

Quantify Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

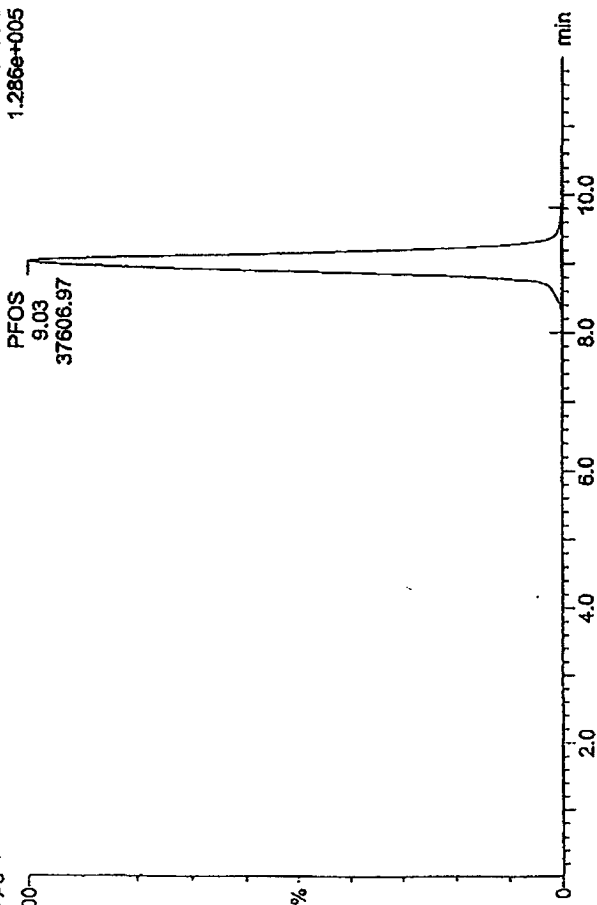
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2990, Date: 30-Nov-2006, Time: 02:38:16, ID: 930.86.8, Description: 20 µg/L

PFOS

pf36k2990 Smooth(Mn,2x3)
20 µg/L 930.86.8

MRM of 5 channels, ES-
498.6>98.8
1.286e+005



Time	Area	Height	Ratio	Res	Time	Area	Height	Ratio	Res
1 PFOA	8.18	60245.313	bb	32866.145	3	18.331	19.808	99.0	99.0
2 APFO	8.18	60245.313	bb	32866.145	3	18.331	20.621	99.0	99.0
3 PFOA 13C2	8.18	32866.145	bb	32866.145	0	32866.145	9.701	97.0	97.0
4 PFOS	9.03	51030.070	bb	32866.145	3	15.527	20.842	104.2	104.2

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

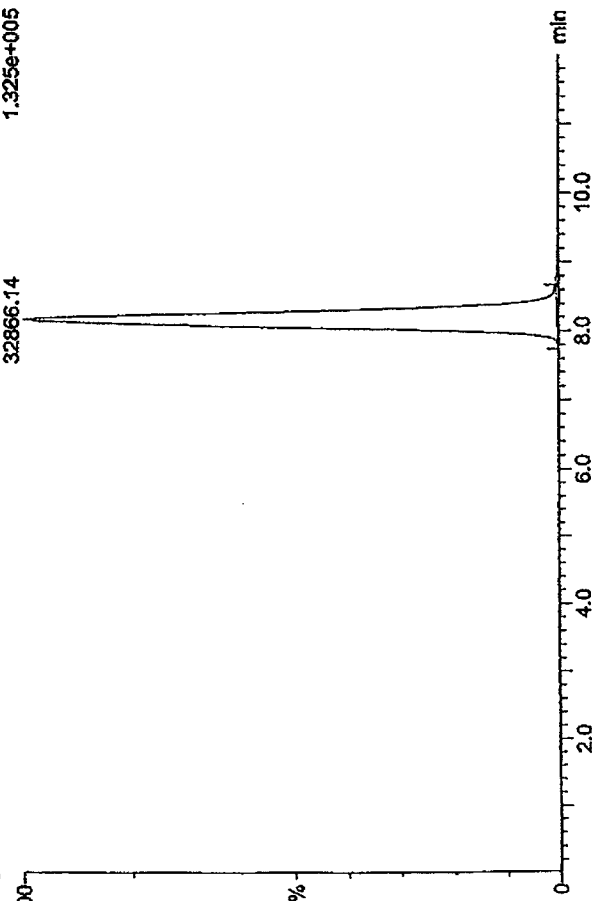
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2990, Date: 30-Nov-2006, Time: 02:38:16, ID: 930.86.8, Description: 20 µg/L

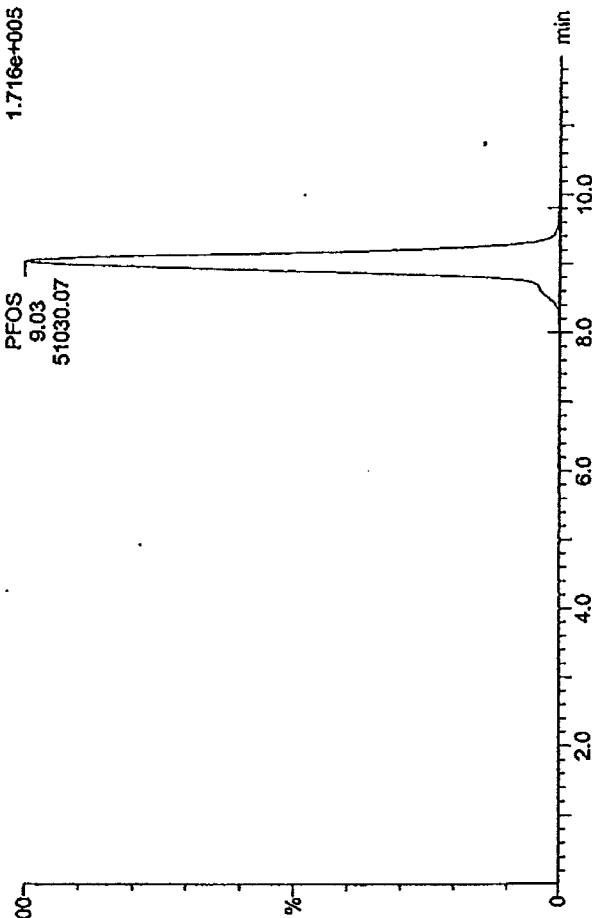
PFOA 13C2

pf36k2990 Smooth(Mn,2x1)
20 µg/L 930.86.8



PFOA

pf36k2990 Smooth(Mn,2x3)
20 µg/L 930.86.8



MRM of 5 channels ES-
498.6 > 79.9
1.716e+005

MassLynx 4.1

Quantify Sample Report

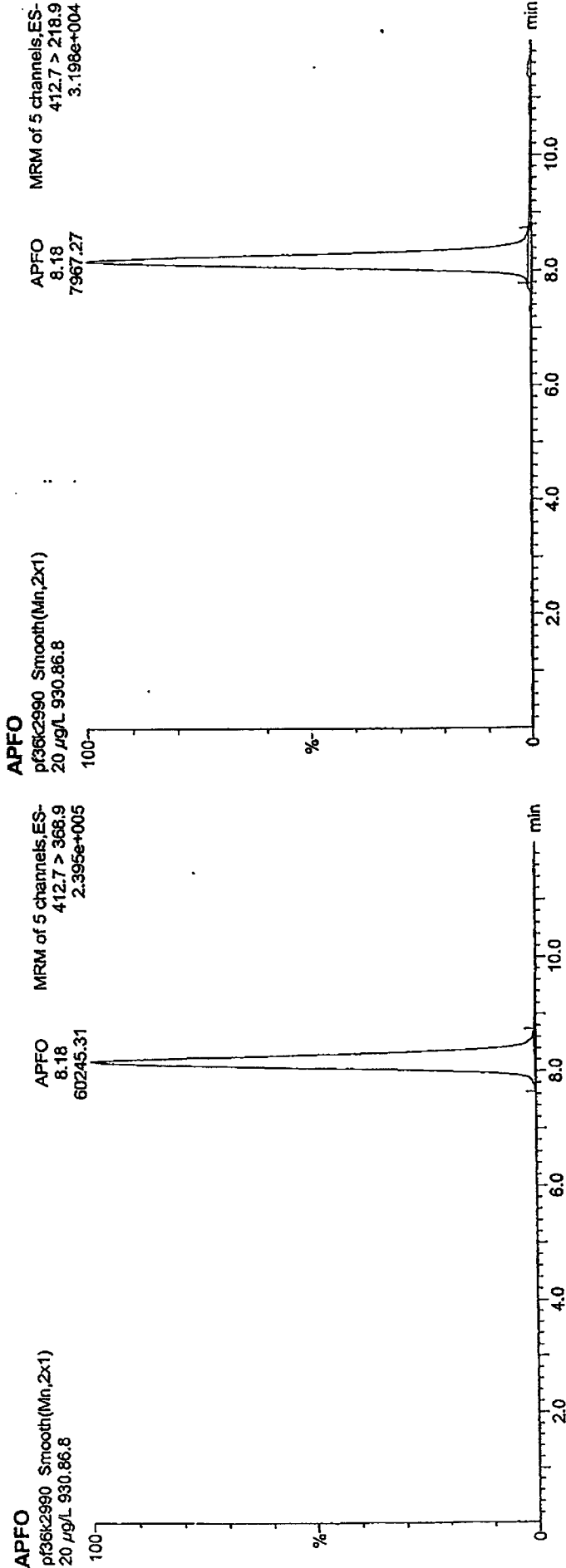
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2990, Date: 30-Nov-2006, Time: 02:38:16, ID: 930.86.8, Description: 20 µg/L



MassLynx 4.1

Quantify Sample Report

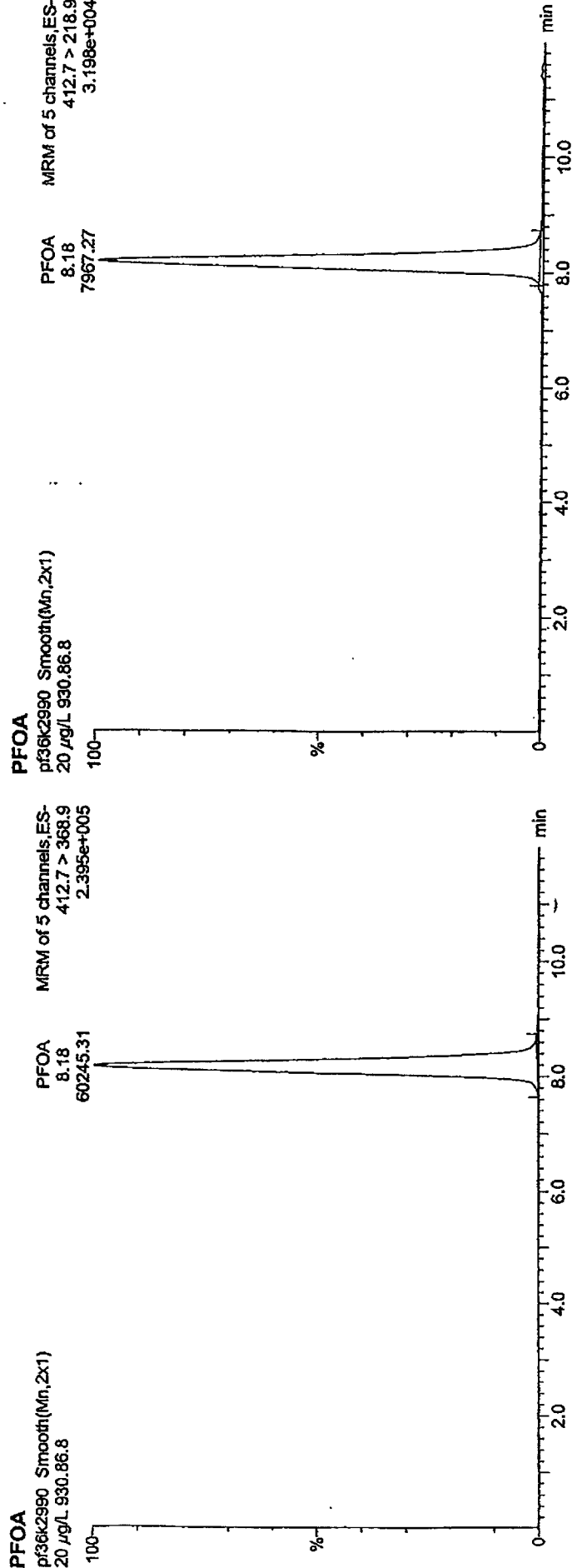
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2990, Date: 30-Nov-2006, Time: 02:38:16, ID: 930.86.8, Description: 20 µg/L



MassLynx 4.1

Quantify Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

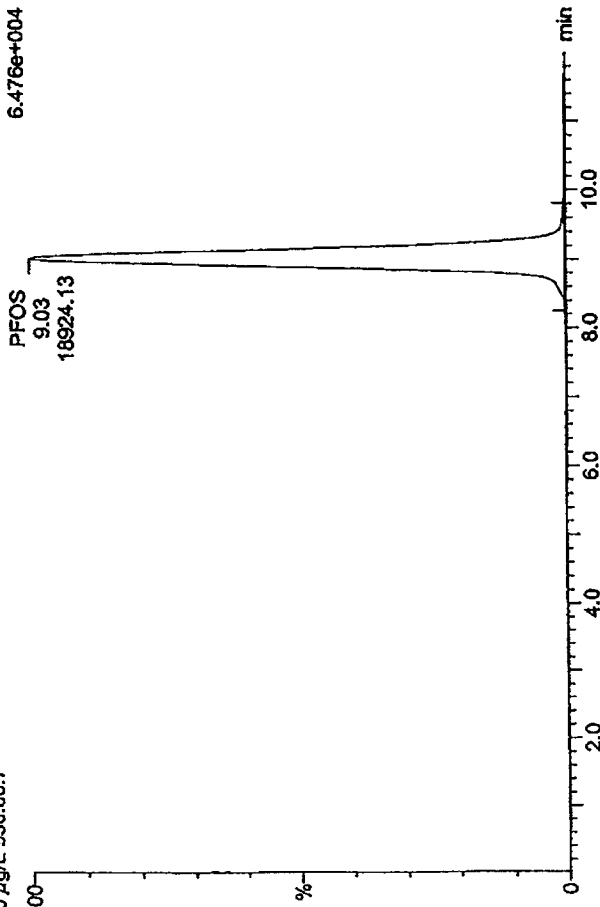
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2989, Date: 30-Nov-2006, Time: 02:25:20, ID: 930.86.7, Description: 10 µg/L

PFOS

pf36k2989 Smooth(Mn,2x3)
10 µg/L 930.86.7

MRM of 5 channels, ES-
498.6>98.8
6.476e+004



Name	RT	Area	Height	Width	Height	Area	Height	Width	Height
1 PFQA	8.18	30274.820	bb	33222.512	3	9.113	9.778	97.8	97.8
2 APFO	8.18	30274.820	bb	33222.512	3	9.113	10.180	97.8	97.8
3 PFOA 13C2	8.18	33222.512	bb	0	33222.512	9.807	98.1	98.1	98.1
4 PFOS	9.06	25785.563	bb	33222.512	3	7.761	10.359	103.6	103.6

Quantify Sample Report MassLynx 4.1

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

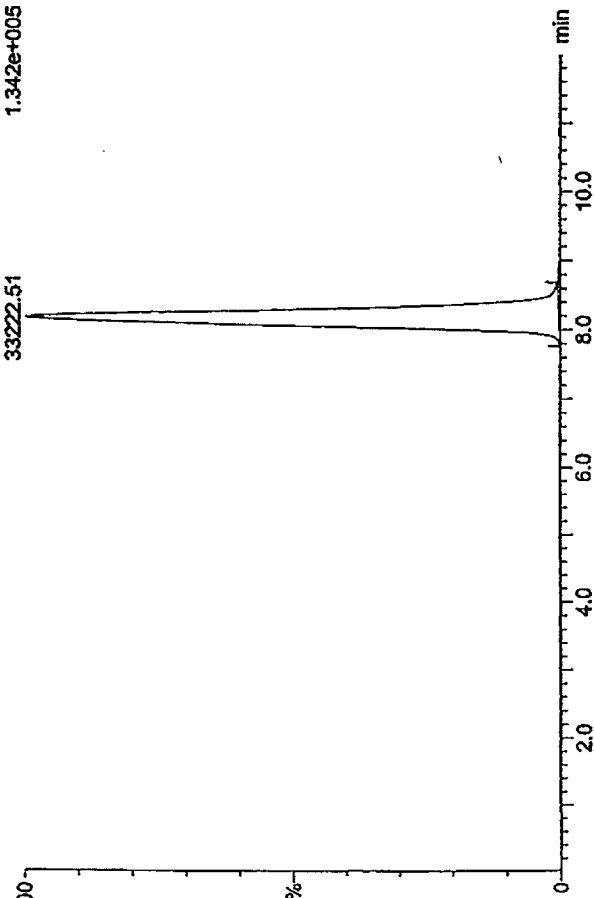
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2989, Date: 30-Nov-2006, Time: 02:25:20, ID: 930.86.7, Description: 10 µg/L

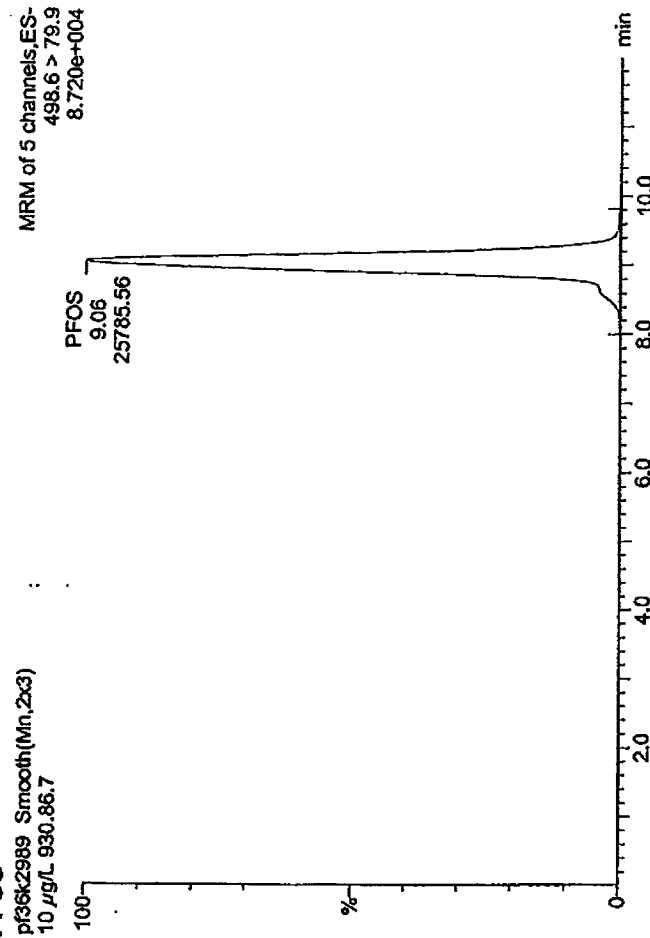
PFOA 13C2

pf36k2989 Smooth(Mn,2x1)
10 µg/L 930.86.7



PFOS

pf36k2989 Smooth(Mn,2x3)
10 µg/L 930.86.7



Quantify Sample Report MassLynx 4.1

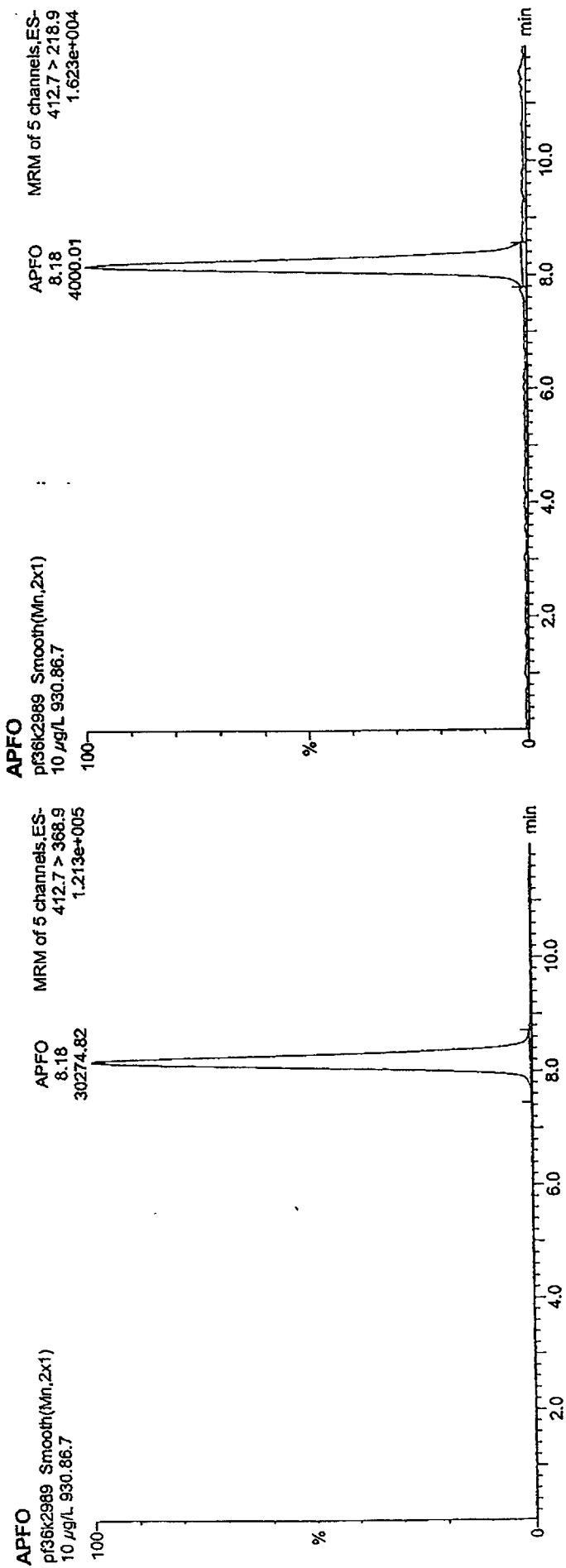
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2989, Date: 30-Nov-2006, Time: 02:25:20, ID: 930.86.7, Description: 10 µg/L



Quantify Sample Report MassLynx 4.1

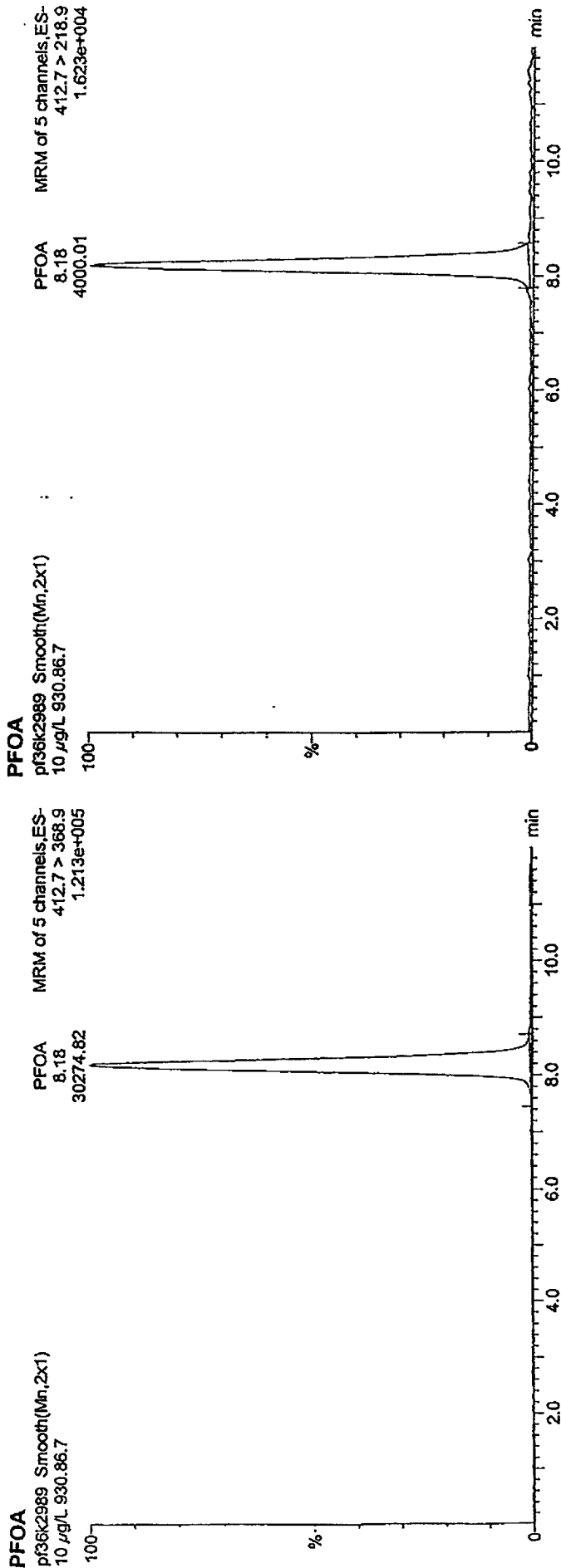
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2989, Date: 30-Nov-2006, Time: 02:25:20, ID: 930.86.7, Description: 10 µg/L



MassLynx 4.1

Quantify Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

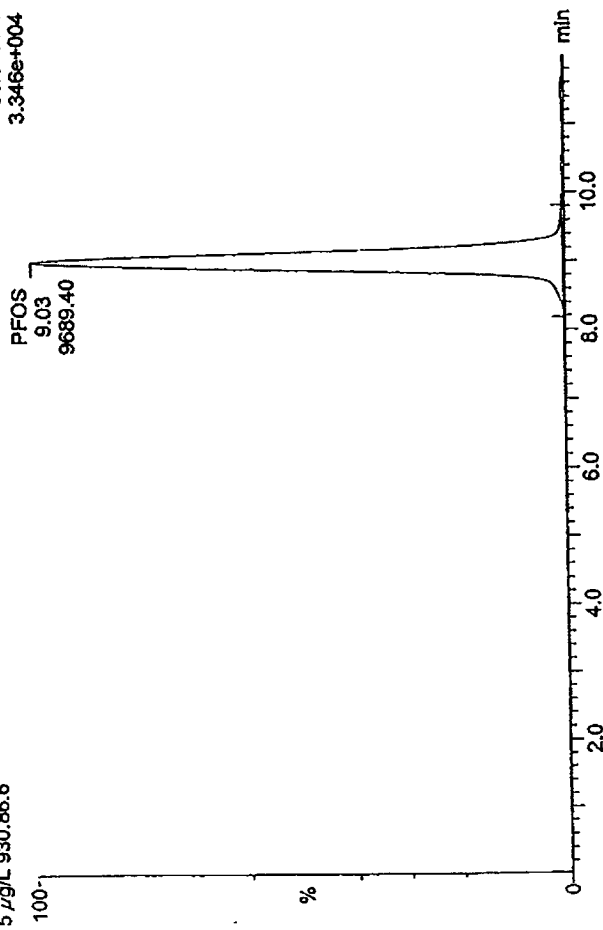
Name: pf36k2988, Date: 30-Nov-2006, Time: 02:12:23, ID: 930.86.6, Description: 5 µg/L

PFOA

pf36k2988 Smooth(Mn,2x3)

5 µg/L 930.86.6

MRM of 5 channels, ES-
498.6>98.8
3.346e+004



#	Name	Time (min)	Area	Flags	IS/Ave	Res	Time (min)	Area	Flags	IS/Ave	Res
1	PFOA	8.18	15540.666	bb	34709.254	3	4.477	4.755	95.1		
2	APFO	8.18	15540.666	bb	34709.254	3	4.477	4.951	95.1		
3	PFOA 13C2	8.18	34709.254	bb		0	34709.254	10.246	102.5		
4	PFOA	9.03	12969.129	bb	34709.254	3	3.737	4.966	99.3		

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

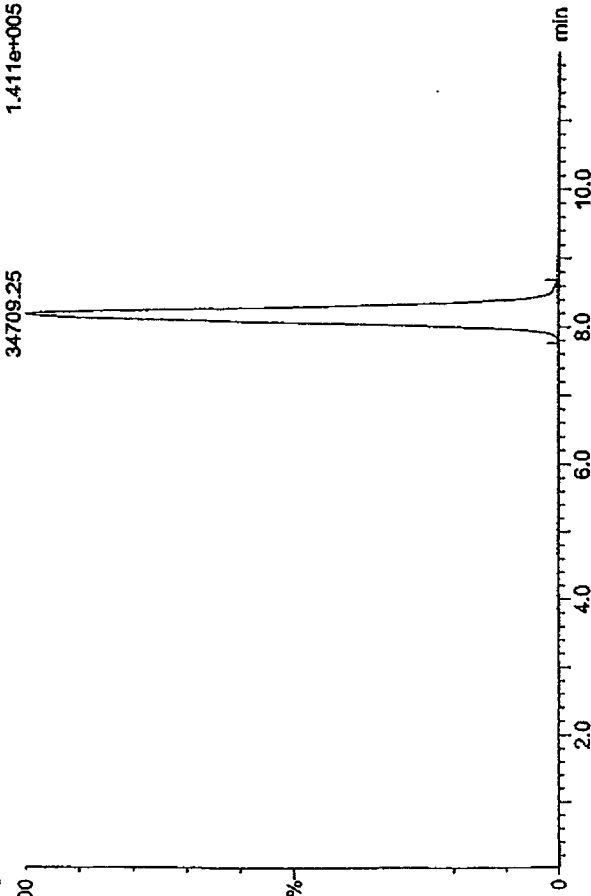
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2988, Date: 30-Nov-2006, Time: 02:12:23, ID: 930.86.6, Description: 5 µg/L

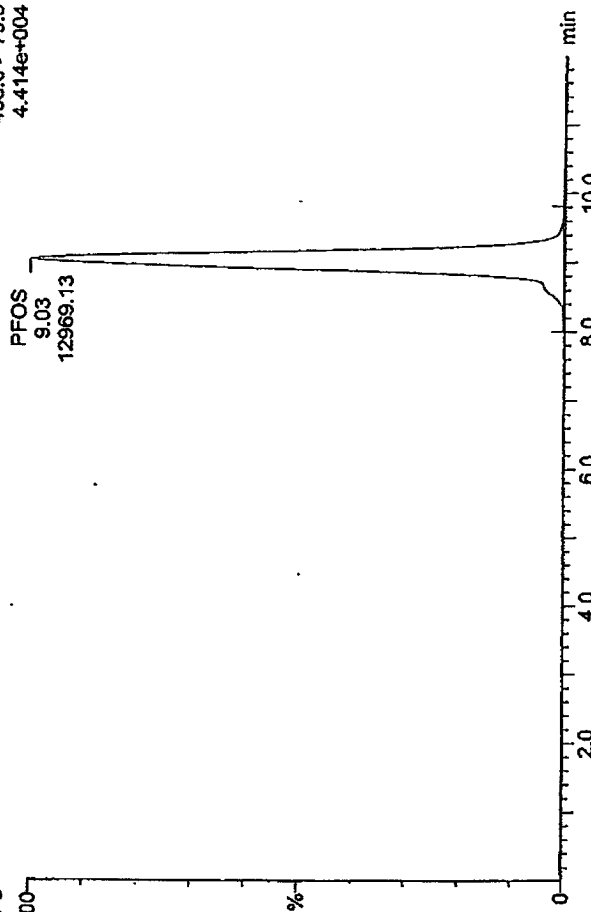
PFOA 13C2

pf36k2988 Smooth(Mn,2x1)
5 µg/L 930.86.6



PFOA

pf36k2988 Smooth(Mn,2x3)
5 µg/L 930.86.6



MassLynx 4.1

Quantify Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36kz92s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2988, Date: 30-Nov-2006, Time: 02:12:23, ID: 930.86.6, Description: 5 µg/L

APFO
pf36k2988 Smooth(Mn,2x1)
5 µg/L 930.86.6

100

%

APFO
8.18
15540.67

APFO
pf36k2988 Smooth(Mn,2x1)
5 µg/L 930.86.6

100

%

APFO
8.20
2088.86

MRM of 5 channels, ES-
412.7 > 218.9
8.601e+003

0

min

0

min

0

min

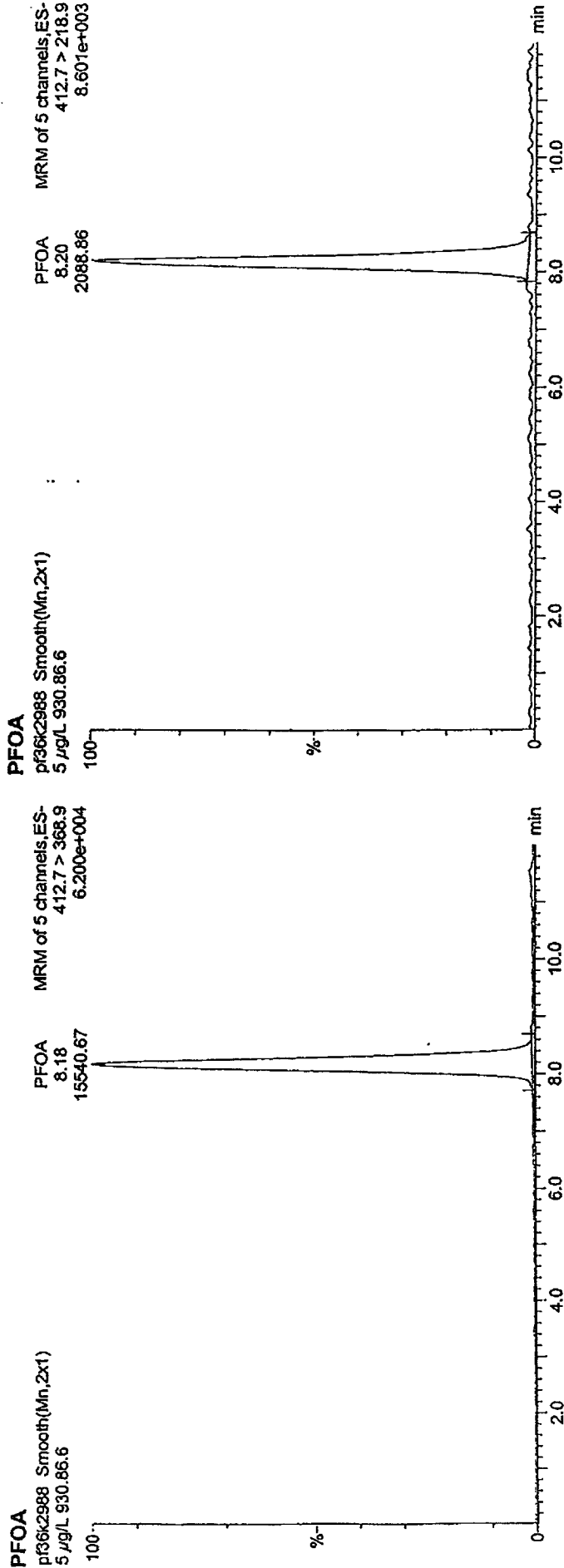
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2988, Date: 30-Nov-2006, Time: 02:12:23, ID: 930.86.6, Description: 5 µg/L



MassLynx 4.1

Quantify Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

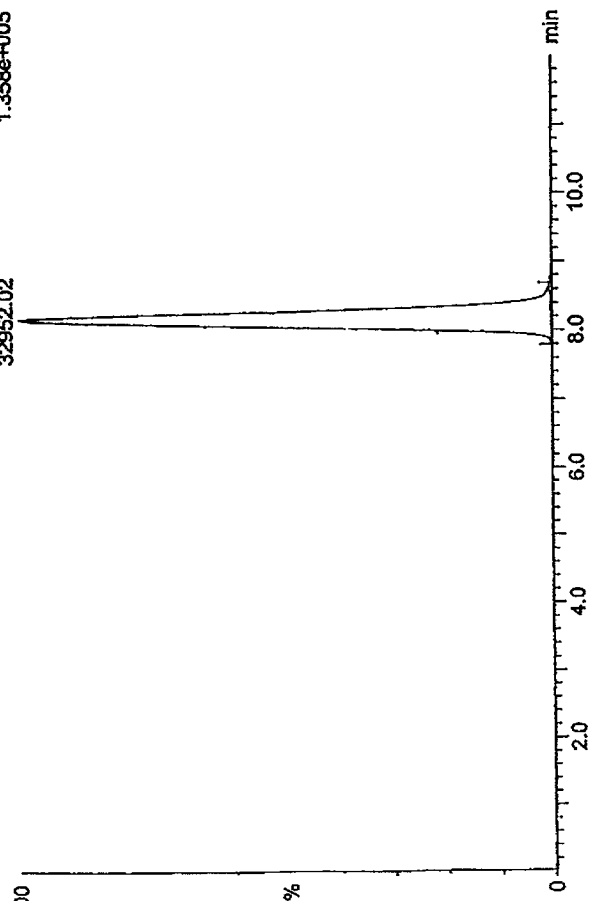
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2987, Date: 30-Nov-2006, Time: 01:59:25, ID: 930.86.5, Description: 2 µg/L

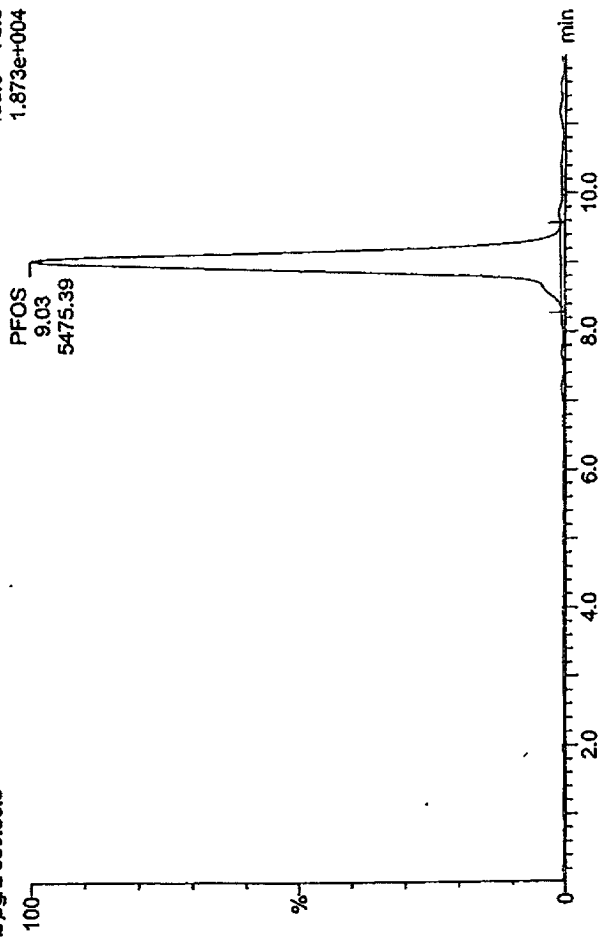
PFOA 13C2

pf36k2987 Smooth(Mn,2x1)
2 µg/L 930.86.5



PFOS

pf36k2987 Smooth(Mn,2x3)
2 µg/L 930.86.5



MRM of 5 channels, ES-
498.6 > 79.9
1.873e+004

Quantify Sample Report MassLynx 4.1

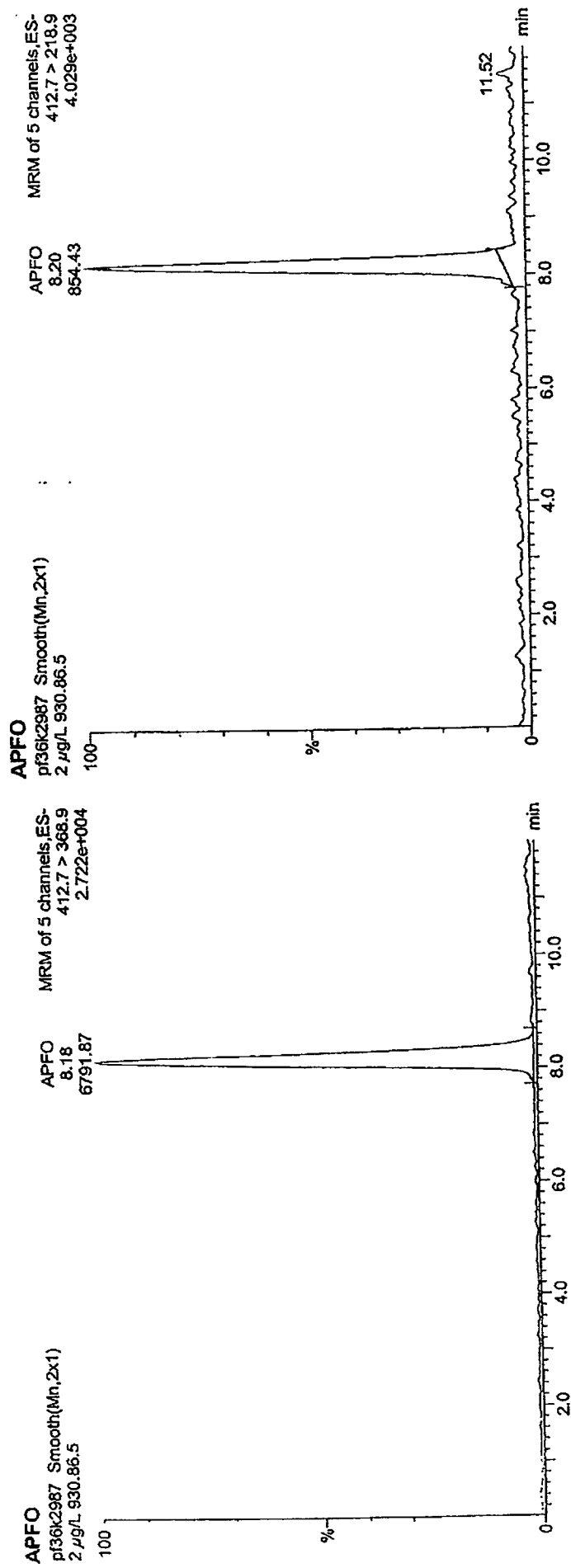
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2987, Date: 30-Nov-2006, Time: 01:59:25, ID: 930.86.5, Description: 2 µg/L



PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

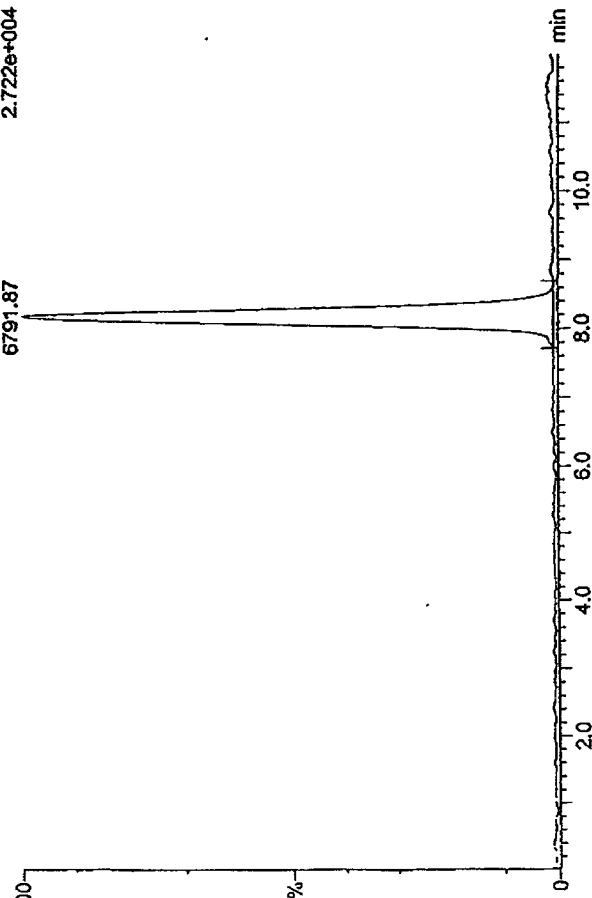
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2987, Date: 30-Nov-2006, Time: 01:59:25, ID: 930.86.5, Description: 2 µg/L

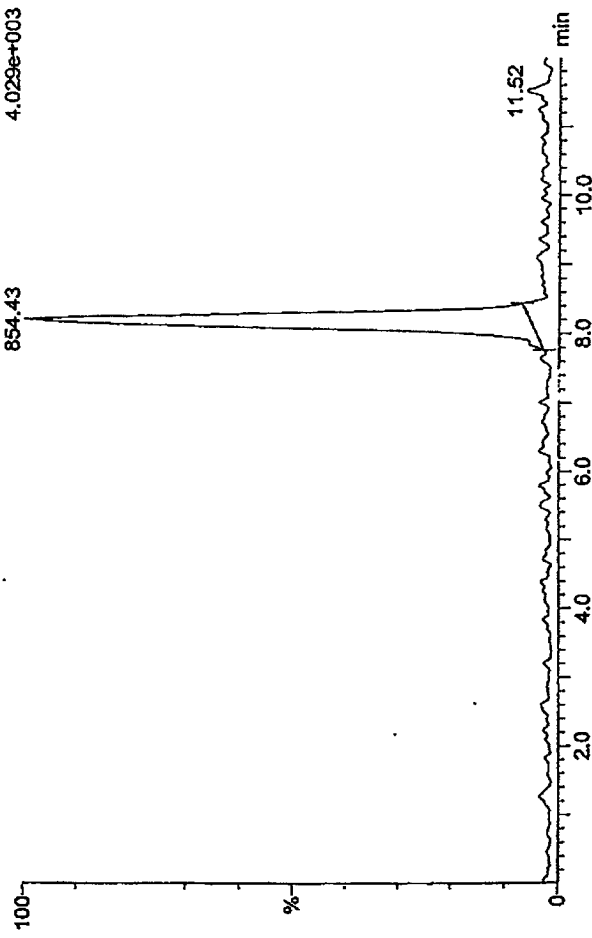
PFOA

pf36k2987 Smooth(Mn,2x1)
2 µg/L 930.86.5



PFOA

pf36k2987 Smooth(Mn,2x1)
2 µg/L 930.86.5



Quantify Sample Report

MassLynx 4.1

PFOA Analysis

C:\MassLynx\PRO\pf36k292s.qld

Dataset: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

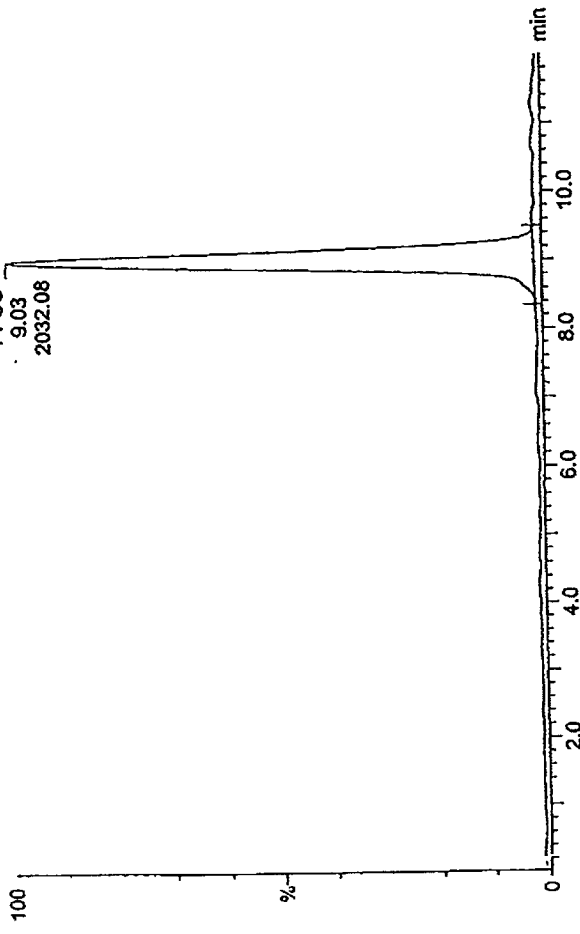
Name: pf36k2986, Date: 30-Nov-2006, Time: 01:46:29, ID: 930.86.4, Description: 1 µg/L

PFOS

pf36k2986 Smooth(Mn,2x3)

1 µg/L 930.86.4

MRM of 5 channels, ES-
498.6>98.8
7.285e+003



Name	RT	Area	Area%	Height	Height%	Col	Col	Col	Col
1 PFOA	8.18	3403.384	bb	35184.527	3	0.967	0.961	96.1	96.1
2 APFO	8.18	3403.384	bb	35184.527	3	0.967	1.000	96.1	96.1
3 PFOA 13C2	8.15	35184.527	bd	35184.527	0	35184.527	10.386	103.9	103.9
4 PFOS	9.03	2753.079	bb	35184.527	3	0.782	1.024	102.4	102.4

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

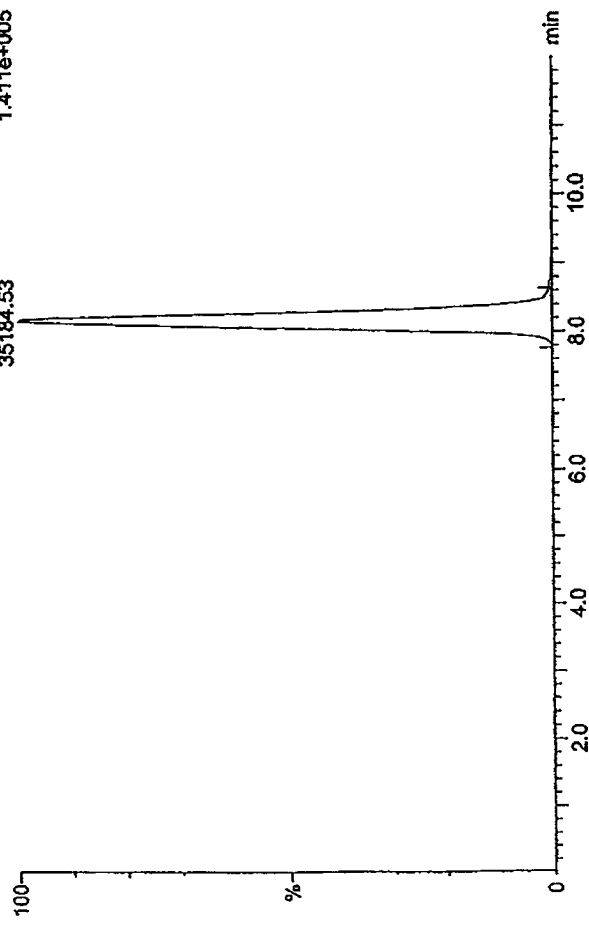
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2986, Date: 30-Nov-2006, Time: 01:46:29, ID: 930.86.4, Description: 1 µg/L

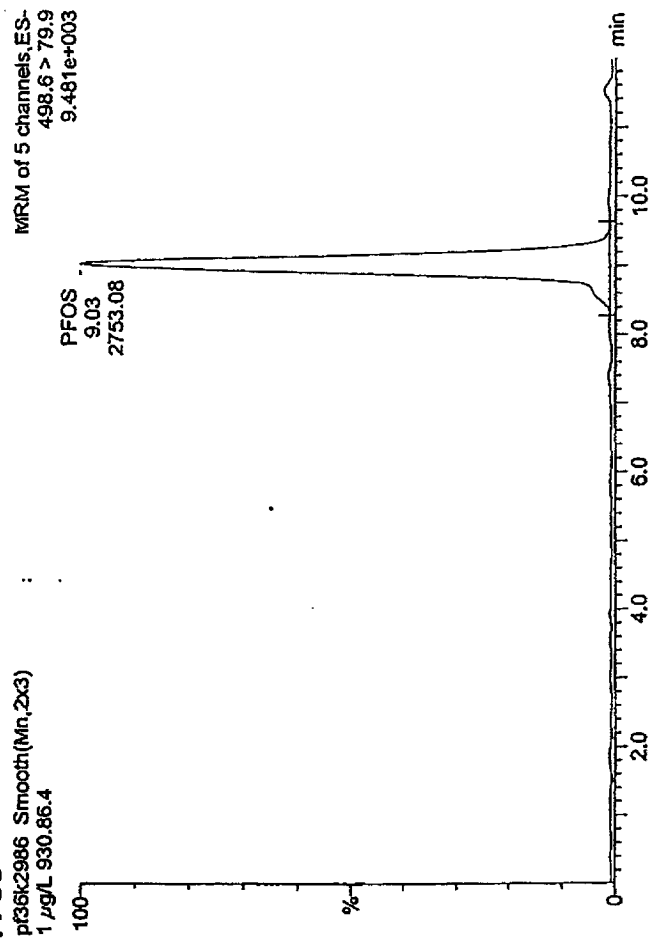
PFOA 13C2

pf36k2986 Smooth(Mn,2x1)
1 µg/L 930.86.4



PFOA

pf36k2986 Smooth(Mn,2x3)
1 µg/L 930.86.4



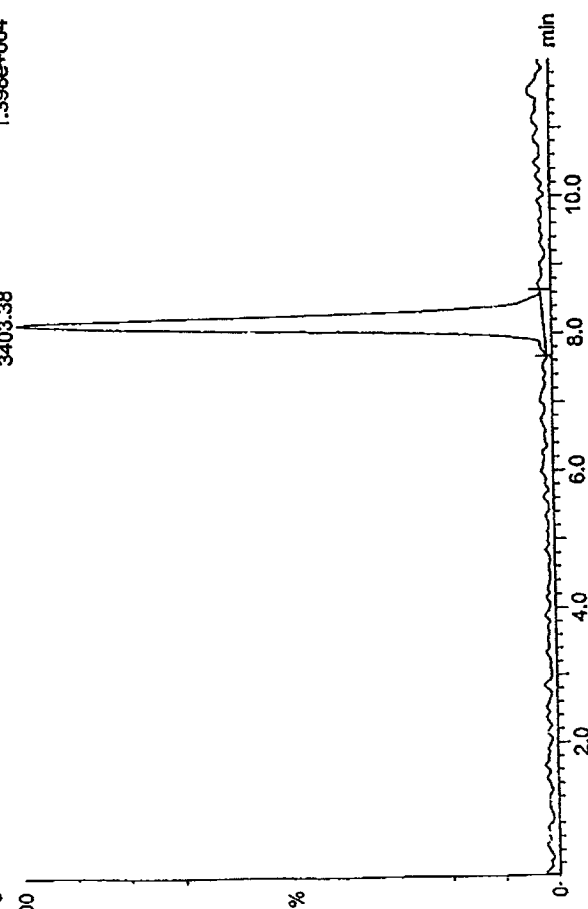
MRM of 5 channels, ES-
498.6 > 79.9
9.481e+003

Quantify Sample Report MassLynx 4.1

PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2986, Date: 30-Nov-2006, Time: 01:46:29, ID: 930.86.4, Description: 1 µg/L

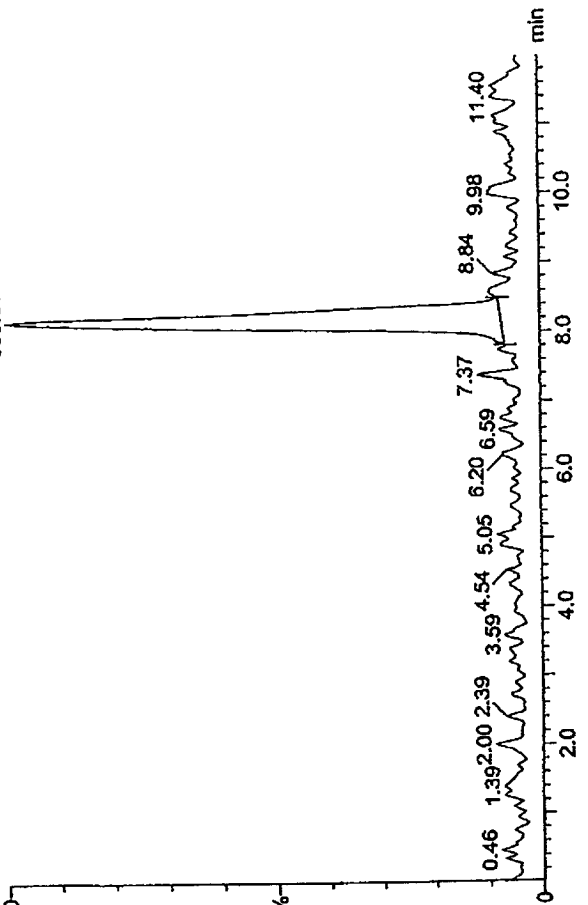
APFO
 pf36k2986 Smooth(Mn,2x1)
 1 µg/L 930.86.4



APFO
 pf36k2986 Smooth(Mn,2x1)
 1 µg/L 930.86.4

APFO
 8.18
 383.61

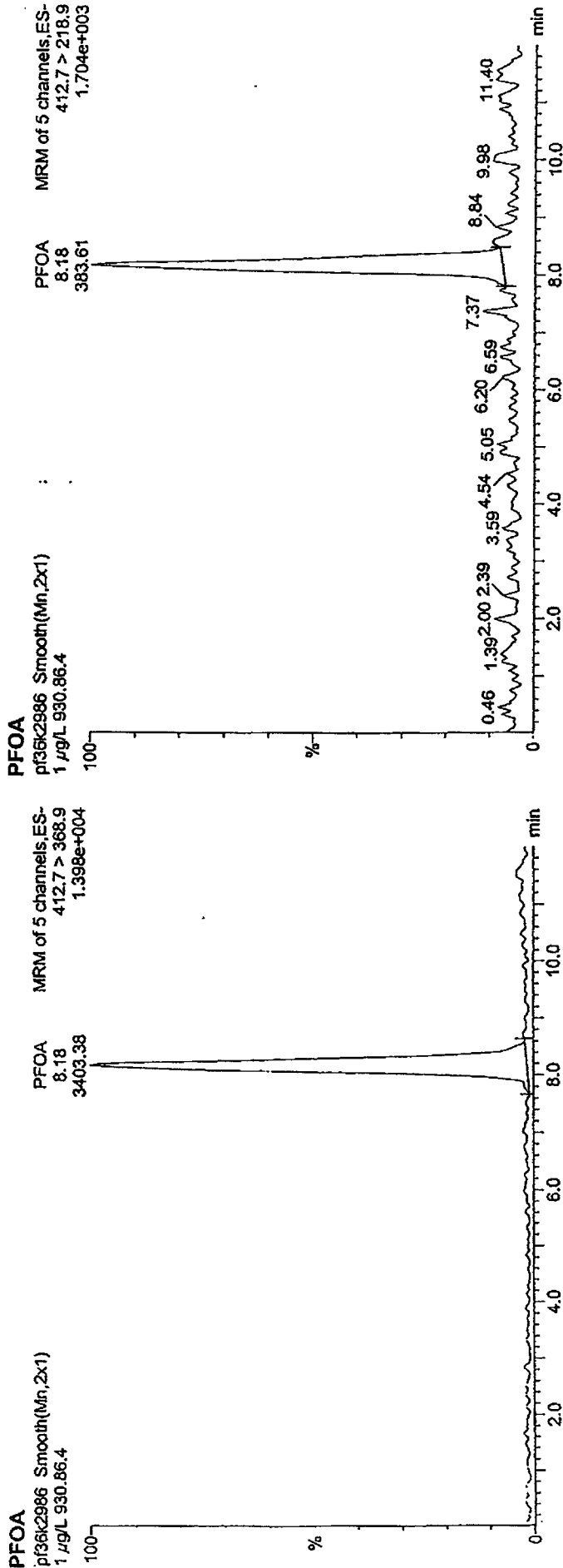
MRM of 5 channels, ES-
 412.7 > 218.9
 1.704e+003



Quantify Sample Report MassLynx 4.1

PFOA Analysis
 Dataset: C:\MassLynx\1PFOA.PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2986, Date: 30-Nov-2006, Time: 01:46:29, ID: 930.86.4, Description: 1 µg/L

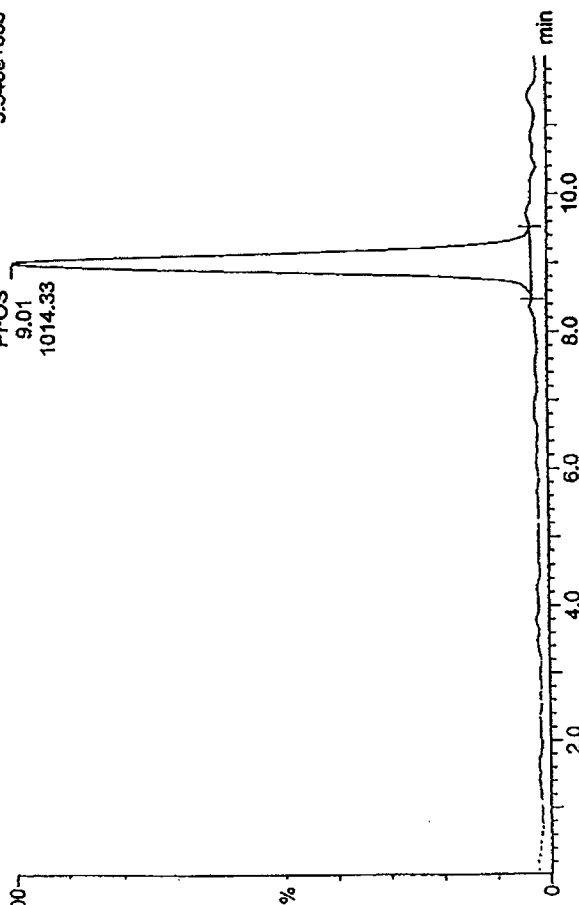


PFOA Analysis

Printed:

PFOS

MRM of 5 channels, ES-498.6>98.8 3.540e+003

[illegible]

Quantify Sample Report

MassLynx 4.1

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

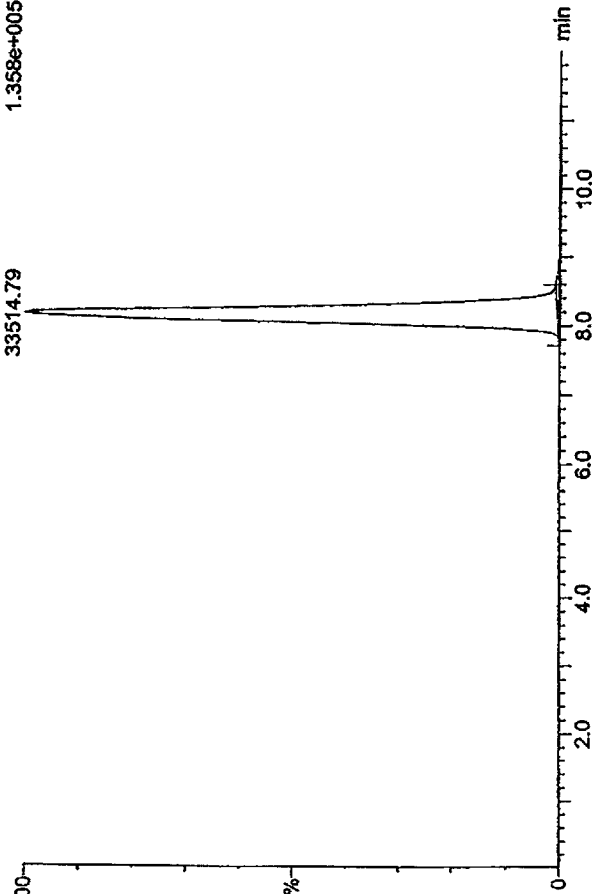
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2985, Date: 30-Nov-2006, Time: 01:33:32, ID: 930.86.3, Description: 0.5 µg/L

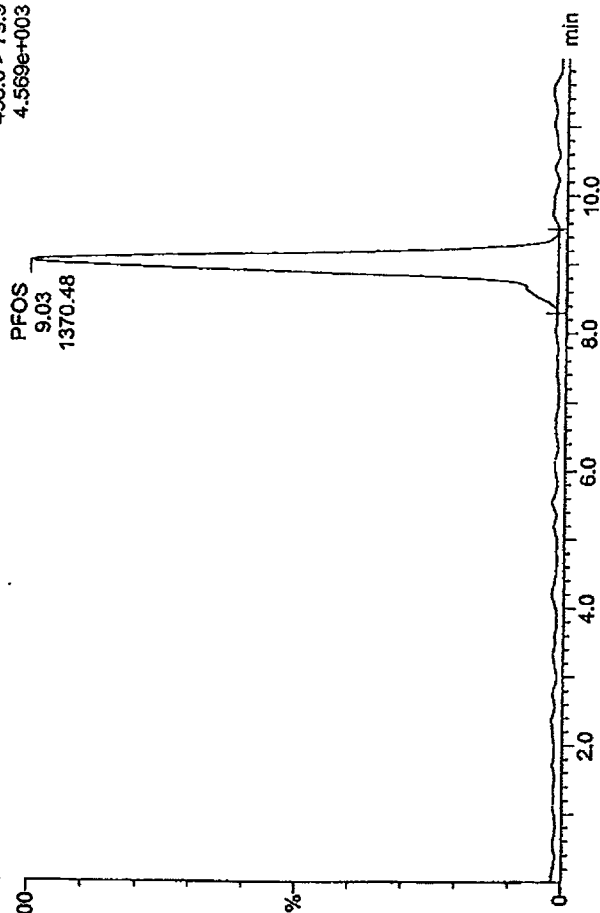
PFOA 13C2

pf36k2985 Smooth(Mn,2x1)
0.5 µg/L 930.86.3



PFOA

pf36k2985 Smooth(Mn,2x3)
0.5 µg/L 930.86.3



Quantify Sample Report MassLynx 4.1

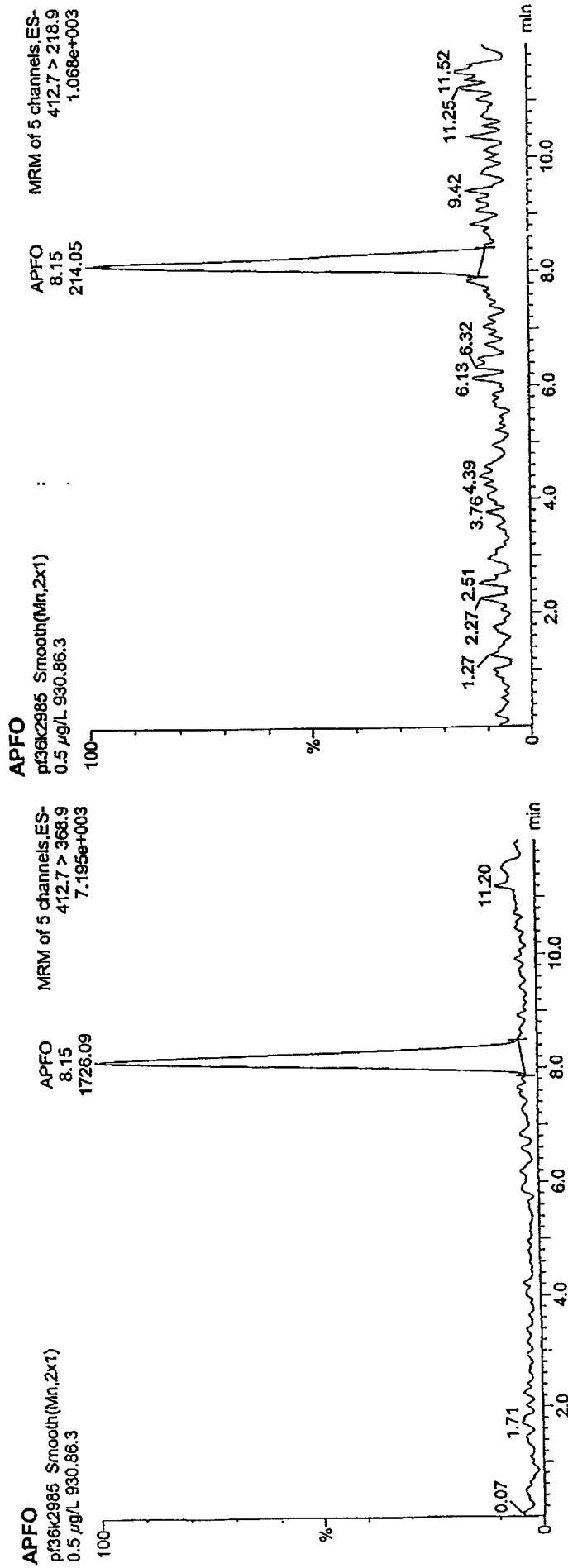
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qid

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2985, Date: 30-Nov-2006, Time: 01:33:32, ID: 930.86.3, Description: 0.5 µg/L



MassLynx 4.0.

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2985, Date: 30-Nov-2006, Time: 01:33:32, ID: 930.86.3, Description: 0.5 µg/L

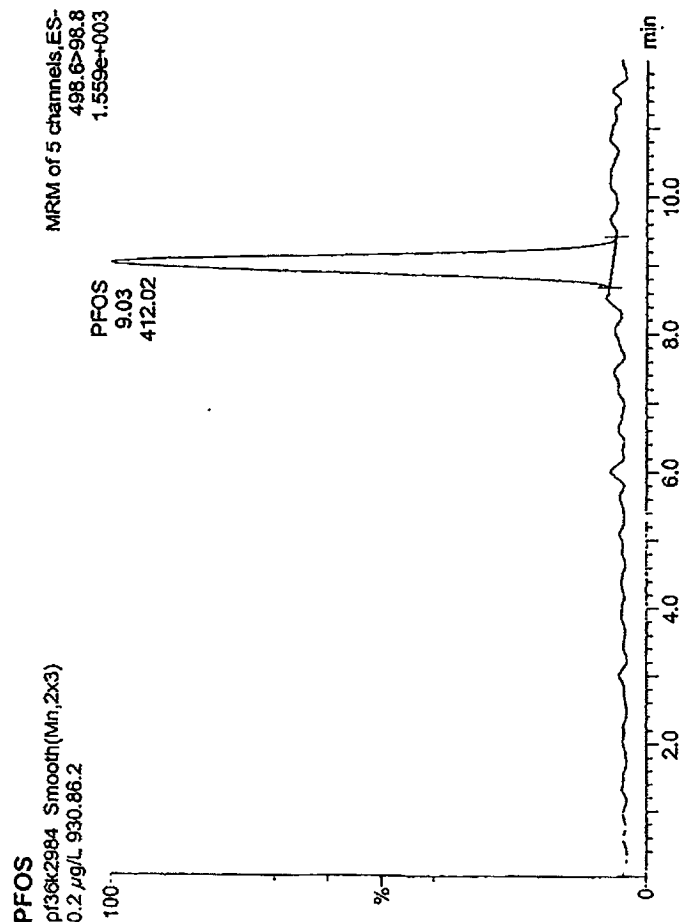


Dataset: C:\MassLynx\1\FOA.PRO\1\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2984, Date: 30-Nov-2006, Time: 01:20:35, ID: 930.86.2, Description: 0.2 µg/L



	Area	Flags	Average Speed	Variance	Standard Deviation
1 PFOA	8.18	873.683	bb	33395.363	3 0.262 0.199 99.5
2 APFO	8.18	873.683	bb	33395.363	3 0.262 0.207 99.4
3 PFOA 13C2	8.18	33395.363	bb		0 33395.363 9.858 98.6
4 PFOS	9.03	553.135	bb	33395.363	3 0.166 0.203 101.6

Quantify Sample Report MassLynx 4.1

PFOA Analysis

Dataset: C:\MassLynx\I\PFOA.PRO\pf36k_92s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

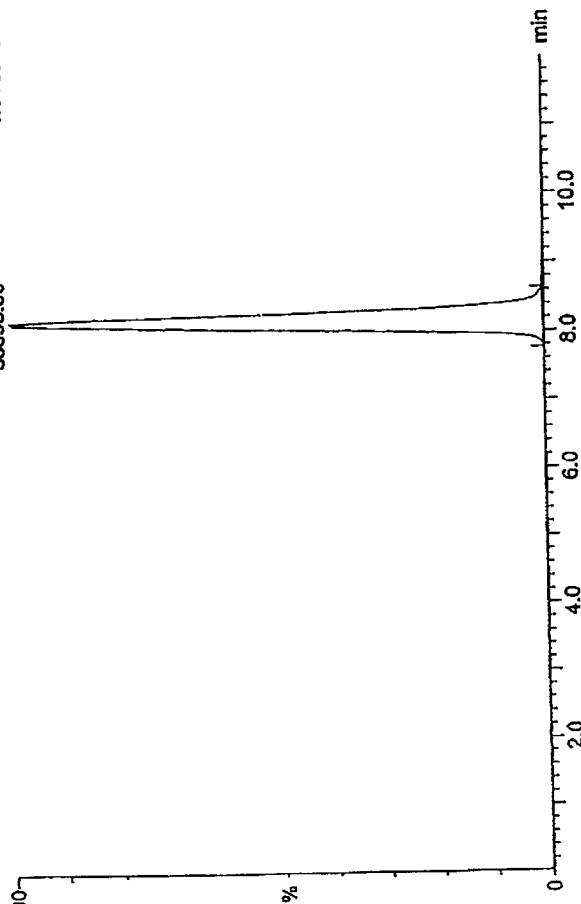
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2984, Date: 30-Nov-2006, Time: 01:20:35, ID: 930.86.2, Description: 0.2 µg/L

PFOA 13C2

pf36k2984 Smooth(Mn,2x1)

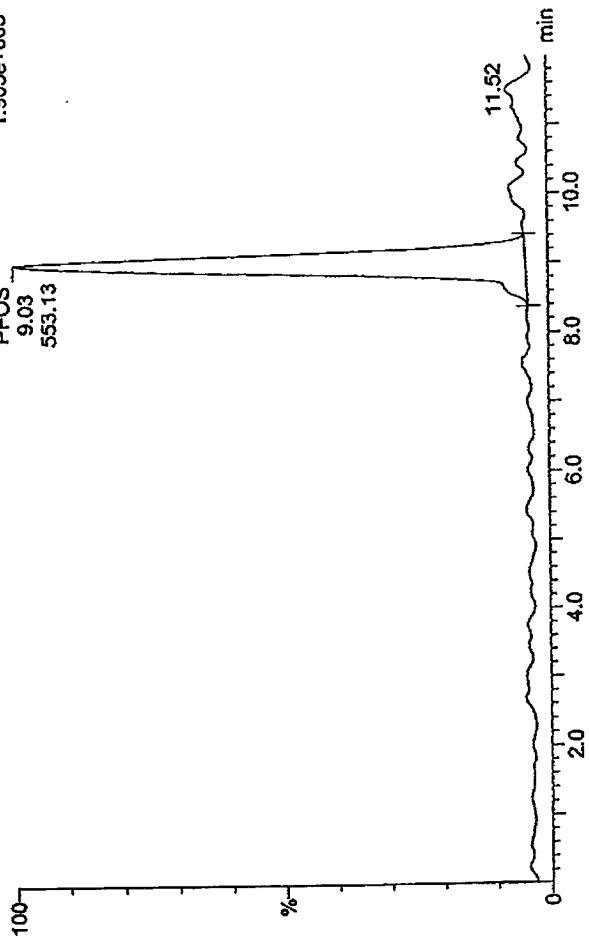
0.2 µg/L 930.86.2



PFOA

pf36k2984 Smooth(Mn,2x3)

0.2 µg/L 930.86.2



MRM of 5 channels, ES-
498.6 > 79.9
1.905e+003

MassLynx 4.1

Quantify Sample Report

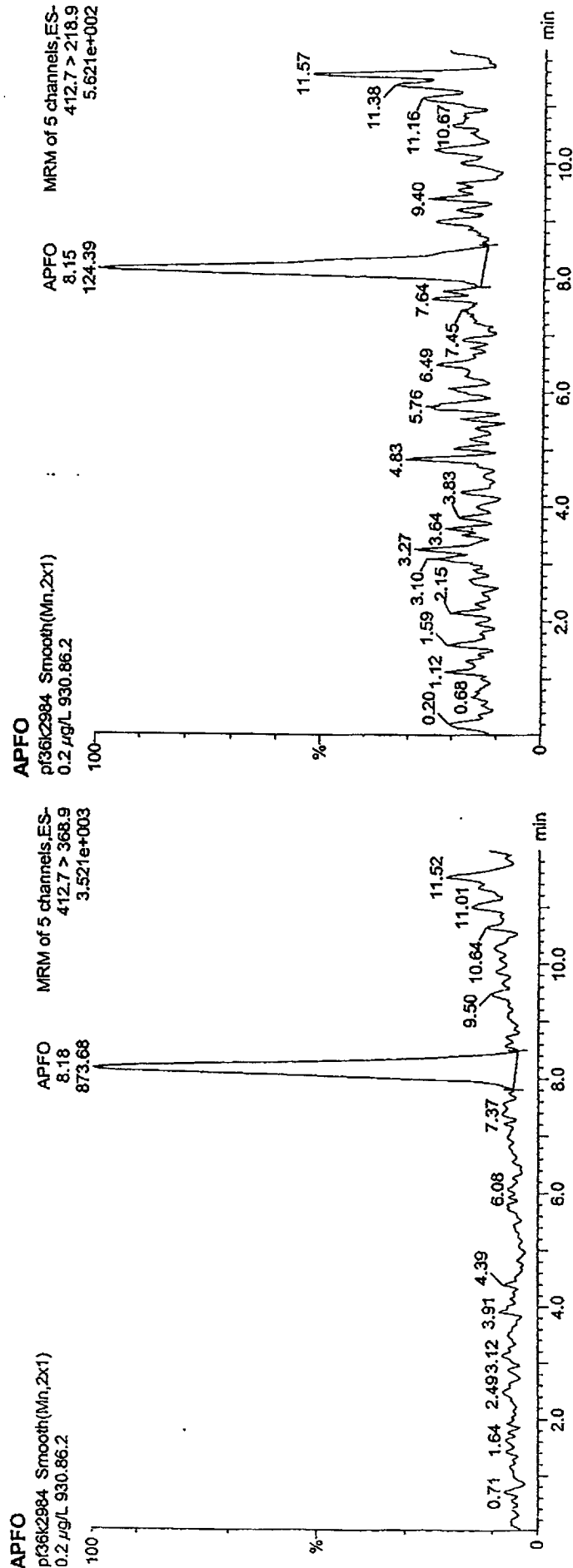
PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

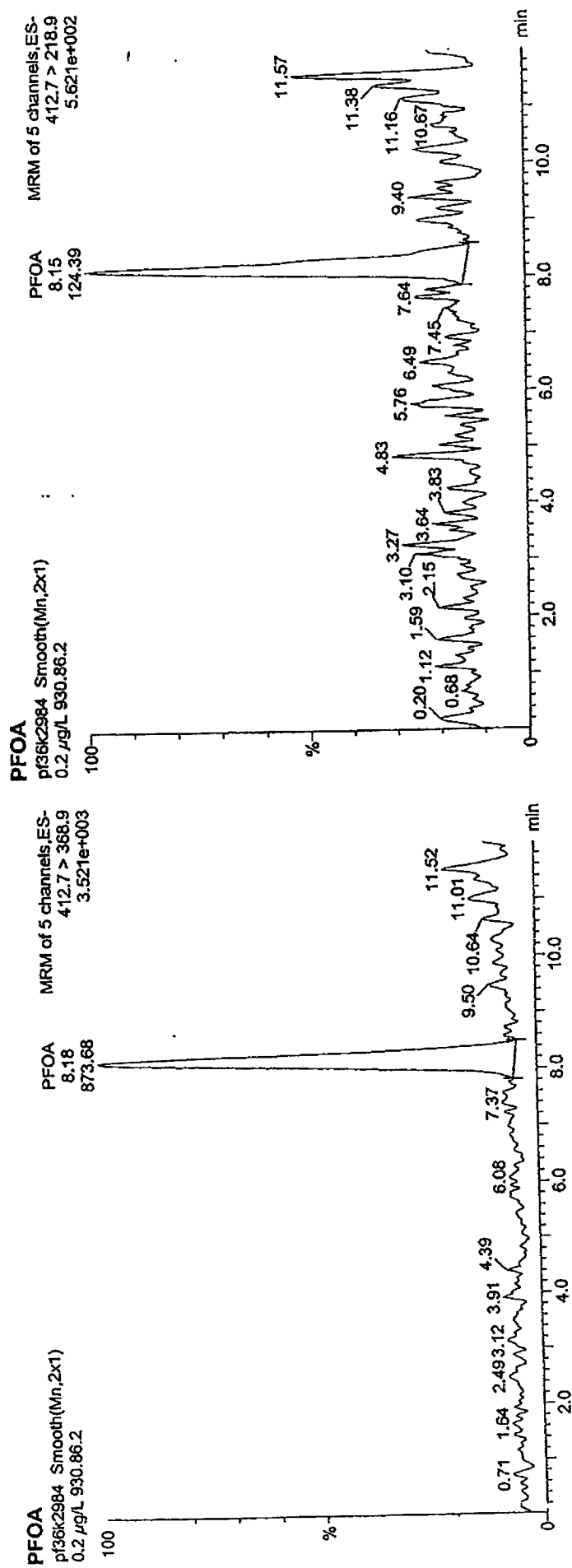
Name: pf36k2984, Date: 30-Nov-2006, Time: 01:20:35, ID: 930.86.2, Description: 0.2 µg/L



Quantify Sample Report MassLynx 4.1

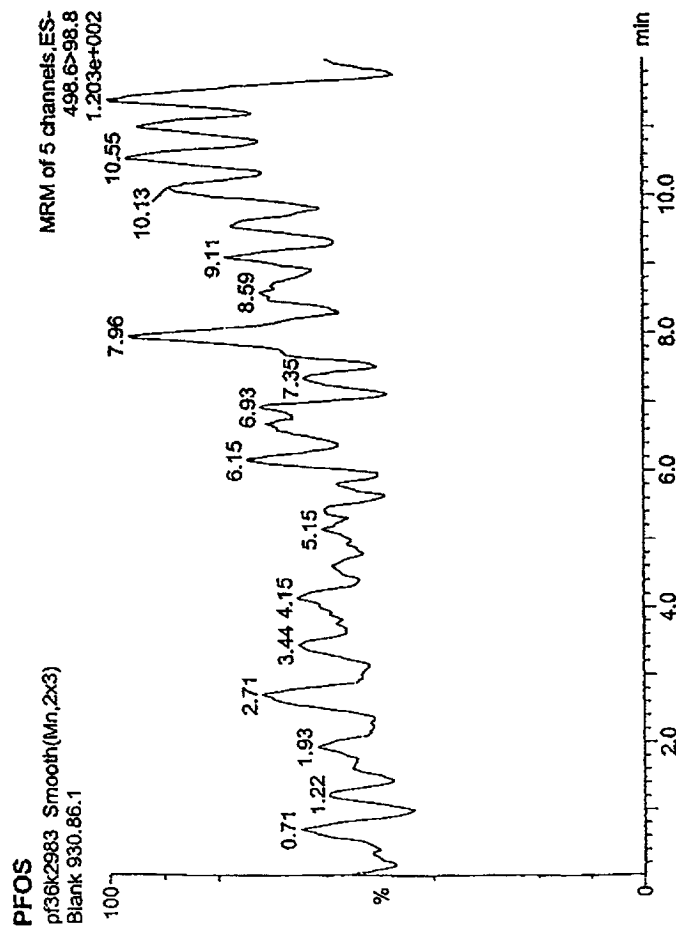
PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2984, Date: 30-Nov-2006, Time: 01:20:35, ID: 930.86.2, Description: 0.2 µg/L



C:\MassLynx\IPFOA.PRO\ipf36k292s.qld
Dataset:
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2983, Date: 30-Nov-2006, Time: 01:07:39, ID: 930.86.1, Description: Blank



Line	Description	Unit Price	Quantity	Total Price
1	PFOA	8.15	258,814 bbl	37380.000
2	APFO	8.15	258,814 bbl	37380.000
3	PFOA 13C2	8.15	37380.000 bd	37380.000
4	PFOA			37380.000

Quantify Sample Report MassLynx 4.1

PFOA Analysis

Dataset: C:\MassLynx\1PFOA.PRO\pf36k292s.qld

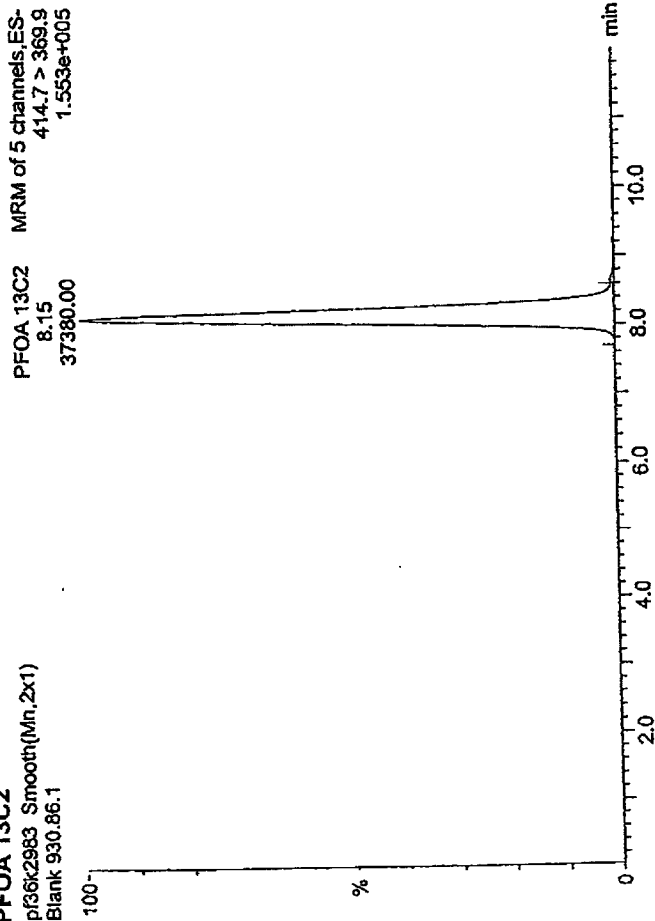
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2983, Date: 30-Nov-2006, Time: 01:07:39, ID: 930.86.1, Description: Blank

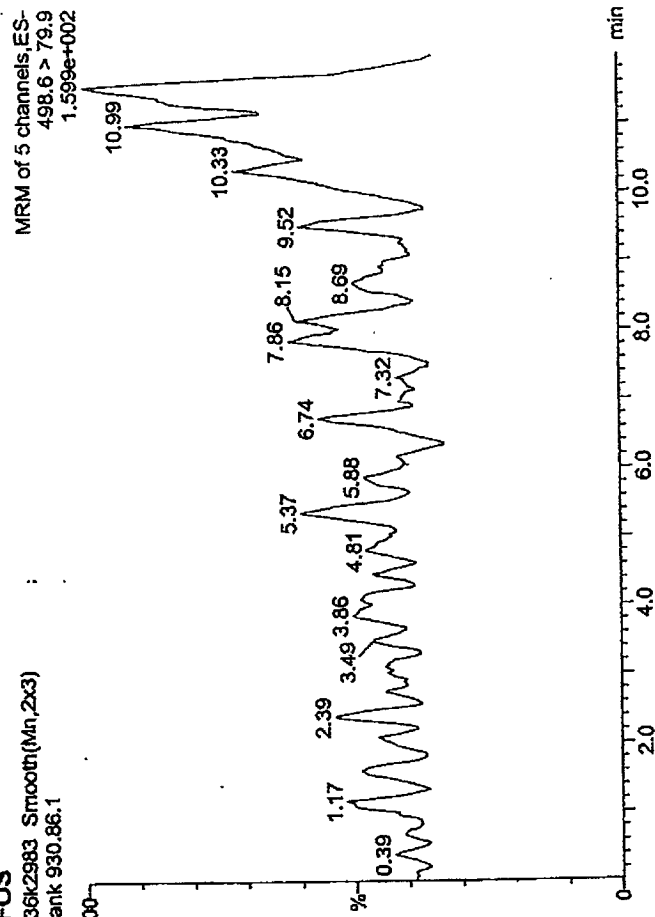
PFOA 13C2

pf36k2983 Smooth(Mn,2x1)
Blank 930.86.1



PFOA

pf36k2983 Smooth(Mn,2x3)
Blank 930.86.1



MRM of 5 channels, ES-
498.6 > 79.9
1.599e+002

Quantify Sample Report MassLynx 4.1

PFOA Analysis

Dataset: C:\MassLynx\IPFOA.PRO\pf36k292s.qld

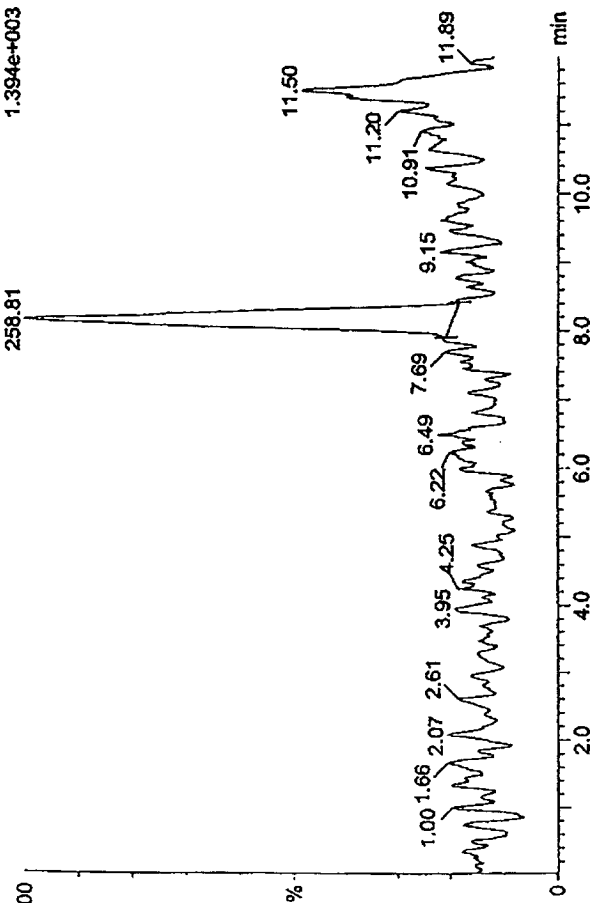
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2983, Date: 30-Nov-2006, Time: 01:07:39, ID: 930.86.1, Description: Blank

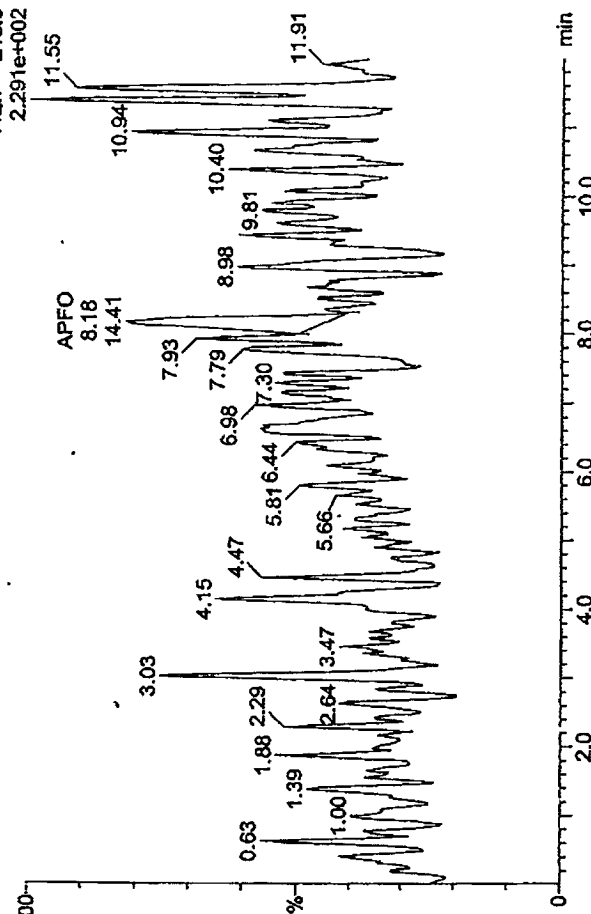
APFO

pf36k2983 Smooth(Mn,2x1)
Blank 930.86.1



APFO

pf36k2983 Smooth(Mn,2x1)
Blank 930.86.1



Quantify Sample Report MassLynx 4.1

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

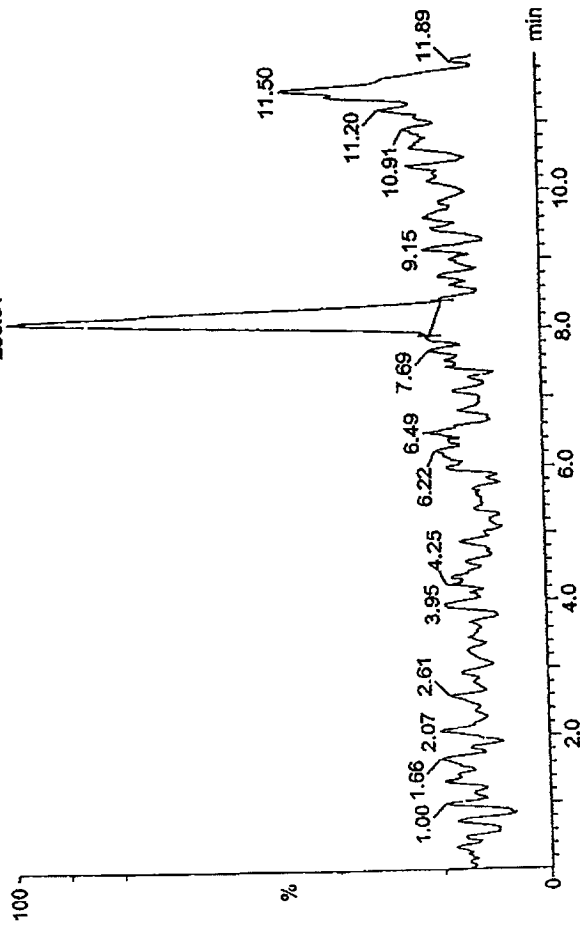
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2983, Date: 30-Nov-2006, Time: 01:07:39, ID: 930.86.1, Description: Blank

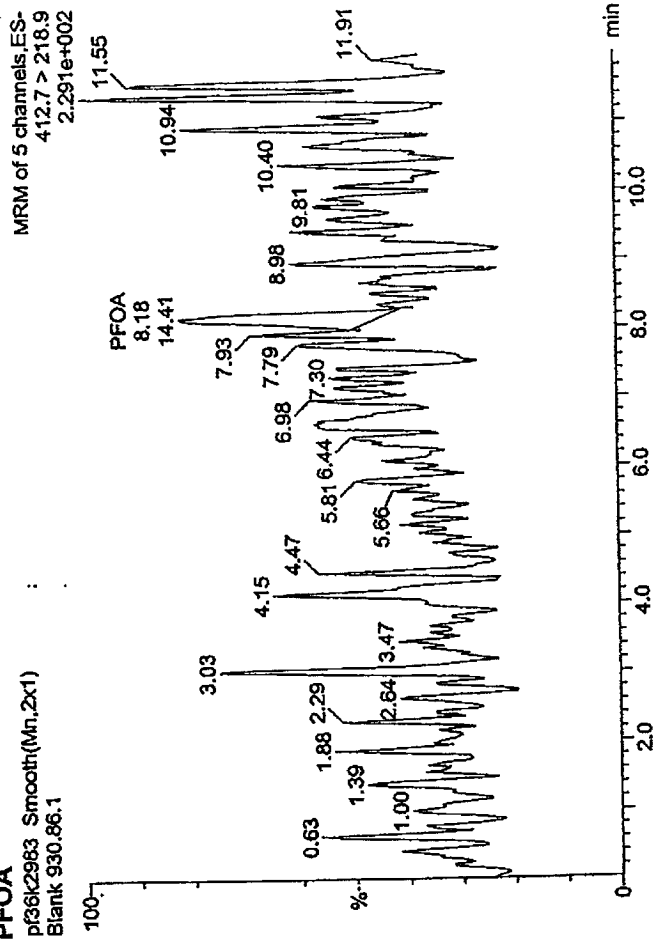
PFOA

pf36k2983 Smooth(Mn,2x1)
Blank 930.86.1



PFOA

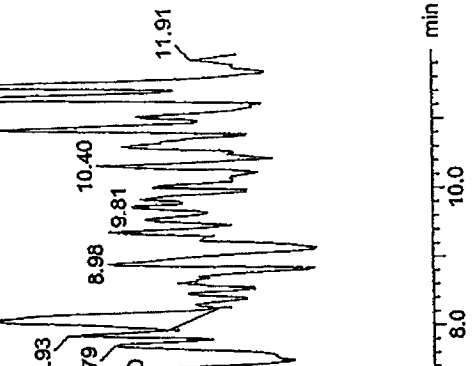
pf36k2983 Smooth(Mn,2x1)
Blank 930.86.1



MRM of 5 channels, ES-
412.7 > 218.9
2.291e+002

PFOA

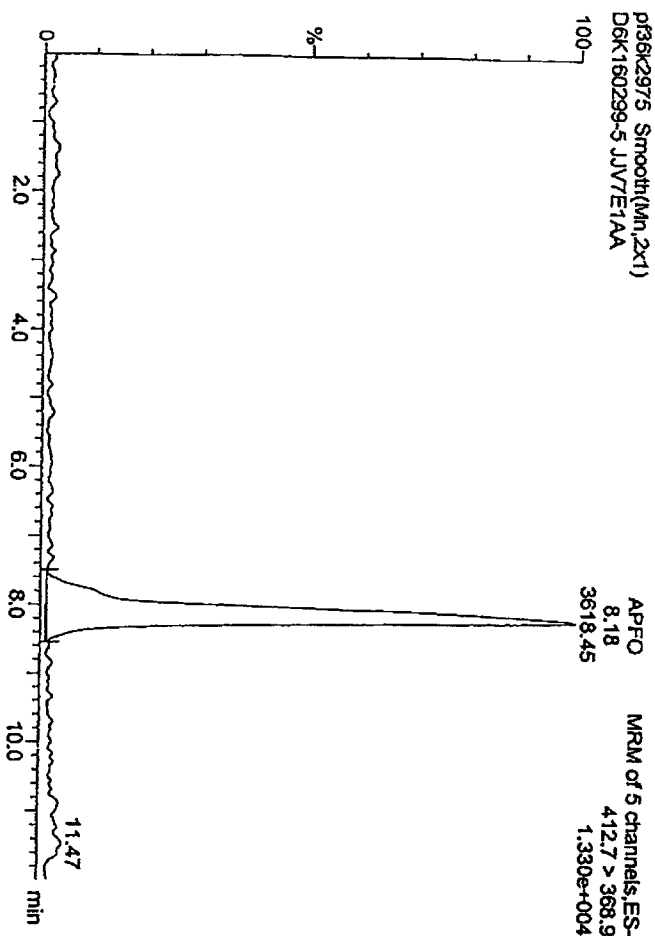
8.18
14.41



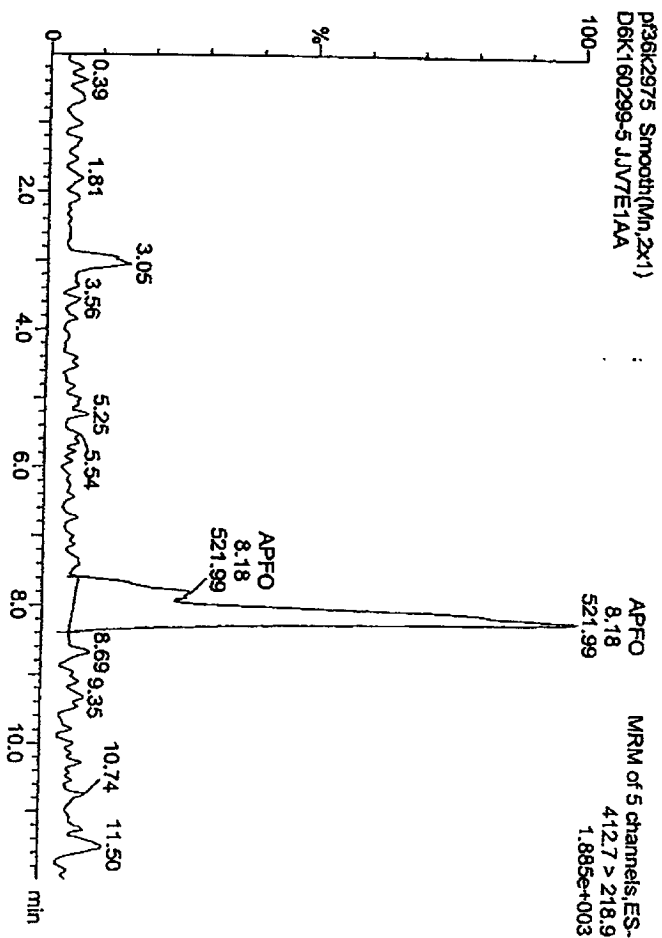
PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\p36k297s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2975, Date: 29-Nov-2006, Time: 23:24:02, ID: JUV7E1AA, Description: D6K160299-5

APFO



APFO



Masslynx 4.1

Quantity Sample Report

PFOA Analysis

Dataset: C:\Masslynx\PFOA\PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

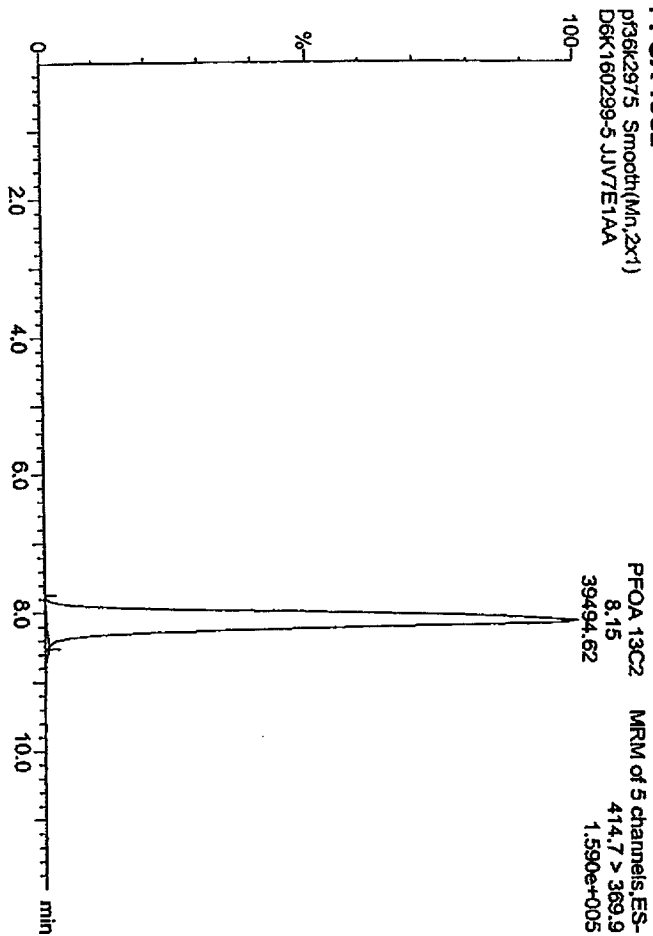
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

2

Name: pf36k2975, Date: 29-Nov-2006, Time: 23:24:02, ID: JUV7E1AA, Description: D6K160299-5

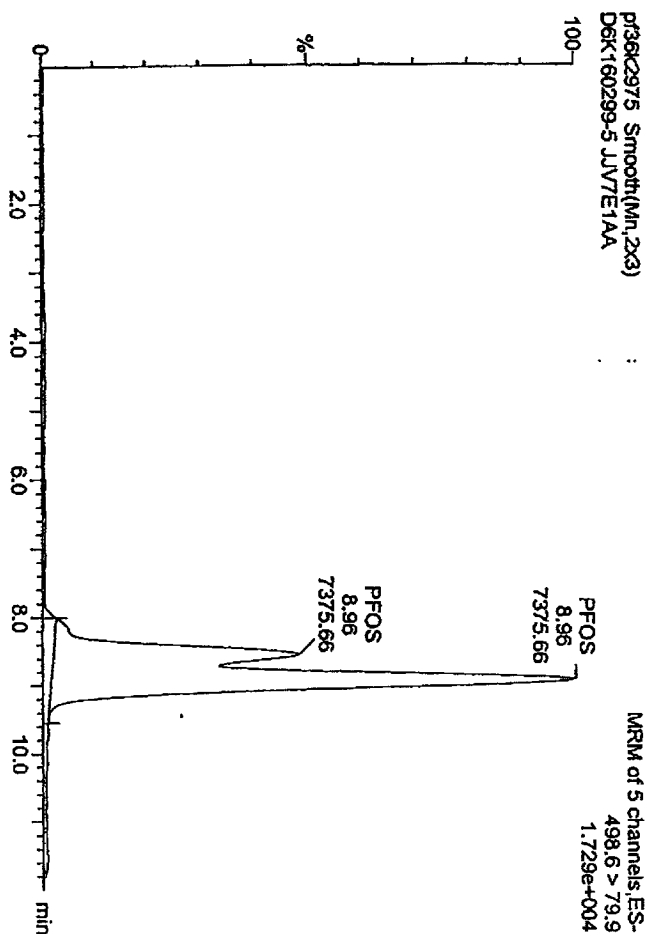
PFOA 13C2

pf36k2975 Smooth(Mn,2x1)
D6K160299-5 JUV7E1AA



PFOs

pf36k2975 Smooth(Mn,2x3)
D6K160299-5 JUV7E1AA



Dataset: C:\MassLynx\IPFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

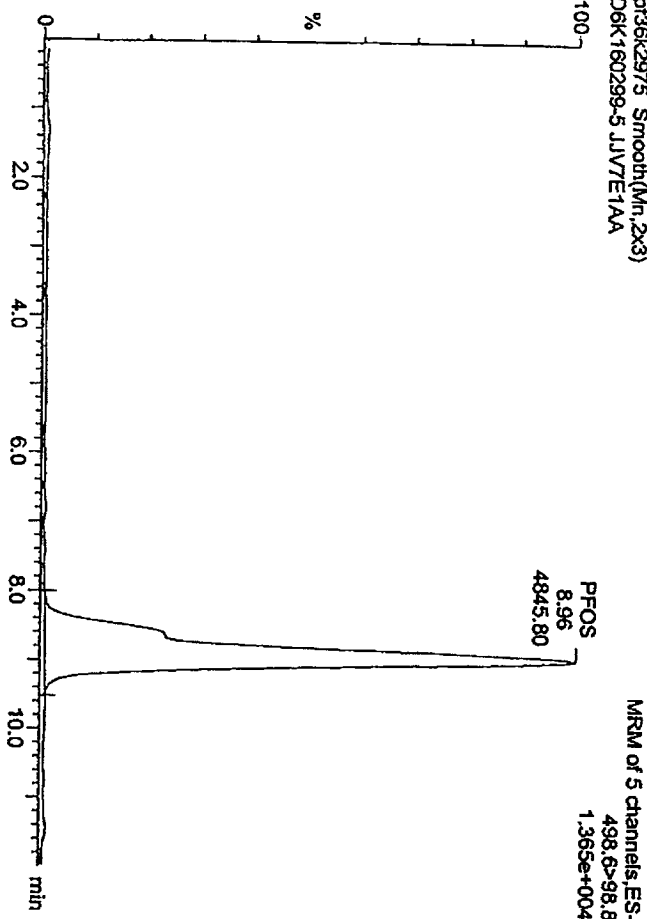
p. 35

Name: pt36k2975, **Date:** 29-Nov-2006, **Time:** 23:24:02, **ID:** JJV7E1AA, **Description:** D6K160299-5

PFOs

pf36k2975 Smooth(Mn,2x3)

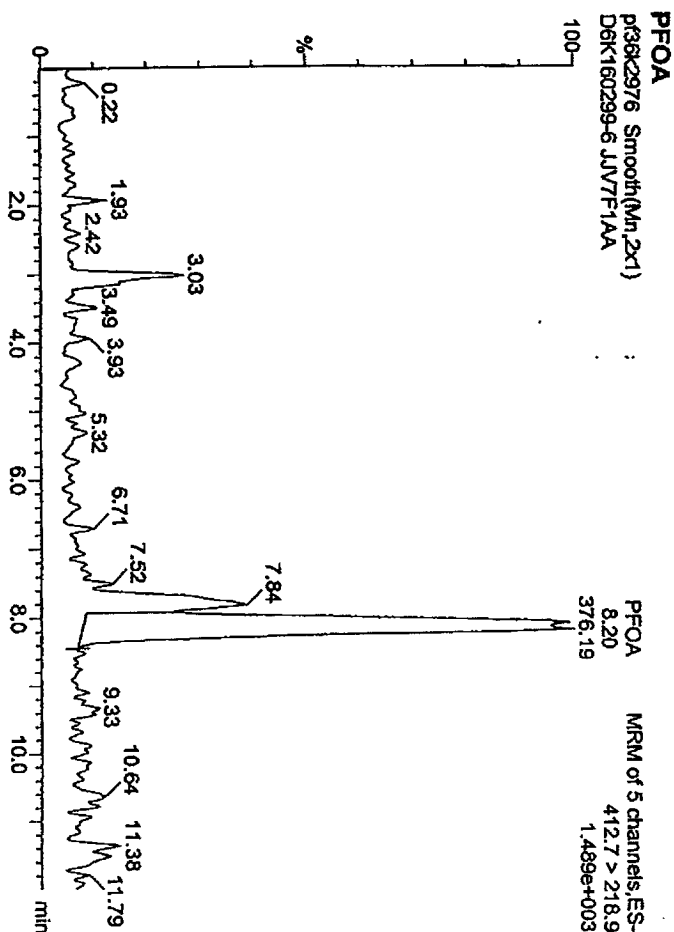
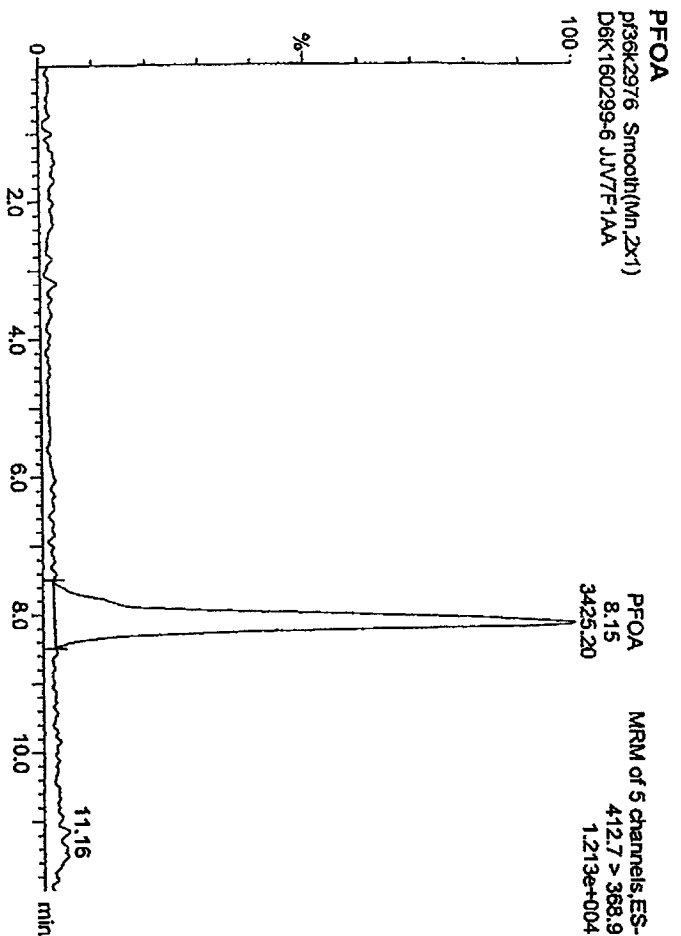
D6K160299-5 JJV7E1AA



Name	Score	Rank	Score	Rank	Score	Rank	Score	Rank
1 PFOA	8.18	3618.455	bd	39494.617	3	0.916	0.018	
2 APFO	8.18	3618.455	bd	39494.617	3	0.916	0.018	
3 PFOA 13C2	8.15	39494.617	bb		0	39494.617	116.6	
4 PFOs	8.96	7375.658	bb	39494.617	3	1.868	0.048	

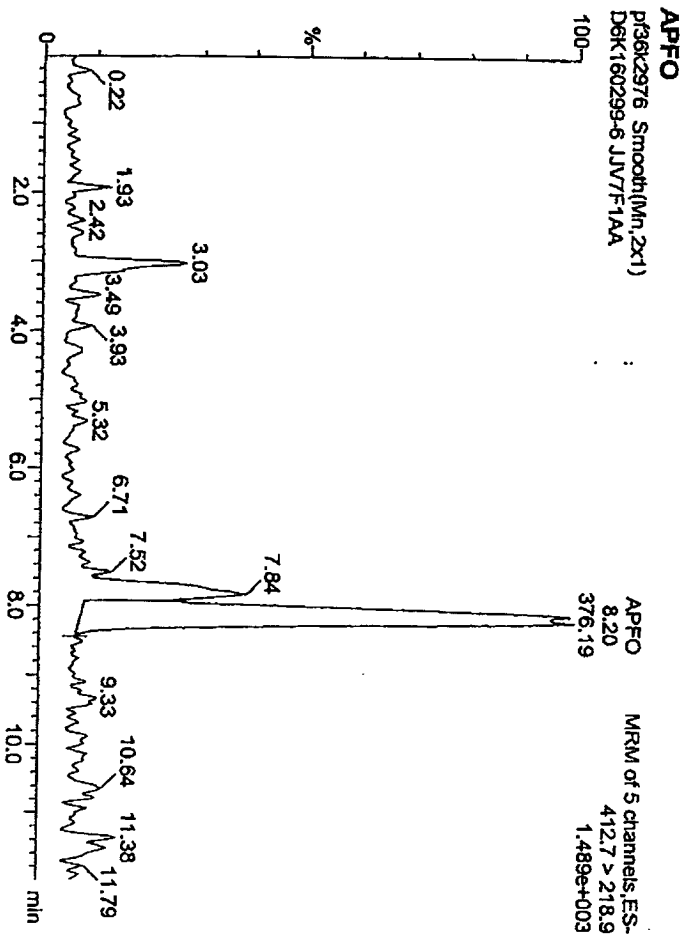
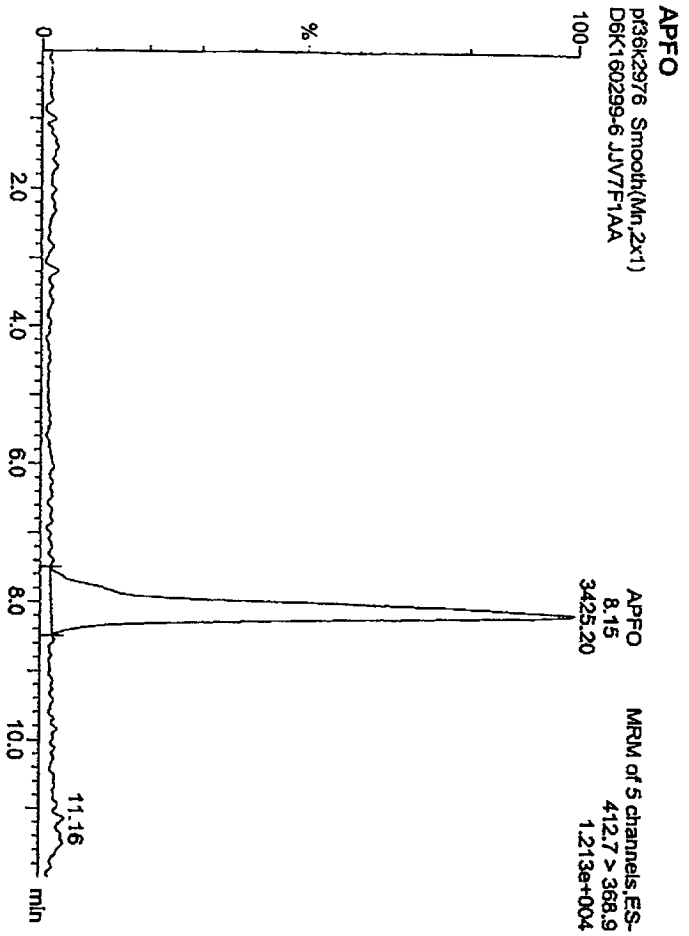
PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2976, Date: 29-Nov-2006, Time: 23:36:59, ID: JJV7F1AA, Description: D6K160299-6



PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\p36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2976, Date: 29-Nov-2006, Time: 23:36:59, ID: JUVF1AA, Description: D6K160299-6



MassLynx 4.1

Quantity Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

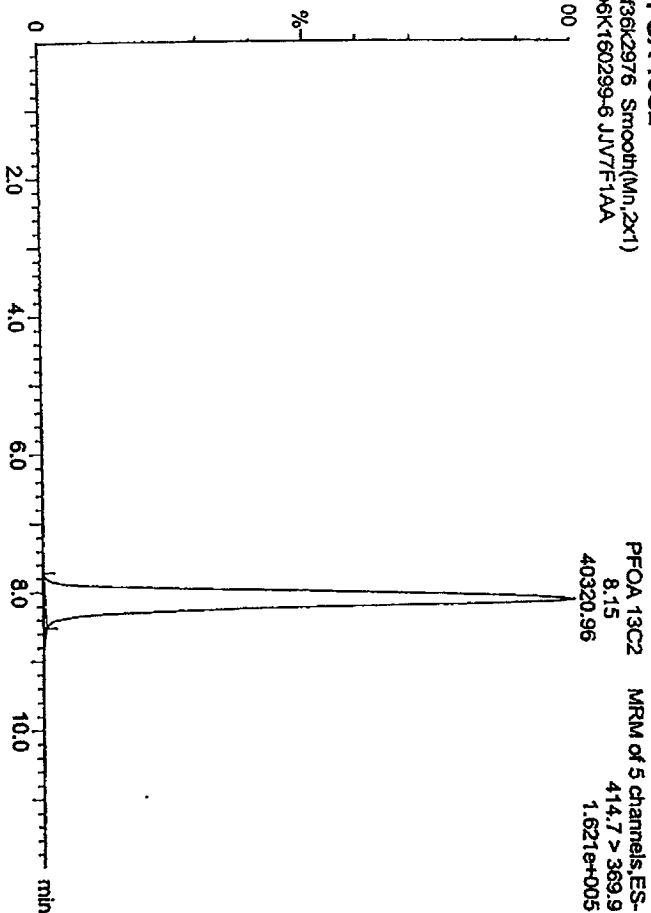
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

2

Name: pf36k2976, Date: 29-Nov-2006, Time: 23:36:59, ID: JJVF1AA, Description: D6K160299-6

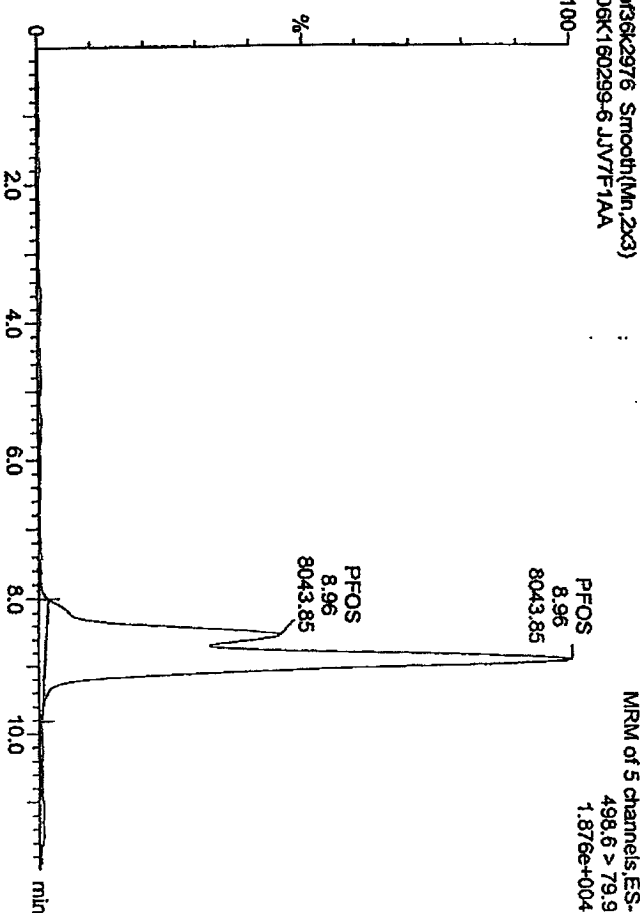
PFOA 13C2

pf36k2976 Smooth(Mn,2x1)
D6K160299-6 JJVF1AA



PFOs

pf36k2976 Smooth(Mn,2x3)
D6K160299-6 JJVF1AA

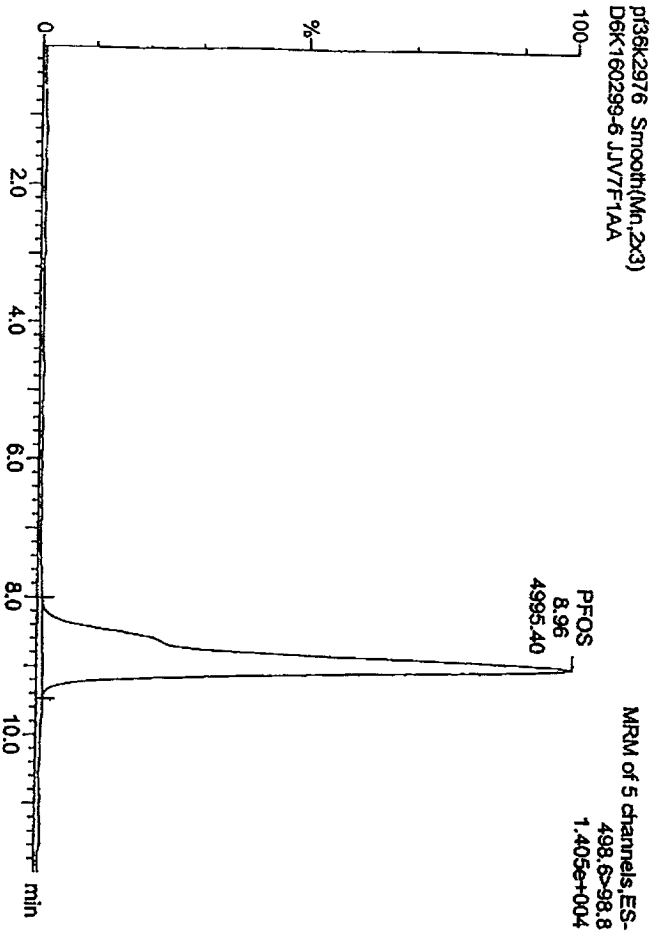


PFOA Analysis
 Dataset: C:\MassLynx\PFOA\PRO\p36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2976, Date: 29-Nov-2006, Time: 23:36:59, ID: JJV7F1AA, Description: D6K160299-6

PFOA

p36k2976 Smooth(Mn,2x3)
 D6K160299-6 JJV7F1AA



1	PFOA	8.15	3425.200	bb	40320.957	3	0.849	0.016	
2	APFO	8.15	3425.200	bb	40320.957	3	0.849	0.017	
3	PFOA 1302	8.15	40320.957	bb		0	40320.957	11.902	119.0
4	PFOA	8.96	8043.850	bb	40320.957	3	1.995	0.051	

Masslynx 4.1

Quantity Sample Report

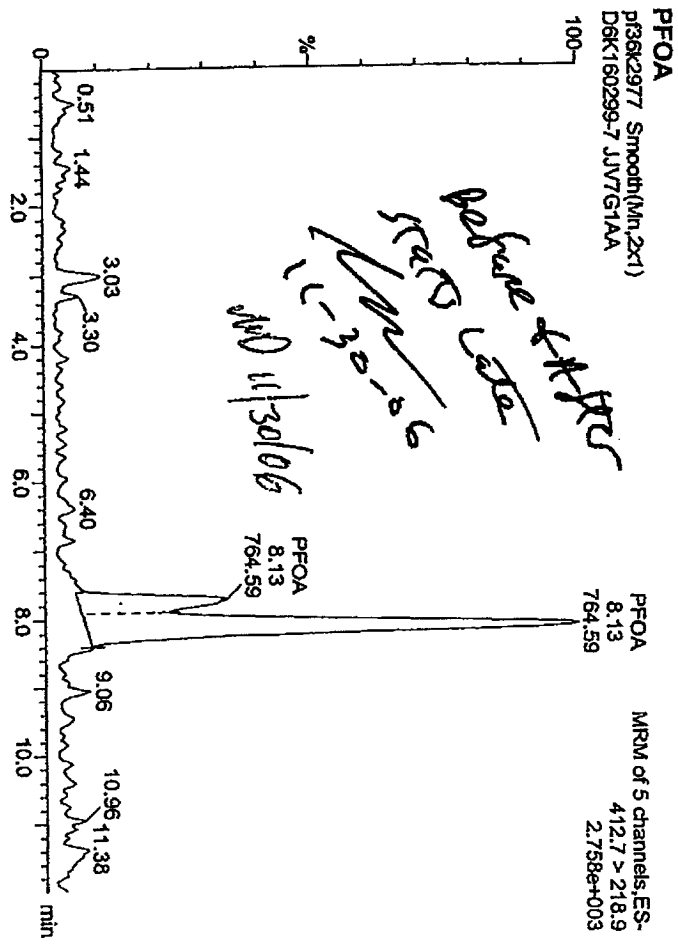
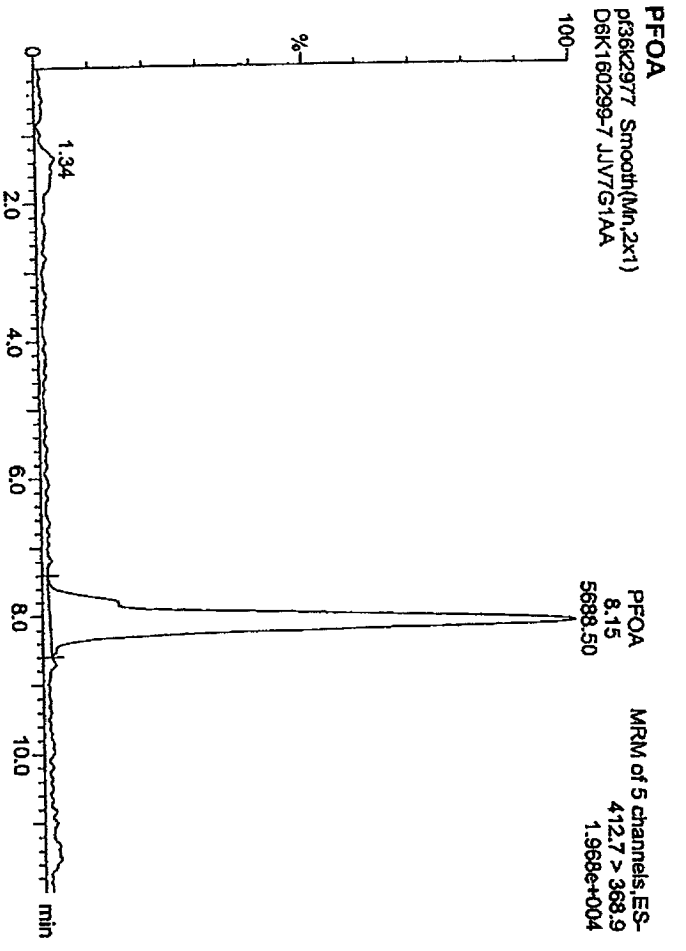
PFOA Analysis

Dataset: C:\Masslynx\PF\FOA\PRO\p36k292s.qld
Last Altered: Thursday, November 30, 2006 08:00:46 Mountain Standard Time
Printed: Thursday, November 30, 2006 08:04:48 Mountain Standard Time

#

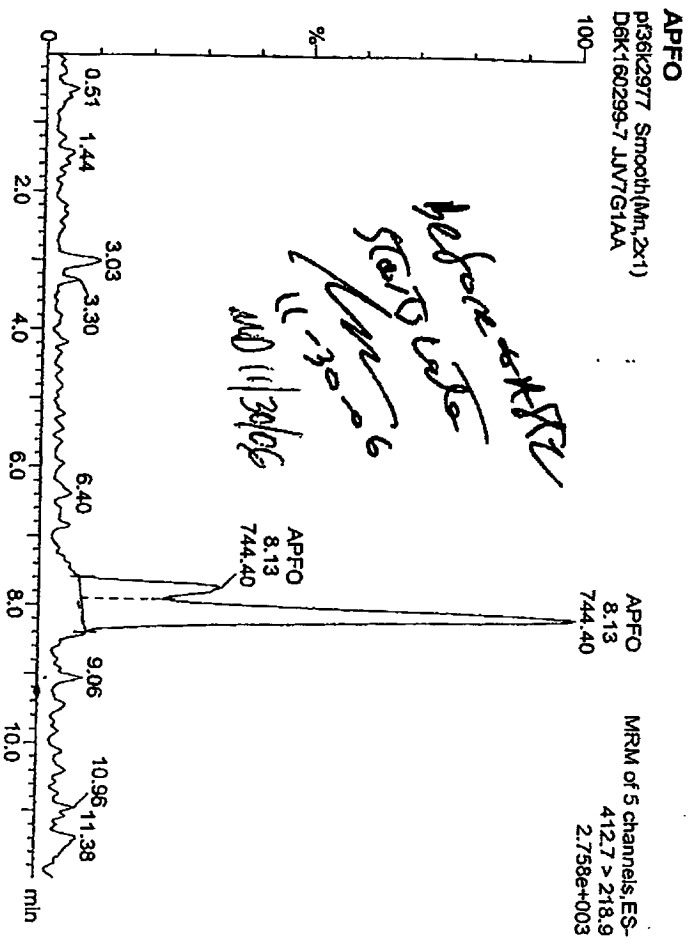
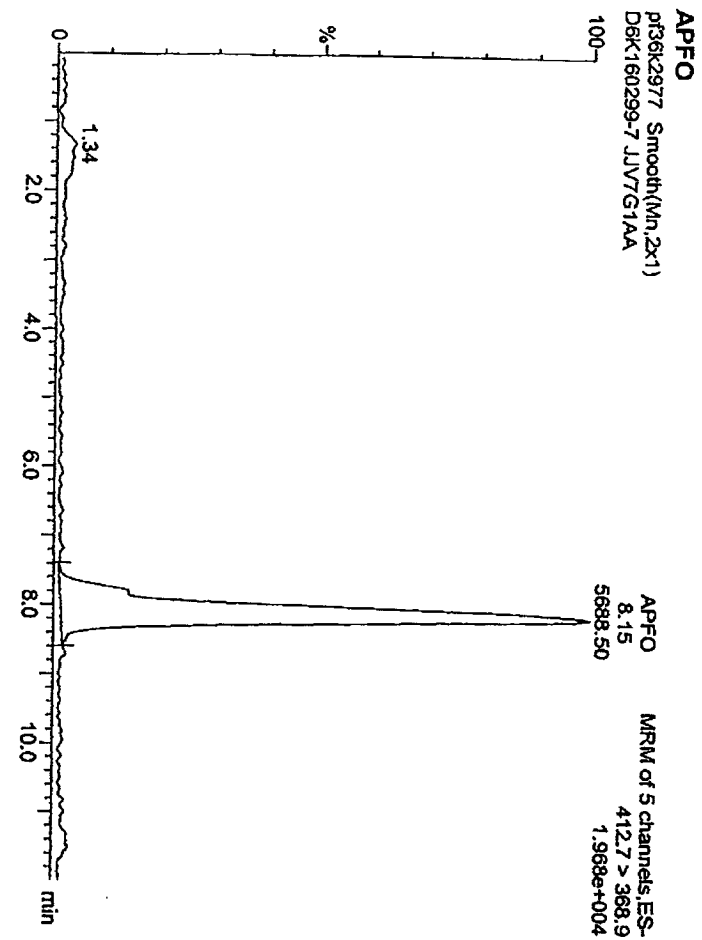
Method: C:\Masslynx\PF\FOA\PRO\MethDB\p36k29s.mdb 30 Nov 2006 06:57:57
Calibration: 30 Nov 2006 07:08:01

Name: p36k2977, Date: 29-Nov-2006, Time: 23:49:57, ID: JUV7G1AA, Description: D6K160299-7



PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\p36k292s.qld
 Last Altered: Thursday, November 30, 2006 08:00:46 Mountain Standard Time
 Printed: Thursday, November 30, 2006 08:04:48 Mountain Standard Time

Name: p36k2977, Date: 29-Nov-2006, Time: 23:49:57, ID: JUV7G1AA, Description: D6K160299-7



Quantity Sample Report MassLynx 4.1

PFOA Analysis

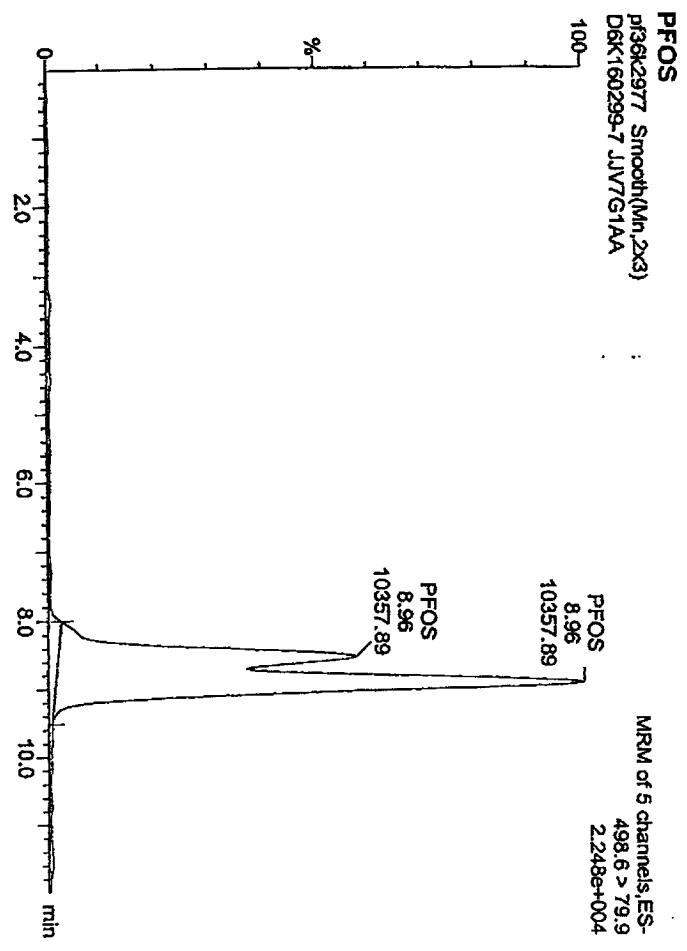
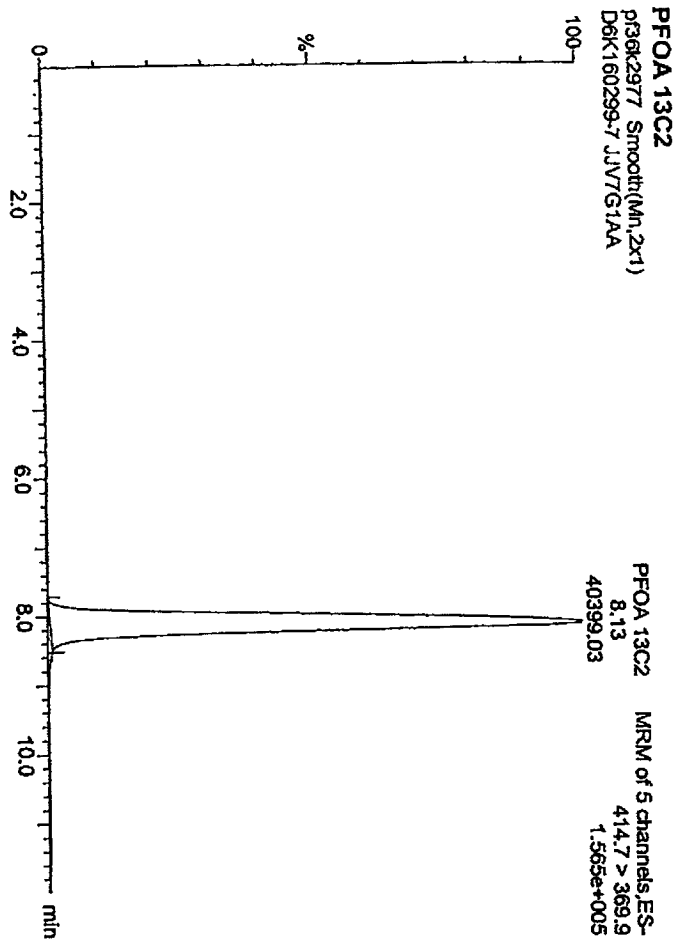
Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 08:00:46 Mountain Standard Time

Printed: Thursday, November 30, 2006 08:04:48 Mountain Standard Time

2

Name: pf36k2977, Date: 29-Nov-2006, Time: 23:49:57, ID: JJV7G1AA, Description: D6K160299-7



Quantify Sample Report Masslynx 4.1

PFOA Analysis
Dataset: C:\Masslynx\PFQA.PRO\pf36k292s.qld
Last Altered: Thursday, November 30, 2006 08:00:46 Mountain Standard Time
Printed: Thursday, November 30, 2006 08:04:48 Mountain Standard Time

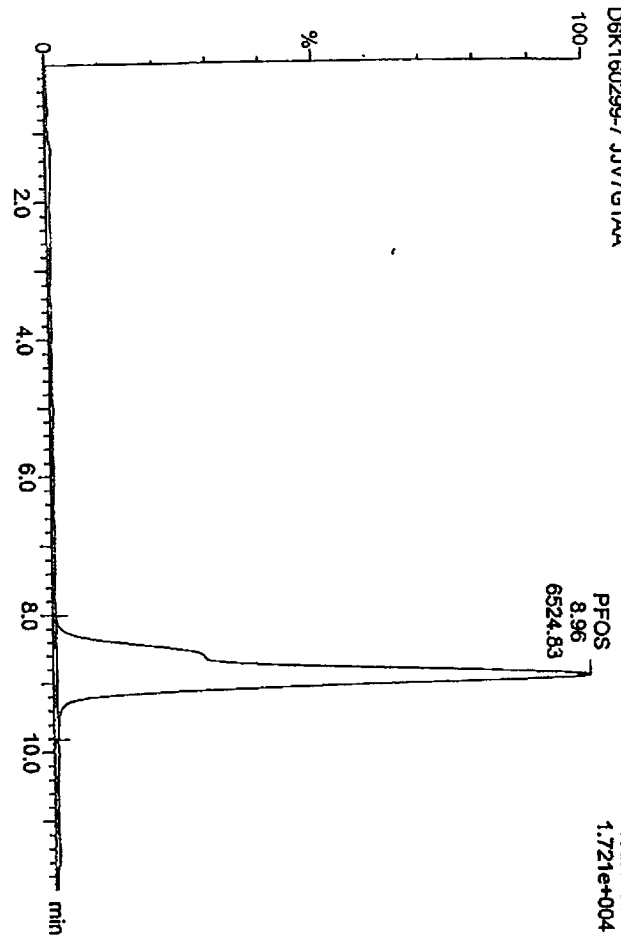
d.

Name: pf36k2977, Date: 29-Nov-2006, Time: 23:49:57, ID: JUV7G1AA, Description: D6K160239-7

PFOs

pf36k2977 Smooth(Mn,2x3)
D6K160239-7 JUV7G1AA

MRM of 5 channels ES-
498.6>98.8
1.721e+004



NAME	RT	Area	Height	Width	Area%	Height%	Width%	Starts	Ends	Mod	Comp	No	Date
1 PFOA	8.15	5688.496	bb	40399.027	3	1.408	0.029	starts late	30-Nov-06				
2 APFO	8.15	5688.496	bb	40399.027	3	1.408	0.030	starts late	30-Nov-06				
3 PFOA 13C2	8.13	40399.027	bb	40399.027	0	40399.027	11.925	119.3					
4 PFOs	8.96	10357.889	bb	40399.027	3	2.564	0.067						

Quantity Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA\PRO\pf36k292s.qld

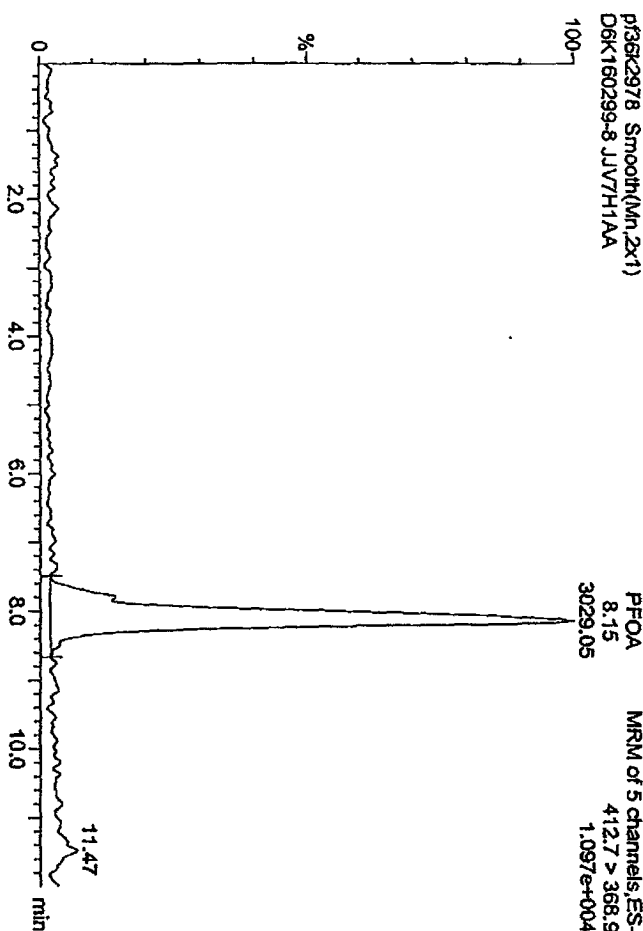
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2978, Date: 30-Nov-2006, Time: 00:02:52, ID: JJV7H1AA, Description: D6K160299-8

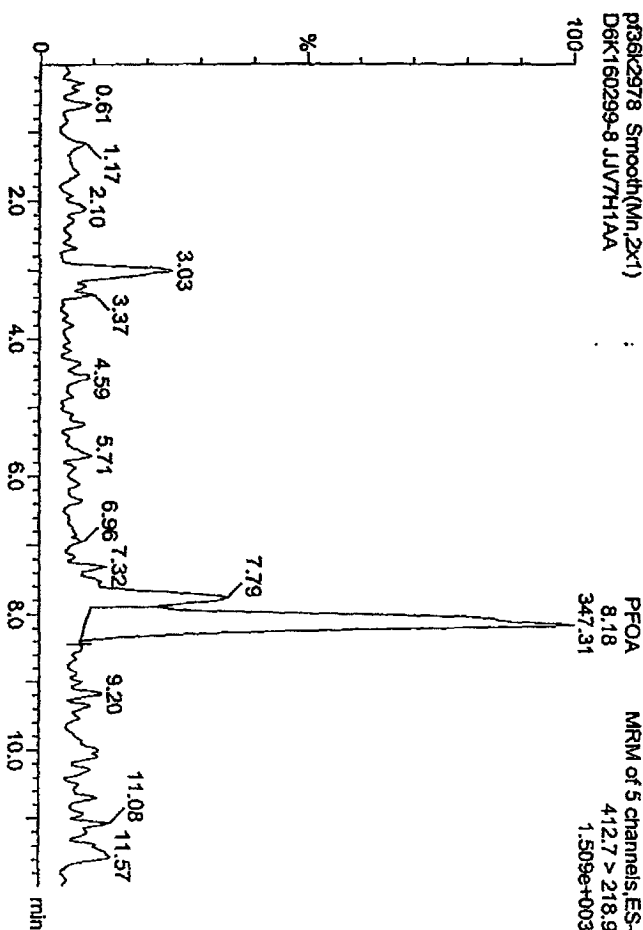
PFOA

pf36k2978 Smooth(Mn,2x1)
D6K160299-8 JJV7H1AA



PFOA

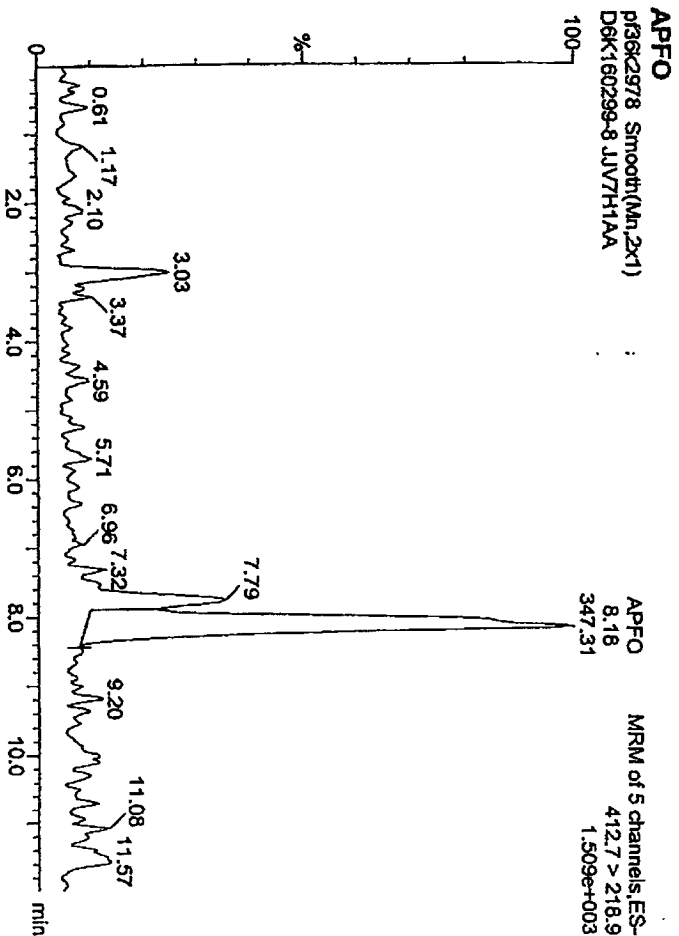
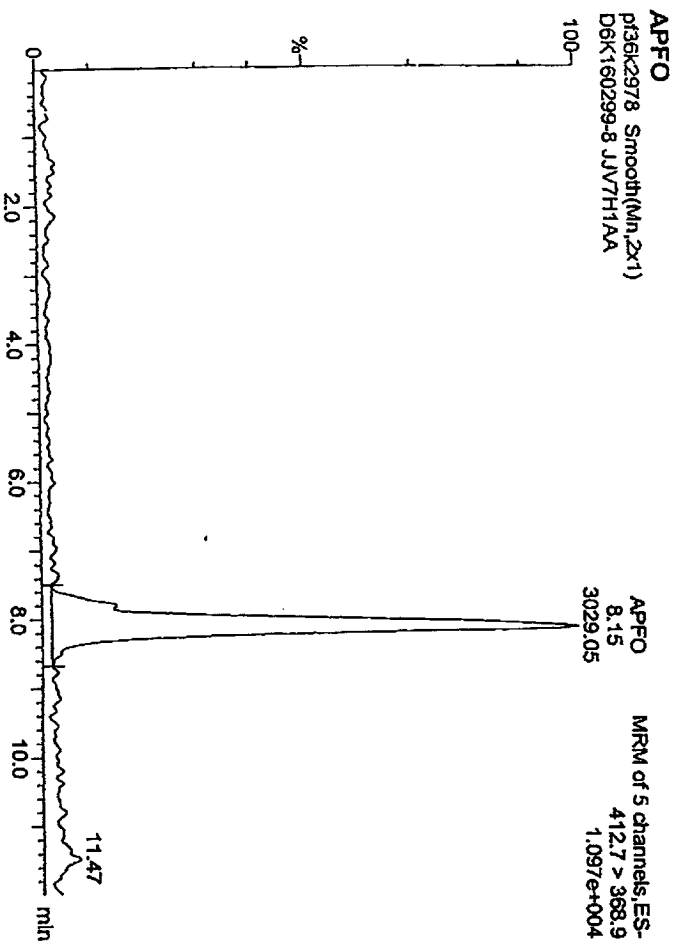
pf36k2978 Smooth(Mn,2x1)
D6K160299-8 JJV7H1AA



Quantity Sample Report MassLynx 4.1

PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\p36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2978, Date: 30-Nov-2006, Time: 00:02:52, ID: JJV7H1AA, Description: D6K160299-8

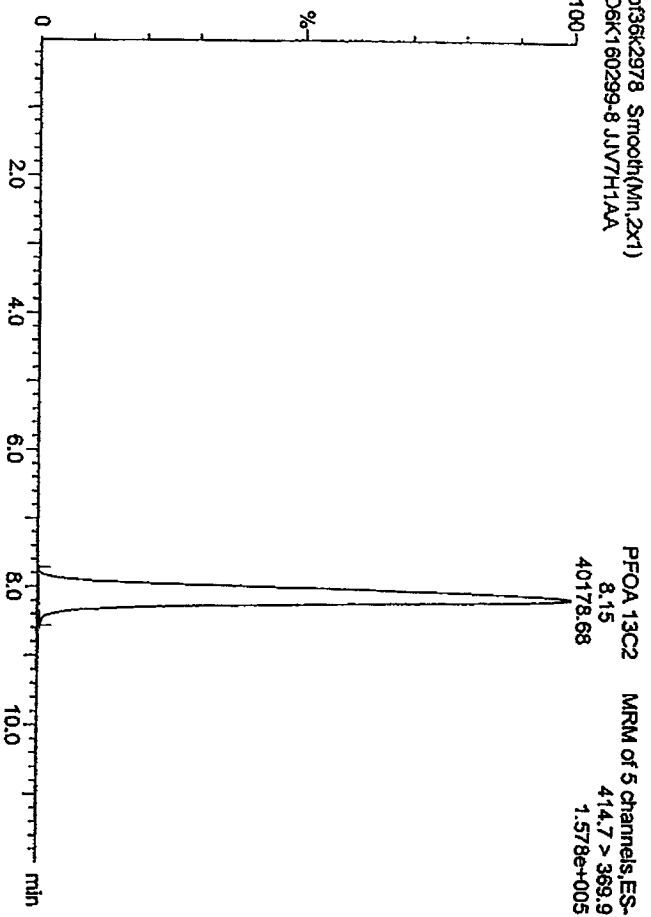


PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\p136k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p136k2978, Date: 30-Nov-2006, Time: 00:02:52, ID: JUV7H1AA, Description: D6K160299-8

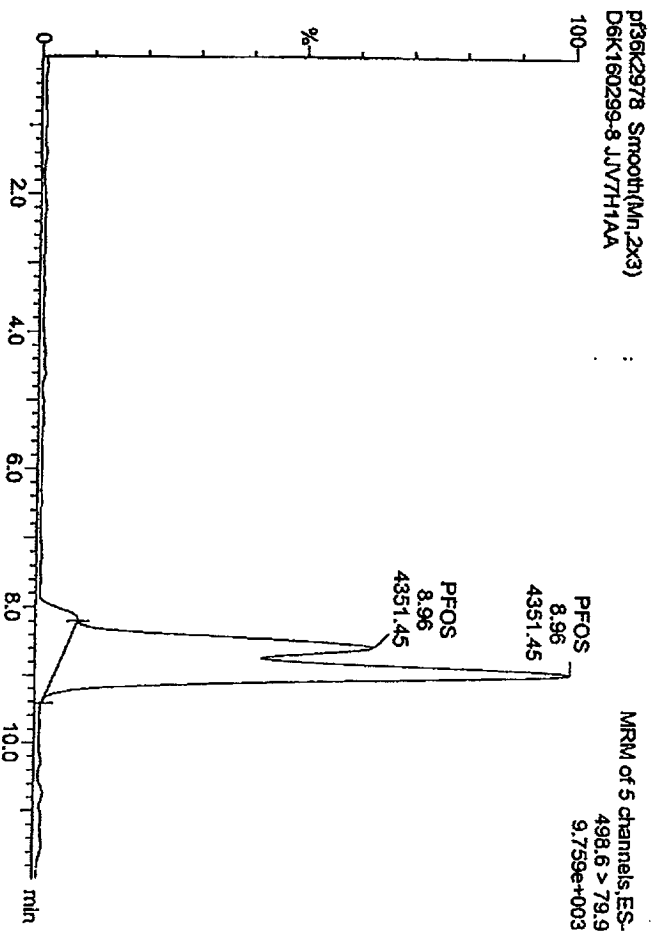
PFOA 13C2

p136k2978 Smooth(Mn,2x1)
 D6K160299-8 JUV7H1AA



PFOs

p136k2978 Smooth(Mn,2x3)
 D6K160299-8 JUV7H1AA



Quantity Sample Report MassLynx 4.1

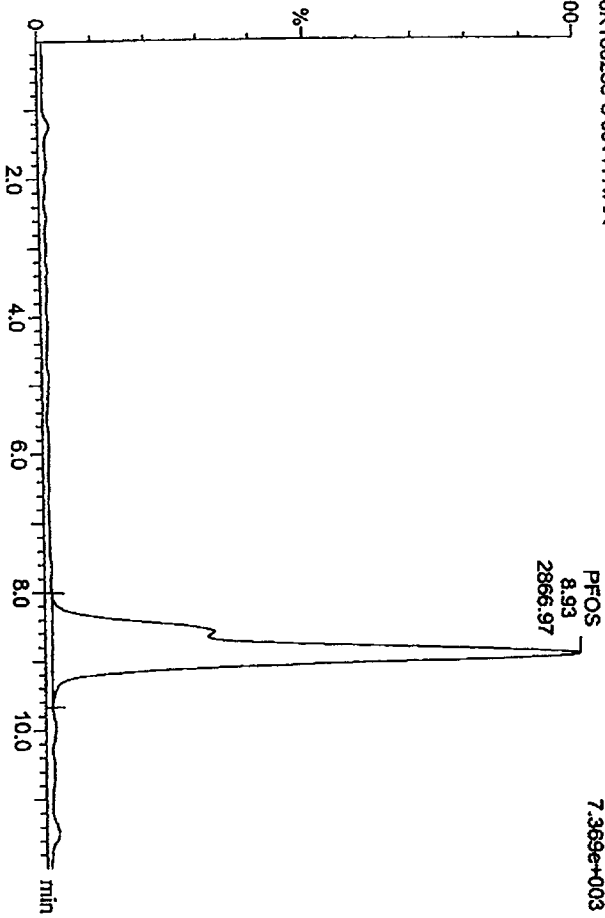
PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2978, Date: 30-Nov-2006, Time: 00:02:52, ID: JJV7H1AA, Description: D6K160299-8

PFOs

pf36k2978, Smooth(Mn, 2x3)
 D6K160299-8 JJV7H1AA

MRM of 5 channels, ES-
 498.6>98.8
 7.369e+003

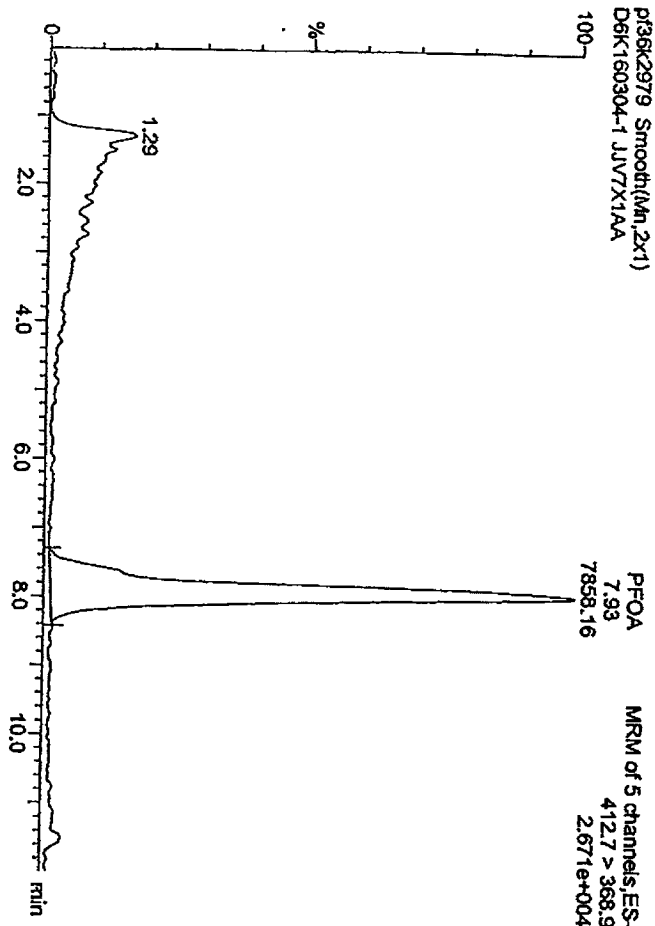


Name	RT	Area	Height	Width	Height	Area	Height	Width	Height
1 PFOA	8.15	3029.045	bb	40178.684	3	0.754	0.015		
2 APFO	8.15	3029.045	bb	40178.684	3	0.754	0.015		
3 PFOA 13C2	8.15	40178.684	bb	40178.684	0	40178.684	11.860	118.6	
4 PFOs	8.96	4351.452	bb	40178.684	3	1.083	0.028		

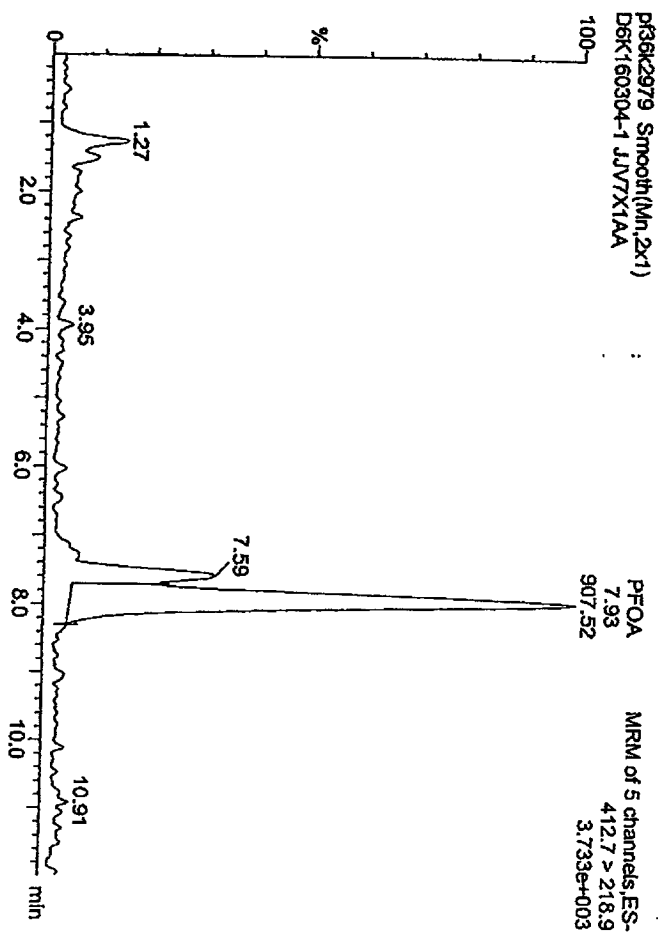
PFOA Analysis
 Dataset: C:\MassLynx\PFOA\PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2979, Date: 30-Nov-2006, Time: 00:15:51, ID: JUV7X1AA, Description: D6K160304-1

PFOA



PFOA



Quantity Sample Report Masslynx 4.1

PFOA Analysis

C:\Masslynx\PFOA.PRO\p36k292s.qld

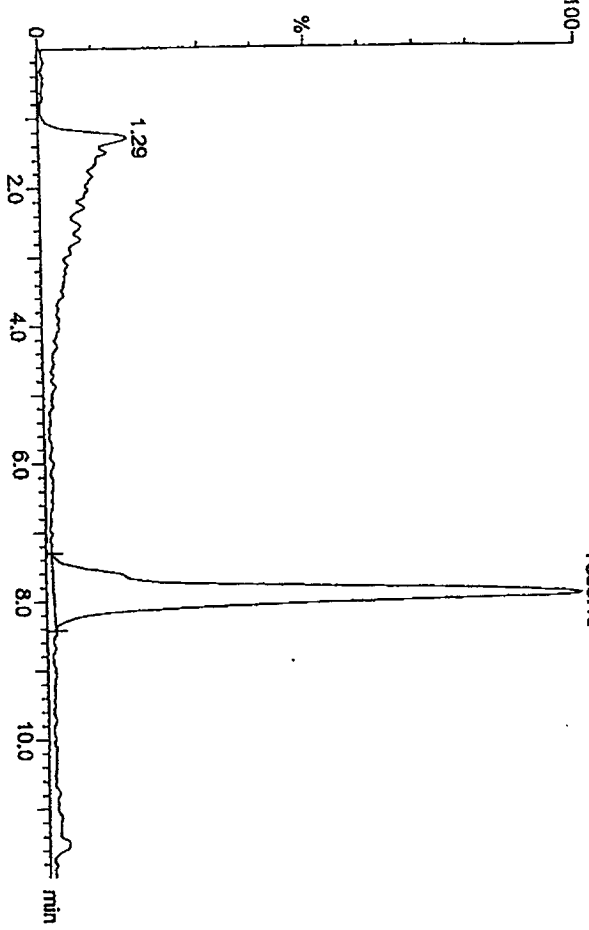
Dataset: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
Last Altered: Thursday, November 30, 2006 07:09:11 Mountain Standard Time
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

2

Name: p36k2979, Date: 30-Nov-2006, Time: 00:15:51, ID: JJV7X1AA, Description: D6K160304-1

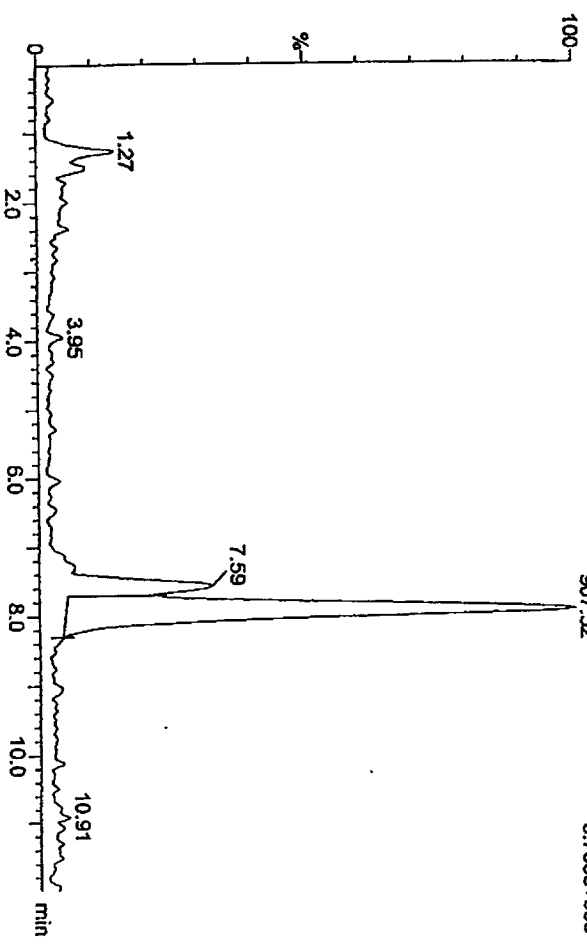
APFO

p36k2979 Smooth(Mn,2x1)
D6K160304-1 JJV7X1AA



APFO

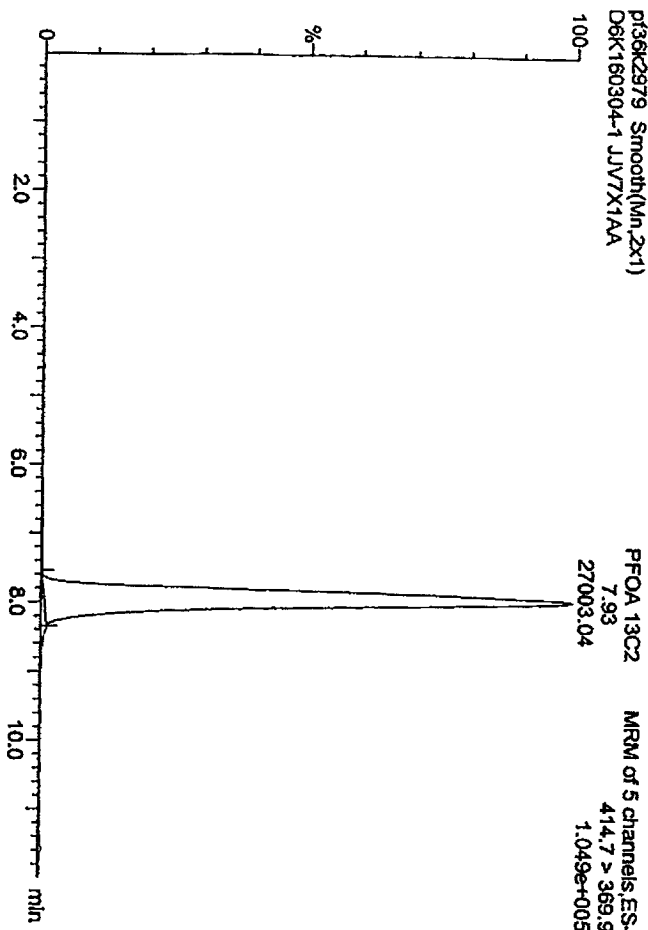
p36k2979 Smooth(Mn,2x1)
D6K160304-1 JJV7X1AA



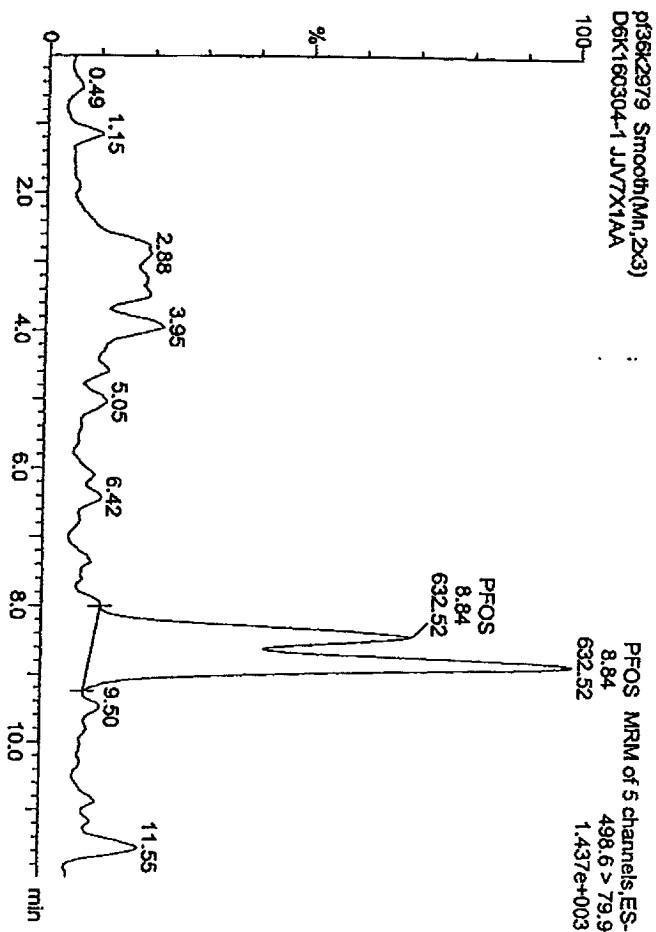
PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2979, Date: 30-Nov-2006, Time: 00:15:51, ID: JUV7X1AA, Description: D6K160304-1

PFOA 13C2



PFOs



Quantify Sample Report

Masslynx 4.1

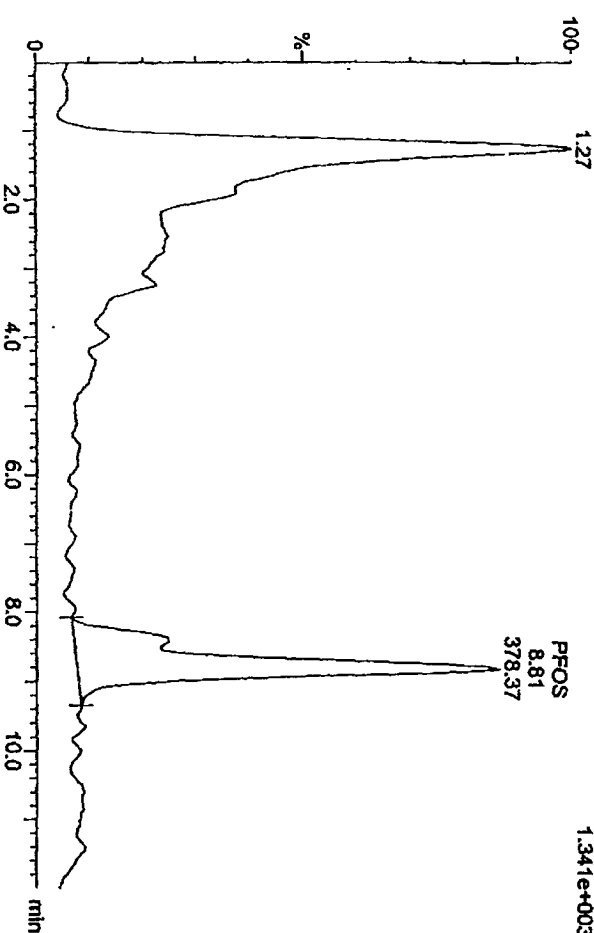
PFOA Analysis
Dataset: C:\Masslynx\pfoa\PRO\pf36k292s.qld
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2979, Date: 30-Nov-2006, Time: 00:15:51, ID: JJV7X1AA, Description: D6K160304-1

PFOs

pf36k2979 Smooth(Mn,2x3)
D6K160304-1 JJV7X1AA

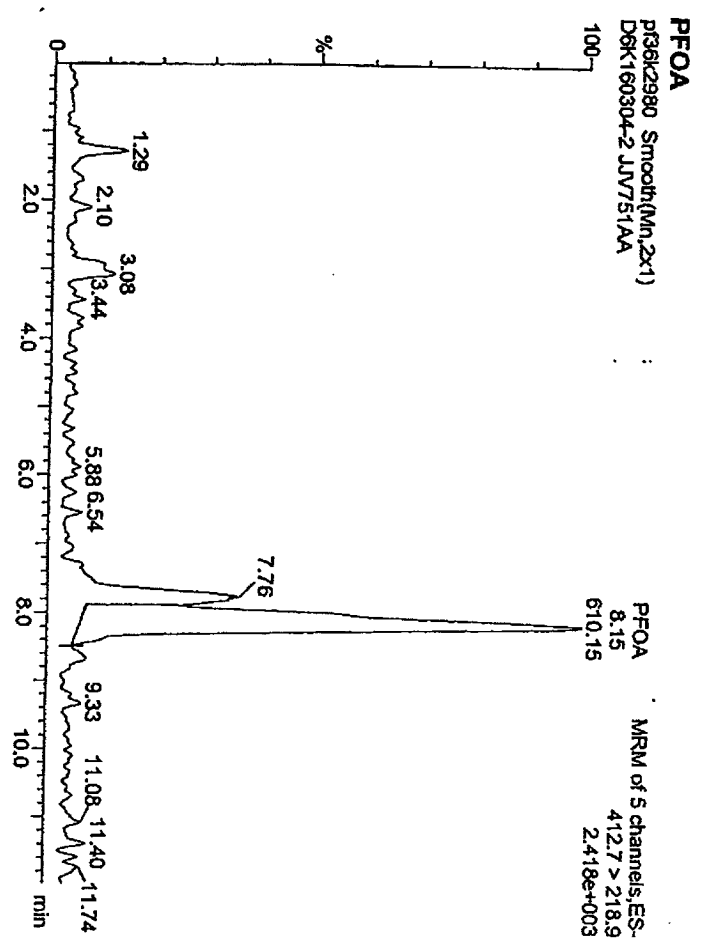
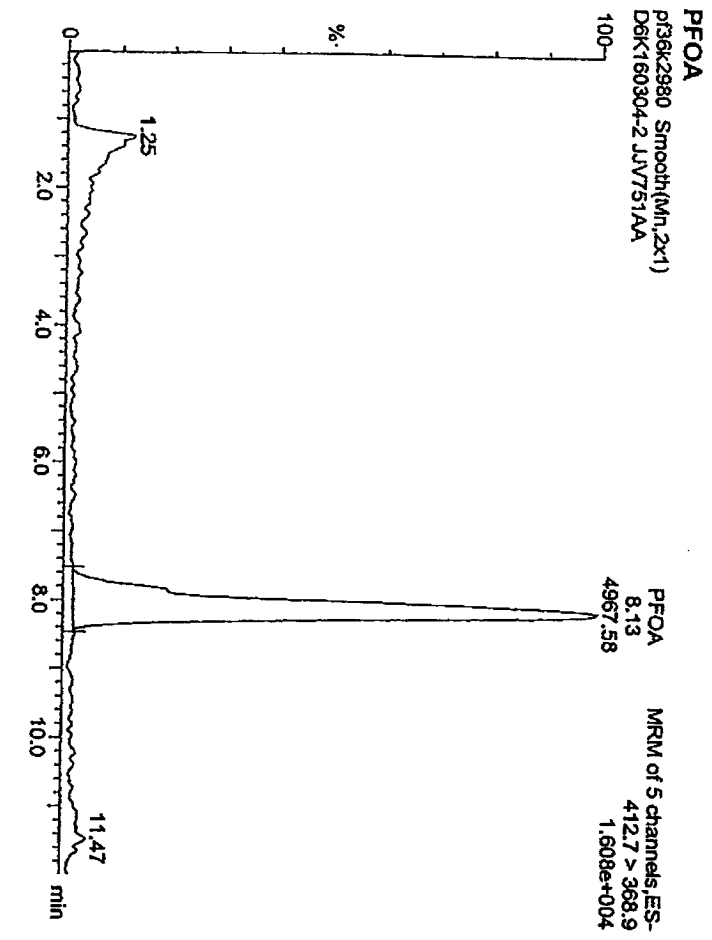
M/RM of 5 channels: ES-
498.6-98.8
1.341e+003



#	Name	RT	Area	Height	Resolution	S	Residuals	Score	Retention	Height	Area	Score
1	PFOA	7.93	7858.163	bb	27003.035	3	2.910	0.060				
2	APFO	7.93	7858.163	bb	27003.035	3	2.910	0.063				
3	PFOA 13C2	7.93	27003.035	bb		0	27003.035	7.971	79.7			
4	PFOs	8.84	632.523	bb	27003.035	3	0.234	0.006				

Dataset: C:\Masslynx\PFOA.PRO\p36k292s.qld
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2980, Date: 30-Nov-2006, Time: 00:28:47, ID: JUV751AA, Description: D6K160304-2



MassLynx 4.1

Quantity Sample Report

PFOA Analysis

C:\MassLynx\PFOA.PRO\pf36k292s.dld

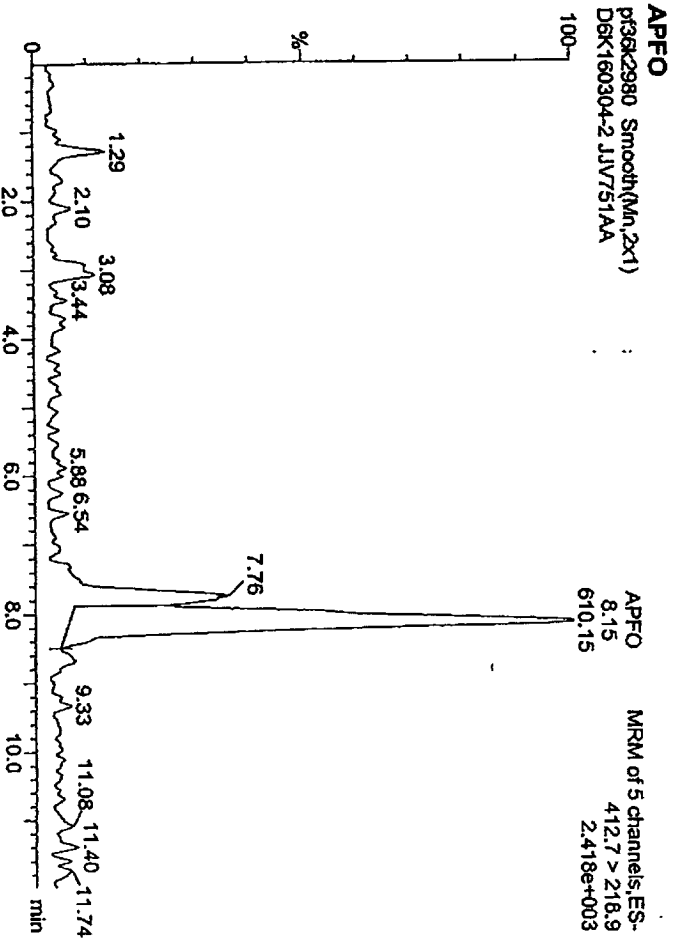
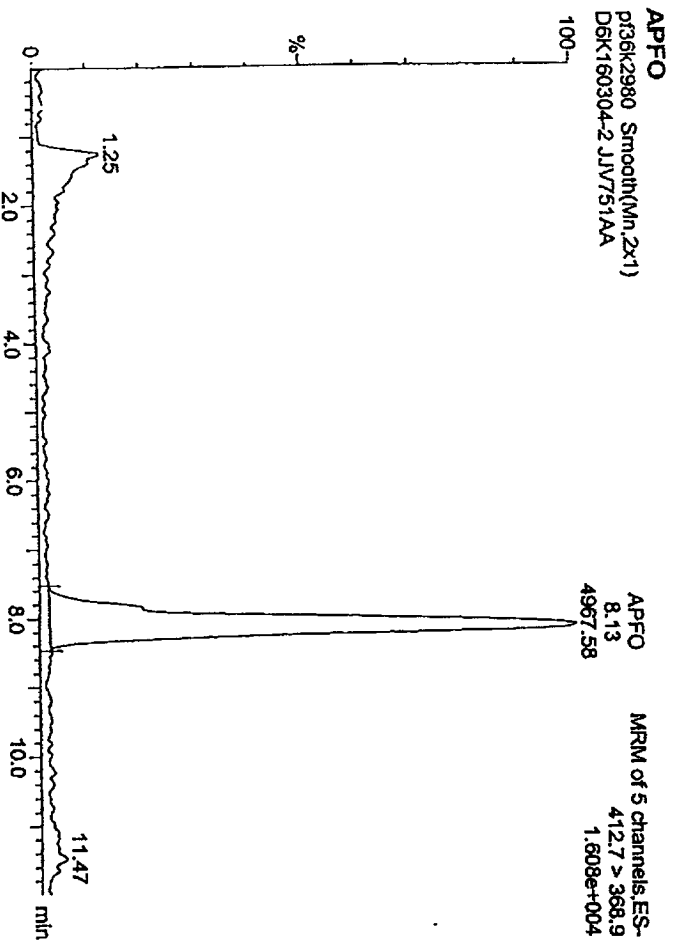
Dataset:

Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Last Altered: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Printed:

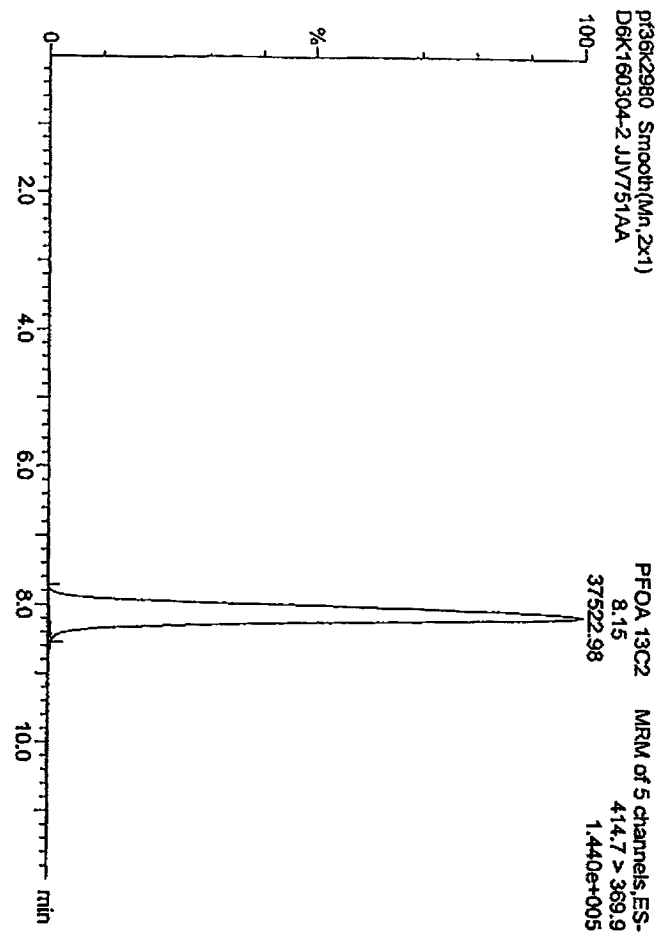
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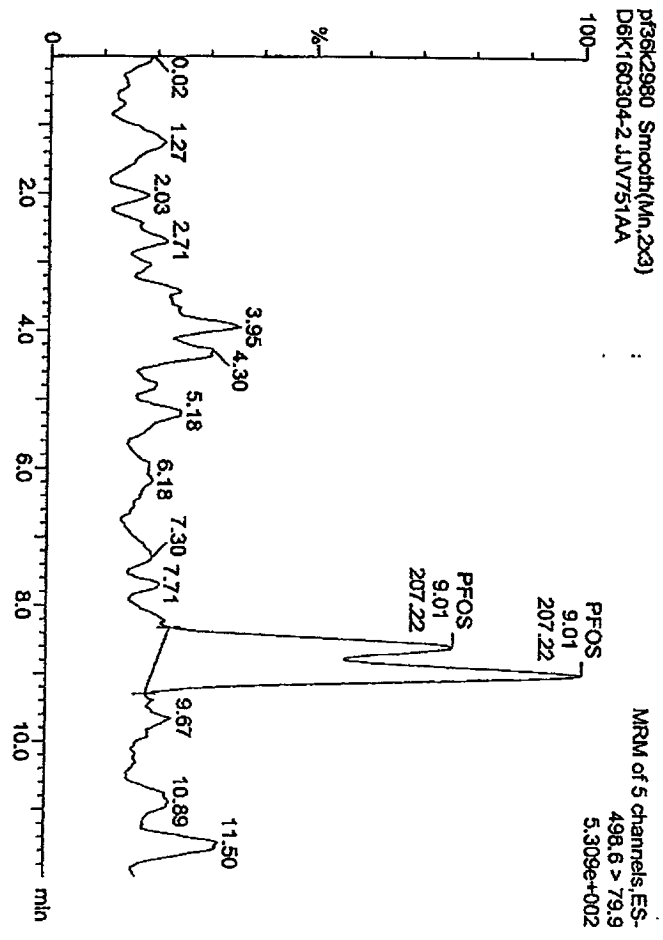
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Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2980, Date: 30-Nov-2006, Time: 00:28:47, ID: JUV751AA, Description: D6K160304-2

PFOA 13C2



PFOS



Quantity Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA\PROV\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2980, Date: 30-Nov-2006, Time: 00:28:47, ID: JJV751AA, Description: D6K160304-2

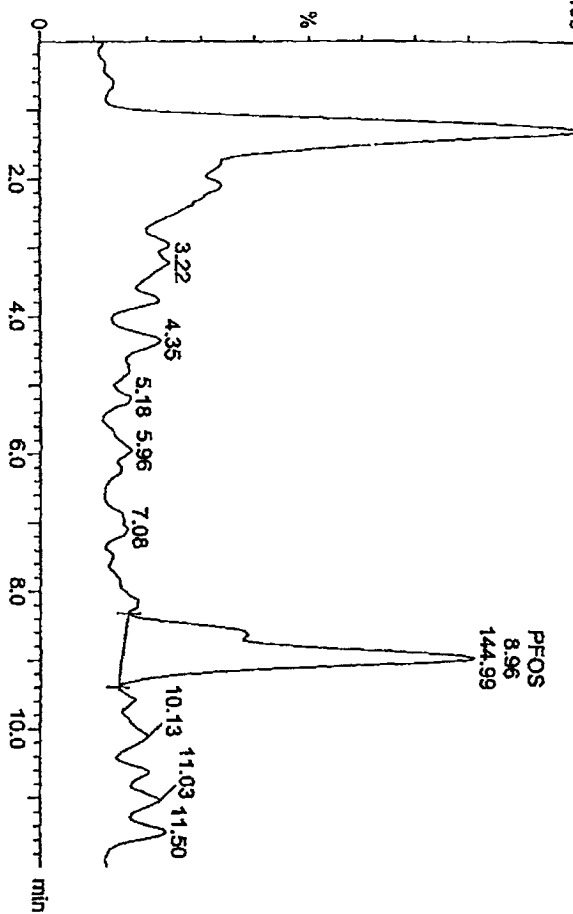
PFOs

pf36k2980 Smooth(Mn,2x3)

D6K160304-2 JJV751AA

MRM of 5 channels ES-

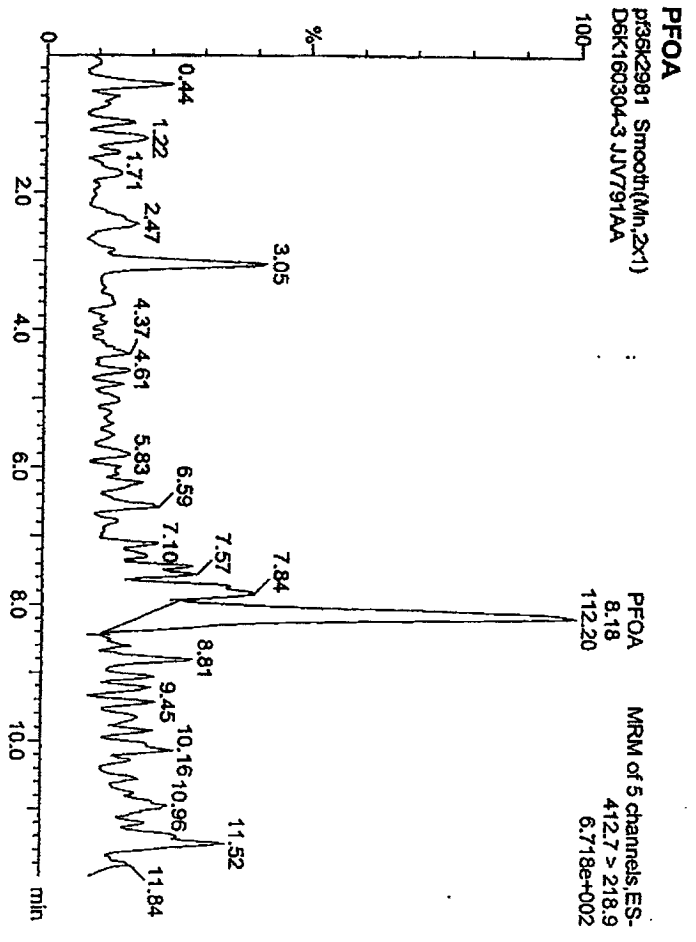
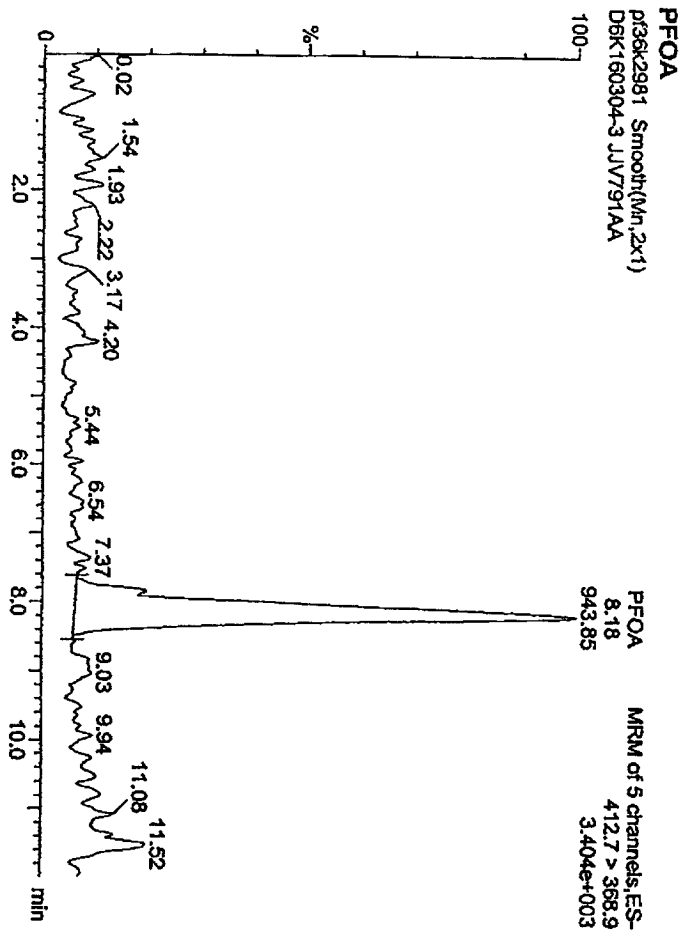
498.8>98.8
5.366e+002



Peak	Retention Time (min)	Area	Height	Width	Height	Area	Height	Width	Height
1 PFOA	8.13	4967.577	bb	37522.980	3	1.324	0.026		
2 APFO	8.13	4967.577	bb	37522.980	3	1.324	0.028		
3 PFOA 13C2	8.15	37522.980	bb	37522.980	0	37522.980	11.076	110.8	
4 PFOs	9.01	207.217	bb	37522.980	3	0.055	0.001		

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2981, Date: 30-Nov-2006, Time: 00:41:44, ID: JUV791AA, Description: D6K160304-3



Quantity Sample Report

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

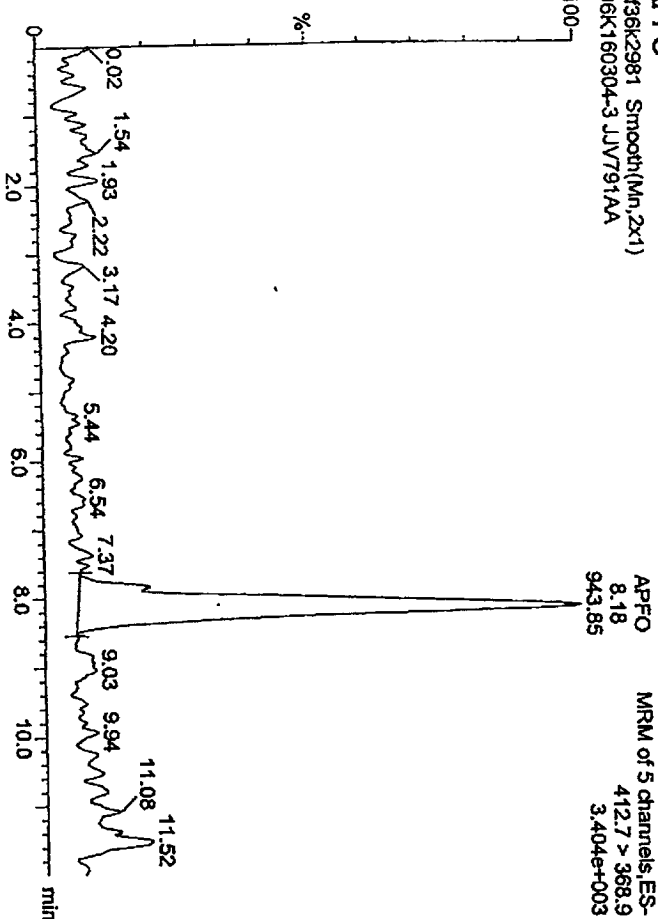
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

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Name: pf36k2981, Date: 30-Nov-2006, Time: 00:41:44, ID: JUV791AA, Description: D6K160304-3

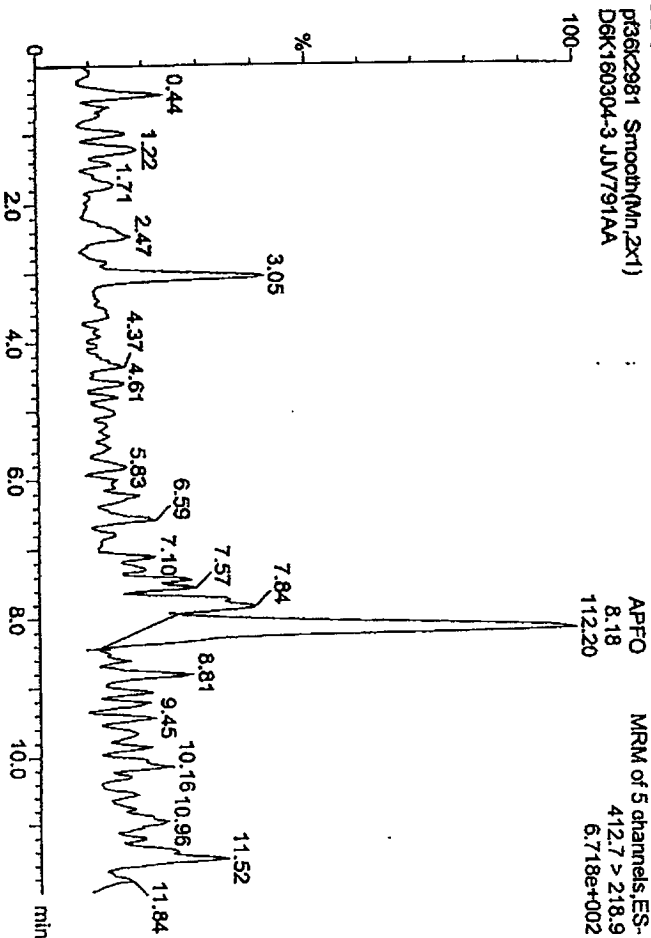
APFO

pf36k2981 Smooth(Mn,2x1)
D6K160304-3 JUV791AA



APFO

pf36k2981 Smooth(Mn,2x1)
D6K160304-3 JUV791AA



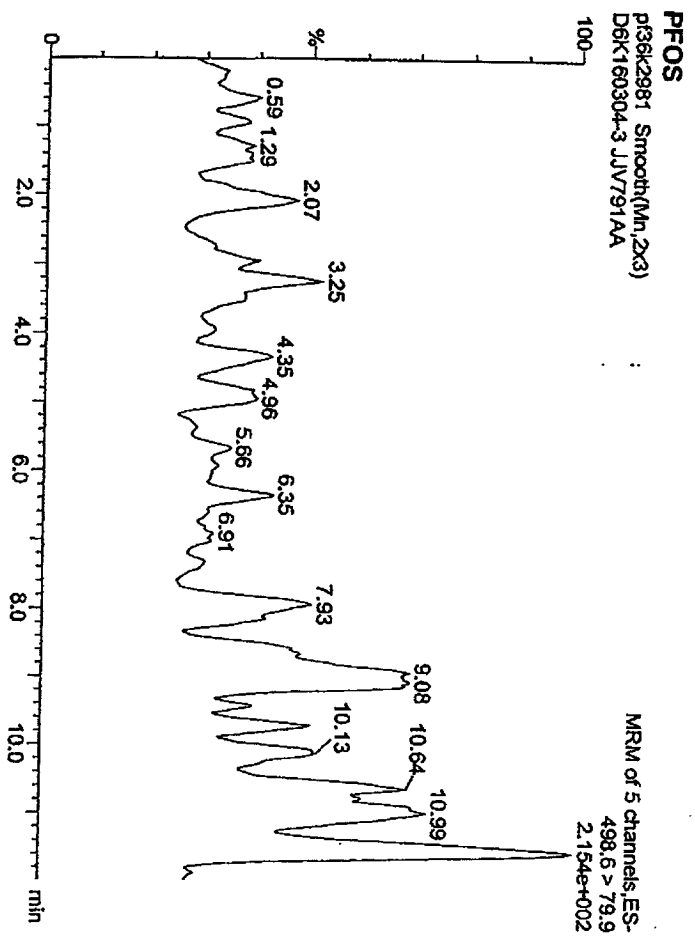
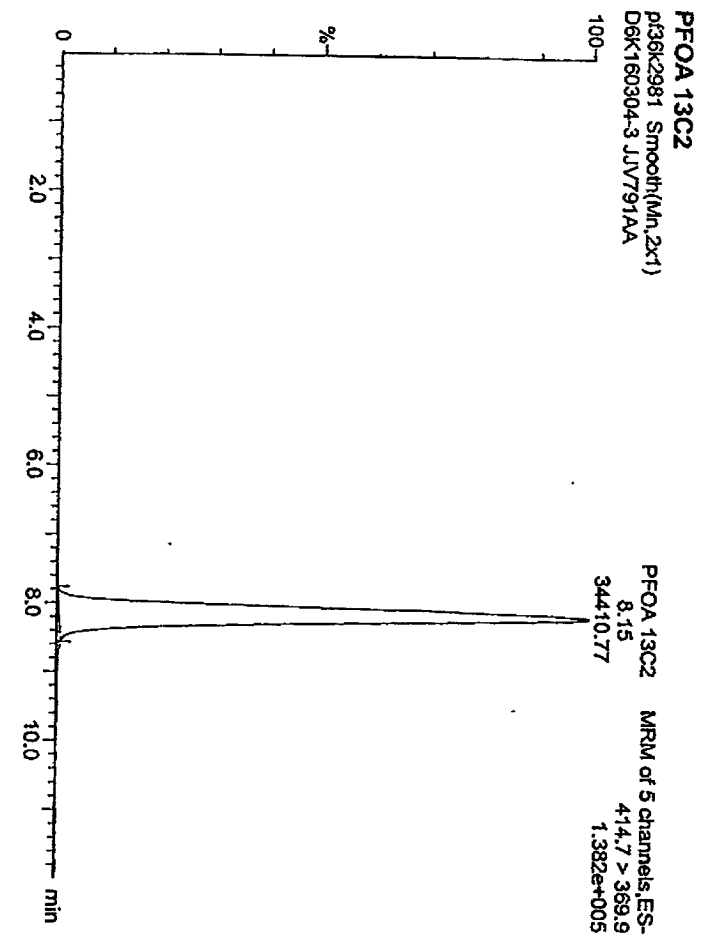
PFQA Analysis

Dataset: C:\MassLynx\PFQA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2981, Date: 30-Nov-2006, Time: 00:41:44, ID: JJV791AA, Description: D6K160304-3



Quantity Sample Report

MassLynx 4.1

PFOA Analysis

C:\MassLynx\PFOA.PRO\p36k292s.qld

Dataset: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

Last Altered: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

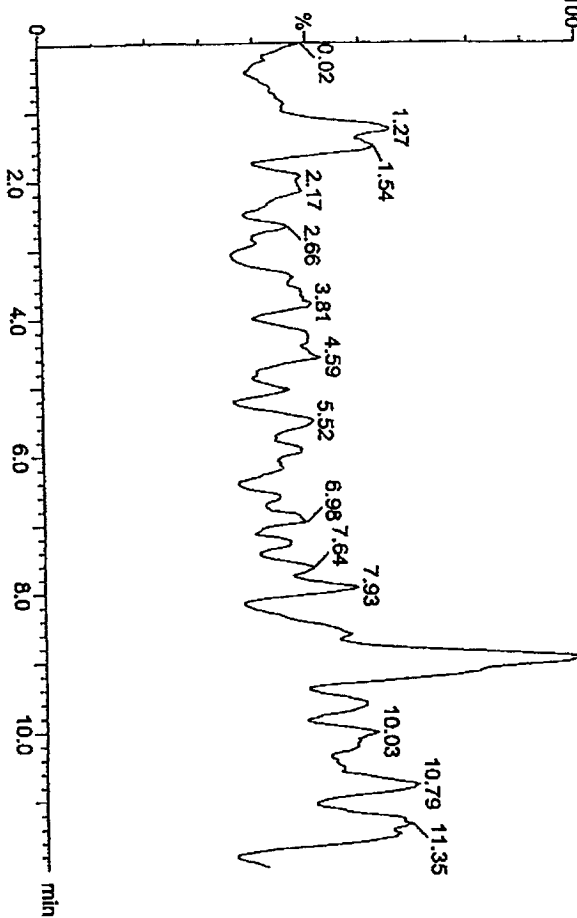
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Name: p36k2981, Date: 30-Nov-2006, Time: 00:41:44, ID: JUV791AA, Description: D6K160304-3

PFOs

p36k2981 Smooth(Mn,2x3)
D6K160304-3 JUV791AA

MRM of 5 channels, ES-
498.6>98.8
1.646e+002

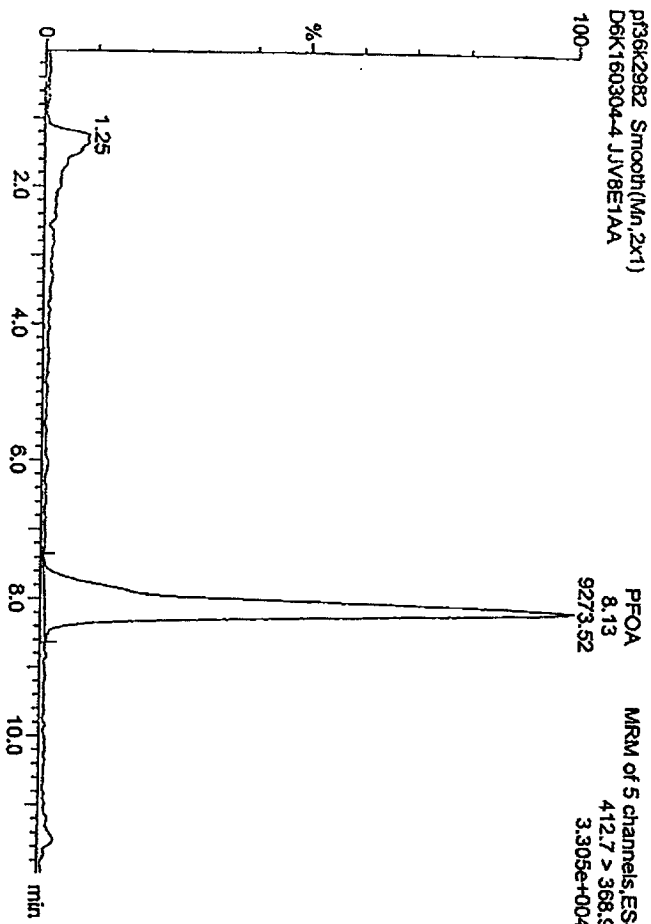


Peak	Retention Time (min)	Area	Height	Width	Signal-to-Noise	Integration	Identification
1 PFOA	8.18	943.854	bb	34410.773	3	0.274	0.004
2 APFO	8.18	943.854	bb	34410.773	3	0.274	0.004
3 PFOA 13C2	8.15	34410.773	bb	34410.773	0	34410.773	10.157 101.6
4 PFOs				34410.773	3		

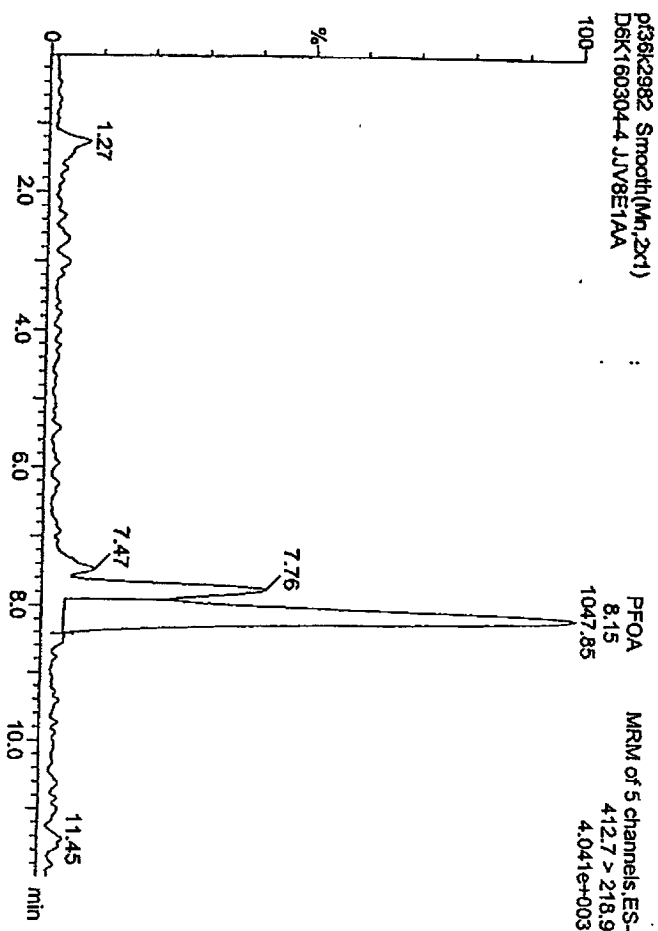
Quantity Sample Report
Dataset: C:\MassLynx\PFOA.PRO\p36k292s.qld
Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2982, Date: 30-Nov-2006, Time: 00:54:40, ID: JUV8E1AA, Description: D6K160304-4

PFOA



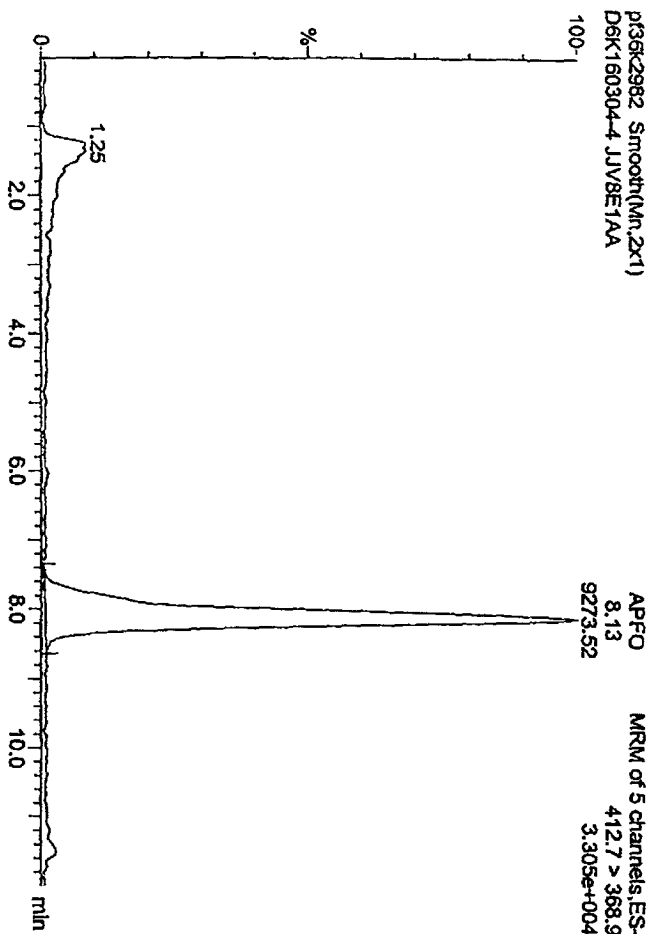
PFOA



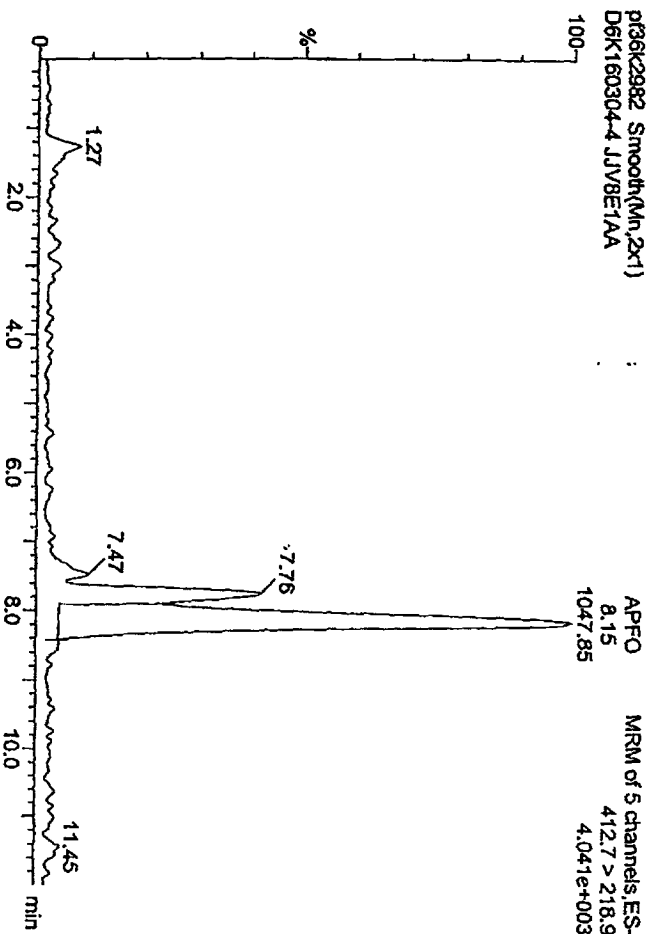
Quantity Sample Report
PFOA Analysis
 Dataset: C:\Masslynx\PFOA\PRO\p36k292s.qld
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Name: p36k2982, Date: 30-Nov-2006, Time: 00:54:40, ID: JUV8E1AA, Description: D6K160304-4

APFO



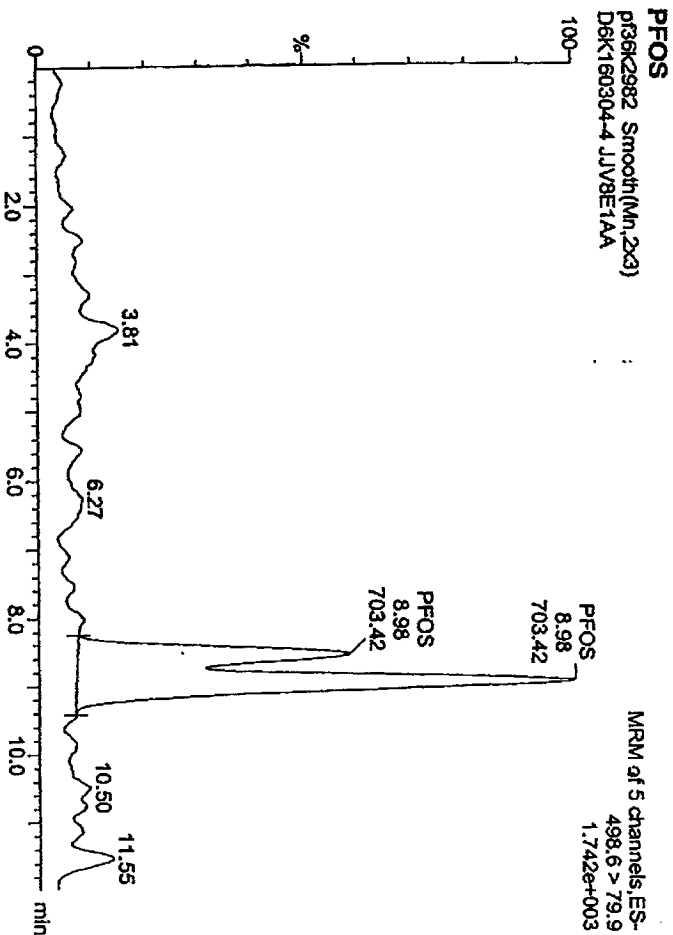
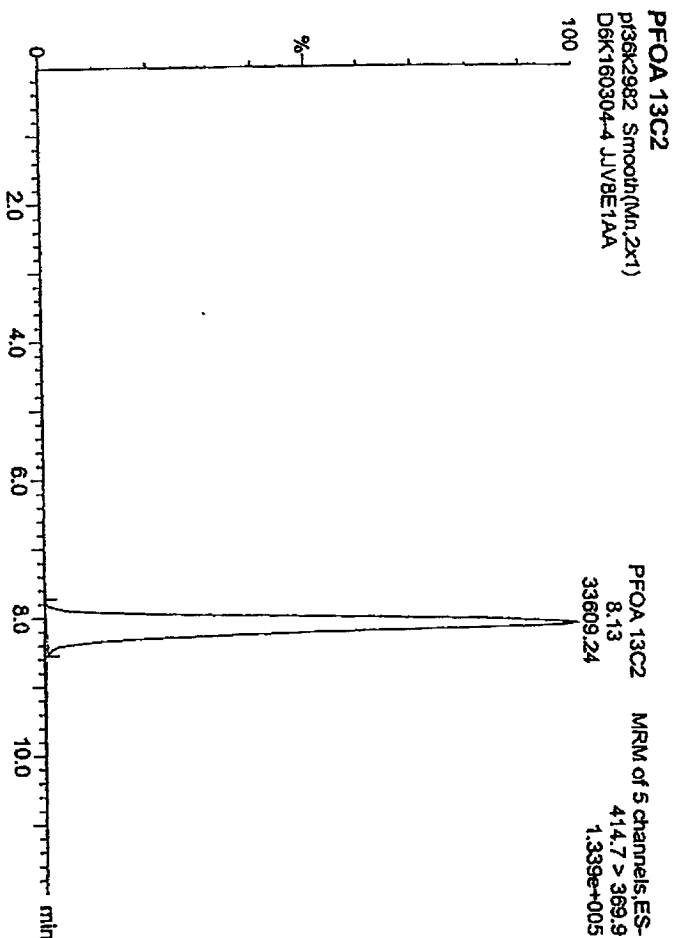
APFO



Quantity Sample Report MassLynx 4.1

PFOA Analysis
 Dataset: C:\MassLynx\PFOA.PRO\p36k292s.qld
 Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time
 Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: p36k2982, Date: 30-Nov-2006, Time: 00:54:40, ID: JJV8E1AA, Description: D6K160304-4



Quantify Sample Report MassLynx 4.1

PFOA Analysis

Dataset: C:\MassLynx\PFOA.PRO\pf36k292s.qld

Last Altered: Thursday, November 30, 2006 07:08:01 Mountain Standard Time

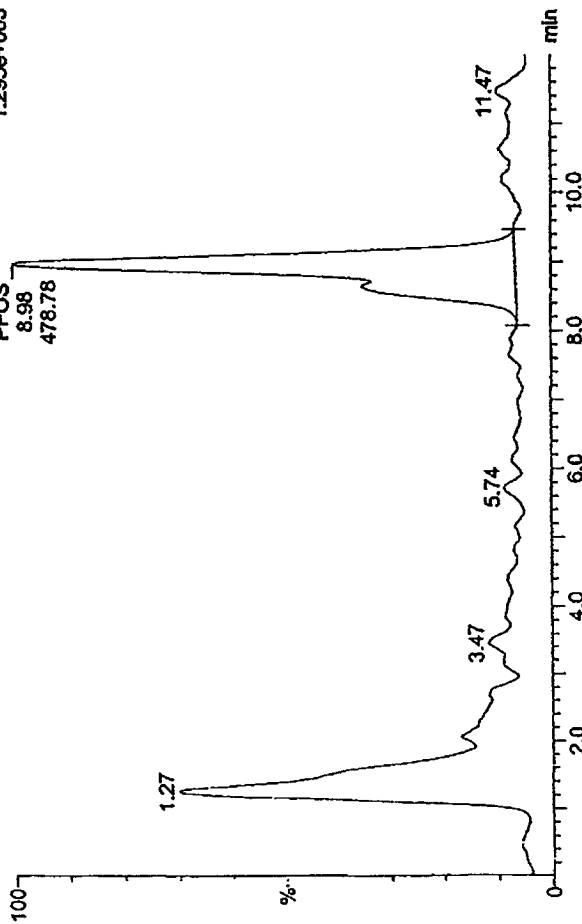
Printed: Thursday, November 30, 2006 07:09:11 Mountain Standard Time

Name: pf36k2982, Date: 30-Nov-2006, Time: 00:54:40, ID: JJV8E1AA, Description: D6K160304-4

PFOS

pf36k2982 Smooth(Mn,2x3)
D6K160304-4 JJV8E1AA

MRM of 5 channels ES-
498.6>98.8
1.295e+003



Peak Name	Retention Time (min)	Area	Height	Width	Signal
1 PFOA	8.13	9273.520	bb	3	2.759 0.057
2 APFO	8.13	9273.520	bb	3	2.759 0.059
3 PFOA 13C2	8.13	33609.238	bb	0	33609.238 9.921 99.2
4 PFOS	8.98	703.425	bb	3	0.209 0.005

Attachment B

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF FLORIDA

EMERALD COAST UTILITIES
AUTHORITY,

Plaintiff,

v.

3M COMPANY, et al.,

Defendants

CASE NO.: _____

DECLARATION OF GARY HOHENSTEIN

I, Gary Hohenstein under penalty of perjury, declare as follows:

1. My name is Gary Hohenstein and I am over the age of eighteen years. I am competent and authorized to make this Declaration and the matters contained therein are within my personal knowledge and true and correct.
2. I am a manager in Environmental, Health and Safety Operations at 3M Company. I have both a bachelor of science and masters of science degree in civil engineering. My master's thesis concerned the removal of contaminants from public drinking water systems.
3. As part of my responsibilities at 3M Company, I have been involved in the coordination of the installation of systems designed to remove perfluorooctane sulfonate (PFOS), perfluorooctanoate (PFOA), and homologous perfluorinated compounds from drinking water systems. In so doing, I have become familiar with

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF FLORIDA

EMERALD COAST UTILITIES
AUTHORITY,

Plaintiff,

v.

3M COMPANY, et al.,

Defendants

CASE NO.: _____

DECLARATION OF GARY HOHENSTEIN

I, Gary Hohenstein under penalty of perjury, declare as follows:

1. My name is Gary Hohenstein and I am over the age of eighteen years. I am competent and authorized to make this Declaration and the matters contained therein are within my personal knowledge and true and correct.
2. I am a manager in Environmental, Health and Safety Operations at 3M Company. I have both a bachelor of science and masters of science degree in civil engineering. My master's thesis concerned the removal of contaminants from public drinking water systems.
3. As part of my responsibilities at 3M Company, I have been involved in the coordination of the installation of systems designed to remove perfluorooctane sulfonate (PFOS), perfluorooctanoate (PFOA), and homologous perfluorinated compounds from drinking water systems. In so doing, I have become familiar with

the costs associated with the design, installation, maintenance, and operation of such systems.

4. I have reviewed the complaint filed by the Emerald Coast Utilities Authority ("ECUA") in the above-referenced matter. In particular, I have reviewed ECUA's demand for "all necessary funds" to design, construct, install, operate, and maintain the treatment facilities and equipment necessary to remove PFQA and PFOS from the drinking water it supplies to the public.

5. In our experience, GAC is the technology of choice and the most cost-effective to address the presence of PFCs in large scale, municipal drinking water supply scenarios.

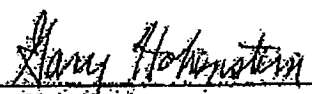
6. The granular activated carbon (GAC) treatment system installed to treat PFCs in the City of Oakdale, Minnesota cost more than \$2.5 million for a design flow rate of 2,500 gallons per minute, as indicated in a press release from the City of Oakdale, publicly available at <http://oakdale.gov/office2.com/verliba9Siles/%7B8D2ABE6F-4847-480E-B9886C89543F/%7D/uploads/%7B89E204C6-62B8-4DA0-BB7D-412B85B0A8C3/%7D.PDF>. This figure does not include operating costs, which in 2008 exceeded \$150,000.

7. I have reviewed the 2008 financial report for ECUA, publicly available at www.ecua.org/pdf/qatr08.pdf, which indicates on page 78 that ECUA's 2008 supply rate was 12,159 million gallons, which is in excess of 23,000 gallons per minute, nearly 10 times the rate of the Oakdale, Minnesota system. The report also indicates that ECUA served more than 89,000 customers.

8. Although I am aware of no evidence to support the allegation that PFOS and PFQA are present in the ECUA water supply, I have assumed for the purpose of this declaration (and solely for that purpose) that, as alleged in the

Complaint, these substances have been detected "at varying amounts and at varying times," Complaint, paragraph 4). I also note that, in addition to the costs of installing a system capable of removing these PFOA and PFOS, Plaintiff seeks damages for the cost of investigating and monitoring the alleged presence of "PFOA and/or PFOS," Complaint, paragraph 83. Based upon my training, education, and experience with treatment systems of the kind sought by ECUA here, it is my opinion to a reasonable degree of scientific certainty that "all necessary funds" needed to design, construct, install, operate, and maintain a treatment system capable of removing PFOA and PFOS for an authority with a flow rate the size of ECUA's would exceed \$75,000. A system for treating even a few wells of the average size of those in the ECUA system would exceed \$75,000.

Dated: August 14, 2009



Gary Hohenstein