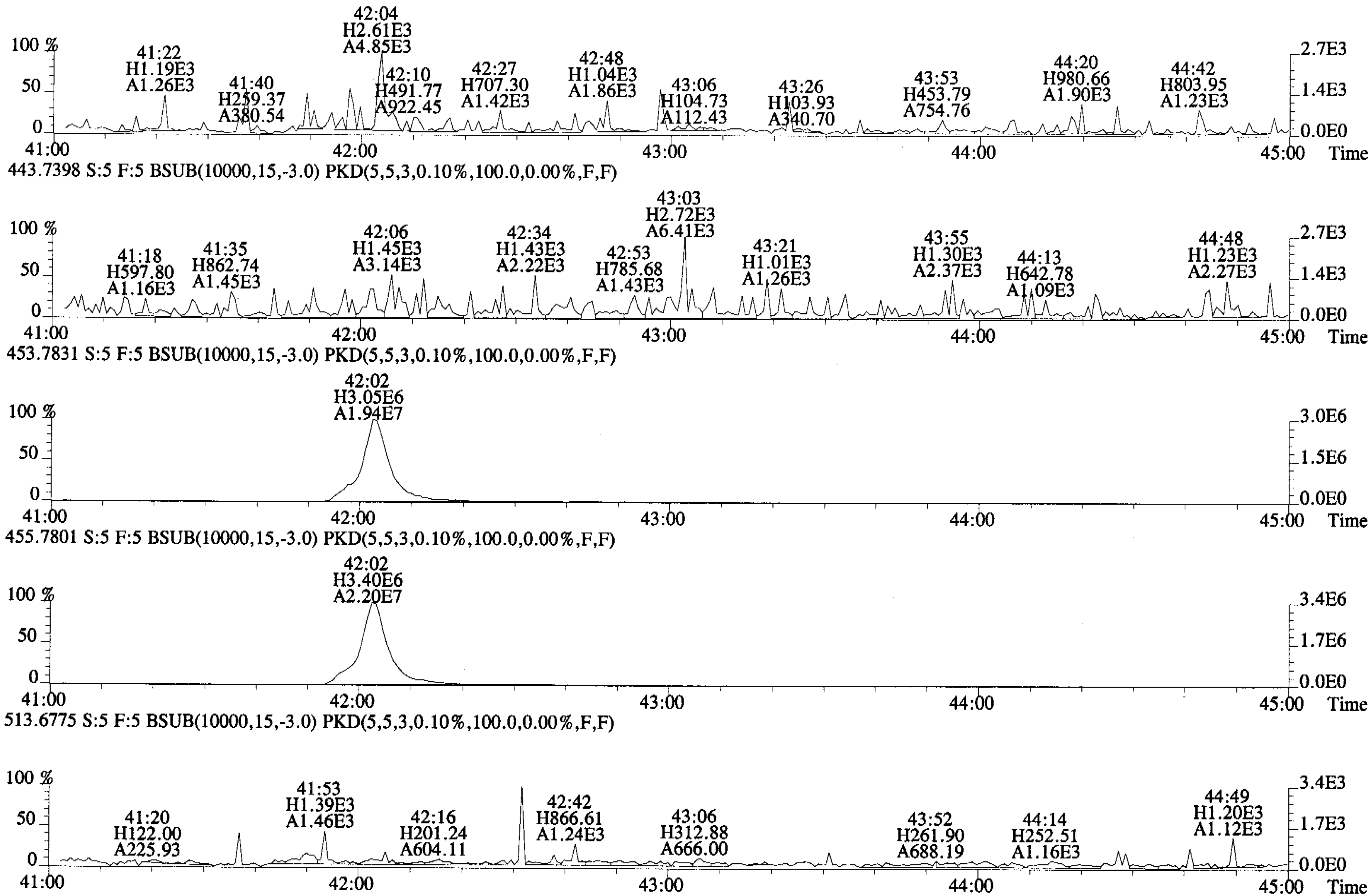



File:060920C2 #1-363 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
32:40 H1.33E3 A2.75E3
33:01 H1.37E3 A1.24E3
33:25 H738.13 A1.81E3
33:52 H2.25E3 A5.50E3
34:14 H3.07E3 A3.80E3
34:39 H2.08E3 A3.00E3
35:08 H1.71E3 A2.21E3
35:31 H2.26E3 A3.66E3
36:04 H976.44 A2.99E3
32:32 H799.37 A1.00E3
32:55 H521.90 A490.08
33:22 H1.42E3 A1.91E3
33:46 H194.33 A914.27
34:07 H974.41 A2.54E3
34:36 H514.57 A1.59E3
34:57 H76.63 A124.16
35:18 H512.17 A1.25E3
35:37 H1.32E3 A3.37E3
36:07 H884.79 A1.27E3
33:59 H3.81E6 A1.57E7
34:35 H3.05E6 A1.33E7
35:30 H1.40E6 A9.08E6
33:59 H7.21E6 A3.03E7
34:35 H5.64E6 A2.58E7
35:30 H2.67E6 A1.76E7
32:50 H1.65E3 A1.41E3
33:51 H225.50 A525.86
34:13 H334.02 A534.30
34:37 H907.80 A1.27E3
35:04 H989.20 A2.88E3
35:56 H4.72E3 A3.32E3
36:10 H224.13 A380.74
100 %
50
0
33:00
34:00
35:00
36:00
Time
3.2E3
1.6E3
0.0E0
1.9E3
9.7E2
3.8E6
1.9E6
7.2E6
3.6E6
4.8E3
2.4E3

File:060920C2 #1-400 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5



File:060920C2 #1-345 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:0_8381_MB001 Exp:OCDD_DB5
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



FORM 8A

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Alta Analytical Laboratory   Extraction Batch: 0_8381_OPR001

Contract No.:   SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS   OPR Data Filename: 060920C2-2

Ext. Date: 9/18/06   Shift: Day   Analysis Date: 20-SEP-06   Time: 16:04:31

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
2,3,7,8-TCDD	10	9.99	6.7 - 15.8
			7.3 - 14.6 (2)
1,2,3,7,8-PeCDD	50	48.5	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	46.7	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	48.1	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	47.4	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	51.3	35.0 - 70.0
OCDD	100	99.3	78.0 - 144.0
2,3,7,8-TCDF	10	9.77	7.5 - 15.8
			8.0 - 14.7 (2)
1,2,3,7,8-PeCDF	50	51.9	40.0 - 67.0
2,3,4,7,8-PeCDF	50	51.8	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	51.8	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	50.6	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	50.1	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	51.3	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	51.1	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	52.3	39.0 - 69.0
OCDF	100	105	63.0 - 170.0

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613, for tetras only. 10/94

Analyst: MM

Date: 9/21/06

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

Lab Name: Alta Analytical Laboratory Extraction Batch: 0_8381_OPR001

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS OPR Data Filename: 060920C2-2

Ext. Date: 9/18/06 Shift: Day Analysis Date: 20-SEP-06 Time: 16:04:31

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

LABELED COMPOUNDS	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
13C-2,3,7,8-TCDD	100	72.8	20.0 - 175.0
			25.0 - 141.0 (2)
13C-1,2,3,7,8-PeCDD	100	62.1	21.0 - 227.0
13C-1,2,3,4,7,8-HxCDD	100	79.6	21.0 - 193.0
13C-1,2,3,6,7,8-HxCDD	100	76.6	25.0 - 163.0
13C-1,2,3,4,6,7,8-HpCDD	100	76.9	26.0 - 166.0
13C-OCDD	200	138	26.0 - 397.0
13C-2,3,7,8-TCDF	100	76.1	22.0 - 152.0
			26.0 - 126.0 (2)
13C-1,2,3,7,8-PeCDF	100	62.3	21.0 - 192.0
13C-2,3,4,7,8-PeCDF	100	59.0	13.0 - 328.0
13C-1,2,3,4,7,8-HxCDF	100	77.8	19.0 - 202.0
13C-1,2,3,6,7,8-HxCDF	100	75.4	21.0 - 159.0
13C-2,3,4,6,7,8-HxCDF	100	76.0	22.0 - 176.0
13C-1,2,3,7,8,9-HxCDF	100	54.3	17.0 - 205.0
13C-1,2,3,4,6,7,8-HpCDF	100	64.1	21.0 - 158.0
13C-1,2,3,4,7,8,9-HpCDF	100	58.8	20.0 - 186.0
13C-OCDF	200	116	26.0 - 397.0
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	32.4	12.4 - 76.4

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. 10/94

(2) Contract-required concentration limits for OPR as specified in Table 6a, Method 1613. 10/94

Analyst: MJ

Date: 9/21/06

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	3.52e+06	0.78 y	1.08	26:26	9.9927		*	2.5	*
	1,2,3,7,8-PeCDD	1.33e+07	0.62 y	1.03	31:26	48.498		*	2.5	*
	1,2,3,4,7,8-HxCDD	1.43e+07	1.22 y	1.13	34:44	46.743		*	2.5	*
	1,2,3,6,7,8-HxCDD	1.62e+07	1.23 y	1.03	34:50	48.140		*	2.5	*
	1,2,3,7,8,9-HxCDD	1.58e+07	1.24 y	1.12	35:08	47.374		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	1.39e+07	1.06 y	1.02	38:40	51.285		*	2.5	*
	OCDD	2.11e+07	0.89 y	1.06	41:52	99.315		*	2.5	*
	2,3,7,8-TCDF	4.57e+06	0.76 y	1.06	25:31	9.7742		*	2.5	*
	1,2,3,7,8-PeCDF	2.00e+07	1.57 y	1.01	30:09	51.947		*	2.5	*
	2,3,4,7,8-PeCDF	1.93e+07	1.56 y	1.02	31:08	51.804		*	2.5	*
	1,2,3,4,7,8-HxCDF	2.16e+07	1.21 y	1.15	33:53	51.772		*	2.5	*
	1,2,3,6,7,8-HxCDF	2.49e+07	1.22 y	1.14	34:00	50.622		*	2.5	*
	2,3,4,6,7,8-HxCDF	2.30e+07	1.20 y	1.17	34:36	50.117		*	2.5	*
	1,2,3,7,8,9-HxCDF	1.35e+07	1.23 y	1.10	35:31	51.264		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	1.65e+07	1.04 y	1.31	37:15	51.138		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	1.28e+07	0.97 y	1.33	39:15	52.275		*	2.5	*
	OCDF	2.16e+07	0.90 y	0.91	42:04	105.47		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	10.001	10.349		*	*
Total Penta-Dioxins	48.644	49.132		*	*
Total Hexa-Dioxins	142.66	143.01		*	*
Total Hepta-Dioxins	51.411	52.035		*	*
Total Tetra-Furans	10.181	10.615		*	*
Total Penta-Furans	106.01	106.64		*	*
Total Hexa-Furans	204.44	204.94		*	*
Total Hepta-Furans	104.53	105.79		*	*

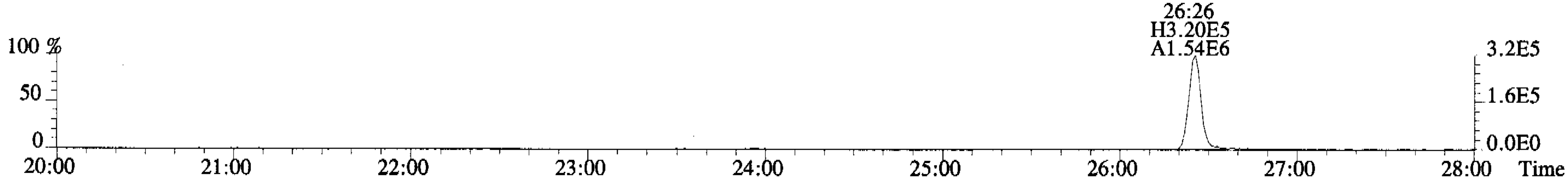
	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	3.26e+07	0.80 y	1.09	26:24	72.759	72.8	
IS	13C-1,2,3,7,8-PeCDD	2.66e+07	0.63 y	1.04	31:24	62.107	62.1	
IS	13C-1,2,3,4,7,8-HxCDD	2.70e+07	1.25 y	0.83	34:43	79.643	79.6	
IS	13C-1,2,3,6,7,8-HxCDD	3.26e+07	1.26 y	1.04	34:50	76.607	76.6	
IS	13C-1,2,3,4,6,7,8-HpCDD	2.68e+07	1.07 y	0.85	38:39	76.932	76.9	
IS	13C-OCDD	4.02e+07	0.90 y	0.71	41:51	137.77	68.9	
IS	13C-2,3,7,8-TCDF	4.40e+07	0.78 y	0.96	25:30	76.116	76.1	
IS	13C-1,2,3,7,8-PeCDF	3.83e+07	1.56 y	1.02	30:08	62.340	62.3	
IS	13C-2,3,4,7,8-PeCDF	3.63e+07	1.61 y	1.02	31:07	59.009	59.0	
IS	13C-1,2,3,4,7,8-HxCDF	3.64e+07	0.52 y	1.14	33:52	77.805	77.8	
IS	13C-1,2,3,6,7,8-HxCDF	4.32e+07	0.51 y	1.40	33:59	75.439	75.4	
IS	13C-2,3,4,6,7,8-HxCDF	3.92e+07	0.52 y	1.26	34:35	75.954	76.0	
IS	13C-1,2,3,7,8,9-HxCDF	2.41e+07	0.53 y	1.08	35:30	54.340	54.3	
IS	13C-1,2,3,4,6,7,8-HpCDF	2.45e+07	0.46 y	0.93	37:14	64.142	64.1	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.84e+07	0.46 y	0.77	39:14	58.769	58.8	
IS	13C-OCDF	4.49e+07	0.90 y	0.94	42:03	116.28	58.1	
C/Up	37Cl-2,3,7,8-TCDD	1.03e+07		0.77	26:26	32.425	81.1	
RS/RT	13C-1,2,3,4-TCDD	4.11e+07	0.82 y	1.00	25:42	100.00		
RS	13C-1,2,3,4-TCDF	6.03e+07	0.79 y	1.00	23:55	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	4.09e+07	1.23 y	1.00	35:07	100.00		

Integrations by Analyst: MJ Date: 9/21/06

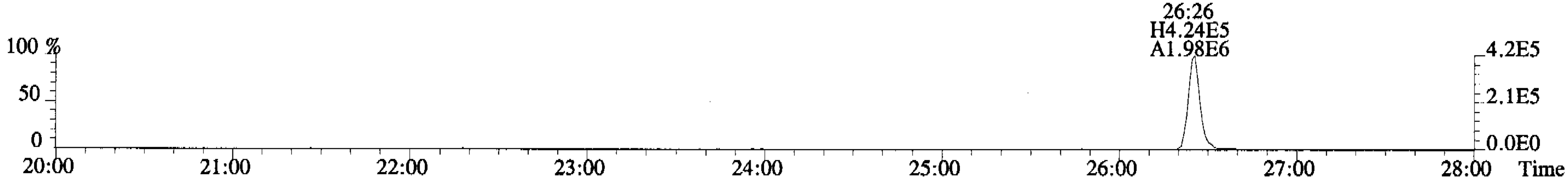
Reviewed by Analyst: WLh Date: 9/21/06

File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5

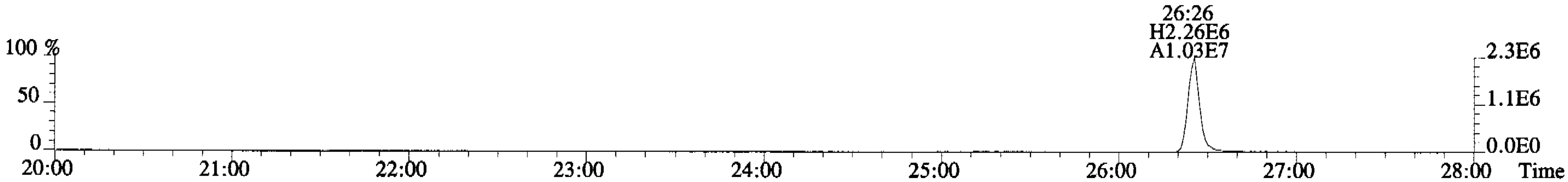
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



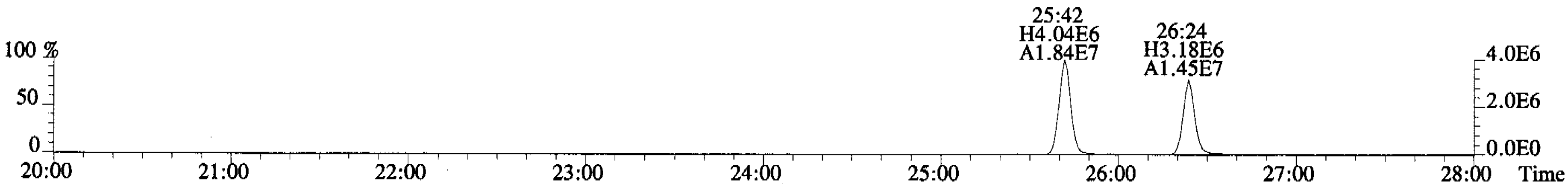
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



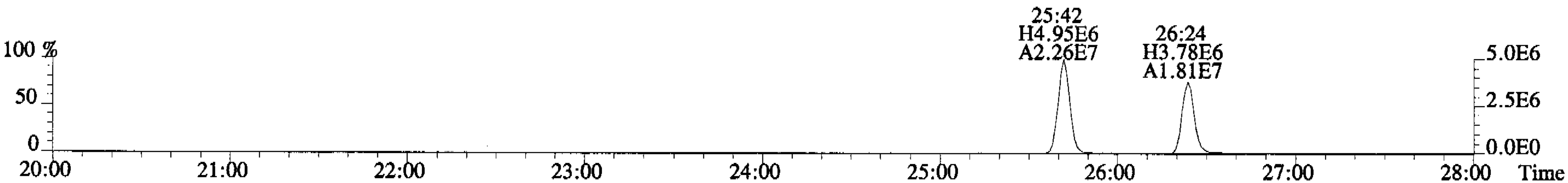
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



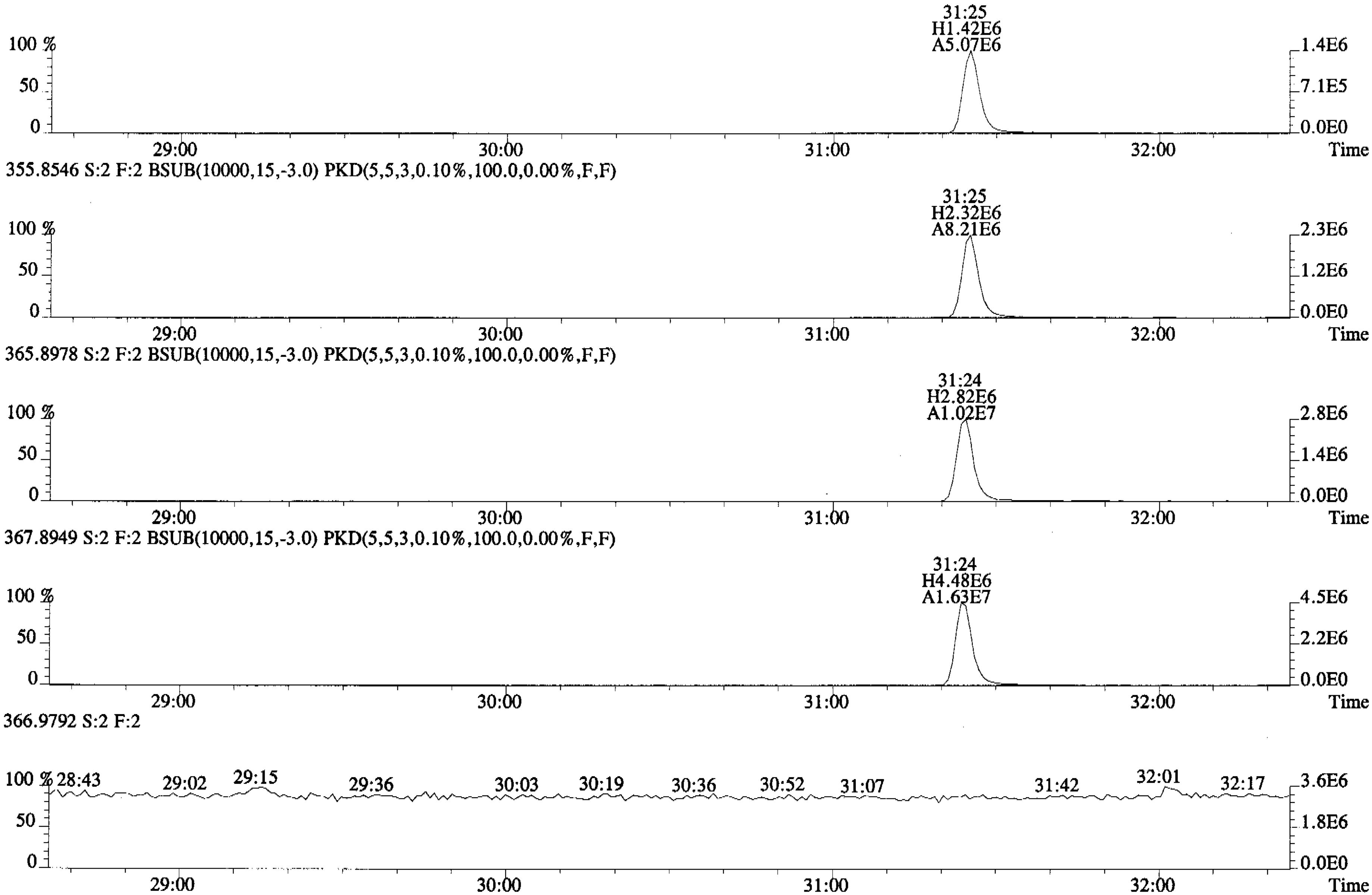
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



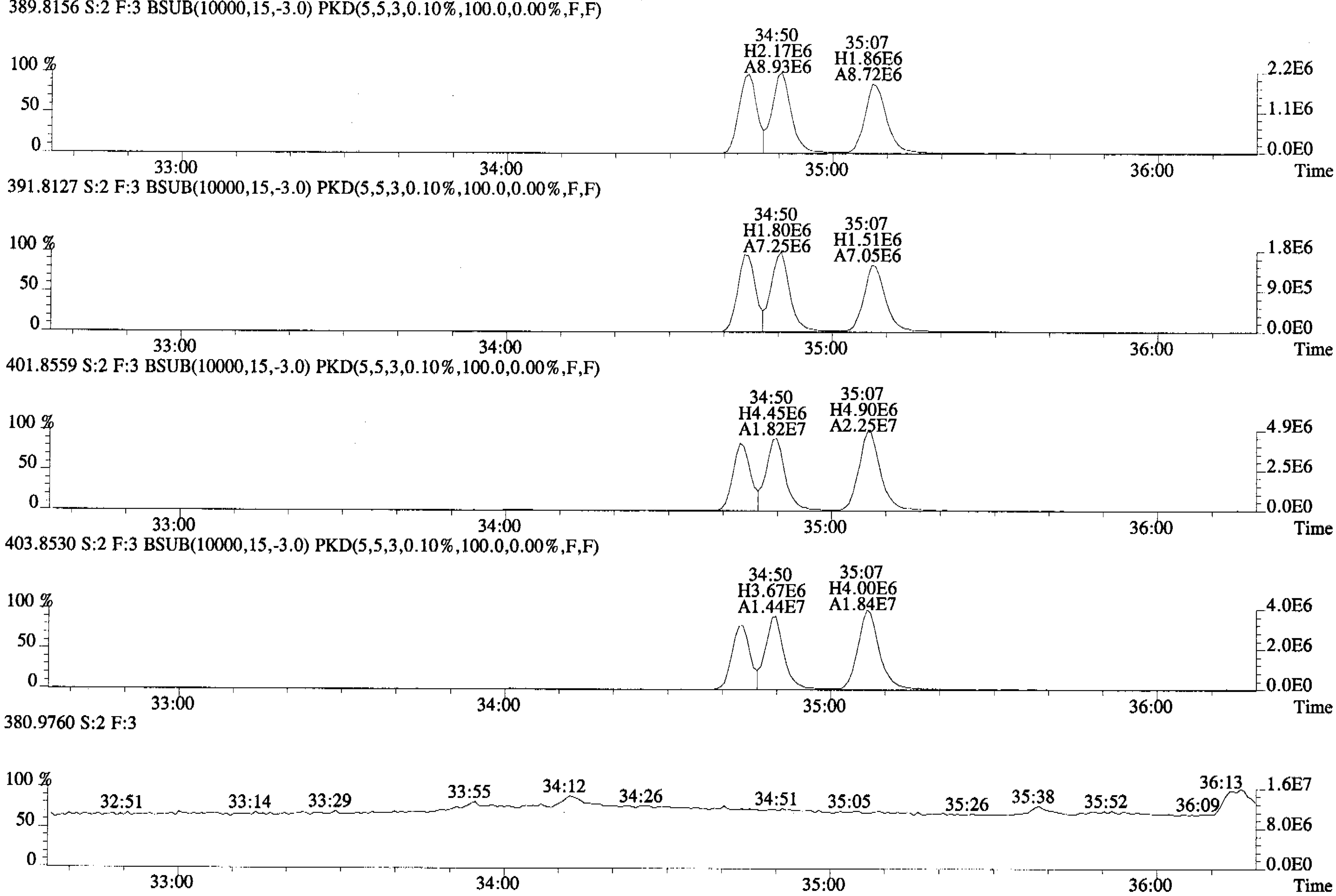
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



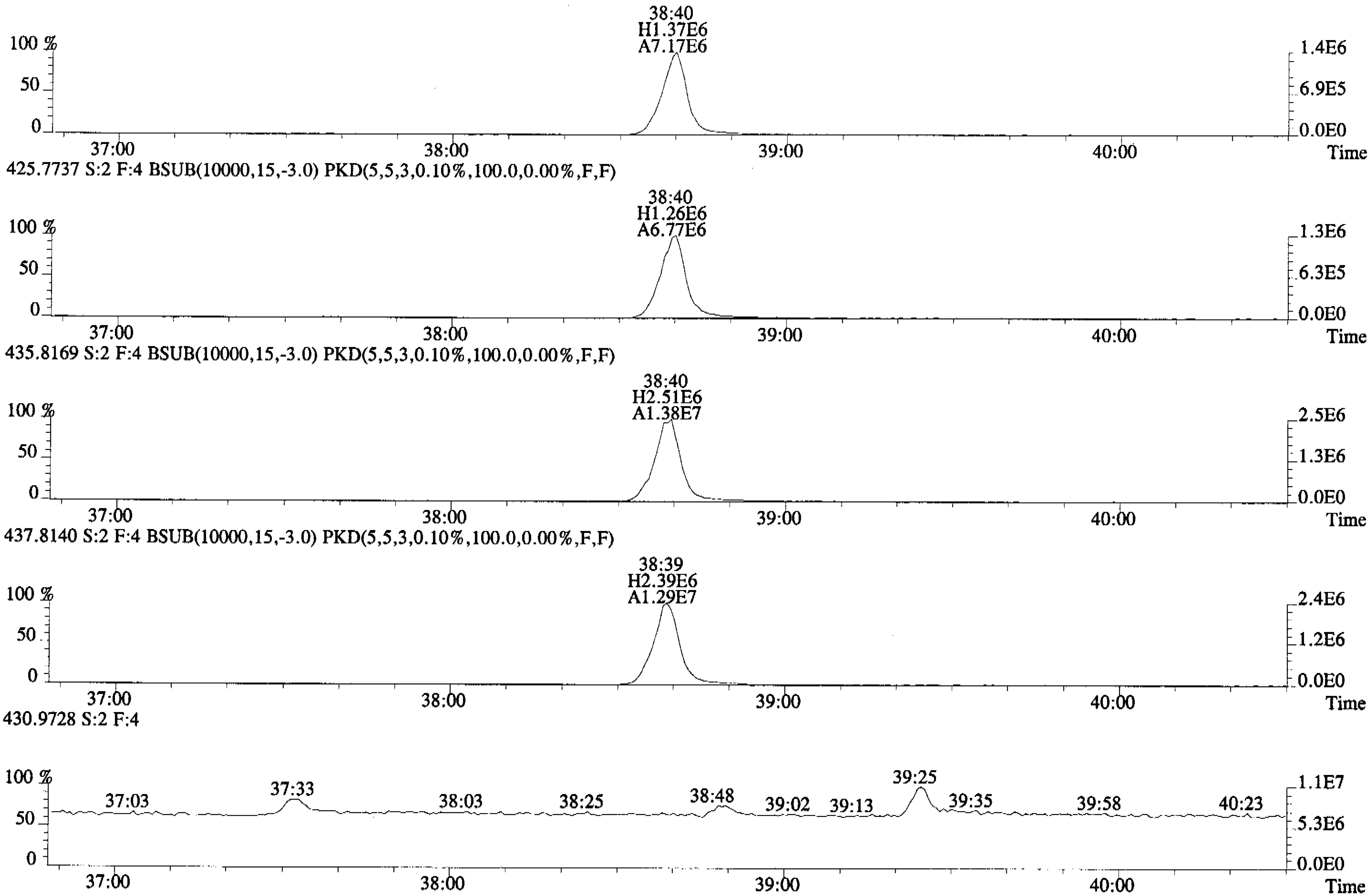
File:060920C2 #1-324 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



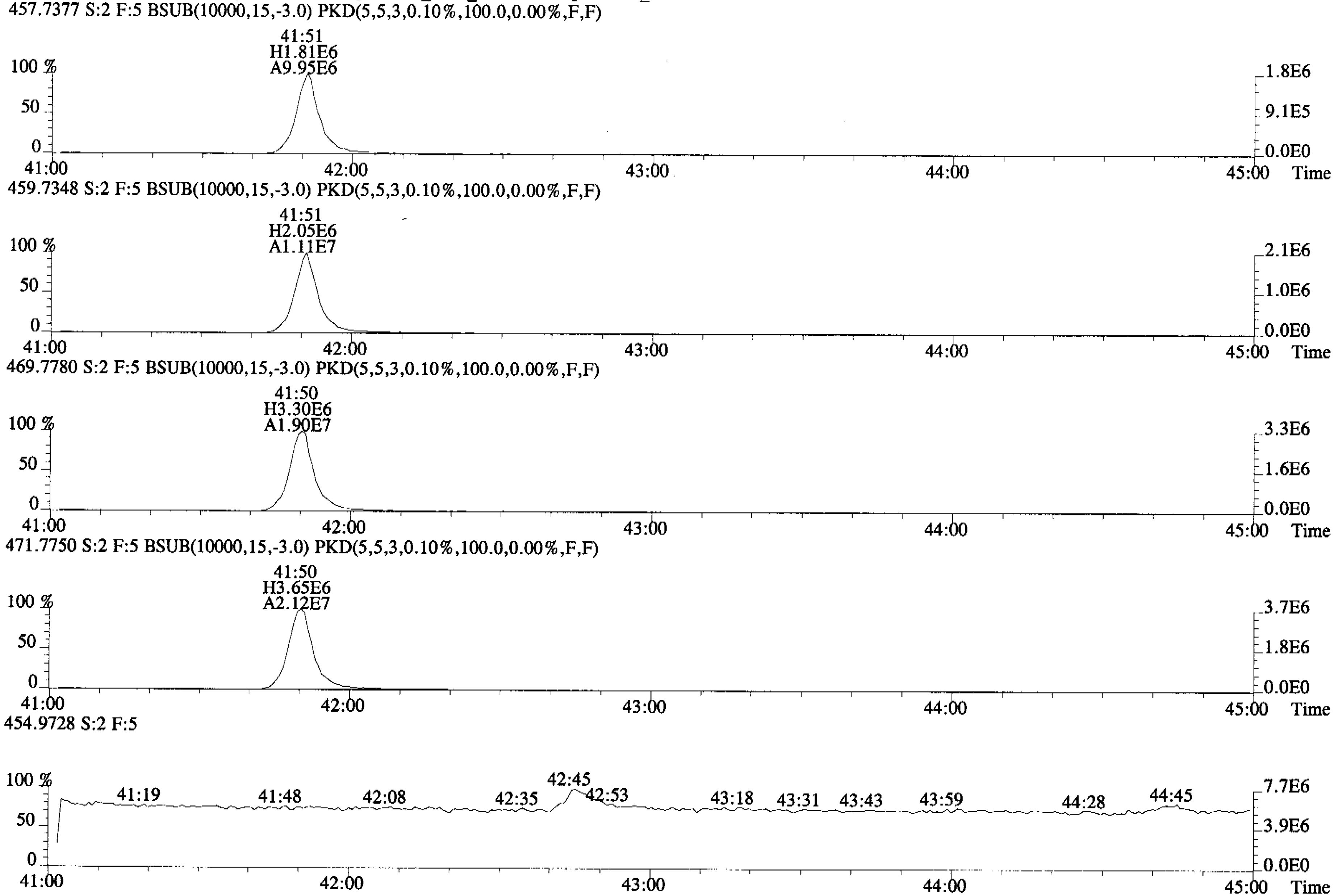
File:060920C2 #1-362 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



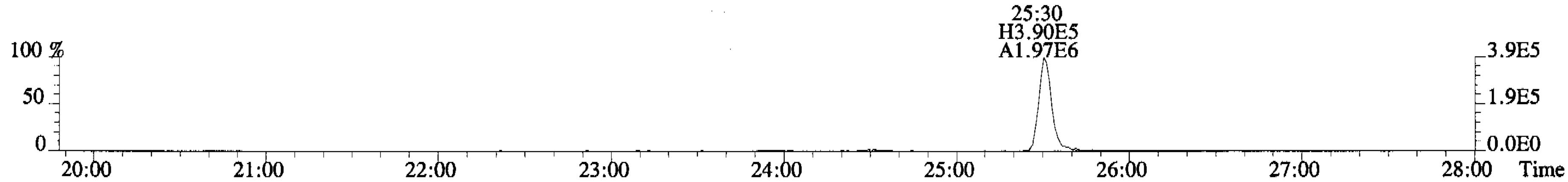
File:060920C2 #1-400 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



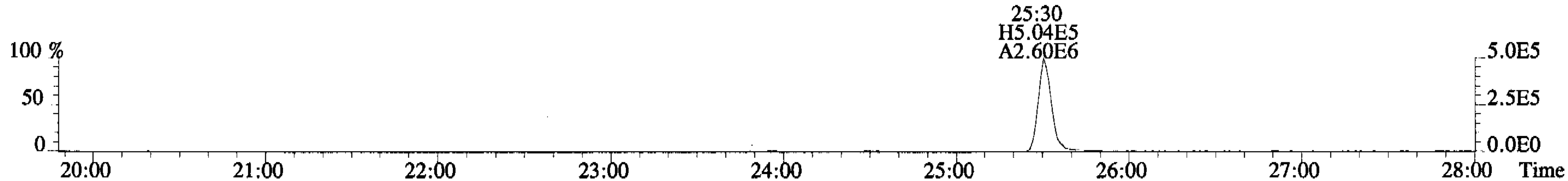
File:060920C2 #1-345 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



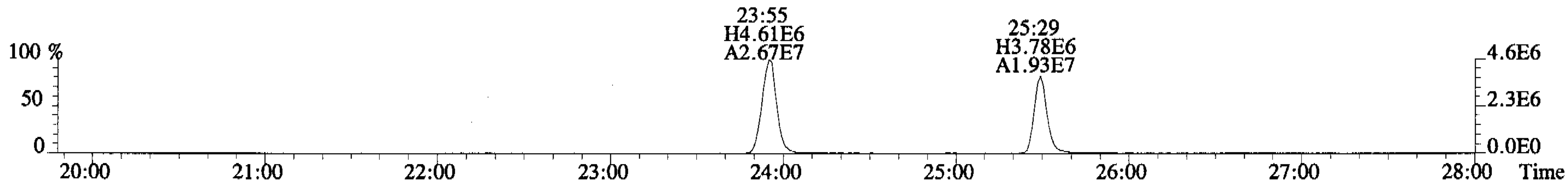
File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



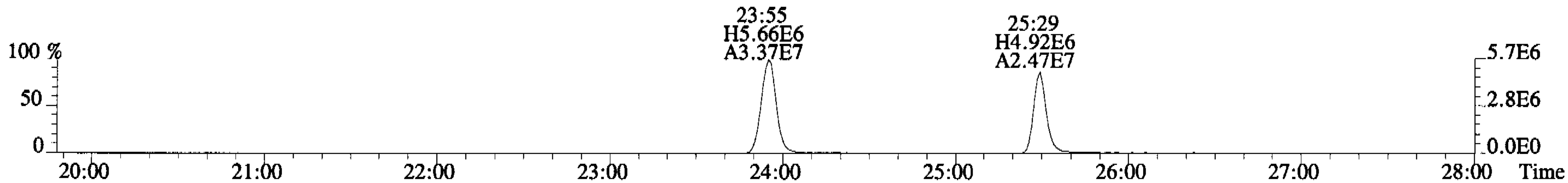
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



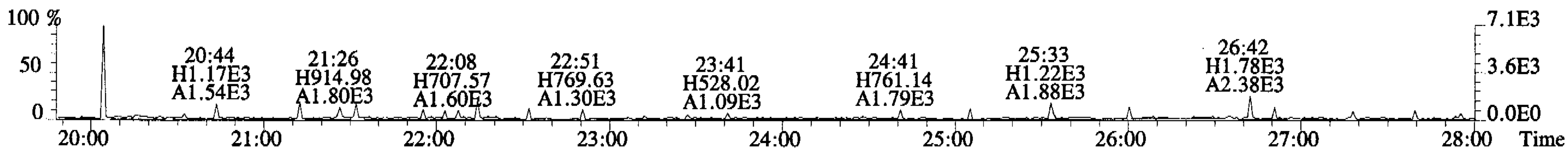
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



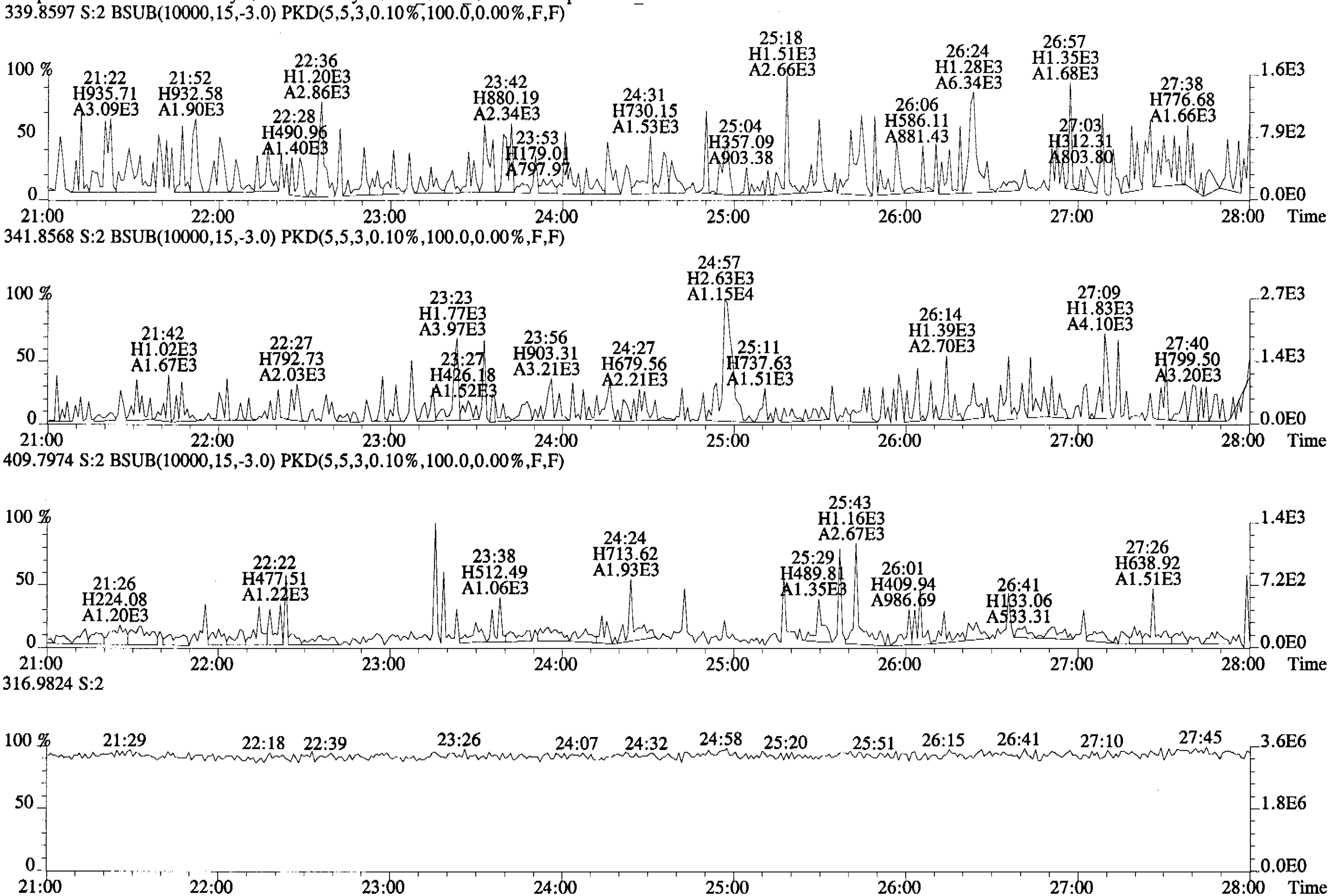
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



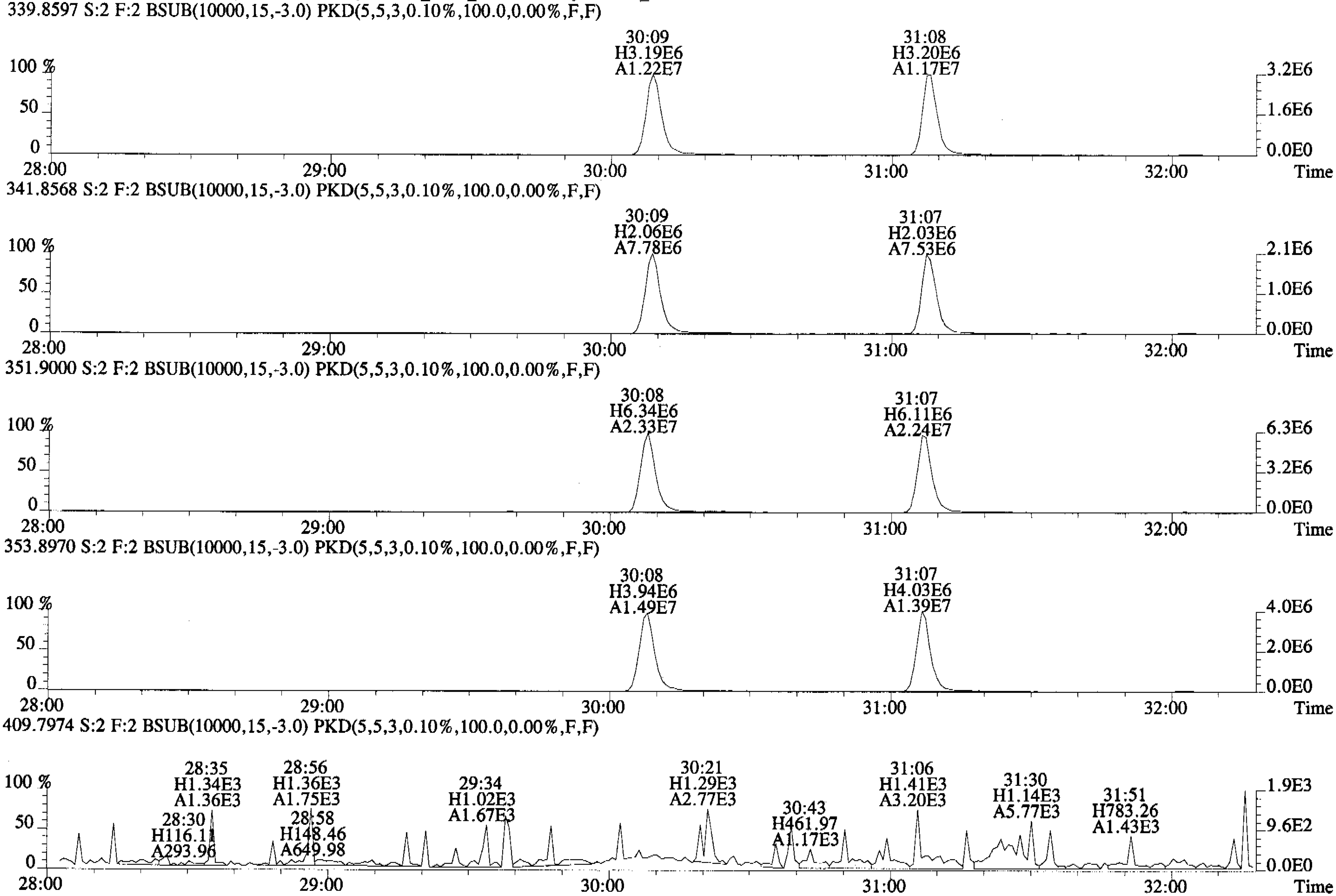
375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



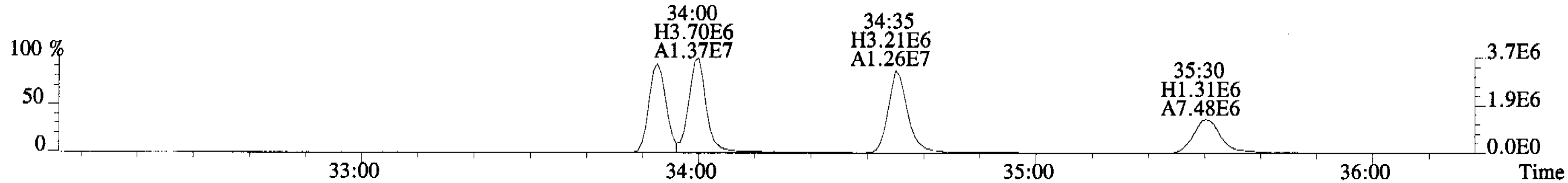
File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



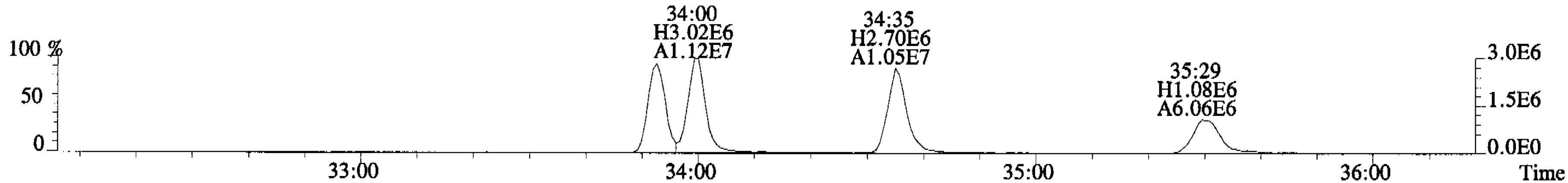
File:060920C2 #1-324 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



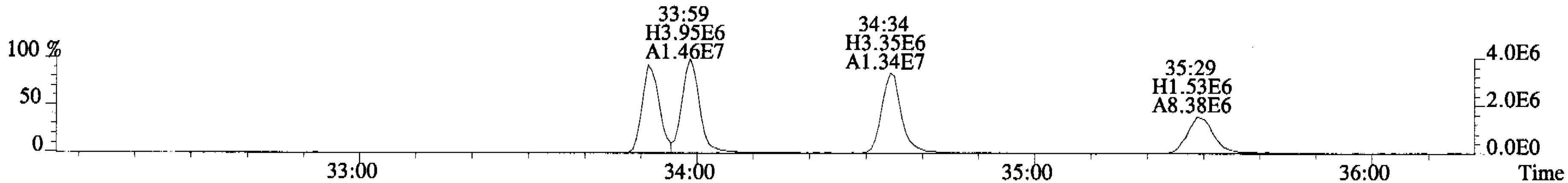
File:060920C2 #1-362 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



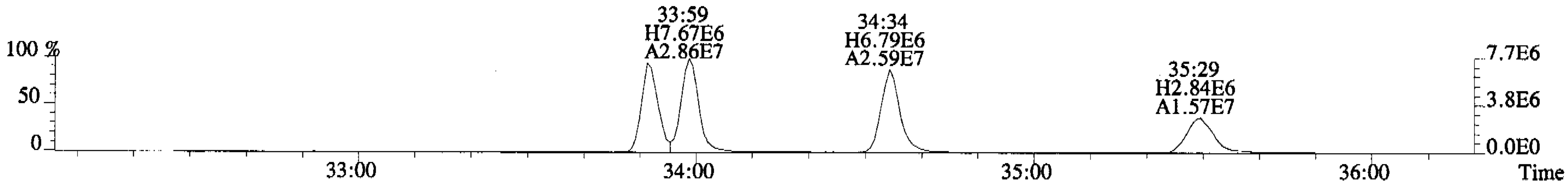
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



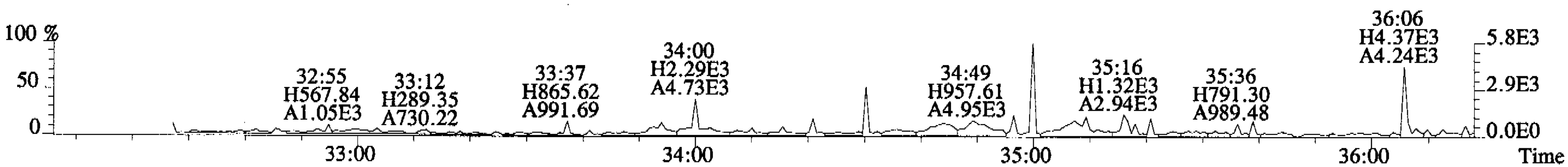
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



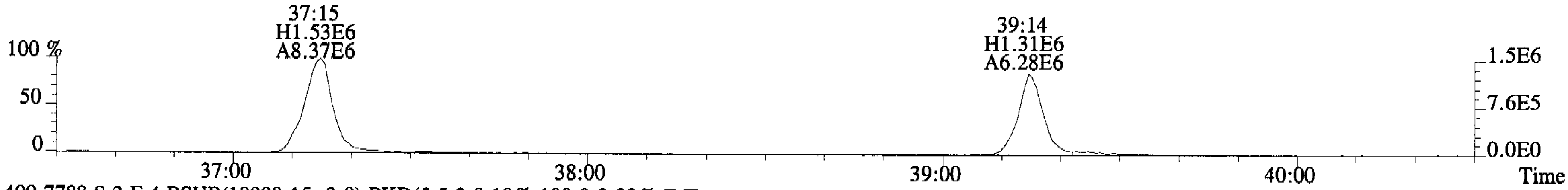
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



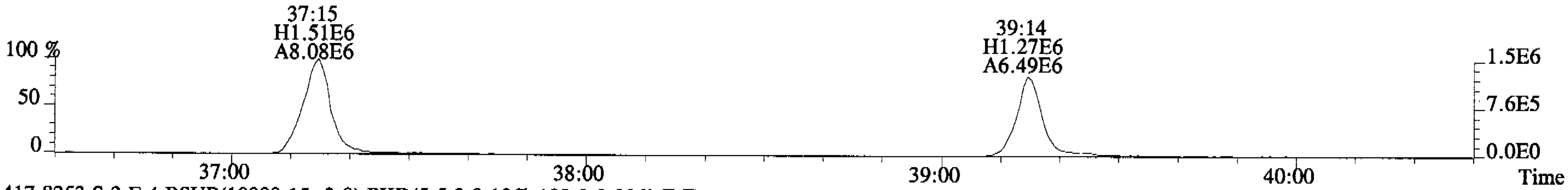
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



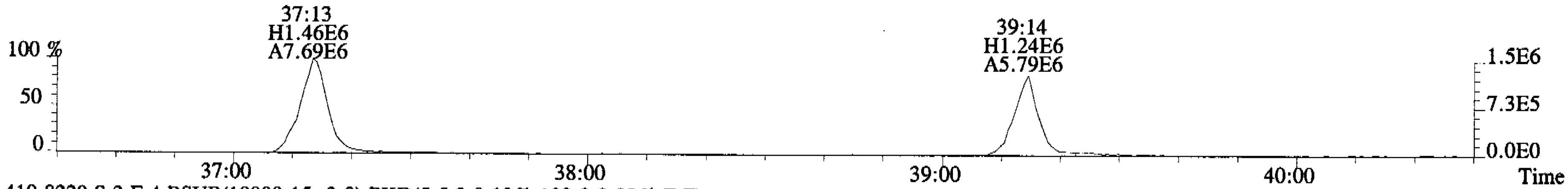
File:060920C2 #1-400 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



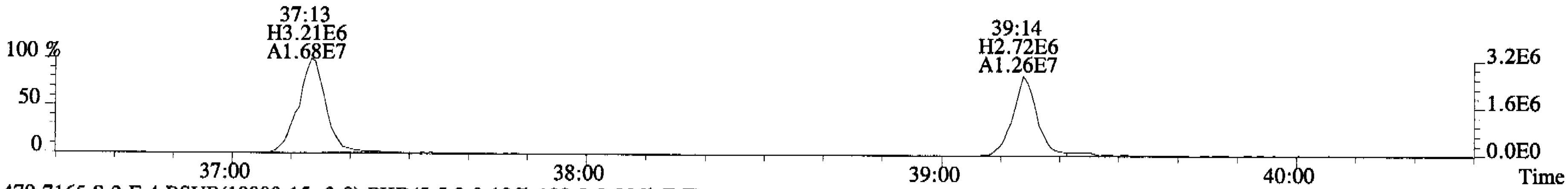
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



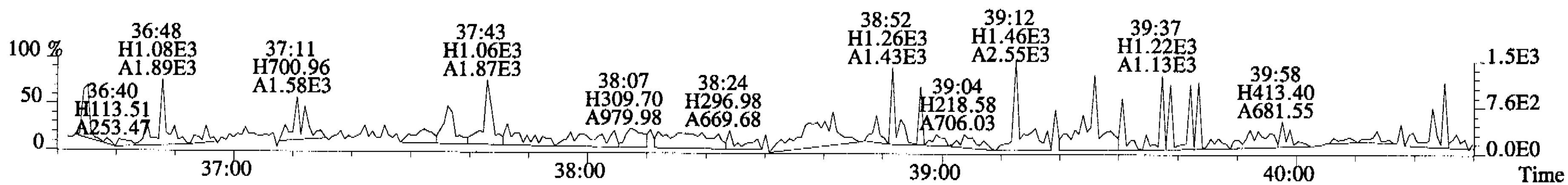
417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



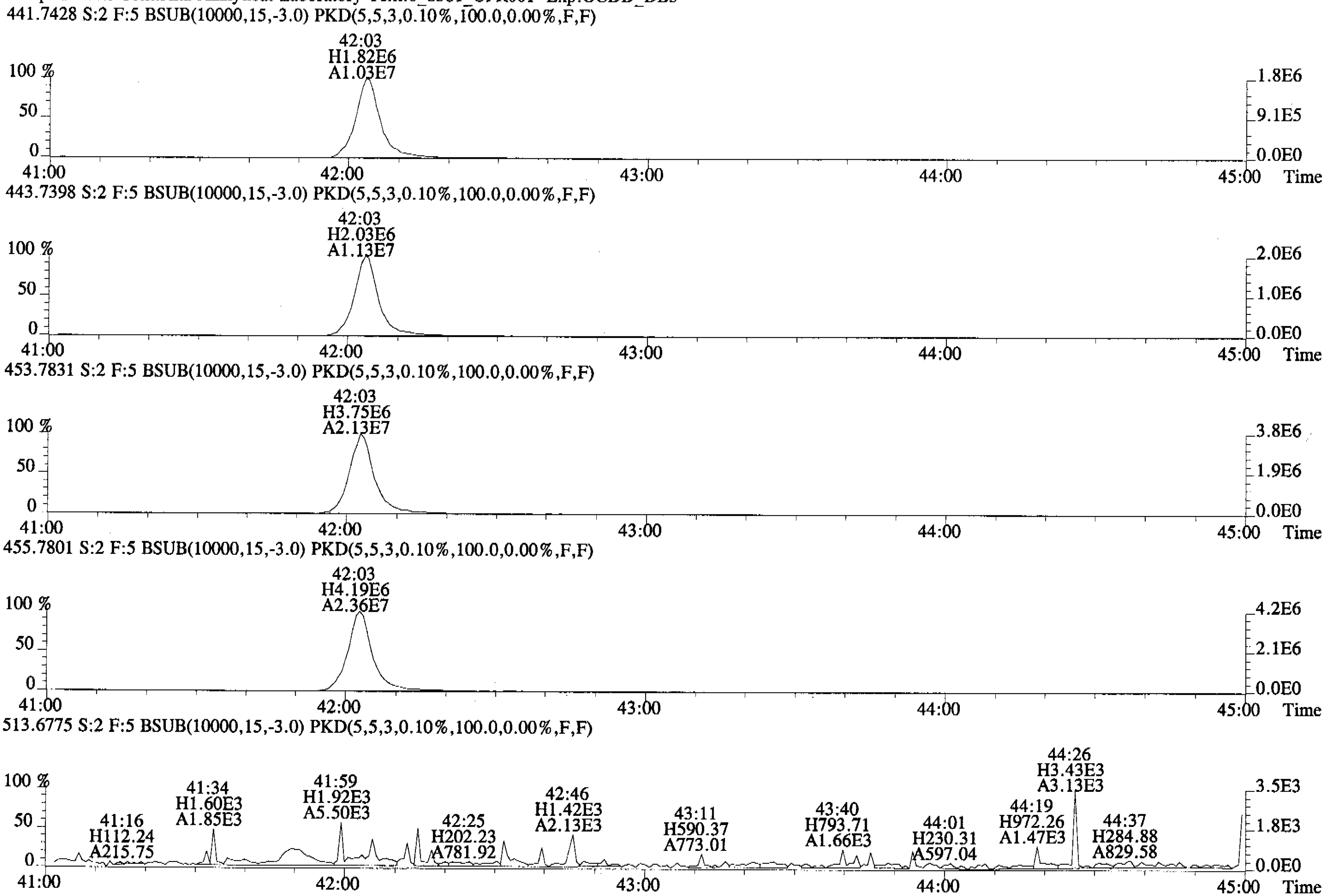
419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-345 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Alta Analytical Laboratory Text:0_8381_OPR001 Exp:OCDD_DB5



	Name	Resp	RA		RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	*	*	n	1.08	NotFnd	*		883	2.5	1.20
	1,2,3,7,8-PeCDD	*	*	n	1.03	NotFnd	*		1820	2.5	2.28
	1,2,3,4,7,8-HxCDD	*	*	n	1.13	NotFnd	*		1200	2.5	2.37
	1,2,3,6,7,8-HxCDD	*	*	n	1.03	NotFnd	*		1200	2.5	2.37
	1,2,3,7,8,9-HxCDD	*	*	n	1.12	NotFnd	*		1200	2.5	2.29
	1,2,3,4,6,7,8-HpCDD	8.60e+04	1.18	y	1.02	38:41	6.8261		*	2.5	*
	OCDD	5.57e+05	0.90	y	1.06	41:53	57.343		*	2.5	*
	2,3,7,8-TCDF	*	*	n	1.06	NotFnd	*		1340	2.5	1.53
	1,2,3,7,8-PeCDF	*	*	n	1.01	NotFnd	*		1290	2.5	2.08
	2,3,4,7,8-PeCDF	*	*	n	1.02	NotFnd	*		1290	2.5	1.98
	1,2,3,4,7,8-HxCDF	*	*	n	1.15	NotFnd	*		1030	2.5	0.863
	1,2,3,6,7,8-HxCDF	*	*	n	1.14	NotFnd	*		1030	2.5	0.828
	2,3,4,6,7,8-HxCDF	*	*	n	1.17	NotFnd	*		1030	2.5	1.09
	1,2,3,7,8,9-HxCDF	*	*	n	1.10	NotFnd	*		693	2.5	1.58
	1,2,3,4,6,7,8-HpCDF	*	*	n	1.31	NotFnd	*		1910	2.5	2.52
	1,2,3,4,7,8,9-HpCDF	*	*	n	1.33	NotFnd	*		651	2.5	1.13
	OCDF	*	*	n	0.91	NotFnd	*		1620	2.5	5.46

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		883	1.20
Total Penta-Dioxins	*	*		4680	5.88
Total Hexa-Dioxins	*	*		2370	4.62
Total Hepta-Dioxins	14.259	14.259		*	*
Total Tetra-Furans	*	*		2250	2.57
Total Penta-Furans	0.0000	0.0000		1290	2.03
Total Hexa-Furans	*	*		1030	1.18
Total Hepta-Furans	*	*		1910	2.88

	Name	Resp	RA		RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	3.13e+07	0.82	y	1.09	26:26	1214.7	61.5	
IS	13C-1,2,3,7,8-PeCDD	2.43e+07	0.62	y	1.04	31:26	983.96	49.8	
IS	13C-1,2,3,4,7,8-HxCDD	1.92e+07	1.23	y	0.83	34:44	1159.2	58.7	
IS	13C-1,2,3,6,7,8-HxCDD	2.47e+07	1.27	y	1.04	34:51	1188.8	60.2	
IS	13C-1,2,3,4,6,7,8-HpCDD	2.45e+07	1.05	y	0.85	38:41	1439.9	72.9	
IS	13C-OCDD	3.64e+07	0.88	y	0.71	41:53	2546.4	64.4	
IS	13C-2,3,7,8-TCDF	4.10e+07	0.80	y	0.96	25:32	1243.0	62.9	
IS	13C-1,2,3,7,8-PeCDF	3.54e+07	1.63	y	1.02	30:10	1011.4	51.2	
IS	13C-2,3,4,7,8-PeCDF	3.27e+07	1.56	y	1.02	31:09	932.35	47.2	
IS	13C-1,2,3,4,7,8-HxCDF	2.78e+07	0.53	y	1.14	33:53	1213.7	61.4	
IS	13C-1,2,3,6,7,8-HxCDF	3.19e+07	0.52	y	1.40	34:01	1139.8	57.7	
IS	13C-2,3,4,6,7,8-HxCDF	2.88e+07	0.51	y	1.26	34:36	1140.7	57.7	
IS	13C-1,2,3,7,8,9-HxCDF	2.04e+07	0.52	y	1.08	35:33	939.29	47.5	
IS	13C-1,2,3,4,6,7,8-HpCDF	2.39e+07	0.43	y	0.93	37:16	1276.3	64.6	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.88e+07	0.45	y	0.77	39:17	1223.4	61.9	
IS	13C-OCDF	3.90e+07	0.89	y	0.94	42:05	2063.9	52.2	
C/Up	37Cl-2,3,7,8-TCDD	1.05e+07			0.77	26:27	574.22	72.6	
RS/RT	13C-1,2,3,4-TCDD	4.67e+07	0.81	y	1.00	25:43	1976.3		
RS	13C-1,2,3,4-TCDF	6.80e+07	0.79	y	1.00	23:57	1976.3		
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.96e+07	1.27	y	1.00	35:09	1976.3		

Integrations by Analyst: MS
Date: 9/21/06

Reviewed by Analyst: [signature]
Date: 9/21/06

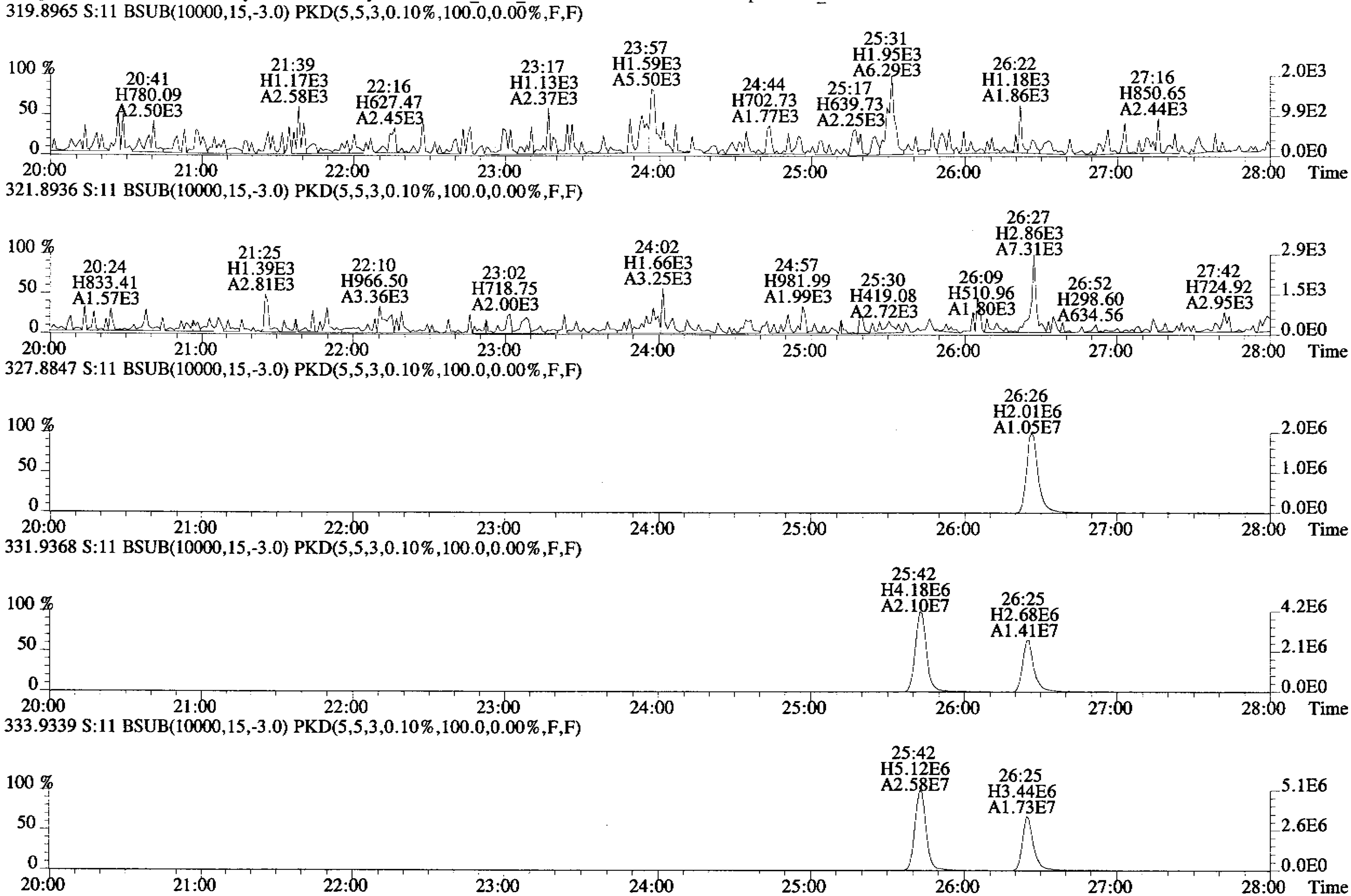
Totals class: HpCDD EMPC Entry #: 25

Run: 16 File: 060920C2 S: 11 I: 1 F: 4
Acquired: 20-SEP-06 23:30:43 Processed: 21-SEP-06 07:06:56

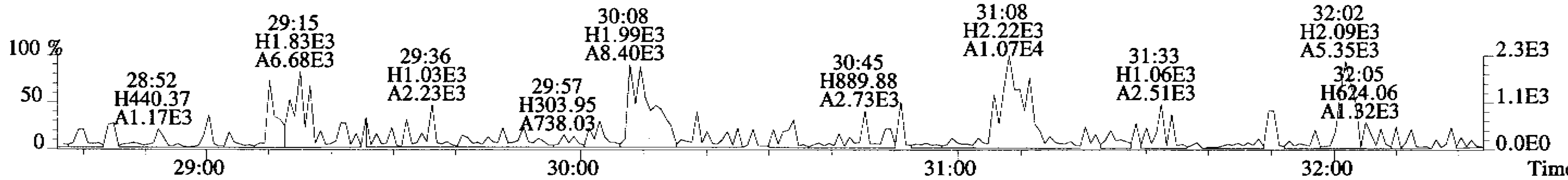
Total Concentration: 14.259 Unnamed Concentration: 7.433

RT	m1 Resp	m2 Resp	RA		Resp	Concentration	Name
37:40	4.852e+04	4.516e+04	1.07	y	9.368e+04	7.4331	
38:41	4.651e+04	3.952e+04	1.18	y	8.603e+04	6.8261	1,2,3,4,6,7,8-HpCDD

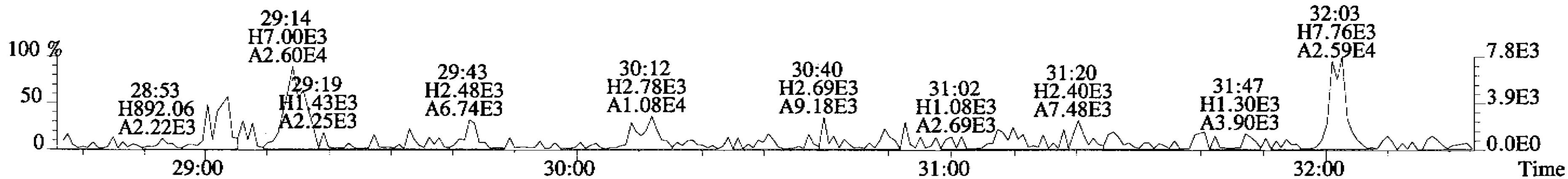
File:060920C2 #1-546 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5



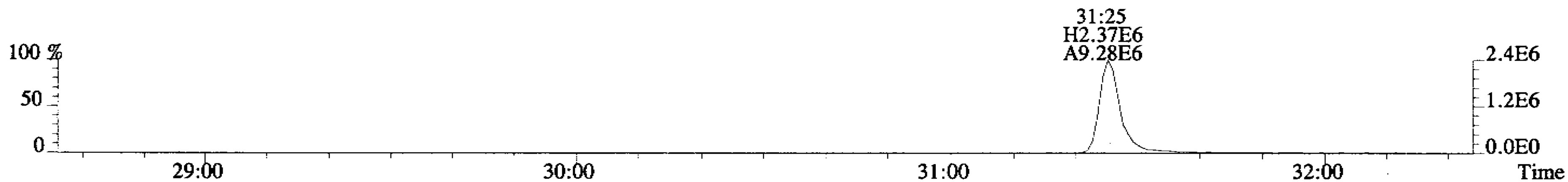
File:060920C2 #1-324 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5
353.8576 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



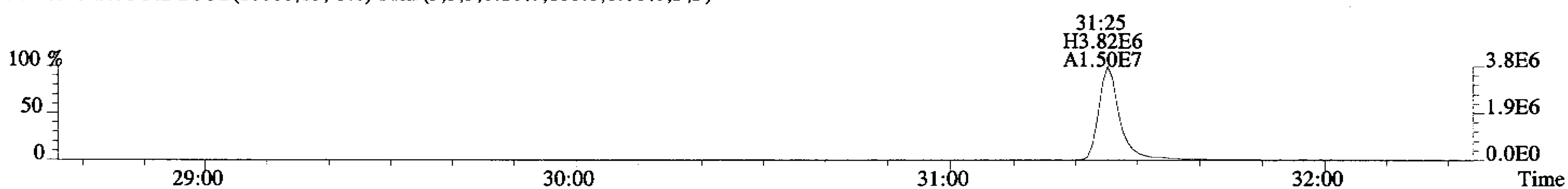
355.8546 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



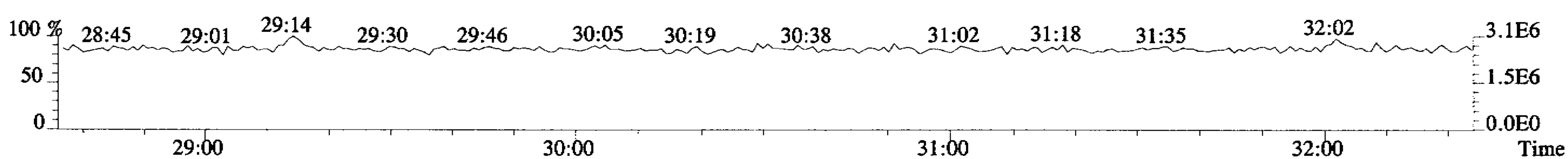
365.8978 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



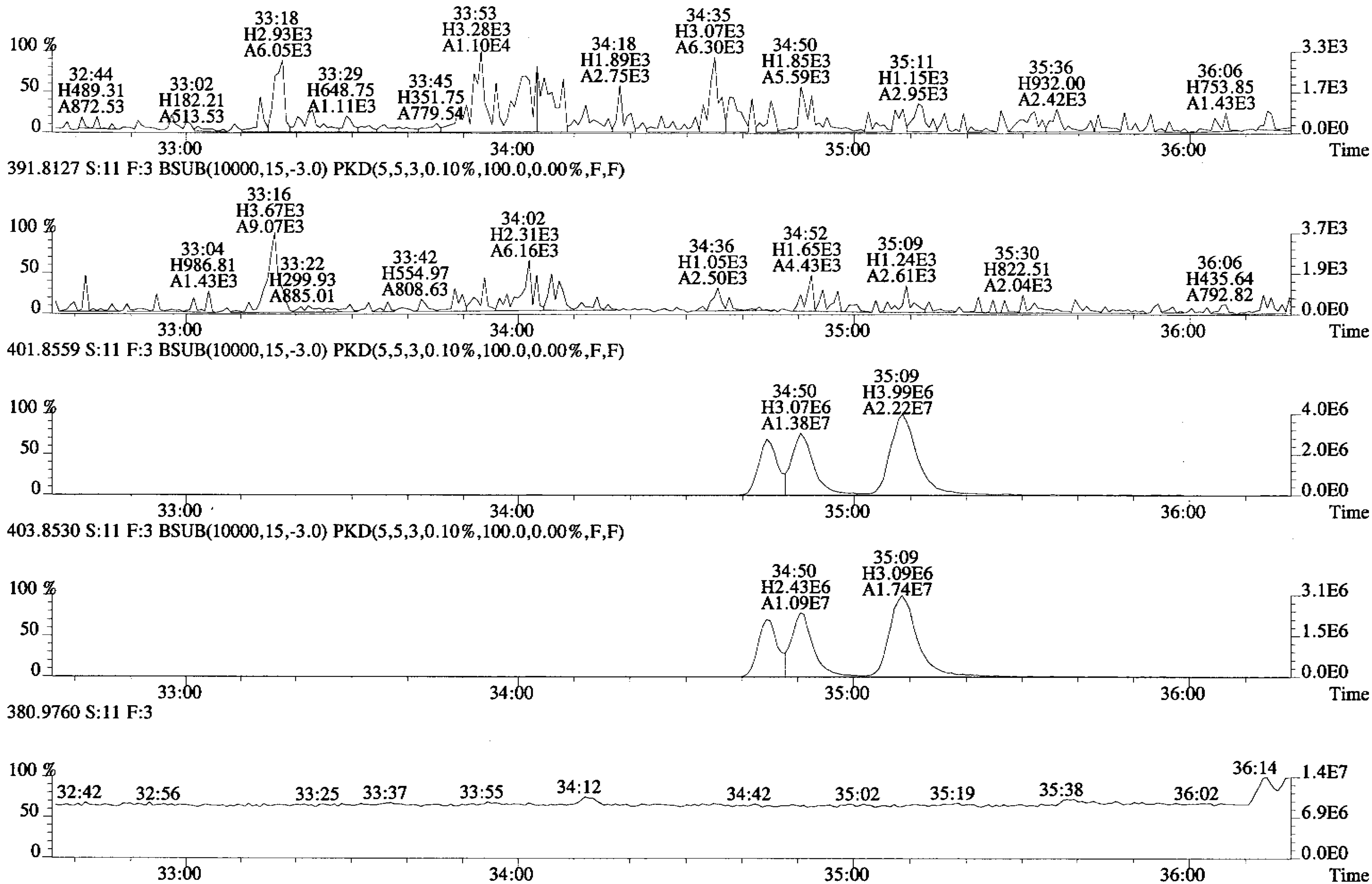
367.8949 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



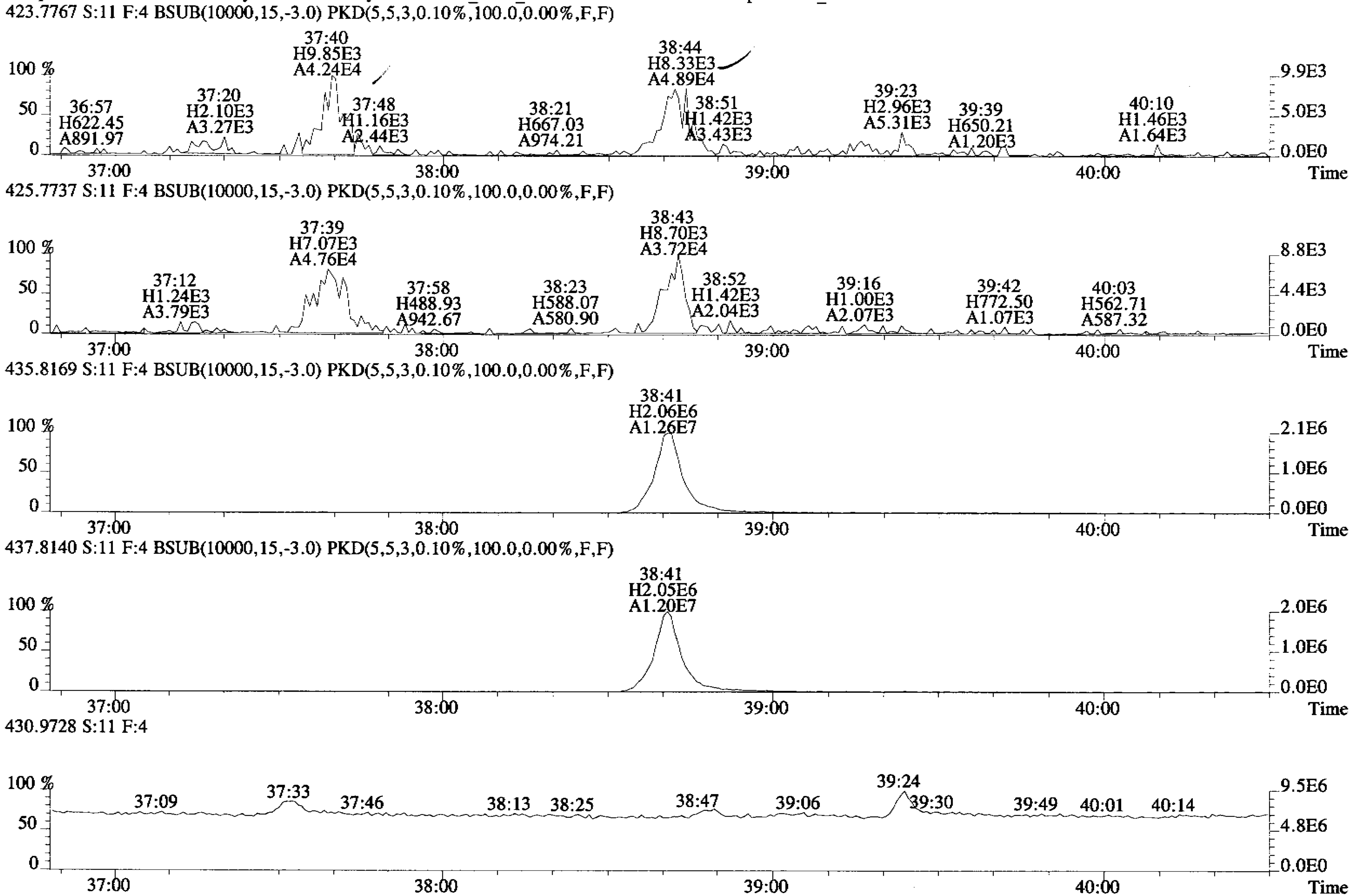
366.9792 S:11 F:2



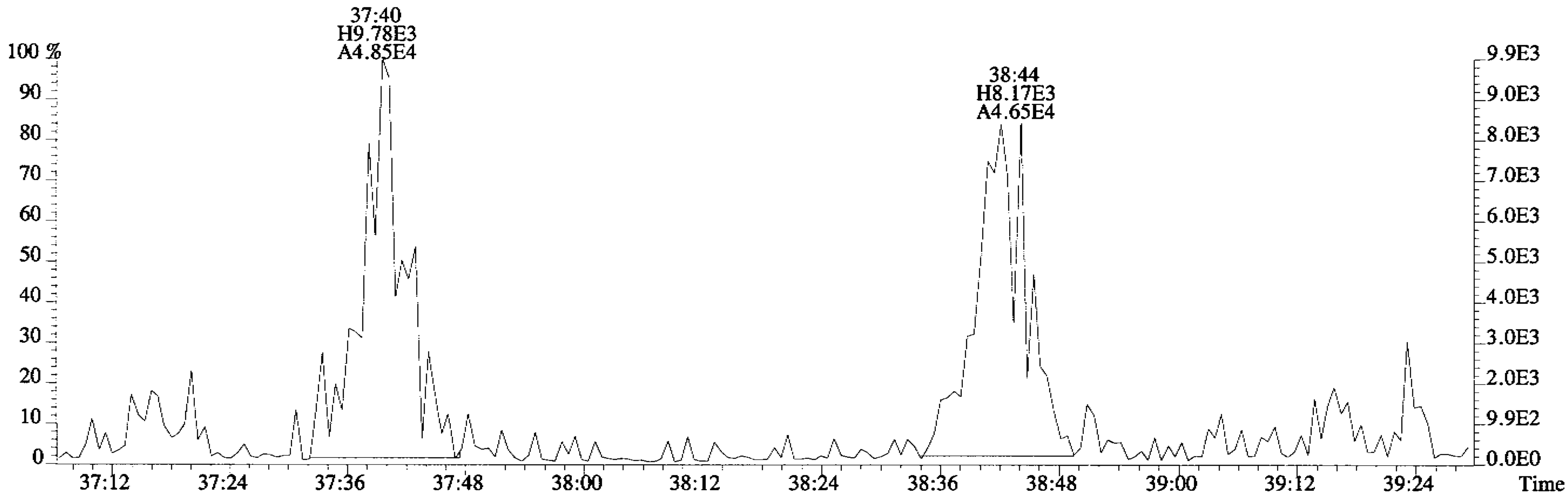
File:060920C2 #1-363 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5



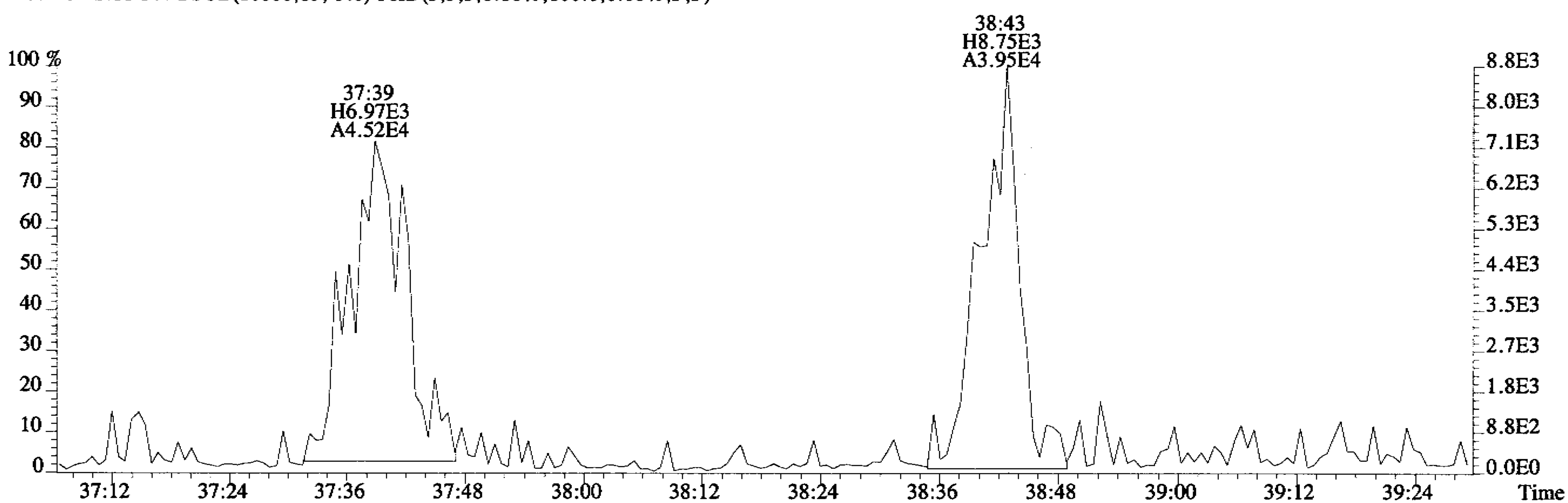
File:060920C2 #1-399 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5



File:060920C2 #1-399 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5
423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



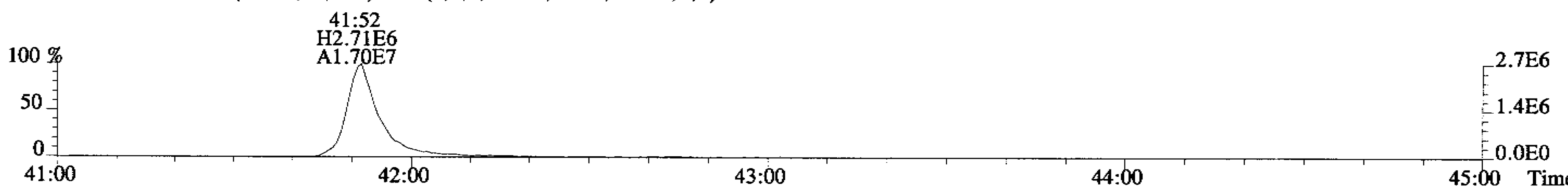
425.7737 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



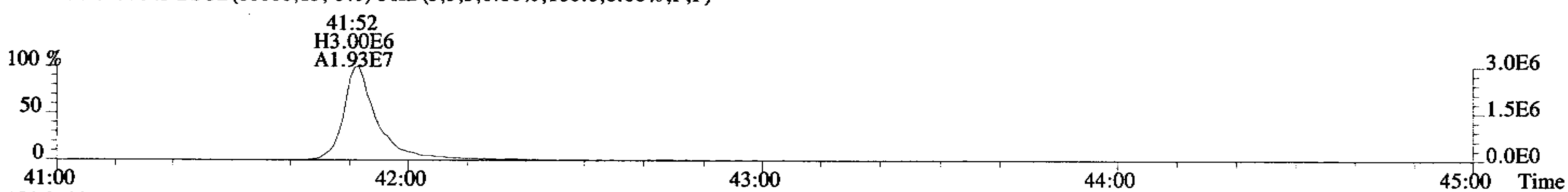
File:060920C2 #1-345 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5
457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

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

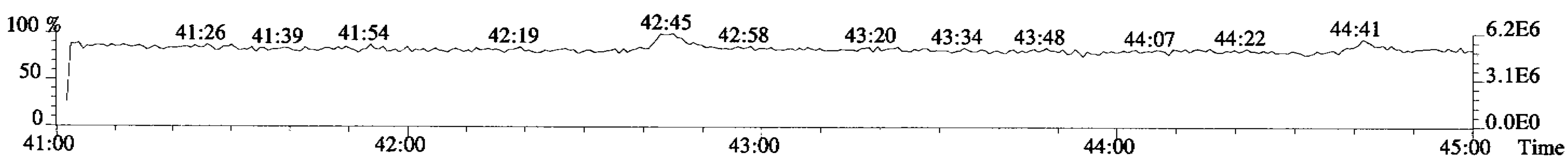
469.7780 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



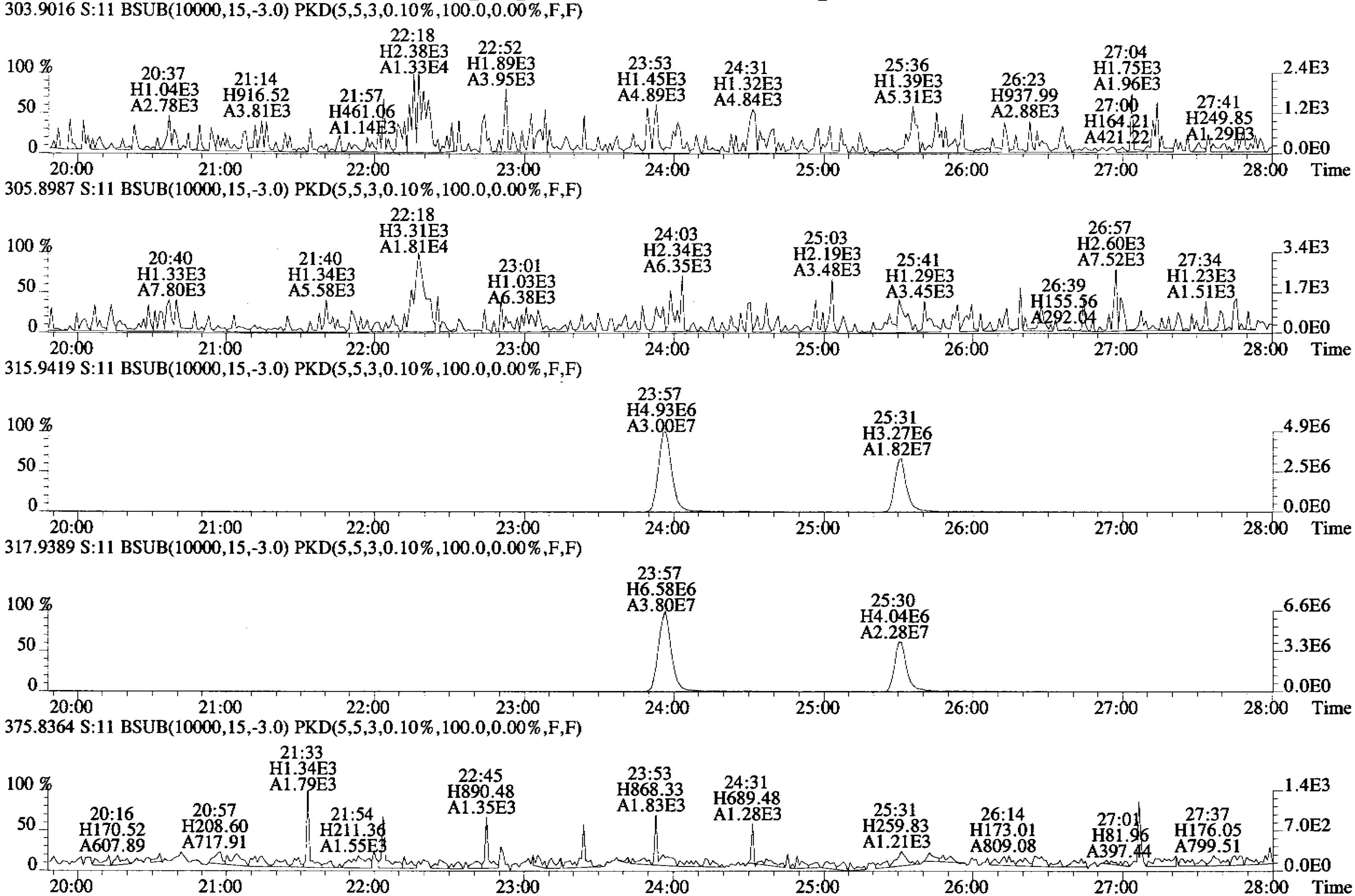
471.7750 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



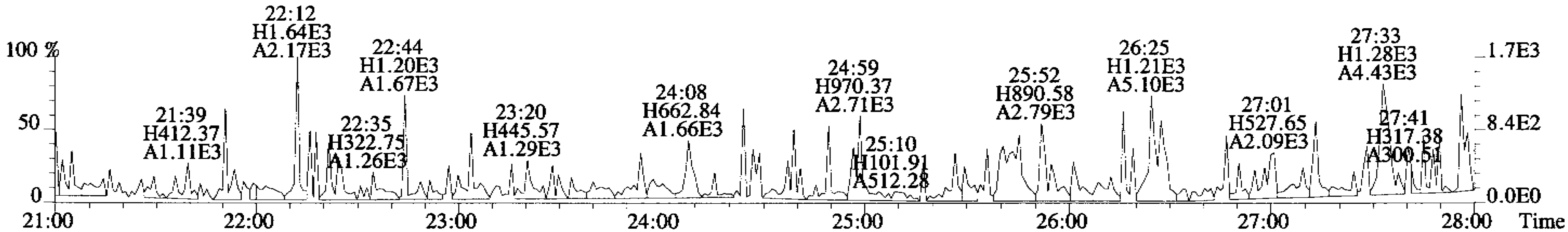
454.9728 S:11 F:5



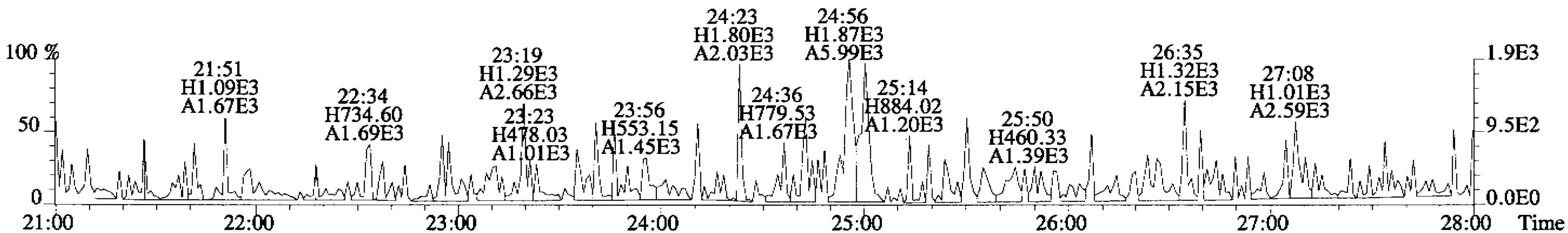
File:060920C2 #1-546 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5



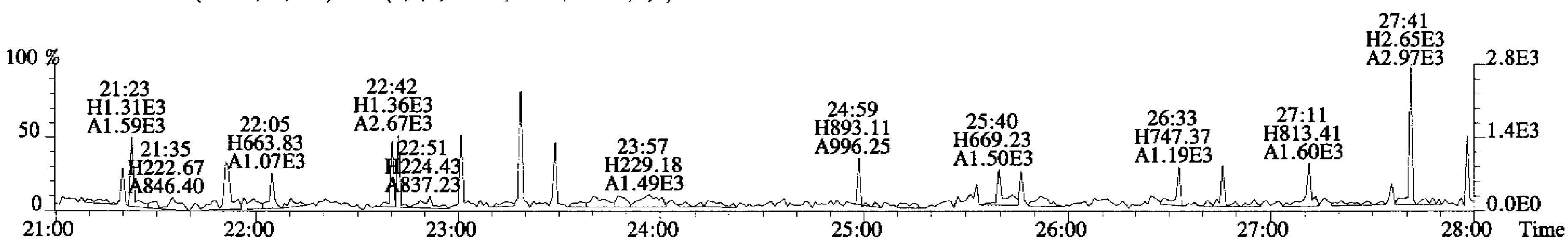
File:060920C2 #1-546 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5
339.8597 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



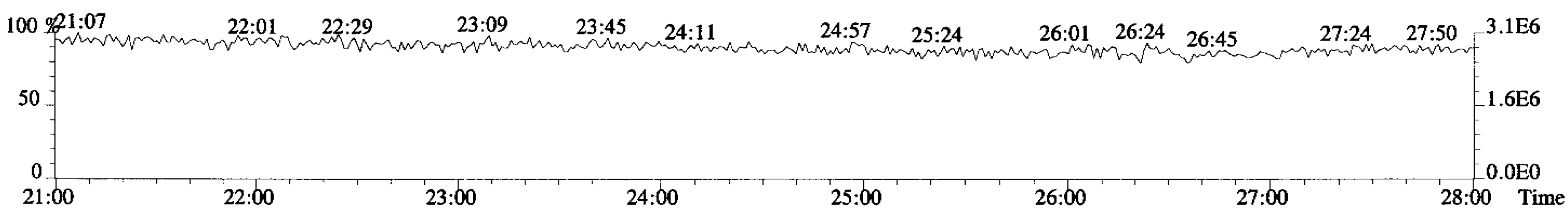
341.8568 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



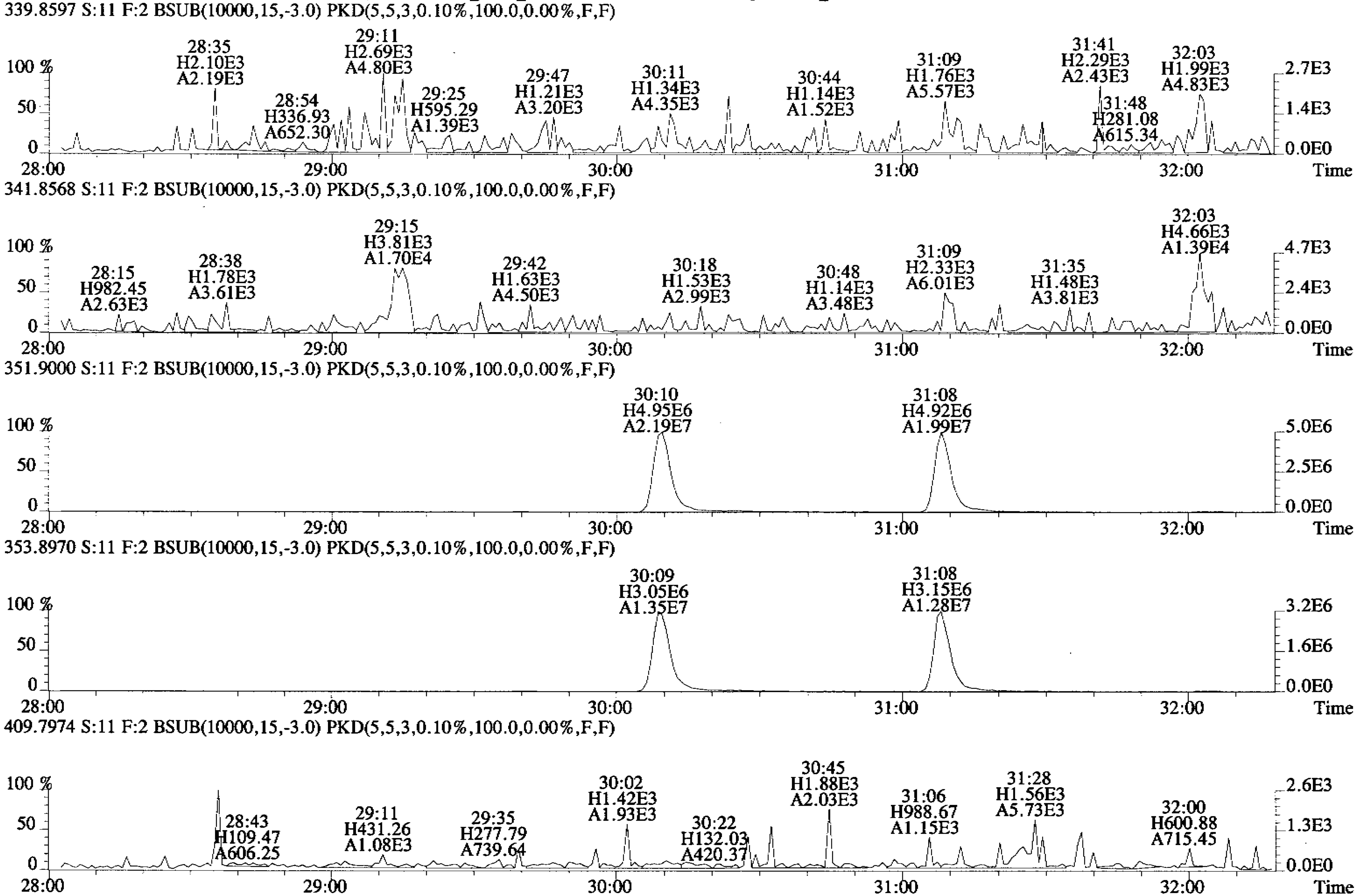
409.7974 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



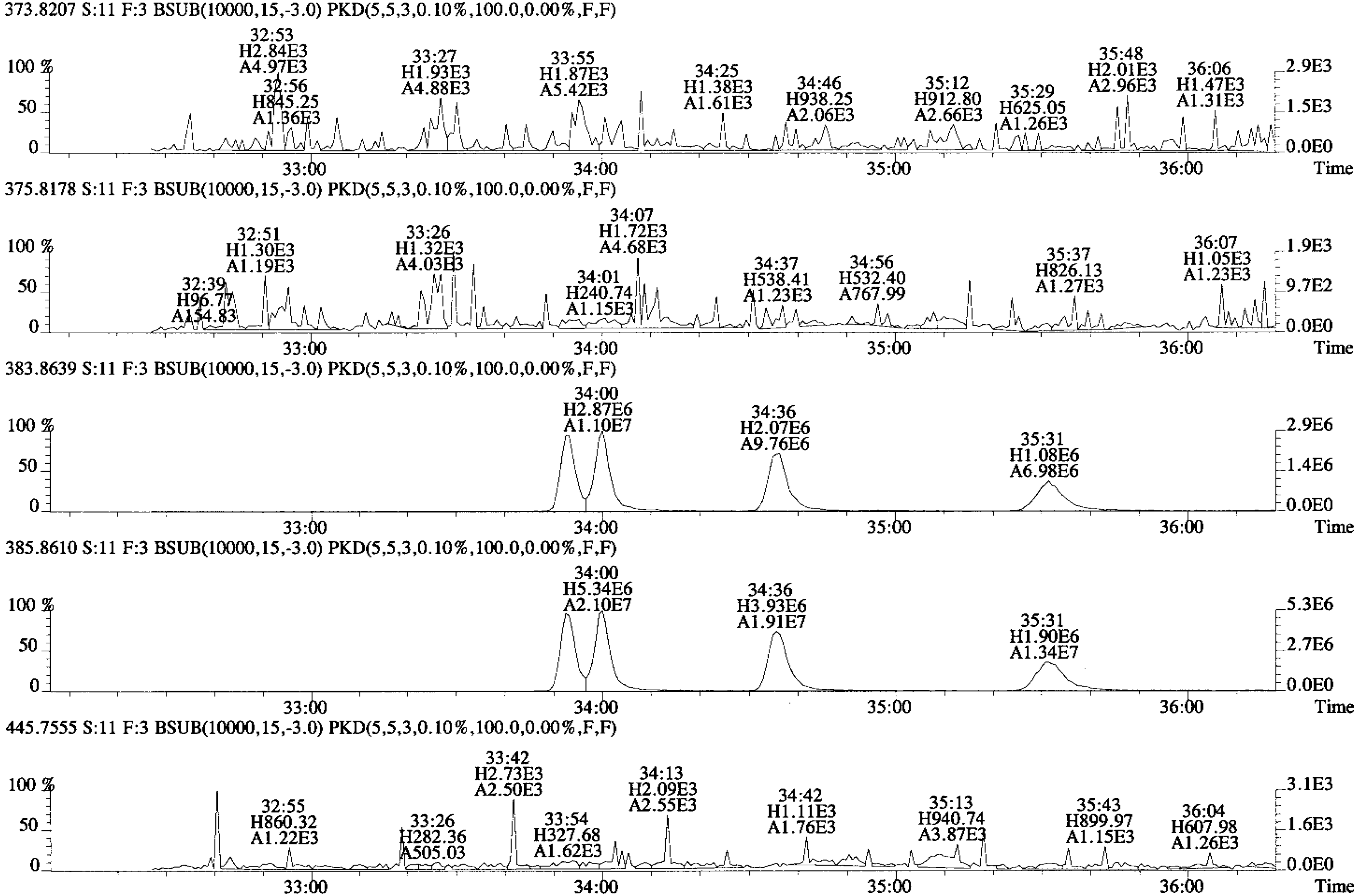
316.9824 S:11



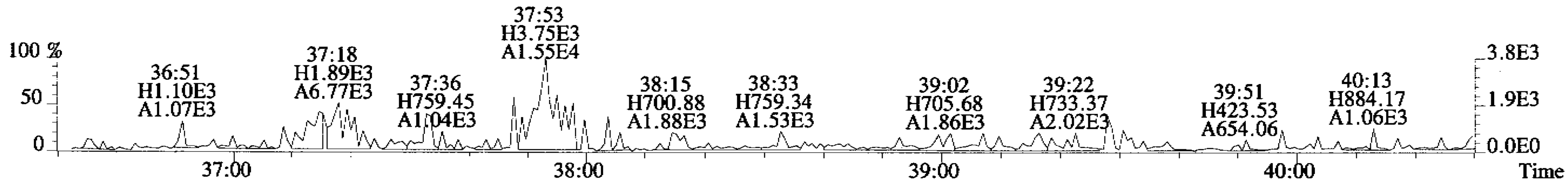
File:060920C2 #1-324 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5



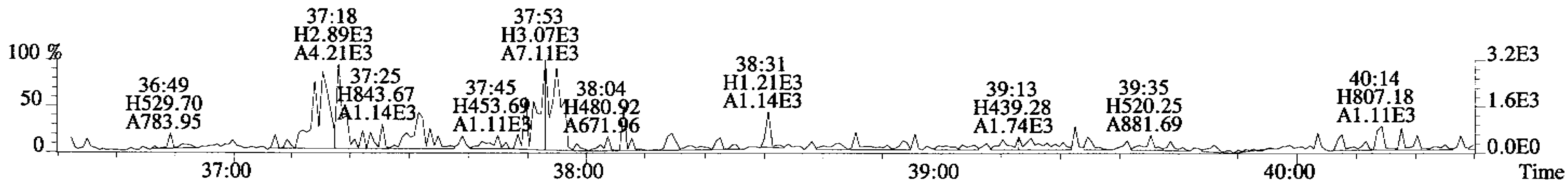
File:060920C2 #1-363 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5



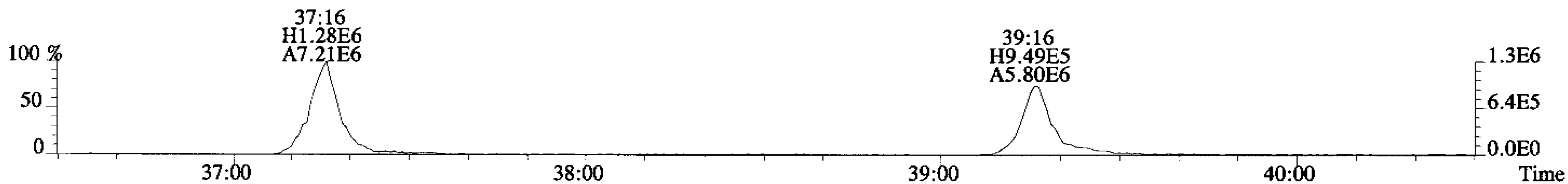
File:060920C2 #1-399 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5
407.7818 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



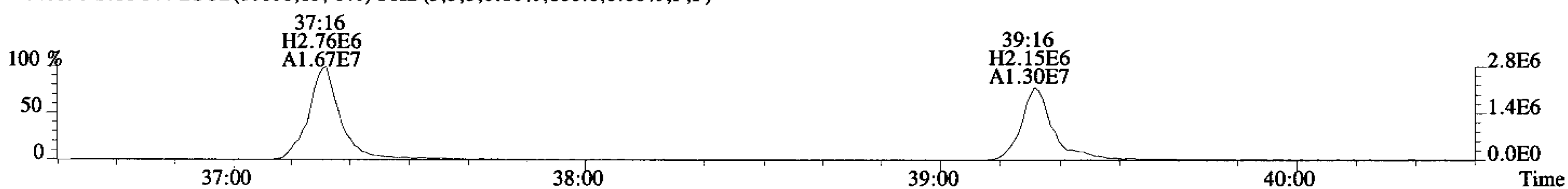
409.7788 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



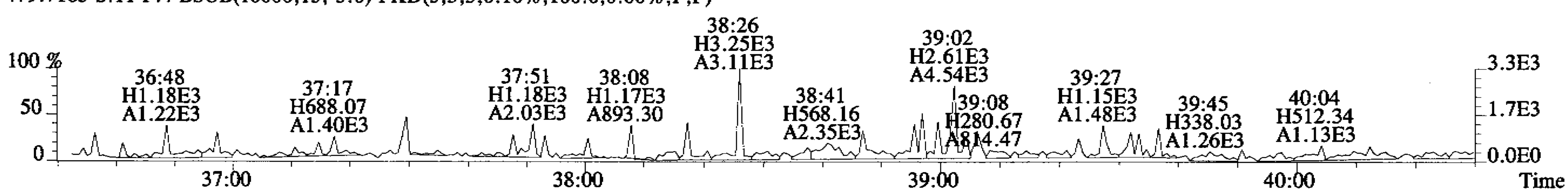
417.8253 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



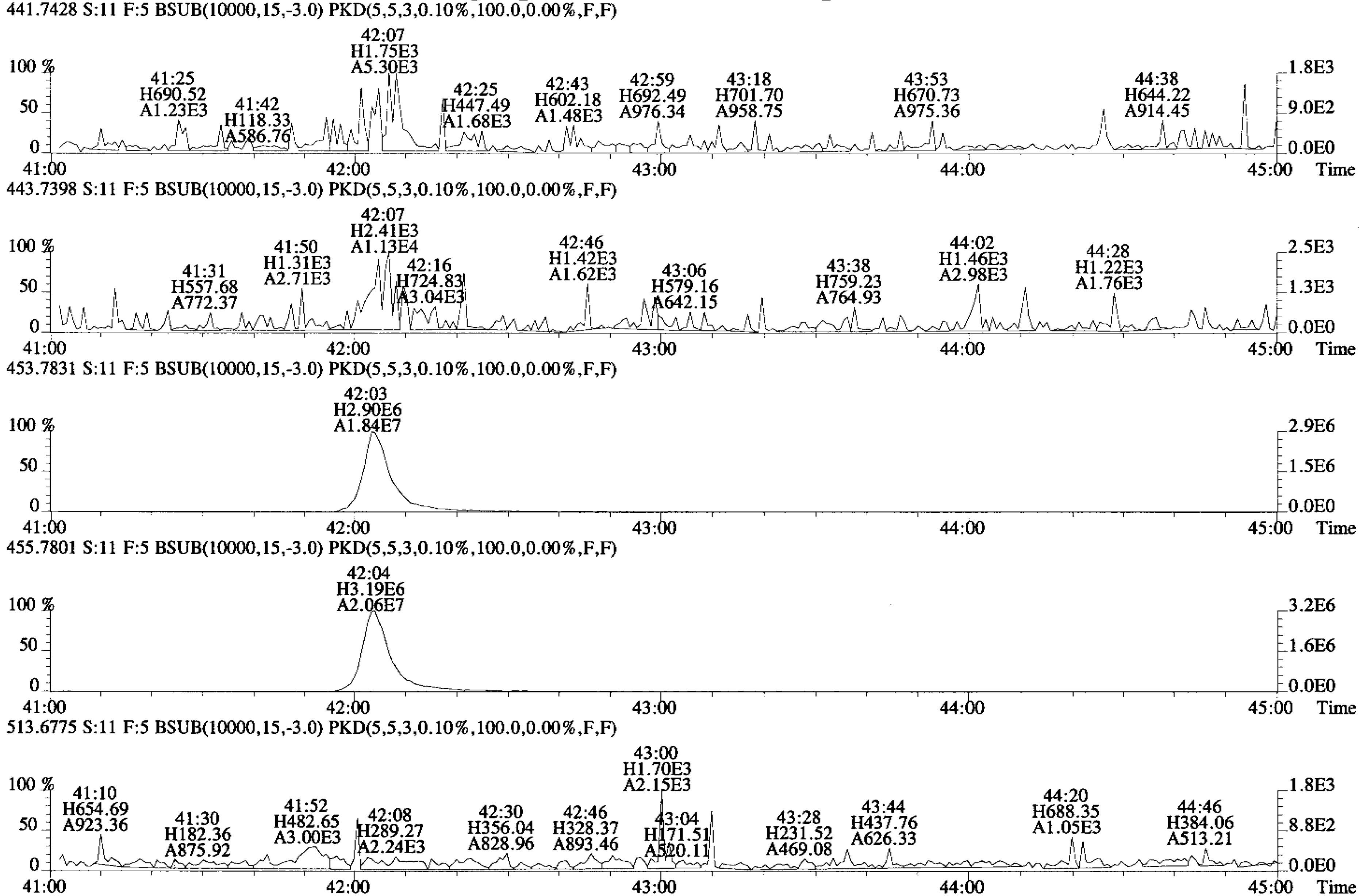
419.8220 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-345 Acq:20-SEP-2006 23:30:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Alta Analytical Laboratory Text:28112_8381_001 IPI1291-01 1.0120L Exp:OCDD_DB5



ICAL

Initial Calibration RRF Summary (ICAL) Alta Analytical Laboratory

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Inst. ID. VG-5

Data filename: 060322C1

Name	Mean RRF	%RSD	Samp# 1 10 RRF#1	Samp# 3 0.25 RRF#2	Samp# 4 0.50 RRF#3	Samp# 5 2.0 RRF#4	Samp# 6 40 RRF#5	Samp# 7 200 RRF#6
2,3,7,8-TCDD	1.08	7.92 %	1.08	1.16	1.05	1.05	1.19	0.95
1,2,3,7,8-PeCDD	1.03	4.40 %	1.00	1.01	1.02	1.02	1.12	1.01
1,2,3,4,7,8-HxCDD	1.13	4.74 %	1.14	1.08	1.11	1.11	1.24	1.13
1,2,3,6,7,8-HxCDD	1.03	7.53 %	0.96	1.10	1.02	1.05	1.13	0.94
1,2,3,7,8,9-HxCDD	1.12	5.45 %	1.11	1.12	1.08	1.09	1.23	1.07
1,2,3,4,6,7,8-HpCDD	1.02	8.12 %	1.02	1.01	1.02	1.03	1.14	0.88
OCDD	1.06	5.69 %	1.04	1.07	0.98	1.08	1.15	1.02
2,3,7,8-TCDF	1.06	7.77 %	1.02	1.13	1.08	1.07	1.15	0.92
1,2,3,7,8-PeCDF	1.01	4.14 %	0.99	1.00	1.01	1.01	1.08	0.95
2,3,4,7,8-PeCDF	1.02	4.24 %	0.99	1.02	1.03	1.04	1.10	0.97
1,2,3,4,7,8-HxCDF	1.15	5.39 %	1.10	1.18	1.13	1.14	1.25	1.08
1,2,3,6,7,8-HxCDF	1.14	5.33 %	1.10	1.11	1.14	1.13	1.26	1.09
2,3,4,6,7,8-HxCDF	1.17	4.53 %	1.12	1.17	1.16	1.16	1.27	1.14
1,2,3,7,8,9-HxCDF	1.10	5.28 %	1.05	1.07	1.09	1.08	1.21	1.07
1,2,3,4,6,7,8-HpCDF	1.31	4.72 %	1.27	1.31	1.28	1.30	1.43	1.28
1,2,3,4,7,8,9-HpCDF	1.33	5.03 %	1.29	1.35	1.28	1.32	1.45	1.27
OCDF	0.91	3.45 %	0.88	0.90	0.91	0.90	0.97	0.90
13C-2,3,7,8-TCDD	1.09	2.67 %	1.13	1.08	1.09	1.08	1.05	1.12
13C-1,2,3,7,8-PeCDD	1.04	3.01 %	1.09	1.00	1.04	1.03	1.03	1.07
13C-1,2,3,4,7,8-HxCDD	0.83	2.39 %	0.79	0.85	0.83	0.83	0.83	0.84
13C-1,2,3,6,7,8-HxCDD	1.04	2.93 %	1.08	1.06	1.01	1.04	1.00	1.04
13C-1,2,3,4,6,7,8-HpCDD	0.85	5.38 %	0.83	0.81	0.87	0.79	0.89	0.91
13C-OCDD	0.71	11.07 %	0.69	0.66	0.70	0.63	0.75	0.85
13C-2,3,7,8-TCDF	0.96	4.18 %	1.02	0.96	0.92	0.99	0.93	0.92
13C-1,2,3,7,8-PeCDF	1.02	3.93 %	1.09	1.00	0.98	1.04	1.01	0.99
13C-2,3,4,7,8-PeCDF	1.02	4.06 %	1.09	1.00	1.00	1.05	1.00	0.98
13C-1,2,3,4,7,8-HxCDF	1.14	2.98 %	1.12	1.19	1.13	1.17	1.15	1.10
13C-1,2,3,6,7,8-HxCDF	1.40	4.36 %	1.43	1.49	1.38	1.43	1.37	1.31
13C-2,3,4,6,7,8-HxCDF	1.26	2.41 %	1.26	1.30	1.25	1.29	1.23	1.23
13C-1,2,3,7,8,9-HxCDF	1.08	1.14 %	1.10	1.07	1.08	1.08	1.07	1.10
13C-1,2,3,4,6,7,8-HpCDF	0.93	3.49 %	0.93	0.92	0.96	0.88	0.96	0.95
13C-1,2,3,4,7,8,9-HpCDF	0.77	6.13 %	0.74	0.74	0.77	0.71	0.80	0.84
13C-OCDF	0.94	9.65 %	0.93	0.89	0.91	0.84	0.98	1.10
37Cl-2,3,7,8-TCDD	0.77	2.76 %	0.78	0.76	0.77	0.74	0.79	0.80
13C-1,2,3,4-TCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4-TCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,7,8,9-HxCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

MS 3/23/06

ok J 3/23/06

Filename: 060322C1 S: 1 Acquired: 22-MAR-06 09:32:59
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-1 1613 CS3 060110H

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	10.00	1.79e+07	0.78 y	26:33	-	1.08
2	Unk	1,2,3,7,8-PeCDD	50.00	7.94e+07	0.63 y	31:17	-	1.00
3	Unk	1,2,3,4,7,8-HxCDD	50.00	7.27e+07	1.23 y	34:34	-	1.14
4	Unk	1,2,3,6,7,8-HxCDD	50.00	8.37e+07	1.27 y	34:41	-	0.96
5	Unk	1,2,3,7,8,9-HxCDD	50.00	8.40e+07	1.24 y	34:58	-	1.11
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	6.84e+07	1.03 y	38:31	-	1.02
7	Unk	OCDD	100.00	1.16e+08	0.90 y	41:47	-	1.04
8	Unk	2,3,7,8-TCDF	10.00	2.23e+07	0.77 y	25:42	-	1.02
9	Unk	1,2,3,7,8-PeCDF	50.00	1.15e+08	1.55 y	30:03	-	0.99
10	Unk	2,3,4,7,8-PeCDF	50.00	1.15e+08	1.55 y	30:59	-	0.99
11	Unk	1,2,3,4,7,8-HxCDF	50.00	9.97e+07	1.23 y	33:41	-	1.10
12	Unk	1,2,3,6,7,8-HxCDF	50.00	1.27e+08	1.24 y	33:49	-	1.10
13	Unk	2,3,4,6,7,8-HxCDF	50.00	1.14e+08	1.24 y	34:25	-	1.12
14	Unk	1,2,3,7,8,9-HxCDF	50.00	9.32e+07	1.25 y	35:21	-	1.05
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	9.59e+07	1.01 y	37:07	-	1.27
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	7.72e+07	1.02 y	39:04	-	1.29
17	Unk	OCDF	100.00	1.33e+08	0.89 y	42:00	-	0.88
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.08
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.08
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.00
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.00
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.06
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.06
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.02
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.02
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.02
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.02
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	0.99
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.99
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.99
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	0.99
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.10
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.10
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.28
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.28
36	IS	13C-2,3,7,8-TCDD	100.00	1.66e+08	0.78 y	26:31	-	1.13
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.59e+08	0.65 y	31:16	-	1.09
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.28e+08	1.25 y	34:33	-	0.79

39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.75e+08	1.26	y	34:40	-	1.08
40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.34e+08	1.07	y	38:30	-	0.83
41	IS	13C-OCDD	200.00	2.24e+08	0.89	y	41:46	-	0.69
42	IS	13C-2,3,7,8-TCDF	100.00	2.18e+08	0.79	y	25:41	-	1.02
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.32e+08	1.59	y	30:02	-	1.09
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.32e+08	1.61	y	30:59	-	1.09
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.81e+08	0.52	y	33:40	-	1.12
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.31e+08	0.54	y	33:48	-	1.43
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.04e+08	0.54	y	34:24	-	1.26
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.78e+08	0.53	y	35:20	-	1.10
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.51e+08	0.43	y	37:05	-	0.93
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.20e+08	0.44	y	39:04	-	0.74
51	IS	13C-OCDF	200.00	3.02e+08	0.91	y	41:59	-	0.93

52	C/Up	37Cl-2,3,7,8-TCDD	10.00	1.15e+07		26:32	-	0.78
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.47e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.13e+08	0.78 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.62e+08	1.27 y	34:58	-	1.00

Filename: 060322C1 S: 3 Acquired: 22-MAR-06 11:12:17
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-2 1613 CS0 060110E

	Typ	Name	Amount	Resp	RA		RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.25	4.63e+05	0.72	y	26:33	-	1.16
2	Unk	1,2,3,7,8-PeCDD	1.25	1.87e+06	0.60	y	31:17	-	1.01
3	Unk	1,2,3,4,7,8-HxCDD	1.25	1.65e+06	1.24	y	34:34	-	1.08
4	Unk	1,2,3,6,7,8-HxCDD	1.25	2.11e+06	1.29	y	34:41	-	1.10
5	Unk	1,2,3,7,8,9-HxCDD	1.25	1.94e+06	1.31	y	34:59	-	1.12
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	1.49e+06	0.96	y	38:32	-	1.01
7	Unk	OCDD	2.50	2.54e+06	0.82	y	41:46	-	1.07
8	Unk	2,3,7,8-TCDF	0.25	5.89e+05	0.73	y	25:43	-	1.13
9	Unk	1,2,3,7,8-PeCDF	1.25	2.72e+06	1.49	y	30:03	-	1.00
10	Unk	2,3,4,7,8-PeCDF	1.25	2.78e+06	1.58	y	30:59	-	1.02
11	Unk	1,2,3,4,7,8-HxCDF	1.25	2.55e+06	1.25	y	33:41	-	1.18
12	Unk	1,2,3,6,7,8-HxCDF	1.25	2.98e+06	1.31	y	33:49	-	1.11
13	Unk	2,3,4,6,7,8-HxCDF	1.25	2.76e+06	1.26	y	34:25	-	1.17
14	Unk	1,2,3,7,8,9-HxCDF	1.25	2.08e+06	1.22	y	35:21	-	1.07
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	2.19e+06	1.00	y	37:07	-	1.31
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	1.82e+06	0.99	y	39:05	-	1.35
17	Unk	OCDF	2.50	2.91e+06	0.90	y	41:59	-	0.90
18	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.16
19	Tot	TCDD EMPC	0.00	-	-	n	-	-	1.16
20	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.01
21	Tot	PeCDD EMPC	0.00	-	-	n	-	-	1.01
22	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.10
23	Tot	HxCDD EMPC	0.00	-	-	n	-	-	1.10
24	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.01
25	Tot	HpCDD EMPC	0.00	-	-	n	-	-	1.01
26	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.13
27	Tot	TCDF EMPC	0.00	-	-	n	-	-	1.13
28	Tot	1st Func. Penta-Furans	0.00	-	-	n	-	-	1.01
29	Tot	1st Func. PeCDF EMPC	0.00	-	-	n	-	-	1.01
30	Tot	Total Penta-Furans	0.00	-	-	n	-	-	1.01
31	Tot	PeCDF EMPC	0.00	-	-	n	-	-	1.01
32	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.13
33	Tot	HxCDF EMPC	0.00	-	-	n	-	-	1.13
34	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.33
35	Tot	HpCDF EMPC	0.00	-	-	n	-	-	1.33
36	IS	13C-2,3,7,8-TCDD	100.00	1.60e+08	0.80	y	26:32	-	1.08
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.49e+08	0.64	y	31:16	-	1.00
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.23e+08	1.27	y	34:33	-	0.85
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.54e+08	1.27	y	34:40	-	1.06

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.18e+08	1.07 y	38:32	-	0.81
41	IS	13C-OCDD	200.00	1.91e+08	0.90 y	41:47	-	0.66
42	IS	13C-2,3,7,8-TCDF	100.00	2.08e+08	0.79 y	25:41	-	0.96
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.17e+08	1.60 y	30:02	-	1.00
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.17e+08	1.58 y	30:58	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.73e+08	0.54 y	33:41	-	1.19
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.15e+08	0.53 y	33:49	-	1.49
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.89e+08	0.52 y	34:24	-	1.30
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.56e+08	0.53 y	35:20	-	1.07
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.34e+08	0.43 y	37:07	-	0.92
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.08e+08	0.43 y	39:04	-	0.74
51	IS	13C-OCDF	200.00	2.57e+08	0.88 y	41:59	-	0.89

52	C/Up	37Cl-2,3,7,8-TCDD	0.25	2.81e+05		26:33	-	0.76
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.48e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.18e+08	0.79 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.45e+08	1.26 y	34:58	-	1.00

Filename: 060322C1 S: 4 Acquired: 22-MAR-06 12:02:01
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-3 1613 CS1 060110F

	Typ	Name	Amount	Resp	RA		RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.50	8.69e+05	0.73	y	26:33	-	1.05
2	Unk	1,2,3,7,8-PeCDD	2.50	4.04e+06	0.64	y	31:16	-	1.02
3	Unk	1,2,3,4,7,8-HxCDD	2.50	3.83e+06	1.23	y	34:34	-	1.11
4	Unk	1,2,3,6,7,8-HxCDD	2.50	4.26e+06	1.27	y	34:40	-	1.02
5	Unk	1,2,3,7,8,9-HxCDD	2.50	4.12e+06	1.34	y	34:58	-	1.08
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	3.65e+06	0.98	y	38:30	-	1.02
7	Unk	OCDD	5.00	5.67e+06	0.86	y	41:46	-	0.98
8	Unk	2,3,7,8-TCDF	0.50	1.16e+06	0.79	y	25:43	-	1.08
9	Unk	1,2,3,7,8-PeCDF	2.50	5.73e+06	1.60	y	30:02	-	1.01
10	Unk	2,3,4,7,8-PeCDF	2.50	5.95e+06	1.52	y	30:59	-	1.03
11	Unk	1,2,3,4,7,8-HxCDF	2.50	5.27e+06	1.27	y	33:41	-	1.13
12	Unk	1,2,3,6,7,8-HxCDF	2.50	6.53e+06	1.25	y	33:49	-	1.14
13	Unk	2,3,4,6,7,8-HxCDF	2.50	5.96e+06	1.26	y	34:25	-	1.16
14	Unk	1,2,3,7,8,9-HxCDF	2.50	4.89e+06	1.23	y	35:20	-	1.09
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	5.05e+06	1.01	y	37:06	-	1.28
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	4.06e+06	1.00	y	39:03	-	1.28
17	Unk	OCDF	5.00	6.85e+06	0.87	y	42:00	-	0.91
18	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.05
19	Tot	TCDD EMPC	0.00	-	-	n	-	-	1.05
20	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.02
21	Tot	PeCDD EMPC	0.00	-	-	n	-	-	1.02
22	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.07
23	Tot	HxCDD EMPC	0.00	-	-	n	-	-	1.07
24	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.02
25	Tot	HpCDD EMPC	0.00	-	-	n	-	-	1.02
26	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.08
27	Tot	TCDF EMPC	0.00	-	-	n	-	-	1.08
28	Tot	1st Func. Penta-Furans	0.00	-	-	n	-	-	1.02
29	Tot	1st Func. PeCDF EMPC	0.00	-	-	n	-	-	1.02
30	Tot	Total Penta-Furans	0.00	-	-	n	-	-	1.02
31	Tot	PeCDF EMPC	0.00	-	-	n	-	-	1.02
32	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.13
33	Tot	HxCDF EMPC	0.00	-	-	n	-	-	1.13
34	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.28
35	Tot	HpCDF EMPC	0.00	-	-	n	-	-	1.28
36	IS	13C-2,3,7,8-TCDD	100.00	1.66e+08	0.78	y	26:31	-	1.09
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.59e+08	0.64	y	31:15	-	1.04
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.37e+08	1.27	y	34:33	-	0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.68e+08	1.27	y	34:39	-	1.01

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.44e+08	1.07 y	38:30	-	0.87
41	IS	13C-OCDD	200.00	2.32e+08	0.91 y	41:46	-	0.70
42	IS	13C-2,3,7,8-TCDF	100.00	2.15e+08	0.80 y	25:42	-	0.92
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.28e+08	1.60 y	30:01	-	0.98
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.32e+08	1.57 y	30:58	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.86e+08	0.52 y	33:40	-	1.13
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.28e+08	0.52 y	33:48	-	1.38
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.06e+08	0.52 y	34:24	-	1.25
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.79e+08	0.52 y	35:19	-	1.08
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.58e+08	0.45 y	37:05	-	0.96
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.27e+08	0.44 y	39:03	-	0.77
51	IS	13C-OCDF	200.00	3.02e+08	0.89 y	41:59	-	0.91

52	C/Up	37Cl-2,3,7,8-TCDD	0.50	5.89e+05		26:33	-	0.77
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.53e+08	0.80 y	25:54	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.32e+08	0.78 y	24:19	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.65e+08	1.29 y	34:57	-	1.00

Filename: 060322C1 S: 5 Acquired: 22-MAR-06 12:51:46
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-4 1613 CS2 060110G

	Typ	Name	Amount	Resp	RA		RT	RF	RRF
1	Unk	2,3,7,8-TCDD	2.00	3.64e+06	0.80	y	26:33	-	1.05
2	Unk	1,2,3,7,8-PeCDD	10.00	1.69e+07	0.63	y	31:17	-	1.02
3	Unk	1,2,3,4,7,8-HxCDD	10.00	1.53e+07	1.25	y	34:34	-	1.11
4	Unk	1,2,3,6,7,8-HxCDD	10.00	1.82e+07	1.28	y	34:41	-	1.05
5	Unk	1,2,3,7,8,9-HxCDD	10.00	1.69e+07	1.27	y	34:58	-	1.09
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	1.36e+07	1.05	y	38:32	-	1.03
7	Unk	OCDD	20.00	2.24e+07	0.90	y	41:52	-	1.08
8	Unk	2,3,7,8-TCDF	2.00	4.80e+06	0.77	y	25:43	-	1.07
9	Unk	1,2,3,7,8-PeCDF	10.00	2.39e+07	1.53	y	30:02	-	1.01
10	Unk	2,3,4,7,8-PeCDF	10.00	2.49e+07	1.60	y	30:59	-	1.04
11	Unk	1,2,3,4,7,8-HxCDF	10.00	2.22e+07	1.23	y	33:41	-	1.14
12	Unk	1,2,3,6,7,8-HxCDF	10.00	2.68e+07	1.23	y	33:49	-	1.13
13	Unk	2,3,4,6,7,8-HxCDF	10.00	2.49e+07	1.22	y	34:25	-	1.16
14	Unk	1,2,3,7,8,9-HxCDF	10.00	1.94e+07	1.24	y	35:20	-	1.08
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	1.89e+07	1.04	y	37:08	-	1.30
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	1.55e+07	1.03	y	39:05	-	1.32
17	Unk	OCDF	20.00	2.53e+07	0.87	y	42:03	-	0.90
18	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.05
19	Tot	TCDD EMPC	0.00	-	-	n	-	-	1.05
20	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.02
21	Tot	PeCDD EMPC	0.00	-	-	n	-	-	1.02
22	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.08
23	Tot	HxCDD EMPC	0.00	-	-	n	-	-	1.08
24	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.03
25	Tot	HpCDD EMPC	0.00	-	-	n	-	-	1.03
26	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.07
27	Tot	TCDF EMPC	0.00	-	-	n	-	-	1.07
28	Tot	1st Func. Penta-Furans	0.00	-	-	n	-	-	1.03
29	Tot	1st Func. PeCDF EMPC	0.00	-	-	n	-	-	1.03
30	Tot	Total Penta-Furans	0.00	-	-	n	-	-	1.03
31	Tot	PeCDF EMPC	0.00	-	-	n	-	-	1.03
32	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.13
33	Tot	HxCDF EMPC	0.00	-	-	n	-	-	1.13
34	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.31
35	Tot	HpCDF EMPC	0.00	-	-	n	-	-	1.31
36	IS	13C-2,3,7,8-TCDD	100.00	1.73e+08	0.79	y	26:32	-	1.08
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.65e+08	0.64	y	31:16	-	1.03
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.38e+08	1.27	y	34:33	-	0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.73e+08	1.27	y	34:40	-	1.04

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.32e+08	1.09	y	38:31	-	0.79
41	IS	13C-OCDD	200.00	2.08e+08	0.89	y	41:51	-	0.63
42	IS	13C-2,3,7,8-TCDF	100.00	2.25e+08	0.79	y	25:42	-	0.99
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.36e+08	1.59	y	30:02	-	1.04
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.39e+08	1.59	y	30:59	-	1.05
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.95e+08	0.52	y	33:40	-	1.17
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.36e+08	0.52	y	33:48	-	1.43
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.14e+08	0.52	y	34:24	-	1.29
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.79e+08	0.53	y	35:20	-	1.08
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.45e+08	0.45	y	37:07	-	0.88
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.18e+08	0.43	y	39:03	-	0.71
51	IS	13C-OCDF	200.00	2.80e+08	0.88	y	42:02	-	0.84

52	C/Up	37Cl-2,3,7,8-TCDD	2.00	2.38e+06		26:33	-	0.74
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.61e+08	0.80 y	25:54	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.27e+08	0.79 y	24:19	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.66e+08	1.26 y	34:57	-	1.00

Filename: 060322C1 S: 6 Acquired: 22-MAR-06 13:41:25
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-5 1613 CS4 060110I

	Typ	Name	Amount	Resp	RA		RT	RF	RRF
1	Unk	2,3,7,8-TCDD	40.00	6.96e+07	0.78	y	26:33	-	1.19
2	Unk	1,2,3,7,8-PeCDD	200.00	3.19e+08	0.64	y	31:16	-	1.12
3	Unk	1,2,3,4,7,8-HxCDD	200.00	2.97e+08	1.24	y	34:33	-	1.24
4	Unk	1,2,3,6,7,8-HxCDD	200.00	3.27e+08	1.25	y	34:40	-	1.13
5	Unk	1,2,3,7,8,9-HxCDD	200.00	3.27e+08	1.24	y	34:57	-	1.23
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	2.90e+08	1.03	y	38:31	-	1.14
7	Unk	OCDD	400.00	4.99e+08	0.91	y	41:47	-	1.15
8	Unk	2,3,7,8-TCDF	40.00	8.69e+07	0.76	y	25:42	-	1.15
9	Unk	1,2,3,7,8-PeCDF	200.00	4.43e+08	1.54	y	30:01	-	1.08
10	Unk	2,3,4,7,8-PeCDF	200.00	4.46e+08	1.54	y	30:58	-	1.10
11	Unk	1,2,3,4,7,8-HxCDF	200.00	4.16e+08	1.22	y	33:40	-	1.25
12	Unk	1,2,3,6,7,8-HxCDF	200.00	4.97e+08	1.23	y	33:48	-	1.26
13	Unk	2,3,4,6,7,8-HxCDF	200.00	4.54e+08	1.22	y	34:24	-	1.27
14	Unk	1,2,3,7,8,9-HxCDF	200.00	3.74e+08	1.25	y	35:20	-	1.21
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	3.99e+08	1.02	y	37:06	-	1.43
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	3.35e+08	1.03	y	39:03	-	1.45
17	Unk	OCDF	400.00	5.50e+08	0.87	y	41:59	-	0.97
18	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.19
19	Tot	TCDD EMPC	0.00	-	-	n	-	-	1.19
20	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.12
21	Tot	PeCDD EMPC	0.00	-	-	n	-	-	1.12
22	Tot	Total Hexa-Dioxins	0.00	-	-	n	-	-	1.20
23	Tot	HxCDD EMPC	0.00	-	-	n	-	-	1.20
24	Tot	Total Hepta-Dioxins	0.00	-	-	n	-	-	1.14
25	Tot	HpCDD EMPC	0.00	-	-	n	-	-	1.14
26	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.15
27	Tot	TCDF EMPC	0.00	-	-	n	-	-	1.15
28	Tot	1st Func. Penta-Furans	0.00	-	-	n	-	-	1.09
29	Tot	1st Func. PeCDF EMPC	0.00	-	-	n	-	-	1.09
30	Tot	Total Penta-Furans	0.00	-	-	n	-	-	1.09
31	Tot	PeCDF EMPC	0.00	-	-	n	-	-	1.09
32	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.25
33	Tot	HxCDF EMPC	0.00	-	-	n	-	-	1.25
34	Tot	Total Hepta-Furans	0.00	-	-	n	-	-	1.44
35	Tot	HpCDF EMPC	0.00	-	-	n	-	-	1.44
36	IS	13C-2,3,7,8-TCDD	100.00	1.46e+08	0.79	y	26:31	-	1.05
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.43e+08	0.65	y	31:14	-	1.03
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.20e+08	1.25	y	34:32	-	0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.44e+08	1.26	y	34:39	-	1.00

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.28e+08	1.06 y	38:30	-	0.89
41	IS	13C-OCDD	200.00	2.16e+08	0.91 y	41:46	-	0.75
42	IS	13C-2,3,7,8-TCDF	100.00	1.89e+08	0.80 y	25:41	-	0.93
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.05e+08	1.60 y	30:01	-	1.01
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.04e+08	1.58 y	30:57	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.67e+08	0.52 y	33:39	-	1.15
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.98e+08	0.52 y	33:47	-	1.37
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.78e+08	0.52 y	34:23	-	1.23
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.54e+08	0.54 y	35:19	-	1.07
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.39e+08	0.44 y	37:05	-	0.96
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.16e+08	0.44 y	39:03	-	0.80
51	IS	13C-OCDF	200.00	2.83e+08	0.90 y	41:59	-	0.98

52	C/Up	37Cl-2,3,7,8-TCDD	40.00	4.40e+07		26:32	-	0.79
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.39e+08	0.79 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.03e+08	0.78 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.44e+08	1.27 y	34:57	-	1.00

Filename: 060322C1 S: 7 Acquired: 22-MAR-06 14:31:06
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:
Sample text: ST060322C1-6 1613 CS5 060110J

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	200.00	3.53e+08	0.78 y	26:32	-	0.95
2	Unk	1,2,3,7,8-PeCDD	1000.00	1.80e+09	0.63 y	31:16	-	1.01
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	1.85e+09	1.26 y	34:34	-	1.13
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	1.89e+09	1.27 y	34:41	-	0.94
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	1.96e+09	1.25 y	34:58	-	1.07
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	1.56e+09	1.05 y	38:32	-	0.88
7	Unk	OCDD	2000.00	3.39e+09	0.90 y	41:52	-	1.02
8	Unk	2,3,7,8-TCDF	200.00	4.37e+08	0.78 y	25:42	-	0.92
9	Unk	1,2,3,7,8-PeCDF	1000.00	2.42e+09	1.54 y	30:02	-	0.95
10	Unk	2,3,4,7,8-PeCDF	1000.00	2.45e+09	1.55 y	30:59	-	0.97
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	2.31e+09	1.26 y	33:41	-	1.08
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	2.78e+09	1.23 y	33:49	-	1.09
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	2.75e+09	1.24 y	34:25	-	1.14
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	2.30e+09	1.24 y	35:21	-	1.07
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	2.38e+09	1.02 y	37:06	-	1.28
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	2.07e+09	1.02 y	39:06	-	1.27
17	Unk	OCDF	2000.00	3.87e+09	0.88 y	42:04	-	0.90
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	0.95
19	Tot	TCDD EMPC	0.00	-	- n	-	-	0.95
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.01
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.01
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.04
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.04
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	0.88
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	0.88
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	0.92
27	Tot	TCDF EMPC	0.00	-	- n	-	-	0.92
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	0.96
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.96
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.96
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	0.96
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.10
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.10
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.27
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.27
36	IS	13C-2,3,7,8-TCDD	100.00	1.85e+08	0.79 y	26:31	-	1.12
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.78e+08	0.64 y	31:15	-	1.07
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.64e+08	1.27 y	34:33	-	0.84
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	2.02e+08	1.28 y	34:40	-	1.04

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.78e+08	1.06 y	38:31	-	0.91
41	IS	13C-OCDD	200.00	3.32e+08	0.90 y	41:51	-	0.85
42	IS	13C-2,3,7,8-TCDF	100.00	2.38e+08	0.79 y	25:41	-	0.92
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.54e+08	1.60 y	30:01	-	0.99
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.52e+08	1.61 y	30:58	-	0.98
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	2.15e+08	0.54 y	33:40	-	1.10
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.55e+08	0.52 y	33:48	-	1.31
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.41e+08	0.53 y	34:24	-	1.23
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.14e+08	0.53 y	35:20	-	1.10
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.86e+08	0.44 y	37:06	-	0.95
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.64e+08	0.45 y	39:05	-	0.84
51	IS	13C-OCDF	200.00	4.31e+08	0.89 y	42:03	-	1.10

52	C/Up	37Cl-2,3,7,8-TCDD	200.00	2.64e+08		26:32	-	0.80
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.66e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.57e+08	0.78 y	24:17	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.95e+08	1.25 y	34:57	-	1.00

FORM 4A

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:   CCAL ID: ST060322C1-1

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	10.00	7.8 - 12.9
						8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M+2/M+4	0.63	0.54-0.72	y	48.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	50.1	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	46.3	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	49.6	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	50.2	43.0 - 58.0
OCDD	M+2/M+4	0.90	0.76-1.02	y	98.4	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.64	8.4 - 12.0
						8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.1	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	48.2	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.0	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	48.4	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	47.9	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	47.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	48.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.7	43.0 - 58.0
OCDF	M+2/M+4	0.89	0.76-1.02	y	96.7	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MJ

Date: 3/23/06

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060322C1   S#1   Analysis Date: 22-MAR-06 Time: 09:32:59

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	104	82.0 - 121.0
						85.0 - 117.0 (5)
13C-1,2,3,7,8-PeCDD	M+2/M+4	0.65	0.54-0.72	y	104	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	95.4	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	104	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	97.4	72.0 - 138.0
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	194	96.0 - 415.0
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	107	71.0 - 140.0
						76.0 - 131.0 (5)
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	107	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	107	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	97.8	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	99.9	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	101	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	100	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	96.5	77.0 - 129.0
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	198	96.0 - 415.0
CLEANUP STANDARD (4)						
37Cl-2,3,7,8-TCDD					10.1	7.9 - 12.7
						8.3 - 12.1 (5)

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613.

(4) No ion abundance ratio; report concentration found.

(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.

Analyst: jM)

Date: 3/23/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory   Episode No.:   CCAL ID: ST060322C1-1

Contract No.:   SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5   GC Column ID: DB-5

VER Data Filename: 060322C1   S#1   Analysis Date: 22-MAR-06 Time: 09:32:59

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	10.00	8.00 - 12.0
1,2,3,7,8-PeCDD	M+2/M+4	0.63	0.54-0.72	y	48.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	50.1	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	46.3	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	49.6	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	50.2	40.0 - 60.0
OCDD	M+2/M+4	0.90	0.76-1.02	y	98.4	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.64	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.1	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	48.2	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.0	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	48.4	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	47.9	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	47.9	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	48.3	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.7	40.0 - 60.0
OCDF	M+2/M+4	0.89	0.76-1.02	y	96.7	80.0 - 120

Analyst: MJ

Date: 3/23/06

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	104	70.0 - 130
13C-1,2,3,7,8-PeCDD	M+2/M+4	0.65	0.54-0.72	y	104	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	95.4	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	104	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	97.4	70.0 - 130
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	194	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	107	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	107	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	107	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	97.8	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	99.9	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	101	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	100	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	96.5	70.0 - 130
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	198	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					10.1	7.00 - 13.0

Analyst: MJ

Date: 3/23/06

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-5 Initial Calibration Date: 3/22/06

RT Window Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

DB-5 IS Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:44	1,3,6,8-TCDF (F)	20:32
1,2,8,9-TCDD (L)	27:27	1,2,8,9-TCDF (L)	27:36
1,2,4,7,9-PeCDD (F)	29:08	1,3,4,6,8-PeCDF (F)	27:31
1,2,3,8,9-PeCDD (L)	31:39	1,2,3,8,9-PeCDF (L)	31:53
1,2,4,6,7,9-HxCDD (F)	33:03	1,2,3,4,6,8-HxCDF (F)	32:31
1,2,3,7,8,9-HxCDD (L)	34:58	1,2,3,7,8,9-HxCDF (L)	35:21
1,2,3,4,6,7,9-HpCDD (F)	37:31	1,2,3,4,6,7,8-HpCDF (F)	37:07
1,2,3,4,6,7,8-HpCDD (L)	38:31	1,2,3,4,7,8,9-HpCDF (L)	39:04

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT BETWEEN COMPARED PEAKS (1)
<25%

Analyst: AM

Date: 3/23/06

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.025	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.026	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.160	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.197	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.208	1.000-1.567

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: VM

Date: 3/23/06

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.001	0.999-1.001
OCDF	13C-OCDF	1.006	0.999-1.008

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.963	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.967	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.988	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.991	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.061	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.101	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.195	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.201	1.032-1.311

Analyst: MM

Date: 3/23/06

Client ID: 1613 CS3 060110H   Filename: 060322C1   S:1   Acq:22-MAR-06 09:32:59   ConCal: NA

Lab ID: ST060322C1-1   GC Column ID: db-5   ICal: 1613VG5-3-22-06   wt/vol: 1.000   EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise Fac	DL
	2,3,7,8-TCDD	1.79e+07	0.78 y	1.08	26:33	9.9986		* 2.5	*
	1,2,3,7,8-PeCDD	7.94e+07	0.63 y	1.03	31:17	48.413		* 2.5	*
	1,2,3,4,7,8-HxCDD	7.27e+07	1.23 y	1.13	34:34	50.100		* 2.5	*
	1,2,3,6,7,8-HxCDD	8.37e+07	1.27 y	1.03	34:41	46.322		* 2.5	*
	1,2,3,7,8,9-HxCDD	8.40e+07	1.24 y	1.12	34:58	49.626		* 2.5	*
	1,2,3,4,6,7,8-HpCDD	6.84e+07	1.03 y	1.02	38:31	50.200		* 2.5	*
	OCDD	1.16e+08	0.90 y	1.06	41:47	98.413		* 2.5	*
	2,3,7,8-TCDF	2.23e+07	0.77 y	1.06	25:42	9.6429		* 2.5	*
	1,2,3,7,8-PeCDF	1.15e+08	1.55 y	1.01	30:03	49.145		* 2.5	*
	2,3,4,7,8-PeCDF	1.15e+08	1.55 y	1.02	30:59	48.157		* 2.5	*
	1,2,3,4,7,8-HxCDF	9.97e+07	1.23 y	1.15	33:41	48.028		* 2.5	*
	1,2,3,6,7,8-HxCDF	1.27e+08	1.24 y	1.14	33:49	48.373		* 2.5	*
	2,3,4,6,7,8-HxCDF	1.14e+08	1.24 y	1.17	34:25	47.928		* 2.5	*
	1,2,3,7,8,9-HxCDF	9.32e+07	1.25 y	1.10	35:21	47.854		* 2.5	*
	1,2,3,4,6,7,8-HpCDF	9.59e+07	1.01 y	1.31	37:07	48.348		* 2.5	*
	1,2,3,4,7,8,9-HpCDF	7.72e+07	1.02 y	1.33	39:04	48.679		* 2.5	*
	OCDF	1.33e+08	0.89 y	0.91	42:00	96.741		* 2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	52.364	52.641		*	*
Total Penta-Dioxins	143.45	143.74		*	*
Total Hexa-Dioxins	202.96	203.37		*	*
Total Hepta-Dioxins	100.70	101.63		*	*
Total Tetra-Furans	30.189	30.289		*	*
Total Penta-Furans	181.82	182.98		*	*
Total Hexa-Furans	243.28	244.86		*	*
Total Hepta-Furans	97.658	99.281		*	*

	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	1.66e+08	0.78 y	1.09	26:31	103.84	104	
IS	13C-1,2,3,7,8-PeCDD	1.59e+08	0.65 y	1.04	31:16	104.12	104	
IS	13C-1,2,3,4,7,8-HxCDD	1.28e+08	1.25 y	0.83	34:33	95.383	95.4	
IS	13C-1,2,3,6,7,8-HxCDD	1.75e+08	1.26 y	1.04	34:40	104.17	104	
IS	13C-1,2,3,4,6,7,8-HpCDD	1.34e+08	1.07 y	0.85	38:30	97.436	97.4	
IS	13C-OCDD	2.24e+08	0.89 y	0.71	41:46	194.01	97.0	
IS	13C-2,3,7,8-TCDF	2.18e+08	0.79 y	0.96	25:41	106.62	107	
IS	13C-1,2,3,7,8-PeCDF	2.32e+08	1.59 y	1.02	30:02	106.81	107	
IS	13C-2,3,4,7,8-PeCDF	2.32e+08	1.61 y	1.02	30:59	106.66	107	
IS	13C-1,2,3,4,7,8-HxCDF	1.81e+08	0.52 y	1.14	33:40	97.782	97.8	
IS	13C-1,2,3,6,7,8-HxCDF	2.31e+08	0.54 y	1.40	33:48	101.93	102	
IS	13C-2,3,4,6,7,8-HxCDF	2.04e+08	0.54 y	1.26	34:24	99.872	99.9	
IS	13C-1,2,3,7,8,9-HxCDF	1.78e+08	0.53 y	1.08	35:20	101.23	101	
IS	13C-1,2,3,4,6,7,8-HpCDF	1.51e+08	0.43 y	0.93	37:05	100.02	100	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.20e+08	0.44 y	0.77	39:04	96.454	96.5	
IS	13C-OCDF	3.02e+08	0.91 y	0.94	41:59	197.99	99.0	
C/Up	37Cl-2,3,7,8-TCDD	1.15e+07		0.77	26:32	10.124	101	
RS/RT	13C-1,2,3,4-TCDD	1.47e+08	0.80 y	1.00	25:53	100.00		
RS	13C-1,2,3,4-TCDF	2.13e+08	0.78 y	1.00	24:18	100.00		
RS/RT	13C-1,2,3,7,8,9-HxCDD	1.62e+08	1.27 y	1.00	34:58	100.00		

Integrations by Analyst: ml

Date: 3/22/06

Reviewed by Analyst: ________

Date: ____________

Initial Calibration RRF Summary (ICAL) Alta Analytical Laboratory

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Inst. ID. VG-7

Data filename: 060322C1

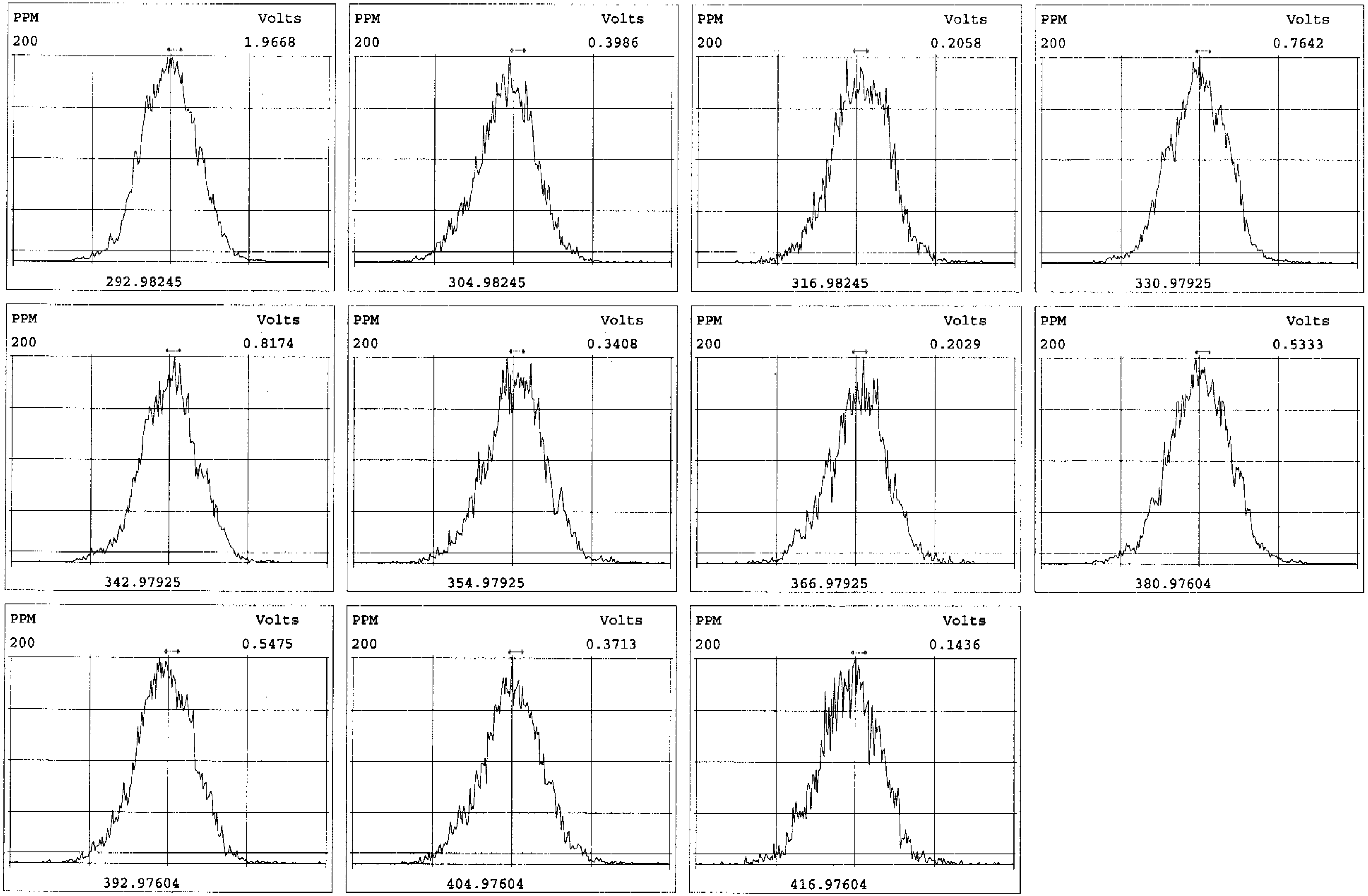
Name	RRT Limits Lower	RRT Limits Upper	Samp# 1 10 RRT#1	Samp# 3 0.25 RRT#2	Samp# 4 0.50 RRT#3	Samp# 5 2.0 RRT#4	Samp# 6 40 RRT#5	Samp# 7 200 RRT#6
2,3,7,8-TCDD	0.999	-1.002	1.001	1.001	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDD	0.999	-1.002	1.000	1.000	1.000	1.000	1.001	1.000
1,2,3,4,7,8-HxCDD	0.999	-1.001	1.000	1.001	1.000	1.000	1.000	1.000
1,2,3,6,7,8-HxCDD	0.998	-1.004	1.000	1.000	1.001	1.000	1.000	1.000
1,2,3,7,8,9-HxCDD	1.000	-1.019	1.009	1.009	1.009	1.009	1.009	1.009
1,2,3,4,6,7,8-HpCDD	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDD	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
2,3,7,8-TCDF	0.999	-1.003	1.001	1.001	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.000
2,3,4,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8-HxCDF	0.999	-1.001	1.001	1.000	1.000	1.001	1.001	1.000
1,2,3,6,7,8-HxCDF	0.997	-1.005	1.000	1.000	1.000	1.000	1.001	1.001
2,3,4,6,7,8-HxCDF	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
1,2,3,7,8,9-HxCDF	0.999	-1.001	1.000	1.000	1.001	1.000	1.001	1.000
1,2,3,4,6,7,8-HpCDF	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8,9-HpCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDF	0.999	-1.008	1.006	1.005	1.005	1.005	1.005	1.005
13C-2,3,7,8-TCDD	0.976	-1.043	1.025	1.025	1.024	1.025	1.024	1.024
13C-1,2,3,7,8-PeCDD	1.000	-1.567	1.208	1.208	1.207	1.207	1.207	1.208
13C-1,2,3,4,7,8-HxCDD	0.977	-1.000	0.988	0.988	0.988	0.988	0.988	0.988
13C-1,2,3,6,7,8-HxCDD	0.981	-1.003	0.991	0.992	0.991	0.992	0.992	0.992
13C-1,2,3,4,6,7,8-HpCDD	1.086	-1.110	1.101	1.102	1.102	1.102	1.102	1.102
13C-OCDD	1.032	-1.311	1.195	1.195	1.195	1.197	1.195	1.197
13C-2,3,7,8-TCDF	0.923	-1.103	0.992	0.992	0.992	0.992	0.992	0.992
13C-1,2,3,7,8-PeCDF	1.000	-1.425	1.160	1.160	1.159	1.160	1.159	1.160
13C-2,3,4,7,8-PeCDF	1.011	-1.526	1.197	1.196	1.196	1.196	1.196	1.197
13C-1,2,3,4,7,8-HxCDF	0.944	-0.970	0.963	0.963	0.963	0.963	0.963	0.963
13C-1,2,3,6,7,8-HxCDF	0.949	-0.975	0.967	0.967	0.967	0.967	0.967	0.967
13C-2,3,4,6,7,8-HxCDF	0.959	-1.021	0.984	0.984	0.984	0.984	0.984	0.984
13C-1,2,3,7,8,9-HxCDF	0.977	-1.047	1.011	1.011	1.010	1.011	1.011	1.011
13C-1,2,3,4,6,7,8-HpCDF	1.043	-1.085	1.061	1.061	1.061	1.062	1.061	1.061
13C-1,2,3,4,7,8,9-HpCDF	1.057	-1.151	1.117	1.117	1.117	1.117	1.117	1.118
13C-OCDF	1.032	-1.311	1.201	1.201	1.201	1.203	1.201	1.203
37Cl-2,3,7,8-TCDD	0.989	-1.052	1.026	1.025	1.025	1.025	1.025	1.026
13C-1,2,3,4-TCDD	0.000	-0.000	*	*	*	*	*	*
13C-1,2,3,4-TCDF	0.923	-1.103	*	*	*	*	*	*
13C-1,2,3,7,8,9-HxCDD	0.000	-0.000	*	*	*	*	*	*

Alta Analytical Laboratory - Injection Log Run file: 060322C1 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060322C1	1	ST060322C1-1	MAS	22-MAR-06	09:32:59	NA	NA
060322C1	2	SOLVENT BLANK	MAS	22-MAR-06	10:22:37	NA	NA
060322C1	3	ST060322C1-2	MAS	22-MAR-06	11:12:17	NA	NA
060322C1	4	ST060322C1-3	MAS	22-MAR-06	12:02:01	NA	NA
060322C1	5	ST060322C1-4	MAS	22-MAR-06	12:51:46	NA	NA
060322C1	6	ST060322C1-5	MAS	22-MAR-06	13:41:25	NA	NA
060322C1	7	ST060322C1-6	MAS	22-MAR-06	14:31:06	NA	NA
060322C1	8	SOLVENT BLANK	MAS	22-MAR-06	15:20:45	NA	NA
060322C1	9	SS060322C1-1	MAS	22-MAR-06	16:10:24	NA	NA

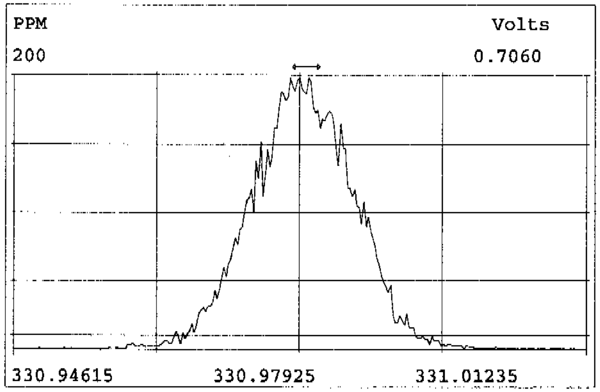
Peak Locate Examination:22-MAR-2006:09:31 File:060322C1

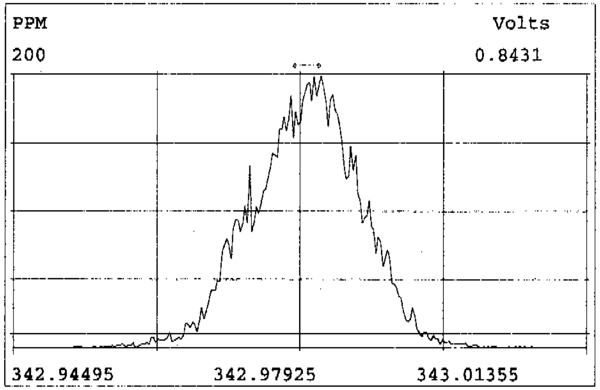
Experiment:OCDD_DB5 Function:1 Reference:PFK

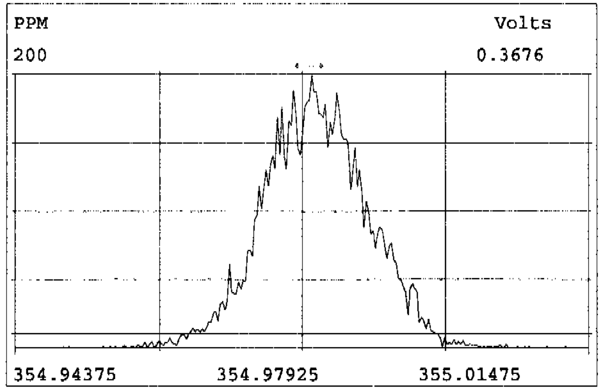


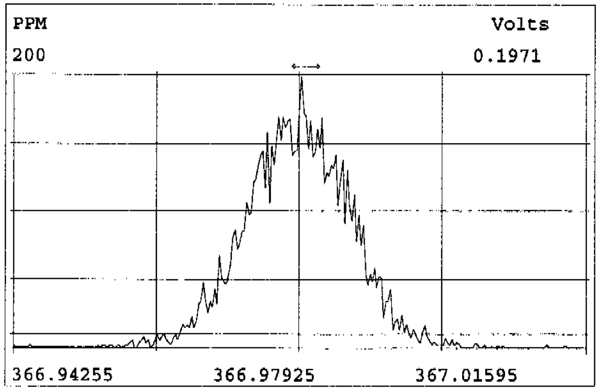
Peak Locate Examination:22-MAR-2006:09:31 File:060322C1

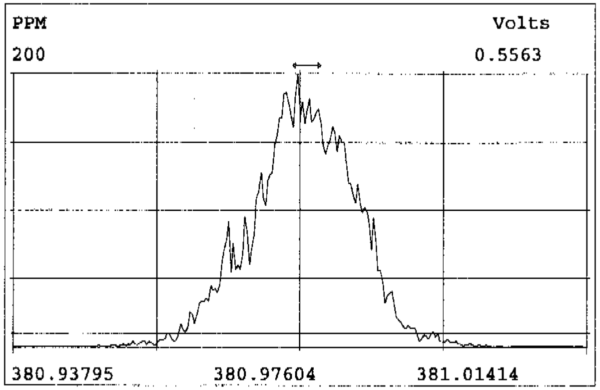
Experiment:OCDD_DB5 Function:2 Reference:PFK

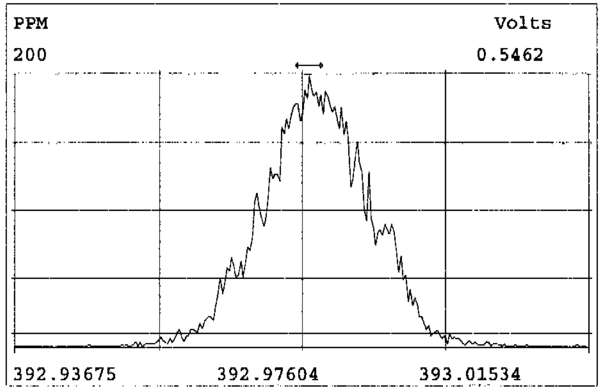


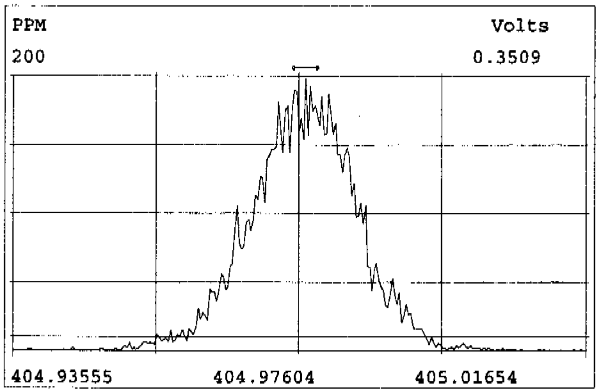


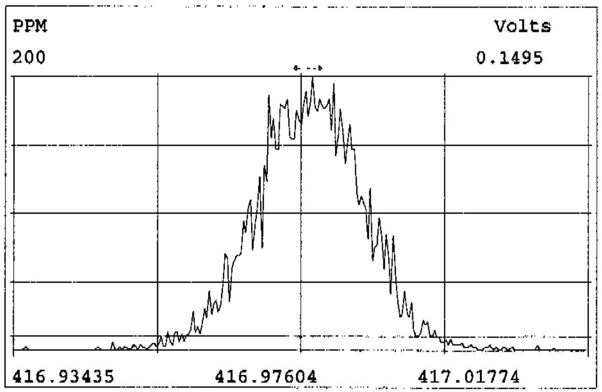






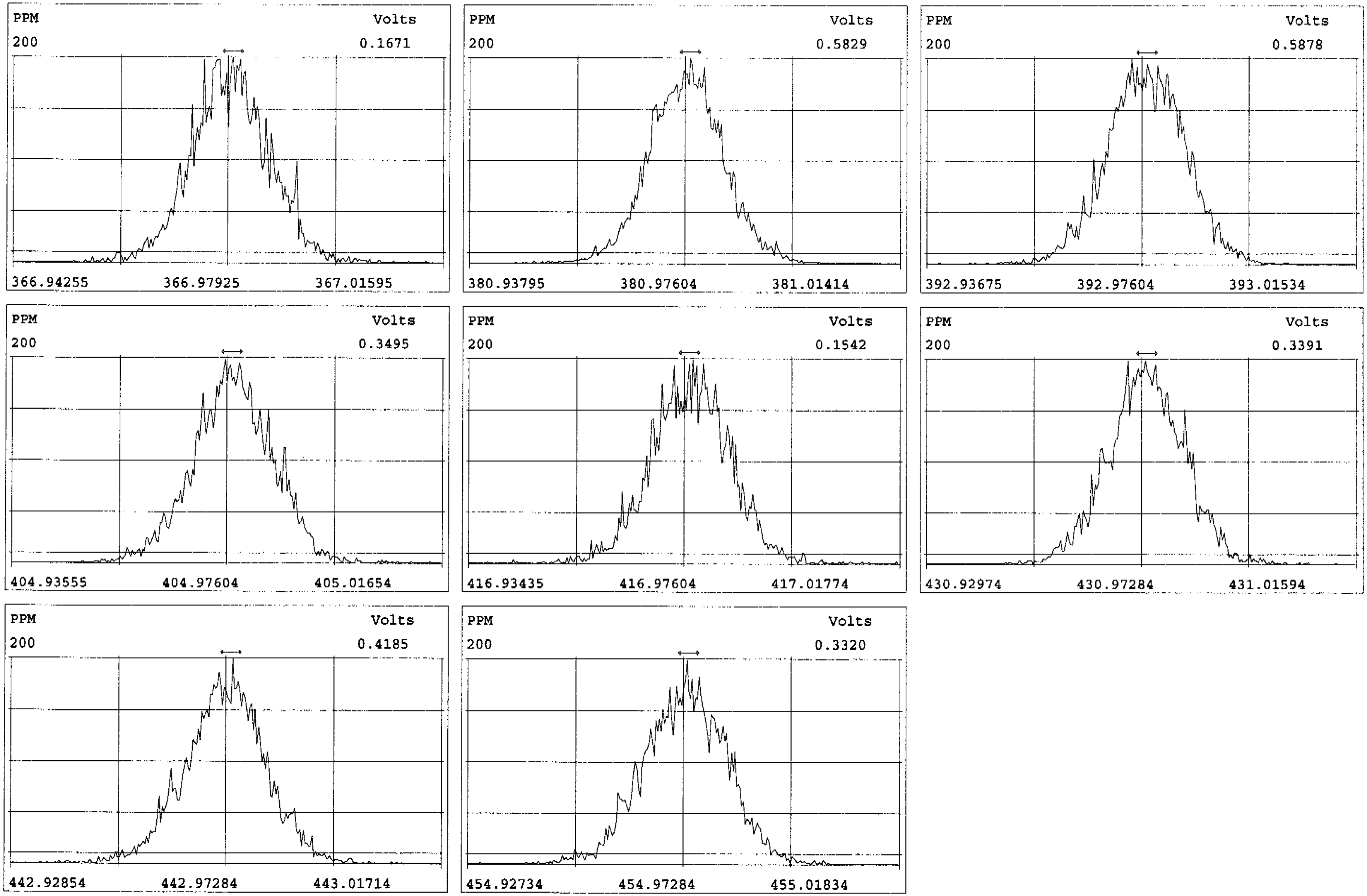






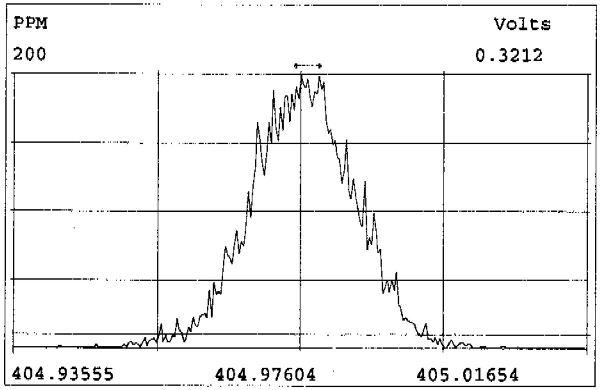
Peak Locate Examination:22-MAR-2006:09:32 File:060322C1

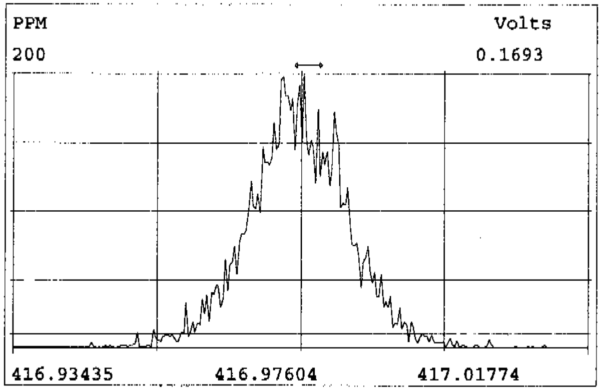
Experiment:OCDD_DB5 Function:3 Reference:PFK

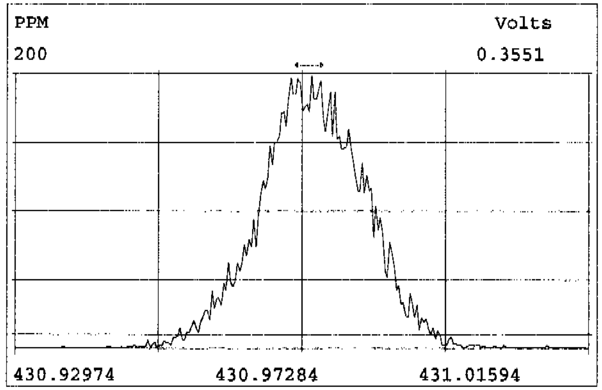


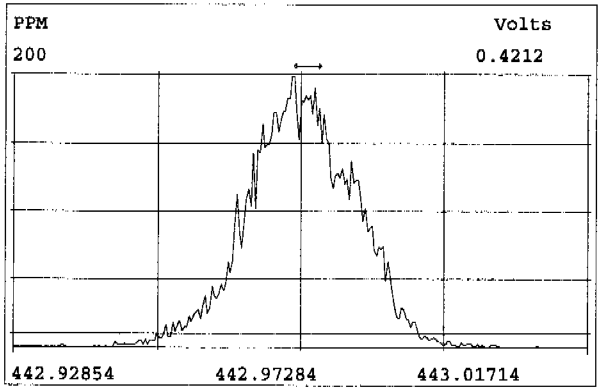
Peak Locate Examination:22-MAR-2006:09:32 File:060322C1

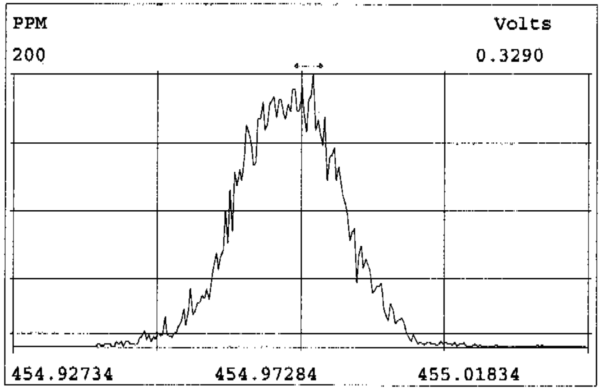
Experiment:OCDD_DB5 Function:4 Reference:PFK

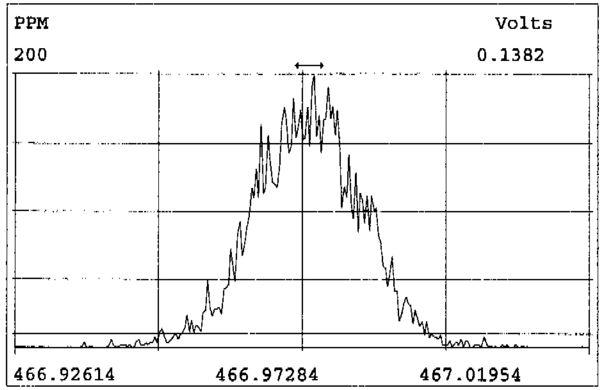


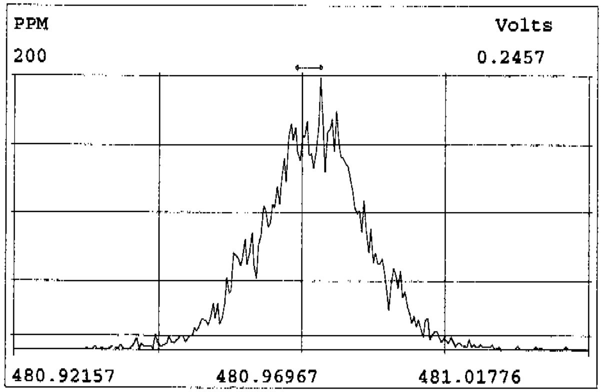






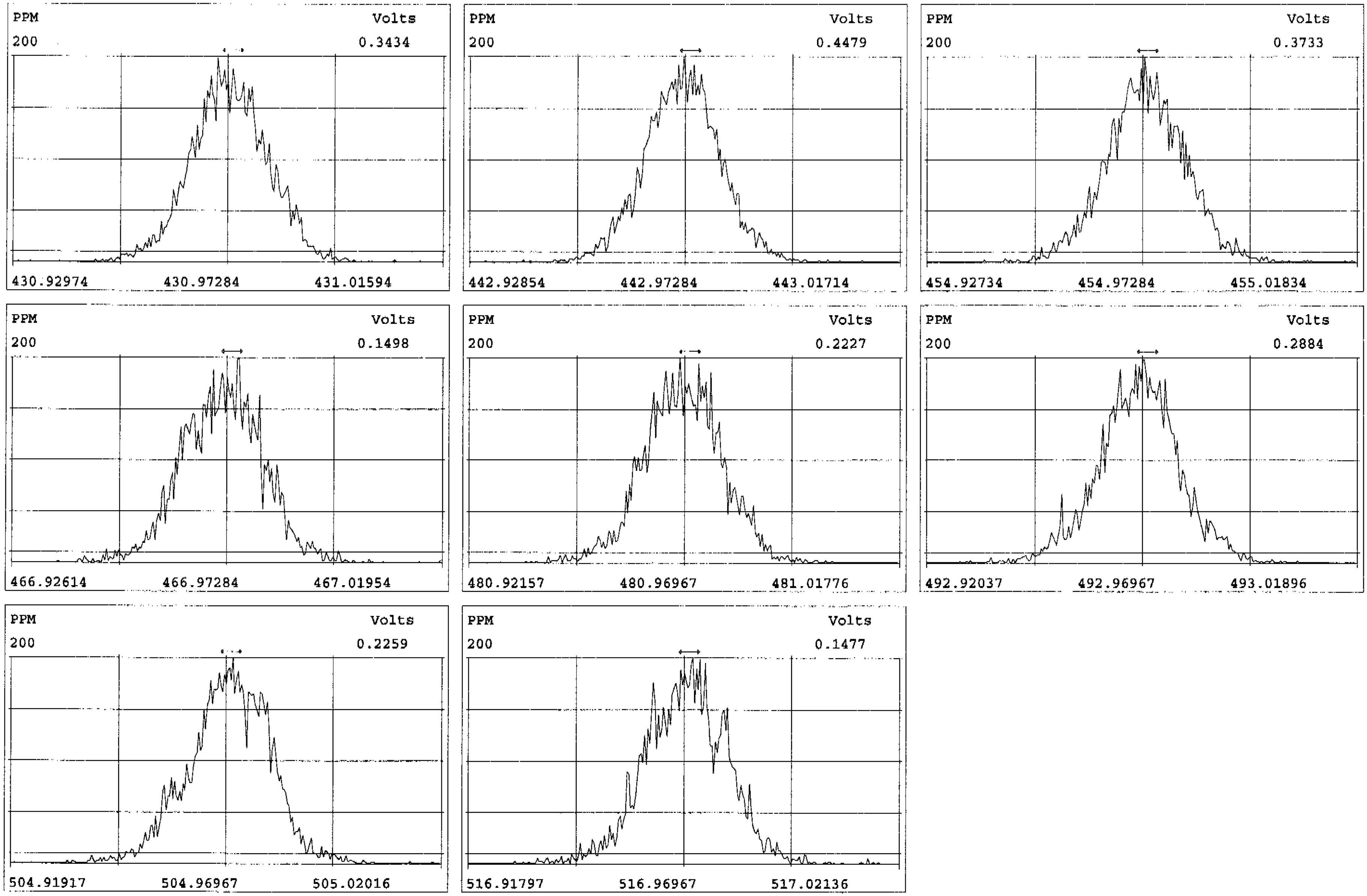






Peak Locate Examination:22-MAR-2006:09:32 File:060322C1

Experiment:OCDD_DB5 Function:5 Reference:PFK



File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
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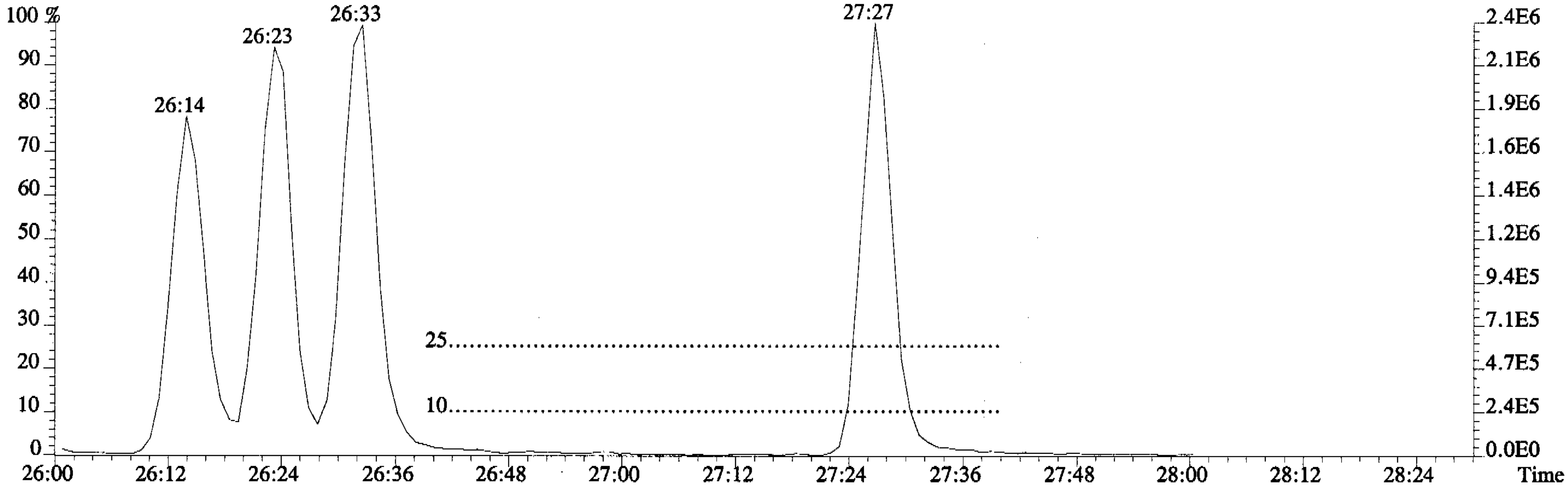

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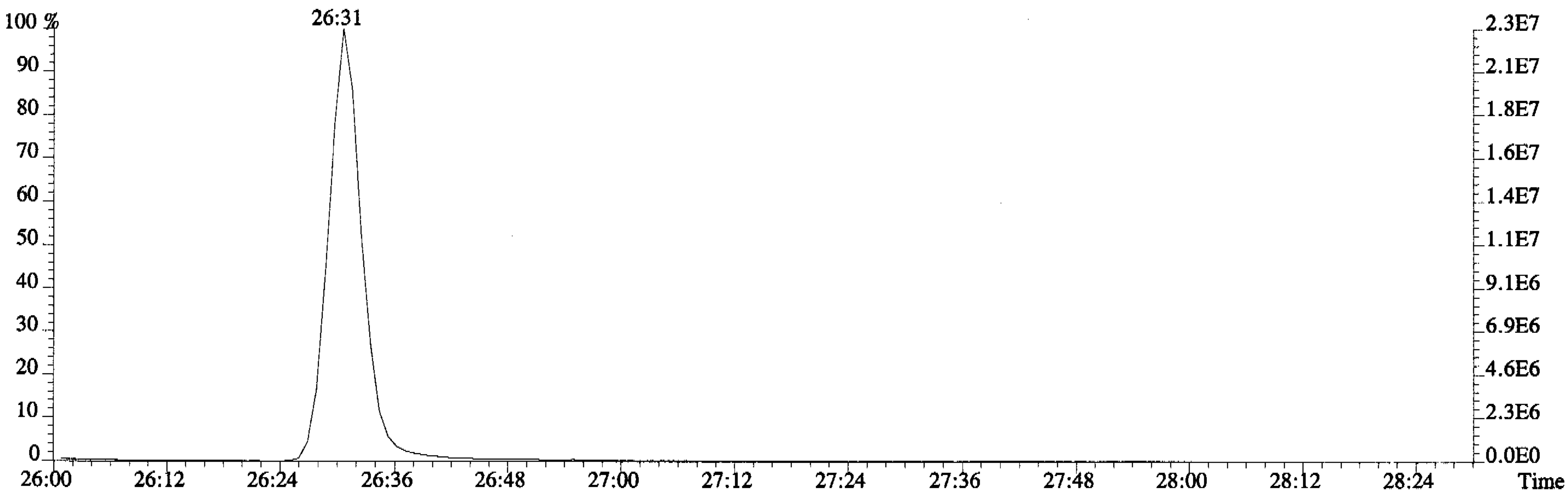
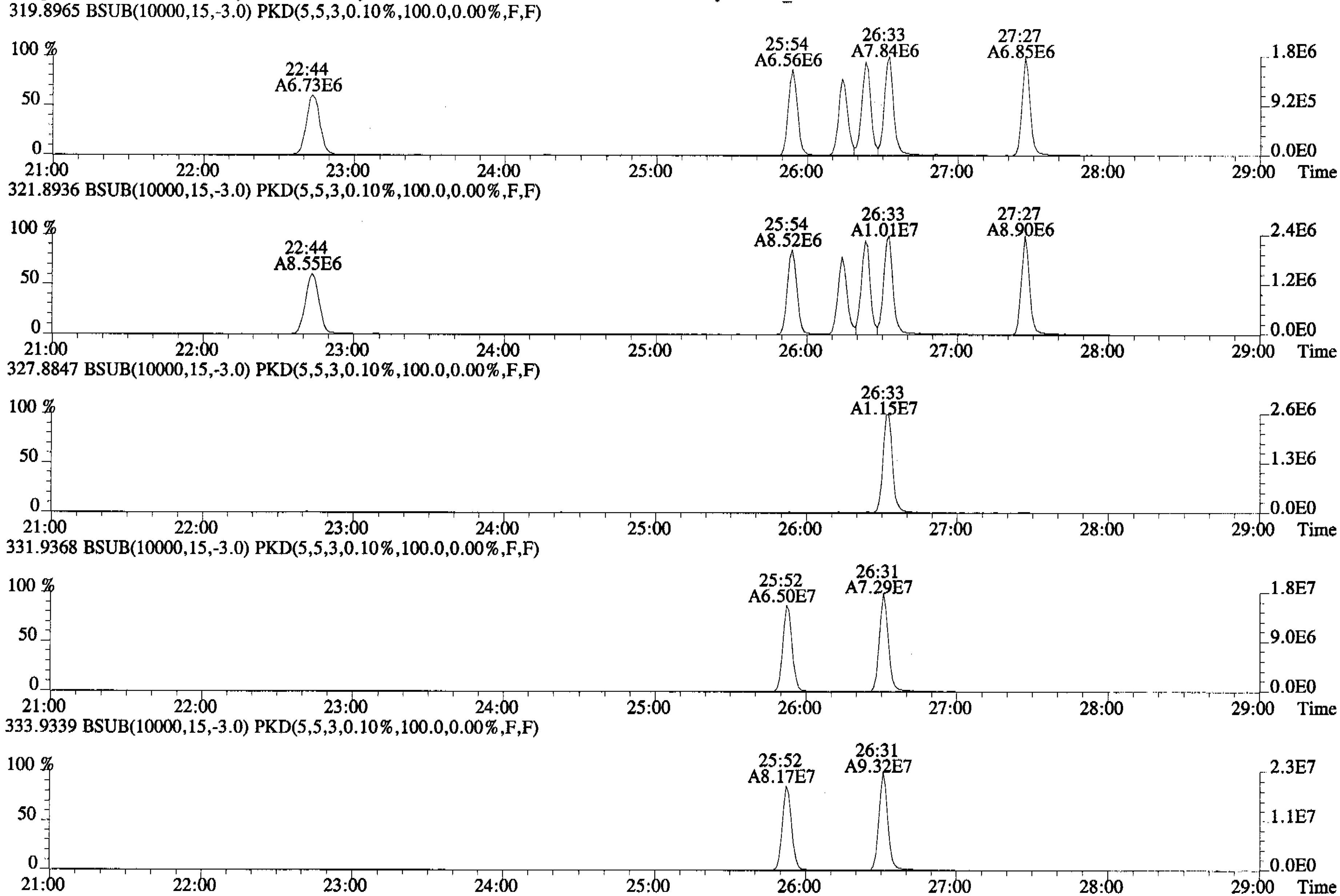
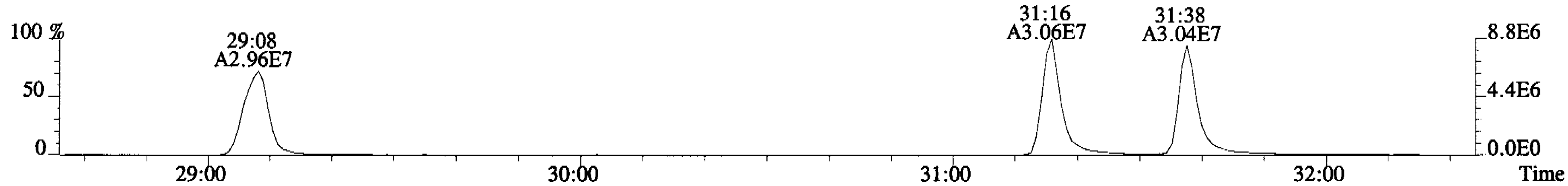


File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

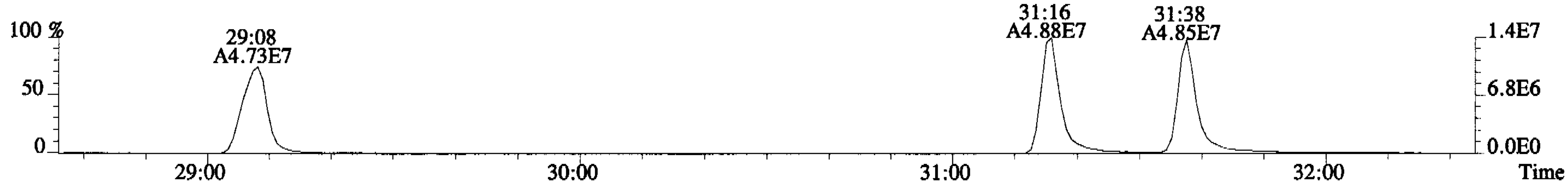


File:060322C1 #1-316 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

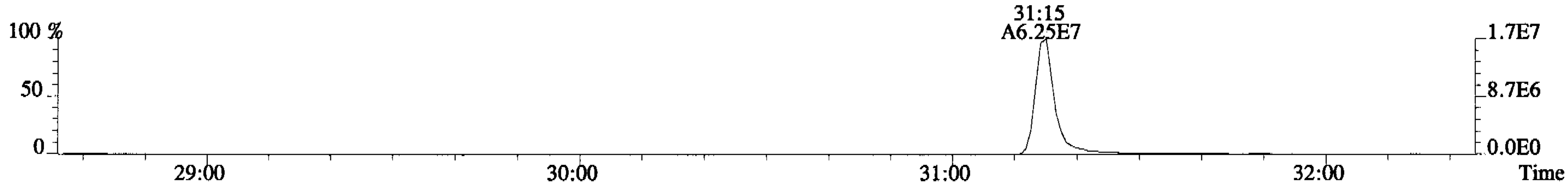
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



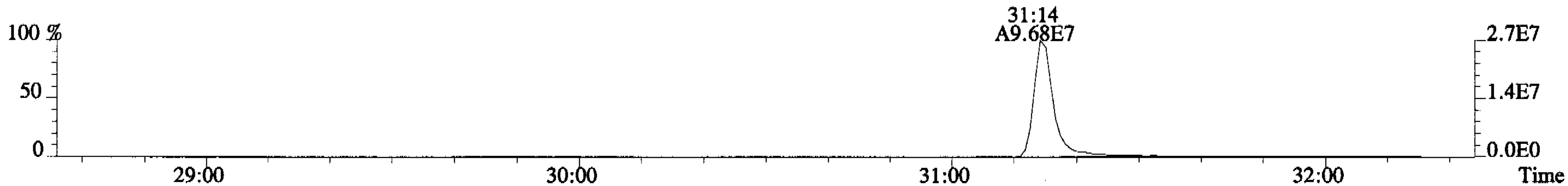
355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



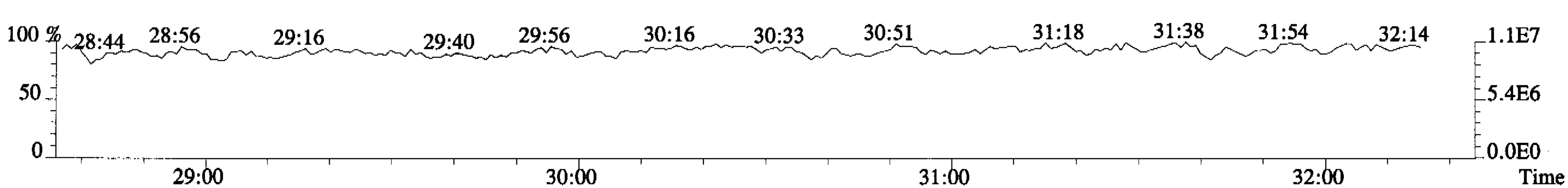
365.8978 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



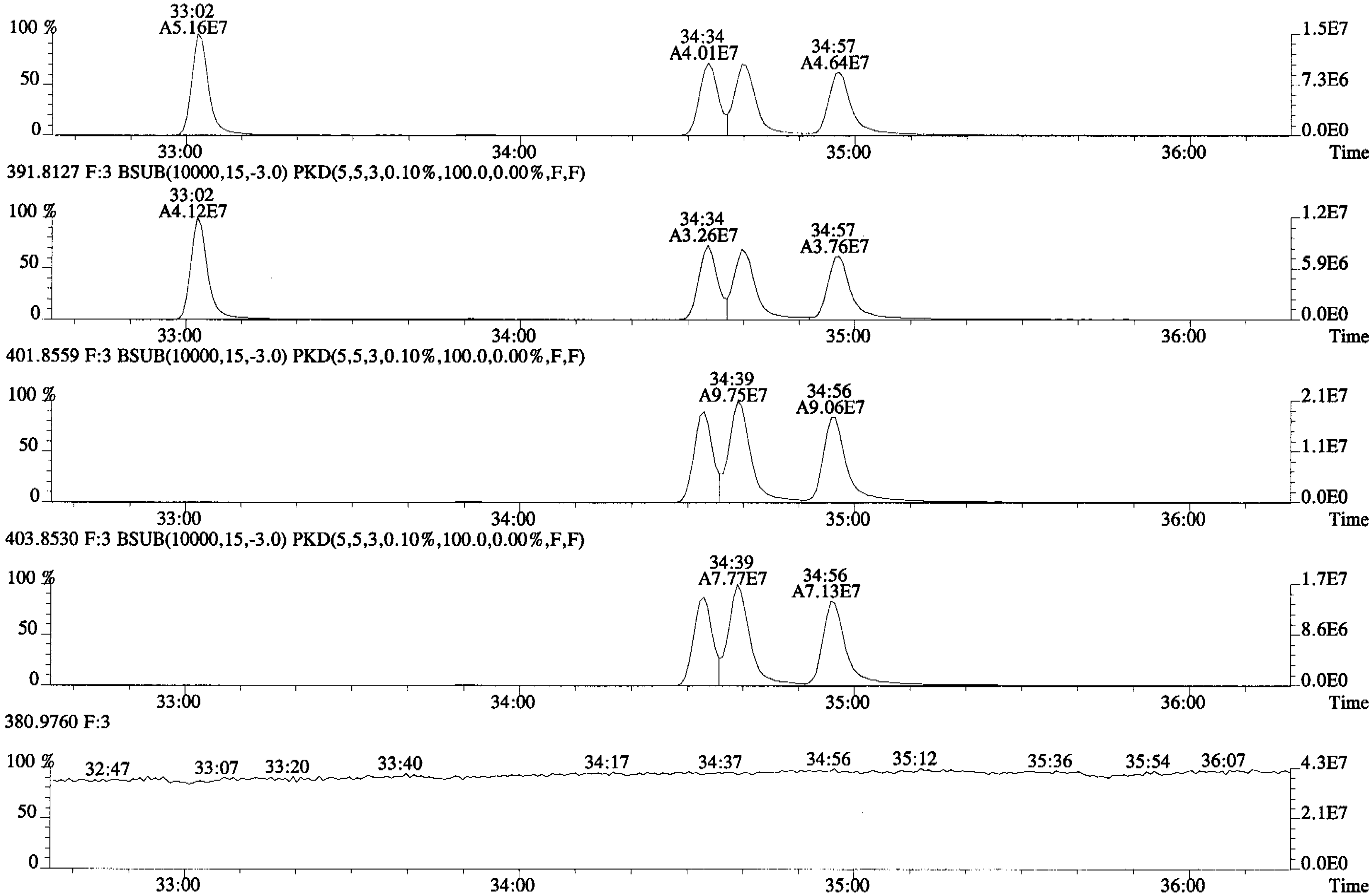
367.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



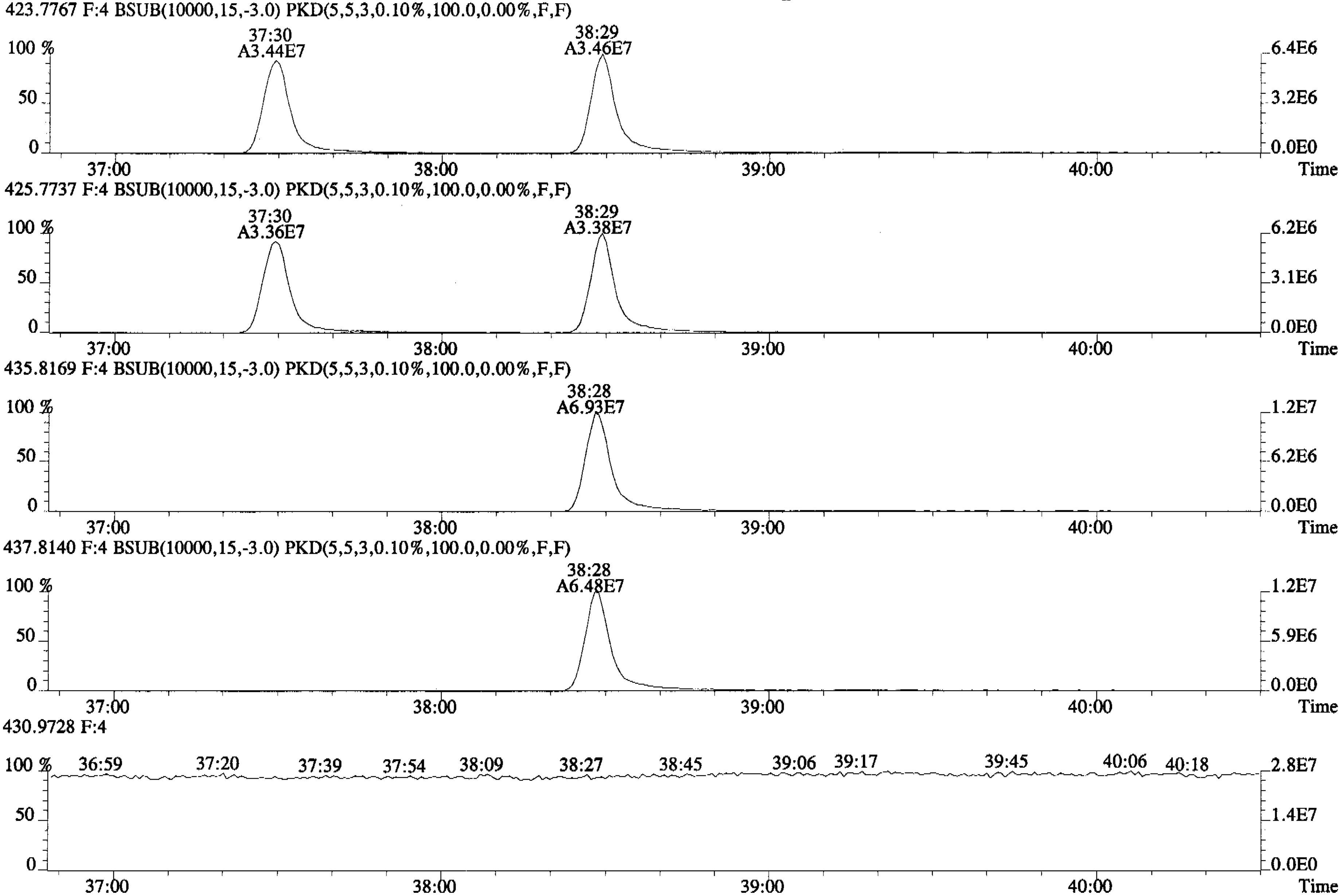
366.9792 F:2



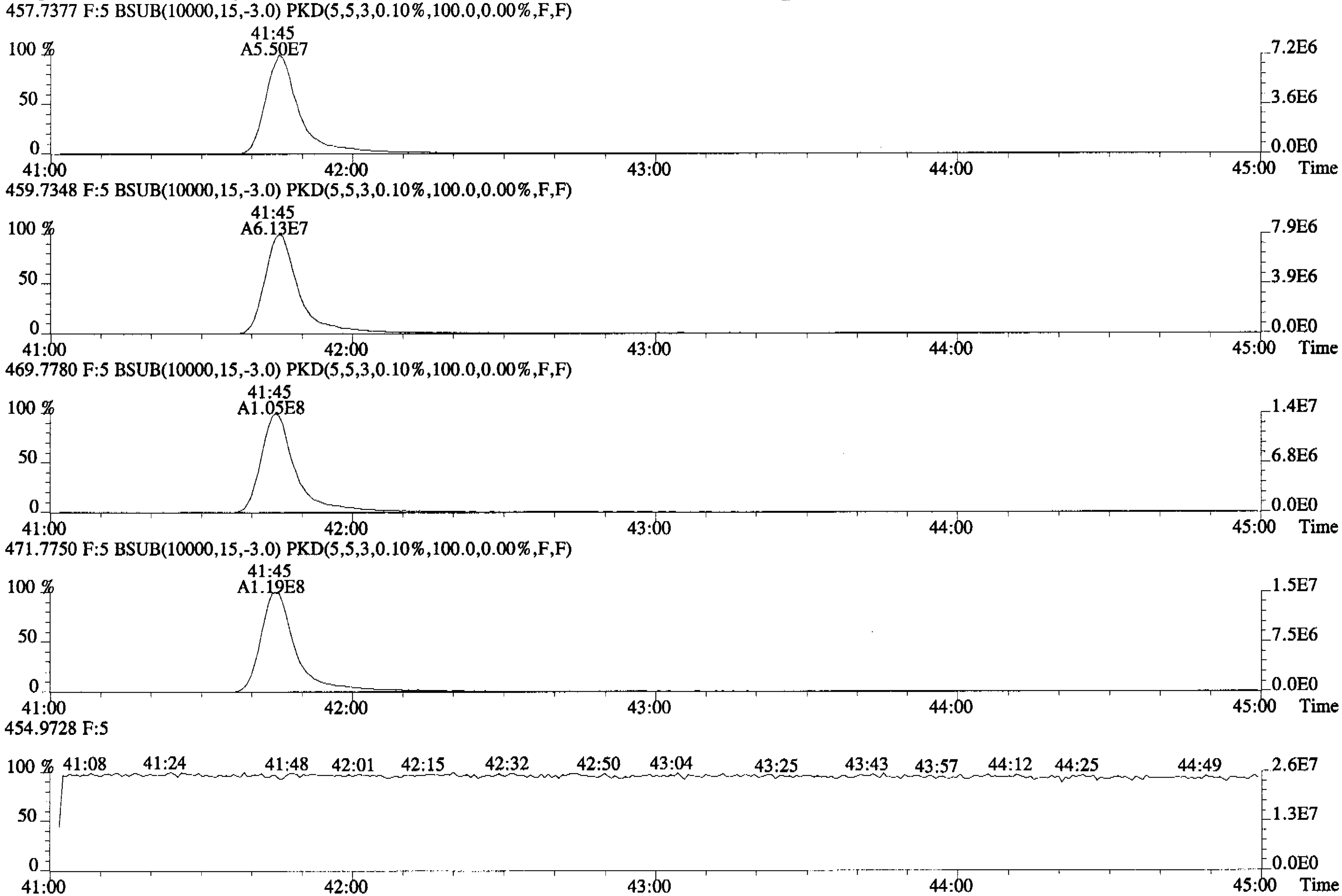
File:060322C1 #1-378 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



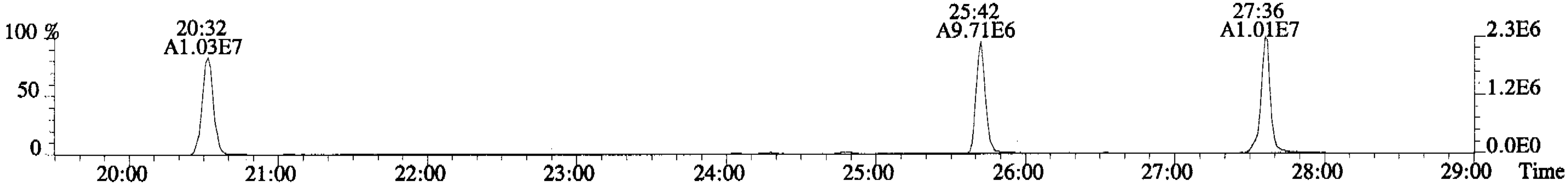
File:060322C1 #1-399 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5



File:060322C1 #1-345 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

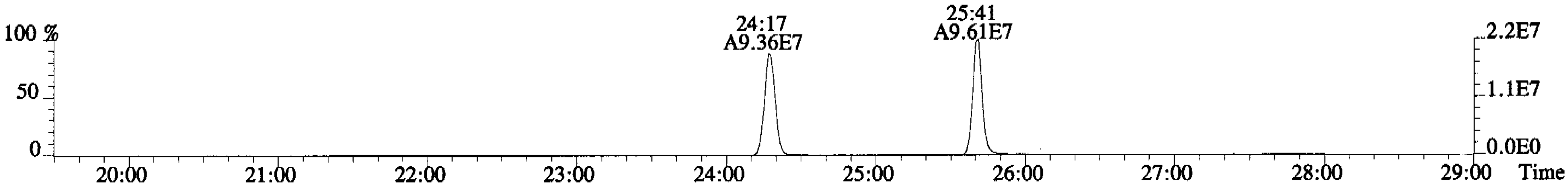


File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

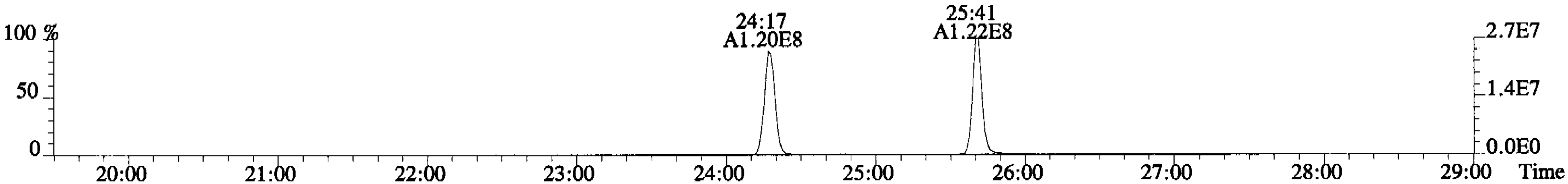


305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

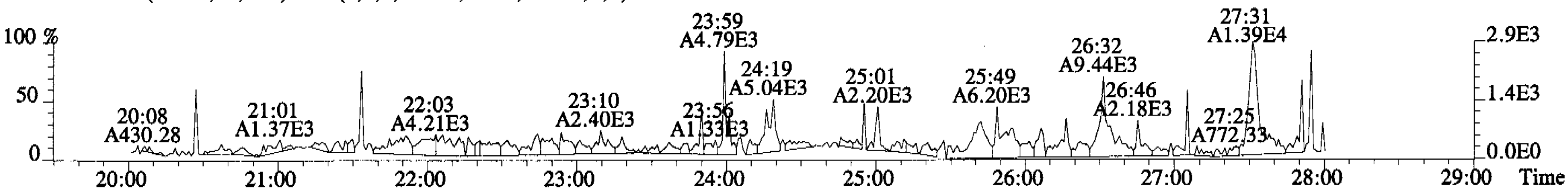
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



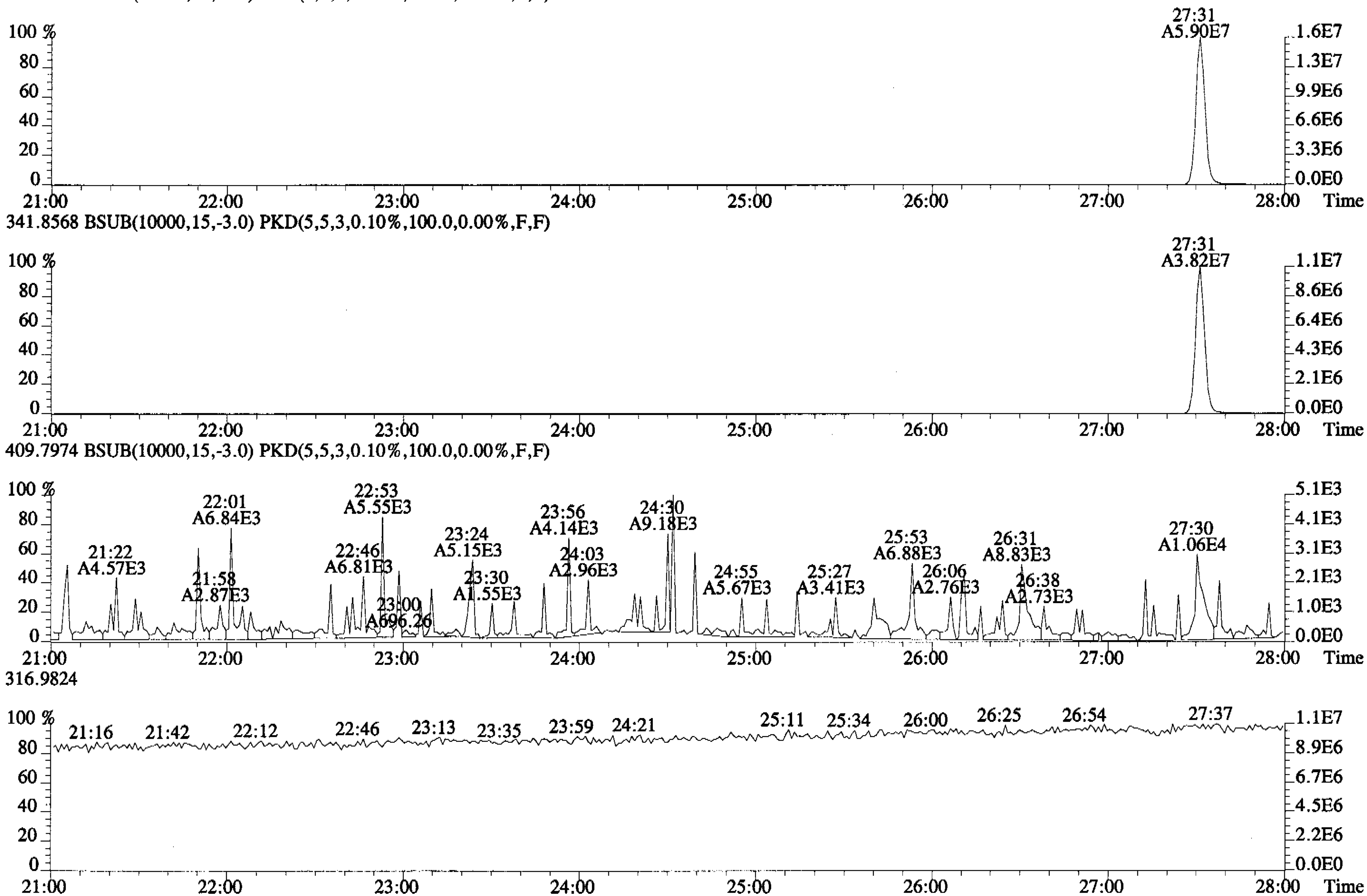
317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



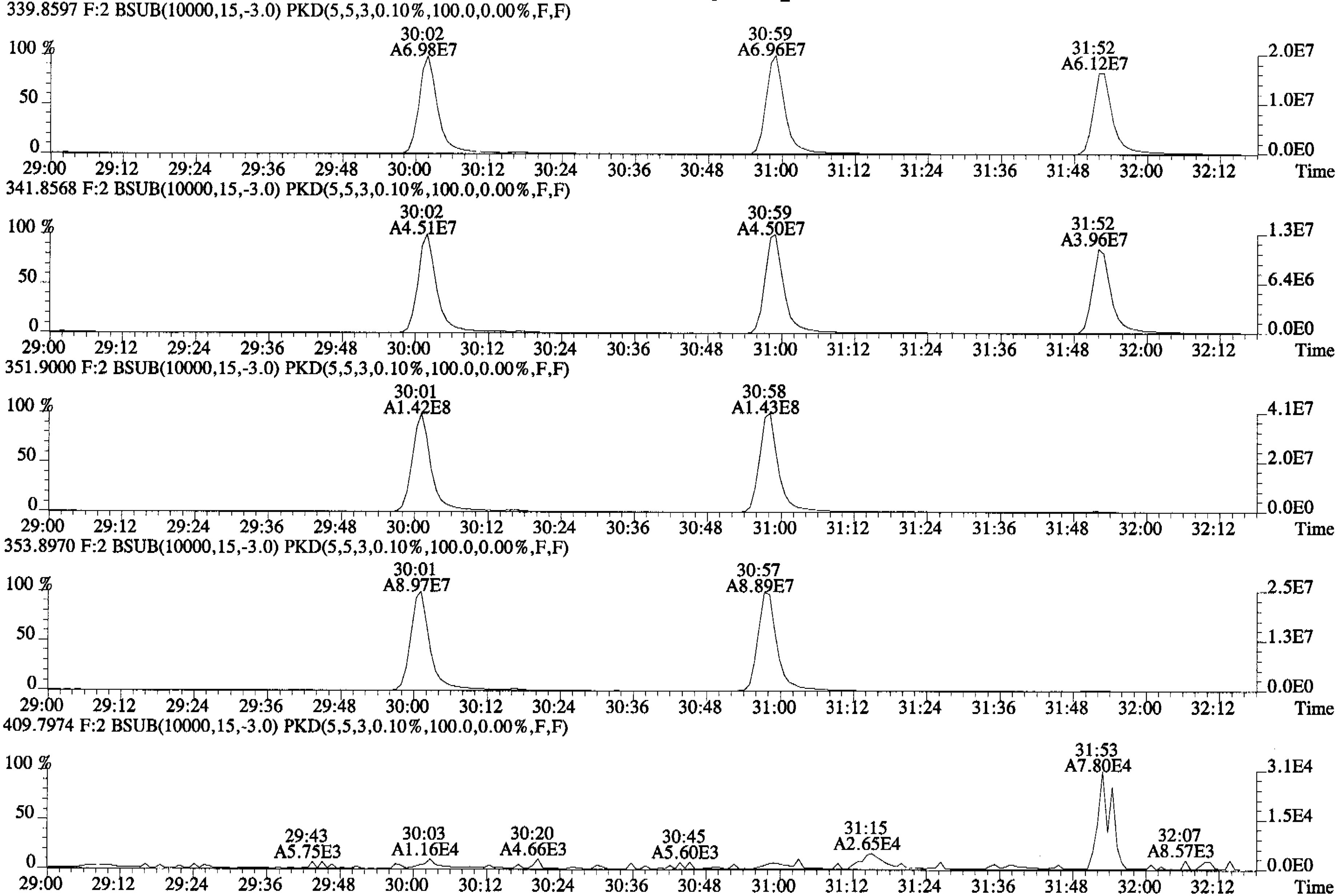
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

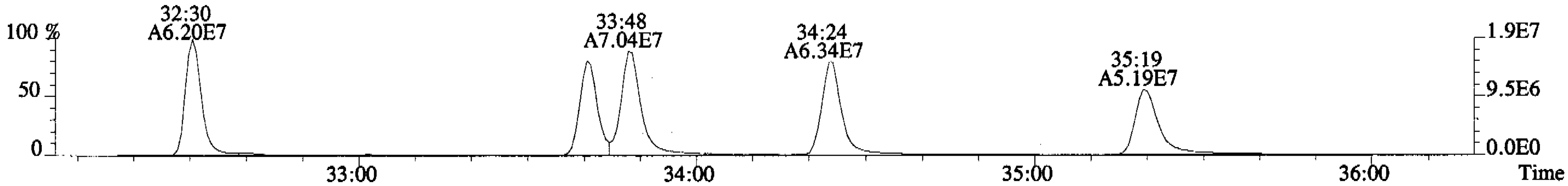


File:060322C1 #1-316 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

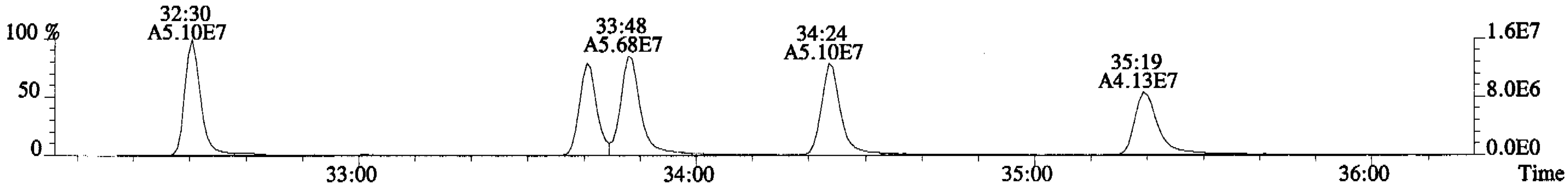


File:060322C1 #1-378 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5

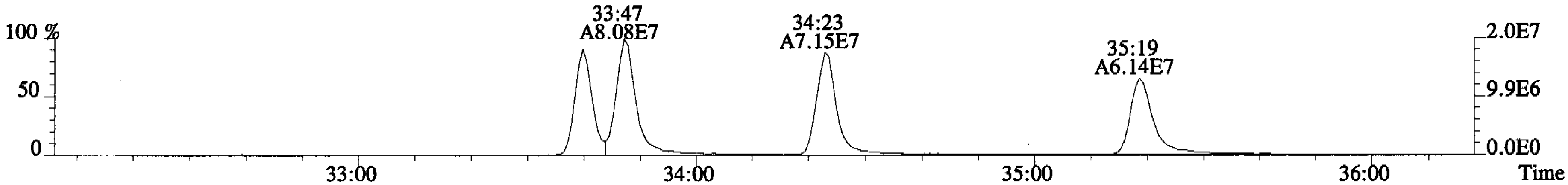
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



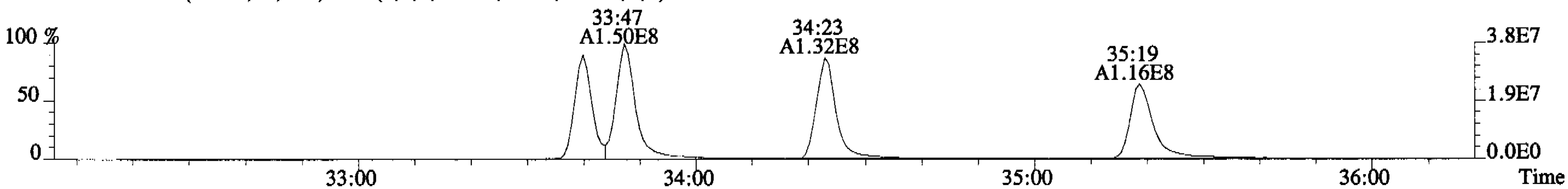
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



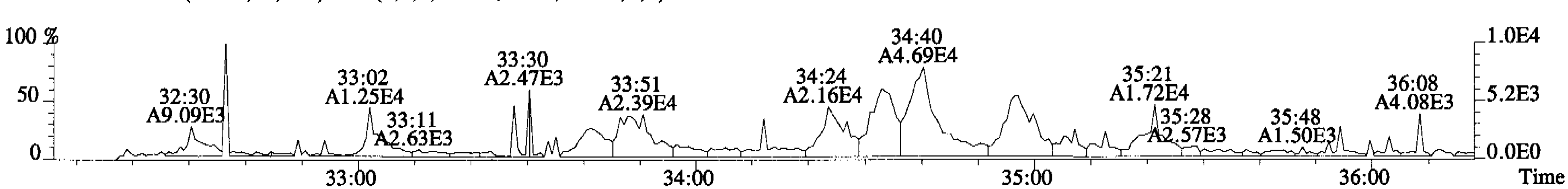
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



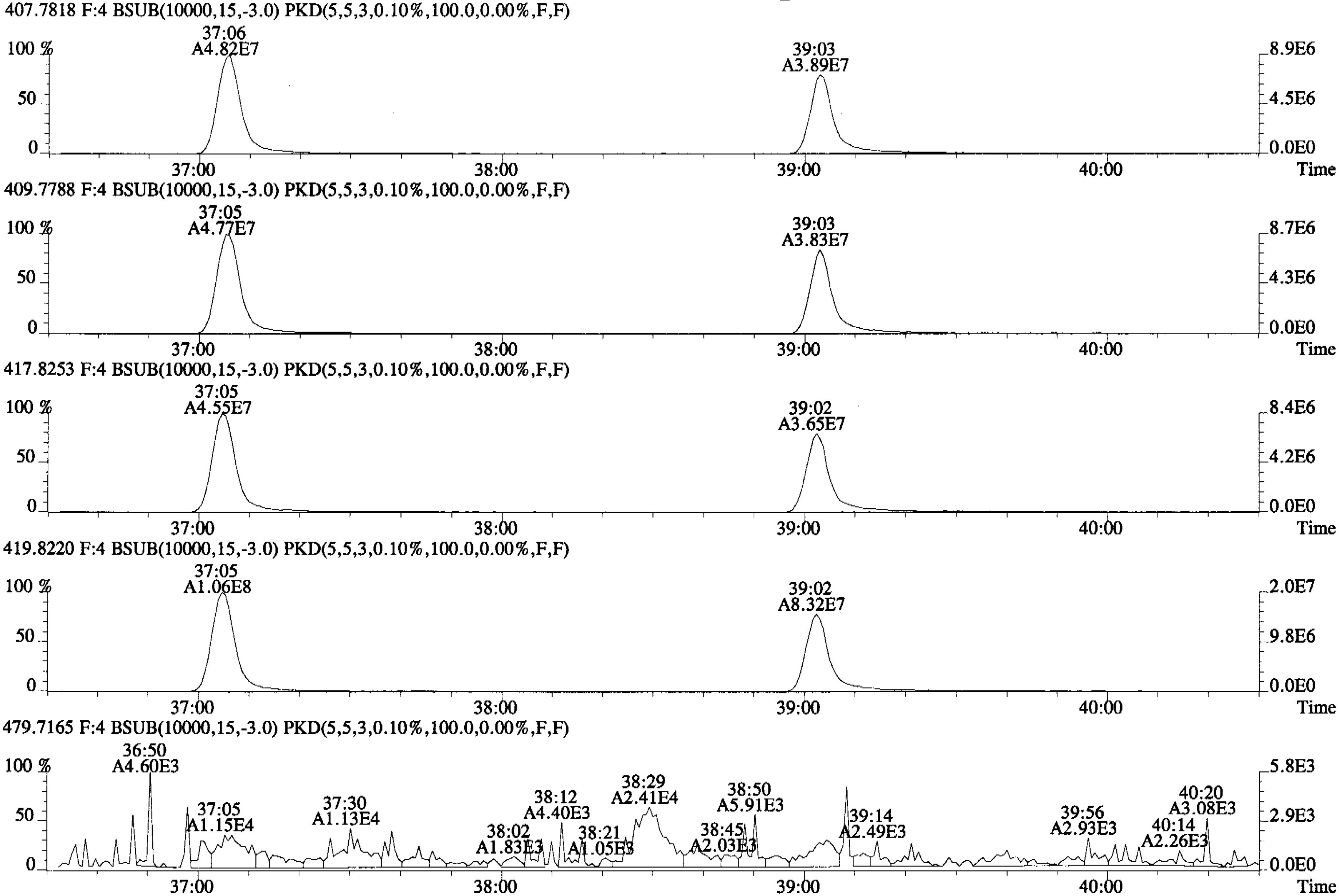
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



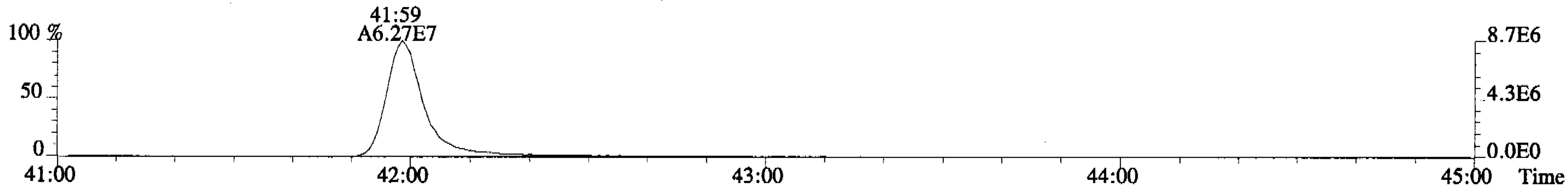
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



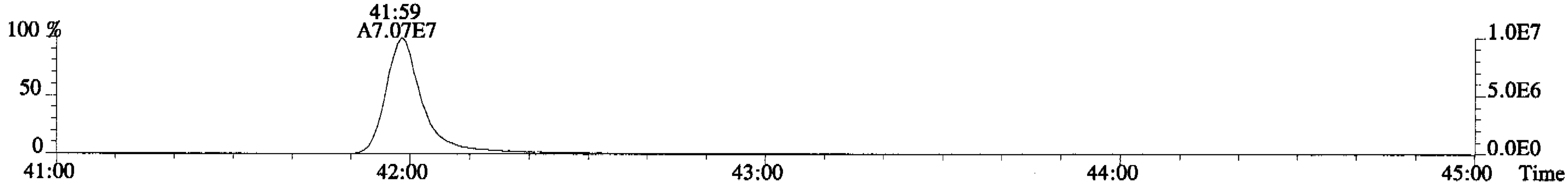
File:060322C1 #1-399 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5



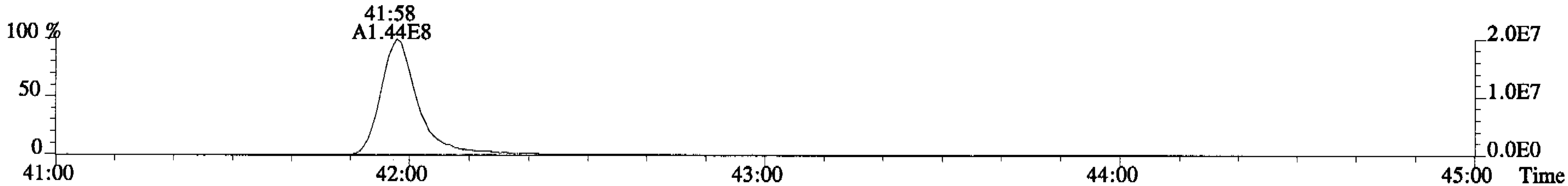
File:060322C1 #1-345 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD_DB5
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



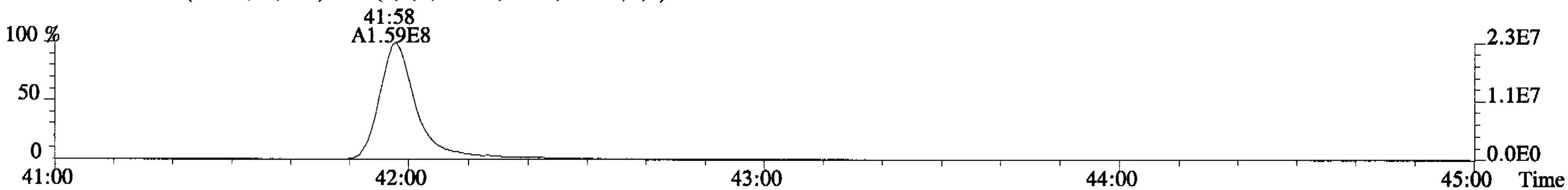
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



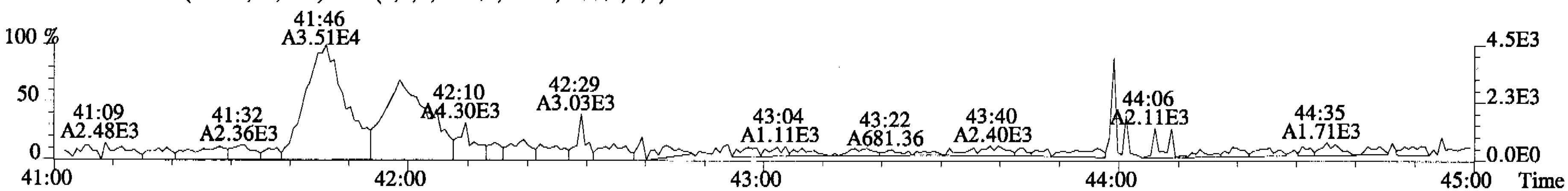
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



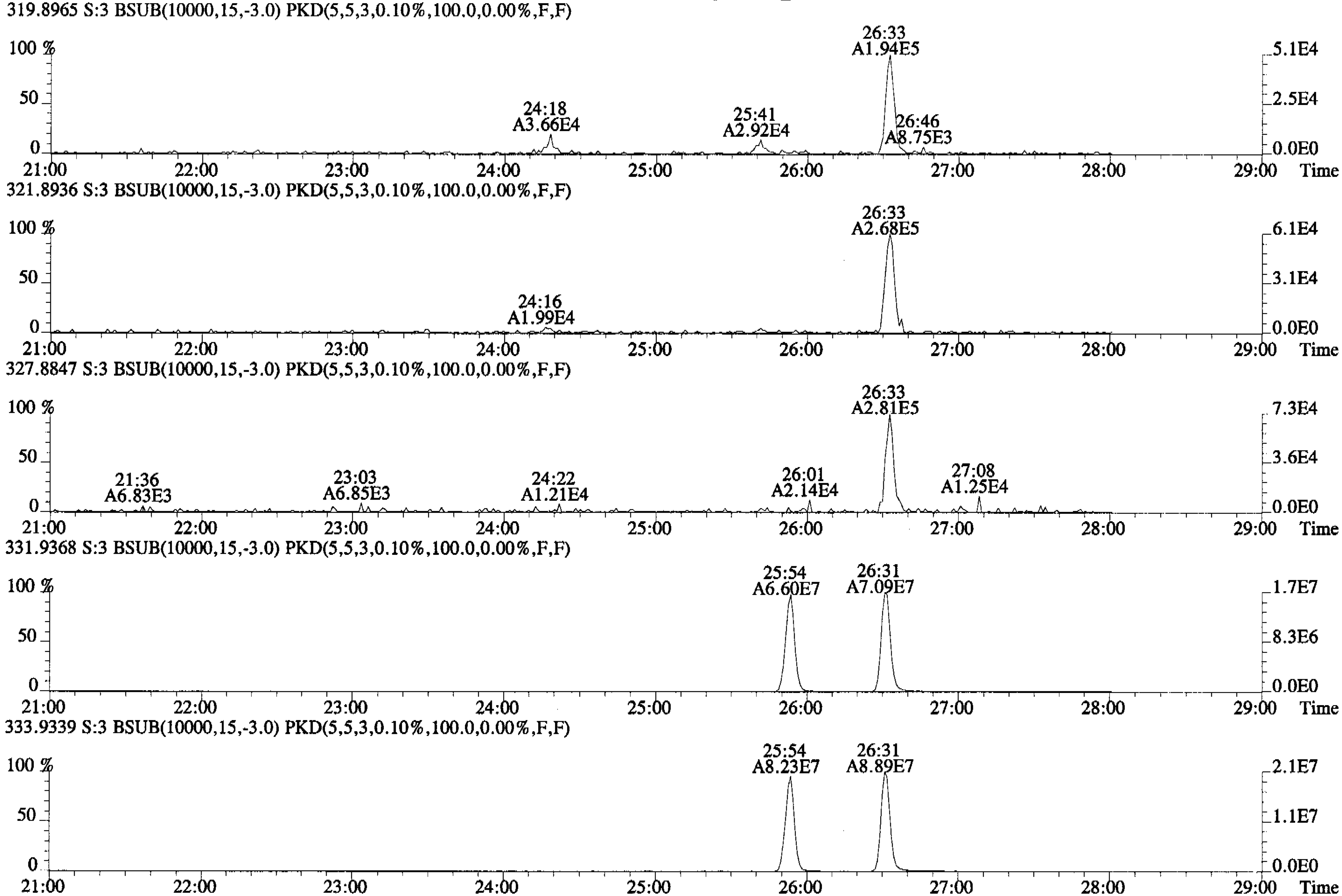
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



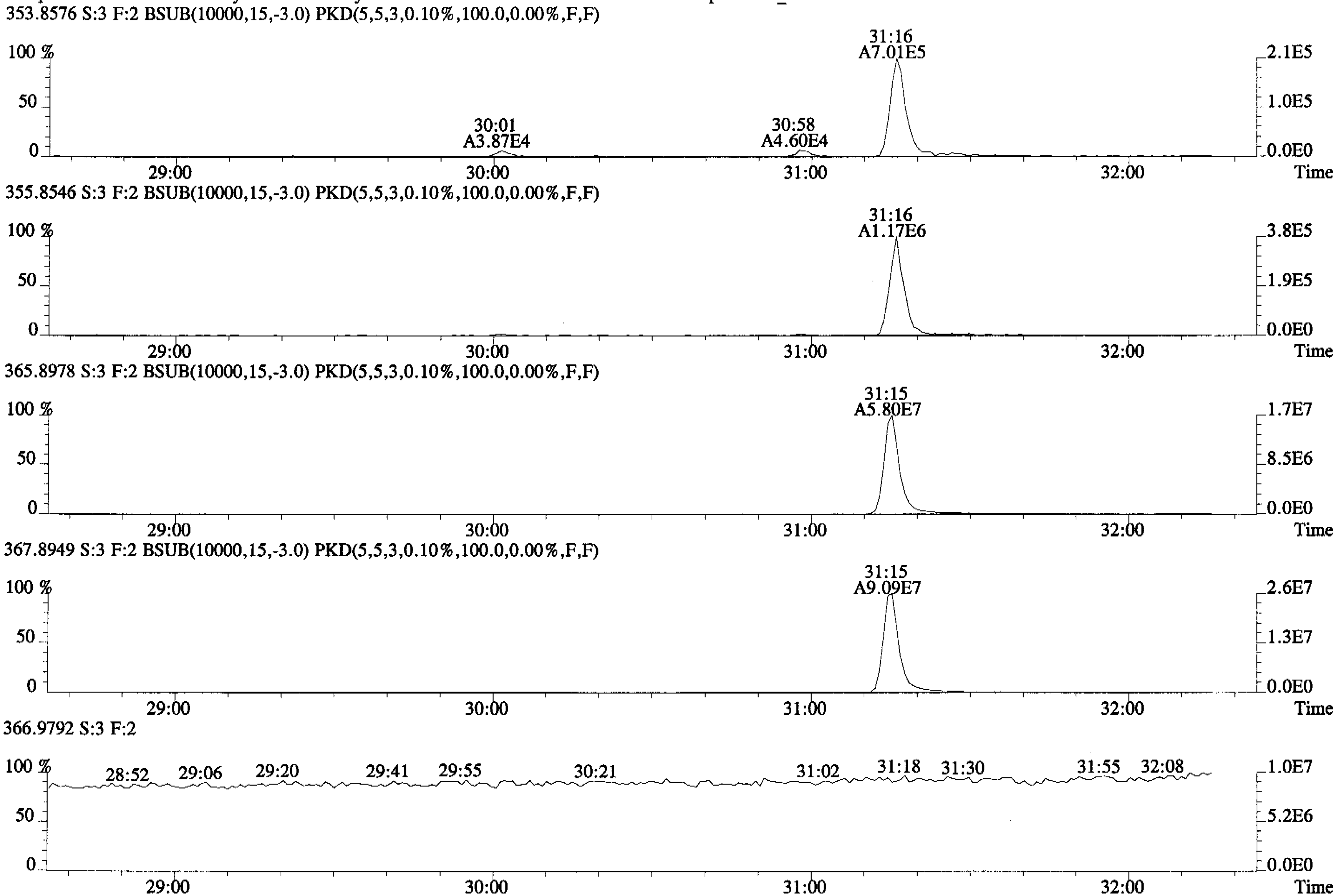
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



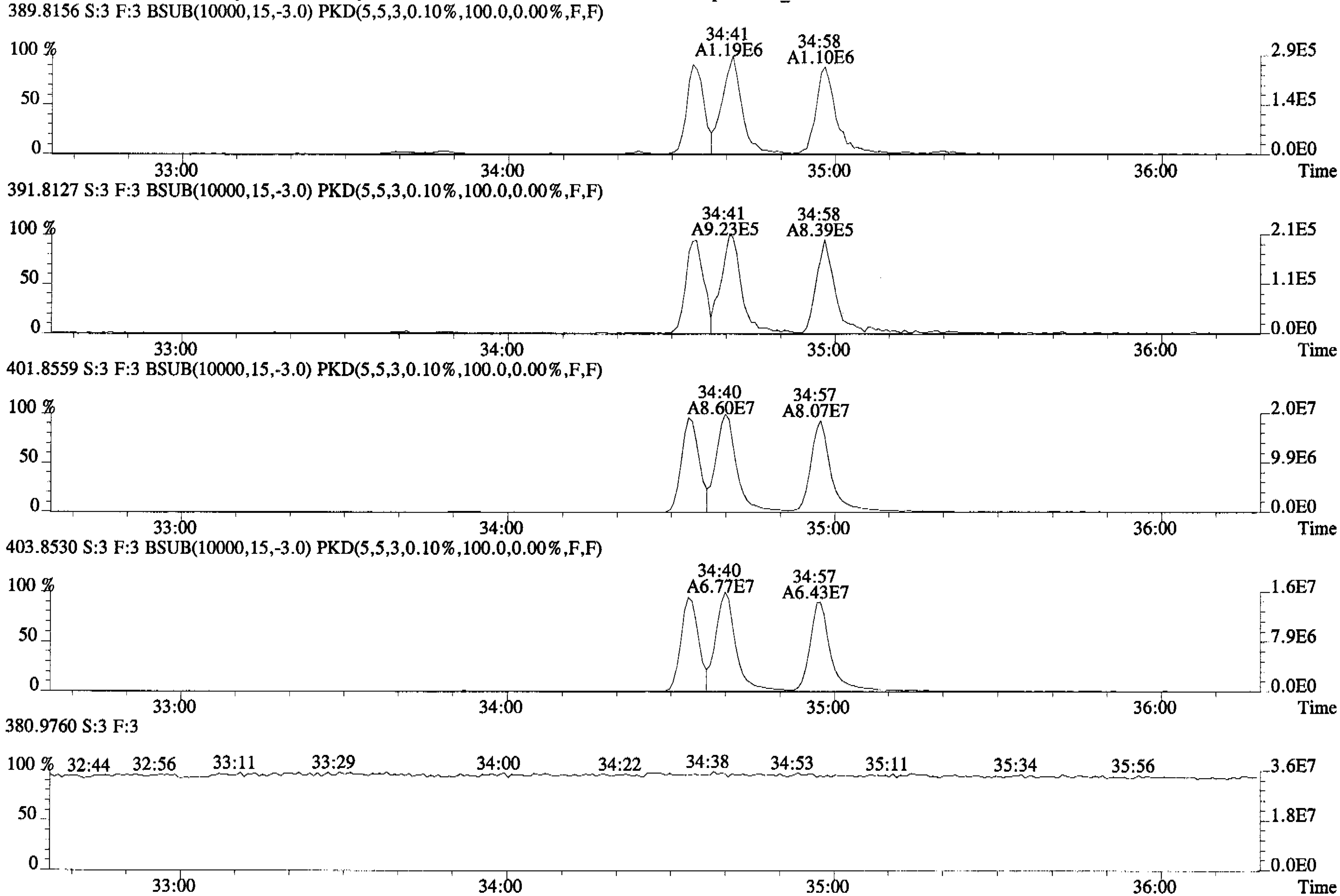
File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



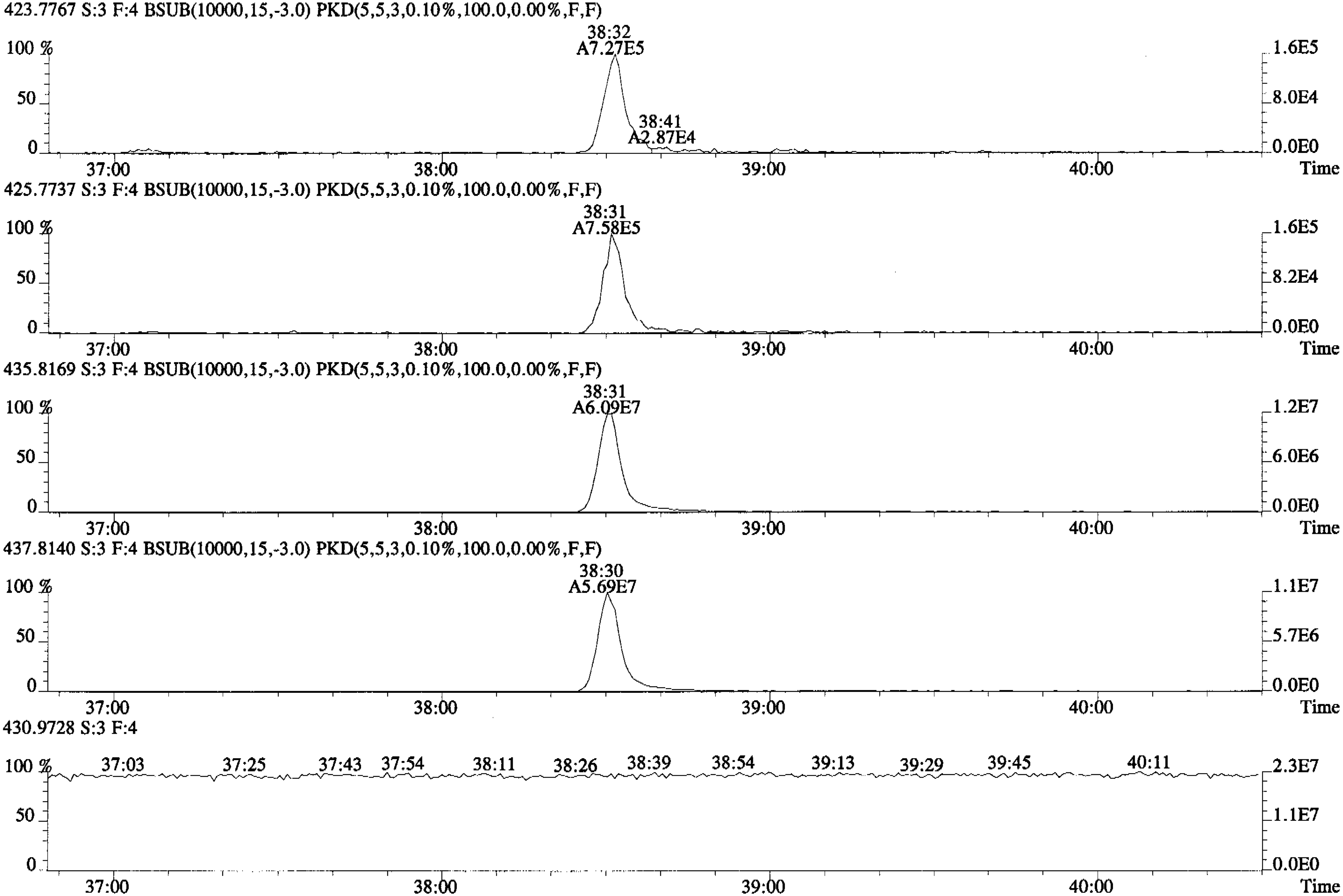
File:060322C1 #1-316 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



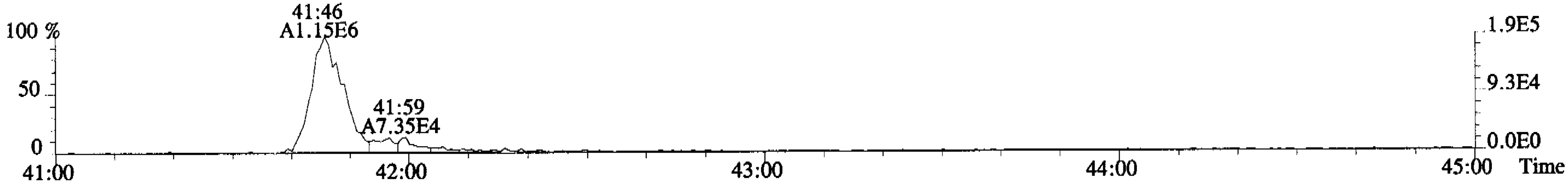
File:060322C1 #1-377 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



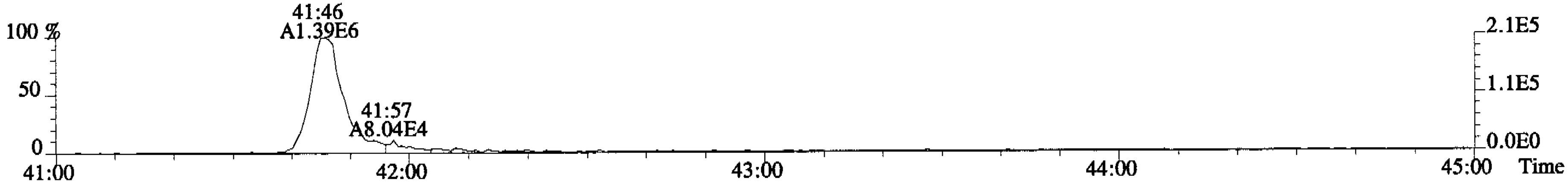
File:060322C1 #1-400 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



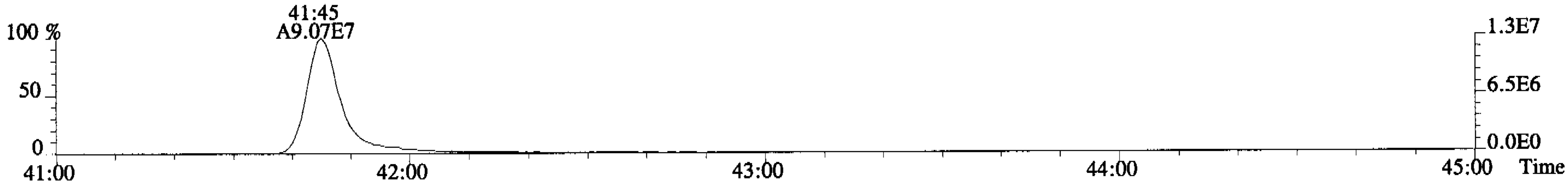
File:060322C1 #1-345 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



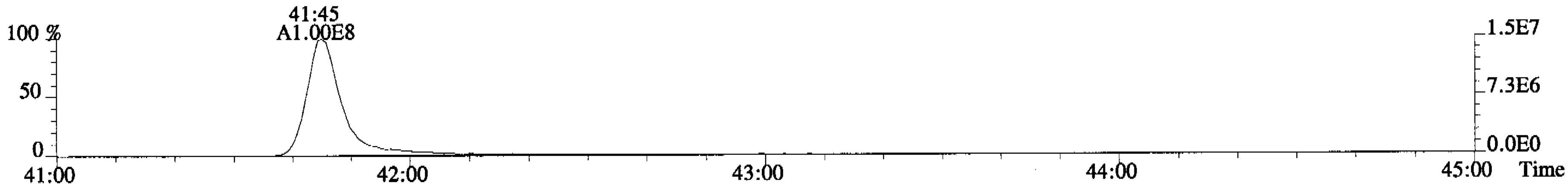
459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



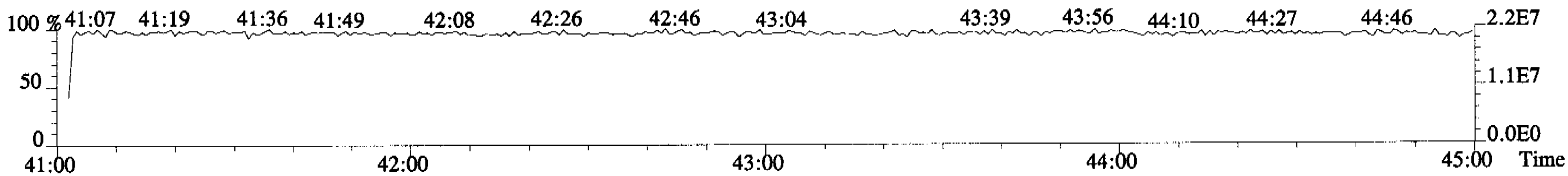
469.7780 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



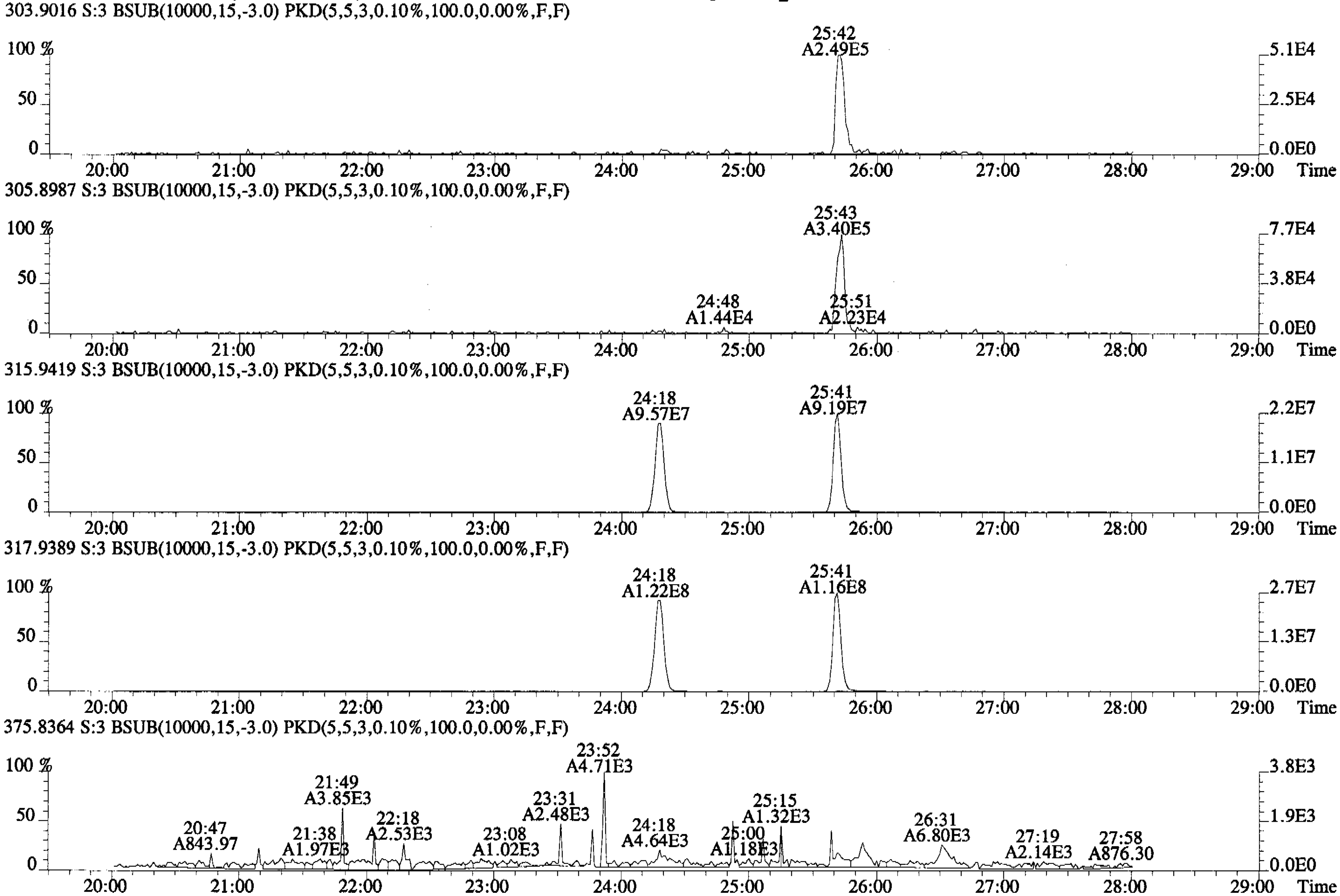
471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



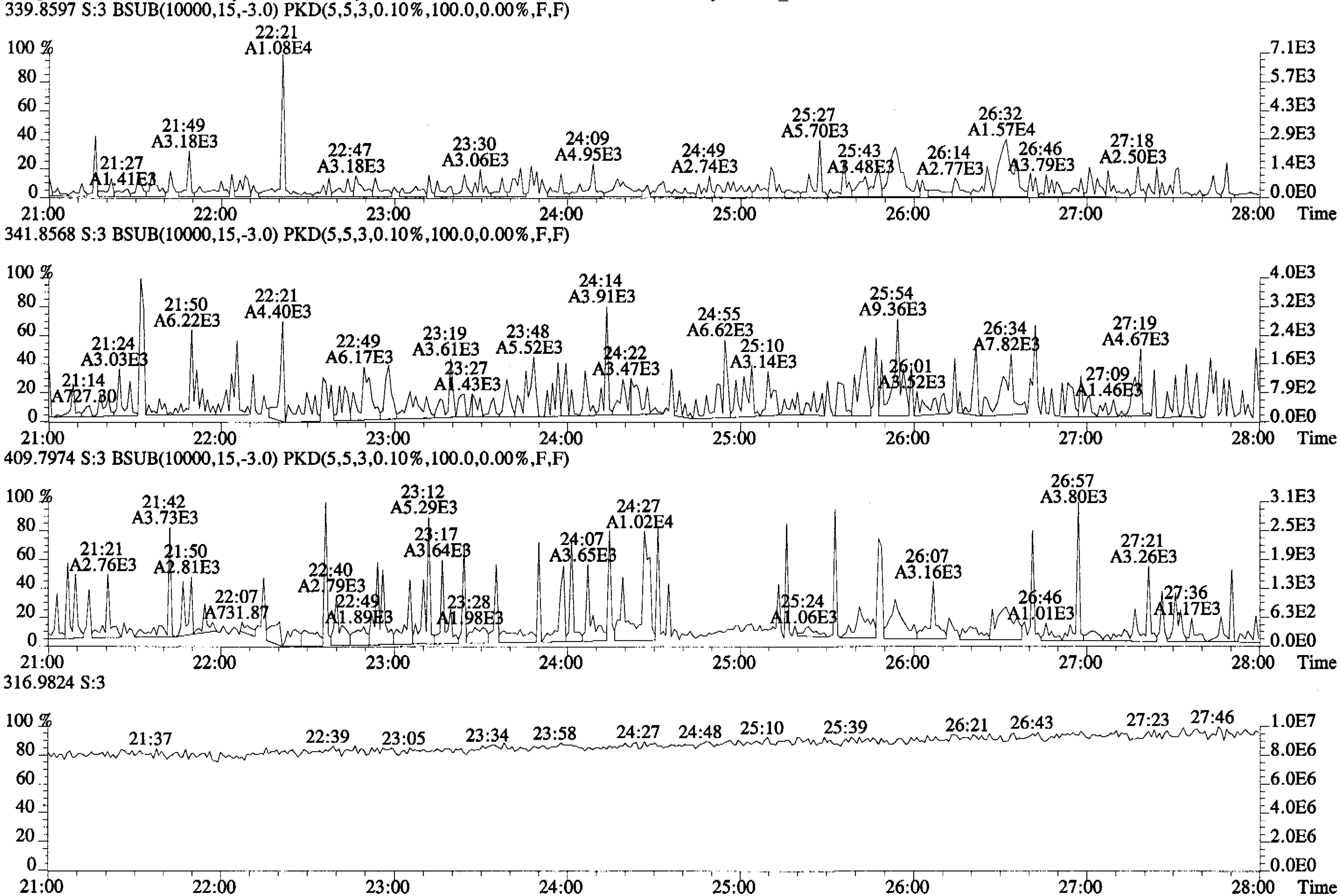
454.9728 S:3 F:5



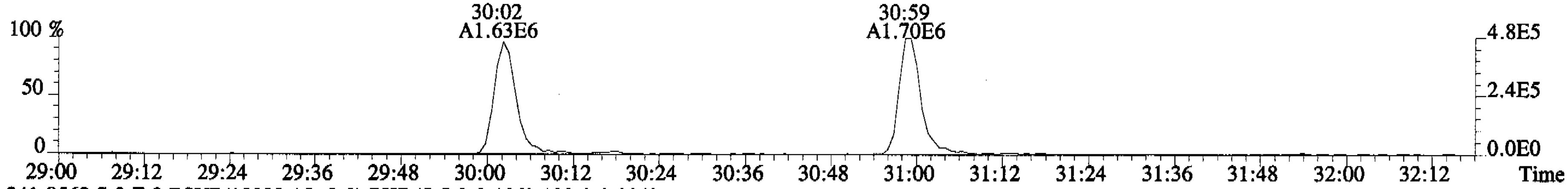
File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



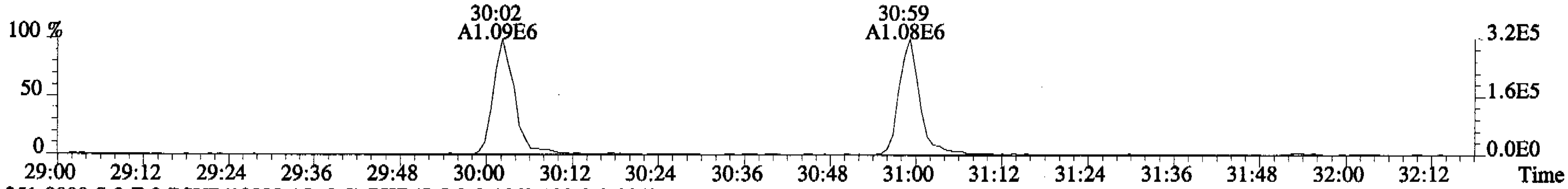
File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5



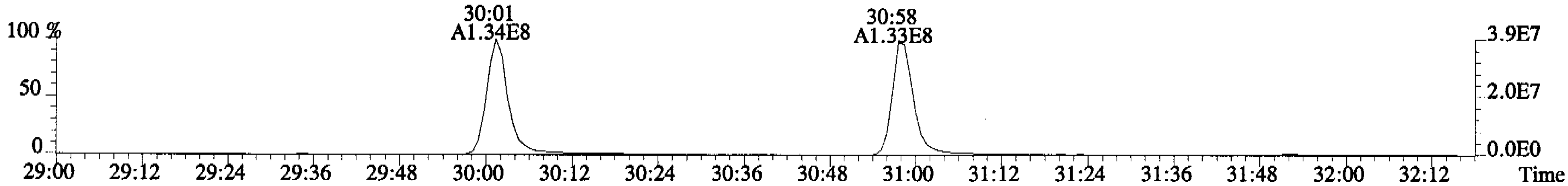
File:060322C1 #1-316 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



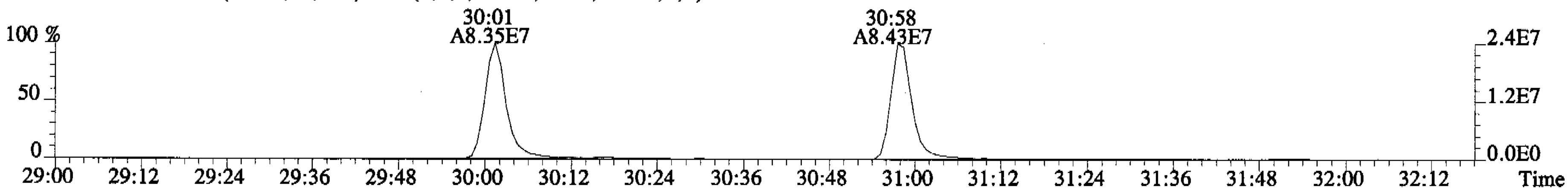
341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



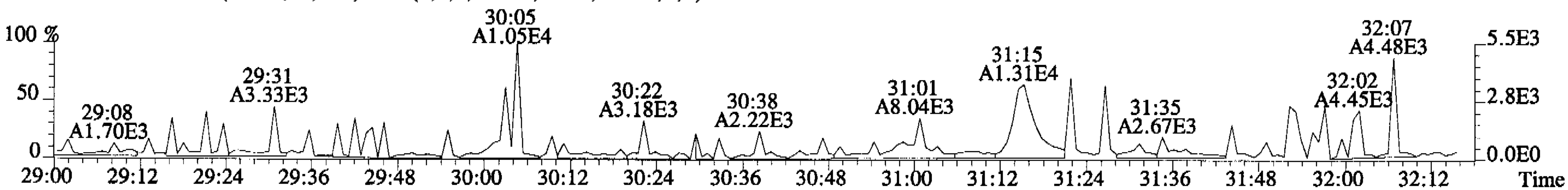
351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



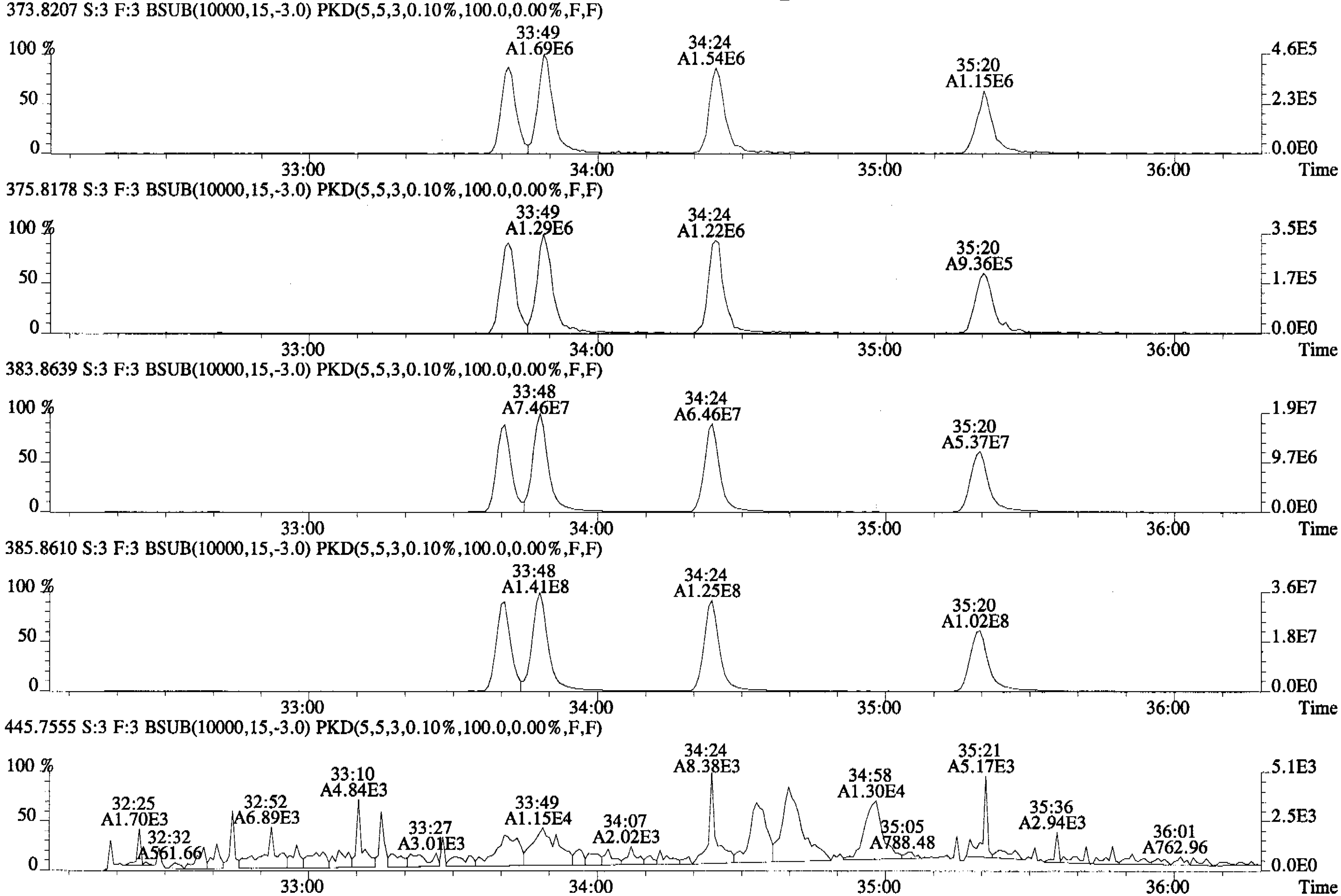
353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

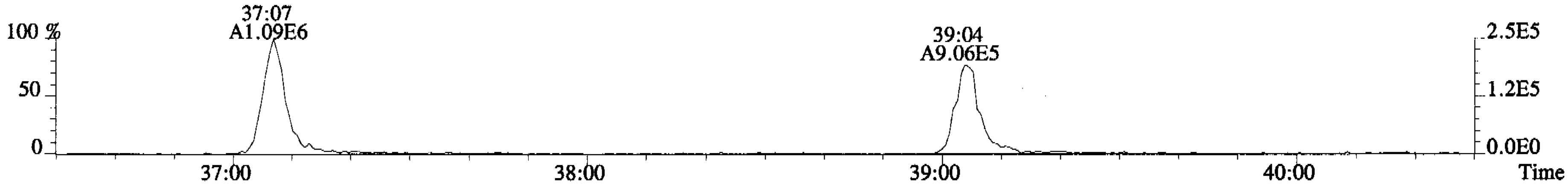


File:060322C1 #1-377 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

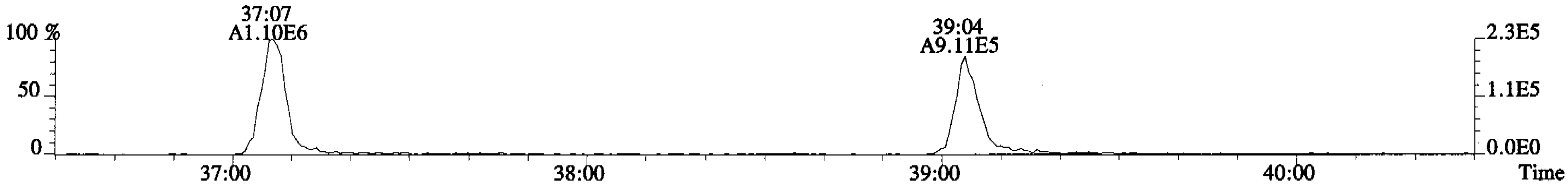


File:060322C1 #1-400 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

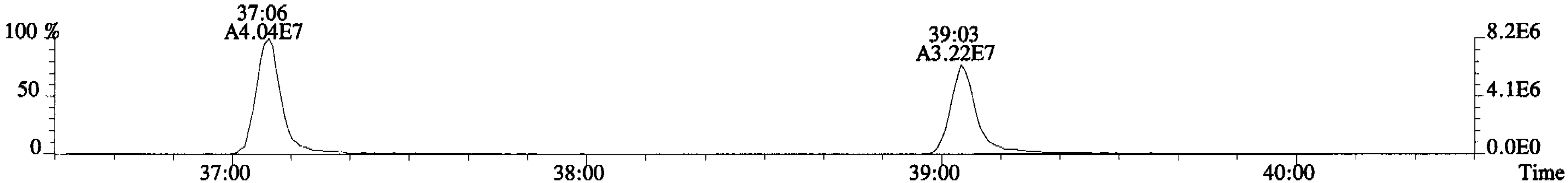
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



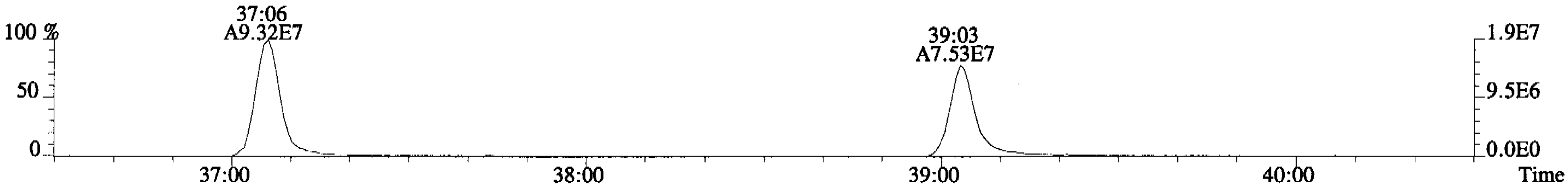
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



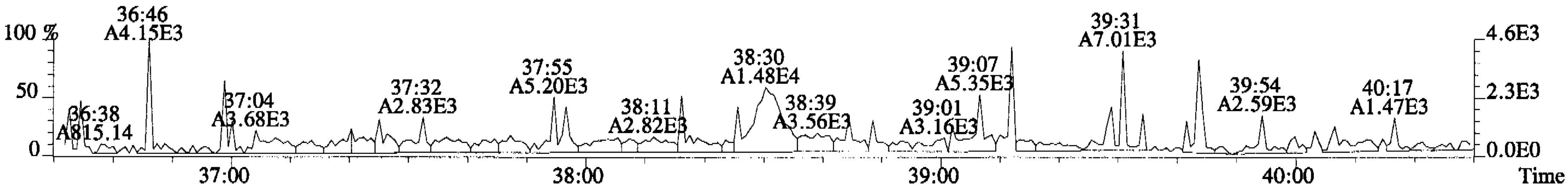
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



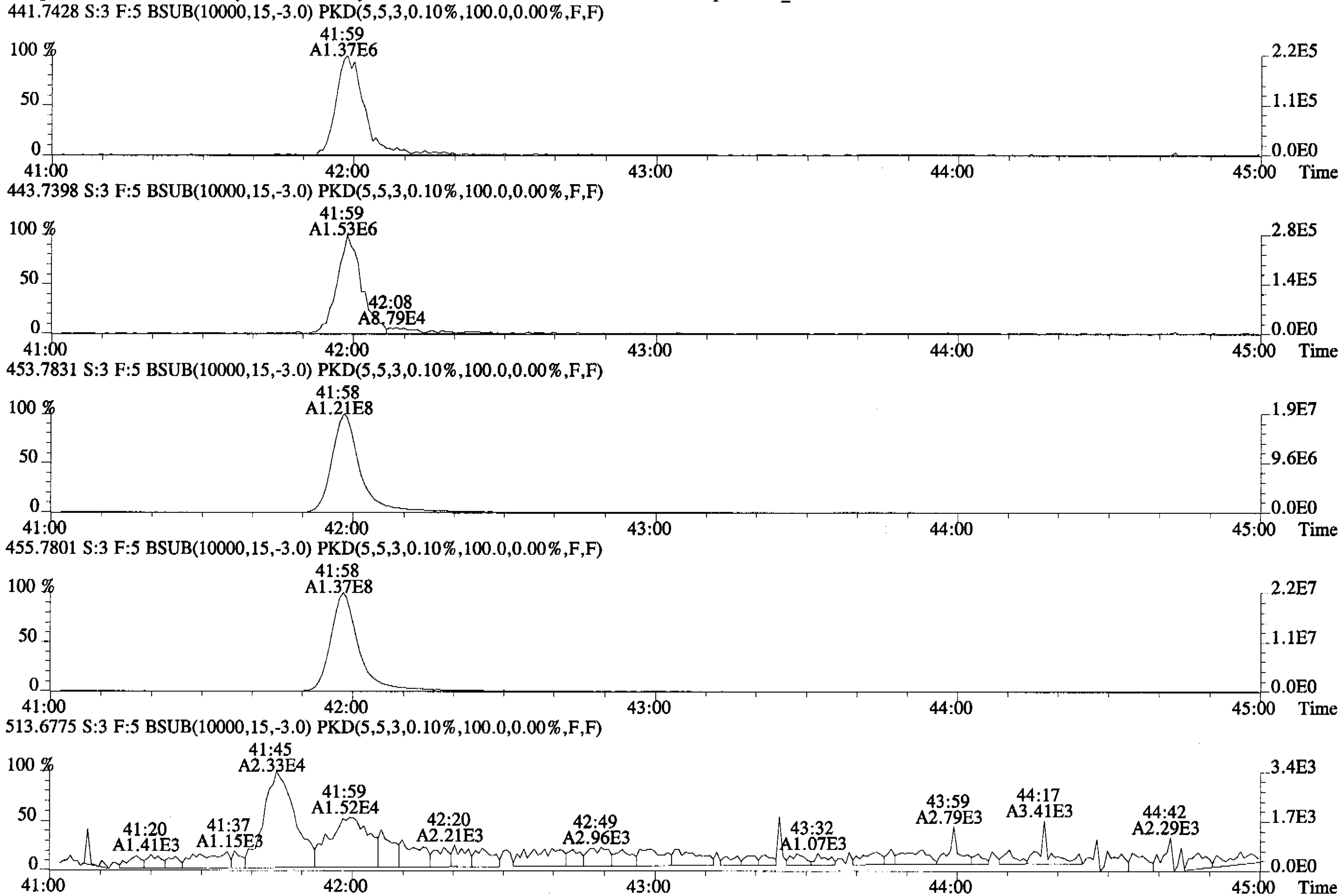
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

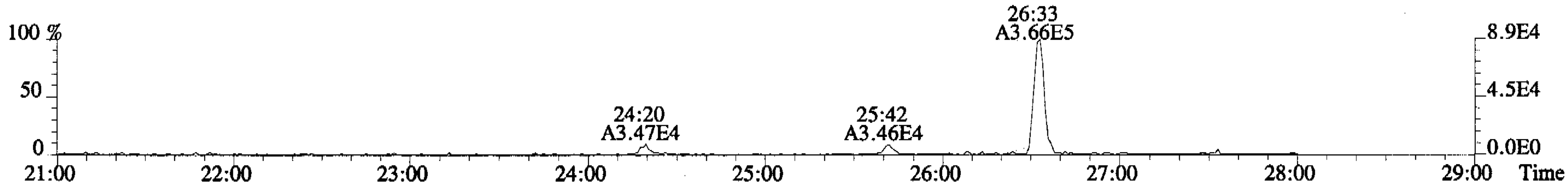


File:060322C1 #1-345 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD_DB5

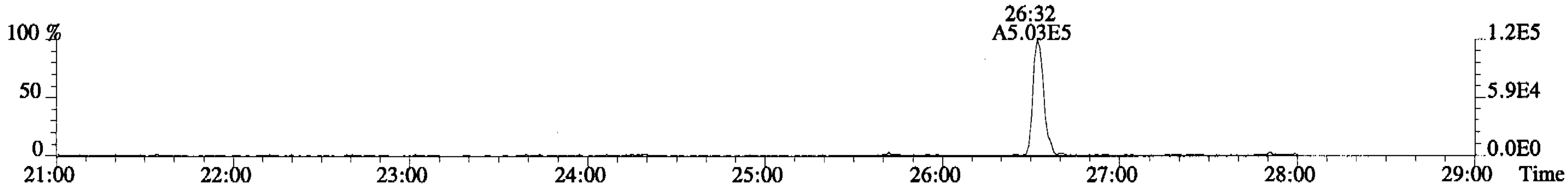


File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

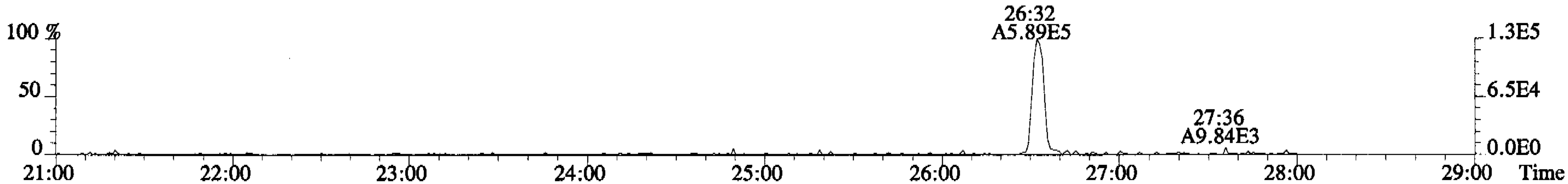
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



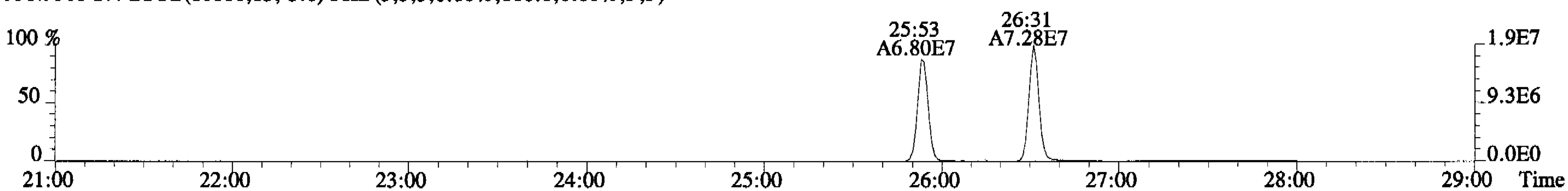
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



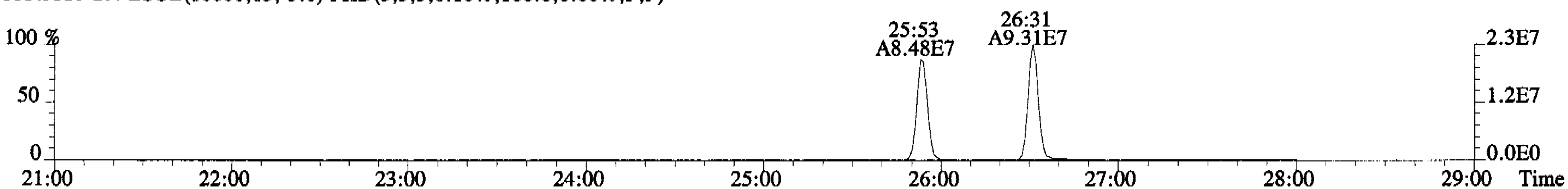
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

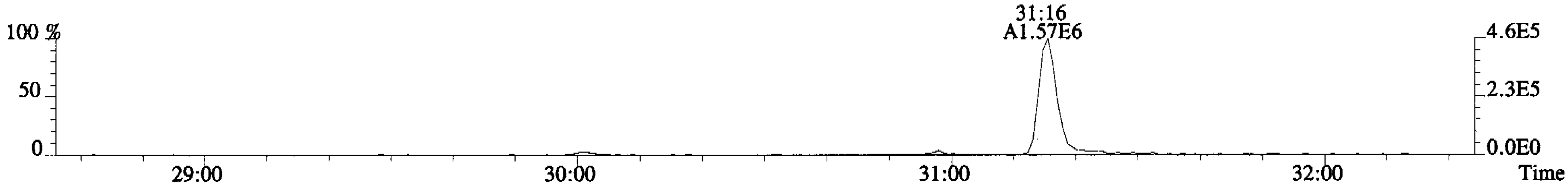


333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

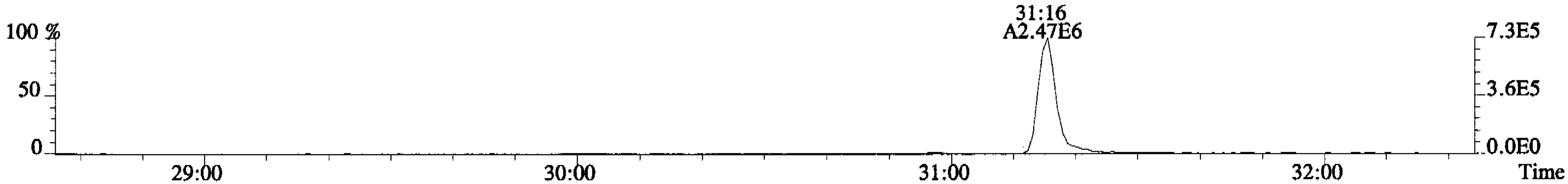


File:060322C1 #1-316 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

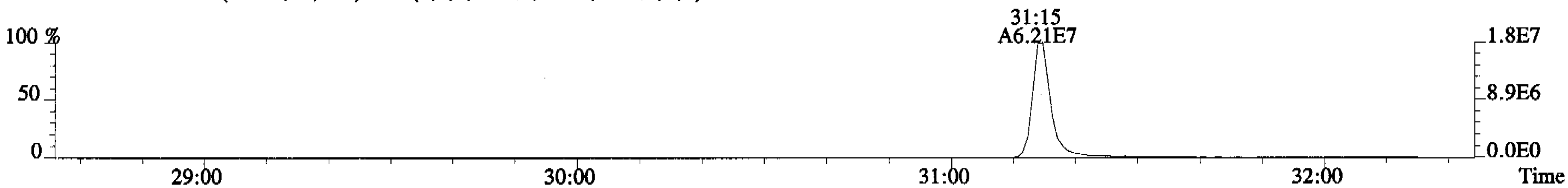
353.8576 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



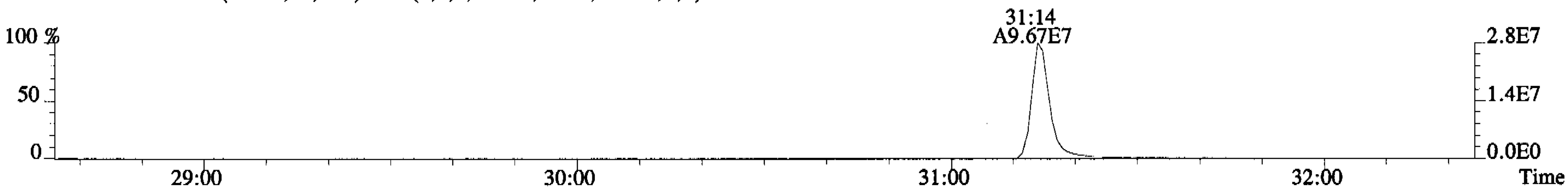
355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



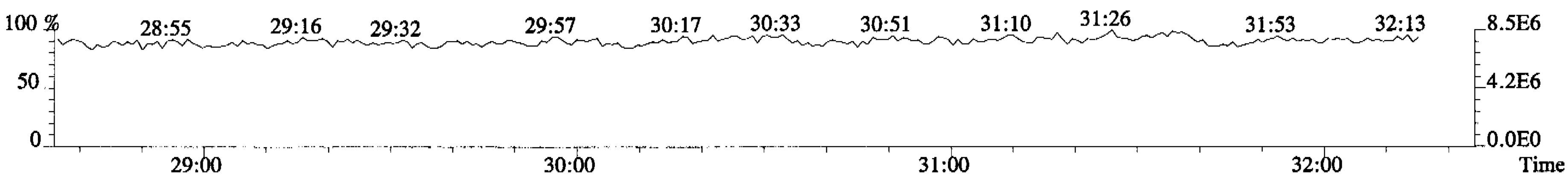
365.8978 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

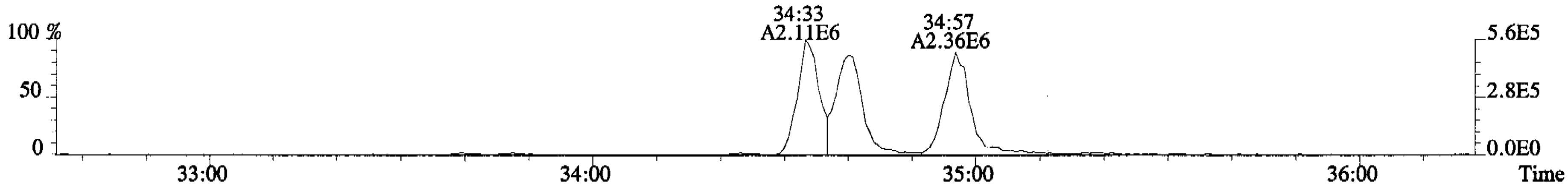


366.9792 S:4 F:2

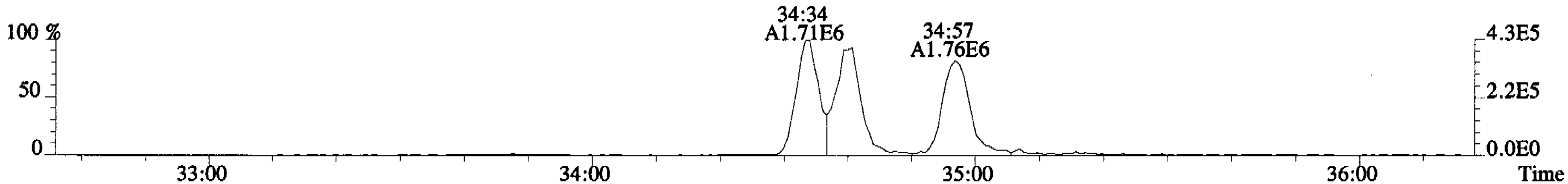


File:060322C1 #1-378 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

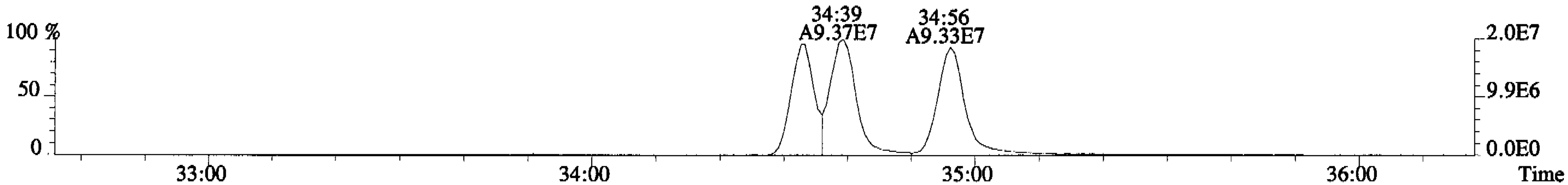
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



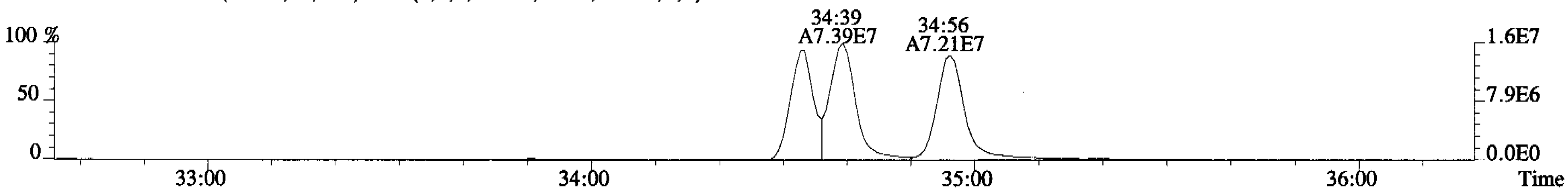
391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



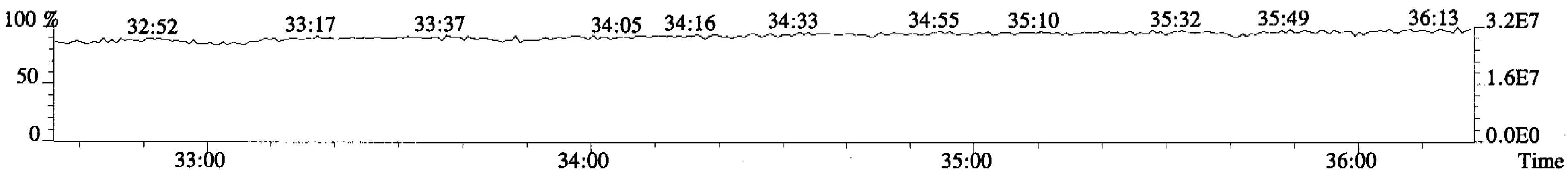
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



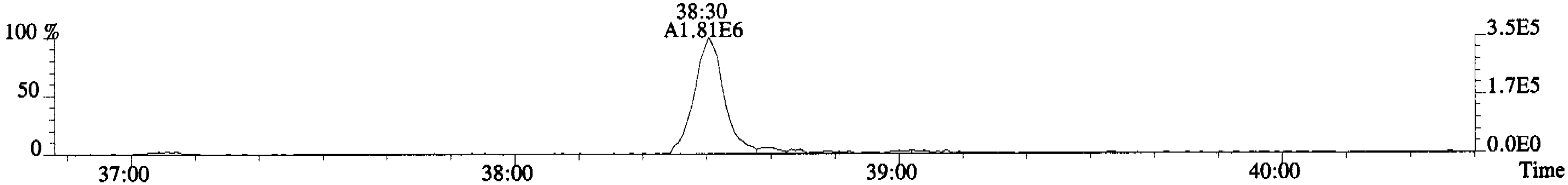
403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



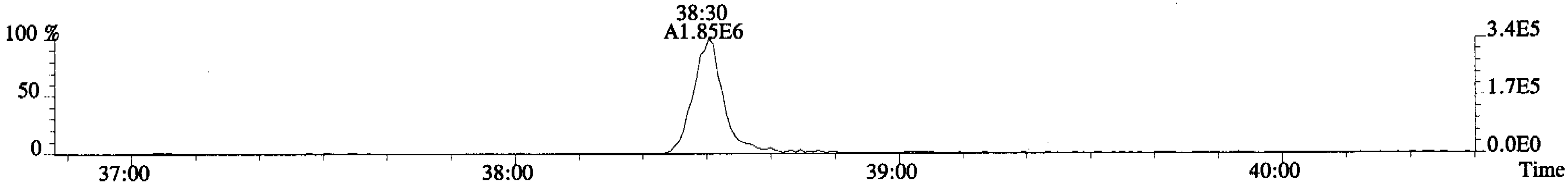
380.9760 S:4 F:3



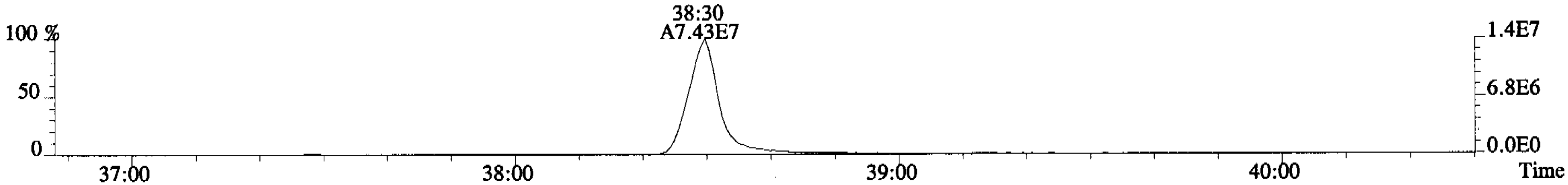
File:060322C1 #1-400 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



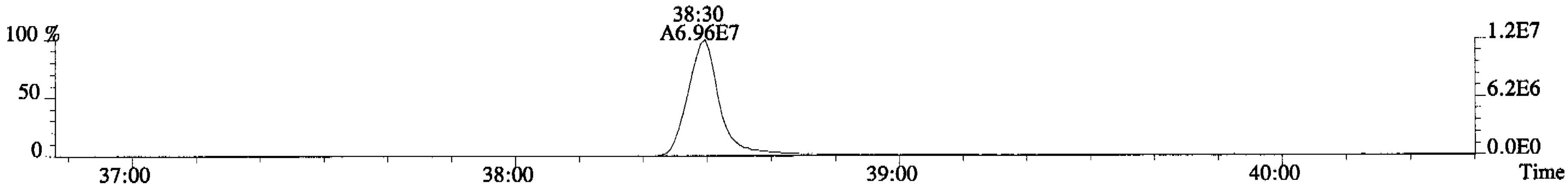
425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



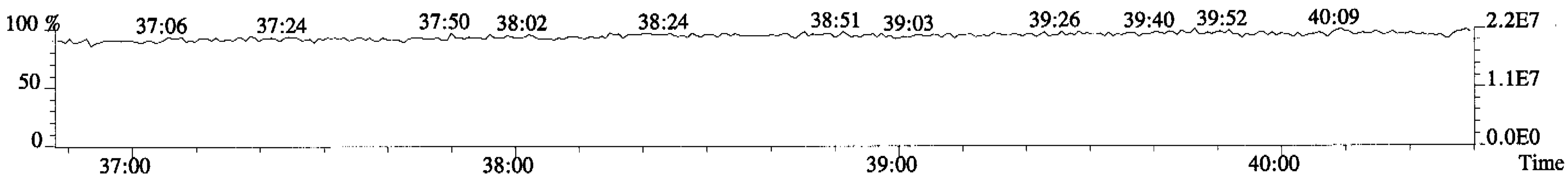
435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



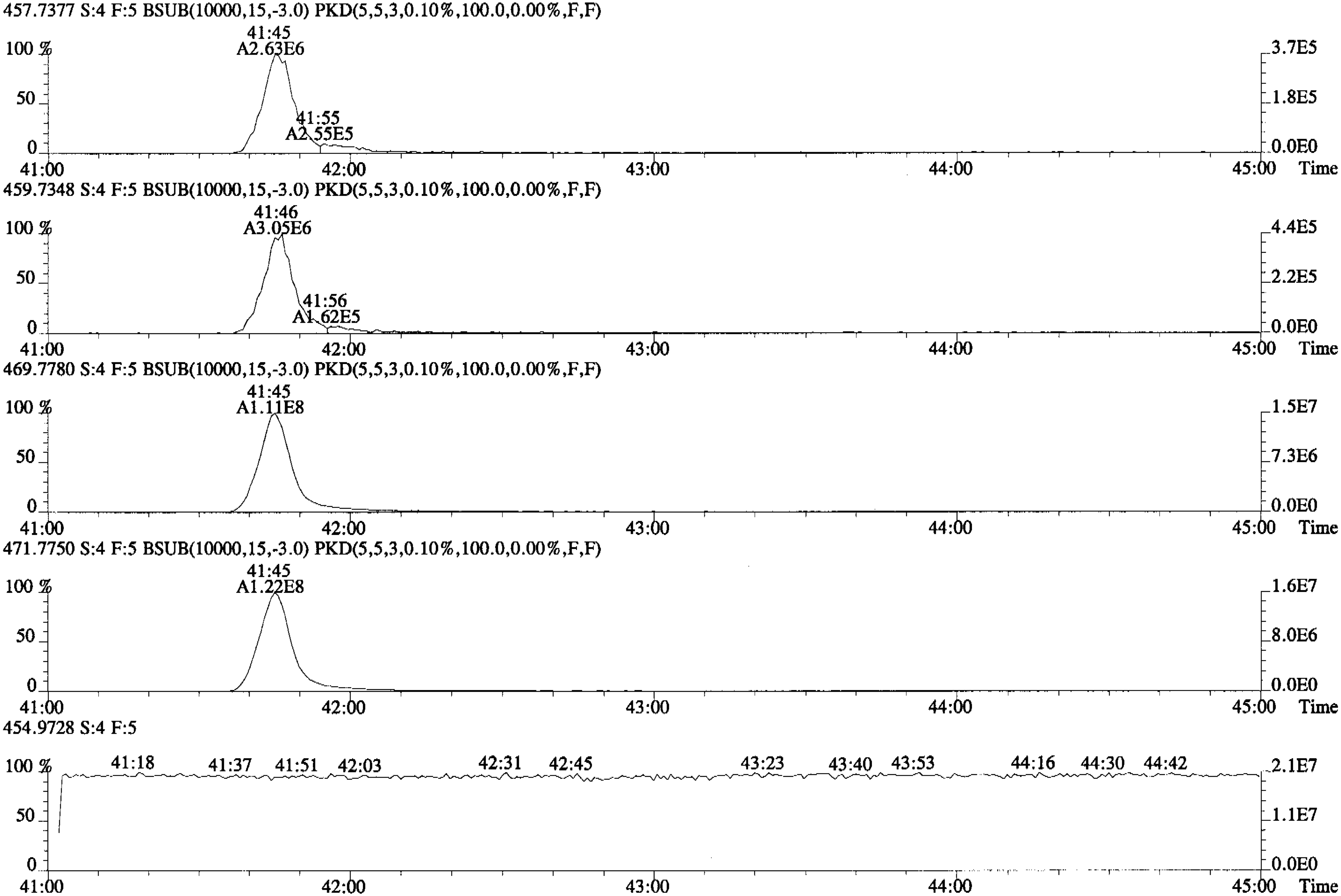
437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



430.9728 S:4 F:4

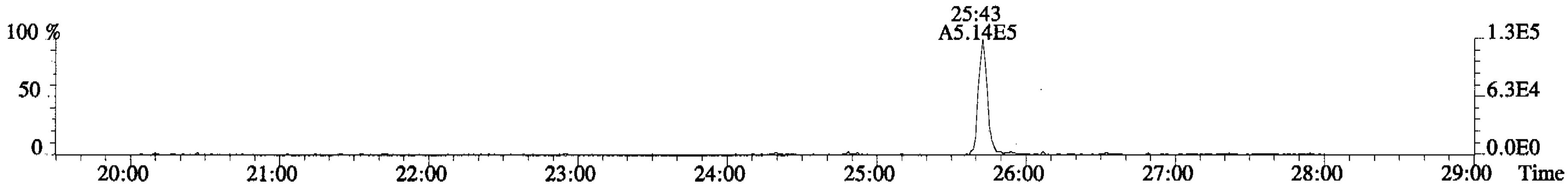


File:060322C1 #1-345 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

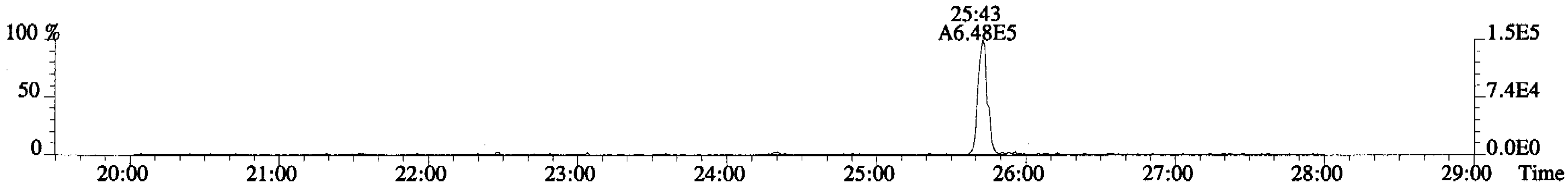


File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

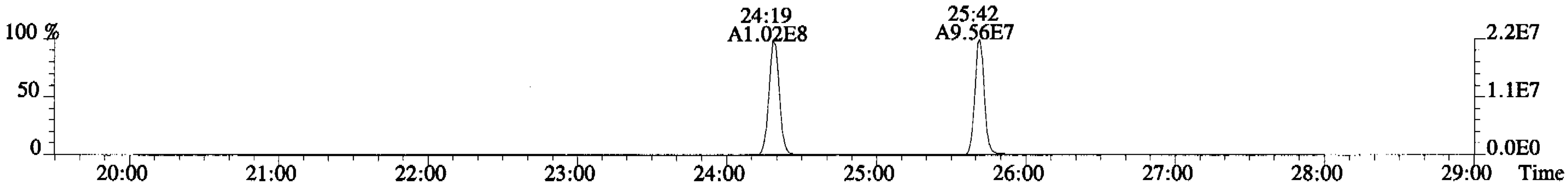
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



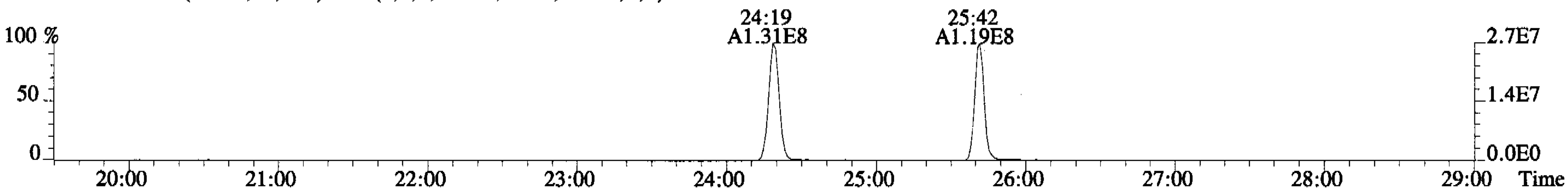
305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



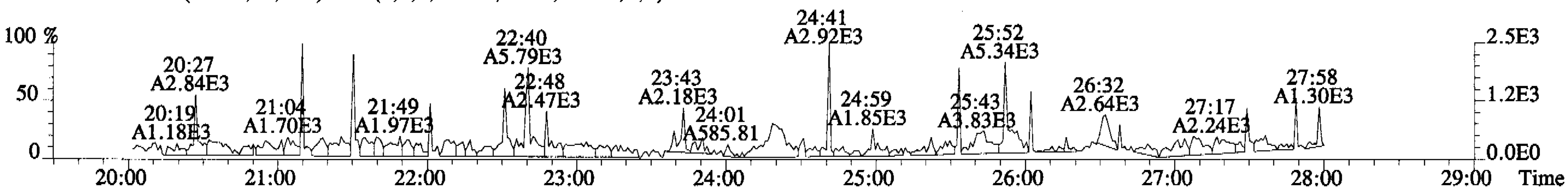
315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



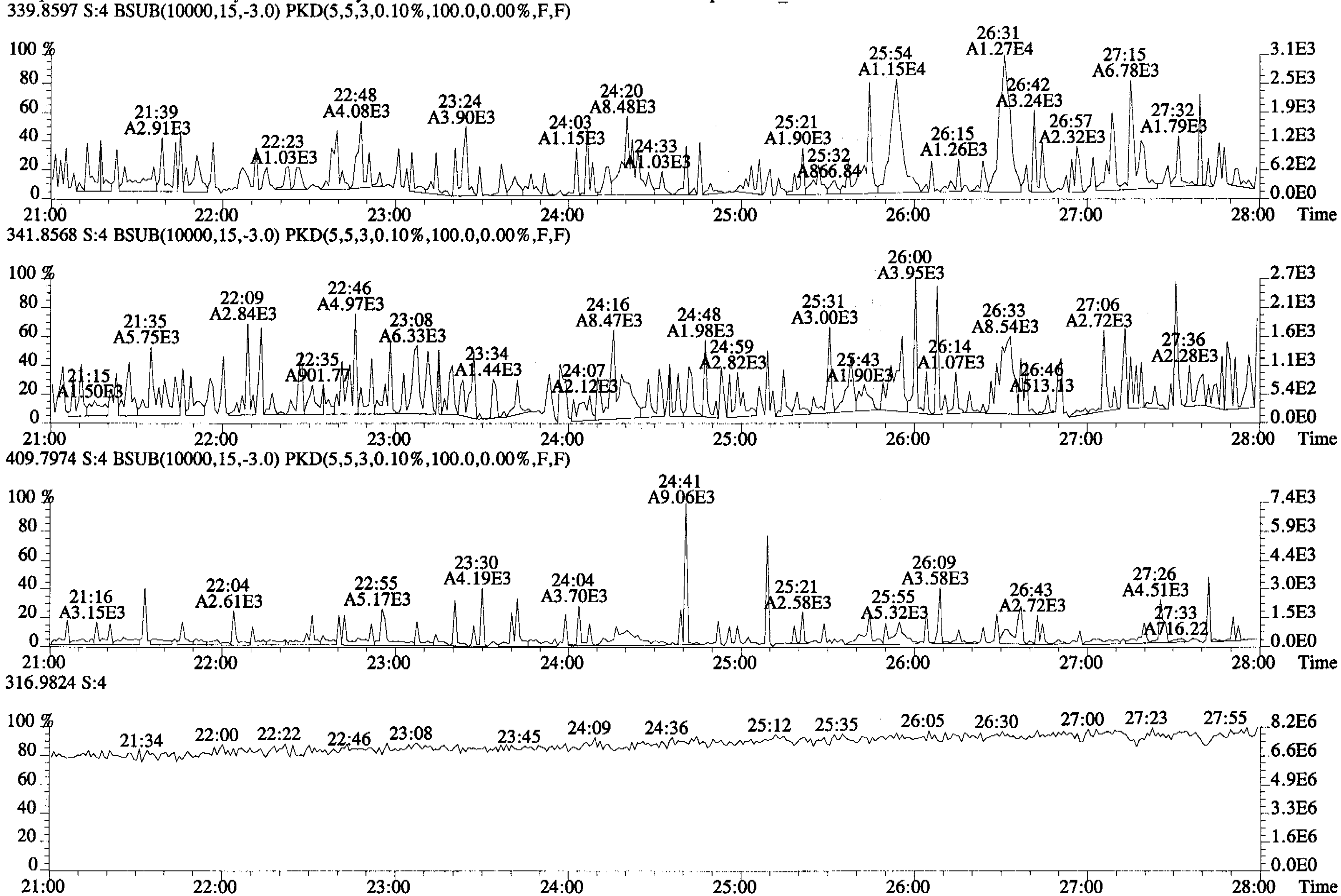
317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



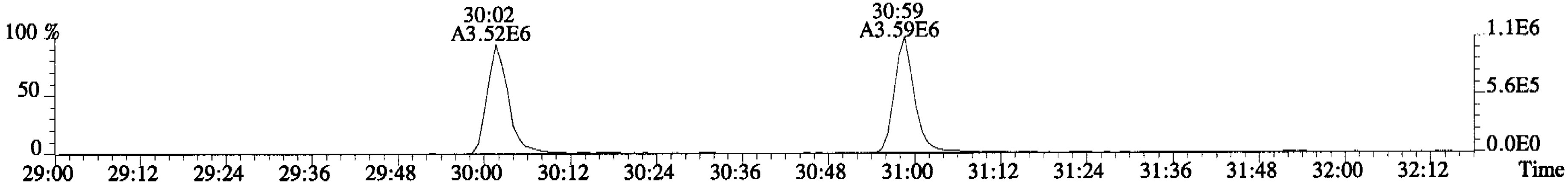
375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



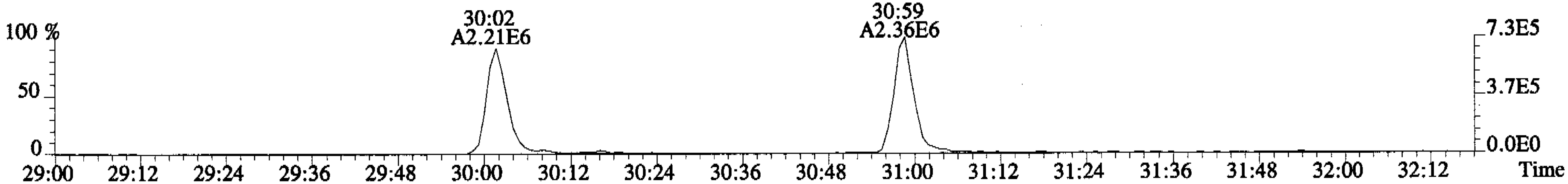
File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5



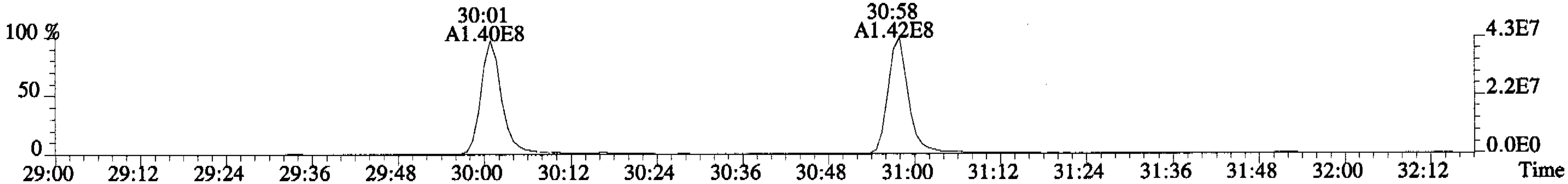
File:060322C1 #1-316 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



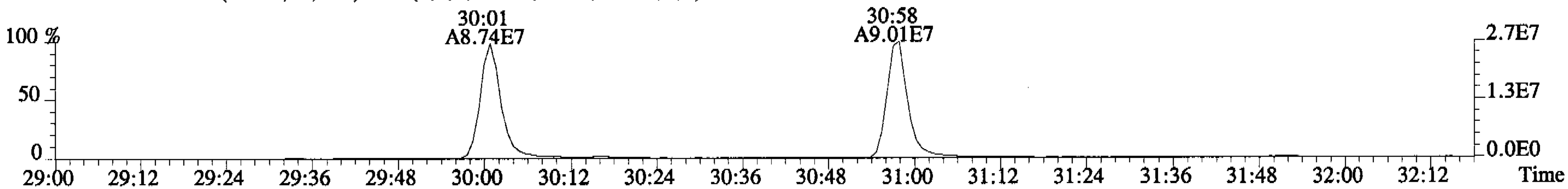
341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



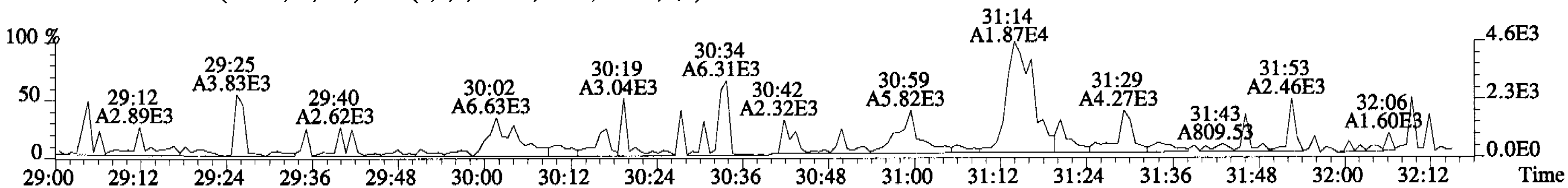
351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



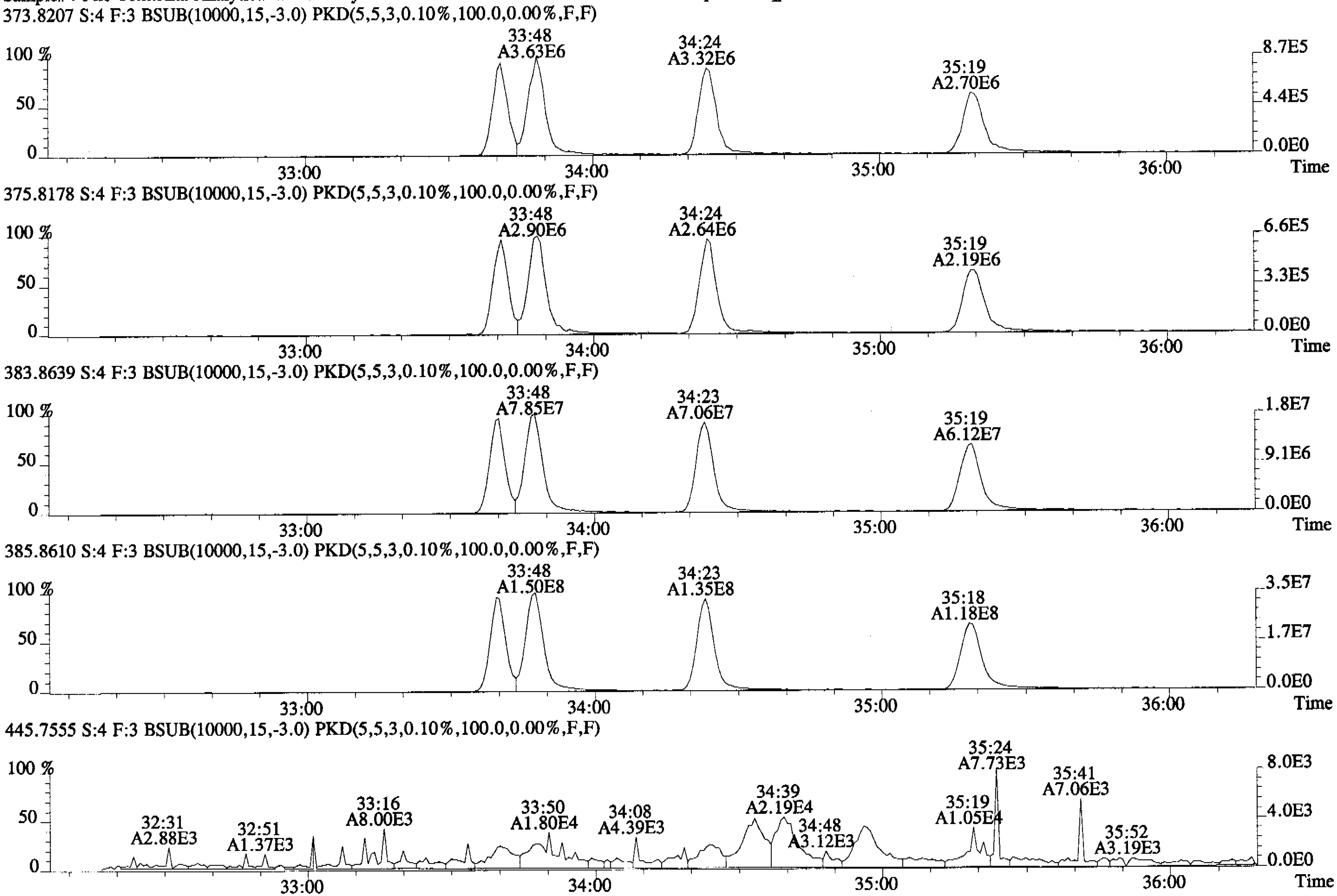
353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

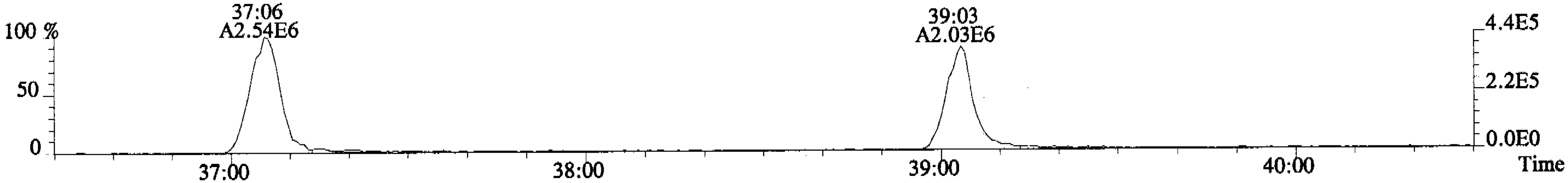


File:060322C1 #1-378 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

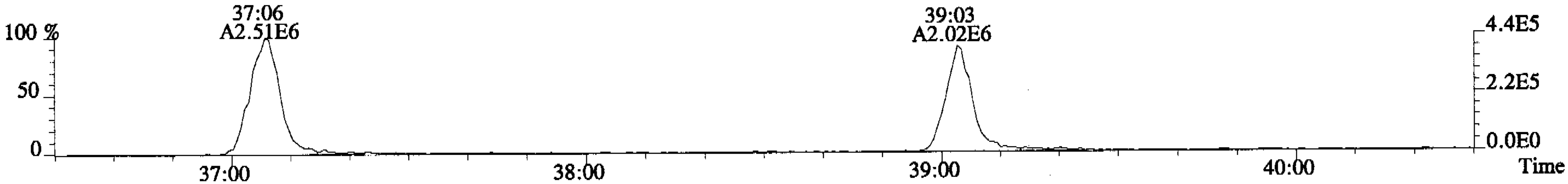


File:060322C1 #1-400 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5

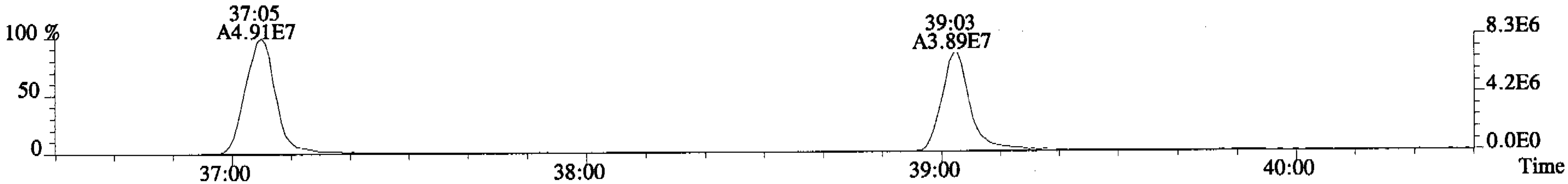
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



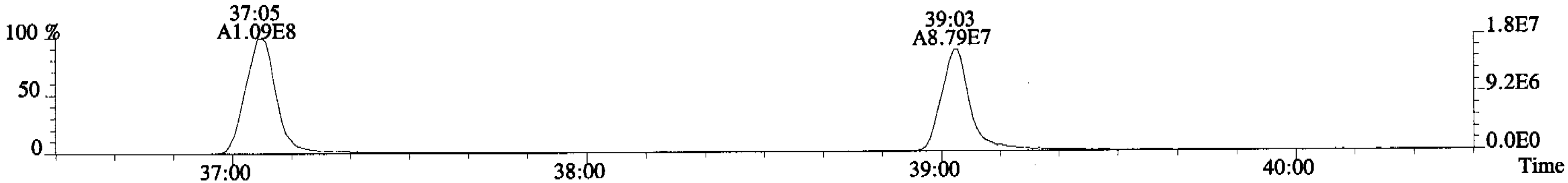
409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



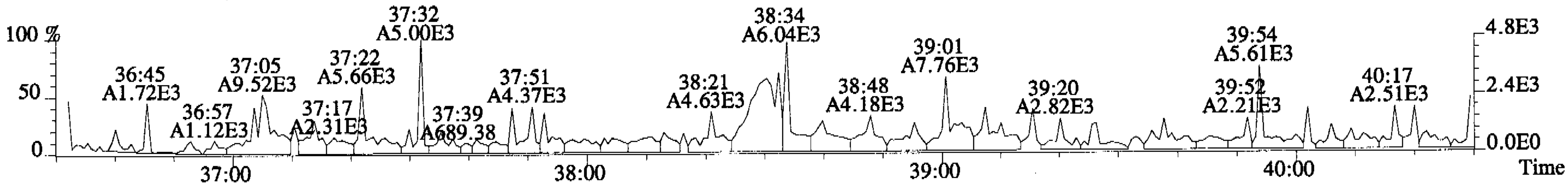
417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



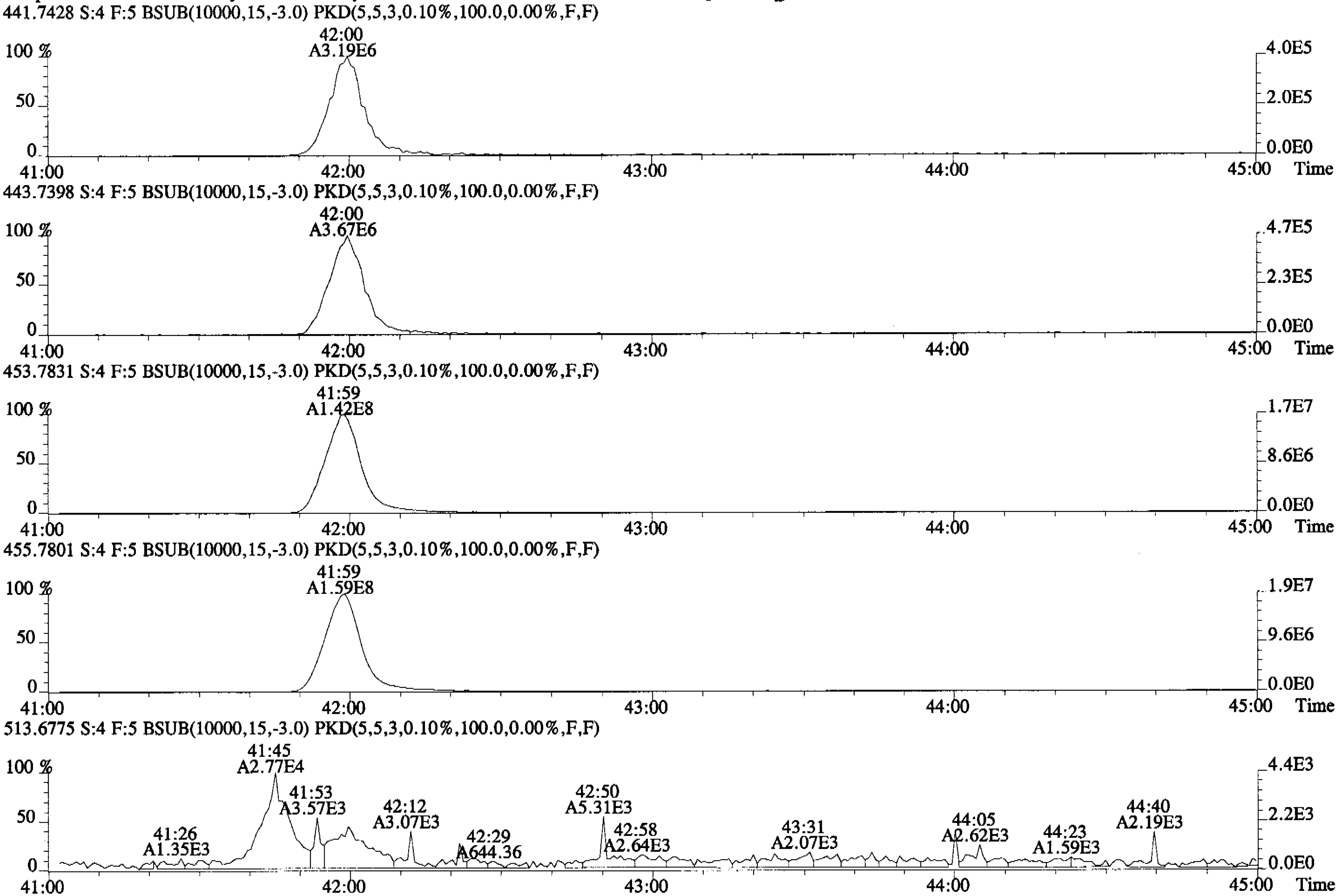
419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



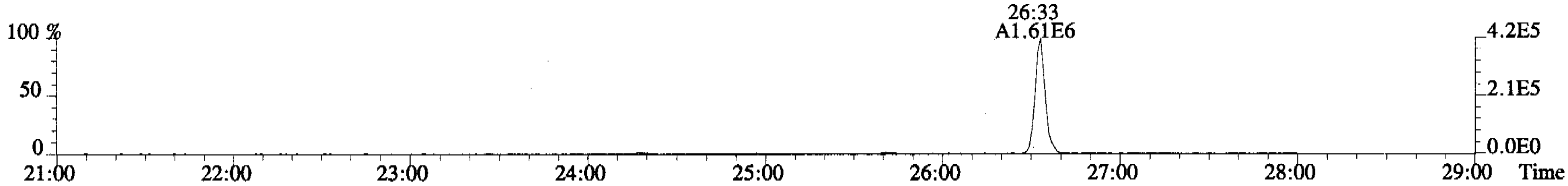
479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



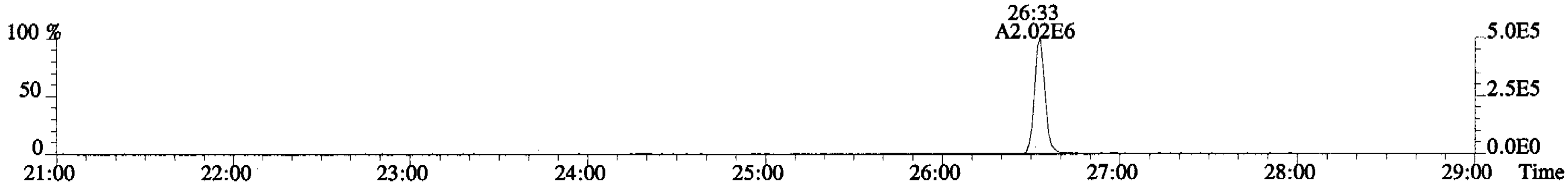
File:060322C1 #1-345 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD_DB5



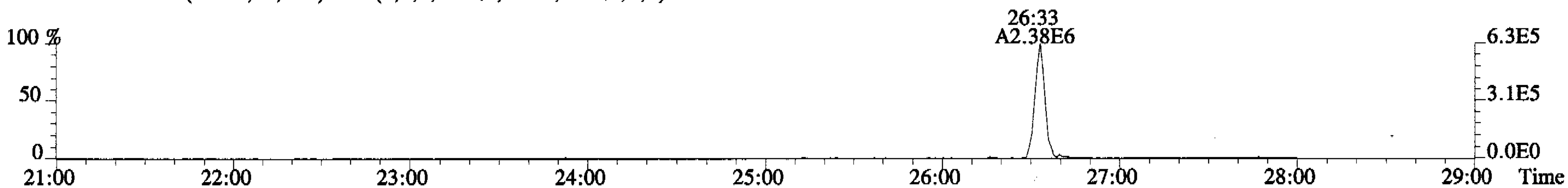
File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



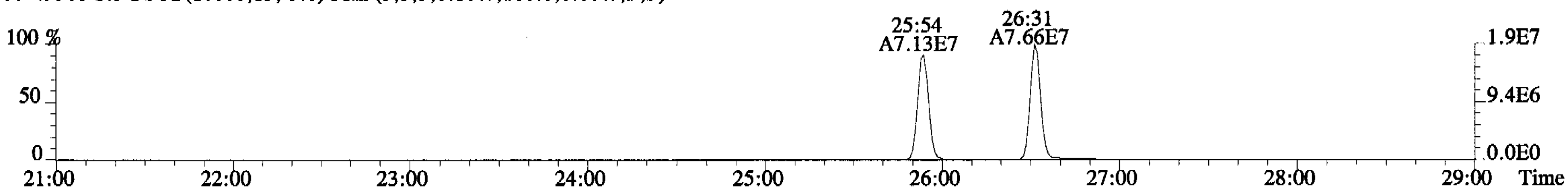
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



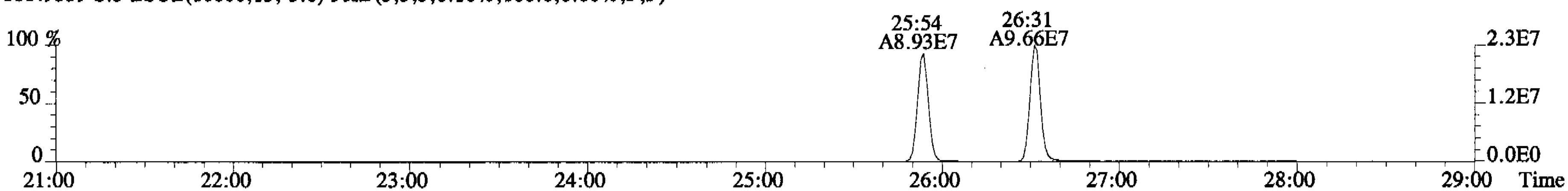
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



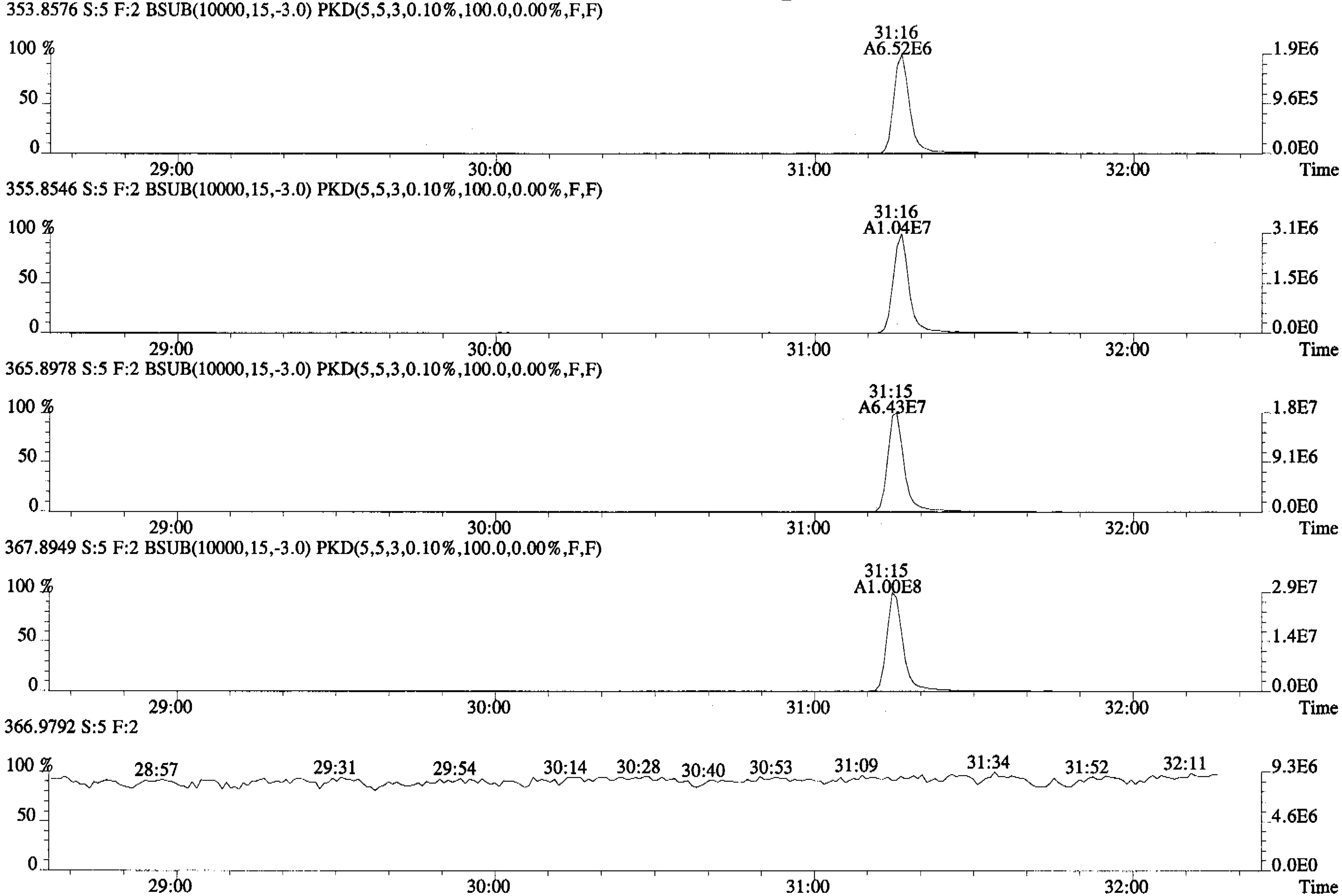
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

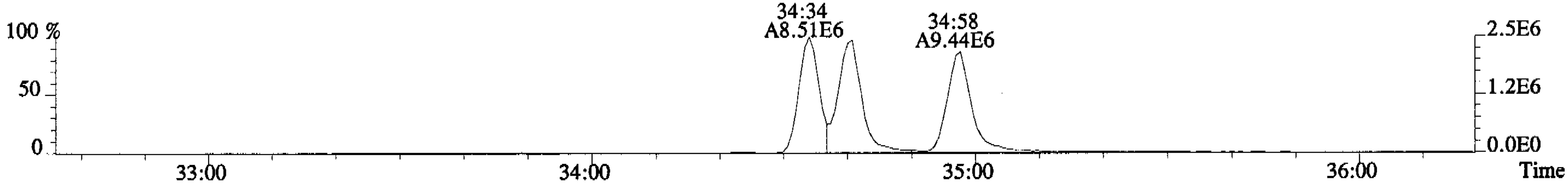


File:060322C1 #1-317 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

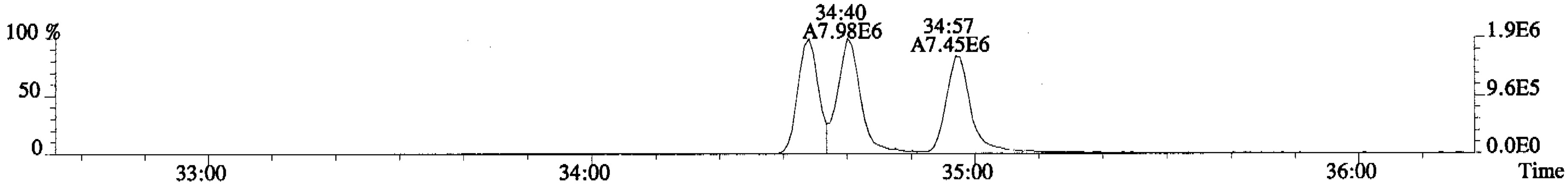


File:060322C1 #1-377 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

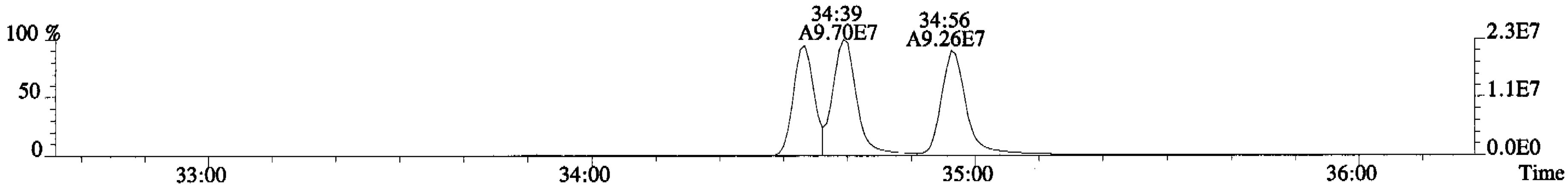
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



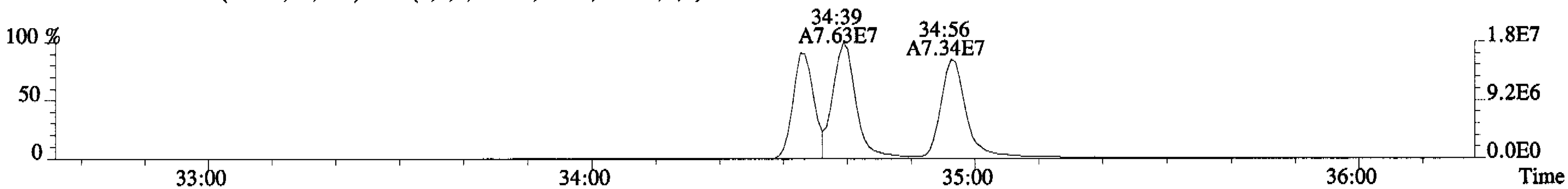
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



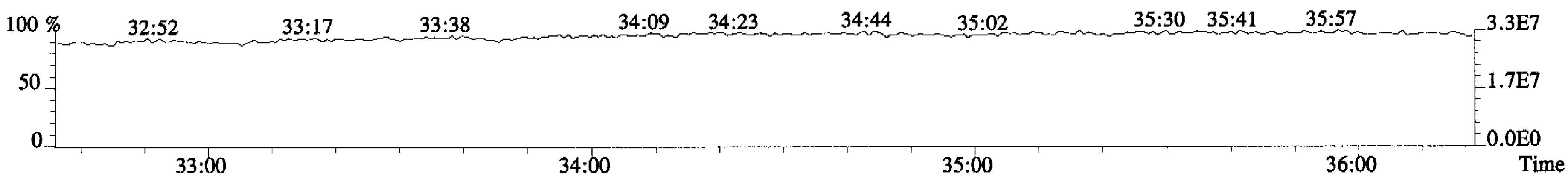
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



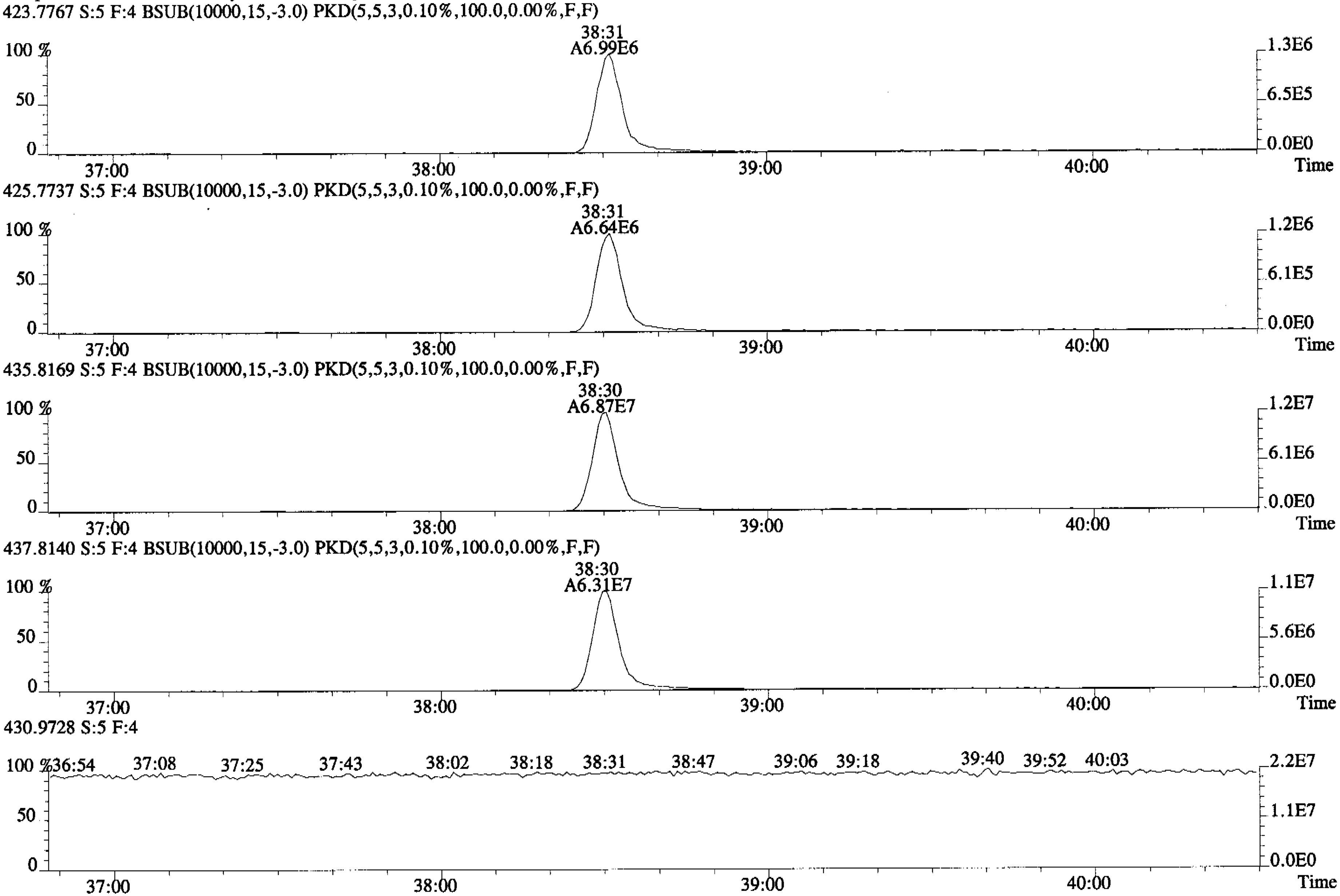
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



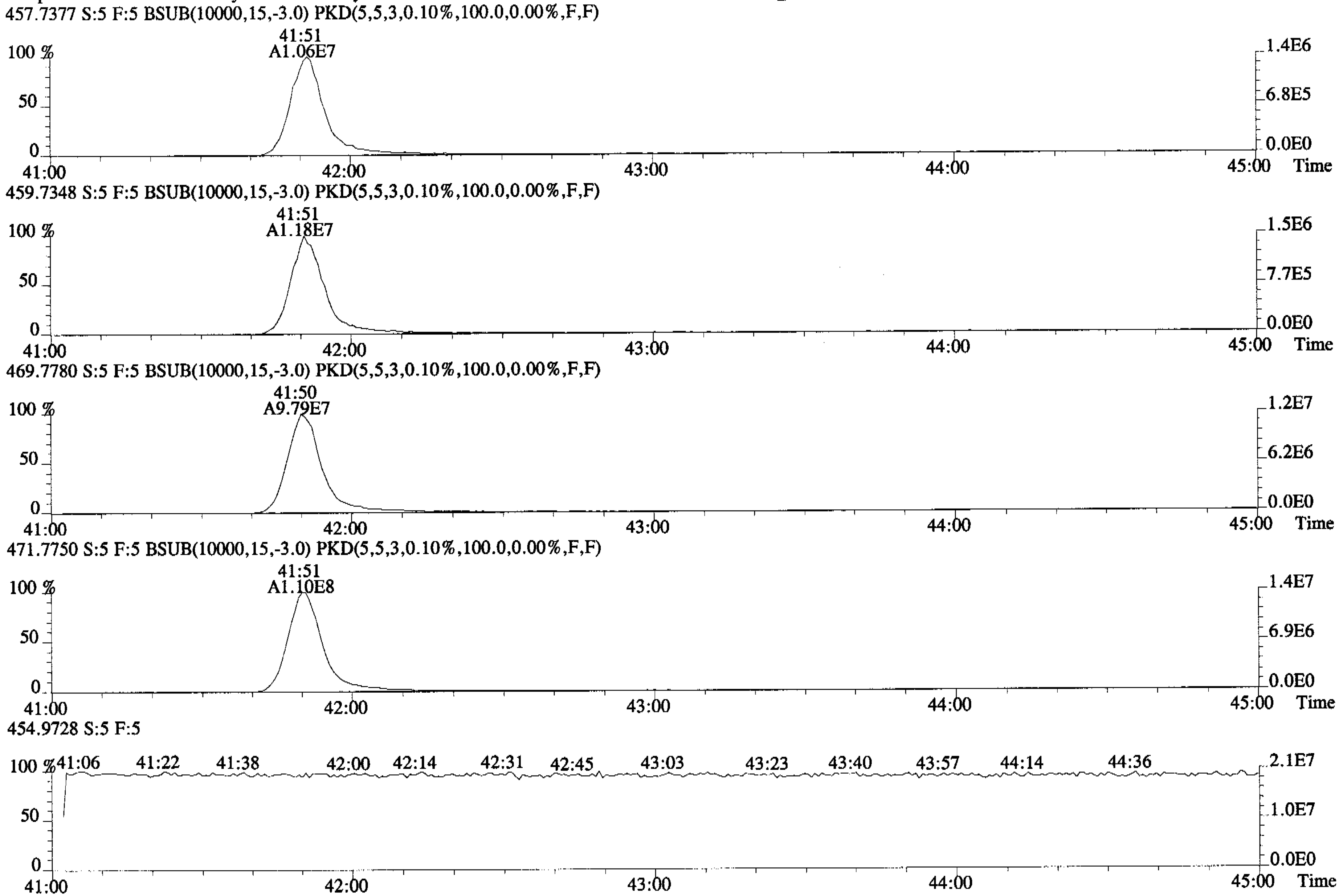
380.9760 S:5 F:3



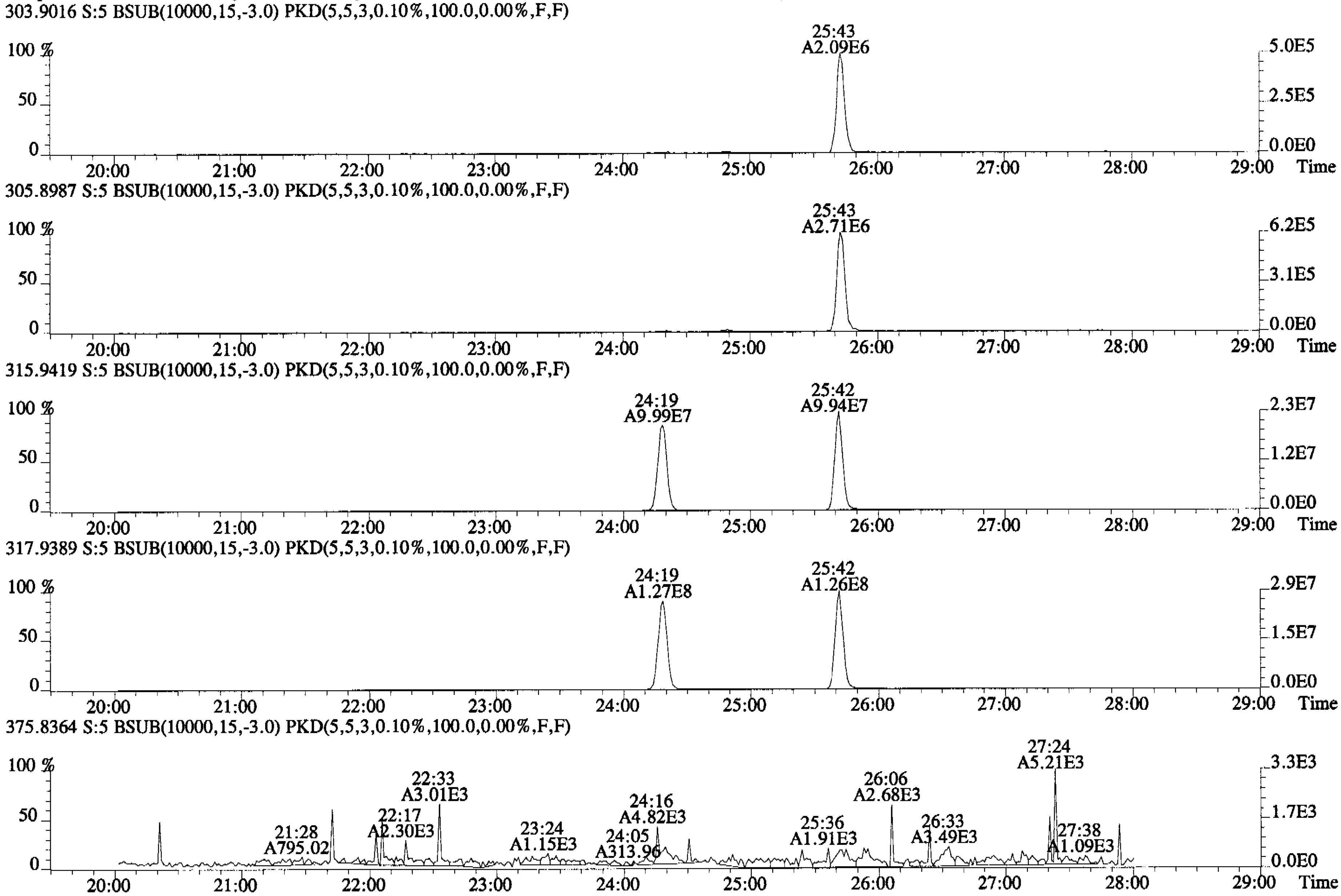
File:060322C1 #1-400 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5



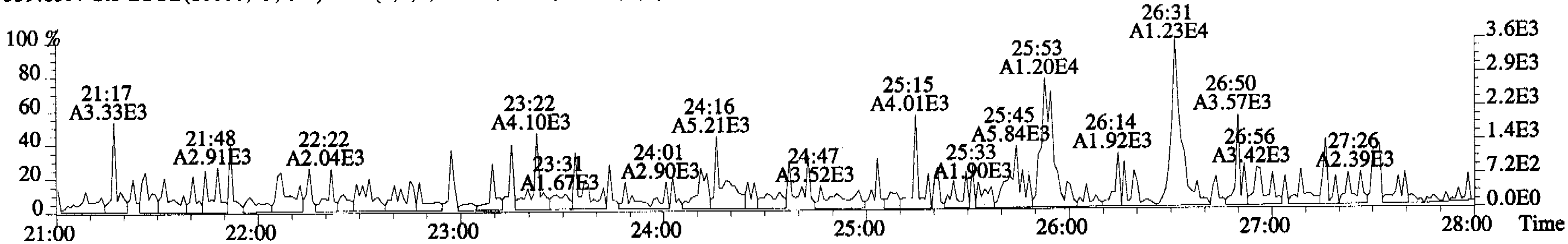
File:060322C1 #1-345 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5



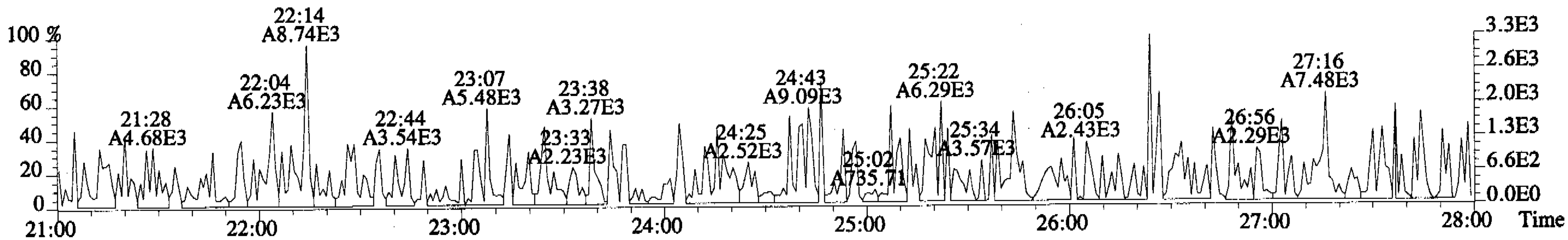
File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5



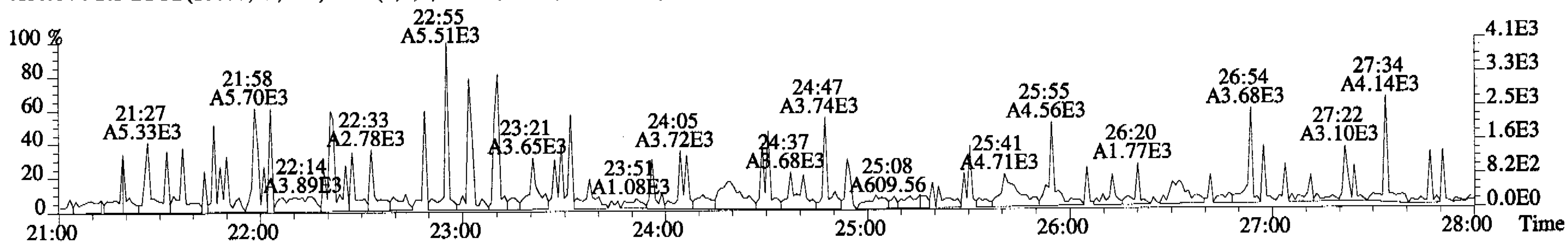
File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



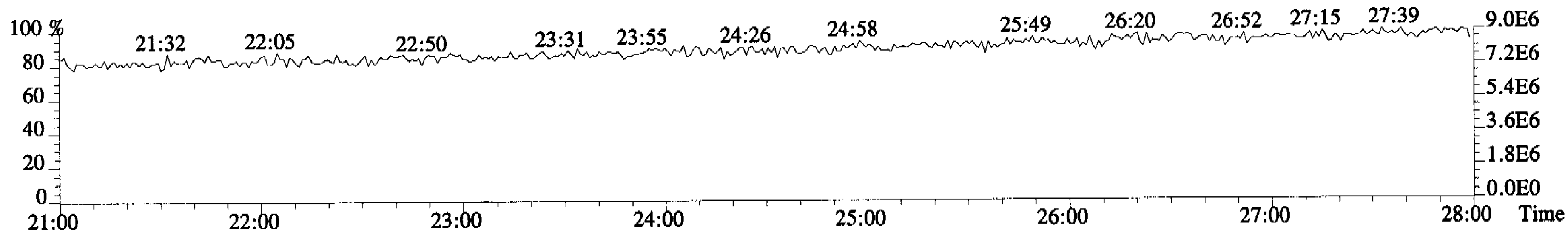
341.8568 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



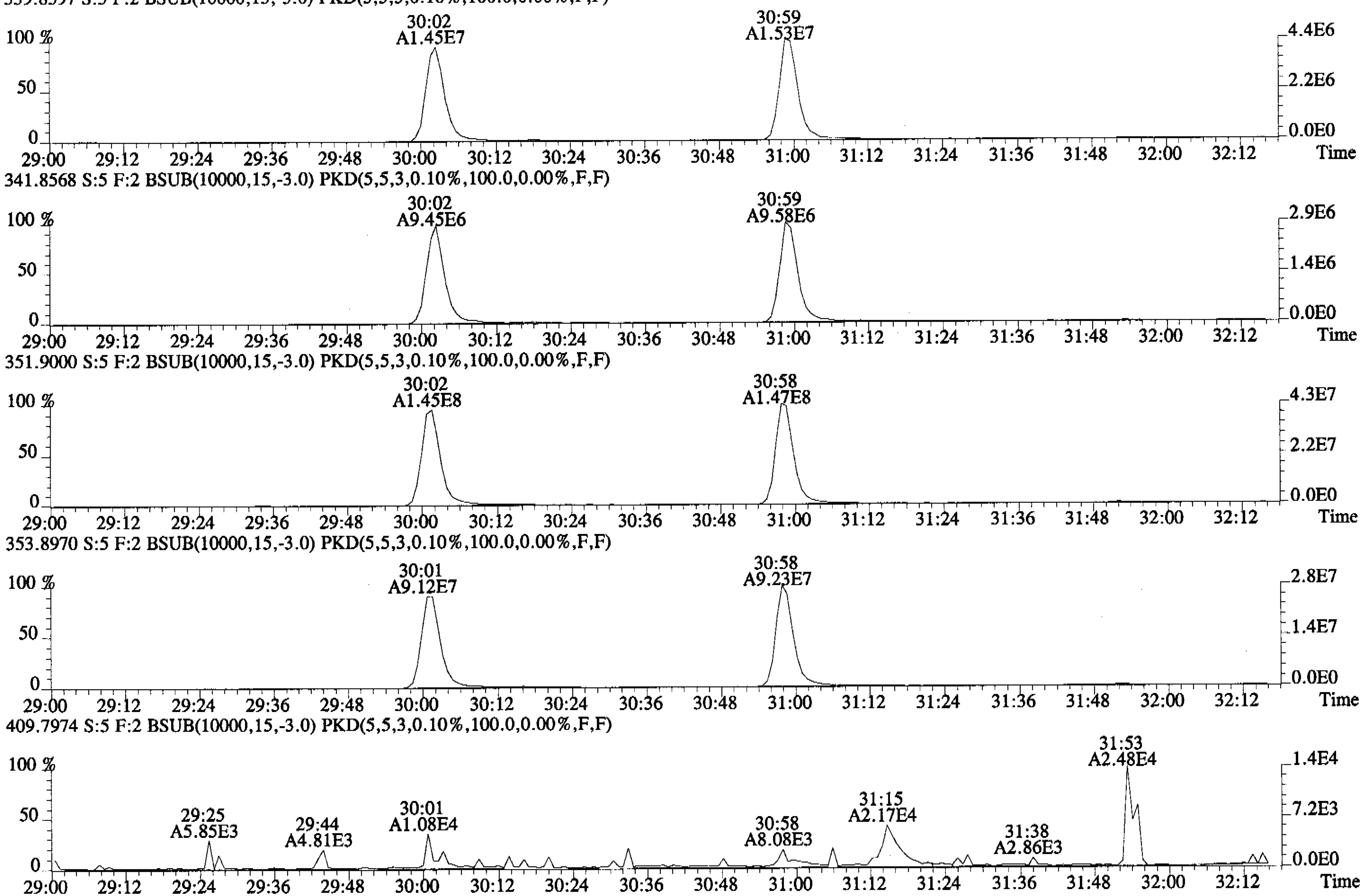
409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



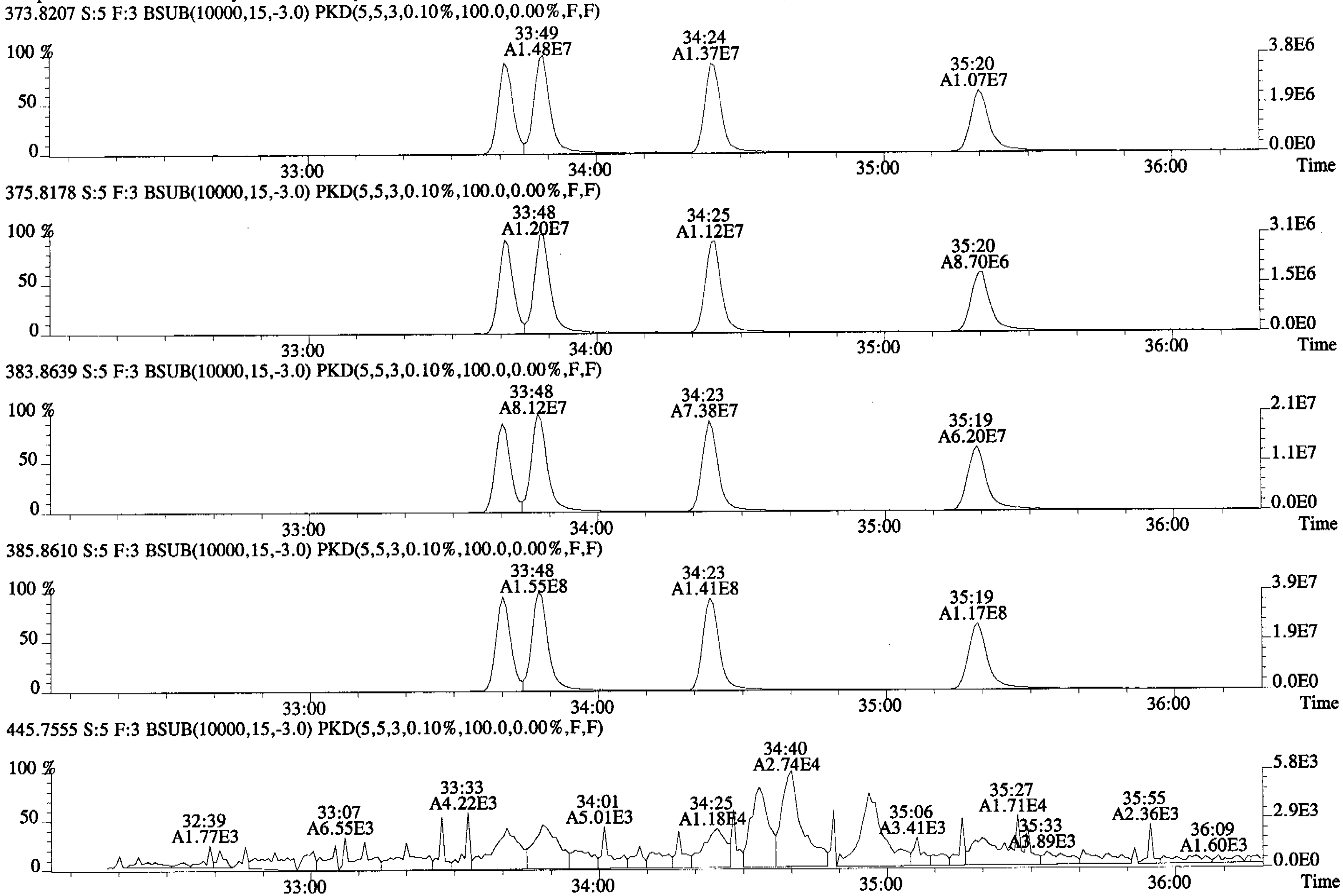
316.9824 S:5



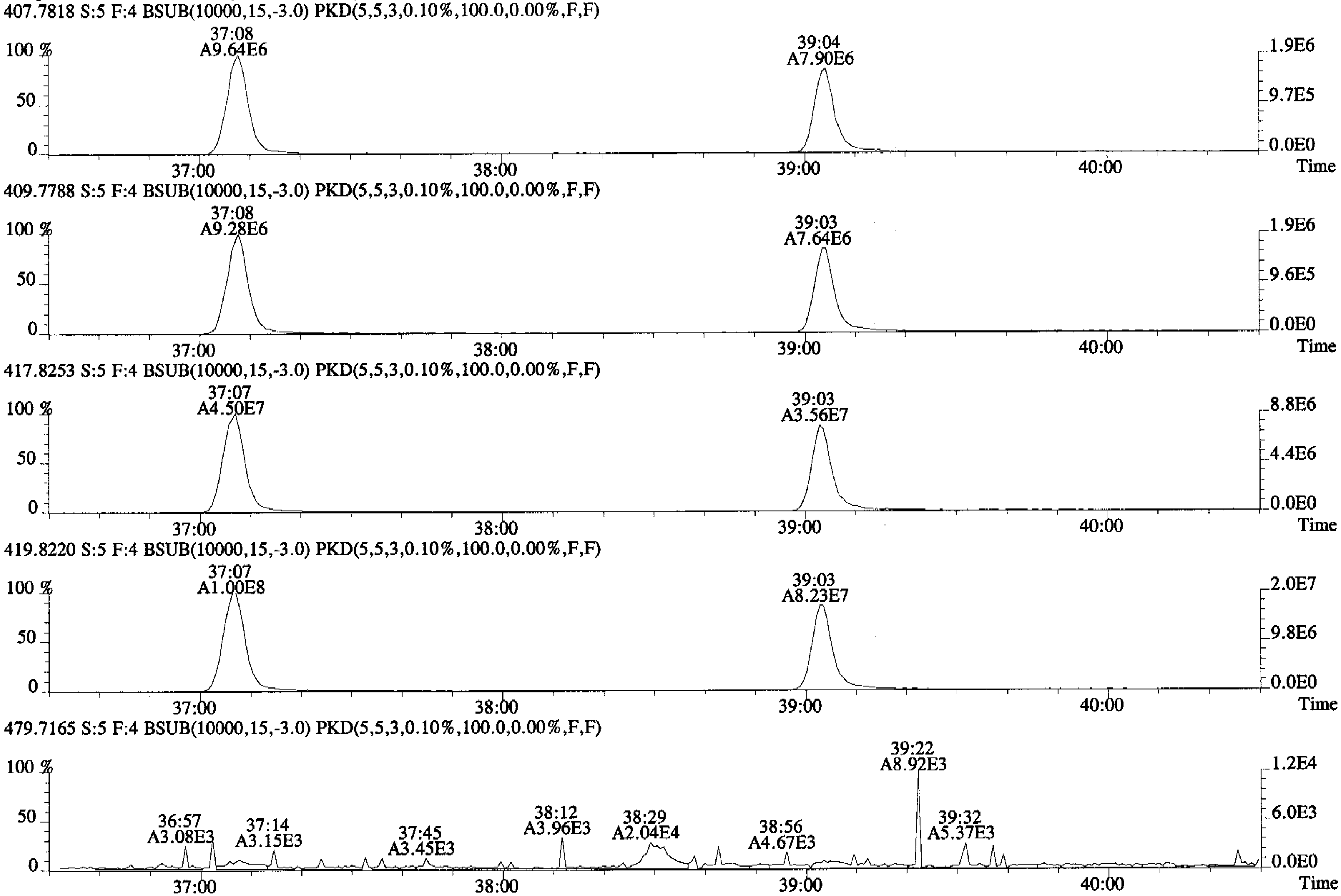
File:060322C1 #1-317 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5



File:060322C1 #1-377 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

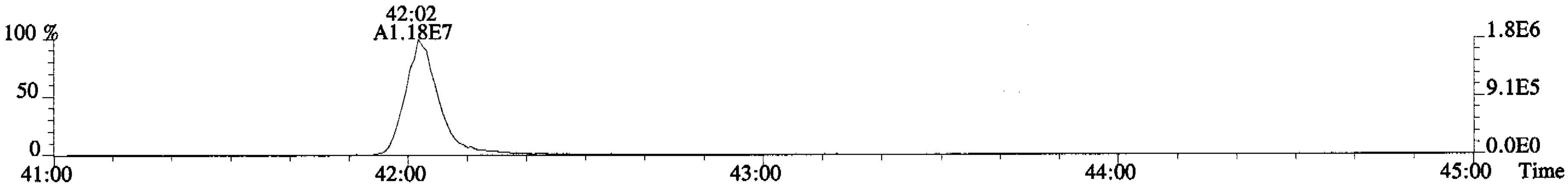


File:060322C1 #1-400 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

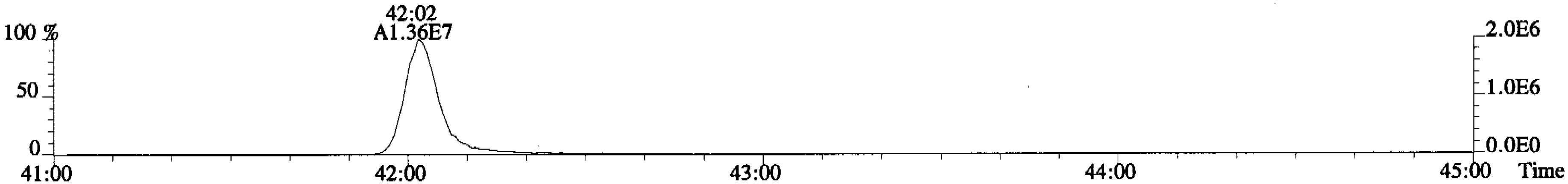


File:060322C1 #1-345 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD_DB5

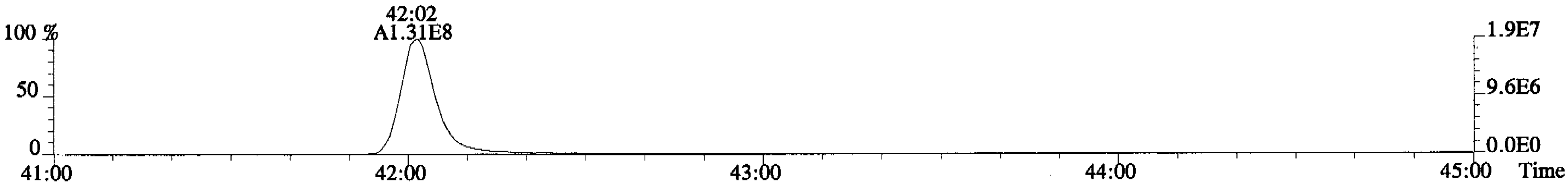
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



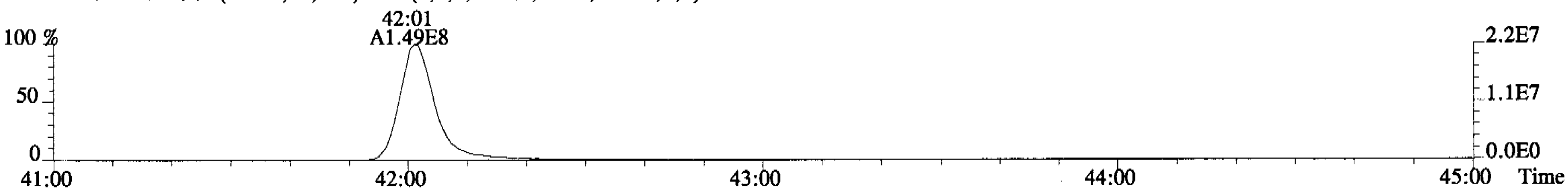
443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



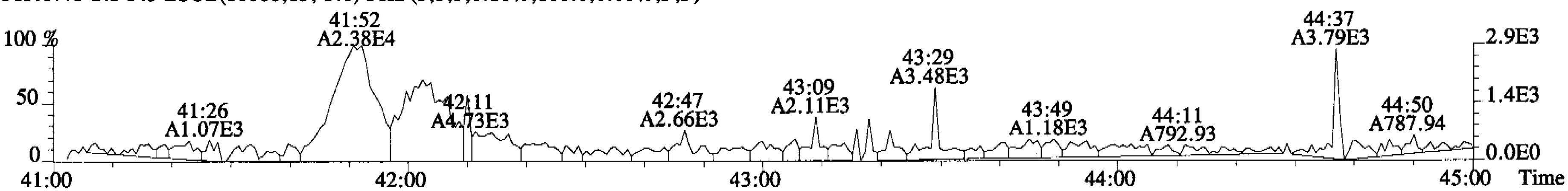
453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



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

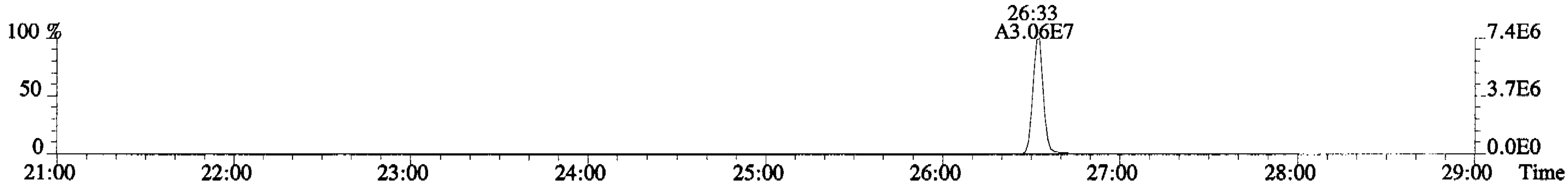


513.6775 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

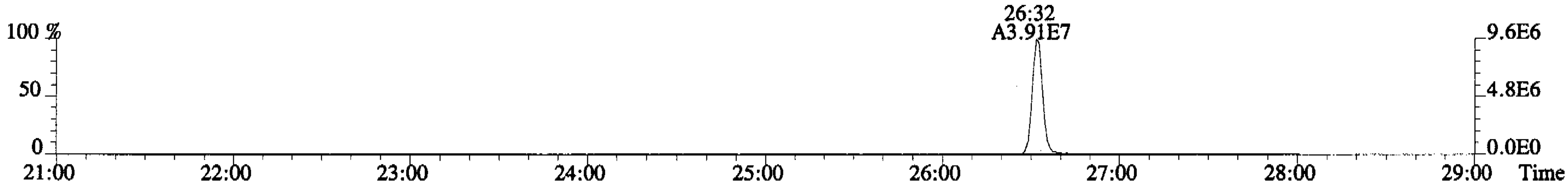


File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

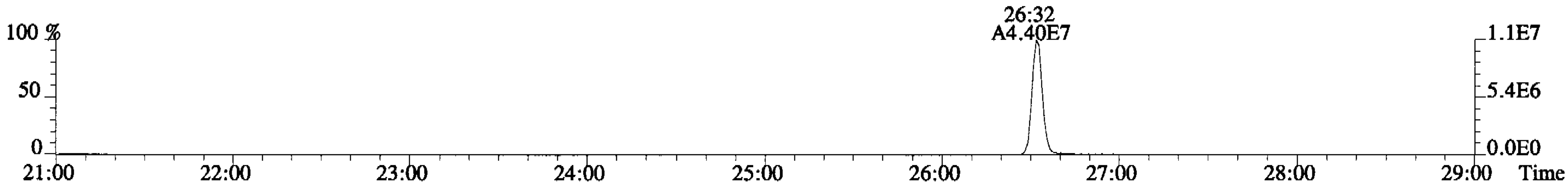
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



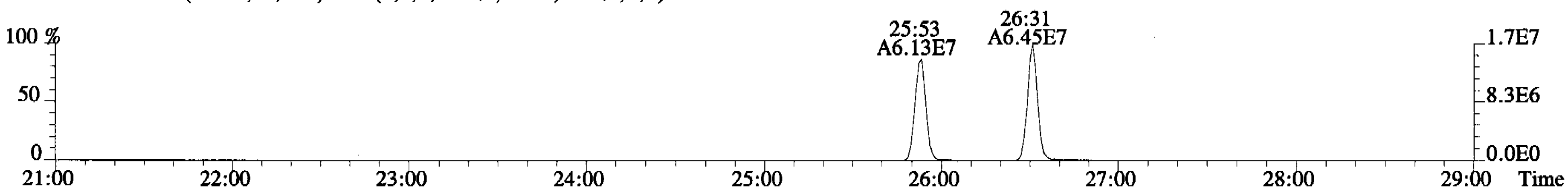
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



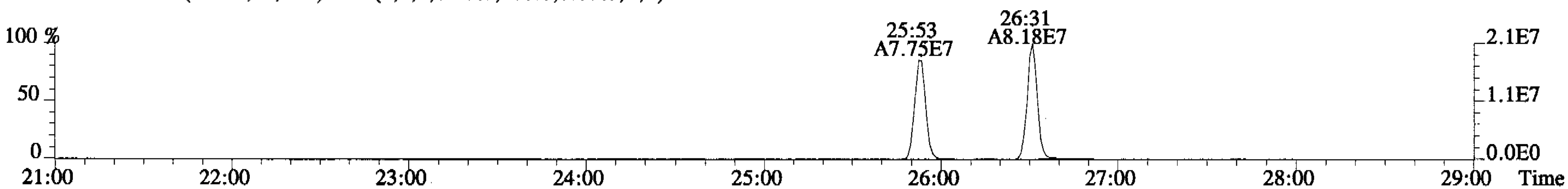
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

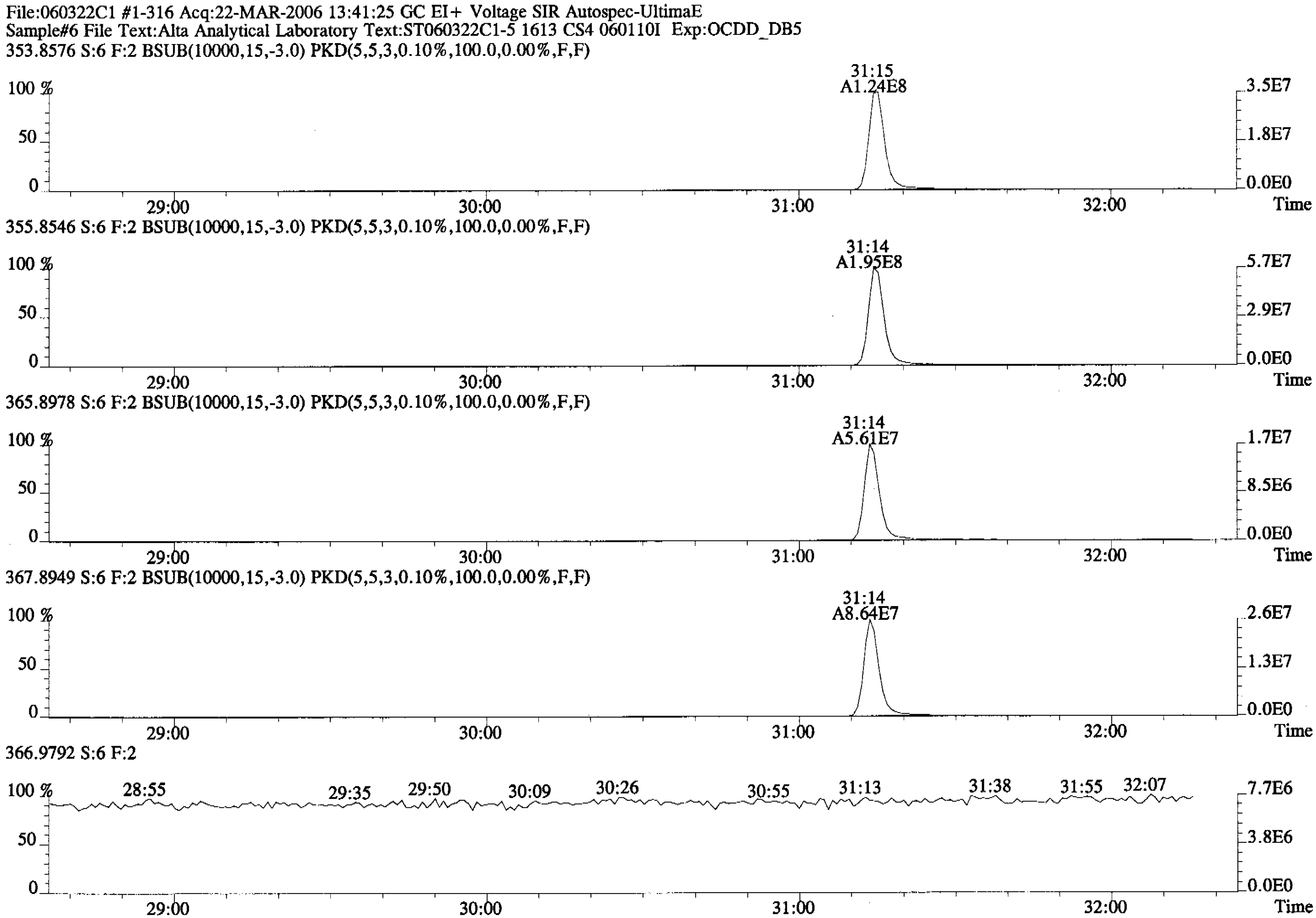


331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

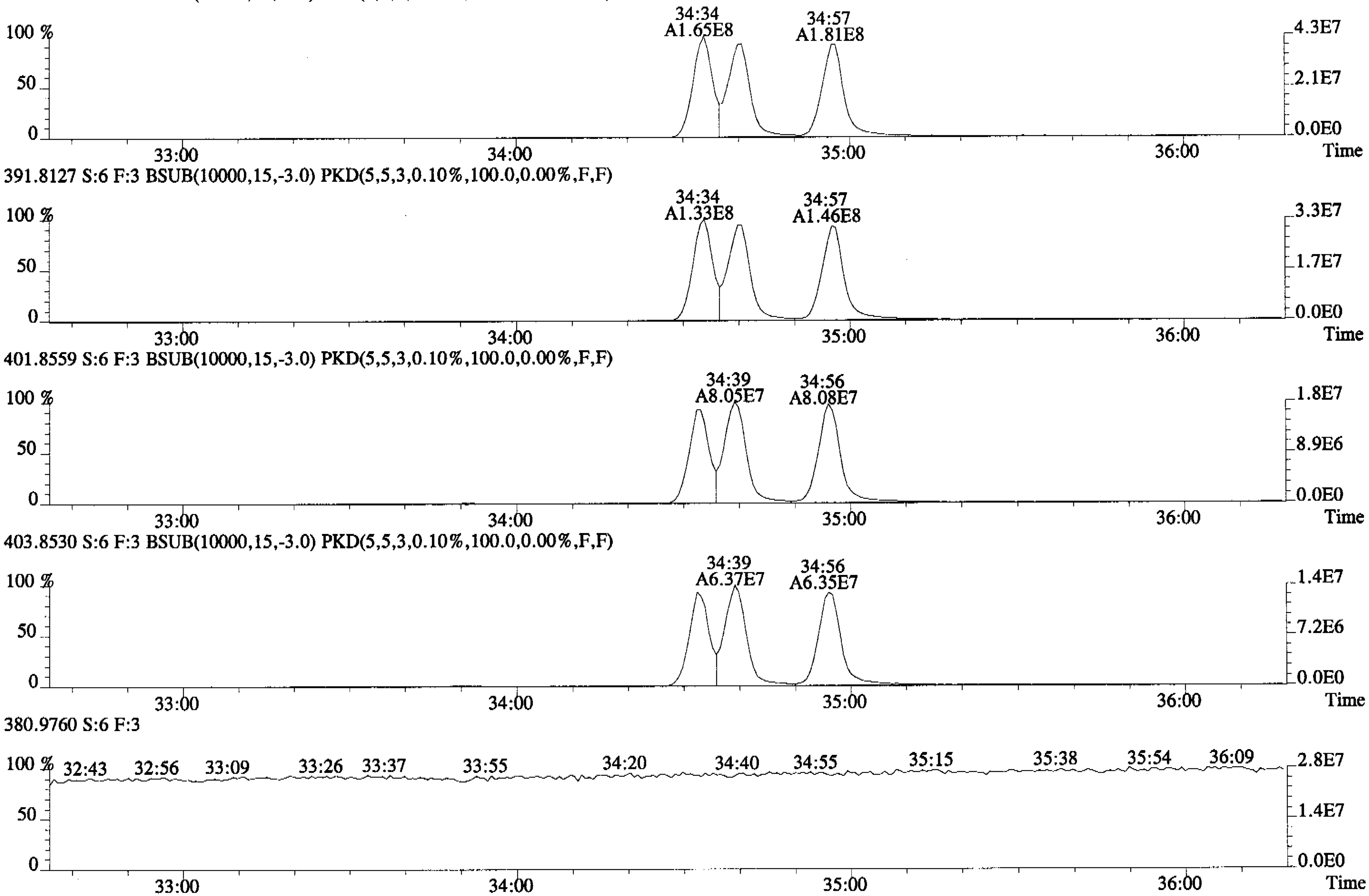


333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

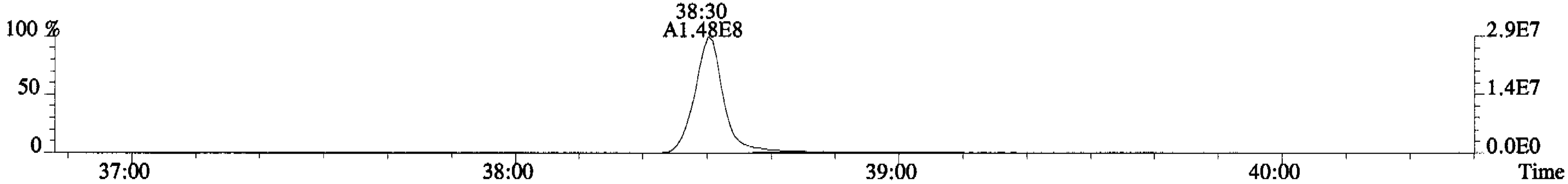



File:060322C1 #1-316 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
353.8576 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
31:15
A1.24E8
100 %
50
0
3.5E7
1.8E7
0.0E0
29:00
30:00
31:00
32:00
Time
355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
31:14
A1.95E8
5.7E7
2.9E7
0.0E0
365.8978 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
31:14
A5.61E7
1.7E7
8.5E6
0.0E0
367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
31:14
A8.64E7
2.6E7
1.3E7
0.0E0
366.9792 S:6 F:2
28:55
29:35
29:50
30:09
30:26
30:55
31:13
31:38
31:55
32:07
7.7E6
3.8E6
0.0E0

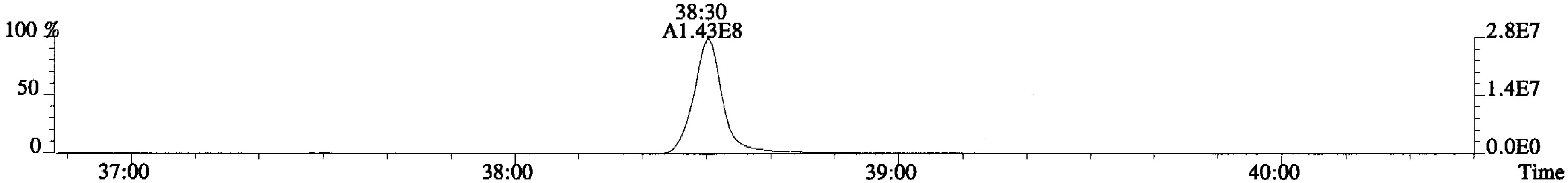
File:060322C1 #1-377 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



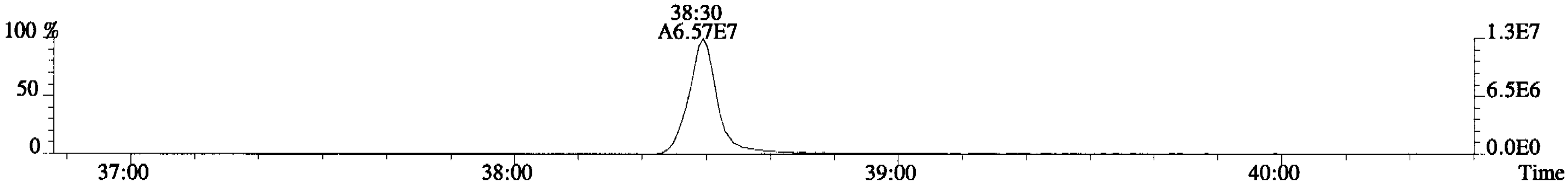
File:060322C1 #1-400 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



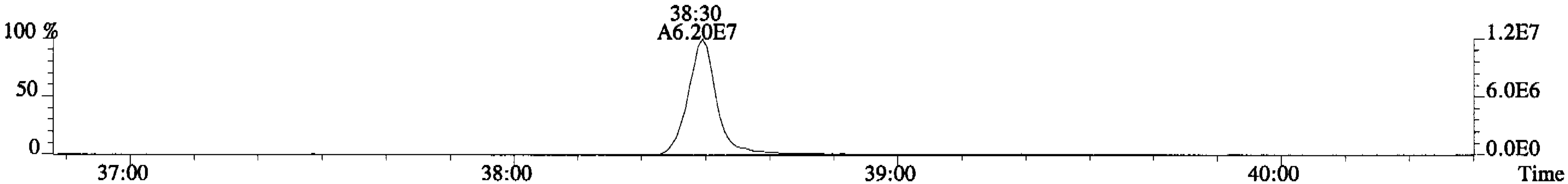
425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



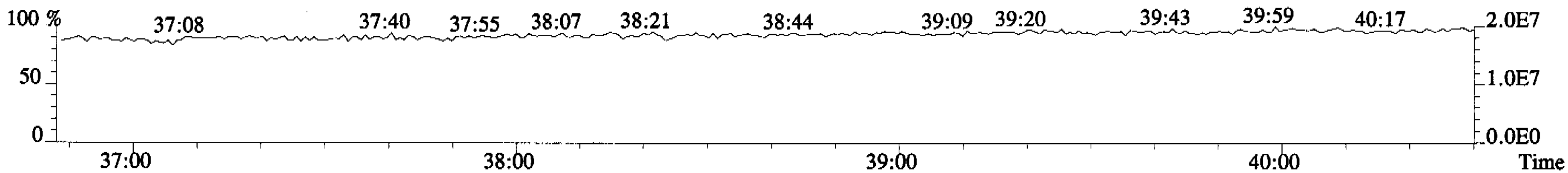
435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

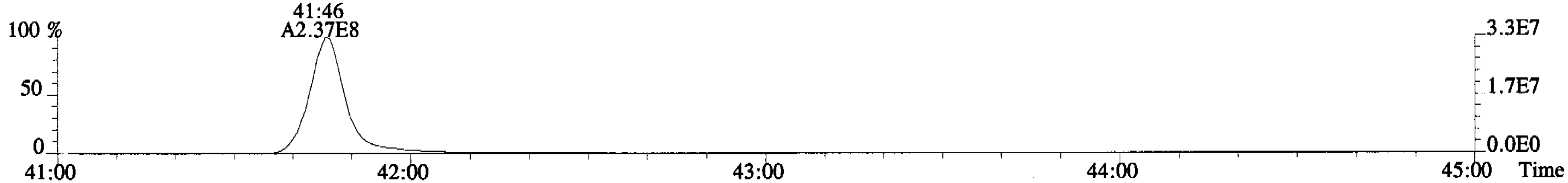


430.9728 S:6 F:4

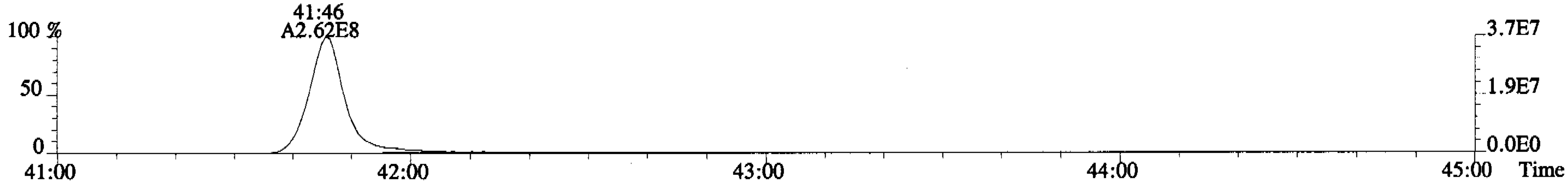


File:060322C1 #1-345 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

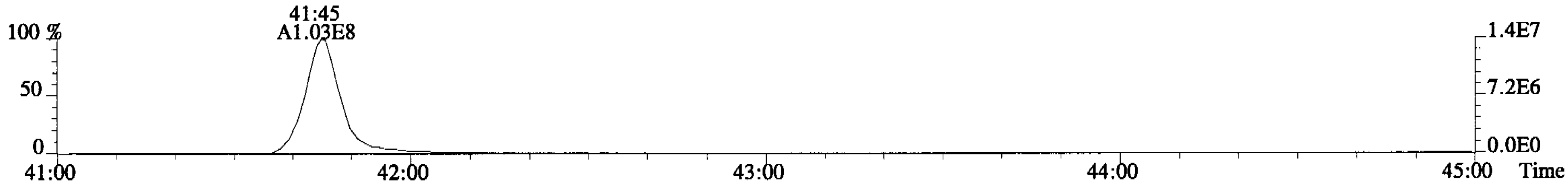
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



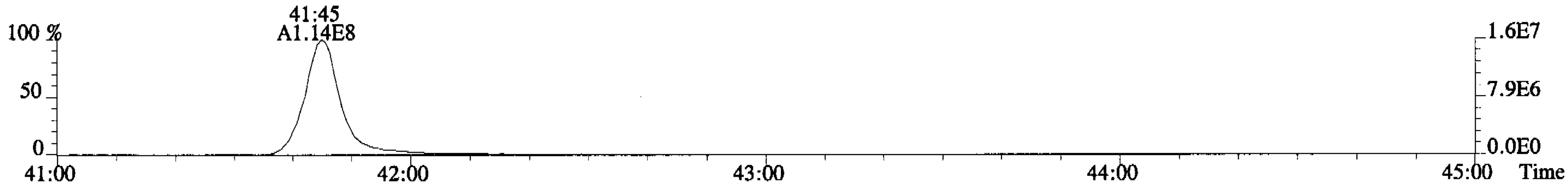
459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



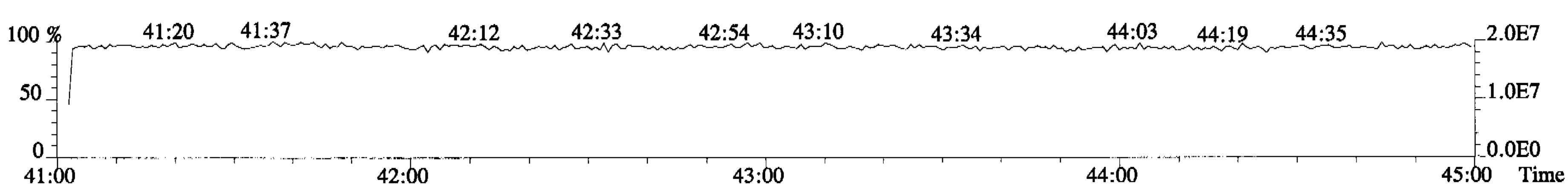
469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

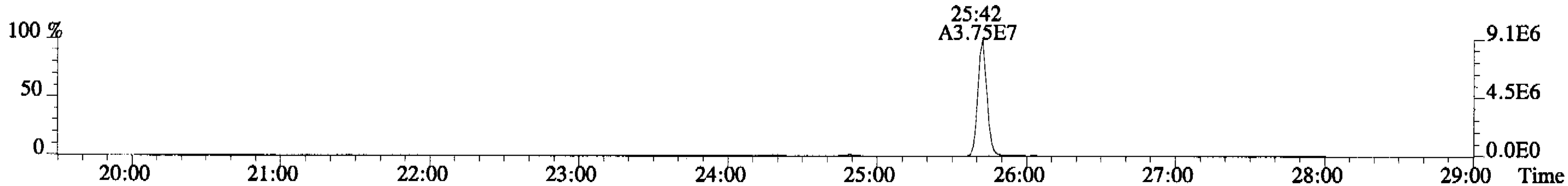


454.9728 S:6 F:5

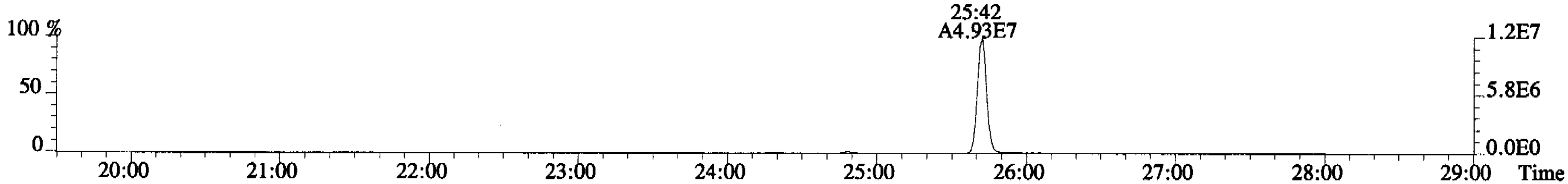


File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5

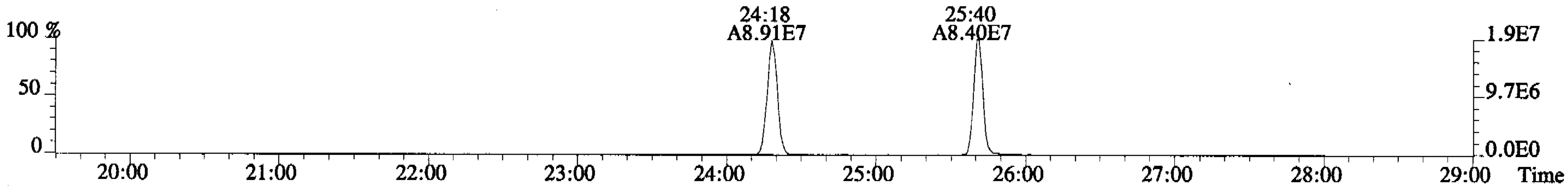
303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



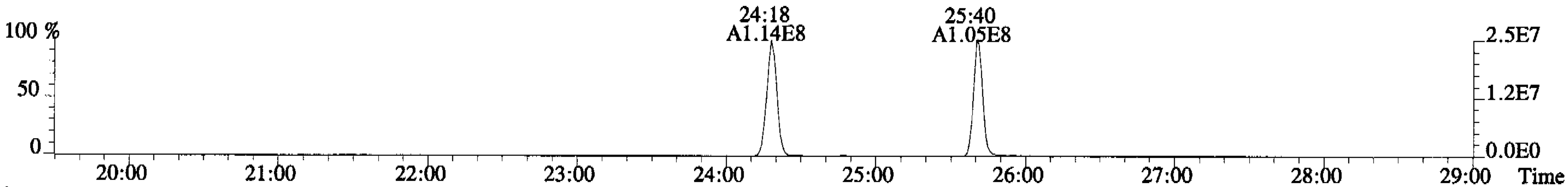
305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



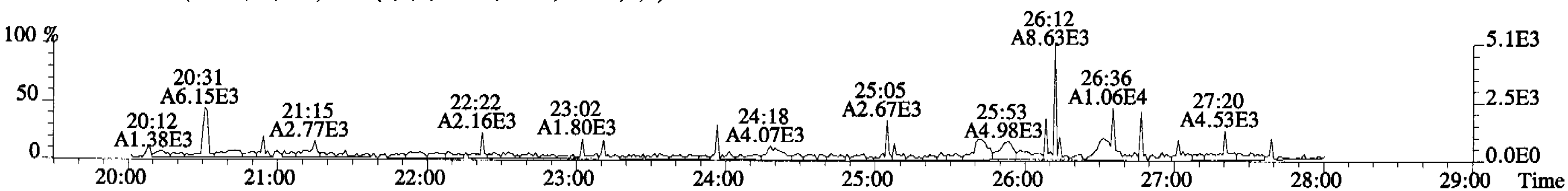
315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



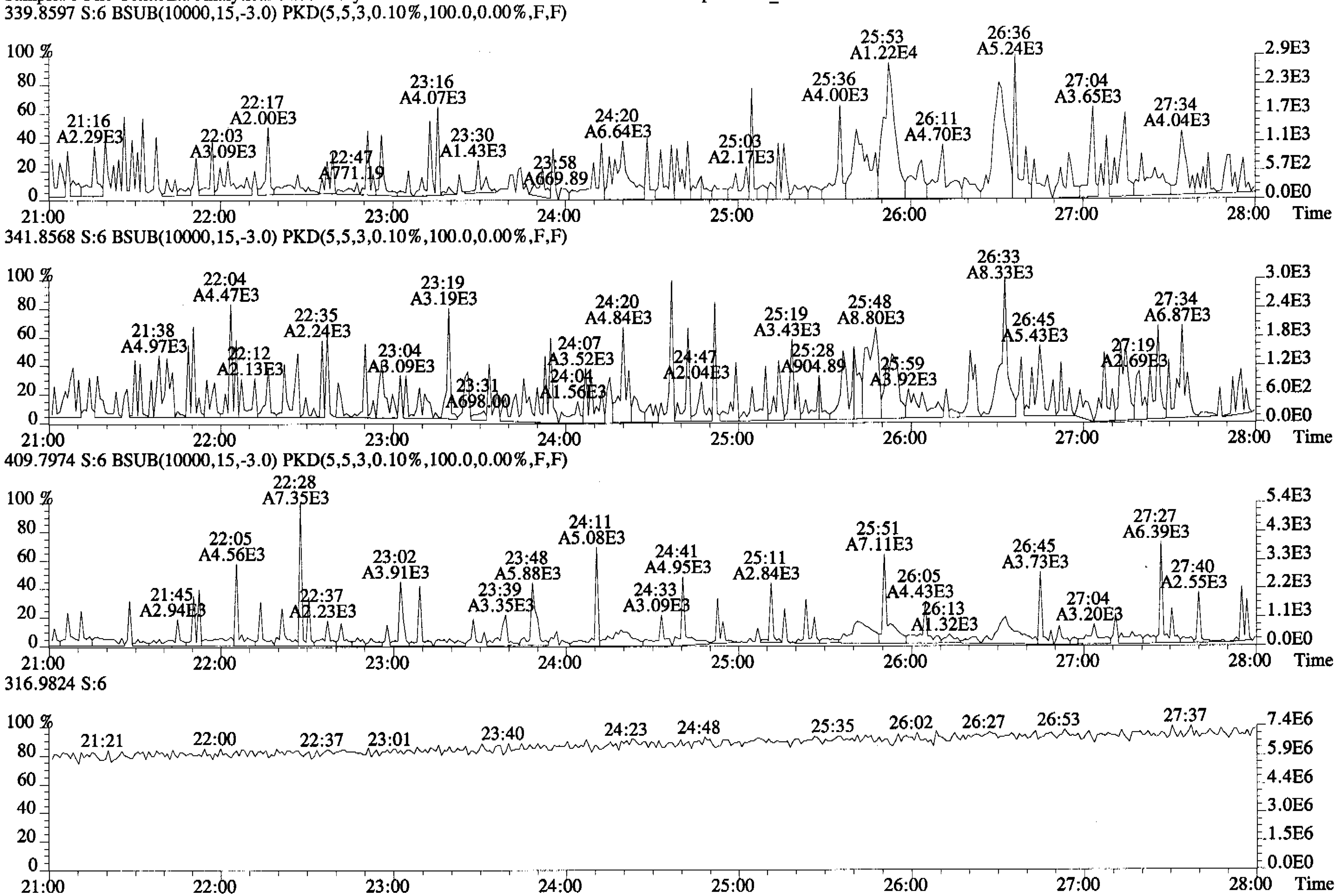
317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



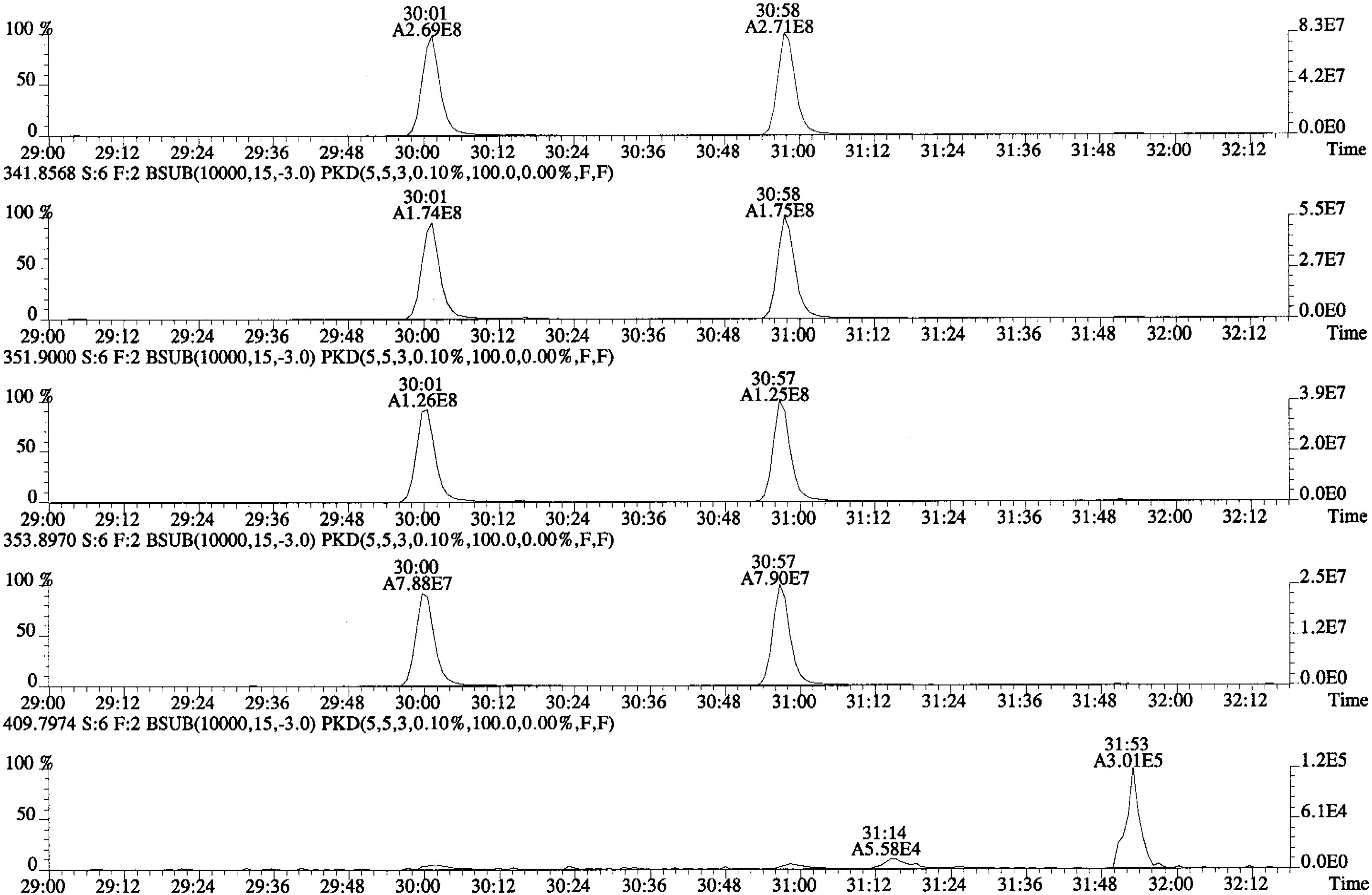
375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



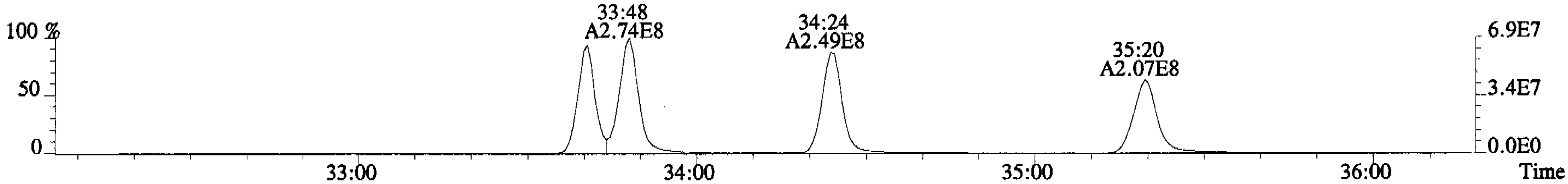
File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5



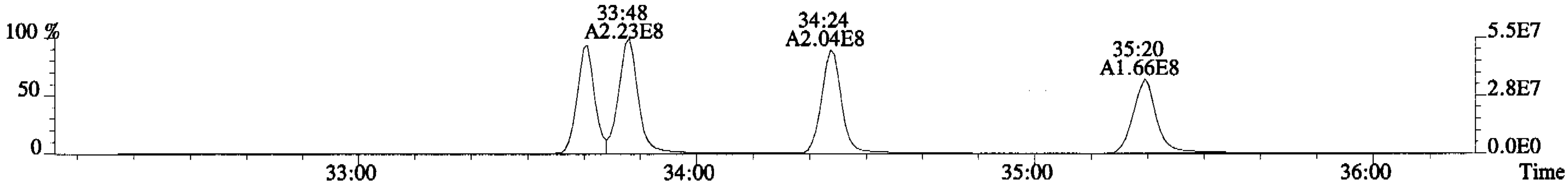
File:060322C1 #1-316 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



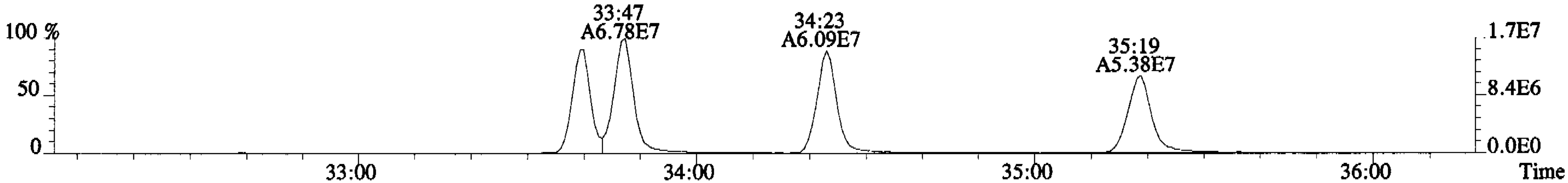
File:060322C1 #1-377 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



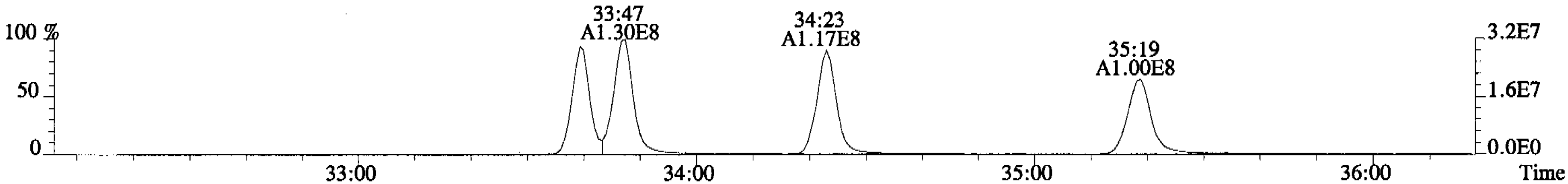
375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



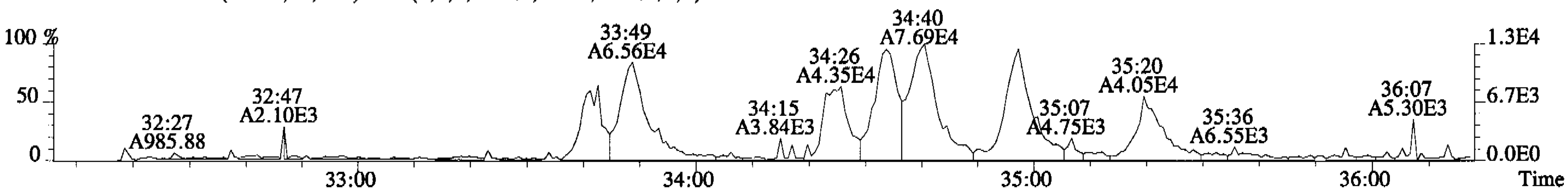
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



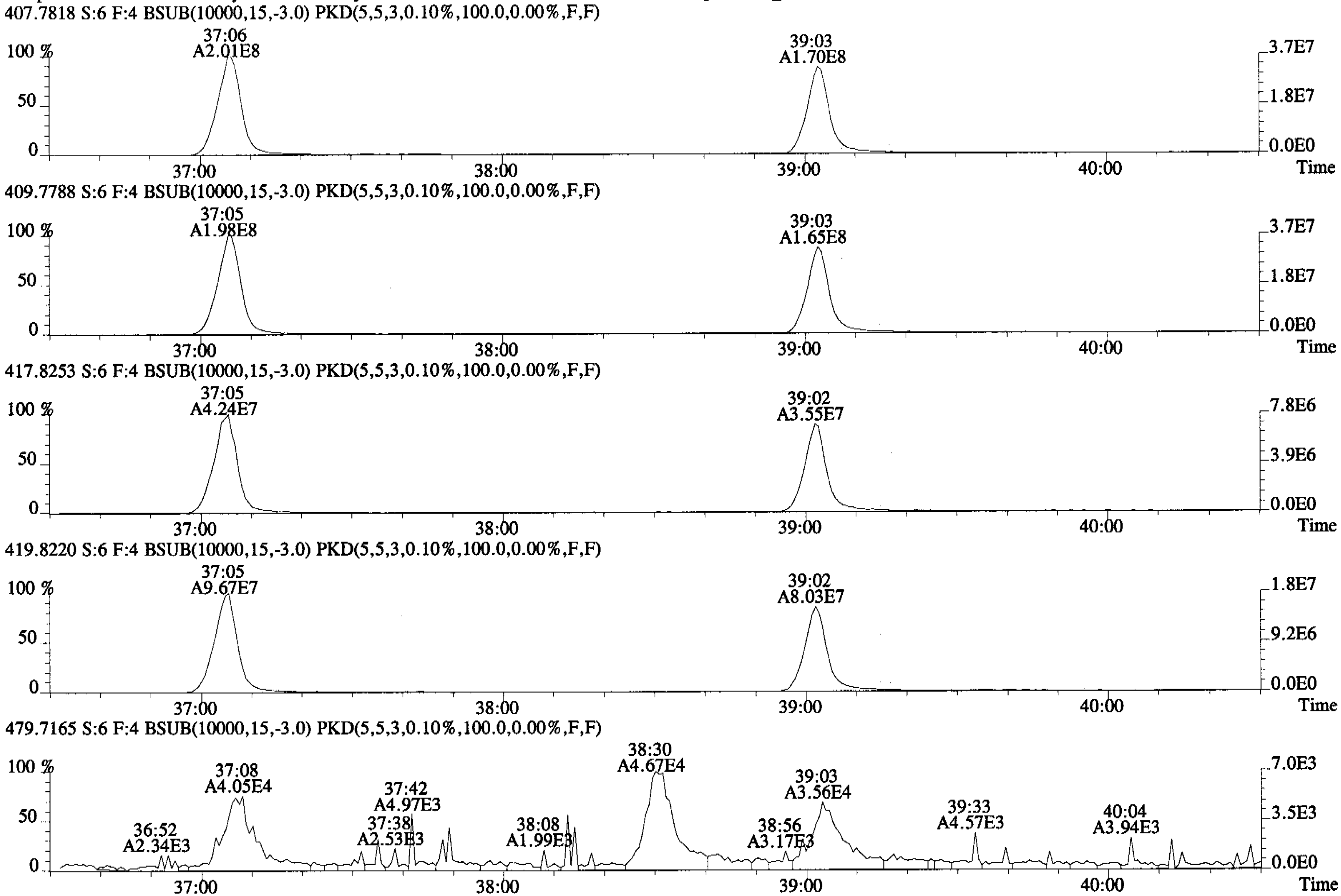
385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



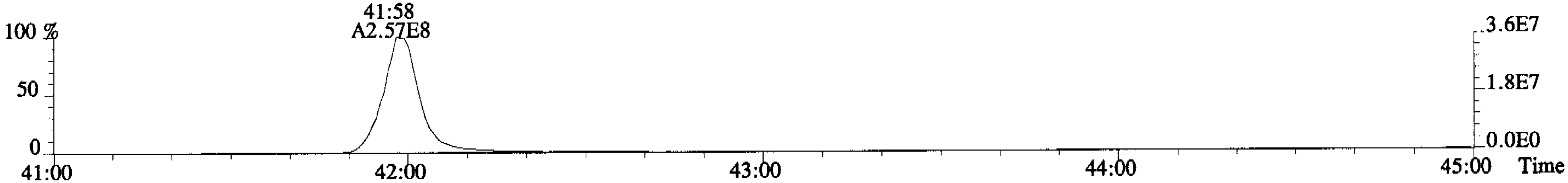
445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



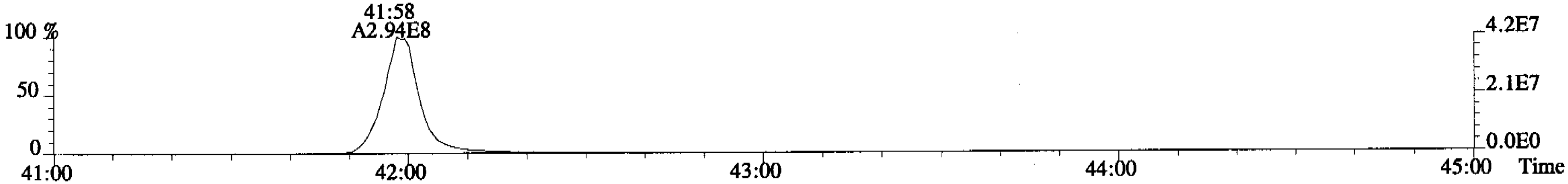
File:060322C1 #1-400 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5



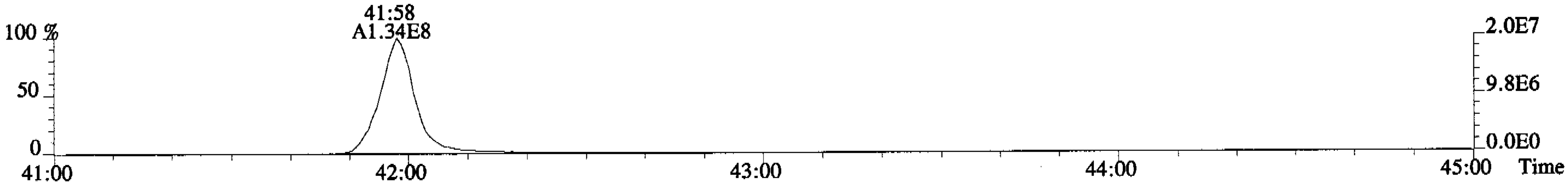
File:060322C1 #1-345 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD_DB5
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



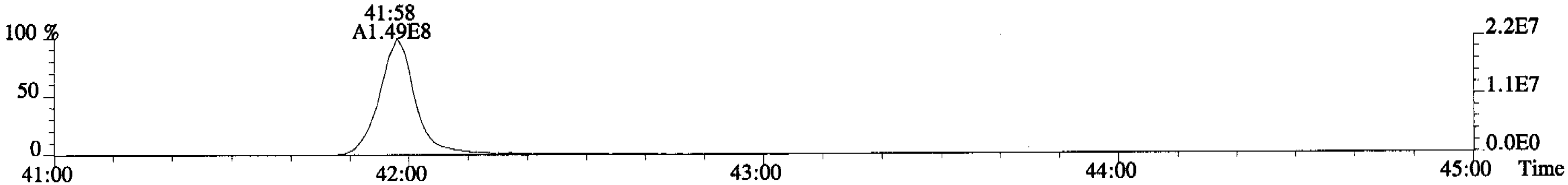
443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



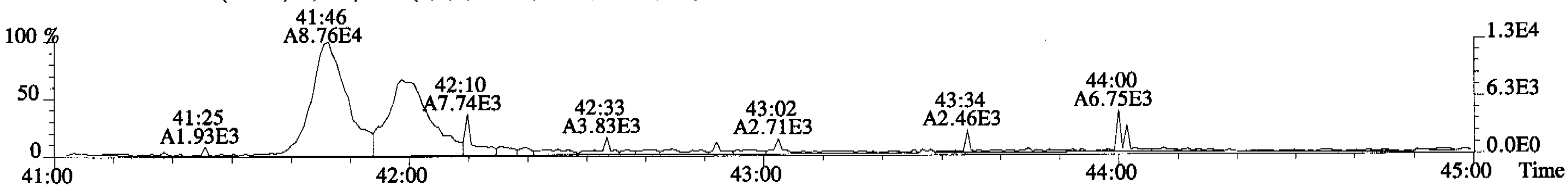
453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



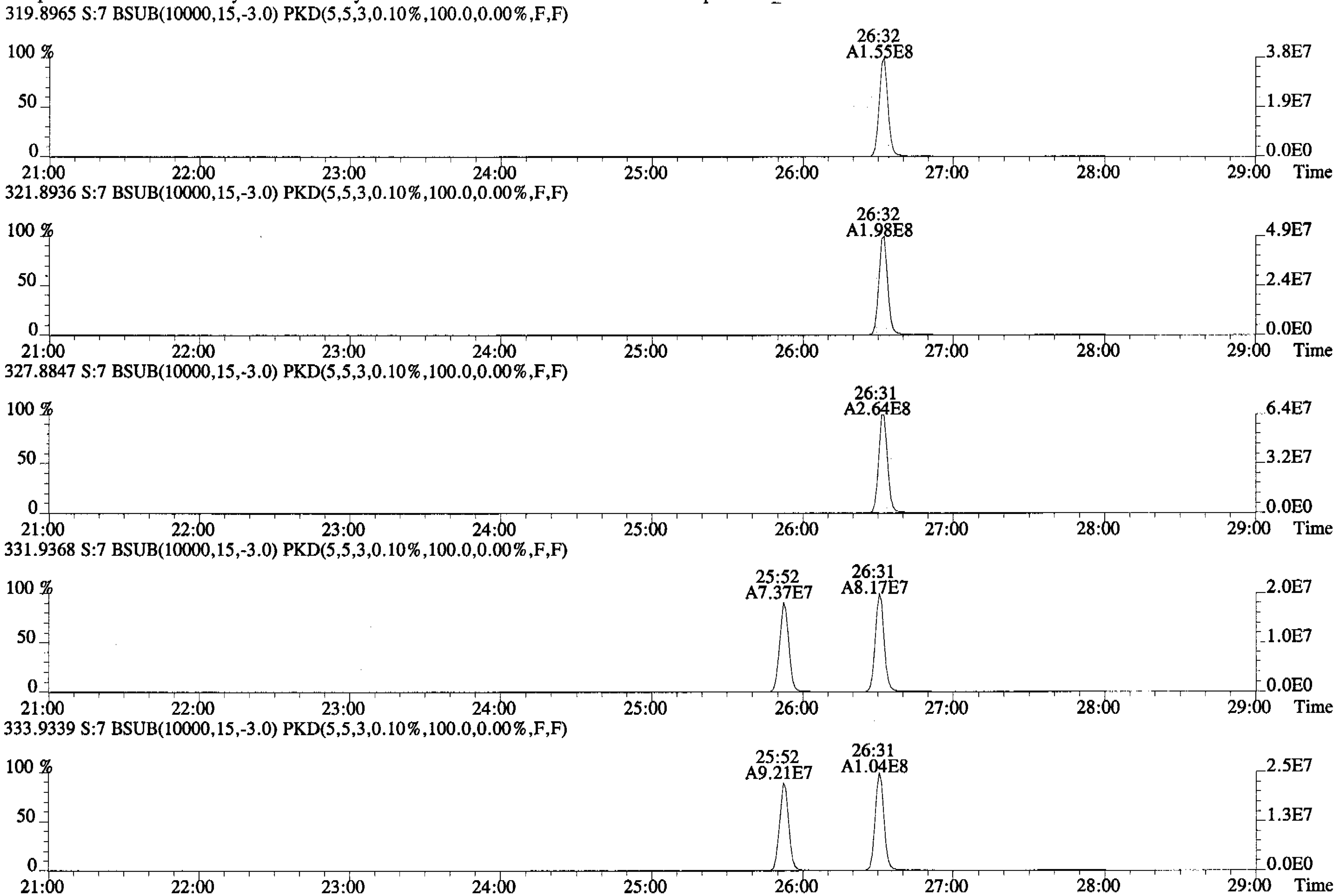
455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



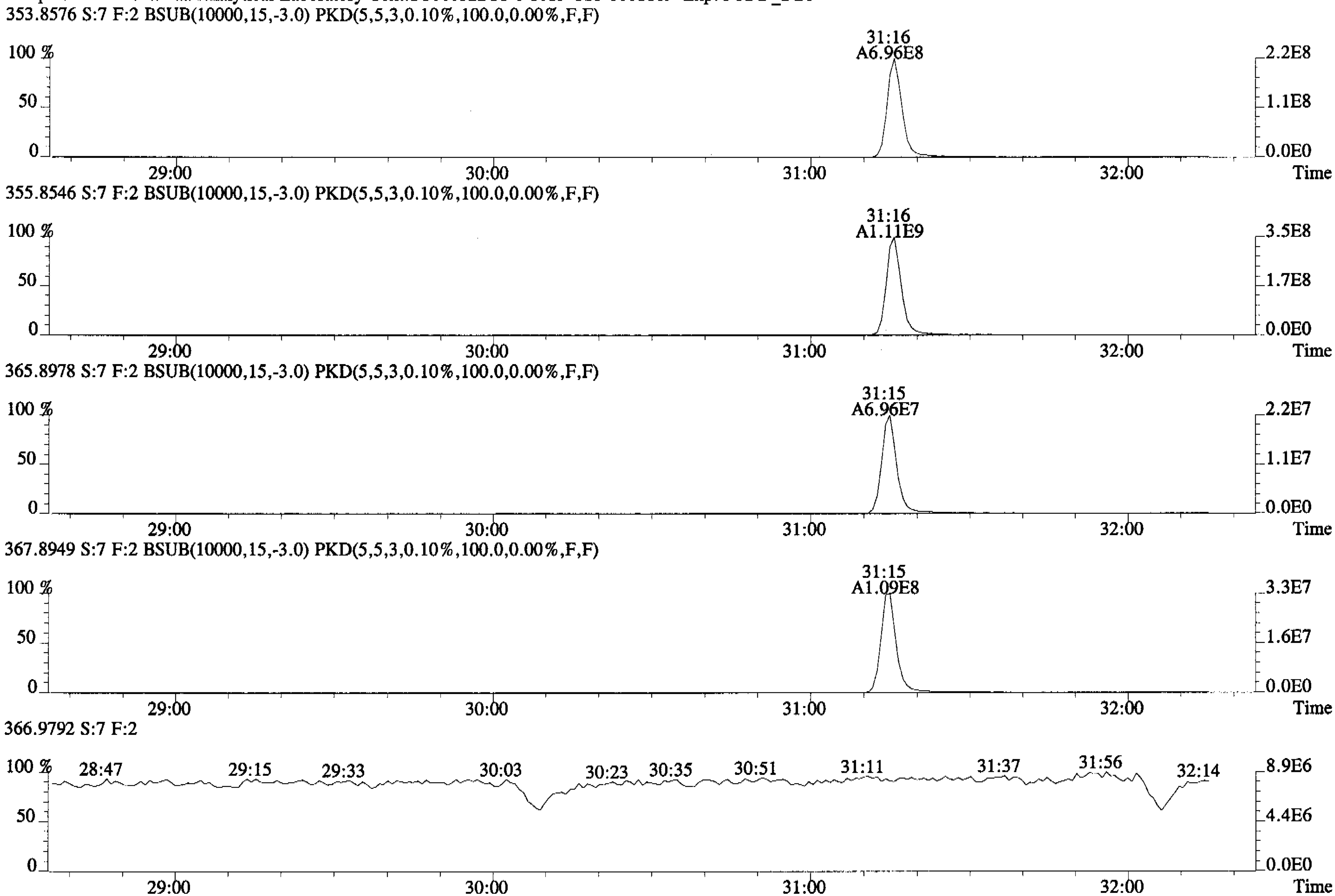
513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

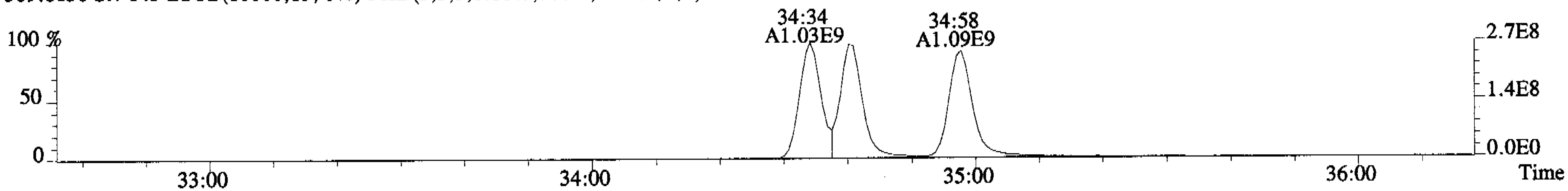


File:060322C1 #1-316 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

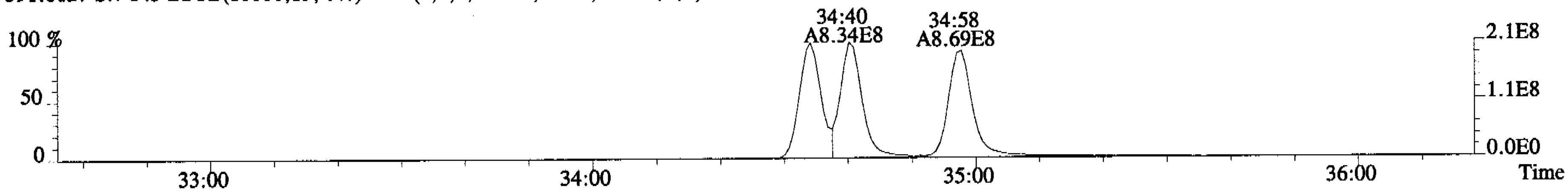


File:060322C1 #1-378 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

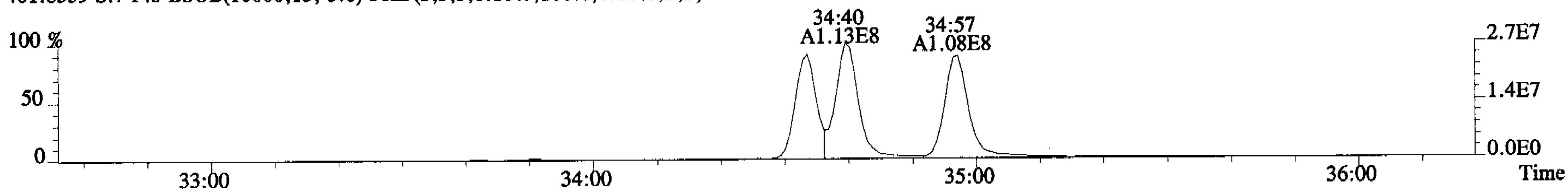
389.8156 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



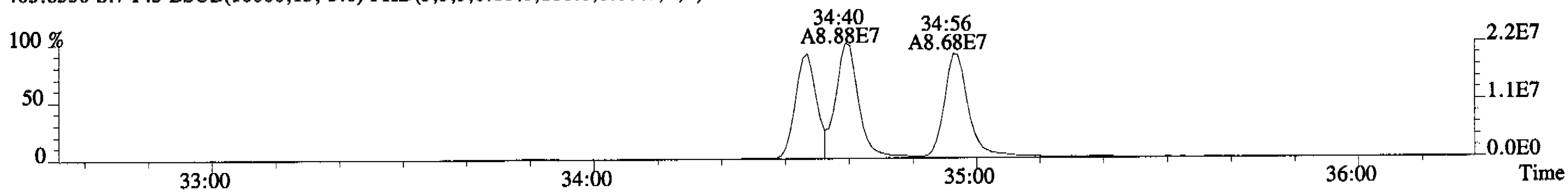
391.8127 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



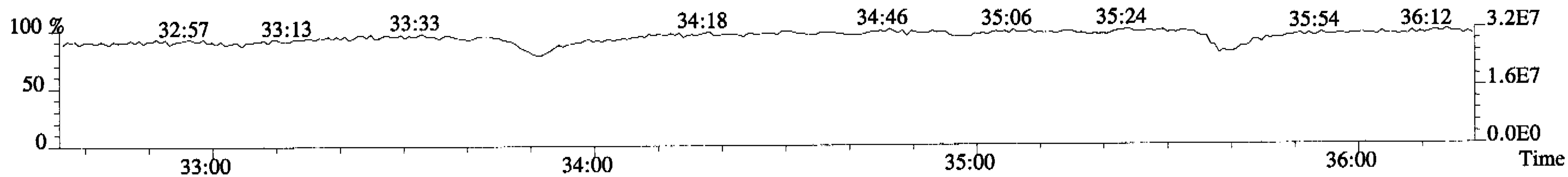
401.8559 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



403.8530 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

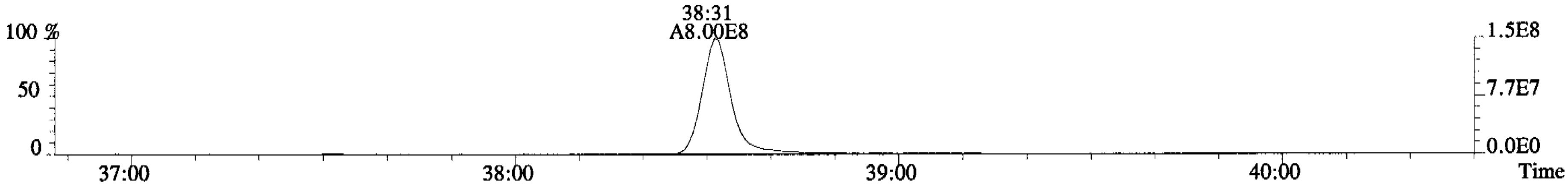


380.9760 S:7 F:3

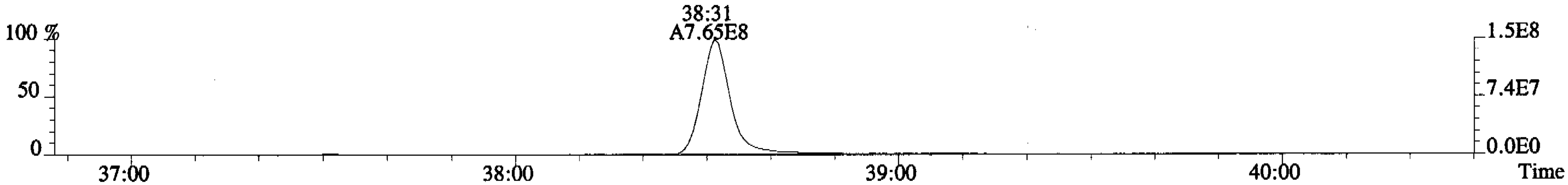


File:060322C1 #1-400 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

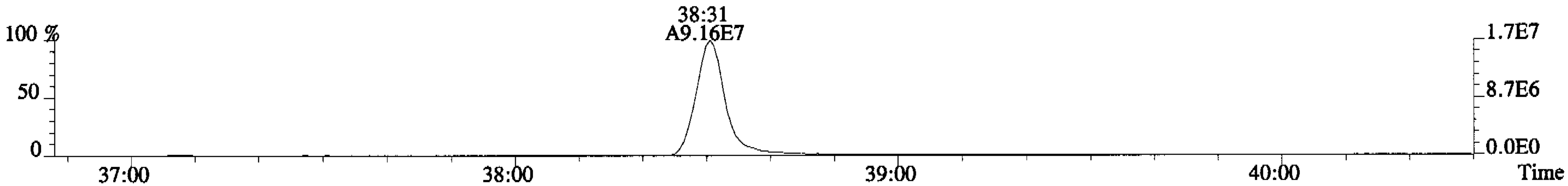
423.7767 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



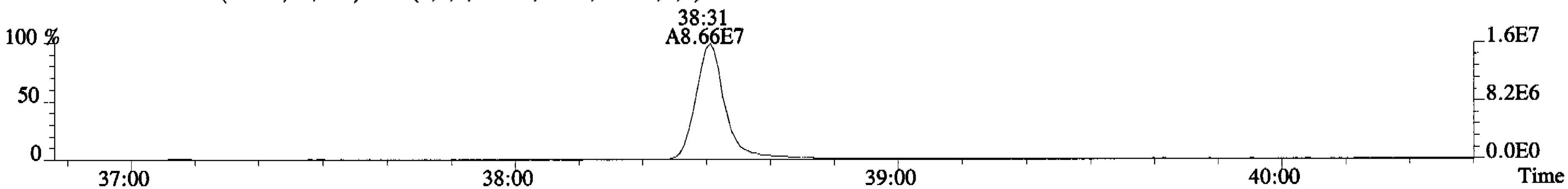
425.7737 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



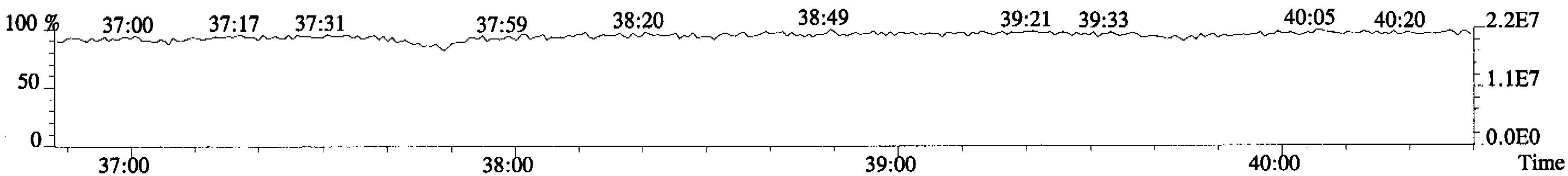
435.8169 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



437.8140 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

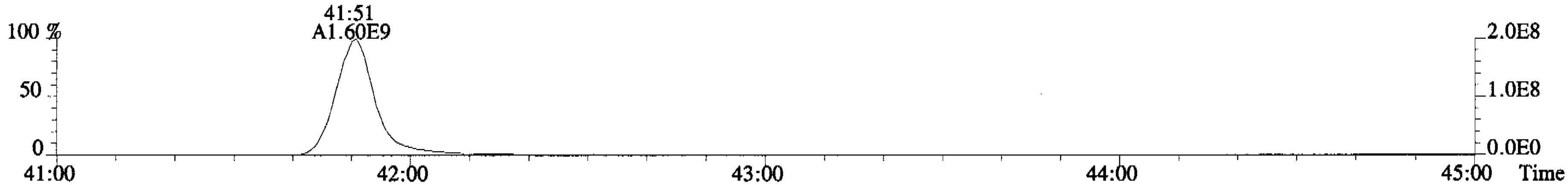


430.9728 S:7 F:4

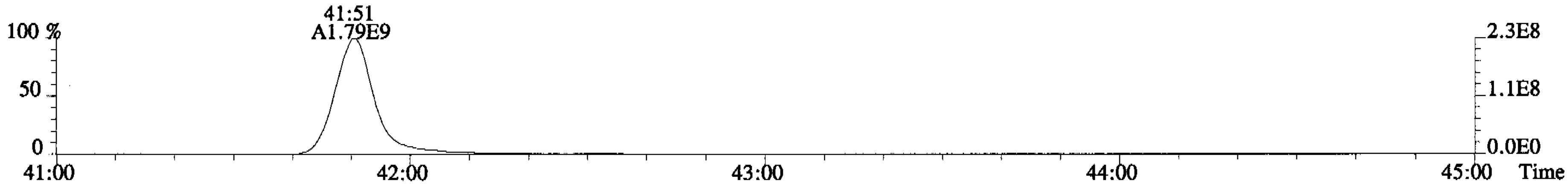


File:060322C1 #1-345 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

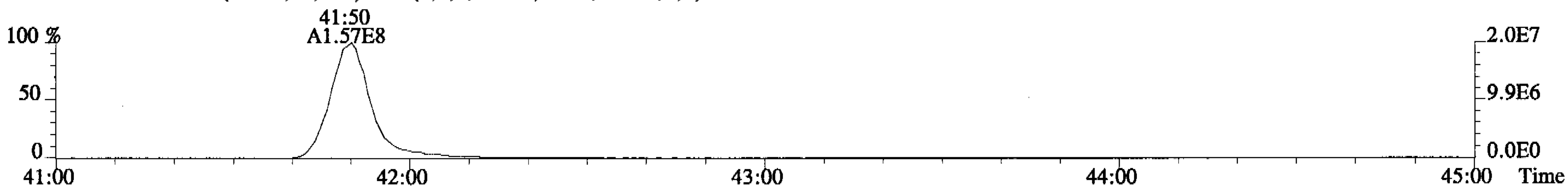
457.7377 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



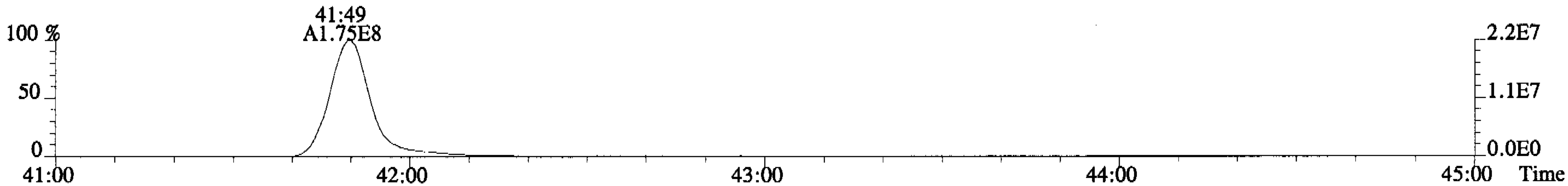
459.7348 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



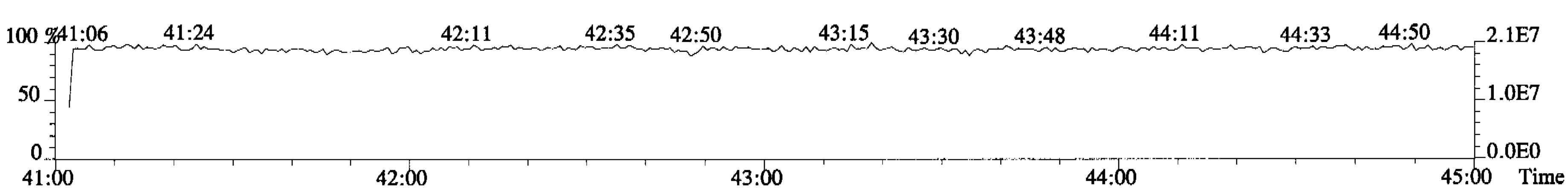
469.7780 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



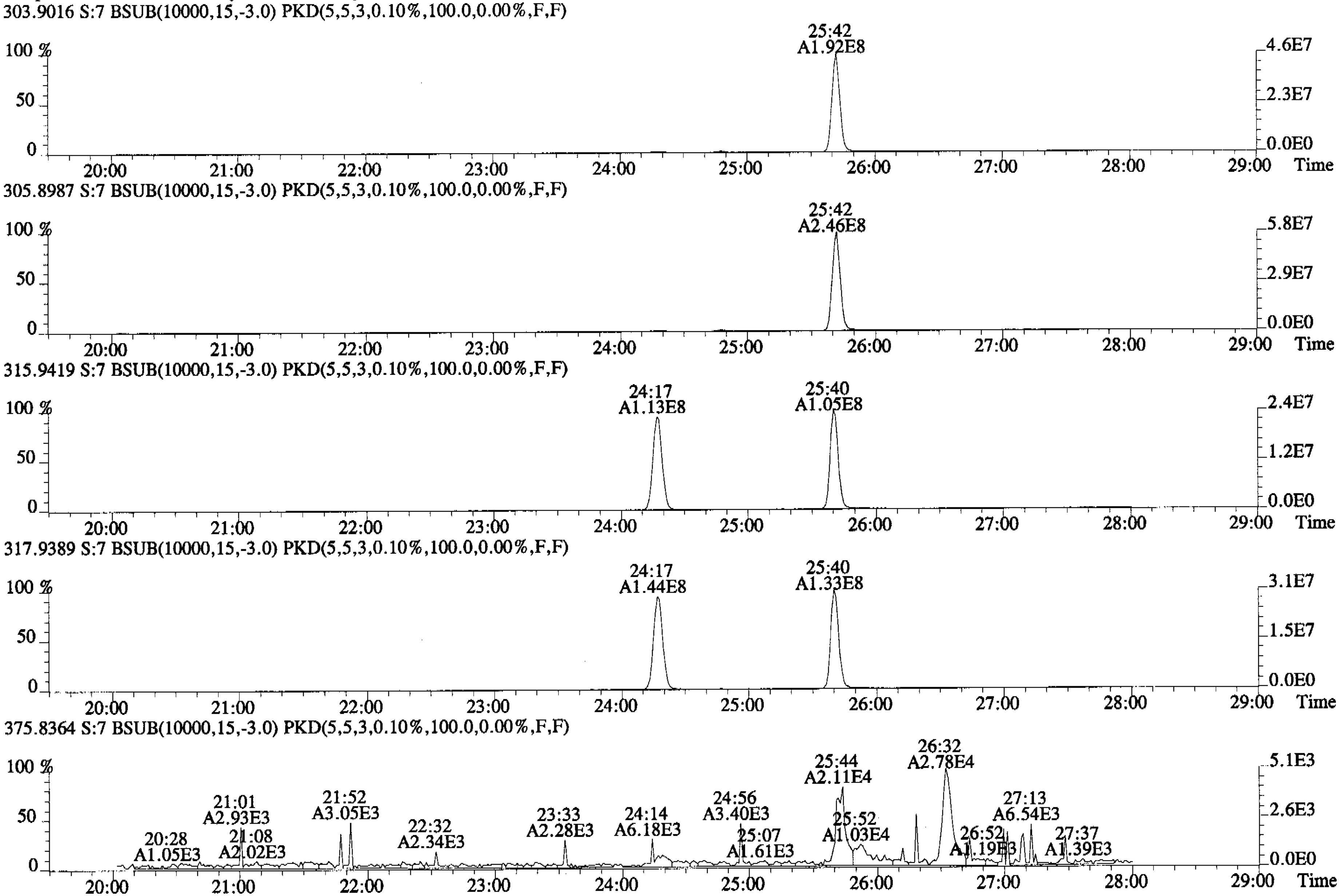
471.7750 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



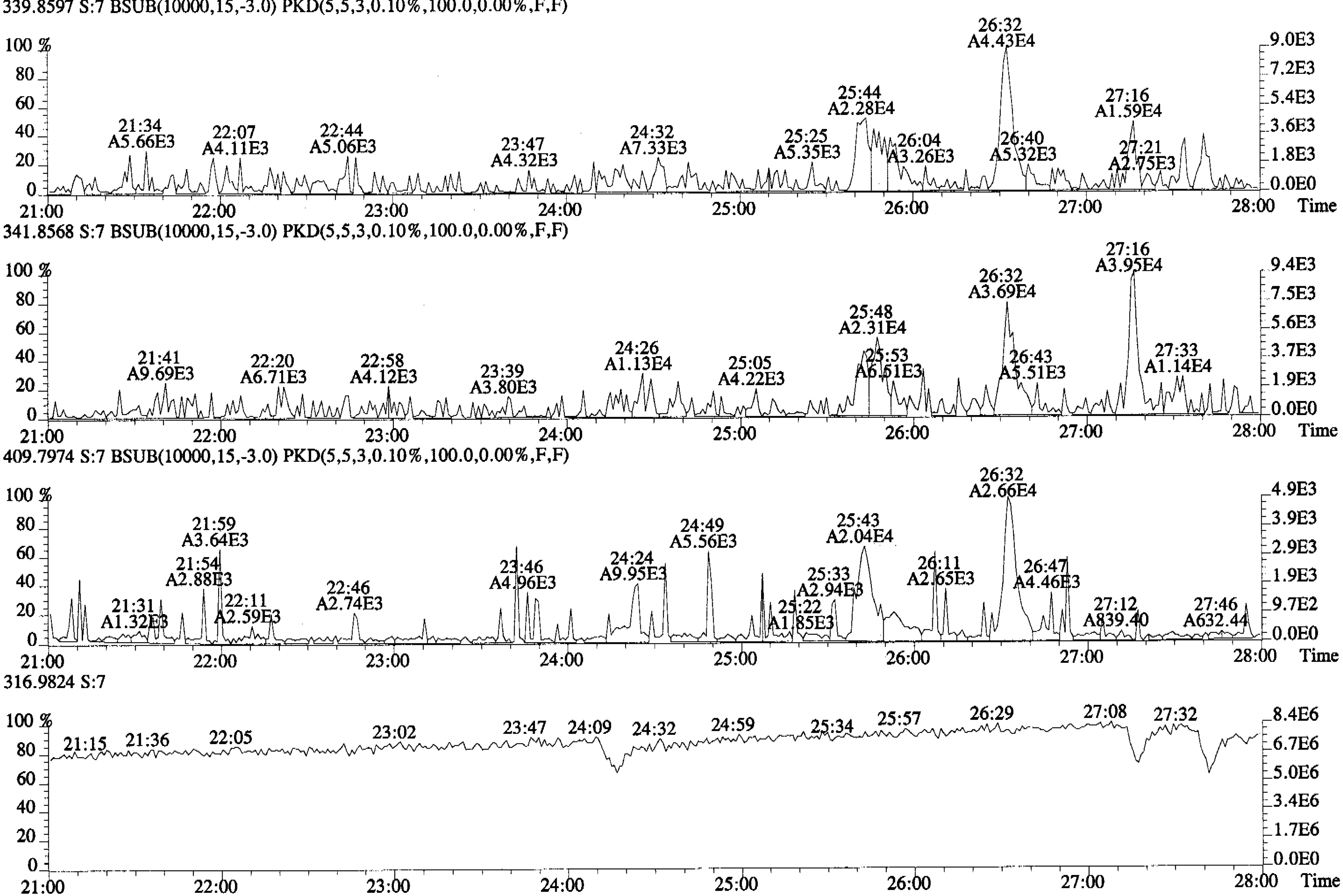
454.9728 S:7 F:5



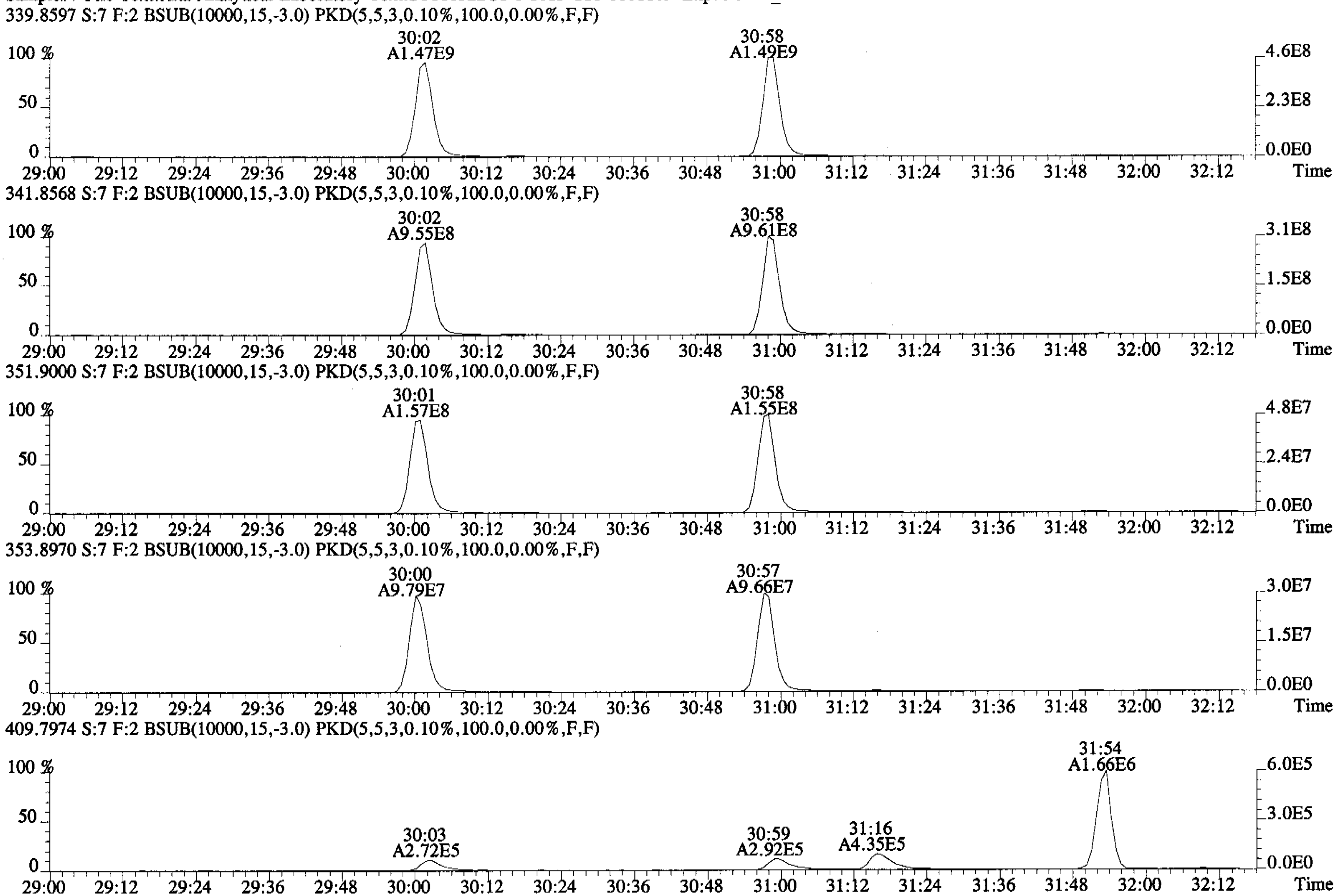
File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5



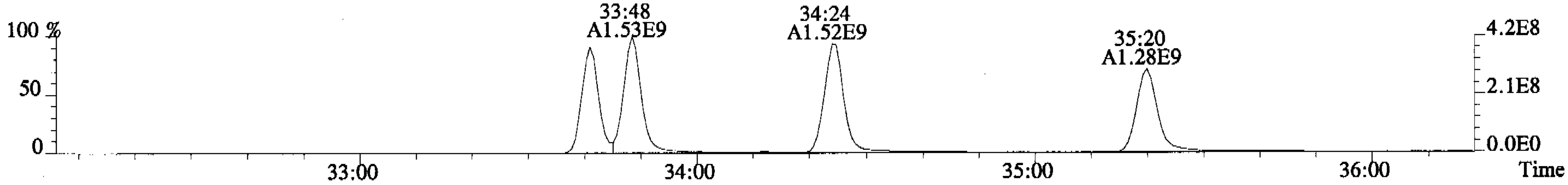
File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5



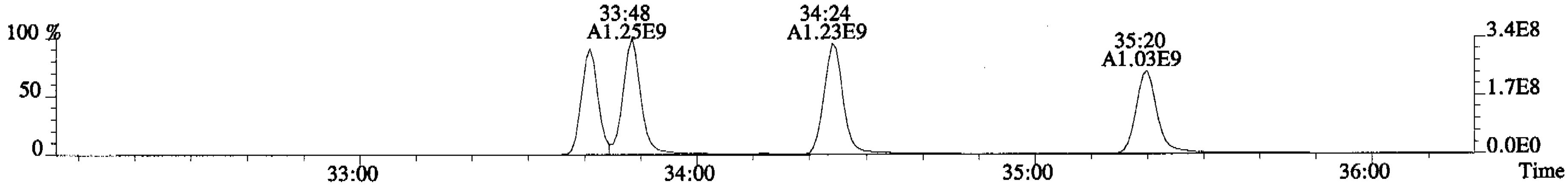
File:060322C1 #1-316 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5



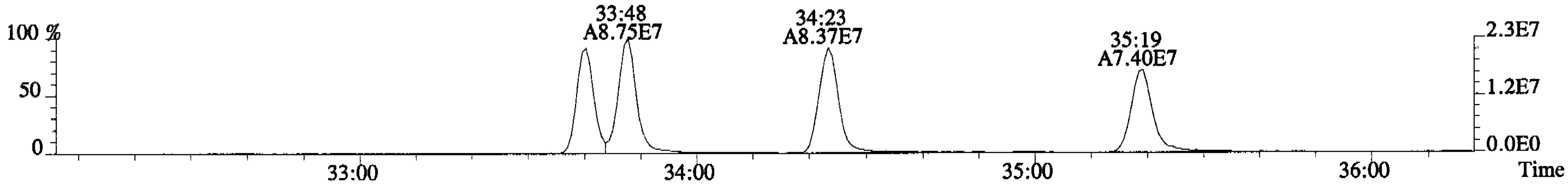
File:060322C1 #1-378 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5
373.8207 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



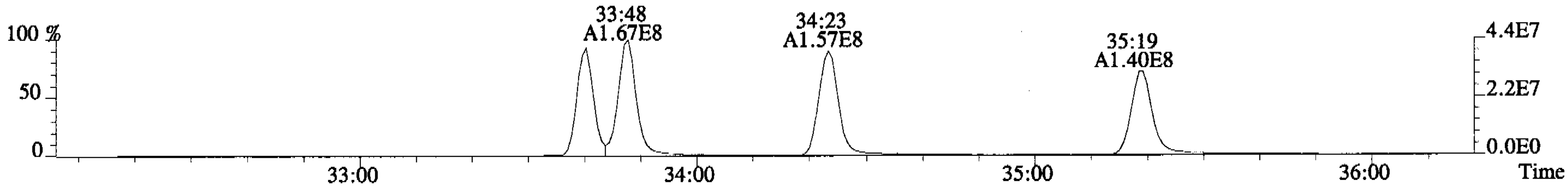
375.8178 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



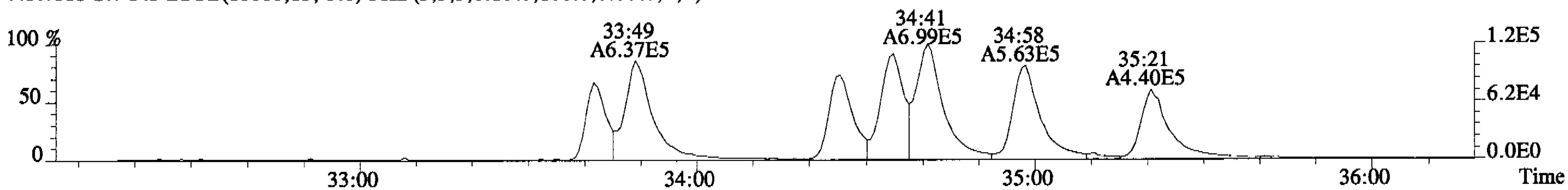
383.8639 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



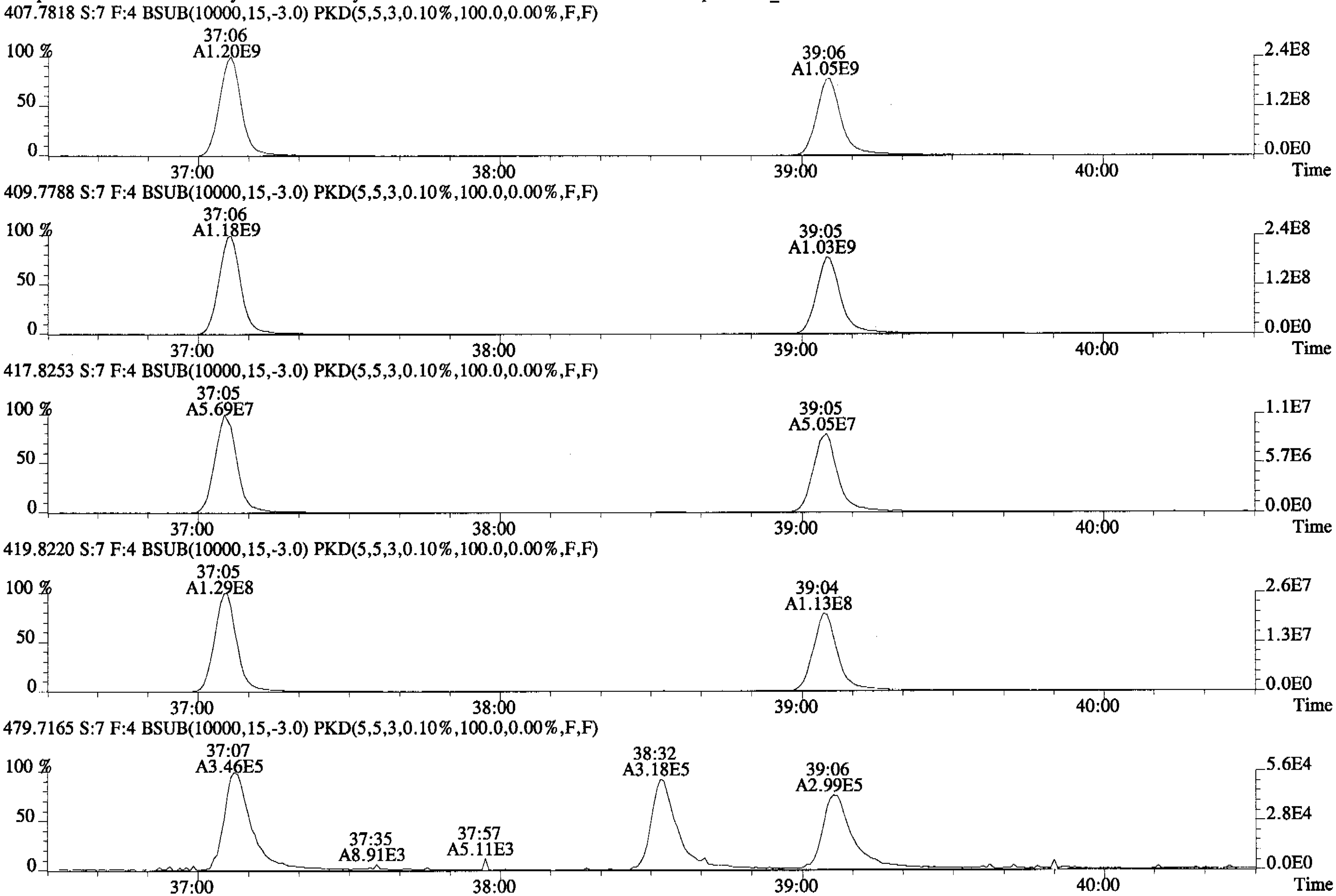
385.8610 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



445.7555 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

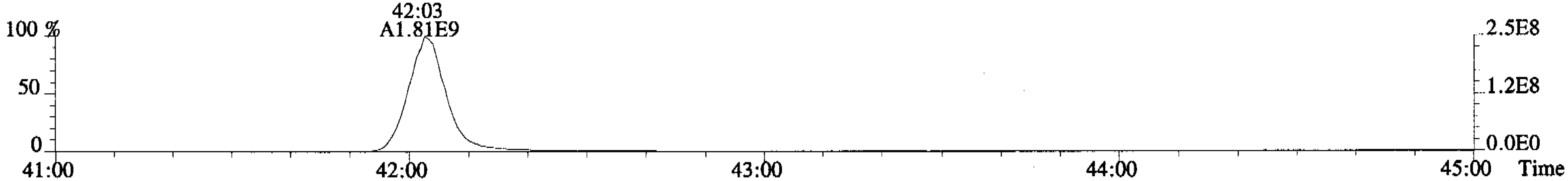


File:060322C1 #1-400 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

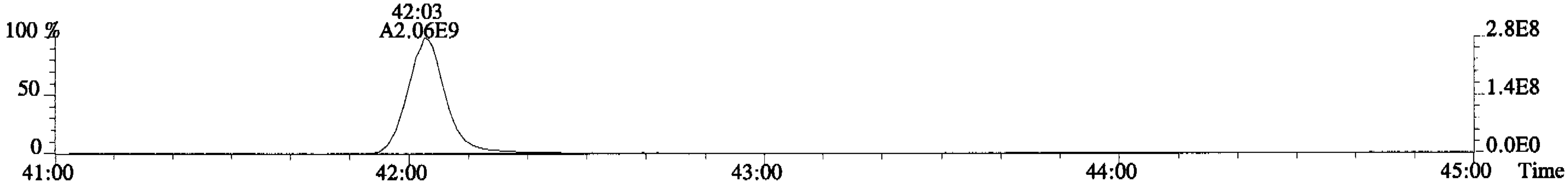


File:060322C1 #1-345 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD_DB5

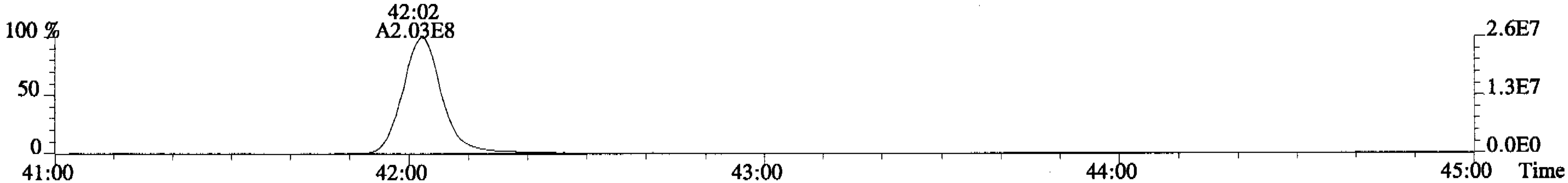
441.7428 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



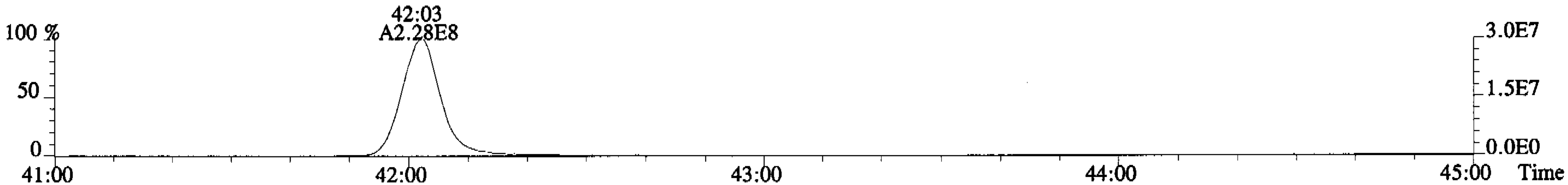
443.7398 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



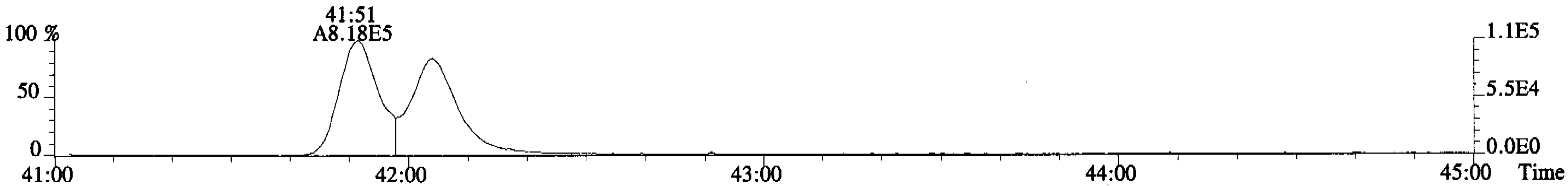
453.7831 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

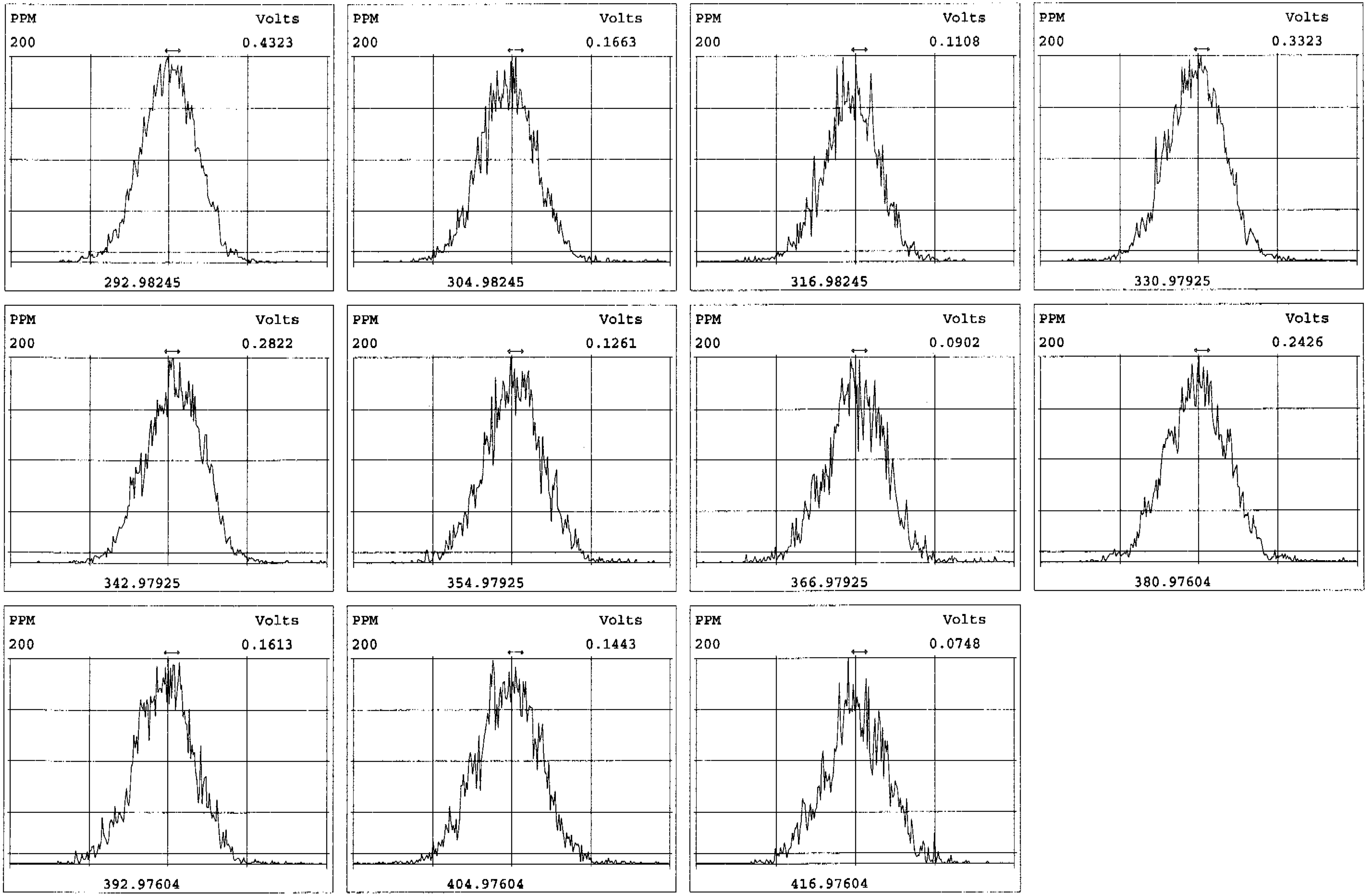


513.6775 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



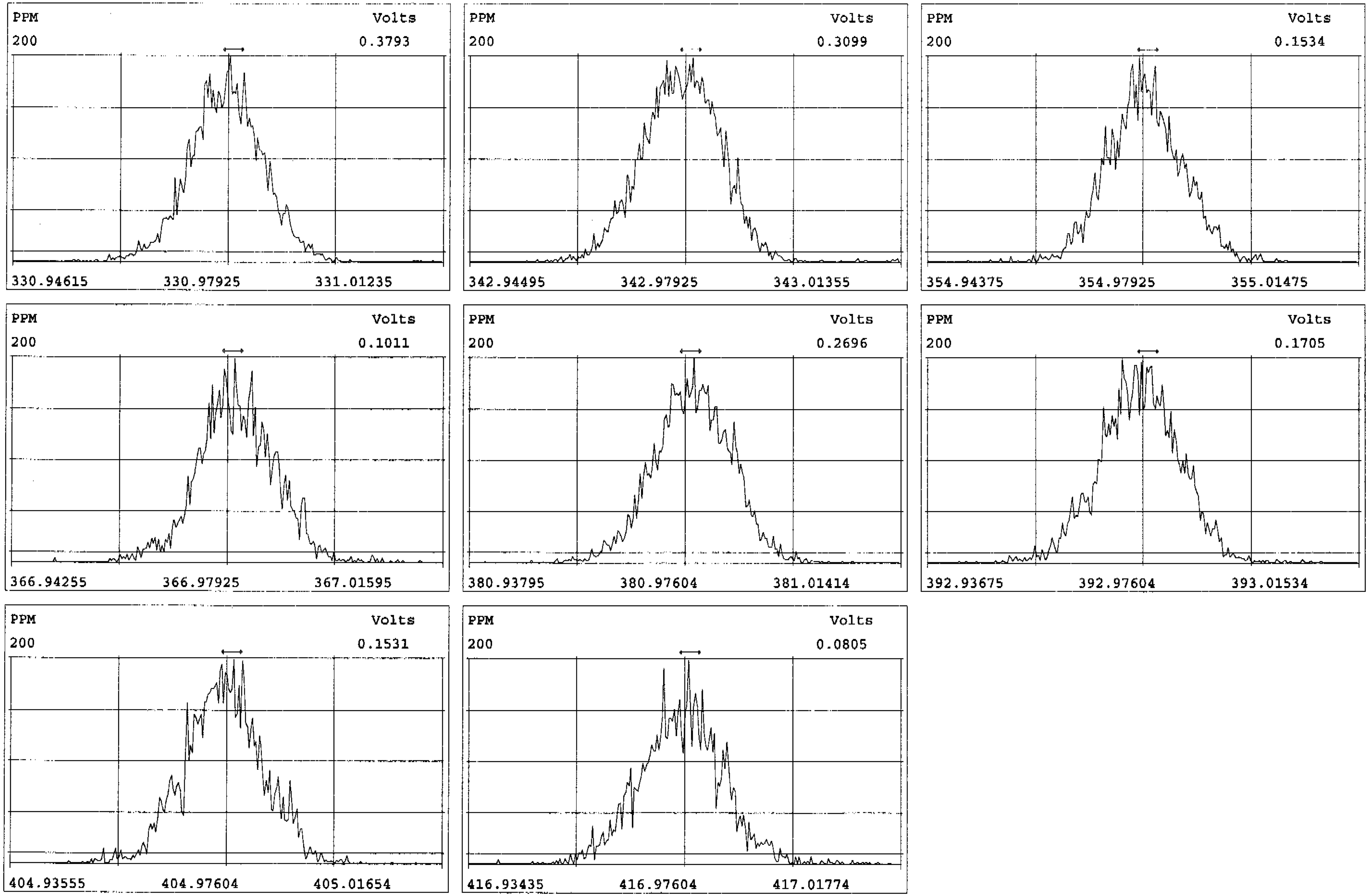
Peak Locate Examination:22-MAR-2006:17:03 File:RES_CHECK

Experiment:OCDD_DB5 Function:1 Reference:PFK

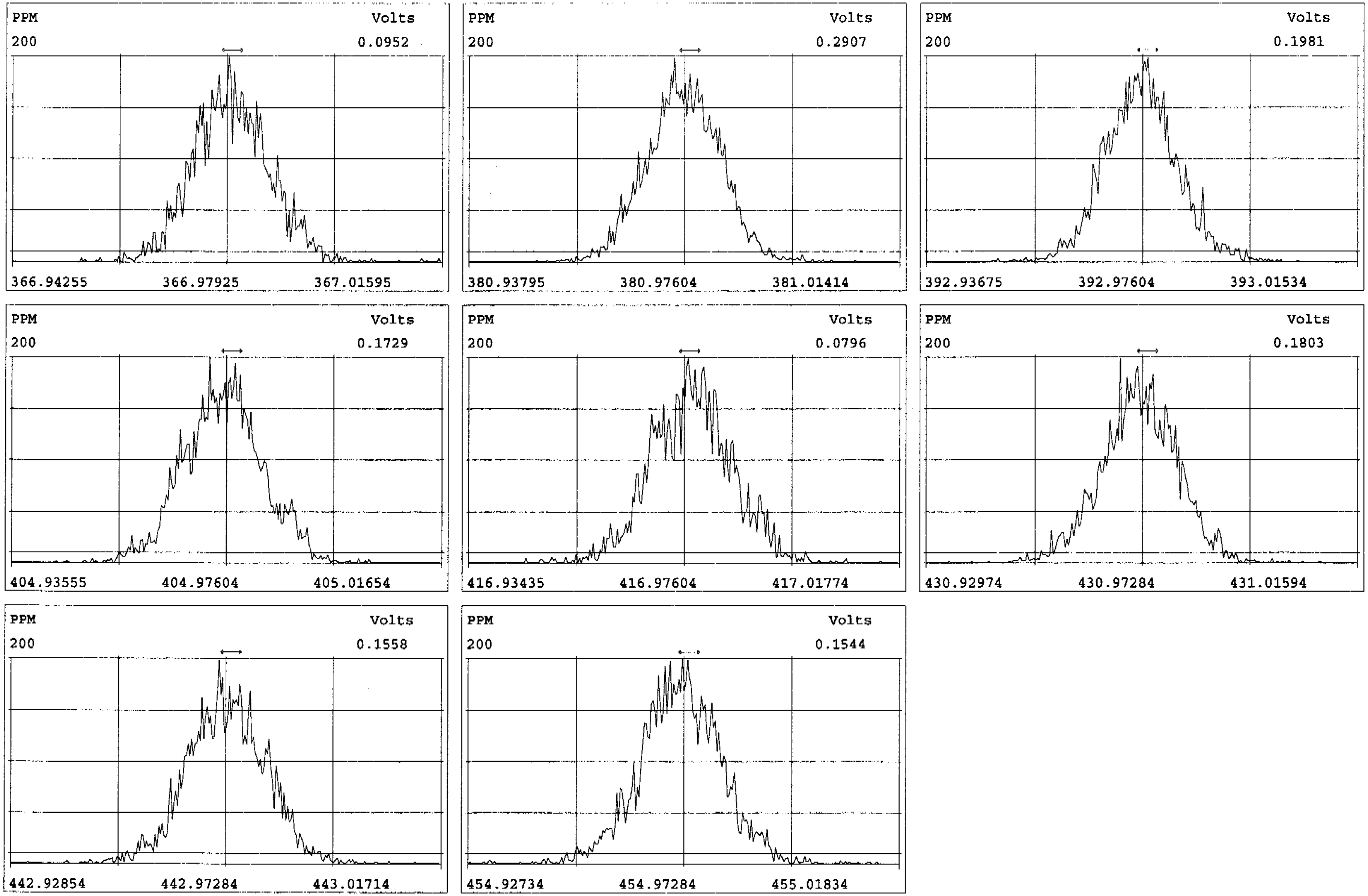


Peak Locate Examination:22-MAR-2006:17:04 File:RES_CHECK

Experiment:OCDD_DB5 Function:2 Reference:PFK

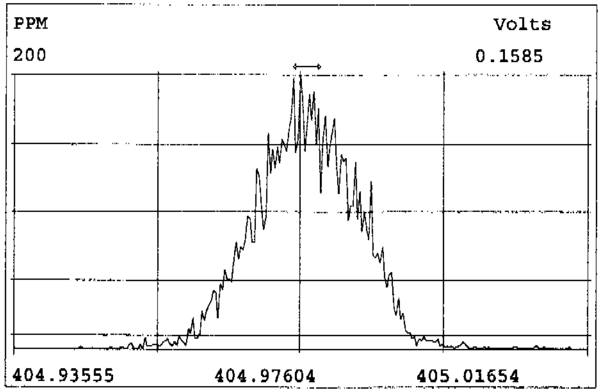


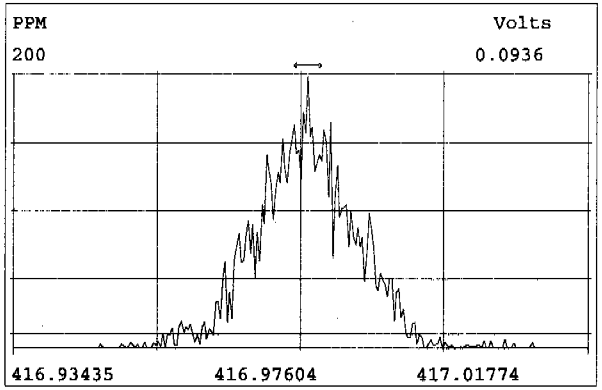
Peak Locate Examination:22-MAR-2006:17:05 File:RES_CHECK
Experiment:OCDD_DB5 Function:3 Reference:PFK

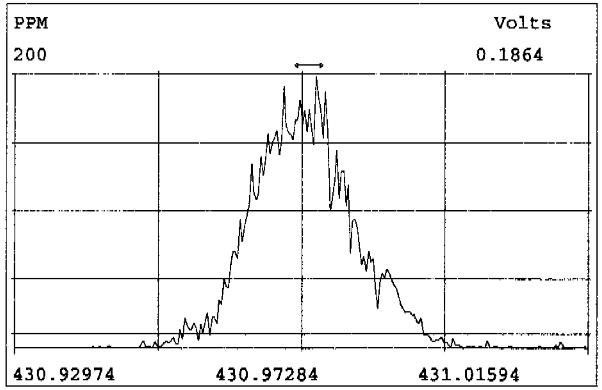


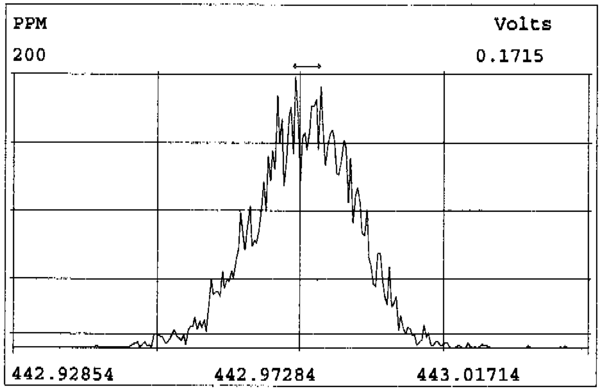
Peak Locate Examination:22-MAR-2006:17:06 File:RES_CHECK

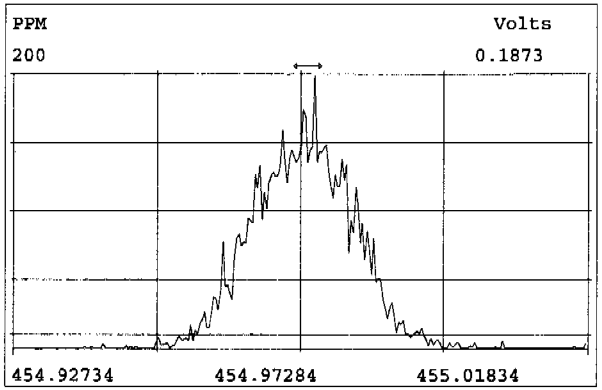
Experiment:OCDD_DB5 Function:4 Reference:PFK

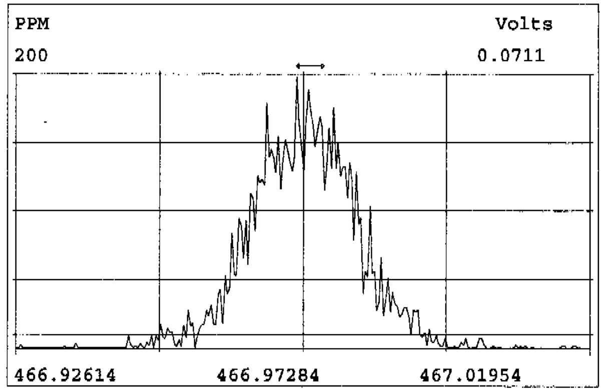


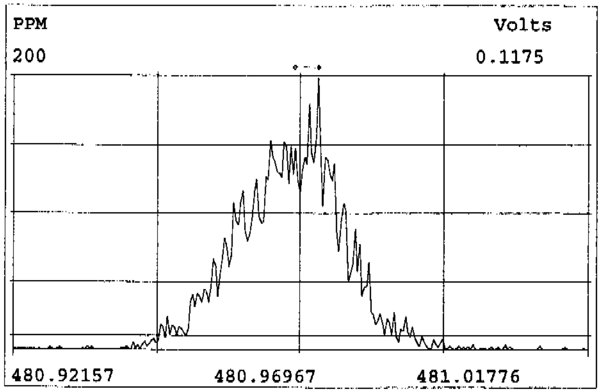






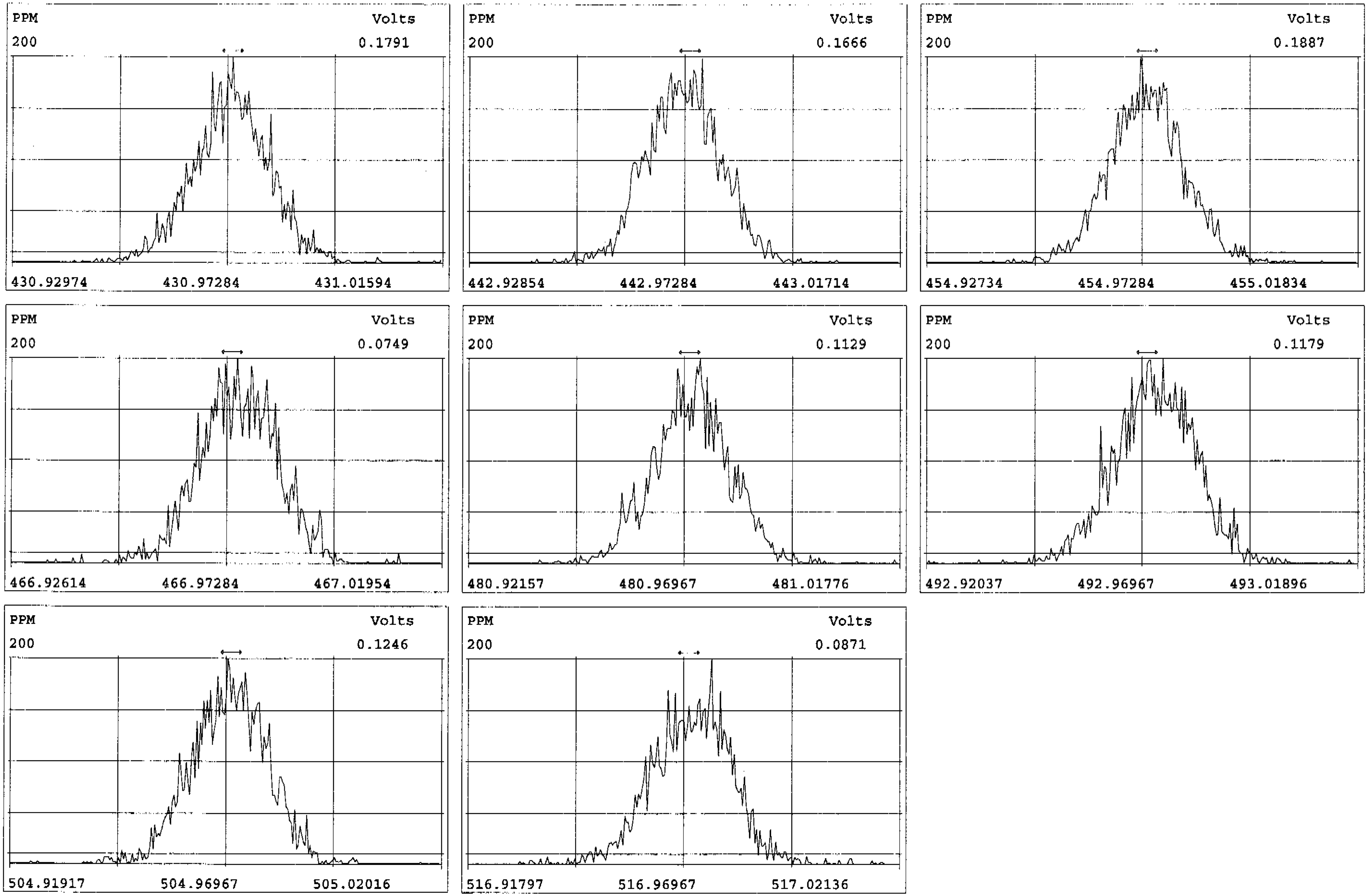






Peak Locate Examination:22-MAR-2006:17:07 File:RES_CHECK

Experiment:OCDD_DB5 Function:5 Reference:PFK



Client ID: SSS L050203A Filename: 060322C1 S:9 Acq:22-MAR-06 16:10:24 ConCal: NA
Lab ID: SS060322C1-1 GC Column ID: db-5 ICal: 1613VG5-3-22-06 wt/vol: 1.000 EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	1.73e+07	0.79 y	1.08	26:34	10.177		*	2.5	*
	1,2,3,7,8-PeCDD	8.22e+07	0.63 y	1.03	31:17	51.086		*	2.5	*
	1,2,3,4,7,8-HxCDD	7.49e+07	1.27 y	1.13	34:34	49.404		*	2.5	*
	1,2,3,6,7,8-HxCDD	8.77e+07	1.26 y	1.03	34:41	53.502		*	2.5	*
	1,2,3,7,8,9-HxCDD	8.63e+07	1.27 y	1.12	34:59	52.828		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	7.21e+07	1.06 y	1.02	38:32	49.541		*	2.5	*
	OCDD	1.33e+08	0.89 y	1.06	41:51	97.377		*	2.5	*
	2,3,7,8-TCDF	2.25e+07	0.77 y	1.06	25:43	10.004		*	2.5	*
	1,2,3,7,8-PeCDF	1.09e+08	1.55 y	1.01	30:03	50.447		*	2.5	*
	2,3,4,7,8-PeCDF	1.20e+08	1.54 y	1.02	30:60	51.163		*	2.5	*
	1,2,3,4,7,8-HxCDF	1.06e+08	1.20 y	1.15	33:41	50.462		*	2.5	*
	1,2,3,6,7,8-HxCDF	1.27e+08	1.22 y	1.14	33:50	49.315		*	2.5	*
	2,3,4,6,7,8-HxCDF	1.10e+08	1.23 y	1.17	34:25	46.925		*	2.5	*
	1,2,3,7,8,9-HxCDF	9.74e+07	1.25 y	1.10	35:21	51.523		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	9.52e+07	1.01 y	1.31	37:08	49.746		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	8.39e+07	1.01 y	1.33	39:04	49.924		*	2.5	*
	OCDF	1.52e+08	0.87 y	0.91	42:02	*98.84		*	2.5	Daily RRF = 1.19 using OCDD

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	10.238	10.310		*	*
Total Penta-Dioxins	51.086	51.131		*	*
Total Hexa-Dioxins	155.83	156.52		*	*
Total Hepta-Dioxins	49.585	49.917		*	*
Total Tetra-Furans	10.228	10.271		*	*
Total Penta-Furans	103.59	103.93		*	*
Total Hexa-Furans	198.49	198.65		*	*
Total Hepta-Furans	99.713	100.55		*	*

	Name	Resp	RA	RRF	RT	Conc		Rec	Qual
IS	13C-2,3,7,8-TCDD	1.57e+08	0.78 y	1.09	26:32	94.685		94.7	
IS	13C-1,2,3,7,8-PeCDD	1.56e+08	0.64 y	1.04	31:16	98.317		98.3	
IS	13C-1,2,3,4,7,8-HxCDD	1.34e+08	1.27 y	0.83	34:34	100.36		100	
IS	13C-1,2,3,6,7,8-HxCDD	1.59e+08	1.28 y	1.04	34:40	95.078		95.1	
IS	13C-1,2,3,4,6,7,8-HpCDD	1.43e+08	1.08 y	0.85	38:31	104.81		105	
IS	13C-OCDD	2.59e+08	0.90 y	0.71	41:50	225.79		113	
IS	13C-2,3,7,8-TCDF	2.12e+08	0.80 y	0.96	25:42		*Daily RRF=1.48 using TCDD	*94.0	
IS	13C-1,2,3,7,8-PeCDF	2.14e+08	1.59 y	1.02	30:02		*Daily RRF=1.58 using TCDD	*89.2	
IS	13C-2,3,4,7,8-PeCDF	2.29e+08	1.59 y	1.02	30:59		*Daily RRF=1.58 using TCDD	*95.5	
IS	13C-1,2,3,4,7,8-HxCDF	1.84e+08	0.51 y	1.14	33:41	99.916		99.9	
IS	13C-1,2,3,6,7,8-HxCDF	2.27e+08	0.52 y	1.40	33:49	100.76		101	
IS	13C-2,3,4,6,7,8-HxCDF	2.01e+08	0.52 y	1.26	34:24	99.050		99.0	
IS	13C-1,2,3,7,8,9-HxCDF	1.72e+08	0.52 y	1.08	35:20	98.961		99.0	
IS	13C-1,2,3,4,6,7,8-HpCDF	1.46e+08	0.43 y	0.93	37:08	97.155		97.2	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.27e+08	0.43 y	0.77	39:03	102.95		103	
IS	13C-OCDF	*	* n	0.94	NotFnd	*		*	
C/Up	37Cl-2,3,7,8-TCDD	1.66e+07		0.77	26:33	14.069		141	
RS/RT	13C-1,2,3,4-TCDD	1.52e+08	0.80 y	1.00	25:54	100.00			
RS	13C-1,2,3,4-TCDF	*	* n	1.00	NotFnd	*			
RS/RT	13C-1,2,3,7,8,9-HxCDD	1.61e+08	1.27 y	1.00	34:57	100.00			

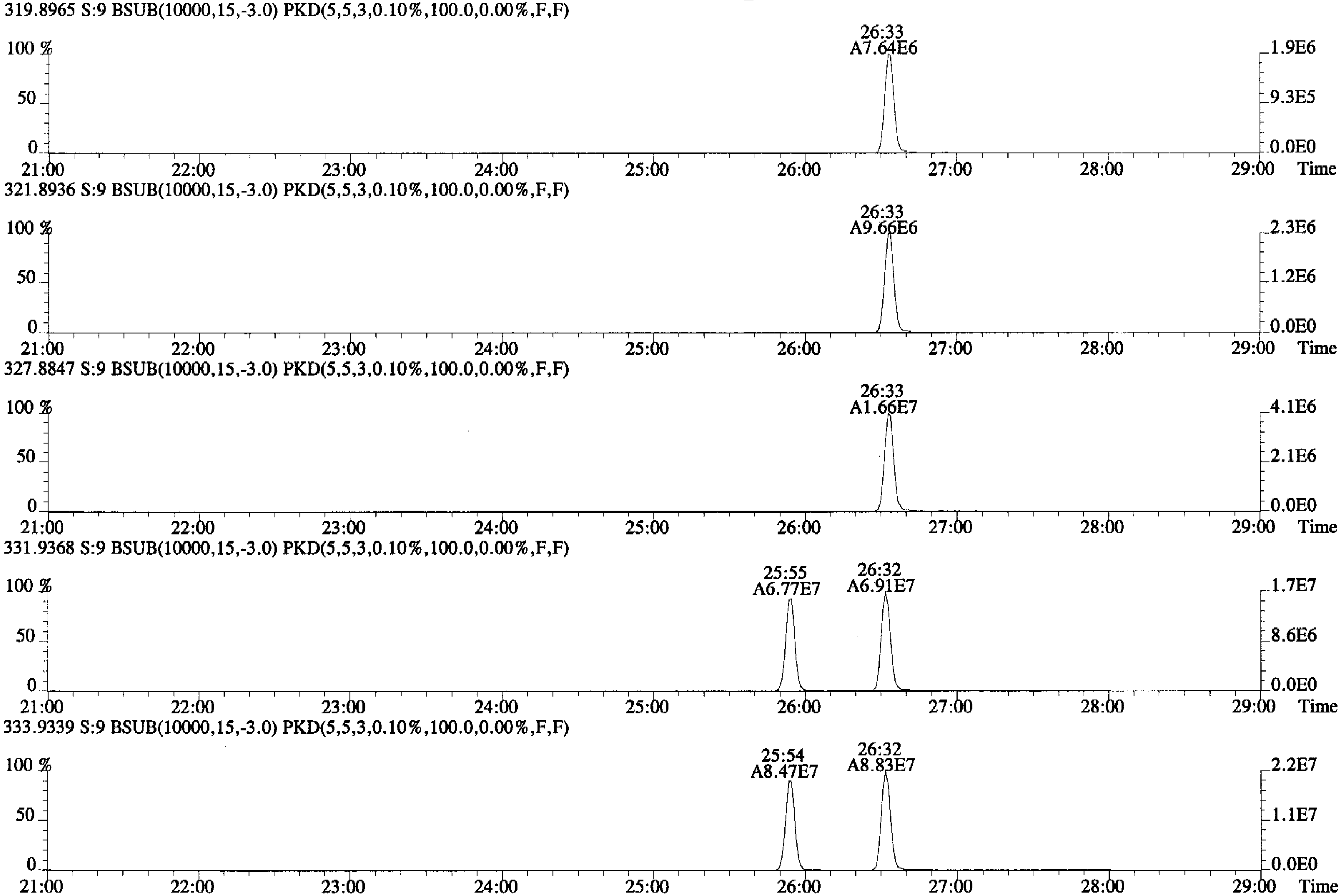
Integrations by Analyst: MJ

Date: 3/22/06

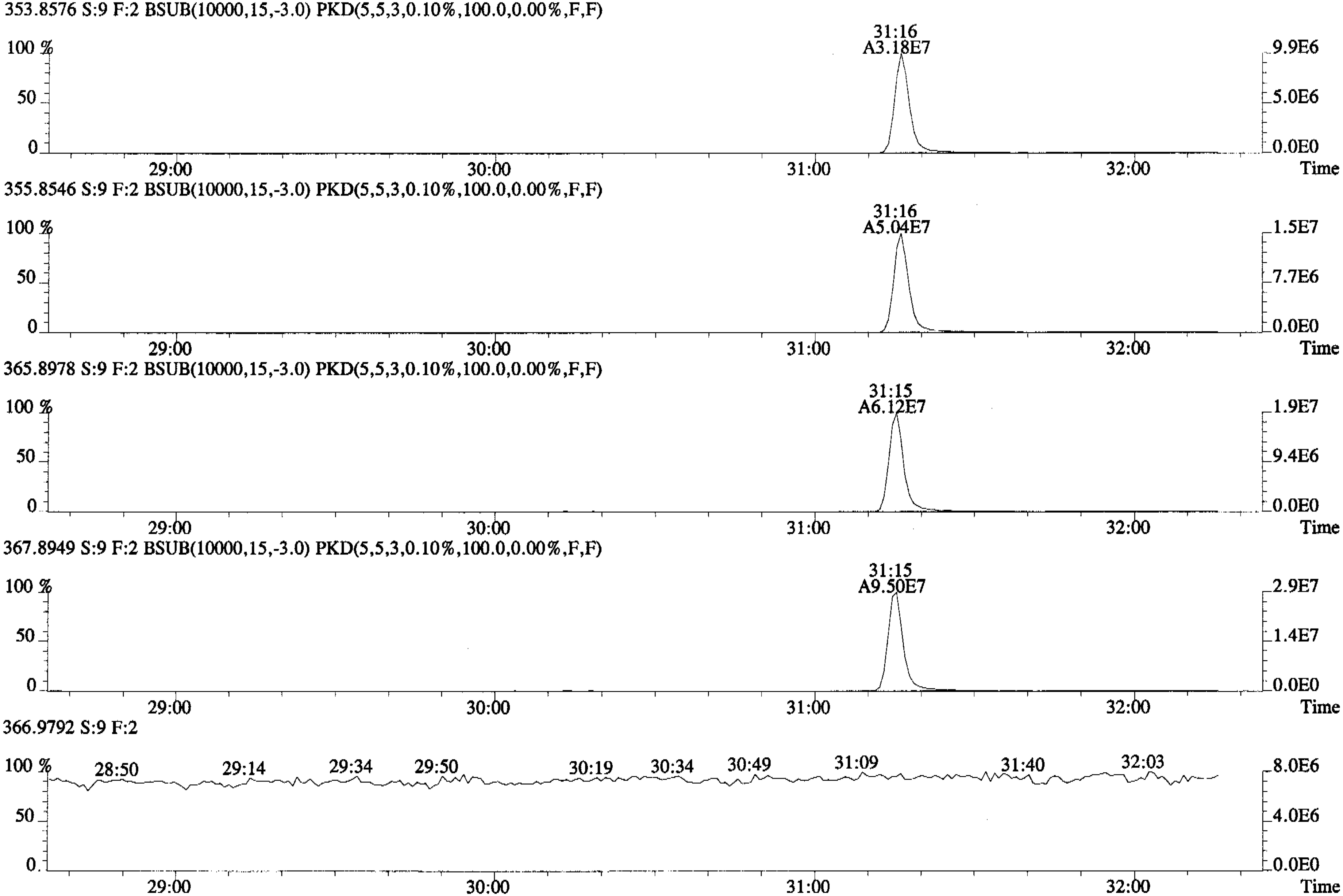
Reviewed by Analyst: ______

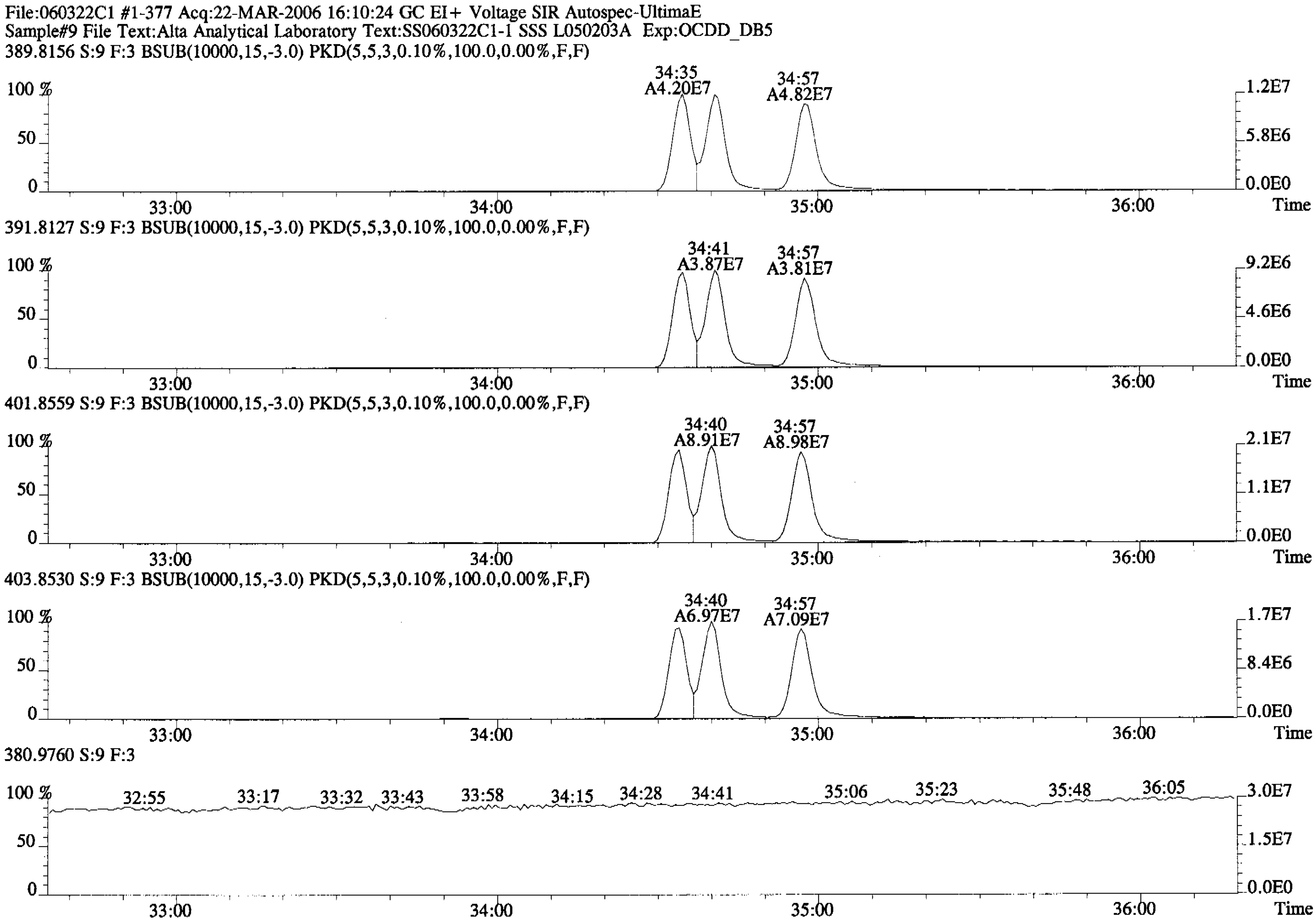
Date: ______

File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

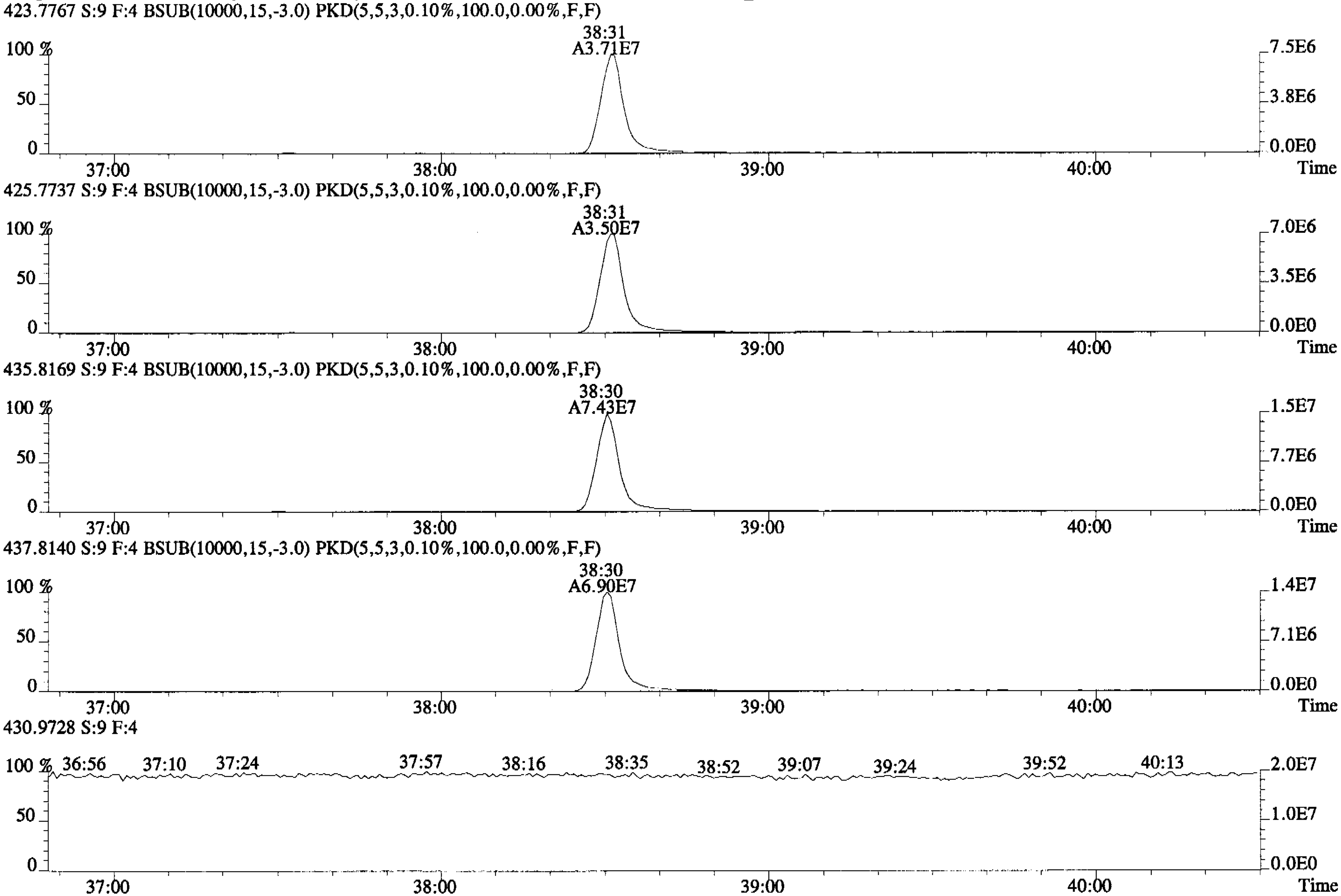


File:060322C1 #1-316 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5



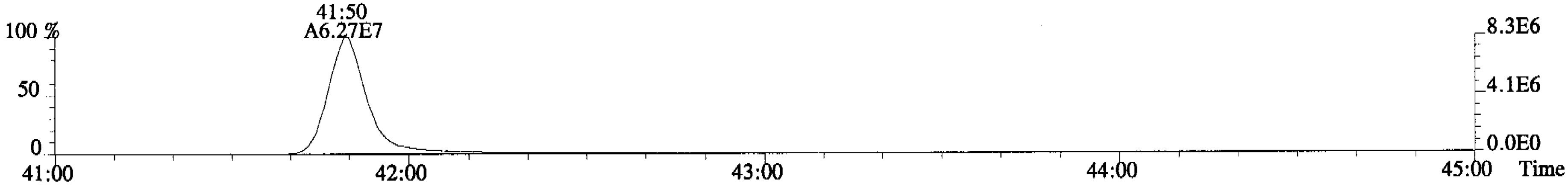

File:060322C1 #1-377 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5
389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
34:35
A4.20E7
34:57
A4.82E7
100 %
50
0
1.2E7
5.8E6
0.0E0
33:00
34:00
35:00
36:00
Time
391.8127 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
34:41
A3.87E7
34:57
A3.81E7
9.2E6
4.6E6
0.0E0
401.8559 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
34:40
A8.91E7
34:57
A8.98E7
2.1E7
1.1E7
0.0E0
403.8530 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)
34:40
A6.97E7
34:57
A7.09E7
1.7E7
8.4E6
0.0E0
380.9760 S:9 F:3
32:55
33:17
33:32
33:43
33:58
34:15
34:28
34:41
35:06
35:23
35:48
36:05
3.0E7
1.5E7
0.0E0

File:060322C1 #1-400 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

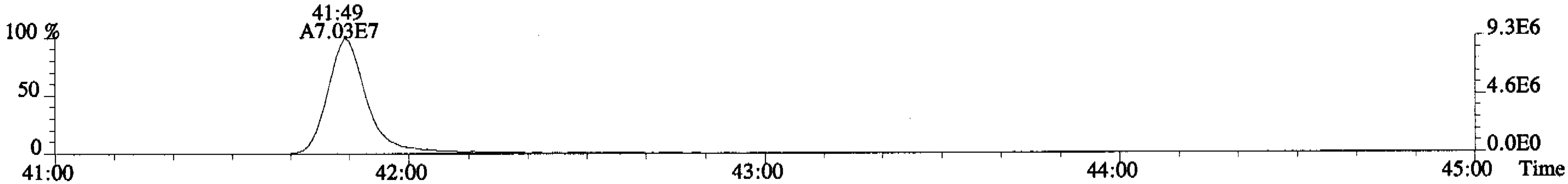


File:060322C1 #1-345 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

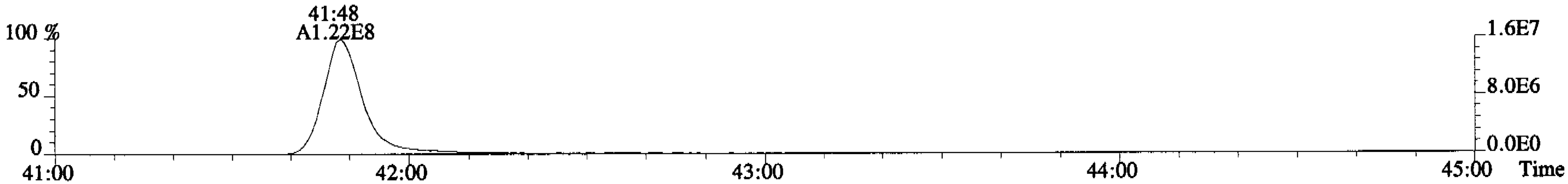
457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



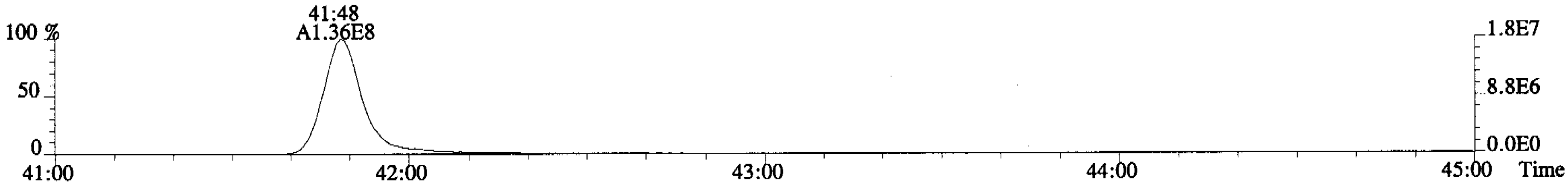
459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



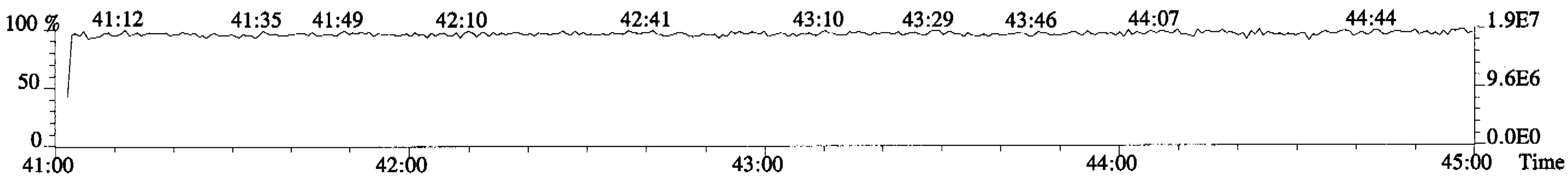
469.7780 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



471.7750 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

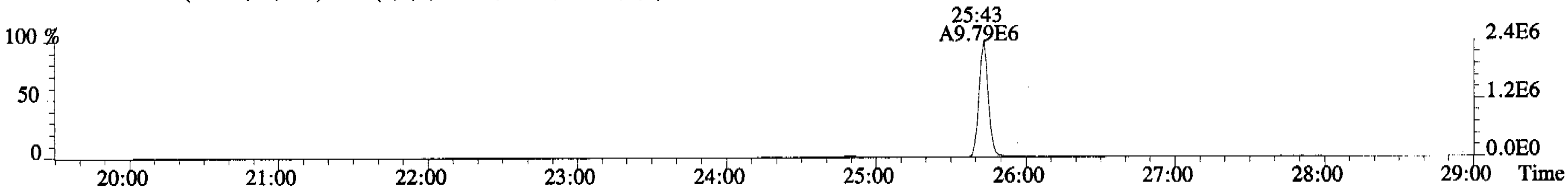


454.9728 S:9 F:5

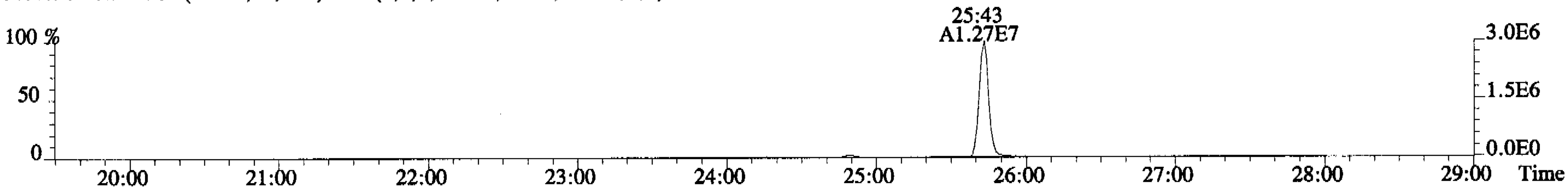


File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

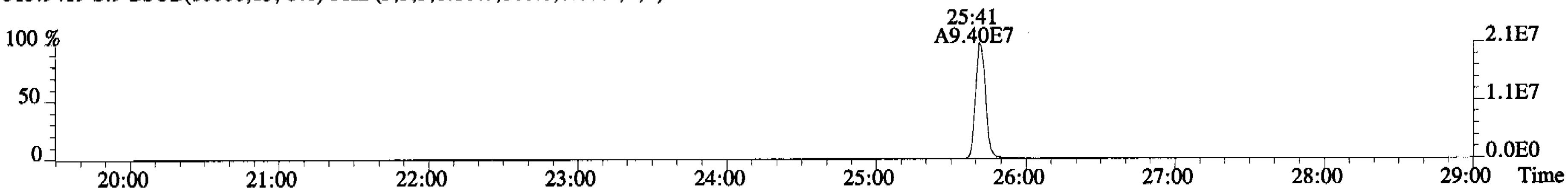
303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



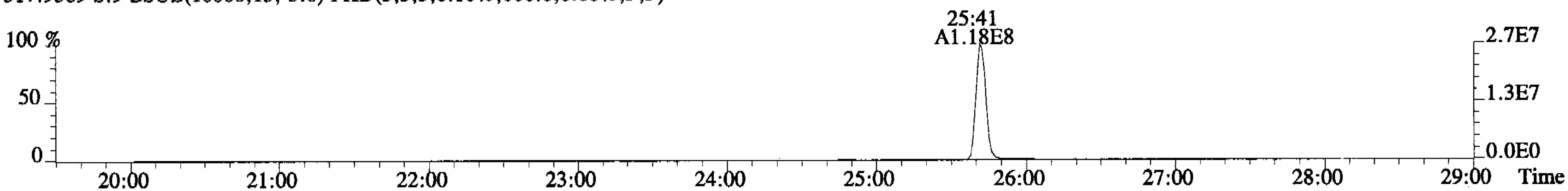
305.8987 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



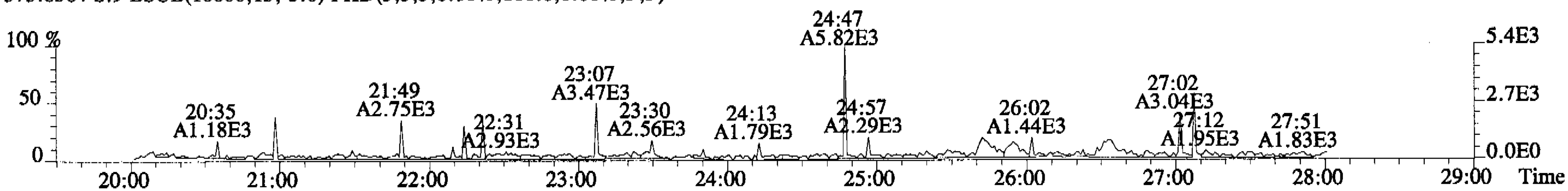
315.9419 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



317.9389 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

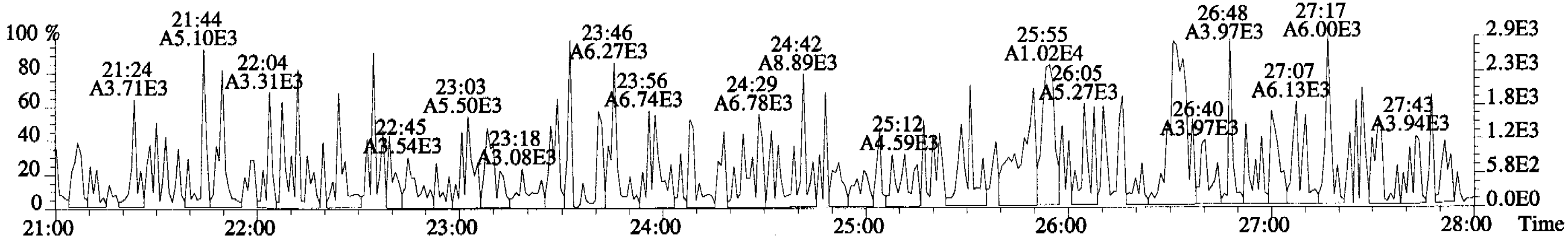


375.8364 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

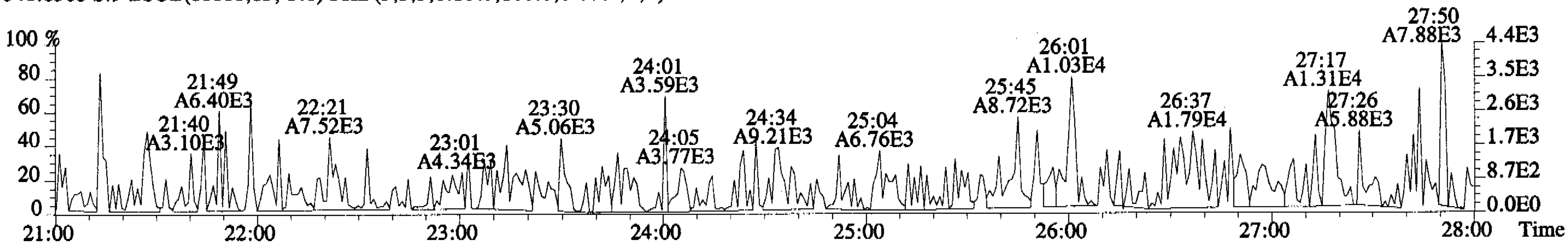


File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

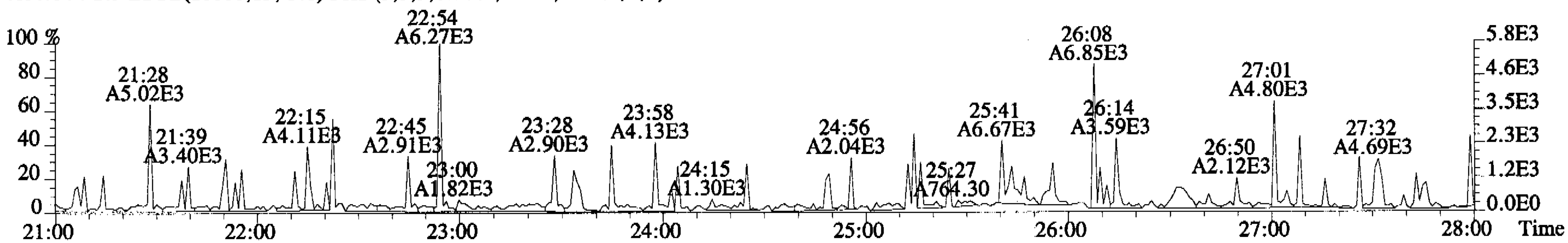
339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



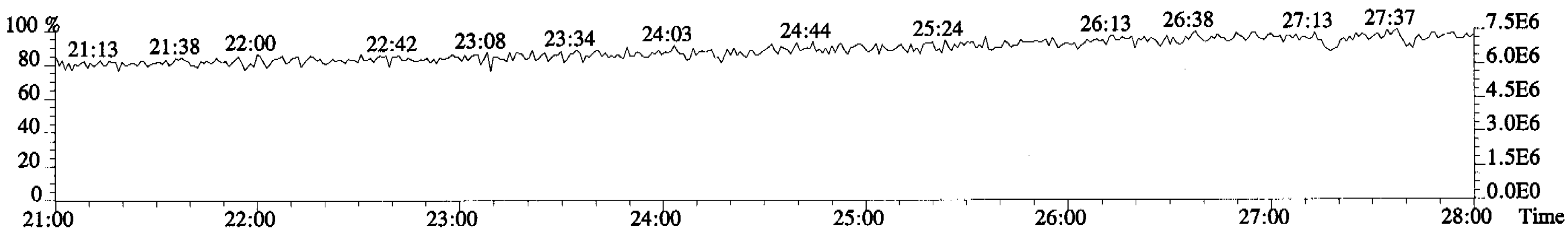
341.8568 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



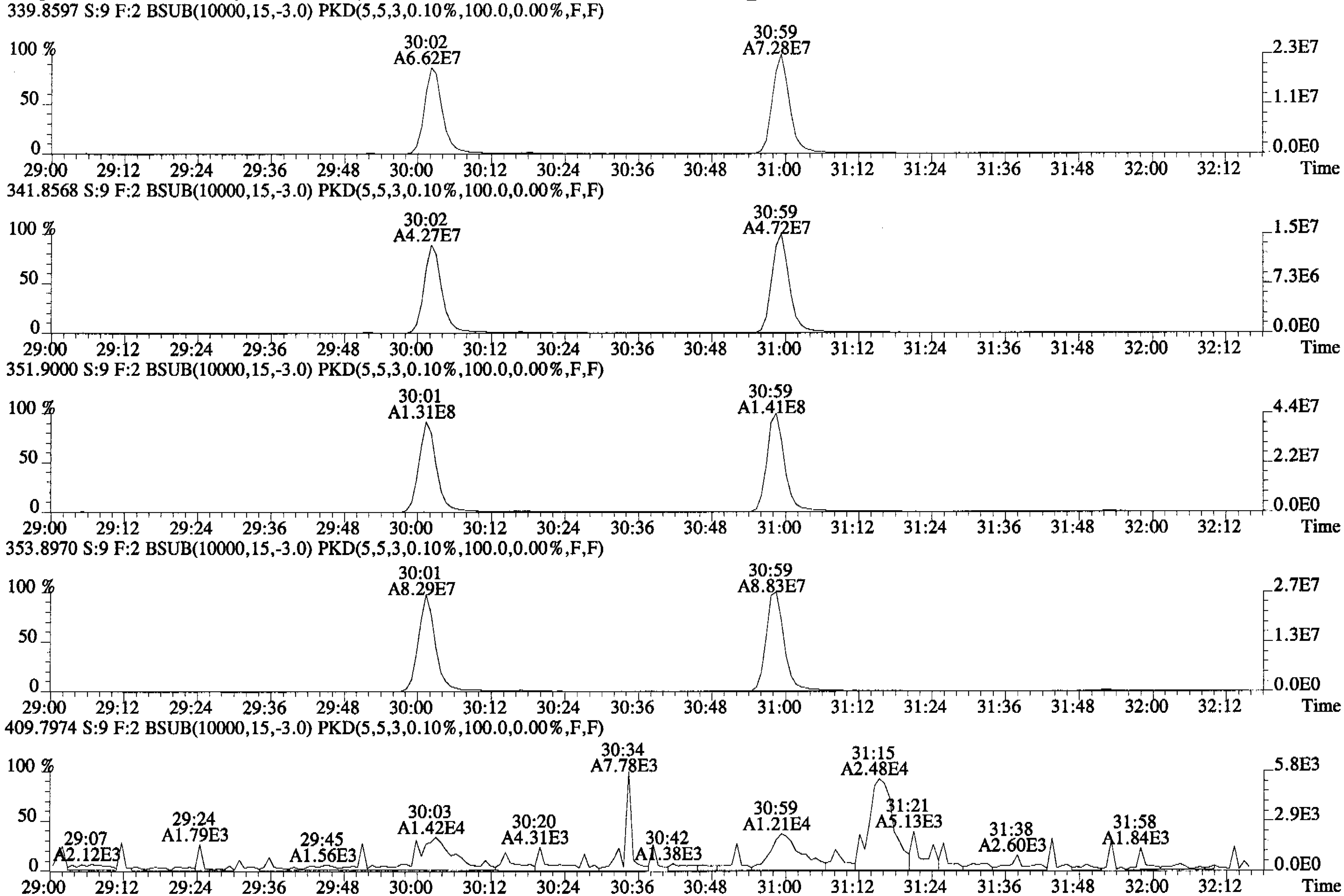
409.7974 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



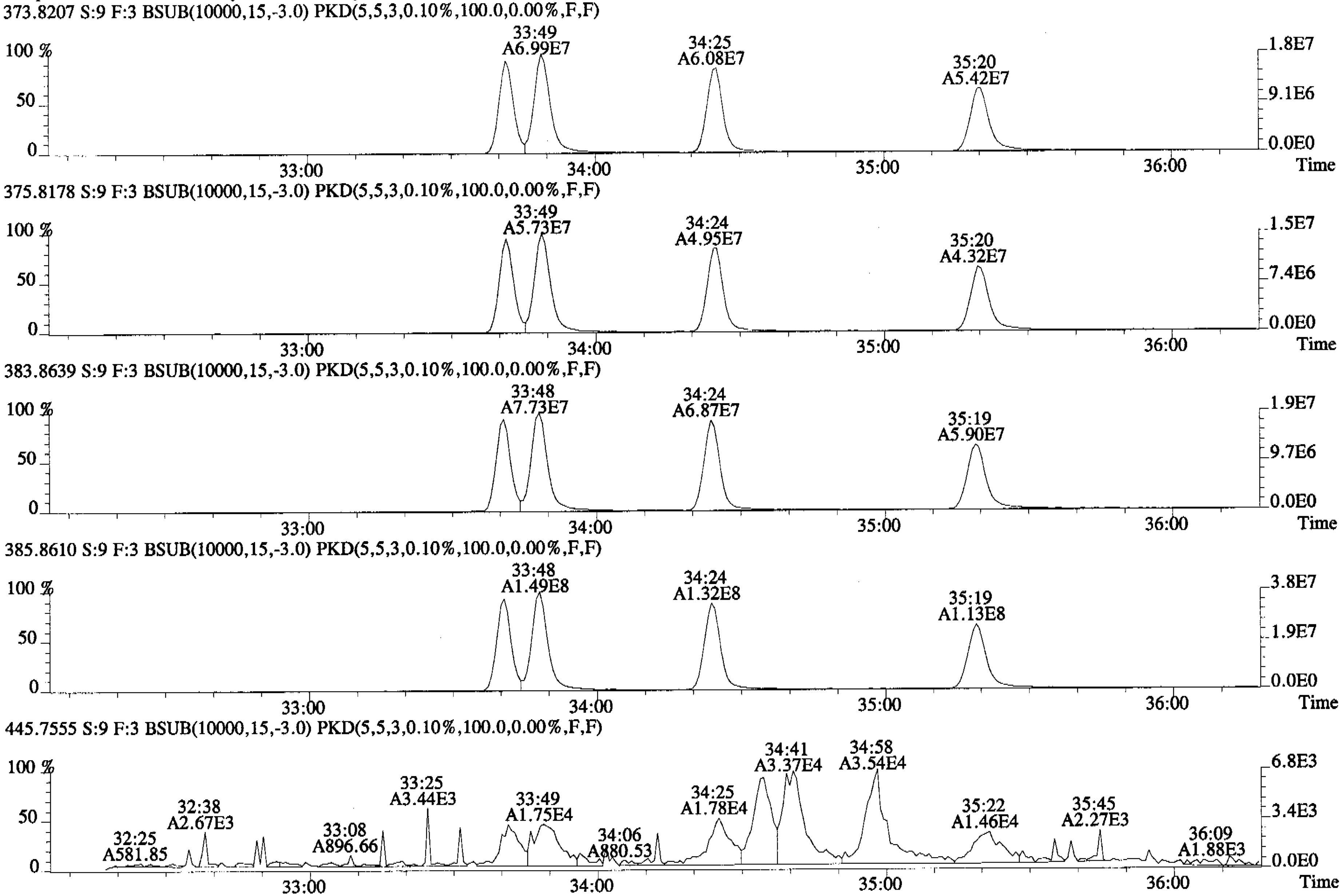
316.9824 S:9



File:060322C1 #1-316 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

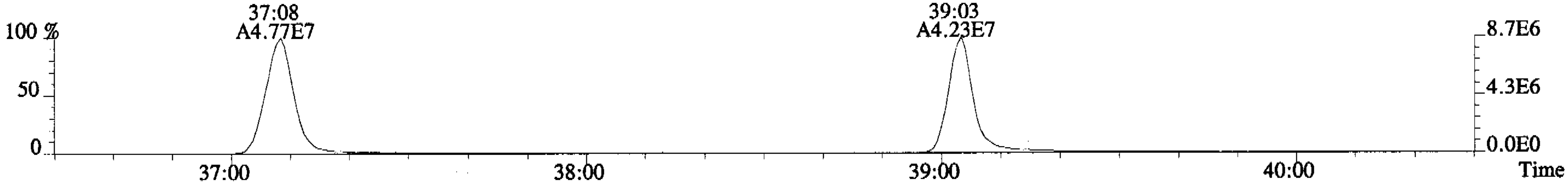


File:060322C1 #1-377 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

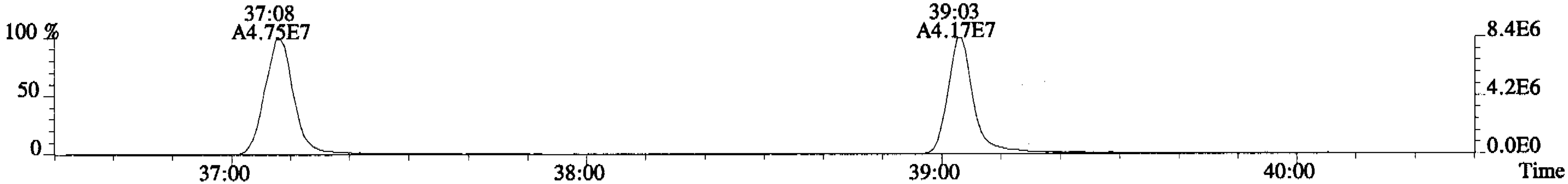


File:060322C1 #1-400 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5

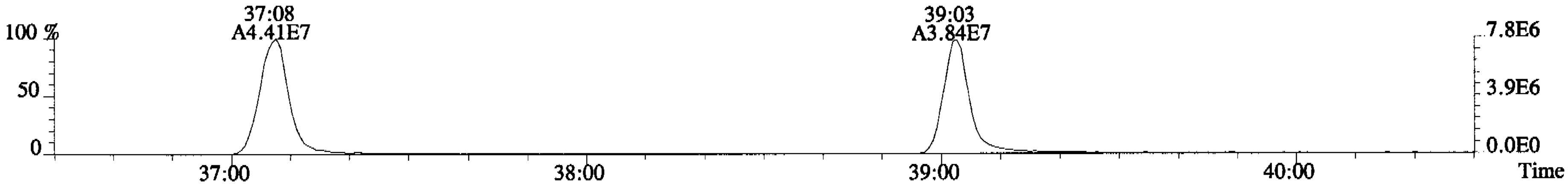
407.7818 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



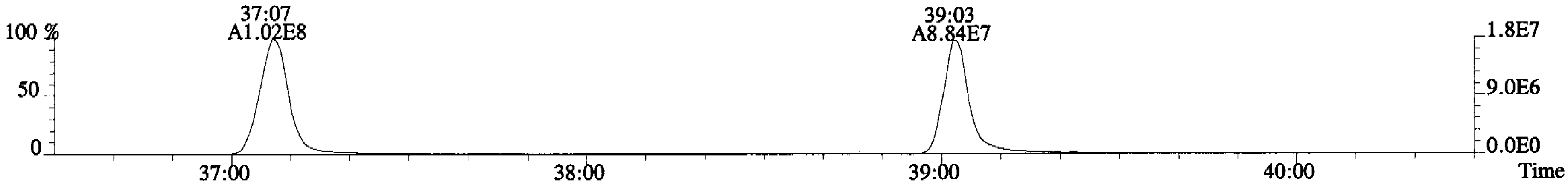
409.7788 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



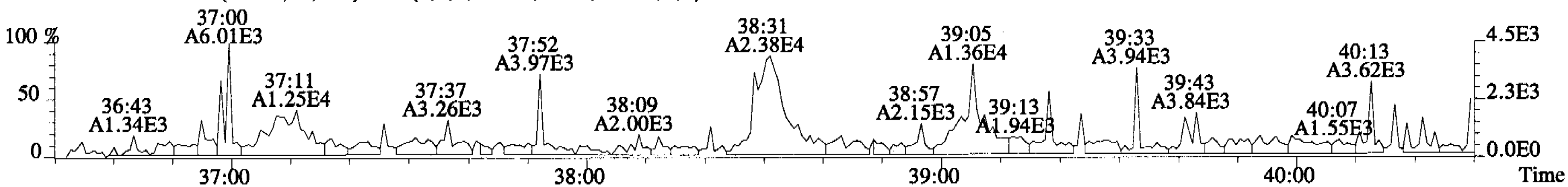
417.8253 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



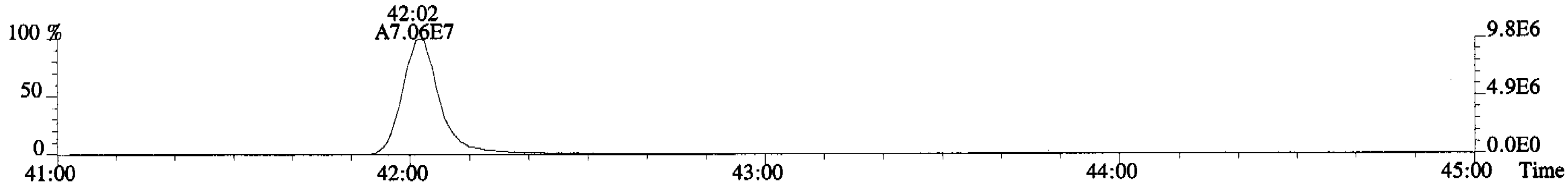
419.8220 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



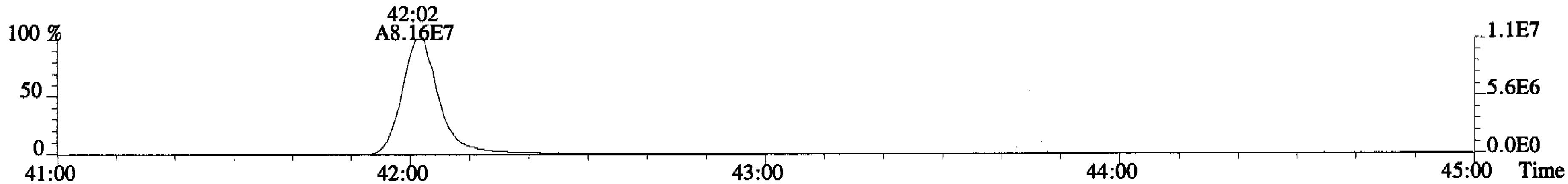
479.7165 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



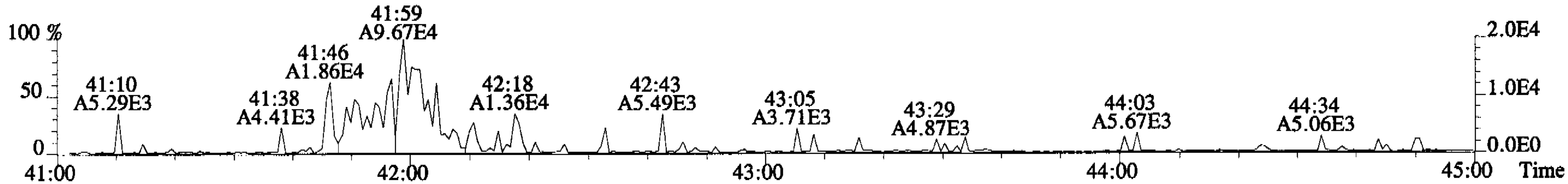
File:060322C1 #1-345 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD_DB5
441.7428 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



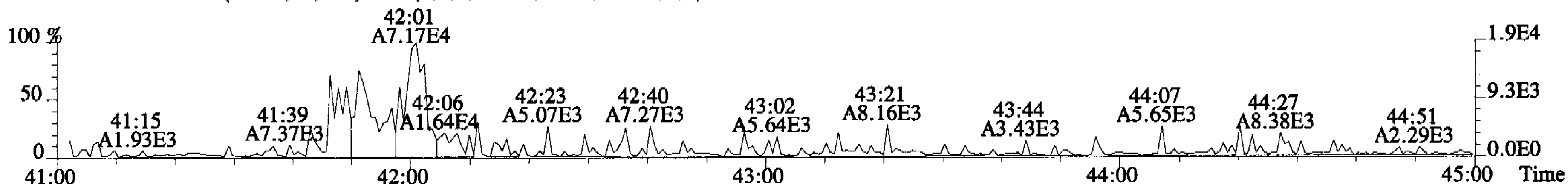
443.7398 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



453.7831 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)