

**TOXICITY TEST
FINAL REPORT
EVENT 1**

E04-0120

February 12, 2004



Era Laboratories, Inc.24 North 21st Avenue West
Duluth, MN 55806-2017 (218) 727-6380

February 18, 2004

Ms. Susan Beach
Minnesota Mining and Manufacturing
Environmental Technology and Safety
935 Bush Avenue, Building 2-3E-09
St. Paul, MN 55106Cc: Ms. Tina Galloway
3M Cottage Grove
10746 Innovation Road
Building 145
Cottage Grove, Minnesota 55016

Ms. Beach,

The tables below summarize the chemical and toxicological results for the tests conducted with the 3M Cottage Grove facility samples received by Era on February 13, 2004. The tests were conducted as outlined in the 3M GPO dated February 9, 2004 and the LIMS number E04-0120.

Briefly, each sample was tested at 100% concentration with two replicate test chambers per sample. Ten 13 day old fish were exposed per replicate and test temperature was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. Solutions were renewed at the 48 hour test interval using the original sample that had been stored in darkness at $1-4^{\circ}\text{C}$. Test duration was 96 hours, and per your guidance, the tests were conducted in darkness.

Sample Identification	Sampling Date	Sampling Time	Arrival Date	Arrival Time	Arrival Temp. ($^{\circ}\text{C}$)	Arrival Ammonia (mg/L)	Arrival TRC (mg/L)
Influent 1/2	2/12/2004	11:00	2/13/2004	10:30	1.0	1.3	<0.02
Effluent 4	2/12/2004	11:45	2/13/2004	10:30	1.0	2.0	<0.02
Effluent 1	2/12/2004	11:20	2/13/2004	10:30	1.0	2.0	<0.02
Port 4A	2/12/2004	11:35	2/13/2004	10:30	1.0	1.5	<0.02
Port 1A	2/12/2004	11:10	2/13/2004	10:30	1.0	1.6	<0.02
Combined Effluent	2/12/2004	12:00	2/13/2004	10:30	1.0	2.1	<0.02

None of the samples contained total residual chlorine (TRC) concentrations above the method detection limit of 0.02 mg/L. Ammonia concentrations for the samples ranged from 1.3 mg/L for the Influent 1/2 sample to 2.1 mg/L for the Combined Effluent sample. The measured ammonia concentrations were not anticipated to cause acute adverse effects to the fish and therefore the tests were not pH adjusted. Arrival temperature for each of the samples was 1°C .

C:\OE\Chem\3M\Cottage Grove\2004 Carbon Study\017869_E04-0120 Results.doc

Results for the toxicity exposures are shown in the table below.

Sample Identification	24 Hour Mean Percentage Survival	48 Hour Mean Percentage Survival	72 Hour Mean Percentage Survival	96 Hour Mean Percentage Survival	pH Range (s.u.)	DO Range (mg/L)	Cond. Range (μ mhos/cm)
MHRW Control	100	100	100	100	7.9-8.1	7.9-8.4	334-335
Influent 1/2	0	0	0	0	8.1 ^a	6.2-7.1	1461 ^a
Effluent 4	95	90	85	75	8.4-8.7	6.6-7.8	1407-1462
Effluent 1	85	80	75	70	8.1-8.4	4.5-7.6	1482-1488
Port 4A	75	65	65	60	8.1-8.4	4.5-7.7	1426-1481
Port 1A	55	50	45	35	8.0-8.4	4.4-7.8	1441-1486
Combined Effluent	100	100	95	95	8.2-8.6	5.1-7.8	1453-1457

^a No Range Obtained

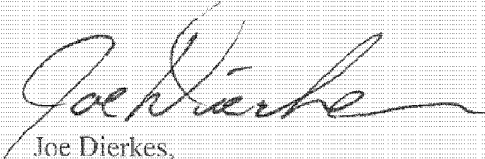
The moderately hard reconstituted water (MHRW) supported 100% fish survival for the duration of the test indicating the fish and test methods were acceptable for assessing toxicity. The Influent 1/2 sample was observed to cause complete (100%) fish mortality within 3 hours of test initiation. The sample identified as Effluent 4 was found to support mean 96 hour fish survival of 75%, and the sample identified as Effluent 1 was observed to support mean 96 hour fish survival of 70%. Port 4A and Port 1A samples supported mean 96 hour fish survival of 60% and 35%, respectively. The Combined Effluent sample supported mean 96 hour fish survival of 95%. Intermediate test interval mean fish survival values are shown in the table above.

None of the routine chemistry parameters (pH, dissolve oxygen, conductivity) measured during the test were abnormal for this type of study.

Please call or mail me if you have any questions.

Sincerely,

Era Laboratories, Inc.



Joe Dierkes,
Project Manager, Eco-Toxicology

Era Laboratories, Inc.

*

Client: 3M

Era Project #: 017869

Test: Fathead Minnow Acute Toxicity Tests

Test Initiation Date: February 13, 2004

Test Termination Date: February 17, 2004

TOXICITY TEST RENEWAL FORM

CLIENT: 3MERA PROJECT #: 017869TEST: Acute Toxicity EvaluationTEST INITIATION DATE: February 13, 2004ORGANISM: Fathead MinnowTEST TERMINATION DATE: February 17, 2004

TEST DAY	0 Test initiation	1	2	3	4
DATE	2-13-04	2-14-04	2-15-04	2-16-04	2-17-04
TIME OF RENEWAL	1300	1110	1130	1130	1110
TIME OF FEEDING	NA	NA	1010	NA	NA
CONTROL WATER	MHRW	MHRW	MHRW	MHRW	MHRW
INITIALS	BL	BL	BL	BL	BL

INITIAL CHEMISTRIES

CLIENT: 3M

ERA PROJECT #: 017869

TEST: Acute Toxicity Evaluation

TEST INITIATION DATE: February 13, 2004

ORGANISM(S): Fathead Minnow

TEST TERMINATION DATE: February 17, 2004

Sample	Date/Initials				Date/Initials			
	2-13-04 BC 1				2-15-04 BC 1			
	pH (su)	Cond. (umhos/cm)	Temp. (°C)	D.O. (mg/L)	pH (su)	Cond. (umhos/cm)	Temp. (°C)	D.O. (mg/L)
MHRW	8.10	334	25.0	7.9	8.13	335	24.9	8.2
Eff-1	8.16	1488	25.1	7.2	8.09	1482	24.7	7.6
Inf-1/2	8.11	1461	25.0	7.1				
Inf-3	--	--	--	--	--	--	--	--
Eff-4	8.37	1462	25.0	7.3	8.38	1407	24.8	7.8
Eff-9	--	--	--	--	--	--	--	--
Eff-11	--	--	--	--	--	--	--	--
Eff-13	--	--	--	--	--	--	--	--
Port-4A	8.14	1481	24.9	7.1	8.05	1426	24.7	7.7
Port-1A	8.11	1486	24.9	7.0	8.03	1441	24.6	7.8
Port-11D	--	--	--	--	--	--	--	--
Port-13D	--	--	--	--	--	--	--	--
Eff-123	8.26	1457	24.9	7.0	8.24	1453	24.5	7.8

FINAL CHEMISTRIES

CLIENT: 3M

EPA PROJECT#: 017869

TEST: Acute Toxicity Evaluation

TEST INITIATION DATE: 2/13/04

ORGANISM(S): Fathead Minnow

TEST TERMINATION DATE: 2/17/04

MHRW, Eff-1, Eff-4, Eff-9, Eff-11, Eff-13, Port-4A, Port-1A, Port-11D, Port-13D, Eff-123
 with 30% of 100% water from 4/1/04
 MHRW, Eff-1, Eff-4, Eff-9, Eff-11, Eff-13, Port-4A, Port-1A, Port-11D, Port-13D, Eff-123
 with 30% of 100% water from 4/1/04

Sample	Date/Initials			Date/Initials			Date/Initials			Date/Initials		
	pH (su)	Temp. (°C)	D.O. (mg/L)	pH (su)	Temp. (°C)	D.O. (mg/L)	pH (su)	Temp. (°C)	D.O. (mg/L)	pH (su)	Temp. (°C)	D.O. (mg/L)
MHRW	7.89/7.91	25.0/24.7	8.3/8.2	7.95/7.99	25.1/25.0	8.1/8.0	8.00/8.03	25.0/25.0	8.4/8.4	7.90/7.92	25.1/25.1	8.1/8.1
Eff-1	8.39/8.74	24.9/24.9	6.7/6.7	8.42/8.46	24.7/24.7	5.2/5.1	8.27/8.26	24.9/24.9	4.5/4.5	8.19/8.20	25.0/24.9	4.5/4.5
Inf-1/2	8.08/8.11	25.0/25.0	6.3/6.2	/	/	/	/	/	/	/	/	/
Inf-3	/	/	/	/	/	/	/	/	/	/	/	/
Eff-4	8.47/8.51	24.9/24.9	6.6/6.7	8.67/8.65	25.0/25.0	7.3/7.1	8.51/8.52	25.0/25.0	6.6/6.5	8.50/8.52	25.1/25.0	7.6/7.6
Eff-9	/	/	/	/	/	/	/	/	/	/	/	/
Eff-11	/	/	/	/	/	/	/	/	/	/	/	/
Eff-13	/	/	/	/	/	/	/	/	/	/	/	/
Port-4A	8.34/8.36	24.5/24.5	6.2/6.7	8.30/8.32	24.9/25.0	4.8/4.6	8.22/8.21	24.7/24.8	4.7/4.5	8.10/8.17	24.0/24.9	4.7/4.6
Port-1A	8.26/8.32	24.7/24.7	6.1/6.1	8.72/8.57	24.7/24.9	4.6/4.4	8.24/8.23	24.8/24.9	4.9/4.8	8.22/8.19	24.9/24.9	4.8/4.5
Port-11D	/	/	/	/	/	/	/	/	/	/	/	/
Port-13D	/	/	/	/	/	/	/	/	/	/	/	/
Eff-123	8.51/8.48	24.7/24.6	7.2/7.1	8.52/8.59	24.9/24.9	6.1/6.2	8.39/8.42	24.8/24.9	5.1/5.5	8.44/8.49	24.9/24.9	6.9/7.1

Page 5 of 6

 CONFIDENTIAL - SUBJECT TO A PROTECTIVE ORDER ENTERED IN HENNEPIN COUNTY
 DISTRICT COURT, NO. 27-CV-10-28862

3M_MN01538394

1937.0008

ACUTE TOXICITY DATA LOG

CLIENT: 3M

ERA PROJECT# 017869

TEST: Acute Toxicity Evaluation

TEST INITIATION DATE: 2/13/04

ORGANISM(S): Fathead Minnow

TEST TERMINATION DATE: 2/17/04

Sample	Date/Initials		Date/Initials		Date/Initials		Date/Initials	
	Replicate		Replicate		Replicate		Replicate	
	A	B	A	B	A	B	A	B
MHRW	10	10	10	10	10	10	10	10
Eff-1	8	9	8	8	7	8	6	8
Inf-1/2	All fish were dead within 3 hrs. of test set up 2-15-04 BL		0	0	0	0	0	0
Inf-3								
Eff-4	10	9	10	8	9	8	7	8
Eff-9								
Eff-11								
Eff-13								
Port-4A	8	7	7	6	7	6	7	5
Port-1A	6	5	6	4	5	4	4	3
Port-11D								
Port-13D								
Eff-123	10	10	10	10	10	9	10	9

Page 6 of 6

3M Environmental Laboratory

Chain of Custody / Request for Laboratory Analytical

6038

3M Env. Lab Project #
For Internal Use Only

Form 397-78 - PWC

Shipping Address:
3M Bldg. 2-3E-09
535 Rush Avenue
St. Paul, MN 55106

Telephone:
Sample Receiving: (651) 778-4948
Alternate: (651) 778-0752
Fax: (651) 778-6176

Project ID/Project Name	Cottage Grove Activated Carbon Testing
Template #	
Project Lead	Sue Beach
Depl. # (main)	112585
Final Report Due Date	
Internal Due Date	
Class/Job/Project #	

Report Results	Contact Name	SUE BEACH / TINA GALLOWAY	Date Available	
	Company	3M Cottage Grove	Date Due	
	Mailing Address	10740 Innovation Road Bldg 145	Contract Lab	
	City, State, Zip	Cottage Grove, MN 55016		
Telephone #	(651) 778-7452 FAX #			

Special Instructions and/or Specific Regulatory Requirements: (Method, limit of detection, reporting units, etc.)	Analysis Requested: Complete below. Attach any associated information.																	
<p>arrived temps @ 11:00 AM</p> <p>INC 651 768 1006</p> <p>Env. Proj # 017869</p>	<table border="1"> <tr> <th colspan="5">Preservatives:</th> <th rowspan="2">Total Number of Containers</th> </tr> <tr> <th>HNO3</th> <th>H2SO4</th> <th>VOCs</th> <th>None</th> <th>Other</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>19</td> </tr> </table>	Preservatives:					Total Number of Containers	HNO3	H2SO4	VOCs	None	Other						19
Preservatives:					Total Number of Containers													
HNO3	H2SO4	VOCs	None	Other														
					19													

Item #	Client Sample Identification	3M LIMS#	Date Sampled	Time Sampled	Matrix/Media	Preservatives					Total Number of Containers
						Enter the number of containers of each					(Enter an 'X' in the box below to indicate request)
1	INFLUENT 1/2 (INF 1/2)		2/12/04	11:00	WW						19
2	EFFLUENT 4 (EFF 4)			11:45							
3	EFFLUENT 1 (EFF 1)			11:30							
4	REPORT 4A (PORT 4A)			11:05							
5	REPORT 9A (PORT 1A)			11:10							
6	2.1 COMBINE EFFLUENT (COMB)			12:00							
7											
8											
9											
10											

Collected by (print): Matt McDermott Collector's signature: [Signature]

Item #	Relinquished by/Affiliation	Time	Date	Shipped Via	Received by/Affiliation	Time	Date
					Karina / Env. Lab	10:30	2-13-04

Sample Condition Upon Receipt: Acceptable Other: _____

Temperature: °C Received on ice

Other Associated CoCs: _____ Comes to: _____

Comments: _____

**Conventional Pollutants
FINAL REPORT
EVENT 1**

E04-0120

February 12, 2004

3M Environmental Laboratory

Form 38776 - PWO

Shipping Address:
3M Bldg 2-3E-06
535 Bush Avenue
St. Paul, MN 55108

Telephone:
Sample Receiving: (651) 778-4846
Alternate: (651) 778-6753
FAX: (651) 778-6178

Chain of Custody / Request for Laboratory Analytical

5292

3M Env. Lab Project #
For Internal Use Only

Project ID/Project Name: COTTAGE GROVE CARBON SYSTEM TESTING
 Template #: _____ Final Report Due Date: _____
 Project Lead: JESS ELDREDGE Internal Due Date: _____
 Dept # (main): 0632 Class/Job/Project #: _____

E04-020

Report Results No.:	Contact Name: <u>TINA GALLOWAY / BRIAN MADER</u>	Date Available:	
	Company: <u>3M COTTAGE GROVE</u>	Date Due:	<u>2/26/04</u>
	Mailing Address: <u>10746 - INNOVATION RD.</u>	Contract Lab:	<u>PACE</u>
	City, State, Zip: <u>COTTAGE GROVE, MN 55010</u>		
	Telephone #: <u>651-768-1206</u> FAX #: <u>651-458-2029</u>		

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, reporting units, etc.)

Preservatives:		Total Number of Containers	Analysis Requested: Complete below. Attach any associated information.
HNO3	H2SO4			SEE ATTACHED LAB REQ.
VOCs	Other		

Item #	Client Sample Identification	3M LIMS#	Date Sampled	Time Sampled	Matrix/Media	Preservatives: (Enter the number of containers of each)						Analysis Requested: (Enter an 'X' in the box below to indicate request)	
						HNO3	H2SO4	VOCs	Other				
1.	INFLUENT 1/2	67432	2/12/04	11:00	Liquid	2	3	1	1				105353132
2.	EFFLUENT 4	67434		11:45		2	3	1	1				140
3.	EFFLUENT 1	67439		11:20		2	3	1	1				157
4.	PORT 4A	67438		11:35		2	3	1	1				165
5.	PORT 1A	67435		11:10		2	3	1	1				173
6.	COMBINED EFFLUENT	67442		12:00		2	3	1	1				191
7.	FIELD BLANK	67487	2/12/04	-		2	3	1	1				199
8.	Trip Blank	67489											105333421
9.													
10.													

Collected by (print): NATHAN G. WOODRUFF Collector's signature: NATHAN G. WOODRUFF

Item #	Relinquished by/Affiliation	Time	Date	Shipped Via	Received by/Affiliation	Time	Date
1-7	<u>NATHAN G. WOODRUFF / PACE/3M</u>	<u>10:00</u>	<u>2/13/04</u>	<u>R-LINNER</u>	<u>R. JOHANNES PATTISON / PACE</u>	<u>12:10</u>	<u>2/13/04</u>

Sample Condition Upon Receipt: Acceptable Other:
 Temperature: 4 °C Received on ice
 Other Associated Co's: _____ Copies to: _____

Comments: Trip Blank added to project per B. Mader. ATP 2/13/04

→ one trip blank broken URB 2-13-04



COOLER RECEIPT / SAMPLE LOG-IN SHEET

COOLER RECEIPT / SAMPLE LOG-IN SHEET (115-ATT2-WB1) / SVA-GA-115 REV 5.0 / GA-115-CRLOGIN-F

LAB NAME: PACE ANALYTICAL SERVICES, INC.

PAGE 1 OF 1

RECEIVED BY (PRINT NAME): JASON SPRIGGS

REC'D DATE 02/14/04

RECEIVED BY (SIGNATURE): *[Signature]*

TIME REC'D 09:00

LOGGED IN BY (SIGNATURE): *[Signature]*

LOG-IN DATE 2004-02-14 11:03

PROJECT: INTER-LAB	Client Sample #	Sample Fraction @	Assigned LAB#	Cooler I.D.	pH Check	ACID/BASE LOT#	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC.
EPISODE: 53924							
SAMPLE DELIVERY GROUP: 53924							
Remarks	INFLUENT 1/2	I	53924.01	02/14/04-1	N		4.7c
1. CUSTODY SEAL(S): Present/Absent Intact/ Broken	EFFLUENT 4		53924.02	02/14/04-1	N		4.7c
2. CUSTODY SEALS NOS.: N/A	EFFLUENT 1		53924.03	02/14/04-1	N		4.7c
	PORT 4A		53924.04	02/14/04-1	N		4.7c
	PORT 1A		53924.05	02/14/04-1	N		4.7c
3. CHAIN-OF CUSTODY. Present/Absent Sealed In Plastic? Yes/ No Taped To Lid? Yes/ No Properly Filled Out (Ink, Signed, ETC.)? Yes/ No	COMBINED EFFLUENT		53924.06	02/14/04-1	N		4.7c
	FIELD BLANK		53924.07	02/14/04-1	N		4.7c
4. AIRBILL AirBill/ Sticker Present/Absent	<div style="font-size: 4em; opacity: 0.5;">X</div>						
5. AIRBILL NO: 483691942461							
6. COOLER CONDITIONS Enough Ice? Yes/ No Type of Ice? Wet Type of Packing? Bubble Wrap							
7. SAMPLE TAGS Absent							
8. SAMPLE CONDITION: Intact/ Present/Broken*/ Leaking							
Bottles Sealed In Separate Plastic Bags? Yes/ No							
Correct Containers Used For Tests Indicated? Yes/ No							
Correct Preservative? Yes/ No							
Sufficient Sample? Yes/ No							
Labels Complete (I.D., Date, Time, Signature, Preservative)? Yes/ No							
VOA Samples Without Bubbles? Yes/ No							
9. Does Information on Custody Records, Labels, Tags Agree? Yes/ No							
10. RAD SCREEN WITH GIEGER COUNTER? Yes/ No							
11. P.O. Called? Yes/ No							

* Contact PO and attach record of resolution

@ Sample Fractions: B=SV GC/MS, V= VOA GC/MS or GC, P=Pesticide, H=Herbicide, D=Dioxin, A=Air, I=Inorganics, C=Cyanide, M=Metals, R=Radiochemistry

- Note samples with bubbles under remarks section.



Pace Analytical Services, Inc.
1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

February 25, 2004

Roxanne Patterson
Pace Analytical Services
1700 Elm Street
Suite 200
Minneapolis, MN 55414

Project: Inter Lab/ 1084665
SDG: 53924

Dear Ms. Patterson:

Enclosed please find our standard tabular report for samples received by our laboratory on February 14, 2004. Please see the enclosed SDG Narratives for additional information regarding analysis of these samples.

If, in your review, you should have any questions or require additional information, please do not hesitate to call.

Sincerely,

Randy Staggs
randy.staggs@pacelabs.com
Project Manager

RES/st

Enclosures

"We certify that the following report meets all required NELAC reporting standards as specified in NELAC 5.13, July 1, 1999. Any deviation or variance is noted in the case narrative(s). Estimated uncertainties regarding these analyses are presented in the Quality Control Section of this report."

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.





Pace Analytical Services, Inc.
1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

SDG NARRATIVE

CLIENT: PACE-MN
PROJECT: INTER-LAB

DATE: February 25,2004
EPISODE NO.: 53924

INORGANIC FRACTION:

Seven water samples were submitted for dissolved total organic carbon analysis. No major problems occurred during the analysis of these samples. The sample's analyses were completed according to the following:

<u>SWL SOP #</u>	<u>Method Reference</u>	<u>Parameter</u>
SWL-IN-310	SM5310B	Total Organic Carbon

Please refer to *Cooler Receipt / Sample Log-In Sheet* for details of sample conditions at receipt.

There were no hold time violations noted. Samples were filtered using a teflon filter prior to analysis.

Preparation Blank: No target analytes were detected in the preparation blank above the PQL.

Lab Control Spikes: All laboratory control spikes were within QC limits.

Matrix Spikes: No matrix spikes were submitted with this episode.

Duplicates: All LCS and matrix duplicate results were within QC limits.

No further data usability limitations exist for this Inorganic Analysis Data Package.

Explanations of the forms are the following:

Form 1 Sample results

Form 3 Blanks - Provided by the LB Quality Control Data Sheets.

Form 7 Laboratory Control Sample - Provided by the LCS/LCSD Quality Control Data Sheets.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager, or his/her designee, as verified by the following signature.

Sincerely,

Susan S. Turner
Wet Chemistry Supervisor

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

Sample Results

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

LAB ID : 53924.01 REPORTED : 02/25/2004
SAMPLE : E04-0120-67432 SAMPLED : 02/12/2004
SDG : 53924 SUBMITTED : 02/14/2004
MATRIX : W
SITE : 1084665

Table with 6 columns: PARAMETER, REPORTING LIMIT, UNITS, RESULTS, DATE/TIME ANALYZED, METHOD ANALYST REFERENCE. Row 1: TOTAL ORGANIC CARBON, 1.0, mg/l, 17.3, 02/24/04 17:32, KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
ND = NOT DETECTED ABOVE QUANTITATION LIMIT
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
N/A = NOT APPLICABLE
METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
EPA = #EPA600/4-79-020, MARCH 1985
SW = SW 846 Rev. 4 1996

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
 1700 West Albany
 Broken Arrow, OK 74012
 Phone: 918.251.2858
 Fax: 918.251.2599

LAB ID : 53924.02
 SAMPLE : E04-0120-67434
 SDG : 53924
 MATRIX : W
 SITE : 1084665

REPORTED : 02/25/2004
 SAMPLED : 02/12/2004
 SUBMITTED : 02/14/2004

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE/TIME ANALYZED	METHOD ANALYST REFERENCE
TOTAL ORGANIC CARBON	1.0	mg/l	3.2	02/24/04 17:44	KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
 ND = NOT DETECTED ABOVE QUANTITATION LIMIT
 * = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
 N/A = NOT APPLICABLE
 METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
 EPA = #EPA600/4-79-020, MARCH 1985
 SW = SW 846 Rev. 4 1996

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

LAB ID : 53924.03 REPORTED : 02/25/2004
SAMPLE : E04-0120-67439 SAMPLED : 02/12/2004
SDG : 53924 SUBMITTED : 02/14/2004
MATRIX : W
SITE : 1084665

Table with 6 columns: PARAMETER, REPORTING LIMIT, UNITS, RESULTS, DATE/TIME ANALYZED, METHOD ANALYST REFERENCE. Row 1: TOTAL ORGANIC CARBON, 1.0, mg/l, 11.9, 02/24/04 18:22, KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
ND = NOT DETECTED ABOVE QUANTITATION LIMIT
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
N/A = NOT APPLICABLE
METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
EPA = #EPA600/4-79-020, MARCH 1985
SW = SW 646 Rev. 4 1996

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Fax: 918.251.2599

LAB ID : 53924.04
SAMPLE : E04-0120-67438
SDG : 53924
MATRIX : W
SITE : 1064665

REPORTED : 02/25/2004
SAMPLED : 02/12/2004
SUBMITTED : 02/14/2004

Table with 6 columns: PARAMETER, REPORTING LIMIT, UNITS, RESULTS, DATE/TIME ANALYZED, METHOD ANALYST REFERENCE. Row 1: TOTAL ORGANIC CARBON, 1.0, mg/l, 13.7, 02/24/04 18:35, KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
ND = NOT DETECTED ABOVE QUANTITATION LIMIT
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
N/A = NOT APPLICABLE
METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
EPA = #EPA600/4-79-020, MARCH 1985
SW = SW 846 Rev. 4 1996

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Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

LAB ID : 53924.05
SAMPLE : E04-0120-67435
SDG : 53924
MATRIX : W
SITE : 1084665

REPORTED : 02/25/2004
SAMPLED : 02/12/2004
SUBMITTED : 02/14/2004

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE/TIME ANALYZED	METHOD ANALYST REFERENCE
TOTAL ORGANIC CARBON	1.0	mg/l	16.7	02/24/04 18:48	KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
ND = NOT DETECTED ABOVE QUANTITATION LIMIT
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
N/A = NOT APPLICABLE
METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
EPA = #EPA600/4-79-020, MARCH 1985
SW = SW 846 Rev. 4 1996

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 Broken Arrow, OK 74012
 Phone: 918.251.2658
 Fax: 918.251.2599

LAB ID : 53924.06
 SAMPLE : E04-0120-67442
 SDG : 53924
 MATRIX : W
 SITE : 1084665

REPORTED : 02/25/2004
 SAMPLED : 02/12/2004
 SUBMITTED : 02/14/2004

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE/TIME ANALYZED	METHOD ANALYST REFERENCE
TOTAL ORGANIC CARBON	1.0	mg/l	5.2	02/24/04 19:00	KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
 ND = NOT DETECTED ABOVE QUANTITATION LIMIT
 * = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
 N/A = NOT APPLICABLE
 METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
 EPA = #EPA600/4-79-020, MARCH 1985
 SW = SW 846 Rev. 4 1996

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LAB ID : 53924.07
SAMPLE : FIELD BLANK
SDG : 53924
MATRIX : W
SITE : 1084665

REPORTED : 02/25/2004
SAMPLED : 02/12/2004
SUBMITTED : 02/14/2004

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE/TIME ANALYZED	METHOD ANALYST REFERENCE
TOTAL ORGANIC CARBON	1.0	mg/l	ND	02/24/04 19:10	KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
ND = NOT DETECTED ABOVE QUANTITATION LIMIT
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
N/A = NOT APPLICABLE
METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
EPA = #EPA600/4-79-020, MARCH 1985
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QC Results

Pace Analytical Services, Inc.
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Phone: 918.251.2858
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Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

LAB ID : PBW0402240451 LBI REPORTED : 02/25/2004
QAQC : 0402240451 ANALYZED : 02/24/2004 16:26
MATRIX : W DILUTION : 1

Table with 6 columns: PARAMETER, REPORTING LIMIT, UNITS, RESULTS, DATE/TIME ANALYZED, METHOD ANALYST REFERENCE. Row 1: TOTAL ORGANIC CARBON, 1.0, mg/l, ND, 02/24/04 16:26, KAL SM5310B

COMPOUND* = RESULTS REPORTED AS RECEIVED
ND = NOT DETECTED ABOVE QUANTITATION LIMIT
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS
N/A = NOT APPLICABLE
METHODOLOGY: SM = STANDARD METHODS, 18TH EDITION, 1992/19TH EDITION, 1995
EPA = #EPA600/4-79-020, MARCH 1985
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 Fax: 918.251.2599

LABORATORY CONTROL SPIKE/SPIKE DUPLICATE RECOVERY

MATRIX : W

REPORTED : 02/25/2004

LAB ID	QC BATCH	ANALYZED
LCW0402240451	0402240451	2004-02-24 16:42
LDW0402240451	0402240451	2004-02-24 16:58

Parameter	mg/l	SPIKED AMOUNT	SPIKE CONC.	SPIKE %Rec	DUP CONC.	DUP %Rec	RPD---	MAX LIMITS RPD %Rec.
TOTAL ORGANIC CARBON		50	47.9	96	48.2	96	< 1	20 90-110

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Chain of Custody / Cooler Receipt

REPORT OF LABORATORY ANALYSIS

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3M Environmental Laboratory

Form 38776-PWD

Sampling Address:
3M Bldg. 7-26-09
333 Bush Avenue
St. Paul, MN 55106

Telephone:
Sample Receiving: (651) 776-4848
Attention: (651) 776-4743
FAX: (651) 776-4179

Chain of Custody / Request for Laboratory Analytical

52932

Project ID/Project Name: Commerce Center
Template #: SESS ENVELOPE
Project Lead: Chris Enders
Dept. # (main): 0683

3M Env. Lab. Project #
For Internal Use Only
604-0120

Company: 3M Commerce Center
Mailing Address: 10746 - Innovation Rd
City, State, Zip: Commerce Center, MN 55016
Telephone #: (651) 768-1201
FAX #: 651-458-2029

Contract Name: TIWA CONDUIT / BERM MADE
Date Due: _____
Contract Lab: _____

Date Available: _____
Analysis Requested:
See Attached Lab Req.

Item #	Client Sample Identification	3M LIMS#	Date Sampled	Time Sampled	Matrix	Preservatives:		Total Number of Containers	Analysis Requested:
						HNO ₃	H ₂ SO ₄		
1.	EFFLUENT 1/2	67432	2/10/04	11:00	LNW	2	3	1	1
2.	EFFLUENT 4	67431	2/10/04	11:45		2	3	1	1
3.	EFFLUENT 1	67435	2/10/04	11:20		2	3	1	1
4.	PORT 4A	67438	2/10/04	11:35		2	3	1	1
5.	PORT 1A	67439	2/10/04	11:10		2	3	1	1
6.	COMBINED EFFLUENT	67442	2/10/04	12:00		2	3	1	1
7.	FIELD BLANK		2/10/04			2	3	1	1
8.									
9.									
10.									

Chain of Custody

Collected by (print): MARCUS A. WISSE

Collector's signature: [Signature]

Received by (print): [Signature]

Received by (signature): [Signature]

Temperature: 4 °C

Sample Condition Upon Receipt: Acceptable Other

Other Associated Data: _____

Comments: _____

See Reverse Side for Instructions

Last Page - Original

Mark for Saturday Delivery / Priority



Shipping Request

Date 12⁴⁴⁰ 2/13/04 Must Arrive By 2/14/04 Time AM or PM circle one

Senders Initials EPI Extension No. 6323 Dept. # 1003

Ship To or Pick Up From

Recipients Name: PASI - TULSA

Company Name: _____

Street Address: 1700 WEST ALBANY
BROKEN ARROW, OK
74012

Phone Number: 918-251-2838

Special Instructions Ship on ice

Description of Contents Project 1084605

Number of Packages _____

Charge To Project # _____ Overhead Department # 1003

Managers Approval _____

DO NOT WRITE IN THIS SECTION	
Courier Service:	
Courier Name _____	
Delivery Time _____	Cost _____
UPS	
Pick-up Record Number _____	
Service <input type="checkbox"/> Ground <input type="checkbox"/> Air <input type="checkbox"/> Weight <input type="checkbox"/> Zone _____	Cost _____
Federal Express	
Airbill Number _____	
Other Name _____	Cost _____

L095c, (12/01)

Pace Analytical

INTER-REGIONAL WORK ORDER # 1578

(To be completed by sending region)

Date Prepared 2/13/04

Sending Region	<u>Minnesota</u>	Sending Project No.	<u>1084665</u>
Receiving Region	<u>Tulsa</u>	Sending Project Mgr.	<u>Kayanna Patterson</u>
External Client	<u>3M Env.</u>	Client No.	

All questions should be addressed to sending project manager.

Type of Work Analytical Permitting Consulting Other (Identify) _____

WGPK REQUESTED				
Quantity	O.C. Del.	Description	Unit Price	Amount
<u>7</u>		<u>*TOC by SMS310B + Filter</u>	<u>25.⁰⁰</u>	<u>175.⁰⁰</u>
			<u>34.⁰⁰</u>	<u>238.⁰⁰</u>
TOTAL				<u>175.00 + 34.00 = 209.00</u>

	Inorganic	Organic	Other (Specify)	
Revenue Allocation				
To Receiving Region	<u>140.00</u>	<u>190.40</u>		
To Sending Region	<u>313/02 35.00</u>	<u>47.00</u>		

* Please filter TOC with Teflon Filter before analysis.

Requested Completion Date: 2/26/04

Requested By: _____

Chain of Custody Included Yes No Disposal of Samples: _____

Number of Samples: _____ Return to Sending Region Yes No

Matrix Soil Water Air Other (Identify) _____

Level Turnaround Requested: _____

Confirmation of Work Completed _____

Receiving Project Manager [Signature] Date Completed 2/24/04

DISPOSITION

Part 1, 2, and 3: Receiving Region

Part 4: Sending Region

RECEIVING REGION



Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

February 26, 2004

Mr. Jess Eldridge
3M Environmental Laboratory
935 Bush Ave.
Bldg. 2-3E-09
St. Paul, MN 55144

RE: Lab Project Number: 1084665
Client Project ID: E04-0120 CG Carbon System Test

Dear Mr. Eldridge:

Enclosed are the analytical results for sample(s) received by the laboratory on February 13, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

for

Roxanne Patterson
Roxanne.Patterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
 1700 Elm Street, Suite 200
 Minneapolis, MN 55414
 Phone: 612.607.1700
 Fax: 612.607.6444

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333132 Project Sample Number: 1084665-001 Date Collected: 02/12/04 11:00
 Client Sample ID: E04-0120-67432 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

Microbiology

Biochemical Oxygen Demand, 5 d	Prep/Method: / SM 5210B							
BOD, 5 day	52	mg/l	6	02/18/04	JPH1		1,2	
Date Prepared	02/13/04 13:30			02/13/04 13:30				

Wet Chemistry

Phenolics Total. in Water	Method: EPA 420.4							
Phenol	75.0	ug/l	25.0	02/17/04	VAF	108-95-2		

GC/MS Semivolatiles

625 Wastewater GC/MS SVOA	Prep/Method: EPA 625 / EPA 625							
Phenol	ND	ug/l	11.	02/18/04 16:10	KSK	108-95-2		
bis(2-Chloroethyl) ether	ND	ug/l	11.	02/18/04 16:10	KSK	111-44-4		
2-Chlorophenol	ND	ug/l	11.	02/18/04 16:10	KSK	95-57-8		
1,3-Dichlorobenzene	ND	ug/l	11.	02/18/04 16:10	KSK	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	11.	02/18/04 16:10	KSK	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	11.	02/18/04 16:10	KSK	95-50-1		
bis(2-Chloroisopropyl) ether	ND	ug/l	11.	02/18/04 16:10	KSK	39638-32-9		
N-Nitroso-di-n-propylamine	ND	ug/l	11.	02/18/04 16:10	KSK	621-64-7		
Nitrobenzene	ND	ug/l	11.	02/18/04 16:10	KSK	98-95-3		
Isophorone	ND	ug/l	11.	02/18/04 16:10	KSK	78-59-1		
2-Nitrophenol	ND	ug/l	11.	02/18/04 16:10	KSK	88-75-5		
2,4-Dimethylphenol	ND	ug/l	11.	02/18/04 16:10	KSK	105-67-9		
bis(2-Chloroethoxy)methane	ND	ug/l	11.	02/18/04 16:10	KSK	111-91-1		
2,4-Dichlorophenol	ND	ug/l	11.	02/18/04 16:10	KSK	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	11.	02/18/04 16:10	KSK	120-82-1		
Naphthalene	ND	ug/l	11.	02/18/04 16:10	KSK	91-20-3		
Hexachloro-1,3-butadiene	ND	ug/l	11.	02/18/04 16:10	KSK	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	11.	02/18/04 16:10	KSK	59-50-7		
2,4,6-Trichlorophenol	ND	ug/l	11.	02/18/04 16:10	KSK	88-06-2		
2-Chloronaphthalene	ND	ug/l	11.	02/18/04 16:10	KSK	91-58-7		
Dimethylphthalate	ND	ug/l	11.	02/18/04 16:10	KSK	131-11-3		
Acenaphthylene	ND	ug/l	11.	02/18/04 16:10	KSK	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	11.	02/18/04 16:10	KSK	606-20-2		
Acenaphthene	ND	ug/l	11.	02/18/04 16:10	KSK	83-32-9		
2,4-Dinitrophenol	ND	ug/l	54.	02/18/04 16:10	KSK	51-28-5		
4-Nitrophenol	ND	ug/l	54.	02/18/04 16:10	KSK	100-02-7		
2,4-Dinitrotoluene	ND	ug/l	11.	02/18/04 16:10	KSK	121-14-2		
Diethylphthalate	ND	ug/l	11.	02/18/04 16:10	KSK	84-66-2		

Date: 02/26/04

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Pace Analytical Services, Inc.
 1700 Elm Street, Suite 200
 Minneapolis, MN 55414
 Phone: 612.607.1700
 Fax: 612.607.6444

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333132 Project Sample Number: 1084665-001 Date Collected: 02/12/04 11:00
 Client Sample ID: E04-0120-67432 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
4-Chlorophenylphenyl ether	ND	ug/l	11.	02/18/04 16:10	KSK	7005-72-3		
Fluorene	ND	ug/l	11.	02/18/04 16:10	KSK	86-73-7		
4,6-Dinitro-2-methylphenol	ND	ug/l	54.	02/18/04 16:10	KSK	534-52-1		
4-Bromophenylphenyl ether	ND	ug/l	11.	02/18/04 16:10	KSK	101-55-3		
Hexachlorobenzene	ND	ug/l	11.	02/18/04 16:10	KSK	118-74-1		
Pentachlorophenol	ND	ug/l	25.	02/18/04 16:10	KSK	87-86-5		
Phenanthrene	ND	ug/l	11.	02/18/04 16:10	KSK	85-01-8		
Anthracene	ND	ug/l	11.	02/18/04 16:10	KSK	120-12-7		
Di-n-butylphthalate	ND	ug/l	11.	02/18/04 16:10	KSK	84-74-2		
Fluoranthene	ND	ug/l	11.	02/18/04 16:10	KSK	206-44-0		
Pyrene	ND	ug/l	11.	02/18/04 16:10	KSK	129-00-0		
Butylbenzylphthalate	ND	ug/l	11.	02/18/04 16:10	KSK	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	22.	02/18/04 16:10	KSK	91-94-1		
Benzo(a)anthracene	ND	ug/l	11.	02/18/04 16:10	KSK	56-55-3		
Chrysene	ND	ug/l	11.	02/18/04 16:10	KSK	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	11.	02/18/04 16:10	KSK	117-81-7		
Di-n-octylphthalate	ND	ug/l	11.	02/18/04 16:10	KSK	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	11.	02/18/04 16:10	KSK	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	11.	02/18/04 16:10	KSK	207-08-9		
Benzo(a)pyrene	ND	ug/l	11.	02/18/04 16:10	KSK	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	11.	02/18/04 16:10	KSK	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	11.	02/18/04 16:10	KSK	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	11.	02/18/04 16:10	KSK	191-24-2		
Hexachloroethane	ND	ug/l	11.	02/18/04 16:10	KSK	67-72-1		
Nitrobenzene-d5 (S)	79	%		02/18/04 16:10	KSK	4165-60-0		
2-Fluorobiphenyl (S)	83	%		02/18/04 16:10	KSK	321-60-8		
Terphenyl-d14 (S)	82	%		02/18/04 16:10	KSK	1718-51-0		
Phenol-d6 (S)	0	%		02/18/04 16:10	KSK	13127-88-3	3,4	
2-Fluorophenol (S)	2	%		02/18/04 16:10	KSK	367-12-4	3,4	
2,4,6-Tribromophenol (S)	44	%		02/18/04 16:10	KSK		3,4	
Date Extracted	02/16/04			02/16/04				

GC/MS Volatiles

Method: EPA 624

Volatiles GC/MS by 624	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Chloromethane	5.4	ug/l	1.0	02/17/04 19:04	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 19:04	PN1	75-01-4		
Bromomethane	19.	ug/l	1.0	02/17/04 19:04	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 19:04	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 19:04	PN1	75-69-4		

Date: 02/26/04

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 Phone: 612.607.1700
 Fax: 612.607.6444

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333132 Project Sample Number: 1084665-001 Date Collected: 02/12/04 11:00
 Client Sample ID: E04-0120-67432 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Methylene chloride	ND	ug/l	1.0	02/17/04 19:04	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 19:04	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 19:04	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 19:04	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 19:04	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 19:04	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 19:04	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 19:04	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 19:04	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 19:04	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 19:04	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 19:04	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 19:04	PN1	10061-02-6		
Toluene	20.	ug/l	1.0	02/17/04 19:04	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 19:04	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 19:04	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 19:04	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 19:04	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 19:04	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 19:04	PN1	100-41-4		
Xylene (Total)	3.6	ug/l	3.0	02/17/04 19:04	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 19:04	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 19:04	PN1	79-34-5		
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 19:04	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 19:04	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 19:04	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 19:04	PN1	110-75-8		
Dibromofluoromethane (S)	96	%		02/17/04 19:04	PN1	1868-53-7		
Toluene-d8 (S)	89	%		02/17/04 19:04	PN1	2037-26-5		
4-Bromofluorobenzene (S)	97	%		02/17/04 19:04	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	92	%		02/17/04 19:04	PN1	17060-07-0		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333140 Project Sample Number: 1084665-002 Date Collected: 02/12/04 11:45
 Client Sample ID: E04-0120-67434 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Microbiology								
Biochemical Oxygen Demand, 5 d	Prep/Method: / SM 5210B							
BOD, 5 day	15	mg/l	6	02/18/04	JPH1		1,2	
Date Prepared	02/13/04 13:30			02/13/04 13:30				
Wet Chemistry								
Phenolics Total. in Water	Method: EPA 420.4							
Phenol	ND	ug/l	25.0	02/17/04	VAF	108-95-2		
GC/MS Semivolatiles								
625 Wastewater GC/MS SVOA	Prep/Method: EPA 625 / EPA 625							
Phenol	ND	ug/l	10.	02/18/04 17:04	KSK	108-95-2		
bis(2-Chloroethyl) ether	ND	ug/l	10.	02/18/04 17:04	KSK	111-44-4		
2-Chlorophenol	ND	ug/l	10.	02/18/04 17:04	KSK	95-57-8		
1,3-Dichlorobenzene	ND	ug/l	10.	02/18/04 17:04	KSK	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	10.	02/18/04 17:04	KSK	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	10.	02/18/04 17:04	KSK	95-50-1		
bis(2-Chloroisopropyl) ether	ND	ug/l	10.	02/18/04 17:04	KSK	39638-32-9		
N-Nitroso-di-n-propylamine	ND	ug/l	10.	02/18/04 17:04	KSK	621-64-7		
Nitrobenzene	ND	ug/l	10.	02/18/04 17:04	KSK	98-95-3		
Isophorone	ND	ug/l	10.	02/18/04 17:04	KSK	78-59-1		
2-Nitrophenol	ND	ug/l	10.	02/18/04 17:04	KSK	88-75-5		
2,4-Dimethylphenol	ND	ug/l	10.	02/18/04 17:04	KSK	105-67-9		
bis(2-Chloroethoxy)methane	ND	ug/l	10.	02/18/04 17:04	KSK	111-91-1		
2,4-Dichlorophenol	ND	ug/l	10.	02/18/04 17:04	KSK	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	10.	02/18/04 17:04	KSK	120-82-1		
Naphthalene	ND	ug/l	10.	02/18/04 17:04	KSK	91-20-3		
Hexachloro-1,3-butadiene	ND	ug/l	10.	02/18/04 17:04	KSK	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	10.	02/18/04 17:04	KSK	59-50-7		
2,4,6-Trichlorophenol	ND	ug/l	10.	02/18/04 17:04	KSK	88-06-2		
2-Chloronaphthalene	ND	ug/l	10.	02/18/04 17:04	KSK	91-58-7		
Dimethylphthalate	ND	ug/l	10.	02/18/04 17:04	KSK	131-11-3		
Acenaphthylene	ND	ug/l	10.	02/18/04 17:04	KSK	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	10.	02/18/04 17:04	KSK	606-20-2		
Acenaphthene	ND	ug/l	10.	02/18/04 17:04	KSK	83-32-9		
2,4-Dinitrophenol	ND	ug/l	51.	02/18/04 17:04	KSK	51-28-5		
4-Nitrophenol	ND	ug/l	51.	02/18/04 17:04	KSK	100-02-7		
2,4-Dinitrotoluene	ND	ug/l	10.	02/18/04 17:04	KSK	121-14-2		
Diethylphthalate	ND	ug/l	10.	02/18/04 17:04	KSK	84-66-2		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333140 Project Sample Number: 1084665-002 Date Collected: 02/12/04 11:45
 Client Sample ID: E04-0120-67434 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
4-Chlorophenylphenyl ether	ND	ug/l	10.	02/18/04 17:04	KSK	7005-72-3		
Fluorene	ND	ug/l	10.	02/18/04 17:04	KSK	86-73-7		
4,6-Dinitro-2-methylphenol	ND	ug/l	51.	02/18/04 17:04	KSK	534-52-1		
4-Bromophenylphenyl ether	ND	ug/l	10.	02/18/04 17:04	KSK	101-55-3		
Hexachlorobenzene	ND	ug/l	10.	02/18/04 17:04	KSK	118-74-1		
Pentachlorophenol	ND	ug/l	24.	02/18/04 17:04	KSK	87-86-5		
Phenanthrene	ND	ug/l	10.	02/18/04 17:04	KSK	85-01-8		
Anthracene	ND	ug/l	10.	02/18/04 17:04	KSK	120-12-7		
Di-n-butylphthalate	ND	ug/l	10.	02/18/04 17:04	KSK	84-74-2		
Fluoranthene	ND	ug/l	10.	02/18/04 17:04	KSK	206-44-0		
Pyrene	ND	ug/l	10.	02/18/04 17:04	KSK	129-00-0		
Butylbenzylphthalate	ND	ug/l	10.	02/18/04 17:04	KSK	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	21.	02/18/04 17:04	KSK	91-94-1		
Benzo(a)anthracene	ND	ug/l	10.	02/18/04 17:04	KSK	56-55-3		
Chrysene	ND	ug/l	10.	02/18/04 17:04	KSK	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	10.	02/18/04 17:04	KSK	117-81-7		
Di-n-octylphthalate	ND	ug/l	10.	02/18/04 17:04	KSK	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	10.	02/18/04 17:04	KSK	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	10.	02/18/04 17:04	KSK	207-08-9		
Benzo(a)pyrene	ND	ug/l	10.	02/18/04 17:04	KSK	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	02/18/04 17:04	KSK	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	10.	02/18/04 17:04	KSK	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	10.	02/18/04 17:04	KSK	191-24-2		
Hexachloroethane	ND	ug/l	10.	02/18/04 17:04	KSK	67-72-1		
Nitrobenzene-d5 (S)	67	%		02/18/04 17:04	KSK	4165-60-0		
2-Fluorobiphenyl (S)	71	%		02/18/04 17:04	KSK	321-60-8		
Terphenyl-d14 (S)	80	%		02/18/04 17:04	KSK	1718-51-0		
Phenol-d6 (S)	32	%		02/18/04 17:04	KSK	13127-88-3	3,4	
2-Fluorophenol (S)	43	%		02/18/04 17:04	KSK	367-12-4	3,4	
2,4,6-Tribromophenol (S)	71	%		02/18/04 17:04	KSK			
Date Extracted	02/16/04			02/16/04				

GC/MS Volatiles

Method: EPA 624

Volatile GC/MS by 624	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Chloromethane	ND	ug/l	1.0	02/17/04 20:00	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 20:00	PN1	75-01-4		
Bromomethane	6.7	ug/l	1.0	02/17/04 20:00	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 20:00	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 20:00	PN1	75-69-4		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333140 Project Sample Number: 1084665-002 Date Collected: 02/12/04 11:45
 Client Sample ID: E04-0120-67434 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Methylene chloride	ND	ug/l	1.0	02/17/04 20:00	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 20:00	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 20:00	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 20:00	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 20:00	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 20:00	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 20:00	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 20:00	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 20:00	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 20:00	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 20:00	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 20:00	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 20:00	PN1	10061-02-6		
Toluene	ND	ug/l	1.0	02/17/04 20:00	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 20:00	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 20:00	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 20:00	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 20:00	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 20:00	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 20:00	PN1	100-41-4		
Xylene (Total)	ND	ug/l	3.0	02/17/04 20:00	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 20:00	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 20:00	PN1	79-34-5		
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:00	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:00	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:00	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 20:00	PN1	110-75-8		
Dibromofluoromethane (S)	90	%		02/17/04 20:00	PN1	1868-53-7		
Toluene-d8 (S)	78	%		02/17/04 20:00	PN1	2037-26-5		
4-Bromofluorobenzene (S)	85	%		02/17/04 20:00	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	88	%		02/17/04 20:00	PN1	17060-07-0		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333157 Project Sample Number: 1084665-003 Date Collected: 02/12/04 11:20
 Client Sample ID: E04-0120-67439 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Microbiology								
Biochemical Oxygen Demand, 5 d	Prep/Method: / SM 5210B							
BOD, 5 day	42	mg/l	6	02/18/04	JPH1		1,2	
Date Prepared	02/13/04 13:30			02/13/04 13:30				
Wet Chemistry								
Phenolics Total. in Water	Method: EPA 420.4							
Phenol	ND	ug/l	25.0	02/17/04	VAF	108-95-2		
GC/MS Semivolatiles								
625 Wastewater GC/MS SVOA	Prep/Method: EPA 625 / EPA 625							
Phenol	ND	ug/l	10.	02/18/04 17:57	KSK	108-95-2		
bis(2-Chloroethyl) ether	ND	ug/l	10.	02/18/04 17:57	KSK	111-44-4		
2-Chlorophenol	ND	ug/l	10.	02/18/04 17:57	KSK	95-57-8		
1,3-Dichlorobenzene	ND	ug/l	10.	02/18/04 17:57	KSK	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	10.	02/18/04 17:57	KSK	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	10.	02/18/04 17:57	KSK	95-50-1		
bis(2-Chloroisopropyl) ether	ND	ug/l	10.	02/18/04 17:57	KSK	39638-32-9		
N-Nitroso-di-n-propylamine	ND	ug/l	10.	02/18/04 17:57	KSK	621-64-7		
Nitrobenzene	ND	ug/l	10.	02/18/04 17:57	KSK	98-95-3		
Isophorone	ND	ug/l	10.	02/18/04 17:57	KSK	78-59-1		
2-Nitrophenol	ND	ug/l	10.	02/18/04 17:57	KSK	88-75-5		
2,4-Dimethylphenol	ND	ug/l	10.	02/18/04 17:57	KSK	105-67-9		
bis(2-Chloroethoxy)methane	ND	ug/l	10.	02/18/04 17:57	KSK	111-91-1		
2,4-Dichlorophenol	ND	ug/l	10.	02/18/04 17:57	KSK	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	10.	02/18/04 17:57	KSK	120-82-1		
Naphthalene	ND	ug/l	10.	02/18/04 17:57	KSK	91-20-3		
Hexachloro-1,3-butadiene	ND	ug/l	10.	02/18/04 17:57	KSK	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	10.	02/18/04 17:57	KSK	59-50-7		
2,4,6-Trichlorophenol	ND	ug/l	10.	02/18/04 17:57	KSK	88-06-2		
2-Chloronaphthalene	ND	ug/l	10.	02/18/04 17:57	KSK	91-58-7		
Dimethylphthalate	ND	ug/l	10.	02/18/04 17:57	KSK	131-11-3		
Acenaphthylene	ND	ug/l	10.	02/18/04 17:57	KSK	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	10.	02/18/04 17:57	KSK	606-20-2		
Acenaphthene	ND	ug/l	10.	02/18/04 17:57	KSK	83-32-9		
2,4-Dinitrophenol	ND	ug/l	51.	02/18/04 17:57	KSK	51-28-5		
4-Nitrophenol	ND	ug/l	51.	02/18/04 17:57	KSK	100-02-7		
2,4-Dinitrotoluene	ND	ug/l	10.	02/18/04 17:57	KSK	121-14-2		
Diethylphthalate	ND	ug/l	10.	02/18/04 17:57	KSK	84-66-2		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333157 Project Sample Number: 1084665-003 Date Collected: 02/12/04 11:20
 Client Sample ID: E04-0120-67439 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
4-Chlorophenylphenyl ether	ND	ug/l	10.	02/18/04 17:57	KSK	7005-72-3		
Fluorene	ND	ug/l	10.	02/18/04 17:57	KSK	86-73-7		
4,6-Dinitro-2-methylphenol	ND	ug/l	51.	02/18/04 17:57	KSK	534-52-1		
4-Bromophenylphenyl ether	ND	ug/l	10.	02/18/04 17:57	KSK	101-55-3		
Hexachlorobenzene	ND	ug/l	10.	02/18/04 17:57	KSK	118-74-1		
Pentachlorophenol	ND	ug/l	23.	02/18/04 17:57	KSK	87-86-5		
Phenanthrene	ND	ug/l	10.	02/18/04 17:57	KSK	85-01-8		
Anthracene	ND	ug/l	10.	02/18/04 17:57	KSK	120-12-7		
Di-n-butylphthalate	ND	ug/l	10.	02/18/04 17:57	KSK	84-74-2		
Fluoranthene	ND	ug/l	10.	02/18/04 17:57	KSK	206-44-0		
Pyrene	ND	ug/l	10.	02/18/04 17:57	KSK	129-00-0		
Butylbenzylphthalate	ND	ug/l	10.	02/18/04 17:57	KSK	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	20.	02/18/04 17:57	KSK	91-94-1		
Benzo(a)anthracene	ND	ug/l	10.	02/18/04 17:57	KSK	56-55-3		
Chrysene	ND	ug/l	10.	02/18/04 17:57	KSK	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	10.	02/18/04 17:57	KSK	117-81-7		
Di-n-octylphthalate	ND	ug/l	10.	02/18/04 17:57	KSK	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	10.	02/18/04 17:57	KSK	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	10.	02/18/04 17:57	KSK	207-08-9		
Benzo(a)pyrene	ND	ug/l	10.	02/18/04 17:57	KSK	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	02/18/04 17:57	KSK	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	10.	02/18/04 17:57	KSK	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	10.	02/18/04 17:57	KSK	191-24-2		
Hexachloroethane	ND	ug/l	10.	02/18/04 17:57	KSK	67-72-1		
Nitrobenzene-d5 (S)	71	%		02/18/04 17:57	KSK	4165-60-0		
2-Fluorobiphenyl (S)	79	%		02/18/04 17:57	KSK	321-60-8		
Terphenyl-d14 (S)	81	%		02/18/04 17:57	KSK	1718-51-0		
Phenol-d6 (S)	21	%		02/18/04 17:57	KSK	13127-88-3	3,4	
2-Fluorophenol (S)	32	%		02/18/04 17:57	KSK	367-12-4	3,4	
2,4,6-Tribromophenol (S)	62	%		02/18/04 17:57	KSK			
Date Extracted	02/16/04			02/16/04				

GC/MS Volatiles

Volatile GC/MS by 624

Method: EPA 624

Chloromethane	ND	ug/l	1.0	02/17/04 20:28	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 20:28	PN1	75-01-4		
Bromomethane	7.5	ug/l	1.0	02/17/04 20:28	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 20:28	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 20:28	PN1	75-69-4		

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 Phone: 612.607.1700
 Fax: 612.607.6444

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333157 Project Sample Number: 1084665-003 Date Collected: 02/12/04 11:20
 Client Sample ID: E04-0120-67439 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Methylene chloride	ND	ug/l	1.0	02/17/04 20:28	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 20:28	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 20:28	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 20:28	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 20:28	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 20:28	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 20:28	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 20:28	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 20:28	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 20:28	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 20:28	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 20:28	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 20:28	PN1	10061-02-6		
Toluene	ND	ug/l	1.0	02/17/04 20:28	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 20:28	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 20:28	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 20:28	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 20:28	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 20:28	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 20:28	PN1	100-41-4		
Xylene (Total)	ND	ug/l	3.0	02/17/04 20:28	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 20:28	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 20:28	PN1	79-34-5		
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:28	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:28	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:28	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 20:28	PN1	110-75-8		
Dibromofluoromethane (S)	97	%		02/17/04 20:28	PN1	1868-53-7		
Toluene-d8 (S)	80	%		02/17/04 20:28	PN1	2037-26-5		
4-Bromofluorobenzene (S)	87	%		02/17/04 20:28	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	91	%		02/17/04 20:28	PN1	17060-07-0		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333165 Project Sample Number: 1084665-004 Date Collected: 02/12/04 11:35
 Client Sample ID: E04-0120-67438 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Microbiology								
Biochemical Oxygen Demand, 5 d	Prep/Method: / SM 5210B							
BOD, 5 day	43	mg/l	6	02/18/04	JPH1		1,2	
Date Prepared	02/13/04 13:30			02/13/04 13:30				
Wet Chemistry								
Phenolics Total. in Water	Method: EPA 420.4							
Phenol	ND	ug/l	25.0	02/17/04	VAF	108-95-2		
GC/MS Semivolatiles								
625 Wastewater GC/MS SVOA	Prep/Method: EPA 625 / EPA 625							
Phenol	ND	ug/l	10.	02/18/04 18:50	KSK	108-95-2		
bis(2-Chloroethyl) ether	ND	ug/l	10.	02/18/04 18:50	KSK	111-44-4		
2-Chlorophenol	ND	ug/l	10.	02/18/04 18:50	KSK	95-57-8		
1,3-Dichlorobenzene	ND	ug/l	10.	02/18/04 18:50	KSK	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	10.	02/18/04 18:50	KSK	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	10.	02/18/04 18:50	KSK	95-50-1		
bis(2-Chloroisopropyl) ether	ND	ug/l	10.	02/18/04 18:50	KSK	39638-32-9		
N-Nitroso-di-n-propylamine	ND	ug/l	10.	02/18/04 18:50	KSK	621-64-7		
Nitrobenzene	ND	ug/l	10.	02/18/04 18:50	KSK	98-95-3		
Isophorone	ND	ug/l	10.	02/18/04 18:50	KSK	78-59-1		
2-Nitrophenol	ND	ug/l	10.	02/18/04 18:50	KSK	88-75-5		
2,4-Dimethylphenol	ND	ug/l	10.	02/18/04 18:50	KSK	105-67-9		
bis(2-Chloroethoxy)methane	ND	ug/l	10.	02/18/04 18:50	KSK	111-91-1		
2,4-Dichlorophenol	ND	ug/l	10.	02/18/04 18:50	KSK	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	10.	02/18/04 18:50	KSK	120-82-1		
Naphthalene	ND	ug/l	10.	02/18/04 18:50	KSK	91-20-3		
Hexachloro-1,3-butadiene	ND	ug/l	10.	02/18/04 18:50	KSK	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	10.	02/18/04 18:50	KSK	59-50-7		
2,4,6-Trichlorophenol	ND	ug/l	10.	02/18/04 18:50	KSK	88-06-2		
2-Chloronaphthalene	ND	ug/l	10.	02/18/04 18:50	KSK	91-58-7		
Dimethylphthalate	ND	ug/l	10.	02/18/04 18:50	KSK	131-11-3		
Acenaphthylene	ND	ug/l	10.	02/18/04 18:50	KSK	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	10.	02/18/04 18:50	KSK	606-20-2		
Acenaphthene	ND	ug/l	10.	02/18/04 18:50	KSK	83-32-9		
2,4-Dinitrophenol	ND	ug/l	52.	02/18/04 18:50	KSK	51-28-5		
4-Nitrophenol	ND	ug/l	52.	02/18/04 18:50	KSK	100-02-7		
2,4-Dinitrotoluene	ND	ug/l	10.	02/18/04 18:50	KSK	121-14-2		
Diethylphthalate	ND	ug/l	10.	02/18/04 18:50	KSK	84-66-2		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333165 Project Sample Number: 1084665-004 Date Collected: 02/12/04 11:35
 Client Sample ID: E04-0120-67438 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
4-Chlorophenylphenyl ether	ND	ug/l	10.	02/18/04 18:50	KSK	7005-72-3		
Fluorene	ND	ug/l	10.	02/18/04 18:50	KSK	86-73-7		
4,6-Dinitro-2-methylphenol	ND	ug/l	52.	02/18/04 18:50	KSK	534-52-1		
4-Bromophenylphenyl ether	ND	ug/l	10.	02/18/04 18:50	KSK	101-55-3		
Hexachlorobenzene	ND	ug/l	10.	02/18/04 18:50	KSK	118-74-1		
Pentachlorophenol	ND	ug/l	24.	02/18/04 18:50	KSK	87-86-5		
Phenanthrene	ND	ug/l	10.	02/18/04 18:50	KSK	85-01-8		
Anthracene	ND	ug/l	10.	02/18/04 18:50	KSK	120-12-7		
Di-n-butylphthalate	ND	ug/l	10.	02/18/04 18:50	KSK	84-74-2		
Fluoranthene	ND	ug/l	10.	02/18/04 18:50	KSK	206-44-0		
Pyrene	ND	ug/l	10.	02/18/04 18:50	KSK	129-00-0		
Butylbenzylphthalate	ND	ug/l	10.	02/18/04 18:50	KSK	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	21.	02/18/04 18:50	KSK	91-94-1		
Benzo(a)anthracene	ND	ug/l	10.	02/18/04 18:50	KSK	56-55-3		
Chrysene	ND	ug/l	10.	02/18/04 18:50	KSK	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	10.	02/18/04 18:50	KSK	117-81-7		
Di-n-octylphthalate	ND	ug/l	10.	02/18/04 18:50	KSK	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	10.	02/18/04 18:50	KSK	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	10.	02/18/04 18:50	KSK	207-08-9		
Benzo(a)pyrene	ND	ug/l	10.	02/18/04 18:50	KSK	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	02/18/04 18:50	KSK	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	10.	02/18/04 18:50	KSK	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	10.	02/18/04 18:50	KSK	191-24-2		
Hexachloroethane	ND	ug/l	10.	02/18/04 18:50	KSK	67-72-1		
Nitrobenzene-d5 (S)	80	%		02/18/04 18:50	KSK	4165-60-0		
2-Fluorobiphenyl (S)	86	%		02/18/04 18:50	KSK	321-60-8		
Terphenyl-d14 (S)	82	%		02/18/04 18:50	KSK	1718-51-0		
Phenol-d6 (S)	0	%		02/18/04 18:50	KSK	13127-88-3	3,4	
2-Fluorophenol (S)	0	%		02/18/04 18:50	KSK	367-12-4	3,4	
2,4,6-Tribromophenol (S)	2	%		02/18/04 18:50	KSK		3,4	
Date Extracted	02/16/04			02/16/04				

GC/MS Volatiles

Method: EPA 624

Volatile GC/MS by 624	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Chloromethane	ND	ug/l	1.0	02/17/04 20:56	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 20:56	PN1	75-01-4		
Bromomethane	4.8	ug/l	1.0	02/17/04 20:56	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 20:56	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 20:56	PN1	75-69-4		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333165 Project Sample Number: 1084665-004 Date Collected: 02/12/04 11:35
 Client Sample ID: E04-0120-67438 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Methylene chloride	4.4	ug/l	1.0	02/17/04 20:56	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 20:56	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 20:56	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 20:56	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 20:56	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 20:56	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 20:56	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 20:56	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 20:56	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 20:56	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 20:56	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 20:56	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 20:56	PN1	10061-02-6		
Toluene	ND	ug/l	1.0	02/17/04 20:56	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 20:56	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 20:56	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 20:56	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 20:56	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 20:56	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 20:56	PN1	100-41-4		
Xylene (Total)	ND	ug/l	3.0	02/17/04 20:56	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 20:56	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 20:56	PN1	79-34-5		
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:56	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:56	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 20:56	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 20:56	PN1	110-75-8		
Dibromofluoromethane (S)	98	%		02/17/04 20:56	PN1	1868-53-7		
Toluene-d8 (S)	83	%		02/17/04 20:56	PN1	2037-26-5		
4-Bromofluorobenzene (S)	89	%		02/17/04 20:56	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	88	%		02/17/04 20:56	PN1	17060-07-0		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333173 Project Sample Number: 1084665-005 Date Collected: 02/12/04 11:10
 Client Sample ID: E04-0120-67435 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Microbiology								
Biochemical Oxygen Demand, 5 d	Prep/Method: / SM 5210B							
BOD, 5 day	43	mg/l	6	02/18/04	JPH1		1,2	
Date Prepared	02/13/04 13:30			02/13/04 13:30				
Wet Chemistry								
Phenolics Total. in Water	Method: EPA 420.4							
Phenol	ND	ug/l	25.0	02/17/04	VAF	108-95-2		
GC/MS Semivolatiles								
625 Wastewater GC/MS SVOA	Prep/Method: EPA 625 / EPA 625							
Phenol	ND	ug/l	10.	02/18/04 19:44	KSK	108-95-2		
bis(2-Chloroethyl) ether	ND	ug/l	10.	02/18/04 19:44	KSK	111-44-4		
2-Chlorophenol	ND	ug/l	10.	02/18/04 19:44	KSK	95-57-8		
1,3-Dichlorobenzene	ND	ug/l	10.	02/18/04 19:44	KSK	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	10.	02/18/04 19:44	KSK	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	10.	02/18/04 19:44	KSK	95-50-1		
bis(2-Chloroisopropyl) ether	ND	ug/l	10.	02/18/04 19:44	KSK	39638-32-9		
N-Nitroso-di-n-propylamine	ND	ug/l	10.	02/18/04 19:44	KSK	621-64-7		
Nitrobenzene	ND	ug/l	10.	02/18/04 19:44	KSK	98-95-3		
Isophorone	ND	ug/l	10.	02/18/04 19:44	KSK	78-59-1		
2-Nitrophenol	ND	ug/l	10.	02/18/04 19:44	KSK	88-75-5		
2,4-Dimethylphenol	ND	ug/l	10.	02/18/04 19:44	KSK	105-67-9		
bis(2-Chloroethoxy)methane	ND	ug/l	10.	02/18/04 19:44	KSK	111-91-1		
2,4-Dichlorophenol	ND	ug/l	10.	02/18/04 19:44	KSK	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	10.	02/18/04 19:44	KSK	120-82-1		
Naphthalene	ND	ug/l	10.	02/18/04 19:44	KSK	91-20-3		
Hexachloro-1,3-butadiene	ND	ug/l	10.	02/18/04 19:44	KSK	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	10.	02/18/04 19:44	KSK	59-50-7		
2,4,6-Trichlorophenol	ND	ug/l	10.	02/18/04 19:44	KSK	88-06-2		
2-Chloronaphthalene	ND	ug/l	10.	02/18/04 19:44	KSK	91-58-7		
Dimethylphthalate	ND	ug/l	10.	02/18/04 19:44	KSK	131-11-3		
Acenaphthylene	ND	ug/l	10.	02/18/04 19:44	KSK	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	10.	02/18/04 19:44	KSK	606-20-2		
Acenaphthene	ND	ug/l	10.	02/18/04 19:44	KSK	83-32-9		
2,4-Dinitrophenol	ND	ug/l	52.	02/18/04 19:44	KSK	51-28-5		
4-Nitrophenol	ND	ug/l	52.	02/18/04 19:44	KSK	100-02-7		
2,4-Dinitrotoluene	ND	ug/l	10.	02/18/04 19:44	KSK	121-14-2		
Diethylphthalate	ND	ug/l	10.	02/18/04 19:44	KSK	84-66-2		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333173 Project Sample Number: 1084665-005 Date Collected: 02/12/04 11:10
 Client Sample ID: E04-0120-67435 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
4-Chlorophenylphenyl ether	ND	ug/l	10.	02/18/04 19:44	KSK	7005-72-3		
Fluorene	ND	ug/l	10.	02/18/04 19:44	KSK	86-73-7		
4,6-Dinitro-2-methylphenol	ND	ug/l	52.	02/18/04 19:44	KSK	534-52-1		
4-Bromophenylphenyl ether	ND	ug/l	10.	02/18/04 19:44	KSK	101-55-3		
Hexachlorobenzene	ND	ug/l	10.	02/18/04 19:44	KSK	118-74-1		
Pentachlorophenol	ND	ug/l	24.	02/18/04 19:44	KSK	87-86-5		
Phenanthrene	ND	ug/l	10.	02/18/04 19:44	KSK	85-01-8		
Anthracene	ND	ug/l	10.	02/18/04 19:44	KSK	120-12-7		
Di-n-butylphthalate	ND	ug/l	10.	02/18/04 19:44	KSK	84-74-2		
Fluoranthene	ND	ug/l	10.	02/18/04 19:44	KSK	206-44-0		
Pyrene	ND	ug/l	10.	02/18/04 19:44	KSK	129-00-0		
Butylbenzylphthalate	ND	ug/l	10.	02/18/04 19:44	KSK	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	21.	02/18/04 19:44	KSK	91-94-1		
Benzo(a)anthracene	ND	ug/l	10.	02/18/04 19:44	KSK	56-55-3		
Chrysene	ND	ug/l	10.	02/18/04 19:44	KSK	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	10.	02/18/04 19:44	KSK	117-81-7		
Di-n-octylphthalate	ND	ug/l	10.	02/18/04 19:44	KSK	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	10.	02/18/04 19:44	KSK	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	10.	02/18/04 19:44	KSK	207-08-9		
Benzo(a)pyrene	ND	ug/l	10.	02/18/04 19:44	KSK	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	02/18/04 19:44	KSK	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	10.	02/18/04 19:44	KSK	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	10.	02/18/04 19:44	KSK	191-24-2		
Hexachloroethane	ND	ug/l	10.	02/18/04 19:44	KSK	67-72-1		
Nitrobenzene-d5 (S)	78	%		02/18/04 19:44	KSK	4165-60-0		
2-Fluorobiphenyl (S)	83	%		02/18/04 19:44	KSK	321-60-8		
Terphenyl-d14 (S)	81	%		02/18/04 19:44	KSK	1718-51-0		
Phenol-d6 (S)	1	%		02/18/04 19:44	KSK	13127-88-3	3,4	
2-Fluorophenol (S)	12	%		02/18/04 19:44	KSK	367-12-4	3,4	
2,4,6-Tribromophenol (S)	54	%		02/18/04 19:44	KSK			
Date Extracted	02/16/04			02/16/04				

GC/MS Volatiles

Volatile GC/MS by 624

Method: EPA 624

Chloromethane	ND	ug/l	1.0	02/17/04 21:23	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 21:23	PN1	75-01-4		
Bromomethane	3.2	ug/l	1.0	02/17/04 21:23	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 21:23	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 21:23	PN1	75-69-4		

Date: 02/26/04

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 Phone: 612.607.1700
 Fax: 612.607.6444

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333173 Project Sample Number: 1084665-005 Date Collected: 02/12/04 11:10
 Client Sample ID: E04-0120-67435 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Methylene chloride	4.6	ug/l	1.0	02/17/04 21:23	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 21:23	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 21:23	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 21:23	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 21:23	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 21:23	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 21:23	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 21:23	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 21:23	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 21:23	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 21:23	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 21:23	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 21:23	PN1	10061-02-6		
Toluene	4.0	ug/l	1.0	02/17/04 21:23	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 21:23	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 21:23	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 21:23	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 21:23	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 21:23	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 21:23	PN1	100-41-4		
Xylene (Total)	ND	ug/l	3.0	02/17/04 21:23	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 21:23	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 21:23	PN1	79-34-5		
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 21:23	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 21:23	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 21:23	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 21:23	PN1	110-75-8		
Dibromofluoromethane (S)	100	%		02/17/04 21:23	PN1	1868-53-7		
Toluene-d8 (S)	90	%		02/17/04 21:23	PN1	2037-26-5		
4-Bromofluorobenzene (S)	95	%		02/17/04 21:23	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	93	%		02/17/04 21:23	PN1	17060-07-0		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333181 Project Sample Number: 1084665-006 Date Collected: 02/12/04 12:00
 Client Sample ID: E04-0120-67442 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Microbiology								
Biochemical Oxygen Demand, 5 d	Prep/Method: / SM 5210B							
BOD, 5 day	24	mg/l	6	02/18/04	JPH1		1,2	
Date Prepared	02/13/04 13:30			02/13/04 13:30				
Wet Chemistry								
Phenolics Total. in Water	Method: EPA 420.4							
Phenol	ND	ug/l	25.0	02/17/04	VAF	108-95-2		
GC/MS Semivolatiles								
625 Wastewater GC/MS SVOA	Prep/Method: EPA 625 / EPA 625							
Phenol	ND	ug/l	10.	02/18/04 20:37	KSK	108-95-2		
bis(2-Chloroethyl) ether	ND	ug/l	10.	02/18/04 20:37	KSK	111-44-4		
2-Chlorophenol	ND	ug/l	10.	02/18/04 20:37	KSK	95-57-8		
1,3-Dichlorobenzene	ND	ug/l	10.	02/18/04 20:37	KSK	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	10.	02/18/04 20:37	KSK	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	10.	02/18/04 20:37	KSK	95-50-1		
bis(2-Chloroisopropyl) ether	ND	ug/l	10.	02/18/04 20:37	KSK	39638-32-9		
N-Nitroso-di-n-propylamine	ND	ug/l	10.	02/18/04 20:37	KSK	621-64-7		
Nitrobenzene	ND	ug/l	10.	02/18/04 20:37	KSK	98-95-3		
Isophorone	ND	ug/l	10.	02/18/04 20:37	KSK	78-59-1		
2-Nitrophenol	ND	ug/l	10.	02/18/04 20:37	KSK	88-75-5		
2,4-Dimethylphenol	ND	ug/l	10.	02/18/04 20:37	KSK	105-67-9		
bis(2-Chloroethoxy)methane	ND	ug/l	10.	02/18/04 20:37	KSK	111-91-1		
2,4-Dichlorophenol	ND	ug/l	10.	02/18/04 20:37	KSK	120-83-2		
1,2,4-Trichlorobenzene	ND	ug/l	10.	02/18/04 20:37	KSK	120-82-1		
Naphthalene	ND	ug/l	10.	02/18/04 20:37	KSK	91-20-3		
Hexachloro-1,3-butadiene	ND	ug/l	10.	02/18/04 20:37	KSK	87-68-3		
4-Chloro-3-methylphenol	ND	ug/l	10.	02/18/04 20:37	KSK	59-50-7		
2,4,6-Trichlorophenol	ND	ug/l	10.	02/18/04 20:37	KSK	88-06-2		
2-Chloronaphthalene	ND	ug/l	10.	02/18/04 20:37	KSK	91-58-7		
Dimethylphthalate	ND	ug/l	10.	02/18/04 20:37	KSK	131-11-3		
Acenaphthylene	ND	ug/l	10.	02/18/04 20:37	KSK	208-96-8		
2,6-Dinitrotoluene	ND	ug/l	10.	02/18/04 20:37	KSK	606-20-2		
Acenaphthene	ND	ug/l	10.	02/18/04 20:37	KSK	83-32-9		
2,4-Dinitrophenol	ND	ug/l	51.	02/18/04 20:37	KSK	51-28-5		
4-Nitrophenol	ND	ug/l	51.	02/18/04 20:37	KSK	100-02-7		
2,4-Dinitrotoluene	ND	ug/l	10.	02/18/04 20:37	KSK	121-14-2		
Diethylphthalate	ND	ug/l	10.	02/18/04 20:37	KSK	84-66-2		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333181 Project Sample Number: 1084665-006 Date Collected: 02/12/04 12:00
 Client Sample ID: E04-0120-67442 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
4-Chlorophenylphenyl ether	ND	ug/l	10.	02/18/04 20:37	KSK	7005-72-3		
Fluorene	ND	ug/l	10.	02/18/04 20:37	KSK	86-73-7		
4,6-Dinitro-2-methylphenol	ND	ug/l	51.	02/18/04 20:37	KSK	534-52-1		
4-Bromophenylphenyl ether	ND	ug/l	10.	02/18/04 20:37	KSK	101-55-3		
Hexachlorobenzene	ND	ug/l	10.	02/18/04 20:37	KSK	118-74-1		
Pentachlorophenol	ND	ug/l	23.	02/18/04 20:37	KSK	87-86-5		
Phenanthrene	ND	ug/l	10.	02/18/04 20:37	KSK	85-01-8		
Anthracene	ND	ug/l	10.	02/18/04 20:37	KSK	120-12-7		
Di-n-butylphthalate	ND	ug/l	10.	02/18/04 20:37	KSK	84-74-2		
Fluoranthene	ND	ug/l	10.	02/18/04 20:37	KSK	206-44-0		
Pyrene	ND	ug/l	10.	02/18/04 20:37	KSK	129-00-0		
Butylbenzylphthalate	ND	ug/l	10.	02/18/04 20:37	KSK	85-68-7		
3,3'-Dichlorobenzidine	ND	ug/l	20.	02/18/04 20:37	KSK	91-94-1		
Benzo(a)anthracene	ND	ug/l	10.	02/18/04 20:37	KSK	56-55-3		
Chrysene	ND	ug/l	10.	02/18/04 20:37	KSK	218-01-9		
bis(2-Ethylhexyl)phthalate	ND	ug/l	10.	02/18/04 20:37	KSK	117-81-7		
Di-n-octylphthalate	ND	ug/l	10.	02/18/04 20:37	KSK	117-84-0		
Benzo(b)fluoranthene	ND	ug/l	10.	02/18/04 20:37	KSK	205-99-2		
Benzo(k)fluoranthene	ND	ug/l	10.	02/18/04 20:37	KSK	207-08-9		
Benzo(a)pyrene	ND	ug/l	10.	02/18/04 20:37	KSK	50-32-8		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	02/18/04 20:37	KSK	193-39-5		
Dibenz(a,h)anthracene	ND	ug/l	10.	02/18/04 20:37	KSK	53-70-3		
Benzo(g,h,i)perylene	ND	ug/l	10.	02/18/04 20:37	KSK	191-24-2		
Hexachloroethane	ND	ug/l	10.	02/18/04 20:37	KSK	67-72-1		
Nitrobenzene-d5 (S)	72	%		02/18/04 20:37	KSK	4165-60-0		
2-Fluorobiphenyl (S)	76	%		02/18/04 20:37	KSK	321-60-8		
Terphenyl-d14 (S)	82	%		02/18/04 20:37	KSK	1718-51-0		
Phenol-d6 (S)	30	%		02/18/04 20:37	KSK	13127-88-3	3,4	
2-Fluorophenol (S)	40	%		02/18/04 20:37	KSK	367-12-4	3,4	
2,4,6-Tribromophenol (S)	64	%		02/18/04 20:37	KSK			
Date Extracted	02/16/04			02/16/04				

GC/MS Volatiles

Volatile GC/MS by 624

Method: EPA 624

Chloromethane	ND	ug/l	1.0	02/17/04 21:51	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 21:51	PN1	75-01-4		
Bromomethane	ND	ug/l	1.0	02/17/04 21:51	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 21:51	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 21:51	PN1	75-69-4		

Date: 02/26/04

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333181 Project Sample Number: 1084665-006 Date Collected: 02/12/04 12:00
 Client Sample ID: E04-0120-67442 Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Methylene chloride	ND	ug/l	1.0	02/17/04 21:51	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 21:51	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 21:51	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 21:51	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 21:51	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 21:51	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 21:51	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 21:51	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 21:51	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 21:51	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 21:51	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 21:51	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 21:51	PN1	10061-02-6		
Toluene	ND	ug/l	1.0	02/17/04 21:51	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 21:51	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 21:51	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 21:51	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 21:51	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 21:51	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 21:51	PN1	100-41-4		
Xylene (Total)	ND	ug/l	3.0	02/17/04 21:51	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 21:51	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 21:51	PN1	79-34-5		
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 21:51	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 21:51	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 21:51	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 21:51	PN1	110-75-8		
Dibromofluoromethane (S)	95	%		02/17/04 21:51	PN1	1868-53-7		
Toluene-d8 (S)	81	%		02/17/04 21:51	PN1	2037-26-5		
4-Bromofluorobenzene (S)	85	%		02/17/04 21:51	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	92	%		02/17/04 21:51	PN1	17060-07-0		

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3M_MN01538435

1937.0049



Pace Analytical Services, Inc.
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 Phone: 612.607.1700
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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333199 Project Sample Number: 1084665-007 Date Collected: 02/12/04 00:00
 Client Sample ID: E04-0120-67487 Field Blank Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Microbiology								
Biochemical Oxygen Demand, 5 d	Prep/Method: / SM 5210B							
BOD, 5 day	7	mg/l	6	02/18/04	JPH1		1	
Date Prepared	02/13/04 13:30			02/13/04 13:30				
Wet Chemistry								
Phenolics Total. in Water	Method: EPA 420.4							
Phenol	ND	ug/l	25.0	02/17/04	VAF	108-95-2		
GC/MS Volatiles								
Volatile GC/MS by 624	Method: EPA 624							
Chloromethane	ND	ug/l	1.0	02/17/04 17:56	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 17:56	PN1	75-01-4		
Bromomethane	ND	ug/l	1.0	02/17/04 17:56	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 17:56	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 17:56	PN1	75-69-4		
Methylene chloride	ND	ug/l	1.0	02/17/04 17:56	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 17:56	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 17:56	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 17:56	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 17:56	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 17:56	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 17:56	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 17:56	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 17:56	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 17:56	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 17:56	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 17:56	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 17:56	PN1	10061-02-6		
Toluene	ND	ug/l	1.0	02/17/04 17:56	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 17:56	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 17:56	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 17:56	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 17:56	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 17:56	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 17:56	PN1	100-41-4		
Xylene (Total)	ND	ug/l	3.0	02/17/04 17:56	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 17:56	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 17:56	PN1	79-34-5		

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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333199 Project Sample Number: 1084665-007 Date Collected: 02/12/04 00:00
 Client Sample ID: E04-0120-67487 Field Blank Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 17:56	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 17:56	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 17:56	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 17:56	PN1	110-75-8		
Dibromofluoromethane (S)	94	%		02/17/04 17:56	PN1	1868-53-7		
Toluene-d8 (S)	77	%		02/17/04 17:56	PN1	2037-26-5		
4-Bromofluorobenzene (S)	81	%		02/17/04 17:56	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	90	%		02/17/04 17:56	PN1	17060-07-0		



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Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

Lab Sample No: 105333421 Project Sample Number: 1084665-008 Date Collected: 02/12/04 00:00
 Client Sample ID: E04-0120-67489 Travel Blank Matrix: Water Date Received: 02/13/04 12:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles								
Volatile GC/MS by 624		Method: EPA 624						
Chloromethane	ND	ug/l	1.0	02/17/04 17:28	PN1	74-87-3		
Vinyl chloride	ND	ug/l	1.0	02/17/04 17:28	PN1	75-01-4		
Bromomethane	ND	ug/l	1.0	02/17/04 17:28	PN1	74-83-9		
Chloroethane	ND	ug/l	1.0	02/17/04 17:28	PN1	75-00-3		
Trichlorofluoromethane	ND	ug/l	1.0	02/17/04 17:28	PN1	75-69-4		
Methylene chloride	ND	ug/l	1.0	02/17/04 17:28	PN1	75-09-2		
1,1-Dichloroethene	ND	ug/l	1.0	02/17/04 17:28	PN1	75-35-4		
trans-1,2-Dichloroethene	ND	ug/l	1.0	02/17/04 17:28	PN1	156-60-5		
1,1-Dichloroethane	ND	ug/l	1.0	02/17/04 17:28	PN1	75-34-3		
Chloroform	ND	ug/l	1.0	02/17/04 17:28	PN1	67-66-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	02/17/04 17:28	PN1	71-55-6		
Carbon tetrachloride	ND	ug/l	1.0	02/17/04 17:28	PN1	56-23-5		
Benzene	ND	ug/l	1.0	02/17/04 17:28	PN1	71-43-2		
1,2-Dichloroethane	ND	ug/l	1.0	02/17/04 17:28	PN1	107-06-2		
Trichloroethene	ND	ug/l	1.0	02/17/04 17:28	PN1	79-01-6		
1,2-Dichloropropane	ND	ug/l	1.0	02/17/04 17:28	PN1	78-87-5		
Bromodichloromethane	ND	ug/l	1.0	02/17/04 17:28	PN1	75-27-4		
trans-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 17:28	PN1	10061-02-6		
Toluene	ND	ug/l	1.0	02/17/04 17:28	PN1	108-88-3		
cis-1,3-Dichloropropene	ND	ug/l	1.0	02/17/04 17:28	PN1	10061-01-5		
1,1,2-Trichloroethane	ND	ug/l	1.0	02/17/04 17:28	PN1	79-00-5		
Tetrachloroethene	ND	ug/l	1.0	02/17/04 17:28	PN1	127-18-4		
Dibromochloromethane	ND	ug/l	1.0	02/17/04 17:28	PN1	124-48-1		
Chlorobenzene	ND	ug/l	1.0	02/17/04 17:28	PN1	108-90-7		
Ethylbenzene	ND	ug/l	1.0	02/17/04 17:28	PN1	100-41-4		
Xylene (Total)	ND	ug/l	3.0	02/17/04 17:28	PN1	1330-20-7		
Bromoform	ND	ug/l	1.0	02/17/04 17:28	PN1	75-25-2		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	02/17/04 17:28	PN1	79-34-5		
1,3-Dichlorobenzene	ND	ug/l	1.0	02/17/04 17:28	PN1	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	02/17/04 17:28	PN1	106-46-7		
1,2-Dichlorobenzene	ND	ug/l	1.0	02/17/04 17:28	PN1	95-50-1		
2-Chloroethylvinyl ether	ND	ug/l	5.0	02/17/04 17:28	PN1	110-75-8		
Dibromofluoromethane (S)	96	%		02/17/04 17:28	PN1	1868-53-7		
Toluene-d8 (S)	77	%		02/17/04 17:28	PN1	2037-26-5		
4-Bromofluorobenzene (S)	82	%		02/17/04 17:28	PN1	460-00-4		
1,2-Dichloroethane-d4 (S)	89	%		02/17/04 17:28	PN1	17060-07-0		

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Lab Project Number: 1084665
Client Project ID: E04-0120 CG Carbon System Test

PARAMETER FOOTNOTES

- ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
(S) Surrogate
[1] The BOD dilution blank QC criterion was not met. Acceptable method performance is based upon the remaining batch QC.
[2] The analysis was initiated more than 24 hours but less than 48 hours after collection.
[3] Confirmed by second analysis and/or re-extraction.
[4] The surrogate recovery was outside QC acceptance limits due to matrix interference.

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3M_MN01538439

1937.0053



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QUALITY CONTROL DATA

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

METHOD BLANK: 105336473

Associated Lab Samples: 105333132 105333140 105333157 105333165 105333173 105333181

Parameter	Units	Blank	Reporting	Footnotes
		Result	Limit	
4,6-Dinitro-2-methylphenol	ug/l	ND	50.	
4-Bromophenylphenyl ether	ug/l	ND	10.	
Hexachlorobenzene	ug/l	ND	10.	
Pentachlorophenol	ug/l	ND	23.	
Phenanthrene	ug/l	ND	10.	
Anthracene	ug/l	ND	10.	
Di-n-butylphthalate	ug/l	ND	10.	
Fluoranthene	ug/l	ND	10.	
Pyrene	ug/l	ND	10.	
Butylbenzylphthalate	ug/l	ND	10.	
3,3'-Dichlorobenzidine	ug/l	ND	20.	
Benzo(a)anthracene	ug/l	ND	10.	
Chrysene	ug/l	ND	10.	
bis(2-Ethylhexyl)phthalate	ug/l	ND	10.	
Di-n-octylphthalate	ug/l	ND	10.	
Benzo(b)fluoranthene	ug/l	ND	10.	
Benzo(k)fluoranthene	ug/l	ND	10.	
Benzo(a)pyrene	ug/l	ND	10.	
Indeno(1,2,3-cd)pyrene	ug/l	ND	10.	
Dibenz(a,h)anthracene	ug/l	ND	10.	
Benzo(g,h,i)perylene	ug/l	ND	10.	
Hexachloroethane	ug/l	ND	10.	
Nitrobenzene-d5 (S)	%	70		
2-Fluorobiphenyl (S)	%	70		
Terphenyl-d14 (S)	%	82		
Phenol-d6 (S)	%	74		
2-Fluorophenol (S)	%	68		
2,4,6-Tribromophenol (S)	%	76		

LABORATORY CONTROL SAMPLE & LCS: 105336481 105336499

Parameter	Units	Spike	LCS	LCS	LCS	LCS	RPD	Footnotes
		Conc.	Result	Result	% Rec	% Rec		
Phenol	ug/l	50.00	44.51	43.62	89	87	2	
bis(2-Chloroethyl) ether	ug/l	50.00	42.92	41.50	86	83	3	

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QUALITY CONTROL DATA

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

LABORATORY CONTROL SAMPLE & LCSD: 105336481 105336499

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
2-Chlorophenol	ug/l	50.00	43.30	42.40	87	85	2	
1,3-Dichlorobenzene	ug/l	50.00	41.85	41.17	84	82	2	
1,4-Dichlorobenzene	ug/l	50.00	41.72	41.70	83	83	0	
1,2-Dichlorobenzene	ug/l	50.00	42.26	42.22	84	84	0	
bis(2-Chloroisopropyl) ether	ug/l	50.00	44.73	43.50	90	87	3	
N-Nitroso-di-n-propylamine	ug/l	50.00	46.61	46.27	93	92	1	
Nitrobenzene	ug/l	50.00	46.55	45.49	93	91	2	
Isophorone	ug/l	50.00	48.73	48.99	98	98	1	
2-Nitrophenol	ug/l	50.00	43.40	43.28	87	87	0	
2,4-Dimethylphenol	ug/l	50.00	18.67	18.16	37	36	3	1,1
bis(2-Chloroethoxy)methane	ug/l	50.00	45.03	44.97	90	90	0	
2,4-Dichlorophenol	ug/l	50.00	43.42	43.86	87	88	1	
1,2,4-Trichlorobenzene	ug/l	50.00	41.80	41.65	84	83	0	
Naphthalene	ug/l	50.00	43.36	42.73	87	86	1	
Hexachloro-1,3-butadiene	ug/l	50.00	42.96	42.99	86	86	0	
4-Chloro-3-methylphenol	ug/l	50.00	46.79	47.76	94	96	2	
2,4,6-Trichlorophenol	ug/l	50.00	46.49	47.47	93	95	2	
2-Chloronaphthalene	ug/l	50.00	45.85	47.41	92	95	3	
Dimethylphthalate	ug/l	50.00	47.65	49.11	95	98	3	
Acenaphthylene	ug/l	50.00	47.25	48.15	94	96	2	
2,6-Dinitrotoluene	ug/l	50.00	48.24	50.00	96	100	4	
Acenaphthene	ug/l	50.00	47.86	49.82	96	100	4	
2,4-Dinitrophenol	ug/l	50.00	39.41	42.95	79	86	9	
4-Nitrophenol	ug/l	50.00	49.84	53.46	100	107	7	
2,4-Dinitrotoluene	ug/l	50.00	45.78	48.47	92	97	6	
Diethylphthalate	ug/l	50.00	47.00	49.60	94	99	5	
4-Chlorophenylphenyl ether	ug/l	50.00	48.08	49.60	96	99	3	
Fluorene	ug/l	50.00	48.55	49.28	97	99	1	
4,6-Dinitro-2-methylphenol	ug/l	50.00	41.56	44.83	83	90	8	
4-Bromophenylphenyl ether	ug/l	50.00	49.14	50.69	98	101	3	
Hexachlorobenzene	ug/l	50.00	50.68	51.77	101	104	2	
Pentachlorophenol	ug/l	50.00	44.50	47.08	89	94	6	
Phenanthrene	ug/l	50.00	47.10	48.77	94	98	3	
Anthracene	ug/l	50.00	46.95	47.99	94	96	2	
Di-n-butylphthalate	ug/l	50.00	50.27	52.64	101	105	5	
Fluoranthene	ug/l	50.00	49.15	50.52	98	101	3	
Pyrene	ug/l	50.00	46.16	48.33	92	97	5	

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QUALITY CONTROL DATA

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

LABORATORY CONTROL SAMPLE & LCSD: 105336481 105336499

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Butylbenzylphthalate	ug/l	50.00	46.97	49.55	94	99	5	
3,3'-Dichlorobenzidine	ug/l	50.00	28.52	27.96	57	56	2	
Benzo(a)anthracene	ug/l	50.00	46.75	48.79	94	98	4	
Chrysene	ug/l	50.00	46.74	48.59	94	97	4	
bis(2-Ethylhexyl) phthalate	ug/l	50.00	48.30	50.60	97	101	5	
Di-n-octylphthalate	ug/l	50.00	46.77	48.56	94	97	4	
Benzo(b)fluoranthene	ug/l	50.00	46.65	47.97	93	96	3	
Benzo(k)fluoranthene	ug/l	50.00	46.69	48.58	93	97	4	
Benzo(a)pyrene	ug/l	50.00	44.97	46.46	90	93	3	
Indeno(1,2,3-cd)pyrene	ug/l	50.00	47.06	49.14	94	98	4	
Dibenz(a,h)anthracene	ug/l	50.00	47.28	49.54	95	99	5	
Benzo(g,h,i)perylene	ug/l	50.00	47.30	49.29	95	99	4	
Hexachloroethane	ug/l	50.00	42.66	42.40	85	85	1	
Nitrobenzene-d5 (S)					80	80		
2-Fluorobiphenyl (S)					83	83		
Terphenyl-d14 (S)					82	84		
Phenol-d6 (S)					82	79		
2-Fluorophenol (S)					76	75		
2,4,6-Tribromophenol (S)					87	88		



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QUALITY CONTROL DATA

Lab Project Number: 1084665
Client Project ID: E04-0120 CG Carbon System Test

QC Batch: 104292 Analysis Method: EPA 624
QC Batch Method: EPA 624 Analysis Description: Volatile GC/MS by 624
Associated Lab Samples: 105333132 105333140 105333157 105333165 105333173
105333181 105333199 105333421

METHOD BLANK: 105340681
Associated Lab Samples: 105333132 105333140 105333157 105333165 105333173 105333181 105333199
105333421

Table with 5 columns: Parameter, Units, Blank Result, Reporting Limit, Footnotes. Lists various chemical compounds like Chloromethane, Vinyl chloride, Bromomethane, etc., with their respective units and reporting limits.



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QUALITY CONTROL DATA

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

METHOD BLANK: 105340681

Associated Lab Samples: 105333132 105333140 105333157 105333165 105333173 105333181 105333199
 105333421

Parameter	Units	Blank	Reporting	Footnotes
		Result	Limit	
1,4-Dichlorobenzene	ug/l	ND	1.0	
1,2-Dichlorobenzene	ug/l	ND	1.0	
2-Chloroethylvinyl ether	ug/l	ND	5.0	
Dibromofluoromethane (S)	%	94		
Toluene-d8 (S)	%	78		
4-Bromofluorobenzene (S)	%	83		
1,2-Dichloroethane-d4 (S)	%	91		

LABORATORY CONTROL SAMPLE: 105340699

Parameter	Units	Spike	LCS	LCS	Footnotes
		Conc.	Result	% Rec	
Chloromethane	ug/l	20.00	14.23	71	
Vinyl chloride	ug/l	20.00	18.06	90	
Bromomethane	ug/l	20.00	16.43	82	
Chloroethane	ug/l	20.00	20.33	102	
Trichlorofluoromethane	ug/l	20.00	20.40	102	
Methylene chloride	ug/l	20.00	20.34	102	
1,1-Dichloroethene	ug/l	20.00	20.76	104	
trans-1,2-Dichloroethene	ug/l	20.00	20.98	105	
1,1-Dichloroethane	ug/l	20.00	20.84	104	
Chloroform	ug/l	20.00	21.65	108	
1,1,1-Trichloroethane	ug/l	20.00	19.72	99	
Carbon tetrachloride	ug/l	20.00	20.25	101	
Benzene	ug/l	20.00	19.53	98	
1,2-Dichloroethane	ug/l	20.00	22.46	112	
Trichloroethene	ug/l	20.00	19.03	95	
1,2-Dichloropropane	ug/l	20.00	20.07	100	
Bromodichloromethane	ug/l	20.00	19.78	99	
trans-1,3-Dichloropropene	ug/l	20.00	18.56	93	
Toluene	ug/l	20.00	17.96	90	
cis-1,3-Dichloropropene	ug/l	20.00	20.33	102	
1,1,2-Trichloroethane	ug/l	20.00	19.43	97	
Tetrachloroethene	ug/l	20.00	18.93	95	

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QUALITY CONTROL DATA

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

LABORATORY CONTROL SAMPLE: 105340699

Parameter	Units	Spike	LCS	LCS	Footnotes
		Conc.	Result	% Rec	
Dibromochloromethane	ug/l	20.00	18.93	95	
Chlorobenzene	ug/l	20.00	19.79	99	
Ethylbenzene	ug/l	20.00	18.54	93	
Xylene (Total)	ug/l	60.00	57.90	96	
Bromoform	ug/l	20.00	20.50	102	
1,1,2,2-Tetrachloroethane	ug/l	20.00	18.74	94	
1,3-Dichlorobenzene	ug/l	20.00	18.54	93	
1,4-Dichlorobenzene	ug/l	20.00	18.02	90	
1,2-Dichlorobenzene	ug/l	20.00	17.92	90	
2-Chloroethylvinyl ether	ug/l	20.00	22.81	114	
Dibromofluoromethane (S)				105	
Toluene-d8 (S)				90	
4-Bromofluorobenzene (S)				90	
1,2-Dichloroethane-d4 (S)				104	

MATRIX SPIKE: 105348122

Parameter	Units	105333140	Spike	MS	MS	Footnotes
		Result	Conc.	Result	% Rec	
Chloromethane	ug/l	0	20.00	17.94	90	
Vinyl chloride	ug/l	0	20.00	23.55	118	
Bromomethane	ug/l	6.650	20.00	13.08	32	1
Chloroethane	ug/l	0	20.00	27.10	136	
Trichlorofluoromethane	ug/l	0	20.00	22.53	113	
Methylene chloride	ug/l	0	20.00	25.61	128	
1,1-Dichloroethene	ug/l	0	20.00	24.69	124	
trans-1,2-Dichloroethene	ug/l	0	20.00	24.84	124	
1,1-Dichloroethane	ug/l	0	20.00	23.87	119	
Chloroform	ug/l	0	20.00	23.37	117	
1,1,1-Trichloroethane	ug/l	0	20.00	22.21	111	
Carbon tetrachloride	ug/l	0	20.00	21.41	107	
Benzene	ug/l	0	20.00	21.63	108	
1,2-Dichloroethane	ug/l	0	20.00	22.90	114	
Trichloroethene	ug/l	0	20.00	20.73	104	
1,2-Dichloropropane	ug/l	0	20.00	21.01	105	
Bromodichloromethane	ug/l	0	20.00	21.41	107	

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QUALITY CONTROL DATA

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

MATRIX SPIKE: 105348122

Parameter	Units	105333140		MS		Footnotes
		Result	Spike Conc.	Result	% Rec	
trans-1,3-Dichloropropene	ug/l	0	20.00	18.78	94	
Toluene	ug/l	0	20.00	19.54	98	
cis-1,3-Dichloropropene	ug/l	0	20.00	21.20	106	
1,1,2-Trichloroethane	ug/l	0	20.00	19.12	96	
Tetrachloroethene	ug/l	0	20.00	19.93	100	
Dibromochloromethane	ug/l	0	20.00	19.36	97	
Chlorobenzene	ug/l	0	20.00	20.48	102	
Ethylbenzene	ug/l	0	20.00	19.72	99	
Xylene (Total)	ug/l	0	60.00	59.42	99	
Bromoform	ug/l	0	20.00	21.56	108	
1,1,2,2-Tetrachloroethane	ug/l	0	20.00	18.80	94	
1,3-Dichlorobenzene	ug/l	0	20.00	18.23	91	
1,4-Dichlorobenzene	ug/l	0	20.00	18.19	91	
1,2-Dichlorobenzene	ug/l	0	20.00	18.53	93	
2-Chloroethylvinyl ether	ug/l	0	20.00	0	0	1
Dibromofluoromethane (S)					90	
Toluene-d8 (S)					81	
4-Bromofluorobenzene (S)					93	
1,2-Dichloroethane-d4 (S)					85	

SAMPLE DUPLICATE: 105348114

Parameter	Units	105333132		RPD	Footnotes
		Result	DUP Result		
Chloromethane	ug/l	5.400	1.800	101	2
Vinyl chloride	ug/l	ND	ND	NC	
Bromomethane	ug/l	19.00	13.00	36	2
Chloroethane	ug/l	ND	ND	NC	
Trichlorofluoromethane	ug/l	ND	ND	NC	
Methylene chloride	ug/l	ND	ND	NC	
1,1-Dichloroethene	ug/l	ND	ND	NC	
trans-1,2-Dichloroethene	ug/l	ND	ND	NC	
1,1-Dichloroethane	ug/l	ND	ND	NC	
Chloroform	ug/l	ND	ND	NC	
1,1,1-Trichloroethane	ug/l	ND	ND	NC	
Carbon tetrachloride	ug/l	ND	ND	NC	

Date: 02/26/04

Page: 30 of 34



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
 1700 Elm Street, Suite 200
 Minneapolis, MN 55414
 Phone: 612.607.1700
 Fax: 612.607.6444

QUALITY CONTROL DATA

Lab Project Number: 1084665
 Client Project ID: E04-0120 CG Carbon System Test

SAMPLE DUPLICATE: 105348114

Parameter	Units	105333132	DUP	RPD	Footnotes
		Result	Result		
Benzene	ug/l	ND	ND	NC	
1,2-Dichloroethane	ug/l	ND	ND	NC	
Trichloroethene	ug/l	ND	ND	NC	
1,2-Dichloropropane	ug/l	ND	ND	NC	
Bromodichloromethane	ug/l	ND	ND	NC	
trans-1,3-Dichloropropene	ug/l	ND	ND	NC	
Toluene	ug/l	20.00	18.00	8	
cis-1,3-Dichloropropene	ug/l	ND	ND	NC	
1,1,2-Trichloroethane	ug/l	ND	ND	NC	
Tetrachloroethene	ug/l	ND	ND	NC	
Dibromochloromethane	ug/l	ND	ND	NC	
Chlorobenzene	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
Xylene (Total)	ug/l	3.600	3.700	2	
Bromoform	ug/l	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/l	ND	ND	NC	
1,3-Dichlorobenzene	ug/l	ND	ND	NC	
1,4-Dichlorobenzene	ug/l	ND	ND	NC	
1,2-Dichlorobenzene	ug/l	ND	ND	NC	
2-Chloroethylvinyl ether	ug/l	ND	ND	NC	
Dibromofluoromethane (S)	%	96	94		
Toluene-d8 (S)	%	89	85		
4-Bromofluorobenzene (S)	%	97	93		
1,2-Dichloroethane-d4 (S)	%	92	91		



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Lab Project Number: 1084665
Client Project ID: E04-0120 CG Carbon System Test

QC Batch: 104133 Analysis Method: SM 5210B
QC Batch Method: Analysis Description: Biochemical Oxygen Demand, 5 d
Associated Lab Samples: 105333132 105333140 105333157 105333165 105333173
 105333181 105333199

METHOD BLANK: 105331664
Associated Lab Samples: 105333132 105333140 105333157 105333165 105333173 105333181 105333199

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>			<u>Reporting</u>	
		<u>Result</u>	<u>Limit</u>	<u>Footnotes</u>		
BOD, 5 day	mg/l	ND	6	3		

LABORATORY CONTROL SAMPLE: 105331672

<u>Parameter</u>	<u>Units</u>	<u>LCS</u>		<u>Footnotes</u>
		<u>Conc.</u>	<u>% Rec</u>	
BOD, 5 day	mg/l	198.00	97	3

SAMPLE DUPLICATE: 105331847

<u>Parameter</u>	<u>Units</u>	<u>DUP</u>		<u>RPD</u>	<u>Footnotes</u>
		<u>Result</u>	<u>Result</u>		
BOD, 5 day	mg/l	467.0	579.0	21	



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Lab Project Number: 1084665
Client Project ID: E04-0120 CG Carbon System Test

QC Batch: 104181	Analysis Method: EPA 420.4				
QC Batch Method: EPA 420.4	Analysis Description: Phenolics Total. in Water				
Associated Lab Samples:	105333132	105333140	105333157	105333165	105333173
	105333181	105333199			

METHOD BLANK: 105336622

Associated Lab Samples:	105333132	105333140	105333157	105333165	105333173	105333181	105333199
-------------------------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>		<u>Reporting</u>	
		<u>Result</u>	<u>Limit</u>	<u>Limit</u>	<u>Footnotes</u>
Phenol	ug/l	ND	25.0		

LABORATORY CONTROL SAMPLE: 105336630

<u>Parameter</u>	<u>Units</u>	<u>Spike</u>	<u>LCS</u>	<u>LCS</u>	<u>Footnotes</u>
		<u>Conc.</u>	<u>Result</u>	<u>% Rec</u>	
Phenol	ug/l	1000.00	1178	118	

MATRIX SPIKE: 105336648

<u>Parameter</u>	<u>Units</u>	105319651	<u>Spike</u>	<u>MS</u>	<u>MS</u>	<u>Footnotes</u>
		<u>Result</u>	<u>Conc.</u>	<u>Result</u>	<u>% Rec</u>	
Phenol	ug/l	0	1000.00	1055	106	

SAMPLE DUPLICATE: 105336655

<u>Parameter</u>	<u>Units</u>	105327324	<u>DUP</u>	<u>RPD</u>	<u>Footnotes</u>
		<u>Result</u>	<u>Result</u>		
Phenol	ug/l	ND	ND	NC	



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1084665
Client Project ID: E04-0120 CG Carbon System Test

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- LCS(D) Laboratory Control Sample (Duplicate)
- MS(D) Matrix Spike (Duplicate)
- DUP Sample Duplicate
- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- MDL Adjusted Method Detection Limit
- RPD Relative Percent Difference
- (S) Surrogate
- [1] The spike recovery was outside of acceptance limits.
- [2] The calculated RPD was outside QC acceptance limits.
- [3] The BOD dilution blank QC criterion was not met. Acceptable method performance is based upon the remaining batch QC.

Date: 02/26/04

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REPORT OF LABORATORY ANALYSIS

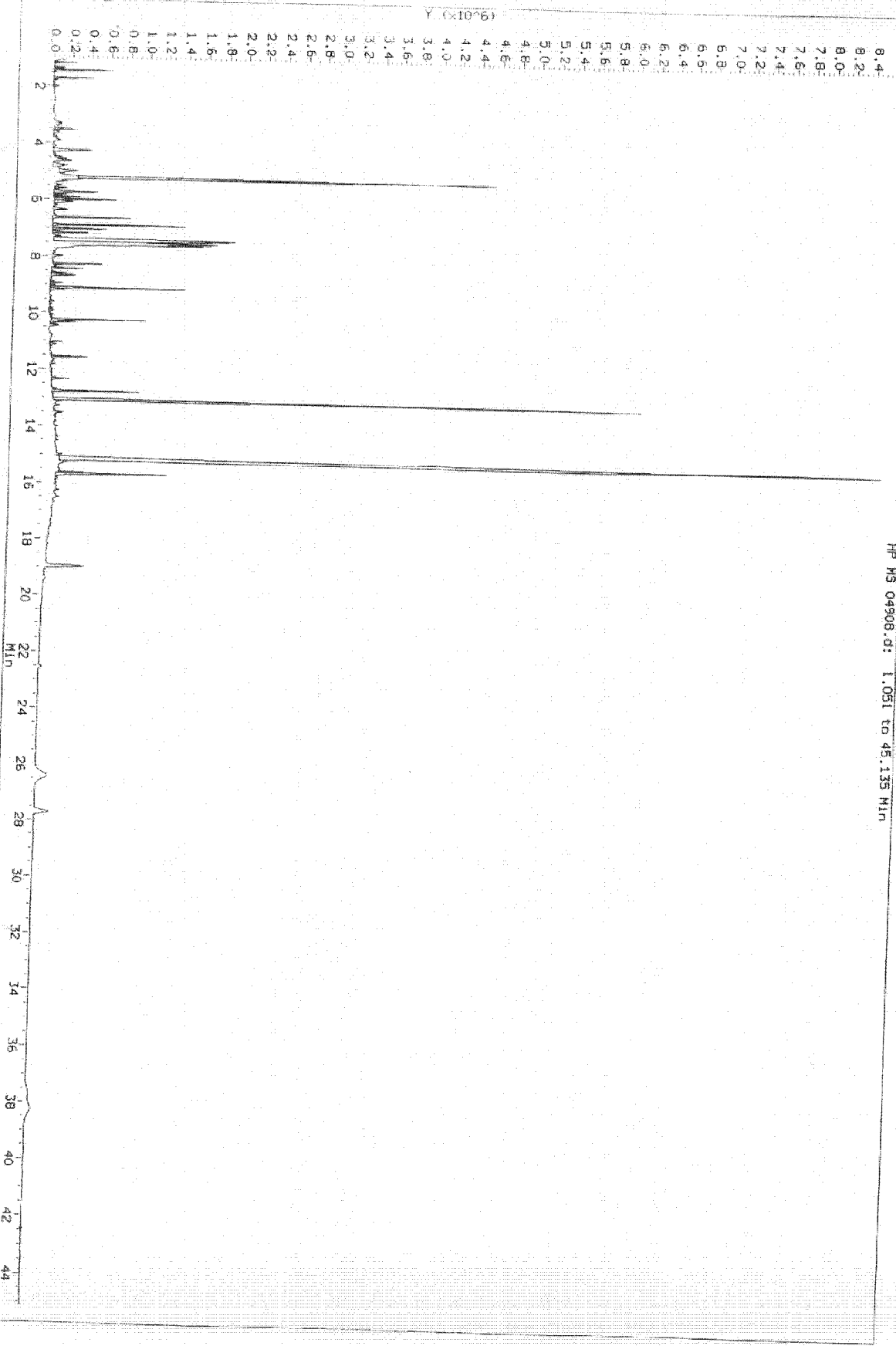
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HENNEPIN COUNTY DISTRICT COURT, NO. 27-CV-10-28862

3M_MN01538451

1937.0065

Data File: /var/chem/10msa1.1/021804.b/04908.d
Injection Date: 18-FEB-2004 16:10
Instrument: 10msa1.1
Client Sample ID: E04-0120-67432



Data File: /var/chem/10mssl.i/021804.b/04908.d
Report Date: 23-Feb-2004 12:20

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333132
Operator : KSK
Sample Location:
Sample Matrix: WATER
Analysis Type: SV

Client SDG: 021804
Client Smp ID: E04-0120-67432
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-22-0	3-Hydroxy-3-methyl-2-butano	1.711	1.29	NJ
2.	Unknown	3.526	1.44	J
3. 625-25-2	2-Heptanol, 2-methyl-	4.269	3.30	NJ
4.	Unknown	4.788	1.80	J
5. 34314-83-5	Furan, 2,3-dihydro-4-methyl	4.976	1.56	NJ
6. 111-96-6	Ethane, 1,1'-oxybis[2-metho	5.224	27.8	NJ
7. 111-90-0	Ethanol, 2-(2-ethoxyethoxy)	5.731	2.95	NJ
8. 110-98-5	2-Propanol, 1,1'-oxybis-	6.084	1.76	NJ
9. 592-76-7	1-Heptene	6.886	6.17	NJ
10. 56765-79-8	1,2-Benzenedicarbonitrile,	7.027	2.67	NJ
11. 1526-17-6	2-Fluoro-6-nitrophenol	7.157	1.84	NJ
12. 107-58-4	2-Propenamide, N-(1,1-dimet	8.265	17.8	NJ
13. 0-00-0	1,3-Dioxolane, 2-(4-methoxy	13.074	304	NJ
14. 2315-61-9	Ethanol, 2-[2-[4-(1,1,3,3-t	15.207	805	NJ

Data File: /var/chem/10mssl.i/021804.b/04913.d
Report Date: 23-Feb-2004 12:21

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333181
Operator : KSK
Sample Location:
Sample Matrix: WATER
Analysis Type: SV

Client SDG: 021804
Client Smp ID: E04-0120-67442
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	4.301	1.38	J
2. 922-64-5	Propanedinitrile, methylene	4.490	1.58	NJ
3.	Unknown	4.784	1.59	J
4. 1708-27-6	Furan, 2,3-dihydro-3-methyl	4.985	1.48	NJ
5. 53778-73-7	2-Butanol, 1-methoxy-	5.197	9.21	NJ
6. 49622-18-6	Decane, 3,3,4-trimethyl-	5.279	2.03	NJ
7. 503-86-6	Glycocyanidine	5.515	3.19	NJ
8. 563-46-2	1-Butene, 2-methyl-	6.882	37.3	NJ

Data File: /var/chem/10mss1.i/021804.b/04913.d
 Report Date: 23-Feb-2004 12:21

Pace Analytical Services, Inc.

BASE, NEUTRAL, ACID QUANT AND RATIO REPORT

Data file : /var/chem/10mss1.i/021804.b/04913.d
 Lab Smp Id: 105333181 Client Smp ID: E04-0120-67442
 Inj Date : 18-FEB-2004 20:37
 Operator : KSK Inst ID: 10mss1.i
 Smp Info : 105333181
 Misc Info :
 Comment : RCRA 8270C - SEMIVOLATILES
 Method : /var/chem/10mss1.i/021804.b/SV07-043.m
 Meth Date : 23-Feb-2004 11:14 kking Quant Type: ISTD
 Cal Date : 12-FEB-2004 20:45 Cal File: 04307.d
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 625.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 9 1,4-Dichlorobenzene-d4	5.998	1215021	3.000
* 28 Naphthalene-d8	7.578	1710811	40.000

RT	CONCENTRATIONS				QUAL	QUANT		
	AREA	ON-COL(NO)	FINAL(ug/L)		LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	-----	-----	-----	-----	
UNKNOWN					CAS #:			
4.301	560881	1.38486783		1.38	0	0	9	
Propanedinitrile, methylene					CAS #: 922-64-5			
4.490	638290	1.57599672		1.58	53	NBS75K.1	62625	

Data File: /var/chem/10mss1.i/021804.b/04913.d
 Report Date: 23-Feb-2004 12:21

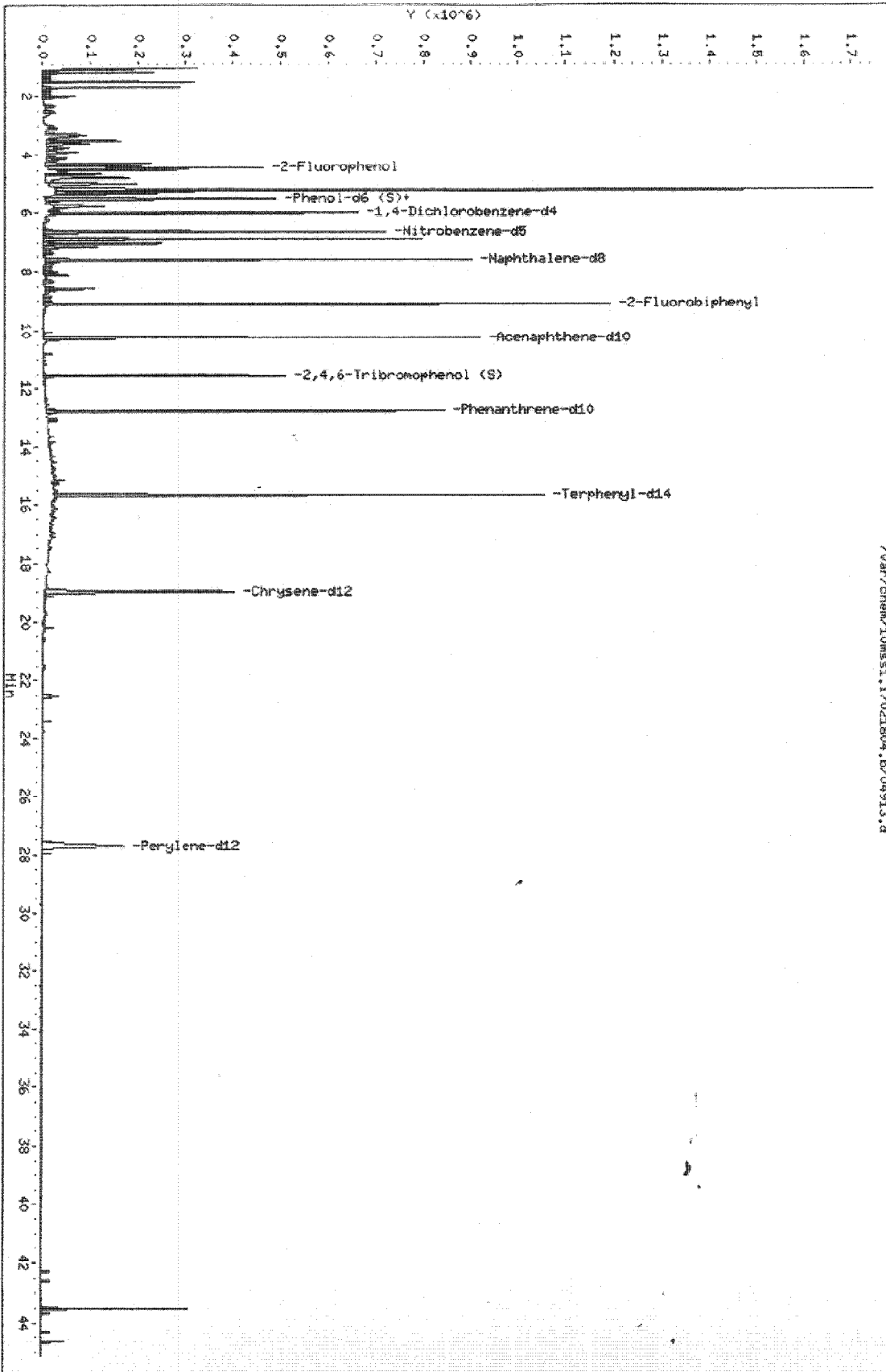
RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON-COL(NG)	FINAL(ug/L)	QUAL	LIBRARY		LIB ENTRY
Unknown						CAS #:	
4.784	643775	1.58953975		1.59	0		0
Puran, 2,3-dihydro-3-methyl-						CAS #: 1708-27-6	
4.985	537863	1.47603076		1.48	58	NBS75K.1	577
2-Butanol, 1-methoxy-						CAS #: 53778-73-7	
5.197	3729055	9.20738107		9.21	59	NBS75K.1	1910
Decane, 3,3,4-trimethyl-						CAS #: 49622-18-6	
5.279	823083	2.03226691		2.03	72	NBS75K.1	18045
Glycocyanidine						CAS #: 503-86-6	
5.515	1291800	3.18957324		3.19	43	NBS75K.1	1373
1-Butene, 2-methyl-						CAS #: 563-46-2	
6.882	1594567	37.2821257		37.3	38	NBS75K.1	62458

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /var/chem/10ms1.1/021804.b/04913.d
Date: 18-FEB-2004 20:37
Client ID: E04-0120-67442
Sample Info: 10533381
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: 10ms1.1
Operator: KSK
Column diameter: 0.25



Data File: /var/chem/10mss1.1/021804.b/04913.d

Date : 18-FEB-2004 20:37

Client ID: E04-0120-67442

Sample Info: 105333181

Volume Injected (uL): 1.0

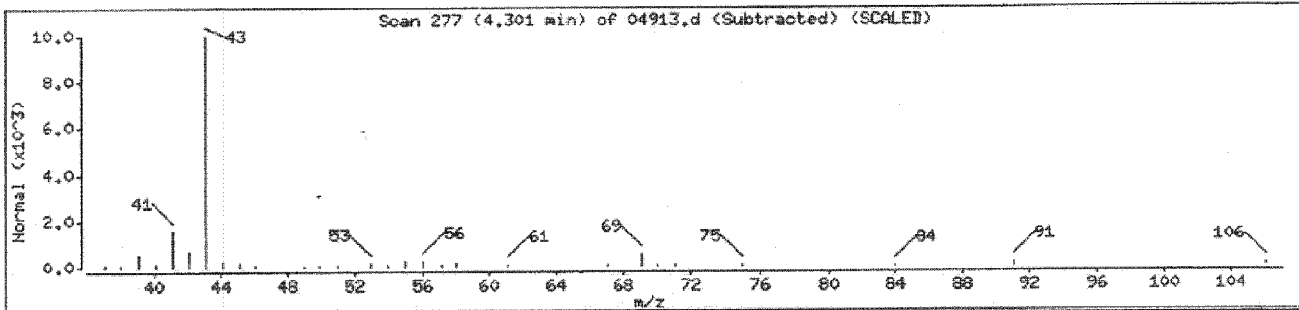
Column phase: BB-SMS

Instrument: 10mss1.1

Operator: KSK

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: /var/chem/10mss1.i/021804.b/04913.d

Date: 18-FEB-2004 20:37

Client ID: E04-0120-67442

Instrument: 10mss1.i

Sample Info: 106333181

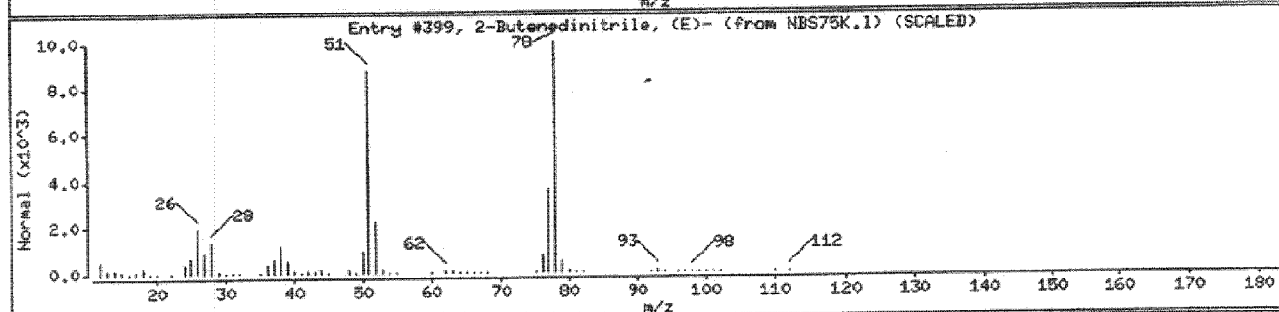
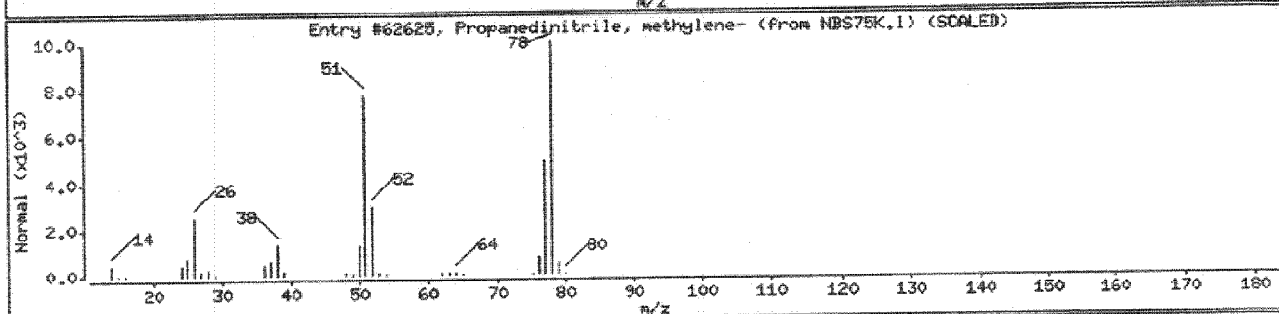
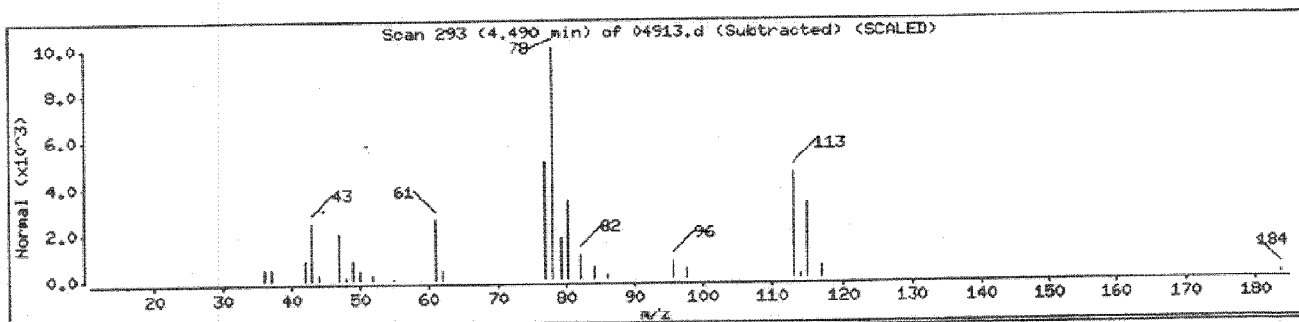
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanedinitrile, methylene-	922-64-5	NBS75K.1	62625	53	C4H2N2	78
2-Butenedinitrile, (E)-	764-42-1	NBS75K.1	399	36	C4H2N2	78



Data File: /var/chem/10ms1.i/021804.b/04913.d

Date: 18-FEB-2004 20:37

Client ID: E04-0120-67442

Instrument: 10ms1.i

Sample Info: 105333181

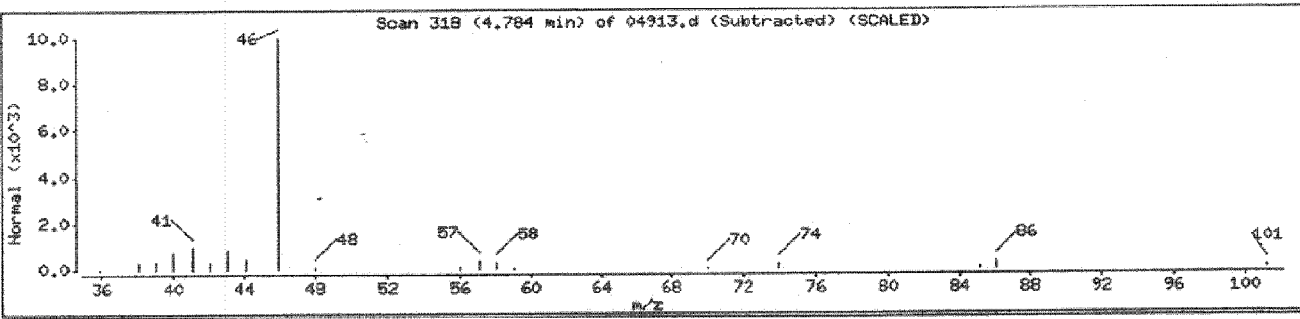
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: /var/chem/10ms1.1/021804.b/04913.d

Date : 18-FEB-2004 20:37

Client ID: E04-0120-67442

Instrument: 10ms1.1

Sample Info: 105333181

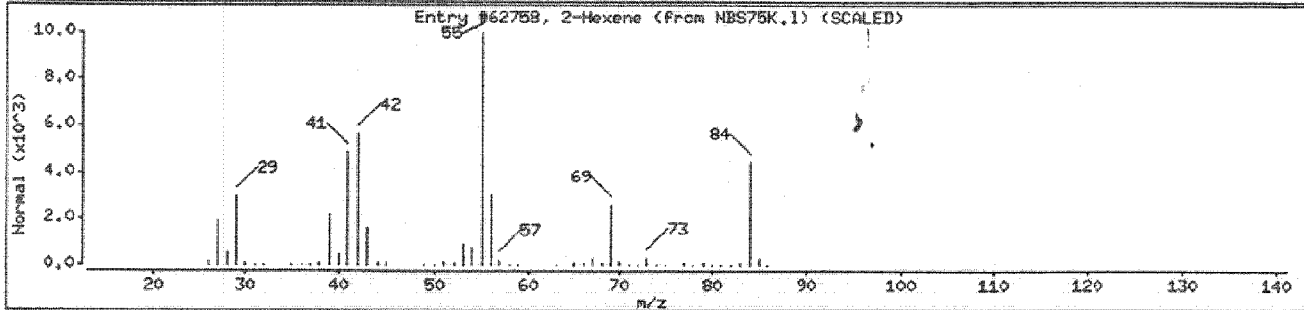
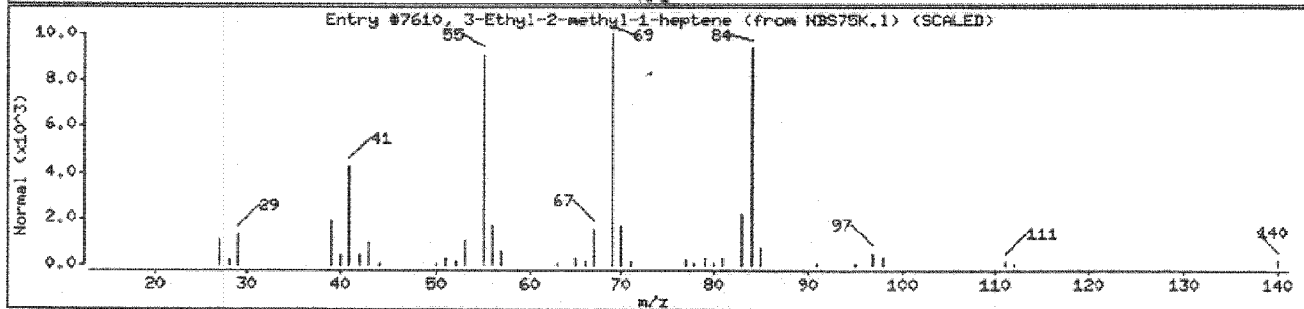
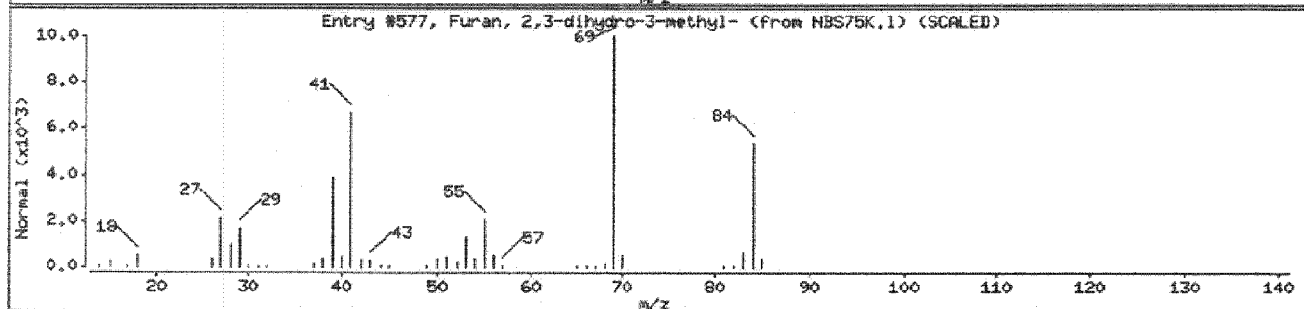
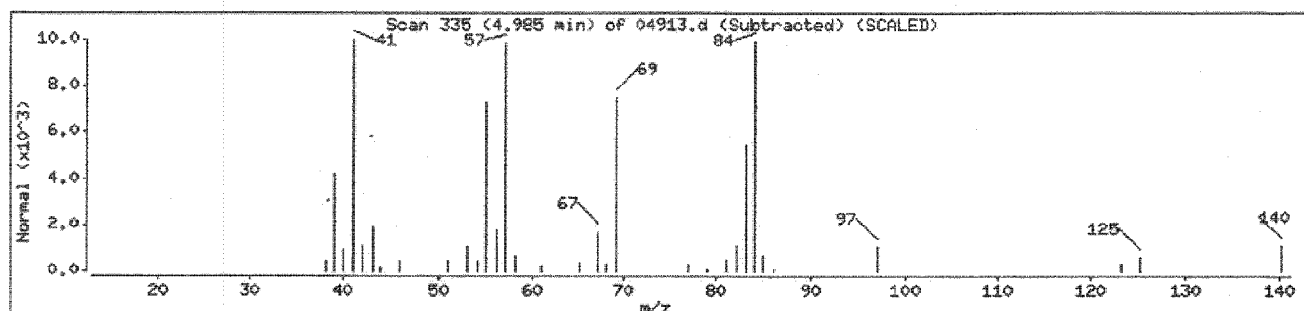
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Furan, 2,3-dihydro-3-methyl-	1708-27-6	NBS75K.1	577	58	C5H8O	84
3-Ethyl-2-methyl-1-heptene	19780-60-0	NBS75K.1	7610	53	C10H20	140
2-Hexene	592-43-8	NBS75K.1	62758	43	C6H12	84



Data File: /var/chem/10mssl1/021804.b/04913.d

Date: 18-FEB-2004 20:37

Client ID: E04-0120-67442

Instrument: 10mssl1

Sample Info: 105333181

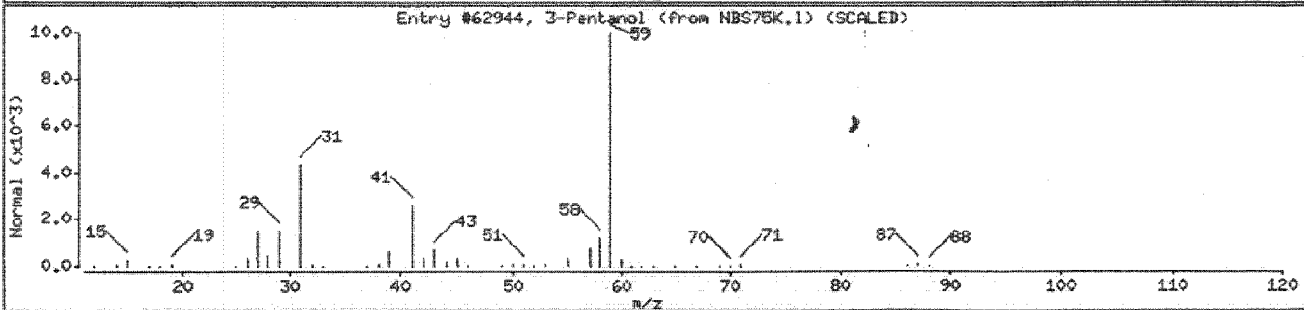
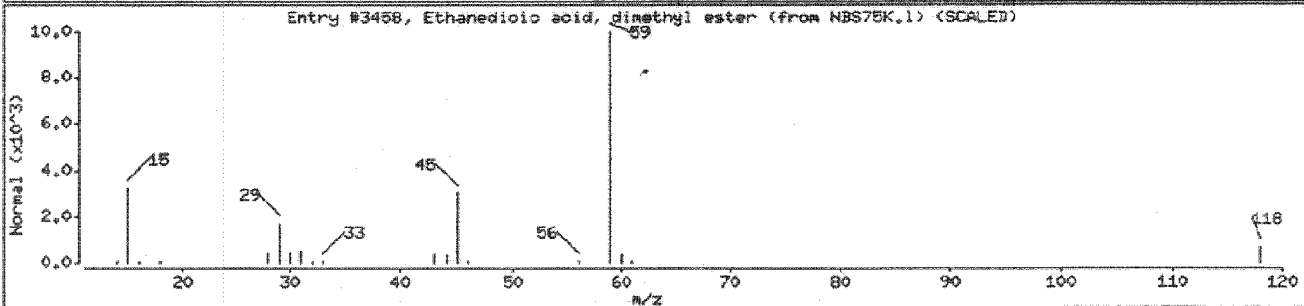
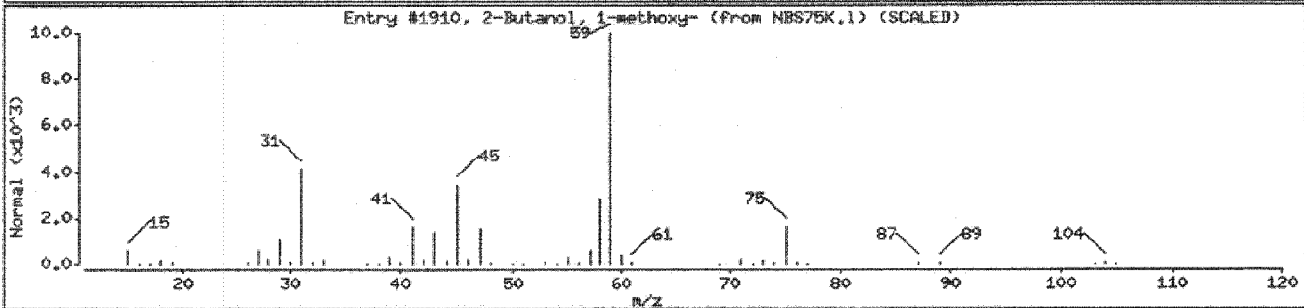
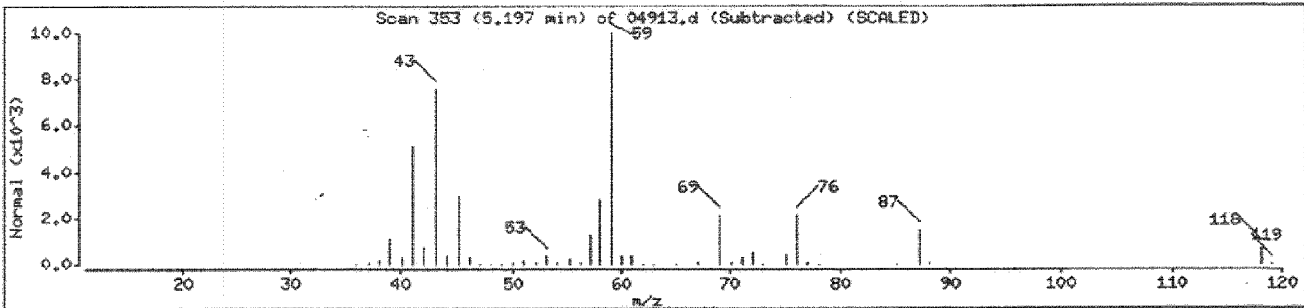
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Butanol, 1-methoxy-	53778-73-7	NBS75K.1	1910	59	C5H12O2	104
Ethanedioic acid, dimethyl ester	553-90-2	NBS75K.1	3458	49	C4H6O4	118
3-Pentanol	584-02-1	NBS75K.1	62944	47	C5H12O	88



Data File: /var/chem/10mss1.1/021804.b/04909.d
Report Date: 23-Feb-2004 12:20

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333140
Operator : KSK
Sample Location:
Sample Matrix: WATER
Analysis Type: SV

Client SDG: 021804
Client Smp ID: E04-0120-67434
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-22-0	3-Hydroxy-3-methyl-2-butano	1.710	1.20	NJ
2. 110-87-2	2H-Pyran, 3,4-dihydro-	4.987	1.28	NJ
3. 53778-73-7	2-Butanol, 1-methoxy-	5.187	4.92	NJ
4. 2050-01-3	Propanoic acid, 2-methyl-,	5.282	1.97	NJ
5. 112-36-7	Ethane, 1,1'-oxybis[2-ethox	5.730	1.98	NJ

Data File: /var/chem/10mssl.i/021804.b/04909.d
 Report Date: 23-Feb-2004 12:20

Pace Analytical Services, Inc.

BASE, NEUTRAL, ACID QUANT AND RATIO REPORT

Data file : /var/chem/10mssl.i/021804.b/04909.d
 Lab Smp Id: 105333140 Client Smp ID: E04-0120-67434
 Inj Date : 18-FEB-2004 17:04
 Operator : KSK Inst ID: 10mssl.i
 Smp Info : 105333140
 Misc Info :
 Comment : RCRA 8270C - SEMIVOLATILES
 Method : /var/chem/10mssl.i/021804.b/SV07-043.m
 Meth Date : 23-Feb-2004 11:14 kking Quant Type: ISTD
 Cal Date : 12-FEB-2004 20:45 Cal File: 04307.d
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 625.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

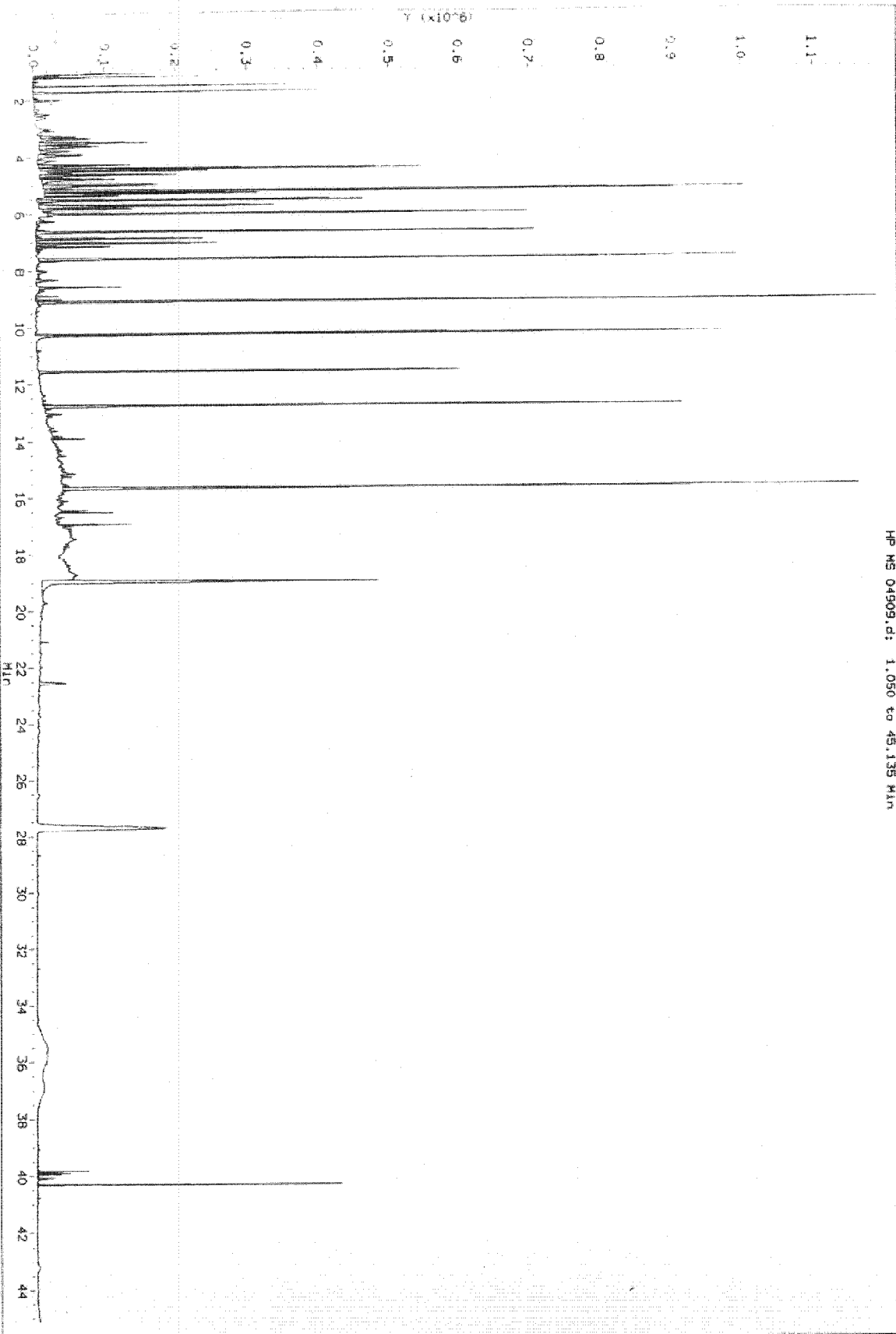
ISTD	RT	AREA	AMOUNT
* 9	1,4-Dichlorobenzene-d4	6.001	1301323 3.000

RT	AREA	CONCENTRATIONS			QUAL	QUANT		
		ON COL(	N3)	FINAL(ug/L)		LIBRARY	LIB ENTRY	CPND #
1.710	520877	1	20080088	1.20	72	NBS75K.1	1697	9
4.987	553284	1	27550997	1.28	62	NBS75K.1	62718	9

Data File: /var/chem/10mss1.i/021804.b/04909.d
Report Date: 23-Feb-2004 12:20

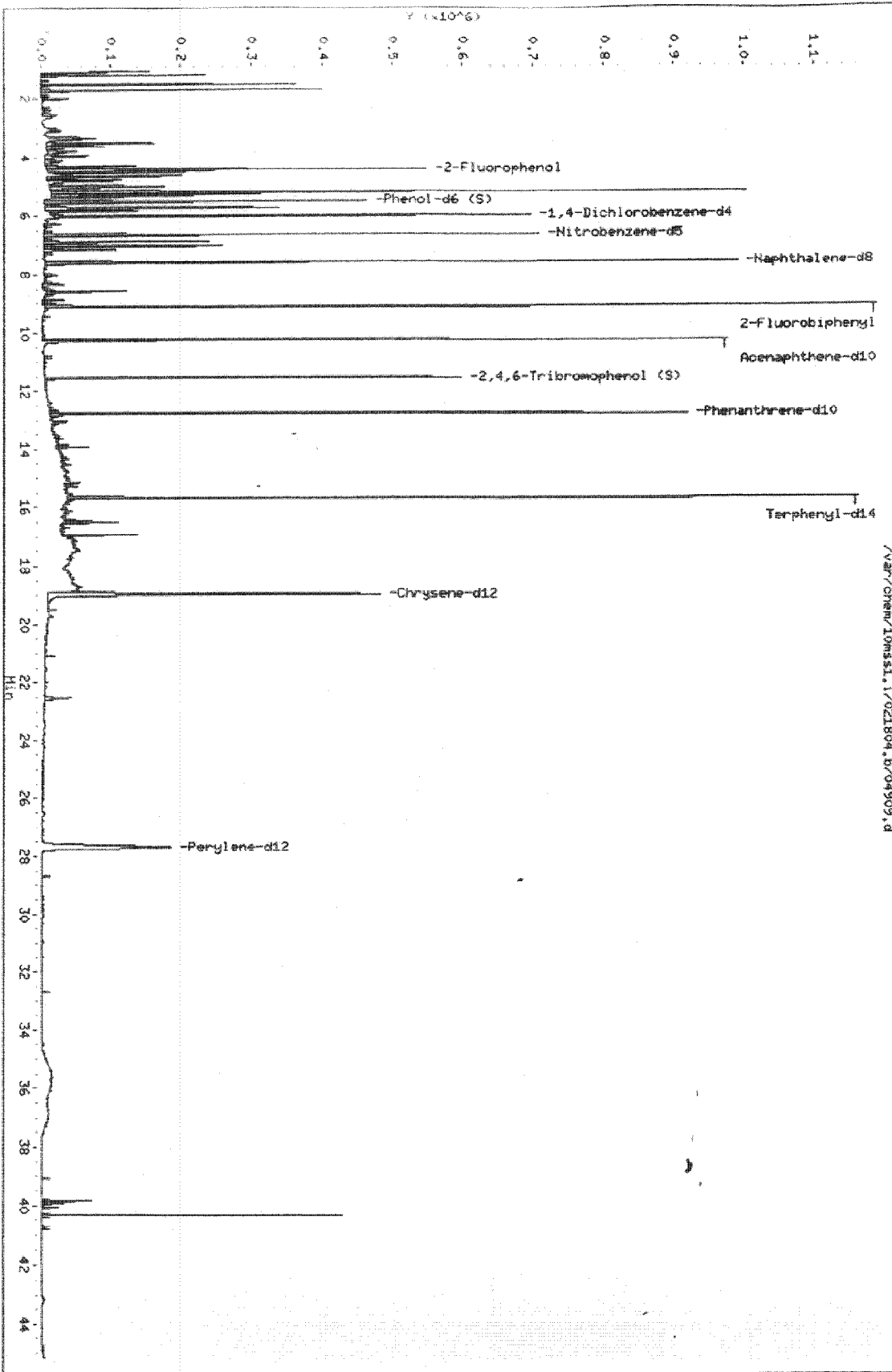
RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON COL	NG	FINAL(ug/L)	QUAL	LIBRARY LIB ENTRY	
5.187	2132064	4.91514242		4.92	59	NBS75K.1 1910	9
5.282	855409	1.97201187		1.97	72	NBS75K.1 11991	9
5.730	860204	1.98306665		1.98	72	NBS75K.1 67655	9

Data File: /var/chem/10msst.1/021804.b/04909.d
Injection Date: 18-FEB-2004 17:04
Instrument: 10msst.1
Client Sample ID: E04-0120-67434



Data File: /var/chem/10ms1.1/021804.b/04909.d
Date: 18-FEB-2004 17:04
Client ID: E04-0120-67434
Sample Info: 105333140
Volume Injected (uL): 1.0
Column Phase: DB-6MS

Instrument: 10ms1.1
Operator: KSK
Column diameter: 0.25



Data File: /var/chem/10ms1.1/021804.b/04909.d

Date: 18-FEB-2004 17:04

Client ID: E04-0120-67434

Instrument: 10ms1.1

Sample Info: 105333140

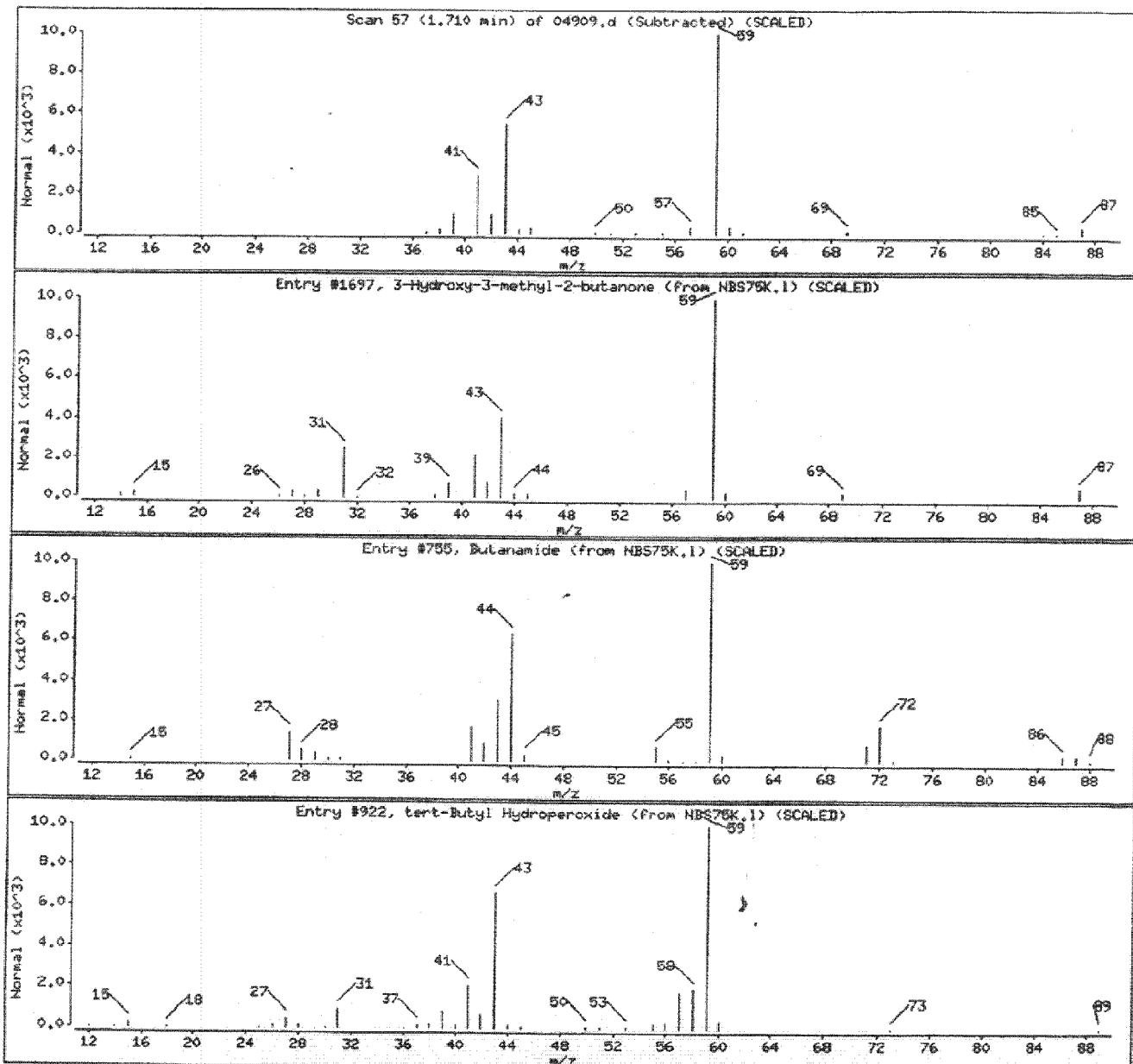
Volume Injected (ul): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Hydroxy-3-methyl-2-butanone	115-22-0	NBS75K.1	1697	72	C5H10O2	102
Butanamide	541-35-5	NBS75K.1	755	56	C4H9NO	87
tert-Butyl Hydroperoxide	75-91-2	NBS75K.1	922	40	C4H10O2	90



Data File: /var/chem/10ms1.i/021804.b/04909.d

Date: 18-FEB-2004 17:04

Client ID: E04-0120-67434

Instrument: 10ms1.1

Sample Info: 105333140

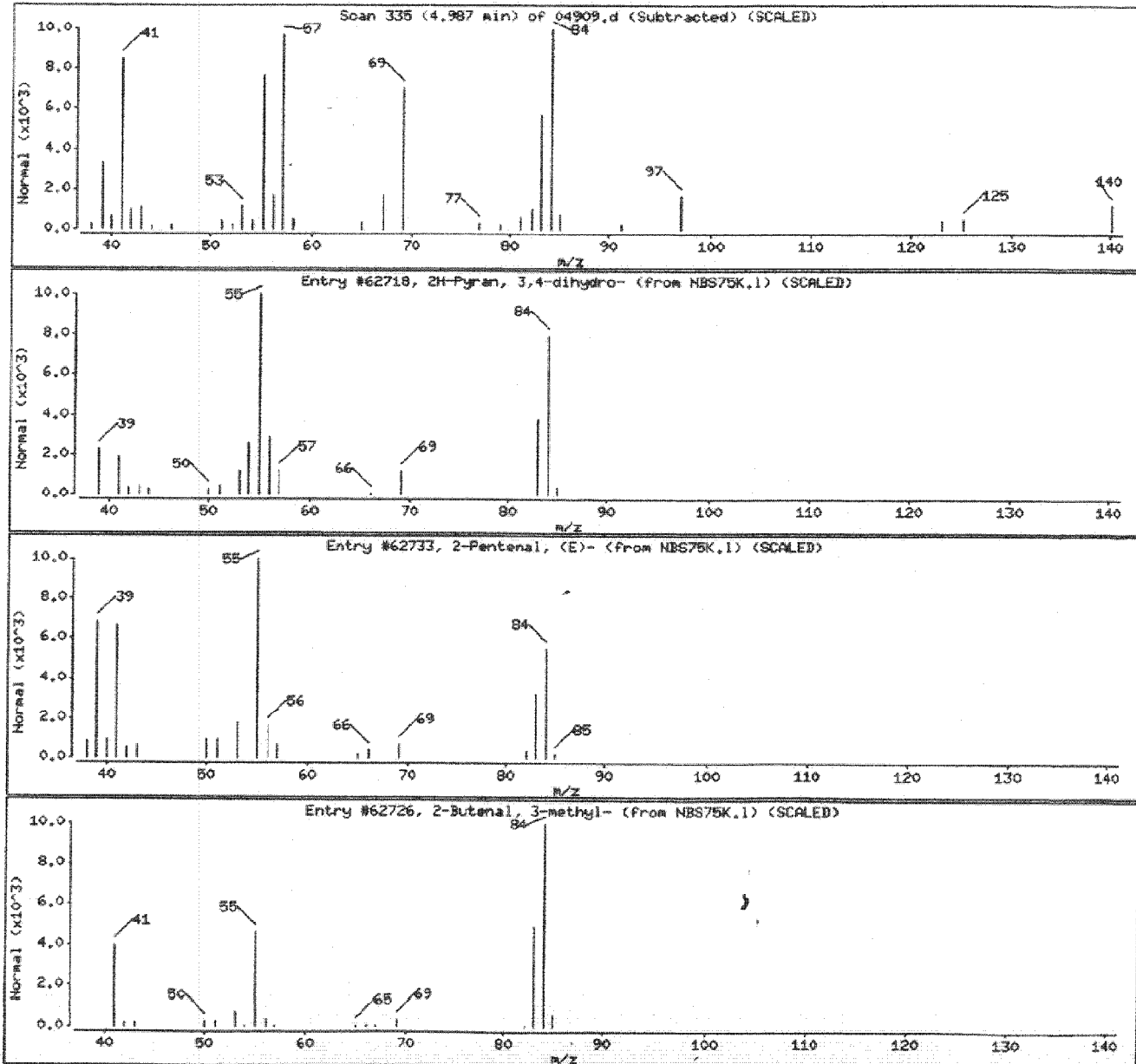
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2H-Pyran, 3,4-dihydro-	110-87-2	NBS75K.1	62718	62	C5H8O	84
2-Pentenal, (E)-	1576-87-0	NBS75K.1	62733	59	C5H8O	84
2-Butenal, 3-methyl-	107-86-8	NBS75K.1	62726	58	C5H8O	84



Data File: /var/chem/10ms1.1/021804.b/04909.d

Date: 18-FEB-2004 17:04

Client ID: E04-0120-67434

Instrument: 10ms1.1

Sample Info: 105333140

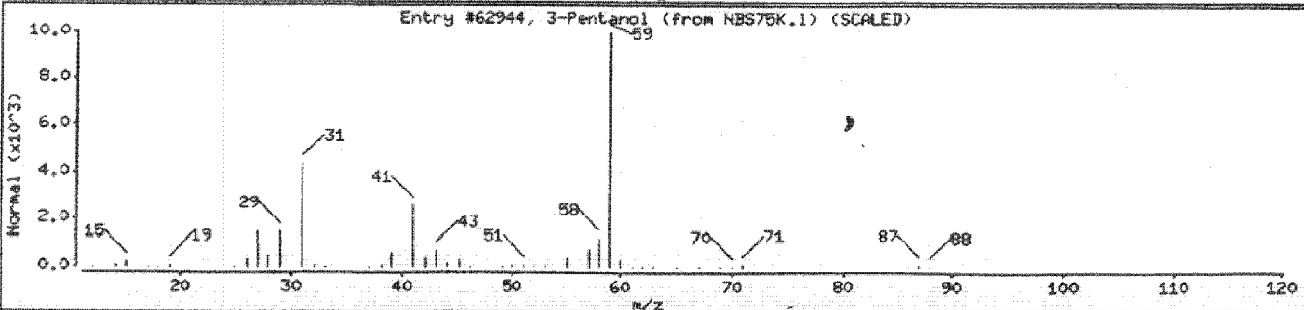
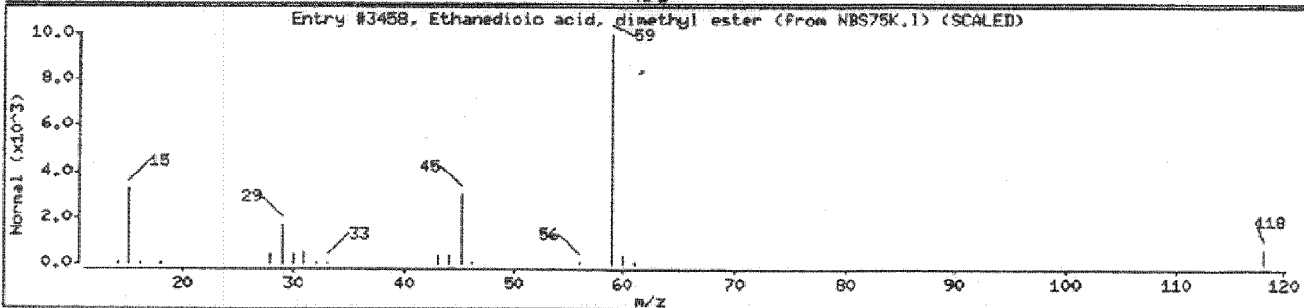
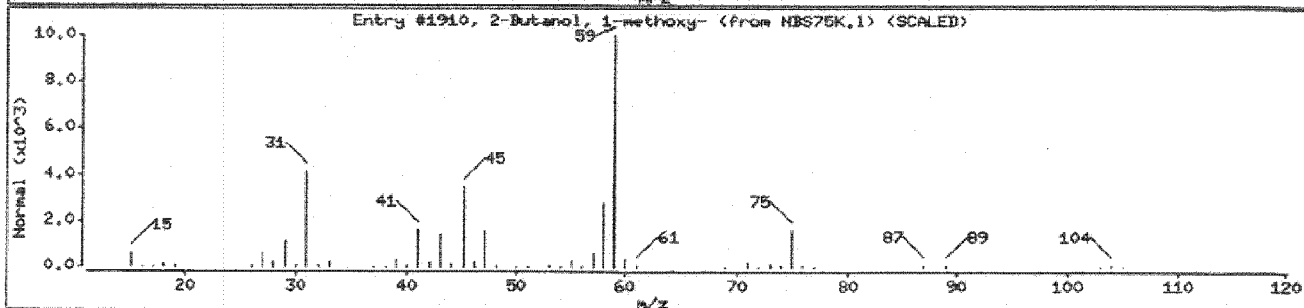
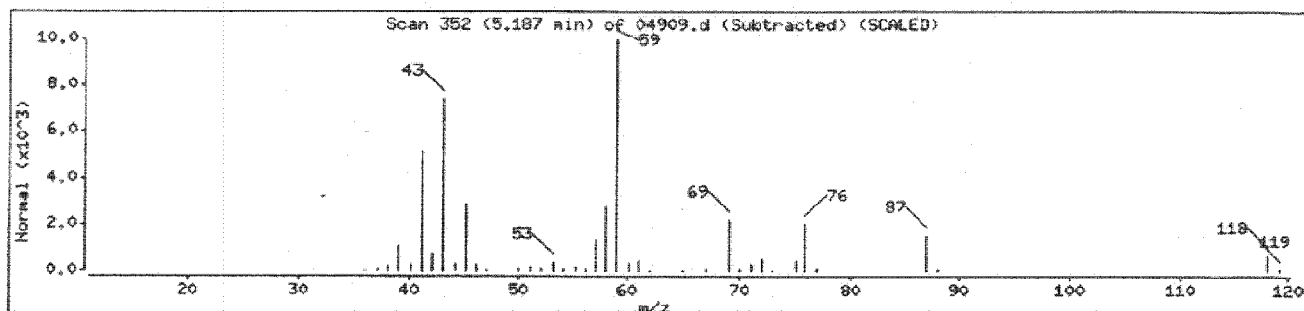
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Height
2-Butanol, 1-methoxy-	53778-73-7	NBS75K.1	1910	59	C5H12O2	104
Ethanedioic acid, dimethyl ester	563-90-2	NBS75K.1	3458	49	C4H6O4	118
3-Pentanol	584-02-1	NBS75K.1	62944	47	C5H12O	98



Data File: /var/chem/10ms1.1/021804.b/04909.d

Date: 18-FEB-2004 17:04

Client ID: E04-0120-67434

Instrument: 10ms1.1

Sample Info: 105333140

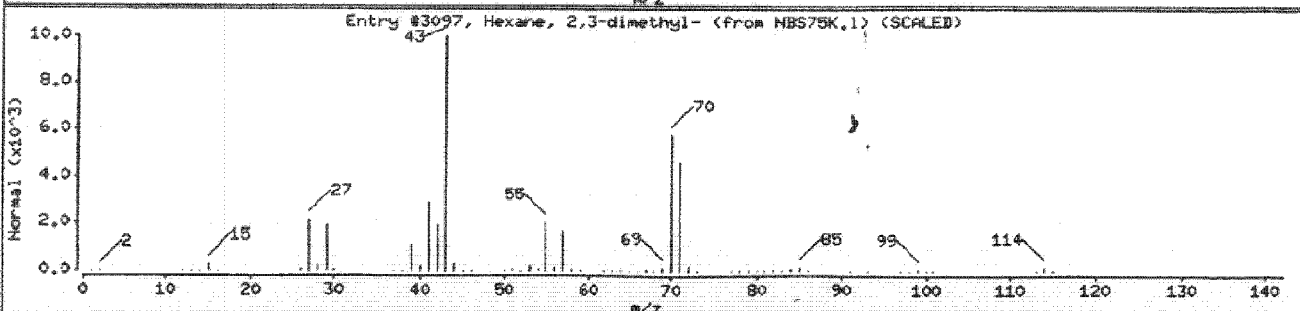
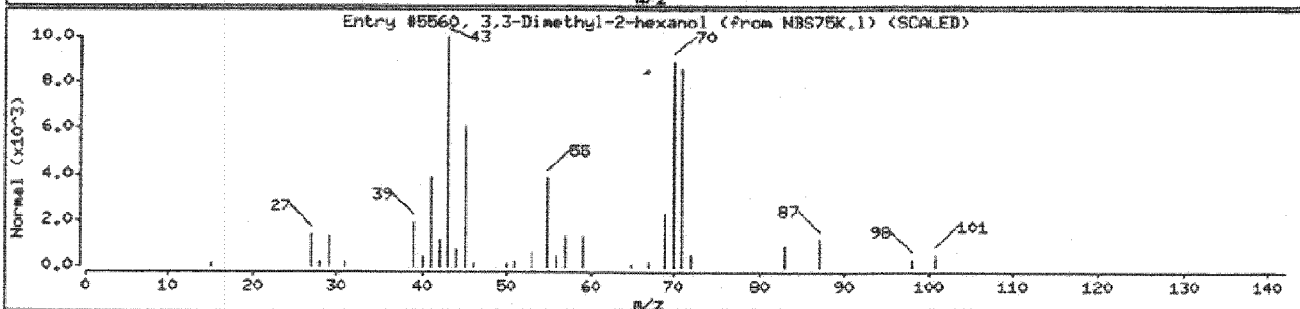
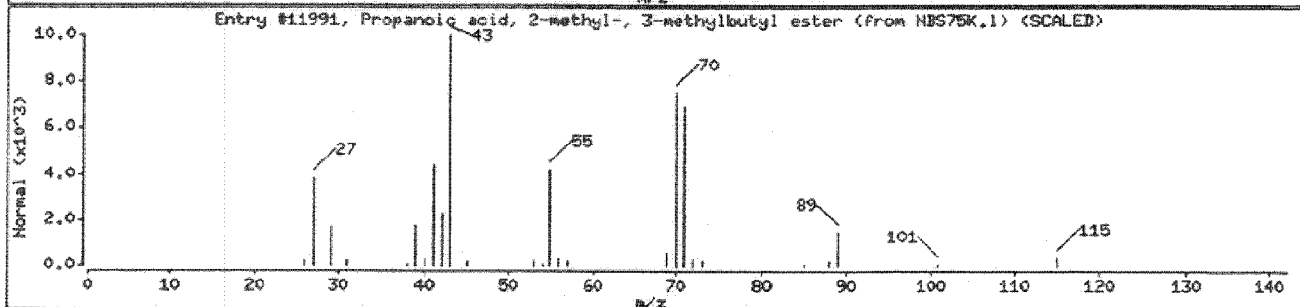
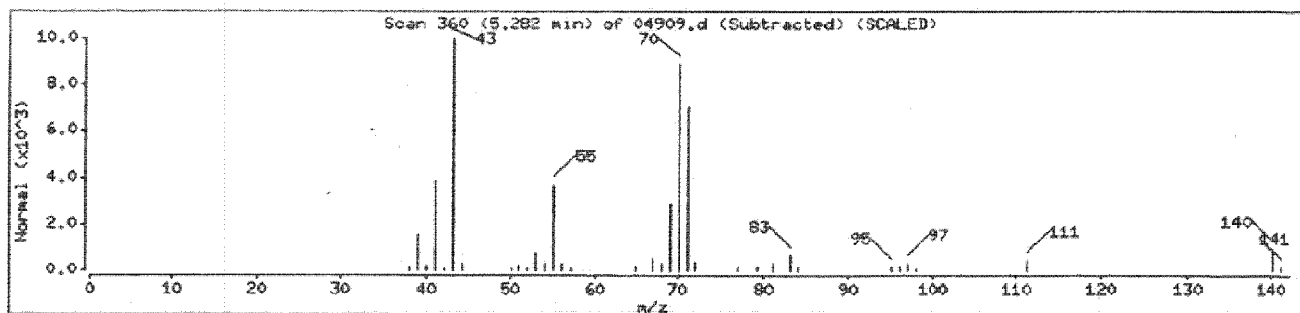
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanoic acid, 2-methyl-, 3-methylbutyl	2050-01-3	NBS75K.1	11991	72	C9H18O2	158
3,3-Dimethyl-2-hexanol	22025-20-3	NBS75K.1	5560	72	C8H18O	130
Hexane, 2,3-dimethyl-	584-94-1	NBS75K.1	3097	56	C8H18	114



Date : 18-FEB-2004 17:04

Client ID: E04-0120-67434

Instrument: 10ms1.1

Sample Info: 105333140

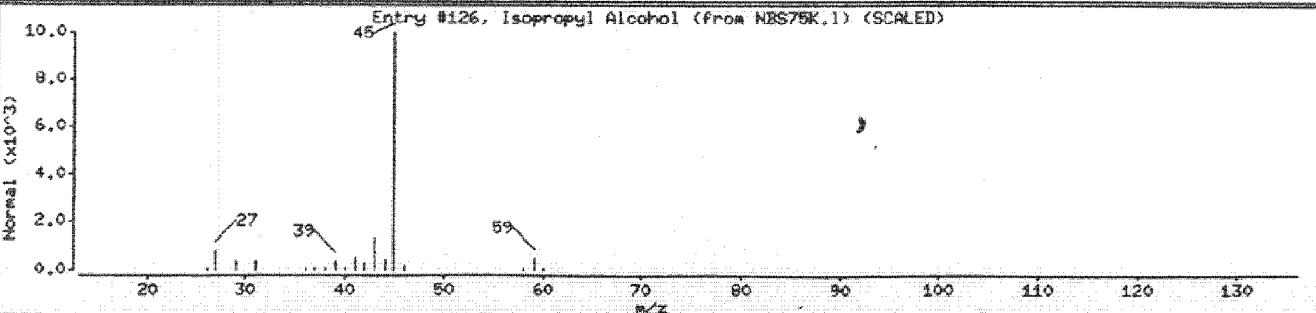
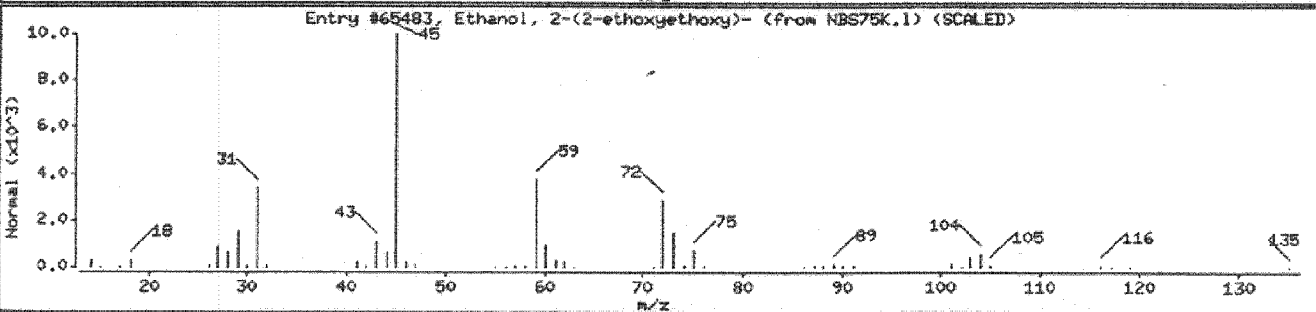
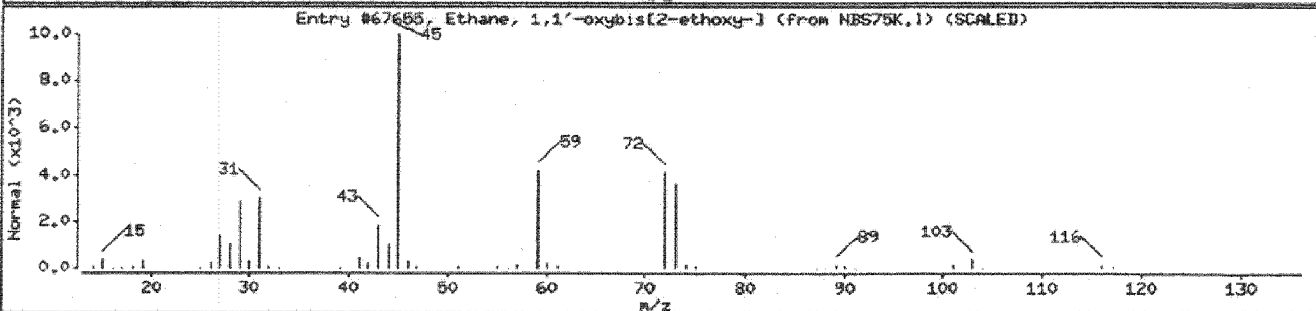
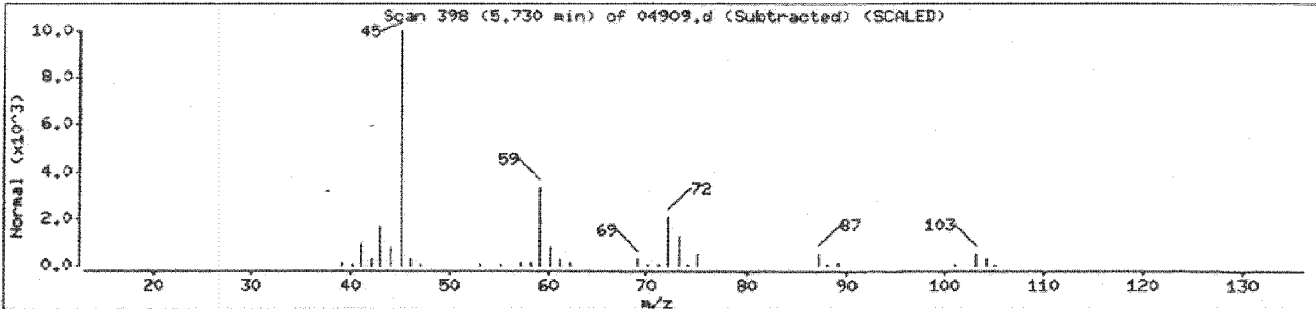
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethane, 1,1'-oxybis[2-ethoxy-]	112-36-7	NBS75K.1	67685	72	C8H18O3	162
Ethanol, 2-(2-ethoxyethoxy)-	111-90-0	NBS75K.1	65483	64	C6H14O3	134
Isopropyl Alcohol	67-63-0	NBS75K.1	126	58	C3H8O	60



Data File: /var/chem/10mssl.i/021804.b/04908.d
 Report Date: 23-Feb-2004 12:20

Pace Analytical Services, Inc.

BASE, NEUTRAL, ACID QUANT AND RATIO REPORT

Data file : /var/chem/10mssl.i/021804.b/04908.d
 Lab Smp Id: 105333132 Client Smp ID: E04-0120-67432
 Inj Date : 18-FEB-2004 16:10
 Operator : KSK Inst ID: 10mssl.i
 Smp Info : 105333132
 Misc Info :
 Comment : RCRA 8270C - SEMIVOLATILES
 Method : /var/chem/10mssl.i/021804.b/SV07-043.m
 Meth Date : 23-Feb-2004 11:14 kking Quant Type: ISTD
 Cal Date : 12-FEB-2004 20:45 Cal File: 04307.d
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 625.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 9	1,4-Dichlorobenzene-d4	6.002	1301682 3.000
* 45	Acenaphthene-d10	10.245	2152915 40.000
* 62	Phenanthrene-d10	12.768	1769383 40.000

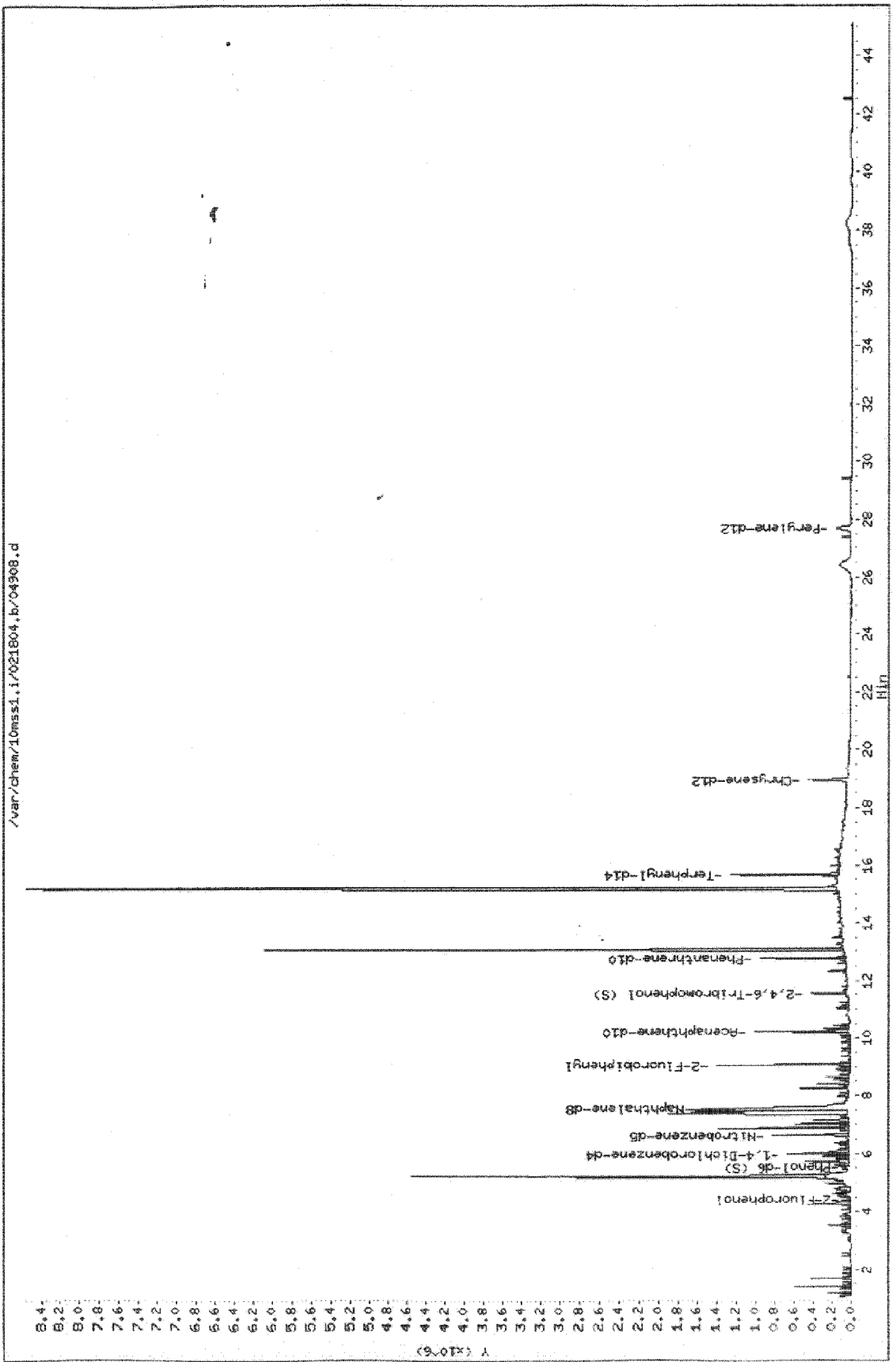
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	AREA	ON COL(NG)	FINAL(ug/L)		LIBRARY	LIB ENTRY	CPND #
1.711	558462	1.28709347	1.29	72	NBS75K.1	1697	9

Data File: /var/chem/10mssl.i/021804.b/04908.d
 Report Date: 23-Feb-2004 12:20

RT	CONCENTRATIONS				QUAL	QUANT		CPND #
	AREA	ON COL	NG	FINAL (ug/L)		LIBRARY	LIB ENTRY	
====	====	=====	=====	=====	=====	=====	=====	=====
Unknown						CAS #:		
3.525	626143	1.44307793		1.44	0		0	9
2-Heptanol, 2-methyl-						CAS #: 625-25-2		
4.269	1432761	3.30209849		3.30	50	NBS75K.1	5531	9
Unknown						CAS #:		
4.788	783085	1.80478363		1.80	0		0	9
Furan, 2,3-dihydro-4-methyl-						CAS #: 34314-83-5		
4.976	674718	1.55502906		1.56	58	NBS75K.1	557	9
Ethane, 1,1'-oxybis(2-methoxy-						CAS #: 111-96-6		
5.224	12061593	27.7984718		27.8	63	NBS75K.1	5085	9
Ethanol, 2-(2-ethoxyethoxy)-						CAS #: 111-90-0		
5.731	1278776	2.94720857		2.95	56	NBS75K.1	65483	9
2-Propanol, 1,1'-oxybis-						CAS #: 110-98-5		
6.084	762018	1.75623150		1.76	78	NBS75K.1	6087	9
1-Heptene						CAS #: 592-76-7		
6.886	2676270	6.16802630		6.17	59	NBS75K.1	63242	9
1,2-Benzenedicarbonitrile, 4-amino-						CAS #: 56765-79-8		
7.027	1157368	2.66739685		2.67	18	NBS75K.1	8183	9
2-Fluoro-6-nitrophenol						CAS #: 1526-17-6		
7.157	797366	1.83769773		1.84	97	NBS75K.1	11655	9
2-Propenamide, N-(1,1-dimethylethyl)-						CAS #: 107-58-4		
8.265	955668	17.7557941		17.8	40	NBS75K.1	4760	45
1,3-Dioxolane, 2-(4-methoxyphenyl)-2-met						CAS #: 0-00-0		
13.074	13446814	303.988711		304	64	NBS75K.1	21216	62
Ethanol, 2-[2-[4-(1,1,3,3-tetramethylbut						CAS #: 2315-61-9		
15.207	35627899	805.430900		805	86	NBS75K.1	41793	62

Data File: /var/chem/10mssi.i/021804.br/04908.d
 Date: 18-FEB-2004 16:10
 Client ID: E04-0120-67432
 Sample Info: 105333132
 Volume Injected (ul): 1.0
 Column phase: DB-5MS

Instrument: 10mssi.i
 Operator: KSK
 Column diameter: 0.25



Data File: /var/chem/10mss1.1/021804.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10mss1.1

Sample Info: 105333132

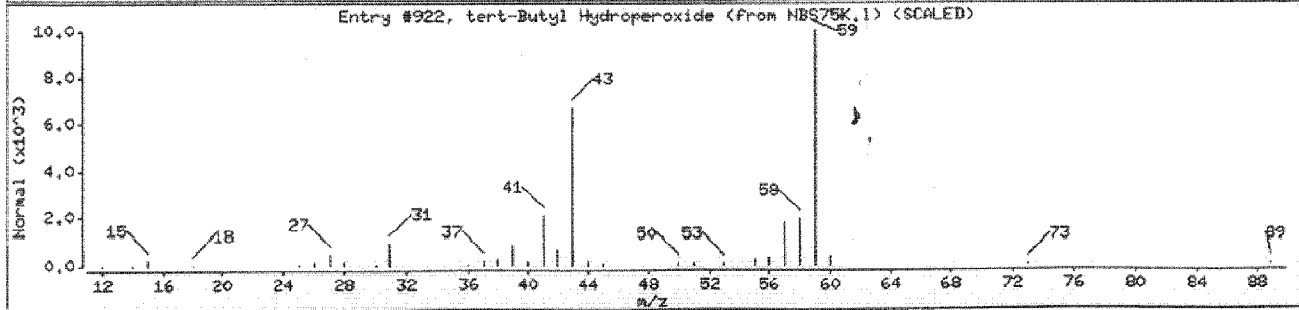
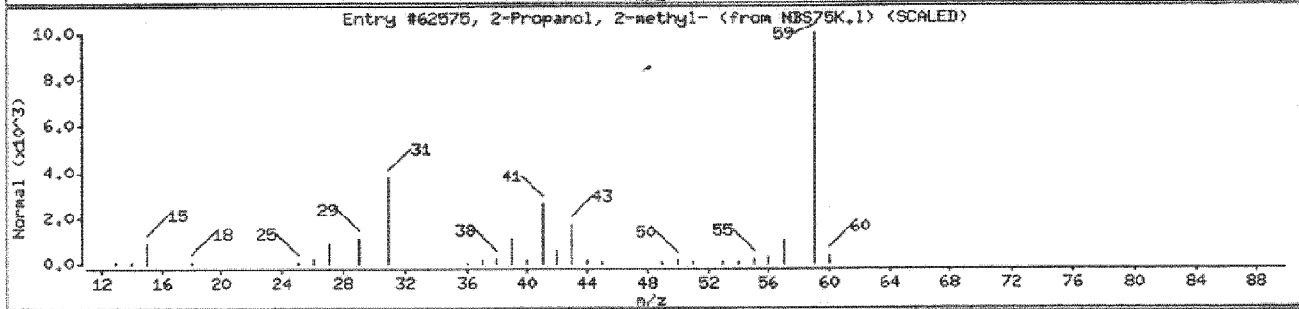
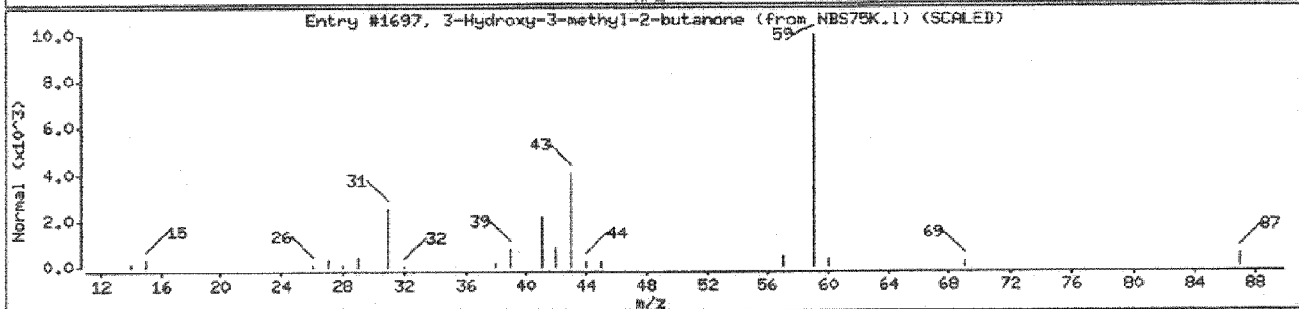
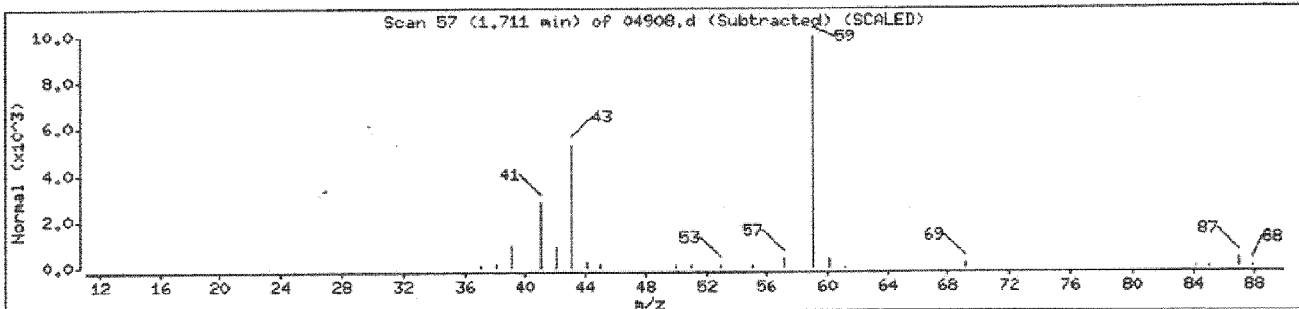
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Hydroxy-3-methyl-2-butanone	115-22-0	NBS75K.1	1697	72	C5H10O2	102
2-Propanol, 2-methyl-	75-65-0	NBS75K.1	62575	38	C4H10O	74
tert-Butyl Hydroperoxide	75-91-2	NBS75K.1	922	38	C4H10O2	90



Data File: /var/chem/10mss1.i/021804.b/04908.d

Date : 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10mss1.i

Sample Info: 105333132

Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match

CAS Number

Library

Entry

Quality Formula

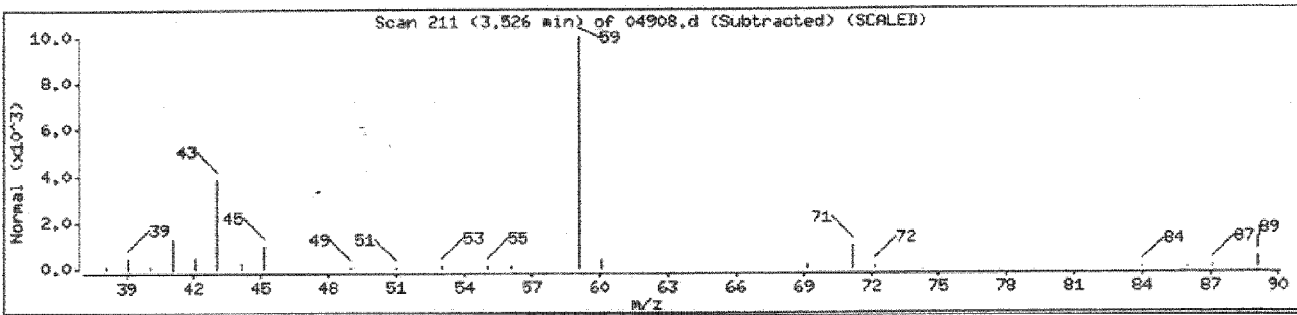
Weight

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0

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Data File: /var/chem/10ms1.i/021004.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.i

Sample Info: 105333132

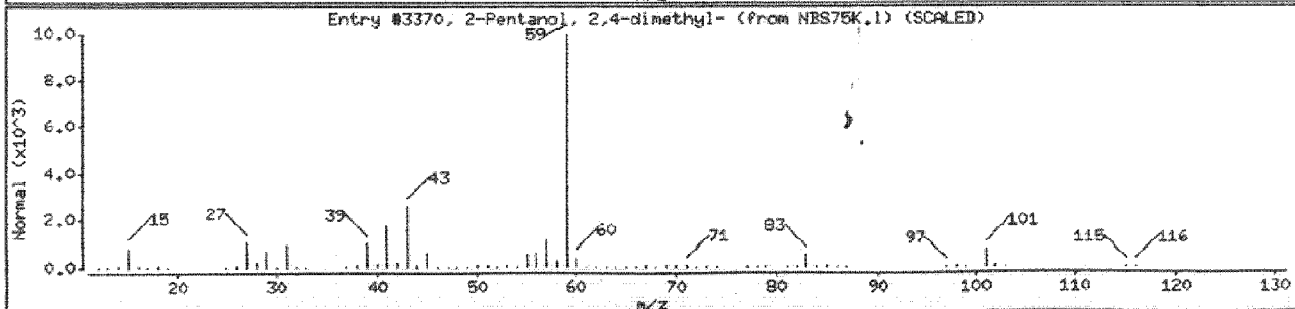
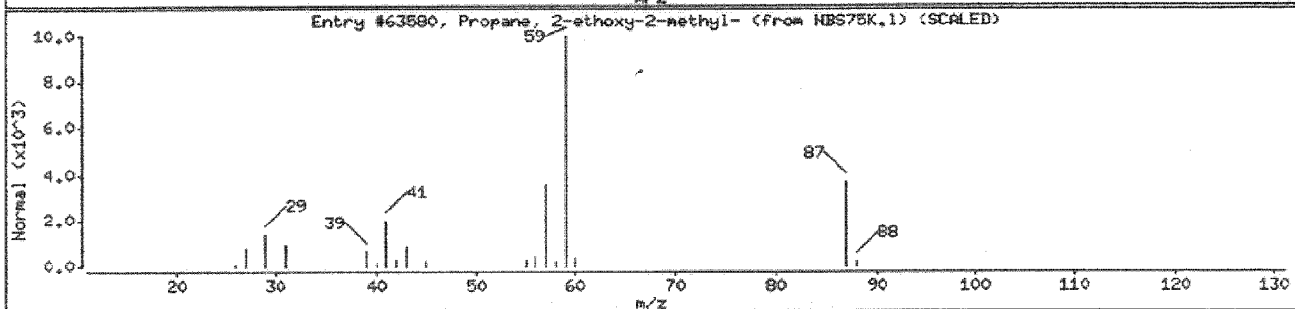
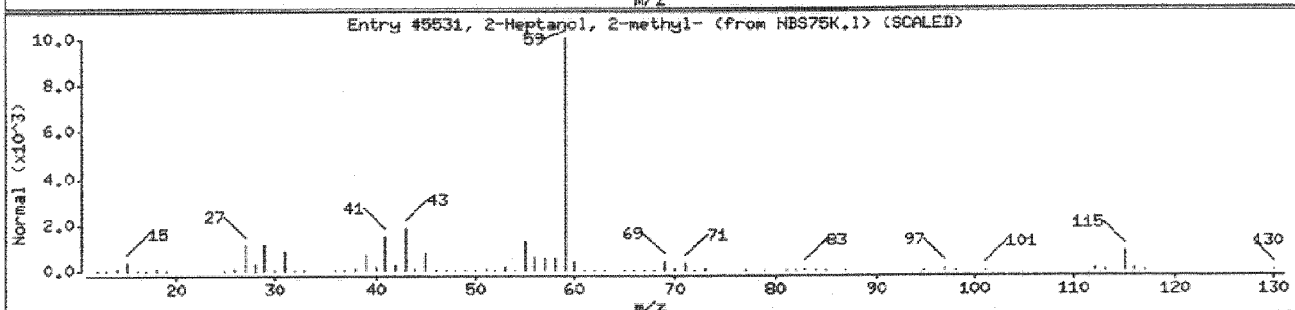
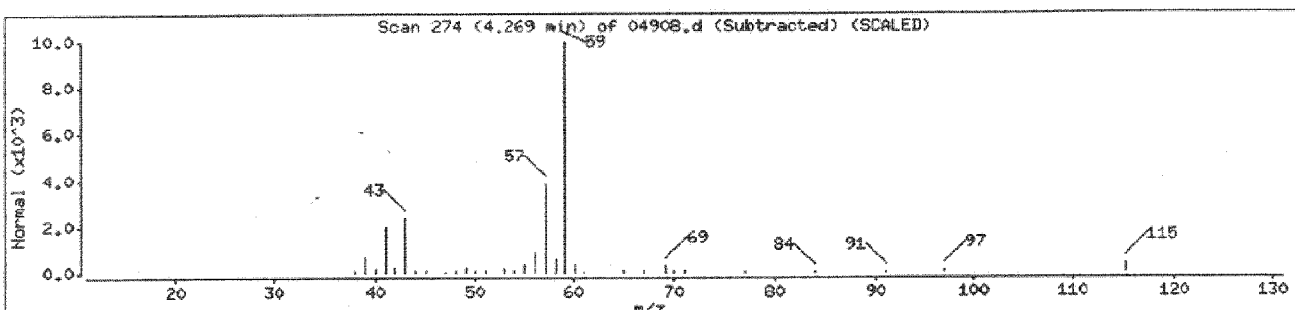
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Heptanol, 2-methyl-	625-25-2	NBS75K.1	5531	50	C8H18O	130
Propane, 2-ethoxy-2-methyl-	637-92-3	NBS75K.1	63580	40	C6H14O	102
2-Pentanol, 2,4-dimethyl-	625-06-9	NBS75K.1	3370	39	C7H16O	116



Data File: /var/chem/10ms1.1/021804.b/04908.d

Date : 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.1

Sample Info: 105333132

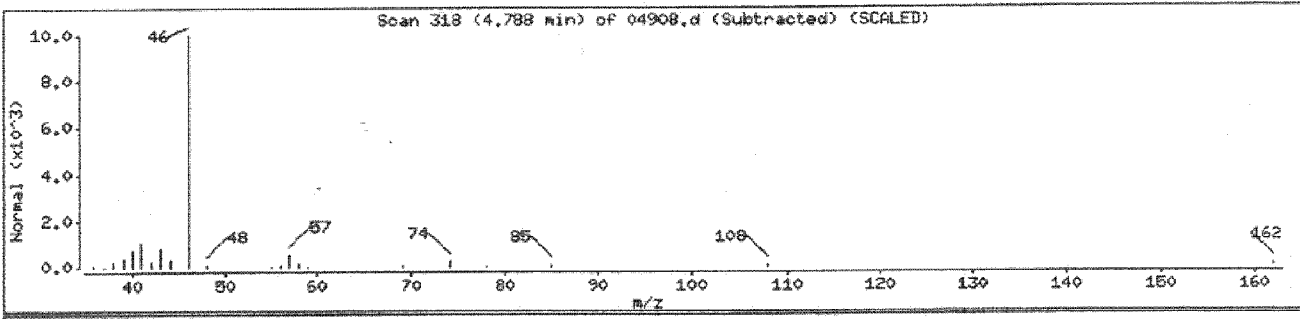
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: /var/chem/10ms1.i/021804.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.i

Sample Info: 105333132

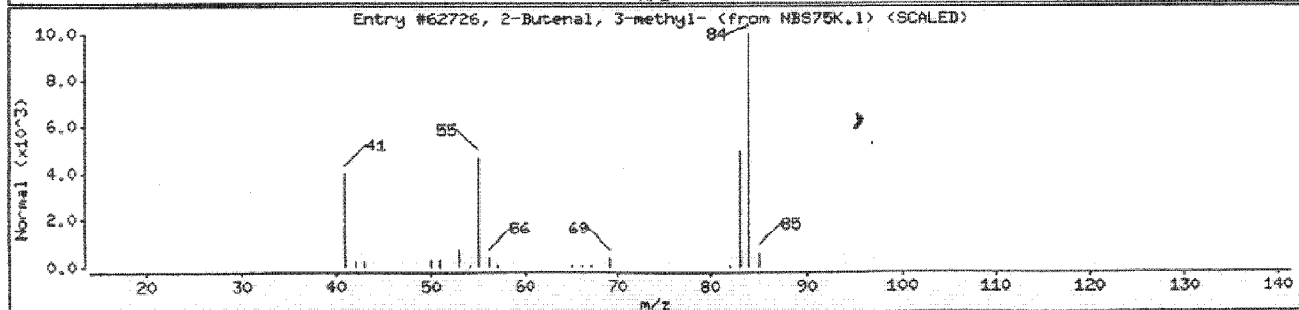
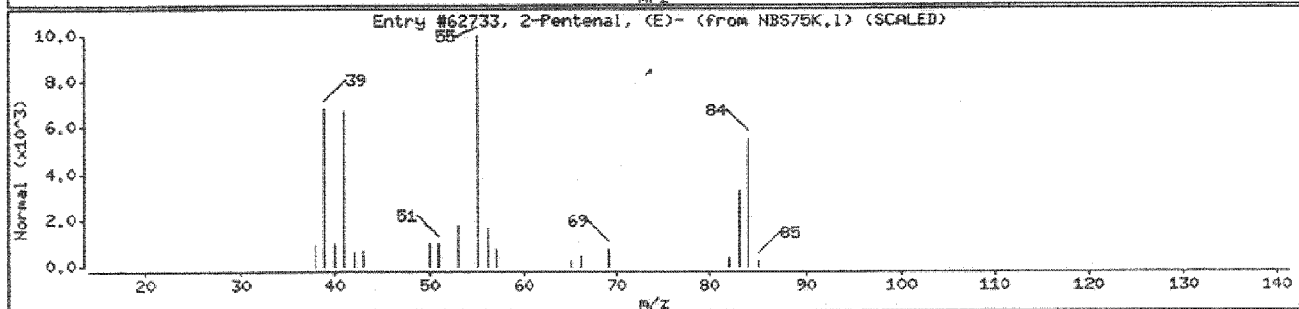
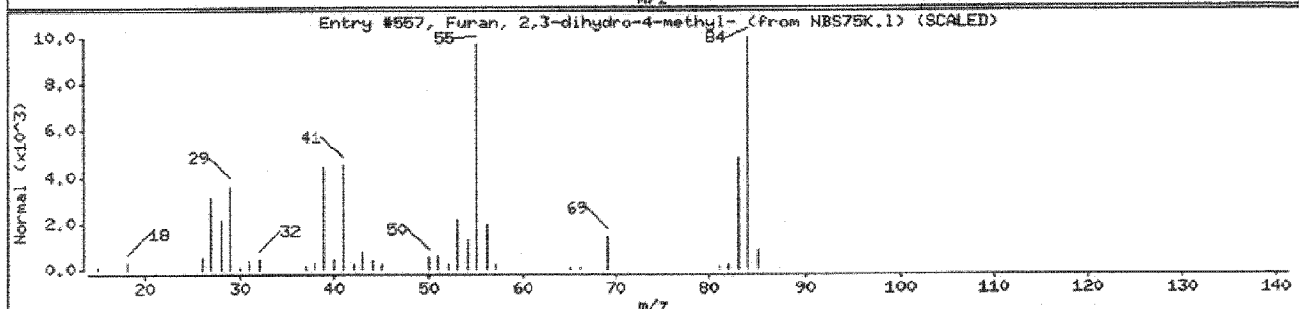
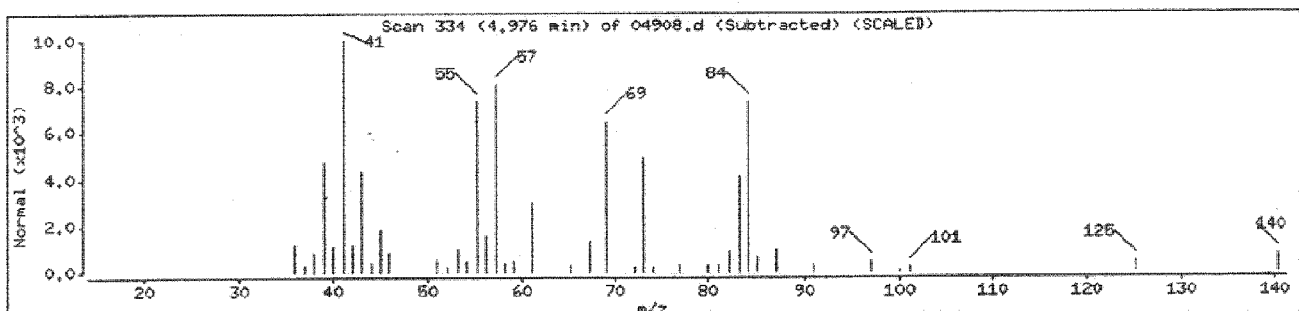
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Furan, 2,3-dihydro-4-methyl-	34314-83-5	NBS75K.1	557	58	C5H8O	84
2-Pentenal, (E)-	1576-87-0	NBS75K.1	62733	53	C5H8O	84
2-Butenal, 3-methyl-	107-86-8	NBS75K.1	62726	50	C5H8O	84



Data File: /var/chem/10ms1.i/021804.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.i

Sample Info: 105333132

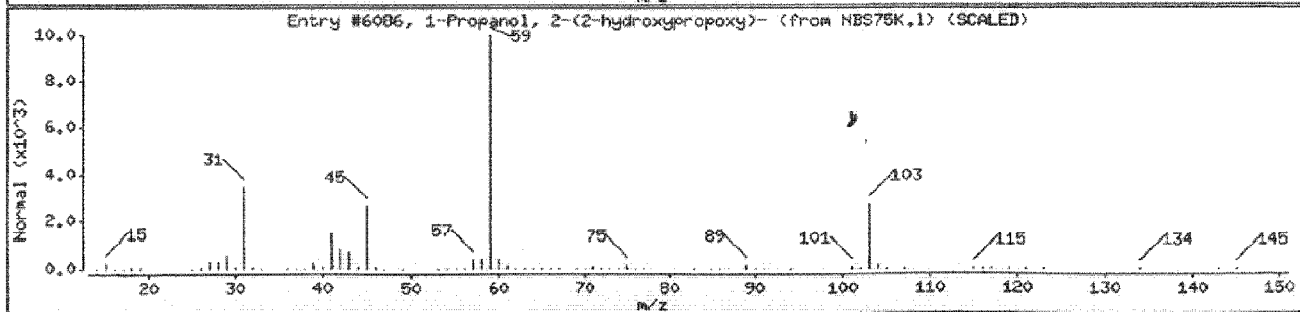
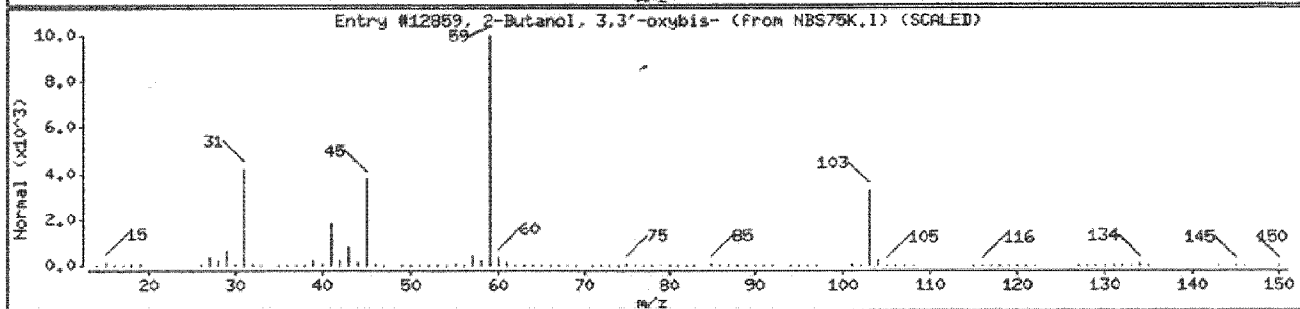
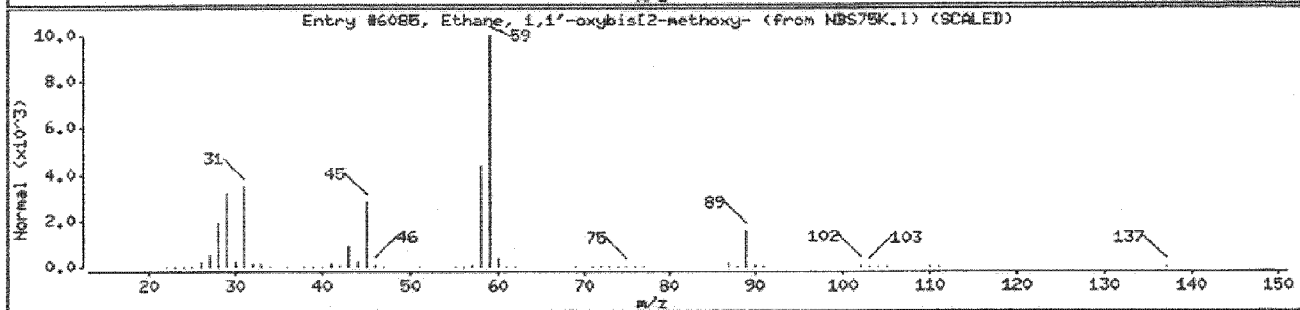
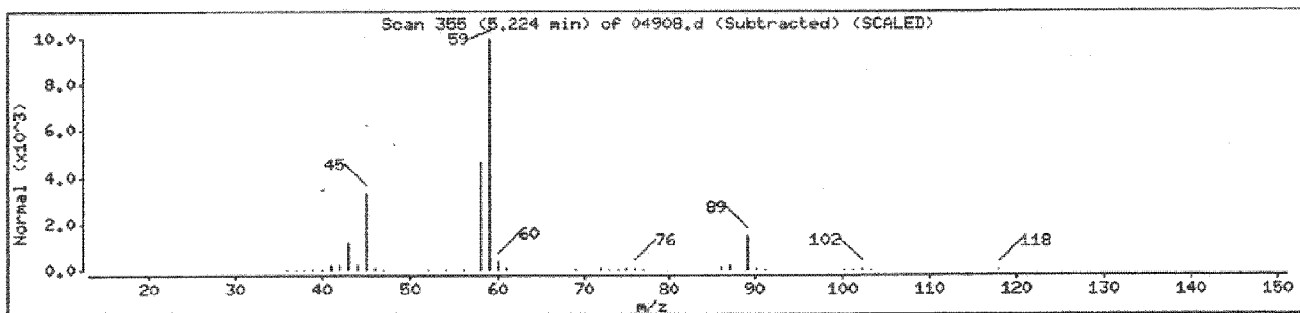
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethane, 1,1'-oxybis[2-methoxy-	111-96-6	NBS75K.1	6085	83	C6H14O3	134
2-Butanol, 3,3'-oxybis-	54305-61-2	NBS75K.1	12859	40	C8H18O3	162
1-Propanol, 2-(2-hydroxypropoxy)-	106-62-7	NBS75K.1	6086	33	C6H14O3	134



Data File: /var/chem/10ms1.1/021804.1/04908.d

Date : 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.1

Sample Info: 106333132

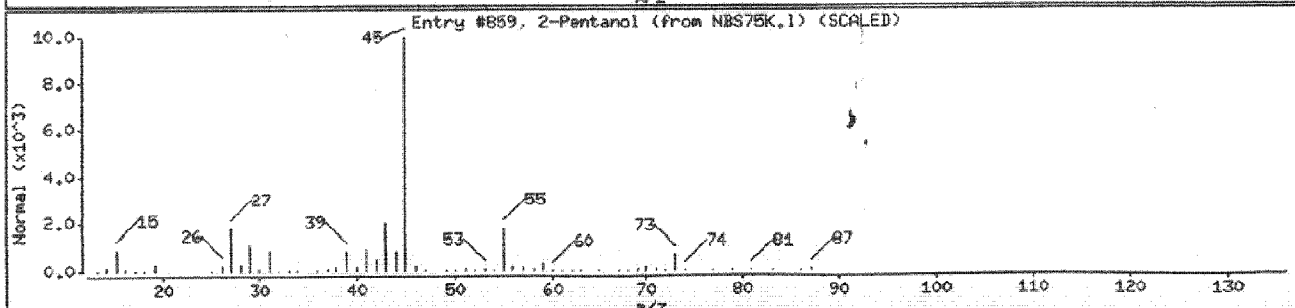
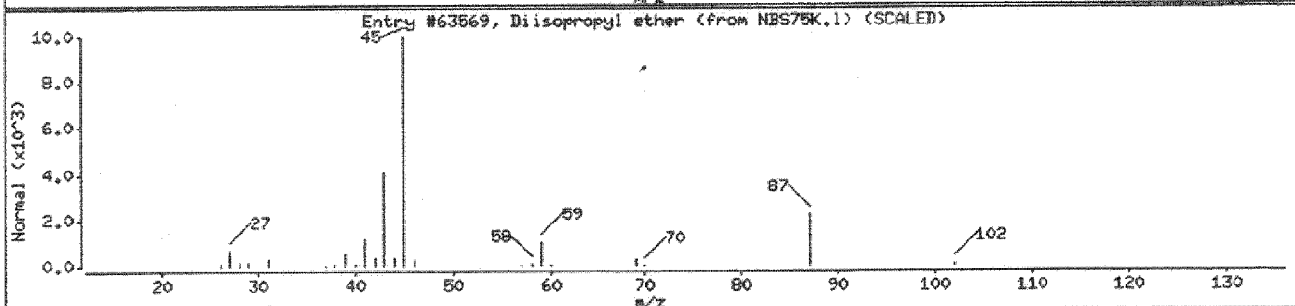
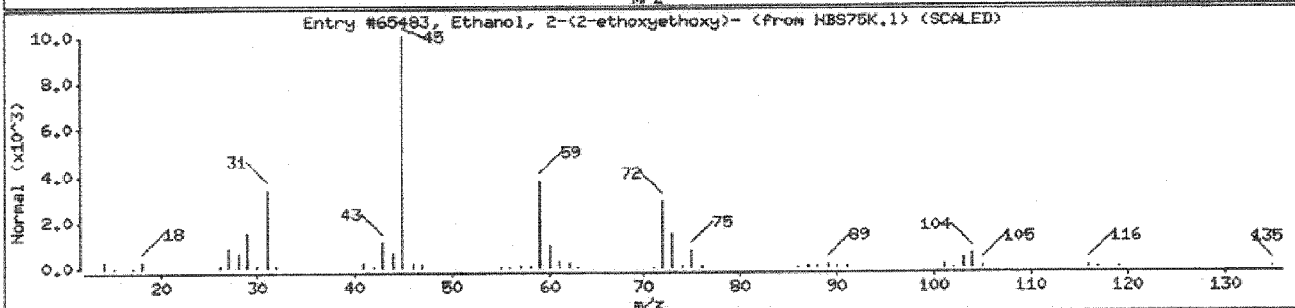
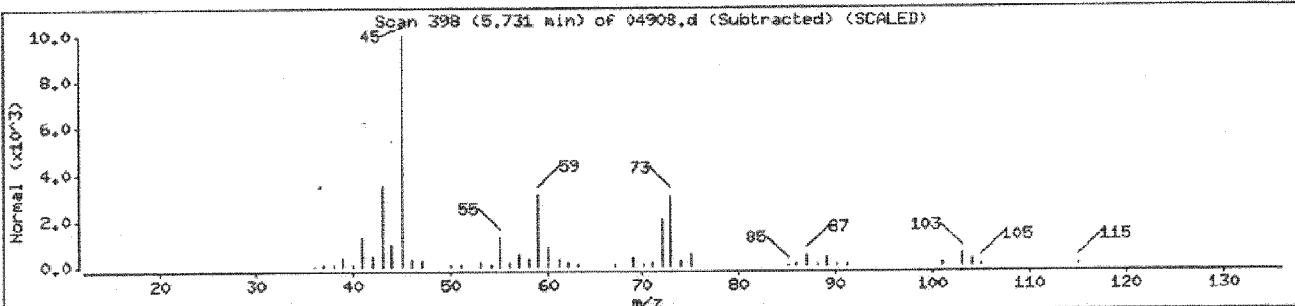
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-(2-ethoxyethoxy)-	111-90-0	NBS75K.1	65483	56	C6H14O3	134
Diisopropyl ether	108-20-3	NBS75K.1	63669	47	C6H14O	102
2-Pentanol	6032-29-7	NBS75K.1	859	40	C5H12O	88



Data File: /var/chem/10mssl1/021804.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10mssl1

Sample Info: 105333132

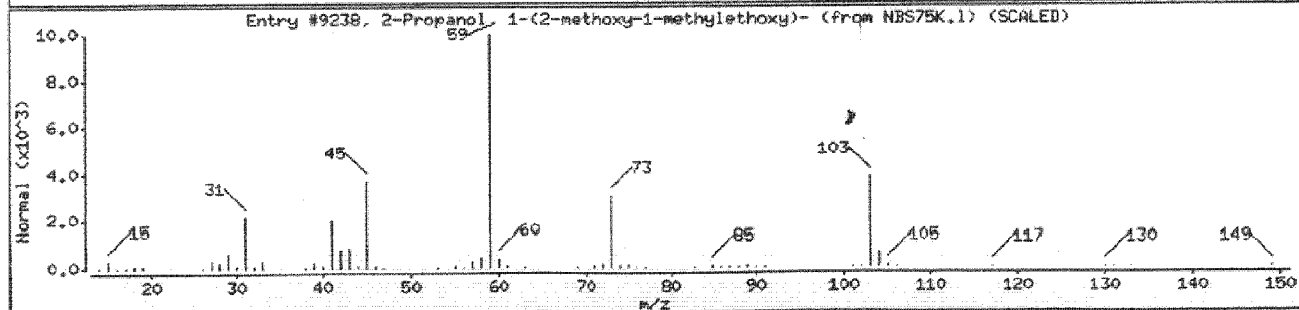
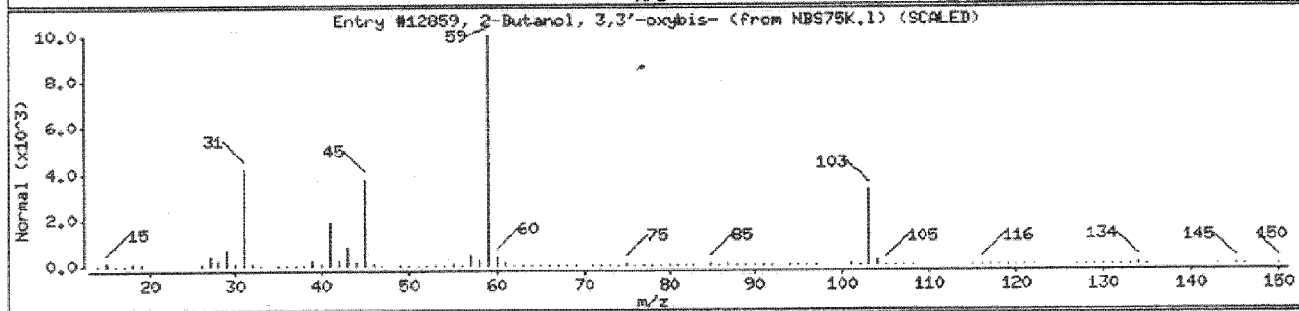
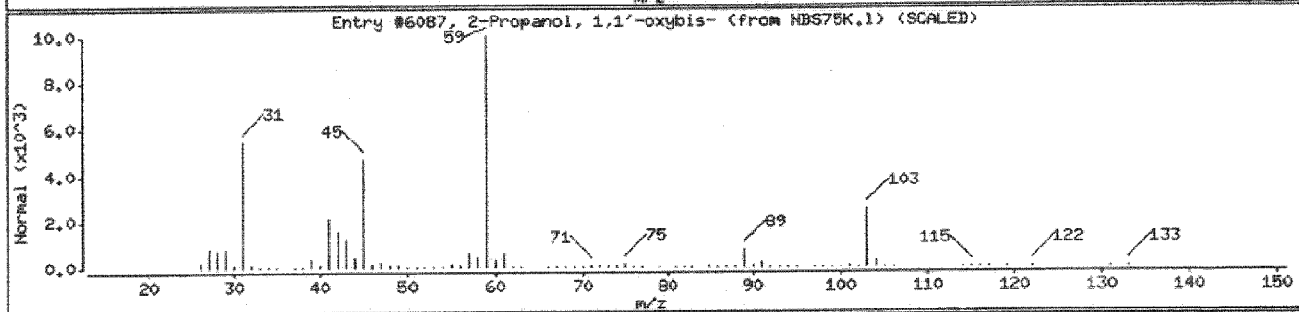
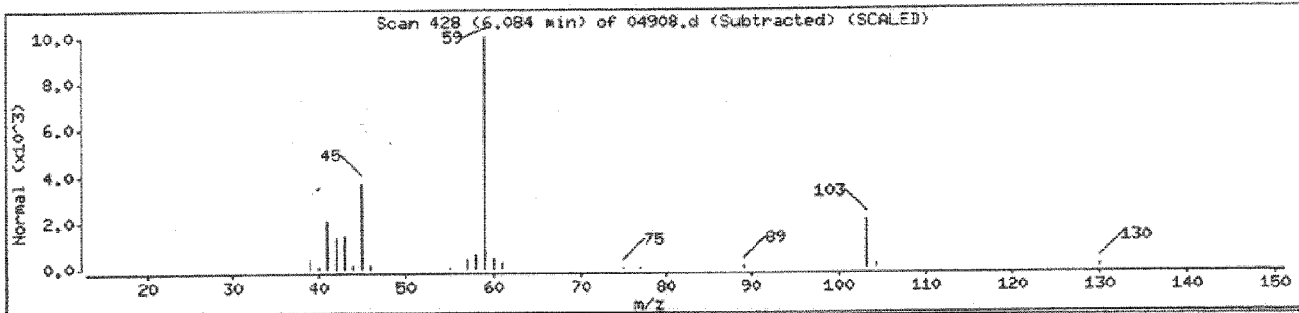
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Propanol, 1,1'-oxybis-	110-98-5	NBS75K.1	6087	78	C6H14O3	134
2-Butanol, 3,3'-oxybis-	54305-61-2	NBS75K.1	12859	64	C8H18O3	162
2-Propanol, 1-(2-methoxy-1-methylethoxy)	20324-32-7	NBS75K.1	9238	64	C7H16O3	148



Data File: /var/chem/10mssi.1/021804.b/04908.d

Date : 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10mssi.1

Sample Info: 105333132

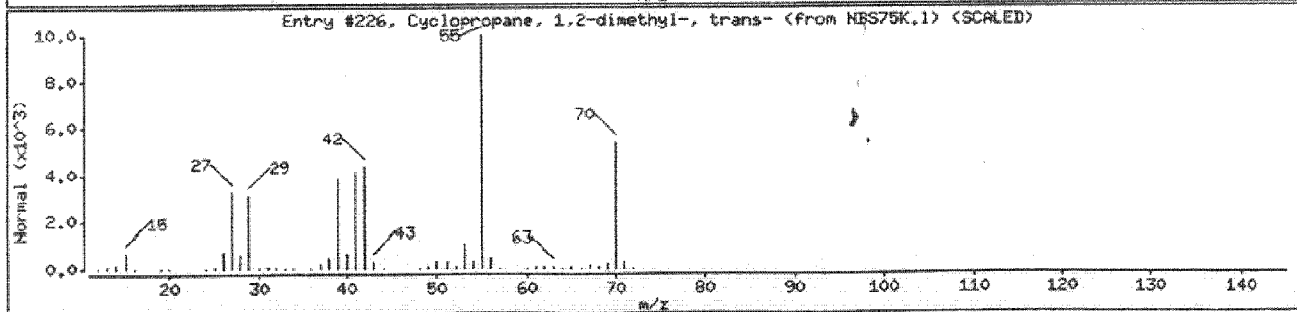
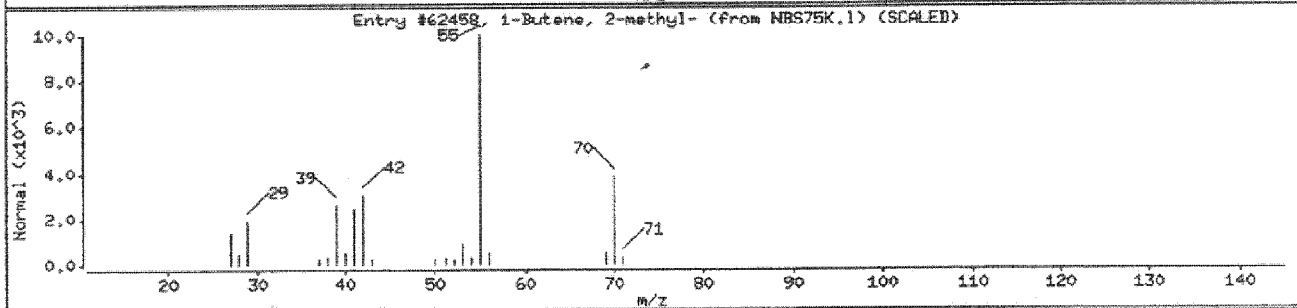
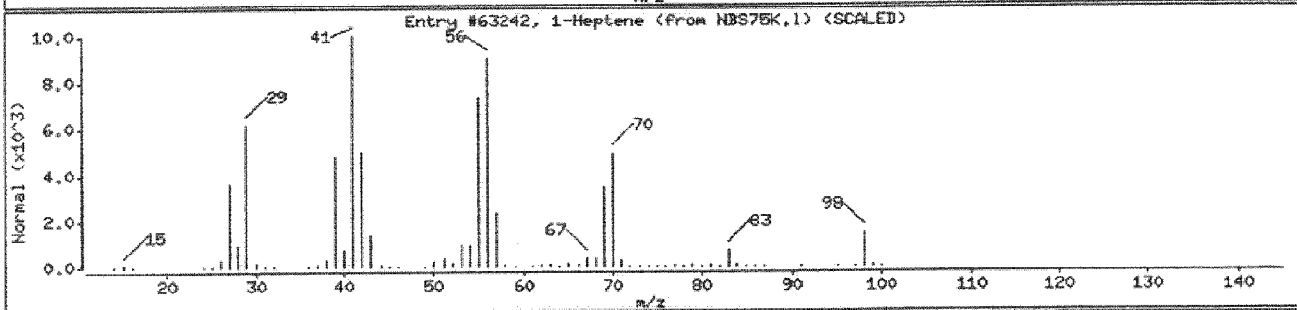
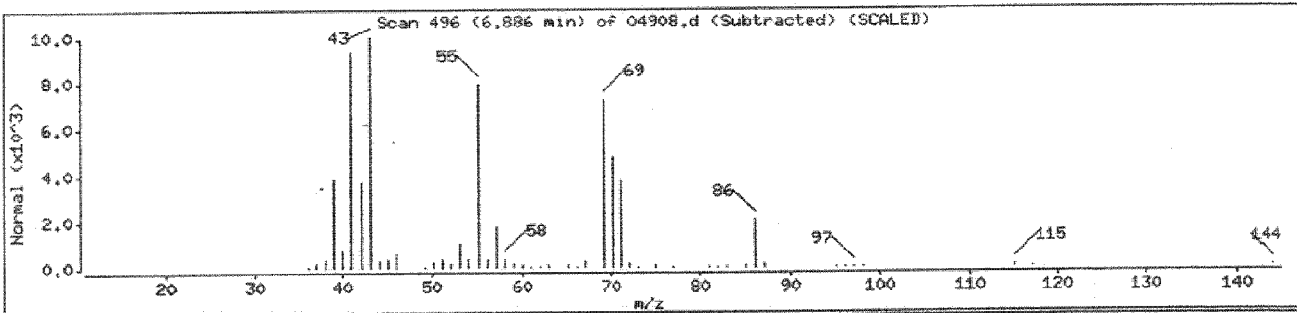
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Heptene	592-76-7	NBS75K.1	63242	59	C7H14	98
1-Butene, 2-methyl-	563-46-2	NBS75K.1	62458	58	C5H10	70
Cyclopropane, 1,2-dimethyl-, trans-	2402-06-4	NBS75K.1	226	53	C5H10	70



Data File: /var/chem/10ms1.i/021804.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.i

Sample Info: 105333132

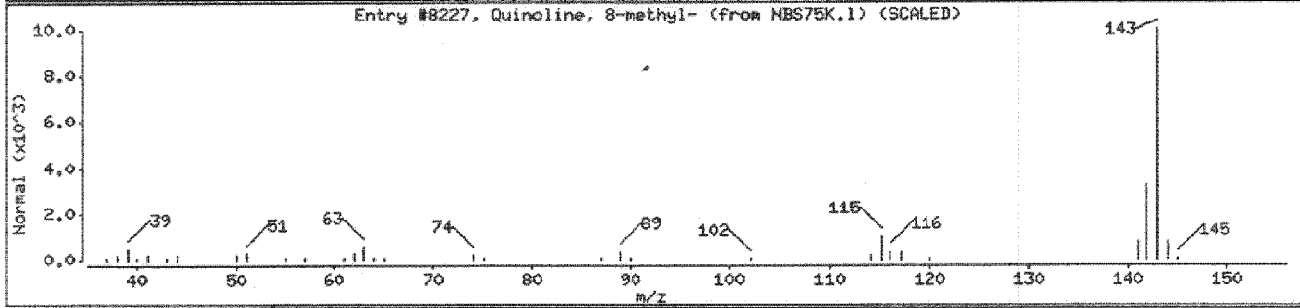
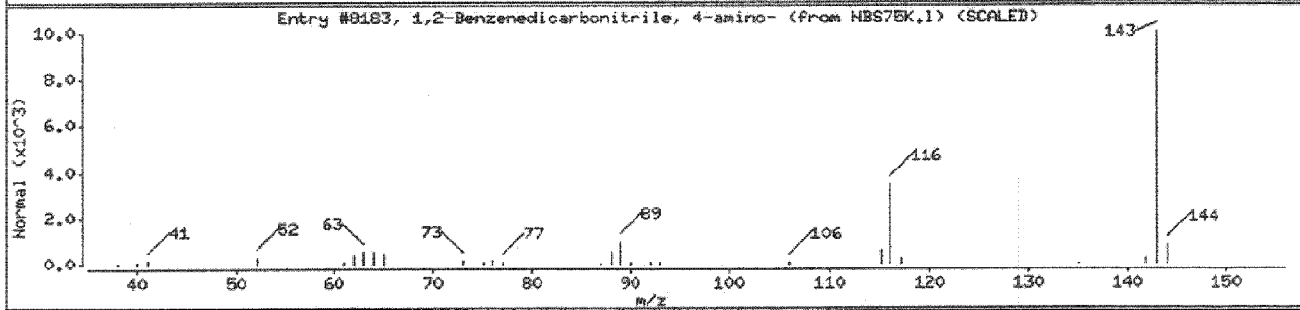
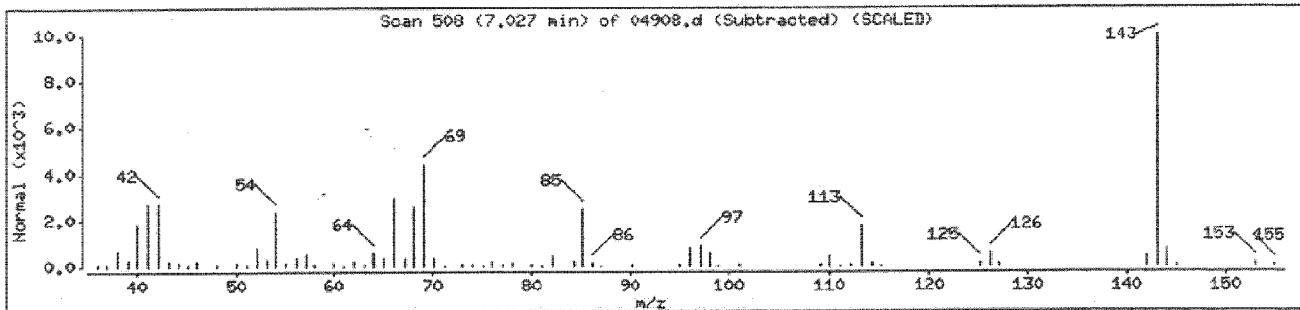
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2-Benzenedicarbonitrile, 4-amino-	56765-79-8	NBS75K.1	8183	18	C8H5N3	143
Quinoline, 8-methyl-	611-32-5	NBS75K.1	8227	14	C10H9N	143



Data File: /var/chem/10mssi.1/021804.b/04908.d

Date : 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10mssi.1

Sample Info: 105333132

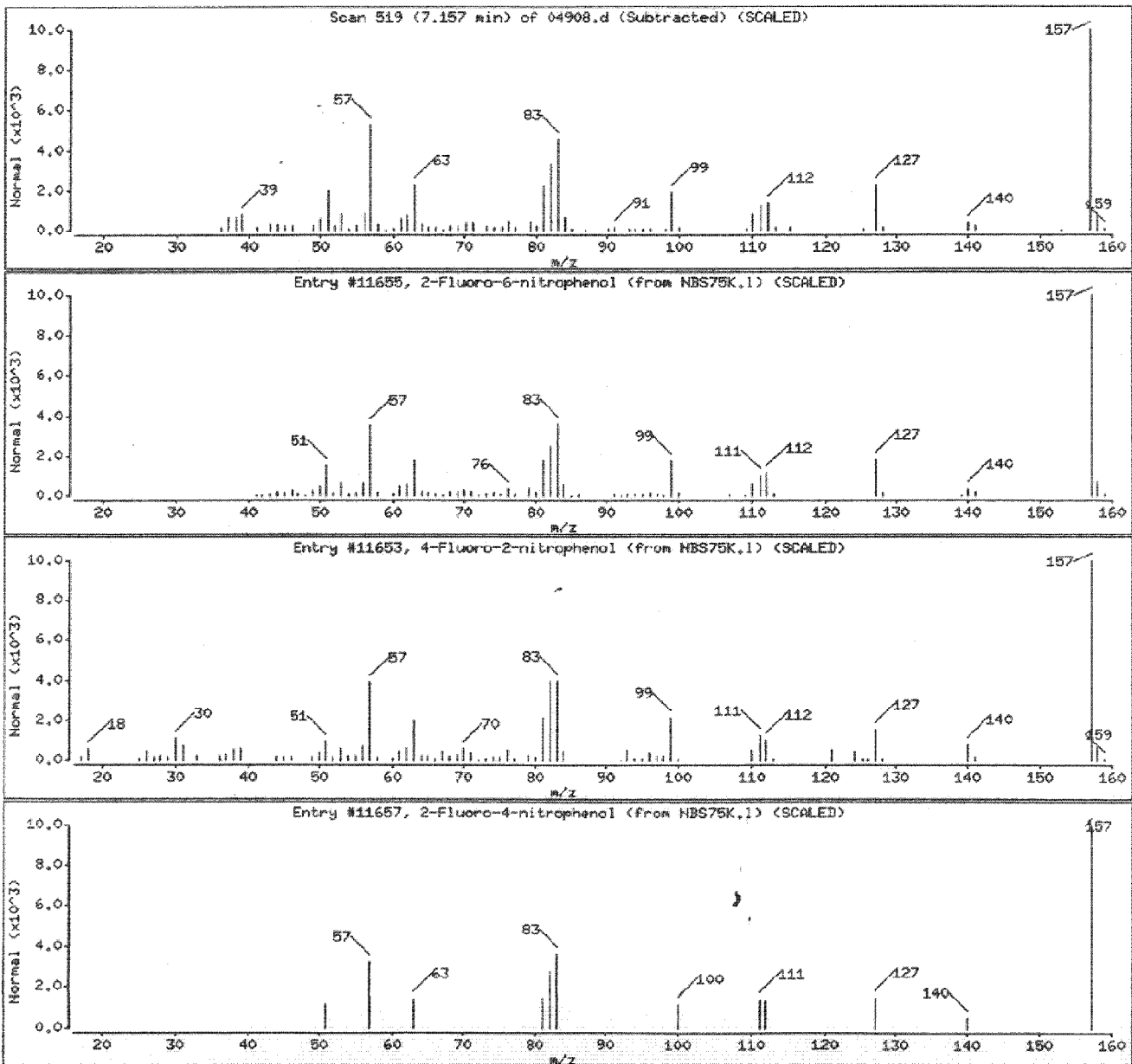
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Fluoro-6-nitrophenol	1526-17-6	NBS75K.1	11655	97	C6H4FN03	157
4-Fluoro-2-nitrophenol	394-33-2	NBS75K.1	11653	87	C6H4FN03	157
2-Fluoro-4-nitrophenol	403-19-0	NBS75K.1	11657	87	C6H4FN03	157



Data File: /var/chem/10ms1.i/021804.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.i

Sample Info: 105333132

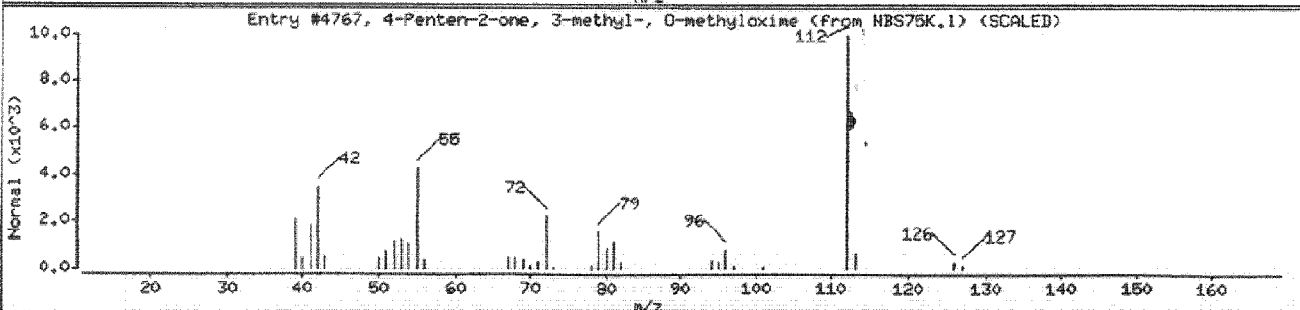
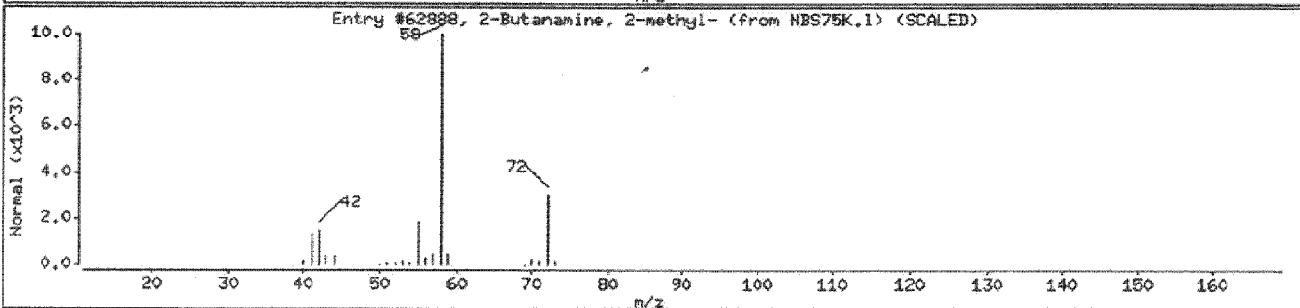
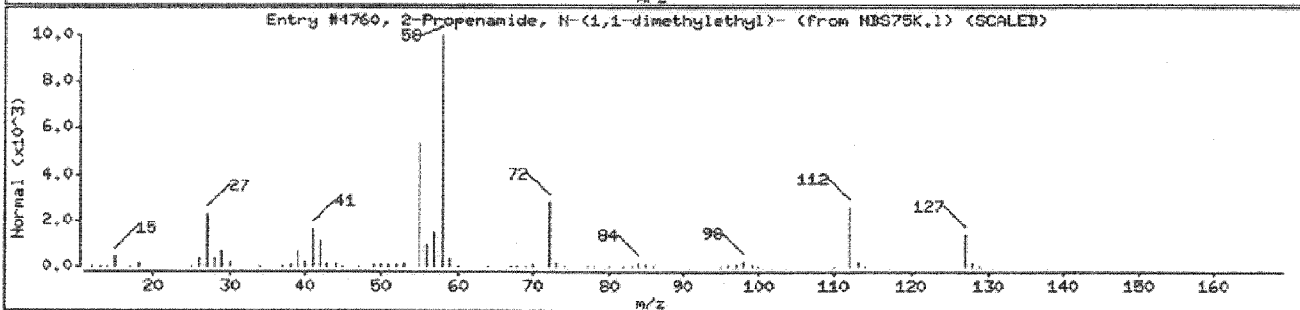
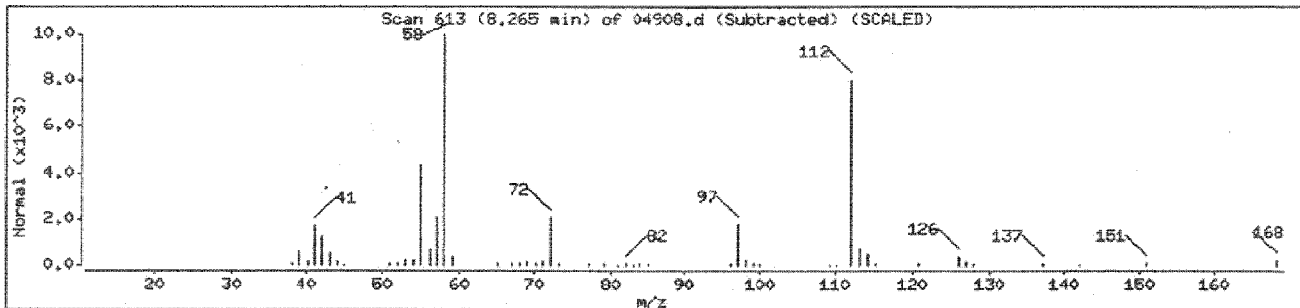
Volume Injected (UL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Propenamide, N-(1,1-dimethylethyl)-	107-58-4	NBS75K.1	4760	40	C7H13NO	127
2-Butanamine, 2-methyl-	594-39-8	NBS75K.1	62888	38	C6H13N	97
4-Penten-2-one, 3-methyl-, O-methyloxime	56335-98-9	NBS75K.1	4767	38	C7H13NO	127



Data File: /var/chem/10ms1.i/021904.b/04908.d

Date: 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.i

Sample Info: 105333132

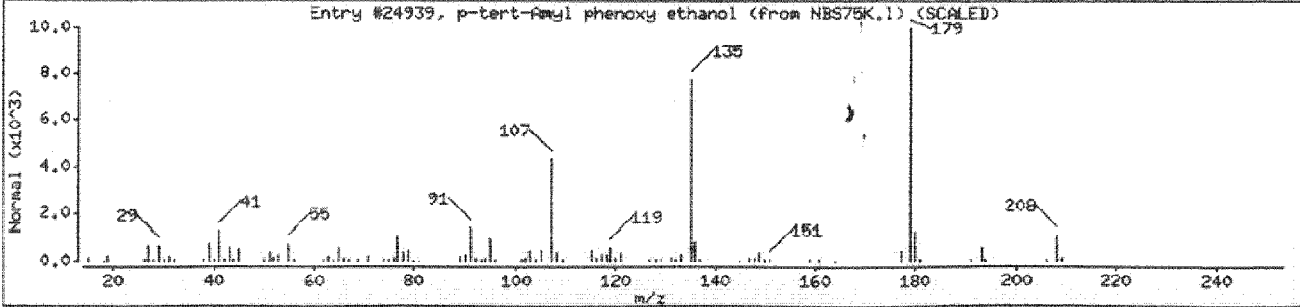
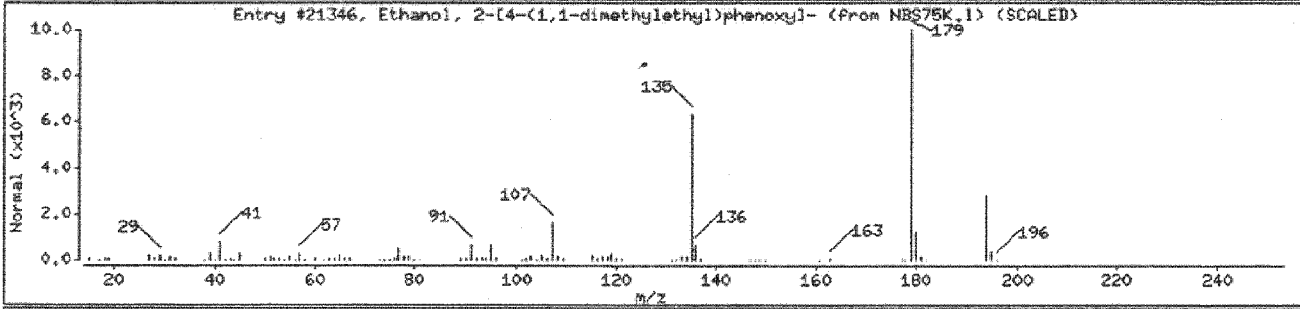
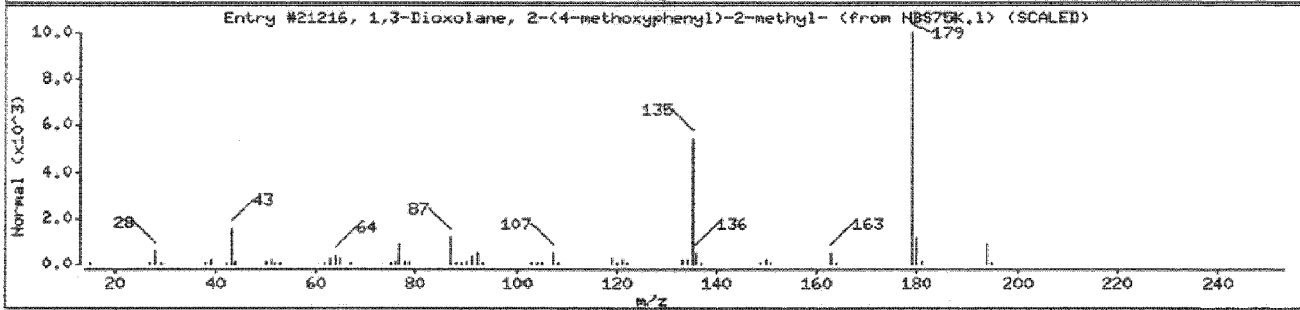
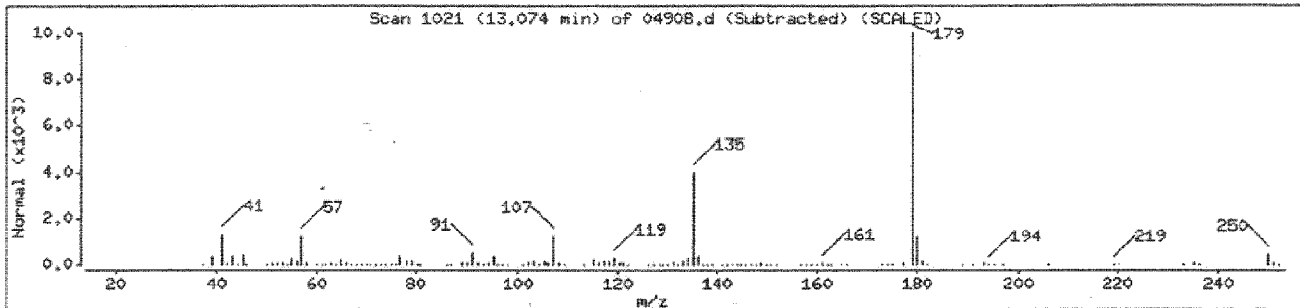
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,3-Dioxolane, 2-(4-methoxyphenyl)-2-met	0-00-0	NBS75K.1	21216	64	C11H14O3	194
Ethanol, 2-[4-(1,1-dimethylethyl)phenoxy]	713-46-2	NBS75K.1	21346	52	C12H18O2	194
p-tert-Amyl phenoxy ethanol	6392-07-6	NBS75K.1	24939	28	C13H20O2	208



Data File: /var/chem/10ms1.1/021804.b/04908.d

Date : 18-FEB-2004 16:10

Client ID: E04-0120-67432

Instrument: 10ms1.1

Sample Info: 105333132

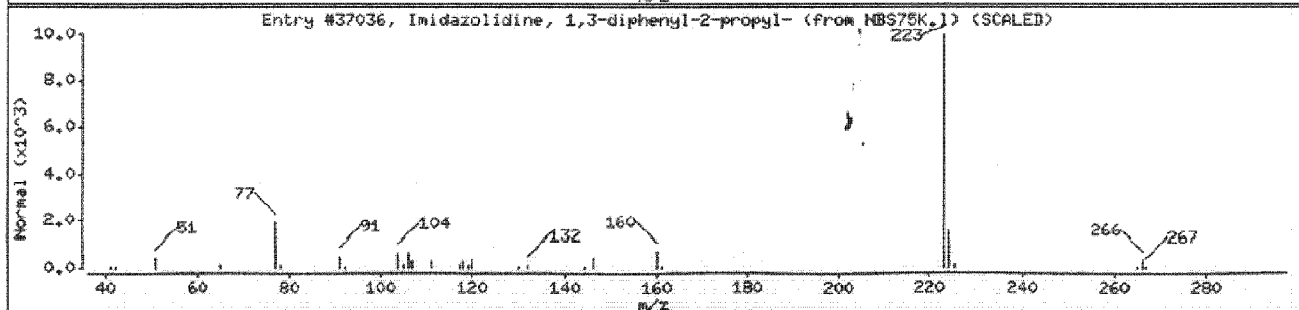
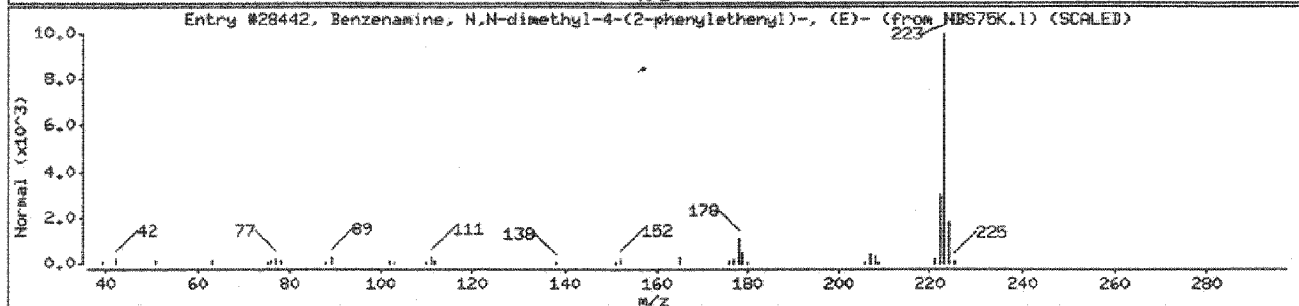
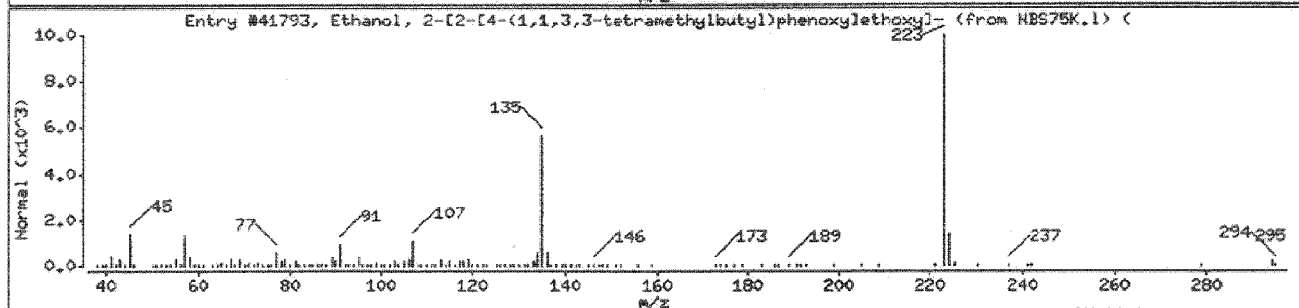
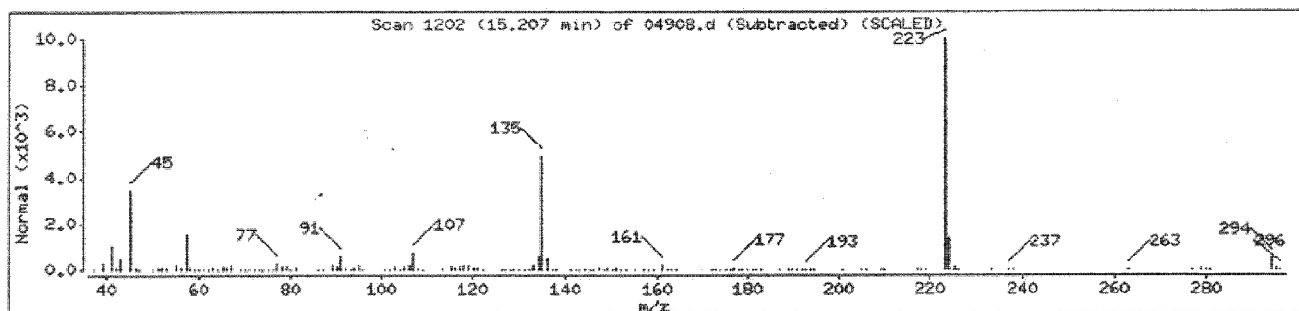
Volume Injected (uL): 1.0

Operator: KSK

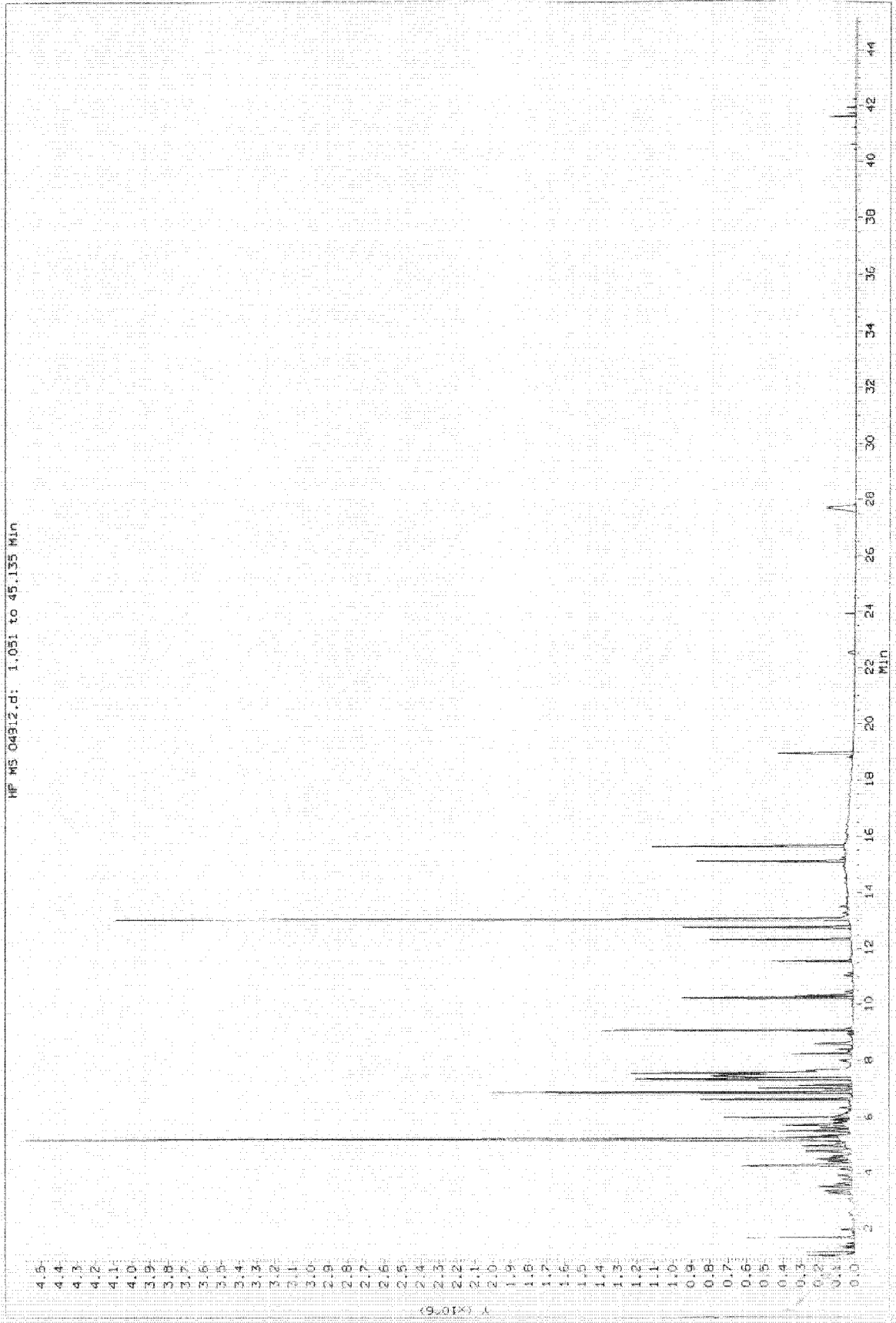
Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-[2-[4-(1,1,3,3-tetramethylbut	2315-61-9	NBS75K.1	41793	86	C18H30O3	294
Benzenamine, N,N-dimethyl-4-(2-phenyleth	938-95-9	NBS75K.1	28442	38	C16H17N	223
Imidazolidine, 1,3-diphenyl-2-propyl-	55320-82-6	NBS75K.1	37036	32	C18H22N2	266



Data File: /var/chem/10ms1.1/021804.b/04912.d
Injection Date: 18-FEB-2004 19:44
Instrument: 10ms1.1
Client Sample ID: E04-0120-67435



Data File: /var/chem/10mssl.i/021804.b/04912.d
 Report Date: 23-Feb-2004 12:21

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
 Lab Smp Id: 105333173
 Operator : KSK
 Sample Location:
 Sample Matrix: WATER
 Analysis Type: SV

Client SDG: 021804
 Client Smp ID: E04-0120-67435
 Sample Date: 12-FEB-2004
 Sample Point:
 Date Received: 13-FEB-2004 00:00
 Level: LOW

Number TICs found: 16

CONCENTRATION UNITS:
 (ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-22-0	3-Hydroxy-3-methyl-2-butano	1.711	1.84	NJ
2. 637-92-3	Propane, 2-ethoxy-2-methyl-	4.269	5.42	NJ
3.	Unknown	4.787	1.96	J
4. 1708-31-2	Furan, 2,5-dihydro-3-methyl	4.988	1.86	NJ
5. 111-96-6	Ethane, 1,1'-oxybis[2-metho	5.223	27.2	NJ
6. 31797-64-5	Cyclohexane, (1,1-dimethylp	5.282	1.61	NJ
7. 34887-14-4	Pentane, 2,2-dichloro-	5.506	2.06	NJ
8. 111-90-0	Ethanol, 2-(2-ethoxyethoxy)	5.730	2.28	NJ
9. 592-76-7	1-Heptene	6.885	8.81	NJ
10.	Unknown	7.027	2.48	J
11. 1526-17-6	2-Fluoro-6-nitrophenol	7.157	1.43	NJ
12. 102-82-9	Tributylamine	7.357	9.87	NJ
13. 0-00-0	Phenol, 2-fluoro-4-nitro-	8.606	16.0	NJ
14. 776-35-2	Phenanthrene, 9,10-dihydro-	12.331	32.5	NJ
15. 713-46-2	Ethanol, 2-[4-(1,1-dimethyl	13.062	180	NJ
16. 54449-89-7	Pyrrolo[1,2-a]-1,3,5-triazi	15.125	37.8	NJ

Data File: /var/chem/10mss1.i/021804.b/04912.d
 Report Date: 23-Feb-2004 12:21

Pace Analytical Services, Inc.

BASE, NEUTRAL, ACID QUANT AND RATIO REPORT

Data file : /var/chem/10mss1.i/021804.b/04912.d
 Lab Smp Id: 105333173 Client Smp ID: E04-0120-67435
 Inj Date : 18-FEB-2004 19:44
 Operator : KSK Inst ID: 10mss1.i
 Smp Info : 105333173
 Misc Info :
 Comment : RCRA 8270C - SEMIVOLATILES
 Method : /var/chem/10mss1.i/021804.b/SV07-C43.m
 Meth Date : 23-Feb-2004 11:14 kking Quant Type: ISTD
 Cal Date : 12-FEB-2004 20:45 Cal File: 04307.d
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 625.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 9 1,4-Dichlorobenzene-d4	6.001	1337006	3.000
* 45 Acenaphthene-d10	10.245	2021526	40.000
* 62 Phenanthrene-d10	12.767	1767471	40.000

RT	CONCENTRATIONS				QUAL	QUANT		
	AREA	ON-COL(	NG)	FINAL(ug/L)		LIBRARY	LIB ENTRY	CPND #
1.711	822134	1.84516862		1.84	78	NBS75K.1	63477	9

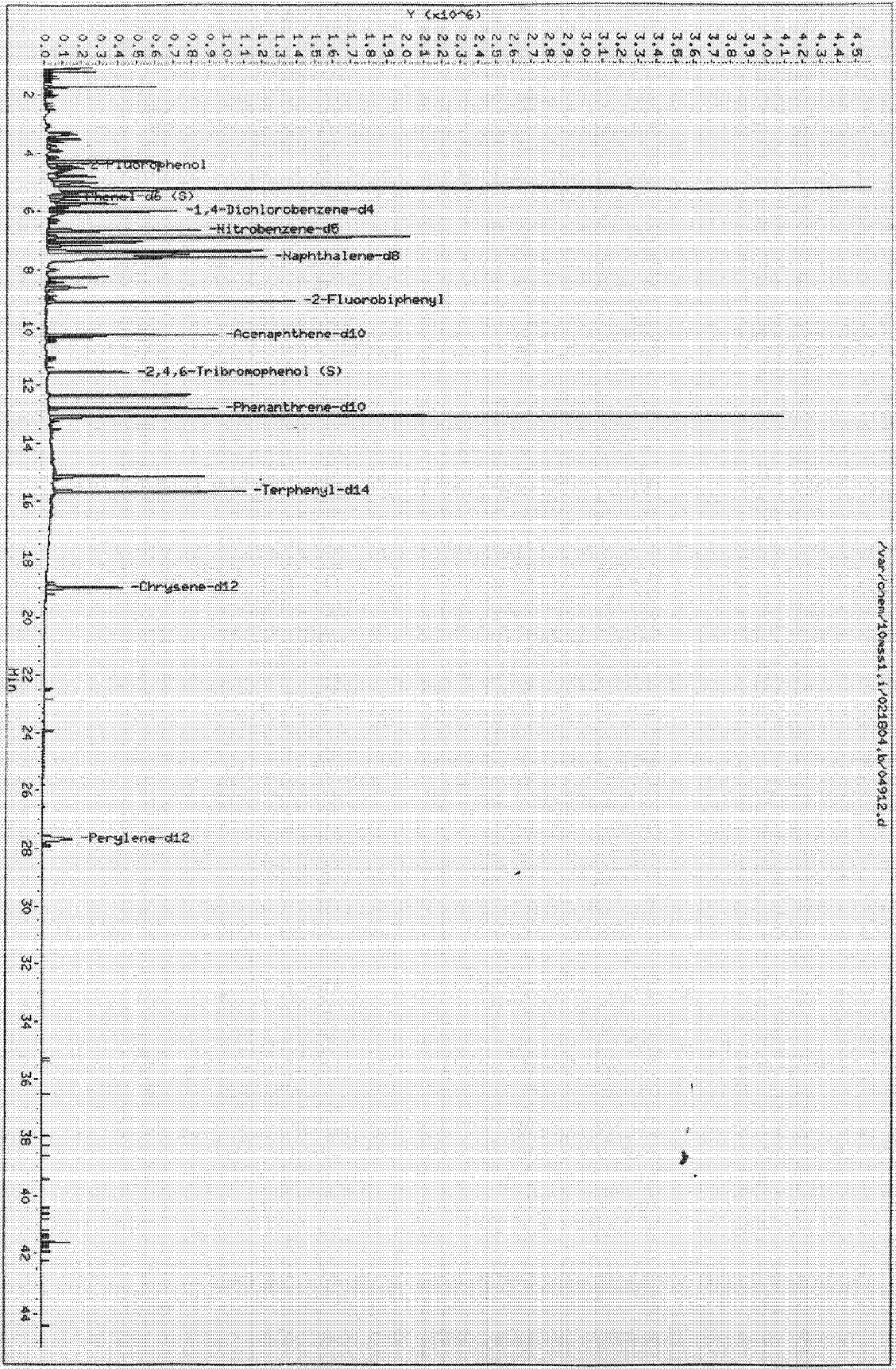
Data File: /var/chem/10mss1.1/021804.b/04912.d
 Report Date: 23-Feb-2004 12:21

RT	CONCENTRATIONS				QUANT			CPND #
	AREA	ON-COL	(NG)	FINAL ug/L	QUAL	LIBRARY	LIB ENTRY	
Propane, 2 ethoxy 2 methyl						CAS #: 637-92-3		
4.269	2417379	5.42415889		5.42	40	NBS75K.1	63579	9
Unknown						CAS #:		
4.787	872375	1.95745055		1.95	0		0	9
Furan, 2,5-dihydro 3-methyl-						CAS #: 1708-31-2		
4.983	826867	1.85533988		1.86	47	NBS75K.1	552	9
Ethane, 1,1'-oxybis[2-methoxy-						CAS #: 111-96-6		
5.223	12148257	27.2584748		27.2	78	NBS75K.1	5085	9
Cyclonexane, (1,1-dimethylpropyl)-						CAS #: 31797-64-5		
5.282	716425	1.50752777		1.51	56	NBS75K.1	67186	9
Pentane, 2,2-dichloro-						CAS #: 34887-14-4		
5.506	917486	2.05867088		2.06	38	NBS75K.1	7249	9
Ethanol, 2 (2 ethoxyethoxy)						CAS #: 111-90-0		
5.730	1017692	2.28351484		2.28	78	NBS75K.1	6082	9
1-Heptene						CAS #: 592-76-7		
6.885	3927016	8.81150821		8.81	59	NBS75K.1	63242	9
Unknown						CAS #:		
7.027	1103155	2.47527786		2.48	0		0	9
2-Fluoro-6-nitrophenol						CAS #: 1526-17-6		
7.157	636455	1.42808848		1.43	97	NBS75K.1	11655	9
Tributylamine						CAS #: 102-82-9		
7.357	4397254	9.86653777		9.87	74	NBS75K.1	19216	9
Phenol, 2-fluoro-4-nitro-						CAS #: 0-00-0		
8.506	811246	16.0521417		16.0	96	NBS75K.1	11652	45
Phenanthrene, 9,10 dihydro-						CAS #: 776-35-2		
12.331	1435117	32.4784234		32.5	45	NBS75K.1	17958	62
Ethanol, 2-(4-(1,1 dimethylethyl)phenoxy						CAS #: 713-46-2		
13.062	7957197	180.085406		180	52	NBS75K.1	21346	62
Pyrrolo[1,2-a]-1,3,5-triazine-7-carboxyl						CAS #: 54449-89-7		
15.125	1670049	37.7952091		37.8	90	NBS75K.1	28303	62

Data File: /var/chem/10ms1.i/021804.b/04912.d
 Date: 18-FEB-2004 13:44
 Client: IUI 604-0120-6/4J6
 Sample Info: 105333173
 Volume Injected (uL): 1.0
 Column phase: DB-SMS

/var/chem/10ms1.i/021804.b/04912.d

Instrument: 10ms1.i
 Operator: KSK
 Column diameter: 0.25



Data File: /var/chem/10ms1.i/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10ms1.i

Sample Info: 105333173

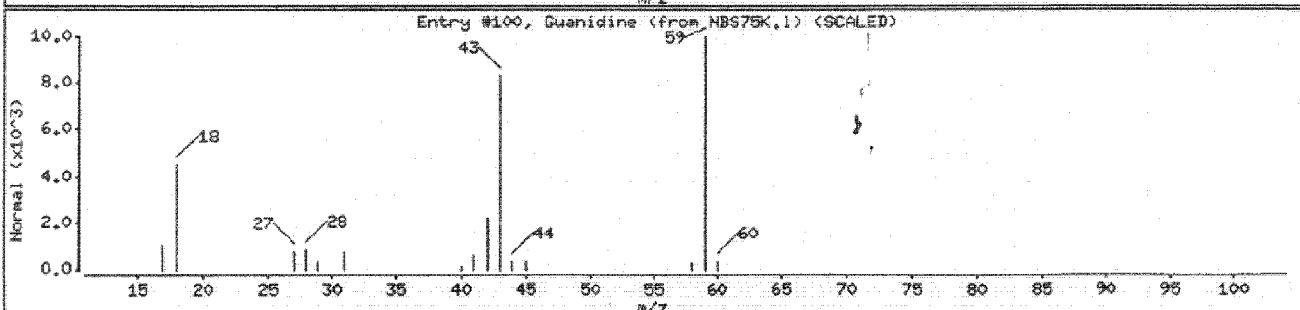
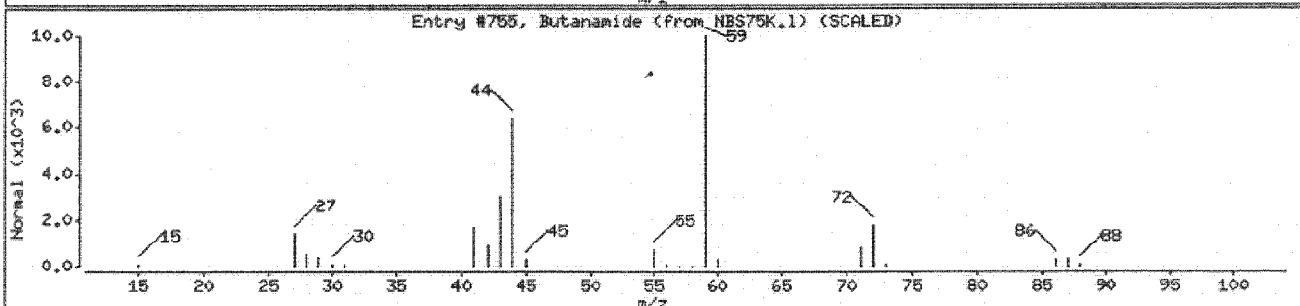
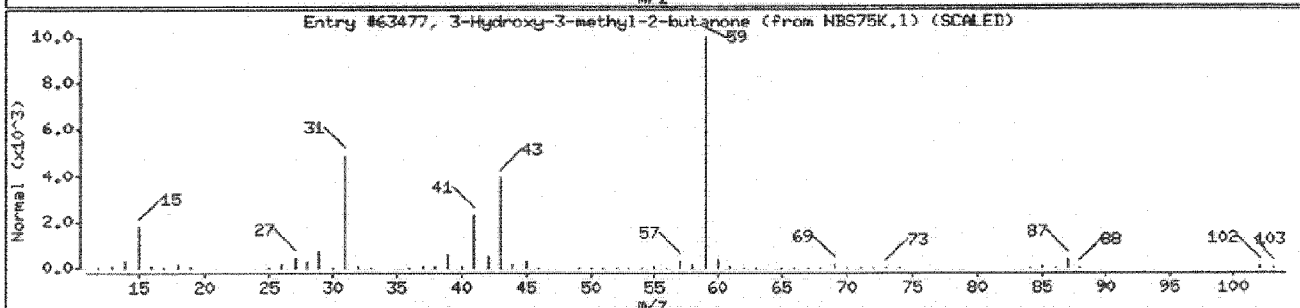
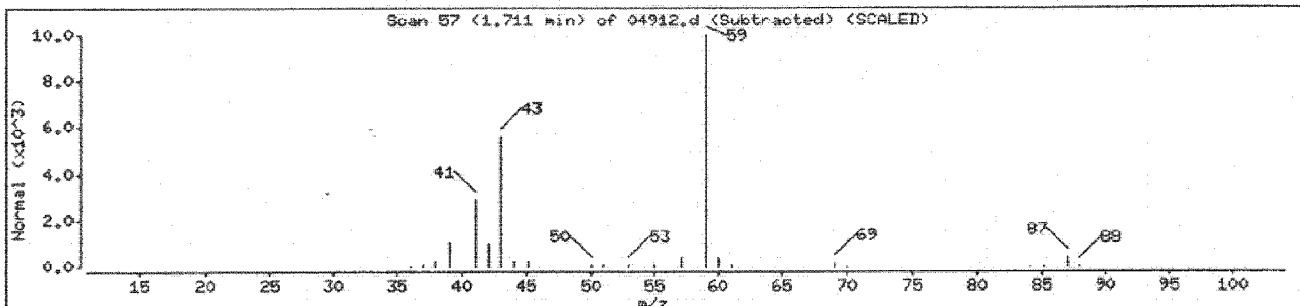
Volume Injected (uL): 1.0

Operator: KSK

Column phase: BB-SMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Hydroxy-3-methyl-2-butanone	115-22-0	NBS75K.1	63477	78	C ₅ H ₁₀ O ₂	102
Butanamide	541-35-5	NBS75K.1	755	50	C ₄ H ₉ NO	87
Guanidine	113-00-8	NBS75K.1	100	45	CH ₅ N ₃	59



Data File: /var/chem/10ms1.i/021804.b/04912.d

Date : 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10ms1.i

Sample Info: 105333173

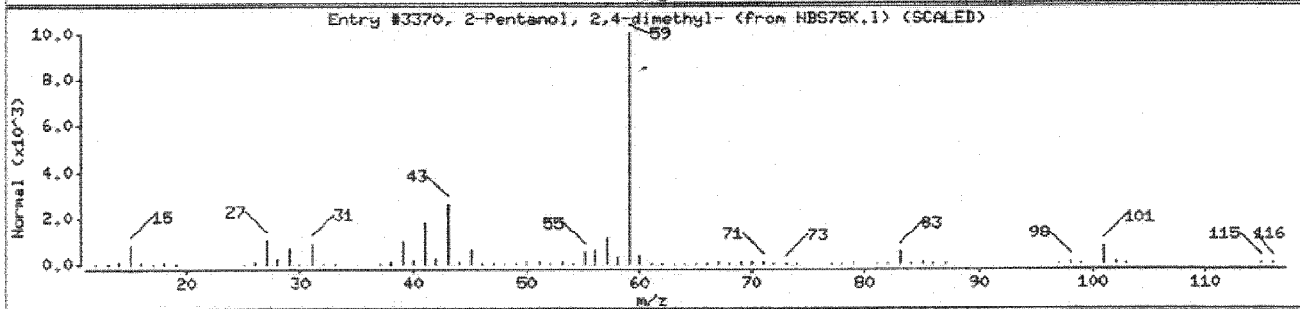
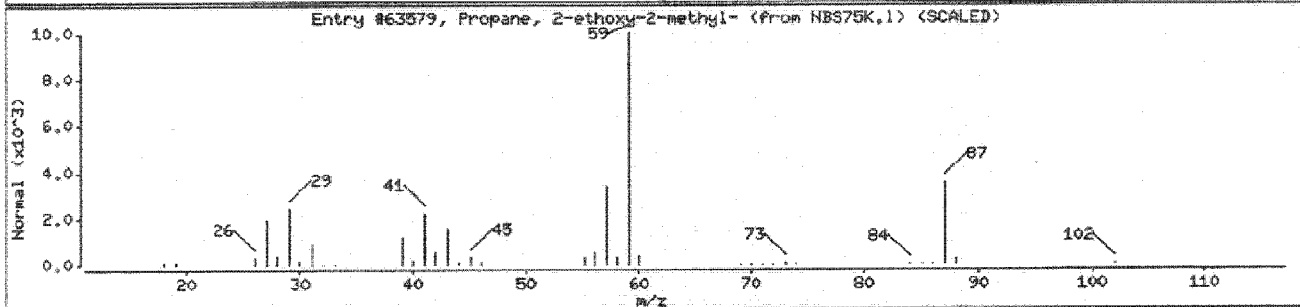
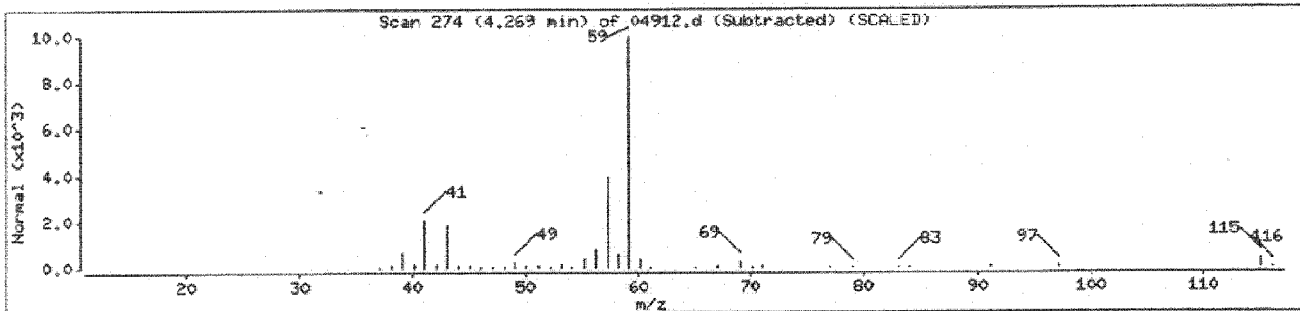
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propane, 2-ethoxy-2-methyl-	637-92-3	NBS75K.1	63579	40	C6H14O	102
2-Pentanol, 2,4-dimethyl-	625-06-9	NBS75K.1	3370	39	C7H16O	116



Data File: /var/chem/10ms1.i/021804.b/04912.d

Date : 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10ms1.i

Sample Info: 105333173

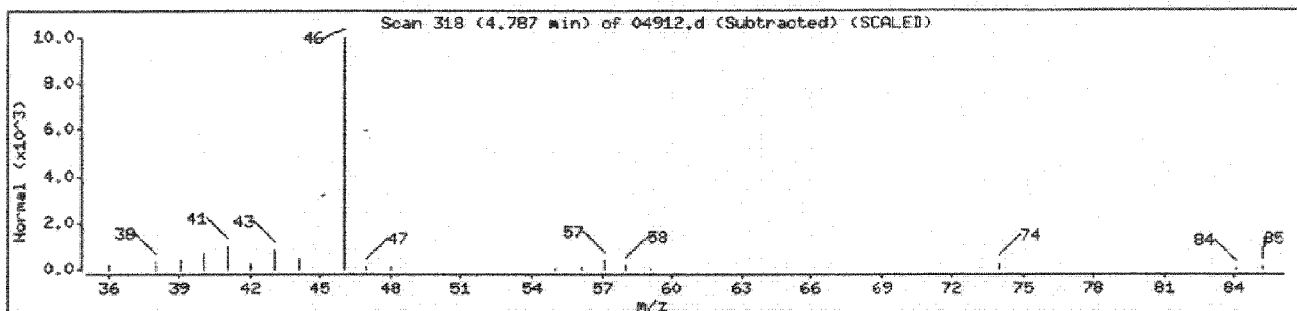
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
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Data File: /var/chem/10mssl.i/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10mssl.i

Sample Info: 105333173

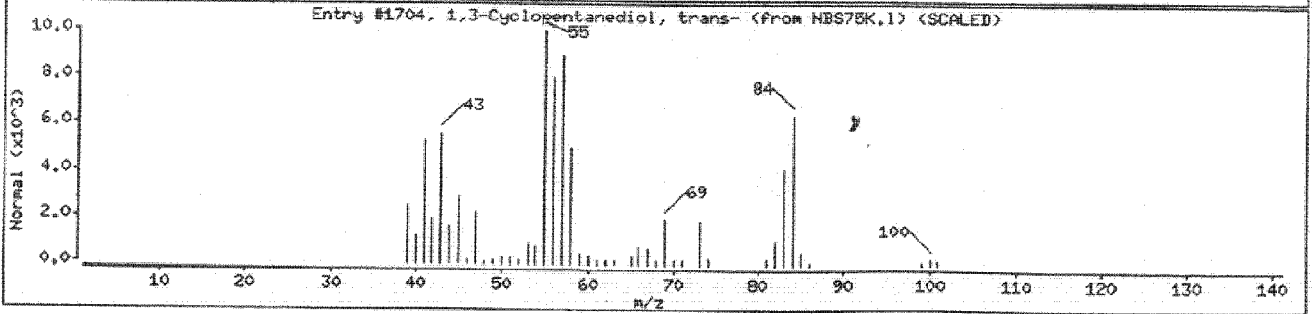
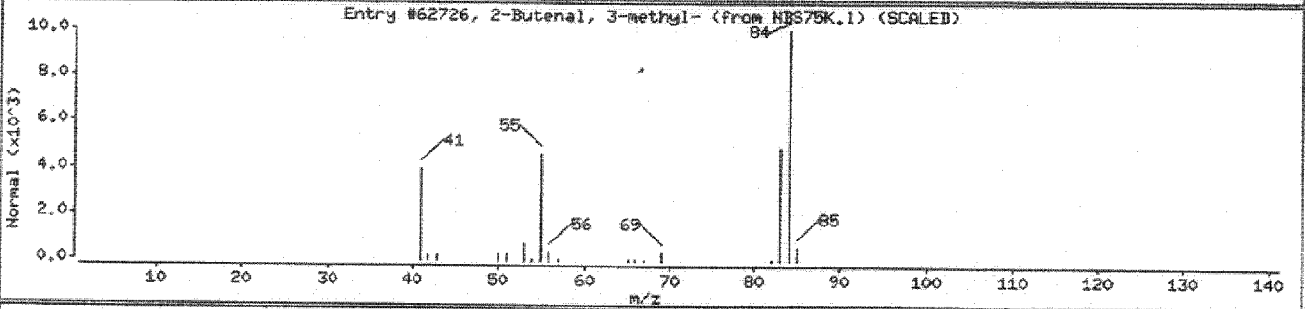
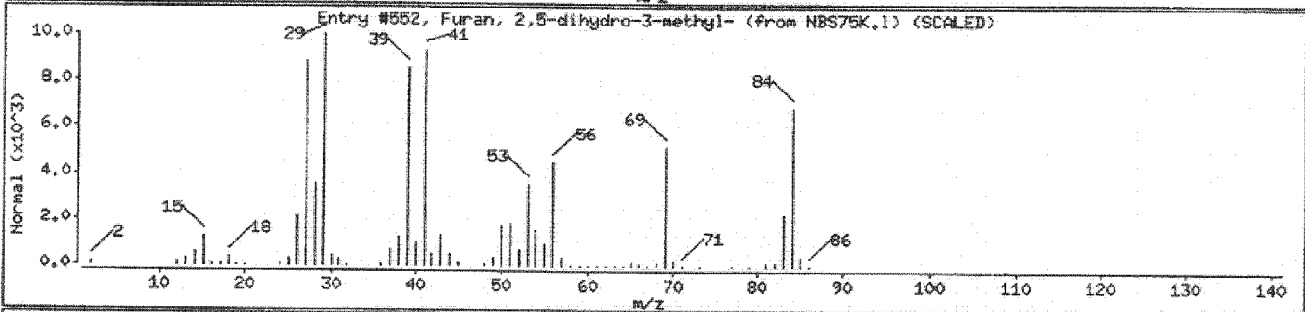
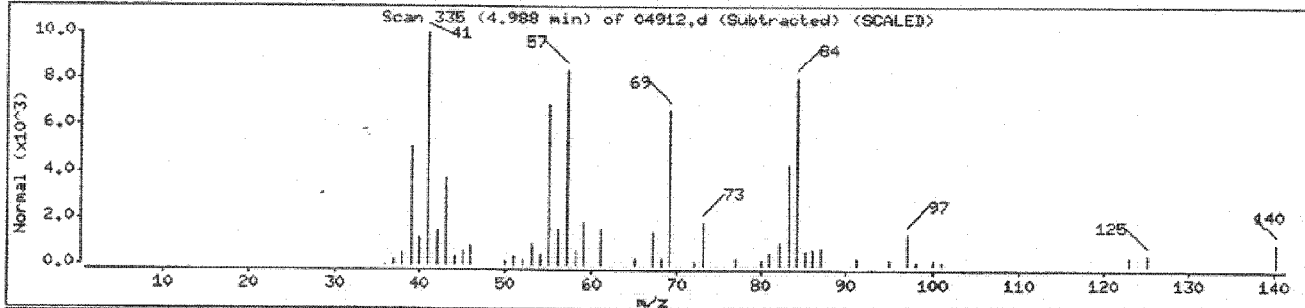
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Furan, 2,5-dihydro-3-methyl-	1708-31-2	NBS75K.1	552	47	C5H8O	84
2-Butenal, 3-methyl-	107-86-8	NBS75K.1	62726	43	C5H8O	84
1,3-Cyclopentanediol, trans-	16326-98-0	NBS75K.1	1704	40	C5H10O2	102



Data File: /var/chem/10mssl.i/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10mssl.i

Sample Info: 105333173

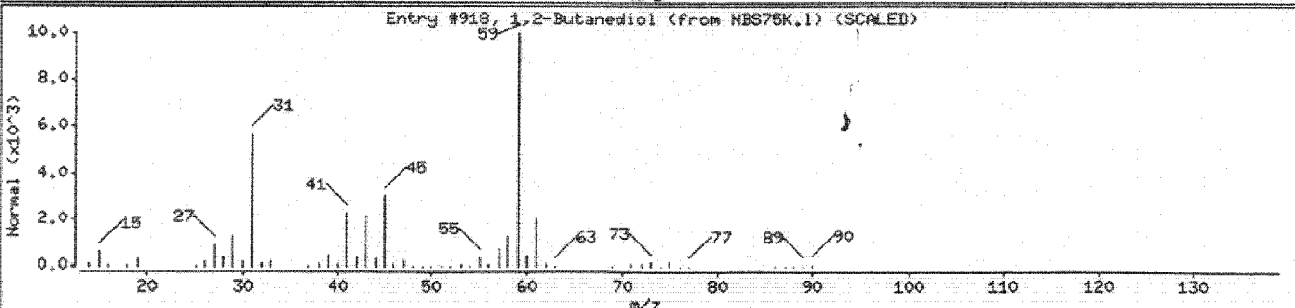
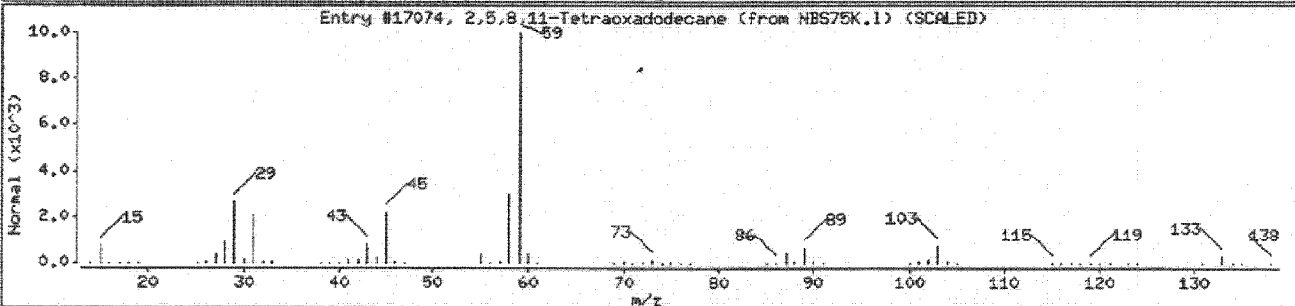
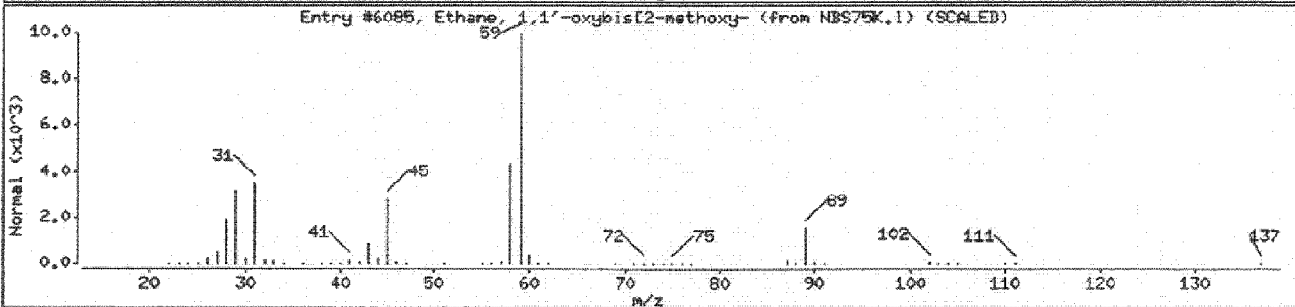
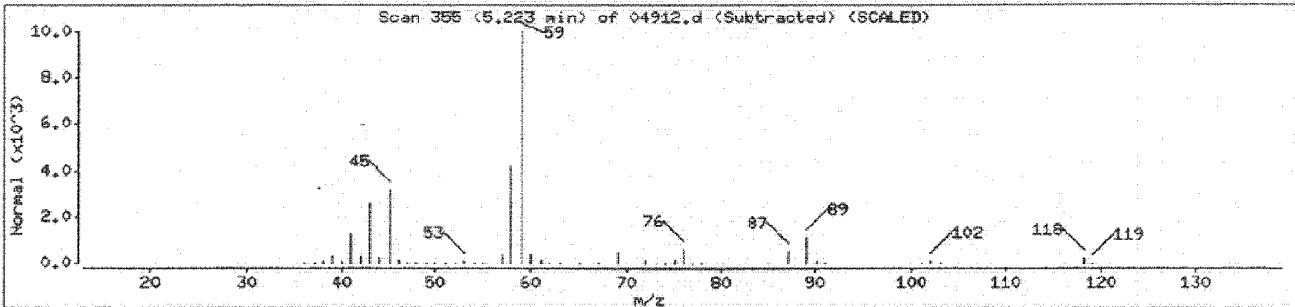
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethane, 1,1'-oxybis[2-methoxy-	111-96-6	NBS75K.l	6085	78	C6H14O3	134
2,5,8,11-Tetraoxadodecane	112-49-2	NBS75K.l	17074	64	C8H18O4	178
1,2-Butanediol	584-03-2	NBS75K.l	918	50	C4H10O2	90



Data File: /var/chem/10mssi.1/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10mssi.1

Sample Info: 105333173

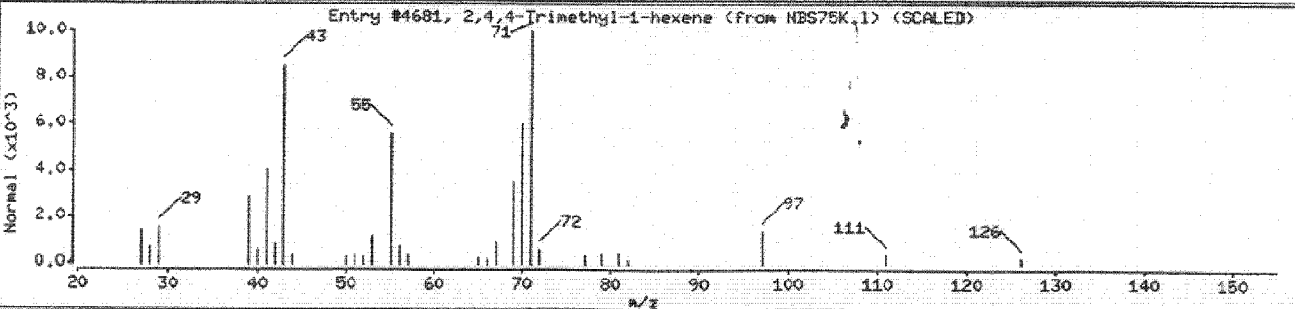
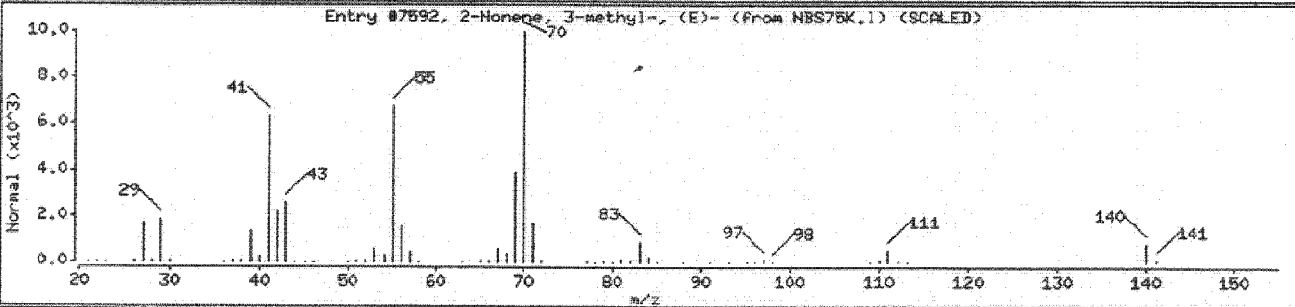
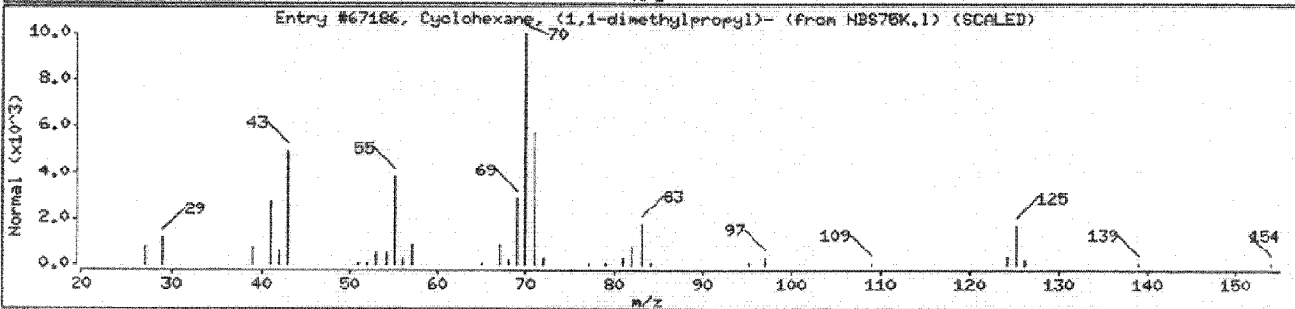
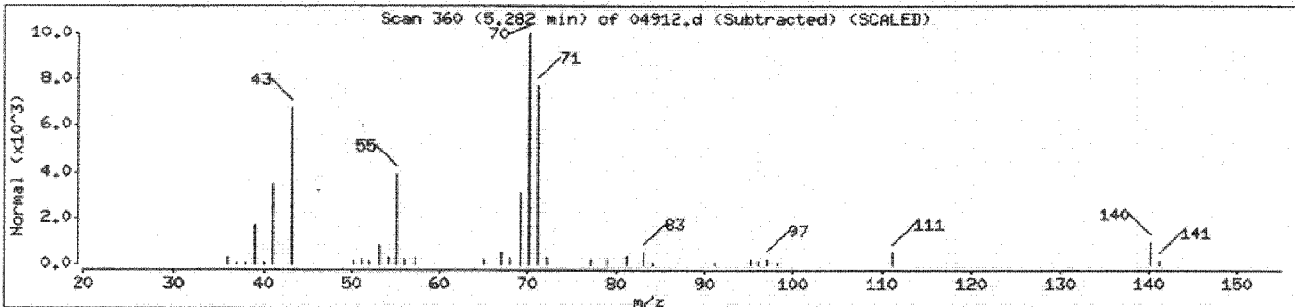
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, (1,1-dimethylpropyl)-	31797-64-8	NBS75K.1	67186	56	C11H22	154
2-Nonene, 3-methyl-, (E)-	17003-99-8	NBS75K.1	7592	30	C10H20	140
2,4,4-Trimethyl-1-hexene	51174-12-0	NBS75K.1	4681	28	C9H18	126



Data File: /var/chem/10mssi.i/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10mssi.i

Sample Info: 105333173

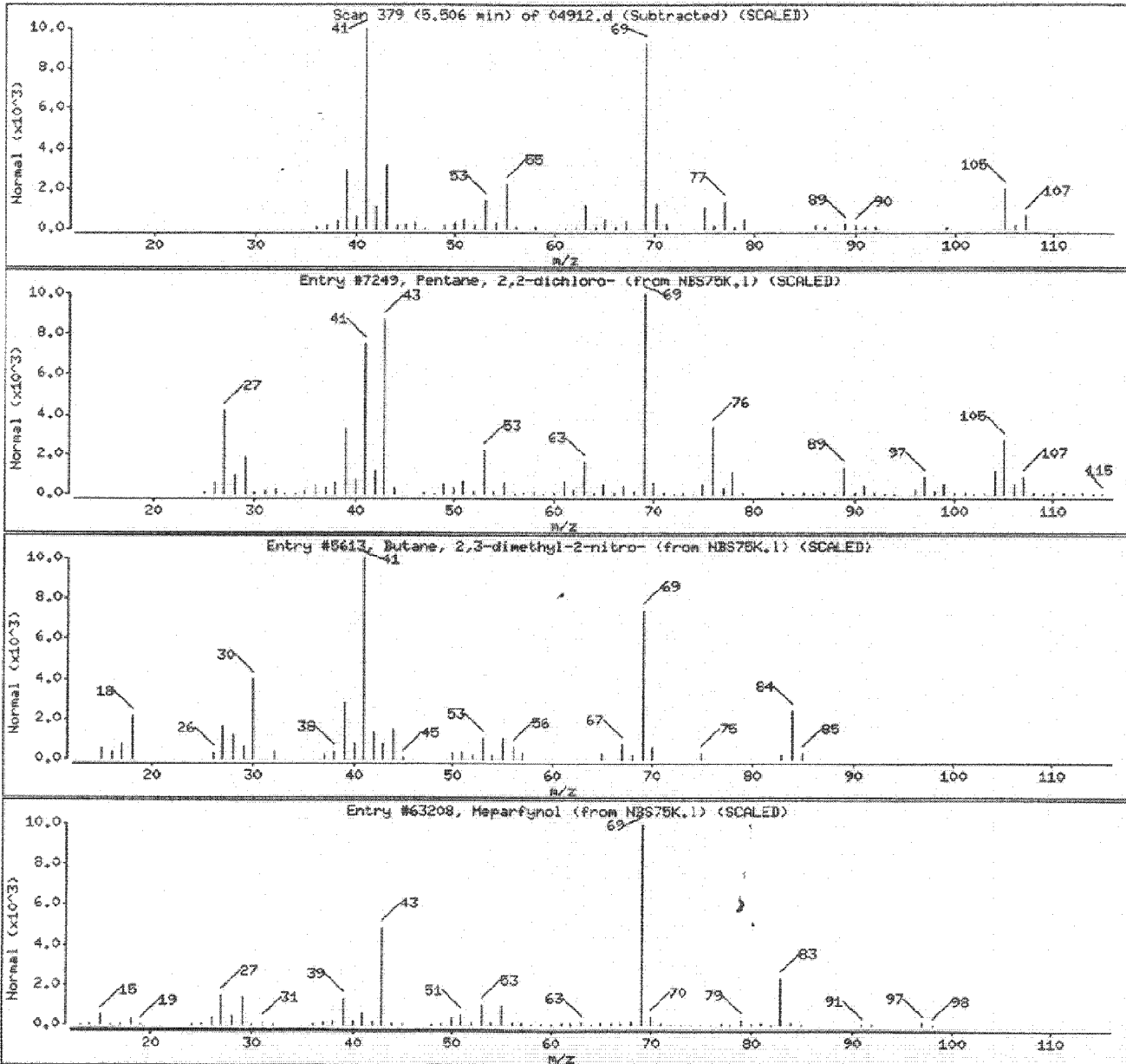
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentane, 2,2-dichloro-	34887-14-4	NBS75K.1	7249	38	C5H10Cl2	140
Butane, 2,3-dimethyl-2-nitro-	34075-28-0	NBS75K.1	5613	38	C6H13NO2	131
Heparfynol	77-75-8	NBS75K.1	63208	37	C6H100	98



Data File: /var/chem/10nssi1/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10nssi1.i

Sample Info: 105333173

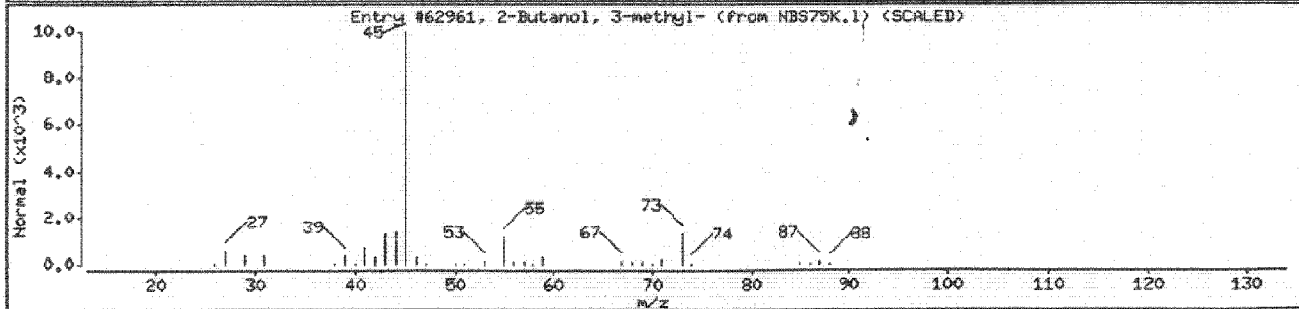
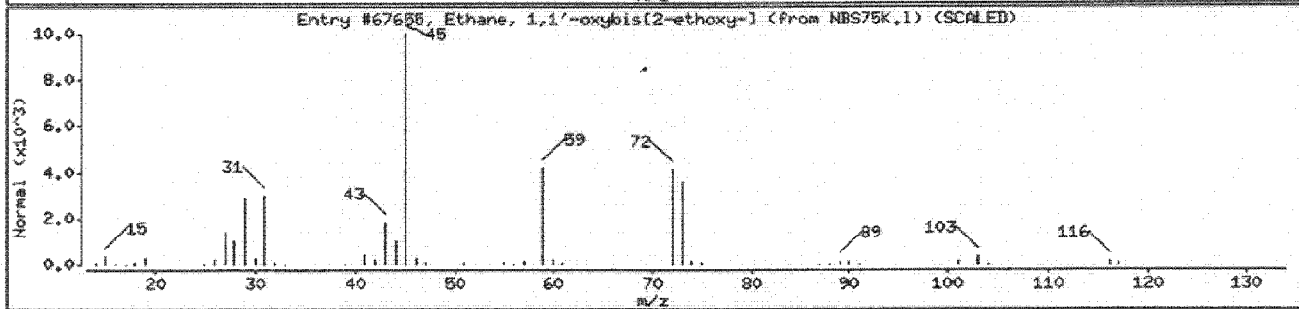
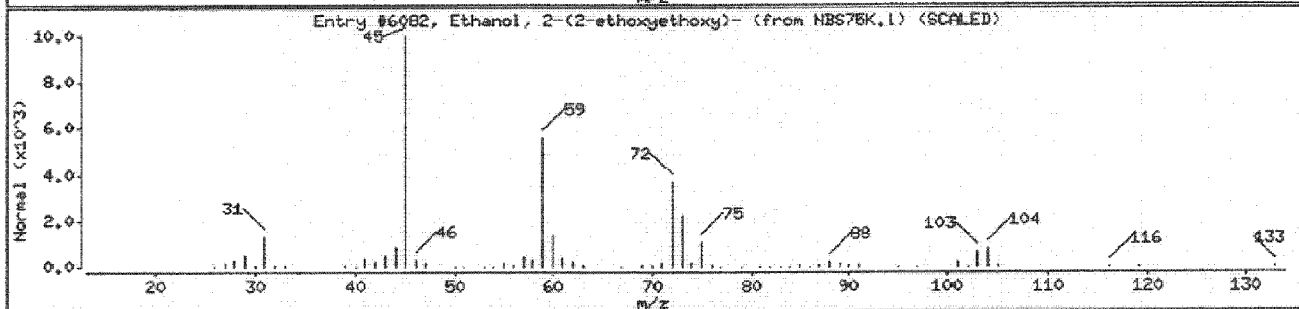
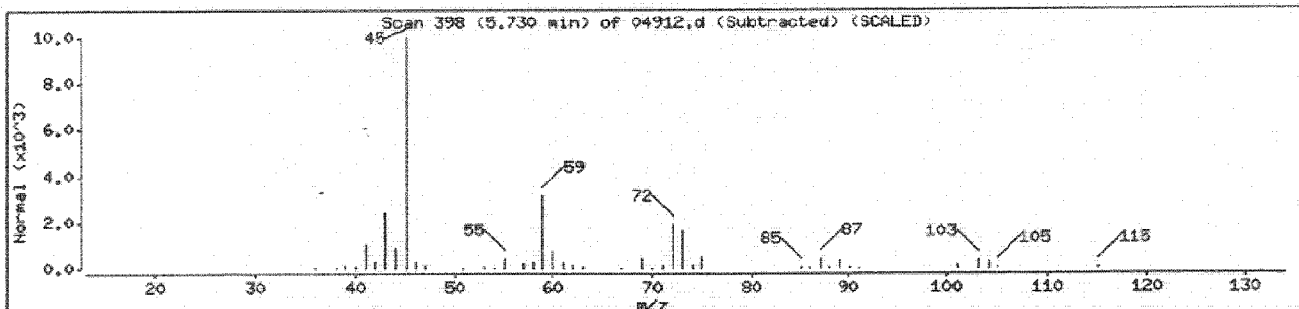
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-(2-ethoxyethoxy)-	111-90-0	NBS75K.1	6082	78	C6H14O3	134
Ethane, 1,1'-oxybis[2-ethoxy-]	112-36-7	NBS75K.1	67655	72	C8H18O3	162
2-Butanol, 3-methyl-	598-75-4	NBS75K.1	62961	50	C5H12O	88



Data File: /var/chem/10msa1.1/021304.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10msa1.1

Sample Info: 105333173

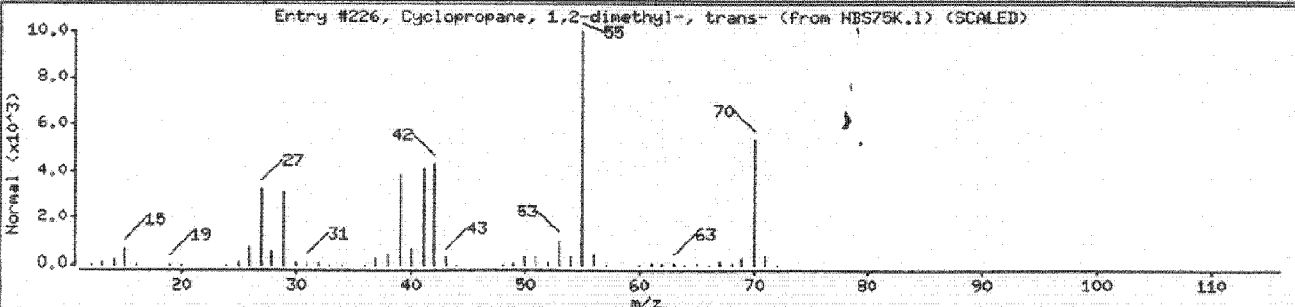
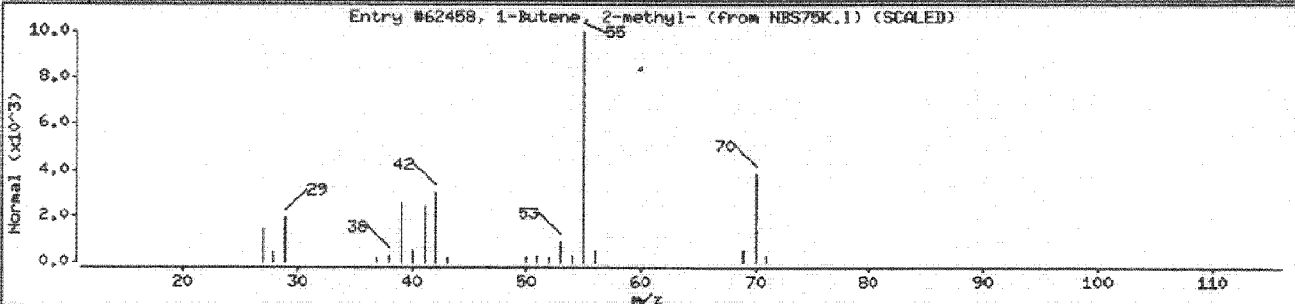
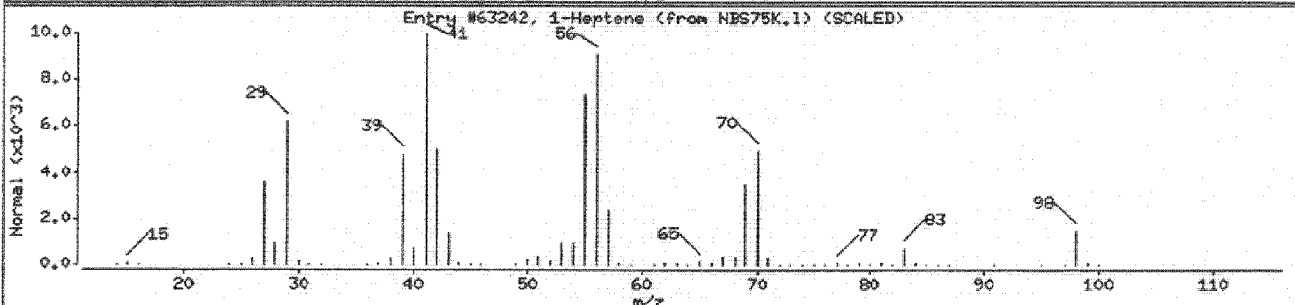
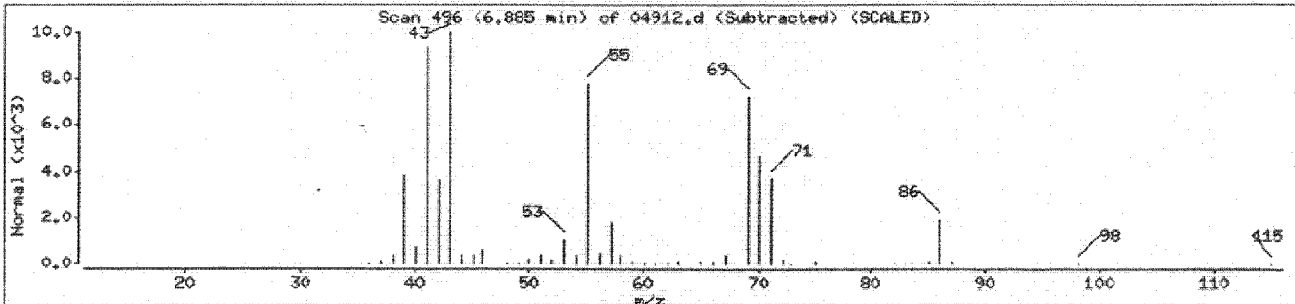
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Heptene	592-76-7	NBS75K.1	63242	59	C7H14	98
1-Butene, 2-methyl-	563-46-2	NBS75K.1	62488	58	C5H10	70
Cyclopropane, 1,2-dimethyl-, trans-	2402-06-4	NBS75K.1	226	58	C5H10	70



Data File: /var/chem/10ms1.i/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10ms1.i

Sample Info: 105333173

Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match

CAS Number

Library

Entry

Quality Formula

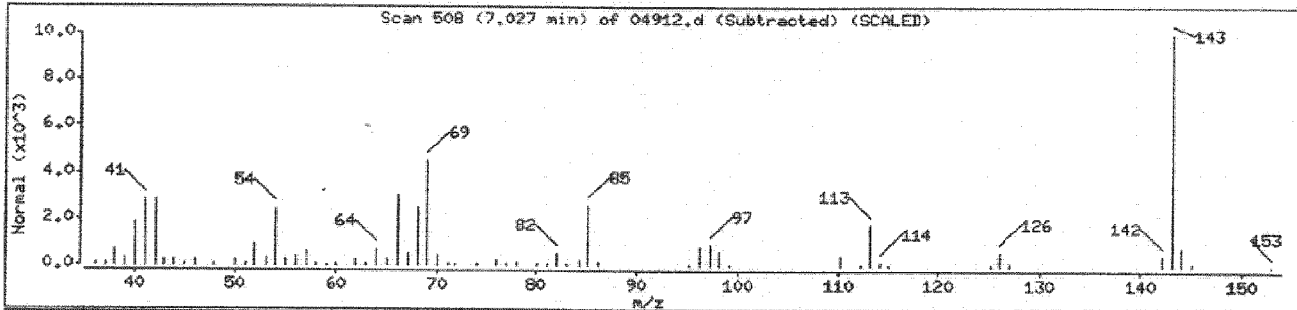
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Data File: /var/chem/10wssi.1/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10wssi.1

Sample Info: 105333173

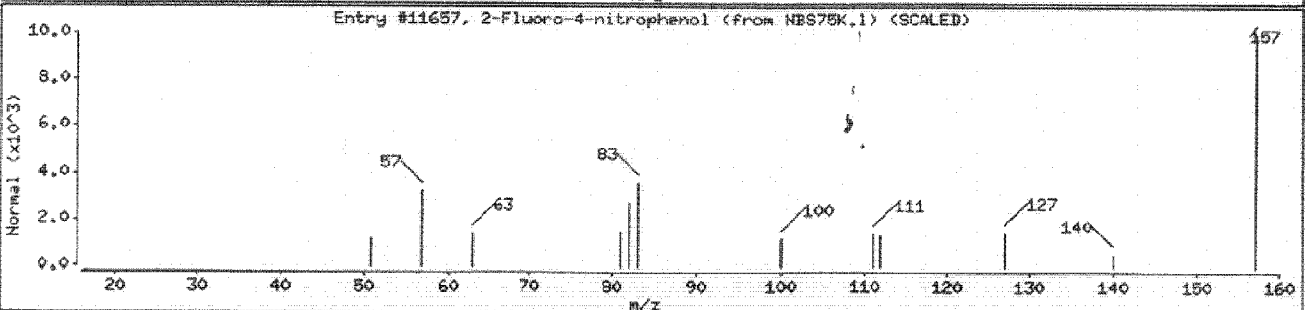
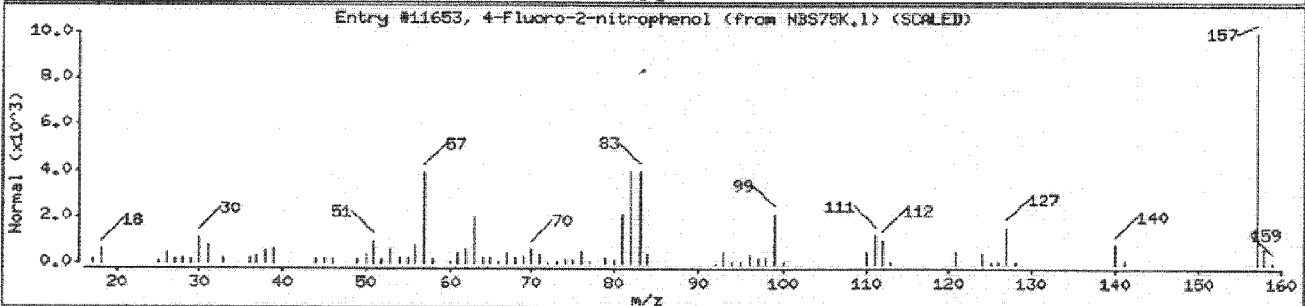
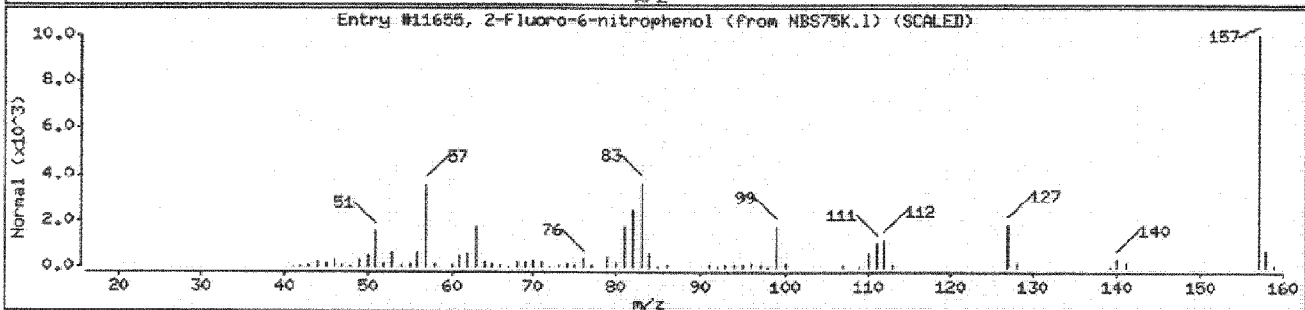
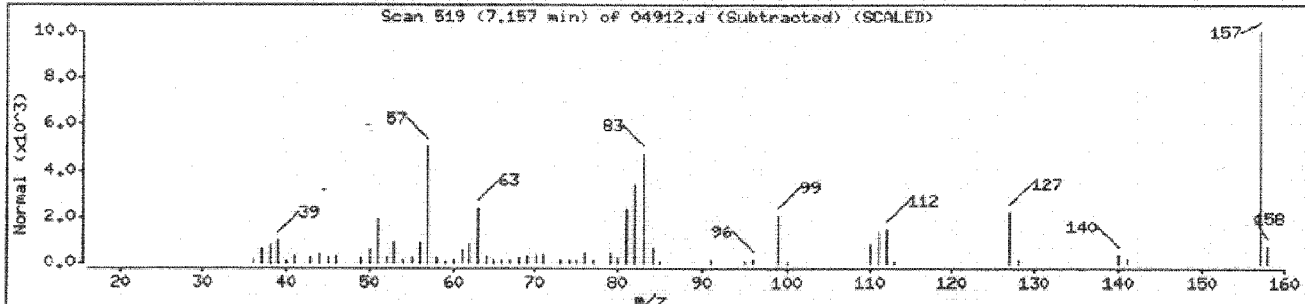
Volume Injected (µL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Fluoro-6-nitrophenol	1526-17-6	NBS75K.1	11655	97	C6H4FNO3	157
4-Fluoro-2-nitrophenol	394-33-2	NBS75K.1	11653	87	C6H4FNO3	157
2-Fluoro-4-nitrophenol	403-19-0	NBS75K.1	11657	83	C6H4FNO3	157



Data File: /var/chem/10ms1.i/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10ms1.i

Sample Info: 105333173

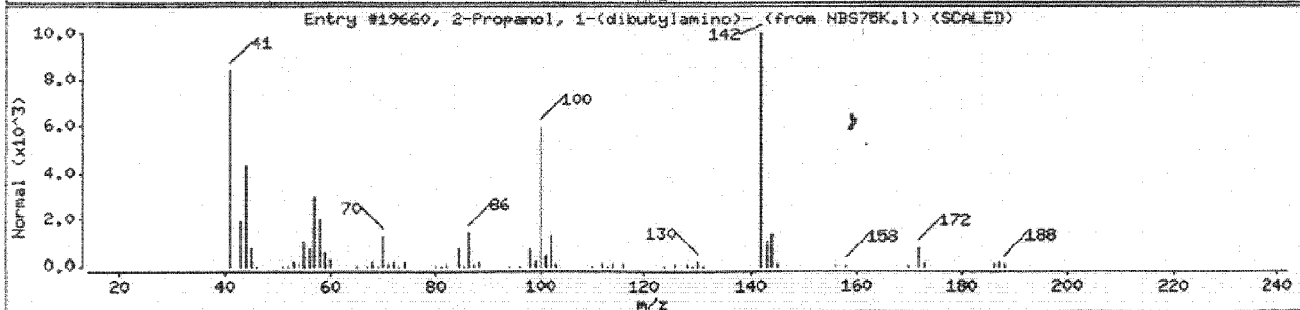
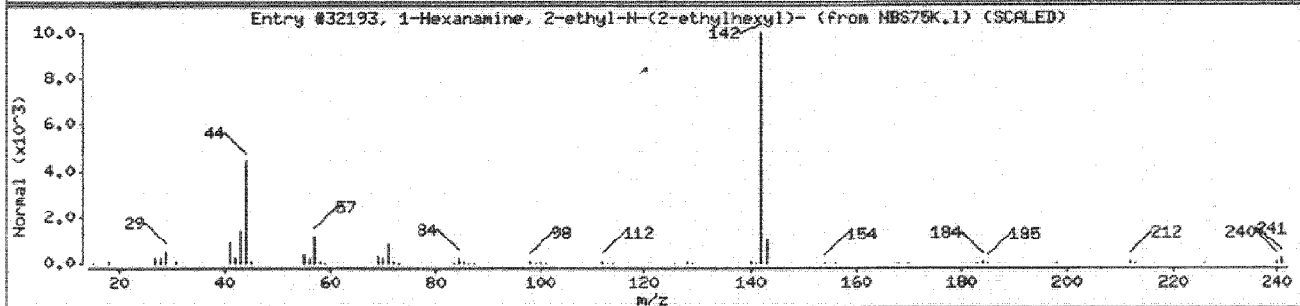
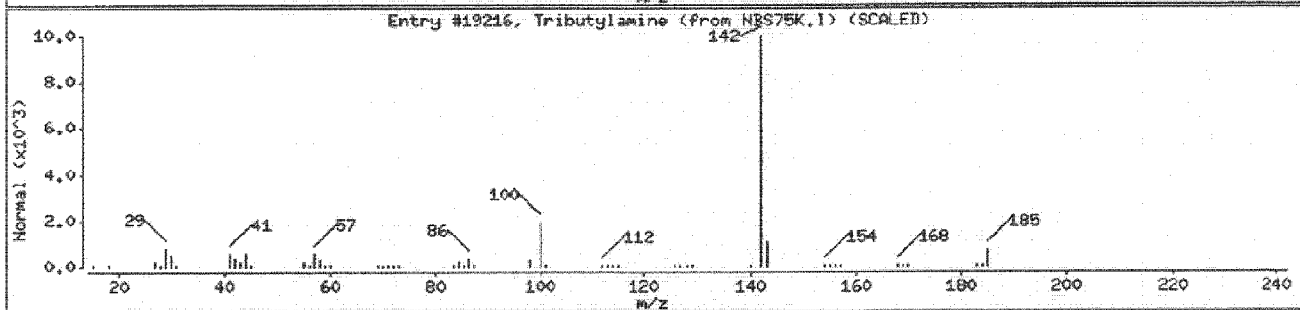
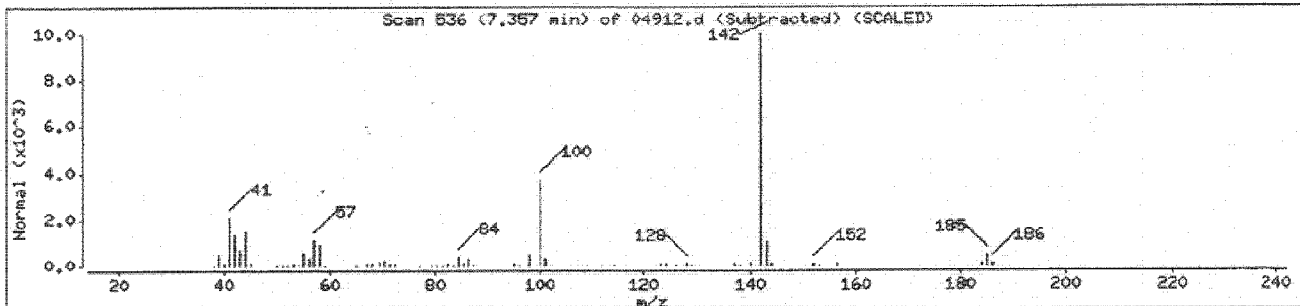
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tributylamine	102-82-9	NBS75K.L	19216	74	C12H27N	185
1-Hexanamine, 2-ethyl-N-(2-ethylhexyl)-	106-20-7	NBS75K.L	32193	50	C16H35N	241
2-Propanol, 1-(dibutylamino)-	2109-64-0	NBS75K.L	19660	50	C11H25NO	187



Data File: /var/chem/10ms1.i/021804.b/04912.d

Date: 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10ms1.i

Sample Info: 105333173

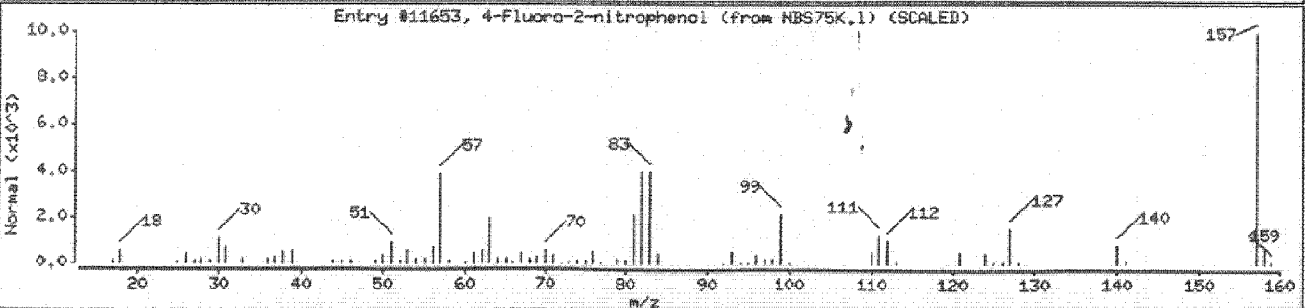
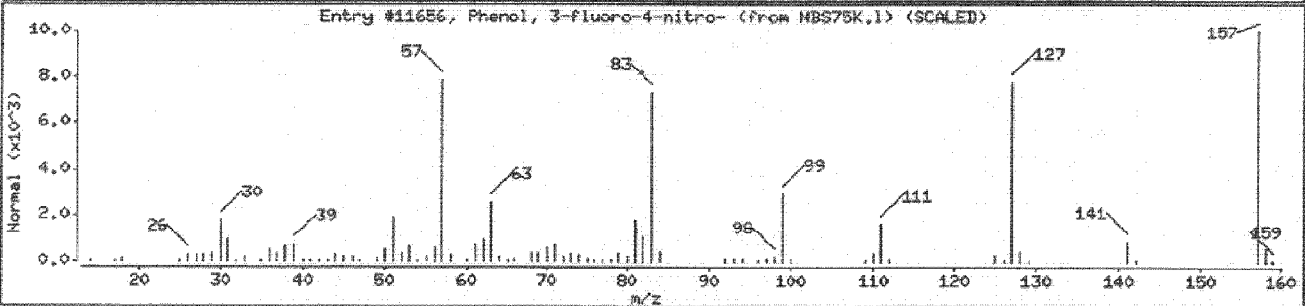
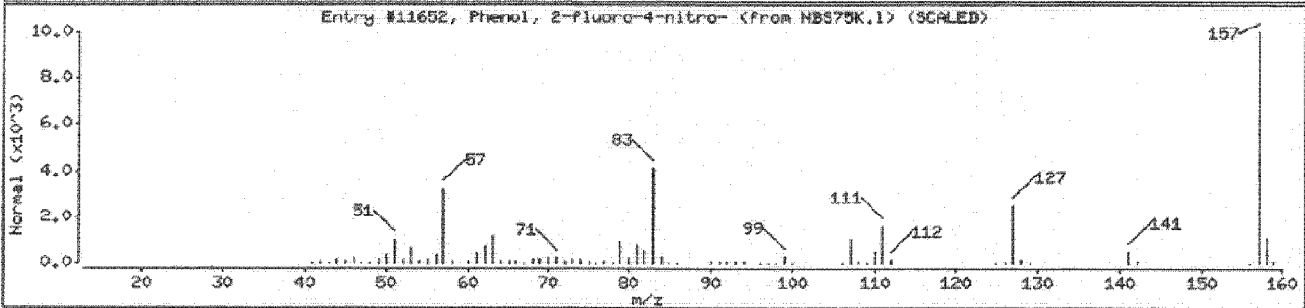
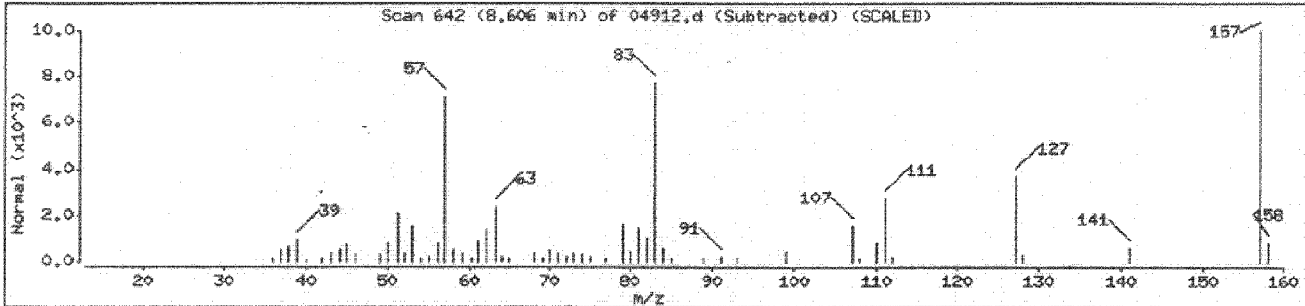
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 2-fluoro-4-nitro-	0-00-0	NBS75K.1	11652	96	C6H4FNO3	157
Phenol, 3-fluoro-4-nitro-	394-41-2	NBS75K.1	11656	83	C6H4FNO3	157
4-Fluoro-2-nitrophenol	394-33-2	NBS75K.1	11653	25	C6H4FNO3	157



Volume injected: 0.025 µL

Operator: KSK

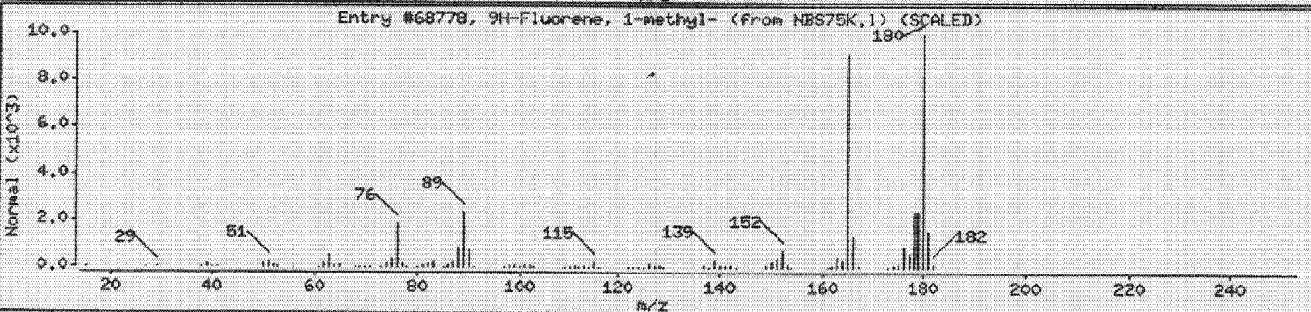
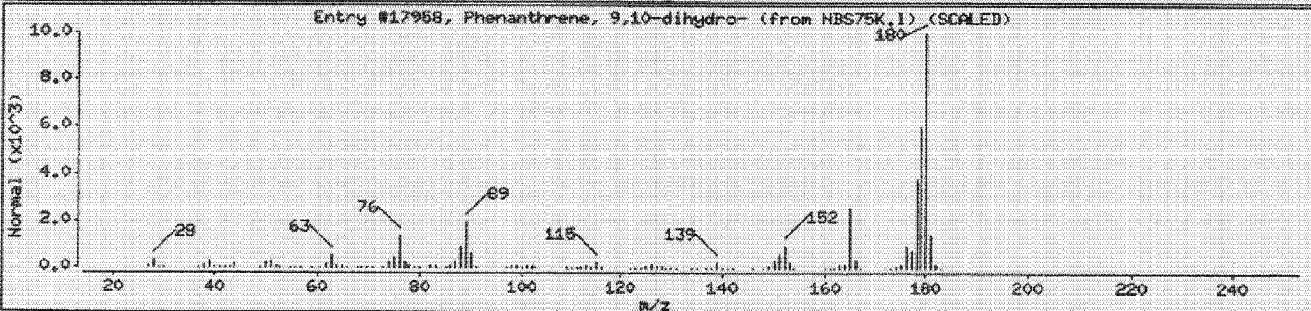
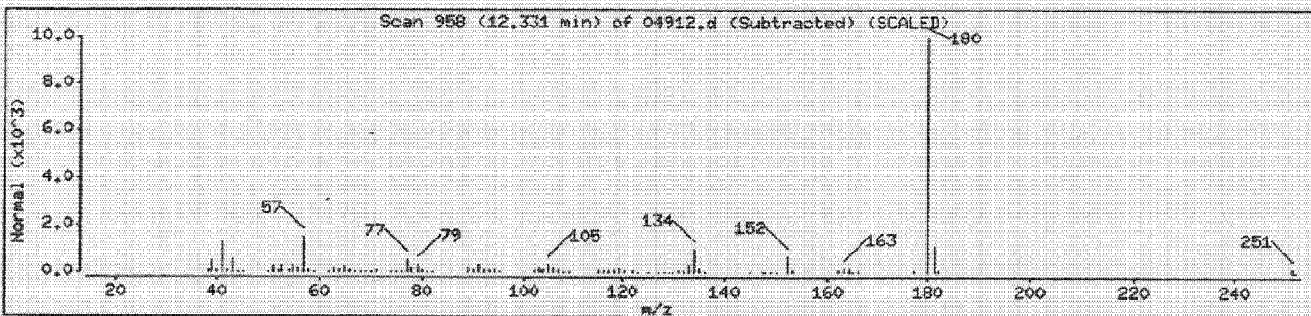
Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match

Phenanthrene, 9,10-dihydro-
9H-Fluorene, 1-methyl-

CAS Number	Library	Entry	Quality	Formula	Weight
776-35-2	NBS75K.1	17958	45	C14H12	180
1730-37-6	NBS75K.1	68778	38	C14H12	180



Data File: /var/chem/10mss1.1/021804.b/04912.d

Date : 18-FEB-2004 19:44

Client ID: E04-0120-67435

Instrument: 10mss1.1

Sample Info: 105333173

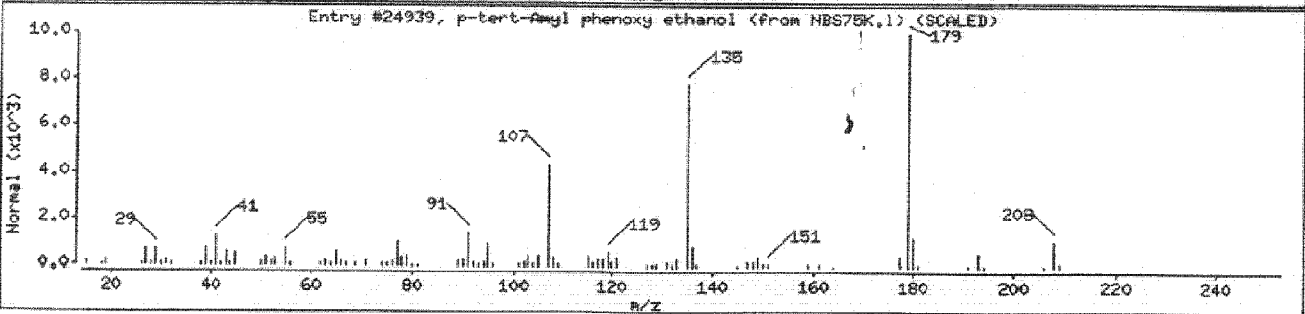
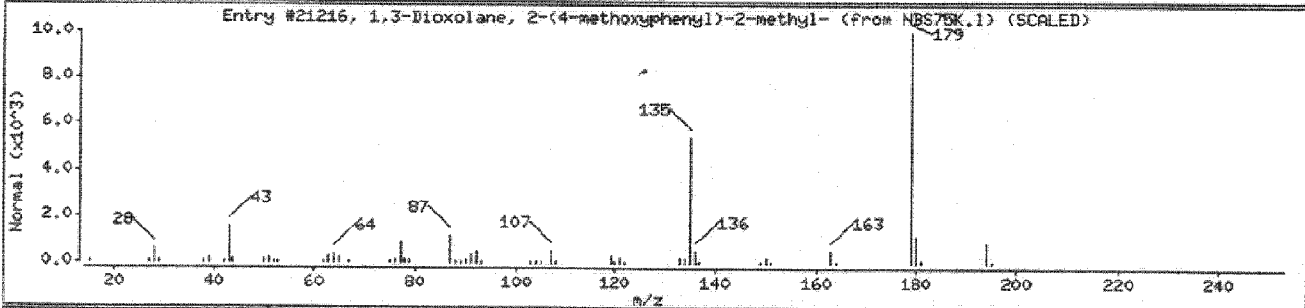
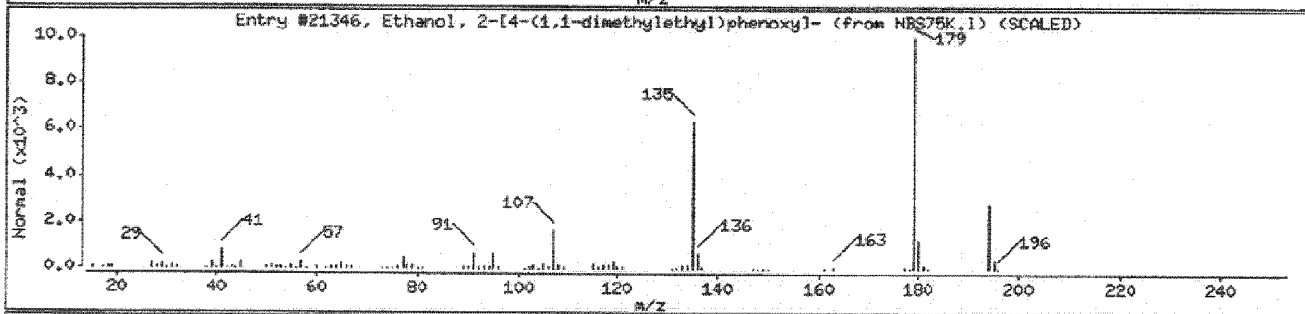
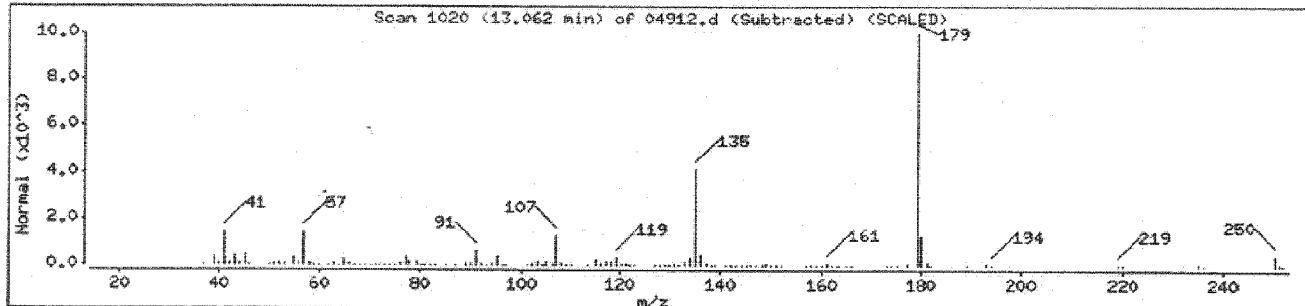
Volume Injected (UL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

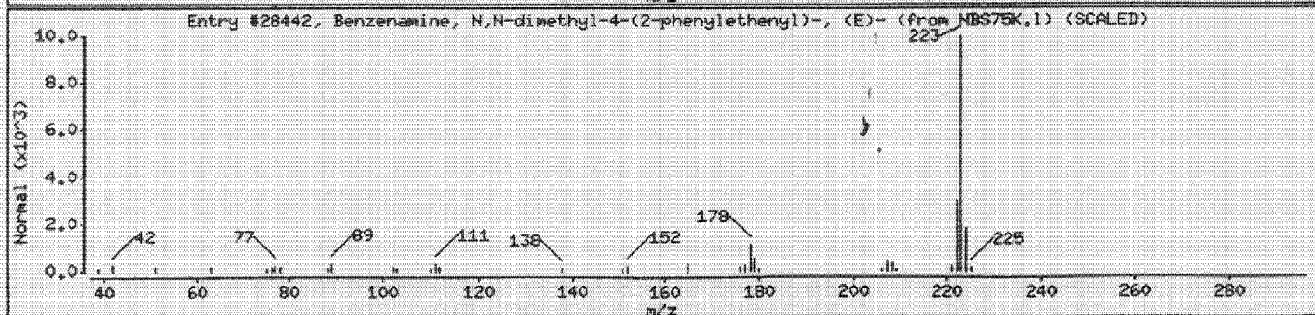
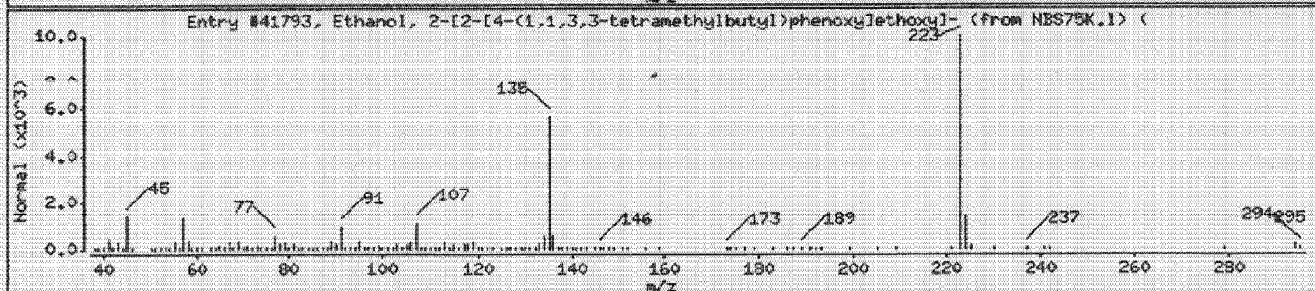
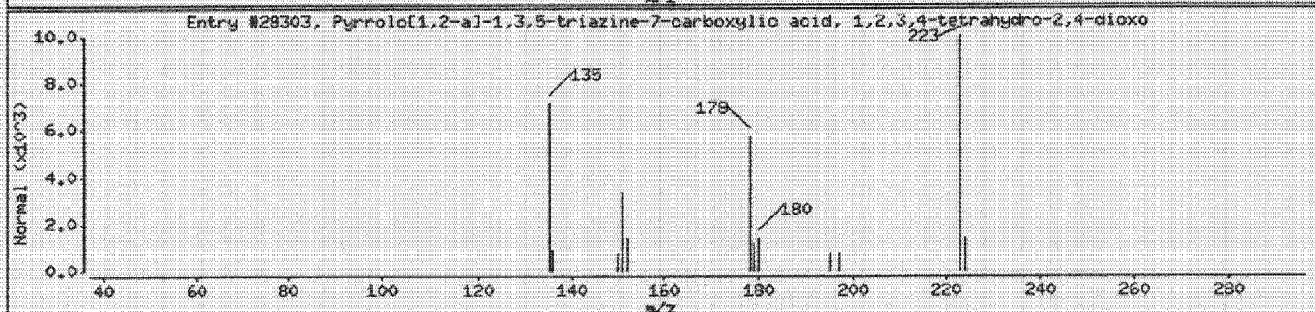
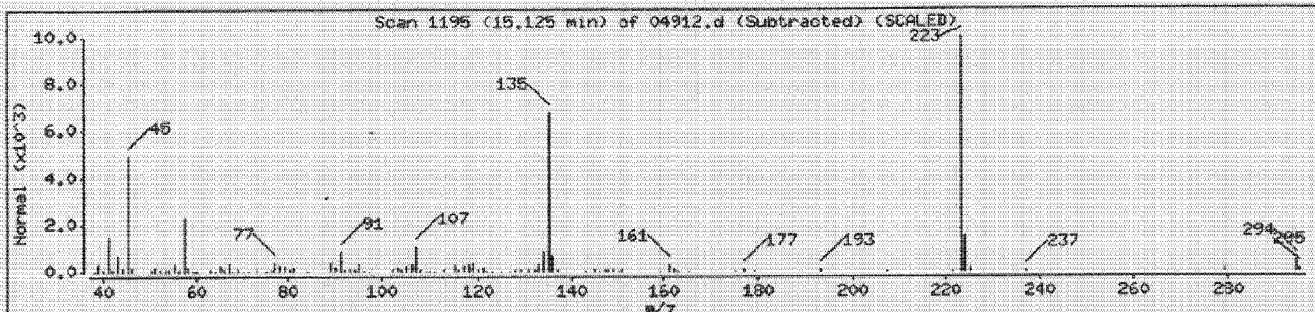
Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-[4-(1,1-dimethylethyl)phenoxy]	713-46-2	NBS75K.1	21346	52	C12H18O2	194
1,3-Dioxolane, 2-(4-methoxyphenyl)-2-met	0-00-0	NBS75K.1	21216	50	C11H14O3	194
p-tert-Amyl phenoxy ethanol	6382-07-6	NBS75K.1	24939	10	C13H20O2	208



Sample Info: 105333173
 Volume Injected (uL): 1.0
 Column phase: DB-5MS

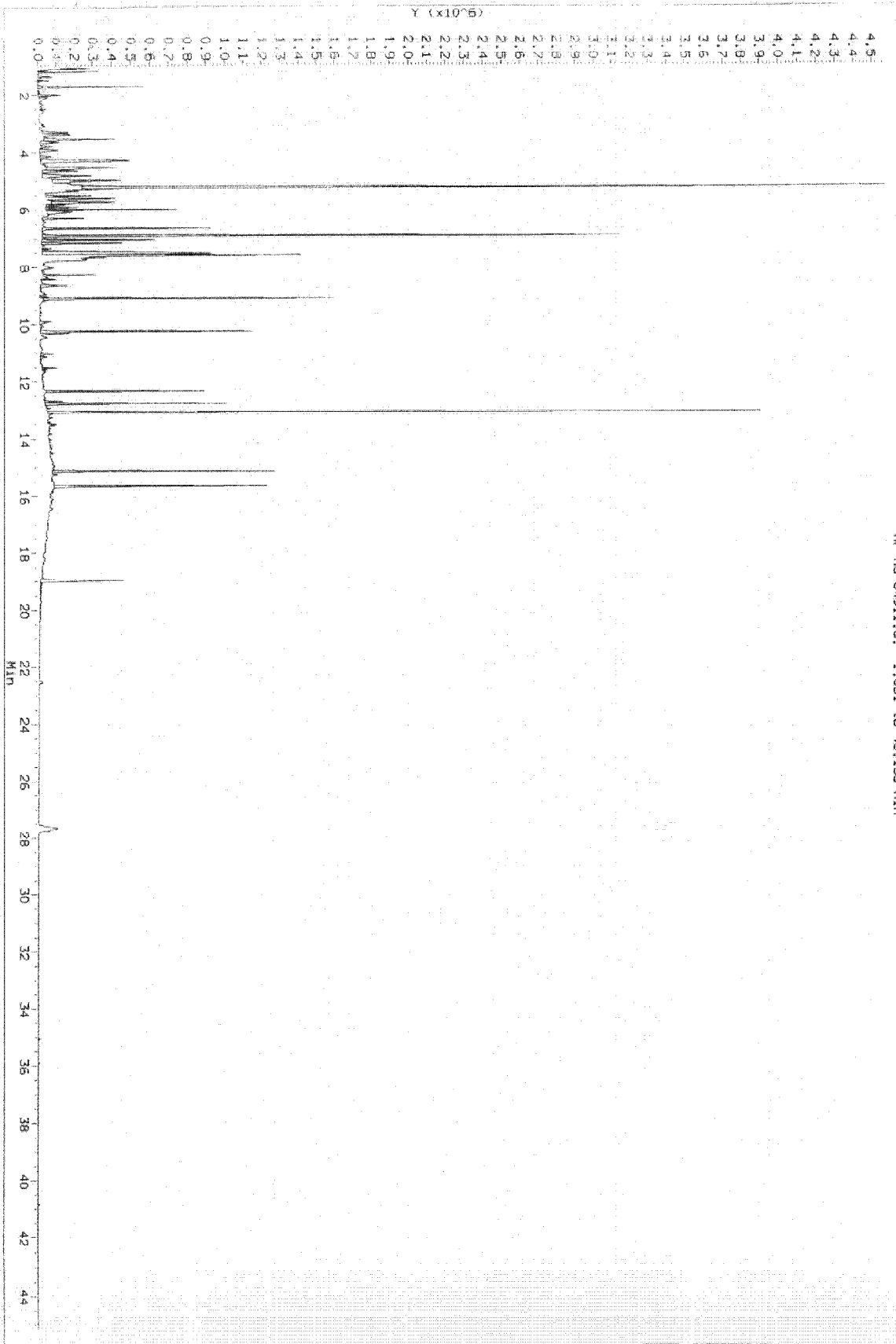
Operator: KSK
 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrrolo[1,2-a]-1,3,5-triazine-7-carboxyl	54449-89-7	NBS75K.1	28303	90	C9H9N3O4	223
Ethanol, 2-[2-[4-(1,1,3,3-tetramethylbut	2315-61-9	NBS75K.1	41793	80	C18H30O3	294
Benzenamine, N,N-dimethyl-4-(2-phenyleth	838-95-9	NBS75K.1	28442	25	C16H17N	223



Data File: /var/chem/10ms1.1/021804.b/04911.d
Injection Date: 18-FTB-2004 18:50
Instrument: 10ms1.1
Client Sample ID: ED4-0120-67438

HP MS 04911.d: 1.051 to 45.135 Min



Data File: /var/chem/10mss1.1/021804.b/04911.d
Report Date: 23-Feb-2004 12:21

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333165
Operator : KSK
Sample Location:
Sample Matrix: WATER
Analysis Type: SV

Client SDG: 021804
Client Smp ID: E04-0120-67438
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-22-0	3-Hydroxy-3-methyl-2-butano	1.711	1.66	NJ
2. 584-03-2	1,2-Butanediol	3.538	2.26	NJ
3. 565-75-3	Pentane, 2,3,4-trimethyl-	4.292	4.48	NJ
4. 922-64-5	Propanedinitrile, methylene	4.516	3.12	NJ
5.	Unknown	4.787	2.09	J
6. 107-86-8	2-Butenal, 3-methyl-	4.988	2.71	NJ
7. 111-96-6	Ethane, 1,1'-oxybis[2-metho	5.223	23.3	NJ
8. 111-90-0	Ethanol, 2-(2-ethoxyethoxy)	5.730	2.12	NJ
9. 110-98-5	2-Propanol, 1,1'-oxybis-	6.084	1.24	NJ
10. 629-06-1	Heptane, 1-chloro-	6.897	14.0	NJ
11. 1526-17-6	2-Fluoro-6-nitrophenol	7.156	1.92	NJ
12. 1730-37-6	9H-Fluorene, 1-methyl-	12.331	31.6	NJ
13. 0-00-0	1,3-Dioxolane, 2-(4-methoxy	13.062	156	NJ
14. 2315-61-9	Ethanol, 2-[2-[4-(1,1,3,3-t	15.125	51.8	NJ

Data File: /var/chem/10mssl.i/021804.b/04911.d
 Report Date: 23-Feb-2004 12:21

Pace Analytical Services, Inc.

BASE, NEUTRAL, ACID QUANT AND RATIO REPORT

Data file : /var/chem/10mssl.i/021804.b/04911.d
 Lab Smp Id: 105333165 Client Smp ID: E04-0120-67438
 Inj Date : 18-FEB-2004 18:50
 Operator : KSK Inst ID: 10mssl.i
 Smp Info : 105333165
 Misc Info :
 Comment : RCRA 8270C - SEMIVOLATILES
 Method : /var/chem/10mssl.i/021804.b/SV07-043.m
 Meth Date : 23-Feb-2004 11:14 kking Quant Type: ISTD
 Cal Date : 12-FEB-2004 20:45 Cal File: 04307.d
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 625.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT	
=====	=====	=====	=====	
* 9	1,4-Dichlorobenzene-d4	6.001	1427557	3.000
* 62	Phenanthrene-d10	12.767	1878283	40.000

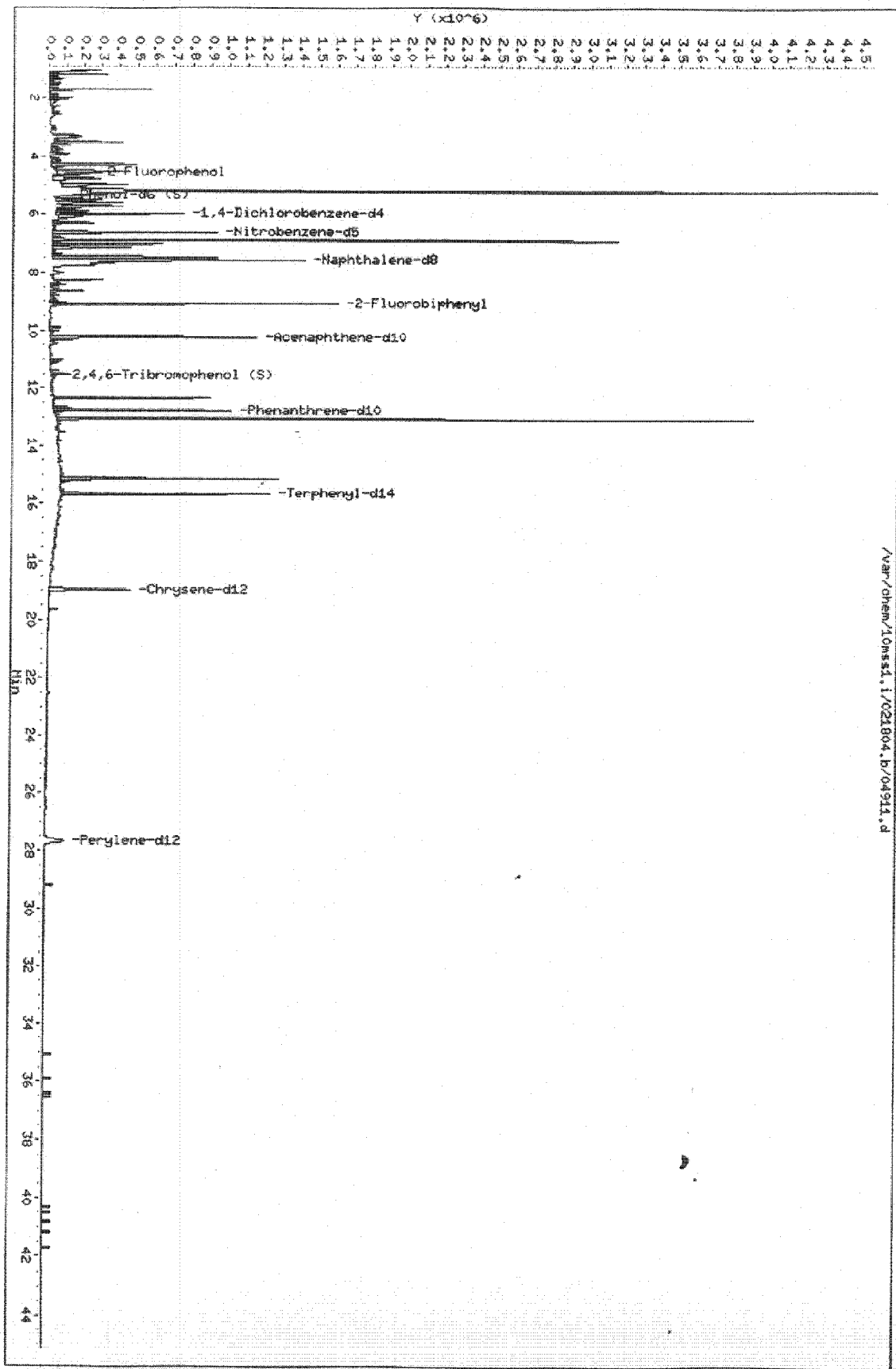
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL(NG)	FINAL(ug/L)		LIBRARY	LIB ENTRY	
3-Hydroxy-3-methyl-2-butanone							
1.711	709011	1.65810010	1.66	73	NBS75K.1	63477	9
1,2-Butanediol							
3.938	1077556	2.26447446	2.26	39	NBS75K.1	62989	9

Data File: /var/chem/10mss1.i/021804.b/04911.d
 Report Date: 23-Feb-2004 12:21

RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON-COL(NG)	FINAL(ug/g)	QUAL	LIBRARY		LIB ENTRY
Pentane, 2,3,4-trimethyl-						CAS #: 565-75-3	
4.292	2134302	4.48521780		4.48	37	NBS75K.1	3100 9
Propanedinitrile, methylene-						CAS #: 922-64-5	
4.516	1482959	3.11642546		3.12	42	NBS75K.1	62625 9
Unknown						CAS #:	
4.787	952965	2.08670752		2.09	0		0 9
2-Butenal, 3-methyl-						CAS #: 107-86-8	
4.988	1291502	2.71408094		2.71	38	NBS75K.1	62726 9
Ethane, 1,1'-oxybis[2-methoxy-						CAS #: 111-96-6	
5.223	11068497	23.2603577		23.3	64	NBS75K.1	6085 9
Ethanol, 2-(2-ethoxyethoxy)-						CAS #: 111-90-0	
5.730	1009113	2.12064243		2.12	78	NBS75K.1	6082 9
2-Propanol, 1,1'-oxybis-						CAS #: 110-98-5	
6.084	592710	1.24557445		1.24	56	NBS75K.1	6087 9
Heptane, 1-chloro-						CAS #: 629-06-1	
6.897	6643355	13.9609570		14.0	40	NBS75K.1	65488 9
2-Fluoro-6-nitrophenol						CAS #: 1526-17-6	
7.156	912364	1.91732599		1.92	97	NBS75K.1	11655 9
9H-Fluorene, 1-methyl-						CAS #: 1730-37-6	
12.331	1482394	31.5691177		31.6	33	NBS75K.1	68778 62
1,3-Dioxolane, 2-(4-methoxyphenyl)-2-met						CAS #: 0-00-0	
13.062	7308169	155.635023		156	64	NBS75K.1	21216 62
Ethanol, 2-[2-[4-(1,1,3,3-tetramethylbut						CAS #: 2315-61-9	
15.125	2432689	51.8066195		51.8	91	NBS75K.1	41793 62

Data File: /var/chem/10ms1.i/021804.b/04911.d
 Date: 18-FEB-2004 18:50
 Client ID: E04-0120-67438
 Sample Info: 108333165
 Volume Injected (uL): 1.0
 Column phase: DB-BMS

Instrument: 10ms1.1
 Operator: KSK
 Column diameter: 0.25



Data File: /var/chem/10ms1.1/021804.b/04911.d

Date: 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.1

Sample Info: 105333165

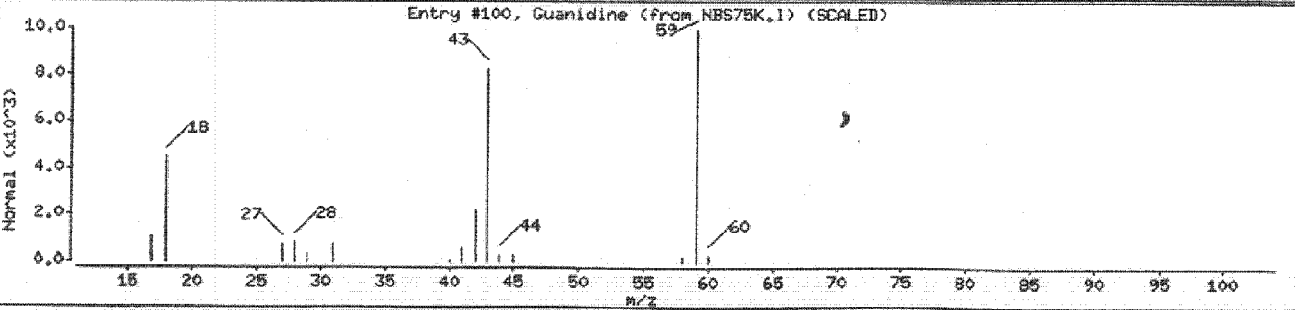
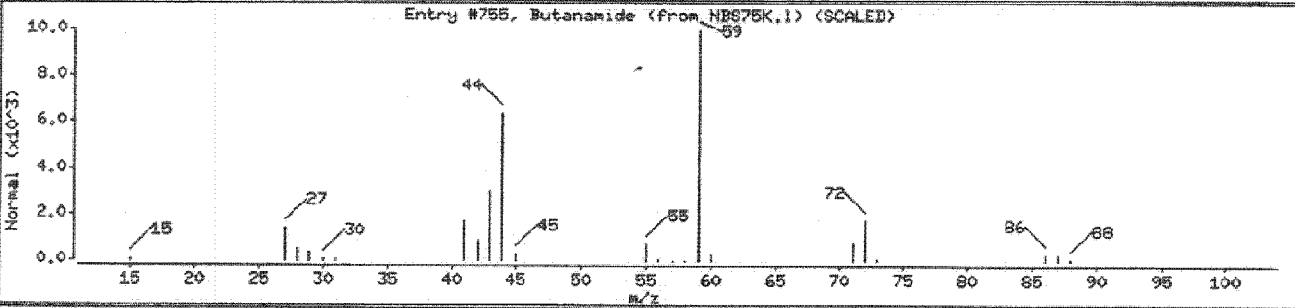
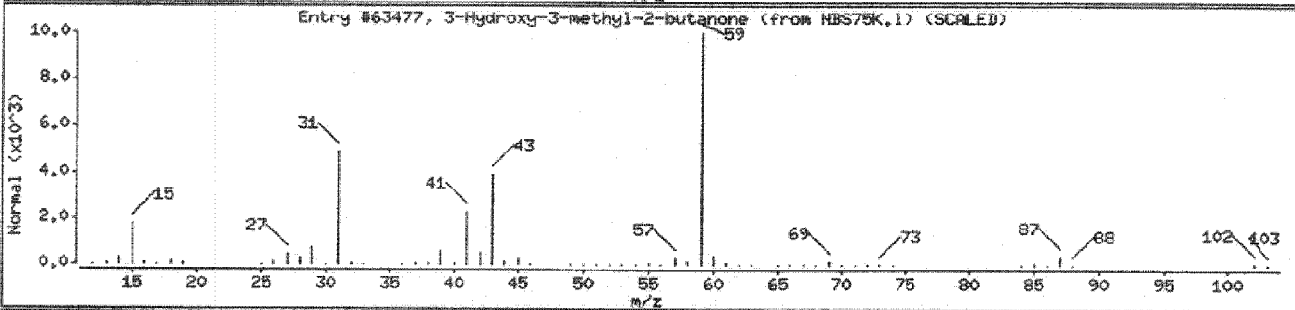
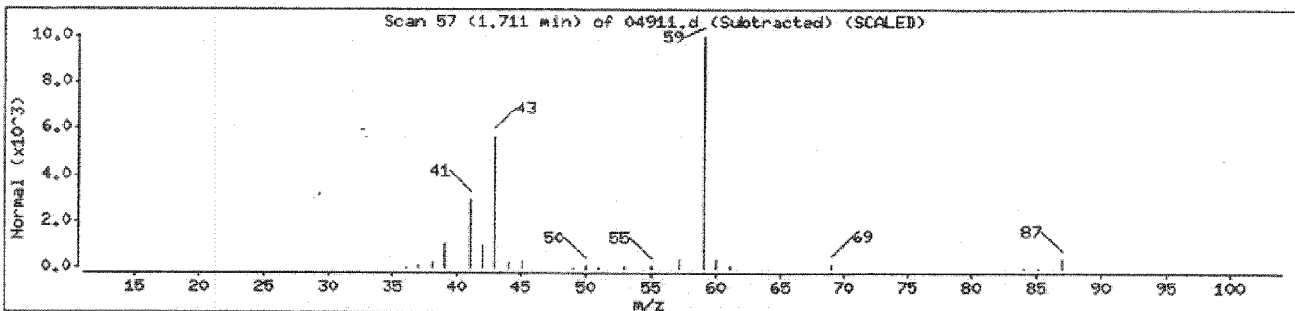
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Hydroxy-3-methyl-2-butanone	115-22-0	NBS75K.1	63477	78	C5H10O2	102
Butanamide	541-35-5	NBS75K.1	755	50	C4H9NO	87
Guanidine	113-00-8	NBS75K.1	100	45	CH5N3	59



Data File: /var/chem/10ms1.1/021804.b/04911.d

Date: 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.1

Sample Info: 105333165

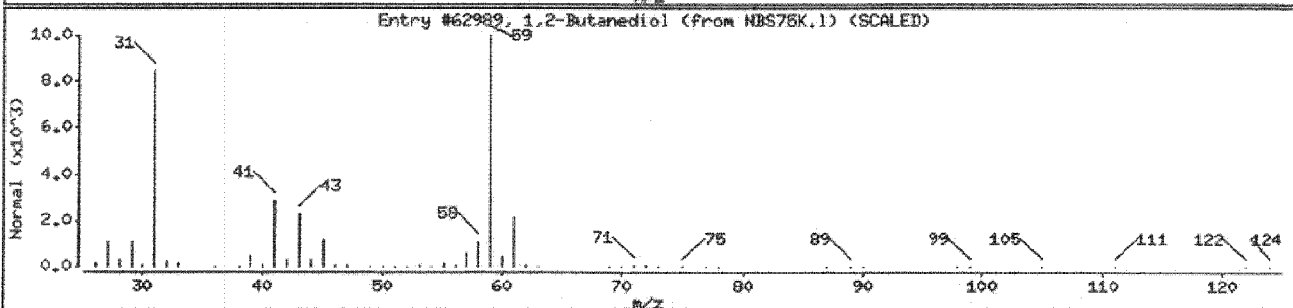
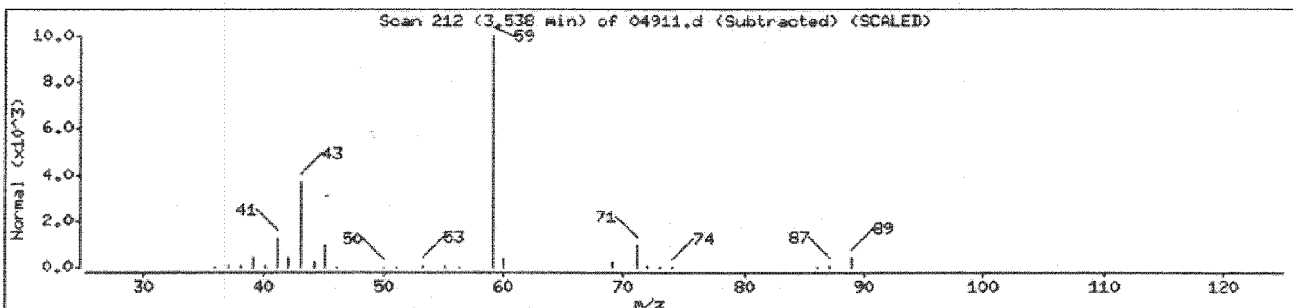
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2-Butanediol	584-03-2	NBS75K.1	62989	39	C4H10O2	90



Data File: /var/chem/10mss1.1/021904_b/04911.d

Date: 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10mss1.1

Sample Info: 105333165

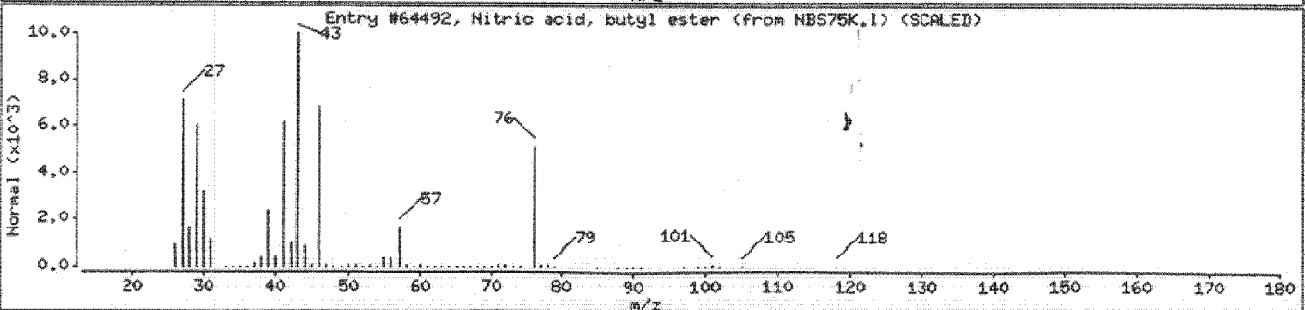
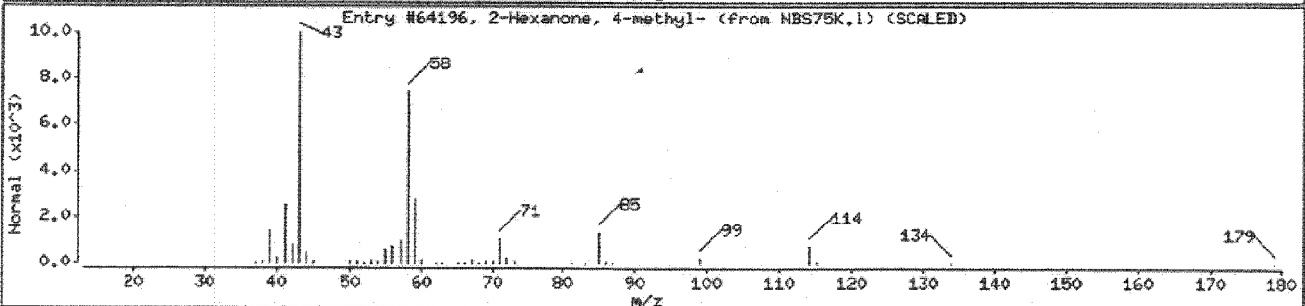
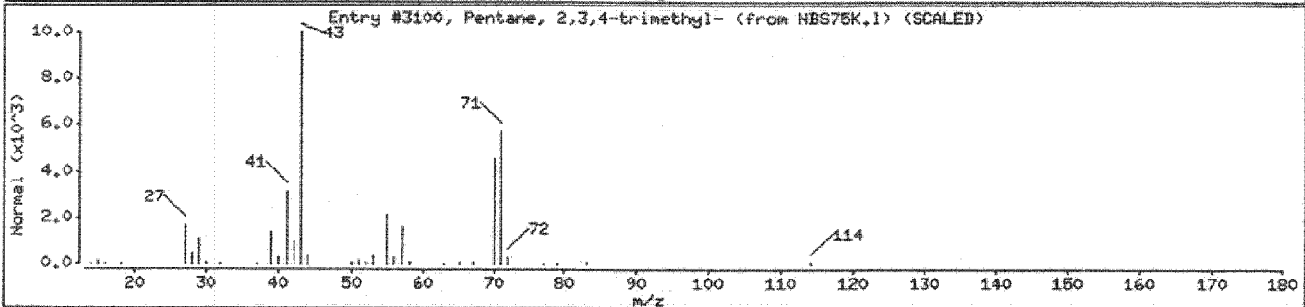
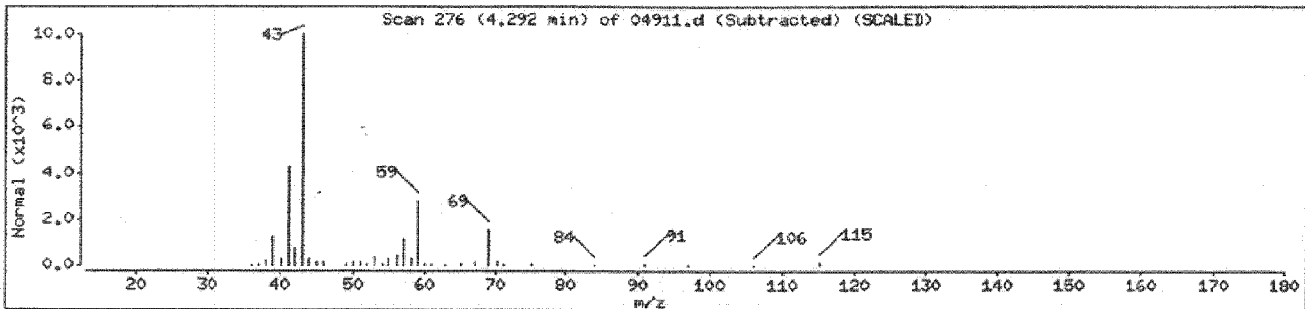
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentane, 2,3,4-trimethyl-	565-75-3	NBS75K.1	3100	37	C8H18	114
2-Hexanone, 4-methyl-	105-42-0	NBS75K.1	64196	36	C7H14O	114
Nitric acid, butyl ester	928-45-0	NBS75K.1	64492	12	C4H9NO3	119



Data File: /var/cnem/10ms1.i/021804.b/04911.d

Date: 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.i

Sample Info: 105333165

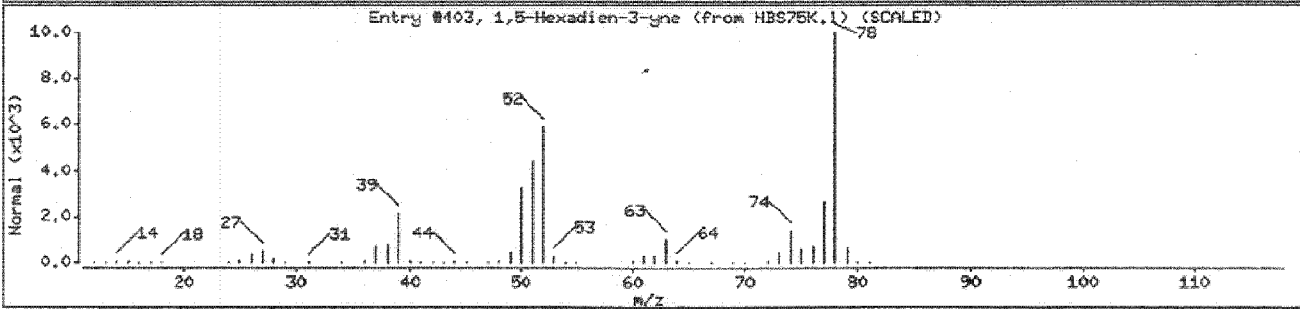
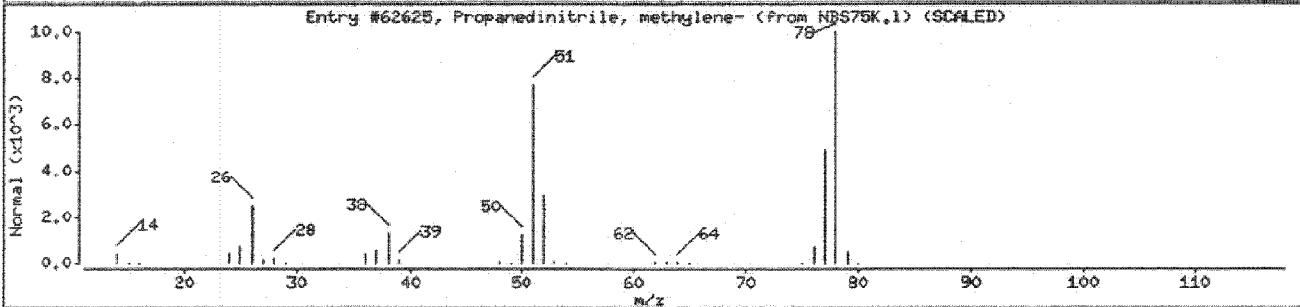
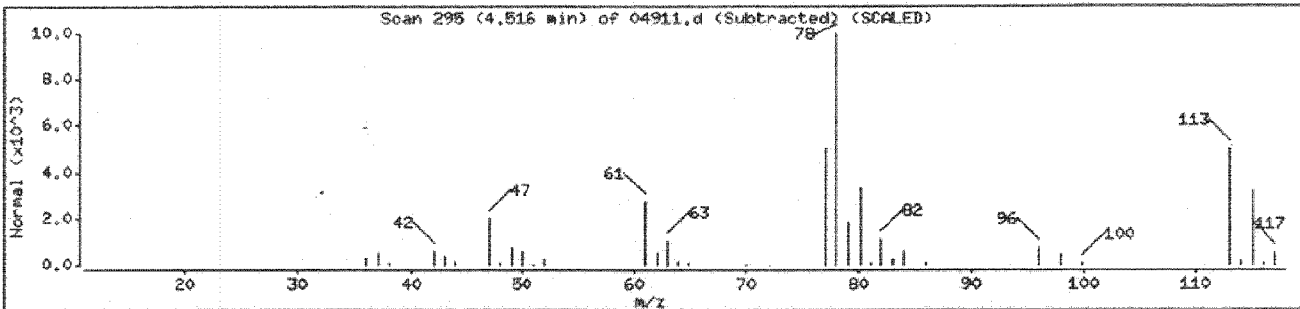
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanedinitrile, methylene-	922-64-5	HBS75K.1	62625	42	C4H2N2	78
1,5-Hexadien-3-yne	821-08-9	HBS75K.1	403	33	C6H6	78



Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.i

Sample Info: 105333165

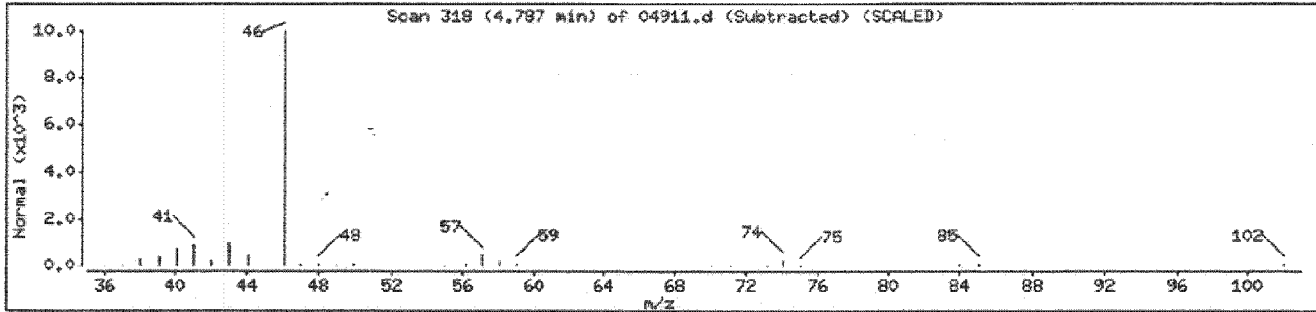
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
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Data File: /var/chem/10mssi.1/021804.b/04911.d

Date: 18-FEB-2004 19:50

Client ID: E04-0120-67438

Instrument: 10mssi.i

Sample Info: 105333165

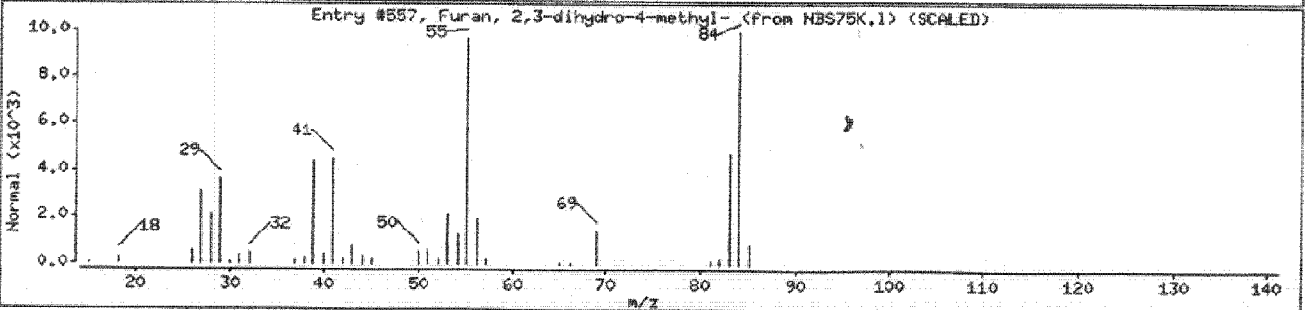
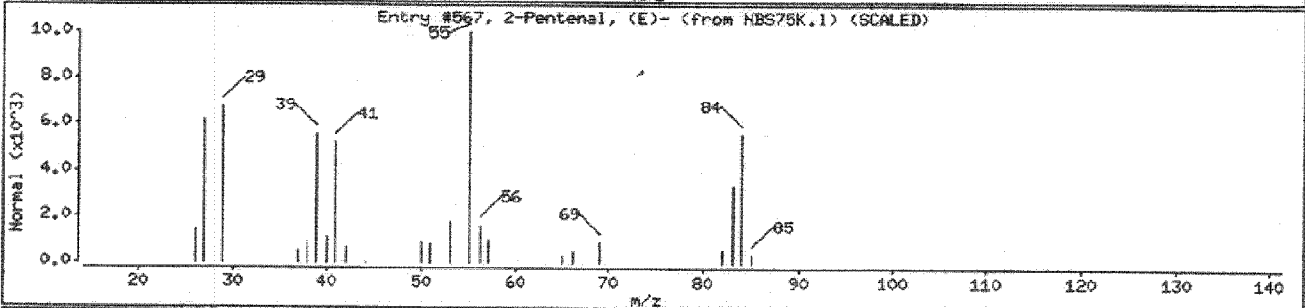
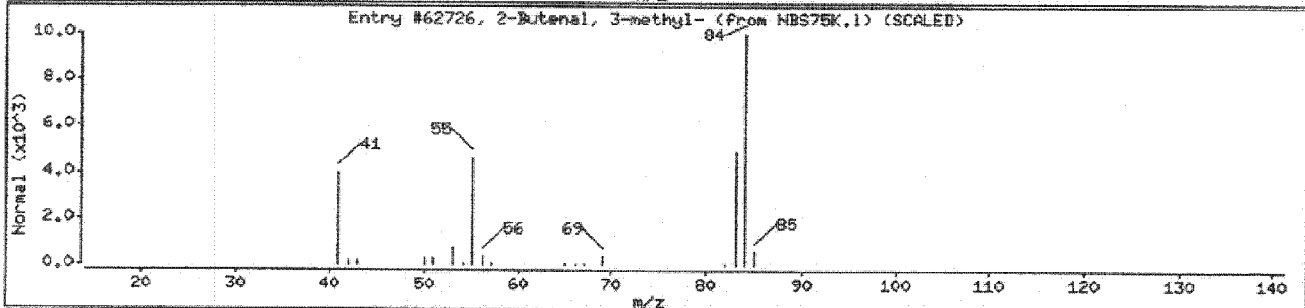
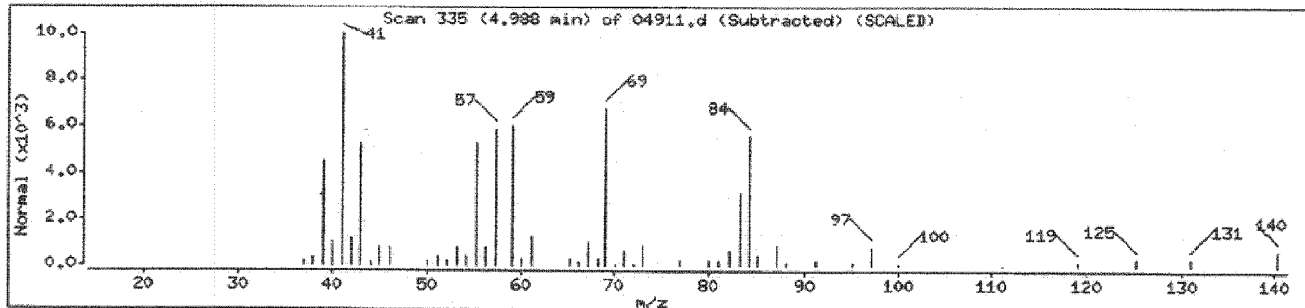
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Butenal, 3-methyl-	107-86-8	NBS75K.1	62726	38	C5H8O	84
2-Pentenal, (E)-	1576-87-0	NBS75K.1	567	22	C5H8O	84
Furan, 2,3-dihydro-4-methyl-	34314-83-5	NBS75K.1	557	18	C5H8O	84



Data File: /var/chem/10mssi.i/021804.b/04911.d

Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10mssi.1

Sample Info: 105333165

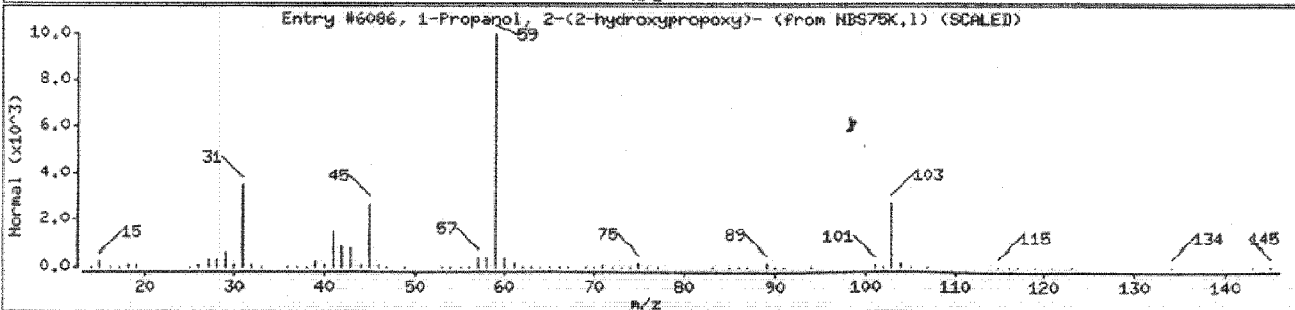
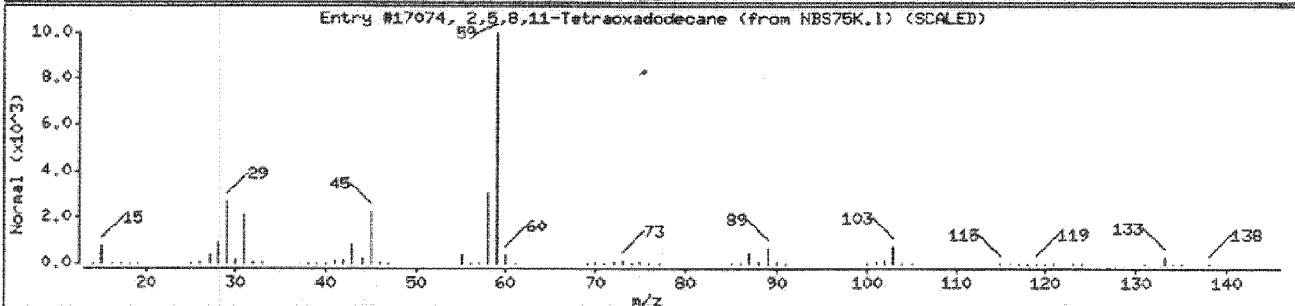
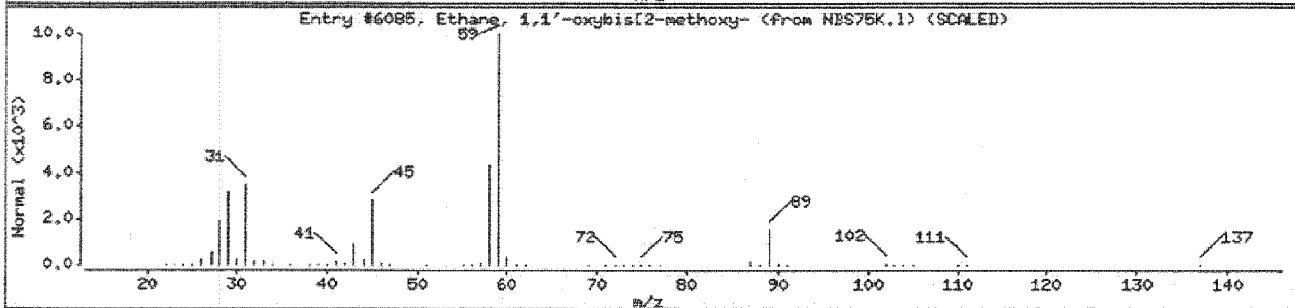
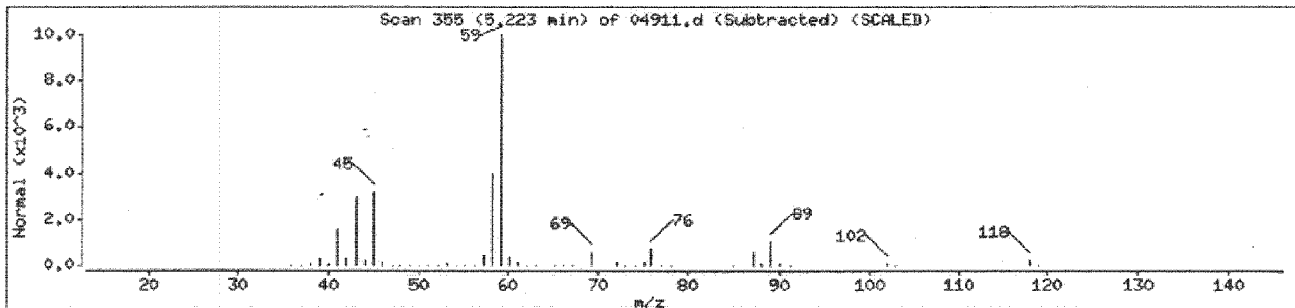
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethane, 1,1'-oxybis[2-methoxy-	111-96-6	NBS75K.1	6085	64	C6H14O3	134
2,5,8,11-Tetraoxadodecane	112-49-2	NBS75K.1	17074	64	C8H18O4	178
1-Propanol, 2-(2-hydroxypropoxy)-	106-62-7	NBS75K.1	6086	50	C6H14O3	134



Data File: /var/chem/10mssi.1/021804.b/04911.d

Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10mssi.1

Sample Info: 105333165

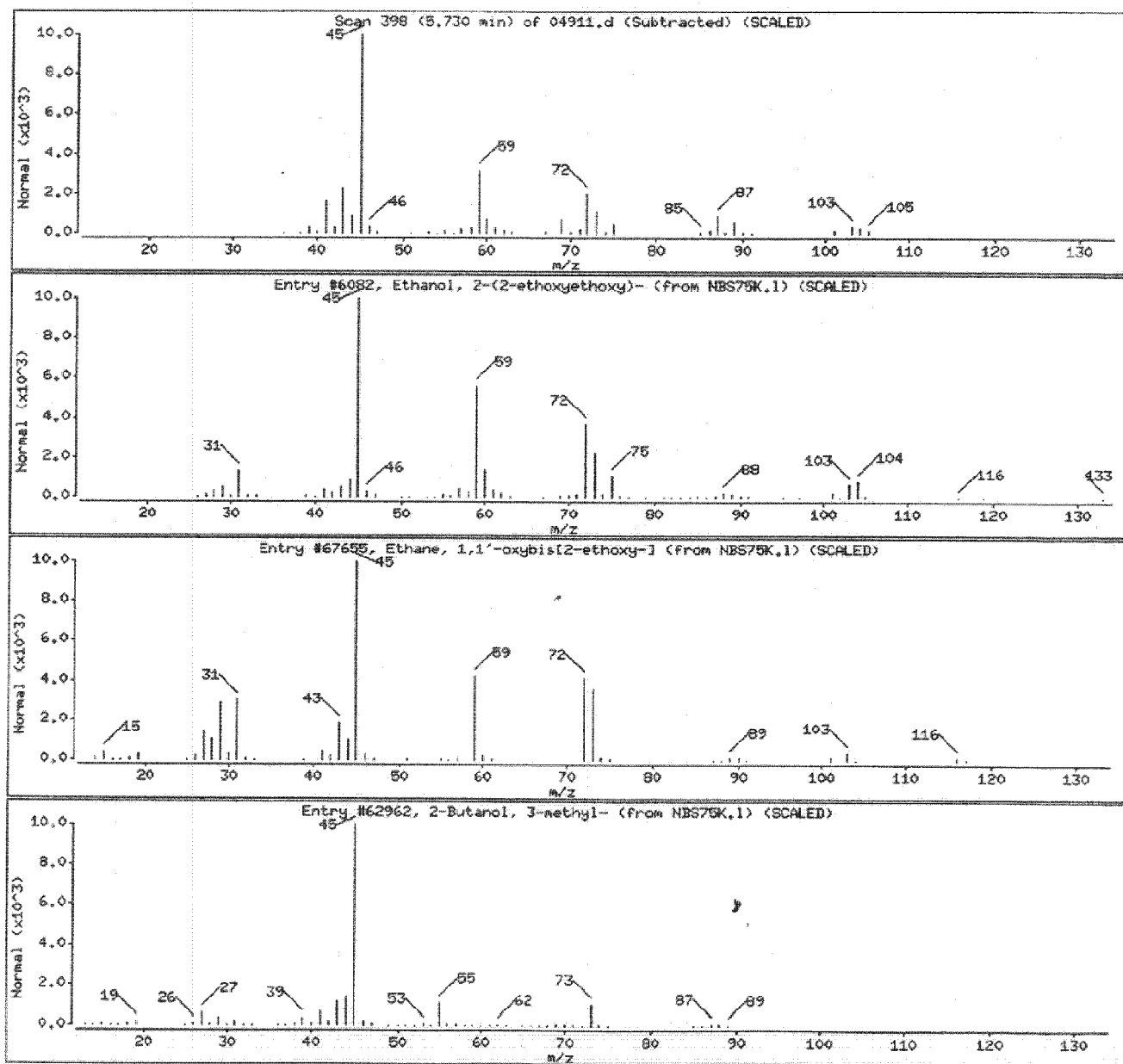
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-(2-ethoxyethoxy)-	111-90-0	NBS75K.1	6082	78	C6H14O3	134
Ethane, 1,1'-oxybis[2-ethoxy-]	112-36-7	NBS75K.1	67655	72	C8H18O3	162
2-Butanol, 3-methyl-	598-75-4	NBS75K.1	62962	47	C5H12O	88



Data File: /var/chem/10ms1.i/021804.b/04911.d

Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.1

Sample Info: 105333165

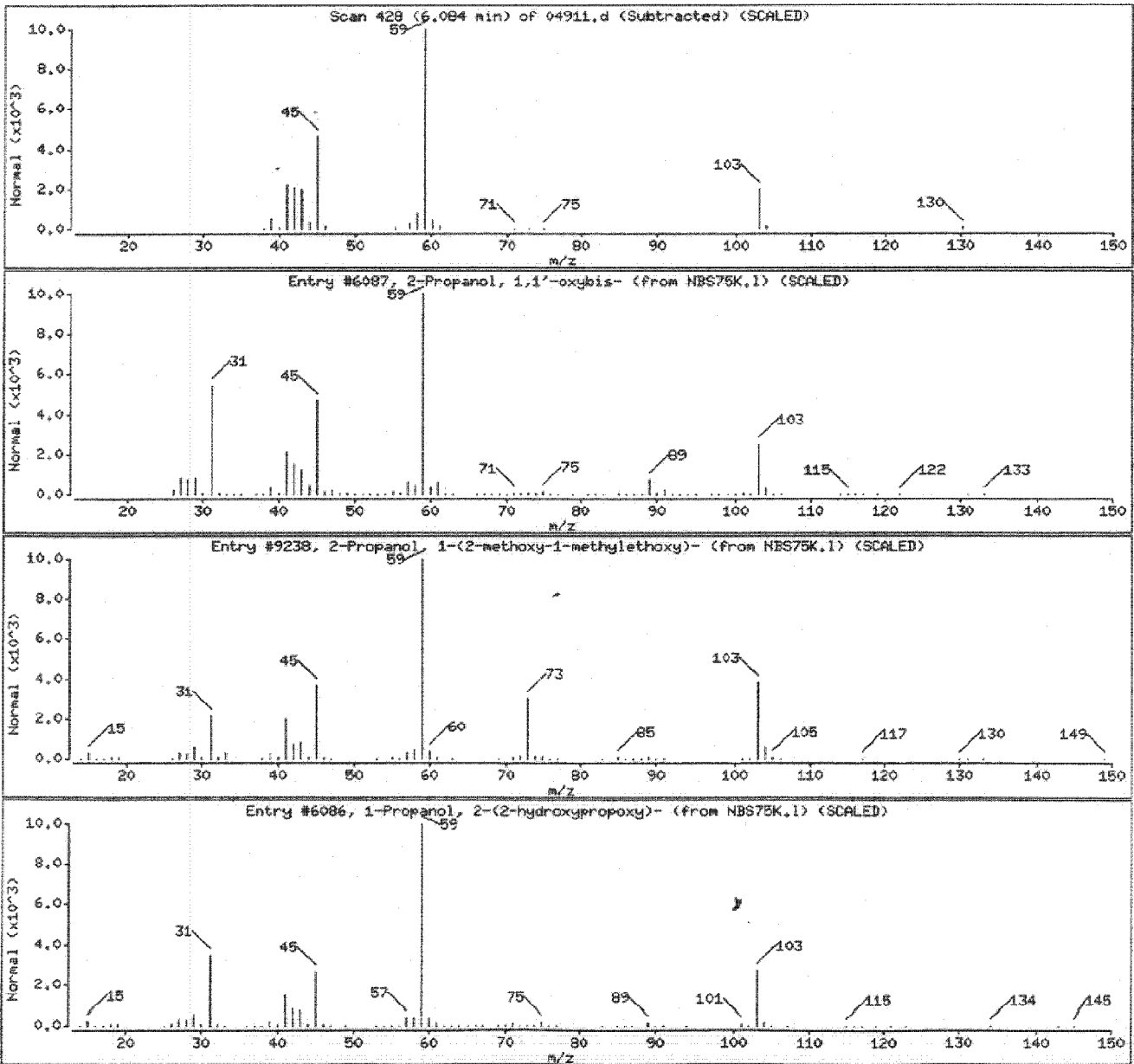
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
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2-Propanol, 1-(2-methoxy-1-methylethoxy)	20324-32-7	NBS75K.1	9238	56	C7H16O3	148
1-Propanol, 2-(2-hydroxypropoxy)-	106-62-7	NBS75K.1	6086	45	C6H14O3	134



Data File: /var/chem/10ms1.i/021804.b/04911.d

Date: 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.i

Sample Info: 105333165

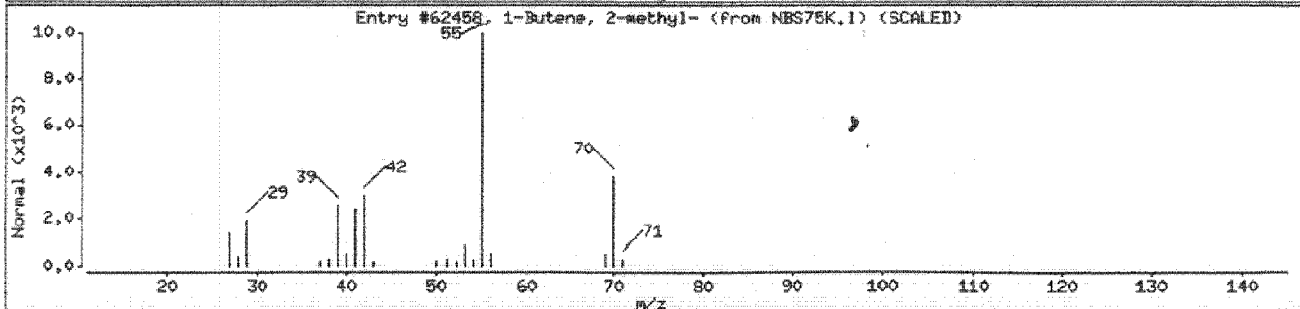
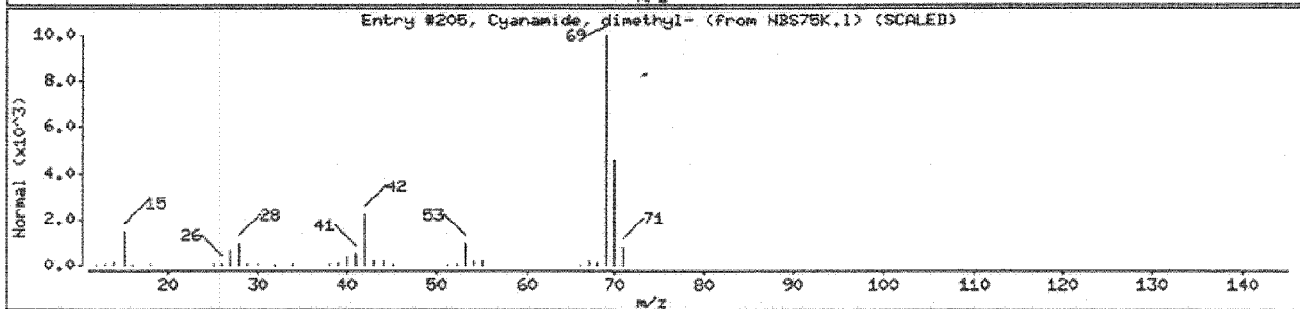
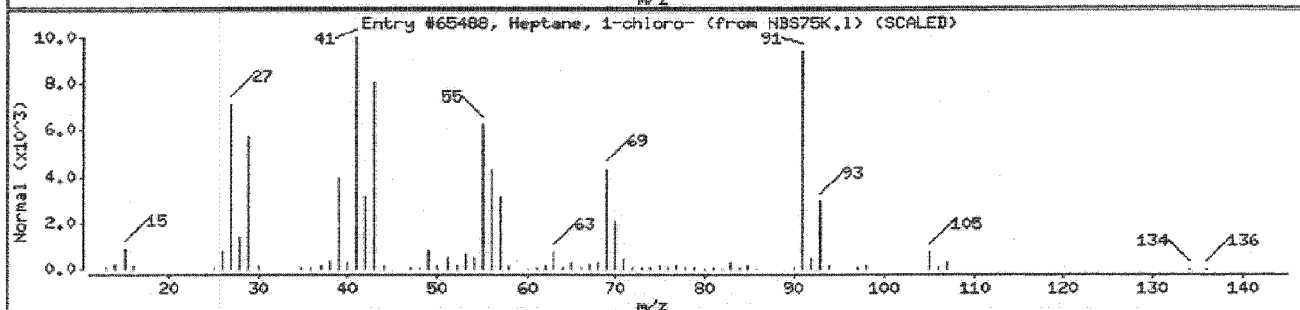
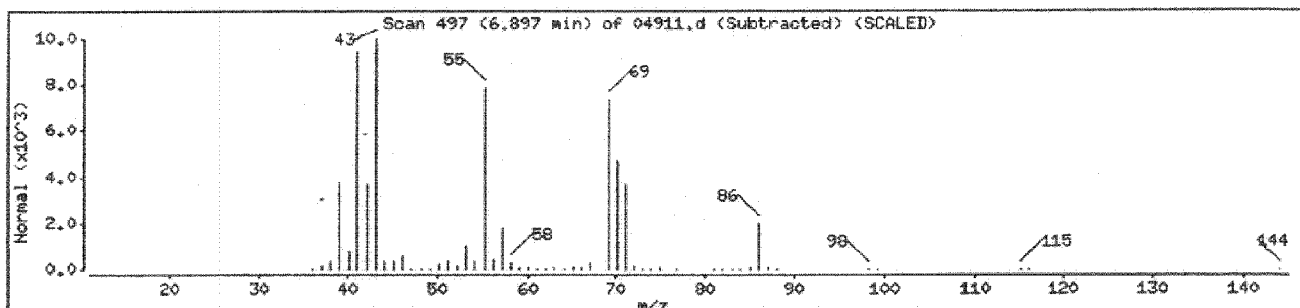
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptane, 1-chloro-	629-06-1	NBS75K.1	65488	40	C7H16Cl	134
Cyanamide, dimethyl-	1467-79-4	NBS75K.1	205	38	C2H6N2	70
1-Butene, 2-methyl-	563-46-2	NBS75K.1	62458	30	C5H10	70



Data File: /var/chem/10mss1.1/021804.b/04911.d

Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10mss1.1

Sample Info: 105333165

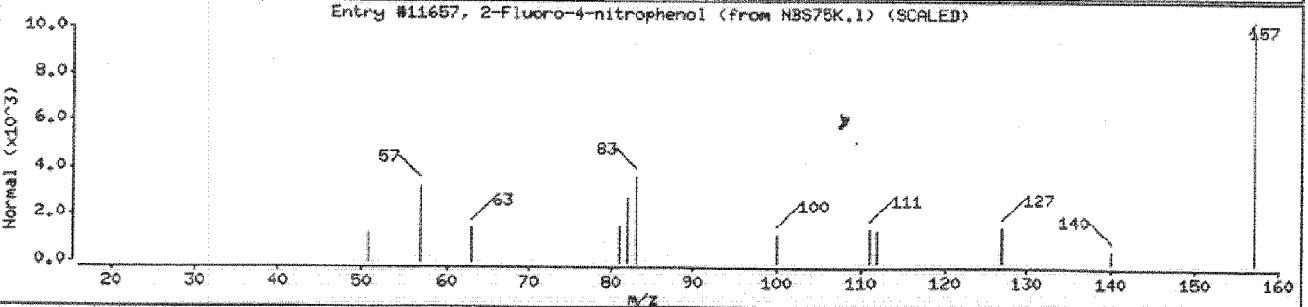
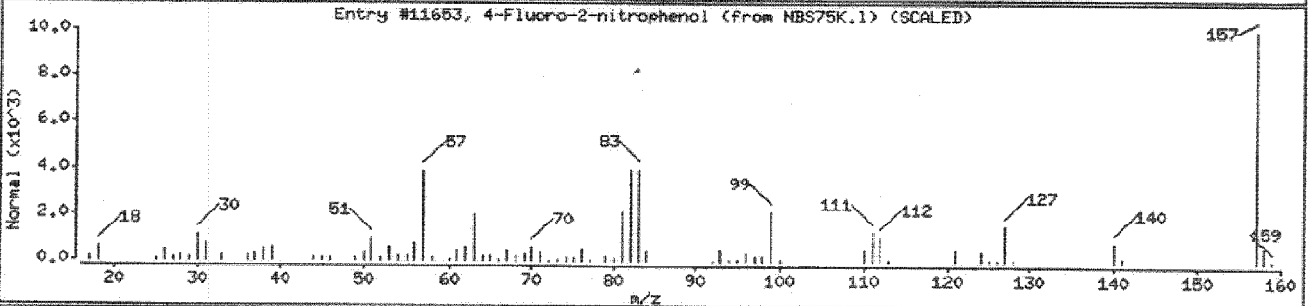
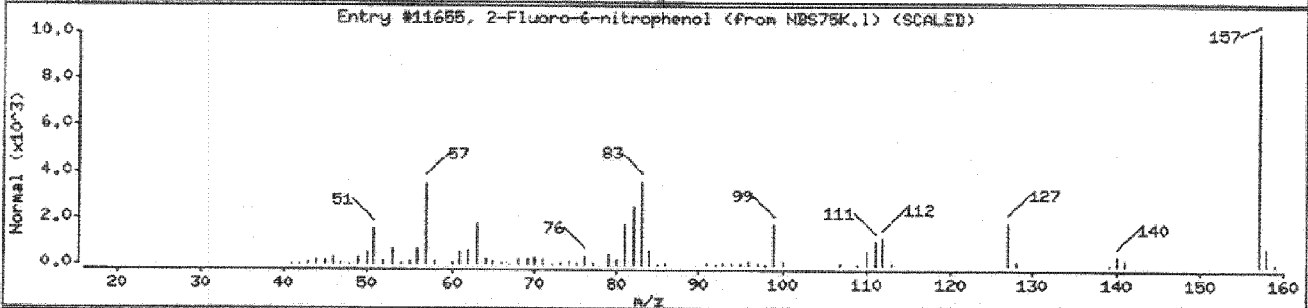
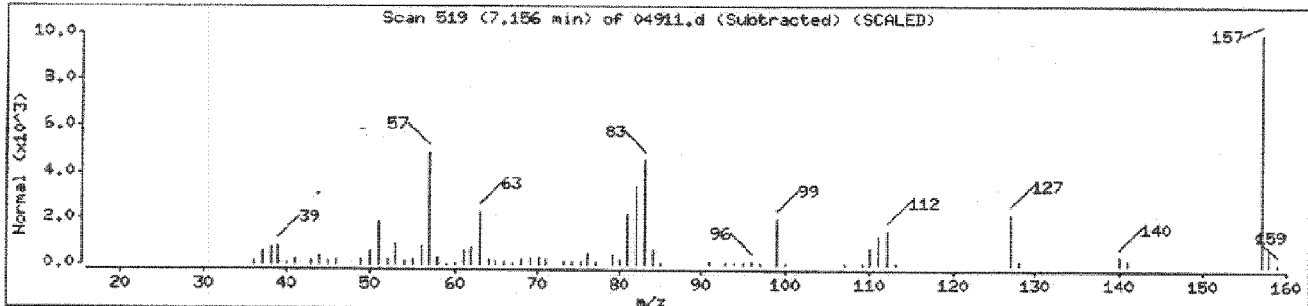
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Fluoro-6-nitrophenol	1526-17-6	NBS75K.1	11655	97	C6H4FN03	157
4-Fluoro-2-nitrophenol	394-33-2	NBS75K.1	11653	90	C6H4FN03	157
2-Fluoro-4-nitrophenol	403-19-0	NBS75K.1	11657	83	C6H4FN03	157



Data File: /var/chem/10mss1.i/021804.b/04911.d

Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10mss1.i

Sample Info: 106333165

Volume Injected (uL): 1.0

Operator: KSK

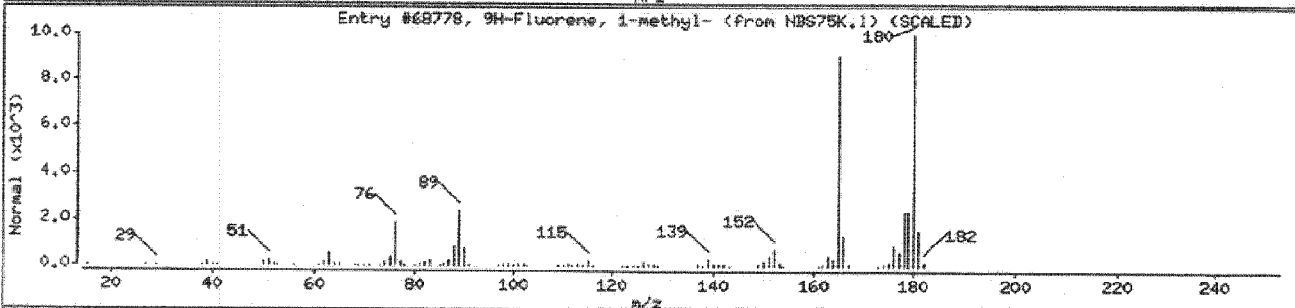
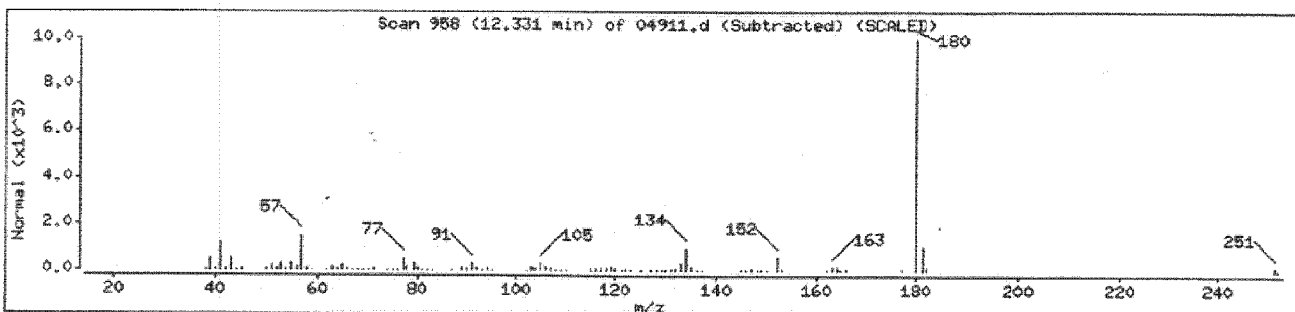
Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match

9H-Fluorene, 1-methyl-

CAS Number	Library	Entry	Quality	Formula	Weight
1730-37-6	NBS75K.1	68778	38	C14H12	180



Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.i

Sample Info: 105333165

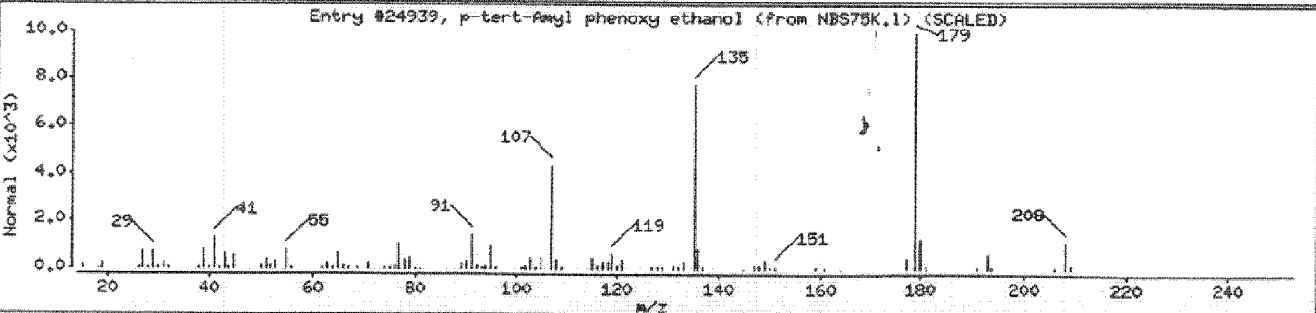
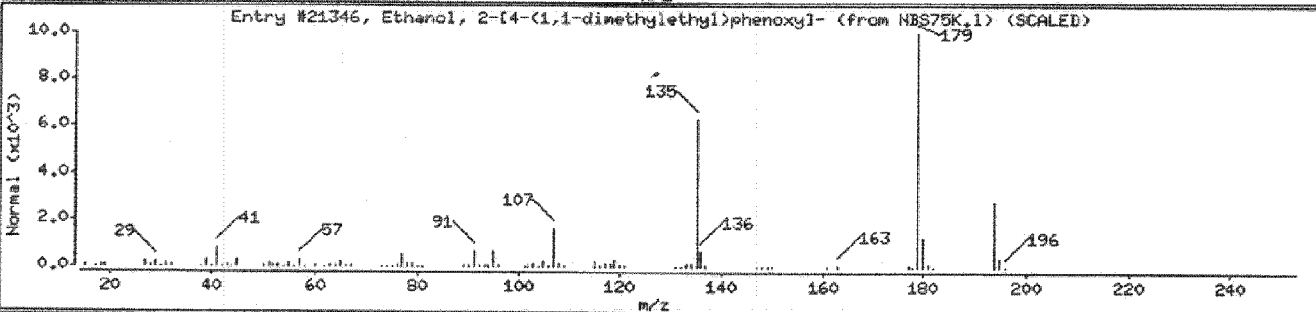
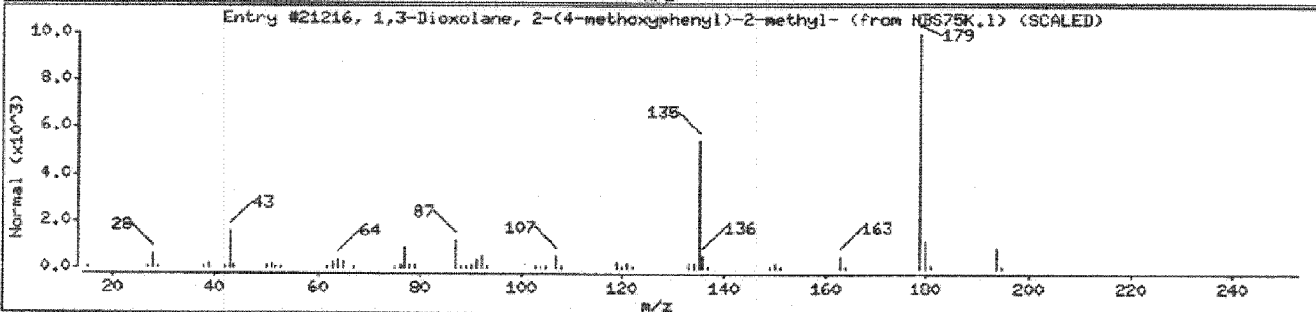
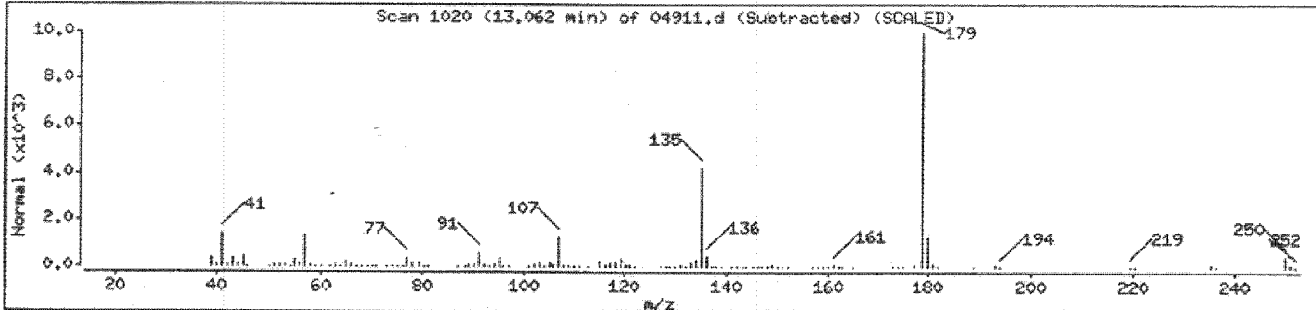
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,3-Dioxolane, 2-(4-methoxyphenyl)-2-met	0-00-0	NBS75K.1	21216	64	C11H14O3	194
Ethanol, 2-[4-(1,1-dimethylethyl)phenoxy]	713-46-2	NBS75K.1	21346	52	C12H18O2	194
p-tert-Amyl phenoxy ethanol	6382-07-6	NBS75K.1	24939	38	C13H20O2	208



Data File: /var/chem/10ms1.i/021804.b/04911.d

Date : 18-FEB-2004 18:50

Client ID: E04-0120-67438

Instrument: 10ms1.i

Sample Info: 105333165

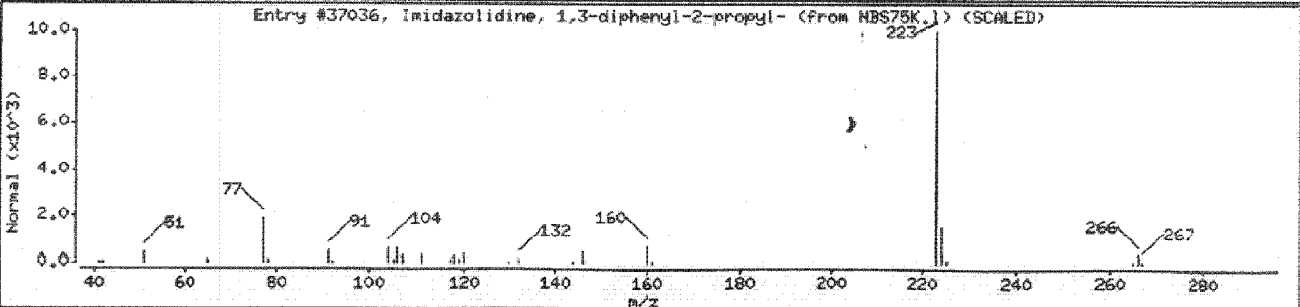
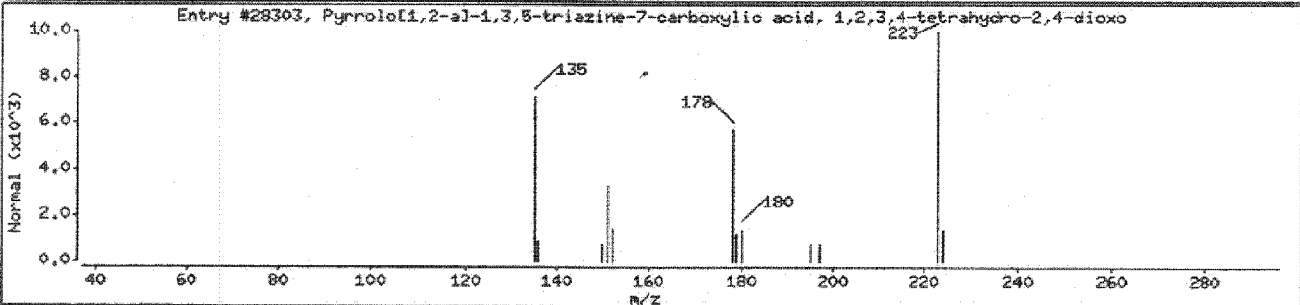
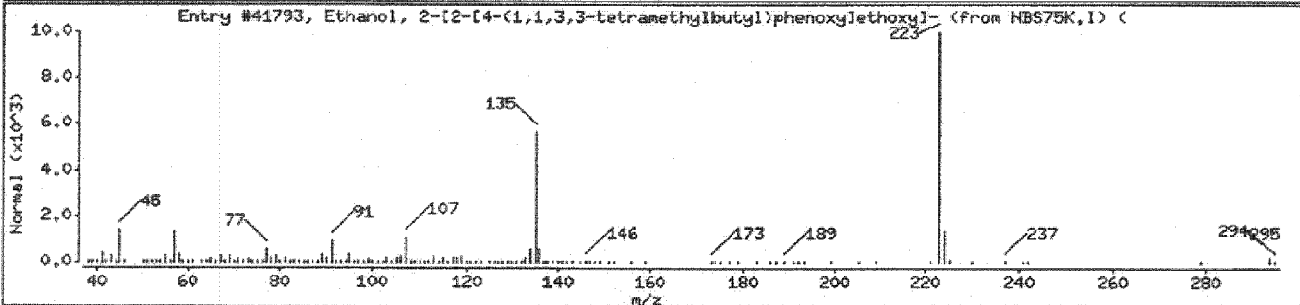
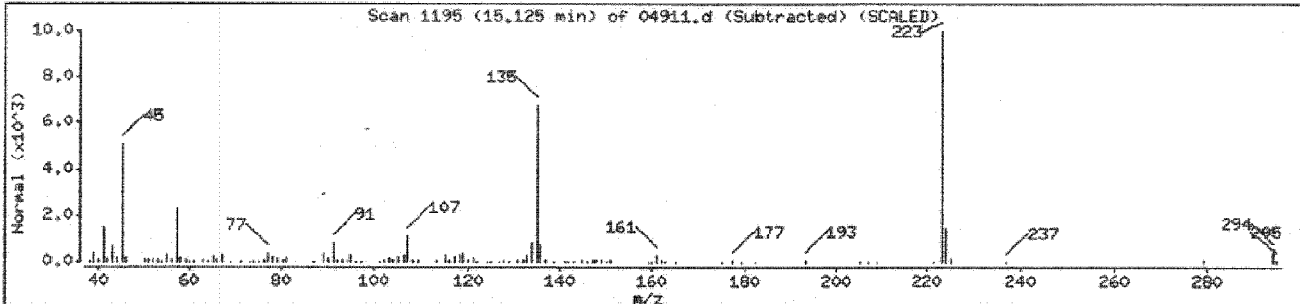
Volume Injected (uL): 1.0

Operator: KSK

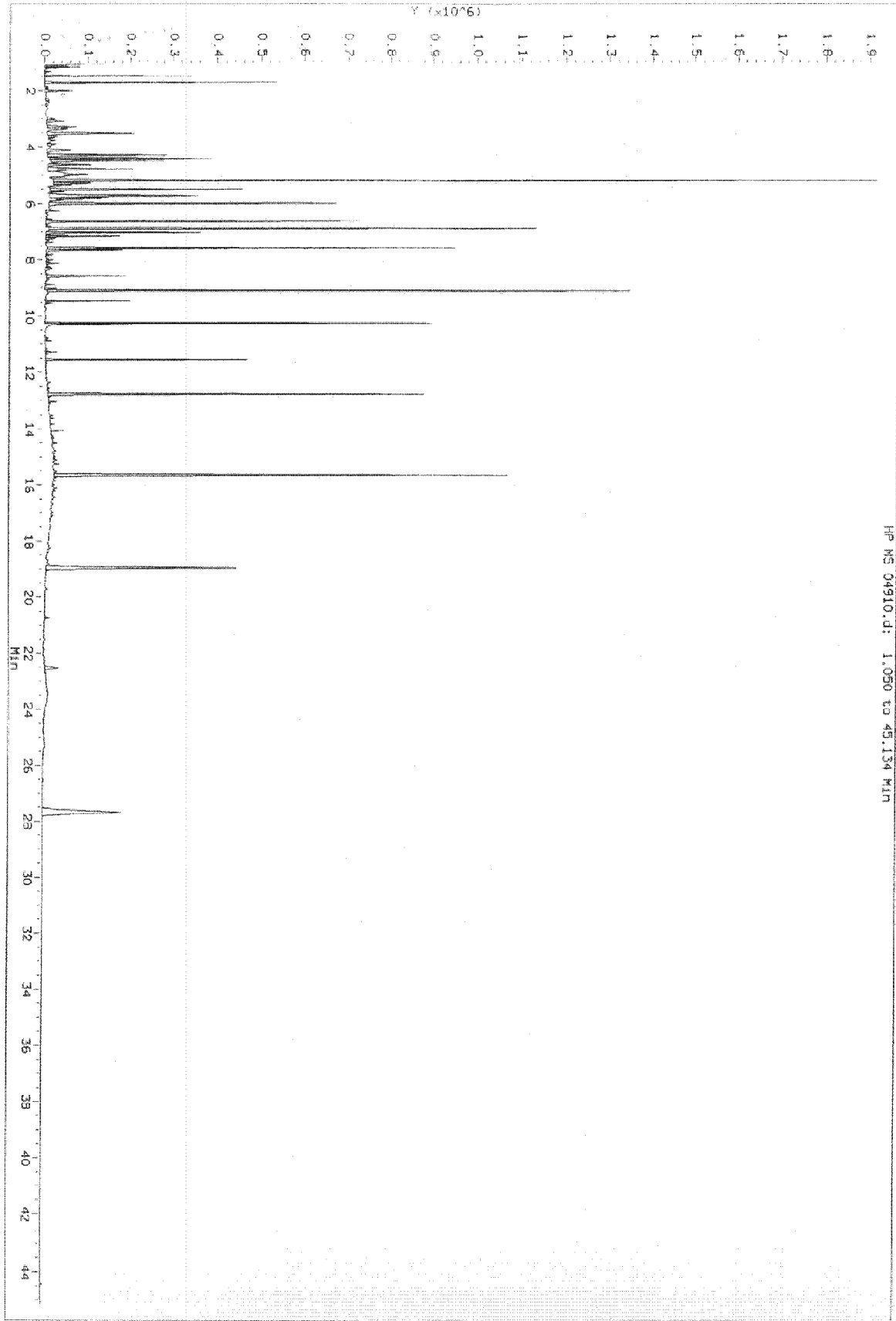
Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]-	2315-61-9	NBS75K.L	41793	91	C18H30O3	294
Pyrrlo[1,2-a]-1,3,5-triazine-7-carboxyl	54449-99-7	NBS75K.L	28303	90	C9H9N3O4	223
Imidazolidine, 1,3-diphenyl-2-propyl-	85320-82-6	NBS75K.L	37036	17	C18H22N2	266



Data File: /var/chem/10ms1.1/021804.R/04910.D
Injection Date: 18-FEB-2004 17:57
Instrument: 10MS1.1
Client Sample ID: E04-0120-67439



HP MS 04910.D: 1.050 to 45.134 MIN

Data File: /var/chem/10mss1.i/021804.b/04910.d
Report Date: 23-Feb-2004 12:20

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333157
Operator : KSK
Sample Location:
Sample Matrix: WATER
Analysis Type: SV

Client SDG: 021804
Client Smp ID: E04-0120-67439
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-22-0	3-Hydroxy-3-methyl-2-butano	1.710	1.58	NJ
2. 7795-80-4	2-Methyl-2,3-pentanediol	3.525	1.33	NJ
3. 565-75-3	Pentane, 2,3,4-trimethyl-	4.291	1.60	NJ
4. 922-64-5	Propanedinitrile, methylene	4.492	1.38	NJ
5.	Unknown	4.786	1.41	J
6. 615-29-2	3-Hexanol, 4-methyl-	5.199	9.83	NJ
7. 111-90-0	Ethanol, 2-(2-ethoxyethoxy)	5.729	2.36	NJ
8. 592-76-7	1-Heptene	6.873	51.6	NJ

Data File: /var/chem/10mssl.i/021804.b/04910.d
 Report Date: 23-Feb-2004 12:20

Pace Analytical Services, Inc.

BASE, NEUTRAL, ACID QUANT AND RATIO REPORT

Data file : /var/chem/10mssl.i/021804.b/04910.d
 Lab Smp Id: 105333157 Client Smp ID: E04-0120-67439
 Inj Date : 18-FEB-2004 17:57
 Operator : KSK Inst ID: 10mssl.i
 Smp Info : 105333157
 Misc Info :
 Comment : RCRA 8270C - SEMIVOLATILES
 Method : /var/chem/10mssl.i/021804.b/SV07-043.m
 Meth Date : 23-Feb-2004 11:14 kking Quant Type: ISTD
 Cal Date : 12-FEB-2004 20:45 Cal File: 04307.d
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 625.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 9 1,4-Dichlorobenzene-d4	6.000	1320782	3.000
* 28 Naphthalene-d8	7.580	1789377	40.000

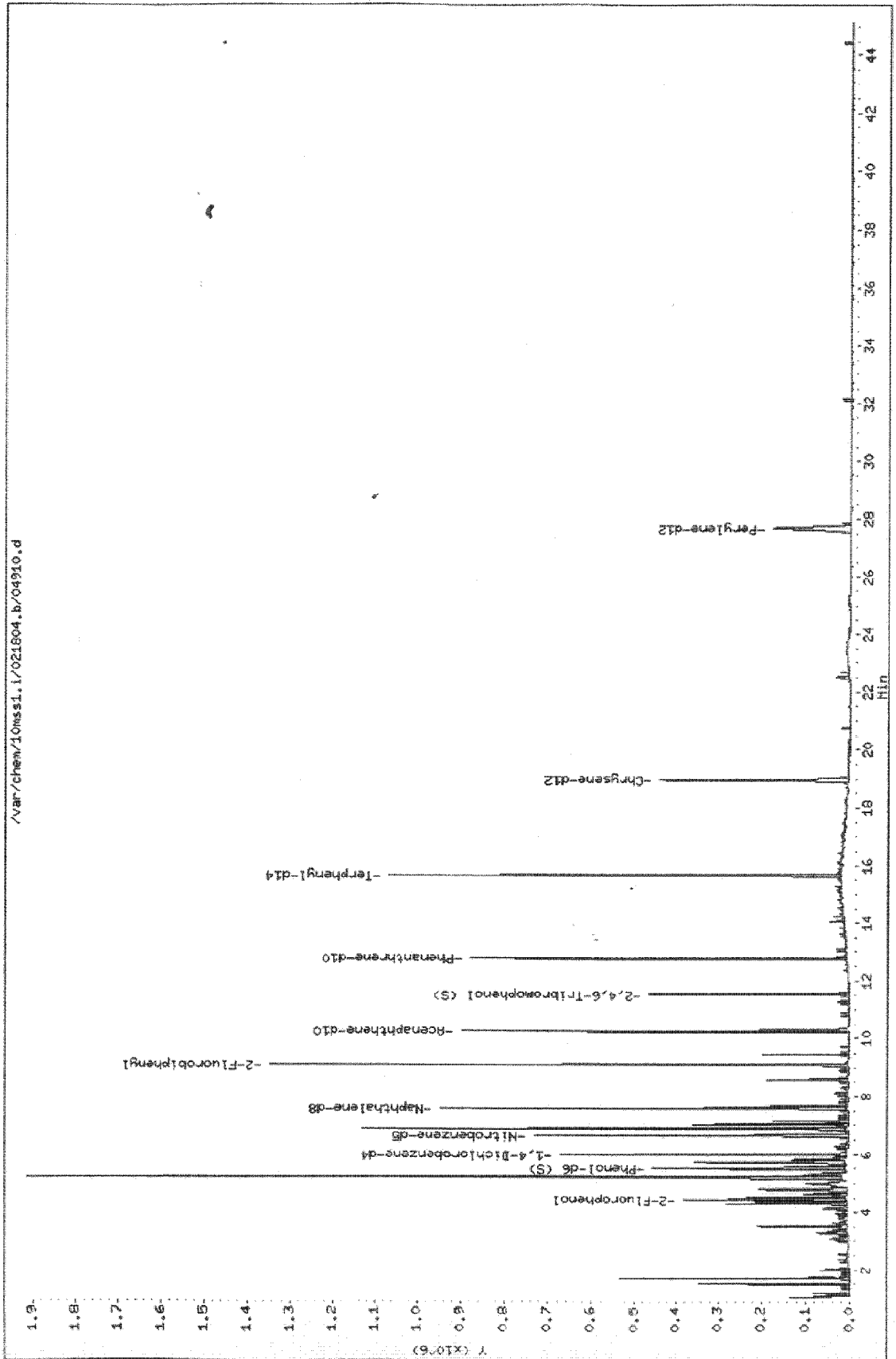
RT	AREA	CONCENTRATIONS			QUAL	QUANT		
		ON-COL(NG)	FINAL(ug/L)			LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----	
3-Hydroxy-3-methyl-2-butanone								
1.710	697603	1.58452150	1.58	78	NBS75K.1	61477	9	
2-Methyl-2,3-pentanediol								
3.525	584720	1.32812220	1.33	39	NBS75K.1	3532	9	

Data file: /var/chem/10mssl.1/021804.b/04910.d
 Report Date: 23-Feb-2004 12:20

CONCENTRATIONS
 RT AREA ON-COL (NG) FINAL (ng/L) QUAL LIBRARY LIB ENTRY CPND #

RT	AREA ON-COL (NG)	FINAL (ng/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
4.291	706262	1.60419090	1.60	Pentane, 2,3,4-trimethyl-	CAS #: 565-75-3	9
4.492	607343	1.37950792	1.38	Propenedinitrile, methylene-	CAS #: 923-64-5	9
4.786	622146	1.41313126	1.41	Unknown	CAS #:	9
5.139	4327456	9.82930186	9.83	3-Hexanol, 4-methyl-	CAS #: 615-29-2	9
5.729	1039473	2.36103937	2.36	Ethanol, 2-(2-ethoxyethoxy)-	CAS #: 111-90-0	9
6.873	2306273	51.5547490	51.6	1-Heptene	CAS #: 592-76-7	28

Data File: /var/chem/10ms1.i/021804.b/04910.d
 Rate : 18-FEB-2004 17:57
 Client ID: E04-0120-67439
 Sample Info: 105333157
 Volume Injected (uL): 1.0
 Column phase: DB-5HS
 Instrument: 10ms1.i
 Operator: KSK
 Column diameter: 0.25



Data File: /var/chem/10mss1.1/021904.b/04910.d

Date: 18-FEB-2004 17:57

Client ID: E04-0120-67439

Instrument: 10mss1.i

Sample Info: 105333157

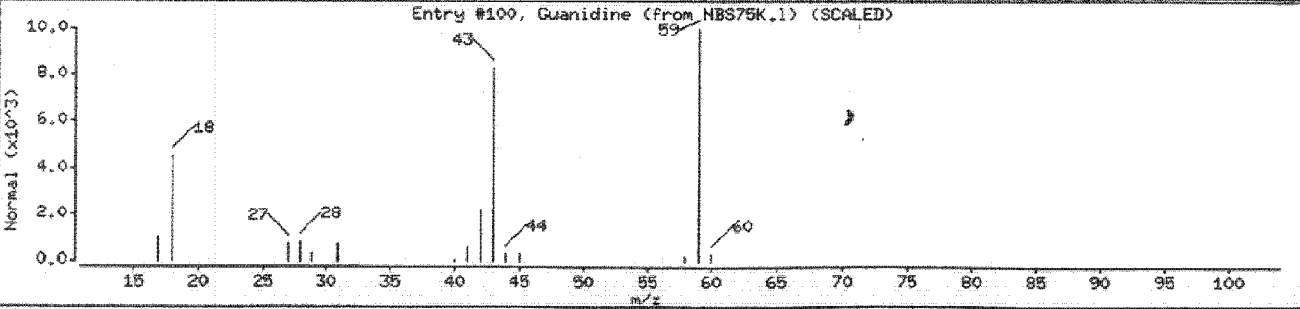
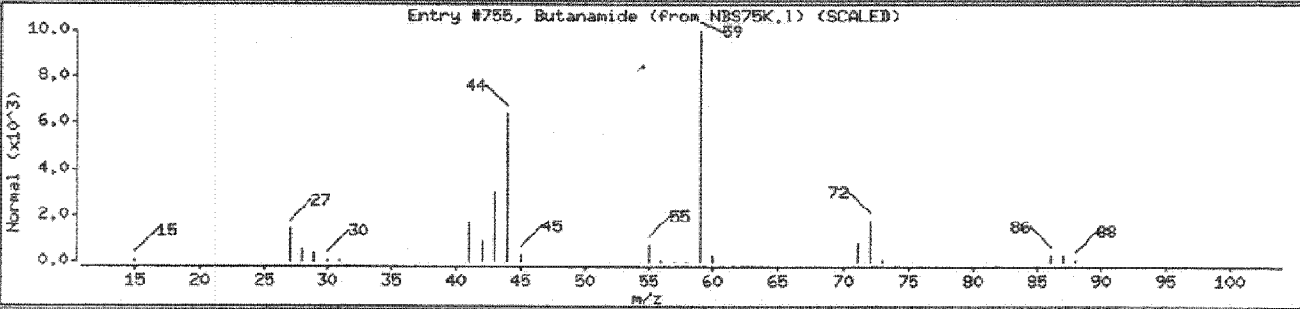
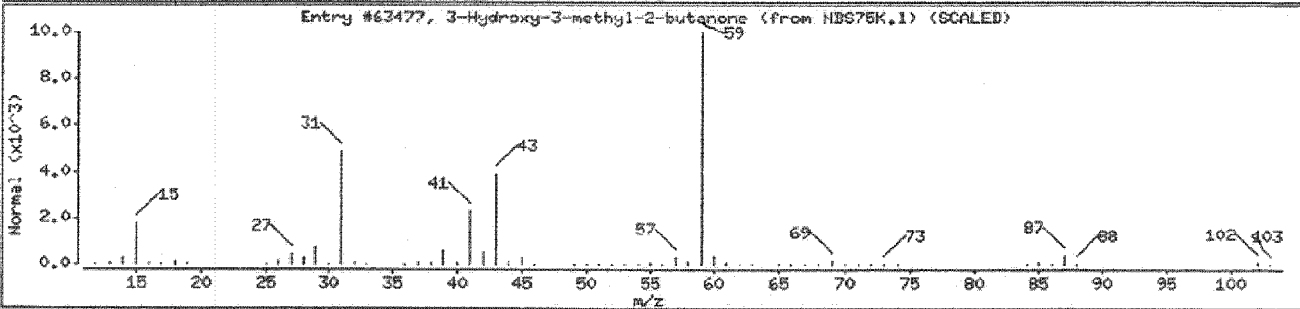
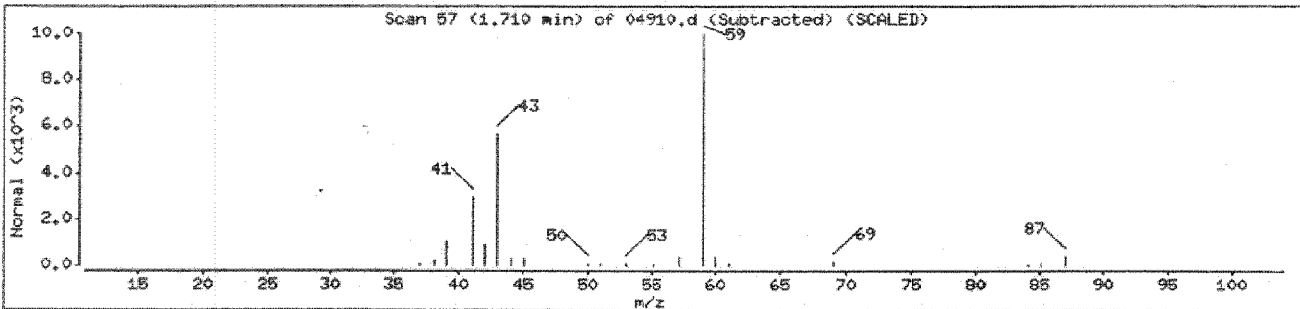
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Hydroxy-3-methyl-2-butanone	115-22-0	NBS75K.1	63477	78	C5H10O2	102
Butanamide	541-35-5	NBS75K.1	755	56	C4H9NO	87
Guanidine	113-00-8	NBS75K.1	100	45	CH6N3	59



Data File: /var/chem/10ms1.i/021904.b/04910.d

Date : 18-FEB-2004 17:57

Client ID: E04-0120-67439

Instrument: 10ms1.1

Sample Info: 105333157

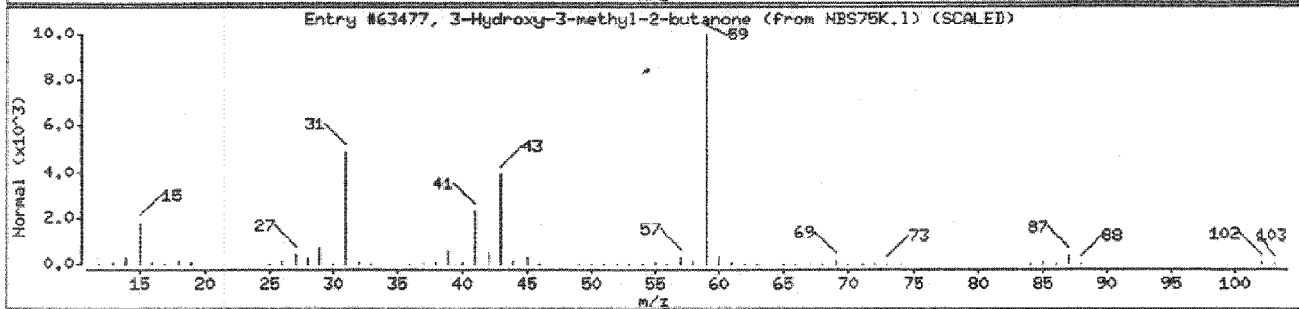
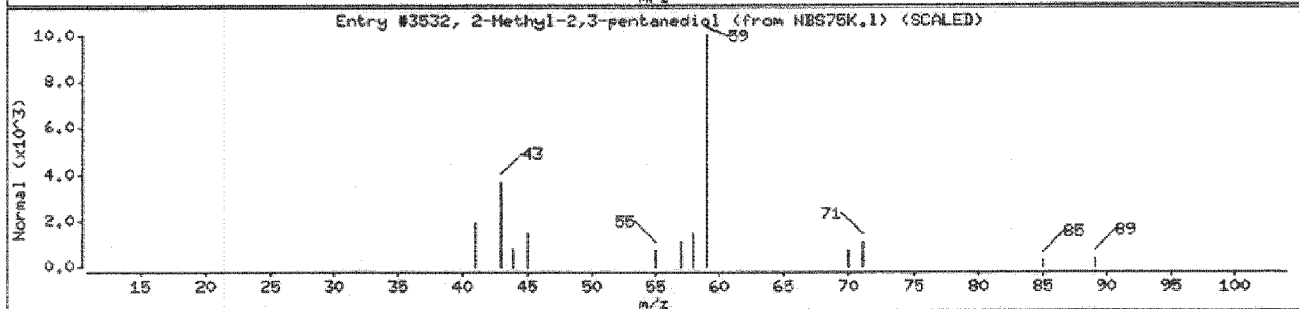
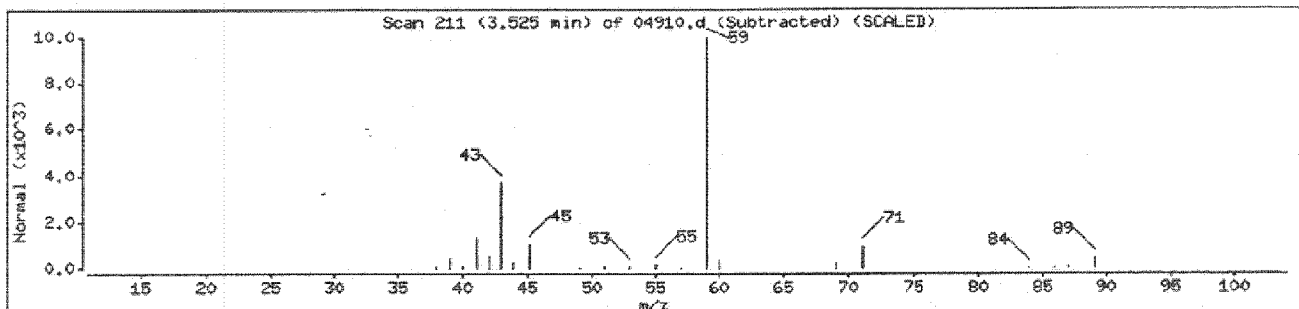
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Methyl-2,3-pentanediol	7795-90-4	NBS75K.1	3532	39	C6H14O2	118
3-Hydroxy-3-methyl-2-butanone	115-22-0	NBS75K.1	63477	39	C5H10O2	102



Data File: /var/chem/10mssi.i/021904.b/04910.d

Date : 18-FEB-2004 17:57

Client ID: E04-0120-67439

Instrument: 10mssi.i

Sample Info: 105333157

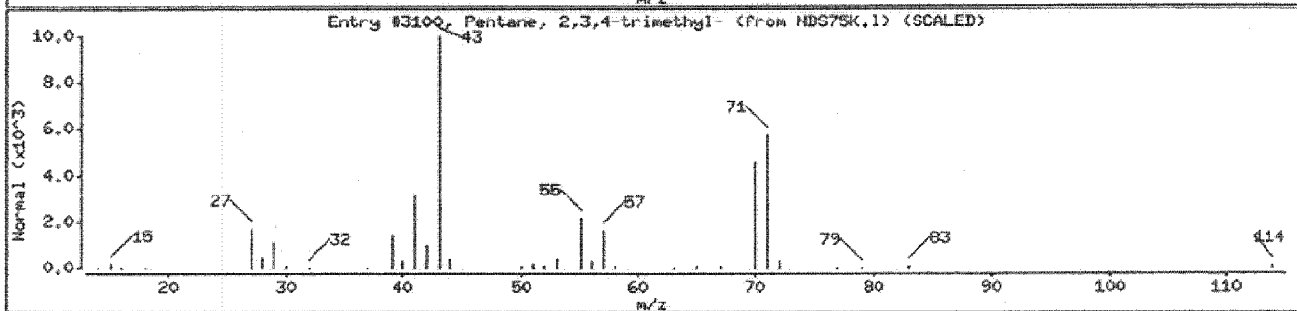
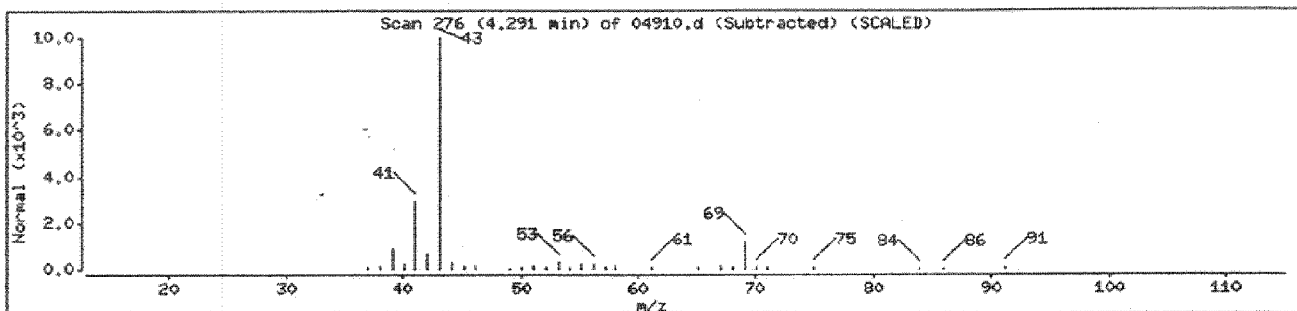
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentane, 2,3,4-trimethyl-	565-75-3	NBS75K.1	3100	25	C8H18	114



Data File: /var/chem/10mss1.i/021904.b/04910.d

Date : 18-FEB-2004 17:57

Client ID: E04-0120-67439

Instrument: 10mss1.i

Sample Info: 105333157

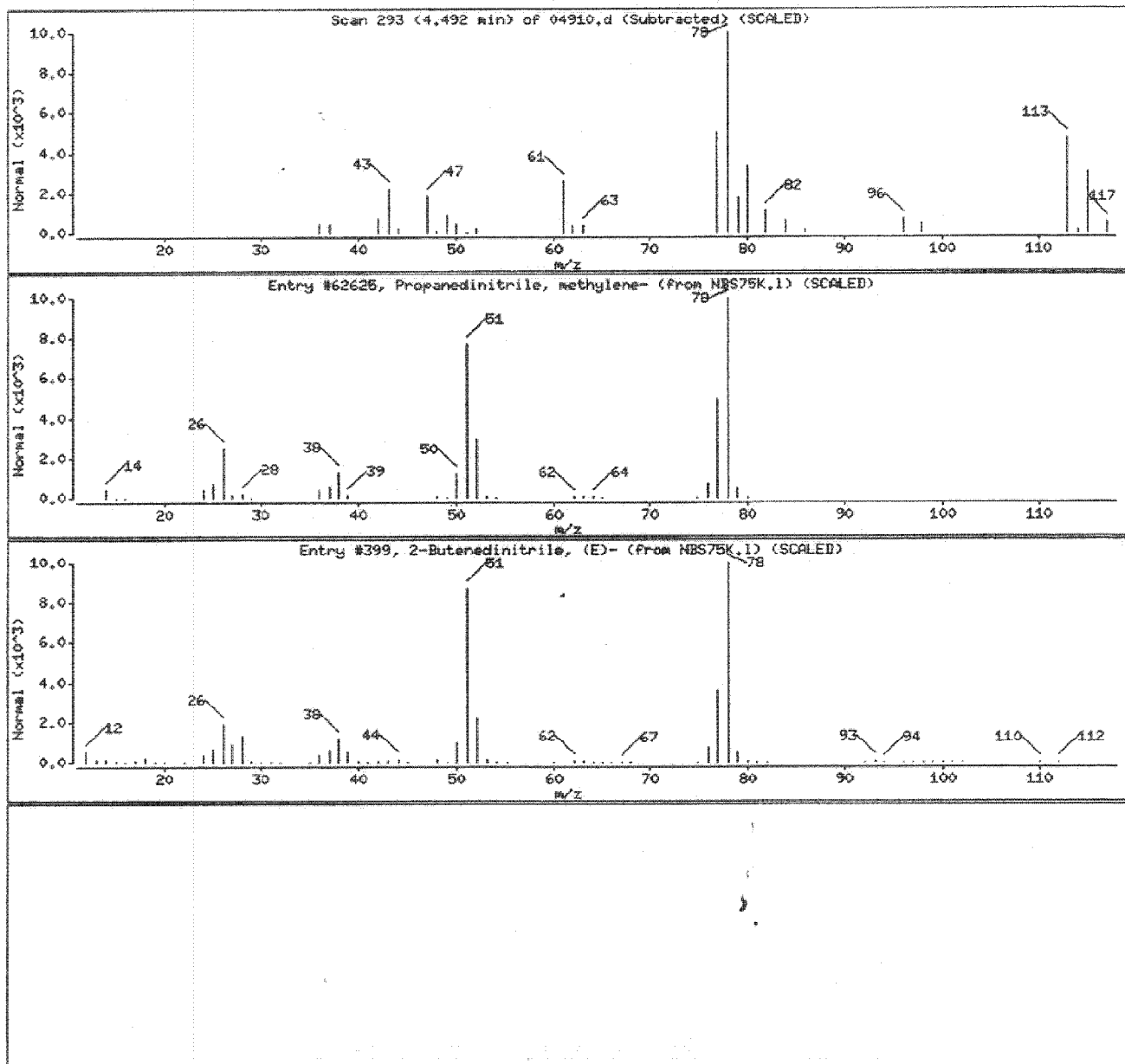
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanedinitrile, methylene-	922-64-5	NBS75K.1	62625	59	C4H2N2	78
2-Butenedinitrile, (E)-	764-42-1	NBS75K.1	399	36	C4H2N2	78



Data File: /var/chem/10mssi.i/021804.b/04910.d

Date : 18-FEB-2004 17:37

Client ID: E04-0120-67439

Instrument: 10mssi.i

Sample Info: 105333157

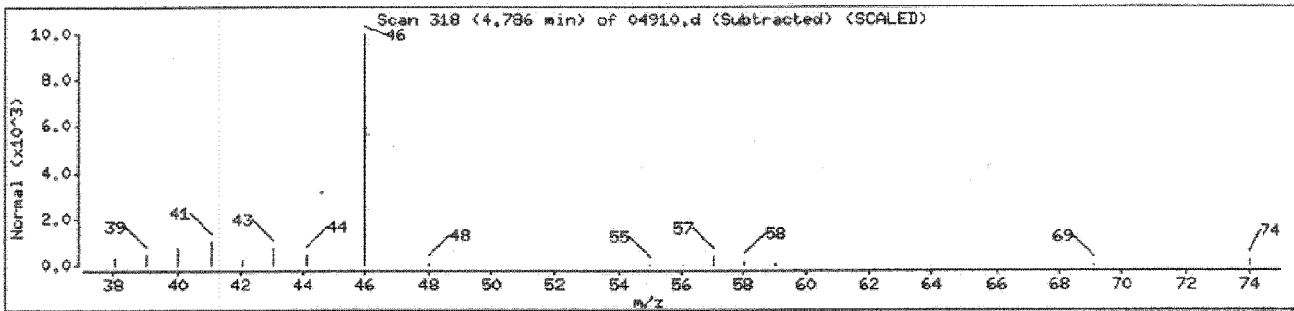
Volume Injected (ul): 1.0

Operator: KSK

Column phase: DB-5HS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: /var/chem/10mss1.1/021804.b/04910.d

Date: 18-FEB-2004 17:57

Client ID: E04-0120-67439

Instrument: 10mss1.1

Sample Info: 105333157

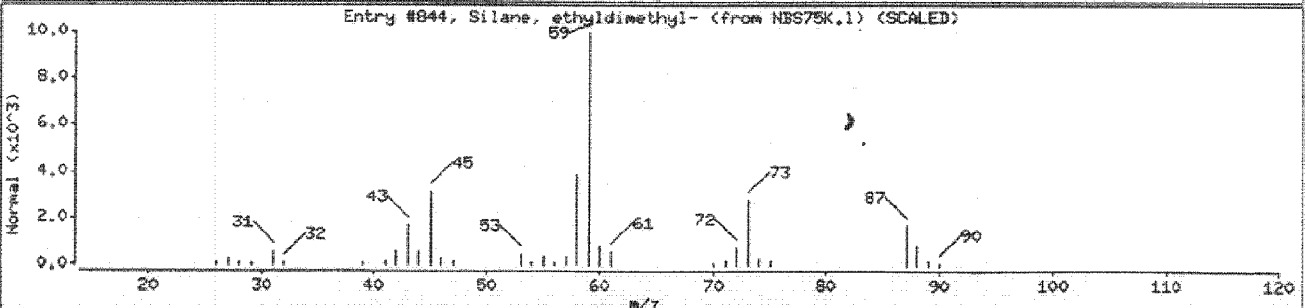
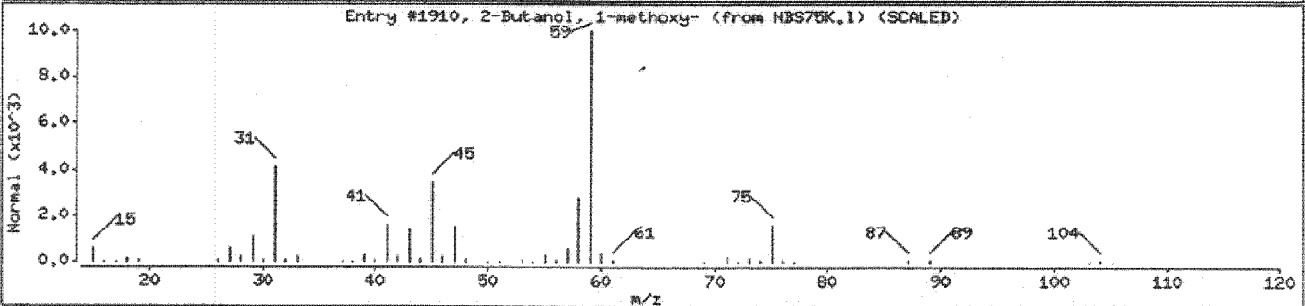
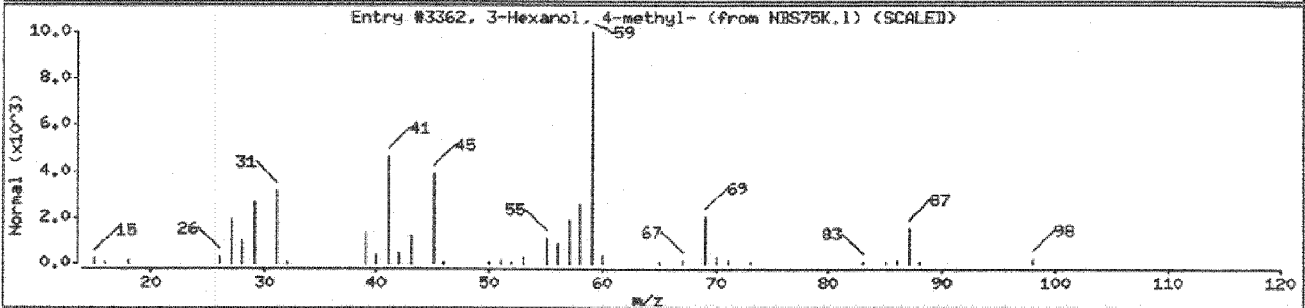
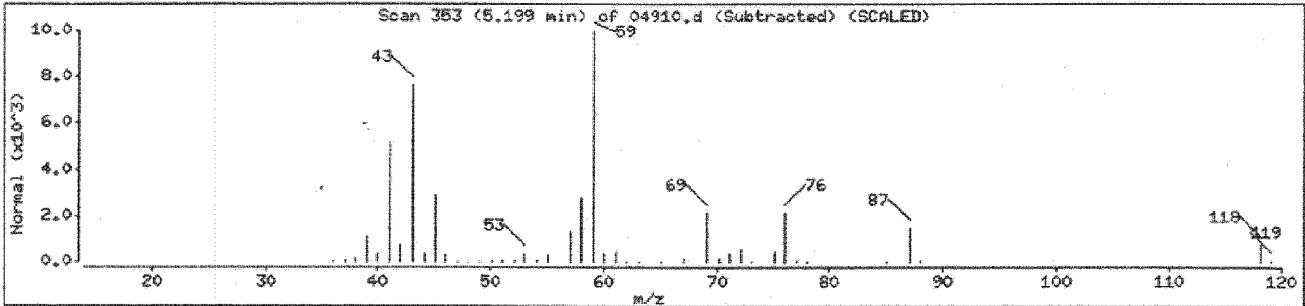
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Hexanol, 4-methyl-	615-29-2	NBS75K.1	3362	59	C7H16O	116
2-Butanol, 1-methoxy-	53778-73-7	NBS75K.1	1910	59	C5H12O2	104
Silane, ethyldimethyl-	758-21-4	NBS75K.1	844	50	C4H12Si	88



Data File: /var/chem/10mssi.i/021804.b/04910.d

Date: 18-FEB-2004 17:57

Client ID: E04-0120-67439

Instrument: 10mssi.i

Sample Info: 105333157

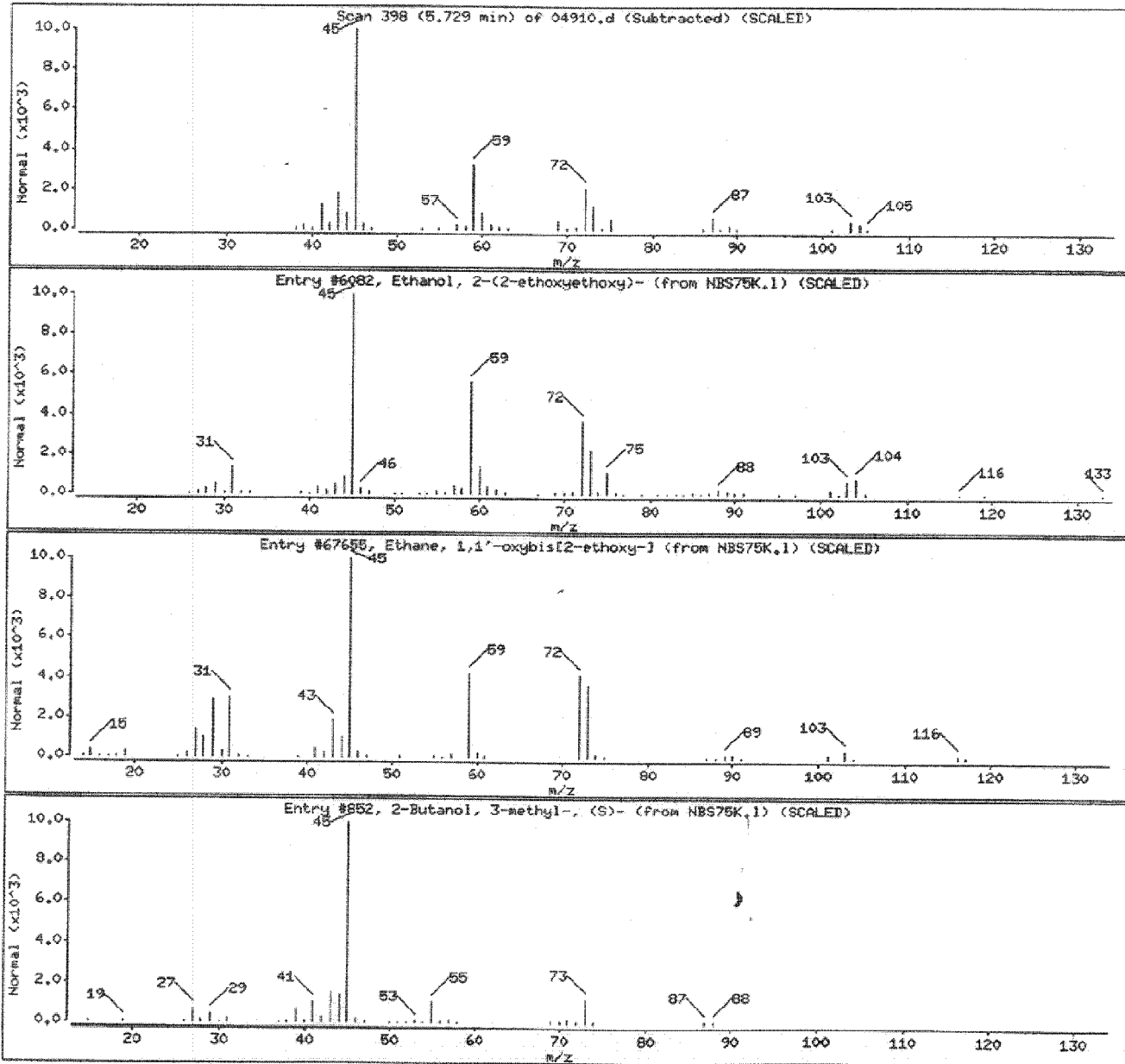
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-(2-ethoxyethoxy)-	111-90-0	NBS75K.1	6082	83	C6H14O3	134
Ethane, 1,1'-oxybis[2-ethoxy-]	112-36-7	NBS75K.1	67655	72	C8H18O3	162
2-Butanol, 3-methyl-, (S)-	1517-66-4	NBS75K.1	852	47	C5H12O	88



Data File: /var/chem/10mss1.1/021804.b/04910.d

Date: 18-FEB-2004 17:57

Client ID: E04-0120-67439

Instrument: 10mss1.1

Sample Info: 105333157

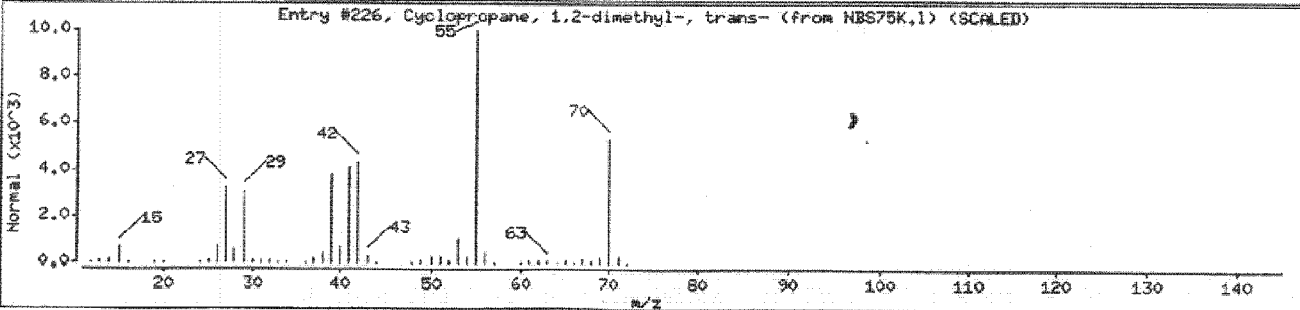
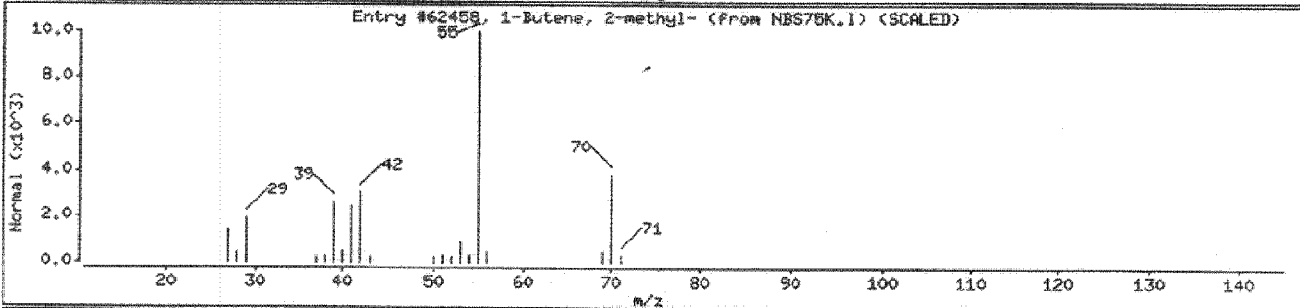
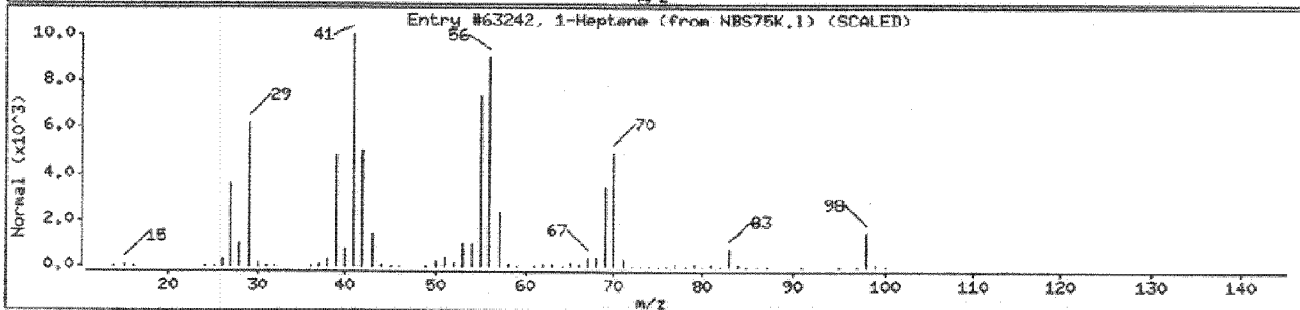
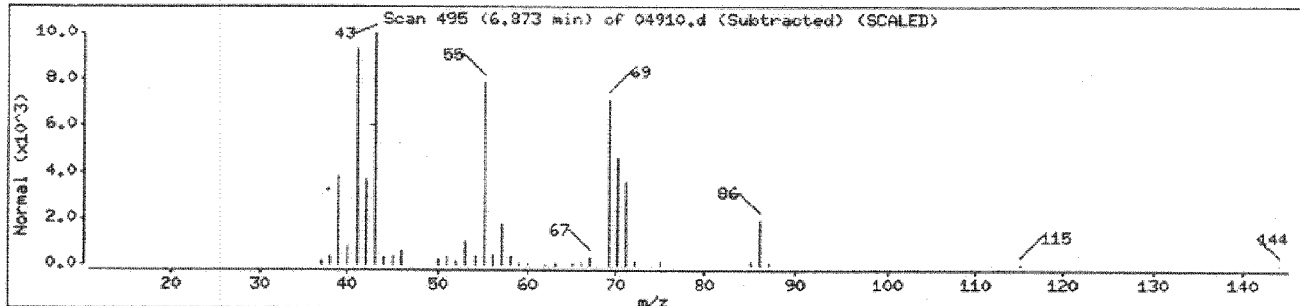
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Heptene	592-76-7	NBS75K.1	63242	59	C7H14	98
1-Butene, 2-methyl-	563-46-2	NBS75K.1	62458	58	C5H10	70
Cyclopropane, 1,2-dimethyl-, trans-	2402-06-4	NBS75K.1	226	53	C5H10	70



Data File: /chem/10msv4.i/021704a.b/04812.D
Report Date: 15-Mar-2004 12:26

Pace Analytical Services, Inc. - Minnesota

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333140
Operator : PN1
Sample Location:
Sample Matrix: WATER
Analysis Type: VGA

Client SDG: 021704a
Client Smp ID: E04-0120-67434
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number PICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

GAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
463-58-1	Unknown	1.425	66	NJ
75-65-0	Unknown	2.964	8.3	NJ
	Unknown	3.031	2.2	J
123-91-1	1,4-Dioxane	5.641	4.1	NJ

Data File: /chem/10msv4.i/021704a.b/04812.D
 Report Date: 15-Mar-2004 12:26

Pace Analytical Services, Inc. - Minnesota

8260B VOLATILE REPORT

Data file : /chem/10msv4.i/021704a.b/04812.D
 Lab Smp Id: 105333140 Client Smp ID: E04-0120-67434
 Inj Date : 17-FEB-2004 20:00
 Operator : PNI Inst ID: 10msv4.i
 Smp Info : 105333140
 Misc Info :
 Comment : 8260B VOLATILE REPORT
 Method : /chem/10msv4.i/021704a.b/V0404040.m
 Meth Date : 15-Mar-2004 12:17 rschnobr Quant Type: ISTD
 Cal Date : 10-FEB-2004 02:45 Cal File: 04007.D
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: hpchems2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
UF	5.00000	ng unit correction factor
VO	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	====	=====	=====
* 43 Fluorobenzene	4.905	701598	20.000

RT	AREA	CONCENTRATIONS			QUAL	QUANT		CPND #
		ON-COL(ug/L)	FINAL(ug/L)			LIBRARY	LIB ENTRY	
----	----	-----	-----	----	-----	-----	-----	
Unknown 1.425	2331386	65.6040916	66	5	CAS #: 463-58-1 NBS75K.1	112	43	
Unknown 2.964	291078	8.29757979	8.3	64	CAS #: 75-65-0 NBS75K.1	62573	43	
Unknown 3.031	76616	2.18403654	2.2	6	CAS #: 0	0	43	

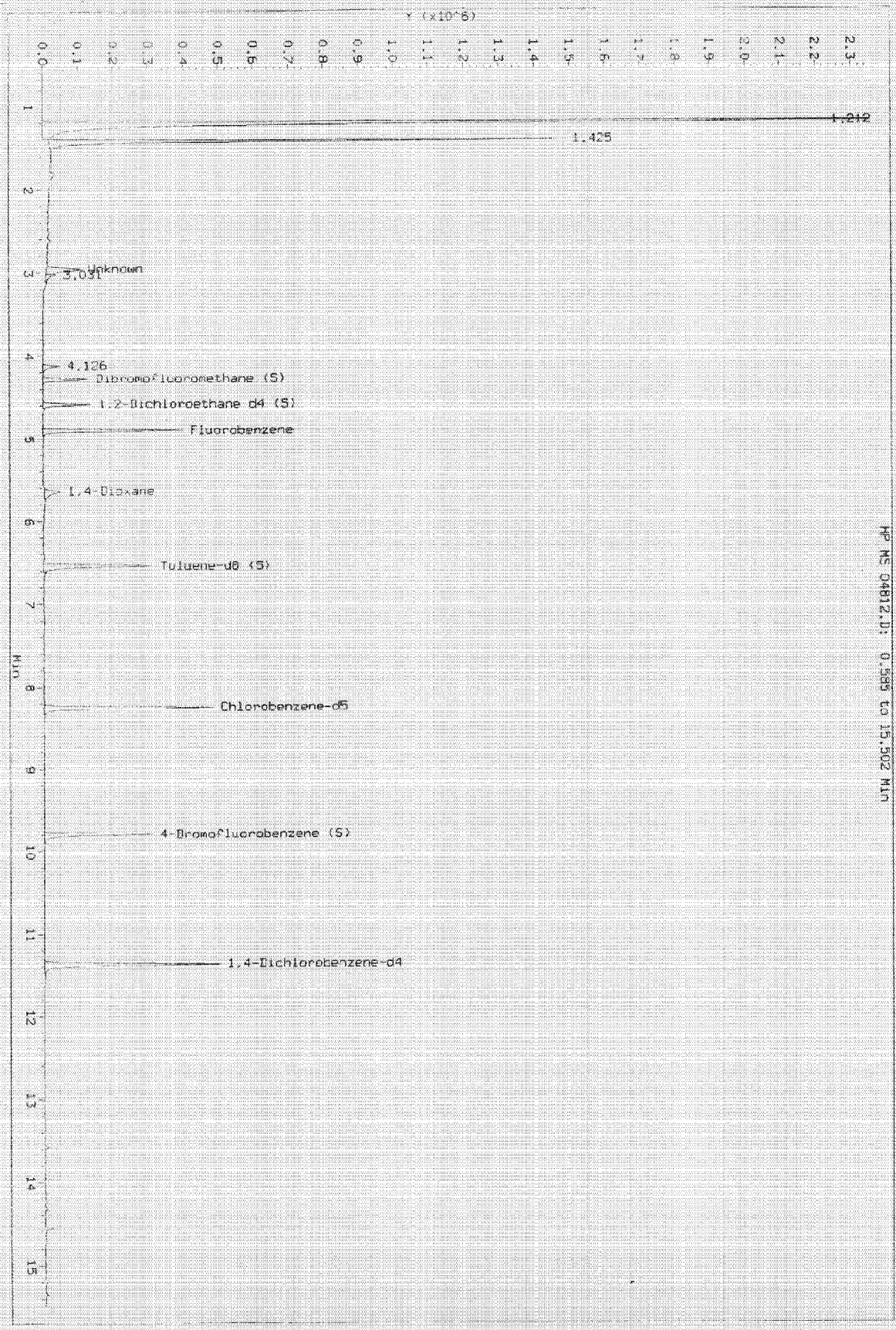
Data File: /chem/10msv4.i/021704a.b/04812.D
Report Date: 15-Mar-2004 12:26

RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON-COL(ug/L)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	
5.641	144672	4.12408366	4.1	86	NBS75K.1	62898	43(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/10msv4.1/021704g.c/04812.D
Injection Date: 17-FEB-2004 20:00
Instrument: 10msv4.1
Client Sample ID: F04-0120-67434



HP MS 04812.D: 0.585 to 15.502 Min

Data File: /var/chem/10ms1./021804.b/04913.d

Date: 18-FEB-2004 20:37

Client ID: E04-0120-67442

Instrument: 10ms1.i

Sample Info: 105333181

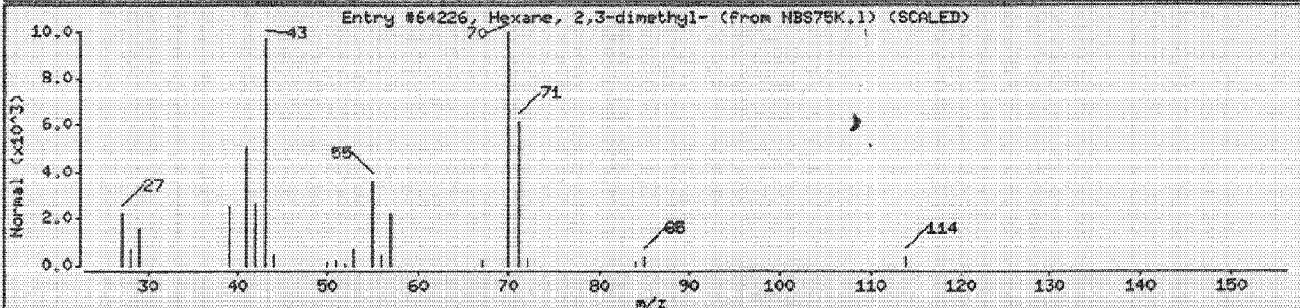
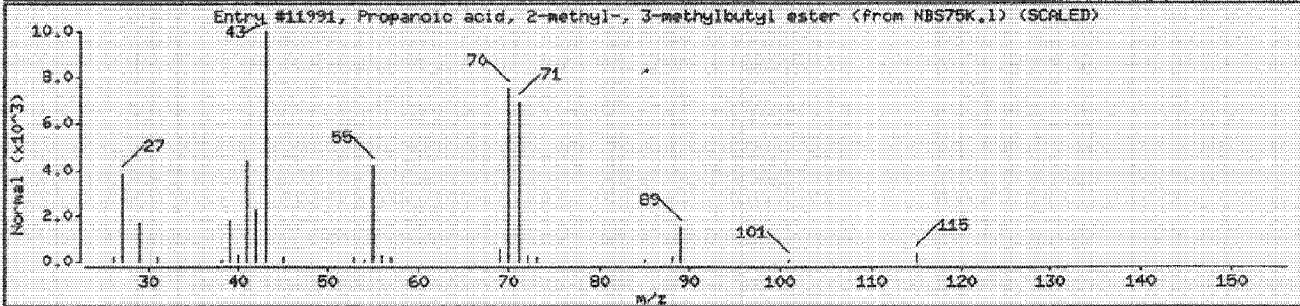
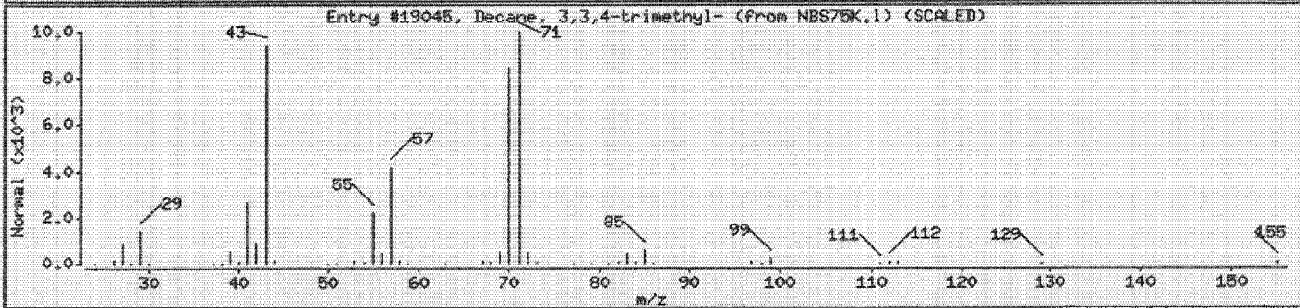
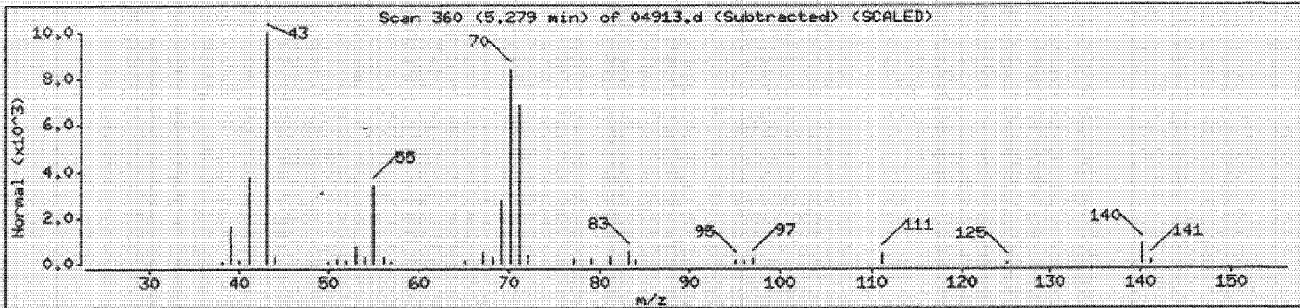
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Decane, 3,3,4-trimethyl-	49622-18-6	NBS75K.L	19045	72	C13H28	184
Propanoic acid, 2-methyl-, 3-methylbutyl	2050-01-3	NBS75K.L	11991	72	C9H18O2	158
Hexane, 2,3-dimethyl-	584-94-1	NBS75K.L	64226	64	C8H18	114



Data File: /var/chem/10mss1.1/021804.b/04913.d

Date : 18-FEB-2004 20:37

Client ID: E04-0120-67442

Instrument: 10mss1.1

Sample Info: 105333181

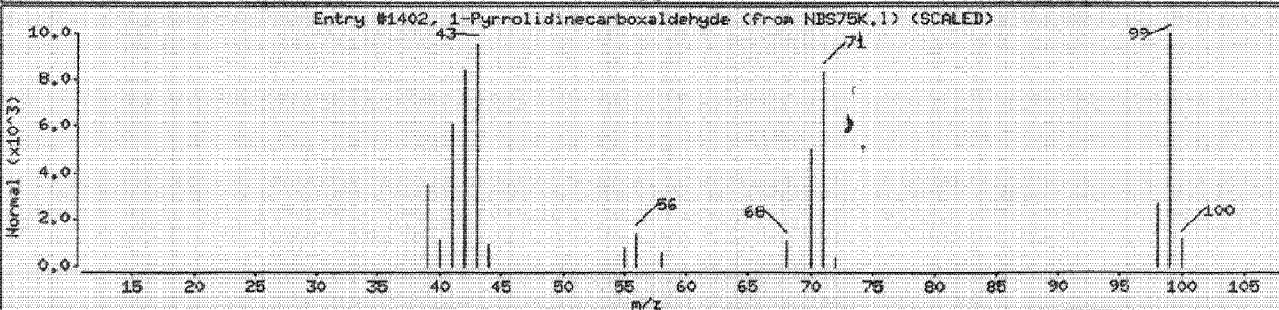
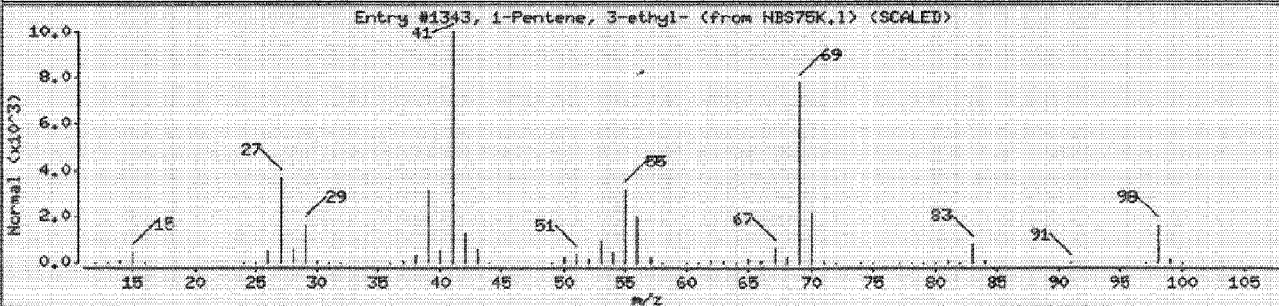
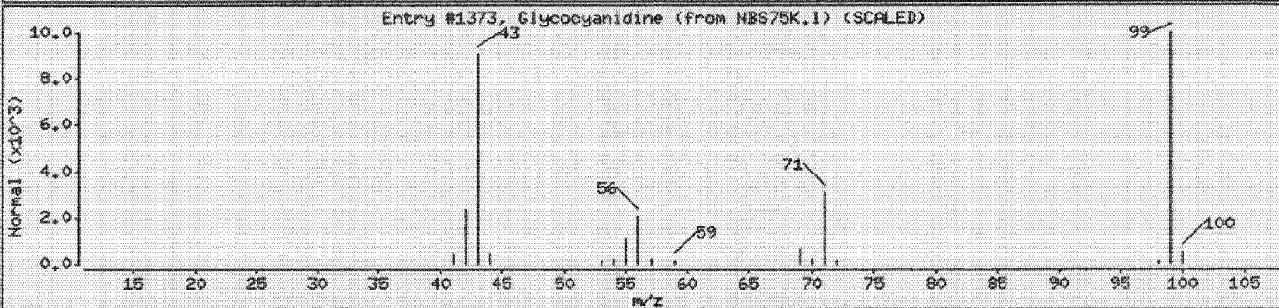
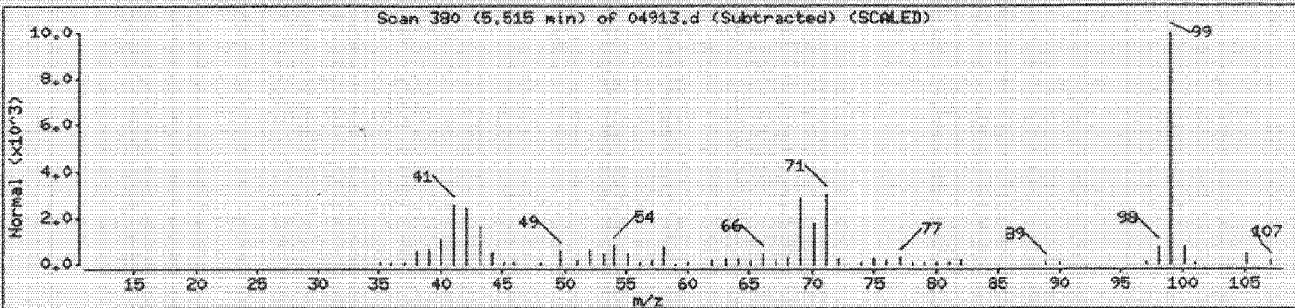
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Glycoyanidine	503-86-6	NBS75K.1	1373	43	C3H5N3O	99
1-Pentene, 3-ethyl-	4038-04-4	NBS75K.1	1343	35	C7H14	98
1-Pyrrolidinecarboxaldehyde	3760-54-1	NBS75K.1	1402	25	C5H9NO	99



Data File: /var/chem/10mss1.i/021804.b/04913.d

Date: 18-FEB-2004 20:37

Client ID: E04-0120-67442

Instrument: 10mss1.i

Sample Info: 105333181

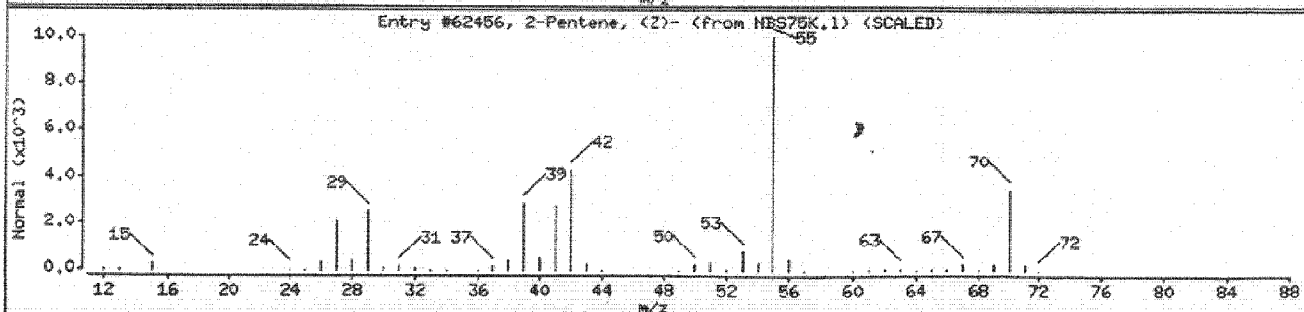
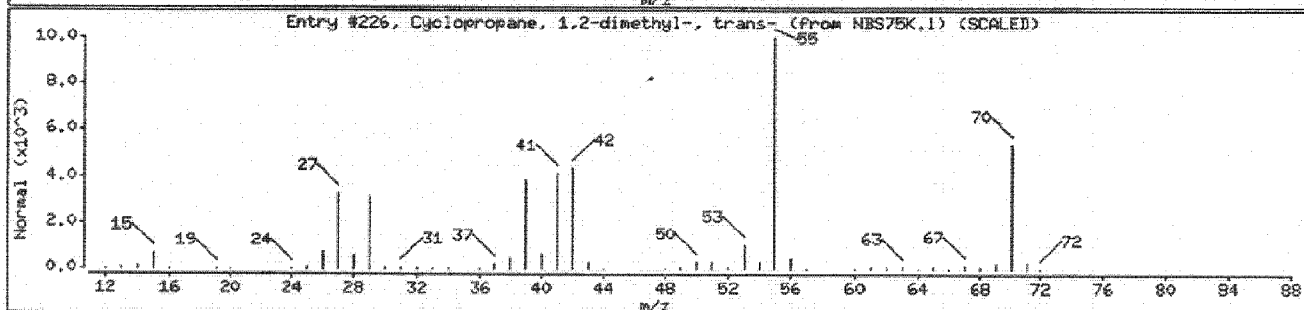
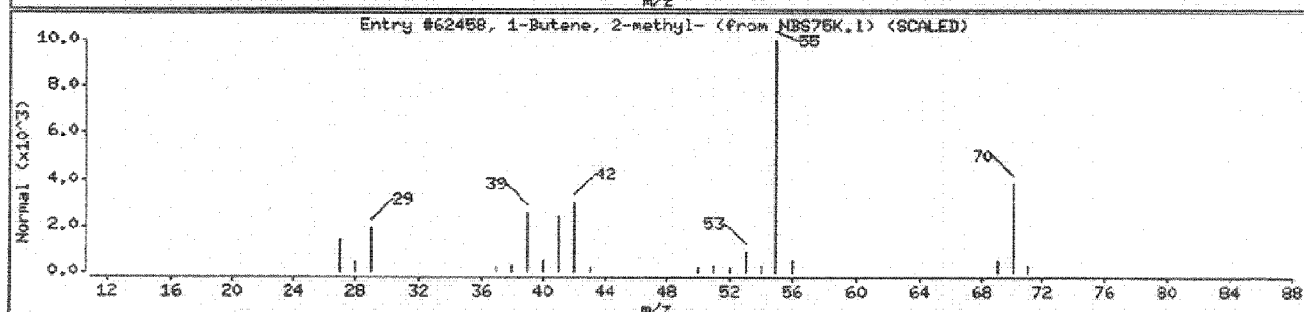
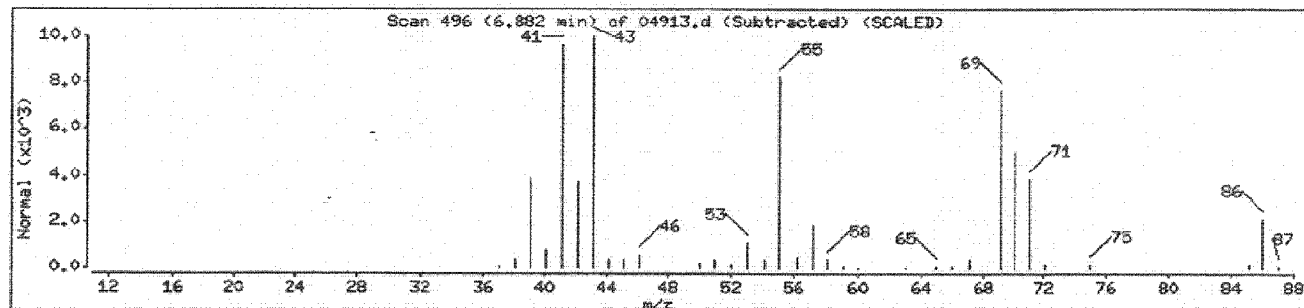
Volume Injected (uL): 1.0

Operator: KSK

Column phase: DB-5MS

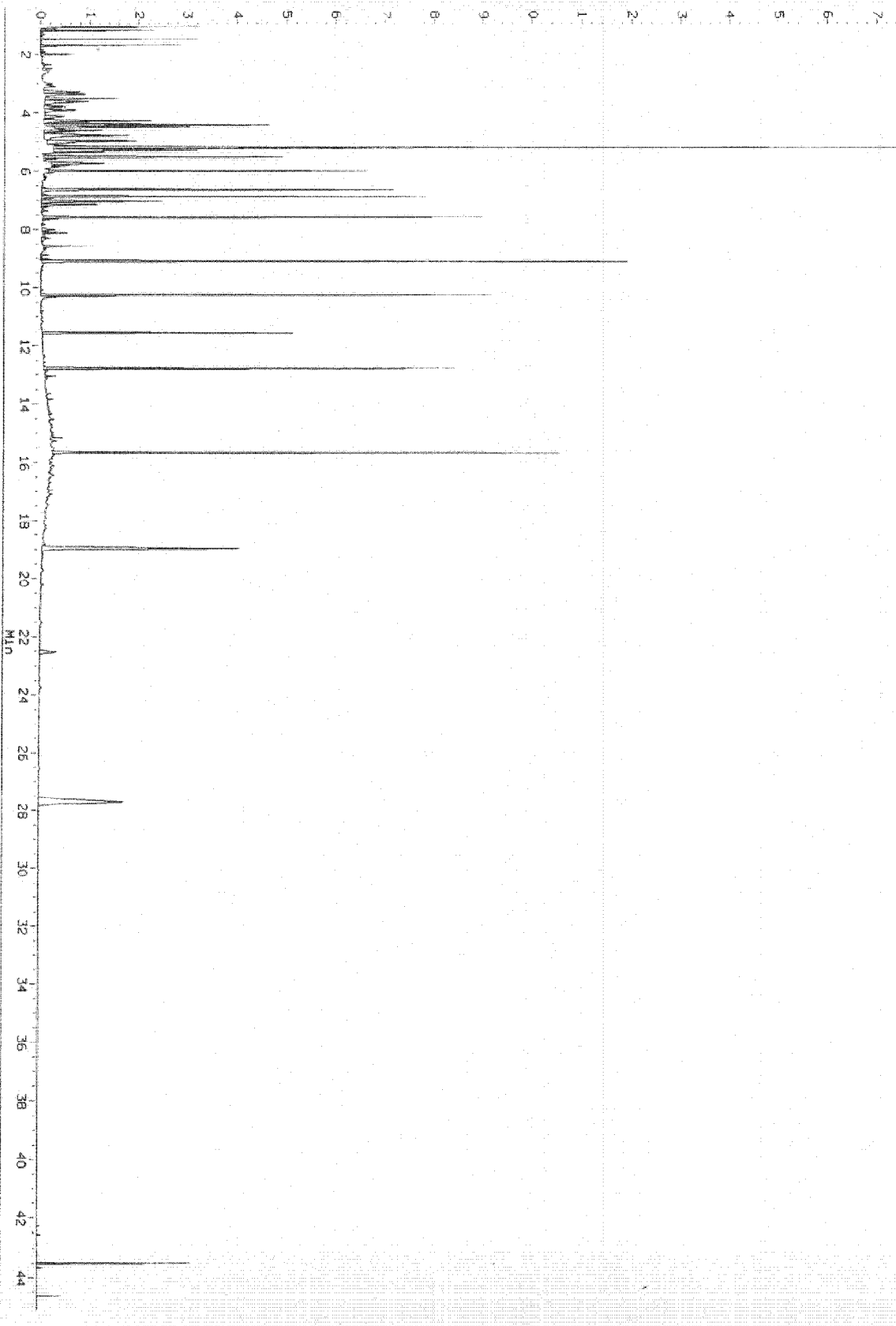
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Butene, 2-methyl-	563-46-2	NBS75K.1	62458	38	CSH10	70
Cyclopropane, 1,2-dimethyl-, trans-	2402-06-4	NBS75K.1	226	38	CSH10	70
2-Pentene, (Z)-	627-20-3	NBS75K.1	62456	38	CSH10	70



File: /var/chem/10ms1.1/021804.b/04913.d
Inj Date: 18-FEB-2004 20:37
Inj: 10ms1.1
Sample ID: E04-0120-67442

HP MS 04913.d: 1.048 to 45.144 min



Data File: /var/chem/10msv4.i/021704a.b/04810.D
Report Date: 23-Feb-2004 21:08

Pace Analytical Services, Inc. - Minnesota

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333132
Operator : PNI
Sample Location:
Sample Matrix: WATER
Analysis Type: VOA

Client SDG: 021704a
Client Smp ID: E04-0120-67432
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 96-22-0	3-Pentanone	5.604	450	NJ
2. 590-50-1	2-Pentanone, 4,4-dimethyl-	7.180	5.4	NJ
3. 629-50-5	Tridecane	14.559	2.8	NJ

Data File: /chem/10msv4.i/021704a.b/04810.D
 Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

8260B VOLATILE REPORT

Data file : /chem/10msv4.i/021704a.b/04810.D
 Lab Smp Id: 105333132 Client Smp ID: E04-0120-67432
 Inj Date : 17-FEB-2004 19:04
 Operator : PN1 Inst ID: 10msv4.i
 Smp Info : 105333132
 Misc Info :
 Comment : 8260B VOLATILE REPORT
 Method : /var/chem/10msv4.i/021704a.b/V0404040.m
 Meth Date : 23-Feb-2004 20:47 pnguyen Quant Type: ISTD
 Cal Date : 10-FEB-2004 02:45 Cal File: 04007.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 43	4.904	626883	20.000
* 63	8.250	908867	20.000
* 87	11.365	1000673	20.000

RT	CONCENTRATIONS			QUANT			CPND #
	AREA	ON COL (ug/L)	FINAL (ug/L)	QUAL	LIBRARY	LIB ENTRY	
3	14086872	449.425785	450	80	NBS75K.1	723	43(L)
2	246205	5.41783726	5.4	87	NBS75K.1	3052	63(L)

Data File: /chem/10msv4.i/021704a.b/04810.D
Report Date: 27-Feb-2004 10:13

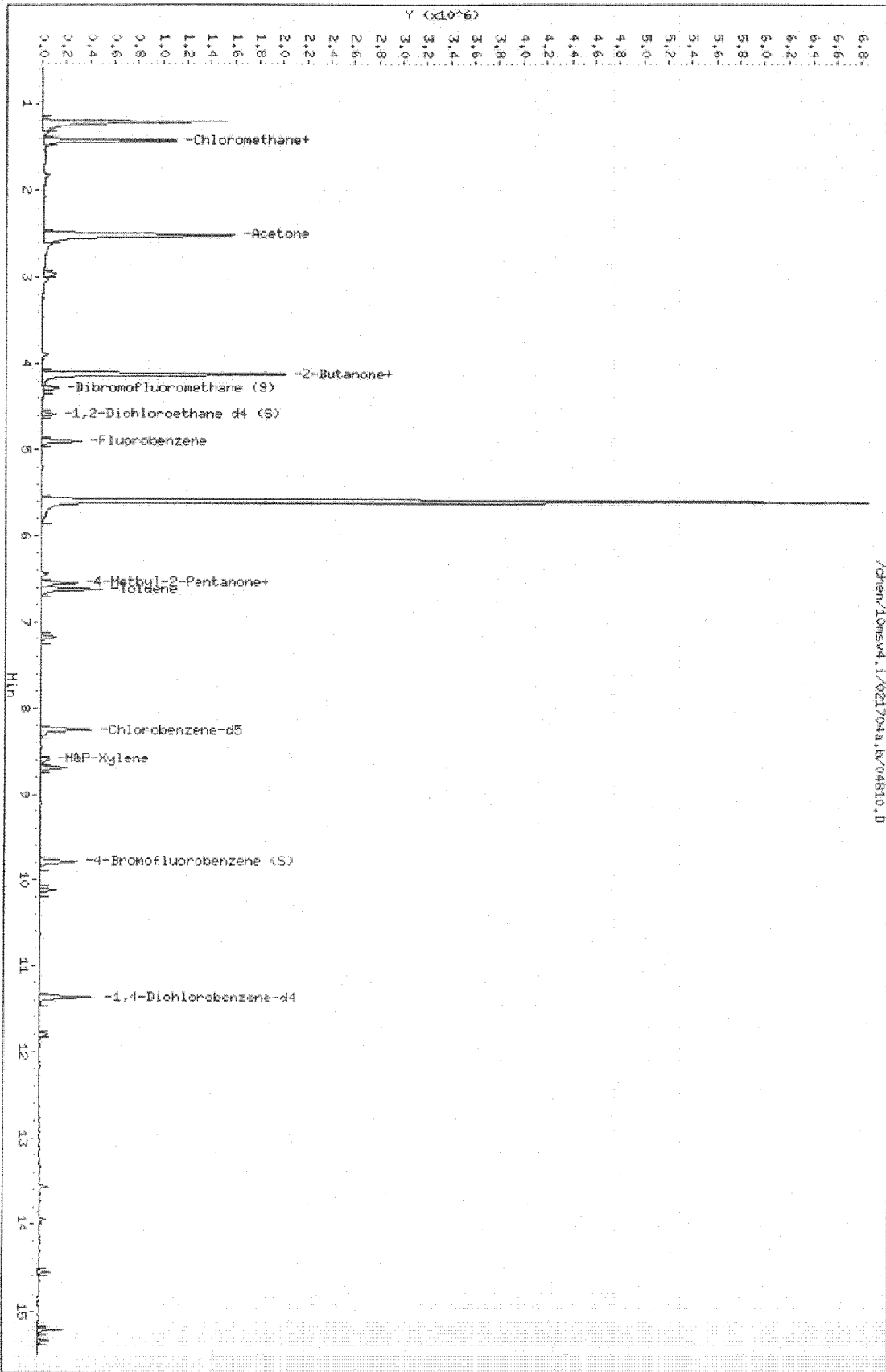
RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON COL (ug/L)	FINAL (ug/L)	QUAL	LIBRARY	LIB ENTRY	
14.559	142293	2.84394561	2.8	94	NBS75K.1	18989	87(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/10msv4.1/021704a.b/04810.D
Date: 17-FEB-2004 19:04
Client ID: E04-0120-67432
Sample Info: 10533132
Purge Volume: 5.0
Column phase: DB-524

Instrument: 10msv4.1
Operator: PHJ
Column diameter: 0.18



Data File: /chem/10msv4.1/021704a.b/04814.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333165
Operator : PNI
Sample Location:
Sample Matrix: WATER
Analysis Type: VOA

Client SDG: 021704a
Client Smp ID: E04-0120-67438
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 96-22-0	3-Pentanone	5.592	100	NJ
2. 629-50-5	Tridecane	14.559	1.2	NJ

Data File: /chem/10msv4.i/021704a.b/04814.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

8260B VOLATILE REPORT

Data file : /chem/10msv4.i/021704a.b/04814.D
Lab Smp Id: 105333165 Client Smp ID: E04-0120-67438
Inj Date : 17-FEB-2004 20:56
Operator : PN1 Inst ID: 10msv4.i
Smp Info : 105333165
Misc Info :
Comment : 8260B VOLATILE REPORT
Method : /var/chem/10msv4.i/021704a.b/V0404040.m
Meth Date : 23-Feb-2004 20:47 pnguyen Quant Type: ISTD
Cal Date : 10-FEB-2004 02:45 Cal File: 04007.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

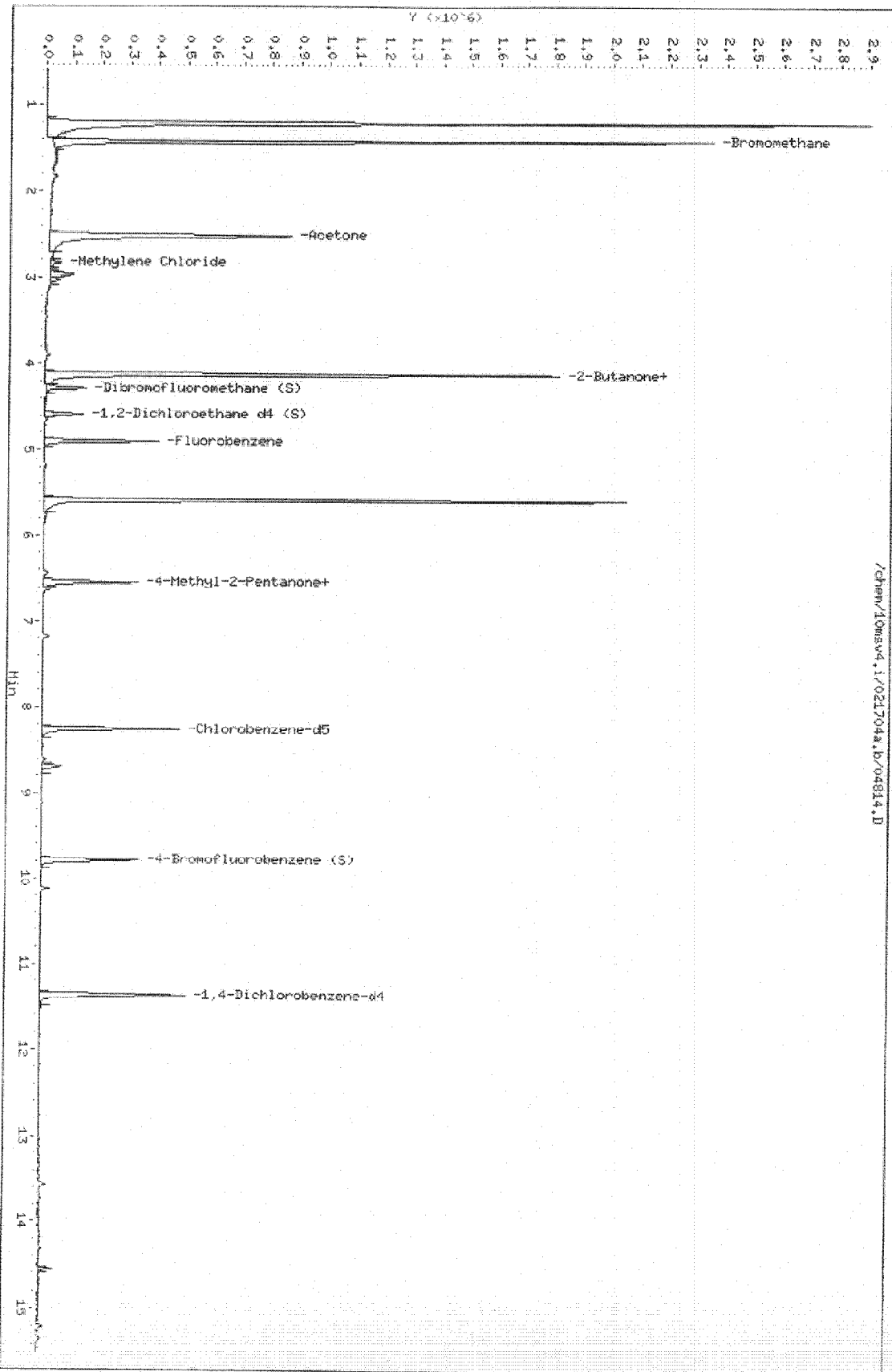
Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 43 Fluorobenzene	4.904	718806	20.000
* 87 1,4-Dichlorobenzene-d4	11.365	1089754	20.000

RT	CONCENTRATIONS			QUANT			CPND #
	AREA	ON-COL(ug/L)	PINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	
3-Pentanone					CAS #: 96-22-0		
5.592	3757628	104.551871	100	90	NBS75K.1	723	43(L)
Tridecane					CAS #: 629-50-5		
14.559	66145	1.21394188	1.2	91	NBS75K.1	69016	87(L)

Data File: /chem/10msv4.1/021704g.b/04814.D
Date: 17-FEB-2004 20:56
Client ID: E04-0120-67438
Sample Info: 10E333166
Purge Volume: 5.0
Column phase: DB-624

Instrument: 10msv4.1
Operator: PH4
Column diameter: 0.18



Data File: /chem/10msv4.i/021704a.b/04815.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333173
Operator : PN1
Sample Location:
Sample Matrix: WATER
Analysis Type: VOA

Client SDG: 021704a
Client Smp ID: E04-0120-~~67439~~ ⁶⁷⁴³⁵ HCP 2/21/04
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 96-22-0	3-Pentanone	5.598	220	NJ
2. 590-50-1	2-Pentanone, 4,4-dimethyl-	7.180	2.1	NJ
3. 112-40-3	Dodecane	13.573	1.6	NJ
4. 629-50-5	Tridecane	14.565	2.0	NJ

Data File: /chem/10msv4.i/021704a.b/04815.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

8260B VOLATILE REPORT

Data file : /chem/10msv4.i/021704a.b/04815.D
Lab Smp Id: 105333173 Client Smp ID: E04-0120-~~67439~~
Inj Date : 17-FEB-2004 21:23
Operator : PN1 Inst ID: 10msv4.i
Smp Info : 105333173
Misc Info :
Comment : 8260B VOLATILE REPORT
Method : /var/chem/10msv4.i/021704a.b/V0404040.m
Meth Date : 23-Feb-2004 20:47 pnguyen Quant Type: ISTD
Cal Date : 10-FEB-2004 02:45 Cal File: 04007.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

67435
HRP
2/27/04

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 43 Fluorobenzene	4.904	663116	20.000
* 63 Chlorobenzene-d5	8.250	919445	20.000
* 87 1,4-Dichlorobenzene-d4	11.371	1016348	20.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		
		ON COL (ug/L)	FINAL (ug/L)		LIBRARY	LIB ENTRY	CPND #
5.598	7290831	219.895923	220	78	CAS #: 96-22-0 NBS75K.1	723	43(L)
7.180	98757	2.14617775	2.1	83	CAS #: 590-50-1 NBS75K.1	3052	63(L)

Data File: /chem/10msv4.i/021704a.b/04815.D
Report Date: 27-Feb-2004 10:13

RT	CONCENTRATIONS				QUANT		
	AREA	ON COL (ug/L)	FINAL (ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dodecane					CAS #: 112-40-3		
13.573	84053	1.65402189	1.6	91	NBS75K.1	68254	97(L)
Tridecane					CAS #: 629-50-5		
14.565	101129	1.99005500	2.0	91	NBS75K.1	69019	97(L)

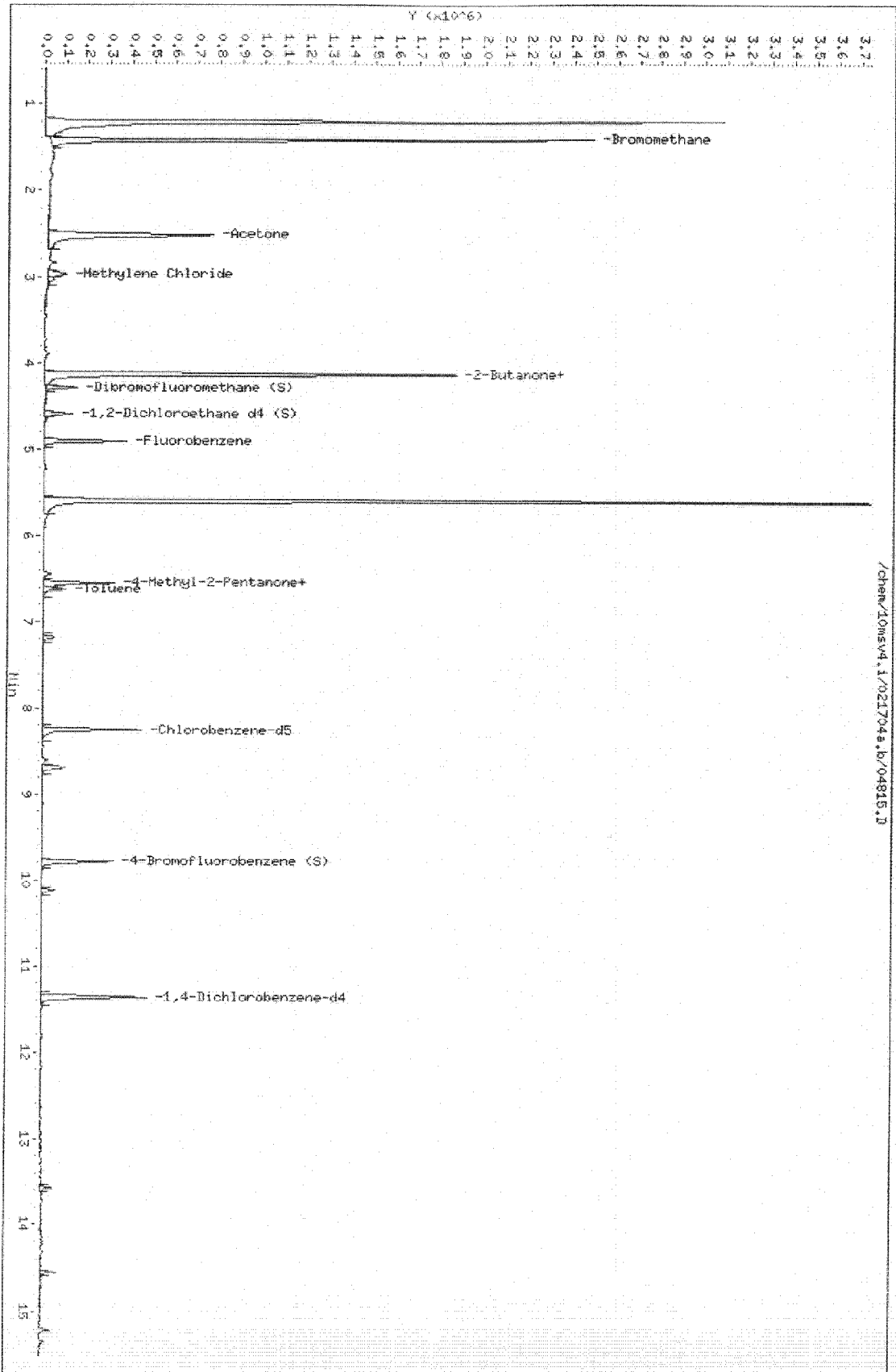
QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/10msv4.1/021704a.b/04815.D
 Date: 17-FEB-2004 21:23
 Client ID: E04-0120-62499
 Sample Info: 105333173
 Purge Volume: 5.0
 Column phase: DB-624

Instrument: 10msv4.1
 Operator: PHJ
 Column diameter: 0.19

U1V35 HP 2/17/04



Data File: /chem/10msv4.i/021704a.b/04816.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333181
Operator : PN1
Sample Location:
Sample Matrix: WATER
Analysis Type: VOA

Client SDG: 021704a
Client Smp ID: E04-0120-67442
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

Data File: /chem/10msv4.i/021704a.b/04816.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

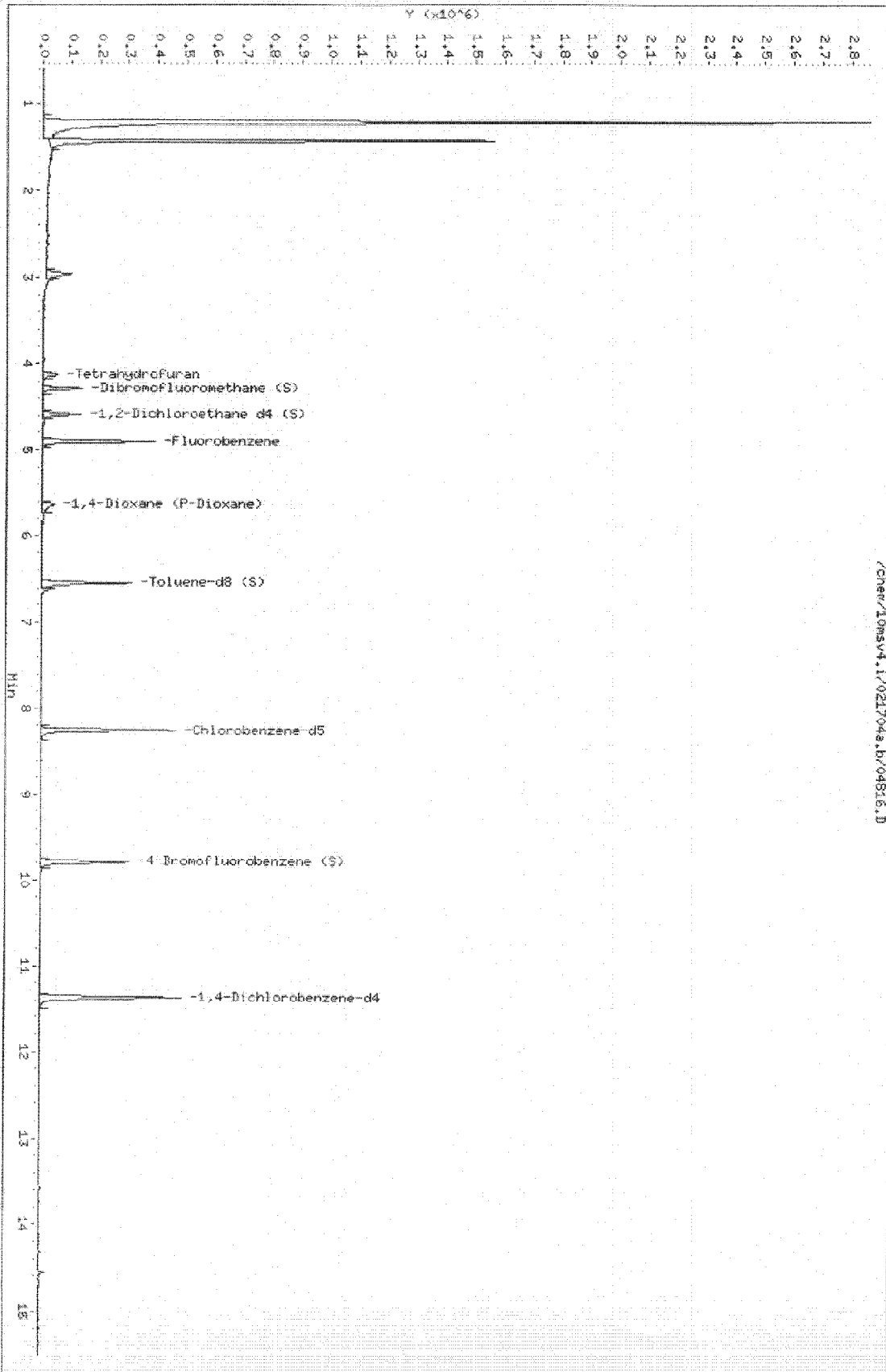
8260B VOLATILE REPORT

Data file : /chem/10msv4.i/021704a.b/04816.D
Lab Smp Id: 105333181 Client Smp ID: E04-0120-67442
Inj Date : 17-FEB-2004 21:51
Operator : PN1 Inst ID: 10msv4.i
Smp Info : 105333181
Misc Info :
Comment : 8260B VOLATILE REPORT
Method : /var/chem/10msv4.i/021704a.b/V0404040.m
Meth Date : 23-Feb-2004 20:47 pnguyen Quant Type: ISTD
Cal Date : 10-FEB-2004 02:45 Cal File: 04007.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/10msv4.1/021704a.b/04816.D
Date: 17-FEB-2004 21:51
Client ID: E04-0120-67442
Sample Info: 10533181
Purge Volume: 5.0
Column Phase: DB-624

Instrument: 10msv4.1
Operator: PHJ
Column diameter: 0.18



Data File: /chem/10msv4.i/021704a.b/04816.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

8260B VOLATILE REPORT

Data file : /chem/10msv4.i/021704a.b/04816.D
Lab Smp Id: 105333181 Client Smp ID: E04-0120-67442
Inj Date : 17-FEB-2004 21:51
Operator : PN1 Inst ID: 10msv4.i
Smp Info : 105333181
Misc Info :
Comment : 8260B VOLATILE REPORT
Method : /var/chem/10msv4.i/021704a.b/V0404040.m
Meth Date : 23-Feb-2004 20:47 pnguyen Quant Type: ISTD
Cal Date : 10-FEB-2004 02:45 Cal File: 04007.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/10msv4.i/021704a.b/04813.D
Report Date: 15-Mar-2004 12:28

Pace Analytical Services, Inc. - Minnesota

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333157
Operator : PN1
Sample Location:
Sample Matrix: WATER
Analysis Type: VOA

Client SDG: 021704a
Client Smp ID: E04-0120-67439
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 463-58-1	Unknown	1.419	96	NJ
2. 75-65-0	Unknown	2.964	8.0	NJ
3.	Unknown	3.031	2.4	J
4. 123-91-1	1,4-Dioxane	5.647	4.1	NJ

Data File: /chem/10msv4.i/021704a.b/04813.D
 Report Date: 15-Mar-2004 12:28

Pace Analytical Services, Inc. - Minnesota

8260B VOLATILE REPORT

Data file : /chem/10msv4.i/021704a.b/04813.D
 Lab Smp Id: 105333157 Client Smp ID: E04-0120-67439
 Inj Date : 17-FEB-2004 20:28
 Operator : PNI Inst ID: 10msv4.i
 Smp Info : 105333157
 Misc Info :
 Comment : 8260B VOLATILE REPORT
 Method : /chem/10msv4.i/021704a.b/V0404040.m
 Math Date : 15-Mar-2004 12:17 rschnobr Quant Type: ISTD
 Cal Date : 10-FEB-2004 02:45 Cal File: 04007.D
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50
 Processing Host: hpchems2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	====	=====	=====
* 43 Fluorobenzene	4.905	677744	20.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		
		ON-COL(ug/L)	FINAL(ug/L)		LIBRARY	LIB ENTRY	CPND #
-----	-----	-----	-----	-----	-----	-----	-----
Unknown					CAS #: 463-58-1		
1.419	3247133	95.8217074	96	5	NBS75K.1	112	43
Unknown					CAS #: 75-65-0		
2.954	271272	8.00515114	8.0	64	NBS75K.1	62572	43
Unknown					CAS #:		
3.831	80950	2.38879060	2.4	0		0	43

Data File: /chem/10msv4.i/021704a.b/04813.D
Report Date: 15-Mar-2004 12:28

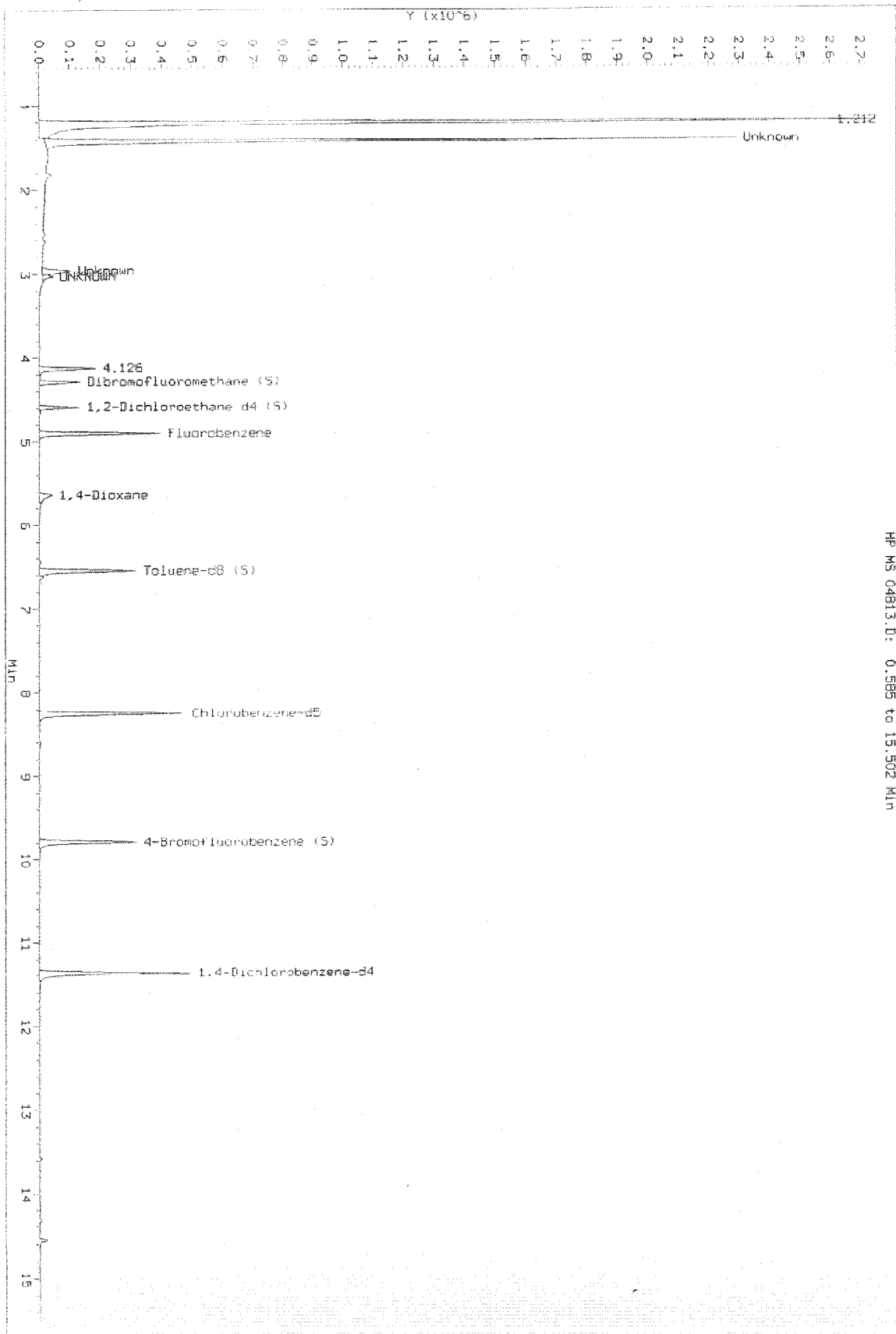
RT	AREA	CONCENTRATIONS		QUAL	LIBRARY	QUANT		CPND #
		ON-COL (ug/L)	FINAL (ug/L)			LIB ENTRY	*****	
5.647	137742	4.06471227	4.1	86	NBS75K.1	52898	43(L)	

CAS #: 123-91-1

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/10msv4.1/021704a.b/04813.D
Injection Date: 17-FEB-2004 20:28
Instrument: 10msv4.1
Client Sample ID: E04-0120-67439



HP MS 04813.D: 0.585 to 15.502 MIN

Data File: /chem/10msv4.i/021704a.b/04816.D
Report Date: 27-Feb-2004 10:13

Pace Analytical Services, Inc. - Minnesota

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: 3M ENV
Lab Smp Id: 105333181
Operator : PN1
Sample Location:
Sample Matrix: WATER
Analysis Type: VOA

Client SDG: 021704a
Client Smp ID: E04-0120-67442
Sample Date: 12-FEB-2004
Sample Point:
Date Received: 13-FEB-2004 00:00
Level: LOW

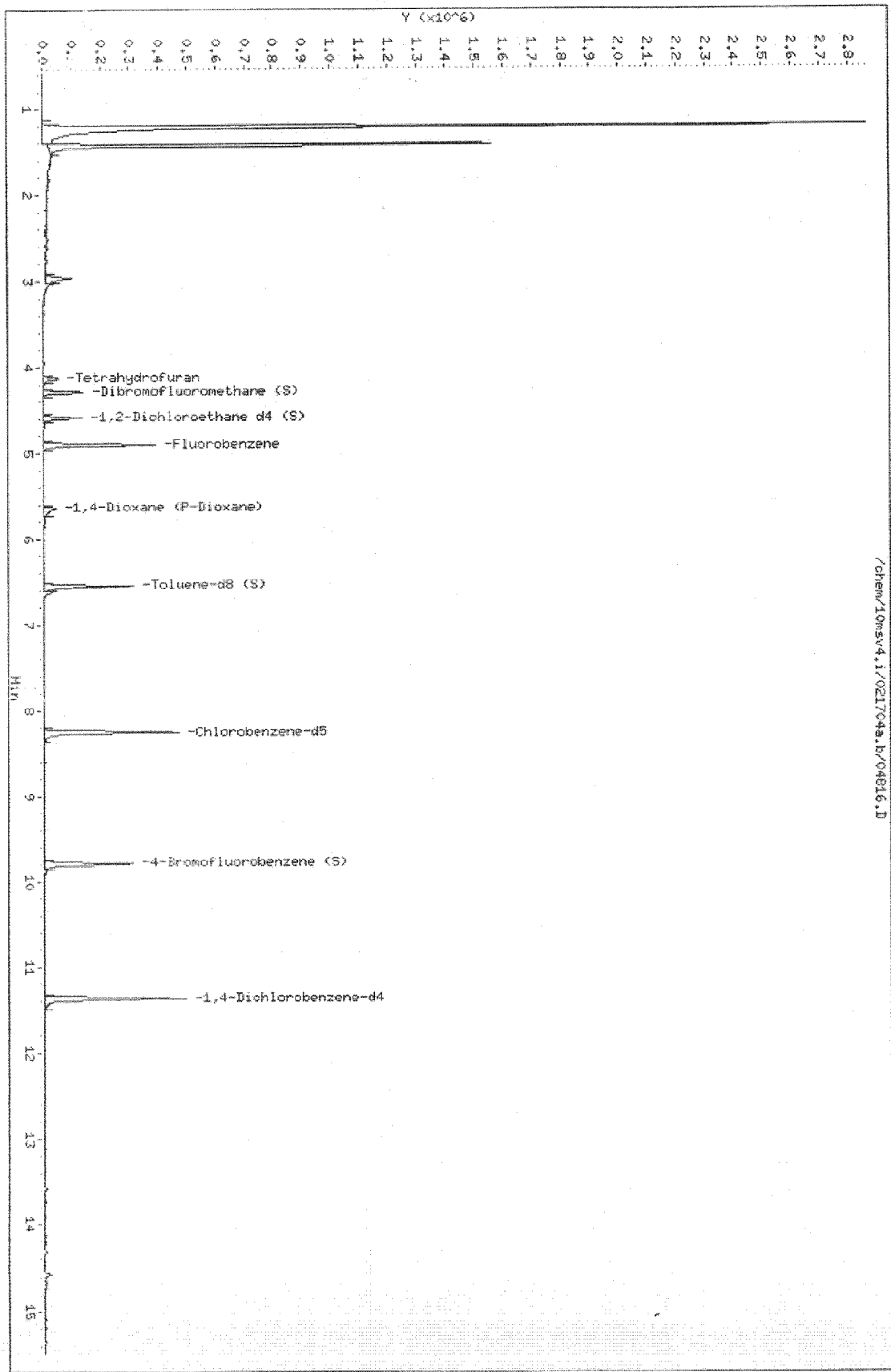
Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Data File: /chem/10msv4.i/021704a.b/04816.D
Date: 17-FEB-2004 21:51
Client ID: E04-0120-67442
Sample Infol: 105333181
Purge Volume: 5.0
Column phase: DB-624

Instrument: 10msv4.i
Operator: PNL
Column diameter: 0.18



**Fluorochemicals
FINAL REPORT
EVENT 1**

E04-0120

February 12, 2004

Analytical Report

Fluorochemical Characterization of Aqueous Samples

Cottage Grove Activated Carbon System FC Monitoring (E04-0120)

Oxygen Research Laboratory Report No. L0001874

Testing Laboratory

Oxygen Research
3058 Research Drive
State College, PA 16801

Project Lead

Jess Eldridge
3M Environmental Technology and Safety Services
935 Bush Avenue
Building 0002-03-E-09
PO Box 33331
St. Paul, MN 55133-3331

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3058 Research Drive
State College, PA 16801, USA
PAGE 5 OF 5
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oxygen.com

1 Introduction

Results are reported for the analysis of aqueous samples received by Exygen Research (Exygen) from the 3M Cottage Grove facility. The Exygen study number assigned to the project is L0001874.

Specific fluorochemical characterization by liquid chromatography / tandem mass spectrometry (LC/MS/MS) was requested for all samples. A total of 23 samples (including field duplicates, blanks, and spikes) were received for analysis.

The samples were prepared and analyzed by LC/MS/MS for the following list of fluorochemicals:

- Table 1: Target Analysis

Compound Name	Acronym
Perfluorobutanesulfonate	C4 Sulfonate (PFBS)
Perfluorohexanesulfonate	C6 Sulfonate (PFHS)
Perfluorooctanesulfonate	C8 Sulfonate (PFOS)
Perfluorohexanoic Acid	C6 Acid (PFHA)
Perfluorooctanoic Acid	C8 Acid (PFOA)

The analytical methods used were originally developed for groundwater samples and were validated by Exygen. The validation protocol and results are on file with Exygen. Only the C8 Sulfonate and C8 Acid were included in the original method validation. It should be noted that the quality control elements included in this analysis demonstrate the applicability of the method to the additional analytes.

2 Sample Receipt

The water samples were submitted in plastic containers. Samples were received on wet ice at a temperature of 0.1°C. Samples were stored at 4°C from receipt until analysis. Twenty-three individual containers were received. Field samples were collected on 2/12/04. Samples were received on 2/13/04. Chain-of-custody information is presented in Attachment C.

3 Holding Times

Field and laboratory spikes of these fluorochemicals have shown stability for periods greater than 90 days. Samples were analyzed within 30 days of collection.

4 Methods - Analytical and Preparatory

4.1 LC/MS/MS

4.1.1 Sample Preparation for LC/MS/MS Analysis

Water samples were initially treated with 200 μ L of 250 mg/L sodium thiosulfate solution to remove residual chlorine. Solid phase extraction (SPE) was used to prepare the samples for LC/MS/MS analysis. A portion of sample was diluted to forty-milliliters with Type I water. The dilution was performed prior to extraction in order to lessen the effects of matrix enhancement. This matrix enhancement was observed in earlier samples from this location and from screening runs performed on these samples. The diluted samples were transferred to a C₁₈ SPE cartridge. The cartridge was eluted with 5 mL of 100% methanol. This treatment resulted in an eight-fold concentration of the diluted samples prior to analysis.

4.1.2 Sample Analysis by LC/MS/MS

In HPLC, an aliquot of extract is injected and passed through a liquid-phase chromatographic column. Based on the affinity of the analyte for the stationary phase in the column relative to the liquid mobile phase, the analyte is retained for a characteristic amount of time. Following HPLC separation, ES/MS provides a rapid and accurate means for analyzing a wide range of organic compounds, including fluorochemicals. Electrospray is generally operated at relatively mild temperatures; molecules are ionized, fragmented, and detected. Ions characteristic of known fluorochemicals are observed and quantitated against standards.

A Hewlett-Packard HP1100 HPLC system coupled to a Micromass Ultima MS/MS was used to analyze the sample extracts. Analysis was performed using selected reaction monitoring (SRM). Samples were extracted on 2/18/04 and analyzed between 2/20/04 and 3/2/04. Raw analytical data is provided in Attachment D.

5 Analysis

5.1 Calibration

A 7-point calibration curve was analyzed at the beginning and end of the analytical sequence for the compounds of interest. The calibration points were prepared at 0, 25, 50, 100, 250, 500, and 1000 ng/L (ppt) for LC/MS/MS analysis. The instrument response versus the concentration was plotted for each point. Using linear regression with 1/x weighting, the slope, y-intercept and correlation coefficient (r) and coefficient of determination (r²) were determined. A calibration curve is acceptable if $r \geq 0.985$ (r² ≥ 0.970).

Calibration standards are prepared using the same SPE procedure used for samples.

Calibration check standards were analyzed periodically (every three to five sample injections) throughout the analysis sequence. Compliance is obtained if the standard analyte concentrations are within +/-20% of the actual value.

All calibration criteria were met for this analysis.

5.2 Blanks

Extraction blanks were prepared and analyzed with every extraction batch of samples. The extraction blanks should not have any target analytes present at or above the concentration of the low-level calibration standard. For these samples, the extraction blanks were compliant.

Instrument blanks in the form of clean methanol solvent were also analyzed after every high-level calibration standard, and after known high-level samples. Again, the blanks should not have any target analytes present at or above the low-level calibration standard. For the samples presented here the instrument blanks are compliant.

5.3 Surrogates

Surrogate spikes are not a component of the LC/MS/MS analytical methods.

5.4 Matrix Spikes

Field and laboratory spikes were prepared using all compounds of interest. Field spikes were prepared by adding a measured volume of field sample to a container spiked with the target analytes by the laboratory prior to shipping containers for sample collection. Laboratory spikes consisted of aliquots of un-spiked field samples that were fortified at the laboratory at the time of extraction. Field blank spikes consisted of laboratory water fortified at the laboratory and shipped with the sample containers to the field and back to the laboratory for analysis. Laboratory control spikes (see section 5.6) are samples of laboratory water spiked at the time of extraction. Each type of spike provides information needed to assess analyte stability, extraction efficiency, and matrix effects that may impact analytical results. Matrix spike recoveries are given in Attachment B. Please see Section 5.7 for additional discussion of matrix spike recoveries.

5.5 Duplicates

Field and laboratory duplicates were prepared for each field sample. Duplicate results are given along with the sample results in Attachment A.

5.6 Laboratory Control Samples

For LC/MS/MS analyses, MilliQ water was spiked with all compounds of interest at 100 and 500 ng/mL during each extraction set. All recoveries for all compounds were between 70-130% in each LCS. Results are given along with the raw data in Attachment D.

5.7 Statement of Accuracy

Based on results of field spikes, laboratory fortified field samples, field blank spikes, and laboratory control spikes, the analytical accuracy of all compounds except PFBS is $\pm 30\%$. All field blank spikes, laboratory control spikes and laboratory matrix spikes for all compounds except PFBS showed recoveries between 70% and 130% except in cases where the spiking level was significantly below the sample concentration with the following exceptions. Laboratory spikes for PFHA showed high recoveries. Also, the laboratory spike for Influent 3 showed a low recovery (44%) for PFHS. Results for PFBS are therefore not quantitative and should be used as screening data quality only. All spike data are reported in the data tables.

6 Data Summary

Please see Attachment A for a detailed listing of the analytical results. Results are reported in parts per billion (ppb) (ng/mL).

7 Data/Sample Retention

Samples are disposed of one month after the report is issued unless otherwise specified. All electronic data is archived on retrievable media and hard copy reports are stored in data folders maintained by Exygen.


8 Attachments

- 8.1 Attachment A: Results
- 8.2 Attachment B: Matrix Spike Recoveries
- 8.3 Attachment C: Chain of Custody
- 8.4 Attachment D: Raw Analytical Data

9 Signatures


Paul Connolly, Team Leader - LCMS

3/3/04
Date


John M. Flaherty, Vice President

3/3/04
Date

Other Lab Members Contributing to Data

Karen Smith

SECTION A

Summary of C6 and C8 Acids and C4, C6 and C8 Sulfonates in Water Samples

Sample ID	Analyte Found (ng/mL)	
	C6 Acid PFHA	C8 Acid PFOA
	Perfluorohexanoic Acid	Perfluorooctanoic Acid
Influent 3	53.0	278
Influent 3*	47.1	281
Influent 3 Dup	45.2	269
Comb Effluent	0.0871	ND
Comb Effluent*	0.0828	ND
Comb Effluent Dup	0.0746	ND
Port 4A	25.5	7.38
Port 4A*	26.4	6.81
Port 4A Dup	28.2	8.41
Effluent 4	ND	ND
Effluent 4*	ND	ND
Effluent 4 Dup	ND	ND
Influent 1/2	8.59	13.5
Influent 1/2*	8.24	11.5
Influent 1/2 Dup	8.39	12.2
Trip Blank	ND	ND

Sample ID	Analyte Found (ng/mL)		
	C4 Sulfonate PFBS	C6 Sulfonate PFHS	C8 Sulfonate PFOS
	Perfluorobutanesulfonate	Perfluorohexanesulfonate	Perfluorooctanesulfonate
Influent 3	86.6	6.90	59.8
Influent 3*	75.2	6.90	56.3
Influent 3 Dup	67.1	7.28	45.4
Comb Effluent	0.0544	ND	ND
Comb Effluent*	0.0600	ND	ND
Comb Effluent Dup	NQ	ND	ND
Port 4A	70.0	2.19	3.10
Port 4A*	68.3	2.17	2.85
Port 4A Dup	72.4	2.53	3.52
Effluent 4	ND	ND	ND
Effluent 4*	ND	ND	ND
Effluent 4 Dup	ND	ND	ND
Influent 1/2	145	4.54	6.60
Influent 1/2*	127	4.23	5.94
Influent 1/2 Dup	132	4.49	6.41
Trip Blank	ND	ND	ND

ND = Not detected = Response between 0 and 0.025 ng/mL.
 NQ = Not quantifiable = Response between 0.025 ng/mL and LOQ (0.050 ng/mL)
 *Laboratory Duplicate

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 State College, PA 16801, USA
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 F: 814.231.1580
 oxygen.com

STANDARD TERMS AND CONDITIONS

Services provided by Exygen Research are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CONFIDENTIALITY—Exygen Research (“Exygen,” “us,” or “we”) maintains the strictest confidentiality in all of our client interactions. If a signed confidentiality agreement is required, we will provide one. If a regulatory or legal body subpoenas information, the client will be notified promptly. The client agrees not to use Exygen’s name and/or data in any manner that might cause harm to Exygen’s reputation or business. Approval must be obtained, in writing, before Exygen’s name can be published in any way.

CONTRACTS—All contracts are subject to review and approval by Exygen’s legal council and must be signed by a corporate officer.

PAYMENT TERMS—Unless otherwise set forth in this Purchase Order, terms of payment are “Net 30 Days.” The time allowable for payment shall begin after both: (a) client’s receipt of Exygen’s invoice; and (b) the satisfactory performance of the services contemplated hereunder. A 1.5% monthly service charge shall be added to all past due balances. Notwithstanding any payment terms to the contrary set forth in this Purchase Order, Exygen, in its sole discretion, reserves the right to request payment in advance from client. In the event of default in payment for services rendered, Exygen shall be entitled to reasonable costs of collection, including, but not limited to, attorneys’ fees.

BILLING—All fees and charges are billed directly to the client requesting services. Exygen will not bill a third party without prior notification in writing, via a signed statement acknowledging and accepting responsibility for payment. Exygen will assume that the paperwork submitted with a sample describes the desired testing protocol. Any changes to the protocol must be submitted in writing. Please fax changes to Exygen marked, “URGENT” to your assigned representative. If changes are made after the originally requested testing has been initiated or completed, the client accepts responsibility for payment. Exygen will not be responsible for hold times that are missed due to such changes.

RUSH SERVICE—Exygen routinely offers expedited turnaround times on critical analyses. Rush analysis services are contingent upon availability and prearrangement with an authorized Exygen representative. A surcharge is usually added to the list fee if rush analysis is requested.

MINIMUM FEE—The minimum fee for commercial services is one hundred dollars (\$100).

SAMPLE COLLECTION/SUBMISSION—Client shall be responsible for proper collection, preservation, packing and packaging, and shipment of the sample(s) in accordance with applicable law and good commercial practice. Title and risk of loss with respect to submitted samples shall at all times remain with client prior to acceptance by an Exygen sample custodian. Exygen will initiate a chain-of-custody upon sample receipt unless the client includes one with the sample(s). By request, Exygen will provide chain-of-custody forms for client’s use.

All samples submitted must be accompanied by: purchase order, or signed quotation; sample description, including sample type, source, time and date of collection; specific analyses requested; estimated concentration levels; requested report date; current billing address; and other relevant information.

Upon request, Exygen will provide and ship appropriate sample containers to clients. These containers will include the appropriate preservative if particular analyses require one. It is the responsibility of the client to handle these preserved containers safely, and using all appropriate safety precautions. Clients requesting overnight delivery of sample containers will be invoiced for freight. Exygen reserves the right to charge a fee for sample containers.

SAMPLE DISPOSAL—Exygen retains samples for one month after reporting results, then disposes of or returns the sample. Unless the client

requests that the sample(s) be returned, or prior arrangements have been made for long-term storage. Exygen shall dispose of the sample(s). Exygen shall charge a monthly fee for long-term storage. Samples found or suspected to contain hazardous waste, according to definitions in state and /or federal guidelines, will be returned to the client upon completion of the analysis. The cost of returning the sample(s) will be invoiced to the client. Exygen reserves the right to charge a disposal fee for the disposal of any and all samples unless returned by Exygen to client. Exygen shall, unless the nature and character of the sample dictates otherwise, store all samples under locked, temperature-controlled conditions. An internal chain-of-custody is maintained for each lot of samples received.

HAZARD COMMUNICATION—The client has the responsibility to inform the laboratory of any known or suspected hazardous characteristics of the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

QUALITY ASSURANCE—Exygen will perform services consistent with its Quality Assurance Standard Operating Procedures (SOPs), the terms of which are expressly incorporated herein by reference; provided, however, it shall be the exclusive responsibility of the client to confirm that Exygen’s standard practices will meet the client’s needs prior to placing an order for work. In the event client desires an alternative to these SOPs, such requests must be made in writing prior to sample submission and acceptance by Exygen.

ETHICS POLICY—Exygen Research strives to provide its clients with the highest quality data in the fastest realistic turnaround time. We balance the high standards of this goal by insisting that each employee also perform within the guidelines of the highest possible professional ethics. Each Exygen employee is required to sign a statement of personal and professional integrity.

SPECIAL REPORTS—Additional charges may be necessary for custom report formats.

LITIGATION—All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Exygen Research shall be invoiced by Exygen and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations, and for any and all other expenses associated with said litigation.

INDEMNIFICATION, LIABILITY, AND INSURANCE—Exygen agrees to indemnify, defend, and save the client, its officers, directors, employees, agents, and representatives harmless from all losses, expenses, demands, and claims made against the client, its officers, directors, employees, agents and representatives because of any personal injuries, death, or property damage to the extent caused by the negligence or willful misconduct of Exygen, its employees, agents, or representatives in connection with the performance of services under this agreement, except to the extent such losses, expenses, demands, or claims, occur as a result of the negligent or willful acts or omissions of the client, its officers, directors, employees, agents, and representatives; however, such indemnification and damages shall, in the aggregate, be limited to the amount equal to the lesser of (a) damages suffered by the client as the direct result thereof, or (b) the total amount paid to Exygen for the work herein covered. Exygen will, if requested by the client, furnish certificates of insurance from its carrier evidencing appropriate insurance coverage.

WARRANTY AND LIMITS OF LIABILITY—In accepting analytical work, Exygen guarantees the accuracy of the test results for the sample as submitted within the tolerances set forth in the SOPs. We disclaim any other warranties, expressed or implied by law. Exygen does not accept any legal responsibility for the purposes for which client uses the test results. Exygen will not accept any purchase order or any other order for work that includes conditions that vary from these Standard Conditions.

ACCEPTANCE OF PURCHASE ORDER—This Purchase Order becomes a binding agreement, subject to the specific terms and conditions stated herein, upon Exygen’s commencement of work.

Recovery Summary for C6 and C8 Acids and C4, C6 and C8 Sulfonates in Water

Sample Description	Amount Spiked (ng/mL)	C6 Acid PFHA			C8 Acid PFOA		
		Amt Found in Sample (ng/mL)	Amount Recovered (ng/mL)	Recovery (%)	Amt Found in Sample (ng/mL)	Amount Recovered (ng/mL)	Recovery (%)
Influent 3 Low Spk 10 ppb Spike	10	53.0	54.6	^	278	276	^
Influent 3 High Spk 100 ppb Spike	100	53.0	156	103	278	369	91
Influent 3 Spk C Laboratory Spike	10	53.0	35.7	^	278	189	^
Comb Effluent Low Spk 10 ppb Spike	10	0.0871	11.2	111	ND	9.38	94
Comb Effluent High Spk 100 ppb Spike	100	0.0871	87.6	88	ND	71.9	72
Comb Effluent Spk D Laboratory Spike	10	0.0871	15.6	155	ND	11.5	115
Port 4A Low Spk 10 ppb Spike	10	25.5	38.5	130	7.38	16.8	94
Port 4A High Spk 100 ppb Spike	100	25.5	142	117	7.38	90.5	83
Port 4 A Spk E Laboratory Spike	10	25.5	40.6	151	7.38	18.3	109
Effluent 4 Low Spk 10 ppb Spike	10	ND	12.0	120	ND	9.95	100
Effluent 4 High Spk 100 ppb Spike	100	ND	124	124	ND	105	105
Effluent 4 Spk F Laboratory Spike	10	ND	15.8	158	ND	11.8	118
Influent 1/2 Low Spk 10 ppb Spike	10	8.59	19.6	110	13.5	21.9	84
Influent 1/2 High Spk 100 ppb Spike	100	8.59	118	109	13.5	94.1	81
Influent 1/2 Spk G Laboratory Spike	10	8.59	25.7	171	13.5	26.5	130
Trip Blank Low Spk 10 ppb Spike	10	ND	10.1	101	ND	7.82	78
Trip Blank High Spk 100 ppb	100	ND	99.1	99	ND	81.6	82

ND = Not detected = Response between 0 and 0.025 ng/mL.

NQ = Not quantifiable = Response between 0.025 ng/mL and LOQ (0.050 ng/mL)

^Sample residue exceeded the spiking level significantly; therefore an accurate recovery cannot be calculated.

X
3058 Research Drive
State College, PA 16801, USA
T: 800.281.3219
F: 814.272.1019
exygen.com

Recovery Summary for C6 and C8 Acids and C4, C6 and C8 Sulfonates in Water

Sample Description	C4 Sulfonate PFBS				C6 Sulfonate PFHS			C8 Sulfonate PFOS		
	Amount Spiked (ng/mL)	Amt Found in Sample (ng/mL)	Amount Recovered (ng/mL)	Recovery (%)	Amt Found in Sample (ng/mL)	Amount Recovered (ng/mL)	Recovery (%)	Amt Found in Sample (ng/mL)	Amount Recovered (ng/mL)	Recovery (%)
Influent 3 Low Spk 10 ppb Spike	10	86.6	99.2	126	6.90	17.2	103	59.8	46.1	^
Influent 3 High Spk 100 ppb Spike	100	86.6	281	194	6.90	115	108	59.8	146	86
Influent 3 Spk C Laboratory Spike	10	86.6	39.3	^	6.90	11.3	44	59.8	46.3	^
Comb Effluent Low Spk 10 ppb Spike	10	0.0544	12.9	128	ND	10.5	105	ND	10.2	102
Comb Effluent High Spk 100 ppb Spike	100	0.0544	111	111	ND	80.7	81	ND	87.4	87
Comb Effluent Spk D Laboratory Spike	10	0.0544	15.2	151	ND	9.22	92	ND	7.89	79
Port 4A Low Spk 10 ppb Spike	10	70.0	92.2	^	2.19	13.9	117	3.10	11.4	83
Port 4A High Spk 100 ppb Spike	100	70.0	274	204	2.19	116	114	3.10	86.3	83
Port 4 A Spk E Laboratory Spike	10	70.0	84.7	^	2.19	10.5	83	3.10	11.7	86
Effluent 4 Low Spk 10 ppb Spike	10	ND	20.8	208	ND	10.4	104	ND	9.00	90
Effluent 4 High Spk 100 ppb Spike	100	ND	154	154	ND	122	122	ND	92.2	92
Effluent 4 Spk F Laboratory Spike	10	ND	14.7	147	ND	8.05	81	ND	7.80	78
Influent 1/2 Low Spk 10 ppb Spike	10	145	135	^	4.54	14.7	102	6.60	15.3	87
Influent 1/2 High Spk 100 ppb Spike	100	145	263	118	4.54	101	96	6.60	106	99
Influent 1/2 Spk G Laboratory Spike	10	145	160	^	4.54	14.1	96	6.60	17.2	106
Trip Blank Low Spk 10 ppb Spike	10	ND	8.22	82	ND	9.36	94	ND	11.3	113
Trip Blank High Spk 100 ppb	100	ND	75.6	76	ND	104	104	ND	109	109

ND = Not detected = Response between 0 and 0.025 ng/mL.

NQ = Not quantifiable = Response between 0.025 ng/mL and LOQ (0.050 ng/mL)

^Sample residue exceeded the spiking level significantly; therefore an accurate recovery cannot be calculated.

X
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State College, PA 16801, USA
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F: 814.272.1019
exygen.com

SECTION B

SECTION C



3058 Research Drive
State College, PA 16801

Phone: 814-272-1039
Fax: 814-231-1580

Login

Login Group: L0001874

Login #:	1984	Conform COC Sample:	True
Project:	P0000644	Conform COC:	True
Company Name:	3M	Conform Sample:	True
Submitted By:	KENT LINDSTROM	Conform Request:	True
Login Type:	Immediate Receipt of Samples		
Started:	T		
Date Start:	02/16/2004		
Due Date:	03/01/2004		
Received Date:	02/13/2004		
Received By:	AMMERMAN, MARK		
Spread Sample:			
Label:			
Project Title/Type:	Cottage Grove Activated Carbon System Fluorochemical Monitoring / ROUTINE		
Exygen SD/PI:	RISHA, KAREN		
Login Notes:			
Conform Notes:			

Packages / Containers

Package	Carton	Mail Date / Condition	Shipper / ID	Temp. Control/Temp.	Direction / Handled By
PK0002470		2/13/2004 11:45:28PM Package & Contents Uncompromised	FEDEX 3168014411000001792570 728697201	Wet Ice 0.1	RECEIVED AMMERMAN, MARK

Container #	Gross Weight	pH	Container Type	Preservative	Mfg. Lot	Mfg. ID
C0027262	613.8 g		500 ml Clear Plastic Narrow	NONE		
C0027263	603.6 g		500 ml Clear Plastic Narrow	NONE		
C0027264	255.5 g		500 ml Clear Plastic Narrow	NONE		
C0027265	254.1 g		500 ml Clear Plastic Narrow	NONE		
C0027266	600.9 g		500 ml Clear Plastic Narrow	NONE		
C0027267	603.4 g		500 ml Clear Plastic Narrow	NONE		
C0027268	254.5 g		500 ml Clear Plastic Narrow	NONE		
C0027269	250.1 g		500 ml Clear Plastic Narrow	NONE		
C0027270	596.2 g		500 ml Clear Plastic Narrow	NONE		
C0027271	591.3 g		500 ml Clear Plastic Narrow	NONE		
C0027272	252.6 g		500 ml Clear Plastic Narrow	NONE		
C0027273	257.8 g		500 ml Clear Plastic Narrow	NONE		
C0027274	598.7 g		500 ml Clear Plastic Narrow	NONE		
C0027275	599.2 g		500 ml Clear Plastic Narrow	NONE		
C0027276	266.2 g		500 ml Clear Plastic Narrow	NONE		
C0027277	267.2 g		500 ml Clear Plastic Narrow	NONE		

2/17/2004
Login.rpt

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Instance:

R0086666



CONFIDENTIAL - SUBJECT TO A PROTECTIVE ORDER ENTERED IN
HENNEPIN COUNTY DISTRICT COURT, NO. 27-CV-10-28862

3M_MN01538585

1937.0199

Login

Login Group: L0001874

Login #: 1984
Project: P0000644
Company Name: 3M
Submitted By: KENT LINDSTROM
Login Type: Immediate Receipt of Samples
Started: T
Date Start: 02/16/2004
Due Date: 03/01/2004
Received Date: 02/13/2004
Received By: AMMERMAN, MARK
Spread Sample:
Label:
Project Title/Type: Cottage Grove Activated Carbon System Fluorochemical Monitoring / ROUTINE
Exygen SD/PI: RISHA, KAREN
Login Notes:
Conform Notes:

Conform COC Sample: True
Conform COC: True
Conform Sample: True
Conform Request: True

Packages / Containers

Package	Carton	Mail Date / Condition	Shipper / ID	Temp. Control/Temp.	Direction / Handled By
PK0002470		2/13/2004 11:45:28PM Package & Contents Uncompromised	FEDEX 3168014411000001792570 728697201	Wet Ice 0.1	RECEIVED AMMERMAN, MARK

Container #	Gross Weight	pH	Container Type	Preservative	Mfg. Lot	Mfg. ID
C0027278	591.3 g		500 ml Clear Plastic Narrow	NONE		
C0027279	600.7 g		500 ml Clear Plastic Narrow	NONE		
C0027280	258.2 g		500 ml Clear Plastic Narrow	NONE		
C0027281	265.1 g		500 ml Clear Plastic Narrow	NONE		
C0027282	251.3 g		500 ml Clear Plastic Narrow	NONE		
C0027283	253.3 g		500 ml Clear Plastic Narrow	NONE		
C0027284	252.8 g		500 ml Clear Plastic Narrow	NONE		

2/17/2004
Login.rpt

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Instance:

R0086666



CONFIDENTIAL - SUBJECT TO A PROTECTIVE ORDER ENTERED IN
HENNEPIN COUNTY DISTRICT COURT, NO. 27-CV-10-28862

3M_MN01538586

1937.0200

Login

Samples

<u>Sample ID</u>	<u>Matrix</u>	<u>Fraction</u>	<u>Sample</u>	<u>Date Sampled</u>	<u>Date Received</u>	<u>Date Due</u>
L0001874-0001	LIQUID	Water	Influent 3	02/12/2004	02/13/2004	03/01/2004
L0001874-0002	LIQUID	Water	Influent 3 Dup	02/12/2004	02/13/2004	03/01/2004
L0001874-0003	LIQUID	Water	Influent 3 Low Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0004	LIQUID	Water	Influent 3 High Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0005	LIQUID	Water	Comb Effluent	02/12/2004	02/13/2004	03/01/2004
L0001874-0006	LIQUID	Water	Comb Effluent Dup	02/12/2004	02/13/2004	03/01/2004
L0001874-0007	LIQUID	Water	Comb Effluent Low Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0008	LIQUID	Water	Comb Effluent High Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0009	LIQUID	Water	Port 4A	02/12/2004	02/13/2004	03/01/2004
L0001874-0010	LIQUID	Water	Port 4A Dup	02/12/2004	02/13/2004	03/01/2004
L0001874-0011	LIQUID	Water	Port 4A Low Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0012	LIQUID	Water	Port 4A High Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0013	LIQUID	Water	Effluent 4	02/12/2004	02/13/2004	03/01/2004
L0001874-0014	LIQUID	Water	Effluent 4 Dup	02/12/2004	02/13/2004	03/01/2004
L0001874-0015	LIQUID	Water	Effluent 4 Low Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0016	LIQUID	Water	Effluent 4 High Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0017	LIQUID	Water	Influent 1/2	02/12/2004	02/13/2004	03/01/2004
L0001874-0018	LIQUID	Water	Influent 1/2 Dup	02/12/2004	02/13/2004	03/01/2004
L0001874-0019	LIQUID	Water	Influent 1/2 Low Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0020	LIQUID	Water	Influent 1/2 High Spike	02/12/2004	02/13/2004	03/01/2004
L0001874-0021	LIQUID	Water	Trip Blank		02/13/2004	03/01/2004
L0001874-0022	LIQUID	Water	Trip Blank Low Spike		02/13/2004	03/01/2004
L0001874-0023	LIQUID	Water	Trip Blank High Spike		02/13/2004	03/01/2004

2/17/2004
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CONFIDENTIAL - SUBJECT TO A PROTECTIVE ORDER ENTERED IN
HENNEPIN COUNTY DISTRICT COURT, NO. 27-CV-10-28862

3M_MN01538587

1937.0201

Login

Bottles

L0001874-0001

Container
C0027262 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0002

Container
C0027263 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0003

Container
C0027264 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0004

Container
C0027265 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0005

Container
C0027266 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0006

Container
C0027267 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0007

Container
C0027268 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0008

Container
C0027269 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0009

Container
C0027270 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0010

Container
C0027271 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0011

Container
C0027272 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0012

Container
C0027273 / 500 ml Clear Plastic Narrow / NONE

Method

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CONFIDENTIAL - SUBJECT TO A PROTECTIVE ORDER ENTERED IN
HENNEPIN COUNTY DISTRICT COURT, NO. 27-CV-10-28862

3M_MN01538588

1937.0202

Login

L0001874-0013

Container
C0027274 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0014

Container
C0027275 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0015

Container
C0027276 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0016

Container
C0027277 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0017

Container
C0027278 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0018

Container
C0027279 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0019

Container
C0027280 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0020

Container
C0027281 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0021

Container
C0027282 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0022

Container
C0027283 / 500 ml Clear Plastic Narrow / NONE

Method

L0001874-0023

Container
C0027284 / 500 ml Clear Plastic Narrow / NONE

Method





CHAIN OF CUSTODY/ANALYSIS REQUEST FORM

Exygen Research Sample Receiving • 3117 Research Drive • State College, PA 16801, USA
T: 814.231.8032 • F: 814.231.1580 • exygenresearch.com

Page ____ of ____

PROJECT INFORMATION

Client (name & address):
3m Cottage Grove
10746-INNOVATIONS RD.
COTTAGE GROVE, MN 55016
 Phone: 651-768-1125
 Fax: 651-458-2029
 Sampler: TINA CALLOWAY/HATT WIDERMOTT

Project Manager (Name & E-mail Address):
Kent Lindstrom
KRLINDSTROM@MNMN.COM

Project Name:
Cottage Grove Carbon Testing
 P.O. #: Eotr 0120
 Quotation #:

Please fill out this form *completely* to ensure correct analysis and proper handling of your samples.

ANALYSES REQUESTED

SAMPLE ANALYSIS

ExyLIMS#	Client Sample Identification	Collection Date	Collection Time	Grab	Composite	Number of Containers	Specify Matrix	Comments
	PORT 4A	2/12/04	11:35	*			Leaker	
	PORT 4A Dup	2/12/04	↓					
	PORT 4A Low Spike	↓	↓					
	PORT 4A High Spike	↓	↓					
	EFFLUENT 4	2/12/04	11:46					
	↓ 4 Dup	↓	↓					
	↓ 4 Low Spike	↓	↓					
	↓ 4 High Spike	↓	↓					

LAB USE ONLY

CHAIN OF CUSTODY

Reinquished by	Date	Time
<u>J. Stoll</u>	2/12/04	1425

Cooler ID # CALLOWAY Cooler Temp. (°C) 0.1

Received by	Date	Time
<u>[Signature]</u>	2/12/04	1145

LAB USE ONLY

OTHER INFORMATION

PROJECT REQUIREMENTS

Results Deadline: _____

Laboratory Report Options:

- Sample results only
- Add case narrative
- Add quality control summary
- Add calibration summary
- Add raw data
- Other _____



CHAIN OF CUSTODY/ANALYSIS REQUEST FORM

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Page ____ of ____

PROJECT INFORMATION

Client (name & address):

3m COTTAGE GROVE

10746- INNOVATION RD.

COTTAGE GROVE, MN 55016

Phone: 651-768-1206

Fax: 651-458-2029

Sampler: TINA GALLOPAX/MATT McDERMOTT

Project Manager (Name & E-mail Address):

BARBARA MAZSA Kent Lindstrom

K.LINDSTROM@MMM.COM

Project Name:

Cottage Grove Carbon Footing.

P.O. #: E04-0120

Quotation #: _____

Please fill out this form *completely* to ensure correct analysis and proper handling of your samples.

ANALYSES REQUESTED

SAMPLE ANALYSIS

ExyLIMS#	Client Sample Identification	Collection Date	Collection Time	Grab	Composite	Number of Containers	Specify Matrix	Comments
	<u>Influent 1/2</u>	<u>2/12/04</u>	<u>11:00</u>	<u>X</u>			<u>water</u>	
	<u>↓ DUP</u>			<u>X</u>				
	<u>↓ Low SPIKE</u>			<u>X</u>				
	<u>↓ High SPIKE</u>			<u>X</u>				
	<u>trip blank</u>							
	<u>trip blank low spike</u>							
	<u>trip blank high spike</u>							

LAB USE ONLY

CHAIN OF CUSTODY

Relinquished by	Date	Time
<u>[Signature]</u>	<u>2/12/04</u>	<u>14:50</u>

Cooler ID # C144154 Cooler Temp. (°C) 0.1

Received by	Date	Time
<u>[Signature]</u>	<u>2/12/04</u>	<u>11:45</u>

LAB USE ONLY

PROJECT REQUIREMENTS

Results Deadline: _____

Laboratory Report Options:

Sample results only

Add case narrative

Add quality control summary

Add calibration summary

Add raw data

Other _____

OTHER INFORMATION

3M ENVIRONMENTAL LABORATORY
Preliminary/Unauthorized Report

Project: E04-0120

Requester: Galloway, Tina M. (145-01, COTTAG)
 Department: 112583 Site Source: 016Z8120
 Project Number:
 Date Received: 2/11/2004
 Project Description: Cottage Grove Carbon System Testing
 Copy List: Mader, Brian (2-3E-09)

Completion Date:
 Project Lead: Jess S. Eldridge
 Phone Number: 651-778-5233
 Email Address: jseldridge@mmm.com

Comments:

The Filtered TOC needs to be filtered with a Teflon filter.

TOC samples were preserved at time of collection. The preserved samples were filtered before analysis (RAS-Pace-2/12/04).

3M Sample Number	Sampled Date	Sample Description			
E04-0120-67432	2/12/2004	Influent Phase 1/2			
LAB	Analytical Method	Components	Result	RL	Qualifier
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
PACE	BOD (5-day)	Biochemical Oxygen Demand			
PACE	EPA 420.4	Phenol (AAP)			
PACE	EPA 624	1,1,1-Trichloroethane			
		1,1,2,2-Tetrachloroethane			
		1,1,2-Trichloroethane			
		1,1-Dichloroethane			
		1,1-Dichloroethene			
		1,2-Dichlorobenzene			
		1,2-Dichloroethane			
		1,2-Dichloropropane			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		2-Chloroethyl Vinyl Ether			
		Benzene			
		Bromodichloromethane			
		Bromoform			
		Bromomethane			
		Carbon tetrachloride			
		Chlorobenzene			
		Chloroethane			
		Chloroform			
		Chloromethane			
		cis-1,3-Dichloropropene			
		Dibromochloromethane			
		Ethylbenzene			
		Methylene chloride			
		Tetrachloroethene			
		Toluene			
		trans-1,2-Dichloroethene			
		trans-1,3-Dichloropropene			
		Trichloroethene			

3M ENVIRONMENTAL LABORATORY
Preliminary/Unauthorized Report

Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67432 (cont.)	2/12/2004	Influent Phase 1/2			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 624 (cont.)	Trichlorofluoromethane			
		Vinyl chloride			
		1,2-Dichloroethane-d4 (surr)			
		4-Bromofluorobenzene (surr)			
		Dibromofluoromethane (surr)			
		Toluene-d8 (surr)			
PACE	EPA 625	Phenol			
		bis(2-Chloroethyl)ether			
		2-Chlorophenol			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		1,2-Dichlorobenzene			
		bis(2-Chloroisopropyl)ether			
		N-Nitroso-di-n-propylamine			
		Nitrobenzene			
		Isophorone			
		2-Nitrophenol			
		2,4-Dimethylphenol			
		bis(2-Chloroethoxy)methane			
		2,4-Dichlorophenol			
		1,2,4-Trichlorobenzene			
		Naphthalene			
		Hexachlorobutadiene			
		4-Chloro-3-methylphenol			
		2,4,6-Trichlorophenol			
		2-Chloronaphthalene			
		Dimethylphthalate			
		Acenaphthylene			
		2,6-Dinitrotoluene			
		Acenaphthene			
		2,4-Dinitrophenol			
		4-Nitrophenol			
		2,4-Dinitrotoluene			
		Diethylphthalate			
		4-Chlorophenyl-phenylether			
		Fluorene			
		4,6-Dinitro-2-methylphenol			
		4-Bromophenyl-phenylether			
		Hexachlorobenzene			
		Pentachlorophenol			
		Phenanthrene			
		Anthracene			
		Di-n-butylphthalate			
		Fluoranthene			
		Pyrene			
		Butylbenzylphthalate			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67432 (cont.)	2/12/2004	Influent Phase 1/2			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 625 (cont.)	3,3'-Dichlorobenzidine Benzo(a)anthracene Chrysene bis(2-Ethylhexyl)phthalate Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene Hexachloroethane Nitrobenzene-d5 (surr) 2-Fluorobiphenyl (surr) Terphenyl-d14 (surr) Phenol-d6 (surr) 2-Fluorophenol (surr) 2,4,6-Tribromophenol (surr)			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
3M_ENVLAB	ETS-8-148.0	APE0 APE1 APE2 APE3 APE4 APE5 APE14 APE15 APE16			
EXYGEN	LCMS	PFOS PFHS PFBS PFOA PFHA			
E04-0120-67433	2/12/2004	Influent Phase 3			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
NSA	Mercury (EPA 1631)	Mercury			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67433 (cont.)	2/12/2004	Influent Phase 3			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
EXYGEN	LCMS	PFOS			
		PFHS			
		PFBS			
		PFOA			
		PFHA			
E04-0120-67434	2/12/2004	Effluent Carbon 4			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
PACE	BOD (5-day)	Biochemical Oxygen Demand			
PACE	EPA 420.4	Phenol (AAP)			
PACE	EPA 624	1,1,1-Trichloroethane			
		1,1,2,2-Tetrachloroethane			
		1,1,2-Trichloroethane			
		1,1-Dichloroethane			
		1,1-Dichloroethene			
		1,2-Dichlorobenzene			
		1,2-Dichloroethane			
		1,2-Dichloropropane			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		2-Chloroethyl Vinyl Ether			
		Benzene			
		Bromodichloromethane			
		Bromoform			
		Bromomethane			
		Carbon tetrachloride			
		Chlorobenzene			
		Chloroethane			
		Chloroform			
		Chloromethane			
		cis-1,3-Dichloropropene			
		Dibromochloromethane			
		Ethylbenzene			
		Methylene chloride			
		Tetrachloroethene			
		Toluene			
		trans-1,2-Dichloroethene			
		trans-1,3-Dichloropropene			
		Trichloroethene			
		Trichlorofluoromethane			
		Vinyl chloride			
		1,2-Dichloroethane-d4 (surr)			

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Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67434 (cont.)	2/12/2004	Effluent Carbon 4			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 624 (cont.)	4-Bromofluorobenzene (surr)			
		Dibromofluoromethane (surr)			
		Toluene-d8 (surr)			
PACE	EPA 625	Phenol			
		bis(2-Chloroethyl)ether			
		2-Chlorophenol			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		1,2-Dichlorobenzene			
		bis(2-Chloroisopropyl)ether			
		N-Nitroso-di-n-propylamine			
		Nitrobenzene			
		Isophorone			
		2-Nitrophenol			
		2,4-Dimethylphenol			
		bis(2-Chloroethoxy)methane			
		2,4-Dichlorophenol			
		1,2,4-Trichlorobenzene			
		Naphthalene			
		Hexachlorobutadiene			
		4-Chloro-3-methylphenol			
		2,4,6-Trichlorophenol			
		2-Chloronaphthalene			
		Dimethylphthalate			
		Acenaphthylene			
		2,6-Dinitrotoluene			
		Acenaphthene			
		2,4-Dinitrophenol			
		4-Nitrophenol			
		2,4-Dinitrotoluene			
		Diethylphthalate			
		4-Chlorophenyl-phenylether			
		Fluorene			
		4,6-Dinitro-2-methylphenol			
		4-Bromophenyl-phenylether			
		Hexachlorobenzene			
		Pentachlorophenol			
		Phenanthrene			
		Anthracene			
		Di-n-butylphthalate			
		Fluoranthene			
		Pyrene			
		Butylbenzylphthalate			
		3,3'-Dichlorobenzidine			
		Benzo(a)anthracene			
		Chrysene			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67434 (cont.)	2/12/2004	Effluent Carbon 4			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 625 (cont.)	bis(2-Ethylhexyl)phthalate Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene Hexachloroethane Nitrobenzene-d5 (surr) 2-Fluorobiphenyl (surr) Terphenyl-d14 (surr) Phenol-d6 (surr) 2-Fluorophenol (surr) 2,4,6-Tribromophenol (surr)			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
3M_ENVLAB	ETS-8-148.0	APE0 APE1 APE2 APE3 APE4 APE5 APE14 APE15 APE16			
EXYGEN	LCMS	PFOS PFHS PFBS PFOA PFHA			

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67435	2/12/2004	Effluent Carbon 1			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
PACE	BOD (5-day)	Biochemical Oxygen Demand			
PACE	EPA 420.4	Phenol (AAP)			
PACE	EPA 624	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67435 (cont.)	2/12/2004	Effluent Carbon 1			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 624 (cont.)	1,2-Dichlorobenzene			
		1,2-Dichloroethane			
		1,2-Dichloropropane			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		2-Chloroethyl Vinyl Ether			
		Benzene			
		Bromodichloromethane			
		Bromoform			
		Bromomethane			
		Carbon tetrachloride			
		Chlorobenzene			
		Chloroethane			
		Chloroform			
		Chloromethane			
		cis-1,3-Dichloropropene			
		Dibromochloromethane			
		Ethylbenzene			
		Methylene chloride			
		Tetrachloroethene			
		Toluene			
		trans-1,2-Dichloroethene			
		trans-1,3-Dichloropropene			
		Trichloroethene			
		Trichlorofluoromethane			
		Vinyl chloride			
		1,2-Dichloroethane-d4 (surr)			
		4-Bromofluorobenzene (surr)			
		Dibromofluoromethane (surr)			
		Toluene-d8 (surr)			
PACE	EPA 625	Phenol			
		bis(2-Chloroethyl)ether			
		2-Chlorophenol			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		1,2-Dichlorobenzene			
		bis(2-Chloroisopropyl)ether			
		N-Nitroso-di-n-propylamine			
		Nitrobenzene			
		Isophorone			
		2-Nitrophenol			
		2,4-Dimethylphenol			
		bis(2-Chloroethoxy)methane			
		2,4-Dichlorophenol			
		1,2,4-Trichlorobenzene			
		Naphthalene			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67435 (cont.)	2/12/2004	Effluent Carbon 1			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 625 (cont.)	Hexachlorobutadiene			
		4-Chloro-3-methylphenol			
		2,4,6-Trichlorophenol			
		2-Chloronaphthalene			
		Dimethylphthalate			
		Acenaphthylene			
		2,6-Dinitrotoluene			
		Acenaphthene			
		2,4-Dinitrophenol			
		4-Nitrophenol			
		2,4-Dinitrotoluene			
		Diethylphthalate			
		4-Chlorophenyl-phenylether			
		Fluorene			
		4,6-Dinitro-2-methylphenol			
		4-Bromophenyl-phenylether			
		Hexachlorobenzene			
		Pentachlorophenol			
		Phenanthrene			
		Anthracene			
		Di-n-butylphthalate			
		Fluoranthene			
		Pyrene			
		Butylbenzylphthalate			
		3,3'-Dichlorobenzidine			
		Benzo(a)anthracene			
		Chrysene			
		bis(2-Ethylhexyl)phthalate			
		Di-n-octylphthalate			
		Benzo(b)fluoranthene			
		Benzo(k)fluoranthene			
		Benzo(a)pyrene			
		Indeno(1,2,3-cd)pyrene			
		Dibenz(a,h)anthracene			
		Benzo(g,h,i)perylene			
		Hexachloroethane			
		Nitrobenzene-d5 (surr)			
		2-Fluorobiphenyl (surr)			
		Terphenyl-d14 (surr)			
		Phenol-d6 (surr)			
		2-Fluorophenol (surr)			
		2,4,6-Tribromophenol (surr)			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			

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Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>			
E04-0120-67435 (cont.)	2/12/2004	Effluent Carbon 1			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
3M_ENVLAB	ETS-8-148.0	APE0			
		APE1			
		APE2			
		APE3			
		APE4			
		APE5			
		APE14			
		APE15			
		APE16			
E04-0120-67436	2/12/2004	Effluent Carbon 11			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
NSA	Mercury (EPA 1631)	Mercury			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
EXYGEN	LCMS	PFOS			
		PFHS			
		PFBS			
		PFOA			
		PFHA			
E04-0120-67437	2/12/2004	Effluent Carbon 13			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
NSA	Mercury (EPA 1631)	Mercury			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
EXYGEN	LCMS	PFOS			
		PFHS			
		PFBS			
		PFOA			
		PFHA			
E04-0120-67438	2/12/2004	Carbon 4, Port A			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67438 (cont.)	2/12/2004	Carbon 4, Port A			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
PACE	BOD (5-day)	Biochemical Oxygen Demand			
PACE	EPA 420.4	Phenol (AAP)			
PACE	EPA 624	1,1,1-Trichloroethane			
		1,1,2,2-Tetrachloroethane			
		1,1,2-Trichloroethane			
		1,1-Dichloroethane			
		1,1-Dichloroethene			
		1,2-Dichlorobenzene			
		1,2-Dichloroethane			
		1,2-Dichloropropane			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		2-Chloroethyl Vinyl Ether			
		Benzene			
		Bromodichloromethane			
		Bromoform			
		Bromomethane			
		Carbon tetrachloride			
		Chlorobenzene			
		Chloroethane			
		Chloroform			
		Chloromethane			
		cis-1,3-Dichloropropene			
		Dibromochloromethane			
		Ethylbenzene			
		Methylene chloride			
		Tetrachloroethene			
		Toluene			
		trans-1,2-Dichloroethene			
		trans-1,3-Dichloropropene			
		Trichloroethene			
		Trichlorofluoromethane			
		Vinyl chloride			
		1,2-Dichloroethane-d4 (surr)			
		4-Bromofluorobenzene (surr)			
		Dibromofluoromethane (surr)			
		Toluene-d8 (surr)			
PACE	EPA 625	Phenol			
		bis(2-Chloroethyl)ether			
		2-Chlorophenol			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		1,2-Dichlorobenzene			
		bis(2-Chloroisopropyl)ether			
		N-Nitroso-di-n-propylamine			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RI</u>	<u>Qualifier</u>
E04-0120-67438 (cont.)	2/12/2004	Carbon 4, Port A			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 625 (cont.)	Nitrobenzene			
		Isophorone			
		2-Nitrophenol			
		2,4-Dimethylphenol			
		bis(2-Chloroethoxy)methane			
		2,4-Dichlorophenol			
		1,2,4-Trichlorobenzene			
		Naphthalene			
		Hexachlorobutadiene			
		4-Chloro-3-methylphenol			
		2,4,6-Trichlorophenol			
		2-Chloronaphthalene			
		Dimethylphthalate			
		Acenaphthylene			
		2,6-Dinitrotoluene			
		Acenaphthene			
		2,4-Dinitrophenol			
		4-Nitrophenol			
		2,4-Dinitrotoluene			
		Diethylphthalate			
		4-Chlorophenyl-phenylether			
		Fluorene			
		4,6-Dinitro-2-methylphenol			
		4-Bromophenyl-phenylether			
		Hexachlorobenzene			
		Pentachlorophenol			
		Phenanthrene			
		Anthracene			
		Di-n-butylphthalate			
		Fluoranthene			
		Pyrene			
		Butylbenzylphthalate			
		3,3'-Dichlorobenzidine			
		Benzo(a)anthracene			
		Chrysene			
		bis(2-Ethylhexyl)phthalate			
		Di-n-octylphthalate			
		Benzo(b)fluoranthene			
		Benzo(k)fluoranthene			
		Benzo(a)pyrene			
		Indeno(1,2,3-cd)pyrene			
		Dibenz(a,h)anthracene			
		Benzo(g,h,i)perylene			
		Hexachloroethane			
		Nitrobenzene-d5 (surr)			
		2-Fluorobiphenyl (surr)			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67438 (cont.)	2/12/2004	Carbon 4, Port A			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 625 (cont.)	Terphenyl-d14 (surr) Phenol-d6 (surr) 2-Fluorophenol (surr) 2,4,6-Tribromophenol (surr)			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
3M_ENVLAB	ETS-8-148.0				
EXYGEN	LCMS	PFOS PFHS PFBS PFOA PFHA			
E04-0120-67439	2/12/2004	Carbon 1, Port A			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
PACE	BOD (5-day)	Biochemical Oxygen Demand			
PACE	EPA 420.4	Phenol (AAP)			
PACE	EPA 624	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2-Chloroethyl Vinyl Ether Benzene Bromodichloromethane Bromoform Bromomethane Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane cis-1,3-Dichloropropene Dibromochloromethane Ethylbenzene Methylene chloride			

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<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67439 (cont.)	2/12/2004	Carbon 1, Port A			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 624 (cont.)	Tetrachloroethene			
		Toluene			
		trans-1,2-Dichloroethene			
		trans-1,3-Dichloropropene			
		Trichloroethene			
		Trichlorofluoromethane			
		Vinyl chloride			
		1,2-Dichloroethane-d4 (surr)			
		4-Bromofluorobenzene (surr)			
		Dibromofluoromethane (surr)			
		Toluene-d8 (surr)			
PACE	EPA 625	Phenol			
		bis(2-Chloroethyl)ether			
		2-Chlorophenol			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		1,2-Dichlorobenzene			
		bis(2-Chloroisopropyl)ether			
		N-Nitroso-di-n-propylamine			
		Nitrobenzene			
		Isophorone			
		2-Nitrophenol			
		2,4-Dimethylphenol			
		bis(2-Chloroethoxy)methane			
		2,4-Dichlorophenol			
		1,2,4-Trichlorobenzene			
		Naphthalene			
		Hexachlorobutadiene			
		4-Chloro-3-methylphenol			
		2,4,6-Trichlorophenol			
		2-Chloronaphthalene			
		Dimethylphthalate			
		Acenaphthylene			
		2,6-Dinitrotoluene			
		Acenaphthene			
		2,4-Dinitrophenol			
		4-Nitrophenol			
		2,4-Dinitrotoluene			
		Diethylphthalate			
		4-Chlorophenyl-phenylether			
		Fluorene			
		4,6-Dinitro-2-methylphenol			
		4-Bromophenyl-phenylether			
		Hexachlorobenzene			
		Pentachlorophenol			
		Phenanthrene			

3M ENVIRONMENTAL LABORATORY
Preliminary/Unauthorized Report

Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67439 (cont.)	2/12/2004	Carbon 1, Port A			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 625 (cont.)	Anthracene			
		Di-n-butylphthalate			
		Fluoranthene			
		Pyrene			
		Butylbenzylphthalate			
		3,3'-Dichlorobenzidine			
		Benzo(a)anthracene			
		Chrysene			
		bis(2-Ethylhexyl)phthalate			
		Di-n-octylphthalate			
		Benzo(b)fluoranthene			
		Benzo(k)fluoranthene			
		Benzo(a)pyrene			
		Indeno(1,2,3-cd)pyrene			
		Dibenz(a,h)anthracene			
		Benzo(g,h,i)perylene			
		Hexachloroethane			
		Nitrobenzene-d5 (surr)			
		2-Fluorobiphenyl (surr)			
		Terphenyl-d14 (surr)			
		Phenol-d6 (surr)			
		2-Fluorophenol (surr)			
		2,4,6-Tribromophenol (surr)			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
3M_ENVLAB	ETS-8-148.0	APE0			
		APE1			
		APE2			
		APE3			
		APE4			
		APE5			
		APE14			
		APE15			
		APE16			
E04-0120-67440	2/12/2004	Carbon 11, Port D			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
NSA	Mercury (EPA 1631)	Mercury			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			

3M ENVIRONMENTAL LABORATORY
Preliminary/Unauthorized Report

Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>			
E04-0120-67440 (cont.)	2/12/2004	Carbon 11, Port D			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
EXYGEN	LCMS	PFOS			
		PFHS			
		PFBS			
		PFOA			
		PFHA			
E04-0120-67441	2/12/2004	Carbon 13, Port D			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
NSA	Mercury (EPA 1631)	Mercury			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
EXYGEN	LCMS	PFOS			
		PFHS			
		PFBS			
		PFOA			
		PFHA			
E04-0120-67442	2/12/2004	Combined Effluent			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
PACE	Total Organic Carbon	Filtered Total Organic Carbon			
PACE	BOD (5-day)	Biochemical Oxygen Demand			
PACE	EPA 420.4	Phenol (AAP)			
PACE	EPA 624	1,1,1-Trichloroethane			
		1,1,2,2-Tetrachloroethane			
		1,1,2-Trichloroethane			
		1,1-Dichloroethane			
		1,1-Dichloroethene			
		1,2-Dichlorobenzene			
		1,2-Dichloroethane			
		1,2-Dichloropropane			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		2-Chloroethyl Vinyl Ether			
		Benzene			
		Bromodichloromethane			
		Bromoform			
		Bromomethane			

3M ENVIRONMENTAL LABORATORY
Preliminary/Unauthorized Report

Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67442 (cont.)	2/12/2004	Combined Effluent			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 624 (cont.)	Carbon tetrachloride			
		Chlorobenzene			
		Chloroethane			
		Chloroform			
		Chloromethane			
		cis-1,3-Dichloropropene			
		Dibromochloromethane			
		Ethylbenzene			
		Methylene chloride			
		Tetrachloroethene			
		Toluene			
		trans-1,2-Dichloroethene			
		trans-1,3-Dichloropropene			
		Trichloroethene			
		Trichlorofluoromethane			
		Vinyl chloride			
		1,2-Dichloroethane-d4 (surr)			
		4-Bromofluorobenzene (surr)			
		Dibromofluoromethane (surr)			
		Toluene-d8 (surr)			
PACE	EPA 625	Phenol			
		bis(2-Chloroethyl)ether			
		2-Chlorophenol			
		1,3-Dichlorobenzene			
		1,4-Dichlorobenzene			
		1,2-Dichlorobenzene			
		bis(2-Chloroisopropyl)ether			
		N-Nitroso-di-n-propylamine			
		Nitrobenzene			
		Isophorone			
		2-Nitrophenol			
		2,4-Dimethylphenol			
		bis(2-Chloroethoxy)methane			
		2,4-Dichlorophenol			
		1,2,4-Trichlorobenzene			
		Naphthalene			
		Hexachlorobutadiene			
		4-Chloro-3-methylphenol			
		2,4,6-Trichlorophenol			
		2-Chloronaphthalene			
		Dimethylphthalate			
		Acenaphthylene			
		2,6-Dinitrotoluene			
		Acenaphthene			
		2,4-Dinitrophenol			
		4-Nitrophenol			

3M ENVIRONMENTAL LABORATORY
Preliminary/Unauthorized Report

Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
E04-0120-67442 (cont.)	2/12/2004	Combined Effluent			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>			
PACE	EPA 625 (cont.)	2,4-Dinitrotoluene			
		Diethylphthalate			
		4-Chlorophenyl-phenylether			
		Fluorene			
		4,6-Dinitro-2-methylphenol			
		4-Bromophenyl-phenylether			
		Hexachlorobenzene			
		Pentachlorophenol			
		Phenanthrene			
		Anthracene			
		Di-n-butylphthalate			
		Fluoranthene			
		Pyrene			
		Butylbenzylphthalate			
		3,3'-Dichlorobenzidine			
		Benzo(a)anthracene			
		Chrysene			
		bis(2-Ethylhexyl)phthalate			
		Di-n-octylphthalate			
		Benzo(b)fluoranthene			
		Benzo(k)fluoranthene			
		Benzo(a)pyrene			
		Indeno(1,2,3-cd)pyrene			
		Dibenz(a,h)anthracene			
		Benzo(g,h,i)perylene			
		Hexachloroethane			
		Nitrobenzene-d5 (surr)			
		2-Fluorobiphenyl (surr)			
		Terphenyl-d14 (surr)			
		Phenol-d6 (surr)			
		2-Fluorophenol (surr)			
		2,4,6-Tribromophenol (surr)			
ERA	Fish Acute Test - 96	Fish Acute Test - 96 hour			
ERA	Total Res Chlorine	Total Residual Chlorine			
ERA	Ammonia Nitrogen	Ammonia (as NH3)			
ERA	pH	pH			
ERA	Conductivity	Conductivity			
ERA	Dissolved Oxygen	Dissolved Oxygen (Field)			
ERA	Temperature	Temperature			
3M_ENVLAB	ETS-8-148.0	APE0			
		APE1			
		APE2			
		APE3			
		APE4			
		APE5			
		APE14			

**3M ENVIRONMENTAL LABORATORY
Preliminary/Unauthorized Report**

Project: E04-0120 (cont.)

<u>3M Sample Number</u>	<u>Sampled Date</u>	<u>Sample Description</u>			
E04-0120-67442 (cont.)	2/12/2004	Combined Effluent			
<u>LAB</u>	<u>Analytical Method</u>	<u>Components</u>	<u>Result</u>	<u>RL</u>	<u>Qualifier</u>
3M_ENVLAB	ETS-8-148.0 (cont.)	APE15			
		APE16			
EXYGEN	LCMS	PFOS			
		PFHS			
		PFBS			
		PFOA			
		PFHA			

Sample "Condition Upon Receipt" Form

Protocol # NA

Oxygen Study # X 0001874

Date & Time Received 2/13/2004 1145

Condition of Samples wet Ice Active

Temporary Storage Location Bldg 1 Room 8 with Ice Cooler 3

Initials & Date sen 2/13/2004

Waybill # 7025 7072 8697 Fed X

Comments: *waiting for study Number sen 2/13/2004

May 24, 2002/3

Q: WORD process-login-SampleConditiononReceipt.doc

X
3058 Research Drive
State College, PA 16801, USA
T: 800.281.3219
F: 814.272.1019

From: TINA TMC GALLOWAY (651)768-1206
3M COMPANY CORP INCINERATOR
10746 INNOVATION ROAD BUILDING 47
COTTAGE GROVE, MN, 55016



To: John Flaherty (800)281-3219
Exygen Research
3058 Research Drive
State College, PA, 16801

SHIP DATE: 12FEB04
WEIGHT: 55 LBS

Ref:



DELIVERY ADDRESS BARCODE (FEDEX-EDI)

TRK # 7925 7072 8697 6901

FedEx PRIORITY OVERNIGHT

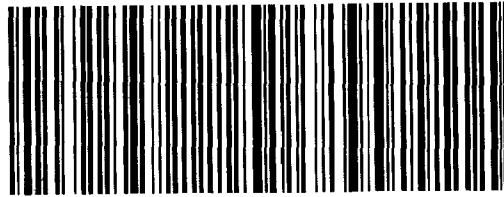
PIT

16801-PA-US

NU SCEA

FRI
AA

Deliver by:
13FEB04



SECTION D

DATA SET: 021904D

REJECTED RUN REASON	
<input type="checkbox"/>	Poor Chromatography
<input type="checkbox"/>	Drifting Baseline
<input type="checkbox"/>	Drifting Retention Time
<input checked="" type="checkbox"/>	Unstable Response
<input type="checkbox"/>	Power Interruption
<input type="checkbox"/>	Unacceptable Recoveries
<input type="checkbox"/>	Apparent Contamination
<input type="checkbox"/>	Other: _____

ACTION TAKEN	
<input checked="" type="checkbox"/>	Re-Inject
<input type="checkbox"/>	No-Retract

Initials: kg
Date: 01/31/02/04
kg 03/02/04

NOTE: DILUTION FACTORS IN THE RE-INJECTED SET ARE BASED ON DATA OBTAINED IN THIS SET.
kg 03/02/04

FOR RE-INJECTION SEE
DATA SET: 021804AR.

74
 Oxygen Study No.: L1890
 @ 02/19/04

Project: D:\Analyst Data\Projects\Fluorochems\2003_04_29 Batch 021904-06 ACSFM Tab: Sample Set: SET Acq Method: NPDES.dam
 Sample 021904D ACSEM @ 02/19/04

Sample	Sample Name	Sample No.	Sample Vol.	Data File	Concentration
1	XC021004-0, 0 ng/L	021904-401	21	021904D\L1874	XC021004-0, 0 ng/L
2	XC021004-1, 25 ng/L	021904-402	22	021904D\L1874	XC021004-1, 25 ng/L
3	XC021004-2, 50 ng/L	021904-403	23	021904D\L1874	XC021004-2, 50 ng/L
4	XC021004-3, 100 ng/L	021904-404	24	021904D\L1874	XC021004-3, 100 ng/L
5	XC021004-4, 250 ng/L	021904-405	25	021904D\L1874	XC021004-4, 250 ng/L
6	XC021004-5, 500 ng/L	021904-406	26	021904D\L1874	XC021004-5, 500 ng/L
7	XC021004-6, 1000 ng/L	021904-407	27	021904D\L1874	XC021004-6, 1000 ng/L
8	Methanol Wash	021904-408	92	021904D\L1874	Methanol Wash
9	0106020 Control	021904-409	31	021904D\L1874	0106020 Control
10	0106020 Spk A, 50 ng/L	021904-410	32	021904D\L1874	0106020 Spk A, 50 ng/L
11	0106020 Spk B, 500 ng/L	021904-411	33	021904D\L1874	0106020 Spk B, 500 ng/L
12	L1874-1 Spk C, 10000 ng/L DF = 100	021904-412	34	021904D\L1874	L1874-1 Spk C, 10000 ng/L DF = 100
13	L1874-5 Spk D, 10000 ng/L DF = 100	021904-413	35	021904D\L1874	L1874-5 Spk D, 10000 ng/L DF = 100
14	L1874-9 Spk E, 10000 ng/L DF = 100	021904-414	36	021904D\L1874	L1874-9 Spk E, 10000 ng/L DF = 100
15	L1874-13 Spk F, 10000 ng/L DF = 100	021904-415	37	021904D\L1874	L1874-13 Spk F, 10000 ng/L DF = 100
16	L1874-17 Spk G, 10000 ng/L DF = 100	021904-416	38	021904D\L1874	L1874-17 Spk G, 10000 ng/L DF = 100
17	XC021004-1, 25 ng/L	021904-417	22	021904D\L1874	XC021004-1, 25 ng/L
18	L1874-1	021904-418	39	021904D\L1874	L1874-1
19	L1874-1 Rep	021904-419	40	021904D\L1874	L1874-1 Rep
20	L1874-2	021904-420	41	021904D\L1874	L1874-2
21	L1874-3 DF = 100	021904-421	42	021904D\L1874	L1874-3 DF = 100
22	L1874-4 DF = 1000	021904-422	43	021904D\L1874	L1874-4 DF = 1000
23	XC021004-2, 50 ng/L	021904-423	23	021904D\L1874	XC021004-2, 50 ng/L
24	L1874-5	021904-424	44	021904D\L1874	L1874-5
25	L1874-5 Rep	021904-425	45	021904D\L1874	L1874-5 Rep
26	L1874-6	021904-426	46	021904D\L1874	L1874-6
27	L1874-7 DF = 100	021904-427	47	021904D\L1874	L1874-7 DF = 100
28	L1874-8 DF = 1000	021904-428	48	021904D\L1874	L1874-8 DF = 1000
29	XC021004-3, 100 ng/L	021904-429	24	021904D\L1874	XC021004-3, 100 ng/L
30	L1874-9	021904-430	49	021904D\L1874	L1874-9
31	L1874-9 Rep	021904-431	50	021904D\L1874	L1874-9 Rep
32	L1874-10	021904-432	51	021904D\L1874	L1874-10
33	L1874-11 DF = 100	021904-433	52	021904D\L1874	L1874-11 DF = 100
34	L1874-12 DF = 1000	021904-434	53	021904D\L1874	L1874-12 DF = 1000
35	XC021004-3, 100 ng/L	021904-435	24	021904D\L1874	XC021004-3, 100 ng/L
36	L1874-13	021904-436	54	021904D\L1874	L1874-13
37	L1874-13 Rep	021904-437	55	021904D\L1874	L1874-13 Rep
38	L1874-14	021904-438	56	021904D\L1874	L1874-14
39	L1874-15 DF = 100	021904-439	57	021904D\L1874	L1874-15 DF = 100
40	L1874-16 DF = 1000	021904-440	58	021904D\L1874	L1874-16 DF = 1000
41	XC021004-3, 250 ng/L	021904-441	25	021904D\L1874	XC021004-3, 250 ng/L

RF 02/19/04

Project: D:\Analyst Data\Projects\Fluorochems\2003_04_29 Batch: 021904A CG ACSFM Tab: Sample Set: SET AcqMethod: NPDES.dam
Sample 021904D 106PM @ 02/19/04

Sample Name	Sample No.	Scan	Data File	Sample Name
L1874-17	021904-442	59	021904D\L1874	L1874-17
L1874-17 Rep	021904-443	60	021904D\L1874	L1874-17 Rep
L1874-18	021904-444	61	021904D\L1874	L1874-18
L1874-19 DF = 100	021904-445	62	021904D\L1874	L1874-19 DF = 100
L1874-20 DF = 1000	021904-446	63	021904D\L1874	L1874-20 DF = 1000
XC021004-3, 500 ng/L	021904-447	25	021904D\L1874	XC021004-3, 500 ng/L
Methanol Wash	021904-448	92	021904D\L1874	Methanol Wash
L1874-21	021904-449	64	021904D\L1874	L1874-21
L1874-22 DF = 100	021904-450	65	021904D\L1874	L1874-22 DF = 100
L1874-23 DF = 1000	021904-451	66	021904D\L1874	L1874-23 DF = 1000
XC021004-6, 1000 ng/L	021904-452	27	021904D\L1874	XC021004-6, 1000 ng/L



3058 Research Drive
State College, PA 16801

Phone: 814-272-1039
Fax: 814-231-1580

PREPARATION OF EXTRACTED CALIBRATION STANDARDS

Protocol No.: None
Method No.: \$\$

Exygen Study No.: NA
Analytes: C4, C5, C6, C7 and C8 Acids;
C4, C6 & C8 Sulfonates

Matrix: Type I Water^
Sample Vol: 40 mL

Sponsor Sample ID	Exygen Sample ID	Sample Description	Fort. Solution ID	Fort. Soln. Conc. (ng/mL)	Fort. Volume (µL)	Micropipet used (µL)	Fort. Level (ppt)	Final Solution ID # **	Reagents/ Materials	Lot #
NA	0106020	Type I Water^	-	-	-	-	-	XC021004-0	Methanol	43308345
NA	0106020	Type I Water^	F012004-10	10	100	200	25	XC021004-1	C18 SPE	W331081
NA	0106020	Type I Water^	F012004-10	10	200	200	50	XC021004-2	Type I Water	NA
NA	0106020	Type I Water^	F012004-10	10	400	200	100	XC021004-3	-	-
NA	0106020	Type I Water^	F012004-9	100	100	200	250	XC021004-4	-	-
NA	0106020	Type I Water^	F012004-9	100	200	200	500	XC021004-5	-	-
NA	0106020	Type I Water^	F012004-9	100	400	200	1000	XC021004-6	-	-
-	-	-	-	-	-	-	-	-	-	EH
-	-	-	-	-	-	-	-	-	-	2/16/04

Vertical arrows in a column indicate identical values.

**This must be a unique number. Use this system: Extracted Calibration Soln ID #: XCMMDDYY-0,1,2,3, etc.

Samples removed from refrigerator / freezer # 32 Time: 1050
40 mL of each sample measured using a 50 mL graduated cylinder.
After measuring, samples returned to refrigerator / freezer # 32 Time: 1610
Samples fortified: Initials/Date: BE / 02/10/04
SPE clean-up (omitting 40% Wash): Initials/Date: BE / 02/10/04
Final volume adjusted to 5 mL: Initials/Date: BE / 02/10/04
Extracts placed in refrigerator # 32 Initials/Date: BE / 02/10/04

Initials/Date: EH / 2/14/04
Initials/Date: EH / 2/16/04
Initials/Date: BE / 02/10/04

THIS IS AN EXACT COPY OF THE ORIGINAL DOCUMENT.
BY BE DATE 02/16/04

STANDARD EXPIRATION DATE: 2/24/04

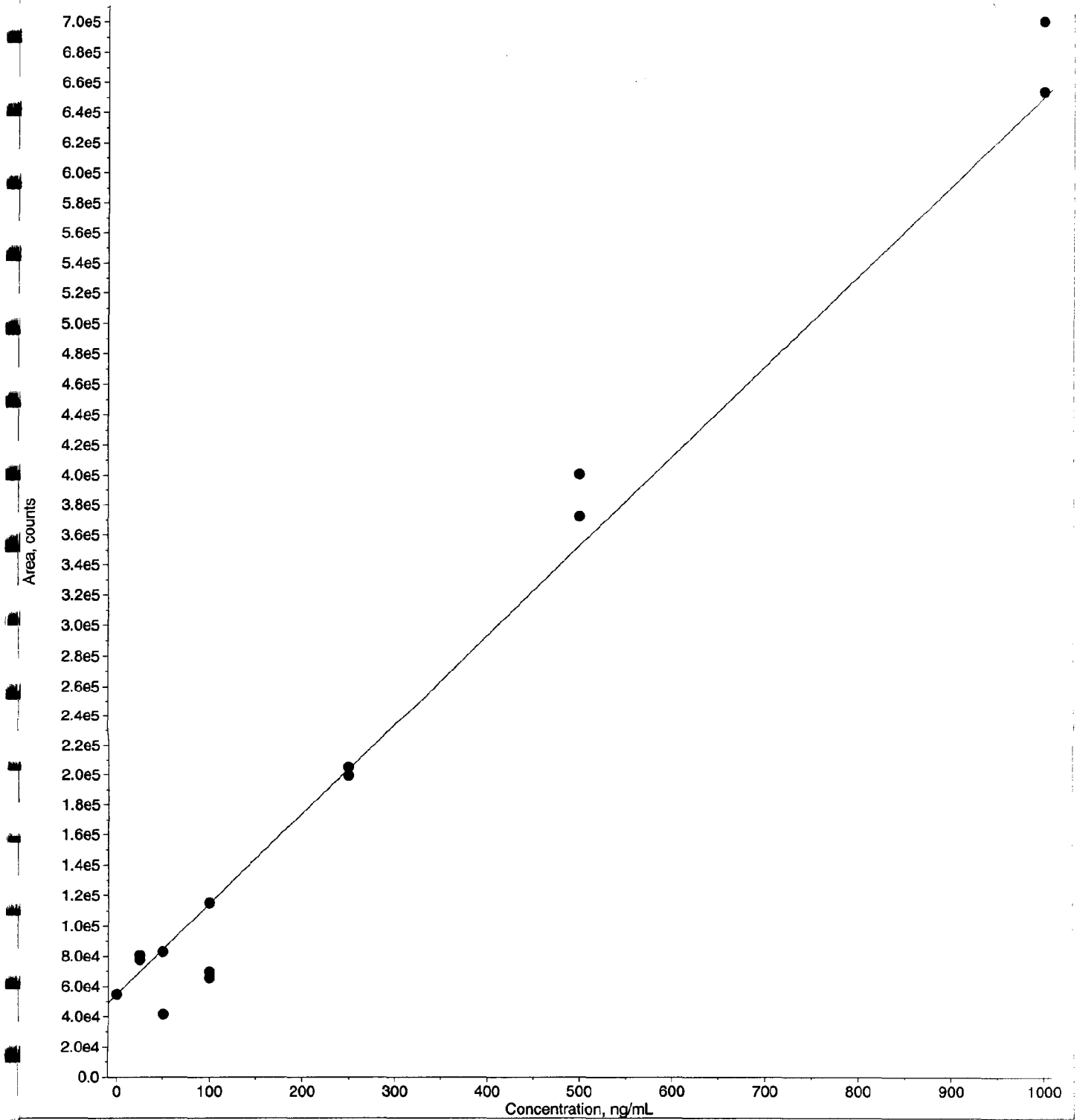
Comments:

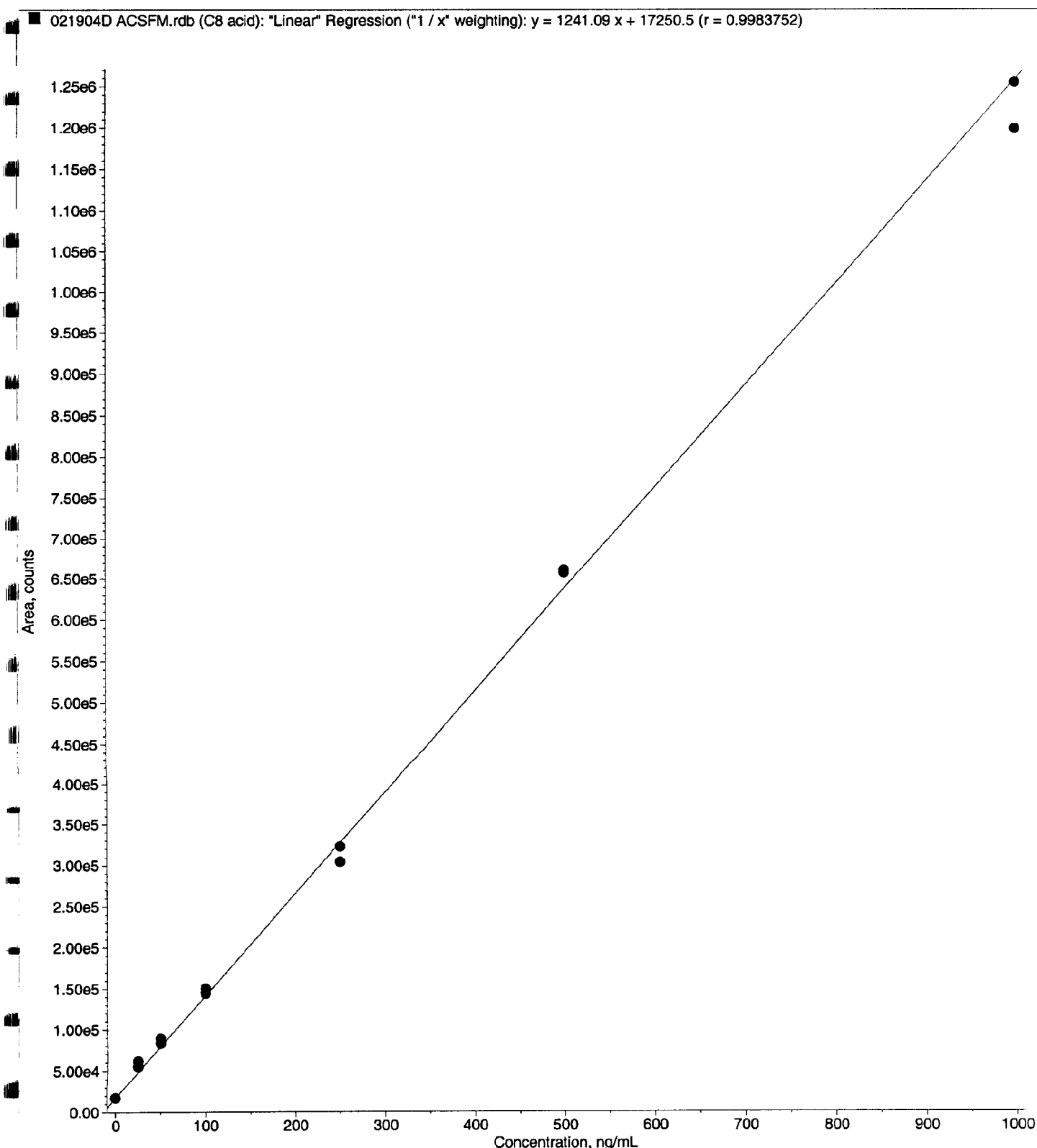
^This type I water has been filtered through a hypercarb filter

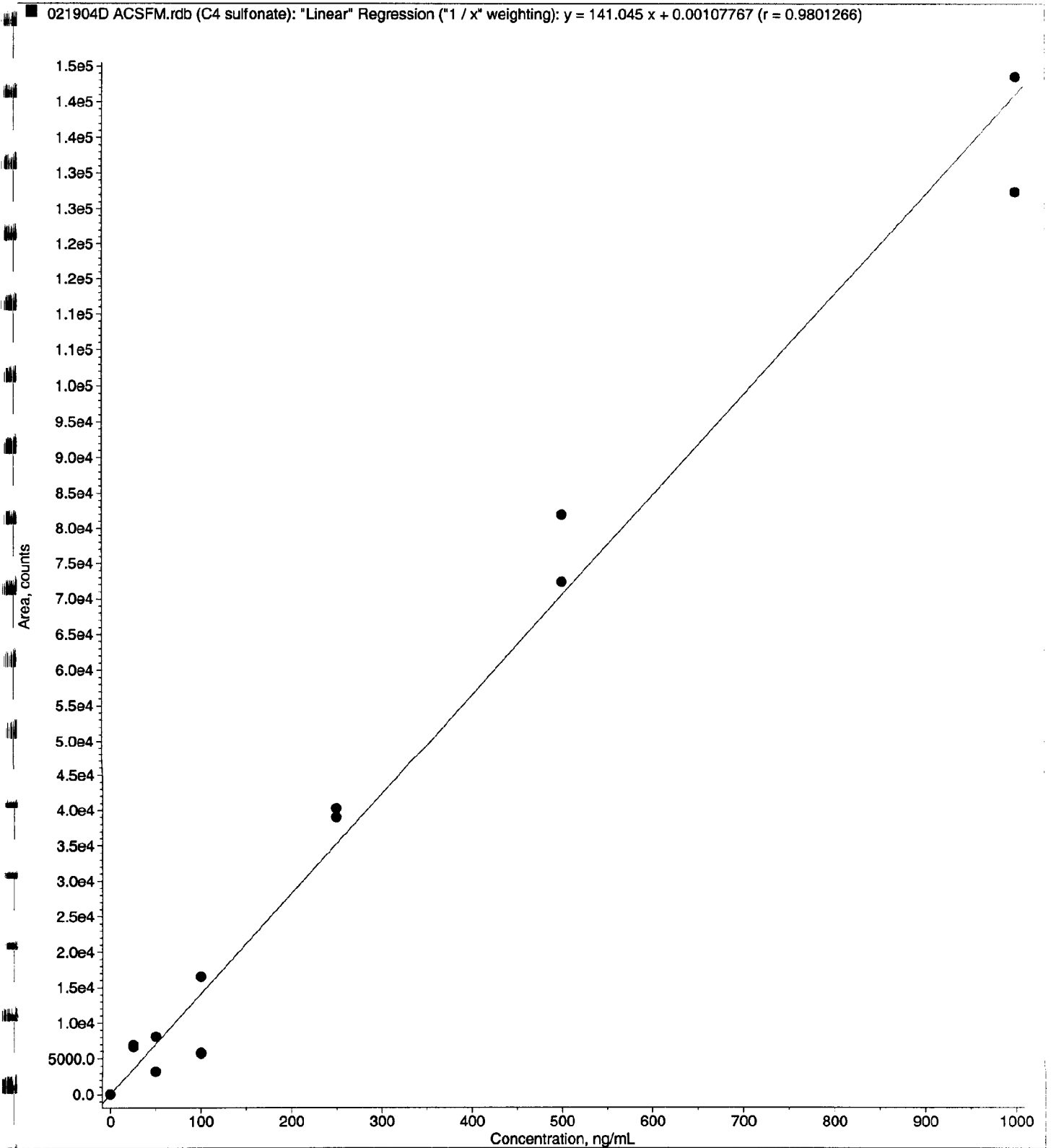
\$\$ Method of Analysis for the Determination of Perfluorooctane sulfonate (PFOS), Perfluorooctane sulfonamide (PFOSA), and Perfluorooctanoate (POAA) in Water

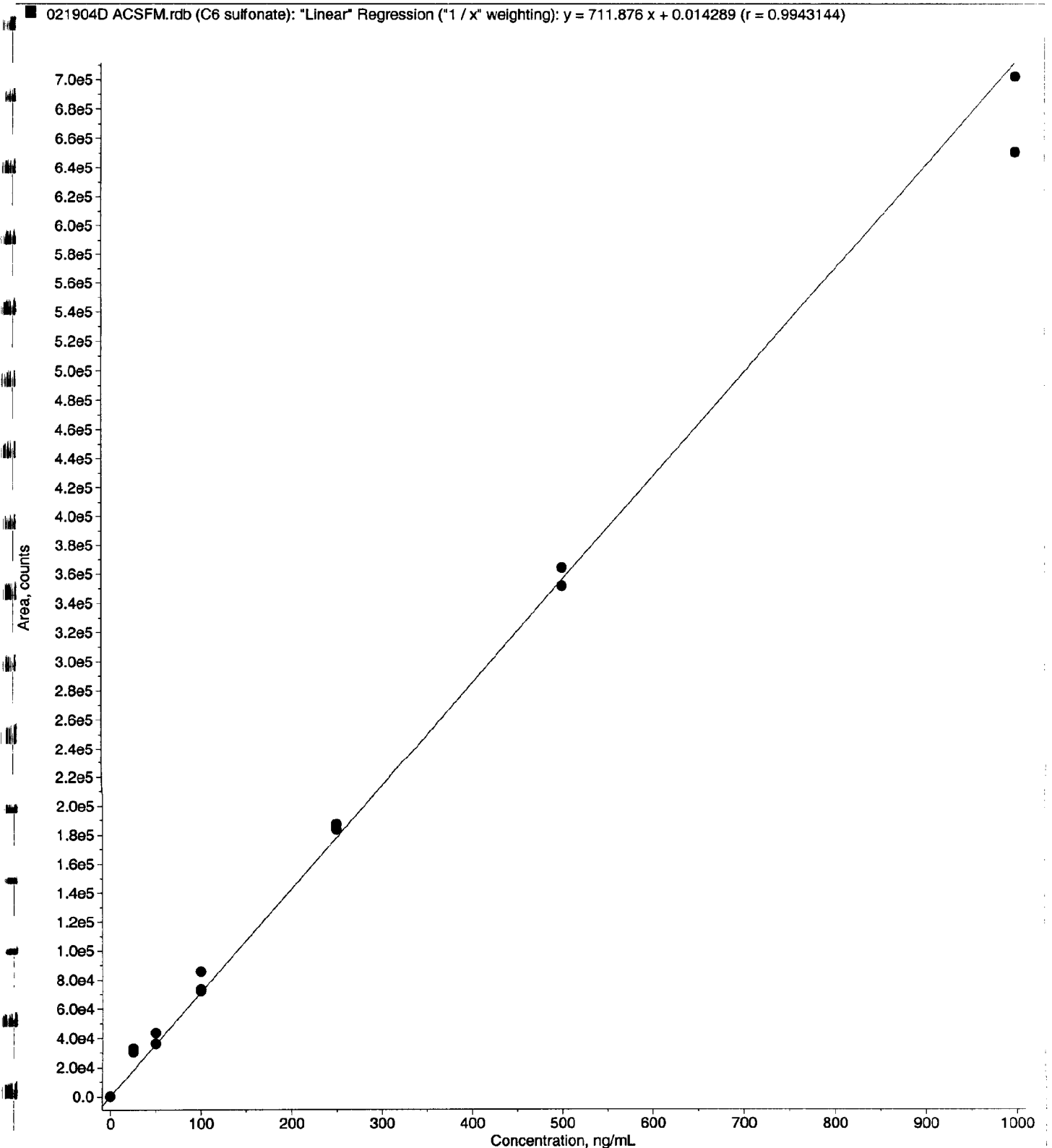
July 10, 2001/0

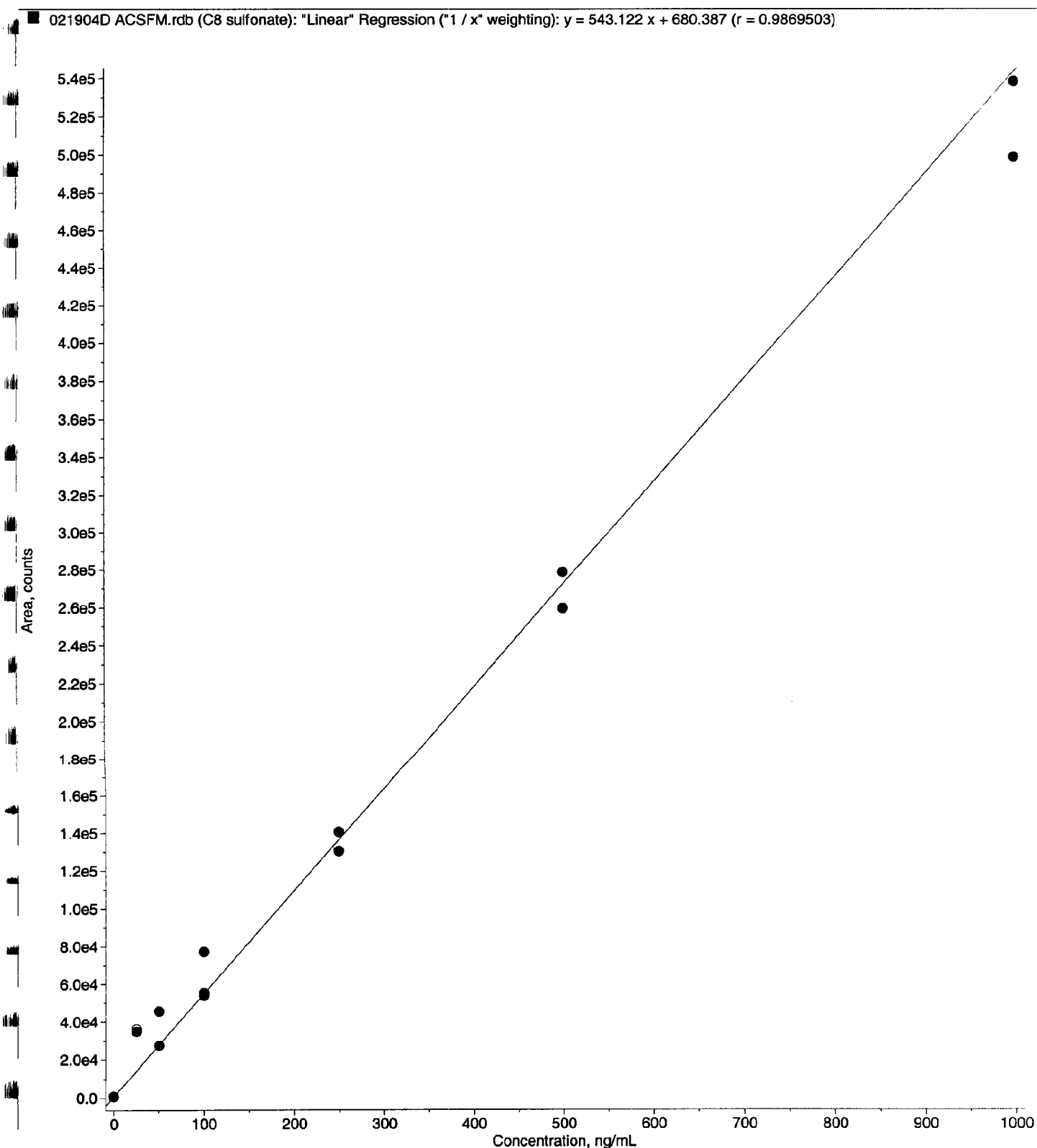
021904D ACSFM.rdb (C6 acid): "Linear" Regression ("1 / x" weighting): $y = 597.073 x + 54743.5$ ($r = 0.9674530$)

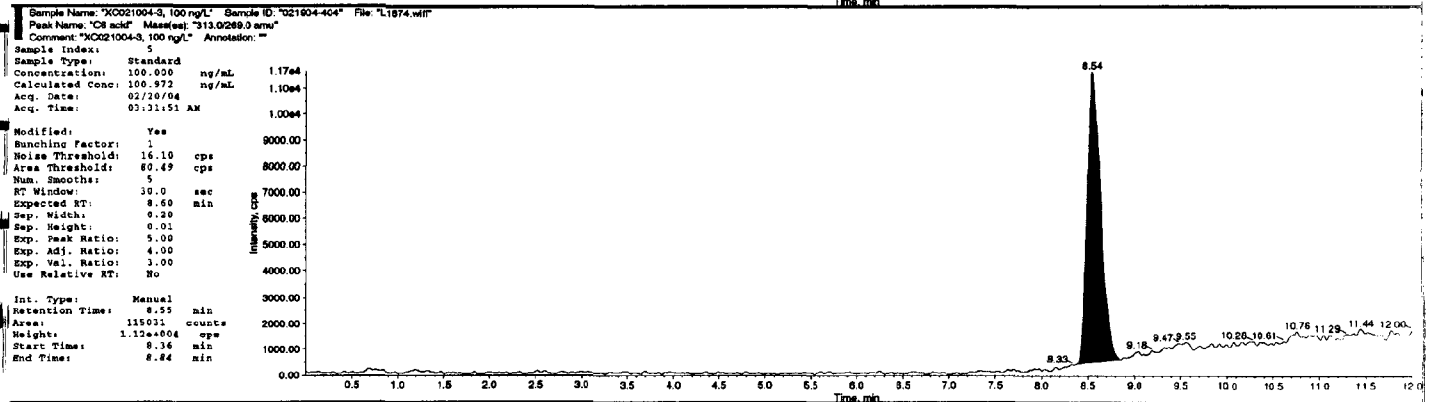
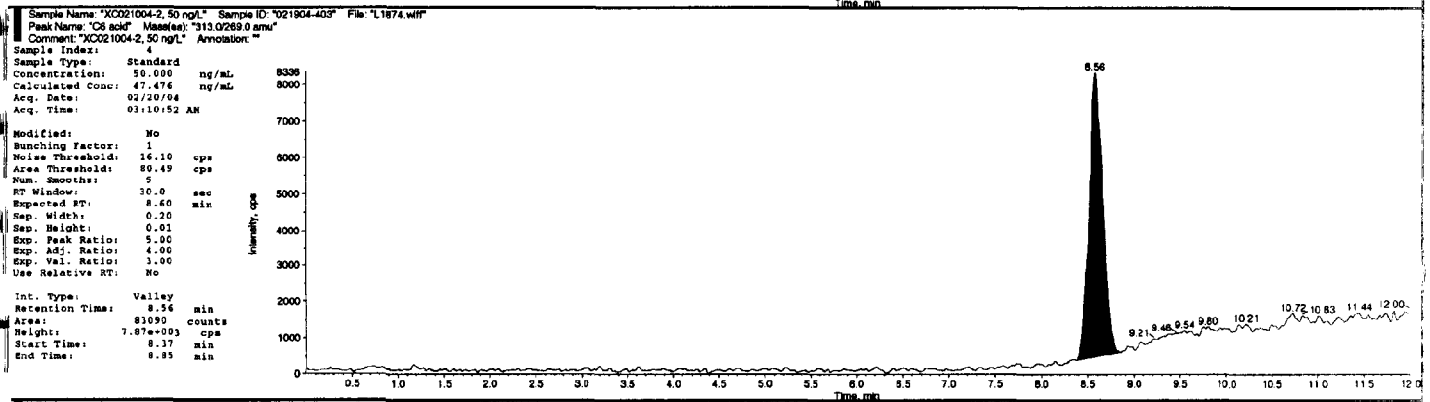
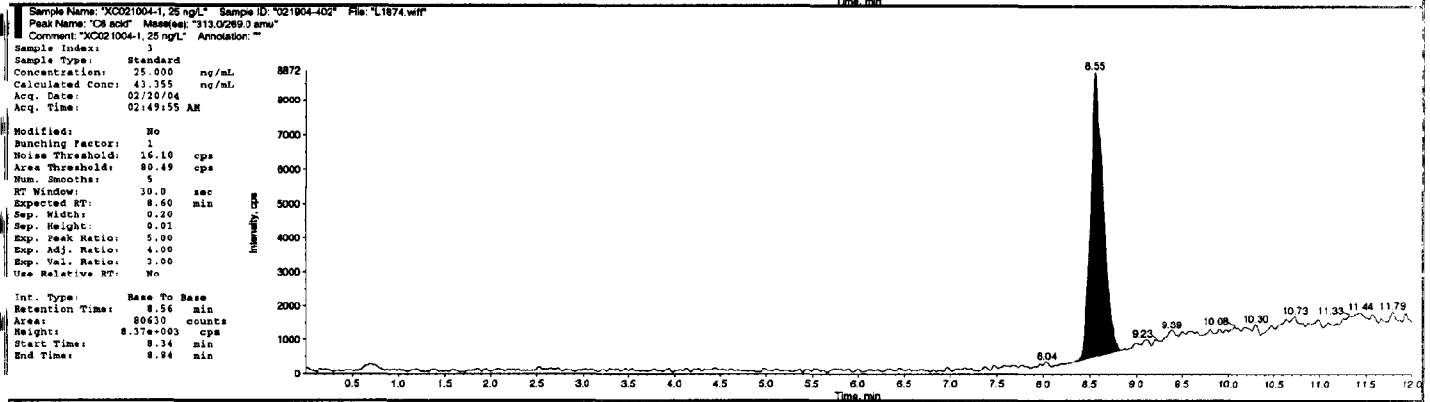
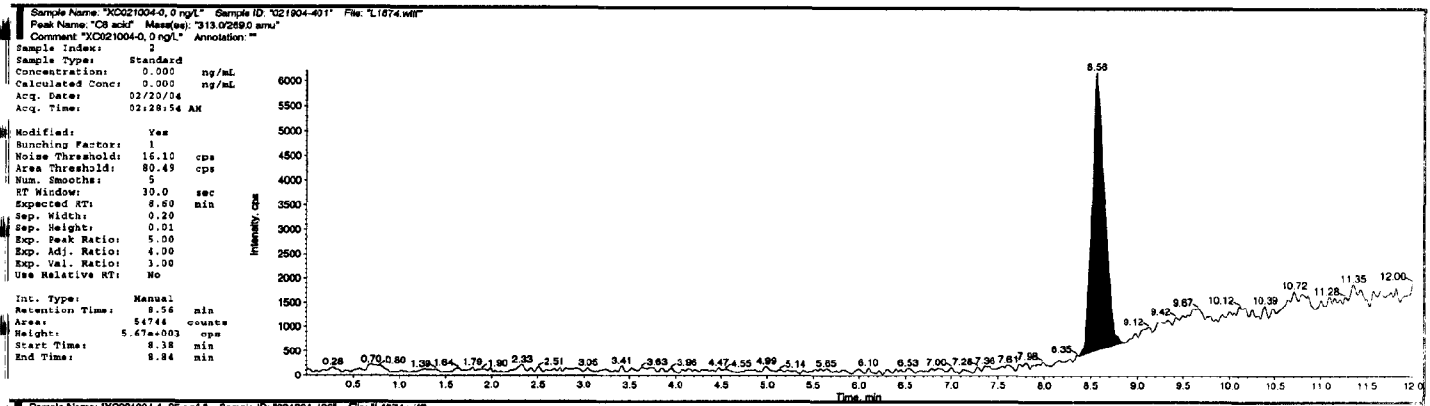


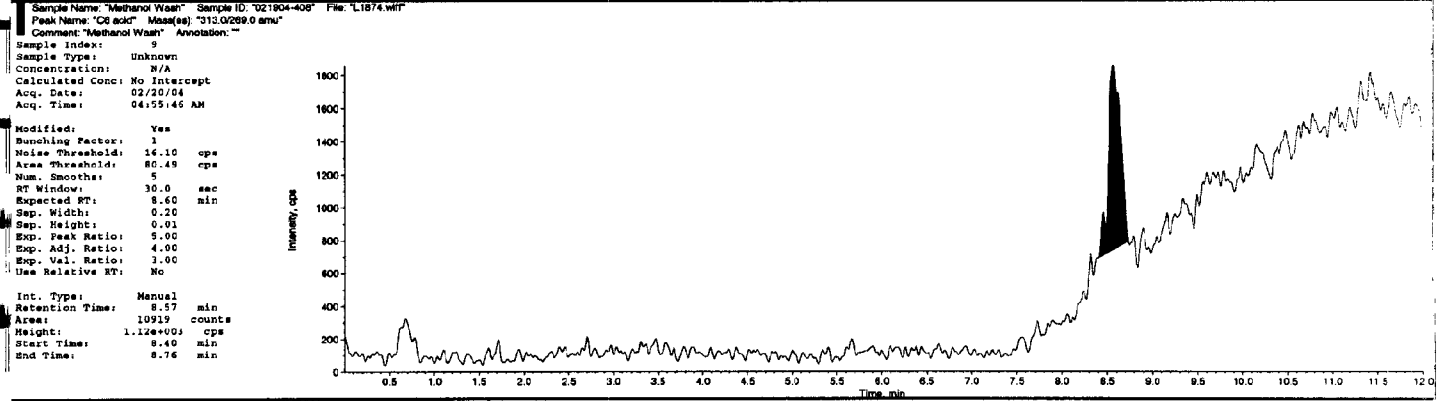
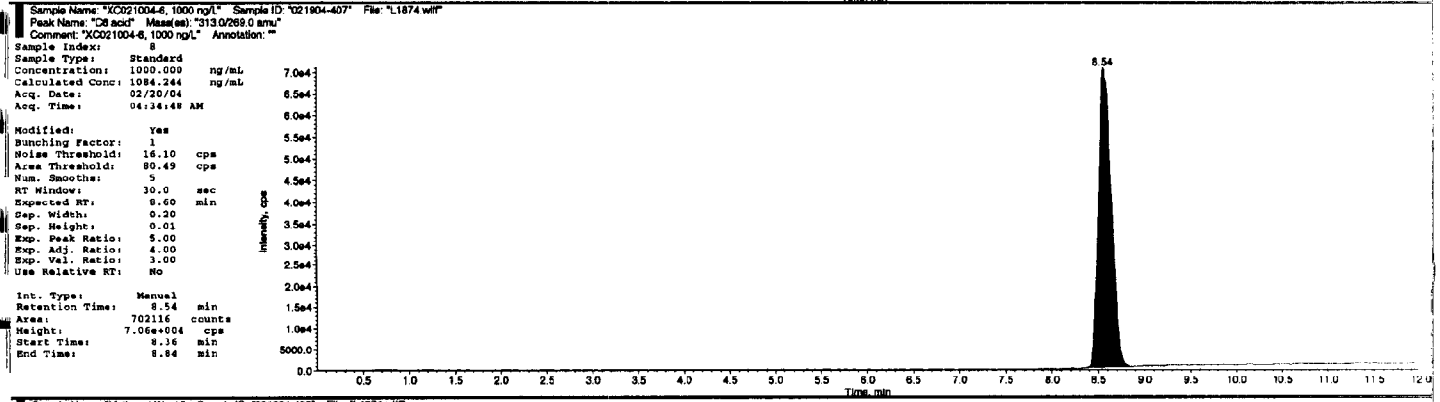
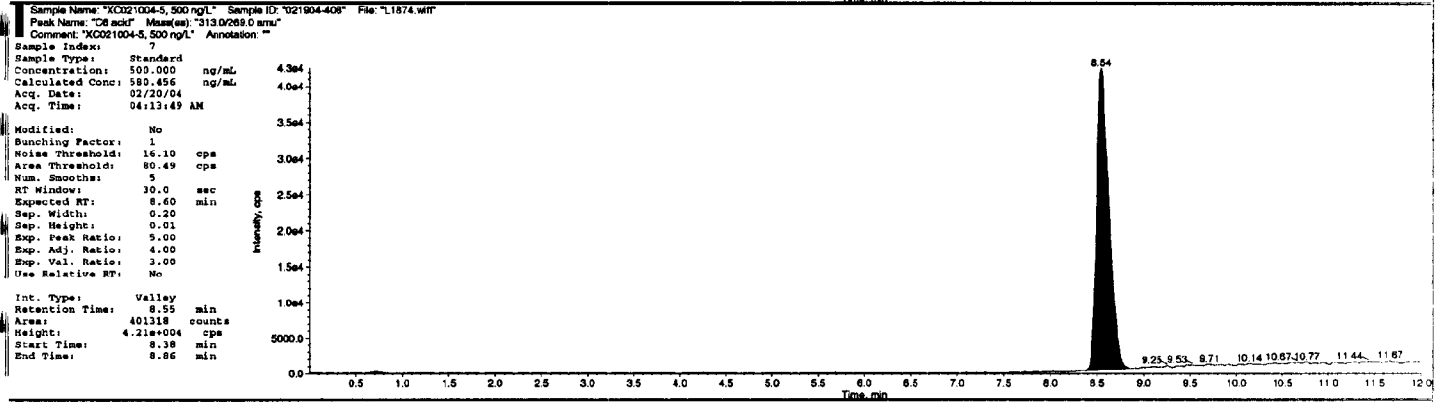
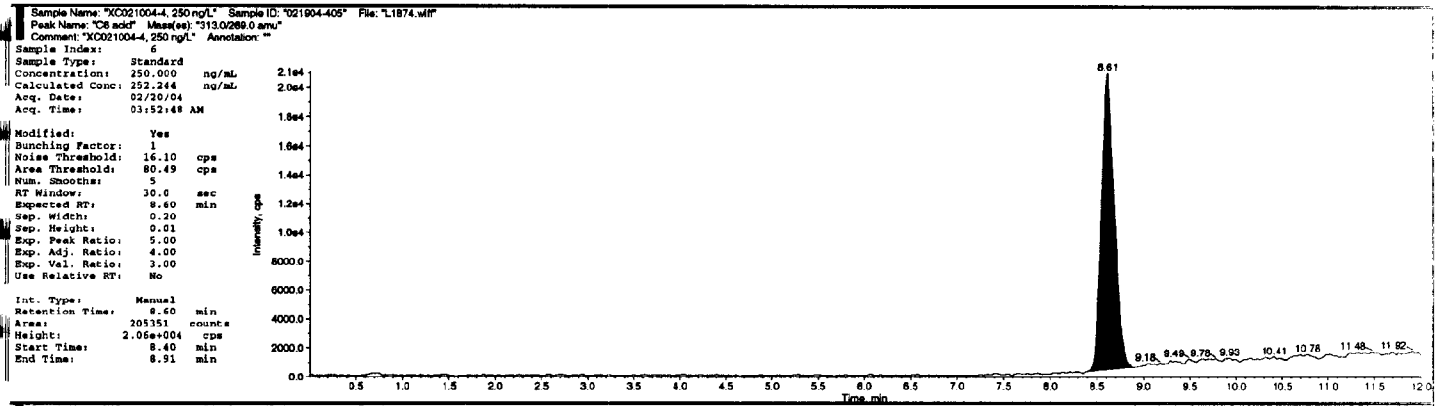


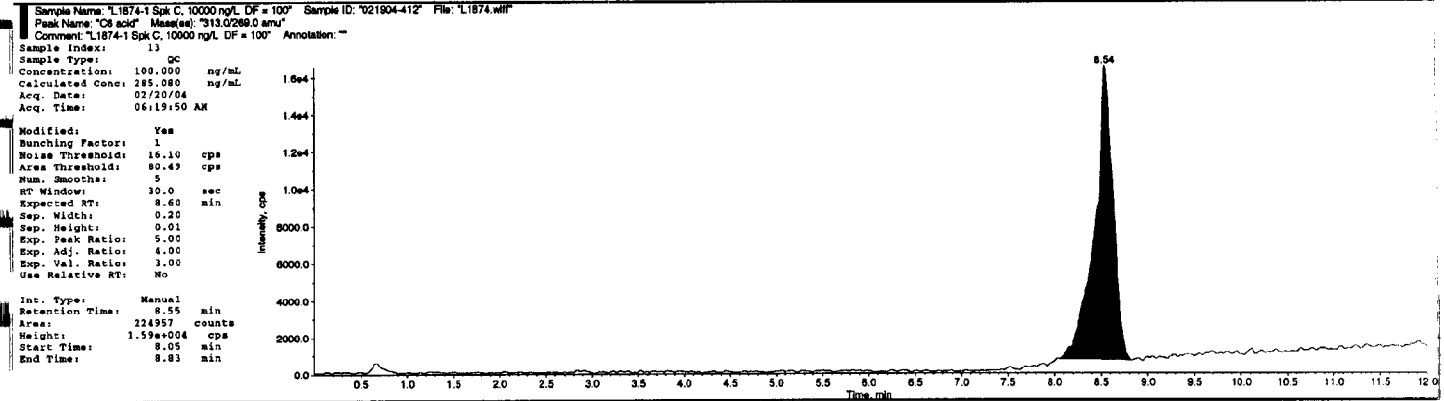
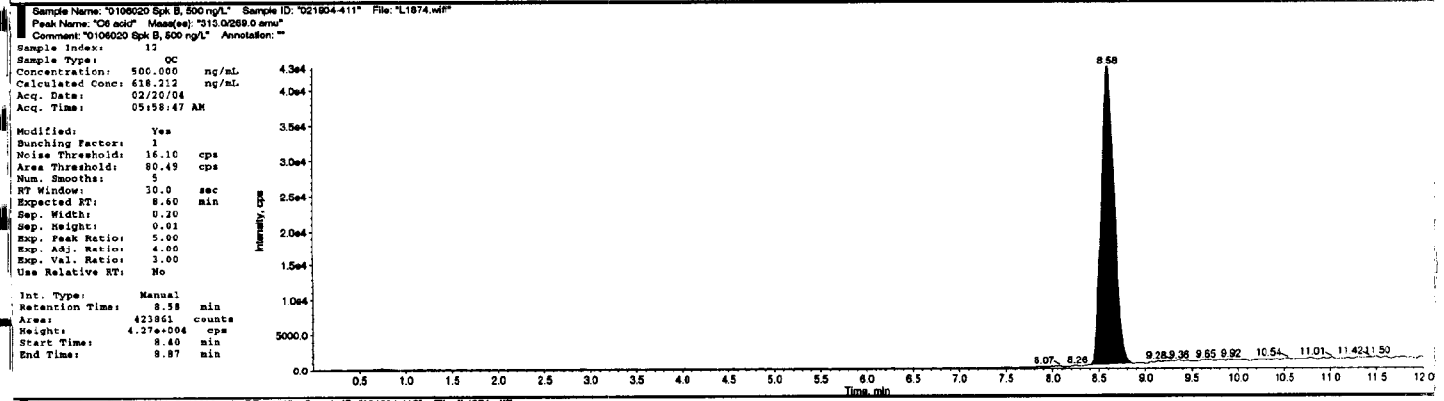
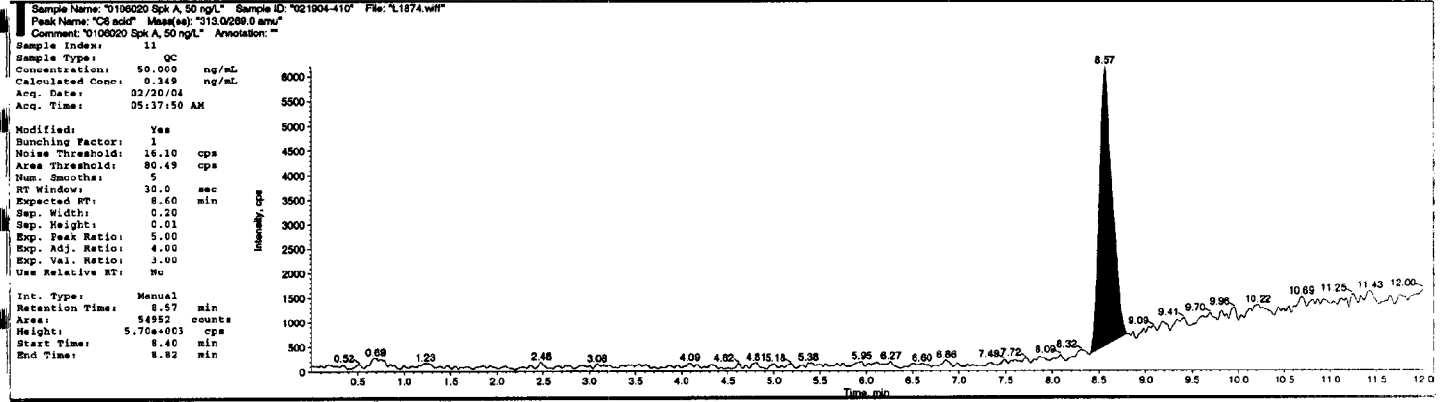
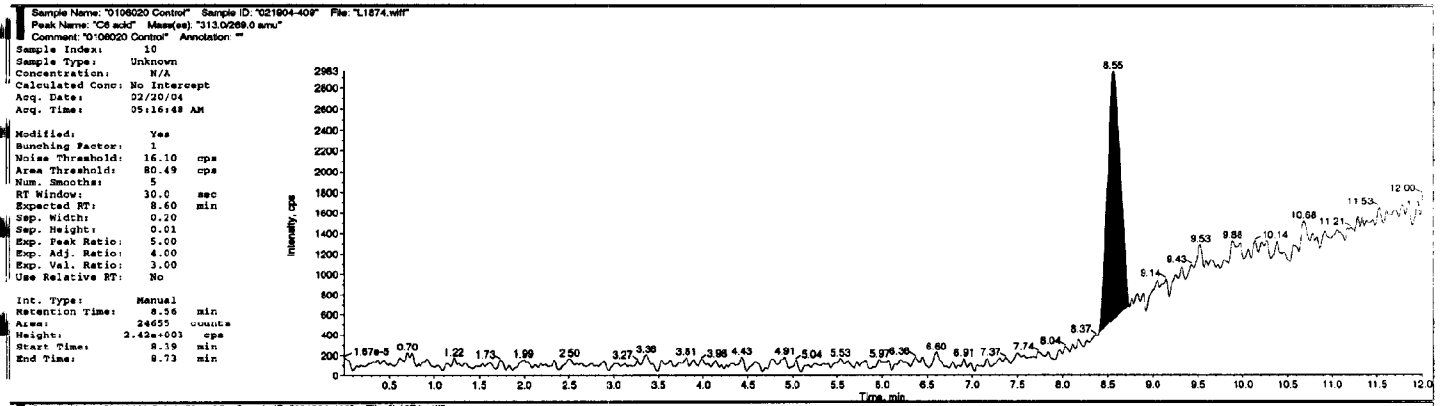


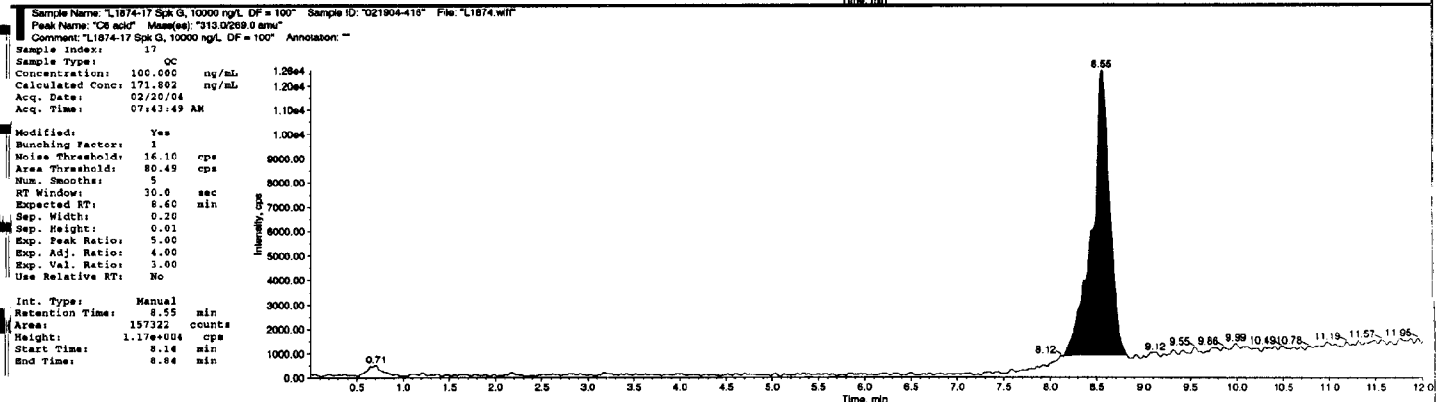
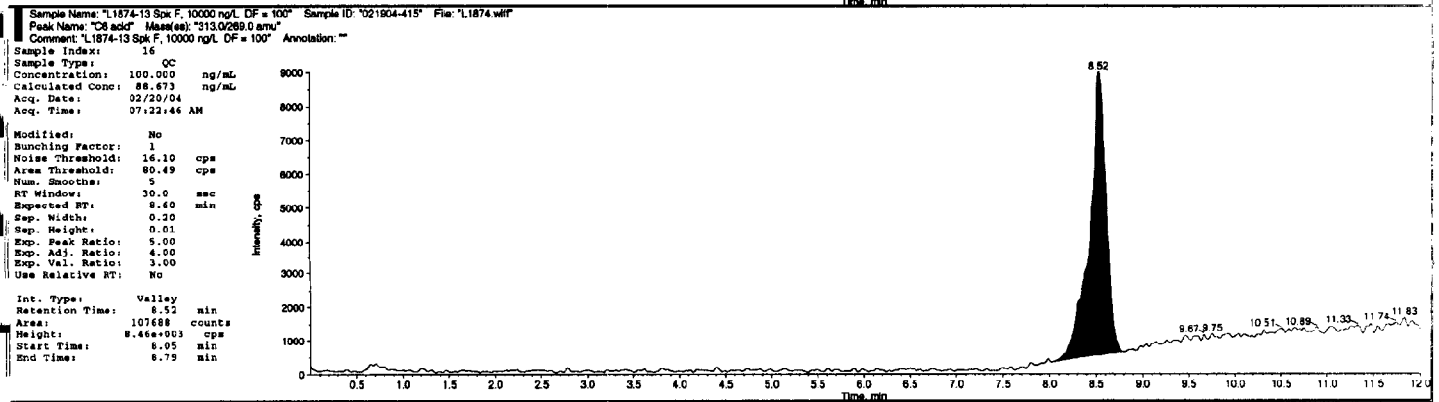
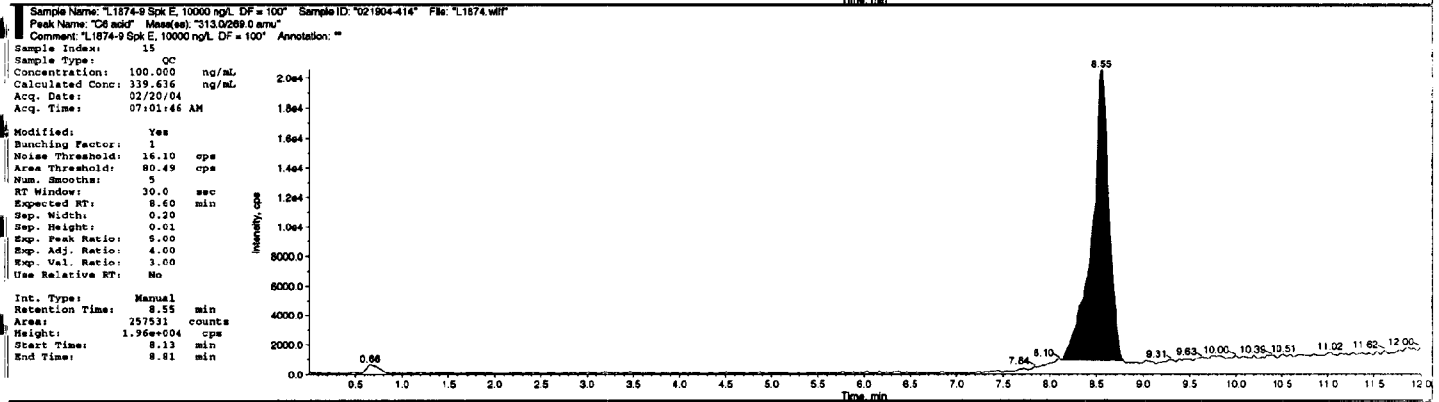
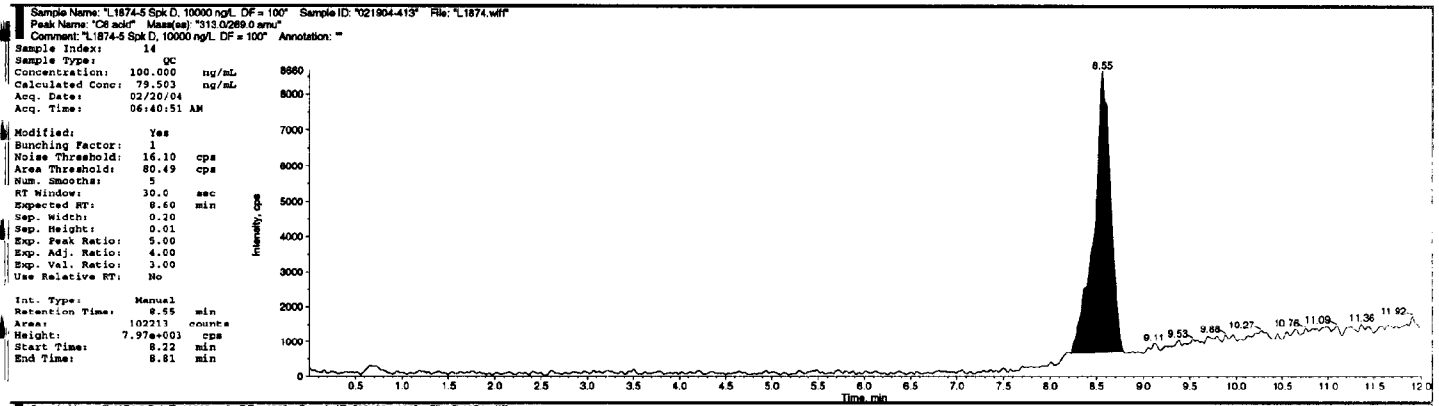


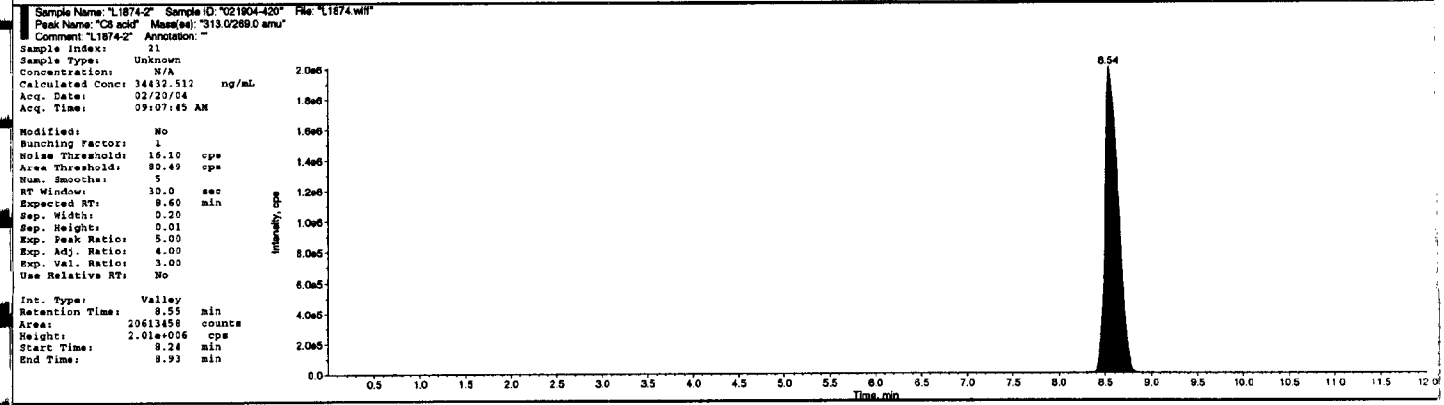
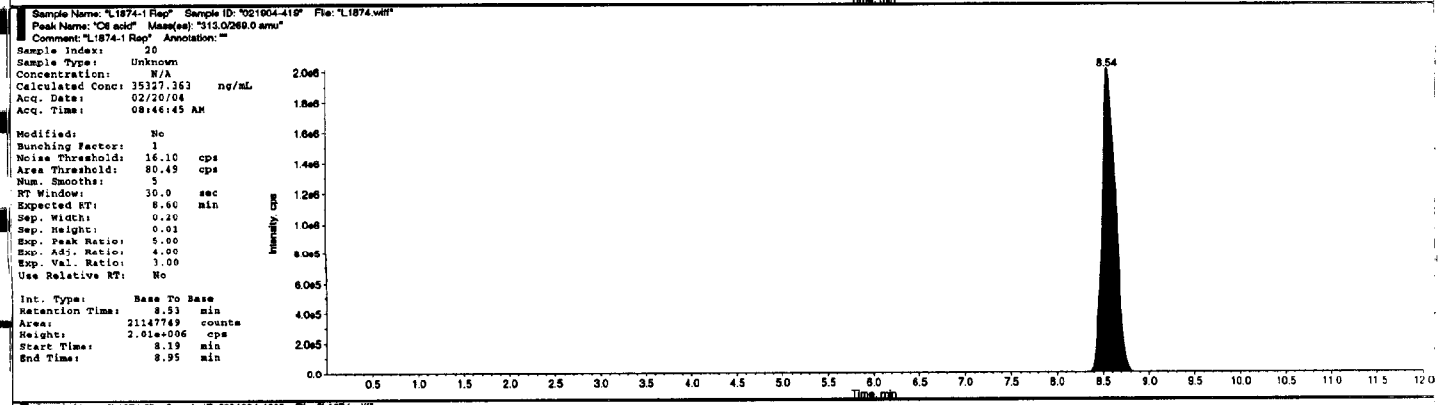
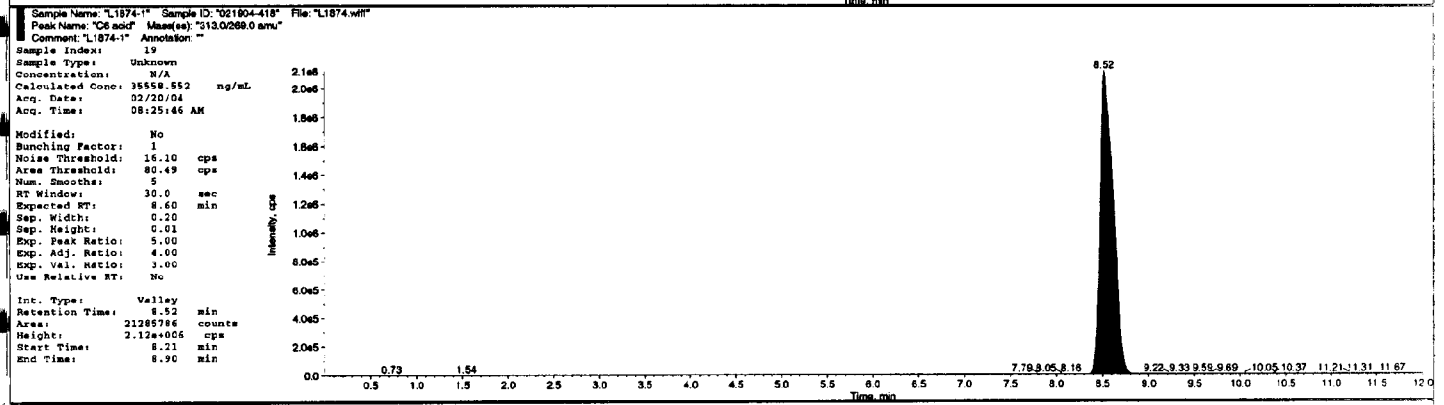
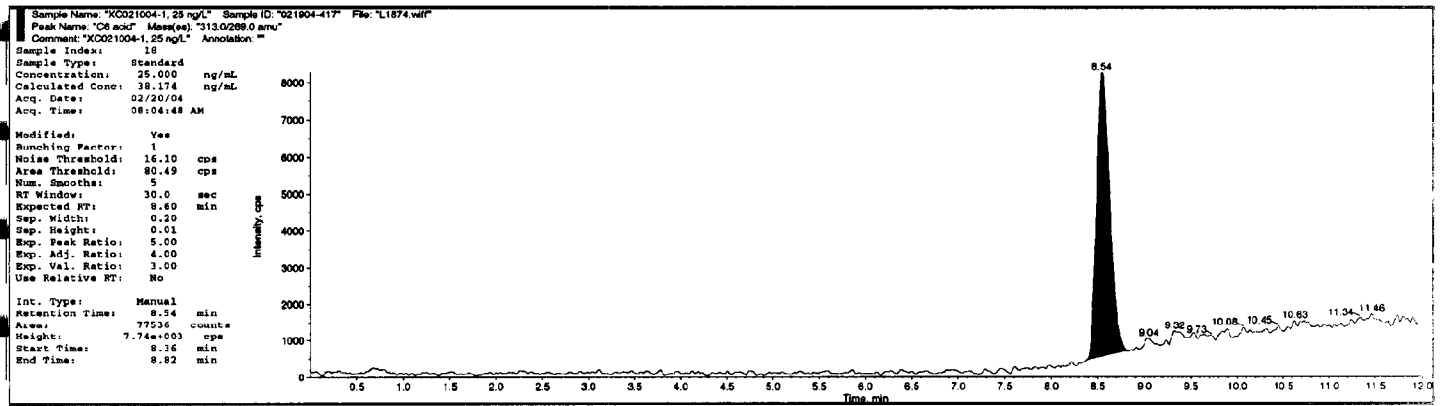


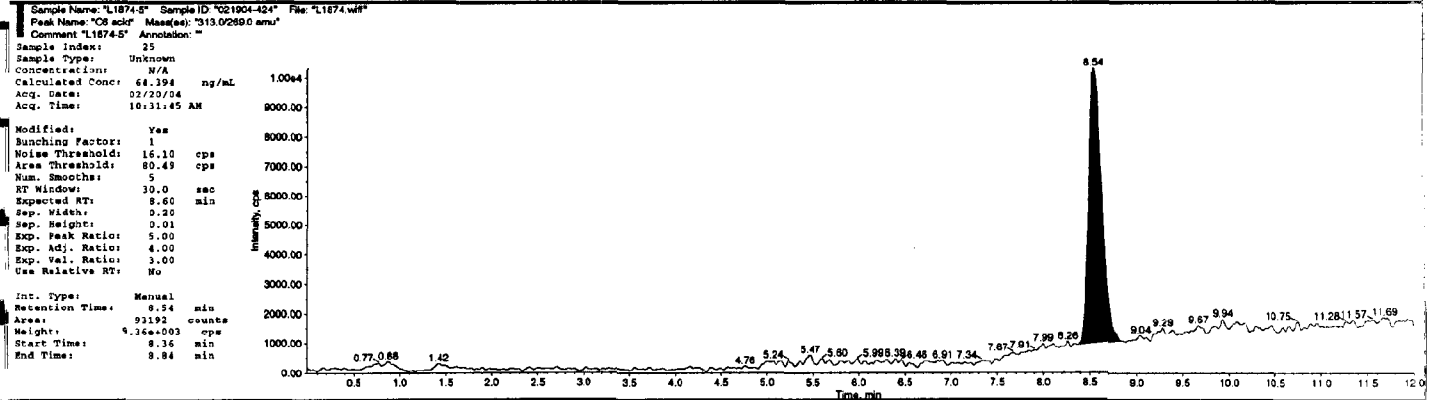
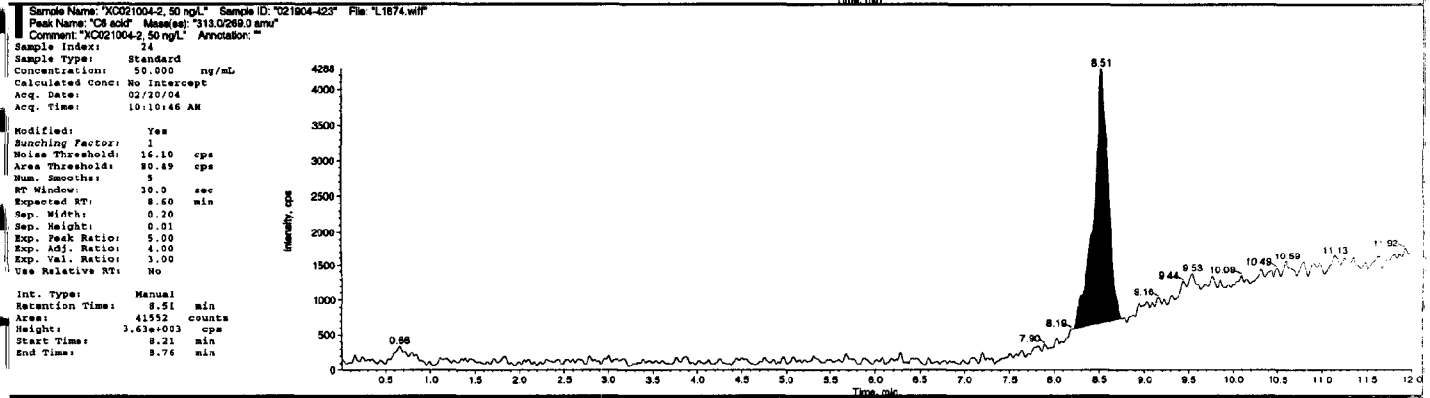
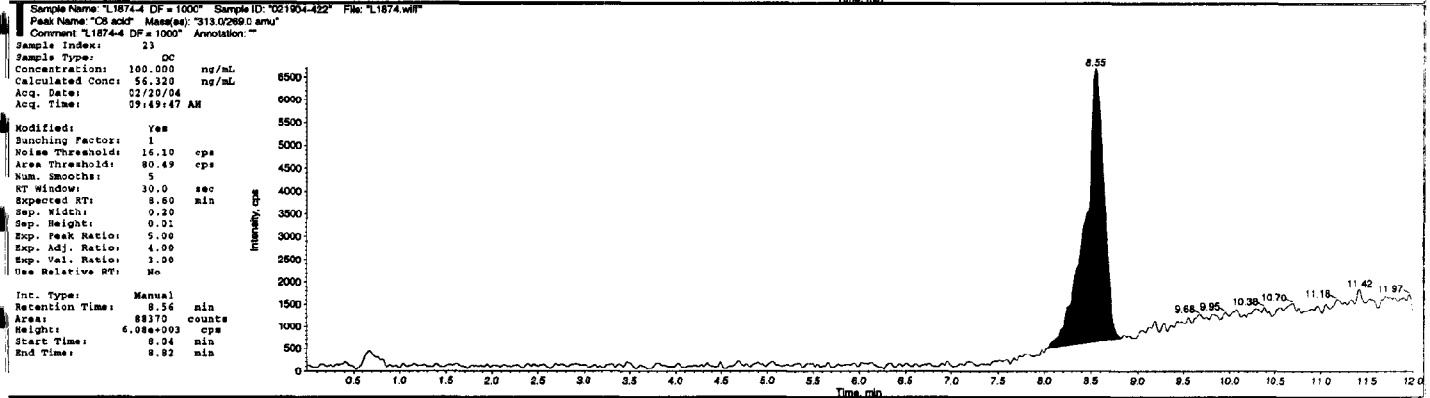
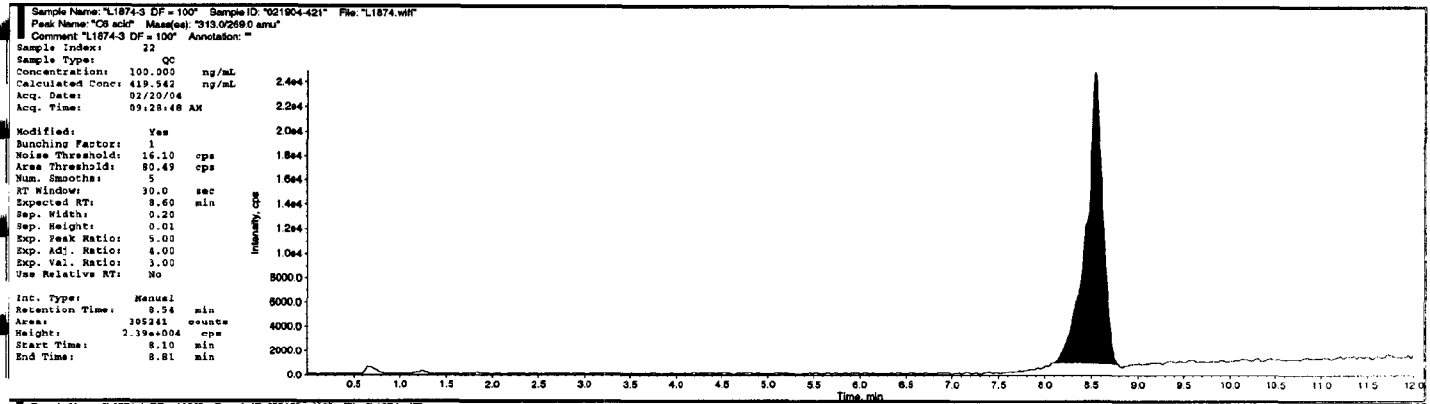


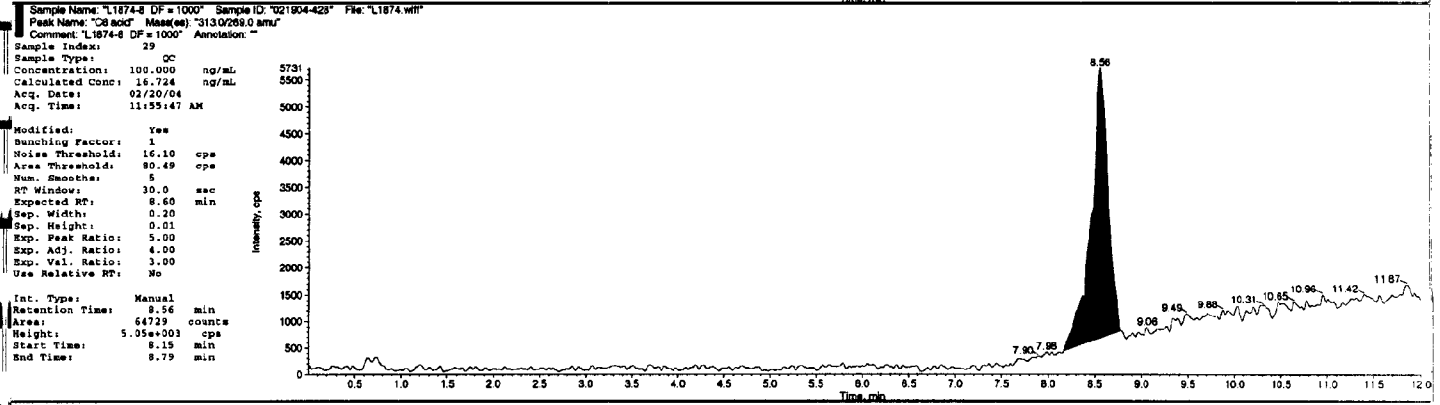
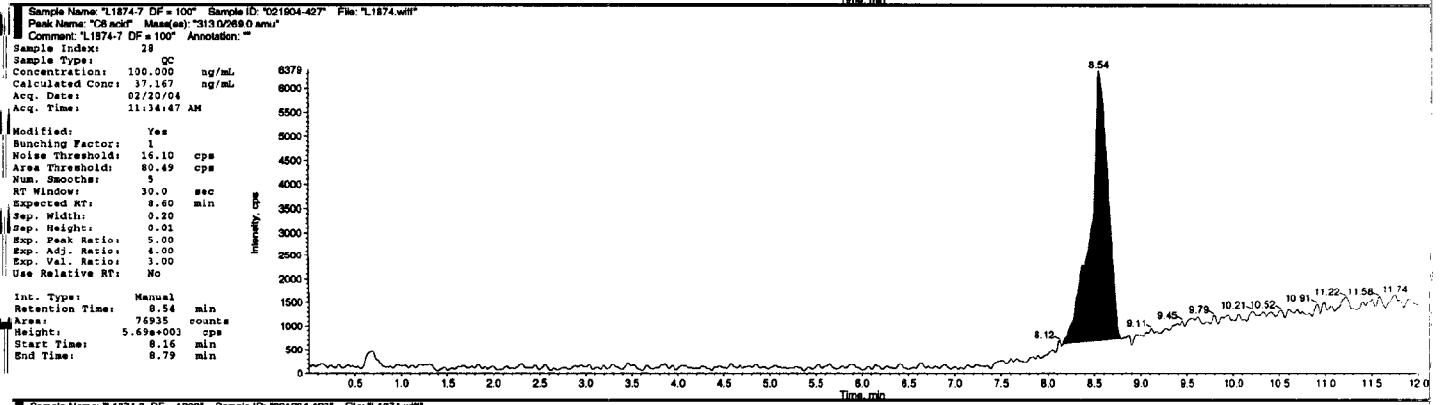
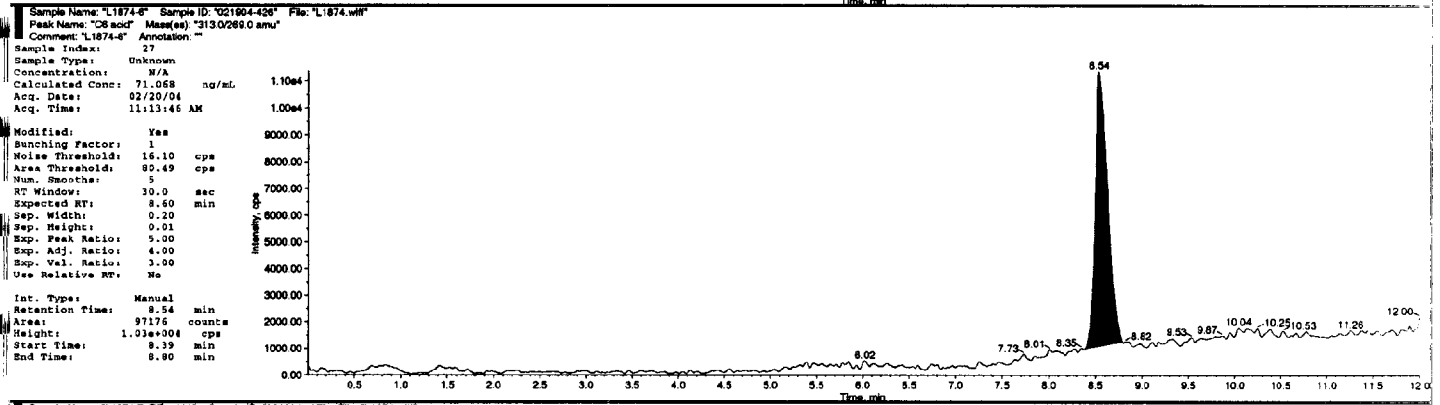
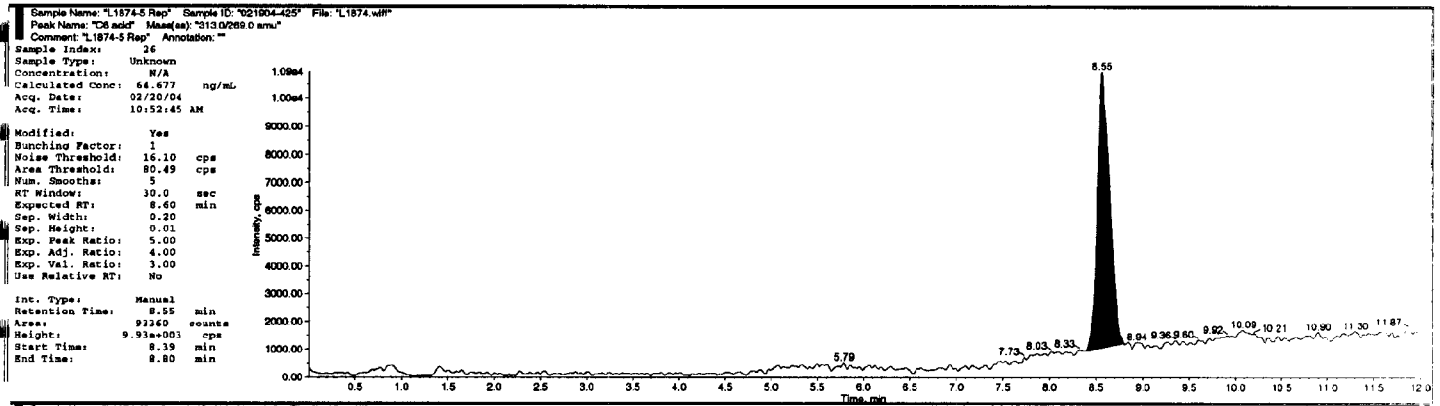


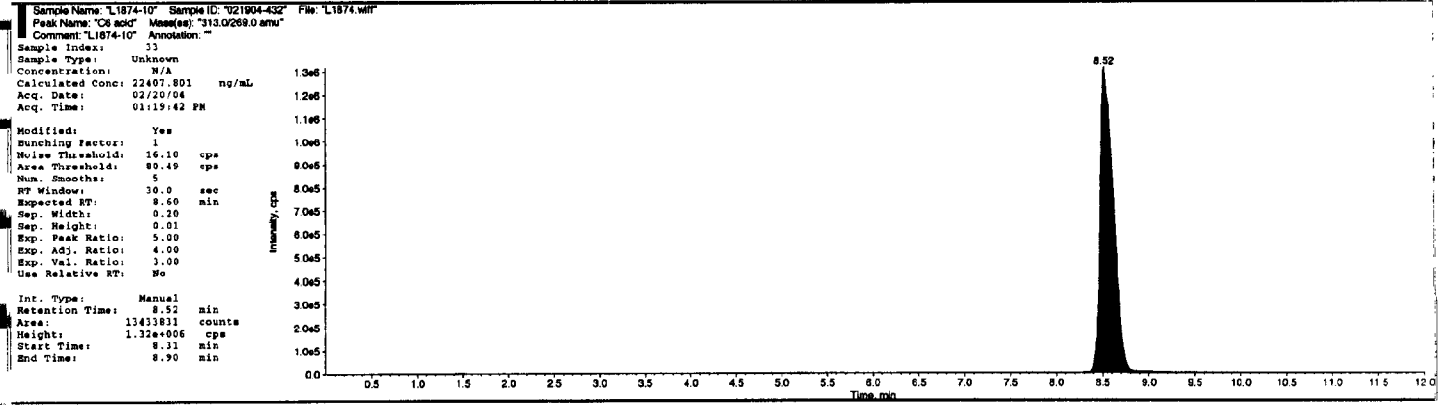
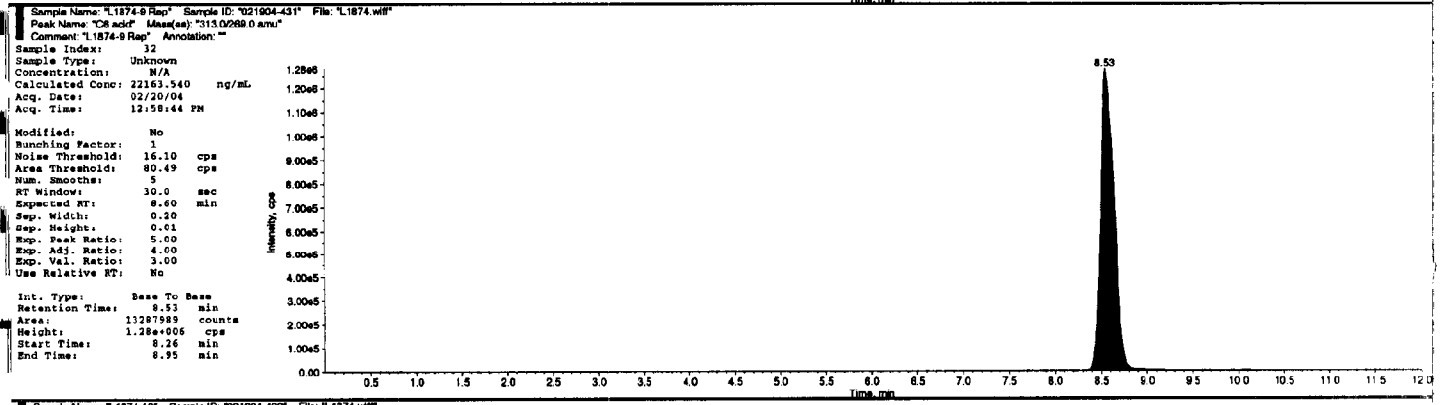
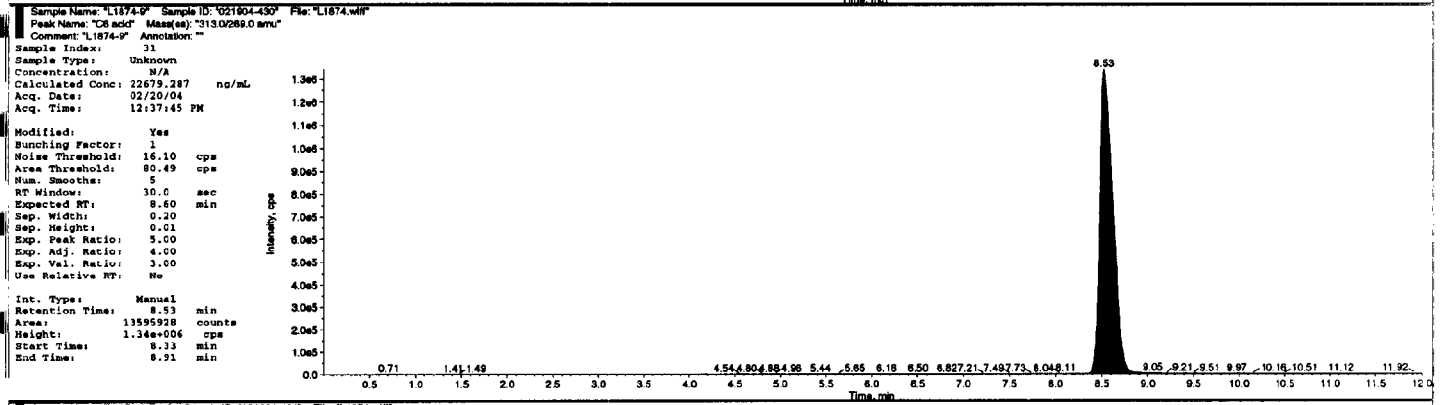
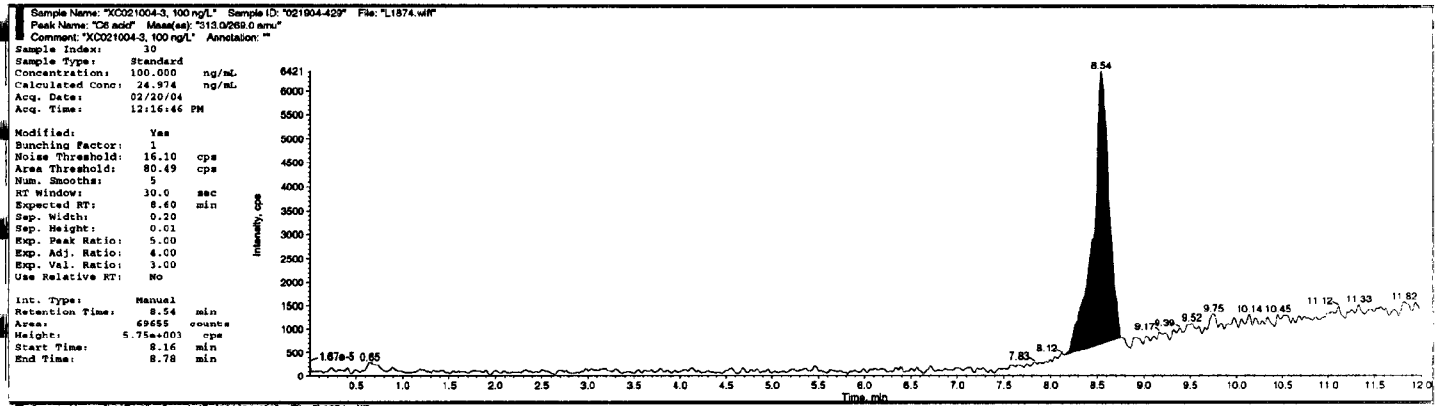


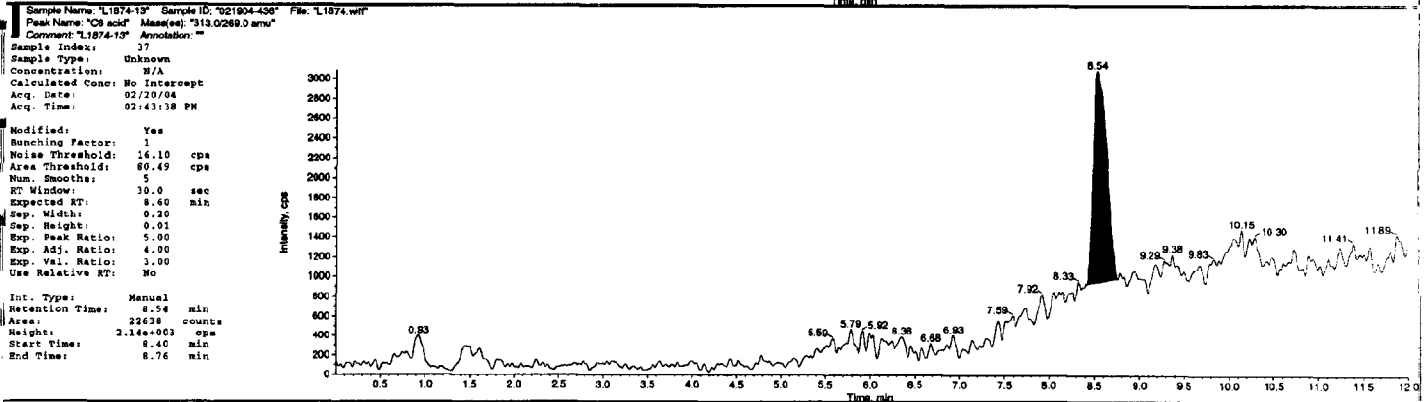
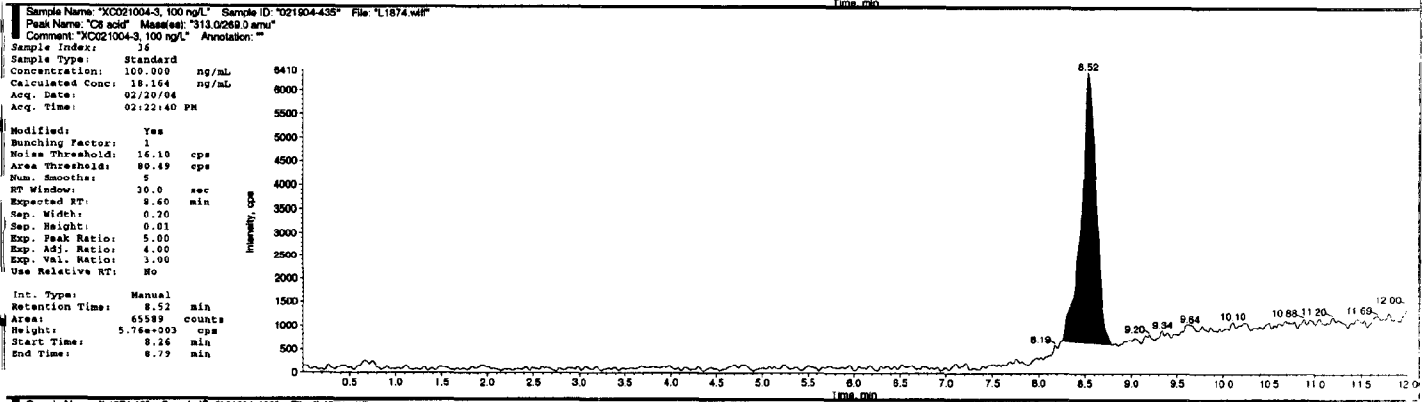
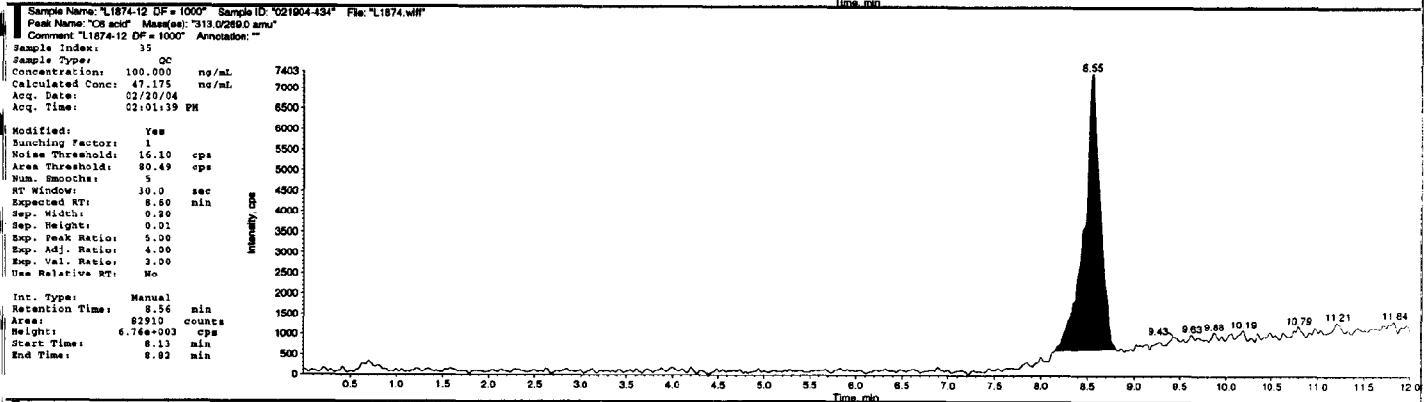
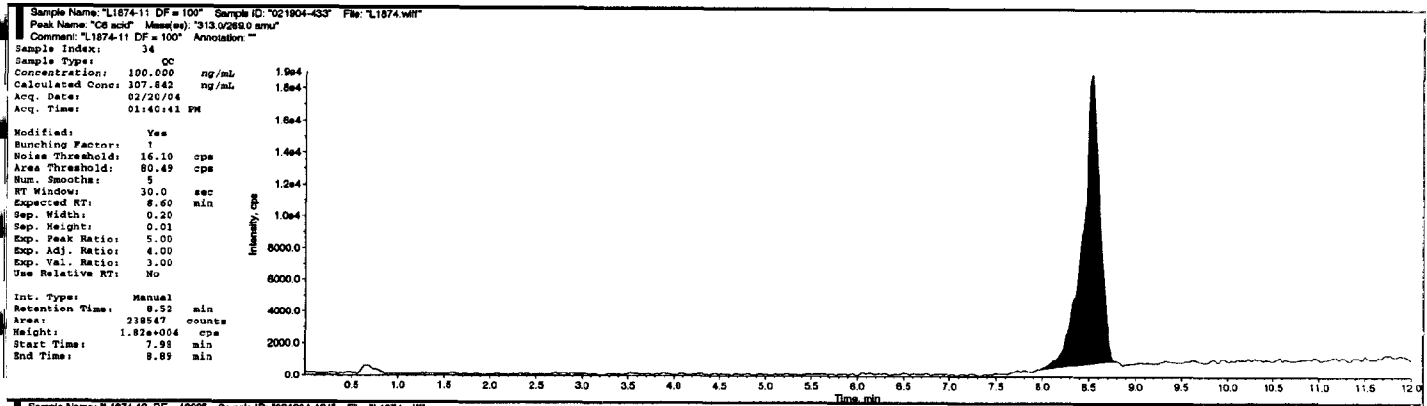


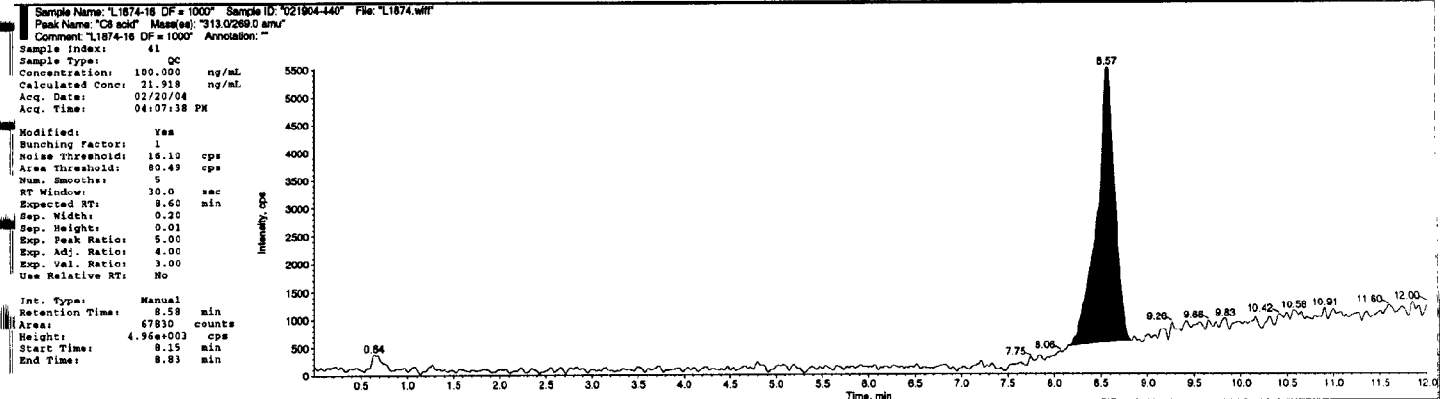
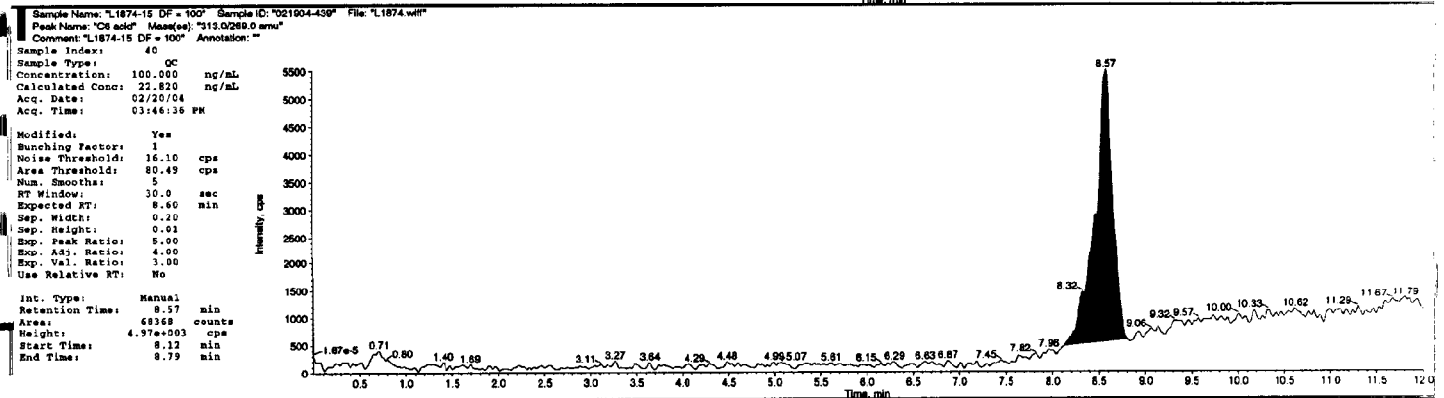
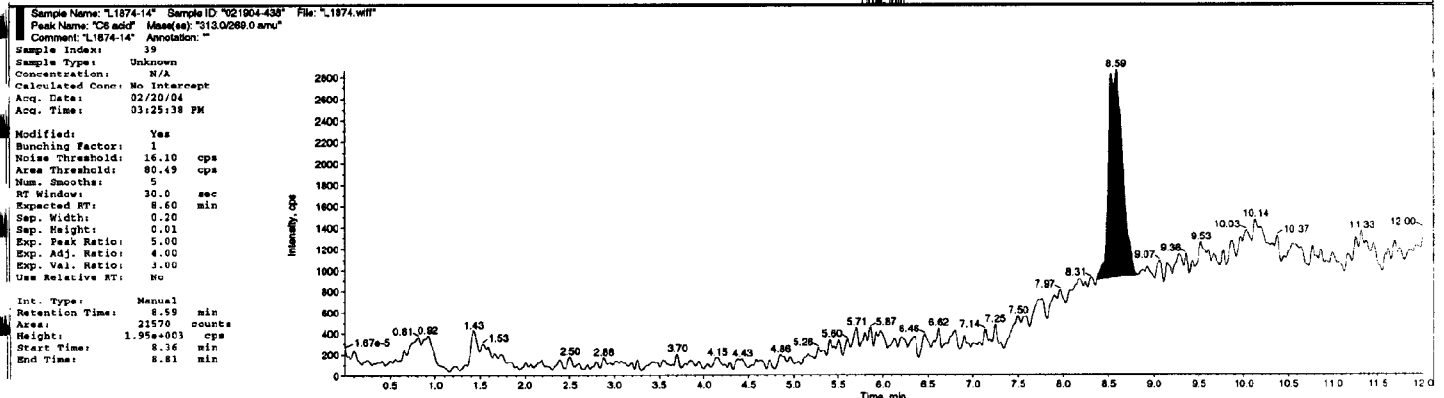
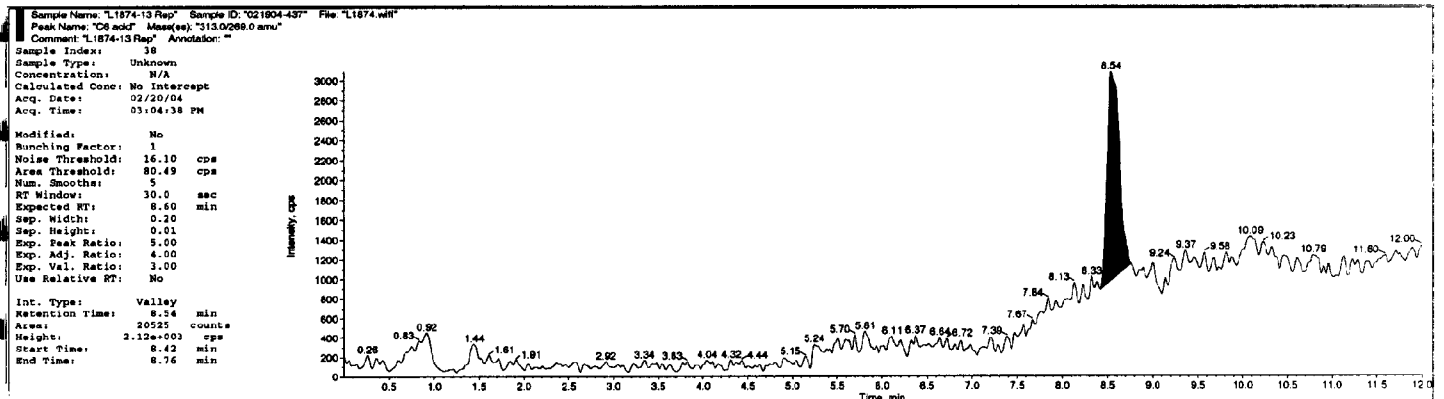


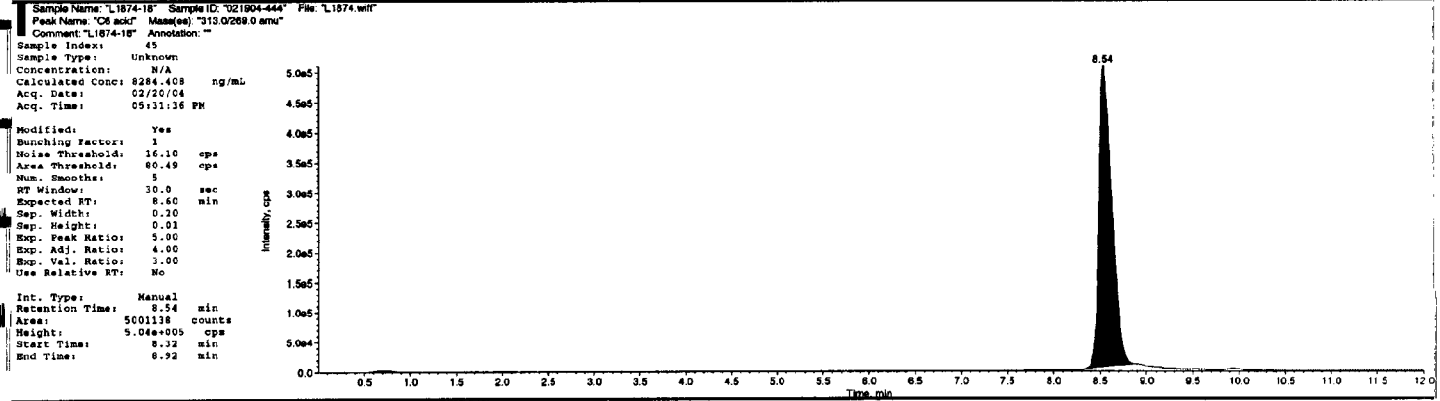
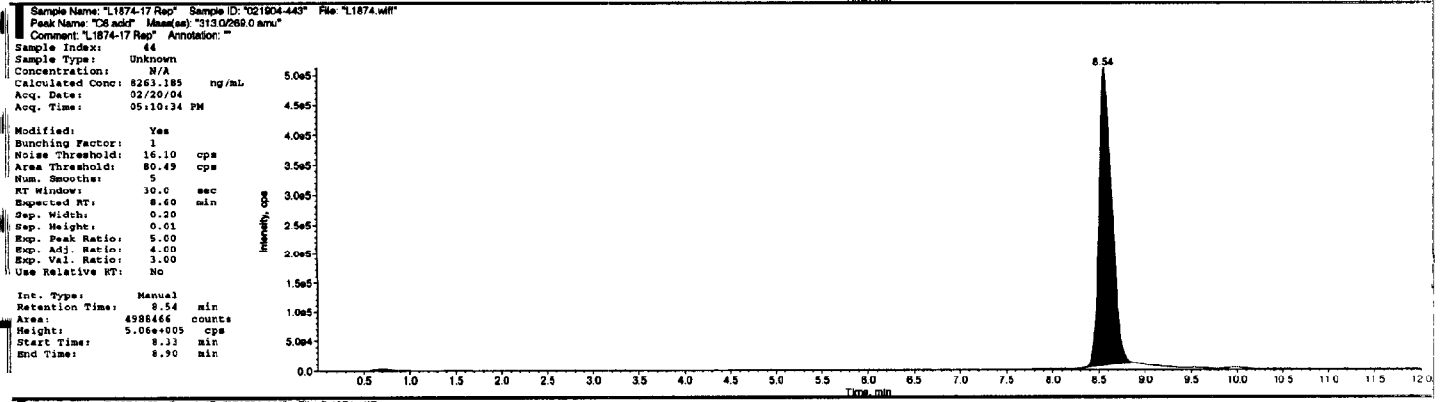
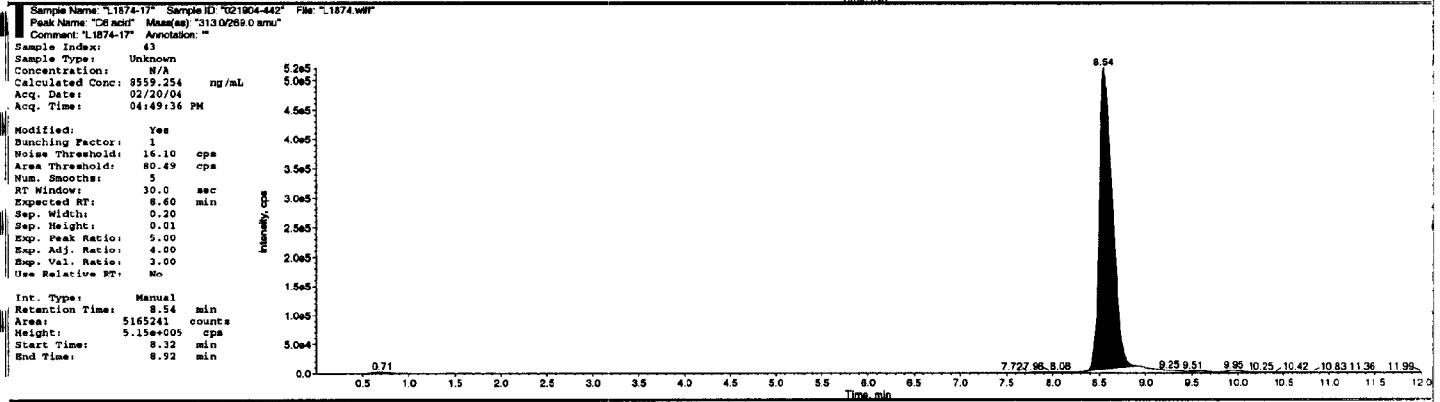
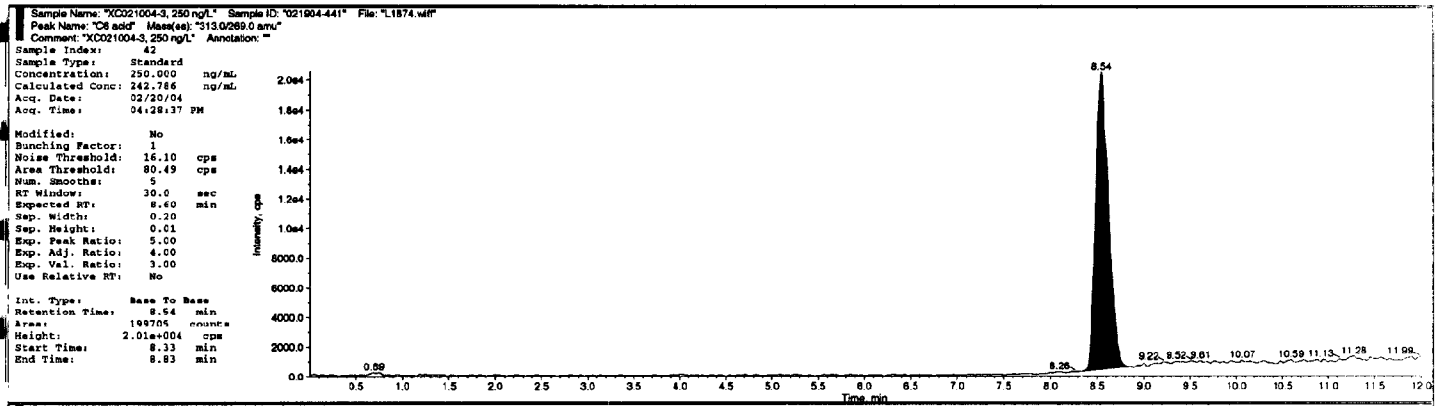


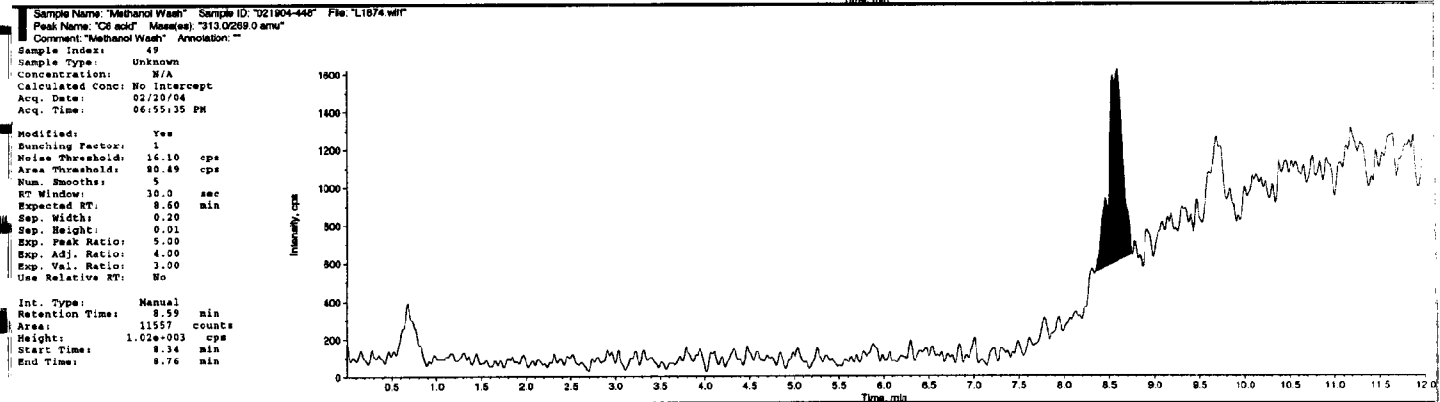
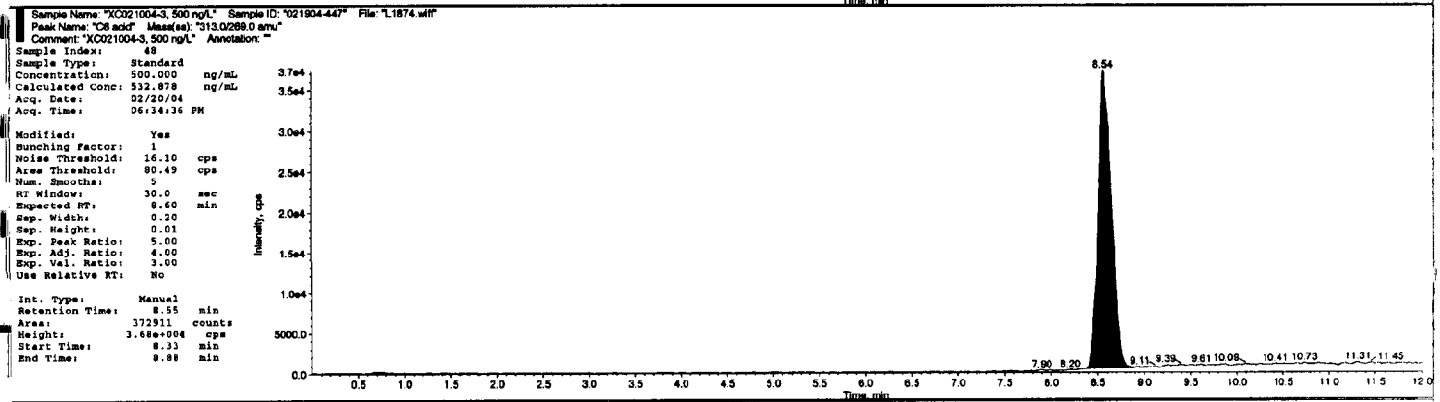
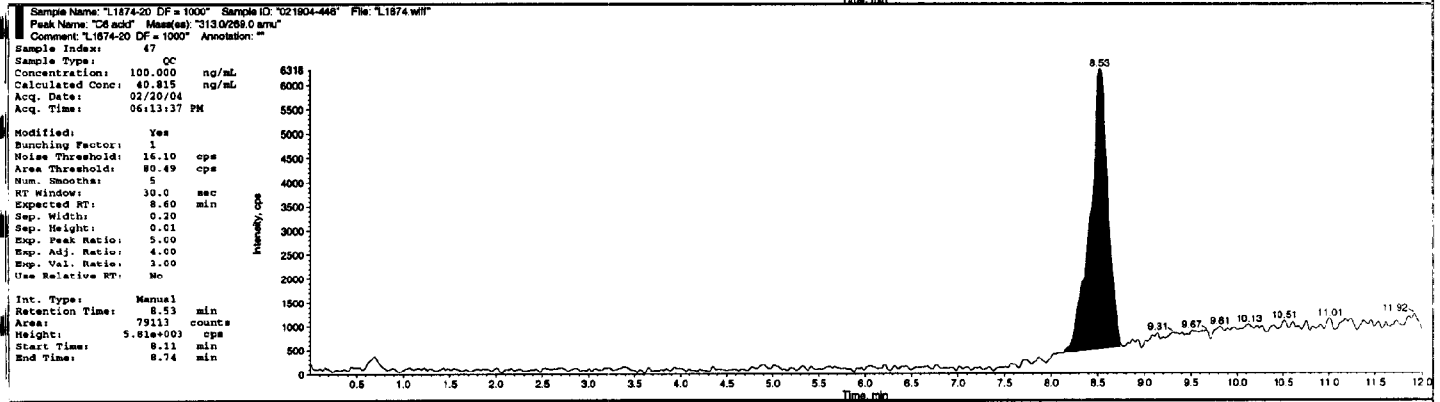
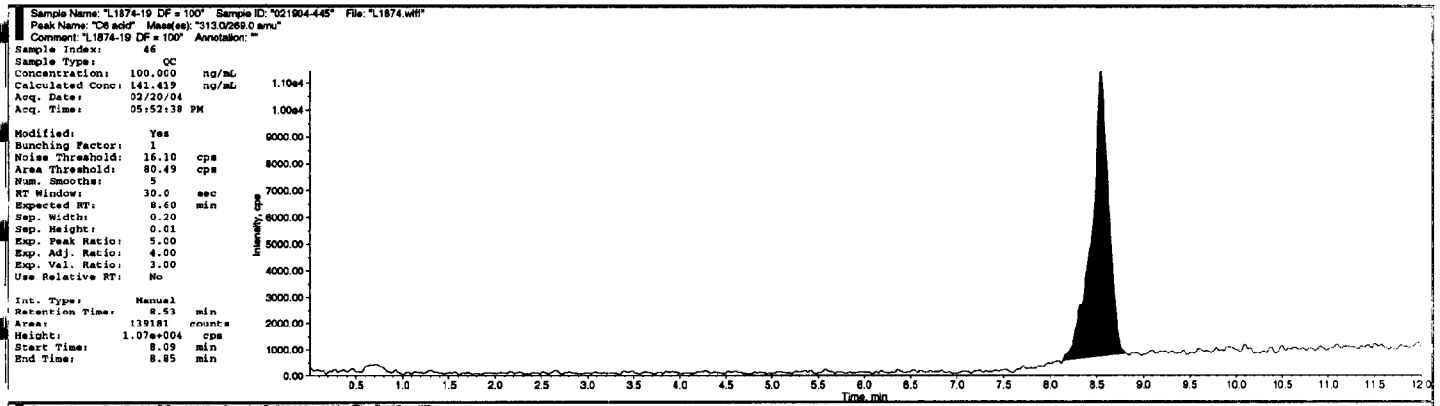


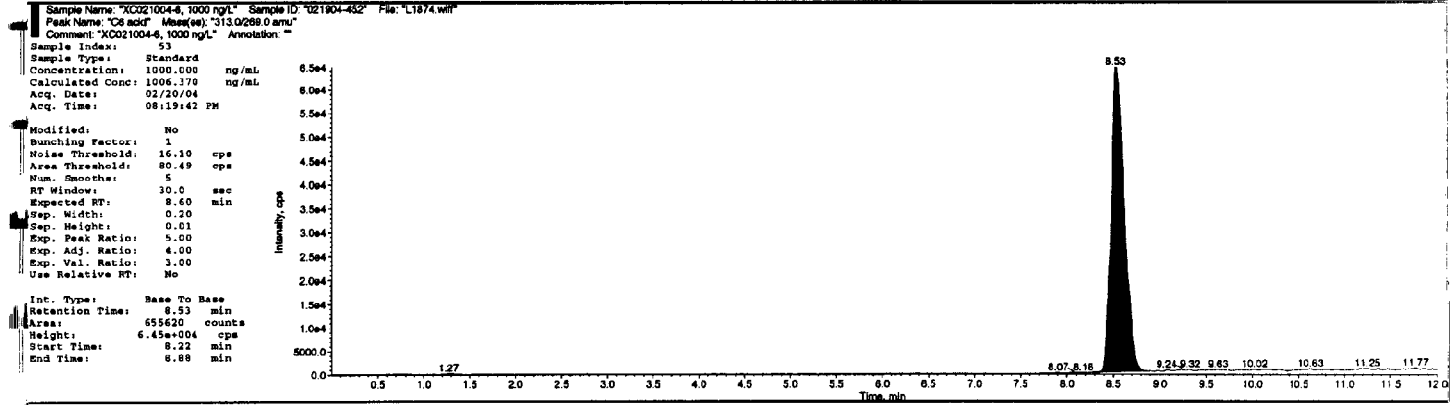
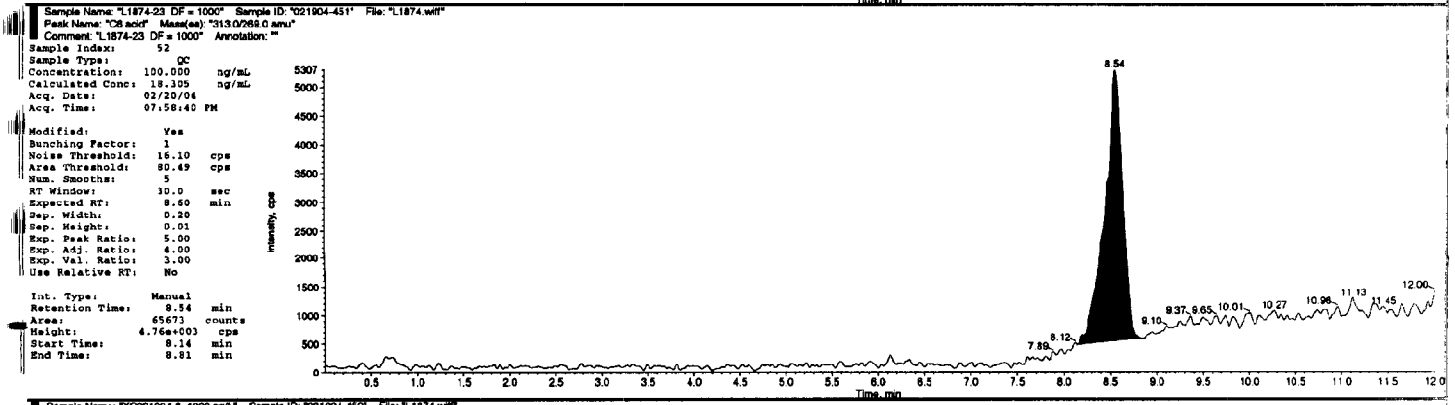
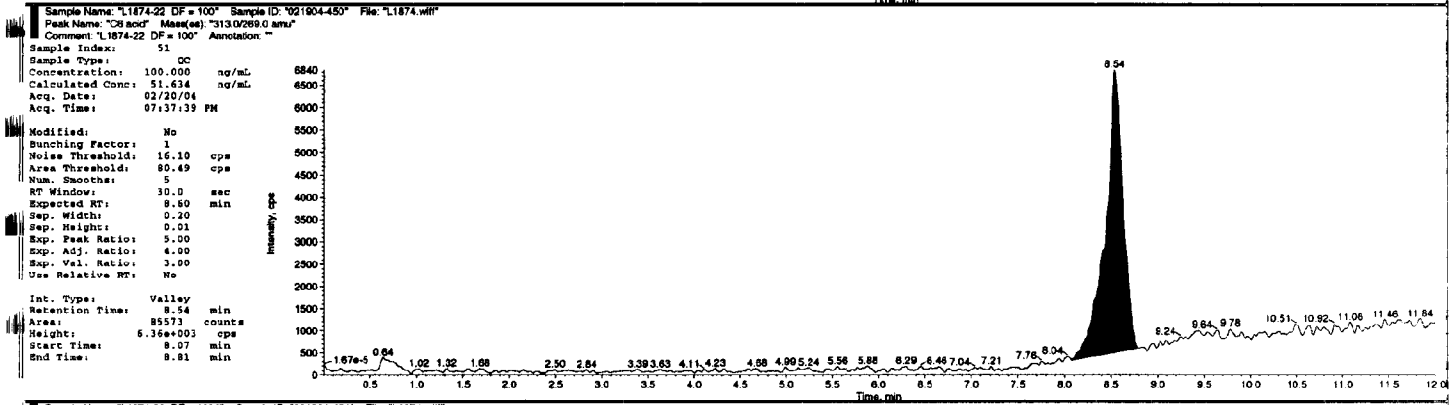
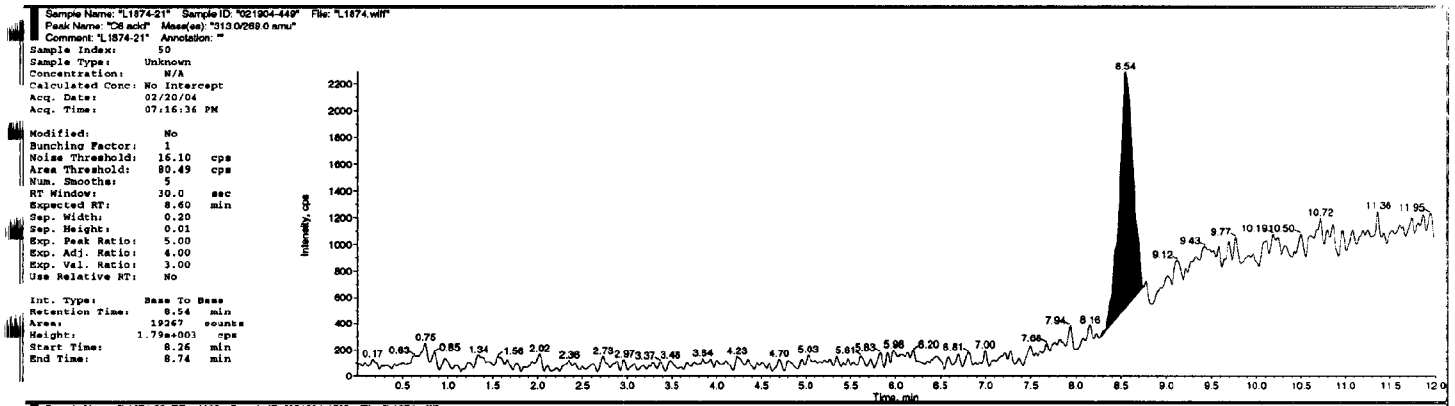


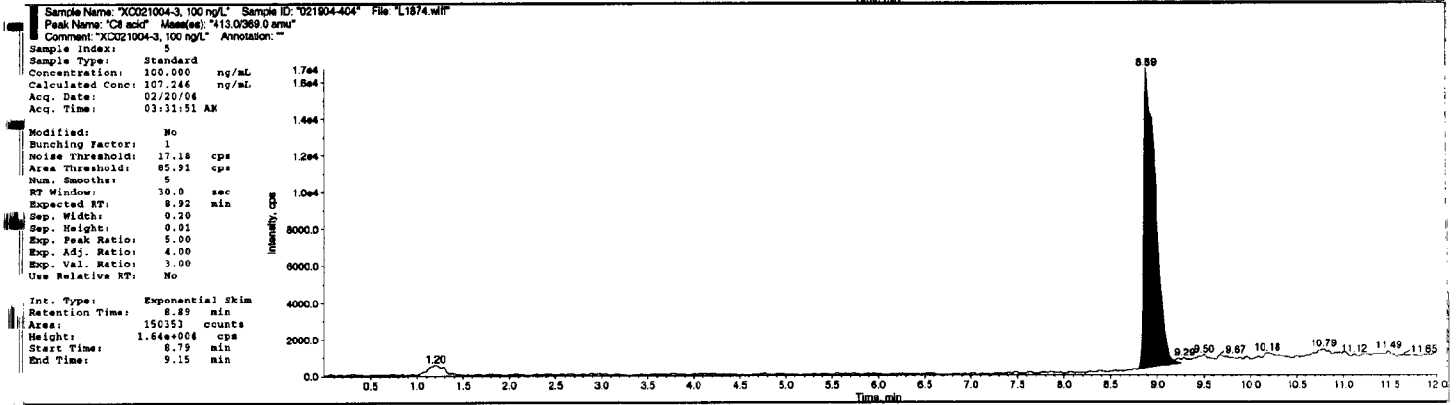
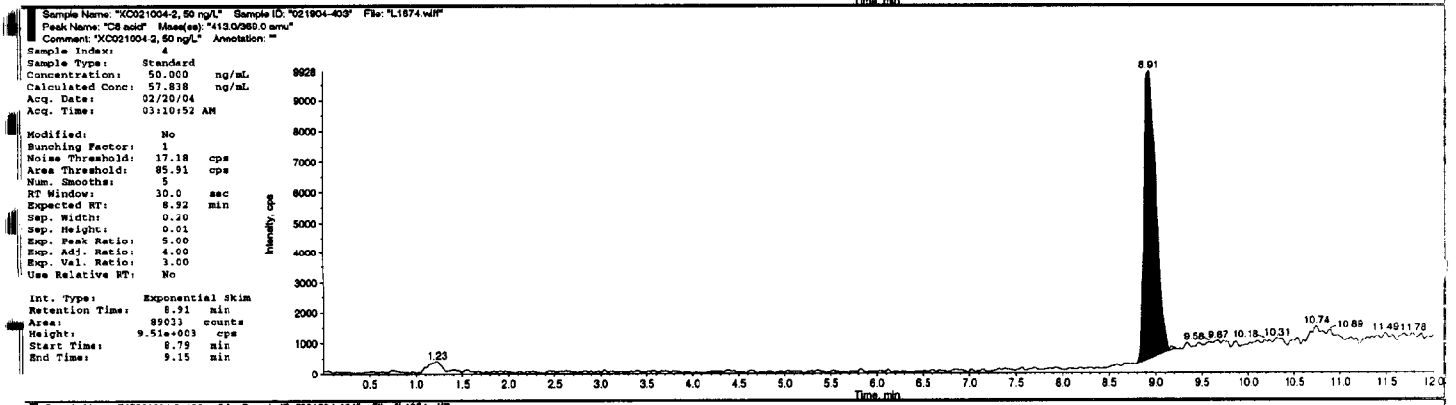
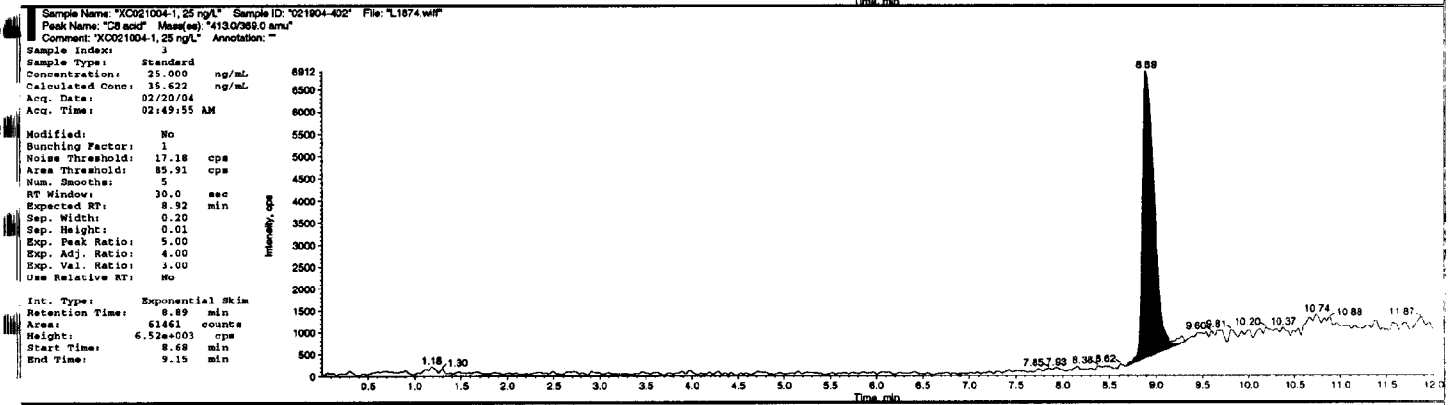
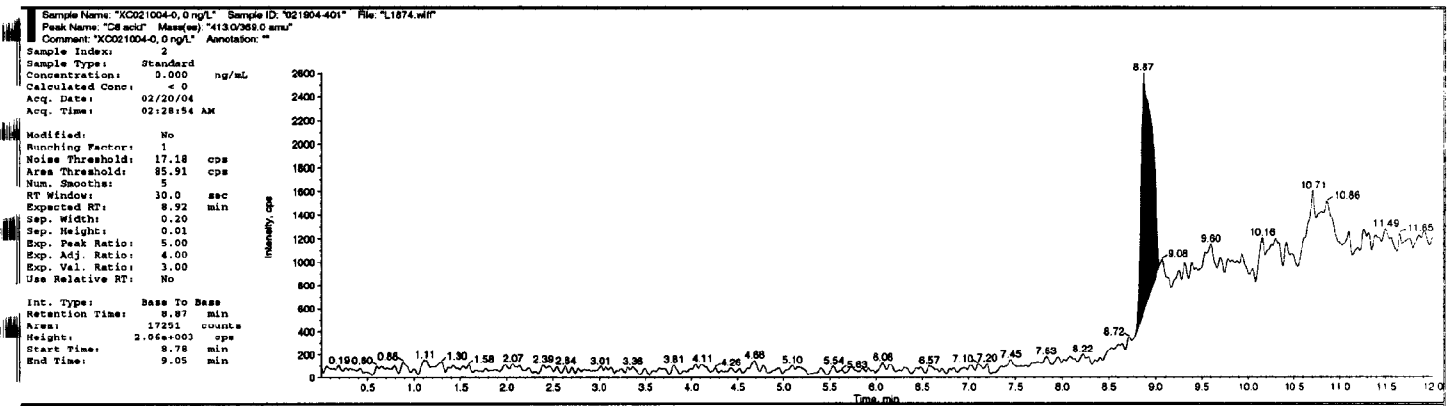


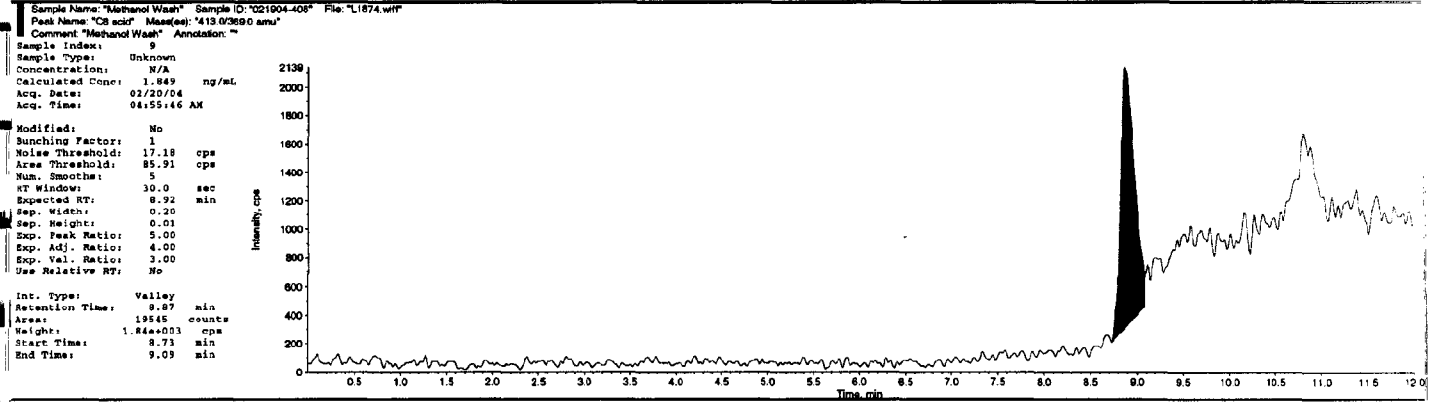
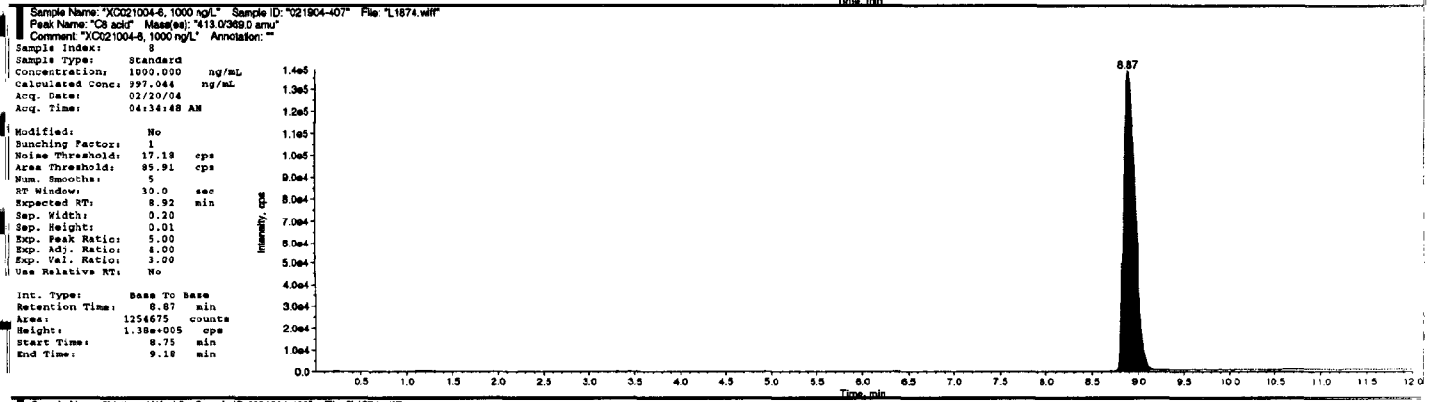
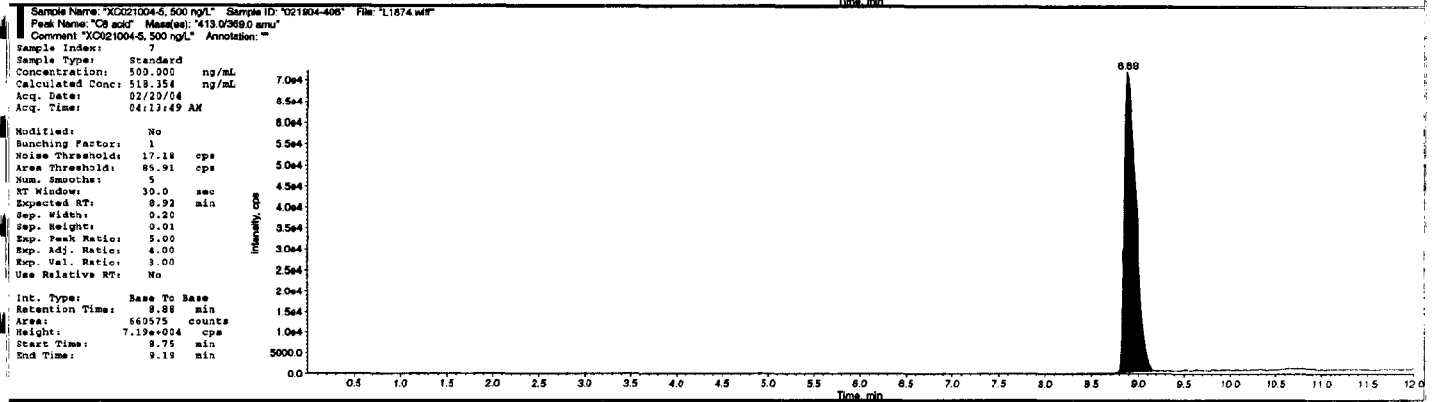
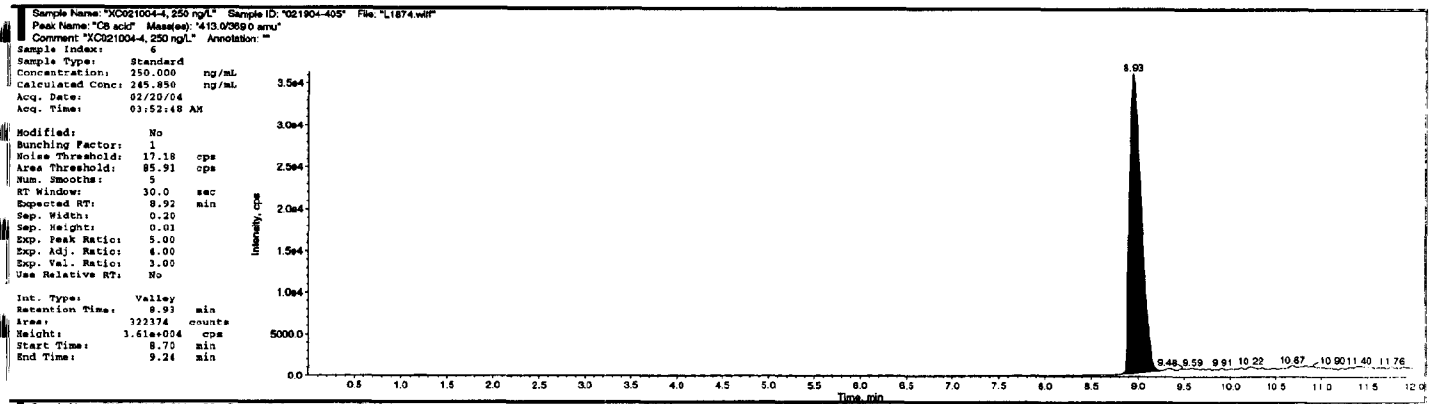


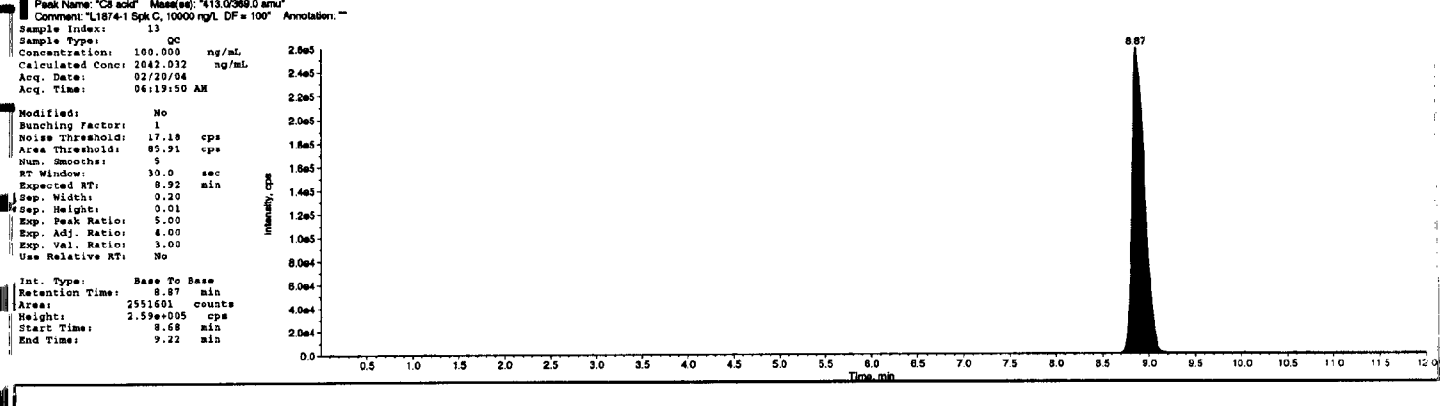
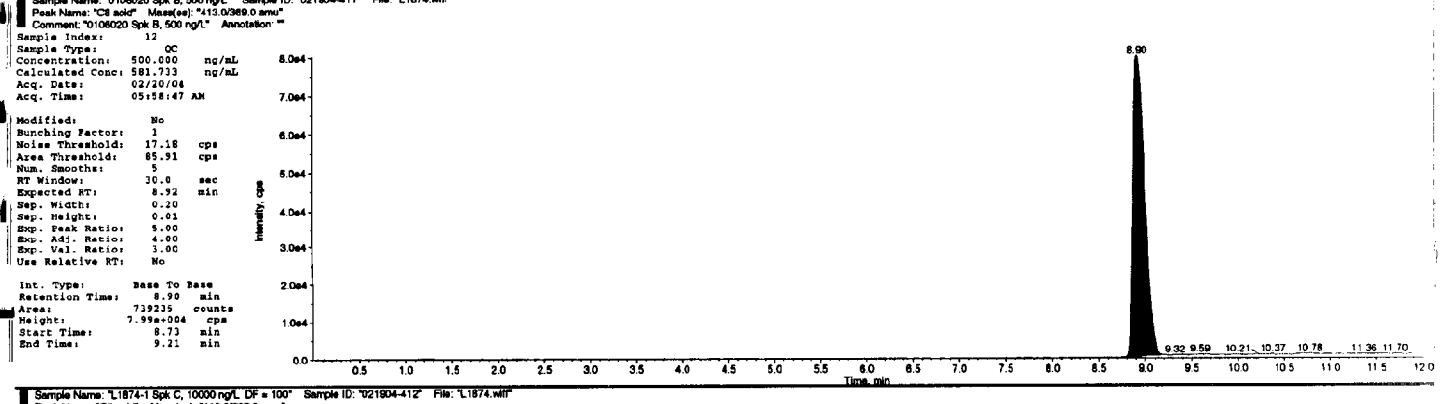
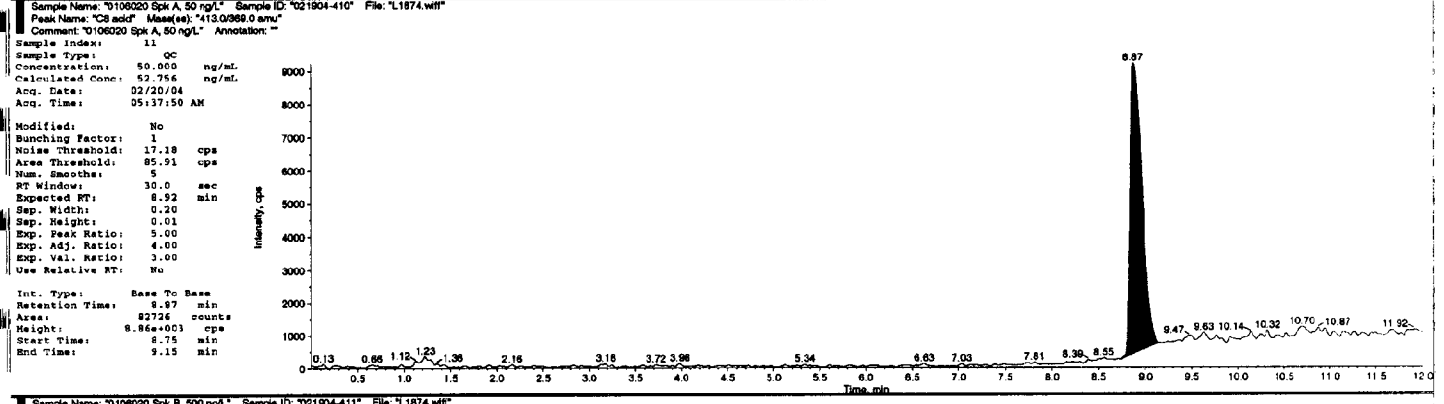
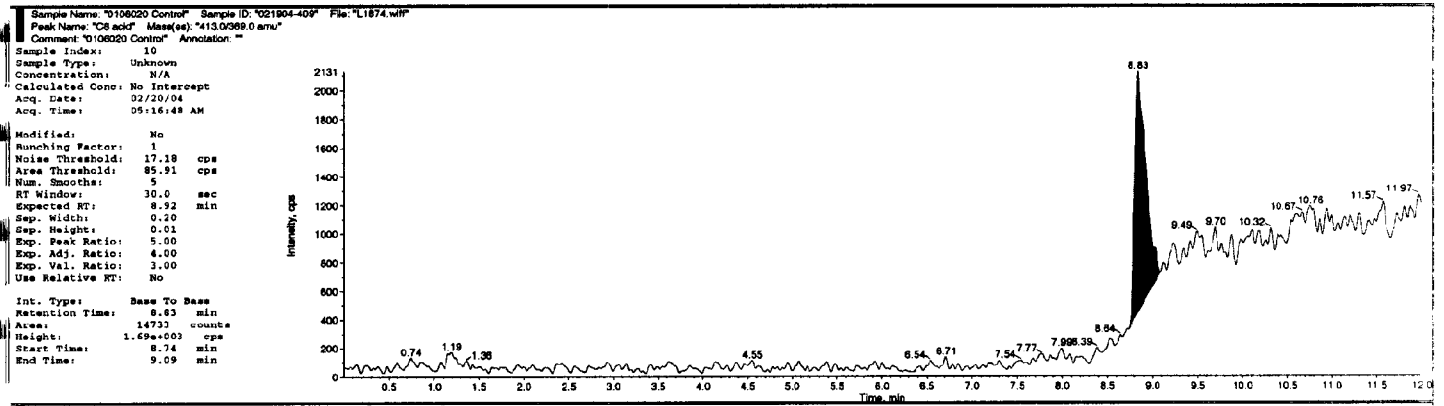


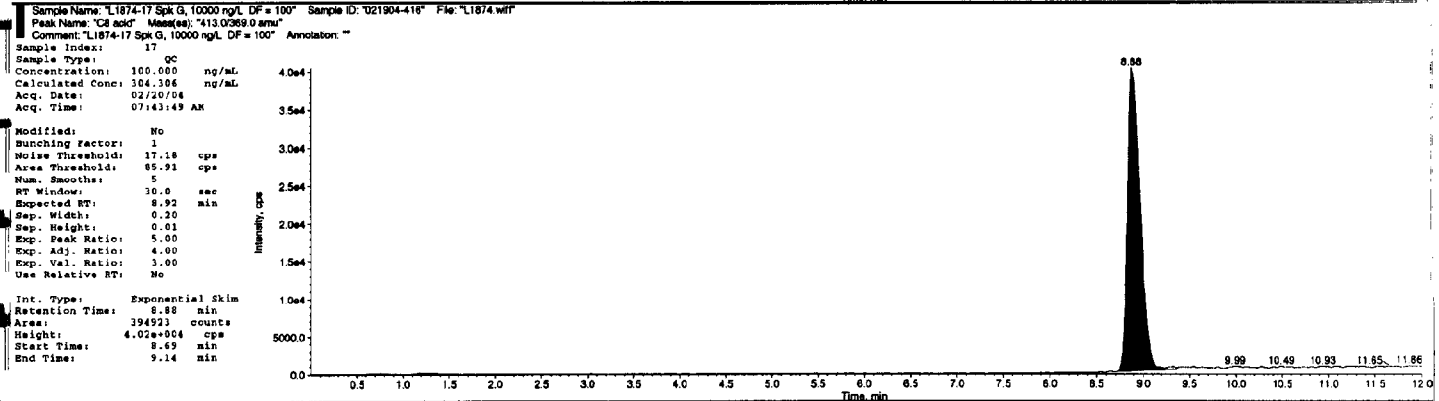
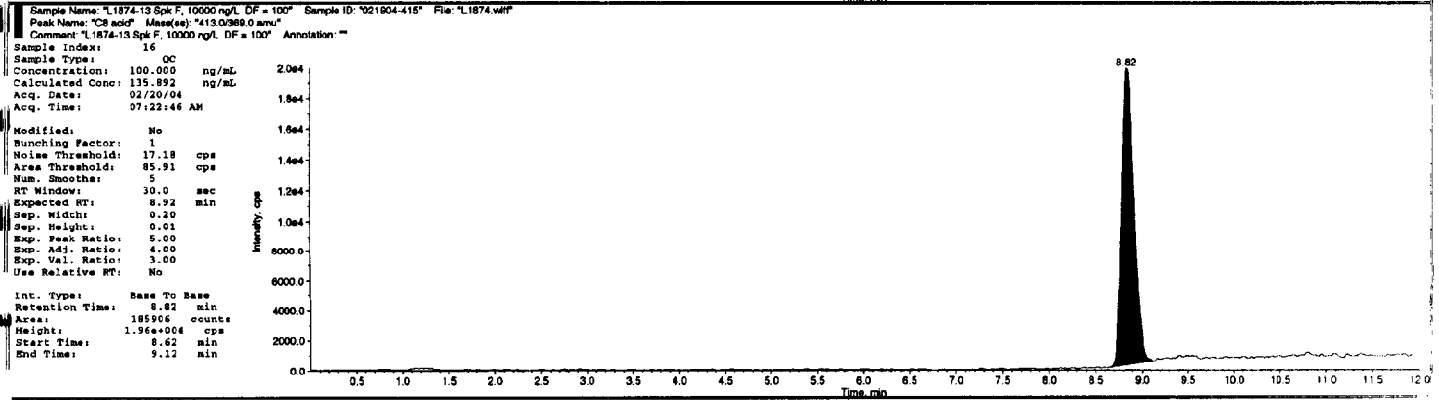
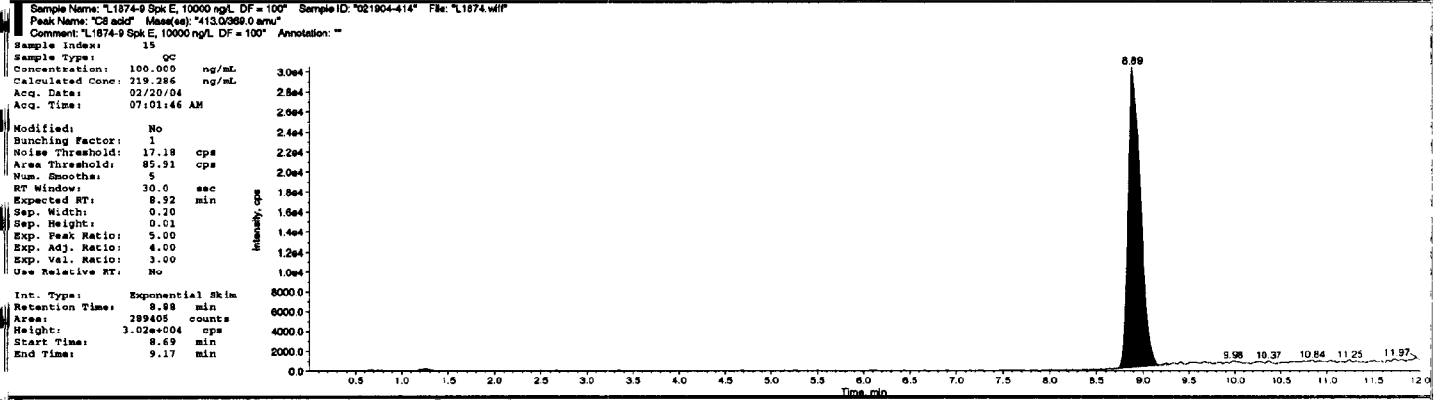
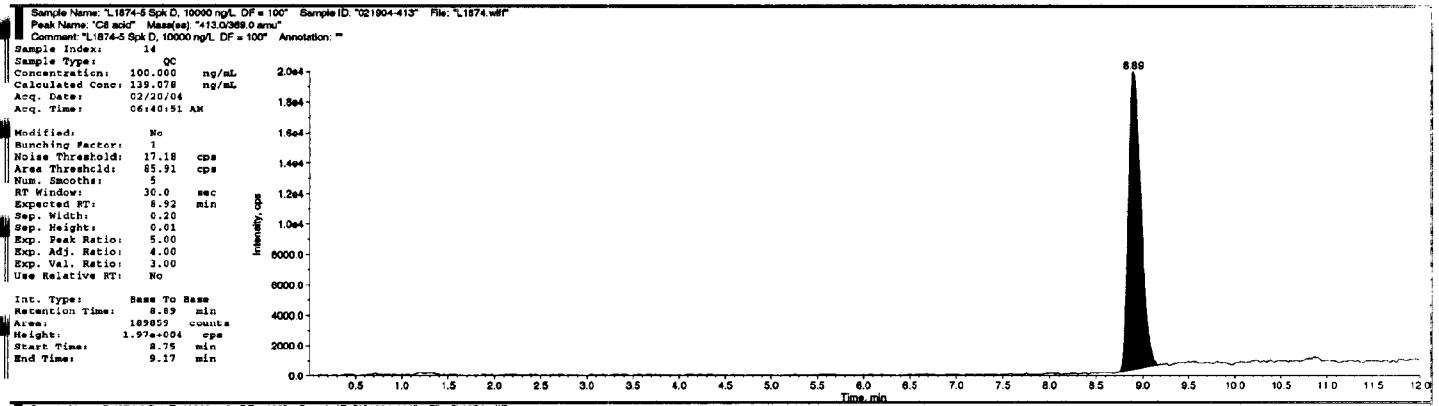


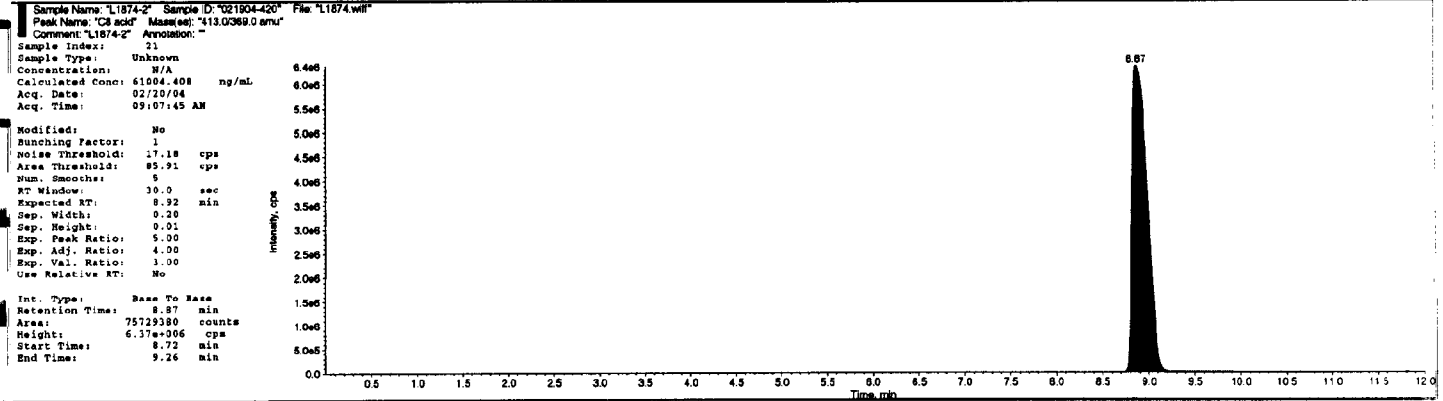
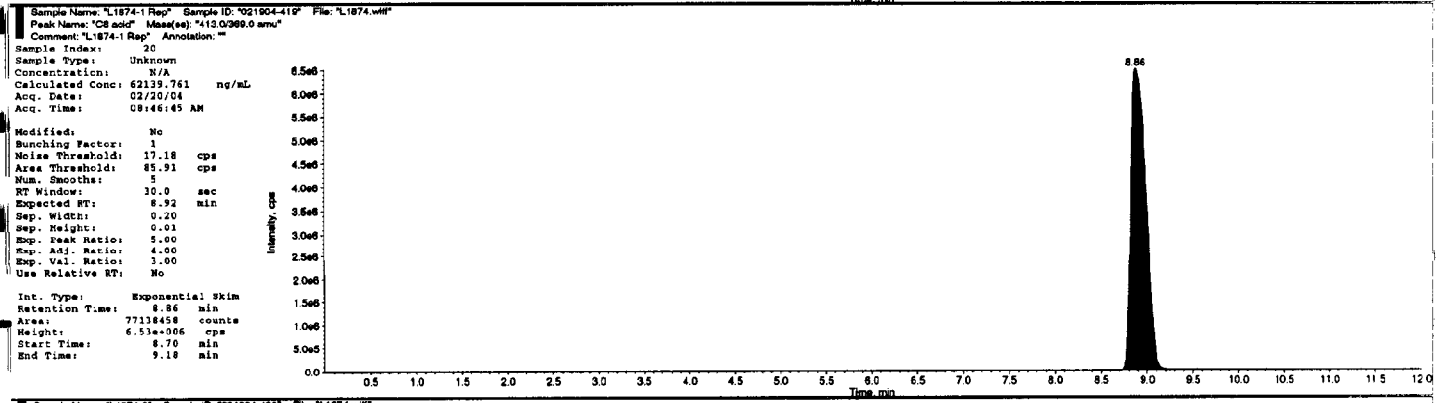
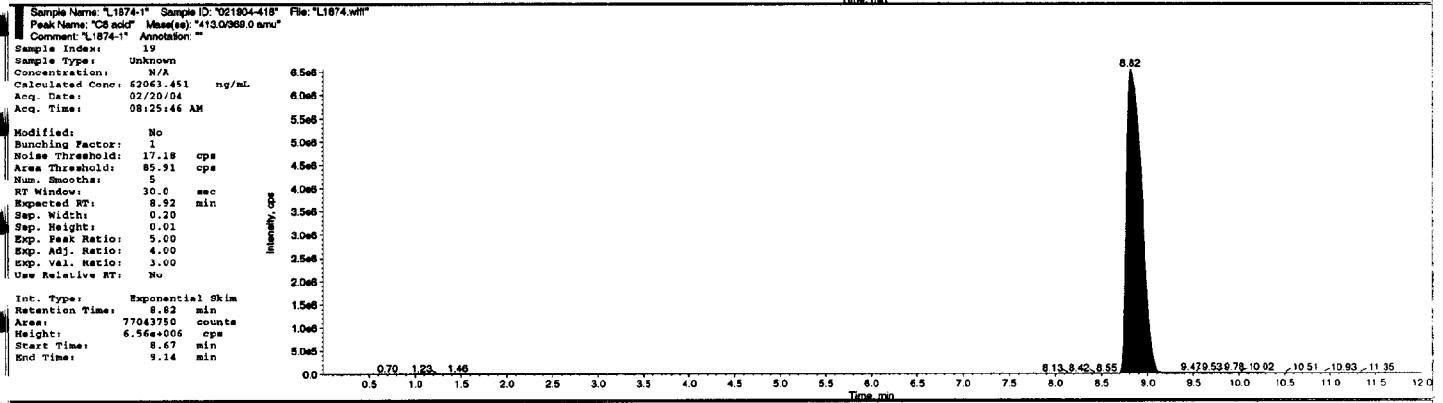
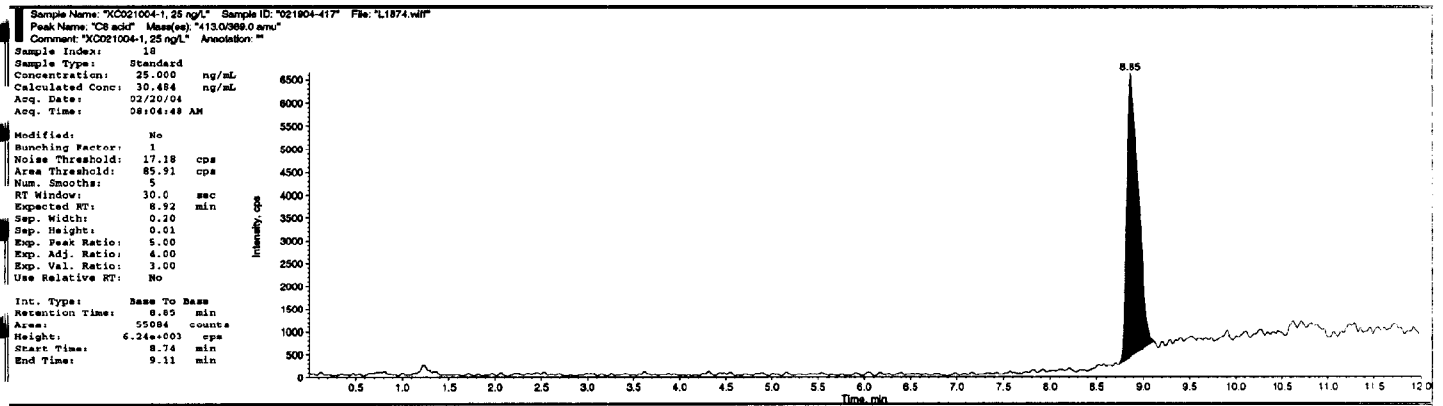


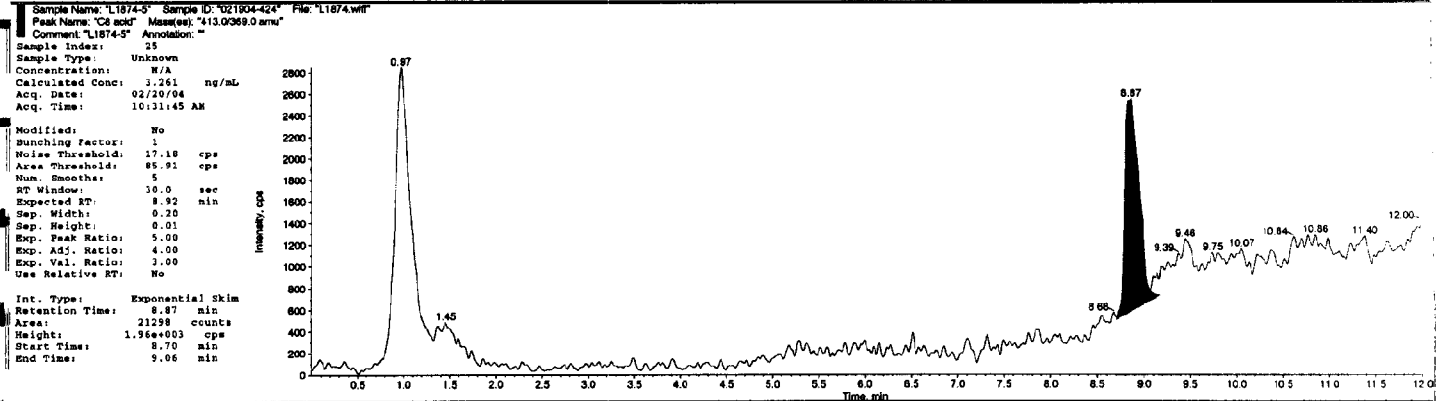
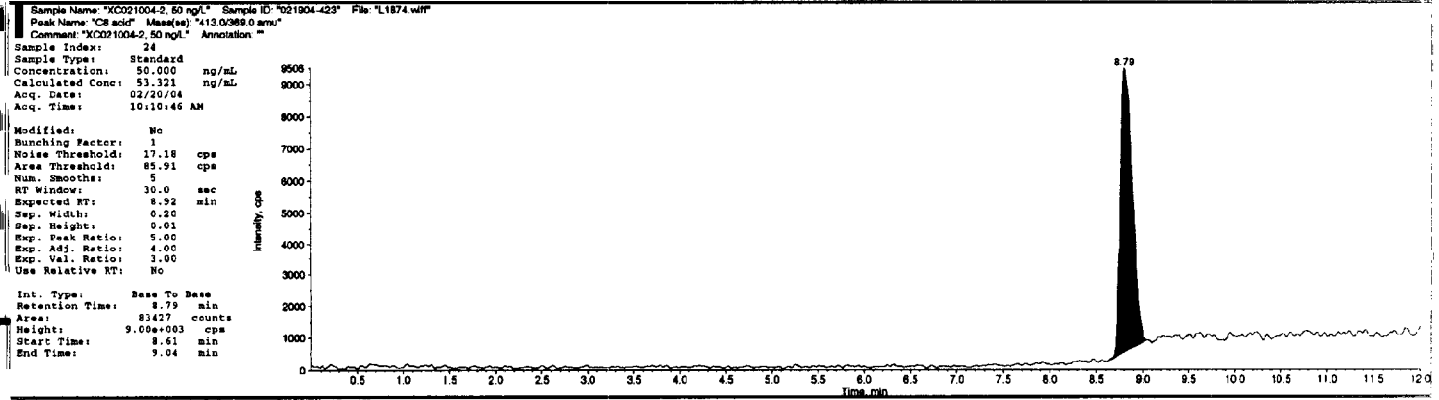
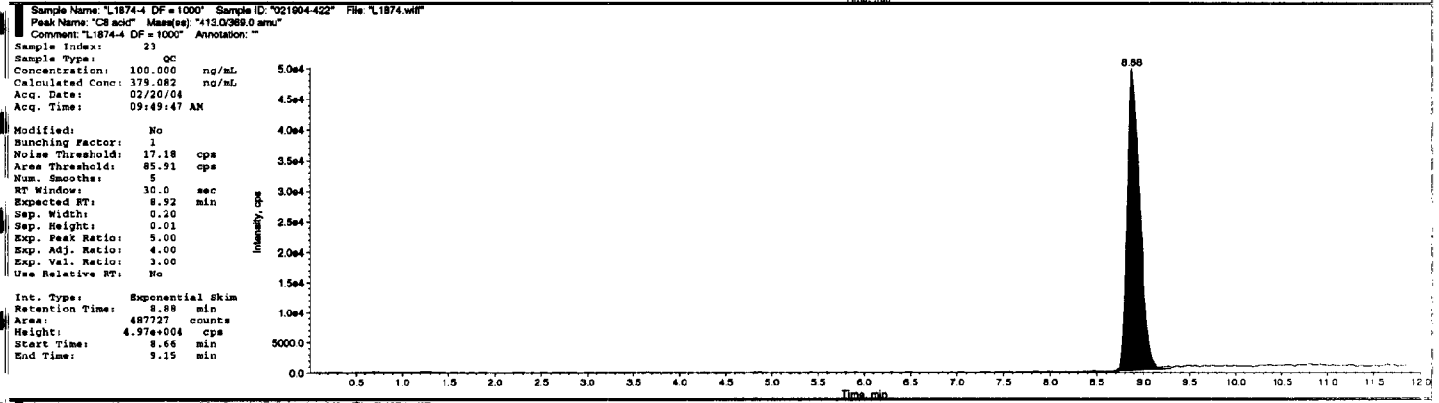
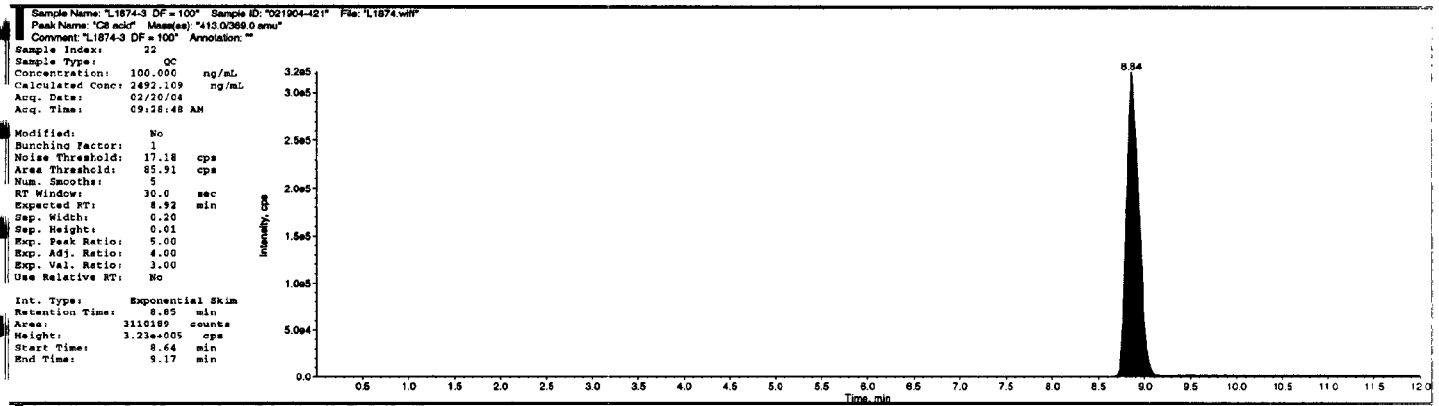


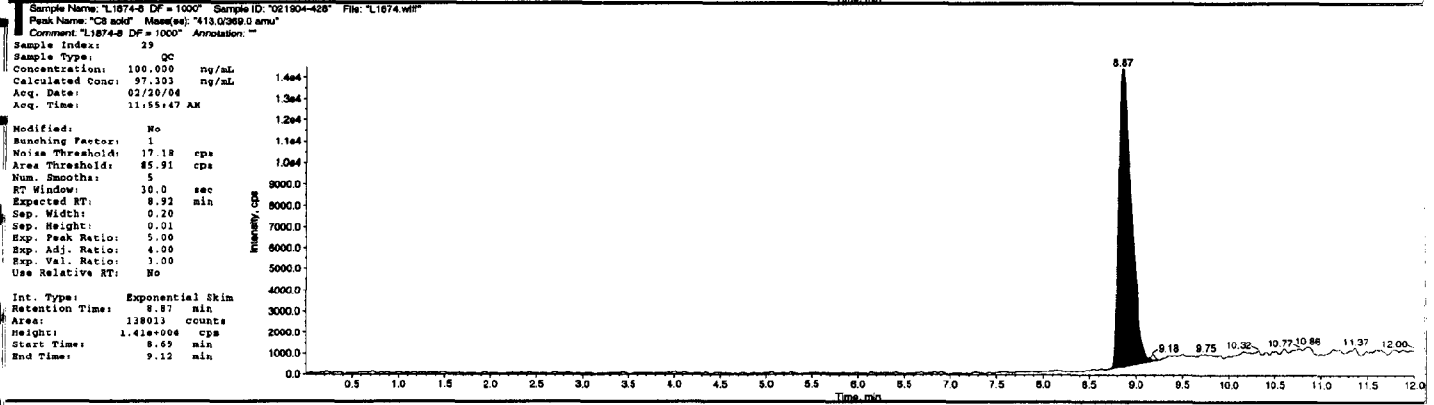
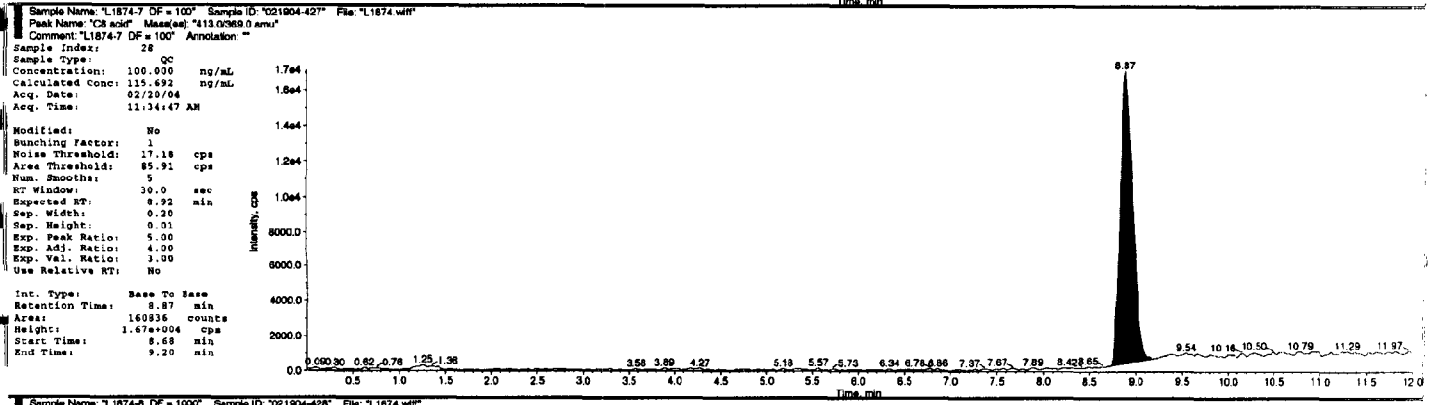
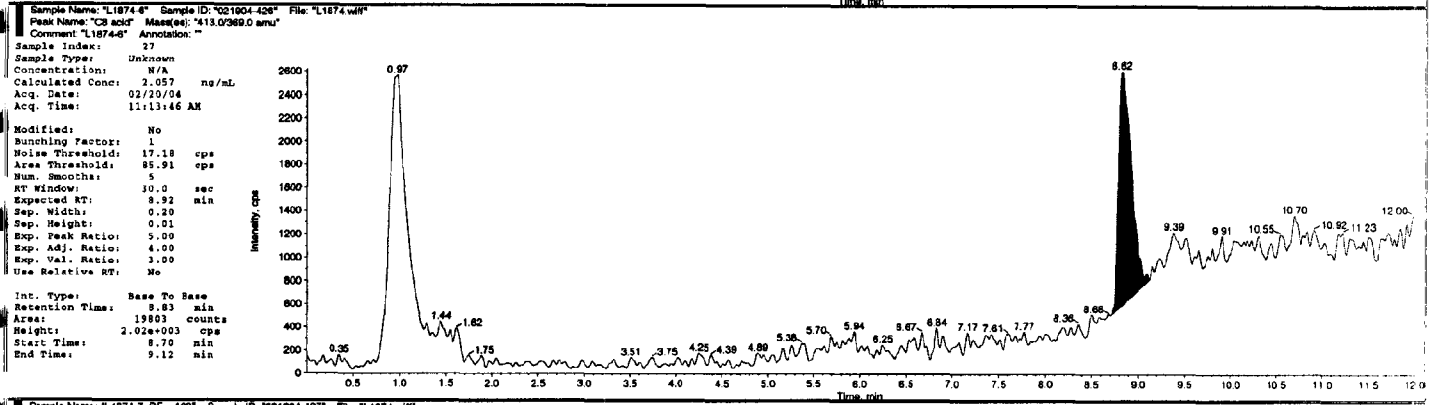
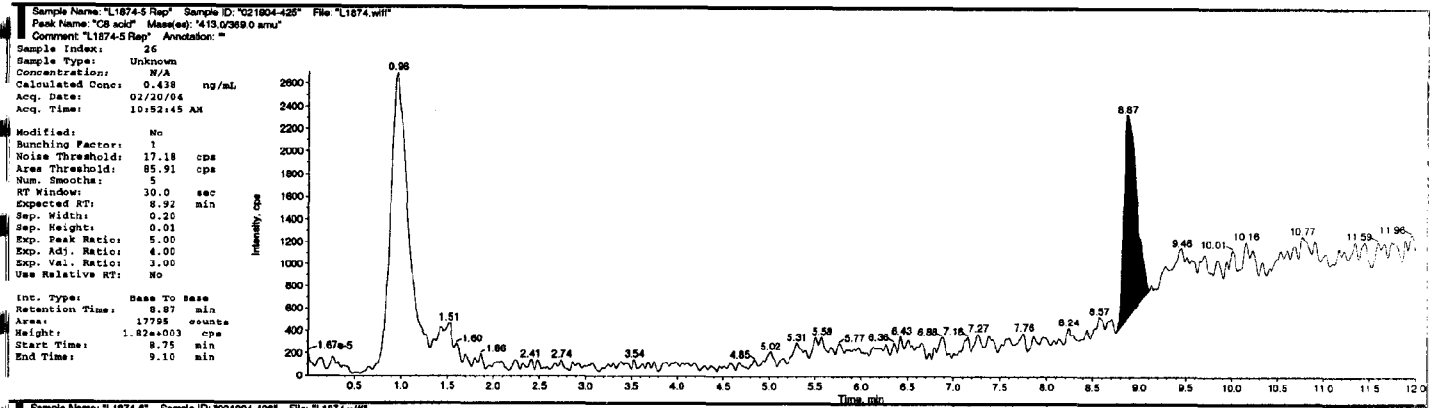


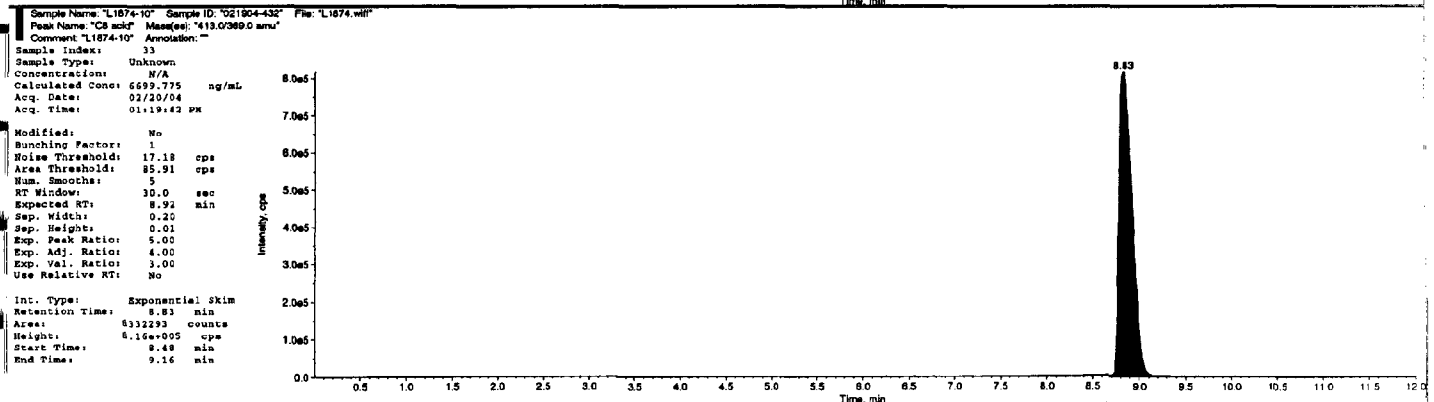
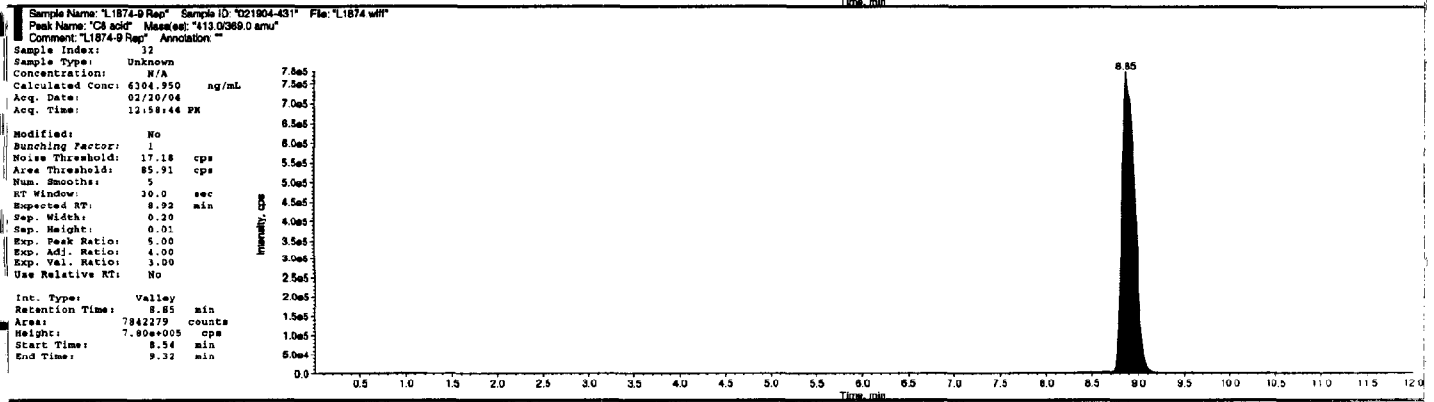
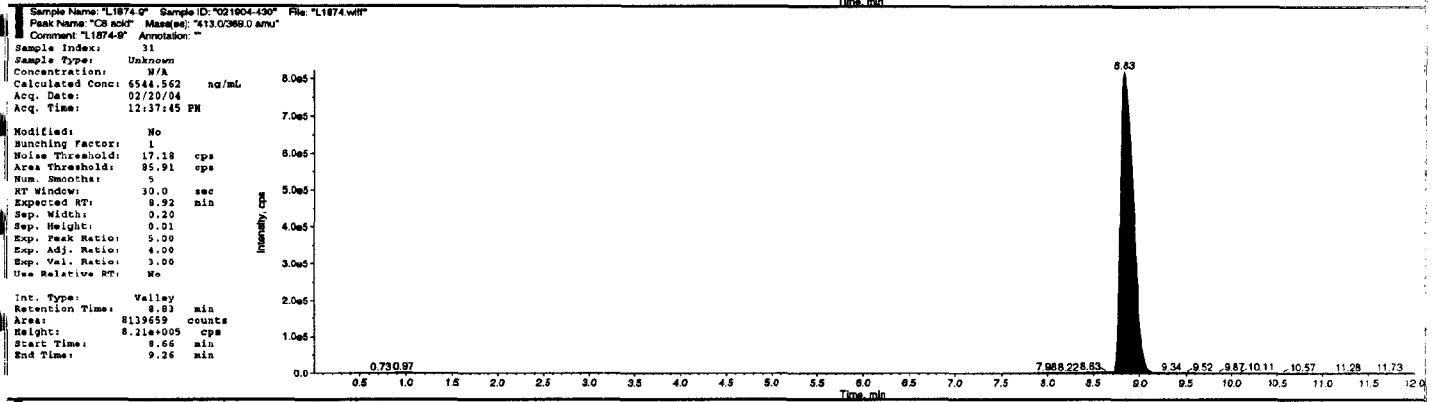
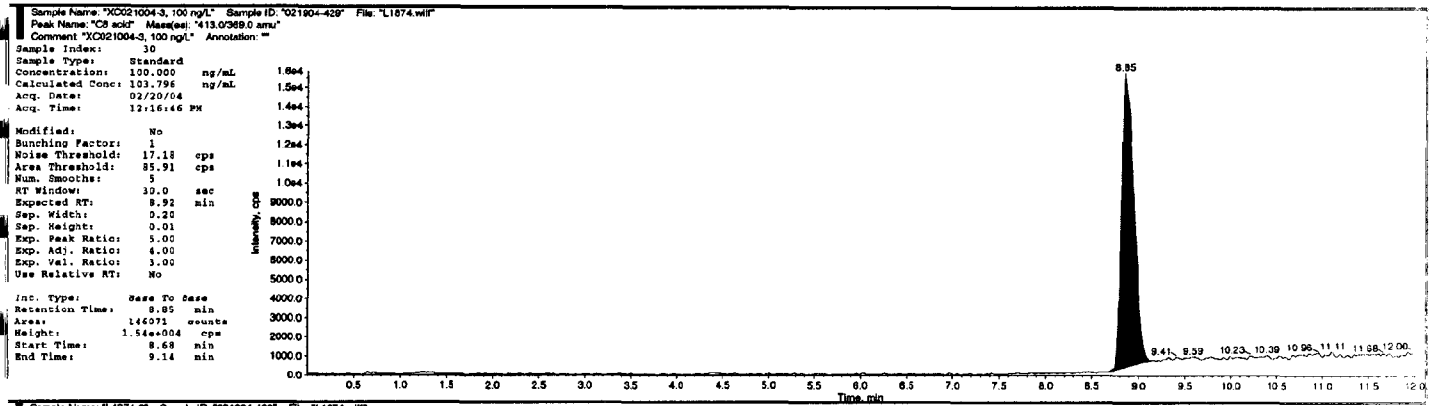


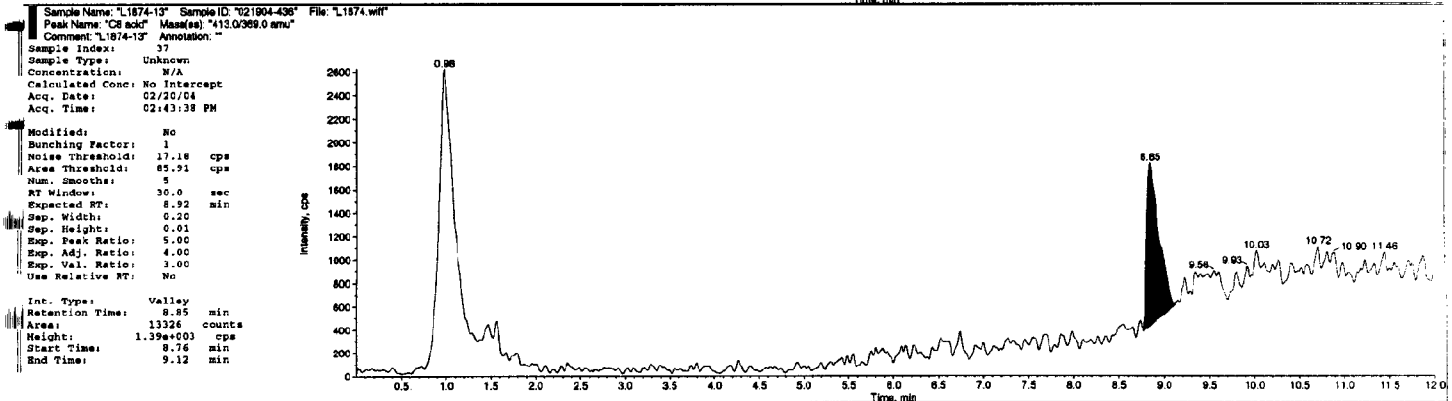
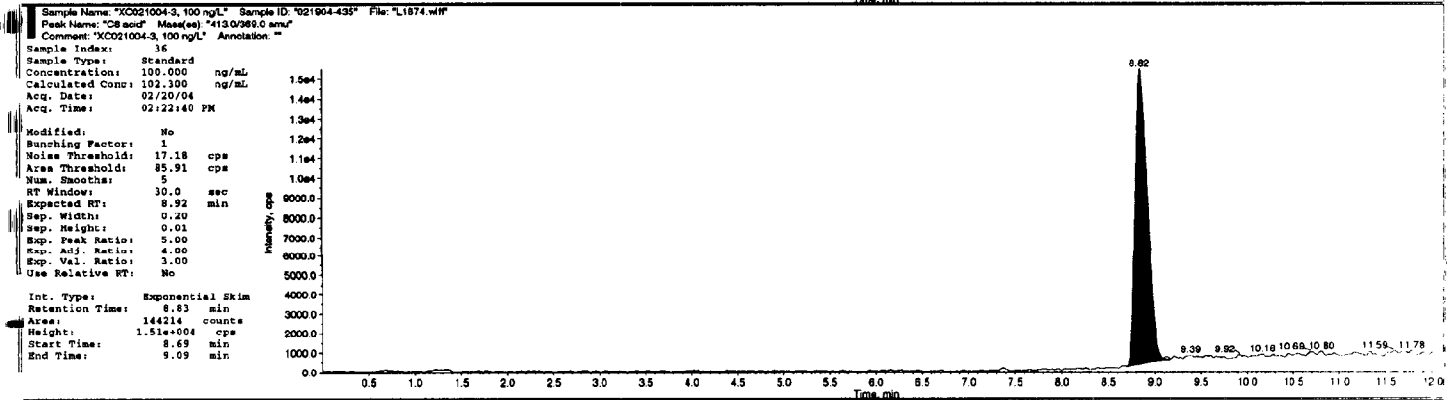
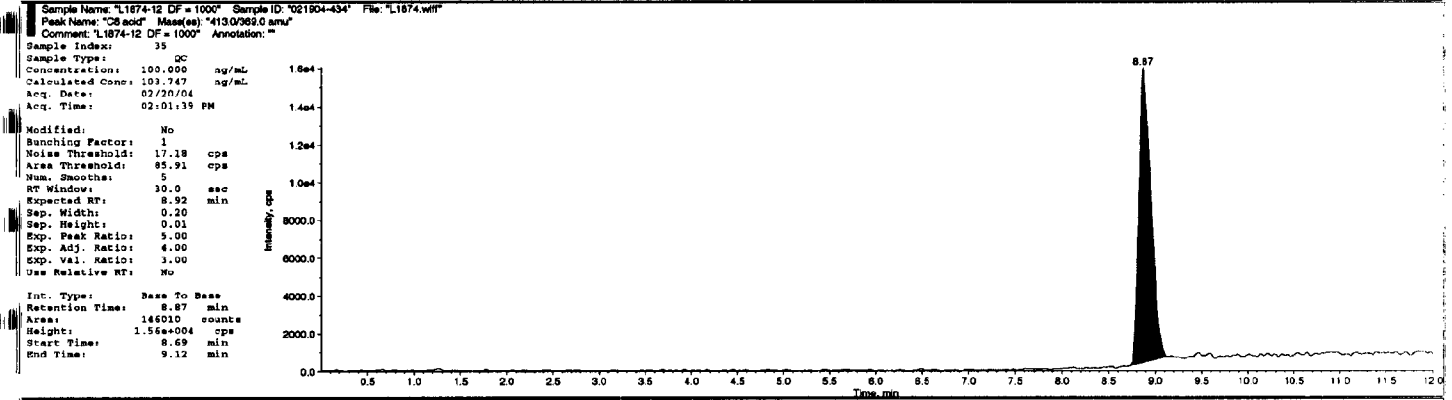
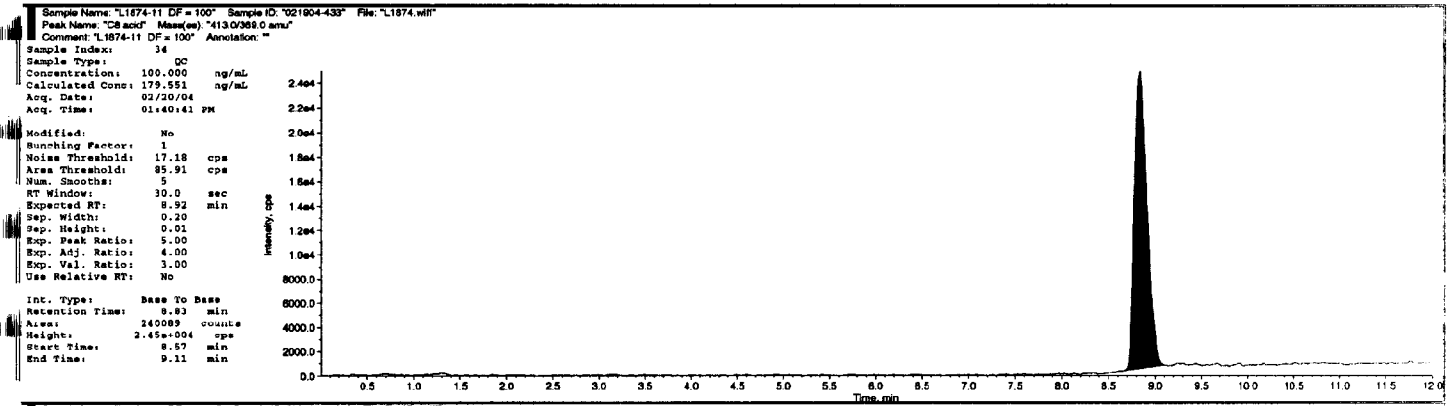


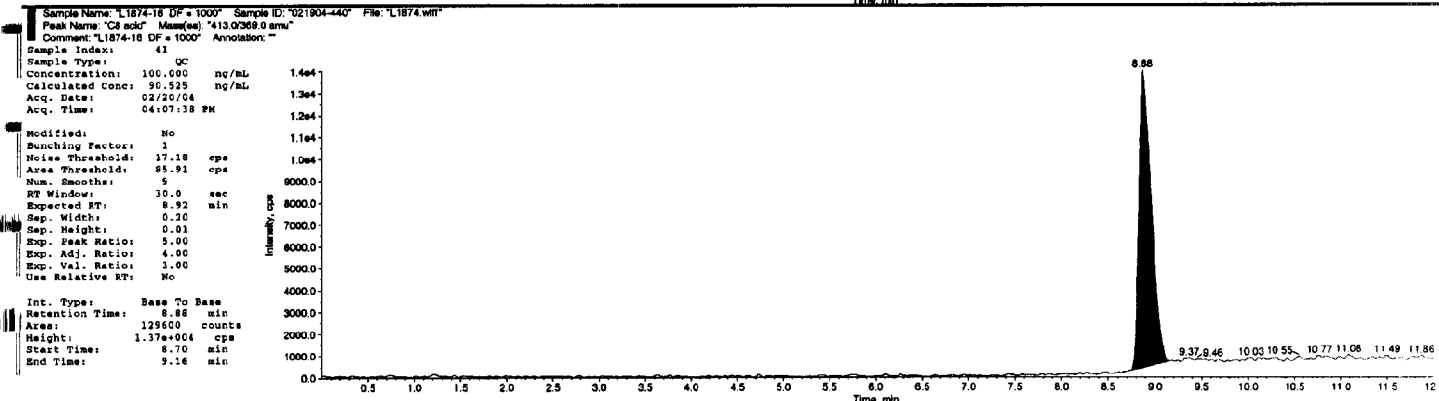
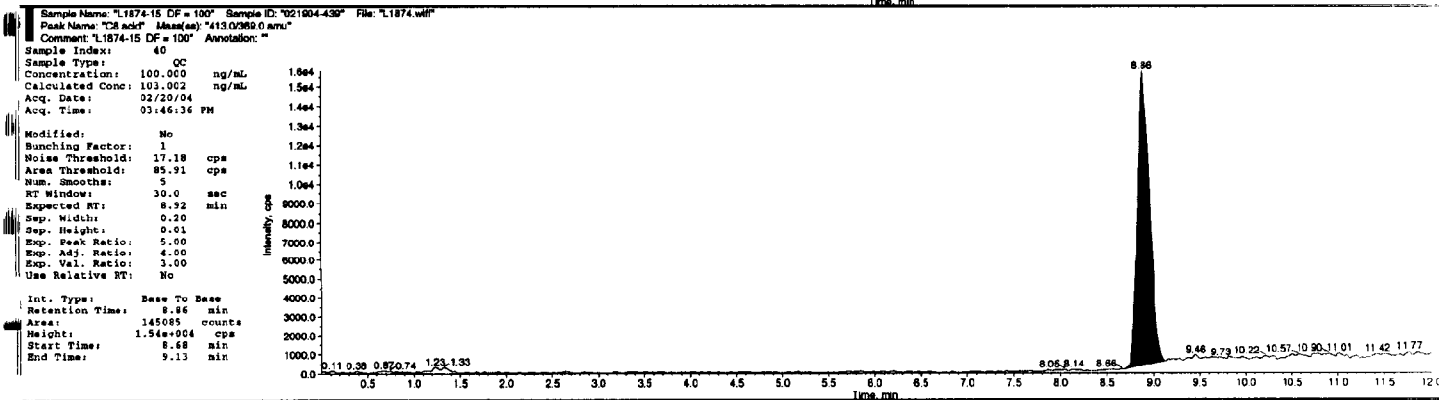
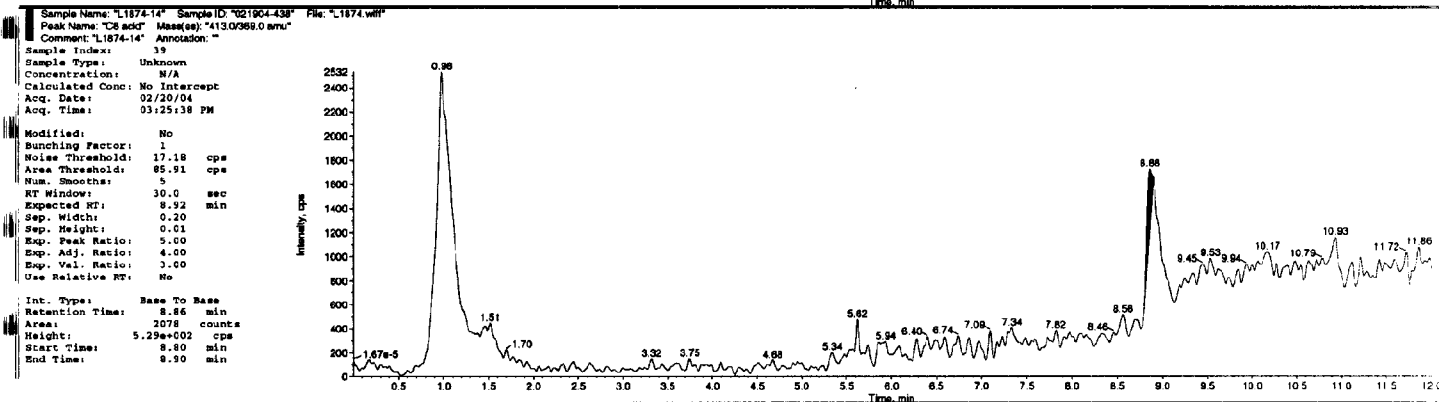
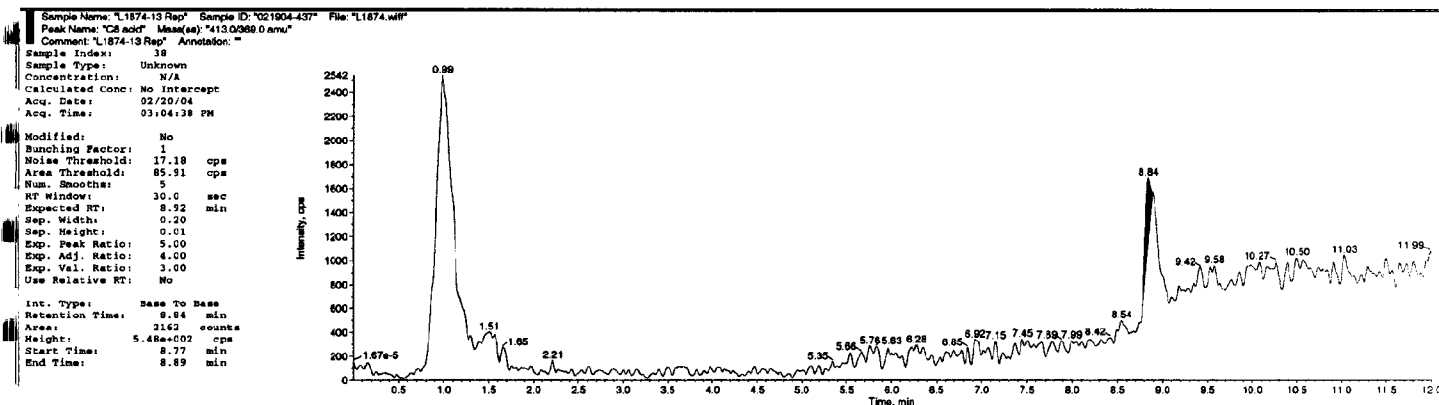


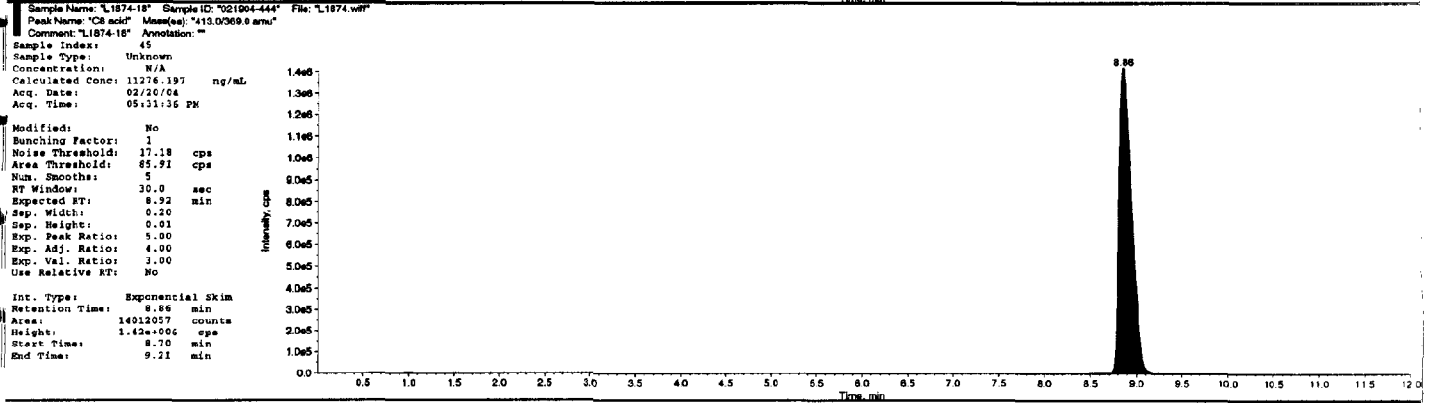
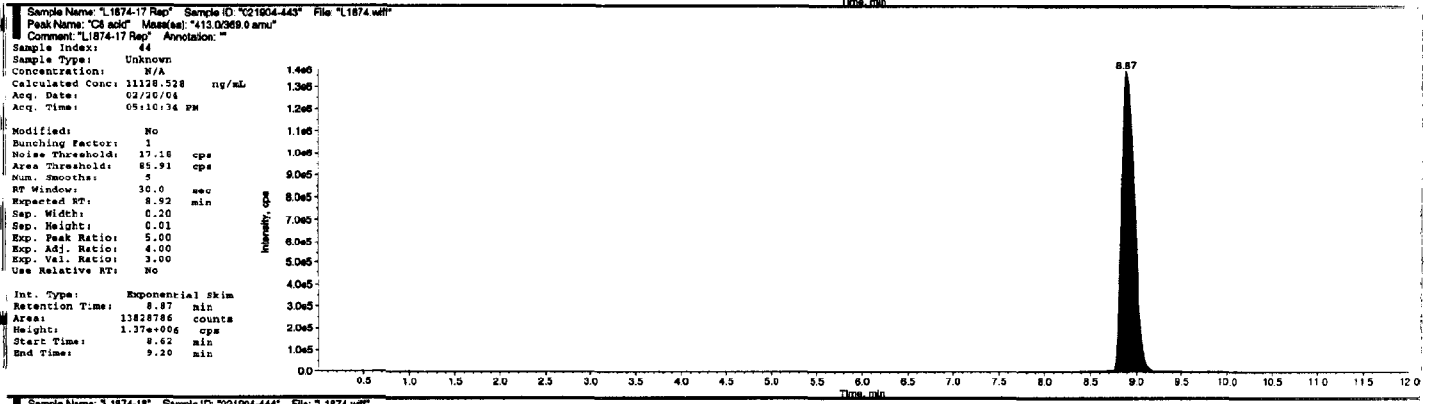
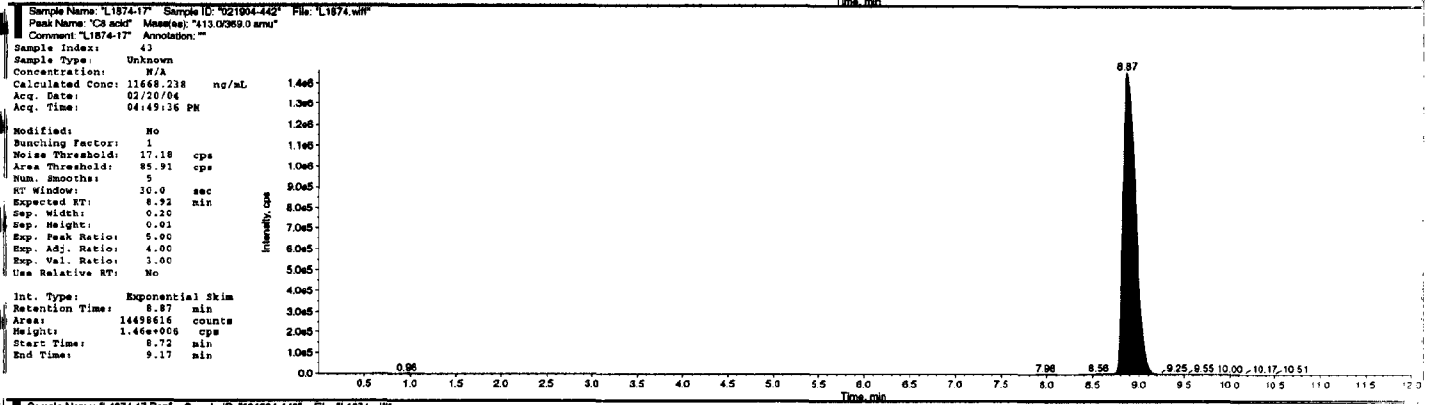
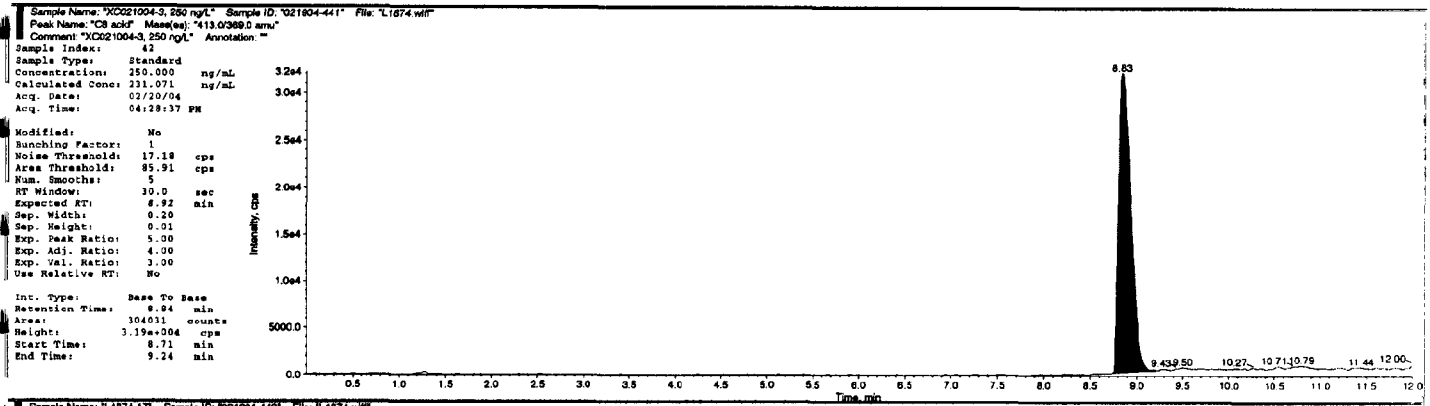


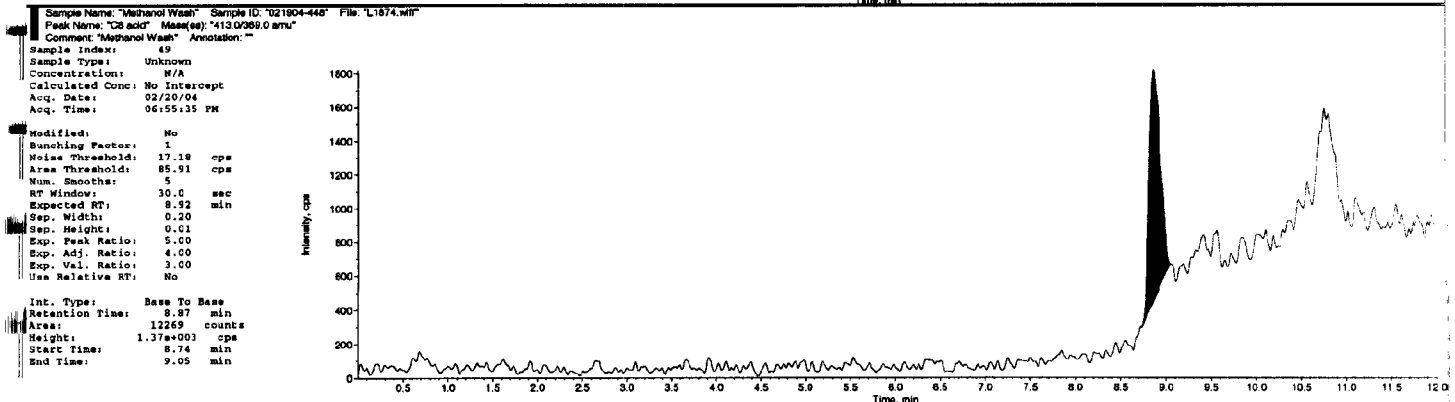
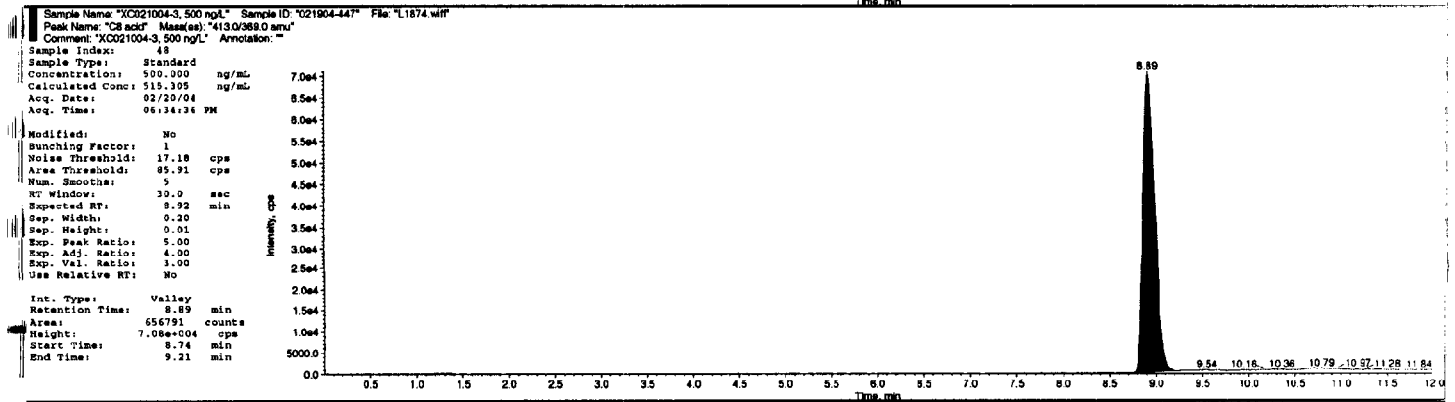
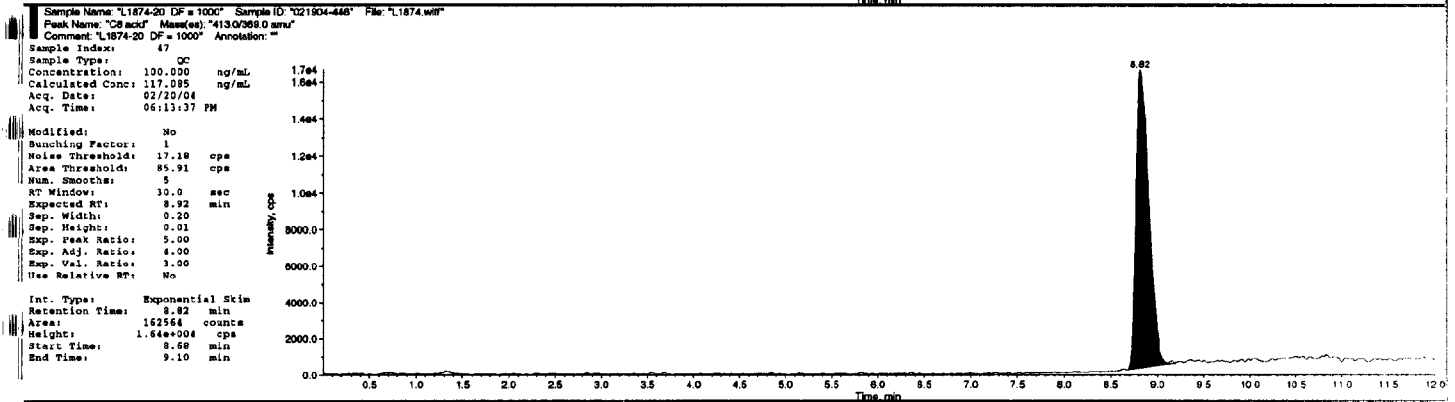
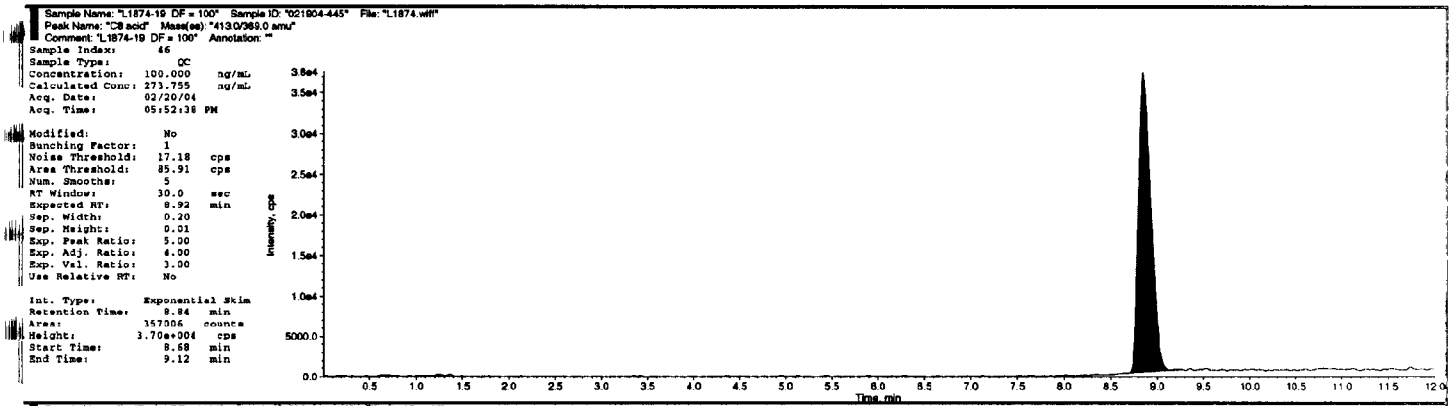


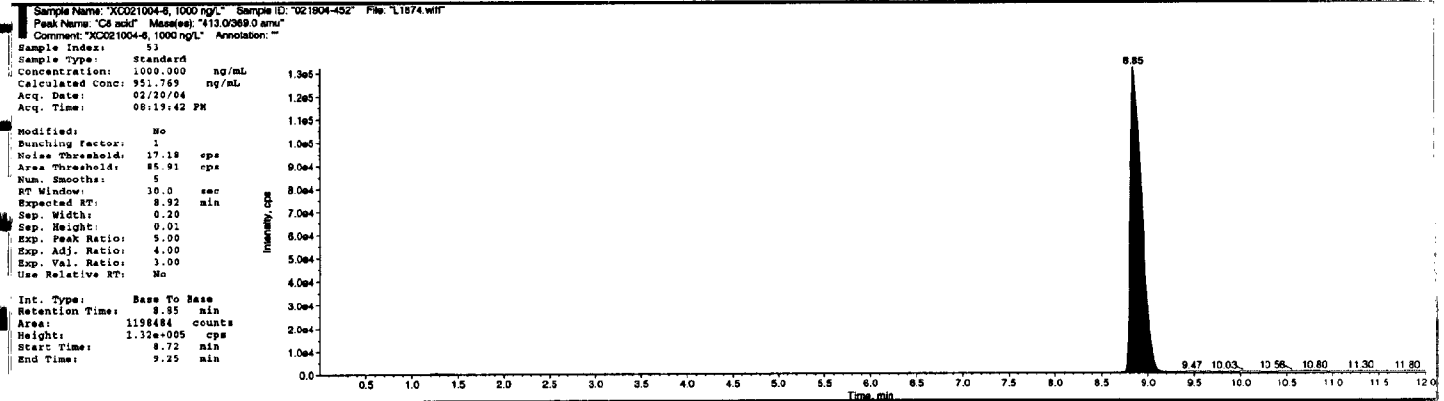
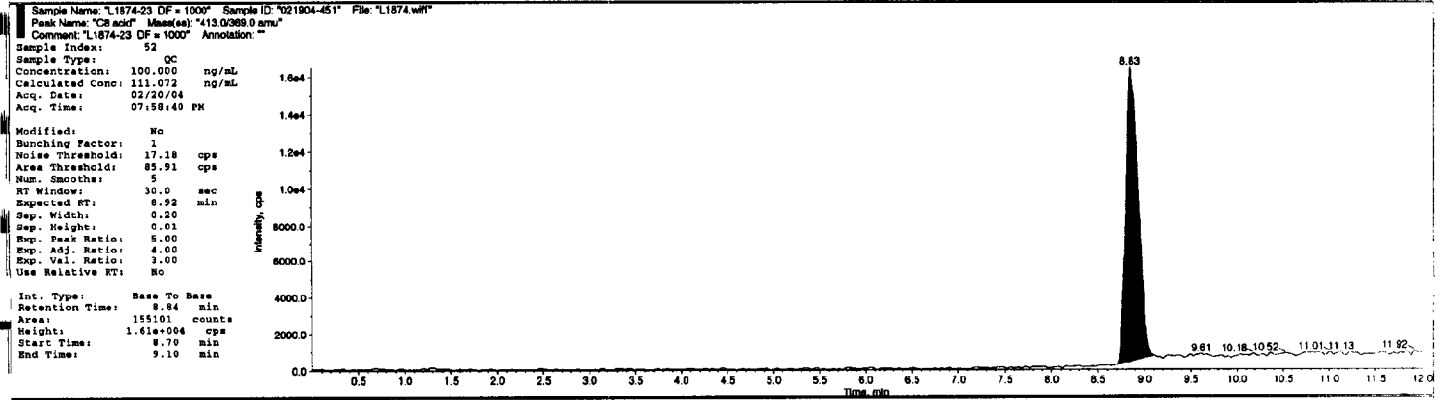
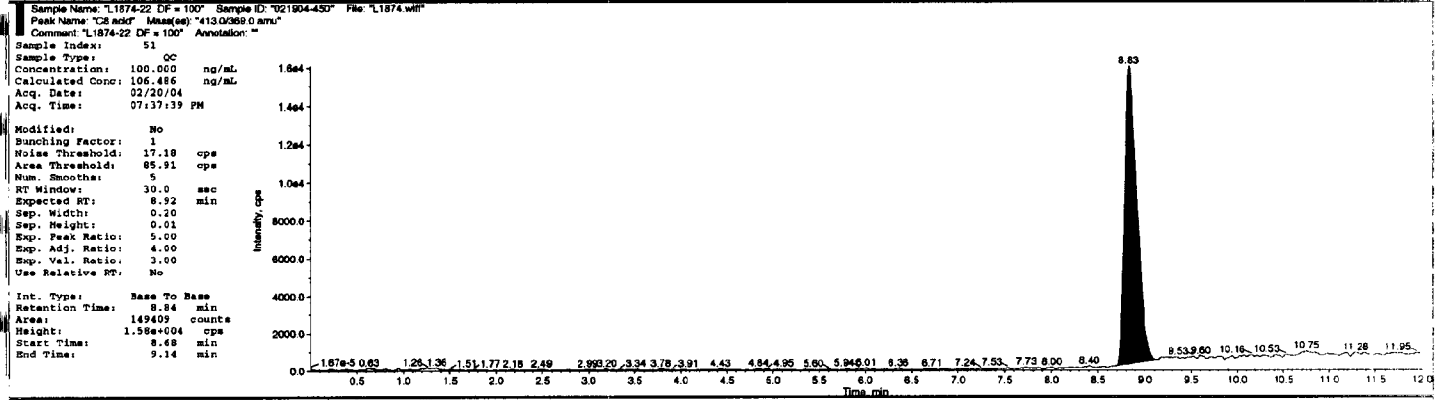
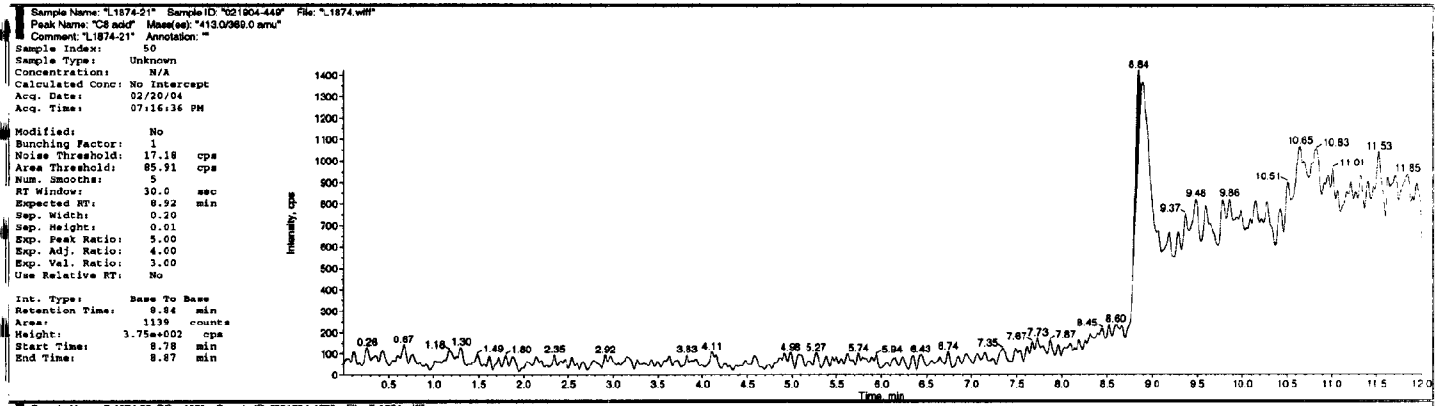


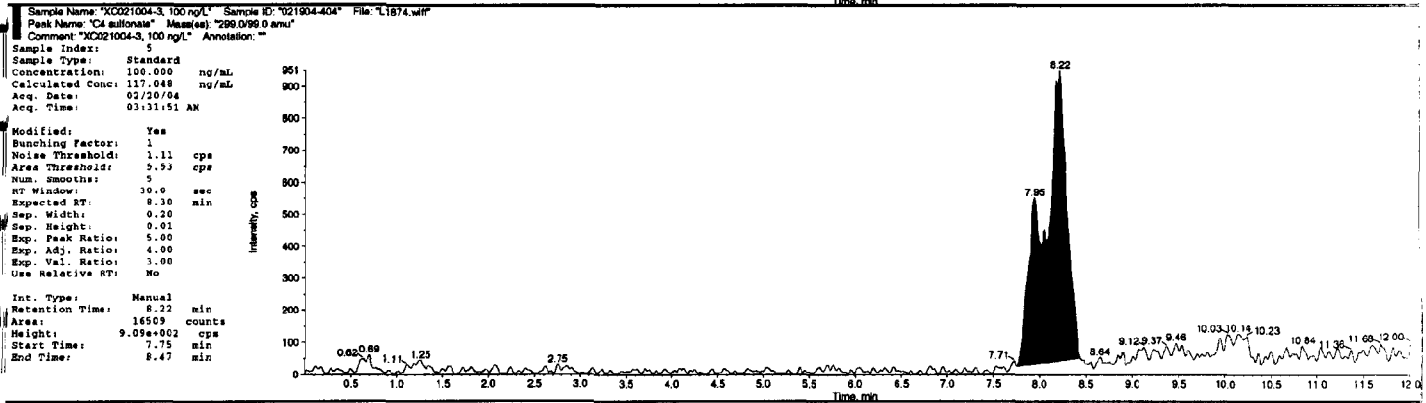
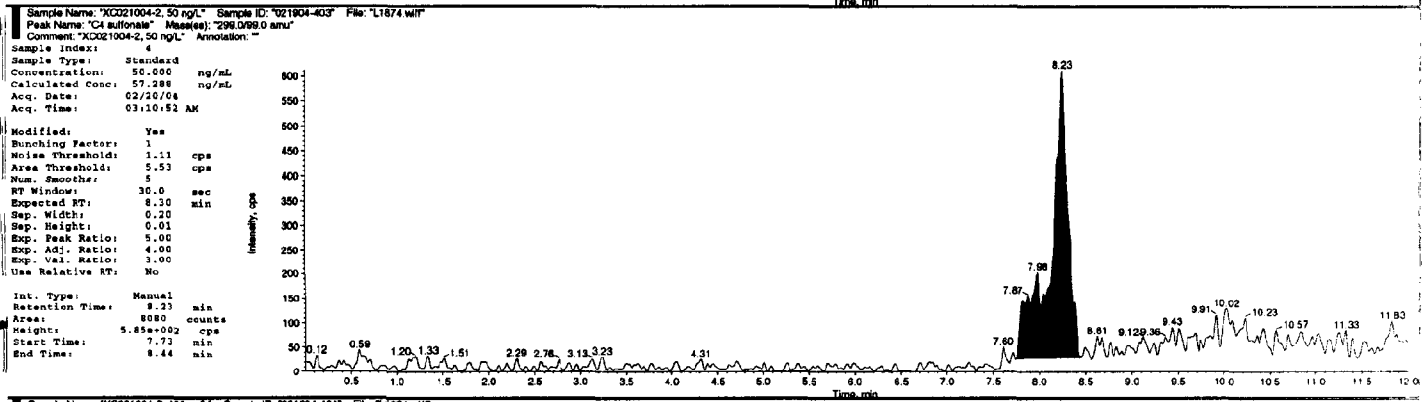
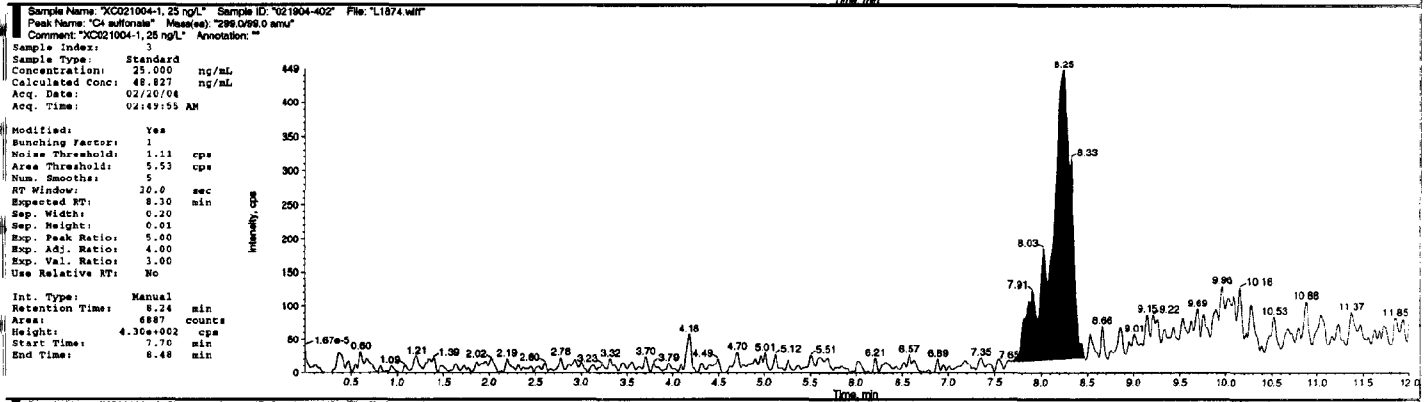
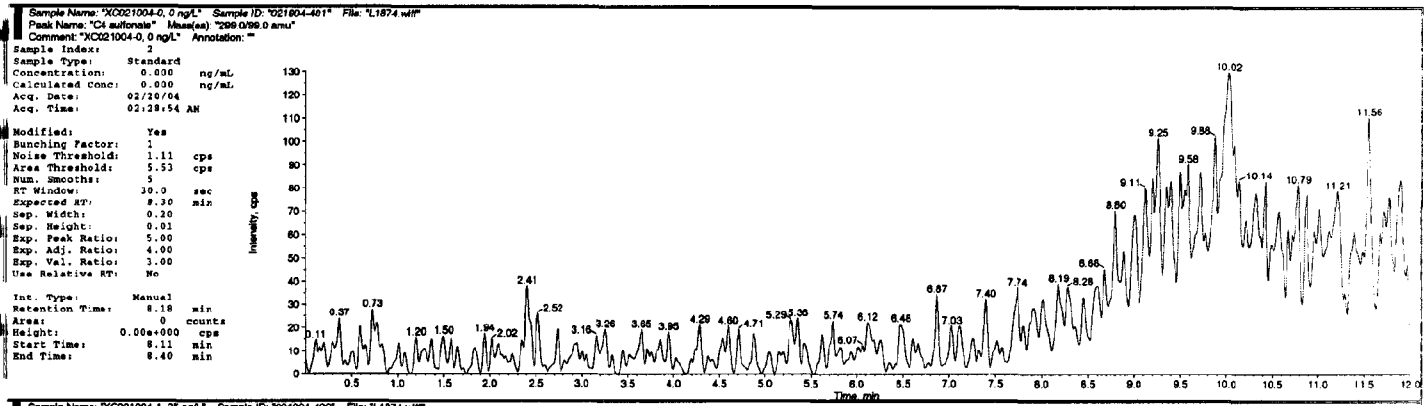


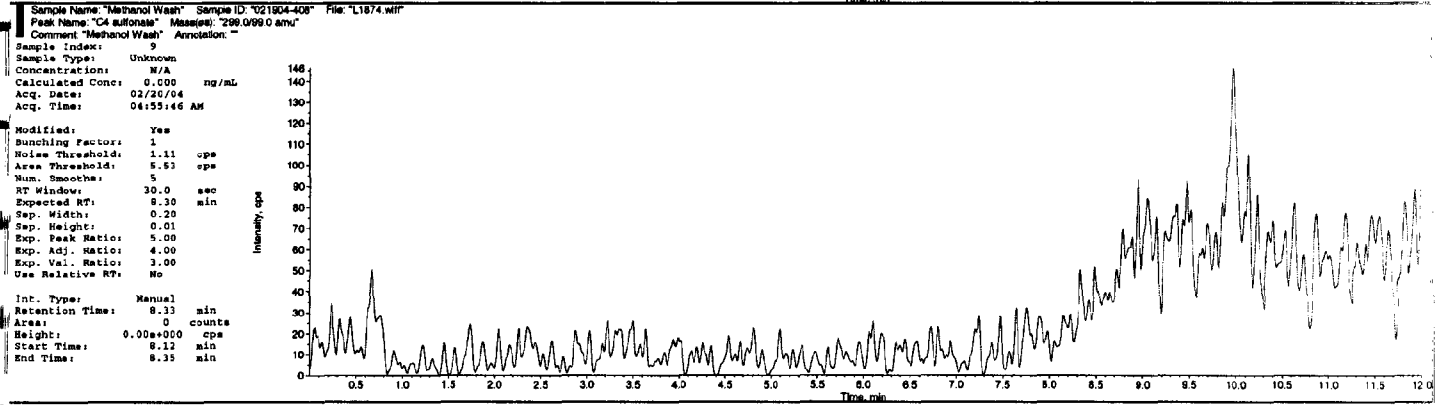
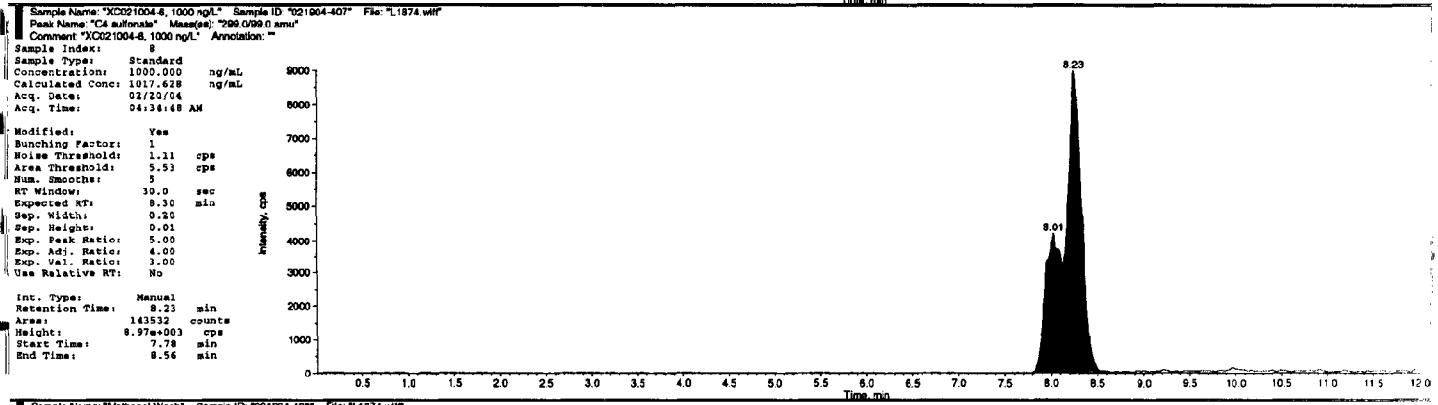
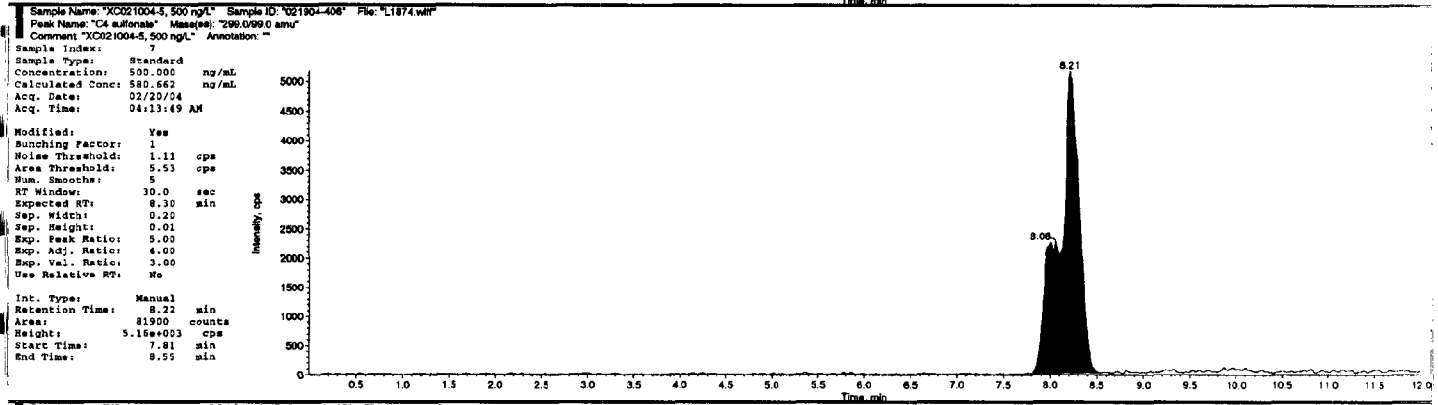
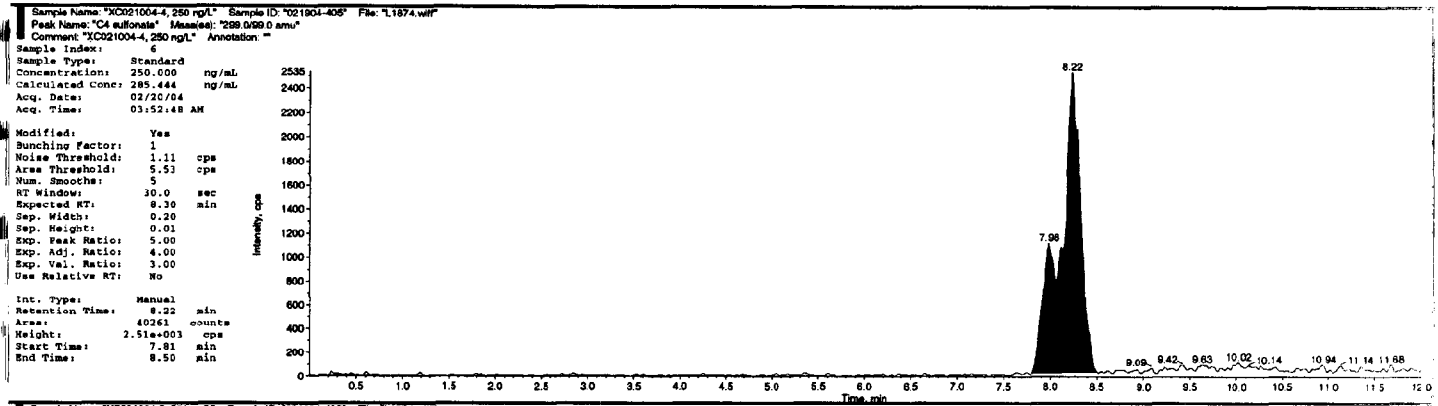


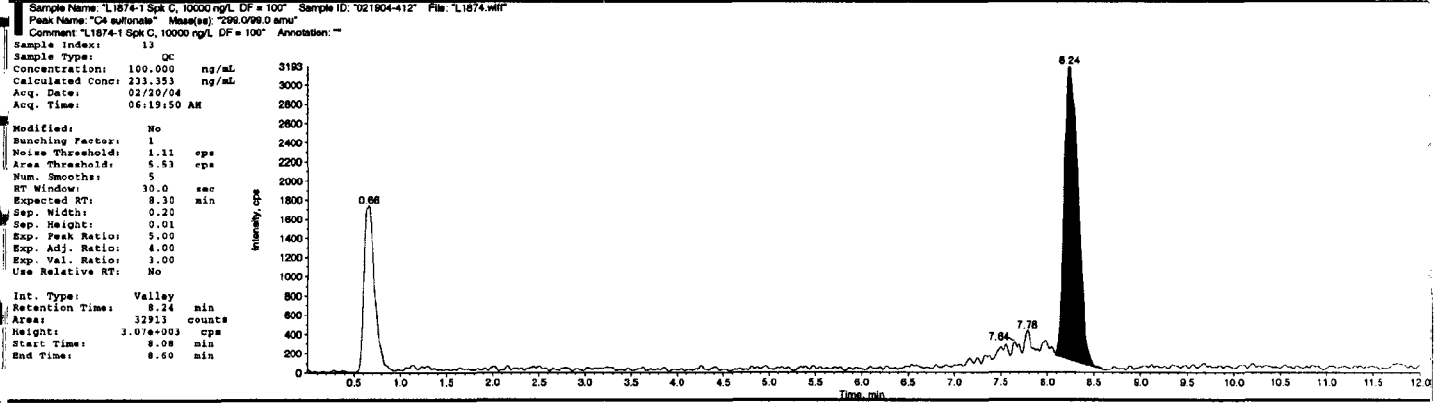
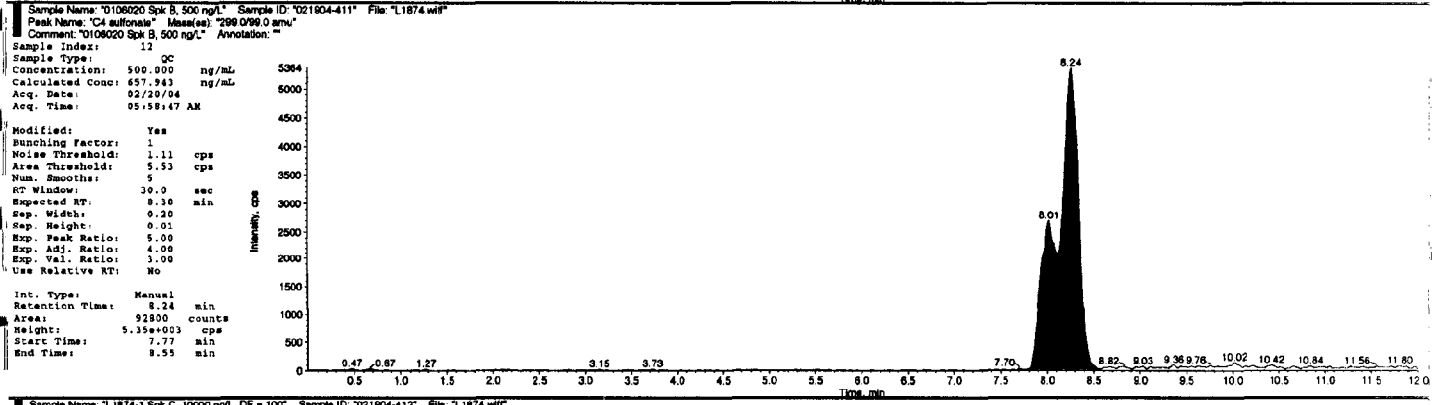
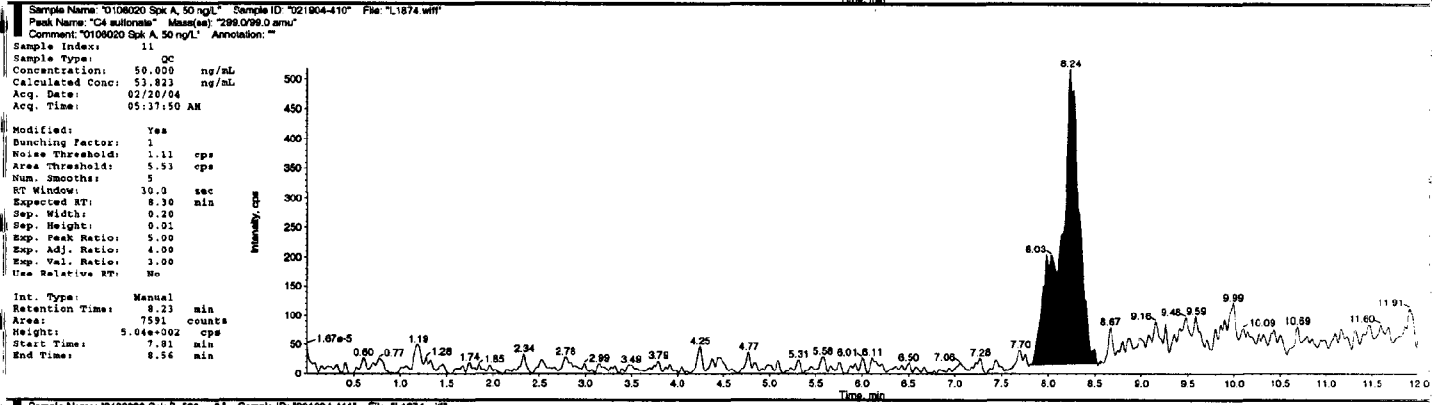
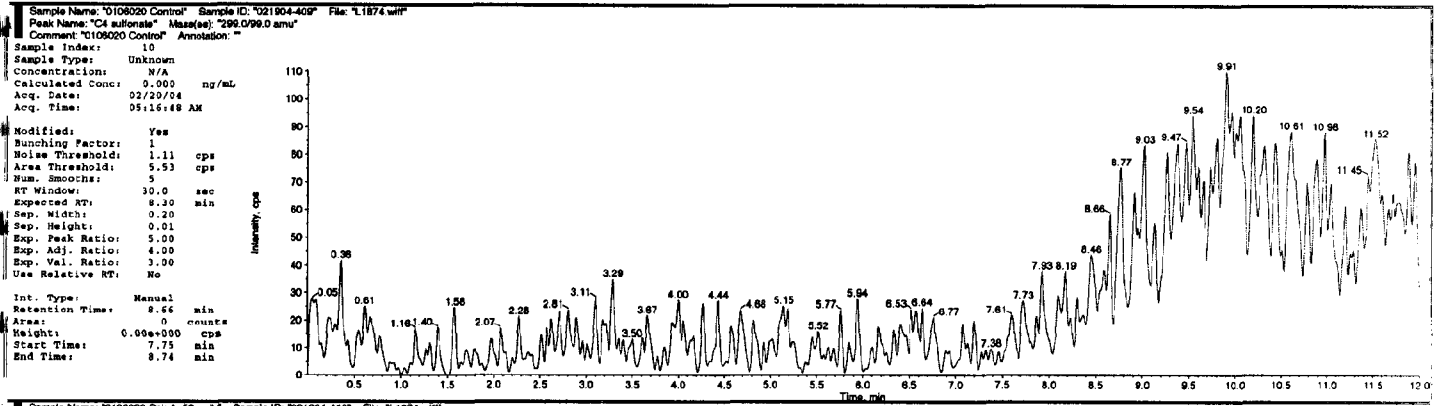


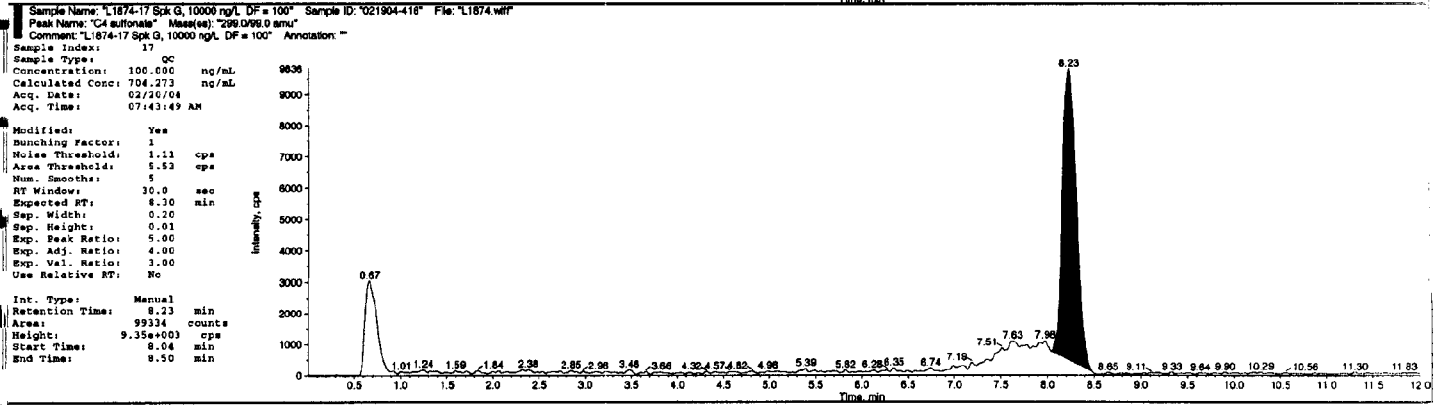
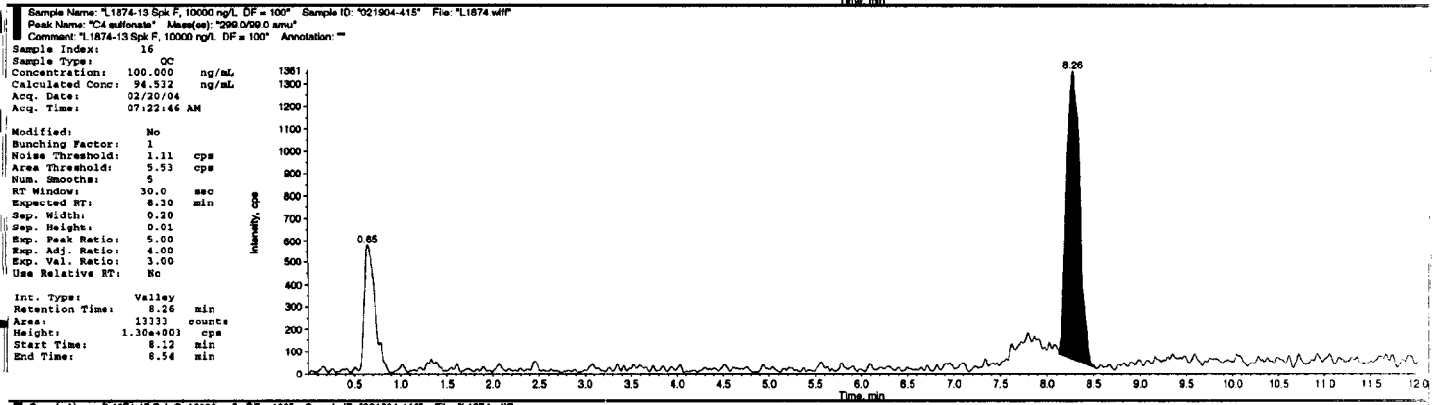
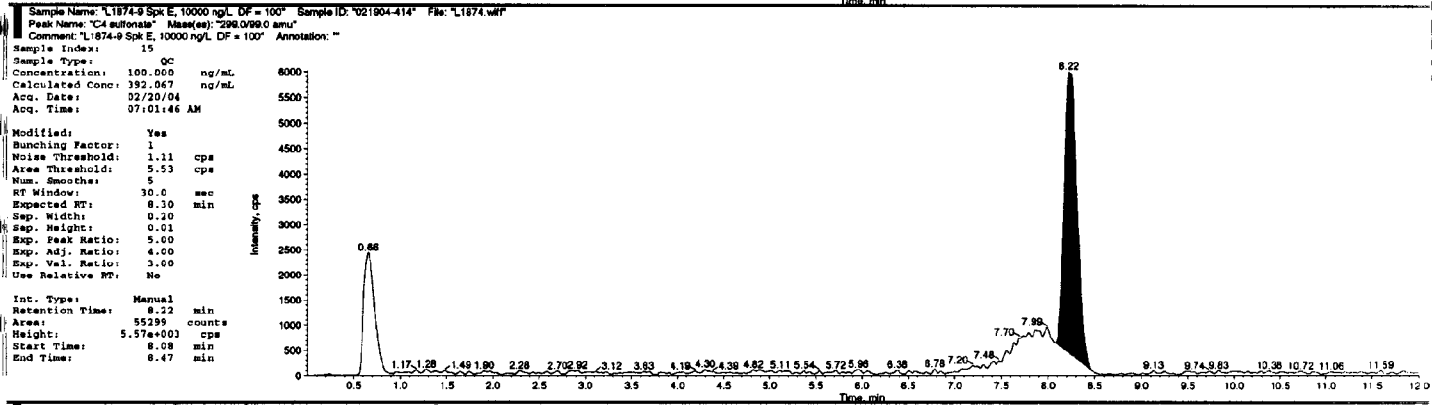
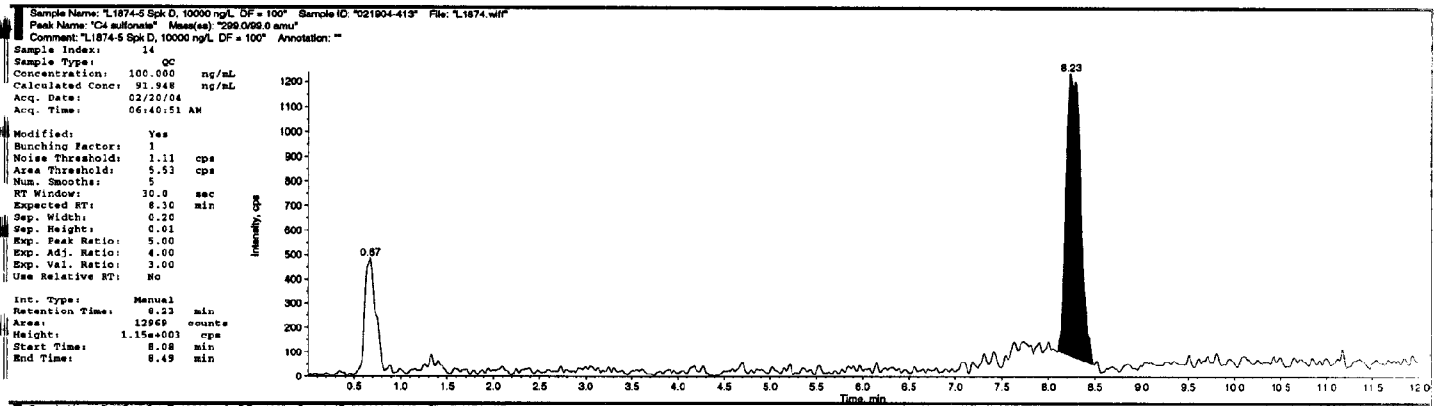


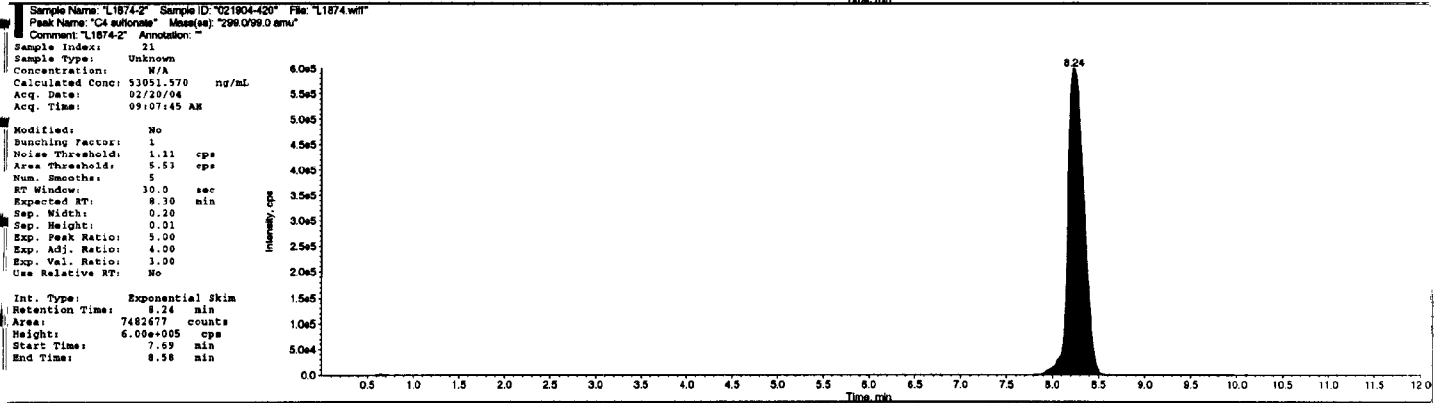
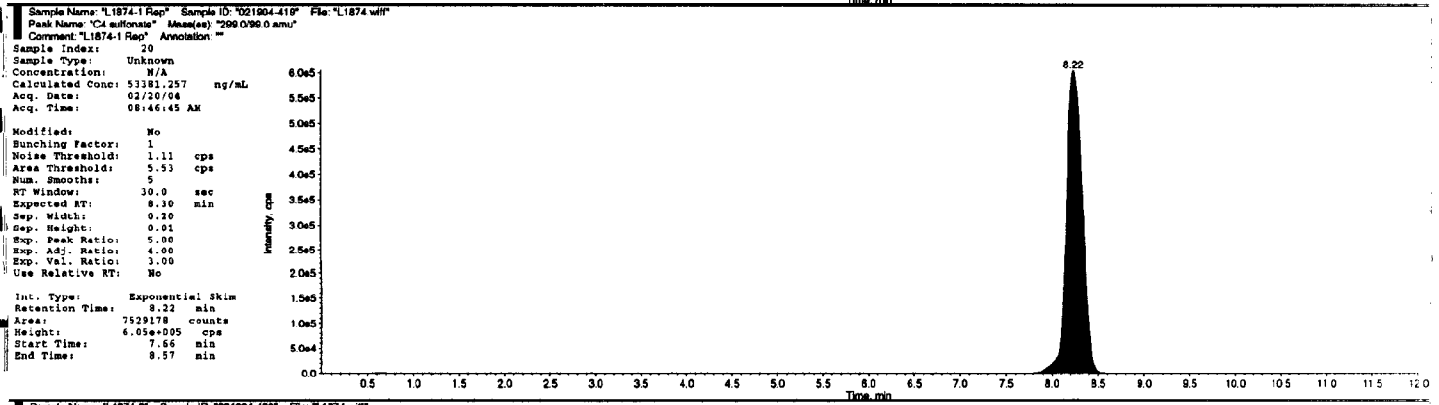
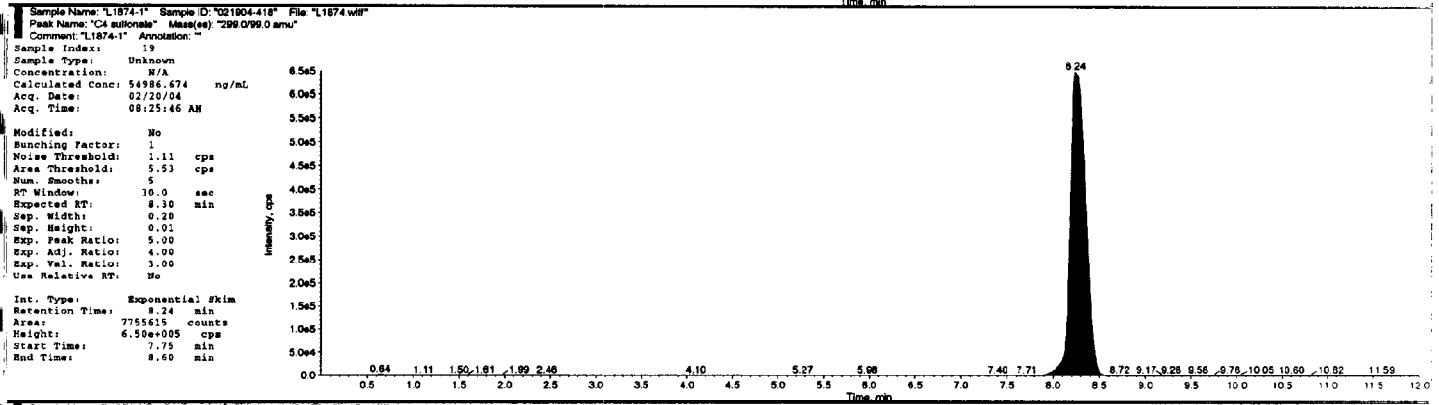
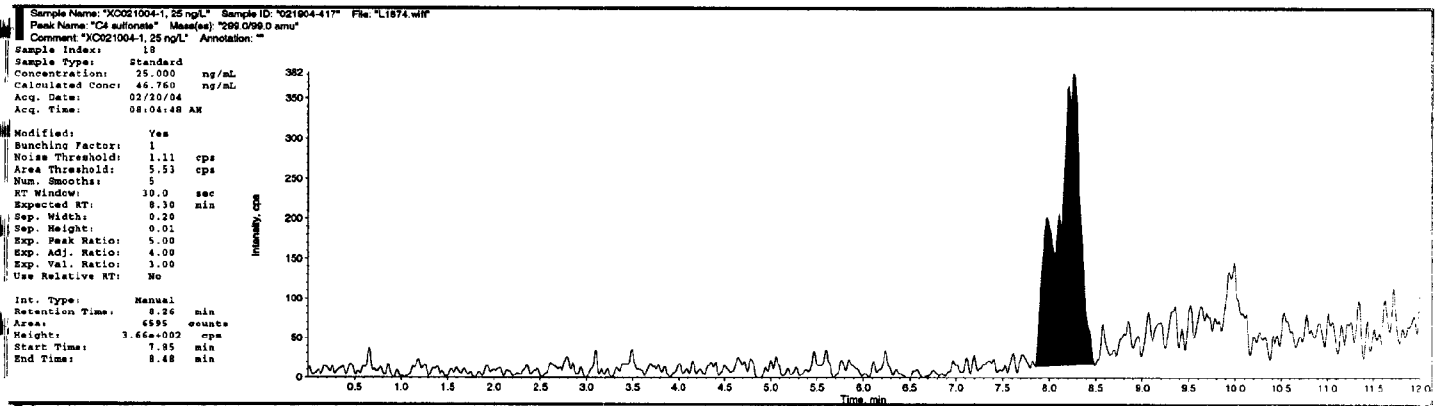


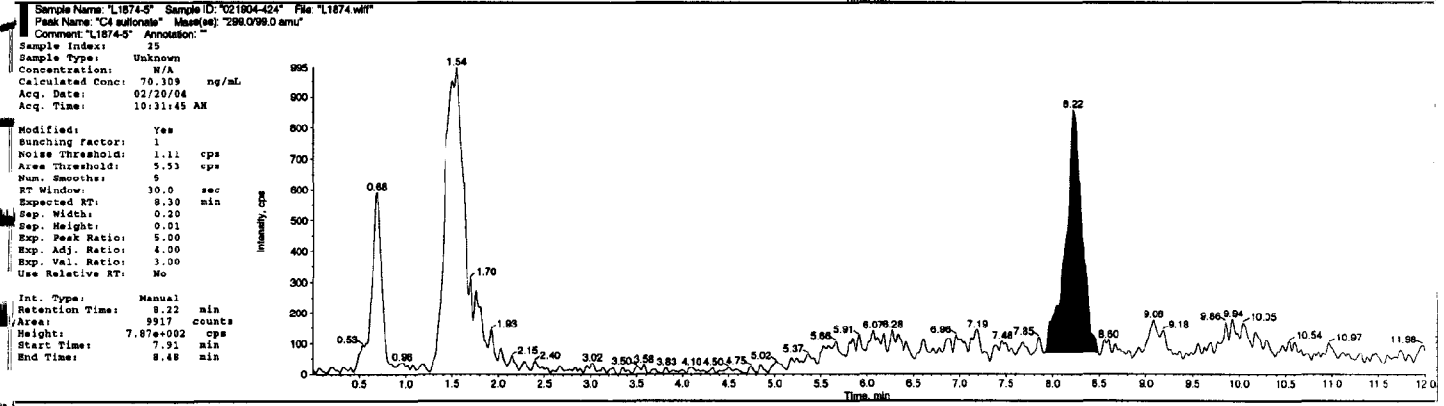
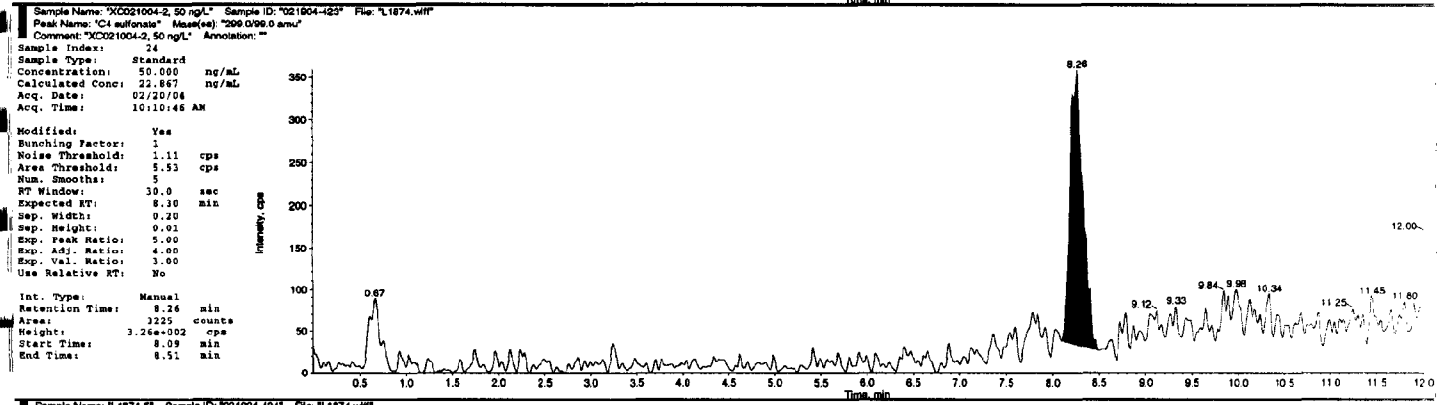
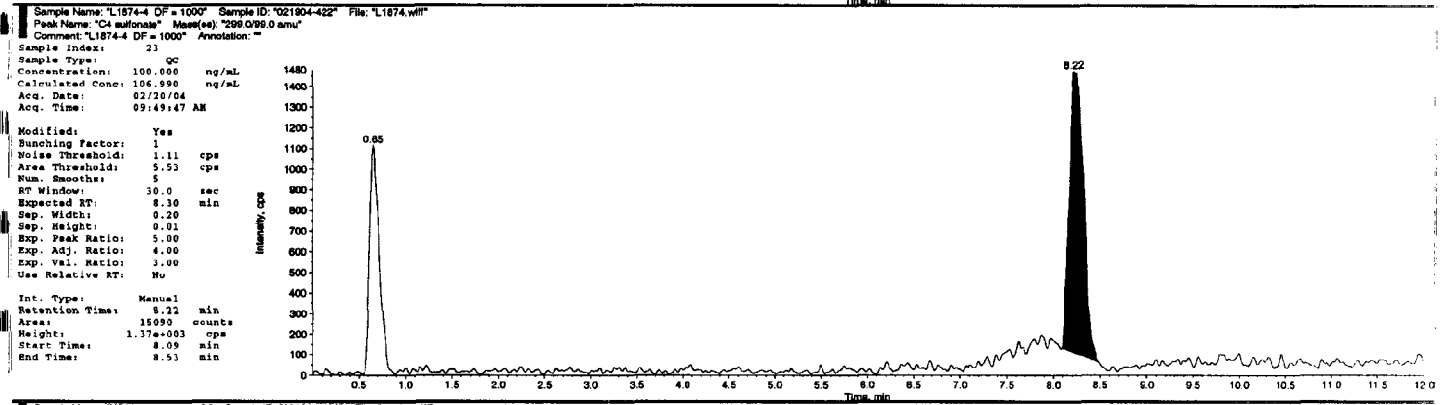
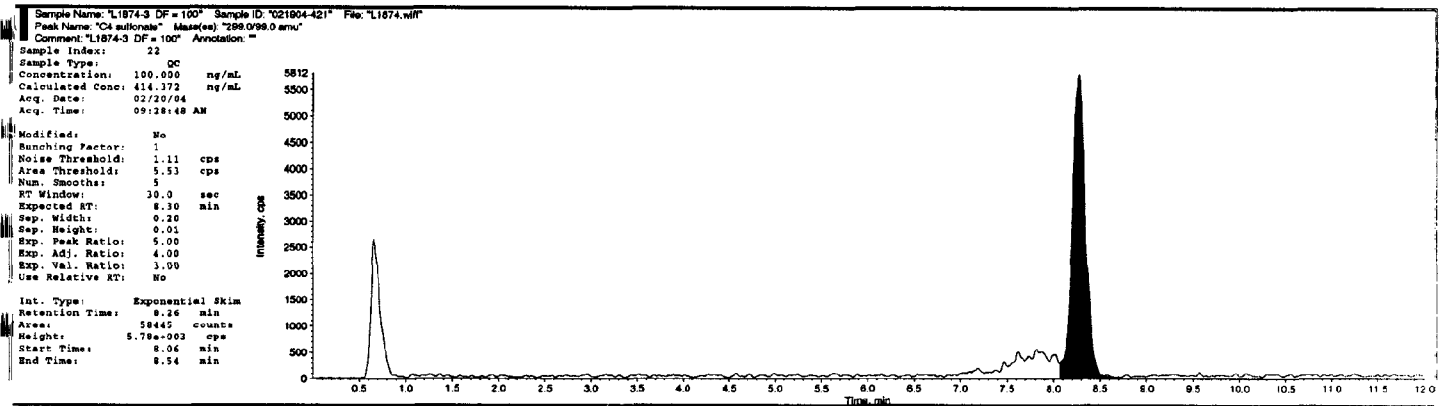


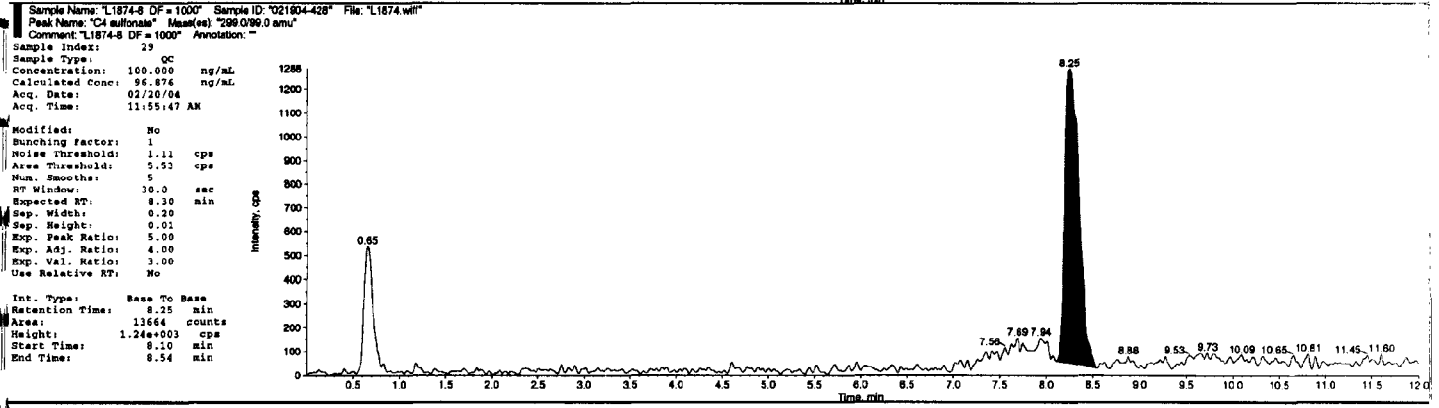
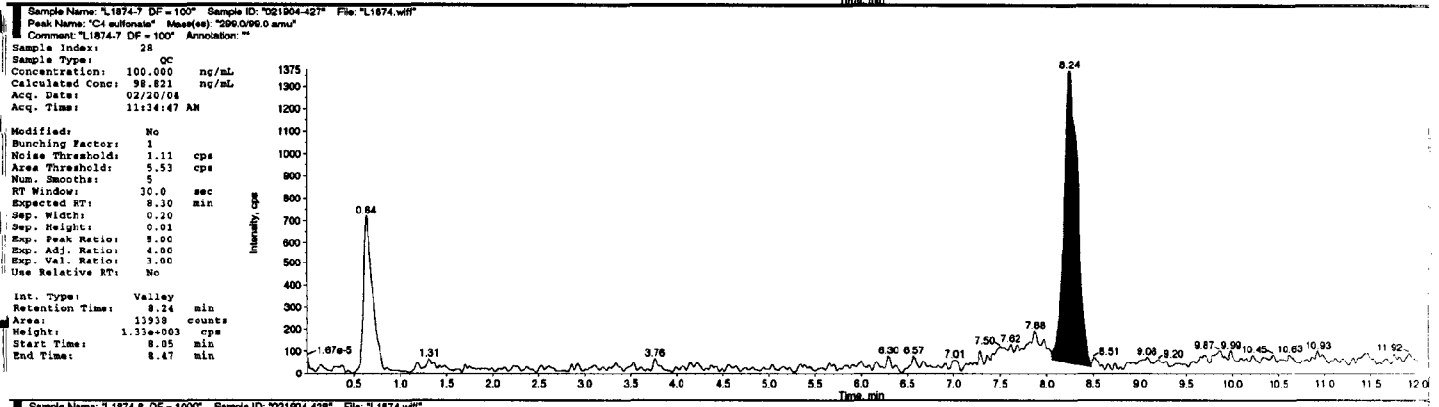
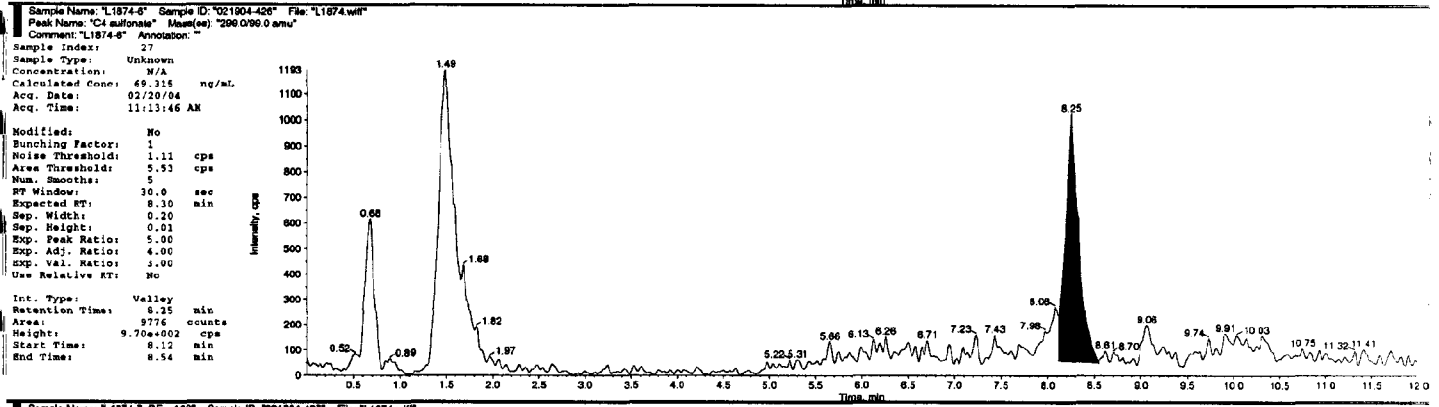
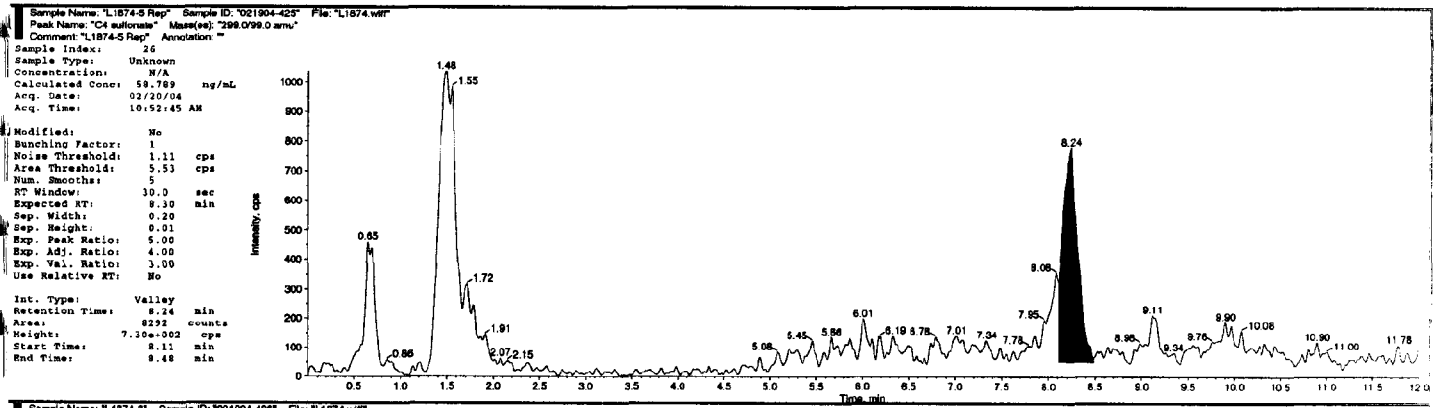


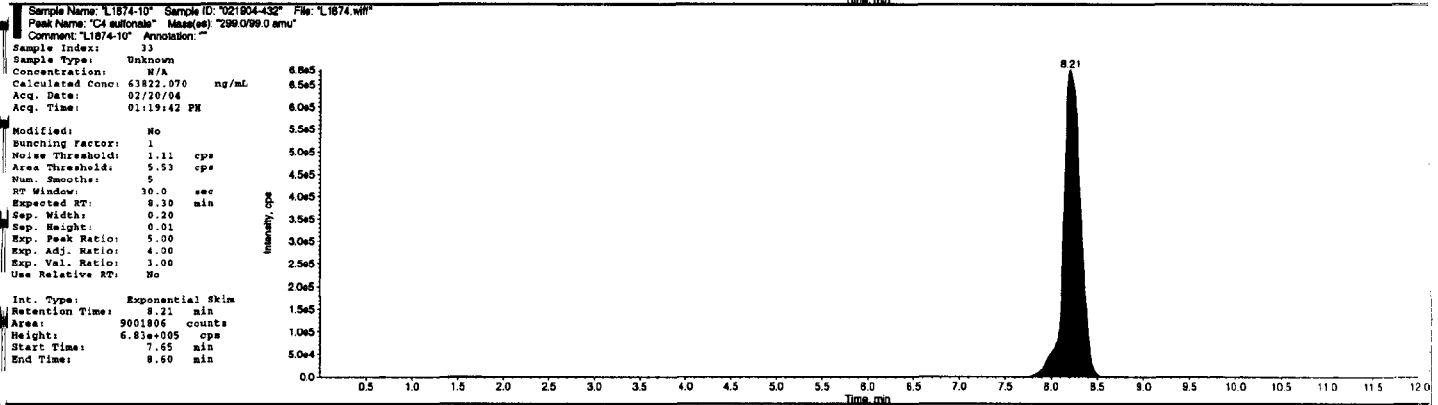
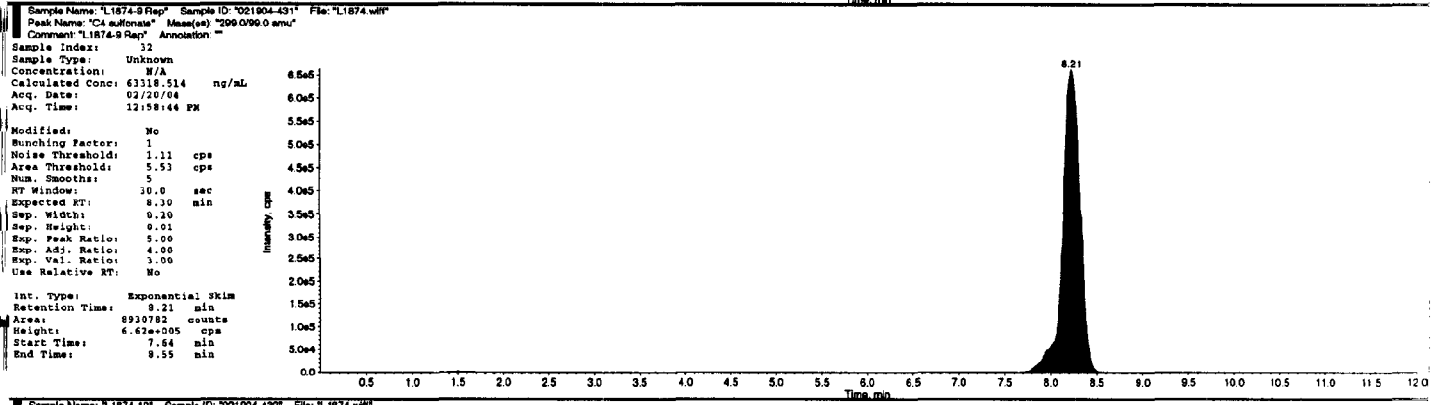
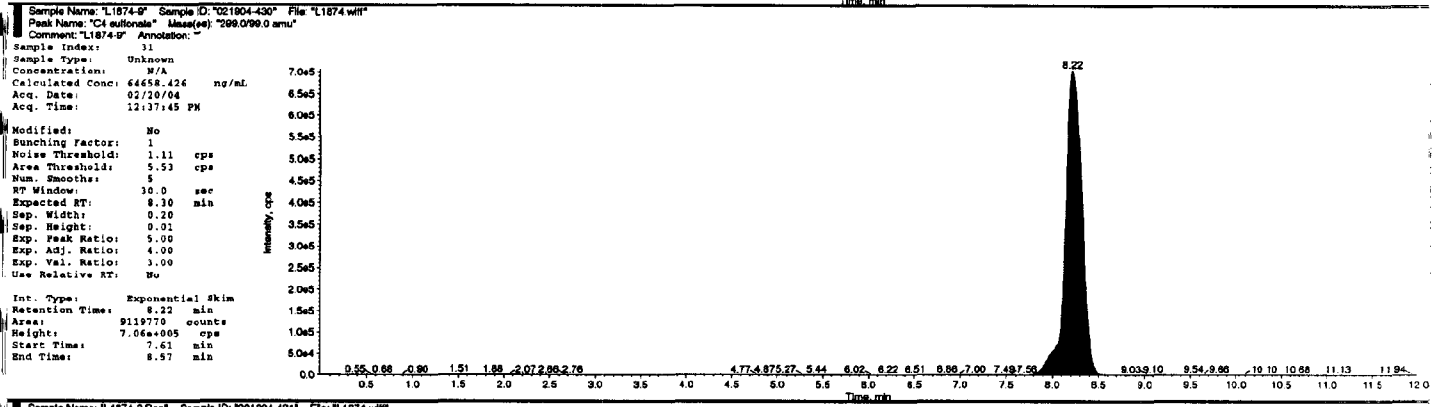
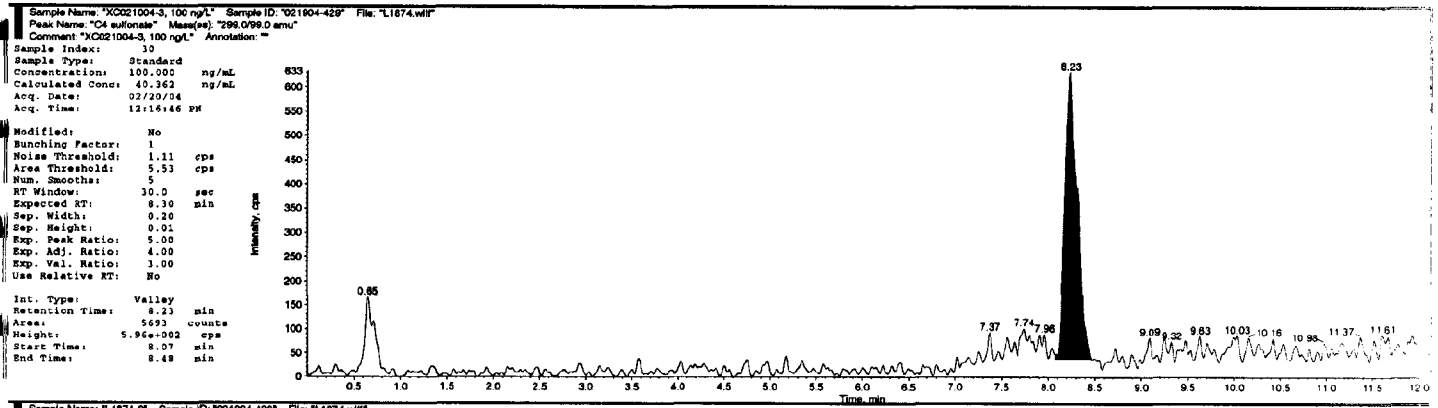


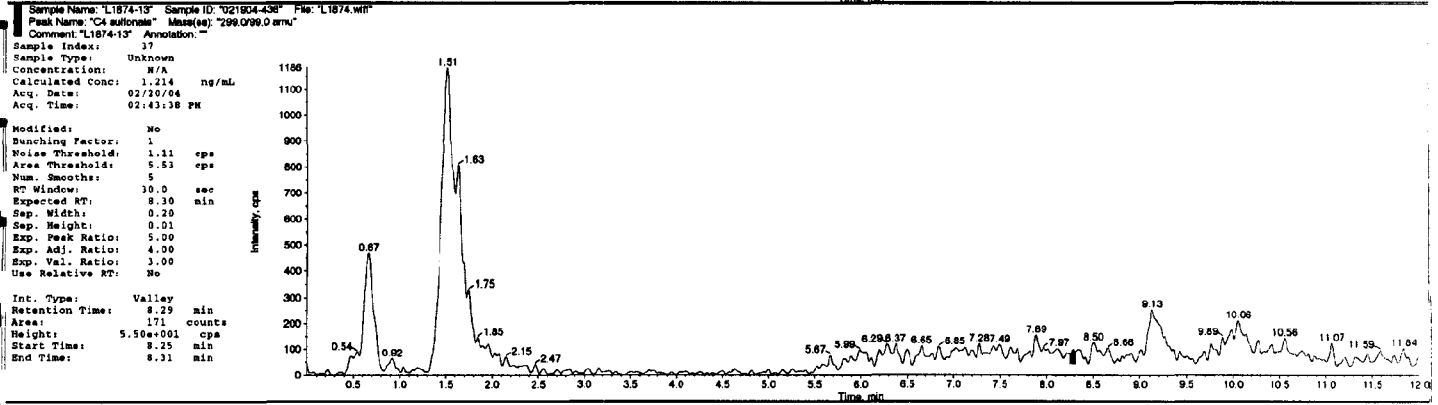
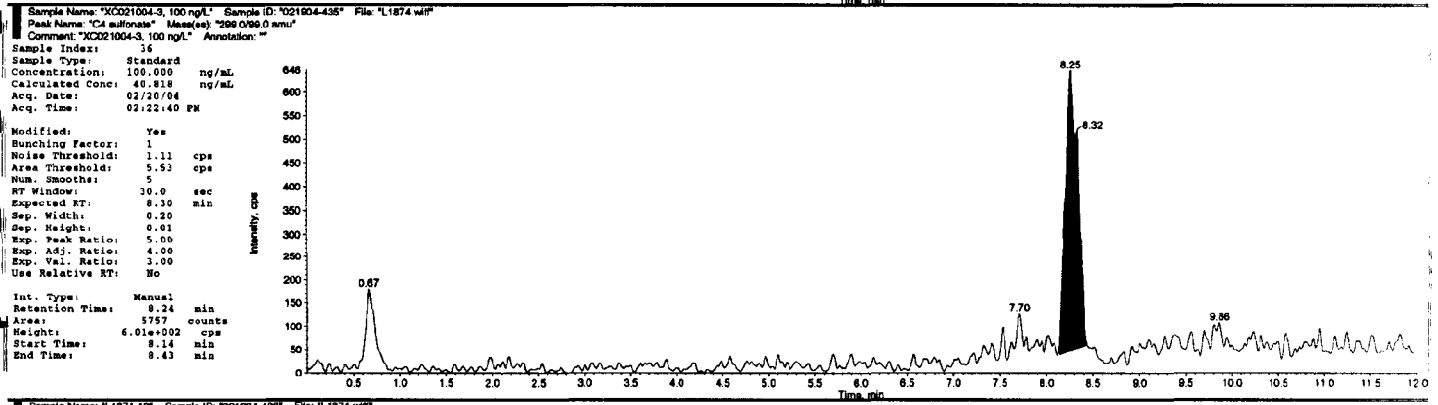
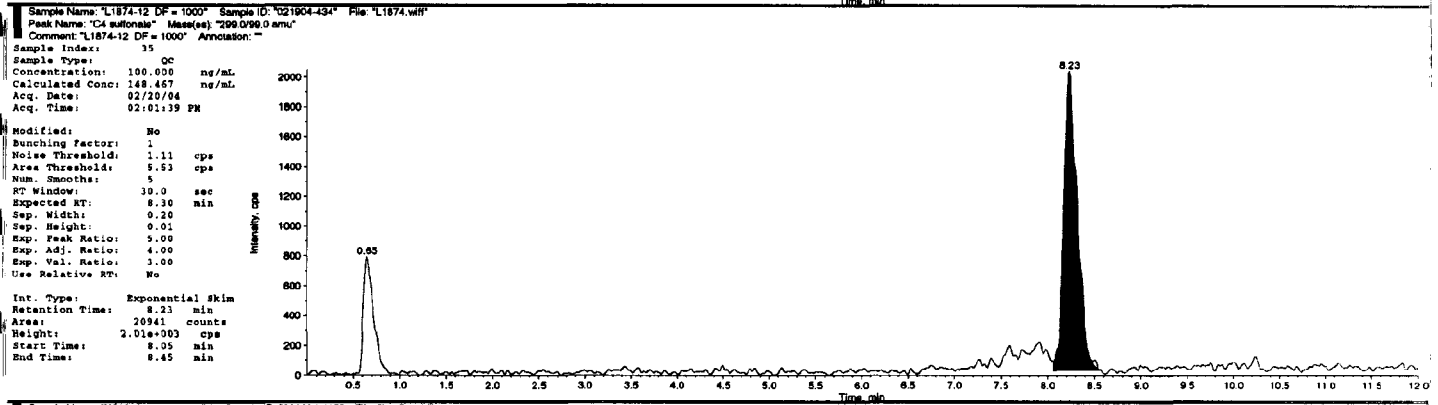
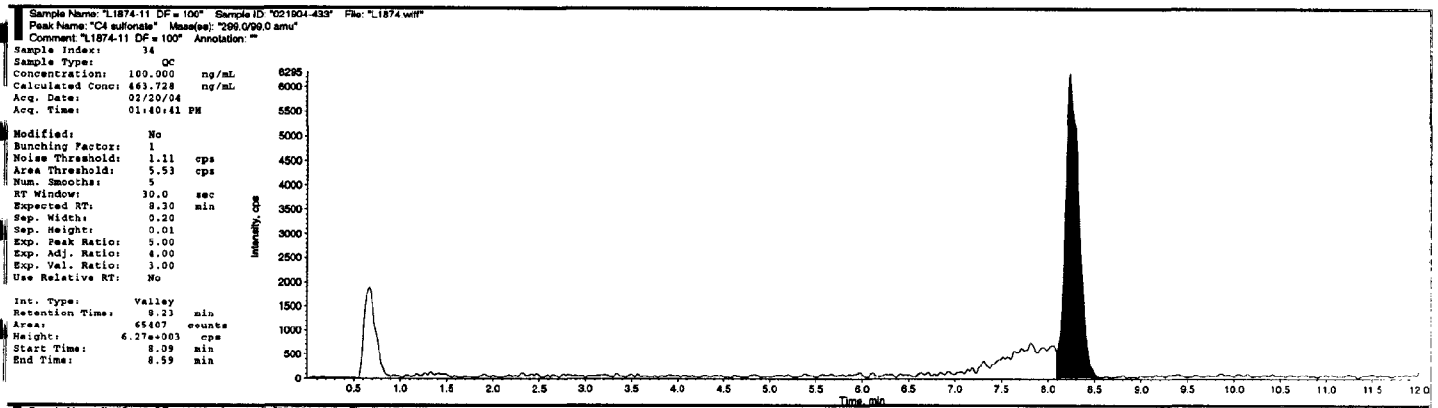


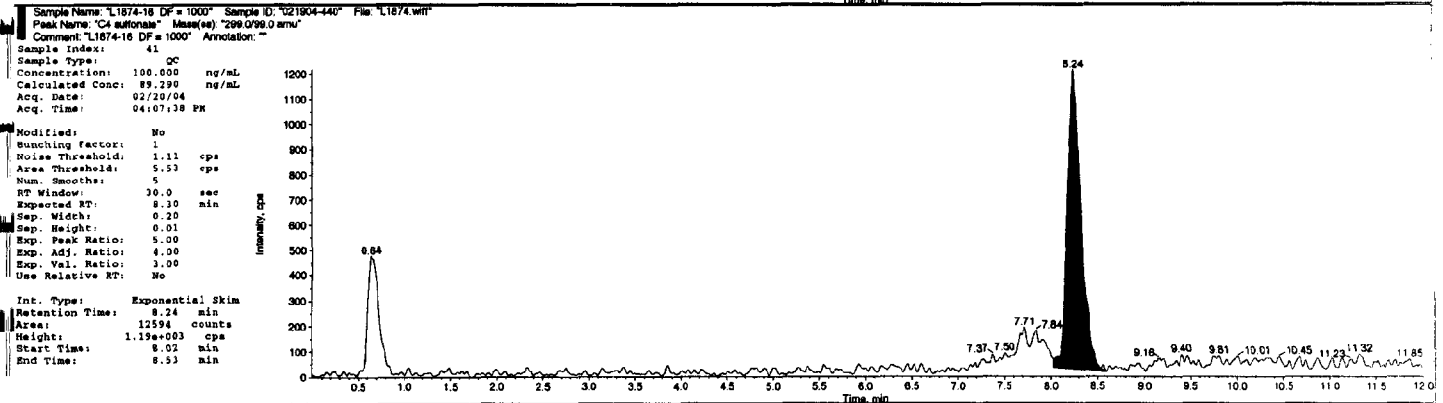
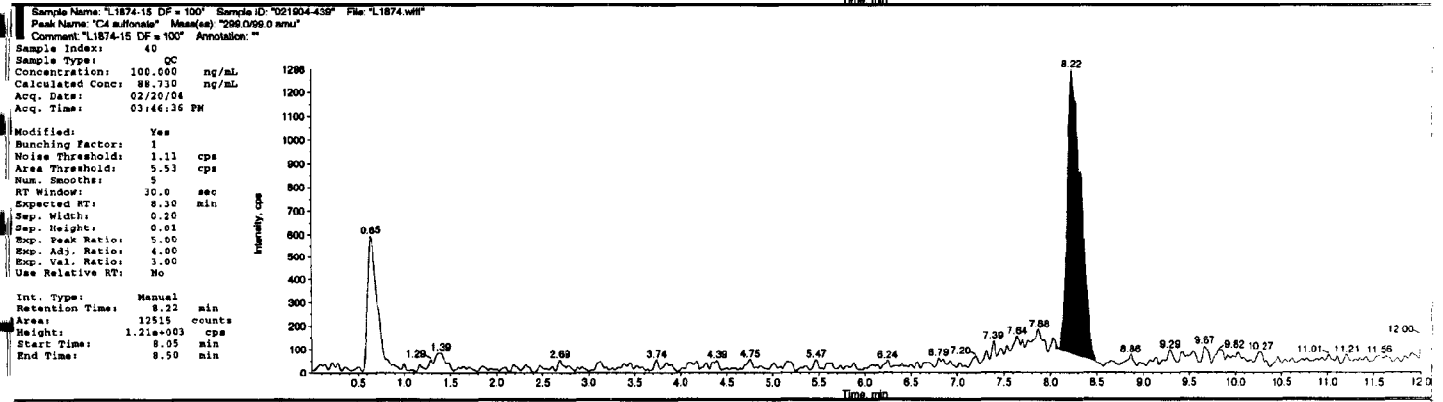
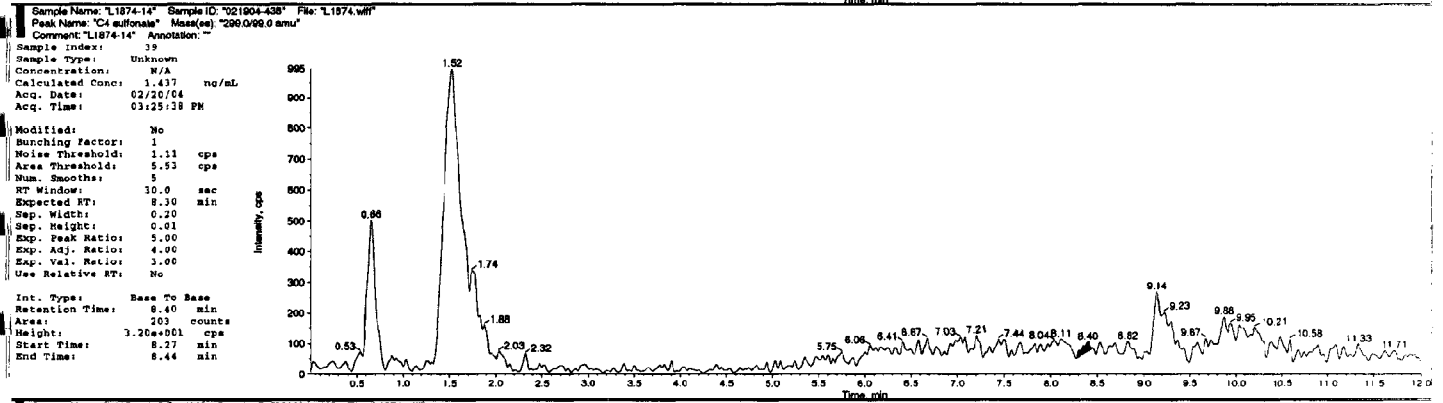
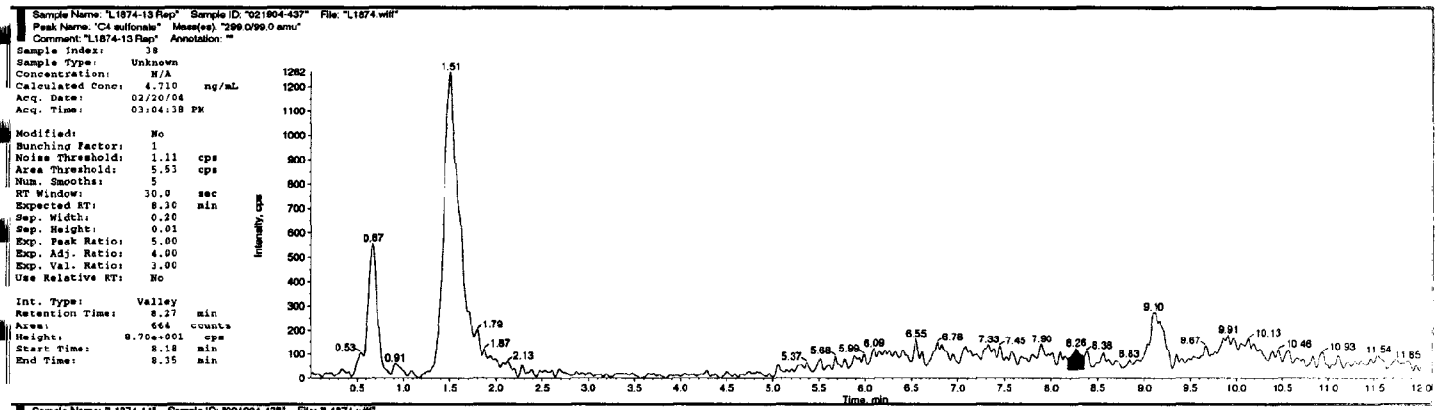


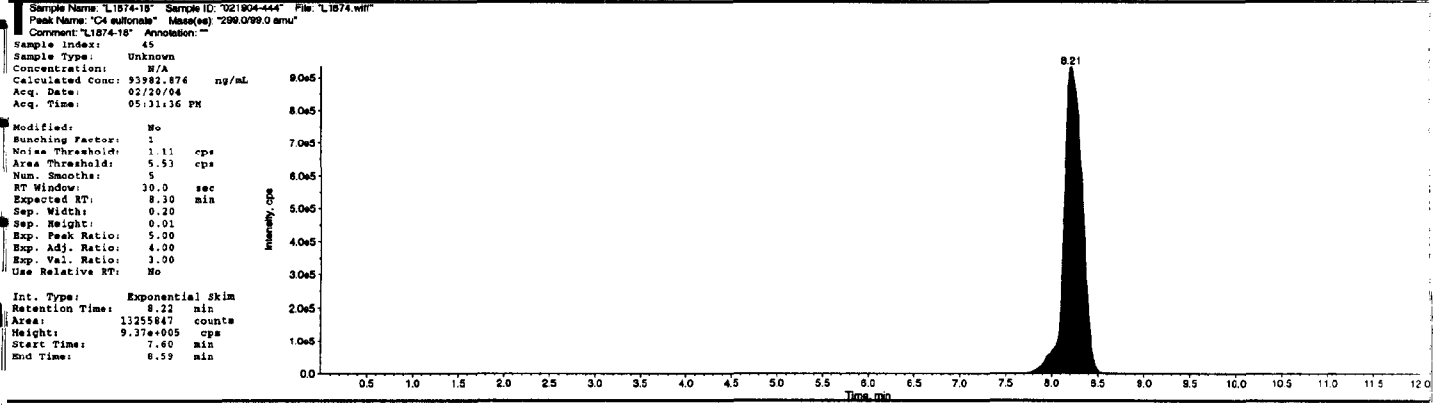
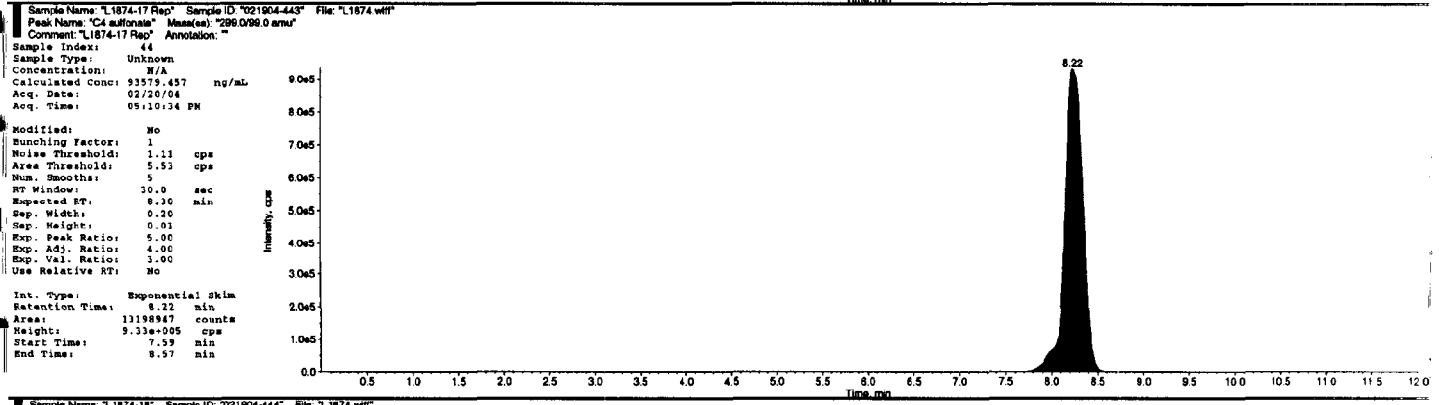
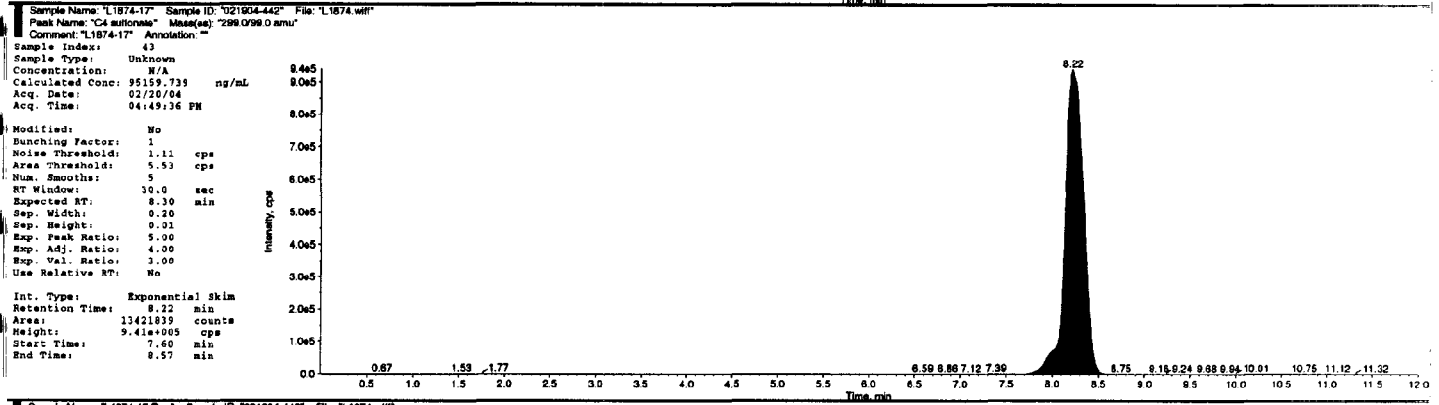
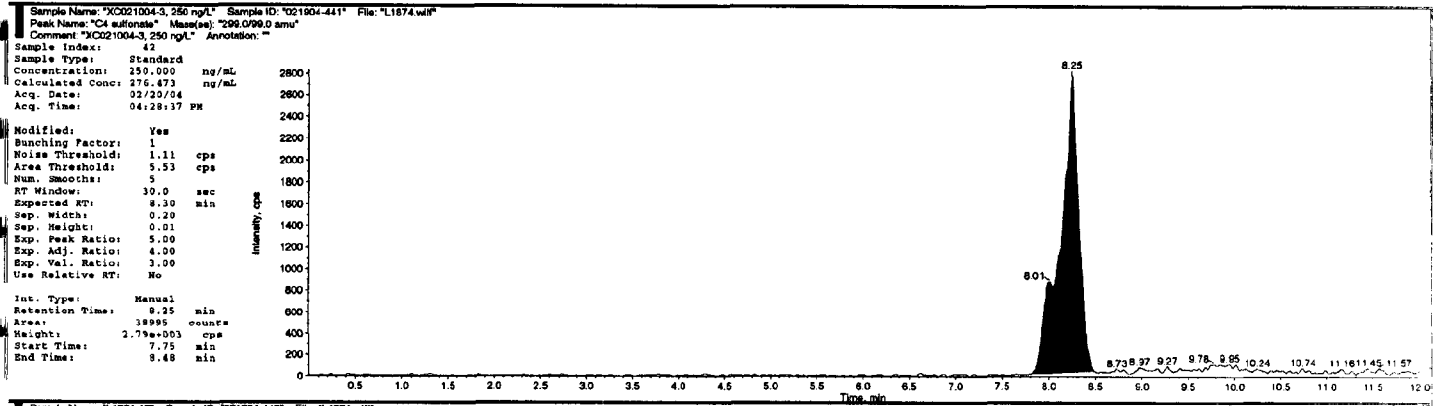


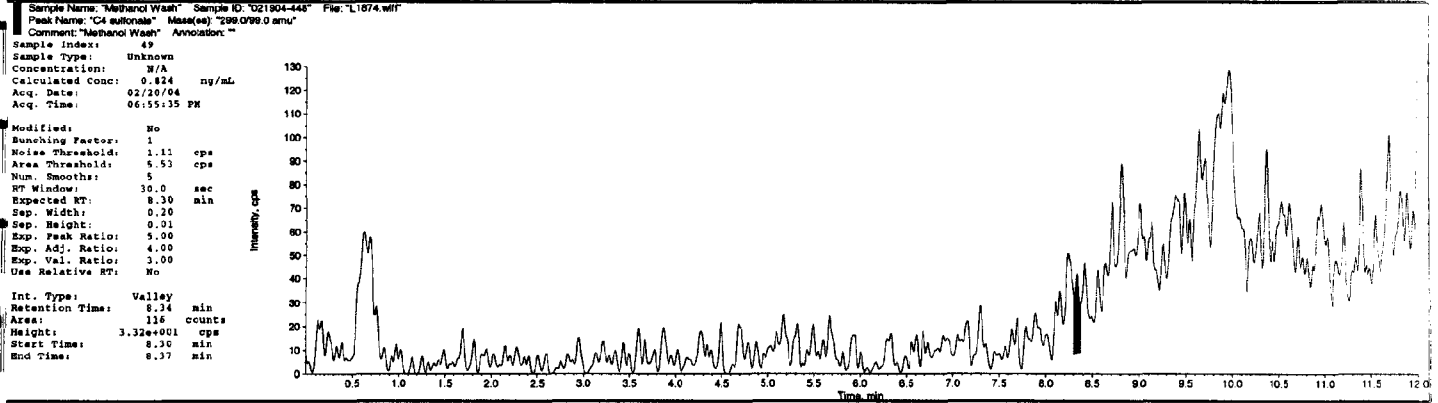
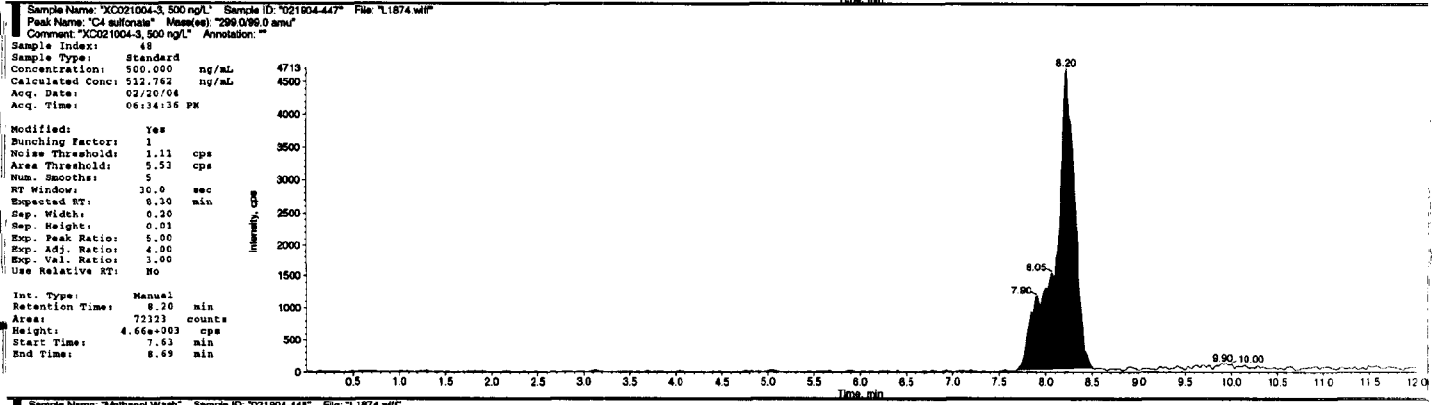
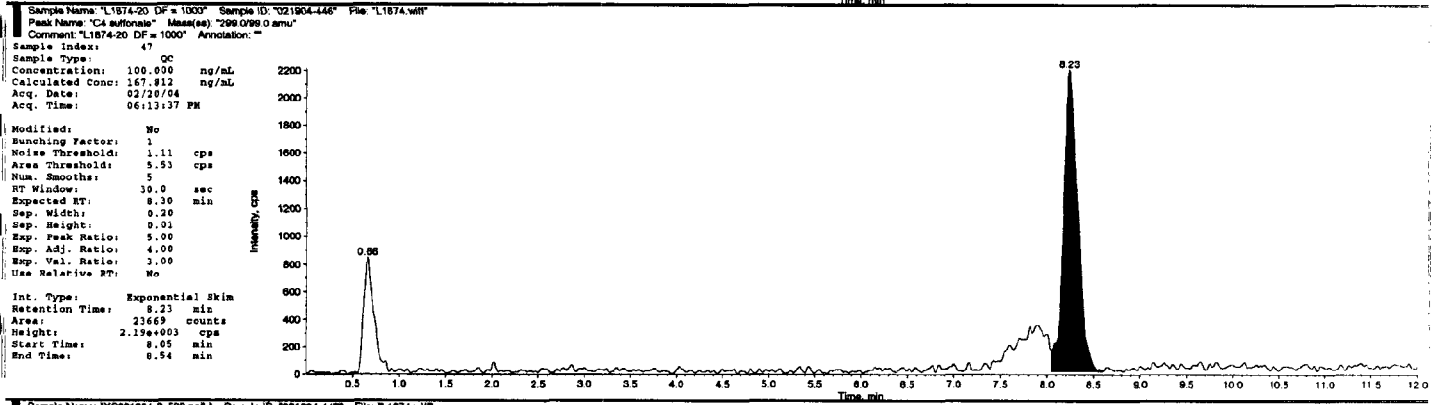
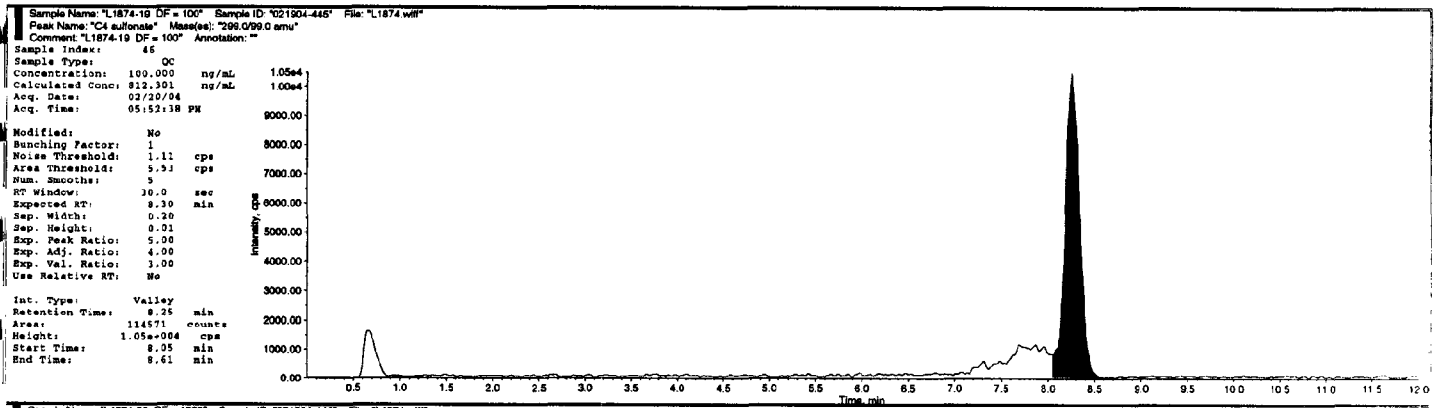


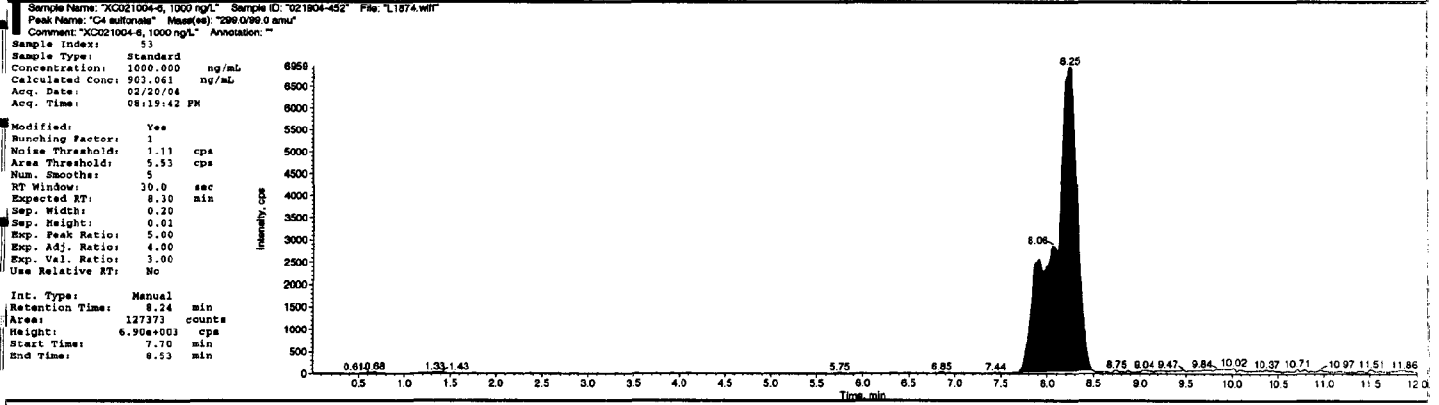
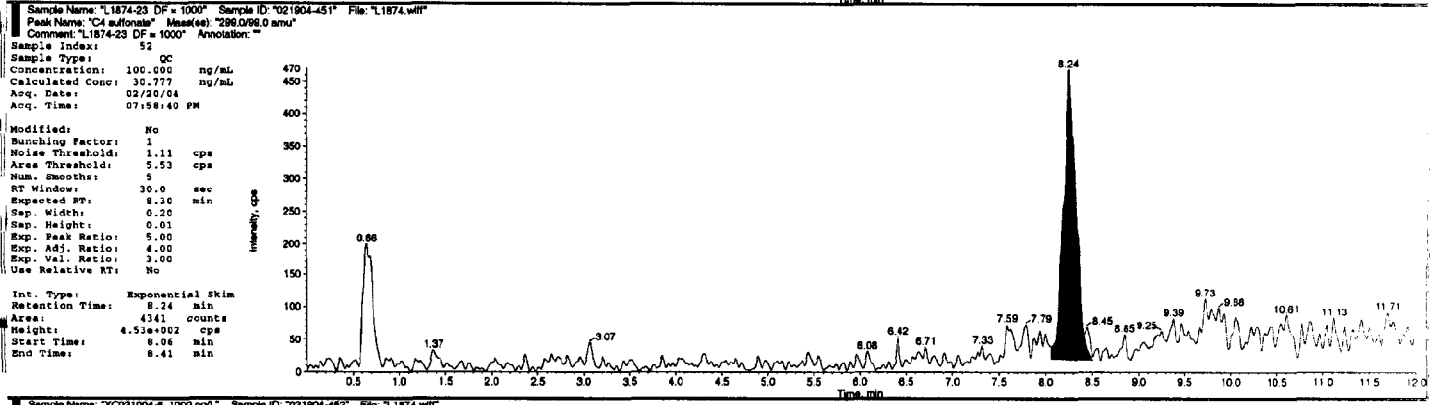
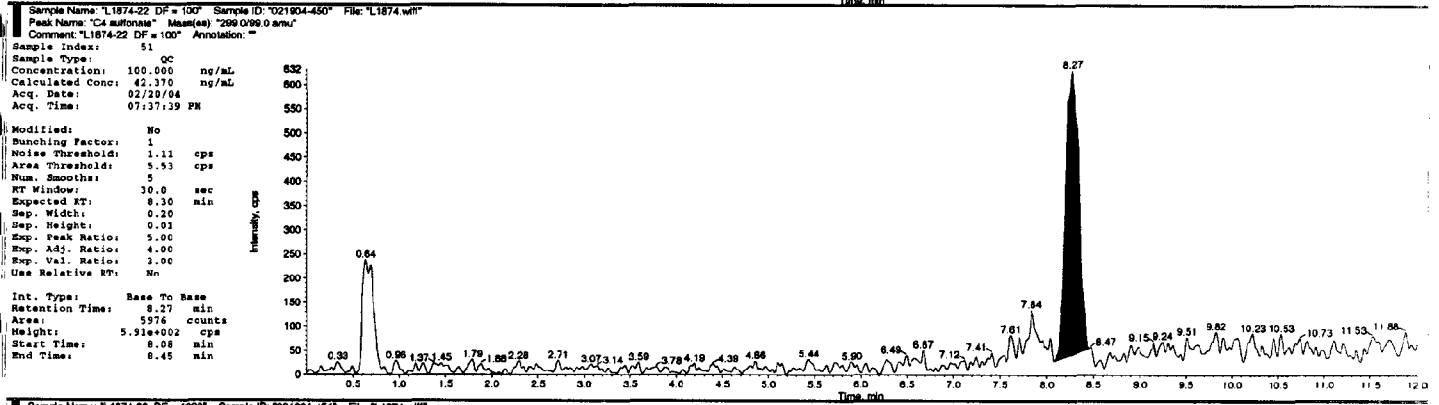
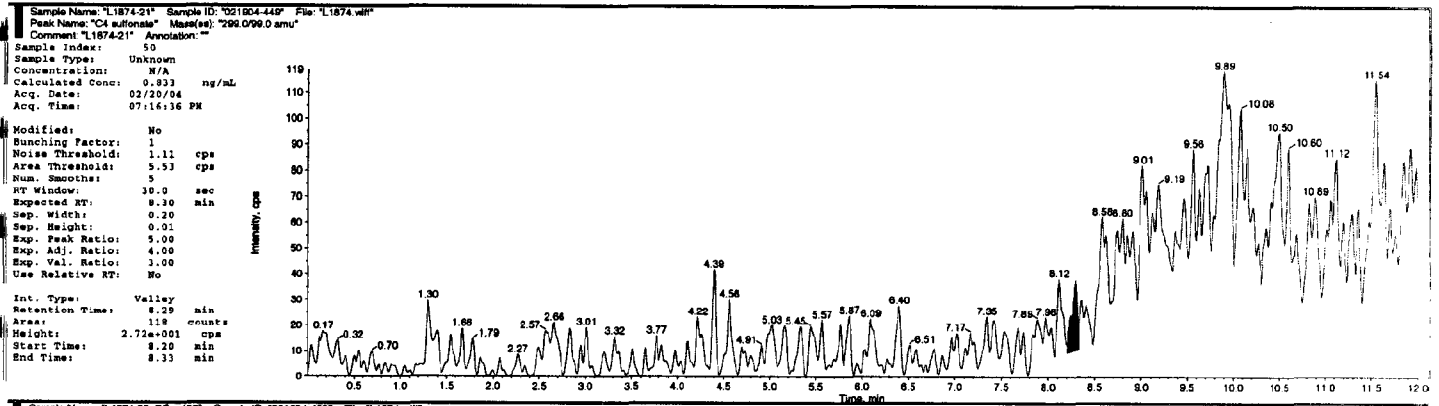


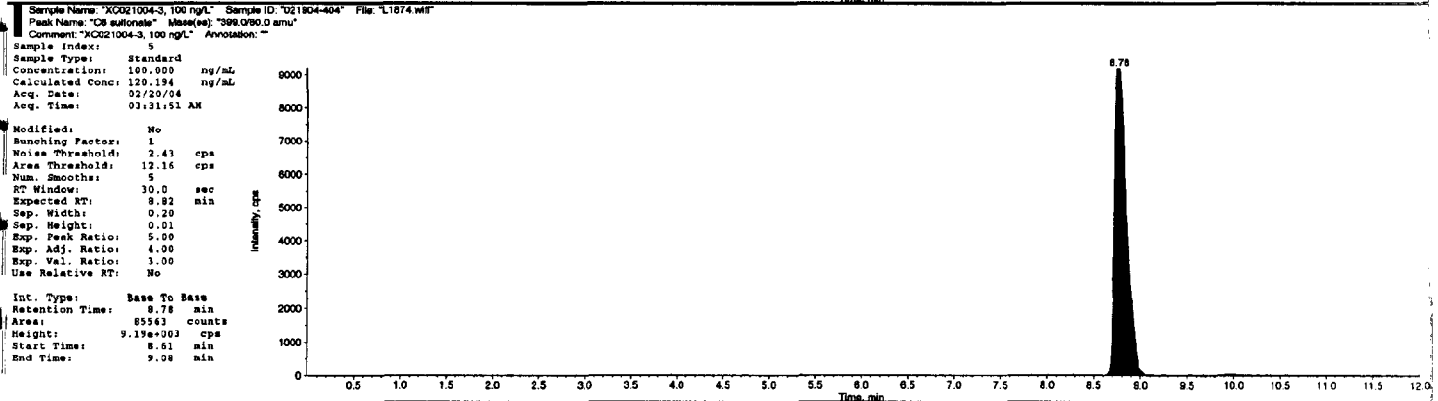
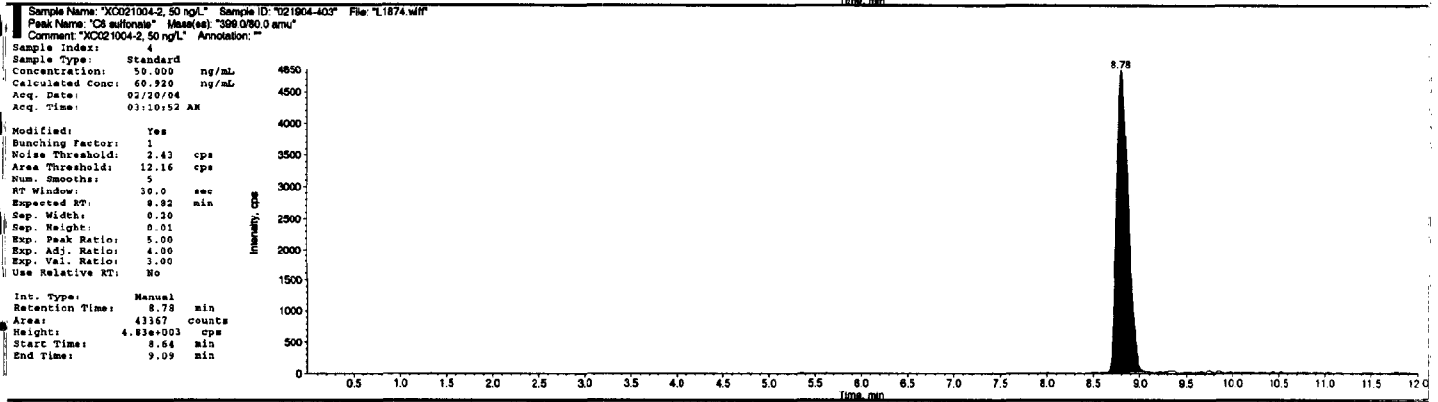
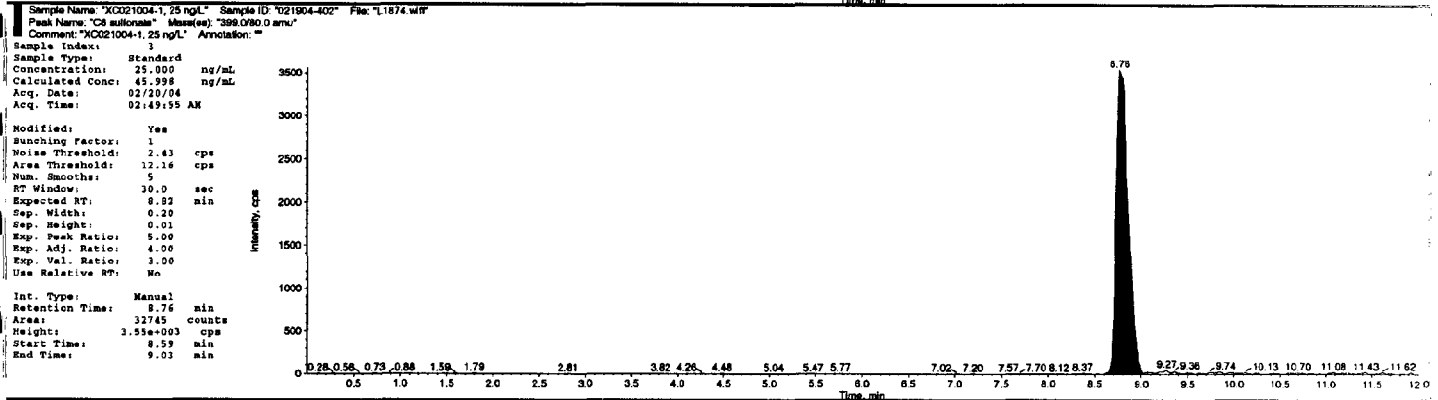
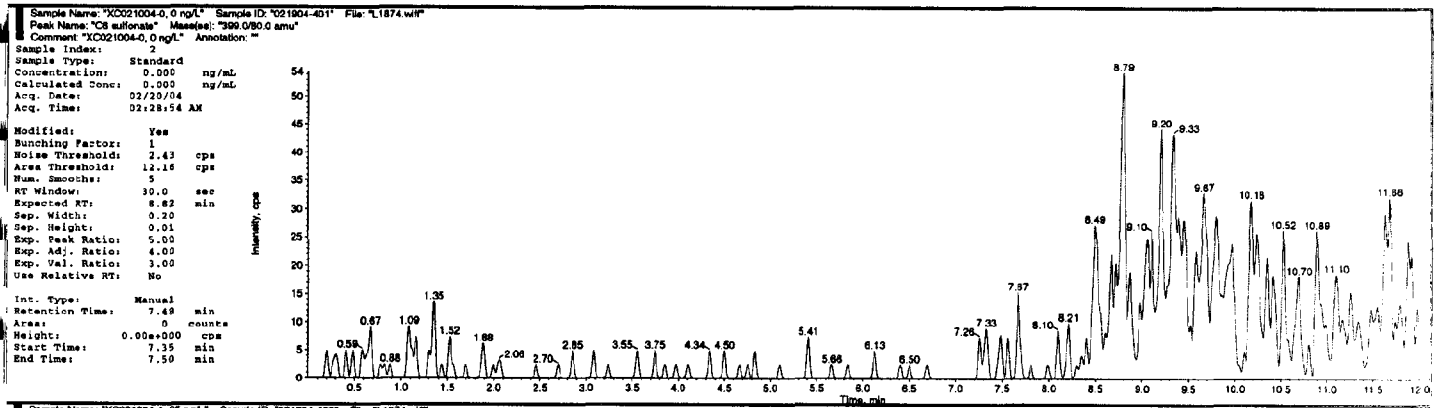


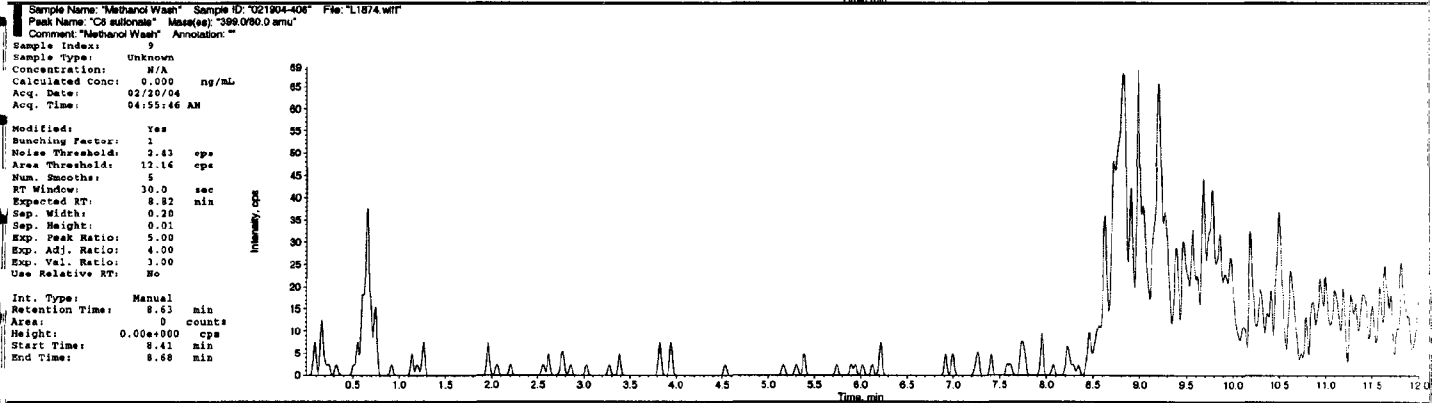
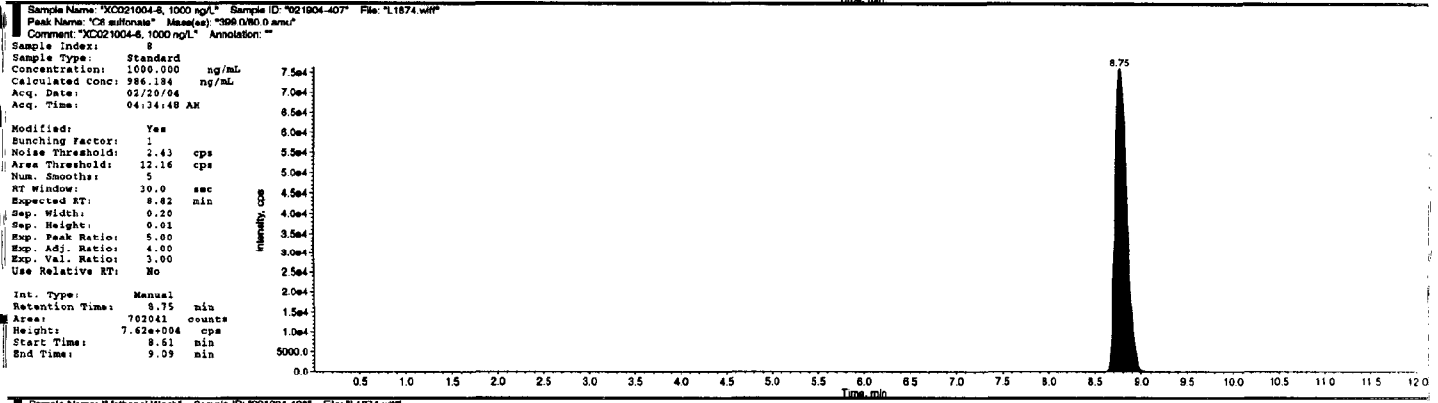
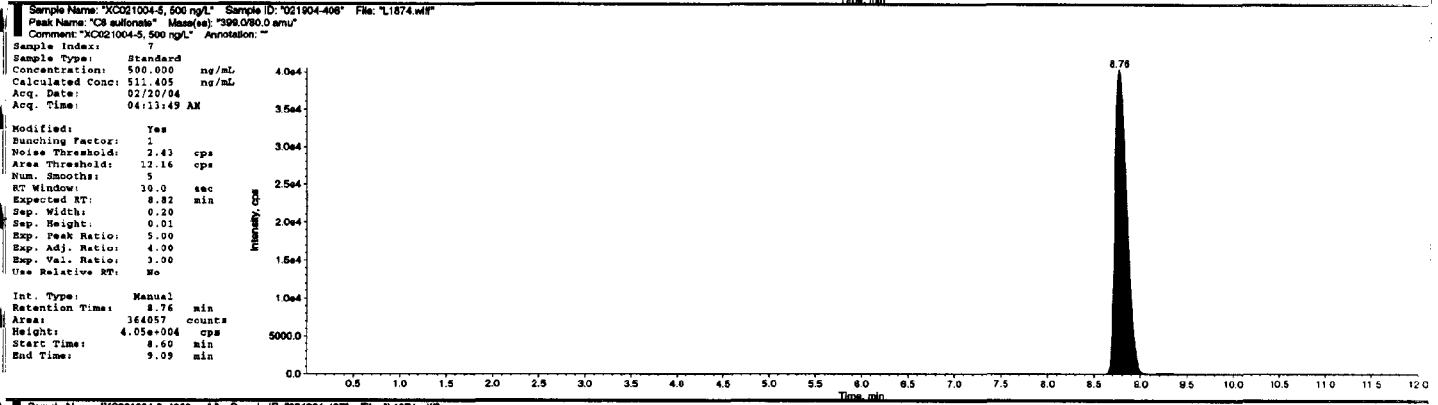
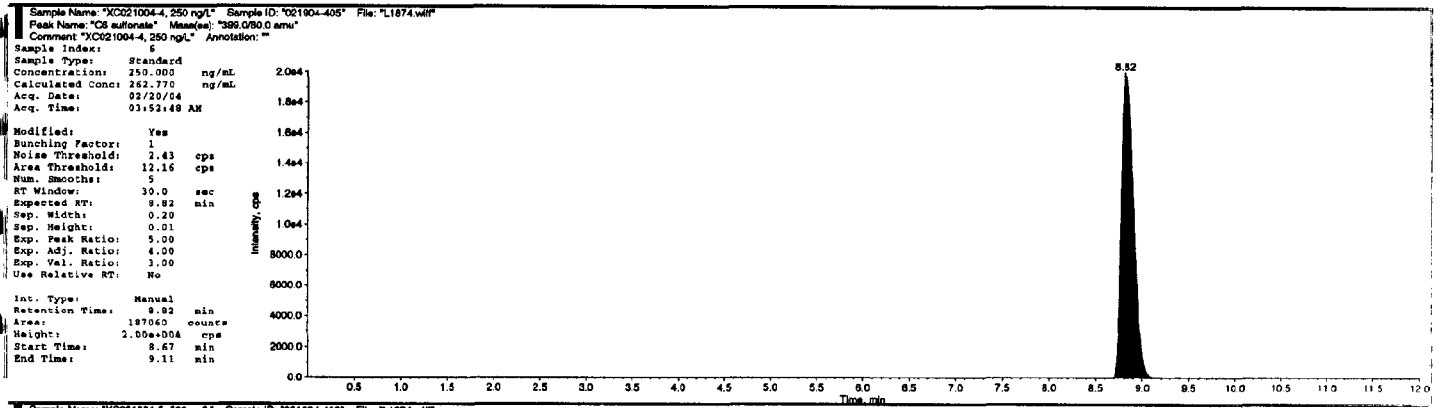


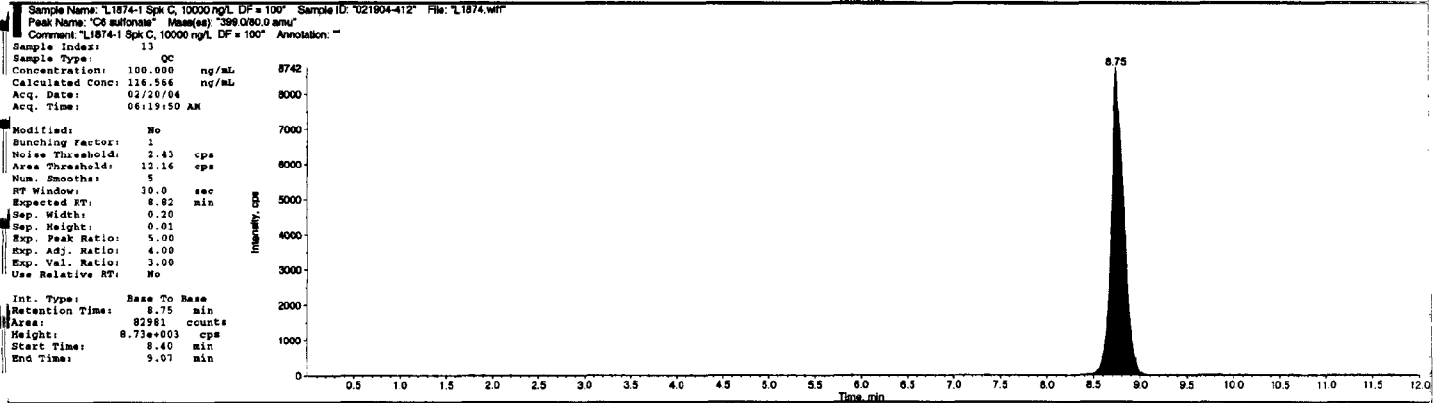
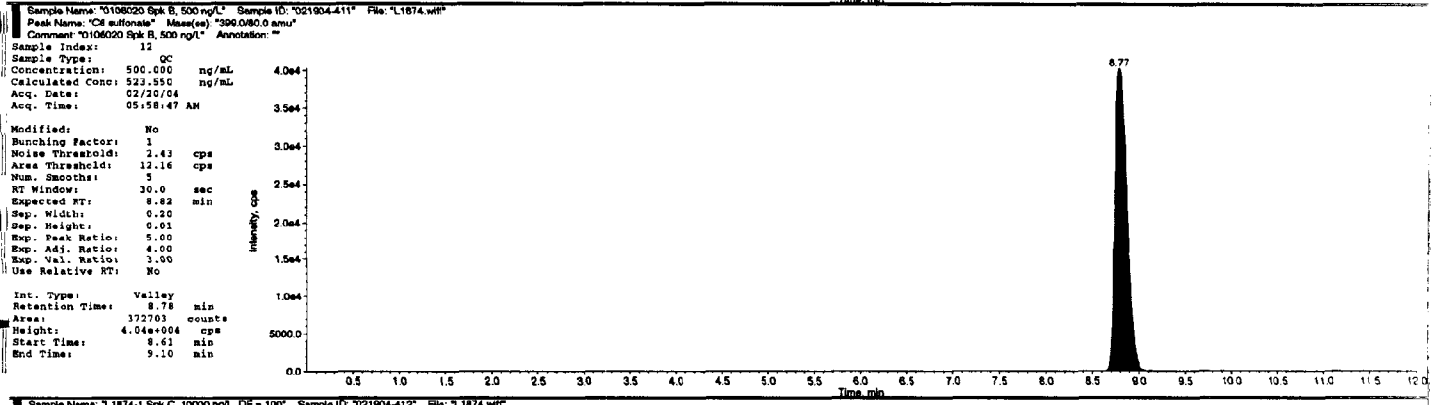
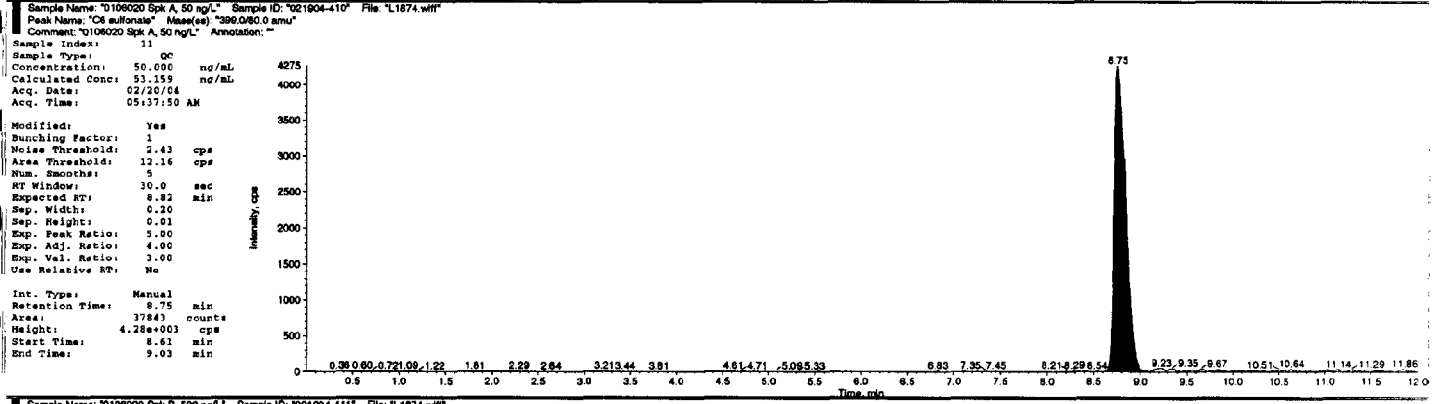
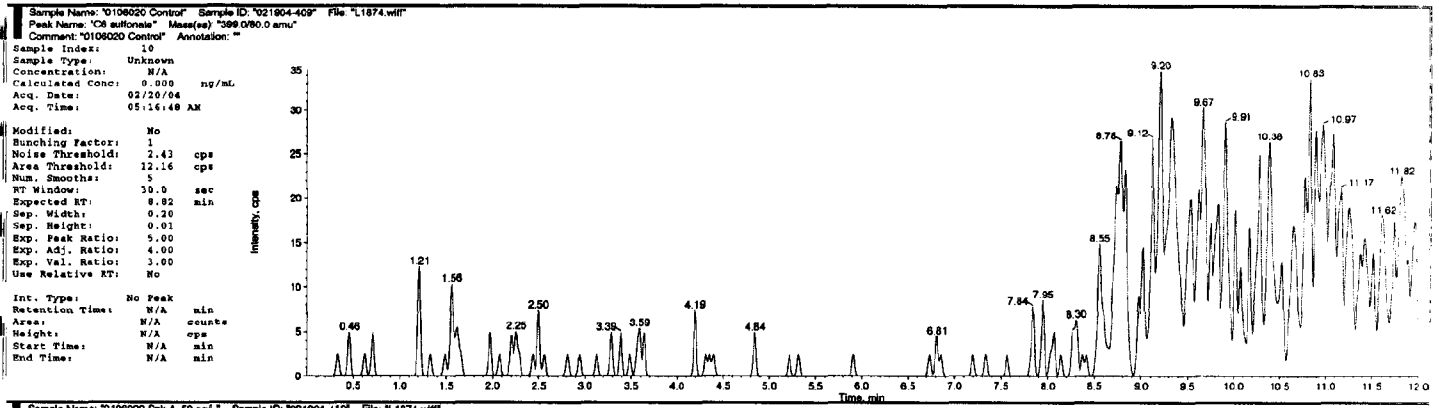


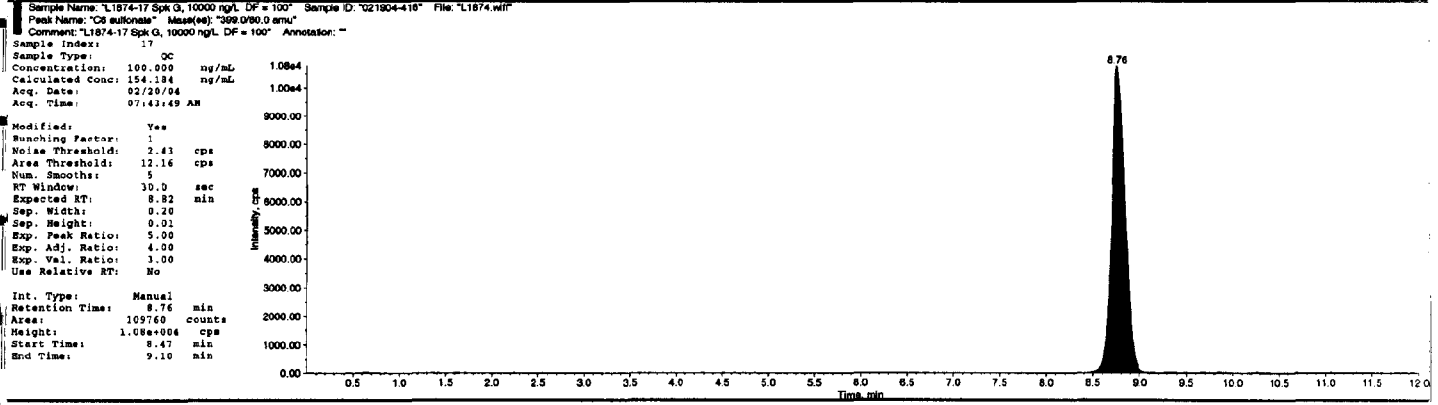
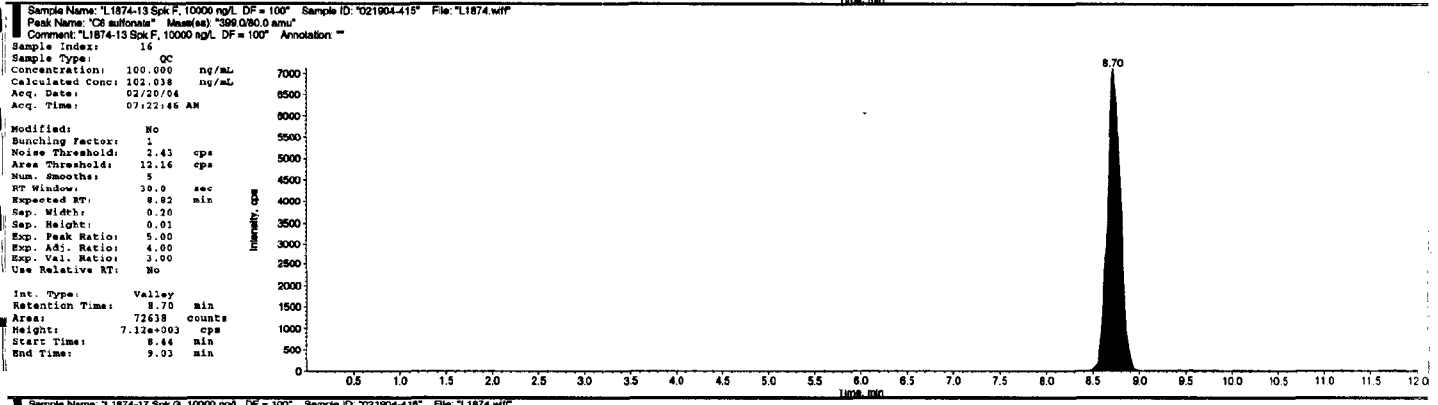
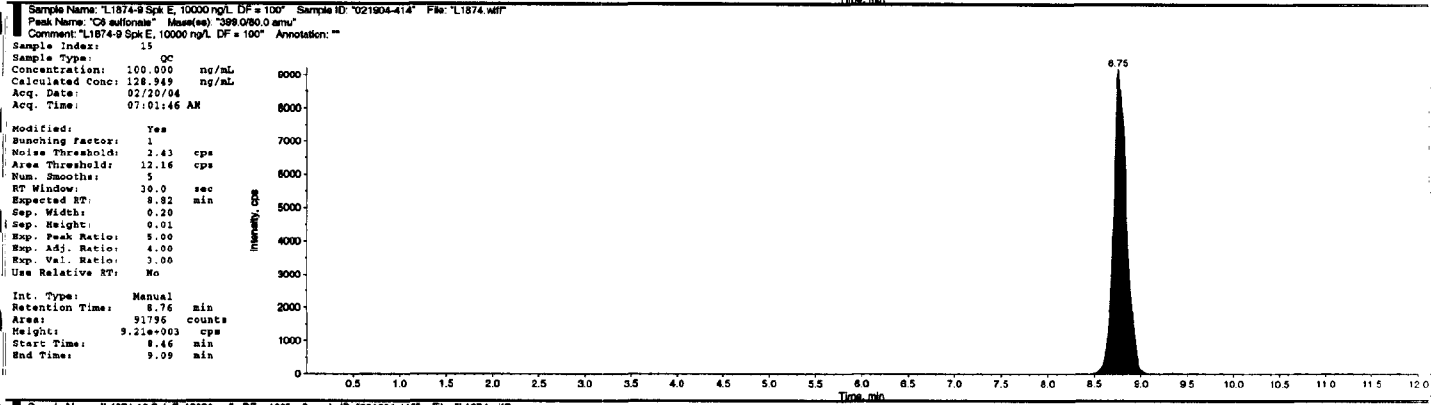
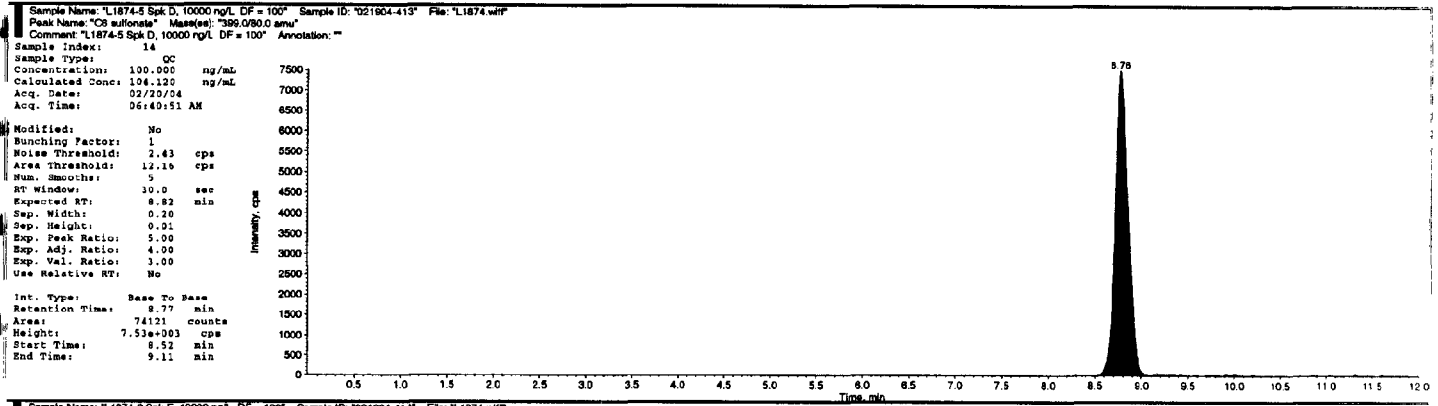


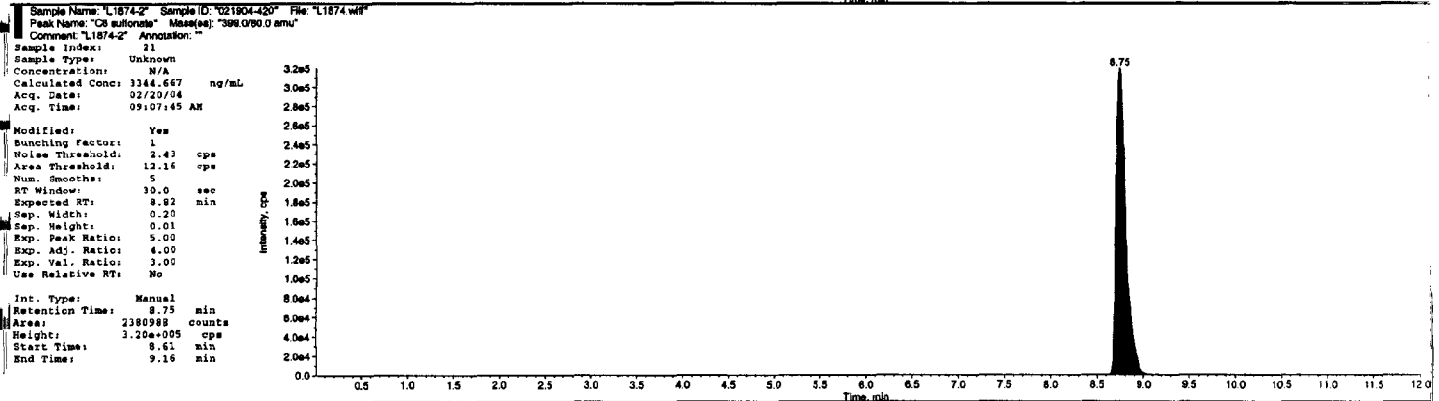
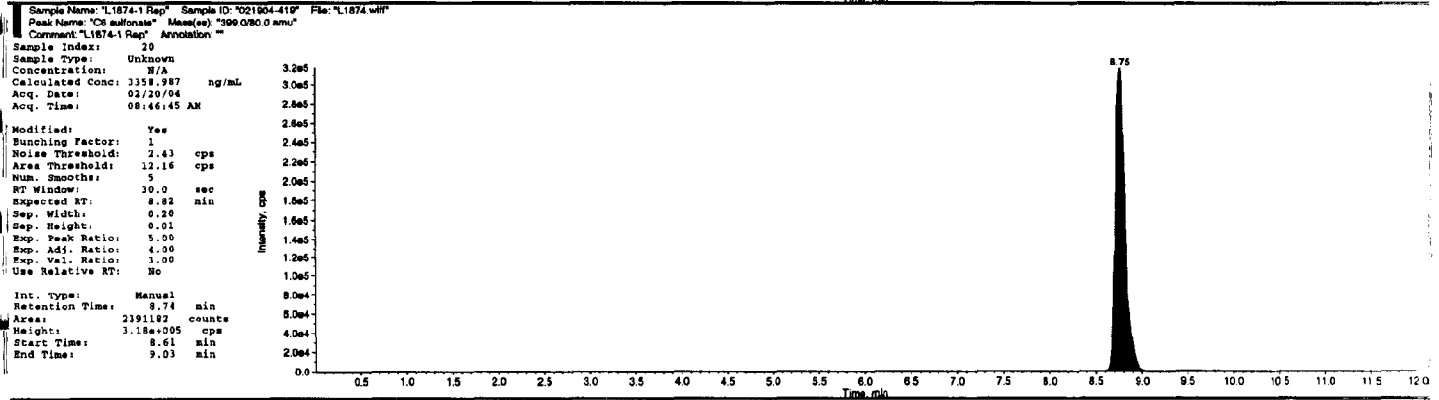
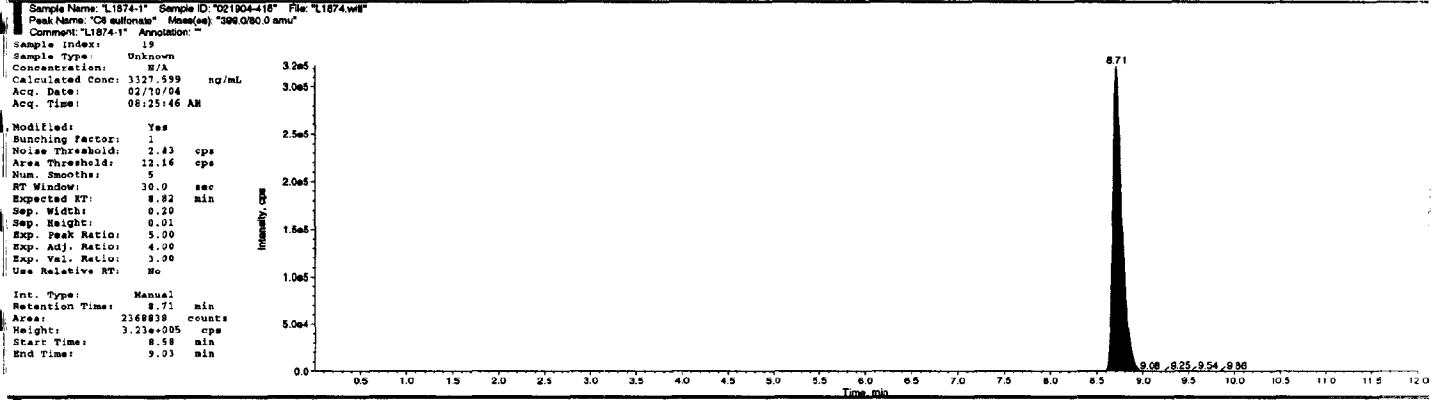
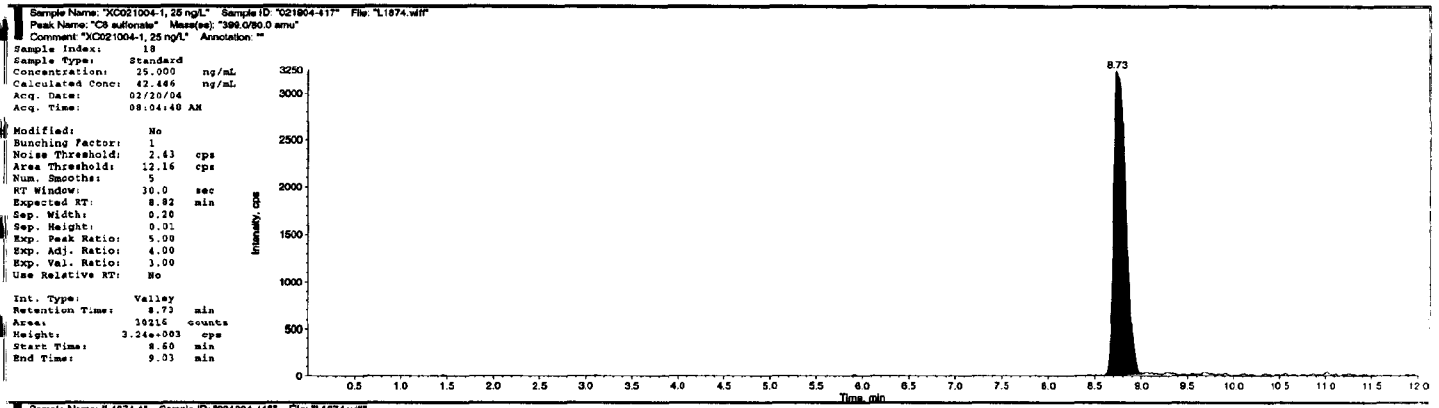


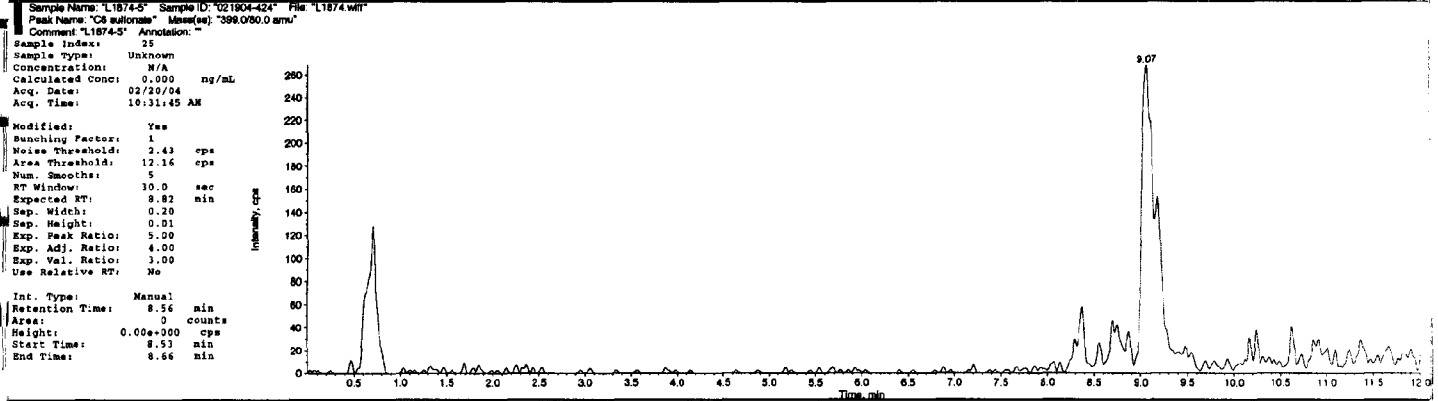
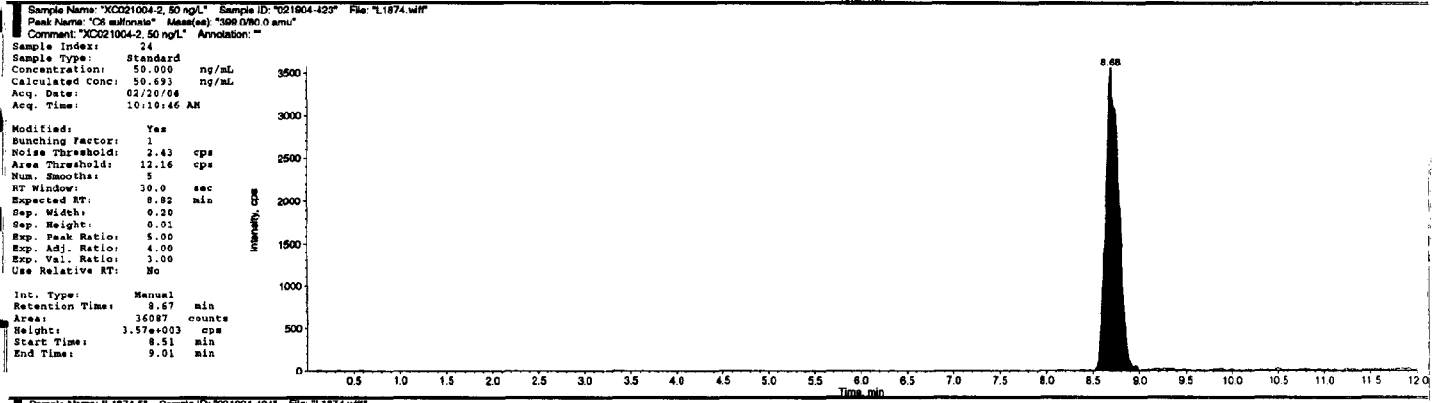
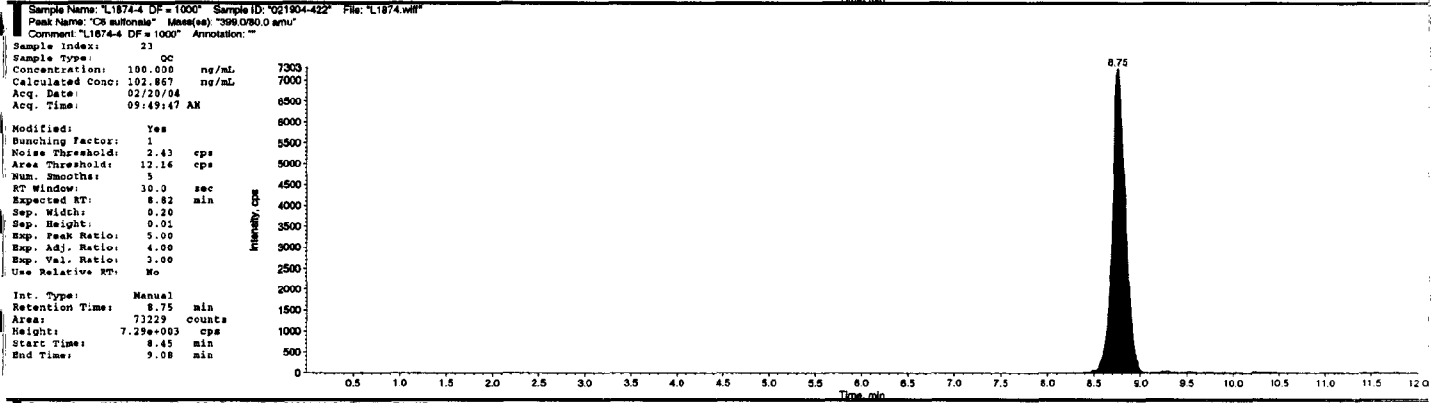
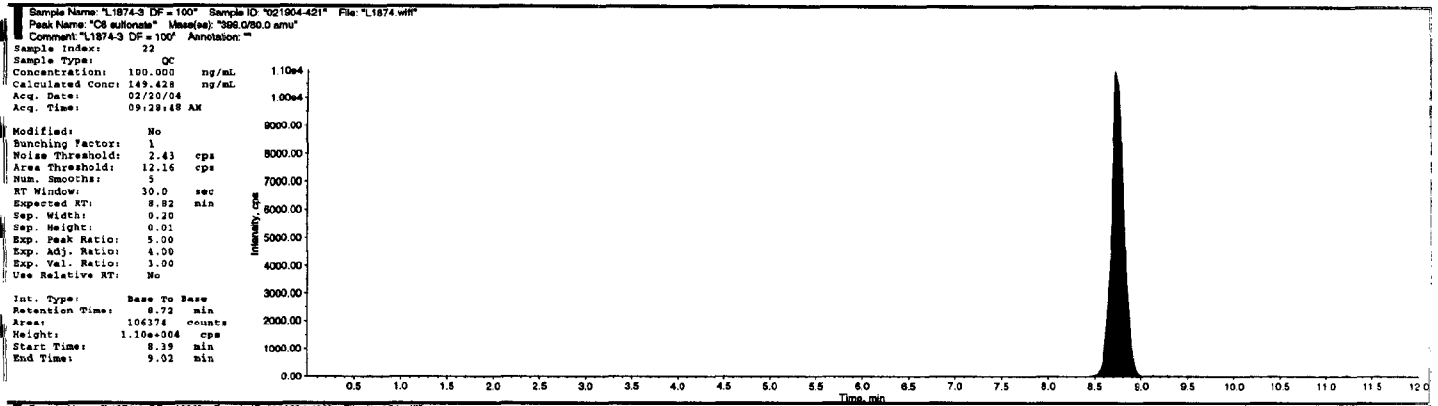


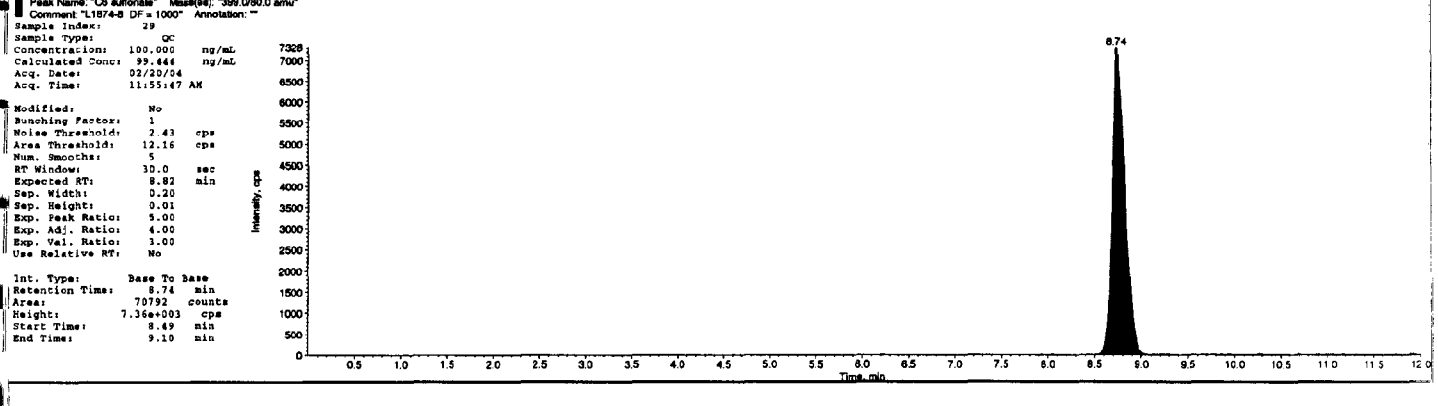
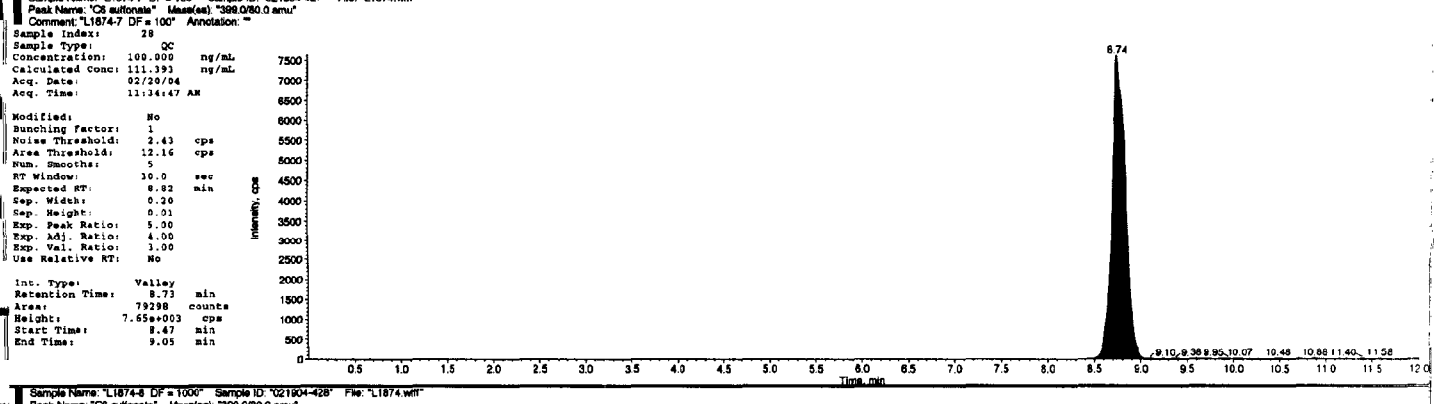
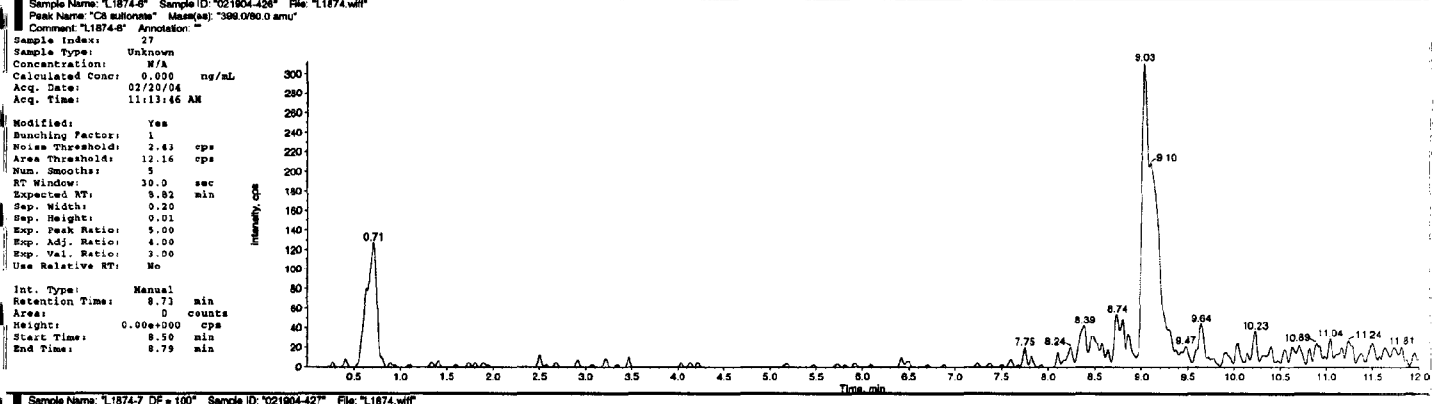
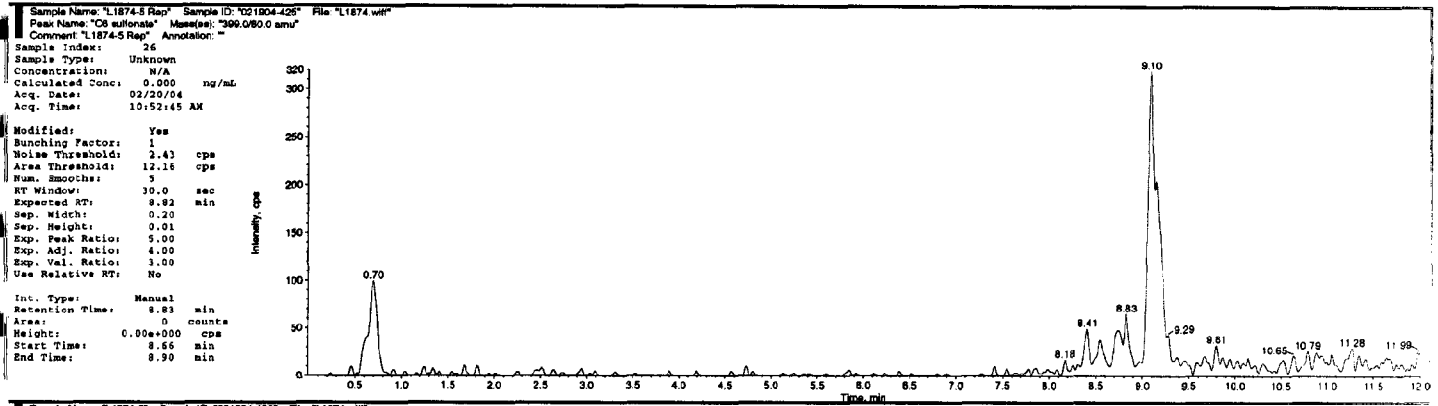


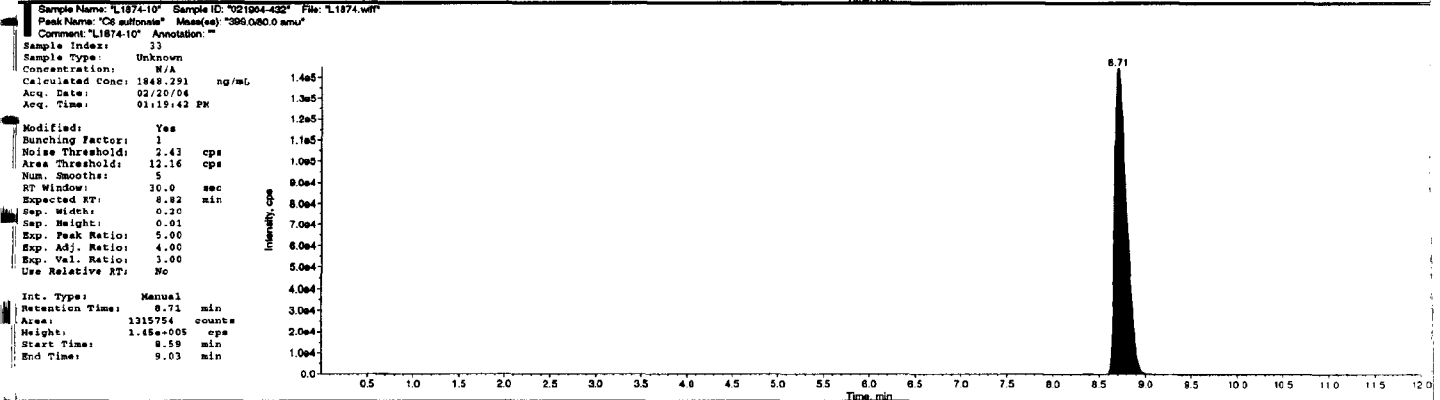
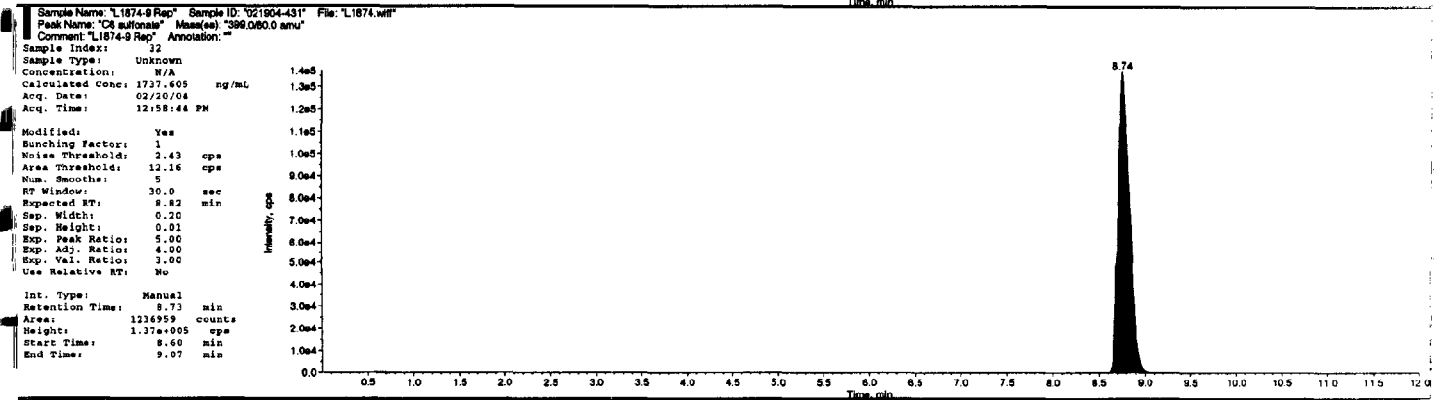
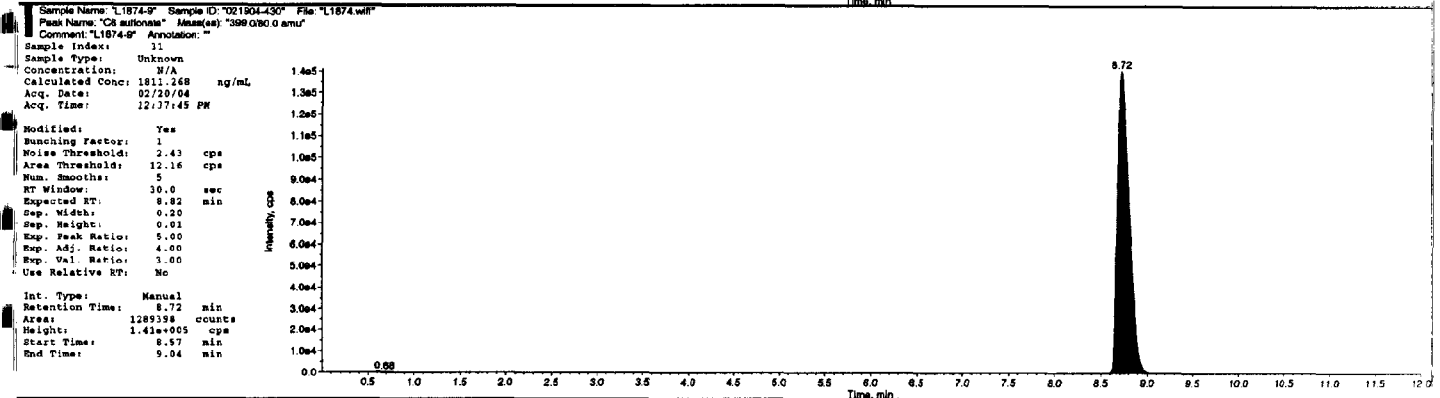
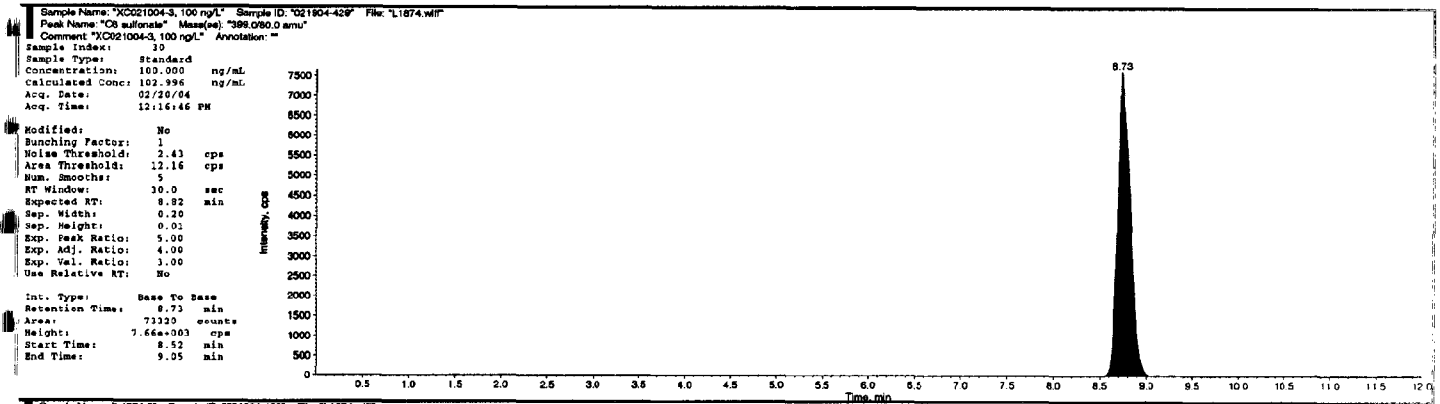


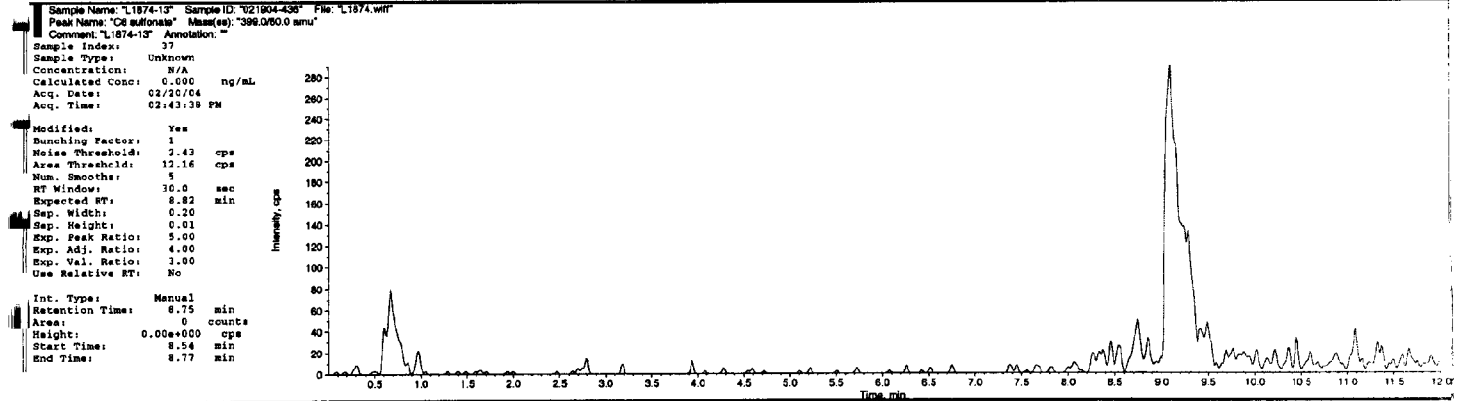
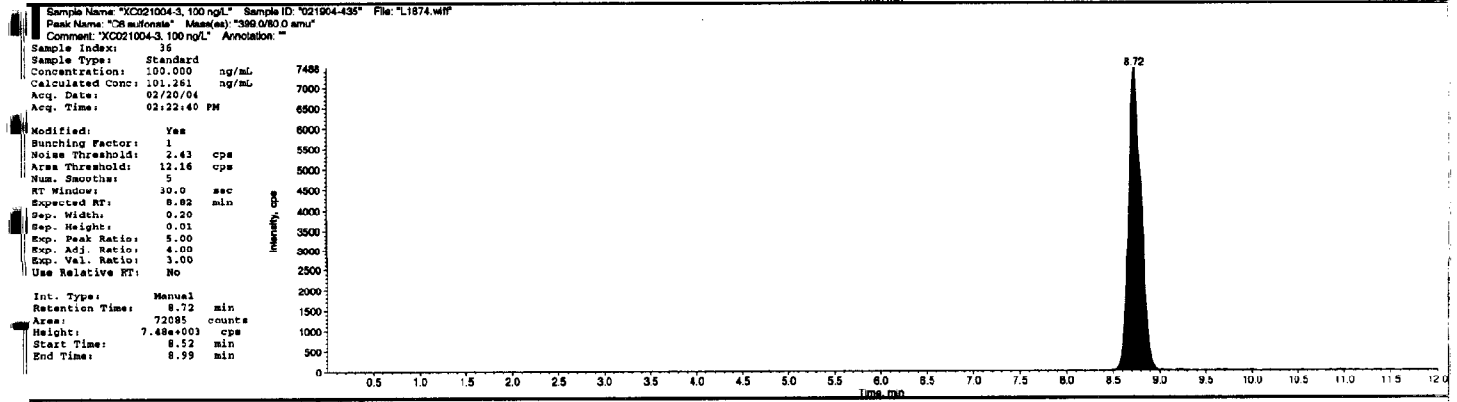
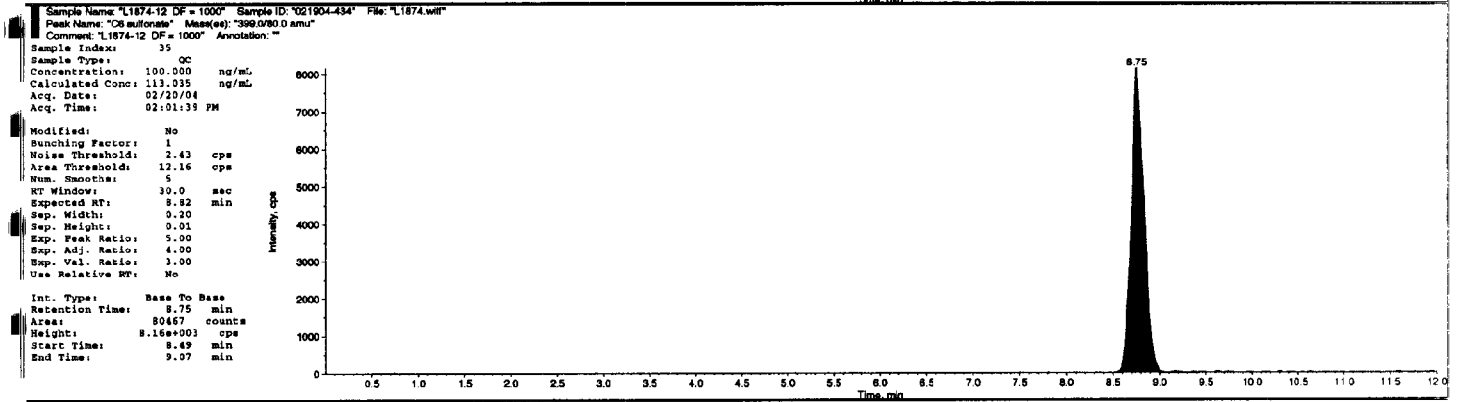
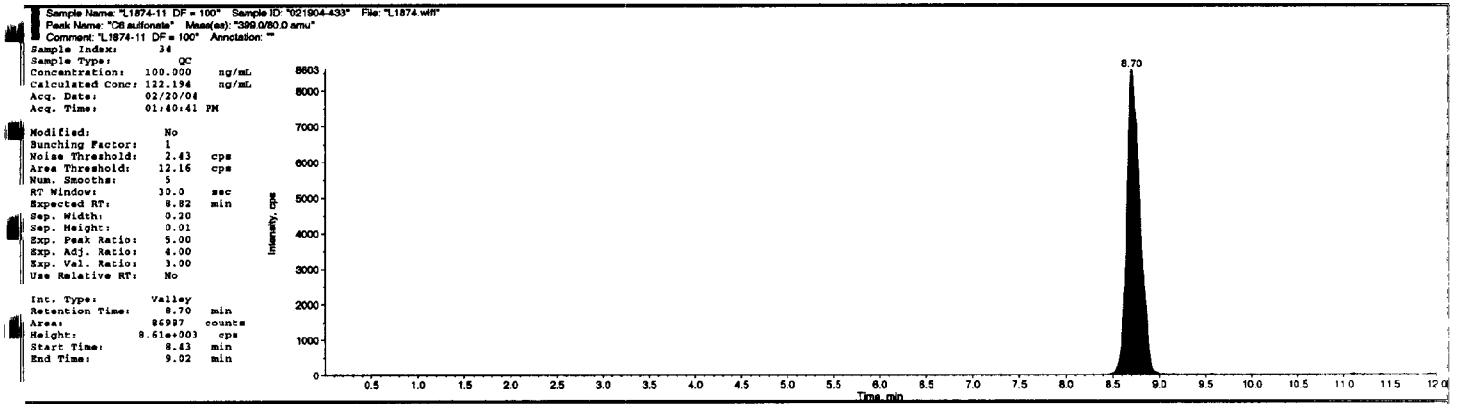




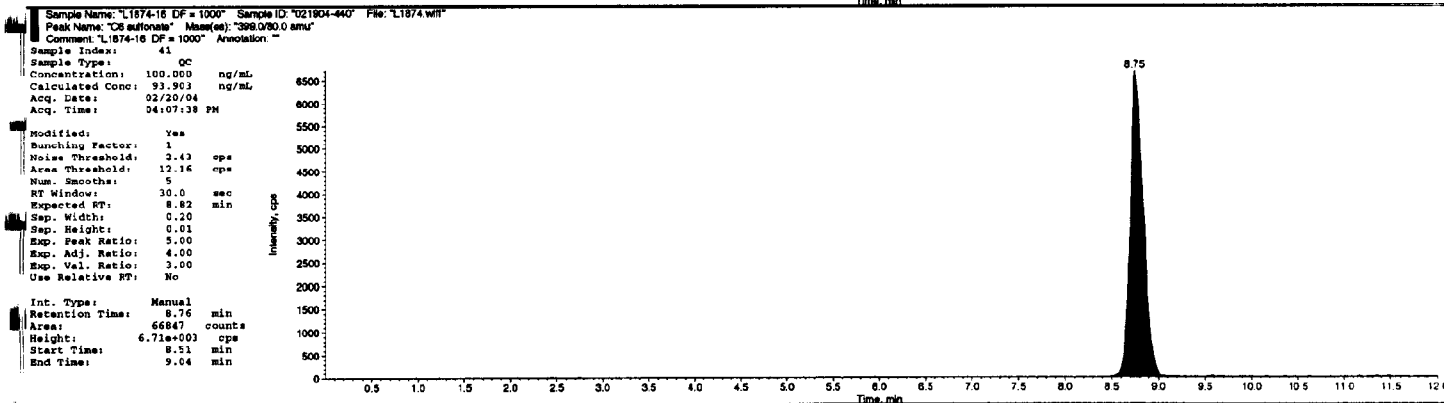
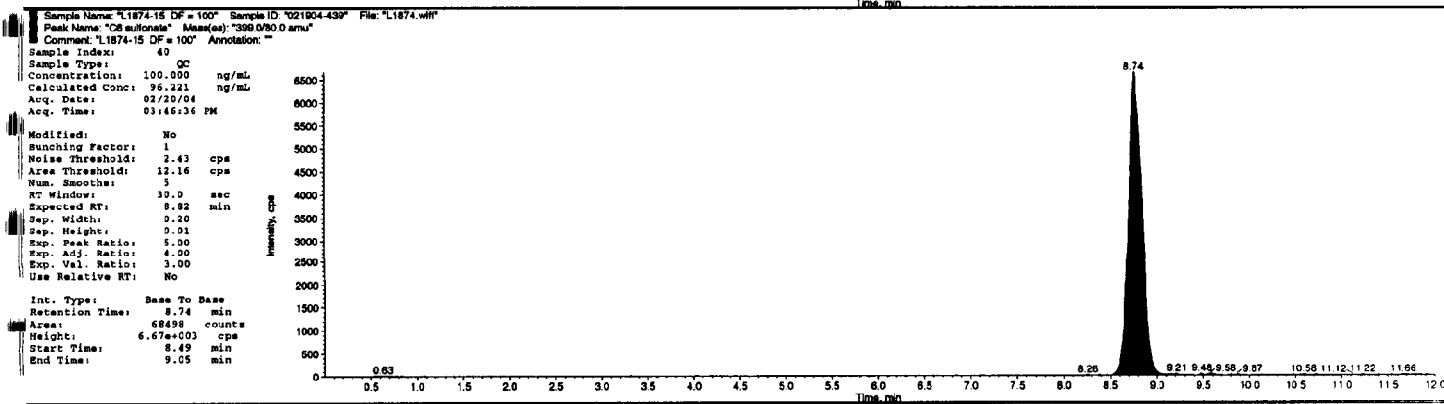
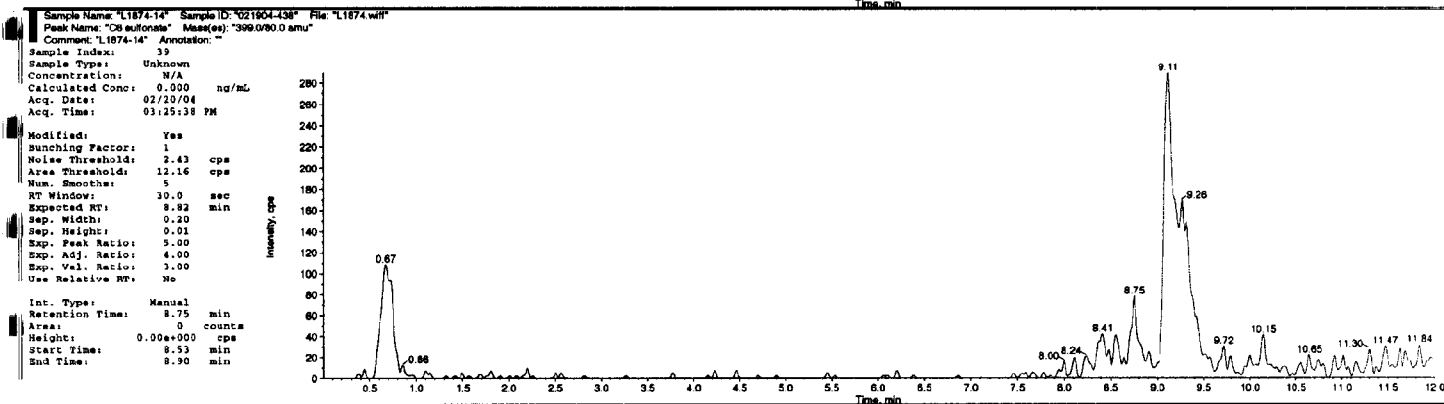
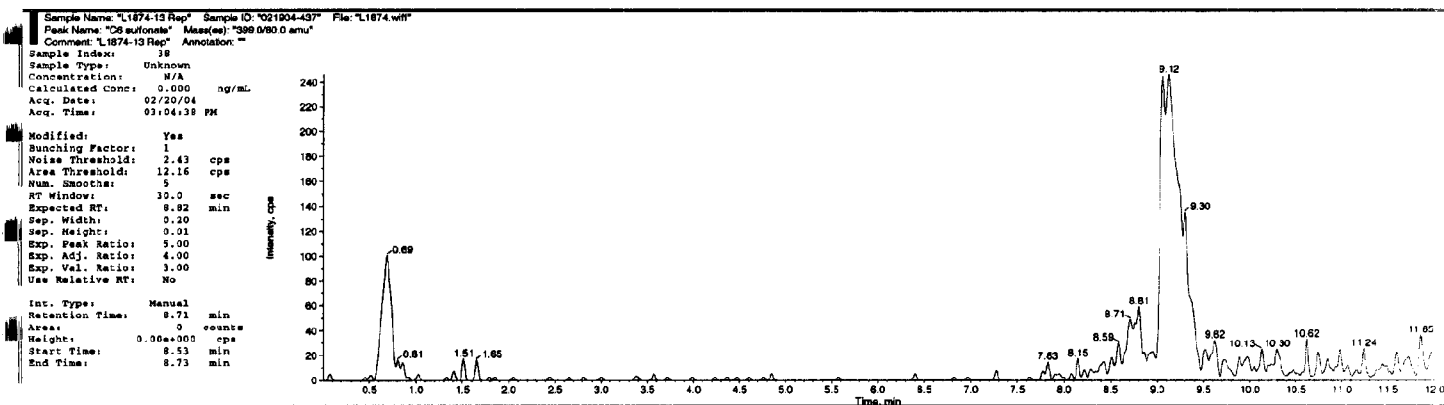


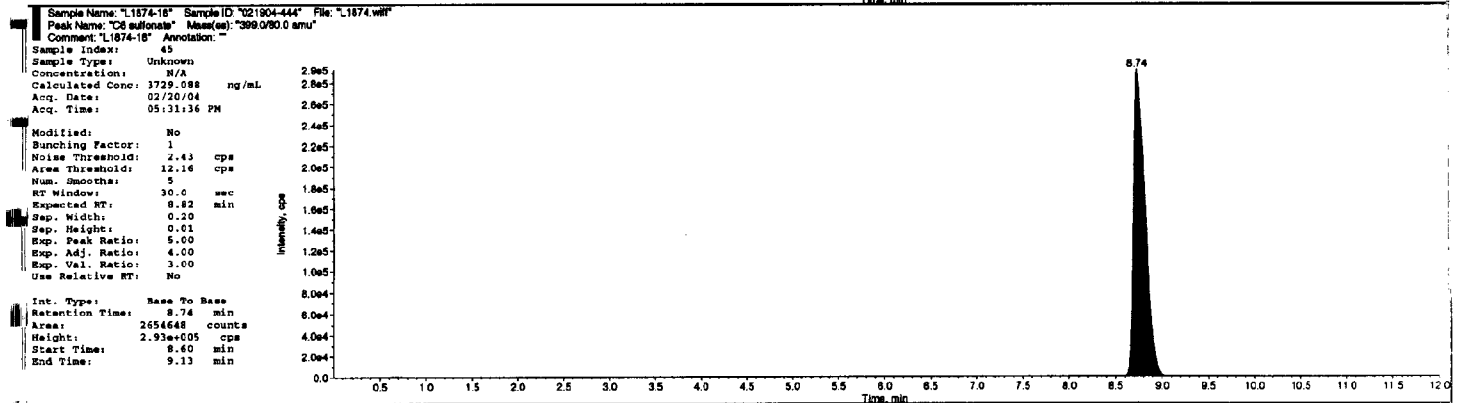
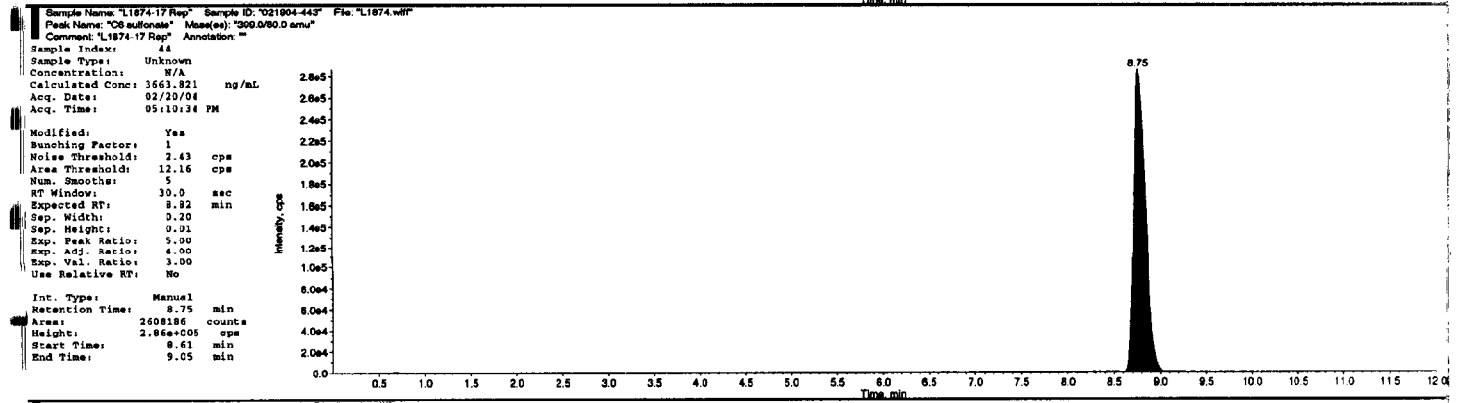
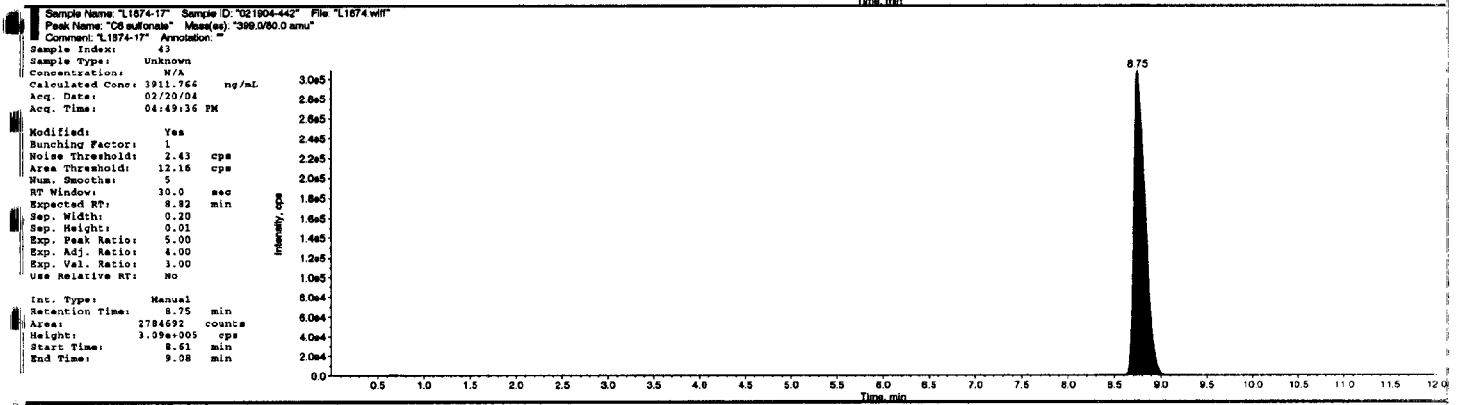
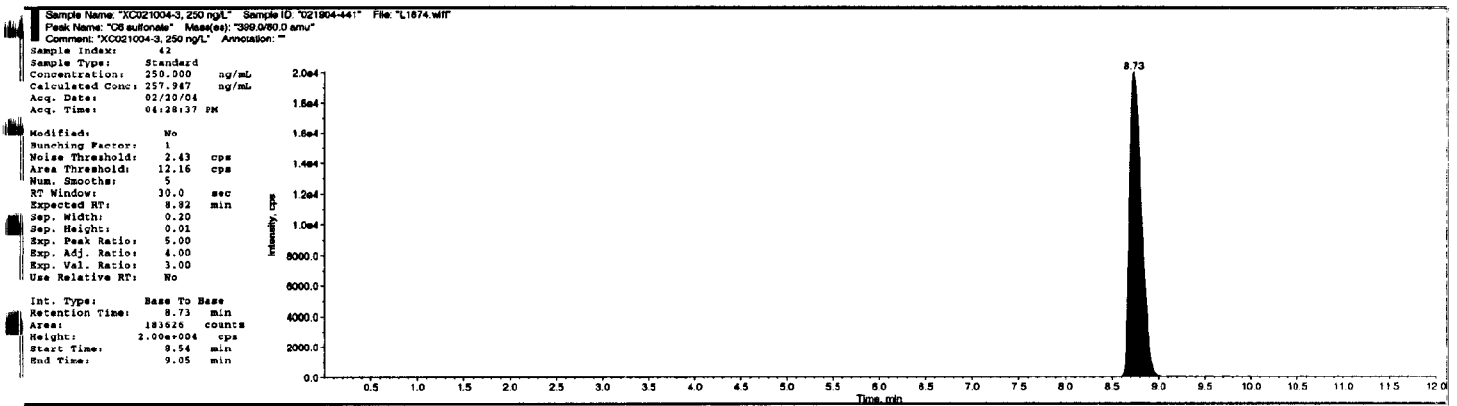


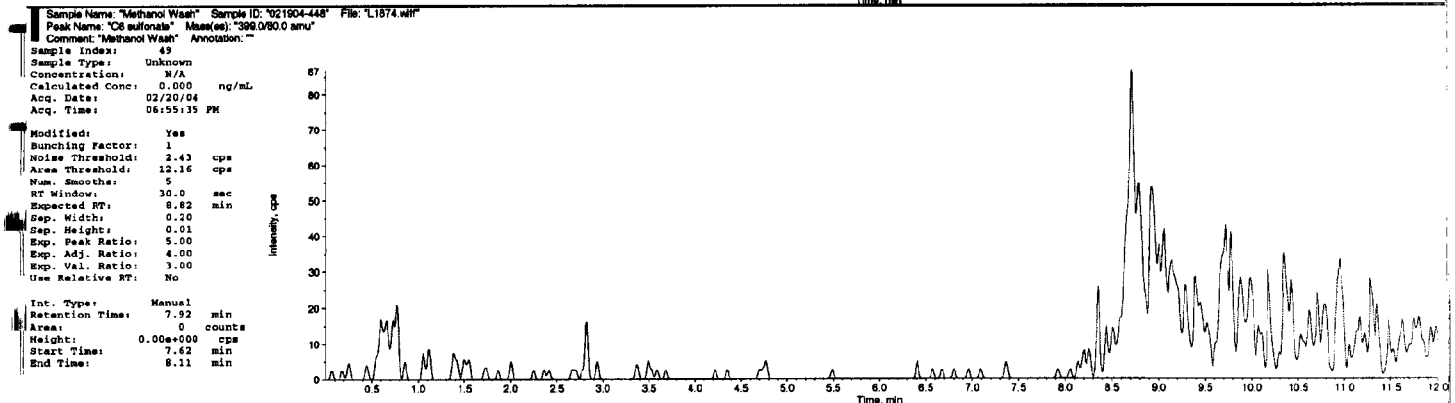
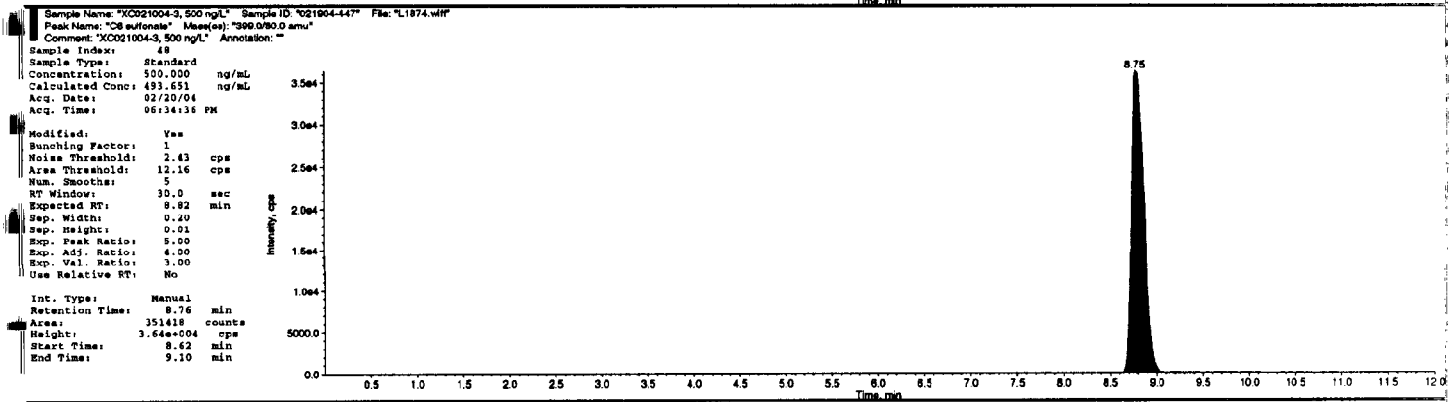
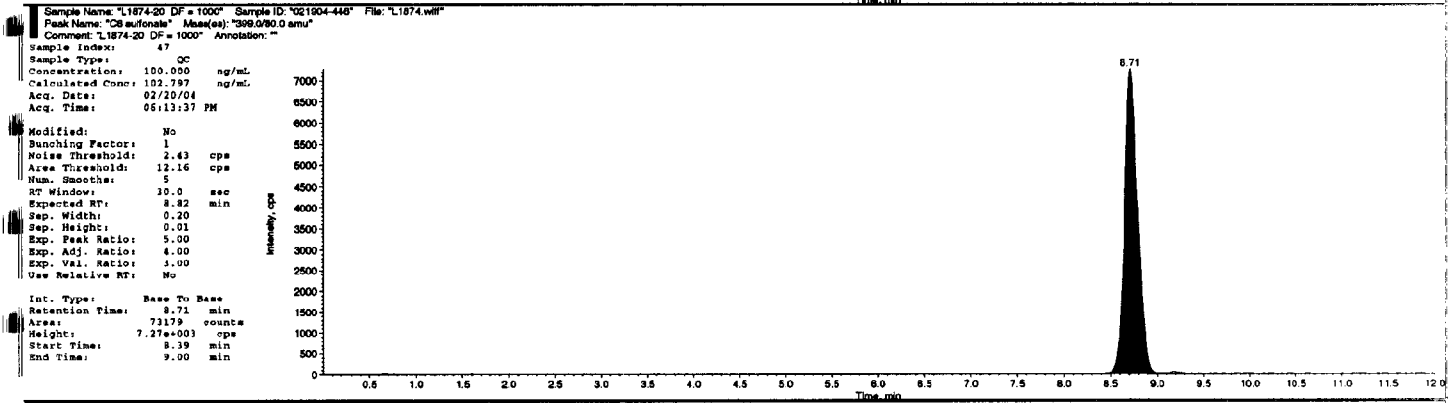
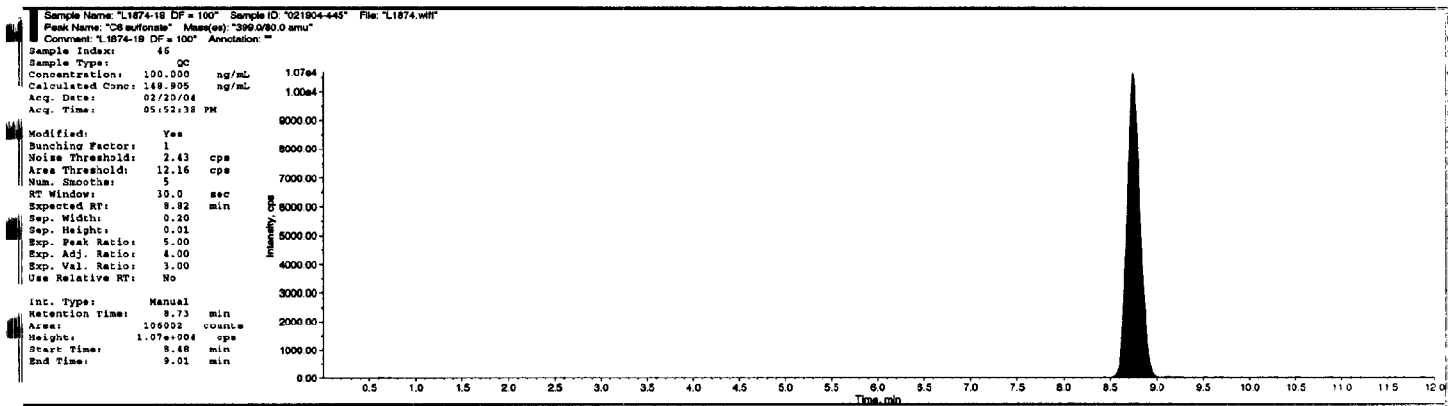


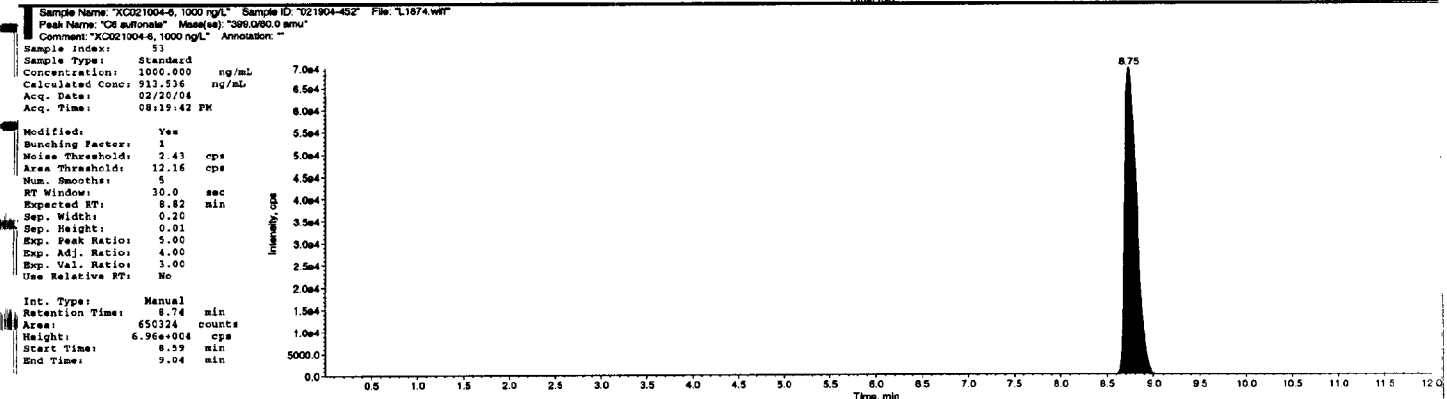
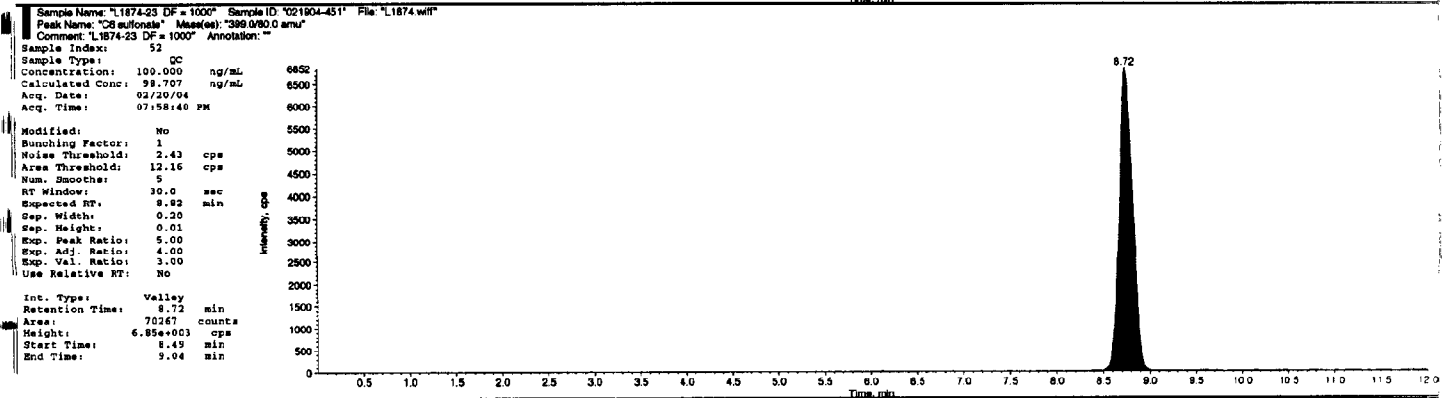
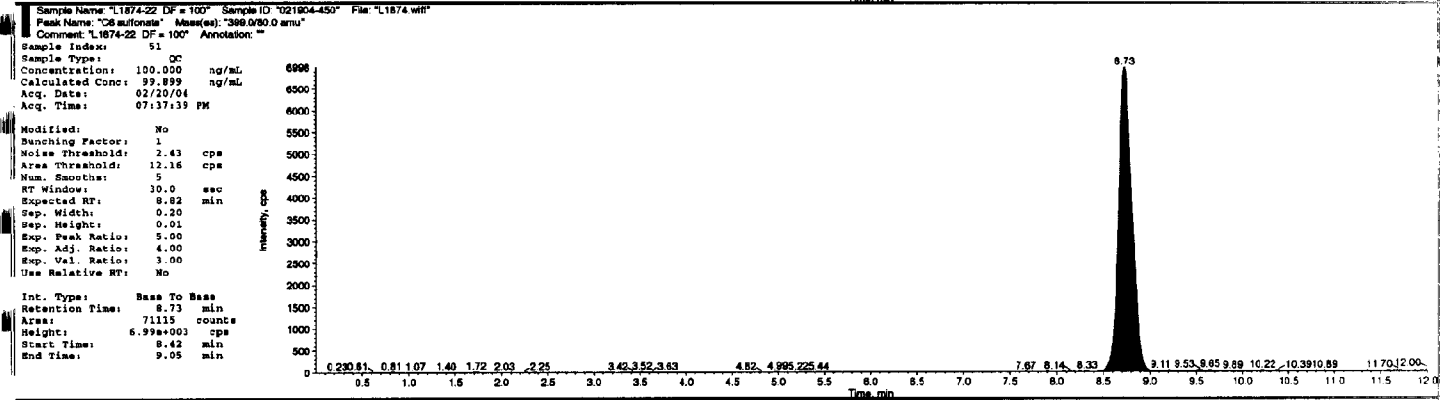
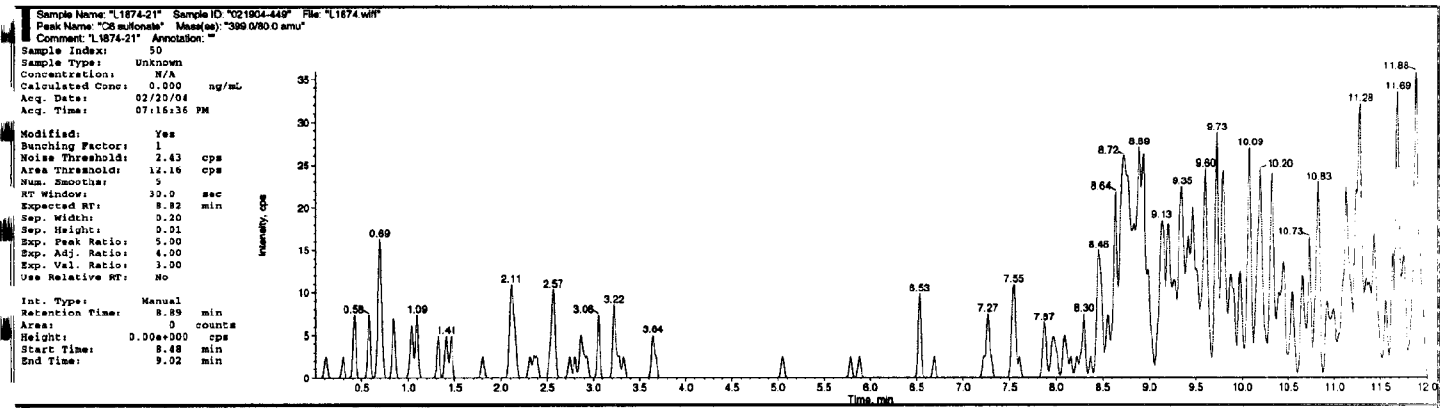


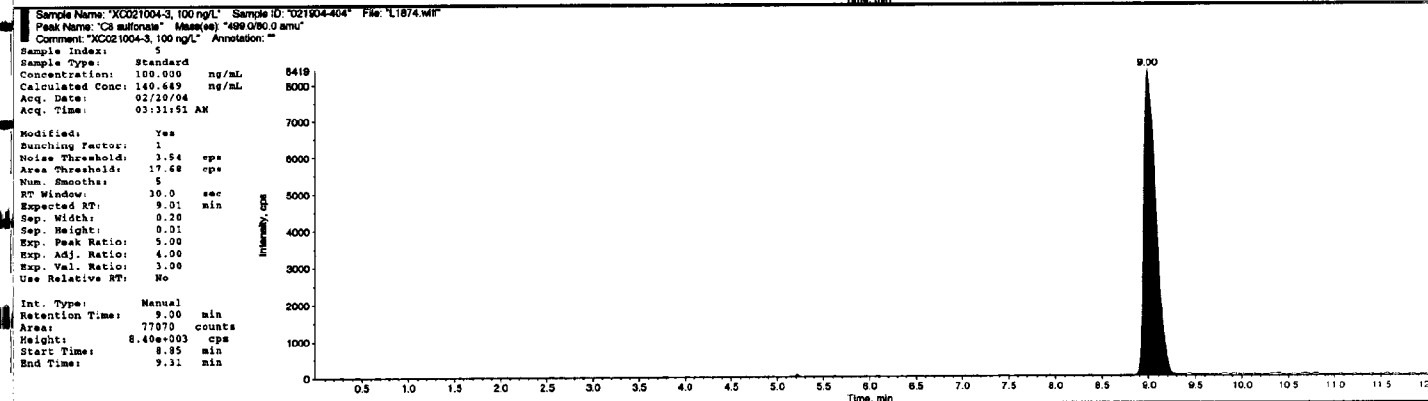
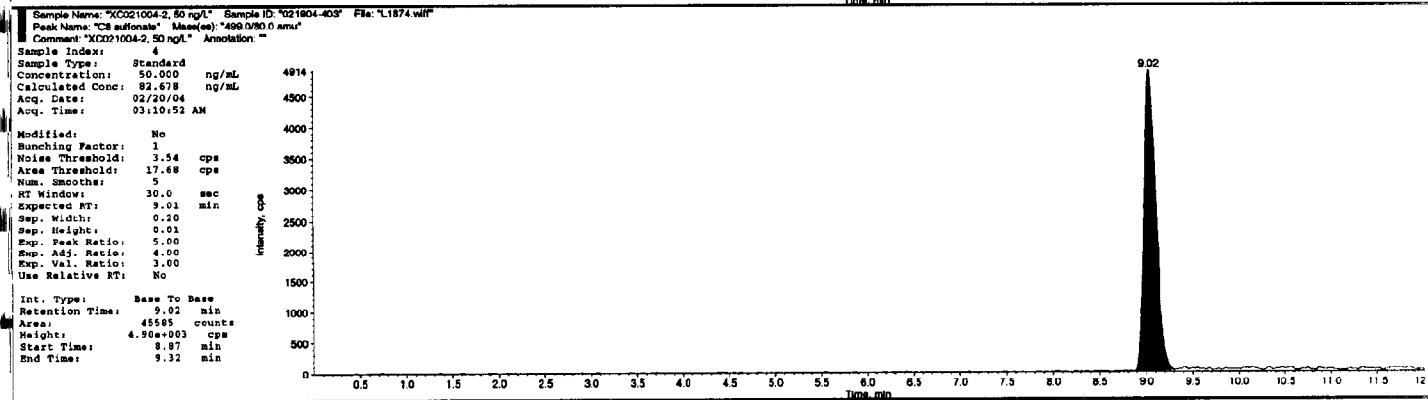
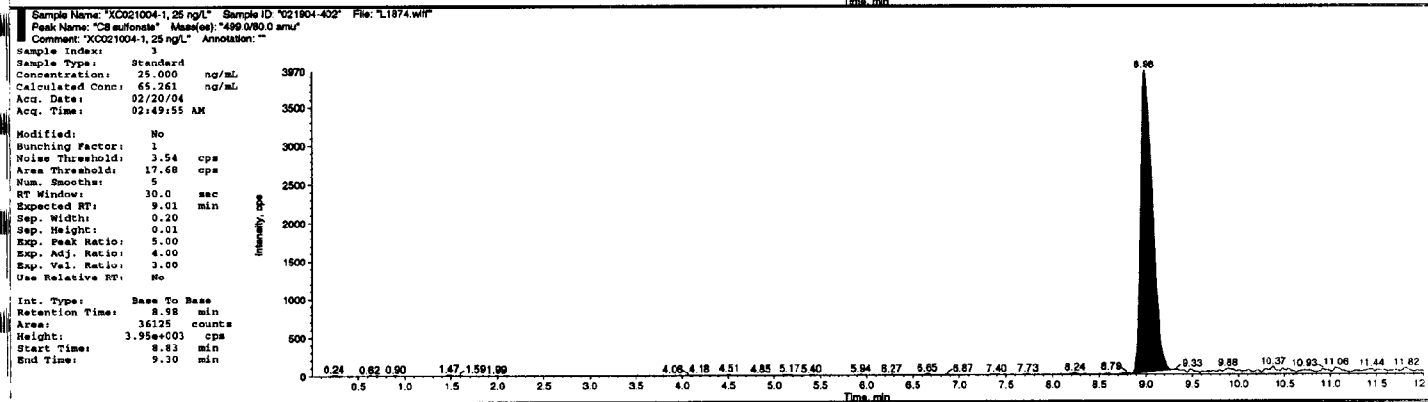
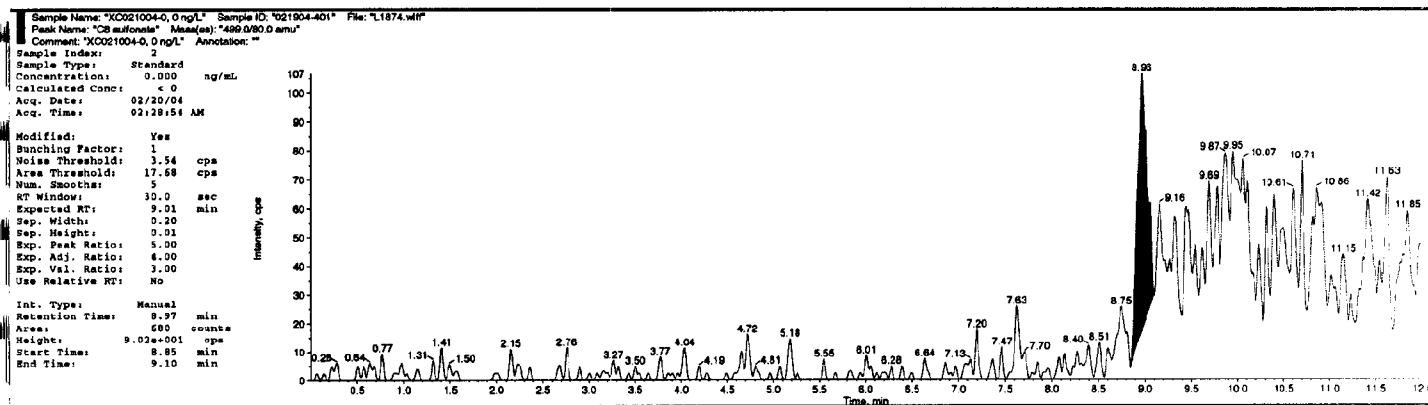
Oxygen Study Number: L1874

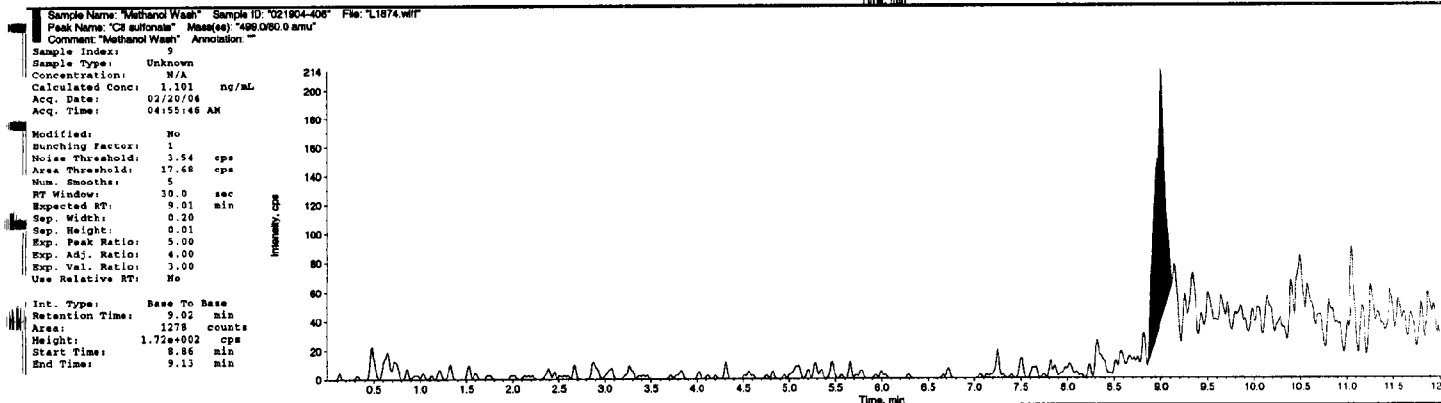
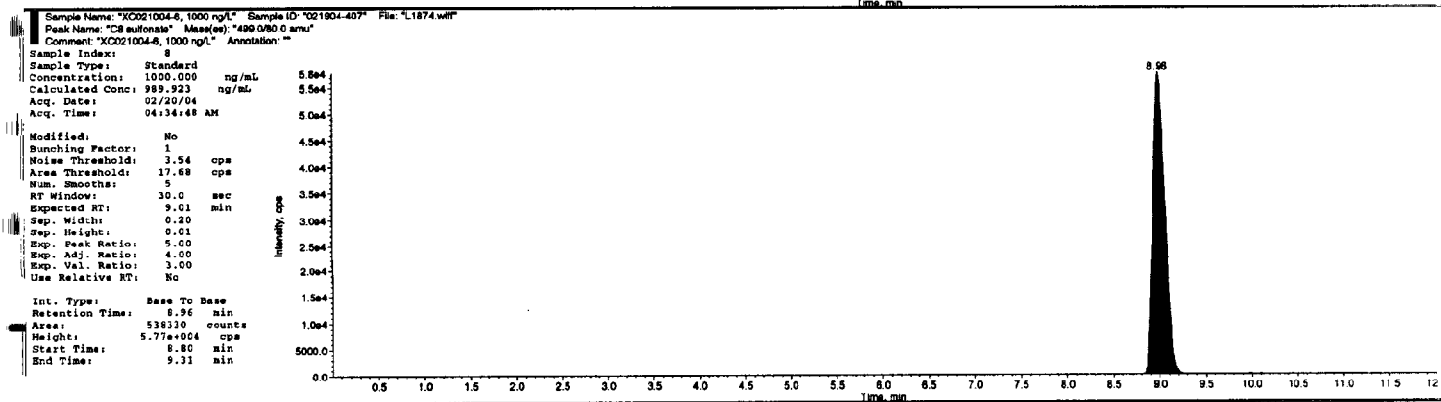
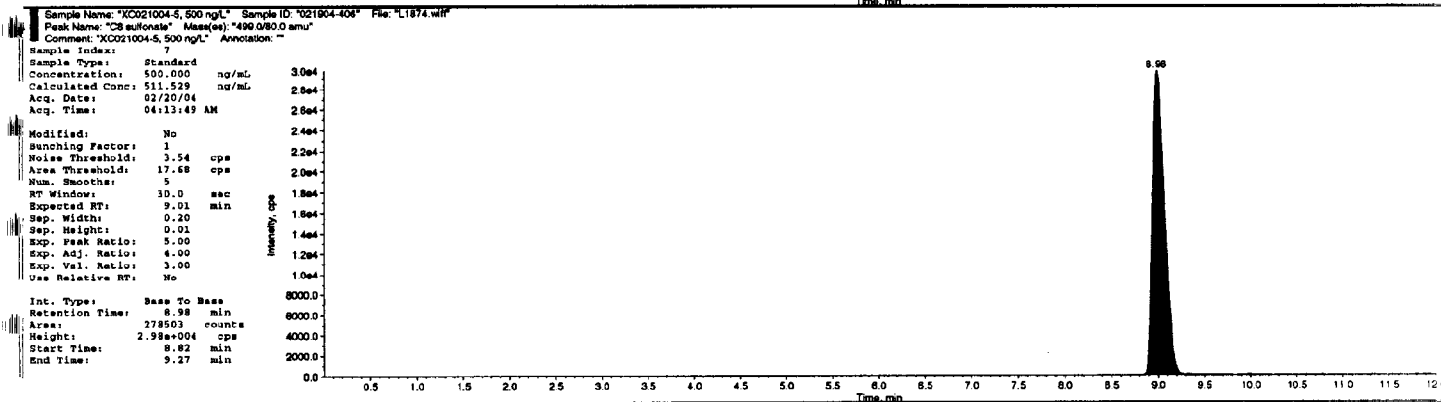
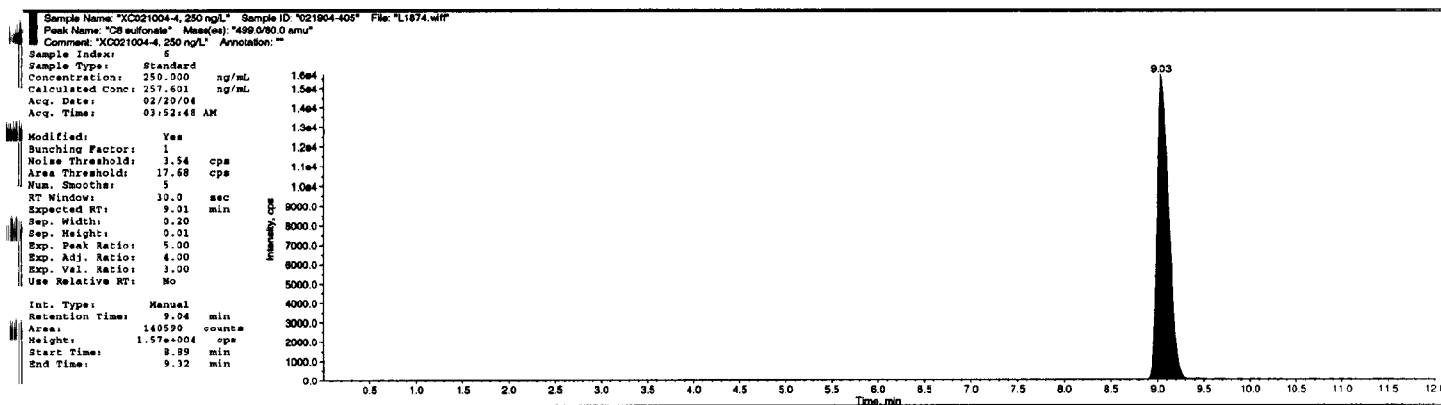


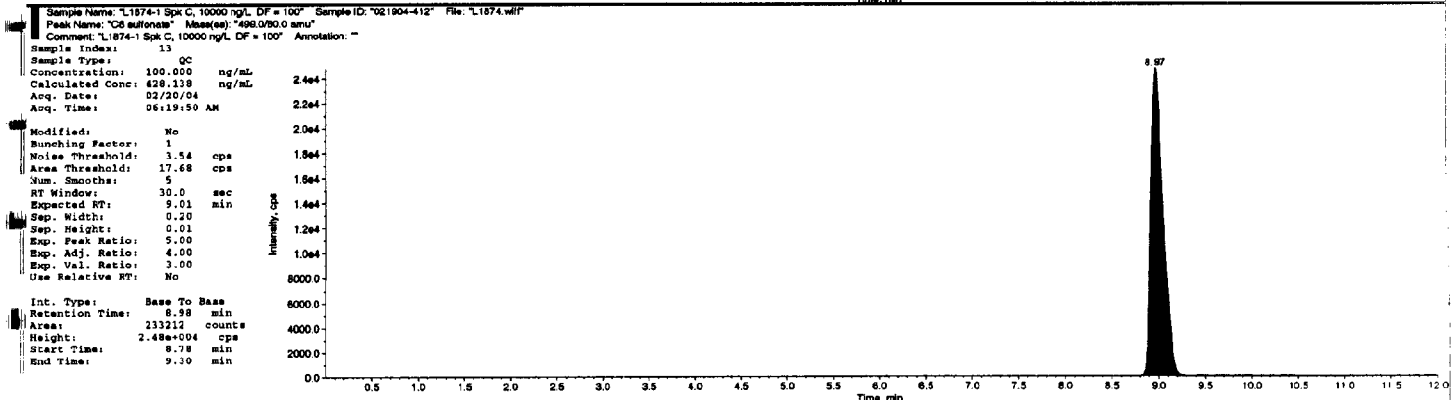
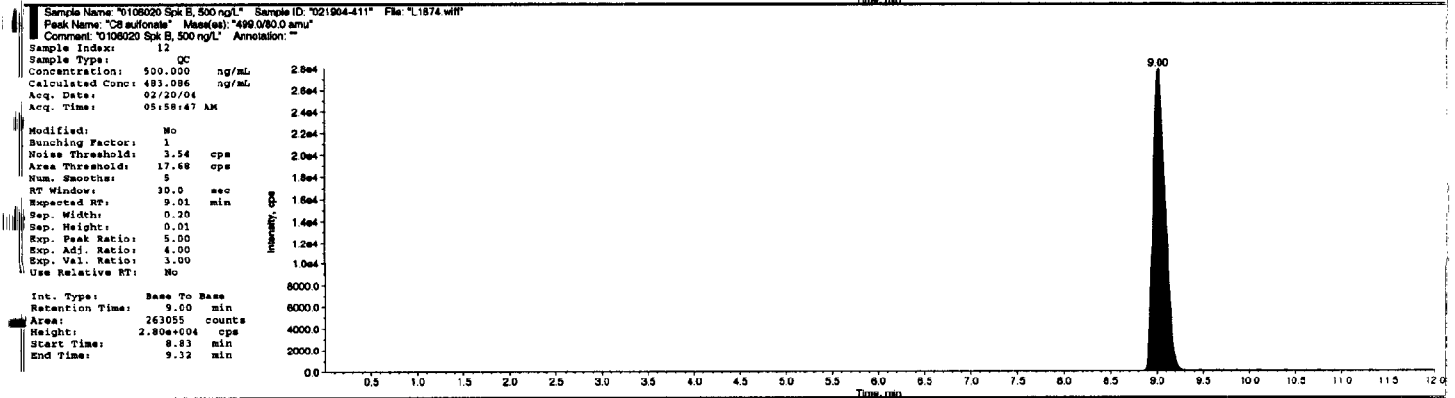
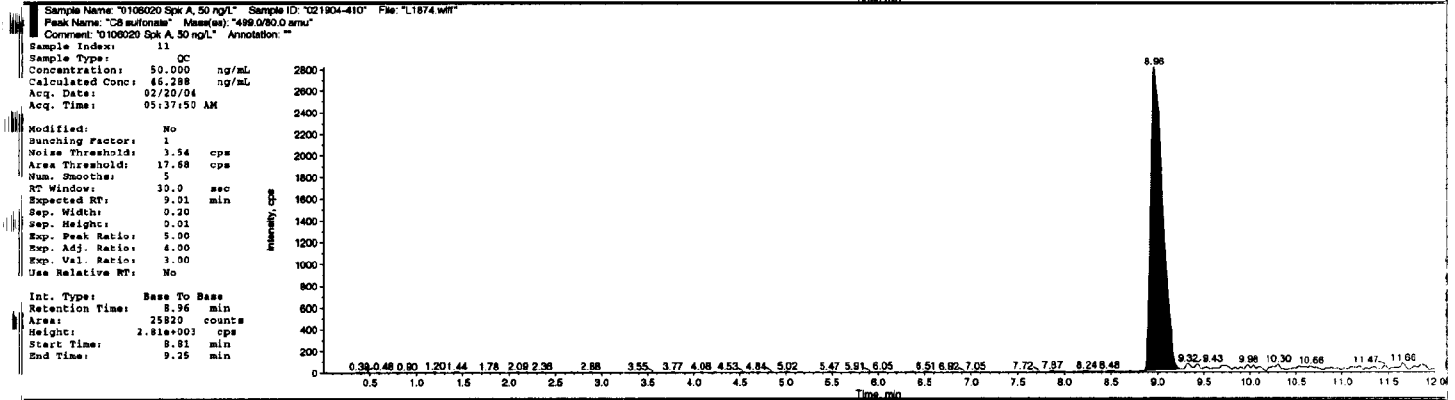
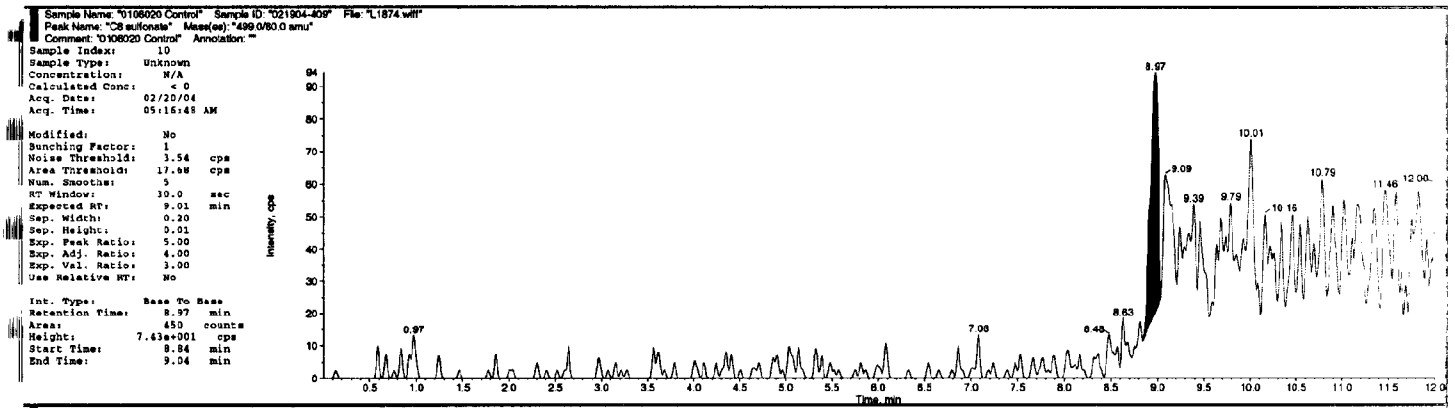


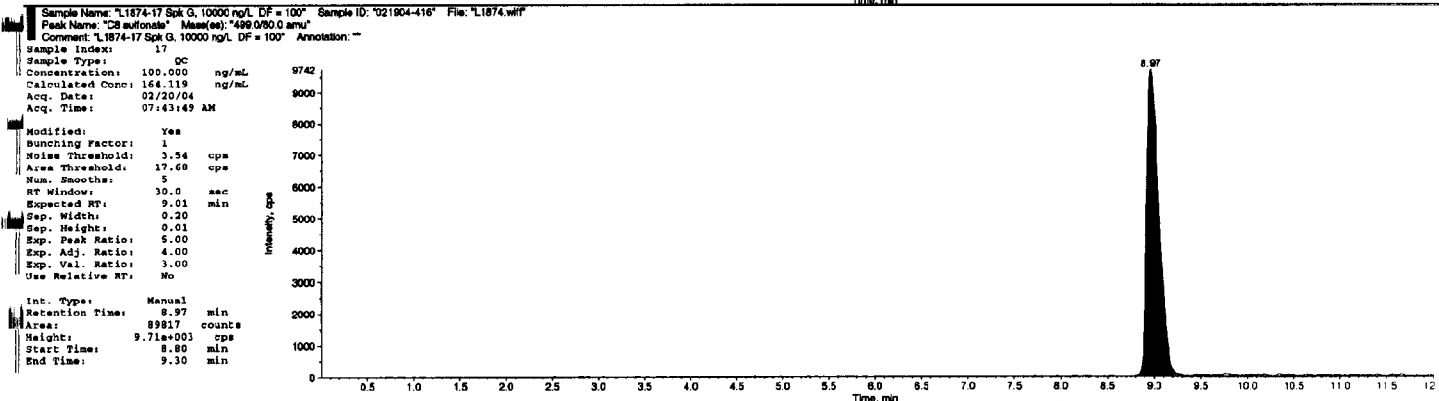
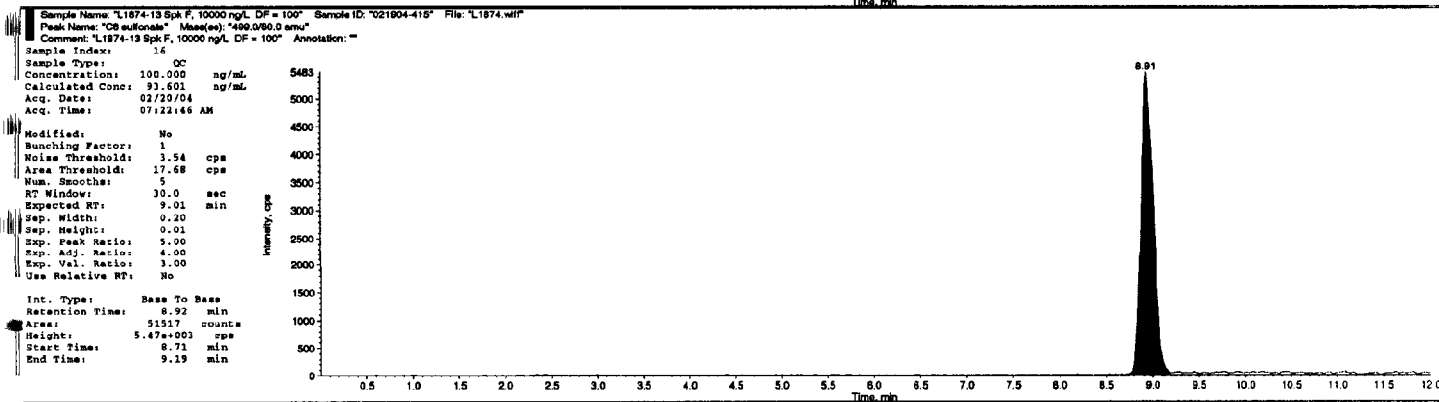
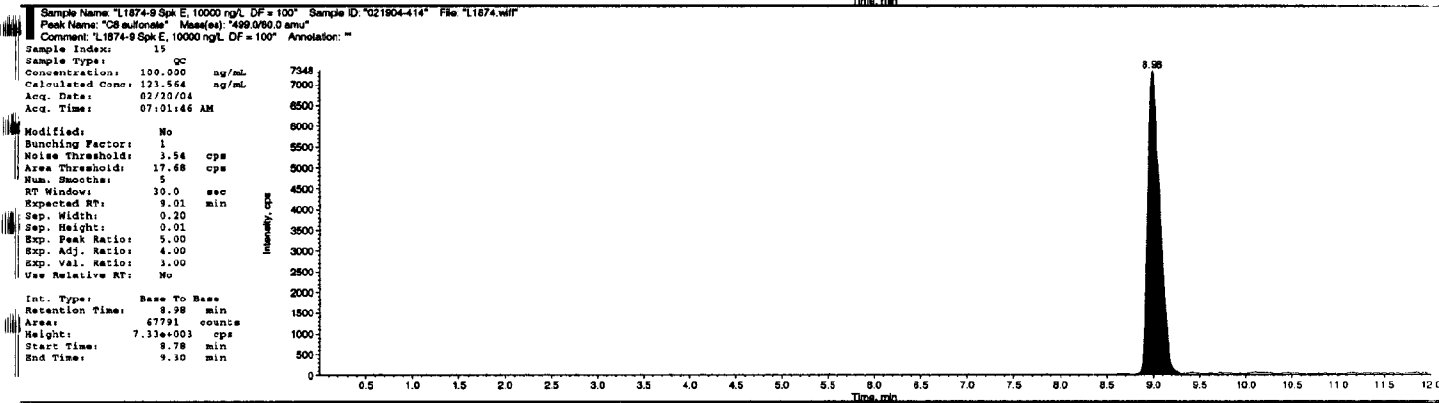
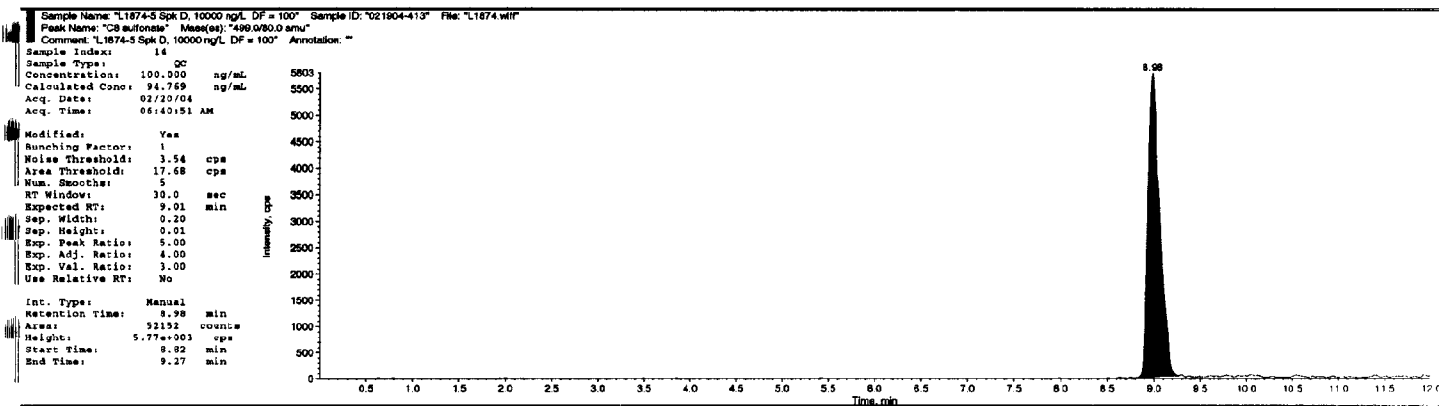


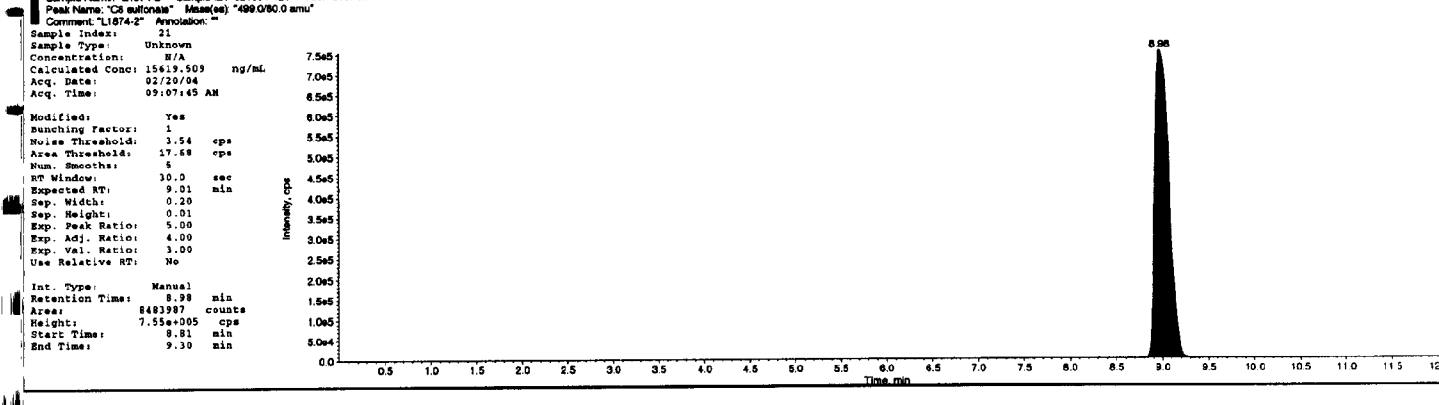
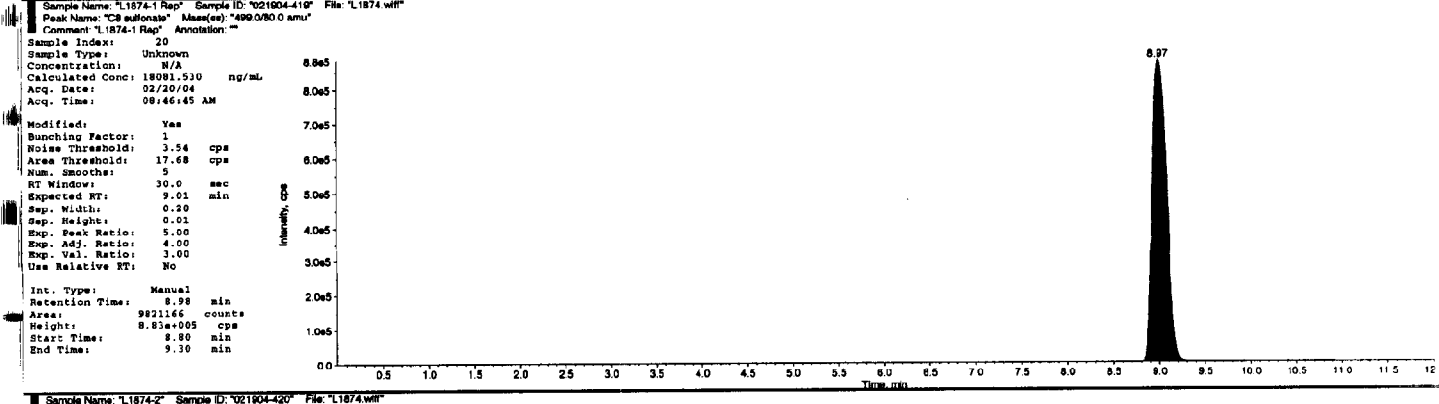
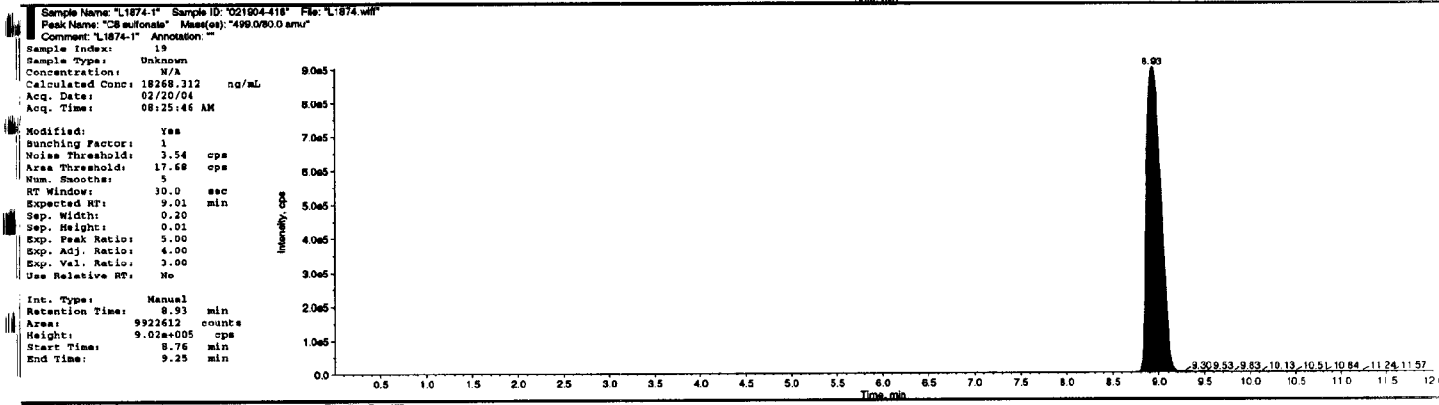
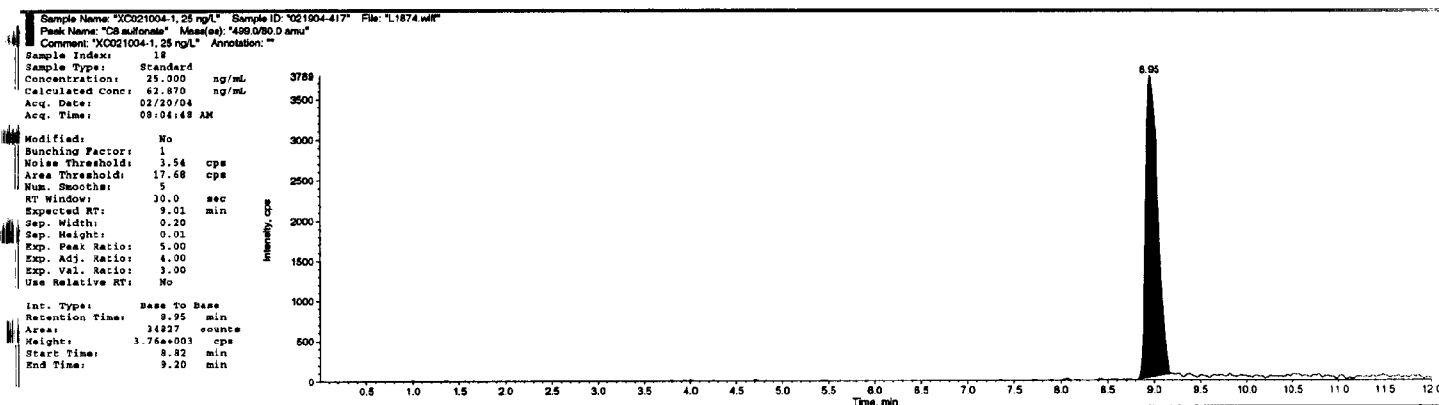


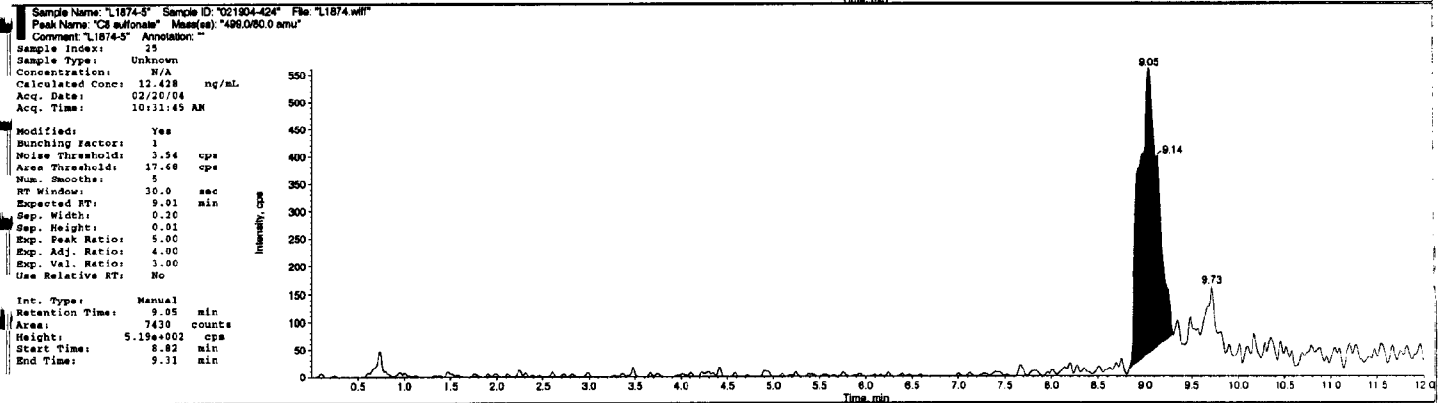
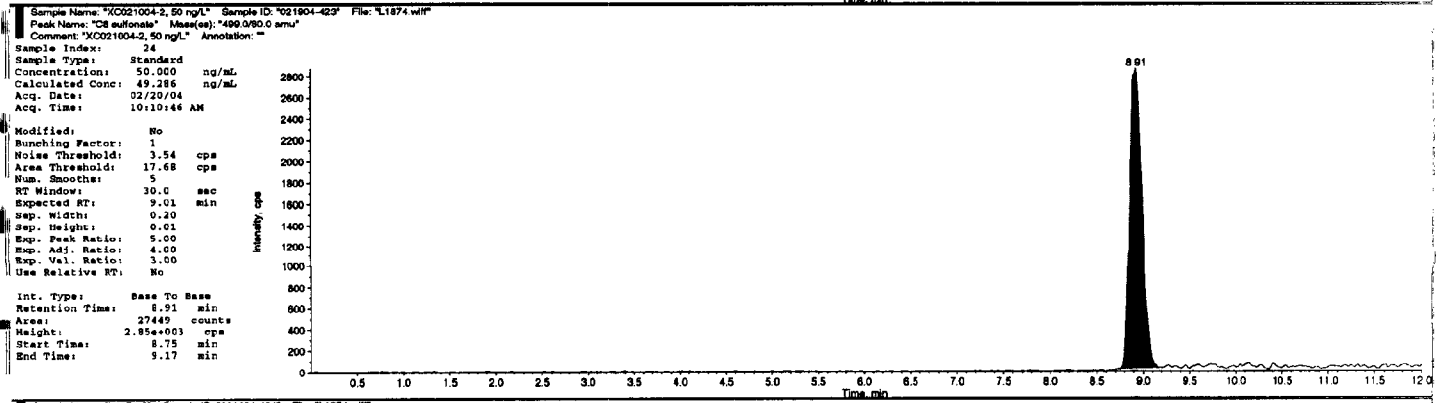
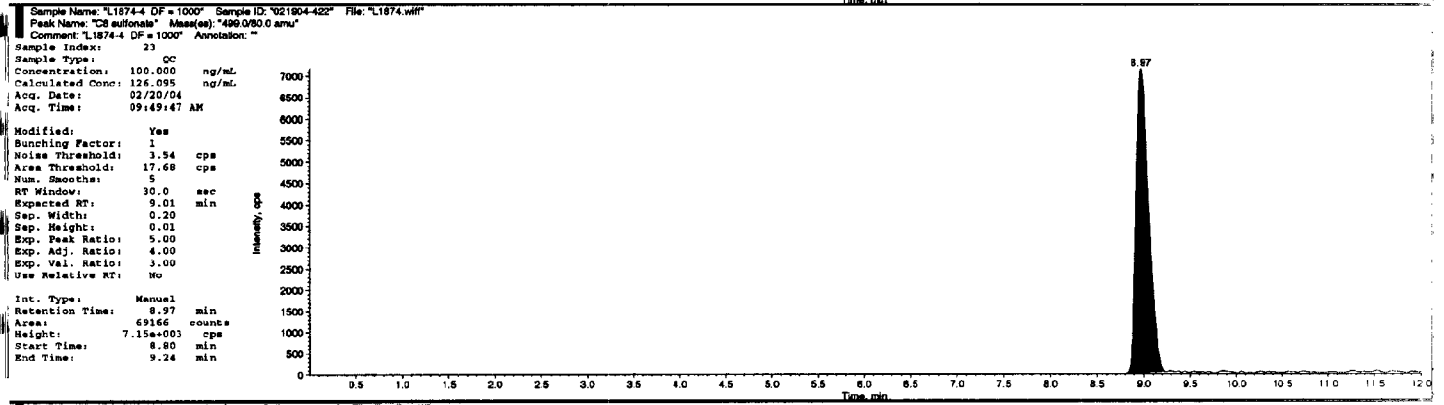
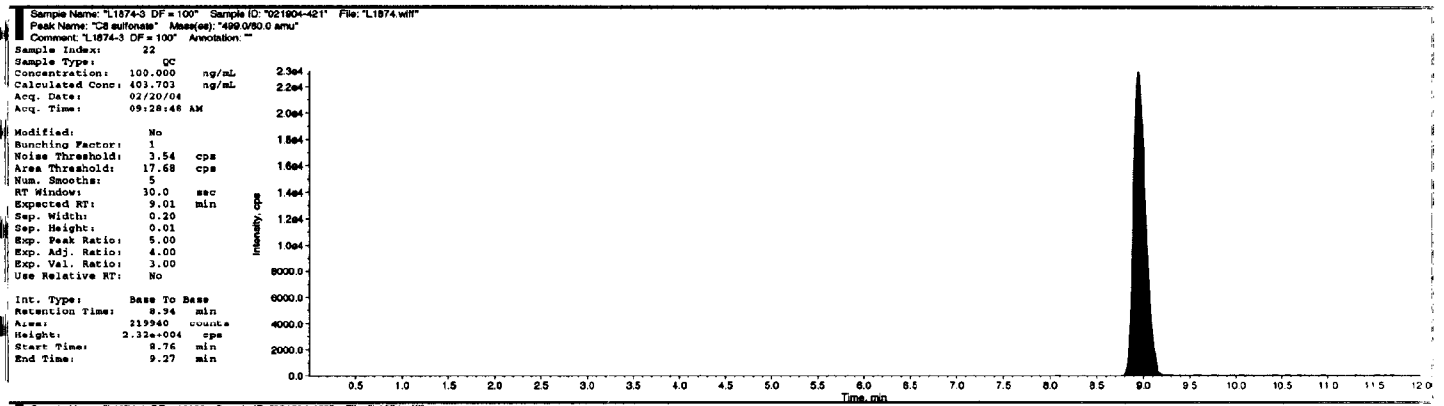


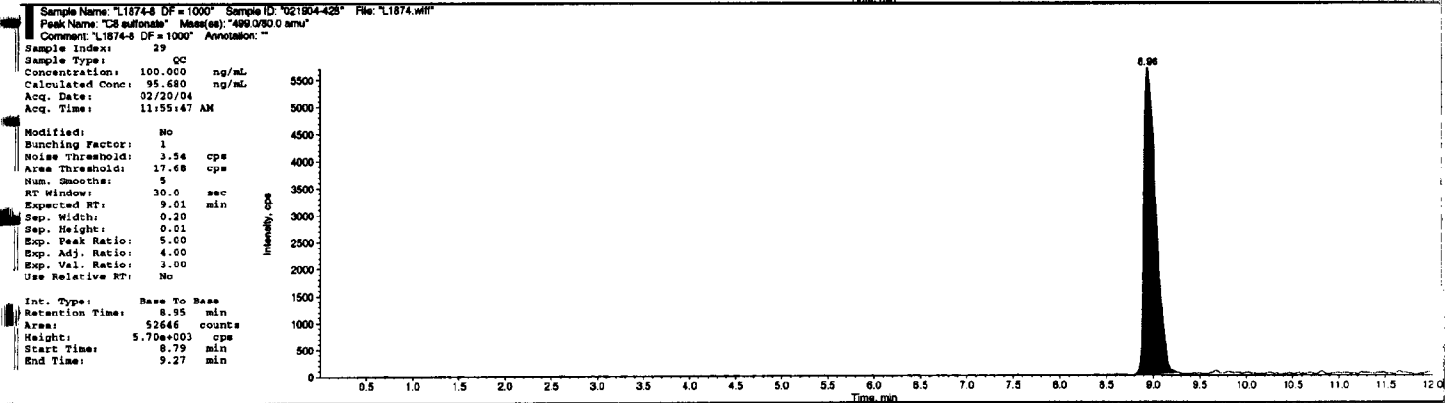
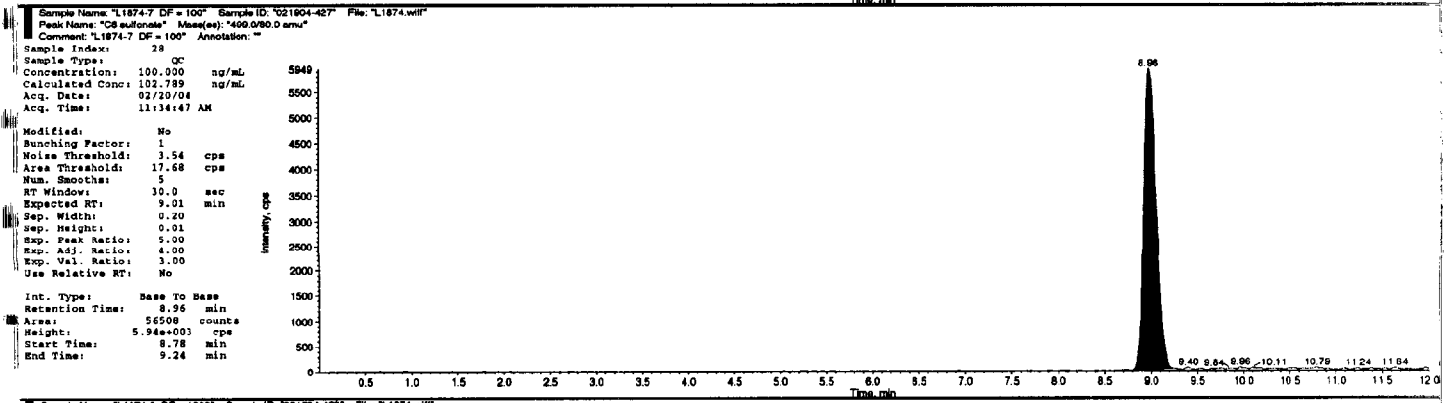
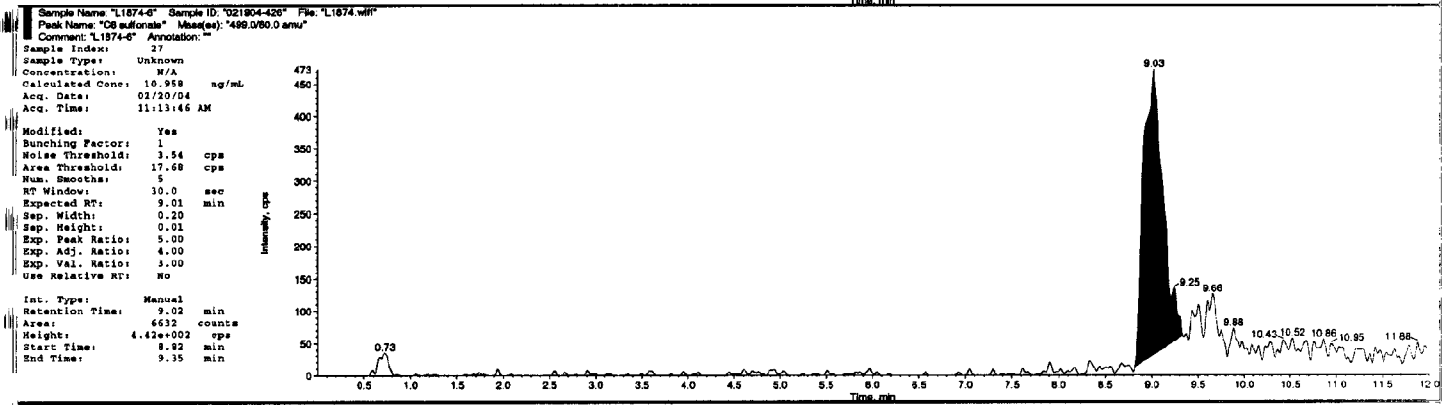
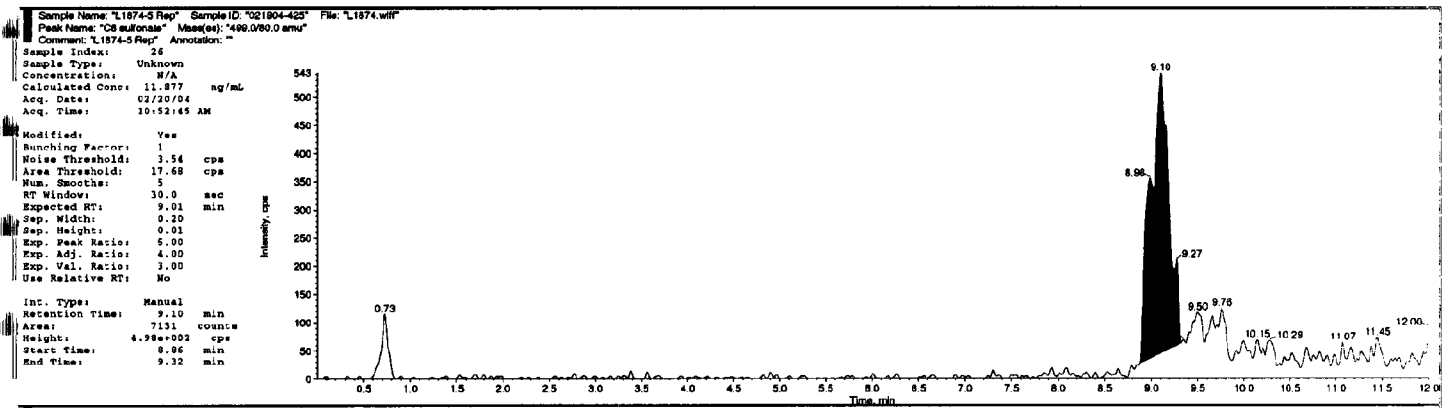


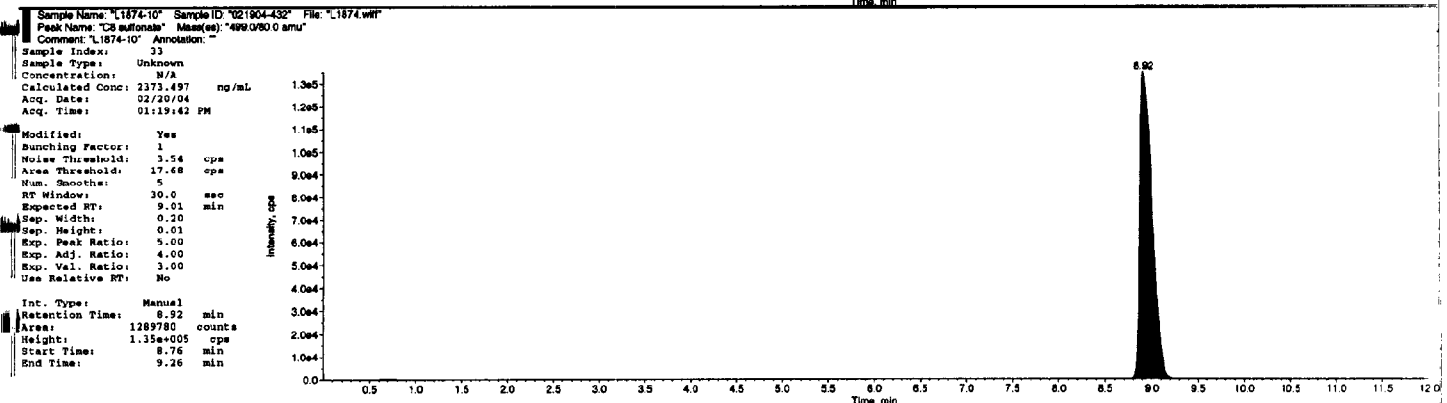
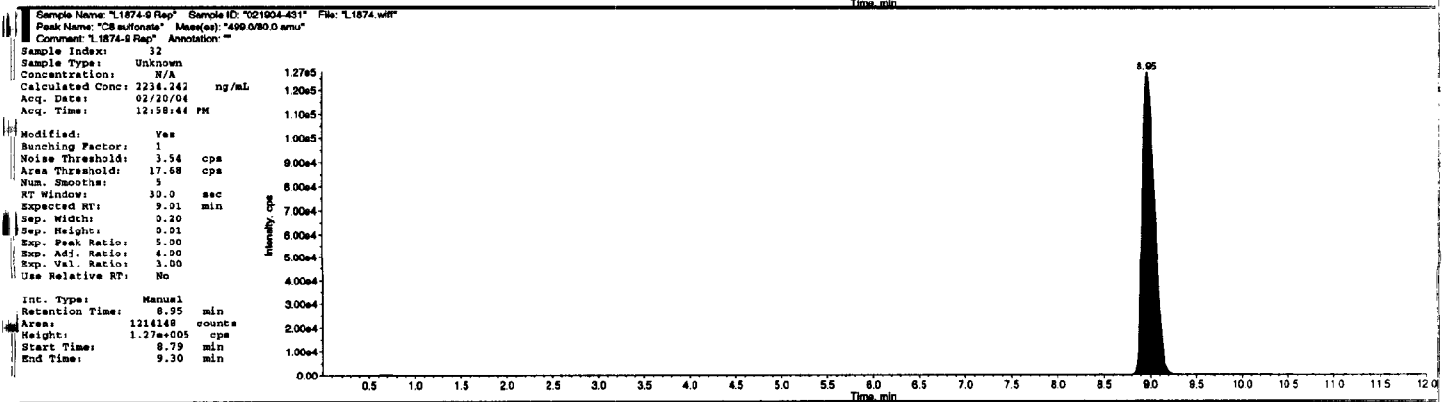
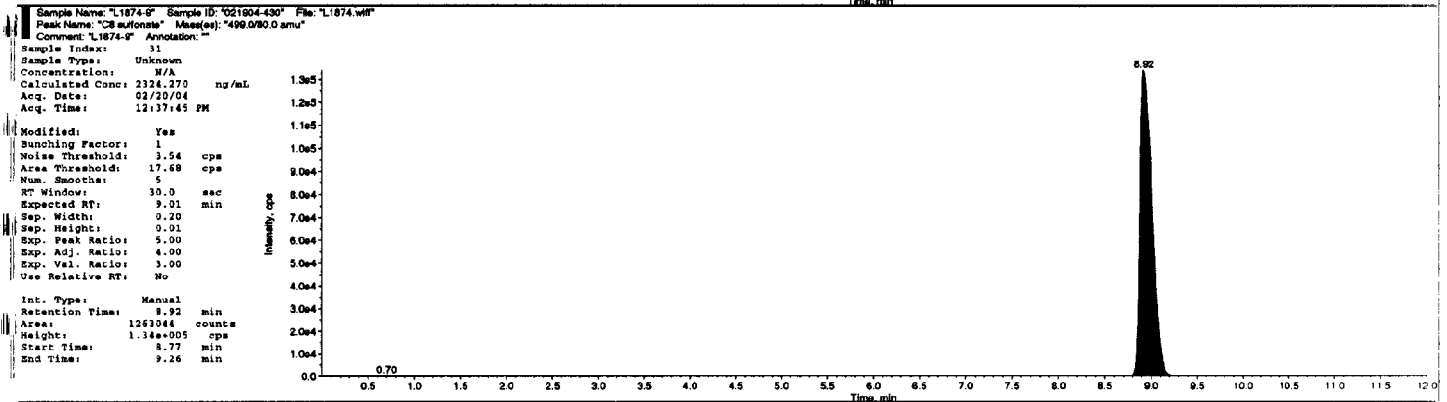
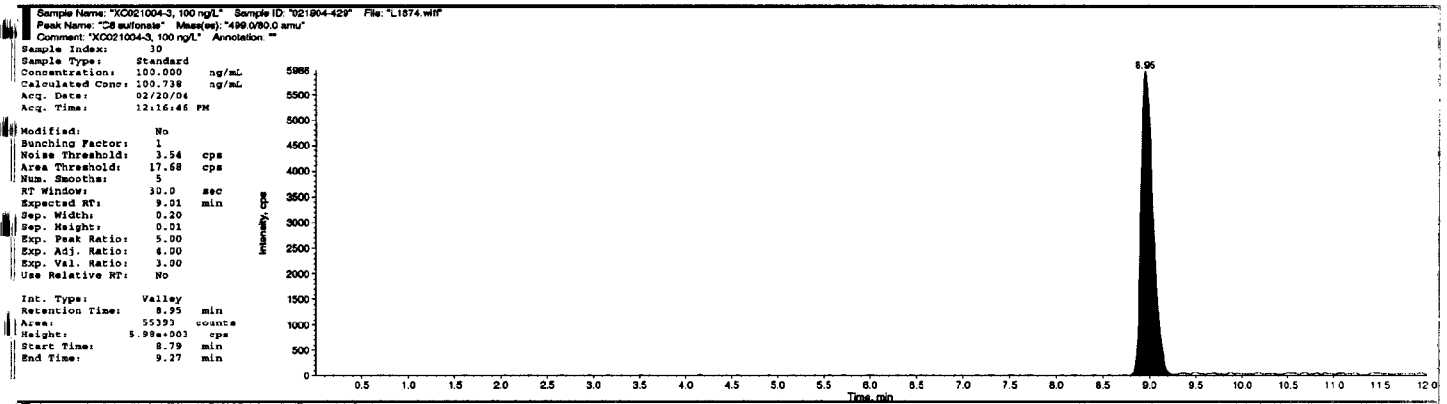


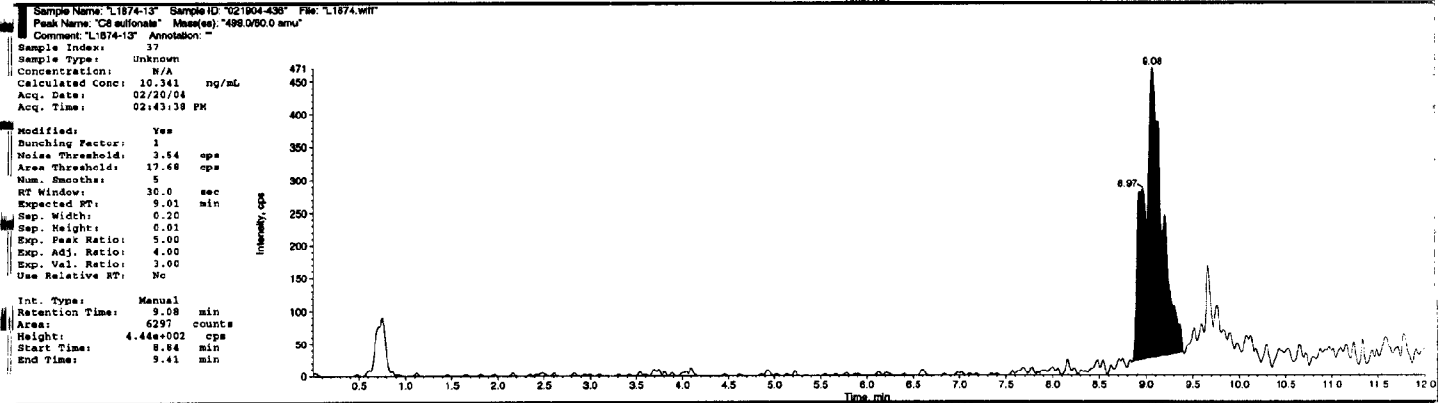
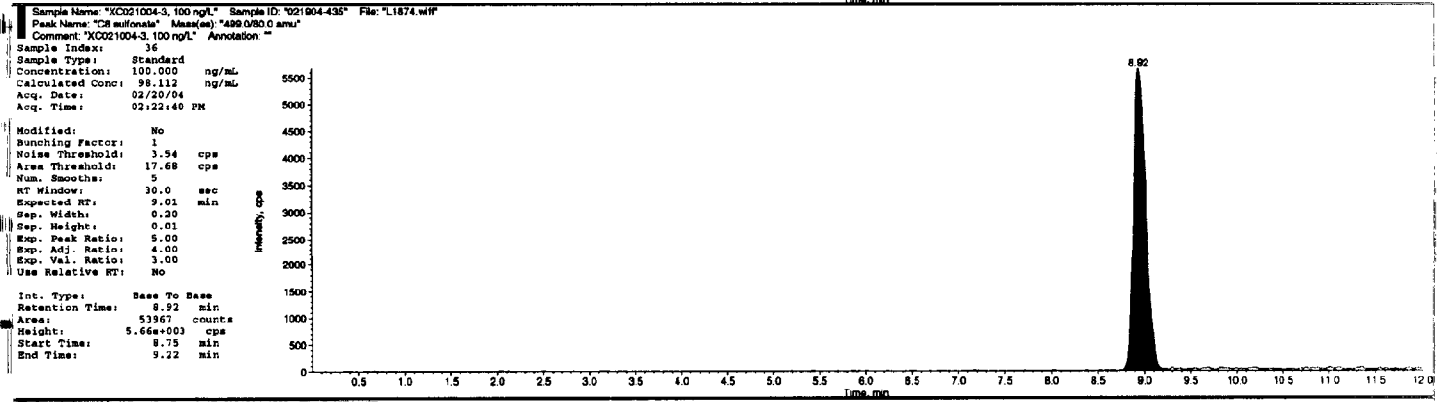
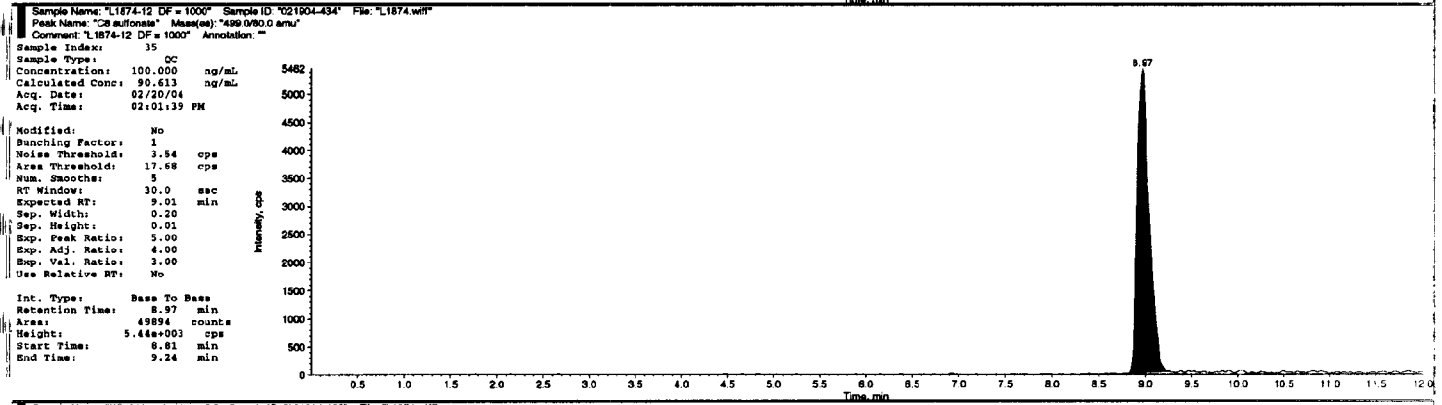
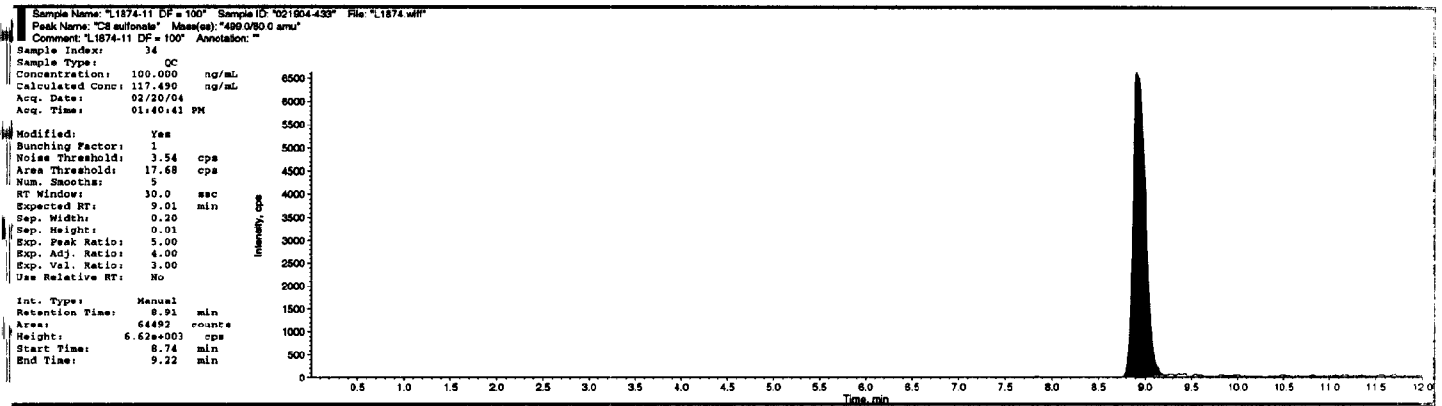


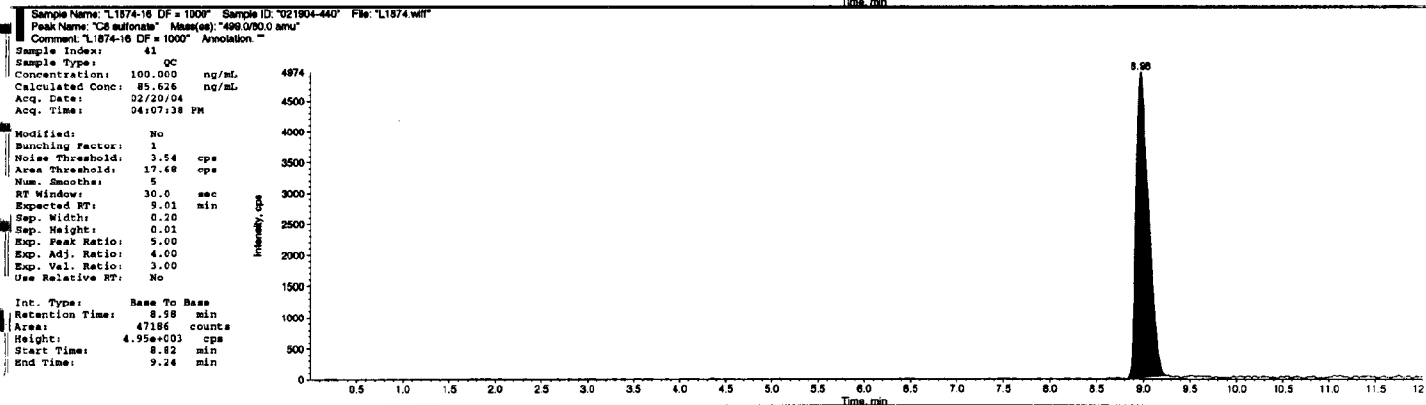
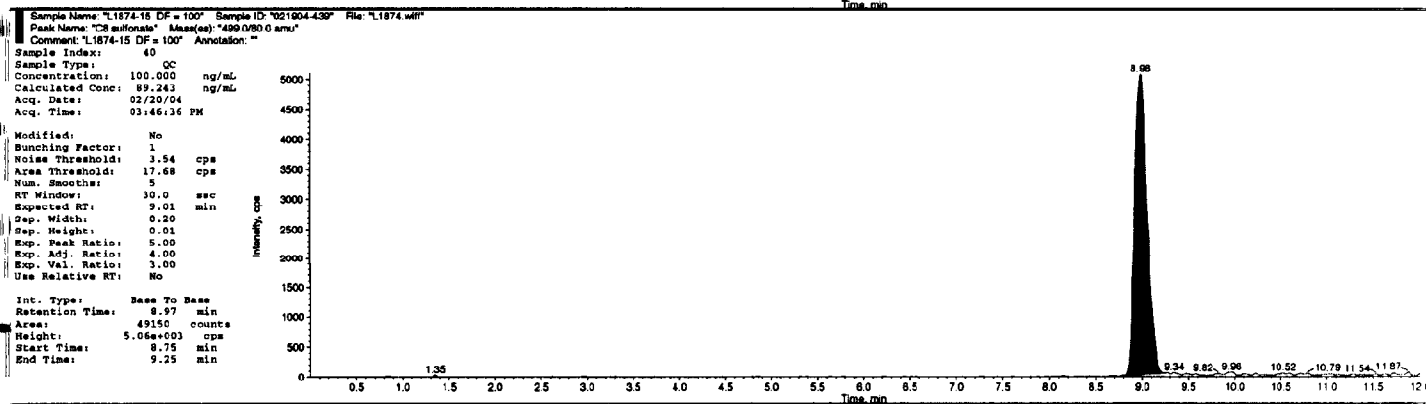
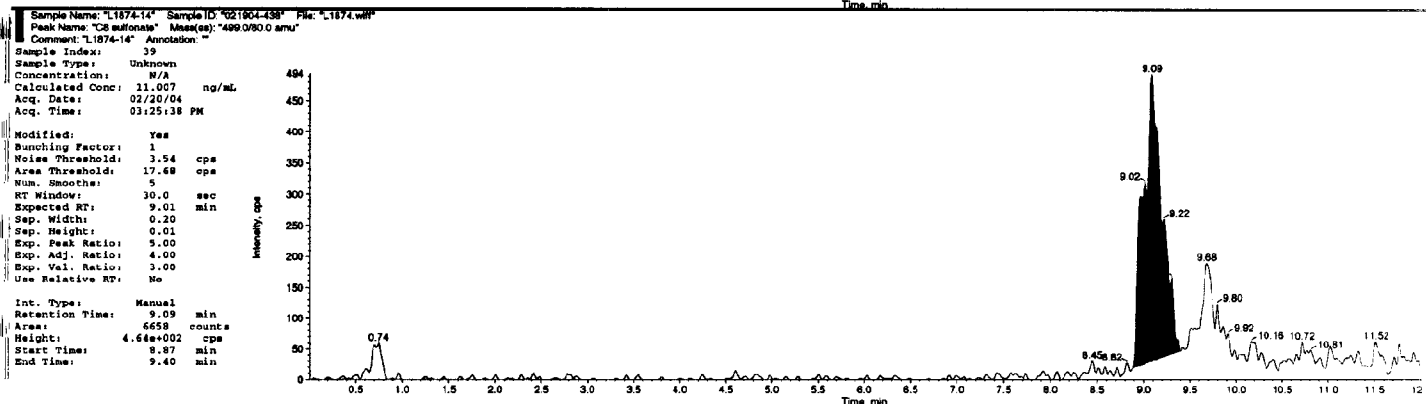
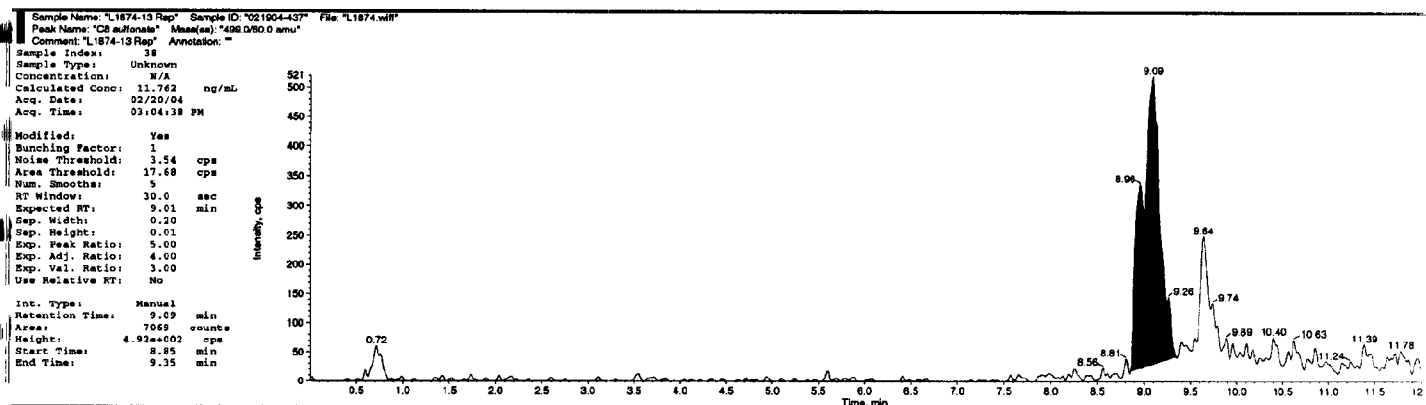


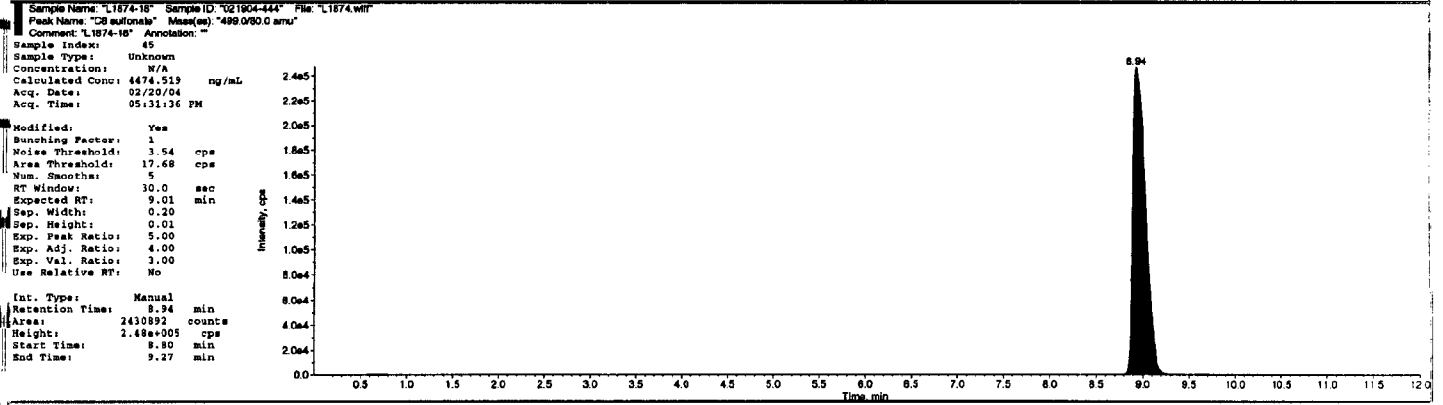
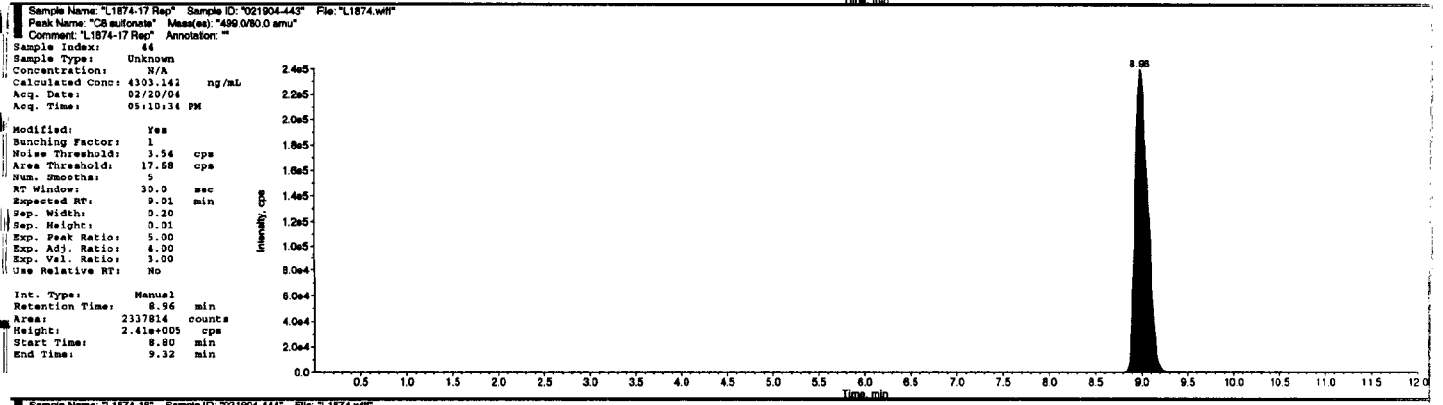
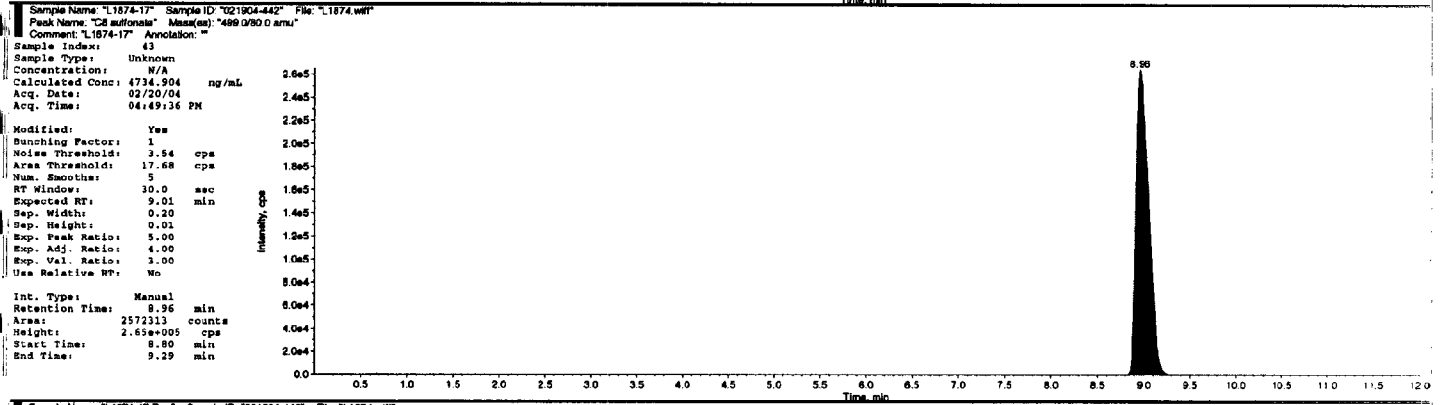
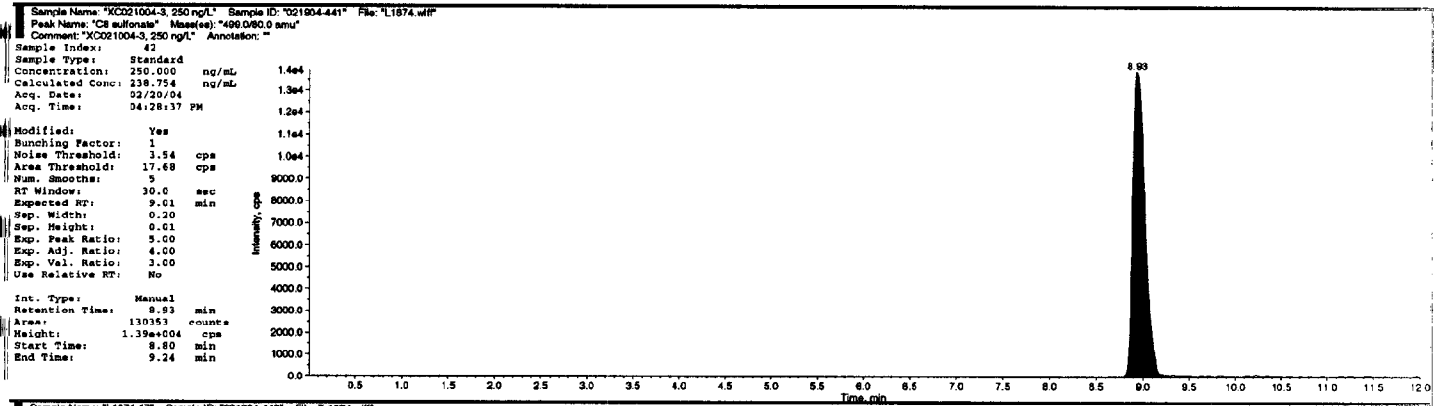


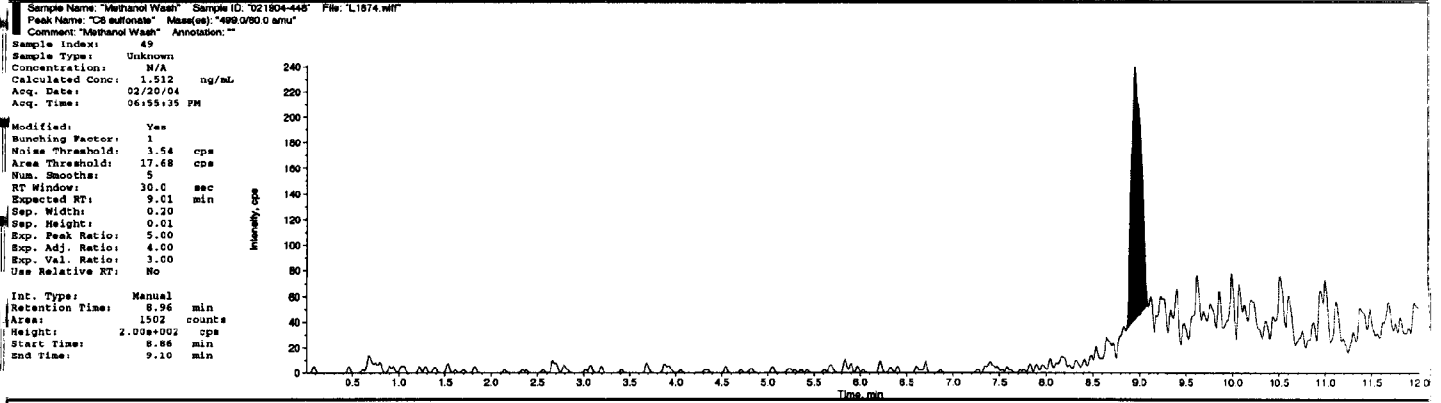
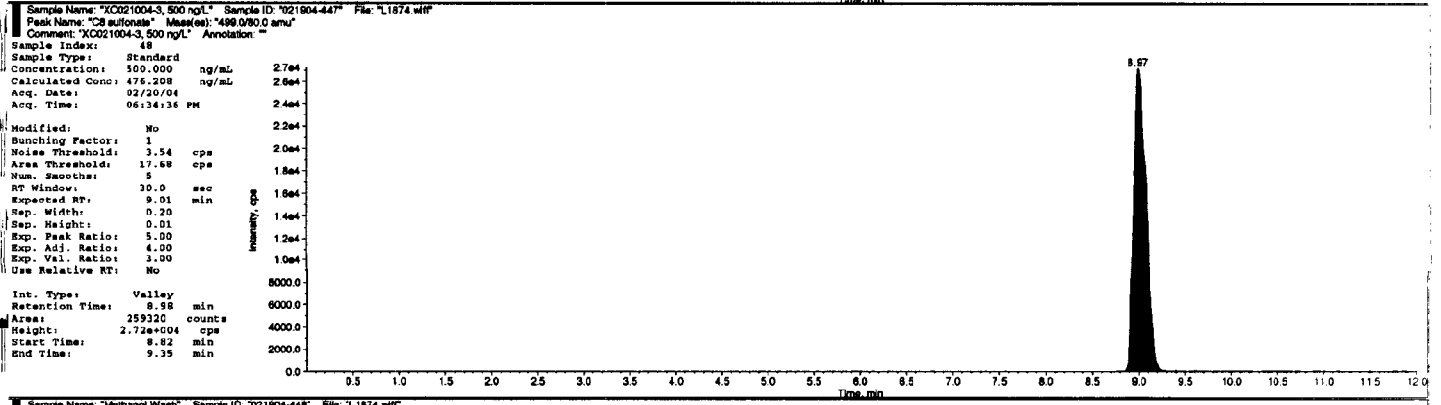
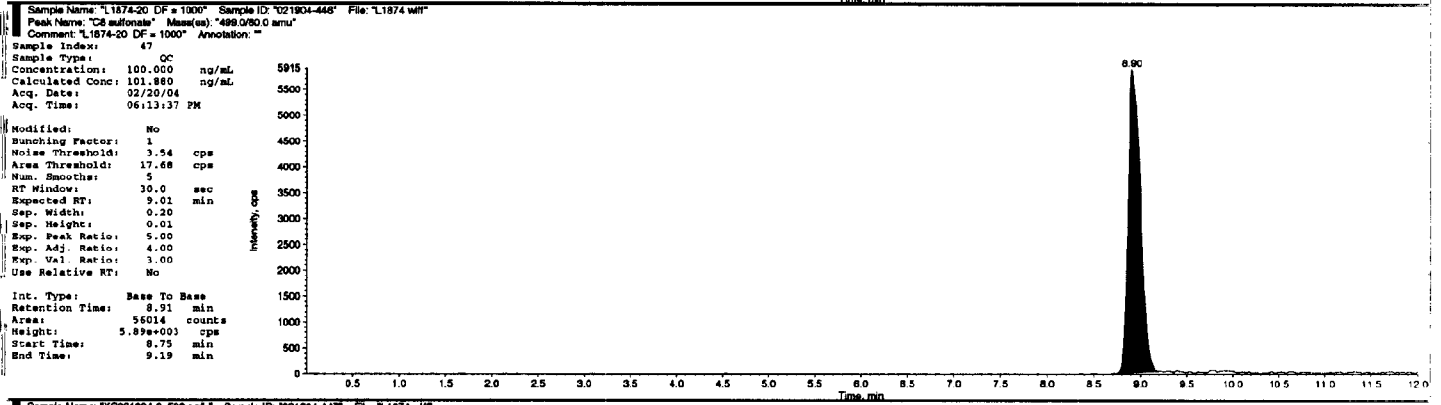
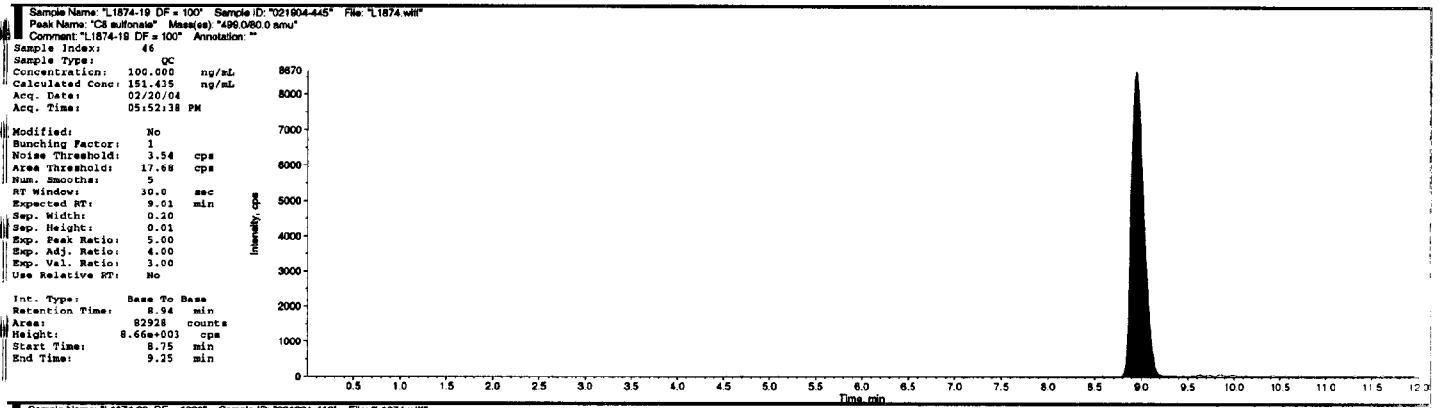


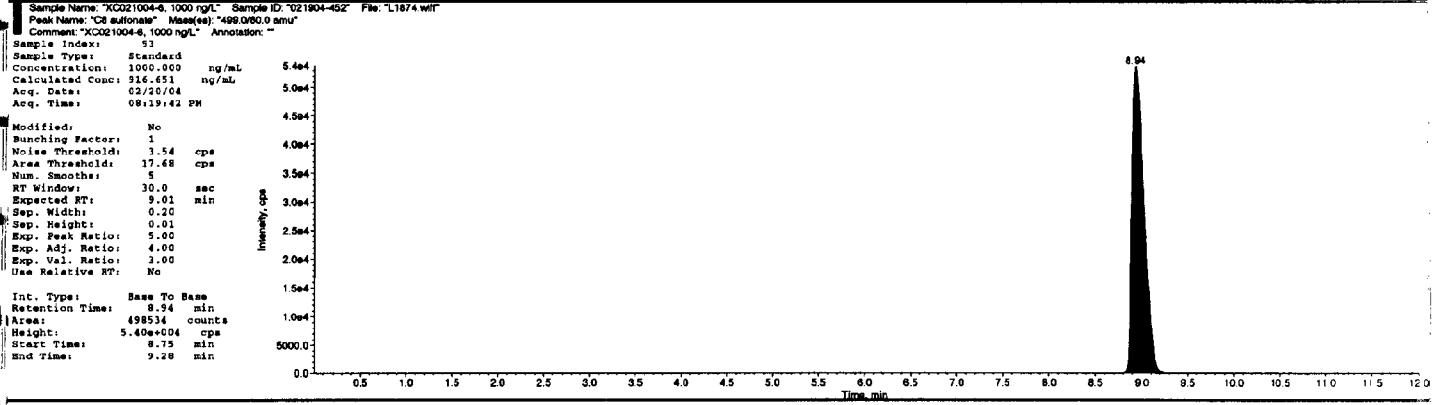
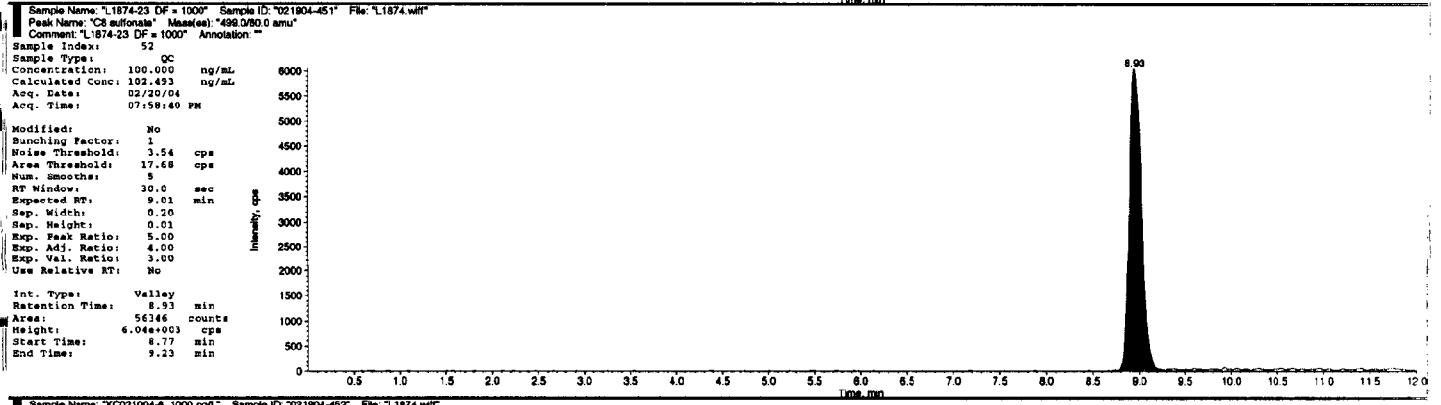
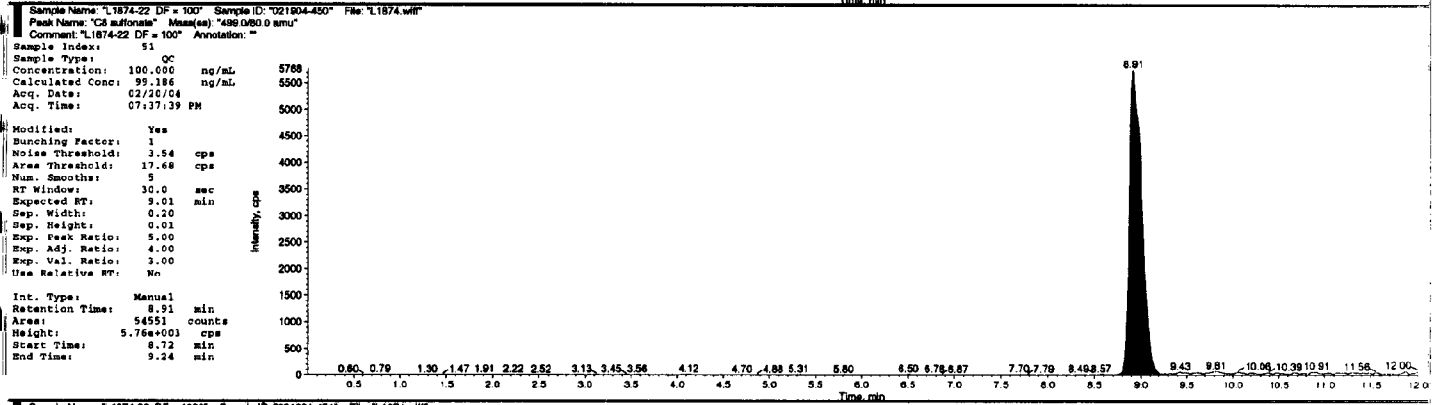
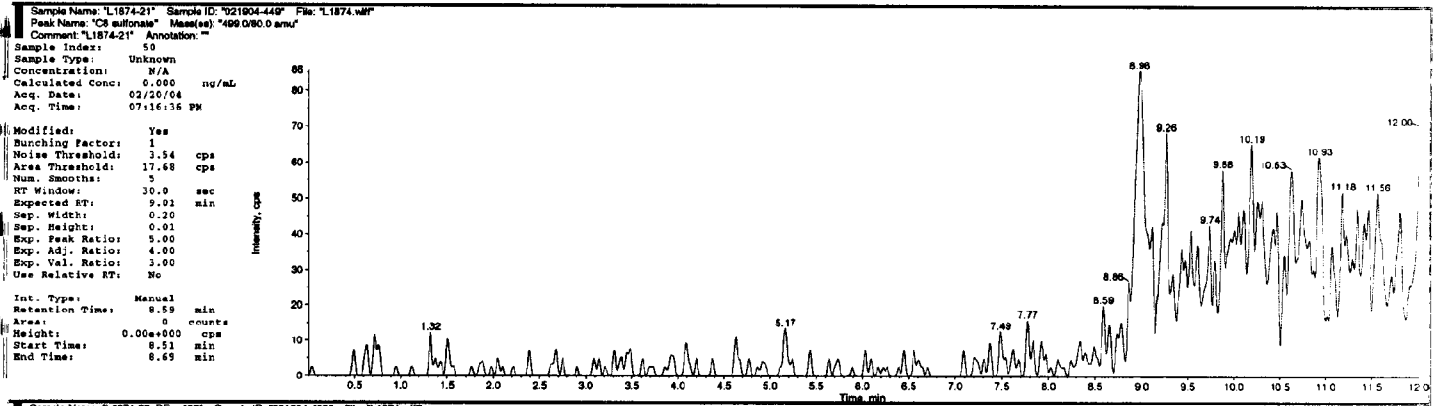












RAW DATA REPORT

Sponsor Study No: NA Limit of Quantitation: 50 ppt Set No: 021804AR
 Oxygen Study No: L1874 Injection Volume: 15 µL Analyst: Karan Rijha
 Analyte: Perfluorobenzonic Acid Matrix: Water Instrument Type: LC/MS/MS Unit # 6
 Ions Monitored: 313 -> 269 Sample Volume: 40.0 mL Extraction Date: 02/18/04
 Site: NA Final Volume: 5.0 mL Analyzed on: 03/01-02/04

Oxygen ID	Sponsor ID	Sample Code	Run No.	Std. Conc. (ppt)	Dilution Factor	Peak Area	Analyte Found (ppt)	Amount Added (ppt)	Recovery (%)
XC022404-0	-	CS	021804AR-201	0	-	1444	-	-	-
XC022404-1	-	CS	021804AR-202	25	-	9138	-	-	-
XC022404-2	-	CS	021804AR-203	50	-	13958	-	-	-
XC022404-3	-	CS	021804AR-204	100	-	30609	-	-	-
XC022404-4	-	CS	021804AR-205	250	-	77022	-	-	-
XC022404-5	-	CS	021804AR-206	500	-	140756	-	-	-
XC022404-6	-	CS	021804AR-207	1000	-	262457	-	-	-
Methanol Wash	-	C	021804AR-208	-	-	4987	-	-	-
0106020 Control	na	C	021804AR-209	-	1	7288	ND	-	-
0106020 Spk A	na	LCS	021804AR-210	-	1	19747	63.9	50	128
0106020 Spk B	na	LCS	021804AR-211	-	1	156560	594	500	119
L1874-1 Spk C	Influent 3	LF	021804AR-212	-	1000	11633	*	10000	-
L1874-1 Spk C	Influent 3	LF	021804AR-213	-	100	95428	35700	10000	-173
L1874-5 Spk D	Comb Effluent	LF	021804AR-214	-	100	43462	15600	10000	155
L1874-9 Spk E	Port 4A	LF	021804AR-215	-	100	107992	40600	10000	151
L1874-13 Spk F	Effluent 4	LF	021804AR-216	-	100	44006	15800	10000	158
L1874-17 Spk G	Influent 1/2	LF	021804AR-217	-	100	69630	25700	10000	171
XC022404-1	-	CS	021804AR-218	25	-	9490	-	-	-
L1874-1	Influent 3	S	021804AR-219	-	1000	16777	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-220	-	1000	14822	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-221	-	1000	14422	*	-	-
L1874-1	Influent 3	S	021804AR-222	-	100	140040	53000	-	-
L1874-1 Rep	Influent 3	S	021804AR-223	-	100	124693	47100	-	-
L1874-2	Influent 3 Dup	S	021804AR-224	-	100	119813	45200	-	-
L1874-1	Influent 3	S	021804AR-225	-	10	1033206	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-226	-	10	1014366	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-227	-	10	1042865	*	-	-
L1874-3	Influent 3 Low Spk	FF	021804AR-228	-	1000	16653	*	10000	-
L1874-3	Influent 3 Low Spk	FF	021804AR-229	-	100	144063	54600	10000	16
L1874-4	Influent 3 High Spk	FF	021804AR-230	-	1000	43625	156000	100000	103
XC022404-2	-	CS	021804AR-231	50	-	17096	-	-	-
L1874-5	Comb Effluent	S	021804AR-232	-	1	25723	87.1	-	-
L1874-5 Rep	Comb Effluent	S	021804AR-233	-	1	24623	82.8	-	-
L1874-6	Comb Effluent Dup	S	021804AR-234	-	1	22505	74.6	-	-
L1874-7	Comb Effluent Low Spk	FF	021804AR-235	-	100	32042	11200	10000	111
L1874-8	Comb Effluent High Spk	FF	021804AR-236	-	1000	25847	87600	100000	88
XC022404-3	-	CS	021804AR-237	100	-	27633	-	-	-
L1874-9	Port 4A	S	021804AR-238	-	100	69053	25500	-	-
L1874-9 Rep	Port 4A	S	021804AR-239	-	100	71291	26400	-	-
L1874-10	Port 4A Dup	S	021804AR-240	-	100	76099	28200	-	-
L1874-9	Port 4A	S	021804AR-241	-	10	651496	*	-	-
L1874-9 Rep	Port 4A	S	021804AR-242	-	10	602529	*	-	-
L1874-10	Port 4A Dup	S	021804AR-243	-	10	689054	*	-	-
L1874-11	Port 4A Low Spk	FF	021804AR-244	-	100	102583	38500	10000	130
L1874-12	Port 4A High Spk	FF	021804AR-245	-	1000	39803	142000	100000	117
XC022404-3	-	CS	021804AR-246	100	-	31344	-	-	-
L1874-13	Effluent 4	S	021804AR-247	-	1	6971	ND	-	-
L1874-13 Rep	Effluent 4	S	021804AR-248	-	1	5841	ND	-	-
L1874-14	Effluent 4 Dup	S	021804AR-249	-	1	4446	ND	-	-
L1874-15	Effluent 4 Low Spk	FF	021804AR-250	-	100	34104	12000	10000	120
L1874-16	Effluent 4 High Spk	FF	021804AR-251	-	1000	35172	124000	100000	124
XC022404-4	-	CS	021804AR-252	250	-	79535	-	-	-
L1874-17	Influent 1/2	S	021804AR-253	-	200	16529	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-254	-	200	14997	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-255	-	200	15967	*	-	-
L1874-17	Influent 1/2	S	021804AR-256	-	100	26173	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-257	-	100	24139	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-258	-	100	23825	*	-	-
L1874-17	Influent 1/2	S	021804AR-259	-	10	224986	8590	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-260	-	10	215831	8240	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-261	-	10	219827	8390	-	-
L1803-19	Influent 1/2 Low Spk	FF	021804AR-262	-	100	53794	19600	10000	110
L1803-20	Influent 1/2 High Spk	FF	021804AR-263	-	1000	33614	118000	100000	109
XC022404-5	-	CS	021804AR-264	500	-	127131	-	-	-
Methanol Wash	-	C	021804AR-265	-	-	5128	-	-	-
L1874-21	Trip Blank	S	021804AR-266	-	1	7884	ND	-	-
L1874-22	Trip Blank Low Spk	FF	021804AR-267	-	100	29404	10100	10000	101
L1874-23	Trip Blank High Spk	FF	021804AR-268	-	1000	28825	99100	100000	99
XC022404-6	-	CS	021804AR-269	1000	-	233605	-	-	-

Analyte Found (ppt) = (peak area - intercept) / slope x DF
 Recovery (%) = $\frac{\text{analyte found (ppt)} - \text{analyte found in control (ppt)} \times 100}{\text{amount added (ppt)}}$
 Standard Curve: Linear (1/x weighted)
 Intercept = 3246.64
 Slope = 258.118
 Coef. Of Det = 0.988257

CS = Calibration standard LF = Lab fortified sample
 C = Control sample FF = Field fortified sample
 S = Sample LCS = Laboratory Control Spike
 CK = Check Standard
 ND = Not detected = Response between 0 and 25 ppt
 NQ = Not quantifiable = Response between 25 ppt and LOQ (50 ppt)

*Sample was analyzed with several dilution factors in the same run. The appropriate dilution is reported.

Spreadsheet prepared by: *[Signature]* 03/02/04

RAW DATA REPORT

Sponsor Study No: NA Limit of Quantitation: 50 ppt Set No: 021804AR
 Exygen Study No: L1874 Injection Volume: 15 µL Analyst: Karen Risha
 Analyte: Perfluorooctanoic Acid Matrix: Water Instrument Type: LC/MS/MS Unit # 6
 Ions Monitored: 413 -> 369 Sample Volume: 40.0 mL Extraction Date: 02/18/04
 Site: NA Final Volume: 5.0 mL Analyzed on: 03/01-02/04

Exygen ID	Sponsor ID	Sample Code	Run No	Std. Conc. (ppt)	Dilution Factor	Peak Area	Analyte Found (ppt)	Amount Added (ppt)	Recovery (%)
XC022404-0	-	CS	021804AR-201	0	-	6237	-	-	-
XC022404-1	-	CS	021804AR-202	25	-	14980	-	-	-
XC022404-2	-	CS	021804AR-203	50	-	27297	-	-	-
XC022404-3	-	CS	021804AR-204	100	-	36696	-	-	-
XC022404-4	-	CS	021804AR-205	250	-	71629	-	-	-
XC022404-5	-	CS	021804AR-206	500	-	158954	-	-	-
XC022404-6	-	CS	021804AR-207	1000	-	279485	-	-	-
Methanol Wash	-	C	021804AR-208	-	-	3396	-	-	-
0106020 Control	na	C	021804AR-209	-	1	3784	ND	-	-
0106020 Spk A	na	LCS	021804AR-210	-	1	19267	44.8	50	90
0106020 Spk B	na	LCS	021804AR-211	-	1	150798	530	500	106
L1874-1 Spk C	Influent 3	LF	021804AR-212	-	1000	58403	189000	10000	-890
L1874-1 Spk C	Influent 3	LF	021804AR-213	-	100	485292	*	10000	-
L1874-5 Spk D	Comb Effluent	LF	021804AR-214	-	100	38268	11500	10000	115
L1874-9 Spk E	Port 4A	LF	021804AR-215	-	100	56651	18300	10000	109
L1874-13 Spk F	Effluent 4	LF	021804AR-216	-	100	39039	11800	10000	118
L1874-17 Spk G	Influent 1/2	LF	021804AR-217	-	100	78828	26500	10000	130
XC022404-1	-	CS	021804AR-218	25	-	10218	-	-	-
L1874-1	Influent 3	S	021804AR-219	-	1000	82611	278000	-	-
L1874-1 Rep	Influent 3	S	021804AR-220	-	1000	83304	281000	-	-
L1874-2	Influent 3 Dup	S	021804AR-221	-	1000	79997	269000	-	-
L1874-1	Influent 3	S	021804AR-222	-	100	861773	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-223	-	100	795457	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-224	-	100	723536	*	-	-
L1874-1	Influent 3	S	021804AR-225	-	10	6495789	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-226	-	10	6209222	278000	-	-
L1874-2	Influent 3 Dup	S	021804AR-227	-	10	6243043	*	-	-
L1874-3	Influent 3 Low Spk	FF	021804AR-228	-	1000	81974	276000	10000	-20
L1874-3	Influent 3 Low Spk	FF	021804AR-229	-	100	709181	*	10000	-
L1874-4	Influent 3 High Spk	FF	021804AR-230	-	1000	107195	369000	100000	91
XC022404-2	-	CS	021804AR-231	50	-	23931	-	-	-
L1874-5	Comb Effluent	S	021804AR-232	-	1	1970	ND	-	-
L1874-5 Rep	Comb Effluent	S	021804AR-233	-	1	2272	ND	-	-
L1874-6	Comb Effluent Dup	S	021804AR-234	-	1	2524	ND	-	-
L1874-7	Comb Effluent Low Spk	FF	021804AR-235	-	100	32558	9380	10000	94
L1874-8	Comb Effluent High Spk	FF	021804AR-236	-	1000	26613	71900	100000	72
XC022404-3	-	CS	021804AR-237	100	-	29987	-	-	-
L1874-9	Port 4A	S	021804AR-238	-	100	21378	*	-	-
L1874-9 Rep	Port 4A	S	021804AR-239	-	100	21361	*	-	-
L1874-10	Port 4A Dup	S	021804AR-240	-	100	26837	*	-	-
L1874-9	Port 4A	S	021804AR-241	-	10	207218	7380	-	-
L1874-9 Rep	Port 4A	S	021804AR-242	-	10	191837	6810	-	-
L1874-10	Port 4A Dup	S	021804AR-243	-	10	235144	8410	-	-
L1874-11	Port 4A Low Spk	FF	021804AR-244	-	100	52595	16800	10000	94
L1874-12	Port 4A High Spk	FF	021804AR-245	-	1000	31661	90500	100000	83
XC022404-3	-	CS	021804AR-246	100	-	32987	-	-	-
L1874-13	Effluent 4	S	021804AR-247	-	1	1788	ND	-	-
L1874-13 Rep	Effluent 4	S	021804AR-248	-	1	1501	ND	-	-
L1874-14	Effluent 4 Dup	S	021804AR-249	-	1	1501	ND	-	-
L1874-15	Effluent 4 Low Spk	FF	021804AR-250	-	100	34099	9950	10000	100
L1874-16	Effluent 4 High Spk	FF	021804AR-251	-	1000	35496	105000	100000	105
XC022404-4	-	CS	021804AR-252	250	-	70306	-	-	-
L1874-17	Influent 1/2	S	021804AR-253	-	200	27847	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-254	-	200	23361	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-255	-	200	21940	*	-	-
L1874-17	Influent 1/2	S	021804AR-256	-	100	43730	13500	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-257	-	100	38364	11500	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-258	-	100	40249	12200	-	-
L1874-17	Influent 1/2	S	021804AR-259	-	10	395759	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-260	-	10	360382	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-261	-	10	383645	*	-	-
L1803-19	Influent 1/2 Low Spk	FF	021804AR-262	-	100	66438	21900	10000	84
L1803-20	Influent 1/2 High Spk	FF	021804AR-263	-	1000	32655	94100	100000	81
XC022404-5	-	CS	021804AR-264	500	-	128762	-	-	-
Methanol Wash	-	C	021804AR-265	-	-	2111	-	-	-
L1874-21	Trip Blank	S	021804AR-266	-	1	3015	ND	-	-
L1874-22	Trip Blank Low Spk	FF	021804AR-267	-	100	28344	7820	10000	78
L1874-23	Trip Blank High Spk	FF	021804AR-268	-	1000	29241	81600	100000	82
XC022404-6	-	CS	021804AR-269	1000	-	223900	-	-	-

Analyte Found (ppt) = (peak area - intercept) / slope x DF
 Recovery (%) = $\frac{\text{analyte found (ppt)} - \text{analyte found in control (ppt)}}{\text{amount added (ppt)}} \times 100$
 Standard Curve: Linear (1/x weighted)
 Intercept = 7136.83
 Slope = 271.048
 Coef. Of Det. = 0.992051

CS = Calibration standard
 C = Control sample
 S = Sample
 LF = Lab fortified sample
 FF = Field fortified sample
 LCS = Laboratory Control Spike
 CK = Check Standard
 ND = Not detected = Response between 0 and 25 ppt
 NQ = Not quantifiable = Response between 25 ppt and LOQ (50 ppt)

*Sample was analyzed with several dilution factors in the same run. The appropriate dilution is reported.

Spreadsheet prepared by: *KR* 03/02/04

RAW DATA REPORT

Sponsor Study No: NA
 Exygen Study No: L1874
 Analyte: Perfluorobutanesulfonate
 Ions Monitored: 299 -> 99
 Site: NA

Limit of Quantitation: 50 ppt
 Injection Volume: 15 µL
 Matrix: Water
 Sample Volume: 40.0 mL
 Final Volume: 5.0 mL

Set No: 021804AR
 Analyst: Karen Risha
 Instrument Type: LC/MS/MS Unit # 6
 Extraction Date: 02/18/04
 Analyzed on: 03/01-02/04

Exygen ID	Sponsor ID	Sample Code	Run No.	Std. Conc. (ppt)	Dilution Factor	Peak Area	Analyte Found (ppt)	Amount Added (ppt)	Recovery (%)
XC022404-0	-	CS	021804AR-201	0	-	0	-	-	-
XC022404-1	-	CS	021804AR-202	25	-	328	-	-	-
XC022404-2	-	CS	021804AR-203	50	-	230	-	-	-
XC022404-3	-	CS	021804AR-204	100	-	697	-	-	-
XC022404-4	-	CS	021804AR-205	250	-	3162	-	-	-
XC022404-5	-	CS	021804AR-206	500	-	5454	-	-	-
XC022404-6	-	CS	021804AR-207	1000	-	10926	-	-	-
Methanol Wash	-	C	021804AR-208	-	-	0	-	-	-
0106020 Control	na	C	021804AR-209	-	1	0	ND	-	-
0106020 Spk A	na	LCS	021804AR-210	-	1	459	49.4	50	99
0106020 Spk B	na	LCS	021804AR-211	-	1	6182	589	500	118
L1874-1 Spk C	Influent 3	LF	021804AR-212	-	1000	460	*	10000	-
L1874-1 Spk C	Influent 3	LF	021804AR-213	-	100	4106	39300	10000	-473
L1874-5 Spk D	Comb Effluent	LF	021804AR-214	-	100	1543	15200	10000	151
L1874-9 Spk E	Port 4A	LF	021804AR-215	-	100	8923	84700	10000	147
L1874-13 Spk F	Effluent 4	LF	021804AR-216	-	100	1499	14700	10000	147
L1874-17 Spk G	Influent 1/2	LF	021804AR-217	-	100	16874	160000	10000	150
XC022404-1	-	CS	021804AR-218	25	-	283	-	-	-
L1874-1	Influent 3	S	021804AR-219	-	1000	725	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-220	-	1000	558	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-221	-	1000	828	*	-	-
L1874-1	Influent 3	S	021804AR-222	-	100	9129	86600	-	-
L1874-1 Rep	Influent 3	S	021804AR-223	-	100	7920	75200	-	-
L1874-2	Influent 3 Dup	S	021804AR-224	-	100	7052	67100	-	-
L1874-1	Influent 3	S	021804AR-225	-	10	77736	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-226	-	10	76627	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-227	-	10	75336	*	-	-
L1874-3	Influent 3 Low Spk	FF	021804AR-228	-	1000	987	99200	10000	126
L1874-3	Influent 3 Low Spk	FF	021804AR-229	-	100	9092	*	10000	-
L1874-4	Influent 3 High Spk	FF	021804AR-230	-	1000	2914	281000	100000	194
XC022404-2	-	CS	021804AR-231	50	-	295	-	-	-
L1874-5	Comb Effluent	S	021804AR-232	-	1	512	54.4	-	-
L1874-5 Rep	Comb Effluent	S	021804AR-233	-	1	571	60.0	-	-
L1874-6	Comb Effluent Dup	S	021804AR-234	-	1	267	NQ	-	-
L1874-7	Comb Effluent Low Spk	FF	021804AR-235	-	100	1309	12900	10000	128
L1874-8	Comb Effluent High Spk	FF	021804AR-236	-	1000	1118	111000	100000	111
XC022404-3	-	CS	021804AR-237	100	-	1034	-	-	-
L1874-9	Port 4A	S	021804AR-238	-	100	7364	70000	-	-
L1874-9 Rep	Port 4A	S	021804AR-239	-	100	7185	68300	-	-
L1874-10	Port 4A Dup	S	021804AR-240	-	100	7617	72400	-	-
L1874-9	Port 4A	S	021804AR-241	-	10	85094	*	-	-
L1874-9 Rep	Port 4A	S	021804AR-242	-	10	77315	*	-	-
L1874-10	Port 4A Dup	S	021804AR-243	-	10	92640	*	-	-
L1874-11	Port 4A Low Spk	FF	021804AR-244	-	100	9721	92200	10000	222
L1874-12	Port 4A High Spk	FF	021804AR-245	-	1000	2844	274000	100000	204
XC022404-3	-	CS	021804AR-246	100	-	838	-	-	-
L1874-13	Effluent 4	S	021804AR-247	-	1	0	ND	-	-
L1874-13 Rep	Effluent 4	S	021804AR-248	-	1	0	ND	-	-
L1874-14	Effluent 4 Dup	S	021804AR-249	-	1	0	ND	-	-
L1874-15	Effluent 4 Low Spk	FF	021804AR-250	-	100	2141	20800	10000	208
L1874-16	Effluent 4 High Spk	FF	021804AR-251	-	1000	1572	154000	100000	154
XC022404-4	-	CS	021804AR-252	250	-	3104	-	-	-
L1874-17	Influent 1/2	S	021804AR-253	-	200	7639	145000	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-254	-	200	6671	127000	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-255	-	200	6940	132000	-	-
L1874-17	Influent 1/2	S	021804AR-256	-	100	12330	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-257	-	100	11626	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-258	-	100	11477	*	-	-
L1874-17	Influent 1/2	S	021804AR-259	-	10	132001	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-260	-	10	138669	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-261	-	10	139671	*	-	-
L1803-19	Influent 1/2 Low Spk	FF	021804AR-262	-	100	14307	135000	10000	-100
L1803-20	Influent 1/2 High Spk	FF	021804AR-263	-	1000	2721	263000	100000	118
XC022404-5	-	CS	021804AR-264	500	-	4992	-	-	-
Methanol Wash	-	C	021804AR-265	-	-	0	-	-	-
L1874-21	Trip Blank	S	021804AR-266	-	1	0	ND	-	-
L1874-22	Trip Blank Low Spk	FF	021804AR-267	-	100	807	8220	10000	82
L1874-23	Trip Blank High Spk	FF	021804AR-268	-	1000	737	75600	100000	76
XC022404-6	-	CS	021804AR-269	1000	-	9735	-	-	-

Analyte Found (ppt) = (peak area - intercept) / slope x DF
 Standard Curve: Linear (1/x weighted)
 Recovery (%) = $\frac{[\text{analyte found (ppt)} - \text{analyte found in control (ppt)}] \times 100}{\text{amount added (ppt)}}$
 Intercept = -65.5462
 Slope = 10.6151
 Coef. Of Det. = 0.989254

CS = Calibration standard
 C = Control sample
 S = Sample
 LF = Lab fortified sample
 FF = Field fortified sample
 LCS = Laboratory Control Spike
 CK = Check Standard
 ND = Not detected = Response between 0 and 25 ppt
 NQ = Not quantifiable = Response between 25 ppt and LOQ (50 ppt)

*Sample was analyzed with several dilution factors in the same run. The appropriate results are reported.

Spreadsheet prepared by: *KR 03/02/04*

RAW DATA REPORT

Sponsor Study No: NA Limit of Quantitation: 50 ppt Set No: 021804AR
 Oxygen Study No: L1874 Injection Volume: 15 µL Analyst: Karen Risha
 Analyte: Perfluorhexanesulfonate Matrix: Water Instrument Type: LC/MS/MS Unit # 6
 Ions Monitored: 399 -> 80 Sample Volume: 40.0 mL Extraction Date: 02/18/04
 Site: NA Final Volume: 5.0 mL Analyzed on: 03/01-02/04

Oxygen ID	Sponsor ID	Sample Code	Run No.	Std Conc. (ppt)	Dilution Factor	Peak Area	Analyte Found (ppt)	Amount Added (ppt)	Recovery (%)
XC022404-0	-	CS	021804AR-201	0	-	0	-	-	-
XC022404-1	-	CS	021804AR-202	25	-	1228	-	-	-
XC022404-2	-	CS	021804AR-203	50	-	2472	-	-	-
XC022404-3	-	CS	021804AR-204	100	-	4951	-	-	-
XC022404-4	-	CS	021804AR-205	250	-	11956	-	-	-
XC022404-5	-	CS	021804AR-206	500	-	24645	-	-	-
XC022404-6	-	CS	021804AR-207	1000	-	47959	-	-	-
Methanol Wash	-	C	021804AR-208	-	-	0	-	-	-
0106020 Control	na	C	021804AR-209	-	1	0	ND	-	-
0106020 Spk A	na	LCS	021804AR-210	-	1	1963	41.0	50	82
0106020 Spk B	na	LCS	021804AR-211	-	1	21785	481	500	96
L1874-1 Spk C	Influent 3	LF	021804AR-212	-	1000	370	*	10000	-
L1874-1 Spk C	Influent 3	LF	021804AR-213	-	100	5212	11300	10000	44
L1874-5 Spk D	Comb Effluent	LF	021804AR-214	-	100	4268	9220	10000	92
L1874-9 Spk E	Port 4A	LF	021804AR-215	-	100	4841	10500	10000	83
L1874-13 Spk F	Influent 4	LF	021804AR-216	-	100	3740	8050	10000	80
L1874-17 Spk G	Influent 1/2	LF	021804AR-217	-	100	6475	14100	10000	96
XC022404-1	-	CS	021804AR-218	25	-	950	-	-	-
L1874-1	Influent 3	S	021804AR-219	-	1000	285	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-220	-	1000	343	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-221	-	1000	282	*	-	-
L1874-1	Influent 3	S	021804AR-222	-	100	3896	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-223	-	100	3426	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-224	-	100	3108	*	-	-
L1874-1	Influent 3	S	021804AR-225	-	10	31174	6900	-	-
L1874-1 Rep	Influent 3	S	021804AR-226	-	10	31180	6900	-	-
L1874-2	Influent 3 Dup	S	021804AR-227	-	10	32887	7280	-	-
L1874-3	Influent 3 Low Spk	FF	021804AR-228	-	1000	684	*	10000	-
L1874-3	Influent 3 Low Spk	FF	021804AR-229	-	100	7851	17200	10000	103
L1874-4	Influent 3 High Spk	FF	021804AR-230	-	1000	5292	115000	100000	108
XC022404-2	-	CS	021804AR-231	50	-	2360	-	-	-
L1874-5	Comb Effluent	S	021804AR-232	-	1	0	ND	-	-
L1874-5 Rep	Comb Effluent	S	021804AR-233	-	1	0	ND	-	-
L1874-6	Comb Effluent Dup	S	021804AR-234	-	1	0	ND	-	-
L1874-7	Comb Effluent Low Spk	FF	021804AR-235	-	100	4854	10500	10000	105
L1874-8	Comb Effluent High Spk	FF	021804AR-236	-	1000	3747	80700	100000	81
XC022404-3	-	CS	021804AR-237	100	-	4091	-	-	-
L1874-9	Port 4A	S	021804AR-238	-	100	809	*	-	-
L1874-9 Rep	Port 4A	S	021804AR-239	-	100	799	*	-	-
L1874-10	Port 4A Dup	S	021804AR-240	-	100	990	*	-	-
L1874-9	Port 4A	S	021804AR-241	-	10	9993	2190	-	-
L1874-9 Rep	Port 4A	S	021804AR-242	-	10	9880	2170	-	-
L1874-10	Port 4A Dup	S	021804AR-243	-	10	11513	2530	-	-
L1874-11	Port 4A Low Spk	FF	021804AR-244	-	100	6352	13900	10000	117
L1874-12	Port 4A High Spk	FF	021804AR-245	-	1000	5347	116000	100000	114
XC022404-3	-	CS	021804AR-246	100	-	5403	-	-	-
L1874-13	Effluent 4	S	021804AR-247	-	1	0	ND	-	-
L1874-13 Rep	Effluent 4	S	021804AR-248	-	1	0	ND	-	-
L1874-14	Effluent 4 Dup	S	021804AR-249	-	1	0	ND	-	-
L1874-15	Effluent 4 Low Spk	FF	021804AR-250	-	100	4813	10400	10000	104
L1874-16	Effluent 4 High Spk	FF	021804AR-251	-	1000	5605	122000	100000	122
XC022404-4	-	CS	021804AR-252	250	-	12511	-	-	-
L1874-17	Influent 1/2	S	021804AR-253	-	200	1155	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-254	-	200	1083	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-255	-	200	1061	*	-	-
L1874-17	Influent 1/2	S	021804AR-256	-	100	1994	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-257	-	100	1629	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-258	-	100	1756	*	-	-
L1874-17	Influent 1/2	S	021804AR-259	-	10	20569	4540	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-260	-	10	19143	4230	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-261	-	10	20348	4490	-	-
L1803-19	Influent 1/2 Low Spk	FF	021804AR-262	-	100	6734	14700	10000	102
L1803-20	Influent 1/2 High Spk	FF	021804AR-263	-	1000	4644	101000	100000	96
XC022404-5	-	CS	021804AR-264	500	-	20124	-	-	-
Methanol Wash	-	C	021804AR-265	-	-	0	-	-	-
L1874-21	Trip Blank	S	021804AR-266	-	1	0	ND	-	-
L1874-22	Trip Blank Low Spk	FF	021804AR-267	-	100	4328	9160	10000	94
L1874-23	Trip Blank High Spk	FF	021804AR-268	-	1000	4776	104000	100000	104
XC022404-6	-	CS	021804AR-269	1000	-	40720	-	-	-

Analyte Found (ppt) = (peak area - intercept) / slope x DF
 Recovery (%) = $\frac{\text{analyte found (ppt)} - \text{analyte found in control (ppt)}}{\text{amount added (ppt)}} \times 100$
 Standard Curve: Linear (1/x weighed)
 Intercept = 115.215
 Slope = 45.0307
 Coef. Of Det. = 0.985908

CS = Calibration standard
 C = Control sample
 S = Sample
 LF = Lab fortified sample
 FF = Field fortified sample
 LCS = Laboratory Control Spike
 CK = Check Standard
 ND = Not detected - Response between 0 and 25 ppt
 NQ = Not quantifiable = Response between 25 ppt and LOQ (50 ppt)

*Sample was analyzed with several dilution factors in the same run. The appropriate dilution is reported.

Spreadsheet prepared by: *ef 03/02/04*

RAW DATA REPORT

Sponsor Study No: NA Limit of Quantitation: 50 ppt Set No: 021804AR
 Oxygen Name: L1874 Injection Volume: 15 µL Analyst: Karen Risha
 Analyte: Perfluorooctanesulfonate Matrix: Water Instrument Type: LC/MS/MS Unit # 6
 Ions Monitored: 499 -> 99 Sample Volume: 40.0 mL Extraction Date: 02/18/04
 Site: NA Final Volume: 5.0 mL Analyzed on: 03/01-02/04

Oxygen ID	Sponsor ID	Sample Code	Run No.	Std. Conc. (ppt)	Dilution Factor	Peak Area	Analyte Found (ppt)	Amount Added (ppt)	Recovery (%)
XC022404-0	-	CS	021804AR-201	0	-	0	-	-	-
XC022404-1	-	CS	021804AR-202	25	-	748	-	-	-
XC022404-2	-	CS	021804AR-203	50	-	1742	-	-	-
XC022404-3	-	CS	021804AR-204	100	-	3512	-	-	-
XC022404-4	-	CS	021804AR-205	250	-	7487	-	-	-
XC022404-5	-	CS	021804AR-206	500	-	17160	-	-	-
XC022404-6	-	CS	021804AR-207	1000	-	33473	-	-	-
Methanol Wash	-	C	021804AR-208	-	-	0	-	-	-
0106020 Control	na	C	021804AR-209	-	1	0	ND	-	-
0106020 Spk A	na	LCS	021804AR-210	-	1	1468	44.9	50	90
0106020 Spk B	na	LCS	021804AR-211	-	1	14546	454	500	91
L1874-1 Spk C	Influent 3	LF	021804AR-212	-	1000	1637	*	10000	-
L1874-1 Spk C	Influent 3	LF	021804AR-213	-	100	14840	46300	10000	-135
L1874-5 Spk D	Comb Effluent	LF	021804AR-214	-	100	2555	7890	10000	79
L1874-9 Spk E	Port 4A	LF	021804AR-215	-	100	3775	11700	10000	86
L1874-13 Spk F	Effluent 4	LF	021804AR-216	-	100	2526	7800	10000	78
L1874-17 Spk G	Influent 1/2	LF	021804AR-217	-	100	5339	17200	10000	106
XC022404-1	-	CS	021804AR-218	25	-	783	-	-	-
L1874-1	Influent 3	S	021804AR-219	-	1000	1676	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-220	-	1000	1565	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-221	-	1000	1715	*	-	-
L1874-1	Influent 3	S	021804AR-222	-	100	19182	59800	-	-
L1874-1 Rep	Influent 3	S	021804AR-223	-	100	18063	56300	-	-
L1874-2	Influent 3 Dup	S	021804AR-224	-	100	14576	45400	-	-
L1874-1	Influent 3	S	021804AR-225	-	10	152579	*	-	-
L1874-1 Rep	Influent 3	S	021804AR-226	-	10	150296	*	-	-
L1874-2	Influent 3 Dup	S	021804AR-227	-	10	126270	*	-	-
L1874-3	Influent 3 Low Spk	FF	021804AR-228	-	1000	1869	*	10000	-
L1874-3	Influent 3 Low Spk	FF	021804AR-229	-	100	14776	46100	10000	-137
L1874-4	Influent 3 High Spk	FF	021804AR-230	-	1000	4695	146000	100000	86
XC022404-2	-	CS	021804AR-231	50	-	1662	-	-	-
L1874-5	Comb Effluent	S	021804AR-232	-	1	0	ND	-	-
L1874-5 Rep	Comb Effluent	S	021804AR-233	-	1	0	ND	-	-
L1874-6	Comb Effluent Dup	S	021804AR-234	-	1	0	ND	-	-
L1874-7	Comb Effluent Low Spk	FF	021804AR-235	-	100	3293	10200	10000	102
L1874-8	Comb Effluent High Spk	FF	021804AR-236	-	1000	2827	87400	100000	87
XC022404-3	-	CS	021804AR-237	100	-	3356	-	-	-
L1874-9	Port 4A	S	021804AR-238	-	100	1045	*	-	-
L1874-9 Rep	Port 4A	S	021804AR-239	-	100	961	*	-	-
L1874-10	Port 4A Dup	S	021804AR-240	-	100	901	*	-	-
L1874-9	Port 4A	S	021804AR-241	-	10	9945	3100	-	-
L1874-9 Rep	Port 4A	S	021804AR-242	-	10	9165	2850	-	-
L1874-10	Port 4A Dup	S	021804AR-243	-	10	11291	3520	-	-
L1874-11	Port 4A Low Spk	FF	021804AR-244	-	100	3666	11400	10000	83
L1874-12	Port 4A High Spk	FF	021804AR-245	-	1000	2794	86300	100000	83
XC022404-3	-	CS	021804AR-246	100	-	3304	-	-	-
L1874-13	Effluent 4	S	021804AR-247	-	1	185	ND	-	-
L1874-13 Rep	Effluent 4	S	021804AR-248	-	1	210	ND	-	-
L1874-14	Effluent 4 Dup	S	021804AR-249	-	1	228	ND	-	-
L1874-15	Effluent 4 Low Spk	FF	021804AR-250	-	100	2912	9000	10000	90
L1874-16	Effluent 4 High Spk	FF	021804AR-251	-	1000	2982	92200	100000	92
XC022404-4	-	CS	021804AR-252	250	-	7652	-	-	-
L1874-17	Influent 1/2	S	021804AR-253	-	200	1326	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-254	-	200	1131	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-255	-	200	1175	*	-	-
L1874-17	Influent 1/2	S	021804AR-256	-	100	2251	*	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-257	-	100	1977	*	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-258	-	100	2156	*	-	-
L1874-17	Influent 1/2	S	021804AR-259	-	10	21154	6600	-	-
L1874-17 Rep	Influent 1/2	S	021804AR-260	-	10	19044	5940	-	-
L1874-18	Influent 1/2 Dup	S	021804AR-261	-	10	20537	6410	-	-
L1803-19	Influent 1/2 Low Spk	FF	021804AR-262	-	100	4936	15300	10000	87
L1803-20	Influent 1/2 High Spk	FF	021804AR-263	-	1000	3429	106000	100000	99
XC022404-5	-	CS	021804AR-264	500	-	15894	-	-	-
Methanol Wash	-	C	021804AR-265	-	-	0	-	-	-
L1874-21	Trip Blank	S	021804AR-266	-	1	222	ND	-	-
L1874-22	Trip Blank Low Spk	FF	021804AR-267	-	100	3652	11300	10000	113
L1874-23	Trip Blank High Spk	FF	021804AR-268	-	1000	3534	109000	100000	109
XC022404-6	-	CS	021804AR-269	1000	-	30045	-	-	-

Analyte Found (ppt) = (peak area - intercept) / slope x DF
 Standard Curve: Linear (1/x weighted)
 Recovery (%) = $\frac{[\text{analyte found (ppt)} - \text{analyte found in control (ppt)}] \times 100}{\text{amount added (ppt)}}$
 Intercept = 31.512
 Slope = 32.0022
 Coef. Of Det = 0.994708

CS = Calibration standard LF = Lab fortified sample
 C = Control sample FF = Field fortified sample
 S = Sample LCS = Laboratory Control Spike
 CK = Check Standard
 ND = Not detected = Response between 0 and 25 ppt
 NQ = Not quantifiable = Response between 25 ppt and LOQ (50 ppt)

*Sample was analyzed with several dilution factors in the same run. The appropriate dilution is reported.

Spreadsheet prepared by: *PR 03/02/04*



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Internal Chain of Custody/Fortification Sheet

Exygen Study Number: L1874 Matrix: Water
Sponsor Study/Protocol No: NA
The samples listed below were removed from refrigerator No. 32
Time 0840 Date 2/18/04 Initials EH

CLIENT SAMPLE ID	EXYGEN ID NUMBER	VOLUME (mL)	FORTIFICATION (ng)
na	0106020 Control	40.0	-
na	0106020 Spk A	40.0	2.0
na	0106020 Spk B	40.0	20.0
Influent 3	L1874-1 Spk C	40.0	400.0
Comb Effluent	L1874-5 Spk D	40.0	400.0
Port 4A	L1874-9 Spk E	40.0	400.0
Effluent 4	L1874-13 Spk F	40.0	400.0
Influent 1/2	L1874-17 Spk G	40.0	400.0
Influent 3	L1874-1	40.0	-
Influent 3	L1874-1 Rep	40.0	-
Influent 3 Dup	L1874-2	40.0	-
Influent 3 Low Spk	L1874-3	40.0	-
Influent 3 High Spk	L1874-4	40.0	-
Comb Effluent	L1874-5	40.0	-
Comb Effluent	L1874-5 Rep	40.0	-
Comb Effluent Dup	L1874-6	40.0	-
Comb Effluent Low Spk	L1874-7	40.0	-
Comb Effluent High Spk	L1874-8	40.0	-
Port 4A	L1874-9	40.0	-
Port 4A	L1874-9 Rep	40.0	-
Port 4A Dup	L1874-10	40.0	-
Port 4A Low Spk	L1874-11	40.0	-
Port 4A High Spk	L1874-12	40.0	-

	Spiking Solution Used	Volume Used for Spiking	Initial/Date
0106020 Spk A	F012004-10 (10 ng/mL)	200 µL (200 µL micropipet)	EH / 02/18/04
0106020 Spk B	F012004-9 (100 ng/mL)	200 µL (200 µL micropipet)	EH / 02/18/04
L1874-1 Spk C	F012004-8 (1000 ng/mL)	400 µL (200 µL micropipet)	EH / 02/18/04
L1874-5 Spk D	F012004-8 (1000 ng/mL)	400 µL (200 µL micropipet)	EH / 02/18/04
L1874-9 Spk E	F012004-8 (1000 ng/mL)	400 µL (200 µL micropipet)	EH / 02/18/04
L1874-13 Spk F	F012004-8 (1000 ng/mL)	400 µL (200 µL micropipet)	EH / 02/18/04
L1874-17 Spk G	F012004-8 (1000 ng/mL)	400 µL (200 µL micropipet)	EH / 02/18/04

All samples were measured:
Time 1000 Date 2/18/04 Initials EH

After measuring samples were returned to refrigerator No. 32
Time 1300 Date 2/18/04 Initials EH

Comments: 200 µL of 250 mg/mL sodium thiosulfate was added to all samples before spiking. Initials/Date: EH 02/18/04

Analysis Summary: Data Set: 021904D Initials/Date: EH / 02/17/04
Data Set: 021804AR Initials/Date: EH / 03/01/04
Data Set: - Initials/Date: - / -

Set extraction/analysis data verified by: PDC Date: 3/1/04
EH July 26, 2001/6
#023/14

SAMPLE EXTRACTION AND ANALYSIS TRACKING SHEET

EXYGEN STUDY NUMBER: L1874
MATRIX: Water

METHOD: 55
ANALYTES: C4, C6, C7 & C8 Acids, C4, C6 & C8 sulfonates

PROTOCOL NUMBER: NA

Client ID	Exygen ID	STEP 1	STEP 2	Dilutions (mL/mL)	STEP 3	Dilutions (mL/mL)	STEP 4	Reagents/ Materials	Lot #
na	0106020 Control			-		-		Methanol	43323348
na	0106020 Spk A			-		-		C18 SPE	W3167B1
na	0106020 Spk B			-		-		Type I Water	NA
Influent 3	L1874-1 Spk C			0.1/10		② 0.1/10		-	-
Comb Effluent	L1874-5 Spk D			0.1/10		-		-	-
Port 4A	L1874-9 Spk E			0.1/10		-		-	-
Effluent 4	L1874-13 Spk F			0.1/10		-		Initials/Date	EH 2/18/04
Influent 1/2	L1874-17 Spk G			0.1/10		-		-	-
Influent 3	L1874-1			-		③ 0.1/10, 0.1/10		-	-
Influent 3	L1874-1 Rep			-		③ 0.1/10, 0.1/10		-	-
Influent 3 Dup	L1874-2			-		③ 0.1/10, 0.1/10		-	-
Influent 3 Low Spk	L1874-3			0.1/10		② 0.1/10		-	-
Influent 3 High Spk	L1874-4			0.1/10, 0.1/10		-		-	-
Comb Effluent	L1874-5			-		-		-	-
Comb Effluent	L1874-5 Rep			-		-		-	-
Comb Effluent Dup	L1874-6			-		-		-	-
Comb Effluent Low Spk	L1874-7			0.1/10		-		-	-
Comb Effluent High Spk	L1874-8			0.1/10, 0.1/10		-		-	-
Port 4A	L1874-9			-		③ 0.1/10, 0.1/10		HPLC	43308345
Port 4A	L1874-9 Rep			-		③ 0.1/10, 0.1/10		Methanol	V36159
Port 4A Dup	L1874-10			-		③ 0.1/10, 0.1/10		Ammonium Acetate	NA
Port 4A Low Spk	L1874-11			0.1/10		-		Type I water	NA
Port 4A High Spk	L1874-12			0.1/10, 0.1/10		-		-	-
*Initials/Date		EH 2/18/04	EH 2/18/04	EH 02/18/04	EH 02/19/04	EH 02/21/04	EH 02/21/04	Initials/Date	EH 02/29/04

STEP 1: SPE column clean-up (omitting 40% wash)
STEP 2: Final volume to 5 mL collected in 15 mL polypropylene tubes
STEP 3: LC/MS/MS analysis
STEP 4: LC/MS/MS reanalysis.

① DF = 1000
② DF = 1000 X DILUTED AN ADDITIONAL 10X FROM PREVIOUSLY DILUTED SAMPLE. 02/29/04
③ DF = 10 and 100 X 02/29/04

*Initials and date under each step indicates the personnel that performed this step.

\$\$ Method of Analysis for the Determination of Perfluorooctane sulfonate (PFOS), Perfluorooctane sulfonylamide (PFOSA), and Perfluorooctanoate (POAA) in Water

COMMENTS:

Final extracts stored in refrigerator 32 Initials: EH Date: 2/18/04

July 19, 2001/4



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PREPARATION OF EXTRACTED CALIBRATION STANDARDS

Protocol No.: None
Method No.: §§

Exygen Study No.: NA
Analytes: C4,C5,C6,C7 and C8 Acids;
C4, C6 & C8 Sulfonates

Matrix: Type I Water^
Sample Vol: 40 mL

Sponsor Sample ID	Exygen Sample ID	Sample Description	Fort. Solution ID	Fort. Soln. Conc. (ng/mL)	Fort. Volume (µL)	Micropipet used (µL)	Fort. Level (ppt)	Final Solution ID # **	Reagents/ Materials	Lot #
NA	0106020	Type I Water^	-	-	-	-	-	XC022404-0	Methanol	43308345
NA	0106020	Type I Water^	F012004-10	10	100	200	25	XC022404-1	C18 SPE	W3167B1
NA	0106020	Type I Water^	F012004-10	10	200	200	50	XC022404-2	Type I Water	NA
NA	0106020	Type I Water^	F012004-10	10	400	200	100	XC022404-3	-	-
NA	0106020	Type I Water^	F012004-9	100	100	200	250	XC022404-4	-	-
NA	0106020	Type I Water^	F012004-9	100	200	200	500	XC022404-5	-	-
NA	0106020	Type I Water^	F012004-9	100	400	200	1000	XC022404-6	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	Initials/Date:	02/24/04

Vertical arrows in a column indicate identical values.

**This must be a unique number. Use this system: Extracted Calibration Soln ID #: XCMDDYY-0,1,2,3, etc.

Samples removed from refrigerator freezer # 32 Time: 0600
 40 mL of each sample measured using a 50 mL graduated cylinder.
 After measuring, samples returned to refrigerator freezer # 32 Time: 0850
 Samples fortified: Initials/Date: RS / 02/24/04
 SPE clean-up (omitting 40% Wash): Initials/Date: RS / 02/24/04
 Final volume adjusted to 5 mL: Initials/Date: RS / 02/24/04
 Extracts placed in refrigerator # 32 Initials/Date: RS / 02/24/04

Initials/Date: RS / 02/24/04
 Initials/Date: RS / 02/24/04
 Initials/Date: RS / 02/24/04

STANDARD EXPIRATION DATE: 3/9/04

Comments:

^This type I water has been filtered through a hypercarb filter

§§ Method of Analysis for the Determination of Perfluorooctane sulfonate (PFOS), Perfluorooctane sulfonamide (PFOSA), and Perfluorooctanoate (POAA) in Water

July 10, 2001/0

Sample List: C:\MASSLYNX\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM.SPL
 Printed: Mon Mar 01 10:37:35 2004

Page Position: (1, 1)

03/01/04

Vial	File Name	LIMS ID	Client ID	Sample Description	Matrix	Sample Type	Conc (ng/L)	Conc B	Conc C	Test ID	DF
1	11	021804AR-201	---	XC022404-0, 0 ng/L Standard	---	Standard	0	---	---	0	1
2	12	021804AR-202	---	XC022404-1, 25 ng/L Standard	---	Standard	25	---	---	0	1
3	13	021804AR-203	---	XC022404-2, 50 ng/L Standard	---	Standard	50	---	---	0	1
4	14	021804AR-204	---	XC022404-3, 100 ng/L Standard	---	Standard	100	---	---	0	1
5	15	021804AR-205	---	XC022404-4, 250 ng/L Standard	---	Standard	250	---	---	0	1
6	16	021804AR-206	---	XC022404-5, 500 ng/L Standard	---	Standard	500	---	---	0	1
7	17	021804AR-207	---	XC022404-6, 1000 ng/L Standard	---	Standard	1000	---	---	0	1
8	92	021804AR-208	---	Methanol Wash	---	Blank	---	---	---	0	1
9	21	021804AR-209	---	0106020 Control	---	Blank	---	---	---	0	1
10	22	021804AR-210	---	0106020 Spk A, 50 ng/L	---	QC	50	---	---	0	1
11	23	021804AR-211	---	0106020 Spk B, 500 ng/L	---	QC	500	---	---	0	1
12	24	021804AR-212	---	L1874-1 Spk C, 10000 ng/L, DF=1000	---	QC	10000	---	---	0	1000
13	25	021804AR-213	---	L1874-1 Spk C, 10000 ng/L, DF=100	---	QC	10000	---	---	0	100
14	26	021804AR-214	---	L1874-5 Spk D, 10000 ng/L, DF=100	---	QC	10000	---	---	0	100
15	27	021804AR-215	---	L1874-9 Spk E, 10000 ng/L, DF=100	---	QC	10000	---	---	0	100
16	28	021804AR-216	---	L1874-13 Spk F, 10000 ng/L, DF=100	---	QC	10000	---	---	0	100
17	29	021804AR-217	---	L1874-17 Spk G, 10000 ng/L, DF=100	---	QC	10000	---	---	0	100
18	12	021804AR-218	---	XC022404-1, 25 ng/L Standard	---	Standard	25	---	---	0	1
19	30	021804AR-219	---	L1874-1, DF=1000	---	Analyte	---	---	---	0	1000
20	31	021804AR-220	---	L1874-1 Rep, DF=1000	---	Analyte	---	---	---	0	1000
21	32	021804AR-221	---	L1874-2, DF=1000	---	Analyte	---	---	---	0	1000
22	33	021804AR-222	---	L1874-1, DF=100	---	Analyte	---	---	---	0	100
23	34	021804AR-223	---	L1874-1 Rep, DF=100	---	Analyte	---	---	---	0	100
24	35	021804AR-224	---	L1874-2, DF=100	---	Analyte	---	---	---	0	100
25	36	021804AR-225	---	L1874-1, DF=10	---	Analyte	---	---	---	0	10
26	37	021804AR-226	---	L1874-1 Rep, DF=10	---	Analyte	---	---	---	0	10
27	38	021804AR-227	---	L1874-2, DF=10	---	Analyte	---	---	---	0	10
28	39	021804AR-228	---	L1874-3, DF=1000	---	QC	10000	---	---	0	1000
29	40	021804AR-229	---	L1874-3, DF=100	---	QC	10000	---	---	0	100
30	41	021804AR-230	---	L1874-4, DF=1000	---	QC	100000	---	---	0	1000
31	13	021804AR-231	---	XC022404-2, 50 ng/L Standard	---	Standard	50	---	---	0	1
32	42	021804AR-232	---	L1874-5	---	Analyte	---	---	---	0	1
33	43	021804AR-233	---	L1874-5 Rep	---	Analyte	---	---	---	0	1
34	44	021804AR-234	---	L1874-6	---	Analyte	---	---	---	0	1
35	45	021804AR-235	---	L1874-7, DF=100	---	QC	10000	---	---	0	100
36	46	021804AR-236	---	L1874-8, DF=1000	---	QC	100000	---	---	0	1000
37	14	021804AR-237	---	XC022404-3, 100 ng/L Standard	---	Standard	100	---	---	0	1
38	47	021804AR-238	---	L1874-9, DF=100	---	Analyte	---	---	---	0	100
39	48	021804AR-239	---	L1874-9 Rep, DF=100	---	Analyte	---	---	---	0	100
40	49	021804AR-240	---	L1874-10, DF=100	---	Analyte	---	---	---	0	100
41	50	021804AR-241	---	L1874-9, DF=10	---	Analyte	---	---	---	0	10
42	51	021804AR-242	---	L1874-9 Rep, DF=10	---	Analyte	---	---	---	0	10
43	52	021804AR-243	---	L1874-10, DF=10	---	Analyte	---	---	---	0	10
44	53	021804AR-244	---	L1874-11, DF=100	---	QC	10000	---	---	0	100

Masslynx - Sample List

Sample List: C:\MASSLYNX\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM.SPL
Printed: Mon Mar 01 10:37:35 2004

Oxygen STUDY NO. 1874

1937.0310104

	MS Method	HPLC Method	MS Tune File	Inj. Volume
1	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
2	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
3	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
4	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
5	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
6	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
7	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
8	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
9	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
10	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
11	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
12	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
13	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
14	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
15	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
16	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
17	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
18	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
19	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
20	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
21	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
22	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
23	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
24	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
25	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
26	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
27	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
28	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
29	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
30	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
31	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
32	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
33	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
34	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
35	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
36	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
37	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
38	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
39	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
40	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
41	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
42	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
43	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
44	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15

KP 03/01/04

Vial	File Name	LIMS ID	Client ID	Sample Description	Matrix	Sample Type	Conc (ng/L)	Conc B	Conc C	Test ID	DF
45	54	021804AR-245	---	L1874-12, DF=1000	---	QC	100000	---	---	0	1000
46	14	021804AR-246	---	XC022404-3, 100 ng/L Standard	---	Standard	100	---	---	0	1
47	55	021804AR-247	---	L1874-13	---	Analyte	---	---	---	0	1
48	56	021804AR-248	---	L1874-13 Rep	---	Analyte	---	---	---	0	1
49	57	021804AR-249	---	L1874-14	---	Analyte	---	---	---	0	1
50	58	021804AR-250	---	L1874-15, DF=100	---	QC	10000	---	---	0	100
51	59	021804AR-251	---	L1874-16, DF=1000	---	QC	100000	---	---	0	1000
52	15	021804AR-252	---	XC022404-4, 250 ng/L Standard	---	Standard	250	---	---	0	1
53	60	021804AR-253	---	L1874-17, DF=200	---	Analyte	---	---	---	0	200
54	61	021804AR-254	---	L1874-17 Rep, DF=200	---	Analyte	---	---	---	0	200
55	62	021804AR-255	---	L1874-18, DF=200	---	Analyte	---	---	---	0	200
56	63	021804AR-256	---	L1874-17, DF=100	---	Analyte	---	---	---	0	100
57	64	021804AR-257	---	L1874-17 Rep, DF=100	---	Analyte	---	---	---	0	100
58	65	021804AR-258	---	L1874-18, DF=100	---	Analyte	---	---	---	0	100
59	66	021804AR-259	---	L1874-17, DF=10	---	Analyte	---	---	---	0	10
60	67	021804AR-260	---	L1874-17 Rep, DF=10	---	Analyte	---	---	---	0	10
61	68	021804AR-261	---	L1874-18, DF=10	---	Analyte	---	---	---	0	10
62	69	021804AR-262	---	L1874-19, DF=100	---	QC	10000	---	---	0	100
63	70	021804AR-263	---	L1874-20, DF=1000	---	QC	100000	---	---	0	1000
64	16	021804AR-264	---	XC022404-5, 500 ng/L Standard	---	Standard	500	---	---	0	1
65	92	021804AR-265	---	Methanol Wash	---	Blank	---	---	---	0	1
66	71	021804AR-266	---	L1874-21	---	Analyte	---	---	---	0	1
67	72	021804AR-267	---	L1874-22, DF=100	---	QC	10000	---	---	0	100
68	73	021804AR-268	---	L1874-23, DF=1000	---	QC	100000	---	---	0	1000
69	17	021804AR-269	---	XC022404-6, 1000 ng/L Standard	---	Standard	1000	---	---	0	1

Masslynx - Sample List

Sample List: C:\MASSLYNX\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM.SPL
Printed: Mon Mar 01 10:37:35 2004

Oxygen STUDY NO. LIB74

1937.0315

	MS Method	HPLC Method	MS Tune File	Inj. Volume
45	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
46	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
47	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
48	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
49	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
50	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
51	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
52	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
53	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
54	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
55	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
56	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
57	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
58	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
59	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
60	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
61	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
62	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
63	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
64	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
65	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
66	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
67	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
68	C6 8 ACIDS C4 6 8 SULF	pfbs water	Fluorochems	15
69	C6 8 ACIDS C4 6 8 SULF	pfbs wafer	Fluorochems	15

LC/MS/MS SYSTEM AND OPERATING CONDITIONS

Sponsor Protocol No: NA

Exygen Study No: L1874

Instrument: Micromass Quattro Ultima (LC/MS/MS Unit #6)
Computer: COMPAQ Professional Workstation AP200
Software: Microsoft Windows NT: Version 4 Build 1381: Service Pack 5
Micromass Limited: MassLynx 3.4 Build 004
HPLC Equipment: Hewlett Packard (HP) Series 1100
HP Bin Pump HP Vacuum Degasser
HP Autosampler HP Column Oven
HPLC Column: Genesis C-8, 5 cm x 2.1 mm i.d. x 4 μ (Exygen ID: 74A)
(JONESCHROMATOGRAPHY: Part No. FK5962E)
Mobile Phase (A) : 2 mM Ammonium Acetate in Type I Water
Mobile Phase (B) : Methanol
Analyst: Karen Risha
Exygen Research
3058 Research Drive, State College, PA 16801
Phone: (814) 272-1039 FAX: (814) 231-1580

KR 03/10/04

NOTE: The next 3 pages are computer generated printouts from the masslynx software program. The pages contain the instrument settings used for the analysis of this data set.

All Handwritten Peak ID's by: _____

Scanning Method Report

Method: C:\MASSLYNX\FLUOROchemicals.PRO\ACQUDB\C6 8 ACIDS C4 6 8 SULF
Last Modified: Mon Jan 20 15:32:38 2003

Printed: Mon Mar 01 10:37:40 2004

bf 03/01/04

Solvent Delay (mins) : 0.00

Analog Channel 4 : Unused
Function : 1 MRM of 5 Mass Pairs (ESP-)

Inter Channel Delay (Secs) : 0.03
Span (Daltons) : 0.00
Start Time (Mins) : 0.00
End Time (Mins) : 12.00
Repeats : 1

Channel	Parent	Daughter	Dwell (Secs)	Coll Energy (eV)	Cone (V)
1	299.00	99.00	0.20	40	49
2	313.00	269.00	0.20	10	20
3	399.00	80.00	0.20	35	50
4	413.00	369.00	0.20	10	10
5	499.00	99.00	0.20	40	30

Method File: C:\MASSLYNK\FLUOROCEMICALS.PRO\ACQUDB\pfs water
Last Modified: Monday, March 01, 2004 10:19:00

Printed: Monday, March 01, 2004 10:37:48

MP 03/01/04

HP1100 LC Pump Initial Conditions

Solvents
A% 90.0
B% 10.0
C% 0.0
D% 0.0

Flow (ml/min) 0.300
Stop Time (mins) 20.0
Min Pressure (bar) 0
Max Pressure (bar) 400
Oven Temperature Left (°C) 35.0
Oven Temperature Right (°C) 35.0

HP1100 LC Pump Gradient Timetable

The gradient Timetable contains 8 entries which are :

Time	A%	B%	C%	D%	Flow	Pressure
0.00	90.0	10.0	0.0	0.0	0.300	400
2.00	90.0	10.0	0.0	0.0	0.300	400
5.00	10.0	90.0	0.0	0.0	0.300	400
9.00	10.0	90.0	0.0	0.0	0.300	400
9.50	0.0	100.0	0.0	0.0	0.300	400
14.00	0.0	100.0	0.0	0.0	0.300	400
14.50	90.0	10.0	0.0	0.0	0.300	400
20.00	90.0	10.0	0.0	0.0	0.300	400

HP1100 LC Pump External Event Timetable

The Timetable contains 6 entries which are :

Time	Column Switch	Contact1	Contact2	Contact3	Contact4
Initial	Off	Off	Off	Off	Off
0.00	Off	On	Off	Off	Off
0.05	Off	Off	Off	Off	Off
0.10	Off	Off	On	Off	Off
11.90	Off	Off	Off	On	Off
12.00	Off	Off	Off	Off	Off

HP1100 Autosampler Initial Conditions

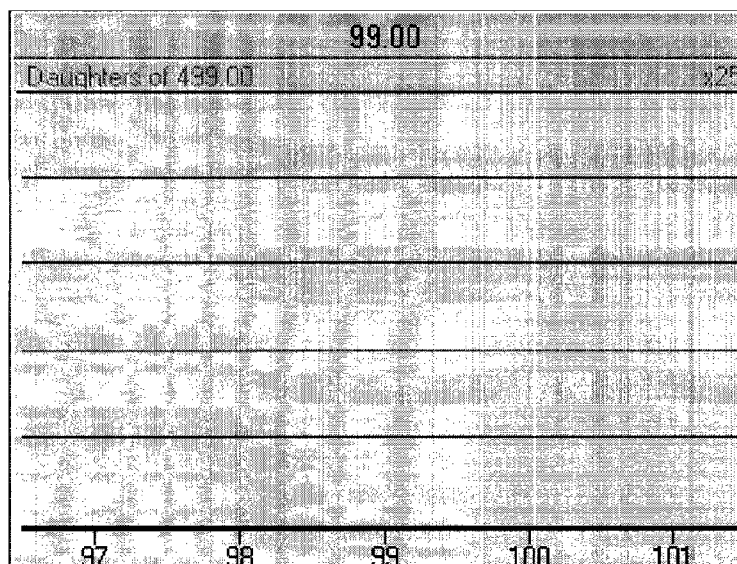
Draw Speed 200.0
Eject Speed (µl/min) 200
Draw Position (mm) 0.00
Stop Time (mins) 20.00
Injection Volume (µl) 15.0
Vial Number 99

Tuning Method Report

Method: C:\MASSLYNX\FLUOROchemicals.PRO\ACQUDB\FLUOROCHEMS

Printed: Mon Mar 01 10:37:59 2004

Handwritten: 12/03/01/04



Dau 499.00

SOURCE (ESP-)	Set	Rdbk	Analyser	Set	Rdbk
Capillary	3.00	-2.93	LM Res 1	14.0	
Cone	20	-20	HM Res 1	14.0	
Hexapole 1	0.0		IEnergy 1	1.0	
Aperture 1	0.0		Entrance	-2	12
Hexapole 2	0.0		Collision	15	14
Source Block Temp.	100	100	Exit	2	16
Desolvation Temp.	300	299	LM Res 2	14.0	
			HM Res 2	14.0	
			IEnergy 2	2.0	
			Multiplier	650	-648
Pressures	Rdbk		Gas Flows	Rdbk	
Analyser Vacuum	OFF		Cone Gas	129.9	
Gas Cell	3.0e-3		Desolvation	749.8	

Quantify Calibration Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

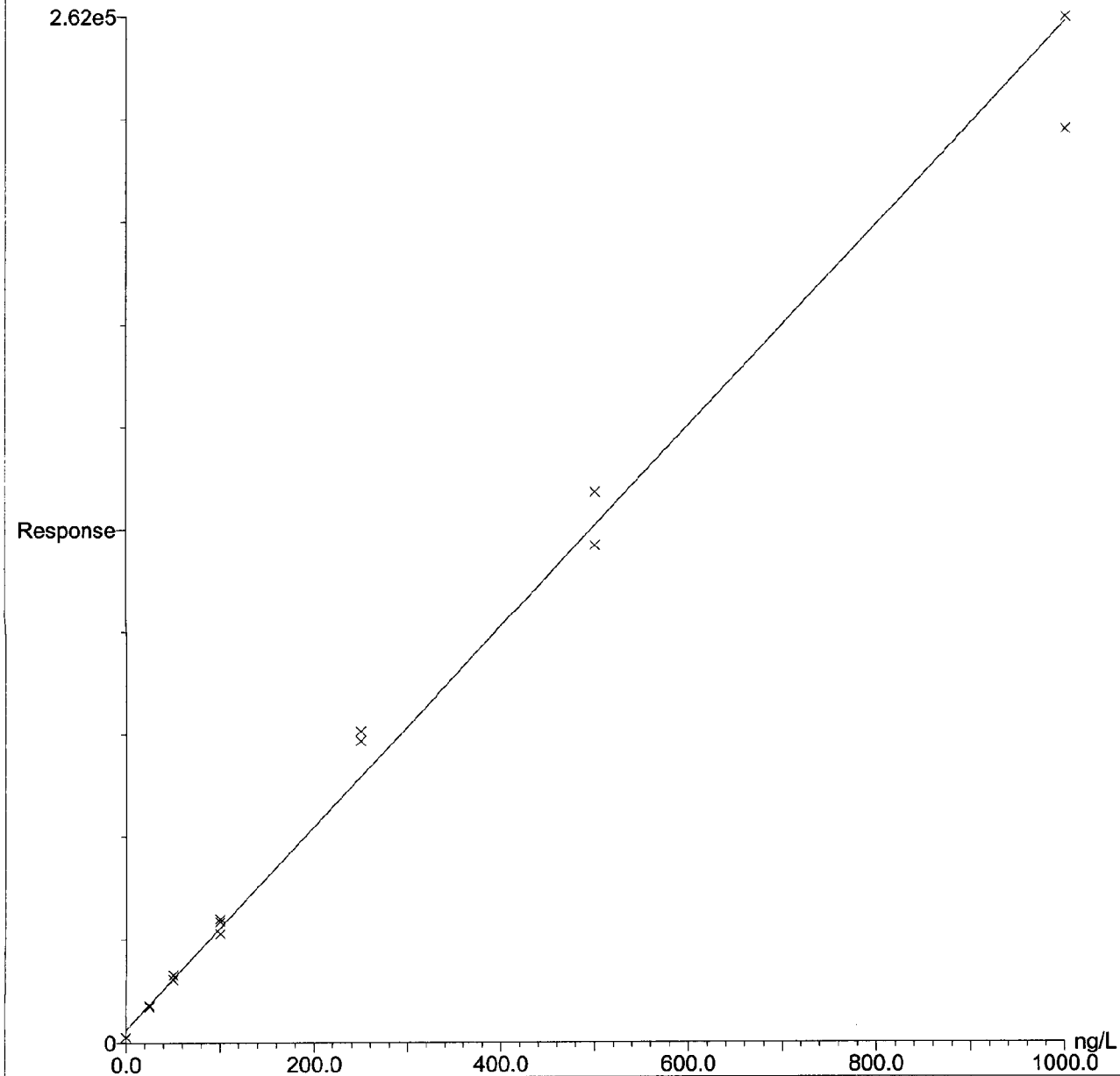
Calibration: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\CurveDB\021804AR CG ACSFM

Last modified: Tue Mar 02 12:21:48 2004

Printed: Tue Mar 02 14:05:18 2004

RP 03/02/04 pages 1-5

Compound 1 name: C6 Acid PFHA
Coefficient of Determination: 0.988257
Calibration curve: $258.118 * x + 3246.64$
Response type: External Std, Area
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Calibration Report

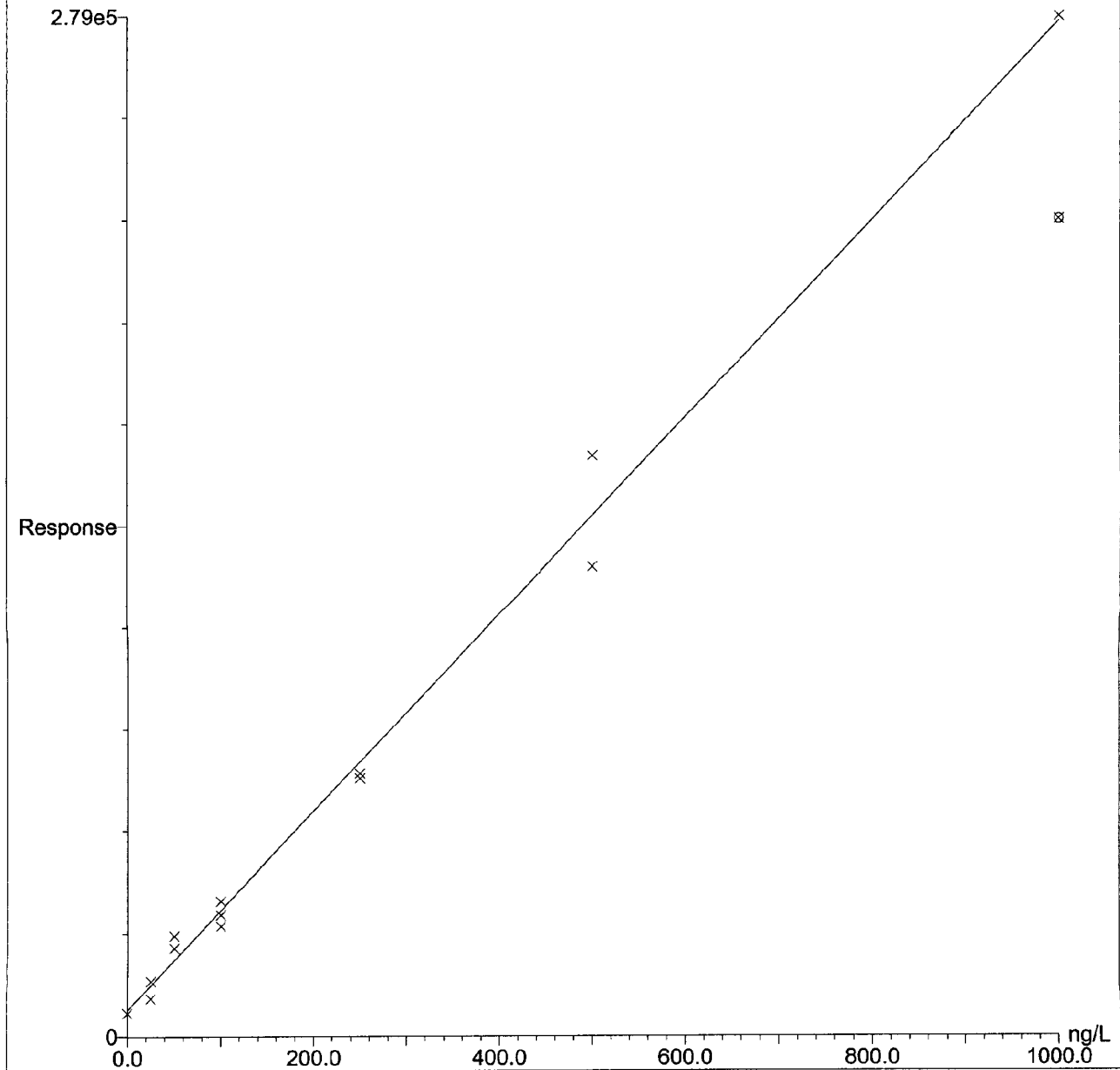
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Calibration: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\CurveDB\021804AR CG ACSFM

Last modified: Tue Mar 02 12:21:48 2004

Printed: Tue Mar 02 14:05:18 2004

Compound 2 name: C8 Acid PFOA
Coefficient of Determination: 0.992051
Calibration curve: $271.048 * x + 7136.83$
Response type: External Std, Area
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Calibration Report

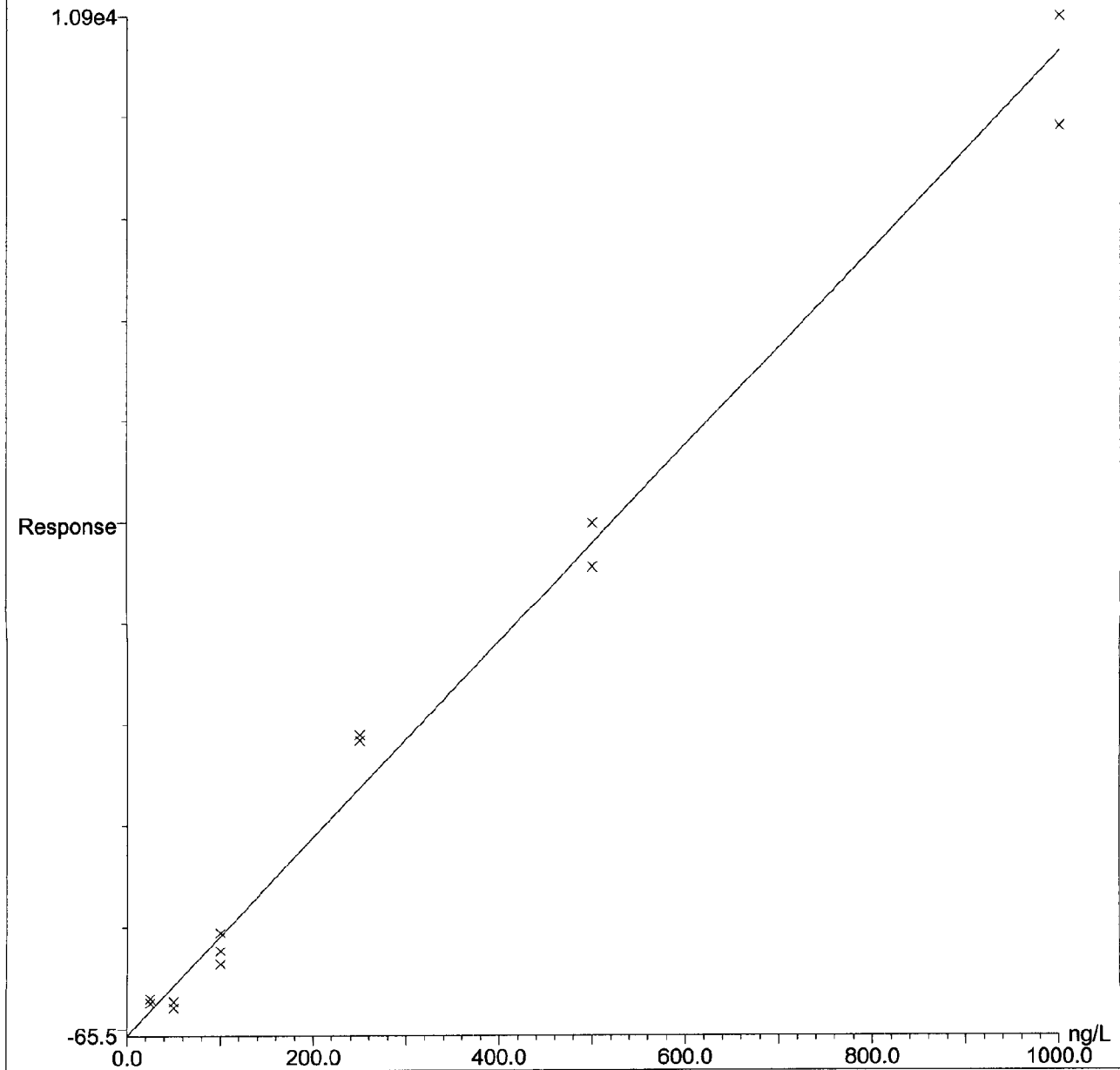
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Calibration: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\CurveDB\021804AR CG ACSFM

Last modified: Tue Mar 02 12:21:48 2004

Printed: Tue Mar 02 14:05:18 2004

Compound 3 name: C4 Sulfonate PFBS
Coefficient of Determination: 0.989254
Calibration curve: $10.6151 * x + -65.5462$
Response type: External Std, Area
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Quantify Calibration Report

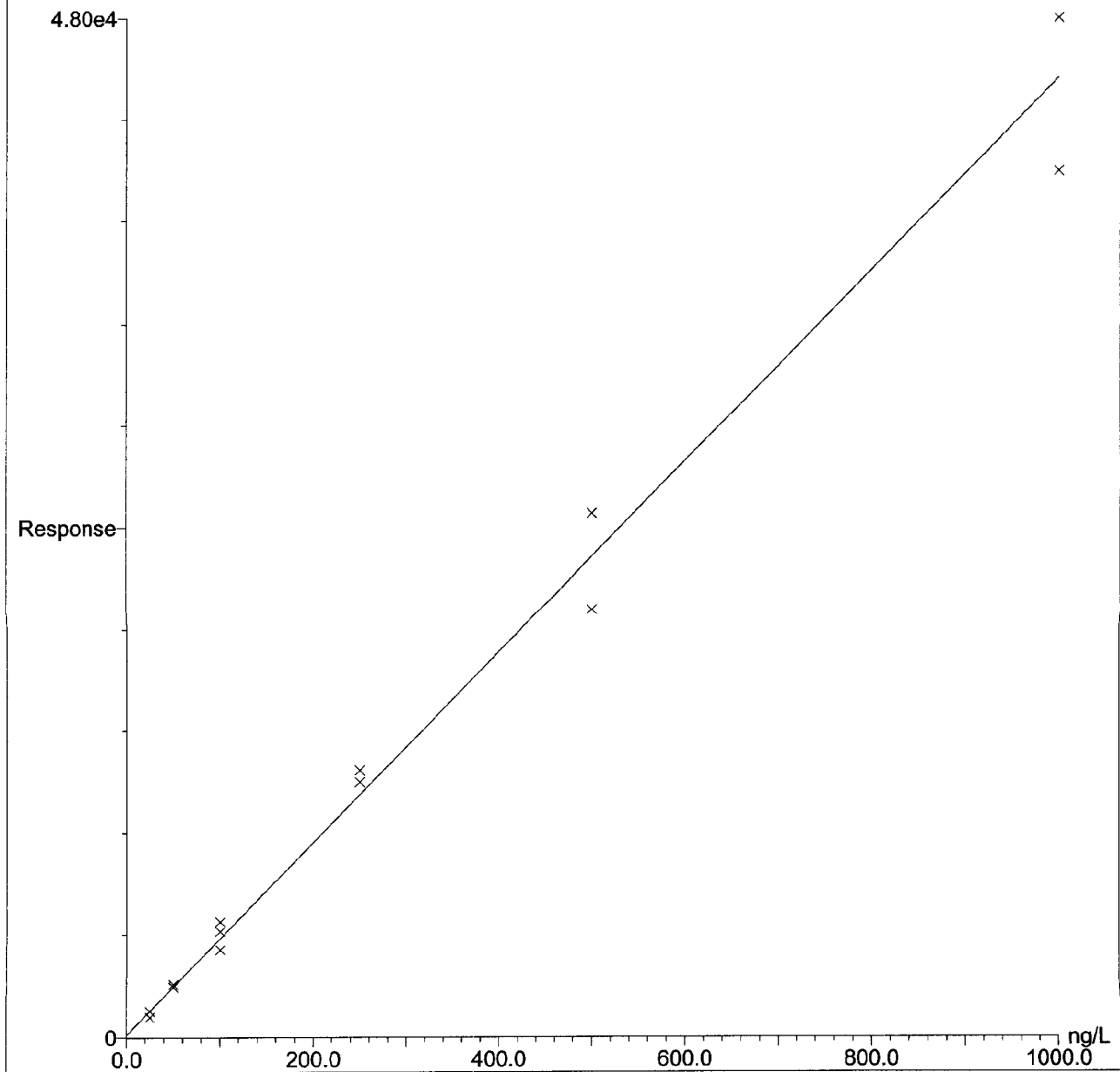
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Calibration: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\CurveDB\021804AR CG ACSFM

Last modified: Tue Mar 02 12:21:48 2004

Printed: Tue Mar 02 14:05:18 2004

Compound 4 name: C6 Sulfonate PFHS
Coefficient of Determination: 0.985908
Calibration curve: $45.0307 * x + 115.215$
Response type: External Std, Area
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Quantify Calibration Report

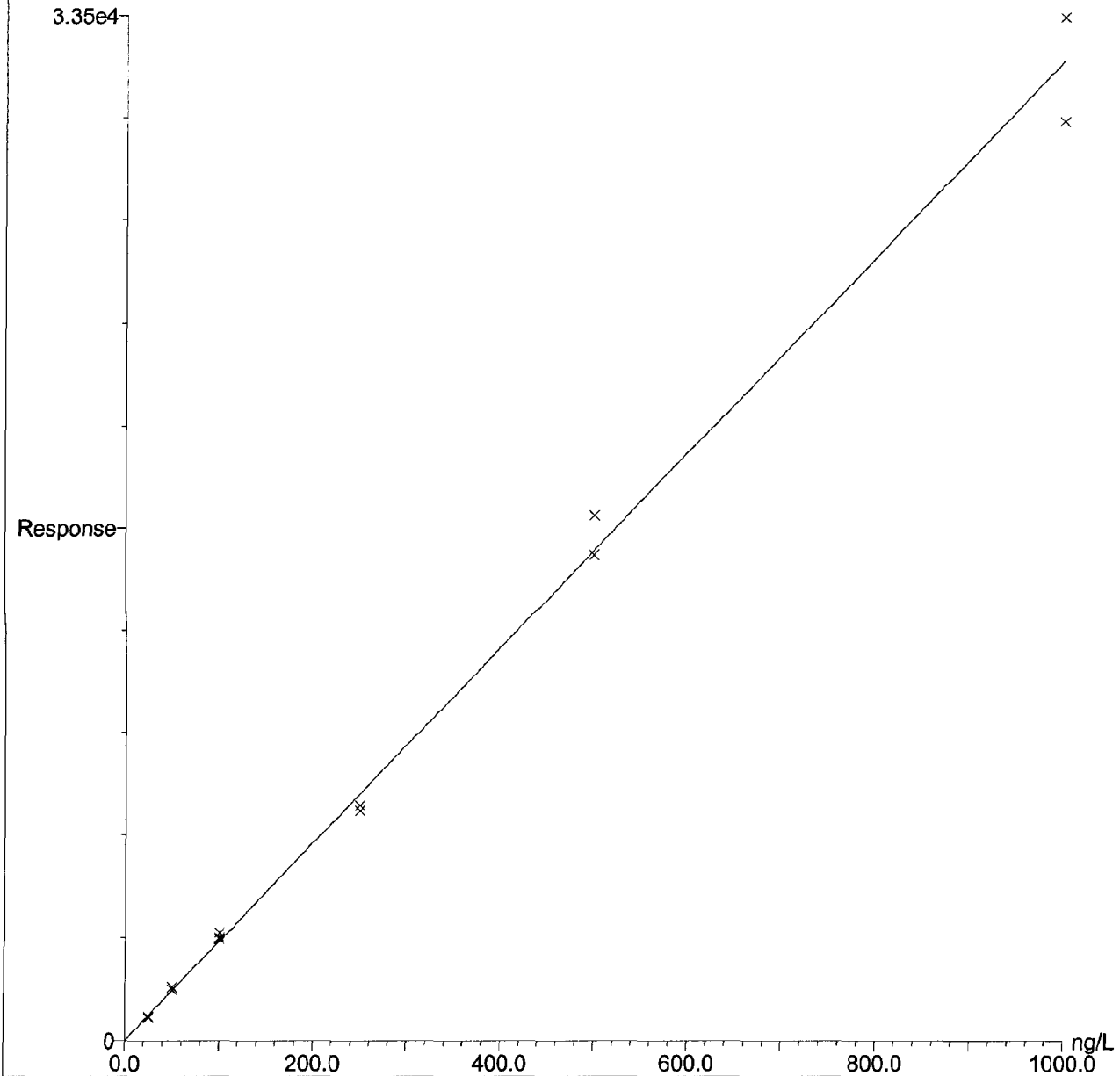
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Calibration: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\CurveDB\021804AR CG ACSFM

Last modified: Tue Mar 02 12:21:48 2004

Printed: Tue Mar 02 14:05:18 2004

Compound 5 name: C8 Sulfonate PFOS
Coefficient of Determination: 0.994708
Calibration curve: $32.0022 * x + 31.5152$
Response type: External Std, Area
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

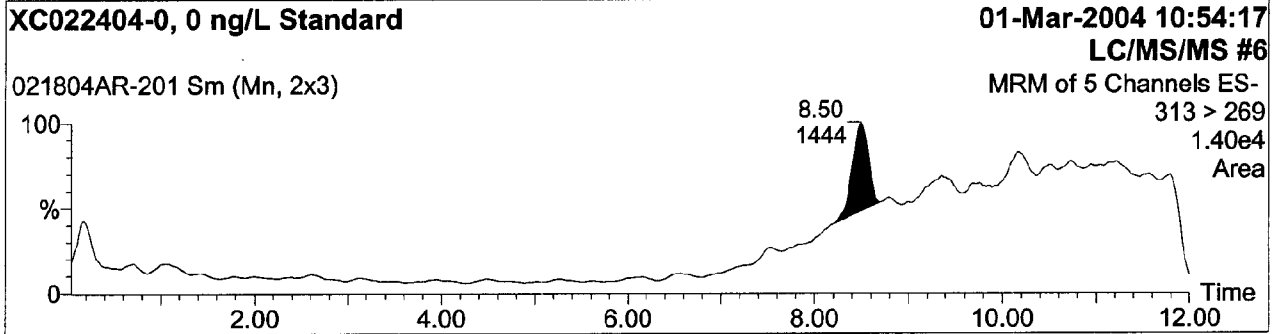
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Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Initials BR
Date 03/02/04
Run# 021804AR-201 To 021804AR-269

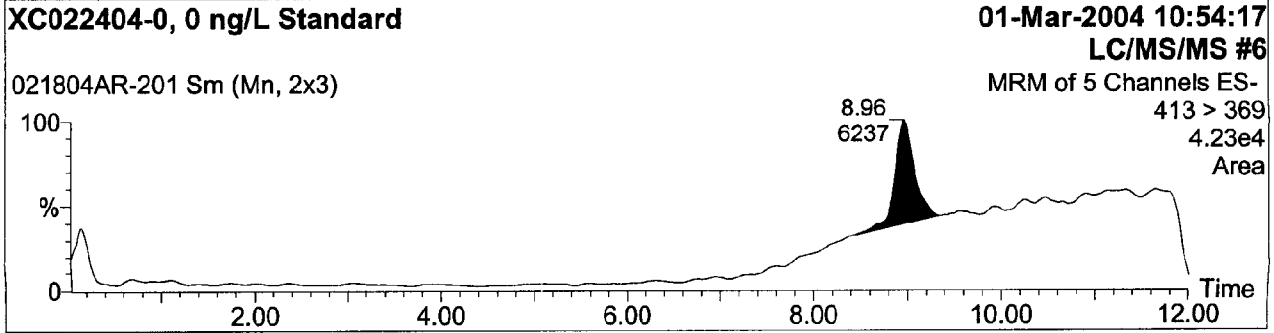
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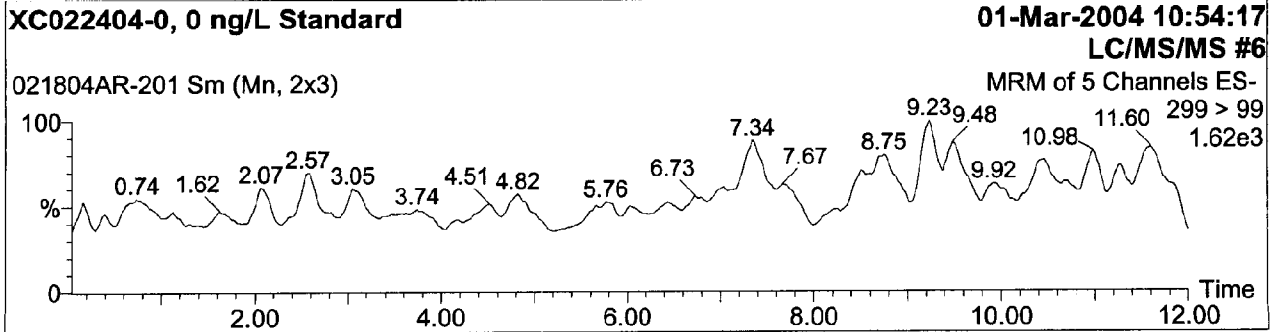
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

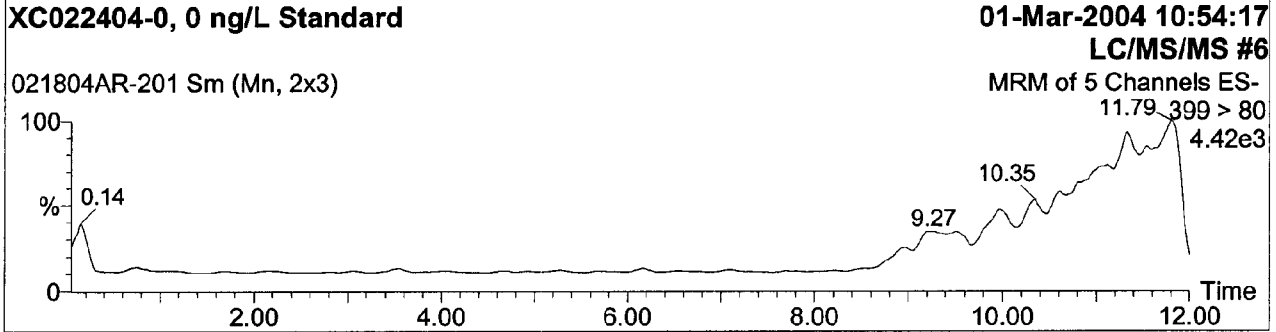
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Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
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Last modified: Mon Feb 02 07:04:42 2004
Job Code:

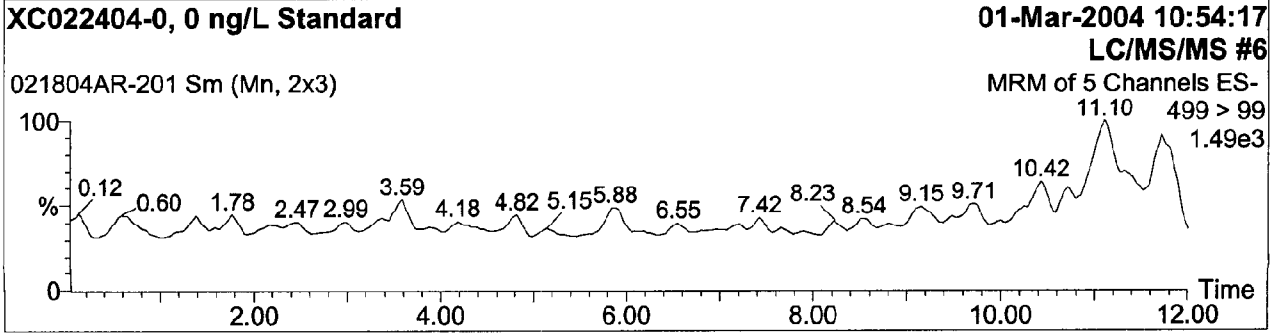
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-201
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Exygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

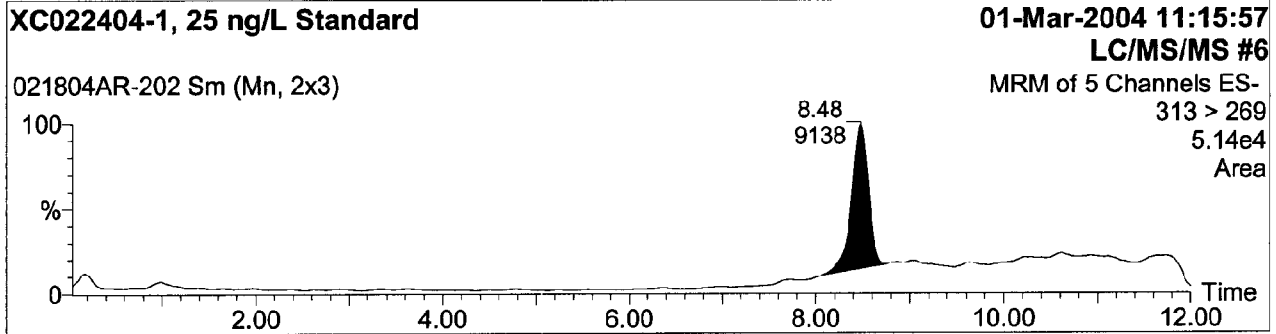
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Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
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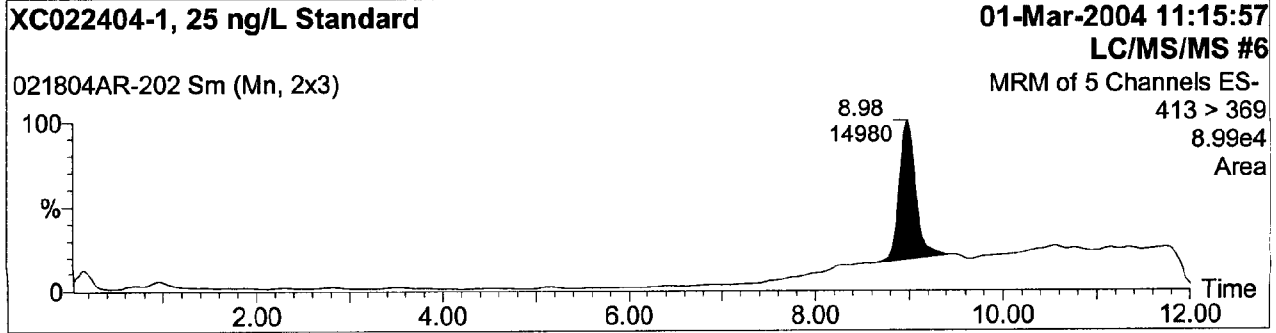
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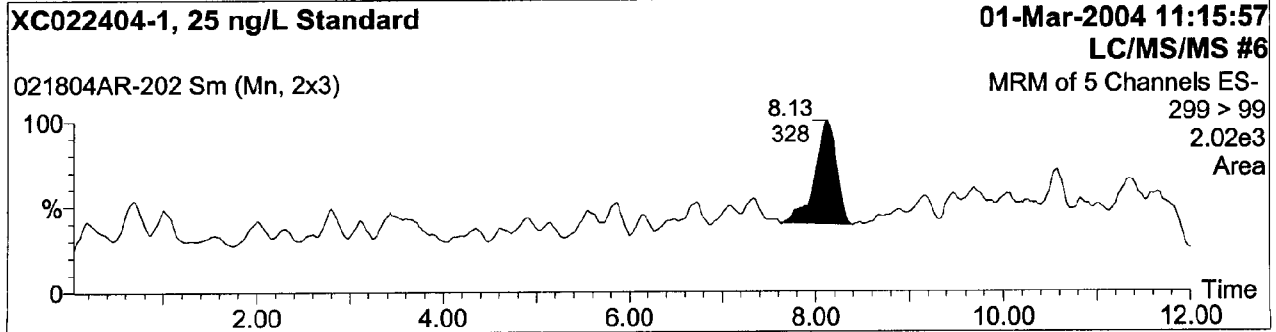
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-202
Text:

4: C6 Sulfonate PFHS

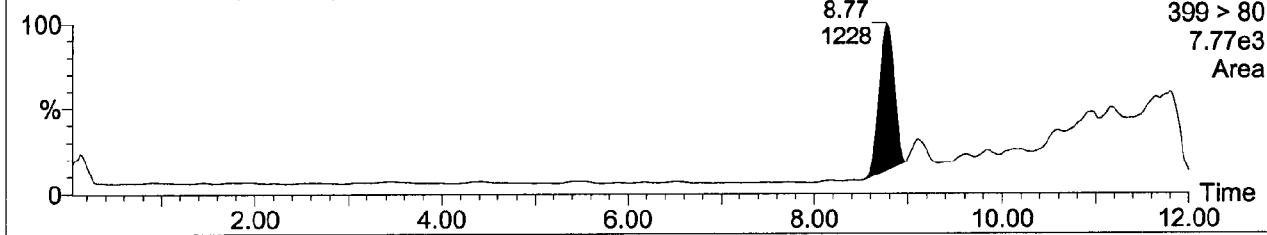
XC022404-1, 25 ng/L Standard

01-Mar-2004 11:15:57

LC/MS/MS #6

021804AR-202 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
7.77e3
Area



5: C8 Sulfonate PFOS

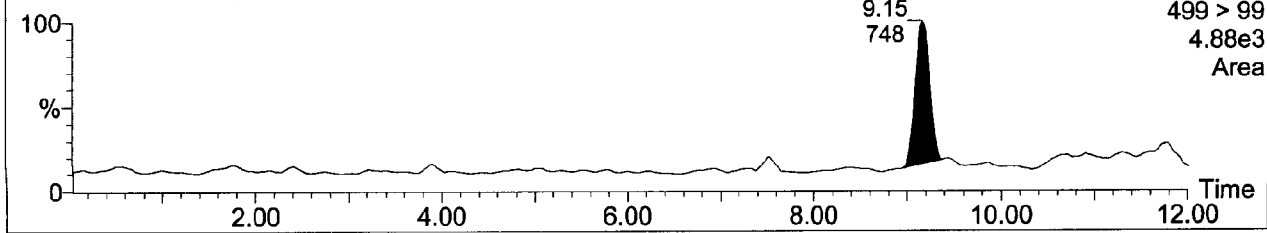
XC022404-1, 25 ng/L Standard

01-Mar-2004 11:15:57

LC/MS/MS #6

021804AR-202 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
4.88e3
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-203
Text:

1: C6 Acid PFHA

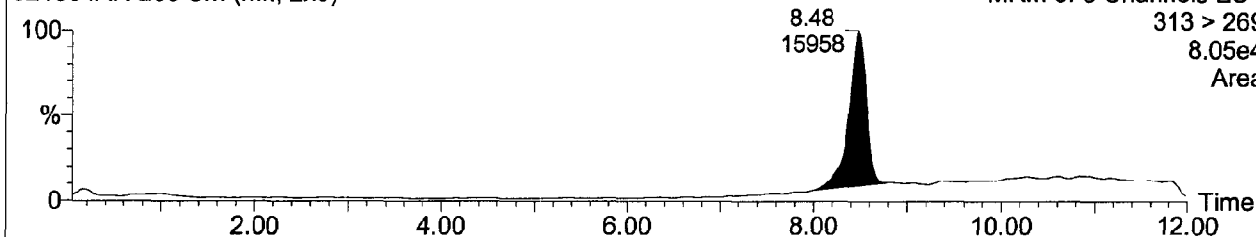
XC022404-2, 50 ng/L Standard

01-Mar-2004 11:37:36

LC/MS/MS #6

021804AR-203 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
8.05e4
Area



2: C8 Acid PFOA

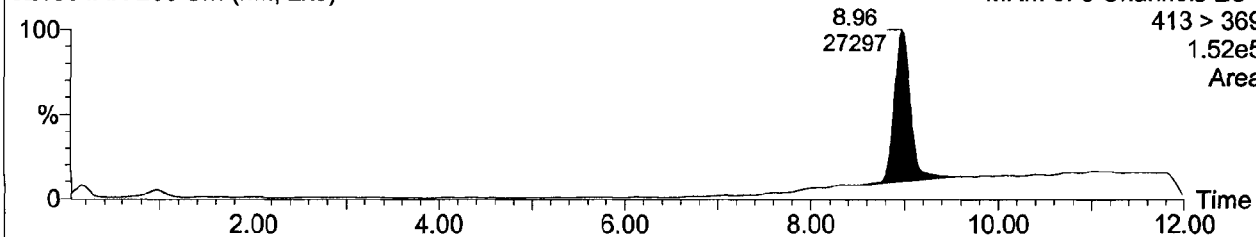
XC022404-2, 50 ng/L Standard

01-Mar-2004 11:37:36

LC/MS/MS #6

021804AR-203 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.52e5
Area



3: C4 Sulfonate PFBS

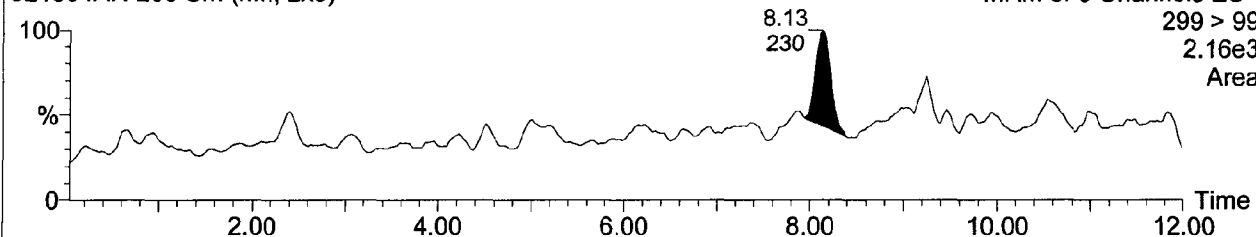
XC022404-2, 50 ng/L Standard

01-Mar-2004 11:37:36

LC/MS/MS #6

021804AR-203 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
2.16e3
Area



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Quantify Sample Report

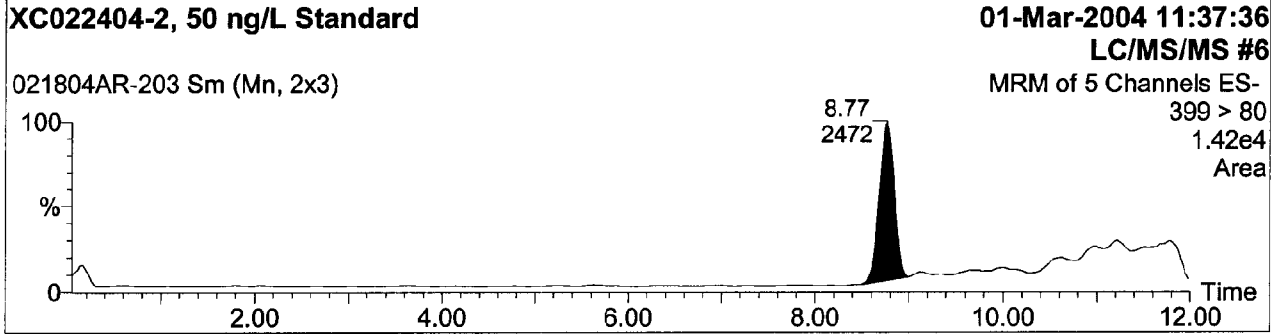
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

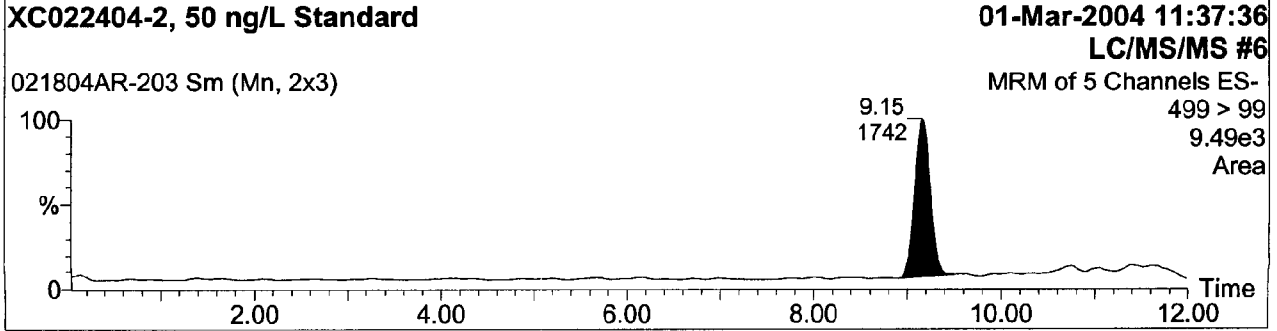
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-203
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

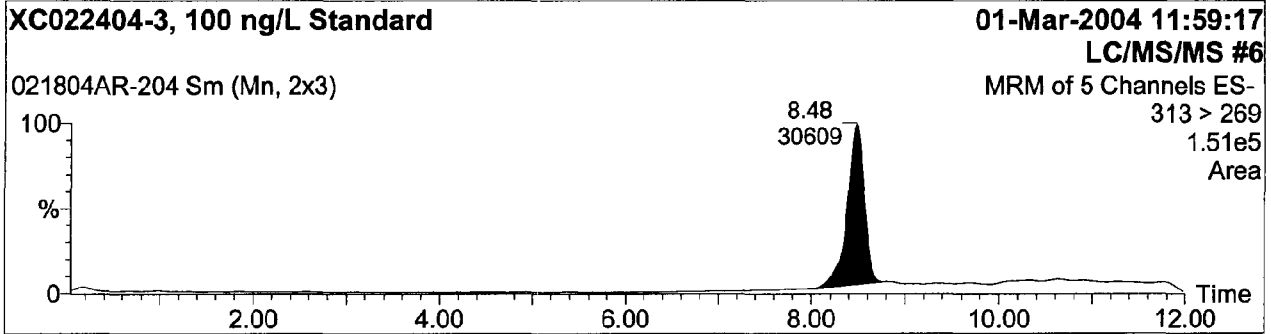
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

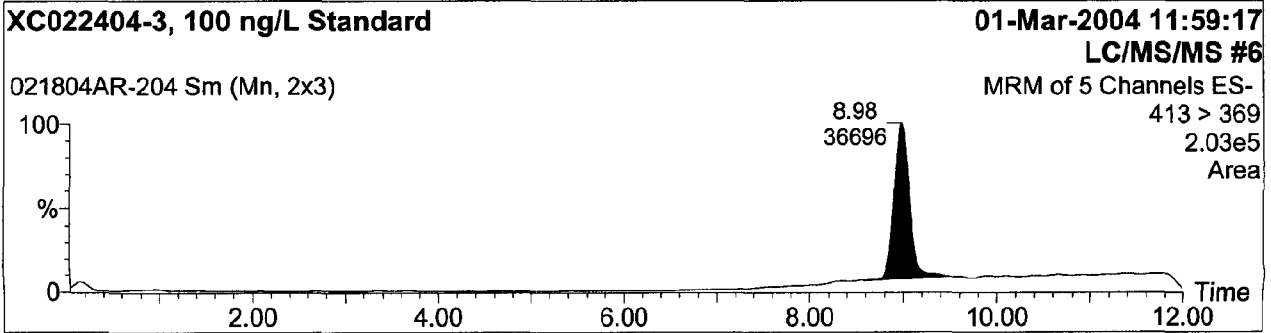
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-204
Text:

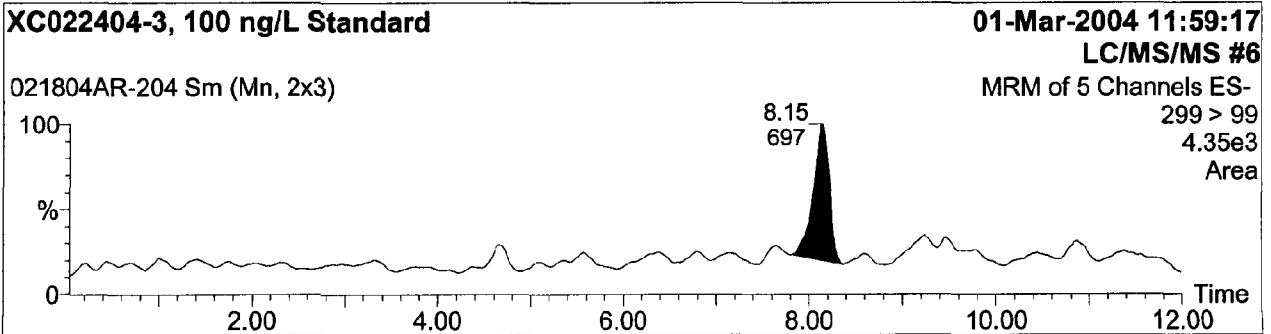
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

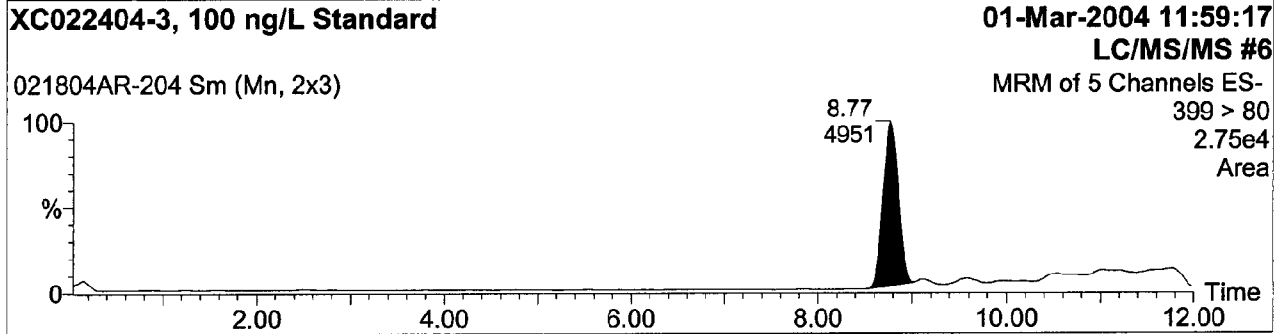
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

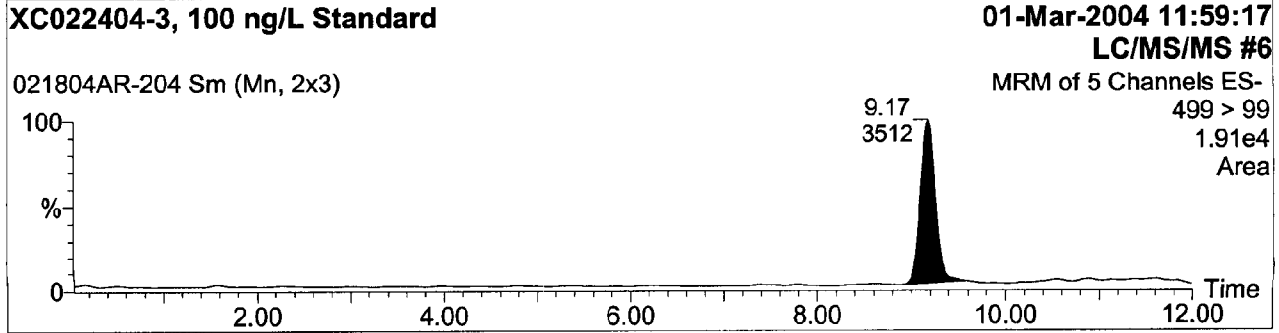
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-204
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

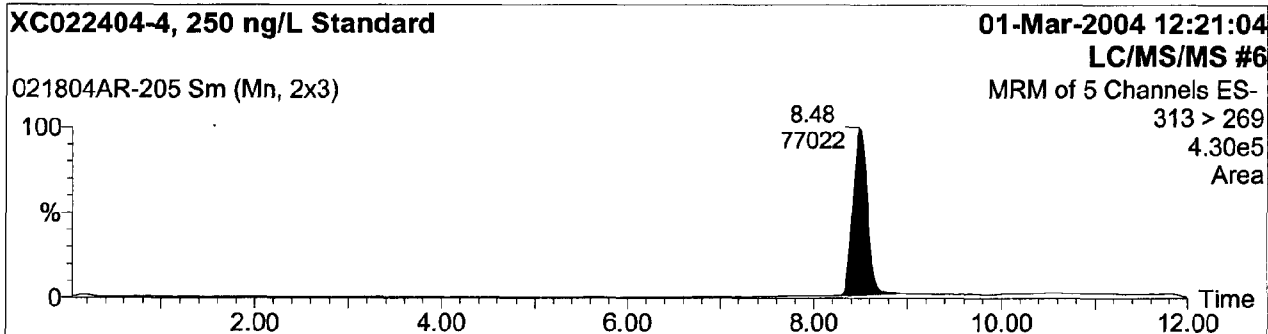
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

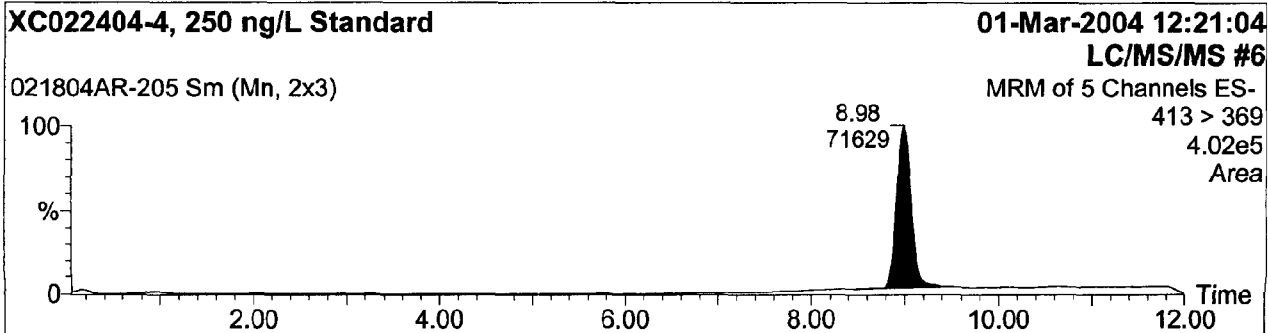
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-205
Text:

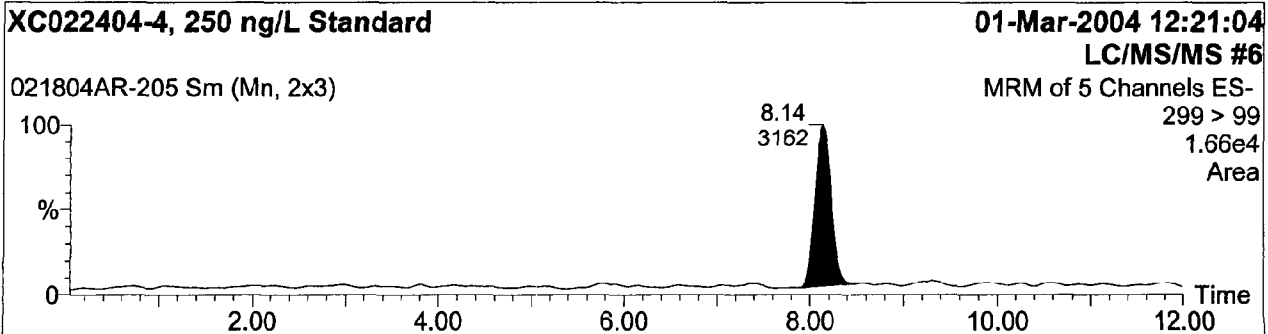
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

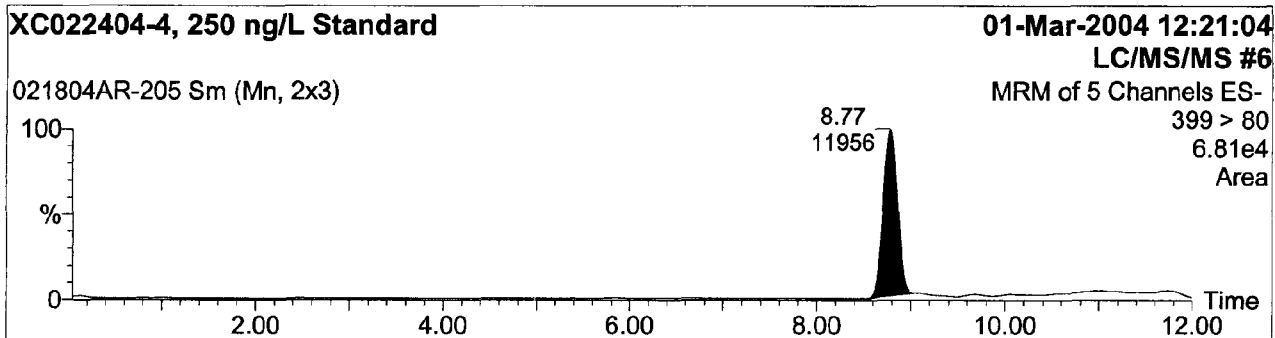
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

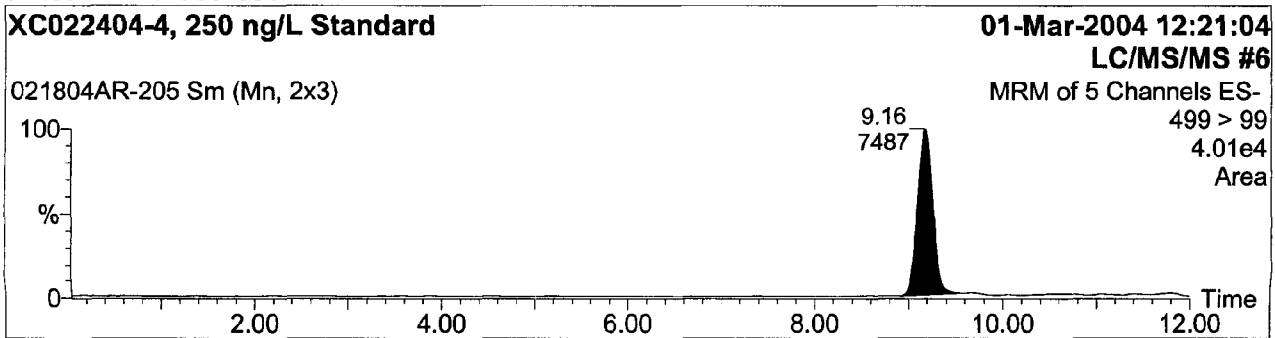
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-205
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-206
Text:

1: C6 Acid PFHA

XC022404-5, 500 ng/L Standard

01-Mar-2004 12:42:50

LC/MS/MS #6

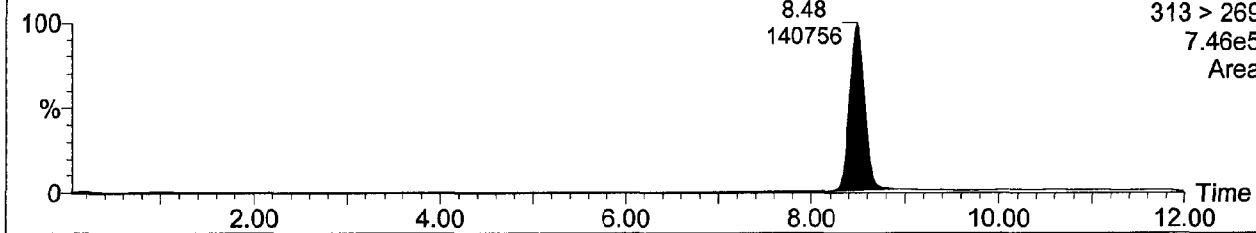
021804AR-206 Sm (Mn, 2x3)

MRM of 5 Channels ES-

313 > 269

7.46e5

Area



2: C8 Acid PFOA

XC022404-5, 500 ng/L Standard

01-Mar-2004 12:42:50

LC/MS/MS #6

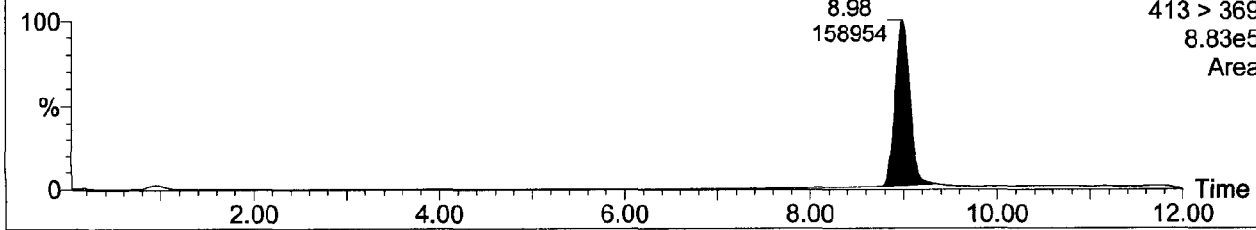
021804AR-206 Sm (Mn, 2x3)

MRM of 5 Channels ES-

413 > 369

8.83e5

Area



3: C4 Sulfonate PFBS

XC022404-5, 500 ng/L Standard

01-Mar-2004 12:42:50

LC/MS/MS #6

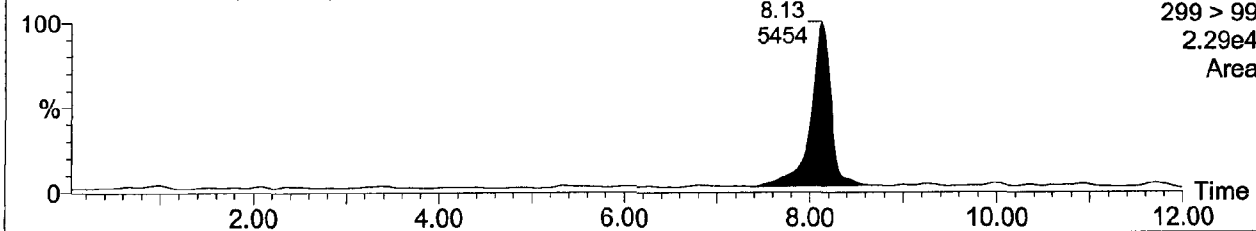
021804AR-206 Sm (Mn, 2x3)

MRM of 5 Channels ES-

299 > 99

2.29e4

Area



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Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-206
Text:

4: C6 Sulfonate PFHS

XC022404-5, 500 ng/L Standard

01-Mar-2004 12:42:50

LC/MS/MS #6

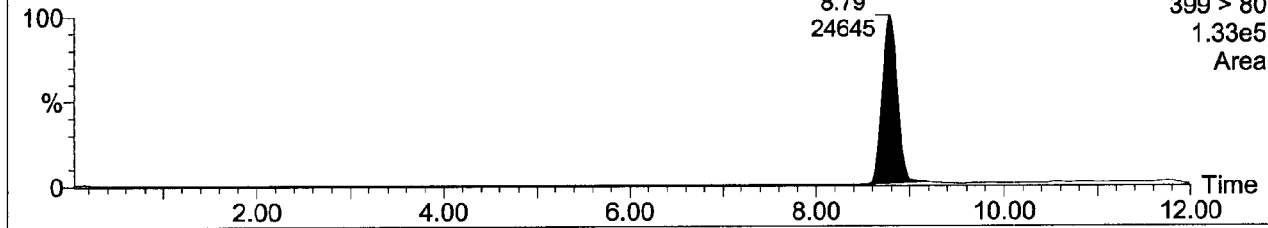
021804AR-206 Sm (Mn, 2x3)

MRM of 5 Channels ES-

399 > 80

1.33e5

Area



5: C8 Sulfonate PFOS

XC022404-5, 500 ng/L Standard

01-Mar-2004 12:42:50

LC/MS/MS #6

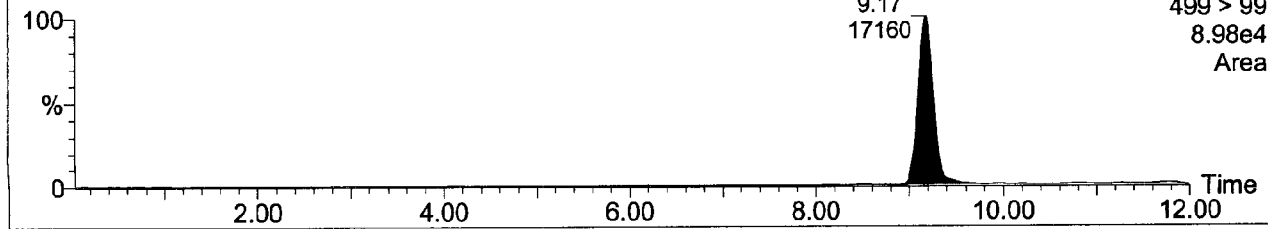
021804AR-206 Sm (Mn, 2x3)

MRM of 5 Channels ES-

499 > 99

8.98e4

Area



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-207
Text:

1: C6 Acid PFHA

XC022404-6, 1000 ng/L Standard

01-Mar-2004 13:04:43

LC/MS/MS #6

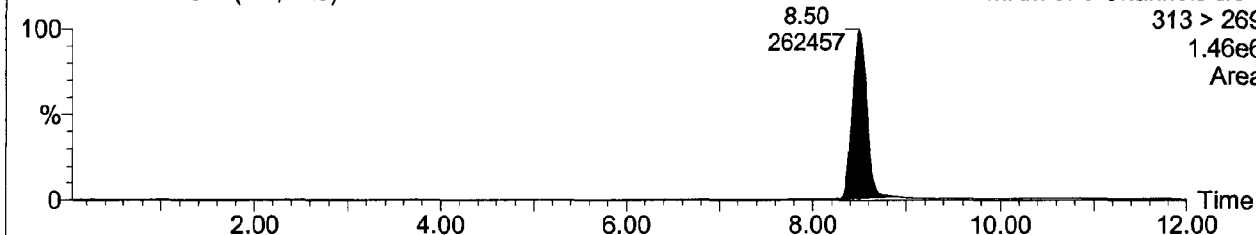
021804AR-207 Sm (Mn, 2x3)

MRM of 5 Channels ES-

313 > 269

1.46e6

Area



2: C8 Acid PFOA

XC022404-6, 1000 ng/L Standard

01-Mar-2004 13:04:43

LC/MS/MS #6

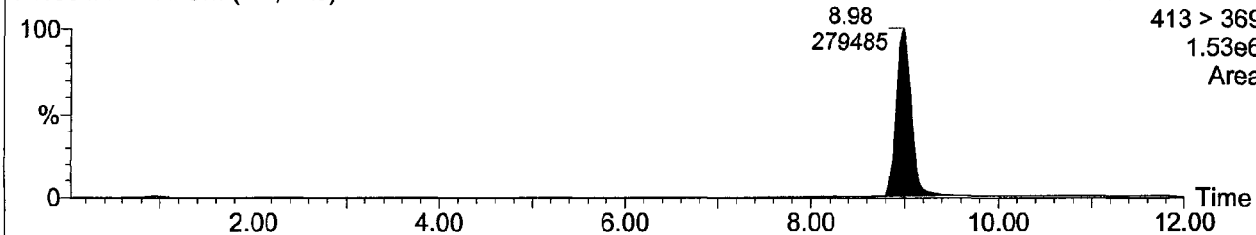
021804AR-207 Sm (Mn, 2x3)

MRM of 5 Channels ES-

413 > 369

1.53e6

Area



3: C4 Sulfonate PFBS

XC022404-6, 1000 ng/L Standard

01-Mar-2004 13:04:43

LC/MS/MS #6

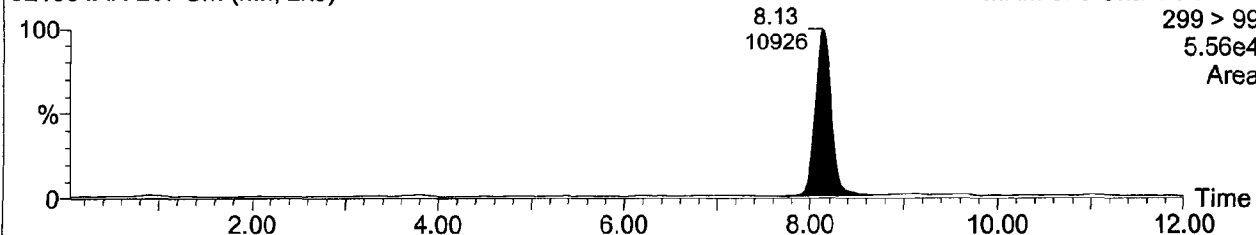
021804AR-207 Sm (Mn, 2x3)

MRM of 5 Channels ES-

299 > 99

5.56e4

Area



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Quantify Sample Report

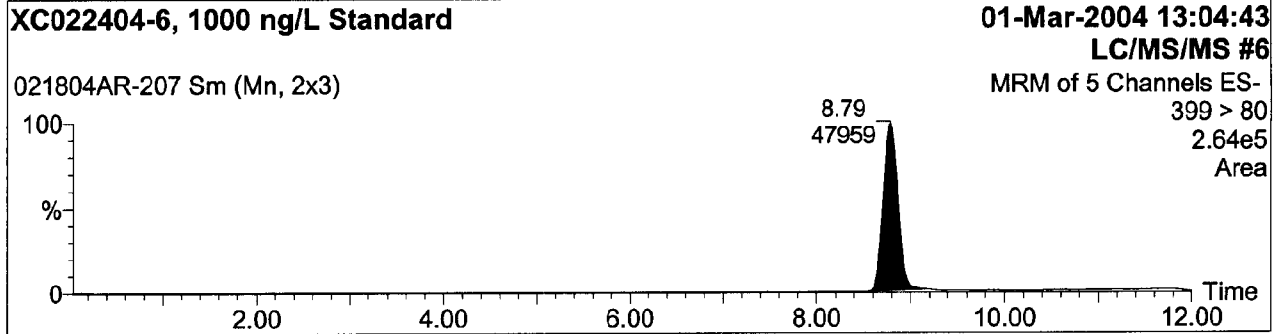
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

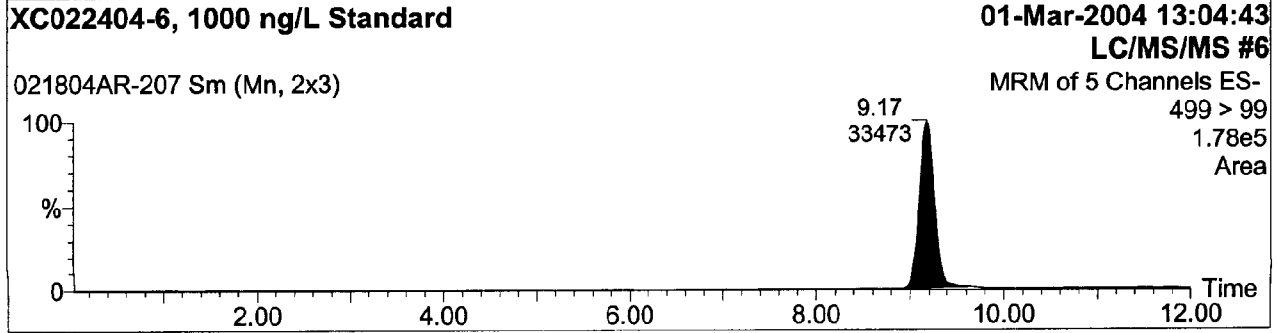
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-207
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

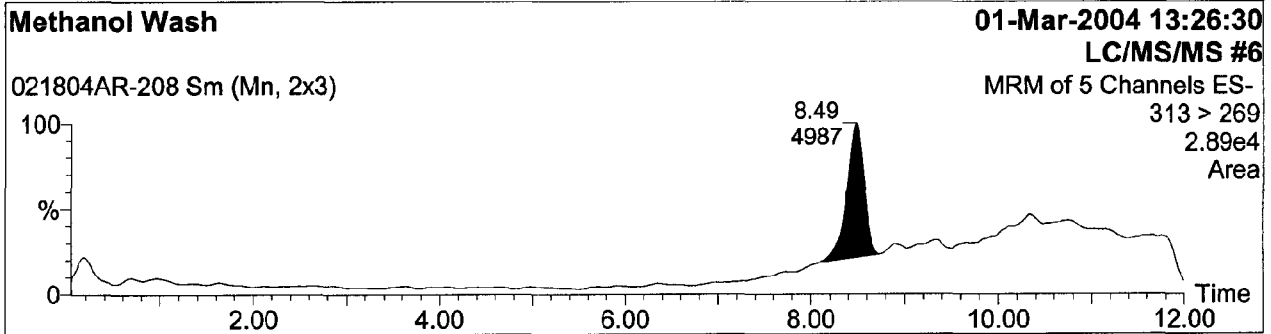
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

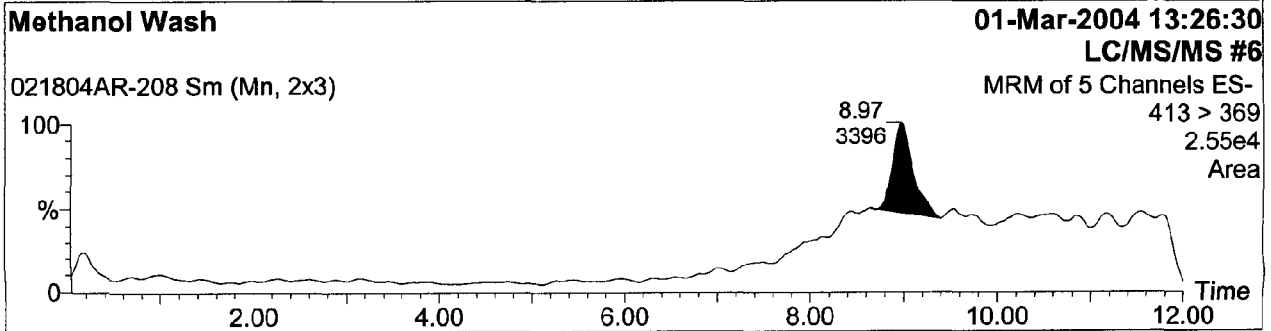
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-208
Text:

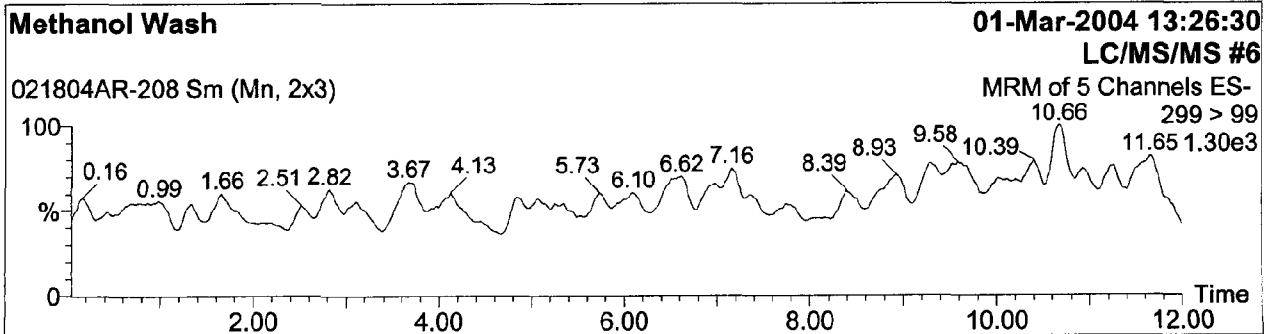
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

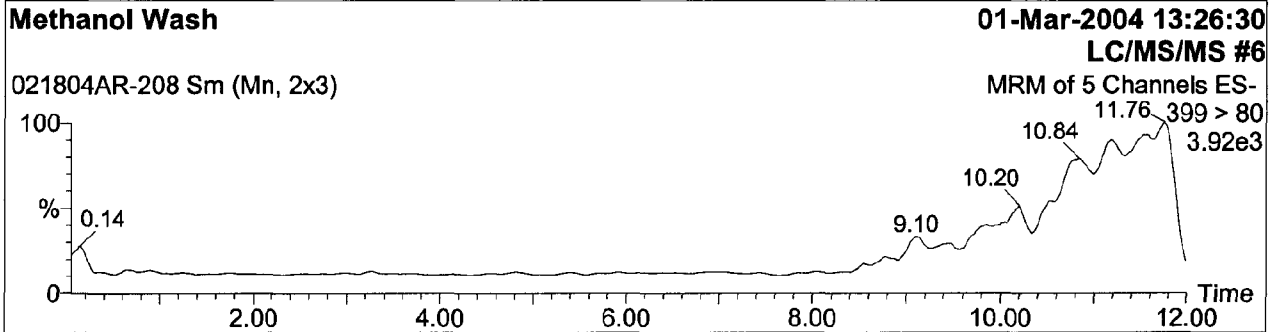
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

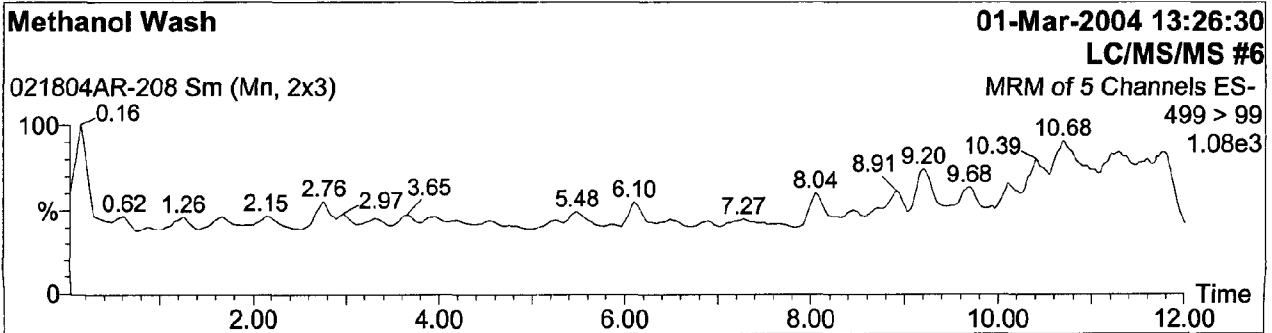
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-208
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

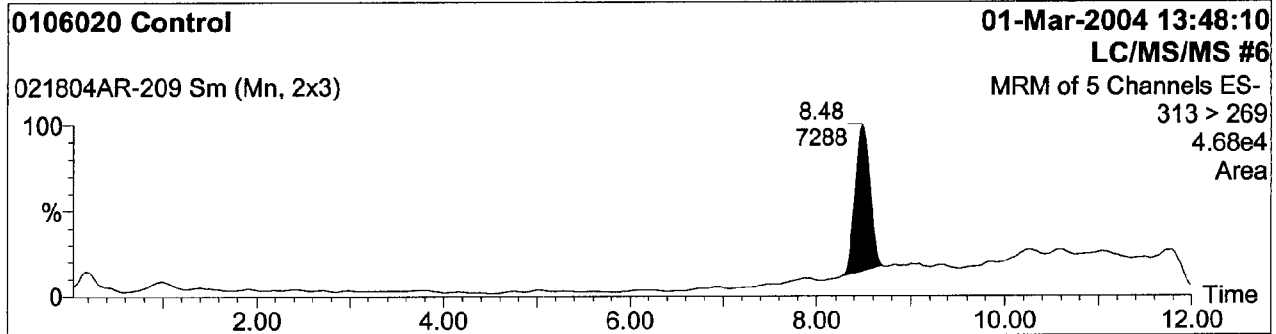
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

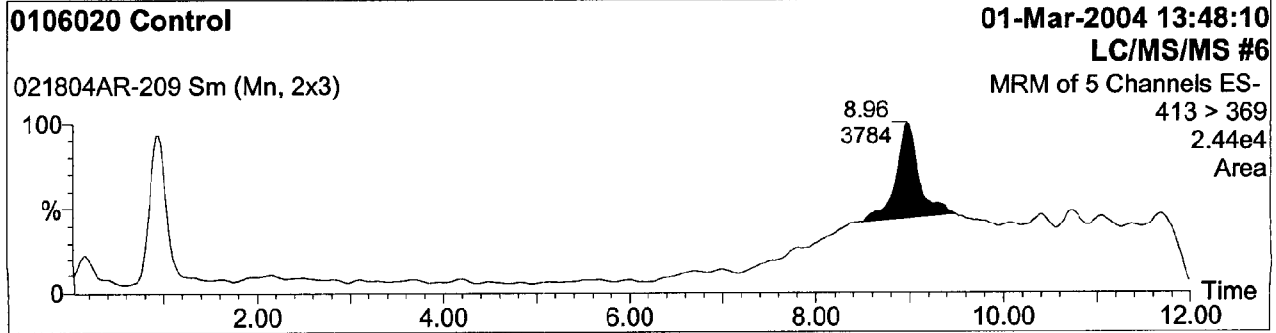
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-209
Text:

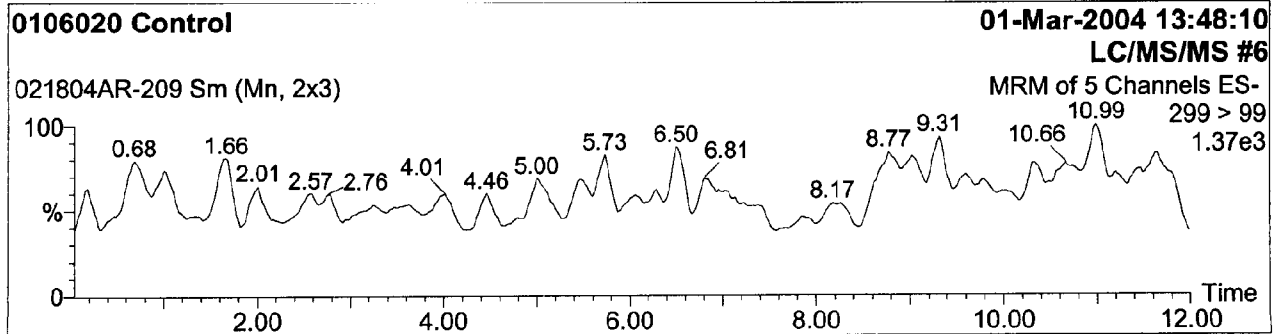
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

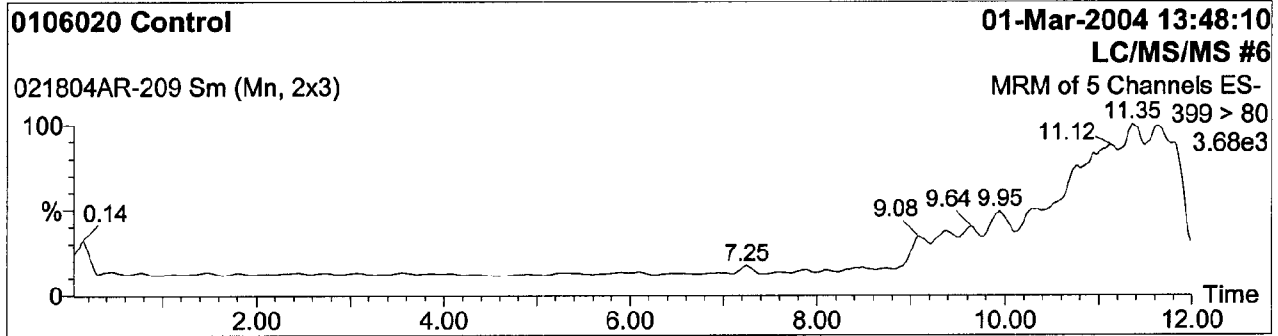
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

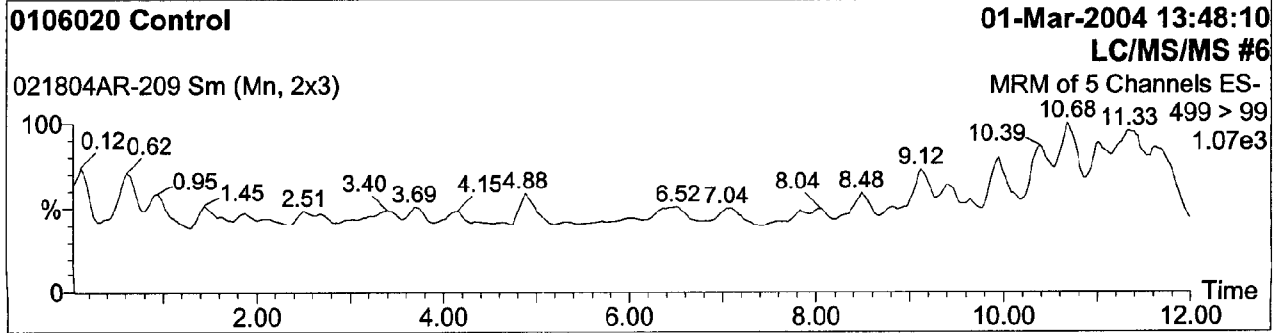
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-209
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Exygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-210
Text:

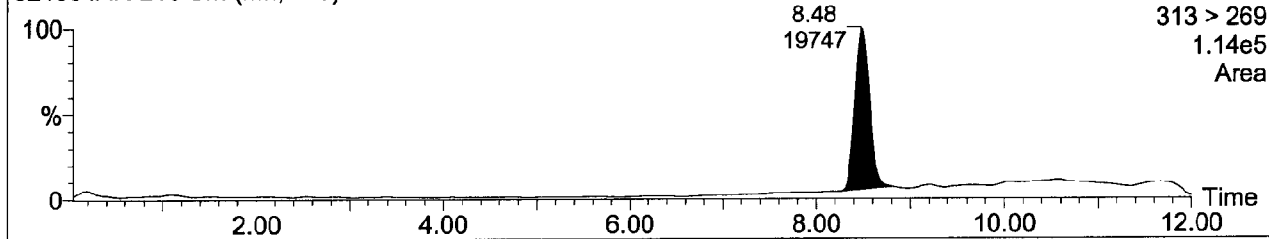
1: C6 Acid PFHA

0106020 Spk A, 50 ng/L

01-Mar-2004 14:09:55
LC/MS/MS #6

021804AR-210 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
1.14e5
Area



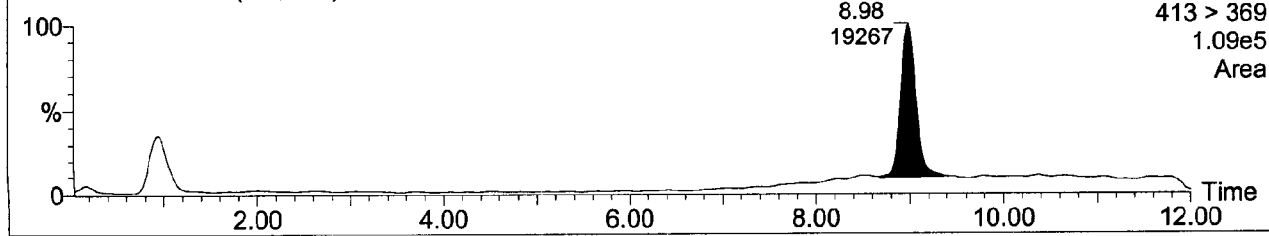
2: C8 Acid PFOA

0106020 Spk A, 50 ng/L

01-Mar-2004 14:09:55
LC/MS/MS #6

021804AR-210 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.09e5
Area



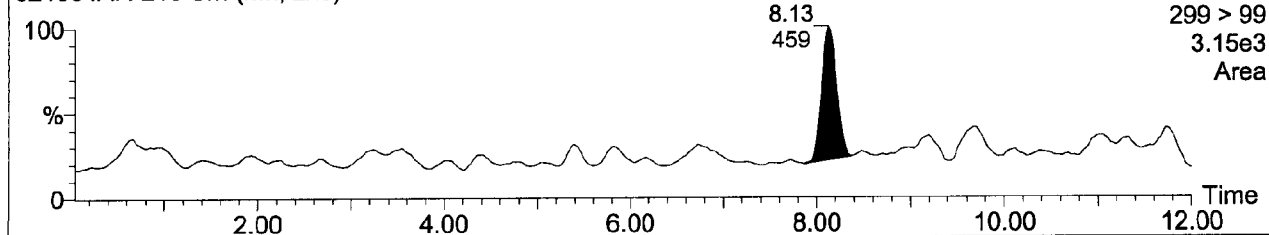
3: C4 Sulfonate PFBS

0106020 Spk A, 50 ng/L

01-Mar-2004 14:09:55
LC/MS/MS #6

021804AR-210 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
3.15e3
Area



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Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-210
Text:

4: C6 Sulfonate PFHS

0106020 Spk A, 50 ng/L

01-Mar-2004 14:09:55

LC/MS/MS #6

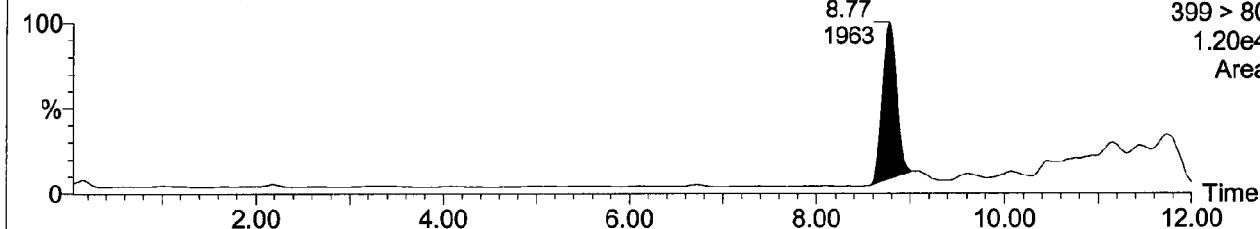
021804AR-210 Sm (Mn, 2x3)

MRM of 5 Channels ES-

399 > 80

1.20e4

Area



5: C8 Sulfonate PFOS

0106020 Spk A, 50 ng/L

01-Mar-2004 14:09:55

LC/MS/MS #6

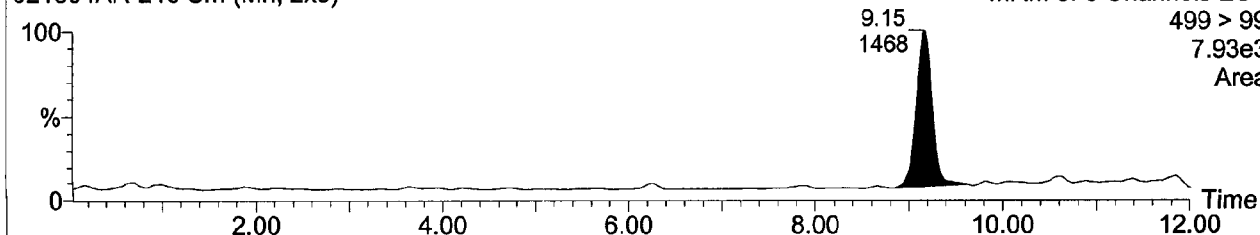
021804AR-210 Sm (Mn, 2x3)

MRM of 5 Channels ES-

499 > 99

7.93e3

Area



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Quantify Sample Report

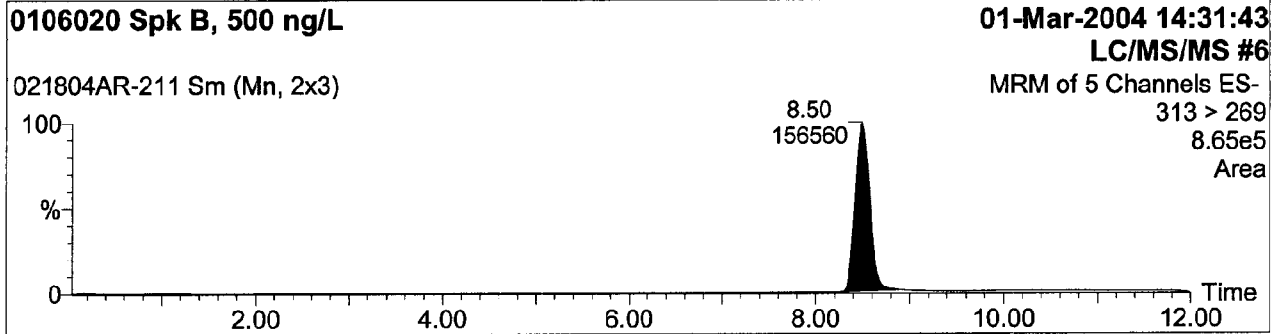
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

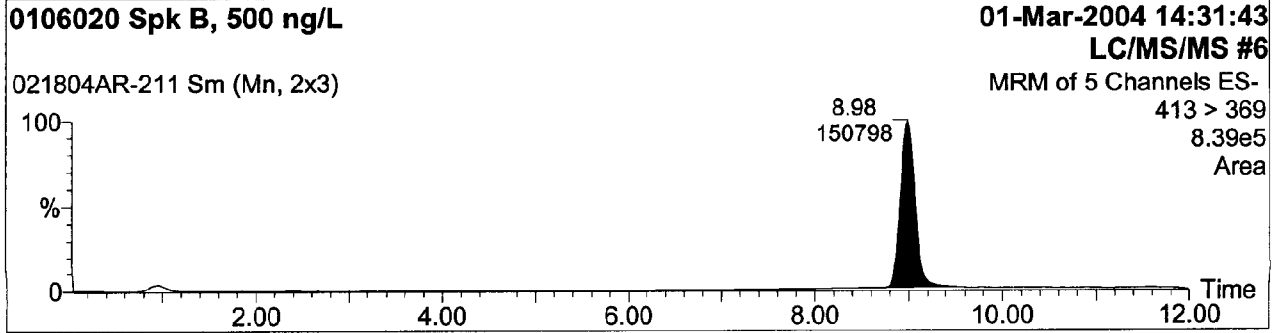
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-211
Text:

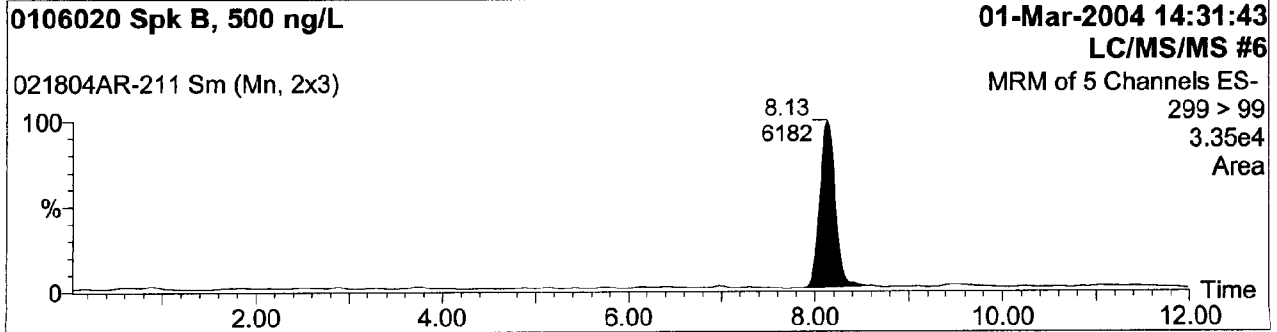
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-211
Text:

4: C6 Sulfonate PFHS

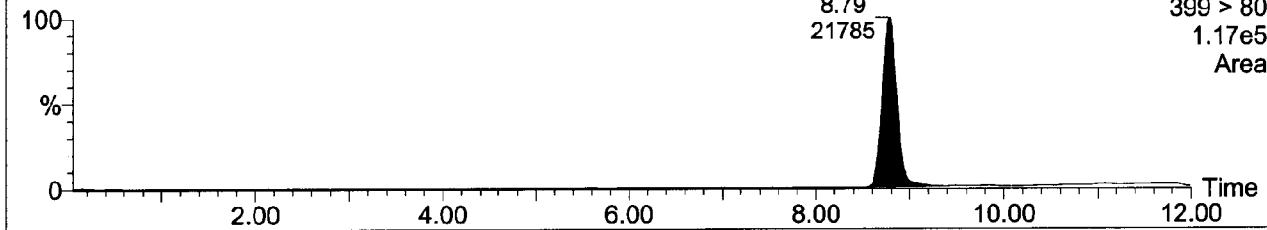
0106020 Spk B, 500 ng/L

01-Mar-2004 14:31:43

LC/MS/MS #6

021804AR-211 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
1.17e5
Area



5: C8 Sulfonate PFOS

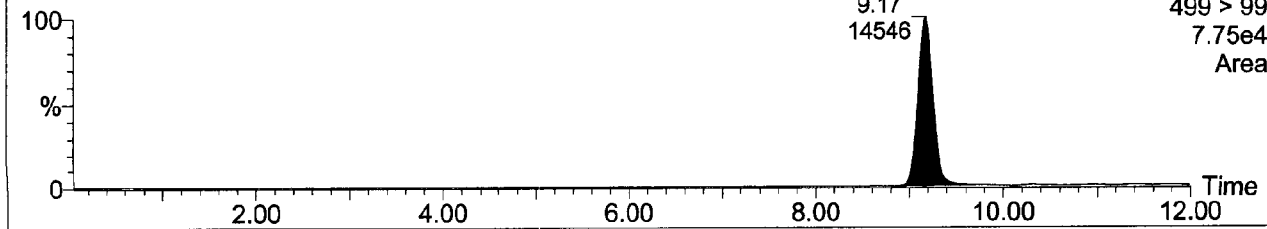
0106020 Spk B, 500 ng/L

01-Mar-2004 14:31:43

LC/MS/MS #6

021804AR-211 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
7.75e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-212
Text:

1: C6 Acid PFHA

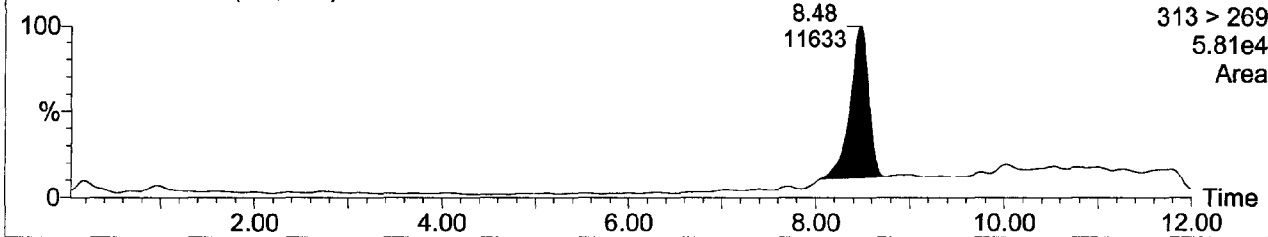
L1874-1 Spk C, 10000 ng/L, DF=1000

01-Mar-2004 14:53:29

LC/MS/MS #6

021804AR-212 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
5.81e4
Area



2: C8 Acid PFOA

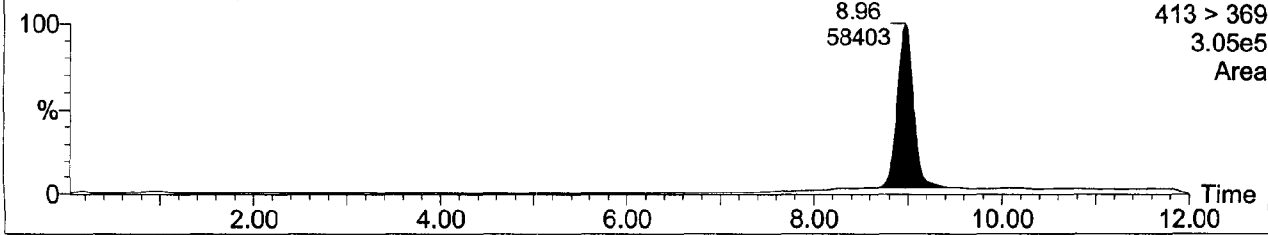
L1874-1 Spk C, 10000 ng/L, DF=1000

01-Mar-2004 14:53:29

LC/MS/MS #6

021804AR-212 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
3.05e5
Area



3: C4 Sulfonate PFBS

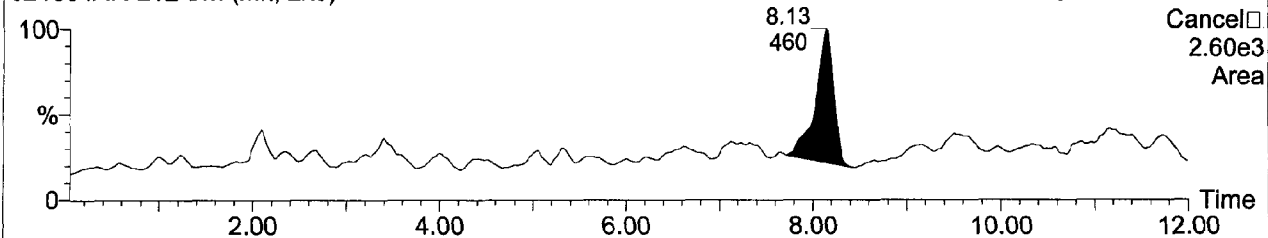
L1874-1 Spk C, 10000 ng/L, DF=1000

01-Mar-2004 14:53:29

LC/MS/MS #6

021804AR-212 Sm (Mn, 2x3)

MRM of 5 Channels ES-
Cancel
2.60e3
Area



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-212
Text:

4: C6 Sulfonate PFHS

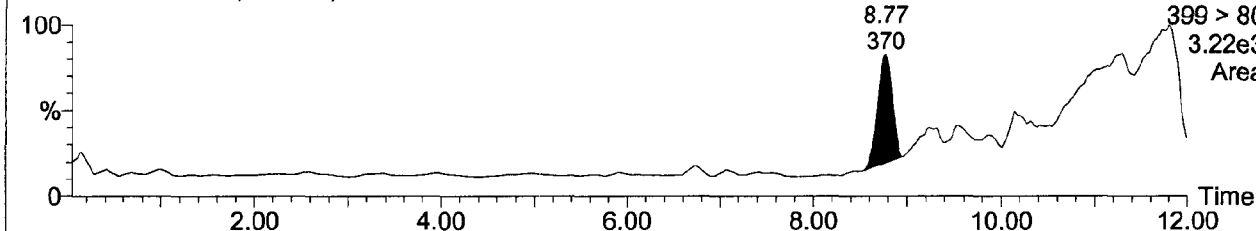
L1874-1 Spk C, 10000 ng/L, DF=1000

01-Mar-2004 14:53:29

LC/MS/MS #6

021804AR-212 Sm (Mn, 2x3)

MRM of 5 Channels ES-



5: C8 Sulfonate PFOS

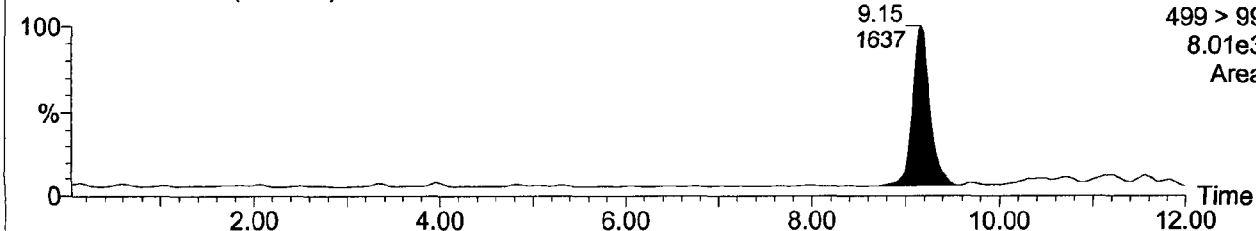
L1874-1 Spk C, 10000 ng/L, DF=1000

01-Mar-2004 14:53:29

LC/MS/MS #6

021804AR-212 Sm (Mn, 2x3)

MRM of 5 Channels ES-



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-213
Text:

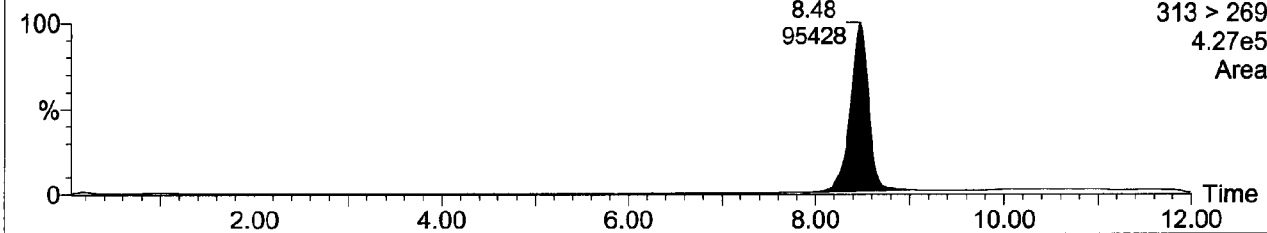
1: C6 Acid PFHA

L1874-1 Spk C, 10000 ng/L, DF=100

01-Mar-2004 15:15:10
LC/MS/MS #6

021804AR-213 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
4.27e5
Area



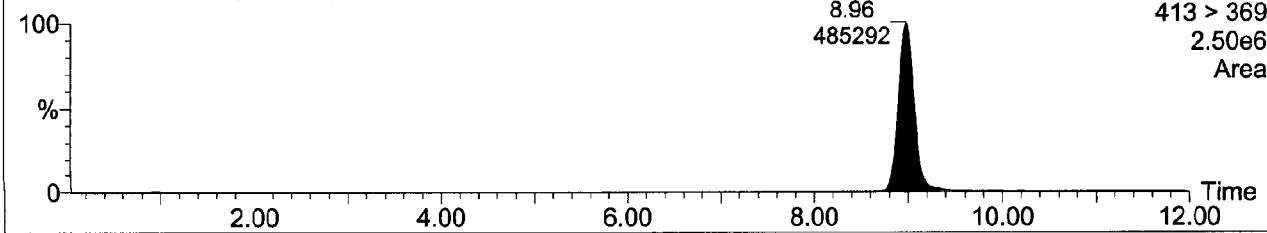
2: C8 Acid PFOA

L1874-1 Spk C, 10000 ng/L, DF=100

01-Mar-2004 15:15:10
LC/MS/MS #6

021804AR-213 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
2.50e6
Area



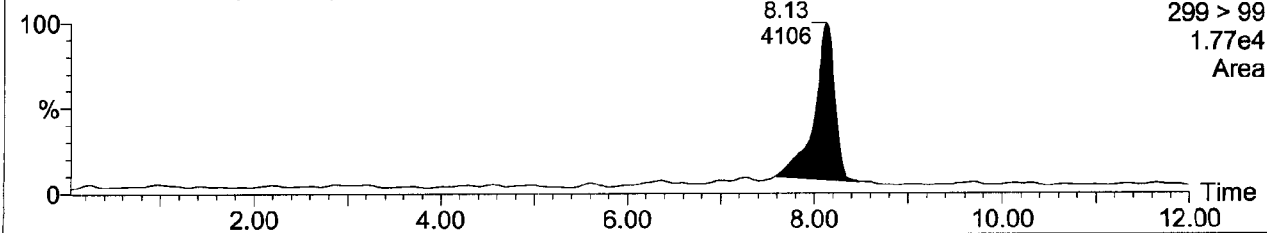
3: C4 Sulfonate PFBS

L1874-1 Spk C, 10000 ng/L, DF=100

01-Mar-2004 15:15:10
LC/MS/MS #6

021804AR-213 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
1.77e4
Area



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-213
Text:

4: C6 Sulfonate PFHS

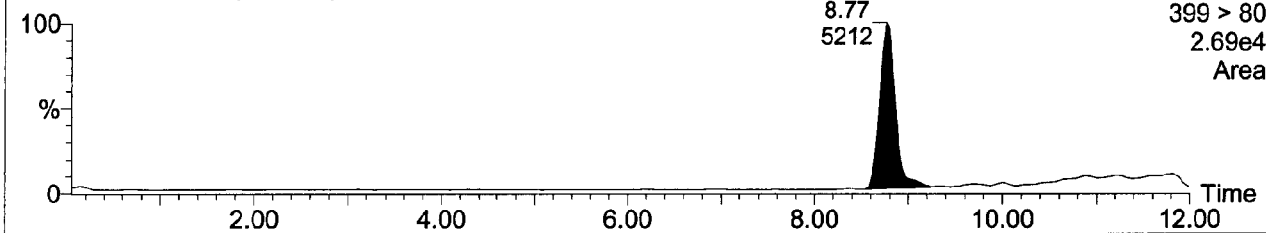
L1874-1 Spk C, 10000 ng/L, DF=100

01-Mar-2004 15:15:10

LC/MS/MS #6

021804AR-213 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.69e4
Area



5: C8 Sulfonate PFOS

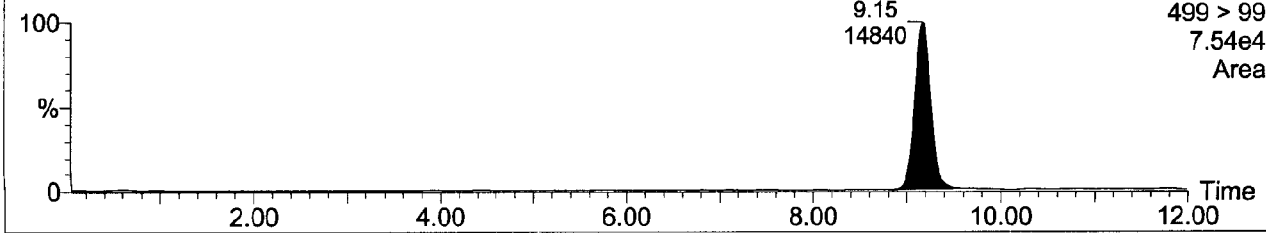
L1874-1 Spk C, 10000 ng/L, DF=100

01-Mar-2004 15:15:10

LC/MS/MS #6

021804AR-213 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
7.54e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-214
Text:

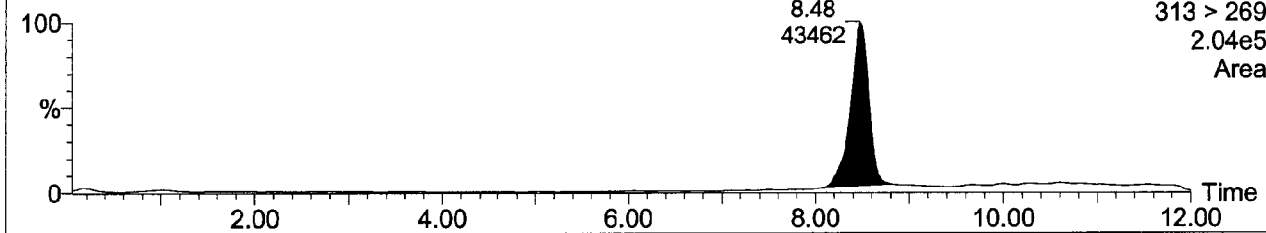
1: C6 Acid PFHA

L1874-5 Spk D, 10000 ng/L, DF=100

01-Mar-2004 15:36:48
LC/MS/MS #6

021804AR-214 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
2.04e5
Area



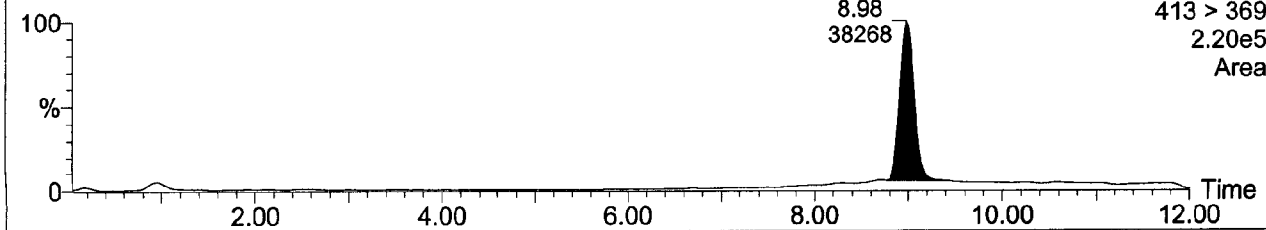
2: C8 Acid PFOA

L1874-5 Spk D, 10000 ng/L, DF=100

01-Mar-2004 15:36:48
LC/MS/MS #6

021804AR-214 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
2.20e5
Area



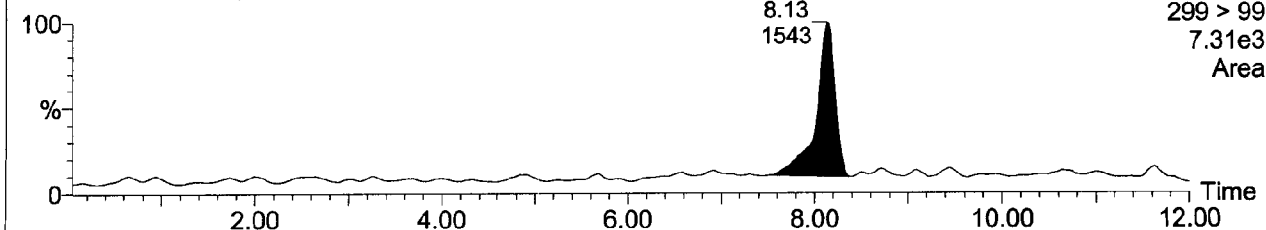
3: C4 Sulfonate PFBS

L1874-5 Spk D, 10000 ng/L, DF=100

01-Mar-2004 15:36:48
LC/MS/MS #6

021804AR-214 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
7.31e3
Area



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-214
Text:

4: C6 Sulfonate PFHS

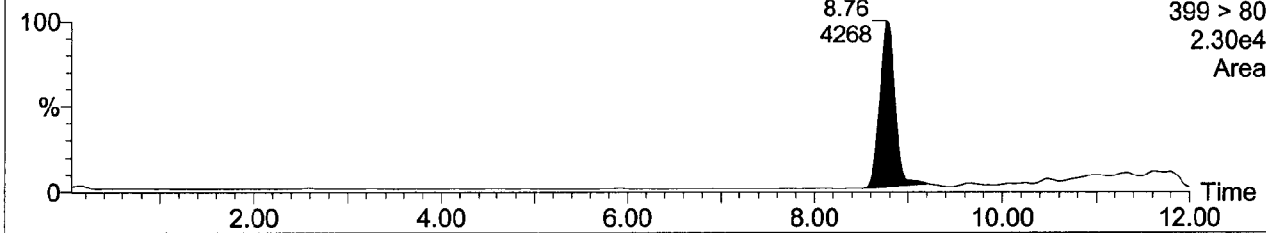
L1874-5 Spk D, 10000 ng/L, DF=100

01-Mar-2004 15:36:48

LC/MS/MS #6

021804AR-214 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.30e4
Area



5: C8 Sulfonate PFOS

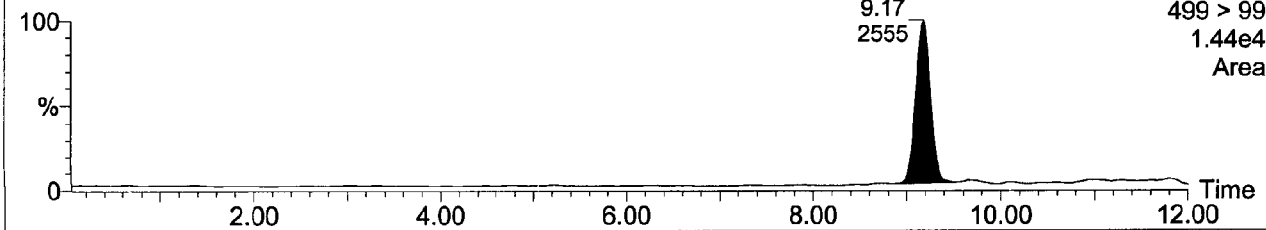
L1874-5 Spk D, 10000 ng/L, DF=100

01-Mar-2004 15:36:48

LC/MS/MS #6

021804AR-214 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.44e4
Area



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-215
Text:

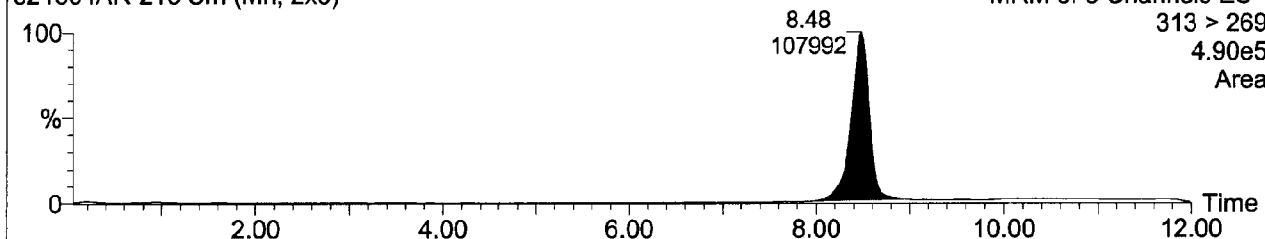
1: C6 Acid PFHA

L1874-9 Spk E, 10000 ng/L, DF=100

01-Mar-2004 15:58:33
LC/MS/MS #6

021804AR-215 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
4.90e5
Area



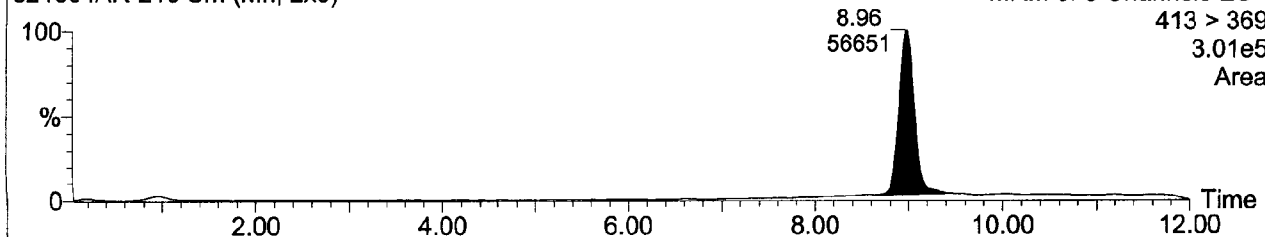
2: C8 Acid PFOA

L1874-9 Spk E, 10000 ng/L, DF=100

01-Mar-2004 15:58:33
LC/MS/MS #6

021804AR-215 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
3.01e5
Area



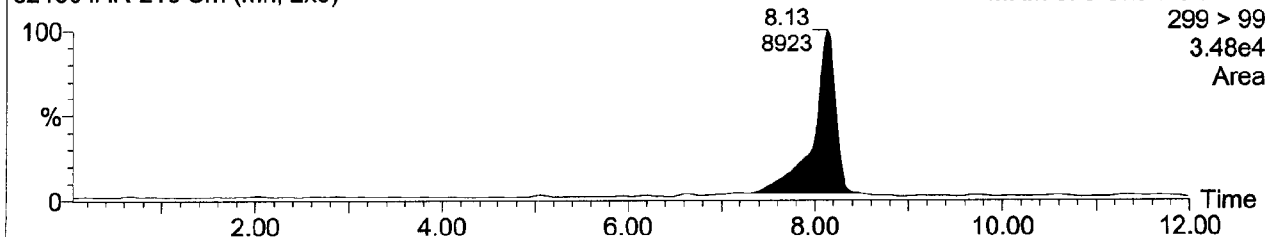
3: C4 Sulfonate PFBS

L1874-9 Spk E, 10000 ng/L, DF=100

01-Mar-2004 15:58:33
LC/MS/MS #6

021804AR-215 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
3.48e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-215
Text:

4: C6 Sulfonate PFHS

L1874-9 Spk E, 10000 ng/L, DF=100

01-Mar-2004 15:58:33

LC/MS/MS #6

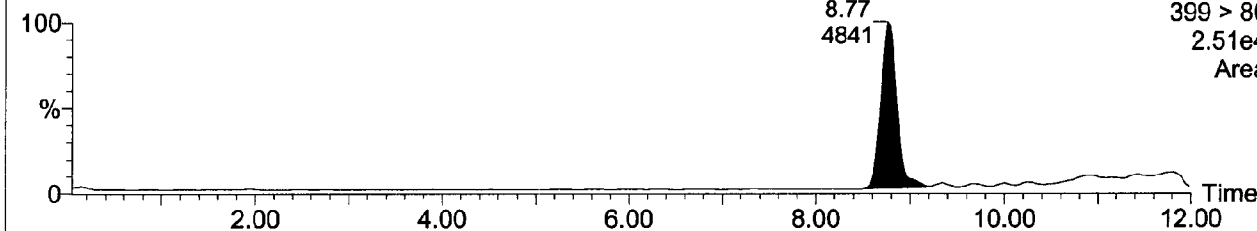
021804AR-215 Sm (Mn, 2x3)

MRM of 5 Channels ES-

399 > 80

2.51e4

Area



5: C8 Sulfonate PFOS

L1874-9 Spk E, 10000 ng/L, DF=100

01-Mar-2004 15:58:33

LC/MS/MS #6

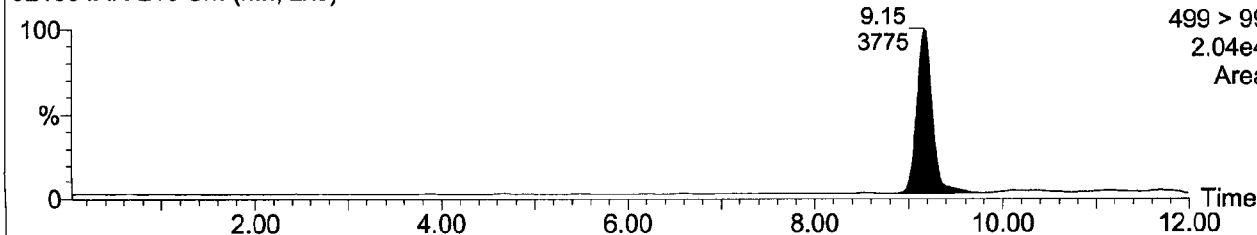
021804AR-215 Sm (Mn, 2x3)

MRM of 5 Channels ES-

499 > 99

2.04e4

Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-216
Text:

1: C6 Acid PFHA

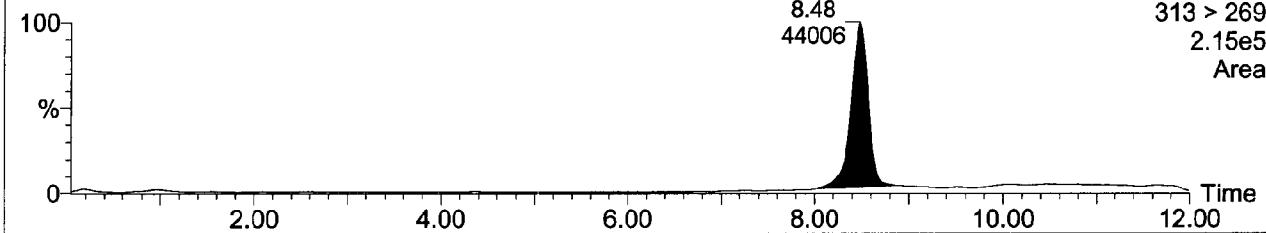
L1874-13 Spk F, 10000 ng/L, DF=100

01-Mar-2004 16:20:19

LC/MS/MS #6

021804AR-216 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
2.15e5
Area



2: C8 Acid PFOA

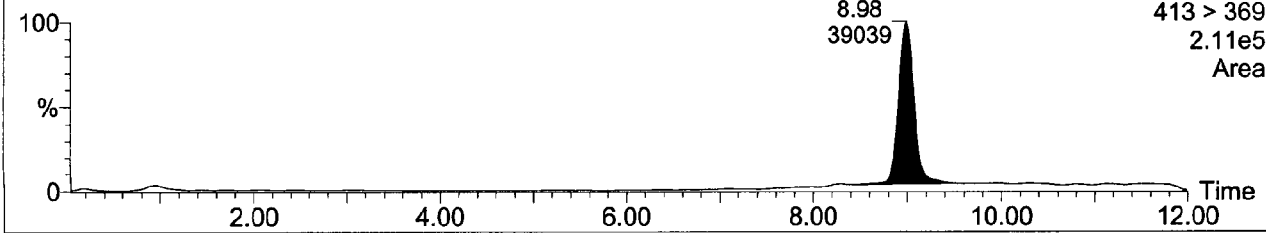
L1874-13 Spk F, 10000 ng/L, DF=100

01-Mar-2004 16:20:19

LC/MS/MS #6

021804AR-216 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
2.11e5
Area



3: C4 Sulfonate PFBS

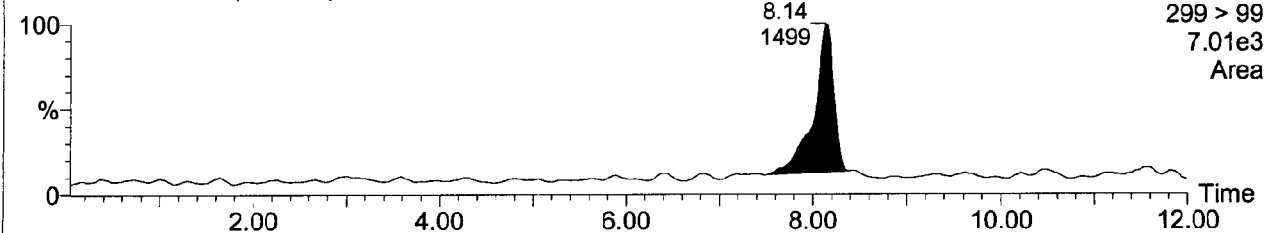
L1874-13 Spk F, 10000 ng/L, DF=100

01-Mar-2004 16:20:19

LC/MS/MS #6

021804AR-216 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
7.01e3
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-216
Text:

4: C6 Sulfonate PFHS

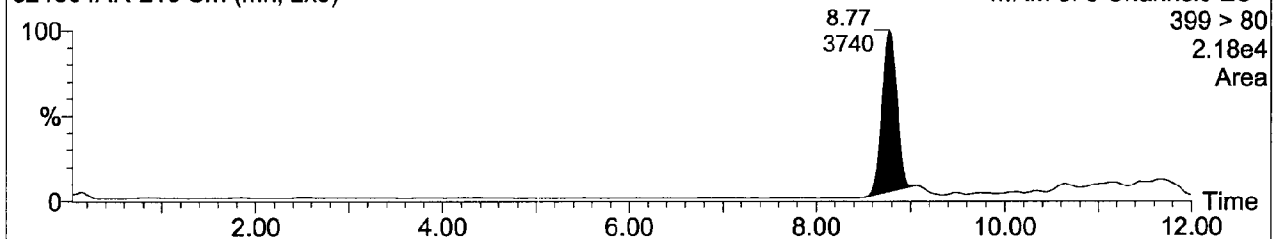
L1874-13 Spk F, 10000 ng/L, DF=100

01-Mar-2004 16:20:19

LC/MS/MS #6

021804AR-216 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.18e4
Area



5: C8 Sulfonate PFOS

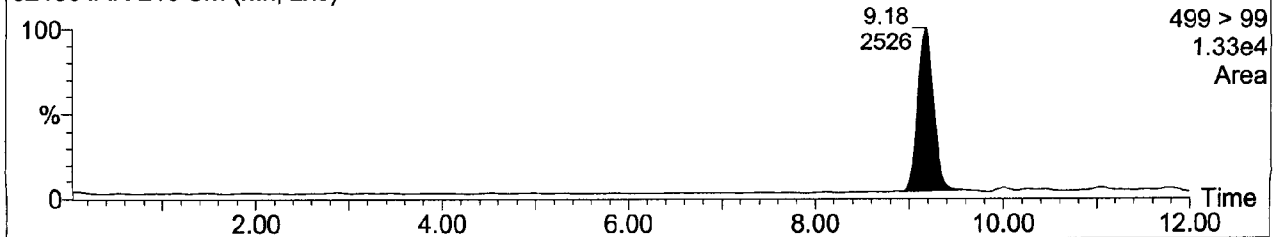
L1874-13 Spk F, 10000 ng/L, DF=100

01-Mar-2004 16:20:19

LC/MS/MS #6

021804AR-216 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.33e4
Area



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-217
Text:

1: C6 Acid PFHA

L1874-17 Spk G, 10000 ng/L, DF=100

01-Mar-2004 16:42:13

LC/MS/MS #6

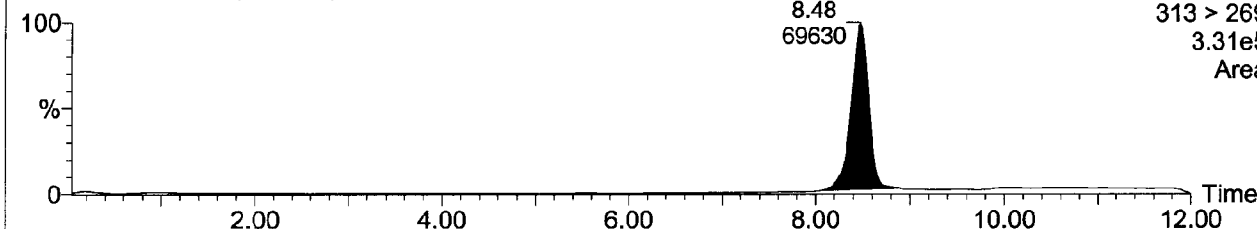
021804AR-217 Sm (Mn, 2x3)

MRM of 5 Channels ES-

313 > 269

3.31e5

Area



2: C8 Acid PFOA

L1874-17 Spk G, 10000 ng/L, DF=100

01-Mar-2004 16:42:13

LC/MS/MS #6

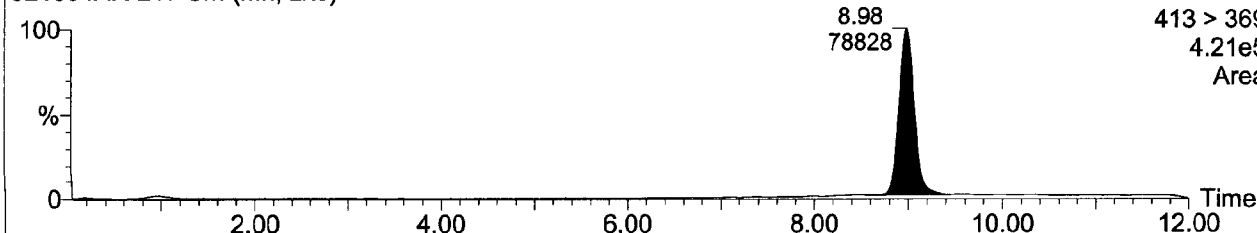
021804AR-217 Sm (Mn, 2x3)

MRM of 5 Channels ES-

413 > 369

4.21e5

Area



3: C4 Sulfonate PFBS

L1874-17 Spk G, 10000 ng/L, DF=100

01-Mar-2004 16:42:13

LC/MS/MS #6

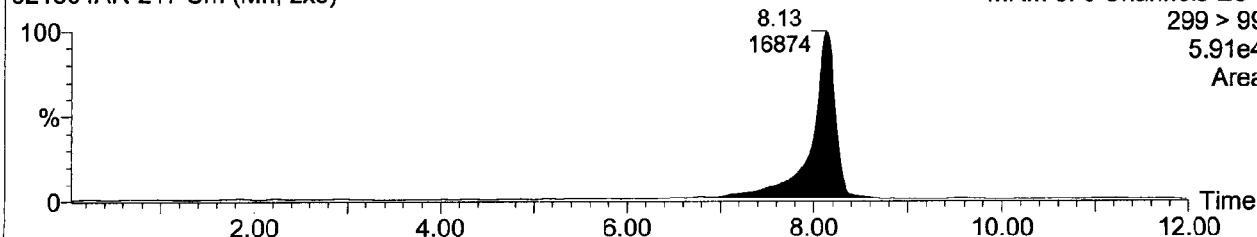
021804AR-217 Sm (Mn, 2x3)

MRM of 5 Channels ES-

299 > 99

5.91e4

Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-217
Text:

4: C6 Sulfonate PFHS

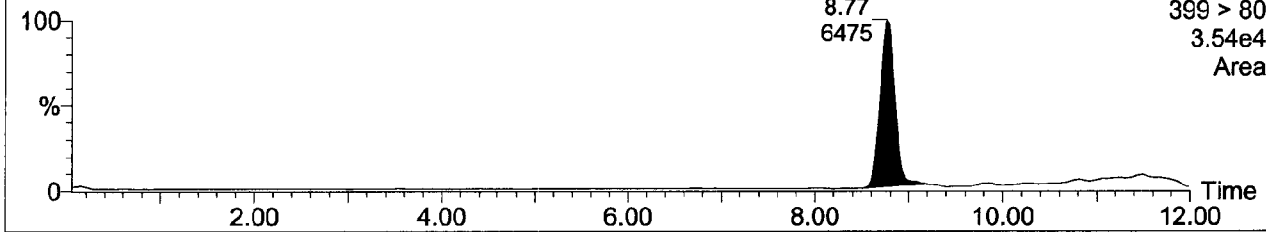
L1874-17 Spk G, 10000 ng/L, DF=100

01-Mar-2004 16:42:13

LC/MS/MS #6

021804AR-217 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
3.54e4
Area



5: C8 Sulfonate PFOS

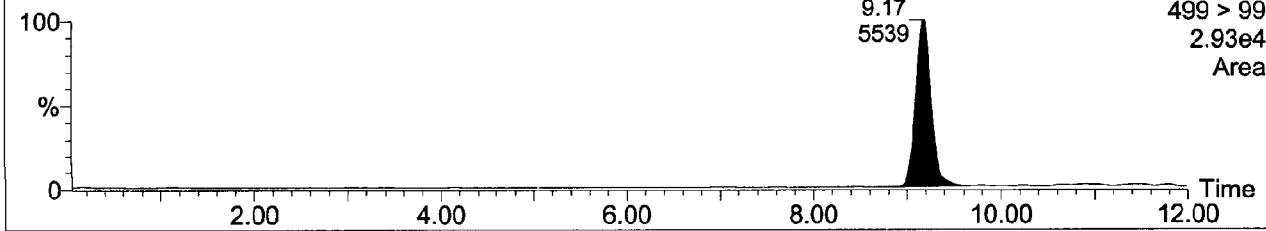
L1874-17 Spk G, 10000 ng/L, DF=100

01-Mar-2004 16:42:13

LC/MS/MS #6

021804AR-217 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
2.93e4
Area



Exygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-218
Text:

1: C6 Acid PFHA

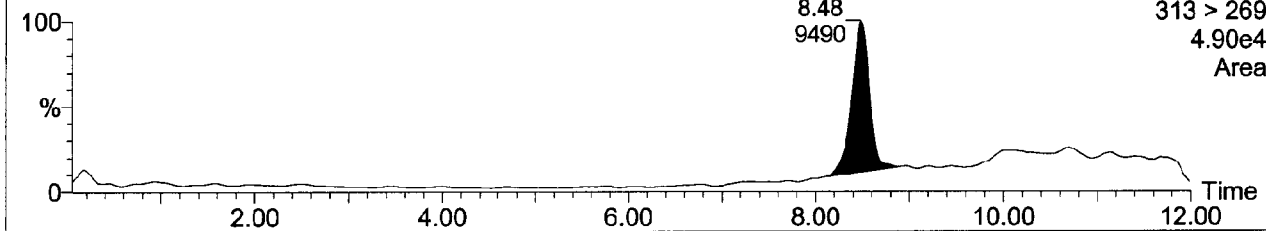
XC022404-1, 25 ng/L Standard

01-Mar-2004 17:03:59

LC/MS/MS #6

021804AR-218 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
4.90e4
Area



2: C8 Acid PFOA

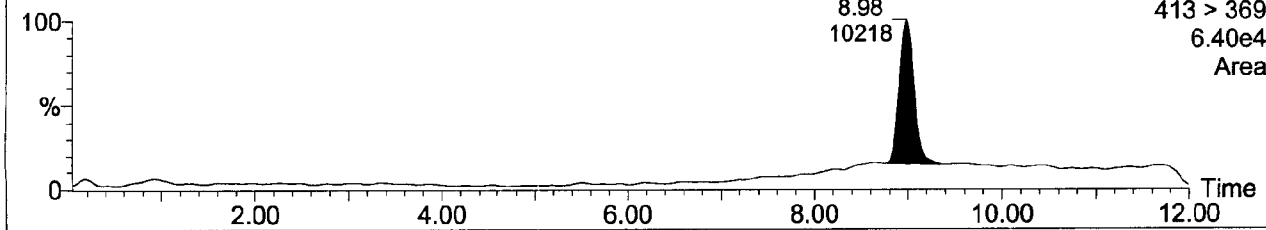
XC022404-1, 25 ng/L Standard

01-Mar-2004 17:03:59

LC/MS/MS #6

021804AR-218 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
6.40e4
Area



3: C4 Sulfonate PFBS

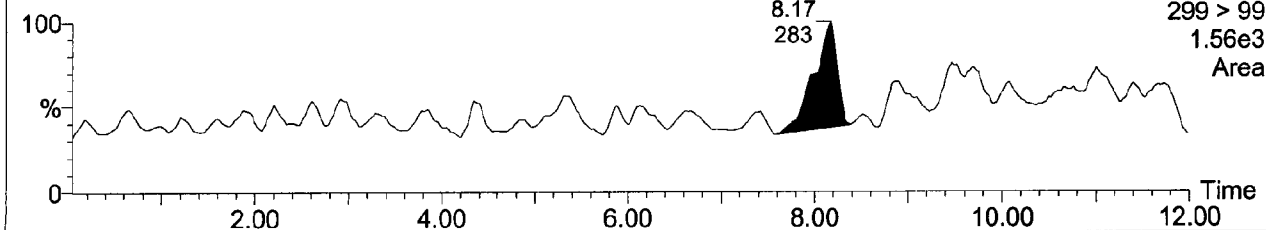
XC022404-1, 25 ng/L Standard

01-Mar-2004 17:03:59

LC/MS/MS #6

021804AR-218 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
1.56e3
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-218
Text:

4: C6 Sulfonate PFHS

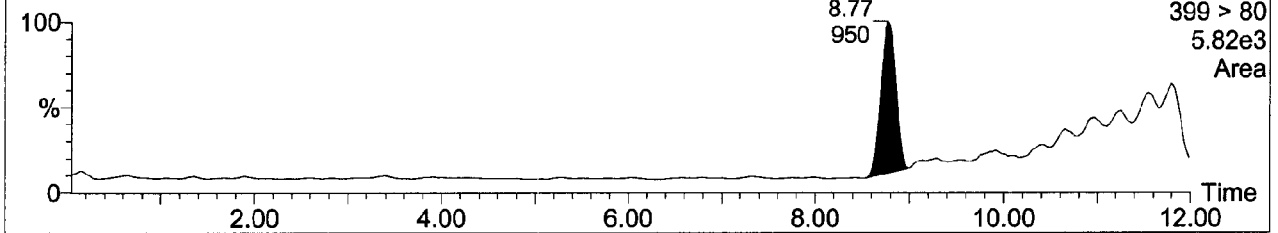
XC022404-1, 25 ng/L Standard

01-Mar-2004 17:03:59

LC/MS/MS #6

021804AR-218 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
5.82e3
Area



5: C8 Sulfonate PFOS

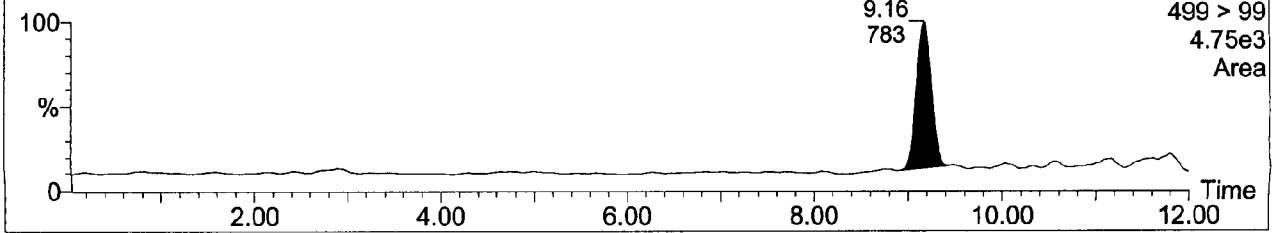
XC022404-1, 25 ng/L Standard

01-Mar-2004 17:03:59

LC/MS/MS #6

021804AR-218 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
4.75e3
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-219
Text:

1: C6 Acid PFHA

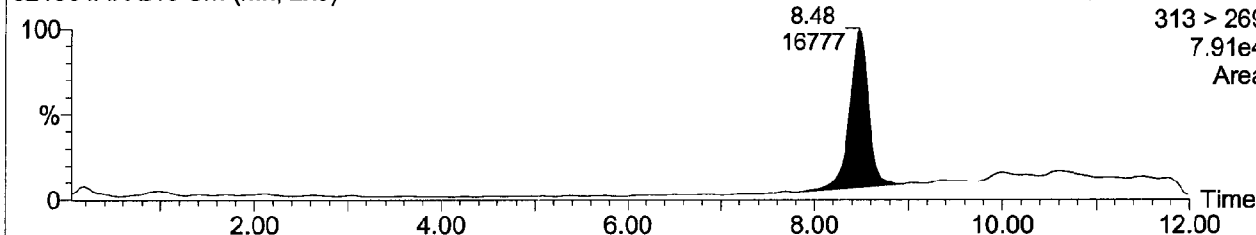
L1874-1, DF=1000

01-Mar-2004 17:25:38

LC/MS/MS #6

021804AR-219 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
7.91e4
Area



2: C8 Acid PFOA

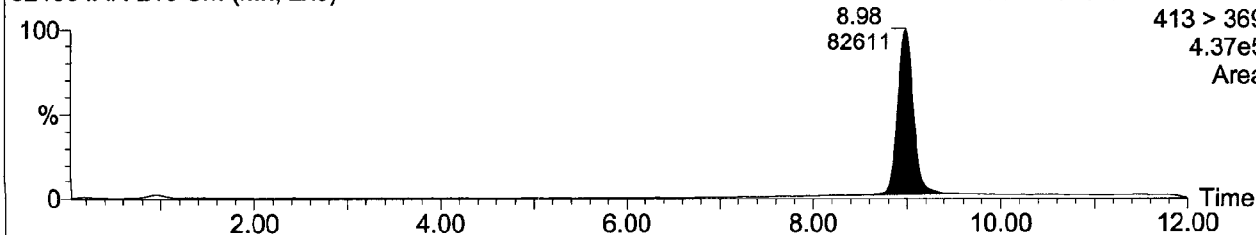
L1874-1, DF=1000

01-Mar-2004 17:25:38

LC/MS/MS #6

021804AR-219 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
4.37e5
Area



3: C4 Sulfonate PFBS

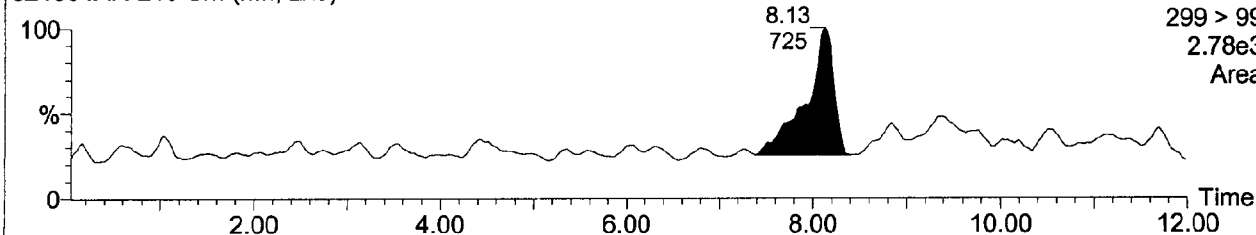
L1874-1, DF=1000

01-Mar-2004 17:25:38

LC/MS/MS #6

021804AR-219 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
2.78e3
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-219
Text:

4: C6 Sulfonate PFHS

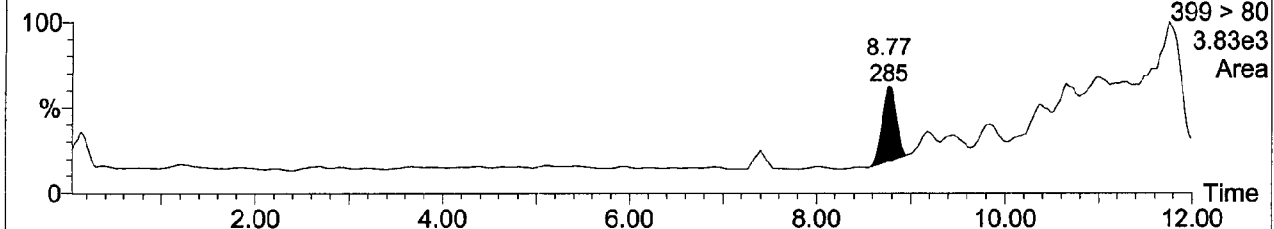
L1874-1, DF=1000

01-Mar-2004 17:25:38

LC/MS/MS #6

021804AR-219 Sm (Mn, 2x3)

MRM of 5 Channels ES-



5: C8 Sulfonate PFOS

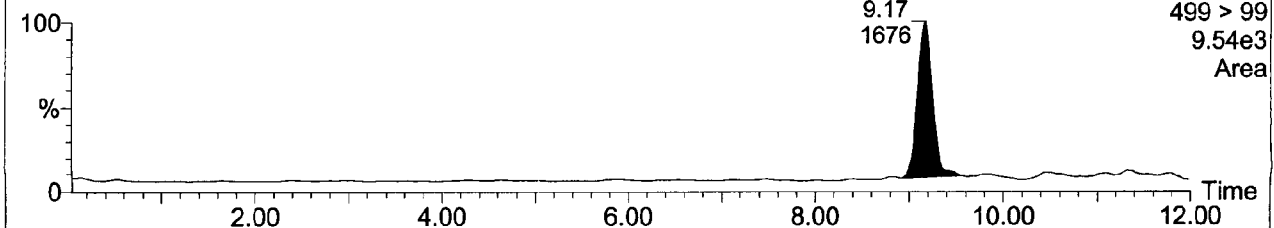
L1874-1, DF=1000

01-Mar-2004 17:25:38

LC/MS/MS #6

021804AR-219 Sm (Mn, 2x3)

MRM of 5 Channels ES-



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Quantify Sample Report

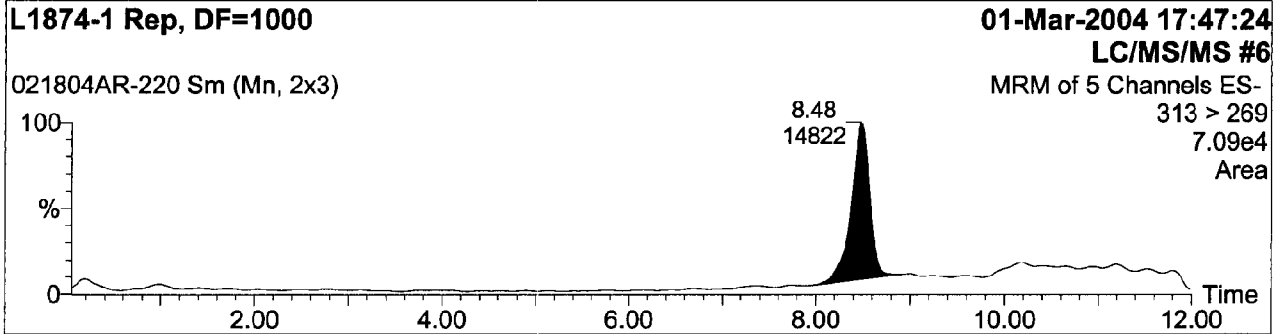
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

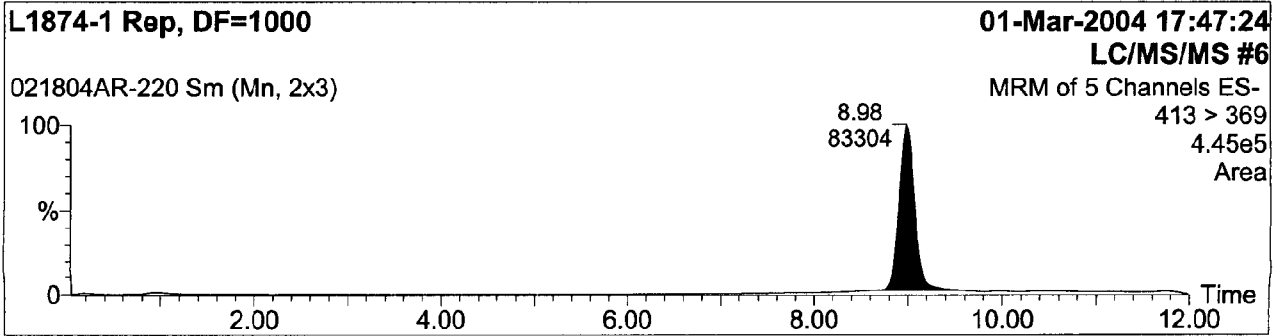
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-220
Text:

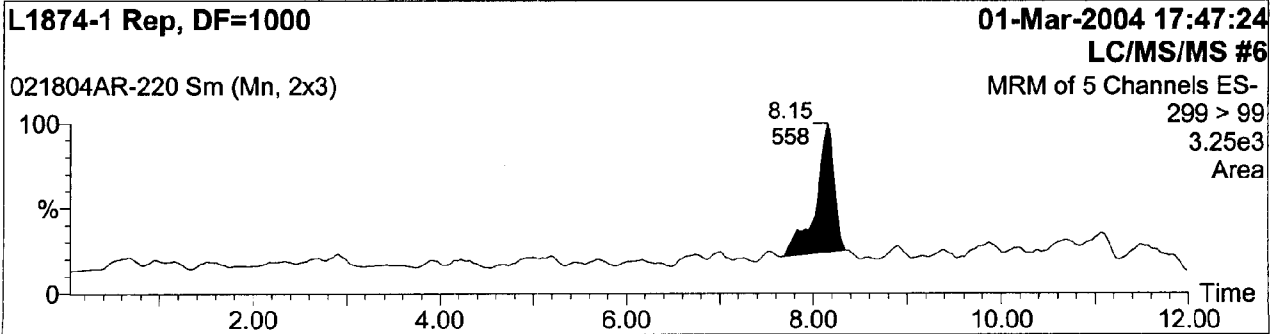
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

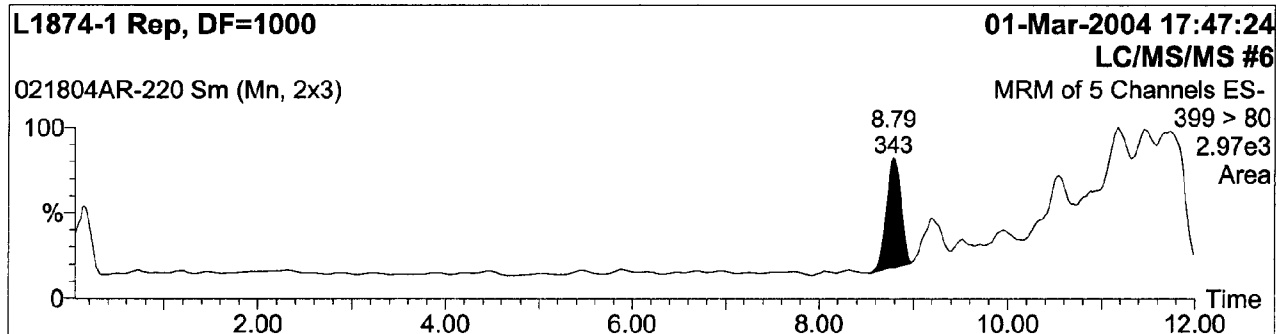
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

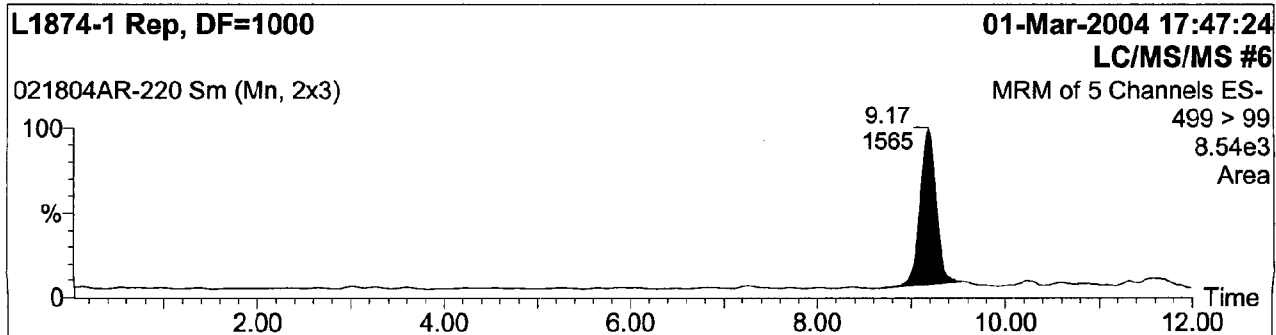
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-220
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-221
Text:

1: C6 Acid PFHA

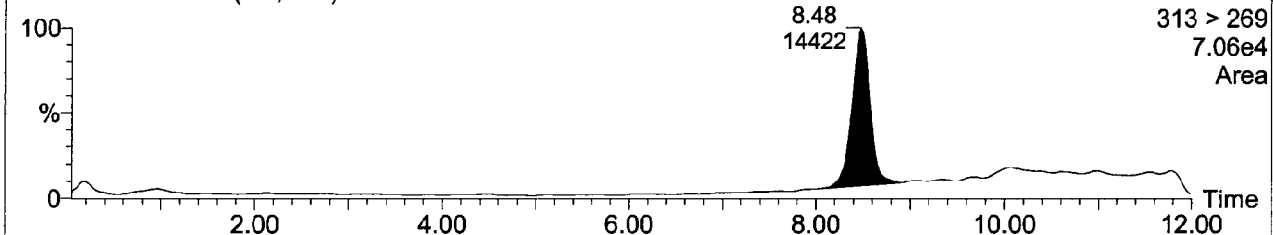
L1874-2, DF=1000

01-Mar-2004 18:09:04

LC/MS/MS #6

021804AR-221 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
7.06e4
Area



2: C8 Acid PFOA

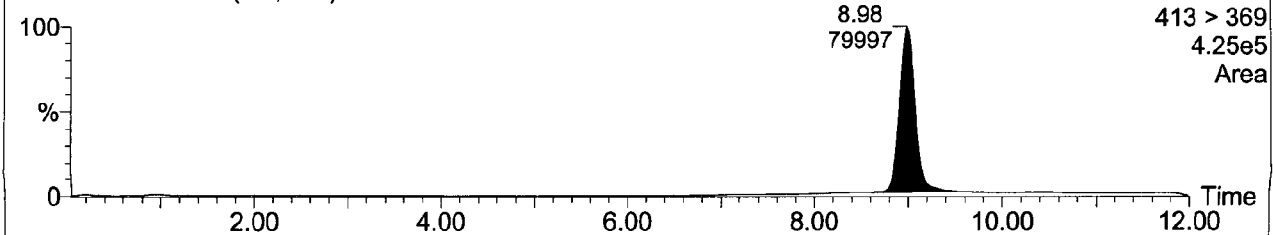
L1874-2, DF=1000

01-Mar-2004 18:09:04

LC/MS/MS #6

021804AR-221 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
4.25e5
Area



3: C4 Sulfonate PFBS

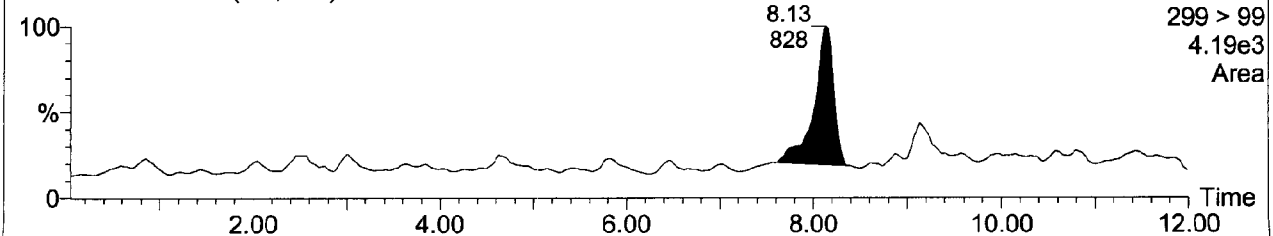
L1874-2, DF=1000

01-Mar-2004 18:09:04

LC/MS/MS #6

021804AR-221 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
4.19e3
Area



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Quantify Sample Report

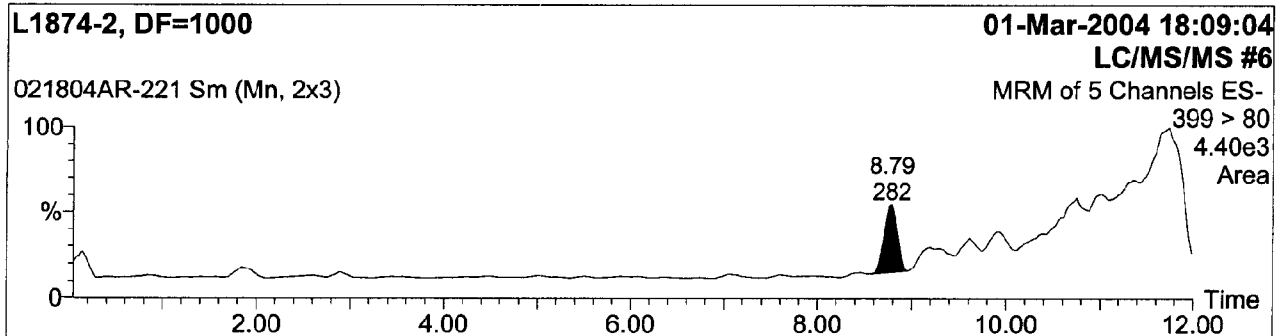
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

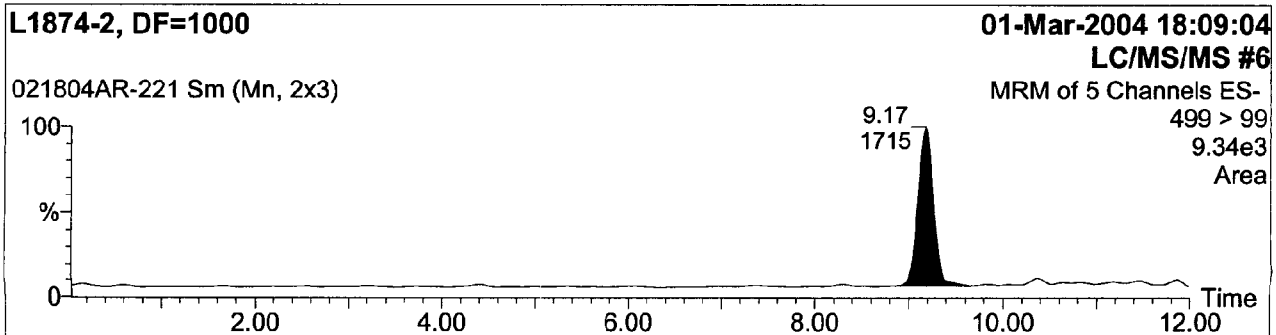
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-221
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-222
Text:

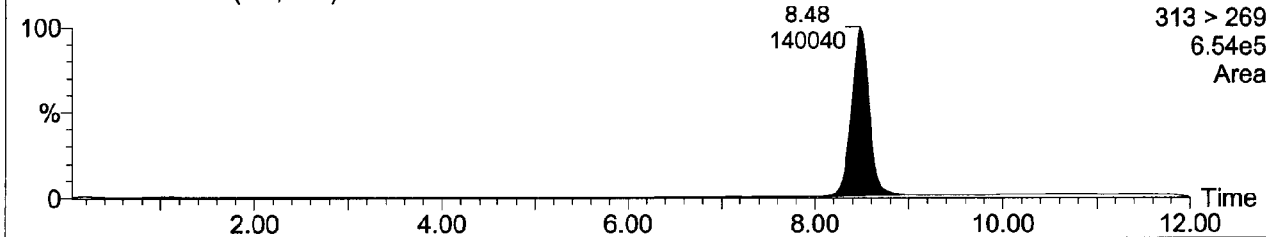
1: C6 Acid PFHA

L1874-1, DF=100

01-Mar-2004 18:30:41
LC/MS/MS #6

021804AR-222 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
6.54e5
Area



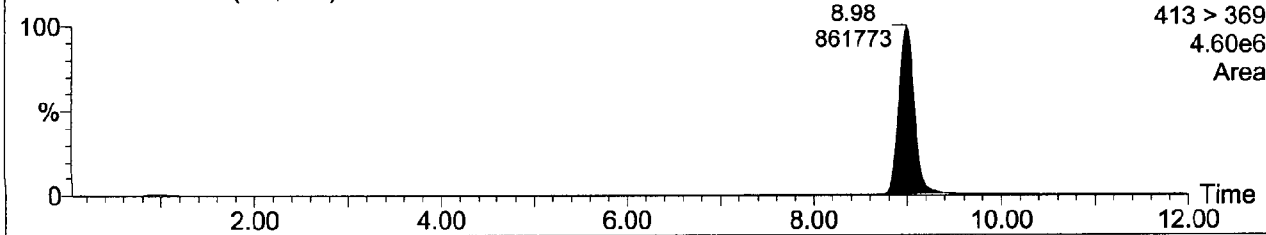
2: C8 Acid PFOA

L1874-1, DF=100

01-Mar-2004 18:30:41
LC/MS/MS #6

021804AR-222 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
4.60e6
Area



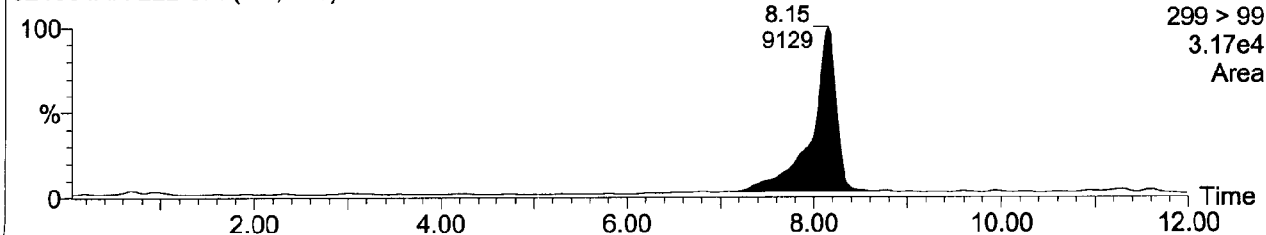
3: C4 Sulfonate PFBS

L1874-1, DF=100

01-Mar-2004 18:30:41
LC/MS/MS #6

021804AR-222 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
3.17e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-222
Text:

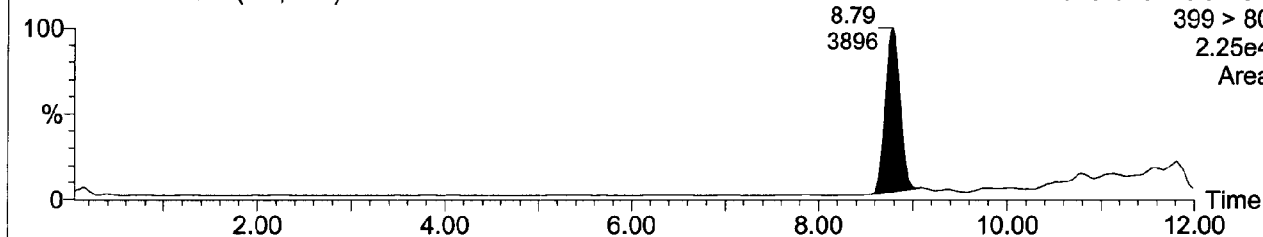
4: C6 Sulfonate PFHS

L1874-1, DF=100

01-Mar-2004 18:30:41
LC/MS/MS #6

021804AR-222 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.25e4
Area



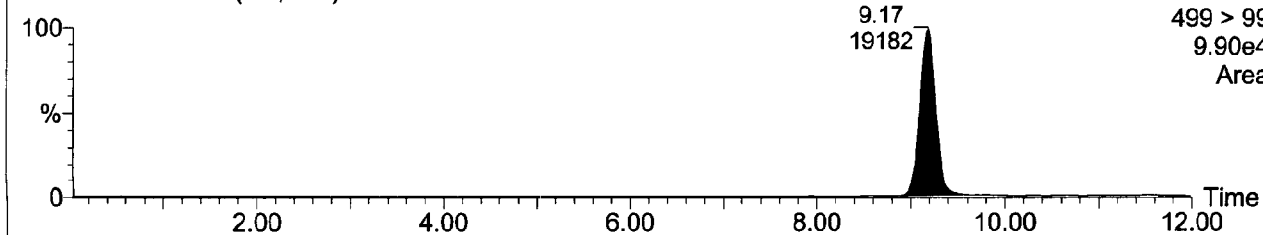
5: C8 Sulfonate PFOS

L1874-1, DF=100

01-Mar-2004 18:30:41
LC/MS/MS #6

021804AR-222 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
9.90e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-223
Text:

1: C6 Acid PFHA

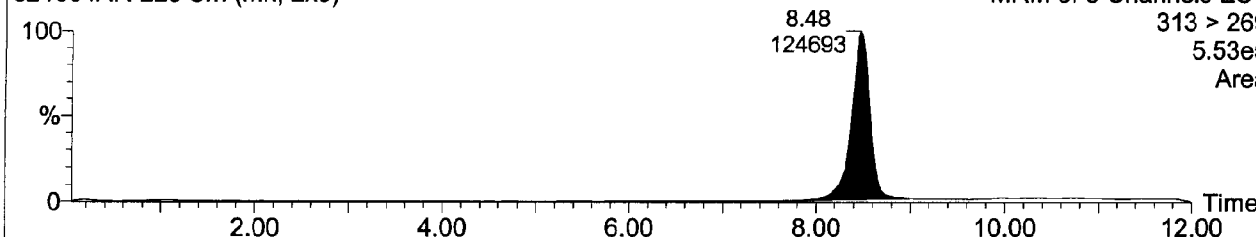
L1874-1 Rep, DF=100

01-Mar-2004 18:52:24

LC/MS/MS #6

021804AR-223 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
5.53e5
Area



2: C8 Acid PFOA

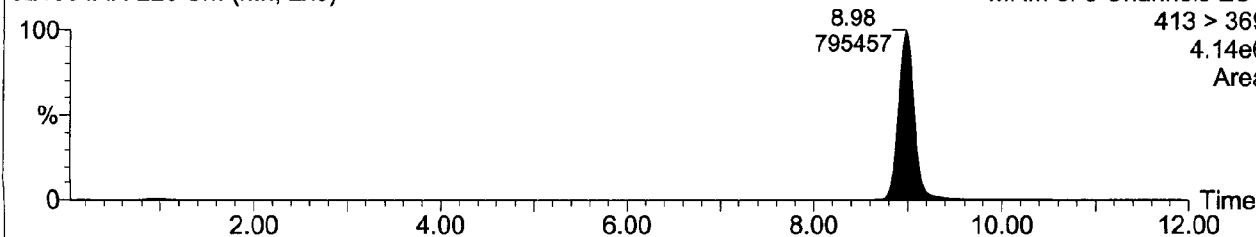
L1874-1 Rep, DF=100

01-Mar-2004 18:52:24

LC/MS/MS #6

021804AR-223 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
4.14e6
Area



3: C4 Sulfonate PFBS

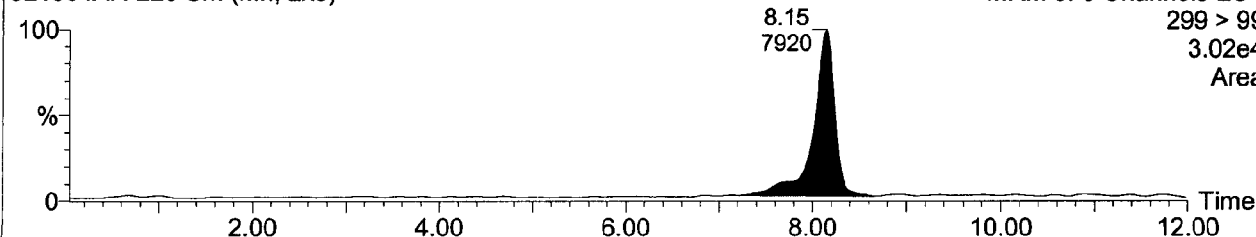
L1874-1 Rep, DF=100

01-Mar-2004 18:52:24

LC/MS/MS #6

021804AR-223 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
3.02e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-223
Text:

4: C6 Sulfonate PFHS

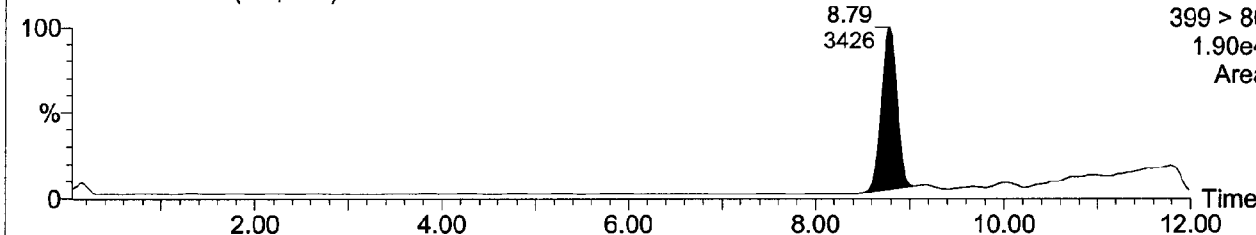
L1874-1 Rep, DF=100

01-Mar-2004 18:52:24

LC/MS/MS #6

021804AR-223 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
1.90e4
Area



5: C8 Sulfonate PFOS

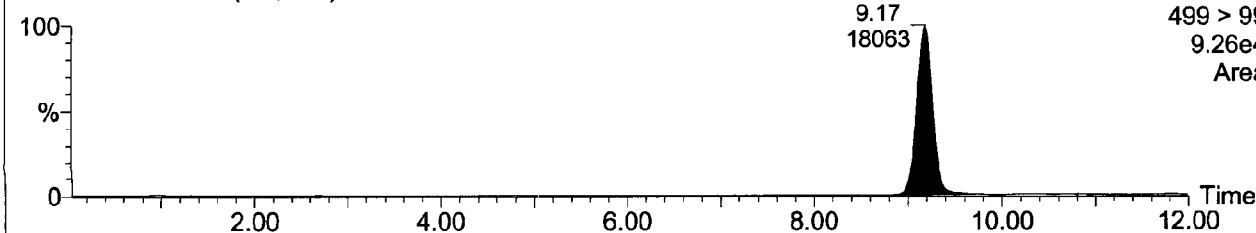
L1874-1 Rep, DF=100

01-Mar-2004 18:52:24

LC/MS/MS #6

021804AR-223 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
9.26e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

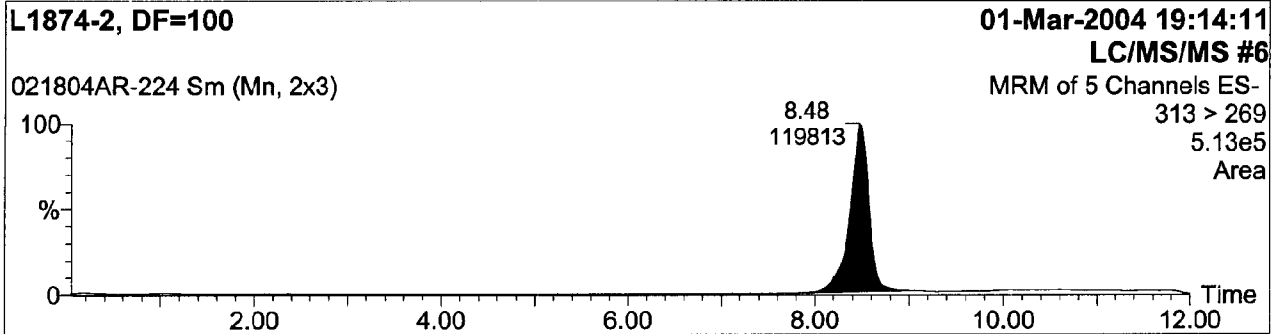
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

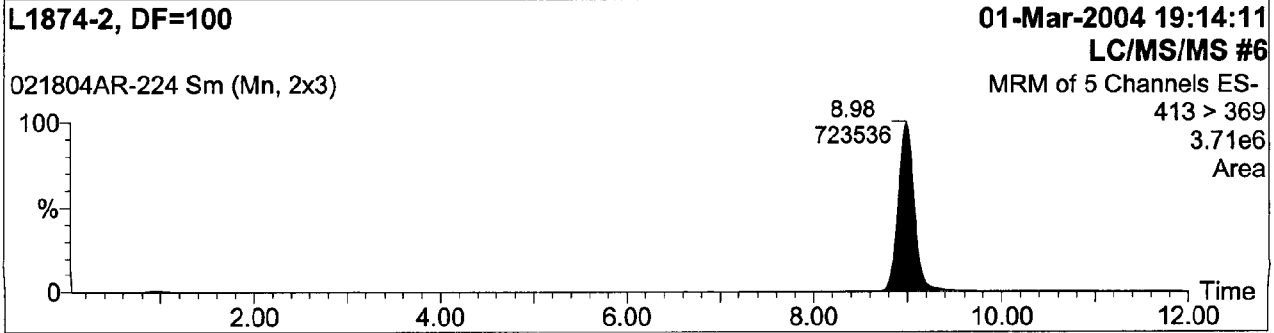
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-224
Text:

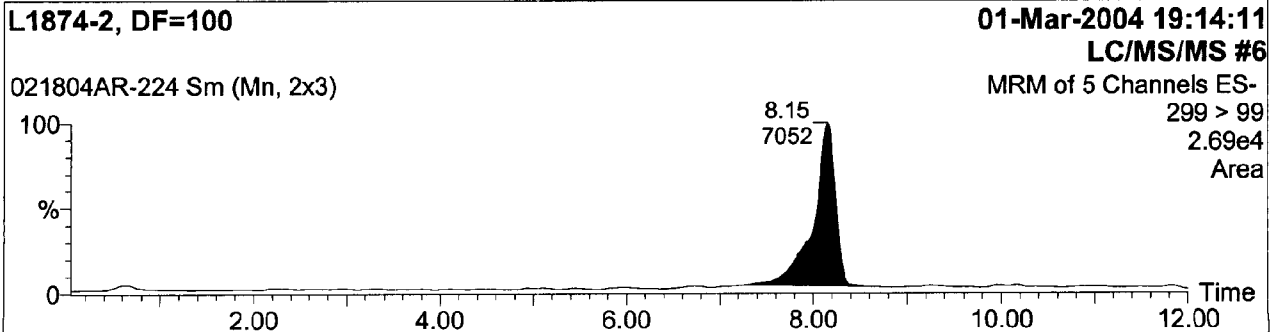
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-224
Text:

4: C6 Sulfonate PFHS

L1874-2, DF=100

01-Mar-2004 19:14:11

LC/MS/MS #6

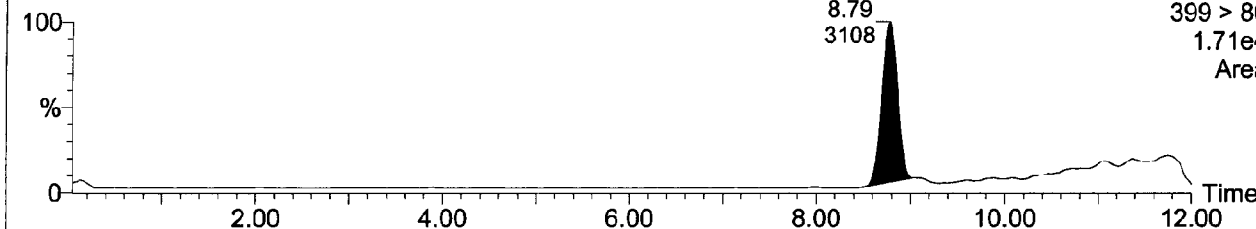
021804AR-224 Sm (Mn, 2x3)

MRM of 5 Channels ES-

399 > 80

1.71e4

Area



5: C8 Sulfonate PFOS

L1874-2, DF=100

01-Mar-2004 19:14:11

LC/MS/MS #6

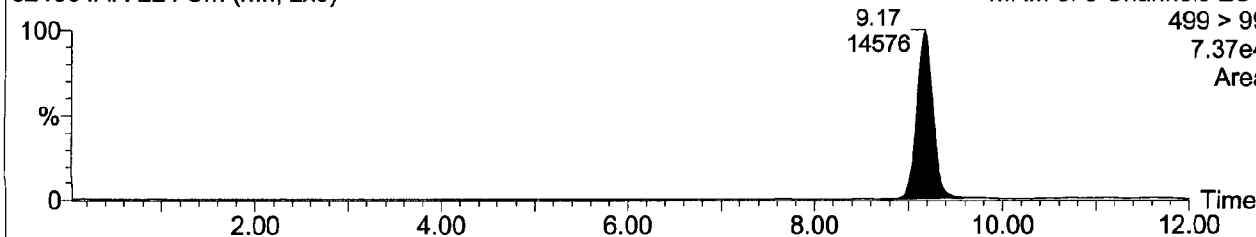
021804AR-224 Sm (Mn, 2x3)

MRM of 5 Channels ES-

499 > 99

7.37e4

Area



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Quantify Sample Report

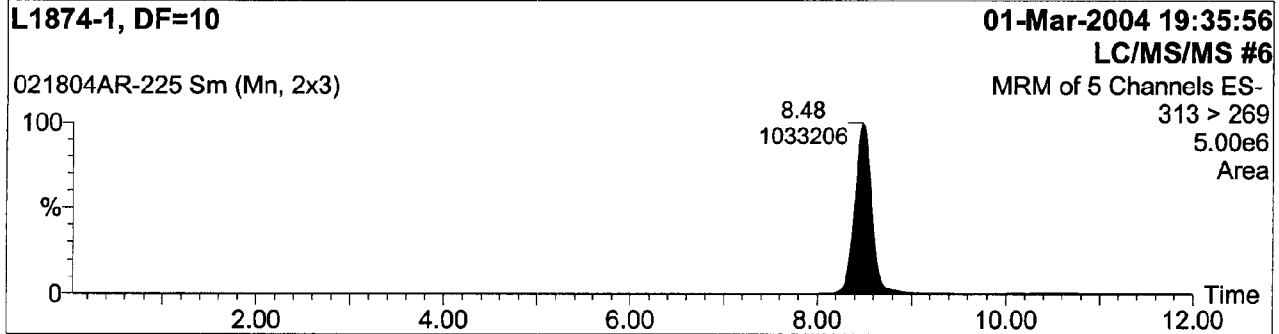
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

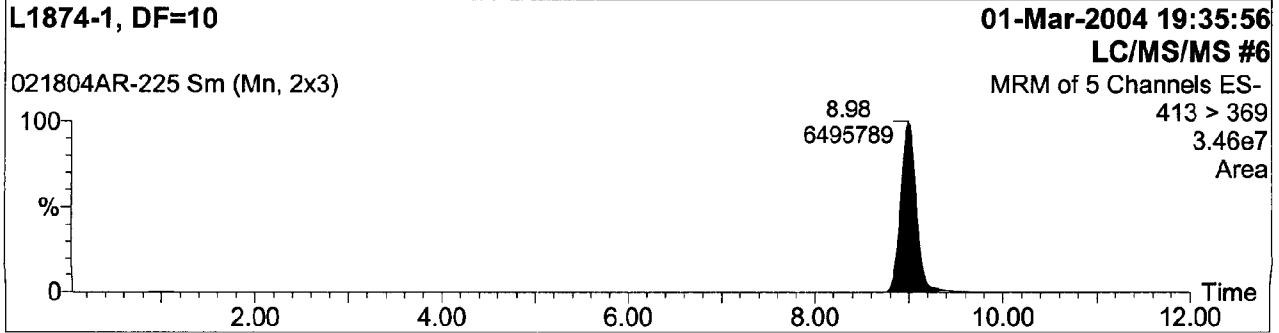
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-225
Text:

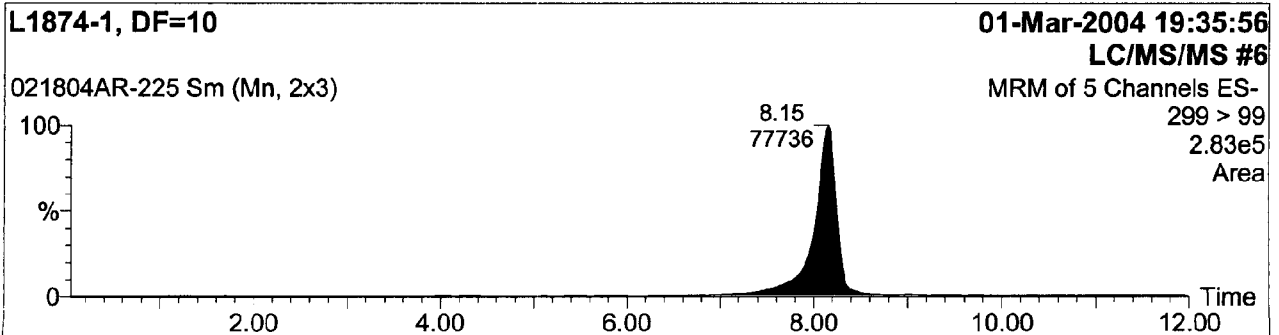
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

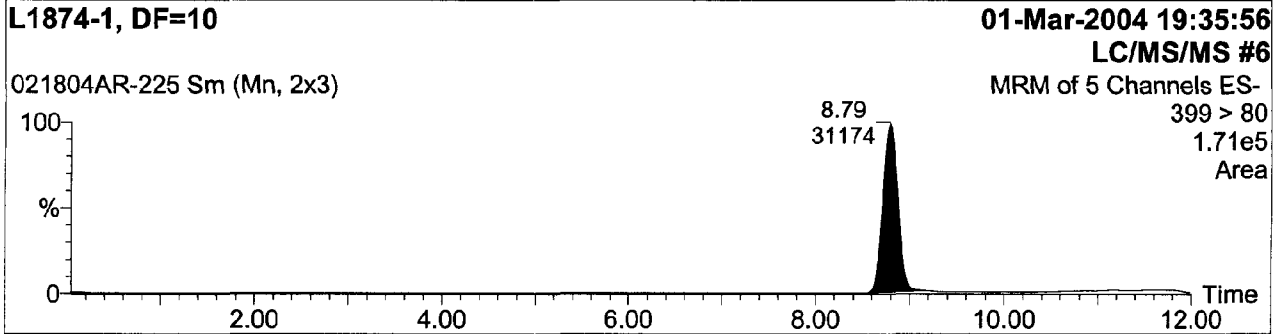
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

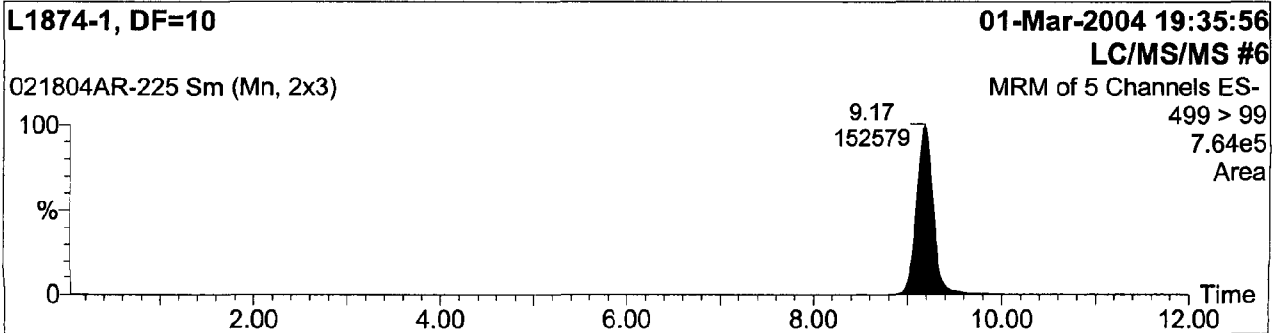
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-225
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-226
Text:

1: C6 Acid PFHA

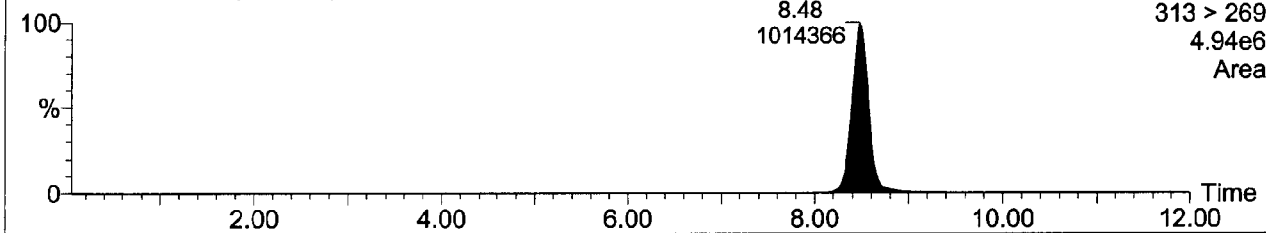
L1874-1 Rep, DF=10

01-Mar-2004 19:57:43

LC/MS/MS #6

021804AR-226 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
4.94e6
Area



2: C8 Acid PFOA

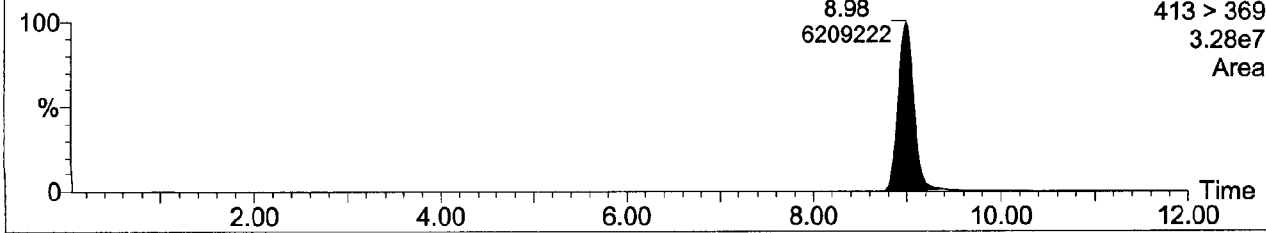
L1874-1 Rep, DF=10

01-Mar-2004 19:57:43

LC/MS/MS #6

021804AR-226 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
3.28e7
Area



3: C4 Sulfonate PFBS

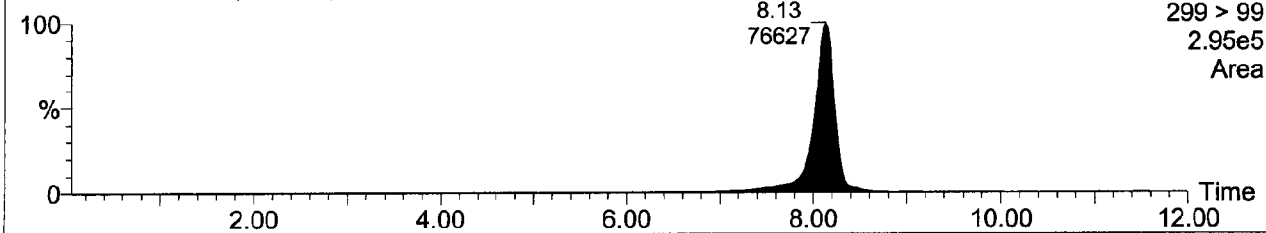
L1874-1 Rep, DF=10

01-Mar-2004 19:57:43

LC/MS/MS #6

021804AR-226 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
2.95e5
Area



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Quantify Sample Report

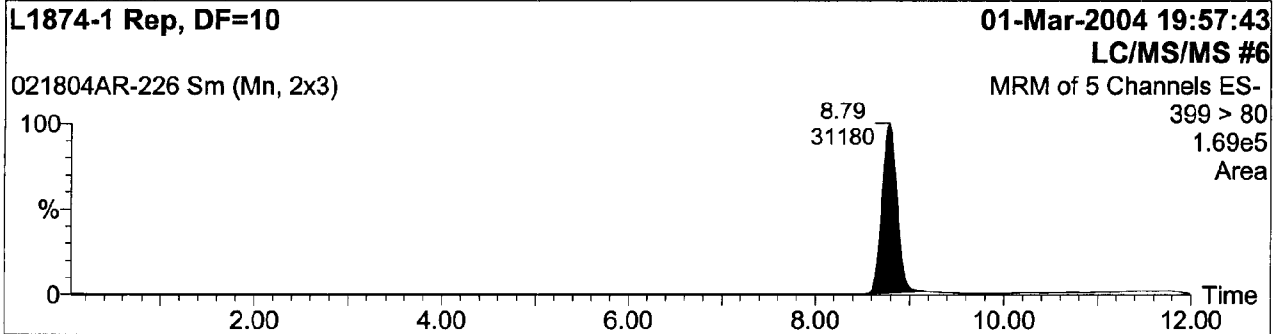
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

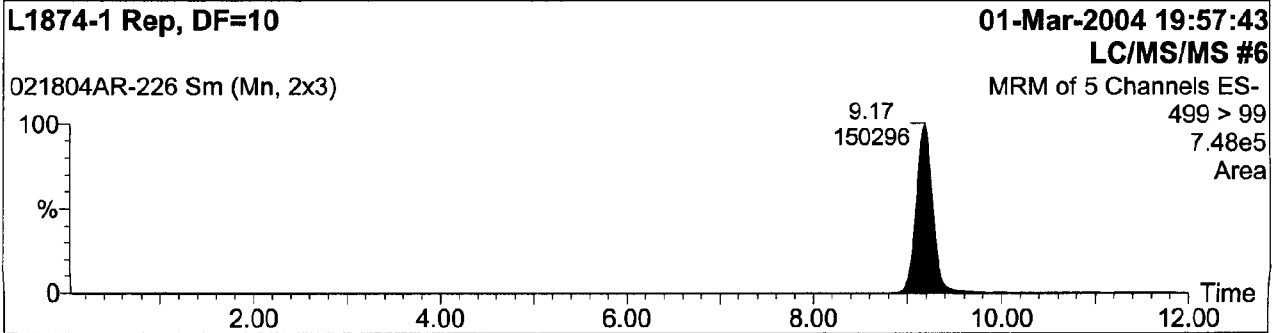
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-226
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

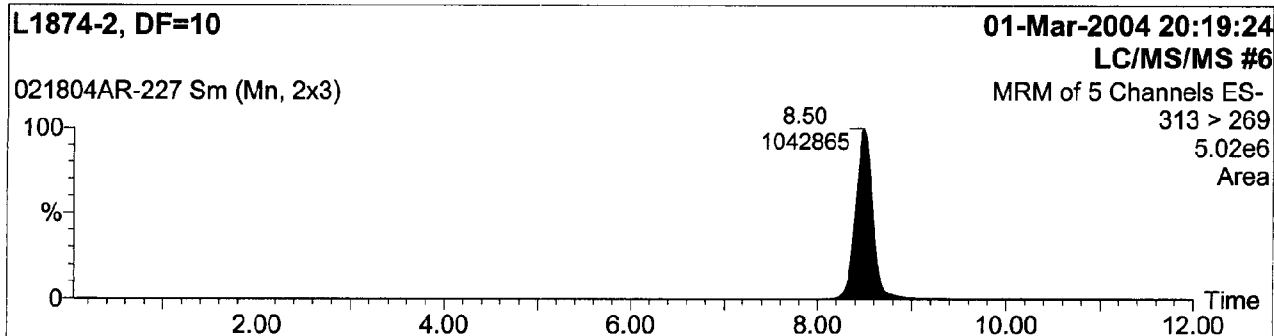
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

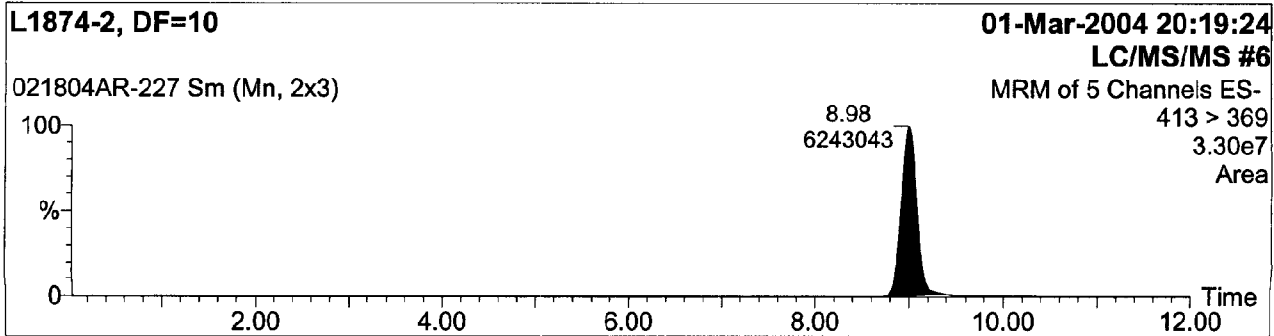
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-227
Text:

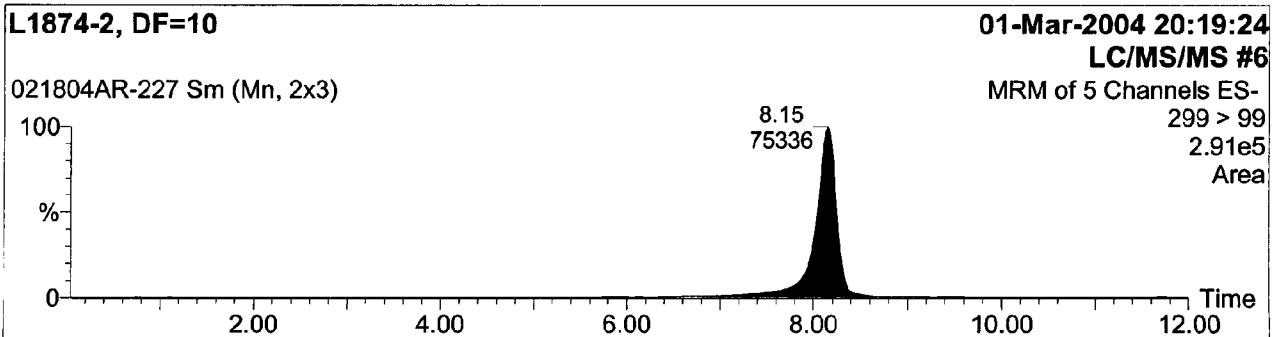
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

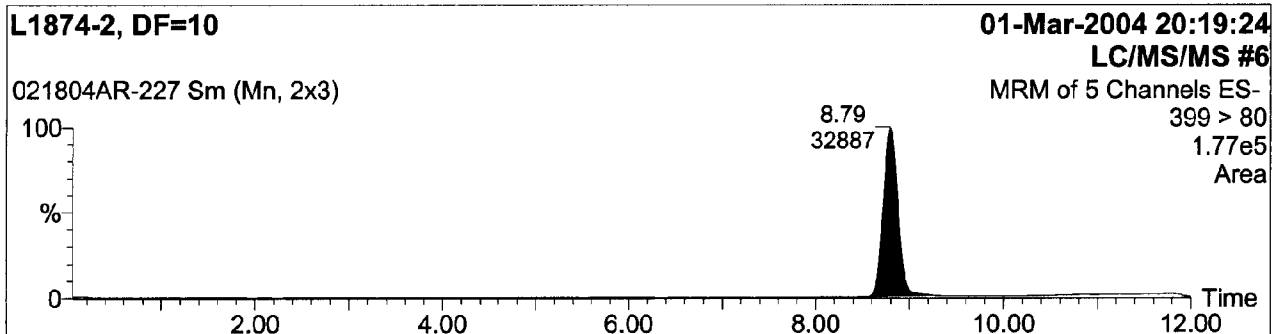
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

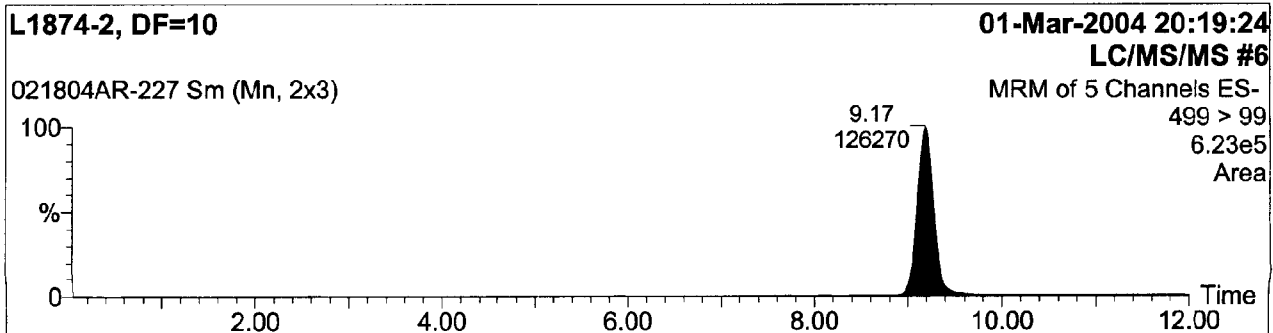
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-227
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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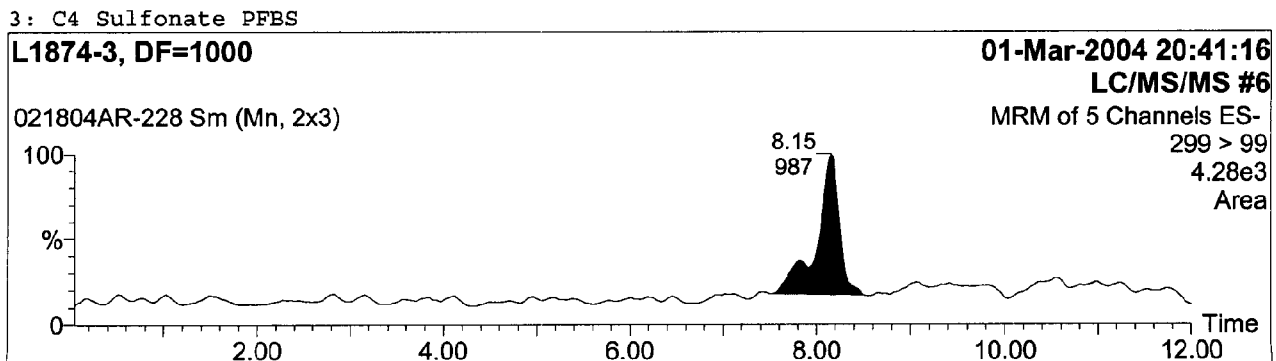
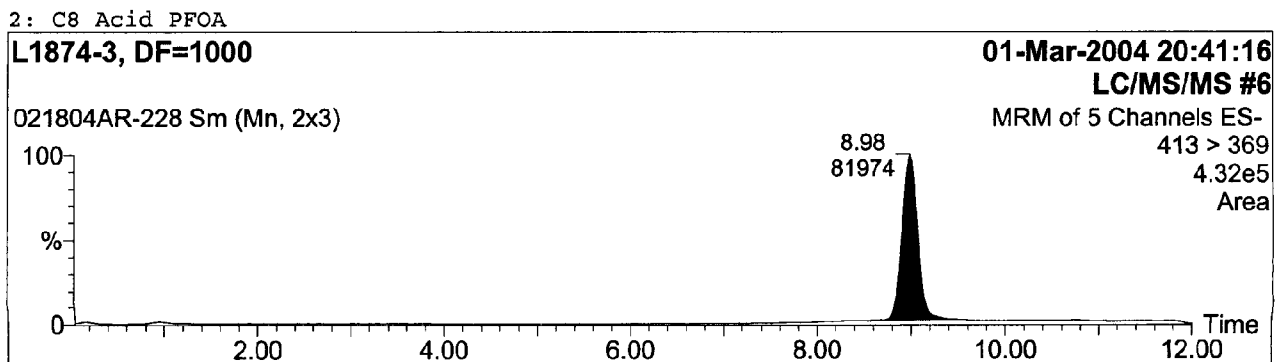
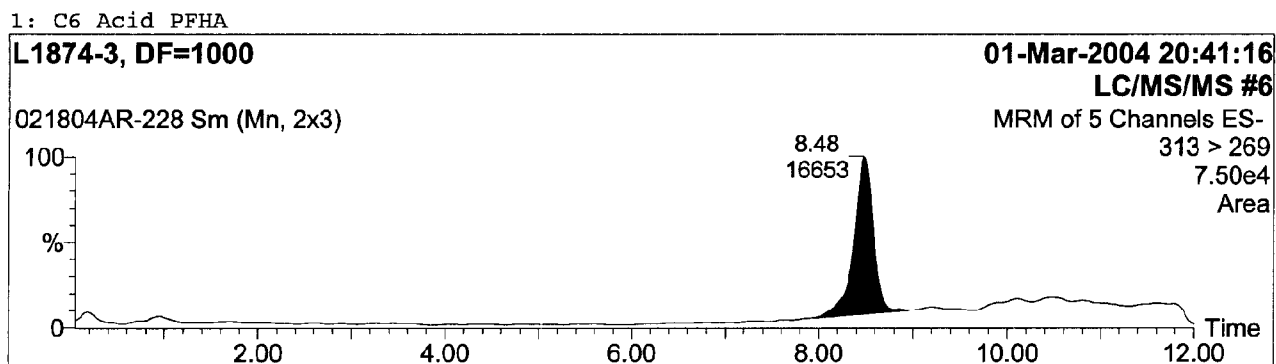
Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-228
Text:



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Quantify Sample Report

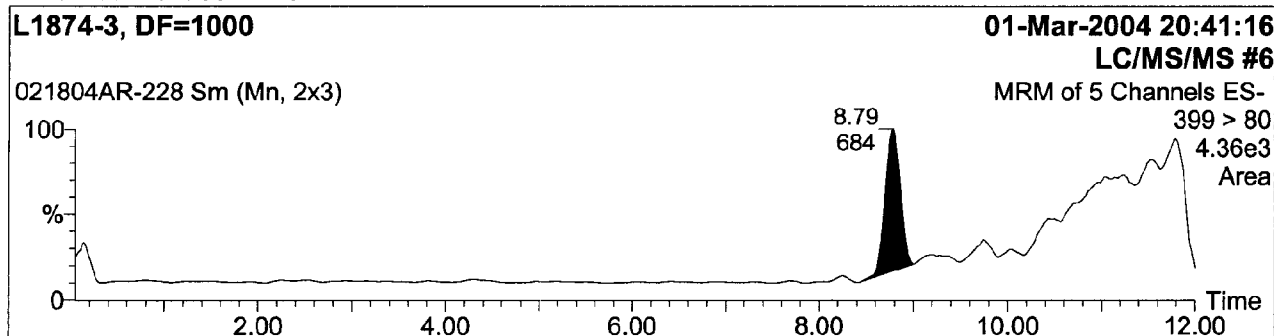
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDE\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

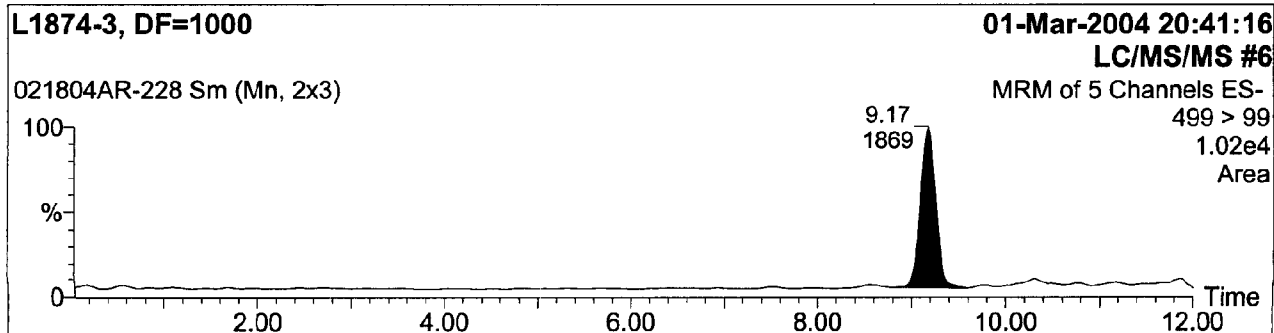
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-228
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-229
Text:

1: C6 Acid PFHA

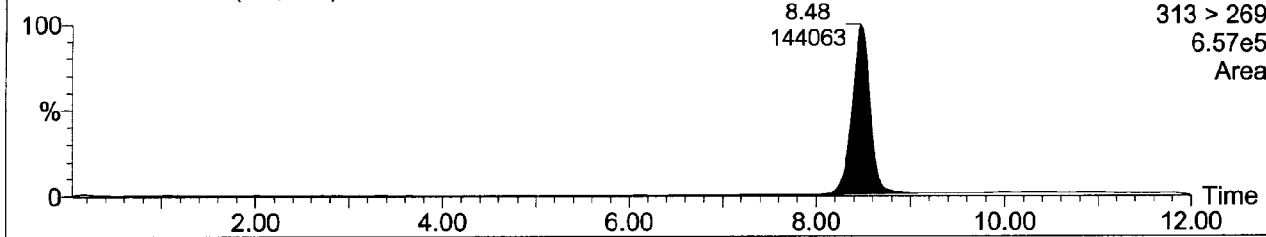
L1874-3, DF=100

01-Mar-2004 21:03:02

LC/MS/MS #6

021804AR-229 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
6.57e5
Area



2: C8 Acid PFOA

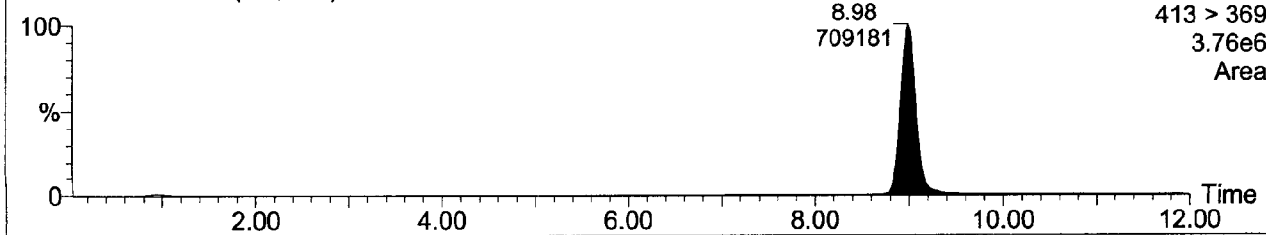
L1874-3, DF=100

01-Mar-2004 21:03:02

LC/MS/MS #6

021804AR-229 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
3.76e6
Area



3: C4 Sulfonate PFBS

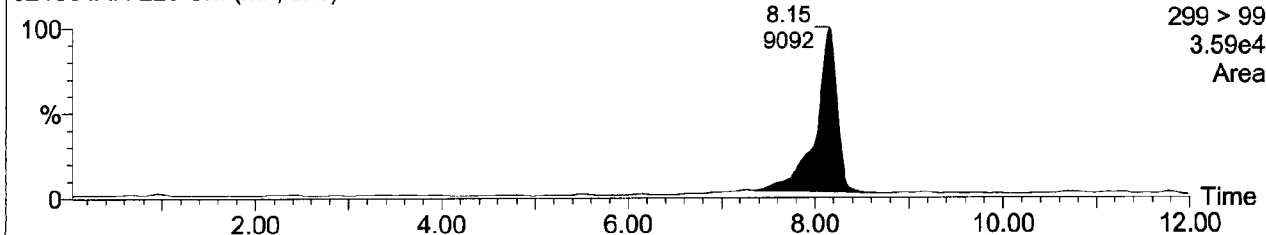
L1874-3, DF=100

01-Mar-2004 21:03:02

LC/MS/MS #6

021804AR-229 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
3.59e4
Area



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Quantify Sample Report

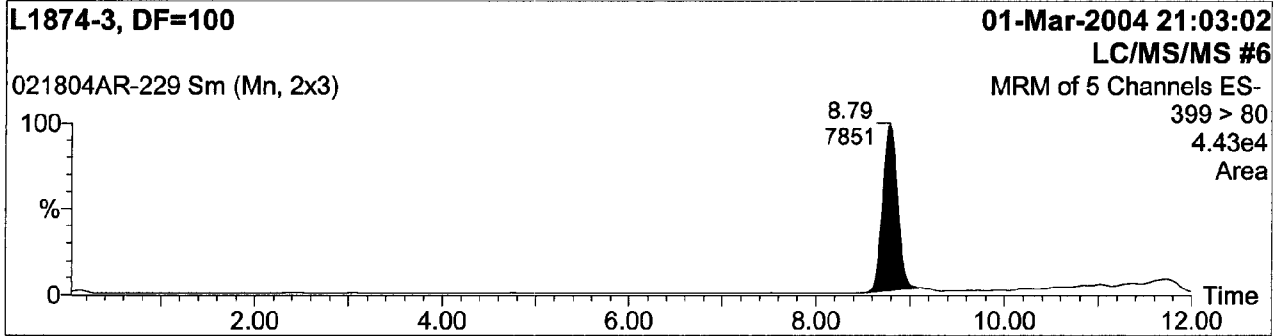
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

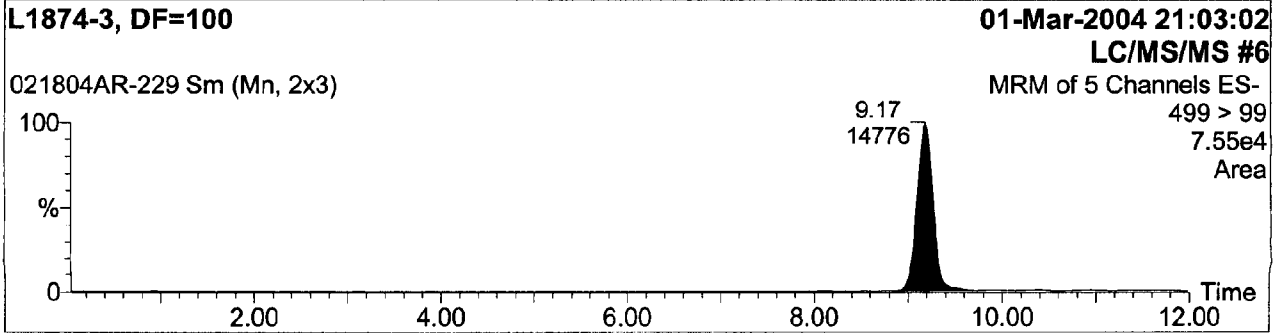
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-229
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-230
Text:

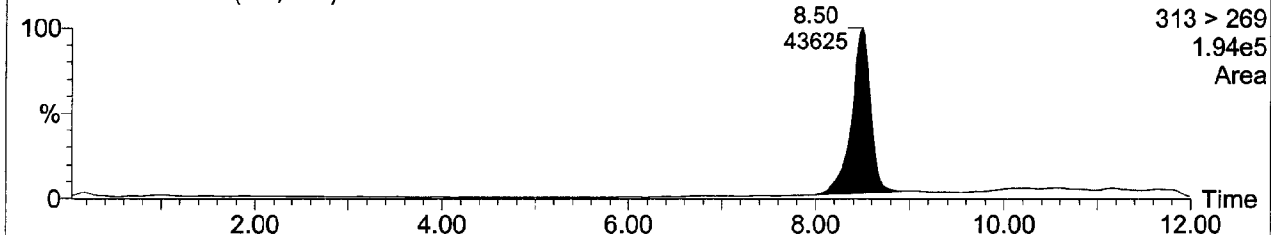
1: C6 Acid PFHA

L1874-4, DF=1000

01-Mar-2004 21:24:51
LC/MS/MS #6

021804AR-230 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
1.94e5
Area



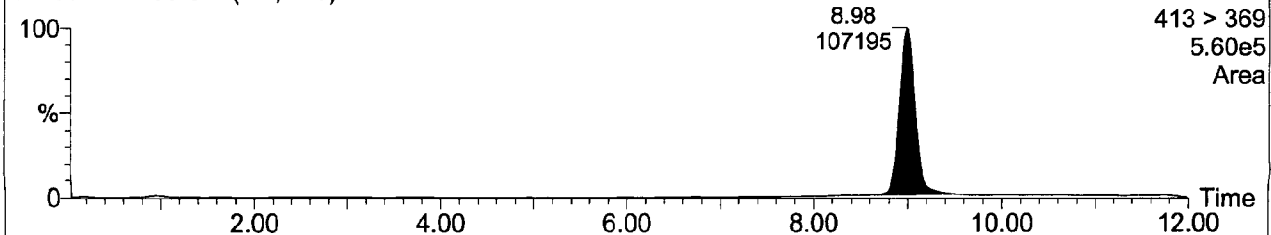
2: C8 Acid PFOA

L1874-4, DF=1000

01-Mar-2004 21:24:51
LC/MS/MS #6

021804AR-230 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
5.60e5
Area



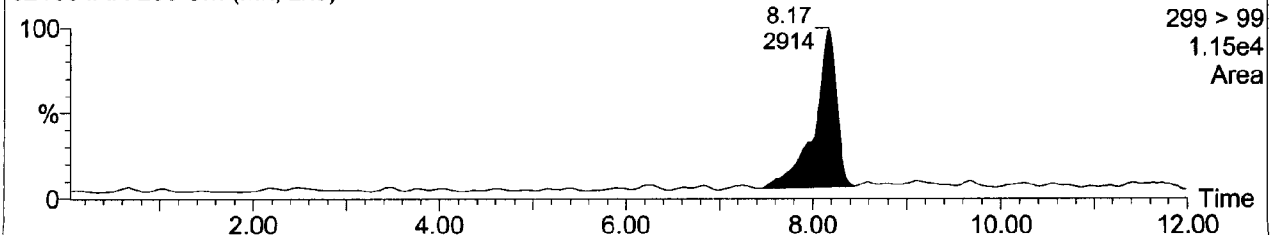
3: C4 Sulfonate PFBS

L1874-4, DF=1000

01-Mar-2004 21:24:51
LC/MS/MS #6

021804AR-230 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
1.15e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-230
Text:

4: C6 Sulfonate PFHS

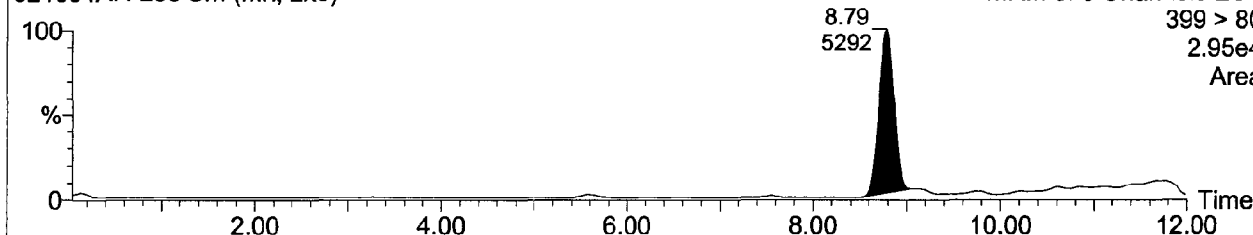
L1874-4, DF=1000

01-Mar-2004 21:24:51

LC/MS/MS #6

021804AR-230 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.95e4
Area



5: C8 Sulfonate PFOS

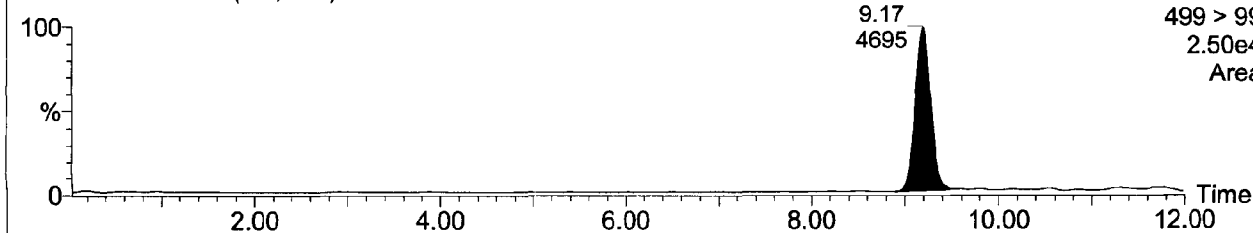
L1874-4, DF=1000

01-Mar-2004 21:24:51

LC/MS/MS #6

021804AR-230 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
2.50e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-231
Text:

1: C6 Acid PFHA

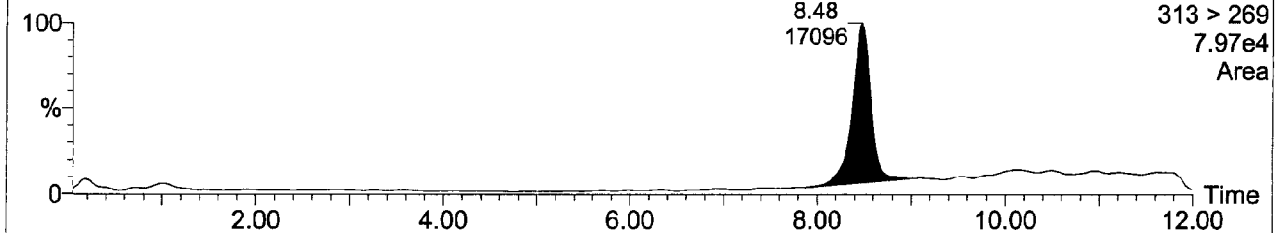
XC022404-2, 50 ng/L Standard

01-Mar-2004 21:46:40

LC/MS/MS #6

021804AR-231 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
7.97e4
Area



2: C8 Acid PFOA

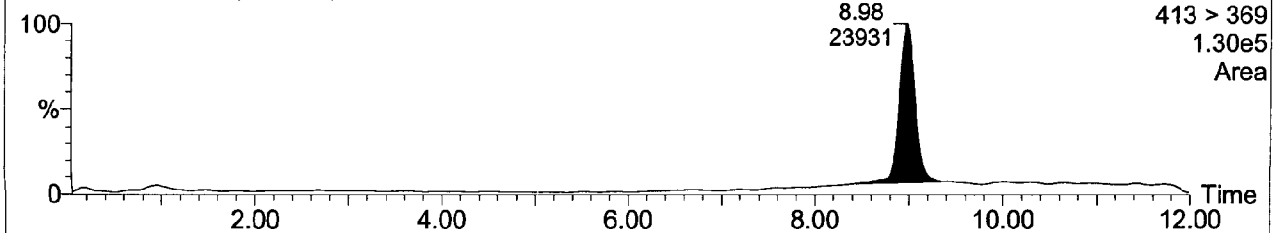
XC022404-2, 50 ng/L Standard

01-Mar-2004 21:46:40

LC/MS/MS #6

021804AR-231 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.30e5
Area



3: C4 Sulfonate PFBS

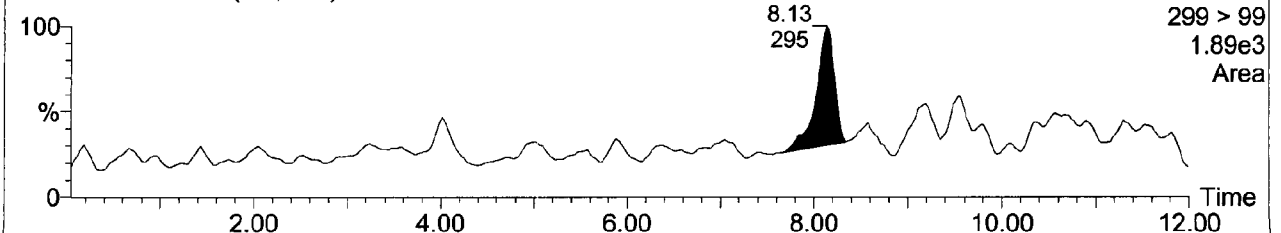
XC022404-2, 50 ng/L Standard

01-Mar-2004 21:46:40

LC/MS/MS #6

021804AR-231 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
1.89e3
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-231
Text:

4: C6 Sulfonate PFHS

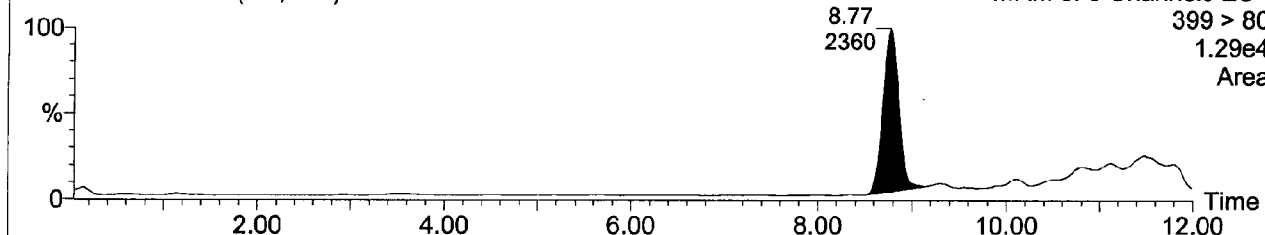
XC022404-2, 50 ng/L Standard

01-Mar-2004 21:46:40

LC/MS/MS #6

021804AR-231 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
1.29e4
Area



5: C8 Sulfonate PFOS

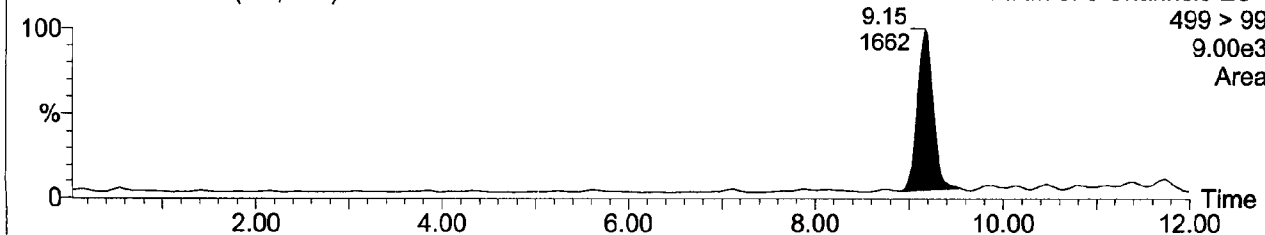
XC022404-2, 50 ng/L Standard

01-Mar-2004 21:46:40

LC/MS/MS #6

021804AR-231 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
9.00e3
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

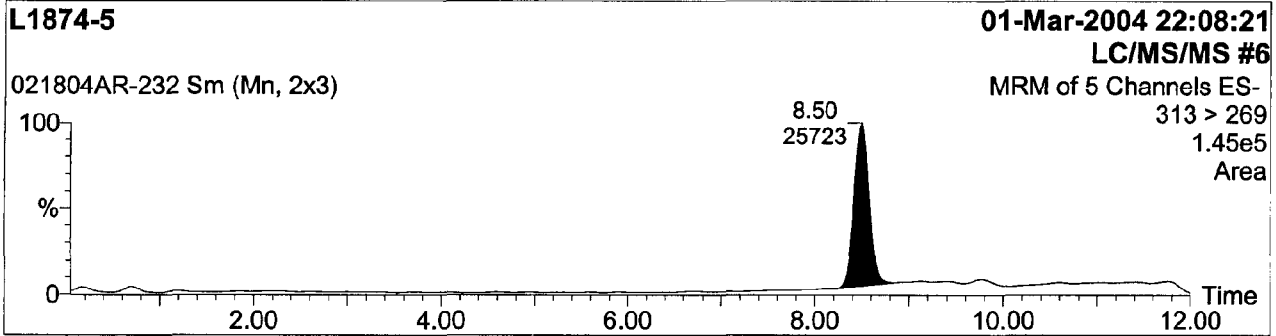
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

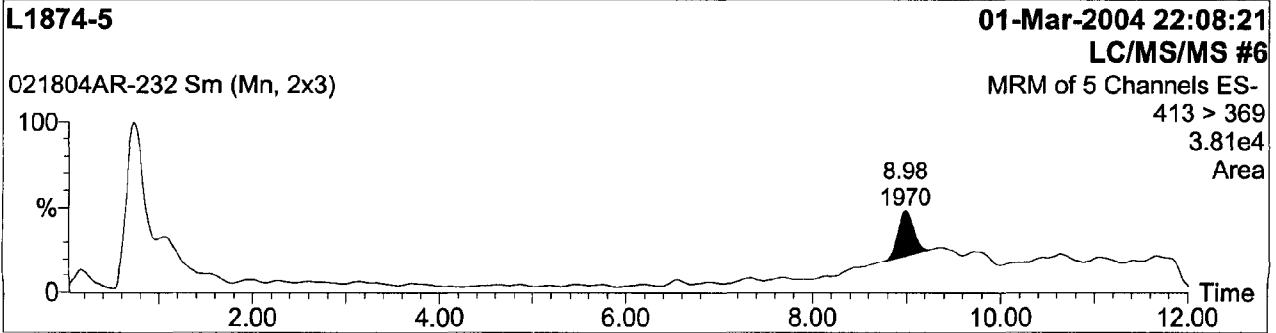
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-232
Text:

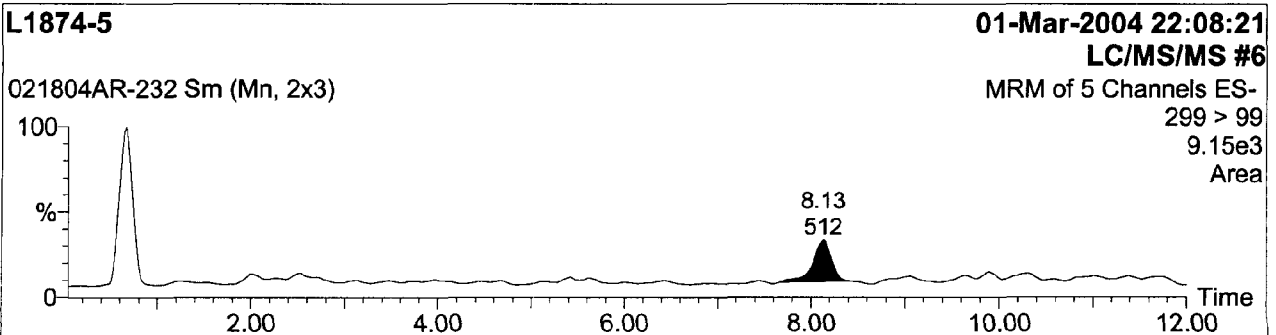
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

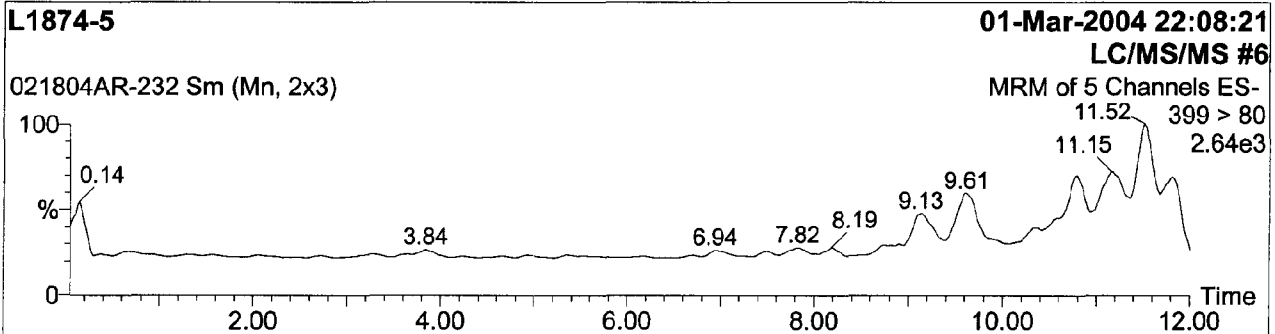
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

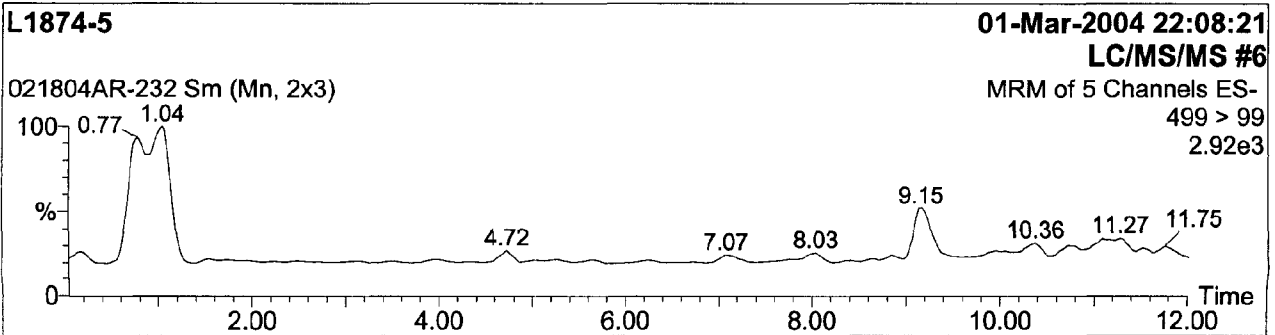
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-232
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

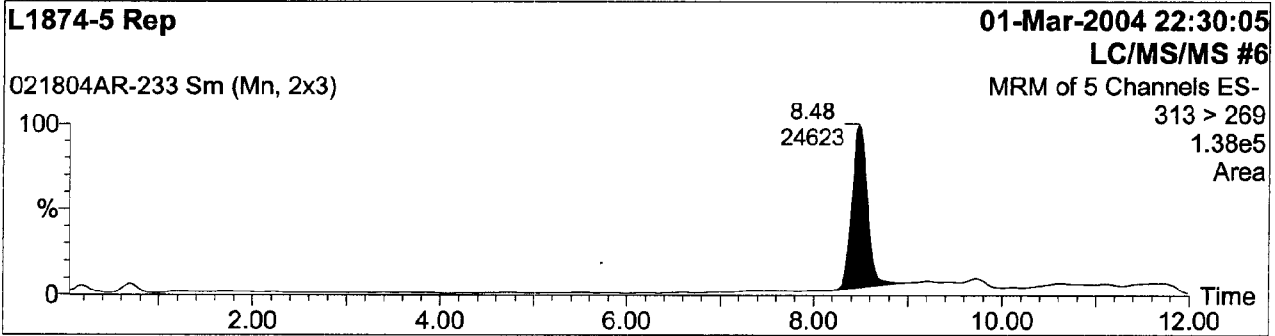
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

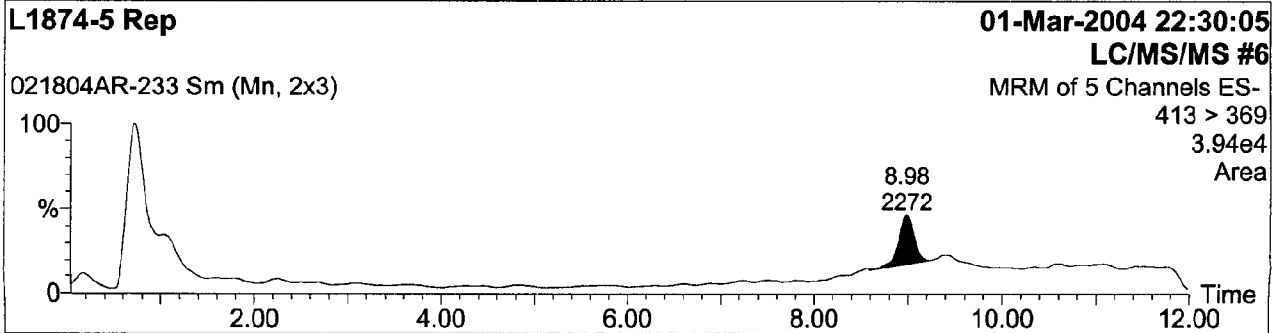
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Name: 021804AR-233
Text:

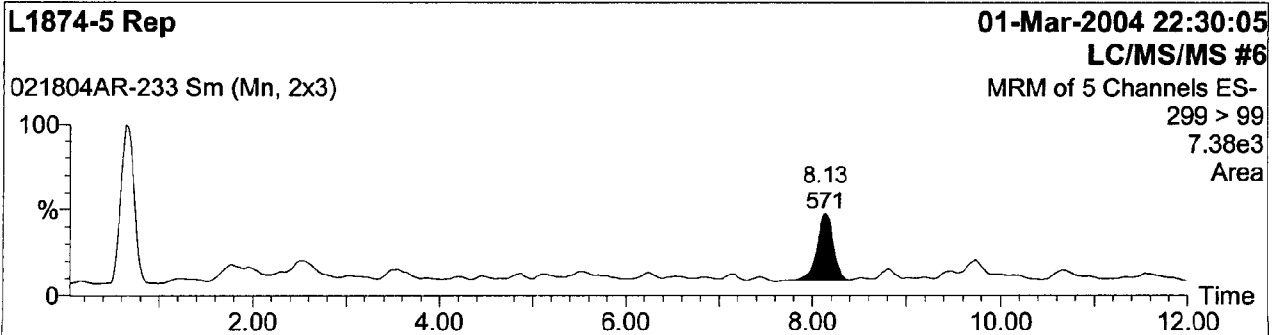
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

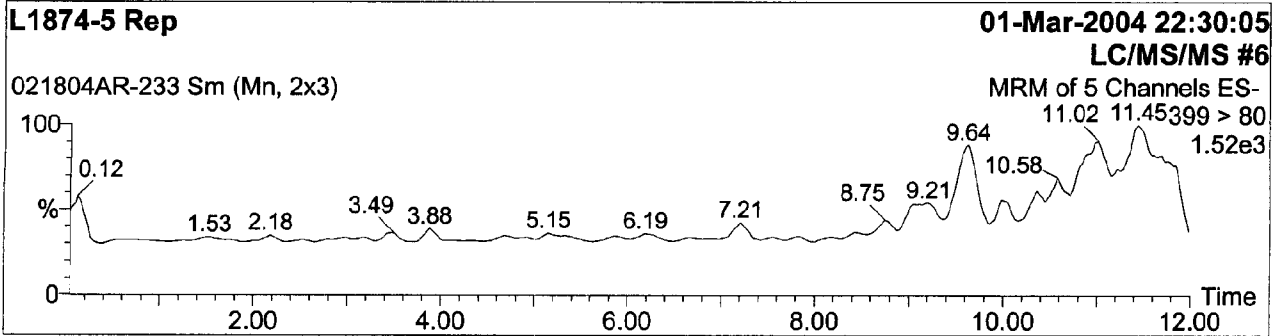
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: F:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: F:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

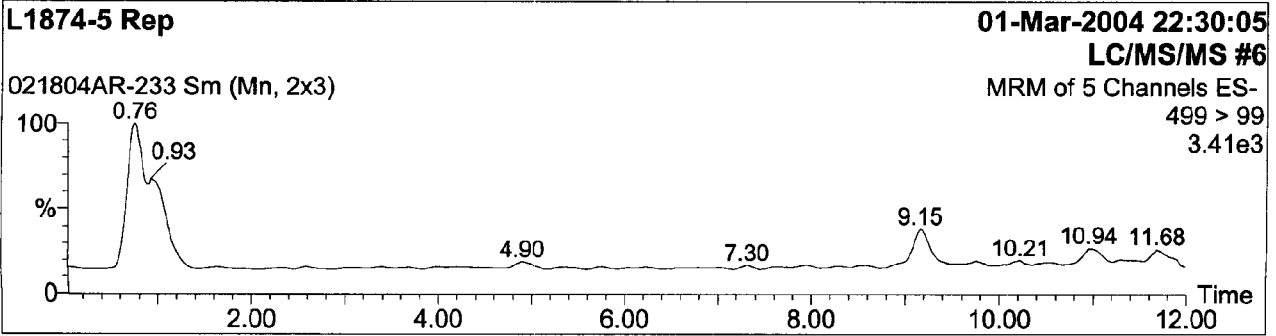
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-233
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

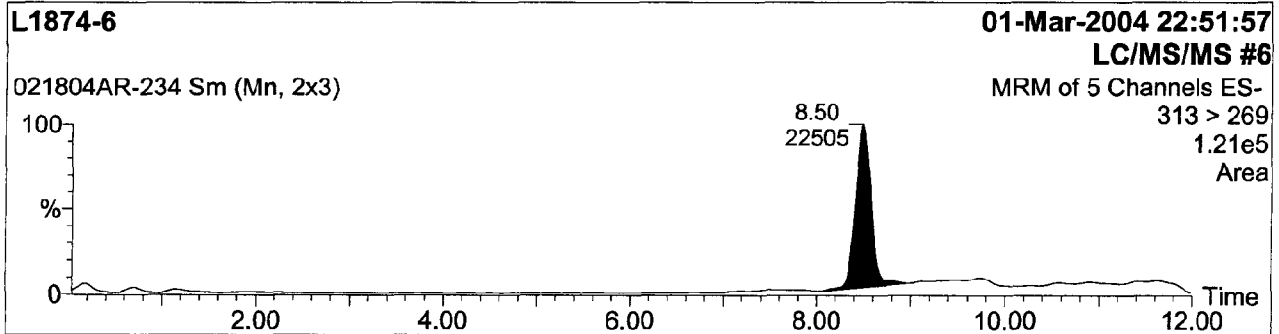
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

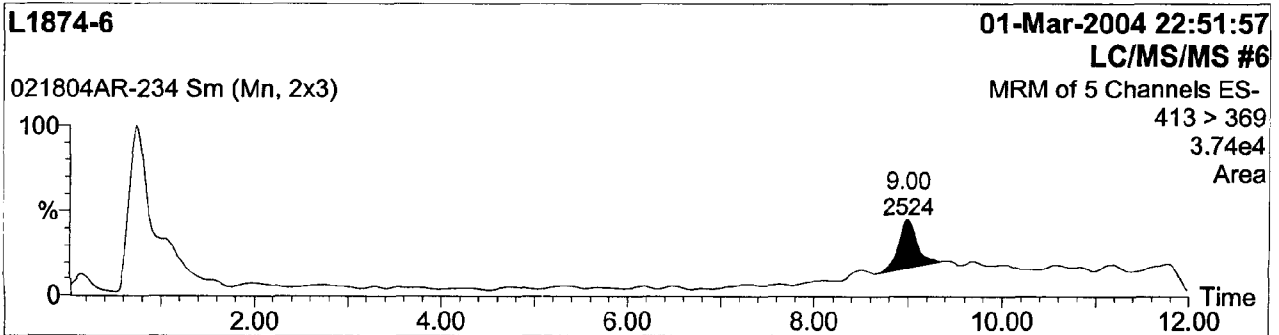
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-234
Text:

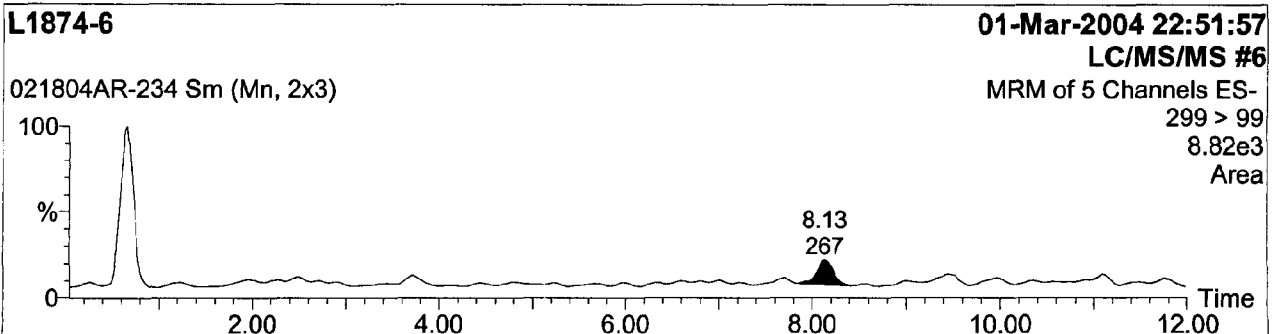
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

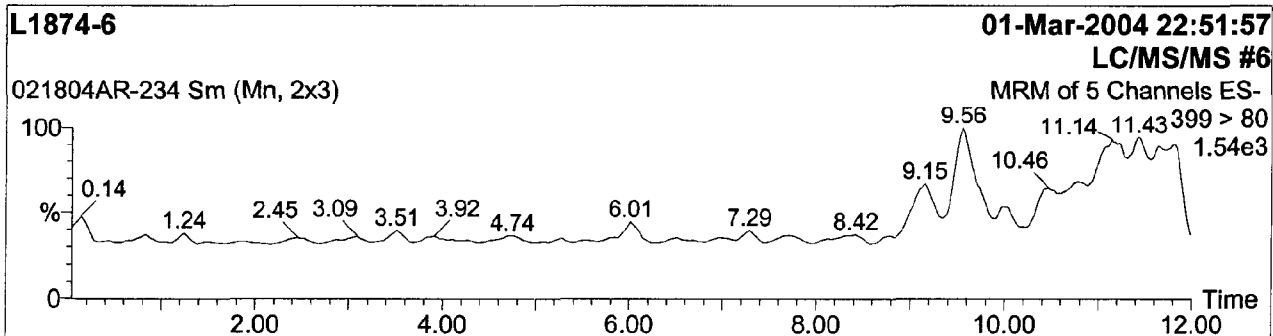
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

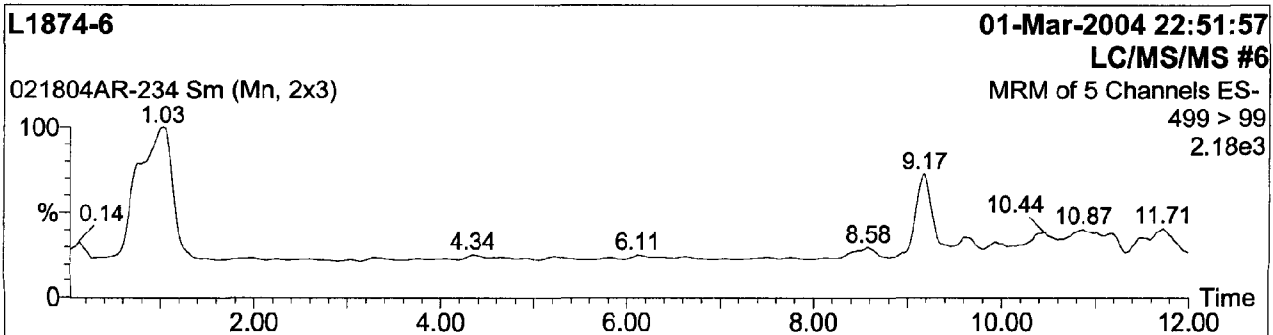
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-234
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

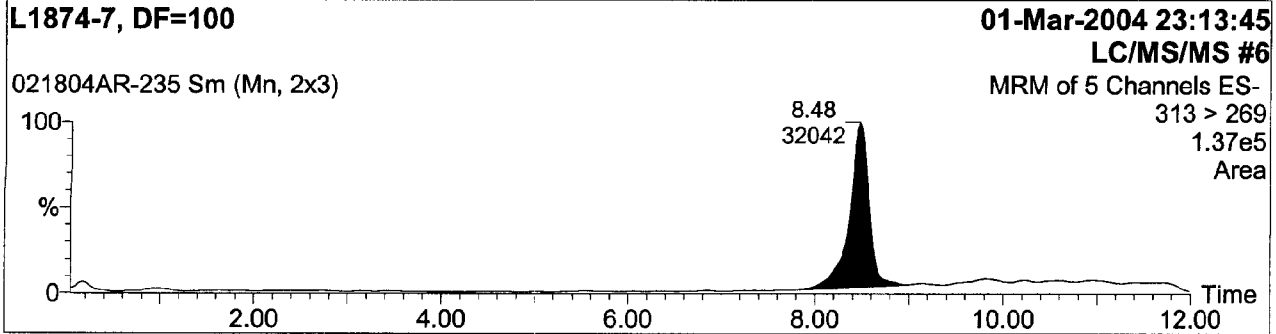
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

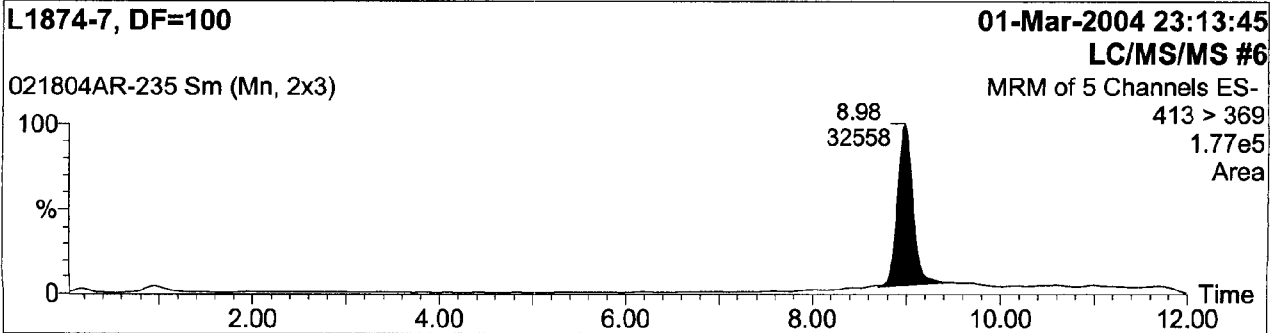
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-235
Text:

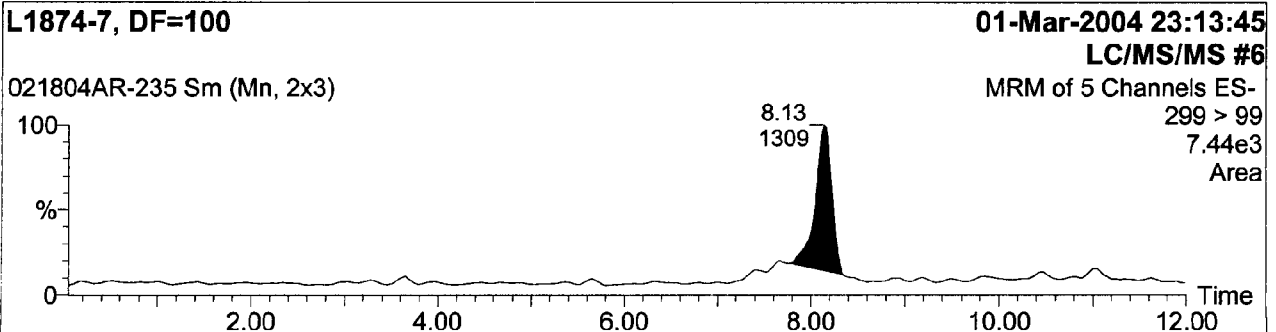
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

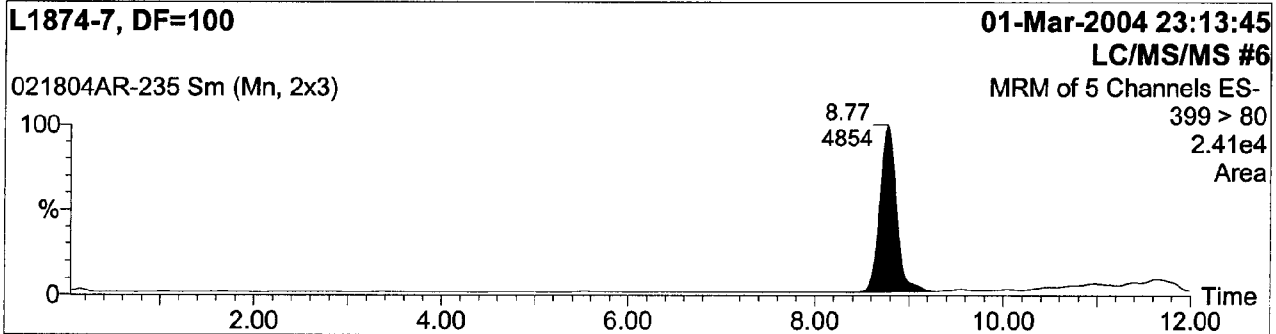
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

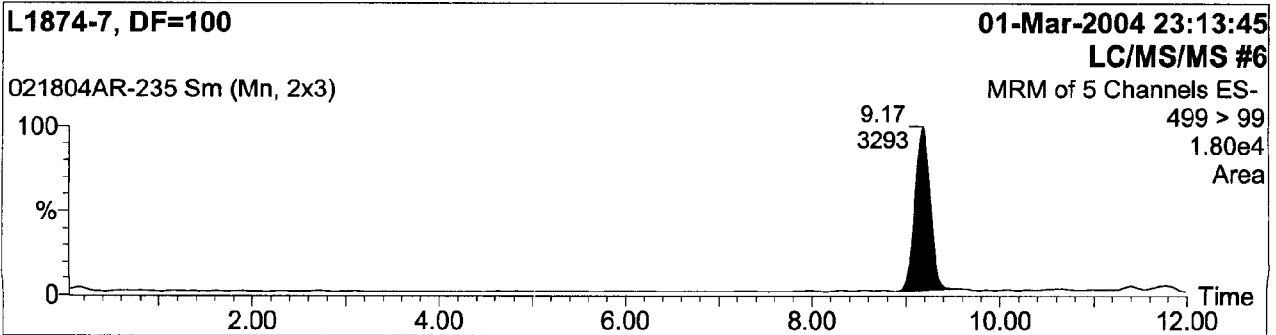
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-235
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

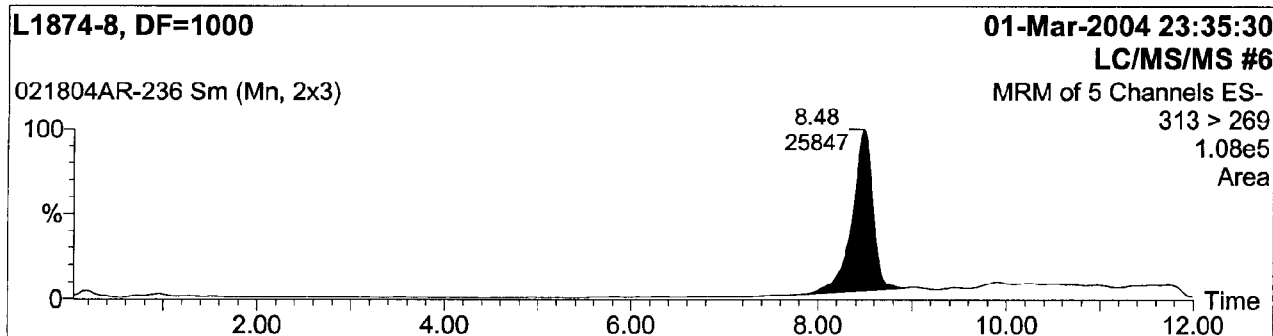
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

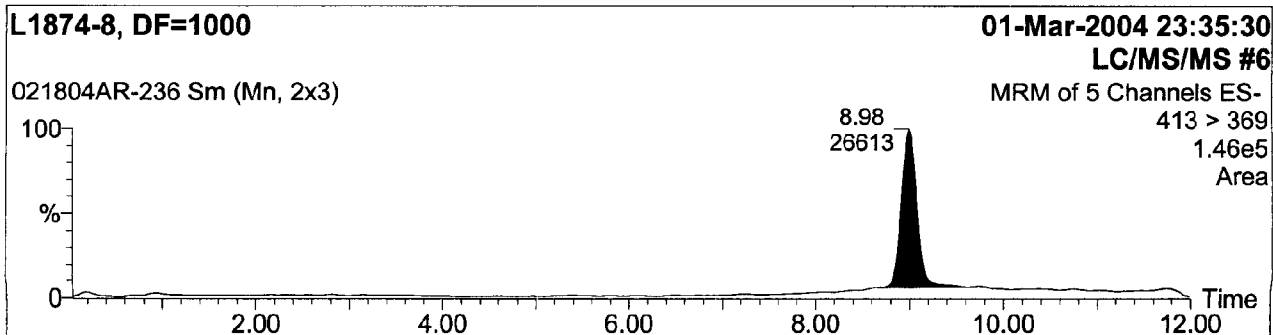
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Name: 021804AR-236
Text:

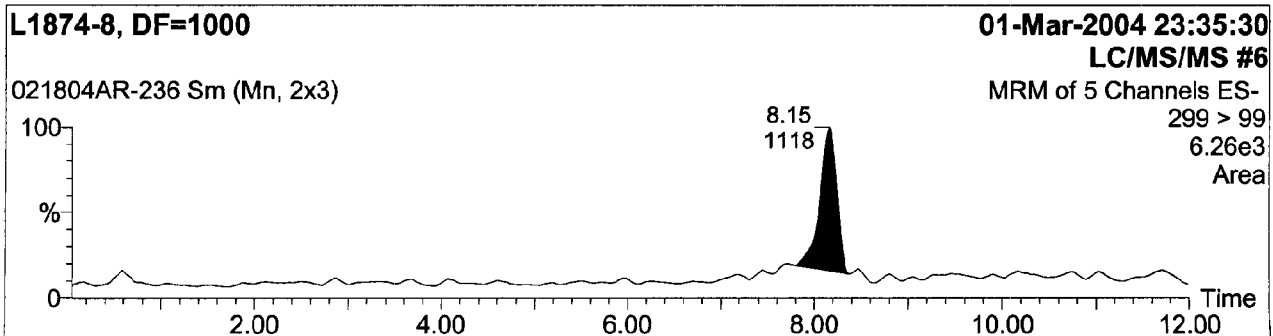
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

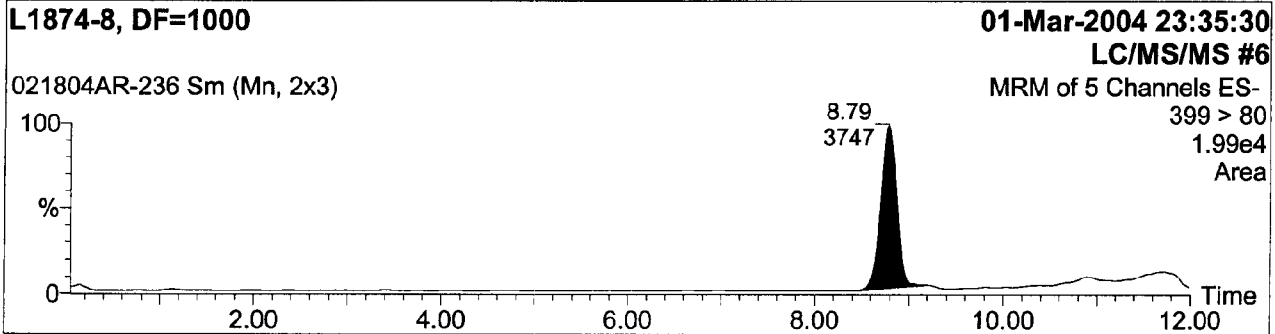
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

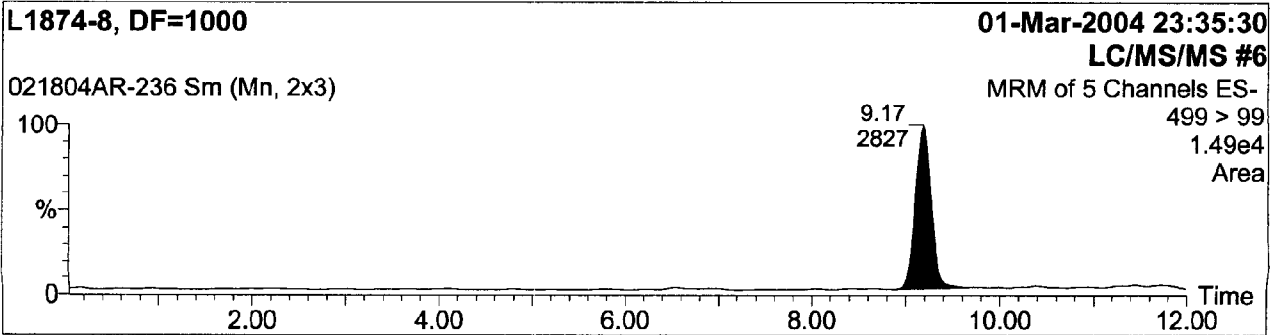
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-236
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-237
Text:

1: C6 Acid PFHA

XC022404-3, 100 ng/L Standard

01-Mar-2004 23:57:17

LC/MS/MS #6

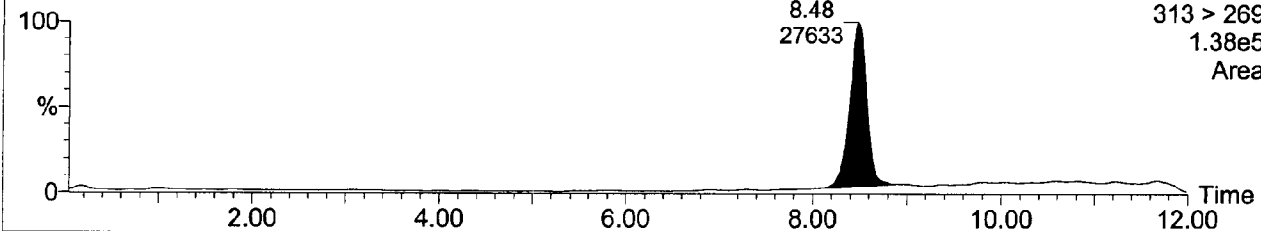
MRM of 5 Channels ES-

313 > 269

1.38e5

Area

021804AR-237 Sm (Mn, 2x3)



2: C8 Acid PFOA

XC022404-3, 100 ng/L Standard

01-Mar-2004 23:57:17

LC/MS/MS #6

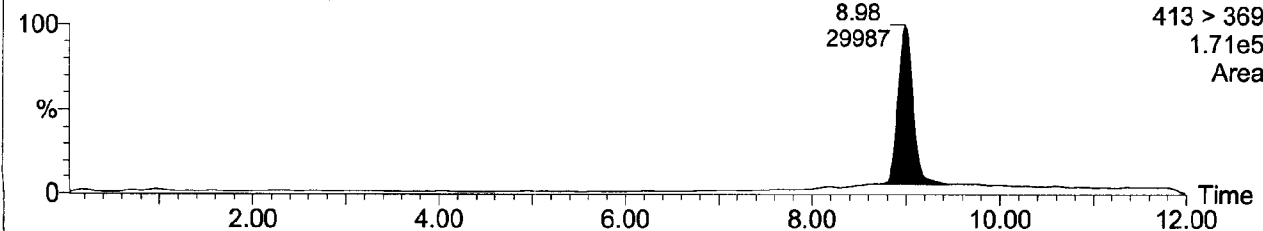
MRM of 5 Channels ES-

413 > 369

1.71e5

Area

021804AR-237 Sm (Mn, 2x3)



3: C4 Sulfonate PFBS

XC022404-3, 100 ng/L Standard

01-Mar-2004 23:57:17

LC/MS/MS #6

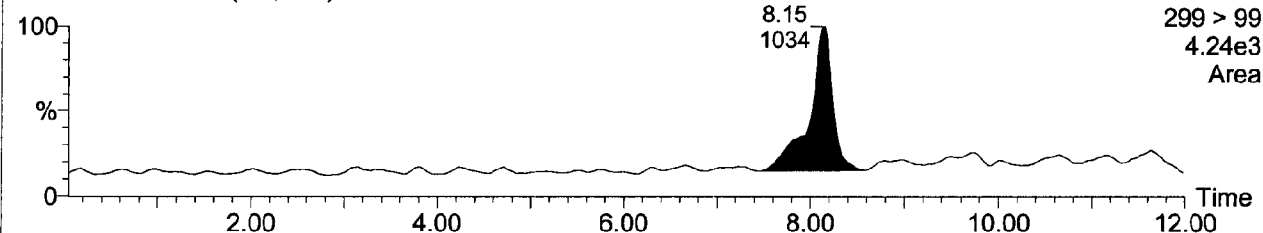
MRM of 5 Channels ES-

299 > 99

4.24e3

Area

021804AR-237 Sm (Mn, 2x3)



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-237
Text:

4: C6 Sulfonate PFHS

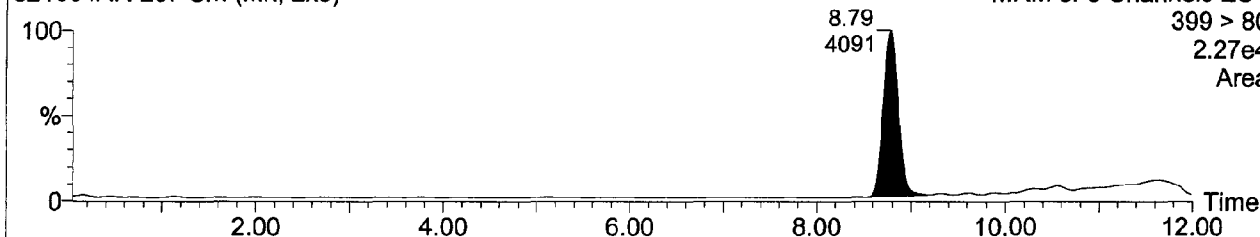
XC022404-3, 100 ng/L Standard

01-Mar-2004 23:57:17

LC/MS/MS #6

021804AR-237 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.27e4
Area



5: C8 Sulfonate PFOS

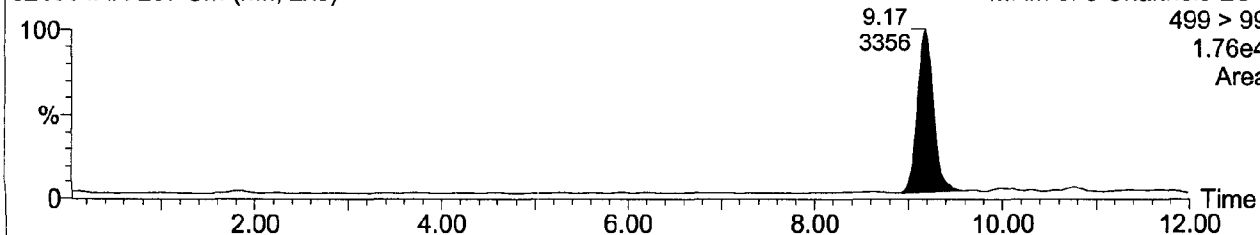
XC022404-3, 100 ng/L Standard

01-Mar-2004 23:57:17

LC/MS/MS #6

021804AR-237 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.76e4
Area



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Quantify Sample Report

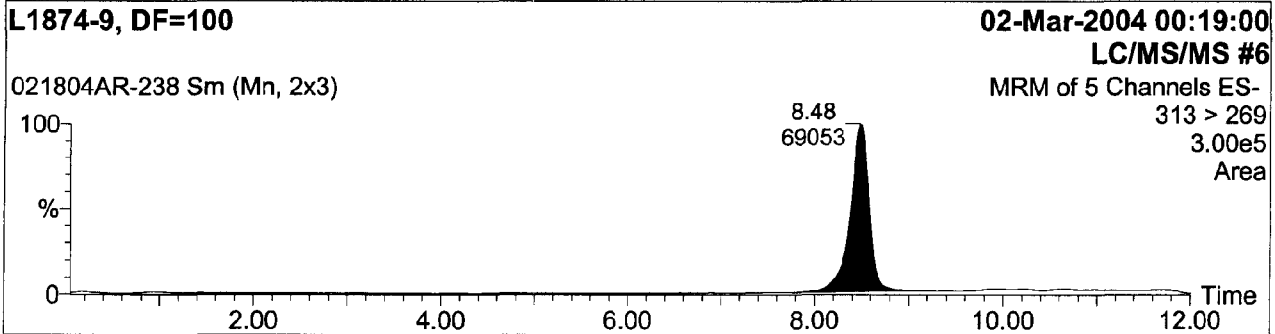
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

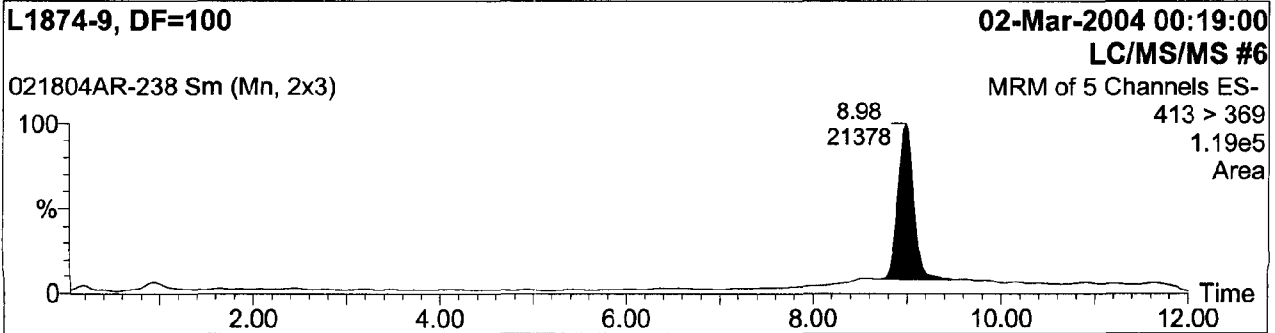
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-238
Text:

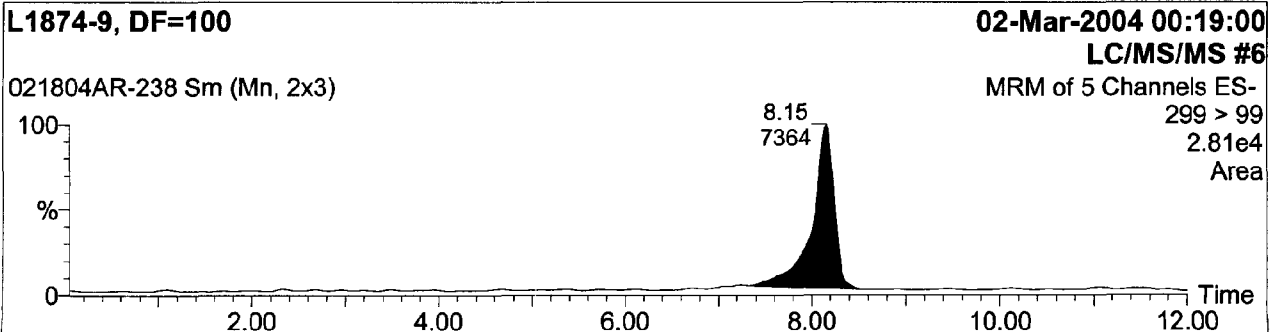
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-238
Text:

4: C6 Sulfonate PFHS

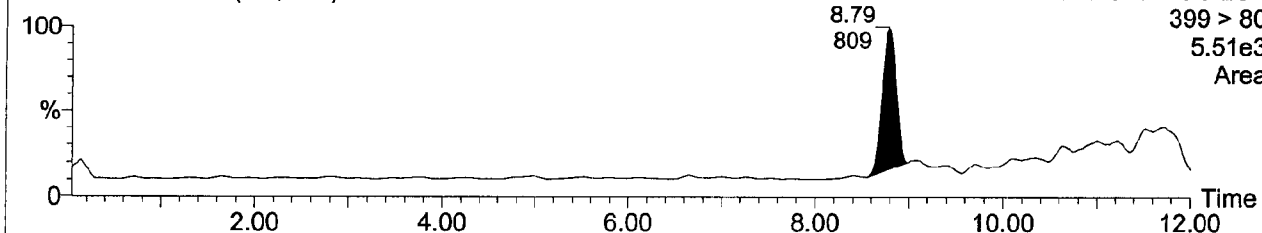
L1874-9, DF=100

02-Mar-2004 00:19:00

LC/MS/MS #6

021804AR-238 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
5.51e3
Area



5: C8 Sulfonate PFOS

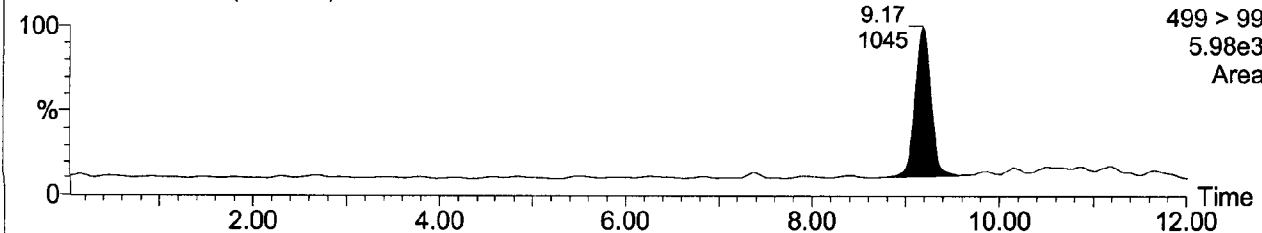
L1874-9, DF=100

02-Mar-2004 00:19:00

LC/MS/MS #6

021804AR-238 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
5.98e3
Area



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Quantify Sample Report

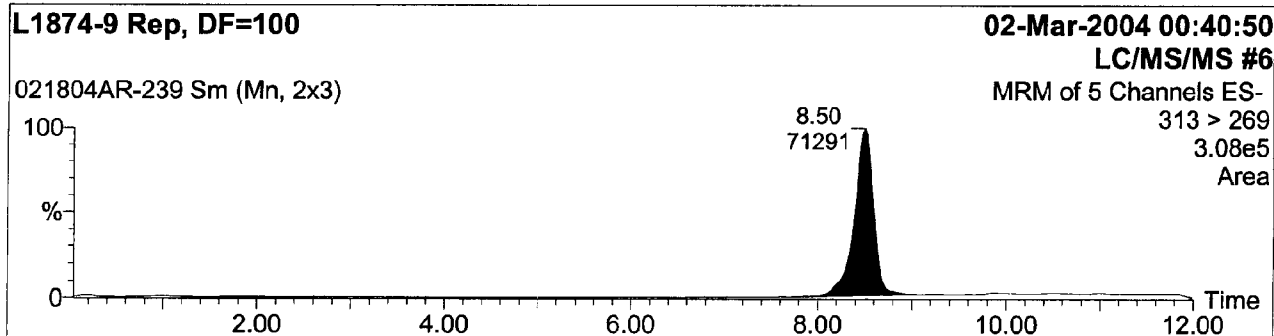
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

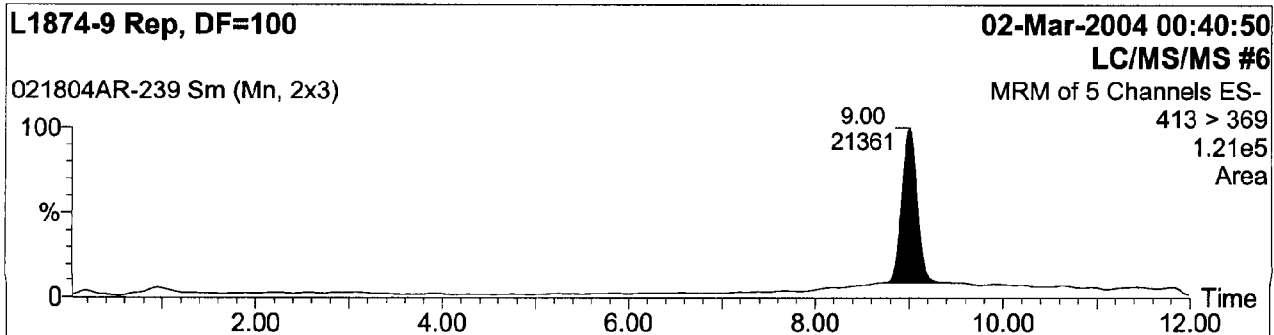
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-239
Text:

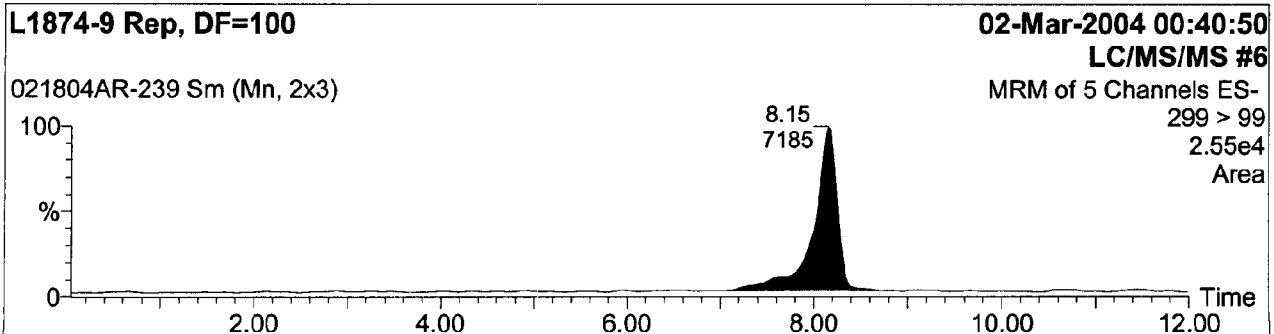
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

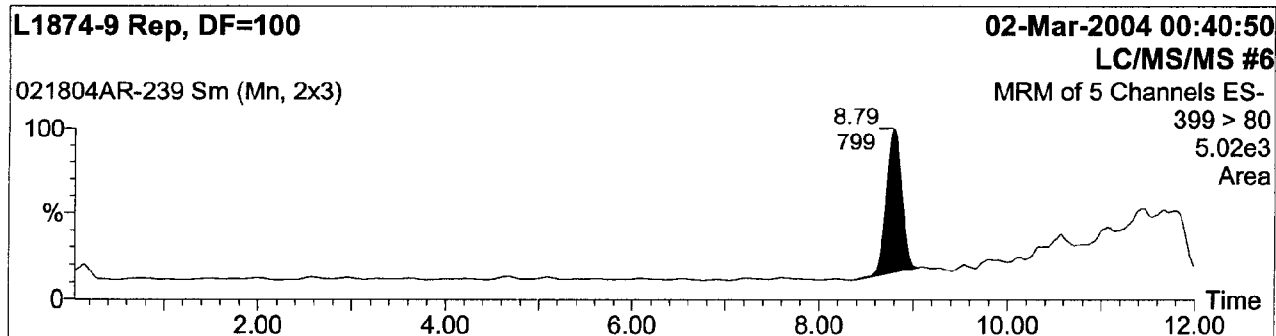
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

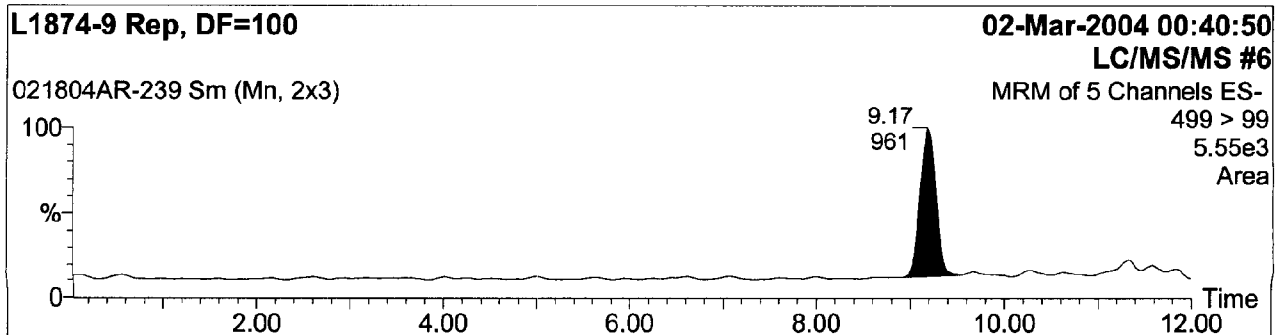
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-239
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

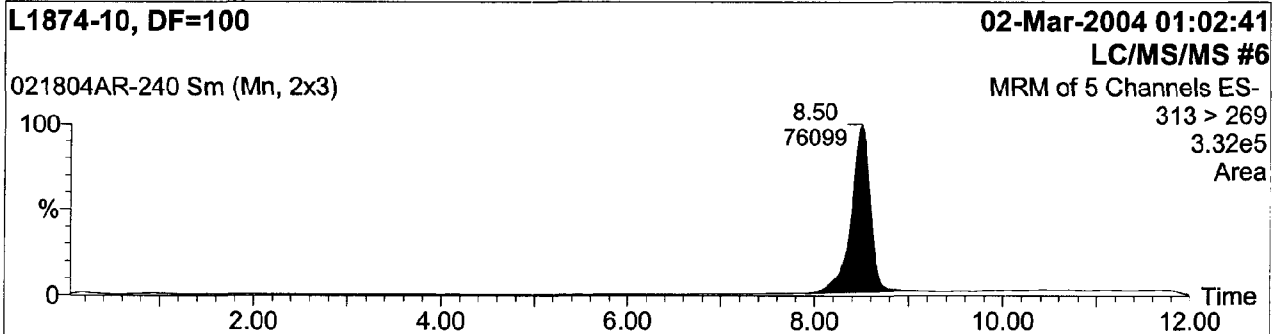
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

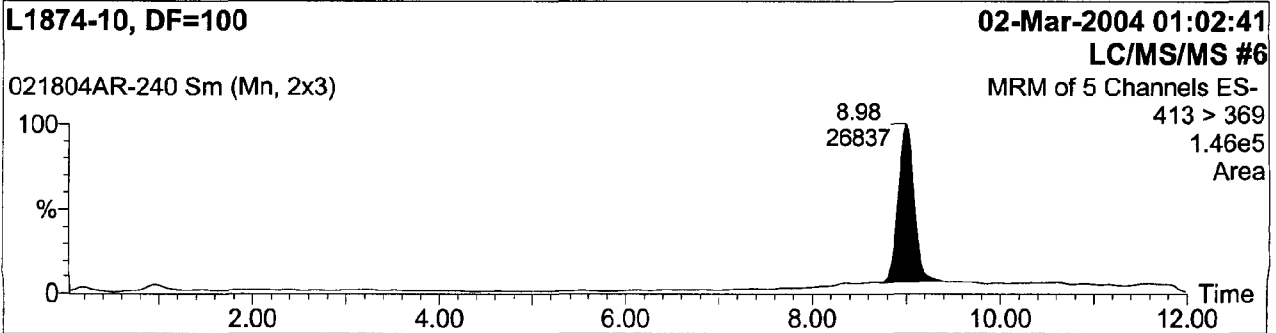
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-240
Text:

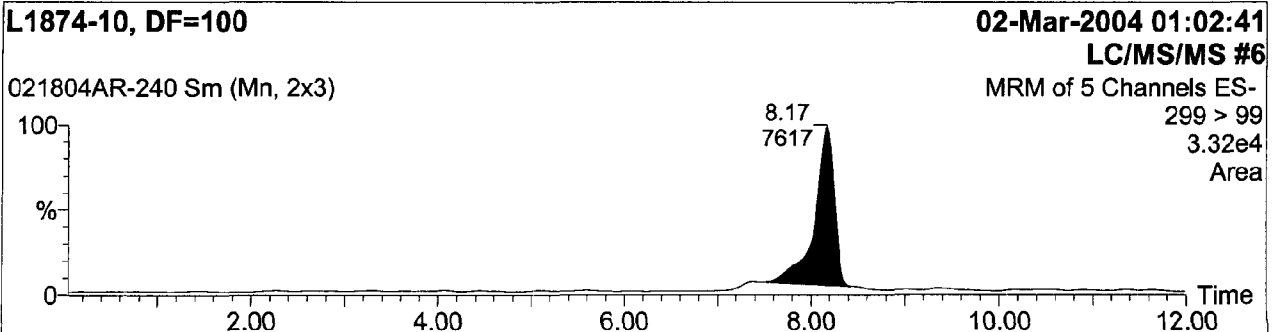
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

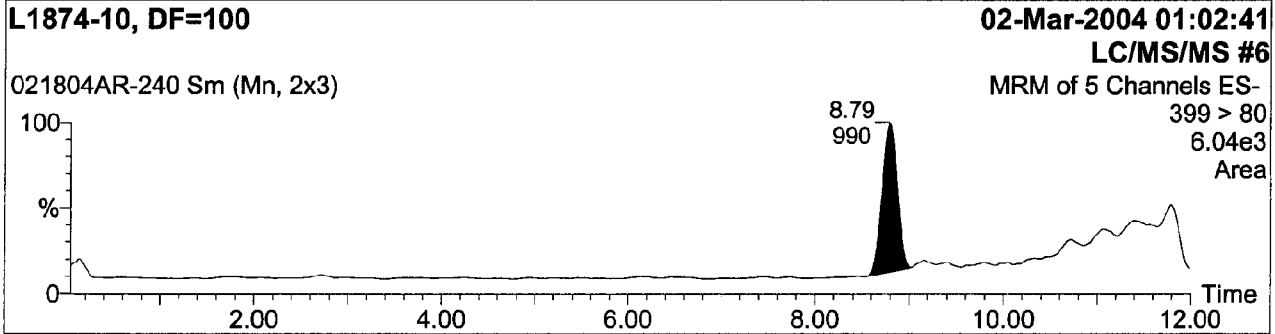
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

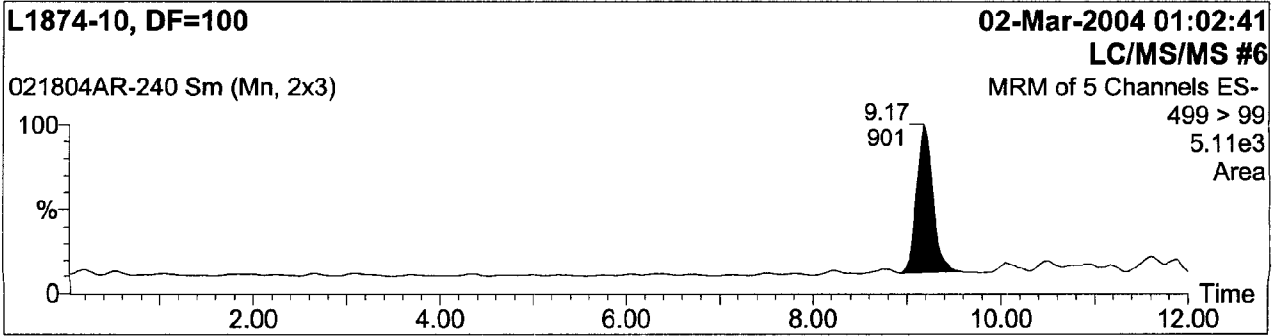
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-240
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

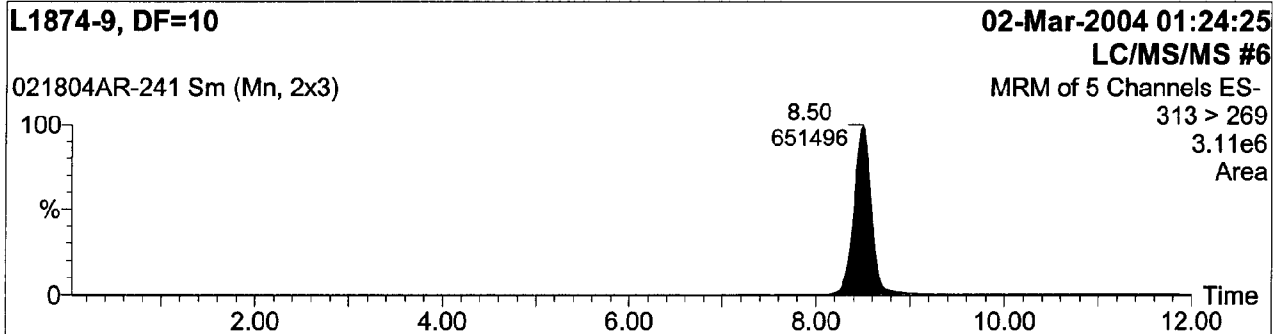
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

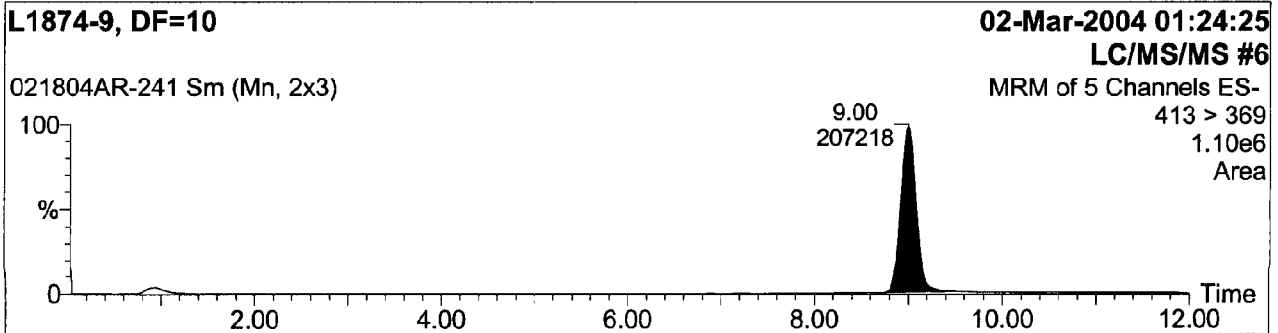
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-241
Text:

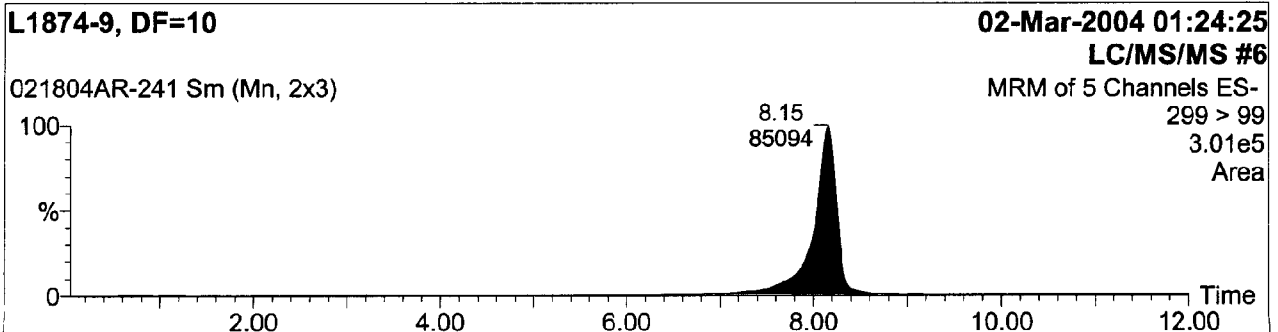
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-241
Text:

4: C6 Sulfonate PFHS

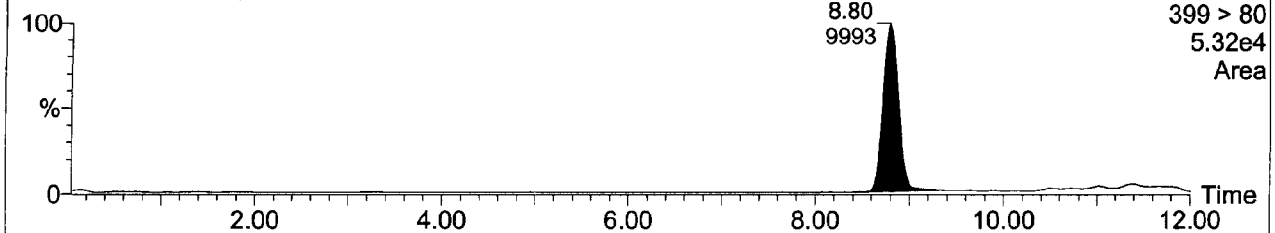
L1874-9, DF=10

02-Mar-2004 01:24:25

LC/MS/MS #6

021804AR-241 Sm (Mn, 2x3)

MRM of 5 Channels ES-



5: C8 Sulfonate PFOS

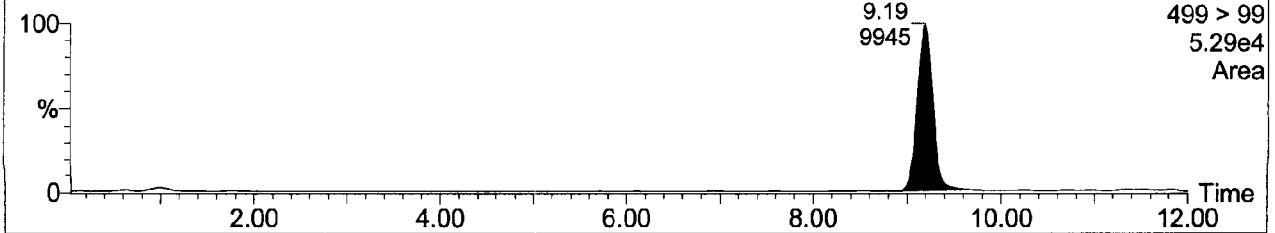
L1874-9, DF=10

02-Mar-2004 01:24:25

LC/MS/MS #6

021804AR-241 Sm (Mn, 2x3)

MRM of 5 Channels ES-



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

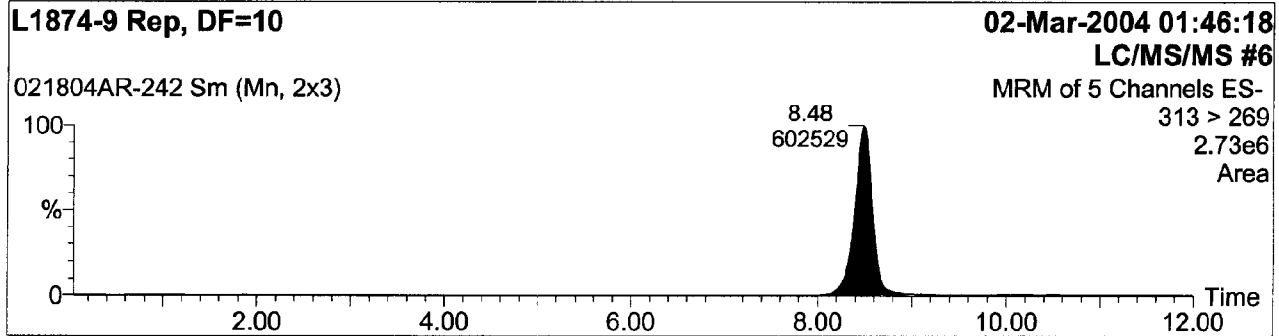
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

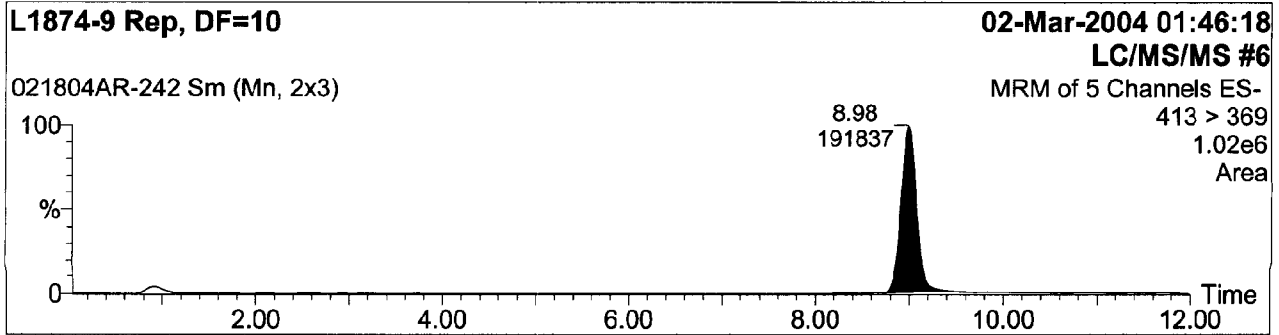
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-242
Text:

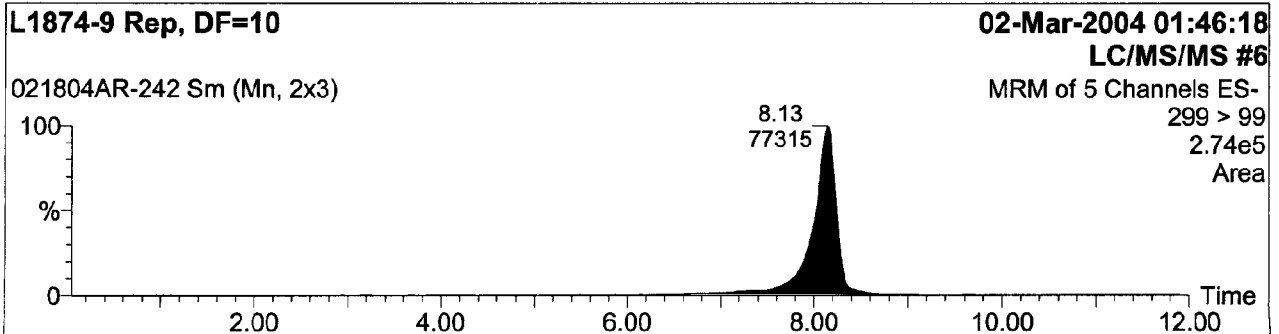
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

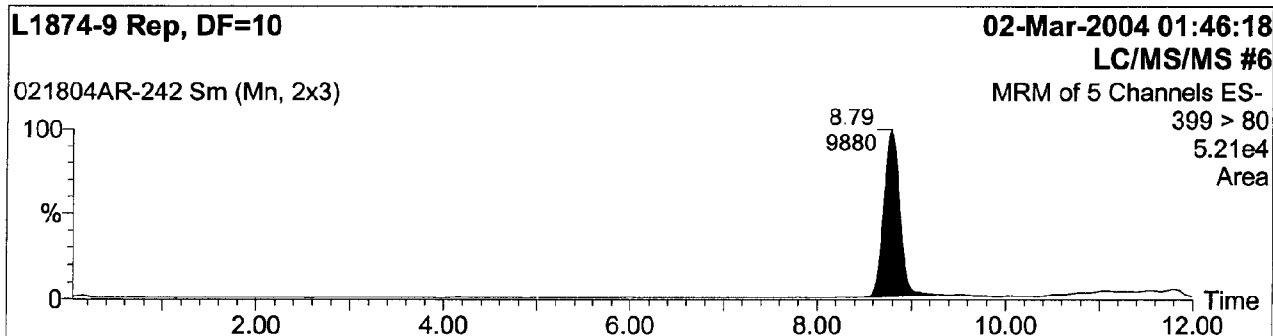
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

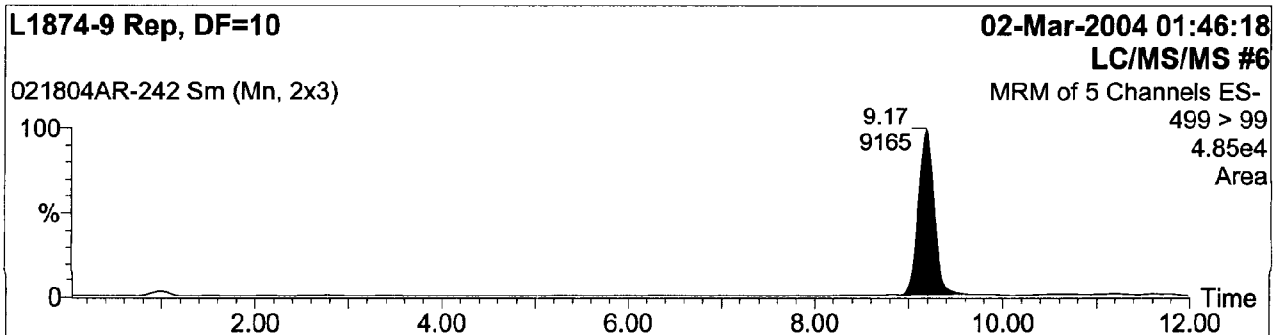
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-242
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

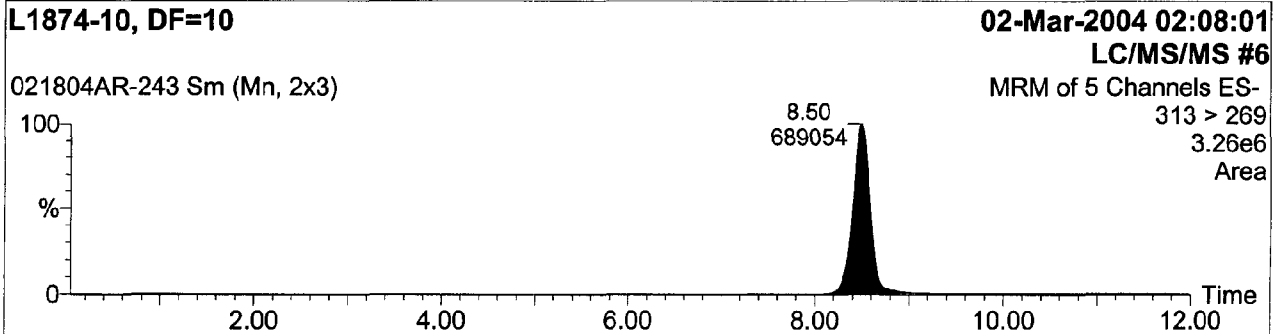
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

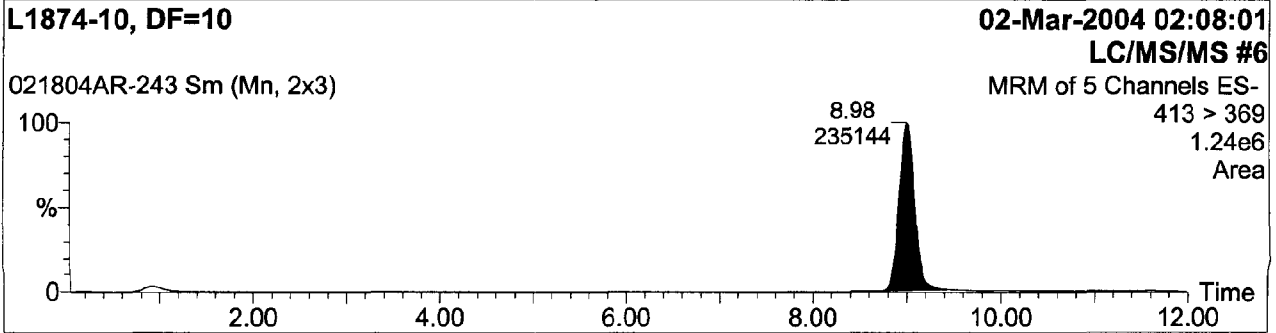
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-243
Text:

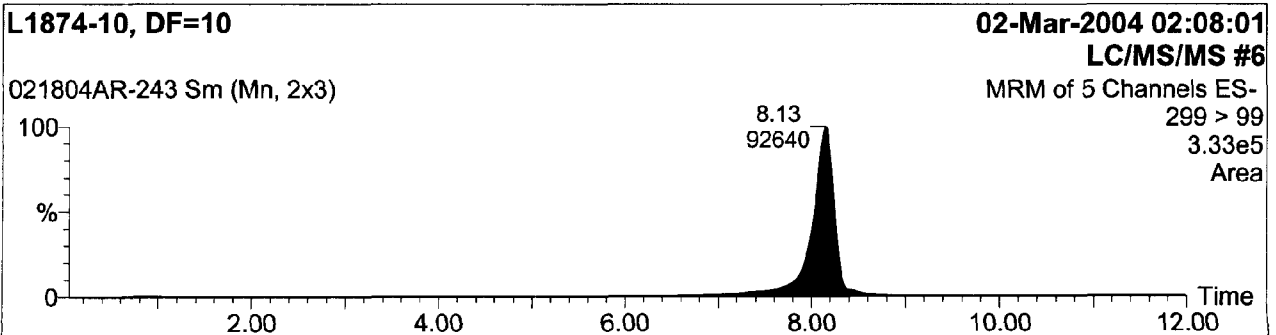
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

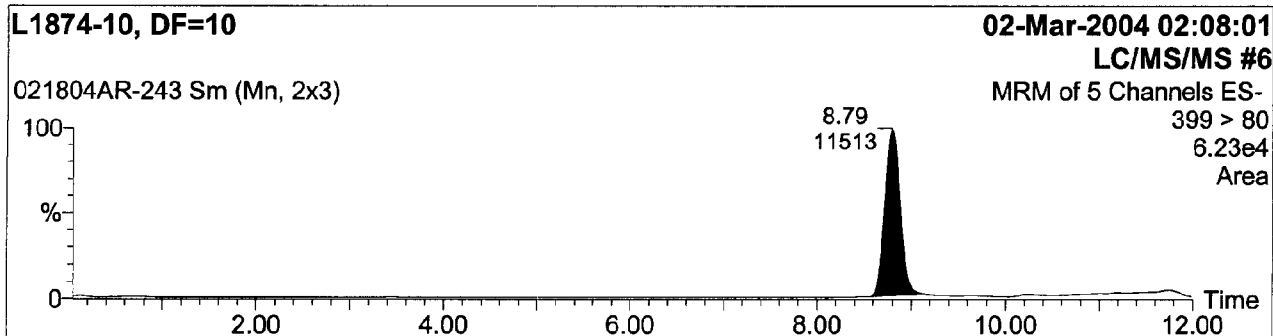
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

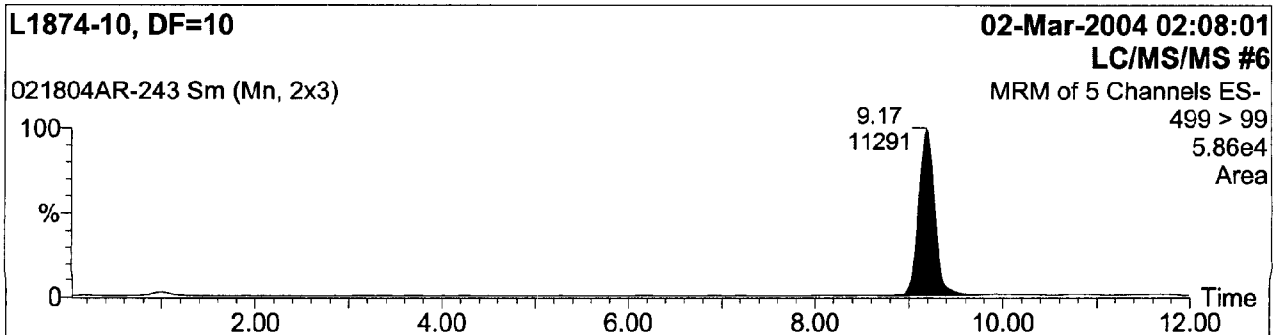
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-243
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

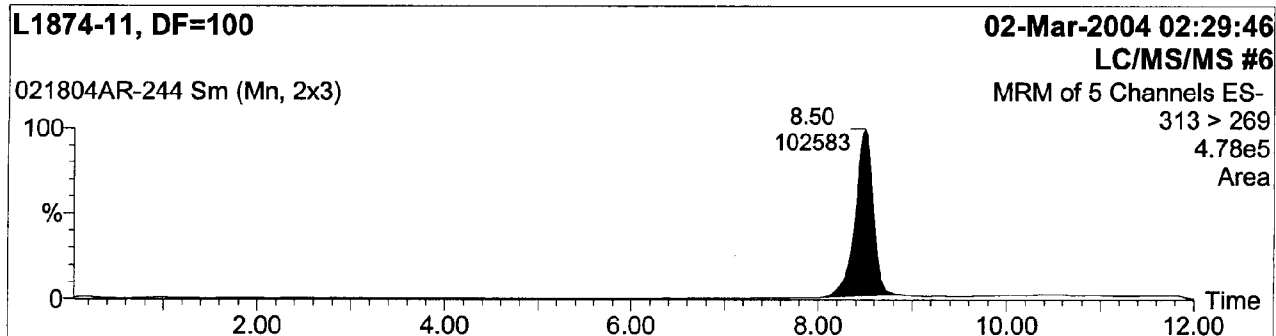
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

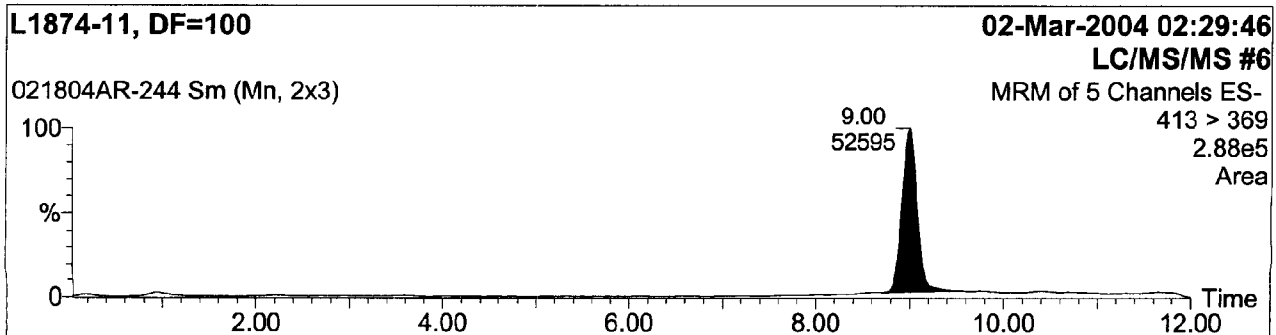
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-244
Text:

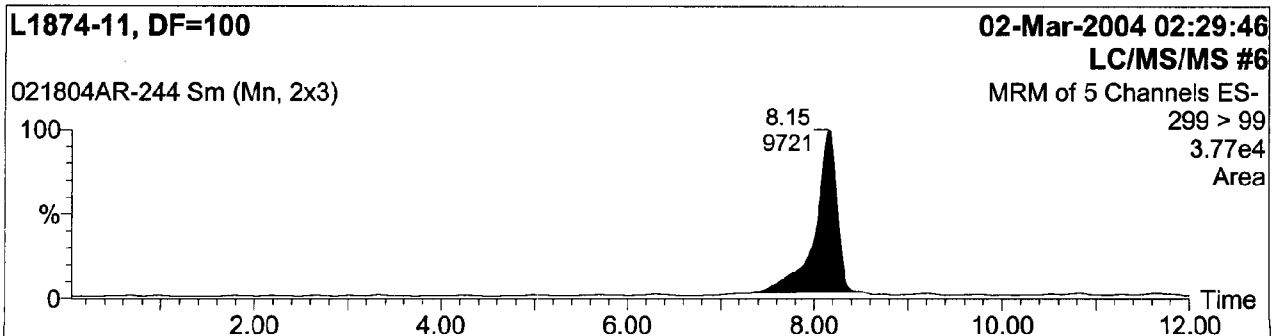
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-244
Text:

4: C6 Sulfonate PFHS

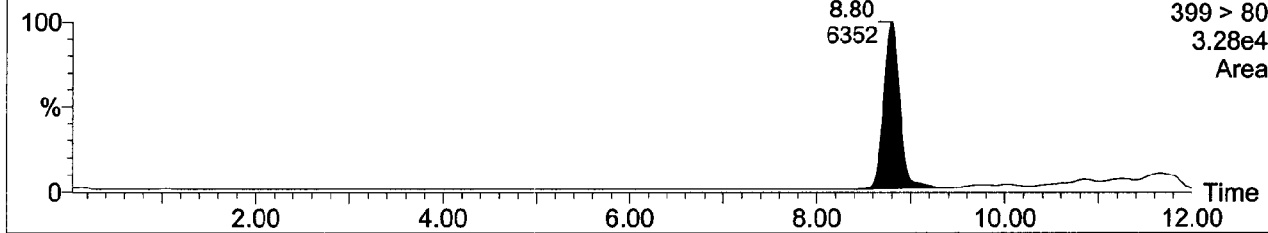
L1874-11, DF=100

02-Mar-2004 02:29:46

LC/MS/MS #6

021804AR-244 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
3.28e4
Area



5: C8 Sulfonate PFOS

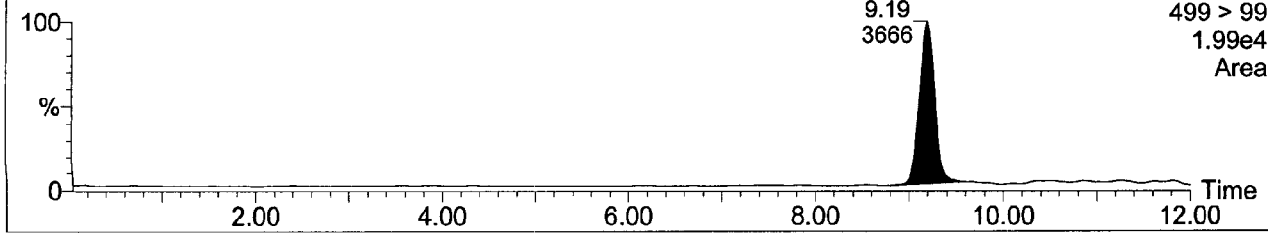
L1874-11, DF=100

02-Mar-2004 02:29:46

LC/MS/MS #6

021804AR-244 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.99e4
Area



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Quantify Sample Report

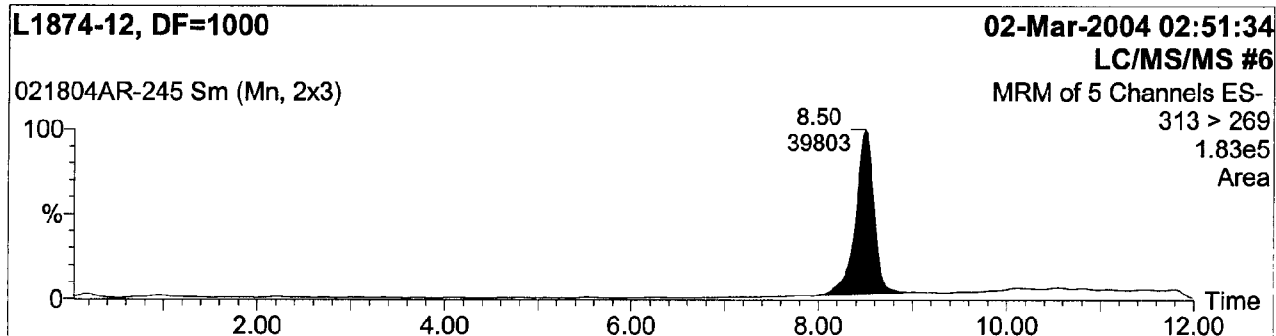
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

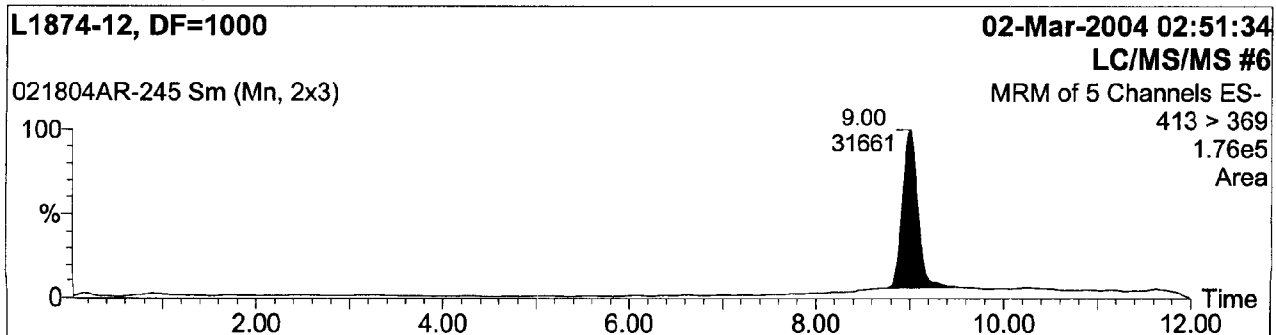
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-245
Text:

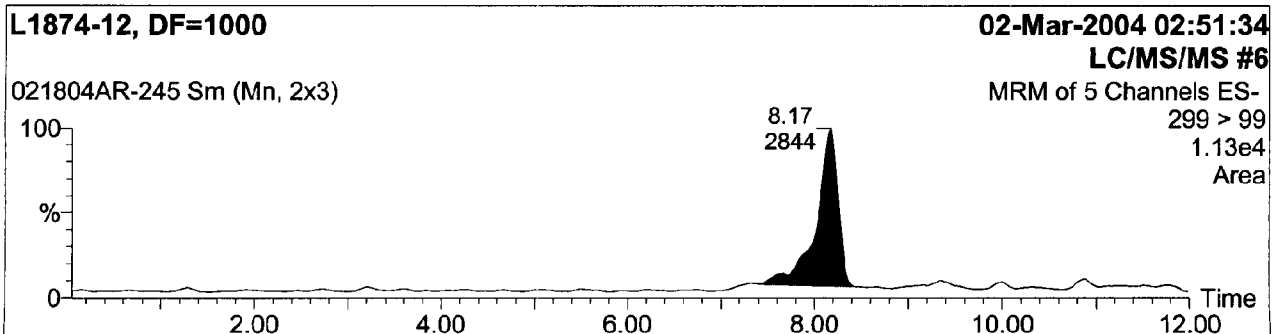
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

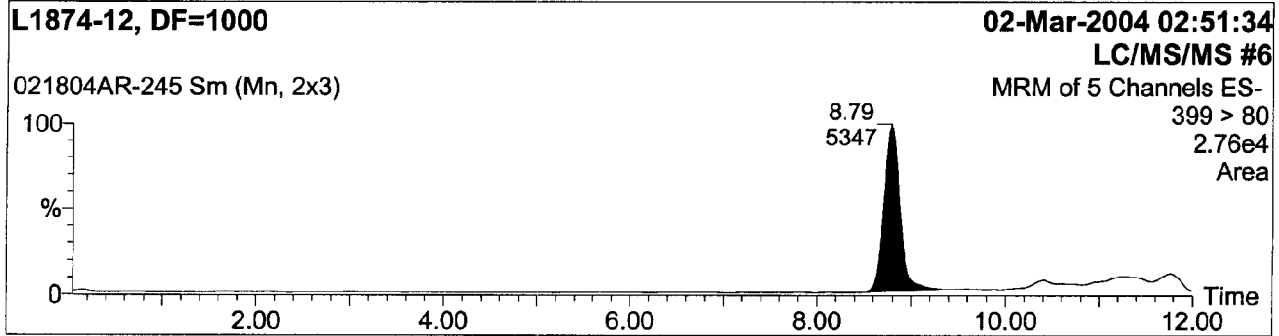
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

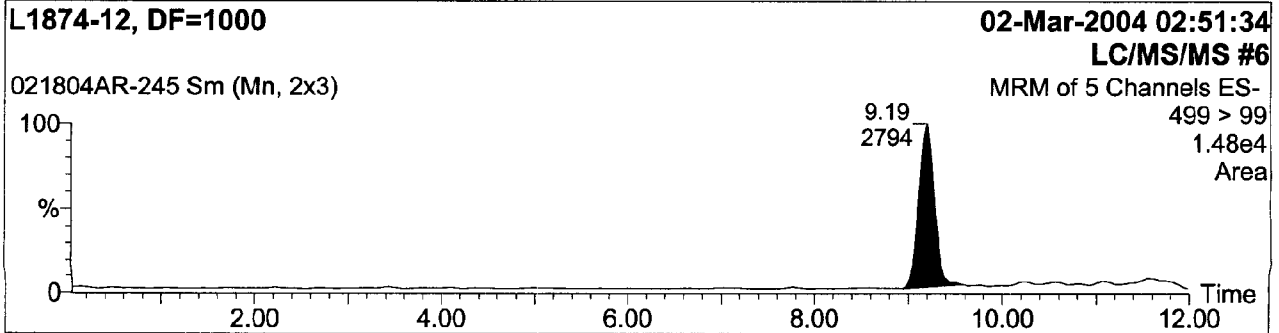
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-245
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

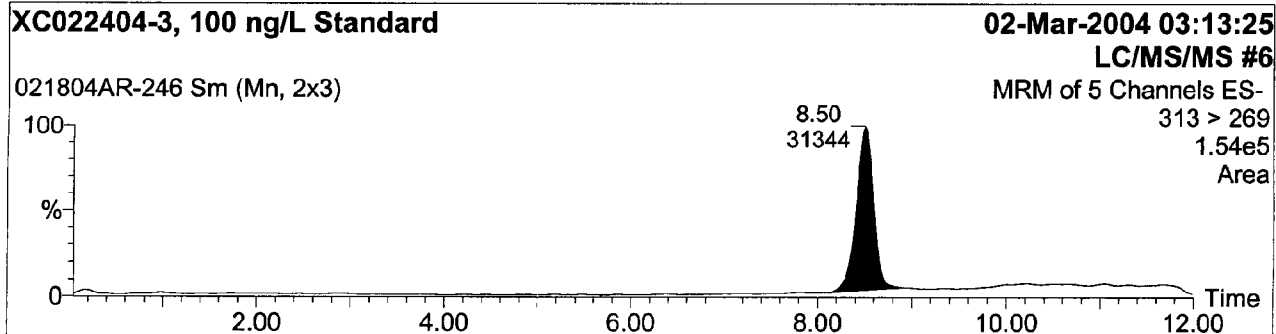
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

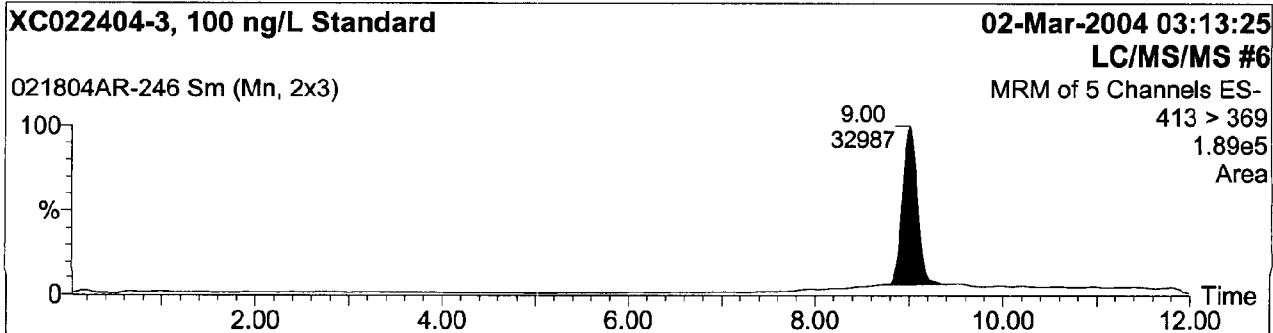
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Text:

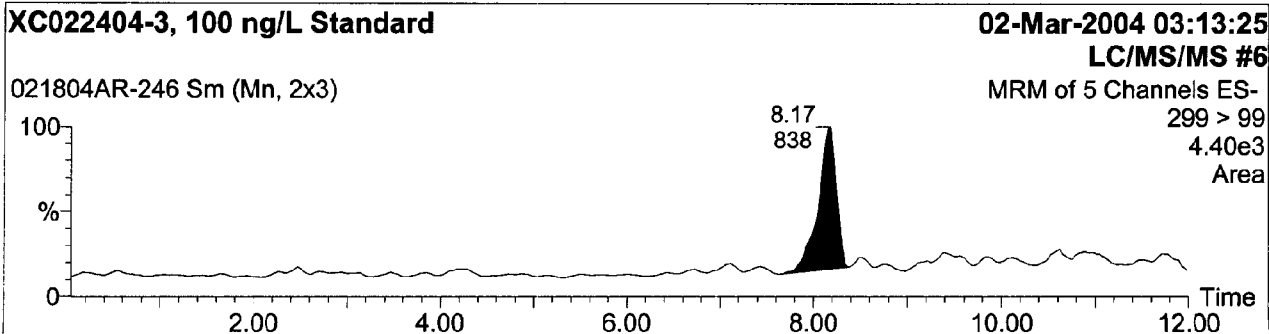
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

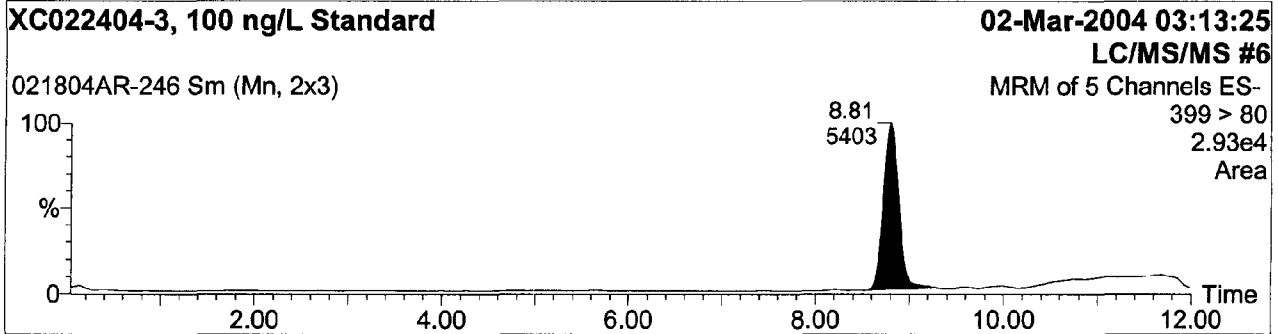
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

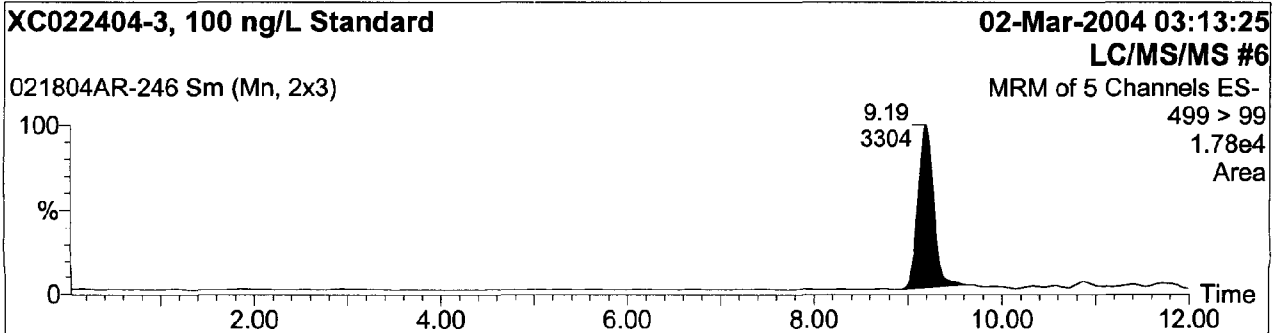
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-246
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

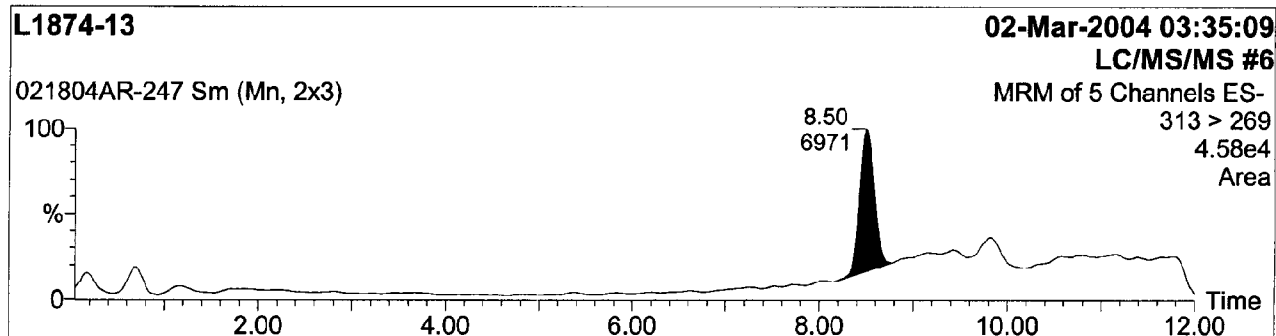
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

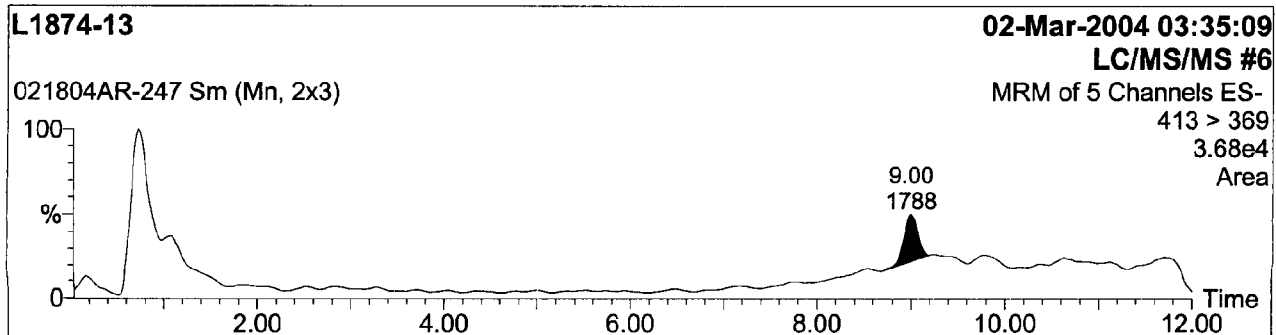
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Name: 021804AR-247
Text:

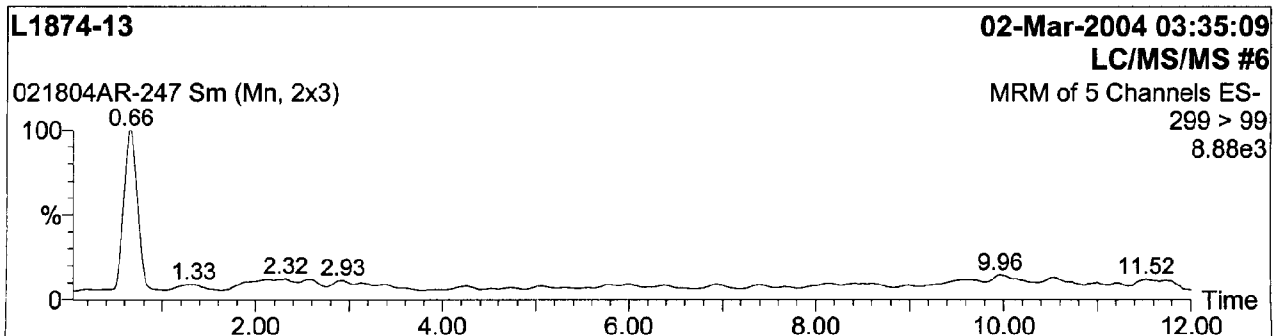
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

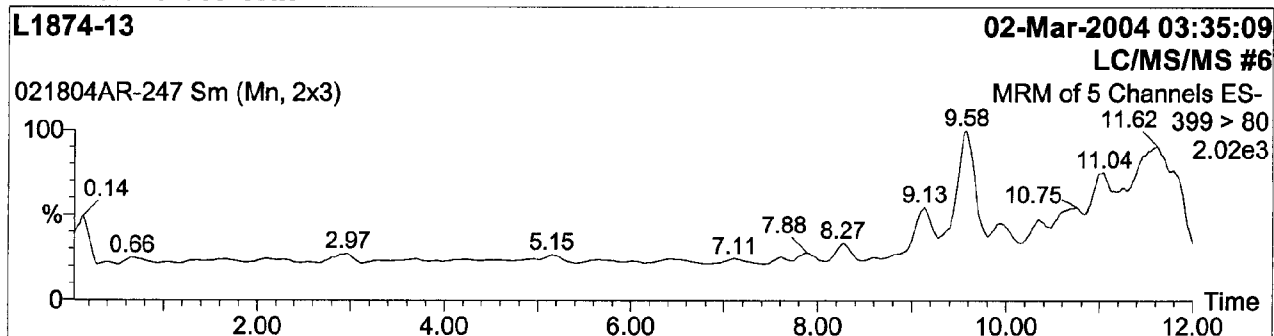
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

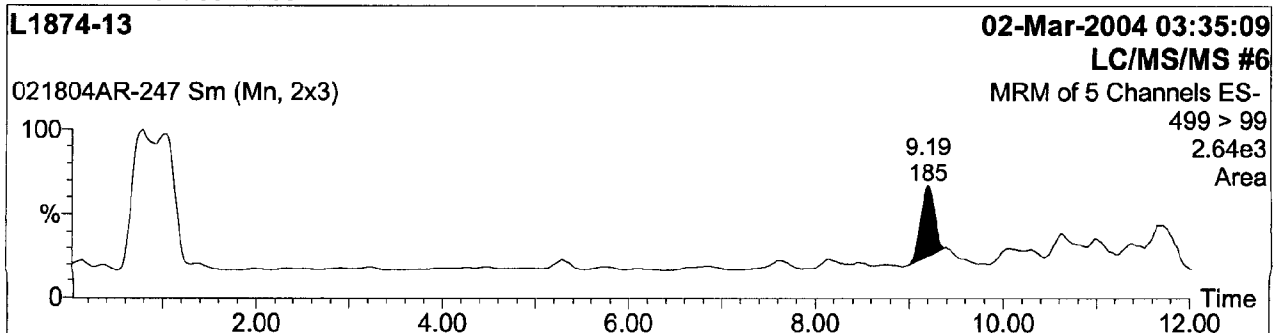
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-247
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

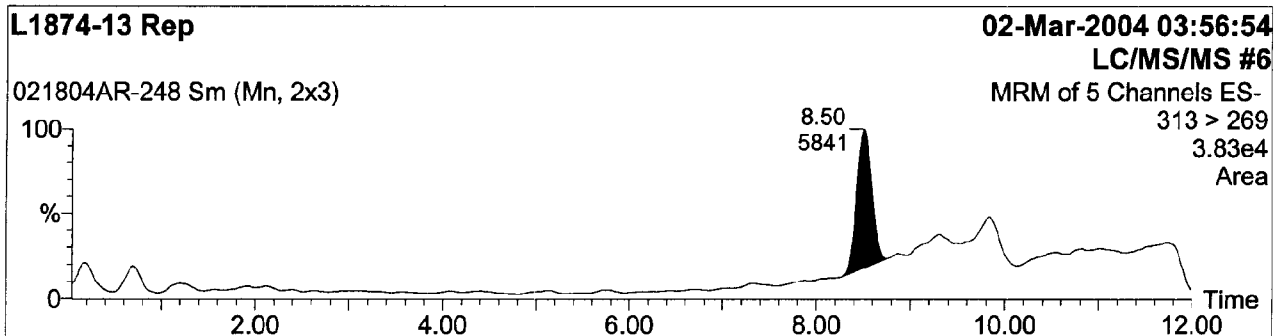
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

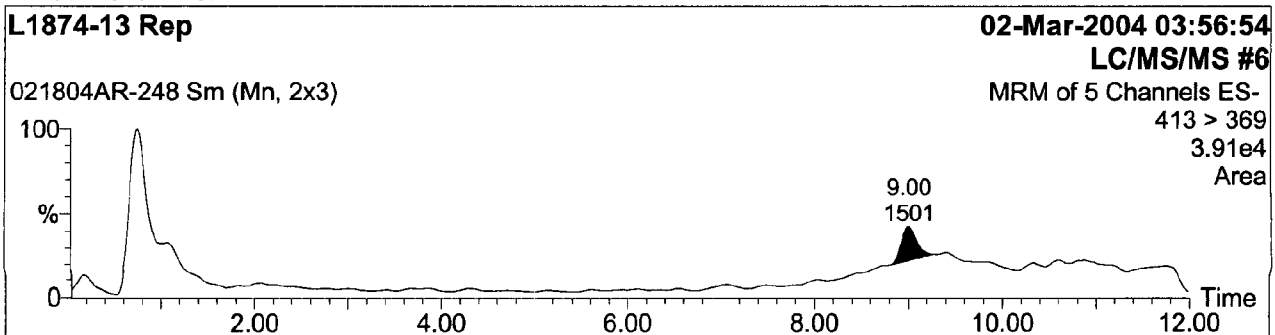
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-248
Text:

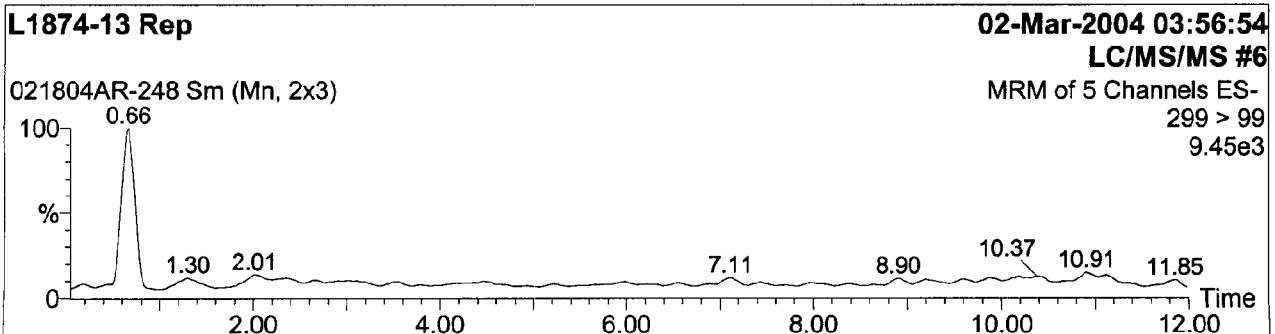
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

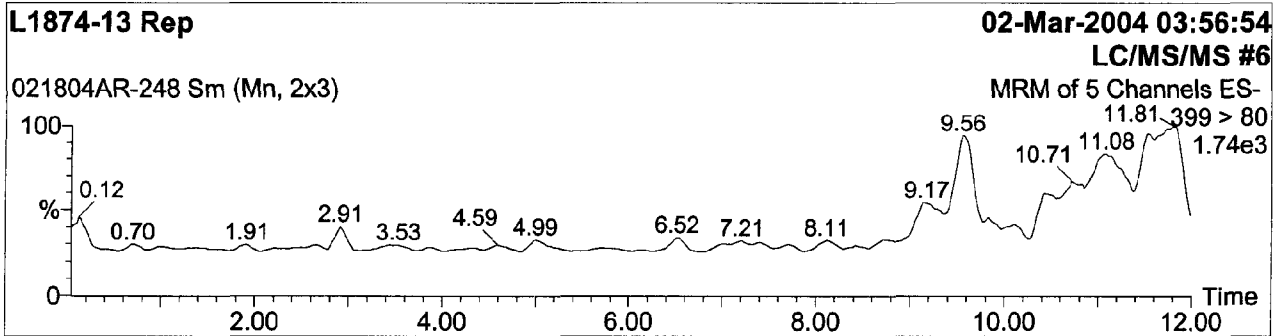
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

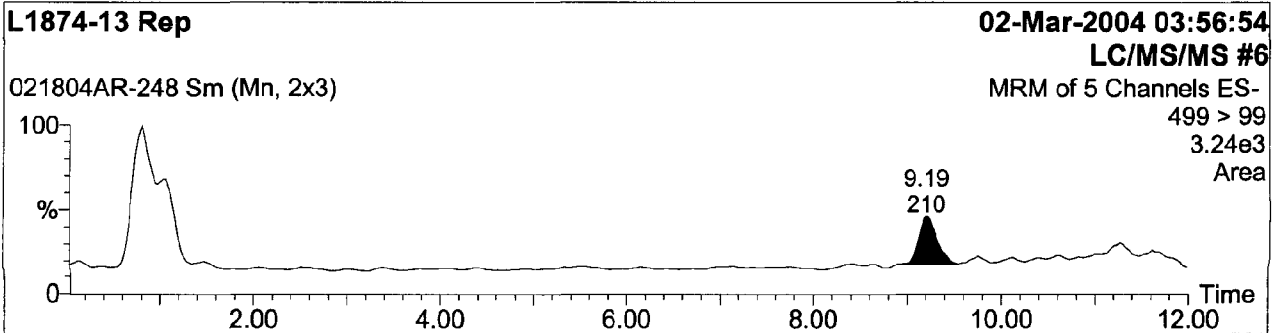
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-248
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

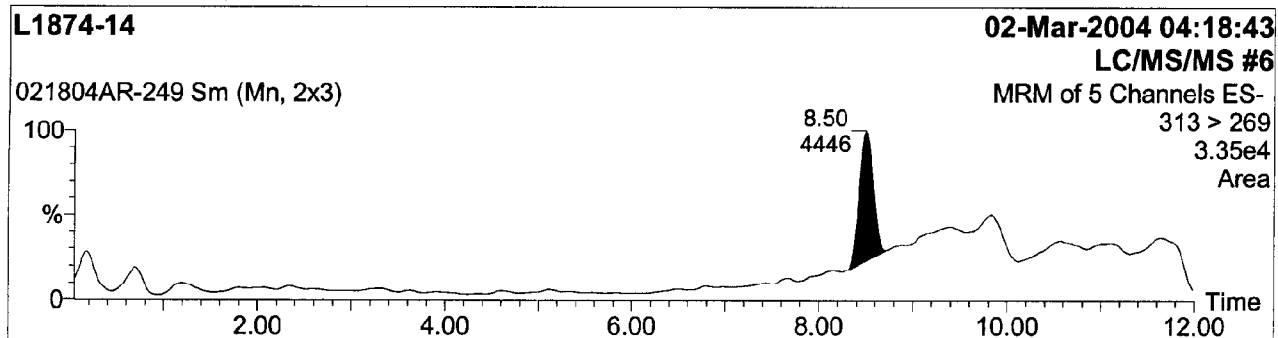
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
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Job Code:

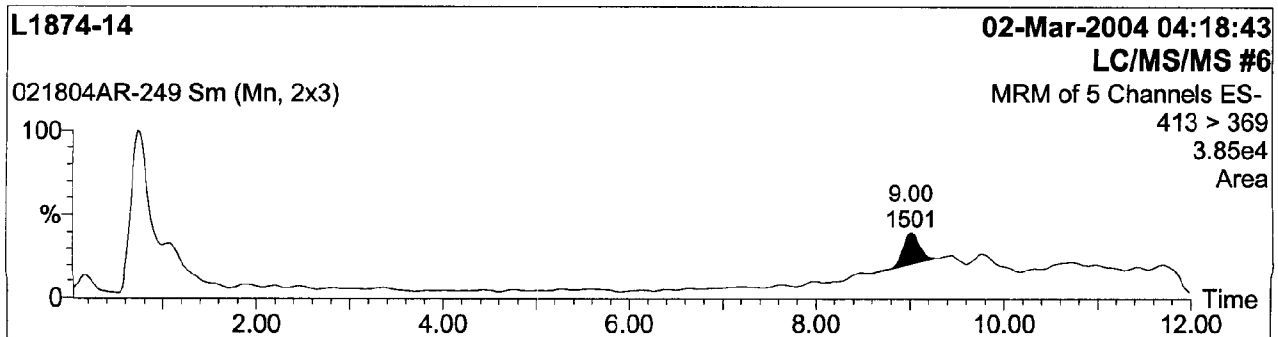
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Name: 021804AR-249
Text:

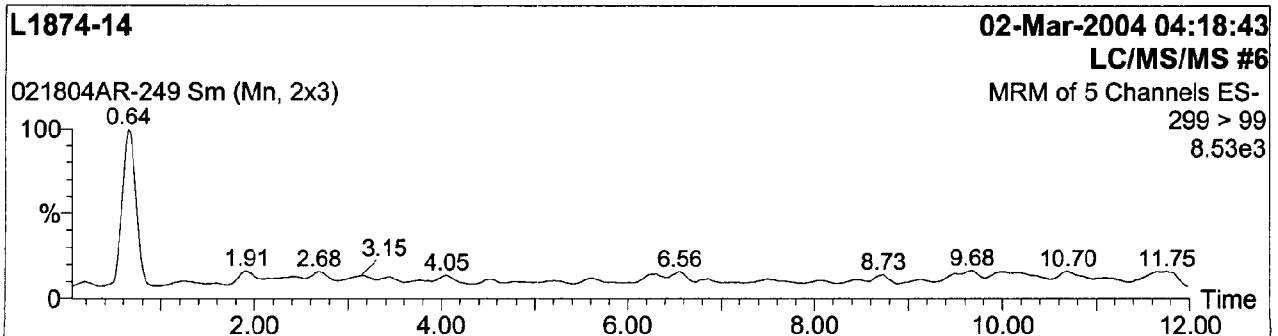
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

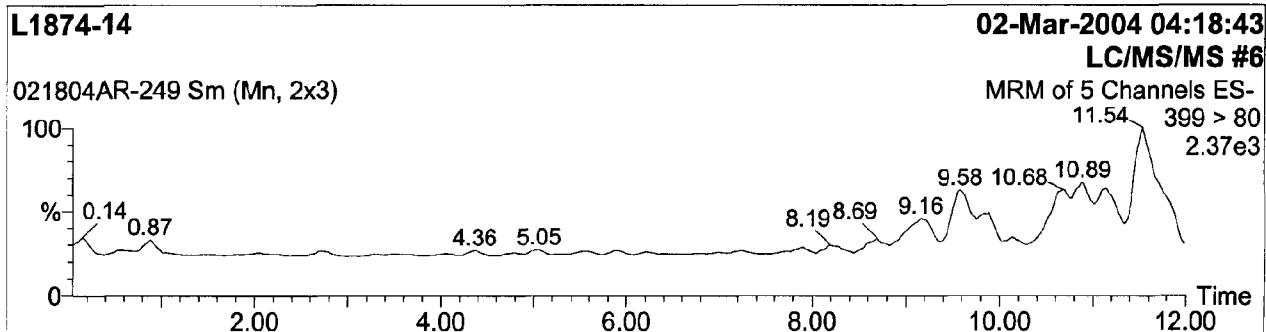
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

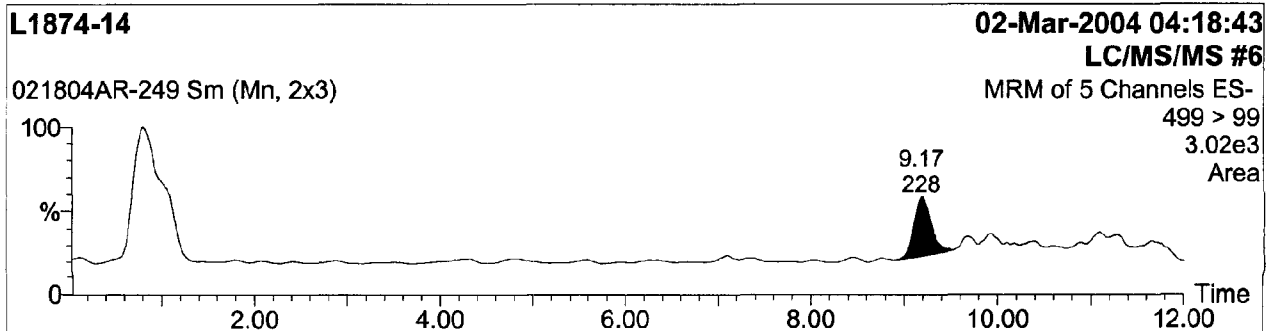
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-249
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Exygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

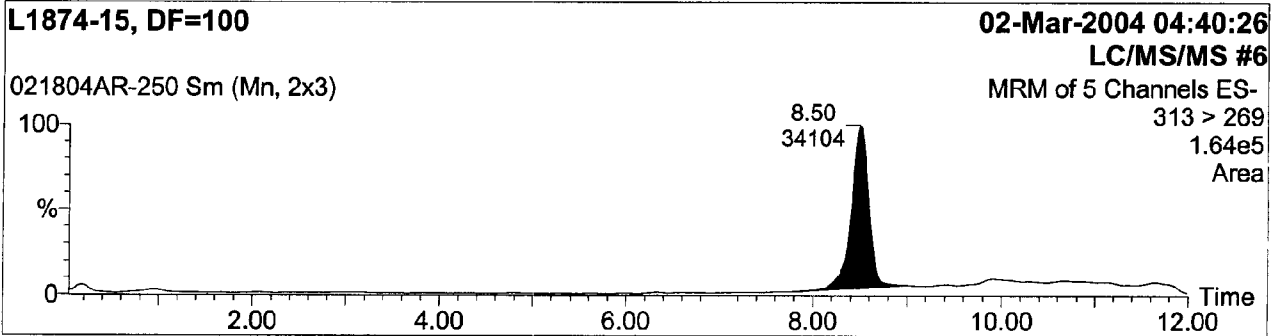
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

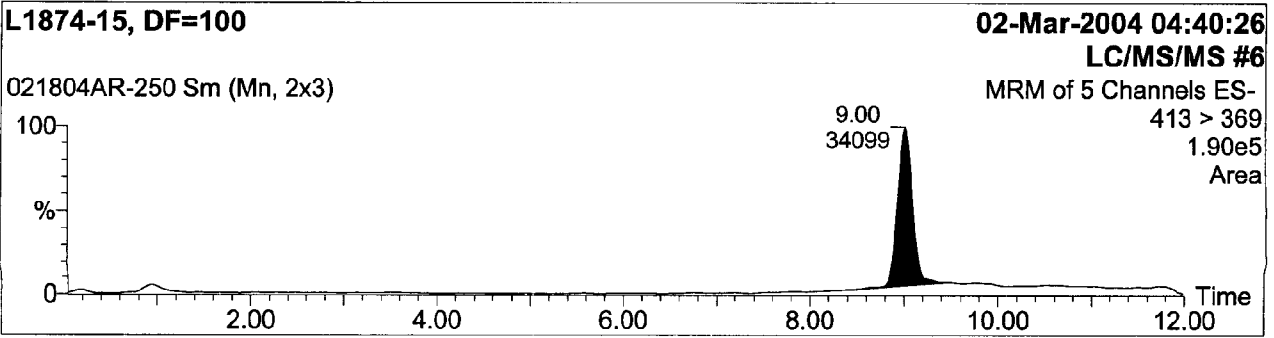
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-250
Text:

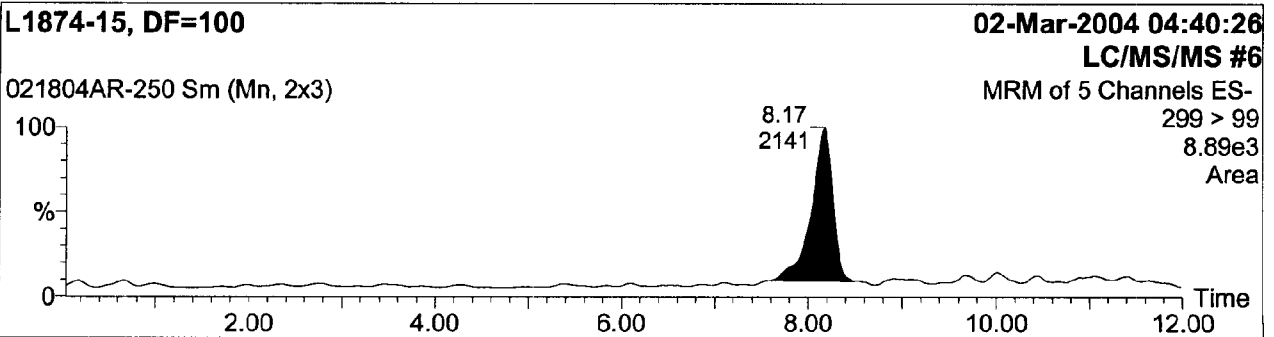
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

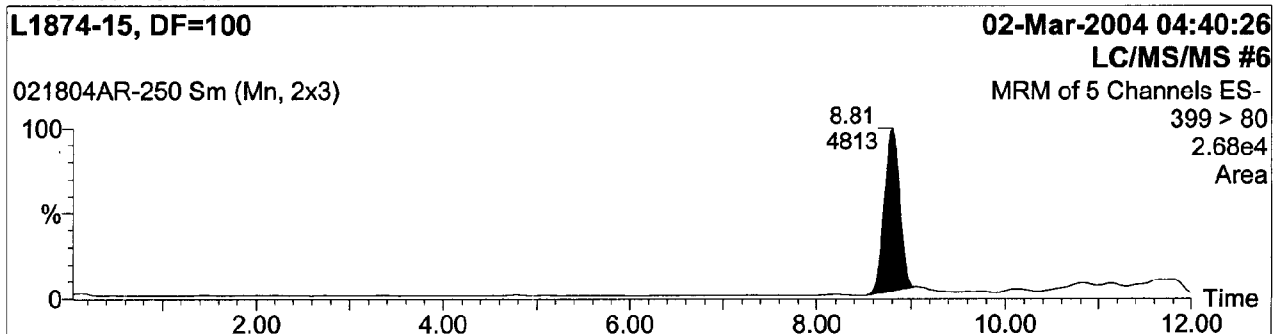
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

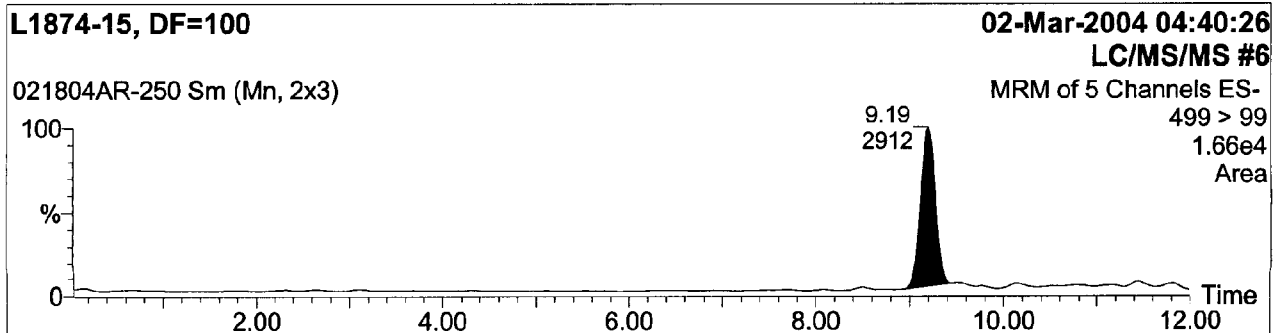
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-250
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-251
Text:

1: C6 Acid PFHA

L1874-16, DF=1000

02-Mar-2004 05:02:20

LC/MS/MS #6

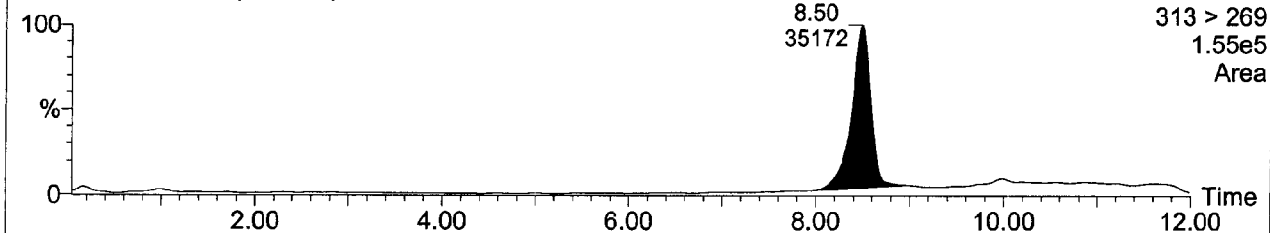
021804AR-251 Sm (Mn, 2x3)

MRM of 5 Channels ES-

313 > 269

1.55e5

Area



2: C8 Acid PFOA

L1874-16, DF=1000

02-Mar-2004 05:02:20

LC/MS/MS #6

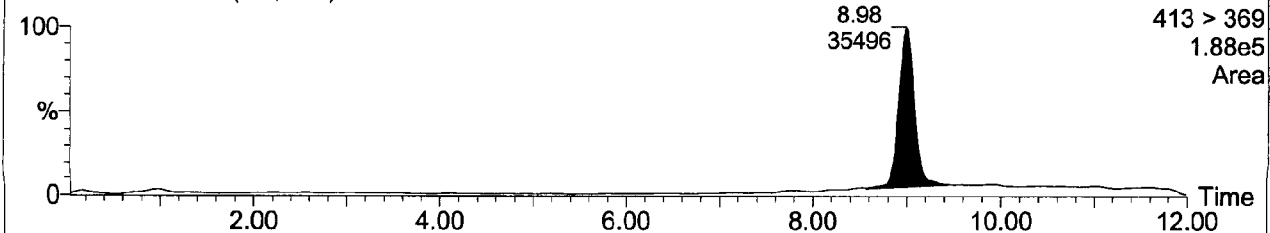
021804AR-251 Sm (Mn, 2x3)

MRM of 5 Channels ES-

413 > 369

1.88e5

Area



3: C4 Sulfonate PFBS

L1874-16, DF=1000

02-Mar-2004 05:02:20

LC/MS/MS #6

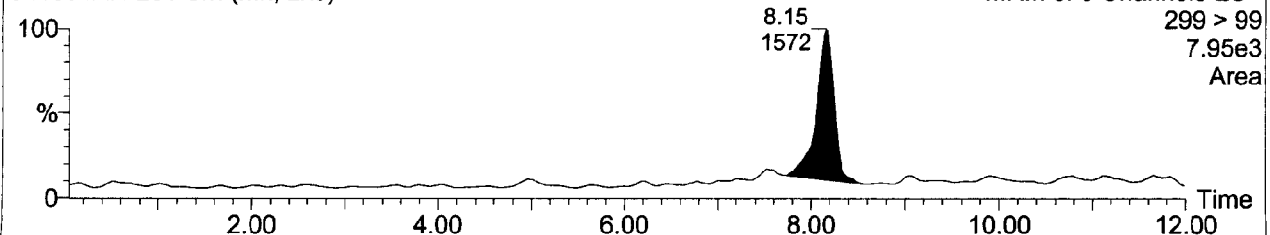
021804AR-251 Sm (Mn, 2x3)

MRM of 5 Channels ES-

299 > 99

7.95e3

Area



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Quantify Sample Report

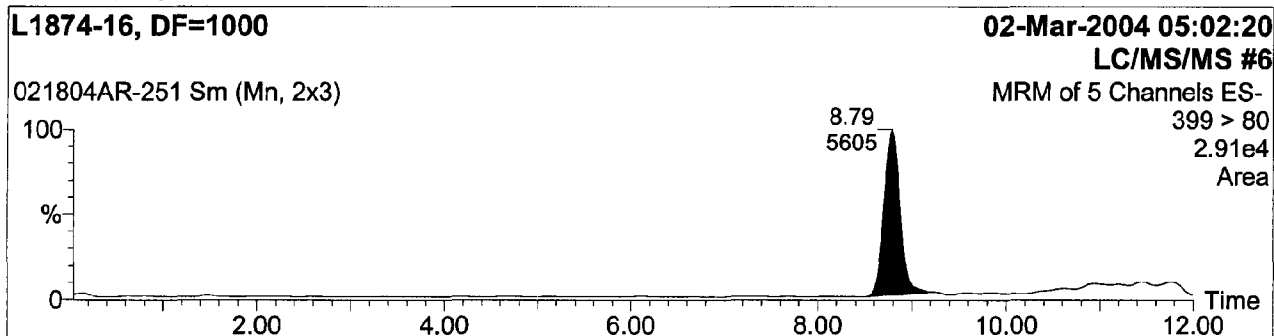
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

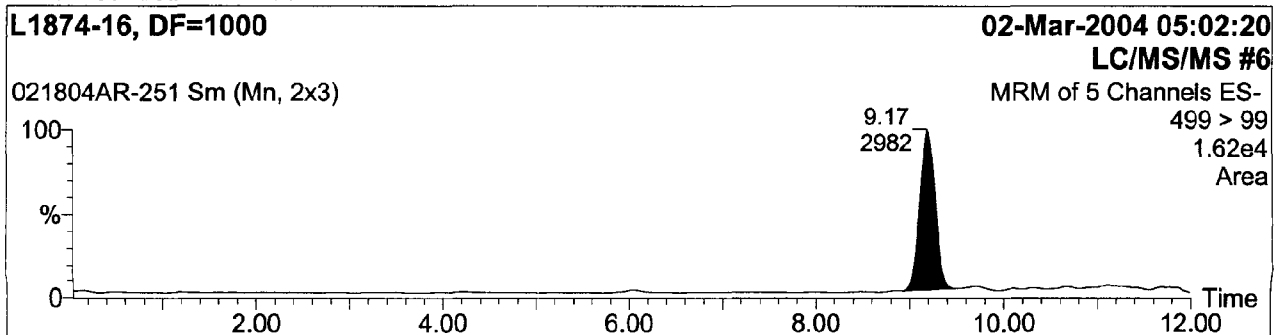
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-251
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-252
Text:

1: C6 Acid PFHA

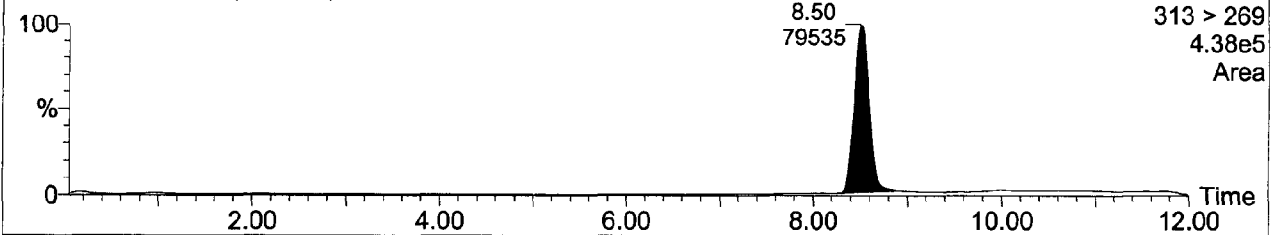
XC022404-4, 250 ng/L Standard

02-Mar-2004 05:24:08

LC/MS/MS #6

021804AR-252 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
4.38e5
Area



2: C8 Acid PFOA

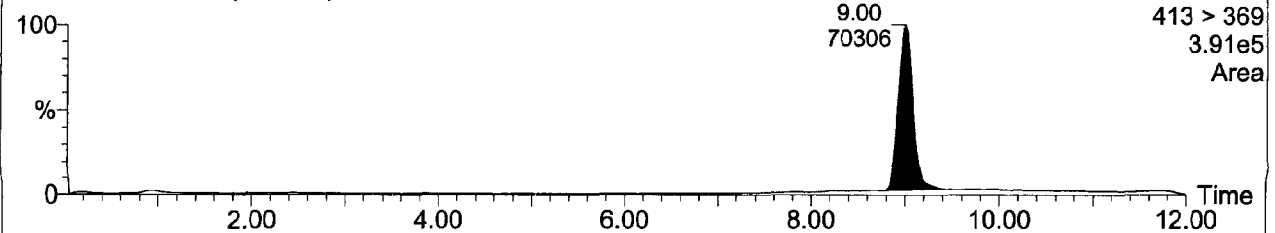
XC022404-4, 250 ng/L Standard

02-Mar-2004 05:24:08

LC/MS/MS #6

021804AR-252 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
3.91e5
Area



3: C4 Sulfonate PFBS

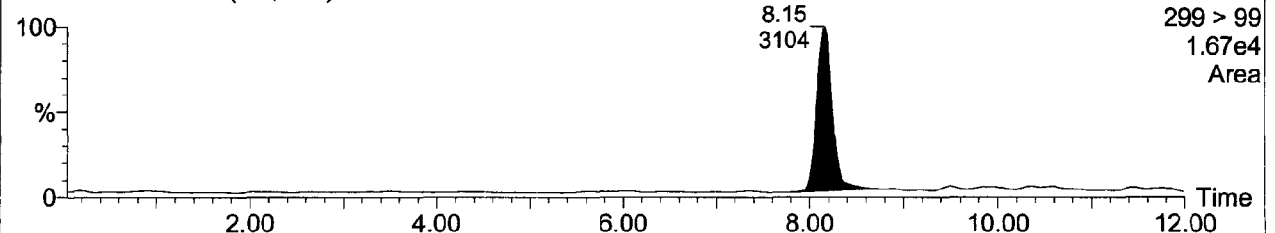
XC022404-4, 250 ng/L Standard

02-Mar-2004 05:24:08

LC/MS/MS #6

021804AR-252 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
1.67e4
Area



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Quantify Sample Report

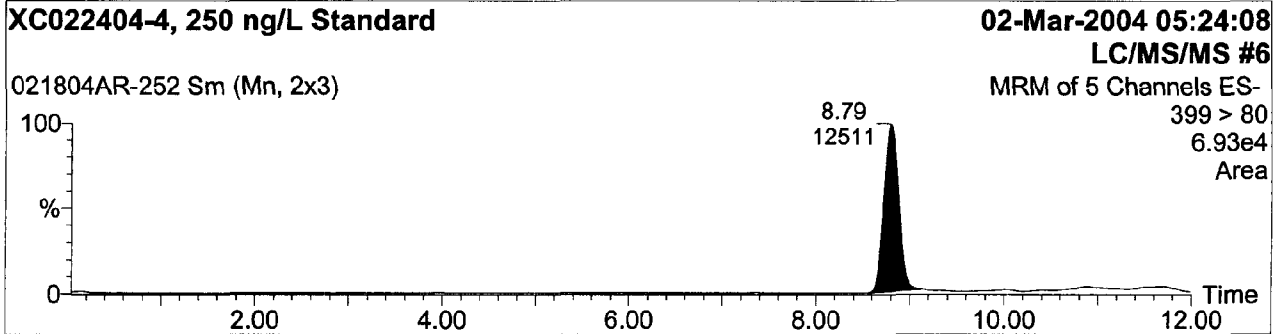
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

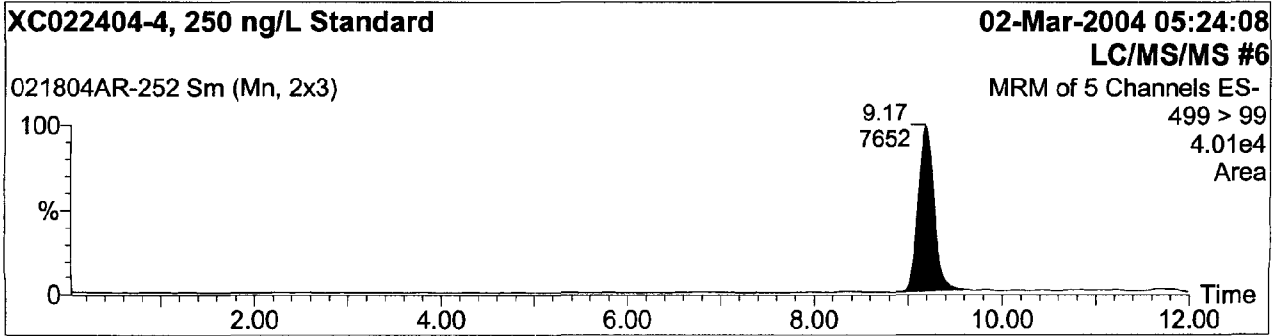
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-252
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

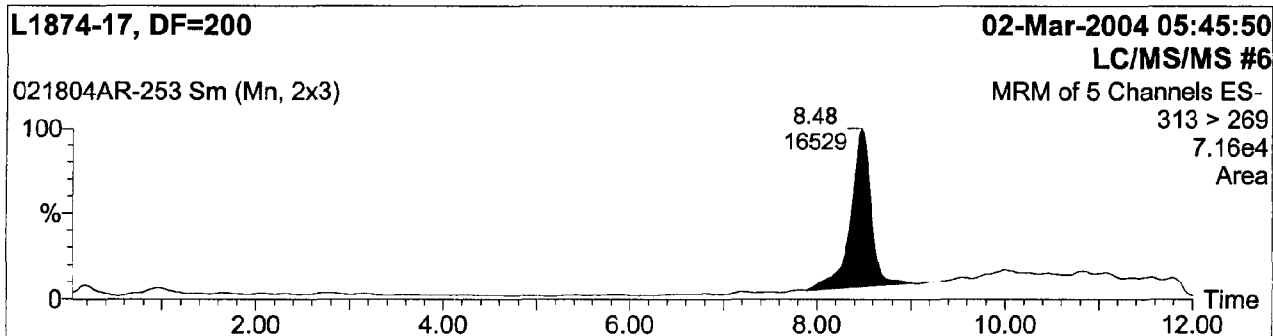
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

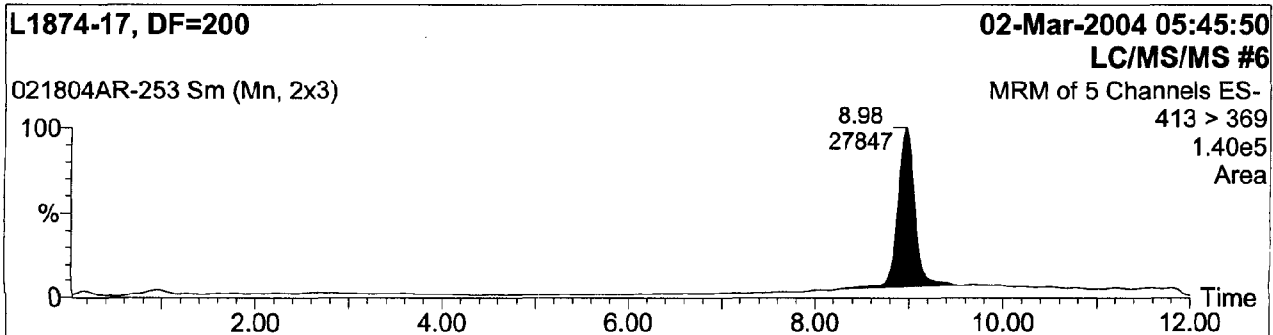
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-253
Text:

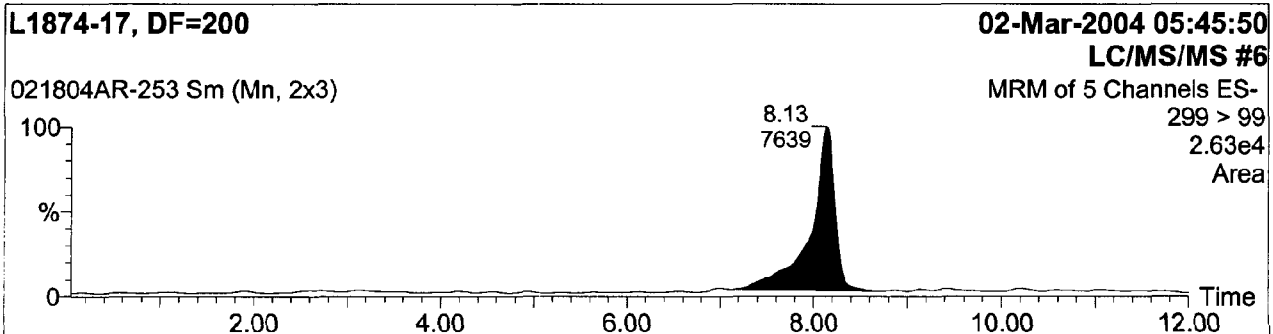
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

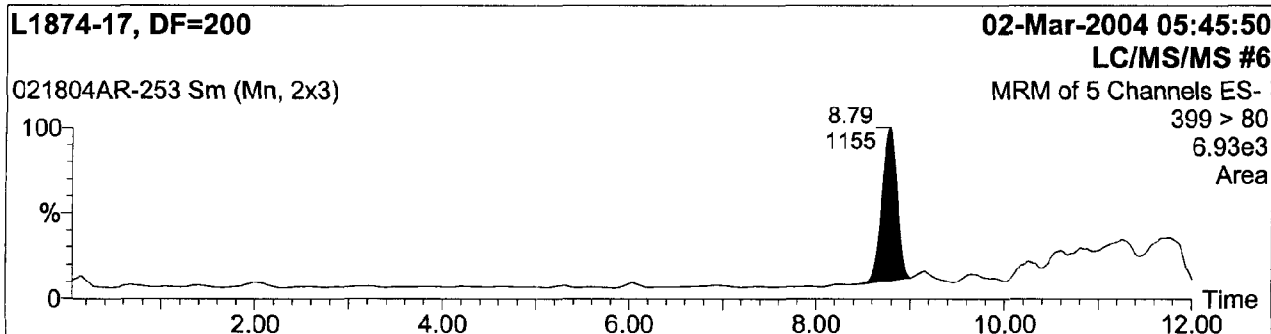
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

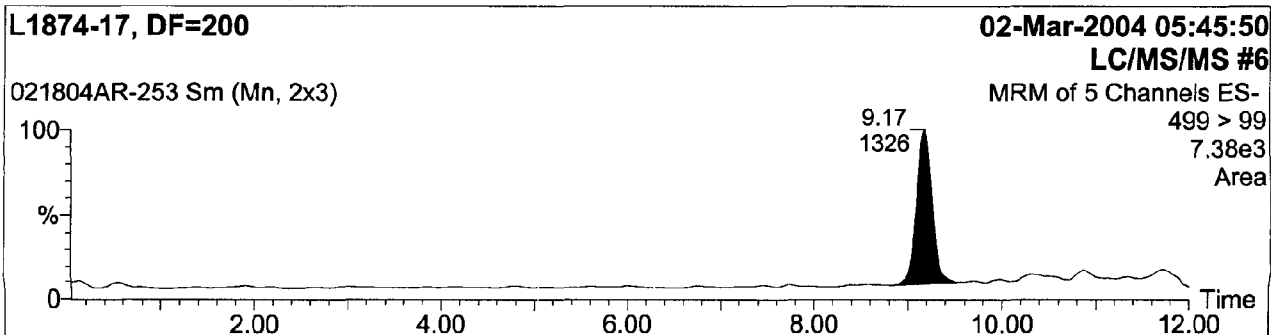
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-253
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-254
Text:

1: C6 Acid PFHA

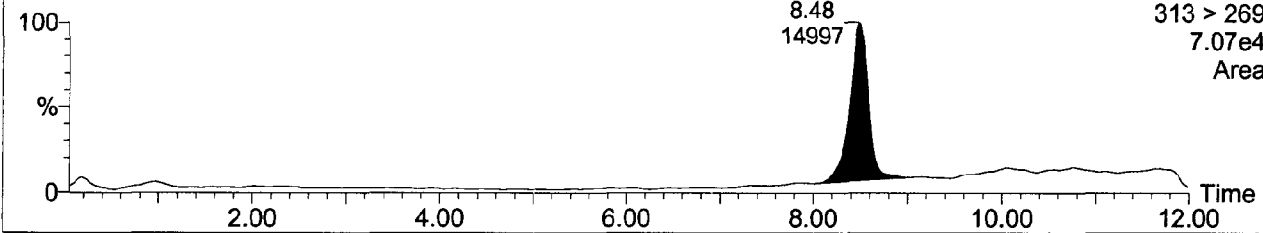
L1874-17 Rep, DF=200

02-Mar-2004 06:07:38

LC/MS/MS #6

021804AR-254 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
7.07e4
Area



2: C8 Acid PFOA

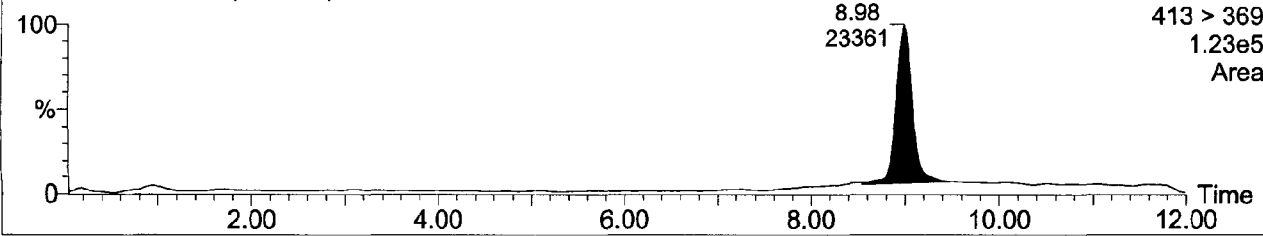
L1874-17 Rep, DF=200

02-Mar-2004 06:07:38

LC/MS/MS #6

021804AR-254 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.23e5
Area



3: C4 Sulfonate PFBS

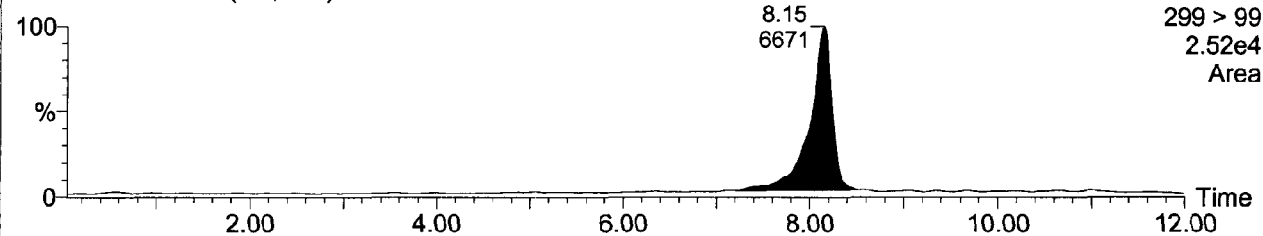
L1874-17 Rep, DF=200

02-Mar-2004 06:07:38

LC/MS/MS #6

021804AR-254 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
2.52e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-254
Text:

4: C6 Sulfonate PFHS

L1874-17 Rep, DF=200

02-Mar-2004 06:07:38

LC/MS/MS #6

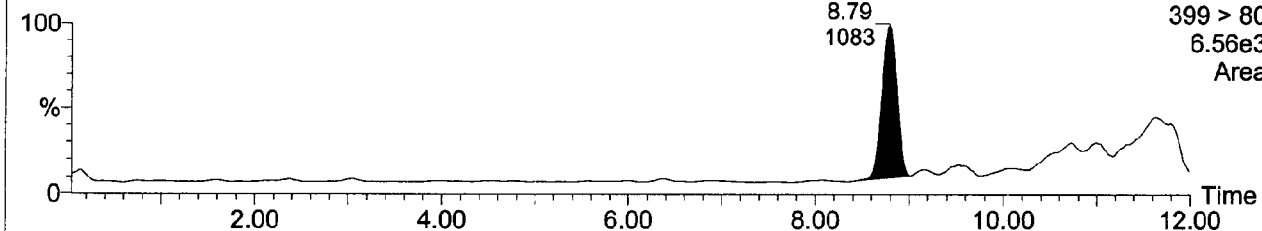
021804AR-254 Sm (Mn, 2x3)

MRM of 5 Channels ES-

399 > 80

6.56e3

Area



5: C8 Sulfonate PFOS

L1874-17 Rep, DF=200

02-Mar-2004 06:07:38

LC/MS/MS #6

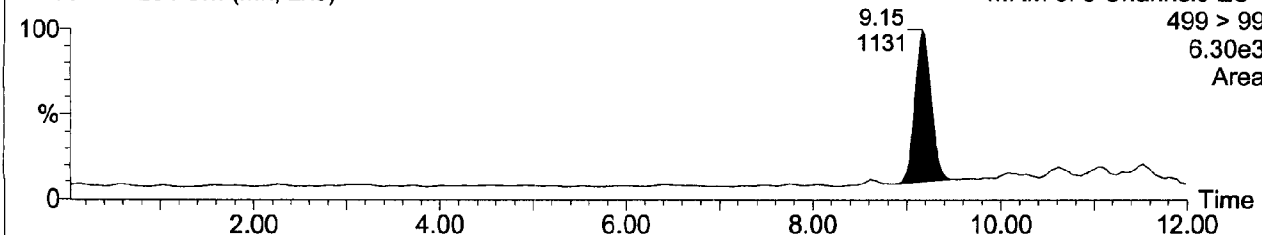
021804AR-254 Sm (Mn, 2x3)

MRM of 5 Channels ES-

499 > 99

6.30e3

Area



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Quantify Sample Report

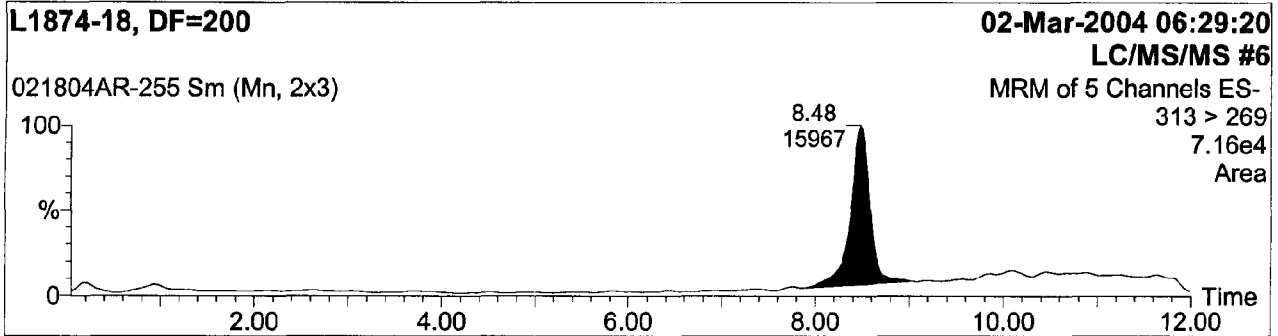
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

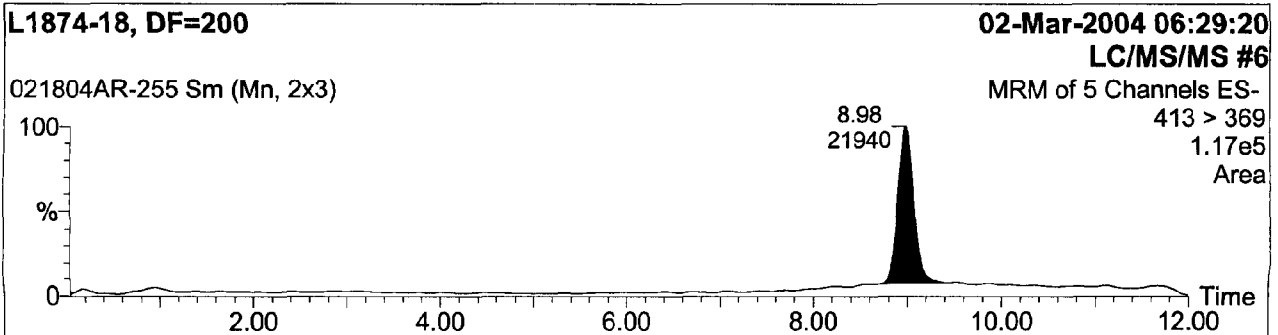
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-255
Text:

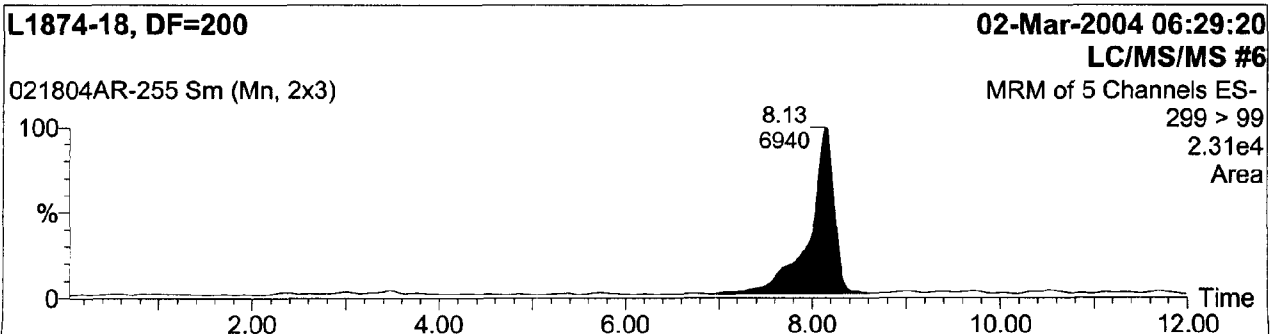
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

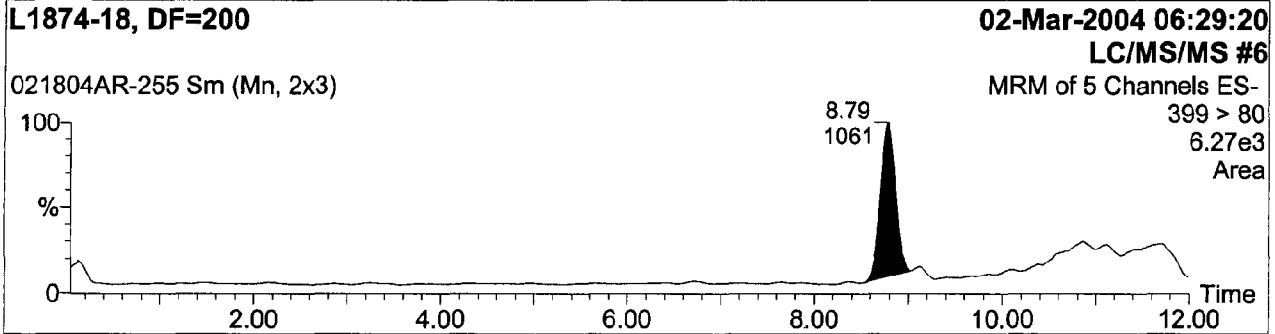
Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

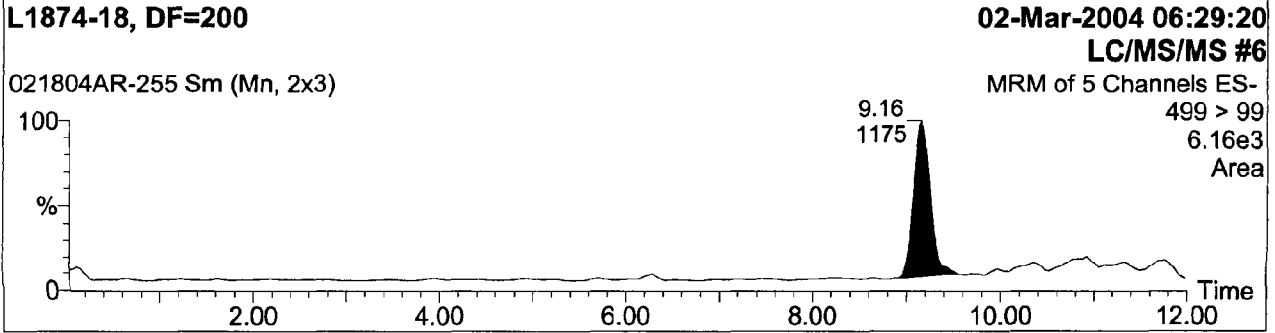
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-255
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

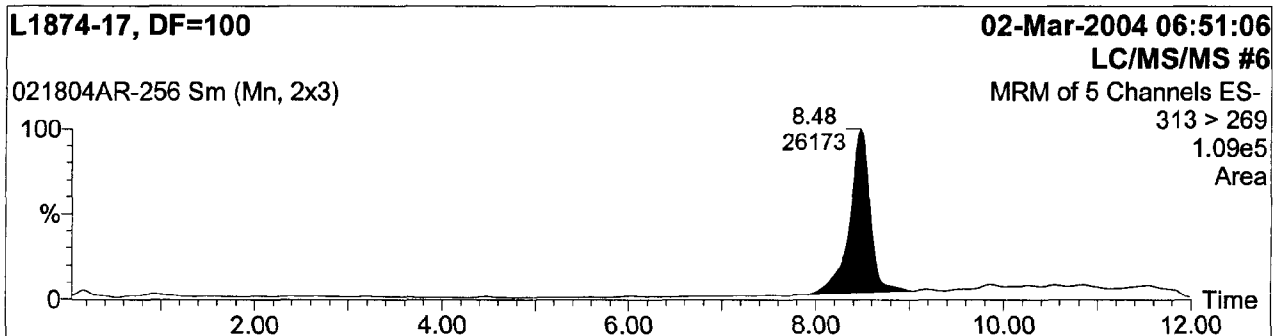
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

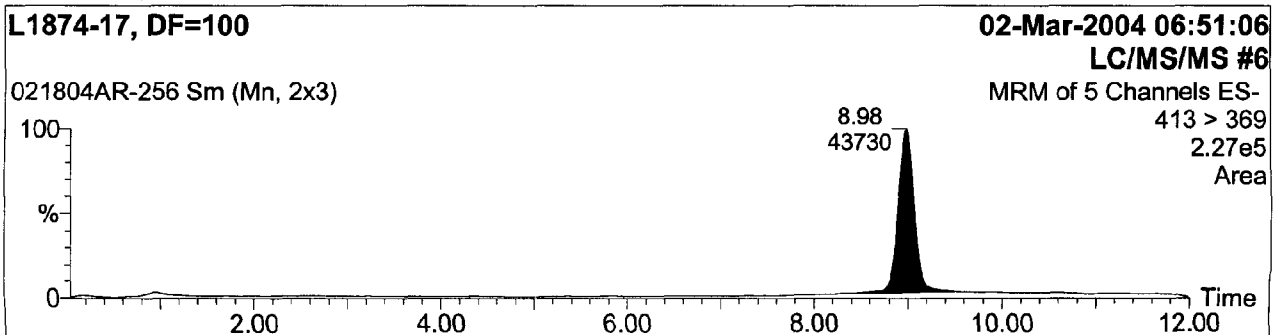
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-256
Text:

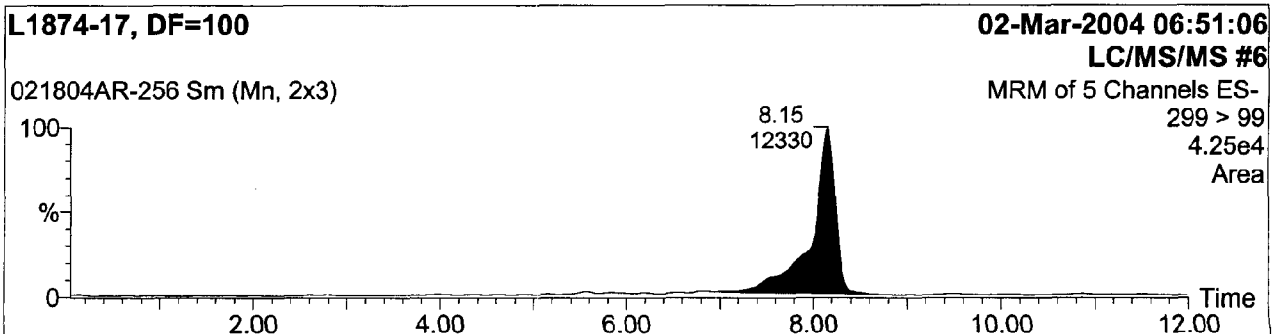
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-256
Text:

4: C6 Sulfonate PFHS

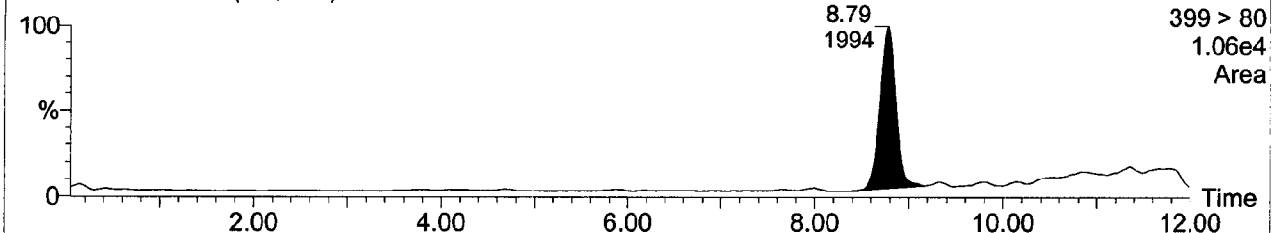
L1874-17, DF=100

02-Mar-2004 06:51:06

LC/MS/MS #6

MRM of 5 Channels ES-
399 > 80
1.06e4
Area

021804AR-256 Sm (Mn, 2x3)



5: C8 Sulfonate PFOS

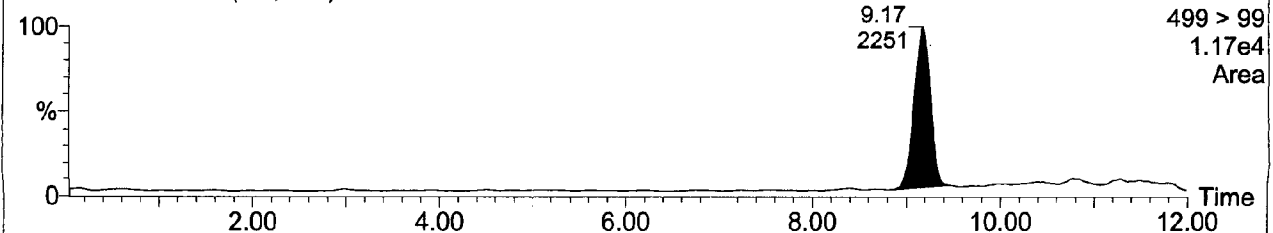
L1874-17, DF=100

02-Mar-2004 06:51:06

LC/MS/MS #6

MRM of 5 Channels ES-
499 > 99
1.17e4
Area

021804AR-256 Sm (Mn, 2x3)



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-257
Text:

1: C6 Acid PFHA

L1874-17 Rep, DF=100

02-Mar-2004 07:12:51

LC/MS/MS #6

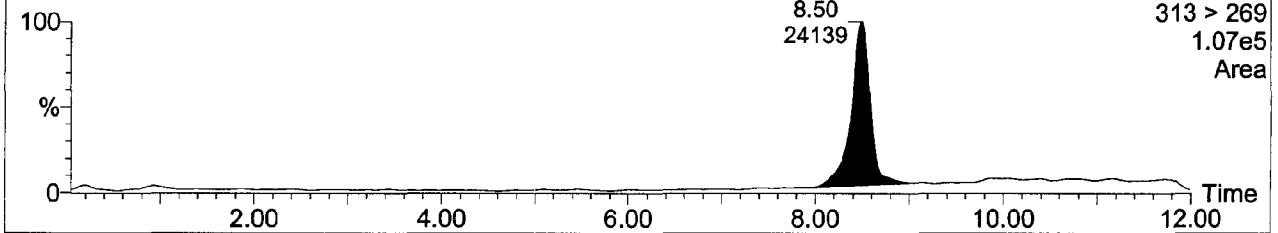
021804AR-257 Sm (Mn, 2x3)

MRM of 5 Channels ES-

313 > 269

1.07e5

Area



2: C8 Acid PFOA

L1874-17 Rep, DF=100

02-Mar-2004 07:12:51

LC/MS/MS #6

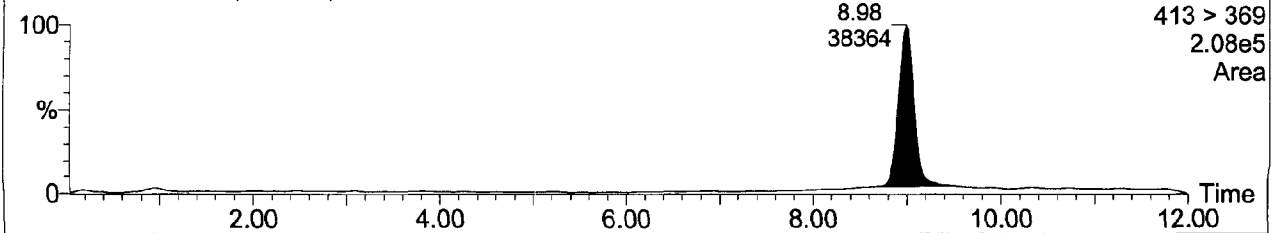
021804AR-257 Sm (Mn, 2x3)

MRM of 5 Channels ES-

413 > 369

2.08e5

Area



3: C4 Sulfonate PFBS

L1874-17 Rep, DF=100

02-Mar-2004 07:12:51

LC/MS/MS #6

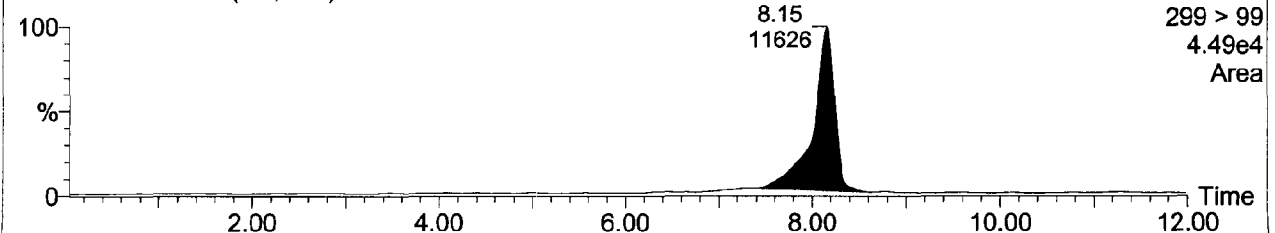
021804AR-257 Sm (Mn, 2x3)

MRM of 5 Channels ES-

299 > 99

4.49e4

Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-257
Text:

4: C6 Sulfonate PFHS

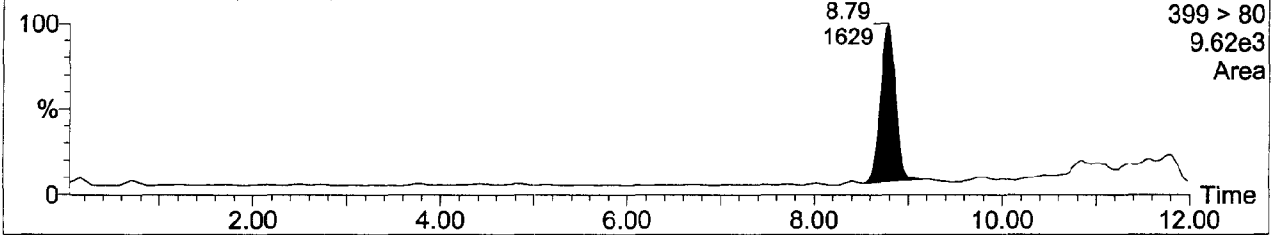
L1874-17 Rep, DF=100

02-Mar-2004 07:12:51

LC/MS/MS #6

021804AR-257 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
9.62e3
Area



5: C8 Sulfonate PFOS

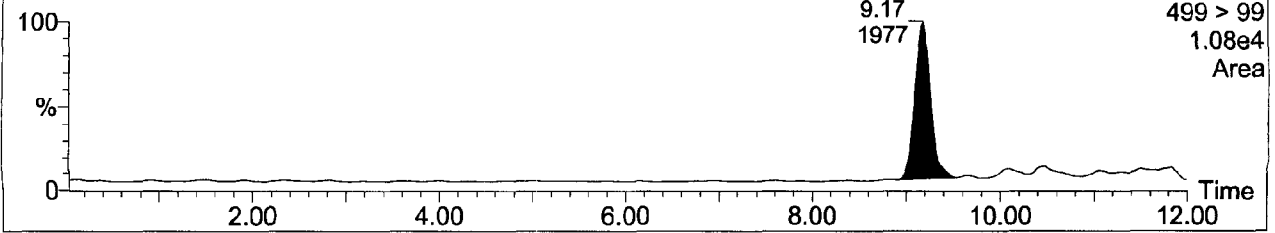
L1874-17 Rep, DF=100

02-Mar-2004 07:12:51

LC/MS/MS #6

021804AR-257 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.08e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

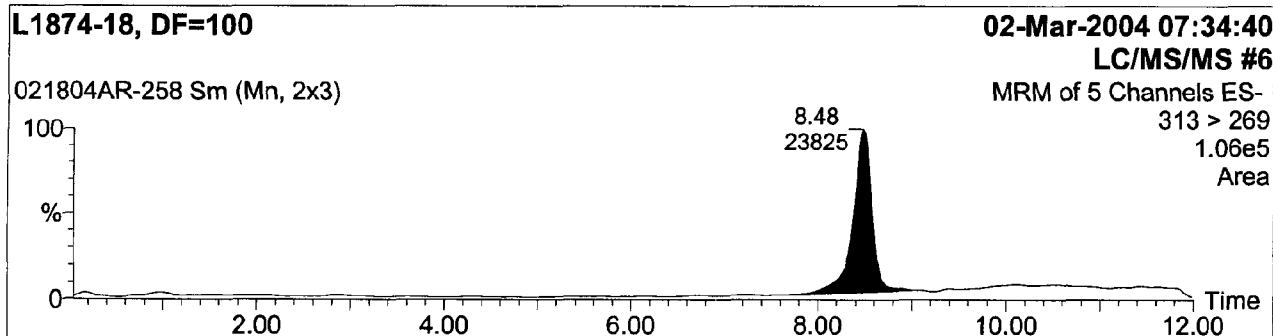
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: F:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: F:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

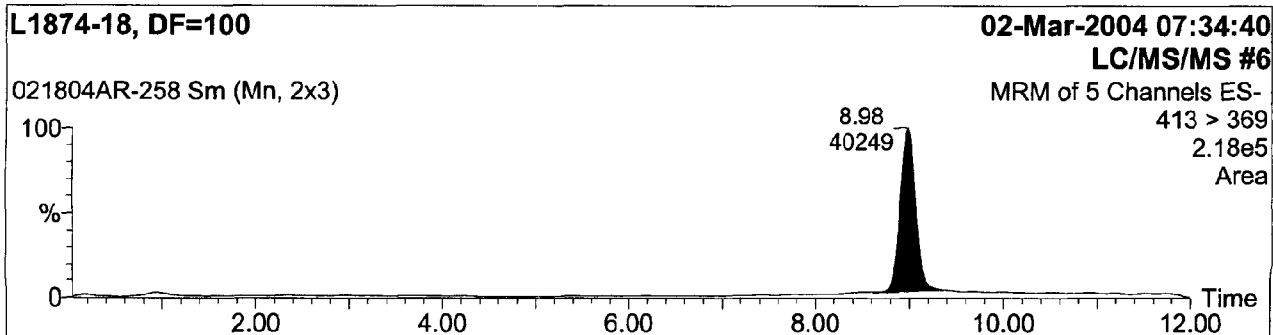
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-258
Text:

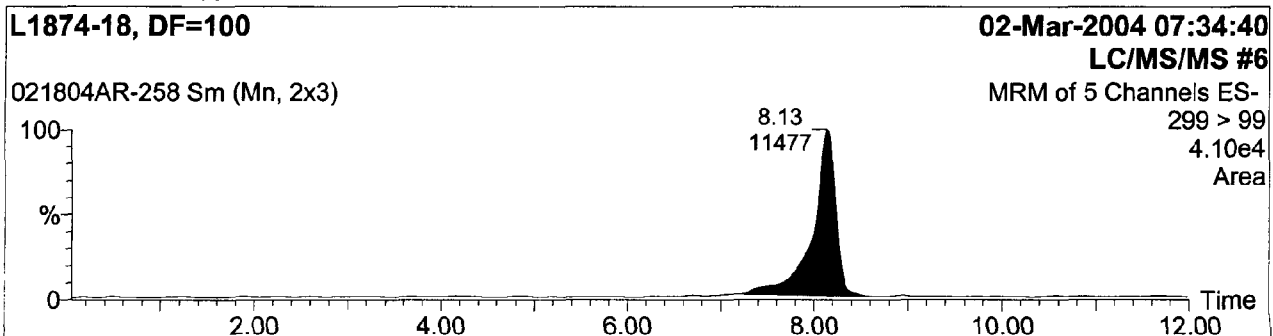
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

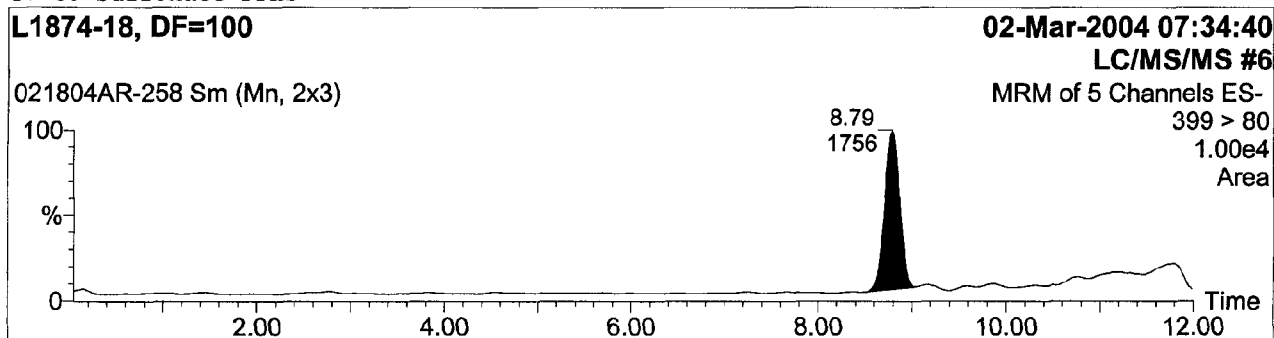
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

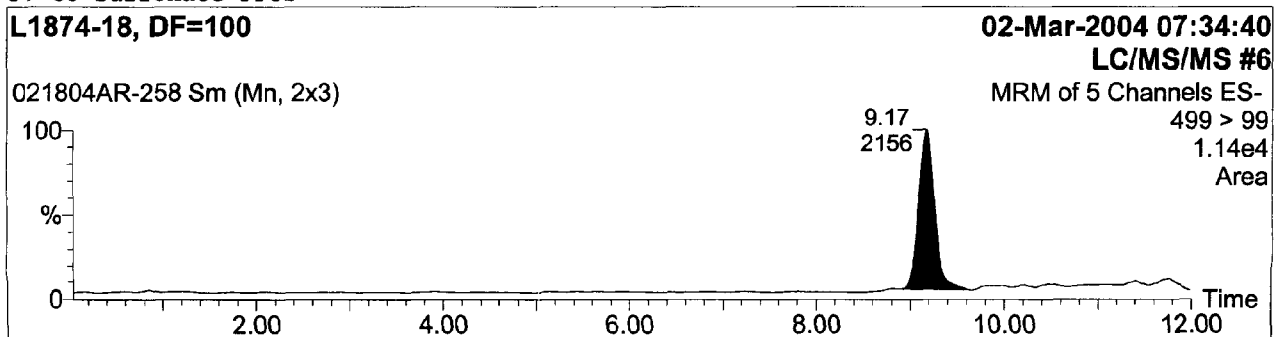
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-258
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

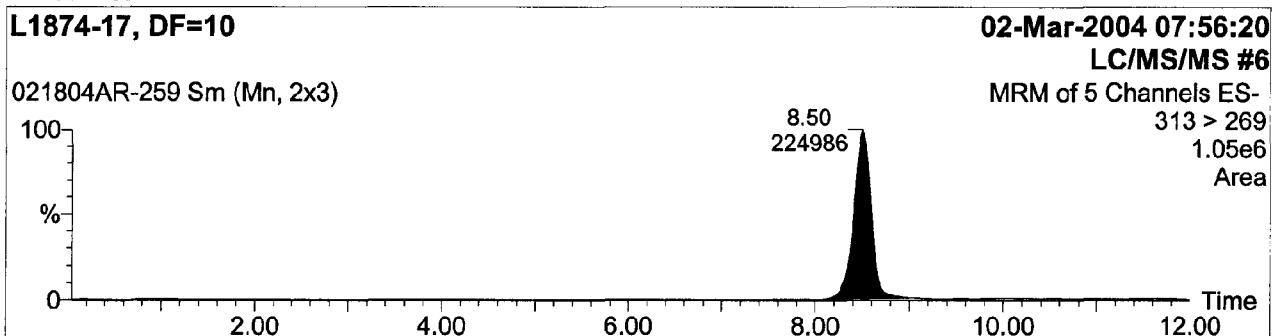
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

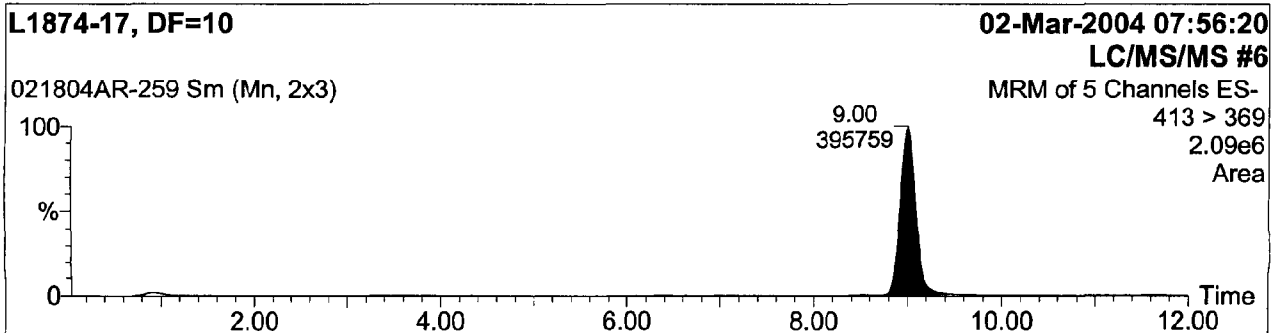
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-259
Text:

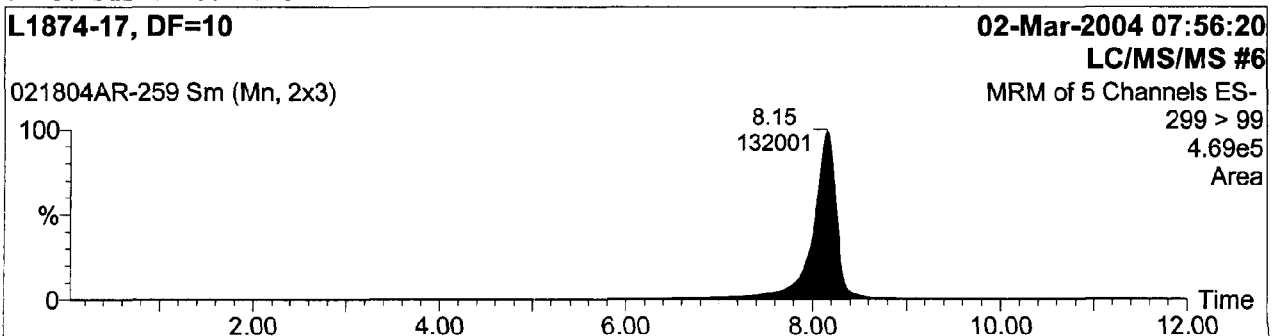
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDE\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-259
Text:

4: C6 Sulfonate PFHS

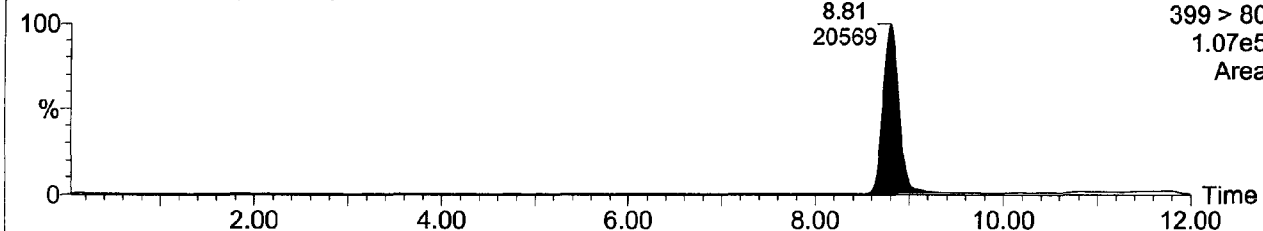
L1874-17, DF=10

02-Mar-2004 07:56:20

LC/MS/MS #6

021804AR-259 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
1.07e5
Area



5: C8 Sulfonate PFOS

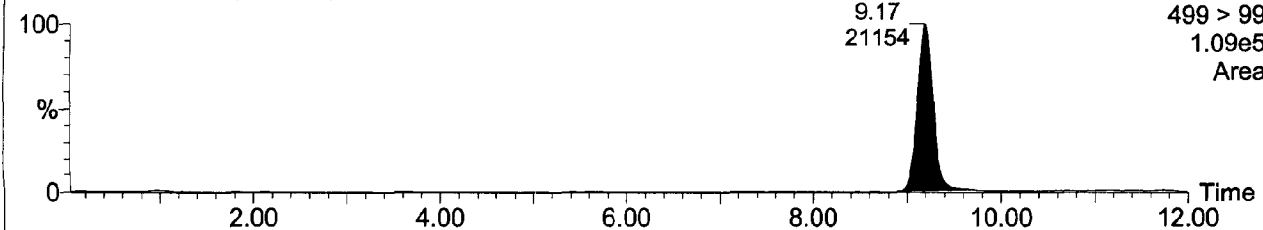
L1874-17, DF=10

02-Mar-2004 07:56:20

LC/MS/MS #6

021804AR-259 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.09e5
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-260
Text:

1: C6 Acid PFHA

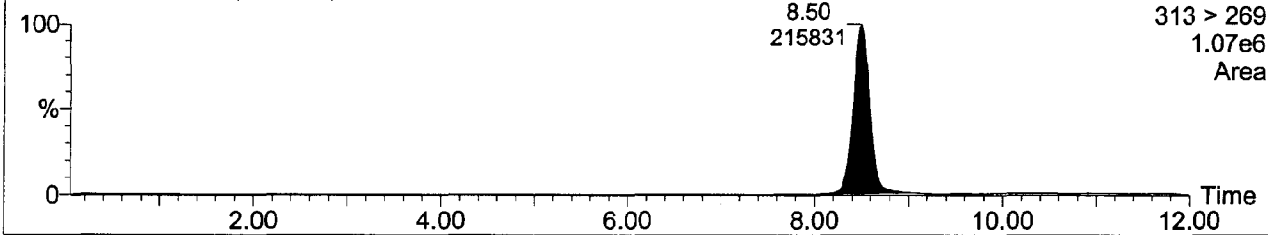
L1874-17 Rep, DF=10

02-Mar-2004 08:18:09

LC/MS/MS #6

021804AR-260 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
1.07e6
Area



2: C8 Acid PFOA

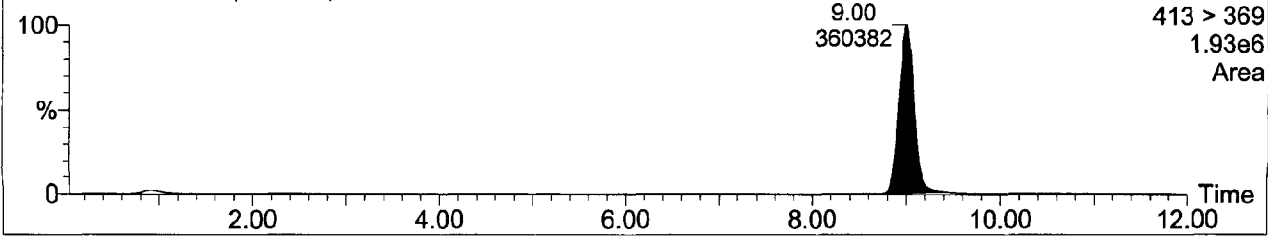
L1874-17 Rep, DF=10

02-Mar-2004 08:18:09

LC/MS/MS #6

021804AR-260 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.93e6
Area



3: C4 Sulfonate PFBS

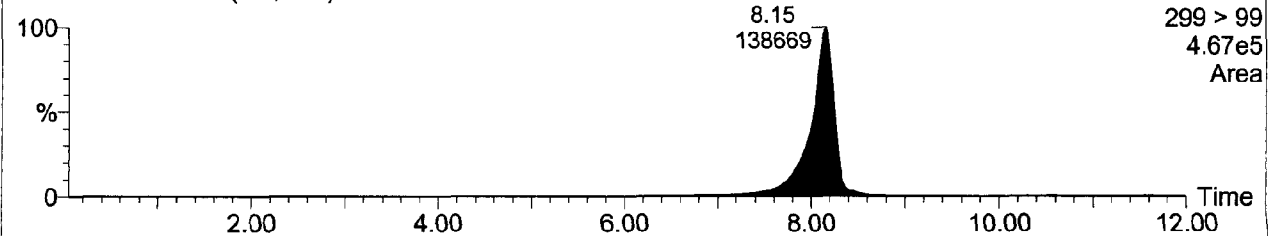
L1874-17 Rep, DF=10

02-Mar-2004 08:18:09

LC/MS/MS #6

021804AR-260 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
4.67e5
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext.Date: 02/18/04, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-260
Text:

4: C6 Sulfonate PFHS

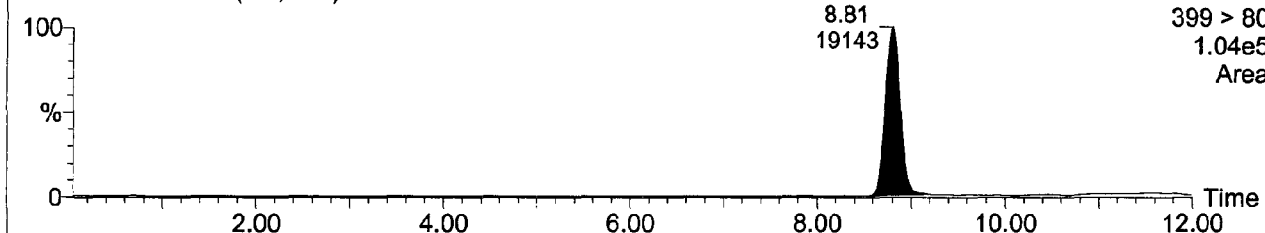
L1874-17 Rep, DF=10

02-Mar-2004 08:18:09

LC/MS/MS #6

021804AR-260 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
1.04e5
Area



5: C8 Sulfonate PFOS

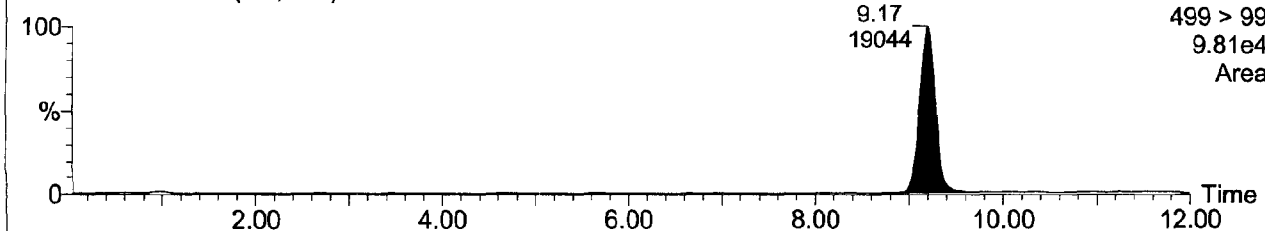
L1874-17 Rep, DF=10

02-Mar-2004 08:18:09

LC/MS/MS #6

021804AR-260 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
9.81e4
Area



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Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-261
Text:

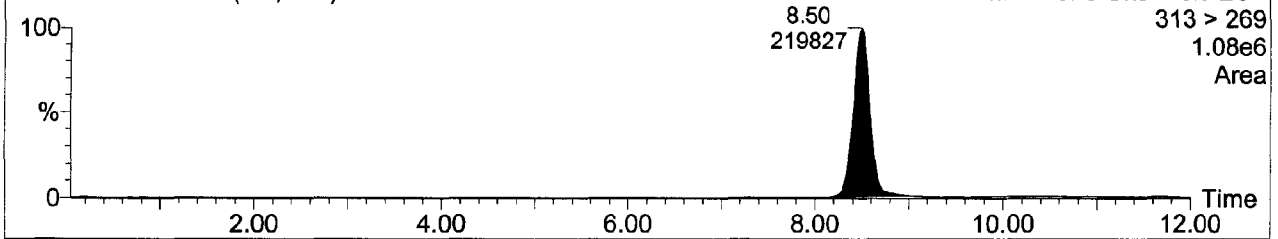
1: C6 Acid PFHA
L1874-18, DF=10

02-Mar-2004 08:39:55

LC/MS/MS #6

021804AR-261 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
1.08e6
Area



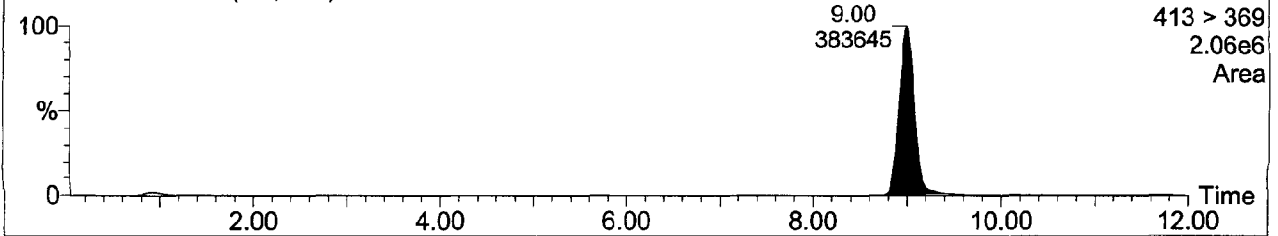
2: C8 Acid PFOA
L1874-18, DF=10

02-Mar-2004 08:39:55

LC/MS/MS #6

021804AR-261 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
2.06e6
Area



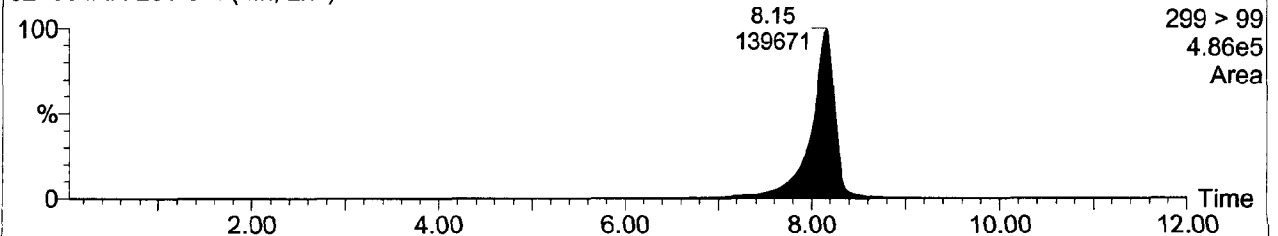
3: C4 Sulfonate PFBS
L1874-18, DF=10

02-Mar-2004 08:39:55

LC/MS/MS #6

021804AR-261 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
4.86e5
Area



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Quantify Sample Report

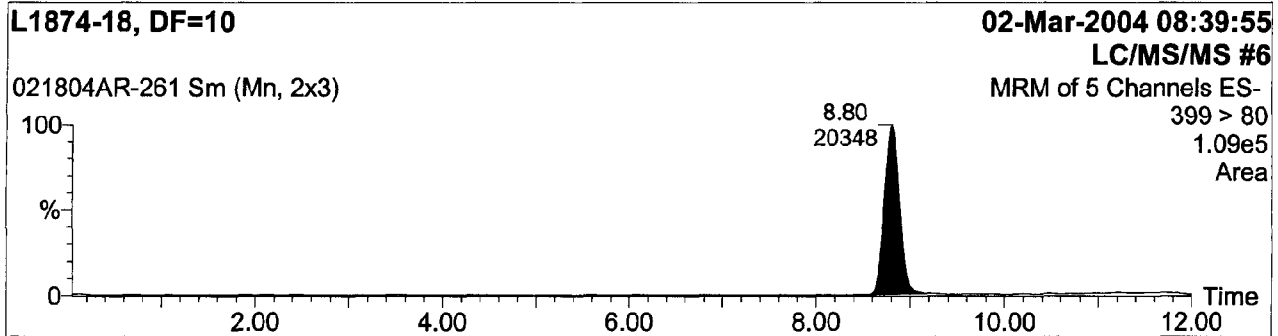
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

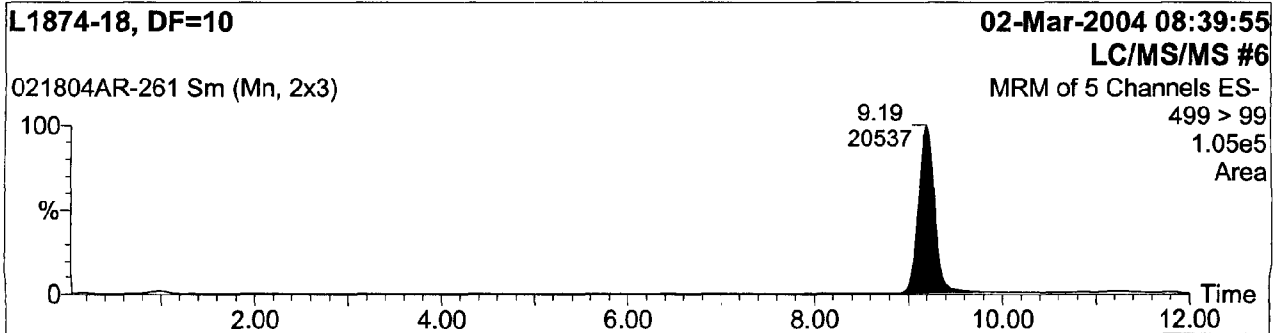
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-261
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-262
Text:

1: C6 Acid PFHA

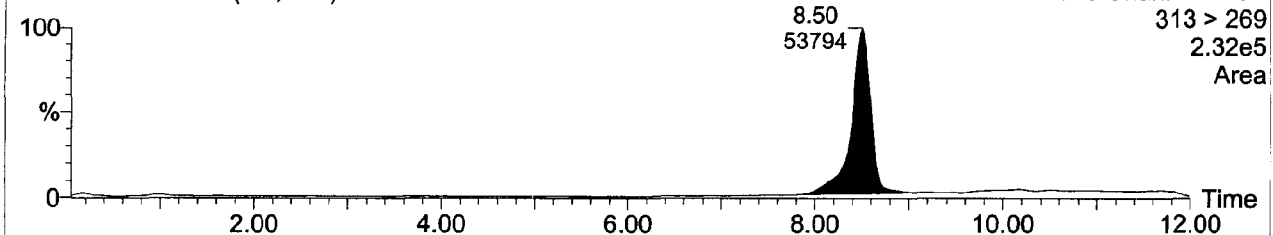
L1874-19, DF=100

02-Mar-2004 09:01:47

LC/MS/MS #6

021804AR-262 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
2.32e5
Area



2: C8 Acid PFOA

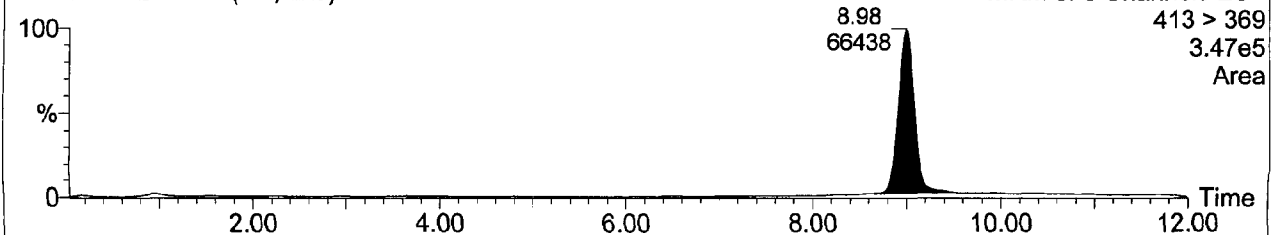
L1874-19, DF=100

02-Mar-2004 09:01:47

LC/MS/MS #6

021804AR-262 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
3.47e5
Area



3: C4 Sulfonate PFBS

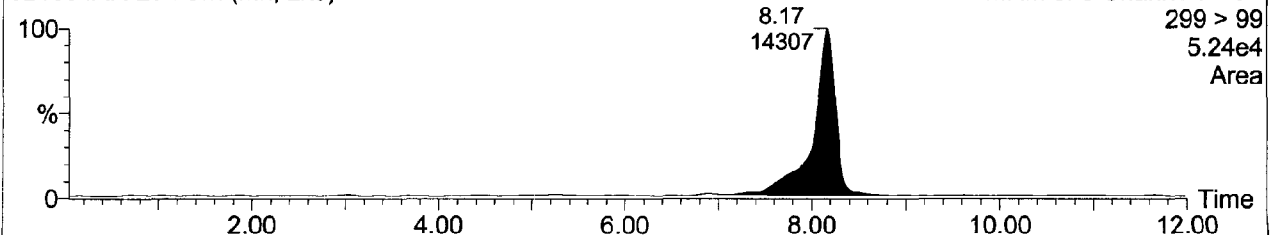
L1874-19, DF=100

02-Mar-2004 09:01:47

LC/MS/MS #6

021804AR-262 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
5.24e4
Area



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Quantify Sample Report

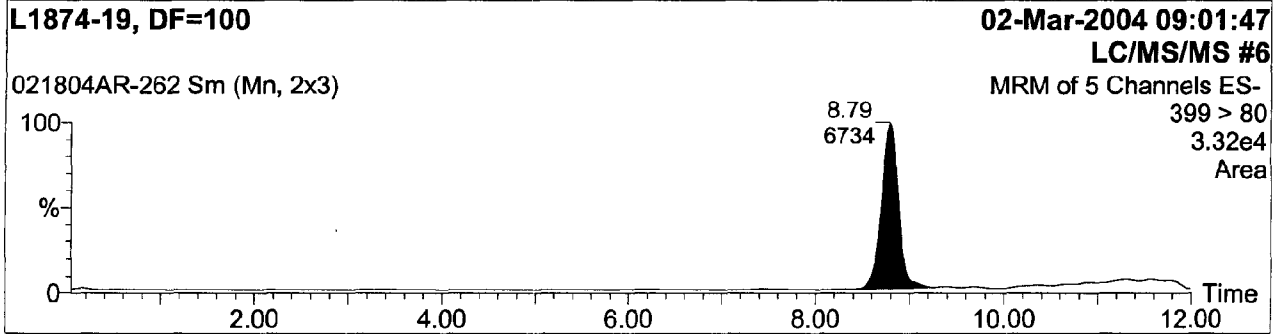
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

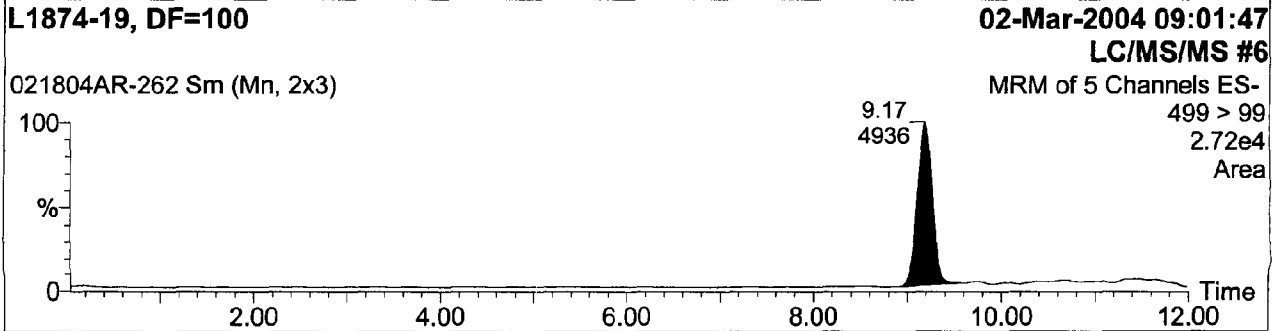
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-262
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-263
Text:

1: C6 Acid PFHA

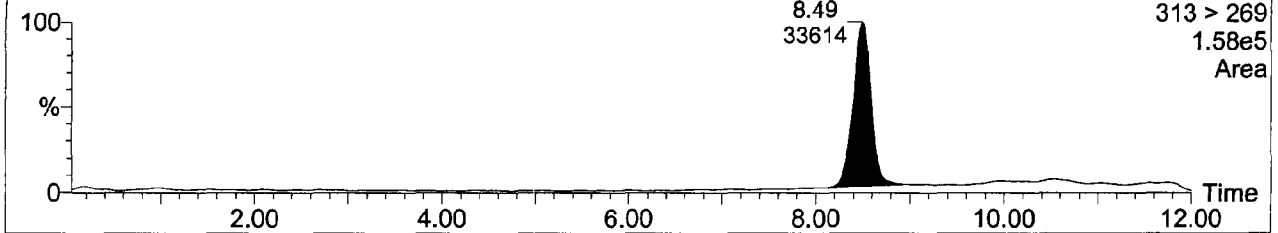
L1874-20, DF=1000

02-Mar-2004 09:23:41

LC/MS/MS #6

021804AR-263 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
1.58e5
Area



2: C8 Acid PFOA

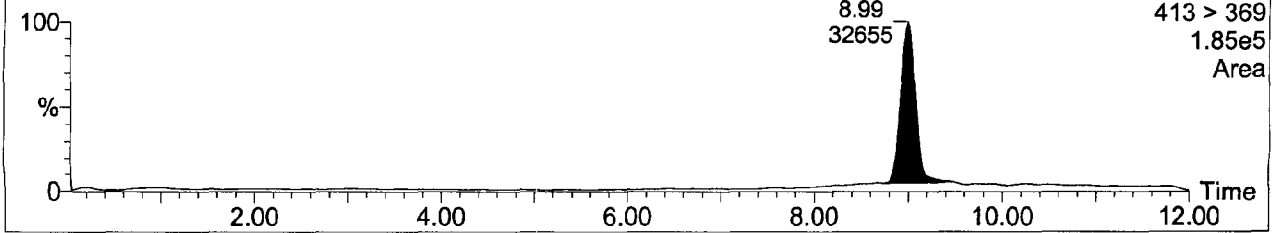
L1874-20, DF=1000

02-Mar-2004 09:23:41

LC/MS/MS #6

021804AR-263 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.85e5
Area



3: C4 Sulfonate PFBS

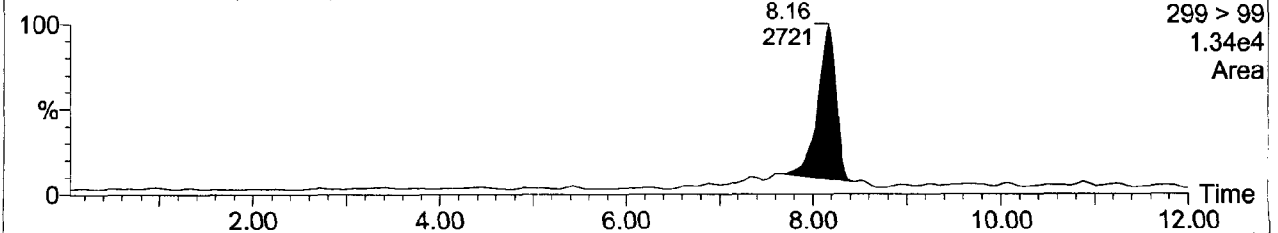
L1874-20, DF=1000

02-Mar-2004 09:23:41

LC/MS/MS #6

021804AR-263 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
1.34e4
Area



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Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-263
Text:

4: C6 Sulfonate PFHS

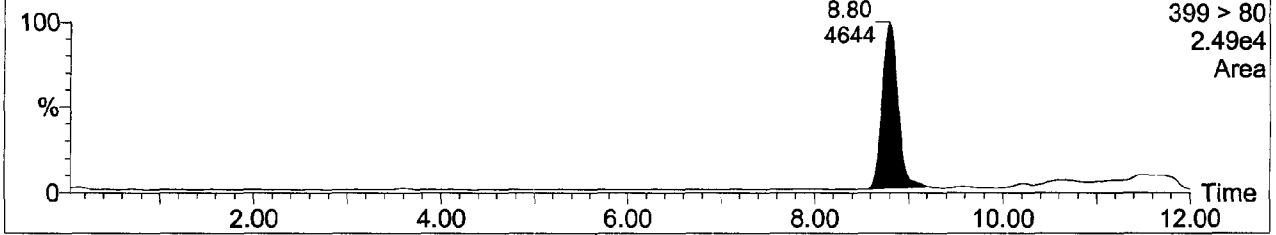
L1874-20, DF=1000

02-Mar-2004 09:23:41

LC/MS/MS #6

021804AR-263 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.49e4
Area



5: C8 Sulfonate PFOS

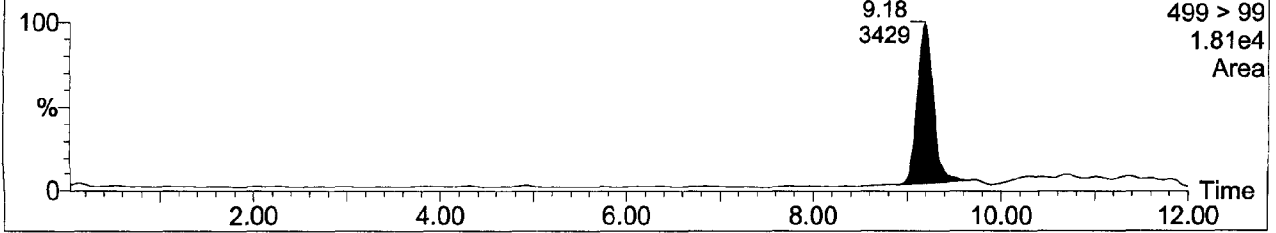
L1874-20, DF=1000

02-Mar-2004 09:23:41

LC/MS/MS #6

021804AR-263 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.81e4
Area



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Quantify Sample Report

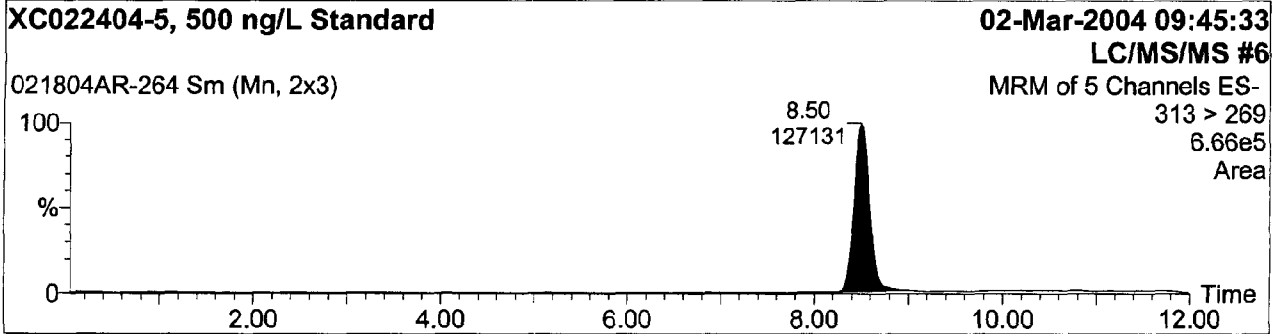
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

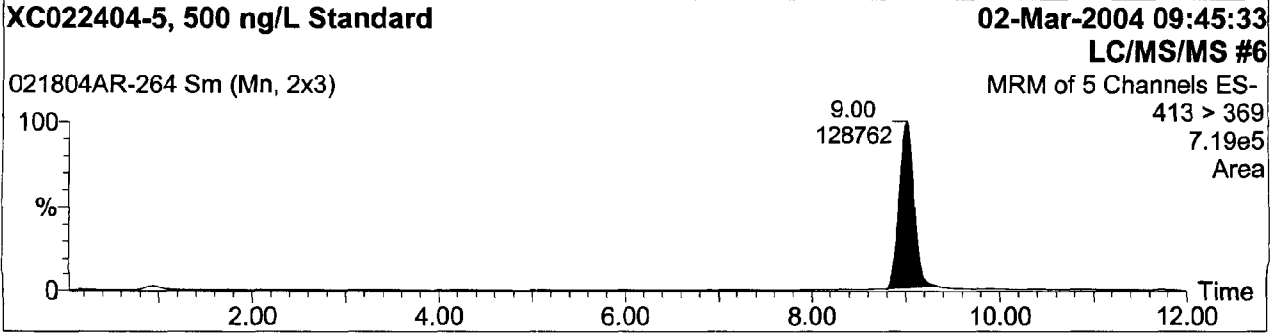
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-264
Text:

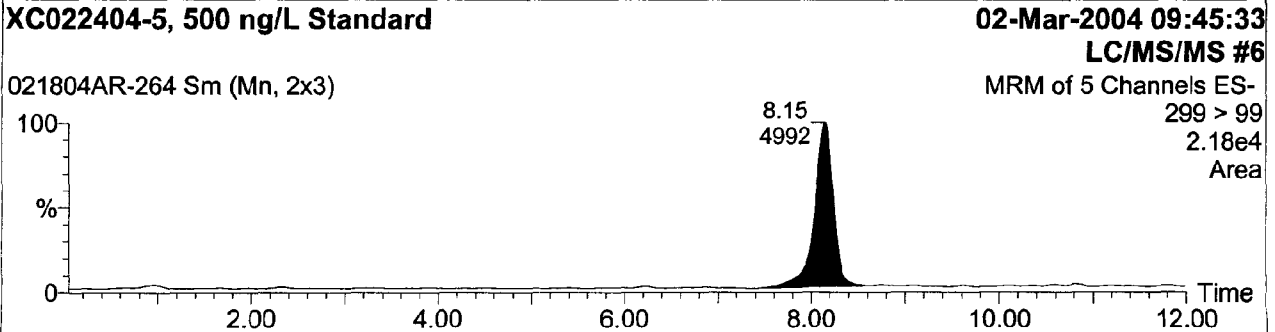
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-264
Text:

4: C6 Sulfonate PFHS

XC022404-5, 500 ng/L Standard

02-Mar-2004 09:45:33

LC/MS/MS #6

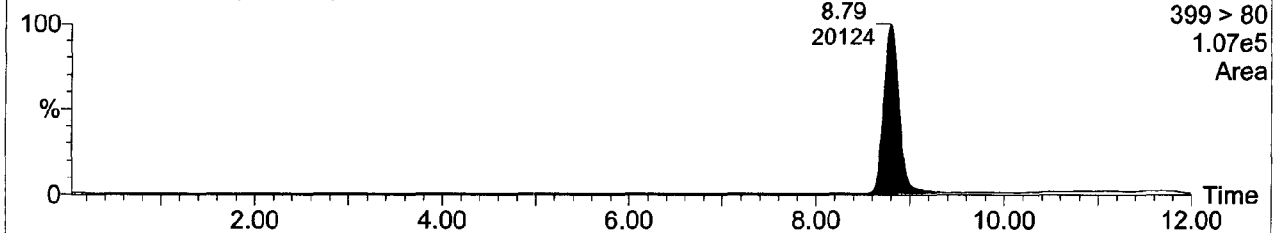
MRM of 5 Channels ES-

399 > 80

1.07e5

Area

021804AR-264 Sm (Mn, 2x3)



5: C8 Sulfonate PFOS

XC022404-5, 500 ng/L Standard

02-Mar-2004 09:45:33

LC/MS/MS #6

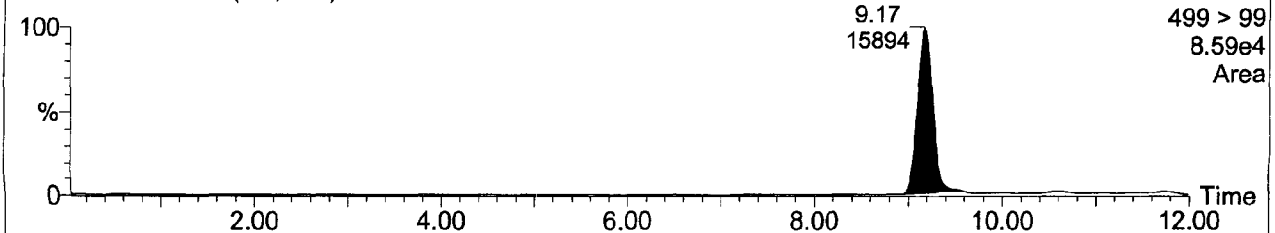
MRM of 5 Channels ES-

499 > 99

8.59e4

Area

021804AR-264 Sm (Mn, 2x3)



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Quantify Sample Report

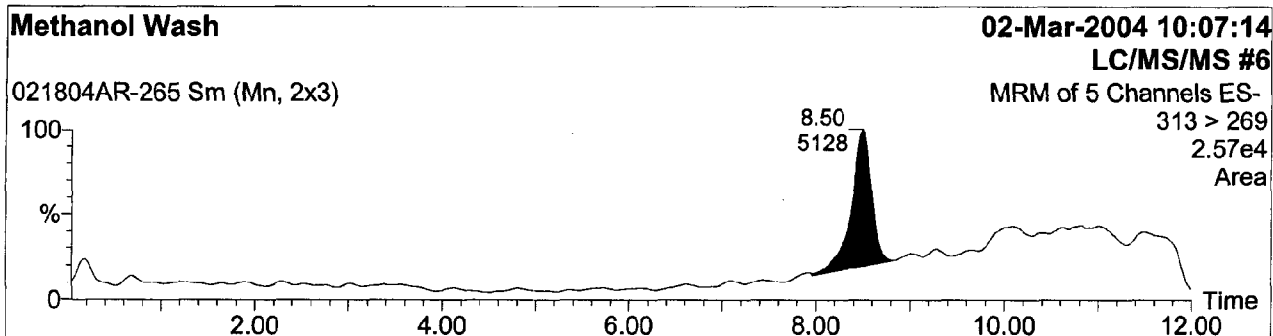
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

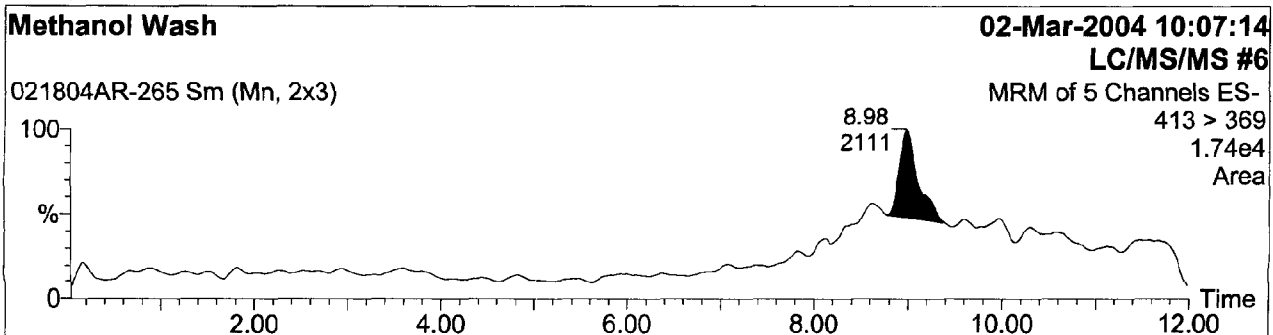
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-265
Text:

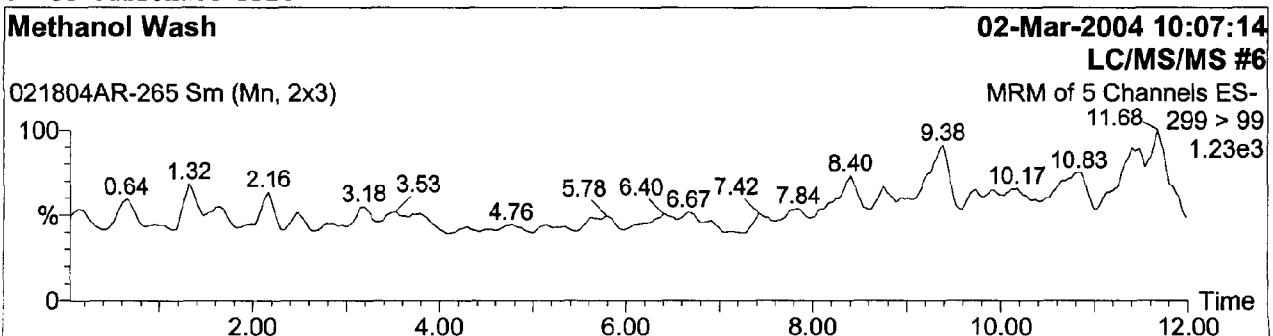
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

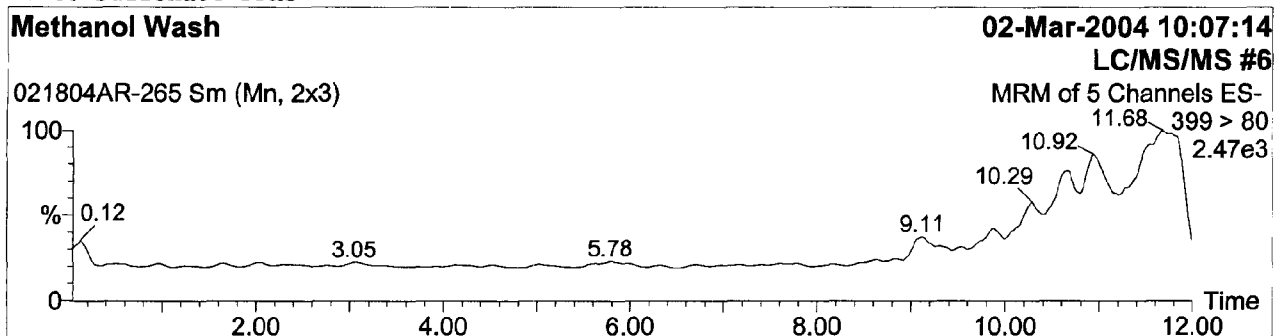
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

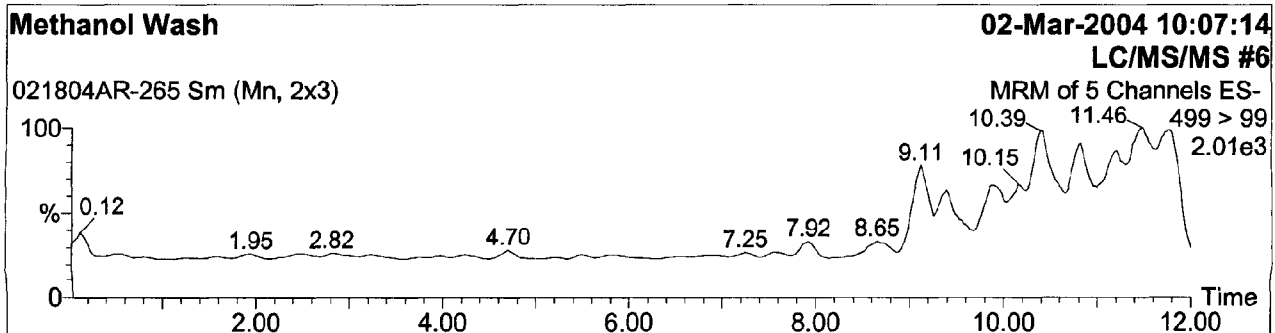
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-265
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



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Quantify Sample Report

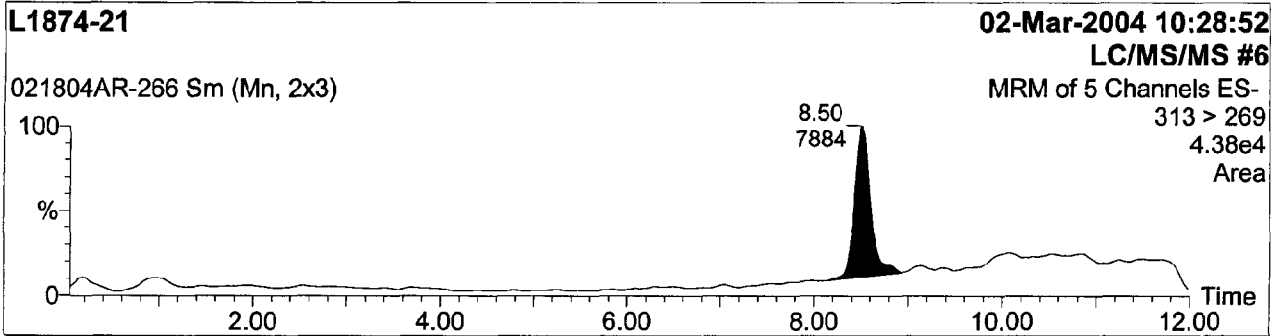
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

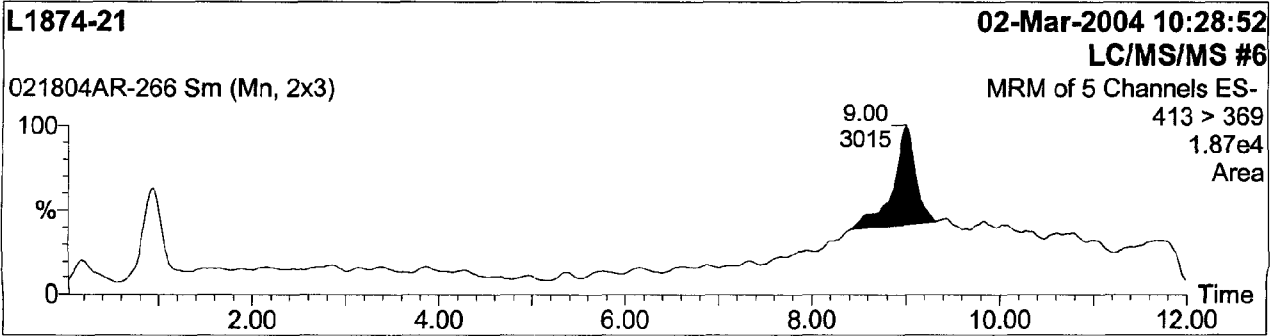
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-266
Text:

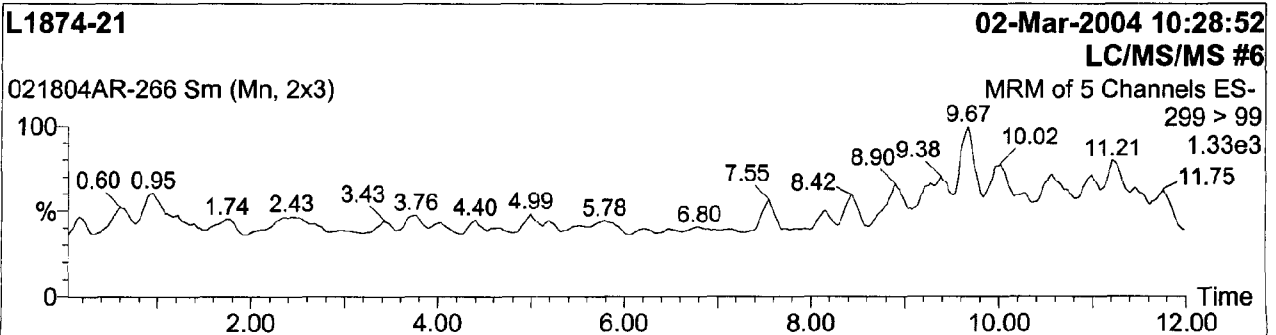
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

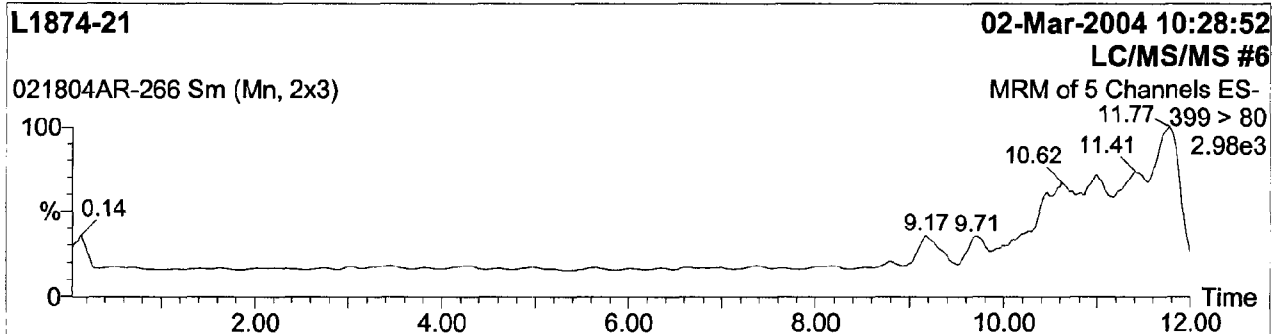
Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

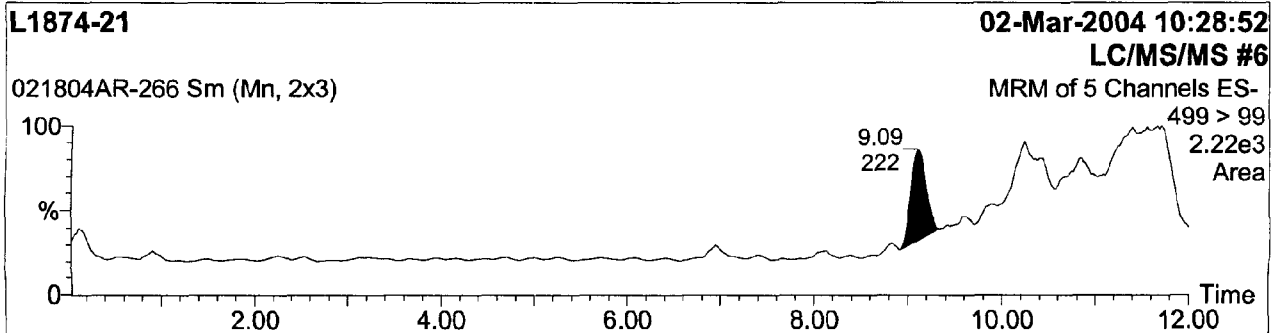
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-266
Text:

4: C6 Sulfonate PFHS



5: C8 Sulfonate PFOS



Exygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-267
Text:

1: C6 Acid PFHA

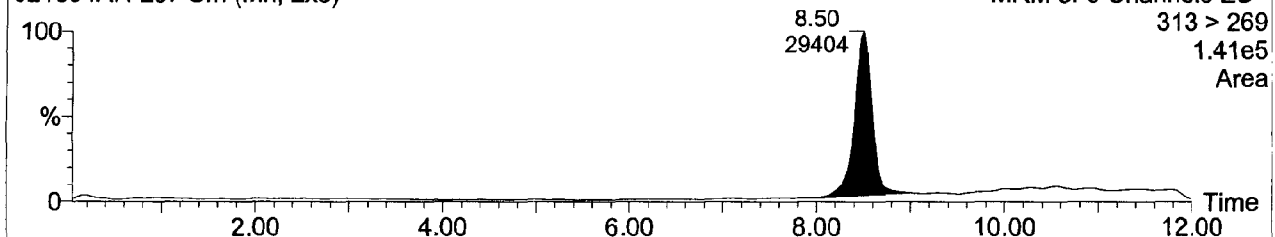
L1874-22, DF=100

02-Mar-2004 10:50:28

LC/MS/MS #6

021804AR-267 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
1.41e5
Area



2: C8 Acid PFOA

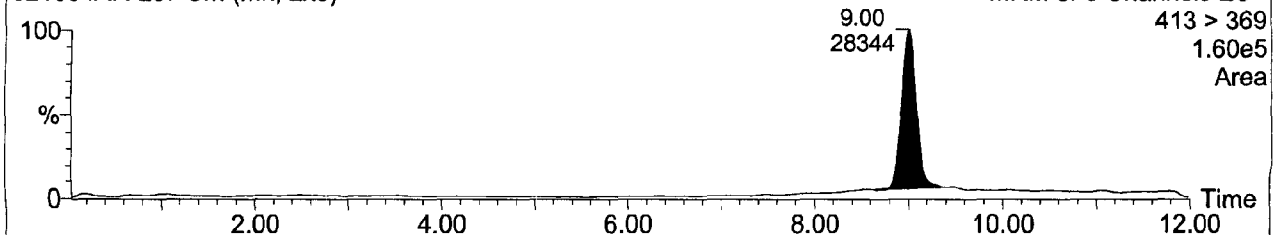
L1874-22, DF=100

02-Mar-2004 10:50:28

LC/MS/MS #6

021804AR-267 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.60e5
Area



3: C4 Sulfonate PFBS

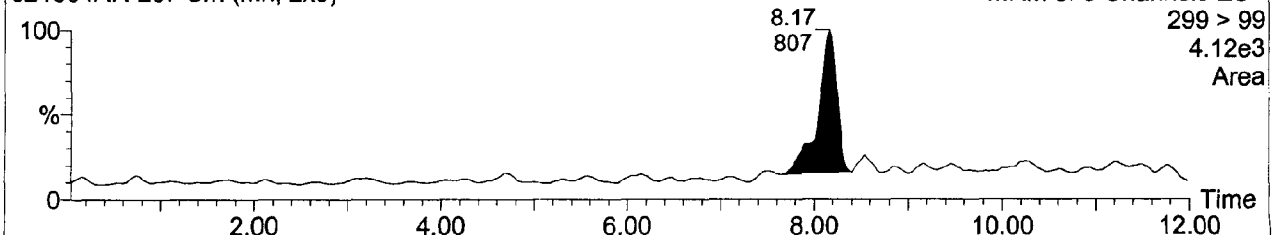
L1874-22, DF=100

02-Mar-2004 10:50:28

LC/MS/MS #6

021804AR-267 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
4.12e3
Area



Exygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-267
Text:

4: C6 Sulfonate PFHS

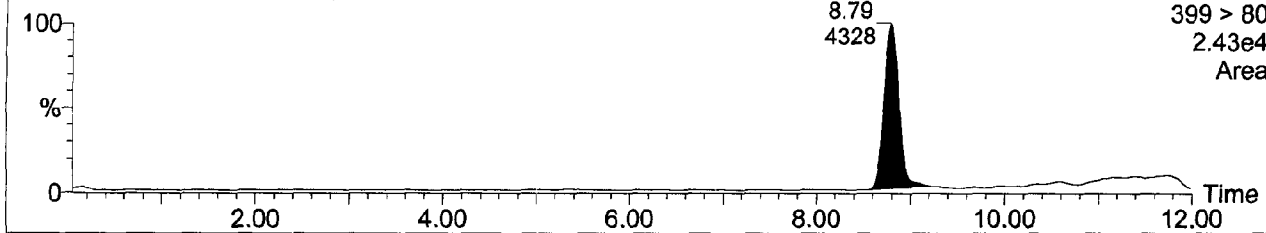
L1874-22, DF=100

02-Mar-2004 10:50:28

LC/MS/MS #6

021804AR-267 Sm (Mn, 2x3)

MRM of 5 Channels ES-
399 > 80
2.43e4
Area



5: C8 Sulfonate PFOS

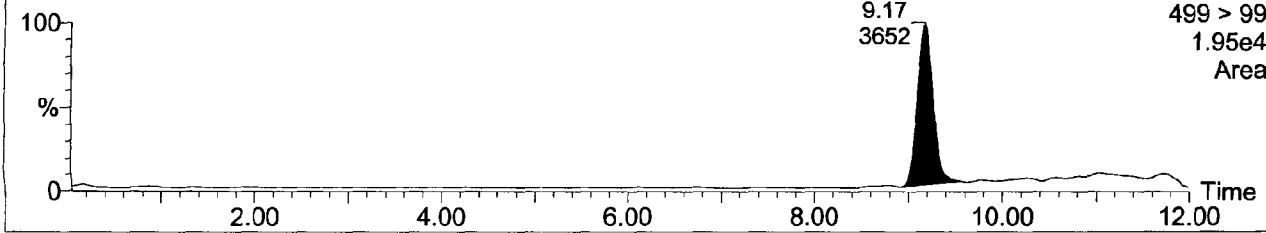
L1874-22, DF=100

02-Mar-2004 10:50:28

LC/MS/MS #6

021804AR-267 Sm (Mn, 2x3)

MRM of 5 Channels ES-
499 > 99
1.95e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

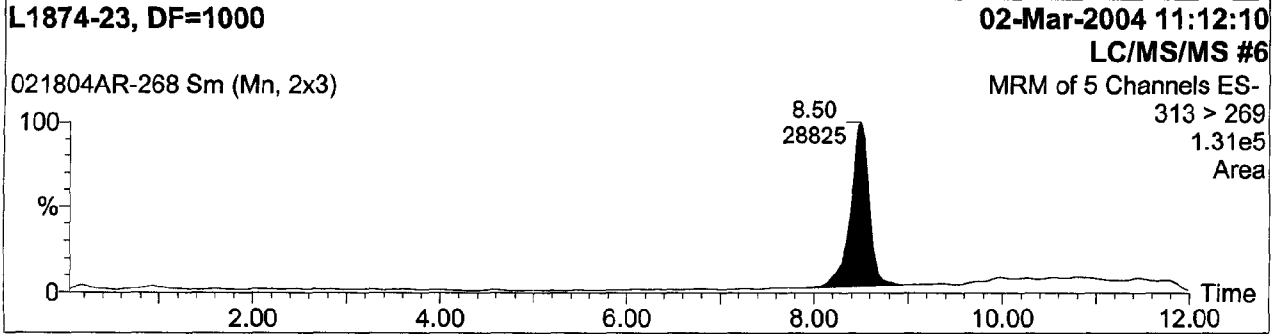
Study No.: L1874, Set No.: 021804AR, Ext. Date: 02/18/04, Analyst: K. Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

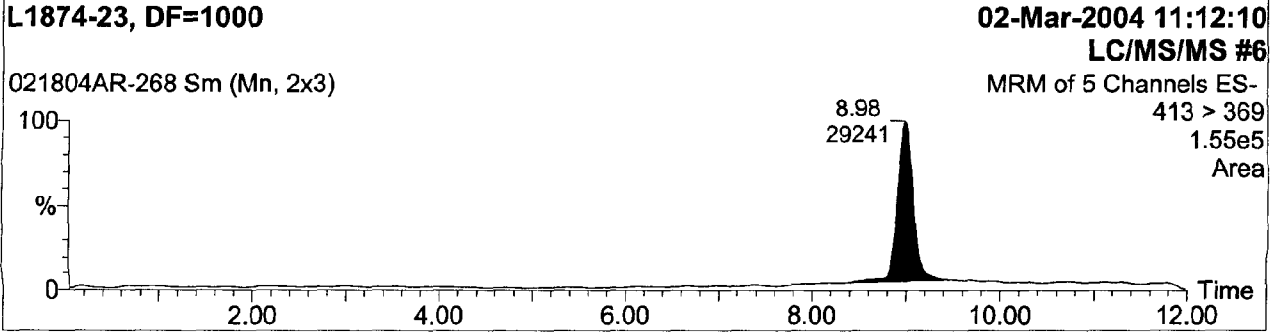
Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-268
Text:

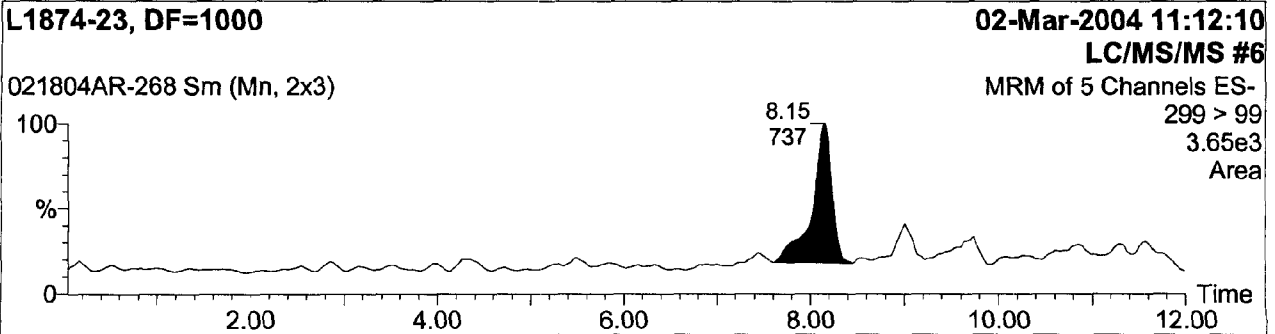
1: C6 Acid PFHA



2: C8 Acid PFOA



3: C4 Sulfonate PFBS



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-268
Text:

4: C6 Sulfonate PFHS

L1874-23, DF=1000

02-Mar-2004 11:12:10

LC/MS/MS #6

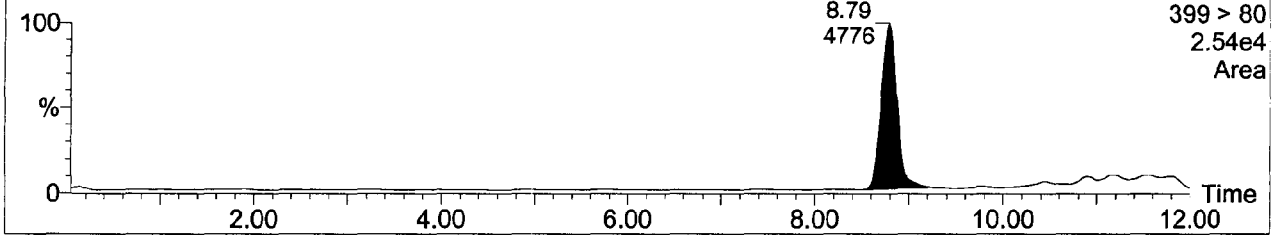
MRM of 5 Channels ES-

399 > 80

2.54e4

Area

021804AR-268 Sm (Mn, 2x3)



5: C8 Sulfonate PFOS

L1874-23, DF=1000

02-Mar-2004 11:12:10

LC/MS/MS #6

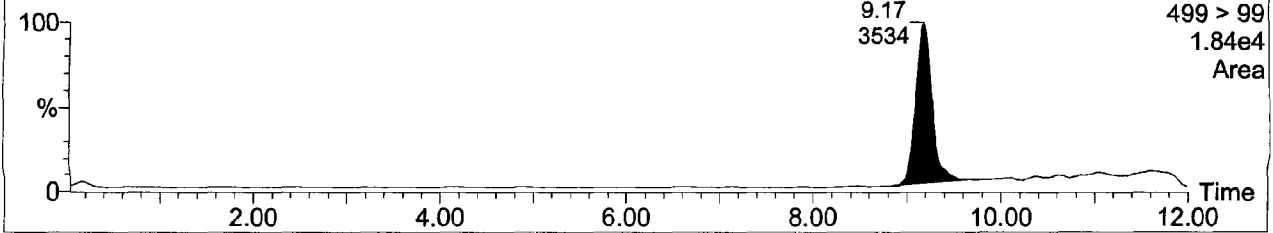
MRM of 5 Channels ES-

499 > 99

1.84e4

Area

021804AR-268 Sm (Mn, 2x3)



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-269
Text:

1: C6 Acid PFHA

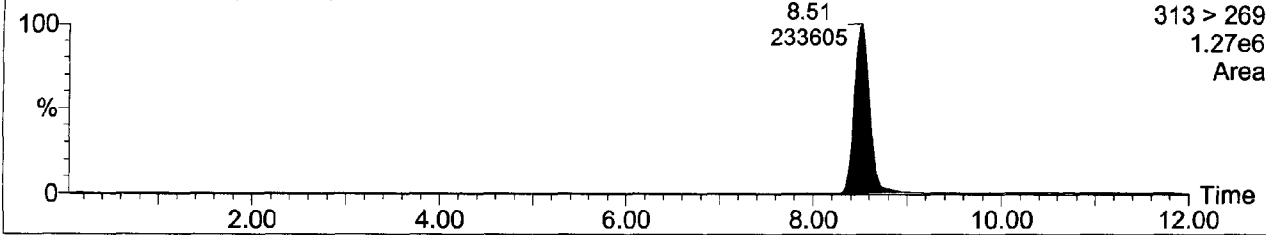
XC022404-6, 1000 ng/L Standard

02-Mar-2004 11:33:54

LC/MS/MS #6

021804AR-269 Sm (Mn, 2x3)

MRM of 5 Channels ES-
313 > 269
1.27e6
Area



2: C8 Acid PFOA

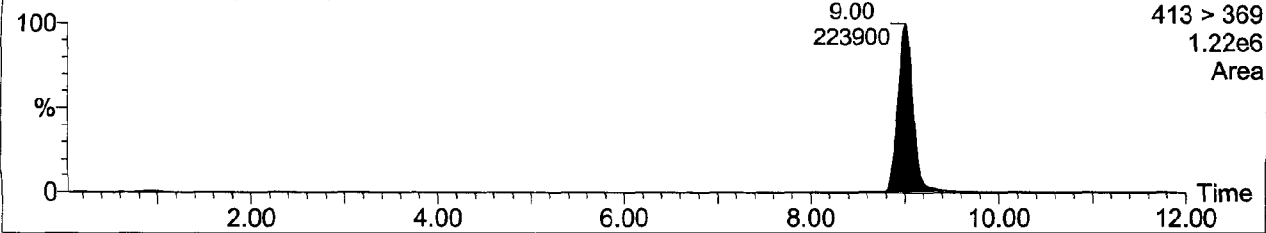
XC022404-6, 1000 ng/L Standard

02-Mar-2004 11:33:54

LC/MS/MS #6

021804AR-269 Sm (Mn, 2x3)

MRM of 5 Channels ES-
413 > 369
1.22e6
Area



3: C4 Sulfonate PFBS

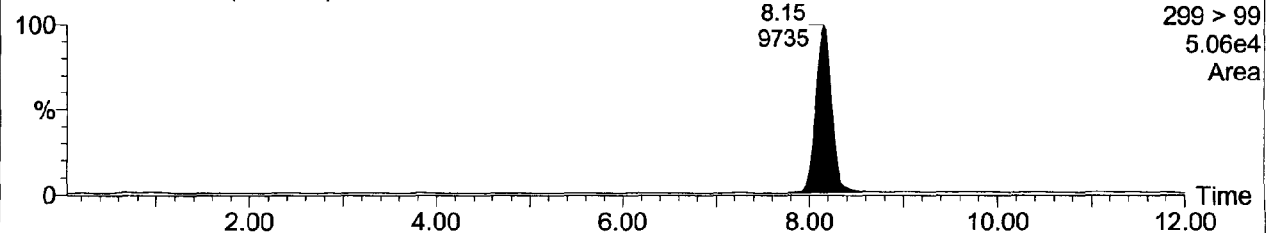
XC022404-6, 1000 ng/L Standard

02-Mar-2004 11:33:54

LC/MS/MS #6

021804AR-269 Sm (Mn, 2x3)

MRM of 5 Channels ES-
299 > 99
5.06e4
Area



Oxygen Research, 3058 Research Drive, State College, PA 16801

Quantify Sample Report

Study No.:L1874, Set No.:021804AR, Ext.Date:02/18/04, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\021804AR CG ACSFM
Last modified: Tue Mar 02 12:07:00 2004
Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\CotGrove NPDES 012104
Last modified: Mon Feb 02 07:04:42 2004
Job Code:

Printed: Tue Mar 02 14:05:22 2004

Name: 021804AR-269
Text:

4: C6 Sulfonate PFHS

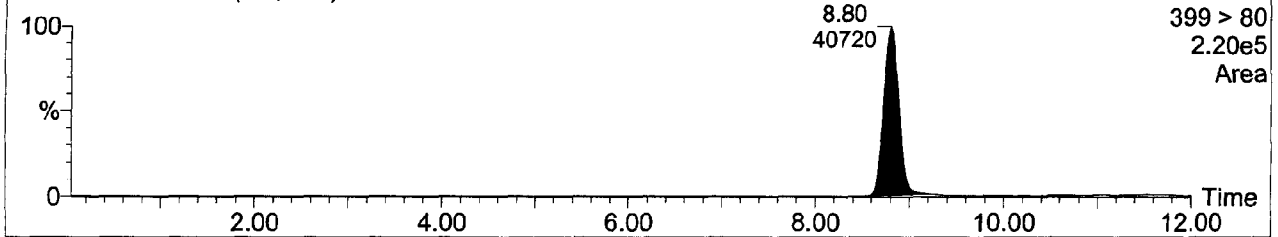
XC022404-6, 1000 ng/L Standard

02-Mar-2004 11:33:54

LC/MS/MS #6

MRM of 5 Channels ES-
399 > 80
2.20e5
Area

021804AR-269 Sm (Mn, 2x3)



5: C8 Sulfonate PFOS

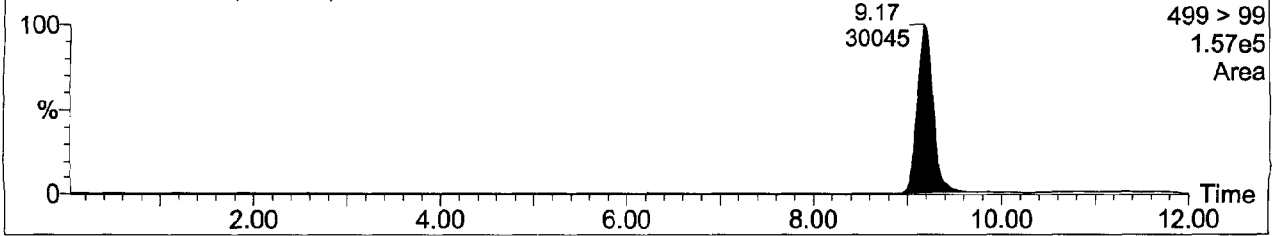
XC022404-6, 1000 ng/L Standard

02-Mar-2004 11:33:54

LC/MS/MS #6

MRM of 5 Channels ES-
499 > 99
1.57e5
Area

021804AR-269 Sm (Mn, 2x3)



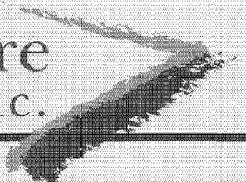
Oxygen Research, 3058 Research Drive, State College, PA 16801

Metals
FINAL REPORT
EVENT 1

E04-0120

February 12, 2004

North Shore Analytical, Inc.



MDH Lab # 027-137-389
WDNR Lab # 399017190

5612 Miller Trunk Highway, Suite #1
Duluth, MN 55811
Phone: (218) 729-4658
Fax: (218) 729-4659

Analytical Report

Date Reported: 2/24/04

Client:

3M Cottage Grove
Attn: Tom Baitutis
10746 Innovation Rd., Bldg. 145
Cottage Grove, MN 55016

Sample Information:

Chain of Custody: 3070
Sampled By: MAM
TMG

Phone: 651-458-2032
Fax: 651-458-2596

Method: EPA 1631


Sample ID	Laboratory ID #	Mercury (ng/L)	Sample Date	Analysis Date	MDL (ng/L)
Field Blank	8048	<0.5	2/12/2004	2/23/2004	0.1
Phase 3 Effluent	8049	<0.5	2/12/2004	2/23/2004	0.1

Low-level mercury results are reagent blank corrected.

Reviewed By: 

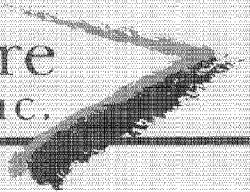
If you have any questions regarding this report, please call (218) 729-4658.

Sincerely,



Linda Christensen
Chemical Engineer

North Shore Analytical, Inc.



MDH Lab # 027-137-389
WDNR Lab # 399017190

5612 Miller Trunk Highway, Suite #1
Duluth, MN 55811
Phone: (218) 729-4658
Fax: (218) 729-4659

Analytical Report

Date Reported: 2/24/04

Client:

3M Cottage Grove
Attn: Tom Baltutis
10746 Innovation Rd., Bldg. 145
Cottage Grove, MN 55016

Sample Information:

Chain of Custody: 3070
Sampled By: MAM
TMG

Phone: 651-458-2032
Fax: 651-458-2596

Method: EPA 1631

Sample ID	Laboratory ID #	Mercury (ng/l)	Sample Date	Analysis Date	MDL (ng/L)
Field Blank	8046	< 0.5	2/13/2004	2/23/2004	0.1
Effluent	8047	6.5	2/13/2004	2/23/2004	0.1

Low-level mercury results are reagent blank corrected.

Reviewed By: _____

If you have any questions regarding this report, please call (218) 729-4658.

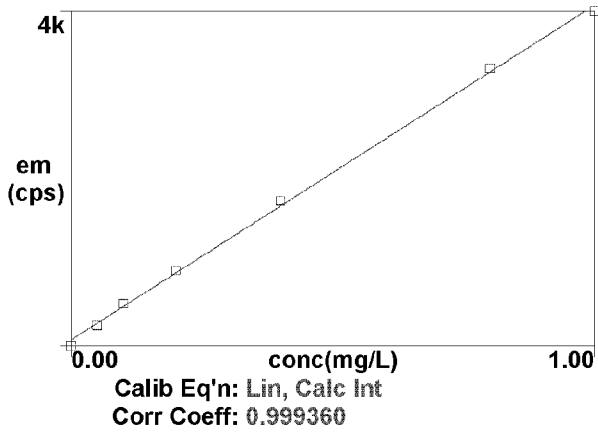
Sincerely,

Linda Christensen
Chemical Engineer

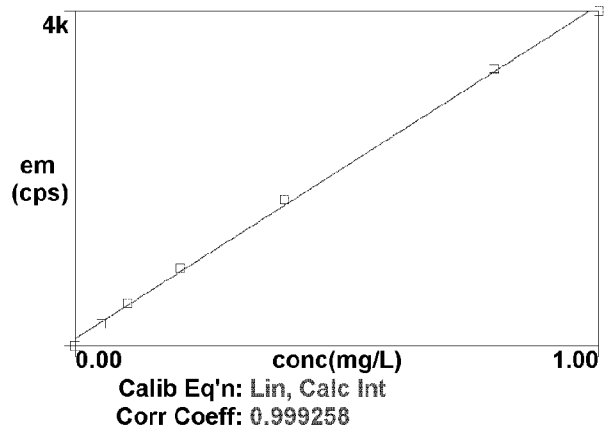
Calib

Method: WWTP Scan
Result: CG WWTP Carbon Study Event 1 E04-0120

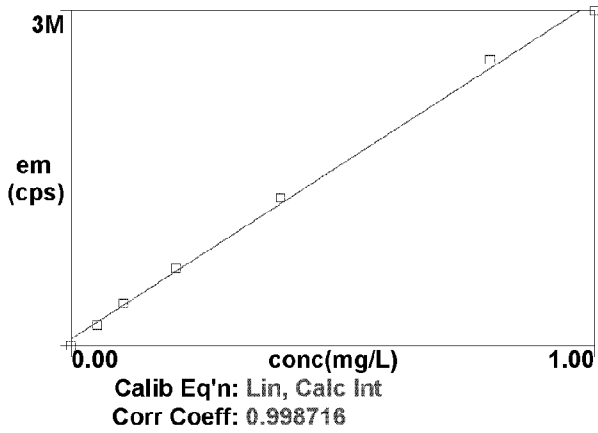
Sb 206.836



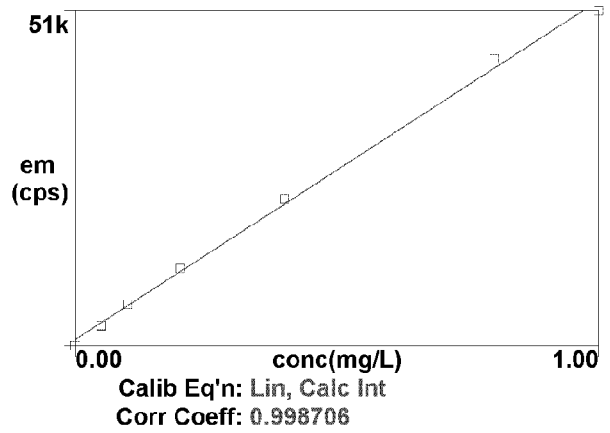
As 188.979



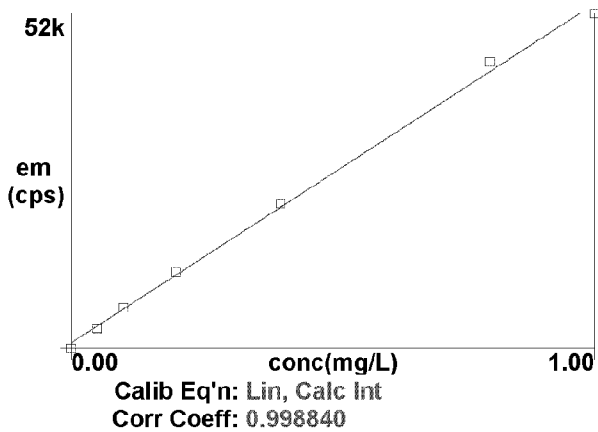
1
Be 313.107



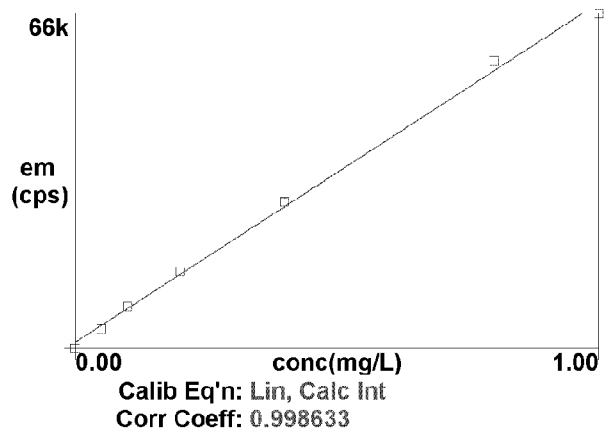
2
Co 228.616



3
Cd 228.802



4
Cr 267.716



5

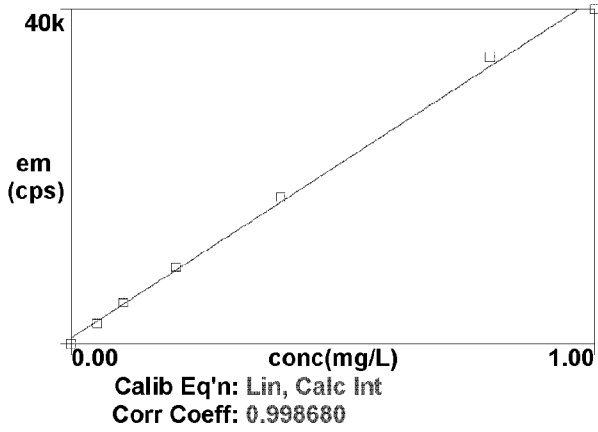
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Calib

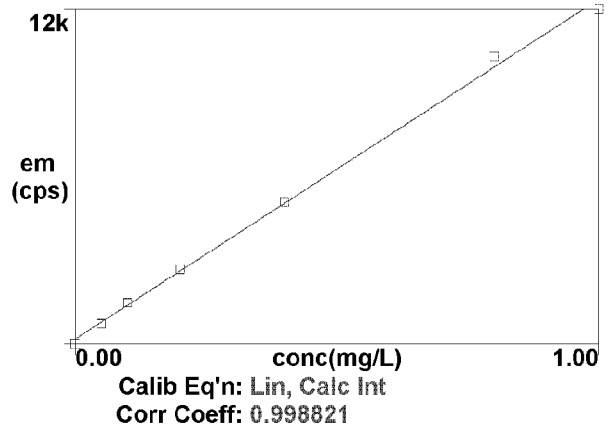
Method: WWTP Scan

Result: CG WWTP Carbon Study Event 1 E04-0120

Ni 231.604



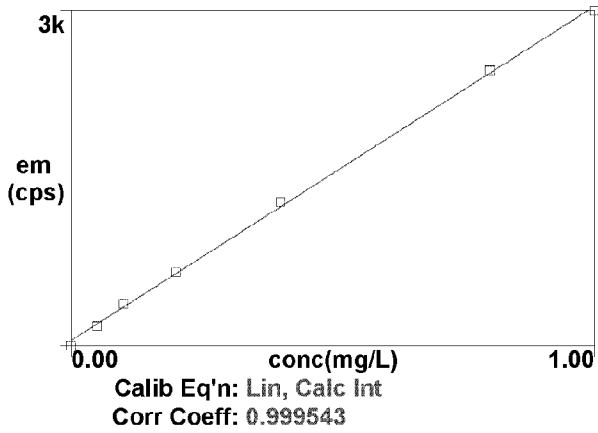
Pb 220.353



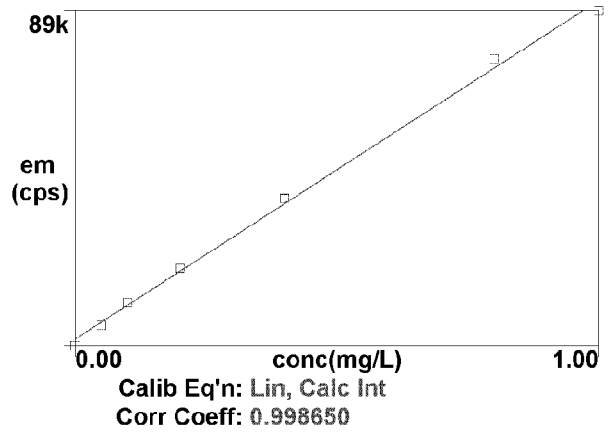
7

8

Se 196.026



Zn 213.857



9

10

Sample ID	Sample Name	Date	Time	Initial Sample Wt	MDL	Analyte Name	Reported		Reported		QC Recovery
							Conc (Calib)	Calib Units	Conc (Samp)	Samp Units	
0.4ppm		2/20/2004	9:42:23 AM			Sb 206.836	0.382 mg/L		0.382 mg/L		95.56
		2/20/2004	9:42:23 AM			As 188.979	0.375 mg/L		0.375 mg/L		93.77
		2/20/2004	9:42:23 AM			Be 313.107	0.369 mg/L		0.369 mg/L		92.14
		2/20/2004	9:42:23 AM			Co 228.616	0.35 mg/L		0.35 mg/L		87.51
		2/20/2004	9:42:23 AM			Cd 228.802	0.356 mg/L		0.356 mg/L		89.00
		2/20/2004	9:42:23 AM			Cr 267.716	0.361 mg/L		0.361 mg/L		90.35
		2/20/2004	9:42:23 AM			Ni 231.604	0.385 mg/L		0.385 mg/L		96.35
		2/20/2004	9:42:23 AM			Pb 220.353	0.33 mg/L		0.33 mg/L		82.52
		2/20/2004	9:42:23 AM			Se 196.026	0.357 mg/L		0.357 mg/L		89.30
		2/20/2004	9:42:23 AM			Zn 213.657	0.342 mg/L		0.342 mg/L		85.51

Sample ID	Sample Name	Date	Time	Initial Sample		Reported			Reported		QC Recovery
				Wt	MDL	Analyte Name	Conc (Calib)	Calib Units	Conc (Samp)	Samp Units	
MP-04-163	Field Blank	2/20/2004	9:46:22 AM	1.004		Sb 206.836	-0.034 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		As 188.979	-0.019 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		Co 228.616	-0.018 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004	1.99	Cd 228.802	-0.018 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		Cr 267.716	-0.017 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		Ni 231.604	-0.01 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		Pb 220.353	-0.013 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		Se 196.026	-0.011 mg/L	ND	mg/kg		
		2/20/2004	9:46:22 AM	1.004		Zn 213.657	-0.02 mg/L	ND	mg/kg		
MP-04-164	Field Blank Dup	2/20/2004	9:50:14 AM	1.034		Sb 206.836	-0.039 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		As 188.979	-0.023 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		Co 228.616	-0.018 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034	1.93	Cd 228.802	-0.019 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		Cr 267.716	-0.017 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		Ni 231.604	-0.009 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		Pb 220.353	-0.014 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		Se 196.026	-0.015 mg/L	ND	mg/kg		
		2/20/2004	9:50:14 AM	1.034		Zn 213.657	-0.021 mg/L	ND	mg/kg		
MP-04-165	Influent 1 / 2	2/20/2004	9:54:08 AM	1.016		Sb 206.836	-0.045 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		As 188.979	-0.019 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		Co 228.616	-0.018 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016	1.97	Cd 228.802	-0.019 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		Cr 267.716	-0.017 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		Ni 231.604	-0.009 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		Pb 220.353	-0.013 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		Se 196.026	-0.011 mg/L	ND	mg/kg		
		2/20/2004	9:54:08 AM	1.016		Zn 213.657	-0.018 mg/L	ND	mg/kg		
MP-04-166	Influent 1 / 2 Dup	2/20/2004	9:58:01 AM	1.034		Sb 206.836	-0.058 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		As 188.979	-0.02 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		Co 228.616	-0.017 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034	1.93	Cd 228.802	-0.019 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		Cr 267.716	-0.017 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		Ni 231.604	-0.008 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		Pb 220.353	-0.013 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		Se 196.026	-0.018 mg/L	ND	mg/kg		
		2/20/2004	9:58:01 AM	1.034		Zn 213.657	-0.02 mg/L	ND	mg/kg		
MP-04-166 MS	Influent 1 / 2 Dup	2/20/2004	10:01:55 AM	1.034		Sb 206.636	0.918 mg/L	44.37 mg/kg		Se low	92%
		2/20/2004	10:01:55 AM	1.034		As 188.979	0.889 mg/L	42.98 mg/kg		recovery;	89%
		2/20/2004	10:01:55 AM	1.034		Be 313.107	0.821 mg/L	39.7 mg/kg		100 ppm std	82%
		2/20/2004	10:01:55 AM	1.034		Co 228.616	0.738 mg/L	35.68 mg/kg		ok appears	74%
		2/20/2004	10:01:55 AM	1.034	1.93	Cd 228.802	0.747 mg/L	36.13 mg/kg		to be	75%
		2/20/2004	10:01:55 AM	1.034		Cr 267.716	0.828 mg/L	40.05 mg/kg		sample	83%
		2/20/2004	10:01:55 AM	1.034		Ni 231.604	0.972 mg/L	47 mg/kg		matrix	97%
		2/20/2004	10:01:55 AM	1.034		Pb 220.353	1.199 mg/L	58 mg/kg		problem	120%
		2/20/2004	10:01:55 AM	1.034		Se 196.026	0.585 mg/L	28.31 mg/kg			59%
		2/20/2004	10:01:55 AM	1.034		Zn 213.657	1.357 mg/L	65.62 mg/kg			136%
MP-04-177	Lab Blank	2/20/2004	10:05:54 AM	1.32		Sb 206.836	-0.06 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		As 188.979	-0.021 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		Co 228.616	-0.017 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32	1.52	Cd 228.802	-0.019 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		Cr 267.716	-0.018 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		Ni 231.604	-0.008 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		Pb 220.353	-0.012 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		Se 196.026	-0.021 mg/L	ND	mg/kg		
		2/20/2004	10:05:54 AM	1.32		Zn 213.657	-0.021 mg/L	ND	mg/kg		
MP-04-167	Port 1A	2/20/2004	10:09:51 AM	1.08		Sb 206.836	-0.076 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		As 188.979	-0.02 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		Co 228.616	-0.018 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08	1.85	Cd 228.802	-0.018 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		Cr 267.716	-0.018 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		Ni 231.604	-0.009 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		Pb 220.353	-0.013 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		Se 196.026	-0.011 mg/L	ND	mg/kg		
		2/20/2004	10:09:51 AM	1.08		Zn 213.657	-0.02 mg/L	ND	mg/kg		
MP-04-168	Port 1A Dup	2/20/2004	10:13:47 AM	1.02		Sb 206.836	-0.066 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		As 188.979	-0.022 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		Co 228.616	-0.018 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02	1.96	Cd 228.802	-0.017 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		Cr 267.716	-0.017 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		Ni 231.604	-0.013 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		Pb 220.353	-0.013 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		Se 196.026	-0.011 mg/L	ND	mg/kg		
		2/20/2004	10:13:47 AM	1.02		Zn 213.657	-0.019 mg/L	ND	mg/kg		
MP-04-169	Port 4A	2/20/2004	10:17:43 AM	1.113		Sb 206.836	-0.074 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		As 188.979	-0.019 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		Be 313.107	-0.02 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		Co 228.616	-0.018 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113	1.80	Cd 228.802	-0.018 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		Cr 267.716	-0.017 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		Ni 231.604	-0.011 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		Pb 220.353	-0.015 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		Se 196.026	-0.016 mg/L	ND	mg/kg		
		2/20/2004	10:17:43 AM	1.113		Zn 213.657	-0.017 mg/L	ND	mg/kg		

Sample ID	Sample Name	Date	Time	Initial Sample Wt	MDL	Analyte Name	Reported		Reported		QC Recovery
							Conc (Calib)	Calib Units	Conc (Samp)	Samp Units	
0.4ppm		2/20/2004	10:21:39 AM			Sb 206.836	0.342 mg/L		0.342 mg/L		85.62
		2/20/2004	10:21:39 AM			As 188.979	0.353 mg/L		0.353 mg/L		88.35
		2/20/2004	10:21:39 AM			Be 313.107	0.359 mg/L		0.359 mg/L		89.73
		2/20/2004	10:21:39 AM			Co 228.616	0.324 mg/L		0.324 mg/L		80.88
		2/20/2004	10:21:39 AM			Cd 228.802	0.33 mg/L		0.33 mg/L		82.62
		2/20/2004	10:21:39 AM			Cr 267.716	0.352 mg/L		0.352 mg/L		87.95
		2/20/2004	10:21:39 AM			Ni 231.604	0.373 mg/L		0.373 mg/L		93.20
		2/20/2004	10:21:39 AM			Pb 220.353	0.316 mg/L		0.316 mg/L		79.06
		2/20/2004	10:21:39 AM			Se 196.026	0.332 mg/L		0.332 mg/L		83.04
		2/20/2004	10:21:39 AM			Zn 213.657	0.328 mg/L		0.328 mg/L		81.90
MP-04-170	Port 4A Dup	2/20/2004	10:25:37 AM	1.182		Sb 206.836	-0.153 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		As 188.979	-0.03 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		Be 313.107	-0.02 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		Co 228.616	-0.018 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182	1.69	Cd 228.802	-0.017 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		Cr 267.716	-0.017 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		Ni 231.604	-0.018 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		Pb 220.353	-0.021 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		Se 196.026	-0.012 mg/L		ND		
		2/20/2004	10:25:37 AM	1.182		Zn 213.657	-0.021 mg/L		ND		
MP-04-171	Effluent 1	2/20/2004	10:29:35 AM	1.064		Sb 206.836	-0.069 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		As 188.979	-0.02 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		Be 313.107	-0.02 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		Co 228.616	-0.016 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064	1.88	Cd 228.802	-0.014 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		Cr 267.716	-0.018 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		Ni 231.604	-0.025 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		Pb 220.353	-0.021 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		Se 196.026	-0.012 mg/L		ND		
		2/20/2004	10:29:35 AM	1.064		Zn 213.657	-0.016 mg/L		ND		
MP-04-172	Effluent 1 Dup	2/20/2004	10:33:34 AM	1.07		Sb 206.836	-0.059 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		As 188.979	-0.015 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		Be 313.107	-0.02 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		Co 228.616	-0.015 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07	1.87	Cd 228.802	-0.012 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		Cr 267.716	-0.018 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		Ni 231.604	-0.028 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		Pb 220.353	-0.023 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		Se 196.026	-0.011 mg/L		ND		
		2/20/2004	10:33:34 AM	1.07		Zn 213.657	-0.013 mg/L		ND		
MP-04-173	Effluent 4	2/20/2004	10:37:33 AM	1.055		Sb 206.836	-0.072 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		As 188.979	-0.013 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		Be 313.107	-0.02 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		Co 228.616	-0.011 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055	1.90	Cd 228.802	-0.01 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		Cr 267.716	-0.02 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		Ni 231.604	-0.029 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		Pb 220.353	-0.031 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		Se 196.026	-0.003 mg/L		ND		
		2/20/2004	10:37:33 AM	1.055		Zn 213.657	-0.012 mg/L		ND		
MP-04-174	Effluent 4 Dup	2/20/2004	10:41:33 AM	1.09		Sb 206.836	-0.057 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		As 188.979	-0.012 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		Be 313.107	-0.02 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		Co 228.616	-0.009 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09	1.83	Cd 228.802	-0.009 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		Cr 267.716	-0.022 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		Ni 231.604	-0.026 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		Pb 220.353	-0.04 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		Se 196.026	0.012 mg/L		ND		
		2/20/2004	10:41:33 AM	1.09		Zn 213.657	-0.012 mg/L		ND		
MP-04-174 MS	Effluent 4 Dup	2/20/2004	10:45:33 AM	1.09		Sb 206.836	0.54 mg/L		24.77 mg/kg		54.00%
		2/20/2004	10:45:33 AM	1.09		As 188.979	0.533 mg/L		24.46 mg/kg	low recovery;	53.30%
		2/20/2004	10:45:33 AM	1.09		Be 313.107	0.618 mg/L		28.33 mg/kg	100 ppm std	61.80%
		2/20/2004	10:45:33 AM	1.09		Co 228.616	0.734 mg/L		33.66 mg/kg	ck appears	73.40%
		2/20/2004	10:45:33 AM	1.09	1.83	Cd 228.802	0.761 mg/L		34.9 mg/kg	to be	76.10%
		2/20/2004	10:45:33 AM	1.09		Cr 267.716	0.725 mg/L		33.24 mg/kg	sample	72.50%
		2/20/2004	10:45:33 AM	1.09		Ni 231.604	0.684 mg/L		31.36 mg/kg	matrix	68.40%
		2/20/2004	10:45:33 AM	1.09		Pb 220.353	0.802 mg/L		36.8 mg/kg	problem	80.20%
		2/20/2004	10:45:33 AM	1.09		Se 196.026	0.675 mg/L		30.96 mg/kg		67.50%
		2/20/2004	10:45:33 AM	1.09		Zn 213.657	0.958 mg/L		43.96 mg/kg		85.80%
MP-04-178	Lab Blank Dup	2/20/2004	10:49:31 AM	1.096		Sb 206.836	-0.048 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		As 188.979	-0.005 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		Be 313.107	-0.022 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		Co 228.616	-0.004 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096	1.82	Cd 228.802	-0.007 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		Cr 267.716	-0.026 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		Ni 231.604	-0.008 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		Pb 220.353	-0.067 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		Se 196.026	0.025 mg/L		ND		
		2/20/2004	10:49:31 AM	1.096		Zn 213.657	-0.011 mg/L		ND		

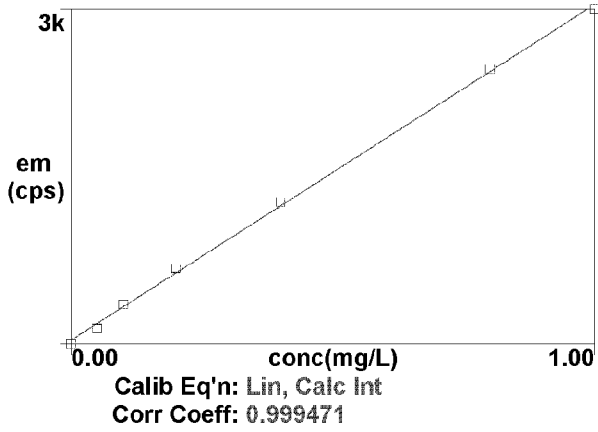
Sample ID	Sample Name	Date	Time	Initial Sample		Analyte Name	Reported	Calib	Reported	Samp	QC Recovery
				Wt	MDL		Conc (Calib)	Units	Conc (Samp)	Units	
MP-04-175	Comb Effluent	2/20/2004	10:57:27 AM	1.178	1.70	Sb 206.836	-0.051	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		As 188.979	-0.01	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Be 313.107	-0.022	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Co 228.616	-0.003	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Cd 228.802	-0.008	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Cr 267.716	-0.026	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Ni 231.604	-0.001	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Pb 220.353	-0.075	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Se 196.026	0.028	mg/L	ND	mg/kg	
		2/20/2004	10:57:27 AM	1.178		Zn 213.657	-0.012	mg/L	ND	mg/kg	
0.4ppm		2/20/2004	11:26:32 AM			Sb 206.836	0.436	mg/L	0.436	mg/L	108.98
		2/20/2004	11:26:32 AM			As 188.979	0.415	mg/L	0.415	mg/L	103.87
		2/20/2004	11:26:32 AM			Be 313.107	0.433	mg/L	0.433	mg/L	108.19
		2/20/2004	11:26:32 AM			Co 228.616	0.456	mg/L	0.456	mg/L	114.12
		2/20/2004	11:26:32 AM			Cd 228.802	0.458	mg/L	0.458	mg/L	114.51
		2/20/2004	11:26:32 AM			Cr 267.716	0.434	mg/L	0.434	mg/L	108.54
		2/20/2004	11:26:32 AM			Ni 231.604	0.398	mg/L	0.398	mg/L	99.50
		2/20/2004	11:26:32 AM			Pb 220.353	0.412	mg/L	0.412	mg/L	103.06
		2/20/2004	11:26:32 AM			Se 196.026	0.464	mg/L	0.464	mg/L	115.97
		2/20/2004	11:26:32 AM			Zn 213.657	0.452	mg/L	0.452	mg/L	113.03
MP-04-176	Comb Effluent Dur	2/20/2004	11:30:42 AM	1.274	1.57	Sb 206.836	-0.031	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		As 188.979	-0.014	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Be 313.107	-0.02	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Co 228.616	-0.012	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Cd 228.802	-0.011	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Cr 267.716	-0.019	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Ni 231.604	-0.029	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Pb 220.353	-0.027	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Se 196.026	-0.009	mg/L	ND	mg/kg	
		2/20/2004	11:30:42 AM	1.274		Zn 213.657	-0.011	mg/L	ND	mg/kg	
MP-04-177	Lab Blank	2/20/2004	11:34:37 AM	1.32	1.52	Sb 206.836	-0.038	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		As 188.979	-0.013	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Be 313.107	-0.02	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Co 228.616	-0.014	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Cd 228.802	-0.012	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Cr 267.716	-0.018	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Ni 231.604	-0.028	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Pb 220.353	-0.024	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Se 196.026	-0.002	mg/L	ND	mg/kg	
		2/20/2004	11:34:37 AM	1.32		Zn 213.657	-0.012	mg/L	ND	mg/kg	
MP-04-180	100 ppm Check	2/20/2004	11:38:34 AM	0.622	3.22	Sb 206.636	1.003	mg/L	80.59	mg/kg	81%
		2/20/2004	11:38:34 AM	0.622		As 188.979	1.26	mg/L	101.3	mg/kg	101%
		2/20/2004	11:38:34 AM	0.622		Be 313.107	1.279	mg/L	102.8	mg/kg	103%
		2/20/2004	11:38:34 AM	0.622		Co 228.616	1.304	mg/L	104.8	mg/kg	105%
		2/20/2004	11:38:34 AM	0.622		Cd 228.802	1.277	mg/L	102.7	mg/kg	103%
		2/20/2004	11:38:34 AM	0.622		Cr 267.716	1.302	mg/L	104.6	mg/kg	105%
		2/20/2004	11:38:34 AM	0.622		Ni 231.604	1.285	mg/L	103.3	mg/kg	103%
		2/20/2004	11:38:34 AM	0.622		Pb 220.353	1.334	mg/L	107.2	mg/kg	107%
		2/20/2004	11:38:34 AM	0.622		Se 196.026	1.312	mg/L	105.5	mg/kg	106%
		2/20/2004	11:38:34 AM	0.622		Zn 213.657	1.399	mg/L	112.5	mg/kg	113%
0.4ppm		2/20/2004	11:42:37 AM			Sb 206.836	0.336	mg/L	0.336	mg/L	84.06
		2/20/2004	11:42:37 AM			As 188.979	0.427	mg/L	0.427	mg/L	106.86
		2/20/2004	11:42:37 AM			Be 313.107	0.441	mg/L	0.441	mg/L	110.15
		2/20/2004	11:42:37 AM			Co 228.616	0.443	mg/L	0.443	mg/L	110.80
		2/20/2004	11:42:37 AM			Cd 228.802	0.442	mg/L	0.442	mg/L	110.46
		2/20/2004	11:42:37 AM			Cr 267.716	0.437	mg/L	0.437	mg/L	109.22
		2/20/2004	11:42:37 AM			Ni 231.604	0.408	mg/L	0.408	mg/L	101.94
		2/20/2004	11:42:37 AM			Pb 220.353	0.424	mg/L	0.424	mg/L	105.96
		2/20/2004	11:42:37 AM			Se 196.026	0.440	mg/L	0.440	mg/L	112.00
		2/20/2004	11:42:37 AM			Zn 213.657	0.451	mg/L	0.451	mg/L	112.64

Calib

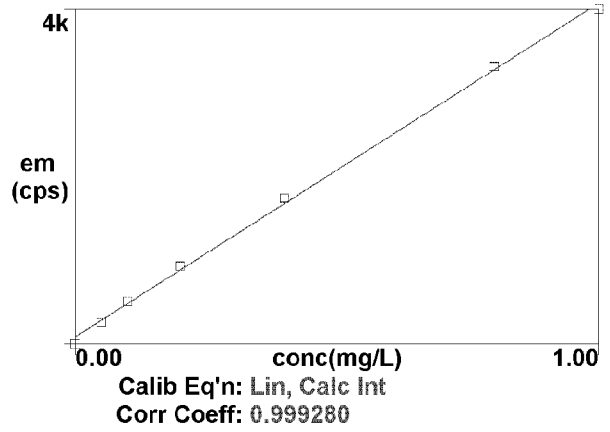
Method: WWTP Scan

Result: CG WWTP Carbon Study Event 1 E04-0120 no digest

Sb 206.836

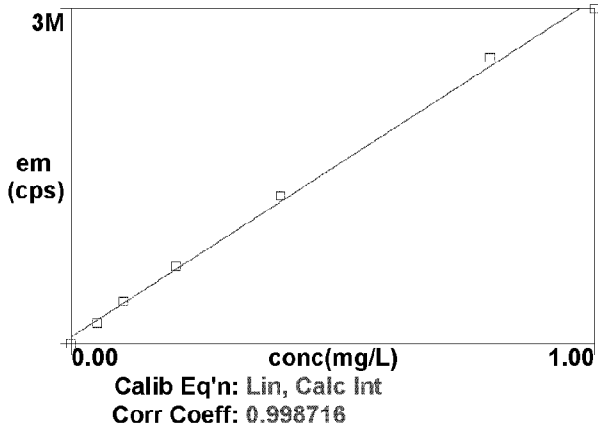


As 188.979



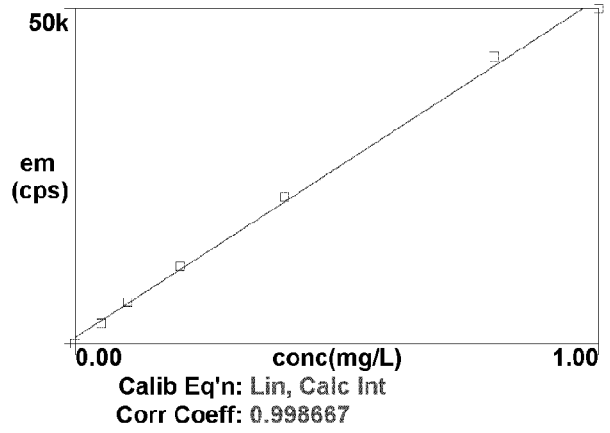
1

Be 313.107



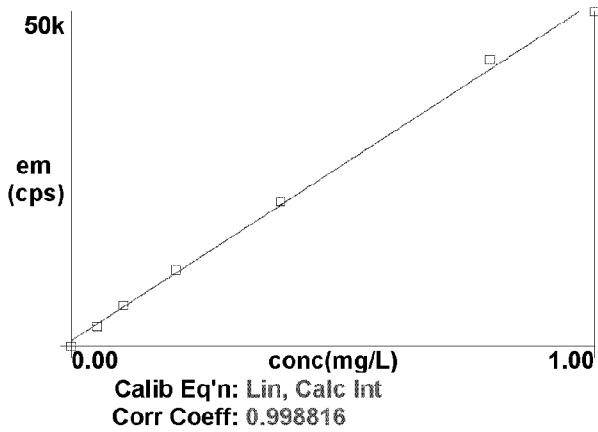
2

Co 228.616



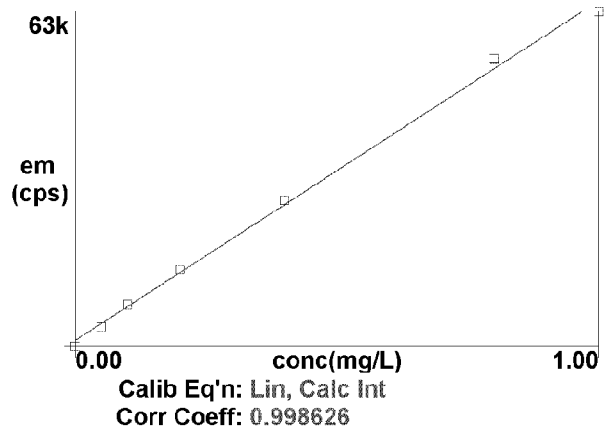
3

Cd 228.802



4

Cr 267.716



5

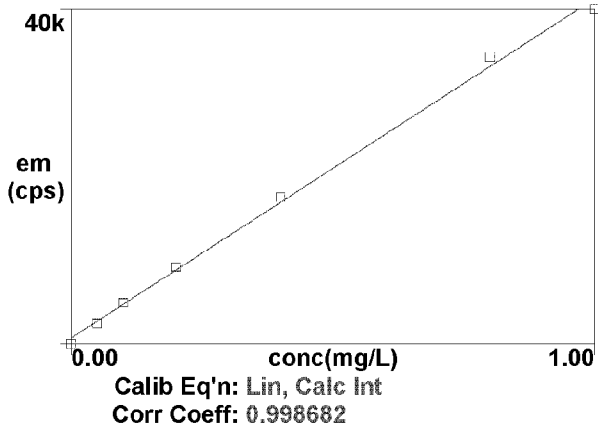
6

Calib

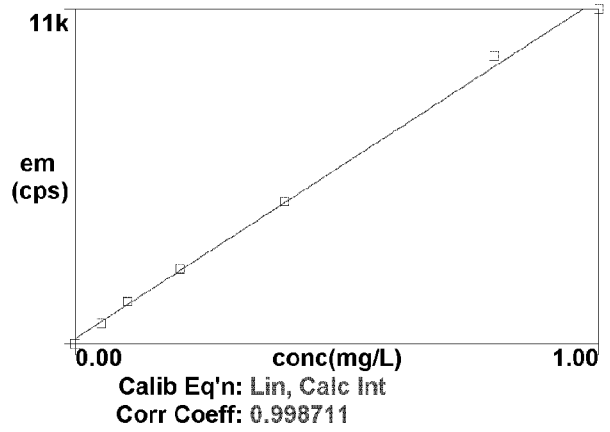
Method: WWTP Scan

Result: CG WWTP Carbon Study Event 1 E04-0120 no digest

Ni 231.604



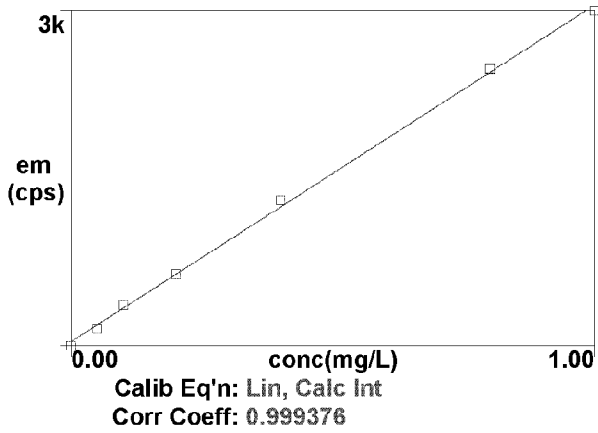
Pb 220.353



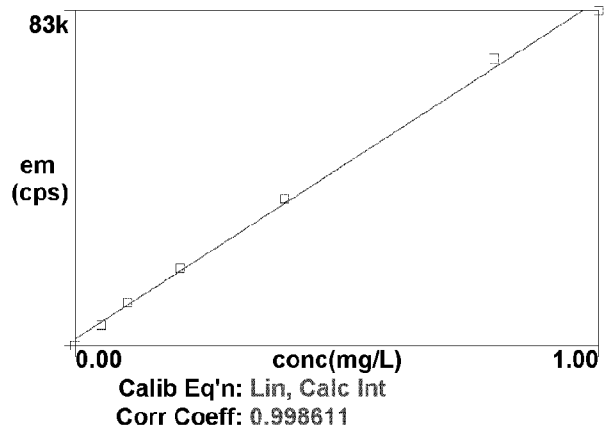
7

8

Se 196.026



Zn 213.857



9

10

Sample ID	Date	Time	Initial Sample Wt	Analyte Name	Reported Conc (Calib)	Calib Units	Reported Conc (Samp)	Samp Units	QC Recovery
0.4ppm	2/23/2004	10:59:35 AM		Sb 206.836	0.355	mg/L	0.365	mg/L	91.19
	2/23/2004	10:59:35 AM		As 188.979	0.357	mg/L	0.357	mg/L	89.29
	2/23/2004	10:59:35 AM		Be 313.107	0.363	mg/L	0.363	mg/L	90.69
	2/23/2004	10:59:35 AM		Co 228.616	0.359	mg/L	0.359	mg/L	89.78
	2/23/2004	10:59:35 AM		Cd 228.802	0.358	mg/L	0.358	mg/L	89.54
	2/23/2004	10:59:35 AM		Cr 267.716	0.36	mg/L	0.36	mg/L	89.89
	2/23/2004	10:59:35 AM		Ni 231.604	0.358	mg/L	0.358	mg/L	89.57
	2/23/2004	10:59:35 AM		Pb 220.353	0.354	mg/L	0.354	mg/L	88.38
	2/23/2004	10:59:35 AM		Se 196.026	0.367	mg/L	0.367	mg/L	91.67
	2/23/2004	10:59:35 AM		Zn 213.857	0.361	mg/L	0.361	mg/L	90.27
Inf 1/2	2/23/2004	11:03:33 AM		Sb 206.836	0.055	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:03:33 AM	100%	Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		Cr 267.716	0.048	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		Se 196.026	ND	mg/L		mg/kg	
	2/23/2004	11:03:33 AM		Zn 213.857	ND	mg/L		mg/kg	
Field Blank	2/23/2004	11:07:27 AM		Sb 206.836	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM	100%	Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		Se 196.026	ND	mg/L		mg/kg	
	2/23/2004	11:07:27 AM		Zn 213.857	ND	mg/L		mg/kg	
Comb 1 / 2	2/23/2004	11:11:22 AM		Sb 206.836	0.054	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM	100%	Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		Se 196.026	ND	mg/L		mg/kg	
	2/23/2004	11:11:22 AM		Zn 213.857	ND	mg/L		mg/kg	
Port 4A	2/23/2004	11:15:17 AM		Sb 206.836	0.048	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM	100%	Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		Se 196.026	ND	mg/L		mg/kg	
	2/23/2004	11:15:17 AM		Zn 213.857	ND	mg/L		mg/kg	
Port 4A MS	2/23/2004	11:19:12 AM		Sb 206.836	1.243	mg/L		mg/kg	124%
	2/23/2004	11:19:12 AM		As 188.979	1.23	mg/L	MS recovery	mg/kg	123%
	2/23/2004	11:19:12 AM		Be 313.107	1.196	mg/L	high for zinc,	mg/kg	120%
	2/23/2004	11:19:12 AM		Co 228.616	1.134	mg/L	100 ppm std	mg/kg	113%
	2/23/2004	11:19:12 AM	100%	Cd 228.802	1.173	mg/L	check ok,	mg/kg	117%
	2/23/2004	11:19:12 AM		Cr 267.716	1.176	mg/L	possible	mg/kg	118%
	2/23/2004	11:19:12 AM		Ni 231.604	1.292	mg/L	matrix	mg/kg	129%
	2/23/2004	11:19:12 AM		Pb 220.353	1.451	mg/L	interference	mg/kg	145%
	2/23/2004	11:19:12 AM		Se 196.026	1.01	mg/L		mg/kg	101%
	2/23/2004	11:19:12 AM		Zn 213.857	3.013	mg/L		mg/kg	301%
Lab Blank	2/23/2004	11:23:15 AM		Sb 206.836	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM	100%	Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		Se 196.026	ND	mg/L		mg/kg	
	2/23/2004	11:23:15 AM		Zn 213.857	ND	mg/L		mg/kg	

Sample ID	Date	Time	Initial Sample Wt	Analyte Name	Reported Conc (Calib)	Calib Units	Reported Conc (Samp)	Samp Units	QC Recovery
1 Cff	2/23/2004	11:27:12 AM	100%	Sb 206.836	0.05	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:27:12 AM		Se 196.026	ND	mg/L		mg/kg	
2/23/2004	11:27:12 AM	Zn 213.857	ND	mg/L		mg/kg			
Eff 4	2/23/2004	11:31:09 AM	100%	Sb 206.836	0.049	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:31:09 AM		Se 196.026	ND	mg/L		mg/kg	
2/23/2004	11:31:09 AM	Zn 213.857	ND	mg/L		mg/kg			
Port 1A	2/23/2004	11:35:06 AM	100%	Sb 206.836	0.05	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:35:06 AM		Se 196.026	ND	mg/L		mg/kg	
2/23/2004	11:35:06 AM	Zn 213.857	ND	mg/L		mg/kg			
0.4ppm	2/23/2004	11:39:04 AM		Sb 206.836	0.336	mg/L	0.336	mg/L	84.03
	2/23/2004	11:39:04 AM		As 188.979	0.327	mg/L	0.327	mg/L	81.75
	2/23/2004	11:39:04 AM		Be 313.107	0.336	mg/L	0.336	mg/L	84.08
	2/23/2004	11:39:04 AM		Co 228.616	0.332	mg/L	0.332	mg/L	83.04
	2/23/2004	11:39:04 AM		Cd 228.802	0.334	mg/L	0.334	mg/L	83.58
	2/23/2004	11:39:04 AM		Cr 267.716	0.332	mg/L	0.332	mg/L	83.07
	2/23/2004	11:39:04 AM		Ni 231.604	0.332	mg/L	0.332	mg/L	82.97
	2/23/2004	11:39:04 AM		Pb 220.353	0.325	mg/L	0.325	mg/L	81.15
	2/23/2004	11:39:04 AM		Se 196.026	0.336	mg/L	0.336	mg/L	84.07
2/23/2004	11:39:04 AM	Zn 213.857	0.335	mg/L	0.335	mg/L	83.63		
Port 1A MS	2/23/2004	11:43:02 AM	100%	Sb 206.836	1.124	mg/L		mg/kg	112%
	2/23/2004	11:43:02 AM		As 188.979	1.097	mg/L	MS	mg/kg	110%
	2/23/2004	11:43:02 AM		Be 313.107	1.074	mg/L	recovery	mg/kg	107%
	2/23/2004	11:43:02 AM		Co 228.616	1.008	mg/L	high for zinc	mg/kg	101%
	2/23/2004	11:43:02 AM		Cd 228.802	1.047	mg/L	100 ppm std	mg/kg	105%
	2/23/2004	11:43:02 AM		Cr 267.716	1.03	mg/L	check ok,	mg/kg	103%
	2/23/2004	11:43:02 AM		Ni 231.604	1.093	mg/L	possible	mg/kg	109%
	2/23/2004	11:43:02 AM		Pb 220.353	1.042	mg/L	matrix	mg/kg	104%
	2/23/2004	11:43:02 AM		Se 196.026	1.024	mg/L	interference	mg/kg	102%
2/23/2004	11:43:02 AM	Zn 213.857	1.587	mg/L		mg/kg	157%		
Field Blank	2/23/2004	11:47:07 AM	100%	Sb 206.836	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		As 188.979	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		Be 313.107	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		Co 228.616	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		Cd 228.802	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		Cr 267.716	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		Ni 231.604	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		Pb 220.353	ND	mg/L		mg/kg	
	2/23/2004	11:47:07 AM		Se 196.026	ND	mg/L		mg/kg	
2/23/2004	11:47:07 AM	Zn 213.857	ND	mg/L		mg/kg			
Lab Blank	2/23/2004	11:51:07 AM	1.096	Sb 206.836	ND	mg/L	-0.197	mg/kg	
	2/23/2004	11:51:07 AM		As 188.979	ND	mg/L	-0.755	mg/kg	
	2/23/2004	11:51:07 AM		Be 313.107	ND	mg/L	-0.175	mg/kg	
	2/23/2004	11:51:07 AM		Co 228.616	ND	mg/L	-0.079	mg/kg	
	2/23/2004	11:51:07 AM		Cd 228.802	ND	mg/L	-0.016	mg/kg	
	2/23/2004	11:51:07 AM		Cr 267.716	ND	mg/L	-0.063	mg/kg	
	2/23/2004	11:51:07 AM		Ni 231.604	ND	mg/L	-0.183	mg/kg	
	2/23/2004	11:51:07 AM		Pb 220.353	ND	mg/L	-0.091	mg/kg	
	2/23/2004	11:51:07 AM		Se 196.026	ND	mg/L	-0.163	mg/kg	
2/23/2004	11:51:07 AM	Zn 213.857	ND	mg/L	-0.199	mg/kg			

Sample ID	Date	Time	Initial Sample Wt	Analyte Name	Reported Conc (Calib)	Calib Units	Reported Conc (Samp)	Samp Units	QC Recovery
0.4ppm	2/23/2004	11:55:00 AM		Sb 206.836	0.329	mg/L	0.329	mg/L	82.16
	2/23/2004	11:55:00 AM		As 188.979	0.321	mg/L	0.321	mg/L	80.26
	2/23/2004	11:55:00 AM		Be 313.107	0.33	mg/L	0.33	mg/L	82.42
	2/23/2004	11:55:00 AM		Co 228.616	0.332	mg/L	0.332	mg/L	82.93
	2/23/2004	11:55:00 AM		Cd 228.802	0.335	mg/L	0.335	mg/L	83.67
	2/23/2004	11:55:00 AM		Cr 267.716	0.333	mg/L	0.333	mg/L	83.25
	2/23/2004	11:55:00 AM		Ni 231.604	0.332	mg/L	0.332	mg/L	82.88
	2/23/2004	11:55:00 AM		Pb 220.353	0.318	mg/L	0.318	mg/L	79.46
	2/23/2004	11:55:00 AM		Se 196.026	0.331	mg/L	0.331	mg/L	82.63
	2/23/2004	11:55:00 AM		Zn 213.857	0.336	mg/L	0.336	mg/L	83.97
	2/23/2004	11:57:23 AM		Sb 206.836	0.337	mg/L	0.337	mg/L	84.17
	2/23/2004	11:57:23 AM		As 188.979	0.325	mg/L	0.325	mg/L	81.33
	2/23/2004	11:57:23 AM		Be 313.107	0.336	mg/L	0.336	mg/L	83.96
	2/23/2004	11:57:23 AM		Co 228.616	0.335	mg/L	0.335	mg/L	83.82
	2/23/2004	11:57:23 AM		Cd 228.802	0.336	mg/L	0.336	mg/L	84.00
	2/23/2004	11:57:23 AM		Cr 267.716	0.336	mg/L	0.336	mg/L	83.88
	2/23/2004	11:57:23 AM		Ni 231.604	0.335	mg/L	0.335	mg/L	83.73
	2/23/2004	11:57:23 AM		Pb 220.353	0.326	mg/L	0.326	mg/L	81.45
	2/23/2004	11:57:23 AM		Se 196.026	0.338	mg/L	0.338	mg/L	84.48
	2/23/2004	11:57:23 AM		Zn 213.857	0.338	mg/L	0.338	mg/L	84.55