7 wells

94-01
11-7-00

Carmen Johnson
9/20/12
94-01

Delta Environmental Consultants, Inc.

6701 Carmel Road
Suite 303
Charlotte, North Carolina 28226-3901
U.S.A.
704/541-9890
FAX: 704/543-4035

JAN 2001
Solid Waste Section

January 17, 2001

North Carolina Department of Environment,
and Natural Resources
Division of Waste Management
Solid Waste Section
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

Attention: Mr. Larry Rose
Hydrogeological Technician I

Subject: **Ground Water Analytical Results (November 2000)**
No. 3 Industrial Landfill, Cell 1A
Weyerhaeuser Company
Plymouth, North Carolina
Delta Project No. E096-007-1

Dear Mr. Rose:

The purpose of this letter is to provide you with the analytical results from the ground water monitoring at the referenced facility in November 2000. A site map is included as Figure 1.

Ground Water Sampling

Ground water samples were collected from monitoring wells LF-01, LF-01A, LF-08, LF-09, LF-10, LF-11, and LF-12 on November 7, 2000 through November 9, 2000. The samples were sent to General Engineering Laboratories, Inc. (GEL) to be analyzed for the parameters indicated in Table 1. Ground water samples were also sent to Paradigm Analytical Laboratories, Inc. (PAL) to be analyzed for dioxins using EPA Method 1613.

Summary of Results

Analytical summary tables for Groups 1a (field indicators) and 1b (laboratory indicators), Groups 2a (major constituents) and 2b (trace metals-filtered and unfiltered), Group 3 (volatile organics), and Group 4 (assessment monitoring parameters) are attached. The summary tables also include data from the June 2000 and August 2000 sampling events. Copies of the analytical reports are also attached.

Historical ground water analytical data summary tables and copies of the laboratory analytical results are attached.

The next sampling event is scheduled for February 2000. If you have any questions regarding this information, please call me at (704) 543-3928.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Richard E. Powell

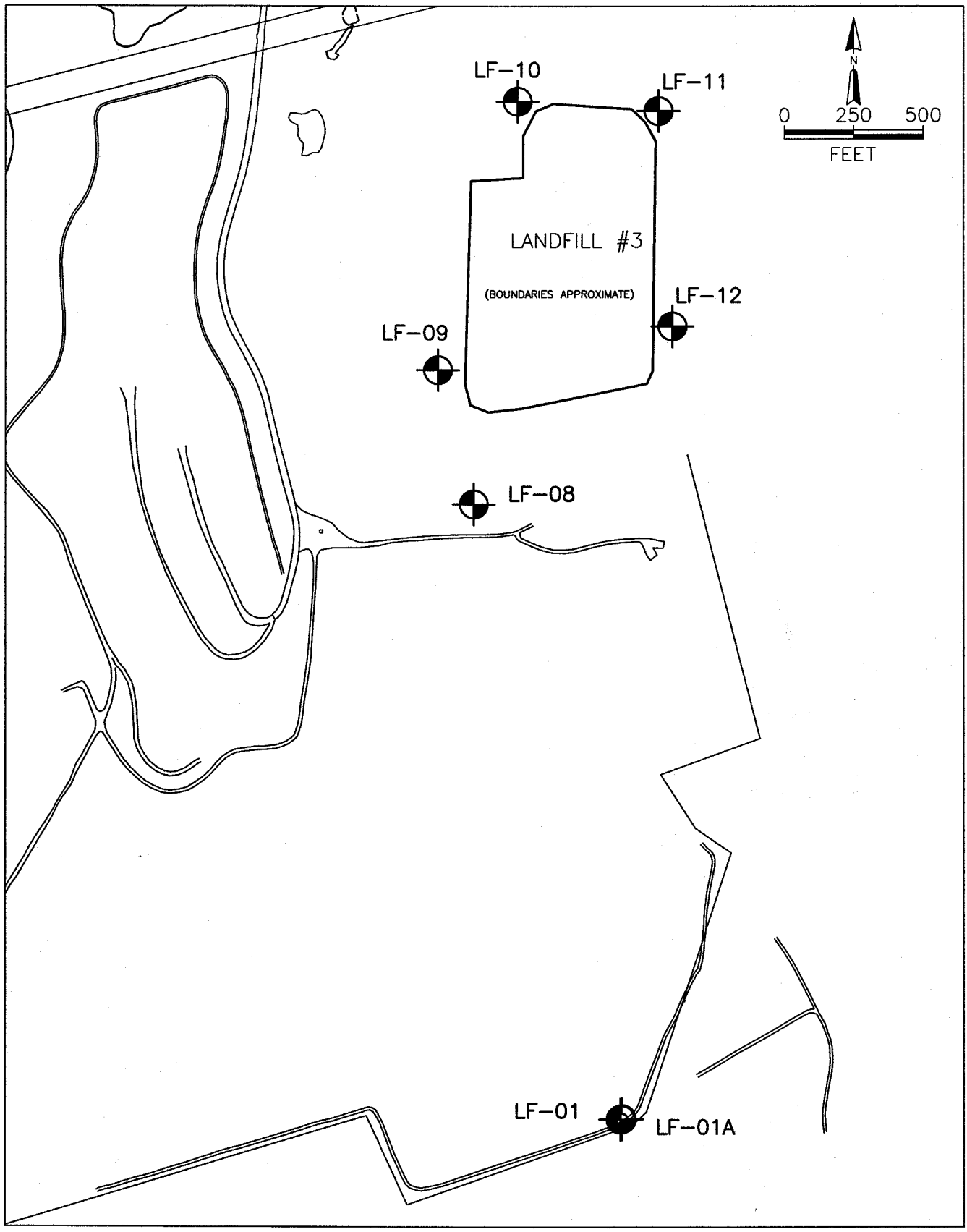
Richard E. Powell, L.G.
Project Manager

REP/tlg

Enclosure

cc: Mr. Joe Kloeker, Weyerhaeuser Company

HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARIES



Delta Environmental Consultants, Inc.	TITLE: LANDFILL #3 GROUND WATER MONITORING LOCATIONS WEYERHAEUSER COMPANY PLYMOUTH, NORTH CAROLINA	DWN: SPW	DES.:	PROJECT NO.: E096-007
		CHKD:	APPD:	FIGURE NO.: 1
		DATE: 01/18/01	REV.:	

HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARIES

GROUP 1a
FIELD INDICATORS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA

DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	TIME	DEPTH	PH	SPECIFIC CONDUCTANCE umhos	TEMP C	PURGE VOLUME (Gallons)	TURBIDITY ntu	DISSOLVED OXYGEN
LF-01	6/29/2000	13:35	0.00	5.55	358	17.4	6.0	8.00	0.1
LF-01	8/16/2000	13:20	0.00	4.90	330	21.0	6.5	-	-
LF-01	8/23/2000	13:31	0.00	5.73	356	18.6	6.5	3.00	2.8
LF-01	11/7/2000	14:40	0.00	6.74	326	19.4	5.7	3.00	0.6
LF-01A	6/29/2000	13:30	0.00	5.14	15	18.2	6.0	15.30	0.3
LF-01A	8/16/2000	13:14	0.00	5.40	120	20.0	10.0	-	-
LF-01A	8/23/2000	14:30	0.00	6.59	116	17.1	9.9	2.00	0.1
LF-01A	11/7/2000	15:47	0.00	7.69	115	16.7	6.7	1.00	1.1
LF-08	6/28/2000	13:20	0.00	5.56	114	18.7	12.0	63.30	0.0
LF-08	8/22/2000	10:42	0.00	6.50	96	16.7	0.0	2.00	3.3
LF-08	11/8/2000	10:16	0.00	7.82	98	16.7	4.7	0.00	0.5
LF-09	6/28/2000	15:05	0.00	5.14	157	22.3	2.5	68.20	3.0
LF-09	8/22/2000	11:49	0.00	6.27	118	17.1	0.0	2.00	5.5
LF-09	11/8/2000	10:59	0.00	6.71	107	19.2	3.0	2.00	0.4
LF-10	6/29/2000	08:40	0.00	4.84	133	16.5	13.0	1000.00	4.8
LF-10	8/22/2000	11:54	0.00	6.48	78	17.7	5.5	1100.00	5.9
LF-10	11/8/2000	14:50	0.00	7.28	59	19.3	4.5	113.00	2.8
LF-11	6/28/2000	09:10	0.00	4.93	131	17.8	4.5	319.00	3.9
LF-11	8/23/2000	10:08	0.00	6.25	107	19.5	0.0	5.00	1.7
LF-11	11/8/2000	16:15	0.00	7.13	95	19.2	1.4	25.00	1.9
LF-12	6/29/2000	11:15	0.00	4.98	68	16.4	5.0	9.70	4.5
LF-12	8/23/2000	11:23	0.00	6.33	77	18.1	2.3	9.00	0.1
LF-12	11/9/2000	12:15	0.00	7.29	76	18.7	0.3	9.00	1.9

GROUP 1b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
LABORATORY INDICATORS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Alkalinity (as CaCO3) (mg/l)	BOD (mg/l)	COD (mg/l)	Color (APHA Units)	DOC (mg/l)	pH	Specific Conductivity (umhos)
NC-2L STD								
LF-01	06/29/2000	1.89	2.26	2.24	<5.00	1.32	4.97	315
LF-01	08/23/2000	2.94	<4.00	8.82	<5.00	2.05	4.92	255
LF-01	11/07/2000	3.92	<4.00	6.00	<5.00	4.08	4.92	230
LF-01A	06/29/2000	10.4	2.30	5.87	15.0	0.932	5.86	106
LF-01A	08/23/2000	12.7	<4.00	5.30	5.00	2.86	5.62	85.5
LF-01A	11/07/2000	12.7	<4.00	<5.00	5.00	(0.104) J	6.74	83.2
LF-08	06/28/2000	16.2	2.54	<1.06	<5.00	0.532	5.87	90.7
LF-08	08/22/2000	9.80	<4.00	(1.07)	<5.00	7.75	5.76	64.6
LF-08	11/09/2000	18.6	<4.00	(1.78) J	<5.00	0.328	7.89	62.0
LF-09	06/28/2000	26.9	2.70	12.0	20.0	9.84	6.06	109
LF-09	08/22/2000	42.1	<4.00	13.4	140	6.96	6.10	107
LF-09	11/08/2000	13.7	<4.00	(2.48) J	5	---	6.04	80.9
LF-10	06/29/2000	16.1	2.08	<1.06	10.0	1.77	5.75	93.6
LF-10	08/22/2000	15.7	<4.00	<5.00	10.0	1.64	5.81	54.7
LF-10	11/08/2000	15.7	<4.00	(1.08) J	<5.00	4.15	5.84	45.6
LF-11	06/29/2000	12.3	2.00	7.68	5.00	1.67	5.42	121
LF-11	08/23/2000	8.82	<4.00	5.30	<5.00	7.70	5.09	77.3
LF-11	11/08/2000	12.7	<4.00	5.65	5.00	1.02	5.66	61.7
LF-12	06/29/2000	18	2.10	16.4	20.0	1.47	5.82	71.1

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 1b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
LABORATORY INDICATORS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Alkalinity (as CaCO3) (mg/l)	BOD (mg/l)	COD (mg/l)	Color (APHA Units)	DOC (mg/l)	pH	Specific Conductivity (umhos)
NC-2L STD								
LF-12	08/23/2000	11.8	<4.00	5.30	10.0	1.37	5.41	51.5
LF-12	11/09/2000	10.8	<4.00	<5.00	5	0.345	7.88	57.6

---=Not analyzed

GROUP 1b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
LABORATORY INDICATORS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	TSS (mg/l)	TDS (mg/l)	TOC (mg/l)	Turbidity (ntu)
NC-2L STD			500		
LF-01	06/29/2000	<0.699	223	0.953	1.14
LF-01	08/23/2000	(2.20)	202	1.52	0.800
LF-01	11/07/2000	<5.00	201	1.45	(0.191) J
LF-01A	06/29/2000	2.20	101	0.322	5.19
LF-01A	08/23/2000	(1.60)	81.0	0.821	3.80
LF-01A	11/07/2000	<5.00	103	0.702	1.07
LF-08	06/28/2000	0.889	92	0.196	0.493
LF-08	08/22/2000	(4.00)	80.0	0.817	2.00
LF-08	11/09/2000	(3.60) J	82.0	(0.0645) J	2.54
LF-09	06/28/2000	6.00	126	5.61	5.38
LF-09	08/22/2000	15.5	139	4.29	8.40
LF-09	11/08/2000	(4.80) J	118	0.555	2.44
LF-10	06/29/2000	28.8	131	1.03	79.4
LF-10	08/22/2000	21.6	71.0	1.53	39.5
LF-10	11/08/2000	52.3	89.0	0.828	84.5
LF-11	06/29/2000	0.800	100	0.987	3.78
LF-11	08/23/2000	<5.00	77.0	1.44	3.70
LF-11	11/08/2000	12.2	80.0	0.773	16.7
LF-12	06/29/2000	8.25	95	0.999	23.1

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 1b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
LABORATORY INDICATORS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	TSS (mg/l)	TDS (mg/l)	TOC (mg/l)	Turbidity (ntu)
NC-2L STD			500		
LF-12	08/23/2000	7.20	58.0	0.909	10.6
LF-12	11/09/2000	(1.60) J	76.0	1.30	4.02

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 2a
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
MAJOR CONSTITUENTS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Calcium (mg/l)	Magnesium (mg/l)	Sodium (mg/l)	Potassium (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Bicarbonate (as CaCO3) (mg/l)
NC-2L STD						250	250	
LF-01	06/29/2000	10.4	7.21	25.5	3.47	41.9	82.9	1.89
LF-01	08/23/2000	10.7	7.4	28.2	3.0	44.6	78.5	2.94
LF-01	11/07/2000	11.2	8.7	17.7	2.8	27.0	85.6	3.92
LF-01A	06/29/2000	4.86	2.23	7.64	1.45	6.23	26.1	10.4
LF-01A	08/23/2000	5.2	2.4	8.0	1.6	6.12	26.8	12.7
LF-01A	11/07/2000	4.6	2.4	7.3	1.5	6.14	26.8	12.7
LF-08	06/28/2000	3.02	1.52	(8.61)	1.23	7.98	11.4	16.2
LF-08	08/22/2000	2.9	1.5	8.8	1.3	8.00	11.5	9.80
LF-08	11/09/2000	3.0	1.6	9.4	1.2	7.72	11.4	18.6
LF-09	06/28/2000	3.05	3.18	9.09	2.46	8.32	15.2	26.9
LF-09	08/22/2000	7.4	4.5	10.1	2.7	7.26	16.3	42.1
LF-09	11/08/2000	4.0	2.3	10	2.4	7.17	24.2	13.7
LF-10	06/29/2000	1.93	1.44	16.2	0.891	10.7	7.48	16.1
LF-10	08/22/2000	1.4	1.0	11.6	0.71	6.07	10.2	15.7
LF-10	11/08/2000	1.4	1.2	9.3	0.80	3.96	5.31	15.7
LF-11	06/29/2000	2.15	2.29	17	1.01	16.6	32.6	12.3
LF-11	08/23/2000	2.0	2.1	14.4	0.88	13.5	13.1	8.82
LF-11	11/08/2000	1.7	1.6	10.6	0.80	8.59	11.6	12.7
LF-12	06/29/2000	7.88	1.76	9.23	0.852	0.0060	0.0045	18.0

()=Less than Reporting Limit ---=Not analyzed

GROUP 2a
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
MAJOR CONSTITUENTS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Calcium (mg/l)	Magnesium (mg/l)	Sodium (mg/l)	Potassium (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Bicarbonate (as CaCO3) (mg/l)
NC-2L STD						250	250	
LF-12	08/23/2000	3.0	0.99	9.0	0.65	7.66	2.59	11.8
LF-12	11/09/2000	2.7	1.1	10.4	0.66	9.47	1.07	10.8

---=Not analyzed

GROUP 2a
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
MAJOR CONSTITUENTS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Nitrate (mg/l)	Ammonia (as N) (mg/l)	Silica (mg/l)	Phosphorus, total (mg/l)
NC-2L STD		10			
LF-01	06/29/2000	<0.020	<0.029	18	0.020
LF-01	08/23/2000	<0.050	<0.050	19	(0.020)
LF-01	11/07/2000	0.249	0.400	18	(0.020) J
LF-01A	06/29/2000	0.281	<0.029	33	0.060
LF-01A	08/23/2000	0.189	<0.050	34	(0.020)
LF-01A	11/07/2000	0.253	2.35	32	(0.040) J
LF-08	06/28/2000	<0.050	<0.029	37	0.080
LF-08	08/22/2000	<0.050	<0.050	35	0.110
LF-08	11/09/2000	<0.050	<0.050	37	(0.040) J
LF-09	06/28/2000	<0.020	<0.000029	51.9	0.040
LF-09	08/22/2000	<0.050	<0.050	51	0.050
LF-09	11/08/2000	0.175	<0.050	58	(0.030) J
LF-10	06/29/2000	0.128	<0.029	32	0.020
LF-10	08/22/2000	0.178	<0.050	34	0.060
LF-10	11/08/2000	0.080	<0.050	42	<0.050
LF-11	06/29/2000	0.845	<0.029	25	0.020
LF-11	08/23/2000	0.497	<0.050	29	(0.020)
LF-11	11/08/2000	0.328	<0.050	29	<0.050
LF-12	06/29/2000	0.00037	<0.029	34	0.020

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 2a
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
MAJOR CONSTITUENTS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Nitrate (mg/l)	Ammonia (as N) (mg/l)	Silica (mg/l)	Phosphorus, total (mg/l)
NC-2L STD		10			
LF-12	08/23/2000	1.07	<0.050	36	(0.020)
LF-12	11/09/2000	2.29	<0.050	36	<0.050

---=Not analyzed

GROUP 2b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
TRACE METALS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Antimony (mg/l)	Arsenic (mg/l)	Barium (mg/l)	Beryllium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Chromium (Hexavalent) (mg/l)
NC-2L STD		0.30	0.050	2.0		0.0050	0.050	
LF-01	06/29/2000	<0.000111	0.00177	0.0522	0.000703	<0.00005	0.00205	0.003
LF-01	08/23/2000	<0.0020	(0.00048)	0.070	0.00062	<0.0010	0.0044	<0.050
LF-01	11/07/2000	(0.00042) J	(0.00075) J	0.060	(0.00019) J	<0.0010	(0.0025) J	<0.010
LF-01A	06/29/2000	<0.000111	0.00111	0.0585	0.000161	0.000067	0.00307	0.006
LF-01A	08/23/2000	<0.0020	(0.00034)	0.062	(0.00013)	<0.0010	(0.0024)	(0.002)
LF-01A	11/07/2000	(0.00014) J	(0.0014) J	0.038	0.00072	<0.0010	(0.0028) J	<0.010
LF-08	06/28/2000	0.000299	0.00264	0.0471	0.000053	<0.00005	0.00242	<0.002
LF-08	08/22/2000	<0.0020	(0.0010)	0.045	(0.000064)	<0.0010	0.0033	(0.005)
LF-08	11/09/2000	(0.00025) J	(0.0010) J	0.045	(0.000058) J	<0.0010	0.0041	(0.002) J
LF-09	06/28/2000	<0.000111	0.00213	0.0859	<0.000034	0.00014	(0.000292)	---
LF-09	08/22/2000	<0.0020	(0.0016)	0.14	<0.00020	<0.0010	0.0042	0.014
LF-09	11/08/2000	(0.00016) J	(0.0014) J	0.13	0.00025	(0.00011) J	(0.0024) J	<0.010
LF-10	06/29/2000	<0.000111	0.00165	0.029	0.000157	0.000268	0.0056	<0.002
LF-10	08/22/2000	<0.0020	(0.00073)	0.018	(0.000076)	<0.0010	0.0064	(0.005)
LF-10	11/08/2000	(0.00016) J	(0.0024) J	0.037	0.00025	<0.0010	0.0072	<0.010
LF-11	06/29/2000	<0.000111	0.00164	0.0443	0.000184	0.000189	0.00348	0.009
LF-11	08/23/2000	<0.0020	<0.0030	0.043	0.00021	<0.0010	0.0034	(0.002)
LF-11	11/08/2000	(0.00011) J	(0.0017) J	0.031	0.00020 J	<0.0010	(0.0025) J	<0.010
LF-12	06/29/2000	<0.000111	0.00134	0.018	0.00014	<0.00005	0.00554	0.045

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 2b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
TRACE METALS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Antimony (mg/l)	Arsenic (mg/l)	Barium (mg/l)	Beryllium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Chromium (Hexavalent) (mg/l)
NC-2L STD		0.30	0.050	2.0		0.0050	0.050	
LF-12	08/23/2000	<0.0020	<0.0030	0.020	(0.000066)	<0.0010	0.0042	<0.010
LF-12	11/09/2000	(0.00015) J	(0.0014) J	0.022	(0.00014) J	<0.0010	0.0076	(0.003) J

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 2b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
TRACE METALS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Cobalt (mg/l)	Copper (mg/l)	Iron (mg/l)	Lead (mg/l)	Manganese (mg/l)	Nickel (mg/l)	Selenium (mg/l)
NC-2L STD			1.0	0.30	0.015	0.050	0.10	0.050
LF-01	06/29/2000	0.00276	<0.00118	[17.6]	<0.000077	[0.252]	0.00339	<0.000218
LF-01	08/23/2000	0.0025	<0.0020	[16.5]	<0.0020	[0.23]	0.0033	<0.0030
LF-01	11/07/2000	(0.00084) J	<0.0020	[5.1]	<0.0020	[0.20]	0.0036	<0.0030
LF-01A	06/29/2000	0.000882	<0.00118	[6.32]	0.000179	[0.228]	0.00319	<0.000218
LF-01A	08/23/2000	(0.00083)	<0.0020	[5.7]	<0.0020	[0.22]	0.0034	<0.0030
LF-01A	11/07/2000	0.0038	<0.0020	[16.9]	<0.0020	[0.25]	0.0051	(0.00050) J
LF-08	06/28/2000	0.00138	<0.00118	[5.13]	0.000329	[0.319]	0.00098	0.000311
LF-08	08/22/2000	0.0014	<0.0020	[4.8]	(0.00020)	[0.28]	0.0020	<0.0030
LF-08	11/09/2000	0.0011	<0.0020	[5.7]	(0.00053) J	[0.28]	(0.00089) J	(0.00032) J
LF-09	06/28/2000	0.0147	<0.00118	[8.62]	<0.000077	[1.14]	0.0136	<0.000218
LF-09	08/22/2000	0.018	0.0033	[8.0]	(0.00077)	[1.6]	0.012	<0.0030
LF-09	11/08/2000	0.016	<0.0020	[1.1]	(0.00024) J	[0.72]	0.015	(0.00070) J
LF-10	06/29/2000	0.044	<0.00118	[1.71]	0.000928	[0.106]	0.00278	<0.000218
LF-10	08/22/2000	0.0026	<0.0020	[1.1]	(0.00071)	[0.068]	(0.0019)	<0.0030
LF-10	11/08/2000	0.0040	(0.0018) J	[2.8]	(0.0017) J	[0.10]	0.0032	<0.0030
LF-11	06/29/2000	0.00569	<0.00118	0.143	<0.000077	[0.0892]	0.00318	<0.000218
LF-11	08/23/2000	0.0047	<0.0020	0.19	0.0021	[0.069]	0.0030	<0.0030
LF-11	11/08/2000	0.0057	<0.0020	[0.50]	<0.0020	[0.10]	0.0030	<0.0030
LF-12	06/29/2000	0.00295	<0.00118	[2.60]	0.000563	0.0396	0.0025	0.000343

()=Less than Reporting Limit []=Greater than Action Level The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 2b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
TRACE METALS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Cobalt (mg/l)	Copper (mg/l)	Iron (mg/l)	Lead (mg/l)	Manganese (mg/l)	Nickel (mg/l)	Selenium (mg/l)
NC-2L STD			1.0	0.30	0.015	0.050	0.10	0.050
LF-12	08/23/2000	0.0036	<0.0020	[0.41]	<0.0020	0.018	0.0035	(0.00058)
LF-12	11/09/2000	0.0045	<0.0020	0.12	(0.00014) J	0.0080	0.0046	(0.00067) J

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 2b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
TRACE METALS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Silver (mg/l)	Strontium (mg/l)	Thallium (mg/l)	Vanadium (mg/l)	Zinc (mg/l)
NC-2L STD		0.018				2.1
LF-01	06/29/2000	<0.000101	0.230	<0.000014	0.00265	0.00683
LF-01	08/23/2000	(0.00035)	0.20	<0.00050	(0.0014)	(0.0057)
LF-01	11/07/2000	(0.00040) J	0.073	(0.00047) J	(0.00068) J	0.021
LF-01A	06/29/2000	<0.000101	0.0786	<0.000014	0.00302	0.0166
LF-01A	08/23/2000	(0.00034)	0.072	<0.00050	(0.0013)	0.014
LF-01A	11/07/2000	(0.00040) J	0.23	(0.00022) J	(0.0019) J	0.012
LF-08	06/28/2000	<0.000101	0.0345	0.000597	0.000452	0.014
LF-08	08/22/2000	(0.00039)	0.034	0.00079	(0.0011)	0.014
LF-08	11/09/2000	(0.00014) J	0.033	(0.00031) J	(0.0028) J	0.012
LF-09	06/28/2000	<0.000101	0.0562	<0.000014	0.00196	0.0187
LF-09	08/22/2000	(0.00035)	0.074	(0.00028)	(0.0011)	0.012
LF-09	11/08/2000	(0.00012) J	0.043	(0.00016) J	(0.0034) J	0.025
LF-10	06/29/2000	<0.000101	0.0279	<0.000014	0.00628	0.00755
LF-10	08/22/2000	(0.00039)	0.016	(0.00017)	(0.0048)	(0.0053)
LF-10	11/08/2000	<0.0010	0.021	<0.00050	0.010	0.010
LF-11	06/29/2000	<0.000101	0.0397	<0.000014	0.00317	0.00958
LF-11	08/23/2000	(0.00035)	0.031	<0.00050	(0.0016)	(0.0068)
LF-11	11/08/2000	<0.0010	0.028	<0.00050	(0.0019) J	(0.0076) J
LF-12	06/29/2000	<0.000101	0.0345	<0.000014	0.00622	0.00742

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 2b
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
TRACE METALS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Silver (mg/l)	Strontium (mg/l)	Thallium (mg/l)	Vanadium (mg/l)	Zinc (mg/l)
NC-2L STD		0.018				2.1
LF-12	08/23/2000	(0.00035)	0.030	<0.00050	(0.0022)	(0.0077)
LF-12	11/09/2000	(0.00013) J	0.035	(0.00044) J	(0.0045) J	0.011

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 3
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
VOCs - EPA METHOD 8260
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Acetone (ug/l)	Bromoform (ug/l)	Chloroform (ug/l)	Ethylbenzene (ug/l)	Methylene chloride (ug/l)	Toluene (ug/l)
NC-2L STD		700	0.19	0.19	29	5	1000
LF-01	06/29/2000	<10.0	<2.00	<2.00	<2.00	<5.00	<2.00
LF-01	08/23/2000	(1.15) J	<2.00	<2.00	<2.00	(1.21) J	<2.00
LF-01	11/07/2000	(1.58) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-01A	06/29/2000	<10.0	<2.00	<2.00	<2.00	<5.00	<2.00
LF-01A	08/23/2000	(1.10) B	<2.00	<2.00	<2.00	(1.11) J	<2.00
LF-01A	11/07/2000	(1.88) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-08	06/28/2000	<10.0	<2.00	<2.00	<2.00	<5.00	<2.00
LF-08	08/22/2000	(1.00) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-08	11/09/2000	(1.03) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-09	06/28/2000	<10.0	<2.00	<2.00	(0.229) J	<5.00	(0.565) J
LF-09	08/22/2000	(2.66) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-09	11/08/2000	(3.35) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-10	06/29/2000	<10.0	[2.28]	<2.00	<2.00	<5.00	2.26
LF-10	08/22/2000	(0.930) J	<2.00	<2.00	<2.00	<5.00	4.31
LF-10	11/08/2000	(3.50) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-11	06/29/2000	<10.0	<2.00	[3.40]	<2.00	<5.00	<2.00
LF-11	08/23/2000	(1.46) J	<2.00	(1.89) J	<2.00	(1.39) J	<2.00
LF-11	11/08/2000	(3.24) J	<2.00	<2.00	<2.00	<5.00	<2.00
LF-12	06/29/2000	<10.0	<2.00	(0.543) J	<2.00	<5.00	(1.06) J

()=Less than Reporting Limit []=Greater than Action Level The following qualifier(s) exist: CLP C: J, B ---=Not analyzed

GROUP 3
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
VOCs - EPA METHOD 8260
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Acetone (ug/l)	Bromoform (ug/l)	Chloroform (ug/l)	Ethylbenzene (ug/l)	Methylene chloride (ug/l)	Toluene (ug/l)
NC-2L STD		700	0.19	0.19	29	5	1000
LF-12	08/23/2000	(1.24) J	<2.00	(0.740) J	<2.00	(1.41) J	<2.00
LF-12	11/09/2000	(3.35) J	<2.00	<2.00	<2.00	<5.00	<2.00

()=Less than Reporting Limit The following qualifier(s) exist: CLP C: J ---=Not analyzed

Date: 01/19/2001

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
SVOCs - EPA METHOD 8270
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Bis(2-ethyl hexyl)phthalate (BEHP) (ug/l)
NC-2L STD		3
LF-01	06/29/2000	(0.788) J
LF-01	08/23/2000	<0.971
LF-01	11/07/2000	<1.00
LF-01A	06/29/2000	<1.00
LF-01A	08/23/2000	2.72
LF-01A	11/07/2000	<1.00
LF-08	06/28/2000	<1.00
LF-08	08/22/2000	2.65
LF-08	11/09/2000	[10.9]
LF-09	06/28/2000	[112]
LF-09	08/22/2000	<0.990
LF-09	11/08/2000	2.94
LF-10	06/29/2000	(0.812) J
LF-10	08/22/2000	<0.971
LF-10	11/08/2000	<1.00
LF-11	06/29/2000	<1.00
LF-11	08/23/2000	<0.971
LF-11	11/08/2000	<1.00
LF-12	06/29/2000	<1.00
LF-12	08/23/2000	[3.44]
LF-12	11/09/2000	<1.00

()=Less than Reporting Limit []=Greater than Action Level The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
ASSESSMENT MONITORING PARAMETERS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Mercury (ug/l)	Cyanide (ug/l)	Nitrite (as N) (mg/l)	Fluoride (mg/l)	Bromide (mg/l)	Gross alpha (pci/l)	Gross Beta (pci/l)
NC-2L STD		1.1	154	1.0	2.0			
LF-01	06/29/2000	<0.060	<2.76	<0.050	<0.100	<0.016	<1.50	<2.00
LF-01	08/23/2000	<0.200	17.2	<0.050	<0.050	0.189	<1.50	2.34
LF-01	11/07/2000	<0.200	5.21	<0.050	0.133	<0.050	(0.970)	3.51
LF-01A	06/29/2000	<0.060	<2.76	<0.050	<0.100	<0.016	<1.50	<2.00
LF-01A	08/23/2000	<0.200	<5.00	<0.050	<0.050	<0.050	<1.50	4.20
LF-01A	11/07/2000	<0.200	<5.00	<0.050	0.061	<0.050	<1.50	2.63
LF-08	06/28/2000	<0.060	<2.76	<0.050	<0.100	<0.000016	<1.50	<2.00
LF-08	08/22/2000	<0.200	114	<0.050	<0.050	<0.050	(0.958)	2.67
LF-08	11/09/2000	<0.200	<5.00	<0.050	0.112	<0.050	<1.50	<2.00
LF-09	06/28/2000	<0.060	<2.76	<0.050	<0.100	<0.016	<1.50	<2.00
LF-09	08/22/2000	<0.200	87.8	<0.050	<0.050	<0.050	<1.50	3.51
LF-09	11/08/2000	<0.200	<5.00	<0.050	0.073	<0.050	2.84	4.05
LF-10	06/29/2000	<0.060	<2.76	<0.050	<0.100	<0.016	<1.50	<2.00
LF-10	08/22/2000	<0.200	[228]	<0.050	<0.050	<0.050	<1.50	(1.57)
LF-10	11/08/2000	<0.200	(4.10) J	<0.050	<0.050	<0.050	1.89	<2.00
LF-11	06/29/2000	<0.060	<2.76	<0.050	<0.100	<0.016	<1.50	<2.00
LF-11	08/23/2000	<0.200	<5.00	<0.050	<0.050	<0.050	<1.50	(1.59)
LF-11	11/08/2000	<0.200	<5.00	<0.050	0.059	<0.050	<1.50	<2.00
LF-12	06/29/2000	<0.060	<2.76	<0.020	<0.100	<0.000016	<1.50	<2.00

()=Less than Reporting Limit []=Greater than Action Level The following qualifier(s) exist: CLP C: J ---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
ASSESSMENT MONITORING PARAMETERS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Mercury (ug/l)	Cyanide (ug/l)	Nitrite (as N) (mg/l)	Fluoride (mg/l)	Bromide (mg/l)	Gross alpha (pci/l)	Gross Beta (pci/l)
NC-2L STD		1.1	154	1.0	2.0			
LF-12	08/23/2000	<0.200	<5.00	<0.050	<0.050	<0.050	<1.50	<2.00
LF-12	11/09/2000	<0.200	<5.00	<0.050	<0.050	<0.050	<1.50	<2.00

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
ASSESSMENT MONITORING PARAMETERS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Radon 222 (pci/l)	Radium 226 (pci/l)	Radium 228 (pci/l)	uranium 233/234 (pci/l)	uranium 235/236 (pci/l)	Uranium-234 (pci/l)	uranium-236 (pci/l)
NC-2L STD								
LF-01	06/29/2000	<200	<1.00	<1.50	---	---	---	---
LF-01	08/23/2000	(156)	(0.946)	<1.50	---	---	<1.00	<1.00
LF-01	11/07/2000	(172)	17.2	<1.50	<1.00	<1.00	---	---
LF-01A	06/29/2000	<200	<1.00	<1.50	---	---	---	---
LF-01A	08/23/2000	212	(0.852)	<1.50	---	---	<1.00	<1.00
LF-01A	11/07/2000	215	3.11	<1.50	<1.00	<1.00	---	---
LF-08	06/28/2000	<200	<1.00	<1.50	---	---	---	---
LF-08	08/22/2000	(113)	<1.00	<1.50	---	---	<1.00	<1.00
LF-08	11/09/2000	(163)	<1.00	<1.50	<1.00	<1.00	---	---
LF-09	06/28/2000	<200	<1.00	<1.50	---	---	---	---
LF-09	08/22/2000	(192)	(0.770)	<1.50	---	---	<1.00	<1.00
LF-09	11/08/2000	(71.7)	1.93	<1.50	<1.00	<1.00	---	---
LF-10	06/29/2000	<200	<1.00	<1.50	---	---	---	---
LF-10	08/22/2000	201	<1.00	<1.50	---	---	<1.00	<1.00
LF-10	11/08/2000	(125)	(0.620)	<1.50	<1.00	<1.00	---	---
LF-11	06/29/2000	<200	<1.00	<1.50	---	---	---	---
LF-11	08/23/2000	(126)	<1.00	<1.50	---	---	<1.00	<1.00
LF-11	11/08/2000	(142)	<1.00	<1.50	<1.00	<1.00	---	---
LF-12	06/29/2000	<200	<1.00	<1.50	---	---	---	---

()=Less than Reporting Limit ---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
ASSESSMENT MONITORING PARAMETERS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Radon 222 (pci/l)	Radium 226 (pci/l)	Radium 228 (pci/l)	uranium 233/234 (pci/l)	uranium 235/236 (pci/l)	Uranium-234 (pci/l)	uranium-236 (pci/l)
NC-2L STD								
LF-12	08/23/2000	410	<1.00	<1.50	---	---	<1.00	<1.00
LF-12	11/09/2000	780	8.44	<1.50	<1.00	<1.00	---	---

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
ASSESSMENT MONITORING PARAMETERS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	uranium-238 (pci/l)
NC-2L STD		
LF-01	06/29/2000	---
LF-01	08/23/2000	<1.00
LF-01	11/07/2000	<1.00
LF-01A	06/29/2000	---
LF-01A	08/23/2000	<1.00
LF-01A	11/07/2000	<1.00
LF-08	06/28/2000	---
LF-08	08/22/2000	<1.00
LF-08	11/09/2000	<1.00
LF-09	06/28/2000	---
LF-09	08/22/2000	<1.00
LF-09	11/08/2000	<1.00
LF-10	06/29/2000	---
LF-10	08/22/2000	<1.00
LF-10	11/08/2000	<1.00
LF-11	06/29/2000	---
LF-11	08/23/2000	<1.00
LF-11	11/08/2000	<1.00
LF-12	06/29/2000	---

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
ASSESSMENT MONITORING PARAMETERS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	uranium-238 (pci/l)
NC-2L STD		
LF-12	08/23/2000	<1.00
LF-12	11/09/2000	<1.00

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
DIOXIN - EPA METHOD 1613
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,2,3,4,6,7,8-Heptachloro dibenzofuran (ng/l)	1,2,3,4,6,7,8-HpCDD (ng/l)	1,2,3,4,7,8,9-Heptachloro dibenzofuran (ng/l)	1,2,3,4,7,8-Hexachloro dibenzofuran (ng/l)	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (ng/l)	1,2,3,6,7,8-Hexachloro dibenzofuran (ng/l)	1,2,3,6,7,8-Hexachlorodi benzo-p-dioxin (ng/l)
NC-2L STD								
LF-01	06/29/2000	<0.00269	<0.00623	<0.00393	<0.00204	<0.00374	<0.00207	<0.00385
LF-01	08/23/2000	<0.00334	<0.00477	<0.00532	<0.00178	<0.0036	<0.00166	<0.00365
LF-01	11/07/2000	0.04	0.0307	0.0202	0.00947	0.0040	0.011	0.00597
LF-01A	06/29/2000	<0.00328	<0.00546	<0.00503	<0.00294	<0.00657	<0.00314	<0.00683
LF-01A	08/23/2000	<0.00413	<0.00399	<0.00424	<0.00245	<0.00478	<0.00249	<0.00462
LF-01A	11/07/2000	<0.00108	<0.00143	<0.00145	<0.00107	<0.00243	<0.0011	<0.00285
LF-08	06/28/2000	<0.00386	<0.0085	<0.00599	<0.00267	<0.00515	<0.00248	<0.00535
LF-08	08/22/2000	<0.00278	<0.00299	<0.0035	<0.00256	<0.00449	<0.00244	<0.00423
LF-08	11/09/2000	<0.0013	<0.00241	<0.00182	<0.00129	<0.00209	<0.00133	<0.00245
LF-09	06/28/2000	<0.00266	<0.00445	<0.00395	<0.00234	<0.00417	<0.00219	<0.00445
LF-09	08/22/2000	<0.00331	<0.00292	<0.00416	<0.00319	<0.00547	<0.00317	<0.00529
LF-09	11/09/2000	<0.00348	<0.00531	<0.00468	<0.00153	<0.00251	<0.00158	<0.00295
LF-10	06/29/2000	<0.00403	0.0382	<0.00646	<0.0031	<0.00673	<0.00276	<0.00673
LF-10	08/22/2000	<0.00409	0.0314	<0.00527	<0.00312	<0.00896	<0.00311	<0.0087
LF-10	11/08/2000	<0.00116	0.0449	<0.00147	<0.00135	<0.00314	<0.00139	<0.00368
LF-11	06/29/2000	<0.00247	<0.00492	<0.00379	<0.0019	<0.00421	<0.00198	<0.00424
LF-11	08/23/2000	<0.00242	0.0042	<0.00295	<0.002	<0.00407	<0.0019	<0.00428
LF-11	11/08/2000	<0.00144	0.0074	<0.00183	<0.00118	<0.0017	<0.00121	<0.00199
LF-12	06/29/2000	<0.00181	<0.00319	<0.00262	<0.00167	<0.00343	<0.00164	<0.00336

NCAC 2L STANDARD FOR DIOXIN = 0.00022 ng/l.

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
DIOXIN - EPA METHOD 1613
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,2,3,4,6,7,8-Heptachloro dibenzofuran (ng/l)	1,2,3,4,6,7,8-HpCDD (ng/l)	1,2,3,4,7,8,9-Heptachloro dibenzofuran (ng/l)	1,2,3,4,7,8-Hexachloro dibenzofuran (ng/l)	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (ng/l)	1,2,3,6,7,8-Hexachloro dibenzofuran (ng/l)	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (ng/l)
NC-2L STD								
LF-12	08/23/2000	<0.00262	<0.00397	<0.00382	<0.00223	<0.00465	<0.0021	<0.00451
LF-12	11/09/2000	0.00252	0.0032	<0.00224	<0.0013	<0.00177	<0.00134	<0.00207

NCAC 2L STANDARD FOR DIOXIN = 0.00022 ng/l.

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
DIOXIN - EPA METHOD 1613
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,2,3,7,8,9-Hexachloro dibenzofuran (ng/l)	1,2,3,7,8,9-Hexachlorodi benzo-p-dioxin (ng/l)	1,2,3,7,8-Penta chlorodibenzo-p -dioxin (ng/l)	2,3,4,6,7,8-Hexachloro dibenzofuran (ng/l)	2,3,4,7,8-Pentachloro dibenzofuran (ng/l)	Heptachloro dibenzofuran (ng/l)	Heptachloro dibenzo-p-dioxins (ng/l)
NC-2L STD								
LF-01	06/29/2000	<0.00256	<0.00348	<0.00266	<0.00225	<0.00143	<0.00325	<0.00623
LF-01	08/23/2000	<0.00254	<0.00333	<0.0021	<0.00202	<0.00119	<0.00418	<0.00477
LF-01	11/07/2000	0.00475	0.0044	0.00336	0.00943	0.00169	0.0788	0.0595
LF-01A	06/29/2000	<0.00434	<0.00615	<0.00302	<0.0036	<0.00171	<0.00405	<0.00546
LF-01A	08/23/2000	<0.00245	<0.0043	<0.002	<0.00204	<0.0013	<0.00419	<0.00399
LF-01A	11/07/2000	<0.00144	<0.00243	<0.00101	<0.0013	<0.000669	<0.00125	<0.00143
LF-08	06/28/2000	<0.00352	<0.00482	<0.00287	<0.00285	<0.00132	<0.00478	<0.0085
LF-08	08/22/2000	<0.00317	<0.00399	<0.00156	<0.00254	<0.00106	<0.00313	<0.00299
LF-08	11/09/2000	<0.00166	<0.00209	<0.00104	<0.00147	<0.000795	<0.00154	<0.00241
LF-09	06/28/2000	<0.00317	<0.00397	<0.00208	<0.00264	<0.00118	<0.00323	<0.00445
LF-09	08/22/2000	<0.00372	<0.00493	<0.00211	<0.00304	<0.00117	<0.00372	<0.00292
LF-09	11/09/2000	<0.00215	<0.00252	<0.00199	<0.00187	<0.00162	<0.00403	<0.00531
LF-10	06/29/2000	<0.00452	<0.00618	<0.00325	<0.00393	<0.00183	<0.00506	0.0995
LF-10	08/22/2000	<0.00375	<0.00808	<0.00225	<0.00298	<0.00144	<0.00466	0.12
LF-10	11/08/2000	<0.00176	<0.00314	<0.00124	<0.00164	<0.000835	<0.00131	0.115
LF-11	06/29/2000	<0.00268	<0.00388	<0.00215	<0.00219	<0.0014	<0.00306	<0.00492
LF-11	08/23/2000	<0.00233	<0.00385	<0.00145	<0.00212	<0.00129	<0.00266	<0.00323
LF-11	11/08/2000	<0.00155	<0.0017	<0.00169	<0.00148	<0.00108	<0.00162	0.0196
LF-12	06/29/2000	<0.00203	<0.00314	<0.00164	<0.00177	<0.00147	<0.00217	0.0051

NCAC 2L STANDARD FOR DIOXIN = 0.00022 ng/l.

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
DIOXIN - EPA METHOD 1613
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,2,3,7,8,9-Hexachloro dibenzofuran (ng/l)	1,2,3,7,8,9-Hexachlorodi benzo-p-dioxin (ng/l)	1,2,3,7,8-Penta chlorodibenzo-p -dioxin (ng/l)	2,3,4,6,7,8-Hexachloro dibenzofuran (ng/l)	2,3,4,7,8-Pentachloro dibenzofuran (ng/l)	Heptachloro dibenzofuran (ng/l)	Heptachloro dibenzo-p-dioxins (ng/l)
NC-2L STD								
LF-12	08/23/2000	<0.00297	<0.00419	<0.00144	<0.00238	<0.000986	<0.00315	0.00403
LF-12	11/09/2000	<0.00172	<0.00177	<0.00135	<0.00166	<0.000969	<0.0019	0.00634

NCAC 2L STANDARD FOR DIOXIN = 0.00022 ng/l.

---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
DIOXIN - EPA METHOD 1613
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Hexachloro dibenzofuran (ng/l)	Hexachloro dibenzo-p-dioxin (ng/l)	Octachloro dibenzofuran (ng/l)	Octachloro dibenzo-p-dioxin (ng/l)	Pentachloro dibenzofuran (ng/l)	Pentachlorodi benzo-p-dioxin (ng/l)
NC-2L STD							
LF-01	06/29/2000	<0.00224	<0.00367	<0.00878	(0.0167)	<0.00151	<0.00266
LF-01	08/23/2000	<0.00198	<0.0035	<0.00658	(0.0219)	<0.00132	<0.0021
LF-01	11/07/2000	0.0516	0.0134	0.0674	0.0748	0.00639	0.00336
LF-01A	06/29/2000	<0.00348	<0.00648	<0.0134	<0.0178	<0.00182	<0.00302
LF-01A	08/23/2000	<0.00235	<0.00453	<0.0169	<0.0477	<0.00152	<0.002
LF-01A	11/07/2000	<0.00123	<0.00256	<0.00338	(0.00463)	<0.000692	<0.00355
LF-08	06/28/2000	<0.00287	<0.00508	<0.0105	(0.0079)	<0.0014	<0.00287
LF-08	08/22/2000	<0.00268	<0.0042	<0.013	<0.0566	<0.00114	<0.00375
LF-08	11/09/2000	<0.00144	<0.0022	<0.00679	<0.0119	<0.000863	<0.00347
LF-09	06/28/2000	<0.00257	<0.00418	<0.00921	(0.0113)	<0.00132	<0.00208
LF-09	08/22/2000	<0.00328	<0.00519	<0.00663	0.0166	<0.00133	<0.00211
LF-09	11/09/2000	<0.00177	<0.00598	<0.00584	0.0148	<0.00166	<0.00601
LF-10	06/29/2000	<0.00352	<0.00651	<0.0182	1.04	<0.00184	<0.00325
LF-10	08/22/2000	<0.00324	0.02	<0.0102	0.718	<0.00165	<0.00323
LF-10	11/08/2000	<0.00153	0.03	<0.00395	1.06	<0.000844	<0.00397
LF-11	06/29/2000	<0.00218	<0.00409	<0.0105	0.132	<0.00153	<0.00215
LF-11	08/23/2000	<0.00208	<0.00406	<0.00936	0.0938	<0.00131	<0.00145
LF-11	11/08/2000	<0.00135	<0.0049	<0.0056	0.199	<0.00115	<0.00169
LF-12	06/29/2000	<0.00178	<0.0033	<0.00513	0.209	<0.0016	<0.00366

NCAC 2L STANDARD FOR DIOXIN = 0.00022 ng/l.

()=Less than Reporting Limit ---=Not analyzed

GROUP 4
HISTORICAL GROUND WATER ANALYTICAL DATA SUMMARY
DIOXIN - EPA METHOD 1613
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-007

PERIOD: From 06/28/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Hexachloro dibenzofuran (ng/l)	Hexachloro dibenzo-p-dioxin (ng/l)	Octachloro dibenzofuran (ng/l)	Octachloro dibenzo-p-dioxin (ng/l)	Pentachloro dibenzofuran (ng/l)	Pentachlorodi benzo-p-dioxin (ng/l)
NC-2L STD							
LF-12	08/23/2000	<0.0024	<0.00442	<0.0059	0.135	<0.00109	<0.00382
LF-12	11/09/2000	<0.0015	<0.00374	<0.00488	0.0453	<0.00101	<0.00366

NCAC 2L STANDARD FOR DIOXIN = 0.00022 ng/l.

---=Not analyzed

LABORATORY ANALYTICAL RESULTS

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Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Project: DELT00200
Client ID: DELT002

Client Sample ID:	LF-08
Sample ID:	33936001
Matrix:	Ground Water
Collect Date:	09-NOV-00
Receive Date:	10-NOV-00
Collector:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity											
Conductivity		62.0	1.00	1.00	umhos/cm	1	MOJ1	11/15/00	1415	53588	1
Electrode Analysis											
EPA 150.1 pH											
pH at Temp 15.1C		7.89	0.010	0.100	SU	1	TCC1	11/10/00	1908	53108	2
Ion Chromatography											
EPA300.0 Sulfate in Liquid											
Bromide	U	ND	0.016	0.050	mg/L	1	RWS	11/10/00	1634	53073	3
Chloride		7.72	0.026	0.100	mg/L	1					
Fluoride		0.112	0.017	0.050	mg/L	1					
Nitrate	U	ND	0.020	0.050	mg/L	1					
Nitrite	U	ND	0.020	0.050	mg/L	1					
Sulfate		11.4	0.079	0.200	mg/L	1					
Mercury Analysis											
7470 Cold Vapor Hg Liquid											
Mercury	U	ND	0.060	0.200	ug/L	1	AW2	11/15/00	1712	53578	4
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		3050	35.5	100	ug/L	1	JAB	12/05/00	2234	55728	5
Magnesium		1560	3.54	20.0	ug/L	1					
Potassium		1190	16.4	100	ug/L	1					
Silica		36800	39.8	213	ug/L	1					
Silicon		17400	18.6	100	ug/L	1					
Sodium		9390	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Antimony	J	0.246	0.111	2.00	ug/L	1	JSS	12/06/00	0902	54024	6
Arsenic	J	1.03	0.145	3.00	ug/L	1					
Barium		45.0	0.158	2.00	ug/L	1					
Beryllium	J	0.058	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
[illegible]romium		4.09	0.645	3.00	ug/L	1					
[illegible]t		1.06	0.018	1.00	ug/L	1					
	U	ND	1.18	2.00	ug/L	1					
		5670	7.92	25.0	ug/L	1					
	J	0.532	0.077	2.00	ug/L	1					
	J	0.894	0.072	2.00	ug/L	1					

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-08
Sample ID: 33936001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICPMS												
6020/3005 MIMICP SCAN Metals												
Selenium	J	0.315		0.218	3.00	ug/L	1					
Silver	J	0.137		0.101	1.00	ug/L	1					
Strontium		33.3		0.020	10.0	ug/L	1					
Thallium	J	0.307		0.014	0.500	ug/L	1					
Vanadium	J	2.83		0.330	10.0	ug/L	1					
Zinc		11.7		0.974	10.0	ug/L	1					
Manganese		285		0.655	5.00	ug/L	1	JSS	12/07/00	0829	54024	7
Micro-biology												
EPA 405.1 BOD, 5DAY												
BOD, 5 DAY	U	ND		2.00	4.00	mg/L		ES	11/10/00	1307	52902	8
Rad Alpha Spec												
Alphaspec U, liquid												
Uranium-233/234	U	ND	+/-0.193	0.539	1.00	pCi/L		TC1	11/16/00	1134	53053	9
Uranium-235/236	U	ND	+/-0.0684	0.510	1.00	pCi/L						
Uranium-238	U	ND	+/-0.133	0.391	1.00	pCi/L						
Rad Gas Flow												
GFPC, Gross A/B, liquid												
Alpha	U	ND	+/-0.397	0.855	1.50	pCi/L		JEN	11/16/00	1639	53360	10
Beta	U	ND	+/-0.879	1.78	2.00	pCi/L						
GFPC, Ra228, liquid												
Radium-228	U	ND	+/-0.849	1.83	1.50	pCi/L		JDM	11/21/00	1152	53197	11
Rad Liquid Scint												
Liquid Scint Rn222, liquid												
Radon-222		163	+/-30.5	41.6	200	pCi/L		HOB1	11/11/00	0621	52831	12
Rad Radium-226												
Lucas Cell, Ra226, liquid												
Radium-226	U	ND	+/-0.334	0.526	1.00	pCi/L		GRR1	11/21/00	1635	53712	13
Rapid Flow Analysis (Alpkem)												
EPA 335.3 Cyanide, Total												
Cyanide, Total	U	ND		2.76	5.00	ug/L	1	ADF	11/28/00	1234	53491	14
Semi-Volatiles-GC/MS												
3510/8270C TCL BNA Liquid												
1,2,4-Trichlorobenzene	U	ND		0.110	10.0	ug/L	1	JPA	11/15/00	0204	53138	15
1,2-Dichlorobenzene	U	ND		0.130	10.0	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.070	10.0	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.090	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND		0.280	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND		0.100	10.0	ug/L	1					

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Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-08
Sample ID: 33936001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
2,4-Dichlorophenol	U	ND	0.190	10.0	ug/L	1				
2,4-Dimethylphenol	U	ND	0.200	10.0	ug/L	1				
2,4-Dinitrophenol	U	ND	0.650	20.0	ug/L	1				
2,4-Dinitrotoluene	U	ND	0.160	10.0	ug/L	1				
2,6-Dinitrotoluene	U	ND	0.180	10.0	ug/L	1				
2-Chloronaphthalene	U	ND	0.130	1.00	ug/L	1				
2-Chlorophenol	U	ND	0.180	10.0	ug/L	1				
2-Methyl-4,6-dinitrophenol	U	ND	0.870	10.0	ug/L	1				
2-Methylnaphthalene	U	ND	0.150	1.00	ug/L	1				
2-Nitrophenol	U	ND	0.100	10.0	ug/L	1				
3,3'-Dichlorobenzidine	U	ND	0.210	10.0	ug/L	1				
4-Bromophenylphenylether	U	ND	0.180	10.0	ug/L	1				
4-Chloro-3-methylphenol	U	ND	0.210	10.0	ug/L	1				
4-Chloroaniline	U	ND	0.110	10.0	ug/L	1				
4-Chlorophenylphenylether	U	ND	0.200	10.0	ug/L	1				
4-Nitrophenol	U	ND	4.84	10.0	ug/L	1				
Acenaphthene	U	ND	0.160	1.00	ug/L	1				
Acenaphthylene	U	ND	0.140	1.00	ug/L	1				
Anthracene	U	ND	0.110	1.00	ug/L	1				
Benzo(a)anthracene	U	ND	0.100	1.00	ug/L	1				
Benzo(a)pyrene	U	ND	0.070	1.00	ug/L	1				
Benzo(b)fluoranthene	U	ND	0.170	1.00	ug/L	1				
Benzo(ghi)perylene	U	ND	0.260	1.00	ug/L	1				
Benzo(k)fluoranthene	U	ND	0.280	1.00	ug/L	1				
Butylbenzylphthalate	U	ND	0.130	10.0	ug/L	1				
Carbazole	U	ND	0.060	10.0	ug/L	1				
Chrysene	U	ND	0.100	1.00	ug/L	1				
Di-n-butylphthalate	U	ND	0.270	10.0	ug/L	1				
Di-n-octylphthalate	U	ND	0.060	10.0	ug/L	1				
Dibenzo(a,h)anthracene	U	ND	0.180	1.00	ug/L	1				
Dibenzofuran	U	ND	0.180	10.0	ug/L	1				
Diethylphthalate	U	ND	0.270	10.0	ug/L	1				
Dimethylphthalate	U	ND	0.150	10.0	ug/L	1				
Diphenylamine	U	ND	1.54	10.0	ug/L	1				
Fluoranthene	U	ND	0.090	1.00	ug/L	1				
Fluorene	U	ND	0.070	1.00	ug/L	1				
Hexachlorobenzene	U	ND	0.160	10.0	ug/L	1				
Hexachlorobutadiene	U	ND	0.190	10.0	ug/L	1				
Hexachlorocyclopentadiene	U	ND	0.040	10.0	ug/L	1				
Hexachloroethane	U	ND	0.190	10.0	ug/L	1				
Indeno(1,2,3-cd)pyrene	U	ND	0.260	1.00	ug/L	1				
Isophorone	U	ND	0.170	10.0	ug/L	1				

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-08 Project: DELT00200
Sample ID: 33936001 Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
N-Nitrosodipropylamine	U	ND	0.170	10.0	ug/L	1				
Naphthalene	U	ND	0.130	1.00	ug/L	1				
Nitrobenzene	U	ND	0.270	10.0	ug/L	1				
Pentachlorophenol	U	ND	1.20	10.0	ug/L	1				
Phenanthrene	U	ND	0.120	1.00	ug/L	1				
Phenol	U	ND	0.090	10.0	ug/L	1				
Pyrene	U	ND	0.080	1.00	ug/L	1				
bis(2-Chloroethoxy)methane	U	ND	0.190	10.0	ug/L	1				
bis(2-Chloroethyl) ether	U	ND	0.160	10.0	ug/L	1				
bis(2-Chloroisopropyl)ether	U	ND	0.140	10.0	ug/L	1				
bis(2-Ethylhexyl)phthalate		10.9	0.320	1.00	ug/L	1				
m,p-Cresols	U	ND	0.130	10.0	ug/L	1				
m-Nitroaniline	U	ND	1.08	10.0	ug/L	1				
o-Cresol	U	ND	0.200	10.0	ug/L	1				
o-Nitroaniline	U	ND	1.59	10.0	ug/L	1				
p-Nitroaniline	U	ND	0.770	10.0	ug/L	1				
Solids Analysis										
EPA 160.1 Solids, Dissolved										
Total Dissolved Solids		82.0	6.29	10.0	mg/L		TSM	11/14/00 1156	53220	16
EPA 160.2 Total Suspended Liq										
Total Suspended Solids	J	3.60	0.699	5.00	mg/L		TSM	11/15/00 1436	53487	17
Spectrometric Analysis										
EPA 410.4 Chem. Oxygen Demand										
COD	J	1.78	1.06	5.00	mg/L	1	MOJ1	11/16/00 1430	53748	18
SW846_7196A Hexavalent Chromiu										
Hexavalent Chromium	J	0.002	0.002	0.010	mg/L	1	TCC1	11/10/00 1415	53036	19
TOC Analysis										
EPA 415.1 Total Organic Carbon										
Total Organic Carbon	J	0.0645	0.0406	0.200	mg/L	1	MS1	11/27/00 1846	54516	20
TRAACS Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L										
Nitrogen, Ammonia	U	ND	0.029	0.050	mg/L	1	THL	11/15/00 1729	53637	21
EPA 365.4 Phosphorus, Total in										
Phosphorus, Total as PO4	J	0.040	0.020	0.050	mg/L	1	THL	11/16/00 1623	53848	22
Titration Analysis										
EPA 310.1 Total Alkalinity										
Alkalinity, Total as CaCO3		18.6	1.00	2.00	mg/L		MOJ1	11/13/00 0820	53180	23
SM2320B Bicarbonates										

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-08
Sample ID: 33936001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Titration Analysis											
SM2320B Bicarbonates											
Bicarbonate alkalinity (CaCO3)		18.6	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	24
Carbonate alkalinity (CaCO3)	U	ND	1.00	2.00	mg/L						
Hydroxide alkalinity as CaCO3	U	ND	1.00	2.00	mg/L						
Volatile Organics											
5030/8260B TCL in Liquid											
1,1,1-Trichloroethane	U	ND	0.093	2.00	ug/L	1	JEB	11/21/00	1040	54336	25
1,1,2,2-Tetrachloroethane	U	ND	0.273	2.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.193	2.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.099	2.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.090	2.00	ug/L	1					
1,2-Dichloroethane	U	ND	0.158	2.00	ug/L	1					
1,2-Dichloroethylene (total)	U	ND	0.370	2.00	ug/L	1					
1,2-Dichloropropane	U	ND	0.070	2.00	ug/L	1					
2-Butanone	U	ND	1.18	10.0	ug/L	1					
2-Hexanone	U	ND	1.74	10.0	ug/L	1					
4-Methyl-2-pentanone	U	ND	0.696	10.0	ug/L	1					
Acetone	J	1.03	0.224	10.0	ug/L	1					
Benzene	U	ND	0.149	2.00	ug/L	1					
Bromodichloromethane	U	ND	0.024	2.00	ug/L	1					
Bromoform	U	ND	0.085	2.00	ug/L	1					
Bromomethane	U	ND	0.628	2.00	ug/L	1					
Carbon disulfide	U	ND	0.349	10.0	ug/L	1					
Carbon tetrachloride	U	ND	0.124	2.00	ug/L	1					
Chlorobenzene	U	ND	0.603	2.00	ug/L	1					
Chloroethane	U	ND	0.140	2.00	ug/L	1					
Chloroform	U	ND	0.198	2.00	ug/L	1					
Chloromethane	U	ND	0.179	2.00	ug/L	1					
Dibromochloromethane	U	ND	0.089	2.00	ug/L	1					
Ethylbenzene	U	ND	0.051	2.00	ug/L	1					
Methylene chloride	U	ND	0.971	5.00	ug/L	1					
Styrene	U	ND	0.078	2.00	ug/L	1					
Tetrachloroethylene	U	ND	0.385	2.00	ug/L	1					
Toluene	U	ND	0.262	2.00	ug/L	1					
Trichloroethylene	U	ND	0.150	2.00	ug/L	1					
Vinyl acetate	U	ND	1.86	10.0	ug/L	1					
Vinyl chloride	U	ND	0.096	2.00	ug/L	1					
Xylenes (total)	U	ND	0.437	6.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND	0.129	2.00	ug/L	1					

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Sample ID: 33936001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Volatile Organics										
5030/8260B TCL in Liquid										
cis-1,3-Dichloropropylene	U	ND	0.035	2.00	ug/L	1				
trans-1,2-Dichloroethylene	U	ND	0.105	2.00	ug/L	1				
trans-1,3-Dichloropropylene	U	ND	0.106	2.00	ug/L	1				
Wet Chemistry General										
EPA 110.2 Color										
Color	U	ND	5.00	5.00	PCU	1	MOJ1 11/10/00	1935	53109	26
EPA 180.1 Turbidity										
Turbidity		2.54	0.100	0.200	NTU	1	MOJ1 11/10/00	1845	53110	27

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160.2	EPA 160.2 Total Suspended Solids	TSM	11/15/00	1436	53487
EPA 335.3	EPA 335.3 Total Cyanide	ADF	11/14/00	1000	53252
EPA 350.1	EPA 350.1 Ammonia Nitrogen Liquid	THL	11/15/00	1729	53637
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	THL	11/15/00	1043	53523
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	THL	11/15/00	1942	53612
SW846 3005A	ICP-MS 3005 PREP	AJM	11/15/00	1330	53162
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/15/00	1330	53158
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AWI	11/10/00	1700	52920
SW846 7470A	EPA 7470 Mercury Prep Liquid	ARD	11/14/00	1830	53128
SW846 8260	8260B Volatiles In Liquid	JEB	11/21/00	1040	54336

The following Analytical Methods were performed

Method	Description
1	EPA 120.1
2	EPA 150.1
3	EPA 300.0
4	SW846 7470A
5	SW846 6010B
6	SW846 6020
7	SW846 6020
8	EPA 405.1
9	DOE EML HASL 300
10	GL-EPI-B-008

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Client Sample ID: LF-08
Sample ID: 33936001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
11	EPA 904.0									
12	EPA EERF App. B									
13	EPA 903.1									
14	EPA 335.3									
15	SW846 8270C									
16	EPA 160.1									
17	EPA 160.2									
18	EPA 410.4									
19	SW846 7196A									
20	EPA 415.1									
21	EPA 350.1									
22	EPA 365.4									
23	EPA 310.1									
24	SM 2320B									
25	SW846 8260									
26	EPA 110.2									
27	EPA 180.1									

Surrogate recovery	Test	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	3510/8270C TCL BNA Liquid	63%	(30%-116%)
2-Fluorobiphenyl	3510/8270C TCL BNA Liquid	68%	(29%-106%)
2-Fluorophenol	3510/8270C TCL BNA Liquid	41%	(23%-71%)
Nitrobenzene-d5	3510/8270C TCL BNA Liquid	69%	(25%-105%)
Phenol-d5	3510/8270C TCL BNA Liquid	27%	(10%-50%)
p-Terphenyl-d14	3510/8270C TCL BNA Liquid	87%	(18%-125%)
Bromofluorobenzene	5030/8260B TCL in Liquid	80%	(59%-129%)
Dibromofluoromethane	5030/8260B TCL in Liquid	69%	(66%-130%)
Toluene-d8	5030/8260B TCL in Liquid	77%	(64%-130%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Actual result is less than amount reported
> Actual result is greater than amount reported
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

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Client Sample ID: LF-08
Sample ID: 33936001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Suzette Urick at 843-556-8171 Ext. 4477.

P. Suzette Urick
Reviewed by

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Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-12
Sample ID: 33936002
Matrix: Ground Water
Collect Date: 09-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity											
Conductivity		57.6	1.00	1.00	umhos/cm	1	MOJ1	11/15/00	1415	53588	1
Electrode Analysis											
EPA 150.1 pH											
pH at Temp 14.7C		7.88	0.010	0.100	SU	1	TCC1	11/10/00	1912	53108	2
Ion Chromatography											
EPA300.0 Sulfate in Liquid											
Bromide	U	ND	0.016	0.050	mg/L	1	RWS	11/10/00	1718	53073	3
Chloride		9.47	0.026	0.100	mg/L	1					
Fluoride	U	ND	0.017	0.050	mg/L	1					
Nitrate		2.29	0.020	0.050	mg/L	1					
Nitrite	U	ND	0.020	0.050	mg/L	1					
Sulfate		1.07	0.079	0.200	mg/L	1					
Mercury Analysis											
7470 Cold Vapor Hg Liquid											
Mercury	U	ND	0.060	0.200	ug/L	1	AW2	11/15/00	1714	53578	4
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		2660	35.5	100	ug/L	1	JAB	12/05/00	2241	55728	5
Magnesium		1100	3.54	20.0	ug/L	1					
Potassium		656	16.4	100	ug/L	1					
Silica		36300	39.8	213	ug/L	1					
Silicon		17100	18.6	100	ug/L	1					
Sodium		10400	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Antimony	J	0.149	0.111	2.00	ug/L	1	JSS	12/06/00	0935	54024	6
Arsenic	J	1.42	0.145	3.00	ug/L	1					
Barium		22.5	0.158	2.00	ug/L	1					
Beryllium	J	0.143	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium		7.59	0.645	3.00	ug/L	1					
Cobalt		4.48	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		117	7.92	25.0	ug/L	1					
Lead	J	0.139	0.077	2.00	ug/L	1					
Nickel		4.61	0.072	2.00	ug/L	1					
Selenium	J	0.669	0.218	3.00	ug/L	1					

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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-12
Sample ID: 33936002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICPMS												
6020/3005 MIMICP SCAN Metals												
Silver	J	0.127		0.101	1.00	ug/L	1					
Strontium		35.1		0.020	10.0	ug/L	1					
Thallium	J	0.444		0.014	0.500	ug/L	1					
Vanadium	J	4.51		0.330	10.0	ug/L	1					
Zinc		11.4		0.974	10.0	ug/L	1					
Manganese		7.97		0.655	5.00	ug/L	1	JSS	12/07/00	0903	54024	7
Micro-biology												
EPA 405.1 BOD, 5DAY												
BOD, 5 DAY	U	ND		2.00	4.00	mg/L		ES	11/10/00	1307	52902	8
Rad Alpha Spec												
Alphaspec U, liquid												
Uranium-233/234	U	ND	+/-0.351	0.686	1.00	pCi/L		TC1	11/16/00	1134	53053	9
Uranium-235/236	U	ND	+/-0.222	0.333	1.00	pCi/L						
Uranium-238	U	ND	+/-2.00	0.189	1.00	pCi/L						
Rad Gas Flow												
GFPC, Gross A/B, liquid												
Alpha	U	ND	+/-0.416	0.648	1.50	pCi/L		JEN	11/16/00	1639	53360	10
Beta	U	ND	+/-0.864	1.68	2.00	pCi/L						
GFPC, Ra228, liquid												
Radium-228	U	ND	+/-0.556	1.21	1.50	pCi/L		JDM	11/21/00	1152	53197	11
Rad Liquid Scint												
Liquid Scint Rn222, liquid												
Radon-222		780	+/-47.4	41.2	200	pCi/L		HOB1	11/11/00	0653	52831	12
Rad Radium-226												
Lucas Cell, Ra226, liquid												
Radium-226		8.44	+/-1.09	0.339	1.00	pCi/L		GRR1	11/21/00	1655	53712	13
Rapid Flow Analysis (Alpkem)												
EPA 335.3 Cyanide, Total												
Cyanide, Total	U	ND		2.76	5.00	ug/L	1	ADF	11/28/00	1235	53491	14
Semi-Volatiles-GC/MS												
3510/8270C TCL BNA Liquid												
1,2,4-Trichlorobenzene	U	ND		0.110	10.0	ug/L	1	JPA	11/15/00	0234	53138	15
1,2-Dichlorobenzene	U	ND		0.130	10.0	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.070	10.0	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.090	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND		0.280	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND		0.100	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND		0.190	10.0	ug/L	1					

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Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
2,4-Dimethylphenol	U	ND	0.200	10.0	ug/L	1				
2,4-Dinitrophenol	U	ND	0.650	20.0	ug/L	1				
2,4-Dinitrotoluene	U	ND	0.160	10.0	ug/L	1				
2,6-Dinitrotoluene	U	ND	0.180	10.0	ug/L	1				
2-Chloronaphthalene	U	ND	0.130	1.00	ug/L	1				
2-Chlorophenol	U	ND	0.180	10.0	ug/L	1				
2-Methyl-4,6-dinitrophenol	U	ND	0.870	10.0	ug/L	1				
2-Methylnaphthalene	U	ND	0.150	1.00	ug/L	1				
2-Nitrophenol	U	ND	0.100	10.0	ug/L	1				
3,3'-Dichlorobenzidine	U	ND	0.210	10.0	ug/L	1				
4-Bromophenylphenylether	U	ND	0.180	10.0	ug/L	1				
4-Chloro-3-methylphenol	U	ND	0.210	10.0	ug/L	1				
4-Chloroaniline	U	ND	0.110	10.0	ug/L	1				
4-Chlorophenylphenylether	U	ND	0.200	10.0	ug/L	1				
4-Nitrophenol	U	ND	4.84	10.0	ug/L	1				
Acenaphthene	U	ND	0.160	1.00	ug/L	1				
Acenaphthylene	U	ND	0.140	1.00	ug/L	1				
Anthracene	U	ND	0.110	1.00	ug/L	1				
Benzo(a)anthracene	U	ND	0.100	1.00	ug/L	1				
Benzo(a)pyrene	U	ND	0.070	1.00	ug/L	1				
Benzo(b)fluoranthene	U	ND	0.170	1.00	ug/L	1				
Benzo(ghi)perylene	U	ND	0.260	1.00	ug/L	1				
Benzo(k)fluoranthene	U	ND	0.280	1.00	ug/L	1				
Butylbenzylphthalate	U	ND	0.130	10.0	ug/L	1				
Carbazole	U	ND	0.060	10.0	ug/L	1				
Chrysene	U	ND	0.100	1.00	ug/L	1				
Di-n-butylphthalate	U	ND	0.270	10.0	ug/L	1				
Di-n-octylphthalate	U	ND	0.060	10.0	ug/L	1				
Dibenzo(a,h)anthracene	U	ND	0.180	1.00	ug/L	1				
Dibenzofuran	U	ND	0.180	10.0	ug/L	1				
Diethylphthalate	U	ND	0.270	10.0	ug/L	1				
Dimethylphthalate	U	ND	0.150	10.0	ug/L	1				
Diphenylamine	U	ND	1.54	10.0	ug/L	1				
Fluoranthene	U	ND	0.090	1.00	ug/L	1				
Fluorene	U	ND	0.070	1.00	ug/L	1				
Hexachlorobenzene	U	ND	0.160	10.0	ug/L	1				
Hexachlorobutadiene	U	ND	0.190	10.0	ug/L	1				
Hexachlorocyclopentadiene	U	ND	0.040	10.0	ug/L	1				
Hexachloroethane	U	ND	0.190	10.0	ug/L	1				
Indeno(1,2,3-cd)pyrene	U	ND	0.260	1.00	ug/L	1				
Isophorone	U	ND	0.170	10.0	ug/L	1				
N-Nitrosodipropylamine	U	ND	0.170	10.0	ug/L	1				

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Client Sample ID: LF-12
Sample ID: 33936002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
3510/8270C TCL BNA Liquid											
Naphthalene	U	ND	0.130	1.00	ug/L	1					
Nitrobenzene	U	ND	0.270	10.0	ug/L	1					
Pentachlorophenol	U	ND	1.20	10.0	ug/L	1					
Phenanthrene	U	ND	0.120	1.00	ug/L	1					
Phenol	U	ND	0.090	10.0	ug/L	1					
Pyrene	U	ND	0.080	1.00	ug/L	1					
bis(2-Chloroethoxy)methane	U	ND	0.190	10.0	ug/L	1					
bis(2-Chloroethyl) ether	U	ND	0.160	10.0	ug/L	1					
bis(2-Chloroisopropyl)ether	U	ND	0.140	10.0	ug/L	1					
bis(2-Ethylhexyl)phthalate	U	ND	0.320	1.00	ug/L	1					
m,p-Cresols	U	ND	0.130	10.0	ug/L	1					
m-Nitroaniline	U	ND	1.08	10.0	ug/L	1					
o-Cresol	U	ND	0.200	10.0	ug/L	1					
o-Nitroaniline	U	ND	1.59	10.0	ug/L	1					
p-Nitroaniline	U	ND	0.770	10.0	ug/L	1					
Solids Analysis											
EPA 160.1 Solids, Dissolved											
Total Dissolved Solids		76.0	6.29	10.0	mg/L		TSM	11/14/00	1156	53220	16
EPA 160.2 Total Suspended Liq											
Total Suspended Solids	J	1.60	0.699	5.00	mg/L		TSM	11/15/00	1436	53487	17
Spectrometric Analysis											
EPA 410.4 Chem. Oxygen Demand											
COD	U	ND	1.06	5.00	mg/L	1	MOJ1	11/16/00	1430	53748	18
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	J	0.003	0.002	0.010	mg/L	1	TCC1	11/10/00	1415	53036	19
TOC Analysis											
EPA 415.1 Total Organic Carbon											
Total Organic Carbon		1.30	0.0406	0.200	mg/L	1	MS1	11/27/00	1933	54516	20
TRAACS Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L											
Nitrogen, Ammonia	U	ND	0.029	0.050	mg/L	1	THL	11/15/00	1729	53637	21
EPA 365.4 Phosphorus, Total in											
Phosphorus, Total as PO4	U	ND	0.020	0.050	mg/L	1	THL	11/16/00	1623	53848	22
Titration Analysis											
EPA 310.1 Total Alkalinity											
Alkalinity, Total as CaCO3		10.8	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	23
SM2320B Bicarbonates											
Bicarbonate alkalinity		10.8	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	24

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-12
Sample ID: 33936002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Titration Analysis											
SM2320B Bicarbonates											
(CaCO3)											
Carbonate alkalinity (CaCO3)	U	ND	1.00	2.00	mg/L						
Hydroxide alkalinity as CaCO3	U	ND	1.00	2.00	mg/L						
Volatile Organics											
5030/8260B TCL in Liquid											
1,1,1-Trichloroethane	U	ND	0.093	2.00	ug/L	1	JEB	11/21/00	1109	54336	25
1,1,2,2-Tetrachloroethane	U	ND	0.273	2.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.193	2.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.099	2.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.090	2.00	ug/L	1					
1,2-Dichloroethane	U	ND	0.158	2.00	ug/L	1					
1,2-Dichloroethylene (total)	U	ND	0.370	2.00	ug/L	1					
1,2-Dichloropropane	U	ND	0.070	2.00	ug/L	1					
2-Butanone	U	ND	1.18	10.0	ug/L	1					
2-Hexanone	U	ND	1.74	10.0	ug/L	1					
4-Methyl-2-pentanone	U	ND	0.696	10.0	ug/L	1					
Acetone	J	3.35	0.224	10.0	ug/L	1					
Benzene	U	ND	0.149	2.00	ug/L	1					
Bromodichloromethane	U	ND	0.024	2.00	ug/L	1					
Bromoform	U	ND	0.085	2.00	ug/L	1					
Bromomethane	U	ND	0.628	2.00	ug/L	1					
Carbon disulfide	U	ND	0.349	10.0	ug/L	1					
Carbon tetrachloride	U	ND	0.124	2.00	ug/L	1					
Chlorobenzene	U	ND	0.603	2.00	ug/L	1					
Chloroethane	U	ND	0.140	2.00	ug/L	1					
Chloroform	U	ND	0.198	2.00	ug/L	1					
Chloromethane	U	ND	0.179	2.00	ug/L	1					
Dibromochloromethane	U	ND	0.089	2.00	ug/L	1					
Ethylbenzene	U	ND	0.051	2.00	ug/L	1					
Methylene chloride	U	ND	0.971	5.00	ug/L	1					
Styrene	U	ND	0.078	2.00	ug/L	1					
Tetrachloroethylene	U	ND	0.385	2.00	ug/L	1					
Toluene	U	ND	0.262	2.00	ug/L	1					
Trichloroethylene	U	ND	0.150	2.00	ug/L	1					
Vinyl acetate	U	ND	1.86	10.0	ug/L	1					
Vinyl chloride	U	ND	0.096	2.00	ug/L	1					
Xylenes (total)	U	ND	0.437	6.00	ug/L	1					
cis-1,2-Dichloroethylene	U	ND	0.129	2.00	ug/L	1					
cis-1,3-Dichloropropylene	U	ND	0.035	2.00	ug/L	1					

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Client Sample ID: LF-12
Sample ID: 33936002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Volatile Organics										
5030/8260B TCL in Liquid										
trans-1,2-Dichloroethylene	U	ND	0.105	2.00	ug/L	1				
trans-1,3-Dichloropropylene	U	ND	0.106	2.00	ug/L	1				
Wet Chemistry General										
EPA 110.2 Color										
Color		5.00	5.00	5.00	PCU	1	MOJ1 11/10/00	1935	53109	26
EPA 180.1 Turbidity										
Turbidity		4.02	0.100	0.200	NTU	1	MOJ1 11/10/00	1845	53110	27

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160.2	EPA 160.2 Total Suspended Solids	TSM	11/15/00	1436	53487
EPA 335.3	EPA 335.3 Total Cyanide	ADF	11/14/00	1000	53252
EPA 350.1	EPA 350.1 Ammonia Nitrogen Liquid	THL	11/15/00	1729	53637
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	THL	11/15/00	1043	53523
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	THL	11/15/00	1942	53612
SW846 3005A	ICP-MS 3005 PREP	AJM	11/15/00	1330	53162
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/15/00	1330	53158
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AW1	11/10/00	1700	52920
SW846 7470A	EPA 7470 Mercury Prep Liquid	ARD	11/14/00	1830	53128
SW846 8260	8260B Volatiles In Liquid	JEB	11/21/00	1109	54336

The following Analytical Methods were performed

Method	Description
1	EPA 120.1
2	EPA 150.1
3	EPA 300.0
4	SW846 7470A
5	SW846 6010B
6	SW846 6020
7	SW846 6020
8	EPA 405.1
9	DOE EML HASL 300
10	GL-EPI-B-008
11	EPA 904.0

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Client Sample ID: LF-12
Sample ID: 33936002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
12	EPA EERF App. B									
13	EPA 903.1									
14	EPA 335.3									
15	SW846 8270C									
16	EPA 160.1									
17	EPA 160.2									
18	EPA 410.4									
19	SW846 7196A									
20	EPA 415.1									
21	EPA 350.1									
22	EPA 365.4									
23	EPA 310.1									
24	SM 2320B									
25	SW846 8260									
26	EPA 110.2									
27	EPA 180.1									

Surrogate recovery	Test	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	3510/8270C TCL BNA Liquid	62%	(30%-116%)
2-Fluorobiphenyl	3510/8270C TCL BNA Liquid	66%	(29%-106%)
2-Fluorophenol	3510/8270C TCL BNA Liquid	38%	(23%-71%)
Nitrobenzene-d5	3510/8270C TCL BNA Liquid	64%	(25%-105%)
Phenol-d5	3510/8270C TCL BNA Liquid	25%	(10%-50%)
p-Terphenyl-d14	3510/8270C TCL BNA Liquid	78%	(18%-125%)
Bromofluorobenzene	5030/8260B TCL in Liquid	80%	(59%-129%)
Dibromofluoromethane	5030/8260B TCL in Liquid	70%	(66%-130%)
Toluene-d8	5030/8260B TCL in Liquid	77%	(64%-130%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Actual result is less than amount reported
> Actual result is greater than amount reported
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the compound was analyzed for but not detected above the detection limit

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Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-12
Sample ID: 33936002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Suzette Urick at 843-556-8171 Ext. 4477.

P. Suzette Urick
Reviewed by

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Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-09
Sample ID: 33936003
Matrix: Ground Water
Collect Date: 08-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity											
Conductivity		80.9	1.00	1.00	umhos/cm	1	MOJ1	11/15/00	1415	53588	1
Electrode Analysis											
EPA 150.1 pH											
pH at Temp 20.7C		6.04	0.010	0.100	SU	1	TCC1	11/10/00	1914	53108	2
Ion Chromatography											
EPA300.0 Sulfate in Liquid											
Bromide	U	ND	0.016	0.050	mg/L	1	RWS	11/10/00	1801	53073	3
Chloride		7.17	0.026	0.100	mg/L	1					
Fluoride		0.073	0.017	0.050	mg/L	1					
Nitrate		0.175	0.020	0.050	mg/L	1					
Nitrite	U	ND	0.020	0.050	mg/L	1					
Sulfate		24.2	0.079	0.200	mg/L	1					
Mercury Analysis											
7470 Cold Vapor Hg Liquid											
Mercury	U	ND	0.060	0.200	ug/L	1	AW2	11/15/00	1720	53578	4
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		3980	35.5	100	ug/L	1	JAB	12/05/00	2248	55728	5
Magnesium		2310	3.54	20.0	ug/L	1					
Potassium		2350	16.4	100	ug/L	1					
Silica		58300	39.8	213	ug/L	1					
Silicon		27500	18.6	100	ug/L	1					
Sodium		9950	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Antimony	J	0.163	0.111	2.00	ug/L	1	JSS	12/06/00	0943	54024	6
Arsenic	J	1.45	0.145	3.00	ug/L	1					
Barium		128	0.158	2.00	ug/L	1					
Beryllium		0.254	0.034	0.200	ug/L	1					
Cadmium	J	0.113	0.050	1.00	ug/L	1					
Chromium	J	2.41	0.645	3.00	ug/L	1					
Cobalt		16.4	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		1130	7.92	25.0	ug/L	1					
Lead	J	0.245	0.077	2.00	ug/L	1					
Nickel		14.8	0.072	2.00	ug/L	1					
Selenium	J	0.705	0.218	3.00	ug/L	1					

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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-09
Sample ID: 33936003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICPMS												
6020/3005 MIMICP SCAN Metals												
Silver	J	0.122		0.101	1.00	ug/L	1					
Strontium		43.3		0.020	10.0	ug/L	1					
Thallium	J	0.164		0.014	0.500	ug/L	1					
Vanadium	J	3.39		0.330	10.0	ug/L	1					
Zinc		24.9		0.974	10.0	ug/L	1					
Manganese		719		0.655	5.00	ug/L	1	JSS	12/07/00	0912	54024	7
Micro-biology												
EPA 405.1 BOD, 5DAY												
BOD, 5 DAY	U	ND		2.00	4.00	mg/L		ES	11/10/00	1307	52902	8
Rad Alpha Spec												
Alphaspec U, liquid												
Uranium-233/234	U	ND	+/-0.243	0.655	1.00	pCi/L		TC1	11/16/00	1134	53053	9
Uranium-235/236	U	ND	+/-0.197	0.553	1.00	pCi/L						
Uranium-238	U	ND	+/-0.182	0.193	1.00	pCi/L						
Rad Gas Flow												
GFPC, Gross A/B, liquid												
Alpha		2.84	+/-0.825	0.709	1.50	pCi/L		JEN	11/16/00	1639	53360	10
Beta		4.05	+/-0.987	1.61	2.00	pCi/L						
GFPC, Ra228, liquid												
Radium-228	U	ND	+/-1.44	3.20	1.50	pCi/L		JDM	11/21/00	1152	53197	11
Rad Liquid Scint												
Liquid Scint Rn222, liquid												
Radon-222		71.7	+/-31.8	50.1	200	pCi/L		HOB1	11/11/00	0724	52831	12
Rad Radium-226												
Lucas Cell, Ra226, liquid												
Radium-226		1.93	+/-0.554	0.461	1.00	pCi/L		GRR1	11/21/00	1745	53712	13
Rapid Flow Analysis (Alpkem)												
EPA 335.3 Cyanide, Total												
Cyanide, Total	U	ND		2.76	5.00	ug/L	1	ADF	11/28/00	1237	53491	14
Semi-Volatiles-GC/MS												
3510/8270C TCL BNA Liquid												
1,2,4-Trichlorobenzene	U	ND		0.110	10.0	ug/L	1	JPA	11/15/00	0304	53138	15
1,2-Dichlorobenzene	U	ND		0.130	10.0	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.070	10.0	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.090	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND		0.280	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND		0.100	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND		0.190	10.0	ug/L	1					

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Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
2,4-Dimethylphenol	U	ND	0.200	10.0	ug/L	1				
2,4-Dinitrophenol	U	ND	0.650	20.0	ug/L	1				
2,4-Dinitrotoluene	U	ND	0.160	10.0	ug/L	1				
2,6-Dinitrotoluene	U	ND	0.180	10.0	ug/L	1				
2-Chloronaphthalene	U	ND	0.130	1.00	ug/L	1				
2-Chlorophenol	U	ND	0.180	10.0	ug/L	1				
2-Methyl-4,6-dinitrophenol	U	ND	0.870	10.0	ug/L	1				
2-Methylnaphthalene	U	ND	0.150	1.00	ug/L	1				
2-Nitrophenol	U	ND	0.100	10.0	ug/L	1				
3,3'-Dichlorobenzidine	U	ND	0.210	10.0	ug/L	1				
4-Bromophenylphenylether	U	ND	0.180	10.0	ug/L	1				
4-Chloro-3-methylphenol	U	ND	0.210	10.0	ug/L	1				
4-Chloroaniline	U	ND	0.110	10.0	ug/L	1				
4-Chlorophenylphenylether	U	ND	0.200	10.0	ug/L	1				
4-Nitrophenol	U	ND	4.84	10.0	ug/L	1				
Acenaphthene	U	ND	0.160	1.00	ug/L	1				
Acenaphthylene	U	ND	0.140	1.00	ug/L	1				
Anthracene	U	ND	0.110	1.00	ug/L	1				
Benzo(a)anthracene	U	ND	0.100	1.00	ug/L	1				
Benzo(a)pyrene	U	ND	0.070	1.00	ug/L	1				
Benzo(b)fluoranthene	U	ND	0.170	1.00	ug/L	1				
Benzo(ghi)perylene	U	ND	0.260	1.00	ug/L	1				
Benzo(k)fluoranthene	U	ND	0.280	1.00	ug/L	1				
Butylbenzylphthalate	U	ND	0.130	10.0	ug/L	1				
Carbazole	U	ND	0.060	10.0	ug/L	1				
Chrysene	U	ND	0.100	1.00	ug/L	1				
Di-n-butylphthalate	U	ND	0.270	10.0	ug/L	1				
Di-n-octylphthalate	U	ND	0.060	10.0	ug/L	1				
Dibenzo(a,h)anthracene	U	ND	0.180	1.00	ug/L	1				
Dibenzofuran	U	ND	0.180	10.0	ug/L	1				
Diethylphthalate	U	ND	0.270	10.0	ug/L	1				
Dimethylphthalate	U	ND	0.150	10.0	ug/L	1				
Diphenylamine	U	ND	1.54	10.0	ug/L	1				
Fluoranthene	U	ND	0.090	1.00	ug/L	1				
Fluorene	U	ND	0.070	1.00	ug/L	1				
Hexachlorobenzene	U	ND	0.160	10.0	ug/L	1				
Hexachlorobutadiene	U	ND	0.190	10.0	ug/L	1				
Hexachlorocyclopentadiene	U	ND	0.040	10.0	ug/L	1				
Hexachloroethane	U	ND	0.190	10.0	ug/L	1				
Indeno(1,2,3-cd)pyrene	U	ND	0.260	1.00	ug/L	1				
Isophorone	U	ND	0.170	10.0	ug/L	1				
N-Nitrosodipropylamine	U	ND	0.170	10.0	ug/L	1				

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Sample ID: 33936003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
3510/8270C TCL BNA Liquid											
Naphthalene	U	ND	0.130	1.00	ug/L	1					
Nitrobenzene	U	ND	0.270	10.0	ug/L	1					
Pentachlorophenol	U	ND	1.20	10.0	ug/L	1					
Phenanthrene	U	ND	0.120	1.00	ug/L	1					
Phenol	U	ND	0.090	10.0	ug/L	1					
Pyrene	U	ND	0.080	1.00	ug/L	1					
bis(2-Chloroethoxy)methane	U	ND	0.190	10.0	ug/L	1					
bis(2-Chloroethyl) ether	U	ND	0.160	10.0	ug/L	1					
bis(2-Chloroisopropyl)ether	U	ND	0.140	10.0	ug/L	1					
bis(2-Ethylhexyl)phthalate		2.94	0.320	1.00	ug/L	1					
m,p-Cresols	U	ND	0.130	10.0	ug/L	1					
m-Nitroaniline	U	ND	1.08	10.0	ug/L	1					
o-Cresol	U	ND	0.200	10.0	ug/L	1					
o-Nitroaniline	U	ND	1.59	10.0	ug/L	1					
p-Nitroaniline	U	ND	0.770	10.0	ug/L	1					
Solids Analysis											
EPA 160.1 Solids, Dissolved											
Total Dissolved Solids		118	6.29	10.0	mg/L		TSM	11/14/00	1156	53220	16
EPA 160.2 Total Suspended Liq											
Total Suspended Solids	J	4.80	0.699	5.00	mg/L		TSM	11/15/00	1436	53487	17
Spectrometric Analysis											
EPA 410.4 Chem. Oxygen Demand											
COD	J	2.48	1.06	5.00	mg/L	1	MOJ1	11/16/00	1430	53748	18
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	U	ND	0.002	0.010	mg/L	1	TCC1	11/10/00	1415	53036	19
TOC Analysis											
EPA 415.1 Total Organic Carbon											
Total Organic Carbon		0.555	0.0406	0.200	mg/L	1	MS1	11/27/00	1949	54516	20
TRAACS Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L											
Nitrogen, Ammonia	U	ND	0.029	0.050	mg/L	1	THL	11/15/00	1729	53637	21
EPA 365.4 Phosphorus, Total in											
Phosphorus, Total as PO4	J	0.030	0.020	0.050	mg/L	1	THL	11/16/00	1623	53848	22
Titration Analysis											
EPA 310.1 Total Alkalinity											
Alkalinity, Total as CaCO3		13.7	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	23
SM2320B Bicarbonates											
Bicarbonate alkalinity		13.7	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	24

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-09
Sample ID: 33936003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Titration Analysis										
SM2320B Bicarbonates										
(CaCO3) Carbonate alkalinity	U	ND	1.00	2.00	mg/L					
(CaCO3) Hydroxide alkalinity as CaCO3	U	ND	1.00	2.00	mg/L					
Volatile Organics										
5030/8260B TCL in Liquid										
1,1,1-Trichloroethane	U	ND	0.093	2.00	ug/L	1	JEB 11/21/00	1140	54336	25
1,1,2,2-Tetrachloroethane	U	ND	0.273	2.00	ug/L	1				
1,1,2-Trichloroethane	U	ND	0.193	2.00	ug/L	1				
1,1-Dichloroethane	U	ND	0.099	2.00	ug/L	1				
1,1-Dichloroethylene	U	ND	0.090	2.00	ug/L	1				
1,2-Dichloroethane	U	ND	0.158	2.00	ug/L	1				
1,2-Dichloroethylene (total)	U	ND	0.370	2.00	ug/L	1				
1,2-Dichloropropane	U	ND	0.070	2.00	ug/L	1				
2-Butanone	U	ND	1.18	10.0	ug/L	1				
2-Hexanone	U	ND	1.74	10.0	ug/L	1				
4-Methyl-2-pentanone	U	ND	0.696	10.0	ug/L	1				
Acetone	J	3.35	0.224	10.0	ug/L	1				
Benzene	U	ND	0.149	2.00	ug/L	1				
Bromodichloromethane	U	ND	0.024	2.00	ug/L	1				
Bromoform	U	ND	0.085	2.00	ug/L	1				
Bromomethane	U	ND	0.628	2.00	ug/L	1				
Carbon disulfide	U	ND	0.349	10.0	ug/L	1				
Carbon tetrachloride	U	ND	0.124	2.00	ug/L	1				
Chlorobenzene	U	ND	0.603	2.00	ug/L	1				
Chloroethane	U	ND	0.140	2.00	ug/L	1				
Chloroform	U	ND	0.198	2.00	ug/L	1				
Chloromethane	U	ND	0.179	2.00	ug/L	1				
Dibromochloromethane	U	ND	0.089	2.00	ug/L	1				
Ethylbenzene	U	ND	0.051	2.00	ug/L	1				
Methylene chloride	U	ND	0.971	5.00	ug/L	1				
Styrene	U	ND	0.078	2.00	ug/L	1				
Tetrachloroethylene	U	ND	0.385	2.00	ug/L	1				
Toluene	U	ND	0.262	2.00	ug/L	1				
Trichloroethylene	U	ND	0.150	2.00	ug/L	1				
Vinyl acetate	U	ND	1.86	10.0	ug/L	1				
Vinyl chloride	U	ND	0.096	2.00	ug/L	1				
Xylenes (total)	U	ND	0.437	6.00	ug/L	1				
cis-1,2-Dichloroethylene	U	ND	0.129	2.00	ug/L	1				
cis-1,3-Dichloropropylene	U	ND	0.035	2.00	ug/L	1				

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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-09
Sample ID: 33936003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Volatile Organics										
5030/8260B TCL in Liquid										
trans-1,2-Dichloroethylene	U	ND	0.105	2.00	ug/L	1				
trans-1,3-Dichloropropylene	U	ND	0.106	2.00	ug/L	1				
Wet Chemistry General										
EPA 110.2 Color										
Color		5.00	5.00	5.00	PCU	1	MOJ1 11/10/00	1935	53109	26
EPA 180.1 Turbidity										
Turbidity		2.44	0.100	0.200	NTU	1	MOJ1 11/10/00	1845	53110	27

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160.2	EPA 160.2 Total Suspended Solids	TSM	11/15/00	1436	53487
EPA 335.3	EPA 335.3 Total Cyanide	ADF	11/14/00	1000	53252
EPA 350.1	EPA 350.1 Ammonia Nitrogen Liquid	THL	11/15/00	1729	53637
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	THL	11/15/00	1043	53523
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	THL	11/15/00	1942	53612
SW846 3005A	ICP-MS 3005 PREP	AJM	11/15/00	1330	53162
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/15/00	1330	53158
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AW1	11/10/00	1700	52920
SW846 7470A	EPA 7470 Mercury Prep Liquid	ARD	11/14/00	1830	53128
SW846 8260	8260B Volatiles In Liquid	JEB	11/21/00	1140	54336

The following Analytical Methods were performed

Method	Description
1	EPA 120.1
2	EPA 150.1
3	EPA 300.0
4	SW846 7470A
5	SW846 6010B
6	SW846 6020
7	SW846 6020
8	EPA 405.1
9	DOE EML HASL 300
10	GL-EPI-B-008
11	EPA 904.0

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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-09
Sample ID: 33936003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
12	EPA EERF App. B									
13	EPA 903.1									
14	EPA 335.3									
15	SW846 8270C									
16	EPA 160.1									
17	EPA 160.2									
18	EPA 410.4									
19	SW846 7196A									
20	EPA 415.1									
21	EPA 350.1									
22	EPA 365.4									
23	EPA 310.1									
24	SM 2320B									
25	SW846 8260									
26	EPA 110.2									
27	EPA 180.1									

Surrogate recovery	Test	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	3510/8270C TCL BNA Liquid	69%	(30%-116%)
2-Fluorobiphenyl	3510/8270C TCL BNA Liquid	58%	(29%-106%)
2-Fluorophenol	3510/8270C TCL BNA Liquid	35%	(23%-71%)
Nitrobenzene-d5	3510/8270C TCL BNA Liquid	52%	(25%-105%)
Phenol-d5	3510/8270C TCL BNA Liquid	24%	(10%-50%)
p-Terphenyl-d14	3510/8270C TCL BNA Liquid	85%	(18%-125%)
Bromofluorobenzene	5030/8260B TCL in Liquid	78%	(59%-129%)
Dibromofluoromethane	5030/8260B TCL in Liquid	70%	(66%-130%)
Toluene-d8	5030/8260B TCL in Liquid	76%	(64%-130%)

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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-09
Sample ID: 33936003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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P. Suzette Urick
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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-08 Filtered
Sample ID: 33936004
Matrix: Ground Water
Collect Date: 09-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		4000	35.5	100	ug/L	1	JAB	12/05/00	2255	55728	1
Magnesium		1510	3.54	20.0	ug/L	1					
Potassium		667	16.4	100	ug/L	1					
Silica		35800	39.8	213	ug/L	1					
Silicon		16900	18.6	100	ug/L	1					
Sodium		15700	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Antimony	J	1.46	0.111	2.00	ug/L	1	JSS	12/06/00	0951	54024	2
Arsenic	J	0.475	0.145	3.00	ug/L	1					
Barium		460	0.158	2.00	ug/L	1					
Beryllium	U	ND	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium	U	ND	0.645	3.00	ug/L	1					
Cobalt	J	0.802	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		4540	7.92	25.0	ug/L	1					
Lead	J	0.180	0.077	2.00	ug/L	1					
Nickel	J	1.36	0.072	2.00	ug/L	1					
Selenium	U	ND	0.218	3.00	ug/L	1					
Silver	J	0.116	0.101	1.00	ug/L	1					
Strontium		38.6	0.020	10.0	ug/L	1					
Thallium	J	0.061	0.014	0.500	ug/L	1					
Vanadium	J	0.843	0.330	10.0	ug/L	1					
Zinc		98.1	0.974	10.0	ug/L	1					
Manganese		251	0.655	5.00	ug/L	1	JSS	12/07/00	0920	54024	3
TOC Analysis											
EPA 415.1 Diss.Org.Carbon Liq											
Diss. Org. Carbon		0.328	0.0406	0.200	mg/L	1	MS1	11/27/00	2321	54514	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	AJM	11/15/00	1330	53162
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/15/00	1330	53158

The following Analytical Methods were performed

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-08 Filtered
Sample ID: 33936004

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 6010B
2	SW846 6020
3	SW846 6020
4	EPA 415.1

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P. Suzette Urick
Reviewed by

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-12 Filtered
Sample ID: 33936005
Matrix: Ground Water
Collect Date: 09-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Proiect: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		2770	35.5	100	ug/L	1	JAB	12/05/00	2302	55728	1
Magnesium		975	3.54	20.0	ug/L	1					
Potassium		767	16.4	100	ug/L	1					
Silica		34700	39.8	213	ug/L	1					
Silicon		16400	18.6	100	ug/L	1					
Sodium		17800	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Antimony		3.30	0.111	2.00	ug/L	1	JSS	12/06/00	1000	54024	2
Arsenic	J	0.481	0.145	3.00	ug/L	1					
Barium		478	0.158	2.00	ug/L	1					
Beryllium	U	ND	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium		5.33	0.645	3.00	ug/L	1					
Cobalt		3.32	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		57.5	7.92	25.0	ug/L	1					
Lead	U	ND	0.077	2.00	ug/L	1					
Nickel		4.24	0.072	2.00	ug/L	1					
Selenium	J	0.571	0.218	3.00	ug/L	1					
Silver	J	0.114	0.101	1.00	ug/L	1					
Strontium		33.7	0.020	10.0	ug/L	1					
Thallium	J	0.039	0.014	0.500	ug/L	1					
Vanadium	J	0.646	0.330	10.0	ug/L	1					
Zinc		437	0.974	10.0	ug/L	1					
Manganese		7.46	0.655	5.00	ug/L	1	JSS	12/07/00	0944	54024	3
TOC Analysis											
EPA 415.1 Diss.Org.Carbon Liq											
Diss. Org. Carbon		0.345	0.0406	0.200	mg/L	1	MS1	11/27/00	2336	54514	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	AJM	11/15/00	1330	53162
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/15/00	1330	53158

The following Analytical Methods were performed

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Company : Delta Environmental
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Report Date: December 8, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-12 Filtered
Sample ID: 33936005

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 6010B
2	SW846 6020
3	SW846 6020
4	EPA 415.1

Notes:
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QC Summary

Report Date: December 8, 2000

Client : Delta Environmental
6701 Carmel, Suite 303
Charlotte, NC 28226

Contact: Rick Powell

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis										
Batch 53588										
QC1000130092 LCS										
Conductivity	1410			1380	umhos/cm		97	(80%-120%)	MOJ1	11/15/00 14:15
Electrode Analysis										
Batch 53108										
QC1000128701 LCS										
pH	7.00			6.99	SU		100	(95%-105%)	TCC1	11/10/00 19:06
Ion Chromatography										
Batch 53073										
QC1000128602 33936001 DUP										
Bromide		0.00		0.00	mg/L	N/A ^		(+/-0.050)	RWS	11/10/00 16:49
Chloride		7.72		7.75	mg/L	0		(0%-13%)		
Fluoride		0.112		0.079	mg/L	35 ^		(+/-0.050)		
Nitrate		0.00	U	ND	mg/L	N/A ^		(+/-0.050)		
Nitrite		0.00		0.00	mg/L	N/A ^		(+/-0.050)		
Sulfate		11.4		11.3	mg/L	1		(0%-15%)		
QC1000128601 LCS										
Bromide	10.0			10.4	mg/L		104	(90%-110%)		11/10/00 17:32
Chloride	10.0			9.57	mg/L		96	(90%-110%)		
Fluoride	10.0			10.7	mg/L		107	(90%-110%)		
Nitrate	5.00			5.08	mg/L		102	(90%-110%)		
Nitrite	10.0			10.6	mg/L		106	(90%-110%)		
Sulfate	20.0			19.4	mg/L		97	(90%-110%)		
QC1000128600 MB										
Bromide				0.00	mg/L					11/10/00 17:46
Chloride				0.00	mg/L					
Fluoride				0.00	mg/L					
Nitrate			U	ND	mg/L					
Nitrite				0.00	mg/L					
Sulfate			U	ND	mg/L					
QC1000128603 33936001 PS										
Bromide	10.0	0.00		10.2	mg/L		102	(80%-120%)		11/10/00 17:03
Chloride	10.0	7.72		18.3	mg/L		106	(80%-120%)		
Fluoride	10.0	0.112		10.6	mg/L		105	(80%-120%)		
Nitrate	5.00	0.00		4.89	mg/L		98	(80%-120%)		
Nitrite	10.0	0.00		10.1	mg/L		101	(80%-120%)		
Sulfate	20.0	11.4		31.8	mg/L		102	(80%-120%)		
Mercury Analysis										
Batch 53578										
QC1000128817 LCS										
Mercury	2.00			1.96	ug/L		98	(82%-124%)	AW2	11/15/00 17:10
QC1000128816 MB										
Mercury			U	ND	ug/L					11/15/00 17:08
Metals Analysis-ICP										

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 55728										
QC1000128841 LCS										
Calcium	5000			5260	ug/L		105	(88%-118%)	JAB	12/05/00 21:46
Magnesium	5000			5270	ug/L		105	(87%-115%)		
Potassium	5000			4930	ug/L		99	(85%-114%)		
Silica	10700			10600	ug/L		99	(80%-120%)		
Silicon	5000			5000	ug/L		100	(80%-120%)		
Sodium	5000			5410	ug/L		108	(89%-118%)		
QC1000128839 MB										
Calcium			U	ND	ug/L					12/05/00 21:39
Magnesium			J	12.0	ug/L					
Potassium			U	ND	ug/L					
Silica			J	78.2	ug/L					
Silicon			J	36.9	ug/L					
Sodium			J	32.9	ug/L					
Metals Analysis-ICPMS										
Batch 54024										
QC1000128854 LCS										
Antimony	50.0			62.9	ug/L		126	(70%-126%)	JSS	12/06/00 08:54
Arsenic	50.0			48.0	ug/L		96	(78%-119%)		
Barium	50.0			48.6	ug/L		97	(91%-111%)		
Beryllium	50.0			54.8	ug/L		110	(75%-121%)		
Cadmium	50.0			49.3	ug/L		99	(87%-110%)		
Chromium	50.0			55.6	ug/L		111	(75%-120%)		
Cobalt	50.0			48.7	ug/L		97	(82%-114%)		
Copper	50.0			49.7	ug/L		99	(82%-128%)		
Iron	1000			1050	ug/L		105	(63%-158%)		
Lead	50.0			46.5	ug/L		93	(80%-120%)		
Manganese	50.0			45.1	ug/L		90	(80%-118%)		12/07/00 08:21
Nickel	50.0			48.7	ug/L		97	(86%-118%)		12/06/00 08:54
Selenium	50.0			45.5	ug/L		91	(66%-130%)		
Silver	50.0			54.4	ug/L		109	(47%-158%)		
Strontium	50.0			46.0	ug/L		92*	(95%-110%)		
Thallium	50.0			29.7	ug/L		59	(29%-158%)		
Vanadium	50.0			53.8	ug/L		108	(79%-116%)		
Zinc	50.0			48.2	ug/L		96	(62%-151%)		
QC1000128850 MB										
Antimony			J	0.332	ug/L					12/06/00 08:46
Arsenic			J	2.11	ug/L					
Barium			J	0.286	ug/L					
Beryllium			U	ND	ug/L					
Cadmium			U	ND	ug/L					
Chromium			U	ND	ug/L					12/07/00 08:13
Cobalt			U	ND	ug/L					12/06/00 08:46
Copper			U	ND	ug/L					
Iron			J	12.5	ug/L					
Lead			U	ND	ug/L					
Manganese			U	ND	ug/L					12/07/00 08:13
Nickel			J	0.200	ug/L					12/06/00 08:46

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS											
Batch 54024											
Selenium				J	0.266	ug/L					
Silver				J	0.181	ug/L					
Strontium				J	0.086	ug/L					
Thallium				U	ND	ug/L					
Vanadium				J	7.74	ug/L					
Zinc				U	ND	ug/L					
QC1000128851 33936001 MS											
Antimony	50.0	J	0.246		63.3	ug/L		126*	(88%-115%)		12/06/00 09:19
Arsenic	50.0	J	1.03		47.4	ug/L		93	(85%-121%)		
Barium	50.0		45.0		92.9	ug/L		96	(88%-113%)		
Beryllium	50.0	J	0.058		54.9	ug/L		110	(83%-120%)		
Cadmium	50.0	U	ND		48.7	ug/L		97	(87%-115%)		
Chromium	50.0		4.09		51.3	ug/L		94	(83%-121%)		
Cobalt	50.0		1.06		48.5	ug/L		95	(80%-123%)		
Copper	50.0	U	ND		48.5	ug/L		96	(81%-126%)		
Iron	1000		5670		6780	ug/L		N/A	(63%-158%)		
Lead	50.0	J	0.532		46.3	ug/L		92	(85%-116%)		
Manganese	50.0		285		330	ug/L		N/A	(80%-118%)		12/07/00 08:46
Nickel	50.0	J	0.894		47.4	ug/L		93	(74%-128%)		12/06/00 09:19
Selenium	50.0	J	0.315		46.5	ug/L		92	(82%-118%)		
Silver	50.0	J	0.137		54.0	ug/L		108	(81%-126%)		
Strontium	50.0		33.3		80.9	ug/L		95	(95%-110%)		
Thallium	50.0	J	0.307		29.4	ug/L		58*	(85%-117%)		
Vanadium	50.0	J	2.83		48.5	ug/L		91	(83%-125%)		
Zinc	50.0		11.7		58.7	ug/L		94	(74%-129%)		
QC1000128853 33936001 MSD											
Antimony	50.0	J	0.246		61.7	ug/L	3	123	(0%-20%)		12/06/00 09:27
Arsenic	50.0	J	1.03		47.4	ug/L	0	93	(0%-14%)		
Barium	50.0		45.0		92.2	ug/L	1	94	(0%-14%)		
Beryllium	50.0	J	0.058		53.4	ug/L	3	107	(0%-10%)		
Cadmium	50.0	U	ND		48.2	ug/L	1	96	(0%-13%)		
Chromium	50.0		4.09		49.8	ug/L	3	91	(0%-13%)		
Cobalt	50.0		1.06		47.2	ug/L	3	92	(0%-10%)		
Copper	50.0	U	ND		47.5	ug/L	2	94	(0%-9%)		
Iron	1000		5670		6580	ug/L	3	N/A	(0%-20%)		
Lead	50.0	J	0.532		46.4	ug/L	0	92	(0%-11%)		
Manganese	50.0		285		332	ug/L	1	N/A	(0%-20%)		12/07/00 08:54
Nickel	50.0	J	0.894		46.4	ug/L	2	91	(0%-10%)		12/06/00 09:27
Selenium	50.0	J	0.315		45.1	ug/L	3	90	(0%-13%)		
Silver	50.0	J	0.137		54.1	ug/L	0	108	(0%-9%)		
Strontium	50.0		33.3		82.6	ug/L	2	99	(0%-20%)		
Thallium	50.0	J	0.307		29.3	ug/L	0	58	(0%-7%)		
Vanadium	50.0	J	2.83		50.6	ug/L	4	96	(0%-9%)		
Zinc	50.0		11.7		58.9	ug/L	0	94	(0%-12%)		
QC1000128852 33936001 SDILT											
Antimony		J	0.246	U	ND	ug/L	N/A				12/06/00 09:10
Arsenic		J	1.03	J	0.437	ug/L	112				
Barium			45.0		9.39	ug/L	4.34				

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS										
Batch 54024										
Beryllium	J	0.058	U	ND	ug/L	N/A				
Cadmium	U	ND	U	ND	ug/L	N/A	N/A			
Chromium		4.09	U	ND	ug/L	N/A				
Cobalt		1.06	J	0.143	ug/L	32.7				
Copper	U	ND	U	ND	ug/L	N/A	N/A			
Iron		5670		1120	ug/L	.918				
Lead	J	0.532	J	0.113	ug/L	6.2				
Manganese		285		59.3	ug/L	4.2				12/07/00 08:37
Nickel	J	0.894	J	0.321	ug/L	79.5				12/06/00 09:10
Selenium	J	0.315	U	ND	ug/L	N/A				
Silver	J	0.137	J	0.124	ug/L	353				
Strontium		33.3	J	6.97	ug/L	4.69				
Thallium	J	0.307	J	0.056	ug/L	8.79				
Vanadium	J	2.83	J	0.920	ug/L	62.4				
Zinc		11.7	J	5.70	ug/L	143				
Micro-biology										
Batch 52902										
QC1000128497 33936002 DUP										
BOD, 5 DAY	U	ND	U	ND	mg/L	N/A	N/A	(+/-4.00)	ES	11/10/00 13:07
QC1000128155 LCS										
BOD, 5 DAY	198			204	mg/L		103	(85%-115%)		11/10/00 07:23
QC1000128153 MB										
BOD, 5 DAY			U	ND	mg/L					
Rad Alpha Spec										
Batch 53053										
QC1000128543 33936001 DUP										
Uranium-233/234	U	0.0352 +/-0.193	U	0.269 +/-0.271	pCi/L	154 ^		(+/-1.00)	TC1	11/16/00 11:34
Uranium-235/236	U	-0.0757 +/-0.0684	U	0.0596 +/-0.119	pCi/L	N/A ^		(+/-1.00)		
Uranium-238	U	0.0327 +/-0.133	U	0.105 +/-0.171	pCi/L	105 ^		(+/-1.00)		
QC1000128545 LCS										
Uranium-233/234				22.4 +/-3.69	pCi/L			(75%-125%)		
Uranium-235/236				0.919 +/-0.506	pCi/L			(75%-125%)		
Uranium-238	22.5			20.2 +/-3.40	pCi/L		90	(75%-125%)		
QC1000128542 MB										
Uranium-233/234			U	0.0932 +/-0.219	pCi/L					
Uranium-235/236			U	0.0336 +/-0.184	pCi/L					
Uranium-238				0.179 +/-0.208	pCi/L					
QC1000128544 33936001 MS										
Uranium-233/234	U	0.0352		21.0	pCi/L			(75%-125%)		

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 53053										
Uranium-235/236		+/-0.193 -0.0757	U	+/-3.47 1.22	pCi/L			(75%-125%)		
Uranium-238	22.5	+/-0.0684 0.0327 +/-0.133	U	+/-0.574 22.2 +/-3.63	pCi/L		99	(75%-125%)		
Rad Gas Flow										
Batch 53197										
QC1000128942 LCS										
Radium-228	37.2			29.2 +/-2.14	pCi/L		79	(75%-125%)	JDM	11/21/00 11:54
QC1000128939 MB										
Radium-228			U	0.391 +/-0.735	pCi/L					
Batch 53360										
QC1000129373 LCS										
Alpha	47.5			58.7 +/-8.48	pCi/L		123	(75%-125%)	JEN	11/16/00 14:41
Beta	177			199 +/-12.0	pCi/L		112	(75%-125%)		
QC1000129370 MB										
Alpha			U	-0.0575 +/-0.261	pCi/L					11/16/00 16:38
Beta			U	0.486 +/-0.794	pCi/L					
Rad Liquid Scint										
Batch 52831										
QC1000127923 LCS										
Radon-222	62200			52100 +/-1020	pCi/L		84	(75%-125%)	HOB1	11/13/00 12:22
QC1000127919 MB										
Radon-222			U	-4.7 +/-21.6	pCi/L					11/11/00 07:56
Rad Radium-226										
Batch 53712										
QC1000130409 LCS										
Radium-226	22.1			20.0 +/-2.22	pCi/L		91	(75%-125%)	GRR1	11/22/00 16:00
QC1000130406 MB										
Radium-226			U	0.487 +/-0.390	pCi/L					11/22/00 14:25
Rapid Flow Analysis (Alpkem)										
Batch 53491										
QC1000129098 LCS										
Cyanide, Total	100			112	ug/L		112	(75%-132%)	ADF	11/22/00 10:39
QC1000129097 MB										
Cyanide, Total			U	ND	ug/L					11/22/00 10:37

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
QC1000128197 LCS										
1,2,4-Trichlorobenzene	50.0			40.1	ug/L		80	(47%-106%)	JPA	11/14/00 22:31
1,4-Dichlorobenzene	50.0			40.0	ug/L		80	(44%-98%)		
2,4,5-Trichlorophenol	100			83.0	ug/L		83	(55%-108%)		
2,4,6-Trichlorophenol	100			76.7	ug/L		77	(48%-106%)		
2,4-Dinitrotoluene	50.0			45.0	ug/L		90	(62%-115%)		
2-Chlorophenol	100			68.2	ug/L		68	(42%-92%)		
4-Chloro-3-methylphenol	100			74.0	ug/L		74	(52%-104%)		
4-Nitrophenol	100			33.1	ug/L		33	(10%-61%)		
Acenaphthene	50.0			36.8	ug/L		74	(52%-100%)		
Hexachlorobenzene	50.0			45.3	ug/L		91	(66%-114%)		
Hexachlorobutadiene	50.0			36.6	ug/L		73	(41%-107%)		
Hexachloroethane	50.0			39.1	ug/L		78	(41%-99%)		
N-Nitrosodipropylamine	50.0			39.4	ug/L		79	(45%-102%)		
Nitrobenzene	50.0			38.0	ug/L		76	(45%-100%)		
Pentachlorophenol	100			84.9	ug/L		85	(50%-110%)		
Phenol	100			31.8	ug/L		32	(18%-45%)		
Pyrene	50.0			40.0	ug/L		80	(56%-114%)		
m,p-Cresols	100			63.3	ug/L		63	(37%-85%)		
o-Cresol	100			66.8	ug/L		67	(33%-91%)		
**2,4,6-Tribromophenol	100			81.3	ug/L		81	(30%-116%)		
**2-Fluorobiphenyl	50.0			40.8	ug/L		82	(29%-106%)		
**2-Fluorophenol	100			52.5	ug/L		53	(23%-71%)		
**Nitrobenzene-d5	50.0			44.3	ug/L		89	(25%-105%)		
**Phenol-d5	100			32.8	ug/L		33	(10%-50%)		
**p-Terphenyl-d14	50.0			42.7	ug/L		85	(18%-125%)		
QC1000128196 MB										
1,2,4-Trichlorobenzene			U	ND	ug/L					11/14/00 22:01
1,2-Dichlorobenzene			U	ND	ug/L					
1,3-Dichlorobenzene			U	ND	ug/L					
1,4-Dichlorobenzene			U	ND	ug/L					
2,4,5-Trichlorophenol			U	ND	ug/L					
2,4,6-Trichlorophenol			U	ND	ug/L					
2,4-Dichlorophenol			U	ND	ug/L					
2,4-Dimethylphenol			U	ND	ug/L					
2,4-Dinitrophenol			U	ND	ug/L					
2,4-Dinitrotoluene			U	ND	ug/L					
2,6-Dinitrotoluene			U	ND	ug/L					
2-Chloronaphthalene			U	ND	ug/L					
2-Chlorophenol			U	ND	ug/L					
2-Methyl-4,6-dinitrophenol			U	ND	ug/L					
2-Methylnaphthalene			U	ND	ug/L					
2-Nitrophenol			U	ND	ug/L					
3,3'-Dichlorobenzidine			U	ND	ug/L					
4-Bromophenylphenylether			U	ND	ug/L					
4-Chloro-3-methylphenol			U	ND	ug/L					
4-Chloroaniline			U	ND	ug/L					
4-Chlorophenylphenylether			U	ND	ug/L					

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-GC/MS											
Batch 53138											
4-Nitrophenol			U	ND	ug/L						
Acenaphthene			U	ND	ug/L						
Acenaphthylene			U	ND	ug/L						
Anthracene			U	ND	ug/L						
Benzo(a)anthracene			U	ND	ug/L						
Benzo(a)pyrene			U	ND	ug/L						
Benzo(b)fluoranthene			U	ND	ug/L						
Benzo(ghi)perylene			U	ND	ug/L						
Benzo(k)fluoranthene			U	ND	ug/L						
Butylbenzylphthalate			U	ND	ug/L						
Carbazole			U	ND	ug/L						
Chrysene			U	ND	ug/L						
Di-n-butylphthalate			U	ND	ug/L						
Di-n-octylphthalate			U	ND	ug/L						
Dibenzo(a,h)anthracene			U	ND	ug/L						
Dibenzofuran			U	ND	ug/L						
Diethylphthalate			U	ND	ug/L						
Dimethylphthalate			U	ND	ug/L						
Diphenylamine			U	ND	ug/L						
Fluoranthene			U	ND	ug/L						
Fluorene			U	ND	ug/L						
Hexachlorobenzene			U	ND	ug/L						
Hexachlorobutadiene			U	ND	ug/L						
Hexachlorocyclopentadiene			U	ND	ug/L						
Hexachloroethane			U	ND	ug/L						
Indeno(1,2,3-cd)pyrene			U	ND	ug/L						
Isophorone			U	ND	ug/L						
N-Nitrosodipropylamine			U	ND	ug/L						
Naphthalene			U	ND	ug/L						
Nitrobenzene			U	ND	ug/L						
Pentachlorophenol			U	ND	ug/L						
Phenanthrene			U	ND	ug/L						
Phenol			U	ND	ug/L						
Pyrene			U	ND	ug/L						
bis(2-Chloroethoxy)methane			U	ND	ug/L						
bis(2-Chloroethyl) ether			U	ND	ug/L						
bis(2-Chloroisopropyl)ether			U	ND	ug/L						
bis(2-Ethylhexyl)phthalate			U	ND	ug/L						
m,p-Cresols			U	ND	ug/L						
m-Nitroaniline			U	ND	ug/L						
o-Cresol			U	ND	ug/L						
o-Nitroaniline			U	ND	ug/L						
p-Nitroaniline			U	ND	ug/L						
**2,4,6-Tribromophenol	100			68.8	ug/L		69	(30%-116%)			
**2-Fluorobiphenyl	50.0			34.0	ug/L		68	(29%-106%)			
**2-Fluorophenol	100			41.3	ug/L		41	(23%-71%)			
**Nitrobenzene-d5	50.0			35.9	ug/L		72	(25%-105%)			
**Phenol-d5	100			26.8	ug/L		27	(10%-50%)			

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Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS											
Batch 53138											
**p-Terphenyl-d14	50.0				43.1	ug/L		86	(18%-125%)		
Solids Analysis											
Batch 53220											
QC1000128987 33936003 DUP											
Total Dissolved Solids			118		116	mg/L	2		(0%-18%)	TSM	11/14/00 11:56
QC1000128978 LCS											
Total Dissolved Solids	300				295	mg/L		98	(84%-115%)		
QC1000128986 LCSD											
Total Dissolved Solids	300				295	mg/L	0	98	(0%-20%)		
QC1000128977 MB											
Total Dissolved Solids				U	ND	mg/L					
Batch 53487											
QC1000129809 LCS											
Total Suspended Solids	500				497	mg/L		99	(95%-105%)	TSM	11/15/00 14:36
QC1000129818 LCSD											
Total Suspended Solids	500				499	mg/L	0	100	(0%-20%)		
QC1000129808 MB											
Total Suspended Solids				U	ND	mg/L					
Spectrometric Analysis											
Batch 53036											
QC1000128505 33936001 DUP											
Hexavalent Chromium		J	0.002	J	0.002	mg/L	N/A ^		(+/-0.010)	TCC1	11/10/00 14:15
QC1000128503 LCS											
Hexavalent Chromium	0.100				0.100	mg/L		100	(84%-116%)		
QC1000128502 MB											
Hexavalent Chromium				U	ND	mg/L					
QC1000128504 33936001 MS											
Hexavalent Chromium	0.100	J	0.002		0.046	mg/L		44*	(85%-115%)		
Batch 53748											
QC1000130560 LCS											
COD	75.0				72.5	mg/L		97	(83%-111%)	MOJ1	11/16/00 14:30
QC1000130559 MB											
COD				J	2.13	mg/L					
TOC Analysis											
Batch 54514											
QC1000132896 LCS											
Diss. Org. Carbon	10.0				8.93	mg/L		89	(85%-115%)	MS1	11/28/00 02:42
QC1000132895 MB											
Diss. Org. Carbon				U	ND	mg/L					11/28/00 02:34
Batch 54516											
QC1000132908 33936001 DUP											
Total Organic Carbon		J	0.0645	J	0.0569	mg/L	N/A ^		(+/-0.200)	MS1	11/27/00 19:01
QC1000132905 LCS											
Total Organic Carbon	10.0				8.93	mg/L		89	(85%-115%)		11/28/00 02:42
QC1000132904 MB											
Total Organic Carbon				U	ND	mg/L					11/28/00 02:34
QC1000132906 33936001 PS											
Total Organic Carbon	10.0	J	0.0645		9.68	mg/L		96	(77%-127%)		11/27/00 19:17

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Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
TRAACS Nutrient Analysis											
Batch 53637											
QC1000129915 LCS											
Nitrogen, Ammonia	1.00				1.08	mg/L		108	(63%-121%)	THL	11/15/00 17:29
QC1000129914 MB											
Nitrogen, Ammonia				U	ND	mg/L					
Batch 53848											
QC1000130171 LCS											
Phosphorus, Total as PO4	1.00				0.770	mg/L		77	(66%-125%)	THL	11/16/00 16:23
QC1000130170 MB											
Phosphorus, Total as PO4				U	ND	mg/L					
Titration Analysis											
Batch 53180											
QC1000128907 33936003 DUP											
Alkalinity, Total as CaCO3			13.7		13.7	mg/L	0		(0%-30%)	MOJ1	11/13/00 08:20
Bicarbonate alkalinity (CaCO3)			13.7		13.7	mg/L	0		(0%-30%)		
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
Hydroxide alkalinity as CaCO3		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
QC1000128904 LCS											
Alkalinity, Total as CaCO3	1000				960	mg/L		96	(80%-120%)		
QC1000128908 33936003 MS											
Alkalinity, Total as CaCO3	100		13.7		108	mg/L		94	(80%-120%)		
Volatile Organics											
Batch 54336											
QC1000132316 LCS											
1,1-Dichloroethylene	50.0				47.8	ug/L		96	(74%-139%)	JEB	11/20/00 09:01
Benzene	50.0				45.4	ug/L		91	(79%-119%)		
Chlorobenzene	50.0				44.3	ug/L		89	(79%-120%)		
Toluene	50.0				44.5	ug/L		89	(74%-115%)		
Trichloroethylene	50.0				44.5	ug/L		89	(81%-132%)		
**Bromofluorobenzene	50.0				37.6	ug/L		75	(59%-129%)		
**Dibromofluoromethane	50.0				34.7	ug/L		69	(66%-130%)		
**Toluene-d8	50.0				37.3	ug/L		75	(64%-130%)		
QC1000132315 MB											
1,1,1-Trichloroethane				U	ND	ug/L					11/20/00 10:02
1,1,2,2-Tetrachloroethane				U	ND	ug/L					
1,1,2-Trichloroethane				U	ND	ug/L					
1,1-Dichloroethane				U	ND	ug/L					
1,1-Dichloroethylene				U	ND	ug/L					
1,2-Dichloroethane				U	ND	ug/L					
1,2-Dichloroethylene (total)				U	ND	ug/L					
1,2-Dichloropropane				U	ND	ug/L					
2-Butanone				U	ND	ug/L					
2-Hexanone				U	ND	ug/L					
4-Methyl-2-pentanone				U	ND	ug/L					
Acetone				J	1.95	ug/L					
Benzene				U	ND	ug/L					
Bromodichloromethane				U	ND	ug/L					
Bromoform				U	ND	ug/L					
Bromomethane				U	ND	ug/L					

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile Organics											
Batch 54336											
Carbon disulfide				U	ND	ug/L					
Carbon tetrachloride				U	ND	ug/L					
Chlorobenzene				U	ND	ug/L					
Chloroethane				U	ND	ug/L					
Chloroform				U	ND	ug/L					
Chloromethane				U	ND	ug/L					
Dibromochloromethane				U	ND	ug/L					
Ethylbenzene				U	ND	ug/L					
Methylene chloride				U	ND	ug/L					
Styrene				U	ND	ug/L					
Tetrachloroethylene				U	ND	ug/L					
Toluene				U	ND	ug/L					
Trichloroethylene				U	ND	ug/L					
Vinyl acetate				U	ND	ug/L					
Vinyl chloride				U	ND	ug/L					
Xylenes (total)				U	ND	ug/L					
cis-1,2-Dichloroethylene				U	ND	ug/L					
cis-1,3-Dichloropropylene				U	ND	ug/L					
trans-1,2-Dichloroethylene				U	ND	ug/L					
trans-1,3-Dichloropropylene				U	ND	ug/L					
**Bromofluorobenzene	50.0				38.1	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0				33.3	ug/L		67	(66%-130%)		
**Toluene-d8	50.0				36.8	ug/L		74	(64%-130%)		
QC1000132317 33936001 PS											
1,1-Dichloroethylene	50.0	U	ND		48.2	ug/L		96	(71%-135%)		11/21/00 00:15
Benzene	50.0	U	ND		46.6	ug/L		93	(76%-124%)		
Chlorobenzene	50.0	U	ND		45.3	ug/L		91	(76%-120%)		
Toluene	50.0	U	ND		44.7	ug/L		89	(69%-120%)		
Trichloroethylene	50.0	U	ND		45.5	ug/L		91	(75%-129%)		
**Bromofluorobenzene	50.0		40.2		37.9	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0		34.5		36.5	ug/L		73	(66%-130%)		
**Toluene-d8	50.0		38.5		36.7	ug/L		73	(64%-130%)		
QC1000132318 33936001 PSD											
1,1-Dichloroethylene	50.0	U	ND		47.9	ug/L	0	96	(0%-23%)		11/21/00 00:44
Benzene	50.0	U	ND		46.3	ug/L	1	93	(0%-17%)		
Chlorobenzene	50.0	U	ND		45.1	ug/L	0	90	(0%-21%)		
Toluene	50.0	U	ND		44.0	ug/L	2	88	(0%-22%)		
Trichloroethylene	50.0	U	ND		44.2	ug/L	3	88	(0%-20%)		
**Bromofluorobenzene	50.0		40.2		38.5	ug/L		77	(59%-129%)		
**Dibromofluoromethane	50.0		34.5		36.5	ug/L		73	(66%-130%)		
**Toluene-d8	50.0		38.5		37.8	ug/L		76	(64%-130%)		
Wet Chemistry General											
Batch 53109											
QC1000128704 LCS											
Color	35.0				35.0	PCU		100	(80%-120%)	MOJ1	11/10/00 19:35
QC1000128703 MB											
Color				U	ND	PCU					
Batch 53110											

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Wet Chemistry General											
Batch 53110											
QC1000128708 33936001 DUP											
Turbidity		2.54		2.44	NTU	4		(0%-18%)	MOJ1	11/10/00	18:45
QC1000128707 LCS											
Turbidity	10.0			10.6	NTU		106	(83%-112%)			
QC1000128706 MB											
Turbidity			U	ND	NTU						

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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CHAIN OF CUSTODY RECORD

ONLY #3 LIMITED

Page 1 of 1

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(843) 556-8171

Client Name/Facility Name: Delta Environmental/Westinghouse

Collected by/Company: Erik Swenson / Delta

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

2000087021

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type			Remarks
001	LF-08	11/9/00	~~1400~~ 10:25	X				4																		Analyze for
004	LF-08 Field	11/9/00	~~1400~~ 10:25	X				2																		Group 1b, 2a, 2b, 3, 4
																										in accordance
																										with contract
																										Enclosed is a
																										list of parameters
																										for each group.

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[illegible]	11/8/00	1700	Mike Kinslar 11-10-00 10:00				

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:

White = sample collector Yellow = file Pink = with report

339367

CHAIN OF CUSTODY RECORD

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(843) 556-8171

Page 1 of 1

Client Name/Facility Name: Delta Environmental / Weyerhaeuser

Collected by/Company: Erik Svenson / Delta

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

2000087021

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type			Remarks
002	LF-12	11/9/00	12:30	x				19																		Analyze Groups
005	LF-12 Filtered	11/9/00	12:30	x				2																		1b, 2a, 2b, 3, 4
																										in Accordance
																										with Contract
																										Enclosed is a
																										list of parameters
																										for each group

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[signature]	11/10/00	1500					

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			[signature]	11/10	0930	

White = sample collector Yellow = file Pink = with report

33936%

CHAIN OF CUSTODY RECORD

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P.O. Box 30712
Charleston, South Carolina 29417
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Page 1 of 1

Client Name/Facility Name: Delta Environmental / Weyerhaeuser

Collected by/Company: Delta / Erik Swenson

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

20000870021

SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type			Remarks
LF-09	11/8/00	11:00	x				1	RA-228, U																	Unable to collect
LF-09	11/8/00	11:00					2		BNA (8270C)																H_2O for the
LF-09	11/8/00	11:00					1		Conductivity / Alkalinity, TSS, TDS																remaining parameters.
LF-09	11/8/00	11:00					1		Turbidity, Color, pH Bicarbonates, Carbon																
LF-09	11/8/00	11:00					1		Same as w/ Hydroxides N.+R																Analyze for the
LF-09	11/8/00	11:00					1		BOD																following Groups
LF-09	11/8/00	11:00					2			8260															1b, 2a, 2b, 3, 4
LF-09	11/8/00	11:00					2			Radon-222															in Accordance w/ contract
																									Enclosed is a
																									list of all parameters
																									Well went dry first day
																									-never charged again.

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[signature]	11/9/00	15:00					

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			[signature] Medfeldt	11/10	0930	

03

White = sample collector Yellow = file Pink = with report

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A
Sample ID: 33818001
Matrix: Ground Water
Collect Date: 07-NOV-00
Receive Date: 08-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity											
Conductivity		83.2	1.00	1.00	umhos/cm	1	MOJ1	11/15/00	1415	53588	1
Electrode Analysis											
EPA 150.1 pH											
pH at Temp 20.4C		6.74	0.010	0.100	SU	1	MOJ1	11/08/00	1615	52631	2
Ion Chromatography											
EPA300.0 Sulfate in Liquid											
Bromide		ND	0.016	0.050	mg/L	1	RWS	11/09/00	0100	52636	3
Chloride		6.14	0.026	0.100	mg/L	1					
Fluoride		0.061	0.017	0.050	mg/L	1					
Nitrate		0.253	0.020	0.050	mg/L	1					
Nitrite		ND	0.020	0.050	mg/L	1					
Sulfate		26.8	0.079	0.200	mg/L	1					
Mercury Analysis											
7470 Cold Vapor Hg Liquid											
Mercury	U	ND	0.060	0.200	ug/L	1	AW2	11/13/00	1239	53181	4
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Magnesium		2430	3.54	20.0	ug/L	1	JLS	11/15/00	1334	53085	5
Potassium		1470	16.4	100	ug/L	1					
Silica		32100	39.8	213	ug/L	1					
Silicon		15000	18.6	100	ug/L	1					
Sodium		7280	13.0	100	ug/L	1					
Calcium		4630	35.5	100	ug/L	1	TLW	11/17/00	2033	53085	6
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Arsenic	J	1.44	0.145	3.00	ug/L	1	JSS	11/29/00	0445	53133	7
Beryllium		0.715	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium	J	2.82	0.645	3.00	ug/L	1					
Cobalt		3.81	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		16900	7.92	25.0	ug/L	1					
Lead	U	ND	0.077	2.00	ug/L	1					
Manganese		246	0.655	5.00	ug/L	1					
Nickel		5.11	0.072	2.00	ug/L	1					
Selenium	J	0.505	0.218	3.00	ug/L	1					

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A
Sample ID: 33818001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICPMS												
6020/3005 MIMICP SCAN Metals												
Silver	J	0.401		0.101	1.00	ug/L	1					
Strontium		226		0.020	10.0	ug/L	1					
Thallium	J	0.225		0.014	0.500	ug/L	1					
Vanadium	J	1.90		0.330	10.0	ug/L	1					
Zinc		11.7		0.974	10.0	ug/L	1					
Antimony	J	0.139		0.111	2.00	ug/L	1	JSS	11/30/00	1442	53133	8
Barium		37.5		0.158	2.00	ug/L	1					
Micro-biology												
EPA 405.1 BOD, 5DAY												
BOD, 5 DAY	U	ND		2.00	4.00	mg/L		ES	11/09/00	1033	52537	9
Rad Alpha Spec												
Alphaspec U, liquid												
Uranium-233/234	U	ND	+/-0.105	0.226	1.00	pCi/L		TOH2	11/17/00	1131	52969	10
Uranium-235/236	U	ND	+/-0.0263	0.190	1.00	pCi/L						
Uranium-238	U	ND	+/-0.0627	0.0663	1.00	pCi/L						
Rad Gas Flow												
GFPC, Gross A/B, liquid												
Alpha	U	ND	+/-0.563	0.931	1.50	pCi/L		JEN	11/16/00	1636	53360	11
Beta		2.63	+/-1.01	1.80	2.00	pCi/L						
GFPC, Ra228, liquid												
Radium-228	U	ND	+/-0.894	1.82	1.50	pCi/L		JDM	11/21/00	1153	53197	12
Rad Liquid Scint												
Liquid Scint Rn222, liquid												
Radon-222		215	+/-39.5	53.9	200	pCi/L		HOB1	11/10/00	2158	52831	13
Rad Radium-226												
Lucas Cell, Ra226, liquid												
Radium-226		3.11	+/-0.858	0.600	1.00	pCi/L		GRR1	11/16/00	1350	52840	14
Rapid Flow Analysis (Alpkem)												
EPA 335.3 Cyanide, Total												
Cyanide, Total	U	ND		2.76	5.00	ug/L	1	ADF	11/22/00	1055	53491	15
Semi-Volatiles-GC/MS												
3510/8270C TCL BNA Liquid												
1,2,4-Trichlorobenzene	U	ND		0.110	10.0	ug/L	1	JPA	11/15/00	0002	53138	16
1,2-Dichlorobenzene	U	ND		0.130	10.0	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.070	10.0	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.090	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND		0.280	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND		0.100	10.0	ug/L	1					

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A
Sample ID: 33818001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
2,4-Dichlorophenol	U	ND	0.190	10.0	ug/L	1				
2,4-Dimethylphenol	U	ND	0.200	10.0	ug/L	1				
2,4-Dinitrophenol	U	ND	0.650	20.0	ug/L	1				
2,4-Dinitrotoluene	U	ND	0.160	10.0	ug/L	1				
2,6-Dinitrotoluene	U	ND	0.180	10.0	ug/L	1				
2-Chloronaphthalene	U	ND	0.130	1.00	ug/L	1				
2-Chlorophenol	U	ND	0.180	10.0	ug/L	1				
2-Methyl-4,6-dinitrophenol	U	ND	0.870	10.0	ug/L	1				
2-Methylnaphthalene	U	ND	0.150	1.00	ug/L	1				
2-Nitrophenol	U	ND	0.100	10.0	ug/L	1				
3,3'-Dichlorobenzidine	U	ND	0.210	10.0	ug/L	1				
4-Bromophenylphenylether	U	ND	0.180	10.0	ug/L	1				
4-Chloro-3-methylphenol	U	ND	0.210	10.0	ug/L	1				
4-Chloroaniline	U	ND	0.110	10.0	ug/L	1				
4-Chlorophenylphenylether	U	ND	0.200	10.0	ug/L	1				
4-Nitrophenol	U	ND	4.84	10.0	ug/L	1				
Acenaphthene	U	ND	0.160	1.00	ug/L	1				
Acenaphthylene	U	ND	0.140	1.00	ug/L	1				
Anthracene	U	ND	0.110	1.00	ug/L	1				
Benzo(a)anthracene	U	ND	0.100	1.00	ug/L	1				
Benzo(a)pyrene	U	ND	0.070	1.00	ug/L	1				
Benzo(b)fluoranthene	U	ND	0.170	1.00	ug/L	1				
Benzo(ghi)perylene	U	ND	0.260	1.00	ug/L	1				
Benzo(k)fluoranthene	U	ND	0.280	1.00	ug/L	1				
Butylbenzylphthalate	U	ND	0.130	10.0	ug/L	1				
Carbazole	U	ND	0.060	10.0	ug/L	1				
Chrysene	U	ND	0.100	1.00	ug/L	1				
Di-n-butylphthalate	U	ND	0.270	10.0	ug/L	1				
Di-n-octylphthalate	U	ND	0.060	10.0	ug/L	1				
Dibenzo(a,h)anthracene	U	ND	0.180	1.00	ug/L	1				
Dibenzofuran	U	ND	0.180	10.0	ug/L	1				
Diethylphthalate	U	ND	0.270	10.0	ug/L	1				
Dimethylphthalate	U	ND	0.150	10.0	ug/L	1				
Diphenylamine	U	ND	1.54	10.0	ug/L	1				
Fluoranthene	U	ND	0.090	1.00	ug/L	1				
Fluorene	U	ND	0.070	1.00	ug/L	1				
Hexachlorobenzene	U	ND	0.160	10.0	ug/L	1				
Hexachlorobutadiene	U	ND	0.190	10.0	ug/L	1				
Hexachlorocyclopentadiene	U	ND	0.040	10.0	ug/L	1				
Hexachloroethane	U	ND	0.190	10.0	ug/L	1				
Indeno(1,2,3-cd)pyrene	U	ND	0.260	1.00	ug/L	1				
Isophorone	U	ND	0.170	10.0	ug/L	1				

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A
Sample ID: 33818001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
3510/8270C TCL BNA Liquid											
N-Nitrosodipropylamine	U	ND	0.170	10.0	ug/L	1					
Naphthalene	U	ND	0.130	1.00	ug/L	1					
Nitrobenzene	U	ND	0.270	10.0	ug/L	1					
Pentachlorophenol	U	ND	1.20	10.0	ug/L	1					
Phenanthrene	U	ND	0.120	1.00	ug/L	1					
Phenol	U	ND	0.090	10.0	ug/L	1					
Pyrene	U	ND	0.080	1.00	ug/L	1					
bis(2-Chloroethoxy)methane	U	ND	0.190	10.0	ug/L	1					
bis(2-Chloroethyl) ether	U	ND	0.160	10.0	ug/L	1					
bis(2-Chloroisopropyl)ether	U	ND	0.140	10.0	ug/L	1					
bis(2-Ethylhexyl)phthalate	U	ND	0.320	1.00	ug/L	1					
m,p-Cresols	U	ND	0.130	10.0	ug/L	1					
m-Nitroaniline	U	ND	1.08	10.0	ug/L	1					
o-Cresol	U	ND	0.200	10.0	ug/L	1					
o-Nitroaniline	U	ND	1.59	10.0	ug/L	1					
p-Nitroaniline	U	ND	0.770	10.0	ug/L	1					
Solids Analysis											
EPA 160.1 Solids, Dissolved											
Total Dissolved Solids		103	6.29	10.0	mg/L		TSM	11/10/00	1212	52693	17
EPA 160.2 Total Suspended Liq											
Total Suspended Solids	U	ND	0.699	5.00	mg/L		TSM	11/10/00	0844	52689	18
Spectrometric Analysis											
EPA 410.4 Chem. Oxygen Demand											
COD	U	ND	1.06	5.00	mg/L	1	MOJ1	11/16/00	1430	53748	19
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	U	ND	0.002	0.010	mg/L	1	AAT	11/08/00	1645	52641	20
TOC Analysis											
EPA 415.1 Total Organic Carbon											
Total Organic Carbon		0.702	0.0406	0.200	mg/L	1	MS1	11/20/00	2214	54333	21
TRAACS Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L											
Nitrogen, Ammonia		2.35	0.029	0.050	mg/L	1	THL	11/13/00	1421	52883	22
EPA 365.4 Phosphorus, Total in											
Phosphorus, Total as PO4	J	0.040	0.020	0.050	mg/L	1	THL	11/10/00	1343	52887	23
Titration Analysis											
EPA 310.1 Total Alkalinity											
Alkalinity, Total as CaCO3		12.7	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	24
SM2320B Bicarbonates											

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A
Sample ID: 33818001

Proiect: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Titration Analysis										
SM2320B Bicarbonates										
Bicarbonate alkalinity (CaCO3)		12.7	1.00	2.00	mg/L		MOJ1 11/13/00	0820	53180	25
Carbonate alkalinity (CaCO3)	U	ND	1.00	2.00	mg/L					
Hydroxide alkalinity as CaCO3	U	ND	1.00	2.00	mg/L					
Volatile Organics										
5030/8260B TCL in Liquid										
1,1,1-Trichloroethane	U	ND	0.093	2.00	ug/L	1	JEB 11/11/00	0114	53093	26
1,1,2,2-Tetrachloroethane	U	ND	0.273	2.00	ug/L	1				
1,1,2-Trichloroethane	U	ND	0.193	2.00	ug/L	1				
1,1-Dichloroethane	U	ND	0.099	2.00	ug/L	1				
1,1-Dichloroethylene	U	ND	0.090	2.00	ug/L	1				
1,2-Dichloroethane	U	ND	0.158	2.00	ug/L	1				
1,2-Dichloroethylene (total)	U	ND	0.370	2.00	ug/L	1				
1,2-Dichloropropane	U	ND	0.070	2.00	ug/L	1				
2-Butanone	U	ND	1.18	10.0	ug/L	1				
2-Hexanone	U	ND	1.74	10.0	ug/L	1				
4-Methyl-2-pentanone	U	ND	0.696	10.0	ug/L	1				
Acetone	J	1.88	0.224	10.0	ug/L	1				
Benzene	U	ND	0.149	2.00	ug/L	1				
Bromodichloromethane	U	ND	0.024	2.00	ug/L	1				
Bromoform	U	ND	0.085	2.00	ug/L	1				
Bromomethane	U	ND	0.628	2.00	ug/L	1				
Carbon disulfide	U	ND	0.349	10.0	ug/L	1				
Carbon tetrachloride	U	ND	0.124	2.00	ug/L	1				
Chlorobenzene	U	ND	0.603	2.00	ug/L	1				
Chloroethane	U	ND	0.140	2.00	ug/L	1				
Chloroform	U	ND	0.198	2.00	ug/L	1				
Chloromethane	U	ND	0.179	2.00	ug/L	1				
Dibromochloromethane	U	ND	0.089	2.00	ug/L	1				
Ethylbenzene	U	ND	0.051	2.00	ug/L	1				
Methylene chloride	U	ND	0.971	5.00	ug/L	1				
Styrene	U	ND	0.078	2.00	ug/L	1				
Tetrachloroethylene	U	ND	0.385	2.00	ug/L	1				
Toluene	U	ND	0.262	2.00	ug/L	1				
Trichloroethylene	U	ND	0.150	2.00	ug/L	1				
Vinyl acetate	U	ND	1.86	10.0	ug/L	1				
Vinyl chloride	U	ND	0.096	2.00	ug/L	1				
Xylenes (total)	U	ND	0.437	6.00	ug/L	1				
cis-1,2-Dichloroethylene	U	ND	0.129	2.00	ug/L	1				

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Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A
Sample ID: 33818001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Volatile Organics										
5030/8260B TCL in Liquid										
cis-1,3-Dichloropropylene	U	ND	0.035	2.00	ug/L	1				
trans-1,2-Dichloroethylene	U	ND	0.105	2.00	ug/L	1				
trans-1,3-Dichloropropylene	U	ND	0.106	2.00	ug/L	1				
Wet Chemistry General										
EPA 110.2 Color										
Color		5.00	5.00	5.00	PCU	1	MOJ1 11/08/00	1720	52634	27
EPA 180.1 Turbidity										
Turbidity		1.07	0.100	0.200	NTU	1	MOJ1 11/08/00	1630	52632	28

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160.2	EPA 160.2 Total Suspended Solids	TSM	11/10/00	0844	52689
EPA 335.3	EPA 335.3 Total Cyanide	ADF	11/14/00	1000	53252
EPA 350.1	EPA 350.1 Ammonia Nitrogen Liquid	THL	11/13/00	1421	52883
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	HSC	11/09/00	1800	52630
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	HSC	11/09/00	1700	52719
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/09/00	1700	52662
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AW1	11/10/00	1700	52920
SW846 7470A	EPA 7470 Mercury Prep Liquid	ARD	11/10/00	1630	52873
SW846 8260	8260B Volatiles In Liquid	JEB	11/11/00	0114	53093

The following Analytical Methods were performed

Method	Description
1	EPA 120.1
2	EPA 150.1
3	EPA 300.0
4	SW846 7470A
5	SW846 6010B
6	SW846 6010B
7	SW846 6020
8	SW846 6020
9	EPA 405.1
10	DOE EML HASL 300

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Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A
Sample ID: 33818001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
11	GL-EPI-B-008									
12	EPA 904.0									
13	EPA EERF App. B									
14	EPA 903.1									
15	EPA 335.3									
16	SW846 8270C									
17	EPA 160.1									
18	EPA 160.2									
19	EPA 410.4									
20	SW846 7196A									
21	EPA 415.1									
22	EPA 350.1									
23	EPA 365.4									
24	EPA 310.1									
25	SM 2320B									
26	SW846 8260									
27	EPA 110.2									
28	EPA 180.1									

Surrogate recovery	Test	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	3510/8270C TCL BNA Liquid	65%	(30%-116%)
2-Fluorobiphenyl	3510/8270C TCL BNA Liquid	73%	(29%-106%)
2-Fluorophenol	3510/8270C TCL BNA Liquid	44%	(23%-71%)
Nitrobenzene-d5	3510/8270C TCL BNA Liquid	79%	(25%-105%)
Phenol-d5	3510/8270C TCL BNA Liquid	29%	(10%-50%)
p-Terphenyl-d14	3510/8270C TCL BNA Liquid	86%	(18%-125%)
Bromofluorobenzene	5030/8260B TCL in Liquid	76%	(59%-129%)
Dibromofluoromethane	5030/8260B TCL in Liquid	77%	(66%-130%)
Toluene-d8	5030/8260B TCL in Liquid	68%	(64%-130%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Actual result is less than amount reported
> Actual result is greater than amount reported

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Client Sample ID: LF-01A
Sample ID: 33818001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Suzette Urick at 843-556-8171 Ext. 4477.

P. Suzette Urick
Reviewed by

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Address : 6701 Carmel, Suite 303
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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01
Sample ID: 33818002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICPMS												
6020/3005 MIMICP SCAN Metals												
Strontium		73.0		0.020	10.0	ug/L	1					
Thallium	J	0.468		0.014	0.500	ug/L	1					
Vanadium	J	0.683		0.330	10.0	ug/L	1					
Zinc		21.2		0.974	10.0	ug/L	1					
Antimony	J	0.421		0.111	2.00	ug/L	1	JSS	11/30/00	1813	53133	9
Barium		59.5		0.158	2.00	ug/L	1					
Micro-biology												
EPA 405.1 BOD, 5DAY												
BOD, 5 DAY	U	ND		2.00	4.00	mg/L		ES	11/09/00	1033	52537	10
Rad Alpha Spec												
Alphaspec U, liquid												
Uranium-233/234	U	ND	+/-0.118	0.219	1.00	pCi/L		TOH2	11/17/00	1131	52969	11
Uranium-235/236	U	ND	+/-0.0593	0.219	1.00	pCi/L						
Uranium-238	U	ND	+/-2.00	0.0765	1.00	pCi/L						
Rad Gas Flow												
GFPC, Gross A/B, liquid												
Alpha		0.970	+/-0.558	0.736	1.50	pCi/L		JEN	11/16/00	1636	53360	12
Beta		3.51	+/-0.994	1.63	2.00	pCi/L						
GFPC, Ra228, liquid												
Radium-228	U	ND	+/-0.907	1.89	1.50	pCi/L		JDM	11/21/00	1153	53197	13
Rad Liquid Scint												
Liquid Scint Rn222, liquid												
Radon-222		172	+/-38.4	54.6	200	pCi/L		HOB1	11/10/00	2230	52831	14
Rad Radium-226												
Lucas Cell, Ra226, liquid												
Radium-226		17.2	+/-1.92	0.761	1.00	pCi/L		GRR1	11/16/00	1350	52840	15
Rapid Flow Analysis (Alpkem)												
EPA 335.3 Cyanide, Total												
Cyanide, Total		5.21		2.76	5.00	ug/L	1	ADF	11/22/00	1056	53491	16
Semi-Volatiles-GC/MS												
3510/8270C TCL BNA Liquid												
1,2,4-Trichlorobenzene	U	ND		0.110	10.0	ug/L	1	JPA	11/15/00	0033	53138	17
1,2-Dichlorobenzene	U	ND		0.130	10.0	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.070	10.0	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.090	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND		0.280	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND		0.100	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND		0.190	10.0	ug/L	1					

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Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01
Sample ID: 33818002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
2,4-Dimethylphenol	U	ND	0.200	10.0	ug/L	1				
2,4-Dinitrophenol	U	ND	0.650	20.0	ug/L	1				
2,4-Dinitrotoluene	U	ND	0.160	10.0	ug/L	1				
2,6-Dinitrotoluene	U	ND	0.180	10.0	ug/L	1				
2-Chloronaphthalene	U	ND	0.130	1.00	ug/L	1				
2-Chlorophenol	U	ND	0.180	10.0	ug/L	1				
2-Methyl-4,6-dinitrophenol	U	ND	0.870	10.0	ug/L	1				
2-Methylnaphthalene	U	ND	0.150	1.00	ug/L	1				
2-Nitrophenol	U	ND	0.100	10.0	ug/L	1				
3,3'-Dichlorobenzidine	U	ND	0.210	10.0	ug/L	1				
4-Bromophenylphenylether	U	ND	0.180	10.0	ug/L	1				
4-Chloro-3-methylphenol	U	ND	0.210	10.0	ug/L	1				
4-Chloroaniline	U	ND	0.110	10.0	ug/L	1				
4-Chlorophenylphenylether	U	ND	0.200	10.0	ug/L	1				
4-Nitrophenol	U	ND	4.84	10.0	ug/L	1				
Acenaphthene	U	ND	0.160	1.00	ug/L	1				
Acenaphthylene	U	ND	0.140	1.00	ug/L	1				
Anthracene	U	ND	0.110	1.00	ug/L	1				
Benzo(a)anthracene	U	ND	0.100	1.00	ug/L	1				
Benzo(a)pyrene	U	ND	0.070	1.00	ug/L	1				
Benzo(b)fluoranthene	U	ND	0.170	1.00	ug/L	1				
Benzo(ghi)perylene	U	ND	0.260	1.00	ug/L	1				
Benzo(k)fluoranthene	U	ND	0.280	1.00	ug/L	1				
Butylbenzylphthalate	U	ND	0.130	10.0	ug/L	1				
Carbazole	U	ND	0.060	10.0	ug/L	1				
Chrysene	U	ND	0.100	1.00	ug/L	1				
Di-n-butylphthalate	U	ND	0.270	10.0	ug/L	1				
Di-n-octylphthalate	U	ND	0.060	10.0	ug/L	1				
Dibenzo(a,h)anthracene	U	ND	0.180	1.00	ug/L	1				
Dibenzofuran	U	ND	0.180	10.0	ug/L	1				
Diethylphthalate	U	ND	0.270	10.0	ug/L	1				
Dimethylphthalate	U	ND	0.150	10.0	ug/L	1				
Diphenylamine	U	ND	1.54	10.0	ug/L	1				
Fluoranthene	U	ND	0.090	1.00	ug/L	1				
Fluorene	U	ND	0.070	1.00	ug/L	1				
Hexachlorobenzene	U	ND	0.160	10.0	ug/L	1				
Hexachlorobutadiene	U	ND	0.190	10.0	ug/L	1				
Hexachlorocyclopentadiene	U	ND	0.040	10.0	ug/L	1				
Hexachloroethane	U	ND	0.190	10.0	ug/L	1				
Indeno(1,2,3-cd)pyrene	U	ND	0.260	1.00	ug/L	1				
Isophorone	U	ND	0.170	10.0	ug/L	1				
N-Nitrosodipropylamine	U	ND	0.170	10.0	ug/L	1				

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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01 Project: DELT00200
Sample ID: 33818002 Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
3510/8270C TCL BNA Liquid											
Naphthalene	U	ND	0.130	1.00	ug/L	1					
Nitrobenzene	U	ND	0.270	10.0	ug/L	1					
Pentachlorophenol	U	ND	1.20	10.0	ug/L	1					
Phenanthrene	U	ND	0.120	1.00	ug/L	1					
Phenol	U	ND	0.090	10.0	ug/L	1					
Pyrene	U	ND	0.080	1.00	ug/L	1					
bis(2-Chloroethoxy)methane	U	ND	0.190	10.0	ug/L	1					
bis(2-Chloroethyl) ether	U	ND	0.160	10.0	ug/L	1					
bis(2-Chloroisopropyl)ether	U	ND	0.140	10.0	ug/L	1					
bis(2-Ethylhexyl)phthalate	U	ND	0.320	1.00	ug/L	1					
m,p-Cresols	U	ND	0.130	10.0	ug/L	1					
m-Nitroaniline	U	ND	1.08	10.0	ug/L	1					
o-Cresol	U	ND	0.200	10.0	ug/L	1					
o-Nitroaniline	U	ND	1.59	10.0	ug/L	1					
p-Nitroaniline	U	ND	0.770	10.0	ug/L	1					
Solids Analysis											
EPA 160.1 Solids, Dissolved											
Total Dissolved Solids		201	6.29	10.0	mg/L		TSM	11/10/00	1212	52693	18
EPA 160.2 Total Suspended Liq											
Total Suspended Solids	U	ND	0.699	5.00	mg/L		TSM	11/10/00	0844	52689	19
Spectrometric Analysis											
EPA 410.4 Chem. Oxygen Demand											
COD		6.00	1.06	5.00	mg/L	1	MOJ1	11/16/00	1430	53748	20
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	U	ND	0.002	0.010	mg/L	1	AAT	11/08/00	1645	52641	21
TOC Analysis											
EPA 415.1 Total Organic Carbon											
Total Organic Carbon		1.45	0.0406	0.200	mg/L	1	MS1	11/20/00	2230	54333	22
TRAACS Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L											
Nitrogen, Ammonia		0.400	0.029	0.050	mg/L	1	THL	11/13/00	1421	52883	23
EPA 365.4 Phosphorus, Total in											
Phosphorus, Total as PO4	J	0.020	0.020	0.050	mg/L	1	THL	11/10/00	1343	52887	24
Titration Analysis											
EPA 310.1 Total Alkalinity											
Alkalinity, Total as CaCO3		3.92	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	25
SM2320B Bicarbonates											
Bicarbonate alkalinity		3.92	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	26

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Project: Containerboard Mill

Client Sample ID: LF-01
Sample ID: 33818002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Titration Analysis										
SM2320B Bicarbonates										
(CaCO3)										
Carbonate alkalinity (CaCO3)	U	ND	1.00	2.00	mg/L					
Hydroxide alkalinity as CaCO3	U	ND	1.00	2.00	mg/L					
Volatile Organics										
5030/8260B TCL in Liquid										
1,1,1-Trichloroethane	U	ND	0.093	2.00	ug/L	1	JEB 11/11/00	0143	53093	27
1,1,2,2-Tetrachloroethane	U	ND	0.273	2.00	ug/L	1				
1,1,2-Trichloroethane	U	ND	0.193	2.00	ug/L	1				
1,1-Dichloroethane	U	ND	0.099	2.00	ug/L	1				
1,1-Dichloroethylene	U	ND	0.090	2.00	ug/L	1				
1,2-Dichloroethane	U	ND	0.158	2.00	ug/L	1				
1,2-Dichloroethylene (total)	U	ND	0.370	2.00	ug/L	1				
1,2-Dichloropropane	U	ND	0.070	2.00	ug/L	1				
2-Butanone	U	ND	1.18	10.0	ug/L	1				
2-Hexanone	U	ND	1.74	10.0	ug/L	1				
4-Methyl-2-pentanone	U	ND	0.696	10.0	ug/L	1				
Acetone	J	1.58	0.224	10.0	ug/L	1				
Benzene	U	ND	0.149	2.00	ug/L	1				
Bromodichloromethane	U	ND	0.024	2.00	ug/L	1				
Bromoform	U	ND	0.085	2.00	ug/L	1				
Bromomethane	U	ND	0.628	2.00	ug/L	1				
Carbon disulfide	U	ND	0.349	10.0	ug/L	1				
Carbon tetrachloride	U	ND	0.124	2.00	ug/L	1				
Chlorobenzene	U	ND	0.603	2.00	ug/L	1				
Chloroethane	U	ND	0.140	2.00	ug/L	1				
Chloroform	U	ND	0.198	2.00	ug/L	1				
Chloromethane	U	ND	0.179	2.00	ug/L	1				
Dibromochloromethane	U	ND	0.089	2.00	ug/L	1				
Ethylbenzene	U	ND	0.051	2.00	ug/L	1				
Methylene chloride	U	ND	0.971	5.00	ug/L	1				
Styrene	U	ND	0.078	2.00	ug/L	1				
Tetrachloroethylene	U	ND	0.385	2.00	ug/L	1				
Toluene	U	ND	0.262	2.00	ug/L	1				
Trichloroethylene	U	ND	0.150	2.00	ug/L	1				
Vinyl acetate	U	ND	1.86	10.0	ug/L	1				
Vinyl chloride	U	ND	0.096	2.00	ug/L	1				
Xylenes (total)	U	ND	0.437	6.00	ug/L	1				
cis-1,2-Dichloroethylene	U	ND	0.129	2.00	ug/L	1				
cis-1,3-Dichloropropylene	U	ND	0.035	2.00	ug/L	1				

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01
Sample ID: 33818002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Volatile Organics										
5030/8260B TCL in Liquid										
trans-1,2-Dichloroethylene	U	ND	0.105	2.00	ug/L	1				
trans-1,3-Dichloropropylene	U	ND	0.106	2.00	ug/L	1				
Wet Chemistry General										
EPA 110.2 Color										
Color	U	ND	5.00	5.00	PCU	1	MOJ1 11/08/00	1720	52634	28
EPA 180.1 Turbidity										
Turbidity	J	0.191	0.100	0.200	NTU	1	MOJ1 11/08/00	1630	52632	29

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160.2	EPA 160.2 Total Suspended Solids	TSM	11/10/00	0844	52689
EPA 335.3	EPA 335.3 Total Cyanide	ADF	11/14/00	1000	53252
EPA 350.1	EPA 350.1 Ammonia Nitrogen Liquid	THL	11/13/00	1421	52883
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	HSC	11/09/00	1800	52630
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	HSC	11/09/00	1700	52719
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/09/00	1700	52662
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AW1	11/10/00	1700	52920
SW846 7470A	EPA 7470 Mercury Prep Liquid	ARD	11/10/00	1630	52873
SW846 8260	8260B Volatiles In Liquid	JEB	11/11/00	0143	53093

The following Analytical Methods were performed

Method	Description
1	EPA 120.1
2	EPA 150.1
3	EPA 300.0
4	EPA 300.0
5	SW846 7470A
6	SW846 6010B
7	SW846 6010B
8	SW846 6020
9	SW846 6020
10	EPA 405.1
11	DOE EML HASL 300

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01
Sample ID: 33818002
Matrix: Ground Water
Collect Date: 07-NOV-00
Receive Date: 08-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity											
Conductivity		230	1.00	1.00	umhos/cm	1	MOJ1	11/15/00	1415	53588	1
Electrode Analysis											
EPA 150.1 pH											
pH at Temp 20.5C		4.92	0.010	0.100	SU	1	MOJ1	11/08/00	1615	52631	2
Ion Chromatography											
EPA300.0 Sulfate in Liquid											
Bromide	U	ND	0.016	0.050	mg/L	1	RWS	11/09/00	0115	52636	3
Fluoride		0.133	0.017	0.050	mg/L	1					
Nitrate		0.249	0.020	0.050	mg/L	1					
Nitrite		ND	0.020	0.050	mg/L	1					
Chloride		27.0	0.130	0.500	mg/L	5	RWS	11/09/00	1212	52636	4
Sulfate		85.6	0.395	1.00	mg/L	5					
Mercury Analysis											
7470 Cold Vapor Hg Liquid											
Mercury	U	ND	0.060	0.200	ug/L	1	AW2	11/13/00	1241	53181	5
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Magnesium		8680	3.54	20.0	ug/L	1	JLS	11/15/00	1340	53085	6
Potassium		2780	16.4	100	ug/L	1					
Silica		17500	39.8	213	ug/L	1					
Silicon		8190	18.6	100	ug/L	1					
Sodium		17700	13.0	100	ug/L	1					
Calcium		11200	35.5	100	ug/L	1	TLW	11/17/00	2040	53085	7
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Arsenic	J	0.746	0.145	3.00	ug/L	1	JSS	11/29/00	0517	53133	8
Beryllium	J	0.194	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium	J	2.52	0.645	3.00	ug/L	1					
Cobalt	J	0.837	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		5060	7.92	25.0	ug/L	1					
Lead	U	ND	0.077	2.00	ug/L	1					
Manganese		200	0.655	5.00	ug/L	1					
Nickel		3.59	0.072	2.00	ug/L	1					
Selenium	U	ND	0.218	3.00	ug/L	1					
Silver	J	0.398	0.101	1.00	ug/L	1					

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01
Sample ID: 33818002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
12	GL-EPI-B-008									
13	EPA 904.0									
14	EPA EERF App. B									
15	EPA 903.1									
16	EPA 335.3									
17	SW846 8270C									
18	EPA 160.1									
19	EPA 160.2									
20	EPA 410.4									
21	SW846 7196A									
22	EPA 415.1									
23	EPA 350.1									
24	EPA 365.4									
25	EPA 310.1									
26	SM 2320B									
27	SW846 8260									
28	EPA 110.2									
29	EPA 180.1									

Surrogate recovery	Test	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	3510/8270C TCL BNA Liquid	63%	(30%-116%)
2-Fluorobiphenyl	3510/8270C TCL BNA Liquid	60%	(29%-106%)
2-Fluorophenol	3510/8270C TCL BNA Liquid	37%	(23%-71%)
Nitrobenzene-d5	3510/8270C TCL BNA Liquid	60%	(25%-105%)
Phenol-d5	3510/8270C TCL BNA Liquid	25%	(10%-50%)
p-Terphenyl-d14	3510/8270C TCL BNA Liquid	85%	(18%-125%)
Bromofluorobenzene	5030/8260B TCL in Liquid	77%	(59%-129%)
Dibromofluoromethane	5030/8260B TCL in Liquid	76%	(66%-130%)
Toluene-d8	5030/8260B TCL in Liquid	68%	(64%-130%)

Notes:
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> Actual result is greater than amount reported

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Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01
Sample ID: 33818002

Proiect: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Suzette Urick at 843-556-8171 Ext. 4477.

P. Suzette Urick
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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A Filtered
Sample ID: 33818003
Matrix: Ground Water
Collect Date: 07-NOV-00
Receive Date: 08-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Magnesium		2410	3.54	20.0	ug/L	1	JLS	11/15/00	1345	53085	1
Potassium		1450	16.4	100	ug/L	1					
Silica		30900	39.8	213	ug/L	1					
Silicon		14400	18.6	100	ug/L	1					
Sodium		7080	13.0	100	ug/L	1					
Calcium		4580	35.5	100	ug/L	1	TLW	11/17/00	2047	53085	2
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Arsenic	J	0.600	0.145	3.00	ug/L	1	JSS	11/29/00	0525	53133	3
Beryllium	J	0.170	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium	J	1.98	0.645	3.00	ug/L	1					
Cobalt	J	0.857	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		4920	7.92	25.0	ug/L	1					
Lead	U	ND	0.077	2.00	ug/L	1					
Manganese		199	0.655	5.00	ug/L	1					
Nickel		3.63	0.072	2.00	ug/L	1					
Selenium	J	0.349	0.218	3.00	ug/L	1					
Silver	J	0.377	0.101	1.00	ug/L	1					
Strontium		77.1	0.020	10.0	ug/L	1					
Thallium	J	0.065	0.014	0.500	ug/L	1					
Vanadium	J	1.45	0.330	10.0	ug/L	1					
Zinc		19.5	0.974	10.0	ug/L	1					
Antimony	J	0.268	0.111	2.00	ug/L	1	JSS	11/30/00	1821	53133	4
Barium		84.8	0.158	2.00	ug/L	1					
TOC Analysis											
EPA 415.1 Diss.Org.Carbon Liq											
Diss. Org. Carbon	J	0.104	0.0406	0.200	mg/L	1	MS1	11/27/00	2146	54514	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/09/00	1700	52662

The following Analytical Methods were performed

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01A Filtered
Sample ID: 33818003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 6010B
2	SW846 6010B
3	SW846 6020
4	SW846 6020
5	EPA 415.1

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P. Suzette Urick
Reviewed by

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01 Filtered
Sample ID: 33818004
Matrix: Ground Water
Collect Date: 07-NOV-00
Receive Date: 08-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Magnesium		8950	3.54	20.0	ug/L	1	JLS	11/15/00	1351	53085	1
Potassium		2850	16.4	100	ug/L	1					
Silica		18200	39.8	213	ug/L	1					
Silicon		8500	18.6	100	ug/L	1					
Sodium		18300	13.0	100	ug/L	1					
Calcium		11300	35.5	100	ug/L	1	TLW	11/17/00	2053	53085	2
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Arsenic	J	1.12	0.145	3.00	ug/L	1	JSS	11/29/00	0533	53133	3
Beryllium		0.992	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium		3.15	0.645	3.00	ug/L	1					
Cobalt		3.64	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		16700	7.92	25.0	ug/L	1					
Lead	U	ND	0.077	2.00	ug/L	1					
Manganese		241	0.655	5.00	ug/L	1					
Nickel		4.81	0.072	2.00	ug/L	1					
Selenium	J	0.547	0.218	3.00	ug/L	1					
Silver	J	0.369	0.101	1.00	ug/L	1					
Strontium		222	0.020	10.0	ug/L	1					
Thallium	U	ND	0.014	0.500	ug/L	1					
Vanadium	J	0.797	0.330	10.0	ug/L	1					
Zinc		65.4	0.974	10.0	ug/L	1					
Antimony	J	0.609	0.111	2.00	ug/L	1	JSS	11/30/00	1829	53133	4
Barium		294	0.158	2.00	ug/L	1					
TOC Analysis											
EPA 415.1 Diss.Org.Carbon Liq											
Diss. Org. Carbon		4.08	0.0406	0.200	mg/L	1	MS1	11/27/00	2202	54514	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/09/00	1700	52662

The following Analytical Methods were performed

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-01 Filtered
Sample ID: 33818004

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 6010B
2	SW846 6010B
3	SW846 6020
4	SW846 6020
5	EPA 415.1

Notes:
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GENERAL ENGINEERING LABORATORIES

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QC Summary

Report Date: December 12, 2000

Client : Delta Environmental
6701 Carmel, Suite 303
Charlotte, NC 28226

Contact: Rick Powell

Workorder: 33818

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 53588											
QC1000130093 33818001 DUP											
Conductivity			83.2		82.2	umhos/cm	1		(0%-20%)	MOJ1	11/15/00 14:15
QC1000130092 LCS											
Conductivity	1410				1380	umhos/cm		97	(80%-120%)		
Electrode Analysis											
Batch 52631											
QC1000127395 LCS											
pH	7.00				6.98	SU		100	(95%-105%)	MOJ1	11/08/00 16:15
Ion Chromatography											
Batch 52636											
QC1000127410 33818002 DUP											
Bromide		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	RWS	11/09/00 01:29
Chloride			27.0		27.2	mg/L	1		(0%-13%)		11/09/00 12:27
Fluoride			0.133		0.116	mg/L	14 ^		(+/-0.050)		11/09/00 01:29
Nitrate			0.249		0.217	mg/L	14 ^		(+/-0.050)		
Nitrite			0.00		0.00	mg/L	N/A ^		(+/-0.050)		
Sulfate			85.6		85.9	mg/L	0		(0%-15%)		11/09/00 12:27
QC1000127409 LCS											
Bromide	10.0				9.86	mg/L		99	(90%-110%)		11/09/00 01:58
Chloride	10.0				9.41	mg/L		94	(90%-110%)		
Fluoride	10.0				10.6	mg/L		106	(90%-110%)		
Nitrate	5.00				5.01	mg/L		100	(90%-110%)		
Nitrite	10.0				10.1	mg/L		101	(90%-110%)		
Sulfate	20.0				19.1	mg/L		95	(90%-110%)		
QC1000127408 MB											
Bromide				U	ND	mg/L					11/09/00 02:12
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Nitrate				U	ND	mg/L					
Nitrite				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1000127411 33818002 PS											
Bromide	10.0	U	ND		8.99	mg/L		90	(80%-120%)		11/09/00 01:43
Chloride	10.0		5.40		41.6	mg/L		89	(80%-120%)		
Chloride	10.0		5.40		15.7	mg/L		103	(80%-120%)		11/09/00 12:41
Fluoride	10.0		0.133		9.59	mg/L		95	(80%-120%)		11/09/00 01:43
Nitrate	5.00		0.249		4.67	mg/L		89	(80%-120%)		
Nitrite	10.0		0.00		9.13	mg/L		91	(80%-120%)		
Sulfate	20.0		17.1		115	mg/L		72*	(80%-120%)		
Sulfate	20.0		17.1		38.5	mg/L		107	(80%-120%)		11/09/00 12:41
Mercury Analysis											
Batch 53181											
QC1000128069 LCS											

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Mercury Analysis										
Batch 53181										
Mercury	2.00			1.87	ug/L		93	(82%-124%)	AW2	11/13/00 11:20
QC1000128068 MB										
Mercury			U	ND	ug/L					11/13/00 11:18
Metals Analysis-ICP										
Batch 53085										
QC1000127511 LCS										
Calcium	5000			5490	ug/L		110	(88%-118%)	RMJ	11/16/00 16:20
Magnesium	5000			5230	ug/L		105	(87%-115%)		
Potassium	5000			4810	ug/L		96	(85%-114%)		
Silica	10700			10500	ug/L		99	(80%-120%)		
Silicon	5000			4930	ug/L		99	(80%-120%)		
Sodium	5000			5190	ug/L		104	(89%-118%)		
QC1000127509 MB										
Calcium				119	ug/L					11/16/00 16:14
Magnesium			J	4.78	ug/L				JLS	11/15/00 12:07
Potassium			U	ND	ug/L					
Silica			J	102	ug/L					
Silicon			J	47.6	ug/L					
Sodium			J	63.1	ug/L					
Metals Analysis-ICPMS										
Batch 53133										
QC1000128085 LCS										
Antimony	50.0			63.0	ug/L		126	(70%-126%)	JSS	11/30/00 18:04
Arsenic	50.0			46.4	ug/L		93	(78%-119%)		11/29/00 04:37
Barium	50.0			49.3	ug/L		99	(91%-111%)		11/30/00 18:04
Beryllium	50.0			56.6	ug/L		113	(75%-121%)		11/29/00 04:37
Cadmium	50.0			48.1	ug/L		96	(87%-110%)		
Chromium	50.0			50.0	ug/L		100	(75%-120%)		
Cobalt	50.0			46.7	ug/L		93	(82%-114%)		
Copper	50.0			46.8	ug/L		94	(82%-128%)		
Iron	1000			983	ug/L		98	(63%-158%)		
Lead	50.0			45.3	ug/L		91	(80%-120%)		
Manganese	50.0			47.7	ug/L		95	(80%-118%)		
Nickel	50.0			46.0	ug/L		92	(86%-118%)		
Selenium	50.0			49.3	ug/L		99	(66%-130%)		
Silver	50.0			53.4	ug/L		107	(47%-158%)		
Strontium	50.0			47.7	ug/L		95	(95%-110%)		
Thallium	50.0			23.9	ug/L		48	(29%-158%)		
Vanadium	50.0			47.1	ug/L		94	(79%-116%)		
Zinc	50.0			46.6	ug/L		93	(62%-151%)		
QC1000128081 MB										
Antimony			U	ND	ug/L					11/30/00 14:26
Arsenic			U	ND	ug/L					11/29/00 04:29
Barium			U	ND	ug/L					11/30/00 14:26
Beryllium			U	ND	ug/L					11/29/00 04:29
Cadmium			U	ND	ug/L					
Chromium			J	0.830	ug/L					
Cobalt			U	ND	ug/L					

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS											
Batch 53133											
Copper				U	ND	ug/L					
Iron				U	ND	ug/L					
Lead				U	ND	ug/L					
Manganese				J	3.31	ug/L					
Nickel				J	0.090	ug/L					
Selenium				U	ND	ug/L					
Silver				J	0.472	ug/L					
Strontium				U	ND	ug/L					
Thallium				U	ND	ug/L					
Vanadium				J	0.387	ug/L					
Zinc				U	ND	ug/L					
QC1000128490 33818001 MS											
Antimony	50.0	J	0.139		69.0	ug/L		138*	(88%-115%)		11/30/00 14:58
Arsenic	50.0	J	1.44		49.2	ug/L		96	(85%-121%)		11/29/00 05:01
Barium	50.0		37.5		91.2	ug/L		107	(88%-113%)		11/30/00 14:58
Beryllium	50.0		0.715		62.0	ug/L		122*	(83%-120%)		11/29/00 05:01
Cadmium	50.0	U	ND		50.8	ug/L		102	(87%-115%)		
Chromium	50.0	J	2.82		51.8	ug/L		98	(83%-121%)		
Cobalt	50.0		3.81		52.3	ug/L		97	(80%-123%)		
Copper	50.0	U	ND		49.5	ug/L		99	(81%-126%)		
Iron	1000		16900		17900	ug/L		N/A	(63%-158%)		
Lead	50.0	U	ND		48.3	ug/L		97	(85%-116%)		
Manganese	50.0		246		293	ug/L		N/A	(80%-118%)		
Nickel	50.0		5.11		52.9	ug/L		96	(74%-128%)		
Selenium	50.0	J	0.505		50.0	ug/L		99	(82%-118%)		
Silver	50.0	J	0.401		57.8	ug/L		115	(81%-126%)		
Strontium	50.0		226		272	ug/L		N/A	(95%-110%)		
Thallium	50.0	J	0.225		26.2	ug/L		52*	(85%-117%)		
Vanadium	50.0	J	1.90		49.0	ug/L		94	(83%-125%)		
Zinc	50.0		11.7		59.0	ug/L		94	(74%-129%)		
QC1000128491 33818001 MSD											
Antimony	50.0	J	0.139		69.4	ug/L	1	139	(0%-20%)		11/30/00 15:06
Arsenic	50.0	J	1.44		49.2	ug/L	0	96	(0%-14%)		11/29/00 05:09
Barium	50.0		37.5		92.4	ug/L	1	110	(0%-14%)		11/30/00 15:06
Beryllium	50.0		0.715		61.6	ug/L	1	122	(0%-10%)		11/29/00 05:09
Cadmium	50.0	U	ND		50.3	ug/L	1	101	(0%-13%)		
Chromium	50.0	J	2.82		51.1	ug/L	1	97	(0%-13%)		
Cobalt	50.0		3.81		52.3	ug/L	0	97	(0%-10%)		
Copper	50.0	U	ND		48.0	ug/L	3	96	(0%-9%)		
Iron	1000		16900		17800	ug/L	1	N/A	(0%-20%)		
Lead	50.0	U	ND		48.3	ug/L	0	97	(0%-11%)		
Manganese	50.0		246		289	ug/L	1	N/A	(0%-20%)		
Nickel	50.0		5.11		52.5	ug/L	1	95	(0%-10%)		
Selenium	50.0	J	0.505		47.2	ug/L	6	93	(0%-13%)		
Silver	50.0	J	0.401		57.4	ug/L	1	114	(0%-9%)		
Strontium	50.0		226		269	ug/L	1	N/A	(0%-20%)		
Thallium	50.0	J	0.225		26.8	ug/L	2	53	(0%-7%)		
Vanadium	50.0	J	1.90		48.4	ug/L	1	93	(0%-9%)		

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS										
Batch 53133										
Zinc	50.0	11.7		56.9	ug/L	3	90	(0%-12%)		
QC1000128489 33818001 SDILT										
Antimony	J	0.139	U	ND	ug/L	N/A				11/30/00 14:50
Arsenic	J	1.44	J	0.336	ug/L	16.7				11/29/00 04:53
Barium		37.5		7.26	ug/L	3.17				11/30/00 14:50
Beryllium		0.715	J	0.137	ug/L	4.2				11/29/00 04:53
Cadmium	U	ND	U	ND	ug/L	N/A	N/A			
Chromium	J	2.82	J	0.749	ug/L	32.7				
Cobalt		3.81	J	0.702	ug/L	7.92				
Copper	U	ND	U	ND	ug/L	N/A	N/A			
Iron		16900		3380	ug/L	.207				
Lead	U	ND	J	0.088	ug/L	N/A				
Manganese		246		49.0	ug/L	.305				
Nickel		5.11	J	1.18	ug/L	15.8				
Selenium	J	0.505	J	0.289	ug/L	186				
Silver	J	0.401	J	0.372	ug/L	364				
Strontium		226		45.3	ug/L	.466				
Thallium	J	0.225	U	ND	ug/L	N/A				
Vanadium	J	1.90	U	ND	ug/L	N/A				
Zinc		11.7	J	4.98	ug/L	112				
Micro-biology										
Batch 52537										
QC1000127127 LCS										
BOD, 5 DAY	198			205	mg/L		104	(85%-115%)	ES	11/08/00 07:25
QC1000127125 MB										
BOD, 5 DAY			U	ND	mg/L					
Rad Alpha Spec										
Batch 52969										
QC1000128362 LCS										
Uranium-233/234				4.40 +/-0.742	pCi/L			(75%-125%)	TOH2	11/20/00 08:16
Uranium-235/236				0.292 +/-0.141	pCi/L			(75%-125%)		
Uranium-238	4.51			5.03 +/-0.821	pCi/L		112	(75%-125%)		
QC1000128359 MB										
Uranium-233/234			U	0.0635 +/-0.0605	pCi/L					
Uranium-235/236			U	0.000535 +/-0.0297	pCi/L					
Uranium-238			U	0.024 +/-0.0485	pCi/L					
Rad Gas Flow										
Batch 53197										
QC1000128942 LCS										
Radium-228	37.2			29.2 +/-2.14	pCi/L		79	(75%-125%)	JDM	11/21/00 11:54

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 53197										
QC1000128939 MB										
Radium-228			U	0.391 +/-0.735	pCi/L					
Batch 53360										
QC1000129373 LCS										
Alpha	47.5			58.7 +/-8.48	pCi/L		123	(75%-125%)	JEN	11/16/00 14:41
Beta	177			199 +/-12.0	pCi/L		112	(75%-125%)		
QC1000129370 MB										
Alpha			U	-0.0575 +/-0.261	pCi/L					11/16/00 16:38
Beta			U	0.486 +/-0.794	pCi/L					
Rad Liquid Scint										
Batch 52831										
QC1000127923 LCS										
Radon-222	62200			52100 +/-1020	pCi/L		84	(75%-125%)	HOB1	11/13/00 12:22
QC1000127919 MB										
Radon-222			U	-4.7 +/-21.6	pCi/L					11/11/00 07:56
Rad Radium-226										
Batch 52840										
QC1000127957 33818002 DUP										
Radium-226		17.2 +/-1.92		17.0 +/-2.01	pCi/L	1		(0%-20%)	GRR1	11/16/00 13:50
QC1000127961 LCS										
Radium-226	22.1			21.1 +/-2.68	pCi/L		96	(75%-125%)		11/16/00 16:05
QC1000127956 MB										
Radium-226			U	0.252 +/-0.190	pCi/L					11/16/00 15:00
Rapid Flow Analysis (Alpkem)										
Batch 53491										
QC1000129098 LCS										
Cyanide, Total	100			112	ug/L		112	(75%-132%)	ADF	11/22/00 10:39
QC1000129097 MB										
Cyanide, Total			U	ND	ug/L					11/22/00 10:37
Semi-Volatiles-GC/MS										
Batch 53138										
QC1000128197 LCS										
1,2,4-Trichlorobenzene	50.0			40.1	ug/L		80	(47%-106%)	JPA	11/14/00 22:31
1,4-Dichlorobenzene	50.0			40.0	ug/L		80	(44%-98%)		
2,4,5-Trichlorophenol	100			83.0	ug/L		83	(55%-108%)		
2,4,6-Trichlorophenol	100			76.7	ug/L		77	(48%-106%)		
2,4-Dinitrotoluene	50.0			45.0	ug/L		90	(62%-115%)		

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-GC/MS											
Batch 53138											
2-Chlorophenol	100			68.2	ug/L		68	(42%-92%)			
4-Chloro-3-methylphenol	100			74.0	ug/L		74	(52%-104%)			
4-Nitrophenol	100			33.1	ug/L		33	(10%-61%)			
Acenaphthene	50.0			36.8	ug/L		74	(52%-100%)			
Hexachlorobenzene	50.0			45.3	ug/L		91	(66%-114%)			
Hexachlorobutadiene	50.0			36.6	ug/L		73	(41%-107%)			
Hexachloroethane	50.0			39.1	ug/L		78	(41%-99%)			
N-Nitrosodipropylamine	50.0			39.4	ug/L		79	(45%-102%)			
Nitrobenzene	50.0			38.0	ug/L		76	(45%-100%)			
Pentachlorophenol	100			84.9	ug/L		85	(50%-110%)			
Phenol	100			31.8	ug/L		32	(18%-45%)			
Pyrene	50.0			40.0	ug/L		80	(56%-114%)			
m,p-Cresols	100			63.3	ug/L		63	(37%-85%)			
o-Cresol	100			66.8	ug/L		67	(33%-91%)			
**2,4,6-Tribromophenol	100			81.3	ug/L		81	(30%-116%)			
**2-Fluorobiphenyl	50.0			40.8	ug/L		82	(29%-106%)			
**2-Fluorophenol	100			52.5	ug/L		53	(23%-71%)			
**Nitrobenzene-d5	50.0			44.3	ug/L		89	(25%-105%)			
**Phenol-d5	100			32.8	ug/L		33	(10%-50%)			
**p-Terphenyl-d14	50.0			42.7	ug/L		85	(18%-125%)			
QC1000128196 MB											
1,2,4-Trichlorobenzene			U	ND	ug/L					11/14/00	22:01
1,2-Dichlorobenzene			U	ND	ug/L						
1,3-Dichlorobenzene			U	ND	ug/L						
1,4-Dichlorobenzene			U	ND	ug/L						
2,4,5-Trichlorophenol			U	ND	ug/L						
2,4,6-Trichlorophenol			U	ND	ug/L						
2,4-Dichlorophenol			U	ND	ug/L						
2,4-Dimethylphenol			U	ND	ug/L						
2,4-Dinitrophenol			U	ND	ug/L						
2,4-Dinitrotoluene			U	ND	ug/L						
2,6-Dinitrotoluene			U	ND	ug/L						
2-Chloronaphthalene			U	ND	ug/L						
2-Chlorophenol			U	ND	ug/L						
2-Methyl-4,6-dinitrophenol			U	ND	ug/L						
2-Methylnaphthalene			U	ND	ug/L						
2-Nitrophenol			U	ND	ug/L						
3,3'-Dichlorobenzidine			U	ND	ug/L						
4-Bromophenylphenylether			U	ND	ug/L						
4-Chloro-3-methylphenol			U	ND	ug/L						
4-Chloroaniline			U	ND	ug/L						
4-Chlorophenylphenylether			U	ND	ug/L						
4-Nitrophenol			U	ND	ug/L						
Acenaphthene			U	ND	ug/L						
Acenaphthylene			U	ND	ug/L						
Anthracene			U	ND	ug/L						
Benzo(a)anthracene			U	ND	ug/L						
Benzo(a)pyrene			U	ND	ug/L						

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Benzo(b)fluoranthene			U	ND	ug/L					
Benzo(ghi)perylene			U	ND	ug/L					
Benzo(k)fluoranthene			U	ND	ug/L					
Butylbenzylphthalate			U	ND	ug/L					
Carbazole			U	ND	ug/L					
Chrysene			U	ND	ug/L					
Di-n-butylphthalate			U	ND	ug/L					
Di-n-octylphthalate			U	ND	ug/L					
Dibenzo(a,h)anthracene			U	ND	ug/L					
Dibenzofuran			U	ND	ug/L					
Diethylphthalate			U	ND	ug/L					
Dimethylphthalate			U	ND	ug/L					
Diphenylamine			U	ND	ug/L					
Fluoranthene			U	ND	ug/L					
Fluorene			U	ND	ug/L					
Hexachlorobenzene			U	ND	ug/L					
Hexachlorobutadiene			U	ND	ug/L					
Hexachlorocyclopentadiene			U	ND	ug/L					
Hexachloroethane			U	ND	ug/L					
Indeno(1,2,3-cd)pyrene			U	ND	ug/L					
Isophorone			U	ND	ug/L					
N-Nitrosodipropylamine			U	ND	ug/L					
Naphthalene			U	ND	ug/L					
Nitrobenzene			U	ND	ug/L					
Pentachlorophenol			U	ND	ug/L					
Phenanthrene			U	ND	ug/L					
Phenol			U	ND	ug/L					
Pyrene			U	ND	ug/L					
bis(2-Chloroethoxy)methane			U	ND	ug/L					
bis(2-Chloroethyl) ether			U	ND	ug/L					
bis(2-Chloroisopropyl)ether			U	ND	ug/L					
bis(2-Ethylhexyl)phthalate			U	ND	ug/L					
m,p-Cresols			U	ND	ug/L					
m-Nitroaniline			U	ND	ug/L					
o-Cresol			U	ND	ug/L					
o-Nitroaniline			U	ND	ug/L					
p-Nitroaniline			U	ND	ug/L					
**2,4,6-Tribromophenol	100			68.8	ug/L		69	(30%-116%)		
**2-Fluorobiphenyl	50.0			34.0	ug/L		68	(29%-106%)		
**2-Fluorophenol	100			41.3	ug/L		41	(23%-71%)		
**Nitrobenzene-d5	50.0			35.9	ug/L		72	(25%-105%)		
**Phenol-d5	100			26.8	ug/L		27	(10%-50%)		
**p-Terphenyl-d14	50.0			43.1	ug/L		86	(18%-125%)		
QC1000128198 33818001 MS										
1,2,4-Trichlorobenzene	100	U	ND	67.0	ug/L		67	(27%-87%)		11/14/00 23:02
1,4-Dichlorobenzene	100	U	ND	64.3	ug/L		64	(29%-80%)		
2,4,5-Trichlorophenol		U	ND U	ND	ug/L		N/A			
2,4,6-Trichlorophenol		U	ND U	ND	ug/L		N/A			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
2,4-Dinitrotoluene	100	U	ND		77.7	ug/L		78	(29%-92%)	
2-Chlorophenol	200	U	ND		123	ug/L		61	(31%-81%)	
4-Chloro-3-methylphenol	200	U	ND		142	ug/L		71	(31%-91%)	
4-Nitrophenol	200	U	ND		90.3	ug/L		45	(10%-85%)	
Acenaphthene	100	U	ND		72.1	ug/L		72	(28%-91%)	
Hexachlorobenzene		U	ND	U	ND	ug/L		N/A		
Hexachlorobutadiene		U	ND	U	ND	ug/L		N/A		
Hexachloroethane		U	ND	U	ND	ug/L		N/A		
N-Nitrosodipropylamine	100	U	ND		71.6	ug/L		72	(26%-94%)	
Nitrobenzene		U	ND	U	ND	ug/L		N/A		
Pentachlorophenol	200	U	ND		169	ug/L		85	(24%-103%)	
Phenol	200	U	ND		83.4	ug/L		42	(10%-58%)	
Pyrene	100	U	ND		86.7	ug/L		87	(34%-111%)	
m,p-Cresols		U	ND	U	ND	ug/L		N/A		
o-Cresol		U	ND	U	ND	ug/L		N/A		
**2,4,6-Tribromophenol	200		65.1		160	ug/L		80	(30%-116%)	
**2-Fluorobiphenyl	100		36.6		76.4	ug/L		76	(29%-106%)	
**2-Fluorophenol	200		44.2		122	ug/L		61	(23%-71%)	
**Nitrobenzene-d5	100		39.3		78.6	ug/L		79	(25%-105%)	
**Phenol-d5	200		28.6		97.0	ug/L		49	(10%-50%)	
**p-Terphenyl-d14	100		42.9		92.0	ug/L		92	(18%-125%)	
QC1000128199 33818001 MSD										
1,2,4-Trichlorobenzene	100	U	ND		68.1	ug/L	2	68	(0%-32%)	11/14/00 23:32
1,4-Dichlorobenzene	100	U	ND		63.4	ug/L	1	63	(0%-30%)	
2,4,5-Trichlorophenol		U	ND	U	ND	ug/L		N/A		
2,4,6-Trichlorophenol		U	ND	U	ND	ug/L		N/A		
2,4-Dinitrotoluene	100	U	ND		75.5	ug/L	3	76	(0%-27%)	
2-Chlorophenol	200	U	ND		121	ug/L	1	61	(0%-30%)	
4-Chloro-3-methylphenol	200	U	ND		137	ug/L	4	68	(0%-31%)	
4-Nitrophenol	200	U	ND		80.3	ug/L	12	40	(0%-32%)	
Acenaphthene	100	U	ND		72.3	ug/L	0	72	(0%-28%)	
Hexachlorobenzene		U	ND	U	ND	ug/L		N/A		
Hexachlorobutadiene		U	ND	U	ND	ug/L		N/A		
Hexachloroethane		U	ND	U	ND	ug/L		N/A		
N-Nitrosodipropylamine	100	U	ND		69.6	ug/L	3	70	(0%-30%)	
Nitrobenzene		U	ND	U	ND	ug/L		N/A		
Pentachlorophenol	200	U	ND		159	ug/L	6	80	(0%-29%)	
Phenol	200	U	ND		82.6	ug/L	1	41	(0%-31%)	
Pyrene	100	U	ND		84.7	ug/L	2	85	(0%-28%)	
m,p-Cresols		U	ND	U	ND	ug/L		N/A		
o-Cresol		U	ND	U	ND	ug/L		N/A		
**2,4,6-Tribromophenol	200		65.1		149	ug/L		75	(30%-116%)	
**2-Fluorobiphenyl	100		36.6		76.6	ug/L		77	(29%-106%)	
**2-Fluorophenol	200		44.2		121	ug/L		60	(23%-71%)	
**Nitrobenzene-d5	100		39.3		77.3	ug/L		77	(25%-105%)	
**Phenol-d5	200		28.6		94.8	ug/L		47	(10%-50%)	
**p-Terphenyl-d14	100		42.9		88.4	ug/L		88	(18%-125%)	
Solids Analysis										

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Solids Analysis										
Batch 52689										
QC1000127550 33818002 DUP										
Total Suspended Solids	U	ND	U	ND	mg/L	N/A	N/A	(+/-5.00)	TSM	11/10/00 08:44
QC1000127547 LCS										
Total Suspended Solids	500			496	mg/L		99	(95%-105%)		
QC1000127548 LCSD										
Total Suspended Solids	500			504	mg/L	2	101	(0%-20%)		
QC1000127546 MB										
Total Suspended Solids			U	ND	mg/L					
Batch 52693										
QC1000127555 33818001 DUP										
Total Dissolved Solids		103		101	mg/L	2		(0%-18%)	TSM	11/10/00 12:12
QC1000127554 LCS										
Total Dissolved Solids	300			299	mg/L		100	(84%-115%)		
QC1000127553 MB										
Total Dissolved Solids			U	ND	mg/L					
Spectrometric Analysis										
Batch 52641										
QC1000127431 33818001 DUP										
Hexavalent Chromium	U	ND	J	0.003	mg/L	N/A		(+/-0.010)	AAT	11/08/00 16:45
QC1000127426 LCS										
Hexavalent Chromium	0.100			0.100	mg/L		100	(84%-116%)		
QC1000127425 MB										
Hexavalent Chromium			U	ND	mg/L					
QC1000127432 33818001 PS										
Hexavalent Chromium	0.100 U	ND	U	ND	mg/L		N/A	(85%-115%)		
Batch 53748										
QC1000130561 33818001 DUP										
COD	U	ND	U	ND	mg/L	N/A	N/A	(+/-5.00)	MOJ1	11/16/00 14:30
QC1000130560 LCS										
COD	75.0			72.5	mg/L		97	(83%-111%)		
QC1000130559 MB										
COD			J	2.13	mg/L					
QC1000130562 33818001 PS										
COD	75.0 U	ND		76.8	mg/L		102	(70%-130%)		
TOC Analysis										
Batch 54333										
QC1000132306 LCS										
Total Organic Carbon	10.0			8.93	mg/L		89	(85%-115%)	MS1	11/21/00 05:17
QC1000132305 MB										
Total Organic Carbon			U	ND	mg/L					11/21/00 05:01
Batch 54514										
QC1000132899 33818004 DUP										
Diss. Org. Carbon		4.08		4.10	mg/L	0		(0%-25%)	MS1	11/27/00 22:17
QC1000132896 LCS										
Diss. Org. Carbon	10.0			8.93	mg/L		89	(85%-115%)		11/28/00 02:42
QC1000132895 MB										
Diss. Org. Carbon			U	ND	mg/L					11/28/00 02:34
QC1000132897 33818004 PS										
Diss. Org. Carbon	10.0	4.08		13.9	mg/L		98	(77%-127%)		11/27/00 22:33

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
TRAACS Nutrient Analysis										
Batch 52883										
QC1000127390 LCS										
Nitrogen, Ammonia	1.00			0.850	mg/L		85	(63%-121%)	THL	11/13/00 14:21
QC1000127389 MB										
Nitrogen, Ammonia			U	ND	mg/L					
Batch 52887										
QC1000127622 LCS										
Phosphorus, Total as PO4	1.00			0.880	mg/L		88	(66%-125%)	THL	11/10/00 13:43
QC1000127621 MB										
Phosphorus, Total as PO4			J	0.030	mg/L					
Titration Analysis										
Batch 53180										
QC1000128904 LCS										
Alkalinity, Total as CaCO3	1000			960	mg/L		96	(80%-120%)	MOJ1	11/13/00 08:20
Volatile Organics										
Batch 53093										
QC1000128663 LCS										
1,1-Dichloroethylene	50.0			55.5	ug/L		111	(74%-139%)	JEB	11/10/00 12:47
Benzene	50.0			46.5	ug/L		93	(79%-119%)		
Chlorobenzene	50.0			43.9	ug/L		88	(79%-120%)		
Toluene	50.0			42.4	ug/L		85	(74%-115%)		
Trichloroethylene	50.0			47.6	ug/L		95	(81%-132%)		
**Bromofluorobenzene	50.0			38.2	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0			36.0	ug/L		72	(66%-130%)		
**Toluene-d8	50.0			34.1	ug/L		68	(64%-130%)		
QC1000128662 MB										
1,1,1-Trichloroethane			U	ND	ug/L					11/10/00 13:47
1,1,2,2-Tetrachloroethane			U	ND	ug/L					
1,1,2-Trichloroethane			U	ND	ug/L					
1,1-Dichloroethane			U	ND	ug/L					
1,1-Dichloroethylene			U	ND	ug/L					
1,2-Dichloroethane			U	ND	ug/L					
1,2-Dichloroethylene (total)			U	ND	ug/L					
1,2-Dichloropropane			U	ND	ug/L					
2-Butanone			U	ND	ug/L					
2-Hexanone			U	ND	ug/L					
4-Methyl-2-pentanone			U	ND	ug/L					
Acetone			J	0.580	ug/L					
Benzene			U	ND	ug/L					
Bromodichloromethane			U	ND	ug/L					
Bromoform			U	ND	ug/L					
Bromomethane			U	ND	ug/L					
Carbon disulfide			U	ND	ug/L					
Carbon tetrachloride			U	ND	ug/L					
Chlorobenzene			U	ND	ug/L					
Chloroethane			U	ND	ug/L					
Chloroform			U	ND	ug/L					
Chloromethane			U	ND	ug/L					
Dibromochloromethane			U	ND	ug/L					

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile Organics											
Batch 53093											
Ethylbenzene			U	ND	ug/L						
Methylene chloride			U	ND	ug/L						
Styrene			U	ND	ug/L						
Tetrachloroethylene			U	ND	ug/L						
Toluene			U	ND	ug/L						
Trichloroethylene			U	ND	ug/L						
Vinyl acetate			U	ND	ug/L						
Vinyl chloride			U	ND	ug/L						
Xylenes (total)			U	ND	ug/L						
cis-1,2-Dichloroethylene			U	ND	ug/L						
cis-1,3-Dichloropropylene			U	ND	ug/L						
trans-1,2-Dichloroethylene			U	ND	ug/L						
trans-1,3-Dichloropropylene			U	ND	ug/L						
**Bromofluorobenzene	50.0			38.2	ug/L		76	(59%-129%)			
**Dibromofluoromethane	50.0			36.7	ug/L		73	(66%-130%)			
**Toluene-d8	50.0			34.9	ug/L		70	(64%-130%)			
Wet Chemistry General											
Batch 52632											
QC1000127399 33818001 DUP											
Turbidity		1.07		1.16	NTU	8		(0%-18%)	MOJ1	11/08/00	16:30
QC1000127398 LCS											
Turbidity	10.0			11.2	NTU		112	(83%-112%)			
QC1000127397 MB											
Turbidity			U	ND	NTU						
Batch 52634											
QC1000127403 33818001 DUP											
Color		5.00		5.00	PCU	0 ^		(+/-5.00)	MOJ1	11/08/00	17:20
QC1000127402 LCS											
Color	35.0			35.0	PCU		100	(80%-120%)			
QC1000127401 MB											
Color			U	ND	PCU						

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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338187%

CHAIN OF CUSTODY RECORD

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(843) 556-8171

Page_____ of _____

Client Name/Facility Name: Wyatt Lawrence Delta Environmental Plymouth NC

Collected by/Company: Cook Swenson Delta

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

2000087021

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type			Analyze Remarks
001	LF-01A	11/7/00	16:00	x				19																	.1	Groups 1b, 2a, 2b
003	LF-01A Filtered	11/7/00	16:00	x				2																	.2	3, 4
																										in accordance
																										with Contract
																										Enclosed is a list
																										of parameters
																										for each group

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[signature]	11/7/00	16:10					

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			[signature]	11/8	1130	

White = sample collector Yellow = file Pink = with report

338189

CHAIN OF CUSTODY RECORD

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(843) 556-8171

Page 1 of 1

Client Name/Facility Name: Delta Environmental / Weyerhaeuser, Plymouth, NC

Collected by/Company: Erik Svenson, Delta

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type			Remarks
002	LF-01	11/7/00	14:45	x				19																	.1	
004	LF-01 Filtered	11/7/00	14:45	x				2																	.2	Analyze Groups 1b, 2a, 2b, 3, 4 in accordance w/ contract. Enclosed is a list of parameters for each group.

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[signature]	11/7/00	15:30					

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			[signature]	11/8	1130	

White = sample collector Yellow = file Pink = with report

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-10
Sample ID: 33866001
Matrix: Ground Water
Collect Date: 08-NOV-00
Receive Date: 09-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity											
Conductivity		45.6	1.00	1.00	umhos/cm	1	MOJ1	11/15/00	1415	53588	1
Electrode Analysis											
EPA 150.1 pH											
pH at Temp 21.2C		5.84	0.010	0.100	SU	1	MOJ1	11/09/00	1653	52823	2
Ion Chromatography											
EPA300.0 Sulfate in Liquid											
Bromide	U	ND	0.016	0.050	mg/L	1	RWS	11/10/00	0142	52852	3
Chloride		3.96	0.026	0.100	mg/L	1					
Fluoride	U	ND	0.017	0.050	mg/L	1					
Nitrate		0.080	0.020	0.050	mg/L	1					
Nitrite	U	ND	0.020	0.050	mg/L	1					
Sulfate		5.31	0.079	0.200	mg/L	1					
Mercury Analysis											
7470 Cold Vapor Hg Liquid											
Mercury	U	ND	0.060	0.200	ug/L	1	AW2	11/13/00	1251	53181	4
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		1450	35.5	100	ug/L	1	TLW	11/18/00	0506	53326	5
Magnesium		1170	3.54	20.0	ug/L	1					
Potassium		805	16.4	100	ug/L	1					
Silica		42200	39.8	213	ug/L	1					
Silicon		19900	18.6	100	ug/L	1					
Sodium		9300	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Nickel		3.22	0.072	2.00	ug/L	1	JSS	11/30/00	1353	53133	7
Antimony	J	0.163	0.111	2.00	ug/L	1	JSS	11/30/00	1837	53133	8
Arsenic	J	2.38	0.145	3.00	ug/L	1					
Barium		27.2	0.158	2.00	ug/L	1					
Beryllium		0.252	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium		7.24	0.645	3.00	ug/L	1					
Cobalt		3.96	0.018	1.00	ug/L	1					
Copper	J	1.81	1.18	2.00	ug/L	1					
Iron		2850	7.92	25.0	ug/L	1					
Lead	J	1.68	0.077	2.00	ug/L	1					

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-10
Sample ID: 33866001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICPMS												
6020/3005 MIMICP SCAN Metals												
Manganese		102		0.655	5.00	ug/L	1					
Selenium	U	ND		0.218	3.00	ug/L	1					
Silver	U	ND		0.101	1.00	ug/L	1					
Strontium		21.1		0.020	10.0	ug/L	1					
Thallium	U	ND		0.014	0.500	ug/L	1					
Vanadium		10.3		0.330	10.0	ug/L	1					
Zinc		10.4		0.974	10.0	ug/L	1					
Micro-biology												
EPA 405.1 BOD, 5DAY												
BOD, 5 DAY	U	ND		2.00	4.00	mg/L		ES	11/09/00	1423	52687	9
Rad Alpha Spec												
Alphaspec U, liquid												
Uranium-233/234	U	ND	+/-0.0828	0.280	1.00	pCi/L		TOH2	11/17/00	1131	52969	10
Uranium-235/236	U	ND	+/-0.0879	0.132	1.00	pCi/L						
Uranium-238	U	ND	+/-0.0746	0.188	1.00	pCi/L						
Rad Gas Flow												
GFPC, Gross A/B, liquid												
Alpha		1.89	+/-0.885	1.36	1.50	pCi/L		JEN	11/16/00	1636	53360	11
Beta	U	ND	+/-1.13	2.17	2.00	pCi/L						
GFPC, Ra228, liquid												
Radium-228	U	ND	+/-0.767	1.75	1.50	pCi/L		JDM	11/21/00	1153	53197	12
Rad Liquid Scint												
Liquid Scint Rn222, liquid												
Radon-222		125	+/-31.4	45.6	200	pCi/L		HOB1	11/10/00	2301	52831	13
Rad Radium-226												
Lucas Cell, Ra226, liquid												
Radium-226		0.620	+/-0.302	0.339	1.00	pCi/L		GRR1	11/21/00	1210	52849	14
Rapid Flow Analysis (Alpkem)												
EPA 335.3 Cyanide, Total												
Cyanide, Total	J	4.10		2.76	5.00	ug/L	1	ADF	11/22/00	1059	53491	15
Semi-Volatiles-GC/MS												
3510/8270C TCL BNA Liquid												
1,2,4-Trichlorobenzene		ND		0.110	10.0	ug/L	1	JPA	11/15/00	0103	53138	16
1,2-Dichlorobenzene		ND		0.130	10.0	ug/L	1					
1,3-Dichlorobenzene		ND		0.070	10.0	ug/L	1					
1,4-Dichlorobenzene		ND		0.090	10.0	ug/L	1					
2,4,5-Trichlorophenol		ND		0.280	10.0	ug/L	1					
2,4,6-Trichlorophenol		ND		0.100	10.0	ug/L	1					

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Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-10
Sample ID: 33866001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
2,4-Dichlorophenol		ND	0.190	10.0	ug/L	1				
2,4-Dimethylphenol		ND	0.200	10.0	ug/L	1				
2,4-Dinitrophenol		ND	0.650	20.0	ug/L	1				
2,4-Dinitrotoluene		ND	0.160	10.0	ug/L	1				
2,6-Dinitrotoluene		ND	0.180	10.0	ug/L	1				
2-Chloronaphthalene		ND	0.130	1.00	ug/L	1				
2-Chlorophenol		ND	0.180	10.0	ug/L	1				
2-Methyl-4,6-dinitrophenol		ND	0.870	10.0	ug/L	1				
2-Methylnaphthalene		ND	0.150	1.00	ug/L	1				
2-Nitrophenol		ND	0.100	10.0	ug/L	1				
3,3'-Dichlorobenzidine		ND	0.210	10.0	ug/L	1				
4-Bromophenylphenylether		ND	0.180	10.0	ug/L	1				
4-Chloro-3-methylphenol		ND	0.210	10.0	ug/L	1				
4-Chloroaniline		ND	0.110	10.0	ug/L	1				
4-Chlorophenylphenylether		ND	0.200	10.0	ug/L	1				
4-Nitrophenol		ND	4.84	10.0	ug/L	1				
Acenaphthene		ND	0.160	1.00	ug/L	1				
Acenaphthylene		ND	0.140	1.00	ug/L	1				
Anthracene		ND	0.110	1.00	ug/L	1				
Benzo(a)anthracene		ND	0.100	1.00	ug/L	1				
Benzo(a)pyrene		ND	0.070	1.00	ug/L	1				
Benzo(b)fluoranthene		ND	0.170	1.00	ug/L	1				
Benzo(ghi)perylene		ND	0.260	1.00	ug/L	1				
Benzo(k)fluoranthene		ND	0.280	1.00	ug/L	1				
Butylbenzylphthalate		ND	0.130	10.0	ug/L	1				
Carbazole		ND	0.060	10.0	ug/L	1				
Chrysene		ND	0.100	1.00	ug/L	1				
Di-n-butylphthalate		ND	0.270	10.0	ug/L	1				
Di-n-octylphthalate		ND	0.060	10.0	ug/L	1				
Dibenzo(a,h)anthracene		ND	0.180	1.00	ug/L	1				
Dibenzofuran		ND	0.180	10.0	ug/L	1				
Diethylphthalate		ND	0.270	10.0	ug/L	1				
Dimethylphthalate		ND	0.150	10.0	ug/L	1				
Diphenylamine		ND	1.54	10.0	ug/L	1				
Fluoranthene		ND	0.090	1.00	ug/L	1				
Fluorene		ND	0.070	1.00	ug/L	1				
Hexachlorobenzene		ND	0.160	10.0	ug/L	1				
Hexachlorobutadiene		ND	0.190	10.0	ug/L	1				
Hexachlorocyclopentadiene		ND	0.040	10.0	ug/L	1				
Hexachloroethane		ND	0.190	10.0	ug/L	1				
Indeno(1,2,3-cd)pyrene		ND	0.260	1.00	ug/L	1				
Isophorone		ND	0.170	10.0	ug/L	1				

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GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-10
Sample ID: 33866001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
3510/8270C TCL BNA Liquid											
N-Nitrosodipropylamine		ND	0.170	10.0	ug/L	1					
Naphthalene		ND	0.130	1.00	ug/L	1					
Nitrobenzene		ND	0.270	10.0	ug/L	1					
Pentachlorophenol		ND	1.20	10.0	ug/L	1					
Phenanthrene		ND	0.120	1.00	ug/L	1					
Phenol		ND	0.090	10.0	ug/L	1					
Pyrene		ND	0.080	1.00	ug/L	1					
bis(2-Chloroethoxy)methane		ND	0.190	10.0	ug/L	1					
bis(2-Chloroethyl) ether		ND	0.160	10.0	ug/L	1					
bis(2-Chloroisopropyl)ether		ND	0.140	10.0	ug/L	1					
bis(2-Ethylhexyl)phthalate		ND	0.320	1.00	ug/L	1					
m,p-Cresols		ND	0.130	10.0	ug/L	1					
m-Nitroaniline		ND	1.08	10.0	ug/L	1					
o-Cresol		ND	0.200	10.0	ug/L	1					
o-Nitroaniline		ND	1.59	10.0	ug/L	1					
p-Nitroaniline		ND	0.770	10.0	ug/L	1					
Solids Analysis											
EPA 160.1 Solids, Dissolved											
Total Dissolved Solids		89.0	6.29	10.0	mg/L		TSM	11/14/00	1156	53220	18
EPA 160.2 Total Suspended Liq											
Total Suspended Solids		52.3	1.17	8.33	mg/L		TSM	11/15/00	1436	53487	19
Spectrometric Analysis											
EPA 410.4 Chem. Oxygen Demand											
COD	J	1.08	1.06	5.00	mg/L	1	MOJ1	11/16/00	1430	53748	20
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	U	ND	0.002	0.010	mg/L	1	TCC1	11/09/00	1415	52794	21
TOC Analysis											
EPA 415.1 Total Organic Carbon											
Total Organic Carbon		0.828	0.0406	0.200	mg/L	1	MS1	11/27/00	1513	54516	22
TRAACS Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L											
Nitrogen, Ammonia	U	ND	0.029	0.050	mg/L	1	THL	11/15/00	1729	53637	23
EPA 365.4 Phosphorus, Total in											
Phosphorus, Total as PO4	U	ND	0.020	0.050	mg/L	1	THL	11/16/00	1623	53150	24
Titration Analysis											
EPA 310.1 Total Alkalinity											
Alkalinity, Total as CaCO3		15.7	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	25
SM2320B Bicarbonates											

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Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-10
Sample ID: 33866001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Titration Analysis										
SM2320B Bicarbonates										
Bicarbonate alkalinity (CaCO3)		15.7	1.00	2.00	mg/L		MOJ1 11/13/00	0820	53180	26
Carbonate alkalinity (CaCO3)	U	ND	1.00	2.00	mg/L					
Hydroxide alkalinity as CaCO3	U	ND	1.00	2.00	mg/L					
Volatile Organics										
5030/8260B TCL in Liquid										
1,1,1-Trichloroethane	U	ND	0.093	2.00	ug/L	1	JEB 11/17/00	2341	54045	27
1,1,2,2-Tetrachloroethane	U	ND	0.273	2.00	ug/L	1				
1,1,2-Trichloroethane	U	ND	0.193	2.00	ug/L	1				
1,1-Dichloroethane	U	ND	0.099	2.00	ug/L	1				
1,1-Dichloroethylene	U	ND	0.090	2.00	ug/L	1				
1,2-Dichloroethane	U	ND	0.158	2.00	ug/L	1				
1,2-Dichloroethylene (total)	U	ND	0.370	2.00	ug/L	1				
1,2-Dichloropropane	U	ND	0.070	2.00	ug/L	1				
2-Butanone	U	ND	1.18	10.0	ug/L	1				
2-Hexanone	U	ND	1.74	10.0	ug/L	1				
4-Methyl-2-pentanone	U	ND	0.696	10.0	ug/L	1				
Acetone	J	3.50	0.224	10.0	ug/L	1				
Benzene	U	ND	0.149	2.00	ug/L	1				
Bromodichloromethane	U	ND	0.024	2.00	ug/L	1				
Bromoform	U	ND	0.085	2.00	ug/L	1				
Bromomethane	U	ND	0.628	2.00	ug/L	1				
Carbon disulfide	U	ND	0.349	10.0	ug/L	1				
Carbon tetrachloride	U	ND	0.124	2.00	ug/L	1				
Chlorobenzene	U	ND	0.603	2.00	ug/L	1				
Chloroethane	U	ND	0.140	2.00	ug/L	1				
Chloroform	U	ND	0.198	2.00	ug/L	1				
Chloromethane	U	ND	0.179	2.00	ug/L	1				
Dibromochloromethane	U	ND	0.089	2.00	ug/L	1				
Ethylbenzene	U	ND	0.051	2.00	ug/L	1				
Methylene chloride	U	ND	0.971	5.00	ug/L	1				
Styrene	U	ND	0.078	2.00	ug/L	1				
Tetrachloroethylene	U	ND	0.385	2.00	ug/L	1				
Toluene	U	ND	0.262	2.00	ug/L	1				
Trichloroethylene	U	ND	0.150	2.00	ug/L	1				
Vinyl acetate	U	ND	1.86	10.0	ug/L	1				
Vinyl chloride	U	ND	0.096	2.00	ug/L	1				
Xylenes (total)	U	ND	0.437	6.00	ug/L	1				
cis-1,2-Dichloroethylene	U	ND	0.129	2.00	ug/L	1				

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Project: Containerboard Mill

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Sample ID: 33866001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Volatile Organics										
5030/8260B TCL in Liquid										
cis-1,3-Dichloropropylene	U	ND	0.035	2.00	ug/L	1				
trans-1,2-Dichloroethylene	U	ND	0.105	2.00	ug/L	1				
trans-1,3-Dichloropropylene	U	ND	0.106	2.00	ug/L	1				
Wet Chemistry General										
EPA 110.2 Color										
Color	U	ND	5.00	5.00	PCU	1	MOJ1 11/09/00	1450	52811	28
EPA 180.1 Turbidity										
Turbidity		84.5	0.300	0.600	NTU	3	MOJ1 11/09/00	1417	52796	29

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160.2	EPA 160.2 Total Suspended Solids	TSM	11/15/00	1436	53487
EPA 335.3	EPA 335.3 Total Cyanide	ADF	11/14/00	1000	53252
EPA 350.1	EPA 350.1 Ammonia Nitrogen Liquid	THL	11/15/00	1729	53637
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	THL	11/15/00	1043	53523
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	HSC	11/10/00	1545	52997
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/10/00	1815	52867
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AW1	11/10/00	1700	52920
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AW1	11/15/00	1800	53652
SW846 7470A	EPA 7470 Mercury Prep Liquid	ARD	11/10/00	1630	52873
SW846 8260	8260B Volatiles In Liquid	JEB	11/17/00	2341	54045

The following Analytical Methods were performed

Method	Description
1	EPA 120.1
2	EPA 150.1
3	EPA 300.0
4	SW846 7470A
5	SW846 6010B
6	SW846 6020
7	SW846 6020
8	SW846 6020
9	EPA 405.1

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Client Sample ID: LF-10
Sample ID: 33866001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
10	DOE EML HASL 300									
11	GL-EPI-B-008									
12	EPA 904.0									
13	EPA EERF App. B									
14	EPA 903.1									
15	EPA 335.3									
16	SW846 8270C									
17	SW846 8270C									
18	EPA 160.1									
19	EPA 160.2									
20	EPA 410.4									
21	SW846 7196A									
22	EPA 415.1									
23	EPA 350.1									
24	EPA 365.4									
25	EPA 310.1									
26	SM 2320B									
27	SW846 8260									
28	EPA 110.2									
29	EPA 180.1									

Surrogate recovery	Test	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	3510/8270C TCL BNA Liquid	16% *	(30%-116%)
2-Fluorobiphenyl	3510/8270C TCL BNA Liquid	72%	(29%-106%)
2-Fluorophenol	3510/8270C TCL BNA Liquid	11% *	(23%-71%)
Nitrobenzene-d5	3510/8270C TCL BNA Liquid	79%	(25%-105%)
Phenol-d5	3510/8270C TCL BNA Liquid	18%	(10%-50%)
p-Terphenyl-d14	3510/8270C TCL BNA Liquid	77%	(18%-125%)
Bromofluorobenzene	5030/8260B TCL in Liquid	79%	(59%-129%)
Dibromofluoromethane	5030/8260B TCL in Liquid	73%	(66%-130%)
Toluene-d8	5030/8260B TCL in Liquid	78%	(64%-130%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.

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Sample ID: 33866001

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

< Actual result is less than amount reported
> Actual result is greater than amount reported
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Suzette Urick at 843-556-8171 Ext. 4477.

P. Suzette Urick
Reviewed by

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Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11
Sample ID: 33866002
Matrix: Ground Water
Collect Date: 08-NOV-00
Receive Date: 09-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity											
Conductivity		61.7	1.00	1.00	umhos/cm	1	MOJ1	11/15/00	1415	53588	1
Electrode Analysis											
EPA 150.1 pH											
pH at Temp 21.3C		5.66	0.010	0.100	SU	1	MOJ1	11/09/00	1653	52823	2
Ion Chromatography											
EPA300.0 Sulfate in Liquid											
Bromide	U	ND	0.016	0.050	mg/L	1	RWS	11/10/00	0157	52852	3
Chloride		8.59	0.026	0.100	mg/L	1					
Fluoride		0.059	0.017	0.050	mg/L	1					
Nitrate		0.328	0.020	0.050	mg/L	1					
Nitrite	U	ND	0.020	0.050	mg/L	1					
Sulfate		11.6	0.079	0.200	mg/L	1					
Mercury Analysis											
7470 Cold Vapor Hg Liquid											
Mercury	U	ND	0.060	0.200	ug/L	1	AW2	11/13/00	1253	53181	4
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		1690	35.5	100	ug/L	1	TLW	11/18/00	0513	53326	5
Magnesium		1580	3.54	20.0	ug/L	1					
Potassium		805	16.4	100	ug/L	1					
Silica		29100	39.8	213	ug/L	1					
Silicon		13800	18.6	100	ug/L	1					
Sodium		10600	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Nickel		3.02	0.072	2.00	ug/L	1	JSS	11/30/00	1401	53133	7
Antimony	J	0.112	0.111	2.00	ug/L	1	JSS	11/30/00	1845	53133	8
Arsenic	J	1.71	0.145	3.00	ug/L	1					
Barium		31.0	0.158	2.00	ug/L	1					
Beryllium	J	0.199	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium	J	2.47	0.645	3.00	ug/L	1					
Cobalt		5.74	0.018	1.00	ug/L	1					
Copper	U	ND	1.18	2.00	ug/L	1					
Iron		500	7.92	25.0	ug/L	1					
Lead	U	ND	0.077	2.00	ug/L	1					
Manganese		103	0.655	5.00	ug/L	1					

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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11
Sample ID: 33866002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICPMS												
6020/3005 MIMICP SCAN Metals												
Selenium	U	ND		0.218	3.00	ug/L	1					
Silver	U	ND		0.101	1.00	ug/L	1					
Strontium		27.8		0.020	10.0	ug/L	1					
Thallium	U	ND		0.014	0.500	ug/L	1					
Vanadium	J	1.94		0.330	10.0	ug/L	1					
Zinc	J	7.55		0.974	10.0	ug/L	1					
Micro-biology												
EPA 405.1 BOD, 5DAY												
BOD, 5 DAY	U	ND		2.00	4.00	mg/L		ES	11/09/00	1423	52687	9
Rad Alpha Spec												
Alphaspec U, liquid												
Uranium-233/234	U	ND	+/-0.126	0.223	1.00	pCi/L		TOH2	11/17/00	1131	52969	10
Uranium-235/236	U	ND	+/-0.093	0.244	1.00	pCi/L						
Uranium-238	U	ND	+/-0.0207	0.172	1.00	pCi/L						
Rad Gas Flow												
GFPC, Gross A/B, liquid												
Alpha	U	ND	+/-0.734	1.23	1.50	pCi/L		JEN	11/16/00	1636	53360	11
Beta	U	ND	+/-0.959	1.83	2.00	pCi/L						
GFPC, Ra228, liquid												
Radium-228	U	ND	+/-0.833	1.73	1.50	pCi/L		JDM	11/21/00	1153	53197	12
Rad Liquid Scint												
Liquid Scint Rn222, liquid												
Radon-222		142	+/-31.6	44.9	200	pCi/L		HOB1	11/10/00	2332	52831	13
Rad Radium-226												
Lucas Cell, Ra226, liquid												
Radium-226	U	ND	+/-0.379	0.558	1.00	pCi/L		GRR1	11/21/00	1335	52849	14
Rapid Flow Analysis (Alpkem)												
EPA 335.3 Cyanide, Total												
Cyanide, Total	U	ND		2.76	5.00	ug/L	1	ADF	11/28/00	1230	53491	15
Semi-Volatiles-GC/MS												
3510/8270C TCL BNA Liquid												
1,2,4-Trichlorobenzene	U	ND		0.110	10.0	ug/L	1	JPA	11/15/00	0133	53138	16
1,2-Dichlorobenzene	U	ND		0.130	10.0	ug/L	1					
1,3-Dichlorobenzene	U	ND		0.070	10.0	ug/L	1					
1,4-Dichlorobenzene	U	ND		0.090	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND		0.280	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND		0.100	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND		0.190	10.0	ug/L	1					

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Sample ID: 33866002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Semi-Volatiles-GC/MS										
3510/8270C TCL BNA Liquid										
2,4-Dimethylphenol	U	ND	0.200	10.0	ug/L	1				
2,4-Dinitrophenol	U	ND	0.650	20.0	ug/L	1				
2,4-Dinitrotoluene	U	ND	0.160	10.0	ug/L	1				
2,6-Dinitrotoluene	U	ND	0.180	10.0	ug/L	1				
2-Chloronaphthalene	U	ND	0.130	1.00	ug/L	1				
2-Chlorophenol	U	ND	0.180	10.0	ug/L	1				
2-Methyl-4,6-dinitrophenol	U	ND	0.870	10.0	ug/L	1				
2-Methylnaphthalene	U	ND	0.150	1.00	ug/L	1				
2-Nitrophenol	U	ND	0.100	10.0	ug/L	1				
3,3'-Dichlorobenzidine	U	ND	0.210	10.0	ug/L	1				
4-Bromophenylphenylether	U	ND	0.180	10.0	ug/L	1				
4-Chloro-3-methylphenol	U	ND	0.210	10.0	ug/L	1				
4-Chloroaniline	U	ND	0.110	10.0	ug/L	1				
4-Chlorophenylphenylether	U	ND	0.200	10.0	ug/L	1				
4-Nitrophenol	U	ND	4.84	10.0	ug/L	1				
Acenaphthene	U	ND	0.160	1.00	ug/L	1				
Acenaphthylene	U	ND	0.140	1.00	ug/L	1				
Anthracene	U	ND	0.110	1.00	ug/L	1				
Benzo(a)anthracene	U	ND	0.100	1.00	ug/L	1				
Benzo(a)pyrene	U	ND	0.070	1.00	ug/L	1				
Benzo(b)fluoranthene	U	ND	0.170	1.00	ug/L	1				
Benzo(ghi)perylene	U	ND	0.260	1.00	ug/L	1				
Benzo(k)fluoranthene	U	ND	0.280	1.00	ug/L	1				
Butylbenzylphthalate	U	ND	0.130	10.0	ug/L	1				
Carbazole	U	ND	0.060	10.0	ug/L	1				
Chrysene	U	ND	0.100	1.00	ug/L	1				
Di-n-butylphthalate	U	ND	0.270	10.0	ug/L	1				
Di-n-octylphthalate	U	ND	0.060	10.0	ug/L	1				
Dibenzo(a,h)anthracene	U	ND	0.180	1.00	ug/L	1				
Dibenzofuran	U	ND	0.180	10.0	ug/L	1				
Diethylphthalate	U	ND	0.270	10.0	ug/L	1				
Dimethylphthalate	U	ND	0.150	10.0	ug/L	1				
Diphenylamine	U	ND	1.54	10.0	ug/L	1				
Fluoranthene	U	ND	0.090	1.00	ug/L	1				
Fluorene	U	ND	0.070	1.00	ug/L	1				
Hexachlorobenzene	U	ND	0.160	10.0	ug/L	1				
Hexachlorobutadiene	U	ND	0.190	10.0	ug/L	1				
Hexachlorocyclopentadiene	U	ND	0.040	10.0	ug/L	1				
Hexachloroethane	U	ND	0.190	10.0	ug/L	1				
Indeno(1,2,3-cd)pyrene	U	ND	0.260	1.00	ug/L	1				
Isophorone	U	ND	0.170	10.0	ug/L	1				
N-Nitrosodipropylamine	U	ND	0.170	10.0	ug/L	1				

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
Charlotte, NC 28226

Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11
Sample ID: 33866002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Semi-Volatiles-GC/MS											
3510/8270C TCL BNA Liquid											
Naphthalene	U	ND	0.130	1.00	ug/L	1					
Nitrobenzene	U	ND	0.270	10.0	ug/L	1					
Pentachlorophenol	U	ND	1.20	10.0	ug/L	1					
Phenanthrene	U	ND	0.120	1.00	ug/L	1					
Phenol	U	ND	0.090	10.0	ug/L	1					
Pyrene	U	ND	0.080	1.00	ug/L	1					
bis(2-Chloroethoxy)methane	U	ND	0.190	10.0	ug/L	1					
bis(2-Chloroethyl) ether	U	ND	0.160	10.0	ug/L	1					
bis(2-Chloroisopropyl)ether	U	ND	0.140	10.0	ug/L	1					
bis(2-Ethylhexyl)phthalate	U	ND	0.320	1.00	ug/L	1					
m,p-Cresols	U	ND	0.130	10.0	ug/L	1					
m-Nitroaniline	U	ND	1.08	10.0	ug/L	1					
o-Cresol	U	ND	0.200	10.0	ug/L	1					
o-Nitroaniline	U	ND	1.59	10.0	ug/L	1					
p-Nitroaniline	U	ND	0.770	10.0	ug/L	1					
Solids Analysis											
EPA 160.1 Solids, Dissolved											
Total Dissolved Solids		80.0	6.29	10.0	mg/L		TSM	11/14/00	1156	53220	17
EPA 160.2 Total Suspended Liq											
Total Suspended Solids		12.2	0.760	5.43	mg/L		TSM	11/15/00	1436	53487	18
Spectrometric Analysis											
EPA 410.4 Chem. Oxygen Demand											
COD		5.65	1.06	5.00	mg/L	1	MOJ1	11/16/00	1430	53748	19
SW846_7196A Hexavalent Chromiu											
Hexavalent Chromium	U	ND	0.002	0.010	mg/L	1	TCC1	11/09/00	1415	52794	20
TOC Analysis											
EPA 415.1 Total Organic Carbon											
Total Organic Carbon		0.773	0.0406	0.200	mg/L	1	MS1	11/27/00	1529	54516	21
TRAACS Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L											
Nitrogen, Ammonia	U	ND	0.029	0.050	mg/L	1	THL	11/15/00	1729	53637	22
EPA 365.4 Phosphorus, Total in											
Phosphorus, Total as PO4	U	ND	0.020	0.050	mg/L	1	THL	11/16/00	1623	53150	23
Titration Analysis											
EPA 310.1 Total Alkalinity											
Alkalinity, Total as CaCO3		12.7	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	24
SM2320B Bicarbonates											
Bicarbonate alkalinity		12.7	1.00	2.00	mg/L		MOJ1	11/13/00	0820	53180	25

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Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11
Sample ID: 33866002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Titration Analysis										
SM2320B Bicarbonates										
(CaCO3)										
Carbonate alkalinity (CaCO3)	U	ND	1.00	2.00	mg/L					
Hydroxide alkalinity as CaCO3	U	ND	1.00	2.00	mg/L					
Volatile Organics										
5030/8260B TCL in Liquid										
1,1,1-Trichloroethane	U	ND	0.093	2.00	ug/L	1	JEB 11/18/00	0011	54045	26
1,1,2,2-Tetrachloroethane	U	ND	0.273	2.00	ug/L	1				
1,1,2-Trichloroethane	U	ND	0.193	2.00	ug/L	1				
1,1-Dichloroethane	U	ND	0.099	2.00	ug/L	1				
1,1-Dichloroethylene	U	ND	0.090	2.00	ug/L	1				
1,2-Dichloroethane	U	ND	0.158	2.00	ug/L	1				
1,2-Dichloroethylene (total)	U	ND	0.370	2.00	ug/L	1				
1,2-Dichloropropane	U	ND	0.070	2.00	ug/L	1				
2-Butanone	U	ND	1.18	10.0	ug/L	1				
2-Hexanone	U	ND	1.74	10.0	ug/L	1				
4-Methyl-2-pentanone	U	ND	0.696	10.0	ug/L	1				
Acetone	J	3.24	0.224	10.0	ug/L	1				
Benzene	U	ND	0.149	2.00	ug/L	1				
Bromodichloromethane	U	ND	0.024	2.00	ug/L	1				
Bromoform	U	ND	0.085	2.00	ug/L	1				
Bromomethane	U	ND	0.628	2.00	ug/L	1				
Carbon disulfide	U	ND	0.349	10.0	ug/L	1				
Carbon tetrachloride	U	ND	0.124	2.00	ug/L	1				
Chlorobenzene	U	ND	0.603	2.00	ug/L	1				
Chloroethane	U	ND	0.140	2.00	ug/L	1				
Chloroform	U	ND	0.198	2.00	ug/L	1				
Chloromethane	U	ND	0.179	2.00	ug/L	1				
Dibromochloromethane	U	ND	0.089	2.00	ug/L	1				
Ethylbenzene	U	ND	0.051	2.00	ug/L	1				
Methylene chloride	U	ND	0.971	5.00	ug/L	1				
Styrene	U	ND	0.078	2.00	ug/L	1				
Tetrachloroethylene	U	ND	0.385	2.00	ug/L	1				
Toluene	U	ND	0.262	2.00	ug/L	1				
Trichloroethylene	U	ND	0.150	2.00	ug/L	1				
Vinyl acetate	U	ND	1.86	10.0	ug/L	1				
Vinyl chloride	U	ND	0.096	2.00	ug/L	1				
Xylenes (total)	U	ND	0.437	6.00	ug/L	1				
cis-1,2-Dichloroethylene	U	ND	0.129	2.00	ug/L	1				
cis-1,3-Dichloropropylene	U	ND	0.035	2.00	ug/L	1				

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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11
Sample ID: 33866002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Volatile Organics										
5030/8260B TCL in Liquid										
trans-1,2-Dichloroethylene	U	ND	0.105	2.00	ug/L	1				
trans-1,3-Dichloropropylene	U	ND	0.106	2.00	ug/L	1				
Wet Chemistry General										
EPA 110.2 Color										
Color		5.00	5.00	5.00	PCU	1	MOJ1 11/09/00	1450	52811	27
EPA 180.1 Turbidity										
Turbidity		16.7	0.100	0.200	NTU	1	MOJ1 11/09/00	1417	52796	28

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160.2	EPA 160.2 Total Suspended Solids	TSM	11/15/00	1436	53487
EPA 335.3	EPA 335.3 Total Cyanide	ADF	11/14/00	1000	53252
EPA 350.1	EPA 350.1 Ammonia Nitrogen Liquid	THL	11/15/00	1729	53637
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	THL	11/15/00	1043	53523
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	HSC	11/10/00	1545	52997
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/10/00	1815	52867
SW846 3510C	3510C BNA Liq. Prep-8270C Analysis	AW1	11/10/00	1700	52920
SW846 7470A	EPA 7470 Mercury Prep Liquid	ARD	11/10/00	1630	52873
SW846 8260	8260B Volatiles In Liquid	JEB	11/18/00	0011	54045

The following Analytical Methods were performed

Method	Description
1	EPA 120.1
2	EPA 150.1
3	EPA 300.0
4	SW846 7470A
5	SW846 6010B
6	SW846 6020
7	SW846 6020
8	SW846 6020
9	EPA 405.1
10	DOE EML HASL 300
11	GL-EPI-B-008

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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11
Sample ID: 33866002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
12	EPA 904.0									
13	EPA EERF App. B									
14	EPA 903.1									
15	EPA 335.3									
16	SW846 8270C									
17	EPA 160.1									
18	EPA 160.2									
19	EPA 410.4									
20	SW846 7196A									
21	EPA 415.1									
22	EPA 350.1									
23	EPA 365.4									
24	EPA 310.1									
25	SM 2320B									
26	SW846 8260									
27	EPA 110.2									
28	EPA 180.1									

Surrogate recovery	Test	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	3510/8270C TCL BNA Liquid	44%	(30%-116%)
2-Fluorobiphenyl	3510/8270C TCL BNA Liquid	62%	(29%-106%)
2-Fluorophenol	3510/8270C TCL BNA Liquid	29%	(23%-71%)
Nitrobenzene-d5	3510/8270C TCL BNA Liquid	67%	(25%-105%)
Phenol-d5	3510/8270C TCL BNA Liquid	24%	(10%-50%)
p-Terphenyl-d14	3510/8270C TCL BNA Liquid	76%	(18%-125%)
Bromofluorobenzene	5030/8260B TCL in Liquid	80%	(59%-129%)
Dibromofluoromethane	5030/8260B TCL in Liquid	72%	(66%-130%)
Toluene-d8	5030/8260B TCL in Liquid	79%	(64%-130%)

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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11
Sample ID: 33866002

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Suzette Urick at 843-556-8171 Ext. 4477.

P. Suzette Urick
Reviewed by

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-10 Filtered
Sample ID: 33866003
Matrix: Ground Water
Collect Date: 08-NOV-00
Receive Date: 09-NOV-00
Collector: Client

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		1460	35.5	100	ug/L	1	TLW	11/18/00	0533	53326	1
Magnesium		1010	3.54	20.0	ug/L	1					
Potassium		685	16.4	100	ug/L	1					
Silica		28600	39.8	213	ug/L	1					
Silicon		13500	18.6	100	ug/L	1					
Sodium		10200	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Nickel		2.21	0.072	2.00	ug/L	1	JSS	11/30/00	1410	53133	3
Antimony	J	0.708	0.111	2.00	ug/L	1	JSS	11/30/00	1853	53133	4
Arsenic	J	1.31	0.145	3.00	ug/L	1					
Barium		234	0.158	2.00	ug/L	1					
Beryllium	J	0.058	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium	J	2.42	0.645	3.00	ug/L	1					
Cobalt		2.97	0.018	1.00	ug/L	1					
Copper	J	1.61	1.18	2.00	ug/L	1					
Iron		1060	7.92	25.0	ug/L	1					
Lead	J	0.313	0.077	2.00	ug/L	1					
Manganese		84.3	0.655	5.00	ug/L	1					
Selenium	U	ND	0.218	3.00	ug/L	1					
Silver	U	ND	0.101	1.00	ug/L	1					
Strontium		21.2	0.020	10.0	ug/L	1					
Thallium	U	ND	0.014	0.500	ug/L	1					
Vanadium	J	3.10	0.330	10.0	ug/L	1					
Zinc		56.5	0.974	10.0	ug/L	1					
TOC Analysis											
EPA 415.1 Diss.Org.Carbon Liq											
Diss. Org. Carbon		4.15	0.0406	0.200	mg/L	1	MS1	11/27/00	2249	54514	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/10/00	1815	52867

The following Analytical Methods were performed

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Certificate of Analysis

Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-10 Filtered
Sample ID: 33866003

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 6010B
2	SW846 6020
3	SW846 6020
4	SW846 6020
5	EPA 415.1

Notes:
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Company : Delta Environmental
Address : 6701 Carmel, Suite 303
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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID:	LF-11F Filtered	Project:	DELT00200
Sample ID:	33866004	Client ID:	DELT002
Matrix:	Ground Water		
Collect Date:	08-NOV-00		
Receive Date:	09-NOV-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
3005/6010 Silicon/Silica											
Calcium		2250	35.5	100	ug/L	1	TLW	11/18/00	0540	53326	1
Magnesium		1480	3.54	20.0	ug/L	1					
Potassium		1110	16.4	100	ug/L	1					
Silica		30500	39.8	213	ug/L	1					
Silicon		14400	18.6	100	ug/L	1					
Sodium		18100	13.0	100	ug/L	1					
Metals Analysis-ICPMS											
6020/3005 MIMICP SCAN Metals											
Nickel		2.40	0.072	2.00	ug/L	1	JSS	11/30/00	1418	53133	3
Antimony		3.69	0.111	2.00	ug/L	1	JSS	11/30/00	1901	53133	4
Arsenic	J	1.37	0.145	3.00	ug/L	1					
Barium		414	0.158	2.00	ug/L	1					
Beryllium	U	ND	0.034	0.200	ug/L	1					
Cadmium	U	ND	0.050	1.00	ug/L	1					
Chromium	J	2.07	0.645	3.00	ug/L	1					
Cobalt		3.90	0.018	1.00	ug/L	1					
Copper		11.4	1.18	2.00	ug/L	1					
Iron		179	7.92	25.0	ug/L	1					
Lead	U	ND	0.077	2.00	ug/L	1					
Manganese		71.8	0.655	5.00	ug/L	1					
Selenium	U	ND	0.218	3.00	ug/L	1					
Silver	U	ND	0.101	1.00	ug/L	1					
Strontium		27.3	0.020	10.0	ug/L	1					
Thallium	U	ND	0.014	0.500	ug/L	1					
Vanadium	J	1.55	0.330	10.0	ug/L	1					
Zinc		255	0.974	10.0	ug/L	1					
TOC Analysis											
EPA 415.1 Diss.Org.Carbon Liq											
Diss. Org. Carbon		1.02	0.0406	0.200	mg/L	1	MS1	11/27/00	2305	54514	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FDG	11/10/00	1300	52879
SW846 3005A	ICP-TRACE SW846 3005A	AJM	11/10/00	1815	52867

The following Analytical Methods were performed

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Report Date: December 4, 2000

Contact: Rick Powell
Project: Containerboard Mill

Client Sample ID: LF-11F Filtered
Sample ID: 33866004

Project: DELT00200
Client ID: DELT002

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 6010B
2	SW846 6020
3	SW846 6020
4	SW846 6020
5	EPA 415.1

Notes:
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QC Summary

Report Date: December 4, 2000

Client : Delta Environmental
6701 Carmel, Suite 303
Charlotte, NC 28226

Contact: Rick Powell

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 53588											
QC1000130092 LCS											
Conductivity	1410				1380	umhos/cm		97	(80%-120%)	MOJ1	11/15/00 14:15
Electrode Analysis											
Batch 52823											
QC1000127902 33866001 DUP											
pH			5.84		5.83	SU	0		(0%-5%)	MOJ1	11/09/00 16:53
QC1000127901 LCS											
pH	7.00				6.96	SU		99	(95%-105%)		
Ion Chromatography											
Batch 52852											
QC1000128002 33866002 DUP											
Bromide		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	RWS	11/10/00 02:12
Chloride			8.59		8.08	mg/L	6		(0%-13%)		
Fluoride			0.059	U	ND	mg/L	N/A ^		(+/-0.050)		
Nitrate			0.328		0.304	mg/L	8		(0%-13%)		
Nitrite		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)		
Sulfate			11.6		10.7	mg/L	8		(0%-15%)		
QC1000128001 LCS											
Bromide	10.0				9.60	mg/L		96	(90%-110%)		11/10/00 02:41
Chloride	10.0				9.30	mg/L		93	(90%-110%)		
Fluoride	10.0				10.1	mg/L		101	(90%-110%)		
Nitrate	5.00				4.96	mg/L		99	(90%-110%)		
Nitrite	10.0				10.1	mg/L		101	(90%-110%)		
Sulfate	20.0				19.1	mg/L		96	(90%-110%)		
QC1000128000 MB											
Bromide				U	ND	mg/L					11/10/00 02:56
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Nitrate				U	ND	mg/L					
Nitrite				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1000128003 33866002 PS											
Bromide	10.0	U	ND		9.58	mg/L		96	(80%-120%)		11/10/00 02:26
Chloride	10.0		8.59		18.9	mg/L		103	(80%-120%)		
Fluoride	10.0		0.059		10.2	mg/L		101	(80%-120%)		
Nitrate	5.00		0.328		5.19	mg/L		97	(80%-120%)		
Nitrite	10.0	U	ND		9.79	mg/L		98	(80%-120%)		
Sulfate	20.0		11.6		31.9	mg/L		101	(80%-120%)		
Mercury Analysis											
Batch 53181											
QC1000128069 LCS											
Mercury	2.00				1.87	ug/L		93	(82%-124%)	AW2	11/13/00 11:20
QC1000128068 MB											

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Mercury Analysis										
Batch 53181										
Mercury			U	ND	ug/L					
Metals Analysis-ICP										
Batch 53326										
QC1000128052 LCS										
Calcium	5000			5480	ug/L		110	(88%-118%)	TLW	11/18/00 04:27
Magnesium	5000			5550	ug/L		111	(87%-115%)		
Potassium	5000			5180	ug/L		104	(85%-114%)		
Silica	10700			11100	ug/L		104	(80%-120%)		
Silicon	5000			5240	ug/L		105	(80%-120%)		
Sodium	5000			5590	ug/L		112	(89%-118%)		
QC1000128050 MB										
Calcium			J	42.5	ug/L					11/18/00 04:20
Magnesium			U	ND	ug/L					
Potassium			U	ND	ug/L					
Silica			J	113	ug/L					
Silicon			J	53.1	ug/L					
Sodium				121	ug/L					
Metals Analysis-ICPMS										
Batch 53133										
QC1000128085 LCS										
Antimony	50.0			63.0	ug/L		126	(70%-126%)	JSS	11/30/00 18:04
Arsenic	50.0			46.4	ug/L		93	(78%-119%)		11/29/00 04:37
Barium	50.0			49.3	ug/L		99	(91%-111%)		11/30/00 18:04
Beryllium	50.0			56.6	ug/L		113	(75%-121%)		11/29/00 04:37
Cadmium	50.0			48.1	ug/L		96	(87%-110%)		
Chromium	50.0			50.0	ug/L		100	(75%-120%)		
Cobalt	50.0			46.7	ug/L		93	(82%-114%)		
Copper	50.0			46.8	ug/L		94	(82%-128%)		
Iron	1000			983	ug/L		98	(63%-158%)		
Lead	50.0			45.3	ug/L		91	(80%-120%)		
Manganese	50.0			47.7	ug/L		95	(80%-118%)		
Nickel	50.0			46.0	ug/L		92	(86%-118%)		
Selenium	50.0			49.3	ug/L		99	(66%-130%)		
Silver	50.0			53.4	ug/L		107	(47%-158%)		
Strontium	50.0			47.7	ug/L		95	(95%-110%)		
Thallium	50.0			23.9	ug/L		48	(29%-158%)		
Vanadium	50.0			47.1	ug/L		94	(79%-116%)		
Zinc	50.0			46.6	ug/L		93	(62%-151%)		
QC1000128081 MB										
Antimony			U	ND	ug/L					11/30/00 14:26
Arsenic			U	ND	ug/L					11/29/00 04:29
Barium			U	ND	ug/L					11/30/00 14:26
Beryllium			U	ND	ug/L					11/29/00 04:29
Cadmium			U	ND	ug/L					
Chromium			J	0.830	ug/L					
Cobalt			U	ND	ug/L					
Copper			U	ND	ug/L					

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS										
Batch 53133										
Iron			U	ND	ug/L					
Lead			U	ND	ug/L					
Manganese			J	3.31	ug/L					
Nickel			J	0.090	ug/L					
Selenium			U	ND	ug/L					
Silver			J	0.472	ug/L					
Strontium			U	ND	ug/L					
Thallium			U	ND	ug/L					
Vanadium			J	0.387	ug/L					
Zinc			U	ND	ug/L					
Micro-biology										
Batch 52687										
QC1000127544 LCS										
BOD, 5 DAY	198			223	mg/L		113	(85%-115%)	ES	11/09/00 07:51
QC1000127542 MB										
BOD, 5 DAY			U	ND	mg/L					
Rad Alpha Spec										
Batch 52969										
QC1000128362 LCS										
Uranium-233/234				4.40 +/-0.742	pCi/L			(75%-125%)	TOH2	11/20/00 08:16
Uranium-235/236				0.292 +/-0.141	pCi/L			(75%-125%)		
Uranium-238	4.51			5.03 +/-0.821	pCi/L		112	(75%-125%)		
QC1000128359 MB										
Uranium-233/234			U	0.0635 +/-0.0605	pCi/L					
Uranium-235/236			U	0.000535 +/-0.0297	pCi/L					
Uranium-238			U	0.024 +/-0.0485	pCi/L					
Rad Gas Flow										
Batch 53197										
QC1000128942 LCS										
Radium-228	37.2			29.2 +/-2.14	pCi/L		79	(75%-125%)	JDM	11/21/00 11:54
QC1000128939 MB										
Radium-228			U	0.391 +/-0.735	pCi/L					
Batch 53360										
QC1000129373 LCS										
Alpha	47.5			58.7 +/-8.48	pCi/L		123	(75%-125%)	JEN	11/16/00 14:41
Beta	177			199 +/-12.0	pCi/L		112	(75%-125%)		
QC1000129370 MB										

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 53360										
Alpha			U	-0.0575 +/-0.261	pCi/L					
Beta			U	0.486 +/-0.794	pCi/L					
Rad Liquid Scint										
Batch 52831										
QC1000127923 LCS										
Radon-222	62200			52100 +/-1020	pCi/L		84	(75%-125%)	HOB1	11/13/00 12:22
QC1000127919 MB										
Radon-222			U	-4.7 +/-21.6	pCi/L					11/11/00 07:56
Rad Radium-226										
Batch 52849										
QC1000127985 33866001 DUP										
Radium-226		0.620 +/-0.302		0.696 +/-0.315	pCi/L	12 ^		(+/-0.500)	GRR1	11/21/00 14:45
QC1000127989 LCS										
Radium-226	22.1			18.8 +/-2.37	pCi/L		85	(75%-125%)		11/21/00 16:15
QC1000127984 MB										
Radium-226			U	0.079 +/-0.145	pCi/L					11/21/00 14:45
Rapid Flow Analysis (Alpkem)										
Batch 53491										
QC1000129098 LCS										
Cyanide, Total	100			112	ug/L		112	(75%-132%)	ADF	11/22/00 10:39
QC1000129097 MB										
Cyanide, Total			U	ND	ug/L					11/22/00 10:37
Semi-Volatiles-GC/MS										
Batch 53138										
QC1000128197 LCS										
1,2,4-Trichlorobenzene	50.0			40.1	ug/L		80	(47%-106%)	JPA	11/14/00 22:31
1,4-Dichlorobenzene	50.0			40.0	ug/L		80	(44%-98%)		
2,4,5-Trichlorophenol	100			83.0	ug/L		83	(55%-108%)		
2,4,6-Trichlorophenol	100			76.7	ug/L		77	(48%-106%)		
2,4-Dinitrotoluene	50.0			45.0	ug/L		90	(62%-115%)		
2-Chlorophenol	100			68.2	ug/L		68	(42%-92%)		
4-Chloro-3-methylphenol	100			74.0	ug/L		74	(52%-104%)		
4-Nitrophenol	100			33.1	ug/L		33	(10%-61%)		
Acenaphthene	50.0			36.8	ug/L		74	(52%-100%)		
Hexachlorobenzene	50.0			45.3	ug/L		91	(66%-114%)		
Hexachlorobutadiene	50.0			36.6	ug/L		73	(41%-107%)		
Hexachloroethane	50.0			39.1	ug/L		78	(41%-99%)		
N-Nitrosodipropylamine	50.0			39.4	ug/L		79	(45%-102%)		
Nitrobenzene	50.0			38.0	ug/L		76	(45%-100%)		
Pentachlorophenol	100			84.9	ug/L		85	(50%-110%)		

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Phenol	100			31.8	ug/L		32	(18%-45%)		
Pyrene	50.0			40.0	ug/L		80	(56%-114%)		
m,p-Cresols	100			63.3	ug/L		63	(37%-85%)		
o-Cresol	100			66.8	ug/L		67	(33%-91%)		
**2,4,6-Tribromophenol	100			81.3	ug/L		81	(30%-116%)		
**2-Fluorobiphenyl	50.0			40.8	ug/L		82	(29%-106%)		
**2-Fluorophenol	100			52.5	ug/L		53	(23%-71%)		
**Nitrobenzene-d5	50.0			44.3	ug/L		89	(25%-105%)		
**Phenol-d5	100			32.8	ug/L		33	(10%-50%)		
**p-Terphenyl-d14	50.0			42.7	ug/L		85	(18%-125%)		
QC1000128196 MB										
1,2,4-Trichlorobenzene			U	ND	ug/L					11/14/00 22:01
1,2-Dichlorobenzene			U	ND	ug/L					
1,3-Dichlorobenzene			U	ND	ug/L					
1,4-Dichlorobenzene			U	ND	ug/L					
2,4,5-Trichlorophenol			U	ND	ug/L					
2,4,6-Trichlorophenol			U	ND	ug/L					
2,4-Dichlorophenol			U	ND	ug/L					
2,4-Dimethylphenol			U	ND	ug/L					
2,4-Dinitrophenol			U	ND	ug/L					
2,4-Dinitrotoluene			U	ND	ug/L					
2,6-Dinitrotoluene			U	ND	ug/L					
2-Chloronaphthalene			U	ND	ug/L					
2-Chlorophenol			U	ND	ug/L					
2-Methyl-4,6-dinitrophenol			U	ND	ug/L					
2-Methylnaphthalene			U	ND	ug/L					
2-Nitrophenol			U	ND	ug/L					
3,3'-Dichlorobenzidine			U	ND	ug/L					
4-Bromophenylphenylether			U	ND	ug/L					
4-Chloro-3-methylphenol			U	ND	ug/L					
4-Chloroaniline			U	ND	ug/L					
4-Chlorophenylphenylether			U	ND	ug/L					
4-Nitrophenol			U	ND	ug/L					
Acenaphthene			U	ND	ug/L					
Acenaphthylene			U	ND	ug/L					
Anthracene			U	ND	ug/L					
Benzo(a)anthracene			U	ND	ug/L					
Benzo(a)pyrene			U	ND	ug/L					
Benzo(b)fluoranthene			U	ND	ug/L					
Benzo(ghi)perylene			U	ND	ug/L					
Benzo(k)fluoranthene			U	ND	ug/L					
Butylbenzylphthalate			U	ND	ug/L					
Carbazole			U	ND	ug/L					
Chrysene			U	ND	ug/L					
Di-n-butylphthalate			U	ND	ug/L					
Di-n-octylphthalate			U	ND	ug/L					
Dibenzo(a,h)anthracene			U	ND	ug/L					
Dibenzofuran			U	ND	ug/L					

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Diethylphthalate			U	ND	ug/L					
Dimethylphthalate			U	ND	ug/L					
Diphenylamine			U	ND	ug/L					
Fluoranthene			U	ND	ug/L					
Fluorene			U	ND	ug/L					
Hexachlorobenzene			U	ND	ug/L					
Hexachlorobutadiene			U	ND	ug/L					
Hexachlorocyclopentadiene			U	ND	ug/L					
Hexachloroethane			U	ND	ug/L					
Indeno(1,2,3-cd)pyrene			U	ND	ug/L					
Isophorone			U	ND	ug/L					
N-Nitrosodipropylamine			U	ND	ug/L					
Naphthalene			U	ND	ug/L					
Nitrobenzene			U	ND	ug/L					
Pentachlorophenol			U	ND	ug/L					
Phenanthrene			U	ND	ug/L					
Phenol			U	ND	ug/L					
Pyrene			U	ND	ug/L					
bis(2-Chloroethoxy)methane			U	ND	ug/L					
bis(2-Chloroethyl) ether			U	ND	ug/L					
bis(2-Chloroisopropyl)ether			U	ND	ug/L					
bis(2-Ethylhexyl)phthalate			U	ND	ug/L					
m,p-Cresols			U	ND	ug/L					
m-Nitroaniline			U	ND	ug/L					
o-Cresol			U	ND	ug/L					
o-Nitroaniline			U	ND	ug/L					
p-Nitroaniline			U	ND	ug/L					
**2,4,6-Tribromophenol	100			68.8	ug/L		69	(30%-116%)		
**2-Fluorobiphenyl	50.0			34.0	ug/L		68	(29%-106%)		
**2-Fluorophenol	100			41.3	ug/L		41	(23%-71%)		
**Nitrobenzene-d5	50.0			35.9	ug/L		72	(25%-105%)		
**Phenol-d5	100			26.8	ug/L		27	(10%-50%)		
**p-Terphenyl-d14	50.0			43.1	ug/L		86	(18%-125%)		
Solids Analysis										
Batch 53220										
QC1000128978 LCS										
Total Dissolved Solids	300			295	mg/L		98	(84%-115%)	TSM	11/14/00 11:56
QC1000128986 LCSD										
Total Dissolved Solids	300			295	mg/L	0	98	(0%-20%)		
QC1000128977 MB										
Total Dissolved Solids			U	ND	mg/L					
Batch 53487										
QC1000129809 LCS										
Total Suspended Solids	500			497	mg/L		99	(95%-105%)	TSM	11/15/00 14:36
QC1000129818 LCSD										
Total Suspended Solids	500			499	mg/L	0	100	(0%-20%)		
QC1000129808 MB										
Total Suspended Solids			U	ND	mg/L					

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Spectrometric Analysis										
Batch 52794										
QC1000127837 33866001 DUP										
Hexavalent Chromium	U	ND	U	ND	mg/L	N/A	N/A	(+/-0.010)	TCC1	11/09/00 14:15
QC1000127835 LCS										
Hexavalent Chromium	0.100			0.100	mg/L		100	(84%-116%)		
QC1000127834 MB										
Hexavalent Chromium			U	ND	mg/L					
QC1000127836 33866001 MS										
Hexavalent Chromium	0.100	U	ND	0.085	mg/L		85	(85%-115%)		
Batch 53748										
QC1000130560 LCS										
COD	75.0			72.5	mg/L		97	(83%-111%)	MOJ1	11/16/00 14:30
QC1000130559 MB										
COD			J	2.13	mg/L					
TOC Analysis										
Batch 54514										
QC1000132896 LCS										
Diss. Org. Carbon	10.0			8.93	mg/L		89	(85%-115%)	MS1	11/28/00 02:42
QC1000132895 MB										
Diss. Org. Carbon			U	ND	mg/L					11/28/00 02:34
Batch 54516										
QC1000132905 LCS										
Total Organic Carbon	10.0			8.93	mg/L		89	(85%-115%)	MS1	11/28/00 02:42
QC1000132904 MB										
Total Organic Carbon			U	ND	mg/L					11/28/00 02:34
TRAACS Nutrient Analysis										
Batch 53150										
QC1000128402 33866001 DUP										
Phosphorus, Total as PO4	U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	THL	11/16/00 16:23
QC1000128401 LCS										
Phosphorus, Total as PO4	1.00			0.810	mg/L		81	(66%-125%)		
QC1000128400 MB										
Phosphorus, Total as PO4			U	ND	mg/L					
QC1000128403 33866001 MS										
Phosphorus, Total as PO4	1.00	U	ND	0.790	mg/L		79	(70%-130%)		
Batch 53637										
QC1000129915 LCS										
Nitrogen, Ammonia	1.00			1.08	mg/L		108	(63%-121%)	THL	11/15/00 17:29
QC1000129914 MB										
Nitrogen, Ammonia			U	ND	mg/L					
Titration Analysis										
Batch 53180										
QC1000128904 LCS										
Alkalinity, Total as CaCO3	1000			960	mg/L		96	(80%-120%)	MOJ1	11/13/00 08:20
Volatile Organics										
Batch 54045										
QC1000131398 LCS										
1,1-Dichloroethylene	50.0			48.6	ug/L		97	(74%-139%)	JEB	11/17/00 21:42

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile Organics											
Batch 54045											
Benzene	50.0			49.4	ug/L		99	(79%-119%)			
Chlorobenzene	50.0			46.9	ug/L		94	(79%-120%)			
Toluene	50.0			47.1	ug/L		94	(74%-115%)			
Trichloroethylene	50.0			45.3	ug/L		91	(81%-132%)			
**Bromofluorobenzene	50.0			39.1	ug/L		78	(59%-129%)			
**Dibromofluoromethane	50.0			34.4	ug/L		69	(66%-130%)			
**Toluene-d8	50.0			38.8	ug/L		78	(64%-130%)			
QC1000131397 MB											
1,1,1-Trichloroethane			U	ND	ug/L					11/17/00	22:43
1,1,2,2-Tetrachloroethane			U	ND	ug/L						
1,1,2-Trichloroethane			U	ND	ug/L						
1,1-Dichloroethane			U	ND	ug/L						
1,1-Dichloroethylene			U	ND	ug/L						
1,2-Dichloroethane			U	ND	ug/L						
1,2-Dichloroethylene (total)			U	ND	ug/L						
1,2-Dichloropropane			U	ND	ug/L						
2-Butanone			U	ND	ug/L						
2-Hexanone			U	ND	ug/L						
4-Methyl-2-pentanone			U	ND	ug/L						
Acetone			J	1.21	ug/L						
Benzene			U	ND	ug/L						
Bromodichloromethane			U	ND	ug/L						
Bromoform			U	ND	ug/L						
Bromomethane			U	ND	ug/L						
Carbon disulfide			U	ND	ug/L						
Carbon tetrachloride			U	ND	ug/L						
Chlorobenzene			U	ND	ug/L						
Chloroethane			U	ND	ug/L						
Chloroform			U	ND	ug/L						
Chloromethane			U	ND	ug/L						
Dibromochloromethane			U	ND	ug/L						
Ethylbenzene			U	ND	ug/L						
Methylene chloride			U	ND	ug/L						
Styrene			U	ND	ug/L						
Tetrachloroethylene			U	ND	ug/L						
Toluene			U	ND	ug/L						
Trichloroethylene			U	ND	ug/L						
Vinyl acetate			U	ND	ug/L						
Vinyl chloride			U	ND	ug/L						
Xylenes (total)			U	ND	ug/L						
cis-1,2-Dichloroethylene			U	ND	ug/L						
cis-1,3-Dichloropropylene			U	ND	ug/L						
trans-1,2-Dichloroethylene			U	ND	ug/L						
trans-1,3-Dichloropropylene			U	ND	ug/L						
**Bromofluorobenzene	50.0			39.1	ug/L		78	(59%-129%)			
**Dibromofluoromethane	50.0			34.4	ug/L		69	(66%-130%)			
**Toluene-d8	50.0			38.7	ug/L		77	(64%-130%)			
QC1000131399 33866001 PS											

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile Organics											
Batch 54045											
1,1-Dichloroethylene	50.0	U	ND		48.3	ug/L		97	(71%-135%)		
Benzene	50.0	U	ND		46.6	ug/L		93	(76%-124%)		
Chlorobenzene	50.0	U	ND		45.2	ug/L		90	(76%-120%)		
Toluene	50.0	U	ND		44.5	ug/L		89	(69%-120%)		
Trichloroethylene	50.0	U	ND		44.4	ug/L		89	(75%-129%)		
**Bromofluorobenzene	50.0		39.7		38.8	ug/L		78	(59%-129%)		
**Dibromofluoromethane	50.0		36.5		37.2	ug/L		74	(66%-130%)		
**Toluene-d8	50.0		39.2		38.4	ug/L		77	(64%-130%)		
QC1000131400 33866001 PSD											
1,1-Dichloroethylene	50.0	U	ND		48.6	ug/L	1	97	(0%-23%)		11/18/00 08:50
Benzene	50.0	U	ND		46.8	ug/L	0	94	(0%-17%)		
Chlorobenzene	50.0	U	ND		44.8	ug/L	1	90	(0%-21%)		
Toluene	50.0	U	ND		44.1	ug/L	1	88	(0%-22%)		
Trichloroethylene	50.0	U	ND		43.9	ug/L	1	88	(0%-20%)		
**Bromofluorobenzene	50.0		39.7		38.0	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0		36.5		37.4	ug/L		75	(66%-130%)		
**Toluene-d8	50.0		39.2		38.2	ug/L		76	(64%-130%)		
Wet Chemistry General											
Batch 52796											
QC1000127843 33866001 DUP											
Turbidity			84.5		85.1	NTU	1		(0%-18%)	MOJ1	11/09/00 14:17
QC1000127842 LCS											
Turbidity	10.0				10.1	NTU		101	(83%-112%)		
QC1000127841 MB											
Turbidity				U	ND	NTU					
Batch 52811											
QC1000127884 33866001 DUP											
Color		U	ND	U	ND	PCU	N/A	N/A	(+/-5.00)	MOJ1	11/09/00 14:50
QC1000127883 LCS											
Color	35.0				35.0	PCU		100	(80%-120%)		
QC1000127882 MB											
Color				U	ND	PCU					

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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338669

CHAIN OF CUSTODY RECORD

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(843) 556-8171

Client Name/Facility Name: Delta / Warehouse 9

Collected by/Company: Erick Swanson / Delta

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

2000087021

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type			Remarks
002	LF-11	11/8/00	17:30	✓				19																		Analyze for
004	LF-11F	11/8/00	17:30	✓				2																		Group 1b, 2a, 2b
																										3, 4 in
																										accordance with
																										contract
																										Enclosed is a
																										list of parameters
																										for each group.

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
Samuel P. [illegible]	11/8/00	1700					

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			Amy Niedfeldt	11/9	0900	

White = sample collector Yellow = file Pink = with report

338667

CHAIN OF CUSTODY RECORD

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(843) 556-8171

Page 1 of 2

Client Name/Facility Name: [illegible]

Collected by/Company: [illegible]

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

2000087021

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type			Remarks
001	LF-10	11/3/00	1500	X				19																		[illegible]
003	LF-10 Filtered	11/8/00	1500	X				2																		Groups 1, 2, 2b, 3, 4
																										on [illegible]
																										[illegible]
																										Cooled in a
																										list of procedure
																										for each group

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[illegible]	11/8/00						

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			[illegible]	11/9	0900	

White = sample collector Yellow = file Pink = with report

GENERAL ENGINEERING LABORATORIES

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QC Summary

Client : Delta Environmental
6701 Carmel, Suite 303
Charlotte, NC 28226

Contact: Rick Powell

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 53588											
QC1000130093 33818001 DUP											
Conductivity			83.2		82.2	umhos/cm	1		(0%-20%)	MOJ1	11/15/00 14:15
QC1000130092 LCS											
Conductivity	1410				1380	umhos/cm		97	(80%-120%)		
Electrode Analysis											
Batch 52823											
QC1000127902 33866001 DUP											
pH			5.84		5.83	SU	0		(0%-5%)	MOJ1	11/09/00 16:53
QC1000127901 LCS											
pH	7.00				6.96	SU		99	(95%-105%)		
Ion Chromatography											
Batch 52852											
QC1000128002 33866002 DUP											
Bromide		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	RWS	11/10/00 02:12
Chloride			8.59		8.08	mg/L	6		(0%-13%)		
Fluoride			0.059	U	ND	mg/L	N/A ^		(+/-0.050)		
Nitrate			0.328		0.304	mg/L	8		(0%-13%)		
Nitrite		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)		
Sulfate			11.6		10.7	mg/L	8		(0%-15%)		
QC1000128001 LCS											
Bromide	10.0				9.60	mg/L		96	(90%-110%)		11/10/00 02:41
Chloride	10.0				9.30	mg/L		93	(90%-110%)		
Fluoride	10.0				10.1	mg/L		101	(90%-110%)		
Nitrate	5.00				4.96	mg/L		99	(90%-110%)		
Nitrite	10.0				10.1	mg/L		101	(90%-110%)		
Sulfate	20.0				19.1	mg/L		96	(90%-110%)		
QC1000128000 MB											
Bromide				U	ND	mg/L					11/10/00 02:56
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Nitrate				U	ND	mg/L					
Nitrite				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1000128003 33866002 PS											
Bromide	10.0	U	ND		9.58	mg/L		96	(80%-120%)		11/10/00 02:26
Chloride	10.0		8.59		18.9	mg/L		103	(80%-120%)		
Fluoride	10.0		0.059		10.2	mg/L		101	(80%-120%)		
Nitrate	5.00		0.328		5.19	mg/L		97	(80%-120%)		
Nitrite	10.0	U	ND		9.79	mg/L		98	(80%-120%)		
Sulfate	20.0		11.6		31.9	mg/L		101	(80%-120%)		
Mercury Analysis											
Batch 53181											
QC1000128069 LCS											

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Mercury Analysis										
Batch 53181										
Mercury	2.00			1.87	ug/L		93	(82%-124%)	AW2	11/13/00 11:20
QC1000128068 MB										
Mercury			U	ND	ug/L					11/13/00 11:18
QC1000128070 33788001 MS										
Mercury	2.00	U	ND	1.89	ug/L		94	(74%-132%)		11/13/00 11:26
QC1000128071 33788001 MSD										
Mercury	2.00	U	ND	2.05	ug/L	8	102	(0%-16%)		11/13/00 12:36
Metals Analysis-ICP										
Batch 53326										
QC1000128052 LCS										
Calcium	5000			5480	ug/L		110	(88%-118%)	TLW	11/18/00 04:27
Magnesium	5000			5550	ug/L		111	(87%-115%)		
Potassium	5000			5180	ug/L		104	(85%-114%)		
Silica	10700			11100	ug/L		104	(80%-120%)		
Silicon	5000			5240	ug/L		105	(80%-120%)		
Sodium	5000			5590	ug/L		112	(89%-118%)		
QC1000128050 MB										
Calcium			J	42.5	ug/L					11/18/00 04:20
Magnesium			U	ND	ug/L					
Potassium			U	ND	ug/L					
Silica			J	113	ug/L					
Silicon			J	53.1	ug/L					
Sodium				121	ug/L					
QC1000128053 33890010 MS										
Calcium	5000			10900	ug/L		105	(83%-125%)		11/18/00 04:47
Magnesium	5000			8060	ug/L		107	(61%-138%)		
Potassium	5000			8460	ug/L		99	(81%-118%)		
Silica	10700			26200	ug/L		98	(70%-130%)		
Silicon	5000			12400	ug/L		98	(70%-130%)		
Sodium	5000			14700	ug/L		103	(75%-130%)		
QC1000128056 33890010 MSD										
Calcium	5000			10900	ug/L	0	104	(0%-11%)		11/18/00 04:53
Magnesium	5000			8060	ug/L	0	107	(0%-14%)		
Potassium	5000			8490	ug/L	0	99	(0%-9%)		
Silica	10700			26300	ug/L	0	99	(0%-20%)		
Silicon	5000			12400	ug/L	0	99	(0%-20%)		
Sodium	5000			14700	ug/L	0	103	(0%-20%)		
QC1000128055 33890010 SDILT										
Calcium				1420	ug/L	N/A				11/18/00 04:40
Magnesium				666	ug/L	N/A				
Potassium				904	ug/L	N/A				
Silica				3940	ug/L	N/A				
Silicon				1860	ug/L	N/A				
Sodium				2460	ug/L	N/A				
Metals Analysis-ICPMS										
Batch 53133										
QC1000128085 LCS										
Antimony	50.0			63.0	ug/L		126	(70%-126%)	JSS	11/30/00 18:04

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS										
Batch 53133										
Arsenic	50.0			46.4	ug/L		93	(78%-119%)		
Barium	50.0			49.3	ug/L		99	(91%-111%)		11/30/00 18:04
Beryllium	50.0			56.6	ug/L		113	(75%-121%)		11/29/00 04:37
Cadmium	50.0			48.1	ug/L		96	(87%-110%)		
Chromium	50.0			50.0	ug/L		100	(75%-120%)		
Cobalt	50.0			46.7	ug/L		93	(82%-114%)		
Copper	50.0			46.8	ug/L		94	(82%-128%)		
Iron	1000			983	ug/L		98	(63%-158%)		
Lead	50.0			45.3	ug/L		91	(80%-120%)		
Manganese	50.0			47.7	ug/L		95	(80%-118%)		
Nickel	50.0			46.0	ug/L		92	(86%-118%)		
Selenium	50.0			49.3	ug/L		99	(66%-130%)		
Silver	50.0			53.4	ug/L		107	(47%-158%)		
Strontium	50.0			47.7	ug/L		95	(95%-110%)		
Thallium	50.0			23.9	ug/L		48	(29%-158%)		
Vanadium	50.0			47.1	ug/L		94	(79%-116%)		
Zinc	50.0			46.6	ug/L		93	(62%-151%)		
QC1000128081 MB										
Antimony			U	ND	ug/L					11/30/00 14:26
Arsenic			U	ND	ug/L					11/29/00 04:29
Barium			U	ND	ug/L					11/30/00 14:26
Beryllium			U	ND	ug/L					11/29/00 04:29
Cadmium			U	ND	ug/L					
Chromium			J	0.830	ug/L					
Cobalt			U	ND	ug/L					
Copper			U	ND	ug/L					
Iron			U	ND	ug/L					
Lead			U	ND	ug/L					
Manganese			J	3.31	ug/L					
Nickel			J	0.090	ug/L					
Selenium			U	ND	ug/L					
Silver			J	0.472	ug/L					
Strontium			U	ND	ug/L					
Thallium			U	ND	ug/L					
Vanadium			J	0.387	ug/L					
Zinc			U	ND	ug/L					
QC1000128490 33818001 MS										
Antimony	50.0	J	0.139	69.0	ug/L		138*	(88%-115%)		11/30/00 14:58
Arsenic	50.0	J	1.44	49.2	ug/L		96	(85%-121%)		11/29/00 05:01
Barium	50.0		37.5	91.2	ug/L		107	(88%-113%)		11/30/00 14:58
Beryllium	50.0		0.715	62.0	ug/L		122*	(83%-120%)		11/29/00 05:01
Cadmium	50.0	U	ND	50.8	ug/L		102	(87%-115%)		
Chromium	50.0	J	2.82	51.8	ug/L		98	(83%-121%)		
Cobalt	50.0		3.81	52.3	ug/L		97	(80%-123%)		
Copper	50.0	U	ND	49.5	ug/L		99	(81%-126%)		
Iron	1000		16900	17900	ug/L		N/A	(63%-158%)		
Lead	50.0	U	ND	48.3	ug/L		97	(85%-116%)		
Manganese	50.0		246	293	ug/L		N/A	(80%-118%)		

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS											
Batch 53133											
Nickel	50.0		5.11		52.9	ug/L		96	(74%-128%)		
Selenium	50.0	J	0.505		50.0	ug/L		99	(82%-118%)		
Silver	50.0	J	0.401		57.8	ug/L		115	(81%-126%)		
Strontium	50.0		226		272	ug/L		N/A	(95%-110%)		
Thallium	50.0	J	0.225		26.2	ug/L		52*	(85%-117%)		
Vanadium	50.0	J	1.90		49.0	ug/L		94	(83%-125%)		
Zinc	50.0		11.7		59.0	ug/L		94	(74%-129%)		
QC1000128491 33818001 MSD											
Antimony	50.0	J	0.139		69.4	ug/L	1	139	(0%-20%)		11/30/00 15:06
Arsenic	50.0	J	1.44		49.2	ug/L	0	96	(0%-14%)		11/29/00 05:09
Barium	50.0		37.5		92.4	ug/L	1	110	(0%-14%)		11/30/00 15:06
Beryllium	50.0		0.715		61.6	ug/L	1	122	(0%-10%)		11/29/00 05:09
Cadmium	50.0	U	ND		50.3	ug/L	1	101	(0%-13%)		
Chromium	50.0	J	2.82		51.1	ug/L	1	97	(0%-13%)		
Cobalt	50.0		3.81		52.3	ug/L	0	97	(0%-10%)		
Copper	50.0	U	ND		48.0	ug/L	3	96	(0%-9%)		
Iron	1000		16900		17800	ug/L	1	N/A	(0%-20%)		
Lead	50.0	U	ND		48.3	ug/L	0	97	(0%-11%)		
Manganese	50.0		246		289	ug/L	1	N/A	(0%-20%)		
Nickel	50.0		5.11		52.5	ug/L	1	95	(0%-10%)		
Selenium	50.0	J	0.505		47.2	ug/L	6	93	(0%-13%)		
Silver	50.0	J	0.401		57.4	ug/L	1	114	(0%-9%)		
Strontium	50.0		226		269	ug/L	1	N/A	(0%-20%)		
Thallium	50.0	J	0.225		26.8	ug/L	2	53	(0%-7%)		
Vanadium	50.0	J	1.90		48.4	ug/L	1	93	(0%-9%)		
Zinc	50.0		11.7		56.9	ug/L	3	90	(0%-12%)		
QC1000128489 33818001 SDILT											
Antimony		J	0.139	U	ND	ug/L	N/A				11/30/00 14:50
Arsenic		J	1.44	J	0.336	ug/L	16.7				11/29/00 04:53
Barium			37.5		7.26	ug/L	3.17				11/30/00 14:50
Beryllium			0.715	J	0.137	ug/L	4.2				11/29/00 04:53
Cadmium		U	ND	U	ND	ug/L	N/A	N/A			
Chromium		J	2.82	J	0.749	ug/L	32.7				
Cobalt			3.81	J	0.702	ug/L	7.92				
Copper		U	ND	U	ND	ug/L	N/A	N/A			
Iron			16900		3380	ug/L	.207				
Lead		U	ND	J	0.088	ug/L	N/A				
Manganese			246		49.0	ug/L	.305				
Nickel			5.11	J	1.18	ug/L	15.8				
Selenium		J	0.505	J	0.289	ug/L	186				
Silver		J	0.401	J	0.372	ug/L	364				
Strontium			226		45.3	ug/L	.466				
Thallium		J	0.225	U	ND	ug/L	N/A				
Vanadium		J	1.90	U	ND	ug/L	N/A				
Zinc			11.7	J	4.98	ug/L	112				
Micro-biology											
Batch 52687											
QC1000127545 33847007 DUP											

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Micro-biology												
Batch 52687												
BOD, 5 DAY			4.46		4.10	mg/L	8	^		(+/-4.00)	ES	11/09/00 07:51
QC1000127544 LCS												
BOD, 5 DAY	198				223	mg/L			113	(85%-115%)		
QC1000127542 MB												
BOD, 5 DAY				U	ND	mg/L						
QC1000127543 SEED												
BOD, 5 DAY				U	ND	mg/L						
Rad Alpha Spec												
Batch 52969												
QC1000128360 33337001 DUP												
Uranium-233/234		U	0.0499 +/-0.223	U	0.0578 +/-0.111	pCi/L	15	^		(+/-30.0)	TOH2	11/20/00 08:16
Uranium-235/236		U	-0.0901 +/-0.0611	U	0.0107 +/-0.0826	pCi/L	N/A	^		(+/-30.0)		
Uranium-238		U	-0.03 +/-0.0348	U	0.0669 +/-0.109	pCi/L	N/A	^		(+/-30.0)		
QC1000128362 LCS												
Uranium-233/234					4.40 +/-0.742	pCi/L				(75%-125%)		
Uranium-235/236					0.292 +/-0.141	pCi/L				(75%-125%)		
Uranium-238	4.51				5.03 +/-0.821	pCi/L			112	(75%-125%)		
QC1000128359 MB												
Uranium-233/234				U	0.0635 +/-0.0605	pCi/L						
Uranium-235/236				U	0.000535 +/-0.0297	pCi/L						
Uranium-238				U	0.024 +/-0.0485	pCi/L						
QC1000128361 33337001 MS												
Uranium-233/234		U	0.0499 +/-0.223		11.5 +/-1.94	pCi/L				(75%-125%)		
Uranium-235/236		U	-0.0901 +/-0.0611		0.649 +/-0.335	pCi/L				(75%-125%)		
Uranium-238	11.3	U	-0.03 +/-0.0348		10.2 +/-1.78	pCi/L			90	(75%-125%)		
Rad Gas Flow												
Batch 53197												
QC1000128940 33934002 DUP												
Radium-228		U	0.828 +/-0.969	U	0.475 +/-0.888	pCi/L	0	^		(+/-1.50)	JDM	11/21/00 11:54
QC1000129426 33934001 DUP												
Radium-228		U	0.431 +/-0.968	U	-0.0072 +/-1.10	pCi/L	N/A	^		(+/-1.50)		
QC1000128942 LCS												
Radium-228	37.2				29.2 +/-2.14	pCi/L			79	(75%-125%)		

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow											
Batch 53197											
QC1000128939 MB											
Radium-228				U	0.391 +/-0.735	pCi/L					
QC1000128941 33934002 MS											
Radium-228	190	U	0.828 +/-0.969		168 +/-13.2	pCi/L		88	(75%-125%)		
Batch 53360											
QC1000129371 33804006 DUP											
Alpha			2.61 +/-0.956	U	1.32 +/-1.09	pCi/L	66 ^		(+/-1.50)	JEN	11/16/00 16:39
Beta			2.04 +/-0.900		4.99 +/-1.27	pCi/L	84* ^		(+/-2.00)		
QC1000129373 LCS											
Alpha	47.5				58.7 +/-8.48	pCi/L		123	(75%-125%)		11/16/00 14:41
Beta	177				199 +/-12.0	pCi/L		112	(75%-125%)		
QC1000129370 MB											
Alpha				U	-0.0575 +/-0.261	pCi/L					11/16/00 16:38
Beta				U	0.486 +/-0.794	pCi/L					
QC1000129372 33804006 MS											
Alpha	47.5		2.61 +/-0.956		43.4 +/-9.02	pCi/L		86	(75%-125%)		11/21/00 12:05
Beta	177		2.04 +/-0.900		188 +/-12.0	pCi/L		105	(75%-125%)		
Rad Liquid Scint											
Batch 52831											
QC1000127920 33891004 DUP											
Radon-222		U	44.0 +/-33.5	U	7.00 +/-32.6	pCi/L	0 ^		(+/-200)	HOB1	11/11/00 08:27
QC1000127921 33891005 DUP											
Radon-222			257 +/-42.7		204 +/-41.6	pCi/L	23 ^		(+/-200)		11/11/00 08:59
QC1000127923 LCS											
Radon-222	62200				52100 +/-1020	pCi/L		84	(75%-125%)		11/13/00 12:22
QC1000127919 MB											
Radon-222				U	-4.7 +/-21.6	pCi/L					11/11/00 07:56
QC1000127922 33891005 MS											
Radon-222	62200		257 +/-42.7		62400 +/-1230	pCi/L		100	(75%-125%)		11/13/00 12:16
Rad Radium-226											
Batch 52849											
QC1000127985 33866001 DUP											
Radium-226			0.620		0.696	pCi/L	12 ^		(+/-0.500)	GRR1	11/21/00 14:45

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Radium-226											
Batch 52849											
			+/-0.302		+/-0.315						
QC1000127986 33636006 DUP											
Radium-226		J	0.941		1.66	pCi/L	55* ^		(+/-0.500)		
			+/-0.461		+/-0.552						
QC1000127989 LCS											
Radium-226	22.1				18.8	pCi/L		85	(75%-125%)		11/21/00 16:15
					+/-2.37						
QC1000127984 MB											
Radium-226				U	0.079	pCi/L					11/21/00 14:45
					+/-0.145						
QC1000127987 33636006 MS											
Radium-226	110	J	0.941		103	pCi/L		92	(75%-125%)		11/21/00 15:30
			+/-0.461		+/-11.4						
QC1000127988 33636006 MSD											
Radium-226	110	J	0.941		106	pCi/L		96			
			+/-0.461		+/-13.0						
Rapid Flow Analysis (Alpkem)											
Batch 53491											
QC1000129099 33839001 DUP											
Cyanide, Total					694	ug/L	N/A		(0%-20%)	ADF	11/27/00 16:48
QC1000129101 33885001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A	N/A	(+/-5.00)		11/22/00 13:23
QC1000129098 LCS											
Cyanide, Total	100				112	ug/L		112	(75%-132%)		11/22/00 10:39
QC1000129097 MB											
Cyanide, Total				U	ND	ug/L					11/22/00 10:37
QC1000129100 33839001 MS											
Cyanide, Total	100				1620	ug/L		834*	(75%-125%)		11/27/00 16:50
QC1000129102 33885001 MS											
Cyanide, Total	100	U	ND		75.9	ug/L		74*	(75%-125%)		11/29/00 13:24
Semi-Volatiles-GC/MS											
Batch 53138											
QC1000128197 LCS											
1,2,4-Trichlorobenzene	50.0				40.1	ug/L		80	(47%-106%)	JPA	11/14/00 22:31
1,4-Dichlorobenzene	50.0				40.0	ug/L		80	(44%-98%)		
2,4,5-Trichlorophenol	100				83.0	ug/L		83	(55%-108%)		
2,4,6-Trichlorophenol	100				76.7	ug/L		77	(48%-106%)		
2,4-Dinitrotoluene	50.0				45.0	ug/L		90	(62%-115%)		
2-Chlorophenol	100				68.2	ug/L		68	(42%-92%)		
4-Chloro-3-methylphenol	100				74.0	ug/L		74	(52%-104%)		
4-Nitrophenol	100				33.1	ug/L		33	(10%-61%)		
Acenaphthene	50.0				36.8	ug/L		74	(52%-100%)		
Hexachlorobenzene	50.0				45.3	ug/L		91	(66%-114%)		
Hexachlorobutadiene	50.0				36.6	ug/L		73	(41%-107%)		
Hexachloroethane	50.0				39.1	ug/L		78	(41%-99%)		
N-Nitrosodipropylamine	50.0				39.4	ug/L		79	(45%-102%)		
Nitrobenzene	50.0				38.0	ug/L		76	(45%-100%)		

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Pentachlorophenol	100			84.9	ug/L		85	(50%-110%)		
Phenol	100			31.8	ug/L		32	(18%-45%)		
Pyrene	50.0			40.0	ug/L		80	(56%-114%)		
m,p-Cresols	100			63.3	ug/L		63	(37%-85%)		
o-Cresol	100			66.8	ug/L		67	(33%-91%)		
**2,4,6-Tribromophenol	100			81.3	ug/L		81	(30%-116%)		
**2-Fluorobiphenyl	50.0			40.8	ug/L		82	(29%-106%)		
**2-Fluorophenol	100			52.5	ug/L		53	(23%-71%)		
**Nitrobenzene-d5	50.0			44.3	ug/L		89	(25%-105%)		
**Phenol-d5	100			32.8	ug/L		33	(10%-50%)		
**p-Terphenyl-d14	50.0			42.7	ug/L		85	(18%-125%)		
QC1000128196 MB										
1,2,4-Trichlorobenzene			U	ND	ug/L					11/14/00 22:01
1,2-Dichlorobenzene			U	ND	ug/L					
1,3-Dichlorobenzene			U	ND	ug/L					
1,4-Dichlorobenzene			U	ND	ug/L					
2,4,5-Trichlorophenol			U	ND	ug/L					
2,4,6-Trichlorophenol			U	ND	ug/L					
2,4-Dichlorophenol			U	ND	ug/L					
2,4-Dimethylphenol			U	ND	ug/L					
2,4-Dinitrophenol			U	ND	ug/L					
2,4-Dinitrotoluene			U	ND	ug/L					
2,6-Dinitrotoluene			U	ND	ug/L					
2-Chloronaphthalene			U	ND	ug/L					
2-Chlorophenol			U	ND	ug/L					
2-Methyl-4,6-dinitrophenol			U	ND	ug/L					
2-Methylnaphthalene			U	ND	ug/L					
2-Nitrophenol			U	ND	ug/L					
3,3'-Dichlorobenzidine			U	ND	ug/L					
4-Bromophenylphenylether			U	ND	ug/L					
4-Chloro-3-methylphenol			U	ND	ug/L					
4-Chloroaniline			U	ND	ug/L					
4-Chlorophenylphenylether			U	ND	ug/L					
4-Nitrophenol			U	ND	ug/L					
Acenaphthene			U	ND	ug/L					
Acenaphthylene			U	ND	ug/L					
Anthracene			U	ND	ug/L					
Benzo(a)anthracene			U	ND	ug/L					
Benzo(a)pyrene			U	ND	ug/L					
Benzo(b)fluoranthene			U	ND	ug/L					
Benzo(ghi)perylene			U	ND	ug/L					
Benzo(k)fluoranthene			U	ND	ug/L					
Butylbenzylphthalate			U	ND	ug/L					
Carbazole			U	ND	ug/L					
Chrysene			U	ND	ug/L					
Di-n-butylphthalate			U	ND	ug/L					
Di-n-octylphthalate			U	ND	ug/L					
Dibenzo(a,h)anthracene			U	ND	ug/L					

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Dibenzofuran			U	ND	ug/L					
Diethylphthalate			U	ND	ug/L					
Dimethylphthalate			U	ND	ug/L					
Diphenylamine			U	ND	ug/L					
Fluoranthene			U	ND	ug/L					
Fluorene			U	ND	ug/L					
Hexachlorobenzene			U	ND	ug/L					
Hexachlorobutadiene			U	ND	ug/L					
Hexachlorocyclopentadiene			U	ND	ug/L					
Hexachloroethane			U	ND	ug/L					
Indeno(1,2,3-cd)pyrene			U	ND	ug/L					
Isophorone			U	ND	ug/L					
N-Nitrosodipropylamine			U	ND	ug/L					
Naphthalene			U	ND	ug/L					
Nitrobenzene			U	ND	ug/L					
Pentachlorophenol			U	ND	ug/L					
Phenanthrene			U	ND	ug/L					
Phenol			U	ND	ug/L					
Pyrene			U	ND	ug/L					
bis(2-Chloroethoxy)methane			U	ND	ug/L					
bis(2-Chloroethyl) ether			U	ND	ug/L					
bis(2-Chloroisopropyl)ether			U	ND	ug/L					
bis(2-Ethylhexyl)phthalate			U	ND	ug/L					
m,p-Cresols			U	ND	ug/L					
m-Nitroaniline			U	ND	ug/L					
o-Cresol			U	ND	ug/L					
o-Nitroaniline			U	ND	ug/L					
p-Nitroaniline			U	ND	ug/L					
**2,4,6-Tribromophenol	100			68.8	ug/L		69	(30%-116%)		
**2-Fluorobiphenyl	50.0			34.0	ug/L		68	(29%-106%)		
**2-Fluorophenol	100			41.3	ug/L		41	(23%-71%)		
**Nitrobenzene-d5	50.0			35.9	ug/L		72	(25%-105%)		
**Phenol-d5	100			26.8	ug/L		27	(10%-50%)		
**p-Terphenyl-d14	50.0			43.1	ug/L		86	(18%-125%)		
QC1000128198 33818001 MS										
1,2,4-Trichlorobenzene	100	U	ND	67.0	ug/L		67	(27%-87%)		11/14/00 23:02
1,4-Dichlorobenzene	100	U	ND	64.3	ug/L		64	(29%-80%)		
2,4,5-Trichlorophenol		U	ND U	ND	ug/L		N/A			
2,4,6-Trichlorophenol		U	ND U	ND	ug/L		N/A			
2,4-Dinitrotoluene	100	U	ND	77.7	ug/L		78	(29%-92%)		
2-Chlorophenol	200	U	ND	123	ug/L		61	(31%-81%)		
4-Chloro-3-methylphenol	200	U	ND	142	ug/L		71	(31%-91%)		
4-Nitrophenol	200	U	ND	90.3	ug/L		45	(10%-85%)		
Acenaphthene	100	U	ND	72.1	ug/L		72	(28%-91%)		
Hexachlorobenzene		U	ND U	ND	ug/L		N/A			
Hexachlorobutadiene		U	ND U	ND	ug/L		N/A			
Hexachloroethane		U	ND U	ND	ug/L		N/A			
N-Nitrosodipropylamine	100	U	ND	71.6	ug/L		72	(26%-94%)		

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS											
Batch 53138											
Nitrobenzene		U	ND	U	ND	ug/L		N/A			
Pentachlorophenol	200	U	ND		169	ug/L		85	(24%-103%)		
Phenol	200	U	ND		83.4	ug/L		42	(10%-58%)		
Pyrene	100	U	ND		86.7	ug/L		87	(34%-111%)		
m,p-Cresols		U	ND	U	ND	ug/L		N/A			
o-Cresol		U	ND	U	ND	ug/L		N/A			
**2,4,6-Tribromophenol	200		65.1		160	ug/L		80	(30%-116%)		
**2-Fluorobiphenyl	100		36.6		76.4	ug/L		76	(29%-106%)		
**2-Fluorophenol	200		44.2		122	ug/L		61	(23%-71%)		
**Nitrobenzene-d5	100		39.3		78.6	ug/L		79	(25%-105%)		
**Phenol-d5	200		28.6		97.0	ug/L		49	(10%-50%)		
**p-Terphenyl-d14	100		42.9		92.0	ug/L		92	(18%-125%)		
QC1000128199 33818001 MSD											
1,2,4-Trichlorobenzene	100	U	ND		68.1	ug/L	2	68	(0%-32%)		11/14/00 23:32
1,4-Dichlorobenzene	100	U	ND		63.4	ug/L	1	63	(0%-30%)		
2,4,5-Trichlorophenol		U	ND	U	ND	ug/L		N/A			
2,4,6-Trichlorophenol		U	ND	U	ND	ug/L		N/A			
2,4-Dinitrotoluene	100	U	ND		75.5	ug/L	3	76	(0%-27%)		
2-Chlorophenol	200	U	ND		121	ug/L	1	61	(0%-30%)		
4-Chloro-3-methylphenol	200	U	ND		137	ug/L	4	68	(0%-31%)		
4-Nitrophenol	200	U	ND		80.3	ug/L	12	40	(0%-32%)		
Acenaphthene	100	U	ND		72.3	ug/L	0	72	(0%-28%)		
Hexachlorobenzene		U	ND	U	ND	ug/L		N/A			
Hexachlorobutadiene		U	ND	U	ND	ug/L		N/A			
Hexachloroethane		U	ND	U	ND	ug/L		N/A			
N-Nitrosodipropylamine	100	U	ND		69.6	ug/L	3	70	(0%-30%)		
Nitrobenzene		U	ND	U	ND	ug/L		N/A			
Pentachlorophenol	200	U	ND		159	ug/L	6	80	(0%-29%)		
Phenol	200	U	ND		82.6	ug/L	1	41	(0%-31%)		
Pyrene	100	U	ND		84.7	ug/L	2	85	(0%-28%)		
m,p-Cresols		U	ND	U	ND	ug/L		N/A			
o-Cresol		U	ND	U	ND	ug/L		N/A			
**2,4,6-Tribromophenol	200		65.1		149	ug/L		75	(30%-116%)		
**2-Fluorobiphenyl	100		36.6		76.6	ug/L		77	(29%-106%)		
**2-Fluorophenol	200		44.2		121	ug/L		60	(23%-71%)		
**Nitrobenzene-d5	100		39.3		77.3	ug/L		77	(25%-105%)		
**Phenol-d5	200		28.6		94.8	ug/L		47	(10%-50%)		
**p-Terphenyl-d14	100		42.9		88.4	ug/L		88	(18%-125%)		
Solids Analysis											
Batch 53220											
QC1000128979 33886001 DUP											
Total Dissolved Solids			265		269	mg/L	2		(0%-18%)	TSM	11/14/00 11:56
QC1000128987 33936003 DUP											
Total Dissolved Solids			118		116	mg/L	2		(0%-18%)		
QC1000128978 LCS											
Total Dissolved Solids	300				295	mg/L		98	(84%-115%)		
QC1000128986 LCSD											
Total Dissolved Solids	300				295	mg/L	0	98	(0%-20%)		

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Solids Analysis											
Batch 53220											
QC1000128977 MB											
Total Dissolved Solids				U	ND	mg/L					
Batch 53487											
QC1000129810 33883001 DUP											
Total Suspended Solids			69.0		67.0	mg/L	3 ^		(+/-25.0)	TSM	11/15/00 14:36
QC1000129811 33932001 DUP											
Total Suspended Solids			16.4		16.8	mg/L	2 ^		(+/-10.0)		
QC1000129809 LCS											
Total Suspended Solids	500				497	mg/L		99	(95%-105%)		
QC1000129818 LCSD											
Total Suspended Solids	500				499	mg/L	0	100	(0%-20%)		
QC1000129808 MB											
Total Suspended Solids				U	ND	mg/L					
Spectrometric Analysis											
Batch 52794											
QC1000127837 33866001 DUP											
Hexavalent Chromium		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.010)	TCC1	11/09/00 14:15
QC1000127835 LCS											
Hexavalent Chromium	0.100				0.100	mg/L		100	(84%-116%)		
QC1000127834 MB											
Hexavalent Chromium				U	ND	mg/L					
QC1000127836 33866001 MS											
Hexavalent Chromium	0.100	U	ND		0.085	mg/L		85	(85%-115%)		
Batch 53748											
QC1000130561 33818001 DUP											
COD		U	ND	U	ND	mg/L	N/A	N/A	(+/-5.00)	MOJ1	11/16/00 14:30
QC1000130563 33867003 DUP											
COD		J	1.43	U	ND	mg/L	N/A ^		(+/-5.00)		
QC1000130560 LCS											
COD	75.0				72.5	mg/L		97	(83%-111%)		
QC1000130559 MB											
COD				J	2.13	mg/L					
QC1000130562 33818001 PS											
COD	75.0	U	ND		76.8	mg/L		102	(70%-130%)		
QC1000130564 33867003 PS											
COD	75.0	J	1.43		81.3	mg/L		107	(70%-130%)		
TOC Analysis											
Batch 54514											
QC1000132899 33818004 DUP											
Diss. Org. Carbon			4.08		4.10	mg/L	0		(0%-25%)	MS1	11/27/00 22:17
QC1000132896 LCS											
Diss. Org. Carbon	10.0				8.93	mg/L		89	(85%-115%)		11/28/00 02:42
QC1000132895 MB											
Diss. Org. Carbon				U	ND	mg/L					11/28/00 02:34
QC1000132897 33818004 PS											
Diss. Org. Carbon	10.0		4.08		13.9	mg/L		98	(77%-127%)		11/27/00 22:33
Batch 54516											
QC1000132908 33936001 DUP											
Total Organic Carbon		J	0.0645	J	0.0569	mg/L	N/A ^		(+/-0.200)	MS1	11/27/00 19:01

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QC Summary

Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
TOC Analysis											
Batch 54516											
QC1000132910 34412001 DUP											
Total Organic Carbon			2.98		3.11	mg/L	4		(0%-25%)		11/27/00 20:21
QC1000132905 LCS											
Total Organic Carbon	10.0				8.93	mg/L		89	(85%-115%)		11/28/00 02:42
QC1000132904 MB											
Total Organic Carbon				U	ND	mg/L					11/28/00 02:34
QC1000132906 33936001 PS											
Total Organic Carbon	10.0	J	0.0645		9.68	mg/L		96	(77%-127%)		11/27/00 19:17
QC1000132909 34412001 PS											
Total Organic Carbon	10.0		2.98		12.9	mg/L		99	(77%-127%)		11/27/00 20:37
TRAACS Nutrient Analysis											
Batch 53150											
QC1000128402 33866001 DUP											
Phosphorus, Total as PO4		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	THL	11/16/00 16:23
QC1000128401 LCS											
Phosphorus, Total as PO4	1.00				0.810	mg/L		81	(66%-125%)		
QC1000128400 MB											
Phosphorus, Total as PO4				U	ND	mg/L					
QC1000128403 33866001 MS											
Phosphorus, Total as PO4	1.00	U	ND		0.790	mg/L		79	(70%-130%)		
Batch 53637											
QC1000129916 33916001 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	THL	11/15/00 17:29
QC1000129918 33916002 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)		
QC1000129915 LCS											
Nitrogen, Ammonia	1.00				1.08	mg/L		108	(63%-121%)		
QC1000129914 MB											
Nitrogen, Ammonia				U	ND	mg/L					
QC1000129917 33916001 MS											
Nitrogen, Ammonia	1.00	U	ND		1.01	mg/L		101	(65%-121%)		
QC1000129919 33916002 MS											
Nitrogen, Ammonia	1.00	U	ND		1.09	mg/L		109	(65%-121%)		
Titration Analysis											
Batch 53180											
QC1000128905 33841001 DUP											
Alkalinity, Total as CaCO3			21.6		21.6	mg/L	0		(0%-30%)	MOJ1	11/13/00 08:20
Bicarbonate alkalinity (CaCO3)			21.6		21.6	mg/L	0		(0%-30%)		
Hydroxide alkalinity as CaCO3		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
QC1000128907 33936003 DUP											
Alkalinity, Total as CaCO3			13.7		13.7	mg/L	0		(0%-30%)		
Bicarbonate alkalinity (CaCO3)			13.7		13.7	mg/L	0		(0%-30%)		
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
Hydroxide alkalinity as CaCO3		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
QC1000128904 LCS											
Alkalinity, Total as CaCO3	1000				960	mg/L		96	(80%-120%)		
QC1000128906 33841001 MS											
Alkalinity, Total as CaCO3	100		21.6		117	mg/L		95	(80%-120%)		
QC1000128908 33936003 MS											

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QC Summary

Workorder: 33866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Titration Analysis										
Batch 53180										
Alkalinity, Total as CaCO3	100	13.7		108	mg/L		94	(80%-120%)		
Volatile Organics										
Batch 54045										
QC1000131398 LCS										
1,1-Dichloroethylene	50.0			48.6	ug/L		97	(74%-139%)	JEB	11/17/00 21:42
Benzene	50.0			49.4	ug/L		99	(79%-119%)		
Chlorobenzene	50.0			46.9	ug/L		94	(79%-120%)		
Toluene	50.0			47.1	ug/L		94	(74%-115%)		
Trichloroethylene	50.0			45.3	ug/L		91	(81%-132%)		
**Bromofluorobenzene	50.0			39.1	ug/L		78	(59%-129%)		
**Dibromofluoromethane	50.0			34.4	ug/L		69	(66%-130%)		
**Toluene-d8	50.0			38.8	ug/L		78	(64%-130%)		
QC1000131397 MB										
1,1,1-Trichloroethane			U	ND	ug/L					11/17/00 22:43
1,1,2,2-Tetrachloroethane			U	ND	ug/L					
1,1,2-Trichloroethane			U	ND	ug/L					
1,1-Dichloroethane			U	ND	ug/L					
1,1-Dichloroethylene			U	ND	ug/L					
1,2-Dichloroethane			U	ND	ug/L					
1,2-Dichloroethylene (total)			U	ND	ug/L					
1,2-Dichloropropane			U	ND	ug/L					
2-Butanone			U	ND	ug/L					
2-Hexanone			U	ND	ug/L					
4-Methyl-2-pentanone			U	ND	ug/L					
Acetone			J	1.21	ug/L					
Benzene			U	ND	ug/L					
Bromodichloromethane			U	ND	ug/L					
Bromoform			U	ND	ug/L					
Bromomethane			U	ND	ug/L					
Carbon disulfide			U	ND	ug/L					
Carbon tetrachloride			U	ND	ug/L					
Chlorobenzene			U	ND	ug/L					
Chloroethane			U	ND	ug/L					
Chloroform			U	ND	ug/L					
Chloromethane			U	ND	ug/L					
Dibromochloromethane			U	ND	ug/L					
Ethylbenzene			U	ND	ug/L					
Methylene chloride			U	ND	ug/L					
Styrene			U	ND	ug/L					
Tetrachloroethylene			U	ND	ug/L					
Toluene			U	ND	ug/L					
Trichloroethylene			U	ND	ug/L					
Vinyl acetate			U	ND	ug/L					
Vinyl chloride			U	ND	ug/L					
Xylenes (total)			U	ND	ug/L					
cis-1,2-Dichloroethylene			U	ND	ug/L					
cis-1,3-Dichloropropylene			U	ND	ug/L					
trans-1,2-Dichloroethylene			U	ND	ug/L					

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Workorder: 33866

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile Organics											
Batch 54045											
trans-1,3-Dichloropropylene				U	ND	ug/L					
**Bromofluorobenzene	50.0				39.1	ug/L		78	(59%-129%)		
**Dibromofluoromethane	50.0				34.4	ug/L		69	(66%-130%)		
**Toluene-d8	50.0				38.7	ug/L		77	(64%-130%)		
QC1000131399 33866001 PS											
1,1-Dichloroethylene	50.0	U	ND		48.3	ug/L		97	(71%-135%)		11/18/00 08:18
Benzene	50.0	U	ND		46.6	ug/L		93	(76%-124%)		
Chlorobenzene	50.0	U	ND		45.2	ug/L		90	(76%-120%)		
Toluene	50.0	U	ND		44.5	ug/L		89	(69%-120%)		
Trichloroethylene	50.0	U	ND		44.4	ug/L		89	(75%-129%)		
**Bromofluorobenzene	50.0		39.7		38.8	ug/L		78	(59%-129%)		
**Dibromofluoromethane	50.0		36.5		37.2	ug/L		74	(66%-130%)		
**Toluene-d8	50.0		39.2		38.4	ug/L		77	(64%-130%)		
QC1000131400 33866001 PSD											
1,1-Dichloroethylene	50.0	U	ND		48.6	ug/L	1	97	(0%-23%)		11/18/00 08:50
Benzene	50.0	U	ND		46.8	ug/L	0	94	(0%-17%)		
Chlorobenzene	50.0	U	ND		44.8	ug/L	1	90	(0%-21%)		
Toluene	50.0	U	ND		44.1	ug/L	1	88	(0%-22%)		
Trichloroethylene	50.0	U	ND		43.9	ug/L	1	88	(0%-20%)		
**Bromofluorobenzene	50.0		39.7		38.0	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0		36.5		37.4	ug/L		75	(66%-130%)		
**Toluene-d8	50.0		39.2		38.2	ug/L		76	(64%-130%)		
Wet Chemistry General											
Batch 52796											
QC1000127843 33866001 DUP											
Turbidity			84.5		85.1	NTU	1		(0%-18%)	MOJ1	11/09/00 14:17
QC1000127842 LCS											
Turbidity	10.0				10.1	NTU		101	(83%-112%)		
QC1000127841 MB											
Turbidity				U	ND	NTU					
Batch 52811											
QC1000127884 33866001 DUP											
Color		U	ND	U	ND	PCU	N/A	N/A	(+/-5.00)	MOJ1	11/09/00 14:50
QC1000127883 LCS											
Color	35.0				35.0	PCU		100	(80%-120%)		
QC1000127882 MB											
Color				U	ND	PCU					

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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QC Summary

Client : Delta Environmental
6701 Carmel, Suite 303
Charlotte, NC 28226

Contact: Rick Powell

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 53588											
QC1000130093 33818001 DUP											
Conductivity			83.2		82.2	umhos/cm	1		(0%-20%)	MOJ1	11/15/00 14:15
QC1000130092 LCS											
Conductivity	1410				1380	umhos/cm		97	(80%-120%)		
Electrode Analysis											
Batch 53108											
QC1000128702 33940001 DUP											
pH			5.24		5.49	SU	5		(0%-5%)	TCC1	11/10/00 19:10
QC1000128701 LCS											
pH	7.00				6.99	SU		100	(95%-105%)		11/10/00 19:06
Ion Chromatography											
Batch 53073											
QC1000128602 33936001 DUP											
Bromide		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	RWS	11/10/00 16:49
Chloride			7.72		7.75	mg/L	0		(0%-13%)		
Fluoride			0.112		0.079	mg/L	35 ^		(+/-0.050)		
Nitrate		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)		
Nitrite		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)		
Sulfate			11.4		11.3	mg/L	1		(0%-15%)		
QC1000128601 LCS											
Bromide	10.0				10.4	mg/L		104	(90%-110%)		11/10/00 17:32
Chloride	10.0				9.57	mg/L		96	(90%-110%)		
Fluoride	10.0				10.7	mg/L		107	(90%-110%)		
Nitrate	5.00				5.08	mg/L		102	(90%-110%)		
Nitrite	10.0				10.6	mg/L		106	(90%-110%)		
Sulfate	20.0				19.4	mg/L		97	(90%-110%)		
QC1000128600 MB											
Bromide				U	ND	mg/L					11/10/00 17:46
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Nitrate				U	ND	mg/L					
Nitrite				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1000128603 33936001 PS											
Bromide	10.0	U	ND		10.2	mg/L		102	(80%-120%)		11/10/00 17:03
Chloride	10.0		7.72		18.3	mg/L		106	(80%-120%)		
Fluoride	10.0		0.112		10.6	mg/L		105	(80%-120%)		
Nitrate	5.00	U	ND		4.89	mg/L		98	(80%-120%)		
Nitrite	10.0	U	ND		10.1	mg/L		101	(80%-120%)		
Sulfate	20.0		11.4		31.8	mg/L		102	(80%-120%)		
Mercury Analysis											
Batch 53578											
QC1000128817 LCS											

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Mercury Analysis										
Batch 53578										
Mercury	2.00			1.96	ug/L		98	(82%-124%)	AW2	11/15/00 17:10
QC1000128816 MB										
Mercury			U	ND	ug/L					11/15/00 17:08
Metals Analysis-ICP										
Batch 55728										
QC1000128841 LCS										
Calcium	5000			5260	ug/L		105	(88%-118%)	JAB	12/05/00 21:46
Magnesium	5000			5270	ug/L		105	(87%-115%)		
Potassium	5000			4930	ug/L		99	(85%-114%)		
Silica	10700			10600	ug/L		99	(80%-120%)		
Silicon	5000			5000	ug/L		100	(80%-120%)		
Sodium	5000			5410	ug/L		108	(89%-118%)		
QC1000128839 MB										
Calcium			U	ND	ug/L					12/05/00 21:39
Magnesium			J	12.0	ug/L					
Potassium			U	ND	ug/L					
Silica			J	78.2	ug/L					
Silicon			J	36.9	ug/L					
Sodium			J	32.9	ug/L					
QC1000128840 33921012 SDILT										
Calcium				10800	ug/L	N/A				12/05/00 22:00
Magnesium				217	ug/L	N/A				
Potassium		475	J	45.9	ug/L	51.6				
Silica				8480	ug/L	N/A				
Silicon				4000	ug/L	N/A				
Sodium				1780	ug/L	N/A				
Metals Analysis-ICPMS										
Batch 54024										
QC1000128854 LCS										
Antimony	50.0			62.9	ug/L		126	(70%-126%)	JSS	12/06/00 08:54
Arsenic	50.0			48.0	ug/L		96	(78%-119%)		
Barium	50.0			48.6	ug/L		97	(91%-111%)		
Beryllium	50.0			54.8	ug/L		110	(75%-121%)		
Cadmium	50.0			49.3	ug/L		99	(87%-110%)		
Chromium	50.0			55.6	ug/L		111	(75%-120%)		
Cobalt	50.0			48.7	ug/L		97	(82%-114%)		
Copper	50.0			49.7	ug/L		99	(82%-128%)		
Iron	1000			1050	ug/L		105	(63%-158%)		
Lead	50.0			46.5	ug/L		93	(80%-120%)		
Manganese	50.0			45.1	ug/L		90	(80%-118%)		12/07/00 08:21
Nickel	50.0			48.7	ug/L		97	(86%-118%)		12/06/00 08:54
Selenium	50.0			45.5	ug/L		91	(66%-130%)		
Silver	50.0			54.4	ug/L		109	(47%-158%)		
Strontium	50.0			46.0	ug/L		92*	(95%-110%)		
Thallium	50.0			29.7	ug/L		59	(29%-158%)		
Vanadium	50.0			53.8	ug/L		108	(79%-116%)		
Zinc	50.0			48.2	ug/L		96	(62%-151%)		
QC1000128850 MB										

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS											
Batch 54024											
Antimony				J	0.332	ug/L					
Arsenic				J	2.11	ug/L					
Barium				J	0.286	ug/L					
Beryllium				U	ND	ug/L					
Cadmium				U	ND	ug/L					
Chromium				U	ND	ug/L					12/07/00 08:13
Cobalt				U	ND	ug/L					12/06/00 08:46
Copper				U	ND	ug/L					
Iron				J	12.5	ug/L					
Lead				U	ND	ug/L					
Manganese				U	ND	ug/L					12/07/00 08:13
Nickel				J	0.200	ug/L					12/06/00 08:46
Selenium				J	0.266	ug/L					
Silver				J	0.181	ug/L					
Strontium				J	0.086	ug/L					
Thallium				U	ND	ug/L					
Vanadium				J	7.74	ug/L					
Zinc				U	ND	ug/L					
QC1000128851 33936001 MS											
Antimony	50.0	J	0.246		63.3	ug/L		126*	(88%-115%)		12/06/00 09:19
Arsenic	50.0	J	1.03		47.4	ug/L		93	(85%-121%)		
Barium	50.0		45.0		92.9	ug/L		96	(88%-113%)		
Beryllium	50.0	J	0.058		54.9	ug/L		110	(83%-120%)		
Cadmium	50.0	U	ND		48.7	ug/L		97	(87%-115%)		
Chromium	50.0		4.09		51.3	ug/L		94	(83%-121%)		
Cobalt	50.0		1.06		48.5	ug/L		95	(80%-123%)		
Copper	50.0	U	ND		48.5	ug/L		96	(81%-126%)		
Iron	1000		5670		6780	ug/L		N/A	(63%-158%)		
Lead	50.0	J	0.532		46.3	ug/L		92	(85%-116%)		
Manganese	50.0		285		330	ug/L		N/A	(80%-118%)		12/07/00 08:46
Nickel	50.0	J	0.894		47.4	ug/L		93	(74%-128%)		12/06/00 09:19
Selenium	50.0	J	0.315		46.5	ug/L		92	(82%-118%)		
Silver	50.0	J	0.137		54.0	ug/L		108	(81%-126%)		
Strontium	50.0		33.3		80.9	ug/L		95	(95%-110%)		
Thallium	50.0	J	0.307		29.4	ug/L		58*	(85%-117%)		
Vanadium	50.0	J	2.83		48.5	ug/L		91	(83%-125%)		
Zinc	50.0		11.7		58.7	ug/L		94	(74%-129%)		
QC1000128853 33936001 MSD											
Antimony	50.0	J	0.246		61.7	ug/L	3	123	(0%-20%)		12/06/00 09:27
Arsenic	50.0	J	1.03		47.4	ug/L	0	93	(0%-14%)		
Barium	50.0		45.0		92.2	ug/L	1	94	(0%-14%)		
Beryllium	50.0	J	0.058		53.4	ug/L	3	107	(0%-10%)		
Cadmium	50.0	U	ND		48.2	ug/L	1	96	(0%-13%)		
Chromium	50.0		4.09		49.8	ug/L	3	91	(0%-13%)		
Cobalt	50.0		1.06		47.2	ug/L	3	92	(0%-10%)		
Copper	50.0	U	ND		47.5	ug/L	2	94	(0%-9%)		
Iron	1000		5670		6580	ug/L	3	N/A	(0%-20%)		
Lead	50.0	J	0.532		46.4	ug/L	0	92	(0%-11%)		

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS											
Batch 54024											
Manganese	50.0		285		332	ug/L	1	N/A	(0%-20%)		
Nickel	50.0	J	0.894		46.4	ug/L	2	91	(0%-10%)		12/06/00 09:27
Selenium	50.0	J	0.315		45.1	ug/L	3	90	(0%-13%)		
Silver	50.0	J	0.137		54.1	ug/L	0	108	(0%-9%)		
Strontium	50.0		33.3		82.6	ug/L	2	99	(0%-20%)		
Thallium	50.0	J	0.307		29.3	ug/L	0	58	(0%-7%)		
Vanadium	50.0	J	2.83		50.6	ug/L	4	96	(0%-9%)		
Zinc	50.0		11.7		58.9	ug/L	0	94	(0%-12%)		
QC1000128852 33936001 SDILT											
Antimony		J	0.246	U	ND	ug/L	N/A				12/06/00 09:10
Arsenic		J	1.03	J	0.437	ug/L	112				
Barium			45.0		9.39	ug/L	4.34				
Beryllium		J	0.058	U	ND	ug/L	N/A				
Cadmium		U	ND	U	ND	ug/L	N/A	N/A			
Chromium			4.09	U	ND	ug/L	N/A				
Cobalt			1.06	J	0.143	ug/L	32.7				
Copper		U	ND	U	ND	ug/L	N/A	N/A			
Iron			5670		1120	ug/L	.918				
Lead		J	0.532	J	0.113	ug/L	6.2				
Manganese			285		59.3	ug/L	4.2				12/07/00 08:37
Nickel		J	0.894	J	0.321	ug/L	79.5				12/06/00 09:10
Selenium		J	0.315	U	ND	ug/L	N/A				
Silver		J	0.137	J	0.124	ug/L	353				
Strontium			33.3	J	6.97	ug/L	4.69				
Thallium		J	0.307	J	0.056	ug/L	8.79				
Vanadium		J	2.83	J	0.920	ug/L	62.4				
Zinc			11.7	J	5.70	ug/L	143				
Micro-biology											
Batch 52902											
QC1000128156 33886001 DUP											
BOD, 5 DAY		U	ND	U	ND	mg/L	N/A	N/A	(+/-4.00)	ES	11/10/00 07:41
QC1000128497 33936002 DUP											
BOD, 5 DAY		U	ND	U	ND	mg/L	N/A	N/A	(+/-4.00)		11/10/00 13:07
QC1000128155 LCS											
BOD, 5 DAY	198				204	mg/L		103	(85%-115%)		11/10/00 07:23
QC1000128153 MB											
BOD, 5 DAY				U	ND	mg/L					
QC1000128154 SEED											
BOD, 5 DAY				U	ND	mg/L					
Rad Alpha Spec											
Batch 53053											
QC1000128543 33936001 DUP											
Uranium-233/234		U	0.0352	U	0.269	pCi/L	154 ^		(+/-1.00)	TC1	11/16/00 11:34
			+/-0.193		+/-0.271						
Uranium-235/236		U	-0.0757	U	0.0596	pCi/L	N/A ^		(+/-1.00)		
			+/-0.0684		+/-0.119						
Uranium-238		U	0.0327	U	0.105	pCi/L	105 ^		(+/-1.00)		
			+/-0.133		+/-0.171						

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 53053										
QC1000128545 LCS										
Uranium-233/234				22.4 +/-3.69	pCi/L			(75%-125%)		
Uranium-235/236				0.919 +/-0.506	pCi/L			(75%-125%)		
Uranium-238	22.5			20.2 +/-3.40	pCi/L		90	(75%-125%)		
QC1000128542 MB										
Uranium-233/234			U	0.0932 +/-0.219	pCi/L					
Uranium-235/236			U	0.0336 +/-0.184	pCi/L					
Uranium-238				0.179 +/-0.208	pCi/L					
QC1000128544 33936001 MS										
Uranium-233/234	U	0.0352 +/-0.193		21.0 +/-3.47	pCi/L			(75%-125%)		
Uranium-235/236	U	-0.0757 +/-0.0684		1.22 +/-0.574	pCi/L			(75%-125%)		
Uranium-238	22.5 U	0.0327 +/-0.133		22.2 +/-3.63	pCi/L		99	(75%-125%)		
Rad Gas Flow										
Batch 53197										
QC1000128940 33934002 DUP										
Radium-228	U	0.828 +/-0.969	U	0.475 +/-0.888	pCi/L	0 ^		(+/-1.50)	JDM	11/21/00 11:54
QC1000129426 33934001 DUP										
Radium-228	U	0.431 +/-0.968	U	-0.0072 +/-1.10	pCi/L	N/A ^		(+/-1.50)		
QC1000128942 LCS										
Radium-228	37.2			29.2 +/-2.14	pCi/L		79	(75%-125%)		
QC1000128939 MB										
Radium-228			U	0.391 +/-0.735	pCi/L					
QC1000128941 33934002 MS										
Radium-228	190 U	0.828 +/-0.969		168 +/-13.2	pCi/L		88	(75%-125%)		
Batch 53360										
QC1000129371 33804006 DUP										
Alpha		2.61 +/-0.956	U	1.32 +/-1.09	pCi/L	66 ^		(+/-1.50)	JEN	11/16/00 16:39
Beta		2.04 +/-0.900		4.99 +/-1.27	pCi/L	84* ^		(+/-2.00)		
QC1000129373 LCS										
Alpha	47.5			58.7 +/-8.48	pCi/L		123	(75%-125%)		11/16/00 14:41
Beta	177			199	pCi/L		112	(75%-125%)		

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 53360										
				+/-12.0						
QC1000129370 MB										
Alpha			U	-0.0575	pCi/L					11/16/00 16:38
				+/-0.261						
Beta			U	0.486	pCi/L					
				+/-0.794						
QC1000129372 33804006 MS										
Alpha	47.5	2.61		43.4	pCi/L		86	(75%-125%)		11/21/00 12:05
		+/-0.956		+/-9.02						
Beta	177	2.04		188	pCi/L		105	(75%-125%)		
		+/-0.900		+/-12.0						
Rad Liquid Scint										
Batch 52831										
QC1000127920 33891004 DUP										
Radon-222	U	44.0	U	7.00	pCi/L	0 ^		(+/-200)	HOB1	11/11/00 08:27
		+/-33.5		+/-32.6						
QC1000127921 33891005 DUP										
Radon-222		257		204	pCi/L	23 ^		(+/-200)		11/11/00 08:59
		+/-42.7		+/-41.6						
QC1000127923 LCS										
Radon-222	62200			52100	pCi/L		84	(75%-125%)		11/13/00 12:22
				+/-1020						
QC1000127919 MB										
Radon-222			U	-4.7	pCi/L					11/11/00 07:56
				+/-21.6						
QC1000127922 33891005 MS										
Radon-222	62200	257		62400	pCi/L		100	(75%-125%)		11/13/00 12:16
		+/-42.7		+/-1230						
Rad Radium-226										
Batch 53712										
QC1000130407 33659001 DUP										
Radium-226		3.12		2.53	pCi/L	21 ^		(+/-1.00)	GRR1	11/22/00 15:20
		+/-0.775		+/-0.687						
QC1000130409 LCS										
Radium-226	22.1			20.0	pCi/L		91	(75%-125%)		11/22/00 16:00
				+/-2.22						
QC1000130406 MB										
Radium-226			U	0.487	pCi/L					11/22/00 14:25
				+/-0.390						
QC1000130408 33659001 MS										
Radium-226	110	3.12		105	pCi/L		92	(75%-125%)		11/22/00 16:00
		+/-0.775		+/-11.7						
Rapid Flow Analysis (Alpkem)										
Batch 53491										
QC1000129099 33839001 DUP										
Cyanide, Total				694	ug/L	N/A		(0%-20%)	ADF	11/27/00 16:48
QC1000129101 33885001 DUP										

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rapid Flow Analysis (Alpkem)										
Batch 53491										
Cyanide, Total		U	ND	U	ND	ug/L	N/A	N/A	(+/-5.00)	
QC1000129098 LCS										
Cyanide, Total	100				112	ug/L		112	(75%-132%)	11/22/00 10:39
QC1000129097 MB										
Cyanide, Total				U	ND	ug/L				11/22/00 10:37
QC1000129100 33839001 MS										
Cyanide, Total	100				1620	ug/L		834*	(75%-125%)	11/27/00 16:50
QC1000129102 33885001 MS										
Cyanide, Total	100	U	ND		75.9	ug/L		74*	(75%-125%)	11/29/00 13:24
Semi-Volatiles-GC/MS										
Batch 53138										
QC1000128197 LCS										
1,2,4-Trichlorobenzene	50.0				40.1	ug/L		80	(47%-106%)	JPA 11/14/00 22:31
1,4-Dichlorobenzene	50.0				40.0	ug/L		80	(44%-98%)	
2,4,5-Trichlorophenol	100				83.0	ug/L		83	(55%-108%)	
2,4,6-Trichlorophenol	100				76.7	ug/L		77	(48%-106%)	
2,4-Dinitrotoluene	50.0				45.0	ug/L		90	(62%-115%)	
2-Chlorophenol	100				68.2	ug/L		68	(42%-92%)	
4-Chloro-3-methylphenol	100				74.0	ug/L		74	(52%-104%)	
4-Nitrophenol	100				33.1	ug/L		33	(10%-61%)	
Acenaphthene	50.0				36.8	ug/L		74	(52%-100%)	
Hexachlorobenzene	50.0				45.3	ug/L		91	(66%-114%)	
Hexachlorobutadiene	50.0				36.6	ug/L		73	(41%-107%)	
Hexachloroethane	50.0				39.1	ug/L		78	(41%-99%)	
N-Nitrosodipropylamine	50.0				39.4	ug/L		79	(45%-102%)	
Nitrobenzene	50.0				38.0	ug/L		76	(45%-100%)	
Pentachlorophenol	100				84.9	ug/L		85	(50%-110%)	
Phenol	100				31.8	ug/L		32	(18%-45%)	
Pyrene	50.0				40.0	ug/L		80	(56%-114%)	
m,p-Cresols	100				63.3	ug/L		63	(37%-85%)	
o-Cresol	100				66.8	ug/L		67	(33%-91%)	
**2,4,6-Tribromophenol	100				81.3	ug/L		81	(30%-116%)	
**2-Fluorobiphenyl	50.0				40.8	ug/L		82	(29%-106%)	
**2-Fluorophenol	100				52.5	ug/L		53	(23%-71%)	
**Nitrobenzene-d5	50.0				44.3	ug/L		89	(25%-105%)	
**Phenol-d5	100				32.8	ug/L		33	(10%-50%)	
**p-Terphenyl-d14	50.0				42.7	ug/L		85	(18%-125%)	
QC1000128196 MB										
1,2,4-Trichlorobenzene				U	ND	ug/L				11/14/00 22:01
1,2-Dichlorobenzene				U	ND	ug/L				
1,3-Dichlorobenzene				U	ND	ug/L				
1,4-Dichlorobenzene				U	ND	ug/L				
2,4,5-Trichlorophenol				U	ND	ug/L				
2,4,6-Trichlorophenol				U	ND	ug/L				
2,4-Dichlorophenol				U	ND	ug/L				
2,4-Dimethylphenol				U	ND	ug/L				
2,4-Dinitrophenol				U	ND	ug/L				
2,4-Dinitrotoluene				U	ND	ug/L				

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-GC/MS											
Batch 53138											
2,6-Dinitrotoluene			U	ND	ug/L						
2-Chloronaphthalene			U	ND	ug/L						
2-Chlorophenol			U	ND	ug/L						
2-Methyl-4,6-dinitrophenol			U	ND	ug/L						
2-Methylnaphthalene			U	ND	ug/L						
2-Nitrophenol			U	ND	ug/L						
3,3'-Dichlorobenzidine			U	ND	ug/L						
4-Bromophenylphenylether			U	ND	ug/L						
4-Chloro-3-methylphenol			U	ND	ug/L						
4-Chloroaniline			U	ND	ug/L						
4-Chlorophenylphenylether			U	ND	ug/L						
4-Nitrophenol			U	ND	ug/L						
Acenaphthene			U	ND	ug/L						
Acenaphthylene			U	ND	ug/L						
Anthracene			U	ND	ug/L						
Benzo(a)anthracene			U	ND	ug/L						
Benzo(a)pyrene			U	ND	ug/L						
Benzo(b)fluoranthene			U	ND	ug/L						
Benzo(ghi)perylene			U	ND	ug/L						
Benzo(k)fluoranthene			U	ND	ug/L						
Butylbenzylphthalate			U	ND	ug/L						
Carbazole			U	ND	ug/L						
Chrysene			U	ND	ug/L						
Di-n-butylphthalate			U	ND	ug/L						
Di-n-octylphthalate			U	ND	ug/L						
Dibenzo(a,h)anthracene			U	ND	ug/L						
Dibenzofuran			U	ND	ug/L						
Diethylphthalate			U	ND	ug/L						
Dimethylphthalate			U	ND	ug/L						
Diphenylamine			U	ND	ug/L						
Fluoranthene			U	ND	ug/L						
Fluorene			U	ND	ug/L						
Hexachlorobenzene			U	ND	ug/L						
Hexachlorobutadiene			U	ND	ug/L						
Hexachlorocyclopentadiene			U	ND	ug/L						
Hexachloroethane			U	ND	ug/L						
Indeno(1,2,3-cd)pyrene			U	ND	ug/L						
Isophorone			U	ND	ug/L						
N-Nitrosodipropylamine			U	ND	ug/L						
Naphthalene			U	ND	ug/L						
Nitrobenzene			U	ND	ug/L						
Pentachlorophenol			U	ND	ug/L						
Phenanthrene			U	ND	ug/L						
Phenol			U	ND	ug/L						
Pyrene			U	ND	ug/L						
bis(2-Chloroethoxy)methane			U	ND	ug/L						
bis(2-Chloroethyl) ether			U	ND	ug/L						
bis(2-Chloroisopropyl)ether			U	ND	ug/L						

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS											
Batch 53138											
bis(2-Ethylhexyl)phthalate				U	ND	ug/L					
m,p-Cresols				U	ND	ug/L					
m-Nitroaniline				U	ND	ug/L					
o-Cresol				U	ND	ug/L					
o-Nitroaniline				U	ND	ug/L					
p-Nitroaniline				U	ND	ug/L					
**2,4,6-Tribromophenol	100				68.8	ug/L		69	(30%-116%)		
**2-Fluorobiphenyl	50.0				34.0	ug/L		68	(29%-106%)		
**2-Fluorophenol	100				41.3	ug/L		41	(23%-71%)		
**Nitrobenzene-d5	50.0				35.9	ug/L		72	(25%-105%)		
**Phenol-d5	100				26.8	ug/L		27	(10%-50%)		
**p-Terphenyl-d14	50.0				43.1	ug/L		86	(18%-125%)		
QC1000128198 33818001 MS											
1,2,4-Trichlorobenzene	100	U	ND		67.0	ug/L		67	(27%-87%)		11/14/00 23:02
1,4-Dichlorobenzene	100	U	ND		64.3	ug/L		64	(29%-80%)		
2,4,5-Trichlorophenol		U	ND	U	ND	ug/L		N/A			
2,4,6-Trichlorophenol		U	ND	U	ND	ug/L		N/A			
2,4-Dinitrotoluene	100	U	ND		77.7	ug/L		78	(29%-92%)		
2-Chlorophenol	200	U	ND		123	ug/L		61	(31%-81%)		
4-Chloro-3-methylphenol	200	U	ND		142	ug/L		71	(31%-91%)		
4-Nitrophenol	200	U	ND		90.3	ug/L		45	(10%-85%)		
Acenaphthene	100	U	ND		72.1	ug/L		72	(28%-91%)		
Hexachlorobenzene		U	ND	U	ND	ug/L		N/A			
Hexachlorobutadiene		U	ND	U	ND	ug/L		N/A			
Hexachloroethane		U	ND	U	ND	ug/L		N/A			
N-Nitrosodipropylamine	100	U	ND		71.6	ug/L		72	(26%-94%)		
Nitrobenzene		U	ND	U	ND	ug/L		N/A			
Pentachlorophenol	200	U	ND		169	ug/L		85	(24%-103%)		
Phenol	200	U	ND		83.4	ug/L		42	(10%-58%)		
Pyrene	100	U	ND		86.7	ug/L		87	(34%-111%)		
m,p-Cresols		U	ND	U	ND	ug/L		N/A			
o-Cresol		U	ND	U	ND	ug/L		N/A			
**2,4,6-Tribromophenol	200		65.1		160	ug/L		80	(30%-116%)		
**2-Fluorobiphenyl	100		36.6		76.4	ug/L		76	(29%-106%)		
**2-Fluorophenol	200		44.2		122	ug/L		61	(23%-71%)		
**Nitrobenzene-d5	100		39.3		78.6	ug/L		79	(25%-105%)		
**Phenol-d5	200		28.6		97.0	ug/L		49	(10%-50%)		
**p-Terphenyl-d14	100		42.9		92.0	ug/L		92	(18%-125%)		
QC1000128199 33818001 MSD											
1,2,4-Trichlorobenzene	100	U	ND		68.1	ug/L	2	68	(0%-32%)		11/14/00 23:32
1,4-Dichlorobenzene	100	U	ND		63.4	ug/L	1	63	(0%-30%)		
2,4,5-Trichlorophenol		U	ND	U	ND	ug/L		N/A			
2,4,6-Trichlorophenol		U	ND	U	ND	ug/L		N/A			
2,4-Dinitrotoluene	100	U	ND		75.5	ug/L	3	76	(0%-27%)		
2-Chlorophenol	200	U	ND		121	ug/L	1	61	(0%-30%)		
4-Chloro-3-methylphenol	200	U	ND		137	ug/L	4	68	(0%-31%)		
4-Nitrophenol	200	U	ND		80.3	ug/L	12	40	(0%-32%)		
Acenaphthene	100	U	ND		72.3	ug/L	0	72	(0%-28%)		

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-GC/MS												
Batch 53138												
Hexachlorobenzene		U	ND	U	ND	ug/L		N/A				
Hexachlorobutadiene		U	ND	U	ND	ug/L		N/A				
Hexachloroethane		U	ND	U	ND	ug/L		N/A				
N-Nitrosodipropylamine	100	U	ND		69.6	ug/L	3	70	(0%-30%)			
Nitrobenzene		U	ND	U	ND	ug/L		N/A				
Pentachlorophenol	200	U	ND		159	ug/L	6	80	(0%-29%)			
Phenol	200	U	ND		82.6	ug/L	1	41	(0%-31%)			
Pyrene	100	U	ND		84.7	ug/L	2	85	(0%-28%)			
m,p-Cresols		U	ND	U	ND	ug/L		N/A				
o-Cresol		U	ND	U	ND	ug/L		N/A				
**2,4,6-Tribromophenol	200		65.1		149	ug/L		75	(30%-116%)			
**2-Fluorobiphenyl	100		36.6		76.6	ug/L		77	(29%-106%)			
**2-Fluorophenol	200		44.2		121	ug/L		60	(23%-71%)			
**Nitrobenzene-d5	100		39.3		77.3	ug/L		77	(25%-105%)			
**Phenol-d5	200		28.6		94.8	ug/L		47	(10%-50%)			
**p-Terphenyl-d14	100		42.9		88.4	ug/L		88	(18%-125%)			
Solids Analysis												
Batch 53220												
QC1000128979 33886001 DUP												
Total Dissolved Solids			265		269	mg/L	2		(0%-18%)	TSM	11/14/00	11:56
QC1000128987 33936003 DUP												
Total Dissolved Solids			118		116	mg/L	2		(0%-18%)			
QC1000128978 LCS												
Total Dissolved Solids	300				295	mg/L		98	(84%-115%)			
QC1000128986 LCSD												
Total Dissolved Solids	300				295	mg/L	0	98	(0%-20%)			
QC1000128977 MB												
Total Dissolved Solids				U	ND	mg/L						
Batch 53487												
QC1000129810 33883001 DUP												
Total Suspended Solids			69.0		67.0	mg/L	3 ^		(+/-25.0)	TSM	11/15/00	14:36
QC1000129811 33932001 DUP												
Total Suspended Solids			16.4		16.8	mg/L	2 ^		(+/-10.0)			
QC1000129809 LCS												
Total Suspended Solids	500				497	mg/L		99	(95%-105%)			
QC1000129818 LCSD												
Total Suspended Solids	500				499	mg/L	0	100	(0%-20%)			
QC1000129808 MB												
Total Suspended Solids				U	ND	mg/L						
Spectrometric Analysis												
Batch 53036												
QC1000128505 33936001 DUP												
Hexavalent Chromium		J	0.002	J	0.002	mg/L	N/A ^		(+/-0.010)	TCC1	11/10/00	14:15
QC1000128503 LCS												
Hexavalent Chromium	0.100				0.100	mg/L		100	(84%-116%)			
QC1000128502 MB												
Hexavalent Chromium				U	ND	mg/L						
QC1000128504 33936001 MS												

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Spectrometric Analysis											
Batch 53036											
Hexavalent Chromium	0.100	J	0.002		0.046	mg/L		44*	(85%-115%)		
Batch 53748											
QC1000130561 33818001 DUP											
COD		U	ND	U	ND	mg/L	N/A	N/A	(+/-5.00)	MOJ1	11/16/00 14:30
QC1000130563 33867003 DUP											
COD		J	1.43	U	ND	mg/L	N/A ^		(+/-5.00)		
QC1000130560 LCS											
COD	75.0				72.5	mg/L		97	(83%-111%)		
QC1000130559 MB											
COD				J	2.13	mg/L					
QC1000130562 33818001 PS											
COD	75.0	U	ND		76.8	mg/L		102	(70%-130%)		
QC1000130564 33867003 PS											
COD	75.0	J	1.43		81.3	mg/L		107	(70%-130%)		
TOC Analysis											
Batch 54514											
QC1000132899 33818004 DUP											
Diss. Org. Carbon			4.08		4.10	mg/L	0		(0%-25%)	MS1	11/27/00 22:17
QC1000132896 LCS											
Diss. Org. Carbon	10.0				8.93	mg/L		89	(85%-115%)		11/28/00 02:42
QC1000132895 MB											
Diss. Org. Carbon				U	ND	mg/L					11/28/00 02:34
QC1000132897 33818004 PS											
Diss. Org. Carbon	10.0		4.08		13.9	mg/L		98	(77%-127%)		11/27/00 22:33
Batch 54516											
QC1000132908 33936001 DUP											
Total Organic Carbon		J	0.0645	J	0.0569	mg/L	N/A ^		(+/-0.200)	MS1	11/27/00 19:01
QC1000132910 34412001 DUP											
Total Organic Carbon			2.98		3.11	mg/L	4		(0%-25%)		11/27/00 20:21
QC1000132905 LCS											
Total Organic Carbon	10.0				8.93	mg/L		89	(85%-115%)		11/28/00 02:42
QC1000132904 MB											
Total Organic Carbon				U	ND	mg/L					11/28/00 02:34
QC1000132906 33936001 PS											
Total Organic Carbon	10.0	J	0.0645		9.68	mg/L		96	(77%-127%)		11/27/00 19:17
QC1000132909 34412001 PS											
Total Organic Carbon	10.0		2.98		12.9	mg/L		99	(77%-127%)		11/27/00 20:37
TRAACS Nutrient Analysis											
Batch 53637											
QC1000129916 33916001 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	THL	11/15/00 17:29
QC1000129918 33916002 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)		
QC1000129915 LCS											
Nitrogen, Ammonia	1.00				1.08	mg/L		108	(63%-121%)		
QC1000129914 MB											
Nitrogen, Ammonia				U	ND	mg/L					
QC1000129917 33916001 MS											
Nitrogen, Ammonia	1.00	U	ND		1.01	mg/L		101	(65%-121%)		

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
TRAACS Nutrient Analysis											
Batch 53637											
QC1000129919 33916002 MS											
Nitrogen, Ammonia	1.00	U	ND		1.09	mg/L		109	(65%-121%)		
Batch 53848											
QC1000130172 33943001 DUP											
Phosphorus, Total as PO4			0.060		0.050	mg/L	18 ^		(+/-0.050)	THL	11/16/00 16:23
QC1000130171 LCS											
Phosphorus, Total as PO4	1.00				0.770	mg/L		77	(66%-125%)		
QC1000130170 MB											
Phosphorus, Total as PO4				U	ND	mg/L					
QC1000130173 33943001 MS											
Phosphorus, Total as PO4	1.00		0.060		0.840	mg/L		78	(70%-130%)		
Titration Analysis											
Batch 53180											
QC1000128905 33841001 DUP											
Alkalinity, Total as CaCO3			21.6		21.6	mg/L	0		(0%-30%)	MOJ1	11/13/00 08:20
Bicarbonate alkalinity (CaCO3)			21.6		21.6	mg/L	0		(0%-30%)		
Hydroxide alkalinity as CaCO3		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
QC1000128907 33936003 DUP											
Alkalinity, Total as CaCO3			13.7		13.7	mg/L	0		(0%-30%)		
Bicarbonate alkalinity (CaCO3)			13.7		13.7	mg/L	0		(0%-30%)		
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
Hydroxide alkalinity as CaCO3		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
QC1000128904 LCS											
Alkalinity, Total as CaCO3	1000				960	mg/L		96	(80%-120%)		
QC1000128906 33841001 MS											
Alkalinity, Total as CaCO3	100		21.6		117	mg/L		95	(80%-120%)		
QC1000128908 33936003 MS											
Alkalinity, Total as CaCO3	100		13.7		108	mg/L		94	(80%-120%)		
Volatile Organics											
Batch 54336											
QC1000132316 LCS											
1,1-Dichloroethylene	50.0				47.8	ug/L		96	(74%-139%)	JEB	11/20/00 09:01
Benzene	50.0				45.4	ug/L		91	(79%-119%)		
Chlorobenzene	50.0				44.3	ug/L		89	(79%-120%)		
Toluene	50.0				44.5	ug/L		89	(74%-115%)		
Trichloroethylene	50.0				44.5	ug/L		89	(81%-132%)		
**Bromofluorobenzene	50.0				37.6	ug/L		75	(59%-129%)		
**Dibromofluoromethane	50.0				34.7	ug/L		69	(66%-130%)		
**Toluene-d8	50.0				37.3	ug/L		75	(64%-130%)		
QC1000132315 MB											
1,1,1-Trichloroethane				U	ND	ug/L					11/20/00 10:02
1,1,2,2-Tetrachloroethane				U	ND	ug/L					
1,1,2-Trichloroethane				U	ND	ug/L					
1,1-Dichloroethane				U	ND	ug/L					
1,1-Dichloroethylene				U	ND	ug/L					
1,2-Dichloroethane				U	ND	ug/L					
1,2-Dichloroethylene (total)				U	ND	ug/L					
1,2-Dichloropropane				U	ND	ug/L					

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QC Summary

Workorder: 33936

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile Organics											
Batch 54336											
2-Butanone				U	ND	ug/L					
2-Hexanone				U	ND	ug/L					
4-Methyl-2-pentanone				U	ND	ug/L					
Acetone				J	1.95	ug/L					
Benzene				U	ND	ug/L					
Bromodichloromethane				U	ND	ug/L					
Bromoform				U	ND	ug/L					
Bromomethane				U	ND	ug/L					
Carbon disulfide				U	ND	ug/L					
Carbon tetrachloride				U	ND	ug/L					
Chlorobenzene				U	ND	ug/L					
Chloroethane				U	ND	ug/L					
Chloroform				U	ND	ug/L					
Chloromethane				U	ND	ug/L					
Dibromochloromethane				U	ND	ug/L					
Ethylbenzene				U	ND	ug/L					
Methylene chloride				U	ND	ug/L					
Styrene				U	ND	ug/L					
Tetrachloroethylene				U	ND	ug/L					
Toluene				U	ND	ug/L					
Trichloroethylene				U	ND	ug/L					
Vinyl acetate				U	ND	ug/L					
Vinyl chloride				U	ND	ug/L					
Xylenes (total)				U	ND	ug/L					
cis-1,2-Dichloroethylene				U	ND	ug/L					
cis-1,3-Dichloropropylene				U	ND	ug/L					
trans-1,2-Dichloroethylene				U	ND	ug/L					
trans-1,3-Dichloropropylene				U	ND	ug/L					
**Bromofluorobenzene	50.0				38.1	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0				33.3	ug/L		67	(66%-130%)		
**Toluene-d8	50.0				36.8	ug/L		74	(64%-130%)		
QC1000132317 33936001 PS											
1,1-Dichloroethylene	50.0	U	ND		48.2	ug/L		96	(71%-135%)		11/21/00 00:15
Benzene	50.0	U	ND		46.6	ug/L		93	(76%-124%)		
Chlorobenzene	50.0	U	ND		45.3	ug/L		91	(76%-120%)		
Toluene	50.0	U	ND		44.7	ug/L		89	(69%-120%)		
Trichloroethylene	50.0	U	ND		45.5	ug/L		91	(75%-129%)		
**Bromofluorobenzene	50.0		40.2		37.9	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0		34.5		36.5	ug/L		73	(66%-130%)		
**Toluene-d8	50.0		38.5		36.7	ug/L		73	(64%-130%)		
QC1000132318 33936001 PSD											
1,1-Dichloroethylene	50.0	U	ND		47.9	ug/L	0	96	(0%-23%)		11/21/00 00:44
Benzene	50.0	U	ND		46.3	ug/L	1	93	(0%-17%)		
Chlorobenzene	50.0	U	ND		45.1	ug/L	0	90	(0%-21%)		
Toluene	50.0	U	ND		44.0	ug/L	2	88	(0%-22%)		
Trichloroethylene	50.0	U	ND		44.2	ug/L	3	88	(0%-20%)		
**Bromofluorobenzene	50.0		40.2		38.5	ug/L		77	(59%-129%)		
**Dibromofluoromethane	50.0		34.5		36.5	ug/L		73	(66%-130%)		

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QC Summary

Workorder: 33936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile Organics											
Batch 54336											
**Toluene-d8	50.0	38.5		37.8	ug/L		76	(64%-130%)			
Wet Chemistry General											
Batch 53109											
QC1000128705 33952005 DUP											
Color		5.00		5.00	PCU	0 ^		(+/-5.00)	MOJ1	11/10/00	19:35
QC1000128704 LCS											
Color	35.0			35.0	PCU		100	(80%-120%)			
QC1000128703 MB											
Color			U	ND	PCU						
Batch 53110											
QC1000128708 33936001 DUP											
Turbidity		2.54		2.44	NTU	4		(0%-18%)	MOJ1	11/10/00	18:45
QC1000128707 LCS											
Turbidity	10.0			10.6	NTU		106	(83%-112%)			
QC1000128706 MB											
Turbidity			U	ND	NTU						

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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QC Summary

Client : Delta Environmental
6701 Carmel, Suite 303
Charlotte, NC 28226

Contact: Rick Powell

Workorder: 33818

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 53588											
QC1000130093 33818001 DUP											
Conductivity			83.2		82.2	umhos/cm	1		(0%-20%)	MOJ1	11/15/00 14:15
QC1000130092 LCS											
Conductivity	1410				1380	umhos/cm		97	(80%-120%)		
Electrode Analysis											
Batch 52631											
QC1000127396 33801001 DUP											
pH			7.54		7.57	SU	0		(0%-5%)	MOJ1	11/08/00 16:15
QC1000127395 LCS											
pH	7.00				6.98	SU		100	(95%-105%)		
Ion Chromatography											
Batch 52636											
QC1000127410 33818002 DUP											
Bromide		U	ND	U	ND	mg/L	N/A	N/A	(+/-0.050)	RWS	11/09/00 01:29
Chloride			27.0		27.2	mg/L	1		(0%-13%)		11/09/00 12:27
Fluoride			0.133		0.116	mg/L	14 ^		(+/-0.050)		11/09/00 01:29
Nitrate			0.249		0.217	mg/L	14 ^		(+/-0.050)		
Nitrite			0.00		0.00	mg/L	N/A ^		(+/-0.050)		
Sulfate			85.6		85.9	mg/L	0		(0%-15%)		11/09/00 12:27
QC1000127409 LCS											
Bromide	10.0				9.86	mg/L		99	(90%-110%)		11/09/00 01:58
Chloride	10.0				9.41	mg/L		94	(90%-110%)		
Fluoride	10.0				10.6	mg/L		106	(90%-110%)		
Nitrate	5.00				5.01	mg/L		100	(90%-110%)		
Nitrite	10.0				10.1	mg/L		101	(90%-110%)		
Sulfate	20.0				19.1	mg/L		95	(90%-110%)		
QC1000127408 MB											
Bromide				U	ND	mg/L					11/09/00 02:12
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Nitrate				U	ND	mg/L					
Nitrite				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1000127411 33818002 PS											
Bromide	10.0	U	ND		8.99	mg/L		90	(80%-120%)		11/09/00 01:43
Chloride	10.0		5.40		41.6	mg/L		89	(80%-120%)		
Chloride	10.0		5.40		15.7	mg/L		103	(80%-120%)		11/09/00 12:41
Fluoride	10.0		0.133		9.59	mg/L		95	(80%-120%)		11/09/00 01:43
Nitrate	5.00		0.249		4.67	mg/L		89	(80%-120%)		
Nitrite	10.0		0.00		9.13	mg/L		91	(80%-120%)		
Sulfate	20.0		17.1		115	mg/L		72*	(80%-120%)		
Sulfate	20.0		17.1		38.5	mg/L		107	(80%-120%)		11/09/00 12:41
Mercury Analysis											
Batch 53181											

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QC Summary

Workorder: 33818

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Mercury Analysis											
Batch 53181											
QC1000128069 LCS											
Mercury	2.00				1.87	ug/L		93	(82%-124%)	AW2	11/13/00 11:20
QC1000128068 MB											
Mercury				U	ND	ug/L					11/13/00 11:18
QC1000128070 33788001 MS											
Mercury	2.00	U	ND		1.89	ug/L		94	(74%-132%)		11/13/00 11:26
QC1000128071 33788001 MSD											
Mercury	2.00	U	ND		2.05	ug/L	8	102	(0%-16%)		11/13/00 12:36
Metals Analysis-ICP											
Batch 53085											
QC1000127511 LCS											
Calcium	5000				5490	ug/L		110	(88%-118%)	RMJ	11/16/00 16:20
Magnesium	5000				5230	ug/L		105	(87%-115%)		
Potassium	5000				4810	ug/L		96	(85%-114%)		
Silica	10700				10500	ug/L		99	(80%-120%)		
Silicon	5000				4930	ug/L		99	(80%-120%)		
Sodium	5000				5190	ug/L		104	(89%-118%)		
QC1000127509 MB											
Calcium					119	ug/L					11/16/00 16:14
Magnesium				J	4.78	ug/L				JLS	11/15/00 12:07
Potassium				U	ND	ug/L					
Silica				J	102	ug/L					
Silicon				J	47.6	ug/L					
Sodium				J	63.1	ug/L					
QC1000129273 33788001 MS											
Calcium	5000				28200	ug/L		119	(83%-125%)		11/15/00 12:45
Magnesium	5000				15600	ug/L		119	(61%-138%)		
Potassium	5000				9460	ug/L		99	(81%-118%)		
Silica	10700				44100	ug/L		104	(70%-130%)		
Silicon	5000				20600	ug/L		104	(70%-130%)		
Sodium	5000		37400		43200	ug/L		N/A	(75%-130%)		
QC1000129274 33788001 MSD											
Calcium	5000				27800	ug/L	1	112	(0%-11%)		11/15/00 12:51
Magnesium	5000				15400	ug/L	1	115	(0%-14%)		
Potassium	5000				9310	ug/L	2	96	(0%-9%)		
Silica	10700				43500	ug/L	1	98	(0%-20%)		
Silicon	5000				20300	ug/L	1	98	(0%-20%)		
Sodium	5000		37400		42500	ug/L	2	N/A	(0%-20%)		
QC1000129272 33788001 SDILT											
Calcium					4580	ug/L	N/A				11/15/00 12:40
Magnesium					1960	ug/L	N/A				
Potassium					922	ug/L	N/A				
Silica					6750	ug/L	N/A				
Silicon					3160	ug/L	N/A				
Sodium			37400		7500	ug/L	.369				
Metals Analysis-ICPMS											
Batch 53133											
QC1000128085 LCS											

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS										
Batch 53133										
Antimony	50.0			63.0	ug/L		126	(70%-126%)	JSS	11/30/00 18:04
Arsenic	50.0			46.4	ug/L		93	(78%-119%)		11/29/00 04:37
Barium	50.0			49.3	ug/L		99	(91%-111%)		11/30/00 18:04
Beryllium	50.0			56.6	ug/L		113	(75%-121%)		11/29/00 04:37
Cadmium	50.0			48.1	ug/L		96	(87%-110%)		
Chromium	50.0			50.0	ug/L		100	(75%-120%)		
Cobalt	50.0			46.7	ug/L		93	(82%-114%)		
Copper	50.0			46.8	ug/L		94	(82%-128%)		
Iron	1000			983	ug/L		98	(63%-158%)		
Lead	50.0			45.3	ug/L		91	(80%-120%)		
Manganese	50.0			47.7	ug/L		95	(80%-118%)		
Nickel	50.0			46.0	ug/L		92	(86%-118%)		
Selenium	50.0			49.3	ug/L		99	(66%-130%)		
Silver	50.0			53.4	ug/L		107	(47%-158%)		
Strontium	50.0			47.7	ug/L		95	(95%-110%)		
Thallium	50.0			23.9	ug/L		48	(29%-158%)		
Vanadium	50.0			47.1	ug/L		94	(79%-116%)		
Zinc	50.0			46.6	ug/L		93	(62%-151%)		
QC1000128081 MB										
Antimony			U	ND	ug/L					11/30/00 14:26
Arsenic			U	ND	ug/L					11/29/00 04:29
Barium			U	ND	ug/L					11/30/00 14:26
Beryllium			U	ND	ug/L					11/29/00 04:29
Cadmium			U	ND	ug/L					
Chromium			J	0.830	ug/L					
Cobalt			U	ND	ug/L					
Copper			U	ND	ug/L					
Iron			U	ND	ug/L					
Lead			U	ND	ug/L					
Manganese			J	3.31	ug/L					
Nickel			J	0.090	ug/L					
Selenium			U	ND	ug/L					
Silver			J	0.472	ug/L					
Strontium			U	ND	ug/L					
Thallium			U	ND	ug/L					
Vanadium			J	0.387	ug/L					
Zinc			U	ND	ug/L					
QC1000128490 33818001 MS										
Antimony	50.0	J	0.139	69.0	ug/L		138*	(88%-115%)		11/30/00 14:58
Arsenic	50.0	J	1.44	49.2	ug/L		96	(85%-121%)		11/29/00 05:01
Barium	50.0		37.5	91.2	ug/L		107	(88%-113%)		11/30/00 14:58
Beryllium	50.0		0.715	62.0	ug/L		122*	(83%-120%)		11/29/00 05:01
Cadmium	50.0	U	ND	50.8	ug/L		102	(87%-115%)		
Chromium	50.0	J	2.82	51.8	ug/L		98	(83%-121%)		
Cobalt	50.0		3.81	52.3	ug/L		97	(80%-123%)		
Copper	50.0	U	ND	49.5	ug/L		99	(81%-126%)		
Iron	1000		16900	17900	ug/L		N/A	(63%-158%)		
Lead	50.0	U	ND	48.3	ug/L		97	(85%-116%)		

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICPMS										
Batch 53133										
Manganese	50.0	246		293	ug/L		N/A	(80%-118%)		
Nickel	50.0	5.11		52.9	ug/L		96	(74%-128%)		
Selenium	50.0	J 0.505		50.0	ug/L		99	(82%-118%)		
Silver	50.0	J 0.401		57.8	ug/L		115	(81%-126%)		
Strontium	50.0	226		272	ug/L		N/A	(95%-110%)		
Thallium	50.0	J 0.225		26.2	ug/L		52*	(85%-117%)		
Vanadium	50.0	J 1.90		49.0	ug/L		94	(83%-125%)		
Zinc	50.0	11.7		59.0	ug/L		94	(74%-129%)		
QC1000128491 33818001 MSD										
Antimony	50.0	J 0.139		69.4	ug/L	1	139	(0%-20%)		11/30/00 15:06
Arsenic	50.0	J 1.44		49.2	ug/L	0	96	(0%-14%)		11/29/00 05:09
Barium	50.0	37.5		92.4	ug/L	1	110	(0%-14%)		11/30/00 15:06
Beryllium	50.0	0.715		61.6	ug/L	1	122	(0%-10%)		11/29/00 05:09
Cadmium	50.0	U ND		50.3	ug/L	1	101	(0%-13%)		
Chromium	50.0	J 2.82		51.1	ug/L	1	97	(0%-13%)		
Cobalt	50.0	3.81		52.3	ug/L	0	97	(0%-10%)		
Copper	50.0	U ND		48.0	ug/L	3	96	(0%-9%)		
Iron	1000	16900		17800	ug/L	1	N/A	(0%-20%)		
Lead	50.0	U ND		48.3	ug/L	0	97	(0%-11%)		
Manganese	50.0	246		289	ug/L	1	N/A	(0%-20%)		
Nickel	50.0	5.11		52.5	ug/L	1	95	(0%-10%)		
Selenium	50.0	J 0.505		47.2	ug/L	6	93	(0%-13%)		
Silver	50.0	J 0.401		57.4	ug/L	1	114	(0%-9%)		
Strontium	50.0	226		269	ug/L	1	N/A	(0%-20%)		
Thallium	50.0	J 0.225		26.8	ug/L	2	53	(0%-7%)		
Vanadium	50.0	J 1.90		48.4	ug/L	1	93	(0%-9%)		
Zinc	50.0	11.7		56.9	ug/L	3	90	(0%-12%)		
QC1000128489 33818001 SDILT										
Antimony		J 0.139	U	ND	ug/L	N/A				11/30/00 14:50
Arsenic		J 1.44	J	0.336	ug/L	16.7				11/29/00 04:53
Barium		37.5		7.26	ug/L	3.17				11/30/00 14:50
Beryllium		0.715	J	0.137	ug/L	4.2				11/29/00 04:53
Cadmium		U ND	U	ND	ug/L	N/A	N/A			
Chromium		J 2.82	J	0.749	ug/L	32.7				
Cobalt		3.81	J	0.702	ug/L	7.92				
Copper		U ND	U	ND	ug/L	N/A	N/A			
Iron		16900		3380	ug/L	.207				
Lead		U ND	J	0.088	ug/L	N/A				
Manganese		246		49.0	ug/L	.305				
Nickel		5.11	J	1.18	ug/L	15.8				
Selenium		J 0.505	J	0.289	ug/L	186				
Silver		J 0.401	J	0.372	ug/L	364				
Strontium		226		45.3	ug/L	.466				
Thallium		J 0.225	U	ND	ug/L	N/A				
Vanadium		J 1.90	U	ND	ug/L	N/A				
Zinc		11.7	J	4.98	ug/L	112				
Micro-biology										
Batch 52537										

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QC Summary

Workorder: 33818

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Micro-biology											
Batch 52537											
QC1000127129 33752001 DUP											
BOD, 5 DAY		J	1.93	J	1.98	mg/L	N/A ^		(+/-2.00)	ES	11/08/00 08:07
QC1000127674 33802001 DUP											
BOD, 5 DAY			191		187	mg/L	2 ^		(+/-60.0)		11/08/00 13:24
QC1000127127 LCS											
BOD, 5 DAY	198				205	mg/L		104	(85%-115%)		11/08/00 07:25
QC1000127125 MB											
BOD, 5 DAY				U	ND	mg/L					
QC1000127126 SEED											
BOD, 5 DAY				U	ND	mg/L					
Rad Alpha Spec											
Batch 52969											
QC1000128360 33337001 DUP											
Uranium-233/234		U	0.0499 +/-0.223	U	0.0578 +/-0.111	pCi/L	15 ^		(+/-30.0)	TOH2	11/20/00 08:16
Uranium-235/236		U	-0.0901 +/-0.0611	U	0.0107 +/-0.0826	pCi/L	N/A ^		(+/-30.0)		
Uranium-238		U	-0.03 +/-0.0348	U	0.0669 +/-0.109	pCi/L	N/A ^		(+/-30.0)		
QC1000128362 LCS											
Uranium-233/234					4.40 +/-0.742	pCi/L			(75%-125%)		
Uranium-235/236					0.292 +/-0.141	pCi/L			(75%-125%)		
Uranium-238	4.51				5.03 +/-0.821	pCi/L		112	(75%-125%)		
QC1000128359 MB											
Uranium-233/234				U	0.0635 +/-0.0605	pCi/L					
Uranium-235/236				U	0.000535 +/-0.0297	pCi/L					
Uranium-238				U	0.024 +/-0.0485	pCi/L					
QC1000128361 33337001 MS											
Uranium-233/234		U	0.0499 +/-0.223		11.5 +/-1.94	pCi/L			(75%-125%)		
Uranium-235/236		U	-0.0901 +/-0.0611		0.649 +/-0.335	pCi/L			(75%-125%)		
Uranium-238	11.3	U	-0.03 +/-0.0348		10.2 +/-1.78	pCi/L		90	(75%-125%)		
Rad Gas Flow											
Batch 53197											
QC1000128940 33934002 DUP											
Radium-228		U	0.828 +/-0.969	U	0.475 +/-0.888	pCi/L	0 ^		(+/-1.50)	JDM	11/21/00 11:54
QC1000129426 33934001 DUP											
Radium-228		U	0.431 +/-0.968	U	-0.0072 +/-1.10	pCi/L	N/A ^		(+/-1.50)		
QC1000128942 LCS											

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 53197										
Radium-228	37.2			29.2 +/-2.14	pCi/L		79	(75%-125%)		
QC1000128939 MB										
Radium-228			U	0.391 +/-0.735	pCi/L					
QC1000128941 33934002 MS										
Radium-228	190 U	0.828 +/-0.969		168 +/-13.2	pCi/L		88	(75%-125%)		
Batch 53360										
QC1000129371 33804006 DUP										
Alpha		2.61 +/-0.956	U	1.32 +/-1.09	pCi/L	66 ^		(+/-1.50)	JEN	11/16/00 16:39
Beta		2.04 +/-0.900		4.99 +/-1.27	pCi/L	84* ^		(+/-2.00)		
QC1000129373 LCS										
Alpha	47.5			58.7 +/-8.48	pCi/L		123	(75%-125%)		11/16/00 14:41
Beta	177			199 +/-12.0	pCi/L		112	(75%-125%)		
QC1000129370 MB										
Alpha			U	-0.0575 +/-0.261	pCi/L					11/16/00 16:38
Beta			U	0.486 +/-0.794	pCi/L					
QC1000129372 33804006 MS										
Alpha	47.5	2.61 +/-0.956		43.4 +/-9.02	pCi/L		86	(75%-125%)		11/21/00 12:05
Beta	177	2.04 +/-0.900		188 +/-12.0	pCi/L		105	(75%-125%)		
Rad Liquid Scint										
Batch 52831										
QC1000127920 33891004 DUP										
Radon-222	U	44.0 +/-33.5	U	7.00 +/-32.6	pCi/L	0 ^		(+/-200)	HOB1	11/11/00 08:27
QC1000127921 33891005 DUP										
Radon-222		257 +/-42.7		204 +/-41.6	pCi/L	23 ^		(+/-200)		11/11/00 08:59
QC1000127923 LCS										
Radon-222	62200			52100 +/-1020	pCi/L		84	(75%-125%)		11/13/00 12:22
QC1000127919 MB										
Radon-222			U	-4.7 +/-21.6	pCi/L					11/11/00 07:56
QC1000127922 33891005 MS										
Radon-222	62200	257 +/-42.7		62400 +/-1230	pCi/L		100	(75%-125%)		11/13/00 12:16
Rad Radium-226										
Batch 52840										

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QC Summary

Workorder: 33818

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Radium-226											
Batch 52840											
QC1000127957 33818002 DUP											
Radium-226			17.2 +/-1.92		17.0 +/-2.01	pCi/L	1		(0%-20%)	GRR1	11/16/00 13:50
QC1000127958 33636005 DUP											
Radium-226		J	0.755 +/-0.472		0.957 +/-0.620	pCi/L	24 ^		(+/-0.300)		11/16/00 14:30
QC1000127961 LCS											
Radium-226	22.1				21.1 +/-2.68	pCi/L		96	(75%-125%)		11/16/00 16:05
QC1000127956 MB											
Radium-226				U	0.252 +/-0.190	pCi/L					11/16/00 15:00
QC1000127959 33636005 MS											
Radium-226	44.2	J	0.755 +/-0.472		40.7 +/-5.40	pCi/L		91	(75%-125%)		11/16/00 15:45
QC1000127960 33636005 MSD											
Radium-226	44.2	J	0.755 +/-0.472		40.3 +/-5.99	pCi/L		90			11/16/00 15:00
Rapid Flow Analysis (Alpkem)											
Batch 53491											
QC1000129099 33839001 DUP											
Cyanide, Total					694	ug/L	N/A		(0%-20%)	ADF	11/27/00 16:48
QC1000129101 33885001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A	N/A	(+/-5.00)		11/22/00 13:23
QC1000129098 LCS											
Cyanide, Total	100				112	ug/L		112	(75%-132%)		11/22/00 10:39
QC1000129097 MB											
Cyanide, Total				U	ND	ug/L					11/22/00 10:37
QC1000129100 33839001 MS											
Cyanide, Total	100				1620	ug/L		834*	(75%-125%)		11/27/00 16:50
QC1000129102 33885001 MS											
Cyanide, Total	100	U	ND		75.9	ug/L		74*	(75%-125%)		11/29/00 13:24
Semi-Volatiles-GC/MS											
Batch 53138											
QC1000128197 LCS											
1,2,4-Trichlorobenzene	50.0				40.1	ug/L		80	(47%-106%)	JPA	11/14/00 22:31
1,4-Dichlorobenzene	50.0				40.0	ug/L		80	(44%-98%)		
2,4,5-Trichlorophenol	100				83.0	ug/L		83	(55%-108%)		
2,4,6-Trichlorophenol	100				76.7	ug/L		77	(48%-106%)		
2,4-Dinitrotoluene	50.0				45.0	ug/L		90	(62%-115%)		
2-Chlorophenol	100				68.2	ug/L		68	(42%-92%)		
4-Chloro-3-methylphenol	100				74.0	ug/L		74	(52%-104%)		
4-Nitrophenol	100				33.1	ug/L		33	(10%-61%)		
Acenaphthene	50.0				36.8	ug/L		74	(52%-100%)		
Hexachlorobenzene	50.0				45.3	ug/L		91	(66%-114%)		
Hexachlorobutadiene	50.0				36.6	ug/L		73	(41%-107%)		
Hexachloroethane	50.0				39.1	ug/L		78	(41%-99%)		
N-Nitrosodipropylamine	50.0				39.4	ug/L		79	(45%-102%)		
Nitrobenzene	50.0				38.0	ug/L		76	(45%-100%)		

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Pentachlorophenol	100			84.9	ug/L		85	(50%-110%)		
Phenol	100			31.8	ug/L		32	(18%-45%)		
Pyrene	50.0			40.0	ug/L		80	(56%-114%)		
m,p-Cresols	100			63.3	ug/L		63	(37%-85%)		
o-Cresol	100			66.8	ug/L		67	(33%-91%)		
**2,4,6-Tribromophenol	100			81.3	ug/L		81	(30%-116%)		
**2-Fluorobiphenyl	50.0			40.8	ug/L		82	(29%-106%)		
**2-Fluorophenol	100			52.5	ug/L		53	(23%-71%)		
**Nitrobenzene-d5	50.0			44.3	ug/L		89	(25%-105%)		
**Phenol-d5	100			32.8	ug/L		33	(10%-50%)		
**p-Terphenyl-d14	50.0			42.7	ug/L		85	(18%-125%)		
QC1000128196 MB										
1,2,4-Trichlorobenzene			U	ND	ug/L					11/14/00 22:01
1,2-Dichlorobenzene			U	ND	ug/L					
1,3-Dichlorobenzene			U	ND	ug/L					
1,4-Dichlorobenzene			U	ND	ug/L					
2,4,5-Trichlorophenol			U	ND	ug/L					
2,4,6-Trichlorophenol			U	ND	ug/L					
2,4-Dichlorophenol			U	ND	ug/L					
2,4-Dimethylphenol			U	ND	ug/L					
2,4-Dinitrophenol			U	ND	ug/L					
2,4-Dinitrotoluene			U	ND	ug/L					
2,6-Dinitrotoluene			U	ND	ug/L					
2-Chloronaphthalene			U	ND	ug/L					
2-Chlorophenol			U	ND	ug/L					
2-Methyl-4,6-dinitrophenol			U	ND	ug/L					
2-Methylnaphthalene			U	ND	ug/L					
2-Nitrophenol			U	ND	ug/L					
3,3'-Dichlorobenzidine			U	ND	ug/L					
4-Bromophenylphenylether			U	ND	ug/L					
4-Chloro-3-methylphenol			U	ND	ug/L					
4-Chloroaniline			U	ND	ug/L					
4-Chlorophenylphenylether			U	ND	ug/L					
4-Nitrophenol			U	ND	ug/L					
Acenaphthene			U	ND	ug/L					
Acenaphthylene			U	ND	ug/L					
Anthracene			U	ND	ug/L					
Benzo(a)anthracene			U	ND	ug/L					
Benzo(a)pyrene			U	ND	ug/L					
Benzo(b)fluoranthene			U	ND	ug/L					
Benzo(ghi)perylene			U	ND	ug/L					
Benzo(k)fluoranthene			U	ND	ug/L					
Butylbenzylphthalate			U	ND	ug/L					
Carbazole			U	ND	ug/L					
Chrysene			U	ND	ug/L					
Di-n-butylphthalate			U	ND	ug/L					
Di-n-octylphthalate			U	ND	ug/L					
Dibenzo(a,h)anthracene			U	ND	ug/L					

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Dibenzofuran			U	ND	ug/L					
Diethylphthalate			U	ND	ug/L					
Dimethylphthalate			U	ND	ug/L					
Diphenylamine			U	ND	ug/L					
Fluoranthene			U	ND	ug/L					
Fluorene			U	ND	ug/L					
Hexachlorobenzene			U	ND	ug/L					
Hexachlorobutadiene			U	ND	ug/L					
Hexachlorocyclopentadiene			U	ND	ug/L					
Hexachloroethane			U	ND	ug/L					
Indeno(1,2,3-cd)pyrene			U	ND	ug/L					
Isophorone			U	ND	ug/L					
N-Nitrosodipropylamine			U	ND	ug/L					
Naphthalene			U	ND	ug/L					
Nitrobenzene			U	ND	ug/L					
Pentachlorophenol			U	ND	ug/L					
Phenanthrene			U	ND	ug/L					
Phenol			U	ND	ug/L					
Pyrene			U	ND	ug/L					
bis(2-Chloroethoxy)methane			U	ND	ug/L					
bis(2-Chloroethyl) ether			U	ND	ug/L					
bis(2-Chloroisopropyl)ether			U	ND	ug/L					
bis(2-Ethylhexyl)phthalate			U	ND	ug/L					
m,p-Cresols			U	ND	ug/L					
m-Nitroaniline			U	ND	ug/L					
o-Cresol			U	ND	ug/L					
o-Nitroaniline			U	ND	ug/L					
p-Nitroaniline			U	ND	ug/L					
**2,4,6-Tribromophenol	100			68.8	ug/L		69	(30%-116%)		
**2-Fluorobiphenyl	50.0			34.0	ug/L		68	(29%-106%)		
**2-Fluorophenol	100			41.3	ug/L		41	(23%-71%)		
**Nitrobenzene-d5	50.0			35.9	ug/L		72	(25%-105%)		
**Phenol-d5	100			26.8	ug/L		27	(10%-50%)		
**p-Terphenyl-d14	50.0			43.1	ug/L		86	(18%-125%)		
QC1000128198 33818001 MS										
1,2,4-Trichlorobenzene	100	U	ND	67.0	ug/L		67	(27%-87%)		11/14/00 23:02
1,4-Dichlorobenzene	100	U	ND	64.3	ug/L		64	(29%-80%)		
2,4,5-Trichlorophenol		U	ND U	ND	ug/L		N/A			
2,4,6-Trichlorophenol		U	ND U	ND	ug/L		N/A			
2,4-Dinitrotoluene	100	U	ND	77.7	ug/L		78	(29%-92%)		
2-Chlorophenol	200	U	ND	123	ug/L		61	(31%-81%)		
4-Chloro-3-methylphenol	200	U	ND	142	ug/L		71	(31%-91%)		
4-Nitrophenol	200	U	ND	90.3	ug/L		45	(10%-85%)		
Acenaphthene	100	U	ND	72.1	ug/L		72	(28%-91%)		
Hexachlorobenzene		U	ND U	ND	ug/L		N/A			
Hexachlorobutadiene		U	ND U	ND	ug/L		N/A			
Hexachloroethane		U	ND U	ND	ug/L		N/A			
N-Nitrosodipropylamine	100	U	ND	71.6	ug/L		72	(26%-94%)		

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-GC/MS										
Batch 53138										
Nitrobenzene		U	ND	U	ND	ug/L		N/A		
Pentachlorophenol	200	U	ND		169	ug/L		85	(24%-103%)	
Phenol	200	U	ND		83.4	ug/L		42	(10%-58%)	
Pyrene	100	U	ND		86.7	ug/L		87	(34%-111%)	
m,p-Cresols		U	ND	U	ND	ug/L		N/A		
o-Cresol		U	ND	U	ND	ug/L		N/A		
**2,4,6-Tribromophenol	200		65.1		160	ug/L		80	(30%-116%)	
**2-Fluorobiphenyl	100		36.6		76.4	ug/L		76	(29%-106%)	
**2-Fluorophenol	200		44.2		122	ug/L		61	(23%-71%)	
**Nitrobenzene-d5	100		39.3		78.6	ug/L		79	(25%-105%)	
**Phenol-d5	200		28.6		97.0	ug/L		49	(10%-50%)	
**p-Terphenyl-d14	100		42.9		92.0	ug/L		92	(18%-125%)	
QC1000128199 33818001 MSD										
1,2,4-Trichlorobenzene	100	U	ND		68.1	ug/L	2	68	(0%-32%)	11/14/00 23:32
1,4-Dichlorobenzene	100	U	ND		63.4	ug/L	1	63	(0%-30%)	
2,4,5-Trichlorophenol		U	ND	U	ND	ug/L		N/A		
2,4,6-Trichlorophenol		U	ND	U	ND	ug/L		N/A		
2,4-Dinitrotoluene	100	U	ND		75.5	ug/L	3	76	(0%-27%)	
2-Chlorophenol	200	U	ND		121	ug/L	1	61	(0%-30%)	
4-Chloro-3-methylphenol	200	U	ND		137	ug/L	4	68	(0%-31%)	
4-Nitrophenol	200	U	ND		80.3	ug/L	12	40	(0%-32%)	
Acenaphthene	100	U	ND		72.3	ug/L	0	72	(0%-28%)	
Hexachlorobenzene		U	ND	U	ND	ug/L		N/A		
Hexachlorobutadiene		U	ND	U	ND	ug/L		N/A		
Hexachloroethane		U	ND	U	ND	ug/L		N/A		
N-Nitrosodipropylamine	100	U	ND		69.6	ug/L	3	70	(0%-30%)	
Nitrobenzene		U	ND	U	ND	ug/L		N/A		
Pentachlorophenol	200	U	ND		159	ug/L	6	80	(0%-29%)	
Phenol	200	U	ND		82.6	ug/L	1	41	(0%-31%)	
Pyrene	100	U	ND		84.7	ug/L	2	85	(0%-28%)	
m,p-Cresols		U	ND	U	ND	ug/L		N/A		
o-Cresol		U	ND	U	ND	ug/L		N/A		
**2,4,6-Tribromophenol	200		65.1		149	ug/L		75	(30%-116%)	
**2-Fluorobiphenyl	100		36.6		76.6	ug/L		77	(29%-106%)	
**2-Fluorophenol	200		44.2		121	ug/L		60	(23%-71%)	
**Nitrobenzene-d5	100		39.3		77.3	ug/L		77	(25%-105%)	
**Phenol-d5	200		28.6		94.8	ug/L		47	(10%-50%)	
**p-Terphenyl-d14	100		42.9		88.4	ug/L		88	(18%-125%)	
Solids Analysis										
Batch 52689										
QC1000127549 33741002 DUP										
Total Suspended Solids			34.9		36.3	mg/L	4 ^		(+/-7.14)	TSM 11/10/00 08:44
QC1000127550 33818002 DUP										
Total Suspended Solids		U	ND	U	ND	mg/L	N/A	N/A	(+/-5.00)	
QC1000127547 LCS										
Total Suspended Solids	500				496	mg/L		99	(95%-105%)	
QC1000127548 LCSD										
Total Suspended Solids	500				504	mg/L	2	101	(0%-20%)	

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QC Summary

Workorder: 33818

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Solids Analysis											
Batch 52689											
QC1000127546 MB											
Total Suspended Solids				U	ND	mg/L					
Batch 52693											
QC1000127555 33818001 DUP											
Total Dissolved Solids			103		101	mg/L	2		(0%-18%)	TSM	11/10/00 12:12
QC1000127554 LCS											
Total Dissolved Solids	300				299	mg/L		100	(84%-115%)		
QC1000127553 MB											
Total Dissolved Solids				U	ND	mg/L					
Spectrometric Analysis											
Batch 52641											
QC1000127431 33818001 DUP											
Hexavalent Chromium		U	ND	J	0.003	mg/L	N/A		(+/-0.010)	AAT	11/08/00 16:45
QC1000127426 LCS											
Hexavalent Chromium	0.100				0.100	mg/L		100	(84%-116%)		
QC1000127425 MB											
Hexavalent Chromium				U	ND	mg/L					
QC1000127432 33818001 PS											
Hexavalent Chromium	0.100	U	ND	U	ND	mg/L		N/A	(85%-115%)		
Batch 53748											
QC1000130561 33818001 DUP											
COD		U	ND	U	ND	mg/L	N/A	N/A	(+/-5.00)	MOJ1	11/16/00 14:30
QC1000130563 33867003 DUP											
COD		J	1.43	U	ND	mg/L	N/A ^		(+/-5.00)		
QC1000130560 LCS											
COD	75.0				72.5	mg/L		97	(83%-111%)		
QC1000130559 MB											
COD				J	2.13	mg/L					
QC1000130562 33818001 PS											
COD	75.0	U	ND		76.8	mg/L		102	(70%-130%)		
QC1000130564 33867003 PS											
COD	75.0	J	1.43		81.3	mg/L		107	(70%-130%)		
TOC Analysis											
Batch 54333											
QC1000132309 34031001 DUP											
Total Organic Carbon			10.7		11.1	mg/L	4		(0%-25%)	MS1	11/20/00 21:05
QC1000132306 LCS											
Total Organic Carbon	10.0				8.93	mg/L		89	(85%-115%)		11/21/00 05:17
QC1000132305 MB											
Total Organic Carbon				U	ND	mg/L					11/21/00 05:01
QC1000132307 34031001 PS											
Total Organic Carbon	10.0		10.7		21.9	mg/L		112	(77%-127%)		11/20/00 21:21
Batch 54514											
QC1000132899 33818004 DUP											
Diss. Org. Carbon			4.08		4.10	mg/L	0		(0%-25%)	MS1	11/27/00 22:17
QC1000132896 LCS											
Diss. Org. Carbon	10.0				8.93	mg/L		89	(85%-115%)		11/28/00 02:42
QC1000132895 MB											
Diss. Org. Carbon				U	ND	mg/L					11/28/00 02:34

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QC Summary

Workorder: 33818

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
TOC Analysis											
Batch 54514											
QC1000132897 33818004 PS											
Diss. Org. Carbon	10.0		4.08		13.9	mg/L		98	(77%-127%)		11/27/00 22:33
TRAACS Nutrient Analysis											
Batch 52883											
QC1000127391 33566002 DUP											
Nitrogen, Ammonia			0.340		0.350	mg/L	3		(0%-20%)	THL	11/13/00 14:21
QC1000127393 33554002 DUP											
Nitrogen, Ammonia			4.17		3.96	mg/L	5		(0%-20%)		
QC1000127390 LCS											
Nitrogen, Ammonia	1.00				0.850	mg/L		85	(63%-121%)		
QC1000127389 MB											
Nitrogen, Ammonia				U	ND	mg/L					
QC1000127392 33566002 MS											
Nitrogen, Ammonia	1.00		0.340		1.32	mg/L		98	(65%-121%)		
QC1000127394 33554002 MS											
Nitrogen, Ammonia	1.00		4.17		4.89	mg/L		N/A	(65%-121%)		
Batch 52887											
QC1000127623 33387001 DUP											
Phosphorus, Total as PO4		J	0.040	J	0.030	mg/L	N/A ^		(+/-0.050)	THL	11/10/00 13:43
QC1000127622 LCS											
Phosphorus, Total as PO4	1.00				0.880	mg/L		88	(66%-125%)		
QC1000127621 MB											
Phosphorus, Total as PO4				J	0.030	mg/L					
QC1000127624 33387001 MS											
Phosphorus, Total as PO4	1.00	J	0.040		0.860	mg/L		82	(70%-130%)		
Titration Analysis											
Batch 53180											
QC1000128905 33841001 DUP											
Alkalinity, Total as CaCO3			21.6		21.6	mg/L	0		(0%-30%)	MOJ1	11/13/00 08:20
Bicarbonate alkalinity (CaCO3)			21.6		21.6	mg/L	0		(0%-30%)		
Hydroxide alkalinity as CaCO3		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
QC1000128907 33936003 DUP											
Alkalinity, Total as CaCO3			13.7		13.7	mg/L	0		(0%-30%)		
Bicarbonate alkalinity (CaCO3)			13.7		13.7	mg/L	0		(0%-30%)		
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
Hydroxide alkalinity as CaCO3		U	ND	U	ND	mg/L	N/A	N/A	(+/-2.00)		
QC1000128904 LCS											
Alkalinity, Total as CaCO3	1000				960	mg/L		96	(80%-120%)		
QC1000128906 33841001 MS											
Alkalinity, Total as CaCO3	100		21.6		117	mg/L		95	(80%-120%)		
QC1000128908 33936003 MS											
Alkalinity, Total as CaCO3	100		13.7		108	mg/L		94	(80%-120%)		
Volatile Organics											
Batch 53093											
QC1000128663 LCS											
1,1-Dichloroethylene	50.0				55.5	ug/L		111	(74%-139%)	JEB	11/10/00 12:47
Benzene	50.0				46.5	ug/L		93	(79%-119%)		
Chlorobenzene	50.0				43.9	ug/L		88	(79%-120%)		

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile Organics										
Batch 53093										
Toluene	50.0			42.4	ug/L		85	(74%-115%)		
Trichloroethylene	50.0			47.6	ug/L		95	(81%-132%)		
**Bromofluorobenzene	50.0			38.2	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0			36.0	ug/L		72	(66%-130%)		
**Toluene-d8	50.0			34.1	ug/L		68	(64%-130%)		
QC1000128662 MB										
1,1,1-Trichloroethane			U	ND	ug/L					11/10/00 13:47
1,1,2,2-Tetrachloroethane			U	ND	ug/L					
1,1,2-Trichloroethane			U	ND	ug/L					
1,1-Dichloroethane			U	ND	ug/L					
1,1-Dichloroethylene			U	ND	ug/L					
1,2-Dichloroethane			U	ND	ug/L					
1,2-Dichloroethylene (total)			U	ND	ug/L					
1,2-Dichloropropane			U	ND	ug/L					
2-Butanone			U	ND	ug/L					
2-Hexanone			U	ND	ug/L					
4-Methyl-2-pentanone			U	ND	ug/L					
Acetone			J	0.580	ug/L					
Benzene			U	ND	ug/L					
Bromodichloromethane			U	ND	ug/L					
Bromoform			U	ND	ug/L					
Bromomethane			U	ND	ug/L					
Carbon disulfide			U	ND	ug/L					
Carbon tetrachloride			U	ND	ug/L					
Chlorobenzene			U	ND	ug/L					
Chloroethane			U	ND	ug/L					
Chloroform			U	ND	ug/L					
Chloromethane			U	ND	ug/L					
Dibromochloromethane			U	ND	ug/L					
Ethylbenzene			U	ND	ug/L					
Methylene chloride			U	ND	ug/L					
Styrene			U	ND	ug/L					
Tetrachloroethylene			U	ND	ug/L					
Toluene			U	ND	ug/L					
Trichloroethylene			U	ND	ug/L					
Vinyl acetate			U	ND	ug/L					
Vinyl chloride			U	ND	ug/L					
Xylenes (total)			U	ND	ug/L					
cis-1,2-Dichloroethylene			U	ND	ug/L					
cis-1,3-Dichloropropylene			U	ND	ug/L					
trans-1,2-Dichloroethylene			U	ND	ug/L					
trans-1,3-Dichloropropylene			U	ND	ug/L					
**Bromofluorobenzene	50.0			38.2	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0			36.7	ug/L		73	(66%-130%)		
**Toluene-d8	50.0			34.9	ug/L		70	(64%-130%)		
QC1000128664 33619007 PS										
1,1-Dichloroethylene	50.0			53.2	ug/L		106	(71%-135%)		11/11/00 07:46
Benzene	50.0	U	ND	44.2	ug/L		88	(76%-124%)		

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QC Summary

Workorder: 33818

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile Organics										
Batch 53093										
Chlorobenzene	50.0			41.3	ug/L		83	(76%-120%)		
Toluene	50.0	U	ND	38.5	ug/L		77	(69%-120%)		
Trichloroethylene	50.0			44.4	ug/L		89	(75%-129%)		
**Bromofluorobenzene	50.0		38.1	36.9	ug/L		74	(59%-129%)		
**Dibromofluoromethane	50.0		37.3	38.7	ug/L		77	(66%-130%)		
**Toluene-d8	50.0		34.1	33.3	ug/L		67	(64%-130%)		
QC1000128665 33619007 PSD										
1,1-Dichloroethylene	50.0			52.3	ug/L	2	105	(0%-23%)		11/11/00 08:16
Benzene	50.0	U	ND	44.3	ug/L	0	89	(0%-17%)		
Chlorobenzene	50.0			40.8	ug/L	1	82	(0%-21%)		
Toluene	50.0	U	ND	38.9	ug/L	1	78	(0%-22%)		
Trichloroethylene	50.0			44.4	ug/L	0	89	(0%-20%)		
**Bromofluorobenzene	50.0		38.1	38.0	ug/L		76	(59%-129%)		
**Dibromofluoromethane	50.0		37.3	38.6	ug/L		77	(66%-130%)		
**Toluene-d8	50.0		34.1	33.6	ug/L		67	(64%-130%)		
Wet Chemistry General										
Batch 52632										
QC1000127399 33818001 DUP										
Turbidity			1.07	1.16	NTU	8		(0%-18%)	MOJ1	11/08/00 16:30
QC1000127398 LCS										
Turbidity	10.0			11.2	NTU		112	(83%-112%)		
QC1000127397 MB										
Turbidity			U	ND	NTU					
Batch 52634										
QC1000127403 33818001 DUP										
Color			5.00	5.00	PCU	0 ^		(+/-5.00)	MOJ1	11/08/00 17:20
QC1000127402 LCS										
Color	35.0			35.0	PCU		100	(80%-120%)		
QC1000127401 MB										
Color			U	ND	PCU					

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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PARADIGM ANALYTICAL LABORATORIES, INC.
2627 Northchase Parkway S.E.
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

Monday, November 20, 2000

Mr. Sam Watson
Delta Environmental Consultants, Inc.
6701 Carmel Drive
Suite 303
Charlotte, NC 28226-3901

Dear Mr. Watson:

Enclosed are the final results for the samples received by Paradigm Analytical Laboratories, Inc. on November 10, 2000 under your **Project Name "E096-007-5.0040"**. The samples were analyzed by Method **1613** following Paradigm's Standard Operating Procedures.

A full data package has been provided.

No. of Samples Received:	**7 Waters**
No. of Samples Analyzed:	**7**
No. of Lab. Method Blanks:	**1**
No. of OPRs:	**1**
Your Project Number:	**E096-007-5.0040**
PAL Project No.:	**G129-306**

Remarks:

- **Data meet QA/QC requirements.**
- **Although limited sample was available for ID 99392, the Method 1613 detection limit criteria have been met.**

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

Sincerely,

Martha M. Maier
Senior Chemist

Table of Contents

Section 1: Cover Letter

Contains a brief description of the project, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, a summary table of sample results and quality control (QC) summary.

Section 2: Analytical Results

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

Section 3: Project Information

Contains the sample login summary, sample receipt checklist, original chain-of-custody(s), and any other project tracking information.

Section 4: Sample Preparation Documentation

Contains information related to sample processing. This can include copies from extraction, cleanup, dry weight logbooks. These logbooks contain information such as spiking standard concentrations, amounts, initial weights and volumes, dates, and solution lot numbers.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information.

Section 6: Continuing Calibration Data

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

Table 1. Concentration in ppt

Analyte	LMB	LF-01	LF-01A	LF-10	LF-11	LF-08	LF-12
	WG5101-1	99386	99387	99388	99389	99390	99391
2,3,7,8-TCDD	(0.0011)	(0.0008)	(0.0010)	(0.0021)	(0.0036)	(0.0032)	(0.0027)
1,2,3,7,8-PeCDD	(0.0012)	0.0034	(0.0010)	(0.0012)	(0.0017)	(0.0010)	(0.0014)
1,2,3,4,7,8-HxCDD	(0.0015)	0.0040	(0.0024)	(0.0031)	(0.0017)	(0.0021)	(0.0018)
1,2,3,6,7,8-HxCDD	(0.0018)	[0.00597]	(0.0029)	(0.0037)	(0.0020)	(0.0025)	(0.0021)
1,2,3,7,8,9-HxCDD	(0.0015)	0.0044	(0.0024)	(0.0031)	(0.0017)	(0.0021)	(0.0018)
1,2,3,4,6,7,8-HpCDD	(0.0019)	0.0307	(0.0014)	0.0449	0.0074	(0.0024)	0.0032
OCDD	[0.00462]	0.0748	0.0046	1.06	0.199	(0.0119)	0.0453
2,3,7,8-TCDF	(0.0011)	(0.0014)	(0.0011)	(0.0013)	(0.0022)	(0.0017)	(0.0021)
1,2,3,7,8-PeCDF	(0.0009)	(0.0029)	(0.0007)	(0.0009)	(0.0012)	(0.0009)	(0.0011)
2,3,4,7,8-PeCDF	(0.0008)	0.0017	(0.0007)	(0.0008)	(0.0011)	(0.0008)	(0.0010)
1,2,3,4,7,8-HxCDF	(0.0011)	0.0095	(0.0011)	(0.0014)	(0.0012)	(0.0013)	(0.0013)
1,2,3,6,7,8-HxCDF	(0.0011)	0.0110	(0.0011)	(0.0014)	(0.0012)	(0.0013)	(0.0013)
2,3,4,6,7,8-HxCDF	(0.0012)	0.0094	(0.0013)	(0.0016)	(0.0015)	(0.0015)	(0.0017)
1,2,3,7,8,9-HxCDF	(0.0014)	0.0048	(0.0014)	(0.0018)	(0.0016)	(0.0017)	(0.0017)
1,2,3,4,6,7,8-HpCDF	(0.0012)	0.0400	(0.0011)	(0.0012)	(0.0014)	(0.0013)	[0.00252]
1,2,3,4,7,8,9-HpCDF	(0.0016)	0.0202	(0.0015)	(0.0015)	(0.0018)	(0.0018)	(0.0022)
OCDF	(0.0040)	0.0674	(0.0034)	(0.0040)	(0.0056)	(0.0068)	(0.0049)
Total TCDDs	(0.0011)	(0.0029)	(0.0010)	(0.0021)	(0.0036)	(0.0032)	(0.0027)
Total PeCDDs	(0.0038)	0.0034	(0.0036)	[0.00257]	(0.0017)	(0.0035)	(0.0037)
Total HxCDDs	(0.0016)	0.0134	(0.0026)	0.0294	[0.00448]	(0.0022)	(0.0037)
Total HpCDDs	(0.0019)	0.0595	(0.0014)	0.115	0.0196	(0.0024)	0.0063
Total TCDFs	(0.0011)	(0.0014)	(0.0011)	(0.0013)	(0.0022)	(0.0017)	(0.0021)
Total PeCDFs	(0.0009)	0.0064	(0.0007)	(0.0008)	(0.0012)	(0.0009)	(0.0010)
Total HxCDFs	(0.0012)	0.0516	(0.0012)	(0.0015)	(0.0014)	(0.0014)	(0.0015)
Total HpCDFs	(0.0014)	0.0788	(0.0013)	(0.0013)	(0.0016)	(0.0015)	[0.00252]
Total PCDD/Fs	0.0000	0.355	0.0046	1.20	0.219	0.0000	0.0516
TEQ (ND=0)	0.0000	0.0079	0.0000	0.0015	0.0003	0.0000	0.0001
TEQ (ND=½)	0.0016	0.0086	0.0016	0.0040	0.0035	0.0028	0.0027
TEQ w/EMPC (ND=0)	0.0000	0.0100	0.0000	0.0000	0.0000	0.0000	0.0000
TEQ w/EMPC (ND=½)	0.0000	0.0100	0.0000	0.0000	0.0000	0.0000	0.0000

Note:
( ) = ND using DL value.
[ ] = EMPC value.

Table 1. Concentration in ppt

Analyte	LF-09 99392
2,3,7,8-TCDD	(0.0027)
1,2,3,7,8-PeCDD	(0.0020)
1,2,3,4,7,8-HxCDD	(0.0025)
1,2,3,6,7,8-HxCDD	(0.0030)
1,2,3,7,8,9-HxCDD	(0.0025)
1,2,3,4,6,7,8-HpCDD	(0.0053)
OCDD	0.0148
2,3,7,8-TCDF	(0.0028)
1,2,3,7,8-PeCDF	(0.0017)
2,3,4,7,8-PeCDF	(0.0016)
1,2,3,4,7,8-HxCDF	(0.0015)
1,2,3,6,7,8-HxCDF	(0.0016)
2,3,4,6,7,8-HxCDF	(0.0019)
1,2,3,7,8,9-HxCDF	(0.0022)
1,2,3,4,6,7,8-HpCDF	(0.0035)
1,2,3,4,7,8,9-HpCDF	(0.0047)
OCDF	(0.0058)
Total TCDDs	(0.0027)
Total PeCDDs	(0.0060)
Total HxCDDs	(0.0060)
Total HpCDDs	(0.0053)
Total TCDFs	(0.0028)
Total PeCDFs	(0.0017)
Total HxCDFs	(0.0018)
Total HpCDFs	(0.0040)
Total PCDD/Fs	0.0148
TEQ (ND=0)	0.0000
TEQ (ND=½)	0.0033
TEQ w/EMPC (ND=0)	0.0000
TEQ w/EMPC (ND=½)	0.0000

Note:
( ) = ND using DL value.
[ ] = EMPC value.

Table 2: Toxic Equivalency Factors

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

Table 3. List of Qualifiers

A	Amount detected is less than the Calibration Limit
B	Analyte was detected in the LMB at a level above the RL or EDL.
E	Amount detected is over the Method Calibration Limit
DPE	Denotes the presence of possible polychlorinated diphenylethers
EDL	"Estimated Detection Limit"
EMPC	"Estimated Maximum Possible Concentration"
ppt	Parts-per-trillion (pg/g; ng/L)
Q	Indicates the presence of quantitative interferences. They generally result in an underestimation of the affected total homologue groups.
V	Recovery is lower than 40%. The data has been validated based on a favorable signal-to-noise and detection limit.
#	Outside recovery limits
*	See cover letter

Section 2

Analytical Results

Method 1613

LF-01

Delta Environmental Consultants

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0008				
1,2,3,7,8-PeCDD	0.0034			34:07	1.75	A
1,2,3,4,7,8-HxCDD	0.0040			36:42	1.12	A
1,2,3,6,7,8-HxCDD	EMPC	0.0039	0.0060	36:48	1.04	
1,2,3,7,8,9-HxCDD	0.0044			37:01	1.09	A
1,2,3,4,6,7,8-HpCDD	0.0307			40:04	1.15	A
OCDD	0.0748			44:16	0.79	A
2,3,7,8--TCDF	ND	0.0014				
1,2,3,7,8-PeCDF	ND	0.0029				
2,3,4,7,8-PeCDF	0.0017			33:55	1.39	A
1,2,3,4,7,8-HxCDF	0.0095			36:00	1.18	A
1,2,3,6,7,8-HxCDF	0.0110			36:06	1.18	A
2,3,4,6,7,8-HxCDF	0.0094			36:34	1.21	A
1,2,3,7,8,9-HxCDF	0.0048			37:21	1.28	A
1,2,3,4,6,7,8-HpCDF	0.0400			38:49	1.16	A
1,2,3,4,7,8,9-HpCDF	0.0202			40:44	1.16	A
OCDF	0.0674			44:34	0.86	A
Total TCDDs	ND	0.0029				
Total PeCDDs	0.0034					
Total HxCDDs	0.0134		0.0301			
Total HpCDDs	0.0595					
Total TCDFs	ND	0.0014				
Total PeCDFs	0.0064		0.0084			
Total HxCDFs	0.0516					
Total HpCDFs	0.0788					
TEQ (ND=0)	0.0079		0.0085			ITEF
TEQ (ND=½)	0.0086		0.0090			ITEF

Client Information

		Sample Information		
Project Name:	E096-007-5.0040			
Sample ID:	LF-01	Matrix:	Water	
		Weight / Volume:	509	Grams
Laboratory Information		Solids / Lipids:	NA	
		Original pH :	5	
Project ID:	G129-306	Batch ID:	WG5101	
Sample ID:	99386			
		Filename:	a15nov00a_2-4	
Collection Date/Time:	07-Nov-00	Retchk:	a15nov00a-15	
Receipt Date:	10-Nov-00	Begin ConCal:	a15nov00a-15	
Extraction Date:	13-Nov-00			
Analysis Date:	16-Nov-00	Initial Cal:	m1613-052699m	

Method 1613

LF-01

Delta Environmental Consultants

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1	0.71	71.3	31:15	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1	0.76	76.2	34:06	1.58	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1	0.95	94.7	36:47	1.19	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1	0.85	85.1	36:47	1.19	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1	0.68	68.1	40:04	1.09	
$^{13}C_{12}$-OCDD	2	1.40	70.0	44:15	0.84	
$^{13}C_{12}$-2,3,7,8-TCDF	1	0.75	74.8	30:34	0.81	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1	0.80	79.5	33:19	1.61	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1	0.81	80.6	33:55	1.64	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1	0.83	82.5	36:05	0.51	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1	0.77	76.5	36:05	0.51	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1	0.73	72.5	36:34	0.51	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1	0.92	91.5	37:20	0.51	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1	0.75	75.4	38:49	0.48	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1	0.73	72.5	40:43	0.49	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.33	83.0	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2			30:46	0.8	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2			36:34	0.51	

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-01

Laboratory Information

Project ID: G129-306
Sample ID: 99386

Collection Date/Time: 07-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Water
Weight / Volume: 509 Grams
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-4
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Analyzed by: HMC
Date: 20Nov00

Reviewed by: [illegible]
Date: 11/20/00

$HpCDD = \frac{(1.27 \times 10^6)(1000\ pg)}{(8.06 \times 10^7)(509\ ml)(1.0066)} = 0.0307\ pg/ml$

$ES\text{-}TCDD = \frac{(1.10 \times 10^6)(10\ ng)}{(2.49 \times 10^8)(1.0612)} = 0.41\ ng$

Filename ; a15nov00a_2
Sample ; 4
Acquired ; 16-NOV-00 07:31:06
Processed ; 16-NOV-00 15:21:31
Sample ID ; 99386 x1/1
Cal Table ; m1613-052699m
Results Table ; m1613-111500a_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?	RT	Conc	DL	S/N1;?	S/N2;?	mod?
Unk	2,3,7,8-TCDD	*	*	*	*;n	NotFnd	*	0.0426	*;n	*;n	no
Unk	1,2,3,7,8-PeCDD	1.75e+05	1.11e+05	6.36e+04	1.75;y	34:07	0.171	0.0769	8;y	6;y	yes
Unk	1,2,3,4,7,8-HxCDD	2.43e+05	1.28e+05	1.15e+05	1.12;y	36:42	0.203	0.1674	4;y	4;y	yes
Unk	1,2,3,6,7,8-HxCDD	3.10e+05	1.58e+05	1.52e+05	1.04;n	36:48	0.304	0.1961	5;y	5;y	yes
Unk	1,2,3,7,8,9-HxCDD	2.70e+05	1.41e+05	1.29e+05	1.09;y	37:01	0.226	0.1676	5;y	4;y	yes
Unk	1,2,3,4,6,7,8-HpCDD	1.27e+06	6.79e+05	5.91e+05	1.15;y	40:04	1.562	0.1315	48;y	33;y	yes
Unk	OCDD	2.65e+06	1.17e+06	1.48e+06	0.79;y	44:16	3.805	0.6708	12;y	35;y	no
Unk	2,3,7,8-TCDF	*	*	*	*;n	NotFnd	*	0.0698	*;n	*;n	no
Unk	1,2,3,7,8-PeCDF	2.50e+05	1.52e+05	9.83e+04	1.55;y	33:19	0.149	0.0717	9;y	4;y	yes
Unk	2,3,4,7,8-PeCDF	1.50e+05	8.74e+04	6.30e+04	1.39;y	33:55	0.086	0.0657	5;y	3;n	yes
Unk	1,2,3,4,7,8-HxCDF	7.95e+05	4.31e+05	3.64e+05	1.18;y	36:00	0.482	0.0991	15;y	16;y	no
Unk	1,2,3,6,7,8-HxCDF	9.00e+05	4.87e+05	4.13e+05	1.18;y	36:06	0.561	0.1019	16;y	18;y	no
Unk	2,3,4,6,7,8-HxCDF	6.55e+05	3.59e+05	2.96e+05	1.21;y	36:34	0.480	0.1174	11;y	13;y	no
Unk	1,2,3,7,8,9-HxCDF	3.79e+05	2.13e+05	1.67e+05	1.28;y	37:21	0.242	0.1152	5;y	6;y	no
Unk	1,2,3,4,6,7,8-HpCDF	2.89e+06	1.55e+06	1.34e+06	1.16;y	38:49	2.035	0.0710	91;y	89;y	no
Unk	1,2,3,4,7,8,9-HpCDF	1.15e+06	6.18e+05	5.34e+05	1.16;y	40:44	1.029	0.1056	32;y	29;y	no
Unk	OCDF	2.93e+06	1.36e+06	1.57e+06	0.86;y	44:34	3.431	0.1888	57;y	58;y	no
ES/RT	13C-2,3,7,8-TCDD	1.10e+08	4.85e+07	6.17e+07	0.79;y	31:15	35.660	0.0491	2167;y	4126;y	no
ES	13C-1,2,3,7,8-PeCDD	9.92e+07	6.08e+07	3.84e+07	1.58;y	34:06	38.092	0.1371	1375;y	1663;y	no
ES	13C-1,2,3,4,7,8-HxCDD	1.05e+08	5.71e+07	4.80e+07	1.19;y	36:47	47.349	0.0848	1778;y	1793;y	no
ES	13C-1,2,3,6,7,8-HxCDD	1.05e+08	5.71e+07	4.80e+07	1.19;y	36:47	42.530	0.0761	1778;y	1793;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	8.08e+07	4.22e+07	3.86e+07	1.09;y	40:04	34.068	0.1141	549;y	1064;y	no
ES	13C-OCDD	1.29e+08	5.89e+07	7.04e+07	0.84;y	44:15	70.019	0.0611	1758;y	2276;y	no
ES/RT	13C-2,3,7,8-TCDF	1.64e+08	7.30e+07	9.07e+07	0.81;y	30:34	37.378	0.0296	3220;y	3504;y	no
ES	13C-1,2,3,7,8-PeCDF	1.59e+08	9.83e+07	6.10e+07	1.61;y	33:19	39.739	0.0502	5086;y	3363;y	no
ES	13C-2,3,4,7,8-PeCDF	1.53e+08	9.50e+07	5.80e+07	1.64;y	33:55	40.288	0.0530	5129;y	3388;y	no
ES	13C-1,2,3,4,7,8-HxCDF	1.33e+08	4.47e+07	8.84e+07	0.51;y	36:05	41.253	0.1403	546;y	1513;y	no
ES	13C-1,2,3,6,7,8-HxCDF	1.33e+08	4.47e+07	8.84e+07	0.51;y	36:05	38.265	0.1301	546;y	1513;y	no
ES	13C-2,3,4,6,7,8-HxCDF	1.18e+08	3.98e+07	7.84e+07	0.51;y	36:34	36.263	0.1390	487;y	1391;y	no
ES	13C-1,2,3,7,8,9-HxCDF	1.23e+08	4.16e+07	8.13e+07	0.51;y	37:20	45.749	0.1686	457;y	1264;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	9.71e+07	3.13e+07	6.58e+07	0.48;y	38:49	37.705	0.0381	1513;y	4117;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	7.69e+07	2.55e+07	5.14e+07	0.49;y	40:43	36.238	0.0462	1050;y	2746;y	no
JS	13C-1,2,3,4-TCDD	2.91e+08	1.29e+08	1.62e+08	0.80;y	30:46	143.925	-	4204;y	8123;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.59e+08	1.43e+08	1.16e+08	1.22;y	37:01	157.228	-	4092;y	4174;y	no
CS	37Cl-2,3,7,8-TCDD	5.68e+07	5.68e+07	-	-;-	31:16	16.620	0.0193	3471;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0.239	0.342	TRUE
PeCDD	0.171	0.171	FALSE
HxCDF	2.628	2.628	FALSE
HxCDD	0.479	1.328	TRUE
HpCDF	4.01	4.01	FALSE
HpCDD	3.031	3.031	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	4	Number of Peaks Found:	0
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.0698
Sample ID:	99386 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	4	Number of Peaks Found:	7
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.145
Sample ID:	99386 x1/1		
Cal Table:	m1613-052699m	Begin Window:	27:30:00
Results Table:	m1613-111500a_2	End Window:	32:25:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	2.70E+04	17700	9280	1.91	n	27:49	0.021	S2N	1.7	n	1.8	n	n
	2	2.16E+04	15900	5740	2.76	n	27:53	0.017	S2N	1.6	n	1	n	n
	3	1.62E+04	10200	5960	1.71	n	27:56	0.012	S2N	1.8	n	1.1	n	n
	4	1.33E+04	7380	5960	1.24	n	27:58	0.01	S2N	1.2	n	1.1	n	n
	5	9.01E+03	5340	3680	1.45	n	28:01	0.007	S2N	0.6	n	1	n	n
	6	4.95E+04	27500	22000	1.25	n	29:24	0.038	S2N	2	n	3	y	n
	7	1.89E+05	136000	53200	2.56	n	30:34	0	CF	9.2	y	5	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	4	Number of Peaks Found:	5
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.0273
Sample ID:	99386 x1/1		

Cal Table:	m1613-052699m	Begin Window:						31:38:00								
Results Table:	m1613-111500a_2	End Window:						31:58:00								
Name	#	Response		Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?	
		1	3.79E+05	91400	288000	0.32	n	30:46	0.222	RT	6.3	y	22.6	y	n	
		2	1.44E+05	36100	108000	0.33	n	31:16	0.084	RT	3.7	y	11.9	y	n	
		3	1.76E+05	76000	99600	0.76	n	31:54	0.103	EMPC ✓	7.7	y	11.2	y	n	
		4	9.30E+03	6260	3050	2.05	n	32:01	0.005	RT	1	n	0.6	n	n	
		5	1.23E+04	6760	5580	1.21	n	32:10	0.007	RT	1.5	n	0.9	n	n	

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	4	Number of Peaks Found:	5
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.0686
Sample ID:	99386 x1/1		

Cal Table:	m1613-052699m	Begin Window:						31:35:00								
Results Table:	m1613-111500a_2	End Window:						34:43:00								
Name	#	Response		Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?	
		1	1.72E+05	104000	67200	1.55	y	32:39	0.1	S2N	5.1	y	2.7	n	y	
		2	4.10E+05	234000	176000	1.33	y	32:44	0.239	OK	10.4	y	5.7	y	y	
1,2,3,7,8-PeCDF		3	2.50E+05	152000	98300	1.55	y	33:19	0.149	~~S2N~~ s/n	9.2	y	3.8	y	y	
		4	1.20E+05	67900	51700	1.31	n	33:27	0.07	S2N	3.5	y	1.8	n	y	
2,3,4,7,8-PeCDF		5	1.50E+05	87400	63000	1.39	y	33:55	0.086	~~S2N~~ s/n	5.2	y	3	n	y	

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	4	Number of Peaks Found:	7
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.221
Sample ID:	99386 x1/1		

Cal Table:	m1613-052699m	Begin Window:						32:42:00								
Results Table:	m1613-111500a_2	End Window:						34:27:00								
Name	#	Response		Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?	
		1	6.99E+04	42100	27800	1.51	y	32:46	0.068	S2N	3	y	2.1	n	y	
		2	2.26E+05	154000	71800	2.15	n	33:19	0	CF	9.5	y	4.6	y	n	
		3	8.13E+04	50200	31100	1.61	y	33:26	0.08	S2N	3.7	y	2.9	n	y	
		4	7.03E+04	37800	32600	1.16	n	33:29	0.069	S2N	3.2	y	2.6	n	y	
		5	7.32E+04	41800	31500	1.33	y	33:38	0.072	S2N	2	n	2.5	n	y	
		6	1.76E+05	129000	47100	2.73	n	33:55	0	CF	9.3	y	4.4	y	n	
1,2,3,7,8-PeCDD		7	1.75E+05	111000	63600	1.75	y	34:07	0.171	OK	7.6	y	5.5	y	y	

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	4	Number of Peaks Found:	11

11

Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.1087
Sample ID:	99386 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	m1613-111500a_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.31E+05	180000	151000	1.19	y	35:03	0.216	OK	6.9	y	7.8	y	n
	2	9.94E+05	525000	469000	1.12	y	35:11	0.647	OK	20.7	y	24.9	y	n
	3	9.48E+04	49000	45800	1.07	y	35:28	0.062	S2N	2.4	n	2.5	n	n
	4	1.42E+05	64800	77000	0.84	n	35:55	0.092	S2N	3.2	y	4.7	y	n
1,2,3,4,7,8-HxCDF	5	7.95E+05	431000	364000	1.18	y	36:00	0.482	OK	15	y	15.6	y	n
1,2,3,6,7,8-HxCDF	6	9.00E+05	487000	413000	1.18	y	36:06	0.561	OK	16.4	y	17.6	y	n
	7	1.33E+05	70300	63000	1.12	y	36:13	0.087	S2N	2.2	n	2.9	n	n
	8	9.26E+04	53500	39100	1.37	y	36:25	0.06	S2N	2.3	n	2.1	n	n
2,3,4,6,7,8-HxCDF	9	6.55E+05	359000	296000	1.21	y	36:34	0.48	OK	11.3	y	13.4	y	n
	10	7.74E+04	50000	27400	1.82	n	37:02	0.05	S2N	1.9	n	1.3	n	n
1,2,3,7,8,9-HxCDF	11	3.79E+05	213000	167000	1.28	y	37:21	0.242	OK	5.3	y	6	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Dioxins
Sample:	4	Number of Peaks Found:	8
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.0787
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.1766
Sample ID:	99386 x1/1		
Cal Table:	m1613-052699m	Begin Window:	35:25:00
Results Table:	m1613-111500a_2	End Window:	37:06:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	2.87E+05	153000	134000	1.15	y	35:28	0.253	OK	5.5	y	5	y	y
	2	9.01E+03	4630	4370	1.06	y	35:40	0.008	S2N	0.2	n	0.2	n	n
	3	1.03E+05	51800	51100	1.01	n	35:55	0.091	S2N	2	n	1.8	n	y
	4	2.23E+05	165000	58600	2.81	n	35:58	0	S2N	4.7	y	1.8	n	y
	5	6.19E+05	389000	229000	1.7	n	36:06	0.545	EMPC	5.7	y	5.5	y	y
1,2,3,4,7,8-HxCDD	6	2.43E+05	128000	115000	1.12	y	36:42	0.203	~~S2N~~ ok	3.9	y	3.8	y	y
1,2,3,6,7,8-HxCDD	7	3.10E+05	158000	152000	1.04	n	36:48	0.304	EMPC	4.8	y	4.8	y	y
1,2,3,7,8,9-HxCDD	8	2.70E+05	141000	129000	1.09	y	37:01	0.226	OK	5.3	y	4	y	y

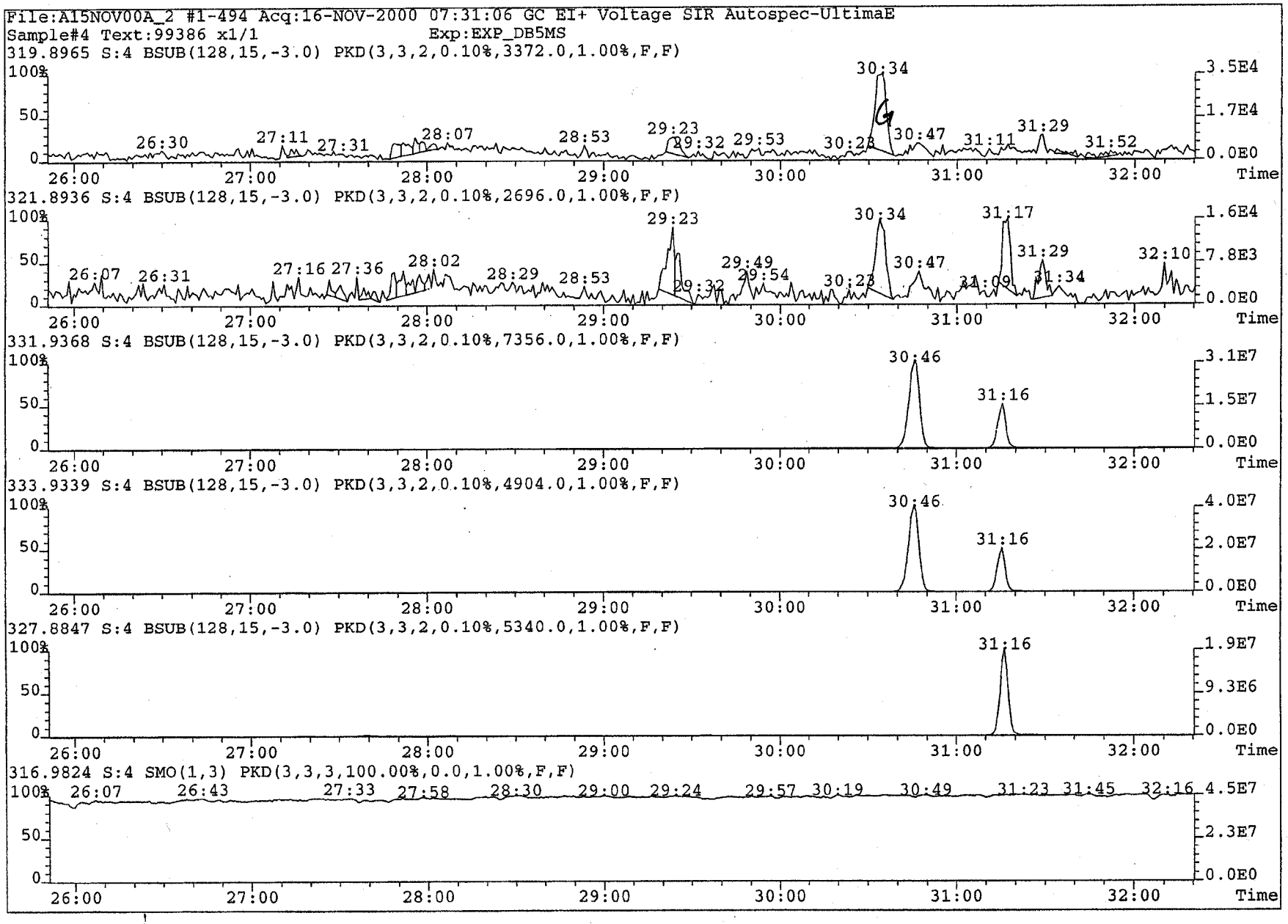
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Furans
Sample:	4	Number of Peaks Found:	20
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.4605
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.0862
Sample ID:	99386 x1/1		
Cal Table:	m1613-052699m	Begin Window:	38:38:00
Results Table:	m1613-111500a_2	End Window:	40:49:00

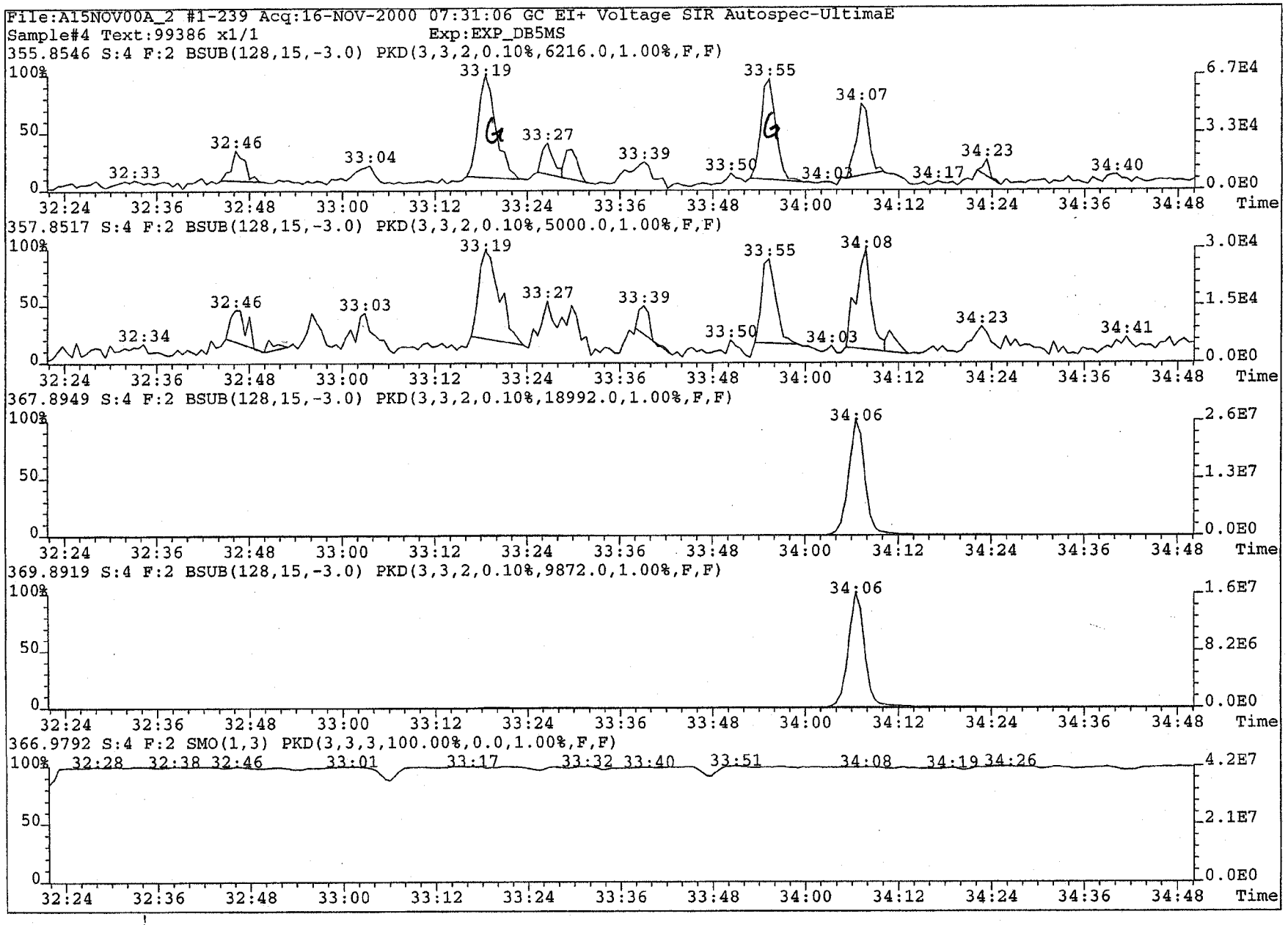
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?

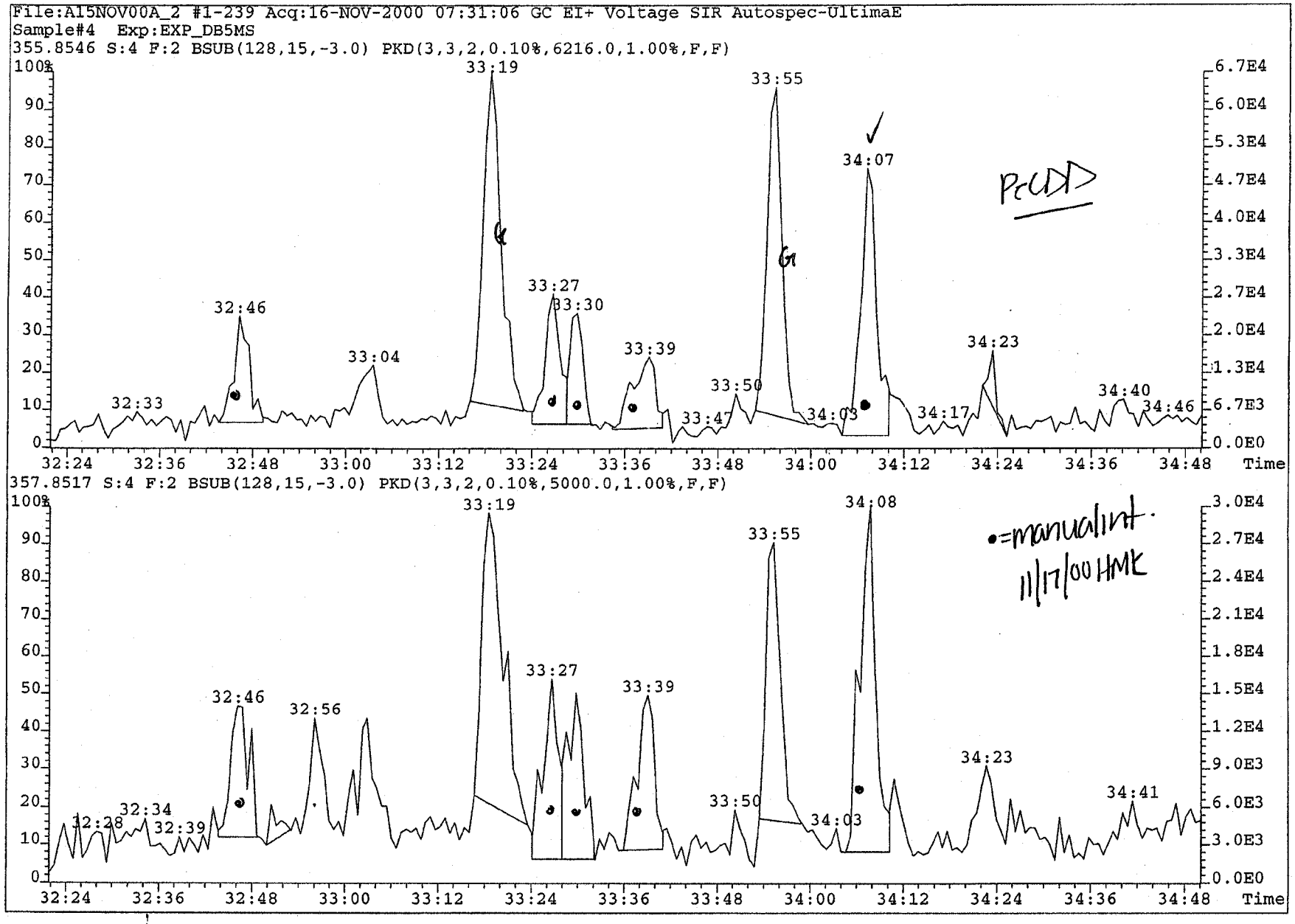
1,2,3,4,6,7,8-HpCDI	1	2.89E+06	1550000	1340000	1.16 y	38:49	2.035	OK	91.1 y	88.6 y	n
	2	2.73E+04	14800	12500	1.19 y	38:56	0.021	S2N	1.6 n	1.3 n	n
	3	5.47E+05	260000	286000	0.91 y	39:10	0.431	OK	17.2 y	19.9 y	n
	4	6.54E+05	346000	308000	1.12 y	39:21	0.515	OK	19.1 y	24.2 y	n
	5	2.60E+05	248000	12300	20.25 n	39:26	0.205	S2N	14.2 y	1.1 n	n
	6	9.80E+03	3720	6080	0.61 n	39:32	0.008	S2N	0.7 n	0.8 n	n
	7	2.39E+04	15500	8380	1.85 n	39:35	0.019	S2N	1.1 n	1 n	n
	8	1.43E+04	6110	8190	0.75 n	39:39	0.011	S2N	0.6 n	0.6 n	n
	9	1.40E+04	3970	10100	0.39 n	39:43	0.011	S2N	0.5 n	0.7 n	n
	10	1.38E+04	8760	5090	1.72 n	39:49	0.011	S2N	0.7 n	0.7 n	n
	11	1.15E+04	5380	6120	0.88 n	39:53	0.009	S2N	0.6 n	0.6 n	n
	12	8.50E+03	4980	3520	1.42 n	39:57	0.007	S2N	0.4 n	0.3 n	n
1,2,3,4,7,8,9-HpCDI	13	1.15E+06	618000	534000	1.16 y	40:44	1.029	OK	31.6 y	28.8 y	n
	14	3.16E+04	18700	12900	1.44 n	40:54	0.025	RT	1.2 n	1.5 n	n
	15	1.88E+04	8460	10300	0.82 n	40:59	0.015	RT	0.8 n	1 n	n
	16	1.50E+04	7200	7780	0.93 y	41:01	0.012	RT	0.7 n	0.7 n	n
	17	1.03E+04	5660	4630	1.22 n	41:05	0.008	RT	0.6 n	0.6 n	n
	18	1.44E+04	3470	10900	0.32 n	41:08	0.011	RT	0.5 n	0.7 n	n
	19	1.88E+04	7820	10900	0.71 n	41:10	0.015	RT	0.9 n	0.7 n	n
	20	1.11E+04	7480	3570	2.09 n	41:18	0.009	RT	0.8 n	0.4 n	n

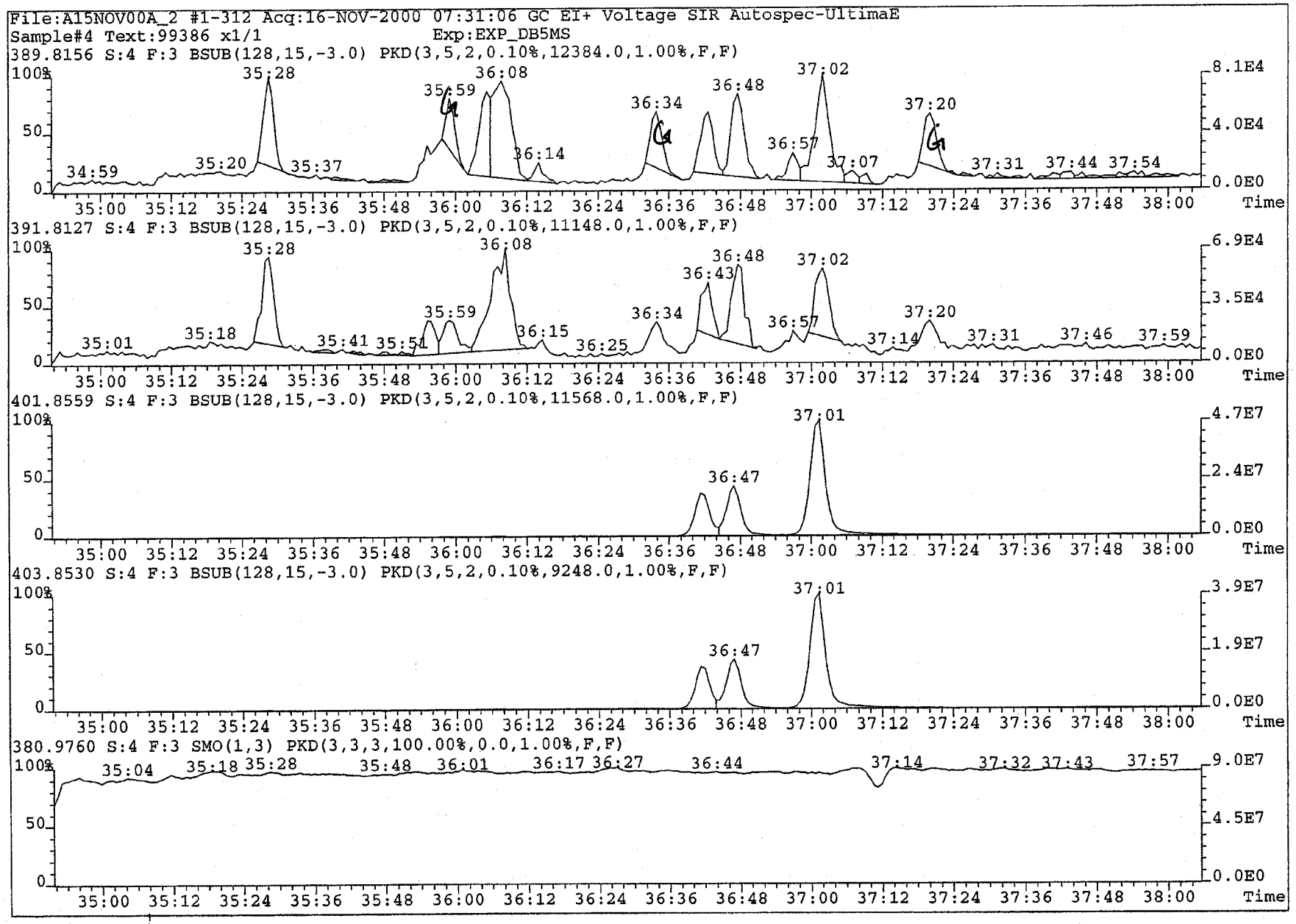
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Dioxins
Sample:	4	Number of Peaks Found:	12
Acquired:	16-NOV-00 07:31:06	RRF Used For Totals:	1.0066
Processed:	16-NOV-00 15:21:31	Detection Limit:	0.1315
Sample ID:	99386 x1/1		
Cal Table:	m1613-052699m	Begin Window:	39:02:00
Results Table:	m1613-111500a_2	End Window:	39:22:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.18E+05	98800	19500	5.08	n	38:48	0.145	RT	7.4	y	1.5	n	n
	2	1.19E+06	617000	577000	1.07	y	39:09	1.469	OK	42	y	35.1	y	n
	3	4.74E+04	23400	24000	0.98	y	39:29	0.058	RT	1	n	1	n	n
	4	1.46E+04	4950	9610	0.51	n	39:32	0.018	RT	1	n	0.9	n	n
	5	1.81E+04	8510	9610	0.89	y	39:34	0.022	RT	1.3	n	0.9	n	n
	6	1.61E+04	7280	8820	0.82	n	39:36	0.02	RT	1	n	1	n	n
	7	2.19E+04	14000	7900	1.78	n	39:39	0.027	RT	0.9	n	1.2	n	n
	8	1.57E+04	8570	7140	1.2	n	39:43	0.019	RT	0.7	n	0.4	n	n
	9	9.21E+03	6490	2720	2.39	n	39:51	0.011	RT	0.6	n	0.3	n	n
	10	1.03E+04	6150	4130	1.49	n	39:54	0.013	RT	0.6	n	0.4	n	n
	11	9.33E+03	5200	4130	1.26	n	39:57	0.011	RT	0.7	n	0.4	n	n
1,2,3,4,6,7,8-HpCDI	12	1.27E+06	679000	591000	1.15	y	40:04	1.562	~~RT~~ ok	48.3	y	33	y	n

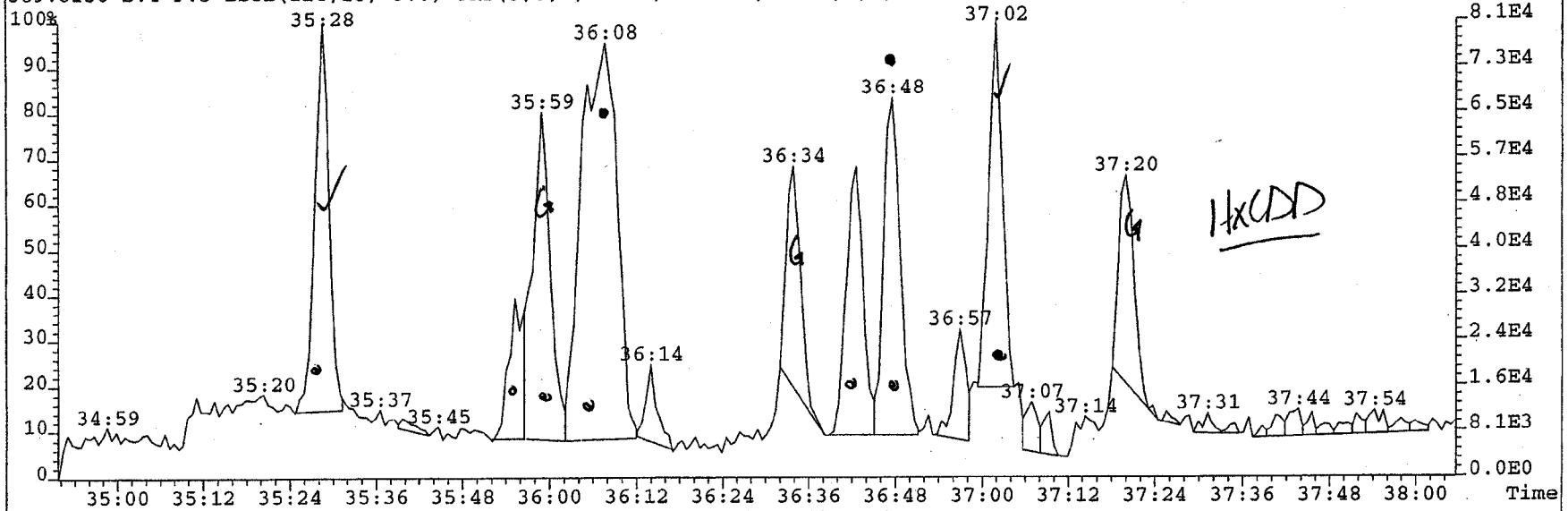

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
319.8965 S:4 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3372.0,1.00%,F,F)
321.8936 S:4 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2696.0,1.00%,F,F)
331.9368 S:4 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7356.0,1.00%,F,F)
333.9339 S:4 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4904.0,1.00%,F,F)
327.8847 S:4 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5340.0,1.00%,F,F)
316.9824 S:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time


File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
355.8546 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6216.0,1.00%,F,F)
33:19
33:55
34:07
32:46
33:04
33:27
33:39
33:50
34:03
34:17
34:23
34:40
32:33
6.7E4
3.3E4
0.0E0
357.8517 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5000.0,1.00%,F,F)
33:19
33:55
34:08
32:46
33:03
33:27
33:39
33:50
34:03
34:23
34:41
32:34
3.0E4
1.5E4
0.0E0
367.8949 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,18992.0,1.00%,F,F)
34:06
2.6E7
1.3E7
0.0E0
369.8919 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,9872.0,1.00%,F,F)
34:06
1.6E7
8.2E6
0.0E0
366.9792 S:4 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:28 32:38 32:46 33:01 33:17 33:32 33:40 33:51 34:08 34:19 34:26
4.2E7
2.1E7
0.0E0
100%
50
0
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48
Time

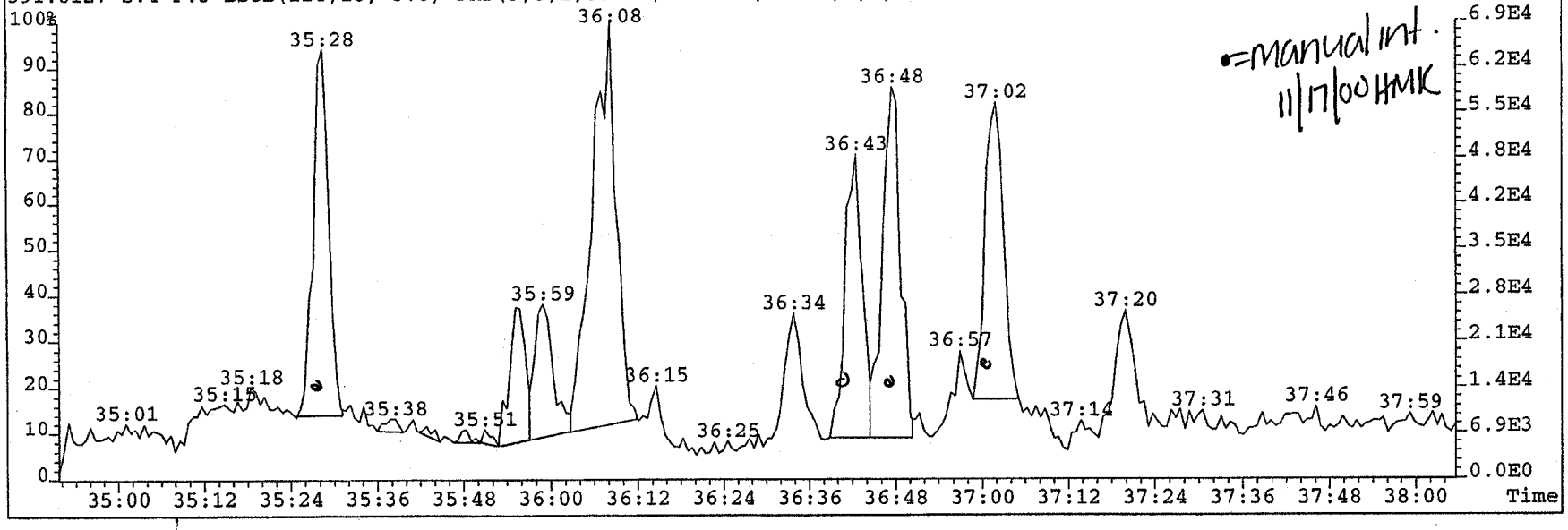

File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Exp:EXP_DB5MS
355.8546 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6216.0,1.00%,F,F)
PeCDD
357.8517 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5000.0,1.00%,F,F)
•=manual int.
11/17/00 HMK
Time

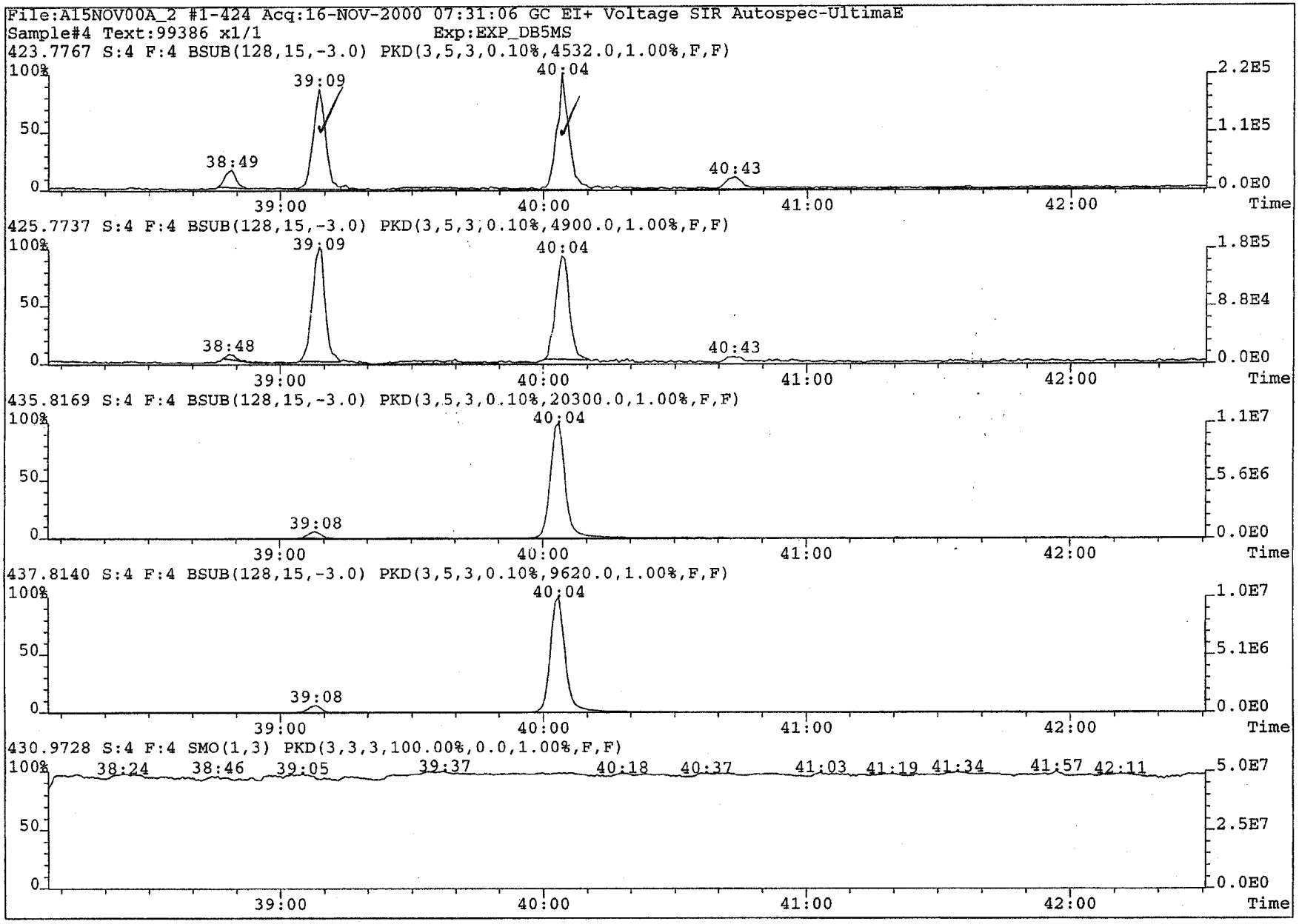

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
389.8156 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,12384.0,1.00%,F,F)
391.8127 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,11148.0,1.00%,F,F)
401.8559 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,11568.0,1.00%,F,F)
403.8530 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,9248.0,1.00%,F,F)
380.9760 S:4 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
389.8156 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,12384.0,1.00%,F,F)

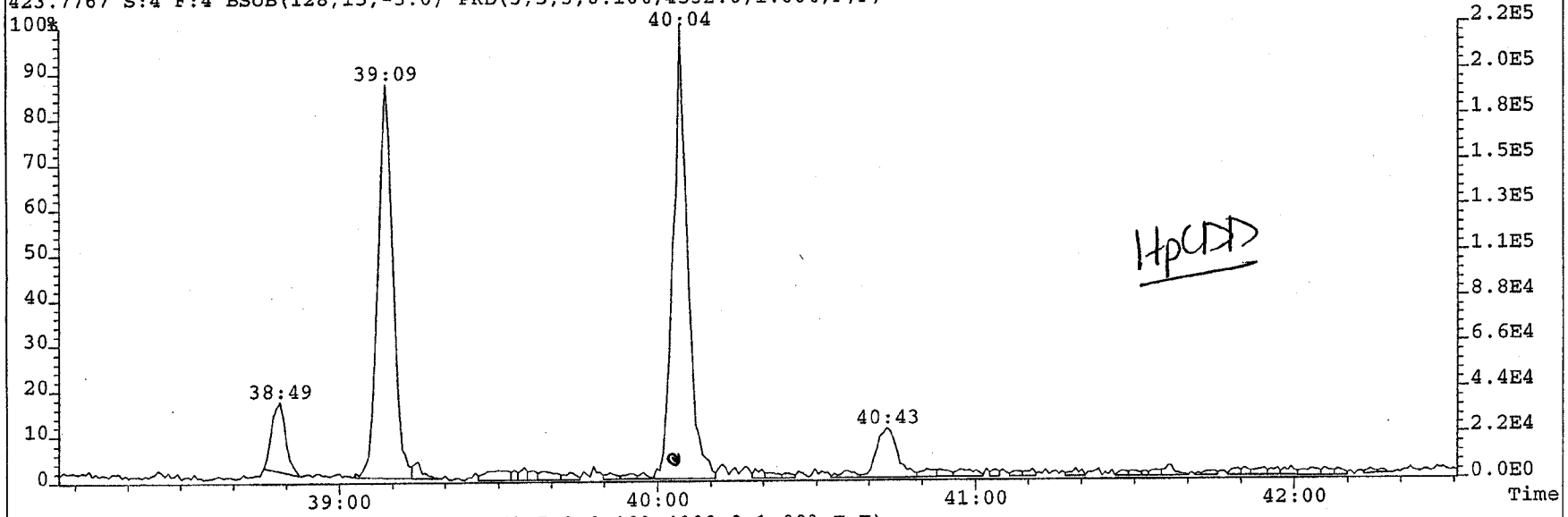


391.8127 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,11148.0,1.00%,F,F)

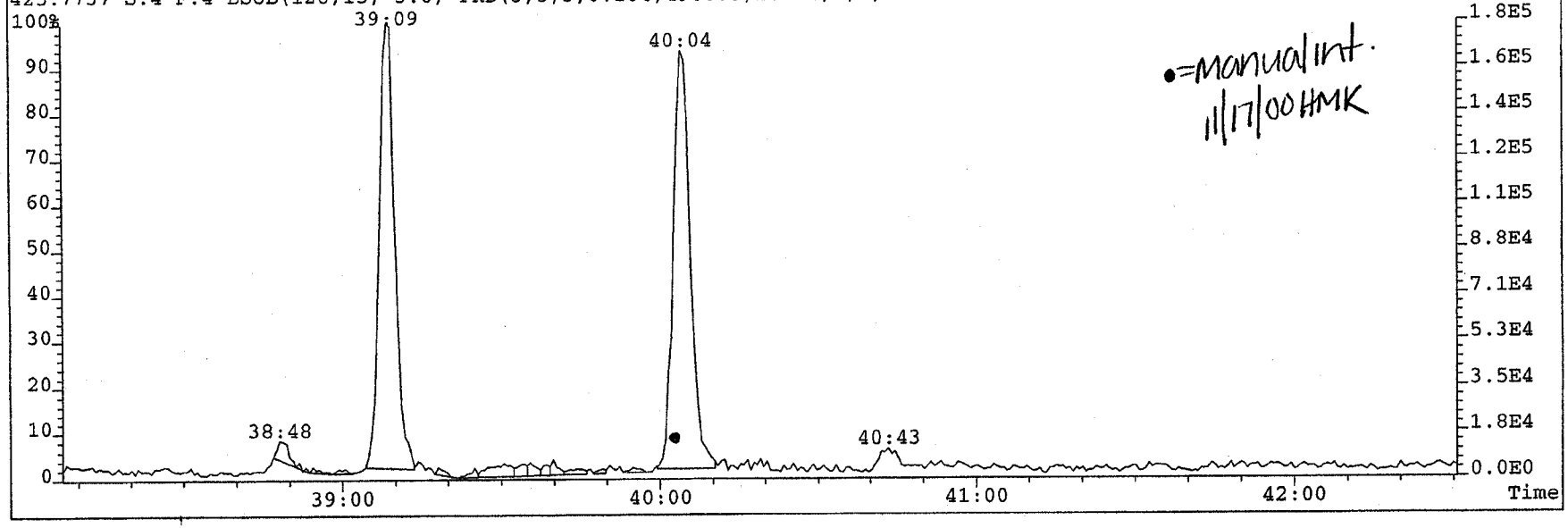


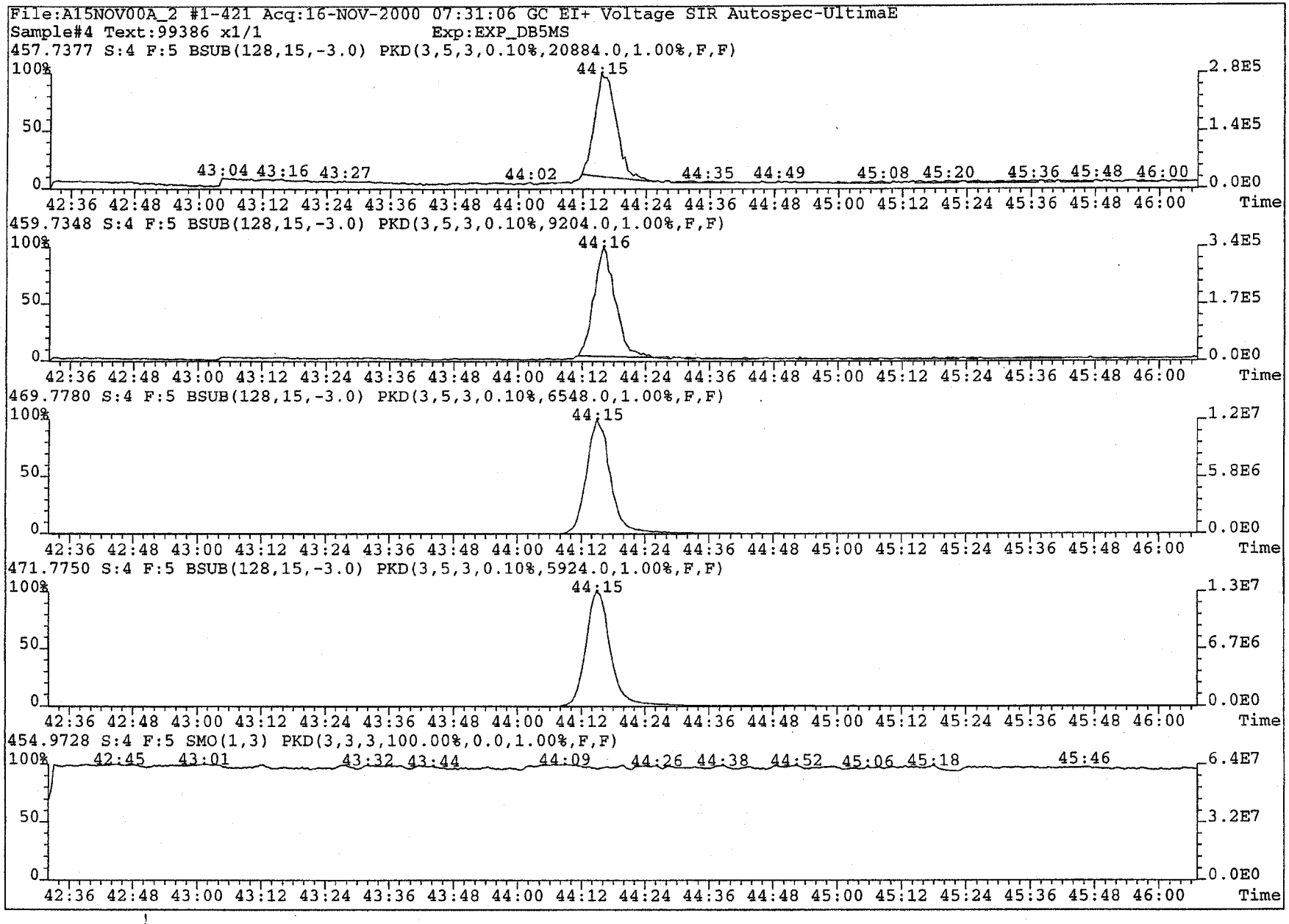

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
423.7767 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4532.0,1.00%,F,F)
39:09
40:04
38:49
40:43
2.2E5
1.1E5
0.0E0
425.7737 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4900.0,1.00%,F,F)
39:09
40:04
38:48
40:43
1.8E5
8.8E4
0.0E0
435.8169 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,20300.0,1.00%,F,F)
40:04
39:08
1.1E7
5.6E6
0.0E0
437.8140 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,9620.0,1.00%,F,F)
40:04
39:08
1.0E7
5.1E6
0.0E0
430.9728 S:4 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:24 38:46 39:05 39:37 40:18 40:37 41:03 41:19 41:34 41:57 42:11
5.0E7
2.5E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
423.7767 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4532.0,1.00%,F,F)

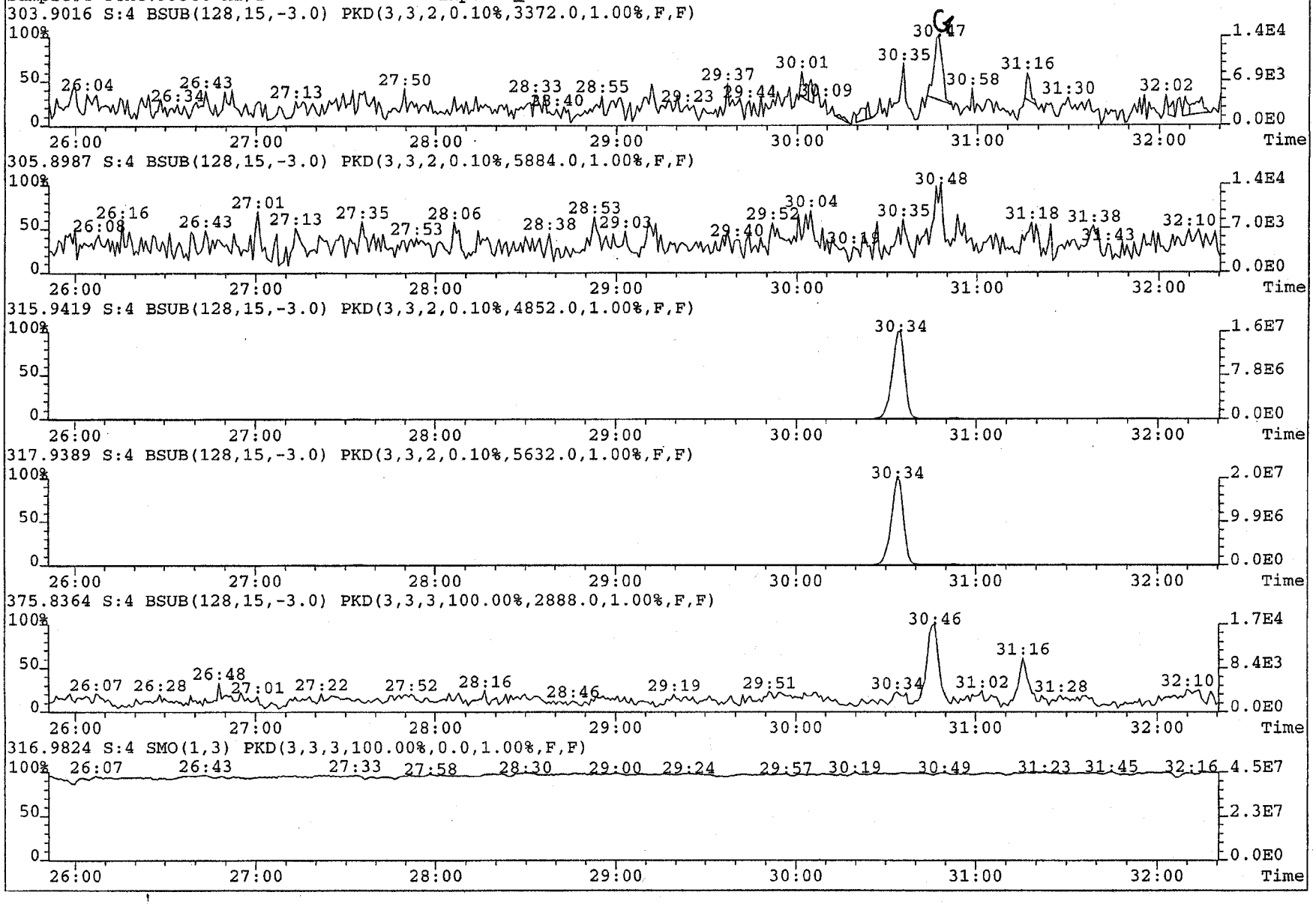


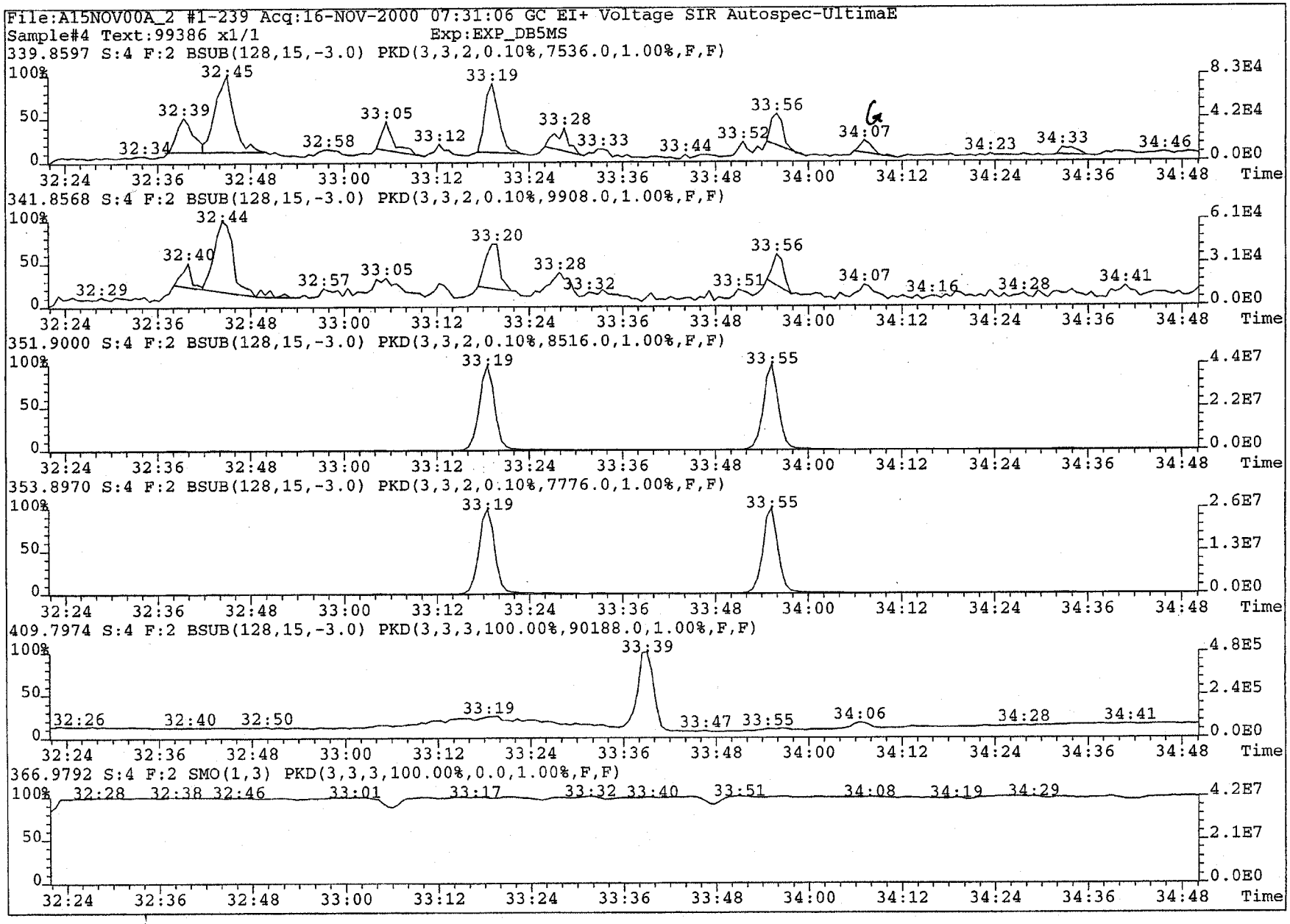
425.7737 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4900.0,1.00%,F,F)



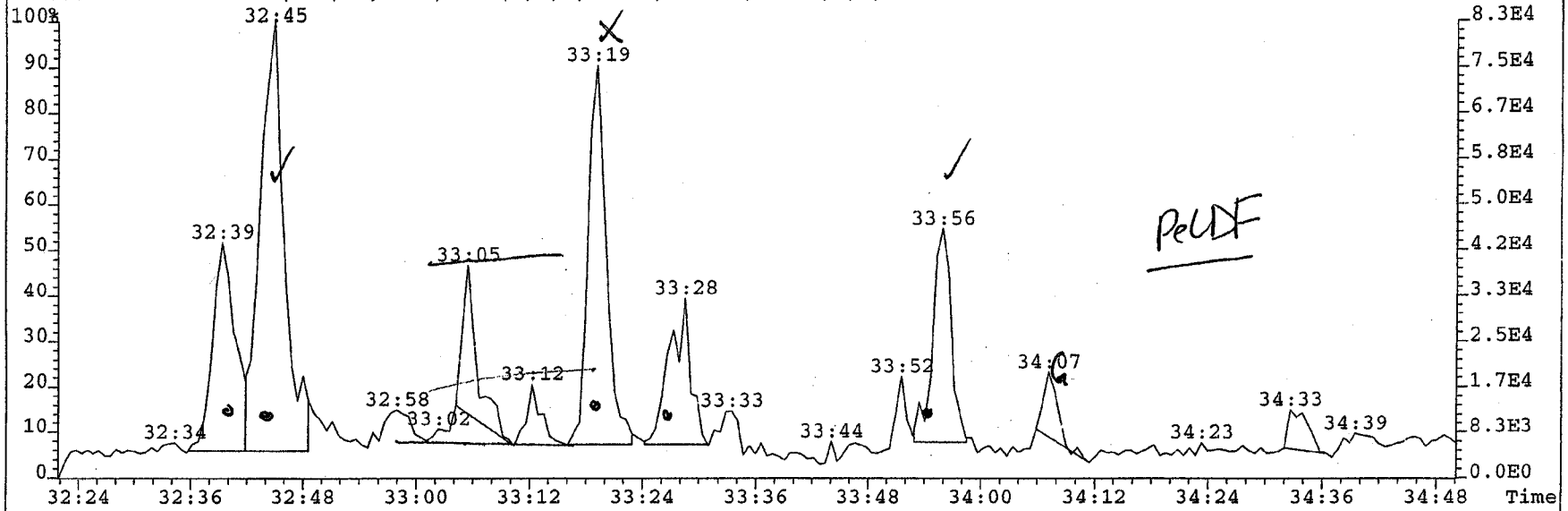

File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
457.7377 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,20884.0,1.00%,F,F)
44:15
43:04 43:16 43:27 44:02 44:35 44:49 45:08 45:20 45:36 45:48 46:00
2.8E5
1.4E5
0.0E0
459.7348 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,9204.0,1.00%,F,F)
44:16
3.4E5
1.7E5
0.0E0
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6548.0,1.00%,F,F)
44:15
1.2E7
5.8E6
0.0E0
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5924.0,1.00%,F,F)
44:15
1.3E7
6.7E6
0.0E0
454.9728 S:4 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:45 43:01 43:32 43:44 44:09 44:26 44:38 44:52 45:06 45:18 45:46
6.4E7
3.2E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS

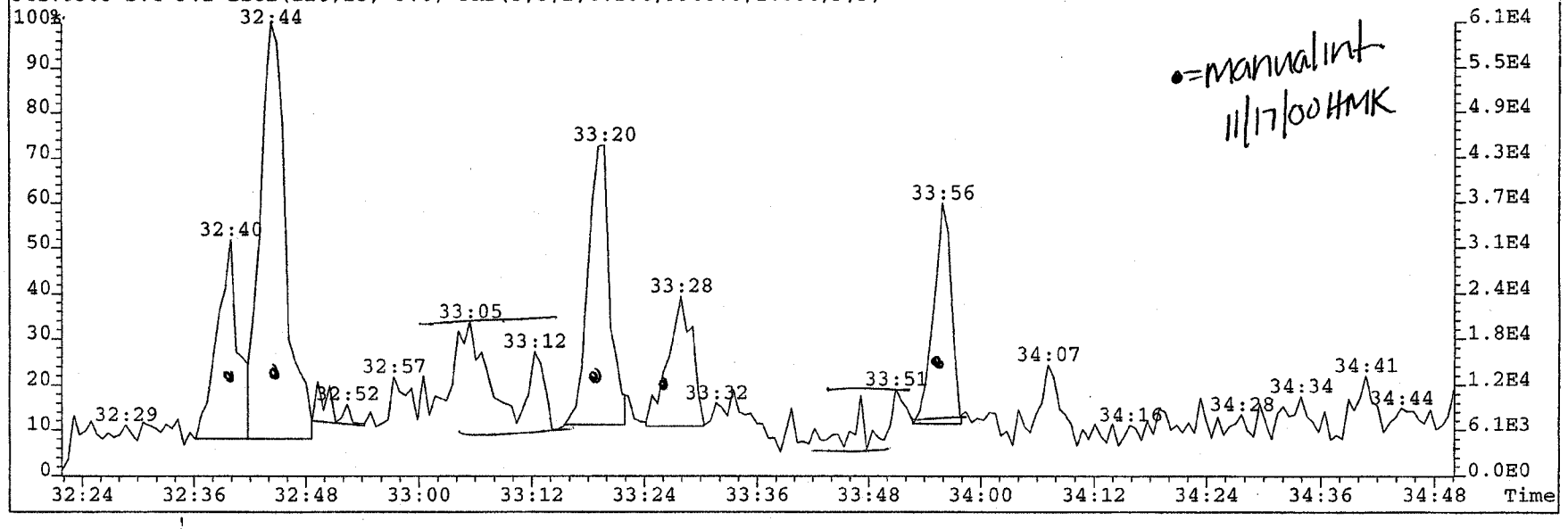



File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
339.8597 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7536.0,1.00%,F,F)
32:34 32:39 32:45 32:58 33:05 33:12 33:19 33:28 33:33 33:44 33:52 33:56 34:07 34:23 34:33 34:46
8.3E4 4.2E4 0.0E0
341.8568 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,9908.0,1.00%,F,F)
32:29 32:40 32:44 32:57 33:05 33:20 33:28 33:32 33:51 33:56 34:07 34:16 34:28 34:41
6.1E4 3.1E4 0.0E0
351.9000 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,8516.0,1.00%,F,F)
33:19 33:55
4.4E7 2.2E7 0.0E0
353.8970 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7776.0,1.00%,F,F)
33:19 33:55
2.6E7 1.3E7 0.0E0
409.7974 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,90188.0,1.00%,F,F)
32:26 32:40 32:50 33:19 33:39 33:47 33:55 34:06 34:28 34:41
4.8E5 2.4E5 0.0E0
366.9792 S:4 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:28 32:38 32:46 33:01 33:17 33:32 33:40 33:51 34:08 34:19 34:29
4.2E7 2.1E7 0.0E0
100% 50 0
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 Time

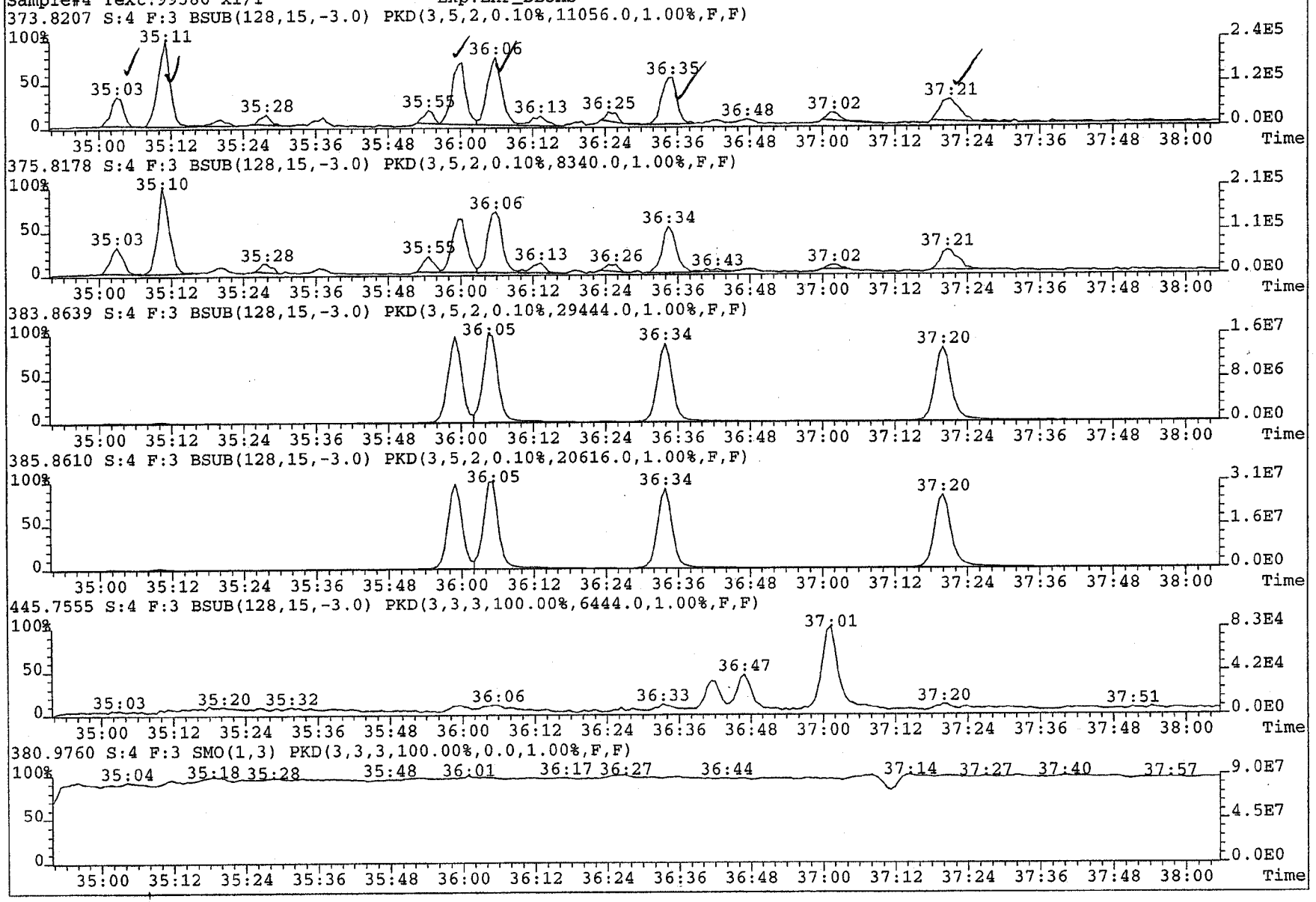
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Exp:EXP_DB5MS
339.8597 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7536.0,1.00%,F,F)

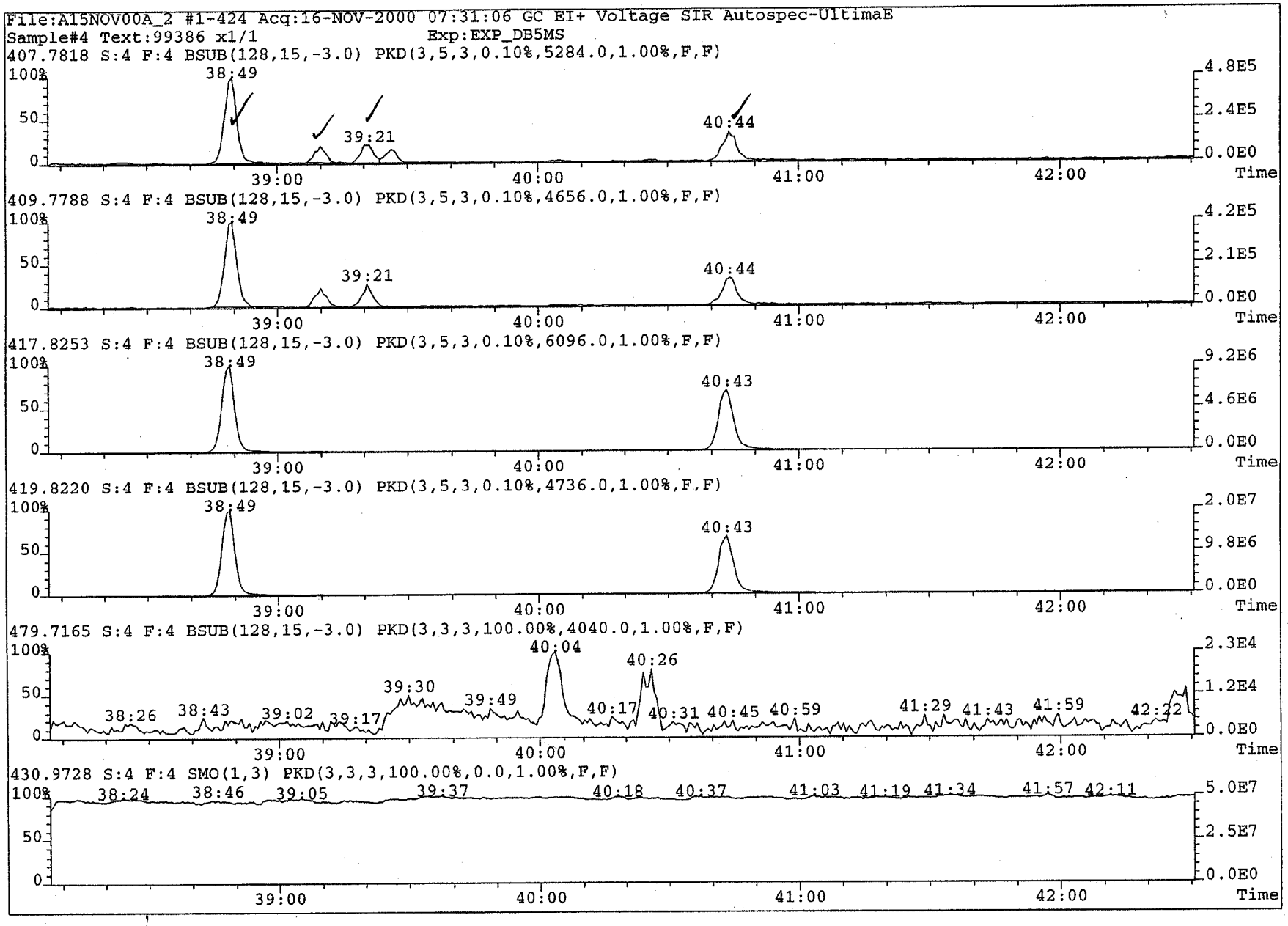


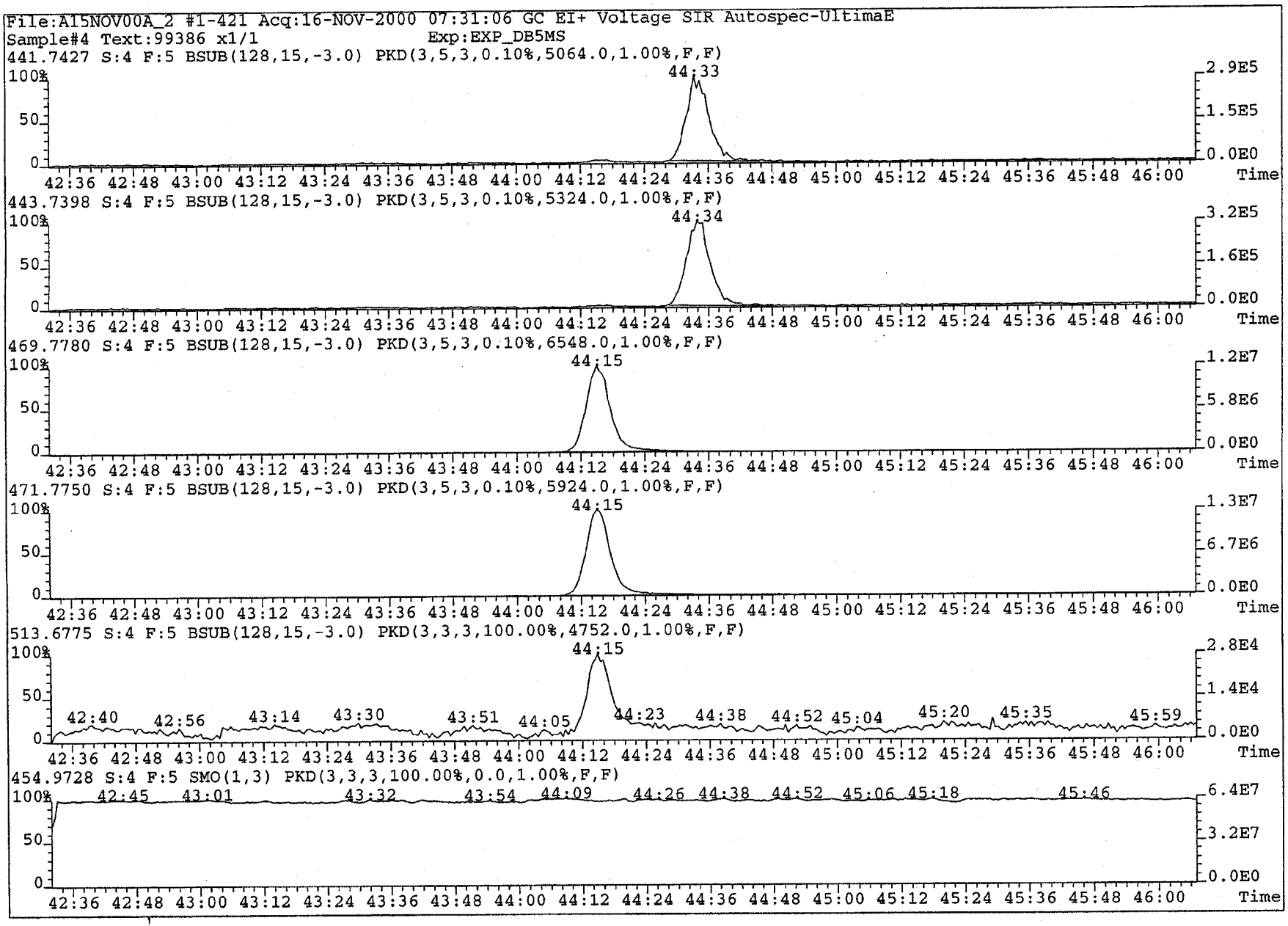
341.8568 S:4 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,9908.0,1.00%,F,F)

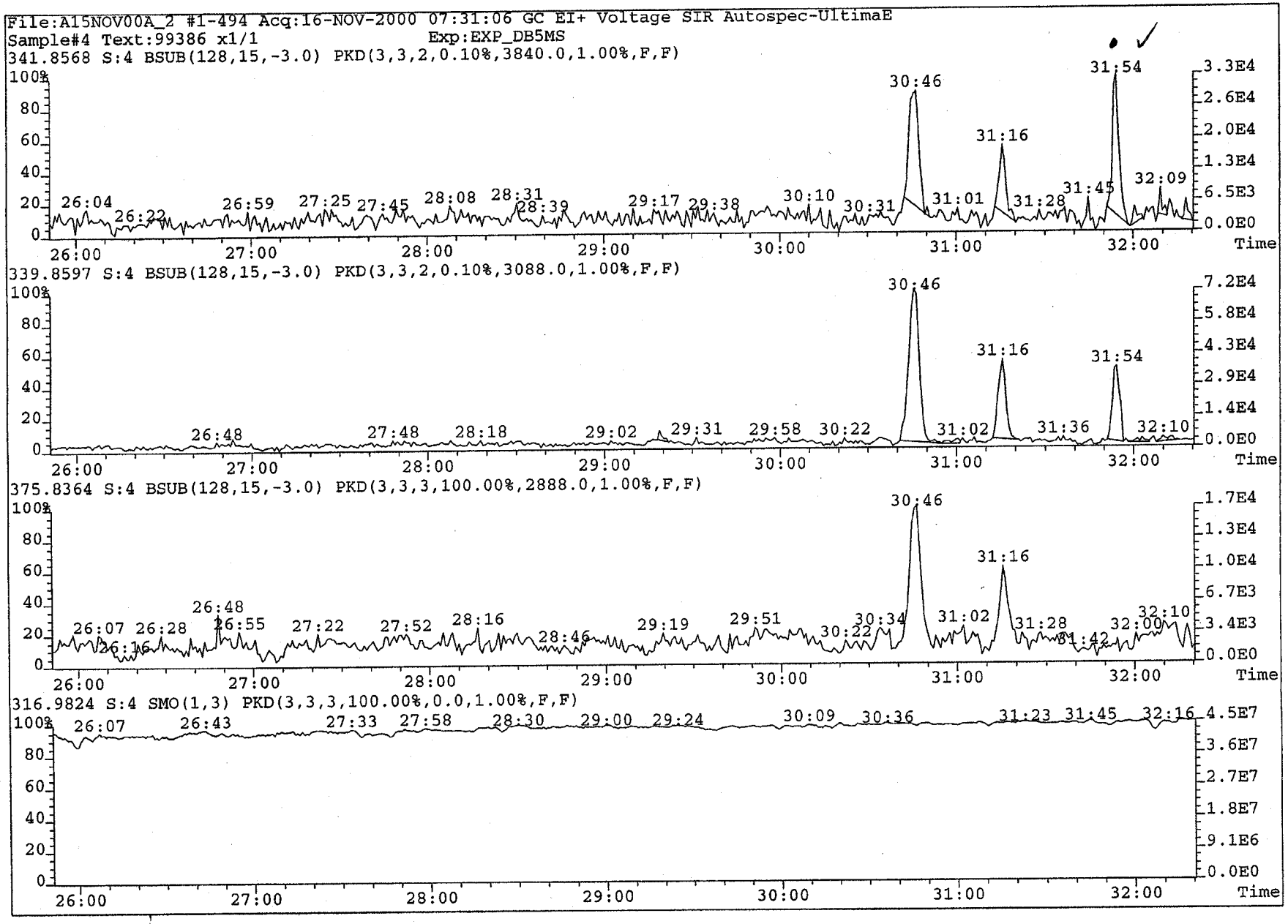


File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS




File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5284.0,1.00%,F,F)
38:49
39:21
40:44
4.8E5
2.4E5
0.0E0
409.7788 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4656.0,1.00%,F,F)
38:49
39:21
40:44
4.2E5
2.1E5
0.0E0
417.8253 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6096.0,1.00%,F,F)
38:49
40:43
9.2E6
4.6E6
0.0E0
419.8220 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4736.0,1.00%,F,F)
38:49
40:43
2.0E7
9.8E6
0.0E0
479.7165 S:4 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4040.0,1.00%,F,F)
40:04
40:26
39:30
39:49
38:26
38:43
39:02
39:17
40:17
40:31
40:45
40:59
41:29
41:43
41:59
42:22
2.3E4
1.2E4
0.0E0
430.9728 S:4 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:24
38:46
39:05
39:37
40:18
40:37
41:03
41:19
41:34
41:57
42:11
5.0E7
2.5E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
441.7427 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5064.0,1.00%,F,F)
44:33
2.9E5
1.5E5
0.0E0
443.7398 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5324.0,1.00%,F,F)
44:34
3.2E5
1.6E5
0.0E0
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6548.0,1.00%,F,F)
44:15
1.2E7
5.8E6
0.0E0
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5924.0,1.00%,F,F)
44:15
1.3E7
6.7E6
0.0E0
513.6775 S:4 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4752.0,1.00%,F,F)
44:15
42:40 42:56 43:14 43:30 43:51 44:05 44:23 44:38 44:52 45:04 45:20 45:35 45:59
2.8E4
1.4E4
0.0E0
454.9728 S:4 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:45 43:01 43:32 43:54 44:09 44:26 44:38 44:52 45:06 45:18 45:46
6.4E7
3.2E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 07:31:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:99386 x1/1 Exp:EXP_DB5MS
341.8568 S:4 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3840.0,1.00%,F,F)
339.8597 S:4 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3088.0,1.00%,F,F)
375.8364 S:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2888.0,1.00%,F,F)
316.9824 S:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

Method 1613

LF-01A

Delta Environmental Consultants

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0010				
1,2,3,7,8-PeCDD	ND	0.0010				
1,2,3,4,7,8-HxCDD	ND	0.0024				
1,2,3,6,7,8-HxCDD	ND	0.0029				
1,2,3,7,8,9-HxCDD	ND	0.0024				
1,2,3,4,6,7,8-HpCDD	ND	0.0014				
OCDD	0.0046			44:15	0.98	A
2,3,7,8--TCDF	ND	0.0011				
1,2,3,7,8-PeCDF	ND	0.0007				
2,3,4,7,8-PeCDF	ND	0.0007				
1,2,3,4,7,8-HxCDF	ND	0.0011				
1,2,3,6,7,8-HxCDF	ND	0.0011				
2,3,4,6,7,8-HxCDF	ND	0.0013				
1,2,3,7,8,9-HxCDF	ND	0.0014				
1,2,3,4,6,7,8-HpCDF	ND	0.0011				
1,2,3,4,7,8,9-HpCDF	ND	0.0015				
OCDF	ND	0.0034				
Total TCDDs	ND	0.0010				
Total PeCDDs	ND	0.0036				
Total HxCDDs	ND	0.0026				
Total HpCDDs	ND	0.0014				
Total TCDFs	ND	0.0011				
Total PeCDFs	ND	0.0007				
Total HxCDFs	ND	0.0012				
Total HpCDFs	ND	0.0013				
TEQ (ND=0)	0.0000		0.0000			ITEF
TEQ (ND=½)	0.0016		0.0016			ITEF

Client Information

Project Name:	E096-007-5.0040	**Sample Information**		
Sample ID:	LF-01A	Matrix:	Water	
		Weight / Volume:	516	Grams
Laboratory Information		Solids / Lipids:	NA	
		Original pH :	5	
Project ID:	G129-306	Batch ID:	WG5101	
Sample ID:	99387			
		Filename:	a15nov00a_2-5	
Collection Date/Time:	07-Nov-00	Retchk:	a15nov00a-15	
Receipt Date:	10-Nov-00	Begin ConCal:	a15nov00a-15	
Extraction Date:	13-Nov-00			
Analysis Date:	16-Nov-00	Initial Cal:	m1613-052699m	

Method 1613

LF-01A

Delta Environmental Consultants

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1	0.87	86.6	31:15	0.78	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1	0.96	95.7	34:07	1.57	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1	1.14	114.4	36:47	1.26	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1	1.03	102.7	36:47	1.26	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1	0.80	79.9	40:03	1.07	
$^{13}C_{12}$-OCDD	2	1.42	71.2	44:15	0.87	
$^{13}C_{12}$-2,3,7,8-TCDF	1	0.93	93.2	30:34	0.8	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1	0.98	97.8	33:18	1.6	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1	1.01	101.4	33:55	1.61	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1	0.95	94.9	36:05	0.51	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1	0.88	88.1	36:05	0.51	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1	0.85	85.0	36:34	0.51	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1	0.98	98.3	37:20	0.52	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1	0.84	84.0	38:48	0.48	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1	0.89	89.3	40:43	0.49	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.37	93.0	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2			30:45	0.79	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2			36:34	0.51	

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-01A

Laboratory Information

Project ID: G129-306
Sample ID: 99387

Collection Date/Time: 07-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Water
Weight / Volume: 516 Grams
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-5
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Analyzed by: HMK
Date: 20 Nov 00

Reviewed by: [illegible]
Date: 11/20/00

OPUSquan 17-NOV-2000 Page 1

Filename ; a15nov00a_2
Sample ; 5
Acquired ; 16-NOV-00 08:19:33
Processed ; 16-NOV-00 15:21:32
Sample ID ; 99387 x1/1
Cal Table ; m1613-052699m
Results Table ; m1613-111500a_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	3.77e+04	5.37e+03	3.23e+04	0.17;n;	31:16	0.028	0.0510	1;n;	3;y	no
Unk	1,2,3,7,8-PeCDD	*	*	*	*;n;	NotFnd	*	0.0520	*;n;	*;n	no
Unk	1,2,3,4,7,8-HxCDD	*	*	*	*;n;	NotFnd	*	0.1254	*;n;	*;n	no
Unk	1,2,3,6,7,8-HxCDD	*	*	*	*;n;	NotFnd	*	0.1469	*;n;	*;n	no
Unk	1,2,3,7,8,9-HxCDD	*	*	*	*;n;	NotFnd	*	0.1255	*;n;	*;n	no
Unk	1,2,3,4,6,7,8-HpCDD	3.49e+04	2.13e+04	1.36e+04	1.57;n;	40:04	0.040	0.0740	3;n;	2;n	no
Unk	OCDD	1.54e+05	7.61e+04	7.77e+04	0.98;y;	44:15	0.239	0.3155	2;n;	3;y	yes
Unk	2,3,7,8-TCDF	*	*	*	*;n;	NotFnd	*	0.0550	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDF	*	*	*	*;n;	NotFnd	*	0.0369	*;n;	*;n	no
Unk	2,3,4,7,8-PeCDF	1.94e+04	1.31e+04	6.32e+03	2.06;n;	33:56	0.010	0.0345	2;n;	1;n	no
Unk	1,2,3,4,7,8-HxCDF	*	*	*	*;n;	NotFnd	*	0.0553	*;n;	*;n	no
Unk	1,2,3,6,7,8-HxCDF	*	*	*	*;n;	NotFnd	*	0.0568	*;n;	*;n	no
Unk	2,3,4,6,7,8-HxCDF	*	*	*	*;n;	NotFnd	*	0.0672	*;n;	*;n	no
Unk	1,2,3,7,8,9-HxCDF	*	*	*	*;n;	NotFnd	*	0.0745	*;n;	*;n	no
Unk	1,2,3,4,6,7,8-HpCDF	*	*	*	*;n;	NotFnd	*	0.0555	*;n;	*;n	no
Unk	1,2,3,4,7,8,9-HpCDF	*	*	*	*;n;	NotFnd	*	0.0746	*;n;	*;n	no
Unk	OCDF	*	*	*	*;n;	NotFnd	*	0.1745	*;n;	*;n	no
ES/RT	13C-2,3,7,8-TCDD	1.15e+08	5.05e+07	6.43e+07	0.78;y;	31:15	43.309	0.0494	2578;y;	4415;y	no
ES	13C-1,2,3,7,8-PeCDD	1.07e+08	6.53e+07	4.16e+07	1.57;y;	34:07	47.870	0.1018	2149;y;	3286;y	no
ES	13C-1,2,3,4,7,8-HxCDD	1.16e+08	6.46e+07	5.11e+07	1.26;y;	36:47	57.194	0.0635	2907;y;	2507;y	no
ES	13C-1,2,3,6,7,8-HxCDD	1.16e+08	6.46e+07	5.11e+07	1.26;y;	36:47	51.373	0.0570	2907;y;	2507;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	8.62e+07	4.46e+07	4.16e+07	1.07;y;	40:03	39.955	0.0427	1986;y;	2515;y	no
ES	13C-OCDD	1.20e+08	5.56e+07	6.41e+07	0.87;y;	44:15	71.192	0.0467	2336;y;	3149;y	no
ES/RT	13C-2,3,7,8-TCDF	1.75e+08	7.79e+07	9.72e+07	0.80;y;	30:34	46.600	0.0310	4503;y;	3532;y	no
ES	13C-1,2,3,7,8-PeCDF	1.68e+08	1.04e+08	6.45e+07	1.60;y;	33:18	48.875	0.1106	2327;y;	2267;y	no
ES	13C-2,3,4,7,8-PeCDF	1.65e+08	1.02e+08	6.34e+07	1.61;y;	33:55	50.723	0.1167	2293;y;	2244;y	no
ES	13C-1,2,3,4,7,8-HxCDF	1.39e+08	4.70e+07	9.24e+07	0.51;y;	36:05	47.464	0.1126	743;y;	2454;y	no
ES	13C-1,2,3,6,7,8-HxCDF	1.39e+08	4.70e+07	9.24e+07	0.51;y;	36:05	44.026	0.1045	743;y;	2454;y	no
ES	13C-2,3,4,6,7,8-HxCDF	1.26e+08	4.24e+07	8.35e+07	0.51;y;	36:34	42.489	0.1116	669;y;	2126;y	no
ES	13C-1,2,3,7,8,9-HxCDF	1.20e+08	4.11e+07	7.90e+07	0.52;y;	37:20	49.141	0.1354	543;y;	1760;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	9.85e+07	3.19e+07	6.66e+07	0.48;y;	38:48	42.024	0.0588	1945;y;	1965;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	8.62e+07	2.83e+07	5.80e+07	0.49;y;	40:43	44.653	0.0713	1469;y;	1462;y	no
JS	13C-1,2,3,4-TCDD	2.50e+08	1.10e+08	1.40e+08	0.79;y;	30:45	123.475	-	4402;y;	7498;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.36e+08	1.31e+08	1.05e+08	1.25;y;	37:01	143.104	-	5886;y;	5105;y	no
CS	37Cl-2,3,7,8-TCDD	5.46e+07	5.46e+07	-	-;-	31:16	18.610	0.0212	3300;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0	0	FALSE
PeCDD	0	0	FALSE
HxCDF	0	0	FALSE
HxCDD	0	0	FALSE
HpCDF	0	0	FALSE
HpCDD	0	0	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	5	Number of Peaks Found:	0
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.055
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	5	Number of Peaks Found:	3
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.051
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	27:30:00
Results Table:	m1613-111500a_2	End Window:	32:25:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.75E+04	15600	21900	0.71	y	29:24	0.028	S2N	2	n	2.6	n	n
	2	1.66E+05	130000	35500	3.67	n	30:34	0.122	S2N	9.1	y	2.4	n	n
2,3,7,8-TCDD	3	3.77E+04	5370	32300	0.17	n	31:16	0.028	S2N	1.1	n	3.2	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	5	Number of Peaks Found:	2
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.0253
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:37:00
Results Table:	m1613-111500a_2	End Window:	31:57:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.63E+05	121000	242000	0.5	n	30:45	0.199	RT	8.4	y	18.8	y	n

	2	1.70E+05	45400	125000	0.36	n	31:16	0.093	RT	4.7	y	12.4	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	5	Number of Peaks Found:	5
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.0357
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:34:00
Results Table:	m1613-111500a_2	End Window:	34:42:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.59E+04	4330	11600	0.37	n	32:24	0.009	S2N	0.6	n	1	n	n
	2	1.47E+04	8520	6210	1.37	y	32:27	0.008	S2N	0.7	n	0.7	n	n
	3	6.04E+03	2840	3190	0.89	n	32:31	0.003	S2N	0.4	n	0.7	n	n
	4	7.35E+03	4150	3190	1.3	n	32:33	0.004	S2N	0.7	n	0.7	n	n
2,3,4,7,8-PeCDF	5	1.94E+04	13100	6320	2.06	n	33:56	0.01	S2N	2	n	1	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	5	Number of Peaks Found:	2
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.183
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	32:43:00
Results Table:	m1613-111500a_2	End Window:	34:28:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.95E+05	141000	54400	2.59	n	33:18	0	CF	16.8	y	5.2	y	n
	2	2.01E+05	148000	52700	2.82	n	33:55	0	CF	17.9	y	5.6	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	5	Number of Peaks Found:	1
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.0634
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	m1613-111500a_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	9.32E+04	65200	28000	2.33	n	37:02	0.059	S2N	3.9	y	2.2	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Dioxins

Sample:	5	Number of Peaks Found:	4
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.0787
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.1322
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	35:25:00
Results Table:	m1613-111500a_2	End Window:	37:06:00

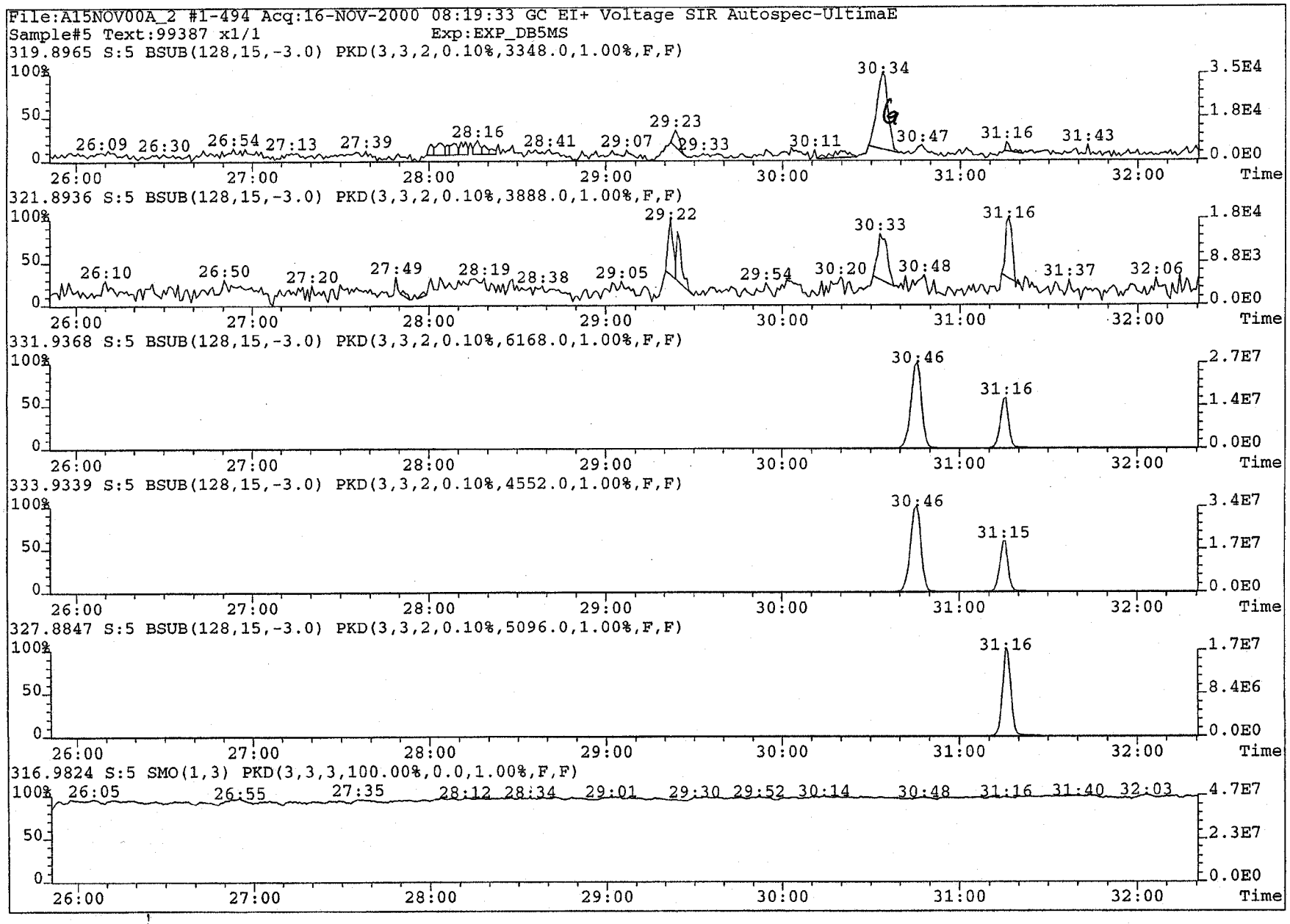
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.51E+05	117000	34400	3.39	n	35:59	0.121	S2N	4.6	y	2.1	n	n
	2	1.99E+05	141000	58200	2.42	n	36:05	0.16	S2N	5.2	y	2.4	n	n
	3	1.74E+05	115000	58400	1.98	n	36:34	0.139	S2N	4.4	y	2.6	n	n
	4	1.36E+05	108000	28000	3.84	n	37:20	0.109	RT	3.4	y	1.5	n	n

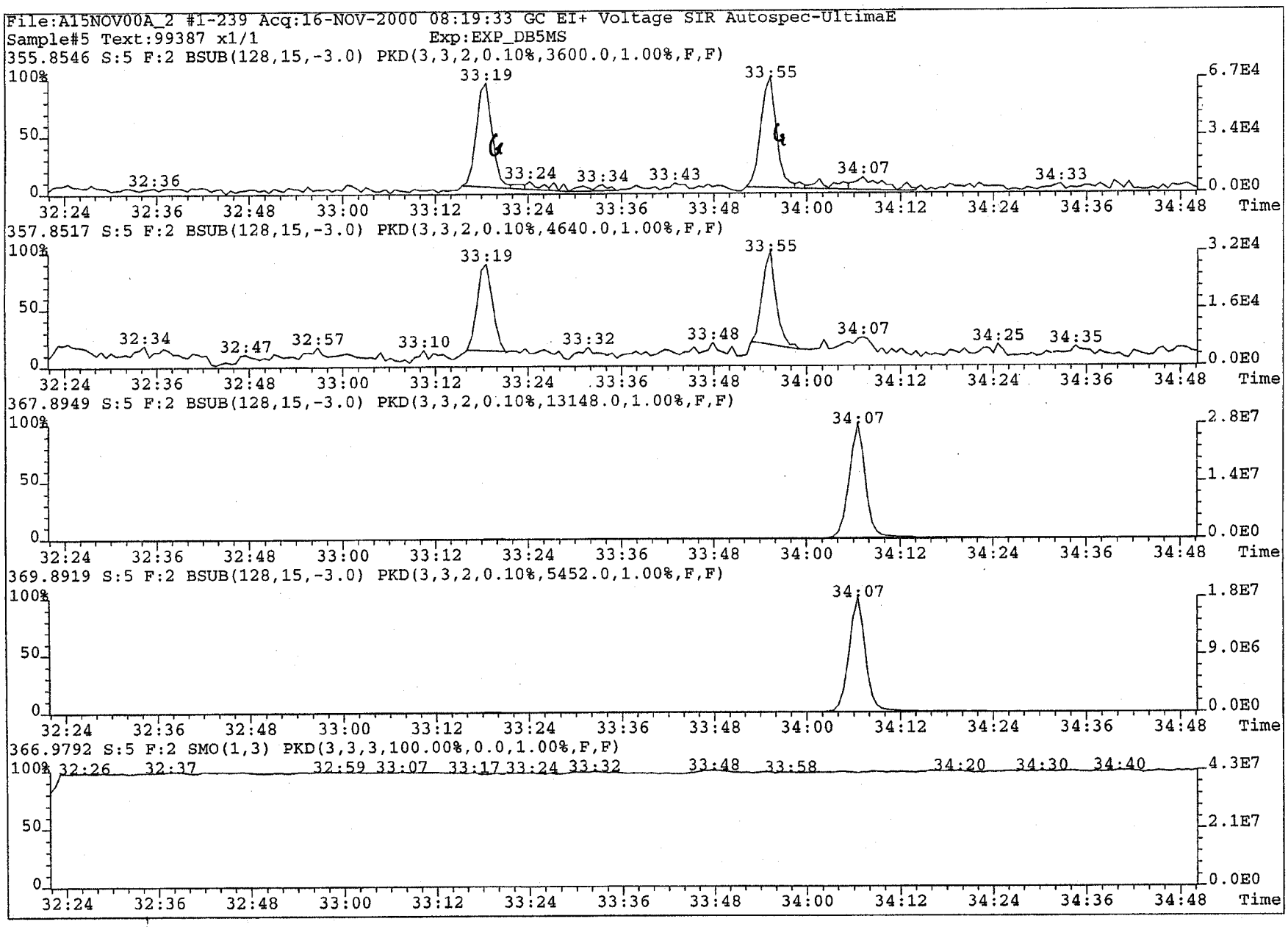
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Furans
Sample:	5	Number of Peaks Found:	1
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.4605
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.0644
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	38:37:00
Results Table:	m1613-111500a_2	End Window:	40:48:00

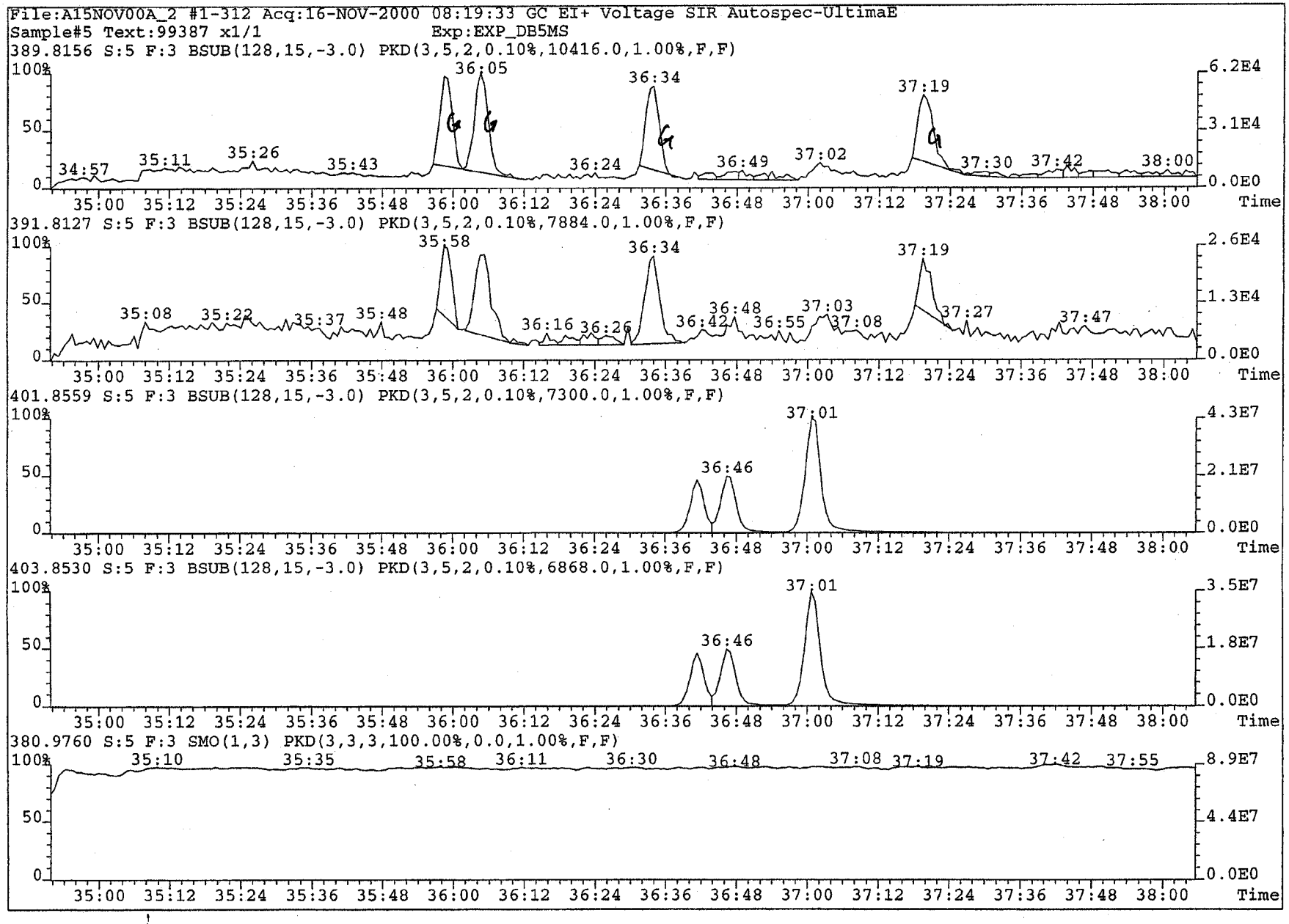
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	9.54E+03	2600	6940	0.37	n	38:10	0.007	RT	0.4	n	0.5	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Dioxins
Sample:	5	Number of Peaks Found:	10
Acquired:	16-NOV-00 08:19:33	RRF Used For Totals:	1.0066
Processed:	16-NOV-00 15:21:32	Detection Limit:	0.074
Sample ID:	99387 x1/1		
Cal Table:	m1613-052699m	Begin Window:	39:01:00
Results Table:	m1613-111500a_2	End Window:	39:21:00

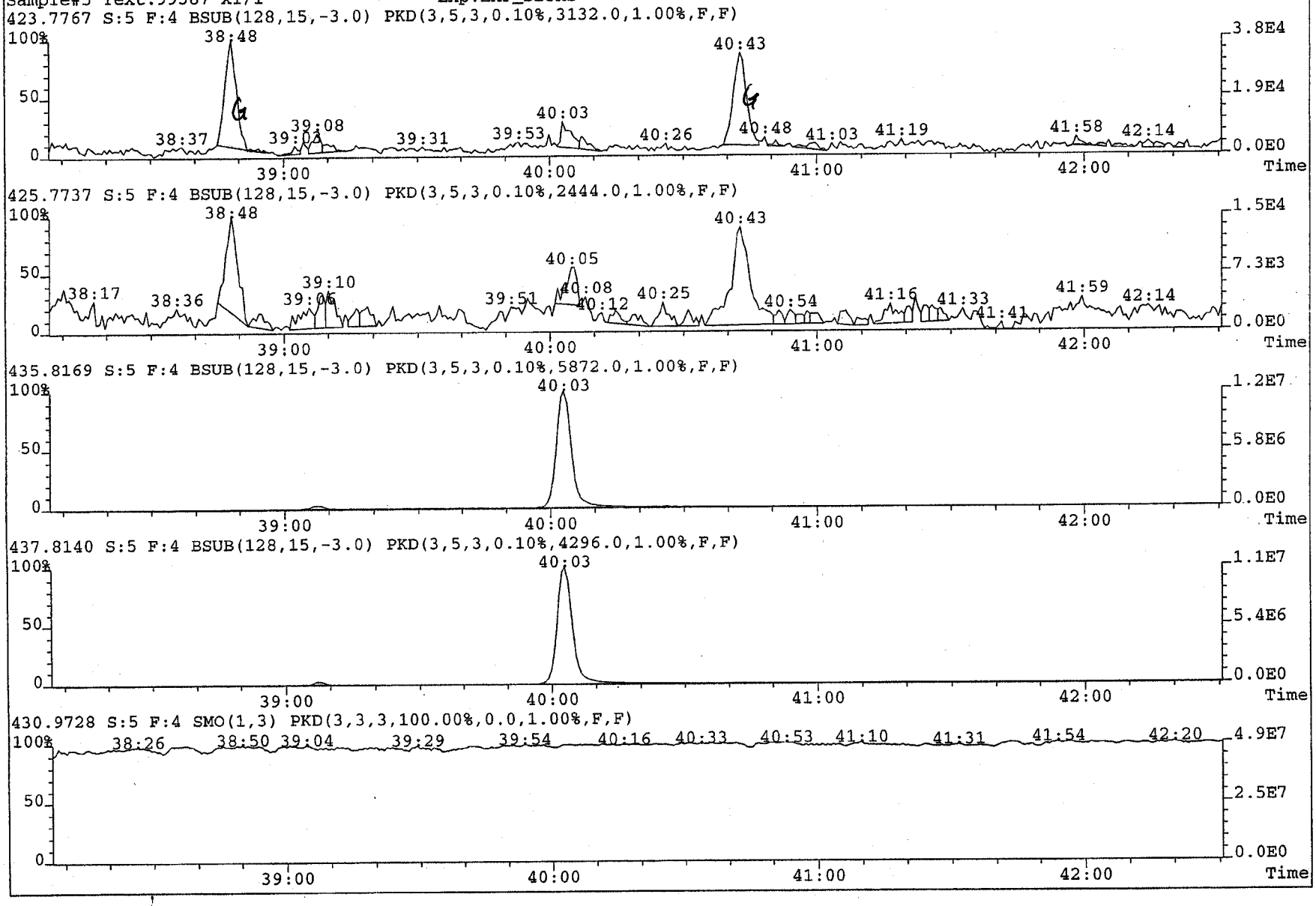
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.38E+05	101000	36000	2.82	n	38:48	0.158	RT	11.1	y	4.9	y	n
	2	7.10E+03	1650	5450	0.3	n	38:54	0.008	RT	0.3	n	0.7	n	n
	3	1.31E+04	3990	9120	0.44	n	39:02	0.015	S2N	0.9	n	1.1	n	n
	4	2.08E+04	13100	7750	1.69	n	39:07	0.024	S2N	2	n	1.7	n	n
	5	1.65E+04	6970	9560	0.73	n	39:10	0.019	S2N	0.8	n	1.9	n	n
1,2,3,4,6,7,8-HpCDI	6	3.49E+04	21300	13600	1.57	n	40:04	0.04	RT	2.7	n	1.9	n	n
	7	1.66E+05	103000	63200	1.63	n	40:43	0.191	RT	9.7	y	5	y	n
	8	5.04E+03	2160	2880	0.75	n	40:51	0.006	RT	0.6	n	0.7	n	n
	9	3.64E+03	1660	1980	0.84	n	40:56	0.004	RT	0.3	n	0.5	n	n
	10	8.18E+03	5260	2920	1.8	n	40:59	0.009	RT	0.7	n	0.5	n	n

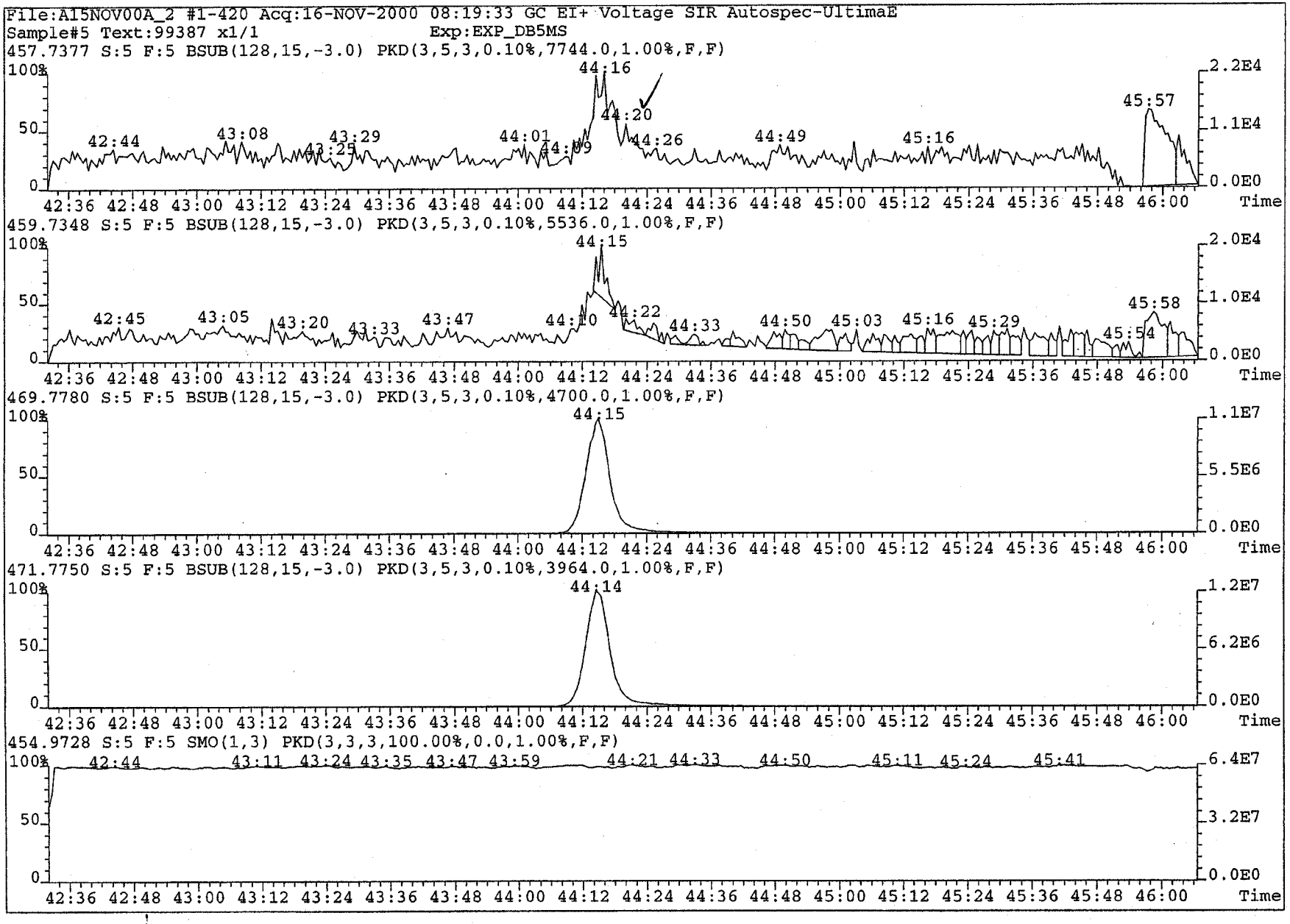

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
319.8965 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3348.0,1.00%,F,F)
321.8936 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3888.0,1.00%,F,F)
331.9368 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6168.0,1.00%,F,F)
333.9339 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4552.0,1.00%,F,F)
327.8847 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5096.0,1.00%,F,F)
316.9824 S:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

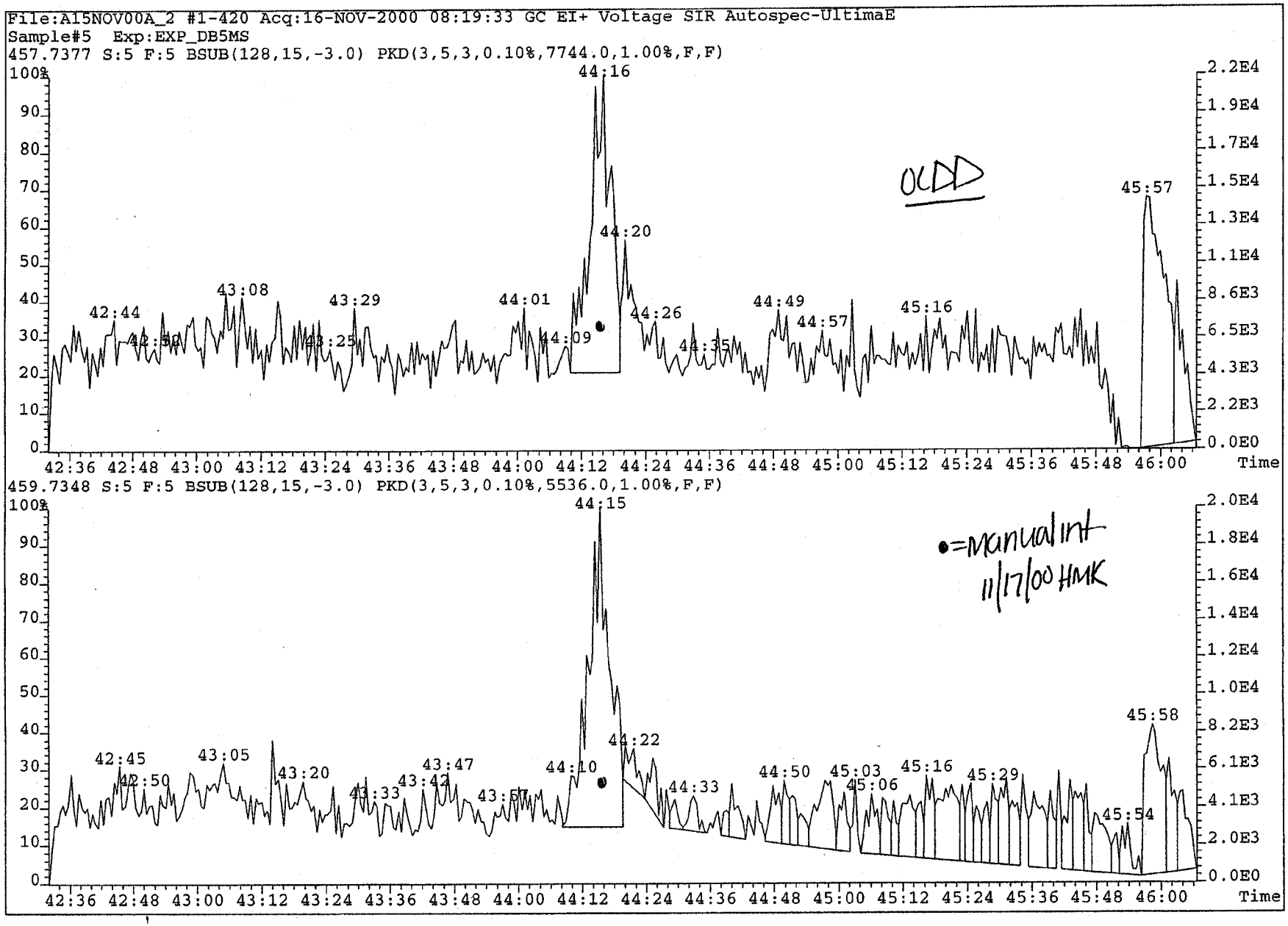

File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
355.8546 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3600.0,1.00%,F,F)
33:19
33:55
32:36
33:24
33:34
33:43
34:07
34:33
6.7E4
3.4E4
0.0E0
357.8517 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4640.0,1.00%,F,F)
33:19
33:55
32:34
32:47
32:57
33:10
33:32
33:48
34:07
34:25
34:35
3.2E4
1.6E4
0.0E0
367.8949 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,13148.0,1.00%,F,F)
34:07
2.8E7
1.4E7
0.0E0
369.8919 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5452.0,1.00%,F,F)
34:07
1.8E7
9.0E6
0.0E0
366.9792 S:5 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:26
32:37
32:59
33:07
33:17
33:24
33:32
33:48
33:58
34:20
34:30
34:40
4.3E7
2.1E7
0.0E0
100%
50
0
32:24
32:36
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
Time


File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
389.8156 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,10416.0,1.00%,F,F)
391.8127 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7884.0,1.00%,F,F)
401.8559 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7300.0,1.00%,F,F)
403.8530 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6868.0,1.00%,F,F)
380.9760 S:5 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

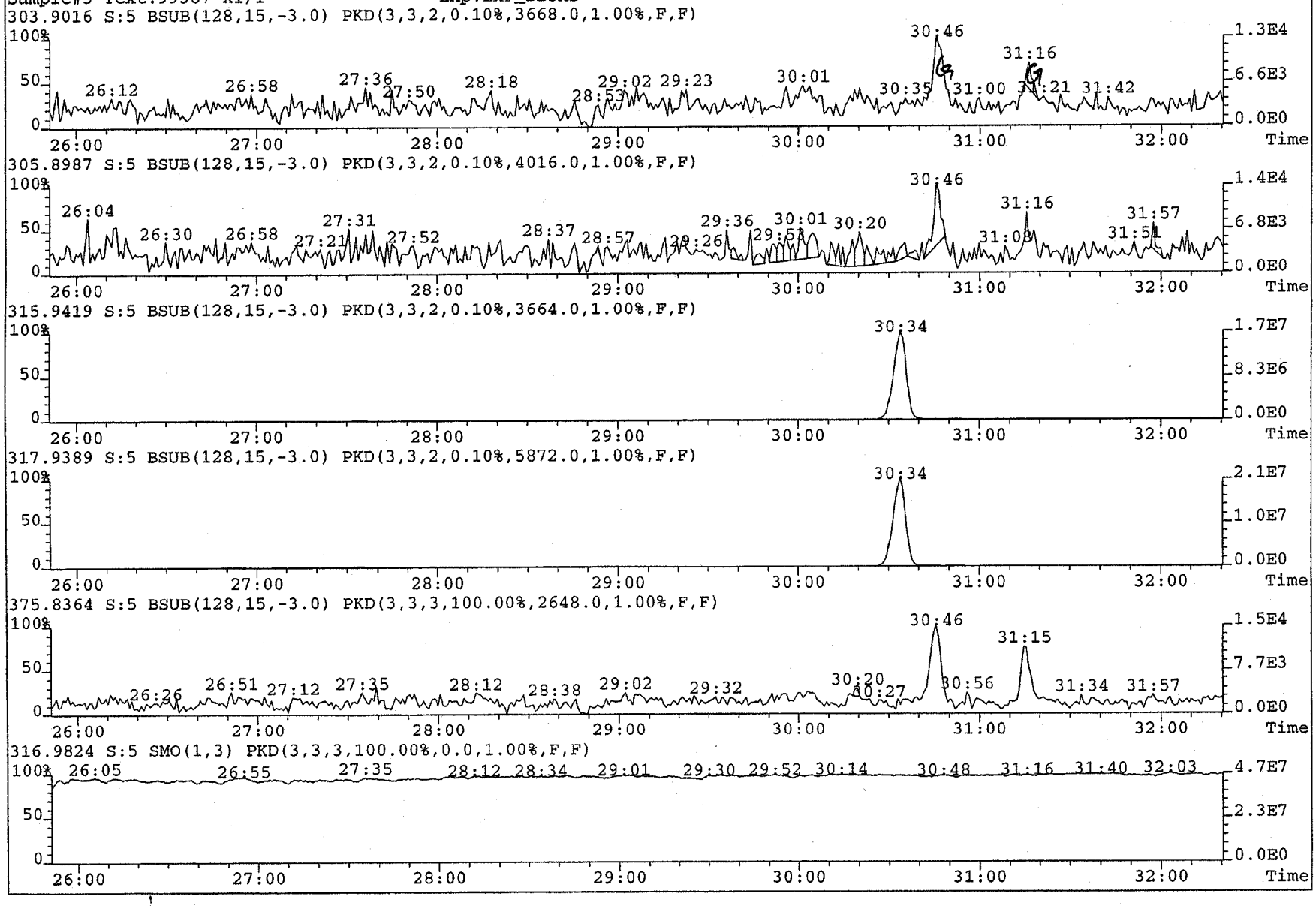
File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS

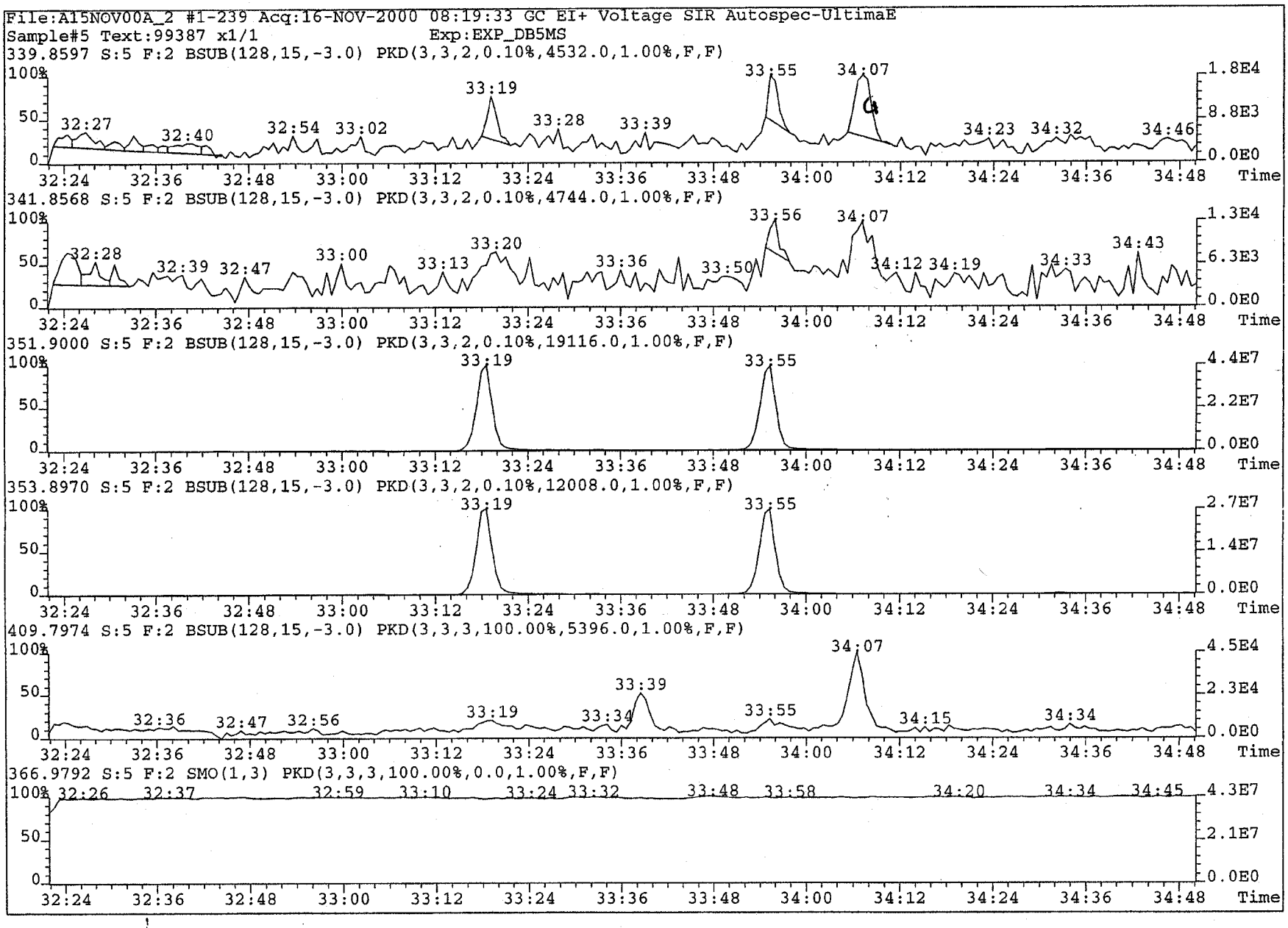


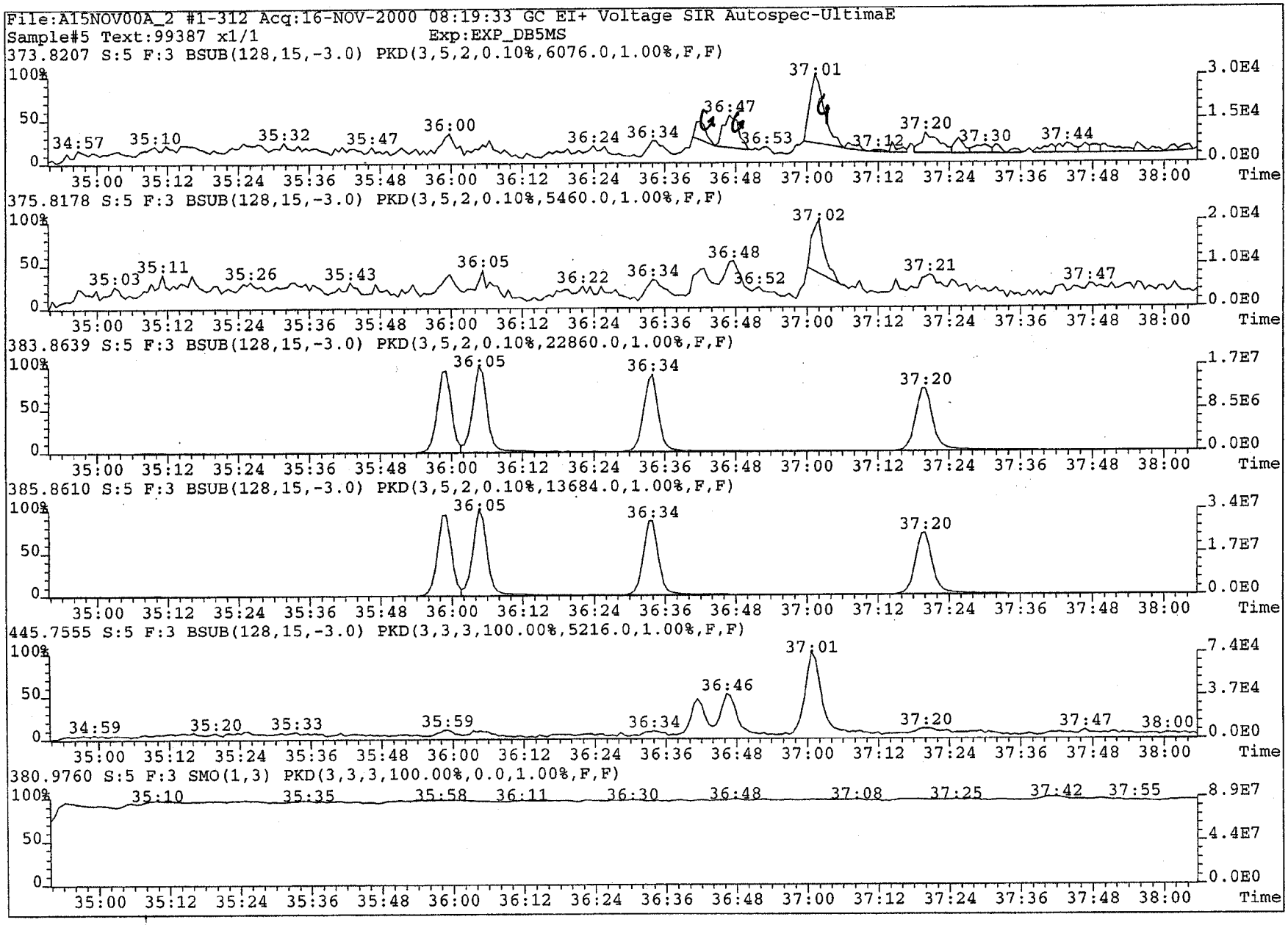

File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
457.7377 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7744.0,1.00%,F,F)
459.7348 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5536.0,1.00%,F,F)
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4700.0,1.00%,F,F)
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3964.0,1.00%,F,F)
454.9728 S:5 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

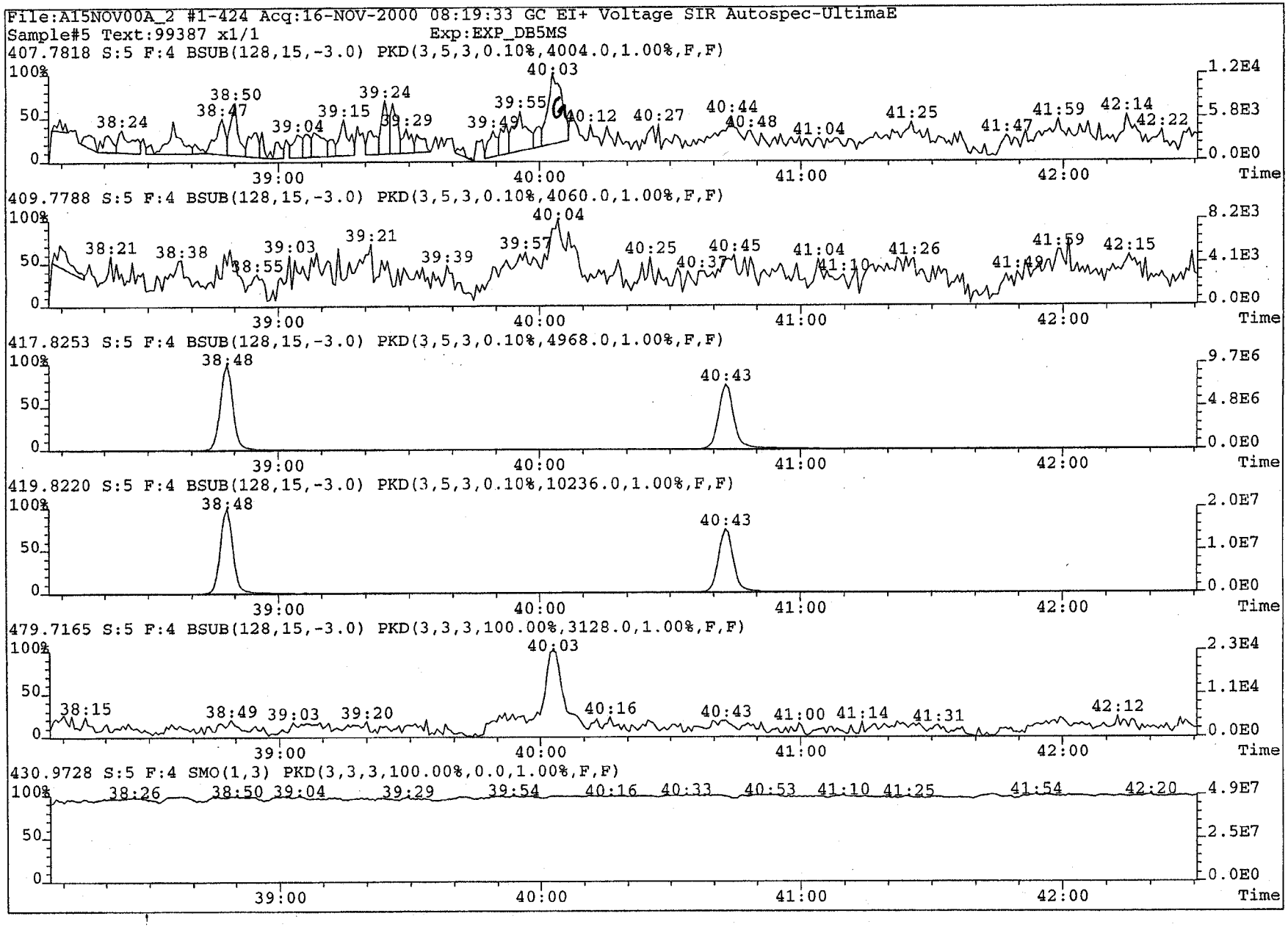

File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Exp:EXP_DB5MS
457.7377 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7744.0,1.00%,F,F)
OCDD
459.7348 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5536.0,1.00%,F,F)
•=manual int
11/17/00 HMK
Time

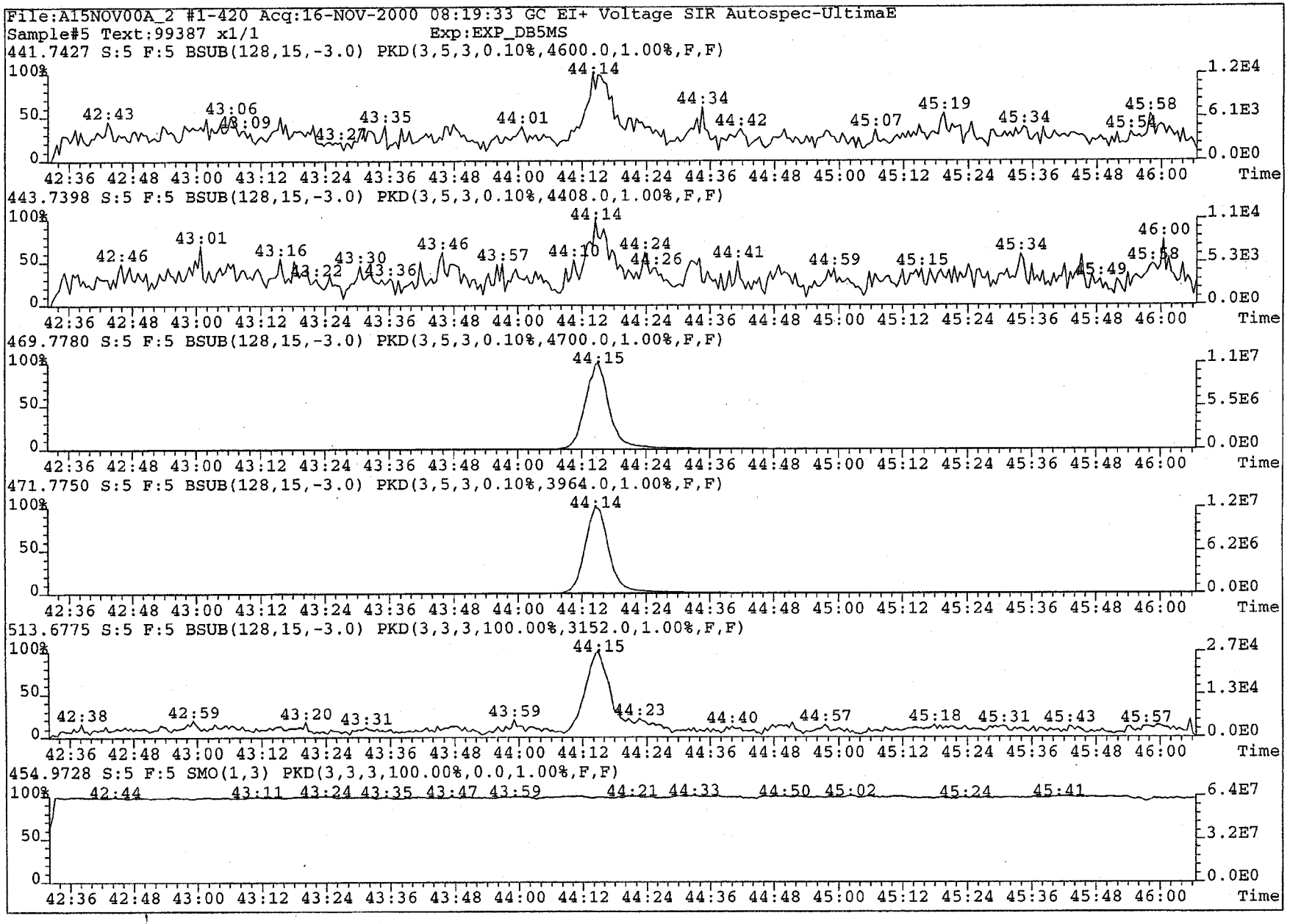
File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS

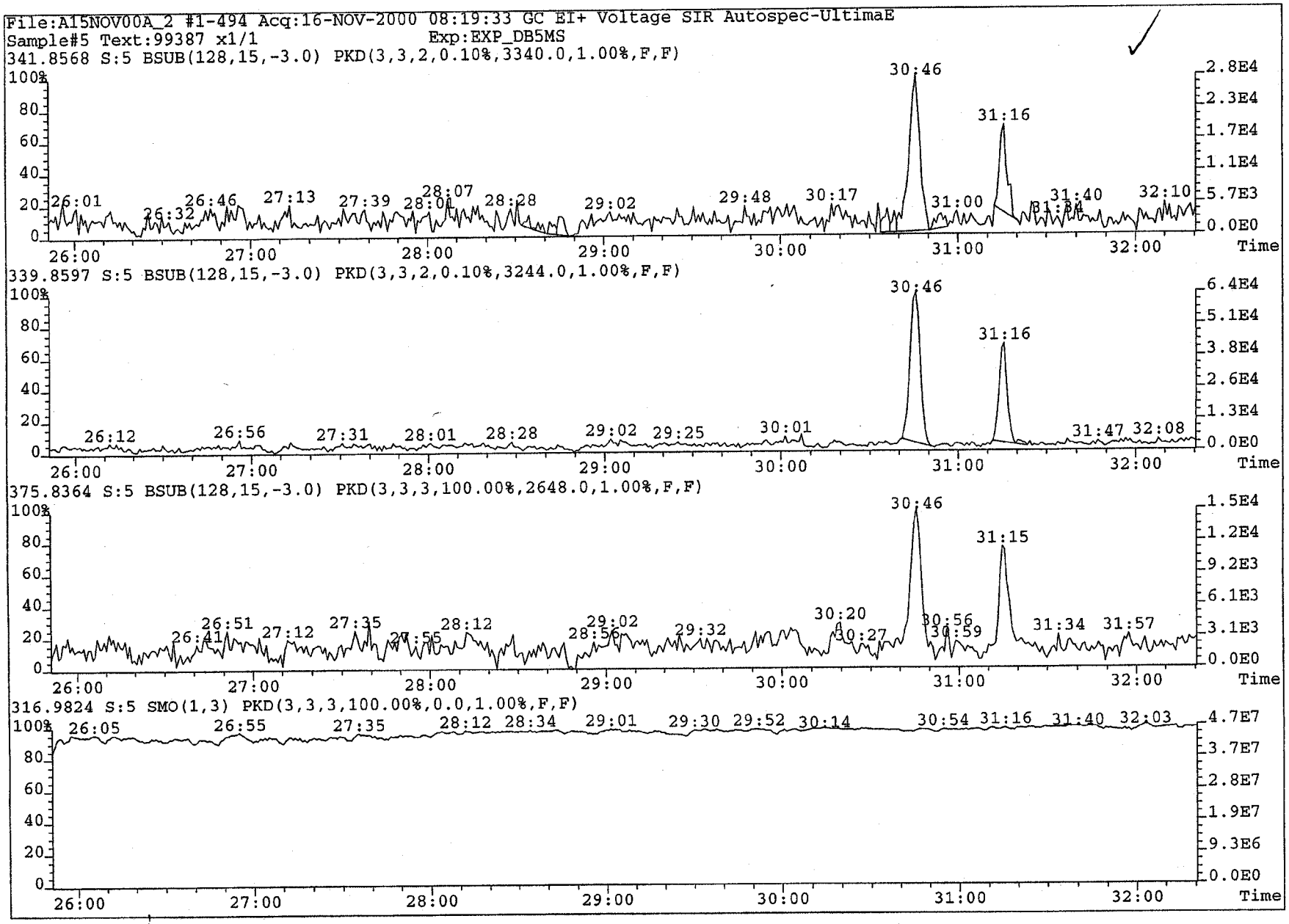



File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
339.8597 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4532.0,1.00%,F,F)
341.8568 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4744.0,1.00%,F,F)
351.9000 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,19116.0,1.00%,F,F)
353.8970 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,12008.0,1.00%,F,F)
409.7974 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5396.0,1.00%,F,F)
366.9792 S:5 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 Time
1.8E4
8.8E3
0.0E0
1.3E4
6.3E3
4.4E7
2.2E7
2.7E7
1.4E7
4.5E4
2.3E4
4.3E7
2.1E7


File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
373.8207 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6076.0,1.00%,F,F)
375.8178 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5460.0,1.00%,F,F)
383.8639 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,22860.0,1.00%,F,F)
385.8610 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,13684.0,1.00%,F,F)
445.7555 S:5 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5216.0,1.00%,F,F)
380.9760 S:5 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time


File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
407.7818 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4004.0,1.00%,F,F)
409.7788 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4060.0,1.00%,F,F)
417.8253 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4968.0,1.00%,F,F)
419.8220 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,10236.0,1.00%,F,F)
479.7165 S:5 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3128.0,1.00%,F,F)
430.9728 S:5 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
39:00
40:00
41:00
42:00
Time
1.2E4
5.8E3
0.0E0
8.2E3
4.1E3
9.7E6
4.8E6
2.0E7
1.0E7
2.3E4
1.1E4
4.9E7
2.5E7


File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1 Exp:EXP_DB5MS
441.7427 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4600.0,1.00%,F,F)
443.7398 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4408.0,1.00%,F,F)
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4700.0,1.00%,F,F)
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3964.0,1.00%,F,F)
513.6775 S:5 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3152.0,1.00%,F,F)
454.9728 S:5 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 08:19:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:99387 x1/1
Exp:EXP_DB5MS
341.8568 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3340.0,1.00%,F,F)
339.8597 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3244.0,1.00%,F,F)
375.8364 S:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2648.0,1.00%,F,F)
316.9824 S:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

Method 1613

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Delta Environmental Consultants

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0021				
1,2,3,7,8-PeCDD	ND	0.0012				
1,2,3,4,7,8-HxCDD	ND	0.0031				
1,2,3,6,7,8-HxCDD	ND	0.0037				
1,2,3,7,8,9-HxCDD	ND	0.0031				
1,2,3,4,6,7,8-HpCDD	0.0449			40:04	1.04	A
OCDD	1.06			44:16	0.84	
2,3,7,8--TCDF	ND	0.0013				
1,2,3,7,8-PeCDF	ND	0.0009				
2,3,4,7,8-PeCDF	ND	0.0008				
1,2,3,4,7,8-HxCDF	ND	0.0014				
1,2,3,6,7,8-HxCDF	ND	0.0014				
2,3,4,6,7,8-HxCDF	ND	0.0016				
1,2,3,7,8,9-HxCDF	ND	0.0018				
1,2,3,4,6,7,8-HpCDF	ND	0.0012				
1,2,3,4,7,8,9-HpCDF	ND	0.0015				
OCDF	ND	0.0040				
Total TCDDs	ND	0.0021				
Total PeCDDs	ND	0.0040	0.0026			
Total HxCDDs	0.0294					
Total HpCDDs	0.115					
Total TCDFs	ND	0.0013				
Total PeCDFs	ND	0.0008				
Total HxCDFs	ND	0.0015				
Total HpCDFs	ND	0.0013				
TEQ (ND=0)	0.0015		0.0015			ITEF
TEQ (ND=½)	0.0040		0.0040			ITEF

Client Information

Project Name:	E096-007-5.0040
Sample ID:	LF-10

Laboratory Information

Project ID:	G129-306
Sample ID:	99388
Collection Date/Time:	08-Nov-00
Receipt Date:	10-Nov-00
Extraction Date:	13-Nov-00
Analysis Date:	16-Nov-00

Sample Information

Matrix:	Aqueous
Weight / Volume:	514 mL
Solids / Lipids:	NA
Original pH :	5
Batch ID:	WG5101
Filename:	a15nov00a_2-6
Retchk:	a15nov00a-15
Begin ConCal:	a15nov00a-15
Initial Cal:	m1613-052699m

Method 1613

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Delta Environmental Consultants

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1.0	0.83	83.2	31:15	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1.0	0.87	87.0	34:07	1.61	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1.0	1.10	110.1	36:47	1.24	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.0	0.99	98.9	36:47	1.24	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1.0	0.75	74.5	40:03	1.07	
$^{13}C_{12}$-OCDD	2.0	1.35	67.6	44:15	0.85	
$^{13}C_{12}$-2,3,7,8-TCDF	1.0	0.89	88.8	30:34	0.82	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.0	0.91	91.2	33:18	1.61	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.0	0.94	93.7	33:55	1.61	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.0	0.92	91.8	36:05	0.51	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.0	0.85	85.2	36:05	0.51	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.0	0.80	80.4	36:34	0.52	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.0	0.93	93.4	37:20	0.51	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.0	0.77	76.6	38:48	0.49	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.0	0.85	84.7	40:43	0.48	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.36	88.8	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.0			30:45	0.79	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.0			36:34	0.52	

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-10

Laboratory Information

Project ID: G129-306
Sample ID: 99388

Collection Date/Time: 08-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Aqueous
Weight / Volume: 514 mL
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-6
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Reviewed by: MK

Date Reviewed: 11/20/00

Filename ; a15nov00a_2
Sample ; 6
Acquired ; 16-NOV-00 09:08:00
Processed ; 16-NOV-00 15:21:33
Sample ID ; 99388 x1/1
Cal Table ; m1613-052699m
Results Table ; m1613-111500a_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	*	*	*	*;n;NotFnd		*	0.1053	*;n	*;n	no
Unk	1,2,3,7,8-PeCDD	*	*	*	*;n;NotFnd		*	0.0636	*;n	*;n	no
Unk	1,2,3,4,7,8-HxCDD	*	*	*	*;n;NotFnd		*	0.1613	*;n	*;n	no
Unk	1,2,3,6,7,8-HxCDD	*	*	*	*;n;NotFnd		*	0.1889	*;n	*;n	no
Unk	1,2,3,7,8,9-HxCDD	1.04e+05	5.45e+04	4.98e+04	1.09;y	37:01	0.086	0.1614	2;n	2;n	yes
Unk	1,2,3,4,6,7,8-HpCDD	1.80e+06	9.14e+05	8.83e+05	1.04;y	40:04	2.307	0.0905	67;y	91;y	no
Unk	OCDD	3.20e+07	1.46e+07	1.74e+07	0.84;y	44:16	54.428	0.8986	116;y	358;y	no
Unk	2,3,7,8-TCDF	*	*	*	*;n;NotFnd		*	0.0651	*;n	*;n	no
Unk	1,2,3,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0439	*;n	*;n	no
Unk	2,3,4,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0429	*;n	*;n	no
Unk	1,2,3,4,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0693	*;n	*;n	no
Unk	1,2,3,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0712	*;n	*;n	no
Unk	2,3,4,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0843	*;n	*;n	no
Unk	1,2,3,7,8,9-HxCDF	4.22e+04	2.10e+04	2.12e+04	0.99;n	37:21	0.030	0.0904	1;n	1;n	no
Unk	1,2,3,4,6,7,8-HpCDF	6.90e+04	3.35e+04	3.55e+04	0.95;y	38:49	0.055	0.0597	3;y	3;n	yes
Unk	1,2,3,4,7,8,9-HpCDF	2.50e+04	1.90e+04	6.00e+03	3.17;n	40:43	0.022	0.0758	2;n	1;n	no
Unk	OCDF	*	*	*	*;n;NotFnd		*	0.2030	*;n	*;n	no
ES/RT	13C-2,3,7,8-TCDD	1.10e+08	4.87e+07	6.14e+07	0.79;y	31:15	41.583	0.0592	2138;y	3357;y	no
ES	13C-1,2,3,7,8-PeCDD	9.70e+07	5.99e+07	3.71e+07	1.61;y	34:07	43.496	0.1212	1599;y	2398;y	no
ES	13C-1,2,3,4,7,8-HxCDD	1.07e+08	5.93e+07	4.78e+07	1.24;y	36:47	55.051	0.0758	2197;y	2223;y	no
ES	13C-1,2,3,6,7,8-HxCDD	1.07e+08	5.93e+07	4.78e+07	1.24;y	36:47	49.449	0.0681	2197;y	2223;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	7.74e+07	4.00e+07	3.74e+07	1.07;y	40:03	37.256	0.0915	719;y	1449;y	no
ES	13C-OCDD	1.09e+08	5.02e+07	5.91e+07	0.85;y	44:15	67.601	0.0629	1485;y	2553;y	no
ES/RT	13C-2,3,7,8-TCDF	1.67e+08	7.51e+07	9.15e+07	0.82;y	30:34	44.413	0.0829	2725;y	970;y	no
ES	13C-1,2,3,7,8-PeCDF	1.57e+08	9.66e+07	6.00e+07	1.61;y	33:18	45.594	0.0446	11899;y	2770;y	no
ES	13C-2,3,4,7,8-PeCDF	1.53e+08	9.41e+07	5.84e+07	1.61;y	33:55	46.872	0.0470	11013;y	2684;y	no
ES	13C-1,2,3,4,7,8-HxCDF	1.30e+08	4.40e+07	8.59e+07	0.51;y	36:05	45.922	0.1154	812;y	1819;y	no
ES	13C-1,2,3,6,7,8-HxCDF	1.30e+08	4.40e+07	8.59e+07	0.51;y	36:05	42.595	0.1070	812;y	1819;y	no
ES	13C-2,3,4,6,7,8-HxCDF	1.15e+08	3.91e+07	7.56e+07	0.52;y	36:34	40.200	0.1143	729;y	1579;y	no
ES	13C-1,2,3,7,8,9-HxCDF	1.10e+08	3.73e+07	7.25e+07	0.51;y	37:20	46.698	0.1387	605;y	1352;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	8.64e+07	2.83e+07	5.81e+07	0.49;y	38:48	38.324	0.0366	1610;y	4430;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	7.87e+07	2.57e+07	5.30e+07	0.48;y	40:43	42.336	0.0444	1279;y	3490;y	no
JS	13C-1,2,3,4-TCDD	2.49e+08	1.10e+08	1.40e+08	0.79;y	30:45	123.291	-	3820;y	5948;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.27e+08	1.25e+08	1.02e+08	1.23;y	37:01	137.715	-	4521;y	4727;y	no
CS	37Cl-2,3,7,8-TCDD	5.20e+07	5.20e+07	-	-;-	31:16	17.766	0.0274	2481;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0	0	FALSE
PeCDD	0	0.132	TRUE
HxCDF	0	0	FALSE
HxCDD	1.512	1.512	FALSE
HpCDF	0	0	FALSE
HpCDD	5.92	5.92	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	6	Number of Peaks Found:	0
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.0651
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	6	Number of Peaks Found:	1
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.1053
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	27:30:00
Results Table:	m1613-111500a_2	End Window:	32:25:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.14E+05	80400	33800	2.38	n	30:34	0.088	S2N	2.9	n	1.7	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	6	Number of Peaks Found:	3
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.0406
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:37:00
Results Table:	m1613-111500a_2	End Window:	31:57:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.21E+05	81900	239000	0.34	n	30:46	0.189	RT	4	y	13.2	y	n
	2	8.12E+03	5890	2230	2.65	n	30:54	0.005	RT	0.5	n	0.2	n	n
	3	1.54E+05	34400	120000	0.29	n	31:16	0.091	RT	2.4	n	8	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	6	Number of Peaks Found:	0
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.0434
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	6	Number of Peaks Found:	3
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.204
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	32:43:00
Results Table:	m1613-111500a_2	End Window:	34:28:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.32E+05	87300	44700	1.95	n	33:02	0.132	EMPC	8	y	5.1	y	y
	2	2.04E+05	150000	53800	2.79	n	33:18	0	CF	11	y	6.9	y	n
	3	1.72E+05	126000	46500	2.71	n	33:55	0	CF	9.5	y	6.3	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	6	Number of Peaks Found:	4
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.0787
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	m1613-111500a_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	8.19E+04	54800	27100	2.02	n	37:02	0.056	S2N	3.1	y	1.7	n	n
	2	7.36E+03	4040	3320	1.22	y	37:09	0.005	S2N	0.3	n	0.3	n	n
	3	1.44E+04	6980	7380	0.95	n	37:15	0.01	S2N	0.5	n	0.4	n	n
1,2,3,7,8,9-HxCDF	4	4.22E+04	21000	21200	0.99	n	37:21	0.03	S2N	0.8	n	0.7	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Dioxins
Sample:	6	Number of Peaks Found:	23

Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.0787
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.1701
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	35:25:00
Results Table:	m1613-111500a_2	End Window:	37:06:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.09E+06	588000	502000	1.17	y	35:28	0.943	OK	20.5	y	22.1	y	n
	2	8.48E+03	4540	3940	1.15	y	35:35	0.007	S2N	0.4	n	0.4	n	n
	3	8.87E+03	3450	5420	0.64	n	35:38	0.008	S2N	0.2	n	0.3	n	n
	4	1.05E+04	5620	4830	1.16	y	35:43	0.009	S2N	0.3	n	0.3	n	n
	5	1.01E+04	6570	3530	1.86	n	35:47	0.009	S2N	0.3	n	0.3	n	n
	6	8.61E+03	2790	5820	0.48	n	35:50	0.007	S2N	0.1	n	0.4	n	n
	7	1.08E+04	4940	5820	0.85	n	35:53	0.009	S2N	0.3	n	0.4	n	n
	8	2.17E+05	152000	65300	2.33	n	35:58	0.188	S2N	4	y	2.1	n	n
	9	6.58E+05	386000	271000	1.43	y	36:07	0.569	OK	7	y	6.1	y	n
	10	3.75E+04	17100	20300	0.84	n	36:13	0.032	S2N	0.7	n	0.9	n	n
	11	7.76E+03	3160	4610	0.69	n	36:19	0.007	S2N	0.2	n	0.2	n	n
	12	7.86E+03	3250	4610	0.71	n	36:21	0.007	S2N	0.2	n	0.2	n	n
	13	7.89E+03	5470	2420	2.26	n	36:26	0.007	S2N	0.2	n	0.2	n	n
1,2,3,7,8,9-HxCDD	14	1.04E+05	54500	49800	1.09	y	37:01	0.086	S2N	1.8	n	2.2	n	y
	15	1.38E+05	83600	54200	1.54	n	37:19	0.119	RT	2.6	n	1.7	n	n
	16	8.82E+03	2660	6150	0.43	n	37:27	0.008	RT	0.2	n	0.4	n	n
	17	6.18E+03	4520	1660	2.72	n	37:31	0.005	RT	0.1	n	0.1	n	n
	18	1.03E+04	2870	7400	0.39	n	37:37	0.009	RT	0.2	n	0.4	n	n
	19	5.61E+04	33600	22500	1.49	n	37:40	0.049	RT	0.8	n	1.3	n	n
	20	1.98E+04	10500	9230	1.14	y	37:44	0.017	RT	0.4	n	0.7	n	n
	21	1.78E+04	11600	6280	1.84	n	37:50	0.015	RT	0.3	n	0.2	n	n
	22	7.02E+03	3070	3940	0.78	n	37:54	0.006	RT	0.2	n	0.2	n	n
	23	6.94E+03	4790	2140	2.24	n	37:59	0.006	RT	0.1	n	0.2	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Furans
Sample:	6	Number of Peaks Found:	43
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.4605
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.0674
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	38:37:00
Results Table:	m1613-111500a_2	End Window:	40:48:00

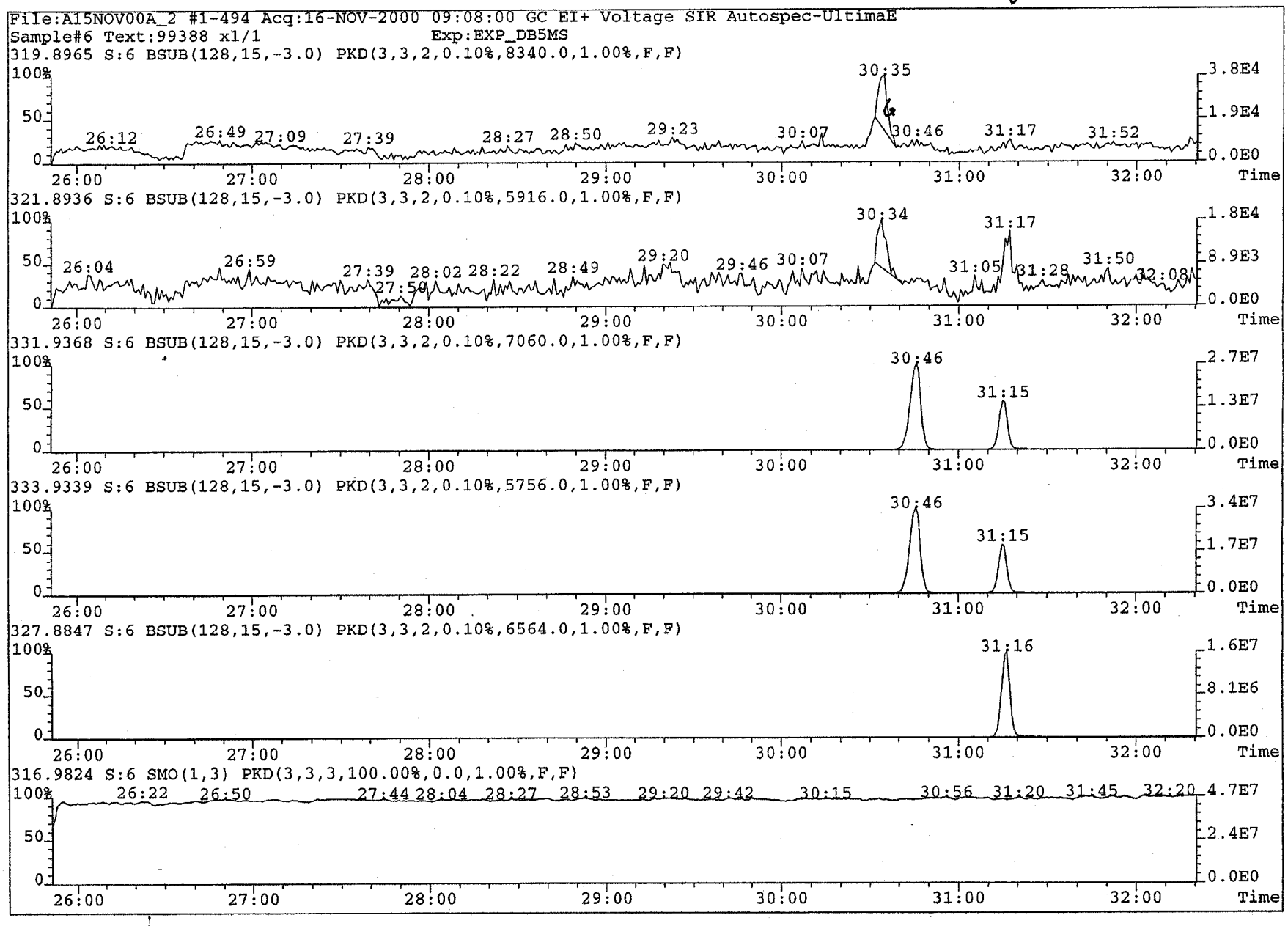
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
1,2,3,4,6,7,8-HpCDI	1	6.90E+04	33500	35500	0.95	y	38:49	0.055	S2N	3.4	y	2.8	n	y
	2	1.13E+04	7050	4250	1.66	n	38:55	0.009	S2N	1.3	n	0.5	n	n
	3	1.01E+04	7270	2860	2.54	n	38:59	0.008	S2N	1.4	n	0.4	n	n
	4	9.48E+03	6620	2860	2.31	n	39:02	0.008	S2N	1	n	0.4	n	n
	5	1.99E+04	15800	4030	3.93	n	39:06	0.016	S2N	1.3	n	0.5	n	n
	6	3.07E+04	18100	12500	1.44	n	39:09	0.025	S2N	2.1	n	1.3	n	n
	7	1.44E+04	9030	5410	1.67	n	39:19	0.012	S2N	1.6	n	0.8	n	n
	8	2.17E+04	11800	9910	1.19	y	39:21	0.018	S2N	1.6	n	1	n	n

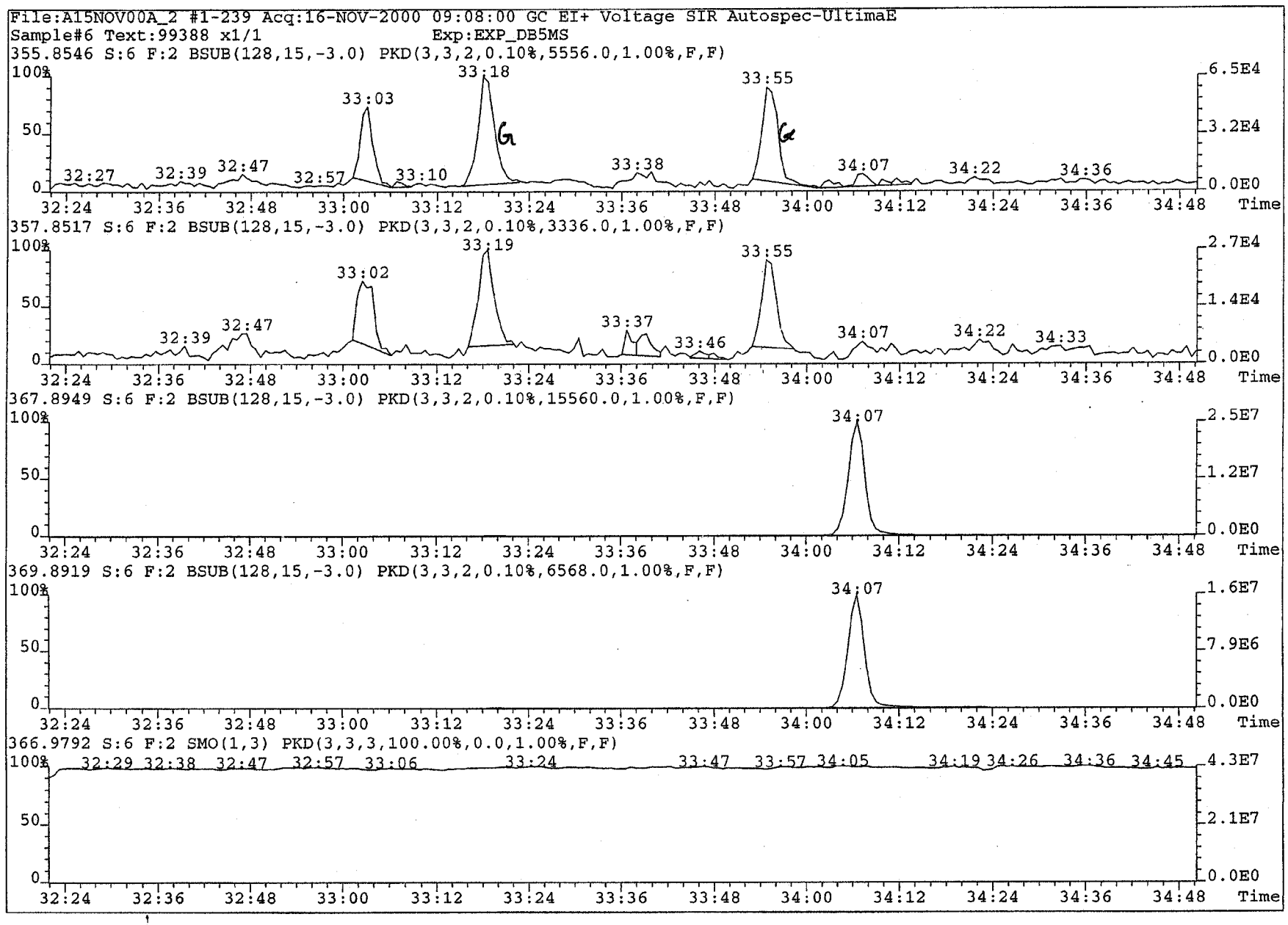
	9	3.89E+04	35100	3810	9.22	n	39:26	0.032	S2N	2.4	n	0.4	n	n
	10	8.31E+03	4990	3320	1.51	n	39:37	0.007	S2N	0.6	n	0.4	n	n
	11	6.47E+03	3150	3320	0.95	y	39:41	0.005	S2N	0.5	n	0.4	n	n
	12	1.10E+04	7660	3380	2.26	n	39:46	0.009	S2N	1.1	n	0.3	n	n
	13	1.19E+04	7340	4590	1.6	n	39:49	0.01	S2N	0.8	n	0.7	n	n
	14	1.55E+04	7020	8480	0.83	n	39:53	0.013	S2N	1	n	1	n	n
	15	1.38E+04	5340	8480	0.63	n	39:55	0.011	S2N	1	n	1	n	n
	16	1.02E+04	5410	4810	1.12	y	39:57	0.008	S2N	1	n	0.7	n	n
	17	1.52E+04	10600	4580	2.32	n	39:59	0.013	S2N	1.3	n	0.7	n	n
	18	6.33E+04	42400	20900	2.03	n	40:04	0.053	S2N	2.8	n	1.5	n	n
	19	6.79E+03	3130	3660	0.86	n	40:09	0.006	S2N	0.8	n	0.5	n	n
	20	8.17E+03	4510	3660	1.23	n	40:10	0.007	S2N	0.8	n	0.5	n	n
	21	1.38E+04	10600	3260	3.25	n	40:14	0.011	S2N	1	n	0.5	n	n
	22	8.82E+03	5560	3260	1.71	n	40:16	0.007	S2N	1	n	0.5	n	n
	23	1.00E+04	6760	3260	2.08	n	40:18	0.008	S2N	1.1	n	0.5	n	n
1,2,3,4,7,8,9-HpCDI	24	2.50E+04	19000	6000	3.17	n	40:43	0.022	S2N	1.9	n	1	n	n
	25	2.05E+04	15300	5220	2.93	n	40:49	0.017	RT	1.4	n	0.5	n	n
	26	1.16E+04	8570	2990	2.87	n	41:01	0.01	RT	0.8	n	0.5	n	n
	27	1.24E+04	7160	5200	1.38	n	41:08	0.01	RT	0.7	n	0.5	n	n
	28	1.56E+04	9100	6510	1.4	n	41:13	0.013	RT	1	n	0.6	n	n
	29	1.16E+04	5830	5770	1.01	y	41:15	0.01	RT	0.9	n	0.8	n	n
	30	9.90E+03	5920	3980	1.49	n	41:20	0.008	RT	0.7	n	0.5	n	n
	31	1.24E+04	7300	5060	1.44	n	41:23	0.01	RT	0.8	n	0.5	n	n
	32	9.37E+03	4940	4430	1.11	y	41:30	0.008	RT	0.7	n	0.6	n	n
	33	1.02E+04	5790	4430	1.31	n	41:31	0.008	RT	0.9	n	0.6	n	n
	34	1.05E+04	4810	5700	0.84	n	41:34	0.009	RT	0.9	n	0.8	n	n
	35	1.32E+04	5360	7840	0.68	n	41:36	0.011	RT	0.8	n	0.8	n	n
	36	7.32E+03	923	6390	0.14	n	41:47	0.006	RT	0.3	n	0.5	n	n
	37	9.15E+03	2760	6390	0.43	n	41:49	0.008	RT	0.5	n	0.5	n	n
	38	1.02E+04	5330	4860	1.1	y	41:54	0.008	RT	0.7	n	0.7	n	n
	39	1.44E+04	10200	4180	2.44	n	41:57	0.012	RT	0.9	n	0.8	n	n
	40	1.65E+04	8300	8200	1.01	y	42:01	0.014	RT	0.9	n	0.9	n	n
	41	8.46E+03	4980	3490	1.43	n	42:03	0.007	RT	0.8	n	0.6	n	n
	42	1.36E+04	5160	8430	0.61	n	42:06	0.011	RT	0.8	n	0.8	n	n
	43	1.79E+04	9490	8430	1.13	y	42:09	0.015	RT	0.9	n	0.8	n	n

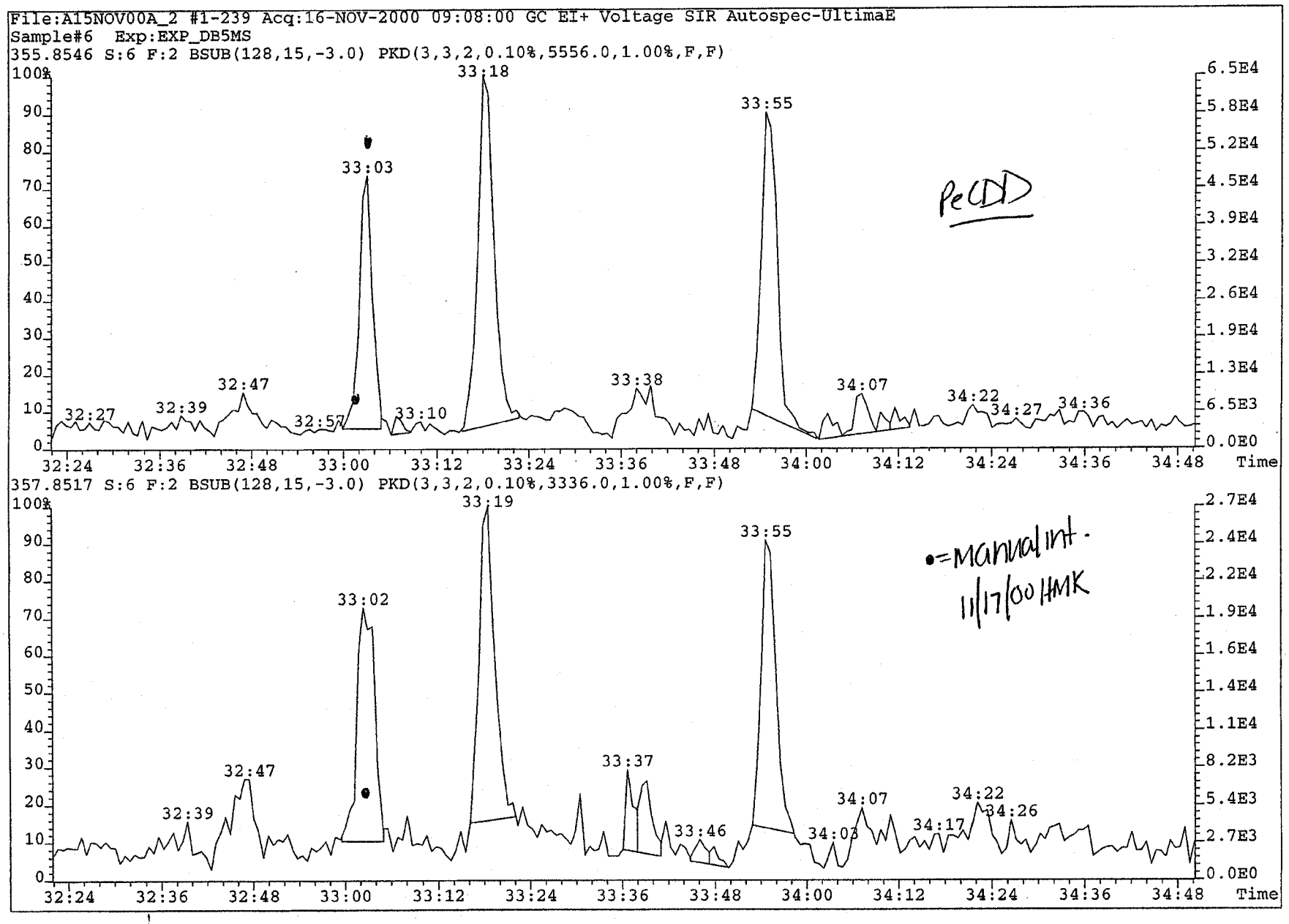
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Dioxins
Sample:	6	Number of Peaks Found:	33
Acquired:	16-NOV-00 09:08:00	RRF Used For Totals:	1.0066
Processed:	16-NOV-00 15:21:33	Detection Limit:	0.0905
Sample ID:	99388 x1/1		
Cal Table:	m1613-052699m	Begin Window:	39:01:00
Results Table:	m1613-111500a_2	End Window:	39:21:00

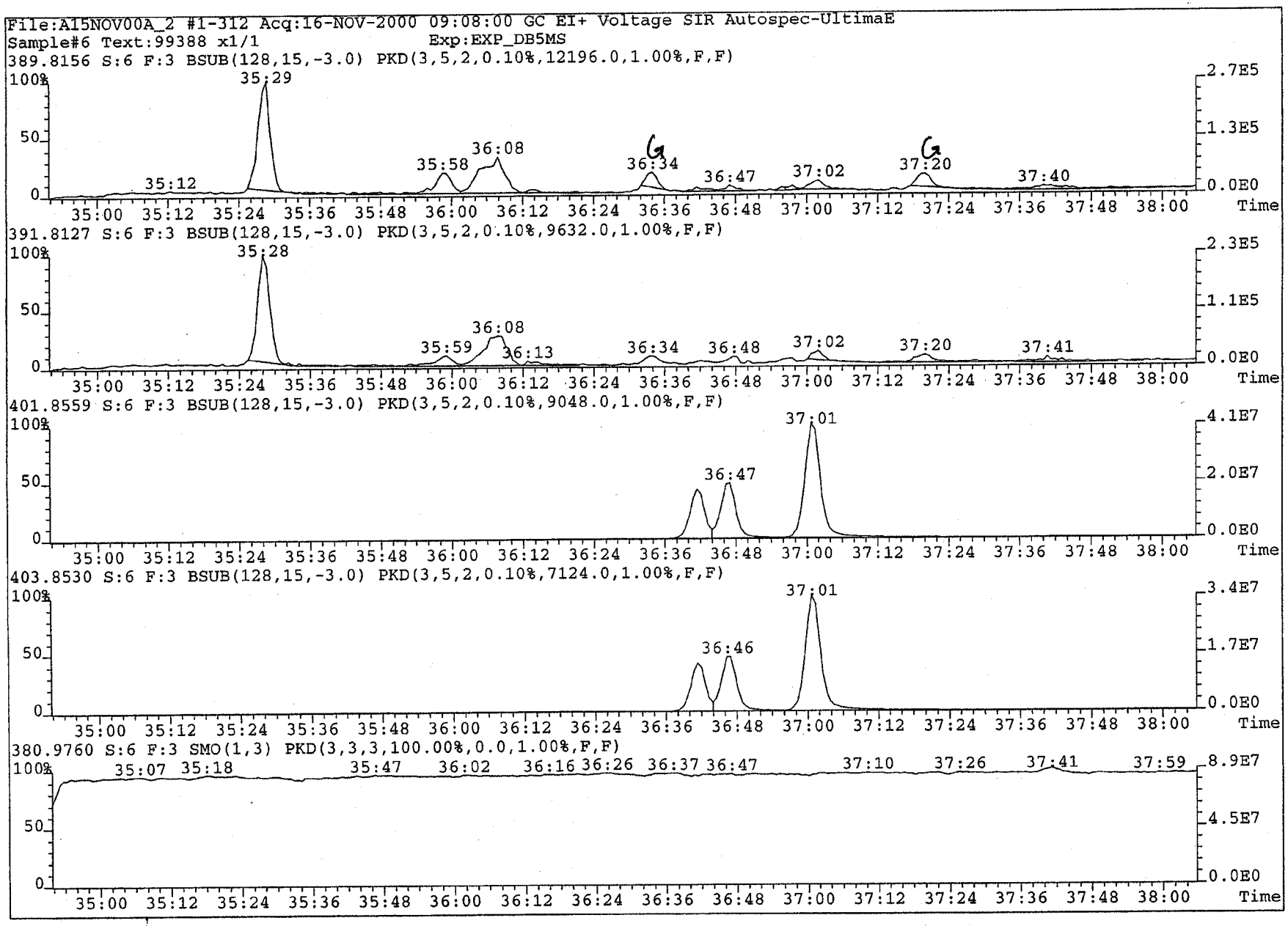
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.45E+05	97000	47700	2.03	n	38:48	0.186	RT	9	y	5.1	y	n
	2	2.81E+06	1480000	1340000	1.1	y	39:08	3.613	OK	122.5	y	158	y	n
	3	3.78E+04	27400	10400	2.62	n	39:14	0.049	S2N	4.9	y	2.9	n	n

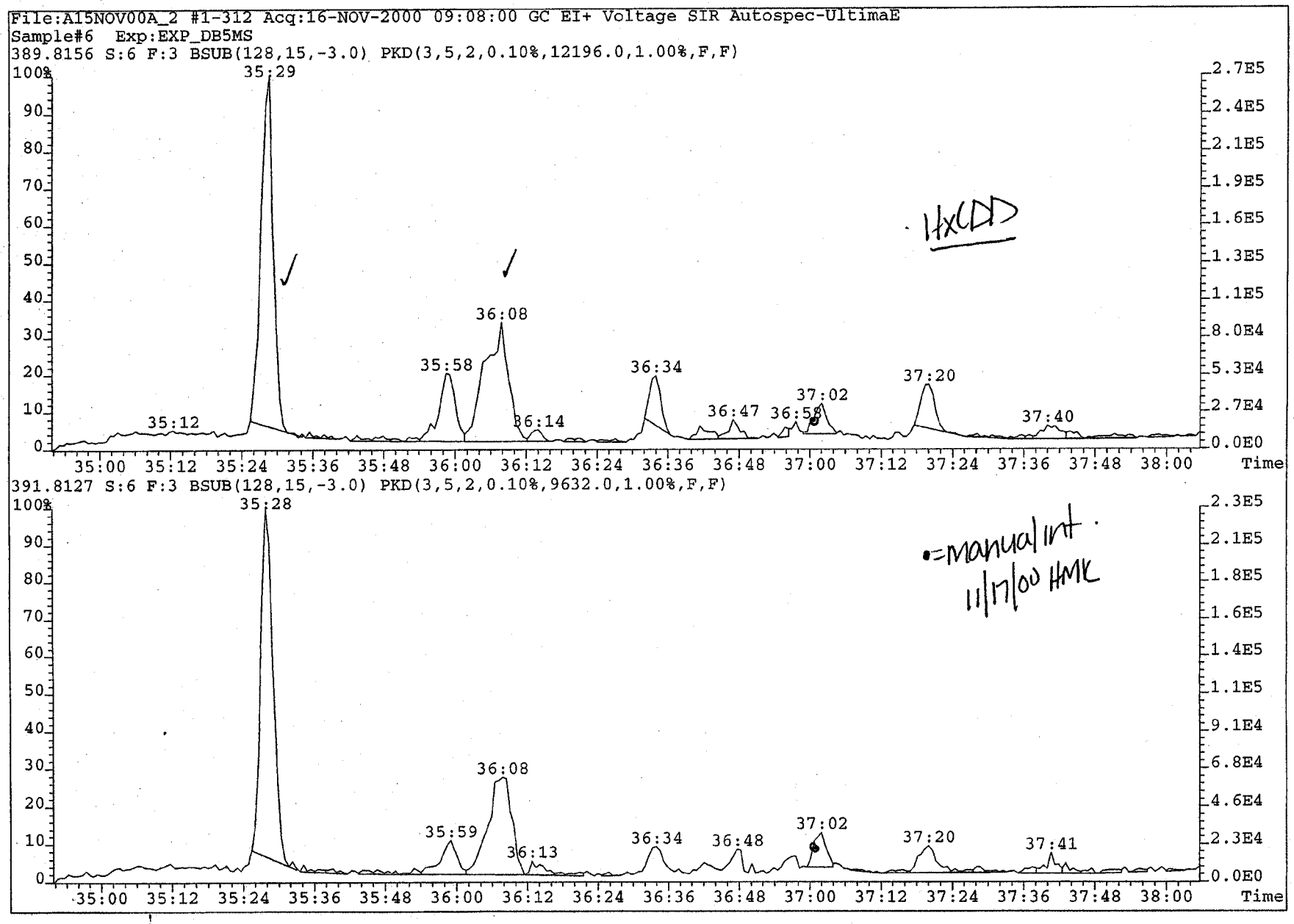
	4	3.21E+04	23000	9040	2.55	n	39:18	0.041	S2N	2.1 n	1.7 n n
	5	2.35E+04	7710	15800	0.49	n	39:24	0.03	RT	1.2 n	2.6 n n
	6	2.29E+04	7110	15800	0.45	n	39:27	0.029	RT	1.1 n	2.6 n n
	7	5.05E+03	3120	1920	1.62	n	39:42	0.006	RT	0.4 n	0.5 n n
	8	6.18E+03	2690	3490	0.77	n	39:50	0.008	RT	0.4 n	1 n n
1,2,3,4,6,7,8-HpCDI	9	1.80E+06	914000	883000	1.04	y	40:04	2.307	~~RT~~ RK	66.5 y	90.8 y n
	10	3.65E+04	12500	24000	0.52	n	40:15	0.047	RT	1.7 n	3.1 y n
	11	1.49E+04	8670	6200	1.4	n	40:18	0.019	RT	1.5 n	1.3 n n
	12	1.68E+04	4970	11900	0.42	n	40:24	0.022	RT	0.8 n	1.1 n n
	13	1.74E+04	5550	11900	0.47	n	40:26	0.022	RT	0.9 n	1.1 n n
	14	1.45E+05	107000	38100	2.8	n	40:43	0.186	RT	7.4 y	4.7 y n
	15	2.16E+04	9660	12000	0.81	n	40:50	0.028	RT	1.6 n	1.4 n n
	16	5.50E+03	3460	2040	1.7	n	40:54	0.007	RT	0.7 n	0.4 n n
	17	8.32E+03	3460	4850	0.71	n	41:02	0.011	RT	0.7 n	0.9 n n
	18	1.49E+04	7240	7650	0.95	y	41:09	0.019	RT	1.4 n	1.5 n n
	19	2.11E+04	7860	13200	0.59	n	41:12	0.027	RT	1.2 n	1.4 n n
	20	2.22E+04	8930	13200	0.68	n	41:15	0.028	RT	1.3 n	1.4 n n
	21	1.17E+04	4750	6930	0.68	n	41:18	0.015	RT	0.7 n	1.3 n n
	22	1.75E+04	10600	6930	1.52	n	41:21	0.022	RT	1.5 n	1.3 n n
	23	1.30E+04	6010	6940	0.87	n	41:24	0.017	RT	1 n	1.4 n n
	24	1.44E+04	10500	3850	2.74	n	41:32	0.018	RT	1.4 n	0.9 n n
	25	8.31E+03	4700	3610	1.3	n	41:36	0.011	RT	0.8 n	0.9 n n
	26	1.45E+04	5060	9490	0.53	n	41:39	0.019	RT	0.7 n	1.3 n n
	27	8.39E+03	3350	5040	0.67	n	41:47	0.011	RT	0.5 n	1.4 n n
	28	1.30E+04	8000	5040	1.59	n	41:50	0.017	RT	0.9 n	1.4 n n
	29	1.73E+04	9040	8210	1.1	y	41:57	0.022	RT	1.3 n	1.2 n n
	30	1.22E+04	5630	6550	0.86	n	42:00	0.016	RT	0.9 n	1.8 n n
	31	1.38E+04	7210	6550	1.1	y	42:03	0.018	RT	0.8 n	1.8 n n
	32	1.15E+04	3760	7730	0.49	n	42:09	0.015	RT	0.7 n	0.8 n n
	33	1.37E+04	5970	7730	0.77	n	42:11	0.018	RT	1 n	0.8 n n


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS
319.8965 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,8340.0,1.00%,F,F)
321.8936 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5916.0,1.00%,F,F)
331.9368 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7060.0,1.00%,F,F)
333.9339 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5756.0,1.00%,F,F)
327.8847 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6564.0,1.00%,F,F)
316.9824 S:6 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time
30:35
30:34
30:46
31:15
31:16
31:17
3.8E4
1.9E4
0.0E0
1.8E4
8.9E3
2.7E7
1.3E7
3.4E7
1.7E7
1.6E7
8.1E6
4.7E7
2.4E7

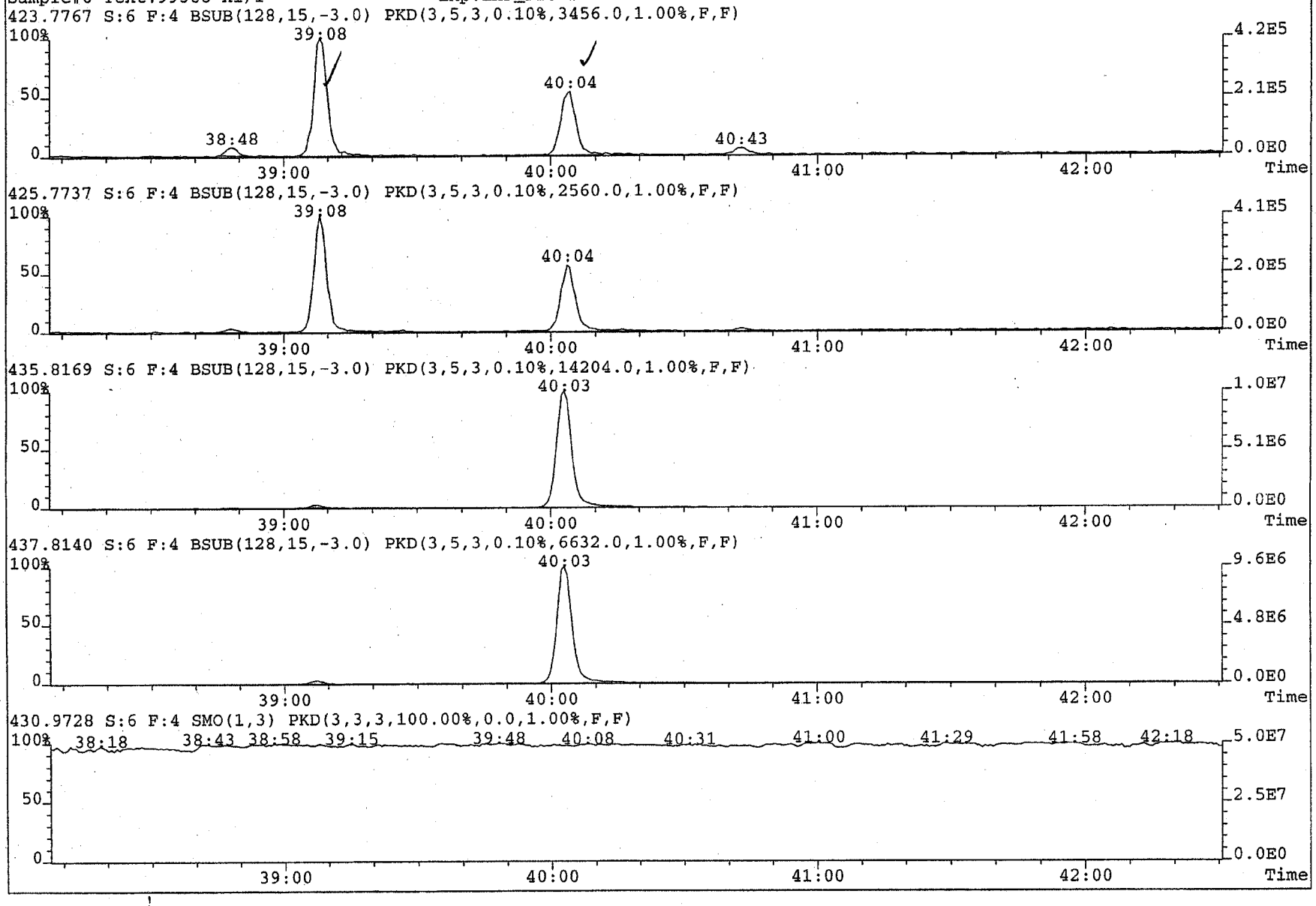

File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS
355.8546 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5556.0,1.00%,F,F)
33:18
33:55
33:03
32:27
32:39
32:47
32:57
33:10
33:38
34:07
34:22
34:36
6.5E4
3.2E4
0.0E0
357.8517 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3336.0,1.00%,F,F)
33:19
33:55
33:02
32:39
32:47
33:37
33:46
34:07
34:22
34:33
2.7E4
1.4E4
0.0E0
367.8949 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,15560.0,1.00%,F,F)
34:07
2.5E7
1.2E7
0.0E0
369.8919 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6568.0,1.00%,F,F)
34:07
1.6E7
7.9E6
0.0E0
366.9792 S:6 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:29 32:38 32:47 32:57 33:06 33:24 33:47 33:57 34:05 34:19 34:26 34:36 34:45
4.3E7
2.1E7
0.0E0
100%
50
0
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48
Time


File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Exp:EXP_DB5MS
355.8546 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5556.0,1.00%,F,F)
33:18
33:55
33:03
32:47
32:27
32:39
32:57
33:10
33:38
34:07
34:22
34:27
34:36
PeCDD
Time
357.8517 S:6 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3336.0,1.00%,F,F)
33:19
33:55
33:02
32:47
32:39
33:37
33:46
34:07
34:22
34:26
34:17
•=manual int.
11/17/00 HMK
Time

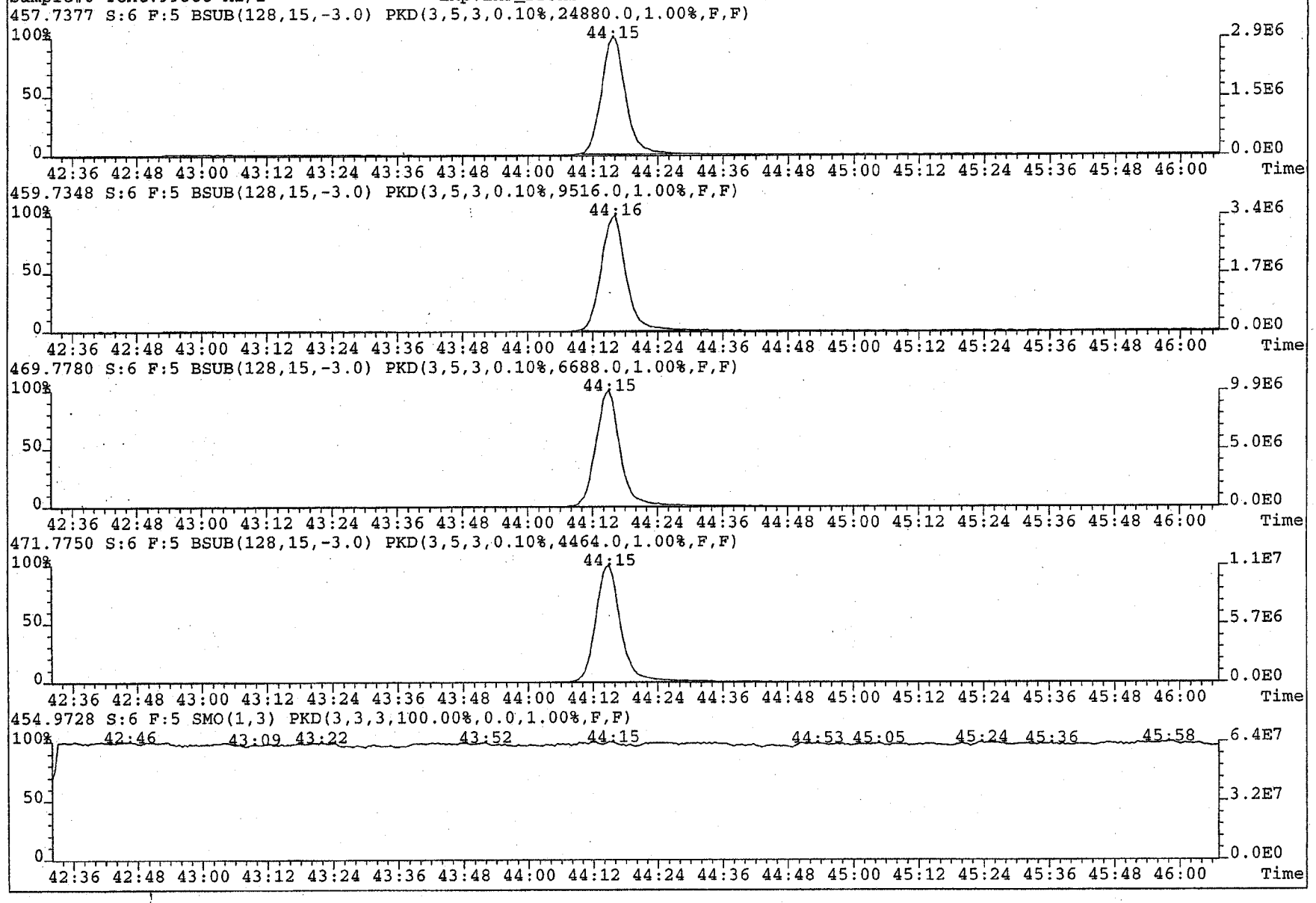

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1
Exp:EXP_DB5MS
389.8156 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,12196.0,1.00%,F,F)
35:29
35:12
35:58
36:08
36:34
36:47
37:02
37:20
37:40
2.7E5
1.3E5
0.0E0
391.8127 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,9632.0,1.00%,F,F)
35:28
35:59
36:08
36:13
36:34
36:48
37:02
37:20
37:41
2.3E5
1.1E5
0.0E0
401.8559 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,9048.0,1.00%,F,F)
36:47
37:01
4.1E7
2.0E7
0.0E0
403.8530 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7124.0,1.00%,F,F)
36:46
37:01
3.4E7
1.7E7
0.0E0
380.9760 S:6 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:07
35:18
35:47
36:02
36:16
36:26
36:37
36:47
37:10
37:26
37:41
37:59
8.9E7
4.5E7
0.0E0
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time

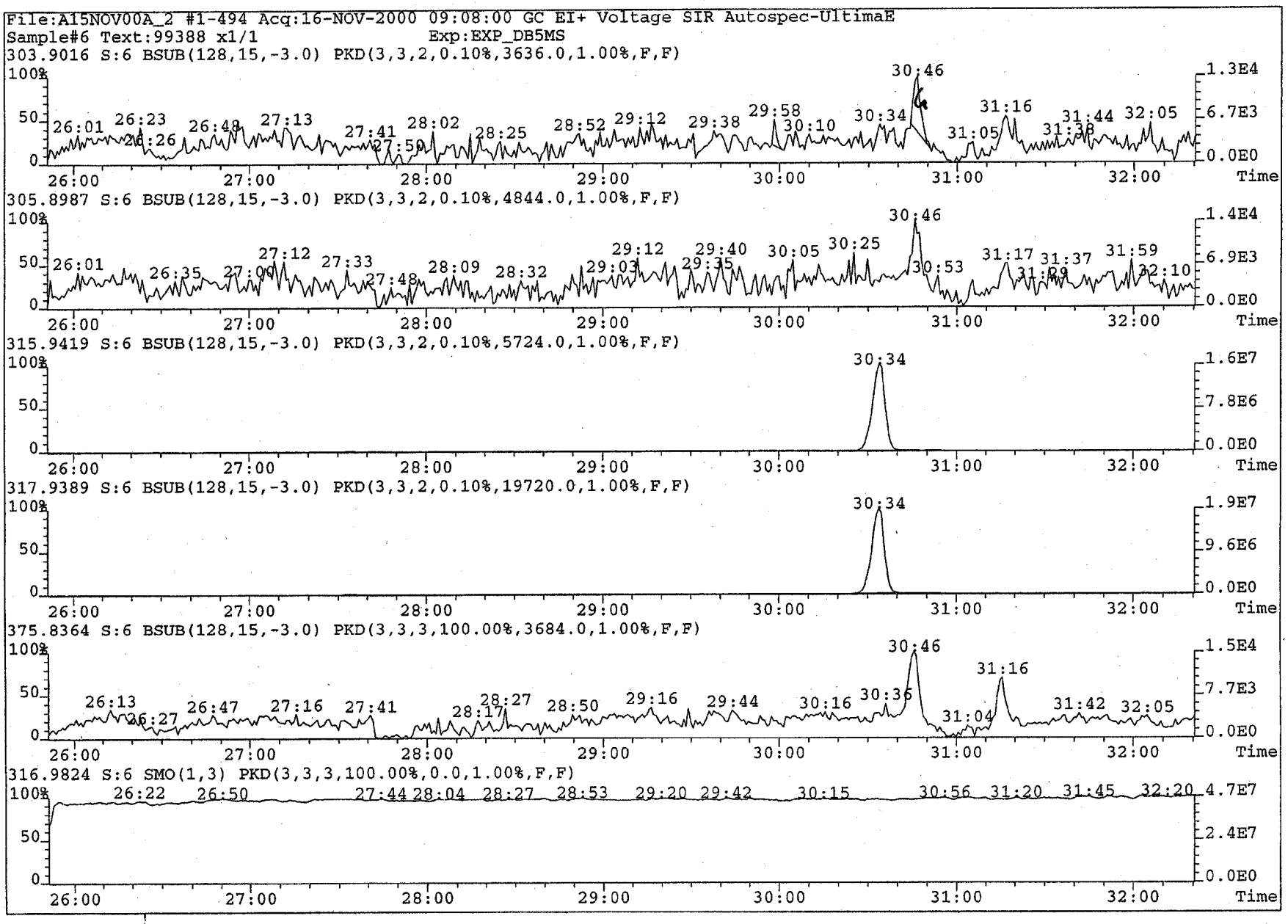

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Exp:EXP_DB5MS
389.8156 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,12196.0,1.00%,F,F)
35:29
36:08
35:58
36:34
37:20
37:02
36:47
36:58
36:14
35:12
37:40
HxCDD
391.8127 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,9632.0,1.00%,F,F)
35:28
36:08
35:59
36:13
36:34
36:48
37:02
37:20
37:41
•=manual int.
11/17/00 HMK
Time

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS

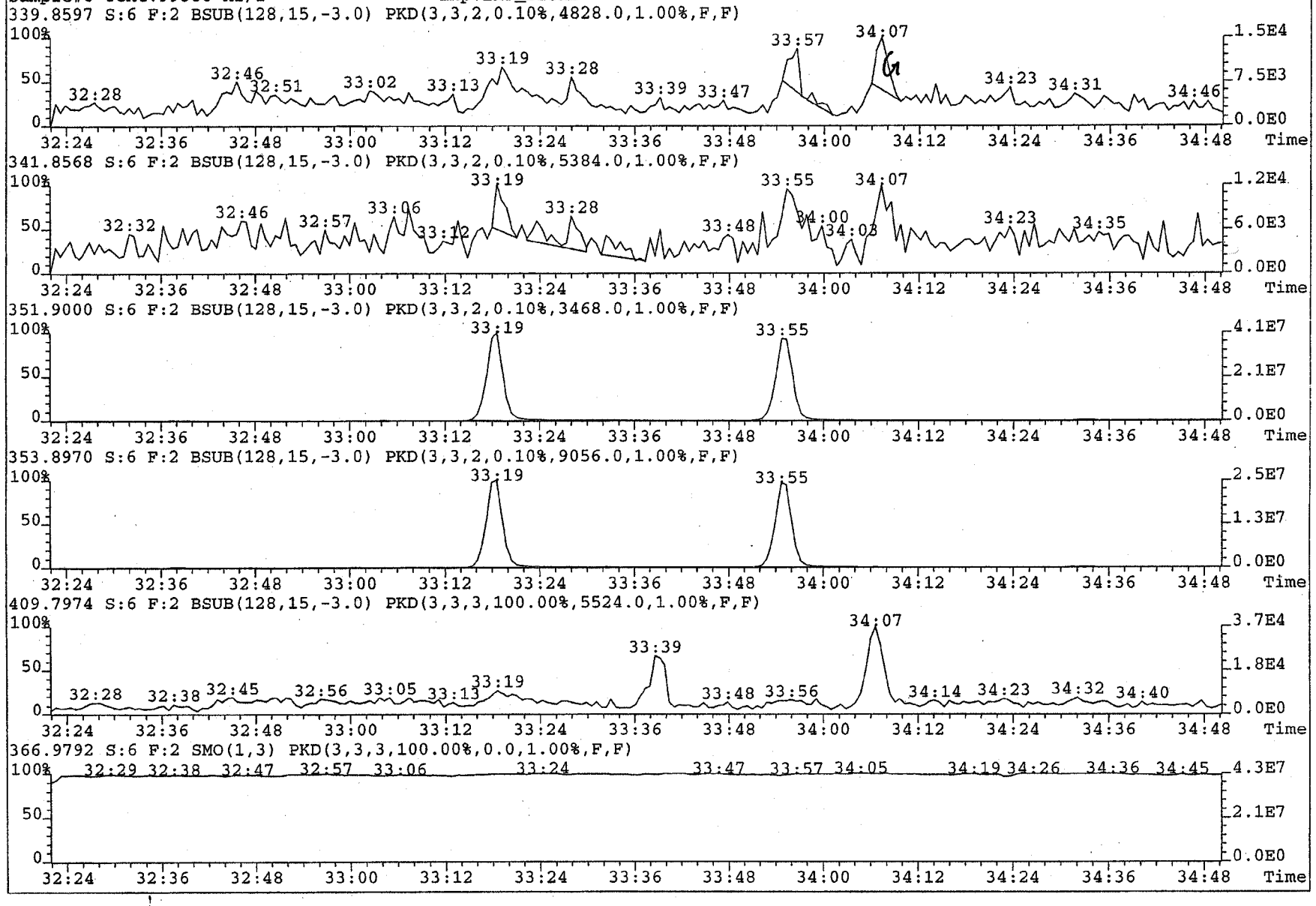


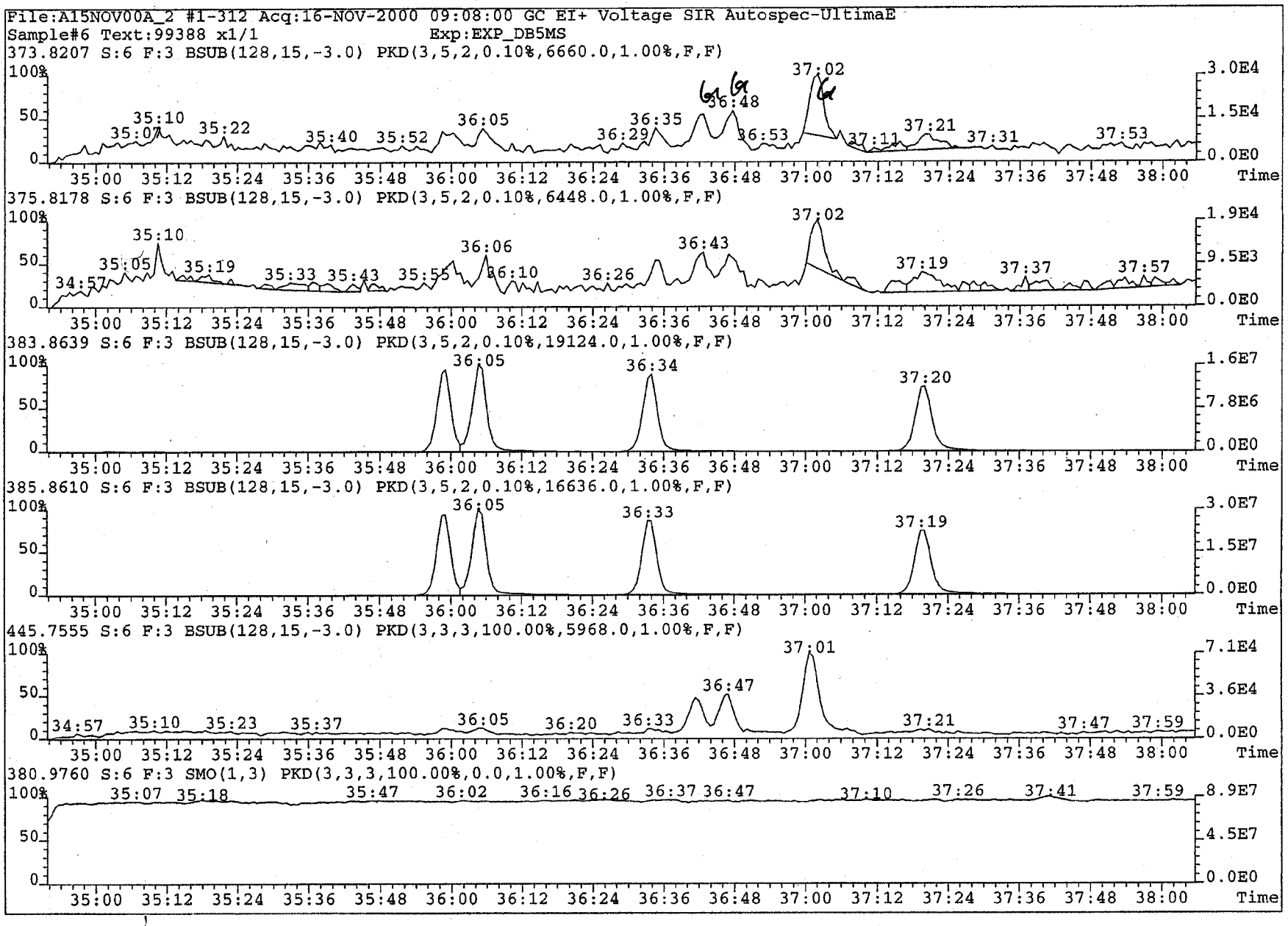
File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS



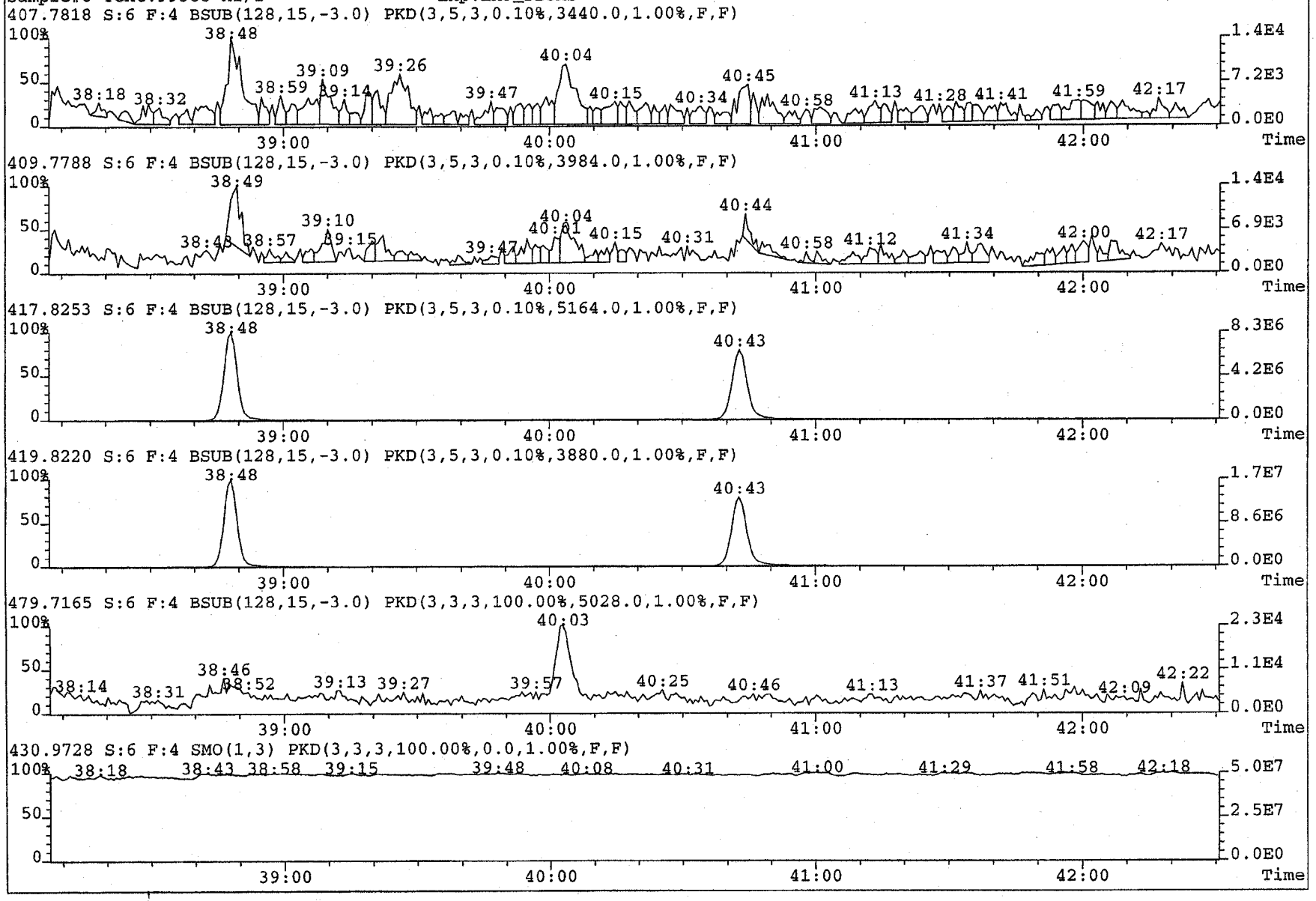

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS
303.9016 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3636.0,1.00%,F,F)
305.8987 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4844.0,1.00%,F,F)
315.9419 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5724.0,1.00%,F,F)
317.9389 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,19720.0,1.00%,F,F)
375.8364 S:6 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3684.0,1.00%,F,F)
316.9824 S:6 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time
1.3E4
6.7E3
0.0E0
1.4E4
6.9E3
1.6E7
7.8E6
1.9E7
9.6E6
1.5E4
7.7E3
4.7E7
2.4E7

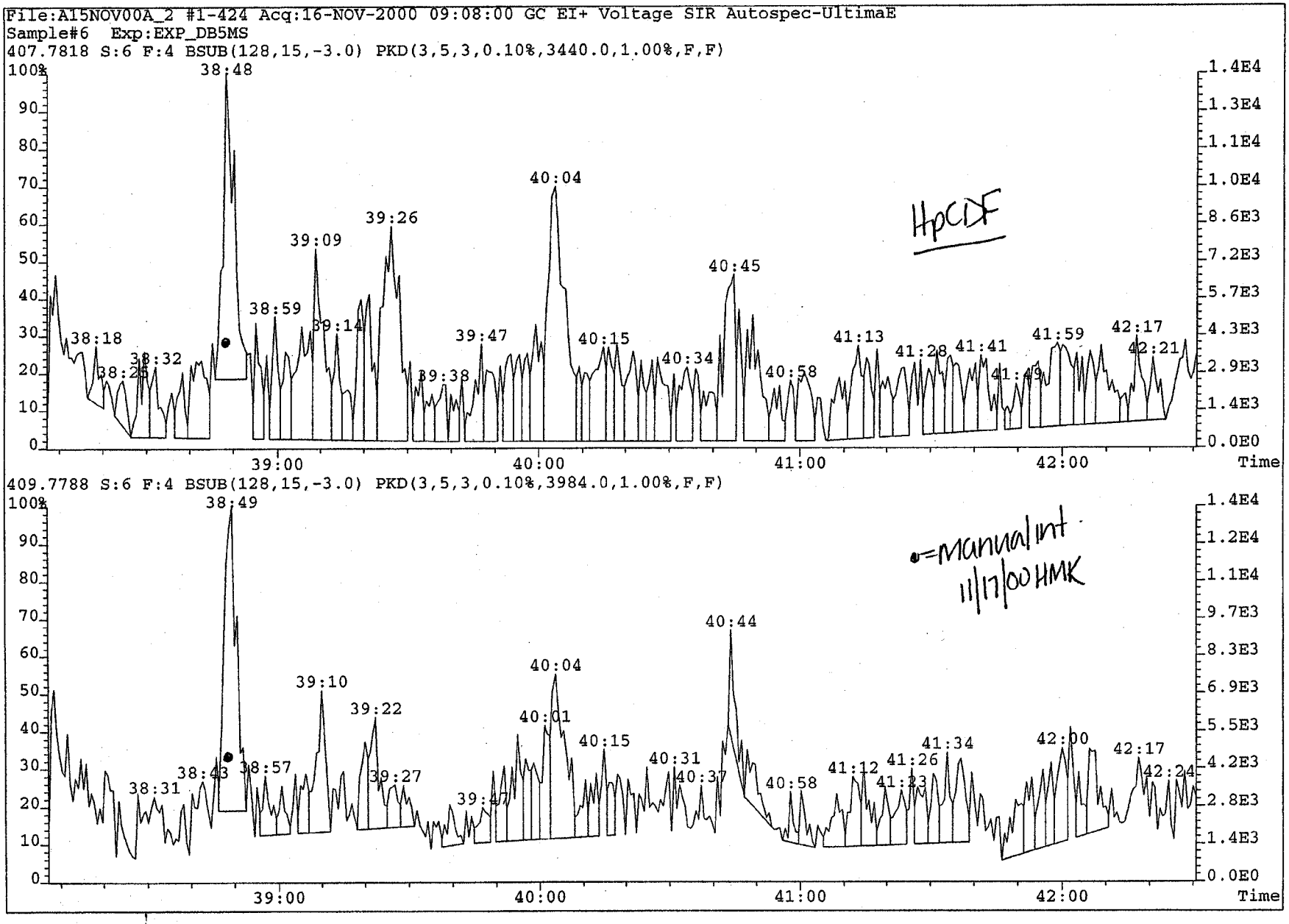
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS



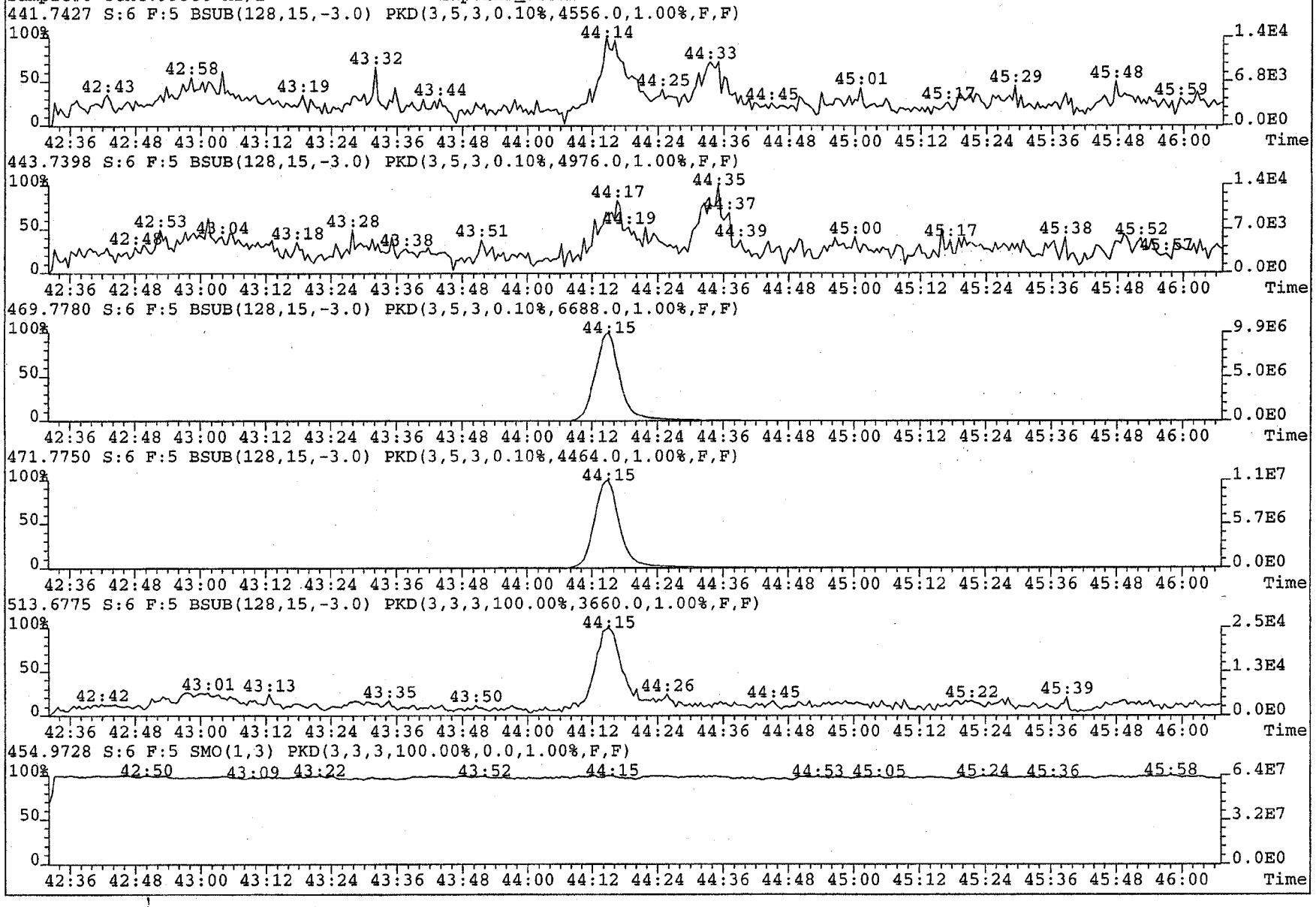

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS
373.8207 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6660.0,1.00%,F,F)
375.8178 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6448.0,1.00%,F,F)
383.8639 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,19124.0,1.00%,F,F)
385.8610 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,16636.0,1.00%,F,F)
445.7555 S:6 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5968.0,1.00%,F,F)
380.9760 S:6 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time
3.0E4
1.5E4
0.0E0
1.9E4
9.5E3
1.6E7
7.8E6
3.0E7
1.5E7
7.1E4
3.6E4
8.9E7
4.5E7

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS

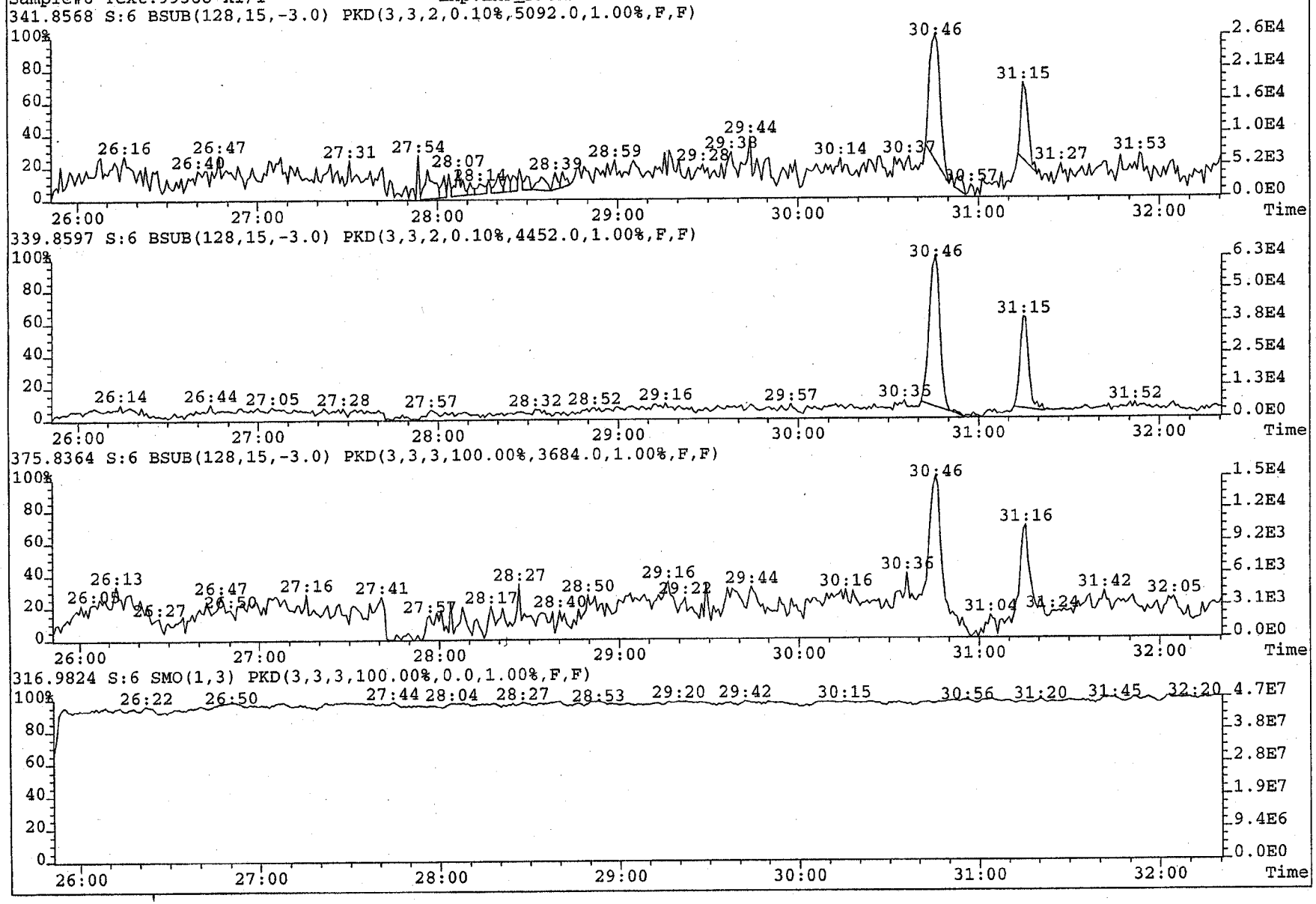



File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Exp:EXP_DB5MS
407.7818 S:6 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3440.0,1.00%,F,F)
HpCDF
409.7788 S:6 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3984.0,1.00%,F,F)
•=manual int
11/17/00 HMK
Time

File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS



File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 09:08:00 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:99388 x1/1 Exp:EXP_DB5MS



Method 1613

LF-11

Delta Environmental Consultants

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0036				
1,2,3,7,8-PeCDD	ND	0.0017				
1,2,3,4,7,8-HxCDD	ND	0.0017				
1,2,3,6,7,8-HxCDD	ND	0.0020				
1,2,3,7,8,9-HxCDD	ND	0.0017				
1,2,3,4,6,7,8-HpCDD	0.0074			40:04	1.13	A
OCDD	0.199			44:16	0.80	
2,3,7,8--TCDF	ND	0.0022				
1,2,3,7,8-PeCDF	ND	0.0012				
2,3,4,7,8-PeCDF	ND	0.0011				
1,2,3,4,7,8-HxCDF	ND	0.0012				
1,2,3,6,7,8-HxCDF	ND	0.0012				
2,3,4,6,7,8-HxCDF	ND	0.0015				
1,2,3,7,8,9-HxCDF	ND	0.0016				
1,2,3,4,6,7,8-HpCDF	ND	0.0014				
1,2,3,4,7,8,9-HpCDF	ND	0.0018				
OCDF	ND	0.0056				
Total TCDDs	ND	0.0036				
Total PeCDDs	ND	0.0017				
Total HxCDDs	ND	0.0049	0.0045			
Total HpCDDs	0.0196					
Total TCDFs	ND	0.0022				
Total PeCDFs	ND	0.0012				
Total HxCDFs	ND	0.0014				
Total HpCDFs	ND	0.0016				
TEQ (ND=0)	0.0003		0.0003			ITEF
TEQ (ND=½)	0.0035		0.0035			ITEF

Client Information

Project Name:	E096-007-5.0040
Sample ID:	LF-11

Laboratory Information

Project ID:	G129-306
Sample ID:	99389
Collection Date/Time:	08-Nov-00
Receipt Date:	10-Nov-00
Extraction Date:	13-Nov-00
Analysis Date:	16-Nov-00

Sample Information

Matrix:	Water	
Weight / Volume:	516	Grams
Solids / Lipids:	NA	
Original pH :	5	
Batch ID:	WG5101	
Filename:	a15nov00a_2-7	
Retchk:	a15nov00a-15	
Begin ConCal:	a15nov00a-15	
Initial Cal:	m1613-052699m	

Method 1613

LF-11

Delta Environmental Consultants

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1	0.45	44.8	31:15	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1	0.58	58.4	34:07	1.58	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1	0.83	82.7	36:47	1.2	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1	0.74	74.3	36:47	1.2	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1	0.62	61.6	40:03	1.08	
$^{13}C_{12}$-OCDD	2	0.89	44.4	44:15	0.84	
$^{13}C_{12}$-2,3,7,8-TCDF	1	0.48	47.9	30:33	0.81	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1	0.57	57.2	33:18	1.59	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1	0.63	63.2	33:55	1.62	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1	0.69	69.0	36:05	0.51	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1	0.64	64.0	36:05	0.51	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1	0.61	60.7	36:34	0.48	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1	0.71	70.9	37:20	0.51	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1	0.63	63.0	38:48	0.49	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1	0.68	67.7	40:43	0.5	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.20	49.5	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2			30:45	0.79	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2			36:34	0.48	

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-11

Laboratory Information

Project ID: G129-306
Sample ID: 99389

Collection Date/Time: 08-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Water
Weight / Volume: 516 Grams
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-7
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Analyzed by: HMK
Date: 20Nov00

Reviewed by: [illegible]
Date: 11/20/00

OPUSquan 16-NOV-2000 Page 1

Filename ; a15nov00a_2
Sample ; 7
Acquired ; 16-NOV-00 09:56:26
Processed ; 16-NOV-00 15:21:34
Sample ID ; 99389 x1/1
Cal Table ; m1613-052699m
Results Table ; M1613-111500A_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	*	*	*	*;n;NotFnd		*	0.1878	*;n	*;n	no
Unk	1,2,3,7,8-PeCDD	*	*	*	*;n;NotFnd		*	0.0874	*;n	*;n	no
Unk	1,2,3,4,7,8-HxCDD	*	*	*	*;n;NotFnd		*	0.0875	*;n	*;n	no
Unk	1,2,3,6,7,8-HxCDD	*	*	*	*;n;NotFnd		*	0.1025	*;n	*;n	no
Unk	1,2,3,7,8,9-HxCDD	7.12e+04	4.47e+04	2.65e+04	1.69;n	37:02	0.079	0.0876	2;n	2;n	no
Unk	1,2,3,4,6,7,8-HpCDD	2.44e+05	1.29e+05	1.15e+05	1.13;y	40:04	0.382	0.1137	12;y	9;y	no
Unk	OCDD	3.92e+06	1.74e+06	2.18e+06	0.80;y	44:16	10.250	1.3662	15;y	44;y	no
Unk	2,3,7,8-TCDF	*	*	*	*;n;NotFnd		*	0.1135	*;n	*;n	no
Unk	1,2,3,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0634	*;n	*;n	no
Unk	2,3,4,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0558	*;n	*;n	no
Unk	1,2,3,4,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0608	*;n	*;n	no
Unk	1,2,3,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0625	*;n	*;n	no
Unk	2,3,4,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0762	*;n	*;n	no
Unk	1,2,3,7,8,9-HxCDF	1.90e+04	1.22e+04	6.75e+03	1.81;n	37:20	0.018	0.0798	1;n	1;n	no
Unk	1,2,3,4,6,7,8-HpCDF	*	*	*	*;n;NotFnd		*	0.0741	*;n	*;n	no
Unk	1,2,3,4,7,8,9-HpCDF	*	*	*	*;n;NotFnd		*	0.0946	*;n	*;n	no
Unk	OCDF	*	*	*	*;n;NotFnd		*	0.2888	*;n	*;n	no
ES/RT	13C-2,3,7,8-TCDD	6.05e+07	2.67e+07	3.38e+07	0.79;y	31:15	22.384	0.0546	1141;y	2019;y	no
ES	13C-1,2,3,7,8-PeCDD	6.66e+07	4.08e+07	2.58e+07	1.58;y	34:07	29.221	0.1158	992;y	1848;y	no
ES	13C-1,2,3,4,7,8-HxCDD	7.96e+07	4.34e+07	3.62e+07	1.20;y	36:47	41.353	0.0484	2631;y	2568;y	no
ES	13C-1,2,3,6,7,8-HxCDD	7.96e+07	4.34e+07	3.62e+07	1.20;y	36:47	37.144	0.0434	2631;y	2568;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	6.33e+07	3.28e+07	3.05e+07	1.08;y	40:03	30.821	0.0707	889;y	1242;y	no
ES	13C-OCDD	7.10e+07	3.23e+07	3.87e+07	0.84;y	44:15	44.398	0.0672	942;y	1420;y	no
ES/RT	13C-2,3,7,8-TCDF	9.18e+07	4.11e+07	5.06e+07	0.81;y	30:33	23.934	0.0667	2408;y	586;y	no
ES	13C-1,2,3,7,8-PeCDF	1.00e+08	6.16e+07	3.87e+07	1.59;y	33:18	28.576	0.0642	2545;y	1796;y	no
ES	13C-2,3,4,7,8-PeCDF	1.05e+08	6.49e+07	4.02e+07	1.62;y	33:55	31.580	0.0677	2640;y	1908;y	no
ES	13C-1,2,3,4,7,8-HxCDF	9.64e+07	3.24e+07	6.40e+07	0.51;y	36:05	34.492	0.0475	1363;y	3684;y	no
ES	13C-1,2,3,6,7,8-HxCDF	9.64e+07	3.24e+07	6.40e+07	0.51;y	36:05	31.993	0.0440	1363;y	3684;y	no
ES	13C-2,3,4,6,7,8-HxCDF	8.56e+07	2.78e+07	5.79e+07	0.48;y	36:34	30.356	0.0471	1108;y	3254;y	no
ES	13C-1,2,3,7,8,9-HxCDF	8.25e+07	2.78e+07	5.47e+07	0.51;y	37:20	35.469	0.0571	994;y	2765;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	7.02e+07	2.30e+07	4.72e+07	0.49;y	38:48	31.510	0.0394	1527;y	2555;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	6.22e+07	2.07e+07	4.16e+07	0.50;y	40:43	33.853	0.0478	1221;y	1993;y	no
JS	13C-1,2,3,4-TCDD	2.55e+08	1.12e+08	1.43e+08	0.79;y	30:45	126.009	-	3896;y	6972;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.24e+08	1.24e+08	1.00e+08	1.24;y	37:01	136.184	-	7513;y	6935;y	no
CS	37Cl-2,3,7,8-TCDD	2.96e+07	2.96e+07			31:16	9.898	0.0258	1433;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0	0	FALSE
PeCDD	0	0	FALSE
HxCDF	0	0	FALSE
HxCDD	0	0.231	TRUE
HpCDF	0	0	FALSE
HpCDD	1.009	1.009	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	7	Number of Peaks Found:	1
Acquired:	16-NOV-00 09:56:26	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:34	Detection Limit:	0.1135
Sample ID:	99389 x1/1		
Cal Table:	m1613-052699m	Begin Window:	25:58:00
Results Table:	M1613-111500A_2	End Window:	32:47:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	2.93E+04	12700	16600	0.76	y	30:47	0.028	S2N	1.7	n	1.7	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	7	Number of Peaks Found:	0
Acquired:	16-NOV-00 09:56:26	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:34	Detection Limit:	0.1878
Sample ID:	99389 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	M1613-111500A_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	7	Number of Peaks Found:	1
Acquired:	16-NOV-00 09:56:26	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:34	Detection Limit:	0.0501
Sample ID:	99389 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:37:00
Results Table:	M1613-111500A_2	End Window:	31:57:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.19E+05	70100	248000	0.28	n	30:46	0.283	RT	4.7	y	20.5	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	7	Number of Peaks Found:	0
Acquired:	16-NOV-00 09:56:26	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:34	Detection Limit:	0.0595
Sample ID:	99389 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	M1613-111500A_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	7	Number of Peaks Found:	2
Acquired:	16-NOV-00 09:56:26	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:34	Detection Limit:	0.0874
Sample ID:	99389 x1/1		
Cal Table:	m1613-052699m	Begin Window:	32:43:00
Results Table:	M1613-111500A_2	End Window:	34:28:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.02E+05	76100	26000	2.93	n	33:18	0.149	S2N	7.8	y	3.5	y	n
	2	1.08E+05	82100	25900	3.17	n	33:55	0.158	S2N	8.1	y	3.3	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	7	Number of Peaks Found:	15
Acquired:	16-NOV-00 09:56:26	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:34	Detection Limit:	0.0697
Sample ID:	99389 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	M1613-111500A_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.32E+05	94600	37000	2.55	n	37:02	0.12	S2N	6.2	y	2.7	n	n
	2	1.21E+04	6250	5850	1.07	y	37:10	0.011	S2N	0.5	n	0.8	n	n
	3	6.78E+03	922	5850	0.16	n	37:14	0.006	S2N	0.2	n	0.8	n	n
1,2,3,7,8,9-HxCDF	4	1.90E+04	12200	6750	1.81	n	37:20	0.018	S2N	0.9	n	0.9	n	n
	5	1.26E+04	4060	8560	0.47	n	37:22	0.012	S2N	0.6	n	0.8	n	n
	6	1.21E+04	5910	6200	0.95	n	37:25	0.011	S2N	0.6	n	0.5	n	n
	7	9.94E+03	2470	7470	0.33	n	37:28	0.009	S2N	0.4	n	1.4	n	n
	8	1.03E+04	2860	7470	0.38	n	37:30	0.009	RT	0.6	n	1.4	n	n
	9	1.36E+04	4780	8790	0.54	n	37:33	0.012	RT	0.6	n	0.8	n	n
	10	6.63E+03	2000	4630	0.43	n	37:36	0.006	RT	0.3	n	0.6	n	n
	11	1.75E+04	6760	10700	0.63	n	37:43	0.016	RT	0.8	n	0.7	n	n
	12	2.14E+04	12100	9270	1.31	y	37:47	0.02	RT	0.8	n	0.8	n	n

	13	1.34E+04	6850	6530	1.05	n	37:52	0.012	RT	0.9	n	0.7	n	n
	14	1.29E+04	3800	9080	0.42	n	37:55	0.012	RT	0.5	n	0.7	n	n
	15	8.89E+03	2090	6800	0.31	n	37:58	0.008	RT	0.4	n	0.5	n	n

Filename: a15nov00a_2 Name of Homolog Group: Total Hexa-Dioxins
Sample: 7 Number of Peaks Found: 16
Acquired: 16-NOV-00 09:56:26 RRF Used For Totals: 1.0787
Processed: 16-NOV-00 15:21:34 Detection Limit: 0.253
Sample ID: 99389 x1/1
Cal Table: m1613-052699m Begin Window: 35:25:00
Results Table: M1613-111500A_2 End Window: 37:06:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.99E+05	97400	101000	0.96	n	35:28	0.231	EMPC	9.3	y	9.4	y	n
	2	7.83E+03	4160	3670	1.13	y	35:34	0.009	S2N	0.4	n	0.5	n	n
	3	8.19E+03	3040	5160	0.59	n	35:37	0.01	S2N	0.3	n	0.5	n	n
	4	8.09E+03	2930	5160	0.57	n	35:39	0.009	S2N	0.6	n	0.5	n	n
	5	1.42E+05	118000	24200	4.85	n	35:59	0	S2N	8.6	y	2.5	n	n
	6	2.17E+05	168000	49800	3.36	n	36:06	0	S2N	8.9	y	3.4	y	n
	7	1.28E+05	105000	23100	4.55	n	36:33	0	S2N	8.4	y	2.4	n	n
1,2,3,7,8,9-HxCDD	8	7.12E+04	44700	26500	1.69	n	37:02	0.079	S2N	1.7	n	1.9	n	n
	9	1.71E+04	9780	7340	1.33	y	37:10	0.02	RT	1	n	0.7	n	n
	10	1.24E+05	106000	17400	6.11	n	37:19	0	RT	7.3	y	1.7	n	n
	11	9.01E+03	4800	4220	1.14	y	37:24	0.011	RT	0.8	n	0.6	n	n
	12	9.69E+03	5470	4220	1.3	y	37:27	0.011	RT	0.6	n	0.6	n	n
	13	8.56E+03	4880	3680	1.33	y	37:32	0.01	RT	0.7	n	0.5	n	n
	14	5.37E+03	3270	2110	1.55	n	37:36	0.006	RT	0.5	n	0.4	n	n
	15	7.43E+03	3040	4390	0.69	n	37:41	0.009	RT	0.4	n	0.5	n	n
	16	9.58E+03	3400	6180	0.55	n	37:43	0.011	RT	0.6	n	0.9	n	n

Filename: a15nov00a_2 Name of Homolog Group: Total Hepta-Furans
Sample: 7 Number of Peaks Found: 0
Acquired: 16-NOV-00 09:56:26 RRF Used For Totals: 1.4605
Processed: 16-NOV-00 15:21:34 Detection Limit: 0.0837
Sample ID: 99389 x1/1
Cal Table: m1613-052699m Begin Window:
Results Table: M1613-111500A_2 End Window:

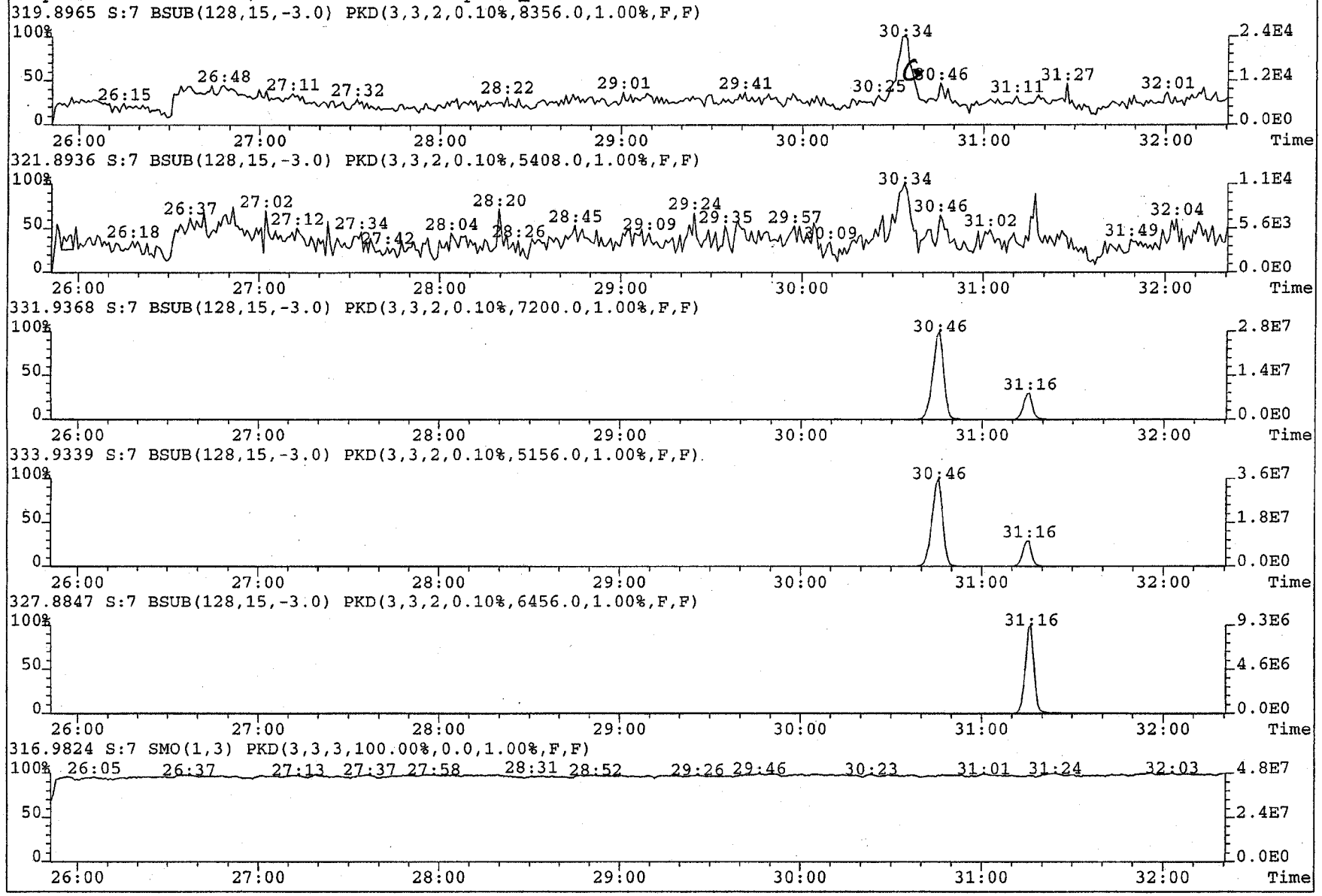
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename: a15nov00a_2 Name of Homolog Group: Total Hepta-Dioxins
Sample: 7 Number of Peaks Found: 23

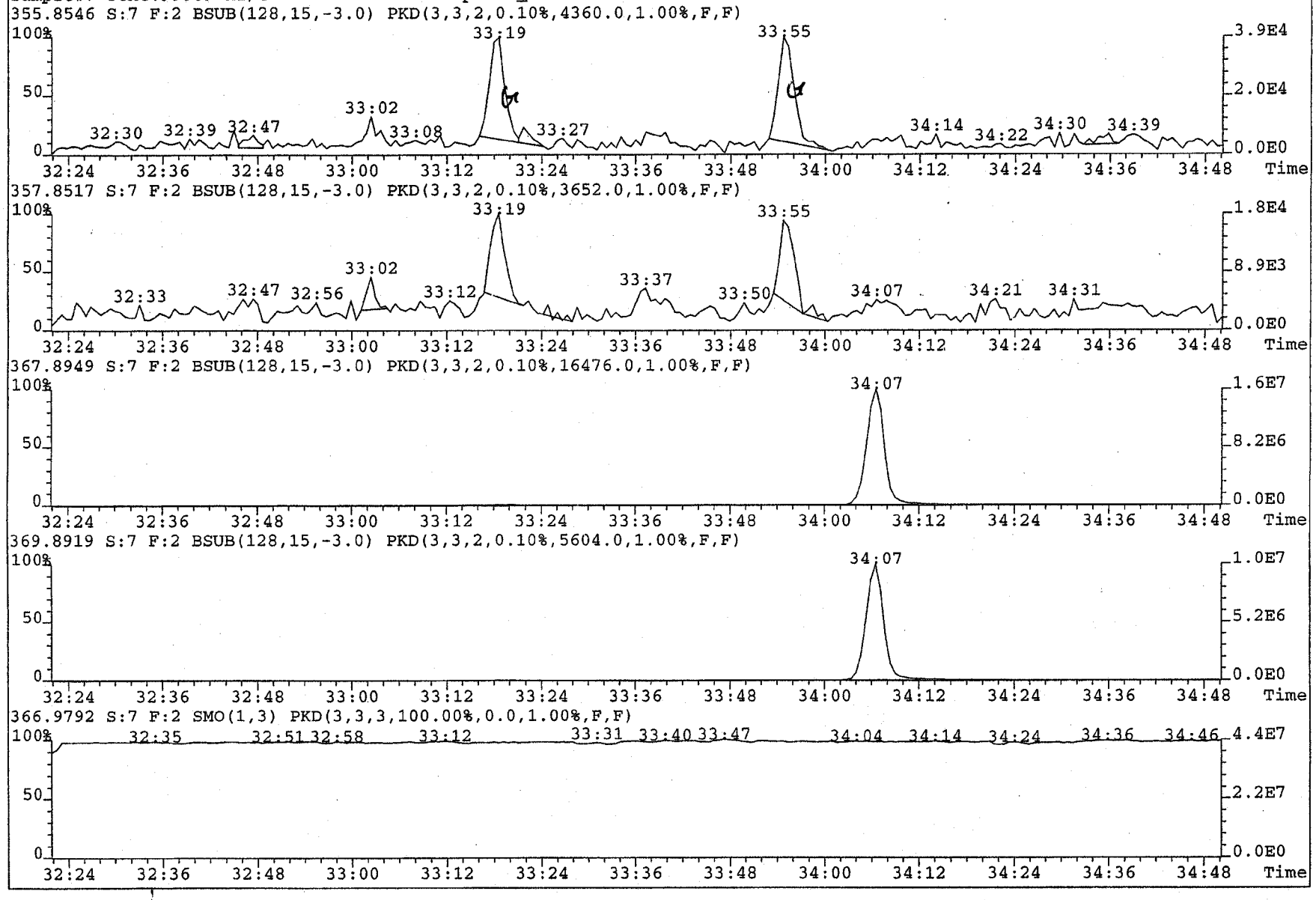
Acquired:	16-NOV-00 09:56:26	RRF Used For Totals:	1.0066
Processed:	16-NOV-00 15:21:34	Detection Limit:	0.1137
Sample ID:	99389 x1/1		
Cal Table:	m1613-052699m	Begin Window:	39:01:00
Results Table:	M1613-111500A_2	End Window:	39:21:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	8.62E+04	69300	16900	4.1	n	38:48	0.135	RT	7.1	y	2	n	n
	2	7.05E+03	3070	3970	0.77	n	38:58	0.011	RT	0.7	n	0.7	n	n
	3	1.64E+04	6970	9410	0.74	n	39:01	0.026	RT	1.1	n	0.9	n	n
	4	3.99E+05	197000	203000	0.97	y	39:08	0.627	OK	18.2	y	17.7	y	n
	5	1.81E+04	6400	11700	0.55	n	39:14	0.028	S2N	1.3	n	1.4	n	n
	6	1.57E+04	3940	11700	0.34	n	39:17	0.025	S2N	0.5	n	1.4	n	n
	7	1.73E+04	6470	10900	0.6	n	39:21	0.027	S2N	1	n	1.1	n	n
	8	9.34E+03	4440	4900	0.9	y	39:28	0.015	RT	0.6	n	0.9	n	n
	9	1.32E+04	4480	8720	0.51	n	39:33	0.021	RT	0.8	n	1	n	n
	10	7.99E+03	3330	4660	0.71	n	39:38	0.013	RT	0.5	n	0.7	n	n
	11	1.05E+04	4350	6170	0.71	n	39:46	0.017	RT	0.7	n	0.6	n	n
	12	1.66E+04	5490	11100	0.49	n	39:52	0.026	RT	0.9	n	0.9	n	n
	13	1.74E+04	6290	11100	0.57	n	39:55	0.027	RT	0.8	n	0.9	n	n
1,2,3,4,6,7,8-HpCDI	14	2.44E+05	129000	115000	1.13	y	40:04	0.382	~~RTD~~ ok	12.2	y	9.3	y	n
	15	1.86E+04	10600	8040	1.32	n	40:09	0.029	RT	1.8	n	1.2	n	n
	16	1.54E+04	5080	10300	0.49	n	40:15	0.024	RT	0.5	n	1.2	n	n
	17	1.53E+04	4360	11000	0.4	n	40:20	0.024	RT	0.7	n	0.9	n	n
	18	1.81E+04	7180	11000	0.66	n	40:23	0.028	RT	1	n	0.9	n	n
	19	8.49E+03	4040	4450	0.91	y	40:26	0.013	RT	0.9	n	0.8	n	n
	20	1.03E+04	4560	5790	0.79	n	40:34	0.016	RT	0.5	n	1	n	n
	21	1.13E+05	72000	41500	1.74	n	40:43	0.178	RT	6.4	y	2.6	n	n
	22	1.42E+04	4410	9830	0.45	n	40:49	0.022	RT	0.7	n	0.9	n	n
	23	1.03E+04	3730	6540	0.57	n	41:09	0.016	RT	0.9	n	1.3	n	n

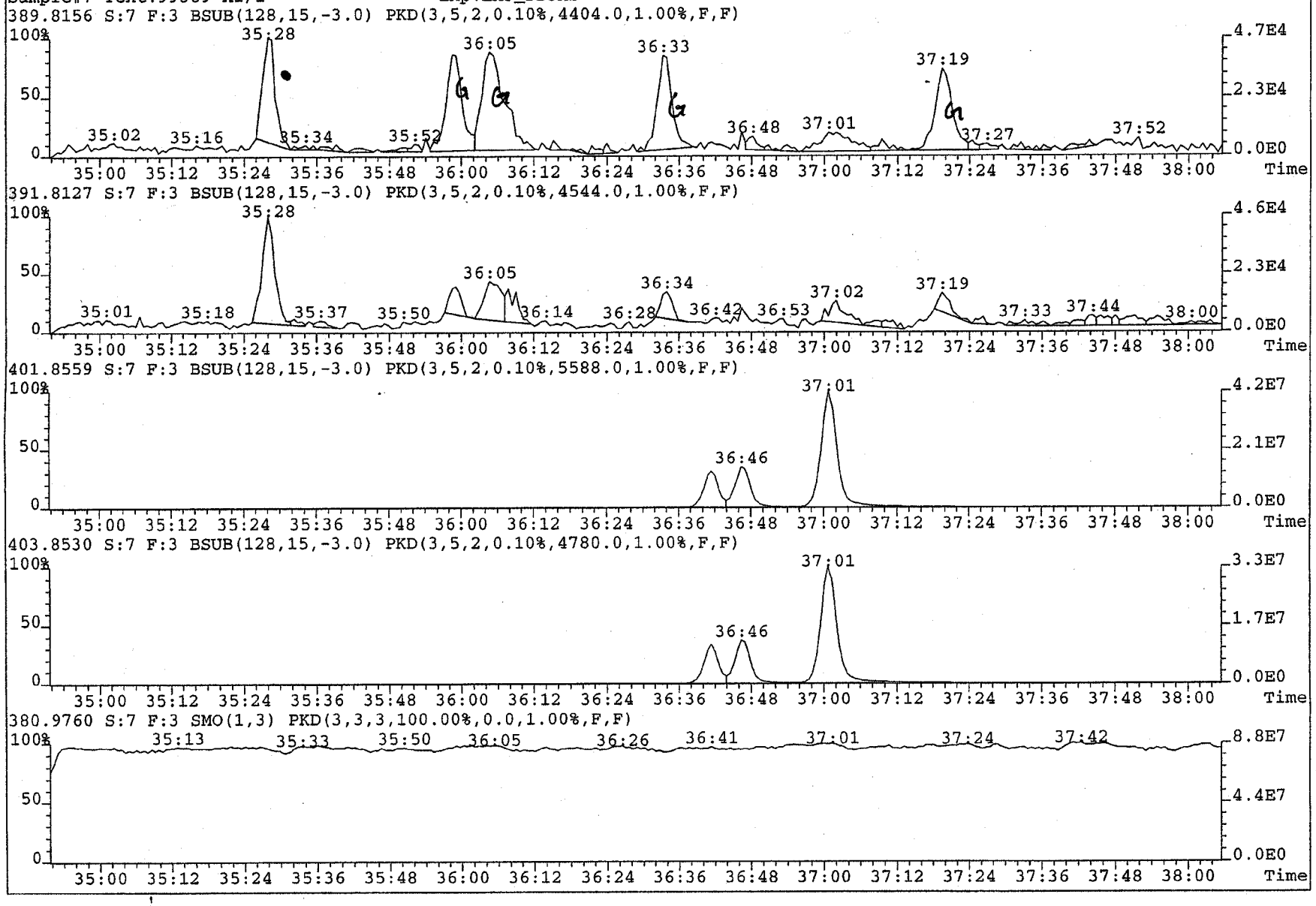
File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS



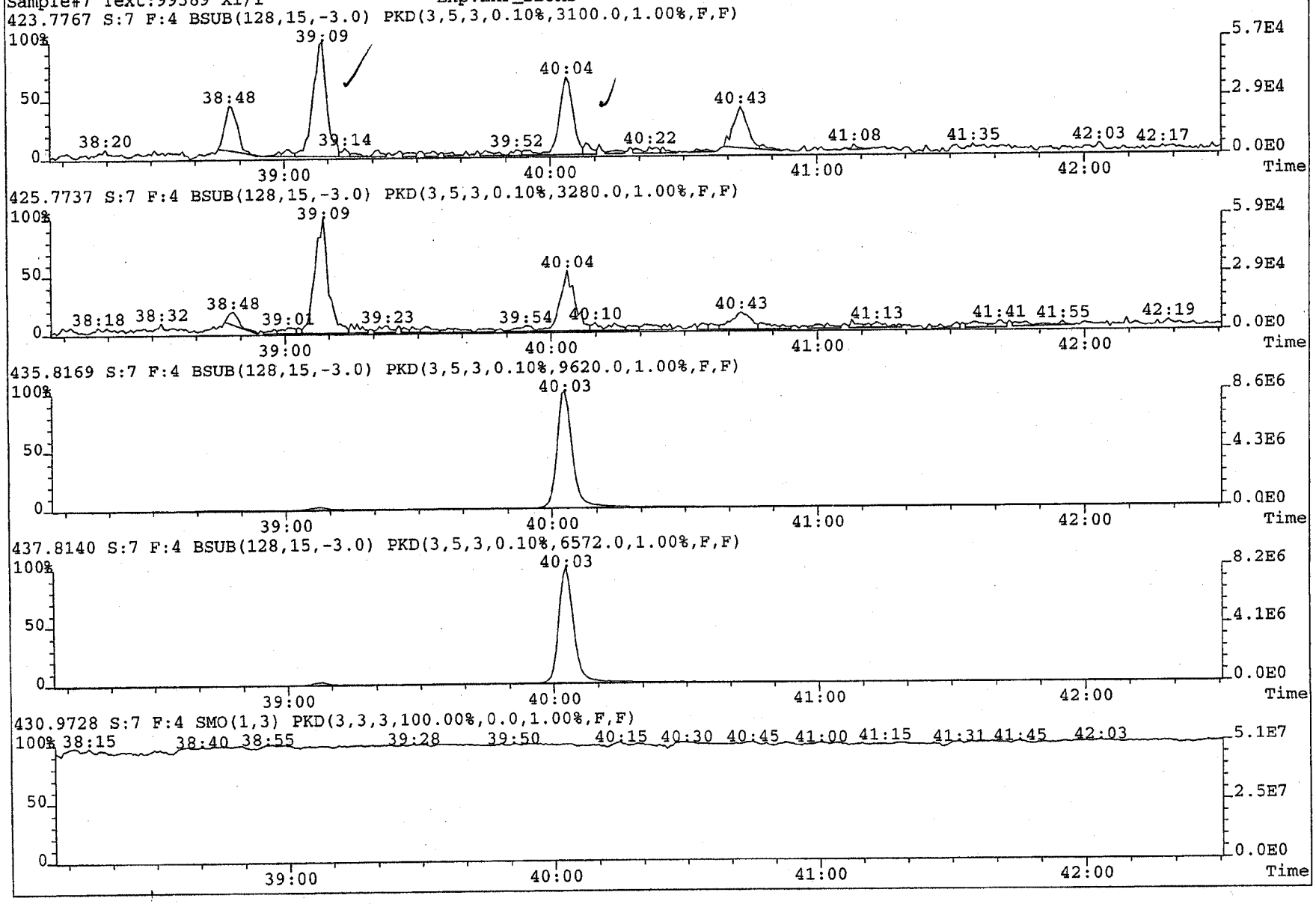
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS

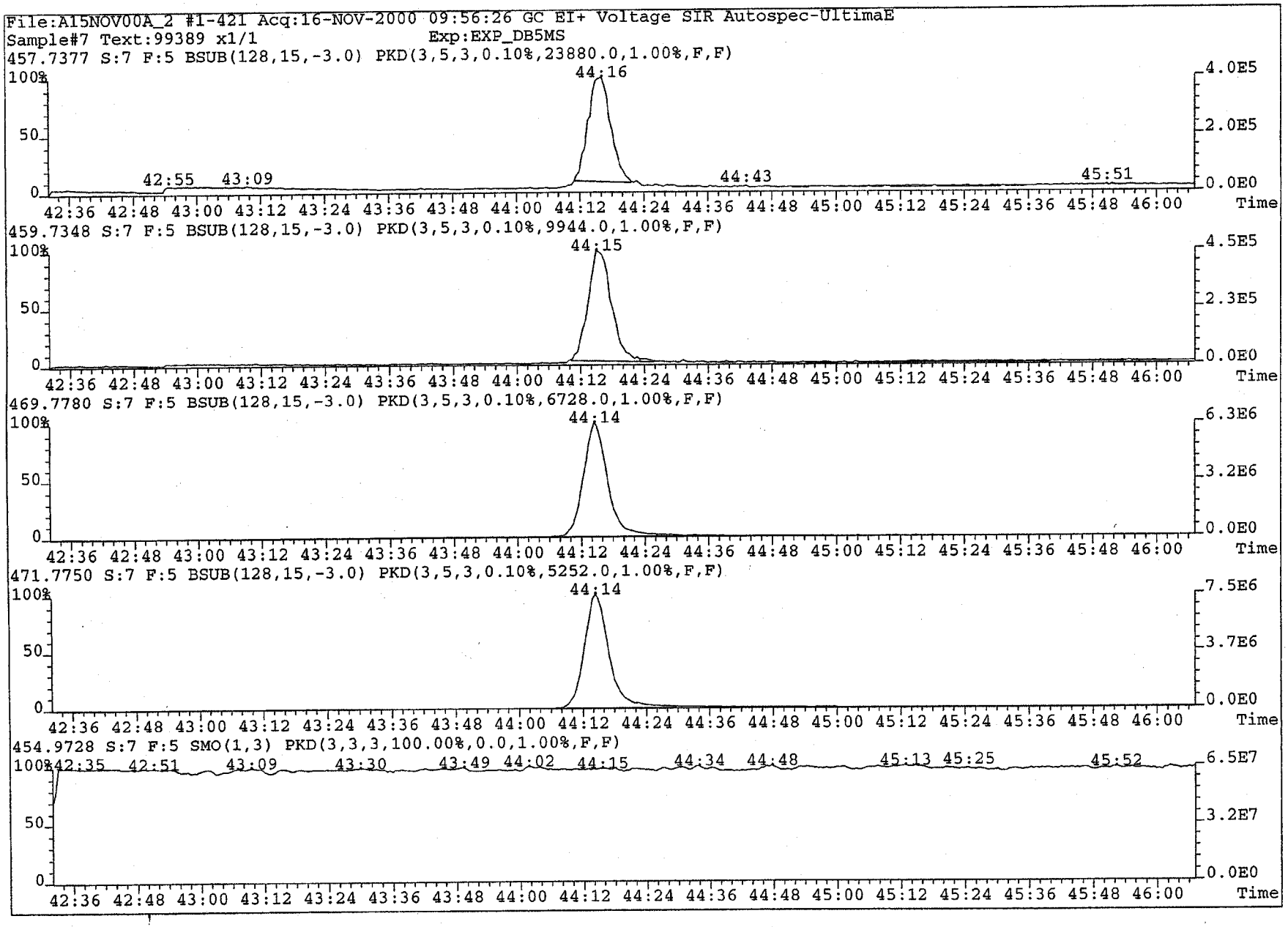


File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS

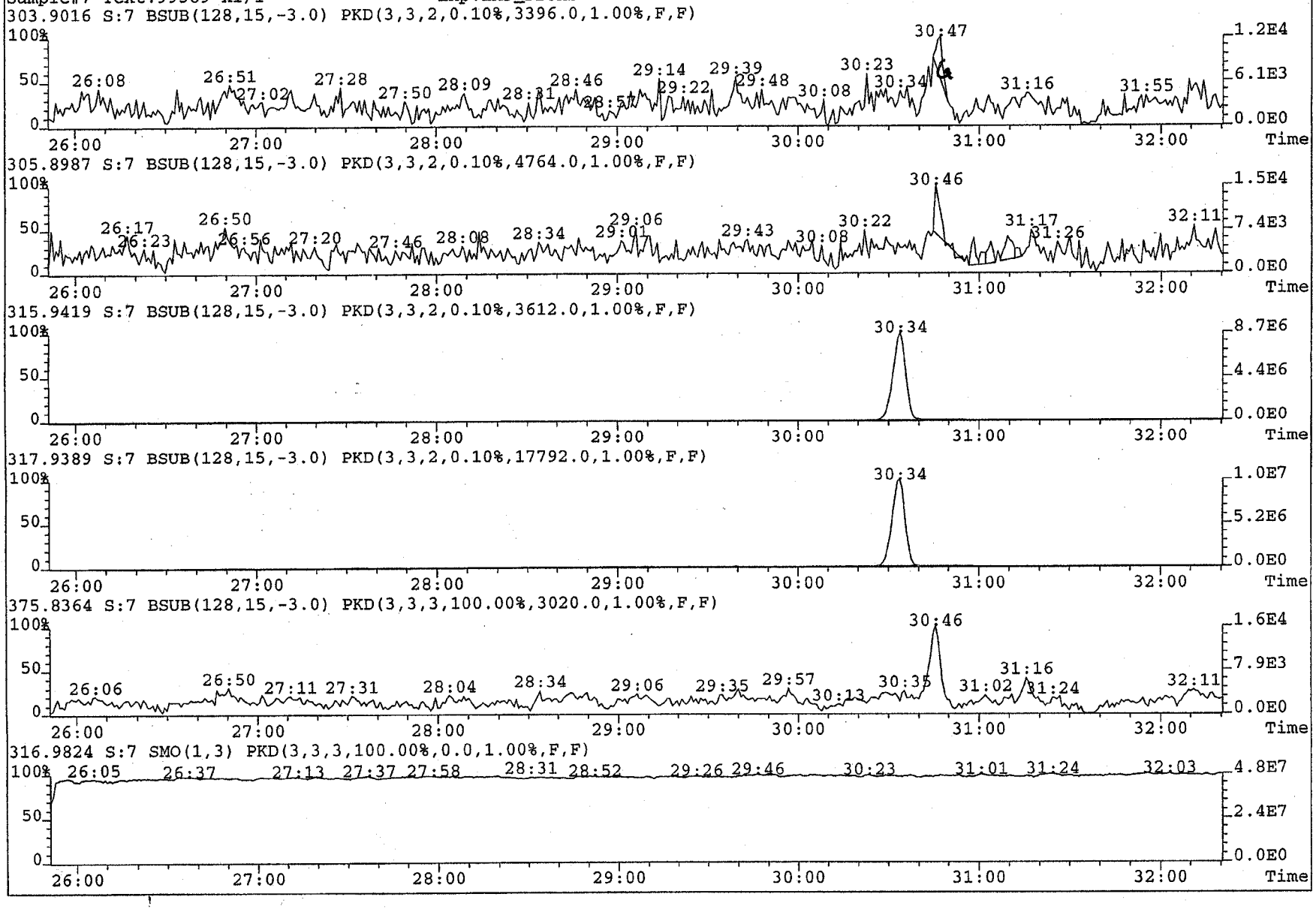


File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS

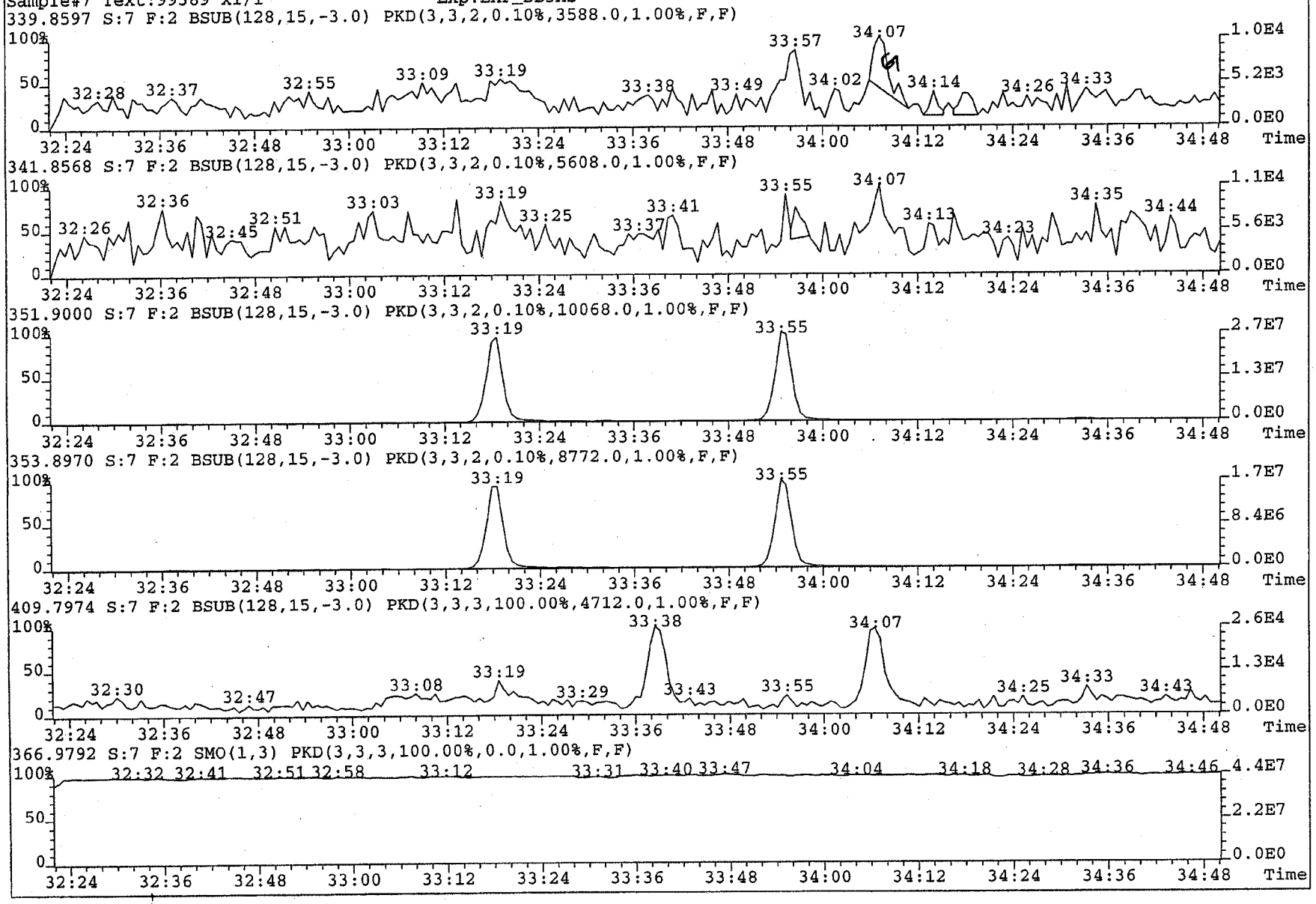


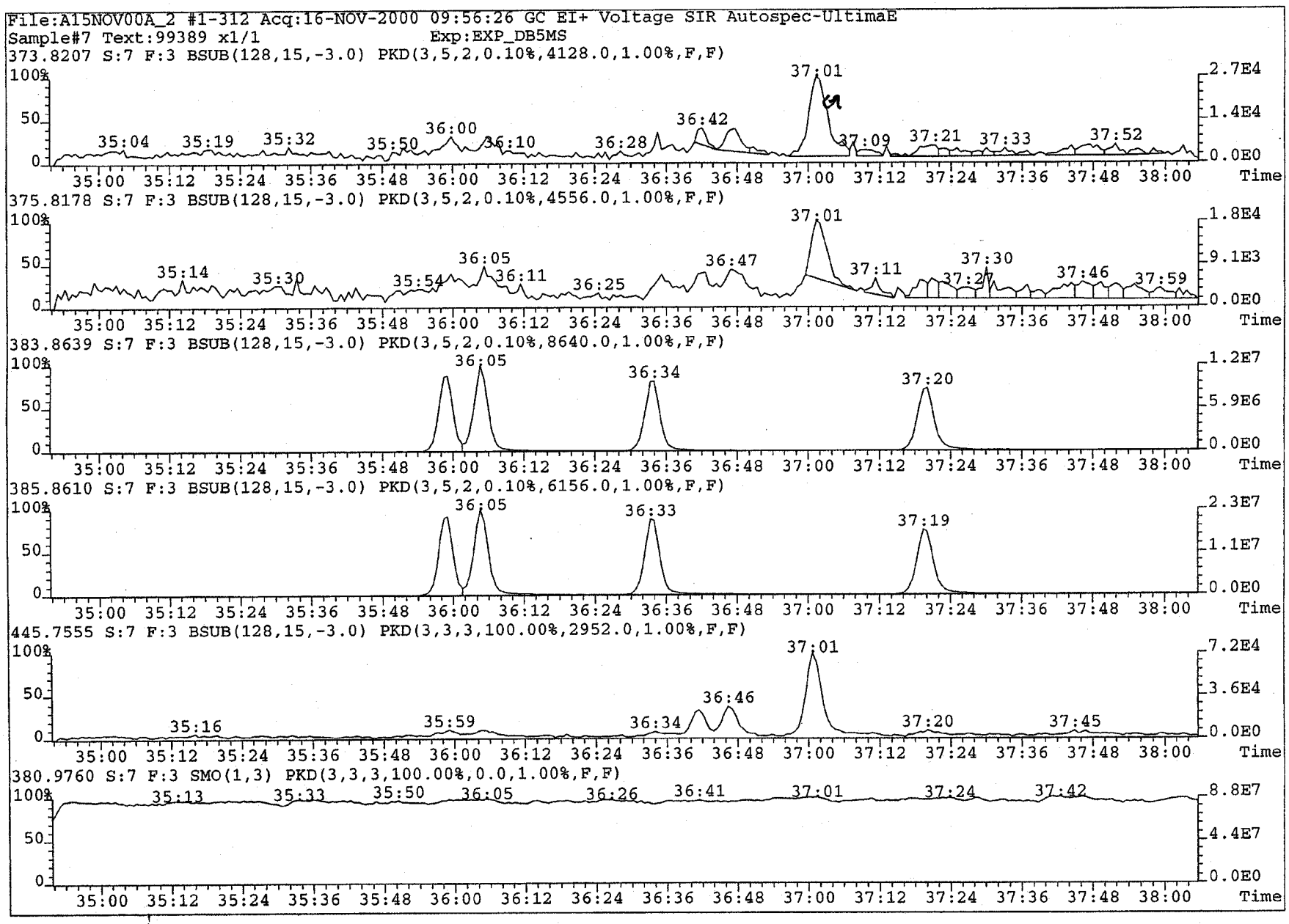

File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1
Exp:EXP_DB5MS
457.7377 S:7 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,23880.0,1.00%,F,F)
44:16
42:55
43:09
44:43
45:51
4.0E5
2.0E5
0.0E0
459.7348 S:7 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,9944.0,1.00%,F,F)
44:15
4.5E5
2.3E5
0.0E0
469.7780 S:7 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6728.0,1.00%,F,F)
44:14
6.3E6
3.2E6
0.0E0
471.7750 S:7 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5252.0,1.00%,F,F)
44:14
7.5E6
3.7E6
0.0E0
454.9728 S:7 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:35 42:51 43:09 43:30 43:49 44:02 44:15 44:34 44:48 45:13 45:25 45:52
6.5E7
3.2E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS

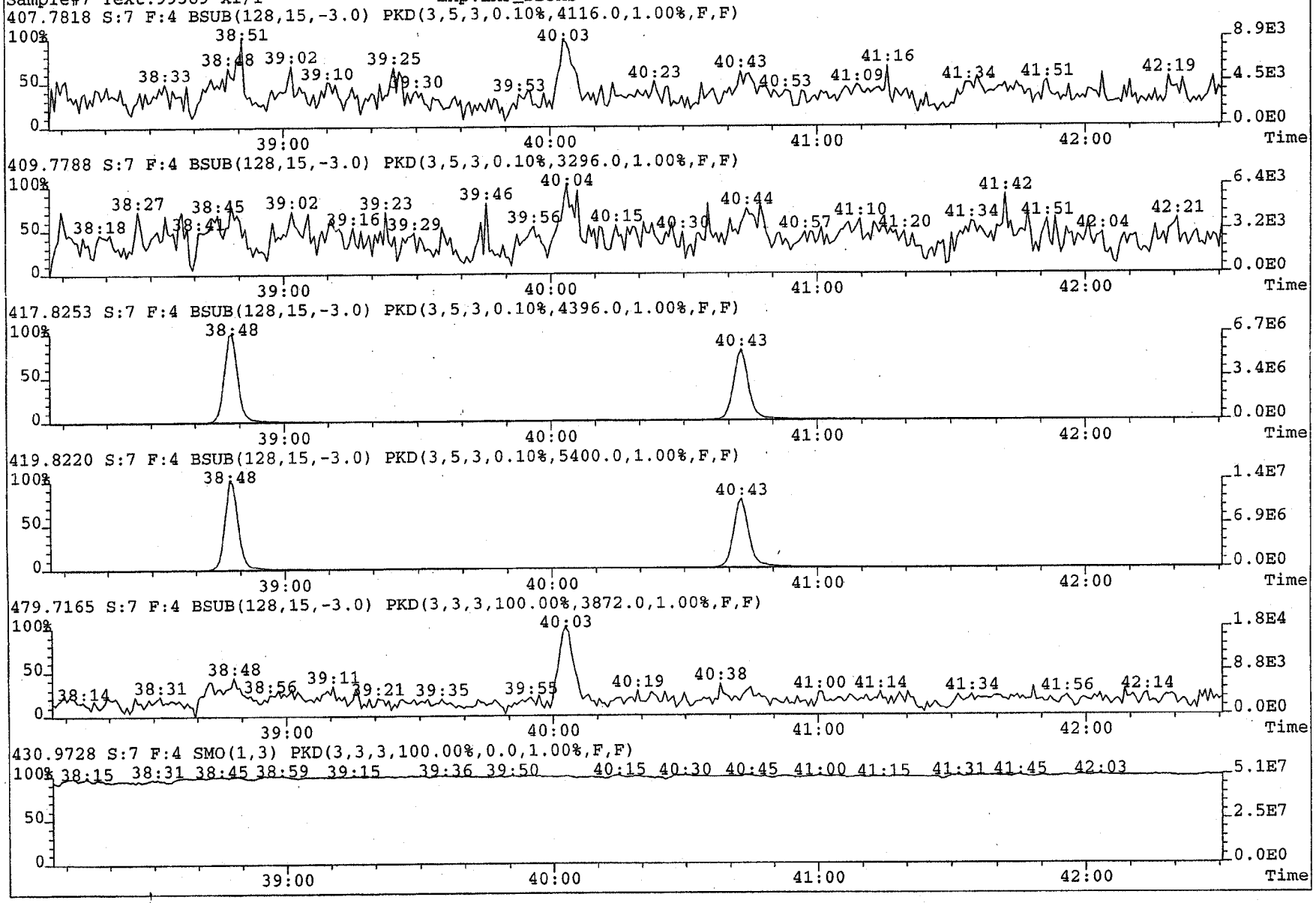


File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS

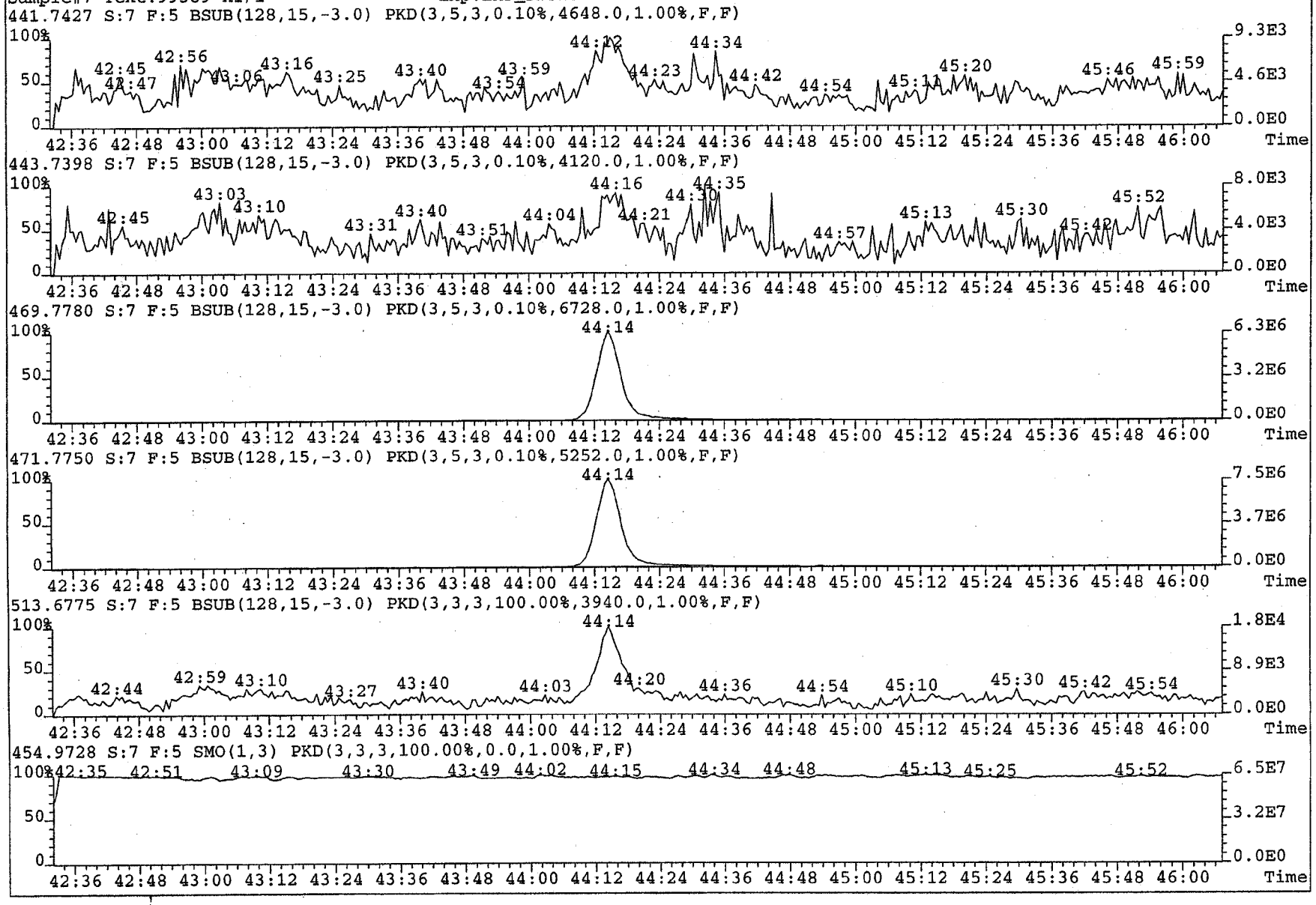



File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS
373.8207 S:7 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4128.0,1.00%,F,F)
375.8178 S:7 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4556.0,1.00%,F,F)
383.8639 S:7 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8640.0,1.00%,F,F)
385.8610 S:7 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6156.0,1.00%,F,F)
445.7555 S:7 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2952.0,1.00%,F,F)
380.9760 S:7 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time
2.7E4
1.4E4
0.0E0
1.8E4
9.1E3
1.2E7
5.9E6
2.3E7
1.1E7
7.2E4
3.6E4
8.8E7
4.4E7
37:01
36:42
36:00
35:04
35:19
35:32
35:50
36:10
36:28
37:09
37:21
37:33
37:52
36:05
36:47
35:14
35:30
35:54
36:11
36:25
37:11
37:30
37:46
37:59
36:34
37:20
36:33
37:19
36:46
35:16
35:59
37:45
35:13
35:33
36:26
36:41
37:24
37:42

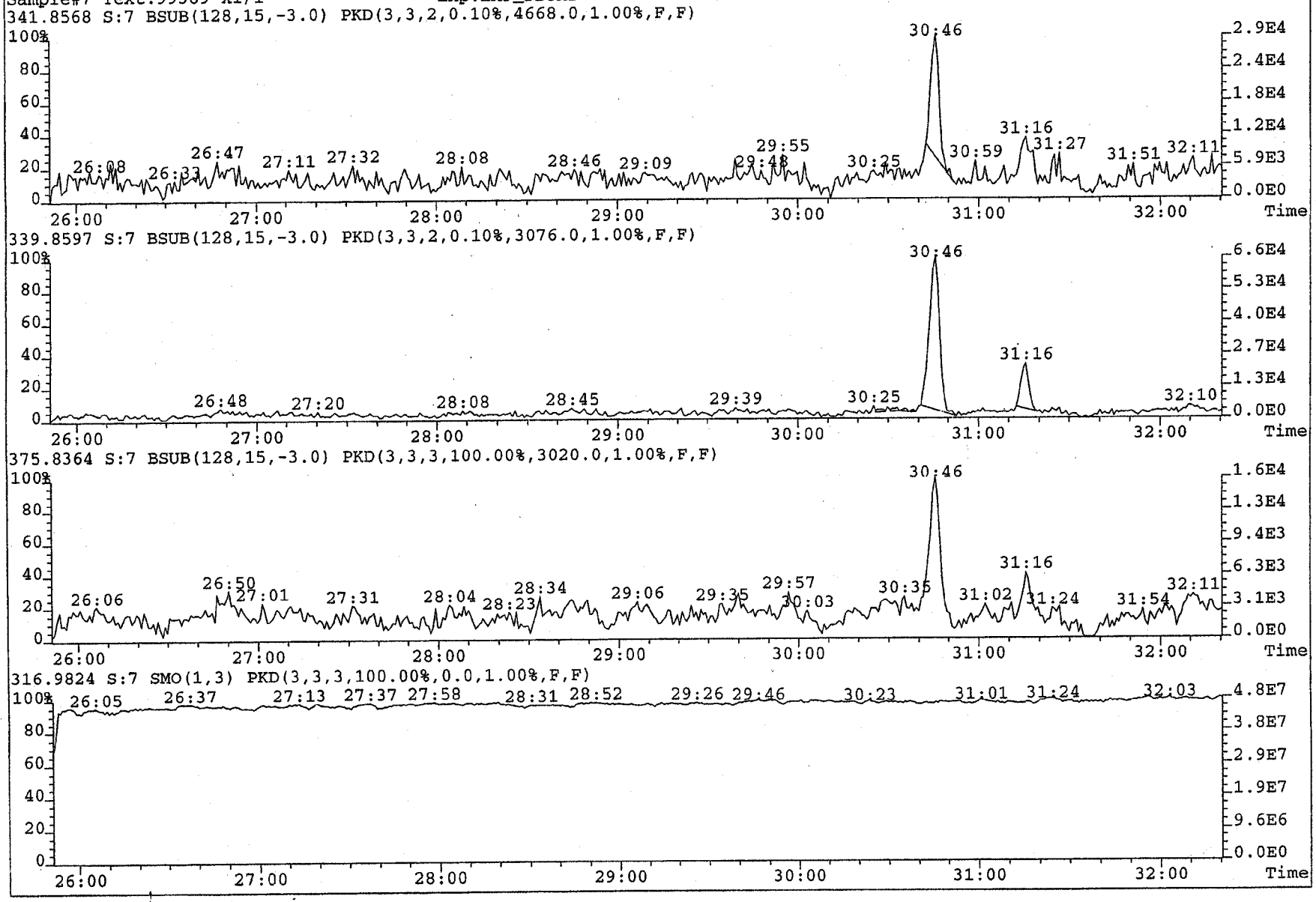
File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS



File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS



File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 09:56:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:99389 x1/1 Exp:EXP_DB5MS



Method 1613

LF-08

Delta Environmental Consultants

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0032				
1,2,3,7,8-PeCDD	ND	0.0010				
1,2,3,4,7,8-HxCDD	ND	0.0021				
1,2,3,6,7,8-HxCDD	ND	0.0025				
1,2,3,7,8,9-HxCDD	ND	0.0021				
1,2,3,4,6,7,8-HpCDD	ND	0.0024				
OCDD	ND	0.0119				
2,3,7,8--TCDF	ND	0.0017				
1,2,3,7,8-PeCDF	ND	0.0009				
2,3,4,7,8-PeCDF	ND	0.0008				
1,2,3,4,7,8-HxCDF	ND	0.0013				
1,2,3,6,7,8-HxCDF	ND	0.0013				
2,3,4,6,7,8-HxCDF	ND	0.0015				
1,2,3,7,8,9-HxCDF	ND	0.0017				
1,2,3,4,6,7,8-HpCDF	ND	0.0013				
1,2,3,4,7,8,9-HpCDF	ND	0.0018				
OCDF	ND	0.0068				
Total TCDDs	ND	0.0032				
Total PeCDDs	ND	0.0035				
Total HxCDDs	ND	0.0022				
Total HpCDDs	ND	0.0024				
Total TCDFs	ND	0.0017				
Total PeCDFs	ND	0.0009				
Total HxCDFs	ND	0.0014				
Total HpCDFs	ND	0.0015				
TEQ (ND=0)	0.0000		0.0000			ITEF
TEQ (ND=½)	0.0028		0.0028			ITEF

Client Information

Project Name:	E096-007-5.0040
Sample ID:	LF-08

Laboratory Information

Project ID:	G129-306
Sample ID:	99390
Collection Date/Time:	09-Nov-00
Receipt Date:	10-Nov-00
Extraction Date:	13-Nov-00
Analysis Date:	16-Nov-00

Sample Information

Matrix:	Aqueous
Weight / Volume:	498 mL
Solids / Lipids:	NA
Original pH :	5
Batch ID:	WG5101
Filename:	a15nov00a_2-8
Retchk:	a15nov00a-15
Begin ConCal:	a15nov00a-15
Initial Cal:	m1613-052699m

Method 1613

LF-08

Delta Environmental Consultants

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1.0	0.59	58.8	31:15	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1.0	0.73	72.9	34:07	1.57	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1.0	0.95	94.7	36:47	1.21	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.0	0.85	85.1	36:47	1.21	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1.0	0.57	56.9	40:03	1.04	
$^{13}C_{12}$-OCDD	2.0	0.80	40.1	44:15	0.83	
$^{13}C_{12}$-2,3,7,8-TCDF	1.0	0.68	67.6	30:34	0.81	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.0	0.68	68.2	33:18	1.67	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.0	0.79	78.9	33:55	1.66	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.0	0.80	79.8	36:05	0.49	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.0	0.74	74.0	36:05	0.49	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.0	0.72	72.4	36:34	0.51	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.0	0.81	80.9	37:20	0.5	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.0	0.64	64.2	38:48	0.48	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.0	0.66	65.6	40:43	0.49	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.34	86.0	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.0			30:45	0.79	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.0			36:34	0.51	

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-08

Laboratory Information

Project ID: G129-306
Sample ID: 99390

Collection Date/Time: 09-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Aqueous
Weight / Volume: 498 mL
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-8
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Reviewed by: MLh

Date Reviewed: 11/20/00

Filename ; a15nov00a_2
Sample ; 8
Acquired ; 16-NOV-00 10:44:54
Processed ; 16-NOV-00 15:21:36
Sample ID ; 99390 x1/1
Cal Table ; m1613-052699m
Results Table ; m1613-111500a_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	*	*	*	*;n;	NotFnd	*	0.1588	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDD	*	*	*	*;n;	NotFnd	*	0.0519	*;n;	*;n	no
Unk	1,2,3,4,7,8-HxCDD	1.98e+04	1.03e+04	9.48e+03	1.09;y;	36:44	0.020	0.1041	1;n;	1;n	no
Unk	1,2,3,6,7,8-HxCDD	1.41e+04	4.62e+03	9.48e+03	0.49;n;	36:46	0.017	0.1219	1;n;	1;n	no
Unk	1,2,3,7,8,9-HxCDD	2.79e+04	8.83e+03	1.90e+04	0.46;n;	37:02	0.028	0.1042	1;n;	1;n	no
Unk	1,2,3,4,6,7,8-HpCDD	*	*	*	*;n;	NotFnd	*	0.1201	*;n;	*;n	no
Unk	OCDD	1.05e+05	4.81e+04	5.65e+04	0.85;y;	44:15	0.319	0.5941	2;n;	2;n	yes
Unk	2,3,7,8-TCDF	*	*	*	*;n;	NotFnd	*	0.0856	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDF	*	*	*	*;n;	NotFnd	*	0.0468	*;n;	*;n	no
Unk	2,3,4,7,8-PeCDF	*	*	*	*;n;	NotFnd	*	0.0396	*;n;	*;n	no
Unk	1,2,3,4,7,8-HxCDF	*	*	*	*;n;	NotFnd	*	0.0644	*;n;	*;n	no
Unk	1,2,3,6,7,8-HxCDF	*	*	*	*;n;	NotFnd	*	0.0662	*;n;	*;n	no
Unk	2,3,4,6,7,8-HxCDF	*	*	*	*;n;	NotFnd	*	0.0731	*;n;	*;n	no
Unk	1,2,3,7,8,9-HxCDF	*	*	*	*;n;	NotFnd	*	0.0828	*;n;	*;n	no
Unk	1,2,3,4,6,7,8-HpCDF	*	*	*	*;n;	NotFnd	*	0.0648	*;n;	*;n	no
Unk	1,2,3,4,7,8,9-HpCDF	*	*	*	*;n;	NotFnd	*	0.0904	*;n;	*;n	no
Unk	OCDF	*	*	*	*;n;	NotFnd	*	0.3379	*;n;	*;n	no
ES/RT	13C-2,3,7,8-TCDD	7.93e+07	3.50e+07	4.43e+07	0.79;y;	31:15	29.391	0.0520	1564;y;	2762;y	no
ES	13C-1,2,3,7,8-PeCDD	8.29e+07	5.06e+07	3.22e+07	1.57;y;	34:07	36.443	0.0342	6536;y;	4482;y	no
ES	13C-1,2,3,4,7,8-HxCDD	8.66e+07	4.74e+07	3.92e+07	1.21;y;	36:47	47.365	0.0581	2645;y;	2327;y	no
ES	13C-1,2,3,6,7,8-HxCDD	8.66e+07	4.74e+07	3.92e+07	1.21;y;	36:47	42.545	0.0521	2645;y;	2327;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	5.55e+07	2.84e+07	2.72e+07	1.04;y;	40:03	28.449	0.0409	1408;y;	1990;y	no
ES	13C-OCDD	6.10e+07	2.76e+07	3.34e+07	0.83;y;	44:15	40.115	0.0598	916;y;	1514;y	no
ES/RT	13C-2,3,7,8-TCDF	1.29e+08	5.80e+07	7.13e+07	0.81;y;	30:34	33.805	0.0385	2413;y;	2087;y	no
ES	13C-1,2,3,7,8-PeCDF	1.19e+08	7.46e+07	4.47e+07	1.67;y;	33:18	34.102	0.0609	2541;y;	3539;y	no
ES	13C-2,3,4,7,8-PeCDF	1.31e+08	8.16e+07	4.93e+07	1.66;y;	33:55	39.442	0.0643	2732;y;	3962;y	no
ES	13C-1,2,3,4,7,8-HxCDF	1.06e+08	3.51e+07	7.09e+07	0.49;y;	36:05	39.894	0.0563	1544;y;	2859;y	no
ES	13C-1,2,3,6,7,8-HxCDF	1.06e+08	3.51e+07	7.09e+07	0.49;y;	36:05	37.004	0.0523	1544;y;	2859;y	no
ES	13C-2,3,4,6,7,8-HxCDF	9.71e+07	3.26e+07	6.44e+07	0.51;y;	36:34	36.199	0.0558	1476;y;	2695;y	no
ES	13C-1,2,3,7,8,9-HxCDF	8.94e+07	2.96e+07	5.98e+07	0.50;y;	37:20	40.434	0.0677	1154;y;	2179;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	6.80e+07	2.20e+07	4.60e+07	0.48;y;	38:48	32.079	0.0448	1389;y;	2302;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	5.73e+07	1.90e+07	3.83e+07	0.49;y;	40:43	32.777	0.0543	1023;y;	1647;y	no
JS	13C-1,2,3,4-TCDD	2.54e+08	1.12e+08	1.42e+08	0.79;y;	30:45	125.680	-	4099;y;	7332;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.13e+08	1.18e+08	9.57e+07	1.23;y;	37:01	129.439	-	6482;y;	5551;y	no
CS	37Cl-2,3,7,8-TCDD	5.14e+07	5.14e+07	-	-;-	31:16	17.198	0.0236	2780;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0	0	FALSE
PeCDD	0	0	FALSE
HxCDF	0	0	FALSE
HxCDD	0	0	FALSE
HpCDF	0	0	FALSE
HpCDD	0	0	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	8	Number of Peaks Found:	1
Acquired:	16-NOV-00 10:44:54	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:36	Detection Limit:	0.0856
Sample ID:	99390 x1/1		
Cal Table:	m1613-052699m	Begin Window:	25:59:00
Results Table:	m1613-111500a_2	End Window:	32:48:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.79E+04	25300	12600	2.01	n	30:47	0.026	S2N	2.5	n	1.2	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	8	Number of Peaks Found:	0
Acquired:	16-NOV-00 10:44:54	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:36	Detection Limit:	0.1588
Sample ID:	99390 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	8	Number of Peaks Found:	2
Acquired:	16-NOV-00 10:44:54	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:36	Detection Limit:	0.0405
Sample ID:	99390 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:37:00
Results Table:	m1613-111500a_2	End Window:	31:57:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.37E+05	87500	250000	0.35	n	30:45	0.246	RT	5.4	y	18.3	y	n
	2	1.11E+05	26600	84400	0.32	n	31:15	0.081	RT	2.3	n	7.9	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	8	Number of Peaks Found:	1
Acquired:	16-NOV-00 10:44:54	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:36	Detection Limit:	0.043
Sample ID:	99390 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:34:00
Results Table:	m1613-111500a_2	End Window:	34:42:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	4.95E+04	20600	28900	0.71	n	34:07	0.036	S2N	2.5	n	2.4	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	8	Number of Peaks Found:	2
Acquired:	16-NOV-00 10:44:54	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:36	Detection Limit:	0.173
Sample ID:	99390 x1/1		
Cal Table:	m1613-052699m	Begin Window:	32:43:00
Results Table:	m1613-111500a_2	End Window:	34:28:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.38E+05	102000	36600	2.77	n	33:18	0	CF	11.3	y	5.9	y	n
	2	1.48E+05	107000	41100	2.6	n	33:55	0	CF	12	y	6.9	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	8	Number of Peaks Found:	2
Acquired:	16-NOV-00 10:44:54	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:36	Detection Limit:	0.0716
Sample ID:	99390 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	m1613-111500a_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.03E+05	72000	31200	2.31	n	37:01	0.086	S2N	4.2	y	2.4	n	n
	2	2.91E+03	1230	1680	0.74	n	37:14	0.002	S2N	0.2	n	0.3	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Dioxins
Sample:	8	Number of Peaks Found:	12
Acquired:	16-NOV-00 10:44:54	RRF Used For Totals:	1.0787
Processed:	16-NOV-00 15:21:36	Detection Limit:	0.1097
Sample ID:	99390 x1/1		
Cal Table:	m1613-052699m	Begin Window:	35:25:00

Results Table: m1613-111500a_2 End Window: 37:06:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.11E+05	86200	24600	3.51	n	35:59	0.119	S2N	6.8	y	1.8	n	n
	2	1.52E+05	107000	45300	2.36	n	36:05	0.163	S2N	7.3	y	2.5	n	n
	3	8.95E+03	4000	4950	0.81	n	36:13	0.01	S2N	0.3	n	0.4	n	n
	4	1.58E+05	106000	51200	2.07	n	36:34	0.169	S2N	7	y	2.8	n	n
	5	2.13E+04	11200	10100	1.11	y	36:40	0.023	S2N	0.8	n	1.1	n	n
1,2,3,4,7,8-HxCDD	6	1.98E+04	10300	9480	1.09	y	36:44	0.02	S2N	0.7	n	0.6	n	n
1,2,3,6,7,8-HxCDD	7	1.41E+04	4620	9480	0.49	n	36:46	0.017	S2N	0.6	n	0.6	n	n
	8	7.63E+03	563	7070	0.08	n	36:51	0.008	S2N	0.1	n	0.4	n	n
	9	8.55E+03	1480	7070	0.21	n	36:54	0.009	S2N	0.2	n	0.4	n	n
	10	2.66E+04	7540	19000	0.4	n	37:00	0.028	S2N	0.7	n	0.8	n	n
1,2,3,7,8,9-HxCDD	11	2.79E+04	8830	19000	0.46	n	37:02	0.028	S2N	1.2	n	0.8	n	n
	12	1.45E+05	101000	43900	2.3	n	37:20	0.155	RT	5.6	y	2.1	n	n

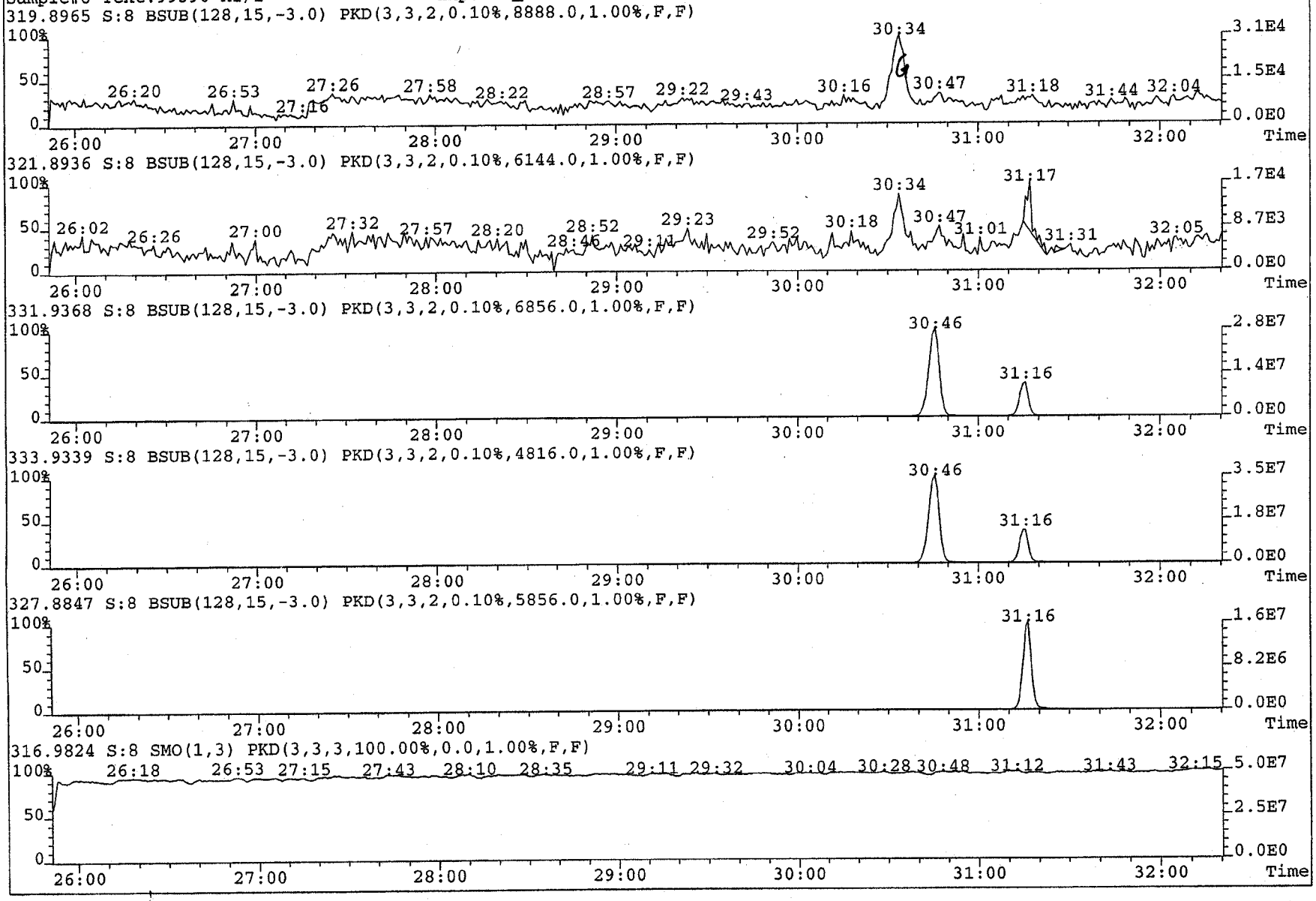
Filename: a15nov00a_2 Name of Homolog Group: Total Hepta-Furans
Sample: 8 Number of Peaks Found: 12
Acquired: 16-NOV-00 10:44:54 RRF Used For Totals: 1.4605
Processed: 16-NOV-00 15:21:36 Detection Limit: 0.0765
Sample ID: 99390 x1/1
Cal Table: m1613-052699m Begin Window: 38:37:00
Results Table: m1613-111500a_2 End Window: 40:48:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.18E+04	8260	3500	2.36	n	41:18	0.013	RT	0.8	n	0.6	n	n
	2	8.73E+03	5630	3100	1.82	n	41:23	0.01	RT	0.9	n	0.6	n	n
	3	9.64E+03	6540	3100	2.11	n	41:25	0.011	RT	1	n	0.6	n	n
	4	7.95E+03	5560	2380	2.33	n	41:28	0.009	RT	0.8	n	0.4	n	n
	5	7.35E+03	3770	3580	1.05	y	41:30	0.008	RT	0.8	n	0.6	n	n
	6	9.05E+03	5470	3580	1.53	n	41:32	0.01	RT	0.8	n	0.6	n	n
	7	6.00E+03	3800	2200	1.73	n	41:41	0.007	RT	0.6	n	0.4	n	n
	8	2.33E+04	14000	9290	1.5	n	41:46	0.025	RT	1.1	n	0.8	n	n
	9	6.17E+03	3670	2500	1.47	n	41:52	0.007	RT	0.6	n	0.4	n	n
	10	1.40E+04	8730	5230	1.67	n	41:55	0.015	RT	0.9	n	0.8	n	n
	11	7.61E+03	3700	3910	0.95	y	41:59	0.008	RT	0.6	n	0.8	n	n
	12	5.95E+03	2040	3910	0.52	n	42:01	0.007	RT	0.4	n	0.8	n	n

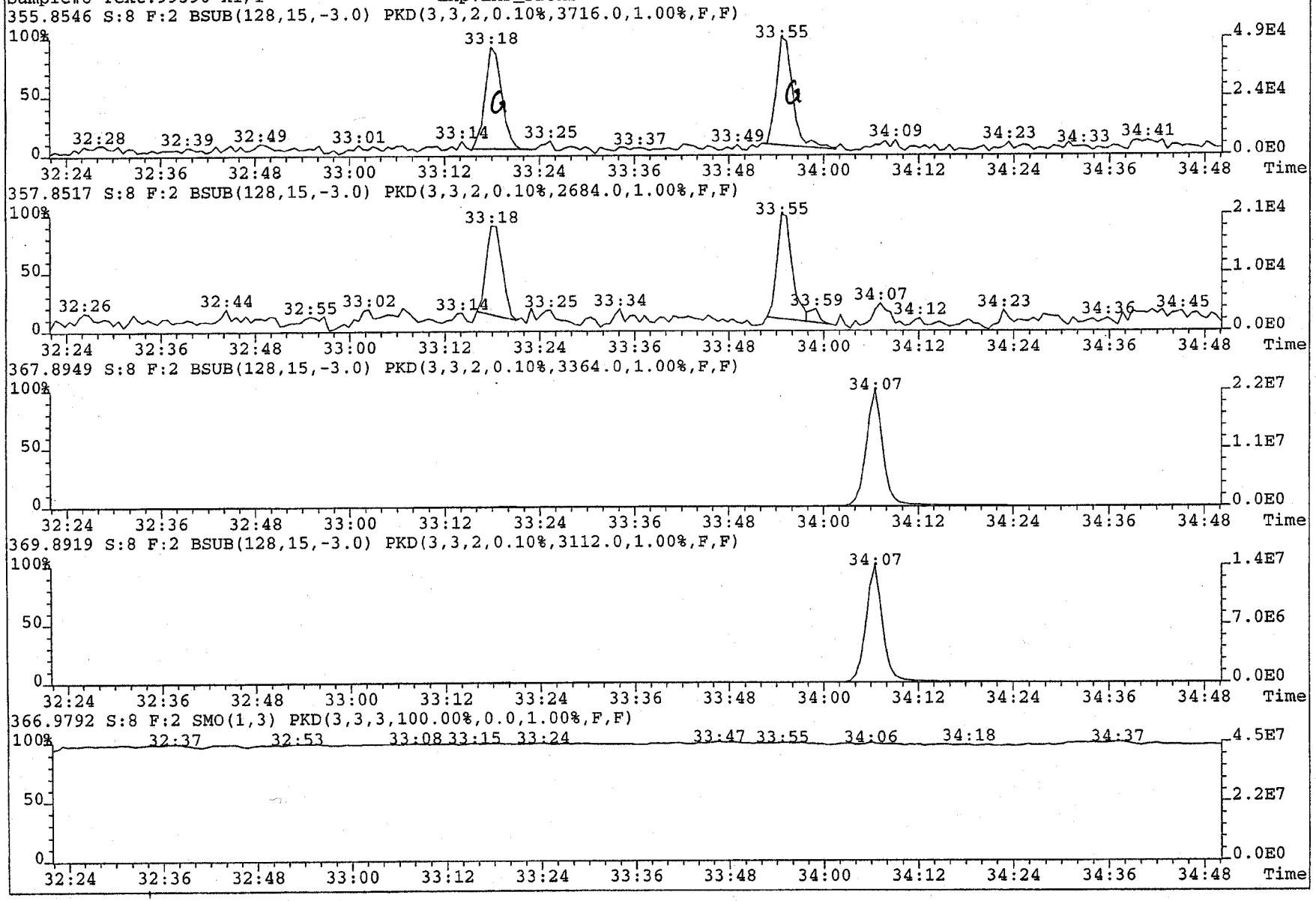
Filename: a15nov00a_2 Name of Homolog Group: Total Hepta-Dioxins
Sample: 8 Number of Peaks Found: 1
Acquired: 16-NOV-00 10:44:54 RRF Used For Totals: 1.0066
Processed: 16-NOV-00 15:21:36 Detection Limit: 0.1201
Sample ID: 99390 x1/1
Cal Table: m1613-052699m Begin Window: 39:01:00
Results Table: m1613-111500a_2 End Window: 39:21:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	8.66E+04	71700	14900	4.81	n	38:48	0.155	RT	9.9	y	2	n	n

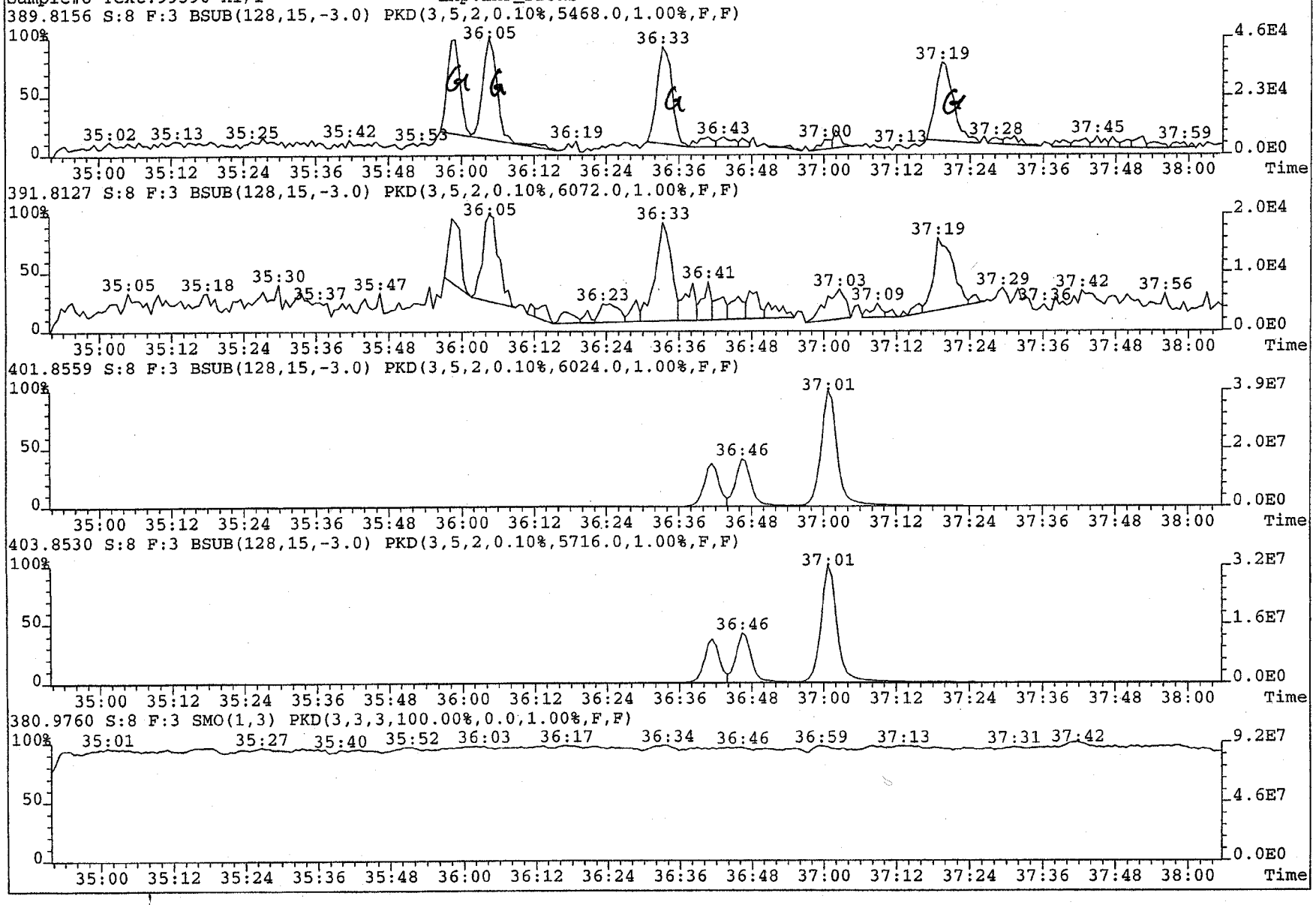
File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS

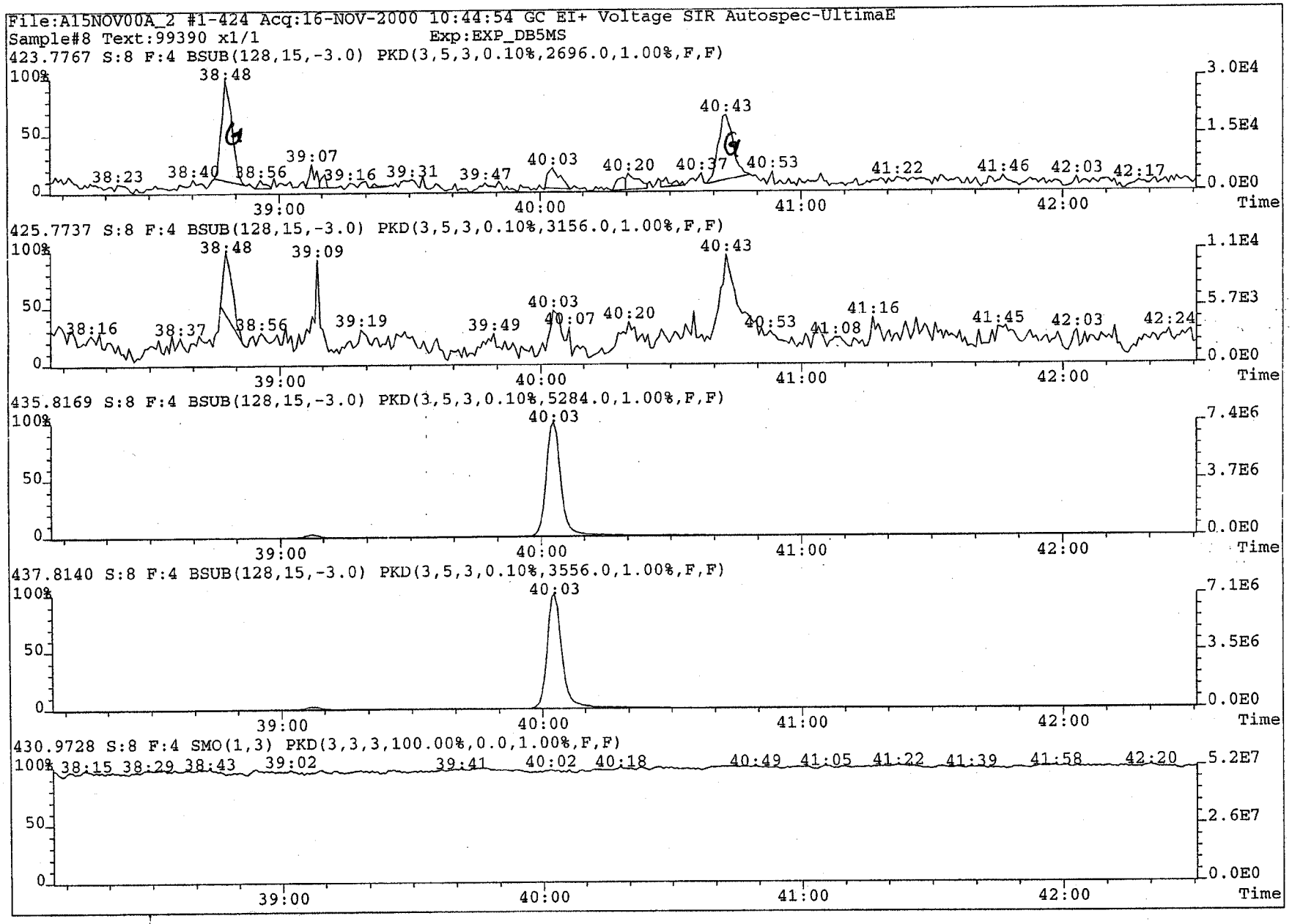


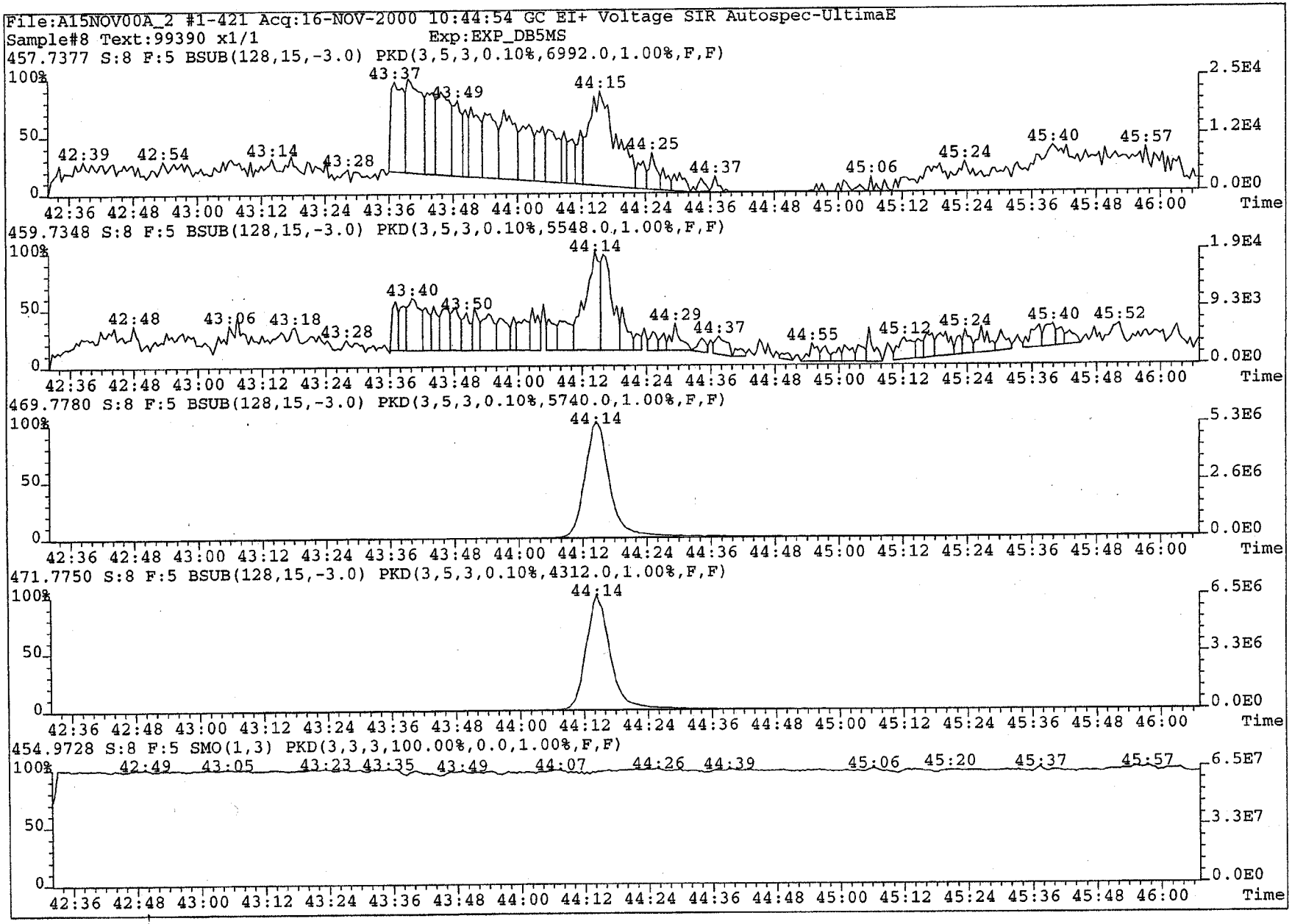
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS

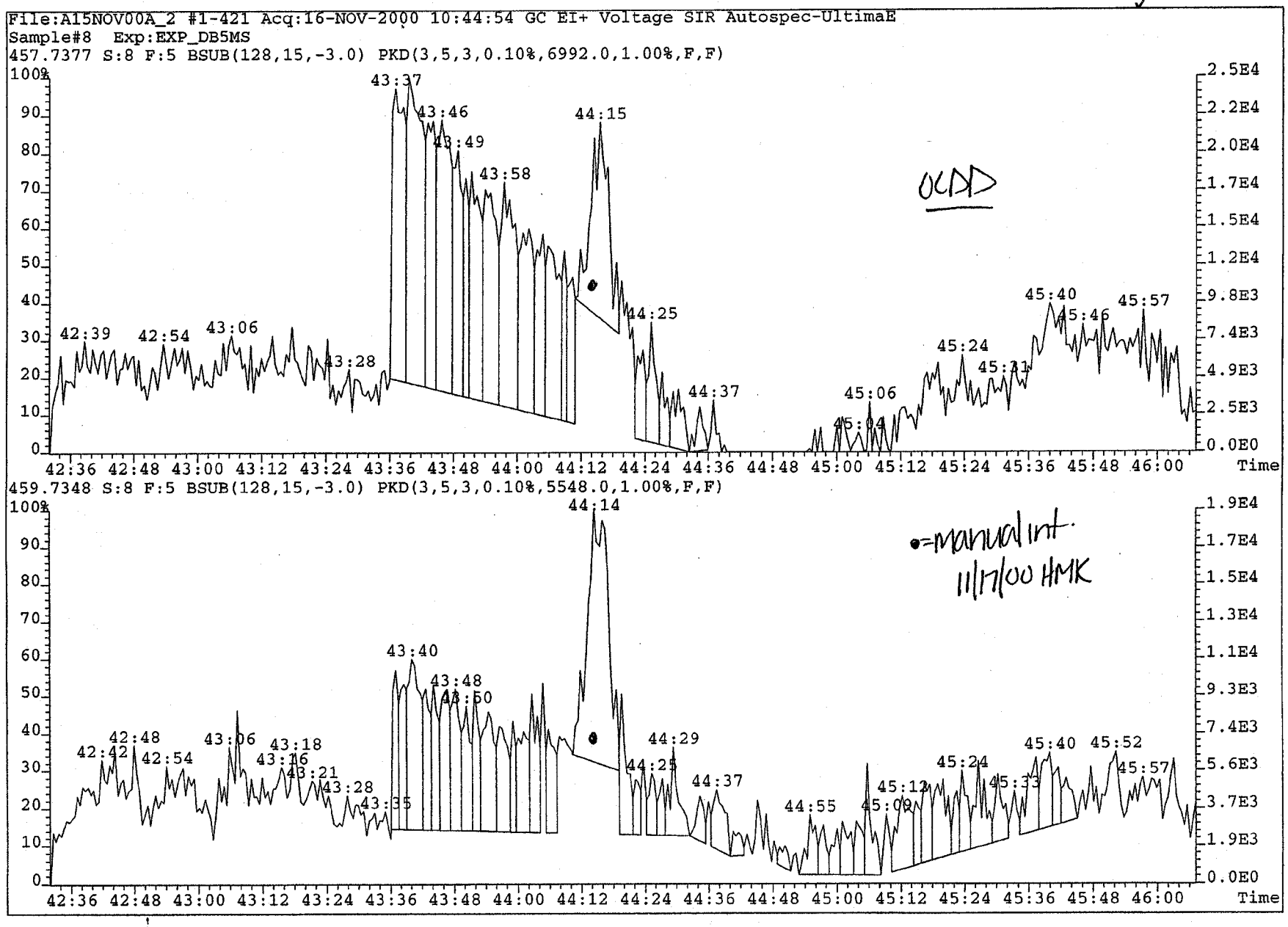


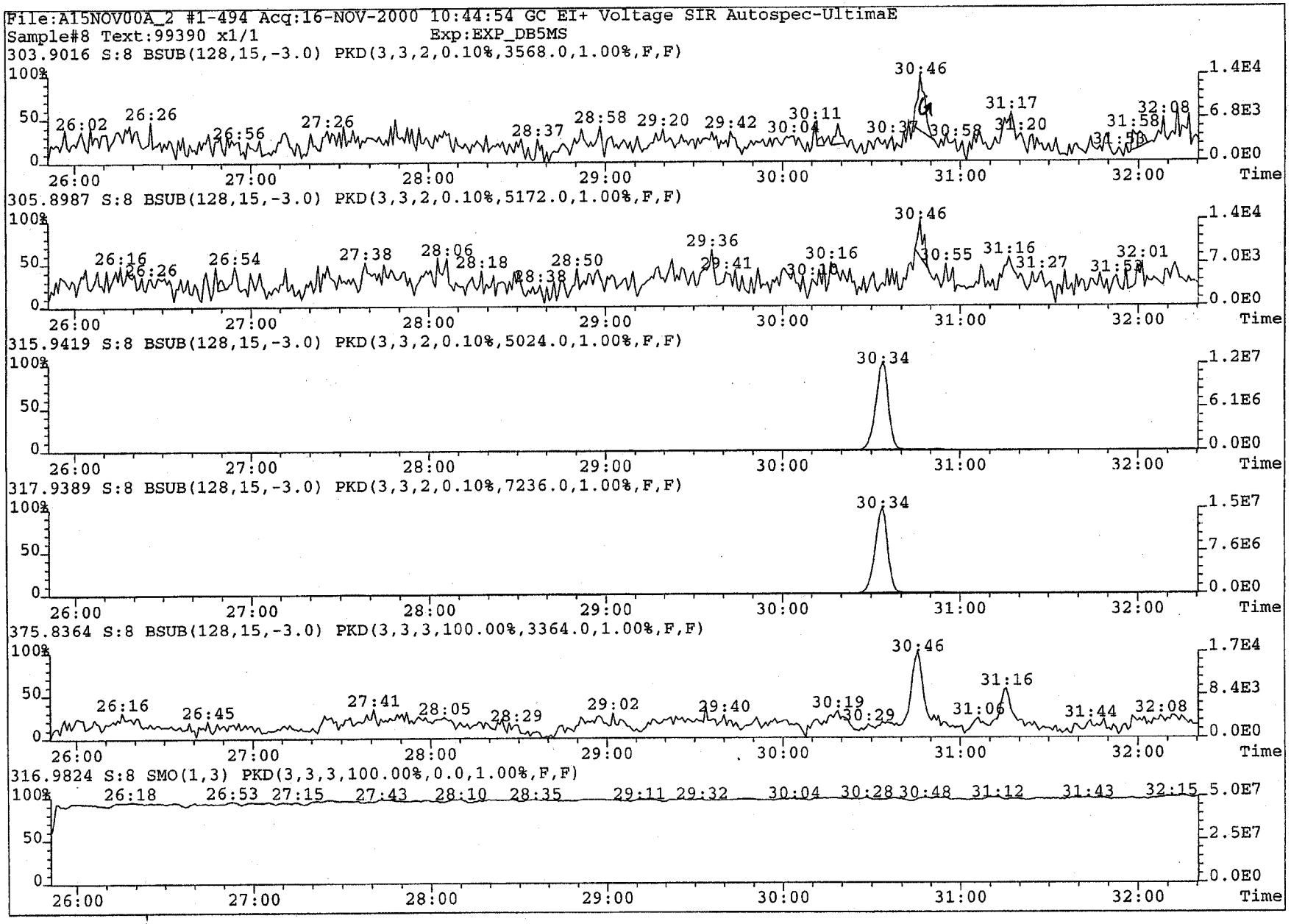
File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS



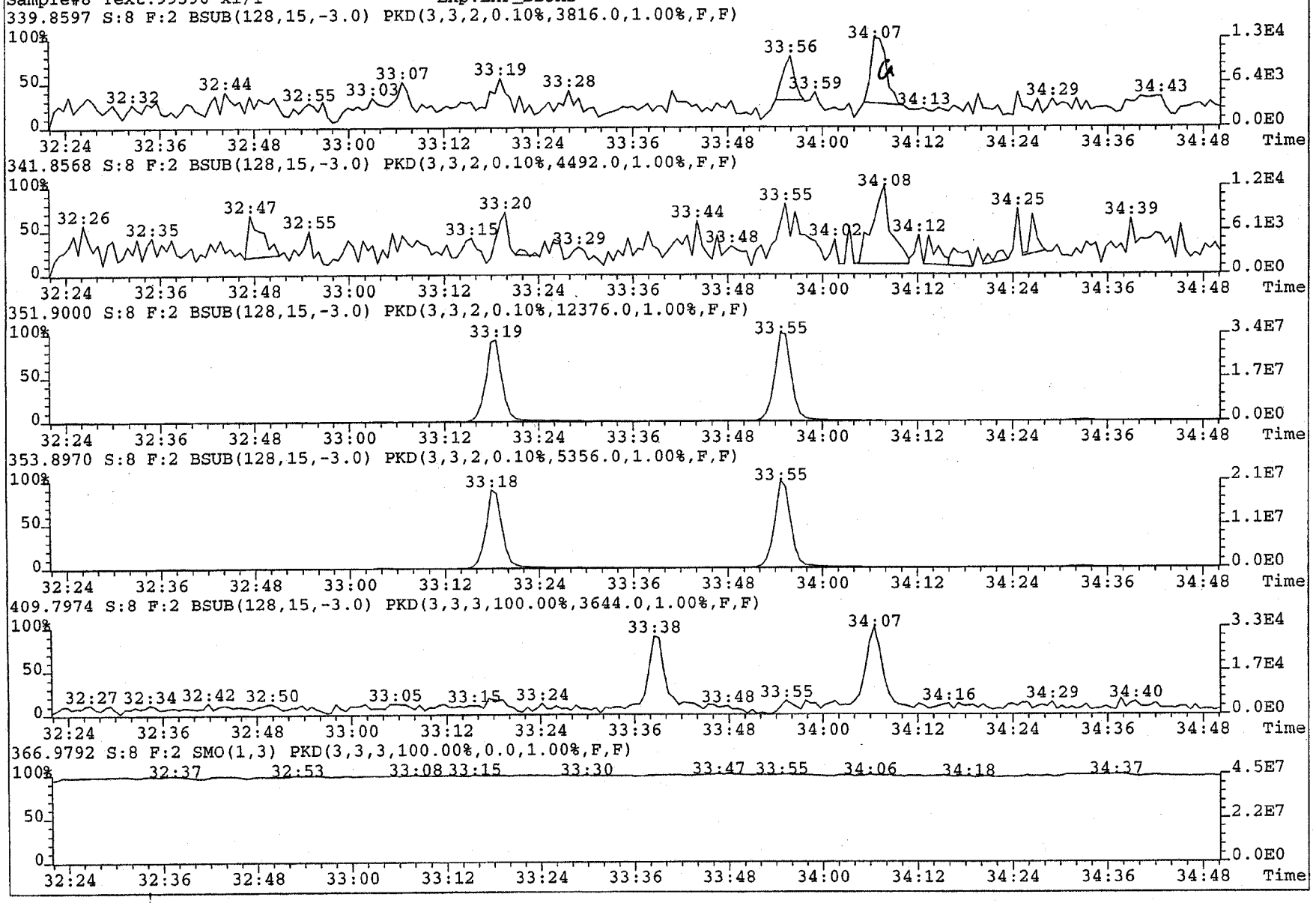

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS
423.7767 S:8 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2696.0,1.00%,F,F)
425.7737 S:8 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3156.0,1.00%,F,F)
435.8169 S:8 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5284.0,1.00%,F,F)
437.8140 S:8 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3556.0,1.00%,F,F)
430.9728 S:8 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time


File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS
457.7377 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6992.0,1.00%,F,F)
459.7348 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5548.0,1.00%,F,F)
469.7780 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5740.0,1.00%,F,F)
471.7750 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4312.0,1.00%,F,F)
454.9728 S:8 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
2.5E4
1.2E4
0.0E0
1.9E4
9.3E3
5.3E6
2.6E6
6.5E6
3.3E6
6.5E7
3.3E7
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time
42:39 42:54 43:14 43:28 43:37 43:49 44:15 44:25 44:37 45:06 45:24 45:40 45:57
42:48 43:06 43:18 43:28 43:40 43:50 44:14 44:29 44:37 44:55 45:12 45:24 45:40 45:52
44:14
42:49 43:05 43:23 43:35 43:49 44:07 44:26 44:39 45:06 45:20 45:37 45:57

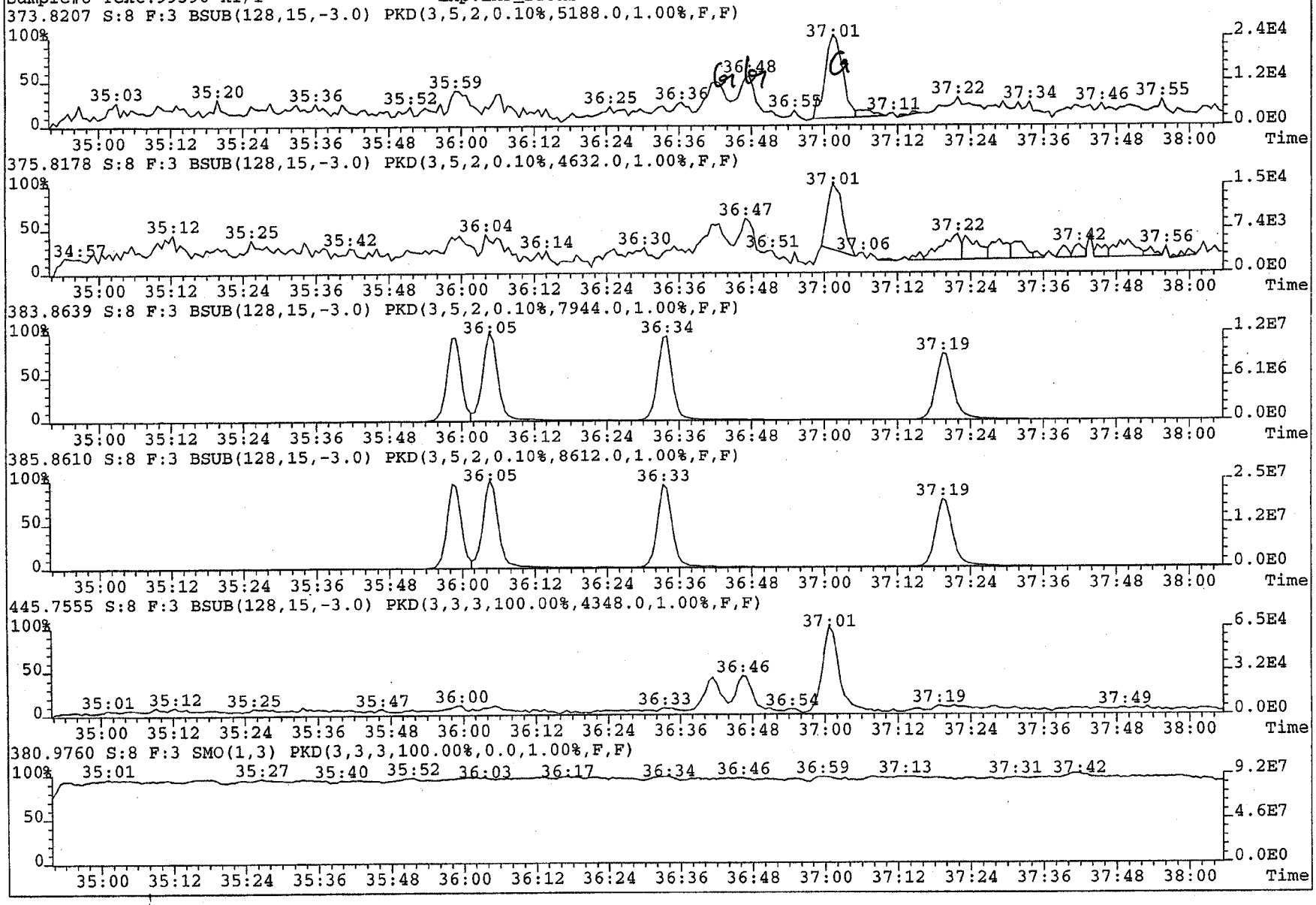

File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Exp:EXP_DB5MS
457.7377 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6992.0,1.00%,F,F)
OCDD
459.7348 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5548.0,1.00%,F,F)
•=manual int.
11/17/00 HMK
Time


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1
Exp:EXP_DB5MS
303.9016 S:8 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3568.0,1.00%,F,F)
305.8987 S:8 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5172.0,1.00%,F,F)
315.9419 S:8 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5024.0,1.00%,F,F)
317.9389 S:8 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7236.0,1.00%,F,F)
375.8364 S:8 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3364.0,1.00%,F,F)
316.9824 S:8 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

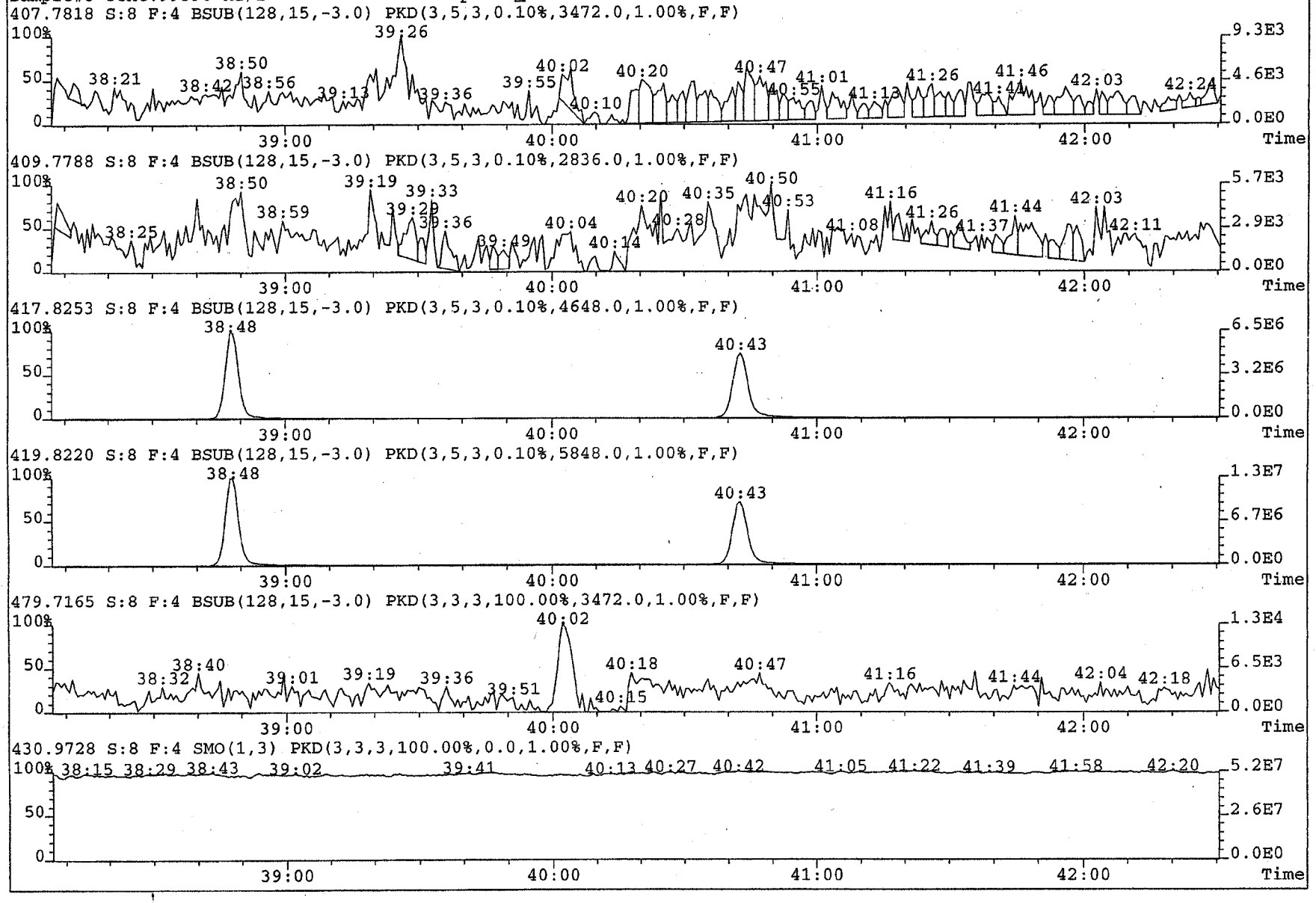
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS

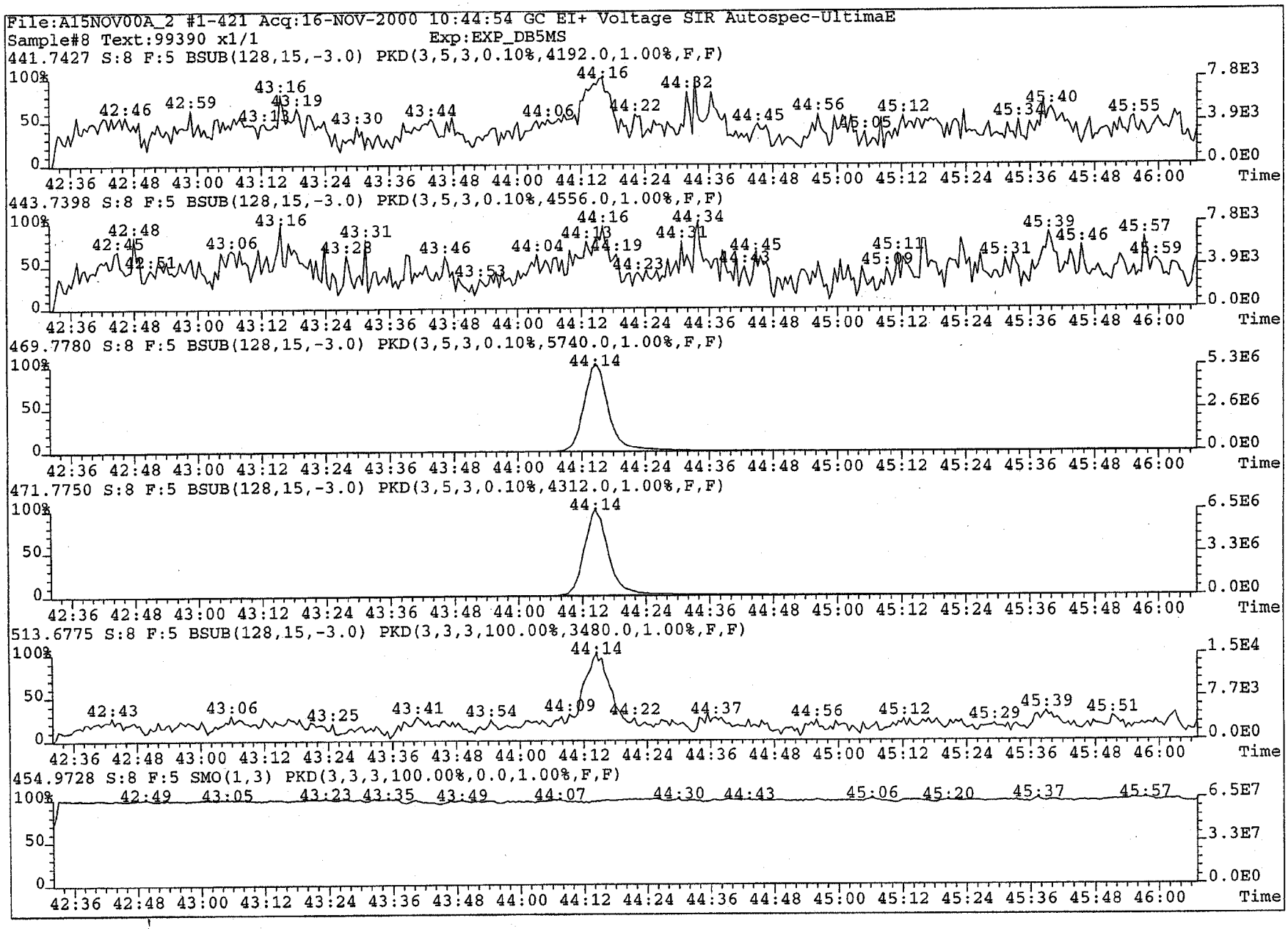


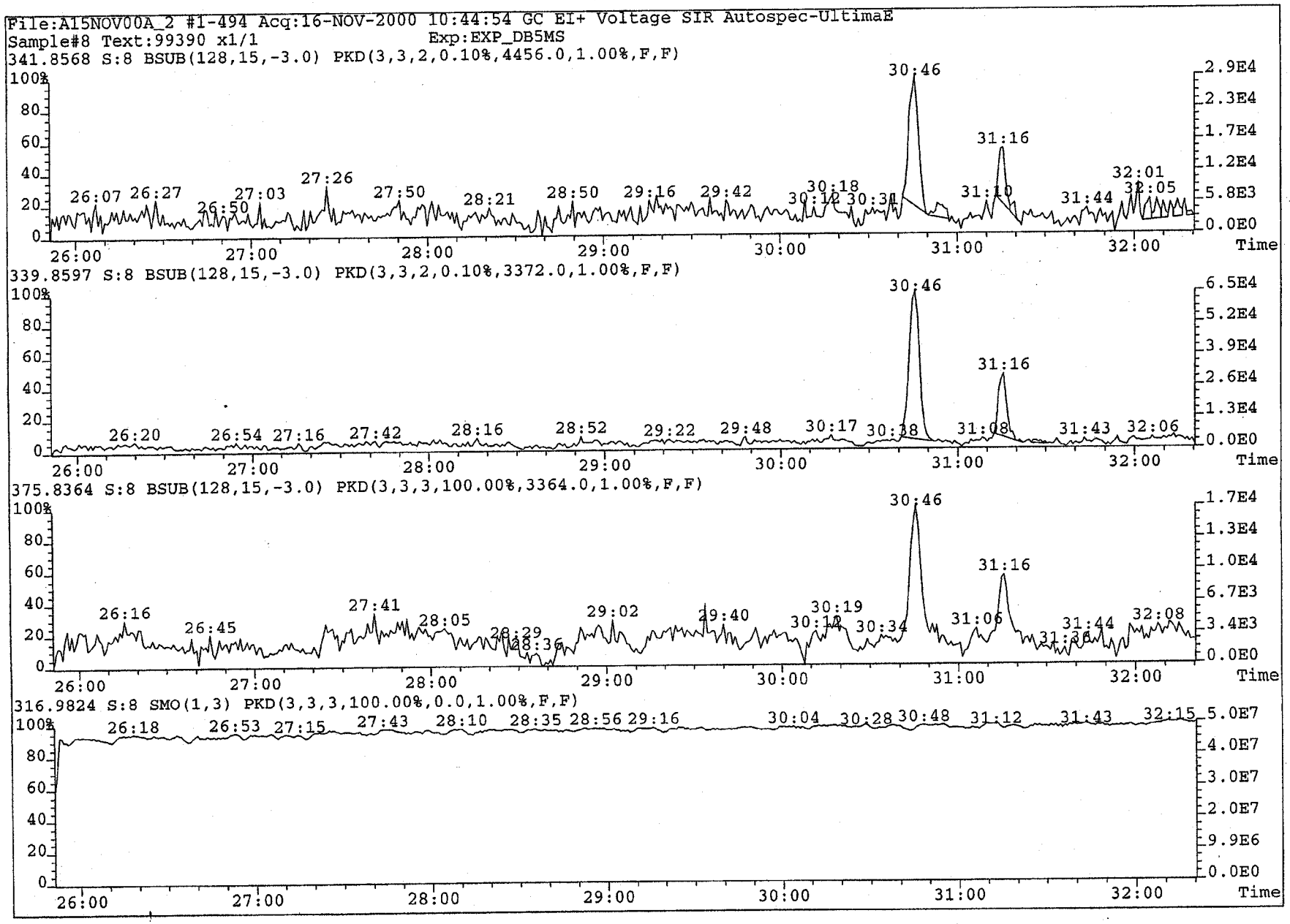
File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS



File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS




File:A15NOV00A_2 #1-421 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1 Exp:EXP_DB5MS
441.7427 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4192.0,1.00%,F,F)
443.7398 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4556.0,1.00%,F,F)
469.7780 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5740.0,1.00%,F,F)
471.7750 S:8 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4312.0,1.00%,F,F)
513.6775 S:8 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3480.0,1.00%,F,F)
454.9728 S:8 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
7.8E3
3.9E3
0.0E0
5.3E6
2.6E6
6.5E6
3.3E6
1.5E4
7.7E3
6.5E7
3.3E7
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 10:44:54 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:99390 x1/1
Exp:EXP_DB5MS
341.8568 S:8 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4456.0,1.00%,F,F)
339.8597 S:8 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3372.0,1.00%,F,F)
375.8364 S:8 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3364.0,1.00%,F,F)
316.9824 S:8 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

Method 1613

LF-12

Delta Environmental Consultants

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0027				
1,2,3,7,8-PeCDD	ND	0.0014				
1,2,3,4,7,8-HxCDD	ND	0.0018				
1,2,3,6,7,8-HxCDD	ND	0.0021				
1,2,3,7,8,9-HxCDD	ND	0.0018				
1,2,3,4,6,7,8-HpCDD	0.0032			40:04	1.15	A
OCDD	0.0453			44:16	0.83	A
2,3,7,8--TCDF	ND	0.0021				
1,2,3,7,8-PeCDF	ND	0.0011				
2,3,4,7,8-PeCDF	ND	0.0010				
1,2,3,4,7,8-HxCDF	ND	0.0013				
1,2,3,6,7,8-HxCDF	ND	0.0013				
2,3,4,6,7,8-HxCDF	ND	0.0017				
1,2,3,7,8,9-HxCDF	ND	0.0017				
1,2,3,4,6,7,8-HpCDF	EMPC	0.0016	0.0025	38:49	1.23	
1,2,3,4,7,8,9-HpCDF	ND	0.0022				
OCDF	ND	0.0049				
Total TCDDs	ND	0.0027				
Total PeCDDs	ND	0.0037				
Total HxCDDs	ND	0.0037				
Total HpCDDs	0.0063					
Total TCDFs	ND	0.0021				
Total PeCDFs	ND	0.0010				
Total HxCDFs	ND	0.0015				
Total HpCDFs	ND	0.0019	0.0025			
TEQ (ND=0)	0.0001		0.0001			ITEF
TEQ (ND=½)	0.0027		0.0027			ITEF

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-12

Laboratory Information

Project ID: G129-306
Sample ID: 99391

Collection Date/Time: 09-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Aqueous
Weight / Volume: 516 mL
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-9
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Method 1613

LF-12

Delta Environmental Consultants

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1.0	0.55	54.8	31:15	0.8	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1.0	0.64	63.8	34:07	1.6	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1.0	0.84	84.0	36:47	1.21	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.0	0.75	75.4	36:47	1.21	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1.0	0.55	54.6	40:03	1.06	
$^{13}C_{12}$-OCDD	2.0	1.03	51.4	44:15	0.86	
$^{13}C_{12}$-2,3,7,8-TCDF	1.0	0.59	58.6	30:33	0.8	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.0	0.64	64.1	33:18	1.62	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.0	0.69	69.3	33:55	1.63	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.0	0.72	71.7	36:05	0.50	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.0	0.67	66.5	36:05	0.5	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.0	0.62	62.2	36:34	0.49	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.0	0.73	73.2	37:20	0.5	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.0	0.59	59.1	38:48	0.49	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.0	0.61	60.5	40:43	0.49	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.26	63.8	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.0			30:45	0.79	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.0			36:34	0.49	

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-12

Laboratory Information

Project ID: G129-306
Sample ID: 99391

Collection Date/Time: 09-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Aqueous
Weight / Volume: 516 mL
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-9
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Reviewed by: MM

Date Reviewed: 11/20/00

OPUSquan 17-NOV-2000 Page 1

Filename ; a15nov00a_2
Sample ; 9
Acquired ; 16-NOV-00 11:33:20
Processed ; 16-NOV-00 15:21:37
Sample ID ; 99391 x1/1
Cal Table ; m1613-052699m
Results Table ; m1613-111500a_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	*	*	*	*;n;NotFnd		*	0.1375	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDD	*	*	*	*;n;NotFnd		*	0.0698	*;n;	*;n	no
Unk	1,2,3,4,7,8-HxCDD	2.55e+04	1.37e+04	1.18e+04	1.16;y;	36:42	0.028	0.0911	1;n;	1;n	no
Unk	1,2,3,6,7,8-HxCDD	3.10e+04	1.49e+04	1.61e+04	0.92;n;	36:48	0.040	0.1067	1;n;	1;n	no
Unk	1,2,3,7,8,9-HxCDD	6.43e+04	3.14e+04	3.29e+04	0.96;n;	37:02	0.070	0.0912	2;n;	2;n	no
Unk	1,2,3,4,6,7,8-HpCDD	9.31e+04	4.97e+04	4.34e+04	1.15;y;	40:04	0.165	0.1020	8;y;	6;y	yes
Unk	OCDD	1.03e+06	4.67e+05	5.62e+05	0.83;y;	44:16	2.336	0.4490	14;y;	21;y	no
Unk	2,3,7,8-TCDF	*	*	*	*;n;NotFnd		*	0.1070	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDF	1.96e+04	7.39e+03	1.23e+04	0.60;n;	33:19	0.016	0.0541	1;n;	1;n	no
Unk	2,3,4,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0500	*;n;	*;n	no
Unk	1,2,3,4,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0673	*;n;	*;n	no
Unk	1,2,3,6,7,8-HxCDF	4.41e+04	1.78e+04	2.63e+04	0.68;n;	36:06	0.037	0.0692	2;n;	2;n	no
Unk	2,3,4,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0857	*;n;	*;n	no
Unk	1,2,3,7,8,9-HxCDF	*	*	*	*;n;NotFnd		*	0.0887	*;n;	*;n	no
Unk	1,2,3,4,6,7,8-HpCDF	1.25e+05	6.90e+04	5.62e+04	1.23;n;	38:49	0.130	0.0830	5;y;	7;y	yes
Unk	1,2,3,4,7,8,9-HpCDF	*	*	*	*;n;NotFnd		*	0.1155	*;n;	*;n	no
Unk	OCDF	1.29e+05	6.24e+04	6.65e+04	0.94;y;	44:33	0.238	0.2516	3;n;	4;y	yes
ES/RT	13C-2,3,7,8-TCDD	7.61e+07	3.38e+07	4.23e+07	0.80;y;	31:15	27.397	0.0485	1535;y;	3209;y	no
ES	13C-1,2,3,7,8-PeCDD	7.47e+07	4.60e+07	2.87e+07	1.60;y;	34:07	31.891	0.0470	3624;y;	3238;y	no
ES	13C-1,2,3,4,7,8-HxCDD	8.05e+07	4.40e+07	3.65e+07	1.21;y;	36:47	41.988	0.0517	2474;y;	2272;y	no
ES	13C-1,2,3,6,7,8-HxCDD	8.05e+07	4.40e+07	3.65e+07	1.21;y;	36:47	37.715	0.0465	2474;y;	2272;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	5.59e+07	2.87e+07	2.72e+07	1.06;y;	40:03	27.296	0.0971	415;y;	1705;y	no
ES	13C-OCDD	8.19e+07	3.78e+07	4.41e+07	0.86;y;	44:15	51.380	0.0536	1397;y;	1895;y	no
ES/RT	13C-2,3,7,8-TCDF	1.15e+08	5.15e+07	6.40e+07	0.80;y;	30:33	29.308	0.0383	2308;y;	1781;y	no
ES	13C-1,2,3,7,8-PeCDF	1.16e+08	7.15e+07	4.41e+07	1.62;y;	33:18	32.069	0.0212	9018;y;	6372;y	no
ES	13C-2,3,4,7,8-PeCDF	1.18e+08	7.33e+07	4.50e+07	1.63;y;	33:55	34.641	0.0224	9203;y;	6246;y	no
ES	13C-1,2,3,4,7,8-HxCDF	1.00e+08	3.34e+07	6.66e+07	0.50;y;	36:05	35.869	0.0526	1335;y;	3025;y	no
ES	13C-1,2,3,6,7,8-HxCDF	1.00e+08	3.34e+07	6.66e+07	0.50;y;	36:05	33.271	0.0488	1335;y;	3025;y	no
ES	13C-2,3,4,6,7,8-HxCDF	8.75e+07	2.89e+07	5.86e+07	0.49;y;	36:34	31.119	0.0521	1121;y;	2549;y	no
ES	13C-1,2,3,7,8,9-HxCDF	8.48e+07	2.82e+07	5.66e+07	0.50;y;	37:20	36.580	0.0632	977;y;	2238;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	6.56e+07	2.16e+07	4.40e+07	0.49;y;	38:48	29.535	0.0320	1502;y;	3284;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	5.54e+07	1.81e+07	3.73e+07	0.49;y;	40:43	30.227	0.0389	1096;y;	2342;y	no
JS	13C-1,2,3,4-TCDD	2.62e+08	1.15e+08	1.47e+08	0.79;y;	30:45	129.451	-	4166;y;	8508;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.24e+08	1.23e+08	1.00e+08	1.23;y;	37:01	135.754	-	7196;y;	6304;y	no
CS	37Cl-2,3,7,8-TCDD	3.93e+07	3.93e+07	-	-;-;	31:16	12.768	0.0245	1956;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0	0	FALSE
PeCDD	0	0	FALSE
HxCDF	0	0	FALSE
HxCDD	0	0	FALSE
HpCDF	0	0.13	TRUE
HpCDD	0.327	0.327	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	9	Number of Peaks Found:	0
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.107
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	9	Number of Peaks Found:	0
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.1375
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	9	Number of Peaks Found:	2
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.0416
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:37:00
Results Table:	m1613-111500a_2	End Window:	31:57:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.47E+05	91100	256000	0.36	n	30:45	0.27	RT	5.5	y	20.6	y	n
	2	1.14E+05	27200	86600	0.31	n	31:16	0.089	RT	2.1	n	8.1	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	9	Number of Peaks Found:	1
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.052
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:34:00
Results Table:	m1613-111500a_2	End Window:	34:42:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
1,2,3,7,8-PeCDF	1	1.96E+04	7390	12300	0.6	n	33:19	0.016	S2N	1.2	n	1.2	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	9	Number of Peaks Found:	2
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.189
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	32:43:00
Results Table:	m1613-111500a_2	End Window:	34:28:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.46E+05	112000	33800	3.3	n	33:19	0	CF	10.6	y	4.3	y	n
	2	1.20E+05	94900	24900	3.81	n	33:55	0	S2N	10	y	3.8	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	9	Number of Peaks Found:	6
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.0775
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	m1613-111500a_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
1,2,3,6,7,8-HxCDF	1	4.41E+04	17800	26300	0.68	n	36:06	0.037	S2N	1.6	n	2.4	n	n
	2	3.41E+03	2960	449	6.6	n	36:12	0.003	S2N	0.5	n	0.1	n	n
	3	4.27E+03	3040	1240	2.45	n	36:16	0.004	S2N	0.5	n	0.2	n	n
	4	5.89E+03	4650	1240	3.75	n	36:18	0.005	S2N	0.6	n	0.2	n	n
	5	4.26E+04	28200	14400	1.96	n	36:35	0.038	S2N	2.4	n	1.7	n	n
	6	7.80E+04	51100	26900	1.9	n	37:02	0.069	S2N	3.9	y	2.5	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Dioxins
Sample:	9	Number of Peaks Found:	26

Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.0787
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.193
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	35:25:00
Results Table:	m1613-111500a_2	End Window:	37:06:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.27E+05	80300	47100	1.71	n	35:59	0	S2N	6.9	y	3.3	y	n
	2	1.68E+05	112000	56200	1.99	n	36:05	0	CF	8.2	y	4.2	y	n
	3	8.91E+03	6880	2030	3.38	n	36:18	0.01	S2N	0.8	n	0.3	n	n
	4	8.82E+03	5160	3660	1.41	y	36:22	0.01	S2N	0.6	n	0.4	n	n
	5	7.05E+03	3400	3650	0.93	n	36:25	0.008	S2N	0.5	n	0.4	n	n
	6	1.03E+04	8020	2250	3.57	n	36:27	0.012	S2N	0.9	n	0.4	n	n
	7	1.64E+05	119000	45600	2.61	n	36:34	0	S2N	7.8	y	3.2	y	n
1,2,3,4,7,8-HxCDD	8	2.55E+04	13700	11800	1.16	y	36:42	0.028	S2N	1	n	1.3	n	n
1,2,3,6,7,8-HxCDD	9	3.10E+04	14900	16100	0.92	n	36:48	0.04	S2N	1	n	1.4	n	n
	10	1.44E+04	10700	3730	2.86	n	36:53	0.017	S2N	0.7	n	0.6	n	n
	11	8.11E+03	4980	3130	1.59	n	36:58	0.009	S2N	0.8	n	0.6	n	n
1,2,3,7,8,9-HxCDD	12	6.43E+04	31400	32900	0.96	n	37:02	0.07	S2N	2.1	n	1.6	n	n
	13	4.02E+04	7330	32900	0.22	n	37:05	0.046	S2N	1	n	1.6	n	n
	14	1.57E+04	5570	10100	0.55	n	37:07	0.018	RT	0.7	n	0.9	n	n
	15	1.22E+04	5230	6940	0.75	n	37:10	0.014	RT	0.6	n	0.6	n	n
	16	1.15E+04	4570	6940	0.66	n	37:13	0.013	RT	0.6	n	0.6	n	n
	17	1.52E+05	105000	46800	2.25	n	37:20	0	RT	6.9	y	2.6	n	n
	18	6.77E+03	3690	3080	1.2	y	37:27	0.008	RT	0.5	n	0.6	n	n
	19	6.85E+03	3190	3660	0.87	n	37:32	0.008	RT	0.4	n	0.4	n	n
	20	1.08E+04	2970	7870	0.38	n	37:38	0.012	RT	0.5	n	0.6	n	n
	21	1.16E+04	3740	7870	0.48	n	37:40	0.013	RT	0.6	n	0.6	n	n
	22	6.22E+03	2480	3740	0.66	n	37:41	0.007	RT	0.6	n	0.3	n	n
	23	6.67E+03	2930	3740	0.79	n	37:42	0.008	RT	0.5	n	0.3	n	n
	24	5.68E+03	2670	3010	0.89	n	37:49	0.007	RT	0.3	n	0.4	n	n
	25	1.23E+04	8650	3600	2.4	n	37:58	0.014	RT	0.7	n	0.4	n	n
	26	2.21E+03	283	1930	0.15	n	38:04	0.003	RT	0.1	n	0.4	n	n

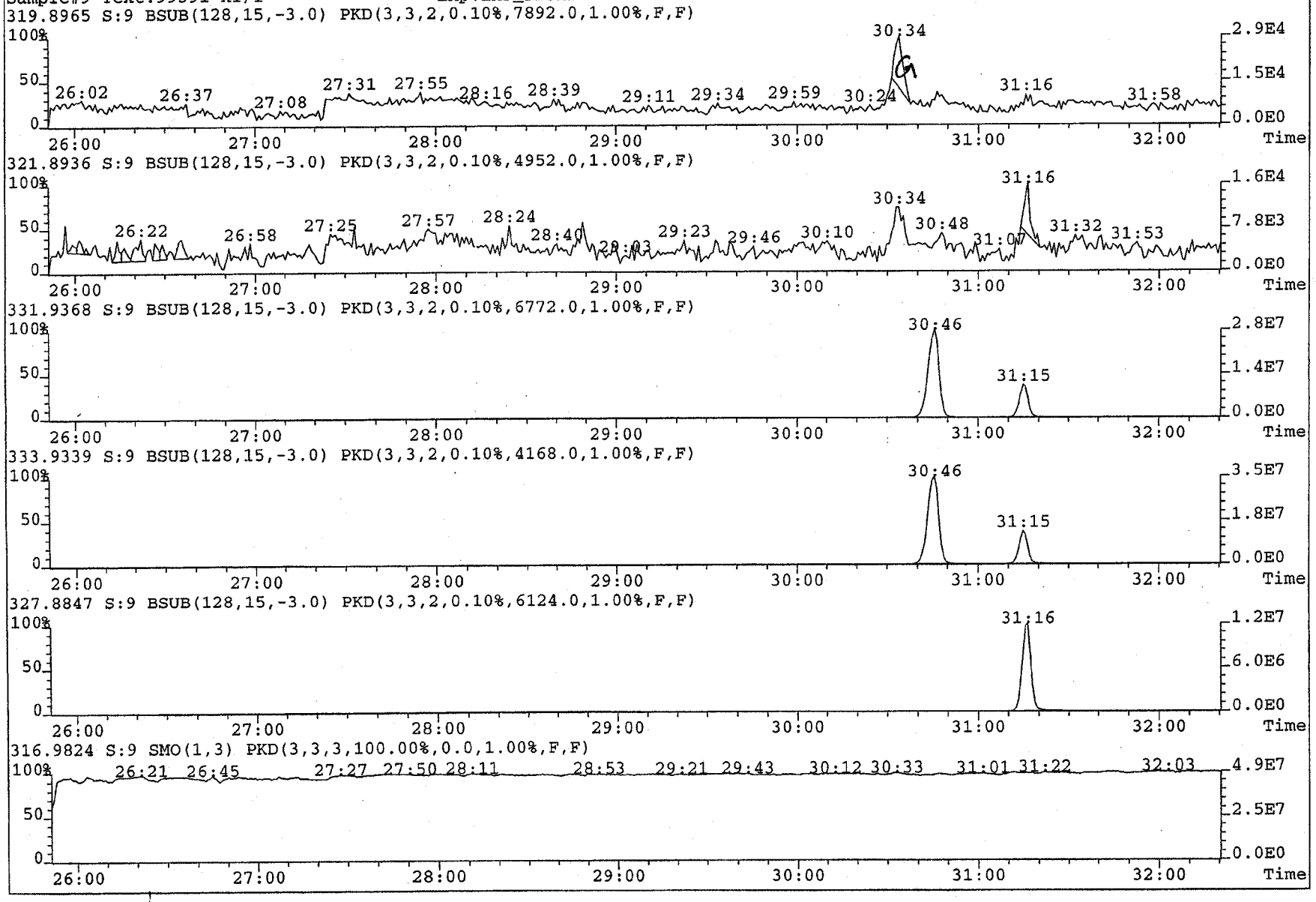
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Furans
Sample:	9	Number of Peaks Found:	2
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.4605
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.0979
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	38:37:00
Results Table:	m1613-111500a_2	End Window:	40:48:00

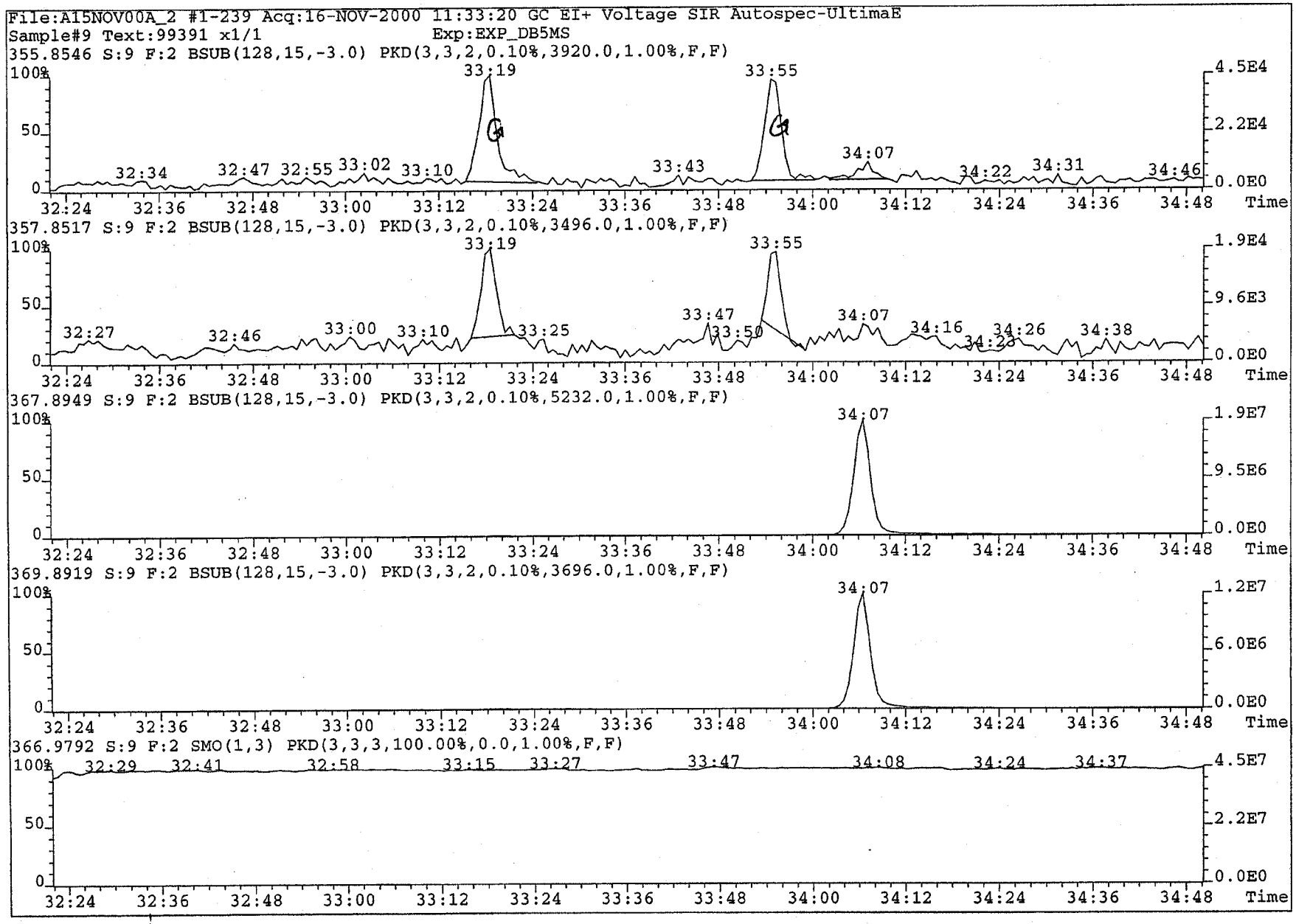
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
1,2,3,4,6,7,8-HpCDI	1	1.25E+05	69000	56200	1.23	n	38:49	0.13	EMPC	5.4	y	6.9	y	y
	2	2.69E+04	13500	13500	1	y	39:08	0.03	S2N	1	n	1.4	n	n

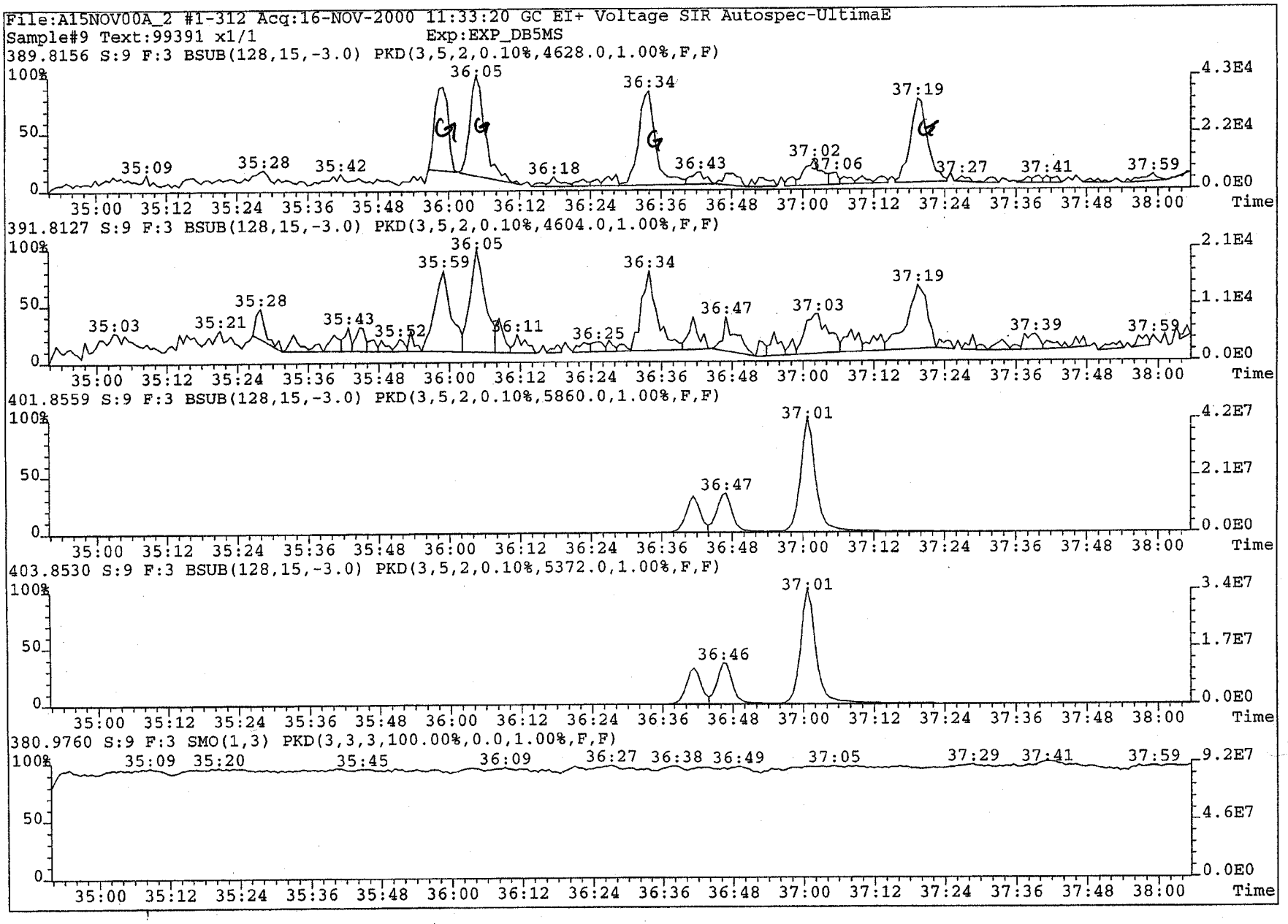
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Dioxins
Sample:	9	Number of Peaks Found:	12
Acquired:	16-NOV-00 11:33:20	RRF Used For Totals:	1.0066
Processed:	16-NOV-00 15:21:37	Detection Limit:	0.102
Sample ID:	99391 x1/1		
Cal Table:	m1613-052699m	Begin Window:	39:01:00
Results Table:	m1613-111500a_2	End Window:	39:21:00

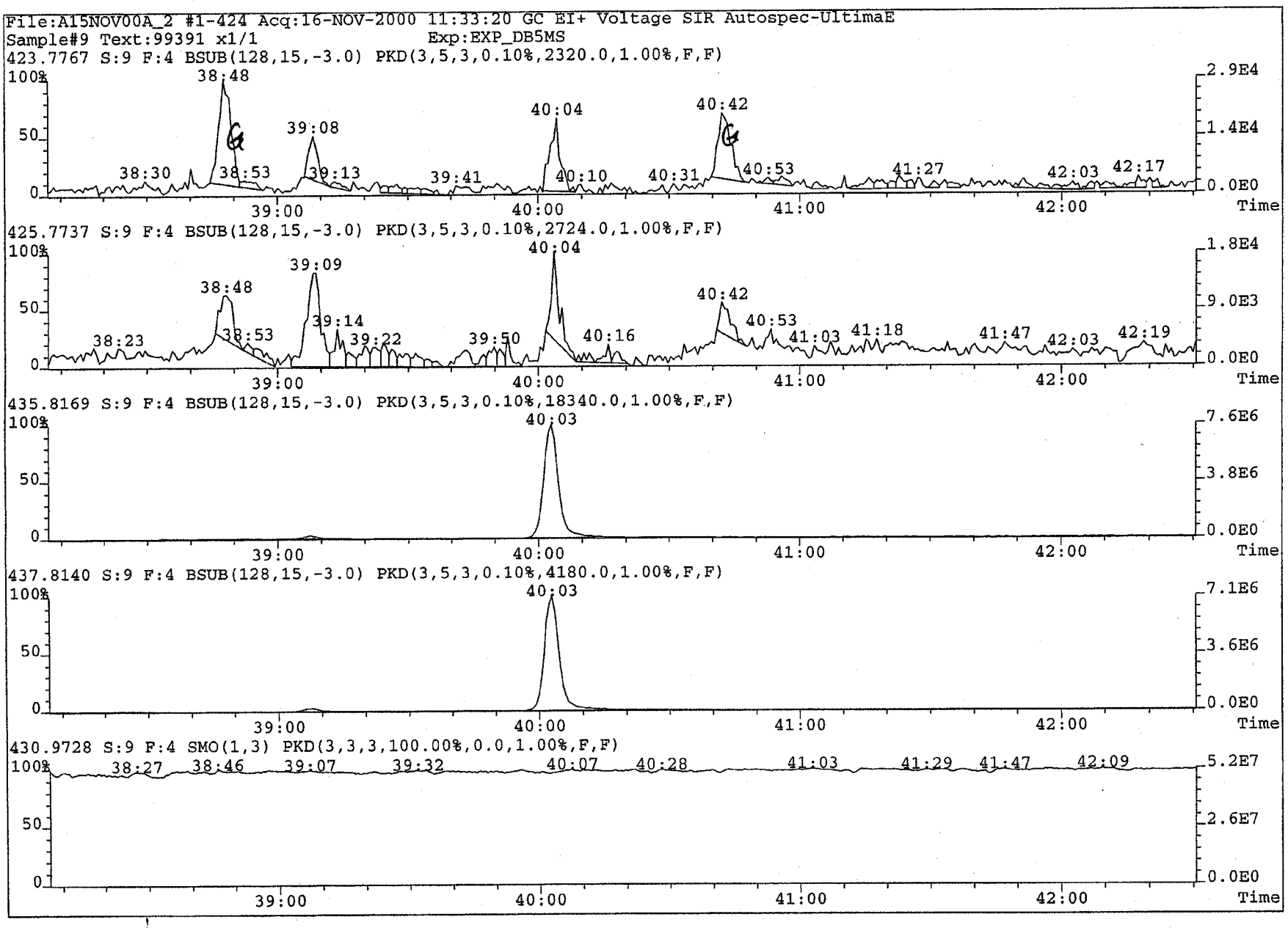
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.07E+05	83600	23700	3.54	n	38:48	0.191	RT	11.3	y	2.6	n	n
	2	9.45E+03	7130	2320	3.08	n	38:53	0.017	RT	0.8	n	0.5	n	n
	3	9.10E+04	45100	45800	0.99	y	39:08	0.162	OK ✓	6	y	5	y	y
	4	8.99E+03	4460	4530	0.98	y	39:14	0.016	S2N	0.7	n	0.8	n	n
	5	8.16E+03	2800	5360	0.52	n	39:24	0.014	RT	0.7	n	1.3	n	n
	6	9.02E+03	4870	4150	1.17	y	39:27	0.016	RT	0.9	n	1	n	n
	7	7.04E+03	1630	5410	0.3	n	39:29	0.013	RT	0.6	n	0.7	n	n
	8	8.75E+03	4030	4720	0.85	n	39:31	0.016	RT	0.7	n	0.8	n	n
	9	5.07E+03	3110	1960	1.58	n	39:34	0.009	RT	0.6	n	0.4	n	n
1,2,3,4,6,7,8-HpCDI	10	9.31E+04	49700	43400	1.15	y	40:04	0.165	~~RTO~~	7.9	y	6.3	y	n
	11	1.25E+04	8900	3600	2.47	n	40:17	0.022	RT	1.2	n	0.7	n	n
	12	7.05E+04	56400	14100	3.99	n	40:43	0.125	RT	7.1	y	1.8	n	n

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS

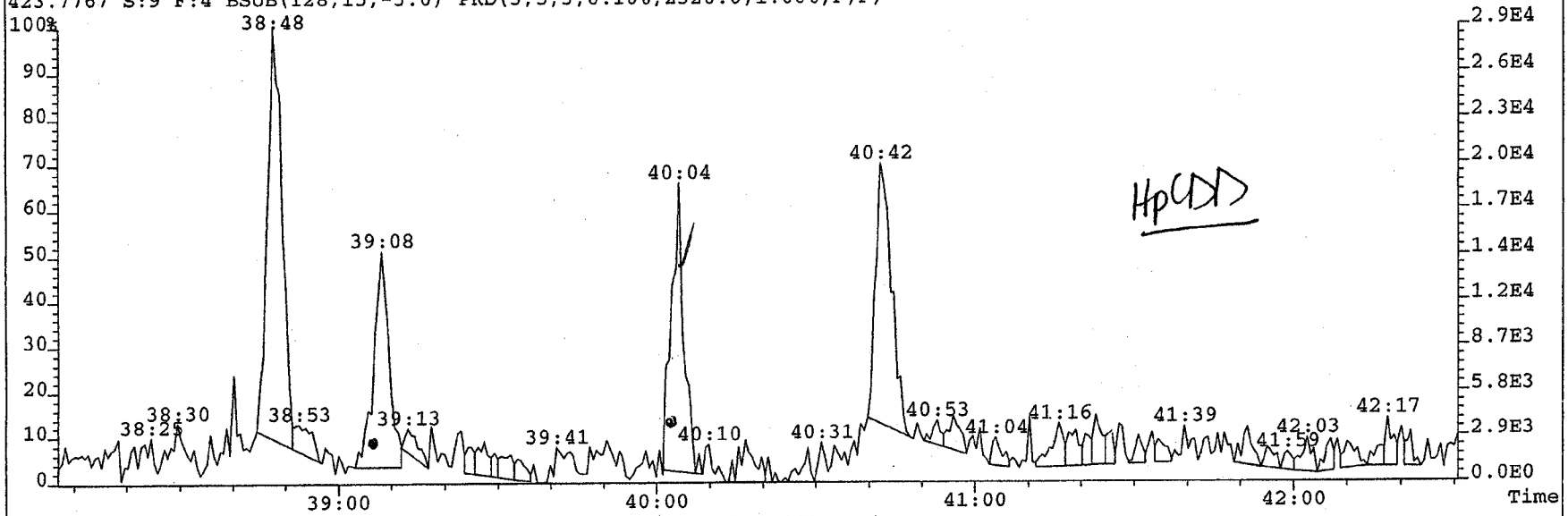



File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS
355.8546 S:9 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3920.0,1.00%,F,F)
357.8517 S:9 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3496.0,1.00%,F,F)
367.8949 S:9 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5232.0,1.00%,F,F)
369.8919 S:9 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3696.0,1.00%,F,F)
366.9792 S:9 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
33:19
33:55
34:07
32:34
32:47
32:55
33:02
33:10
33:43
34:22
34:31
34:46
32:27
32:46
33:00
33:25
33:47
33:50
34:16
34:26
34:38
32:29
32:41
32:58
33:15
33:27
34:08
34:24
34:37
4.5E4
2.2E4
0.0E0
1.9E4
9.6E3
1.9E7
9.5E6
1.2E7
6.0E6
4.5E7
2.2E7
32:24
32:36
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
Time

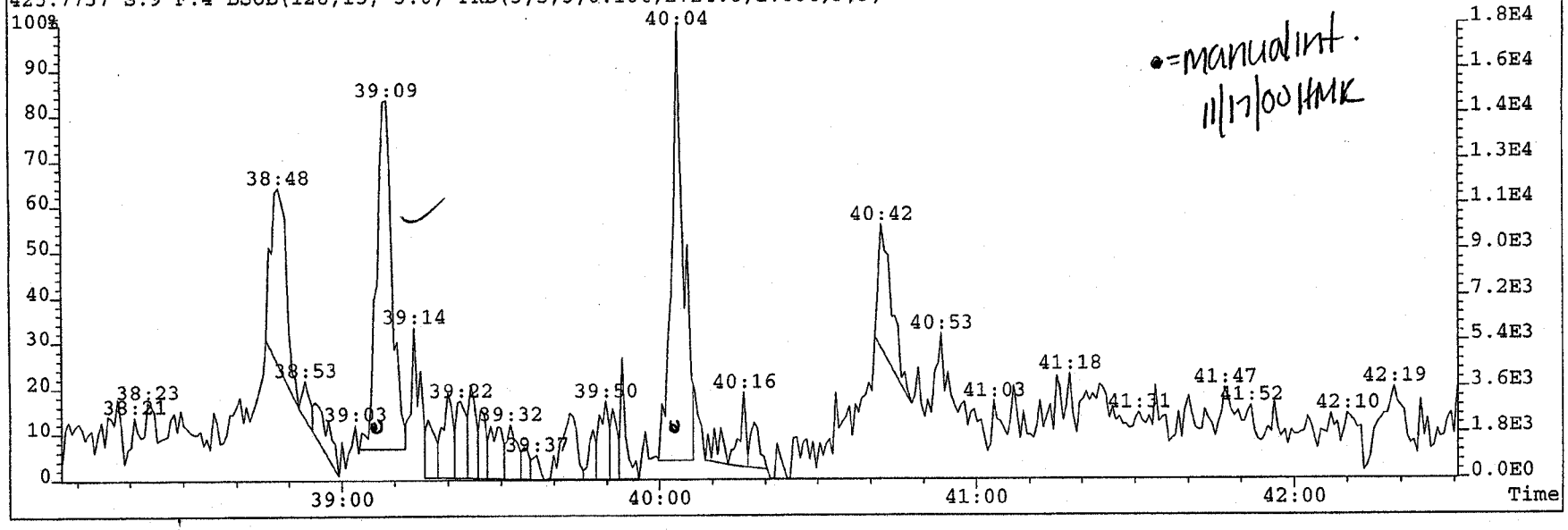

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS
389.8156 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4628.0,1.00%,F,F)
391.8127 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4604.0,1.00%,F,F)
401.8559 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5860.0,1.00%,F,F)
403.8530 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5372.0,1.00%,F,F)
380.9760 S:9 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

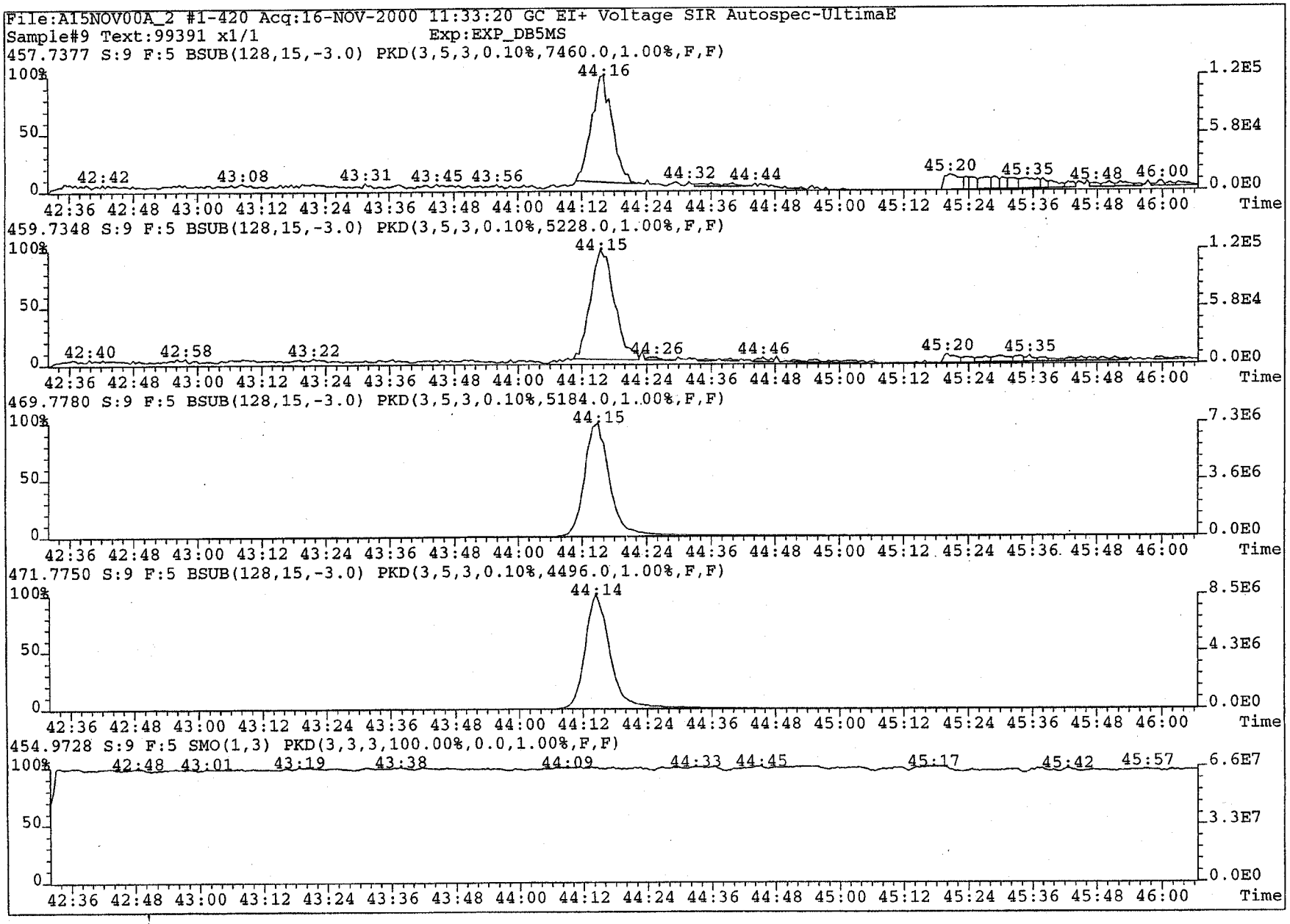

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS
423.7767 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2320.0,1.00%,F,F)
38:48
39:08
40:04
40:42
38:30
38:53
39:13
39:41
40:10
40:31
40:53
41:27
42:03
42:17
2.9E4
1.4E4
0.0E0
425.7737 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2724.0,1.00%,F,F)
39:09
38:48
40:04
40:42
38:23
38:53
39:14
39:22
39:50
40:16
40:53
41:03
41:18
41:47
42:03
42:19
1.8E4
9.0E3
0.0E0
435.8169 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,18340.0,1.00%,F,F)
40:03
7.6E6
3.8E6
0.0E0
437.8140 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4180.0,1.00%,F,F)
40:03
7.1E6
3.6E6
0.0E0
430.9728 S:9 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:27
38:46
39:07
39:32
40:07
40:28
41:03
41:29
41:47
42:09
5.2E7
2.6E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

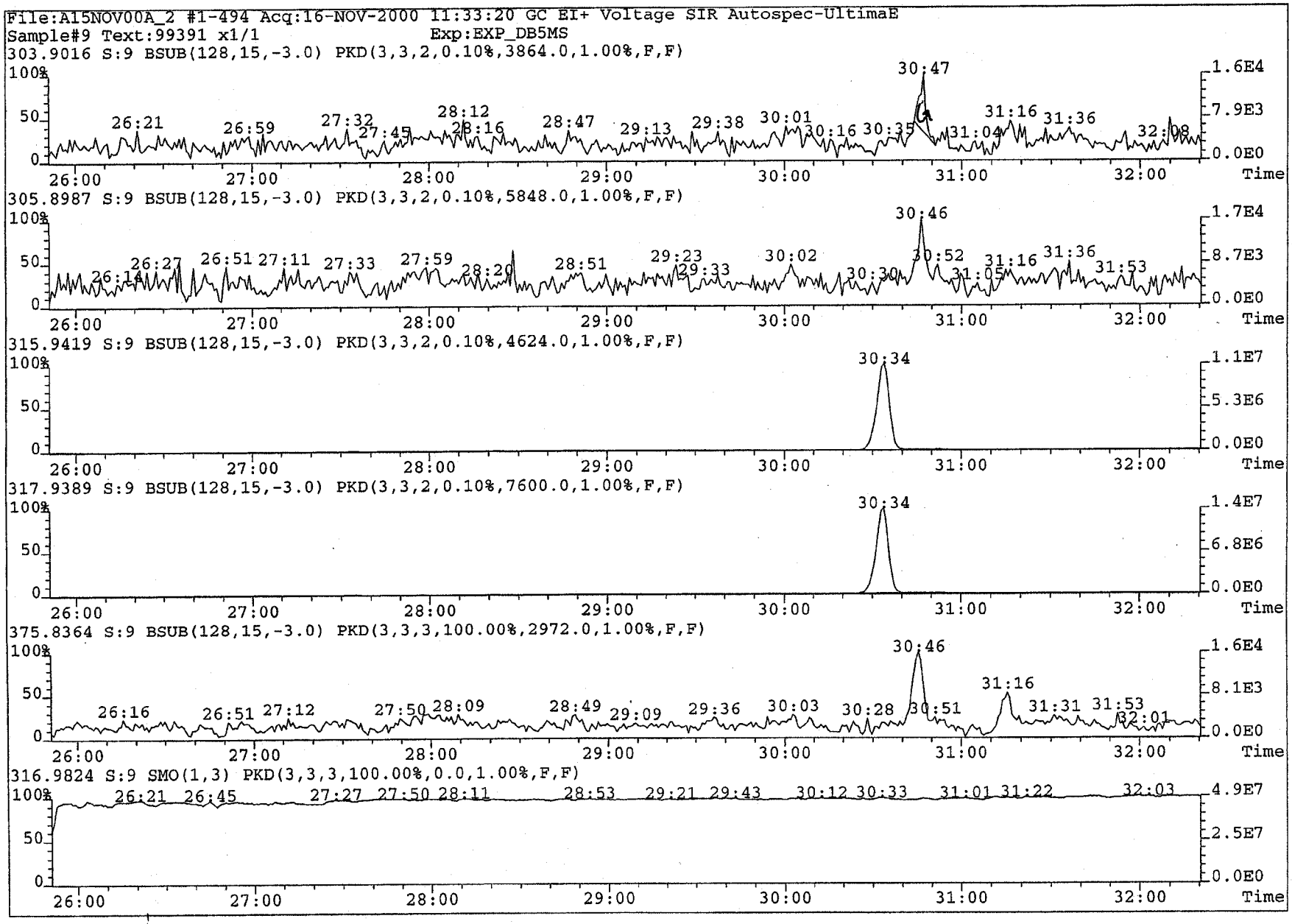
File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Exp:EXP_DB5MS
423.7767 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2320.0,1.00%,F,F)



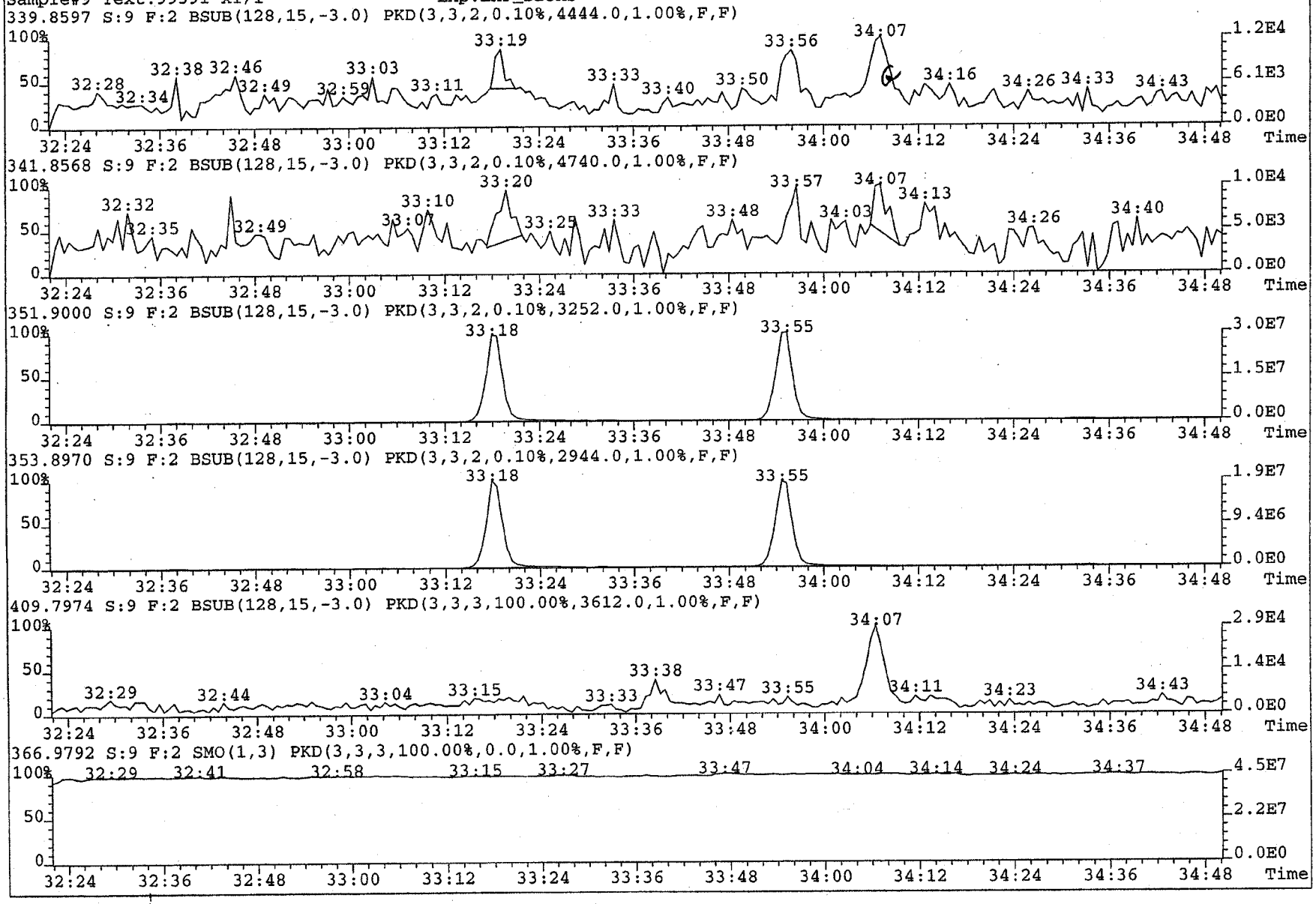
425.7737 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2724.0,1.00%,F,F)



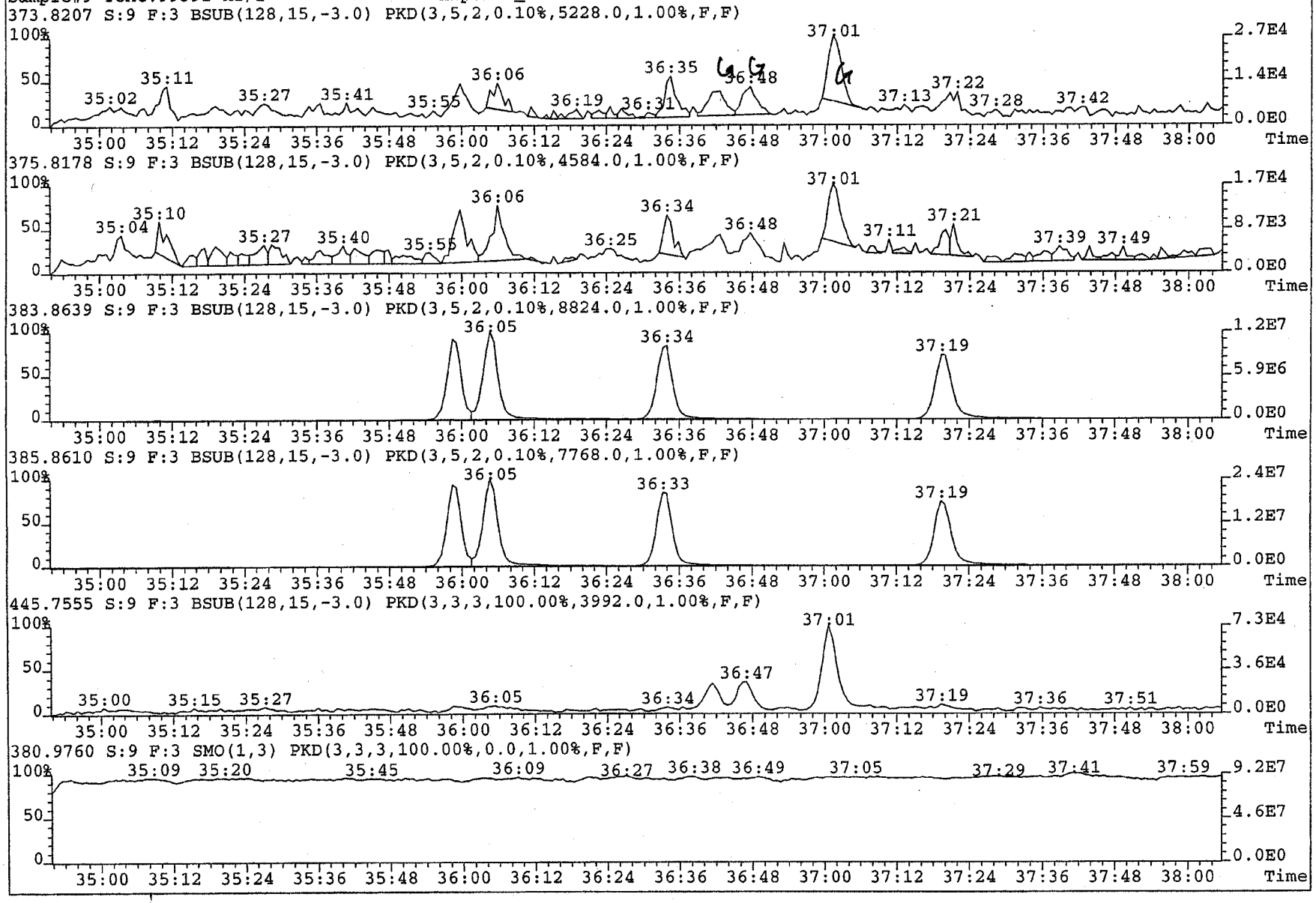

File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS
457.7377 S:9 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7460.0,1.00%,F,F)
44:16
42:42 43:08 43:31 43:45 43:56 44:32 44:44 45:20 45:35 45:48 46:00
1.2E5
5.8E4
0.0E0
459.7348 S:9 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5228.0,1.00%,F,F)
44:15
42:40 42:58 43:22 44:26 44:46 45:20 45:35
469.7780 S:9 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5184.0,1.00%,F,F)
44:15
7.3E6
3.6E6
471.7750 S:9 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4496.0,1.00%,F,F)
44:14
8.5E6
4.3E6
454.9728 S:9 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:48 43:01 43:19 43:38 44:09 44:33 44:45 45:17 45:42 45:57
6.6E7
3.3E7
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time

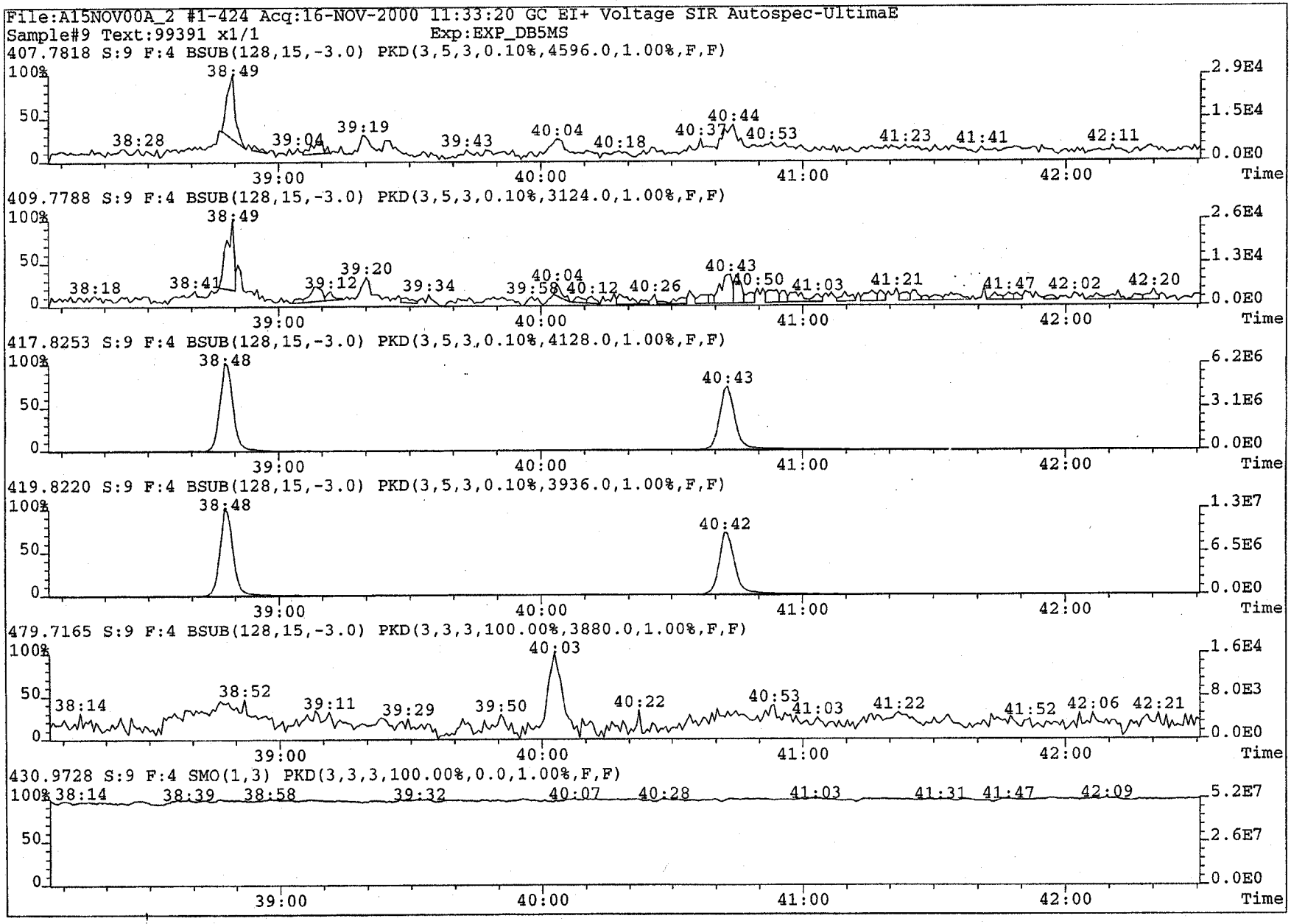

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS
303.9016 S:9 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3864.0,1.00%,F,F)
305.8987 S:9 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5848.0,1.00%,F,F)
315.9419 S:9 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4624.0,1.00%,F,F)
317.9389 S:9 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7600.0,1.00%,F,F)
375.8364 S:9 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2972.0,1.00%,F,F)
316.9824 S:9 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS

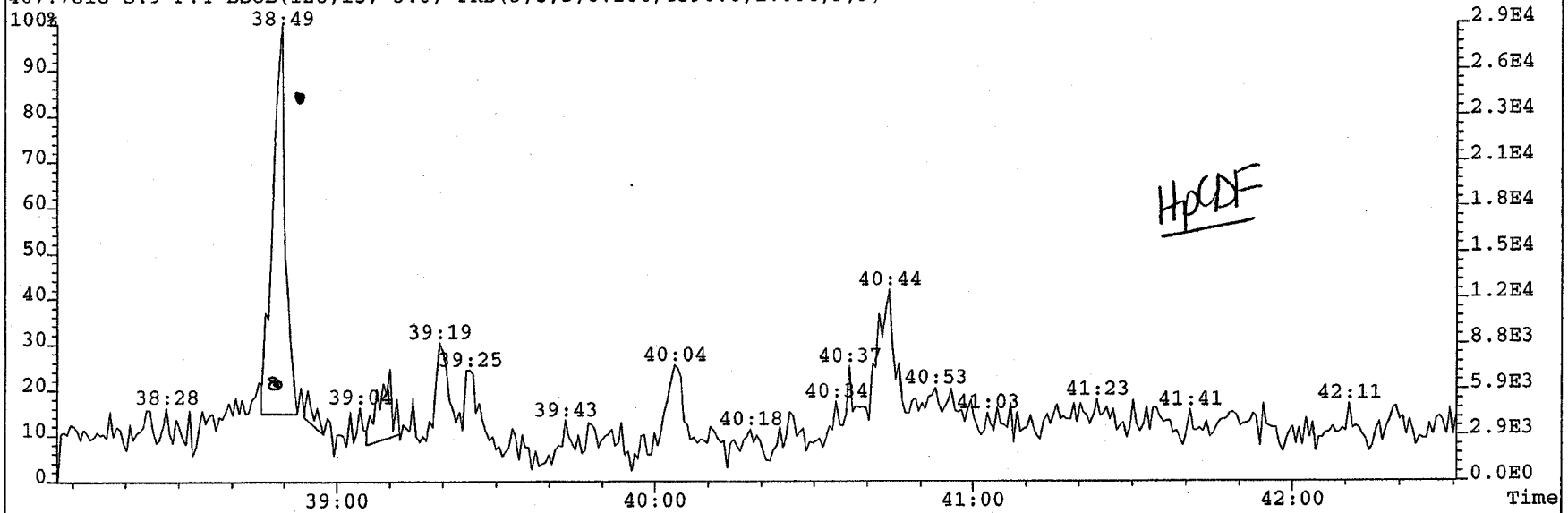


File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS



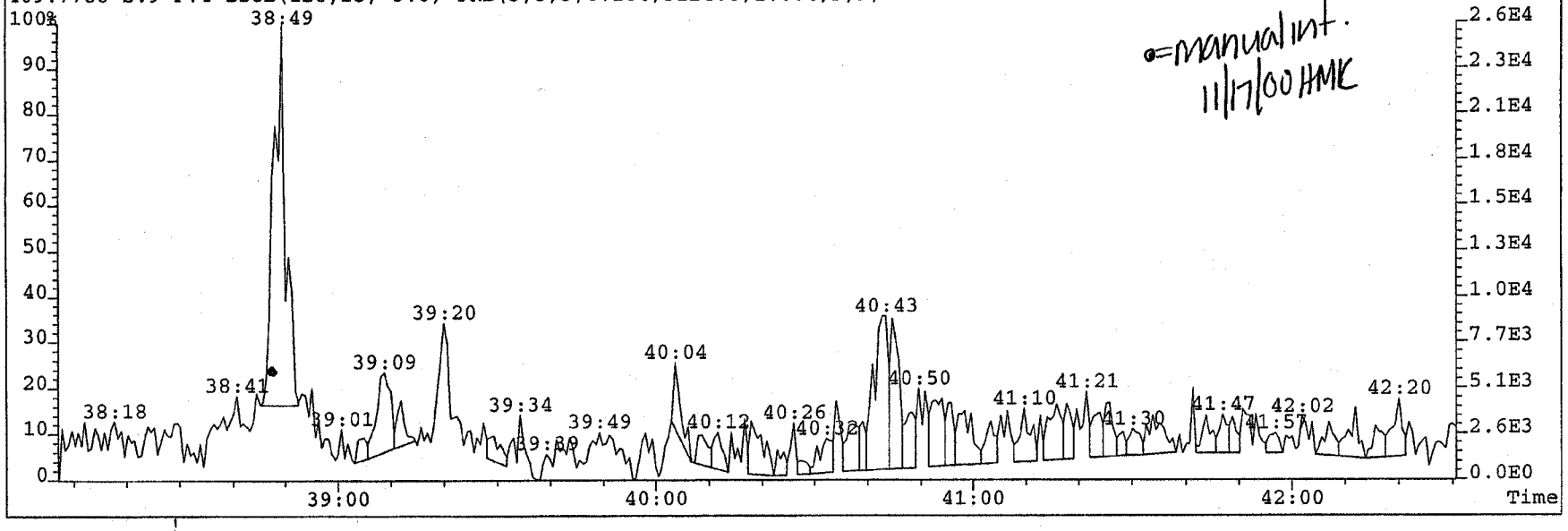

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS
407.7818 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4596.0,1.00%,F,F)
38:49
38:28
39:04
39:19
39:43
40:04
40:18
40:37
40:44
40:53
41:23
41:41
42:11
2.9E4
1.5E4
0.0E0
409.7788 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3124.0,1.00%,F,F)
38:49
38:18
38:41
39:12
39:20
39:34
39:58
40:04
40:12
40:26
40:43
40:50
41:03
41:21
41:47
42:02
42:20
2.6E4
1.3E4
0.0E0
417.8253 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4128.0,1.00%,F,F)
38:48
40:43
6.2E6
3.1E6
0.0E0
419.8220 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3936.0,1.00%,F,F)
38:48
40:42
1.3E7
6.5E6
0.0E0
479.7165 S:9 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3880.0,1.00%,F,F)
40:03
38:14
38:52
39:11
39:29
39:50
40:22
40:53
41:03
41:22
41:52
42:06
42:21
1.6E4
8.0E3
0.0E0
430.9728 S:9 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:14
38:39
38:58
39:32
40:07
40:28
41:03
41:31
41:47
42:09
5.2E7
2.6E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Exp:EXP_DB5MS
407.7818 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4596.0,1.00%,F,F)



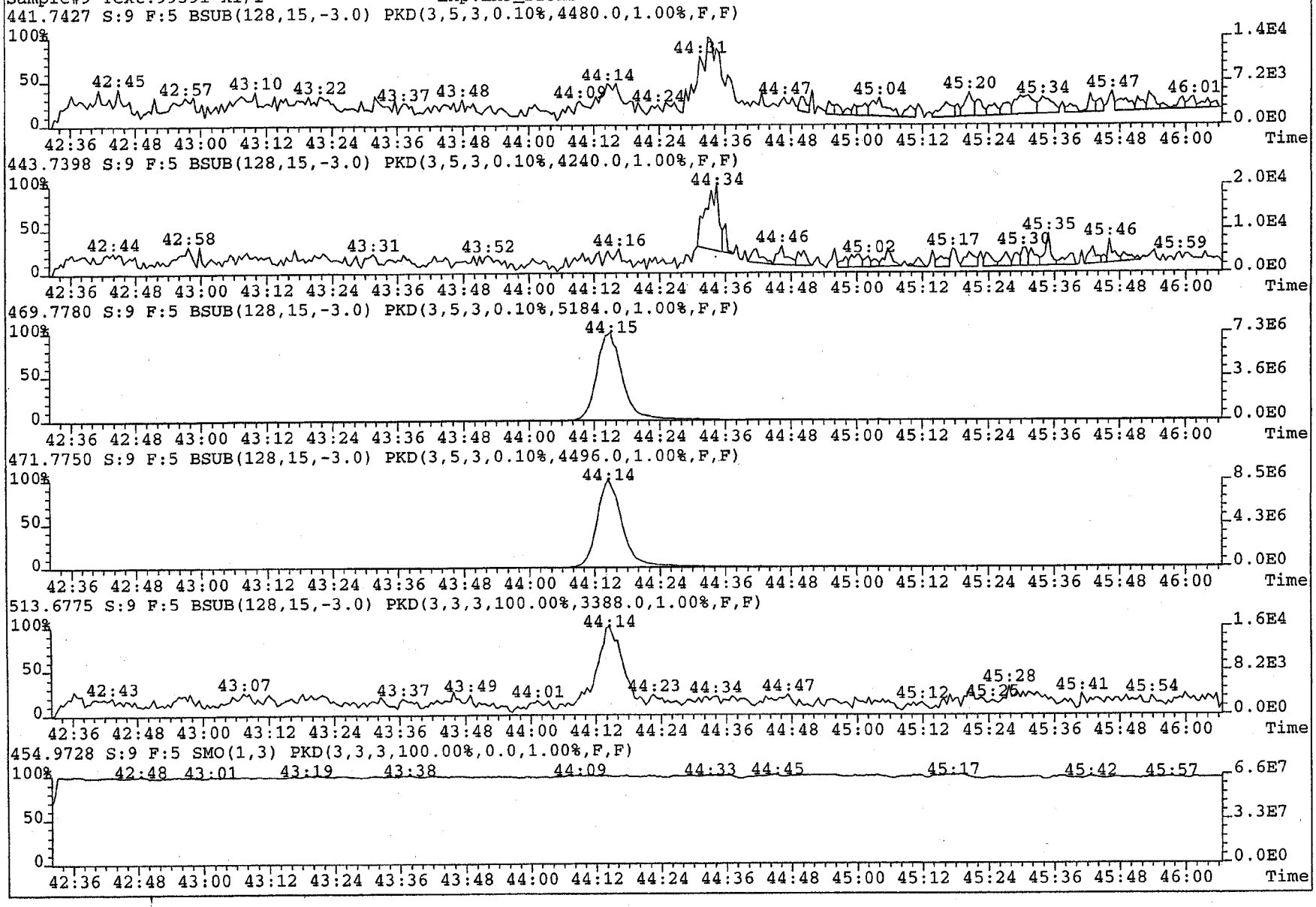
HpCDF

409.7788 S:9 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3124.0,1.00%,F,F)

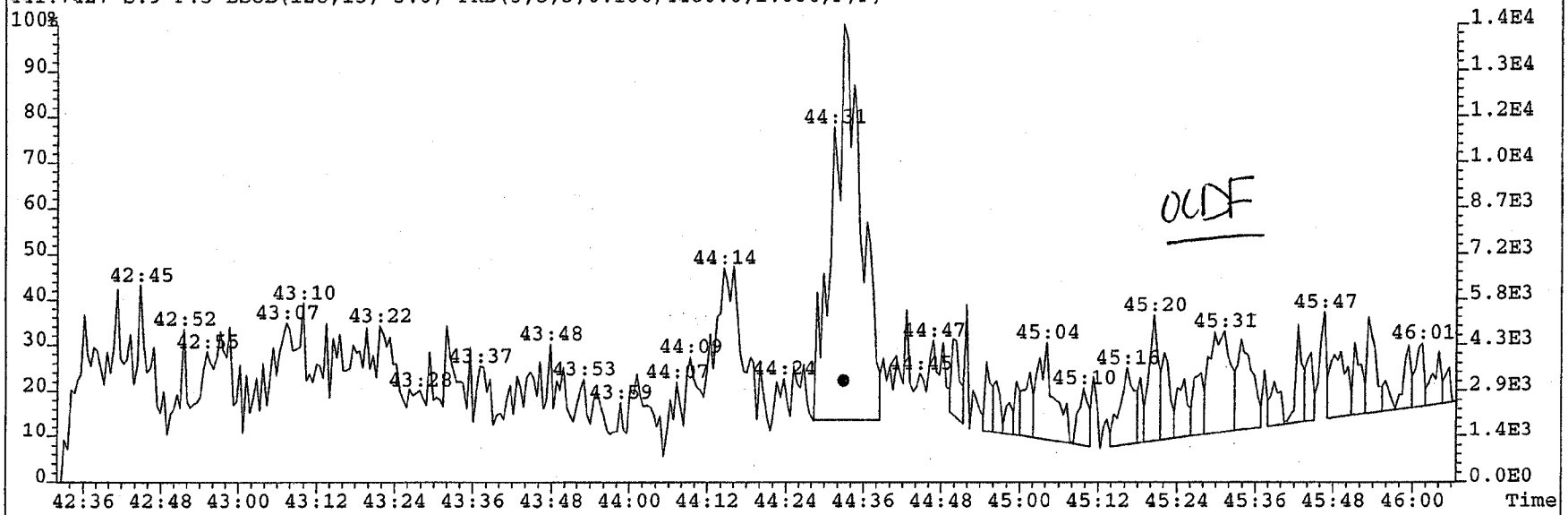


o=manual int.
11/17/00 HMK

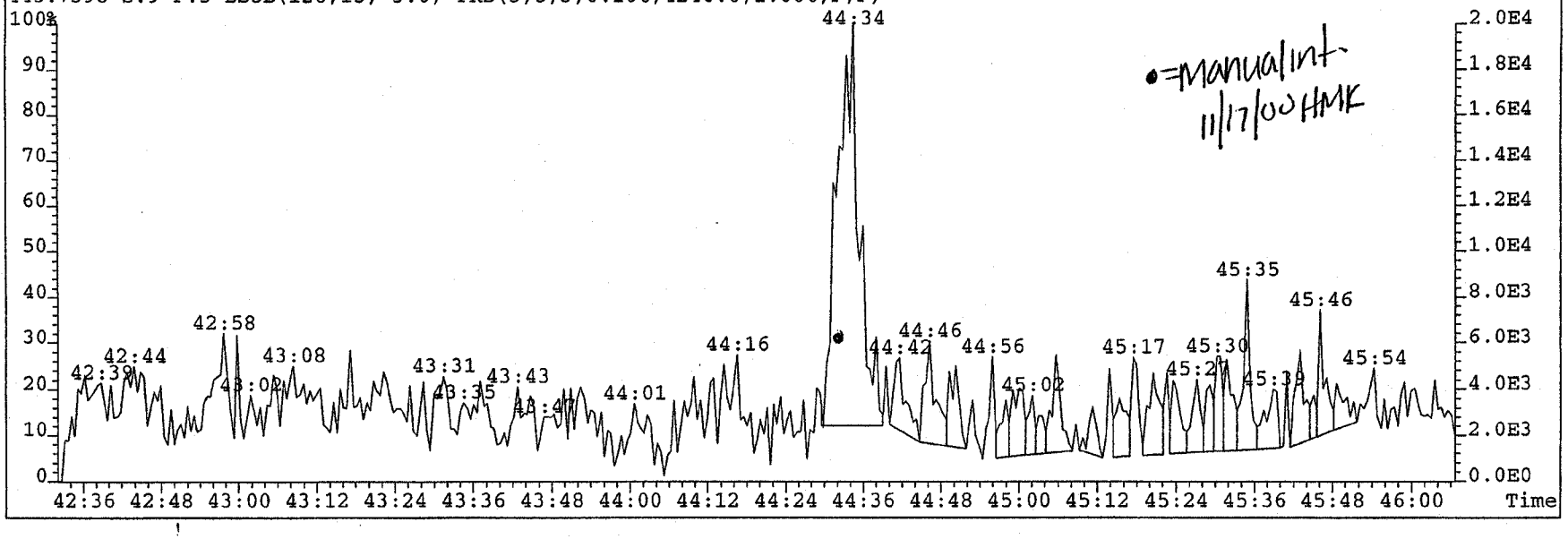
File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS



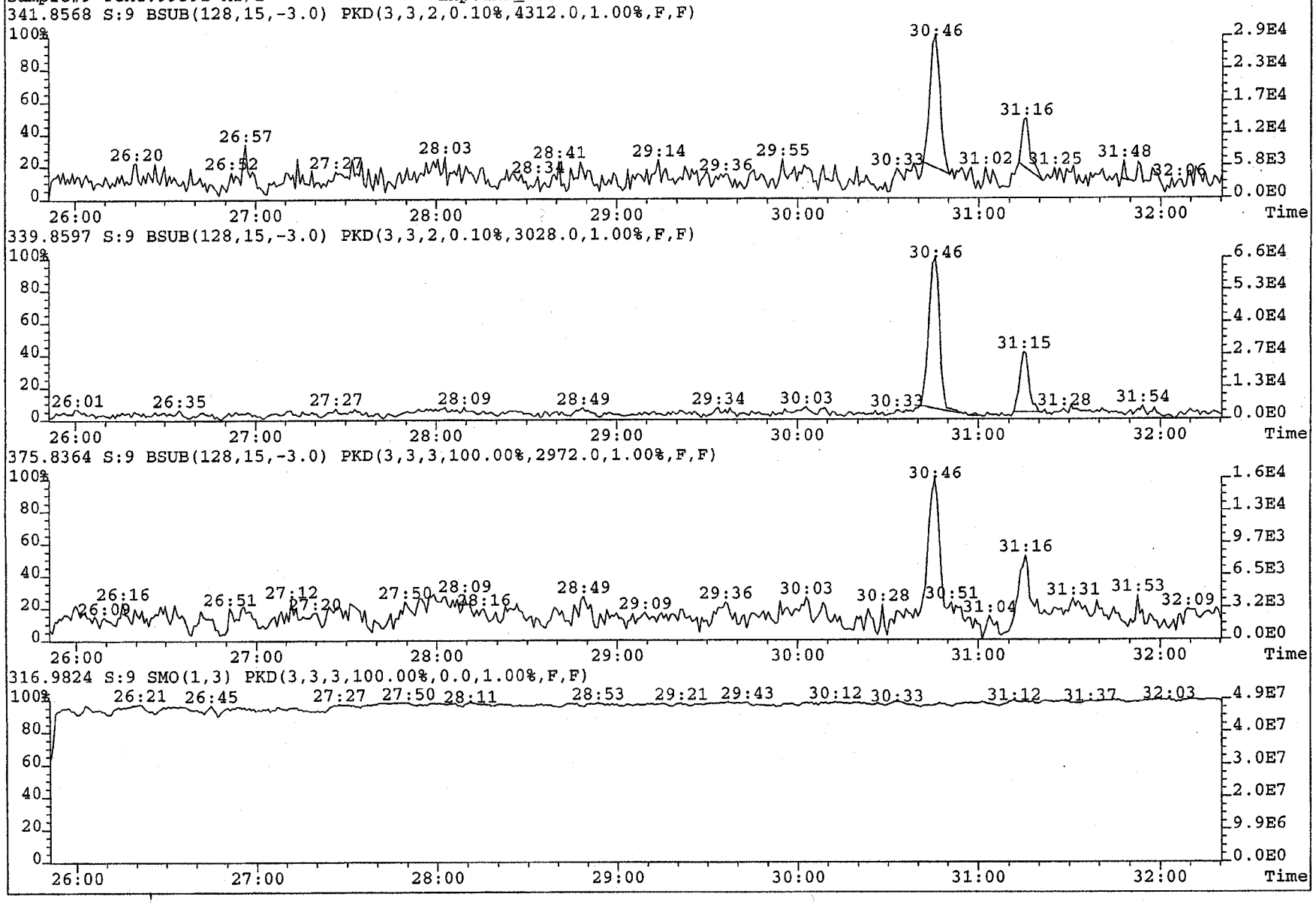
File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Exp:EXP_DB5MS
441.7427 S:9 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4480.0,1.00%,F,F)



443.7398 S:9 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4240.0,1.00%,F,F)



File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 11:33:20 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:99391 x1/1 Exp:EXP_DB5MS



Method 1613

LF-09

Delta Environmental Consultants

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0027				
1,2,3,7,8-PeCDD	ND	0.0020				
1,2,3,4,7,8-HxCDD	ND	0.0025				
1,2,3,6,7,8-HxCDD	ND	0.0030				
1,2,3,7,8,9-HxCDD	ND	0.0025				
1,2,3,4,6,7,8-HpCDD	ND	0.0053				
OCDD	0.0148			44:15	0.87	A
2,3,7,8--TCDF	ND	0.0028				
1,2,3,7,8-PeCDF	ND	0.0017				
2,3,4,7,8-PeCDF	ND	0.0016				
1,2,3,4,7,8-HxCDF	ND	0.0015				
1,2,3,6,7,8-HxCDF	ND	0.0016				
2,3,4,6,7,8-HxCDF	ND	0.0019				
1,2,3,7,8,9-HxCDF	ND	0.0022				
1,2,3,4,6,7,8-HpCDF	ND	0.0035				
1,2,3,4,7,8,9-HpCDF	ND	0.0047				
OCDF	ND	0.0058				
Total TCDDs	ND	0.0027				
Total PeCDDs	ND	0.0060				
Total HxCDDs	ND	0.0060				
Total HpCDDs	ND	0.0053				
Total TCDFs	ND	0.0028				
Total PeCDFs	ND	0.0017				
Total HxCDFs	ND	0.0018				
Total HpCDFs	ND	0.0040				
TEQ (ND=0)	0.0000		0.0000			ITEF
TEQ (ND=½)	0.0033		0.0033			ITEF

Client Information

Project Name:	E096-007-5.0040
Sample ID:	LF-09

Laboratory Information

Project ID:	G129-306
Sample ID:	99392
Collection Date/Time:	09-Nov-00
Receipt Date:	10-Nov-00
Extraction Date:	13-Nov-00
Analysis Date:	16-Nov-00

Sample Information

Matrix:	Aqueous
Weight / Volume:	301 mL
Solids / Lipids:	NA
Original pH :	5
Batch ID:	WG5101
Filename:	a15nov00a_2-10
Retchk:	a15nov00a-15
Begin ConCal:	a15nov00a-15
Initial Cal:	m1613-052699m

Method 1613

LF-09

Delta Environmental Consultants

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1.0	0.68	68.0	31:15	0.8	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1.0	0.73	73.0	34:07	1.59	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1.0	1.00	99.7	36:47	1.21	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.0	0.90	89.6	36:47	1.21	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1.0	0.71	71.3	40:03	1.08	
$^{13}C_{12}$-OCDD	2.0	1.38	69.2	44:15	0.87	
$^{13}C_{12}$-2,3,7,8-TCDF	1.0	0.73	73.0	30:33	0.81	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.0	0.75	75.0	33:18	1.6	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.0	0.79	79.1	33:55	1.6	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.0	0.85	84.9	36:05	0.51	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.0	0.79	78.7	36:05	0.51	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.0	0.76	75.5	36:34	0.51	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.0	0.85	84.8	37:20	0.5	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.0	0.75	75.0	38:48	0.48	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.0	0.78	77.9	40:43	0.49	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.33	82.8	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.0			30:45	0.79	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.0			36:34	0.51	

Client Information

Project Name: E096-007-5.0040
Sample ID: LF-09

Laboratory Information

Project ID: G129-306
Sample ID: 99392

Collection Date/Time: 09-Nov-00
Receipt Date: 10-Nov-00
Extraction Date: 13-Nov-00
Analysis Date: 16-Nov-00

Sample Information

Matrix: Aqueous
Weight / Volume: 301 mL
Solids / Lipids: NA
Original pH : 5
Batch ID: WG5101

Filename: a15nov00a_2-10
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Reviewed by: MM

Date Reviewed: 11/20/00

Filename ; a15nov00a_2
Sample ; 10
Acquired ; 16-NOV-00 12:21:46
Processed ; 16-NOV-00 15:21:38
Sample ID ; 99392 x1/1
Cal Table ; m1613-052699m
Results Table ; m1613-111500a_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	*	*	*	*;n;NotFnd		*	0.0804	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDD	1.71e+04	7.57e+03	9.55e+03	0.79;n;	34:07	0.019	0.0600	1;n;	1;n	no
Unk	1,2,3,4,7,8-HxCDD	2.66e+04	2.03e+04	6.32e+03	3.21;n;	36:41	0.025	0.0757	1;n;	1;n	no
Unk	1,2,3,6,7,8-HxCDD	2.75e+04	2.02e+04	7.34e+03	2.75;n;	36:48	0.030	0.0887	1;n;	1;n	no
Unk	1,2,3,7,8,9-HxCDD	*	*	*	*;n;NotFnd		*	0.0758	*;n;	*;n	no
Unk	1,2,3,4,6,7,8-HpCDD	*	*	*	*;n;NotFnd		*	0.1597	*;n;	*;n	no
Unk	OCDD	2.62e+05	1.22e+05	1.40e+05	0.87;y;	44:15	0.446	0.3121	4;y;	7;y	yes
Unk	2,3,7,8-TCDF	*	*	*	*;n;NotFnd		*	0.0847	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0513	*;n;	*;n	no
Unk	2,3,4,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0489	*;n;	*;n	no
Unk	1,2,3,4,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0462	*;n;	*;n	no
Unk	1,2,3,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0475	*;n;	*;n	no
Unk	2,3,4,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0563	*;n;	*;n	no
Unk	1,2,3,7,8,9-HxCDF	1.28e+04	5.83e+03	7.01e+03	0.83;n;	37:19	0.010	0.0646	1;n;	1;n	no
Unk	1,2,3,4,6,7,8-HpCDF	*	*	*	*;n;NotFnd		*	0.1046	*;n;	*;n	no
Unk	1,2,3,4,7,8,9-HpCDF	*	*	*	*;n;NotFnd		*	0.1408	*;n;	*;n	no
Unk	OCDF	*	*	*	*;n;NotFnd		*	0.1759	*;n;	*;n	no
ES/RT	13C-2,3,7,8-TCDD	9.62e+07	4.29e+07	5.33e+07	0.80;y;	31:15	34.002	0.0454	2477;y;	2890;y	no
ES	13C-1,2,3,7,8-PeCDD	8.71e+07	5.34e+07	3.37e+07	1.59;y;	34:07	36.522	0.1379	1170;y;	1581;y	no
ES	13C-1,2,3,4,7,8-HxCDD	9.47e+07	5.19e+07	4.28e+07	1.21;y;	36:47	49.864	0.0496	3440;y;	2665;y	no
ES	13C-1,2,3,6,7,8-HxCDD	9.47e+07	5.19e+07	4.28e+07	1.21;y;	36:47	44.789	0.0445	3440;y;	2665;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	7.23e+07	3.76e+07	3.47e+07	1.08;y;	40:03	35.626	0.1331	500;y;	862;y	no
ES	13C-OCDD	1.09e+08	5.09e+07	5.84e+07	0.87;y;	44:15	69.219	0.0508	2016;y;	2827;y	no
ES/RT	13C-2,3,7,8-TCDF	1.46e+08	6.56e+07	8.07e+07	0.81;y;	30:33	36.484	0.0352	2734;y;	2382;y	no
ES	13C-1,2,3,7,8-PeCDF	1.38e+08	8.46e+07	5.29e+07	1.60;y;	33:18	37.476	0.0253	9592;y;	5413;y	no
ES	13C-2,3,4,7,8-PeCDF	1.37e+08	8.45e+07	5.29e+07	1.60;y;	33:55	39.525	0.0267	9529;y;	5159;y	no
ES	13C-1,2,3,4,7,8-HxCDF	1.17e+08	3.94e+07	7.78e+07	0.51;y;	36:05	42.444	0.0482	1704;y;	4585;y	no
ES	13C-1,2,3,6,7,8-HxCDF	1.17e+08	3.94e+07	7.78e+07	0.51;y;	36:05	39.369	0.0447	1704;y;	4585;y	no
ES	13C-2,3,4,6,7,8-HxCDF	1.05e+08	3.53e+07	6.98e+07	0.51;y;	36:34	37.730	0.0477	1507;y;	4011;y	no
ES	13C-1,2,3,7,8,9-HxCDF	9.73e+07	3.24e+07	6.49e+07	0.50;y;	37:20	42.394	0.0579	1163;y;	3225;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	8.26e+07	2.68e+07	5.58e+07	0.48;y;	38:48	37.502	0.0711	1003;y;	1743;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	7.07e+07	2.33e+07	4.74e+07	0.49;y;	40:43	38.962	0.0862	768;y;	1281;y	no
JS	13C-1,2,3,4-TCDD	2.67e+08	1.18e+08	1.49e+08	0.79;y;	30:45	131.770	-	5708;y;	6706;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.22e+08	1.22e+08	1.00e+08	1.21;y;	37:01	134.460	-	8034;y;	6153;y	no
CS	37Cl-2,3,7,8-TCDD	5.18e+07	5.18e+07	-	-;-	31:16	16.537	0.0230	2655;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0	0	FALSE
PeCDD	0	0	FALSE
HxCDF	0	0	FALSE
HxCDD	0	0	FALSE
HpCDF	0	0	FALSE
HpCDD	0	0	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	10	Number of Peaks Found:	4
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.0847
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	25:58:00
Results Table:	m1613-111500a_2	End Window:	32:47:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	4.82E+04	24600	23600	1.04	n	30:46	0.029	S2N	2.1	n	1.6	n	n
	2	1.33E+04	4230	9050	0.47	n	30:51	0.008	S2N	0.4	n	0.7	n	n
	3	7.57E+03	2840	4730	0.6	n	30:57	0.005	S2N	0.4	n	0.6	n	n
	4	1.10E+04	4650	6360	0.73	y	31:00	0.007	S2N	0.6	n	0.6	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	10	Number of Peaks Found:	1
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.0804
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	27:30:00
Results Table:	m1613-111500a_2	End Window:	32:25:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.32E+05	107000	24100	4.46	n	30:34	0.116	S2N	5.1	y	1.4	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	10	Number of Peaks Found:	4
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.0414
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:37:00
Results Table:	m1613-111500a_2	End Window:	31:57:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?

	1	3.36E+05	88500	248000	0.36	n	30:45	0.223	RT	5.6	y	16.4	y	n
	2	1.44E+05	39800	104000	0.38	n	31:16	0.095	RT	2.8	n	7.5	y	n
	3	1.32E+04	11900	1250	9.55	n	31:23	0.009	RT	0.8	n	0.3	n	n
	4	1.57E+04	9500	6190	1.53	n	31:30	0.01	RT	0.7	n	0.7	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	10	Number of Peaks Found:	0
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.0501
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	10	Number of Peaks Found:	6
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.181
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	32:43:00
Results Table:	m1613-111500a_2	End Window:	34:28:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.63E+05	117000	46000	2.54	n	33:18	0	CF	10.9	y	6.3	y	n
	2	5.29E+03	2290	3000	0.76	n	33:27	0.006	S2N	0.4	n	1.2	n	n
	3	7.19E+03	4720	2470	1.91	n	33:30	0.008	S2N	0.8	n	0.6	n	n
	4	1.56E+05	115000	41000	2.81	n	33:55	0	CF	10.4	y	5.8	y	n
	5	5.83E+03	4570	1260	3.61	n	34:03	0.007	S2N	0.7	n	0.3	n	n
1,2,3,7,8-PeCDD	6	1.71E+04	7570	9550	0.79	n	34:07	0.019	S2N	1.5	n	1.4	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	10	Number of Peaks Found:	5
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.0534
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	m1613-111500a_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.14E+05	82900	31100	2.67	n	37:02	0.086	S2N	6.4	y	2.6	n	n
	2	2.02E+04	15500	4680	3.31	n	37:10	0.015	S2N	1.1	n	0.4	n	n

1,2,3,7,8,9-HxCDF	3	1.28E+04	5830	7010	0.83	n	37:19	0.01	S2N	1.1	n	1	n	n
	4	2.61E+04	14000	12100	1.16	y	37:22	0.02	S2N	1.2	n	1.3	n	n
	5	1.06E+04	6160	4410	1.4	y	37:26	0.008	S2N	0.7	n	0.5	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Dioxins
Sample:	10	Number of Peaks Found:	16
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.0787
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.18
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	35:25:00
Results Table:	m1613-111500a_2	End Window:	37:06:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.43E+05	110000	33100	3.32	n	35:58	0	S2N	9.1	y	3.2	y	n
	2	1.83E+05	132000	51600	2.55	n	36:05	0	CF	10.4	y	4.3	y	n
	3	6.65E+03	2350	4300	0.55	n	36:11	0.007	S2N	0.3	n	0.9	n	n
	4	1.74E+05	140000	33700	4.15	n	36:34	0	S2N	9.3	y	3.2	y	n
1,2,3,4,7,8-HxCDD	5	2.66E+04	20300	6320	3.21	n	36:41	0.025	S2N	1.4	n	0.5	n	n
1,2,3,6,7,8-HxCDD	6	2.75E+04	20200	7340	2.75	n	36:48	0.03	S2N	1.5	n	0.9	n	n
	7	1.33E+04	4510	8810	0.51	n	36:51	0.013	S2N	0.5	n	0.8	n	n
	8	1.68E+04	8350	8430	0.99	n	36:54	0.016	S2N	0.8	n	1	n	n
	9	1.28E+05	95100	33300	2.85	n	37:20	0	RT	6.8	y	2.6	n	n
	10	1.48E+04	5820	8970	0.65	n	37:32	0.014	RT	0.6	n	0.7	n	n
	11	8.45E+03	2570	5870	0.44	n	37:34	0.008	RT	0.6	n	1	n	n
	12	1.30E+04	8530	4490	1.9	n	37:36	0.013	RT	0.6	n	0.7	n	n
	13	2.91E+04	15300	13800	1.11	y	37:41	0.029	RT	0.7	n	0.9	n	n
	14	1.34E+04	3460	9950	0.35	n	37:45	0.013	RT	0.5	n	1.2	n	n
	15	1.36E+04	3650	9950	0.37	n	37:47	0.013	RT	0.4	n	1.2	n	n
	16	4.21E+03	2820	1390	2.02	n	37:50	0.004	RT	0.5	n	0.4	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Furans
Sample:	10	Number of Peaks Found:	0
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.4605
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.1213
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	
Results Table:	m1613-111500a_2	End Window:	

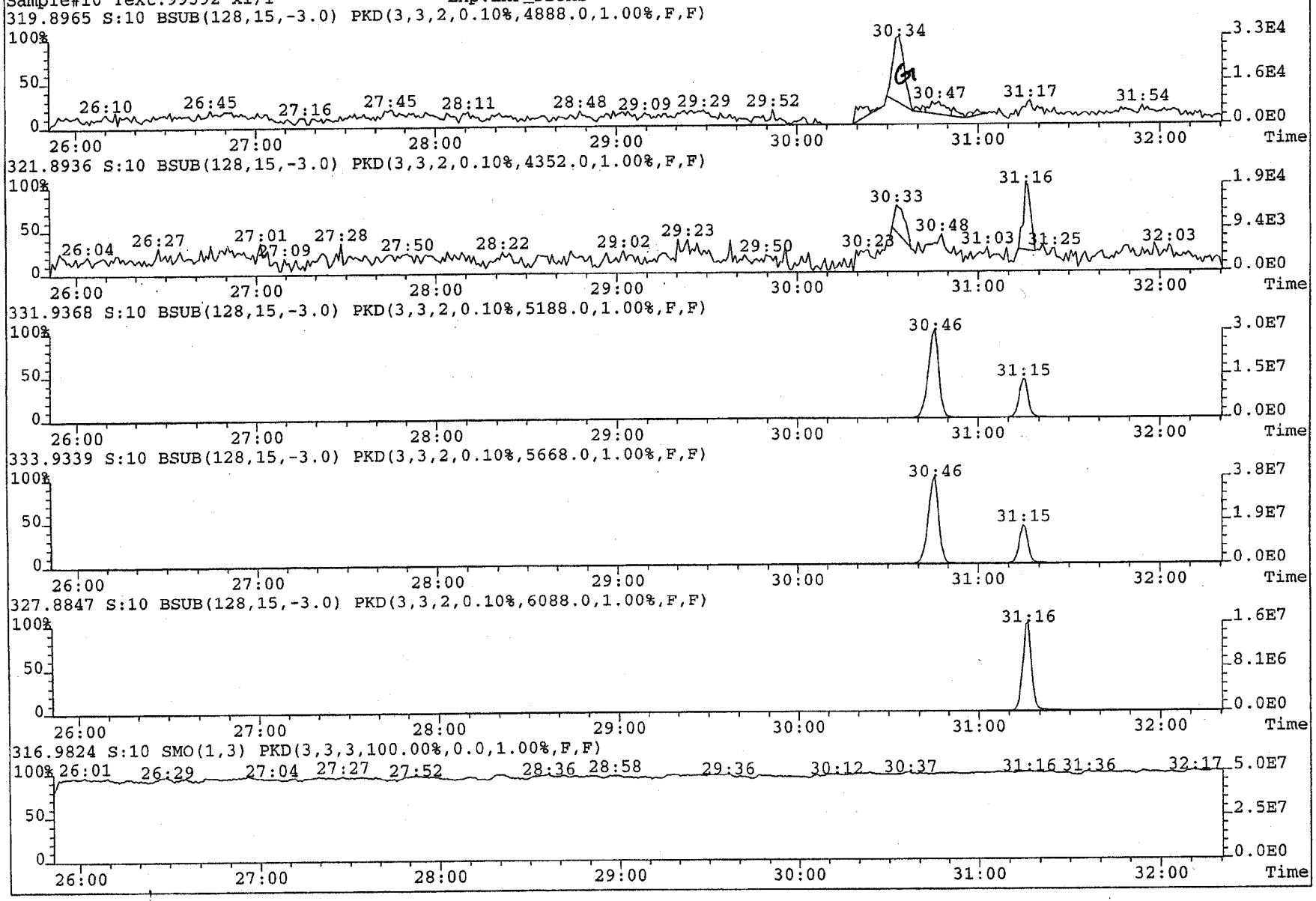
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	*	*	*	*	n	NotFnd	*		*	n	*	n	n

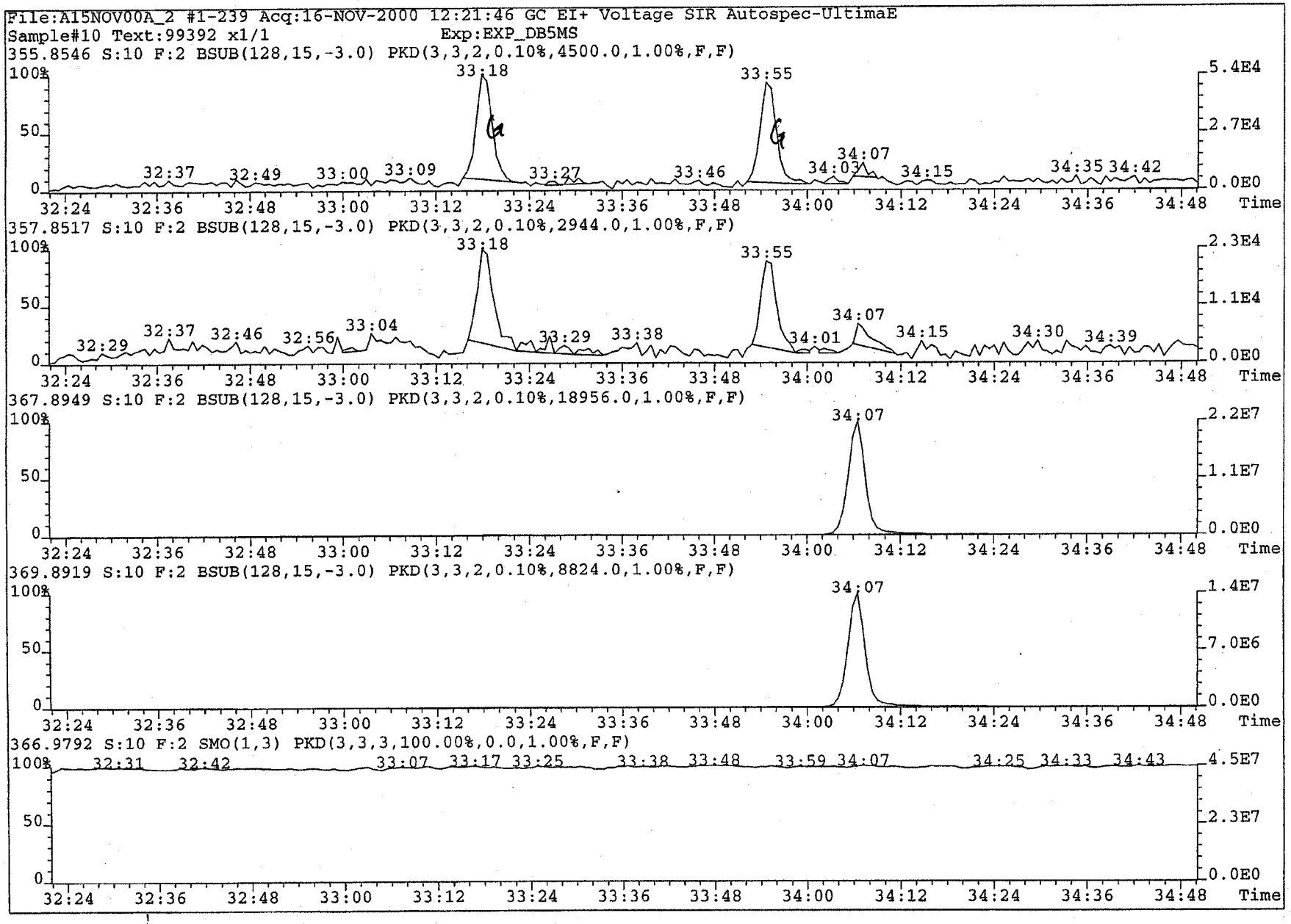
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Dioxins
Sample:	10	Number of Peaks Found:	15

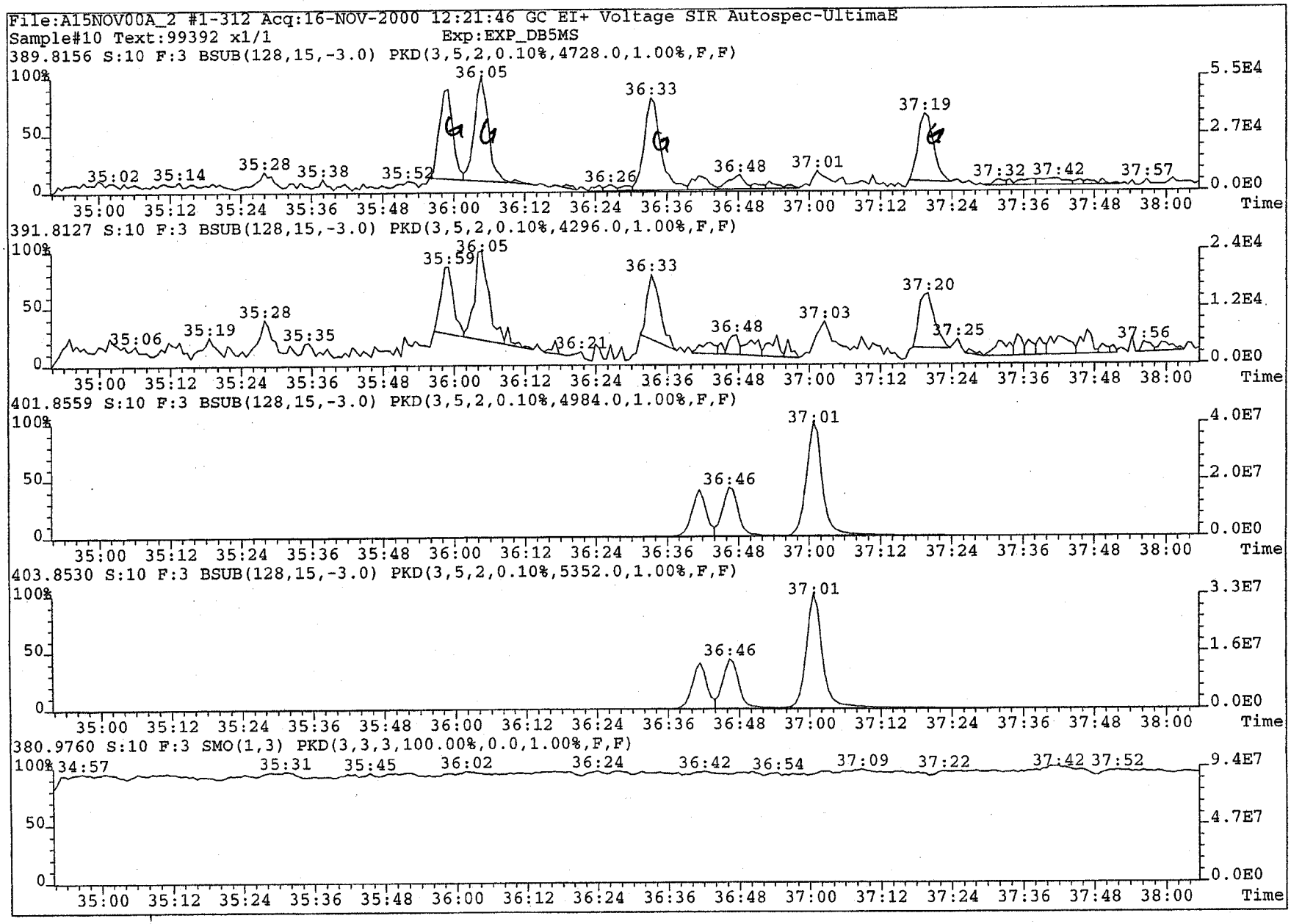
Acquired:	16-NOV-00 12:21:46	RRF Used For Totals:	1.0066
Processed:	16-NOV-00 15:21:38	Detection Limit:	0.1597
Sample ID:	99392 x1/1		
Cal Table:	m1613-052699m	Begin Window:	39:01:00
Results Table:	m1613-111500a_2	End Window:	39:21:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	7.56E+04	55300	20400	2.72	n	40:43	0.104	RT	3.2	y	1.9	n	n
	2	6.02E+03	3760	2260	1.66	n	40:57	0.008	RT	0.3	n	0.3	n	n
	3	2.18E+04	11400	10400	1.09	y	41:04	0.03	RT	0.6	n	1.2	n	n
	4	1.57E+04	5760	9960	0.58	n	41:09	0.022	RT	0.7	n	0.8	n	n
	5	1.55E+04	4940	10500	0.47	n	41:11	0.021	RT	0.6	n	0.9	n	n
	6	1.30E+04	5540	7480	0.74	n	41:16	0.018	RT	0.6	n	0.6	n	n
	7	9.33E+03	4310	5030	0.86	n	41:18	0.013	RT	0.7	n	0.5	n	n
	8	7.21E+03	3490	3710	0.94	y	41:21	0.01	RT	0.4	n	0.5	n	n
	9	1.77E+04	10400	7270	1.43	n	41:33	0.024	RT	0.8	n	0.6	n	n
	10	1.30E+04	5050	7990	0.63	n	41:36	0.018	RT	0.5	n	0.6	n	n
	11	1.22E+04	4200	7990	0.53	n	41:38	0.017	RT	0.4	n	0.6	n	n
	12	9.55E+03	4810	4740	1.01	y	41:41	0.013	RT	0.5	n	0.7	n	n
	13	1.27E+04	4560	8140	0.56	n	41:43	0.017	RT	0.4	n	0.7	n	n
	14	6.05E+03	3790	2260	1.68	n	41:45	0.008	RT	0.5	n	0.4	n	n
	15	4.14E+03	3510	631	5.56	n	42:17	0.006	RT	0.3	n	0.1	n	n

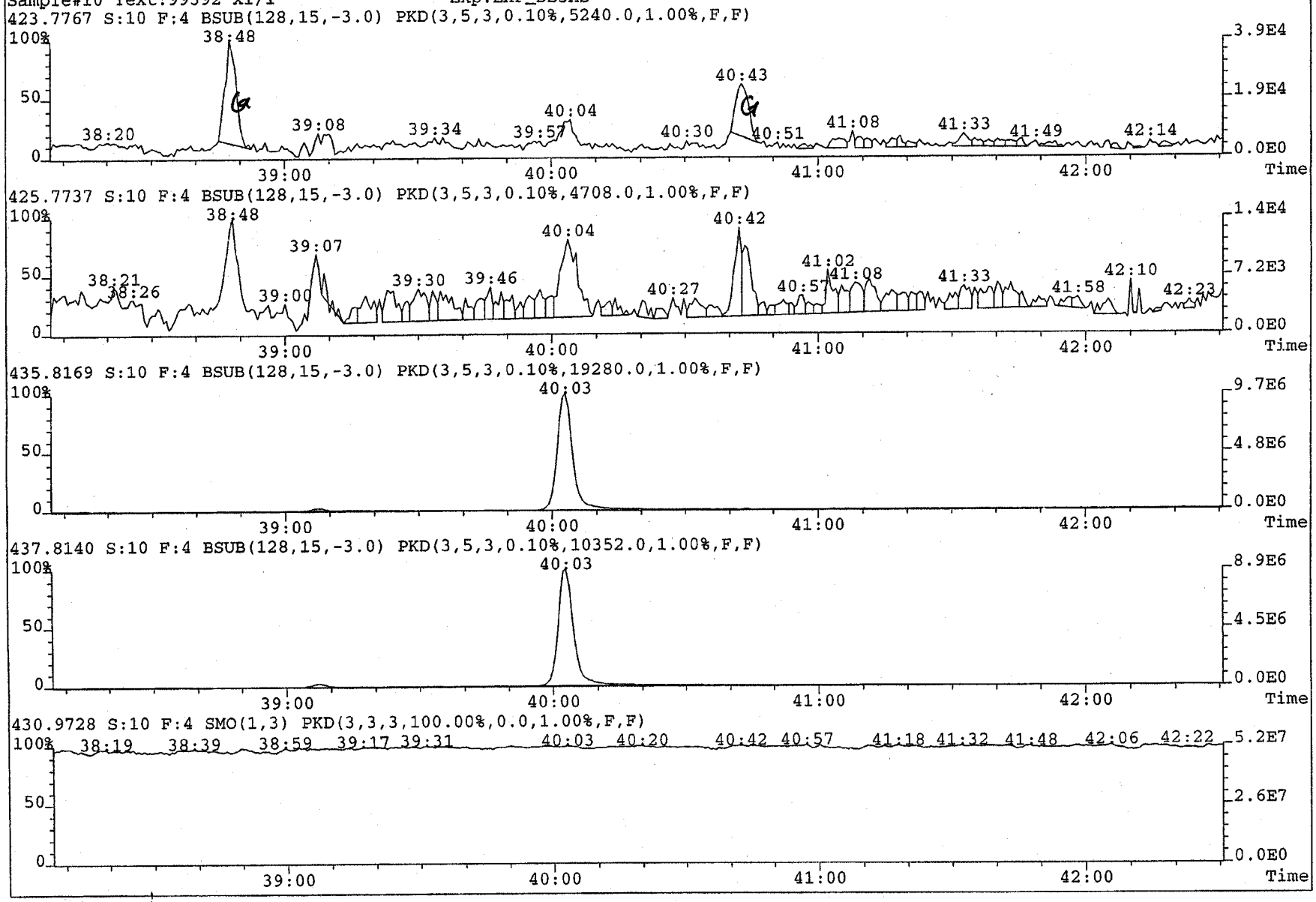
File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS

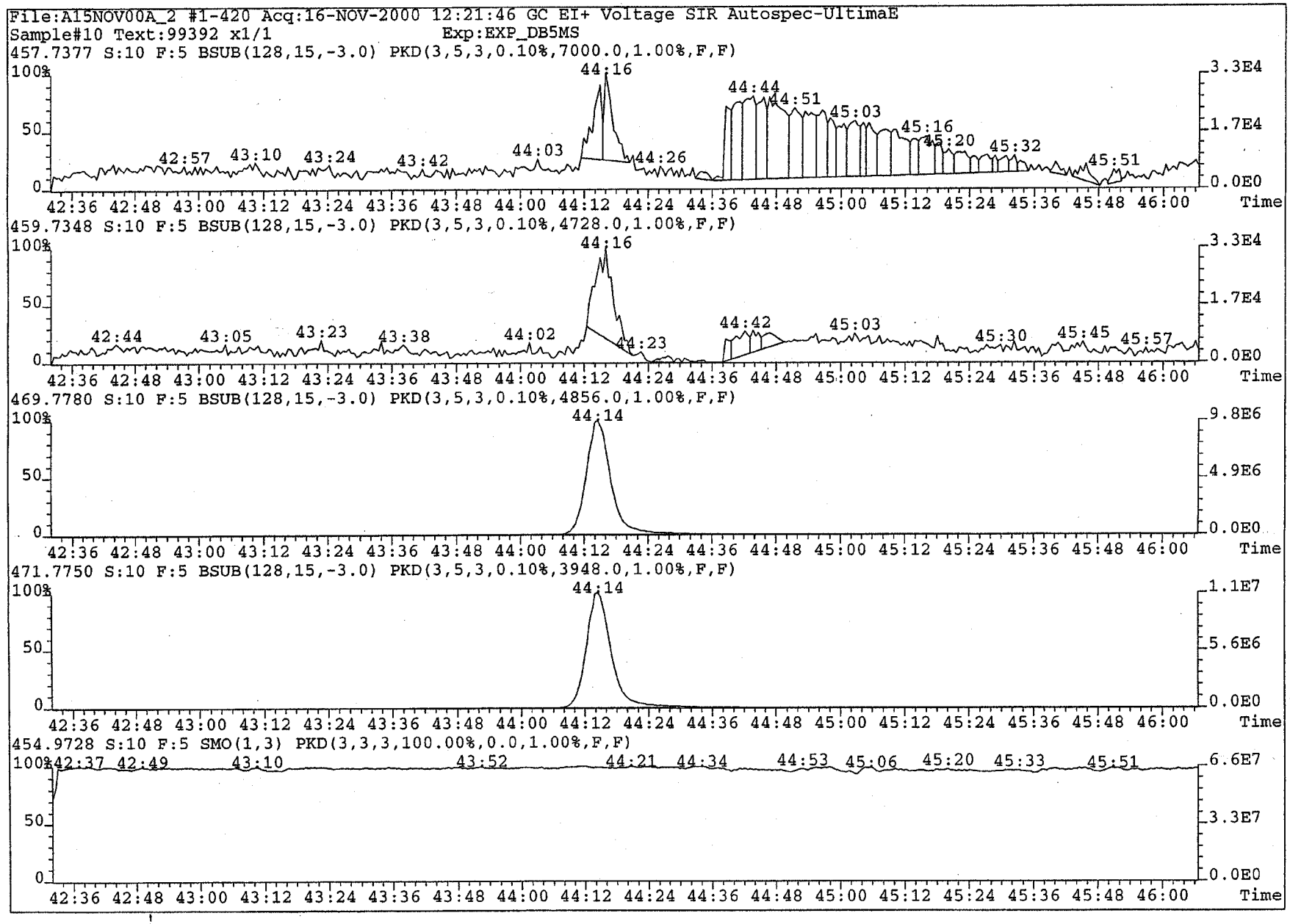



File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS
355.8546 S:10 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4500.0,1.00%,F,F)
357.8517 S:10 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2944.0,1.00%,F,F)
367.8949 S:10 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,18956.0,1.00%,F,F)
369.8919 S:10 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,8824.0,1.00%,F,F)
366.9792 S:10 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

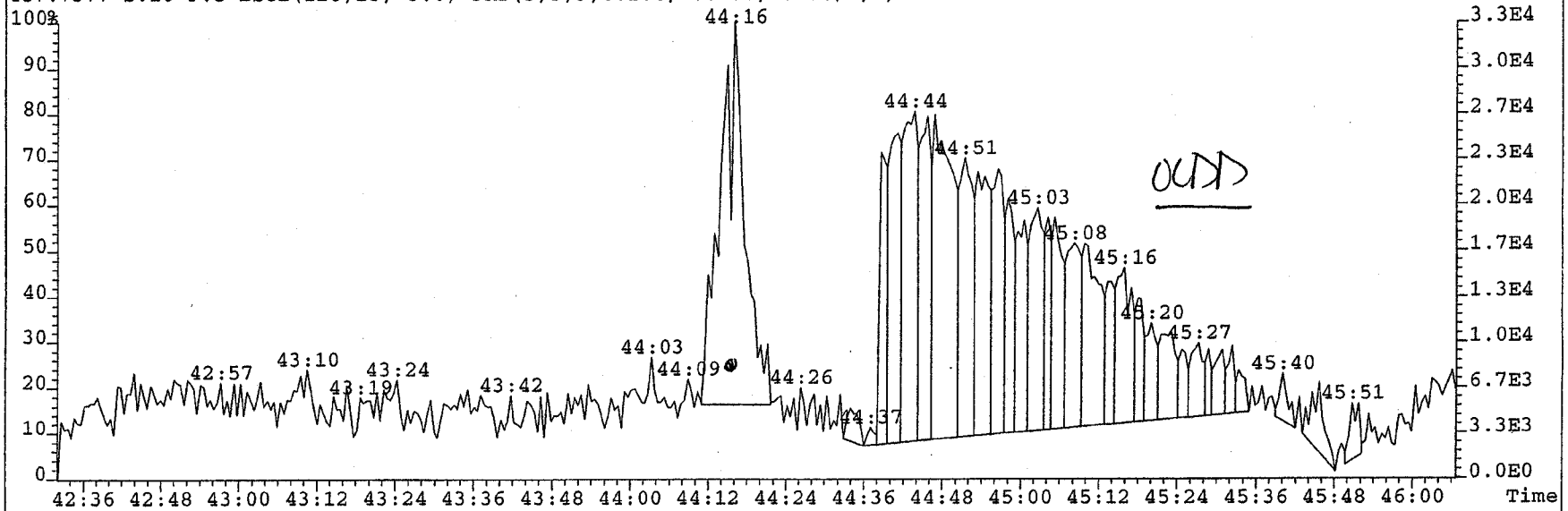

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS
389.8156 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4728.0,1.00%,F,F)
391.8127 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4296.0,1.00%,F,F)
401.8559 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4984.0,1.00%,F,F)
403.8530 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5352.0,1.00%,F,F)
380.9760 S:10 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS

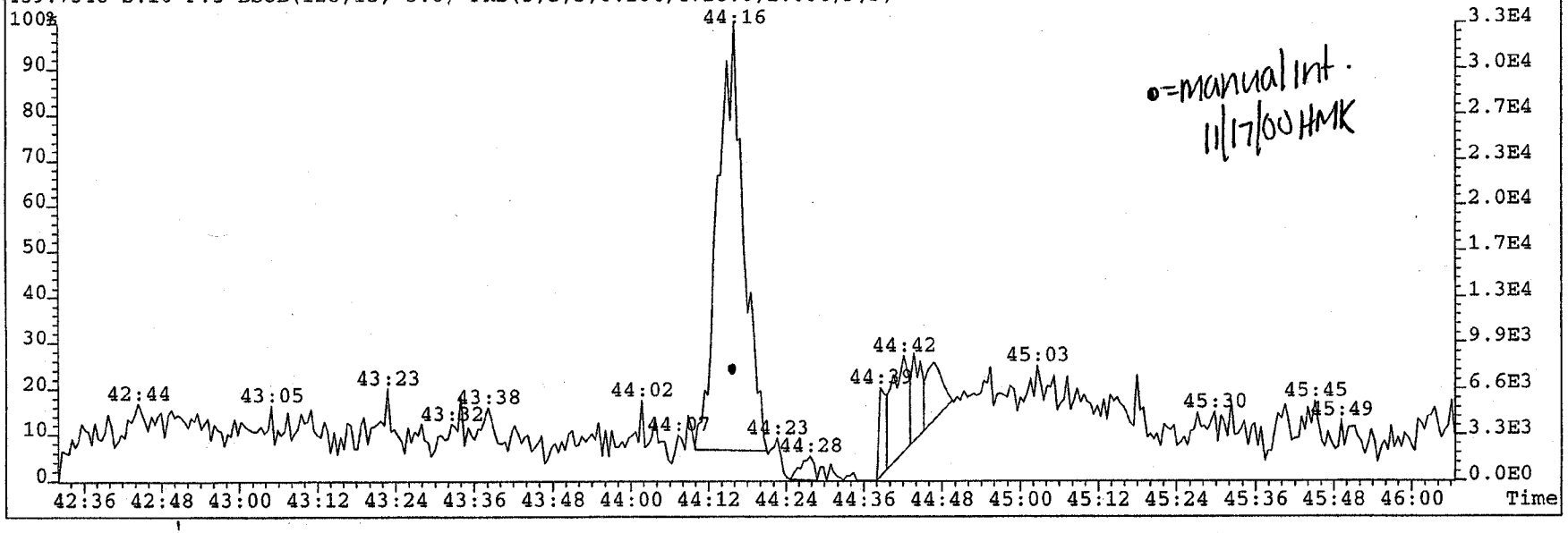


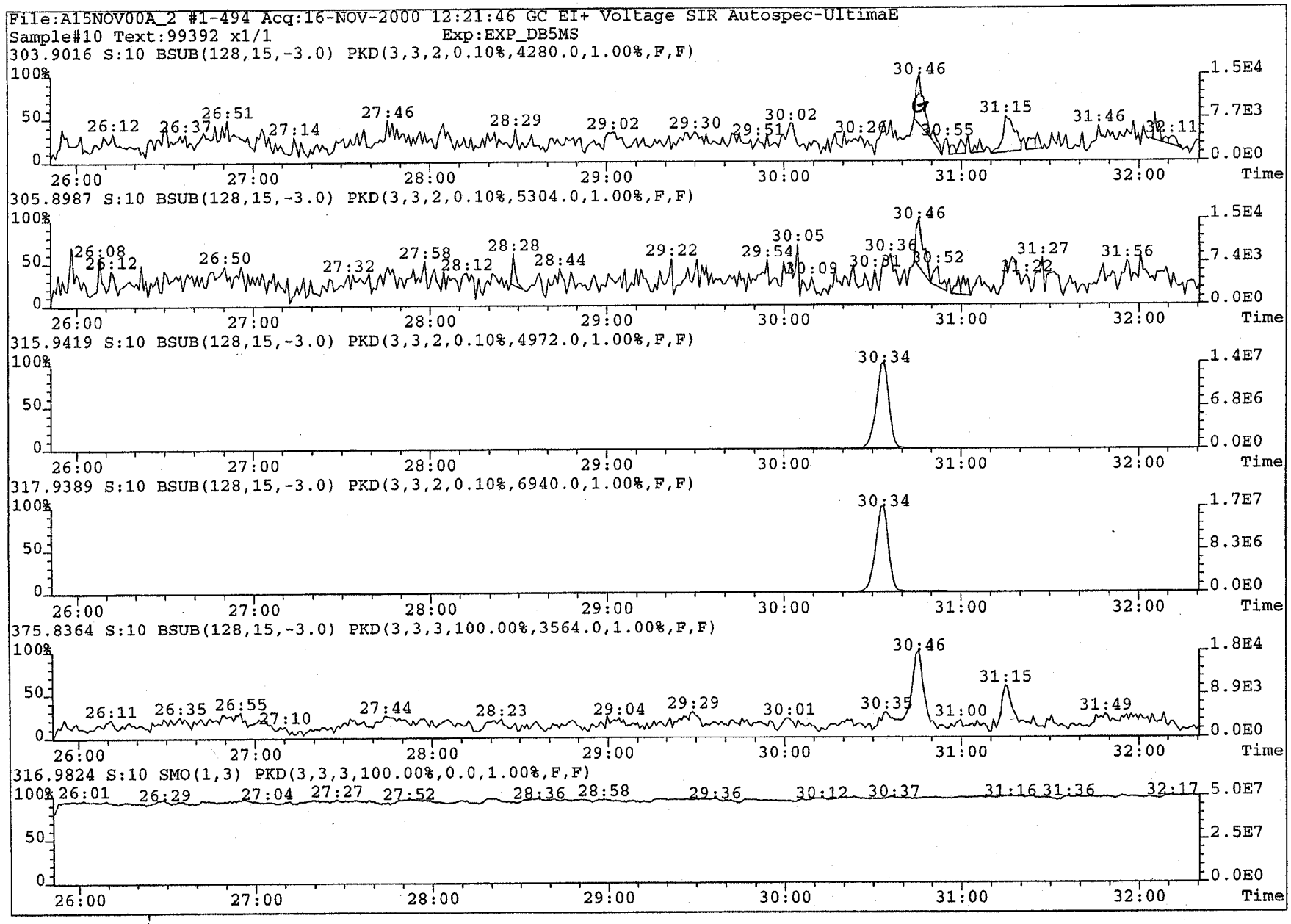

File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS
457.7377 S:10 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7000.0,1.00%,F,F)
459.7348 S:10 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4728.0,1.00%,F,F)
469.7780 S:10 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4856.0,1.00%,F,F)
471.7750 S:10 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3948.0,1.00%,F,F)
454.9728 S:10 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
3.3E4
1.7E4
0.0E0
9.8E6
4.9E6
1.1E7
5.6E6
6.6E7
3.3E7
42:57 43:10 43:24 43:42 44:03 44:16 44:26 44:44 44:51 45:03 45:16 45:20 45:32 45:51
42:44 43:05 43:23 43:38 44:02 44:16 44:23 44:42 45:03 45:30 45:45 45:57
44:14
42:37 42:49 43:10 43:52 44:21 44:34 44:53 45:06 45:20 45:33 45:51
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time

File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Exp:EXP_DB5MS
457.7377 S:10 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7000.0,1.00%,F,F)

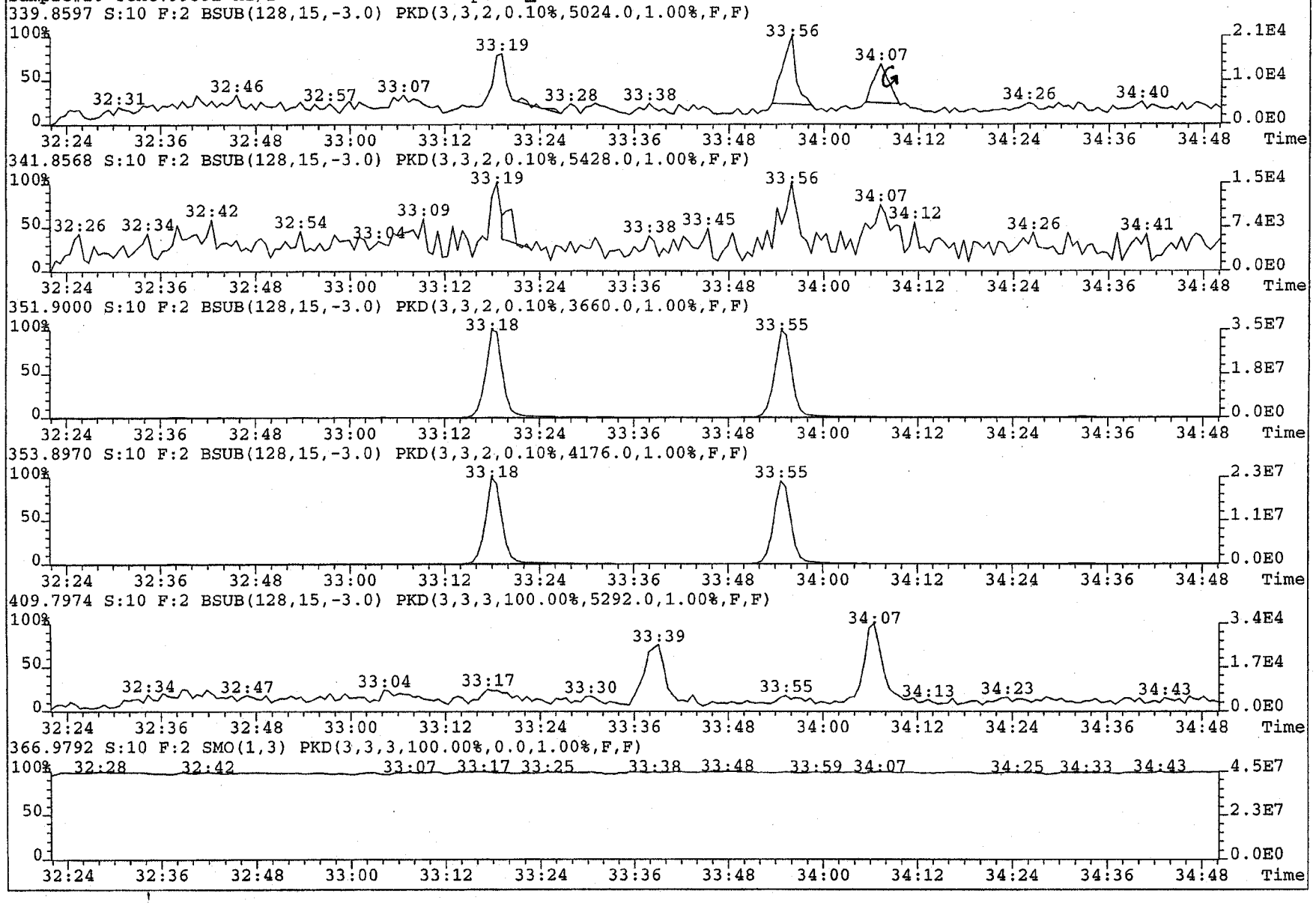


459.7348 S:10 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4728.0,1.00%,F,F)

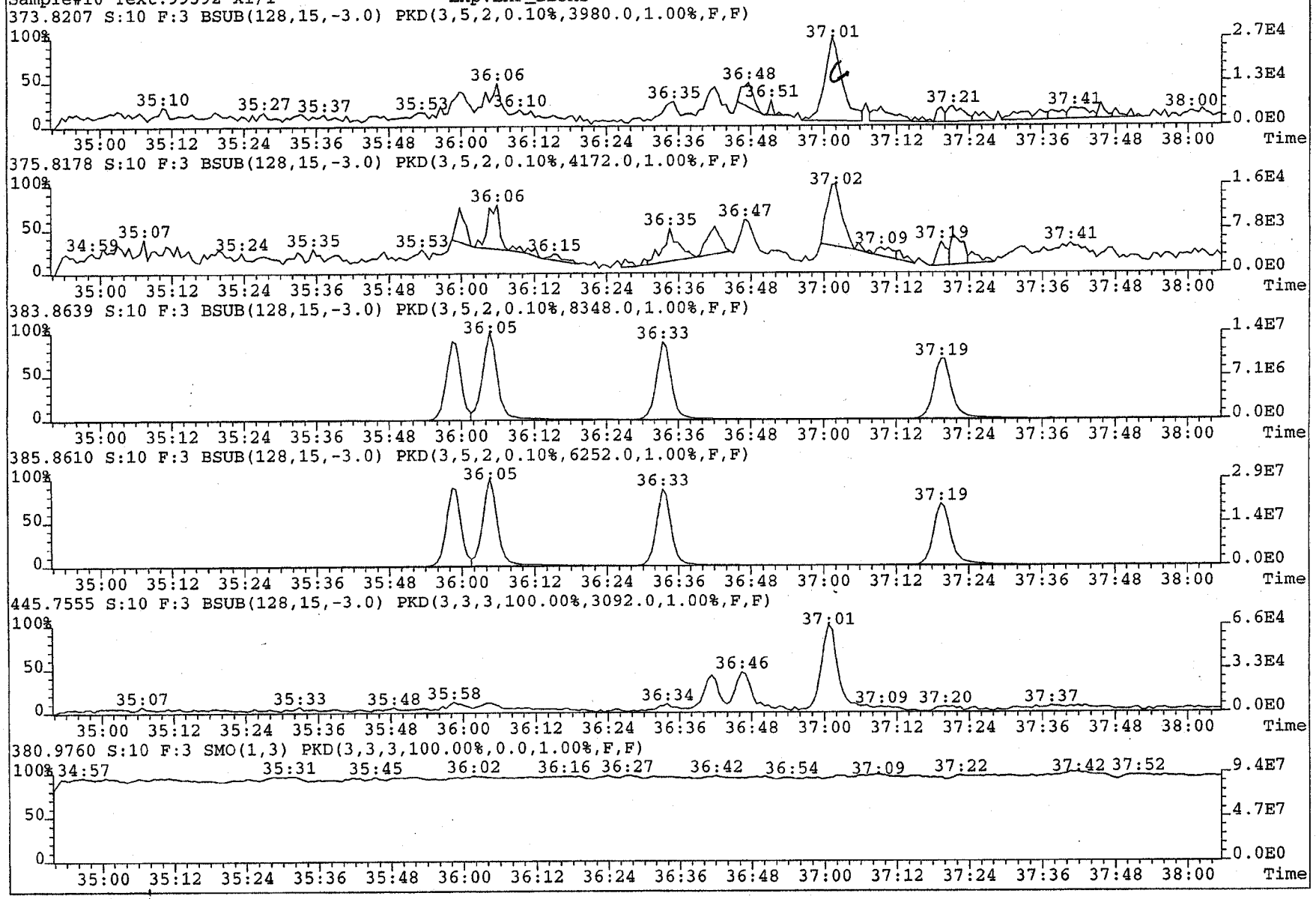


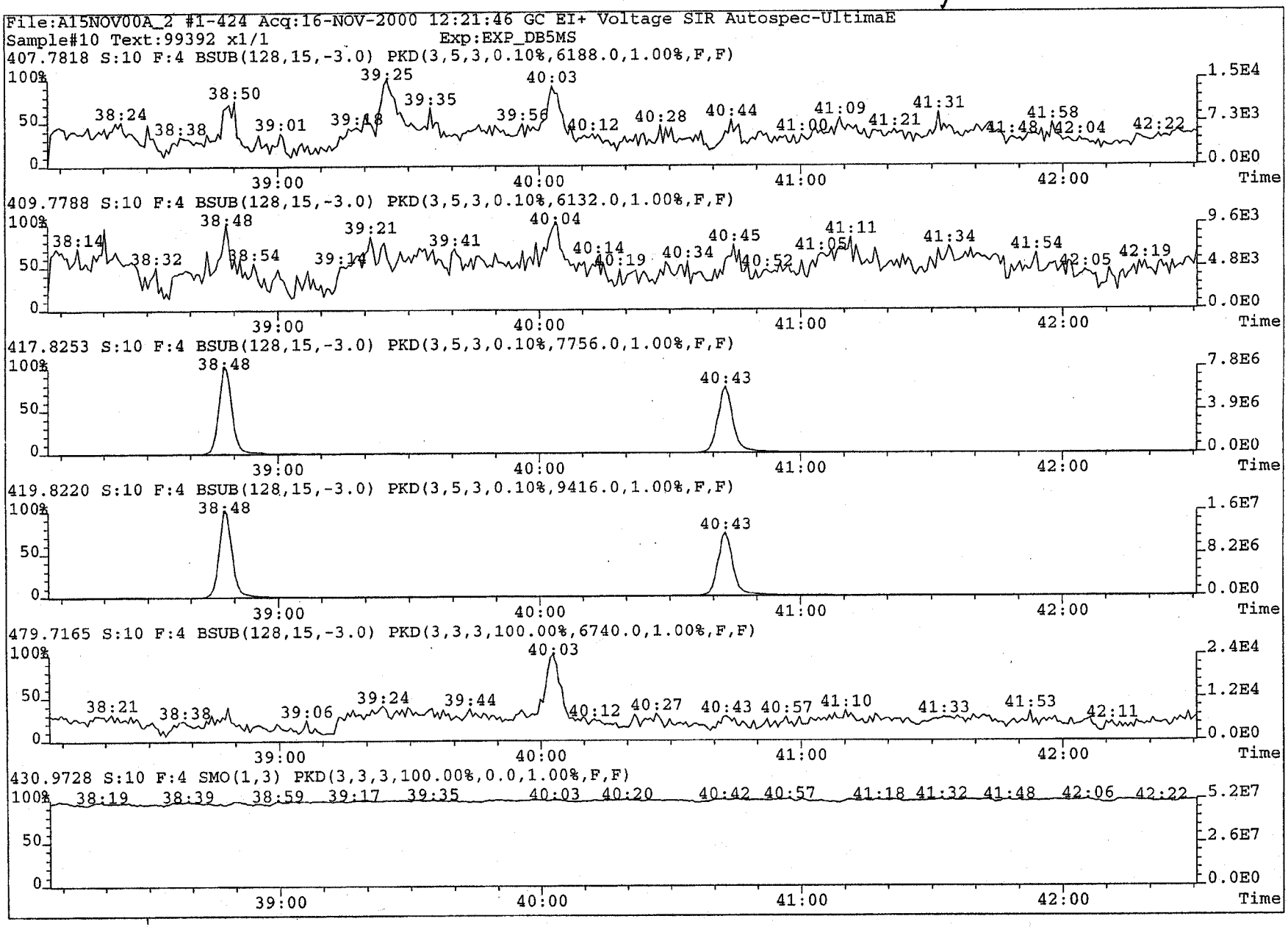

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1
Exp:EXP_DB5MS
303.9016 S:10 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4280.0,1.00%,F,F)
305.8987 S:10 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5304.0,1.00%,F,F)
315.9419 S:10 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4972.0,1.00%,F,F)
317.9389 S:10 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6940.0,1.00%,F,F)
375.8364 S:10 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3564.0,1.00%,F,F)
316.9824 S:10 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS

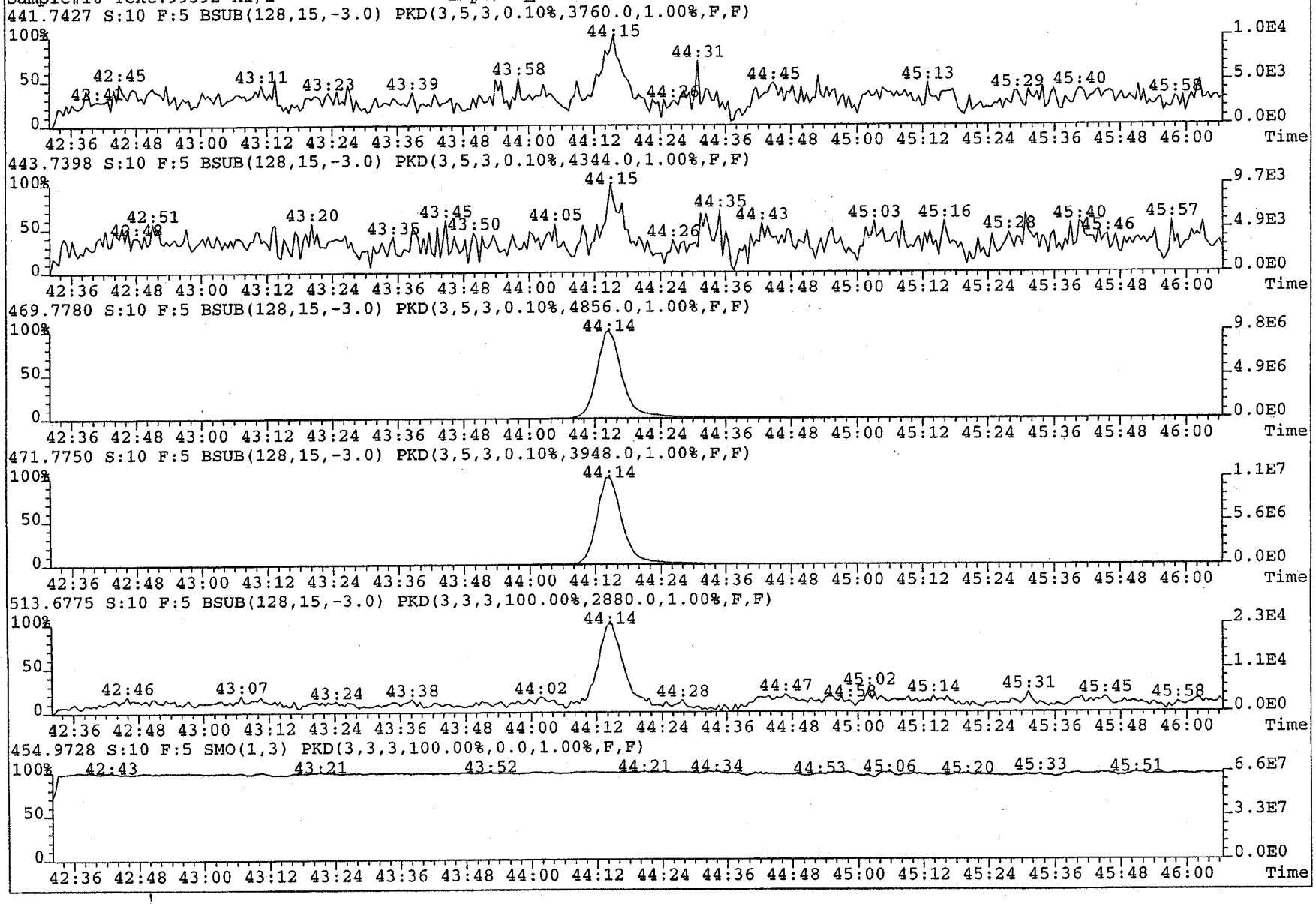


File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS

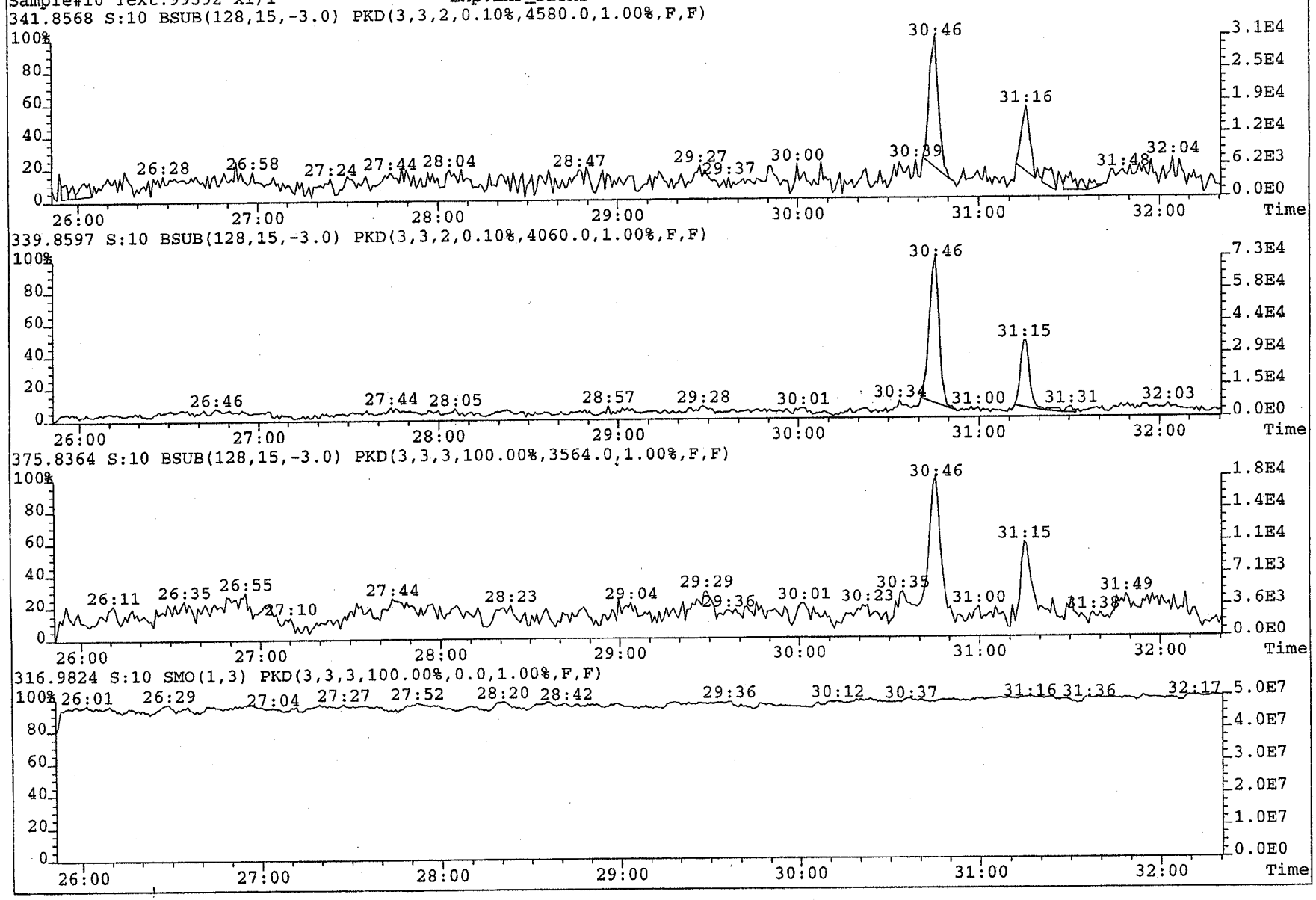



File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS
407.7818 S:10 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6188.0,1.00%,F,F)
409.7788 S:10 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6132.0,1.00%,F,F)
417.8253 S:10 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7756.0,1.00%,F,F)
419.8220 S:10 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,9416.0,1.00%,F,F)
479.7165 S:10 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,6740.0,1.00%,F,F)
430.9728 S:10 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
39:00
40:00
41:00
42:00
Time
1.5E4
7.3E3
0.0E0
9.6E3
4.8E3
7.8E6
3.9E6
1.6E7
8.2E6
2.4E4
1.2E4
5.2E7
2.6E7

File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS



File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 12:21:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#10 Text:99392 x1/1 Exp:EXP_DB5MS



Method 1613 - QC BLANK Results

LMB

Analytical Data Summary Sheet

Analyte	Amount (ppt)	EDL (ppt)	EMPC (ppt)	RT (min.)	Ratio	Qualifier
2,3,7,8--TCDD	ND	0.0011				
1,2,3,7,8-PeCDD	ND	0.0012				
1,2,3,4,7,8-HxCDD	ND	0.0015				
1,2,3,6,7,8-HxCDD	ND	0.0018				
1,2,3,7,8,9-HxCDD	ND	0.0015				
1,2,3,4,6,7,8-HpCDD	ND	0.0019				
OCDD	EMPC	0.0183	0.0046	44:16	1.04	
2,3,7,8--TCDF	ND	0.0011				
1,2,3,7,8-PeCDF	ND	0.0009				
2,3,4,7,8-PeCDF	ND	0.0008				
1,2,3,4,7,8-HxCDF	ND	0.0011				
1,2,3,6,7,8-HxCDF	ND	0.0011				
2,3,4,6,7,8-HxCDF	ND	0.0012				
1,2,3,7,8,9-HxCDF	ND	0.0014				
1,2,3,4,6,7,8-HpCDF	ND	0.0012				
1,2,3,4,7,8,9-HpCDF	ND	0.0016				
OCDF	ND	0.0040				
Total TCDDs	ND	0.0011				
Total PeCDDs	ND	0.0038				
Total HxCDDs	ND	0.0016				
Total HpCDDs	ND	0.0019				
Total TCDFs	ND	0.0011				
Total PeCDFs	ND	0.0009				
Total HxCDFs	ND	0.0012				
Total HpCDFs	ND	0.0014				
TEQ (ND=0)	0.0000		0.0000			ITEF
TEQ (ND=½)	0.0016		0.0016			ITEF

Laboratory Information

Sample ID:	WG5101-1
Extraction Date:	13-Nov-00
Analysis Date:	16-Nov-00

Sample Information

Matrix:	Aqueous
Weight / Volume:	500 mL
Solids / Lipids:	NA
Original pH :	5
Batch ID:	WG5101
Filename:	a15nov00a_2-2
Retchk:	a15nov00a-15
Begin ConCal:	a15nov00a-15
Initial Cal:	m1613-052699m

Method 1613 - QC BLANK Results

TN-580-AT0-656-B-ER

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	1	0.78	77.6	31:15	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1	0.79	79.2	34:07	1.57	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1	1.04	103.9	36:47	1.2	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1	0.93	93.3	36:47	1.2	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1	0.74	73.6	40:03	1.07	
$^{13}C_{12}$-OCDD	2	1.46	73.2	44:15	0.83	
$^{13}C_{12}$-2,3,7,8-TCDF	1	0.85	85.2	30:33	0.81	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1	0.81	81.2	33:18	1.65	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1	0.87	86.8	33:55	1.64	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1	0.87	86.7	36:05	0.49	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1	0.81	80.5	36:05	0.49	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1	0.79	79.2	36:34	0.49	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1	0.89	88.7	37:20	0.51	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1	0.80	80.3	38:48	0.47	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1	0.82	82.0	40:43	0.49	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.4	0.32	79.5	31:16		
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2			30:45	0.79	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2			36:34	0.49	

Laboratory Information

Sample ID: WG5101-1

Extraction Date: 13-Nov-00

Analysis Date: 16-Nov-00

Analyzed by: HML

Date: 20 Nov 00

Sample Information

Matrix: Aqueous

Weight / Volume: 500 mL

Solids / Lipids: NA

Original pH : 5

Batch ID: WG5101

Filename: a15nov00a_2-2

Retchk: a15nov00a-15

Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Reviewed by: [illegible]

Date: 11/20/00

OPUSquan 17-NOV-2000 Page 1

Filename ; a15nov00a_2
Sample ; 2
Acquired ; 16-NOV-00 05:54:13
Processed ; 16-NOV-00 15:21:29
Sample ID ; WG5101-1 x1/1
Cal Table ; m1613-052699m
Results Table ; m1613-111500a_2
Comments ;

Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	*	*	*	*;n;NotFnd		*	0.0537	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDD	*	*	*	*;n;NotFnd		*	0.0591	*;n;	*;n	no
Unk	1,2,3,4,7,8-HxCDD	1.73e+04	8.74e+03	8.51e+03	1.03;n;	36:41	0.016	0.0758	1;n;	1;n	no
Unk	1,2,3,6,7,8-HxCDD	3.58e+04	1.86e+04	1.72e+04	1.09;y;	36:49	0.038	0.0888	2;n;	1;n	no
Unk	1,2,3,7,8,9-HxCDD	5.78e+04	4.29e+04	1.49e+04	2.88;n;	37:01	0.053	0.0759	3;n;	1;n	no
Unk	1,2,3,4,6,7,8-HpCDD	*	*	*	*;n;NotFnd		*	0.0960	*;n;	*;n	no
Unk	OCDD	1.40e+05	7.12e+04	6.86e+04	1.04;n;	44:16	0.231	0.9130	1;n;	2;n	yes
Unk	2,3,7,8-TCDF	*	*	*	*;n;NotFnd		*	0.0559	*;n;	*;n	no
Unk	1,2,3,7,8-PeCDF	*	*	*	*;n;NotFnd		*	0.0466	*;n;	*;n	no
Unk	2,3,4,7,8-PeCDF	2.93e+04	1.90e+04	1.03e+04	1.84;n;	33:56	0.018	0.0417	2;n;	2;n	no
Unk	1,2,3,4,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0534	*;n;	*;n	no
Unk	1,2,3,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0549	*;n;	*;n	no
Unk	2,3,4,6,7,8-HxCDF	*	*	*	*;n;NotFnd		*	0.0604	*;n;	*;n	no
Unk	1,2,3,7,8,9-HxCDF	3.22e+04	2.08e+04	1.14e+04	1.83;n;	37:20	0.026	0.0684	2;n;	1;n	no
Unk	1,2,3,4,6,7,8-HpCDF	*	*	*	*;n;NotFnd		*	0.0597	*;n;	*;n	no
Unk	1,2,3,4,7,8,9-HpCDF	*	*	*	*;n;NotFnd		*	0.0819	*;n;	*;n	no
Unk	OCDF	*	*	*	*;n;NotFnd		*	0.2005	*;n;	*;n	no
ES/RT	13C-2,3,7,8-TCDD	1.03e+08	4.53e+07	5.73e+07	0.79;y;	31:15	38.780	0.0459	2178;y;	4549;y	no
ES	13C-1,2,3,7,8-PeCDD	8.84e+07	5.40e+07	3.44e+07	1.57;y;	34:07	39.592	0.1135	1401;y;	2383;y	no
ES	13C-1,2,3,4,7,8-HxCDD	9.58e+07	5.23e+07	4.35e+07	1.20;y;	36:47	51.930	0.0607	3299;y;	2295;y	no
ES	13C-1,2,3,6,7,8-HxCDD	9.58e+07	5.23e+07	4.35e+07	1.20;y;	36:47	46.645	0.0546	3299;y;	2295;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	7.25e+07	3.74e+07	3.51e+07	1.07;y;	40:03	36.775	0.0372	2258;y;	2646;y	no
ES	13C-OCDD	1.12e+08	5.10e+07	6.13e+07	0.83;y;	44:15	73.190	0.0796	1333;y;	2210;y	no
ES/RT	13C-2,3,7,8-TCDF	1.60e+08	7.16e+07	8.83e+07	0.81;y;	30:33	42.604	0.0294	3238;y;	3834;y	no
ES	13C-1,2,3,7,8-PeCDF	1.39e+08	8.69e+07	5.25e+07	1.65;y;	33:18	40.597	0.0884	2654;y;	1691;y	no
ES	13C-2,3,4,7,8-PeCDF	1.41e+08	8.78e+07	5.36e+07	1.64;y;	33:55	43.405	0.0933	2724;y;	1771;y	no
ES	13C-1,2,3,4,7,8-HxCDF	1.16e+08	3.85e+07	7.78e+07	0.49;y;	36:05	43.370	0.0537	1675;y;	3797;y	no
ES	13C-1,2,3,6,7,8-HxCDF	1.16e+08	3.85e+07	7.78e+07	0.49;y;	36:05	40.228	0.0498	1675;y;	3797;y	no
ES	13C-2,3,4,6,7,8-HxCDF	1.07e+08	3.51e+07	7.20e+07	0.49;y;	36:34	39.575	0.0532	1604;y;	3548;y	no
ES	13C-1,2,3,7,8,9-HxCDF	9.90e+07	3.33e+07	6.57e+07	0.51;y;	37:20	44.374	0.0646	1322;y;	2783;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	8.58e+07	2.75e+07	5.83e+07	0.47;y;	38:48	40.143	0.0595	1175;y;	2552;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	7.23e+07	2.39e+07	4.84e+07	0.49;y;	40:43	40.998	0.0722	898;y;	1821;y	no
JS	13C-1,2,3,4-TCDD	2.50e+08	1.10e+08	1.39e+08	0.79;y;	30:45	123.371	-	4384;y;	9054;y	no
JS	13C-1,2,3,7,8,9-HxCDD	2.15e+08	1.20e+08	9.56e+07	1.25;y;	37:01	130.614	-	7086;y;	4669;y	no
CS	37Cl-2,3,7,8-TCDD	4.66e+07	4.66e+07	-	-;-	31:16	15.905	0.0194	2936;y		no

	Conc	Empc	Flags
TCDF	0	0	FALSE
TCDD	0	0	FALSE
PeCDF	0	0	FALSE
PeCDD	0	0	FALSE
HxCDF	0	0	FALSE
HxCDD	0	0	FALSE
HpCDF	0	0	FALSE
HpCDD	0	0	FALSE

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Furans
Sample:	2	Number of Peaks Found:	2
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.1266
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.0559
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	25:58:00
Results Table:	m1613-111500a_2	End Window:	32:47:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	4.98E+04	34200	15600	2.18	n	30:46	0.028	S2N	3.4	y	1.4	n	n
	2	1.92E+04	6730	12500	0.54	n	31:17	0.011	S2N	0.9	n	1.4	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Tetra-Dioxins
Sample:	2	Number of Peaks Found:	1
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.181
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.0537
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	27:30:00
Results Table:	m1613-111500a_2	End Window:	32:25:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.73E+05	140000	33200	4.21	n	30:33	0.143	S2N	9	y	2.5	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn1
Sample:	2	Number of Peaks Found:	2
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.03
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:37:00
Results Table:	m1613-111500a_2	End Window:	31:57:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	3.32E+05	93800	239000	0.39	n	30:45	0.216	RT	7.3	y	21.2	y	n
	2	1.68E+05	50400	118000	0.43	n	31:15	0.109	RT	4.7	y	11.5	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Furans Fn2
Sample:	2	Number of Peaks Found:	2
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.096
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.0441
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	31:34:00
Results Table:	m1613-111500a_2	End Window:	34:42:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
2,3,4,7,8-PeCDF	1	2.93E+04	19000	10300	1.84	n	33:56	0.018	S2N	1.9	n	1.6	n	n
	2	3.89E+04	26800	12100	2.21	n	34:07	0.025	S2N	2.1	n	1.1	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Penta-Dioxins
Sample:	2	Number of Peaks Found:	2
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.0298
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.191
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	32:43:00
Results Table:	m1613-111500a_2	End Window:	34:28:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.74E+05	125000	49200	2.54	n	33:18	0	CF	14.5	y	5.5	y	n
	2	1.61E+05	116000	44700	2.6	n	33:55	0	CF	14.1	y	5.3	y	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Furans
Sample:	2	Number of Peaks Found:	15
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.2111
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.0593
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	34:55:00
Results Table:	m1613-111500a_2	End Window:	37:29:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	5.62E+04	47300	8900	5.32	n	36:48	0.042	S2N	3.2	y	1	n	n
	2	1.77E+04	14800	2890	5.12	n	36:53	0.013	S2N	1.3	n	0.4	n	n
	3	1.43E+05	92500	50700	1.83	n	37:02	0.108	S2N	5.8	y	3.3	y	n
1,2,3,7,8,9-HxCDF	4	3.22E+04	20800	11400	1.83	n	37:20	0.026	S2N	1.6	n	1.2	n	n
	5	1.75E+04	6120	11400	0.54	n	37:23	0.013	S2N	1.1	n	1.2	n	n
	6	3.36E+03	1650	1710	0.97	n	37:28	0.003	S2N	0.2	n	0.3	n	n
	7	6.66E+03	3050	3610	0.84	n	37:31	0.005	RT	0.7	n	0.3	n	n
	8	6.90E+03	3300	3610	0.91	n	37:33	0.005	RT	0.4	n	0.3	n	n
	9	7.27E+03	3620	3650	0.99	n	37:38	0.005	RT	0.6	n	0.3	n	n

	10	5.90E+03	2250	3650	0.62	n	37:40	0.004	RT	0.4	n	0.3	n	n
	11	1.34E+04	9020	4400	2.05	n	37:44	0.01	RT	0.9	n	0.6	n	n
	12	1.14E+04	4700	6720	0.7	n	37:46	0.009	RT	0.9	n	0.7	n	n
	13	9.64E+03	4080	5560	0.73	n	37:52	0.007	RT	0.4	n	0.7	n	n
	14	7.30E+03	1860	5430	0.34	n	37:56	0.005	RT	0.3	n	0.7	n	n
	15	5.54E+03	2130	3410	0.62	n	37:59	0.004	RT	0.3	n	0.5	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hexa-Dioxins
Sample:	2	Number of Peaks Found:	20
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.0787
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.0799
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	35:25:00
Results Table:	m1613-111500a_2	End Window:	37:06:00

Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.30E+05	104000	25700	4.06	n	35:59	0.126	S2N	8.9	y	2.9	n	n
	2	1.76E+05	123000	53700	2.28	n	36:05	0.171	S2N	9.3	y	3.5	y	n
	3	1.46E+05	119000	27300	4.35	n	36:34	0.141	S2N	9.2	y	2.9	n	n
1,2,3,4,7,8-HxCDD	4	1.73E+04	8740	8510	1.03	n	36:41	0.016	S2N	0.9	n	1	n	n
1,2,3,6,7,8-HxCDD	5	3.58E+04	18600	17200	1.09	y	36:49	0.038	S2N	1.6	n	1.2	n	n
	6	2.47E+04	18500	6110	3.04	n	36:53	0.024	S2N	1.2	n	1	n	n
	7	1.84E+04	14900	3420	4.37	n	36:56	0.018	S2N	1.1	n	0.5	n	n
1,2,3,7,8,9-HxCDD	8	5.78E+04	42900	14900	2.88	n	37:01	0.053	S2N	2.5	n	1.5	n	n
	9	2.24E+04	13200	9150	1.44	n	37:06	0.022	S2N	1.1	n	1.3	n	n
	10	1.78E+05	139000	39000	3.55	n	37:20	0.172	RT	8.6	y	3.1	y	n
	11	1.01E+04	3260	6810	0.48	n	37:31	0.01	RT	0.4	n	0.8	n	n
	12	1.29E+04	3500	9350	0.37	n	37:38	0.012	RT	0.4	n	0.8	n	n
	13	1.26E+04	3220	9350	0.34	n	37:40	0.012	RT	0.4	n	0.8	n	n
	14	2.36E+04	11200	12300	0.91	n	37:43	0.023	RT	1	n	1.1	n	n
	15	9.65E+03	5400	4250	1.27	y	37:46	0.009	RT	0.6	n	0.5	n	n
	16	7.56E+03	3460	4100	0.84	n	37:49	0.007	RT	0.4	n	0.5	n	n
	17	5.60E+03	2220	3380	0.66	n	37:51	0.005	RT	0.3	n	0.5	n	n
	18	1.20E+04	7390	4650	1.59	n	37:55	0.012	RT	1	n	0.5	n	n
	19	9.99E+03	4730	5260	0.9	n	37:57	0.01	RT	0.5	n	0.8	n	n
	20	5.86E+03	3780	2080	1.81	n	38:01	0.006	RT	0.4	n	0.3	n	n

Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Furans
Sample:	2	Number of Peaks Found:	12
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.4605
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.0698
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	38:37:00
Results Table:	m1613-111500a_2	End Window:	40:48:00

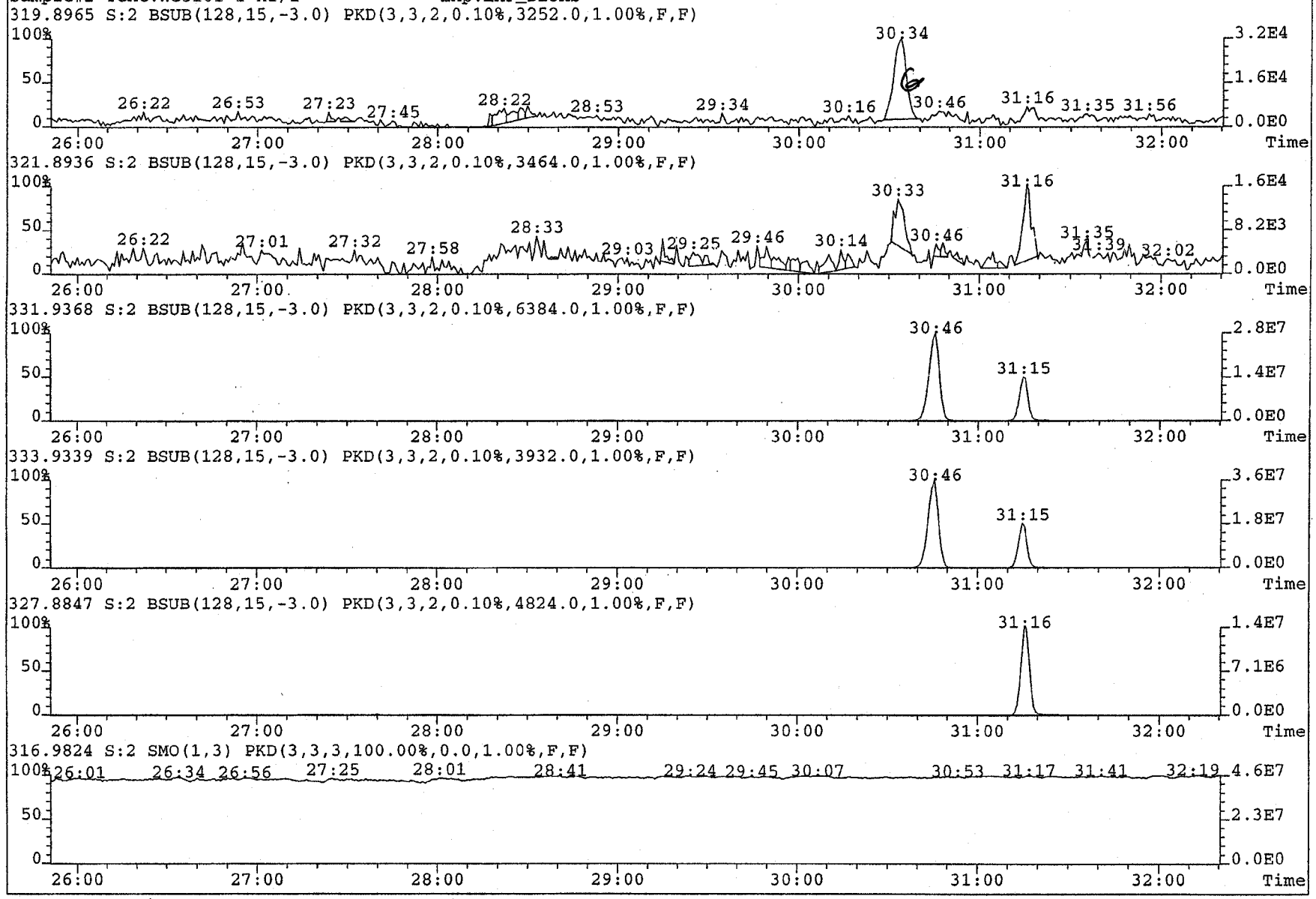
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?

1	2.51E+04	13100	12000	1.09	y	39:26	0.022	S2N	1.4	n	1	n	n
2	7.11E+03	1720	5380	0.32	n	39:35	0.006	S2N	0.3	n	0.6	n	n
3	1.24E+04	6640	5760	1.15	y	39:39	0.011	S2N	0.5	n	1	n	n
4	6.99E+03	2550	4440	0.57	n	39:43	0.006	S2N	0.6	n	0.6	n	n
5	1.54E+04	4370	11000	0.4	n	39:51	0.013	S2N	0.7	n	1.8	n	n
6	1.76E+04	6340	11300	0.56	n	39:54	0.015	S2N	0.7	n	1.1	n	n
7	2.46E+04	13400	11300	1.19	y	39:57	0.021	S2N	1.2	n	1.1	n	n
8	5.18E+04	42000	9740	4.31	n	40:03	0.045	S2N	1.8	n	1.6	n	n
9	1.90E+04	8990	10000	0.9	y	40:08	0.016	S2N	1.1	n	1.7	n	n
10	1.40E+04	7000	6980	1	y	40:11	0.012	S2N	0.9	n	1.3	n	n
11	9.77E+03	6100	3670	1.66	n	40:13	0.008	S2N	0.7	n	0.7	n	n
12	1.23E+04	6010	6270	0.96	y	40:17	0.011	S2N	0.7	n	0.9	n	n

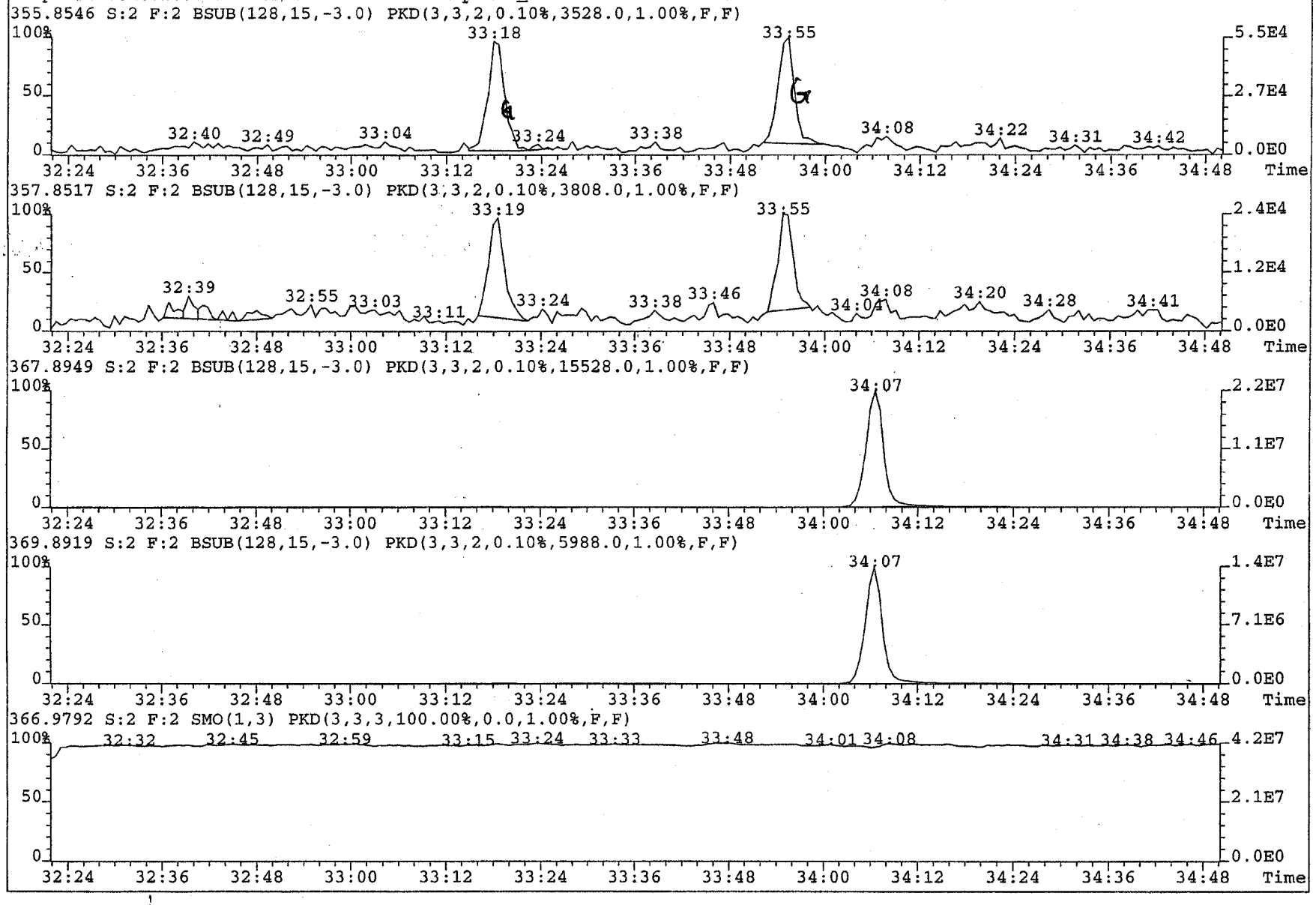
Filename:	a15nov00a_2	Name of Homolog Group:	Total Hepta-Dioxins
Sample:	2	Number of Peaks Found:	8
Acquired:	16-NOV-00 05:54:13	RRF Used For Totals:	1.0066
Processed:	16-NOV-00 15:21:29	Detection Limit:	0.096
Sample ID:	WG5101-1 x1/1		
Cal Table:	m1613-052699m	Begin Window:	39:01:00
Results Table:	m1613-111500a_2	End Window:	39:21:00

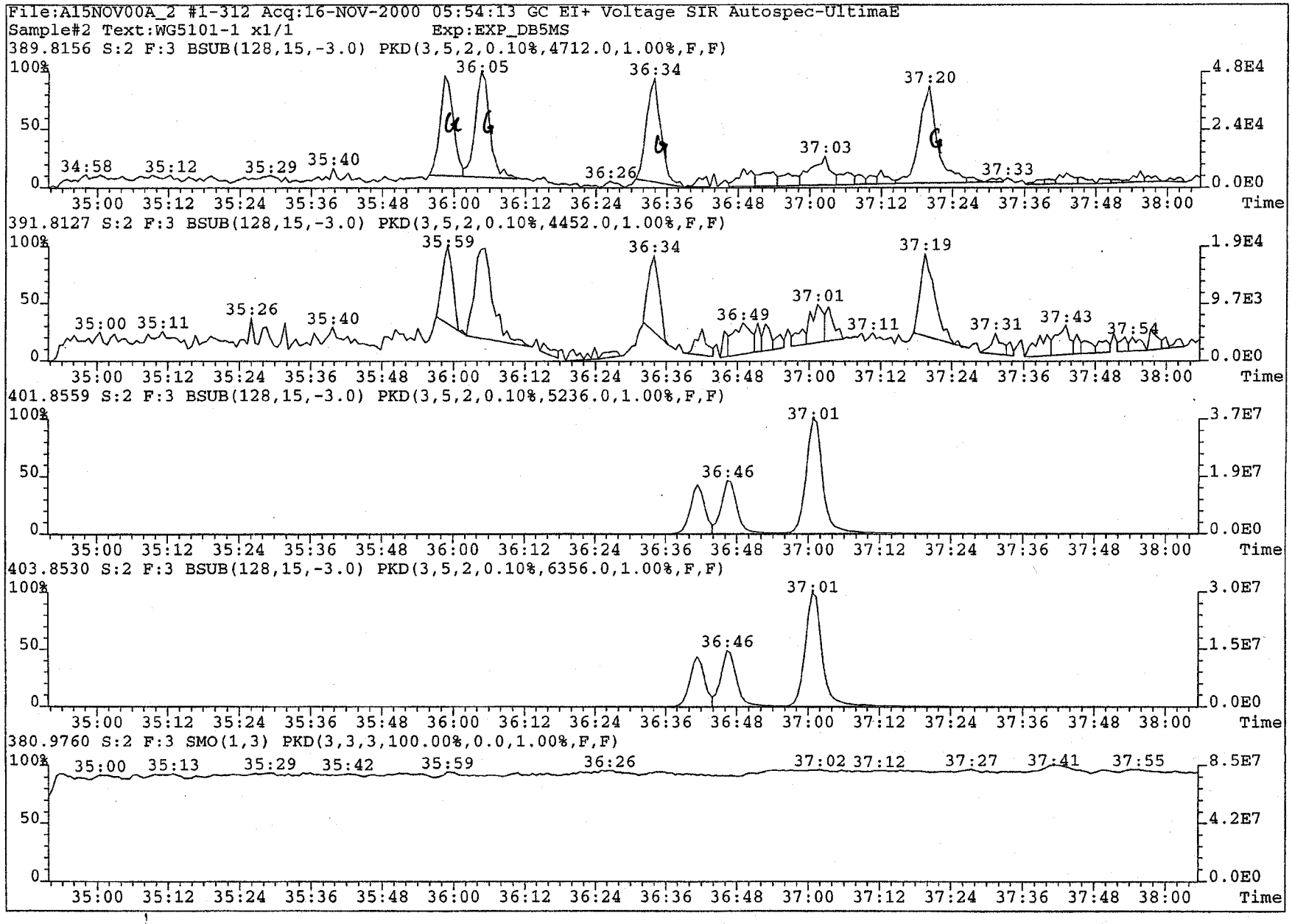
Name	#	Response	Ion 1	Ion 2	RA	?	RT	Conc	Status	S/N1	?	S/N2	?	Mod?
	1	1.15E+05	88400	26800	3.3	n	38:48	0.158	RT	9.2	y	2.9	n	n
	2	5.85E+03	3820	2040	1.87	n	38:58	0.008	RT	0.5	n	0.5	n	n
	3	3.26E+04	18700	13900	1.35	n	39:07	0.045	S2N	1.8	n	1.9	n	n
	4	1.20E+04	5090	6940	0.73	n	39:20	0.016	S2N	0.5	n	0.8	n	n
	5	1.03E+04	4030	6290	0.64	n	39:24	0.014	RT	0.6	n	1	n	n
	6	1.04E+04	2530	7840	0.32	n	39:30	0.014	RT	0.6	n	1	n	n
	7	1.12E+05	85100	27100	3.14	n	40:43	0.154	RT	8.7	y	2.8	n	n
	8	9.20E+03	4080	5110	0.8	n	40:50	0.013	RT	0.7	n	0.7	n	n

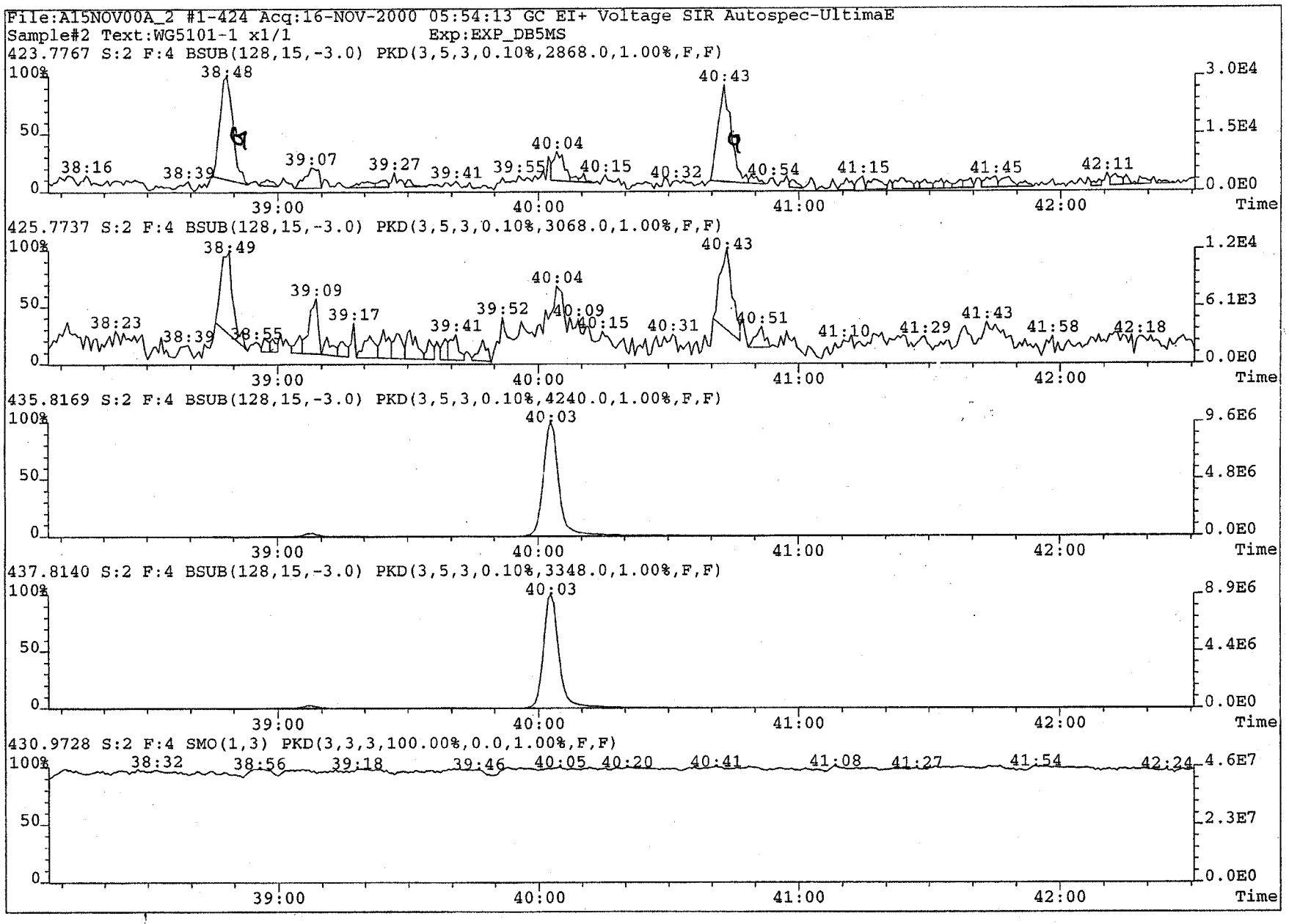
File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS

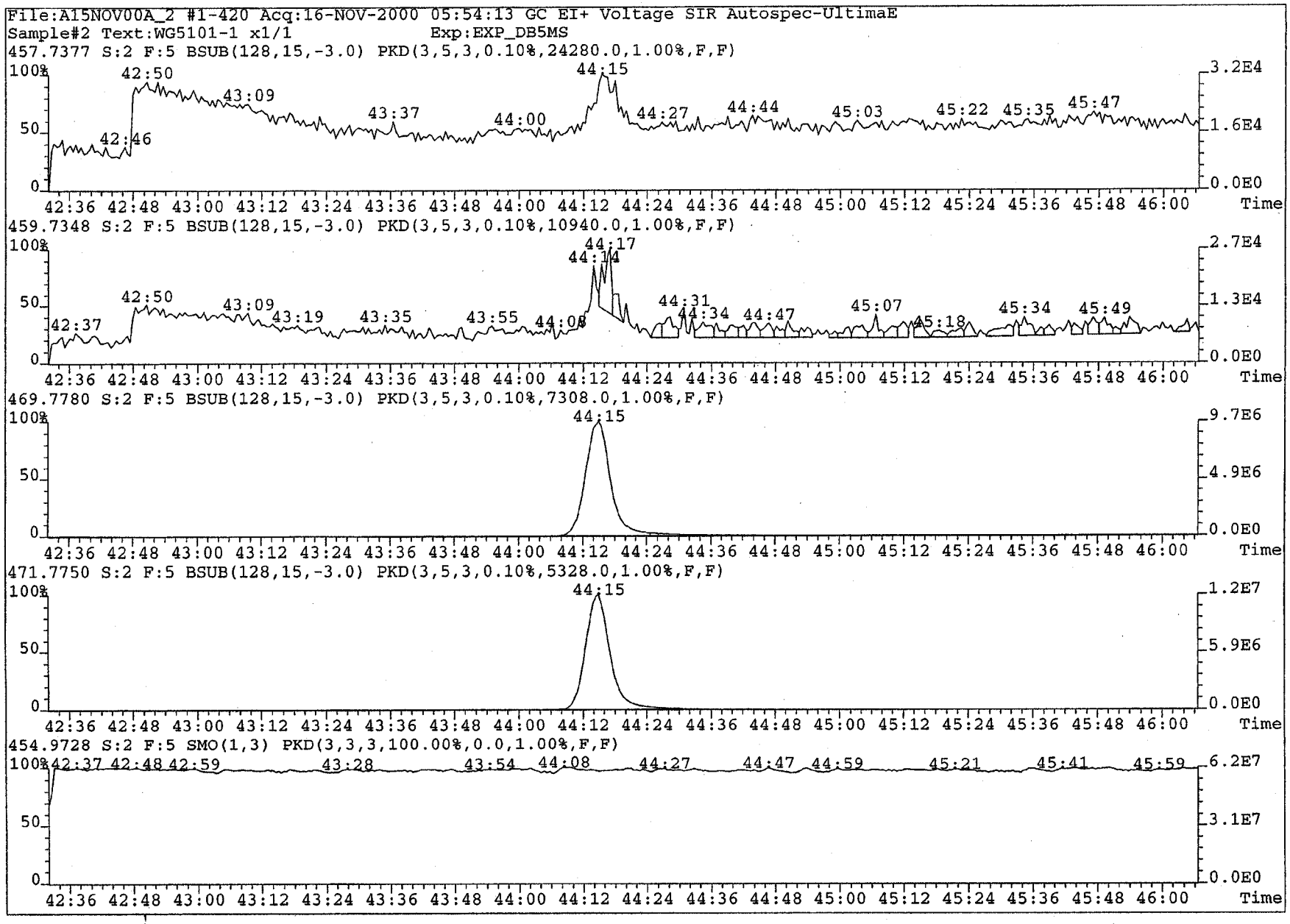


File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS

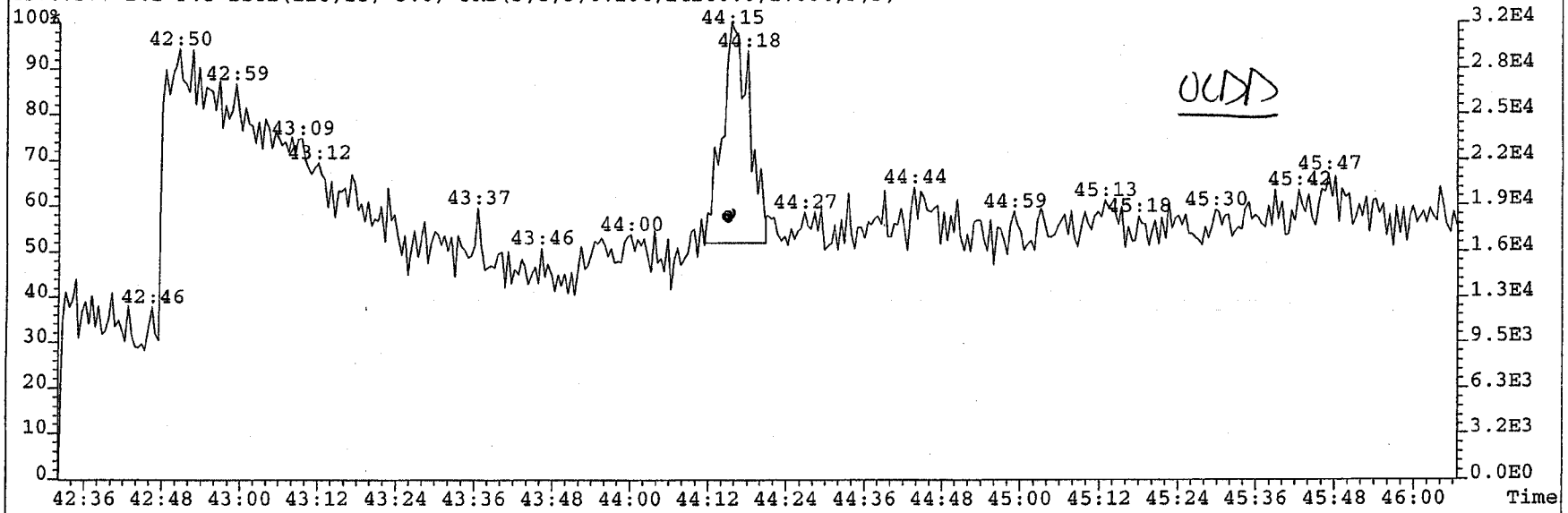



File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS
389.8156 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4712.0,1.00%,F,F)
391.8127 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4452.0,1.00%,F,F)
401.8559 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5236.0,1.00%,F,F)
403.8530 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6356.0,1.00%,F,F)
380.9760 S:2 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

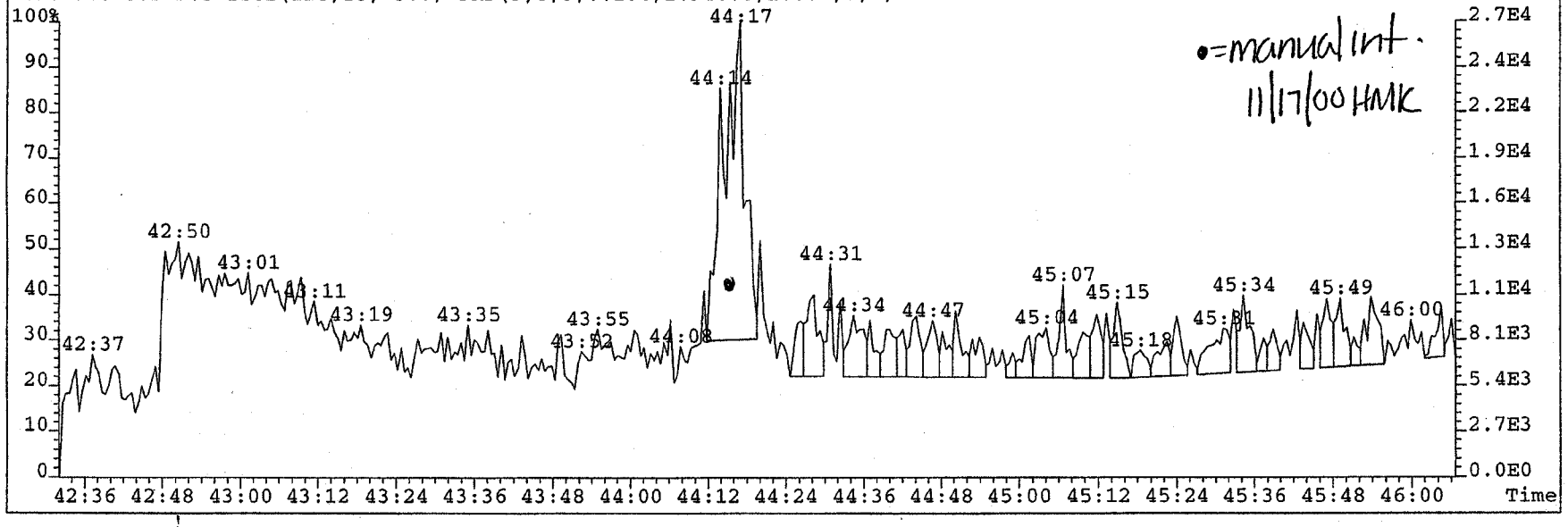

File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS
423.7767 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2868.0,1.00%,F,F)
38:48
40:43
38:16
38:39
39:07
39:27
39:41
39:55
40:04
40:15
40:32
40:54
41:15
41:45
42:11
3.0E4
1.5E4
0.0E0
Time
425.7737 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3068.0,1.00%,F,F)
38:49
40:43
39:09
40:04
38:23
38:39
38:55
39:17
39:41
39:52
40:09
40:15
40:31
40:51
41:10
41:29
41:43
41:58
42:18
1.2E4
6.1E3
0.0E0
Time
435.8169 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4240.0,1.00%,F,F)
40:03
9.6E6
4.8E6
0.0E0
Time
437.8140 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3348.0,1.00%,F,F)
40:03
8.9E6
4.4E6
0.0E0
Time
430.9728 S:2 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:32
38:56
39:18
39:46
40:05
40:20
40:41
41:08
41:27
41:54
42:24
4.6E7
2.3E7
0.0E0
Time
100%
50
0
39:00
40:00
41:00
42:00


File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS
457.7377 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,24280.0,1.00%,F,F)
459.7348 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,10940.0,1.00%,F,F)
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7308.0,1.00%,F,F)
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5328.0,1.00%,F,F)
454.9728 S:2 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

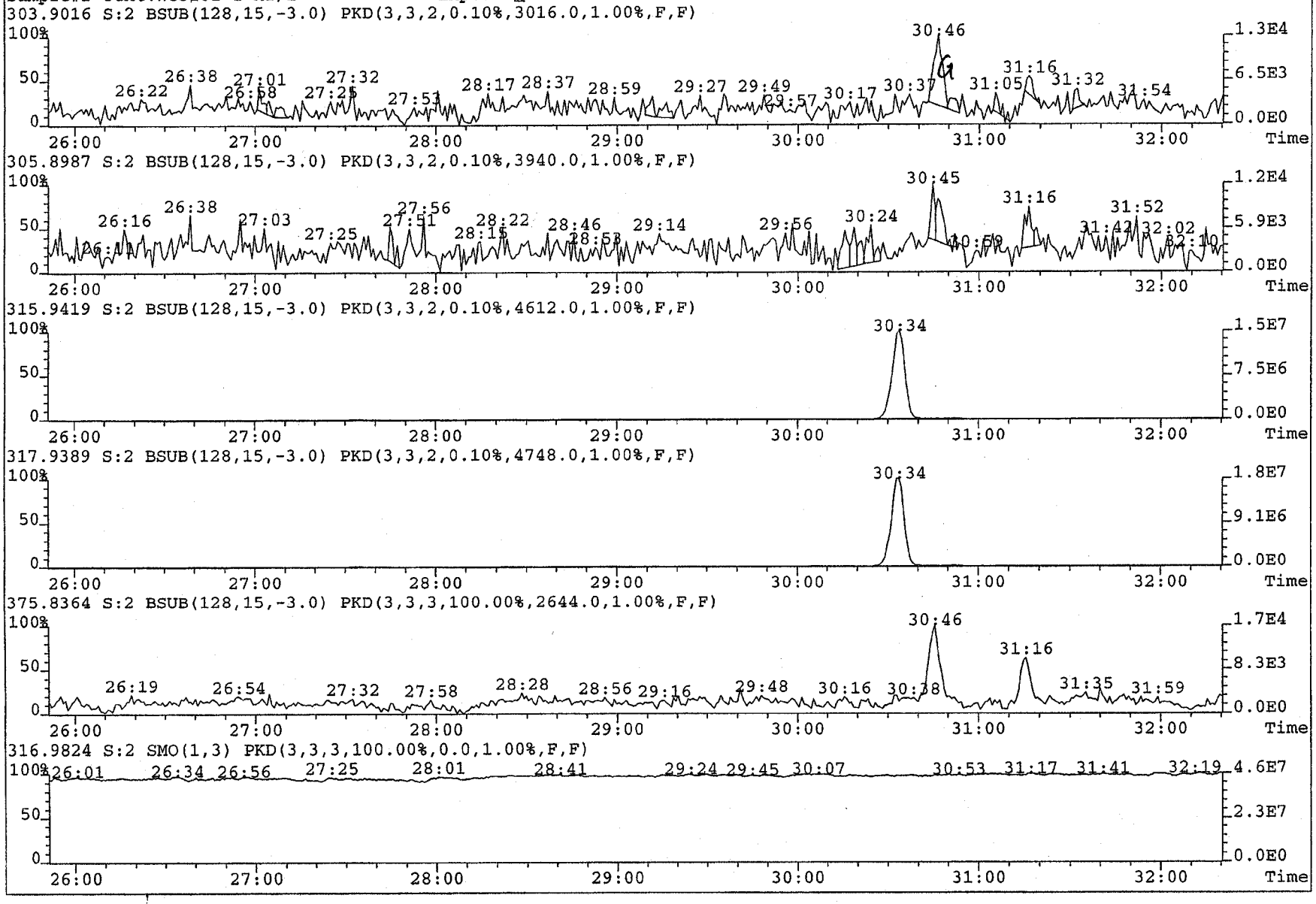
File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS
457.7377 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,24280.0,1.00%,F,F)



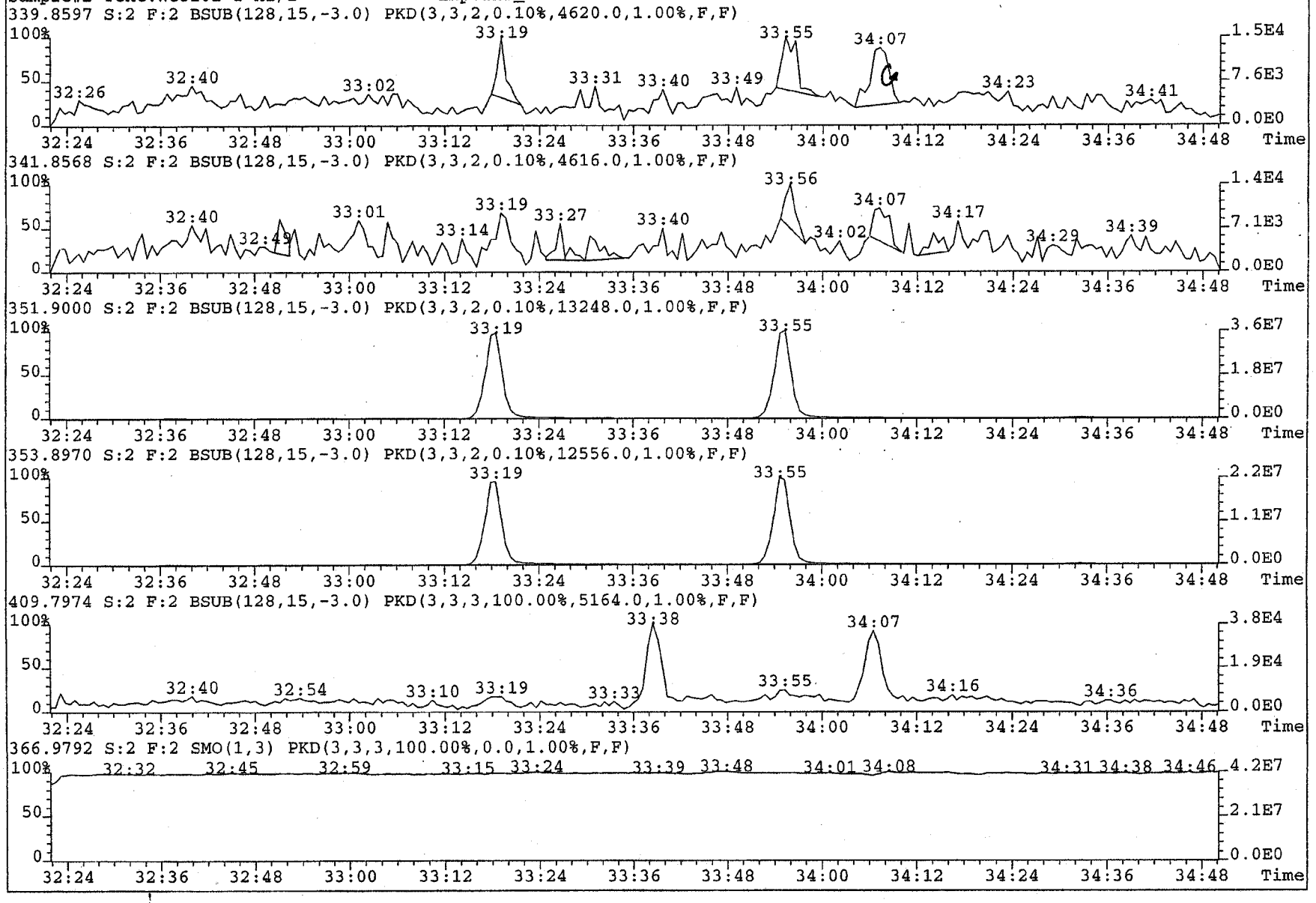
459.7348 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,10940.0,1.00%,F,F)

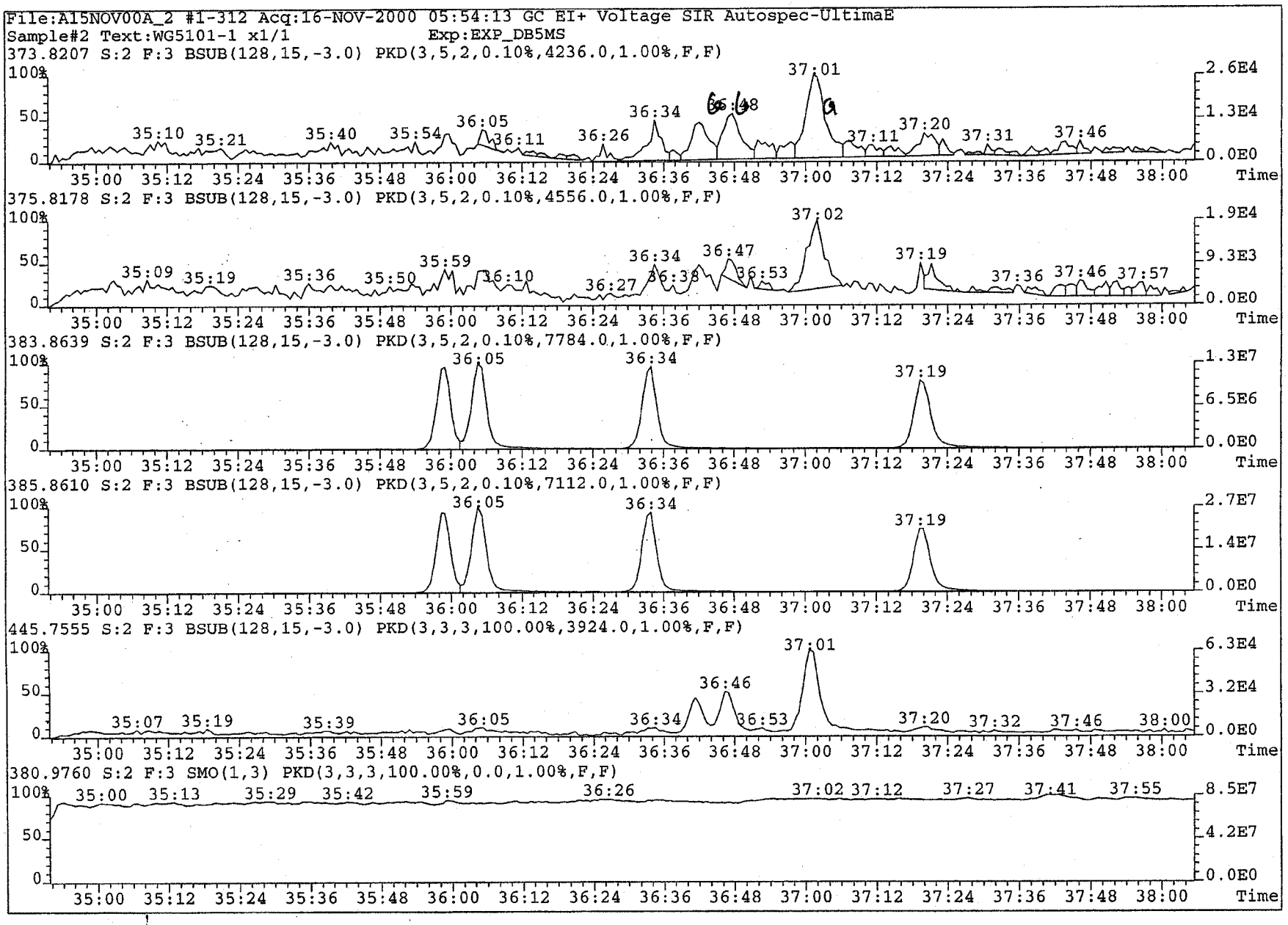


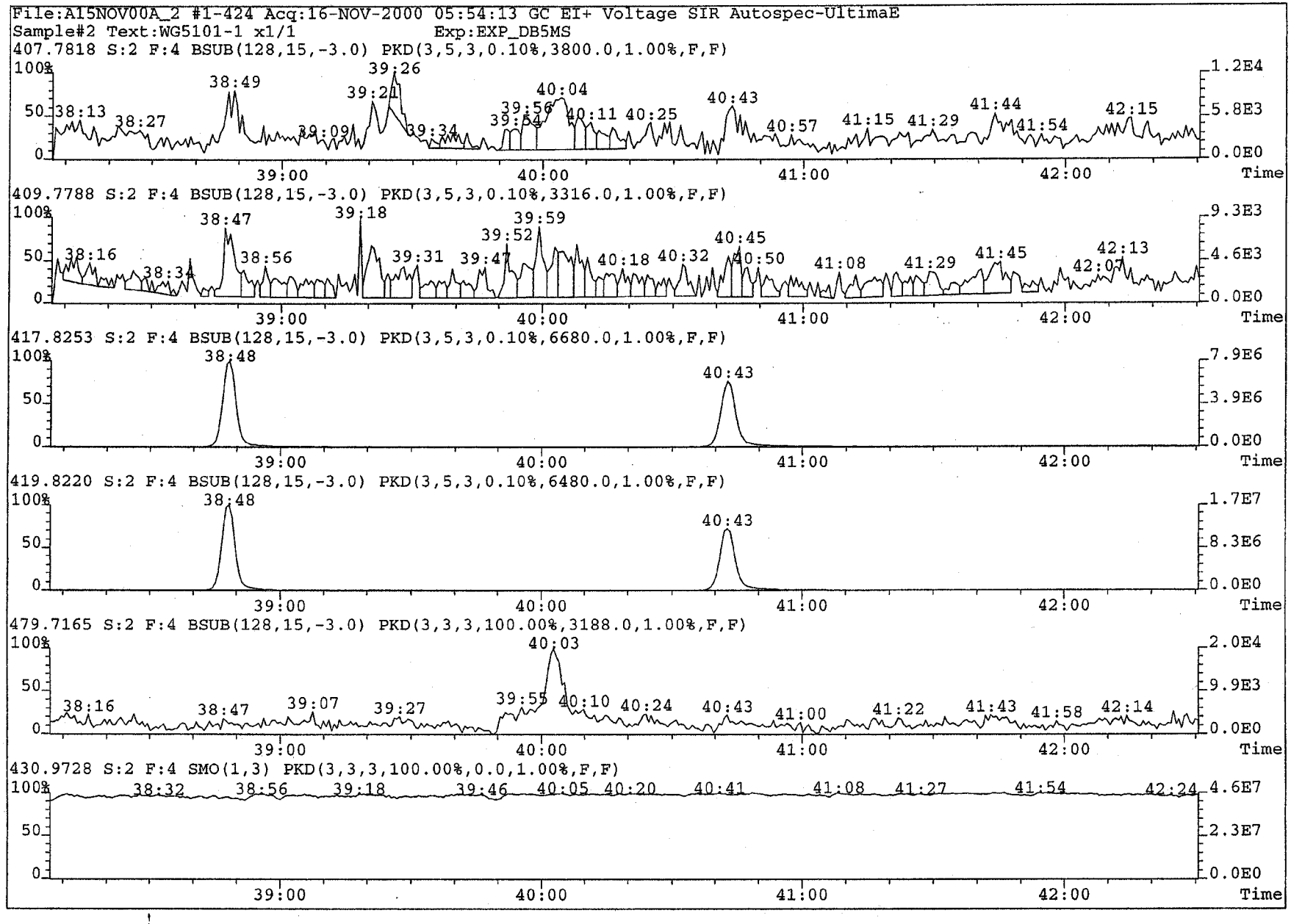
File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS



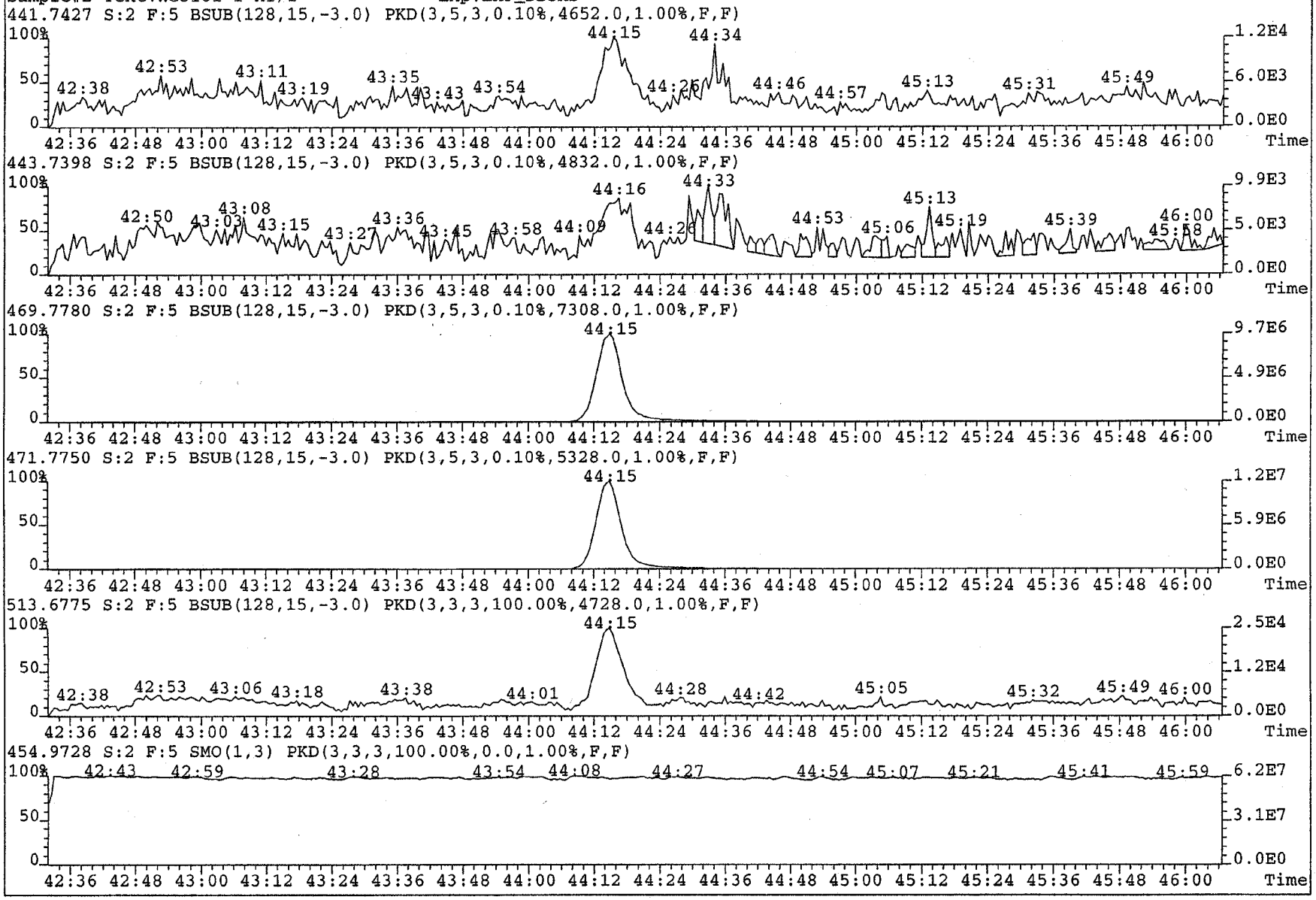
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS



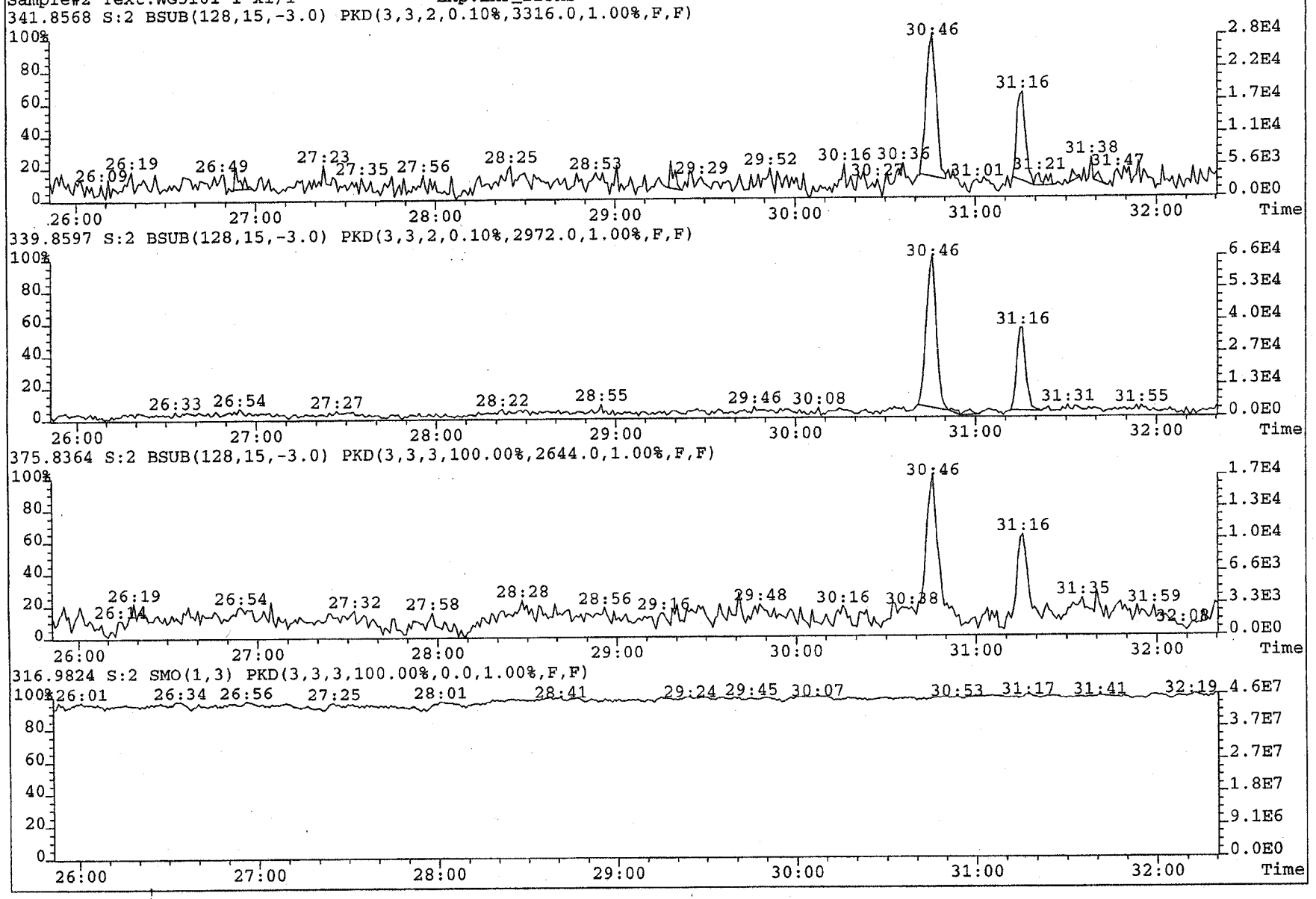

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS
373.8207 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4236.0,1.00%,F,F)
375.8178 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4556.0,1.00%,F,F)
383.8639 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7784.0,1.00%,F,F)
385.8610 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7112.0,1.00%,F,F)
445.7555 S:2 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3924.0,1.00%,F,F)
380.9760 S:2 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time


File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS
407.7818 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3800.0,1.00%,F,F)
409.7788 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3316.0,1.00%,F,F)
417.8253 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6680.0,1.00%,F,F)
419.8220 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6480.0,1.00%,F,F)
479.7165 S:2 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3188.0,1.00%,F,F)
430.9728 S:2 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100%
50
0
39:00
40:00
41:00
42:00
Time
1.2E4
5.8E3
0.0E0
9.3E3
4.6E3
7.9E6
3.9E6
1.7E7
8.3E6
2.0E4
9.9E3
4.6E7
2.3E7

File:A15NOV00A_2 #1-420 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS



File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 05:54:13 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:WG5101-1 x1/1 Exp:EXP_DB5MS



Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked	AMT	REC	Range pg/ul		Flag
	pg/ul	pg/ul	%	Lower	Upper	
2,3,7,8-TCDD	5.00	4.60	91.9	3.4	7.9	
1,2,3,7,8-PeCDD	12.5	12.5	100	8.8	17.8	
1,2,3,4,7,8-HxCDD	12.5	9.23	73.9	8.8	20.5	
1,2,3,6,7,8-HxCDD	12.5	10.5	84.2	9.5	16.7	
1,2,3,7,8,9-HxCDD	12.5	10.1	81.0	8.0	20.3	
1,2,3,4,6,7,8-HpCDD	12.5	12.0	96.2	8.8	17.5	
OCDD	25.0	21.8	87.0	19.5	36.0	
2,3,7,8-TCDF	5.00	4.06	81.2	3.8	7.9	
1,2,3,7,8-PeCDF	12.5	11.2	89.7	10.0	16.8	
2,3,4,7,8-PeCDF	12.5	11.1	88.4	8.5	20.0	
1,2,3,4,7,8-HxCDF	12.5	10.5	84.2	9.0	16.8	
1,2,3,6,7,8-HxCDF	12.5	11.4	91.0	10.5	16.3	
2,3,4,6,7,8-HxCDF	12.5	12.3	98.0	8.8	19.5	
1,2,3,7,8,9-HxCDF	12.5	10.3	82.7	9.8	16.3	
1,2,3,4,6,7,8-HpCDF	12.5	10.9	87.4	10.3	15.3	
1,2,3,4,7,8,9-HpCDF	12.5	10.1	80.4	9.8	17.3	
OCDF	25.0	21.9	87.7	18.5	36.5	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	WG5101
Extraction Date:	13-Nov-00
Analysis Date:	16-NOV-00
Method:	1613

File Information

OPR Filename :	a15nov00a_2-1
Retchk:	a15nov00a-15
Begin ConCal:	a15nov00a-15
Initial Cal:	m1613-052699m

Sample Information

Matrix: Water

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Spiked pg/ul	AMT pg/ul	REC %	Range pg/ul Lower	Range pg/ul Upper	Flag
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	50.0	30.6	61.2	10	87.5	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	50.0	36.4	72.8	10.5	113.5	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	50.0	51.2	102	10.5	96.5	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	50.0	46.0	91.9	12.5	81.5	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	50.0	36.6	73.3	13	83	
$^{13}C_{12}$-OCDD	100	68.2	68.2	13	198.5	
$^{13}C_{12}$-2,3,7,8-TCDF	50.0	34.3	68.6	11	76	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	50.0	35.4	70.9	10.5	96	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	50.0	39.6	79.3	6.5	164	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	50.0	41.9	83.8	9.5	101	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	50.0	38.9	77.8	10.5	79.5	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	50.0	38.4	76.7	22	88	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	50.0	43.1	86.2	8.5	102.5	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	50.0	38.9	77.8	10.5	79	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	50.0	41.9	83.7	10	93	
Cleanup Standards						
$^{37}C_{14}$-2,3,7,8-TCDD	20.0	16.6	83.2	6.2	38.2	

QC Information

OPR Project No: WG5101
Extraction Date: 13-Nov-00
Analysis Date: 16-NOV-00
Method: 1613

File Information

OPR Filename : a15nov00a_2-1
Retchk: a15nov00a-15
Begin ConCal: a15nov00a-15

Initial Cal: m1613-052699m

Sample Information

Matrix: Water

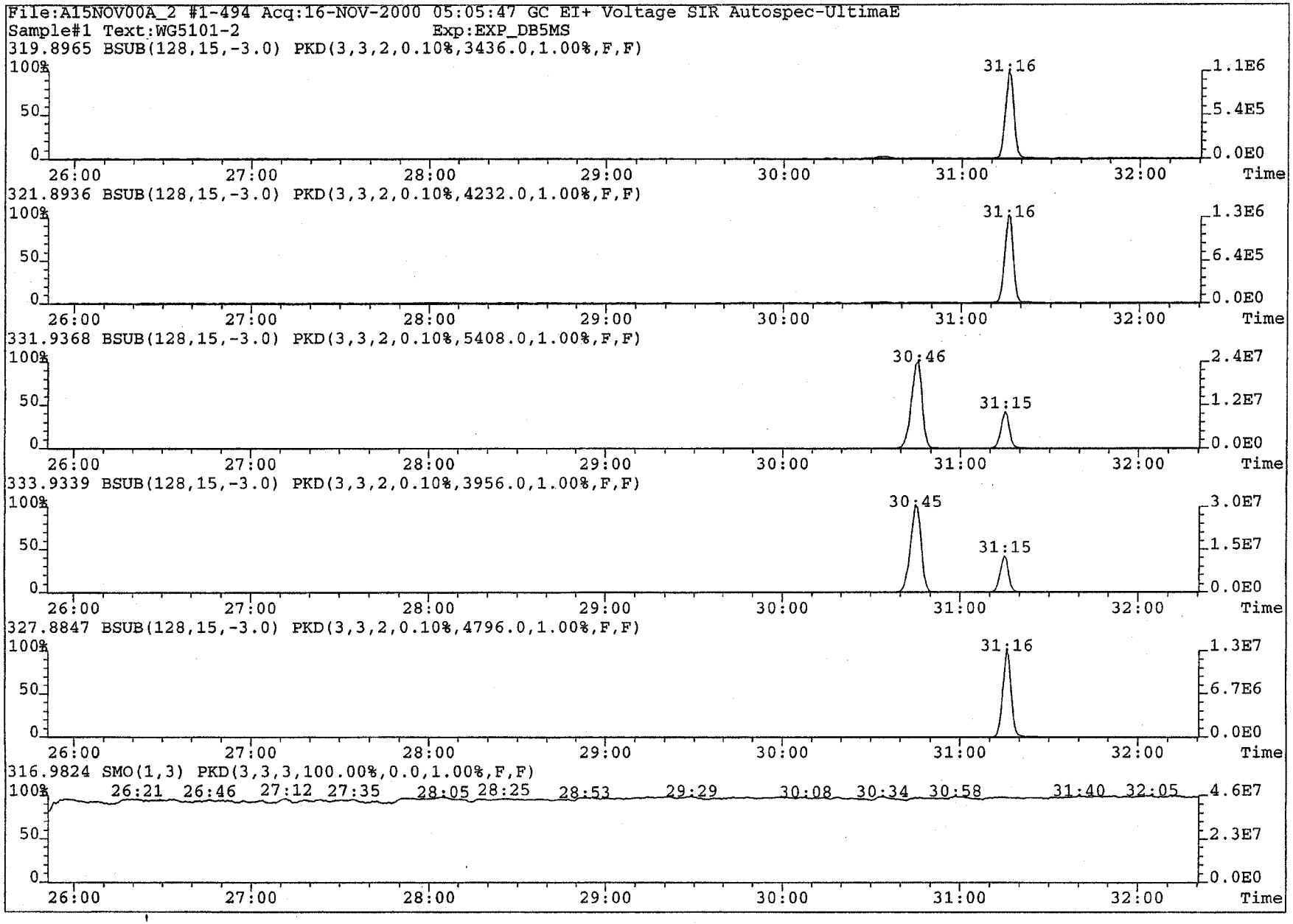
Reviewed by: [illegible]

Date Reviewed: 11/20/00

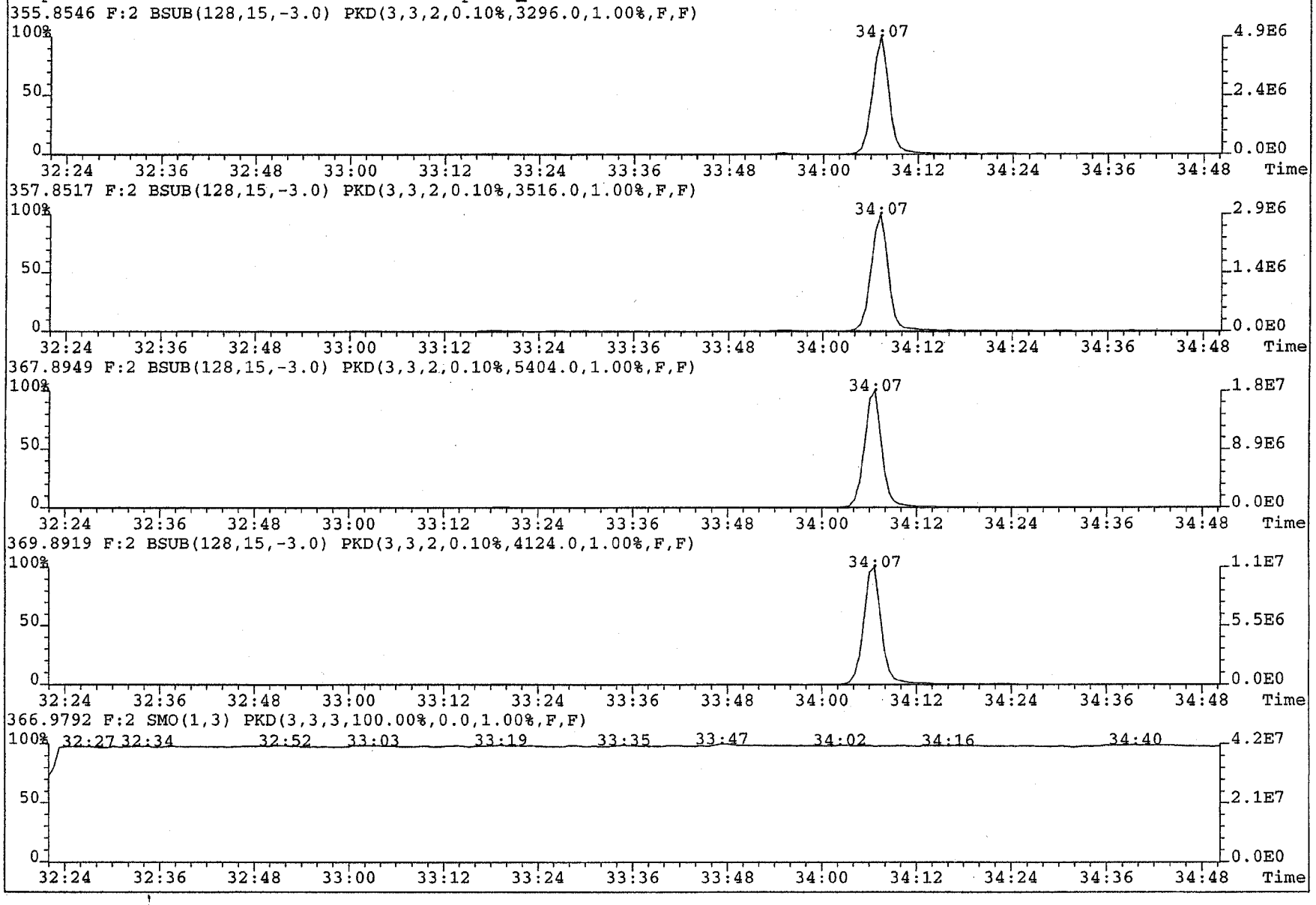
OPUSquan 16-NOV-2000 Page 1

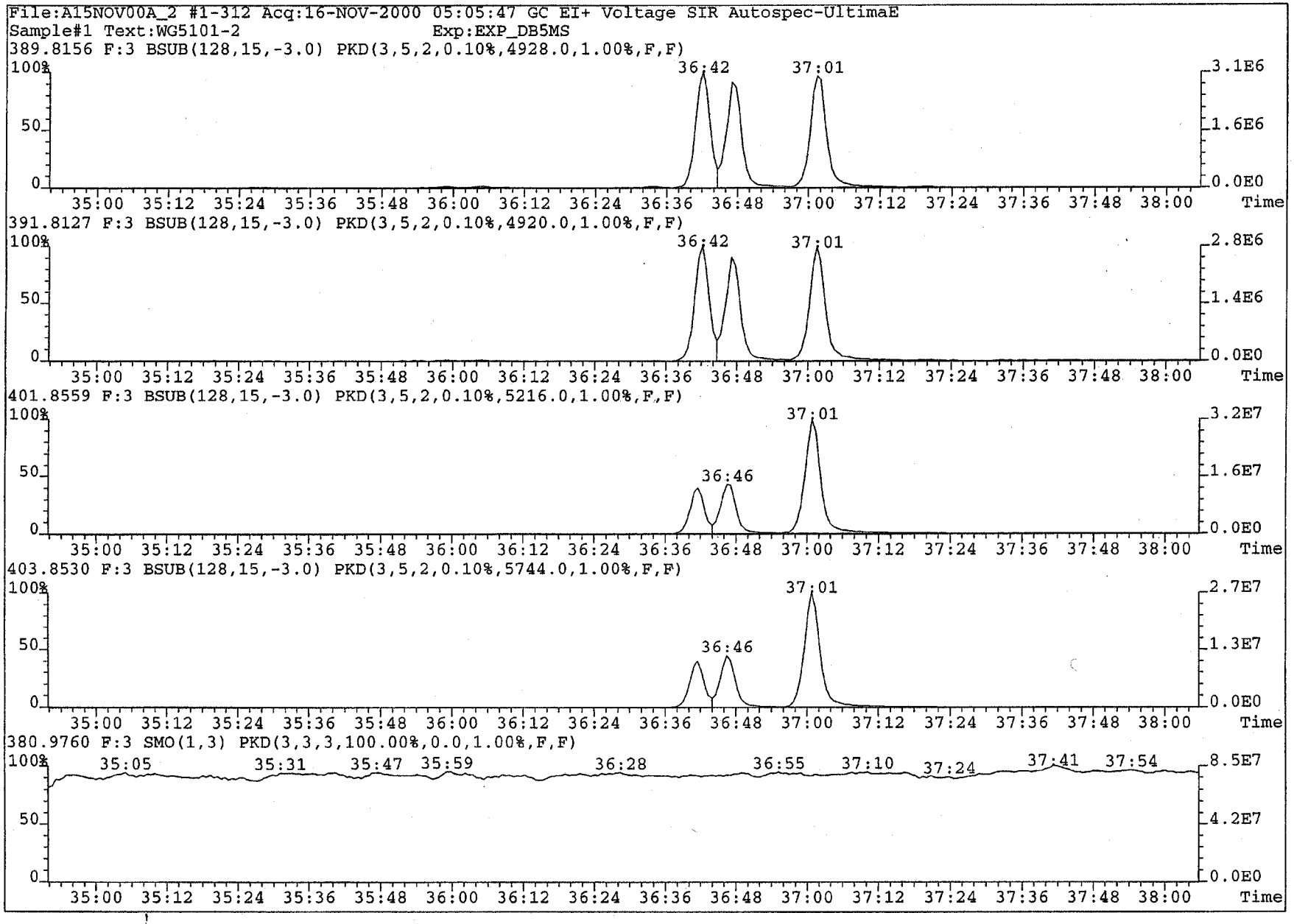
Filename ; a15nov00a_2
Sample ; 1
Acquired ; 16-NOV-00 05:05:47
Processed ; 16-NOV-00 15:21:28
Sample ID ; WG5101-2
Cal Table ; m1613-052699m
Results Table ; M1613-111500A_2
Comments ;

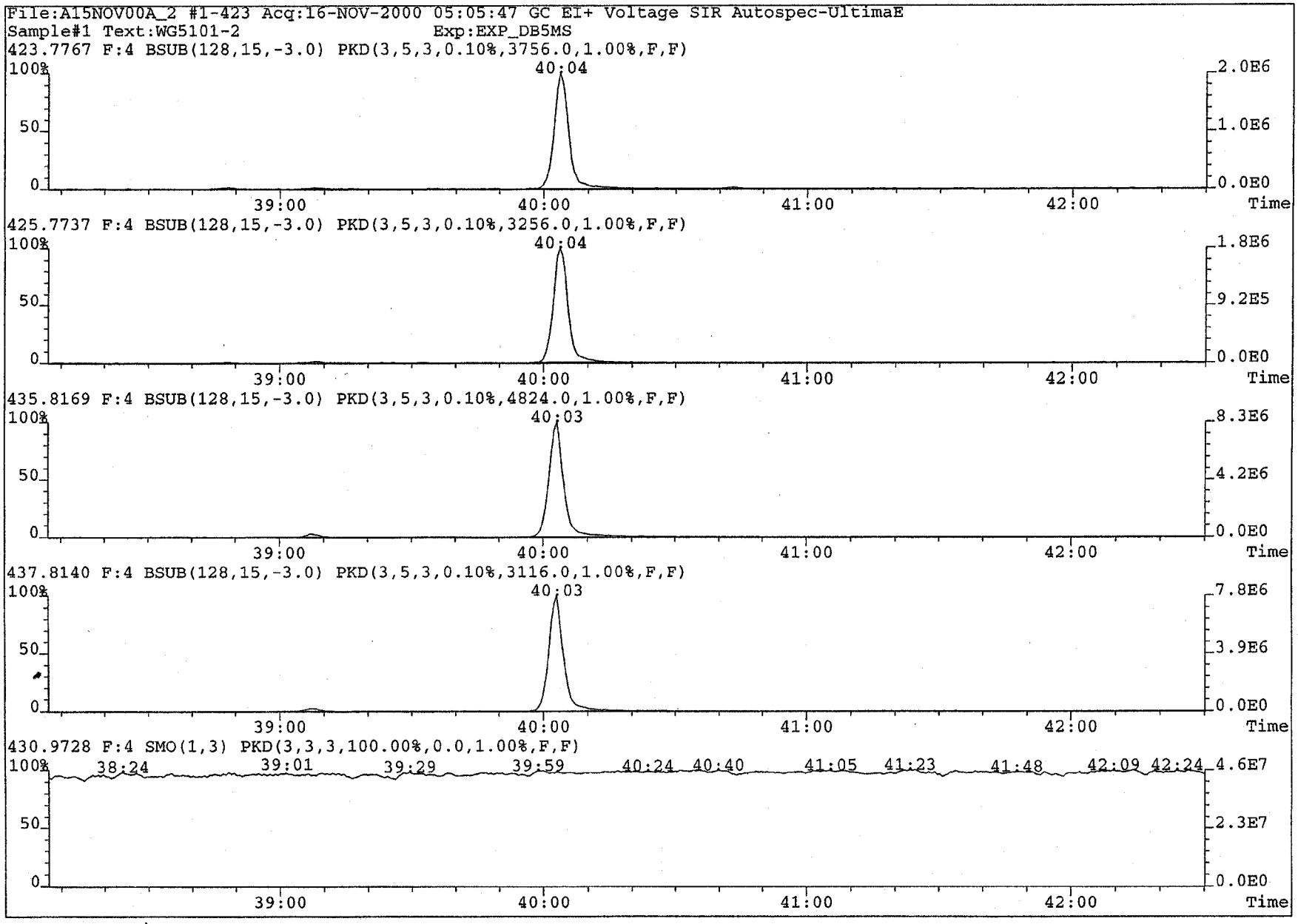
Typ	Name	Resp	Ion 1	Ion 2	RA;?;	RT	Conc	DL	S/N1;?;	S/N2;?	mod?
Unk	2,3,7,8-TCDD	7.73e+06	3.45e+06	4.28e+06	0.81;y;	31:16	9.190	0.0864	312;y;	303;y	no
Unk	1,2,3,7,8-PeCDD	1.84e+07	1.15e+07	6.98e+06	1.64;y;	34:07	25.079	0.0687	1474;y;	816;y	no
Unk	1,2,3,4,7,8-HxCDD	1.65e+07	8.73e+06	7.73e+06	1.13;y;	36:42	18.463	0.0998	633;y;	564;y	no
Unk	1,2,3,6,7,8-HxCDD	1.60e+07	8.61e+06	7.42e+06	1.16;y;	36:48	21.059	0.1169	578;y;	510;y	no
Unk	1,2,3,7,8,9-HxCDD	1.80e+07	9.57e+06	8.46e+06	1.13;y;	37:02	20.239	0.0999	612;y;	559;y	no
Unk	1,2,3,4,6,7,8-HpCDD	1.45e+07	7.56e+06	6.95e+06	1.09;y;	40:04	24.056	0.1298	539;y;	564;y	no
Unk	OCDD	2.03e+07	9.15e+06	1.12e+07	0.82;y;	44:16	43.506	1.1618	80;y;	201;y	no
Unk	2,3,7,8-TCDF	1.03e+07	4.53e+06	5.81e+06	0.78;y;	30:35	8.116	0.0808	284;y;	339;y	no
Unk	1,2,3,7,8-PeCDF	2.53e+07	1.55e+07	9.78e+06	1.58;y;	33:19	22.420	0.0837	970;y;	654;y	no
Unk	2,3,4,7,8-PeCDF	2.85e+07	1.75e+07	1.11e+07	1.58;y;	33:55	22.108	0.0712	1097;y;	744;y	no
Unk	1,2,3,4,7,8-HxCDF	2.43e+07	1.32e+07	1.12e+07	1.18;y;	35:59	21.054	0.0677	1125;y;	976;y	no
Unk	1,2,3,6,7,8-HxCDF	2.56e+07	1.36e+07	1.20e+07	1.13;y;	36:05	22.741	0.0696	1014;y;	992;y	no
Unk	2,3,4,6,7,8-HxCDF	2.44e+07	1.29e+07	1.14e+07	1.13;y;	36:35	24.508	0.0747	1008;y;	929;y	no
Unk	1,2,3,7,8,9-HxCDF	2.10e+07	1.13e+07	9.73e+06	1.16;y;	37:21	20.666	0.0843	792;y;	725;y	no
Unk	1,2,3,4,6,7,8-HpCDF	2.21e+07	1.15e+07	1.05e+07	1.10;y;	38:49	21.838	0.1106	655;y;	500;y	no
Unk	1,2,3,4,7,8,9-HpCDF	1.79e+07	9.39e+06	8.54e+06	1.10;y;	40:44	20.102	0.1475	477;y;	369;y	no
Unk	OCDF	2.51e+07	1.17e+07	1.35e+07	0.87;y;	44:34	43.848	0.2486	503;y;	577;y	no
ES/RT	13C-2,3,7,8-TCDD	7.12e+07	3.16e+07	3.96e+07	0.80;y;	31:15	30.617	0.0496	1852;y;	3167;y	no
ES	13C-1,2,3,7,8-PeCDD	7.14e+07	4.39e+07	2.75e+07	1.60;y;	34:07	36.423	0.0598	3303;y;	2681;y	no
ES	13C-1,2,3,4,7,8-HxCDD	7.84e+07	4.30e+07	3.54e+07	1.22;y;	36:47	51.171	0.0649	2678;y;	2090;y	no
ES	13C-1,2,3,6,7,8-HxCDD	7.84e+07	4.30e+07	3.54e+07	1.22;y;	36:47	45.963	0.0583	2678;y;	2090;y	no
ES	13C-1,2,3,4,6,7,8-HpCDD	5.99e+07	3.11e+07	2.88e+07	1.08;y;	40:03	36.642	0.0440	1724;y;	2495;y	no
ES	13C-OCDD	8.69e+07	4.02e+07	4.67e+07	0.86;y;	44:15	68.233	0.0913	1076;y;	1634;y	no
ES/RT	13C-2,3,7,8-TCDF	1.13e+08	5.09e+07	6.21e+07	0.82;y;	30:33	34.293	0.0343	3075;y;	2185;y	no
ES	13C-1,2,3,7,8-PeCDF	1.07e+08	6.66e+07	4.03e+07	1.65;y;	33:18	35.432	0.0895	2248;y;	1744;y	no
ES	13C-2,3,4,7,8-PeCDF	1.13e+08	7.09e+07	4.24e+07	1.67;y;	33:55	39.628	0.0944	2462;y;	1878;y	no
ES	13C-1,2,3,4,7,8-HxCDF	9.33e+07	3.06e+07	6.27e+07	0.49;y;	36:05	41.923	0.0597	1227;y;	3395;y	no
ES	13C-1,2,3,6,7,8-HxCDF	9.33e+07	3.06e+07	6.27e+07	0.49;y;	36:05	38.886	0.0554	1227;y;	3395;y	no
ES	13C-2,3,4,6,7,8-HxCDF	8.62e+07	2.86e+07	5.76e+07	0.50;y;	36:34	38.360	0.0592	1224;y;	3240;y	no
ES	13C-1,2,3,7,8,9-HxCDF	7.98e+07	2.63e+07	5.34e+07	0.49;y;	37:20	43.084	0.0718	968;y;	2622;y	no
ES	13C-1,2,3,4,6,7,8-HpCDF	6.90e+07	2.23e+07	4.67e+07	0.48;y;	38:48	38.889	0.0664	1088;y;	1956;y	no
ES	13C-1,2,3,4,7,8,9-HpCDF	6.12e+07	1.99e+07	4.13e+07	0.48;y;	40:43	41.855	0.0805	815;y;	1487;y	no
JS	13C-1,2,3,4-TCDD	2.19e+08	9.66e+07	1.22e+08	0.79;y;	30:45	108.321	-;	4379;y;	7504;y	no
JS	13C-1,2,3,7,8,9-HxCDD	1.79e+08	9.80e+07	8.07e+07	1.21;y;	37:01	108.417	-;	6180;y;	4675;y	no
CS	37Cl-2,3,7,8-TCDD	4.28e+07	4.28e+07		;	31:16	16.641	0.0229	2803;y	;	no


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
319.8965 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3436.0,1.00%,F,F)
31:16
1.1E6
5.4E5
0.0E0
321.8936 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4232.0,1.00%,F,F)
31:16
1.3E6
6.4E5
0.0E0
331.9368 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5408.0,1.00%,F,F)
30:46
31:15
2.4E7
1.2E7
0.0E0
333.9339 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3956.0,1.00%,F,F)
30:45
31:15
3.0E7
1.5E7
0.0E0
327.8847 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4796.0,1.00%,F,F)
31:16
1.3E7
6.7E6
0.0E0
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:21 26:46 27:12 27:35 28:05 28:25 28:53 29:29 30:08 30:34 30:58 31:40 32:05
4.6E7
2.3E7
0.0E0
100%
50
0
26:00 27:00 28:00 29:00 30:00 31:00 32:00
Time

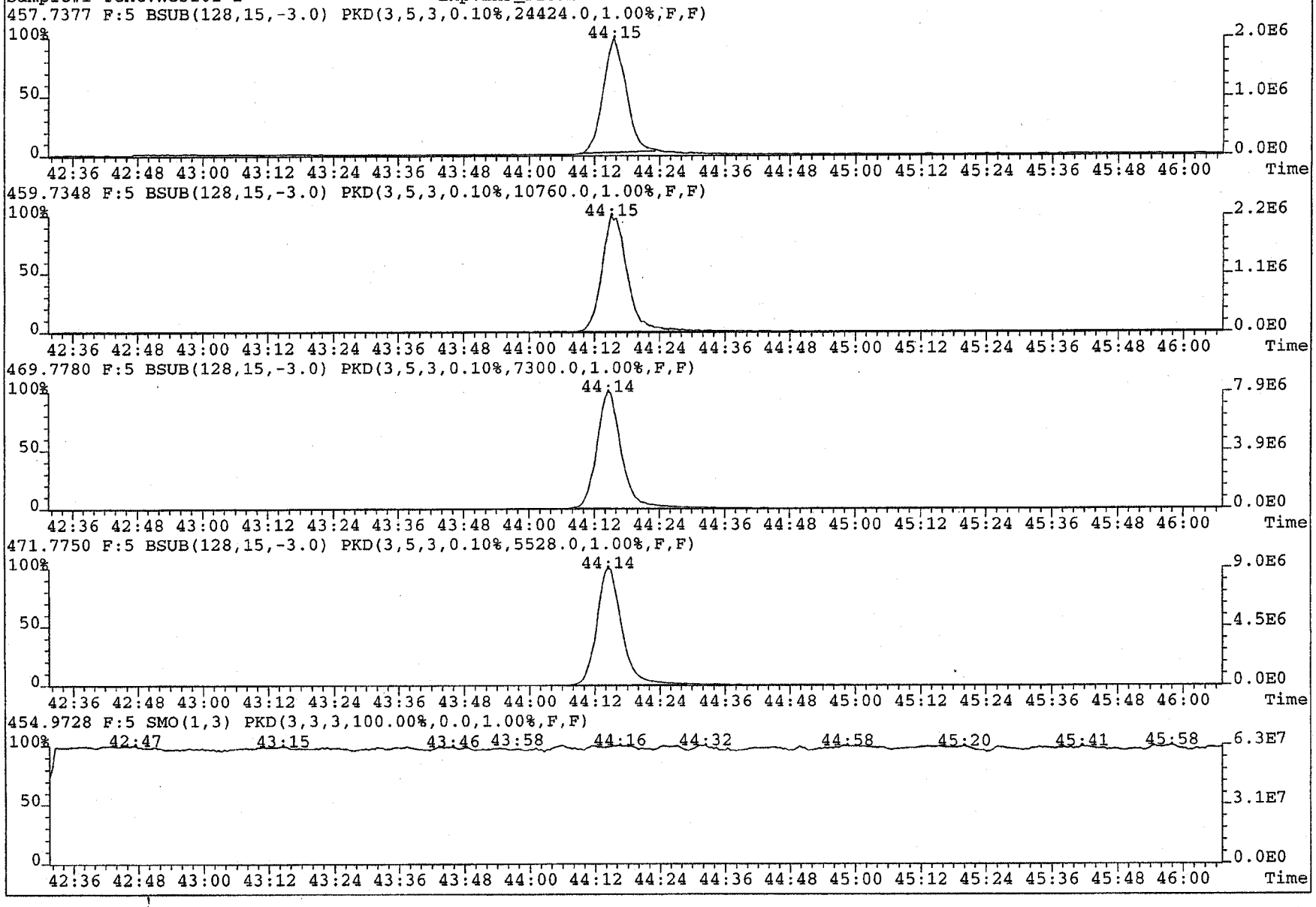
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS

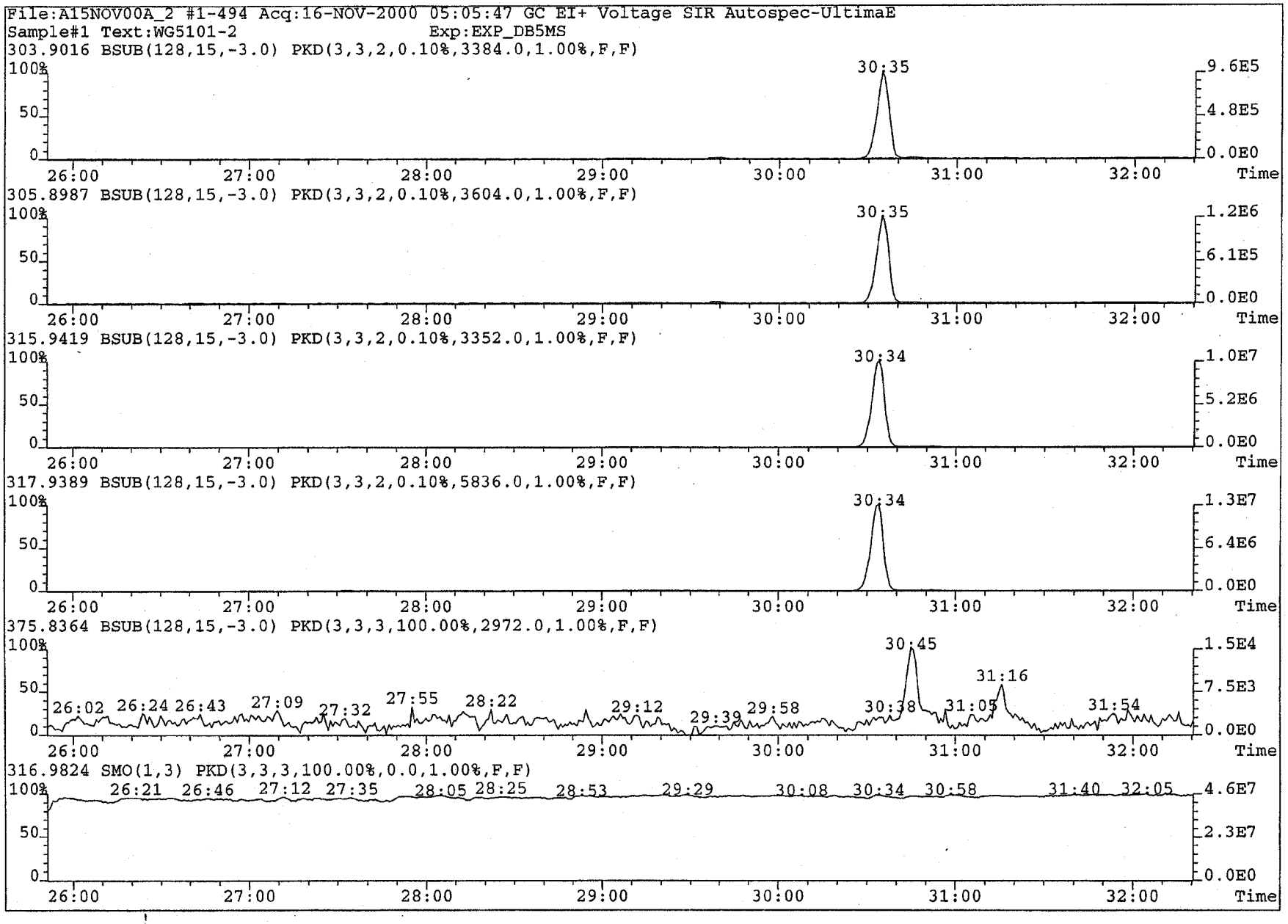


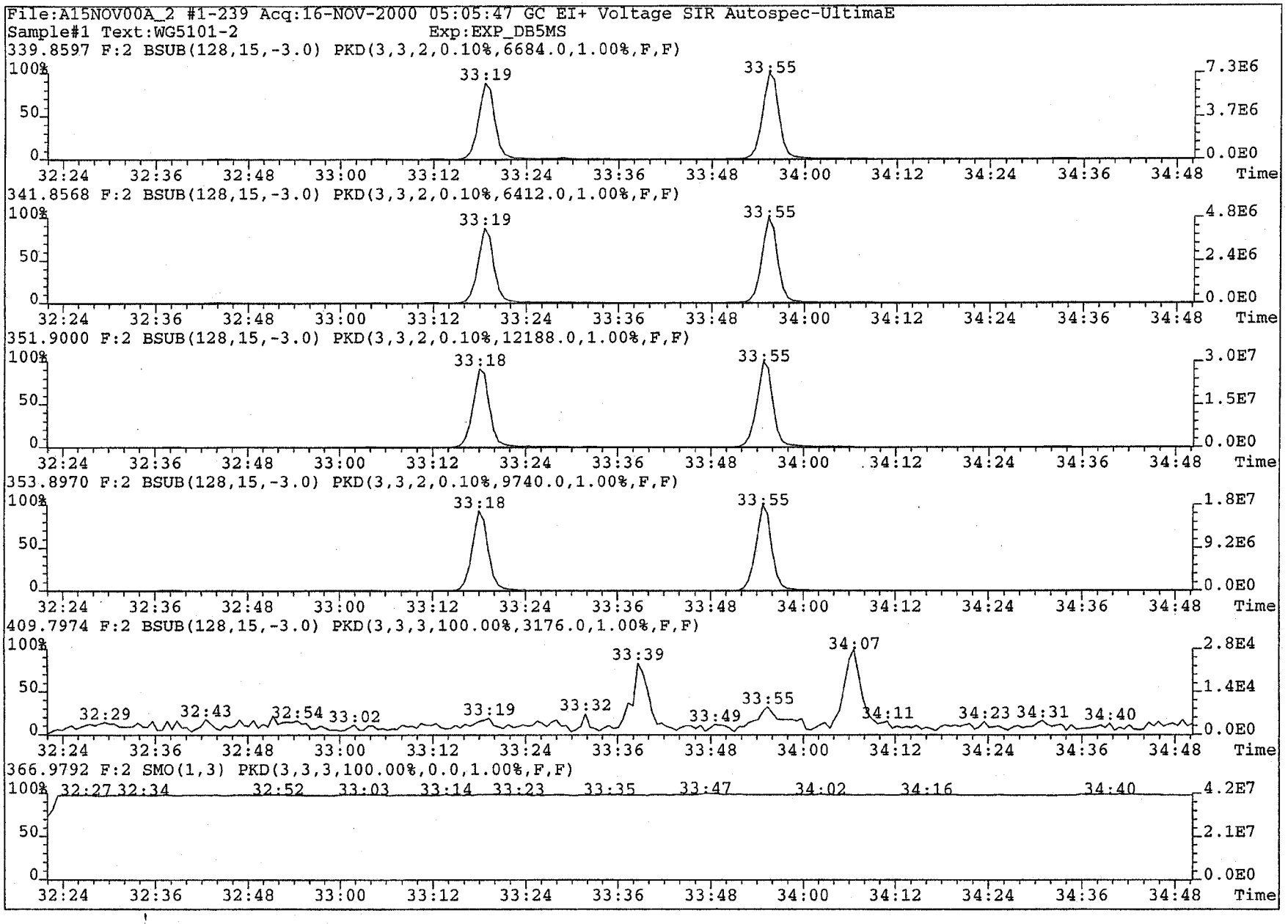

File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
389.8156 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4928.0,1.00%,F,F)
36:42
37:01
3.1E6
1.6E6
0.0E0
391.8127 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4920.0,1.00%,F,F)
36:42
37:01
2.8E6
1.4E6
0.0E0
401.8559 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5216.0,1.00%,F,F)
36:46
37:01
3.2E7
1.6E7
0.0E0
403.8530 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5744.0,1.00%,F,F)
36:46
37:01
2.7E7
1.3E7
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:05
35:31
35:47
35:59
36:28
36:55
37:10
37:24
37:41
37:54
8.5E7
4.2E7
0.0E0
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time

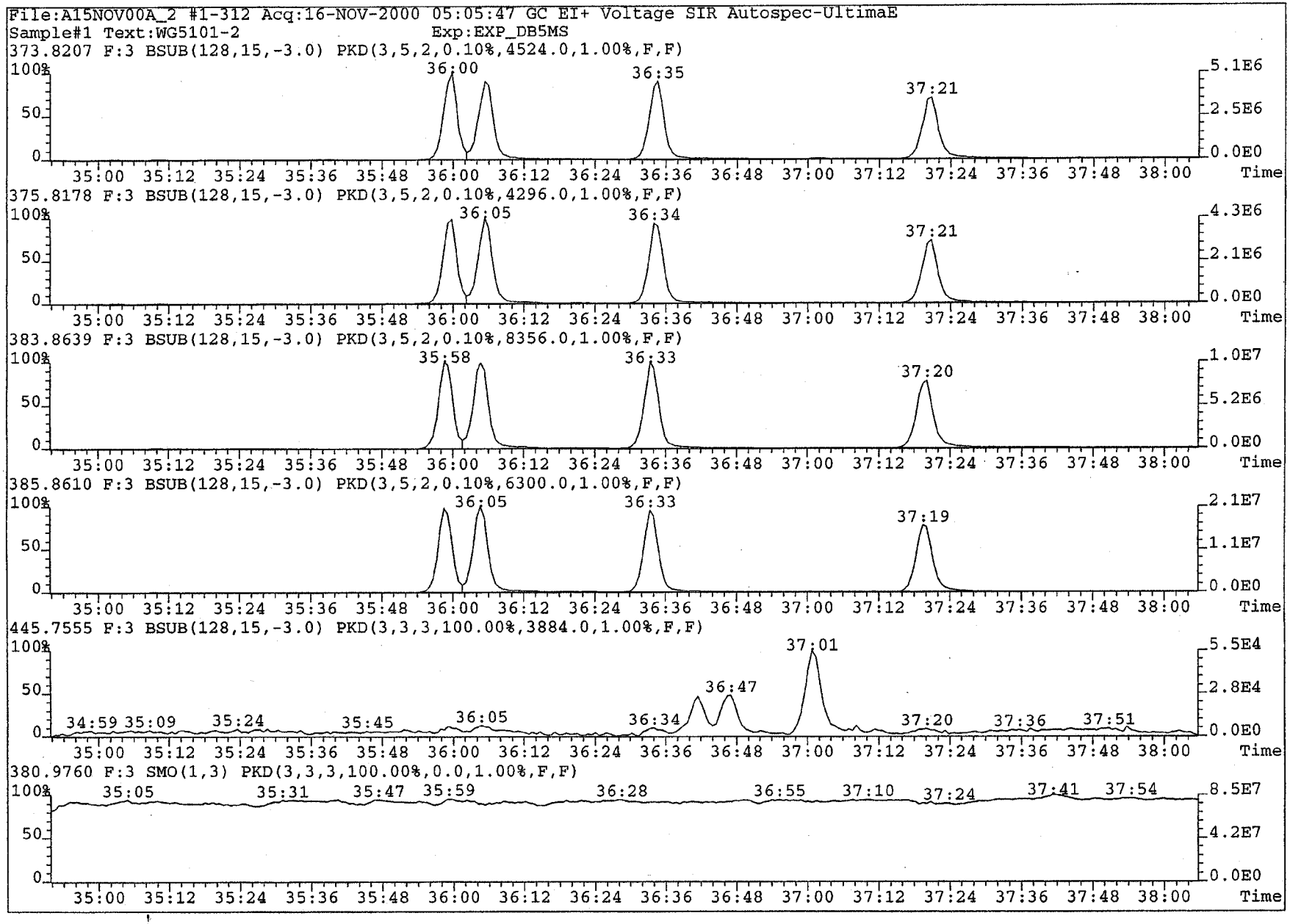

File:A15NOV00A_2 #1-423 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
423.7767 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3756.0,1.00%,F,F)
40:04
2.0E6
1.0E6
0.0E0
425.7737 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3256.0,1.00%,F,F)
40:04
1.8E6
9.2E5
0.0E0
435.8169 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4824.0,1.00%,F,F)
40:03
8.3E6
4.2E6
0.0E0
437.8140 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3116.0,1.00%,F,F)
40:03
7.8E6
3.9E6
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:24 39:01 39:29 39:59 40:24 40:40 41:05 41:23 41:48 42:09 42:24
4.6E7
2.3E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

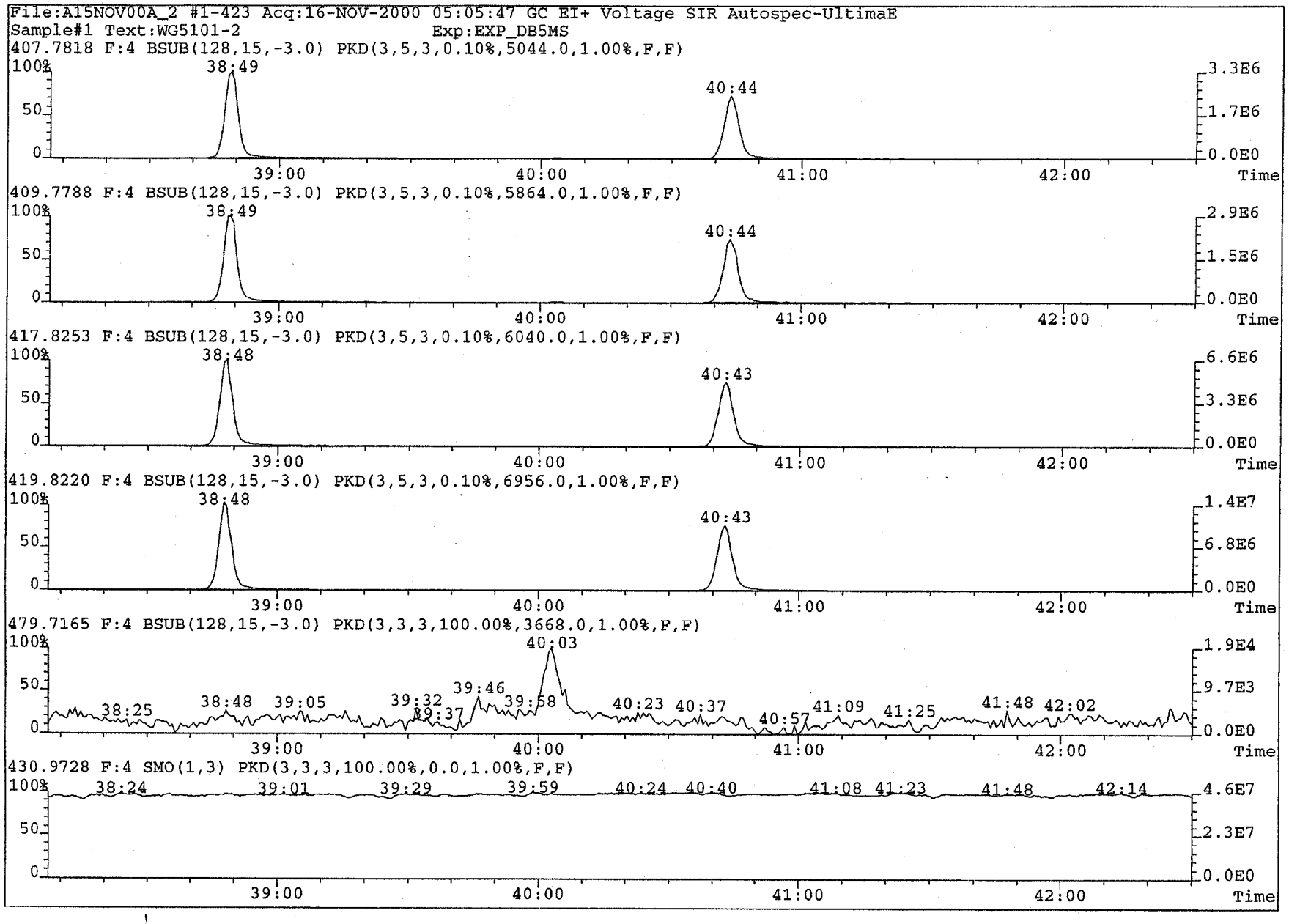
File:A15NOV00A_2 #1-422 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS

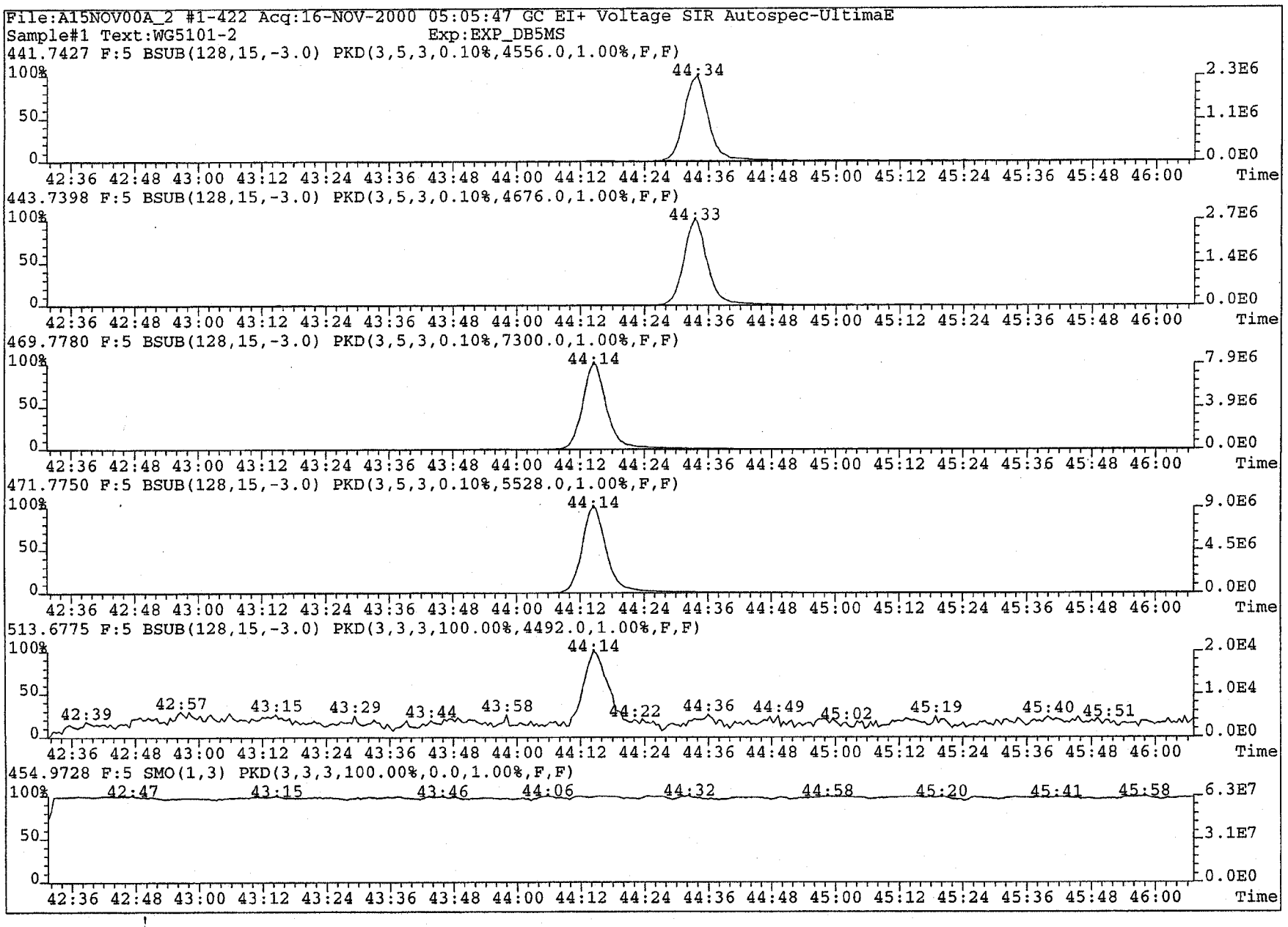


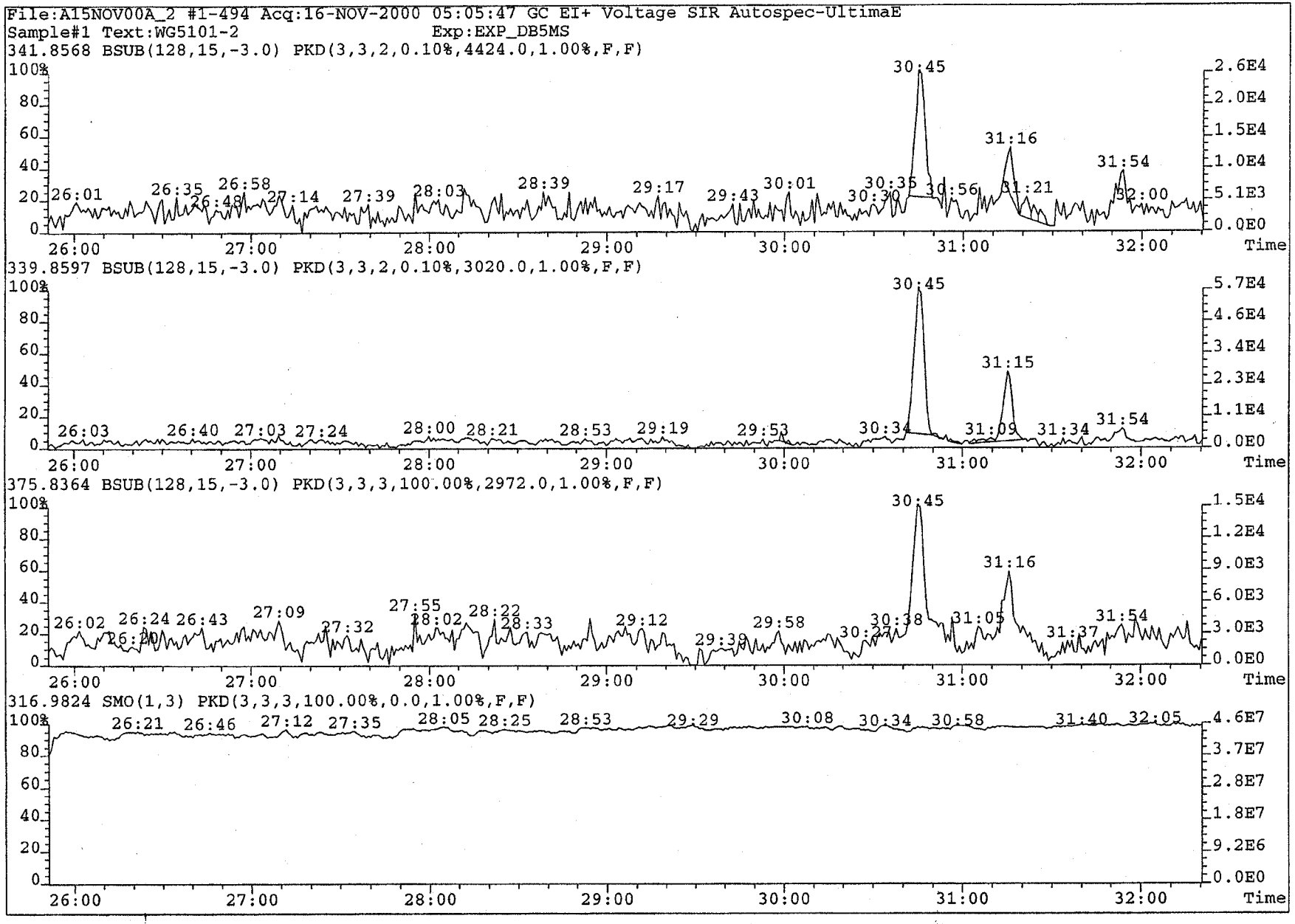

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
303.9016 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3384.0,1.00%,F,F)
30:35
9.6E5
4.8E5
0.0E0
305.8987 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3604.0,1.00%,F,F)
30:35
1.2E6
6.1E5
0.0E0
315.9419 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3352.0,1.00%,F,F)
30:34
1.0E7
5.2E6
0.0E0
317.9389 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5836.0,1.00%,F,F)
30:34
1.3E7
6.4E6
0.0E0
375.8364 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2972.0,1.00%,F,F)
30:45
31:16
26:02 26:24 26:43 27:09 27:32 27:55 28:22 29:12 29:39 29:58 30:38 31:05 31:54
1.5E4
7.5E3
0.0E0
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:21 26:46 27:12 27:35 28:05 28:25 28:53 29:29 30:08 30:34 30:58 31:40 32:05
4.6E7
2.3E7
0.0E0
100%
50
0
26:00 27:00 28:00 29:00 30:00 31:00 32:00
Time


File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
339.8597 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6684.0,1.00%,F,F)
33:19
33:55
7.3E6
3.7E6
0.0E0
341.8568 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6412.0,1.00%,F,F)
33:19
33:55
4.8E6
2.4E6
0.0E0
351.9000 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,12188.0,1.00%,F,F)
33:18
33:55
3.0E7
1.5E7
0.0E0
353.8970 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,9740.0,1.00%,F,F)
33:18
33:55
1.8E7
9.2E6
0.0E0
409.7974 F:2 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3176.0,1.00%,F,F)
32:29 32:43 32:54 33:02 33:19 33:32 33:39 33:49 33:55 34:07 34:11 34:23 34:31 34:40
2.8E4
1.4E4
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:27 32:34 32:52 33:03 33:14 33:23 33:35 33:47 34:02 34:16 34:40
4.2E7
2.1E7
0.0E0
100%
50
0
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48
Time


File:A15NOV00A_2 #1-312 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
373.8207 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4524.0,1.00%,F,F)
36:00
36:35
37:21
5.1E6
2.5E6
0.0E0
375.8178 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4296.0,1.00%,F,F)
36:05
36:34
37:21
4.3E6
2.1E6
0.0E0
383.8639 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8356.0,1.00%,F,F)
35:58
36:33
37:20
1.0E7
5.2E6
0.0E0
385.8610 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6300.0,1.00%,F,F)
36:05
36:33
37:19
2.1E7
1.1E7
0.0E0
445.7555 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3884.0,1.00%,F,F)
37:01
36:47
34:59 35:09 35:24 35:45 36:05 36:34 37:20 37:36 37:51
5.5E4
2.8E4
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
35:05 35:31 35:47 35:59 36:28 36:55 37:10 37:24 37:41 37:54
8.5E7
4.2E7
0.0E0
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time


File:A15NOV00A_2 #1-423 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
407.7818 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5044.0,1.00%,F,F)
38:49
40:44
3.3E6
1.7E6
0.0E0
409.7788 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5864.0,1.00%,F,F)
38:49
40:44
2.9E6
1.5E6
0.0E0
417.8253 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6040.0,1.00%,F,F)
38:48
40:43
6.6E6
3.3E6
0.0E0
419.8220 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6956.0,1.00%,F,F)
38:48
40:43
1.4E7
6.8E6
0.0E0
479.7165 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3668.0,1.00%,F,F)
40:03
38:25 38:48 39:05 39:32 39:37 39:46 39:58 40:23 40:37 40:57 41:09 41:25 41:48 42:02
1.9E4
9.7E3
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:24 39:01 39:29 39:59 40:24 40:40 41:08 41:23 41:48 42:14
4.6E7
2.3E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A15NOV00A_2 #1-422 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
441.7427 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4556.0,1.00%,F,F)
44:34
2.3E6
1.1E6
0.0E0
443.7398 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4676.0,1.00%,F,F)
44:33
2.7E6
1.4E6
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7300.0,1.00%,F,F)
44:14
7.9E6
3.9E6
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5528.0,1.00%,F,F)
44:14
9.0E6
4.5E6
0.0E0
513.6775 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4492.0,1.00%,F,F)
44:14
42:39 42:57 43:15 43:29 43:44 43:58 44:22 44:36 44:49 45:02 45:19 45:40 45:51
2.0E4
1.0E4
0.0E0
454.9728 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:47 43:15 43:46 44:06 44:32 44:58 45:20 45:41 45:58
6.3E7
3.1E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 05:05:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:WG5101-2 Exp:EXP_DB5MS
341.8568 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4424.0,1.00%,F,F)
339.8597 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3020.0,1.00%,F,F)
375.8364 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2972.0,1.00%,F,F)
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

Section 3

Project Information

PARADIGM ANALYTICAL LABORATORIES, INC.
2627 Northchase Parkway SE, Wilmington, NC 28405
Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 20820

Page 1 of 1

Client: Delta Environmental
Address: 6701 Carmel Rd
Address: Charlotte NC 28226
Quote #:

Project ID: E096-007-5.0040
Contact: Sam Watson
Phone: 704 543-3914
Fax:

Date: 11/9/00
Turnaround: Standard
Job Number: E096-007-5.0040
P.O. Number:

Report To: Sam
Invoice To:

Sample ID	Date	Time	Matrix	Preservatives: none				Analyses: 16/3	Dioxins									Comments: Please specify any special reporting requirements
																		G129-306
LF-01	11/7/00		WT	X				2										GIS Delivery
LF-01A	11/7/00							2										
LF-10	11/8/00							1										
LF-11	11/8/00							1										
LF-08	11/9/00							2										
LF-12	11/9/00							2										
LF-09	11/9/00							1										

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
[signature]	11/9/00	15:00	Julie Johnson	11/10/00	0920	8°C	NC ____ SC ____ Other ____
							SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

179

Lab Proj	Client Sample ID	D_STAT	Client_prog	Client	Sample	Date Colle	Date Recei	Date Due	riorit	tles	Matrix	ocatio	Dept	Report	Analyses
G129-306	LF-01	LOGN:REVW	E096-007-5.0040	129	99386	11/7/00	11/10/00	12/1/00	STD	2	Water	W2	17	EX	1613
G129-306	LF-01A	LOGN:REVW	E096-007-5.0040	129	99387	11/7/00	11/10/00	12/1/00	STD	2	Water	W2	17	EX	1613
G129-306	LF-10	LOGN:REVW	E096-007-5.0040	129	99388	11/8/00	11/10/00	12/1/00	STD	1	Water	W2	17	EX	1613
G129-306	LF-11	LOGN:REVW	E096-007-5.0040	129	99389	11/8/00	11/10/00	12/1/00	STD	1	Water	W2	17	EX	1613
G129-306	LF-08	LOGN:REVW	E096-007-5.0040	129	99390	11/9/00	11/10/00	12/1/00	STD	2	Water	W2	17	EX	1613
G129-306	LF-12	LOGN:REVW	E096-007-5.0040	129	99391	11/9/00	11/10/00	12/1/00	STD	2	Water	W2	17	EX	1613
G129-306	LF-09	LOGN:REVW	E096-007-5.0040	129	99392	11/9/00	11/10/00	12/1/00	STD	1	Water	W2	17	EX limited	1613 limited!

Paradigm Analytical Labs

Sample Receipt Checklist (SRC)

Client: **Delta Environmental Consultants** Lab Proj. ID: **G129-306**

Client Proj. ID: **E096-007-5.0040**

1. X Shipped — Notes:
   ___ Hand Delivered

2. X COC Present on Receipt — Notes:
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container — Notes:
   X No Custody Tape

4. X Samples Intact — Notes:
   ___ Samples Broken / Leaking
   ___ VOA Vials Checked for Air Bubbles

5. X Chilled on Receipt Actual Temp.(s) in °C: 0.8
   ___ Ambient on Receipt — Notes:
   ___ Walk-in on Ice; Coming down to temp.

6. X Sufficient Sample Submitted — Notes:
   ___ Insufficient Sample Submitted

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

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

9. ___ No Discrepancies Noted — Notes:
   X Discrepancies Noted
   ___ No COC Received

Comments: No Collection Time on COC
Sample LF-09 is only 1/3 full, may have leaked during shipment.

Inspected and Logged in by: [signature]
Date / Time: Fri-11/10/00 13:30

DC27.022100.1

Section 4

Sample Preparation Documentation

Liquid - Liquid Extraction by Modified Method 3520C (MEX)

Data in Prep Table? ✓

Analytical Method: 8290 1613 8280 613 Other _____

Batch ID	Logbook#	Page#
WG	5	101

	Sample ID* (ID) PR 11/13/00	Volume* (mL)	Sample* pH	Ph (<2?)	ES Amt.* (µL)	MX Amt. (µL)	start time	finish time	CS Amt. (µL)	Tridecane (100 µL)	Analyst (initials)	Date*	Proj. ID
1	LMB-5101	500	5	✓	20✓	0	10:00 ~~10:00~~ PR 11/13/00	11:40	20✓	✓	PR	13-Nov-00	NA
2	99386	509 ✓	5	✓	20✓	0			20✓	✓		13-Nov-00	G129-306
3	99387	516 ✓	5	✓	20✓	0			20✓	✓		13-Nov-00	G129-306
4	99388	514 ✓	5	✓	20✓	0			20✓	✓		13-Nov-00	G129-306
5	99389	516 ✓	5	✓	20✓	0			20✓	✓		13-Nov-00	G129-306
6	99390	498 ✓	5	✓	20✓	0			20✓	✓		13-Nov-00	G129-306
7	99391	516 ✓	5	✓	20✓	0			20✓	✓		13-Nov-00	G129-306
8	99392	301 ✓	5	✓	20✓	0			20✓	✓		13-Nov-00	G129-306
9	OPR-5101	500	5	✓	20✓	20✓	↓	↓	20✓	✓	↓	13-Nov-00	NA
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

PR 11/13/00

Item	Lot #'s	Conc. (ng/µL)
H_2SO_4 Lot#	T20041	
Toluene Lot #	BZ437	
Tridecane Lot #	6-20-00	
Extraction Std.	508-35	0.05
Matrix Spk. Std.	508-17A	0.005
Clean-Up Std.	508-7	0.02

BS

Comments: 99388 was cloudy
99392 301g was all that was sent.

DC8.021700.1

* = To be entered in the Prep Table.

Carbon Cleanup

Start with Celite up.

	Step	mL	Solvent	Complete
Rinse	Start with Celite up.			
	1	4	Toluene	✓
	2	2	Binary	✓
	3	4	Tertiary	✓
	4	2	$MeCL_2$	✓
Load	Load Sample with $MeCl_2$			
	5	5	Binary	✓
	6	5	Binary	✓
	7	5	Tertiary	✓
Collect	Flip column (Celite down) and position collection vial(s).			
	8	5	Toluene	✓
	9	5	Toluene	✓
	10	5	Toluene	✓
	11	5	Toluene	✓

Comments: After sample is loaded All waste, carbon & celite is collected

start: 14:35

End: 16:05

Sample 99386 was cloudy we ran it through a salt ~~column~~ column and it cleared up.

Train	Sample
1	LMB-5101
2	99386
3	99387
4	99388
5	99389
6	99390
7	99391
8	99392
9	OPR-5101
10	
11	
12	

Lot # 's	
$MeCl_2$:	BZ823
Toluene:	BZ437
Binary:	11/1/00
Tertiary:	11/1/00
Tridecane:	N/A

LogBook: 5 Page: 086

Section 5

Initial Calibration Data

M1613-052699m

Run: Analyte: m1613-060» Cal: m1613-052» Results: Version: V3.6 31-JUL-1998 10:51:59

PB HL →

Name	Mean RRF	S. D.	%RSD	0.25 26may99m S2 RRF#1	SD	2 26may99m S4 RRF#2	SD	10 26may99m S1 RRF#3	SD	40 26may99m S5 RRF#4	SD	200 26may99m S6 RRF#5	SD
2,3,7,8-TCDD	1.1810	0.091	7.74 %	1.34	1.7	1.13	-0.6	1.17	-0.2	1.11	-0.7	1.16	-0.3
1,2,3,7,8-PeCDD	1.0298	0.017	1.60 %	1.04	0.8	1.05	1.0	1.01	-1.4	1.02	-0.7	1.03	0.3
1,2,3,4,7,8-HxCDD	1.1376	0.030	2.64 %	1.18	1.4	1.15	0.6	1.11	-1.0	1.11	-0.8	1.13	-0.2
1,2,3,6,7,8-HxCDD	0.9712	0.017	1.75 %	0.96	-0.4	0.95	-1.4	0.97	-0.2	0.99	1.1	0.99	0.9
1,2,3,7,8,9-HxCDD	1.1365	0.041	3.60 %	1.13	-0.1	1.21	1.7	1.13	-0.2	1.11	-0.6	1.10	-0.8
1,2,3,4,6,7,8-HpCDD	1.0066	0.009	0.88 %	1.00	-0.9	1.01	-0.1	1.00	-1.0	1.01	0.7	1.02	1.3
OCDD	1.0759	0.015	1.44 %	1.07	-0.6	1.06	-1.0	1.07	-0.5	1.09	0.8	1.10	1.3
2,3,7,8-TCDF	1.1266	0.022	1.95 %	1.09	-1.5	1.13	0.1	1.12	-0.3	1.14	0.6	1.15	1.1
1,2,3,7,8-PeCDF	1.0549	0.006	0.58 %	1.06	0.3	1.05	-0.8	1.06	1.2	1.06	0.6	1.05	-1.3
2,3,4,7,8-PeCDF	1.1394	0.030	2.63 %	1.19	1.7	1.14	0.1	1.11	-0.9	1.13	-0.2	1.12	-0.6
1,2,3,4,7,8-HxCDF	1.2390	0.035	2.83 %	1.30	1.6	1.21	-0.8	1.21	-0.8	1.24	0.1	1.24	-0.1
1,2,3,6,7,8-HxCDF	1.2052	0.026	2.15 %	1.25	1.6	1.20	-0.1	1.19	-0.6	1.18	-0.9	1.21	0.0
2,3,4,6,7,8-HxCDF	1.1548	0.018	1.53 %	1.18	1.3	1.14	-0.6	1.14	-1.1	1.15	-0.4	1.17	0.7
1,2,3,7,8,9-HxCDF	1.2763	0.047	3.71 %	1.34	1.5	1.27	-0.1	1.21	-1.3	1.27	-0.2	1.29	0.2
1,2,3,4,6,7,8-HpCDF	1.4641	0.017	1.15 %	1.46	-0.2	1.44	-1.4	1.46	-0.3	1.49	1.3	1.47	0.6
1,2,3,4,7,8,9-HpCDF	1.4562	0.018	1.26 %	1.49	1.6	1.44	-0.7	1.44	-0.9	1.46	0.3	1.45	-0.3
OCDF	1.3195	0.053	4.03 %	1.31	-0.3	1.28	-0.8	1.27	-0.9	1.34	0.4	1.40	1.5
13C-2,3,7,8-TCDD	1.0612	0.039	3.64 %	1.02	-1.0	1.05	-0.4	1.05	-0.2	1.05	-0.2	1.13	1.7
13C-1,2,3,7,8-PeCDD	0.8944	0.060	6.68 %	0.84	-0.9	0.86	-0.6	0.88	-0.3	0.90	0.1	0.99	1.7
13C-1,2,3,4,7,8-HxCDD	0.8573	0.040	4.69 %	0.87	0.4	0.79	-1.8	0.88	0.6	0.87	0.2	0.88	0.6
13C-1,2,3,6,7,8-HxCDD	0.9544	0.034	3.52 %	0.97	0.5	0.90	-1.7	0.95	-0.2	0.98	0.7	0.98	0.7
13C-1,2,3,4,6,7,8-HpCDD	0.9154	0.021	2.24 %	0.89	-1.0	0.91	-0.2	0.95	1.5	0.90	-0.7	0.93	0.5
13C-OCDD	0.7127	0.031	4.32 %	0.67	-1.2	0.73	0.6	0.72	0.3	0.69	-0.8	0.75	1.2
13C-2,3,7,8-TCDF	1.5045	0.042	2.81 %	1.48	-0.7	1.48	-0.6	1.49	-0.4	1.50	-0.1	1.58	1.8
13C-1,2,3,7,8-PeCDF	1.3771	0.093	6.77 %	1.29	-0.9	1.35	-0.3	1.32	-0.6	1.40	0.2	1.53	1.6
13C-2,3,4,7,8-PeCDF	1.3048	0.090	6.93 %	1.23	-0.9	1.27	-0.4	1.26	-0.5	1.32	0.1	1.46	1.7
13C-1,2,3,4,7,8-HxCDF	1.2458	0.026	2.07 %	1.27	1.0	1.24	-0.3	1.21	-1.4	1.24	-0.1	1.27	0.9
13C-1,2,3,6,7,8-HxCDF	1.3431	0.056	4.18 %	1.37	0.6	1.29	-1.0	1.28	-1.1	1.37	0.4	1.41	1.1
13C-2,3,4,6,7,8-HxCDF	1.2572	0.029	2.34 %	1.25	-0.2	1.21	-1.7	1.28	0.6	1.28	0.8	1.27	0.5
13C-1,2,3,7,8,9-HxCDF	1.0364	0.021	2.06 %	1.02	-1.0	1.03	-0.5	1.06	1.2	1.02	-0.7	1.06	0.9
13C-1,2,3,4,6,7,8-HpCDF	0.9935	0.016	1.60 %	0.97	-1.5	1.00	0.1	0.99	-0.4	1.01	0.9	1.01	0.8
13C-1,2,3,4,7,8,9-HpCDF	0.8190	0.019	2.36 %	0.79	-1.5	0.84	1.0	0.82	0.2	0.81	-0.4	0.83	0.8
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-	-	-	-	-
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-	-	-	-	-
37Cl-2,3,7,8-TCDD	1.1747	0.052	4.40 %	1.21	0.7	1.13	-0.9	1.11	-1.2	1.19	0.2	1.23	1.1
Total Tetra-Furans	1.1266	0.022	1.95 %	1.09	-1.5	1.13	0.1	1.12	-0.3	1.14	0.6	1.15	1.1
Total Tetra-Dioxins	1.1810	0.091	7.74 %	1.34	1.7	1.13	-0.6	1.17	-0.2	1.11	-0.7	1.16	-0.3
Total Penta-Furans Fn1	1.0960	0.015	1.35 %	1.12	1.7	1.09	-0.1	1.09	-0.7	1.09	-0.1	1.08	-0.8
Total Penta-Furans Fn2	1.0960	0.015	1.35 %	1.12	1.7	1.09	-0.1	1.09	-0.7	1.09	-0.1	1.08	-0.8
Total Penta-Dioxins	1.0298	0.017	1.60 %	1.04	0.8	1.05	1.0	1.01	-1.4	1.02	-0.7	1.03	0.3
Total Hexa-Furans	1.2111	0.036	2.99 %	1.26	1.4	1.20	-0.2	1.16	-1.3	1.21	-0.1	1.22	0.3
Total Hexa-Dioxins	1.0787	0.014	1.30 %	1.09	0.7	1.10	1.4	1.07	-0.9	1.07	-0.7	1.07	-0.5

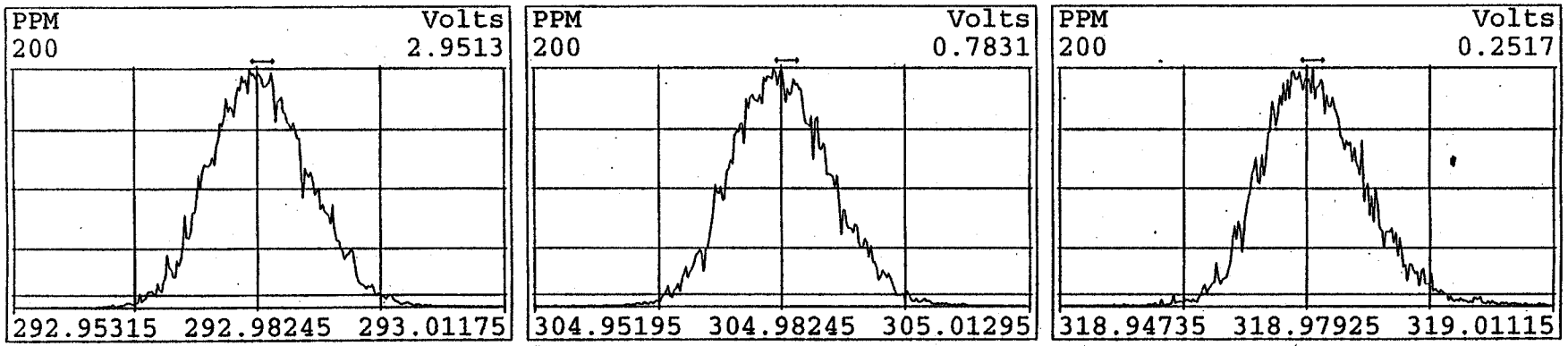
QC ed 09JUN99

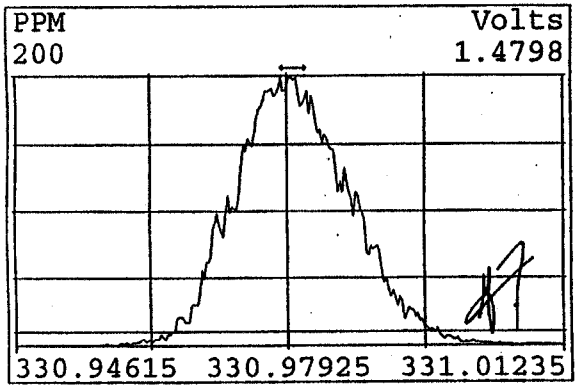
A

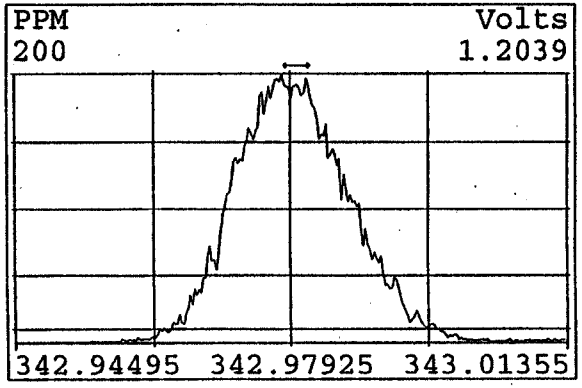
Run #1 Filename a26may99m S: 2 I: 1 Acquired: 26-MAY-99 17:08:50 Processed: 9-JUN-99 10:36:54
Run: Analyte: m1613-060» Cal: m1613-052» Results: Version: V3.6 31-JUL-1998 10:51:59
Sample text: CS0.5 Comments:

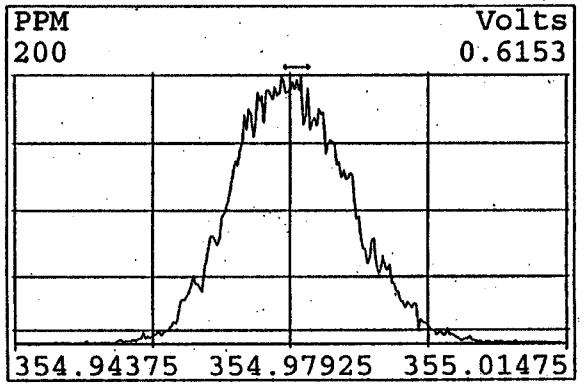
	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	0.25	6.66e+05	0.88	y	32:53	-	1.34	y	n
2	Unk	1,2,3,7,8-PeCDD	1.25	2.13e+06	1.58	y	35:48	-	1.04	y	n
3	Unk	1,2,3,4,7,8-HxCDD	1.25	1.92e+06	1.23	y	38:44	-	1.18	y	n
4	Unk	1,2,3,6,7,8-HxCDD	1.25	1.75e+06	1.21	y	38:50	-	0.96	y	n
5	Unk	1,2,3,7,8,9-HxCDD	1.25	1.95e+06	1.14	y	39:09	-	1.13	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	1.67e+06	1.16	y	42:46	-	1.00	y	n
7	Unk	OCDD	2.50	2.69e+06	0.97	y	47:53	-	1.07	y	n
8	Unk	2,3,7,8-TCDF	0.25	7.83e+05	0.86	y	32:30	-	1.09	y	n
9	Unk	1,2,3,7,8-PeCDF	1.25	3.32e+06	1.64	y	34:55	-	1.06	y	n
10	Unk	2,3,4,7,8-PeCDF	1.25	3.53e+06	1.43	y	35:35	-	1.19	y	n
11	Unk	1,2,3,4,7,8-HxCDF	1.25	3.08e+06	1.06	y	37:57	-	1.30	y	y
12	Unk	1,2,3,6,7,8-HxCDF	1.25	3.20e+06	1.18	y	38:03	-	1.25	y	y
13	Unk	2,3,4,6,7,8-HxCDF	1.25	2.75e+06	1.10	y	38:37	-	1.18	y	n
14	Unk	1,2,3,7,8,9-HxCDF	1.25	2.55e+06	1.13	y	39:32	-	1.34	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	2.65e+06	1.09	y	41:17	-	1.46	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	2.19e+06	1.05	y	43:34	-	1.49	y	n
17	Unk	OCDF	2.50	3.29e+06	0.88	y	48:15	-	1.31	y	y
18	ES/RT	13C-2,3,7,8-TCDD	100.00	1.99e+08	0.77	y	32:52	-	1.02	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	1.63e+08	1.63	y	35:46	-	0.84	y	n
20	ES	13C-1,2,3,4,7,8-HxCDD	100.00	1.30e+08	1.20	y	38:44	-	0.87	y	n
21	ES	13C-1,2,3,6,7,8-HxCDD	100.00	1.45e+08	1.19	y	38:50	-	0.97	y	n
22	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.34e+08	1.00	y	42:44	-	0.89	y	n
23	ES	13C-OCDD	200.00	2.02e+08	0.86	y	47:53	-	0.67	y	n
24	ES/RT	13C-2,3,7,8-TCDF	100.00	2.86e+08	0.86	y	32:29	-	1.48	y	n
25	ES	13C-1,2,3,7,8-PeCDF	100.00	2.51e+08	1.71	y	34:55	-	1.29	y	n
26	ES	13C-2,3,4,7,8-PeCDF	100.00	2.38e+08	1.69	y	35:35	-	1.23	y	n
27	ES	13C-1,2,3,4,7,8-HxCDF	100.00	1.90e+08	0.48	y	37:56	-	1.27	y	n
28	ES	13C-1,2,3,6,7,8-HxCDF	100.00	2.05e+08	0.50	y	38:03	-	1.37	y	n
29	ES	13C-2,3,4,6,7,8-HxCDF	100.00	1.87e+08	0.50	y	38:36	-	1.25	y	n
30	ES	13C-1,2,3,7,8,9-HxCDF	100.00	1.52e+08	0.49	y	39:31	-	1.02	y	n
31	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.45e+08	0.47	y	41:16	-	0.97	y	n
32	ES	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.18e+08	0.46	y	43:34	-	0.79	y	n
33	JS	13C-1,2,3,4-TCDD	100.00	1.94e+08	0.76	y	32:34	1.94e+06	-	n	n
34	JS	13C-1,2,3,7,8,9-HxCDD	100.00	1.49e+08	1.16	y	39:07	1.49e+06	-	n	n
35	CS	37Cl-2,3,7,8-TCDD	0.25	5.88e+05			32:53	-	1.21	y	n
36	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.09	y	n
37	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.34	y	n
38	Tot	Total Penta-Furans Fn1	0.00	-	-	n	-	-	1.12	y	n
39	Tot	Total Penta-Furans Fn2	0.00	-	-	n	-	-	1.12	y	n
40	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.04	y	n
41	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.26	y	n

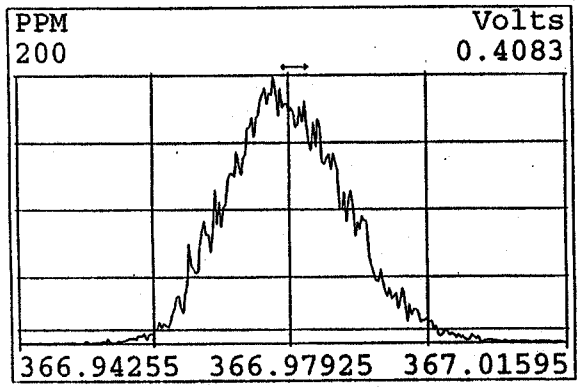
Peak Locate Examination:26-MAY-1999:16:15 File:A26MAY99M_L
Experiment:EXP_DB5MS Function:1 Reference:PFK

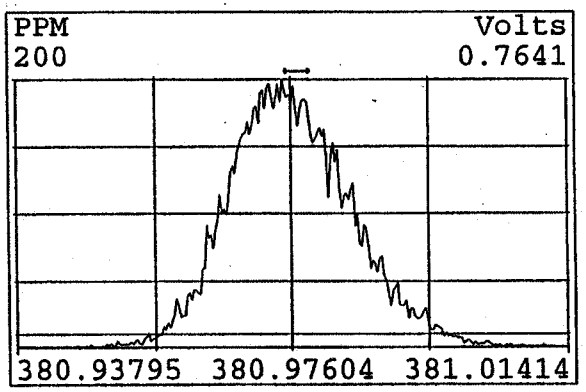




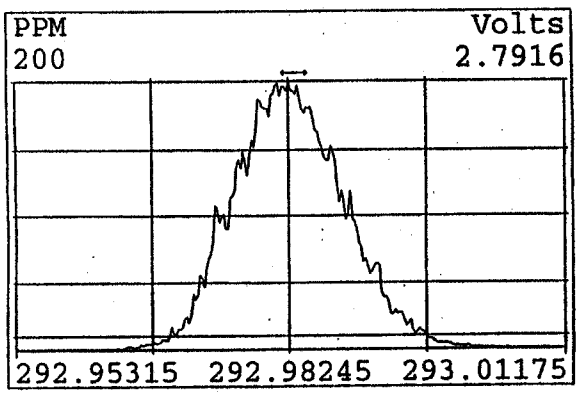


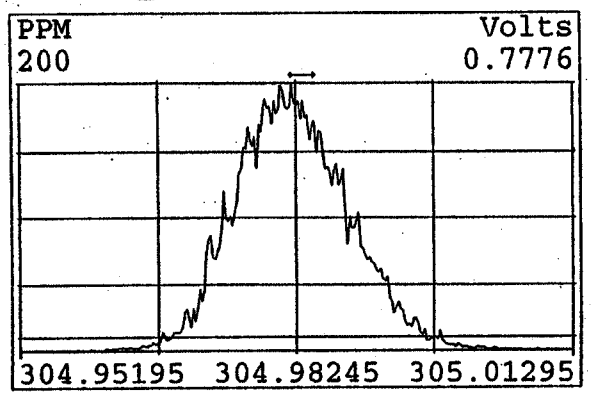


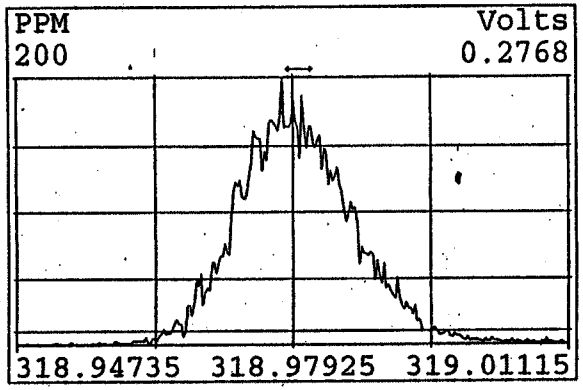


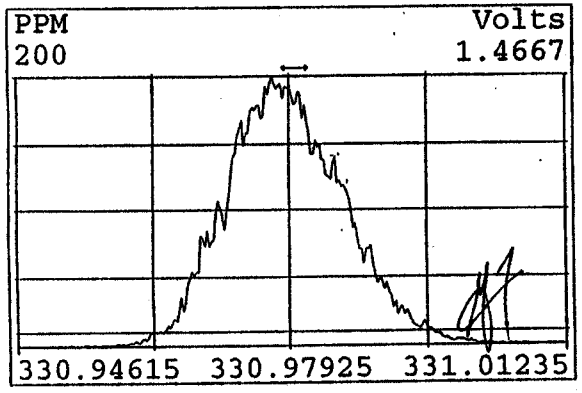


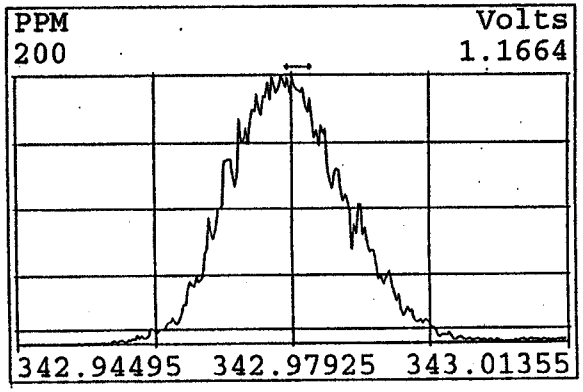
Peak Locate Examination:26-MAY-1999:21:25 File:A26MAY99M_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK

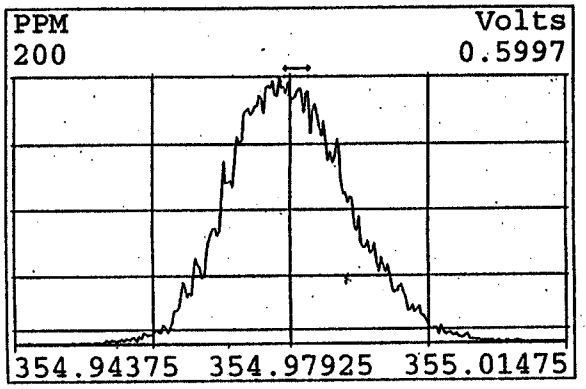


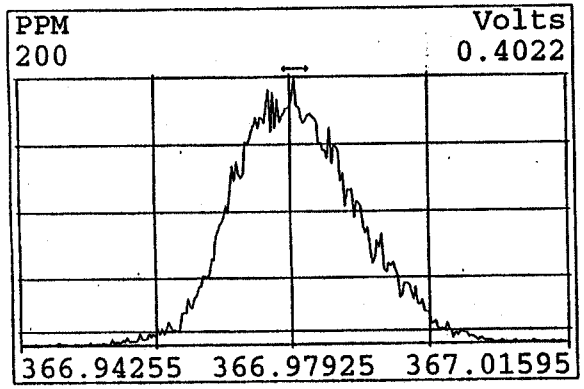


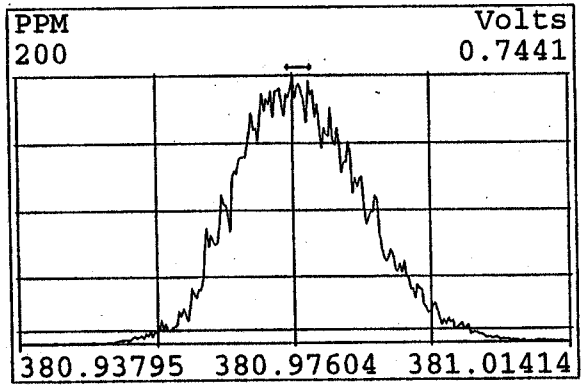






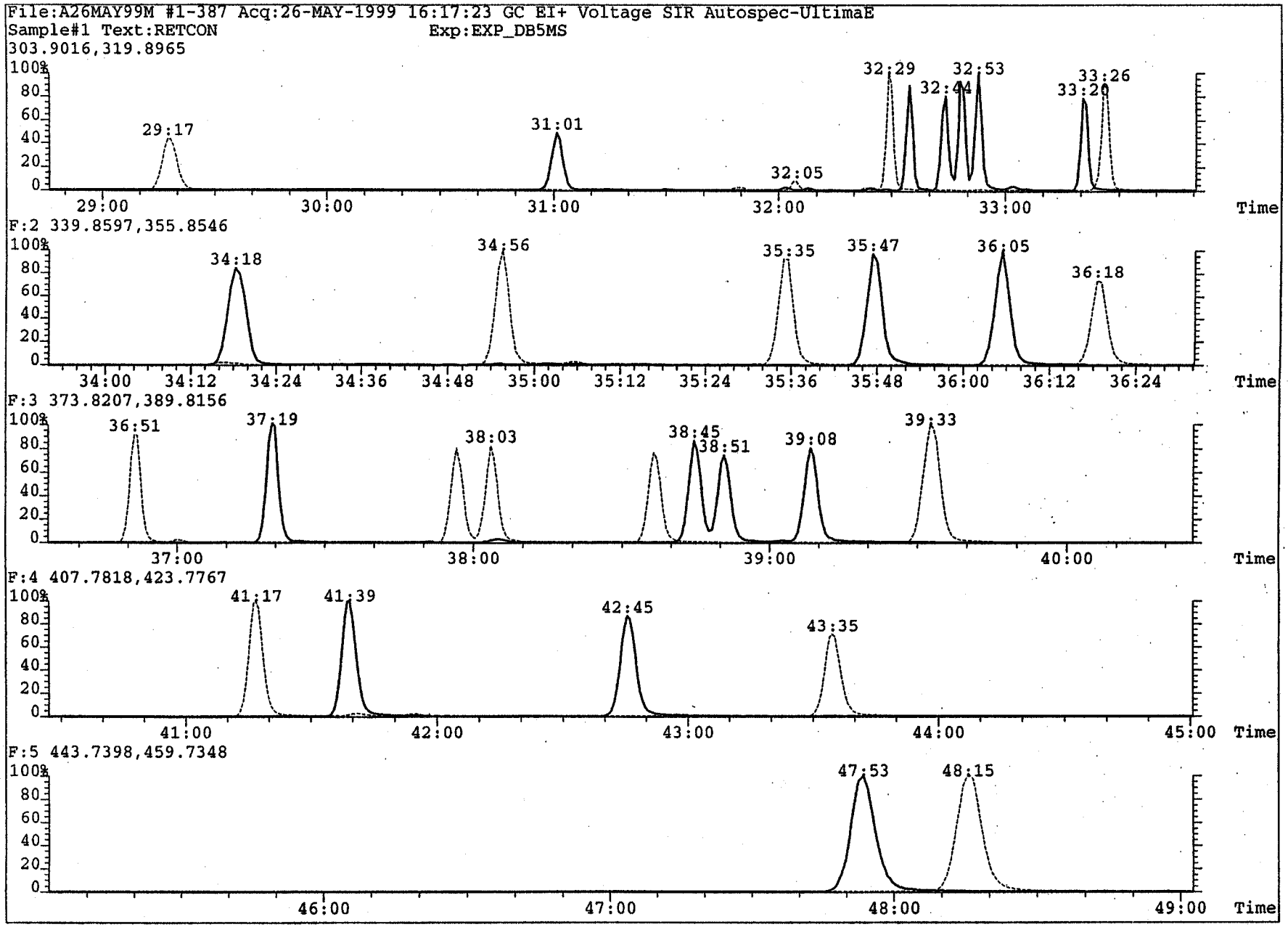




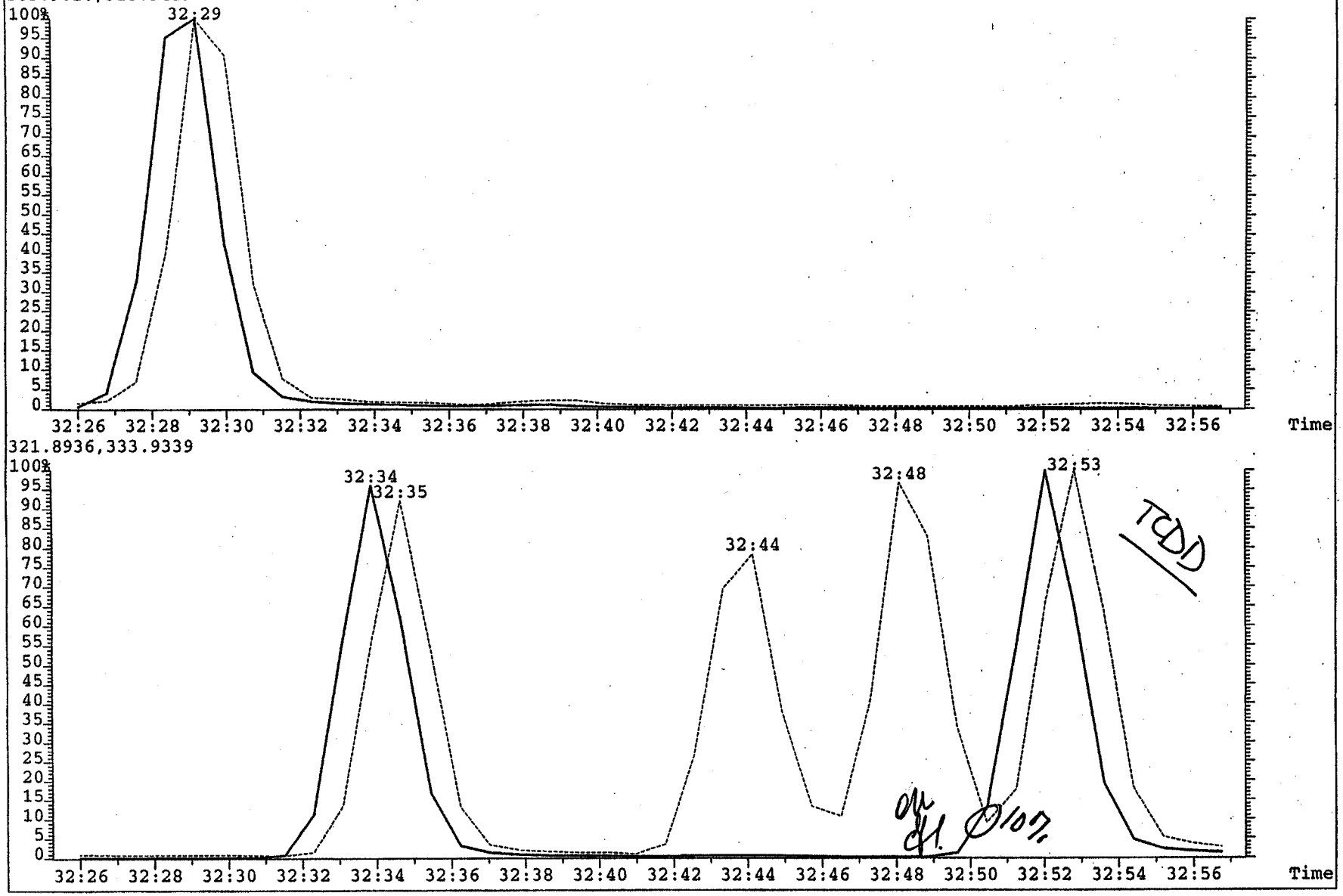


Filename ; a26may99m
Sample ; 1
Acquired ; 26-MAY-99 16:17:23
Processed ; 27-MAY-99 08:48:33
Sample ID ; RETCON

Name	First Eluter RT	Last Eluter RT
TCDD	31:01	33:20
PeCDD	34:18	36:05
HxCDD	37:19	39:08
HpCDD	41:39	42:45
OCDD	47:53	
TCDF	29:17	33:26
PeCDF	33:24	36:18
HxCDF	36:51	39:33
HpCDF	41:17	43:35
OCDF	48:15	


File:A26MAY99M #1-387 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON
Exp:EXP_DB5MS
303.9016,319.8965
29:17
31:01
32:05
32:29
32:44
32:53
33:20
33:26
F:2 339.8597,355.8546
34:18
34:56
35:35
35:47
36:05
36:18
F:3 373.8207,389.8156
36:51
37:19
38:03
38:45
38:51
39:08
39:33
F:4 407.7818,423.7767
41:17
41:39
42:45
43:35
F:5 443.7398,459.7348
47:53
48:15
Time

File: A26MAY99M Acq: 26-MAY-1999 16:17:23 Exp: EXP_DB5MS Voltage SIR EI+ GC Autospec-UltimaE Paradigm
Sample #1 Text: RETCON ALS #17



Run #1 Filename a26may99m S: 2 I: 1 Acquired: 26-MAY-99 17:08:50 Processed: 9-JUN-99 10:36:54
Run: Analyte: m1613-060» Cal: m1613-052» Results: Version: V3.6 31-JUL-1998 10:51:59
Sample text: CS0.5 Comments:

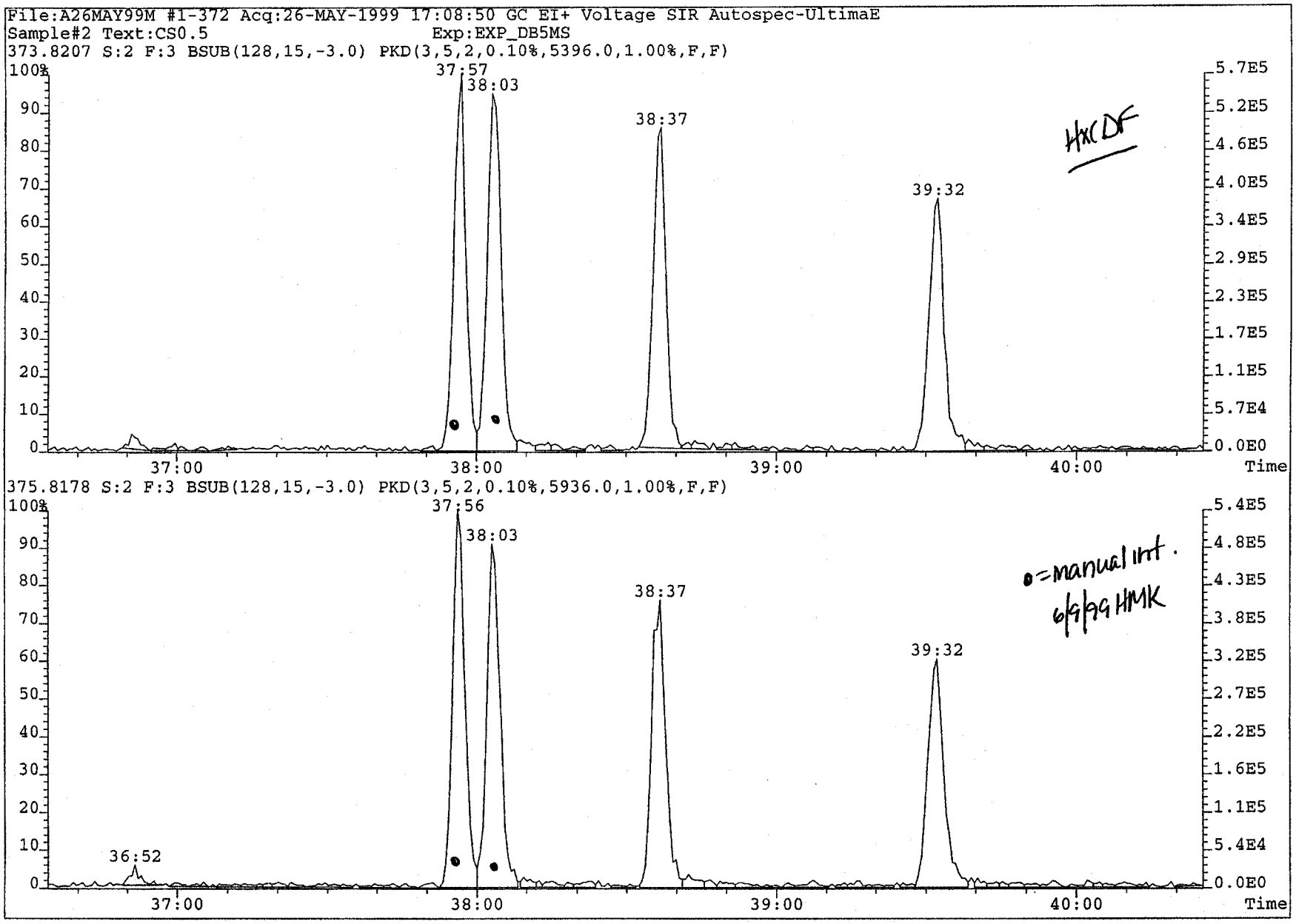
	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	0.25	6.66e+05	0.88	y	32:53	-	1.34	y	n
2	Unk	1,2,3,7,8-PeCDD	1.25	2.13e+06	1.58	y	35:48	-	1.04	y	n
3	Unk	1,2,3,4,7,8-HxCDD	1.25	1.92e+06	1.23	y	38:44	-	1.18	y	n
4	Unk	1,2,3,6,7,8-HxCDD	1.25	1.75e+06	1.21	y	38:50	-	0.96	y	n
5	Unk	1,2,3,7,8,9-HxCDD	1.25	1.95e+06	1.14	y	39:09	-	1.13	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	1.67e+06	1.16	y	42:46	-	1.00	y	n
7	Unk	OCDD	2.50	2.69e+06	0.97	y	47:53	-	1.07	y	n
8	Unk	2,3,7,8-TCDF	0.25	7.83e+05	0.86	y	32:30	-	1.09	y	n
9	Unk	1,2,3,7,8-PeCDF	1.25	3.32e+06	1.64	y	34:55	-	1.06	y	n
10	Unk	2,3,4,7,8-PeCDF	1.25	3.53e+06	1.43	y	35:35	-	1.19	y	n
11	Unk	1,2,3,4,7,8-HxCDF	1.25	3.07e+06	1.04	n	37:57	-	1.29	y	n
12	Unk	1,2,3,6,7,8-HxCDF	1.25	3.25e+06	1.20	y	38:03	-	1.27	y	n
13	Unk	2,3,4,6,7,8-HxCDF	1.25	2.75e+06	1.10	y	38:37	-	1.18	y	n
14	Unk	1,2,3,7,8,9-HxCDF	1.25	2.55e+06	1.13	y	39:32	-	1.34	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	2.65e+06	1.09	y	41:17	-	1.46	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	2.19e+06	1.05	y	43:34	-	1.49	y	n
17	Unk	OCDF	2.50	2.47e+06	1.58	n	48:15	-	0.98	y	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	1.99e+08	0.77	y	32:52	-	1.02	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	1.63e+08	1.63	y	35:46	-	0.84	y	n
20	ES	13C-1,2,3,4,7,8-HxCDD	100.00	1.30e+08	1.20	y	38:44	-	0.87	y	n
21	ES	13C-1,2,3,6,7,8-HxCDD	100.00	1.45e+08	1.19	y	38:50	-	0.97	y	n
22	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.34e+08	1.00	y	42:44	-	0.89	y	n
23	ES	13C-OCDD	200.00	2.02e+08	0.86	y	47:53	-	0.67	y	n
24	ES/RT	13C-2,3,7,8-TCDF	100.00	2.86e+08	0.86	y	32:29	-	1.48	y	n
25	ES	13C-1,2,3,7,8-PeCDF	100.00	2.51e+08	1.71	y	34:55	-	1.29	y	n
26	ES	13C-2,3,4,7,8-PeCDF	100.00	2.38e+08	1.69	y	35:35	-	1.23	y	n
27	ES	13C-1,2,3,4,7,8-HxCDF	100.00	1.90e+08	0.48	y	37:56	-	1.27	y	n
28	ES	13C-1,2,3,6,7,8-HxCDF	100.00	2.05e+08	0.50	y	38:03	-	1.37	y	n
29	ES	13C-2,3,4,6,7,8-HxCDF	100.00	1.87e+08	0.50	y	38:36	-	1.25	y	n
30	ES	13C-1,2,3,7,8,9-HxCDF	100.00	1.52e+08	0.49	y	39:31	-	1.02	y	n
31	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.45e+08	0.47	y	41:16	-	0.97	y	n
32	ES	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.18e+08	0.46	y	43:34	-	0.79	y	n
33	JS	13C-1,2,3,4-TCDD	100.00	1.94e+08	0.76	y	32:34	1.94e+06	-	n	n
34	JS	13C-1,2,3,7,8,9-HxCDD	100.00	1.49e+08	1.16	y	39:07	1.49e+06	-	n	n
35	CS	37Cl-2,3,7,8-TCDD	0.25	5.88e+05			32:53	-	1.21	y	n
36	Tot	Total Tetra-Furans	0.00	-	-	n	-	-	1.09	y	n
37	Tot	Total Tetra-Dioxins	0.00	-	-	n	-	-	1.34	y	n
38	Tot	Total Penta-Furans Fn1	0.00	-	-	n	-	-	1.12	y	n
39	Tot	Total Penta-Furans Fn2	0.00	-	-	n	-	-	1.12	y	n
40	Tot	Total Penta-Dioxins	0.00	-	-	n	-	-	1.04	y	n
41	Tot	Total Hexa-Furans	0.00	-	-	n	-	-	1.27	y	n

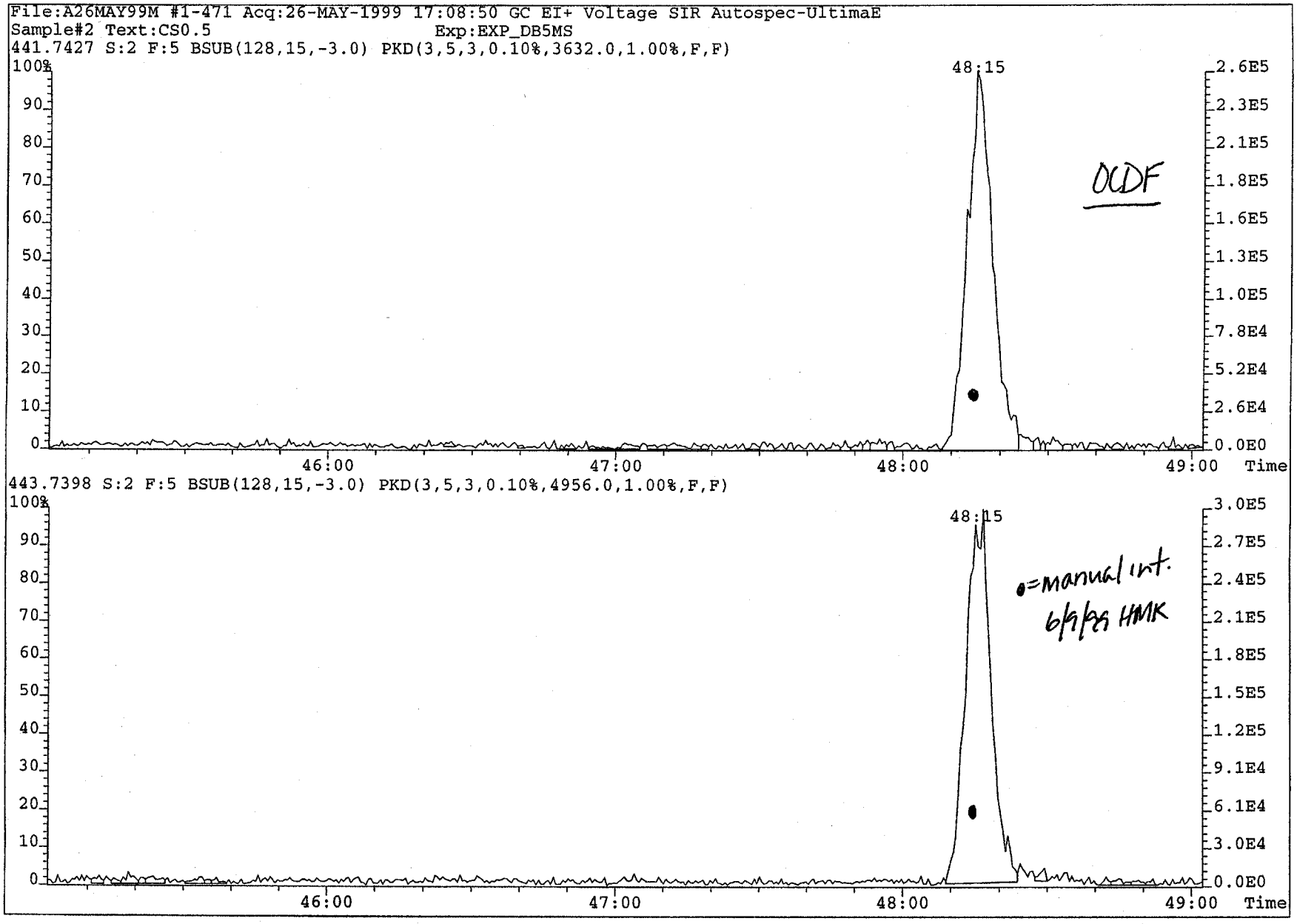
$RRF = \frac{1.92 \times 10^6}{1.25} \times \frac{1.30 \times 10^8}{} \times 100 =$

1.18 OK

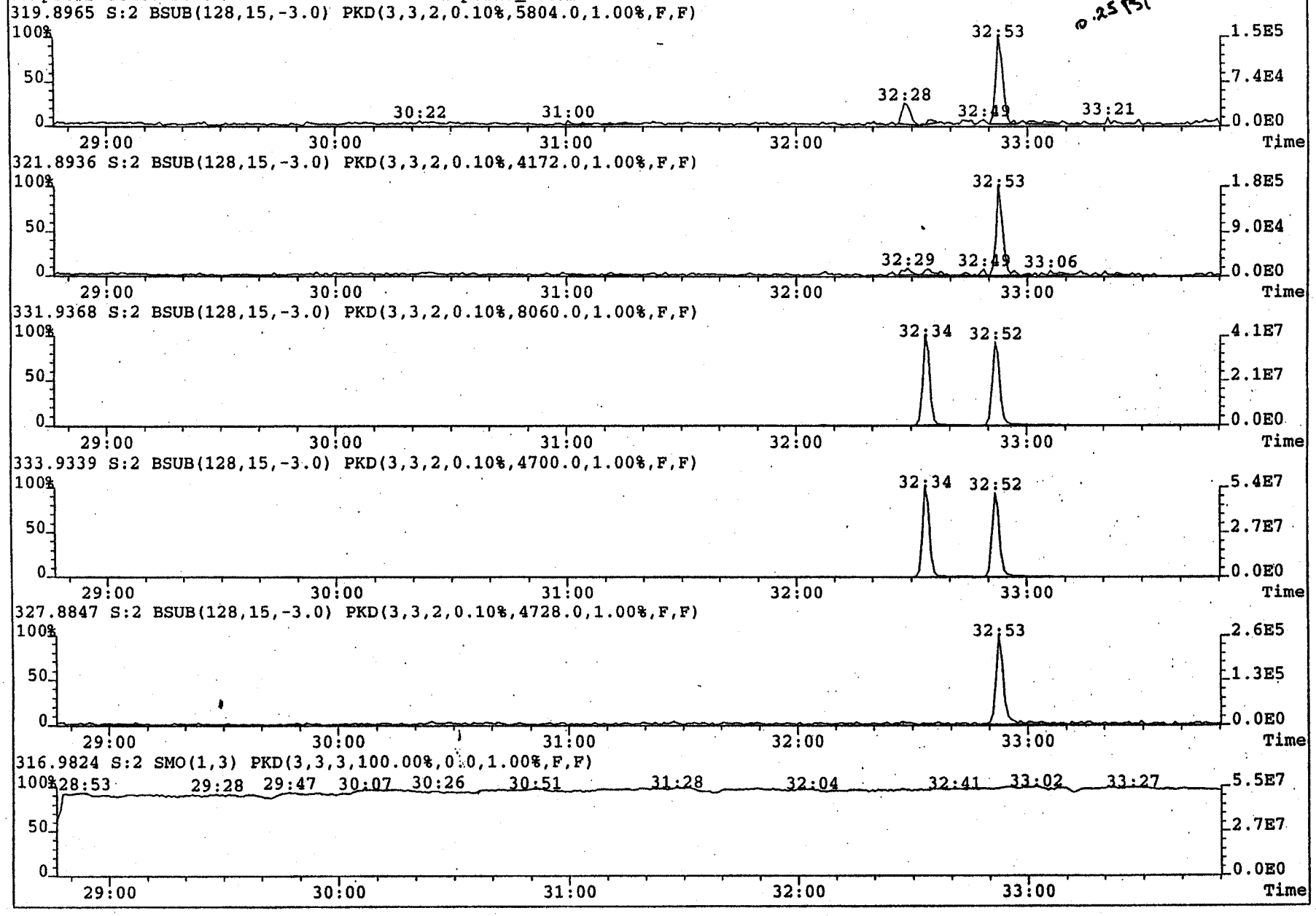
SICP + Inh. ? 1.2%

1.3 ?

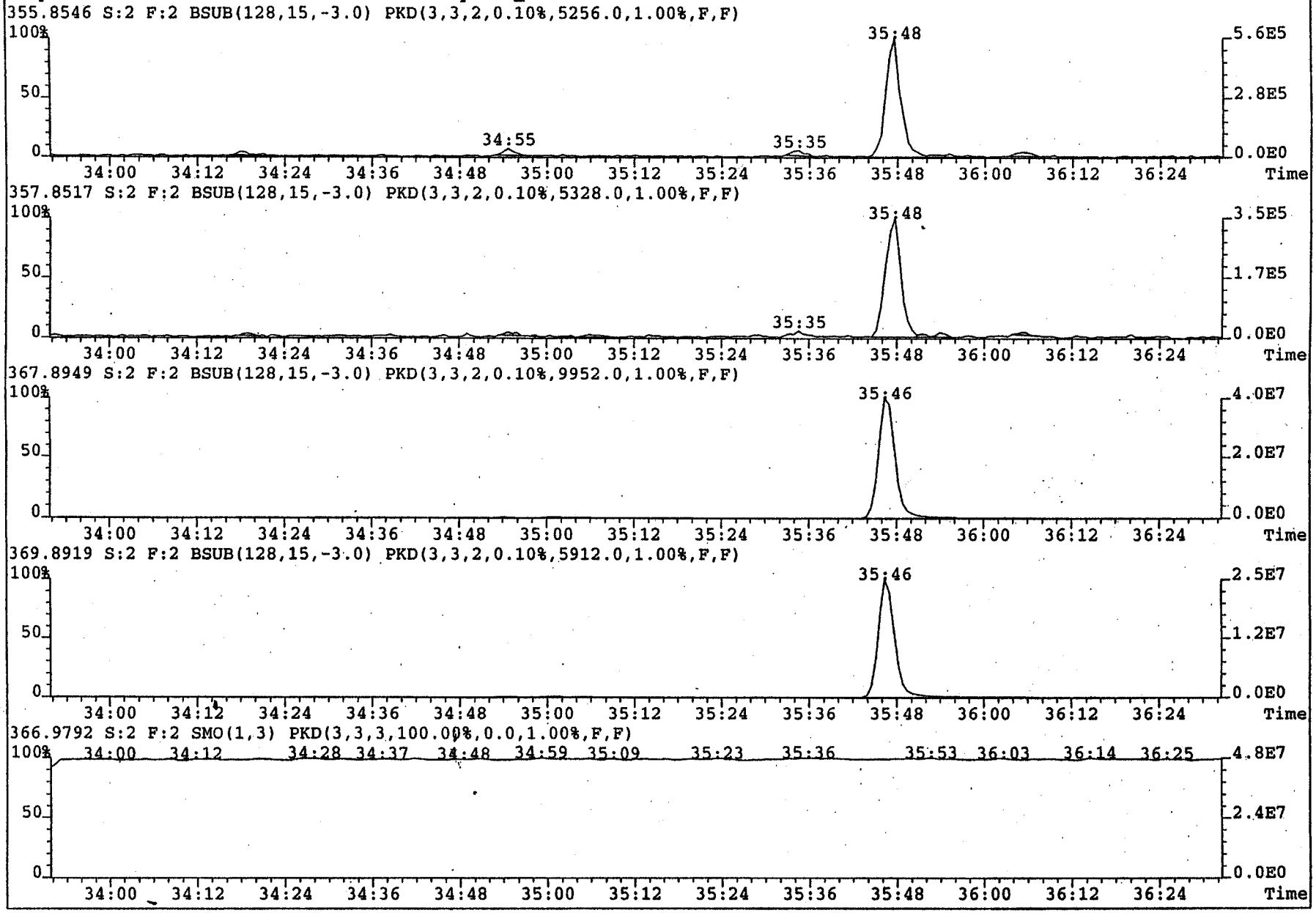

File:A26MAY99M #1-372 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS
373.8207 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5396.0,1.00%,F,F)
37:57
38:03
38:37
39:32
HxCDF
375.8178 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5936.0,1.00%,F,F)
37:56
38:03
38:37
39:32
36:52
•=manual int.
6/9/99 HMK
37:00
38:00
39:00
40:00
Time

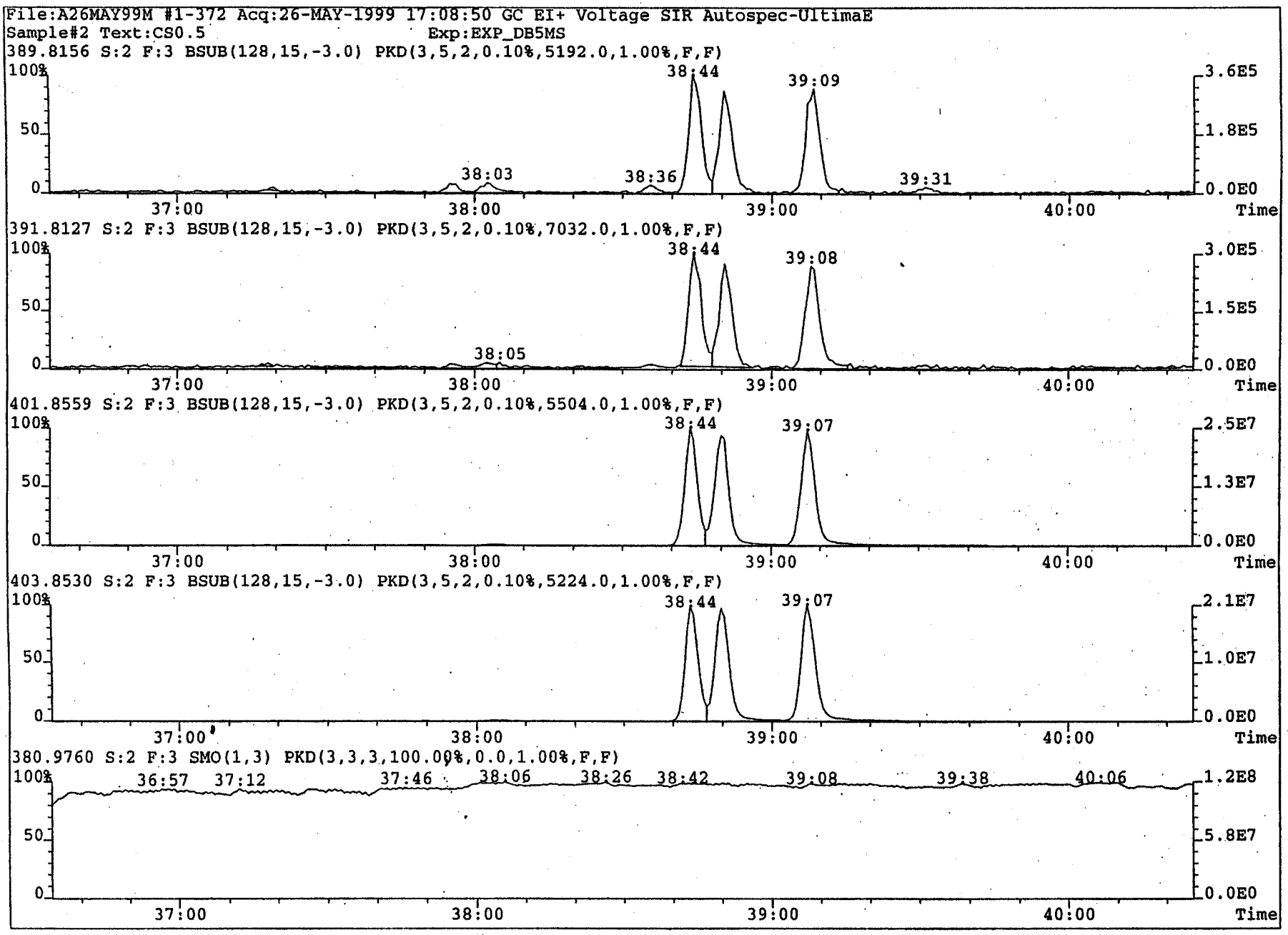

File:A26MAY99M #1-471 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS
441.7427 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3632.0,1.00%,F,F)
48:15
OCDF
443.7398 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4956.0,1.00%,F,F)
48:15
•=manual int.
6/9/99 HMK
46:00
47:00
48:00
49:00
Time

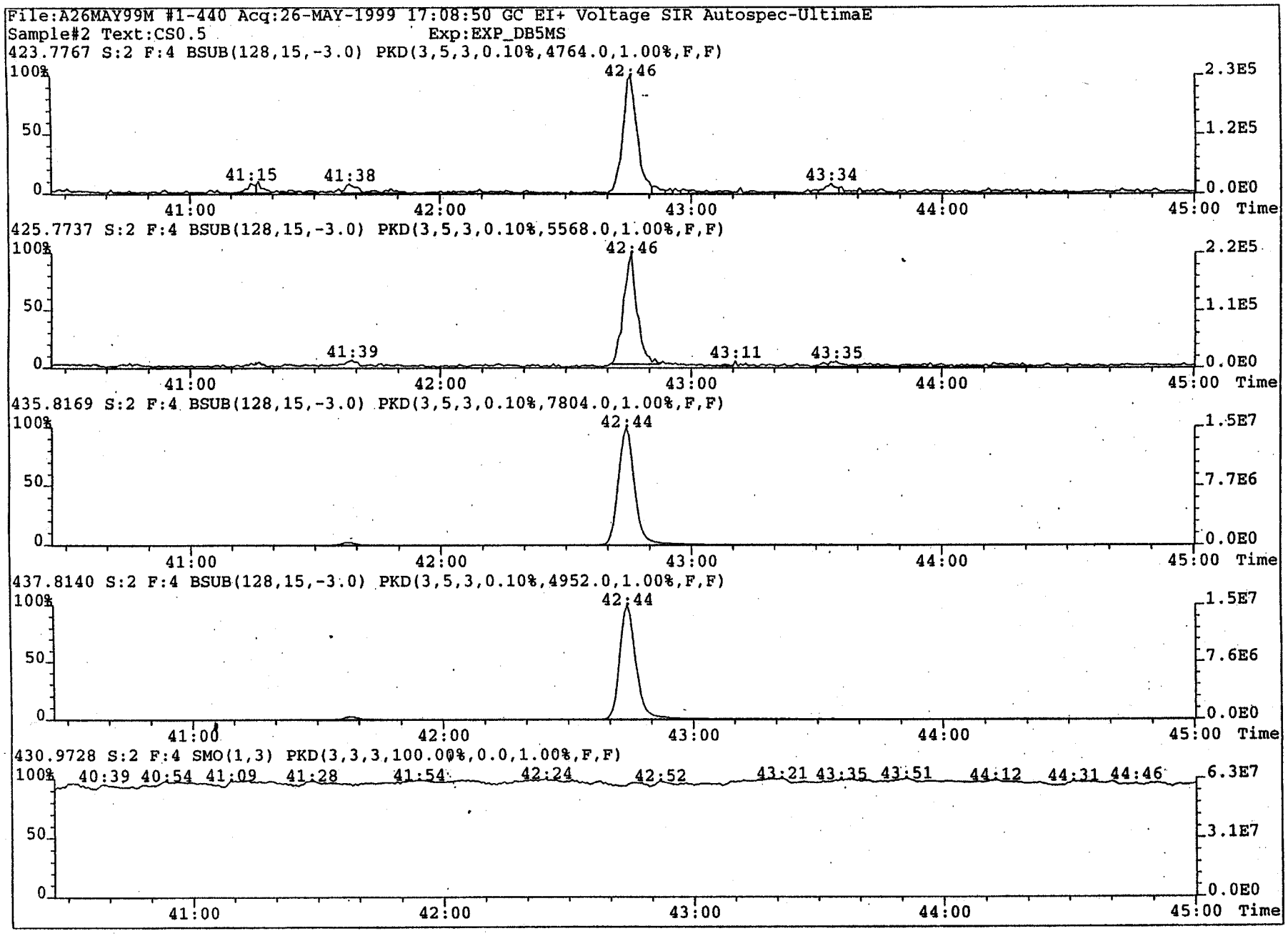
File:A26MAY99M #1-386 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS

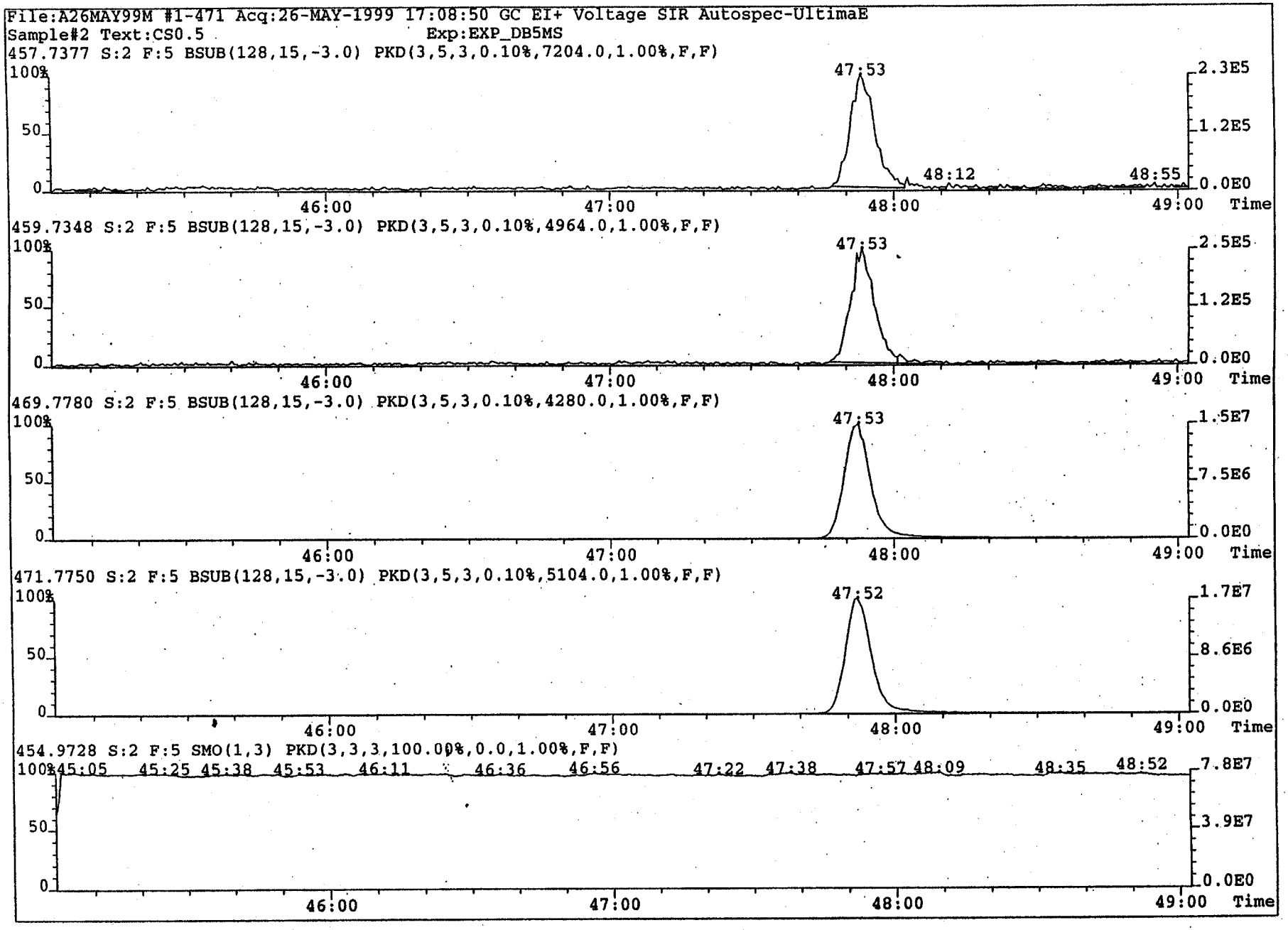


File:A26MAY99M #1-259 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS

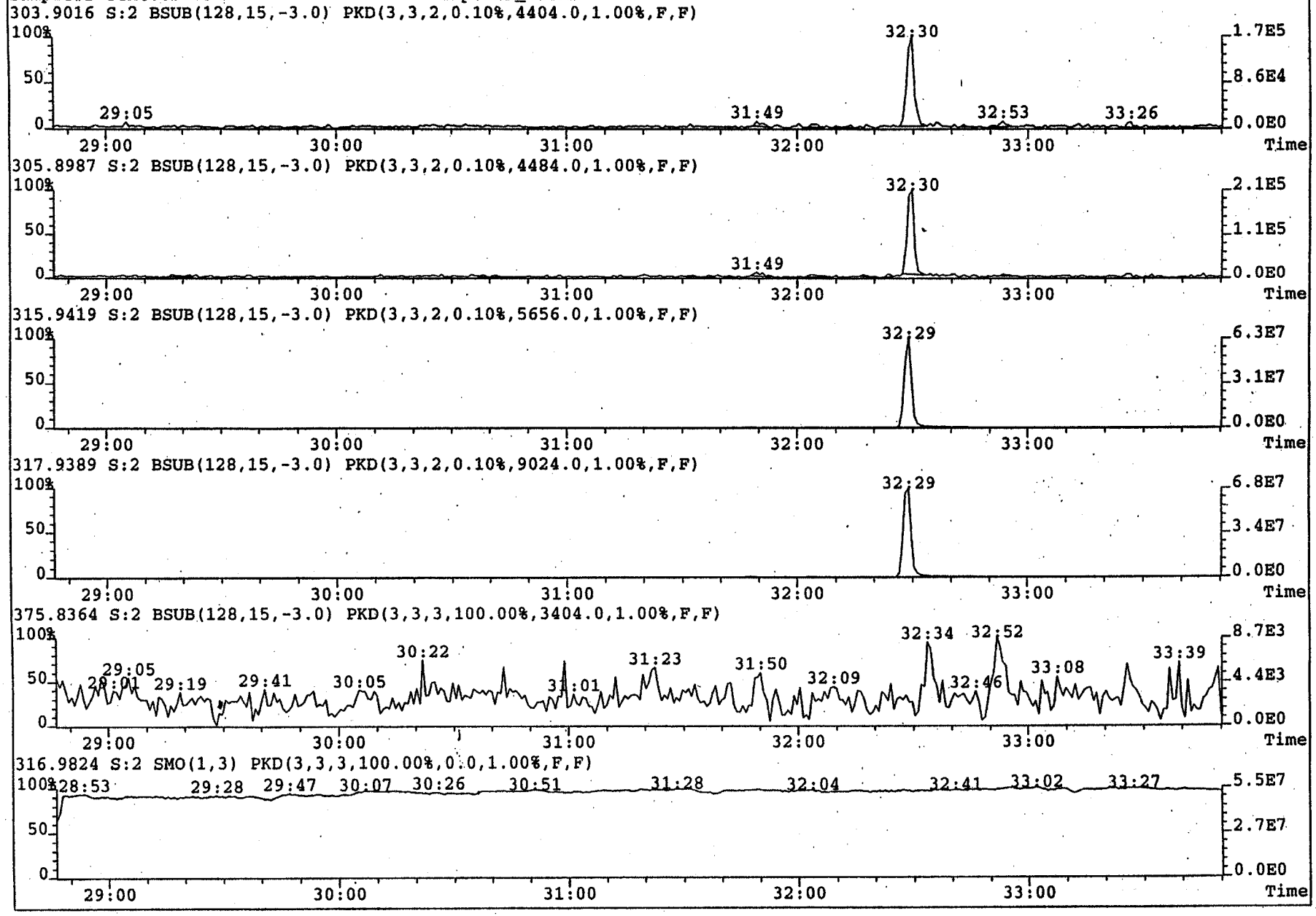



File:A26MAY99M #1-372 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS
389.8156 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5192.0,1.00%,F,F)
38:44
39:09
38:03
38:36
39:31
3.6E5
1.8E5
0.0E0
391.8127 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7032.0,1.00%,F,F)
38:44
39:08
38:05
3.0E5
1.5E5
0.0E0
401.8559 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5504.0,1.00%,F,F)
38:44
39:07
2.5E7
1.3E7
0.0E0
403.8530 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5224.0,1.00%,F,F)
38:44
39:07
2.1E7
1.0E7
0.0E0
380.9760 S:2 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
36:57
37:12
37:46
38:06
38:26
38:42
39:08
39:38
40:06
1.2E8
5.8E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

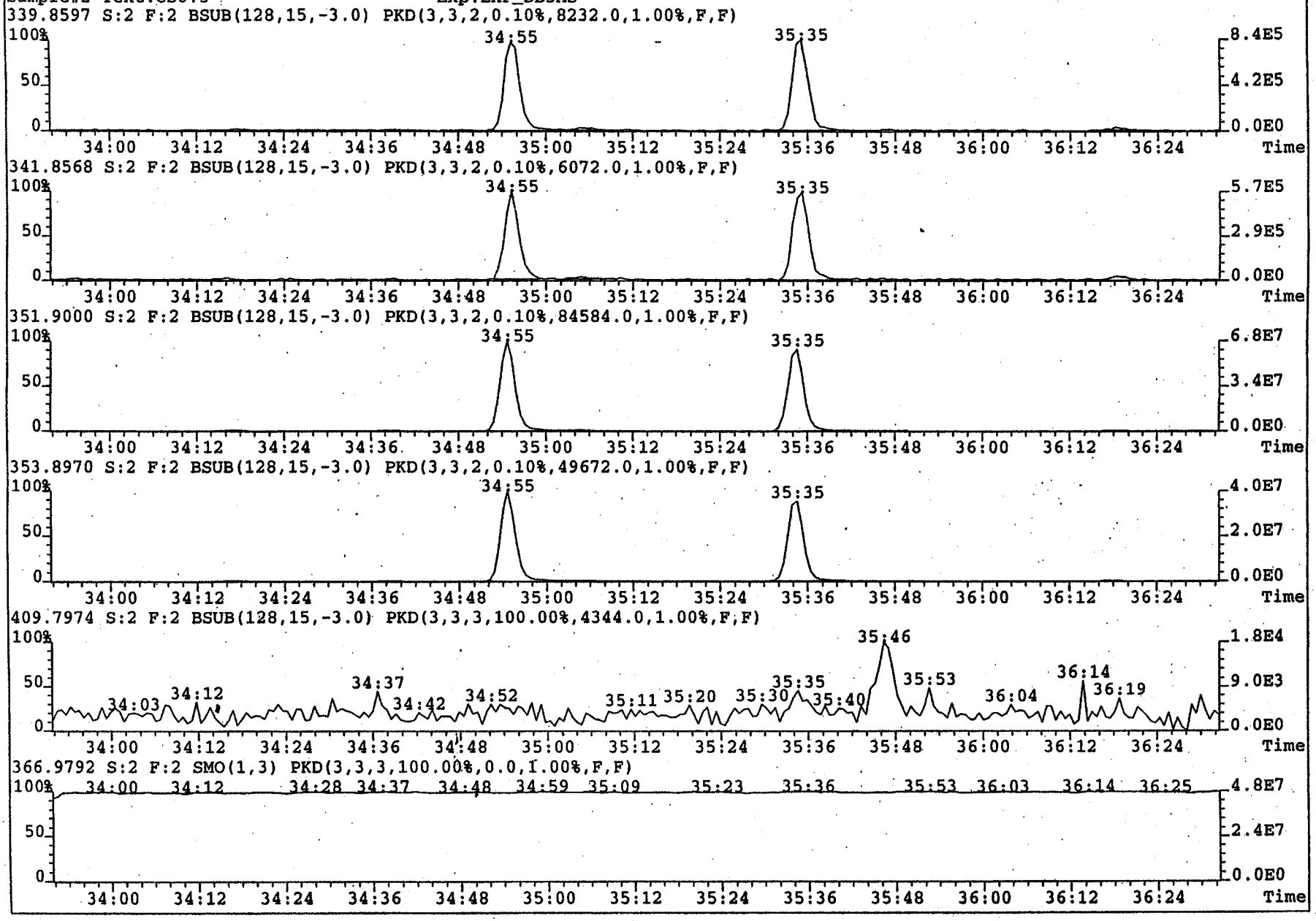

File:A26MAY99M #1-440 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS
423.7767 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4764.0,1.00%,F,F)
42:46
41:15
41:38
43:34
2.3E5
1.2E5
0.0E0
425.7737 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5568.0,1.00%,F,F)
42:46
41:39
43:11
43:35
2.2E5
1.1E5
0.0E0
435.8169 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7804.0,1.00%,F,F)
42:44
1.5E7
7.7E6
0.0E0
437.8140 S:2 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4952.0,1.00%,F,F)
42:44
1.5E7
7.6E6
0.0E0
430.9728 S:2 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
40:39 40:54 41:09 41:28 41:54 42:24 42:52 43:21 43:35 43:51 44:12 44:31 44:46
6.3E7
3.1E7
0.0E0
100%
50
0
41:00
42:00
43:00
44:00
45:00
Time

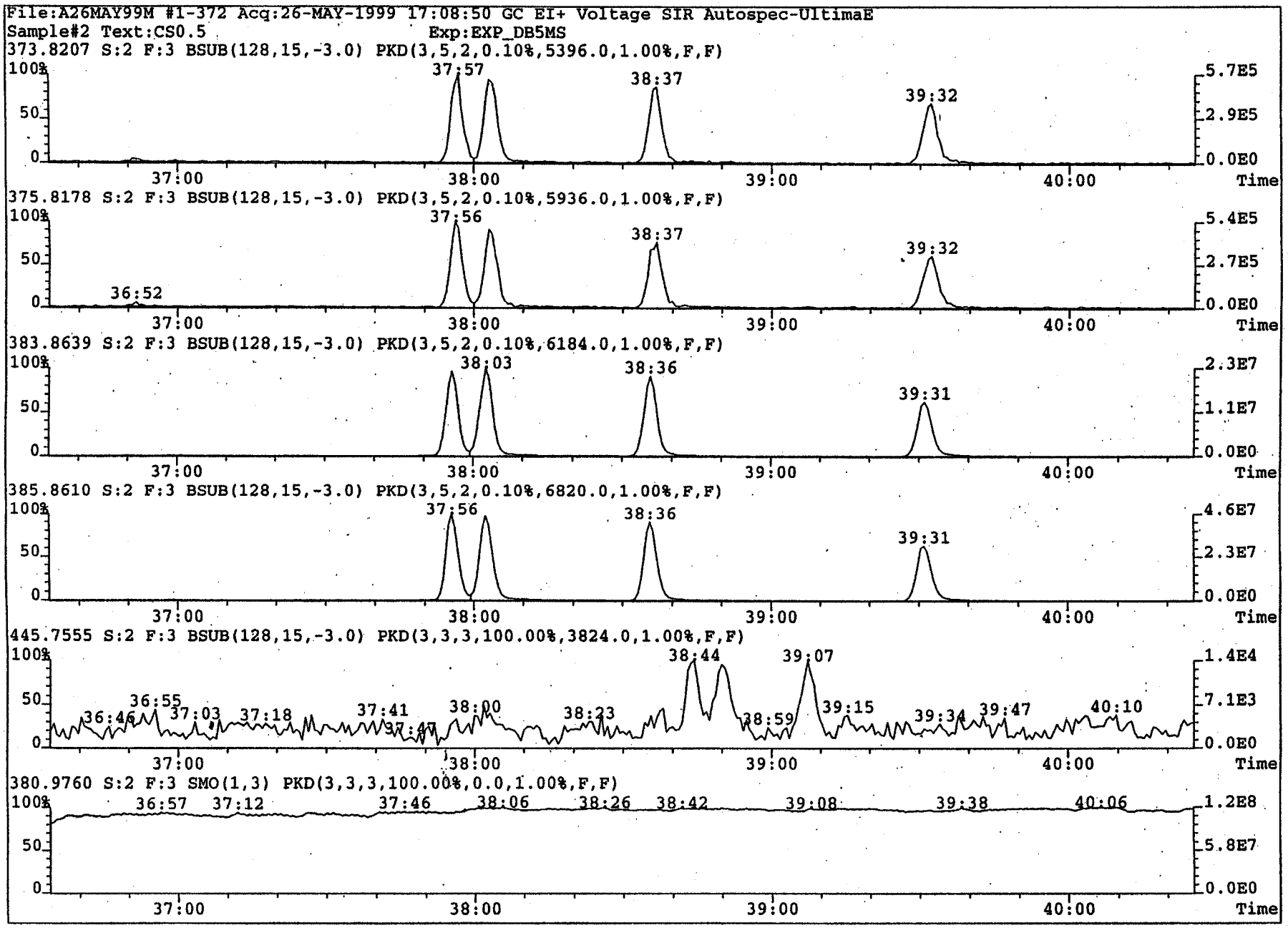

File:A26MAY99M #1-471 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS
457.7377 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7204.0,1.00%,F,F)
47:53
48:12
48:55
2.3E5
1.2E5
0.0E0
459.7348 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4964.0,1.00%,F,F)
47:53
2.5E5
1.2E5
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4280.0,1.00%,F,F)
47:53
1.5E7
7.5E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5104.0,1.00%,F,F)
47:52
1.7E7
8.6E6
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
45:05 45:25 45:38 45:53 46:11 46:36 46:56 47:22 47:38 47:57 48:09 48:35 48:52
7.8E7
3.9E7
0.0E0
100%
50
0
46:00
47:00
48:00
49:00
Time

File:A26MAY99M #1-386 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS

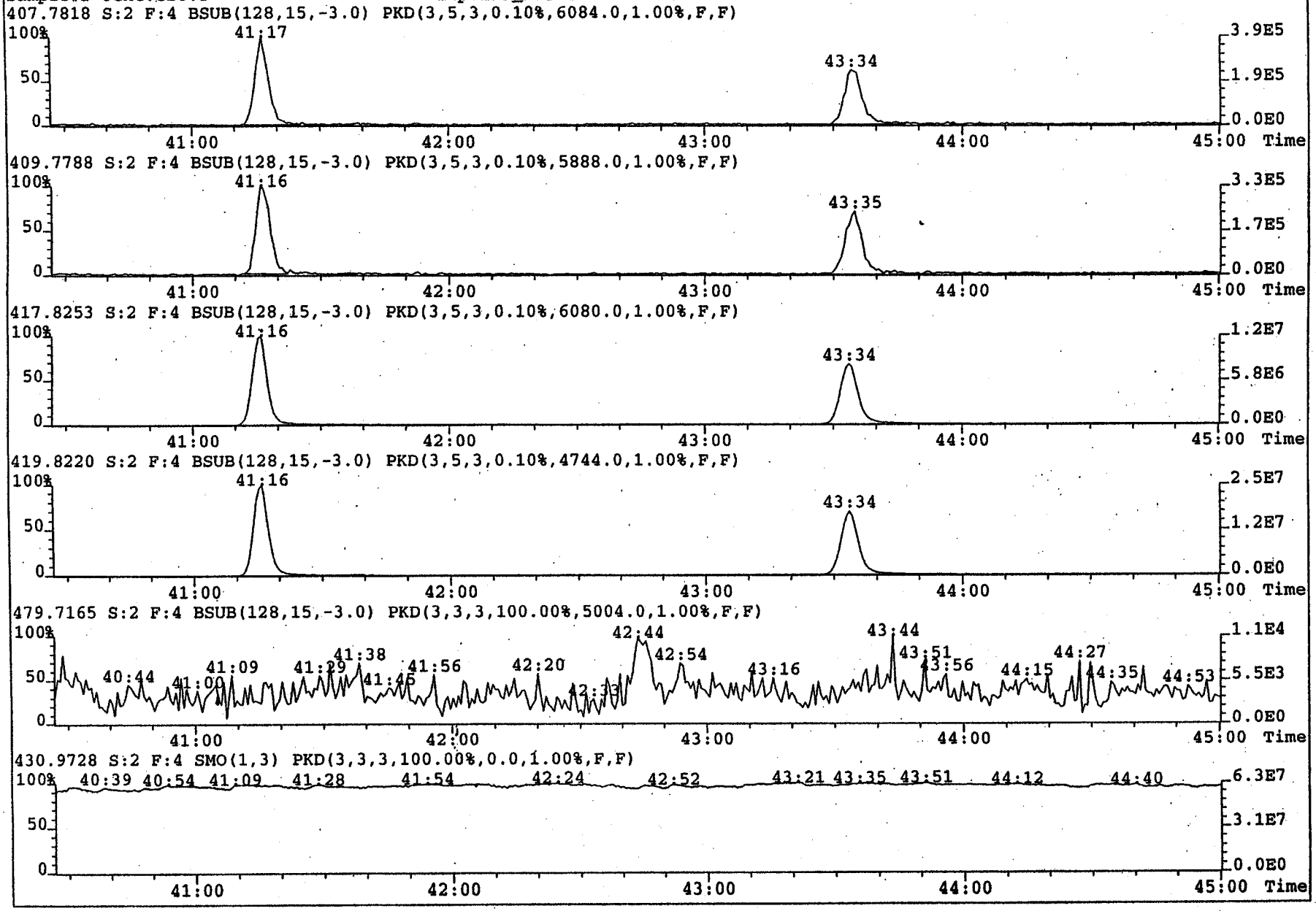


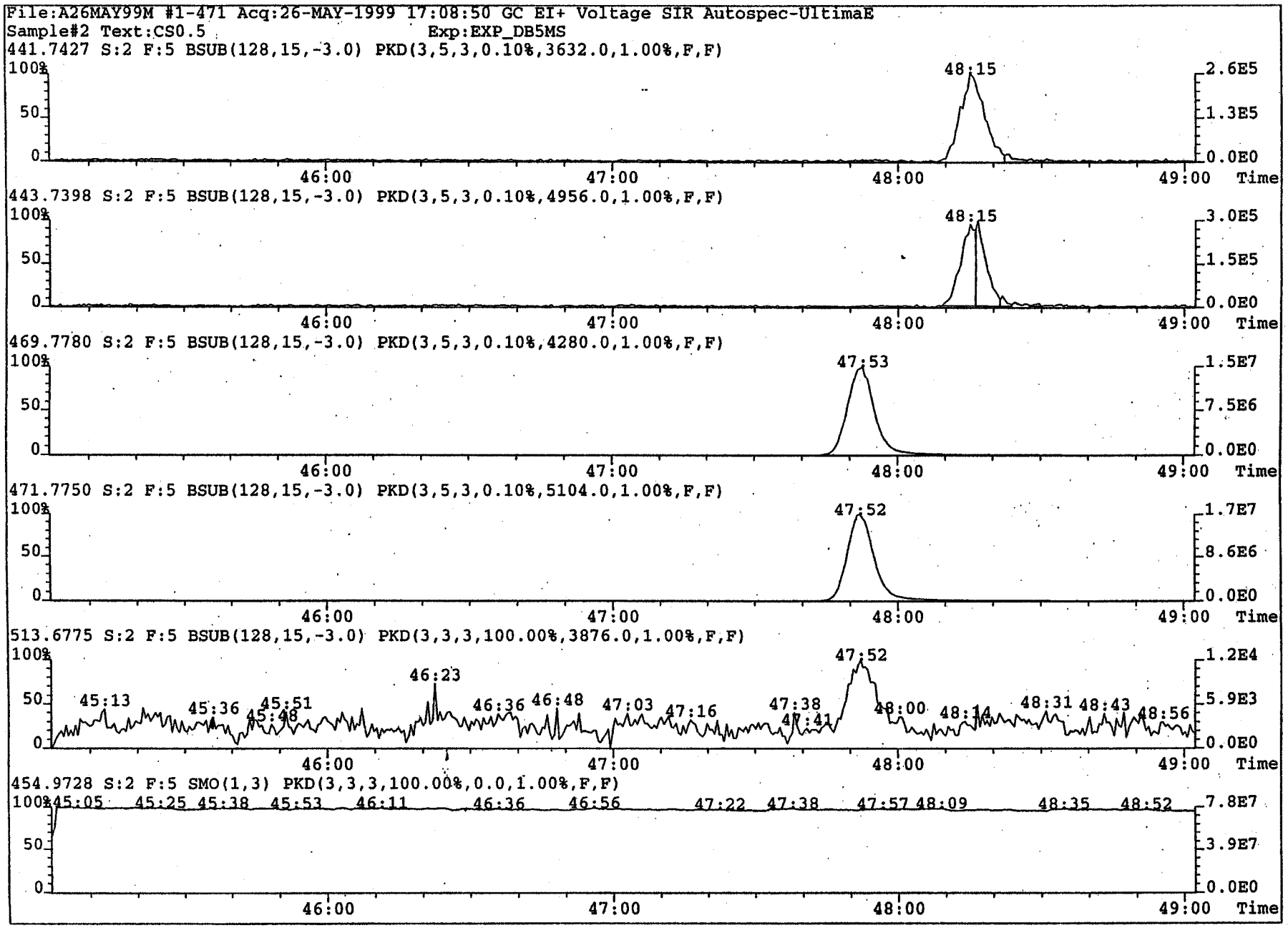
File:A26MAY99M #1-259 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS




File:A26MAY99M #1-372 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS
373.8207 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5396.0,1.00%,F,F)
37:57
38:37
39:32
5.7E5
2.9E5
0.0E0
375.8178 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5936.0,1.00%,F,F)
37:56
38:37
39:32
36:52
5.4E5
2.7E5
0.0E0
383.8639 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6184.0,1.00%,F,F)
38:03
38:36
39:31
2.3E7
1.1E7
0.0E0
385.8610 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6820.0,1.00%,F,F)
37:56
38:36
39:31
4.6E7
2.3E7
0.0E0
445.7555 S:2 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3824.0,1.00%,F,F)
38:44
39:07
36:46
36:55
37:03
37:18
37:41
37:47
38:00
38:23
38:59
39:15
39:34
39:47
40:10
1.4E4
7.1E3
0.0E0
380.9760 S:2 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
36:57
37:12
37:46
38:06
38:26
38:42
39:08
39:38
40:06
1.2E8
5.8E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

File:A26MAY99M #1-440 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS




File:A26MAY99M #1-471 Acq:26-MAY-1999 17:08:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 Exp:EXP_DB5MS
441.7427 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3632.0,1.00%,F,F)
48:15
2.6E5
1.3E5
0.0E0
443.7398 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4956.0,1.00%,F,F)
48:15
3.0E5
1.5E5
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4280.0,1.00%,F,F)
47:53
1.5E7
7.5E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5104.0,1.00%,F,F)
47:52
1.7E7
8.6E6
0.0E0
513.6775 S:2 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3876.0,1.00%,F,F)
47:52
46:23
45:13
45:36
45:51
45:48
46:36
46:48
47:03
47:16
47:38
47:41
48:00
48:14
48:31
48:43
48:56
1.2E4
5.9E3
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
45:05
45:25
45:38
45:53
46:11
46:36
46:56
47:22
47:38
47:57
48:09
48:35
48:52
7.8E7
3.9E7
0.0E0
100%
50
0
46:00
47:00
48:00
49:00
Time

Run #2 Filename a26may99m S: 4 I: 1 Acquired: 26-MAY-99 18:51:46 Processed: 9-JUN-99 10:37:16
Run: Analyte: m1613-060» Cal: Results: Version: V3.6 31-JUL-1998 10:51:59
Sample text: CS2 Comments:

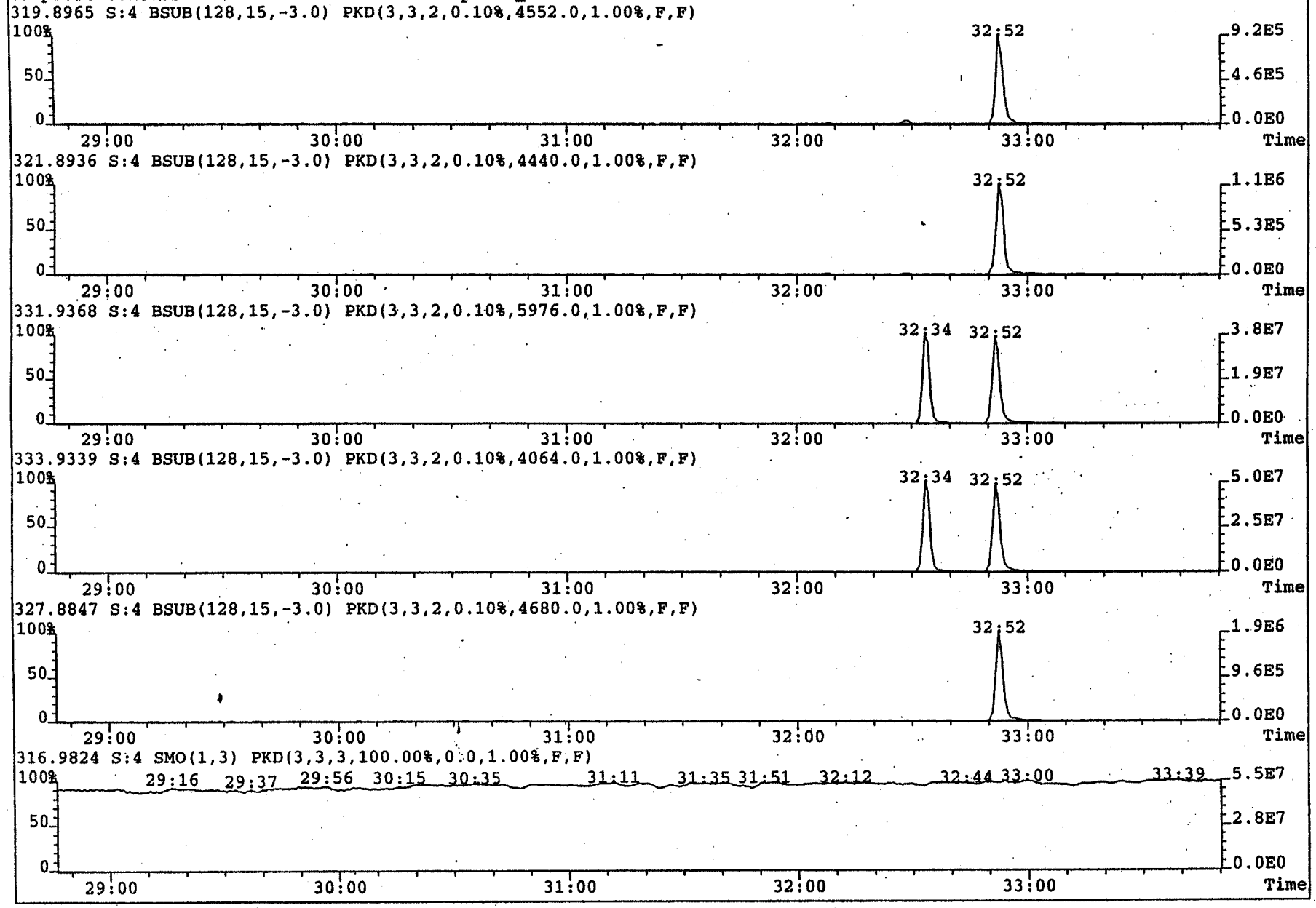
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	2.00	4.43e+06	0.81 y	32:52	-	1.13	y	n
2	Unk	1,2,3,7,8-PeCDD	10.00	1.68e+07	1.64 y	35:48	-	1.05	y	n
3	Unk	1,2,3,4,7,8-HxCDD	10.00	1.41e+07	1.15 y	38:45	-	1.15	y	n
4	Unk	1,2,3,6,7,8-HxCDD	10.00	1.32e+07	1.11 y	38:50	-	0.95	y	n
5	Unk	1,2,3,7,8,9-HxCDD	10.00	1.58e+07	1.18 y	39:08	-	1.21	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	1.42e+07	1.08 y	42:45	-	1.01	y	n
7	Unk	OCDD	20.00	2.41e+07	0.88 y	47:53	-	1.06	y	n
8	Unk	2,3,7,8-TCDF	2.00	6.27e+06	0.81 y	32:30	-	1.13	y	n
9	Unk	1,2,3,7,8-PeCDF	10.00	2.65e+07	1.61 y	34:55	-	1.05	y	n
10	Unk	2,3,4,7,8-PeCDF	10.00	2.72e+07	1.61 y	35:35	-	1.14	y	n
11	Unk	1,2,3,4,7,8-HxCDF	10.00	2.33e+07	1.12 y	37:56	-	1.21	y	n
12	Unk	1,2,3,6,7,8-HxCDF	10.00	2.40e+07	1.09 y	38:04	-	1.20	y	n
13	Unk	2,3,4,6,7,8-HxCDF	10.00	2.15e+07	1.11 y	38:36	-	1.14	y	n
14	Unk	1,2,3,7,8,9-HxCDF	10.00	2.03e+07	1.16 y	39:32	-	1.27	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	2.23e+07	1.05 y	41:17	-	1.44	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	1.88e+07	1.05 y	43:34	-	1.44	y	n
17	Unk	OCDF	20.00	2.90e+07	0.87 y	48:15	-	1.28	y	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	1.97e+08	0.77 y	32:52	-	1.05	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	1.61e+08	1.59 y	35:47	-	0.86	y	n
20	ES	13C-1,2,3,4,7,8-HxCDD	100.00	1.22e+08	1.14 y	38:44	-	0.79	y	n
21	ES	13C-1,2,3,6,7,8-HxCDD	100.00	1.40e+08	1.14 y	38:50	-	0.90	y	n
22	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.42e+08	1.05 y	42:44	-	0.91	y	n
23	ES	13C-OCDD	200.00	2.27e+08	0.86 y	47:52	-	0.73	y	n
24	ES/RT	13C-2,3,7,8-TCDF	100.00	2.78e+08	0.85 y	32:29	-	1.48	y	n
25	ES	13C-1,2,3,7,8-PeCDF	100.00	2.53e+08	1.68 y	34:55	-	1.35	y	n
26	ES	13C-2,3,4,7,8-PeCDF	100.00	2.38e+08	1.67 y	35:34	-	1.27	y	n
27	ES	13C-1,2,3,4,7,8-HxCDF	100.00	1.92e+08	0.48 y	37:56	-	1.24	y	n
28	ES	13C-1,2,3,6,7,8-HxCDF	100.00	2.00e+08	0.47 y	38:02	-	1.29	y	n
29	ES	13C-2,3,4,6,7,8-HxCDF	100.00	1.88e+08	0.48 y	38:35	-	1.21	y	n
30	ES	13C-1,2,3,7,8,9-HxCDF	100.00	1.60e+08	0.49 y	39:31	-	1.03	y	n
31	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.55e+08	0.46 y	41:16	-	1.00	y	n
32	ES	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.30e+08	0.47 y	43:34	-	0.84	y	n
33	JS	13C-1,2,3,4-TCDD	100.00	1.88e+08	0.77 y	32:34	1.88e+06	-	n	n
34	JS	13C-1,2,3,7,8,9-HxCDD	100.00	1.55e+08	1.19 y	39:07	1.55e+06	-	n	n
35	CS	37Cl-2,3,7,8-TCDD	2.00	4.24e+06		32:52	-	1.13	y	n
36	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.13	y	n
37	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.13	y	n
38	Tot	Total Penta-Furans Fn1	0.00	-	- n	-	-	1.09	y	n
39	Tot	Total Penta-Furans Fn2	0.00	-	- n	-	-	1.09	y	n
40	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.05	y	n
41	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.20	y	n

$$RRF = \frac{1.58\,10^7}{10} \times \frac{(1.22\,10^8 + 1.40\,10^8)}{2} \times 100$$

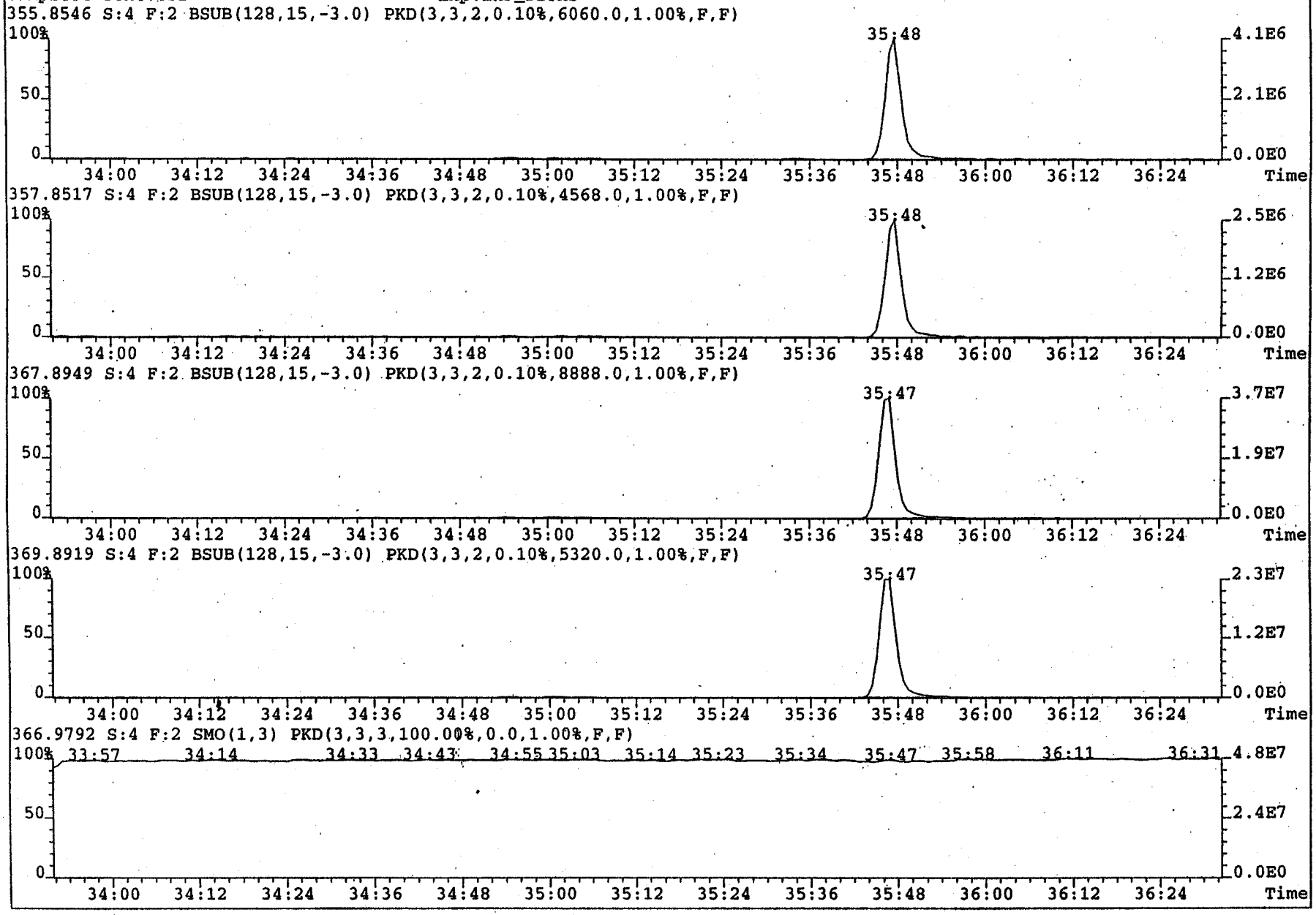
$1.31\,10^8$

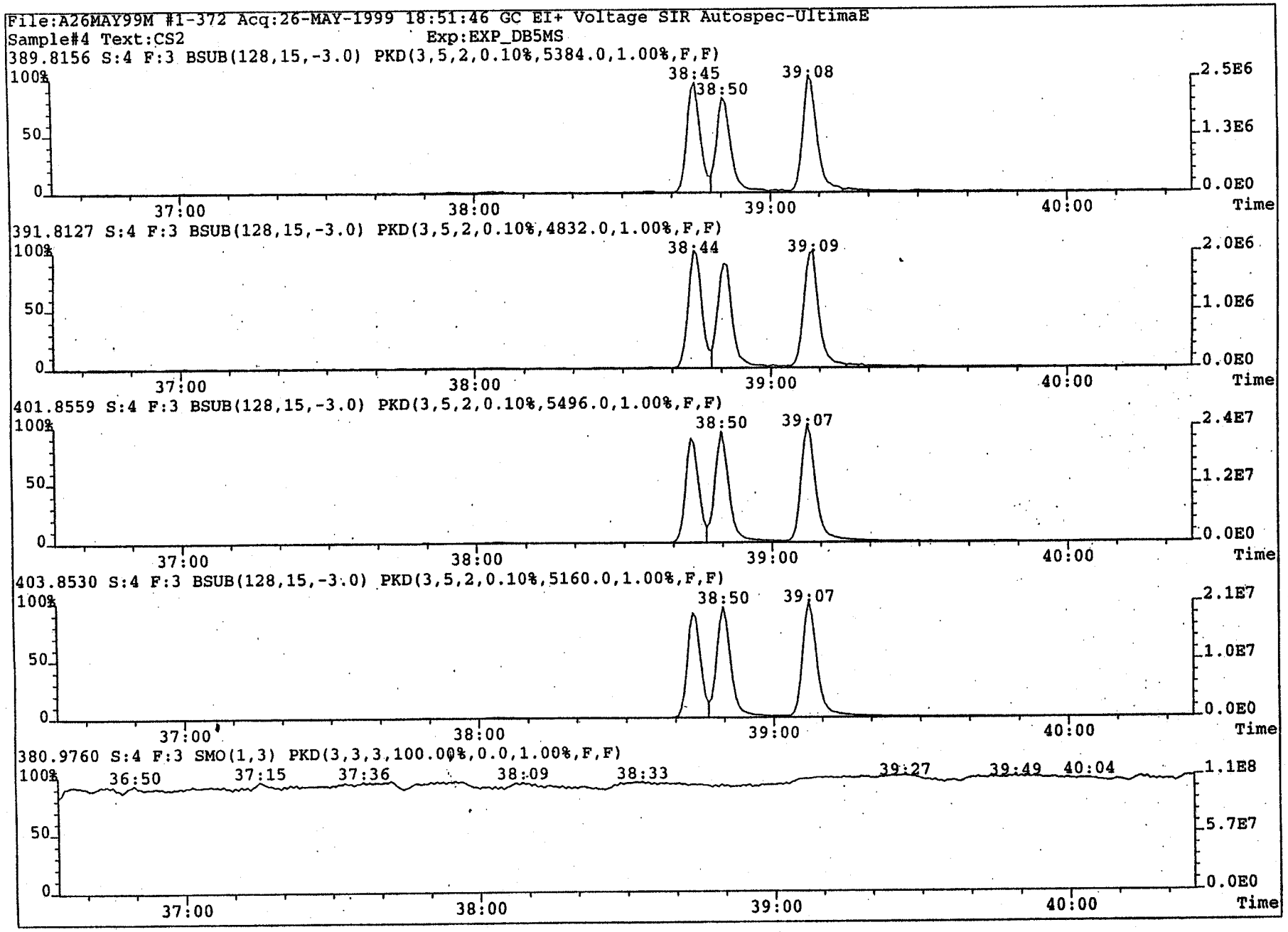
$= 1.21$ ok

File:A26MAY99M #1-386 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS

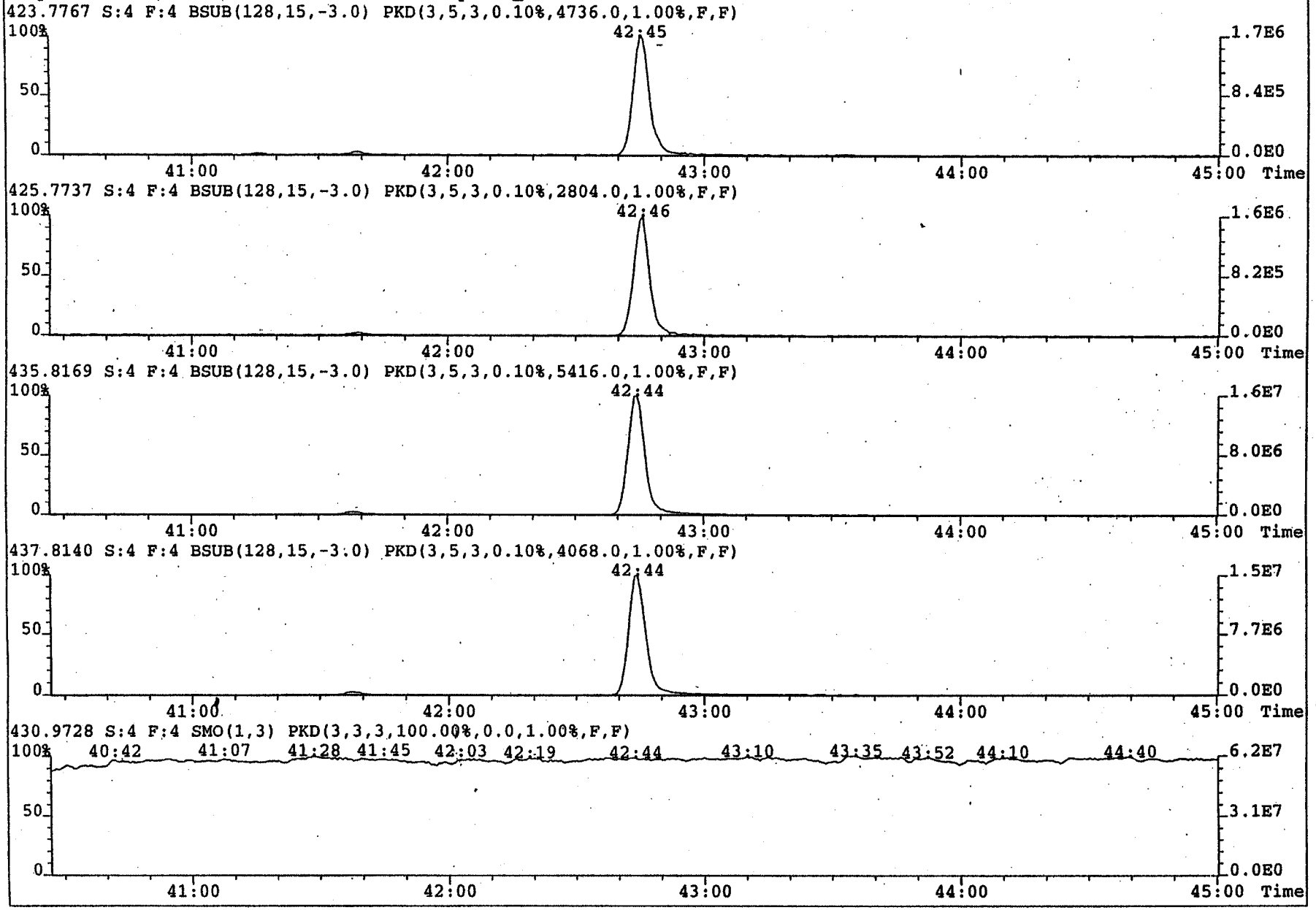


File:A26MAY99M #1-259 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS

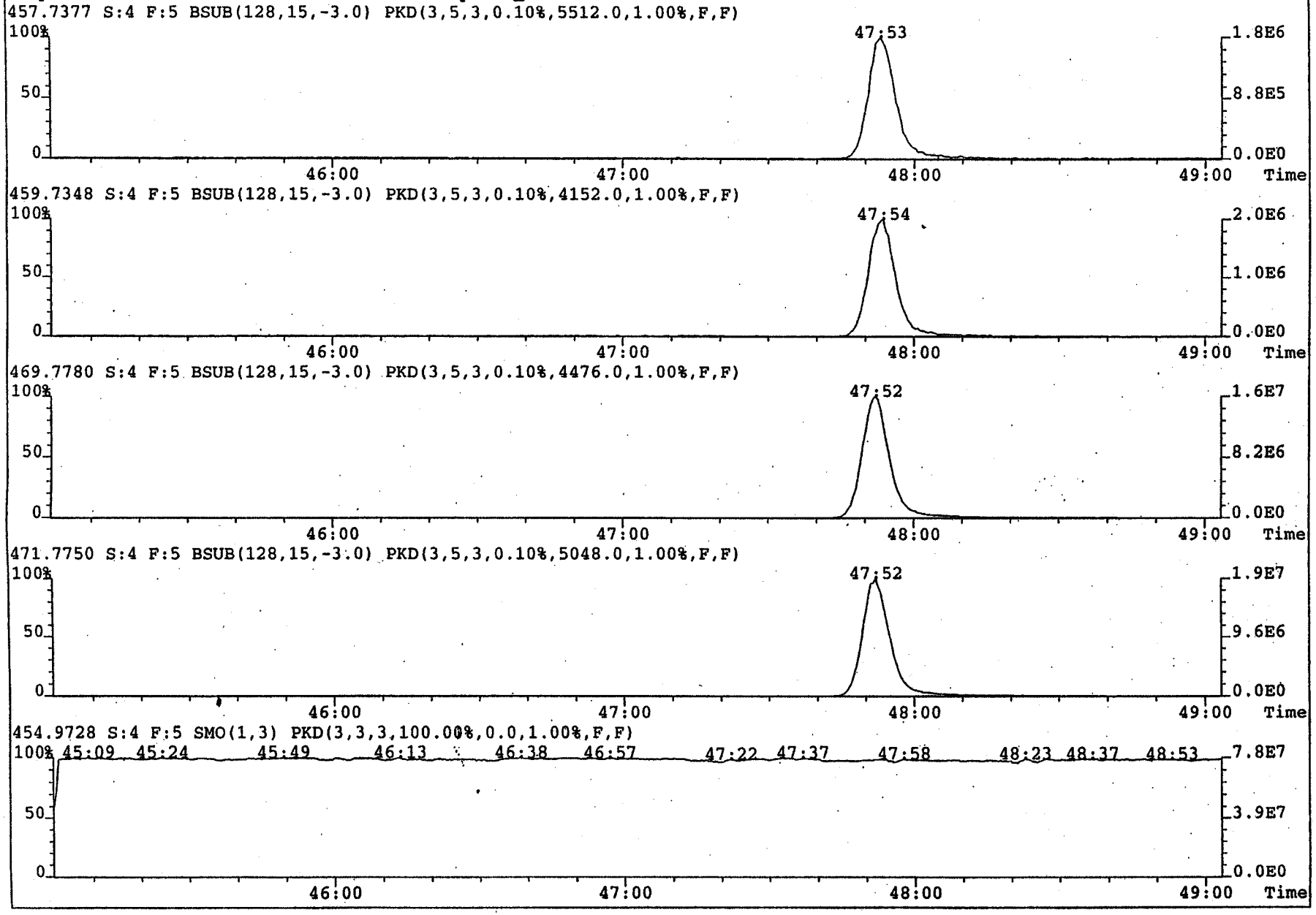



File:A26MAY99M #1-372 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2
Exp:EXP_DB5MS
389.8156 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5384.0,1.00%,F,F)
38:45
38:50
39:08
2.5E6
1.3E6
0.0E0
391.8127 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4832.0,1.00%,F,F)
38:44
39:09
2.0E6
1.0E6
0.0E0
401.8559 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5496.0,1.00%,F,F)
38:50
39:07
2.4E7
1.2E7
0.0E0
403.8530 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5160.0,1.00%,F,F)
38:50
39:07
2.1E7
1.0E7
0.0E0
380.9760 S:4 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
36:50
37:15
37:36
38:09
38:33
39:27
39:49
40:04
1.1E8
5.7E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

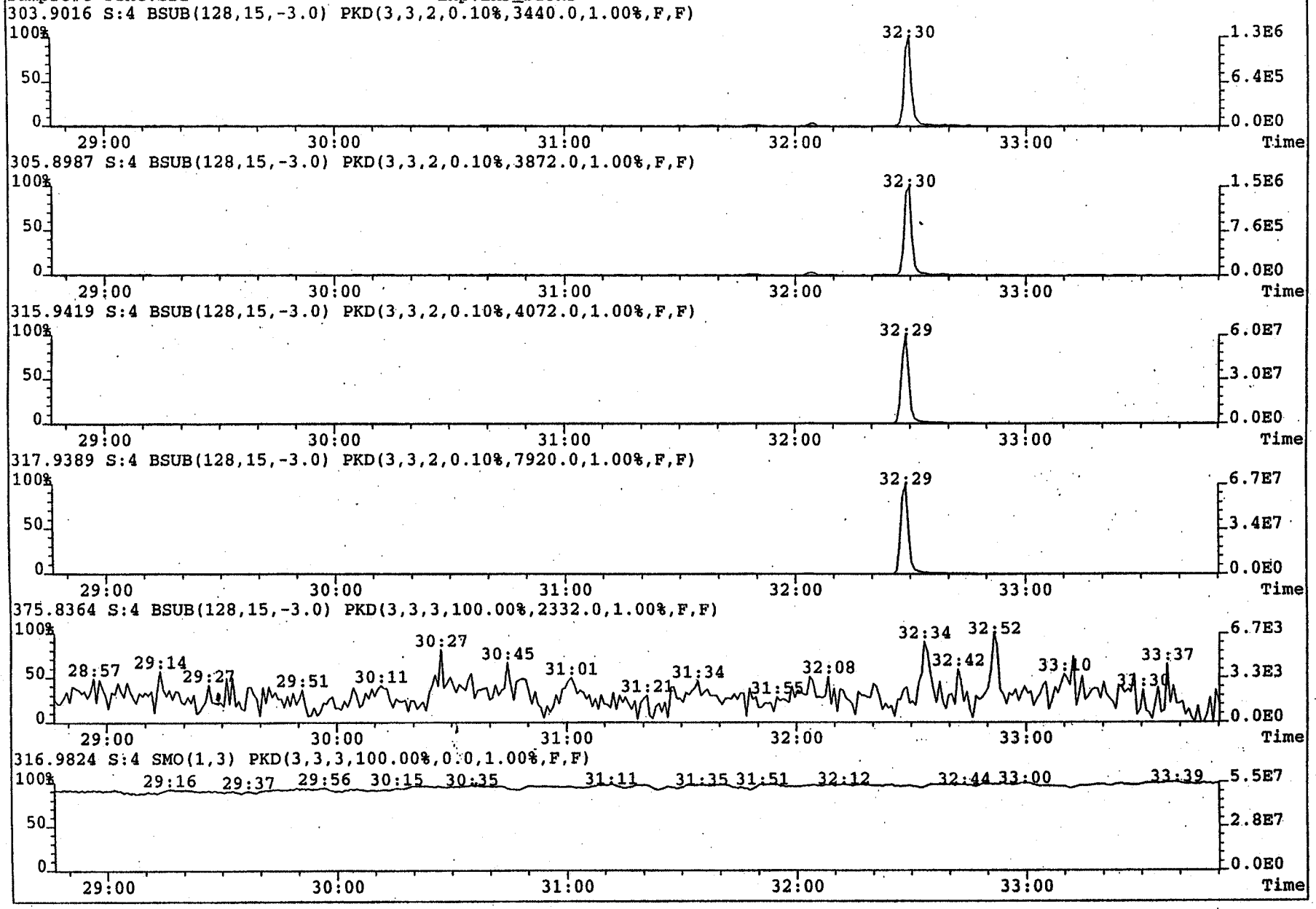
File:A26MAY99M #1-440 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS



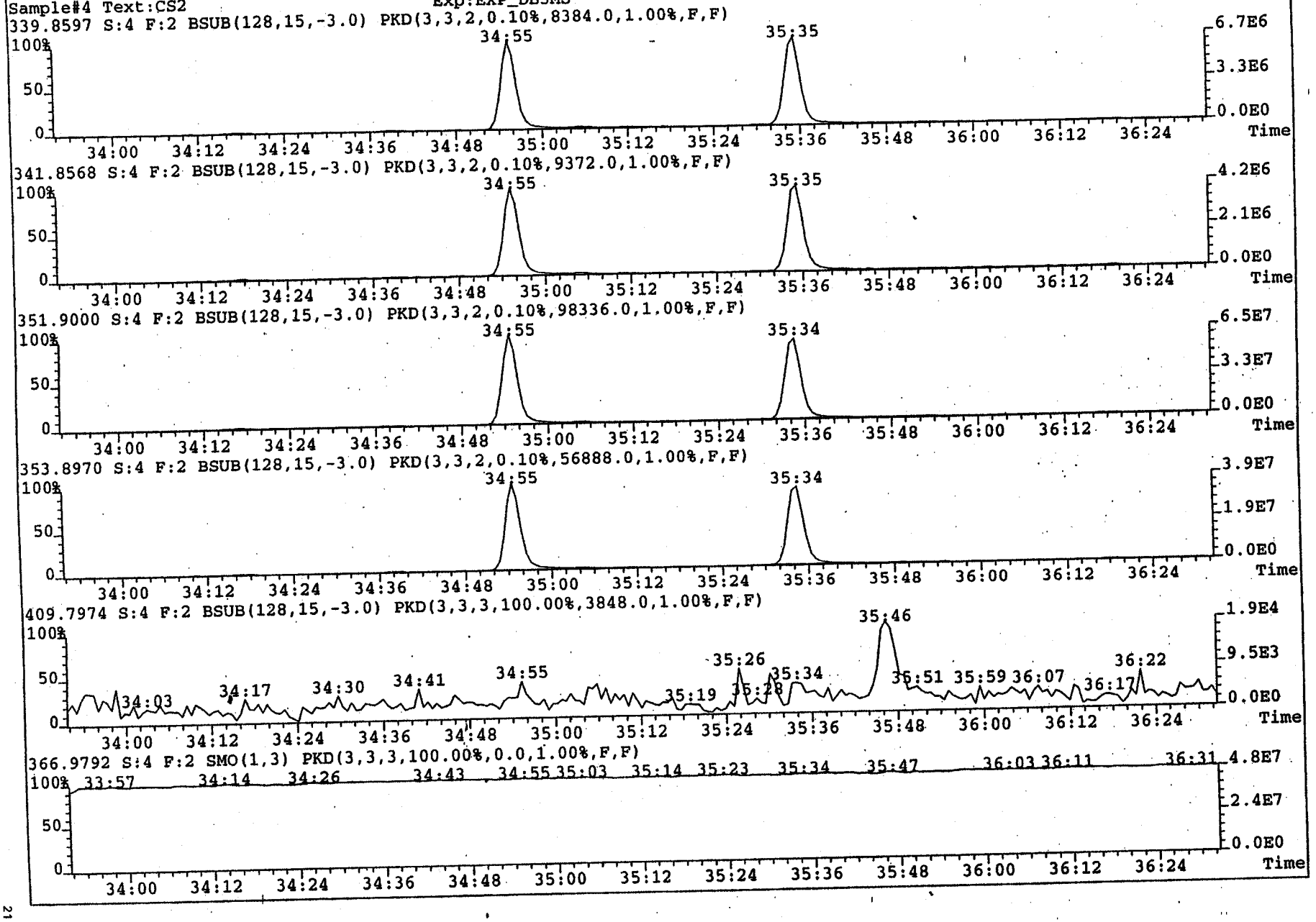
File:A26MAY99M #1-473 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS

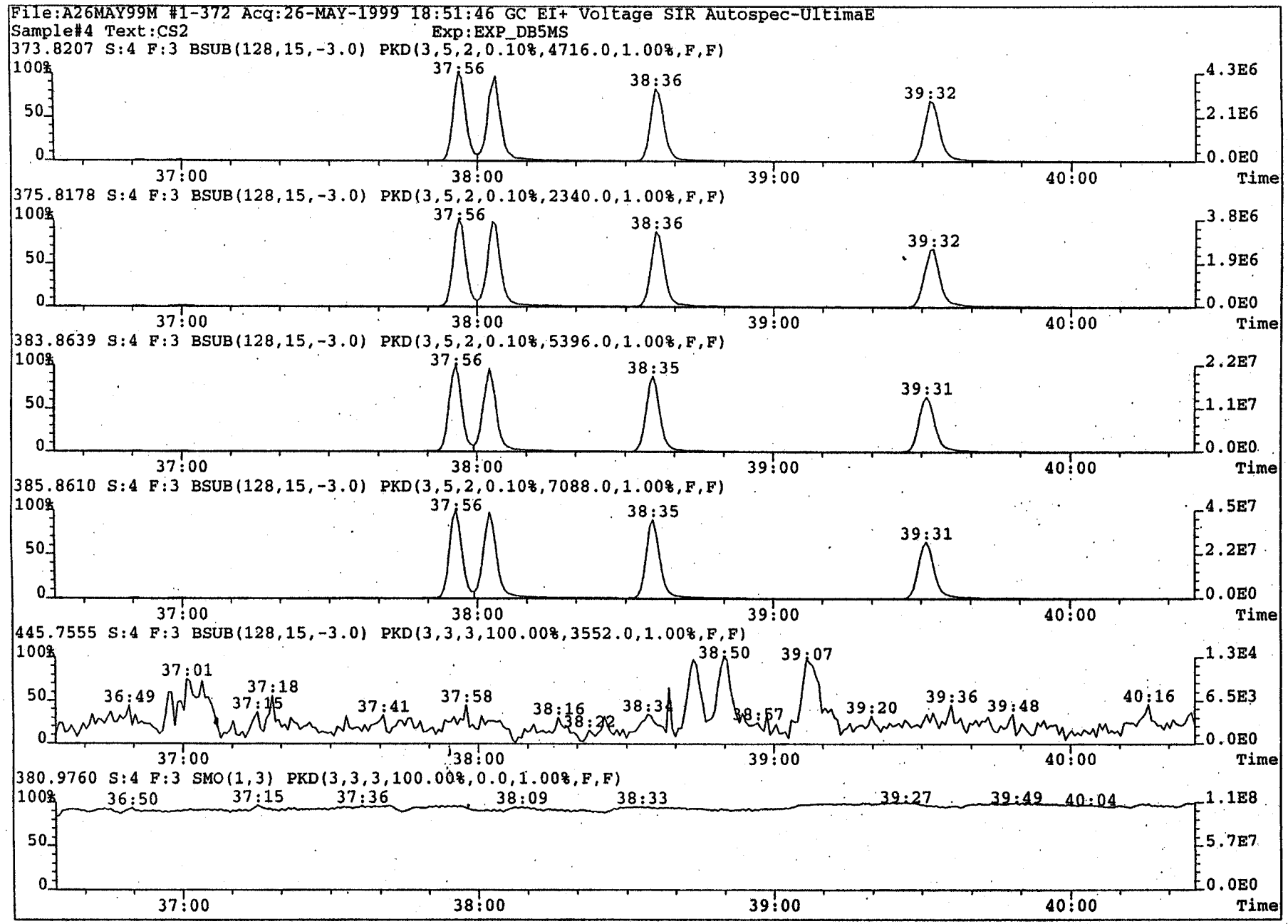


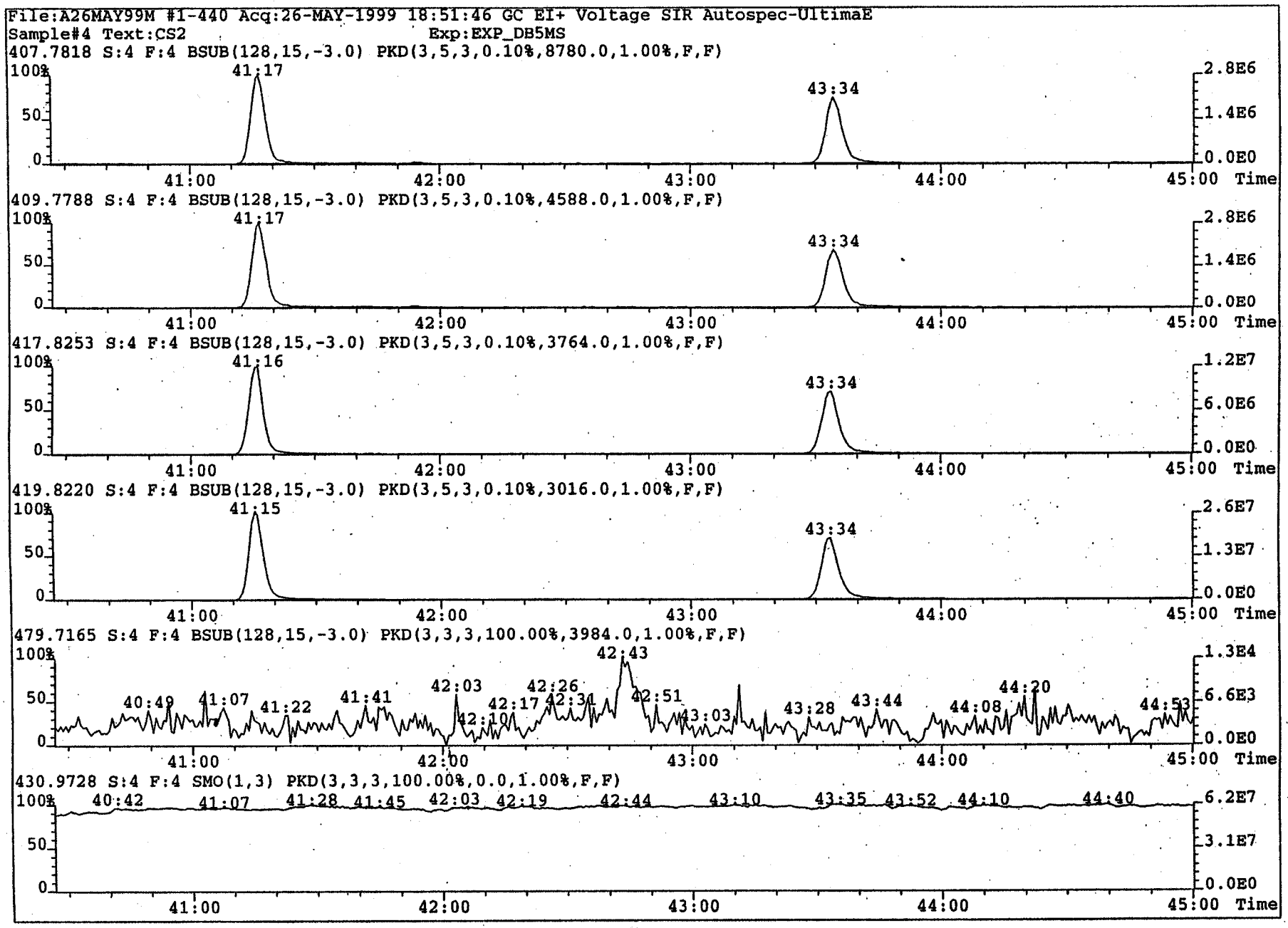
File:A26MAY99M #1-386 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS

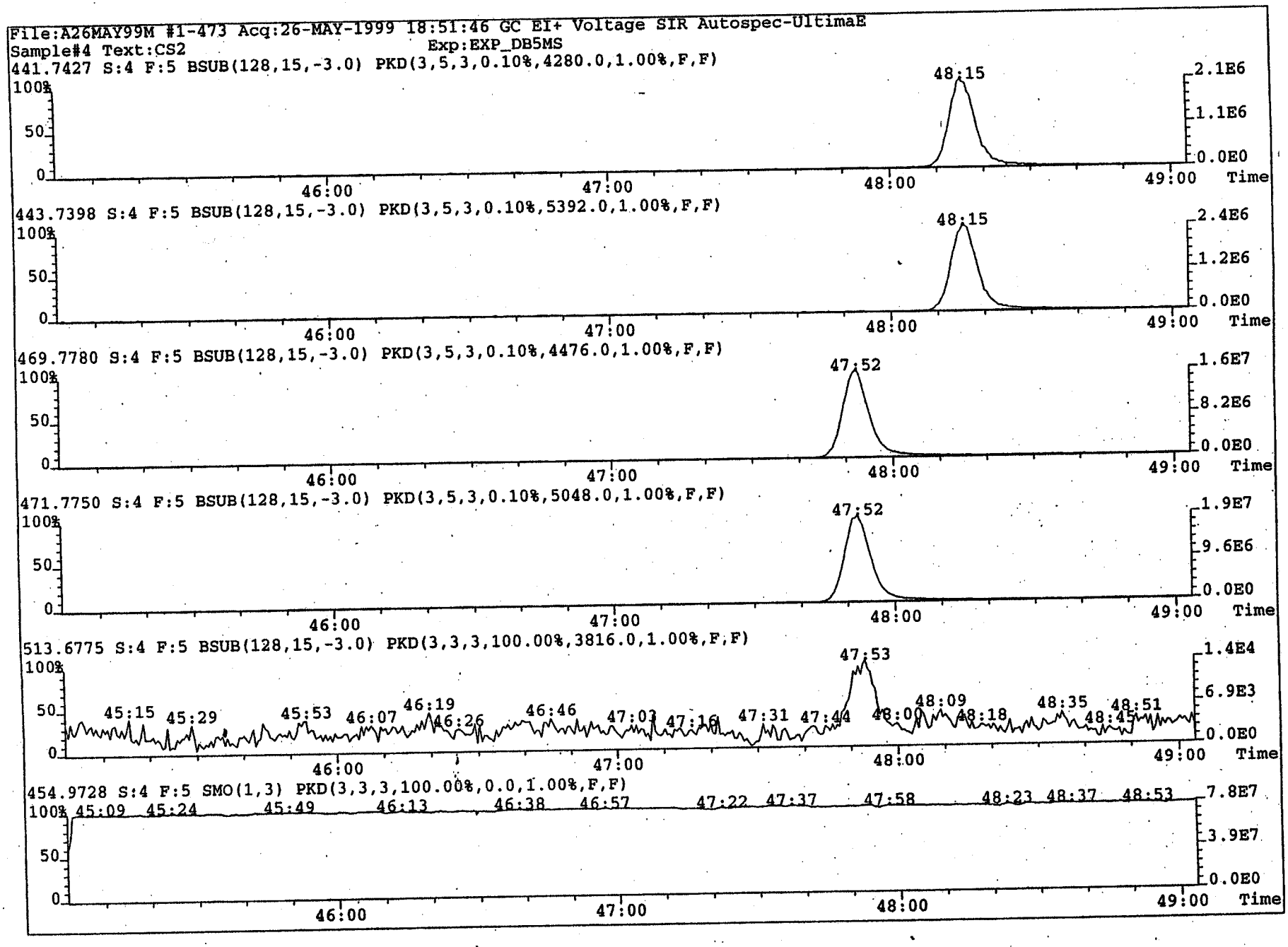


File:A26MAY99M #1-259 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS




File:A26MAY99M #1-372 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS
373.8207 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4716.0,1.00%,F,F)
37:56
38:36
39:32
4.3E6
2.1E6
0.0E0
375.8178 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,2340.0,1.00%,F,F)
37:56
38:36
39:32
3.8E6
1.9E6
0.0E0
383.8639 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5396.0,1.00%,F,F)
37:56
38:35
39:31
2.2E7
1.1E7
0.0E0
385.8610 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7088.0,1.00%,F,F)
37:56
38:35
39:31
4.5E7
2.2E7
0.0E0
445.7555 S:4 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3552.0,1.00%,F,F)
36:49
37:01
37:18
37:15
37:41
37:58
38:16
38:22
38:34
38:50
38:57
39:07
39:20
39:36
39:48
40:16
1.3E4
6.5E3
0.0E0
380.9760 S:4 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
36:50
37:15
37:36
38:09
38:33
39:27
39:49
40:04
1.1E8
5.7E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

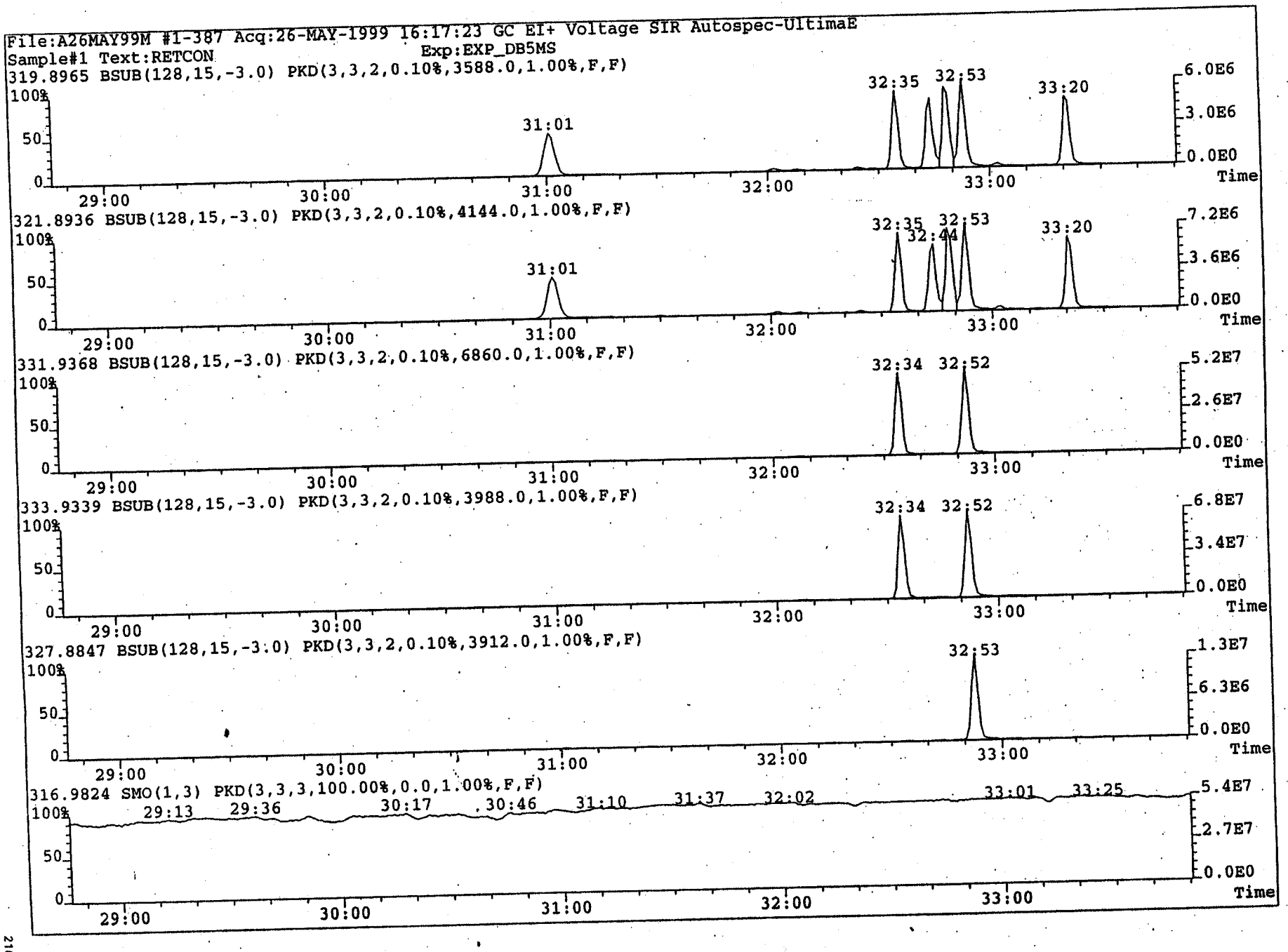

File:A26MAY99M #1-440 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 Exp:EXP_DB5MS
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,8780.0,1.00%,F,F)
41:17
43:34
409.7788 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4588.0,1.00%,F,F)
41:17
43:34
417.8253 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3764.0,1.00%,F,F)
41:16
43:34
419.8220 S:4 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3016.0,1.00%,F,F)
41:15
43:34
479.7165 S:4 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3984.0,1.00%,F,F)
42:43
40:49 41:07 41:22 41:41 42:03 42:10 42:17 42:26 42:31 42:51 43:03 43:28 43:44 44:08 44:20 44:53
430.9728 S:4 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
40:42 41:07 41:28 41:45 42:03 42:19 42:44 43:10 43:35 43:52 44:10 44:40
100%
50
0
41:00 42:00 43:00 44:00 45:00 Time
2.8E6
1.4E6
0.0E0
1.2E7
6.0E6
2.6E7
1.3E7
1.3E4
6.6E3
6.2E7
3.1E7

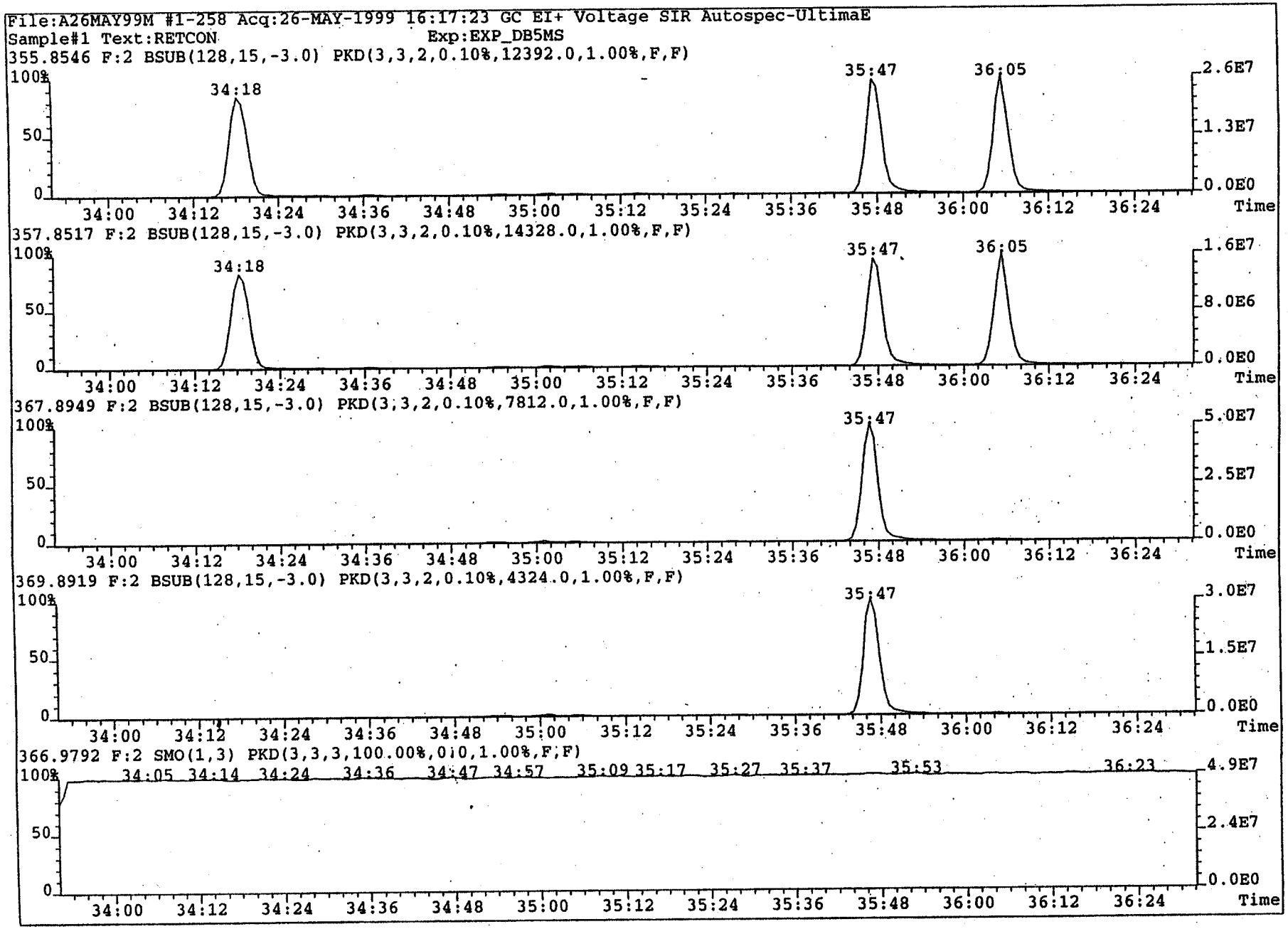

File:A26MAY99M #1-473 Acq:26-MAY-1999 18:51:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2
Exp:EXP_DB5MS
441.7427 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4280.0,1.00%,F,F)
48:15
2.1E6
1.1E6
0.0E0
443.7398 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5392.0,1.00%,F,F)
48:15
2.4E6
1.2E6
0.0E0
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4476.0,1.00%,F,F)
47:52
1.6E7
8.2E6
0.0E0
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5048.0,1.00%,F,F)
47:52
1.9E7
9.6E6
0.0E0
513.6775 S:4 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3816.0,1.00%,F,F)
47:53
1.4E4
6.9E3
0.0E0
454.9728 S:4 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
7.8E7
3.9E7
0.0E0
100%
50
0
46:00
47:00
48:00
49:00
Time

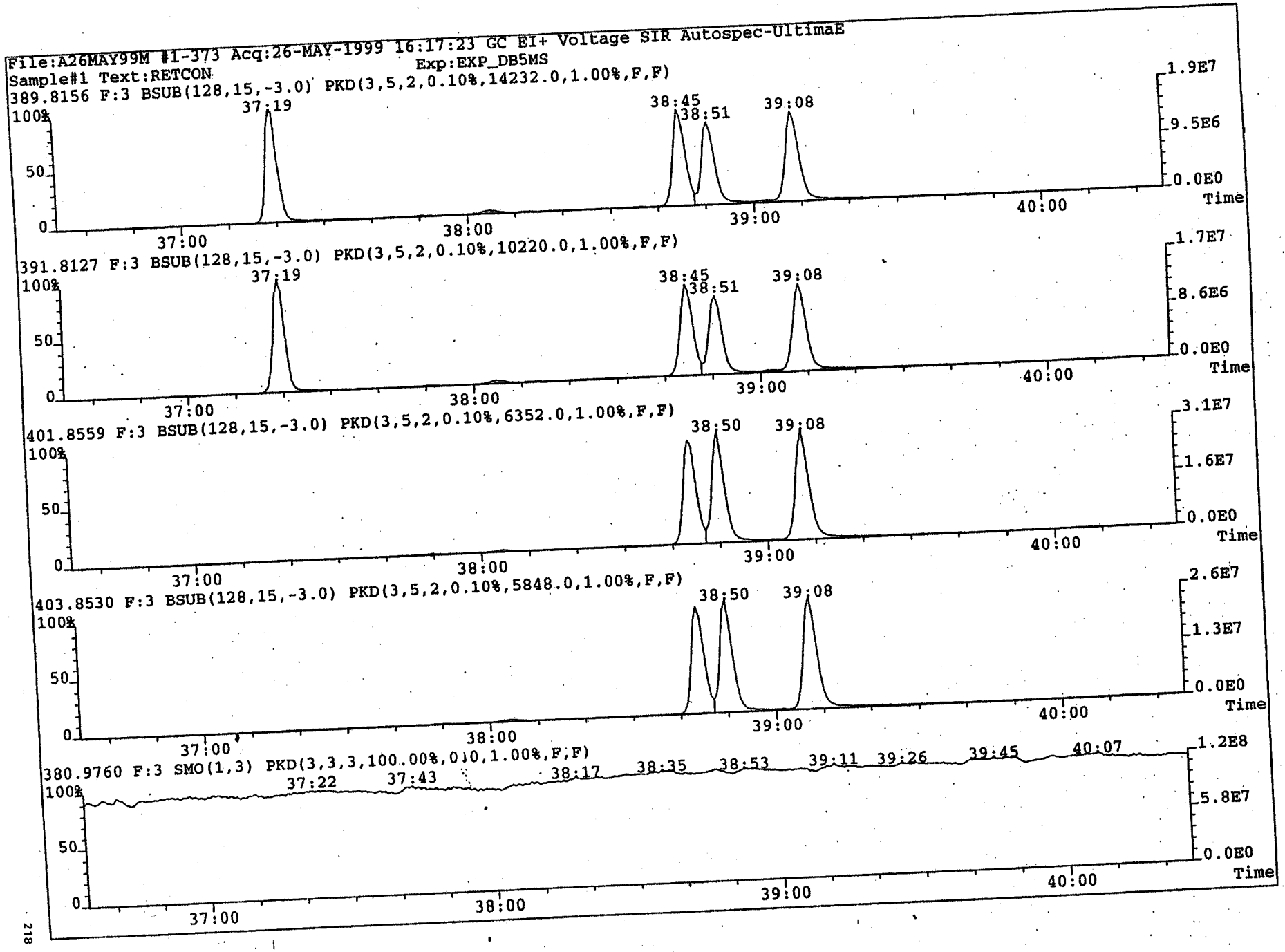
Run #3 Filename a26may99m S: 1 I: 1 Acquired: 26-MAY-99 16:17:23 Processed: 9-JUN-99 10:37:41
Run: Analyte: Cal: Results: Version: V3.6 31-JUL-1998 10:51:59
Sample text: RETCON Comments:

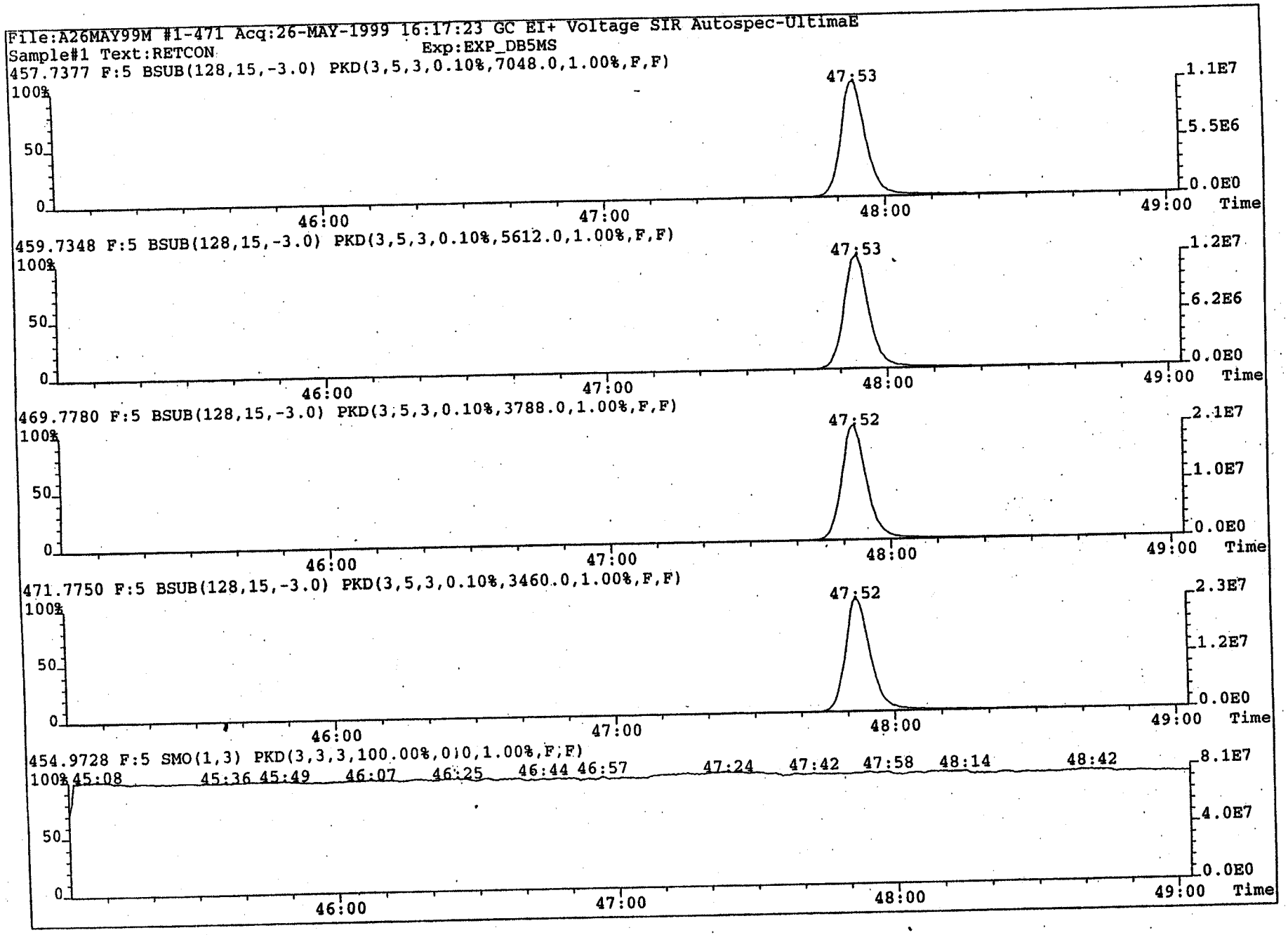
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	10.00	2.85e+07	0.82 y	32:53	-	1.17	y	n
2	Unk	1,2,3,7,8-PeCDD	50.00	1.02e+08	1.67 y	35:47	-	1.01	y	n
3	Unk	1,2,3,4,7,8-HxCDD	50.00	8.92e+07	1.15 y	38:45	-	1.11	y	n
4	Unk	1,2,3,6,7,8-HxCDD	50.00	8.38e+07	1.16 y	38:51	-	0.97	y	n
5	Unk	1,2,3,7,8,9-HxCDD	50.00	9.42e+07	1.15 y	39:08	-	1.13	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	8.63e+07	1.05 y	42:45	-	1.00	y	n
7	Unk	OCDD	100.00	1.41e+08	0.88 y	47:53	-	1.07	y	n
8	Unk	2,3,7,8-TCDF	10.00	3.87e+07	0.80 y	32:29	-	1.12	y	n
9	Unk	1,2,3,7,8-PeCDF	50.00	1.62e+08	1.58 y	34:56	-	1.06	y	n
10	Unk	2,3,4,7,8-PeCDF	50.00	1.62e+08	1.60 y	35:35	-	1.11	y	n
11	Unk	1,2,3,4,7,8-HxCDF	50.00	1.34e+08	1.10 y	37:57	-	1.21	y	n
12	Unk	1,2,3,6,7,8-HxCDF	50.00	1.39e+08	1.11 y	38:03	-	1.19	y	n
13	Unk	2,3,4,6,7,8-HxCDF	50.00	1.32e+08	1.16 y	38:36	-	1.14	y	n
14	Unk	1,2,3,7,8,9-HxCDF	100.00	2.36e+08	1.14 y	39:33	-	1.21	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	1.32e+08	1.03 y	41:17	-	1.46	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	1.08e+08	1.04 y	43:35	-	1.44	y	n
17	Unk	OCDF	100.00	1.68e+08	0.88 y	48:15	-	1.27	y	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	2.44e+08	0.76 y	32:52	-	1.05	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	2.03e+08	1.65 y	35:47	-	0.88	y	n
20	ES	13C-1,2,3,4,7,8-HxCDD	100.00	1.61e+08	1.19 y	38:44	-	0.88	y	n
21	ES	13C-1,2,3,6,7,8-HxCDD	100.00	1.73e+08	1.17 y	38:50	-	0.95	y	n
22	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.73e+08	1.05 y	42:44	-	0.95	y	n
23	ES	13C-OCDD	200.00	2.64e+08	0.88 y	47:52	-	0.72	y	n
24	ES/RT	13C-2,3,7,8-TCDF	100.00	3.45e+08	0.84 y	32:29	-	1.49	y	n
25	ES	13C-1,2,3,7,8-PeCDF	100.00	3.06e+08	1.70 y	34:55	-	1.32	y	n
26	ES	13C-2,3,4,7,8-PeCDF	100.00	2.91e+08	1.70 y	35:34	-	1.26	y	n
27	ES	13C-1,2,3,4,7,8-HxCDF	100.00	2.21e+08	0.47 y	37:55	-	1.21	y	n
28	ES	13C-1,2,3,6,7,8-HxCDF	100.00	2.34e+08	0.48 y	38:03	-	1.28	y	n
29	ES	13C-2,3,4,6,7,8-HxCDF	100.00	2.33e+08	0.51 y	38:36	-	1.28	y	n
30	ES	13C-1,2,3,7,8,9-HxCDF	100.00	1.94e+08	0.50 y	39:31	-	1.06	y	n
31	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.80e+08	0.46 y	41:16	-	0.99	y	n
32	ES	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.50e+08	0.46 y	43:34	-	0.82	y	n
33	JS	13C-1,2,3,4-TCDD	100.00	2.32e+08	0.78 y	32:34	2.32e+06	-	n	n
34	JS	13C-1,2,3,7,8,9-HxCDD	100.00	1.83e+08	1.17 y	39:08	1.83e+06	-	n	n
35	CS	37Cl-2,3,7,8-TCDD	10.00	2.58e+07		32:53	-	1.11	y	n
36	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.12	y	n
37	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.17	y	n
38	Tot	Total Penta-Furans Fn1	0.00	-	- n	-	-	1.09	y	n
39	Tot	Total Penta-Furans Fn2	0.00	-	- n	-	-	1.09	y	n
40	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.01	y	n
41	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.16	y	n

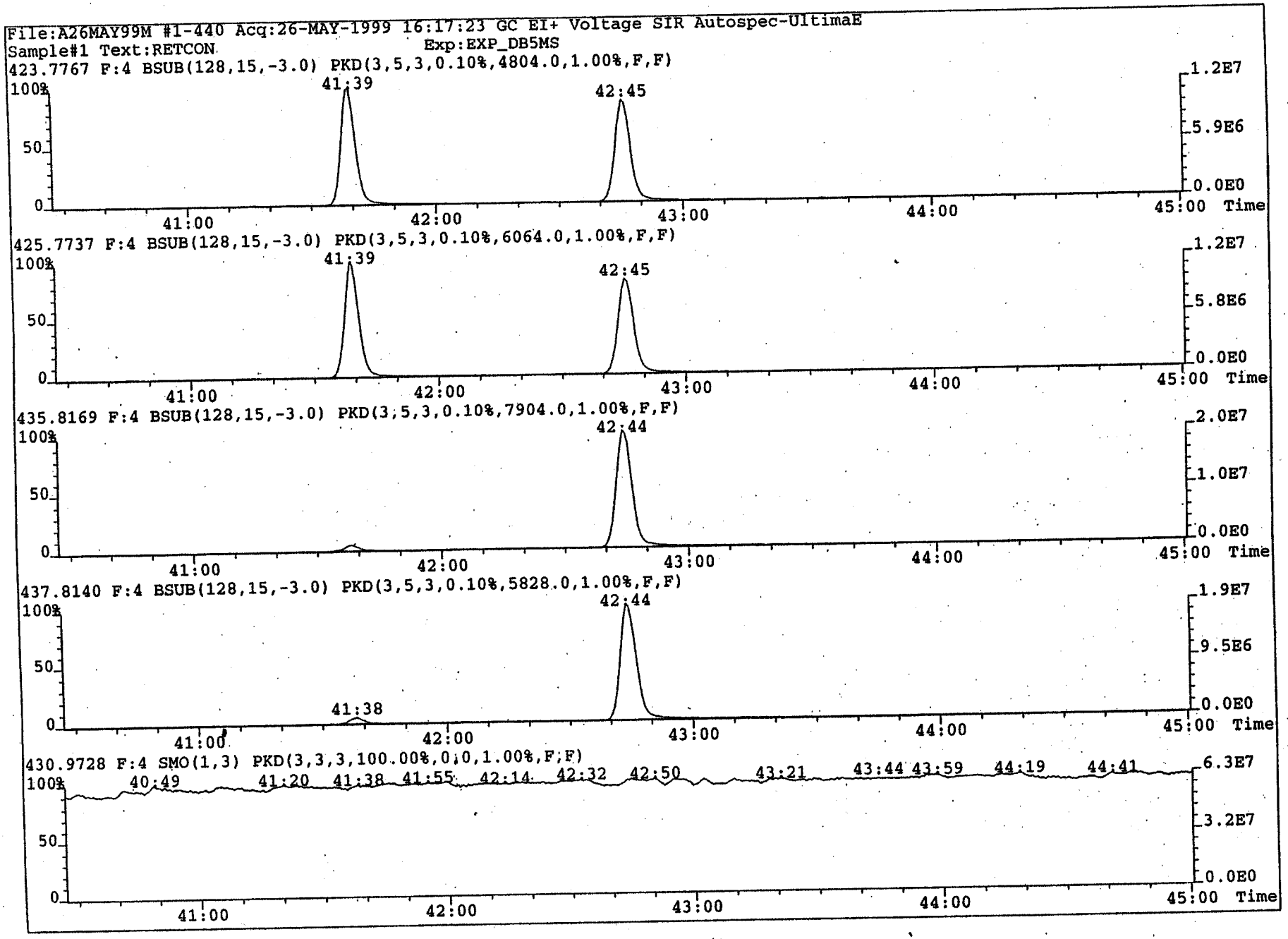
$RRF = \frac{1.62 \times 10^8 \times 100}{50 \times 2.91 \times 10^8} = 1.11$ OK

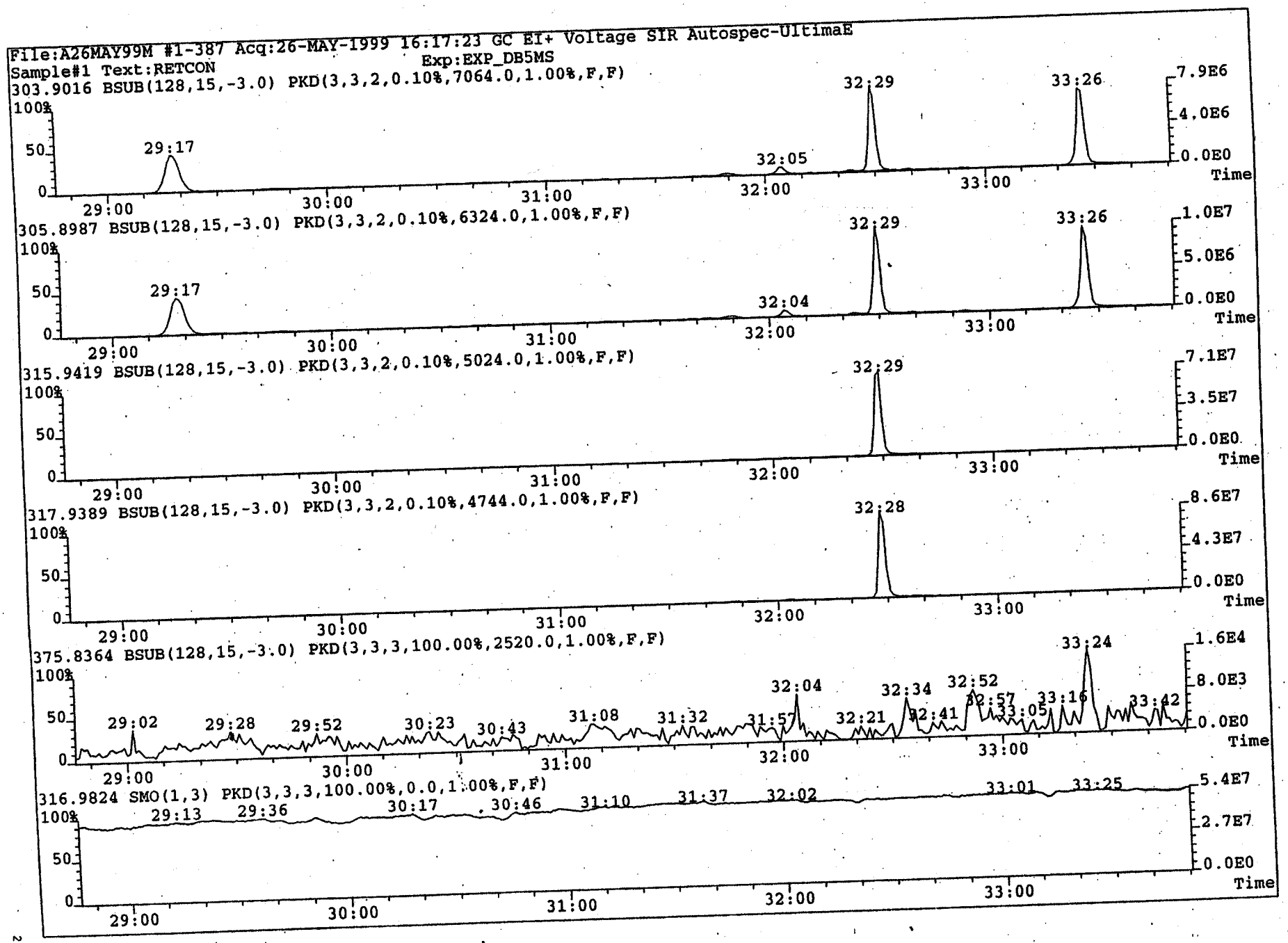

File:A26MAY99M #1-387 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON
Exp:EXP_DB5MS
319.8965 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3588.0,1.00%,F,F)
31:01
32:35
32:53
33:20
6.0E6
3.0E6
0.0E0
321.8936 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4144.0,1.00%,F,F)
31:01
32:35
32:44
32:53
33:20
7.2E6
3.6E6
0.0E0
331.9368 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6860.0,1.00%,F,F)
32:34
32:52
5.2E7
2.6E7
0.0E0
333.9339 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3988.0,1.00%,F,F)
32:34
32:52
6.8E7
3.4E7
0.0E0
327.8847 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3912.0,1.00%,F,F)
32:53
1.3E7
6.3E6
0.0E0
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
29:13
29:36
30:17
30:46
31:10
31:37
32:02
33:01
33:25
5.4E7
2.7E7
0.0E0
100%
50
0
29:00
30:00
31:00
32:00
33:00
Time


File:A26MAY99M #1-258 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
355.8546 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,12392.0,1.00%,F,F)
34:18
35:47
36:05
2.6E7
1.3E7
0.0E0
357.8517 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,14328.0,1.00%,F,F)
34:18
35:47
36:05
1.6E7
8.0E6
0.0E0
367.8949 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7812.0,1.00%,F,F)
35:47
5.0E7
2.5E7
0.0E0
369.8919 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4324.0,1.00%,F,F)
35:47
3.0E7
1.5E7
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,3,3,100.00%,0,0,1.00%,F,F)
34:05 34:14 34:24 34:36 34:47 34:57 35:09 35:17 35:27 35:37 35:53 36:23
4.9E7
2.4E7
0.0E0
100%
50
0
34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24
Time

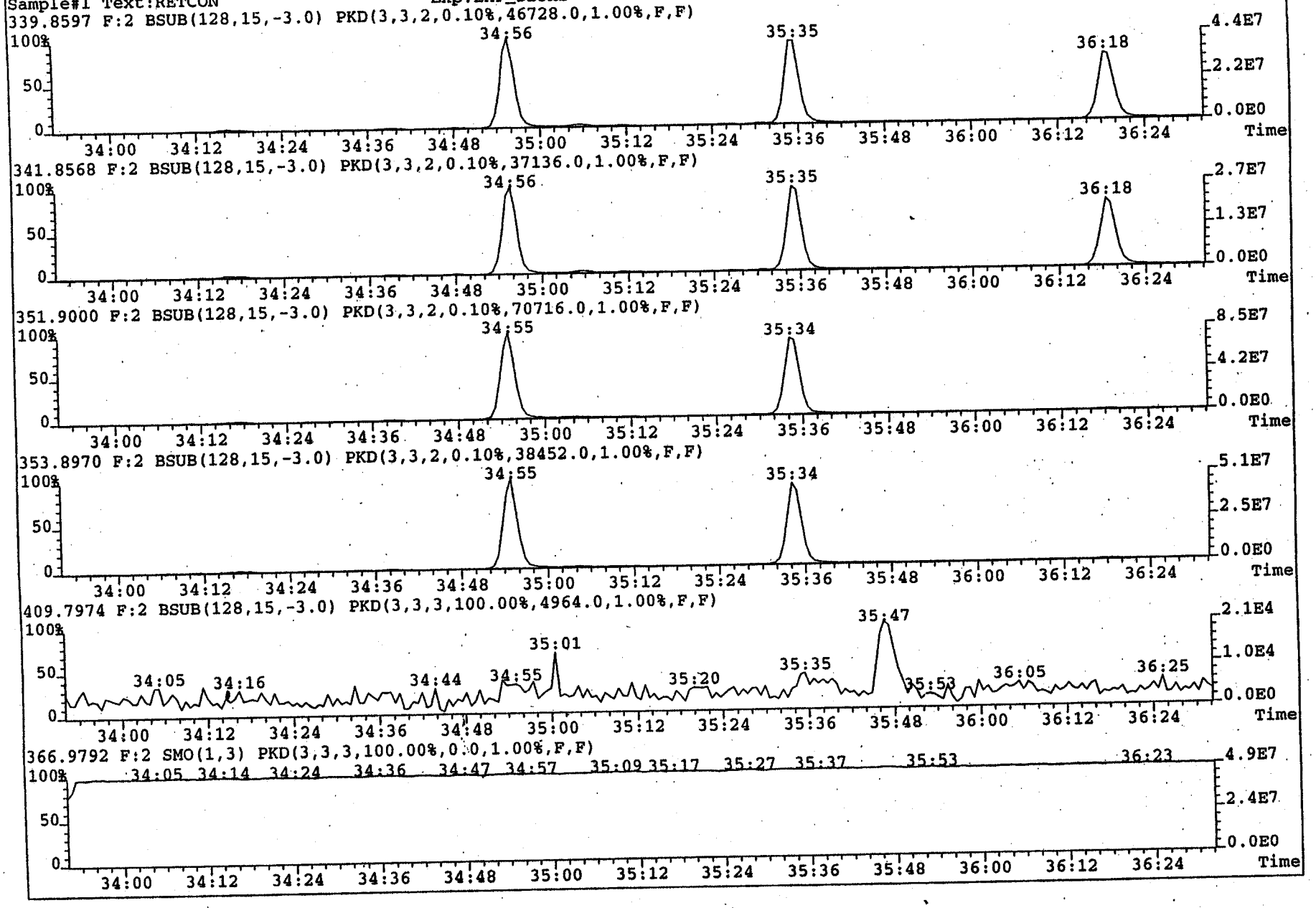

File:A26MAY99M #1-373 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON
Exp:EXP_DB5MS
389.8156 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,14232.0,1.00%,F,F)
37:19
38:45
38:51
39:08
1.9E7
9.5E6
0.0E0
391.8127 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,10220.0,1.00%,F,F)
37:19
38:45
38:51
39:08
1.7E7
8.6E6
0.0E0
401.8559 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6352.0,1.00%,F,F)
38:50
39:08
3.1E7
1.6E7
0.0E0
403.8530 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5848.0,1.00%,F,F)
38:50
39:08
2.6E7
1.3E7
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,010,1.00%,F,F)
37:22
37:43
38:17
38:35
38:53
39:11
39:26
39:45
40:07
1.2E8
5.8E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

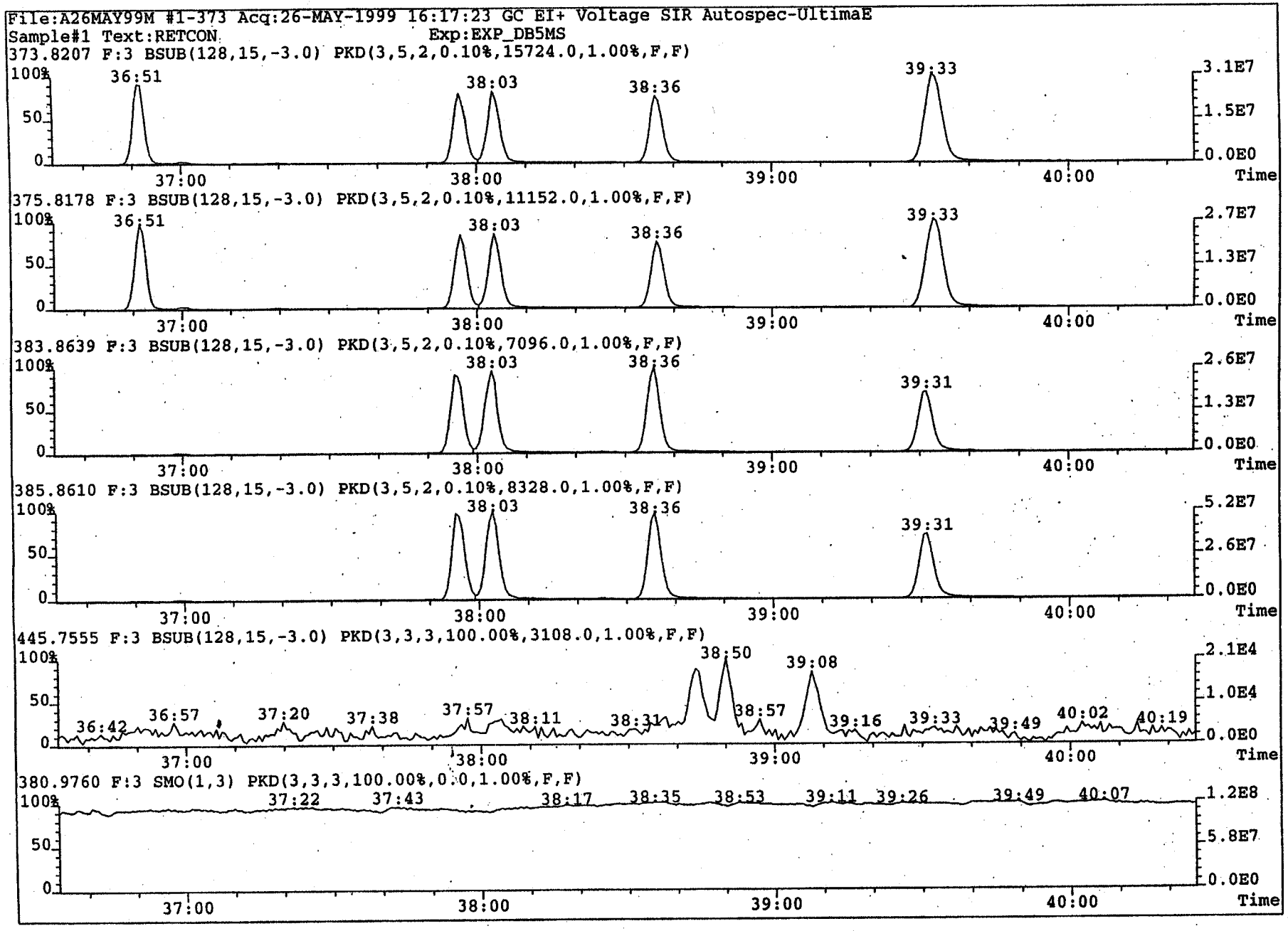

File:A26MAY99M #1-471 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON
Exp:EXP_DB5MS
457.7377 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7048.0,1.00%,F,F)
47:53
1.1E7
5.5E6
0.0E0
459.7348 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5612.0,1.00%,F,F)
47:53
1.2E7
6.2E6
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3788.0,1.00%,F,F)
47:52
2.1E7
1.0E7
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3460.0,1.00%,F,F)
47:52
2.3E7
1.2E7
0.0E0
454.9728 F:5 SMO(1,3) PKD(3,3,3,100.00%,010,1.00%,F,F)
45:08 45:36 45:49 46:07 46:25 46:44 46:57 47:24 47:42 47:58 48:14 48:42
8.1E7
4.0E7
0.0E0
100%
50
0
46:00
47:00
48:00
49:00
Time


File:A26MAY99M #1-440 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON
Exp:EXP_DB5MS
423.7767 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4804.0,1.00%,F,F)
41:39
42:45
1.2E7
5.9E6
0.0E0
425.7737 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6064.0,1.00%,F,F)
41:39
42:45
1.2E7
5.8E6
0.0E0
435.8169 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7904.0,1.00%,F,F)
42:44
2.0E7
1.0E7
0.0E0
437.8140 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5828.0,1.00%,F,F)
42:44
41:38
1.9E7
9.5E6
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,3,3,100.00%,0,0,1.00%,F,F)
40:49 41:20 41:38 41:55 42:14 42:32 42:50 43:21 43:44 43:59 44:19 44:41
6.3E7
3.2E7
0.0E0
100%
50
0
41:00
42:00
43:00
44:00
45:00
Time

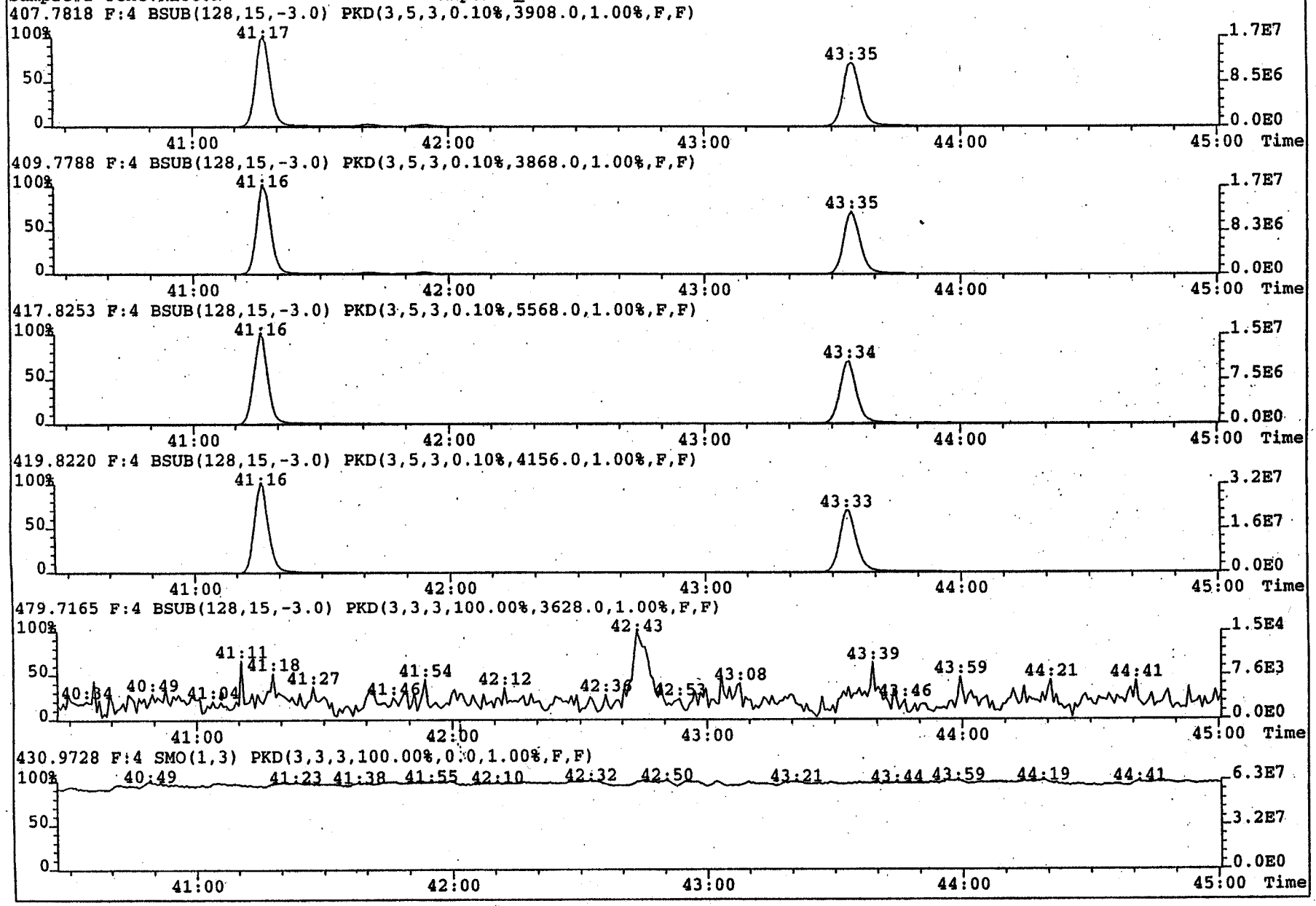

File:A26MAY99M #1-387 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Exp:EXP_DB5MS
Sample#1 Text:RETCON
303.9016 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7064.0,1.00%,F,F)
29:17
32:05
32:29
33:26
7.9E6
4.0E6
0.0E0
Time
305.8987 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6324.0,1.00%,F,F)
29:17
32:04
32:29
33:26
1.0E7
5.0E6
0.0E0
Time
315.9419 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5024.0,1.00%,F,F)
32:29
7.1E7
3.5E7
0.0E0
Time
317.9389 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4744.0,1.00%,F,F)
32:28
8.6E7
4.3E7
0.0E0
Time
375.8364 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2520.0,1.00%,F,F)
29:02
29:28
29:52
30:23
30:43
31:08
31:32
31:57
32:04
32:21
32:34
32:41
32:52
32:57
33:05
33:16
33:24
33:42
1.6E4
8.0E3
0.0E0
Time
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
29:13
29:36
30:17
30:46
31:10
31:37
32:02
33:01
33:25
5.4E7
2.7E7
0.0E0
Time
100%
50
0
29:00
30:00
31:00
32:00
33:00

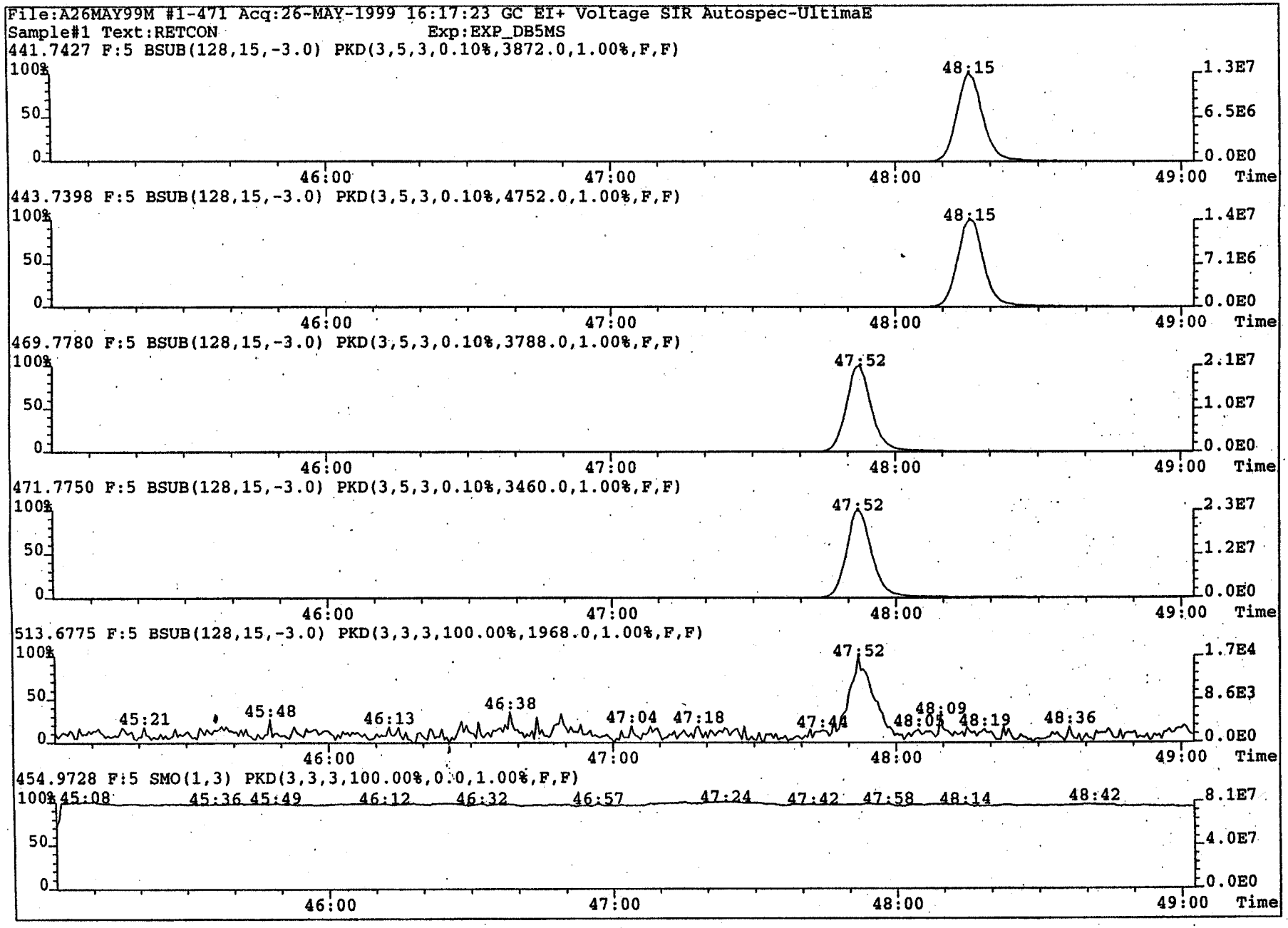
File:A26MAY99M #1-258 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS




File:A26MAY99M #1-373 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
373.8207 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,15724.0,1.00%,F,F)
36:51
38:03
38:36
39:33
3.1E7
1.5E7
0.0E0
375.8178 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,11152.0,1.00%,F,F)
36:51
38:03
38:36
39:33
2.7E7
1.3E7
0.0E0
383.8639 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7096.0,1.00%,F,F)
38:03
38:36
39:31
2.6E7
1.3E7
0.0E0
385.8610 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8328.0,1.00%,F,F)
38:03
38:36
39:31
5.2E7
2.6E7
0.0E0
445.7555 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3108.0,1.00%,F,F)
36:42
36:57
37:20
37:38
37:57
38:11
38:31
38:50
38:57
39:08
39:16
39:33
39:49
40:02
40:19
2.1E4
1.0E4
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
37:22
37:43
38:17
38:35
38:53
39:11
39:26
39:49
40:07
1.2E8
5.8E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

File:A26MAY99M #1-440 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS

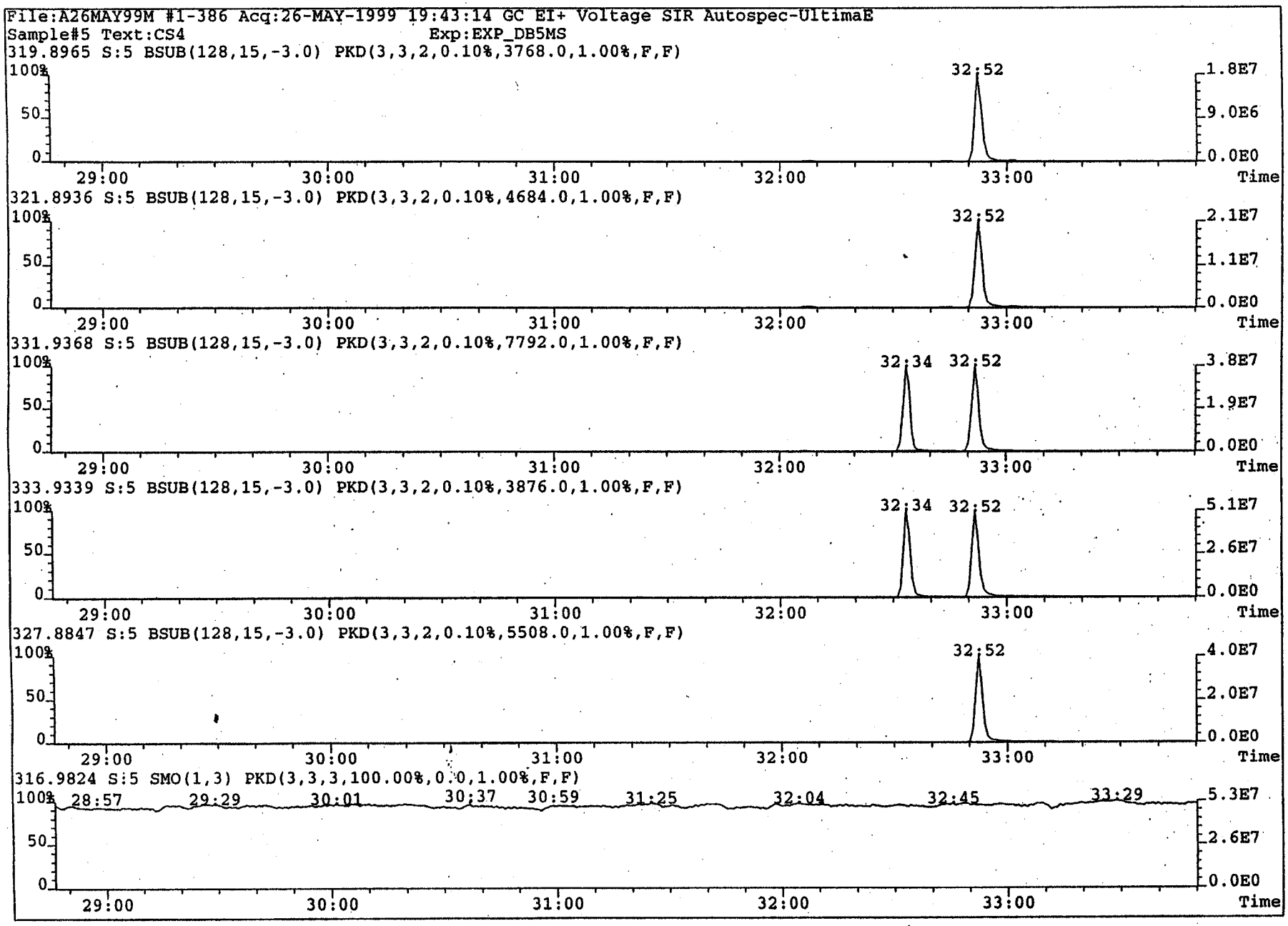


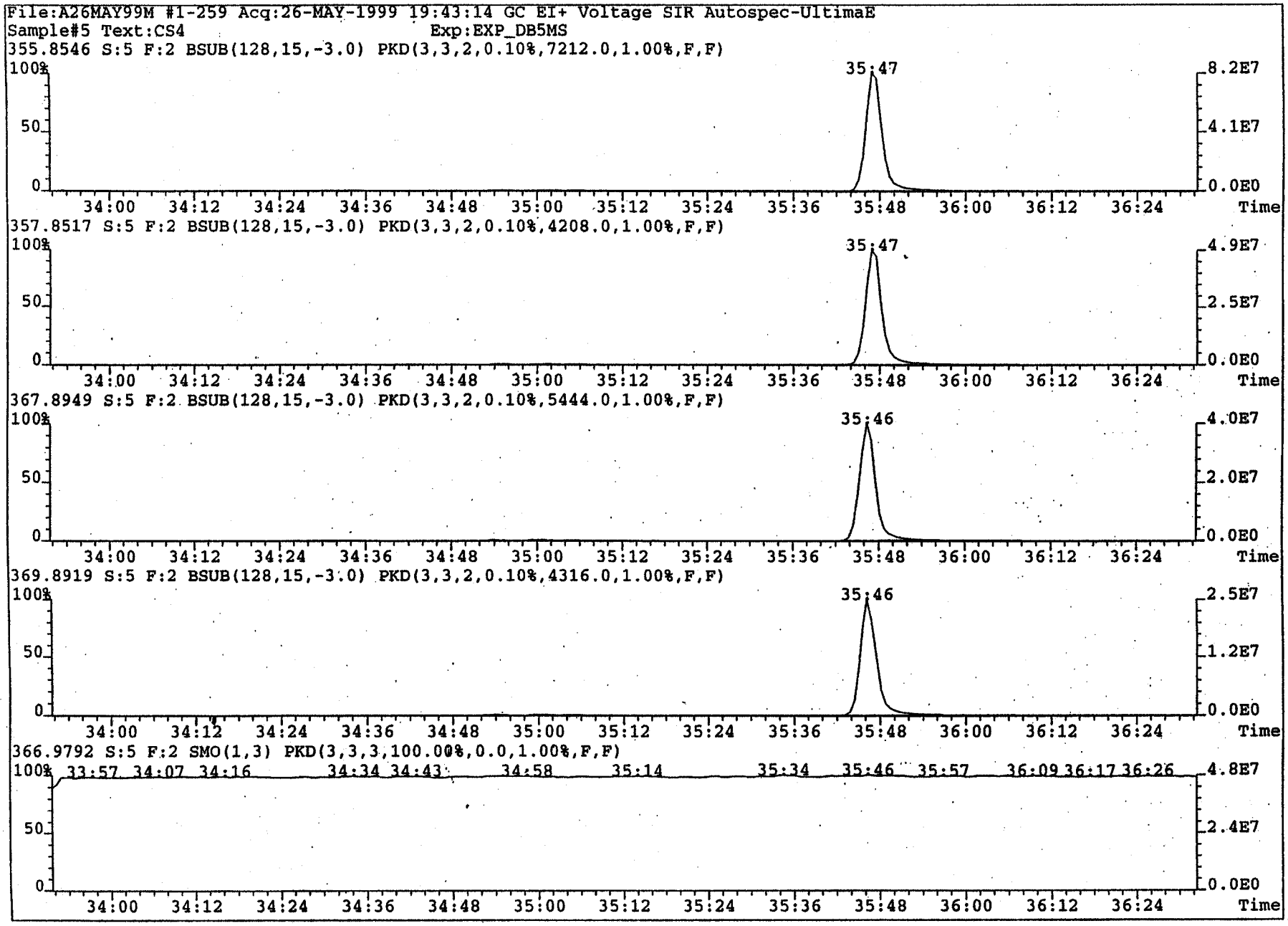

File:A26MAY99M #1-471 Acq:26-MAY-1999 16:17:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
441.7427 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3872.0,1.00%,F,F)
48:15
1.3E7
6.5E6
0.0E0
443.7398 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4752.0,1.00%,F,F)
48:15
1.4E7
7.1E6
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3788.0,1.00%,F,F)
47:52
2.1E7
1.0E7
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3460.0,1.00%,F,F)
47:52
2.3E7
1.2E7
0.0E0
513.6775 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,1968.0,1.00%,F,F)
47:52
1.7E4
8.6E3
0.0E0
45:21 45:48 46:13 46:38 47:04 47:18 47:44 48:05 48:09 48:19 48:36
454.9728 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
45:08 45:36 45:49 46:12 46:32 46:57 47:24 47:42 47:58 48:14 48:42
8.1E7
4.0E7
0.0E0
100%
50
0
46:00
47:00
48:00
49:00
Time

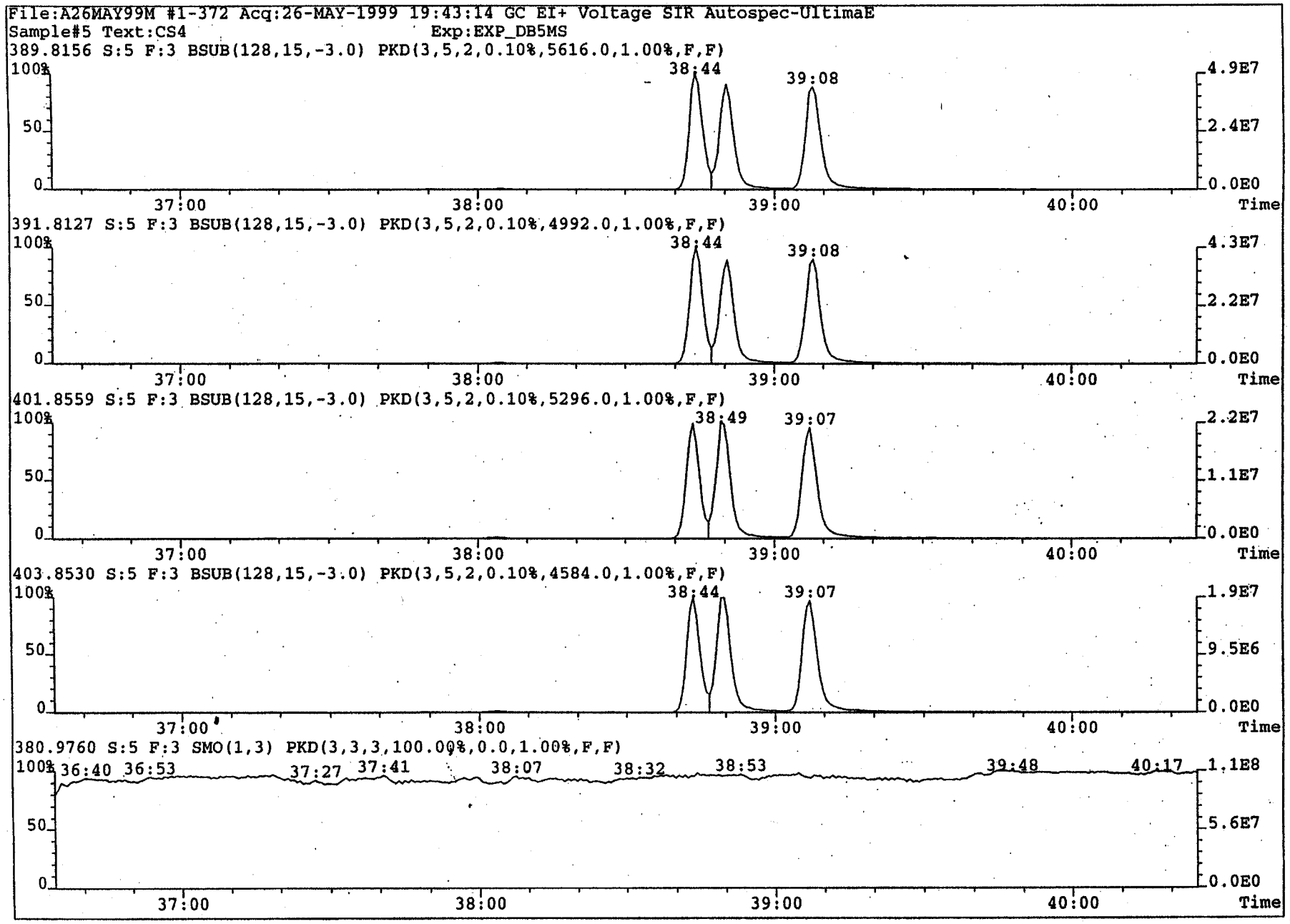
Run #4 Filename a26may99m S: 5 I: 1 Acquired: 26-MAY-99 19:43:14 Processed: 9-JUN-99 10:38:06
Run: Analyte: Cal: Results: Version: V3.6 31-JUL-1998 10:51:59
Sample text: CS4 Comments:

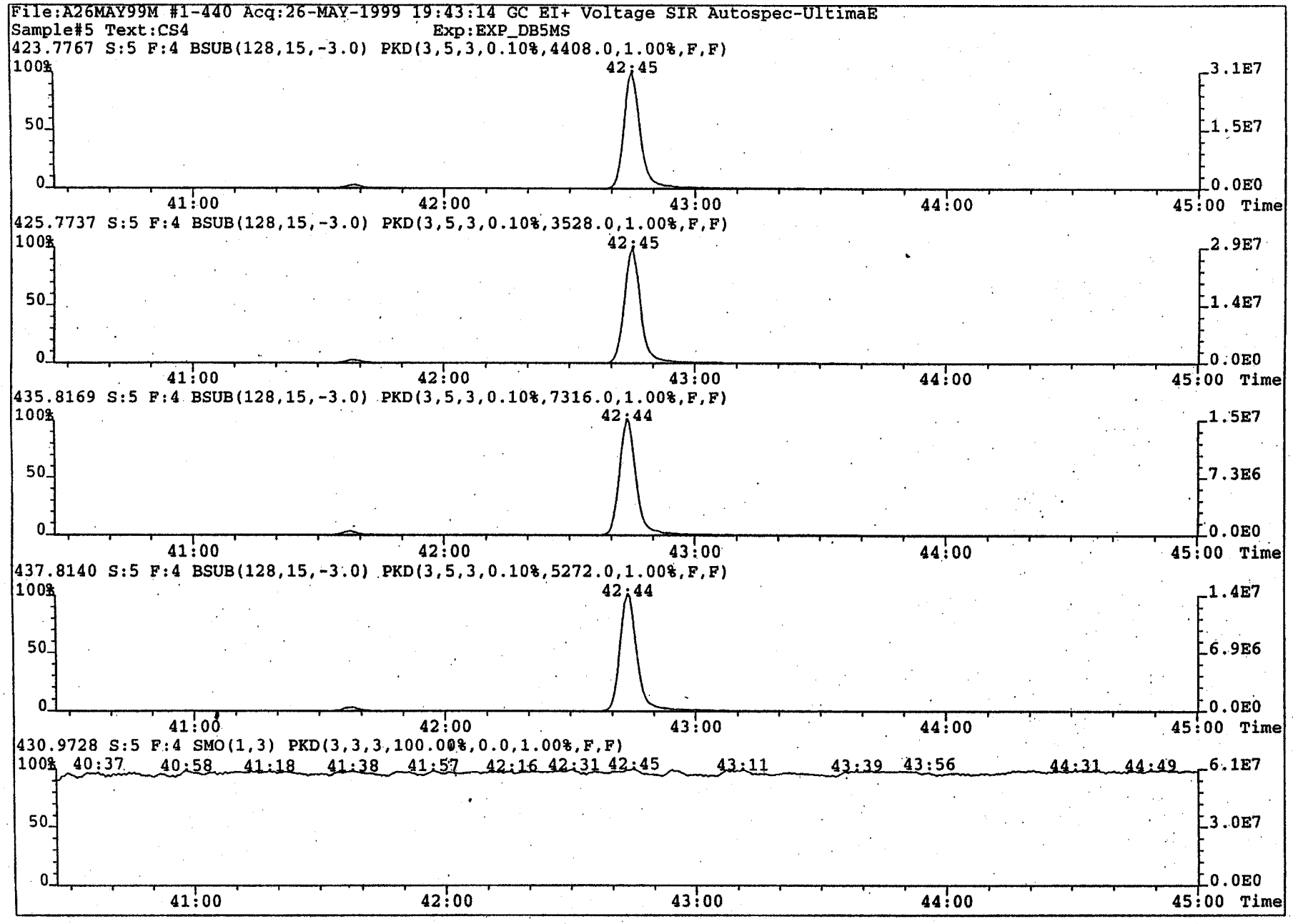
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDD	40.00	8.65e+07	0.84 y	32:52	-	1.11	y	n
2	Unk	1,2,3,7,8-PeCDD	200.00	3.38e+08	1.67 y	35:47	-	1.02	y	n
3	Unk	1,2,3,4,7,8-HxCDD	200.00	2.78e+08	1.13 y	38:44	-	1.11	y	n
4	Unk	1,2,3,6,7,8-HxCDD	200.00	2.79e+08	1.14 y	38:50	-	0.99	y	n
5	Unk	1,2,3,7,8,9-HxCDD	200.00	2.96e+08	1.12 y	39:08	-	1.11	y	n
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	2.63e+08	1.06 y	42:45	-	1.01	y	n
7	Unk	OCDD	400.00	4.31e+08	0.89 y	47:53	-	1.09	y	n
8	Unk	2,3,7,8-TCDF	40.00	1.26e+08	0.83 y	32:29	-	1.14	y	n
9	Unk	1,2,3,7,8-PeCDF	200.00	5.44e+08	1.60 y	34:55	-	1.06	y	n
10	Unk	2,3,4,7,8-PeCDF	200.00	5.50e+08	1.58 y	35:34	-	1.13	y	n
11	Unk	1,2,3,4,7,8-HxCDF	200.00	4.45e+08	1.11 y	37:56	-	1.24	y	n
12	Unk	1,2,3,6,7,8-HxCDF	200.00	4.66e+08	1.11 y	38:03	-	1.18	y	n
13	Unk	2,3,4,6,7,8-HxCDF	200.00	4.24e+08	1.13 y	38:36	-	1.15	y	n
14	Unk	1,2,3,7,8,9-HxCDF	200.00	3.74e+08	1.11 y	39:32	-	1.27	y	n
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	4.32e+08	1.05 y	41:16	-	1.49	y	n
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	3.42e+08	1.04 y	43:34	-	1.46	y	n
17	Unk	OCDF	400.00	5.33e+08	0.88 y	48:15	-	1.34	y	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	1.94e+08	0.74 y	32:52	-	1.05	y	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	1.66e+08	1.64 y	35:46	-	0.90	y	n
20	ES	13C-1,2,3,4,7,8-HxCDD	100.00	1.25e+08	1.16 y	38:44	-	0.87	y	n
21	ES	13C-1,2,3,6,7,8-HxCDD	100.00	1.41e+08	1.18 y	38:49	-	0.98	y	n
22	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.30e+08	1.04 y	42:44	-	0.90	y	n
23	ES	13C-OCDD	200.00	1.98e+08	0.87 y	47:52	-	0.69	y	n
24	ES/RT	13C-2,3,7,8-TCDF	100.00	2.76e+08	0.88 y	32:29	-	1.50	y	n
25	ES	13C-1,2,3,7,8-PeCDF	100.00	2.57e+08	1.70 y	34:55	-	1.40	y	n
26	ES	13C-2,3,4,7,8-PeCDF	100.00	2.43e+08	1.71 y	35:34	-	1.32	y	n
27	ES	13C-1,2,3,4,7,8-HxCDF	100.00	1.79e+08	0.47 y	37:56	-	1.24	y	n
28	ES	13C-1,2,3,6,7,8-HxCDF	100.00	1.97e+08	0.48 y	38:02	-	1.37	y	n
29	ES	13C-2,3,4,6,7,8-HxCDF	100.00	1.85e+08	0.48 y	38:35	-	1.28	y	n
30	ES	13C-1,2,3,7,8,9-HxCDF	100.00	1.47e+08	0.47 y	39:31	-	1.02	y	n
31	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.45e+08	0.46 y	41:15	-	1.01	y	n
32	ES	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.17e+08	0.46 y	43:33	-	0.81	y	n
33	JS	13C-1,2,3,4-TCDD	100.00	1.84e+08	0.74 y	32:34	1.84e+06	-	n	n
34	JS	13C-1,2,3,7,8,9-HxCDD	100.00	1.44e+08	1.15 y	39:07	1.44e+06	-	n	n
35	CS	37Cl-2,3,7,8-TCDD	40.00	8.73e+07		32:52	-	1.19	y	n
36	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.14	y	n
37	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.11	y	n
38	Tot	Total Penta-Furans Fn1	0.00	-	- n	-	-	1.09	y	n
39	Tot	Total Penta-Furans Fn2	0.00	-	- n	-	-	1.09	y	n
40	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.02	y	n
41	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.21	y	n

RRF = $\frac{4.66\,10^8 \times 100}{200 \times 1.97\,10^8}$ = 1.18 OK

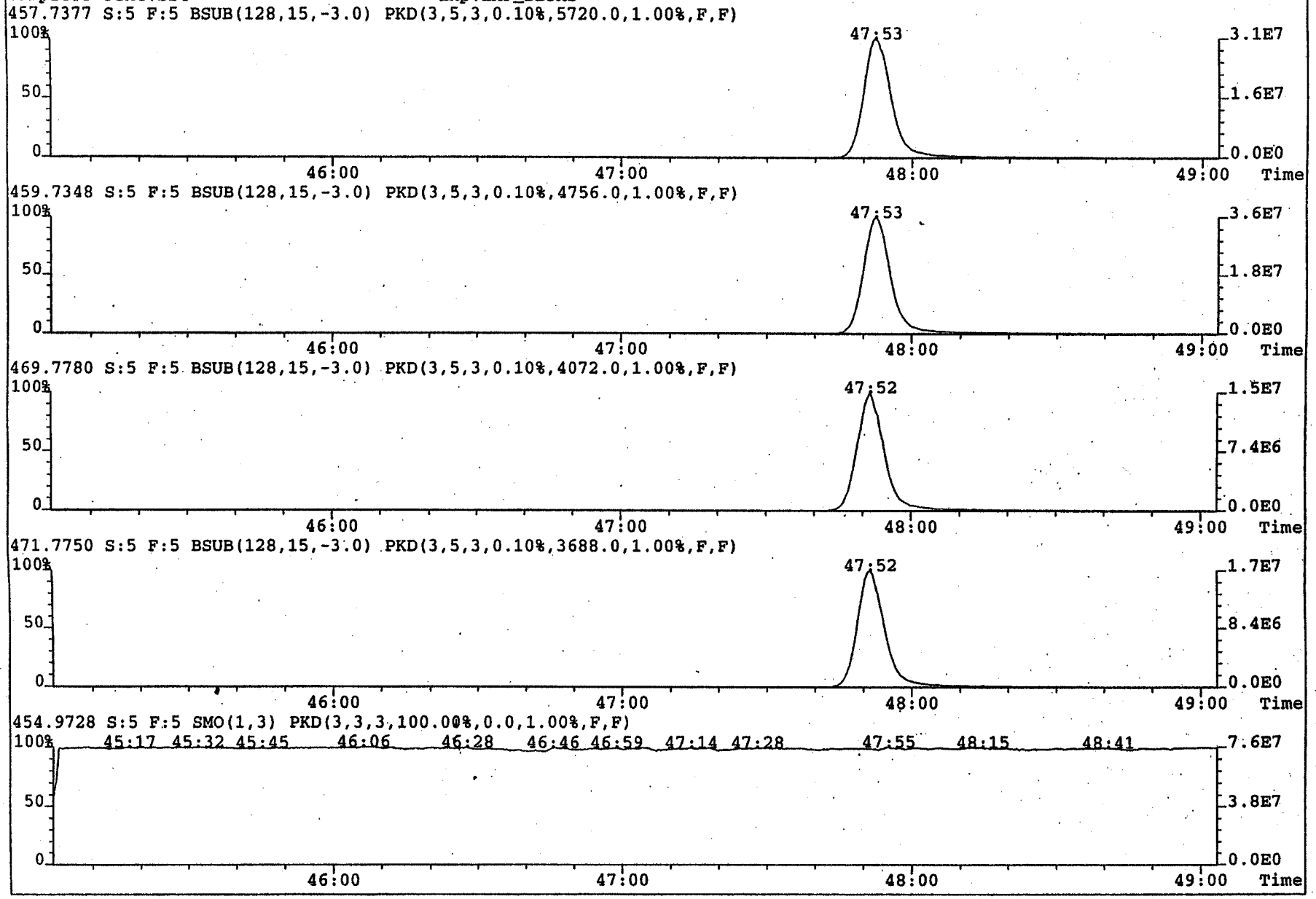

File:A26MAY99M #1-386 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS
319.8965 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3768.0,1.00%,F,F)
32:52
1.8E7
9.0E6
0.0E0
321.8936 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4684.0,1.00%,F,F)
32:52
2.1E7
1.1E7
0.0E0
331.9368 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7792.0,1.00%,F,F)
32:34 32:52
3.8E7
1.9E7
0.0E0
333.9339 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3876.0,1.00%,F,F)
32:34 32:52
5.1E7
2.6E7
0.0E0
327.8847 S:5 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5508.0,1.00%,F,F)
32:52
4.0E7
2.0E7
0.0E0
316.9824 S:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
28:57 29:29 30:01 30:37 30:59 31:25 32:04 32:45 33:29
5.3E7
2.6E7
0.0E0
100%
50
0
29:00 30:00 31:00 32:00 33:00
Time


File:A26MAY99M #1-259 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS
355.8546 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,7212.0,1.00%,F,F)
35:47
8.2E7
4.1E7
0.0E0
357.8517 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4208.0,1.00%,F,F)
35:47
4.9E7
2.5E7
0.0E0
367.8949 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5444.0,1.00%,F,F)
35:46
4.0E7
2.0E7
0.0E0
369.8919 S:5 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4316.0,1.00%,F,F)
35:46
2.5E7
1.2E7
0.0E0
366.9792 S:5 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
33:57 34:07 34:16 34:34 34:43 34:58 35:14 35:34 35:46 35:57 36:09 36:17 36:26
4.8E7
2.4E7
0.0E0
100%
50
0
34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24
Time

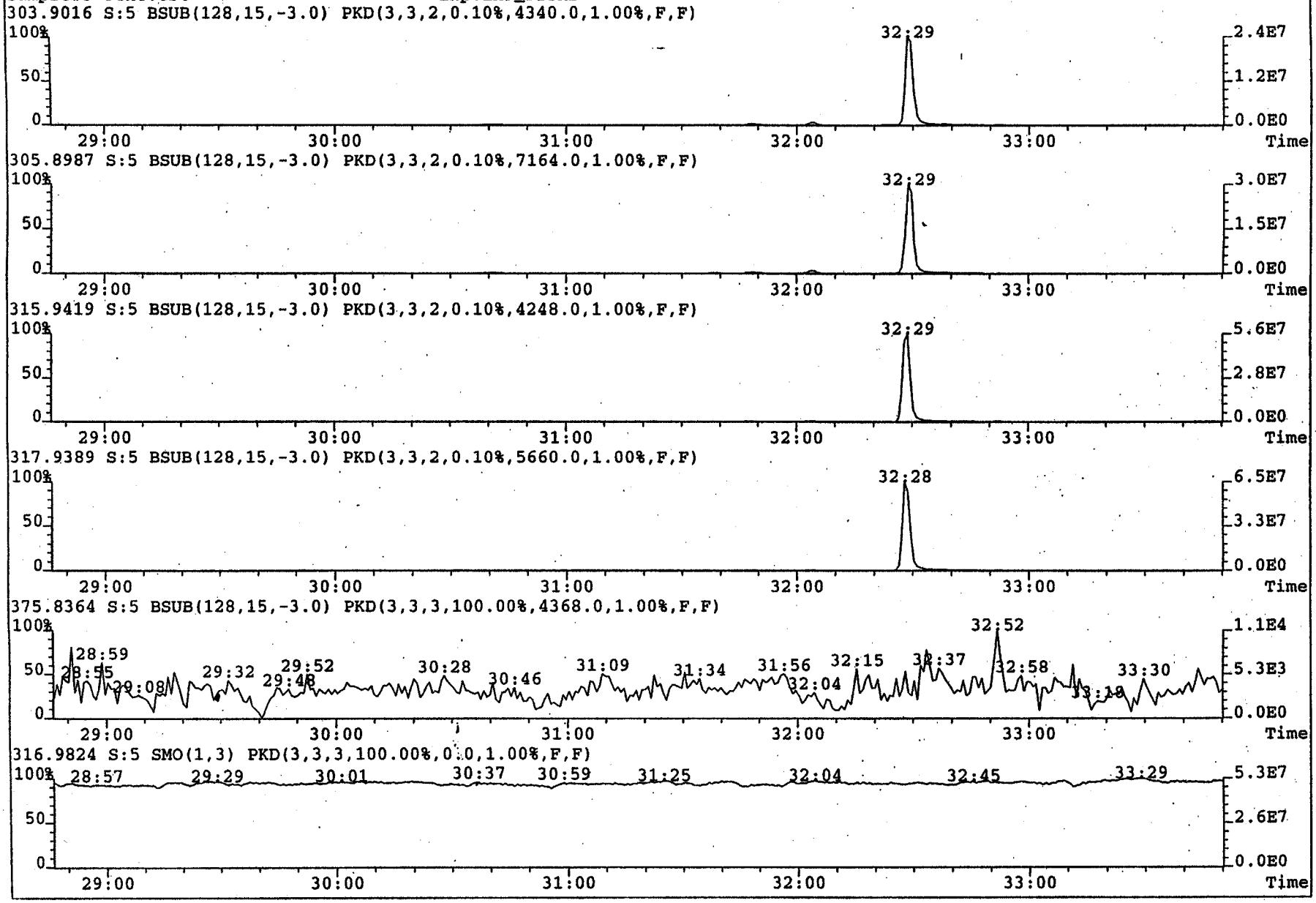

File:A26MAY99M #1-372 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4
Exp:EXP_DB5MS
389.8156 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5616.0,1.00%,F,F)
38:44
39:08
4.9E7
2.4E7
0.0E0
391.8127 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4992.0,1.00%,F,F)
38:44
39:08
4.3E7
2.2E7
0.0E0
401.8559 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5296.0,1.00%,F,F)
38:49
39:07
2.2E7
1.1E7
0.0E0
403.8530 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4584.0,1.00%,F,F)
38:44
39:07
1.9E7
9.5E6
0.0E0
380.9760 S:5 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
36:40
36:53
37:27
37:41
38:07
38:32
38:53
39:48
40:17
1.1E8
5.6E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time


File:A26MAY99M #1-440 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS
423.7767 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4408.0,1.00%,F,F)
42:45
3.1E7
1.5E7
0.0E0
425.7737 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3528.0,1.00%,F,F)
42:45
2.9E7
1.4E7
0.0E0
435.8169 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7316.0,1.00%,F,F)
42:44
1.5E7
7.3E6
0.0E0
437.8140 S:5 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5272.0,1.00%,F,F)
42:44
1.4E7
6.9E6
0.0E0
430.9728 S:5 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
40:37 40:58 41:18 41:38 41:57 42:16 42:31 42:45 43:11 43:39 43:56 44:31 44:49
6.1E7
3.0E7
0.0E0
100%
50
0
41:00
42:00
43:00
44:00
45:00
Time

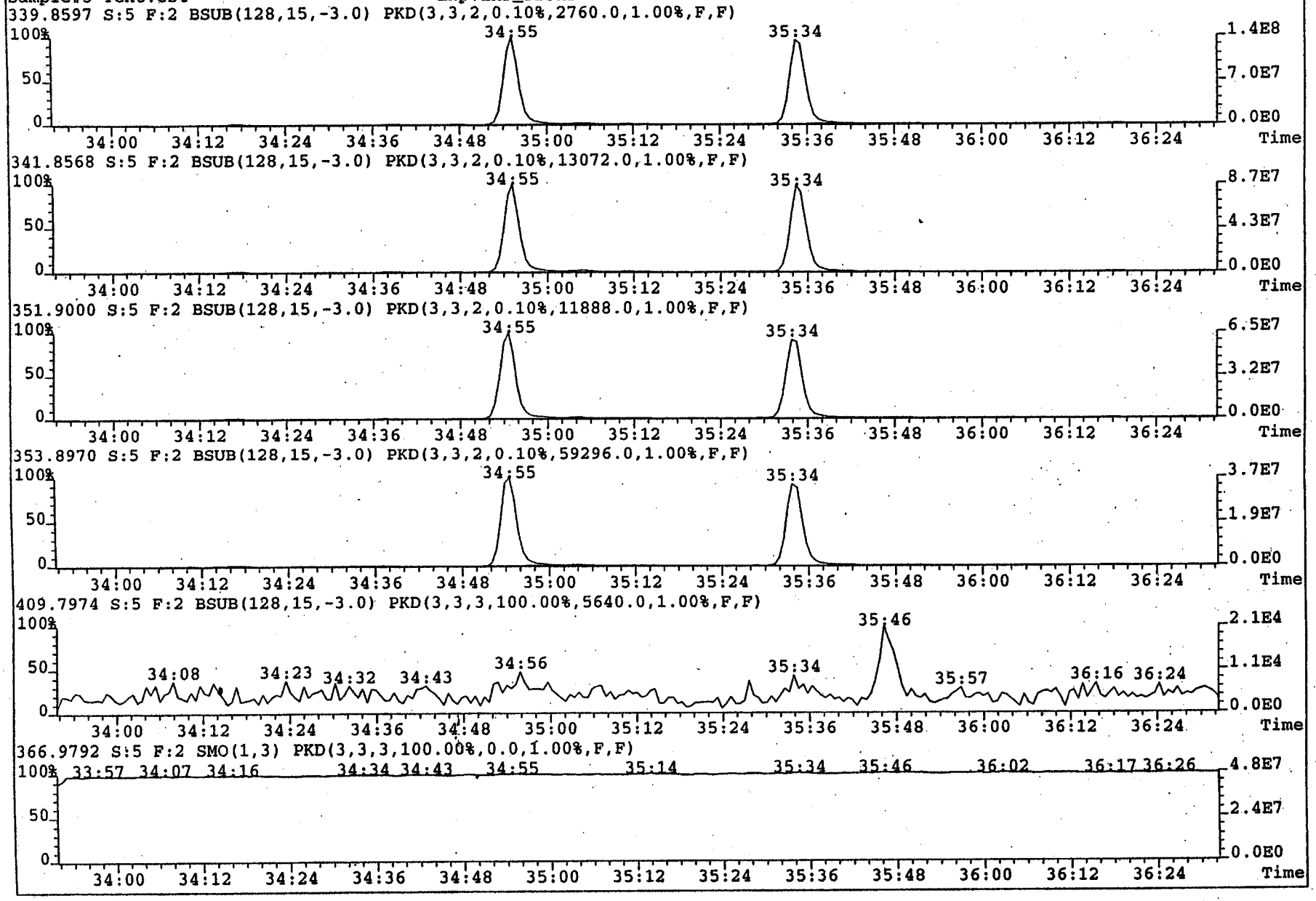
File:A26MAY99M #1-473 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS

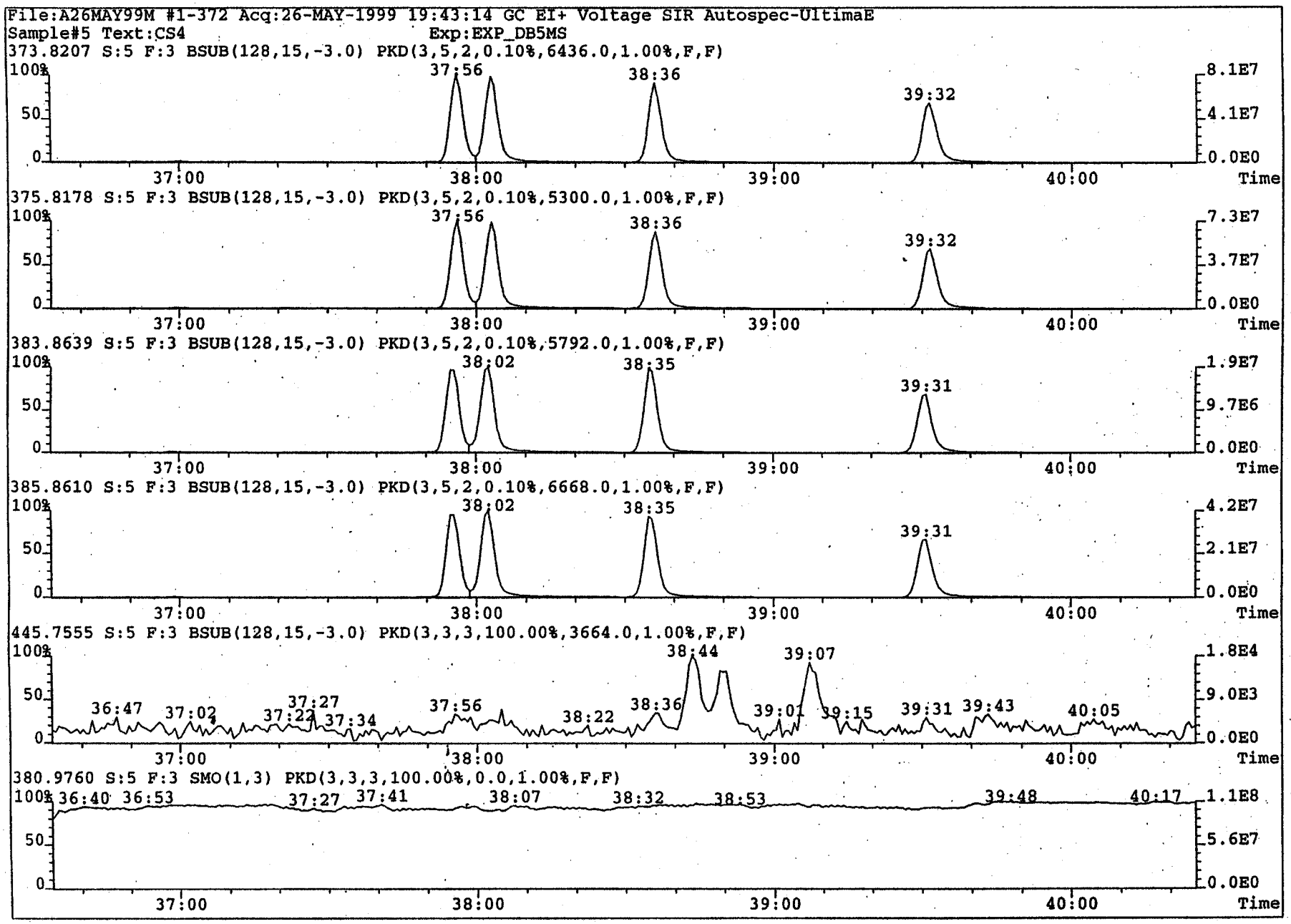


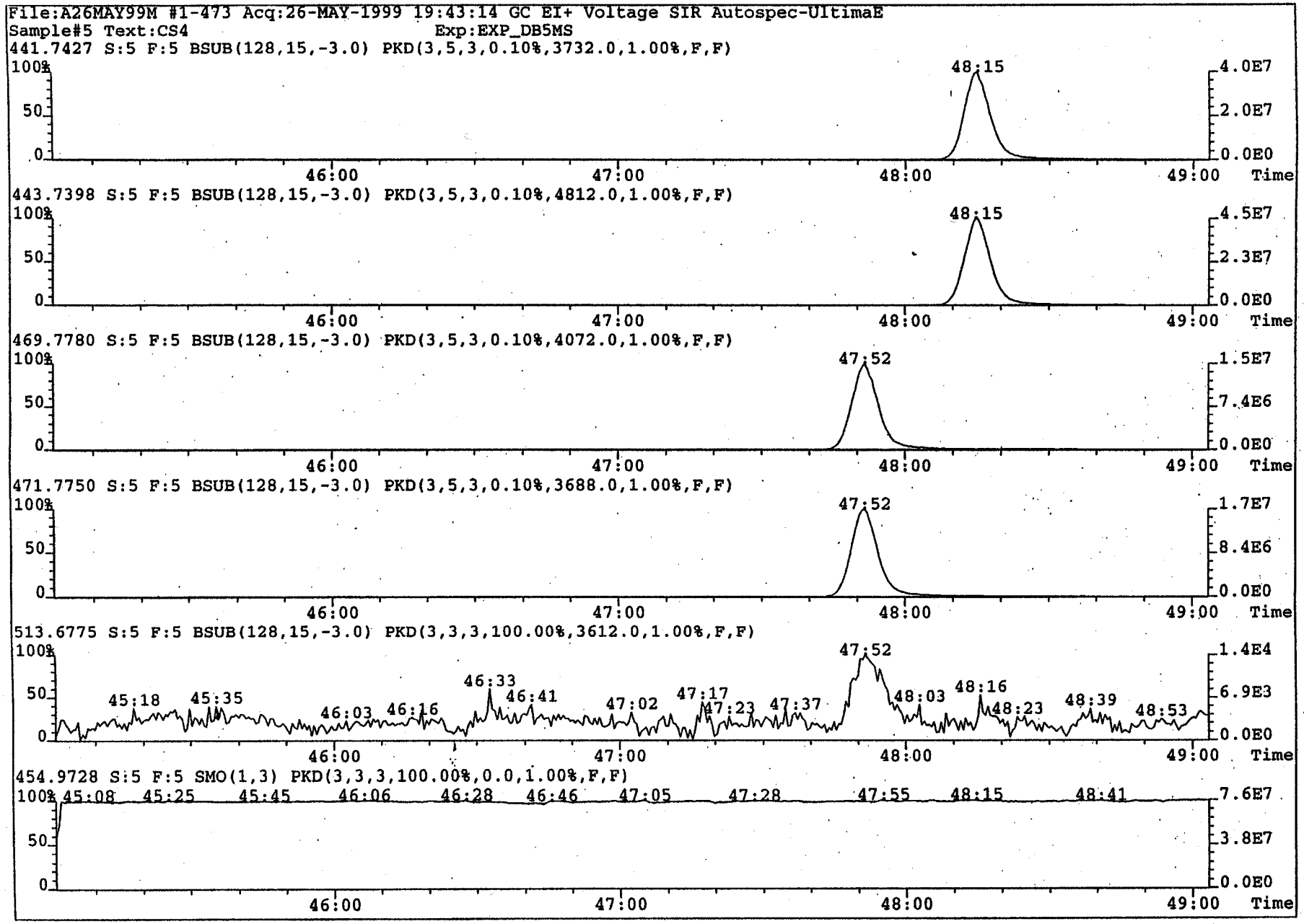
File:A26MAY99M #1-386 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS



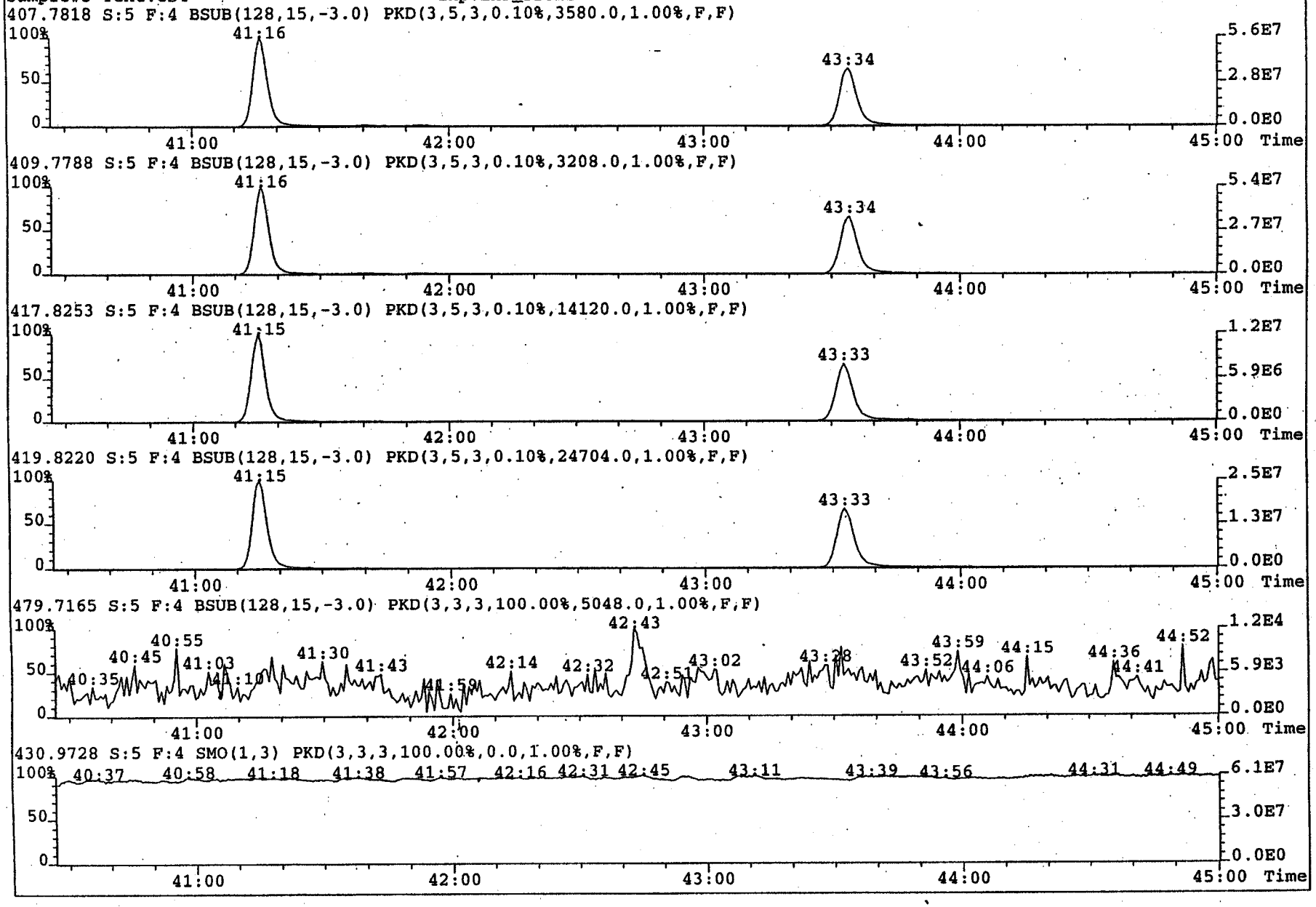
File:A26MAY99M #1-259 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS

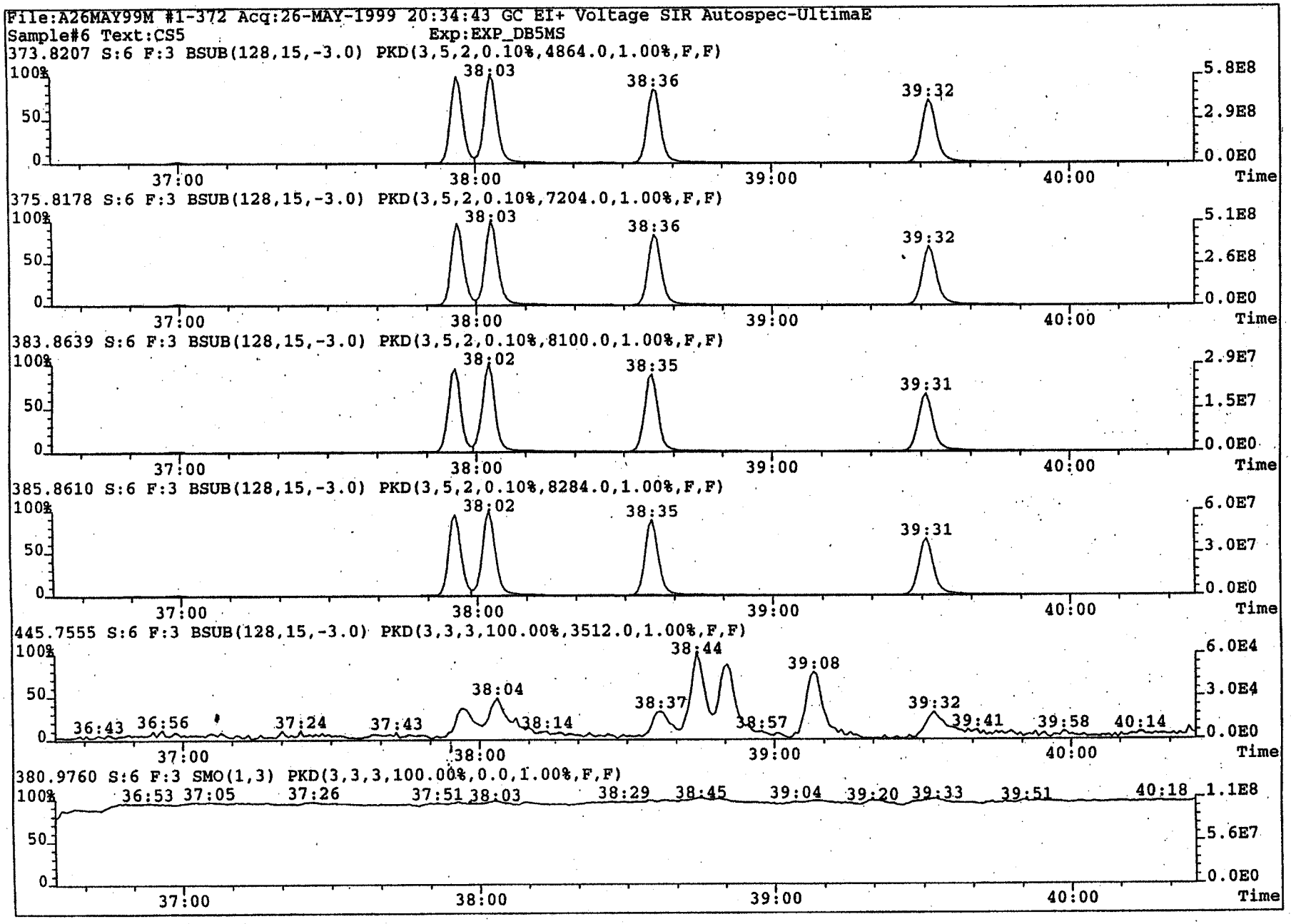



File:A26MAY99M #1-372 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4
Exp:EXP_DB5MS
373.8207 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6436.0,1.00%,F,F)
37:56
38:36
39:32
8.1E7
4.1E7
0.0E0
375.8178 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5300.0,1.00%,F,F)
37:56
38:36
39:32
7.3E7
3.7E7
0.0E0
383.8639 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5792.0,1.00%,F,F)
38:02
38:35
39:31
1.9E7
9.7E6
0.0E0
385.8610 S:5 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,6668.0,1.00%,F,F)
38:02
38:35
39:31
4.2E7
2.1E7
0.0E0
445.7555 S:5 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3664.0,1.00%,F,F)
36:47
37:02
37:22
37:27
37:34
37:56
38:22
38:36
38:44
39:01
39:07
39:15
39:31
39:43
40:05
1.8E4
9.0E3
0.0E0
380.9760 S:5 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
36:40
36:53
37:27
37:41
38:07
38:32
38:53
39:48
40:17
1.1E8
5.6E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

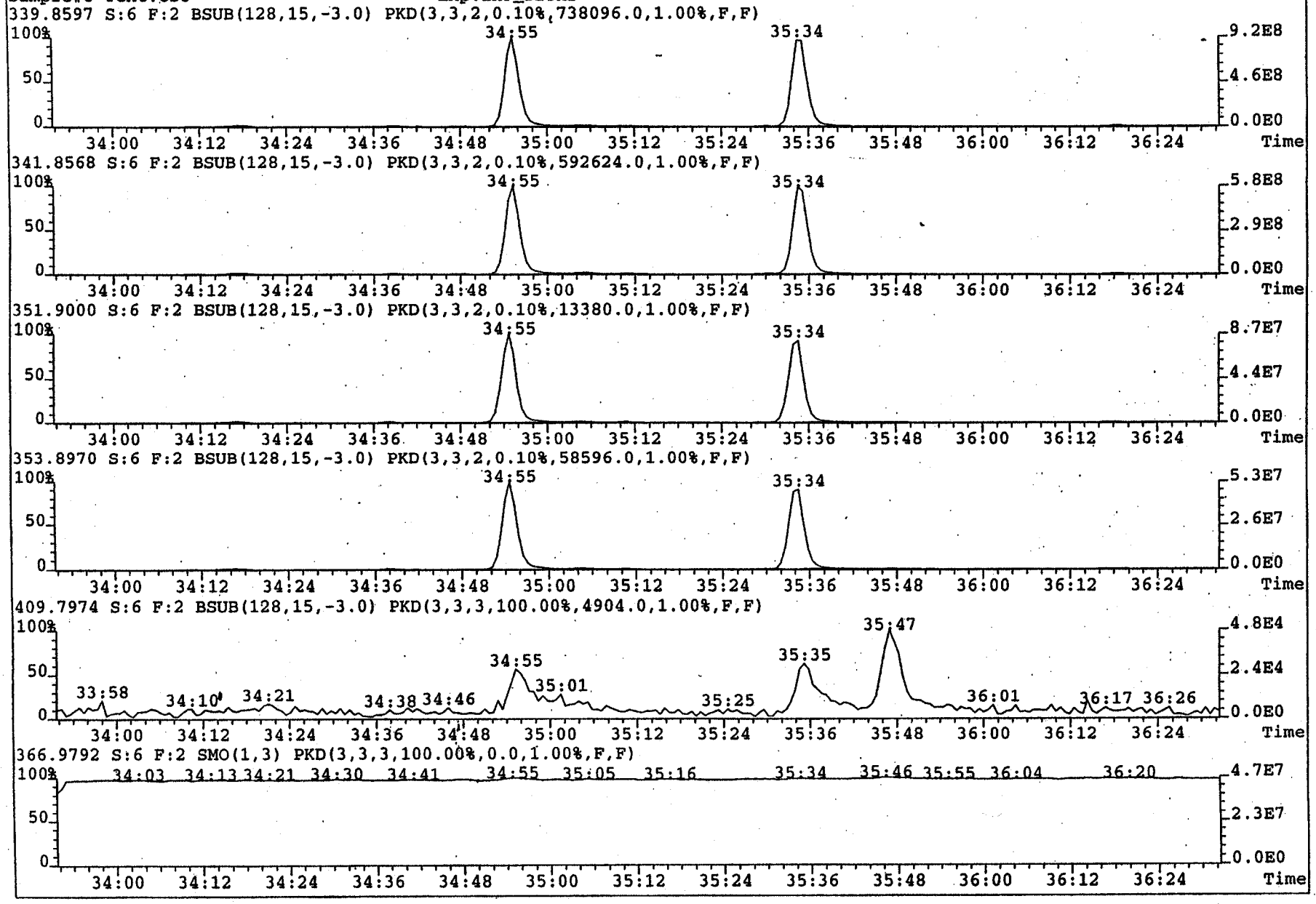

File:A26MAY99M #1-473 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS
441.7427 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3732.0,1.00%,F,F)
48:15
4.0E7
2.0E7
0.0E0
443.7398 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4812.0,1.00%,F,F)
48:15
4.5E7
2.3E7
0.0E0
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4072.0,1.00%,F,F)
47:52
1.5E7
7.4E6
0.0E0
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3688.0,1.00%,F,F)
47:52
1.7E7
8.4E6
0.0E0
513.6775 S:5 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3612.0,1.00%,F,F)
45:18 45:35 46:03 46:16 46:33 46:41 47:02 47:17 47:23 47:37 47:52 48:03 48:16 48:23 48:39 48:53
1.4E4
6.9E3
0.0E0
454.9728 S:5 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
45:08 45:25 45:45 46:06 46:28 46:46 47:05 47:28 47:55 48:15 48:41
7.6E7
3.8E7
0.0E0
100%
50
0
46:00
47:00
48:00
49:00
Time

File:A26MAY99M #1-440 Acq:26-MAY-1999 19:43:14 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS4 Exp:EXP_DB5MS

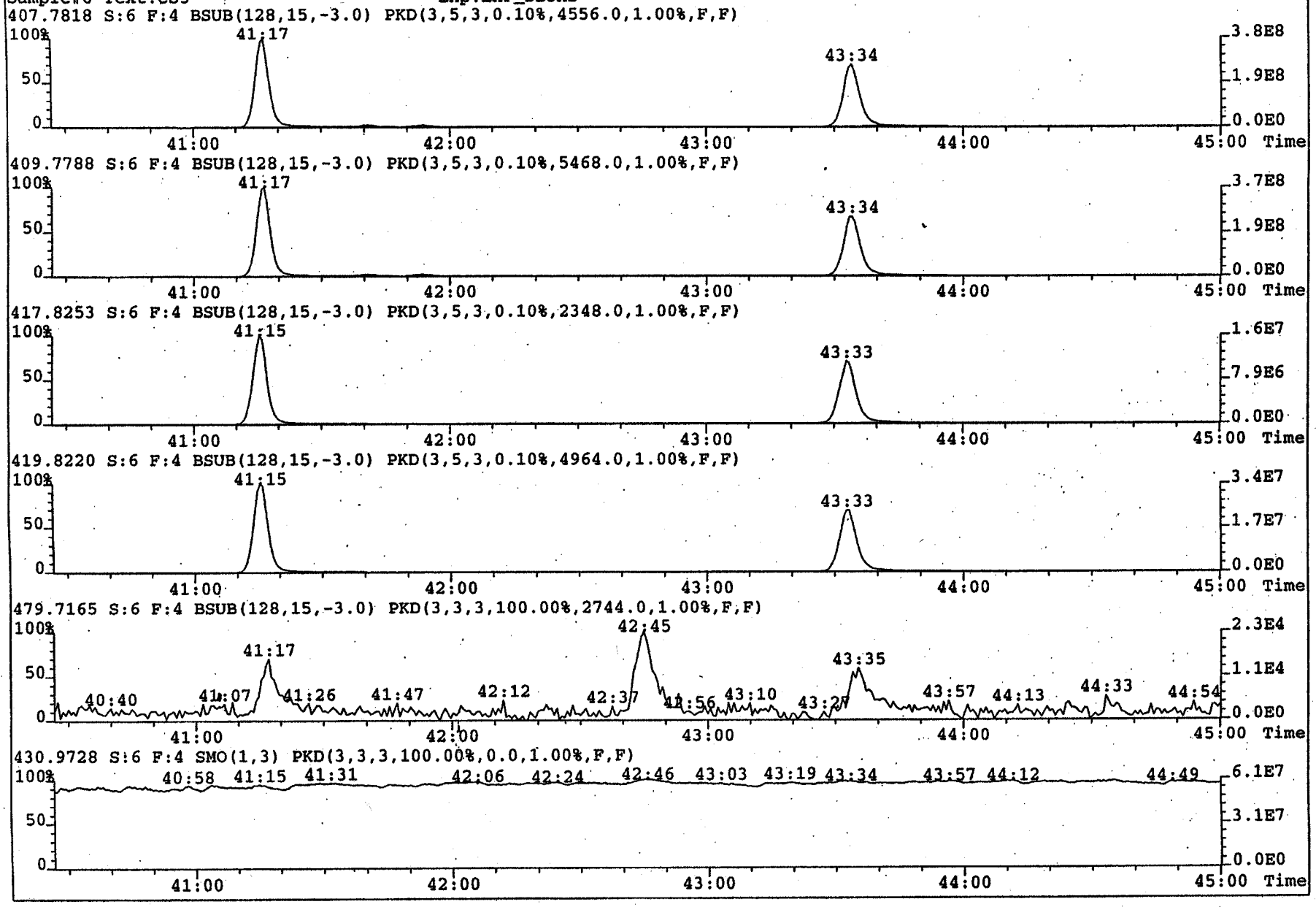


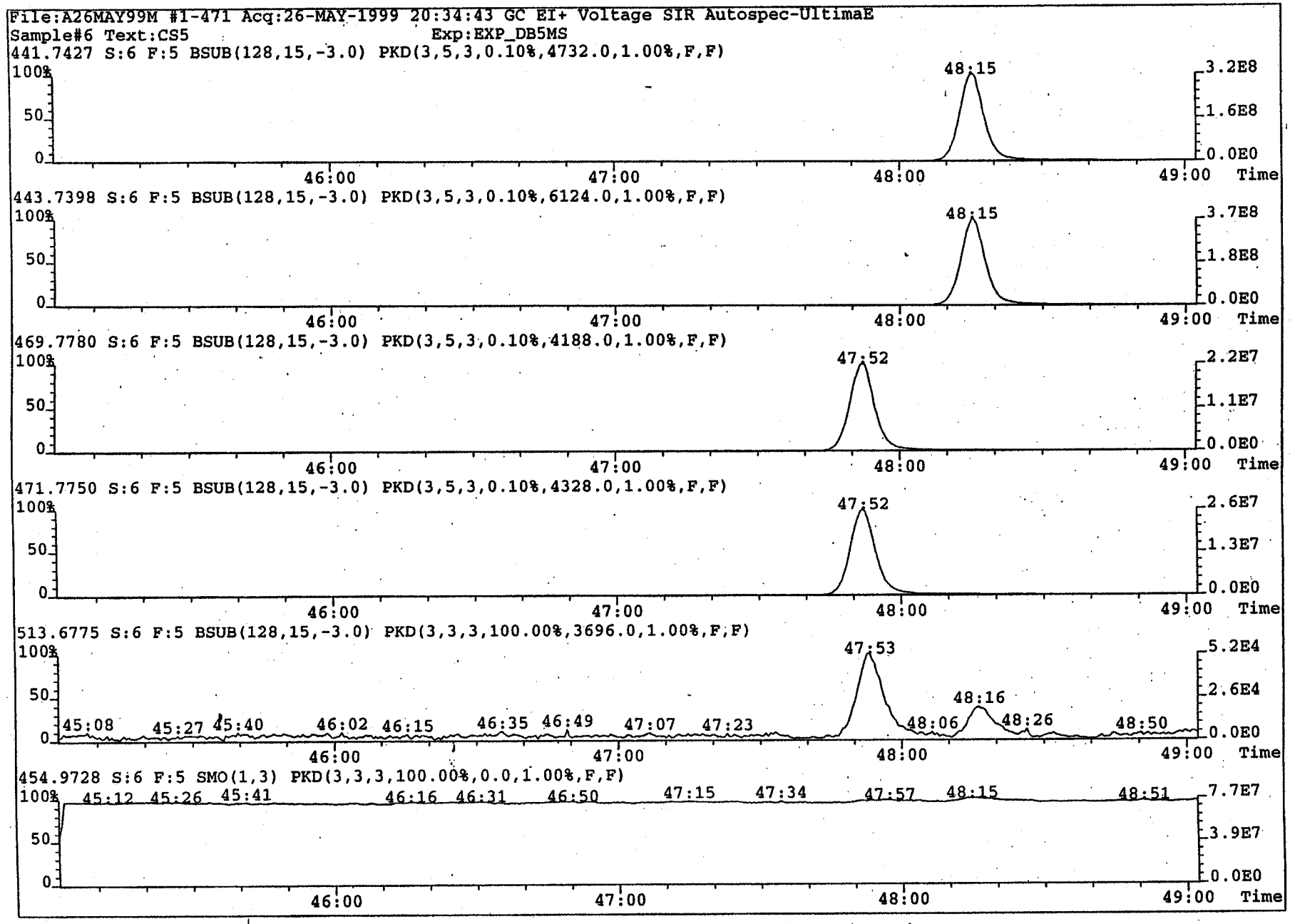

File:A26MAY99M #1-372 Acq:26-MAY-1999 20:34:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS5
Exp:EXP_DB5MS
373.8207 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4864.0,1.00%,F,F)
38:03
38:36
39:32
5.8E8
2.9E8
0.0E0
375.8178 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,7204.0,1.00%,F,F)
38:03
38:36
39:32
5.1E8
2.6E8
0.0E0
383.8639 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8100.0,1.00%,F,F)
38:02
38:35
39:31
2.9E7
1.5E7
0.0E0
385.8610 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8284.0,1.00%,F,F)
38:02
38:35
39:31
6.0E7
3.0E7
0.0E0
445.7555 S:6 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3512.0,1.00%,F,F)
36:43 36:56 37:24 37:43 38:04 38:14 38:37 38:44 38:57 39:08 39:32 39:41 39:58 40:14
6.0E4
3.0E4
0.0E0
380.9760 S:6 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
36:53 37:05 37:26 37:51 38:03 38:29 38:45 39:04 39:20 39:33 39:51 40:18
1.1E8
5.6E7
0.0E0
100%
50
0
37:00
38:00
39:00
40:00
Time

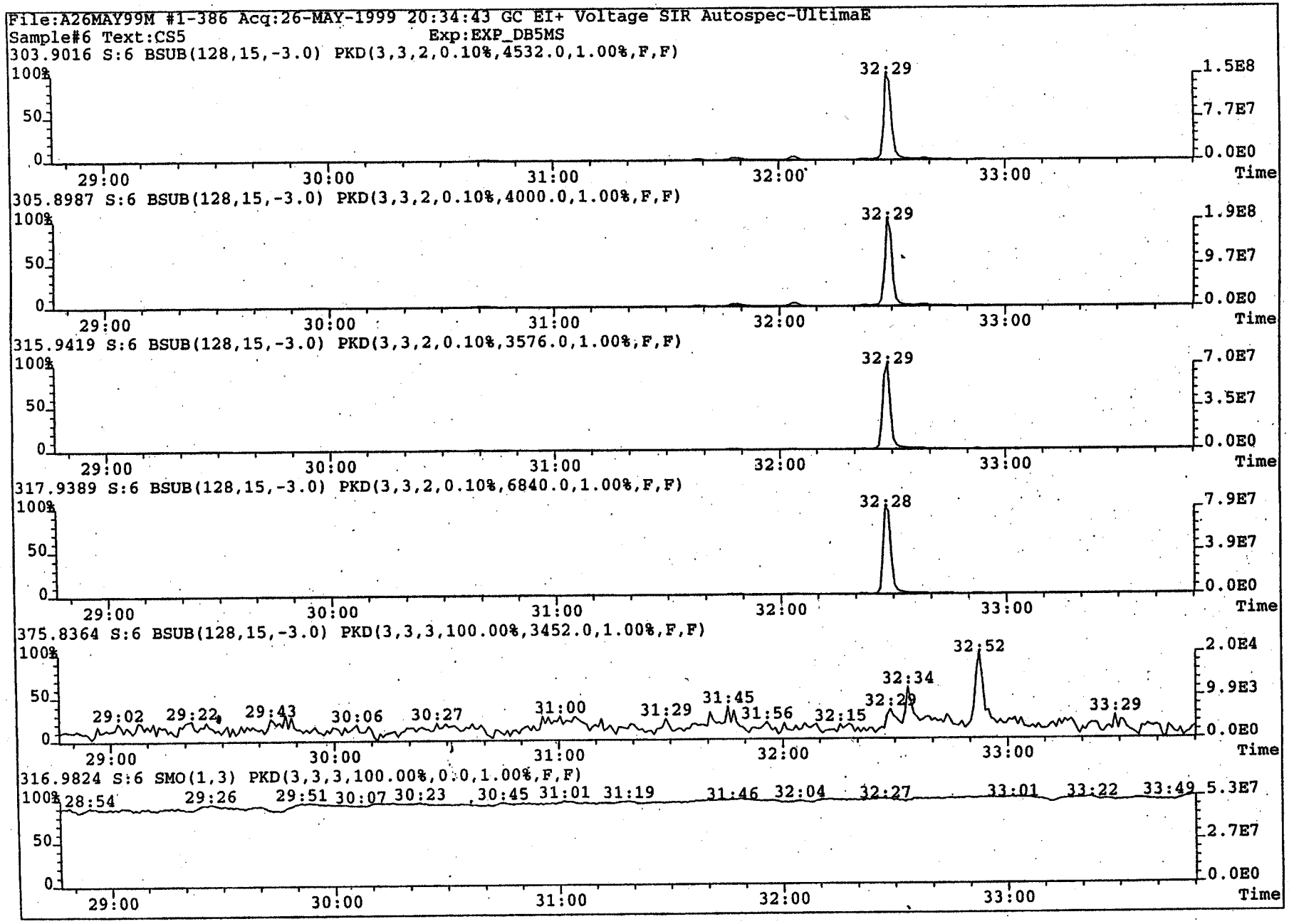
File:A26MAY99M #1-259 Acq:26-MAY-1999 20:34:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS5 Exp:EXP_DB5MS



File:A26MAY99M #1-440 Acq:26-MAY-1999 20:34:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS5 Exp:EXP_DB5MS




File:A26MAY99M #1-471 Acq:26-MAY-1999 20:34:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS5 Exp:EXP_DB5MS
441.7427 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4732.0,1.00%,F,F)
48:15
3.2E8
1.6E8
0.0E0
443.7398 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6124.0,1.00%,F,F)
48:15
3.7E8
1.8E8
0.0E0
469.7780 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4188.0,1.00%,F,F)
47:52
2.2E7
1.1E7
0.0E0
471.7750 S:6 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4328.0,1.00%,F,F)
47:52
2.6E7
1.3E7
0.0E0
513.6775 S:6 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3696.0,1.00%,F,F)
47:53
48:16
45:08 45:27 45:40 46:02 46:15 46:35 46:49 47:07 47:23 48:06 48:26 48:50
5.2E4
2.6E4
0.0E0
454.9728 S:6 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
45:12 45:26 45:41 46:16 46:31 46:50 47:15 47:34 47:57 48:15 48:51
7.7E7
3.9E7
0.0E0
100%
50
0
46:00
47:00
48:00
49:00
Time


File:A26MAY99M #1-386 Acq:26-MAY-1999 20:34:43 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS5
Exp:EXP_DB5MS
303.9016 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4532.0,1.00%,F,F)
32:29
1.5E8
7.7E7
0.0E0
305.8987 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4000.0,1.00%,F,F)
32:29
1.9E8
9.7E7
0.0E0
315.9419 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3576.0,1.00%,F,F)
32:29
7.0E7
3.5E7
0.0E0
317.9389 S:6 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6840.0,1.00%,F,F)
32:28
7.9E7
3.9E7
0.0E0
375.8364 S:6 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3452.0,1.00%,F,F)
29:02 29:22 29:43 30:06 30:27 31:00 31:29 31:45 31:56 32:15 32:29 32:34 32:52 33:29
2.0E4
9.9E3
0.0E0
316.9824 S:6 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
28:54 29:26 29:51 30:07 30:23 30:45 31:01 31:19 31:46 32:04 32:27 33:01 33:22 33:49
5.3E7
2.7E7
0.0E0
100%
50
0
29:00
30:00
31:00
32:00
33:00
Time

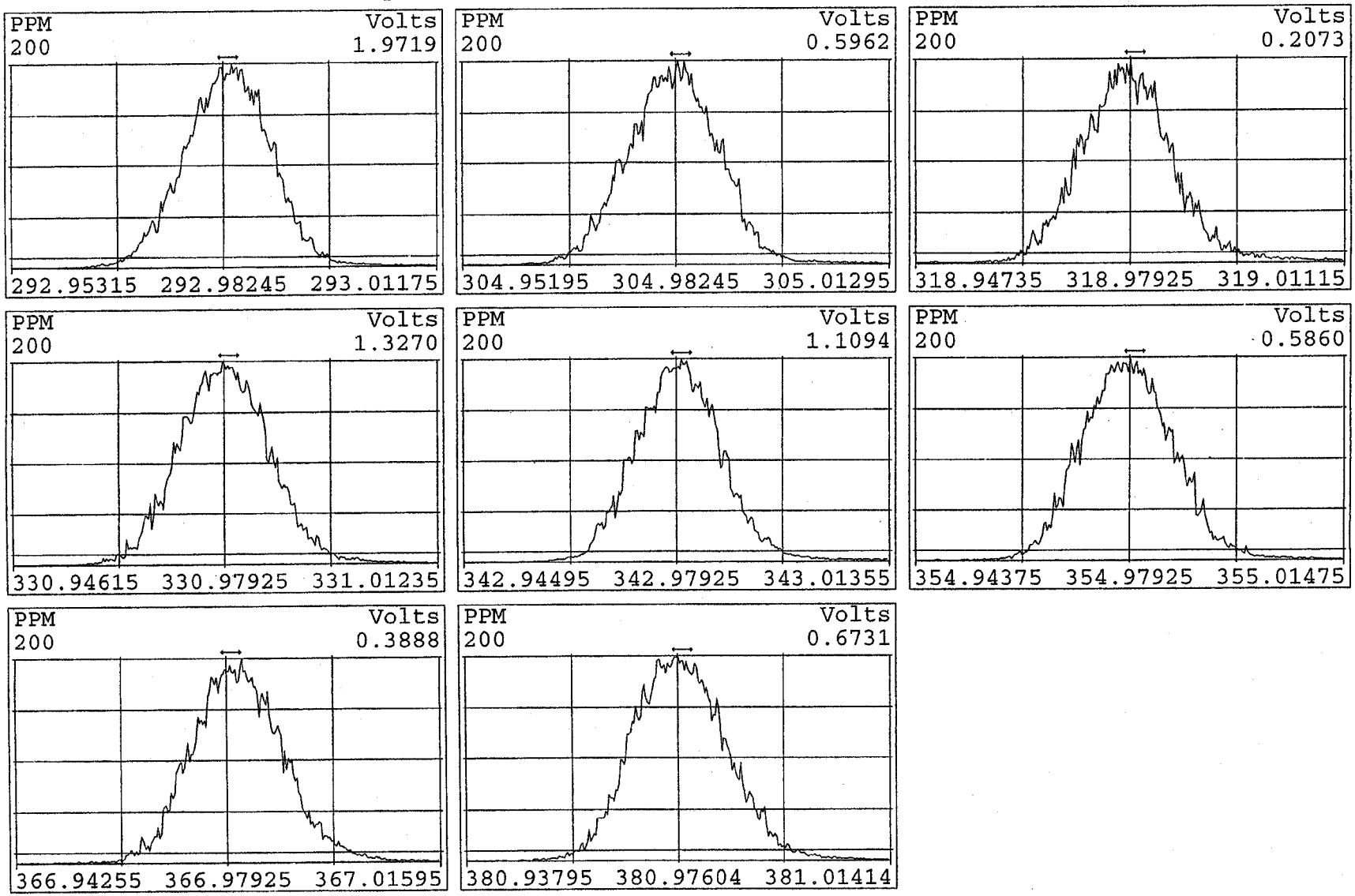
Section 6

Continuing Calibration Data

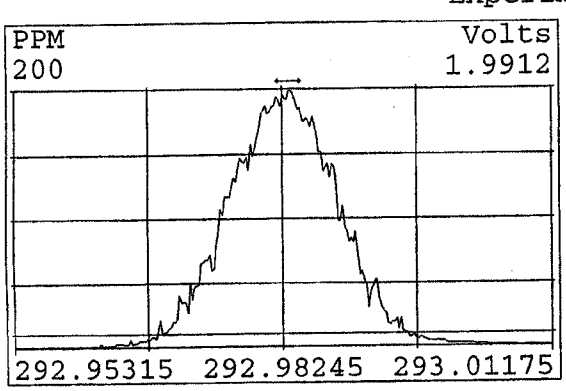
Paradigm Sample Log

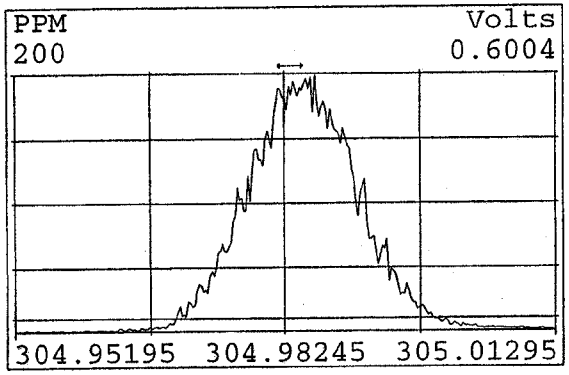
Data File S	Sample ID	Analyst	Acq. Date	Time
a15nov00a;1	;RETCON	;HMK	15-NOV-00	16:55:47
a15nov00a;2	;WG5105-2	;HMK	15-NOV-00	17:44:11
a15nov00a;3	;WG5105-1 x1/1	;HMK	15-NOV-00	18:32:38
a15nov00a;4	;WG5102-2	;HMK	15-NOV-00	19:21:03
a15nov00a;5	;WG5102-1 x1/1	;HMK	15-NOV-00	20:09:30
a15nov00a;6	;WG5082-1 x1/1	;HMK	15-NOV-00	20:57:56
a15nov00a;7	;98947 x1/1	;HMK	15-NOV-00	21:46:21
a15nov00a;8	;99322 x1/1	;HMK	15-NOV-00	22:34:48
a15nov00a;9	;99323 x1/1	;HMK	15-NOV-00	23:23:13
a15nov00a;10	;99324 x1/1	;HMK	16-NOV-00	00:11:39
a15nov00a;11	;99325 x1/1	;HMK	16-NOV-00	01:00:06
a15nov00a;12	;99326 x1/1	;HMK	16-NOV-00	01:48:31
a15nov00a;13	;99327 x1/1	;HMK	16-NOV-00	02:36:58
a15nov00a;14	;99328 x1/1	;HMK	16-NOV-00	03:25:25
a15nov00a;15	;RETCON	;HMK	16-NOV-00	04:13:50
a15nov00a_2;1	;WG5101-2	;HMK	16-NOV-00	05:05:47
a15nov00a_2;2	;WG5101-1 x1/1	;HMK	16-NOV-00	05:54:13
a15nov00a_2;3	;99329 x1/1	;HMK	16-NOV-00	06:42:40
a15nov00a_2;4	;99386 x1/1	;HMK	16-NOV-00	07:31:06
a15nov00a_2;5	;99387 x1/1	;HMK	16-NOV-00	08:19:33
a15nov00a_2;6	;99388 x1/1	;HMK	16-NOV-00	09:08:00
a15nov00a_2;7	;99389 x1/1	;HMK	16-NOV-00	09:56:26
a15nov00a_2;8	;99390 x1/1	;HMK	16-NOV-00	10:44:54
a15nov00a_2;9	;99391 x1/1	;HMK	16-NOV-00	11:33:20
a15nov00a_2;10	;99392 x1/1	;HMK	16-NOV-00	12:21:46
a15nov00a_2;11	;RETCON	;HMK	16-NOV-00	13:10:12

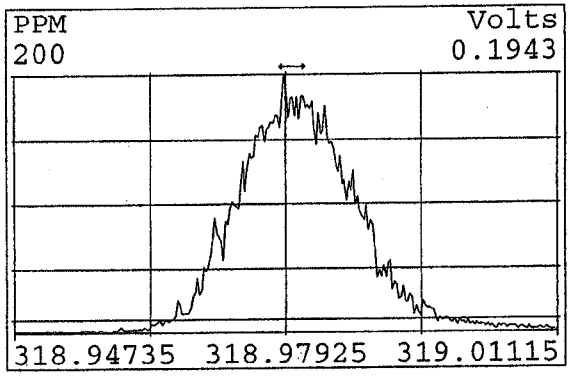
Peak Locate Examination:15-NOV-2000:16:54 File:A15NOV00A_L
Experiment:EXP_DB5MS Function:1 Reference:PFK

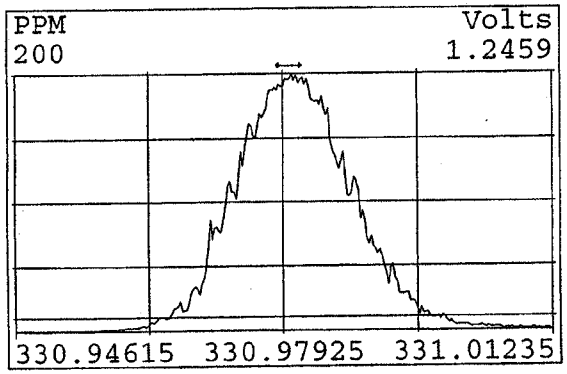


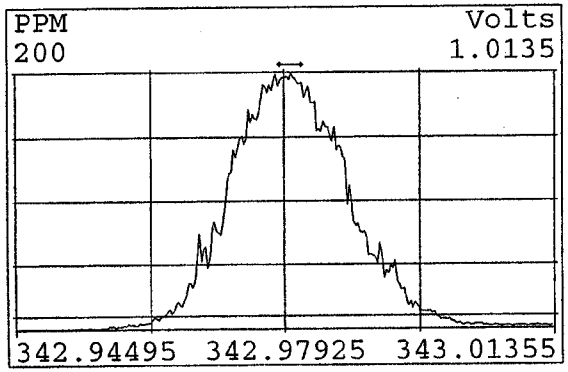
Peak Locate Examination:16-NOV-2000:05:02 File:A15NOV00A_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK

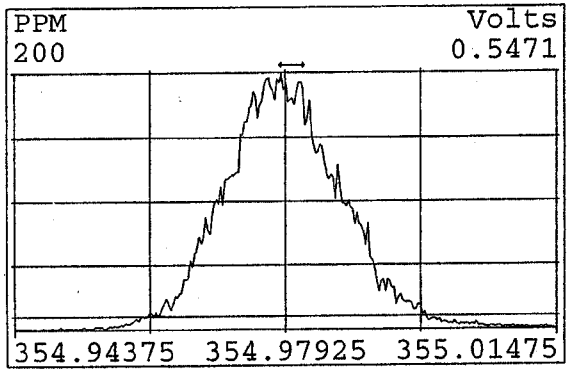


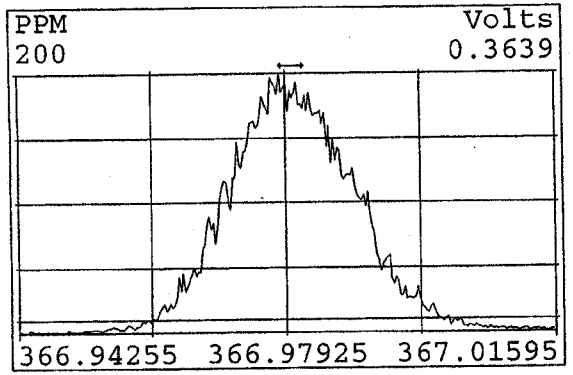


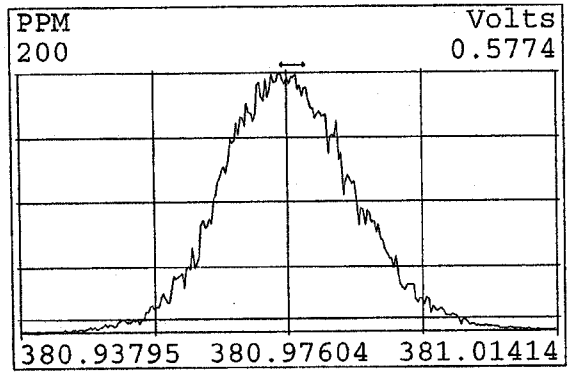




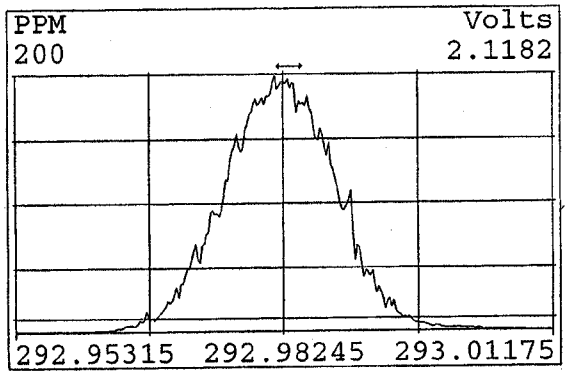


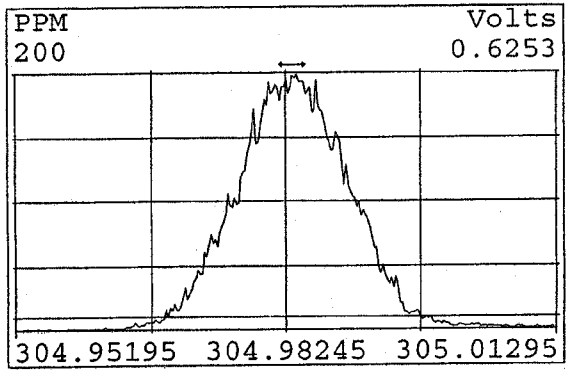


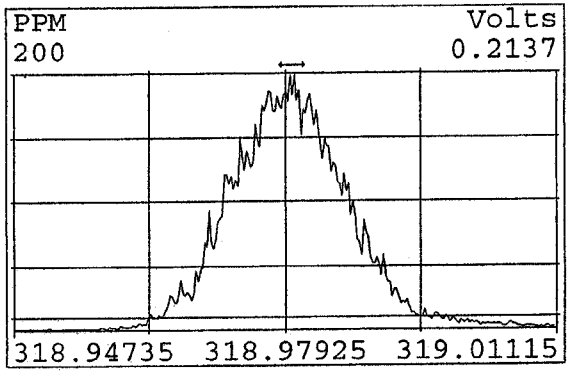


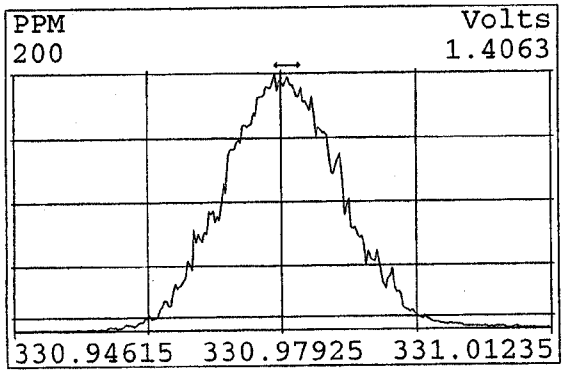


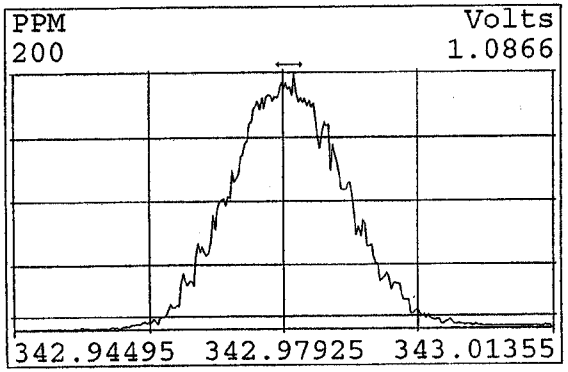
Peak Locate Examination:16-NOV-2000:13:58 File:A15NOV00A_2_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK

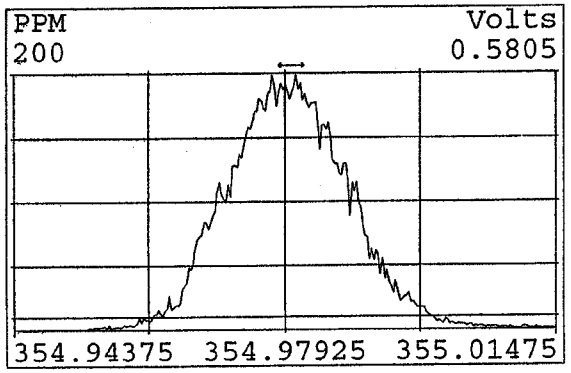


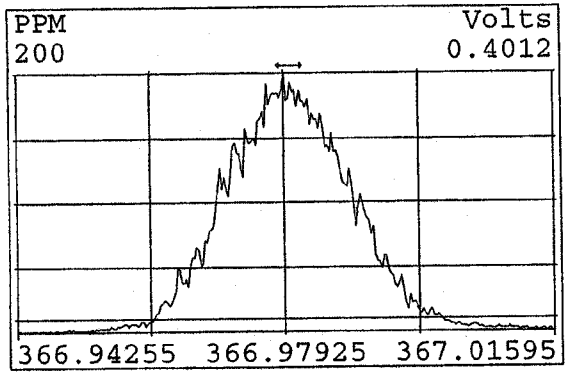


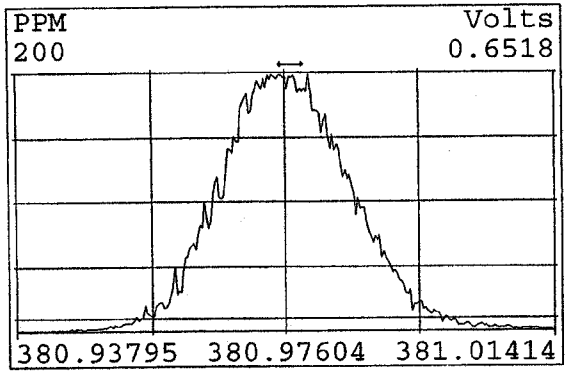






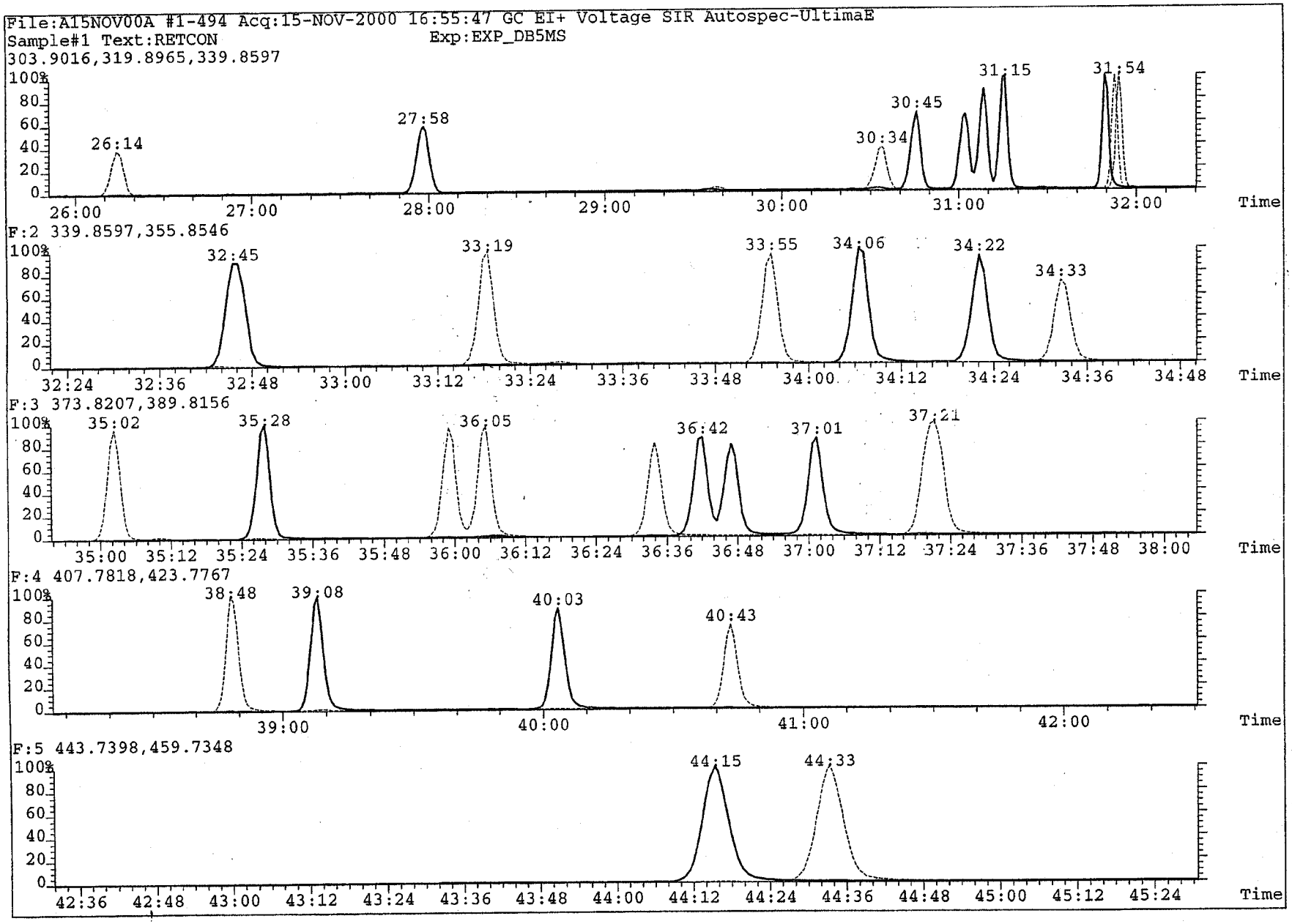




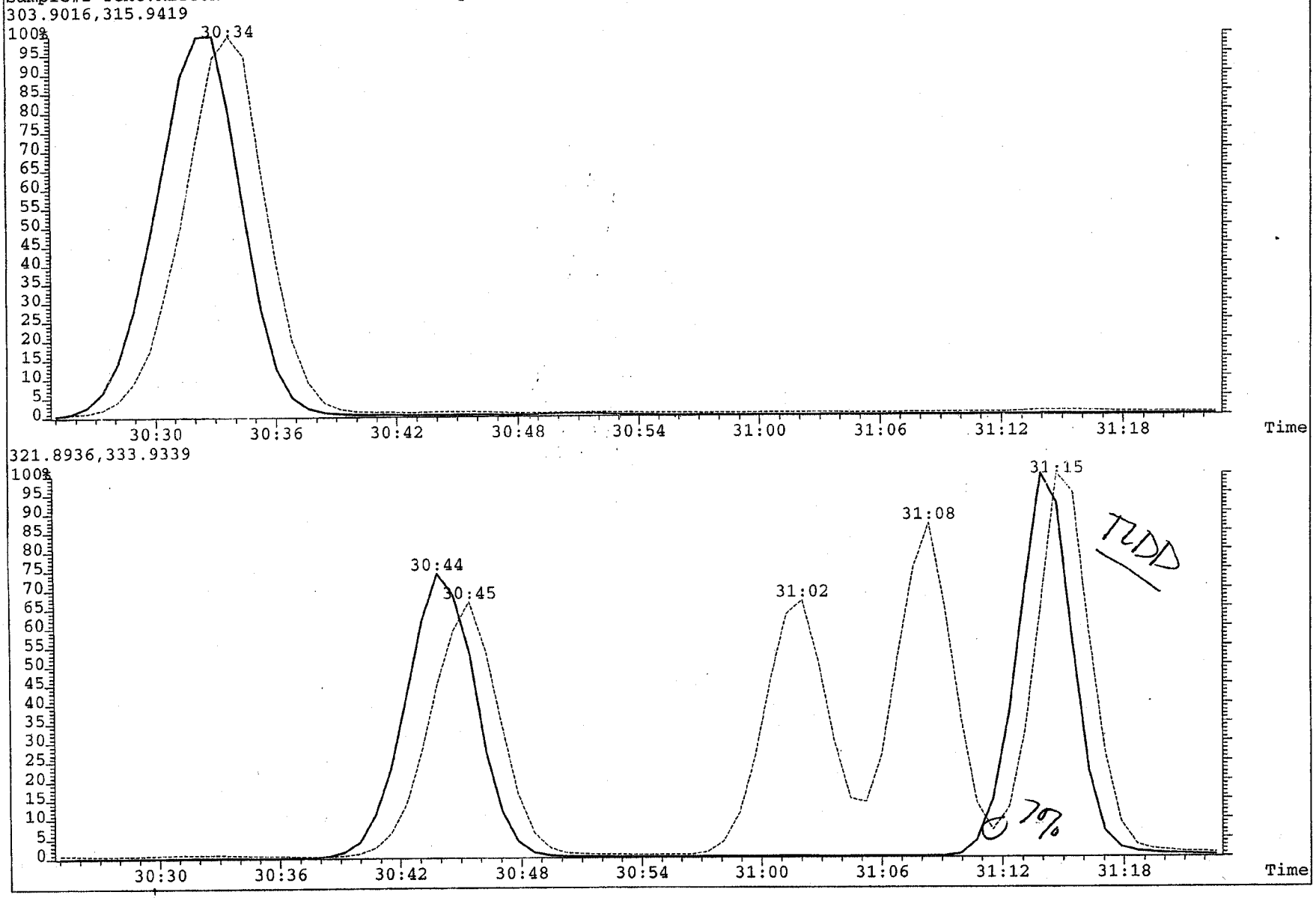


Filename ; a15nov00a
Sample ; 1
Acquired ; 15-NOV-00 16:55:47
Processed ; 16-NOV-00 14:58:58
Sample ID ; RETCON

Name	First Eluter RT	Last Eluter RT
TCDD	27:58	31:49
PeCDD	32:45	34:22
HxCDD	35:28	37:01
HpCDD	39:08	40:03
OCDD	44:15	
TCDF	26:14	31:54
PeCDF	31:53	34:33
HxCDF	35:02	37:21
HpCDF	38:48	40:43
OCDF	44:33	

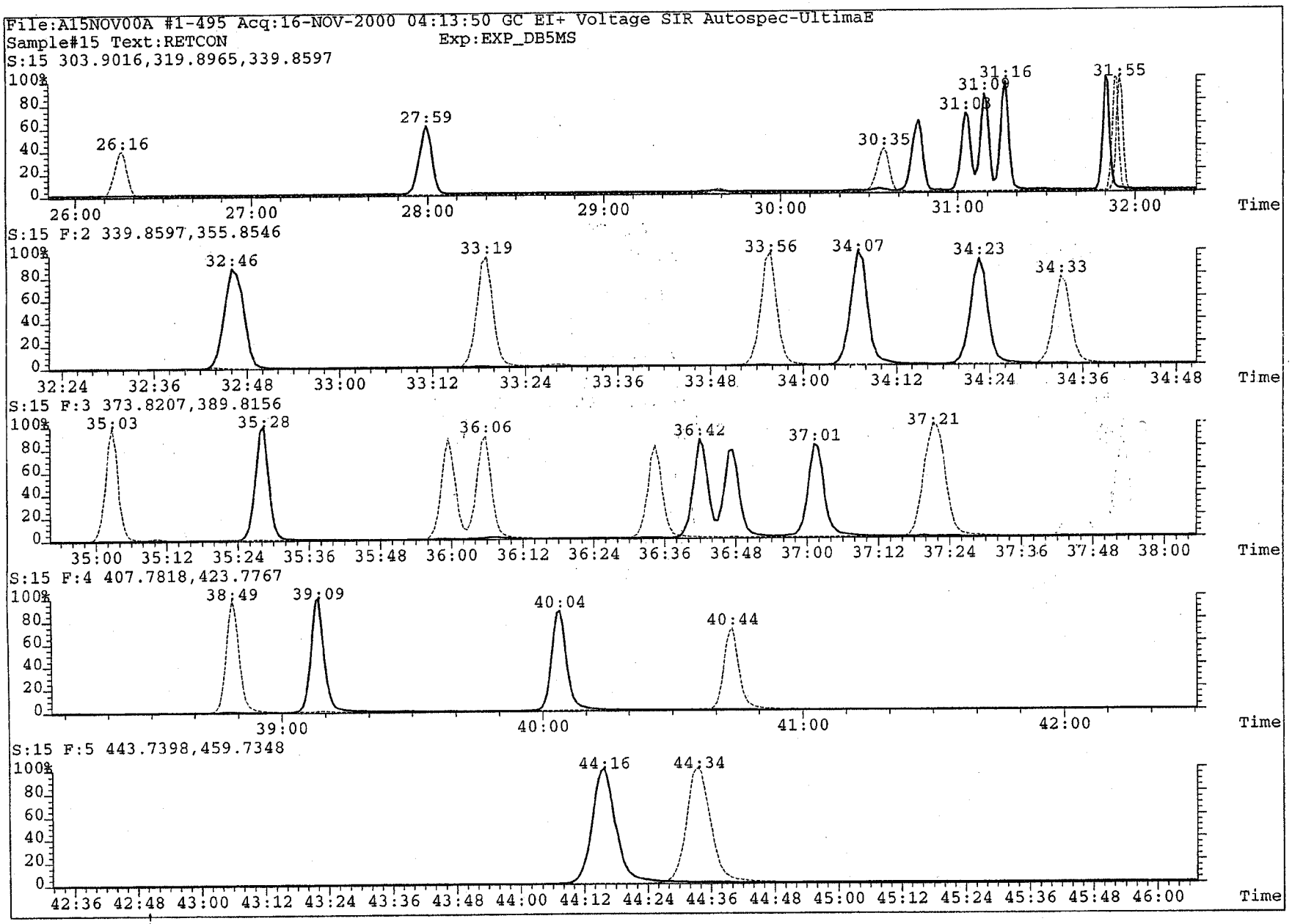

File:A15NOV00A #1-494 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON
Exp:EXP_DB5MS
303.9016,319.8965,339.8597
26:14
27:58
30:34
30:45
31:15
31:54
Time
F:2 339.8597,355.8546
32:45
33:19
33:55
34:06
34:22
34:33
Time
F:3 373.8207,389.8156
35:02
35:28
36:05
36:42
37:01
37:21
Time
F:4 407.7818,423.7767
38:48
39:08
40:03
40:43
Time
F:5 443.7398,459.7348
44:15
44:33
Time

File:A15NOV00A #1-494 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS

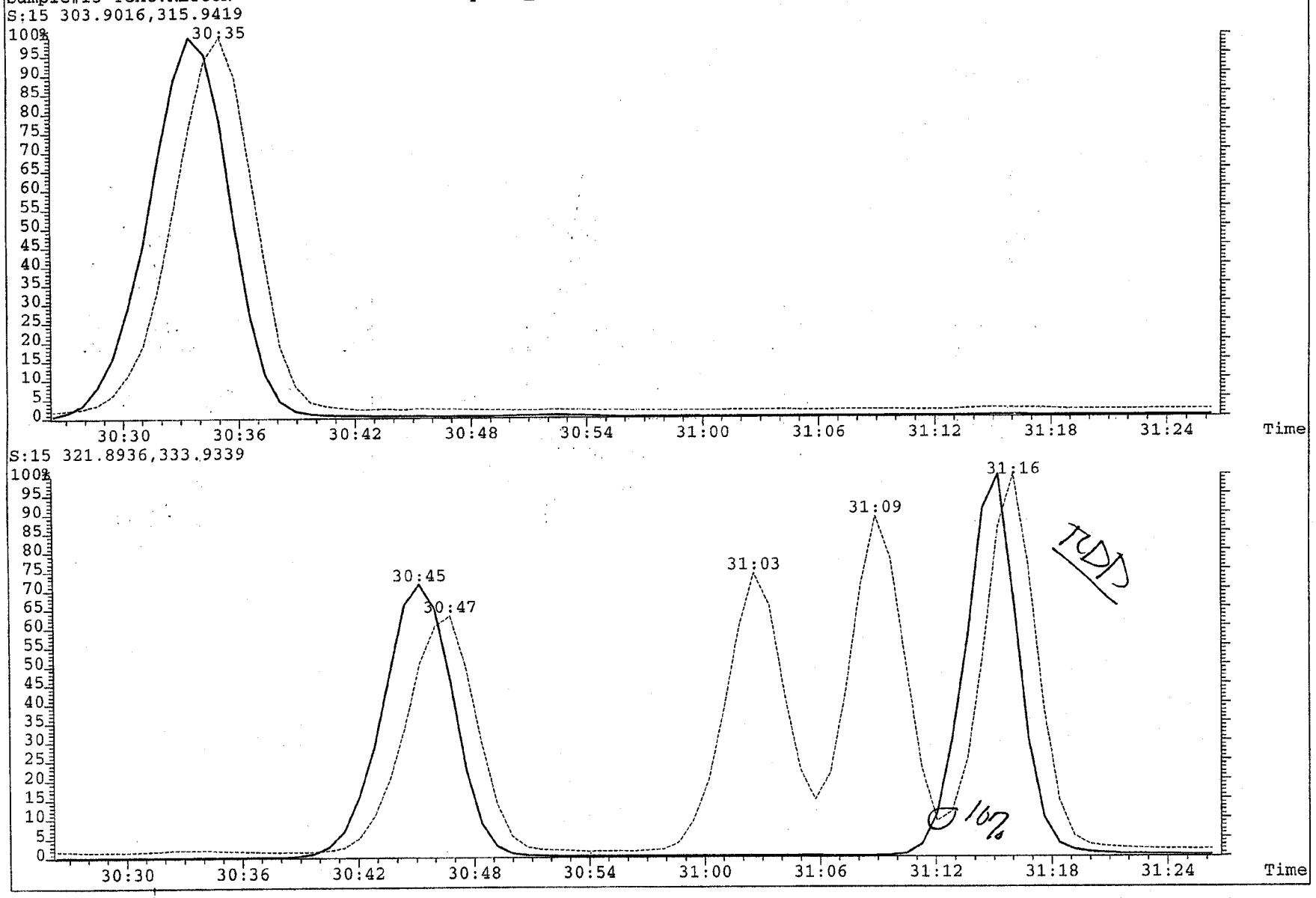


Filename ; a15nov00a
Sample ; 15
Acquired ; 16-NOV-00 04:13:50
Processed ; 16-NOV-00 14:59:07
Sample ID ; RETCON

Name	First Eluter RT	Last Eluter RT
TCDD	27:59	31:50
PeCDD	32:46	34:23
HxCDD	35:28	37:01
HpCDD	39:09	40:04
OCDD	44:16	
TCDF	26:16	31:55
PeCDF	31:53	34:33
HxCDF	35:03	37:21
HpCDF	38:49	40:44
OCDF	44:34	

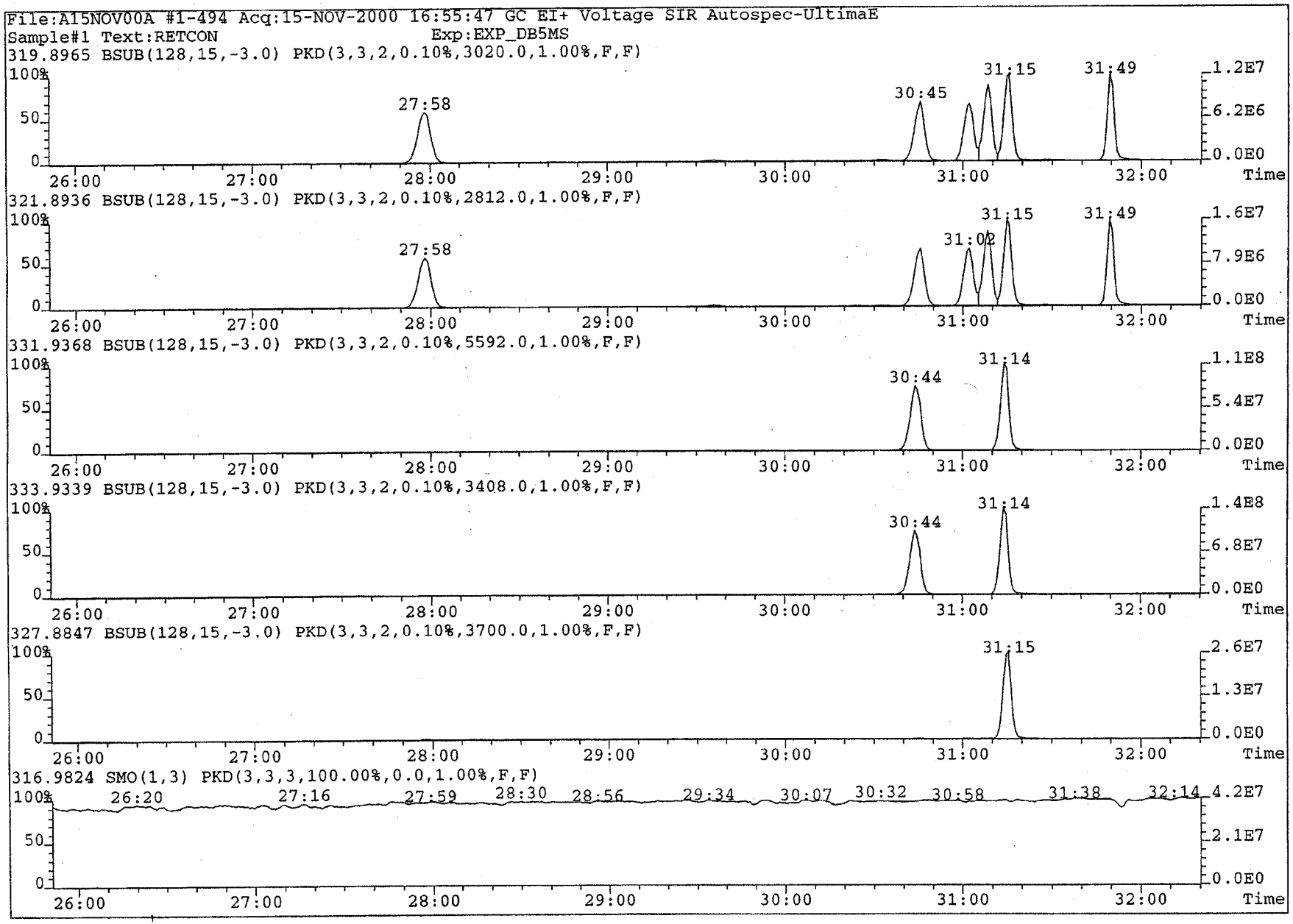

File:A15NOV00A #1-495 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON
Exp:EXP_DB5MS
S:15 303.9016,319.8965,339.8597
26:16
27:59
30:35
31:03
31:09
31:16
31:55
S:15 F:2 339.8597,355.8546
32:46
33:19
33:56
34:07
34:23
34:33
S:15 F:3 373.8207,389.8156
35:03
35:28
36:06
36:42
37:01
37:21
S:15 F:4 407.7818,423.7767
38:49
39:09
40:04
40:44
S:15 F:5 443.7398,459.7348
44:16
44:34
Time

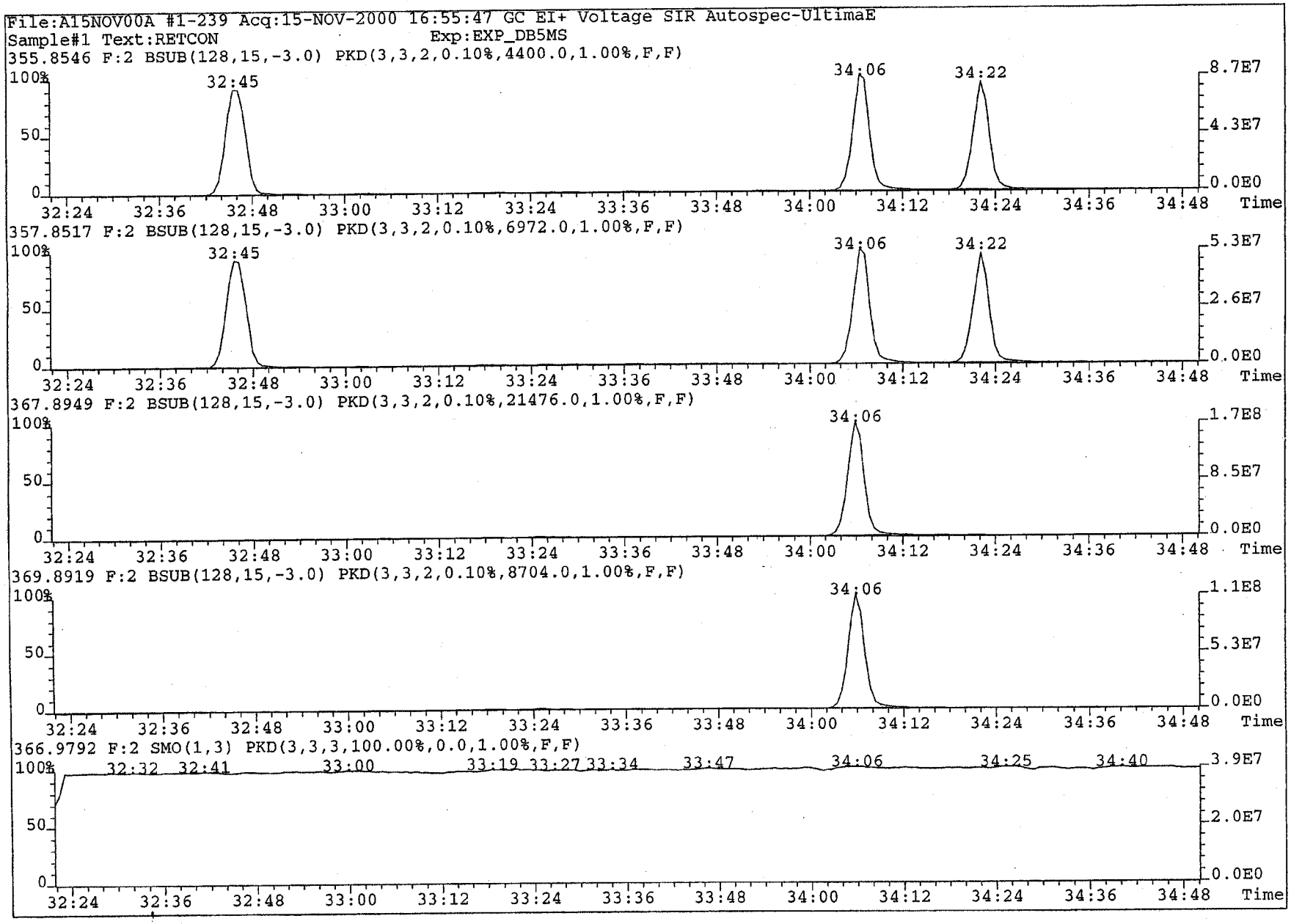
File:A15NOV00A #1-495 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS

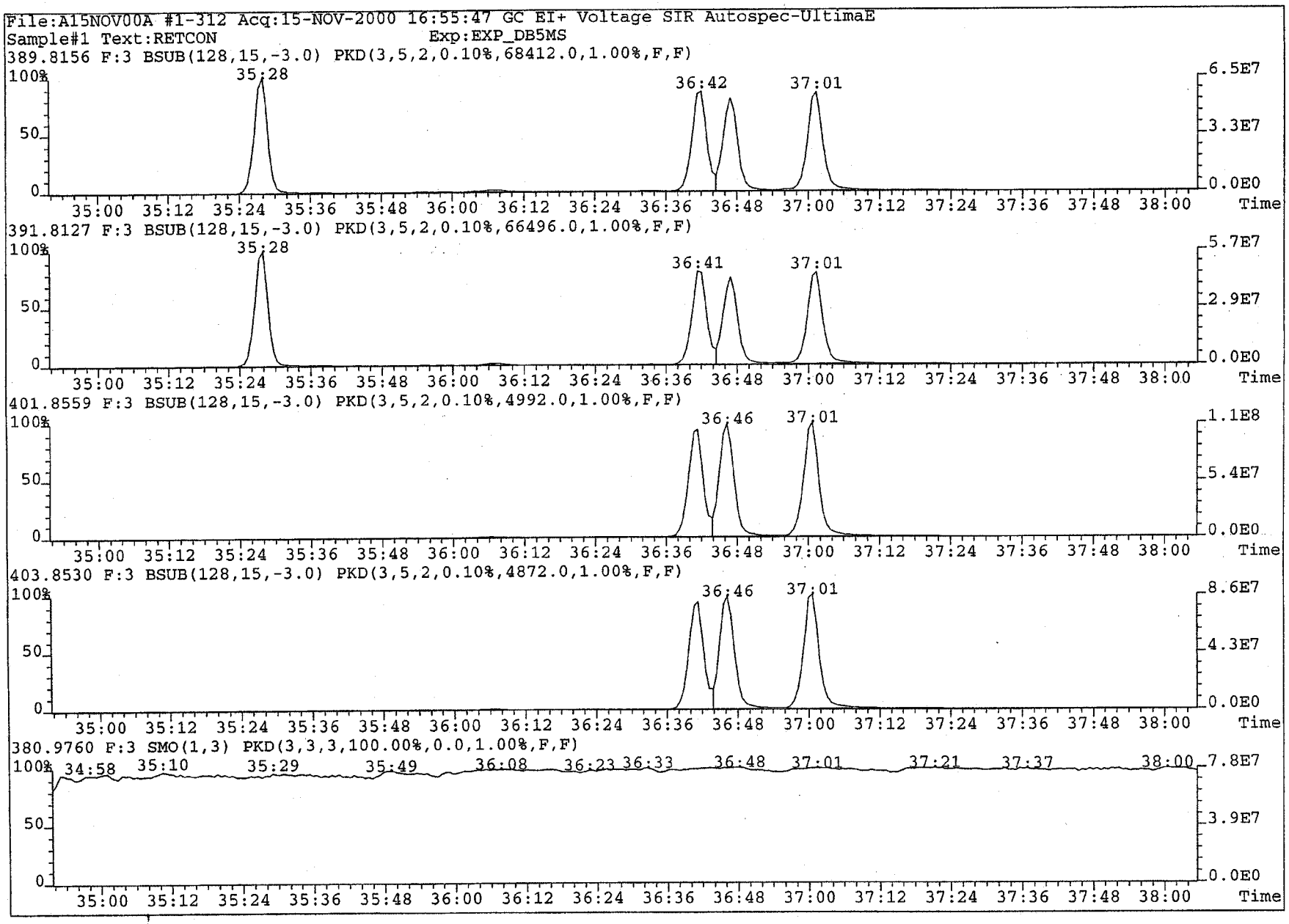


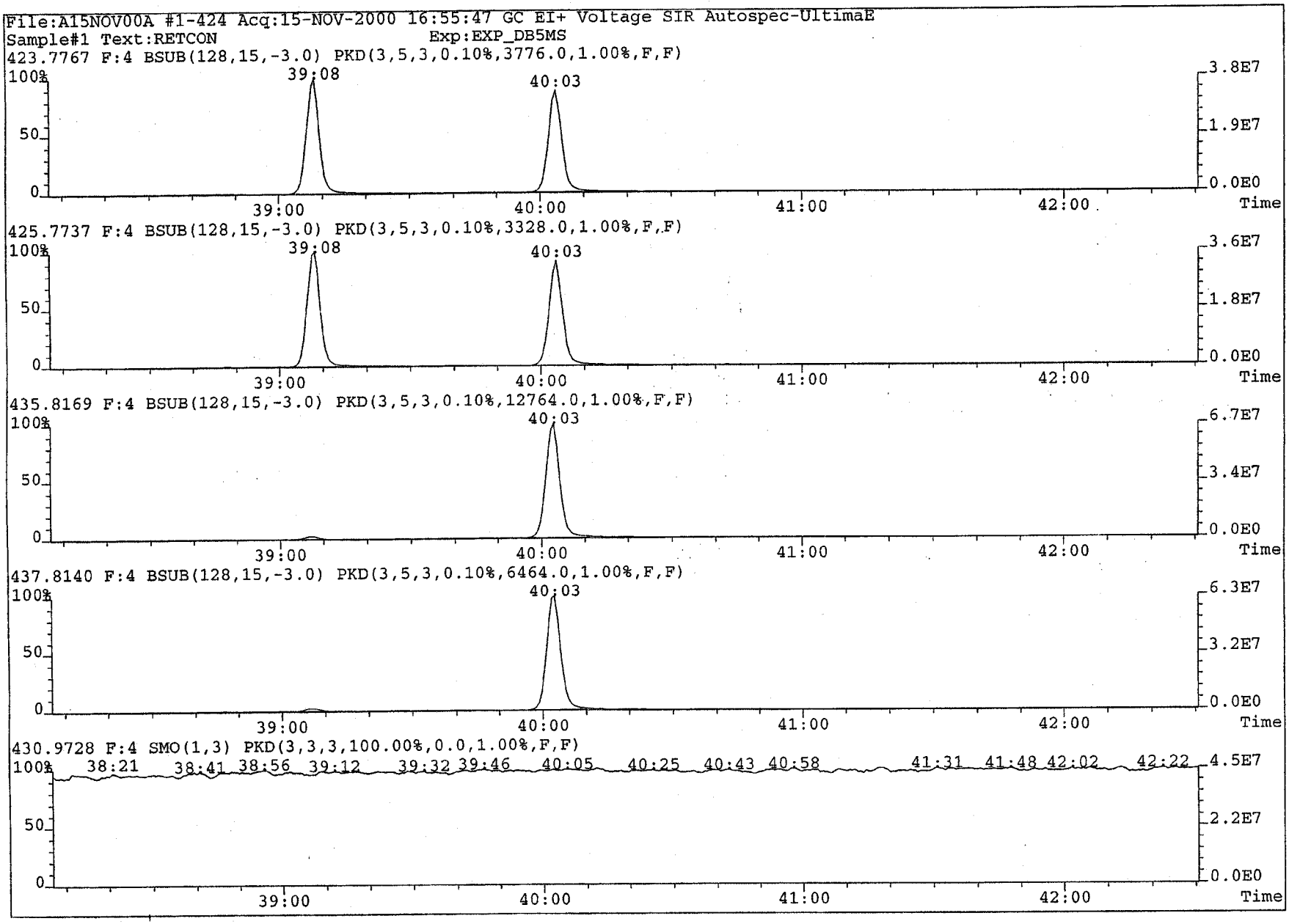
Run #6 Filename a15nov00a S: 1 I: 1 Acquired: 15-NOV-00 16:55:47 Processed: 15-NOV-00 17:41:37
Run: a17may99m Analyte: m8290-110» Cal: m8290-052» Results: Quan : V3.6 31-JUL-1998 10:51:59
Sample text: RETCON Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

Typ	Name	Resp	RA		RT	Conc	Dev'n	CCAL RRF	ICAL RRF	Mod?
Unk	2,3,7,8-TCDD	8.9e+07	0.79	y	31:15	9.801	-2.0	1.1575	1.1810	n
Unk	1,2,3,7,8-PeCDD	3.4e+08	1.64	y	34:06	50.61	1.2	1.0425	1.0298	n
Unk	1,2,3,4,7,8-HxCDD	2.9e+08	1.21	y	36:42	52.06	4.1	1.0635	1.0214	n
Unk	1,2,3,6,7,8-HxCDD	2.7e+08	1.21	y	36:47	50.86	1.7	0.9879	0.9712	n
Unk	1,2,3,7,8,9-HxCDD	3.0e+08	1.20	y	37:01	51.00	2.0	1.0999	1.0784	n
Unk	1,2,3,4,6,7,8-HpCDD	2.3e+08	1.05	y	40:03	48.83	-2.3	0.9831	1.0066	n
Unk	OCDD	3.9e+08	0.86	y	44:15	100.9	0.9	1.0859	1.0759	n
Unk	2,3,7,8-TCDF	1.1e+08	0.78	y	30:34	9.233	-7.7	1.0401	1.1266	n
Unk	1,2,3,7,8-PeCDF	5.0e+08	1.55	y	33:19	48.51	-3.0	1.0235	1.0549	n
Unk	2,3,4,7,8-PeCDF	4.9e+08	1.54	y	33:55	46.67	-6.7	1.0077	1.0795	n
Unk	1,2,3,4,7,8-HxCDF	4.3e+08	1.18	y	35:59	51.08	2.2	1.1731	1.1483	n
Unk	1,2,3,6,7,8-HxCDF	4.5e+08	1.21	y	36:05	50.54	1.1	1.2173	1.2044	n
Unk	2,3,4,6,7,8-HxCDF	3.8e+08	1.19	y	36:34	47.80	-4.4	1.0340	1.0817	n
Unk	1,2,3,7,8,9-HxCDF	7.1e+08	1.21	y	37:21	97.05	-2.9	0.9561	0.9851	n
Unk	1,2,3,4,6,7,8-HpCDF	3.6e+08	1.05	y	38:48	50.28	0.6	1.4722	1.4641	n
Unk	1,2,3,4,7,8,9-HpCDF	2.9e+08	1.04	y	40:43	49.76	-0.5	1.1947	1.2004	n
Unk	OCDF	4.2e+08	0.84	y	44:33	87.93	-12.1	1.1593	1.3185	n
ES/RT	13C-2,3,7,8-TCDD	7.7e+08	0.80	y	31:14	99.18	-0.8	1.0524	1.0612	n
ES	13C-1,2,3,7,8-PeCDD	6.5e+08	1.62	y	34:06	100.4	0.4	0.8978	0.8944	n
ES	13C-1,2,3,6,7,8-HxCDD	5.5e+08	1.25	y	36:46	100.1	0.1	0.9552	0.9544	n
ES	13C-1,2,3,4,6,7,8-HpCDD	4.7e+08	1.05	y	40:03	89.75	-10.2	0.8216	0.9154	n
ES	13C-OCDD	7.2e+08	0.84	y	44:14	176.5	-11.7	0.6291	0.7127	n
ES/RT	13C-2,3,7,8-TCDF	1.1e+09	0.82	y	30:33	98.36	-1.6	1.4798	1.5045	n
ES	13C-1,2,3,7,8-PeCDF	9.8e+08	1.65	y	33:18	97.39	-2.6	1.3412	1.3771	n
ES	13C-1,2,3,6,7,8-HxCDF	7.4e+08	0.51	y	36:05	95.61	-4.4	1.2842	1.3431	n
ES	13C-1,2,3,4,6,7,8-HpCDF	4.8e+08	0.46	y	38:48	84.44	-15.6	0.8389	0.9935	n
JS	13C-1,2,3,4-TCDD	7.3e+08	0.81	y	30:44	360.0	-	-	-	n
JS	13C-1,2,3,7,8,9-HxCDD	5.7e+08	1.24	y	37:01	348.9	-	-	-	n
CS	37Cl-2,3,7,8-TCDD	8.2e+07	1.65	y	31:15	9.629	-3.7	1.1311	1.1747	n
CS	13C-2,3,4,7,8-PeCDF	9.3e+08	1.25	y	33:55	97.51	-2.5	1.2723	1.3048	n
CS	13C-1,2,3,4,7,8-HxCDD	5.2e+08	0.49	y	36:41	105.4	5.4	0.9038	0.8573	n
CS	13C-1,2,3,4,7,8-HxCDF	6.9e+08	0.46	y	35:58	96.70	-3.3	1.2047	1.2458	n
CS	13C-1,2,3,4,7,8,9-HpCDF	4.0e+08			40:43	84.60	-15.4	0.6929	0.8190	n
			1.65	y						
SS	37Cl-2,3,7,8-TCDD	8.2e+07	1.25	y	31:15	9.704	-3.0	1.0747	1.1075	n
SS	13C-2,3,4,7,8-PeCDF	9.3e+08	0.49	y	33:55	100.1	0.1	0.9486	0.9475	n
SS	13C-1,2,3,4,7,8-HxCDD	5.2e+08	0.46	y	36:41	105.4	5.4	0.9462	0.8980	n
SS	13C-1,2,3,4,7,8-HxCDF	6.9e+08			35:58	101.0	1.0	0.9380	0.9283	n
SS	13C-1,2,3,4,7,8,9-HpCDF	4.0e+08			40:43	100.2	0.2	0.8260	0.8244	n
DPE	HxCDPE	*			NotFnd	*	-	-	-	n
DPE	HpCDPE	*			NotFnd	*	-	-	-	n

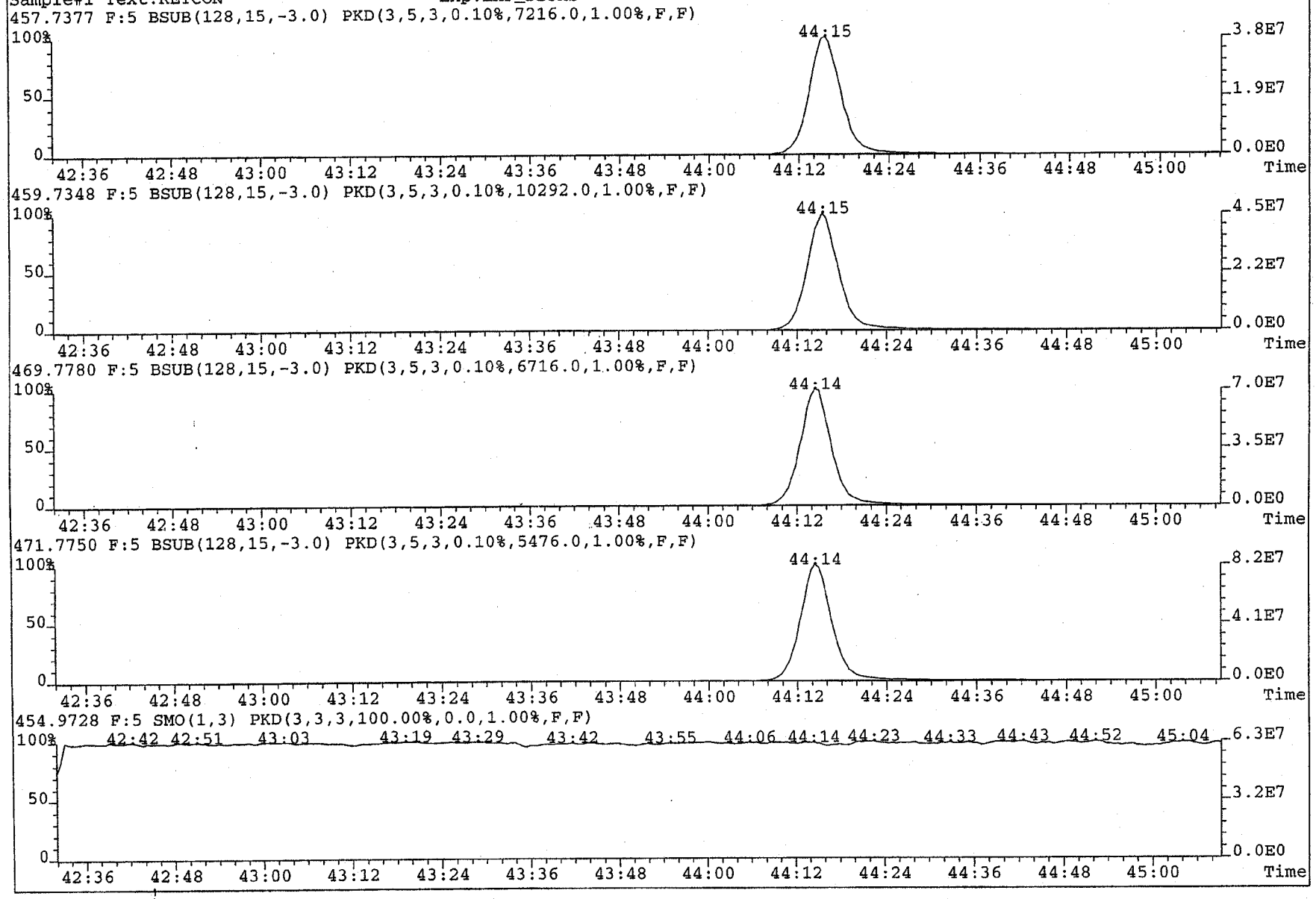

File:A15NOV00A #1-494 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
319.8965 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3020.0,1.00%,F,F)
27:58
30:45
31:15
31:49
1.2E7
6.2E6
0.0E0
321.8936 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2812.0,1.00%,F,F)
27:58
31:02
31:15
31:49
1.6E7
7.9E6
0.0E0
331.9368 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5592.0,1.00%,F,F)
30:44
31:14
1.1E8
5.4E7
0.0E0
333.9339 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3408.0,1.00%,F,F)
30:44
31:14
1.4E8
6.8E7
0.0E0
327.8847 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3700.0,1.00%,F,F)
31:15
2.6E7
1.3E7
0.0E0
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:20 27:16 27:59 28:30 28:56 29:34 30:07 30:32 30:58 31:38 32:14
4.2E7
2.1E7
0.0E0
100%
50
0
26:00 27:00 28:00 29:00 30:00 31:00 32:00
Time

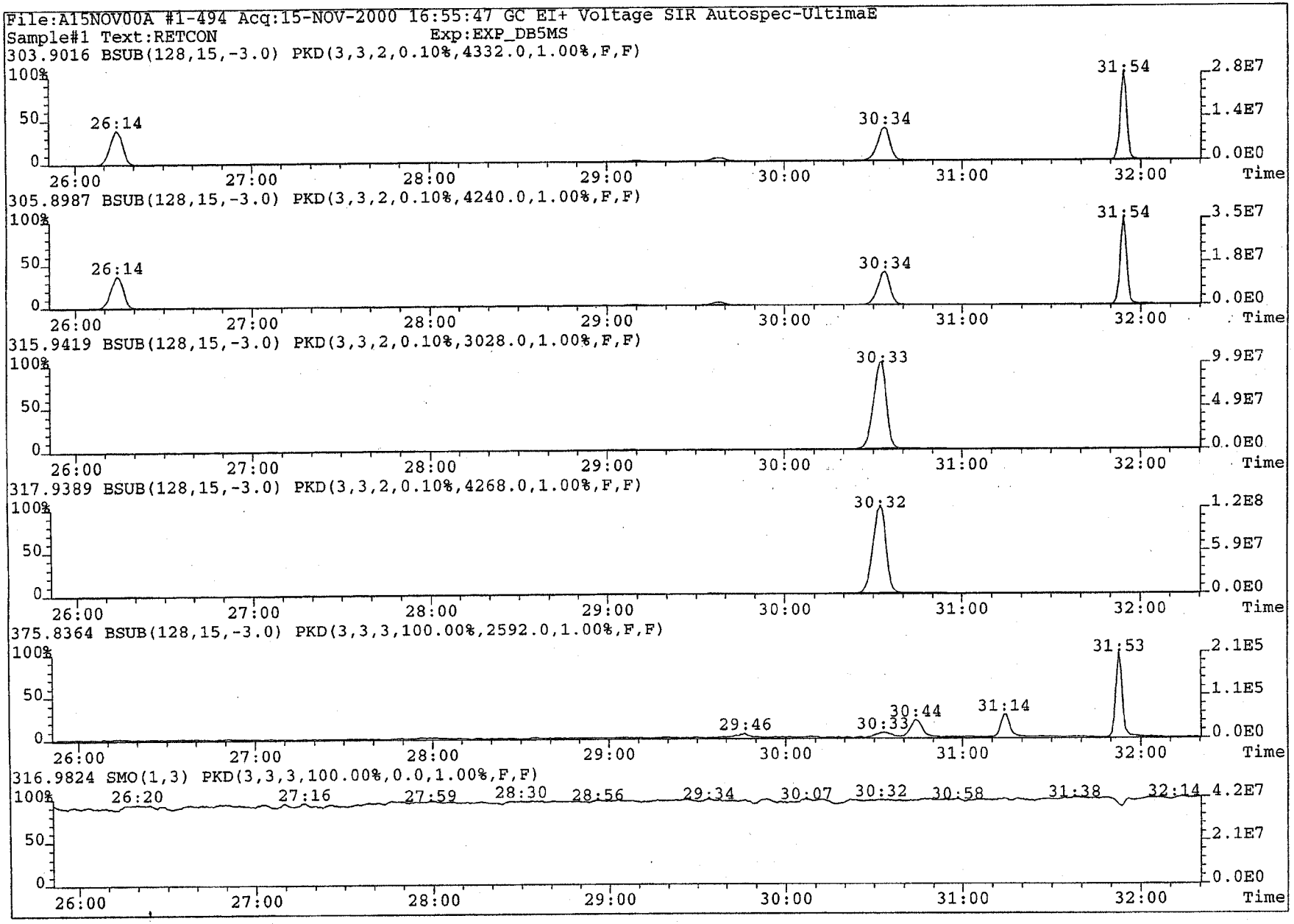

File:A15NOV00A #1-239 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
355.8546 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4400.0,1.00%,F,F)
32:45
34:06
34:22
8.7E7
4.3E7
0.0E0
357.8517 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6972.0,1.00%,F,F)
32:45
34:06
34:22
5.3E7
2.6E7
0.0E0
367.8949 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,21476.0,1.00%,F,F)
34:06
1.7E8
8.5E7
0.0E0
369.8919 F:2 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,8704.0,1.00%,F,F)
34:06
1.1E8
5.3E7
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
32:32 32:41 33:00 33:19 33:27 33:34 33:47 34:06 34:25 34:40
3.9E7
2.0E7
0.0E0
100%
50
0
32:24 32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48
Time


File:A15NOV00A #1-312 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
389.8156 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,68412.0,1.00%,F,F)
35:28
36:42
37:01
6.5E7
3.3E7
0.0E0
391.8127 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,66496.0,1.00%,F,F)
35:28
36:41
37:01
5.7E7
2.9E7
0.0E0
401.8559 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4992.0,1.00%,F,F)
36:46
37:01
1.1E8
5.4E7
0.0E0
403.8530 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,4872.0,1.00%,F,F)
36:46
37:01
8.6E7
4.3E7
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:58 35:10 35:29 35:49 36:08 36:23 36:33 36:48 37:01 37:21 37:37 38:00
7.8E7
3.9E7
0.0E0
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time

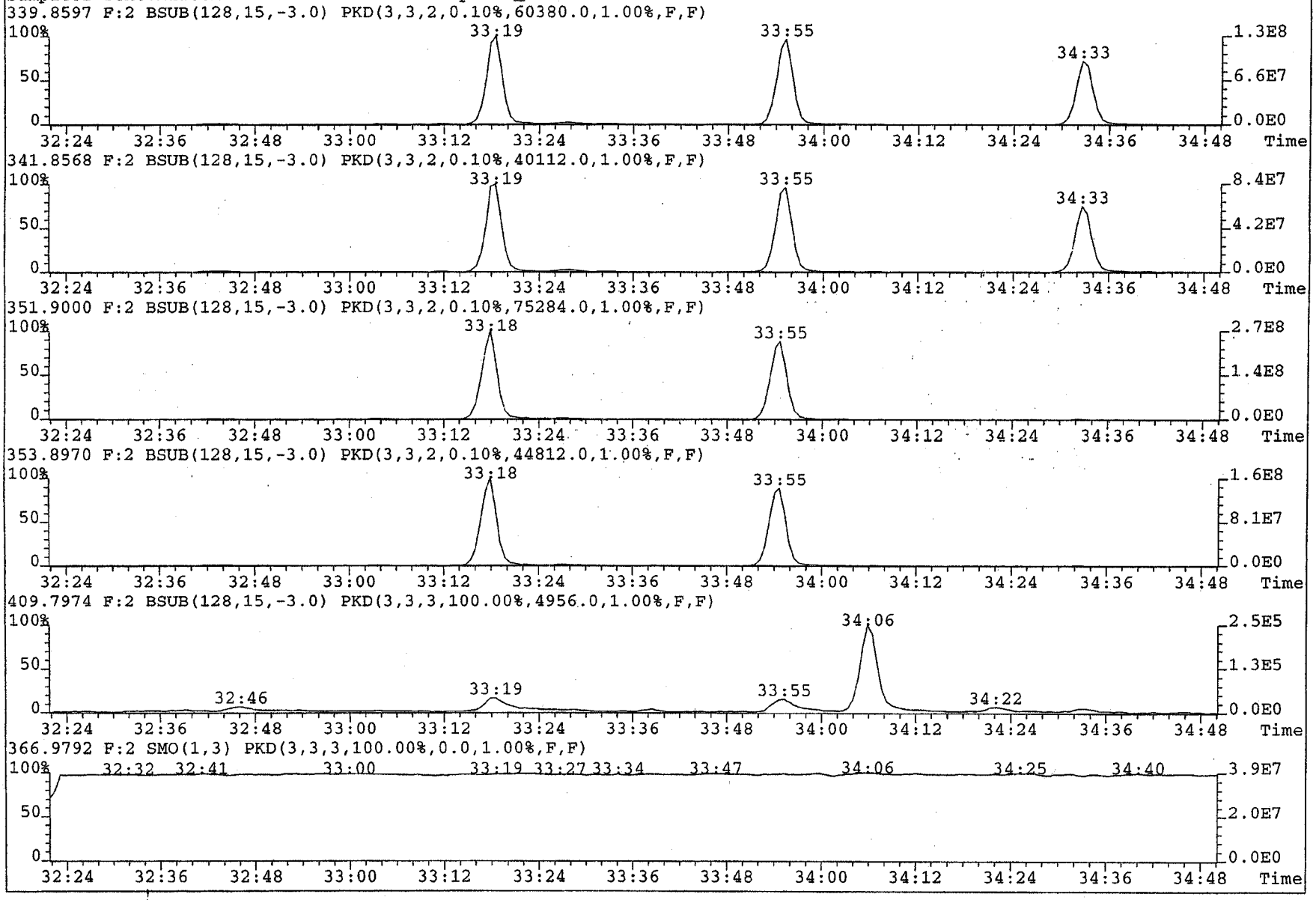

File:A15NOV00A #1-424 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
423.7767 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3776.0,1.00%,F,F)
39:08
40:03
3.8E7
1.9E7
0.0E0
425.7737 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3328.0,1.00%,F,F)
39:08
40:03
3.6E7
1.8E7
0.0E0
435.8169 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,12764.0,1.00%,F,F)
40:03
6.7E7
3.4E7
0.0E0
437.8140 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6464.0,1.00%,F,F)
40:03
6.3E7
3.2E7
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:21 38:41 38:56 39:12 39:32 39:46 40:05 40:25 40:43 40:58 41:31 41:48 42:02 42:22
4.5E7
2.2E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

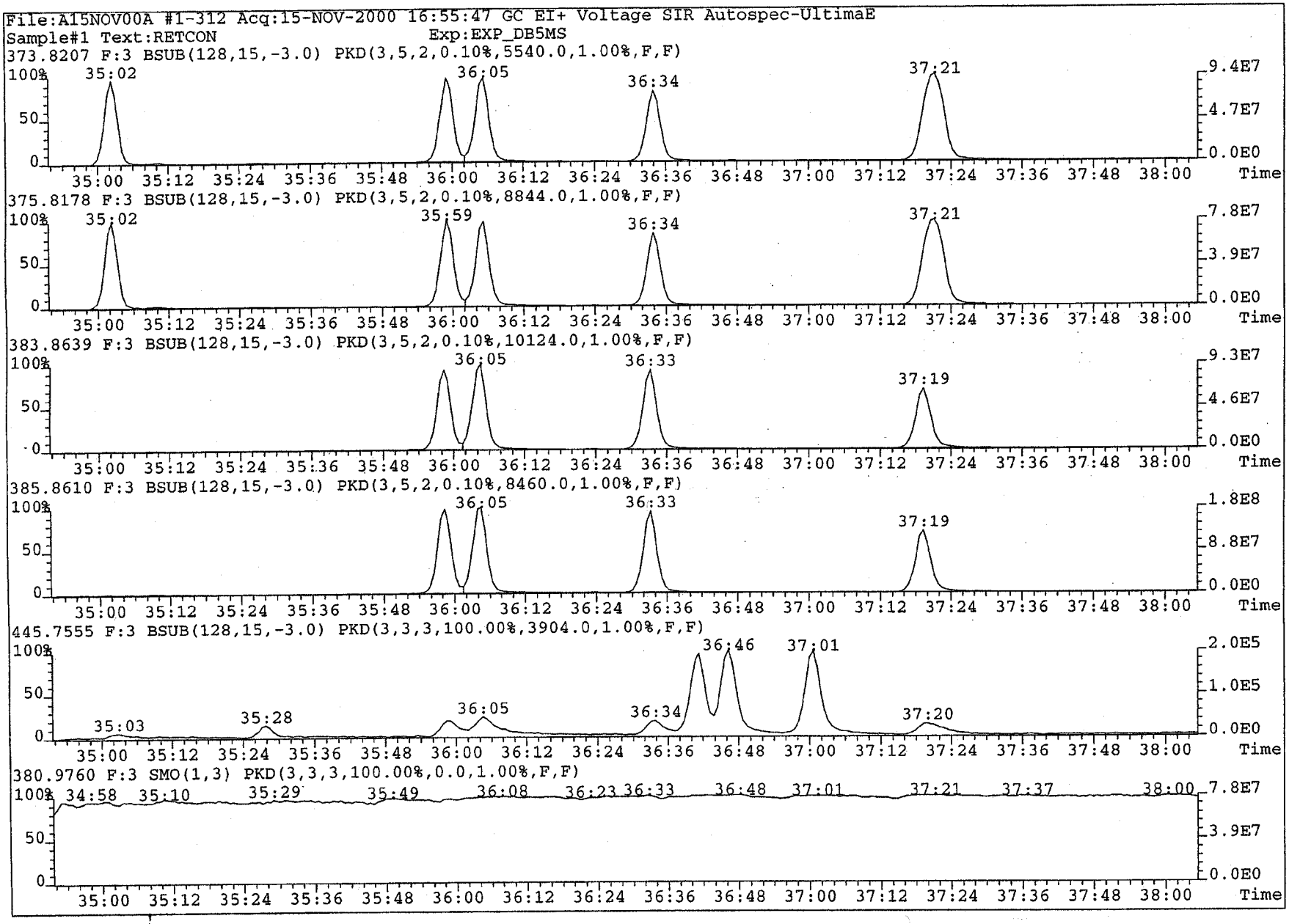
File:A15NOV00A #1-306 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS

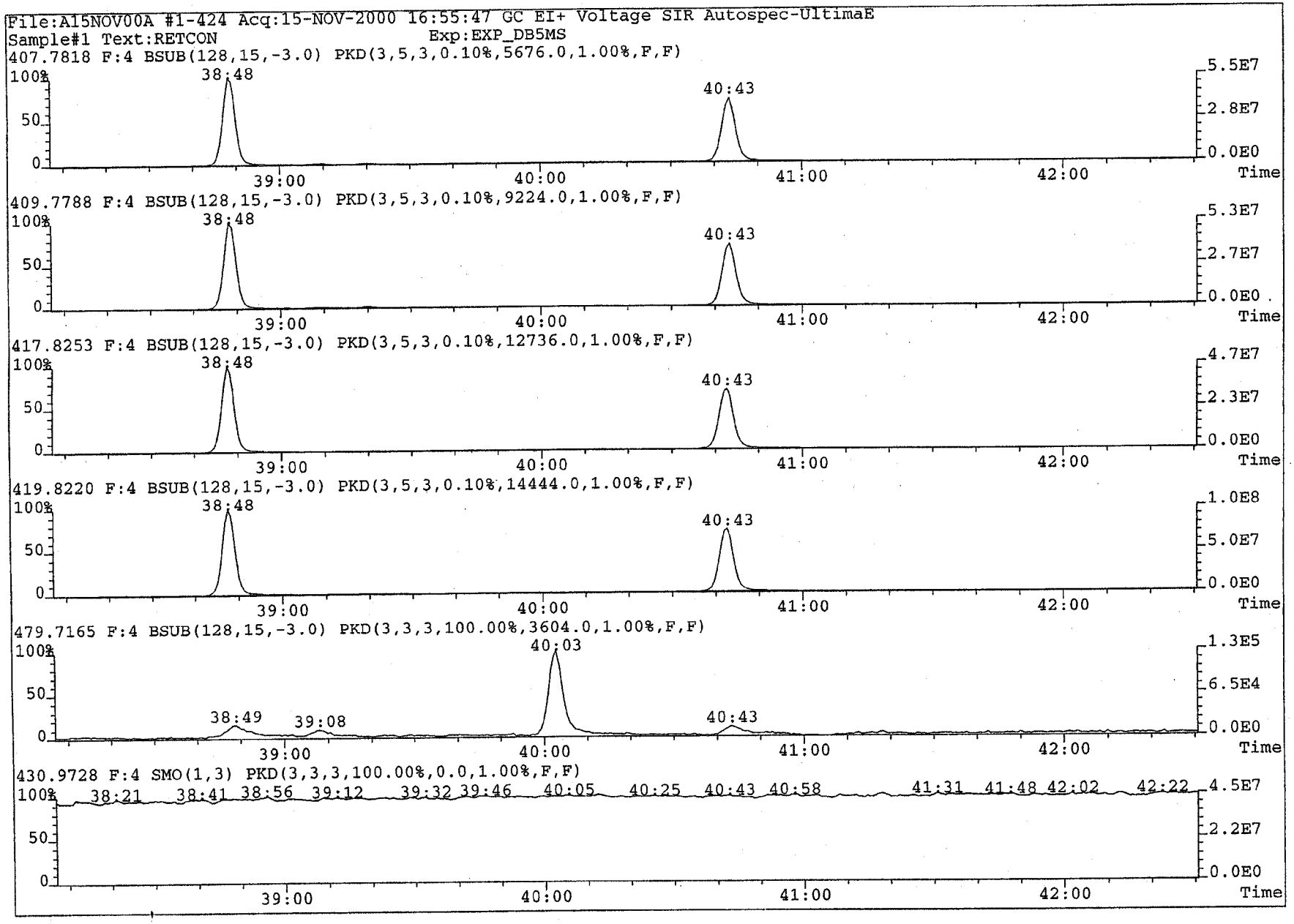


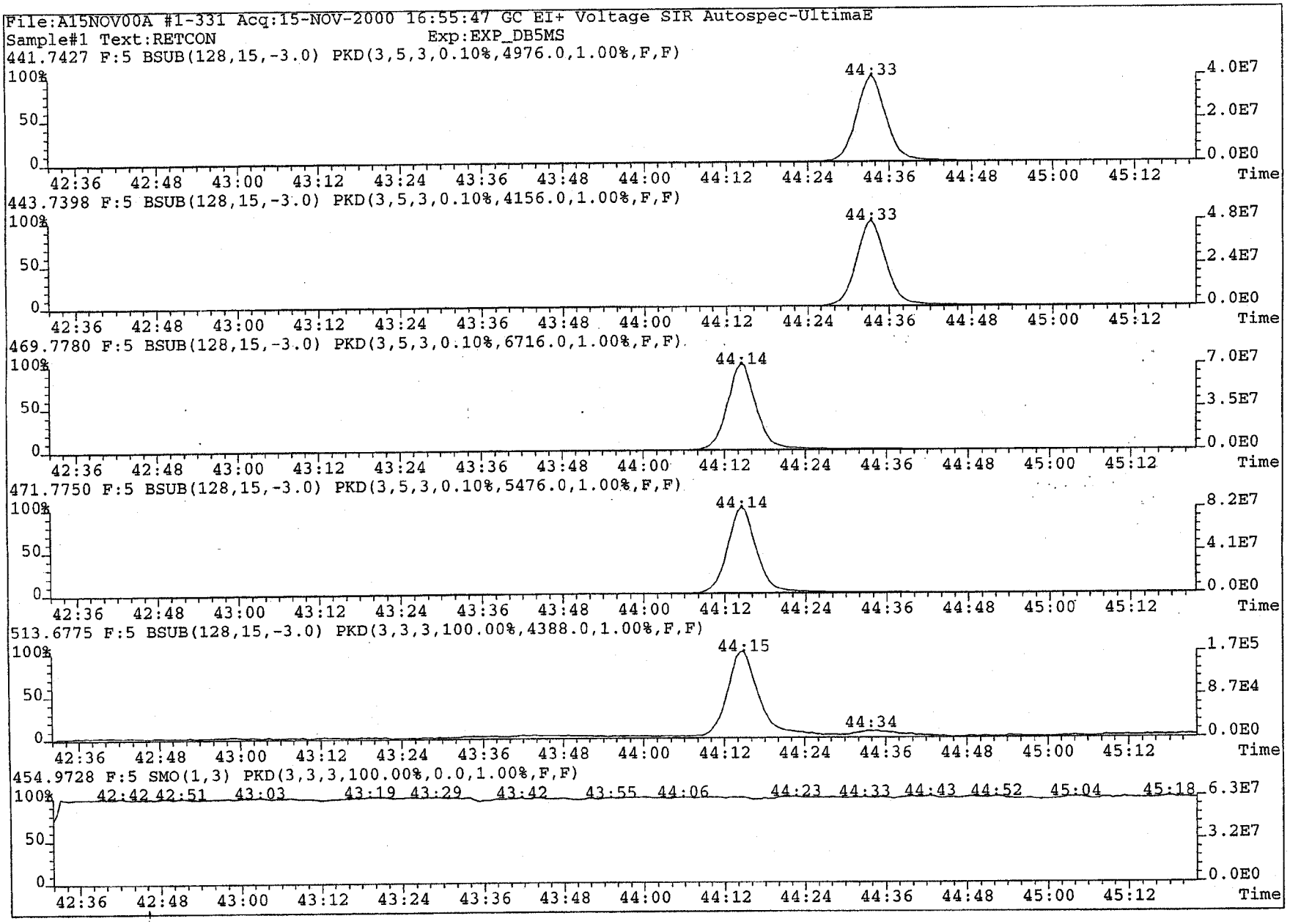

File:A15NOV00A #1-494 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
303.9016 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4332.0,1.00%,F,F)
26:14
30:34
31:54
2.8E7
1.4E7
0.0E0
305.8987 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4240.0,1.00%,F,F)
26:14
30:34
31:54
3.5E7
1.8E7
0.0E0
315.9419 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3028.0,1.00%,F,F)
30:33
9.9E7
4.9E7
0.0E0
317.9389 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4268.0,1.00%,F,F)
30:32
1.2E8
5.9E7
0.0E0
375.8364 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2592.0,1.00%,F,F)
29:46
30:33
30:44
31:14
31:53
2.1E5
1.1E5
0.0E0
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:20
27:16
27:59
28:30
28:56
29:34
30:07
30:32
30:58
31:38
32:14
4.2E7
2.1E7
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

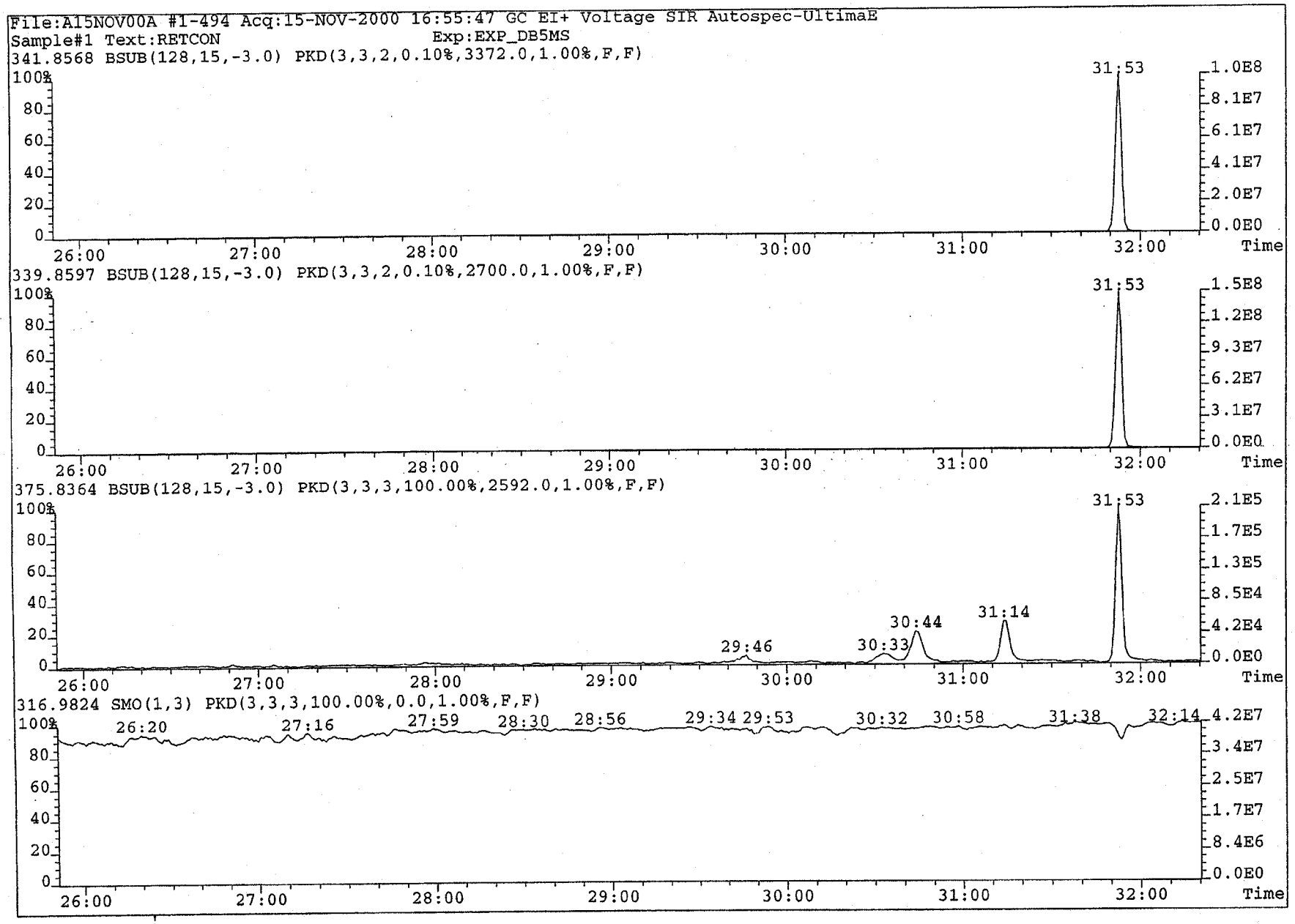
File:A15NOV00A #1-239 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS




File:A15NOV00A #1-312 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
373.8207 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,5540.0,1.00%,F,F)
35:02
36:05
36:34
37:21
9.4E7
4.7E7
0.0E0
375.8178 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8844.0,1.00%,F,F)
35:02
35:59
36:34
37:21
7.8E7
3.9E7
0.0E0
383.8639 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,10124.0,1.00%,F,F)
36:05
36:33
37:19
9.3E7
4.6E7
0.0E0
385.8610 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8460.0,1.00%,F,F)
36:05
36:33
37:19
1.8E8
8.8E7
0.0E0
445.7555 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3904.0,1.00%,F,F)
35:03
35:28
36:05
36:34
36:46
37:01
37:20
2.0E5
1.0E5
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:58
35:10
35:29
35:49
36:08
36:23
36:33
36:48
37:01
37:21
37:37
38:00
7.8E7
3.9E7
0.0E0
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time


File:A15NOV00A #1-424 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
407.7818 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5676.0,1.00%,F,F)
38:48
40:43
5.5E7
2.8E7
0.0E0
409.7788 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,9224.0,1.00%,F,F)
38:48
40:43
5.3E7
2.7E7
0.0E0
417.8253 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,12736.0,1.00%,F,F)
38:48
40:43
4.7E7
2.3E7
0.0E0
419.8220 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,14444.0,1.00%,F,F)
38:48
40:43
1.0E8
5.0E7
0.0E0
479.7165 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3604.0,1.00%,F,F)
40:03
38:49
39:08
40:43
1.3E5
6.5E4
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:21 38:41 38:56 39:12 39:32 39:46 40:05 40:25 40:43 40:58 41:31 41:48 42:02 42:22
4.5E7
2.2E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A15NOV00A #1-331 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
441.7427 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4976.0,1.00%,F,F)
44:33
4.0E7
2.0E7
0.0E0
443.7398 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4156.0,1.00%,F,F)
44:33
4.8E7
2.4E7
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,6716.0,1.00%,F,F)
44:14
7.0E7
3.5E7
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5476.0,1.00%,F,F)
44:14
8.2E7
4.1E7
0.0E0
513.6775 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4388.0,1.00%,F,F)
44:15
44:34
1.7E5
8.7E4
0.0E0
454.9728 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:42 42:51 43:03 43:19 43:29 43:42 43:55 44:06 44:23 44:33 44:43 44:52 45:04 45:18
6.3E7
3.2E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12
Time


File:A15NOV00A #1-494 Acq:15-NOV-2000 16:55:47 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON Exp:EXP_DB5MS
341.8568 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,3372.0,1.00%,F,F)
31:53
339.8597 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,2700.0,1.00%,F,F)
31:53
375.8364 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2592.0,1.00%,F,F)
31:53
29:46
30:33
30:44
31:14
316.9824 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:20
27:16
27:59
28:30
28:56
29:34
29:53
30:32
30:58
31:38
32:14
100%
80
60
40
20
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time
1.0E8
8.1E7
6.1E7
4.1E7
2.0E7
0.0E0
1.5E8
1.2E8
9.3E7
6.2E7
3.1E7
2.1E5
1.7E5
1.3E5
8.5E4
4.2E4
4.2E7
3.4E7
2.5E7
1.7E7
8.4E6

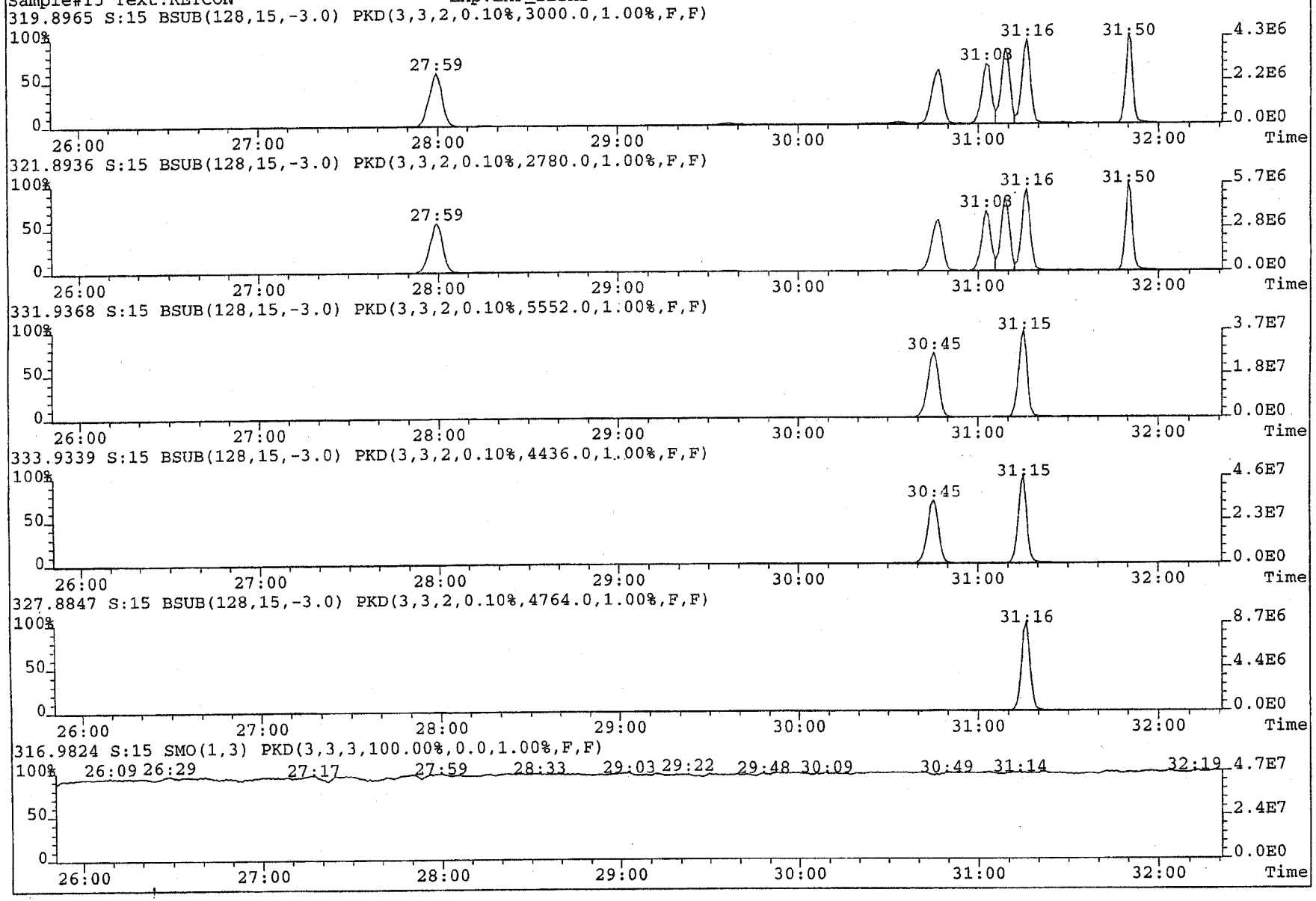
Run #7 Filename a15nov00a S: 15 I: 1 Acquired: 16-NOV-00 04:13:50 Processed: 16-NOV-00 08:00:46
Run: a17may99m Analyte: m8290-110» Cal: m8290-052» Results: Quan : V3.6 31-JUL-1998 10:51:59
Sample text: RETCON Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

Typ	Name	Resp	RA		RT	Conc	Dev'n	CCAL RRF	ICAL RRF	Mod?
Unk	2,3,7,8-TCDD	3.0e+07	0.80	y	31:16	9.832	-1.7	1.1613	1.1810	n
Unk	1,2,3,7,8-PeCDD	1.2e+08	1.61	y	34:07	50.97	1.9	1.0497	1.0298	n
Unk	1,2,3,4,7,8-HxCDD	1.0e+08	1.24	y	36:42	49.11	-1.8	1.0032	1.0214	n
Unk	1,2,3,6,7,8-HxCDD	1.0e+08	1.15	y	36:47	49.58	-0.8	0.9629	0.9712	n
Unk	1,2,3,7,8,9-HxCDD	1.1e+08	1.17	y	37:01	49.91	-0.2	1.0765	1.0784	n
Unk	1,2,3,4,6,7,8-HpCDD	9.7e+07	1.05	y	40:04	49.09	-1.8	0.9883	1.0066	n
Unk	OCDD	1.6e+08	0.86	y	44:16	100.4	0.4	1.0797	1.0759	n
Unk	2,3,7,8-TCDF	3.9e+07	0.77	y	30:35	9.140	-8.6	1.0297	1.1266	n
Unk	1,2,3,7,8-PeCDF	1.7e+08	1.55	y	33:19	48.38	-3.2	1.0208	1.0549	n
Unk	2,3,4,7,8-PeCDF	1.7e+08	1.56	y	33:56	47.26	-5.5	1.0203	1.0795	n
Unk	1,2,3,4,7,8-HxCDF	1.6e+08	1.16	y	35:59	49.73	-0.5	1.1421	1.1483	n
Unk	1,2,3,6,7,8-HxCDF	1.7e+08	1.21	y	36:06	50.29	0.6	1.2114	1.2044	n
Unk	2,3,4,6,7,8-HxCDF	1.4e+08	1.20	y	36:34	48.95	-2.1	1.0590	1.0817	n
Unk	1,2,3,7,8,9-HxCDF	2.6e+08	1.20	y	37:21	98.05	-1.9	0.9659	0.9851	n
Unk	1,2,3,4,6,7,8-HpCDF	1.4e+08	1.04	y	38:49	49.39	-1.2	1.4462	1.4641	n
Unk	1,2,3,4,7,8,9-HpCDF	1.2e+08	1.06	y	40:44	51.20	2.4	1.2292	1.2004	n
Unk	OCDF	1.8e+08	0.85	y	44:34	91.47	-8.5	1.2061	1.3185	n
ES/RT	13C-2,3,7,8-TCDD	2.6e+08	0.80	y	31:15	98.63	-1.4	1.0467	1.0612	n
ES	13C-1,2,3,7,8-PeCDD	2.3e+08	1.58	y	34:06	102.1	2.1	0.9131	0.8944	n
ES	13C-1,2,3,6,7,8-HxCDD	2.1e+08	1.23	y	36:47	101.5	1.5	0.9692	0.9544	n
ES	13C-1,2,3,4,6,7,8-HpCDD	2.0e+08	1.03	y	40:03	99.97	0.0	0.9151	0.9154	n
ES	13C-OCDD	2.9e+08	0.85	y	44:14	192.8	-3.6	0.6869	0.7127	n
ES/RT	13C-2,3,7,8-TCDF	3.8e+08	0.81	y	30:33	102.0	2.0	1.5344	1.5045	n
ES	13C-1,2,3,7,8-PeCDF	3.4e+08	1.63	y	33:18	99.31	-0.7	1.3676	1.3771	n
ES	13C-1,2,3,6,7,8-HxCDF	2.7e+08	0.50	y	36:04	95.18	-4.8	1.2784	1.3431	n
ES	13C-1,2,3,4,6,7,8-HpCDF	1.9e+08	0.45	y	38:48	88.65	-11.3	0.8807	0.9935	n
JS	13C-1,2,3,4-TCDD	2.5e+08	0.81	y	30:45	122.4	-	-	-	n
JS	13C-1,2,3,7,8,9-HxCDD	2.1e+08	1.23	y	37:01	129.8	-	-	-	n
CS	37Cl-2,3,7,8-TCDD	2.8e+07	1.64	y	31:16	9.486	-5.1	1.1144	1.1747	n
CS	13C-2,3,4,7,8-PeCDF	3.2e+08	1.24	y	33:55	100.3	0.3	1.3087	1.3048	n
CS	13C-1,2,3,4,7,8-HxCDD	1.8e+08	0.50	y	36:41	99.84	-0.2	0.8559	0.8573	n
CS	13C-1,2,3,4,7,8-HxCDF	2.5e+08	0.46	y	35:59	93.86	-6.1	1.1693	1.2458	n
CS	13C-1,2,3,4,7,8,9-HpCDF	1.6e+08			40:43	92.50	-7.5	0.7576	0.8190	n
			1.64	y						
SS	37Cl-2,3,7,8-TCDD	2.8e+07	1.24	y	31:16	9.613	-3.9	1.0647	1.1075	n
SS	13C-2,3,4,7,8-PeCDF	3.2e+08	0.50	y	33:55	101.0	1.0	0.9569	0.9475	n
SS	13C-1,2,3,4,7,8-HxCDD	1.8e+08	0.46	y	36:41	98.34	-1.7	0.8831	0.8980	n
SS	13C-1,2,3,4,7,8-HxCDF	2.5e+08			35:59	98.53	-1.5	0.9146	0.9283	n
SS	13C-1,2,3,4,7,8,9-HpCDF	1.6e+08			40:43	104.3	4.3	0.8602	0.8244	n
DPE	HxCDPE	*			NotFnd	*	-	-	-	n
DPE	HpCDPE	*			NotFnd	*	-	-	-	n

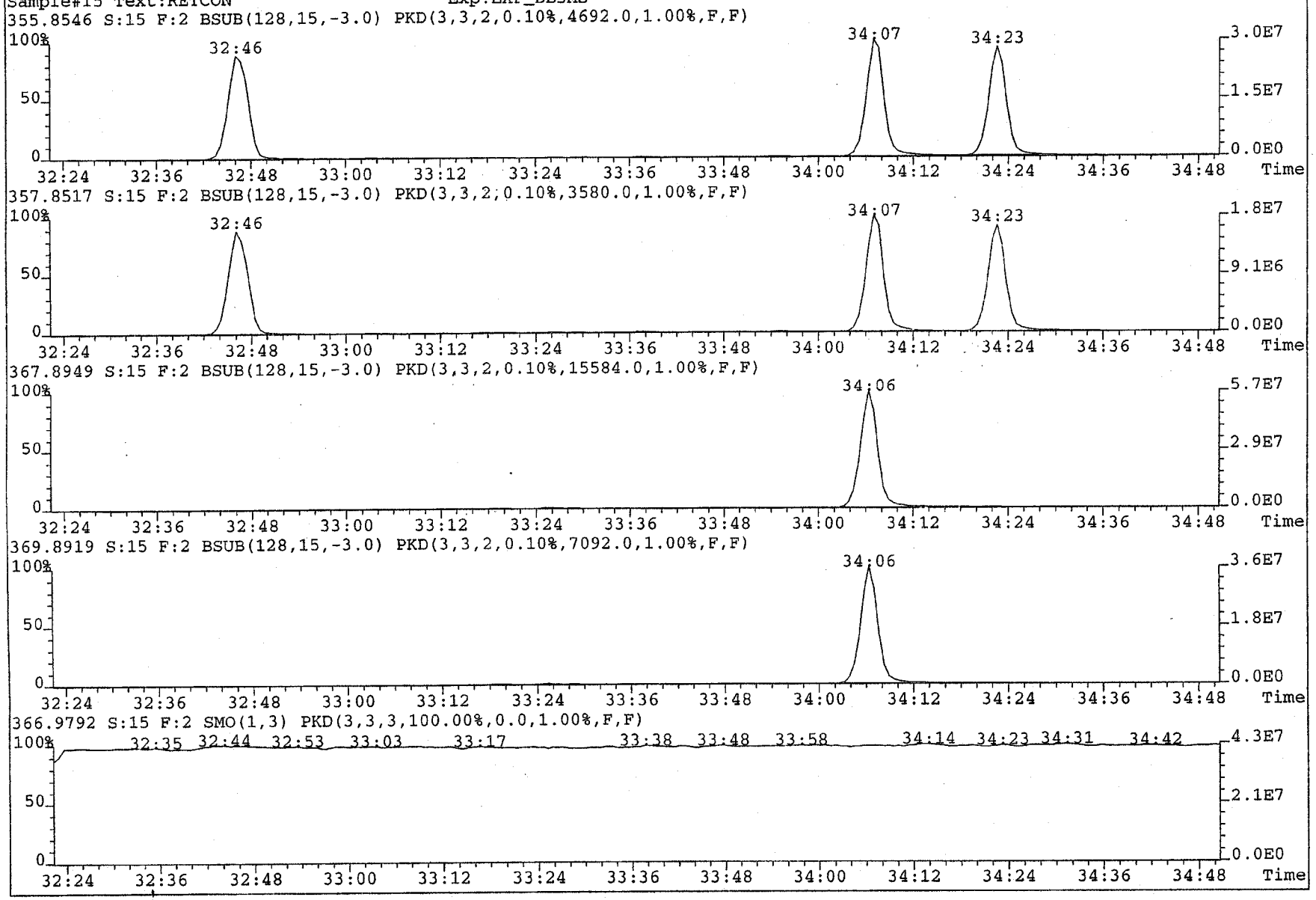
Filename ; a15nov00a
Sample ; 15
Acquired ; 16-NOV-00 04:13:50
Processed ; 16-NOV-00 08:02:43
Sample ID ; RETCON
Cal Table ; m1613-052699m
Results Table ;
Comments ;

Typ	Name	Resp	RA;?;	RT	S/N1;?;	S/N;?;	Conc	Limits	mod?
Unk	2,3,7,8-TCDD	3.01e+07	0.80;y;	31:16	1389;y;	190;y;	9.832	7.8 - 12.9	no
Unk	1,2,3,7,8-PeCDD	1.19e+08	1.61;y;	34:07	6299;y;	509;y;	50.966	39 - 65	no
Unk	1,2,3,4,7,8-HxCDD	1.04e+08	1.24;y;	36:42	2441;y;	262;y;	44.092	39 - 64	no
Unk	1,2,3,6,7,8-HxCDD	9.98e+07	1.15;y;	36:47	2176;y;	238;y;	49.575	39 - 64	no
Unk	1,2,3,7,8,9-HxCDD	1.12e+08	1.17;y;	37:02	2304;y;	256;y;	47.362	41 - 61	no
Unk	1,2,3,4,6,7,8-HpCDD	9.67e+07	1.05;y;	40:04	4002;y;	390;y;	49.087	43 - 58	no
Unk	OCDD	1.59e+08	0.86;y;	44:16	1592;y;	273;y;	100.356	79 - 126	no
Unk	2,3,7,8-TCDF	3.91e+07	0.77;y;	30:35	658;y;	82;y;	9.140	8.4 - 12.0	no
Unk	1,2,3,7,8-PeCDF	1.73e+08	1.55;y;	33:19	2044;y;	236;y;	48.382	41 - 60	no
Unk	2,3,4,7,8-PeCDF	1.73e+08	1.56;y;	33:56	2100;y;	239;y;	46.787	41 - 61	no
Unk	1,2,3,4,7,8-HxCDF	1.56e+08	1.16;y;	35:59	3822;y;	234;y;	46.087	45 - 56	no
Unk	1,2,3,6,7,8-HxCDF	1.66e+08	1.21;y;	36:06	3914;y;	223;y;	50.258	44 - 57	no
Unk	2,3,4,6,7,8-HxCDF	1.45e+08	1.20;y;	36:34	3512;y;	207;y;	49.880	45 - 56	no
Unk	1,2,3,7,8,9-HxCDF	2.64e+08	1.20;y;	37:22	4247;y;	246;y;	97.994	88 - 114	no
Unk	1,2,3,4,6,7,8-HpCDF	1.36e+08	1.04;y;	38:49	2083;y;	552;y;	49.388	45 - 55	no
Unk	1,2,3,4,7,8,9-HpCDF	1.16e+08	1.06;y;	40:44	1495;y;	392;y;	49.063	43 - 58	no
Unk	OCDF	1.77e+08	0.85;y;	44:34	3494;y;	394;y;	91.402	63 - 159	no
ES/RT	13C-2,3,7,8-TCDD	2.59e+08	0.80;y;	31:15	6586;y;	1039;y;	98.633	82 - 121	no
ES	13C-1,2,3,7,8-PeCDD	2.26e+08	1.58;y;	34:06	3656;y;	511;y;	102.066	62 - 160	no
ES	13C-1,2,3,4,7,8-HxCDD	2.07e+08	1.23;y;	36:47	4339;y;	488;y;	113.054	85 - 117	no
ES	13C-1,2,3,6,7,8-HxCDD	2.07e+08	1.23;y;	36:47	4339;y;	488;y;	101.548	85 - 118	no
ES	13C-1,2,3,4,6,7,8-HpCDD	1.96e+08	1.03;y;	40:03	1152;y;	273;y;	99.970	72 - 138	no
ES	13C-OCDD	2.94e+08	0.85;y;	44:15	5060;y;	659;y;	192.752	96 - 415	no
ES/RT	13C-2,3,7,8-TCDF	3.80e+08	0.81;y;	30:33	7102;y;	846;y;	101.983	71 - 140	no
ES	13C-1,2,3,7,8-PeCDF	3.39e+08	1.63;y;	33:18	4614;y;	355;y;	99.312	76 - 130	no
ES	13C-2,3,4,7,8-PeCDF	3.24e+08	1.64;y;	33:55	4419;y;	337;y;	100.296	77 - 130	no
ES	13C-1,2,3,4,7,8-HxCDF	2.73e+08	0.50;y;	36:05	3198;y;	766;y;	102.616	76 - 131	no
ES	13C-1,2,3,6,7,8-HxCDF	2.73e+08	0.50;y;	36:05	3198;y;	766;y;	95.182	70 - 143	no
ES	13C-2,3,4,6,7,8-HxCDF	2.51e+08	0.51;y;	36:34	3005;y;	713;y;	93.472	73 - 137	no
ES	13C-1,2,3,7,8,9-HxCDF	2.11e+08	0.50;y;	37:20	2274;y;	545;y;	95.267	74 - 135	no
ES	13C-1,2,3,4,6,7,8-HpCDF	1.88e+08	0.45;y;	38:48	3613;y;	303;y;	88.651	78 - 129	no
ES	13C-1,2,3,4,7,8,9-HpCDF	1.62e+08	0.46;y;	40:43	2641;y;	219;y;	92.504	77 - 129	no
JS	13C-1,2,3,4-TCDD	2.48e+08	0.81;y;	30:45	4809;y;	742;y;	122.420		no
JS	13C-1,2,3,7,8,9-HxCDD	2.14e+08	1.23;y;	37:01	4218;y;	498;y;	129.797		no
CS	37Cl-2,3,7,8-TCDD	2.76e+07		31:16	1828;y		9.486	7.9 - 12.7	no
Tot	Total Tetra-Furans	1.41e+08	0.79;y;	26:15	688;y;	82;y;	32.863		no
Tot	Total Tetra-Dioxins	1.63e+08	0.80;y;	27:59	874;y;	115;y;	53.416		no
Tot	Total Penta-Furans Fn1	2.06e+08	0.65;y;	31:53	9780;y;	1863;y;	56.828		no

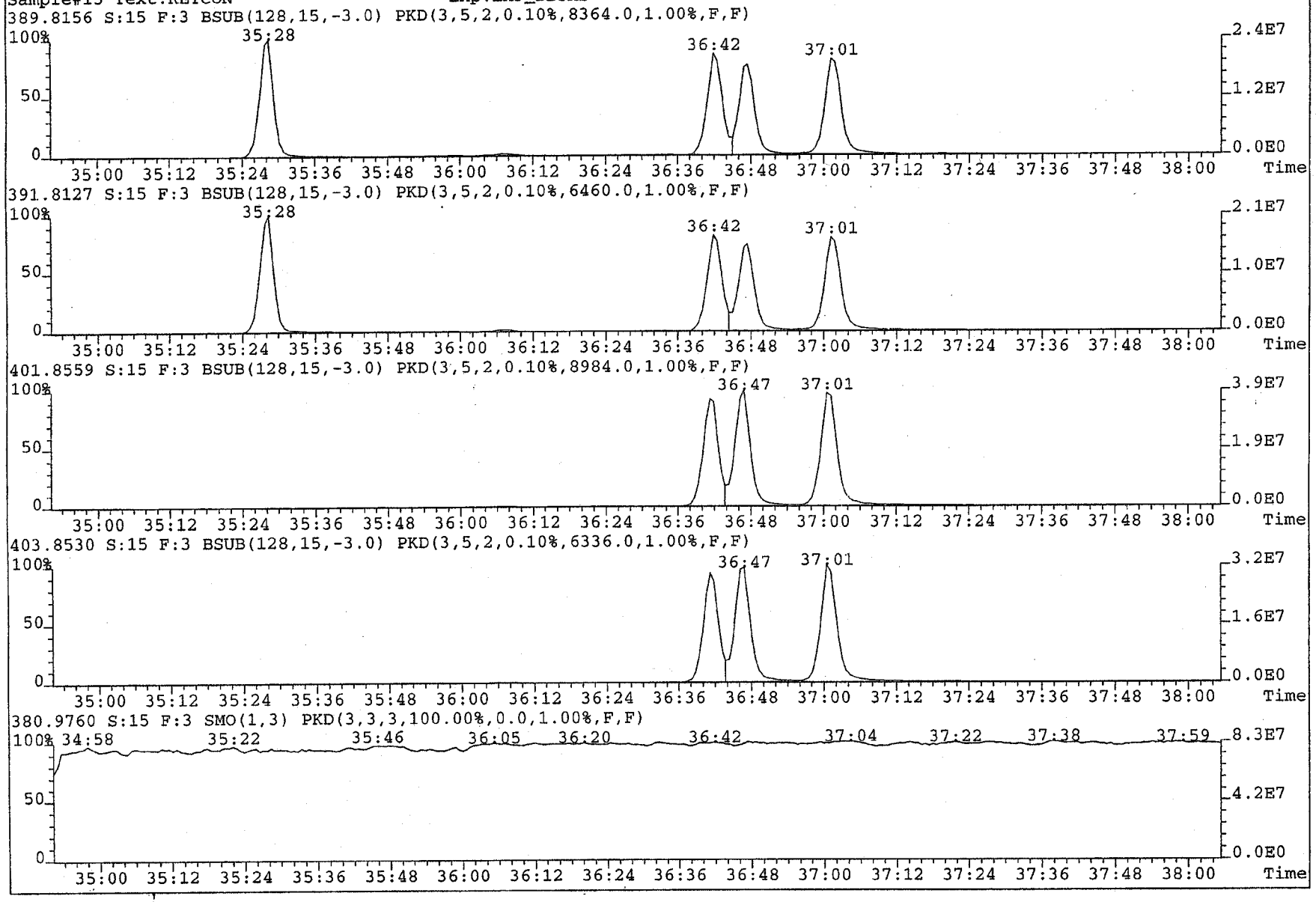
File:A15NOV00A #1-495 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS



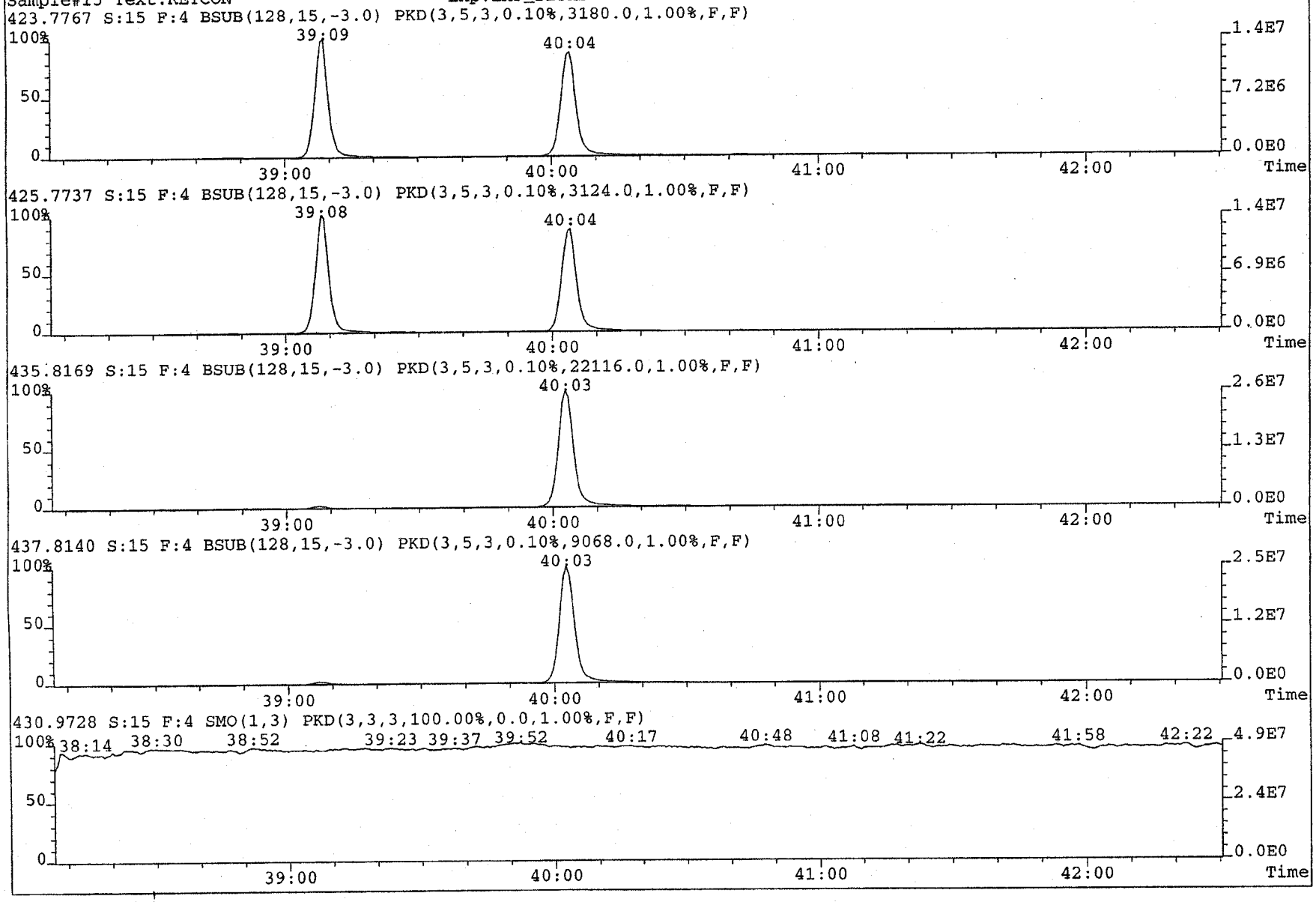
File:A15NOV00A #1-239 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS



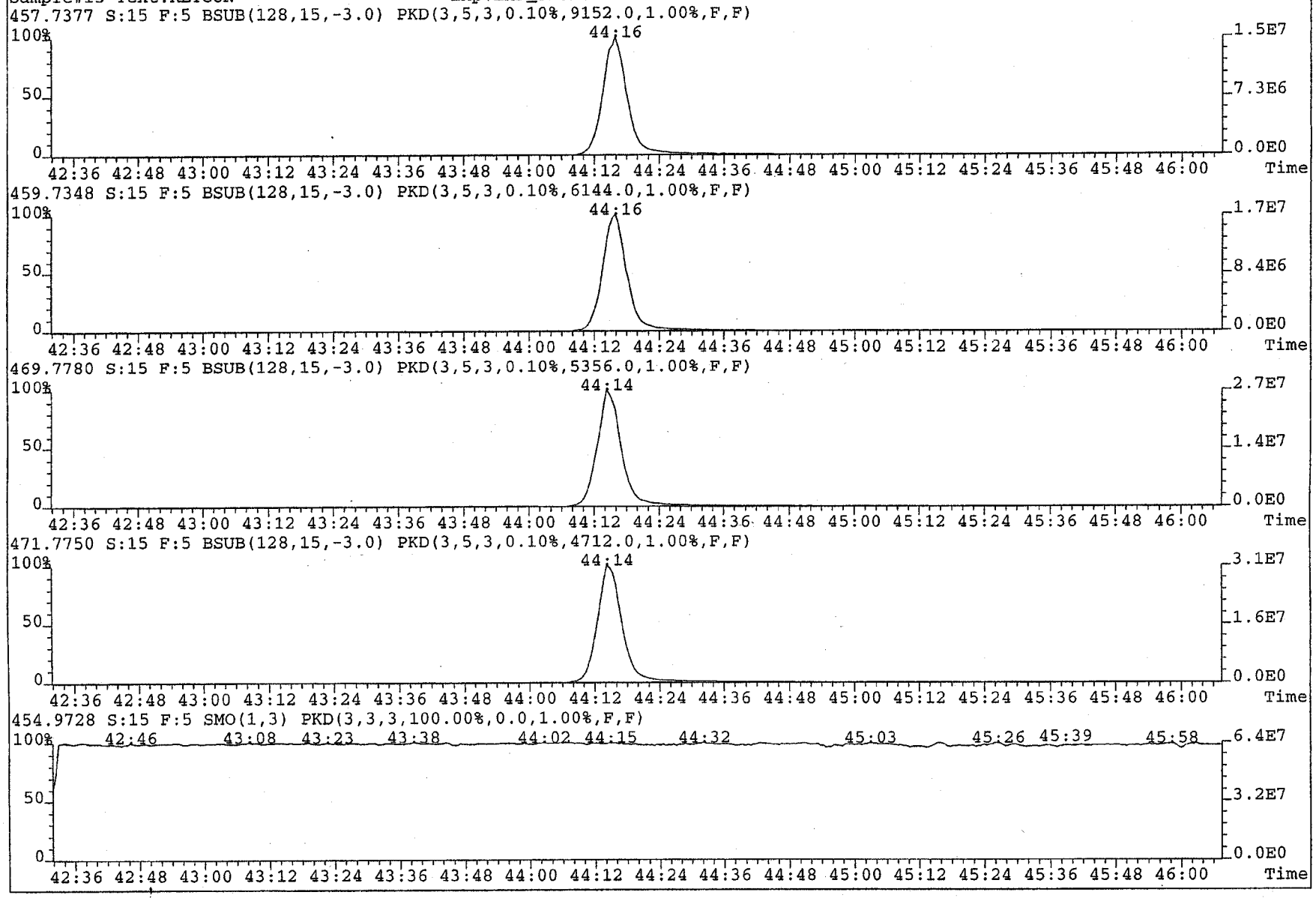
File:A15NOV00A #1-311 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS

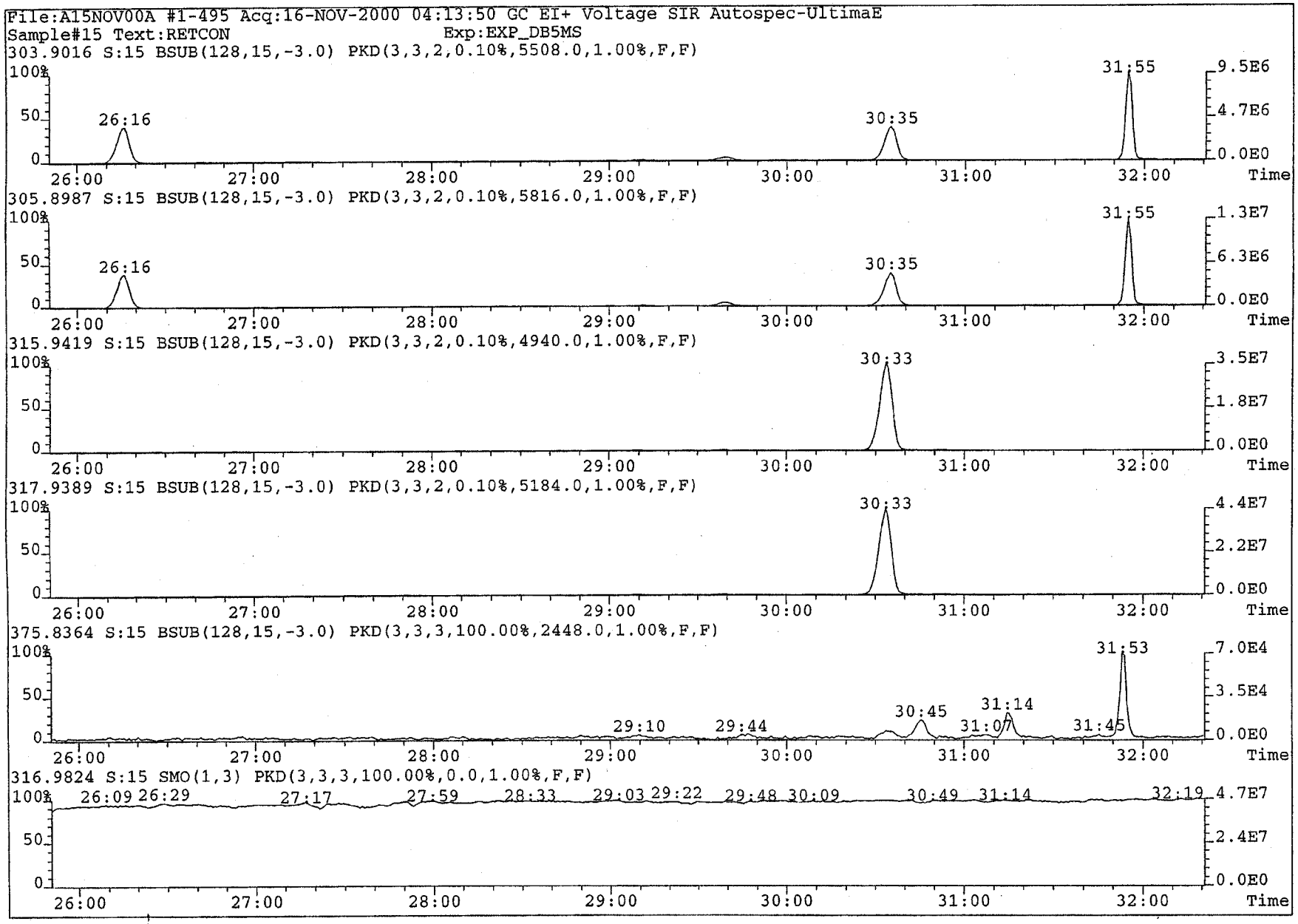


File:A15NOV00A #1-424 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS

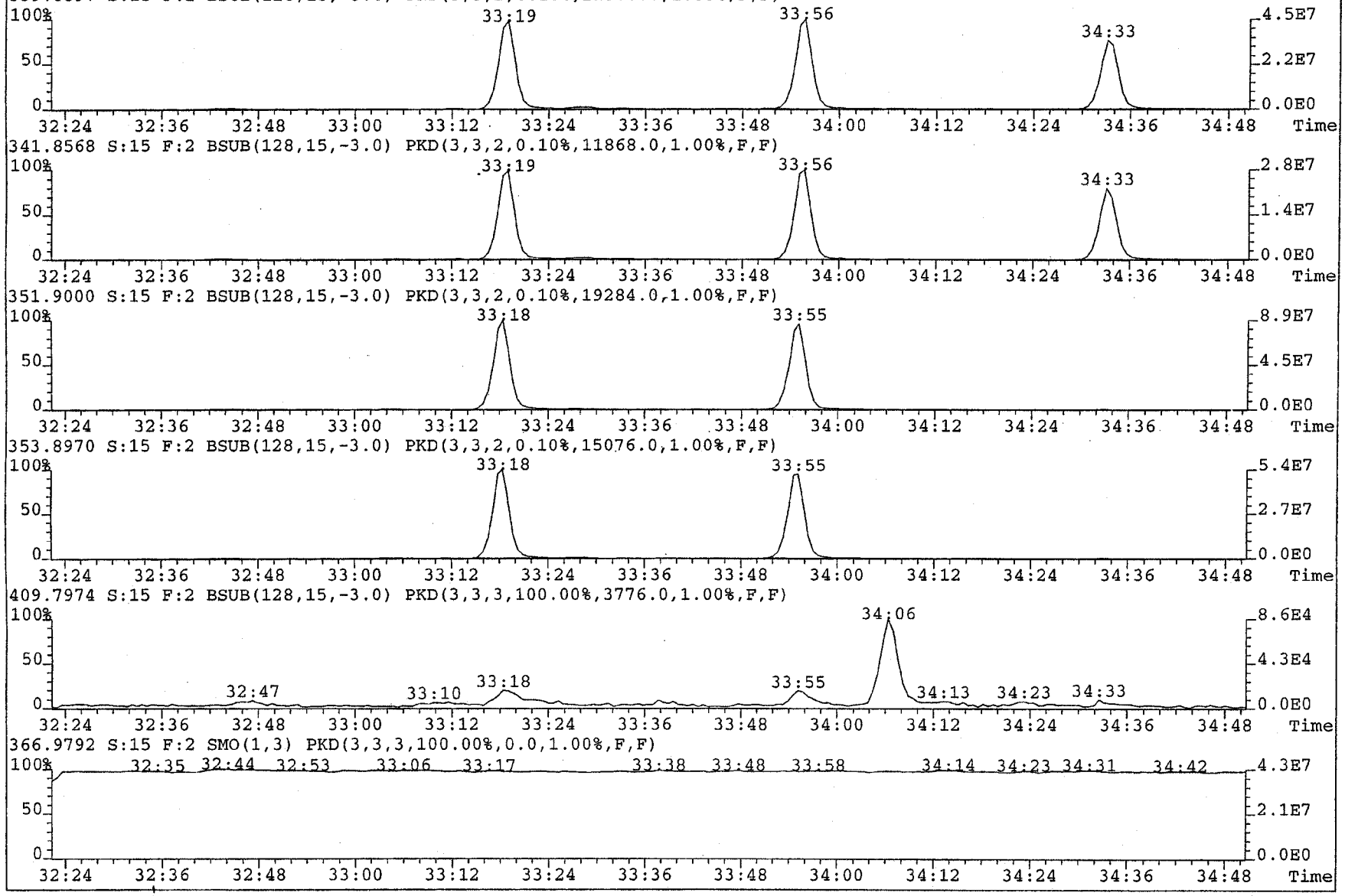


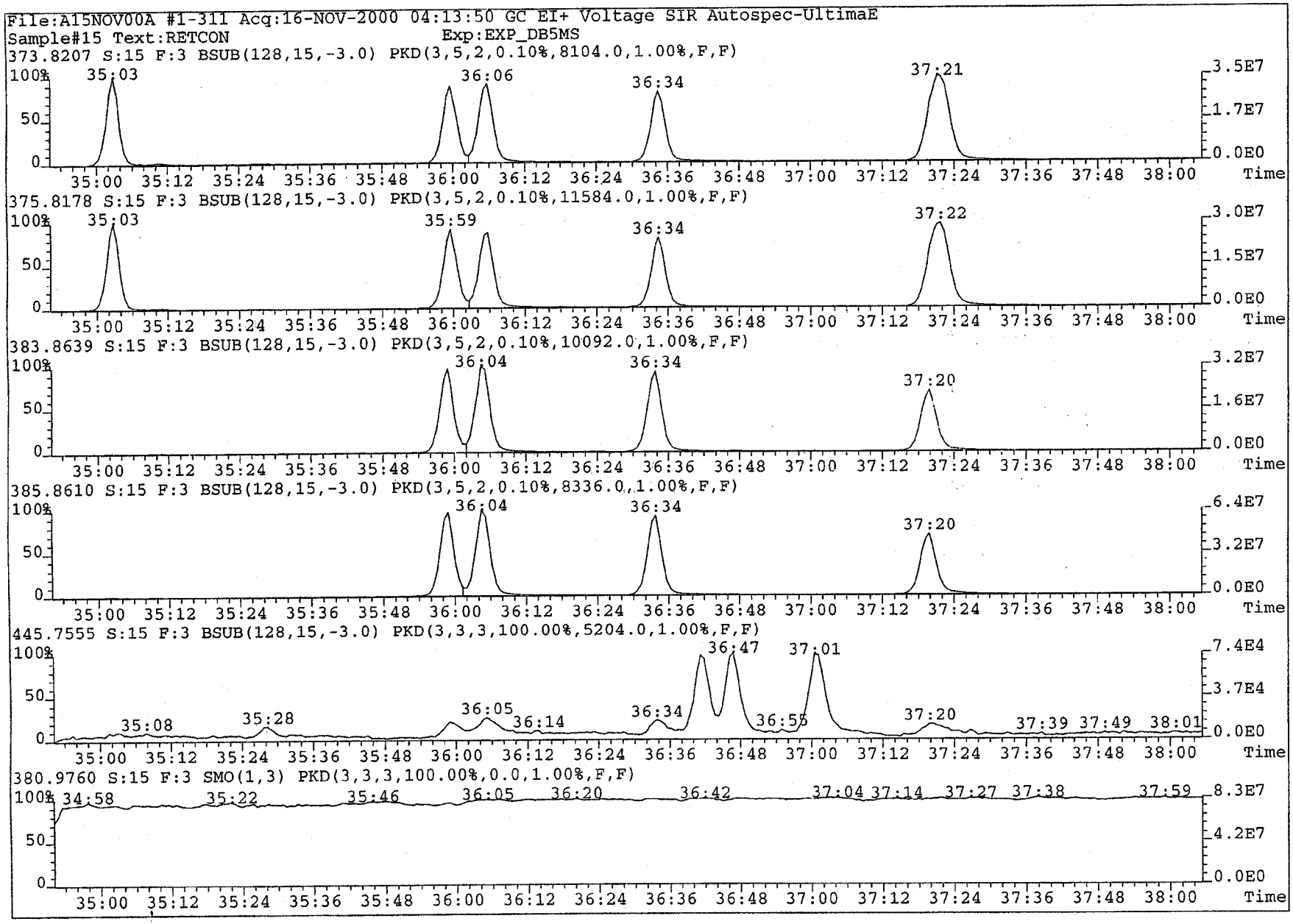
File:A15NOV00A #1-422 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS

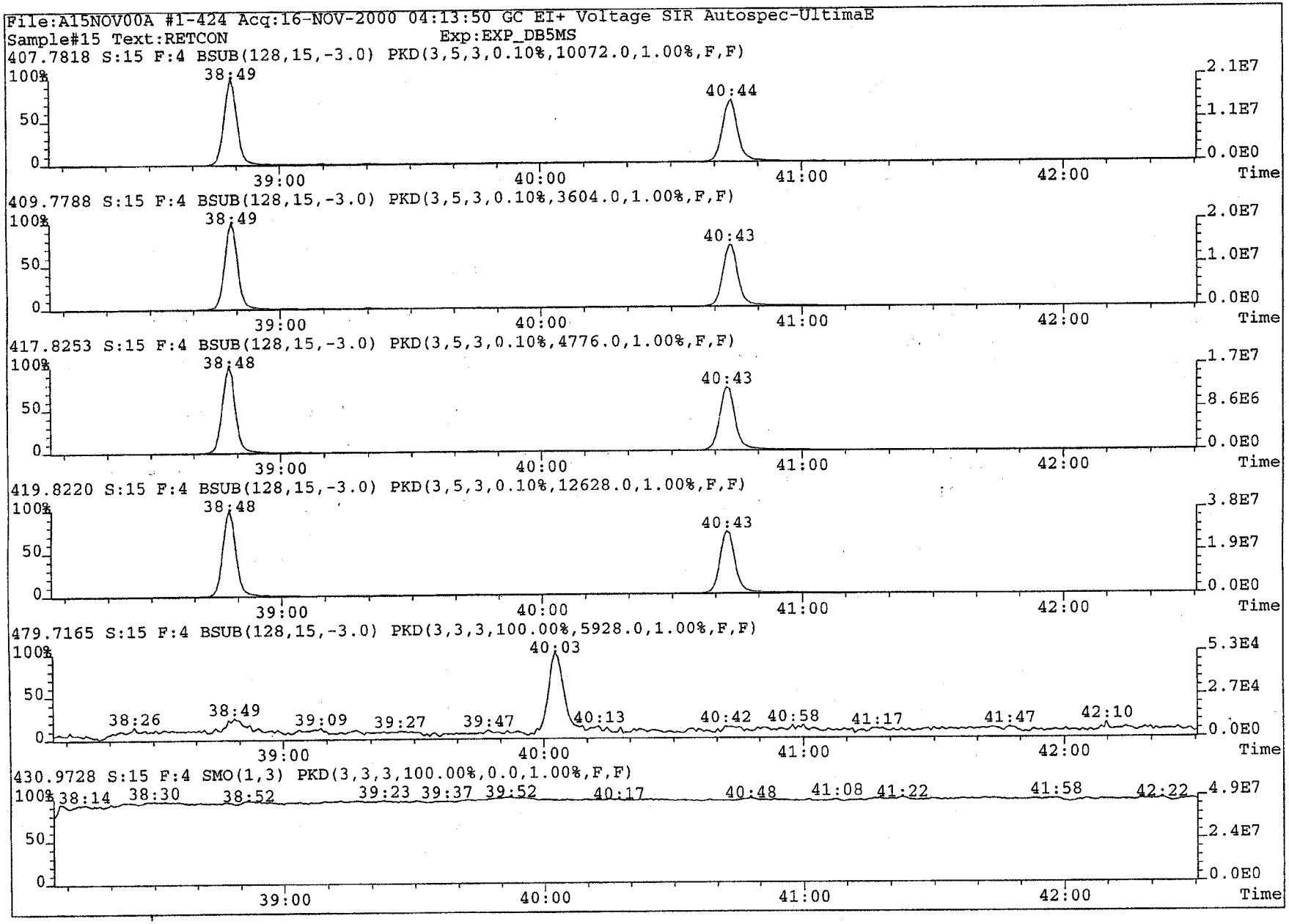


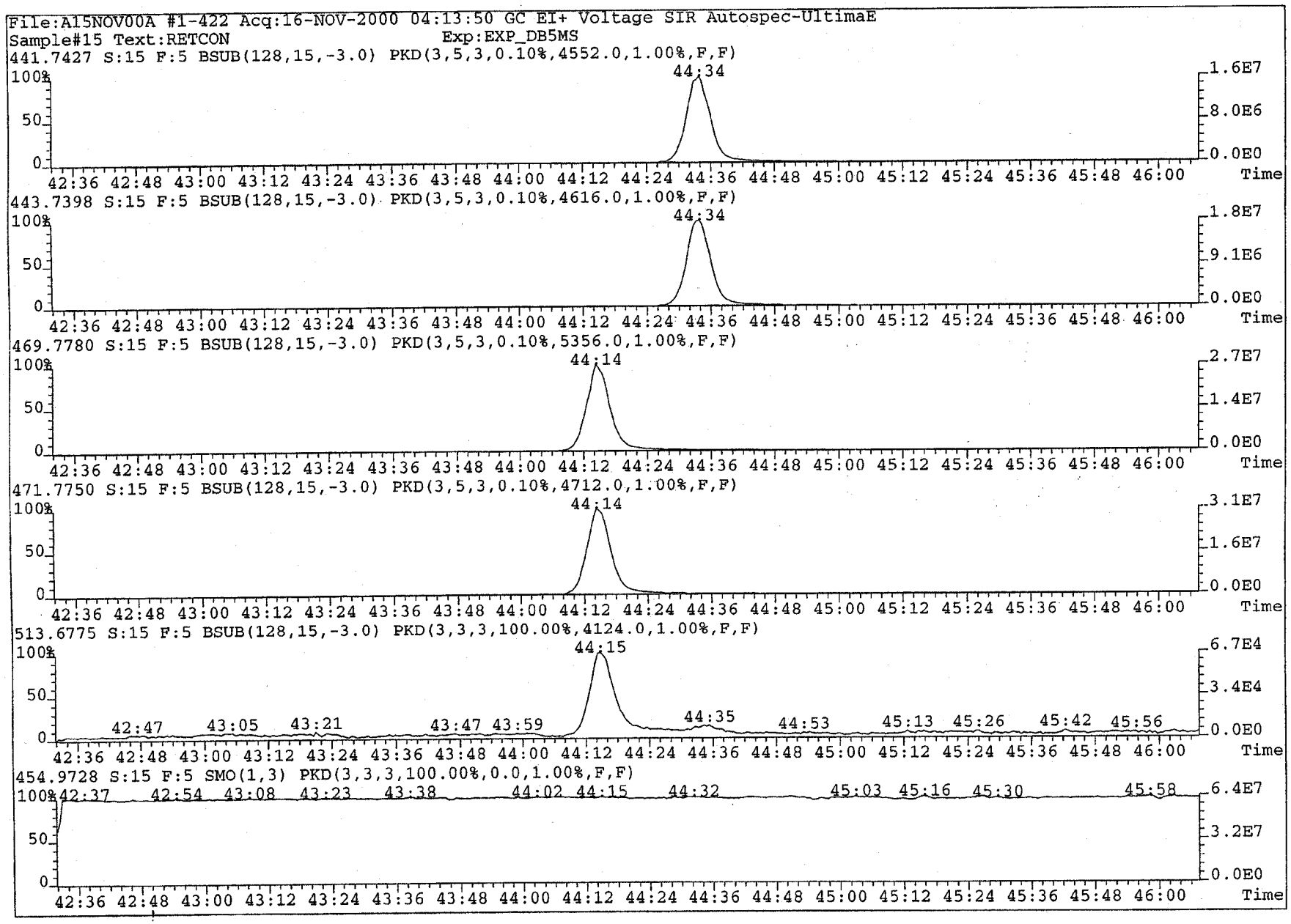

File:A15NOV00A #1-495 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS
303.9016 S:15 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5508.0,1.00%,F,F)
26:16
30:35
31:55
9.5E6
4.7E6
0.0E0
305.8987 S:15 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5816.0,1.00%,F,F)
26:16
30:35
31:55
1.3E7
6.3E6
0.0E0
315.9419 S:15 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4940.0,1.00%,F,F)
30:33
3.5E7
1.8E7
0.0E0
317.9389 S:15 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5184.0,1.00%,F,F)
30:33
4.4E7
2.2E7
0.0E0
375.8364 S:15 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,2448.0,1.00%,F,F)
29:10
29:44
30:45
31:07
31:14
31:45
31:53
7.0E4
3.5E4
0.0E0
316.9824 S:15 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:09 26:29 27:17 27:59 28:33 29:03 29:22 29:48 30:09 30:49 31:14 32:19
4.7E7
2.4E7
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

File:A15NOV00A #1-239 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS

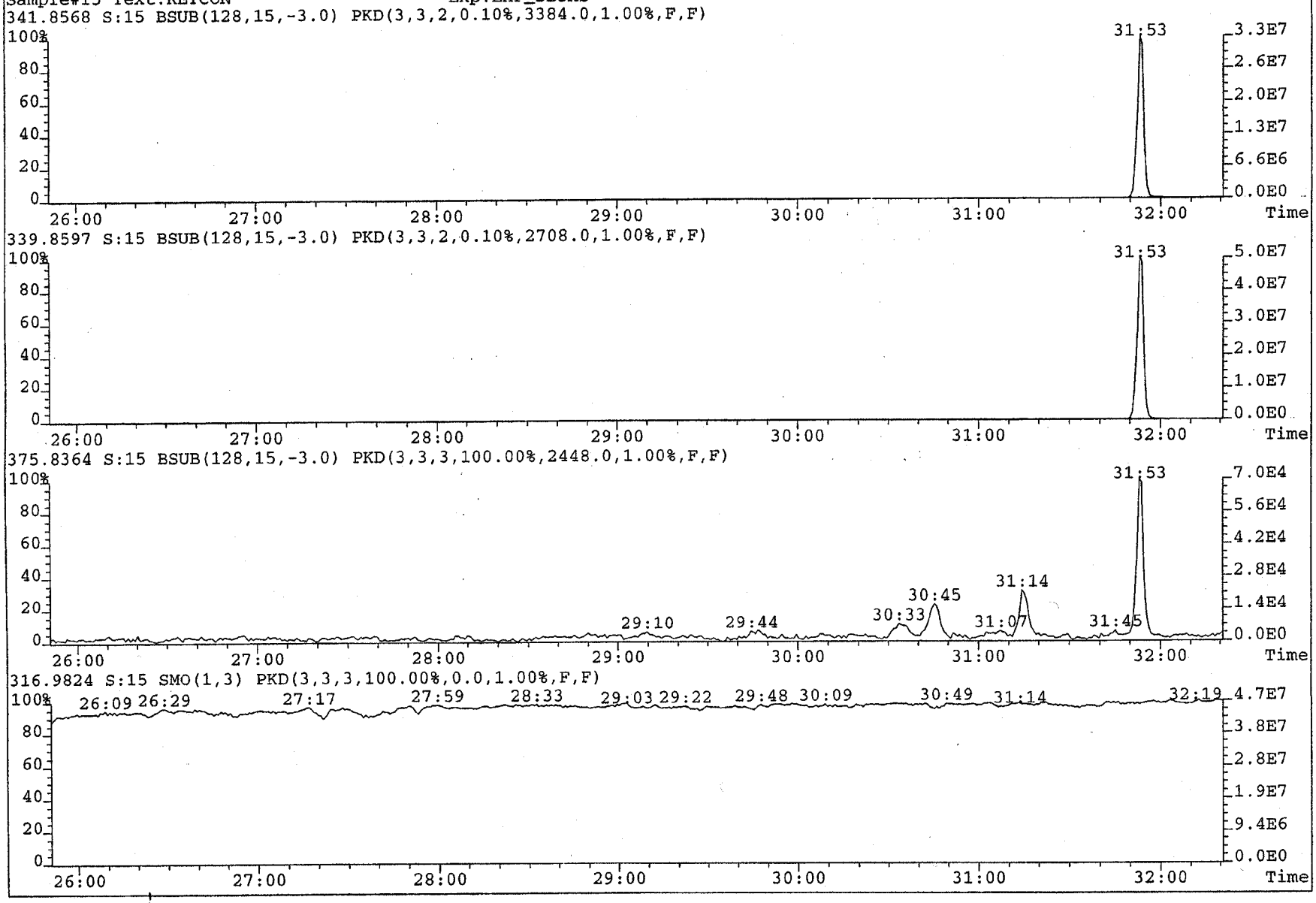



File:A15NOV00A #1-311 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS
373.8207 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8104.0,1.00%,F,F)
35:03
36:06
36:34
37:21
3.5E7
1.7E7
0.0E0
375.8178 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,11584.0,1.00%,F,F)
35:03
35:59
36:34
37:22
3.0E7
1.5E7
0.0E0
383.8639 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,10092.0,1.00%,F,F)
36:04
36:34
37:20
3.2E7
1.6E7
0.0E0
385.8610 S:15 F:3 BSUB(128,15,-3.0) PKD(3,5,2,0.10%,8336.0,1.00%,F,F)
36:04
36:34
37:20
6.4E7
3.2E7
0.0E0
445.7555 S:15 F:3 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5204.0,1.00%,F,F)
35:08
35:28
36:05
36:14
36:34
36:47
36:55
37:01
37:20
37:39
37:49
38:01
7.4E4
3.7E4
0.0E0
380.9760 S:15 F:3 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
34:58
35:22
35:46
36:05
36:20
36:42
37:04
37:14
37:27
37:38
37:59
8.3E7
4.2E7
0.0E0
100%
50
0
35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00
Time


File:A15NOV00A #1-424 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS
407.7818 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,10072.0,1.00%,F,F)
38:49
40:44
2.1E7
1.1E7
0.0E0
409.7788 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3604.0,1.00%,F,F)
38:49
40:43
2.0E7
1.0E7
0.0E0
417.8253 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4776.0,1.00%,F,F)
38:48
40:43
1.7E7
8.6E6
0.0E0
419.8220 S:15 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,12628.0,1.00%,F,F)
38:48
40:43
3.8E7
1.9E7
0.0E0
479.7165 S:15 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5928.0,1.00%,F,F)
40:03
38:26 38:49 39:09 39:27 39:47 40:13 40:42 40:58 41:17 41:47 42:10
5.3E4
2.7E4
0.0E0
430.9728 S:15 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:14 38:30 38:52 39:23 39:37 39:52 40:17 40:48 41:08 41:22 41:58 42:22
4.9E7
2.4E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

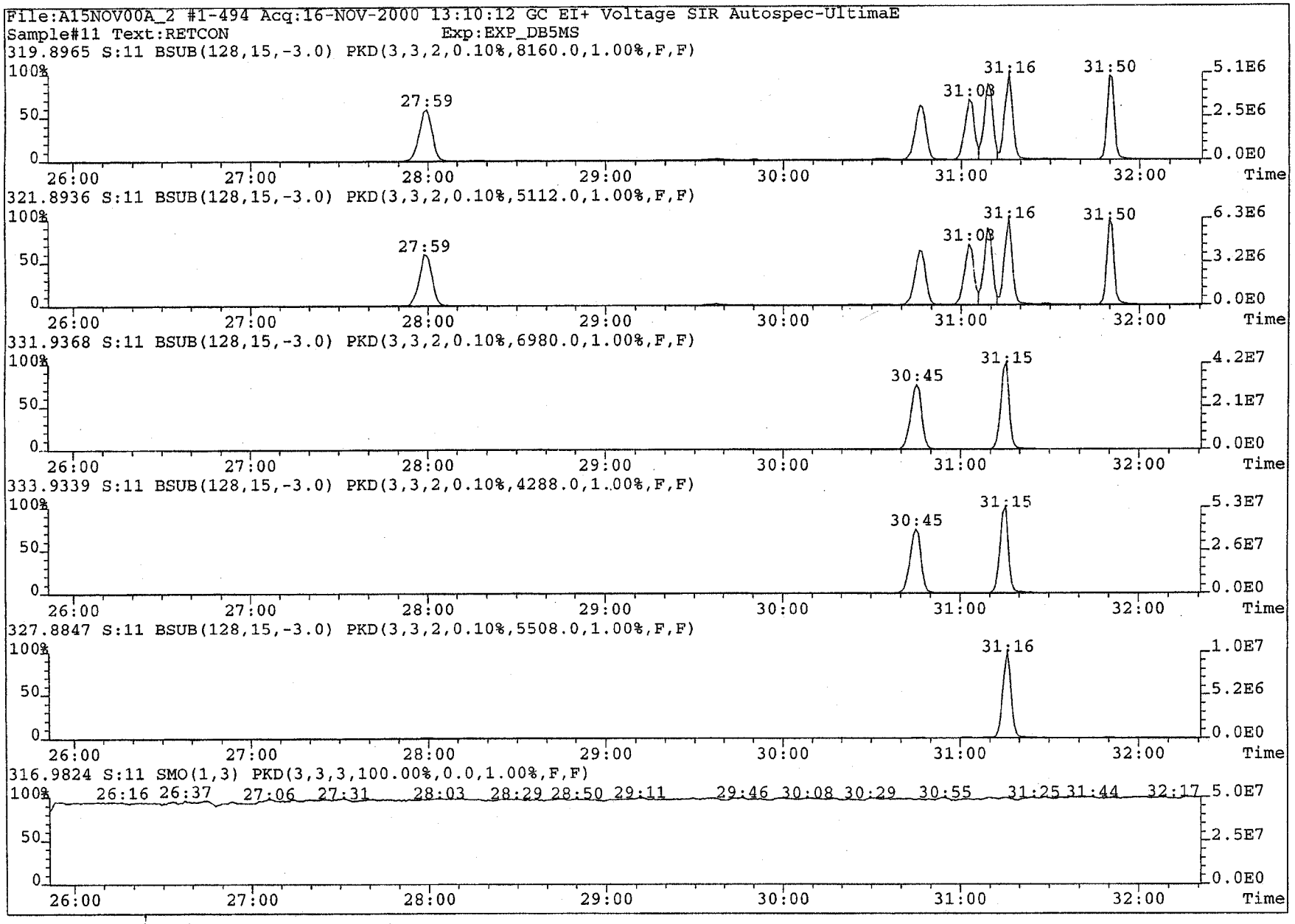

File:A15NOV00A #1-422 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS
441.7427 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4552.0,1.00%,F,F)
44:34
1.6E7
8.0E6
0.0E0
443.7398 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4616.0,1.00%,F,F)
44:34
1.8E7
9.1E6
0.0E0
469.7780 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5356.0,1.00%,F,F)
44:14
2.7E7
1.4E7
0.0E0
471.7750 S:15 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4712.0,1.00%,F,F)
44:14
3.1E7
1.6E7
0.0E0
513.6775 S:15 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,4124.0,1.00%,F,F)
44:15
42:47 43:05 43:21 43:47 43:59 44:35 44:53 45:13 45:26 45:42 45:56
6.7E4
3.4E4
0.0E0
454.9728 S:15 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:37 42:54 43:08 43:23 43:38 44:02 44:15 44:32 45:03 45:16 45:30 45:58
6.4E7
3.2E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time

File:A15NOV00A #1-495 Acq:16-NOV-2000 04:13:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 Text:RETCON Exp:EXP_DB5MS

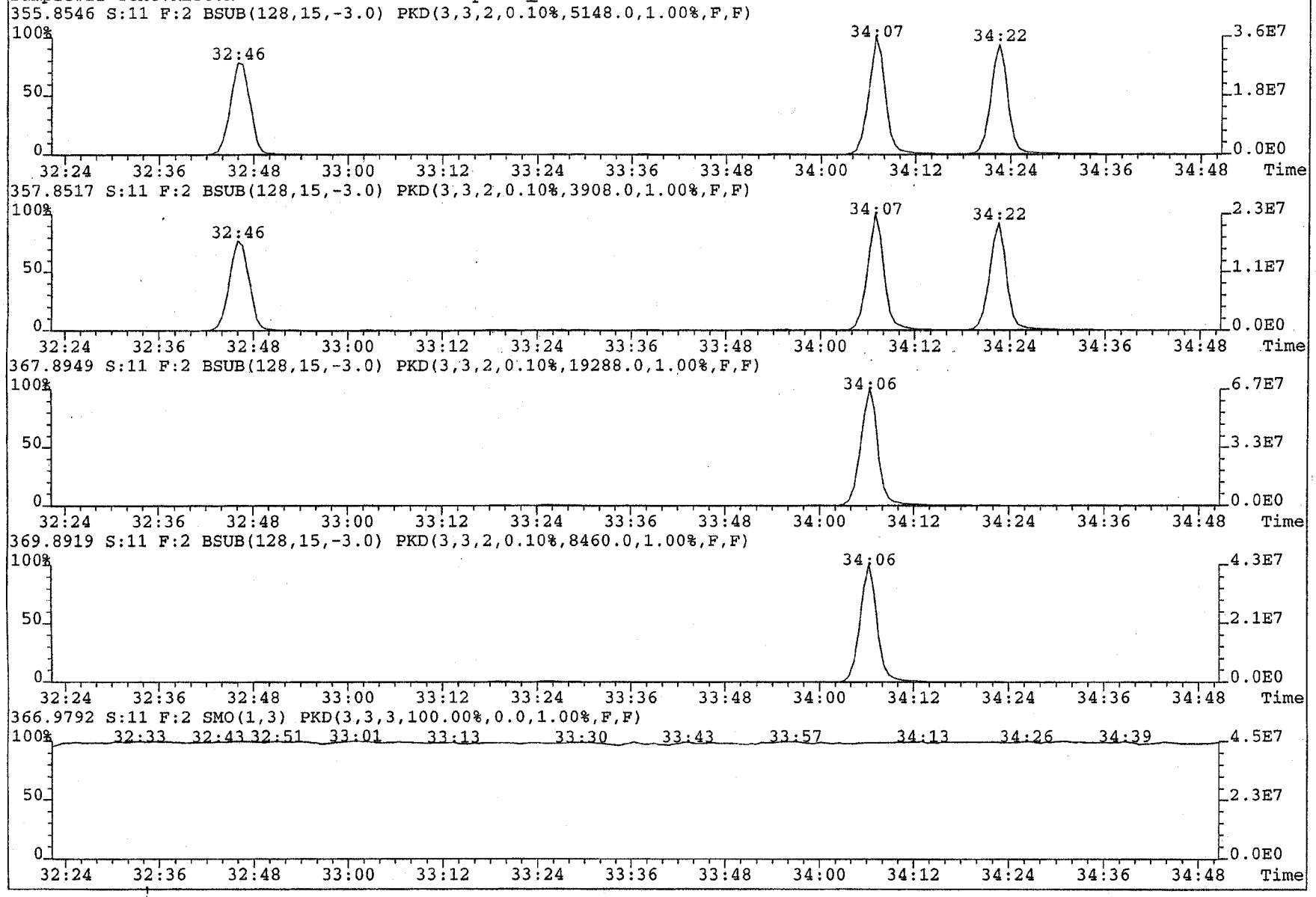


Run #21 Filename a15nov00a_2 S: 11 I: 1 Acquired: 16-NOV-00 13:10:12 Processed: 16-NOV-00 14:50:21
Run: a17may99m Analyte: m8290-110» Cal: m8290-052» Results: m8290-111» Quan : V3.6 31-JUL-1998 10:51:59
Sample text: RETCON Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

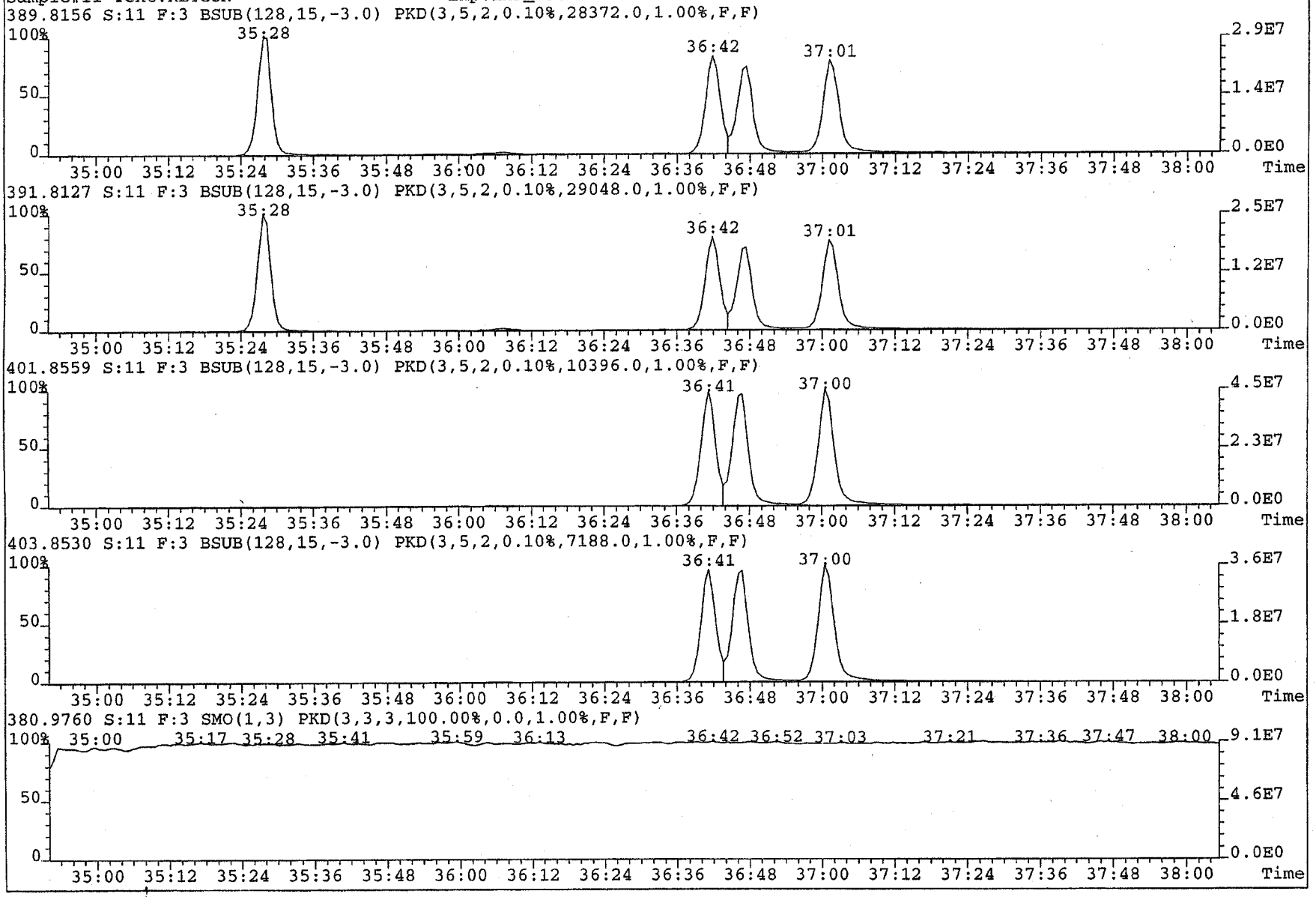
Typ	Name	Resp	RA		RT	Conc	Dev'n	CCAL RRF	ICAL RRF	Mod?
Unk	2,3,7,8-TCDD	3.5e+07	0.80	y	31:16	9.841	-1.6	1.1623	1.1810	n
Unk	1,2,3,7,8-PeCDD	1.4e+08	1.60	y	34:07	50.78	1.6	1.0458	1.0298	n
Unk	1,2,3,4,7,8-HxCDD	1.2e+08	1.21	y	36:42	49.05	-1.9	1.0021	1.0214	n
Unk	1,2,3,6,7,8-HxCDD	1.2e+08	1.21	y	36:47	51.04	2.1	0.9913	0.9712	n
Unk	1,2,3,7,8,9-HxCDD	1.3e+08	1.19	y	37:01	50.34	0.7	1.0858	1.0784	n
Unk	1,2,3,4,6,7,8-HpCDD	1.0e+08	1.08	y	40:03	48.38	-3.2	0.9740	1.0066	n
Unk	OCDD	1.9e+08	0.86	y	44:15	98.95	-1.1	1.0646	1.0759	n
Unk	2,3,7,8-TCDF	4.6e+07	0.77	y	30:35	9.153	-8.5	1.0312	1.1266	n
Unk	1,2,3,7,8-PeCDF	2.0e+08	1.53	y	33:19	47.50	-5.0	1.0021	1.0549	n
Unk	2,3,4,7,8-PeCDF	2.0e+08	1.54	y	33:56	47.16	-5.7	1.0182	1.0795	n
Unk	1,2,3,4,7,8-HxCDF	1.9e+08	1.24	y	35:59	51.27	2.5	1.1776	1.1483	n
Unk	1,2,3,6,7,8-HxCDF	1.9e+08	1.18	y	36:06	49.44	-1.1	1.1909	1.2044	n
Unk	2,3,4,6,7,8-HxCDF	1.6e+08	1.20	y	36:34	47.60	-4.8	1.0297	1.0817	n
Unk	1,2,3,7,8,9-HxCDF	3.0e+08	1.20	y	37:22	96.14	-3.9	0.9470	0.9851	n
Unk	1,2,3,4,6,7,8-HpCDF	1.5e+08	1.11	y	38:49	50.94	1.9	1.4915	1.4641	n
Unk	1,2,3,4,7,8,9-HpCDF	1.3e+08	1.12	y	40:44	51.46	2.9	1.2356	1.2004	n
Unk	OCDF	2.0e+08	0.85	y	44:33	88.83	-11.2	1.1712	1.3185	n
ES/RT	13C-2,3,7,8-TCDD	3.0e+08	0.79	y	31:15	97.70	-2.3	1.0367	1.0612	n
ES	13C-1,2,3,7,8-PeCDD	2.6e+08	1.58	y	34:06	100.3	0.3	0.8973	0.8944	n
ES	13C-1,2,3,6,7,8-HxCDD	2.4e+08	1.28	y	36:47	101.2	1.2	0.9656	0.9544	n
ES	13C-1,2,3,4,6,7,8-HpCDD	2.1e+08	1.07	y	40:03	94.49	-5.5	0.8650	0.9154	n
ES	13C-OCDD	3.5e+08	0.85	y	44:15	197.6	-1.2	0.7044	0.7127	n
ES/RT	13C-2,3,7,8-TCDF	4.4e+08	0.81	y	30:33	100.1	0.1	1.5064	1.5045	n
ES	13C-1,2,3,7,8-PeCDF	3.9e+08	1.60	y	33:18	97.03	-3.0	1.3362	1.3771	n
ES	13C-1,2,3,6,7,8-HxCDF	3.2e+08	0.50	y	36:04	95.20	-4.8	1.2787	1.3431	n
ES	13C-1,2,3,4,6,7,8-HpCDF	2.0e+08	0.49	y	38:48	82.87	-17.1	0.8233	0.9935	n
JS	13C-1,2,3,4-TCDD	2.9e+08	0.80	y	30:45	145.0	-	-	-	n
JS	13C-1,2,3,7,8,9-HxCDD	2.5e+08	1.25	y	37:00	150.7	-	-	-	n
CS	37Cl-2,3,7,8-TCDD	3.3e+07	1.63	y	31:16	9.523	-4.8	1.1187	1.1747	n
CS	13C-2,3,4,7,8-PeCDF	3.8e+08	1.27	y	33:55	98.49	-1.5	1.2851	1.3048	n
CS	13C-1,2,3,4,7,8-HxCDD	2.1e+08	0.51	y	36:41	100.5	0.5	0.8615	0.8573	n
CS	13C-1,2,3,4,7,8-HxCDF	3.0e+08	0.48	y	35:59	95.37	-4.6	1.1881	1.2458	n
CS	13C-1,2,3,4,7,8,9-HpCDF	1.7e+08			40:43	85.75	-14.2	0.7023	0.8190	n
			1.63	y						
SS	37Cl-2,3,7,8-TCDD	3.3e+07	1.27	y	31:16	9.743	-2.6	1.0791	1.1075	n
SS	13C-2,3,4,7,8-PeCDF	3.8e+08	0.51	y	33:55	101.5	1.5	0.9617	0.9475	n
SS	13C-1,2,3,4,7,8-HxCDD	2.1e+08	0.48	y	36:41	99.34	-0.7	0.8921	0.8980	n
SS	13C-1,2,3,4,7,8-HxCDF	3.0e+08			35:59	100.1	0.1	0.9292	0.9283	n
SS	13C-1,2,3,4,7,8,9-HpCDF	1.7e+08			40:43	103.5	3.5	0.8530	0.8244	n
DPE	HxCDPE	*			NotFnd	*	-	-	-	n
DPE	HpCDPE	*			NotFnd	*	-	-	-	n


File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS
319.8965 S:11 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,8160.0,1.00%,F,F)
27:59
31:08
31:16
31:50
5.1E6
2.5E6
0.0E0
321.8936 S:11 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5112.0,1.00%,F,F)
27:59
31:08
31:16
31:50
6.3E6
3.2E6
0.0E0
331.9368 S:11 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,6980.0,1.00%,F,F)
30:45
31:15
4.2E7
2.1E7
0.0E0
333.9339 S:11 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,4288.0,1.00%,F,F)
30:45
31:15
5.3E7
2.6E7
0.0E0
327.8847 S:11 BSUB(128,15,-3.0) PKD(3,3,2,0.10%,5508.0,1.00%,F,F)
31:16
1.0E7
5.2E6
0.0E0
316.9824 S:11 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
26:16 26:37 27:06 27:31 28:03 28:29 28:50 29:11 29:46 30:08 30:29 30:55 31:25 31:44 32:17
5.0E7
2.5E7
0.0E0
100%
50
0
26:00
27:00
28:00
29:00
30:00
31:00
32:00
Time

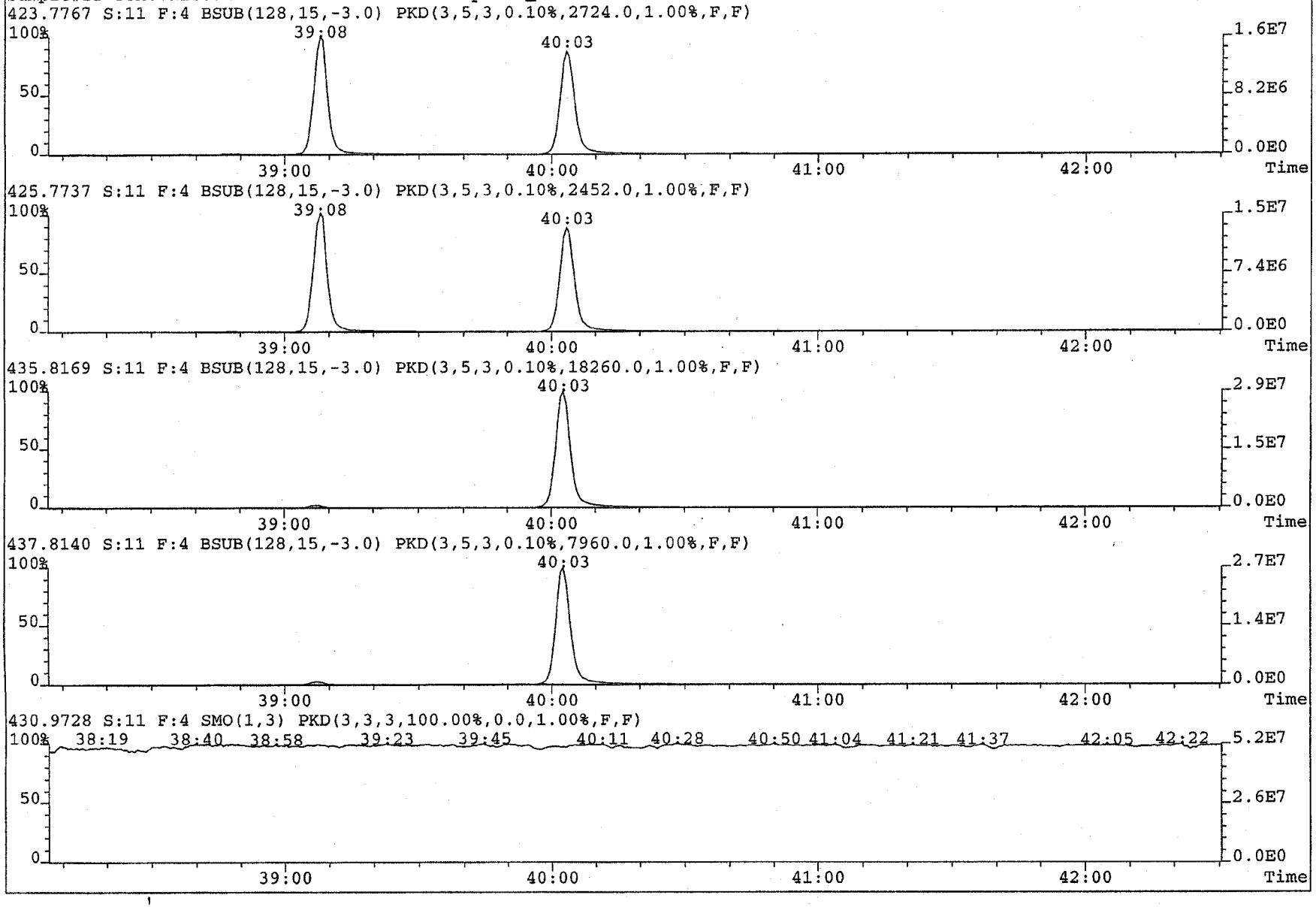
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS

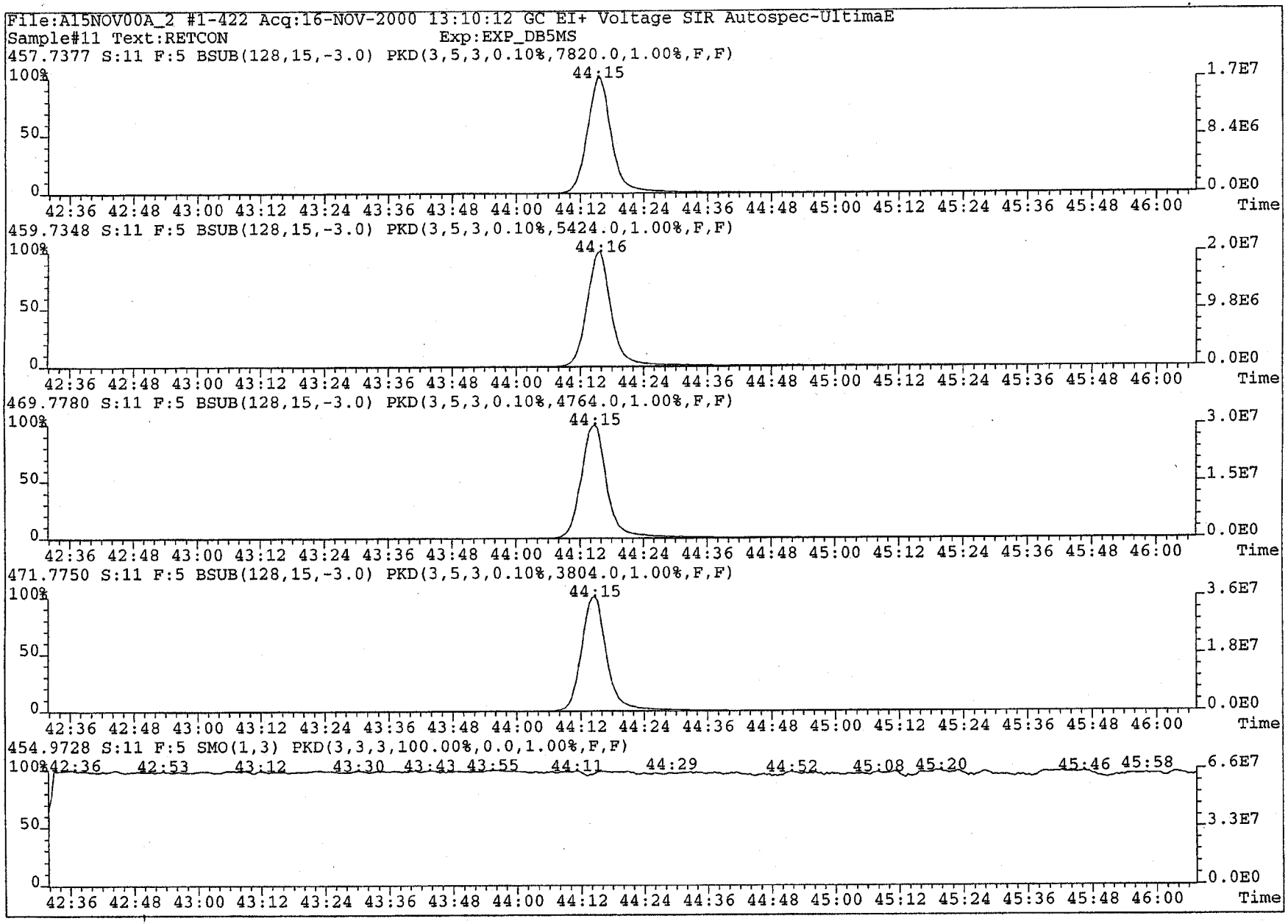


File:A15NOV00A_2 #1-311 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS

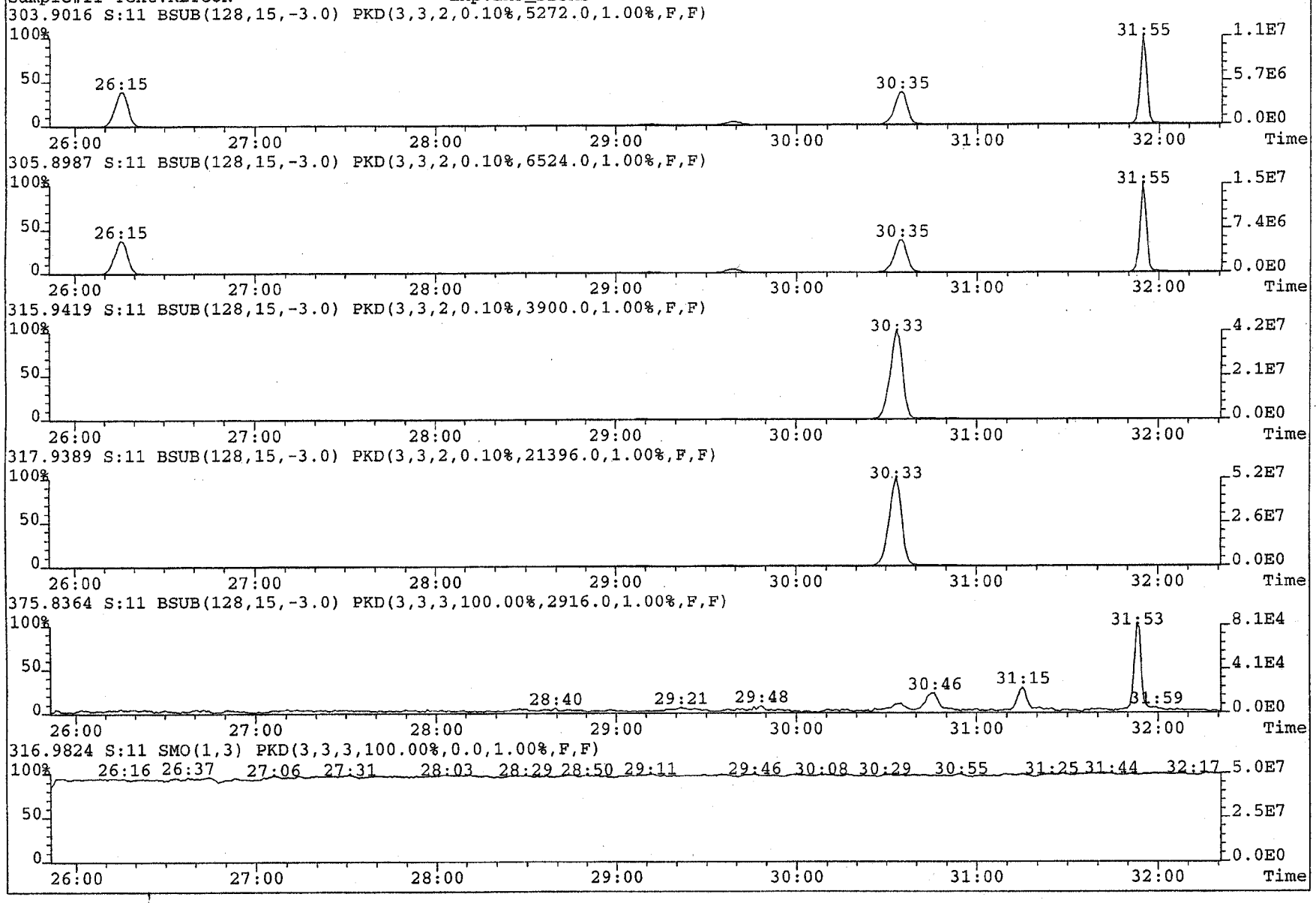


File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS

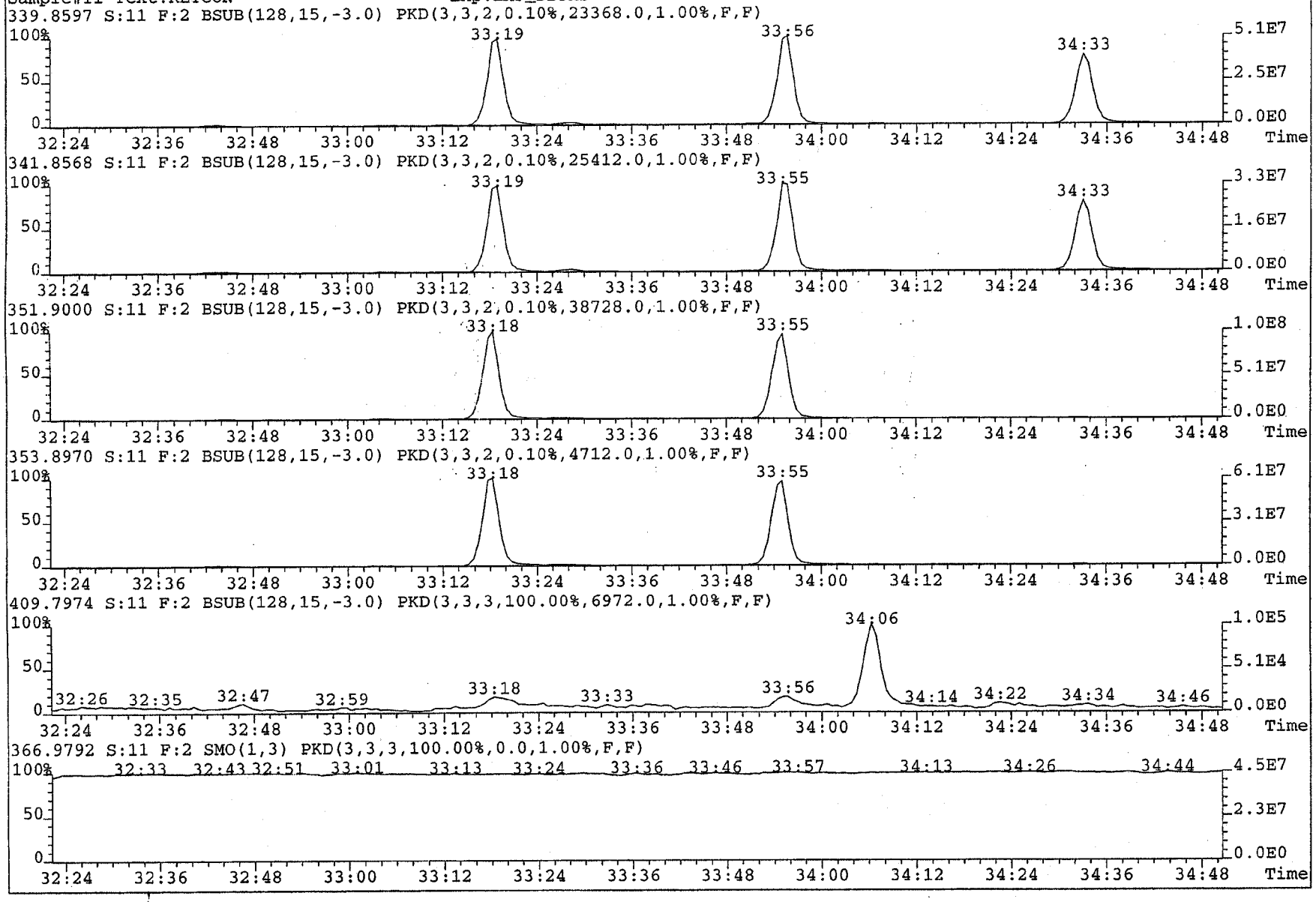



File:A15NOV00A_2 #1-422 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS
457.7377 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7820.0,1.00%,F,F)
44:15
1.7E7
8.4E6
0.0E0
459.7348 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,5424.0,1.00%,F,F)
44:16
2.0E7
9.8E6
0.0E0
469.7780 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4764.0,1.00%,F,F)
44:15
3.0E7
1.5E7
0.0E0
471.7750 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3804.0,1.00%,F,F)
44:15
3.6E7
1.8E7
0.0E0
454.9728 S:11 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
6.6E7
3.3E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time

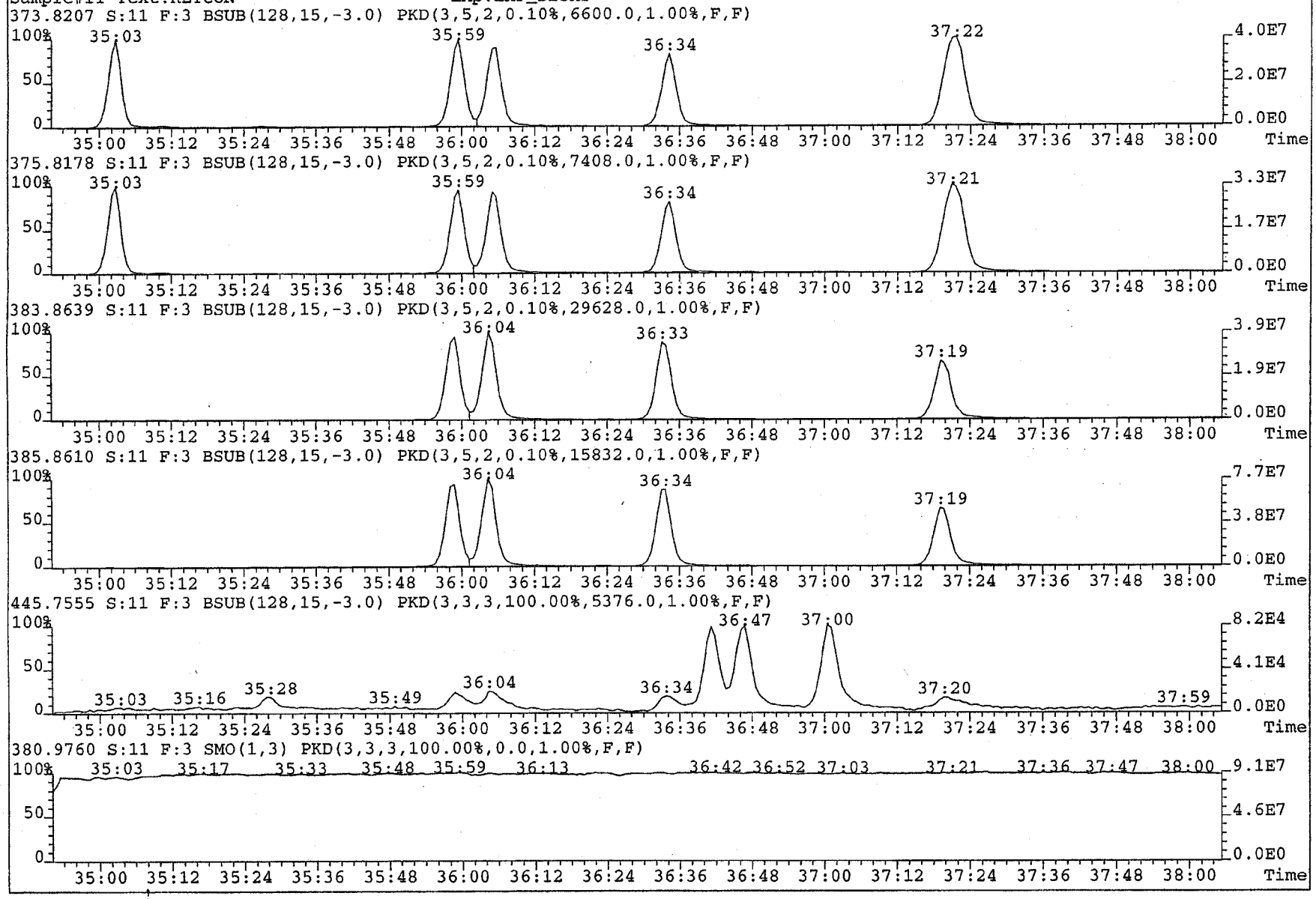
File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS

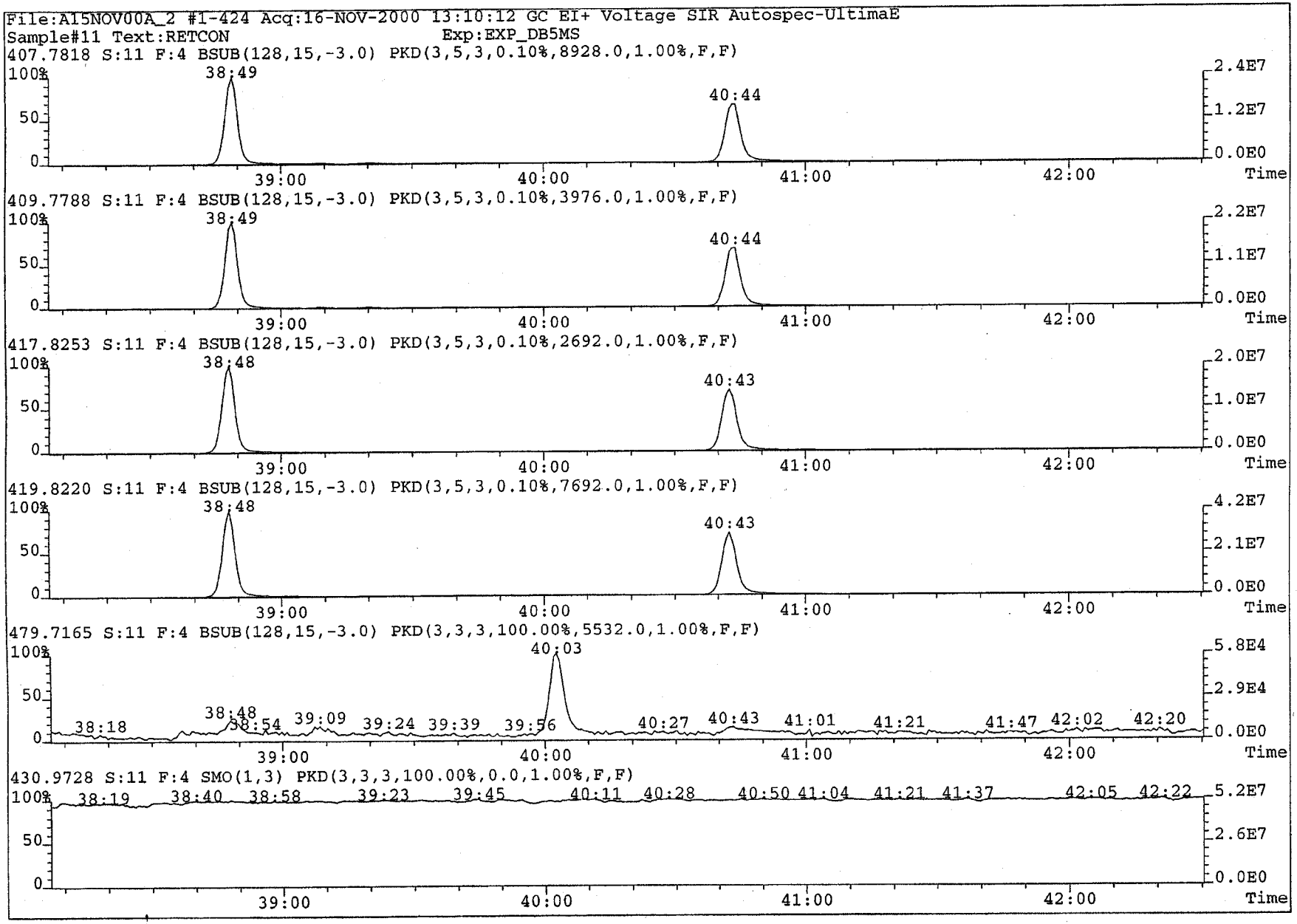


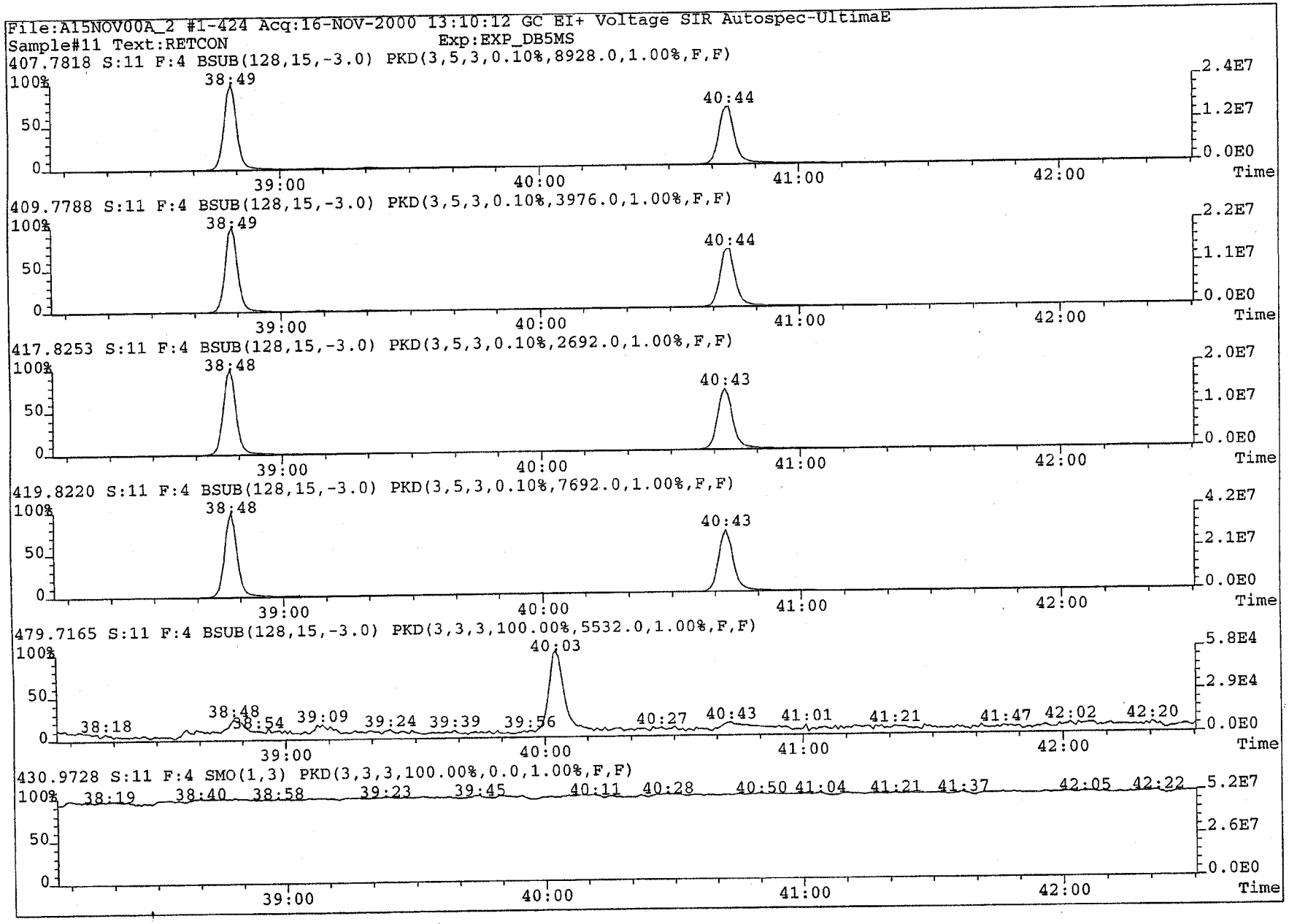
File:A15NOV00A_2 #1-239 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS

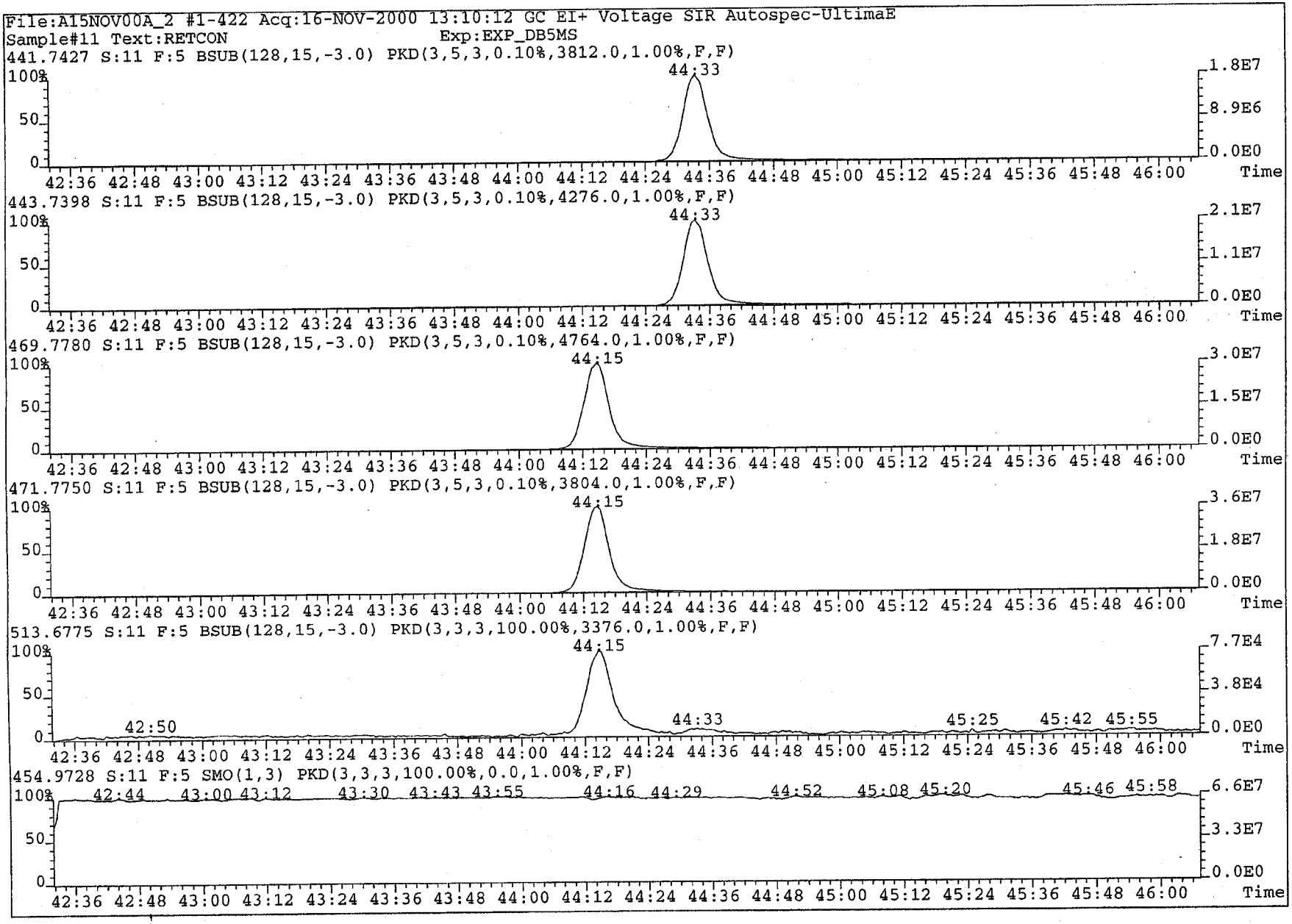


File:A15NOV00A_2 #1-311 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS

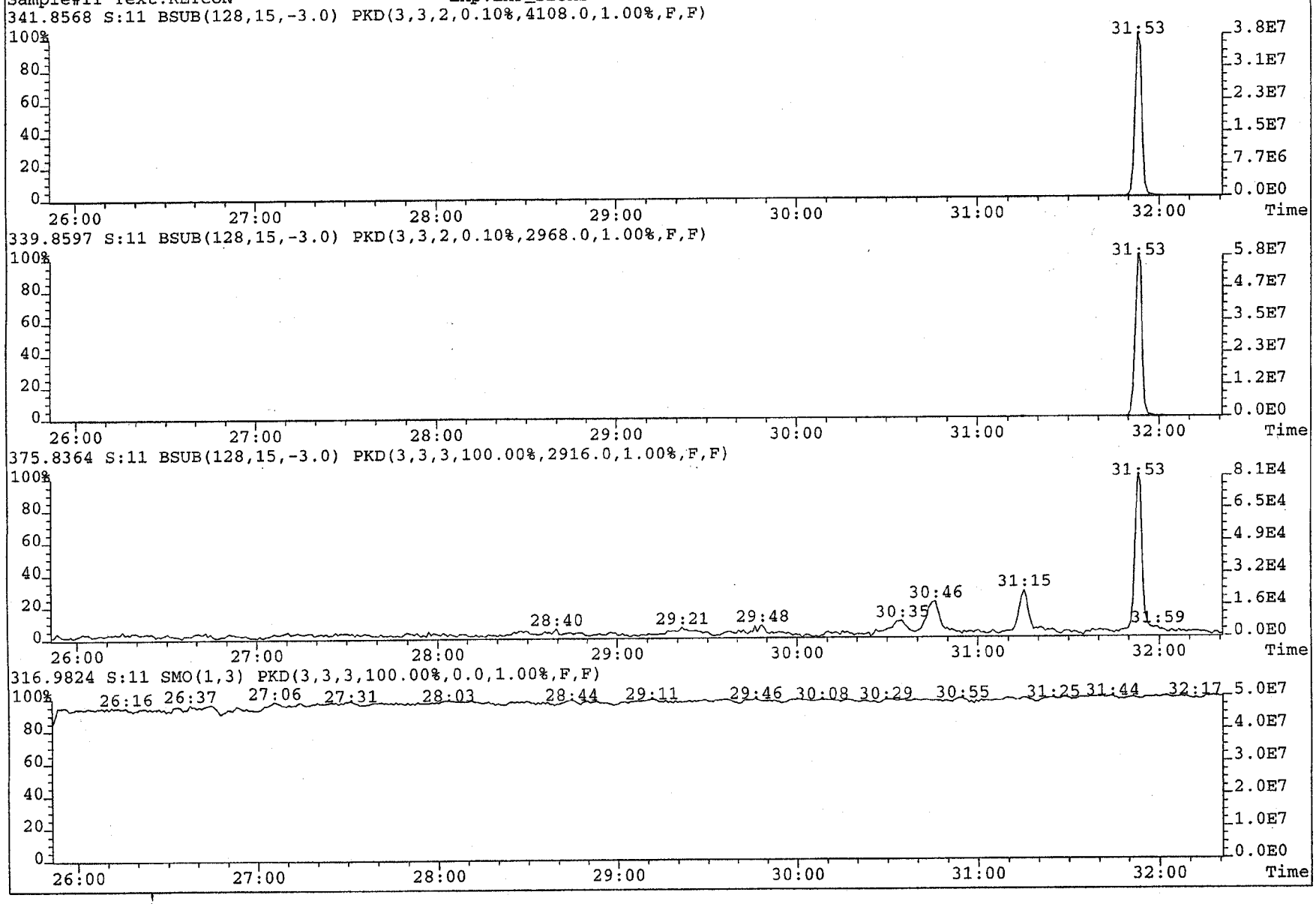



File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS
407.7818 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,8928.0,1.00%,F,F)
38:49
40:44
2.4E7
1.2E7
0.0E0
409.7788 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3976.0,1.00%,F,F)
38:49
40:44
2.2E7
1.1E7
0.0E0
417.8253 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2692.0,1.00%,F,F)
38:48
40:43
2.0E7
1.0E7
0.0E0
419.8220 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7692.0,1.00%,F,F)
38:48
40:43
4.2E7
2.1E7
0.0E0
479.7165 S:11 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5532.0,1.00%,F,F)
40:03
38:18 38:48 38:54 39:09 39:24 39:39 39:56 40:27 40:43 41:01 41:21 41:47 42:02 42:20
5.8E4
2.9E4
0.0E0
430.9728 S:11 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:19 38:40 38:58 39:23 39:45 40:11 40:28 40:50 41:04 41:21 41:37 42:05 42:22
5.2E7
2.6E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A15NOV00A_2 #1-424 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON
Exp:EXP_DB5MS
407.7818 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,8928.0,1.00%,F,F)
38:49
40:44
2.4E7
1.2E7
0.0E0
409.7788 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3976.0,1.00%,F,F)
38:49
40:44
2.2E7
1.1E7
0.0E0
417.8253 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,2692.0,1.00%,F,F)
38:48
40:43
2.0E7
1.0E7
0.0E0
419.8220 S:11 F:4 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,7692.0,1.00%,F,F)
38:48
40:43
4.2E7
2.1E7
0.0E0
479.7165 S:11 F:4 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,5532.0,1.00%,F,F)
40:03
38:18 38:48 38:54 39:09 39:24 39:39 39:56 40:27 40:43 41:01 41:21 41:47 42:02 42:20
5.8E4
2.9E4
0.0E0
430.9728 S:11 F:4 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
38:19 38:40 38:58 39:23 39:45 40:11 40:28 40:50 41:04 41:21 41:37 42:05 42:22
5.2E7
2.6E7
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A15NOV00A_2 #1-422 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS
441.7427 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3812.0,1.00%,F,F)
44:33
1.8E7
8.9E6
0.0E0
443.7398 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4276.0,1.00%,F,F)
44:33
2.1E7
1.1E7
0.0E0
469.7780 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,4764.0,1.00%,F,F)
44:15
3.0E7
1.5E7
0.0E0
471.7750 S:11 F:5 BSUB(128,15,-3.0) PKD(3,5,3,0.10%,3804.0,1.00%,F,F)
44:15
3.6E7
1.8E7
0.0E0
513.6775 S:11 F:5 BSUB(128,15,-3.0) PKD(3,3,3,100.00%,3376.0,1.00%,F,F)
44:15
42:50
44:33
45:25
45:42
45:55
7.7E4
3.8E4
0.0E0
454.9728 S:11 F:5 SMO(1,3) PKD(3,3,3,100.00%,0.0,1.00%,F,F)
42:44
43:00
43:12
43:30
43:43
43:55
44:16
44:29
44:52
45:08
45:20
45:46
45:58
6.6E7
3.3E7
0.0E0
100%
50
0
42:36 42:48 43:00 43:12 43:24 43:36 43:48 44:00 44:12 44:24 44:36 44:48 45:00 45:12 45:24 45:36 45:48 46:00
Time

File:A15NOV00A_2 #1-494 Acq:16-NOV-2000 13:10:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON Exp:EXP_DB5MS



Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	WG5085-1	S08-16	25	1.0	50	HMK	08Nov00	
2	98113R	↓	↓	↓	↓	↓	↓	
3	WG5085-2	↓	↓	↓	↓	↓	↓	
4	WG5090-2	S08-39	10	0.2	20	↓	↓	
5	WG5090-1	↓	↓	↓	↓	↓	↓	
6	98836	↓	↓	↓	↓	↓	↓	
7	98353	↓	↓	↓	↓	↓	↓	
8	98354	↓	↓	↓	↓	↓	↓	
9	98355	↓	↓	↓	↓	↓	↓	
10	98356	↓	↓	↓	↓	↓	↓	
11	98357	↓	↓	↓	↓	↓	↓	
12	98358	↓	↓	↓	↓	↓	↓	
13	98359	↓	↓	↓	↓	↓	↓	
14	98360	↓	↓	↓	↓	↓	↓	
15	98361	↓	↓	↓	↓	↓	↓	
16	98362	↓	↓	↓	↓	↓	↓	
17	WG5082-2	↓	↓	↓	↓	↓	↓	
18	WG5082-1	↓	↓	↓	↓	↓	↓	
19								
20					HMK	08Nov00		

DC17.021800.1

* = to be entered in the Prep table.

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Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	WG5105-2	S06-141	20	0.1	20	HMK	15Nov00	
2	WG5105-1	↓						
3	WG5102-2	S06-142						
4	WG5102-1							
5	98947							
6	99322							
7	99323							
8	99324							
9	99325							
10	99326							
11	99327							
12	99328	↓						
13	WG5101-2	S08-57						
14	WG5101-1							
15	99329							
16	99386							
17	99387							
18	99388							
19	99389							
20	99390	↓	↓	↓	↓	↓	↓	

DC17.021800.1

* = to be entered in the Prep table.

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Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	99391	508-57	20	0.1	20	HMK	15Nov00	
2	99392	↓	↓	↓	↓	↓	↓	
3								
4								
5								
6								
7								
8								
9							HMK	
10							15Nov00	
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

DC17.021800.1

* = to be entered in the Prep table.

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