Study Title

TENNESSEE RIVER VALLEY SAMPLES

Author

Mark E. Ellefson

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Performing Laboratory

3M Environmental Laboratory
Building 2-3E-09
935 Bush Avenue
St. Paul, MN 55106

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TABLE OF CONTENTS

LIST OF TABLES

STUDY INFORMATION

Requestor

Dale L. Bacon
3M Environmental Laboratory
Bldg. 2-3E-09
935 Bush Avenue
St. Paul, MN 55106
651-778-4736

Study Director

Mark E. Ellefson
3M Environmental Laboratory
Bldg. 2-3E-09
935 Bush Avenue
St. Paul, MN 55106
651-778-5405

Study Location

Testing Facility
3M Environmental Laboratory
Bldg. 2-3E-09
935 Bush Avenue
St. Paul, MN 55106

William K. Reagen, *Laboratory Manager*
Mark L. Anderson, *Analytical Chemist*
Cindy M. Carlson, *Analytical Chemist*
Ognjenka Krupljanin, *Analytical Chemist*

Experimental Dates

Sample Analysis Initiation: 26 June 2002
Sample Analysis Completion: 12 November 2002

Location of Archives

All original raw data and the report have been archived at the 3M Environmental Laboratory according to 3M Standard Operating Procedures. Remaining specimens pertaining to the analytical phase of this study will be archived at the 3M Environmental Laboratory for as long as the quality of the preparation affords evaluation.

SUMMARY

Fish, river water, and river sediment samples were collected from three locations in the Tennessee River near the 3M Decatur, Alabama facility. The samples were analyzed for perfluorobutane sulfonate (PFBS), perfluorohexane sulfonate (PFHS), perfluorooctanoate (PFOA), perfluorooctane sulfonylamide (FOSA), and perfluorooctane sulfonate (PFOS). The analyses were accomplished by extracting the samples using Solid Phase Extraction (SPE) and then analyzing them using HPLC-Electrospray/Mass Spectrometry (HPLC/ES/MS).

Sampling Location 1 (SL-1) was located downstream of the 3M facility near Fox Creek at river mile 296. Sampling Location 2 (SL-2) was across the river from the 3M facility at river mile 301. Sampling location 3 (SL-3) was upstream from the 3M facility at river mile 307.5.

Analytical results are presented in Table 1:

Table 1. Sample Location, Sample Type, and Analytical Data Summary.

Sampling Location & Species Sampled	PFBS (ng/g)	PFHS (ng/g)	PFOA (ng/g)	FOSA (ng/g)	PFOS (ng/g)
Fish Tissue					
SL-1, C (n=6)	<LLOQ	<LLOQ	<LLOQ	**60.9 (6/6)[2]**	**113 (6/6)[2]**
SL-2, C (n=7)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
SL-3, C (n=6)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	**15.2 (4/6)[2]**
SL-1, LM (n=6)	<LLOQ	<LLOQ	<LLOQ[1]	<LLOQ	**553 (6/6)[2]**
SL-2, LM (n=4)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	**169 (2/4)[2]**
SL-3, LM (n=7)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
SL-3, SM (n=1)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
River Water					
	PFBS (pg/mL)	PFHS (pg/mL)	PFOA (pg/mL)	FOSA (pg/mL)	PFOS (pg/mL)
SL-1, RW	**84**	**196**	**550**	**25**	**491**
SL-2, RW	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
SL-3, RW	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
River Sediments					
	PFBS (pg/g)	PFHS (pg/g)	PFOA (pg/g)	FOSA (pg/g)	PFOS (pg/g)
SL-1, RS	**577**	**130**	**732**	**1440**	**3130**
SL-2, RS	**437**	<LLOQ	<LLOQ	**141**	**457**
SL-3, RS	**452**	<LLOQ	**127**	**68**	**416**

C = CatFish, LM = Large mouth bass, SM = Small mouth bass, RW = River water, and RS = River Sediments. [1]High triplicate value was statistically eliminated using Dixon's Q-Test.
[2](Number of Fish > LLOQ / Number of Fish Analyzed). Only one River Water and one River Sediment sample were collected from each sampling location.

PURPOSE

The purpose of this study is to perform quantitative screening for PFBS, PFHS, PFOA, FOSA, and PFOS in sport-caught fish, river water, and river sediments from three sampling locations of the Tennessee River near Decatur, Alabama.

TEST AND ANALYTICAL REFERENCE SUBSTANCES

Table 2: Characterization of the Test and Analytical Reference Substances.

TEST AND ANALYTICAL REFERENCE SUBSTANCE	PFHS	FOSA	PFOA
Compound	PFHS, Perfluorohexanesulfonate	FOSA, Perfluorooctanesulfonamide	PFOA, Perfluorooctanoate Ammonium
Source	3M Specialty Materials, Bldg. 236-2B-11	3M Specialty Materials, Bldg. 236-1B-10	3M Specialty Materials, Bldg. 236-1B-10
Storage Conditions	Frozen	Frozen	Frozen
3M Laboratory Identification Number	TCR-083	TCR-029	TCR-123
Physical Description	White Powder	Light yellow waxy solid	White Powder
Purity	98.6%	Undetermined	95.0%

TEST AND ANALYTICAL REFERENCE SUBSTANCE	PFBS	PFOS
Compound	PFBS, Potassium Perfluorobutane Sulfonate	PFOS, Potassium Perfluorooctanesulfonate
Source	Wildlife International	3M Specialty Materials, Bldg. 236-1B-10
Storage Conditions	Frozen	Frozen
3M Laboratory Identification Number	TCR-359	TCR-129
Physical Description	White crystals	White Powder
Purity	97.3%	Undetermined

TEST SYSTEMS

Table 3a. Description of Fish Tissue Analyzed in this Study

FISH TISSUE	
Source	Tennessee River
*Types	Catfish Large Mouth Bass Small Mouth Bass
Storage Conditions	Frozen
Location 1	Downstream from the 3M facility near Fox Creek (river mile 296)
Location 2	Across the river from the 3M facility (river mile 301)
Location 3	Upstream of the 3M facility (river mile 307.5)

* The fish were filleted and representative aliquots of the fillets were analyzed.

Table 3b. Description of River Water Analyzed in this Study

RIVER WATER	
Source	Tennessee River
Storage Conditions	Chilled (approximately 4° C.)
Location 1	Downstream from the 3M facility near Fox Creek (river mile 296)
Location 2	Across the river from the 3M facility (river mile 301)
Location 3	Upstream of the 3M facility (river mile 307.5)

Table 3c. Description of River Sediments Analyzed in this Study

RIVER SEDIMENTS	
Source	Tennessee River
Storage Conditions	Chilled (approximately 4° C.)
Location 1	Downstream from the 3M facility near Fox Creek (river mile 296)
Location 2	Across the river from the 3M facility (river mile 301)
Location 3	Upstream of the 3M facility (river mile 307.5)

METHOD SUMMARIES

The concentrations of PFBS, PFHS, PFOA, FOSA, and PFOS in Fish Tissue, River Water, and River Sediments were determined by using Solid Phase Extraction (SPE) and High Performance Liquid Chromatography-Electrospray/Mass Spectrometry (HPLC/ES/MS).

PREPARATORY METHODS

- The following tables describe the sample preparation methods for the Fish Tissue, River Water, and River Sediment samples. Data Quality Objectives (DQO) are also given for each sample preparation method.
- **Fish Tissue Sample Preparation Method**

Table 4a. Fish Tissue Sample Preparation Method

STEP	FISH TISSUE SAMPLE PREPARATION METHOD
1	Approximately 2 g of Fish Tissue and 8 mL of ASTM Type 1 Water were homogenized.
2	The homogenate was centrifuged to eliminate the foam and then shaken/vortexed to re-suspend the homogenate.
3	Each homogenate was aliquoted into triplicate samples. This was accomplished by transferring 1.0 mL of homogenate to 3 separate 15 mL centrifuge tubes.
4	Matrix spikes (MS) were prepared for every other homogenate. In this case, an additional (4^{th}) 1.0 mL of homogenate was transferred to another 15 mL centrifuge tube. The MS's were spiked with 100 uL of a 100 ug/mL spike solution containing each of the test substances.
5	5.0 mL of acetonitrile was then added to the centrifuge tubes. The tubes were capped and shaken for 20 min at 300 rpm.
6	After mixing, the samples were centrifuged at 3000 rcf for 10 minutes to clarify the supernatant.
7	The supernatant was decanted into new 50 mL centrifuge tubes and diluted with 40 mL of water.
8	Waters C-18 Tri-functional, Sep-Pak 1g, 6cc SPE columns with attached 70 mL reservoirs were placed onto vacuum manifolds and pre-conditioned in the following manner. Approximately 10 mL of methanol was added to the columns and the vacuum was applied. Once most of the methanol had been pulled through, ASTM Type 1 Water was added (5-10 mL). When most of this was pulled through, more water was added (5-10mL). When there was only a small amount of water left in the reservoir, the stopcock was turned to stop the vacuum to the column. The columns were not allowed to go dry.
9	The supernates from step 7 were passed through the pre-conditioned SPE columns. The aqueous eluent was not collected. The columns were allowed to dry for at least 3 minutes.
10	The analytes were eluted from the SPE columns with 2.0 mL of methanol into autovials.

See the preparation worksheets for other exact amounts, times, speeds, etc.

Table 4b. Preparation of Extracted Calibration Curves for the Fish Tissue.

STEP	PREPARATION OF EXTRACTED CALIBRATION CURVES FOR THE FISH TISSUE
	There were two extracted Fish Tissue calibration curves: Large Mouth Bass and CatFish. Rangefinding experiments were done to determine which Fish Tissues had the lowest endogenous levels of the analytes. Then, one Large Mouth Bass and one CatFish sample containing the least amount of endogenous test substances were selected as the matrix to construct the calibration curves. The Small Mouth Bass was analyzed using the Large Mouth Bass calibration curve. The procedure for preparing the extracted calibration curves is the same as the Fish Tissue sample preparation, except the volumes were scaled-up to provide a homogeneous batch of fish tissue matrix. The differences are as follows:
1	Approximately 10 g of Fish Tissue and 40 mL of ASTM Type 1 Water were combined and homogenized.
2	1.0 mL of homogenate was transferred to the appropriate number of tubes.
3	Each tube was spiked with the predetermined amount of spike solution.

Table 4c. Fish Tissue Analytical Data Quality Objectives.

STEP	FISH TISSUE ANALYTICAL DATA QUALITY OBJECTIVES
1	All samples were prepared in triplicate. The %RSD should be ≤ 25%
2	Matrix spikes were performed on half of the fish of each type from each sampling location. Recovery should be within ±30% from expected values. A total of 18 matrix spikes were prepared for the Fish Tissue samples.
3	Water blanks, consisting of an aliquot of water run through the entire sample preparation and extraction process were prepared with samples from each sampling location. Water blanks containing < ½ LLOQ of each analyte for the data set in which they were run were considered acceptable.
4	Extraction blanks, consisting of an aliquot of methanol run though a pre-conditioned SPE cartridge, were prepared for each sampling location. Extraction blanks containing < ½ LLOQ of each analyte for the data set in which they were run were considered acceptable.
5	Mid-level calibration curve points were used as CCV's.

- **River Water Sample Preparation Method**

Table 4d. River Water Sample Preparation Method

STEP	RIVER WATER SAMPLE PREPARATION METHOD
1	Waters C-18 Tri-functional, Sep-Pak 1g, 6cc SPE columns with attached 70 mL reservoirs were placed onto vacuum manifolds and pre-conditioned in the following manner. Approximately 10 mL of methanol was added to the columns and the vacuum was applied. Once most of the methanol had been pulled through, ASTM Type 1 Water was added (5-10 mL). When most of this was pulled through, more water was added (5-10mL). When there was only a small amount of water left in the reservoir, the stopcock was turned to stop the vacuum to the column. The columns were not allowed to go dry.
2	40 mL of the River Water was passed through a pre-conditioned SPE column. The columns were allowed to dry for at least 3 minutes.

Table 4d. River Water Sample Preparation Method

STEP	RIVER WATER SAMPLE PREPARATION METHOD
3	The analytes were eluted from the columns with 2.0 mL of methanol into autovials.

Table 4e. River Water Sample Data Quality Objectives

STEP	RIVER WATER SAMPLE DATA QUALITY OBJECTIVES
1	Water blanks, consisting of an aliquot of water run through the entire preparation and extraction process, were prepared with samples each day samples were extracted. Water blanks containing < ½ LLOQ of each analyte for the data set in which they were run were considered acceptable.
2	A non-extracted solvent calibration curve was used to quantitate the River Water samples. No extracted CCVs were prepared, a mid-level calibration curve point was used for this purpose.
3	No matrix spikes were preformed during the sample preparation of the River Water samples.

- **River Sediment Sample Preparation Method**

Table 4f. River Sediment Sample Preparation Method

STEP	RIVER SEDIMENT SAMPLE PREPARATION METHOD
	There were 3 River Sediment samples, one from each sampling location. Triplicate samples plus a matrix spike were prepared for each location.
1	Initially, sediment was transferred to 50 mL centrifuge tubes and centrifuged at 6000 RCF for 20 min. The liquid was decanted off and the remaining sediment was used for the sample preparation
2	Approximately 20g of sediment and 35mL of 1% Acetic Acid (aqueous) were combined into 50mL centrifuge tubes.
3	Matrix spikes were prepared by adding 100 uL of 100 ug/mL spike solution to the predetermined MS tubes.
4	The tubes were capped, vortexed, and then shaken for 60 min at 300 RPM.
5	They were then centrifuged at 6000 RCF for 20 minutes.
6	Waters C-18 Tri-functional, Sep-Pak 1g, 6cc SPE columns with attached 70 mL reservoirs were placed onto vacuum manifolds and pre-conditioned in the following manner. Approximately 10 mL of methanol was added to the columns and the vacuum was applied. Once most of the methanol had been pulled through, ASTM Type 1 Water was added (5-10 mL). When most of this was pulled through, more water was added (5-10mL). When there was only a small amount of water left in the reservoir, the stopcock was turned to stop the vacuum to the column. The columns were not allowed to go dry.
7	The aqueous solutions from step #5 were decanted from the samples and passed through pre-conditioned SPE cartridges. The aqueous eluates were discarded.
8	20 mL of methanol was then added to the sediment samples. The samples were vortexed, shaken for 30 min at 300 RPM, and then centrifuged at 6000 RCF for 20 minutes.
9	The methanol was decanted, passed through the SPE cartridge and collected. An additional 4 mL of methanol was used to wash the reservoir and the column.
10	The collected methanol was then added to approximately 200mL of ASTM Type 1 Water.
11	This solution was then passed through a new pre-conditioned SPE cartridge. The aqueous eluate was discarded.
12	The analytes were eluted from the SPE cartridges with 2.0 mL of methanol into autovials.

Table 4g. River Sediment Sample Data Quality Objectives

STEP	RIVER SEDIMENT SAMPLE DATA QUALITY OBJECTIVES
1	All samples were prepared in triplicate. The %RSD should be ≤ 25%
2	Matrix spikes were performed on each sample. Recovery should be within ±30% of expected values.
3	Two lab control samples, consisting of spiked water carried through the entire extraction process and analyzed with the samples, were prepared. However, the information was not used because the data suggested it was impossible to recover spiked analytes from acidified water when river sediment was not present.
4	Water blanks, consisting of an aliquot of water run through the entire preparation and extraction process, were prepared. Acceptable values were < ½ LLOQ for the data set in which they were run.
5	The River Sediment samples were quantitated using a non-extracted solvent calibration curve. Mid-level calibration curve points were used as CCV's.

SAMPLE ANALYSIS

The samples were analyzed using HPLC/ES/MS. The analytical method was based on the 3M Environmental Laboratory Method ETS-8-155.1 "Analysis of Waste Stream, Water Extracts or Other Systems Using HPLC-Electrospray/Mass Spectrometry".

The following table details sample run information, including the sequence and the run start date of each sample.

Table 5. Sample Analysis Information.

	SAMPLE	LOCATION	SEQUENCE	DATE SEQUENCE WAS STARTED
1	Catfish	SL-1	D020629	29 Jun 02
		SL-2	D020629	29 Jun 02
		SL-3	D020702	02 Jul 02
2	Large Mouth Bass	SL-1	D020626	26 Jun 02
		SL-2	D020628	28 Jun 02
		SL-3	D020628	28 Jun 02
3	Small Mouth Bass	SL-3	D020628	28 Jun 02
4	River Water	SL-1	D020812	12 Aug 02
		SL-2	D020812	12 Aug 02
		SL-3	D020812	12 Aug 02
5	River Sediments	SL-1	I021112	12 Nov 02
		SL-2	I021112	12 Nov 02
		SL-3	I021112	12 Nov 02

ANALYTICAL METHOD

- Sample analysis was based on ETS-8-155.1 "Analysis of Waste Stream, Water Extracts Or Other Systems Using HPLC-Electrospray/Mass Spectrometry". Methanol extracts were analyzed using HPLC/ES/MS in the negative ion mode. PFBS, PFHS, PFOA, FOSA and PFOS levels were evaluated versus calibration standards ranging in concentration from 1-1000 ng analyte/mL. The target ions were as follows: m/z = 299 (PFBS), m/z = 399 (PFHS), m/z = 413 (PFOA), m/z = 498 (FOSA), and m/z = 499 (PFOS). The analytical method used for analysis is presented below; modifications may be necessary to optimize the method for individual instruments.

Analytical Equipment

Liquid Chromatograph: Agilent/Hewlett-Packard® Series 1100 Liquid Chromatograph system
Analytical column: Keystone® Betasil™ C_{18} 2x50mm, 5µm particle size
Column temperature: 30 °C
Cycle Time: 9.5 minutes
Flow rate: 300µL/min
Injection volume: 4 to 20µL
Mobile phase components:
Solvent A: 2.0 mM ammonium acetate in water
Solvent B: HPLC Grade Methanol

Solvent Gradient:

Time	% B
0.00	10 %
0.50	10 %
0.80	60 %
3.50	100 %
5.50	100 %
6.50	10 %
9.50	10 %

Mass Spectrometer: Agilent/Hewlett-Packard® Series 1100 API/Mass Spectrometer Detector
Software: Agilent ChemStation™ A.08.03
Fragmentor Voltage: m/z 299 = 100V
m/z 399 = 120V
m/z 413 = 100V
m/z 498 = 80V
m/z 499 = 140V

Capillary Voltage: 4000 V
Gain = 1.0 EMV
Mode: Electrospray Negative
Gas Temperature: 350 °C
Drying Gas: 8.0 L /min.
Nebulizer Pressure: 30 psig
Analysis Type: Single Ion Monitoring (SIM)

ANALYTICAL RESULTS

Data quality objectives outlined in the Preparation Methods section were met.

- **Regressions.** Quadratic curve fit was applied to calibration standards and sample data to improve quantitation over the concentration range appropriate to the data. All calibration curves had least-square fits of 0.990 or greater.
- **Calibration Standards.** Standards ranging in concentration from approximately 1.0 to 1000 ng/mL were used for the calibration curves. The standard curve points had an injection volume of 10 uL. In some instances, the 1.0 ng/mL standard was injected at smaller volumes (1, 2, and 5 uL), this was done to extend the low end of the calibration curve. Calibration curves were run before every analytical sequence. Percent deviations of each calibration standard were calculated. High-end curve points that were outside the ±20% criteria of the target concentration were excluded from the curve calculations. Low-end curve points that were outside the ±20% criteria were included in the curve calculations but excluded from the Lower Limit of Quantitation (LLOQ).
- **Continuing Calibration Verification (CCV).** For quantitative determinations, a mid-level matrix calibration check was analyzed at least every ten samples to monitor instrumental drift, with a limit of ±20% deviation of the target concentrations.
- **Lower Limit of Quantitation (LLOQ).** The LLOQ was equal to the lowest standard in the calibration curve, with a level of accuracy within ±20%, that demonstrated a response greater than two times the response of analyte in the blank samples.
- **System Suitability.** Five system-suitability standards were analyzed before each initial calibration curve to measure the precision of the retention times and peak area. The precision criterion of ±5% for the mean area recovery was achieved.
- **Lab Control Spikes (LCS).** LCSs were performed for the River Sediments. However, the information was not used because the data suggested it was impossible to recover spiked analytes from acidified water when river sediment was not present.
- **Matrix Spikes (MS).** Matrix spikes were performed for the Fish Tissue and the River Sediment samples. Desirable matrix spike recoveries are ±30%. Not all matrix spikes met this criteria.

The Fish Tissue data was quantitated using an extracted calibration curve while the River Water and River Sediment samples were quantitated using unextracted calibration curves. The calibration curve range that was injected was from 1 ng/mL to 1000 ng/mL, but the range used differed. The tables that follow contain either the calibration standard or the sample preparation method Lower Limit of Quantitation (LLOQ) for the analytes for each sample at each location along with batch used and the analysis date. The sample preparation method LLOQs will be annotated in the tables.

Table 6a. PFOS Calibration Standard Reprocessing Summary

PFOS CONCENTRATION		
SAMPLE TYPE AND LOCATION	BATCH AND ANALYSIS DATE	LOWER LIMIT OF QUANTITATION (LLOQ)
Catfish, SL-1	D020629, 29 Jun 02	2.5 ng/g
Catfish, SL-2	D020629, 29 Jun 02	2.5 ng/g
Catfish, SL-3	D020702, 02 Jul 02	1.0 ng/g
Large Mouth Bass, SL-1	D020626, 26 Jun 02	1.0 ng/g
Large Mouth Bass, SL-2	D020628, 28 Jun 02	2.5 ng/g
Large Mouth Bass, SL-3	D020628, 28 Jun 02	2.5 ng/g
Small Mouth Bass, SL-3	D020628, 28 Jun 02	2.5 ng/g
River Water, SL-1	D020812A, 12 Aug 02	125 pg/mL*
River Water, SL-2	D020812A, 12 Aug 02	125 pg/mL*
River Water, SL-3	D020812A, 12 Aug 02	125 pg/mL*
River Water, SL-1	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-2	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-3	D020812B, 12 Aug 02	1.25 ng/mL*
River Sediment, SL-1	I021112, 12 Nov 02	250 pg/g*
River Sediment, SL-2	I021112, 12 Nov 02	250 pg/g*
River Sediment, SL-3	I021112, 12 Nov 02	250 pg/g*

* Denotes sample preparation method LLOQ. Method LLOQ = Instrument LLOQ/Method Concentration Factor.

Table 6b. FOSA Calibration Standard Reprocessing Summary

FOSA CONCENTRATION		
SAMPLE TYPE AND LOCATION	BATCH AND ANALYSIS DATE	LOWER LIMIT OF QUANTITATION (LLOQ)
Catfish, SL-1	D020629, 29 Jun 02	2.5 ng/g
Catfish, SL-2	D020629, 29 Jun 02	2.5 ng/g
Catfish, SL-3	D020702, 02 Jul 02	2.5 ng/g
Large Mouth Bass, SL-1	D020626, 26 Jun 02	5.0 ng/g
Large Mouth Bass, SL-2	D020628, 28 Jun 02	5.0 ng/g
Large Mouth Bass, SL-3	D020628, 28 Jun 02	5.0 ng/g
Small Mouth Bass, SL-3	D020628, 28 Jun 02	5.0 ng/g
River Water, SL-1	D020812A, 12 Aug 02	25 pg/mL*
River Water, SL-2	D020812A, 12 Aug 02	25 pg/mL*
River Water, SL-3	D020812A, 12 Aug 02	25 pg/mL*
River Water, SL-1	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-2	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-3	D020812B, 12 Aug 02	1.25 ng/mL*
River Sediment, SL-1	I021112, 12 Nov 02	50 pg/g*
River Sediment, SL-2	I021112, 12 Nov 02	50 pg/g*
River Sediment, SL-3	I021112, 12 Nov 02	50 pg/g*

* Denotes sample preparation method LLOQ. Method LLOQ = Instrument LLOQ/Method Concentration Factor.

Table 6c. PFOA Calibration Standard Reprocessing Summary

PFOA CONCENTRATION		
SAMPLE TYPE AND LOCATION	BATCH AND ANALYSIS DATE	LOWER LIMIT OF QUANTITATION (LLOQ)
Catfish, SL-1	D020629, 29 Jun 02	5.0 ng/g
Catfish, SL-2	D020629, 29 Jun 02	5.0 ng/g
Catfish, SL-3	D020702, 02 Jul 02	5.0 ng/g
Large Mouth Bass, SL-1	D020626, 26 Jun 02	2.5 ng/g
Large Mouth Bass, SL-2	D020628, 28 Jun 02	5.0 ng/g
Large Mouth Bass, SL-3	D020628, 28 Jun 02	5.0 ng/g
Small Mouth Bass, SL-3	D020628, 28 Jun 02	5.0 ng/g
River Water, SL-1	D020812A, 12 Aug 02	50 pg/mL*
River Water, SL-2	D020812A, 12 Aug 02	50 pg/mL*
River Water, SL-3	D020812A, 12 Aug 02	50 pg/mL*
River Water, SL-1	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-2	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-3	D020812B, 12 Aug 02	1.25 ng/mL*
River Sediment, SL-1	I021112, 12 Nov 02	250 pg/g*
River Sediment, SL-2	I021112, 12 Nov 02	250 pg/g*
River Sediment, SL-3	I021112, 12 Nov 02	250 pg/g*

* Denotes sample preparation method LLOQ. Method LLOQ = Instrument LLOQ/Method Concentration Factor.

Table 6d. PFHS Calibration Standard Reprocessing Summary

PFHS CONCENTRATION		
SAMPLE TYPE AND LOCATION	BATCH AND ANALYSIS DATE	LOWER LIMIT OF QUANTITATION (LLOQ)
Catfish, SL-1	D020629, 29 Jun 02	2.5 ng/g
Catfish, SL-2	D020629, 29 Jun 02	2.5 ng/g
Catfish, SL-3	D020702, 02 Jul 02	2.5 ng/g
Large Mouth Bass, SL-1	D020626, 26 Jun 02	1.0 ng/g
Large Mouth Bass, SL-2	D020628, 28 Jun 02	1.0 ng/g
Large Mouth Bass, SL-3	D020628, 28 Jun 02	1.0 ng/g
Small Mouth Bass, SL-3	D020628, 28 Jun 02	1.0 ng/g
River Water, SL-1	D020812A, 12 Aug 02	25 pg/mL*
River Water, SL-2	D020812A, 12 Aug 02	25 pg/mL*
River Water, SL-3	D020812A, 12 Aug 02	25 pg/mL*
River Water, SL-1	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-2	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-3	D020812B, 12 Aug 02	1.25 ng/mL*
River Sediment, SL-1	I021112, 12 Nov 02	100 pg/g*
River Sediment, SL-2	I021112, 12 Nov 02	100 pg/g*
River Sediment, SL-3	I021112, 12 Nov 02	100 pg/g*

* Denotes sample preparation method LLOQ. Method LLOQ = Instrument LLOQ/Method Concentration Factor.

Table 6e. PFBS Calibration Standard Reprocessing Summary

PFBS CONCENTRATION		
SAMPLE TYPE AND LOCATION	BATCH AND ANALYSIS DATE	LOWER LIMIT OF QUANTITATION (LLOQ)
Catfish, SL-1	D020629, 29 Jun 02	5.0 ng/g
Catfish, SL-2	D020629, 29 Jun 02	5.0 ng/g
Catfish, SL-3	D020702, 02 Jul 02	5.0 ng/g
Large Mouth Bass, SL-1	D020626, 26 Jun 02	1.0 ng/g
Large Mouth Bass, SL-2	D020628, 28 Jun 02	2.5 ng/g
Large Mouth Bass, SL-3	D020628, 28 Jun 02	2.5 ng/g
Small Mouth Bass, SL-3	D020628, 28 Jun 02	2.5 ng/g
River Water, SL-1	D020812A, 12 Aug 02	50 pg/mL*
River Water, SL-2	D020812A, 12 Aug 02	50 pg/mL*
River Water, SL-3	D020812A, 12 Aug 02	50 pg/mL*
River Water, SL-1	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-2	D020812B, 12 Aug 02	1.25 ng/mL*
River Water, SL-3	D020812B, 12 Aug 02	1.25 ng/mL*
River Sediment, SL-1	I021112, 12 Nov 02	100 pg/g*
River Sediment, SL-2	I021112, 12 Nov 02	100 pg/g*
River Sediment, SL-3	I021112, 12 Nov 02	100 pg/g*

* Denotes sample preparation method LLOQ. Method LLOQ = Instrument LLOQ/Method Concentration Factor.

Blanks.

- Method blanks, Milli-Q water taken through the solid phase extraction process, provided a measure of method background. In this experiment, they were labeled as "WB". One set was prepared for each location. In the Fish Tissue portion of the experiment, they were run with the Catfish samples. Acceptable values for the blanks were less than 50% of the Lower Limit Of Quantitation (LLOQ). All method blanks in this study met this criterion.
- The Fish Tissue segment of the experiment also contained method blanks for the SPE cartridges. These were labeled as "SB" and consisted of methanol that was used to extract pre-conditioned columns that did not have any sample added. All of these method blanks met the previous criterion.
- Solvent blanks/Methanol blanks (methanol injections) provided a measure of instrument contamination. Acceptable solvent blanks must contain levels of target analyte less than 50% of the Lower Limit Of Quantitation (LLOQ). All of the solvent blanks in this study met this criterion except the following:

  Note - Solvent Blanks that were before the System Suitability injections and did not pass the criteria are not recorded below.

  D020626 extracted samples 0050 (PFBS, PFHS, and PFOA) and 0051 (PFHS). These were caused by carryover from higher level standard curve points. The solvent blanks that were run after these points showed minimal carryover.

  D020628 sample 0051 (PFBS, PFHS, and PFOA), 0052 (PFHS), and 0053 (PFHS). This was caused by carryover from the high-level standard curve point. The solvent blanks that were run after showed minimal carryover.

  D020629 samples 0059 (PFHS, PFOA, FOSA, and PFOS), 0060 (PFOS), and 0061 (PFHS, PFOA, and PFOS). This was caused by carryover from high-level standard curve points. The 0061 Methanol Blank had a significant level of analytes but this had no effect on the quality of the data. The next sample had trace amounts of analyte and was below the LLOQ for all analytes. Therefore, the 0061 Methanol Blank did not influence the sample. The next solvent blank (0067) had nominal analyte concentration.

  D020702 samples 0042 (PFOS), 0059 (PFHS and PFOS), 0060 (PFOS), and 0061 (PFOS). This was caused by carryover from the high-level standard curve point. The solvent blanks that were run after showed minimal carryover.

  D020812(A) samples 0016 (PFOA and FOSA) and 0031 (PFOA). These were caused by carryover from higher level standard curve points or system suitability points. The solvent blanks that were run after these points showed minimal carryover. Samples 0037 (PFOA) and 0039 (PFBS, PFHS, and PFOA) had carry-over from samples. Subsequent blanks showed minimal contamination.

  I021112 samples 012 (PFBS, PFOA, and FOSA), 027 (PFBS, PFOA, and FOSA), 039(FOSA), 066, (PFOA and FOSA), 068 (FOSA), and 071 (FOSA). All of these can be attributed to carryover from high-level standards or samples.

DATA SUMMARY

Tables 7a, 7b, 7c, and 7d present the data for individual samples. Table 8 summarizes the average data for sample groups. Representative chromatograms are presented in Attachment C. Tables 7a, 7b, 7c, and 7d display the on-column and corrected concentrations for individual samples. Also included are the average concentrations for each set of samples standard deviation, and % Coefficient of Variation, when applicable. The final values reported are corrected for dilution/concentration factors introduced during sample preparation and by injection volume differences. The reported values were not adjusted for Matrix Spike Recoveries. When some of the samples within a group were < LLOQ, the average value for the group was calculated using the reported analytical value for samples > LLOQ and the LLOQ value for samples < LLOQ. The abbreviations are as follows: SL – Sample Location, C – Catfish, LM – Large mouth bass, SM – Small mouth bass, RW – River Water, and RS – River Sediment.

Table 7a. Catfish Analytical Data.

LIMS #	Sample Name	PFBS (ng/g)	PFHS (ng/g)	PFOA (ng/g)	FOSA On-column (ng/g)	FOSA Corr. for Smpl Prep (ng/g)	Ave, Stnd. D and %C.V.	PFOS On-column (ng/g)	PFOS Corr. for Smpl Prep (ng/g)	Ave. Stnd. D and %C.V.
42777	SL-1; C-1-1	<LLOQ	<LLOQ	<LLOQ	5.9	58.7	54.7	11.2	112.1	106
	SL-1; C-1-2	<LLOQ	<LLOQ	<LLOQ	5.3	53.5	3.49	10.5	104.7	6.00
	SL-1. C-1-3	<LLOQ	<LLOQ	<LLOQ	5.2	52.0	6.4%	10.0	100.3	5.7%
42778	SL-1. C-2-1	<LLOQ	<LLOQ	<LLOQ	4.4	44.5	41.8	9.8	97.6	91.8
	SL-1. C-2-2	<LLOQ	<LLOQ	<LLOQ	4.2	41.7	2.67	9.2	91.8	5.77
	SL-1. C-2-3	<LLOQ	<LLOQ	<LLOQ	3.9	39.1	6.4%	8.6	86.1	6.3%
42779	SL-1. C-3-1	<LLOQ	<LLOQ	<LLOQ	7.0	70.5	71.7	16.1	161.2	178
	SL-1. C-3-2	<LLOQ	<LLOQ	<LLOQ	7.1	70.8	1.85	17.9	179.4	15.67
	SL-1. C-3-3	<LLOQ	<LLOQ	<LLOQ	7.4	73.8	2.6%	19.2	192.4	8.8%
42780	SL-1. C-4-1	<LLOQ	<LLOQ	<LLOQ	3.9	39.3	38.1	17.1	171.5	166
	SL-1. C-4-2	<LLOQ	<LLOQ	<LLOQ	3.7	36.7	1.30	16.2	161.9	4.82
	SL-1. C-4-3	<LLOQ	<LLOQ	<LLOQ	3.8	38.2	3.4%	16.6	165.8	2.9%
42781	SL-1. C-5-1	<LLOQ	<LLOQ	<LLOQ	9.1	91.0	89.8	8.1	80.8	79.5
	SL-1. C-5-2	<LLOQ	<LLOQ	<LLOQ	9.1	90.7	1.95	8.0	80.2	1.74
	SL-1. C-5-3	<LLOQ	<LLOQ	<LLOQ	8.8	87.5	2.2%	7.8	77.5	2.2%
42782	SL-1. C-6-1	<LLOQ	<LLOQ	<LLOQ	7.0	69.8	69.5	5.9	58.8	59.1
	SL-1. C-6-2	<LLOQ	<LLOQ	<LLOQ	6.9	69.1	0.41	6.0	59.7	0.57
	SL-1. C-6-3	<LLOQ	<LLOQ	<LLOQ	7.0	69.8	0.6%	5.9	58.7	1.0%
42783	SL-2; C-1-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2; C-1-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-1-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42784	SL-2. C-2-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-2-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-2-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42785	SL-2. C-3-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-3-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-3-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42786	SL-2. C-4-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-4-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-4-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42789	SL-2. C-5-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-5-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-5-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42790	SL-2. C-6-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-6-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-6-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42791	SL-2. C-7-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-7-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-2. C-7-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42792	SL-3; C-1-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			1.9	18.8	17
	SL-3; C-1-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			1.9	18.7	2.75
	SL-3. C-1-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			1.4	14.0	16.0%
42793	SL-3. C-2-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			1.2	11.5	11.7
	SL-3. C-2-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			1.1	11.5	0.44
	SL-3. C-2-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			1.2	12.2	3.7%
42794	SL-3. C-3-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-3. C-3-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-3. C-3-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42795	SL-3. C-4-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			3.7	36.9	37.4
	SL-3. C-4-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			3.5	35.1	2.72
	SL-3. C-4-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			4.0	40.4	7.3%
42796	SL-3. C-5-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-3. C-5-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
	SL-3. C-5-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		
42797	SL-3. C-6-1	<LLOQ	<LLOQ	<LLOQ	<LLOQ			<LLOQ		23.3
	SL-3. C-6-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ			2.3	23.5	
	SL-3. C-6-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ			2.3	23.2	

Table 7b. Large mouth and Small mouth Bass Analytical Data.

LIMS #	Sample Name	PFBS (ng/g)	PFHS (ng/g)	PFOA (ng/g)	PFOA Corrected for Smpl Prep (ng/g)	FOSA Corrected (ng/g)	PFOS On-column (ng/g)	PFOS Corrected for Smpl Prep (ng/g)	Average, Std. Dev., and %C.V. (ng/g)
42798	SL-1; LM-1-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	18.5	185.5	152
	SL-1; LM-1-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	13.0	130.0	29.61
	SL-1. LM-1-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	14.0	139.7	19.5%
42799	SL-1. LM-2-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	63.6	635.5	607
	SL-1. LM-2-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	61.4	614.0	32.49
	SL-1. LM-2-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	57.2	571.7	5.4%
42800	SL-1. LM-3-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	73.2	732.1	788
	SL-1. LM-3-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	80.8	807.7	49.18
	SL-1. LM-3-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	82.4	824.4	6.2%
42801	SL-1. LM-4-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	68.8	688.4	700
	SL-1. LM-4-2	<LLOQ	<LLOQ	6.4	64.3 (Eliminated via Q-Test)	<LLOQ	75.7	757.0	52.70
	SL-1. LM-4-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	65.3	653.3	7.5%
42802	SL-1. LM-5-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	46.6	465.5	423
	SL-1. LM-5-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	41.5	415.0	39.03
	SL-1. LM-5-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	38.9	388.7	9.2%
42803	SL-1. LM-6-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	69.3	693.2	651
	SL-1. LM-6-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	59.9	599.1	47.78
	SL-1. LM-6-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	66.0	660.2	7.3%
42804	SL-2; LM-1-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-2; LM-1-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-2. LM-1-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42805	SL-2. LM-2-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	2.6	25.6	
	SL-2. LM-2-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-2. LM-2-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42806	SL-2. LM-3-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	9.7	96.7	100
	SL-2. LM-3-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	11.8	117.6	16.68
	SL-2. LM-3-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	8.5	84.7	16.7%
42807	SL-2. LM-4-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	53.1	530.8	547
	SL-2. LM-4-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	54.1	540.9	20.02
	SL-2. LM-4-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	56.9	569.4	3.7%
42808	SL-3; LM-1-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3; LM-1-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-1-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42809	SL-3. LM-2-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-2-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-2-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42810	SL-3. LM-3-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-3-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-3-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42811	SL-3. LM-4-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-4-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-4-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42812	SL-3. LM-5-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-5-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-5-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42813	SL-3. LM-6-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-6-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-6-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42814	SL-3. LM-7-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-7-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. LM-7-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
42815	SL-3. SM-1-1	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. SM-1-2	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		
	SL-3. SM-1-3	<LLOQ	<LLOQ	<LLOQ		<LLOQ	<LLOQ		

Table 7c. River Water Analytical Data.

LIMS #	Sample Name	PFBS (ng/mL)	Adjusted for Inj. Vol. (ng/mL)	Adjusted for Sample Prep. (pg/mL)	Average (pg/mL)
38025	SW01	3.0	1.50	75	84
38026	SW01-Dup	3.7	1.85	93	
38033	SW03	<LLOQ			<LLOQ
38034	SW03-Dup	<LLOQ			
38037	SW02	<LLOQ			<LLOQ
38038	SW02-Dup	<LLOQ			
LIMS #	Sample Name	PFHS (ng/mL)	Adjusted for Inj. Vol. (ng/mL)	Adjusted for Sample Prep. (pg/mL)	Average (pg/mL)
38025	SW01	7.7	3.86	193	196
38026	SW01-Dup	8.0	3.98	199	
38033	SW03	<LLOQ			<LLOQ
38034	SW03-Dup	<LLOQ			
38037	SW02	<LLOQ			<LLOQ
38038	SW02-Dup	<LLOQ			
LIMS #	Sample Name	PFOA (ng/mL)	Adjusted for Inj. Vol. (ng/mL)	Adjusted for Sample Prep. (pg/mL)	Average (pg/mL)
38025	SW01	21.3	10.66	533	550
38026	SW01-Dup	22.7	11.33	566	
38033	SW03	<LLOQ			<LLOQ
38034	SW03-Dup	<LLOQ			
38037	SW02	<LLOQ			<LLOQ
38038	SW02-Dup	<LLOQ			
LIMS #	Sample Name	FOSA (ng/mL)	Adjusted for Inj. Vol. (ng/mL)	Adjusted for Sample Prep. (pg/mL)	Average (pg/mL)
38025	SW01	1.0	0.48	24	25
38026	SW01-Dup	1.0	0.51	26	
38033	SW03	<LLOQ			<LLOQ
38034	SW03-Dup	<LLOQ			
38037	SW02	<LLOQ			<LLOQ
38038	SW02-Dup	<LLOQ			
LIMS #	Sample Name	PFOS (ng/mL)	Adjusted for Inj. Vol. (ng/mL)	Adjusted for Sample Prep. (pg/mL)	Average (pg/mL)
38025	SW01	18.5	9.25	462	491
38026	SW01-Dup	20.8	10.40	520	
38033	SW03	<LLOQ			<LLOQ
38034	SW03-Dup	<LLOQ			
38037	SW02	<LLOQ			<LLOQ
38038	SW02-Dup	<LLOQ			

The sample extracts were analyzed several times using different sized injection volumes in order to match the appropriate analytical ranges for extracted samples, matrix spikes, and calibration curves. Table 7c incorporates data using 20 uL extracted sample injection volumes, 2 uL matrix spike injection volumes, and 10 uL calibration curve injection volumes.

Table 7d. River Sediment Analytical Data.

LIMS #	Sample Name	On Column PFBS (ng/g)	Adjusted for Inj. Vol. (ng/g)	Adjusted for Sample Prep. (pg/g)	Average, Std. Dev., and %C.V. (pg/g)
38044	38044-1, SL-1	10.6	5.3	530	577
38044	38044-2, SL-1	10.6	5.3	530	84
38044	38044-3, SL-1	13.5	6.7	674	14%
38045	38045-1, SL-3	8.9	4.4	444	452
38045	38045-2, SL-3	8.3	4.1	415	44
38045	38045-3, SL-3	10.0	5.0	502	10%
38046	38046-1, SL-2	8.9	4.5	447	437
38046	38046-2, SL-2	6.2	3.1	309	137
38046	38046-3, SL-2	11.7	5.8	583	31%
LIMS #	Sample Name	On Column PFHS (ng/g)	Adjusted for Inj. Vol. (ng/g)	Adjusted for Sample Prep. (pg/g)	Average, Std. Dev., and %C.V. (pg/g)
38044	38044-1, SL-1	2.7	1.4	136	130
38044	38044-2, SL-1	2.6	1.3	132	6
38044	38044-3, SL-1	2.5	1.2	124	5%
38045	38045-1, SL-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38045	38045-2, SL-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38045	38045-3, SL-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38046	38046-1, SL-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38046	38046-2, SL-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38046	38046-3, SL-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ
LIMS #	Sample Name	On Column PFOA (ng/g)	Adjusted for Inj. Vol. (ng/g)	Adjusted for Sample Prep. (pg/g)	Average, Std. Dev., and %C.V. (pg/g)
38044	38044-1, SL-1	16.2	8.1	810	732
38044	38044-2, SL-1	14.1	7.1	705	67
38044	38044-3, SL-1	13.7	6.9	686	9%
38045	38045-1, SL-3	<LLOQ	<LLOQ	<LLOQ	131
38045	38045-2, SL-3	2.6	1.3	131	<LLOQ
38045	38045-3, SL-3	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38046	38046-1, SL-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38046	38046-2, SL-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ
38046	38046-3, SL-2	<LLOQ	<LLOQ	<LLOQ	<LLOQ
LIMS #	Sample Name	On Column FOSA (ng/g)	Adjusted for Inj. Vol. (ng/g)	Adjusted for Sample Prep. (pg/g)	Average, Std. Dev., and %C.V. (pg/g)
38044	38044-1, SL-1	29.7	14.8	1484	1439
38044	38044-2, SL-1	32.4	16.2	1618	201
38044	38044-3, SL-1	24.5	12.2	1223	14%
38045	38045-1, SL-3	1.2	0.6	62	68
38045	38045-2, SL-3	1.2	0.6	60	12
38045	38045-3, SL-3	1.7	0.8	83	18%
38046	38046-1, SL-2	2.9	1.5	146	141
38046	38046-2, SL-2	2.5	1.3	126	17
38046	38046-3, SL-2	3.2	1.6	161	12%
LIMS #	Sample Name	On Column PFOS (ng/g)	Adjusted for Inj. Vol. (ng/g)	Adjusted for Sample Prep. (pg/g)	Average, Std. Dev., and %C.V. (pg/g)
38044	38044-1, SL-1	67.7	33.8	3383	3132
38044	38044-2, SL-1	70.3	35.1	3513	541
38044	38044-3, SL-1	50.4	25.2	2518	17%
38045	38045-1, SL-3	9.1	4.5	454	416
38045	38045-2, SL-3	6.8	3.4	342	65
38045	38045-3, SL-3	9.1	4.6	456	16%
38046	38046-1, SL-2	9.0	4.5	452	457
38046	38046-2, SL-2	8.5	4.2	425	52
38046	38046-3, SL-2	10.5	5.3	525	11%

Summaries for the average analyte concentration per sampling group and location are given below.

Table 8. Sample Location, Sample Type, and Analytical Data Summary.

Sampling Location & Species Sampled	PFBS (ng/g)	PFHS (ng/g)	PFOA (ng/g)	FOSA (ng/g)	PFOS (ng/g)
Fish Tissue					
SL-1, C (n=6)	<LLOQ	<LLOQ	<LLOQ	60.9 (6/6)[2]	113 (6/6)[2]
SL-2, C (n=7)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
SL-3, C (n=6	<LLOQ	<LLOQ	<LLOQ	<LLOQ	15.2 (4/6)[2]
SL-1, LM (n=6)	<LLOQ	<LLOQ	<LLOQ[1]	<LLOQ	553 (6/6)[2]
SL-2, LM (n=4)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	169 (2/4)[2]
SL-3, LM (n=7)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
SL-3, SM (n=1)	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
River Water					
	PFBS (pg/mL)	PFHS (pg/mL)	PFOA (pg/mL)	FOSA (pg/mL)	PFOS (pg/mL)
SL-1, RW	84	196	550	25	491
SL-2, RW	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
SL-3, RW	<LLOQ	<LLOQ	<LLOQ	<LLOQ	<LLOQ
River Sediments					
	PFBS (pg/g)	PFHS (pg/g)	PFOA (pg/g)	FOSA (pg/g)	PFOS (pg/g)
SL-1, RS	577	130	732	1440	3130
SL-2, RS	437	<LLOQ	<LLOQ	141	457
SL-3, RS	452	<LLOQ	127	68	416

C = CatFish, LM = Large mouth bass, SM = Small mouth bass, RW = River water, and RS = River Sediments.
[1]High triplicate value was statistically eliminated using Dixon's Q-Test.
[2](Number of Fish > LLOQ / Number of Fish Analyzed). Only one River Water and one River Sediment sample were collected from each sampling location.

Attachment B contains additional data summary tables.

STATISTICAL METHODS

Statistical methods were limited to calculating averages, standard deviations, % coefficient of variation and statistical examination of outlying data points using Dixon's Q-Test.

STATEMENT OF CONCLUSION

Fish Tissue:

Fish tissue obtained from Sample Location 1 contained quantifiable levels of FOSA and PFOS. Fish tissue obtained from Sample Locations 2 and 3 contained quantifiable levels of PFOS only.

River Water:

Water from Sampling Location 1 contained quantifiable levels of PFBS, PFHS, PFOA, FOSA, and PFOS. Water obtained from sample Locations 2 and 3 did not contain quantifiable levels of analytes.

River Sediments:

River Sediment obtained at Sample Location 1 contained quantifiable levels of PFBS, PFHS, PFOA, FOSA, and PFOS. River Sediment obtained at sample Location 2 contained quantifiable levels of PFBS, FOSA, and PFOS. River Sediment obtained at sample Location 3 contained quantifiable levels of PFBS, PFOA, FOSA, and PFOS.

REFERENCES

1. 3M Environmental Method ETS-8-155.1 "Analysis of Waste Stream, Water Extracts Or Other Systems Using HPLC-Electrospray/Mass Spectrometry".

LIST OF ATTACHMENTS

- Attachment A: Analytical Method and SOP Deviations
- Attachment B: Data Summary Tables
- Attachment C: Sample Chromatograms
- Attachment D: Sample Prep Sheets, Test Substance, and Test System Information
- Attachment E: Notes to File

REPORT REVISIONS

Typographical errors for the unit designators for Tables 1, 6a-e, 7a, 7b, 7d, and 8 were corrected. The number of fish sampled at each location was also added to Tables 1 and 8. The descriptions of the sampling locations were adjusted in the summary and in tables 3a, 3b, and 3c to reflect those reported in the Entrix report, July, 2003 (project #178401). Removed two values for PFHS in river water in tables 1 and 8 because they were <LLOQ. Re-calculated average values for PFOS in fish at sampling locations 2 and 3 and PFOA in sediment at sampling location 3 in tables 1 and 8 using LLOQ values for samples < LLOQ.

SIGNATURE PAGE

We certify that this report is a true and complete representation of the data for this study:

Mark E. Ellefson,
Study Director

09/12/03
Date

William K. Reagen,
Testing Facility Management

09/12/03
Date

ATTACHMENT A: ANALYTICAL METHOD AND SOP DEVIATIONS

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3M ENVIRONMENTAL LABORATORY

METHOD

ANALYSIS OF WASTE STREAM, WATER EXTRACTS OR OTHER SYSTEMS USING HPLC-ELECTROSPRAY/MASS SPECTROMETRY

Method Number: ETS-8-155.1 **Adoption Date:** 11/10/00

Revision Date: 5/30/01

Author: Mark L. Anderson, Mark E. Ellefson

Approved By:

Laboratory Manager 5/30/01
Date

Group Leader 5/30/01
Date

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1.0 SCOPE AND APPLICATION

1.1 Scope: This method describes the analysis of waste stream, water samples or other systems using HPLC-electrospray/mass spectrometry.

1.1.1 Specific analytes, ions, matrices, solvents, solutions, quality controls, internal standard(s) and other parameters will be defined in the protocol or the sample preparation worksheet(s).

1.2 Applicable Compounds: Electrospray ionizable compounds.

1.3 Matrices:

1.3.1 Waste Streams and other systems may consist of aqueous and/or organic solvent systems or as designated in the protocol or sample preparation worksheet(s).

1.3.2 Water Samples include tap water, ground water, wastewater and other aqueous solutions. The matrix will be defined by the protocol or sample preparation worksheet(s).

2.0 SUMMARY OF METHOD

2.1 This method describes the analysis of electrospray ionizable compounds, using HPLC-electrospray mass spectrometry (HPLC-ES/MS). The analysis is performed by the mass selection of a single ion characteristic of a particular compound.

3.0 DEFINITIONS

3.1 Atmospheric Pressure Ionization (API): Commercially available HPLC-ES/MS single quadrupole systems allow for various methods of ionization by utilizing a variety of sources, probes, and interfaces. These include but are not limited to: Electrospray Ionization (ESI), Atmospheric Pressure chemical Ionization (APcI), Thermospray, etc. The ionization in these processes occurs at atmospheric pressure (i.e., not under a vacuum).

3.2 Electrospray Ionization (ES, ESI): A method of ionization performed at atmospheric pressure, whereby ions in solution are transferred to the gas phase via tiny charged droplets. These droplets are produced by the application of a strong electrical field.

3.3 Mass Spectrometer (MS): Commercially manufactured MS systems are equipped with single quadrupole mass selective detectors. Ions are selected on the basis of mass to charge ratio (m/z) and subsequently detected.

3.4 Micromass MassLynx / HP ChemStation Software: System software designed for the specific operation of an HPLC-ES/MS. Please refer to the manual for the specific instrument software.

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4.0 WARNINGS AND CAUTIONS

4.1 Health and Safety Warnings:

4.1.1 Use caution with the voltage cables for the electrospray probe. When engaged, the probe employs a voltage of approximately 5000 Volts.

4.1.2 When handling samples or solvents wear appropriate protective clothing, gloves, and eyewear.

4.2 Cautions:

4.2.1 Operate solvent pumps below a backpressure of 400 bar (5800 psi). If the backpressure exceeds 400 bar, the HP1100 will initiate automatic shutdown.

4.2.2 Do not run solvent pumps to dryness.

5.0 INTERFERENCES

5.1 To minimize interferences when analyzing samples, Teflon should not be used for sample storage or any part of instrumentation that comes in contact with the sample or extract.

6.0 EQUIPMENT

6.1 Equipment listed below may be modified in order to optimize the system. Document any modifications in the raw data as method deviations.

6.1.1 Micromass Platform LCZ Mass Spectrometer (or equivalent) equipped with an electrospray ionization source.

6.1.2 HP1100 low pulse solvent pump, solvent degasser, column compartment, and autosampler or equivalent HPLC system.

7.0 SUPPLIES AND MATERIALS

7.1 Supplies

7.1.1 High purity grade nitrogen gas regulated to approximately 100 psi (or house air system.).

7.1.2 HPLC analytical column, such as a Betasil C18 column (50x2mm, 5 µm particle size) or equivalent.

7.1.3 Capped autovials or capped 15 mL centrifuge tubes.

8.0 REAGENTS AND STANDARDS

8.1 Reagents:

8.1.1 Methanol, HPLC grade or equivalent.

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8.1.2 Milli-Q™ water (ASTM type I), all water used in this method should be Milli-Q™ water or equivalent, and may be provided by a Milli-Q TOC Plus system or another vendor.

8.1.3 Ammonium acetate, reagent grade or equivalent.

8.1.3.1 When preparing different amounts than those listed, adjust accordingly.

8.1.3.2 2.0 mM ammonium acetate solution: Weigh approximately 0.300 g ammonium acetate. Pour into a 2000 L volumetric flask, add the appropriate volume of Milli-Q water, mix until all solids are dissolved. Store at room temperature.

8.1.4 Other solvents and solutions may be used as stated in the protocol or the sample preparation worksheet.

8.2 Calibration Standards:

8.2.1 Typically two method blanks (Milli-Q water), two matrix blanks, and a minimum of 5 solvent standards are analyzed with each group of samples.

9.0 SAMPLE HANDLING

9.1 Standards and prepared samples may be stored in capped autovials, capped 15 mL centrifuge tubes or other suitable containers until analysis.

9.2 If analysis will be delayed, standards and prepared samples may be refrigerated at approximately 4° C until analyses can be performed (refrigerator temperatures may have a detrimental affect on the solubility of saturated solutions).

10.0 QUALITY CONTROL

10.1 Blanks:

10.1.1 Solvent blanks, method blanks, and matrix blanks are prepared and analyzed with each sample set to determine contamination or carryover.

10.1.1.1 When the study matrices consist of highly purified solvents such as Type 1 water or HPLC grade organic solvents, the method and matrix blanks may be represented by a single solvent blank.

10.1.2 Solvent blanks should be analyzed prior to each calibration curve. Method blanks and matrix blanks should be analyzed after the initial calibration curve but prior to the study samples. If carryover is a problem, consecutive solvent blanks may be necessary.

10.2 Matrix Spikes:

10.2.1 Matrix spikes may be prepared for each set of extracted samples (if applicable to the study) and analyzed to determine extraction efficiency.

10.2.2 Matrix spike duplicates may be prepared periodically to measure the precision associated with the analysis.

10.2.3 Analyze the matrix spike and matrix spike duplicate (if prepared) in the same run as the original sample.

10.2.4 Matrix spike and matrix spike duplicate concentrations should fall in the mid-range of the initial calibration curve or should be prepared at 1.5-5 times the endogenous concentration of the analyte. Spike concentrations should fall in the low-range of the initial calibration curve if extremely low levels are expected.

10.3 Continuing Calibration Verifications:

10.3.1 Continuing calibration verifications (CCV) are analyzed to verify the continued accuracy of the calibration curve.

10.3.2 Analyze a mid-range calibration standard after every tenth sample, with a minimum of one per sample set.

10.4 Internal Standard/Surrogate Standard:

10.4.1 An internal standard (IS) may be used to quantify the target analytes by establishing a relationship between the ratio of analyte response to IS response and a known concentration of the analyte of interest. The IS should be spiked at an amount that will fall within the mid-range of the calibration curve. The IS should be added after the extraction process and before analysis.

10.4.2 A surrogate standard may be used for quality control. The surrogate is used to quantitatively evaluate the entire analytical procedure including sample preparation and analysis. The surrogate should be spiked at the beginning of the sample preparation and should fall within the low to mid-range of the calibration curve.

11.0 CALIBRATION AND STANDARDIZATION

11.1 Analyze the standard curves prior to and following each set of samples. The average of two standard curves may be plotted by linear regression ($y = mx + b$) weighted 1/x, or quadratic fit ($y = ax^2 + bx + c$) using MassLynx or other suitable software. The calibration curves should not be forced through zero.

11.1.1 The closing calibration curve may be excluded if the CCV's meet acceptable criteria. If only the first curve is used, the calibration and standardization parameters are the same.

11.2 If the initial calibration curve does not meet acceptance criteria perform routine maintenance or prepare a new standard curve (if necessary) and reanalyze.

11.3 For purposes of accuracy when quantitating low levels of analyte, it may be necessary to use the low end of the calibration curve rather than the full range. Example: when

attempting to quantitate approximately 10 ppb of analyte, generate a calibration curve consisting of the standards from 5 ppb to 100 ppb rather than the full range of the curve (5 ppb to 1000 ppb). This will reduce inaccuracy attributed to linear regression weighting of high concentration standards.

11.4 High and/or low points may be excluded from the calibration curves to provide a better fit over the linear range appropriate to the data or because they did not meet the pre-determined acceptance criteria. Low-level curve points should also be excluded if their area counts are not at least twice that of the method blanks. Justification for exclusion of calibration curve points will be noted in the raw data.

11.4.1 A minimum of 5 points will be used to construct the calibration curve.

12.0 PROCEDURES

12.1 Acquisition set-up – please reference the SOP that pertains to the specific instrument. Actual parameters will be recorded on the instrument printouts.

12.1.1 Set up the sample list.

12.1.1.1 Assign a sample list filename using the first letter of the name of the instrument (T for Tucker), the year (00 for 2000), the month (04 for April), and the day (T001012 for October 12, 2000 on Tucker). If more than one list is made on the same day, use increasing letters of the alphabet starting with A at the end of the list.

12.1.1.2 Assign a method (MS) file.

12.1.1.3 Assign an HPLC program (Inlet file).

12.1.1.4 Type in sample descriptions and vial position numbers.

12.1.2 To create a method, click on method in the Acquisition control panel then mass spectrometer headings and select SIR. Set ionization mode as appropriate and mass to 499 or other appropriate masses. A full scan is usually collected in addition to the SIRs. Save acquisition method. See the Micromass MassLynx GUIDE TO DATA ACQUISITION for additional information.

12.1.3 Typically the analytical batch run sequence begins and ends with a set of solvent standards.

12.1.4 Samples are analyzed with a continuing calibration verification (CCV) injected after every tenth sample. Solvent blanks should be analyzed periodically to monitor for possible analyte carryover.

12.2 Using the Autosampler/Column Heater

12.2.1 Place sample vials into the sample tray according to the sample list prepared in Section 12.1.1.

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12.2.2 Attach the proper analytical column in the column heater compartment. If using the switching valve, ensure that the tubing is run to the appropriate ports.

12.3 Using the Inlet Editor

12.3.1 Set-up the HP1100 using the following conditions or at conditions the analyst considers appropriate for optimal response. Record actual conditions in the instrument logbook:

12.3.1.1 Sample size = 10 µL injection

12.3.1.2 Flow rate = 300 µL/min.

12.3.1.3 Cycle time = 10.0 minutes

12.3.1.4 Mobile phase components:
Solvent A: 2.0 mM Ammonium Acetate in Water
Solvent B: Methanol (MeOH)
Solvent Gradient:

Time (min.)	% B
0.00	5.00 %
1.00	5.00 %
4.50	95.0 %
8.00	95.0 %
8.50	5.00 %
10.0	Stop

12.4 Instrument Set-up

12.4.1 Refer to the Platform LCZ User's Guide, the MassLynx NT User's Guide, the **ETS-9-36,** "Operation and Maintenance of the Micromass Platform LCZ Electrospray/Mass Spectrometer", or the SOP that pertains to the specific instrument.

12.4.2 Check the solvent level in reservoirs and refill if necessary.

12.4.3 Check the tip of the stainless steel capillary at the end of the probe with an eyepiece. The tip should be flat with no jagged edges. If the tip is found to be unsatisfactory, disassemble the probe and replace the stainless steel capillary.

12.4.4 Turn on the nebulizing gas.

12.4.5 Open the tune page. Click on 'Operate' to initiate the desolvation heaters.

12.4.6 Open the Inlet Editor.

12.4.6.1 Set HPLC pump to "On".

12.4.6.2 Set the solvent flow to the desired flow rate.

12.4.6.3 Observe droplets coming out of the tip of the probe. A fine mist should be expelled with no nebulizing gas leaking around the tip of the probe. Readjust the tip of the probe if no mist is observed.

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12.4.6.4 Allow to equilibrate for at least 10 minutes.

12.4.7 The instrument uses these parameters at the following settings. These settings may change in order to optimize the response. Actual parameters will be recorded on the instrument printouts.

12.4.7.1 Drying gas 250-425 liters/hour

12.4.7.2 ESI nebulizing gas 10-15 liters/hour

12.4.7.3 HPLC constant flow mode, flow rate 10 – 500 µL/min

12.4.7.4 Pressure <400 bar (This parameter is not set, it is a guide to ensure the HPLC is operating correctly.)

12.4.7.5 Source Block temperature 150°.

12.4.7.6 Desolvation temperature 250°.

12.4.8 Print the tune page with its parameters, the Inlet page, sample list, mass spectrometer information, and all other applicable information and store it in the study binder with copies taped into the instrument run logbook.

12.4.8.1 All copies must be initialed and dated.

12.4.9 Click on start button on the MassLynx toolbar. Ensure beginning and ending sample numbers encompass all samples to be analyzed.

13.0 DATA ANALYSIS AND CALCULATIONS

13.1 Calculations (including, but not limited to):

13.1.1 Calculate matrix spike percent recoveries using the following equation:

$$\% \text{ Recovery} = \frac{\text{Observed Result - Background Result}}{\text{Expected Result}} \times 100$$

13.1.2 Calculate percent difference using the following equation:

$$\% \text{ Difference} = \frac{\text{Expected Conc. - Calculated Conc.}}{\text{Expected Conc.}} \times 100$$

13.1.3 Calculate actual concentration of analyte in matrix (µg/mL):

On-Column Concentration (µg/mL) x Dilution Factors = Calculated Concentration

14.0 METHOD PERFORMANCE

14.1 The Limit of Quantitation (LOQ) is method, analyte, and matrix specific. For many analytes, the LOQ concentration is selected as the lowest acceptable non-zero standard in the calibration curve.

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14.2 Solvent and method blank area counts must be < ½ that of the lowest standard used in the calibration curve.

14.3 The coefficient of determination (r^2) value for the calibration curve must be greater than or equal to 0.980.

14.4 Continuing Calibration Verification (CCV) percent recoveries must be ± 30% of the standard concentration.

14.5 Internal Standard recoveries should be within ± 50% of the spiked concentration.

14.6 If criteria listed in this method performance section are not met, maintenance may be performed on the system and samples reanalyzed or other actions as determined by the analyst. Document all actions in the raw data.

14.7 If data is to be reported when performance criteria have not been met, the data must be footnoted on tables and discussed in the text of the report.

15.0 POLLUTION PREVENTION AND WASTE MANAGEMENT

15.1 Sample extract waste and flammable solvent is disposed in high BTU containers, and glass pipette waste is disposed in broken glass containers located in the laboratory.

16.0 RECORDS

16.1 Each page generated for a study must have the following information included either in the header or hand written on the page: study or project number, acquisition method, integration method, sample name, extraction date, dilution factor (if applicable), and analyst.

16.2 Print the tune page, sample list, acquisition method and all other applicable information to include in the appropriate study folder. Copy these pages and tape into the instrument run logbook.

16.3 Plot the calibration curve then print these graphs and store in the study folder.

16.4 Print data integration summary, integration method, and chromatograms and file in the study binder.

16.5 Summarize data using suitable software and store in the study binder.

16.6 Back-up electronic data to appropriate medium. Record the file names and location of backed-up electronic data in the study binder.

16.7 Documentation of analyte(s) and all reference substances will include trace numbers, lot #'s, purity, expiration, and storage conditions.

17.0 ATTACHMENTS

17.1 None

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18.0 REFERENCES

18.1 Platform LCZ User's Guide, Micromass UK Limited, Tudor Road, Altrincham, WA14 5RZ; or Floats Road, Wythenshawe M23 9LZ; United Kingdom.

18.2 MassLynx NT User's Guide, Micromass UK Limited, Tudor Road, Altrincham, WA14 5RZ; or Floats Road, Wythenshawe M23 9LZ; United Kingdom.

18.3 MassLynx NT Guide To Data Acquisition, Micromass UK Limited, Tudor Road, Altrincham, WA14 5RZ; or Floats Road, Wythenshawe M23 9LZ; United Kingdom.

18.4 ETS-9-34.0, "Operation and Maintenance of Hewlett Packard HPLC 1100 System Equipped with a Mass Spectrometer Detector and/or a Photo Diode Array Detector".

18.5 ETS-9-36.0, "Operation and Maintenance of the Micromass Platform LCZ Electrospray/Mass Spectrometer".

19.0 AFFECTED DOCUMENTS

19.1 None

20.0 REVISIONS

Revision Number	Reason For Revision	Revision Date
1	Title Change	09 May 01
	Section 1: Enlarged the scope of the method by including additional matrices. Also added comments about specific parameters will be defined in the protocol or prep sheets.	
	Sections 1 and 2: Removed references to specific compounds.	
	Section 3: Removed paragraph on Conventional vs. Z-Spray probe interface.	
	Section 3: Changed to allow different systems and software.	
	Section 8: Added paragraph allowing for the use of alternative solvents and solutions.	
	Section 9: Broadened the types of storage containers and conditions.	
	Section 10: Added comments to allow for flexibility in quality controls for different types of studies and applicability.	
	Section 11: Added a paragraph allowing for the excluding of the second curve.	
	Section 11: Added a paragraph (11.4) allowing for the dropping of curve points and minimum number of curve points needed.	
	Section 12: Added comments to reference the specific SOP's for set-up.	
	Section 12: Corrected numbering.	
	Section 16: Added paragraph on records of analytes and substances.	
	Section 18: Added reference to the method for the Hewlett-Packard LC/MS.	

Record of Deviation

I. Identification

Study / Project No.

TN River Valley E02-0443

Deviation Type: ☐ SOP ☒ Method ☐ Equipment Procedure
(Check one) ☐ Protocol ☐ Other:

Document Number: ETS-4-04.0 Date(s) of occurrence: 17 June 2002 - 18 Oct 2002

II. Description:

Required Procedure/process: ETS-4-04.0 section 4 states, "It is the responsibility of anyone handling samples to record the movement of those samples on the internal chain of custody form."

Actual Procedure/process: The internal chain of custody forms were not generated or used in the course of this study.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)

No additional action will be taken, as the information cannot be recalled so long after the fact.

Recorded By: [signature] Date: 17 Dec 02

IV. Impact on Study / Project

This deviation does not adversely affect the quality of the data.

Authorized By: *(Study Director / Project Lead)* [signature] Date: 12/17/02

3M Environmental Laboratory

Deviation No. 1
(assigned by Study Director or Project Lead at the end of study or project)

ATTACHMENT B: DATA SUMMARY TABLES

D020626Extracted

Large Mouth, Extractec Curve

Sample Location-1

SampType	File	Sample Name	Sample Info	PFBS (298) Area	PFBS (298) Amount ng/mL	PFBS (298) %	PFHS (399) Area	PFHS (399) Amount ng/mL	PFHS (399) %	PFOA (413) Area	PFOA (413) Amount ng/mL	PFOA (413) %	FOSA (498) Area	FOSA (498) Amount ng/mL	FOSA (498) %	PFOS (499) Area	PFOS (499) Amount ng/mL	PFOS (499) %
SAMPLE	DUDE0001.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	11468	BLOQ		47810	BLOQ		66650	BLOQ		49116	BLOQ		2039407	18.2	
SAMPLE	DUDE0002.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	9921	BLOQ		16419	BLOQ		19281	BLOQ		5876	BLOQ		436630	BLOQ	
SAMPLE	DUDE0003.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	12093	BLOQ		9387	BLOQ		17157	BLOQ		5665	BLOQ		415178	BLOQ	
SAMPLE	DUDE0004.D	MeOH Blank	MeOH Blank	10382	BLOQ		7498	BLOQ		13070	BLOQ		4585	BLOQ		388000	BLOQ	
SAMPLE	DUDE0005.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2503768	119.1		2954681	82.1		1334540	71.1		2369984	76.6		3010959	49.1	
SAMPLE	DUDE0006.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2418147	109.7		2846566	78.7		1275760	67.8		2423168	78.5		2878455	44.8	
SAMPLE	DUDE0007.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2456885	112.2		2863384	79.3		1300501	69.0		1858068	58.0		2904106	45.7	
SAMPLE	DUDE0008.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2388272	108.8		2818857	77.8		1275063	67.5		2488809	80.8		2811132	42.7	
SAMPLE	DUDE0009.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2430941	110.8		2862102	79.2		1295279	68.7		2525257	82.1		2837807	43.5	
SAMPLE	DUDE0010.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	8380	BLOQ		12682	BLOQ		15350	BLOQ		8881	BLOQ		229008	BLOQ	
SAMPLE	DUDE0011.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	13102	BLOQ		7139	BLOQ		11785	BLOQ		6280	BLOQ		226558	BLOQ	
SAMPLE	DUDE0012.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	10152	BLOQ		5403	BLOQ		10854	BLOQ		6219	BLOQ		229576	BLOQ	
SAMPLE	DUDE0013.D	02003-50-01	02003-50-01; 1.0ppb Fish Curves; CMC; 20 Jun 02	41605	BLOQ		41847	BLOQ		25642	BLOQ		29611	BLOQ		264722	BLOQ	
SAMPLE	DUDE0014.D	02003-50-02	02003-50-02; 2.5ppb Fish Curves; CMC; 20 Jun 02	89383	2.3		98382	1.9		51665	BLOQ		71308	BLOQ		326649	BLOQ	
SAMPLE	DUDE0015.D	02003-50-03	02003-50-03; 5.0ppb Fish Curves; CMC; 20 Jun 02	162283	5.0		191729	4.2		94899	3.1		136116	BLOQ		407979	BLOQ	
SAMPLE	DUDE0016.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	313833	10.7		377027	9.0		182546	7.5		275176	9.2		578578	BLOQ	
SAMPLE	DUDE0017.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	738433	27.8		909371	22.8		422134	18.9		683598	19.8		1048115	BLOQ	
SAMPLE	DUDE0018.D	02003-50-06	02003-50-06; 50.0ppb Fish Curves; CMC; 20 Jun 02	1369316	54.8		1648232	43.2		765880	38.4		1376588	42.8		1748100	8.2	
SAMPLE	DUDE0019.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2487273	114.1		2899062	83.2		1368745	73.1		2665321	87.0		2980202	49.1	
SAMPLE	DUDE0020.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	5416418	0.0		6420285	222.0		2838843	167.1		6144958	220.3		6053335	155.3	
SAMPLE	DUDE0021.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	8898783	0.0		10181360	0.0		4830578	0.0		11083740	468.1		9834704	317.6	
SAMPLE	DUDE0022.D	02003-50-10	02003-50-10; 750.0ppb Fish Curves; CMC; 20 Jun 02	11893273	0.0		13459033	0.0		6486588	0.0		15296357	0.0		13136147	525.2	
SAMPLE	DUDE0023.D	02003-50-11	02003-50-11; 1000.0ppb Fish Curves; CMC; 20 Jun 02	14909495	0.0		17313378	0.0		8071214	0.0		18969199	0.0		16181867	0.0	
SAMPLE	DUDE0024.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	23858	BLOQ		96646	1.8		54207	BLOQ		72812	BLOQ		323661	BLOQ	
SAMPLE	DUDE0025.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	12327	BLOQ		24965	BLOQ		21484	BLOQ		26914	BLOQ		262716	BLOQ	
SAMPLE	DUDE0026.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	8959	BLOQ		12207	BLOQ		13488	BLOQ		13489	BLOQ		248971	BLOQ	
SAMPLE	DUDE0027.D	MeOH Blank	MeOH Blank	11411	BLOQ	Ave:	14255	BLOQ	Ave:	7688	BLOQ	Ave:	9901	BLOQ	Ave:	218952	BLOQ	Ave:
SAMPLE	DUDE0028.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2274335	101.2	101.2	3526239	100.5	100.8	1778683	99.0	98.1	3172655	105.1	104.4	4705607	106.3	106.3
SAMPLE	DUDE0029.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2274388	101.3	+0%	3504798	100.0	+0%	1754228	97.4	+0%	3150804	104.3	+0%	4692547	105.8	+0%
SAMPLE	DUDE0030.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2277364	101.4	100.2	3518282	100.4	105.6	1757388	97.8	103.0	3136625	103.8	108.6	4684663	105.6	111.6
SAMPLE	DUDE0031.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2263052	100.6	-0%	3511040	100.2	-0%	1744340	96.7	-0%	3129642	103.6	-0%	4686483	106.0	-0%
SAMPLE	DUDE0032.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2278023	101.3	98.1	3553164	101.6	95.5	1790498	99.7	93.2	3173468	105.2	99.2	4744953	107.7	101.0
SAMPLE	DUDE0033.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	9354	BLOQ		20535	BLOQ		18822	BLOQ		17235	BLOQ		267442	BLOQ	
SAMPLE	DUDE0034.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	11837	BLOQ		10148	BLOQ		12252	BLOQ		7115	BLOQ		240911	BLOQ	
SAMPLE	DUDE0035.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	9136	BLOQ		5771	BLOQ		10010	BLOQ		5823	BLOQ		239340	BLOQ	
SAMPLE	DUDE0036.D	MeOH Blank	MeOH Blank	10409	BLOQ		4349	BLOQ		6402	BLOQ		5992	BLOQ		218537	BLOQ	
SAMPLE	DUDE0037.D	MeOH Blank	MeOH Blank	10037	BLOQ		3452	BLOQ		5822	BLOQ		4864	BLOQ		215836	BLOQ	
CALIB_1	DUDE0038.D	02003-52-12	Extracted LM Fish Curve, 02003-52-12, 0ppb, MLA/CMC/MEE, 21J	20563	BLOQ		10587	BLOQ		25816	BLOQ		72088	BLOQ		1476871	0.8	
CALIB_2	DUDE0039.D	02003-52-01	Extracted LM Fish Curve, 02003-52-01, 1ppb, MLA/CMC/MEE, 21J	97713	1.1	104%	56304	0.8	82%	44568	0.5	52%	127012	1.5	148%	1479619	0.9	91%
CALIB_3	DUDE0040.D	02003-52-02	Extracted LM Fish Curve, 02003-52-02, 2.5ppb, MLA/CMC/MEE, 2	93564	2.4	96%	121858	2.5	99%	63636	2.5	99%	176388	3.0	122%	1526913	2.4	94%
CALIB_4	DUDE0041.D	02003-52-03	Extracted LM Fish Curve, 02003-52-03, 5ppb, MLA/CMC/MEE, 21J	175403	5.5	109%	228617	5.2	104%	135857	5.1	102%	247817	5.3	107%	1606954	4.6	86%
CALIB_5	DUDE0042.D	02003-52-04	Extracted LM Fish Curve, 02003-52-04, 10ppb, MLA/CMC/MEE, 21	308045	10.5	105%	414975	10.0	100%	241912	10.5	105%	374721	9.5	95%	1676276	6.9	69%
CALIB_6	DUDE0043.D	02003-52-05	Extracted LM Fish Curve, 02003-52-05, 25ppb, MLA/CMC/MEE, 21	700483	26.0	104%	1016718	25.8	103%	533870	25.8	103%	835162	24.5	98%	3027311	25.3	101%
CALIB_7	DUDE0044.D	02003-52-06	Extracted LM Fish Curve, 02003-52-06, 50ppb, MLA/CMC/MEE, 21	1167315	45.7	91%	1639839	48.7	97%	945843	48.4	97%	1493003	46.5	93%	3027311	48.7	99%
CALIB_8	DUDE0045.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 2	2304902	103.0	103%	3523768	100.7	101%	1806109	100.8	101%	3156818	104.5	105%	4743504	107.8	108%
CALIB_9	DUDE0046.D	02003-52-08	Extracted LM Fish Curve, 02003-52-08, 250ppb, MLA/CMC/MEE, 2	5742000	248.2	99%	8682502	249.9	100%	3537561	249.9	100%	6802204	248.2	99%	8251388	244.3	98%
CALIB_10	DUDE0047.D	02003-52-09	Extracted LM Fish Curve, 02003-52-09, 500ppb, MLA/CMC/MEE, 2	8038538	0.0	0%	11078105	0.0	0%	5744560	0.0	0%	11578840	500.4	100%	12850758	501.9	100%
CALIB_11	DUDE0048.D	02003-52-10	Extracted LM Fish Curve, 02003-52-10, 750ppb, MLA/CMC/MEE, 2	8597826	0.0	0%	13896205	0.0	0%	7213189	0.0	0%	15729907	0.0	0%	15899074	0.0	0%
CALIB_12	DUDE0049.D	02003-52-11	Extracted LM Fish Curve, 02003-52-11, 1000ppb, MLA/CMC/MEE,	10816329	0.0	0%	17163618	0.0	0%	8710123	0.0	0%	20557285	0.0	0%	19521324	0.0	0%
SAMPLE	DUDE0050.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	83716	BLOQ		95070	1.7		53251	BLOQ		50202	BLOQ		298254	BLOQ	
SAMPLE	DUDE0051.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	13823	BLOQ		29175	BLOQ		23249	BLOQ		23581	BLOQ		252557	BLOQ	
SAMPLE	DUDE0052.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	9990	BLOQ		19438	BLOQ		17829	BLOQ		18653	BLOQ		237490	BLOQ	
SAMPLE	DUDE0053.D	MeOH Blank	MeOH Blank	12165	BLOQ		10644	BLOQ		10682	BLOQ		14734	BLOQ		213259	BLOQ	
SAMPLE	DUDE0054.D	SL-1; LM-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16222	BLOQ		10272	BLOQ		16460	BLOQ		88111	BLOQ		2050350	16.5	
SAMPLE	DUDE0055.D	SL-1; LM-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14400	BLOQ		13458	BLOQ		30739	BLOQ		89974	BLOQ		1872319	13.9	
SAMPLE	DUDE0056.D	SL-1. LM-1-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11884	BLOQ		9881	BLOQ		16342	BLOQ		85375	BLOQ		1803432	14.0	
SAMPLE	DUDE0057.D	SL-1. LM-2-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	17630	BLOQ		13738	BLOQ		45678	BLOQ		142498	BLOQ		3450618	63.6	
SAMPLE	DUDE0058.D	SL-1. LM-2-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11577	BLOQ		13422	BLOQ		47254	BLOQ		142453	BLOQ		3385486	61.4	
SAMPLE	DUDE0059.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	7855	BLOQ		3969	BLOQ		9248	BLOQ		8887	BLOQ		223900	BLOQ	
SAMPLE	DUDE0060.D	SL-1. LM-2-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12831	BLOQ		11459	BLOQ		45304	BLOQ		132101	BLOQ		3256842	67.2	
SAMPLE	DUDE0061.D	SL-1. LM-2-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1033332	39.9	80%	1782686	46.5	93%	906864	46.2	92%	1340167	41.3	83%	4572412	108.1	210%
SAMPLE	DUDE0062.D	SL-1. LM-3-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14412	BLOQ		11239	BLOQ		16377	BLOQ		224518	BLOQ		3740436	73.2	
SAMPLE	DUDE0063.D	SL-1. LM-3-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11469	BLOQ		9750	BLOQ		15533	BLOQ		238312	BLOQ		3964778	80.8	
SAMPLE	DUDE0064.D	SL-1. LM-3-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14780	BLOQ		25262	BLOQ		13286	BLOQ		233662	BLOQ		4014918	82.4	
SAMPLE	DUDE0065.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2483358	113.9	114%	3043368	85.0	85%	1459295	78.7	79%	2877358	87.4	87%	3038328	50.0	50%
SAMPLE	DUDE0066.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	9492	BLOQ		10190	BLOQ		11811	BLOQ		7051	BLOQ		224556	BLOQ	
SAMPLE	DUDE0067.D	SL-1. LM-4-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16387	BLOQ		8180	BLOQ		20597	BLOQ		93348	BLOQ		3609899	68.8	
SAMPLE	DUDE0068.D	SL-1. LM-4-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	51072	BLOQ		48154	BLOQ		181861	8.4		97875	BLOQ		3814537	78.7	
SAMPLE	DUDE0069.D	SL-1. LM-4-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	15478	BLOQ		8042	BLOQ		26985	BLOQ		96219	BLOQ		3504381	66.3	
SAMPLE	DUDE0070.D	SL-1. LM-4-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1199328	47.1	94%	1778682	48.7	93%	938848	48.8	96%	1680216	48.7	93%	4666702	104.8	210%
SAMPLE	DUDE0071.D	SL-1. LM-5-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	19871	BLOQ		10238	BLOQ		30551	BLOQ		173270	BLOQ		2931185	46.6	
SAMPLE	DUDE0072.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	10330	BLOQ		4252	BLOQ		9534	BLOQ		4830	BLOQ		222068	BLOQ	
SAMPLE	DUDE0073.D	SL-1. LM-5-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	19049	BLOQ		8646	BLOQ		27749	BLOQ		160706	BLOQ		2774646	41.6	
SAMPLE	DUDE0074.D	SL-1. LM-5-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	18868	BLOQ		5474	BLOQ		19466	BLOQ		155680	BLOQ		2692728	38.8	
SAMPLE	DUDE0075.D	SL-1. LM-6-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11412	BLOQ		8788	BLOQ		18838	BLOQ		196808	BLOQ		3624282	69.3	
SAMPLE	DUDE0076.D	SL-1. LM-6-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10329	BLOQ		7471	BLOQ		19748	BLOQ		185860	BLOQ		3340180	68.9	
SAMPLE	DUDE0077.D	SL-1. LM-6-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9145	BLOQ		7480	BLOQ		25754	BLOQ		197207	BLOQ		3525107	66.8	
SAMPLE	DUDE0078.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2451622	111.9	112%	3045748	85.0	85%	1488818	80.4	80%	2644901	88.3	96%	5004248	49.9	49%
SAMPLE	DUDE0079.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	8315	BLOQ		8194	BLOQ		10435	BLOQ		7634	BLOQ		220280	BLOQ	
SAMPLE	DUDE0080.D	SL-1. LM-6-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1262808	50.8	100%	1784293	47.4	99%	914958	48.7	83%	1667460	50.4	101%	4648763	104.3	209%
SAMPLE	DUDE0081.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2445634	111.5	112%	3008932	83.8	84%	1477410	79.8	80%	2687949	87.6	88%	2908564	48.7	49%
SAMPLE	DUDE0082.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	10160	BLOQ		10853	BLOQ		11394	BLOQ		8081	BLOQ		214379	BLOQ	
SAMPLE	DUDE0083.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rpa); MLA/MEE	10271	BLOQ		4811	BLOQ		9419	BLOQ		4656	BLOQ		205247	BLOQ	

Exact Copy of Original

MIA 17Dec02

Initial Date

D020628

Large Mouth, Extracted Curve

Sample Locations 2 and 3

SampType	File	Sample Name	Sample Info	PFBS (299) Area	PFBS (299) Amount ng/mL	%	PFHS (399) Area	PFHS (399) Amount ng/mL	%	PFOA (413) Area	PFOA (413) Amount ng/mL	%	FOSA (498) Area	FOSA (498) Amount ng/mL	%	PFOS (499) Area	PFOS (499) Amount ng/mL	%
SAMPLE	DUDE0001.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	50959	BLOQ		18058	BLOQ		94045	BLOQ		12386	BLOQ		1809908	17.9	
SAMPLE	DUDE0002.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	8821	BLOQ		2881	BLOQ		10393	BLOQ		1862	BLOQ		159942	BLOQ	
SAMPLE	DUDE0003.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	6577	BLOQ		1148	BLOQ		7861	BLOQ		0	BLOQ		125881	BLOQ	
SAMPLE	DUDE0004.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	6406	BLOQ		1461	BLOQ		7526	BLOQ		0	BLOQ		100086	BLOQ	
SAMPLE	DUDE0005.D	MeOH Blank	MeOH Blank	7521	BLOQ		821	BLOQ		5039	BLOQ		0	BLOQ		89186	BLOQ	
SAMPLE	DUDE0006.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2097416	96.8		2466503	70.4		1089189	60.1		2504397	86.1		2332782	35.6	
SAMPLE	DUDE0007.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2113063	97.7		2524852	72.2		1122472	62.2		2553024	88.0		2378213	37.1	
SAMPLE	DUDE0008.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2096675	96.7		2488024	71.0		1115770	61.8		2539110	87.4		2357322	36.4	
SAMPLE	DUDE0009.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2134843	99.0		2519529	72.0		1118688	62.0		2523183	86.8		2373987	37.0	
SAMPLE	DUDE0010.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2192818	102.5		2611526	75.0		1165448	64.9		2603528	89.8		2459095	39.9	
SAMPLE	DUDE0011.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12104	BLOQ		7369	BLOQ		10027	BLOQ		8230	BLOQ		110224	BLOQ	
SAMPLE	DUDE0012.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10360	BLOQ		3422	BLOQ		9848	BLOQ		3811	BLOQ		114843	BLOQ	
SAMPLE	DUDE0013.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	9357	BLOQ		2233	BLOQ		9309	BLOQ		2881	BLOQ		114084	BLOQ	
SAMPLE	DUDE0014.D	02003-50-01	02003-50-01; 1.0ppb Fish Curves; CMC; 20 Jun 02	40598	BLOQ		36790	BLOQ		21888	BLOQ		29094	BLOQ		144249	BLOQ	
SAMPLE	DUDE0015.D	02003-50-02	02003-50-02; 2.5ppb Fish Curves; CMC; 20 Jun 02	79832	BLOQ		88911	BLOQ		43348	BLOQ		68096	BLOQ		190043	BLOQ	
SAMPLE	DUDE0016.D	02003-50-03	02003-50-03; 5.0ppb Fish Curves; CMC; 20 Jun 02	147223	4.7		170106	4.1		76384	BLOQ		135045	BLOQ		262706	BLOQ	
SAMPLE	DUDE0017.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	278769	10.0		330293	8.4		143140	BLOQ		267223	6.4		399450	BLOQ	
SAMPLE	DUDE0018.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	648125	25.2		781797	20.8		346389	16.5		684935	20.8		805138	BLOQ	
SAMPLE	DUDE0019.D	02003-50-06	02003-50-06; 50.0ppb Fish Curves; CMC; 20 Jun 02	1182803	49.1		1446674	39.4		641237	33.2		1318971	43.0		1394181	4.1	
SAMPLE	DUDE0020.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2213027	103.7		2681369	76.6		1224481	68.7		2684444	92.1		2563920	43.5	
SAMPLE	DUDE0021.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	4687283	0.0		5544628	190.7		2662501	178.5		6102827	232.9		5321489	145.7	
SAMPLE	DUDE0022.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	8112712	0.0		9691179	0.0		4595891	0.0		10742575	487.1		8993026	313.3	
SAMPLE	DUDE0023.D	02003-50-10	02003-50-10; 750.0ppb Fish Curves; CMC; 20 Jun 02	10964737	0.0		12472035	0.0		5988498	0.0		14986326	0.0		12134512	527.0	
SAMPLE	DUDE0024.D	02003-50-11	02003-50-11; 1000.0ppb Fish Curves; CMC; 20 Jun 02	13967277	0.0		16323761	0.0		7595063	0.0		18518442	0.0		15037719	0.0	
SAMPLE	DUDE0025.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	54355	BLOQ		71782	BLOQ		37974	BLOQ		73021	BLOQ		165191	BLOQ	
SAMPLE	DUDE0026.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	22742	BLOQ		27172	BLOQ		19431	BLOQ		28674	BLOQ		128816	BLOQ	
SAMPLE	DUDE0027.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	15701	BLOQ		14497	BLOQ		14944	BLOQ		17854	BLOQ		120883	BLOQ	
SAMPLE	DUDE0028.D	MeOH Blank	MeOH Blank	9258	BLOQ	Ave:	6054	BLOQ	Ave:	8765	BLOQ	Ave:	15076	BLOQ	Ave:	108711	BLOQ	Ave:
SAMPLE	DUDE0029.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2136691	99.1	100.5	3299922	98.1	98.2	1693045	100.1	98.9	3057430	107.0	104.8	4340857	107.6	105.9
SAMPLE	DUDE0030.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2150469	99.9	+5%	3297998	98.0	+5%	1663714	98.1	+5%	2998627	104.8	+5%	4284295	105.5	+5%
SAMPLE	DUDE0031.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2168969	101.0	105.5	3299591	98.0	103.1	1665818	98.2	103.8	2985981	104.3	110.0	4283089	105.5	111.2
SAMPLE	DUDE0032.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2173663	101.3	-5%	3303476	98.2	-5%	1678355	99.1	-5%	2975217	103.9	-5%	4274715	105.2	-5%
SAMPLE	DUDE0033.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2169627	101.1	95.5	3312131	98.5	93.2	1676355	98.9	93.9	2979648	104.0	99.6	4287052	105.6	100.6
SAMPLE	DUDE0034.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	17369	BLOQ		16156	BLOQ		15186	BLOQ		14625	BLOQ		122043	BLOQ	
SAMPLE	DUDE0035.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	14649	BLOQ		10401	BLOQ		12972	BLOQ		7774	BLOQ		119551	BLOQ	
SAMPLE	DUDE0036.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10374	BLOQ		4525	BLOQ		10380	BLOQ		4250	BLOQ		109078	BLOQ	
SAMPLE	DUDE0037.D	MeOH Blank	MeOH Blank	8462	BLOQ		3295	BLOQ		6851	BLOQ		3749	BLOQ		97974	BLOQ	
SAMPLE	DUDE0038.D	MeOH Blank	MeOH Blank	8692	BLOQ		2787	BLOQ		6723	BLOQ		3214	BLOQ		99223	BLOQ	
CALIB_1	DUDE0039.D	02003-52-12	Extracted LM Fish Curve, 02003-52-12, 0ppb, MLA/CMC/MEE, 21J	21067	569.3		10699	786.2		17661	815.7		94773	0.6		1282938	0.4	
CALIB_2	DUDE0040.D	02003-52-01	Extracted LM Fish Curve, 02003-52-01, 1ppb, MLA/CMC/MEE, 21J	60138	1.3	133%	56215	1.1	111%	60008	0.9	91%	120484	1.5	145%	1278724	0.3	28%
CALIB_3	DUDE0041.D	02003-52-02	Extracted LM Fish Curve, 02003-52-02, 2.5ppb, MLA/CMC/MEE, 2	91267	2.5	102%	112619	2.6	104%	100880	3.1	124%	167037	3.0	121%	1341550	2.3	94%
CALIB_4	DUDE0042.D	02003-52-03	Extracted LM Fish Curve, 02003-52-03, 5ppb, MLA/CMC/MEE, 21J	167069	5.5	111%	215546	5.3	106%	148028	5.6	113%	232969	5.3	106%	1411190	4.6	93%
CALIB_5	DUDE0043.D	02003-52-04	Extracted LM Fish Curve, 02003-52-04, 10ppb, MLA/CMC/MEE, 21	293200	10.6	106%	391865	10.0	100%	216321	9.3	93%	353956	9.4	94%	1476936	6.8	68%
CALIB_6	DUDE0044.D	02003-52-05	Extracted LM Fish Curve, 02003-52-05, 25ppb, MLA/CMC/MEE, 21	658115	25.7	103%	953911	25.4	101%	501075	25.2	101%	786600	24.3	97%	2042497	25.7	103%
CALIB_7	DUDE0045.D	02003-52-06	Extracted LM Fish Curve, 02003-52-06, 50ppb, MLA/CMC/MEE, 21	1090200	44.8	90%	1737158	47.9	96%	896792	48.3	97%	1418401	46.6	93%	2752953	50.1	100%
CALIB_8	DUDE0046.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 2	2216763	103.9	104%	3395491	101.4	101%	1709568	101.3	101%	3008870	105.2	105%	4366004	108.6	109%
CALIB_9	DUDE0047.D	02003-52-08	Extracted LM Fish Curve, 02003-52-08, 250ppb, MLA/CMC/MEE, 2	3634849	248.1	99%	6538174	249.7	100%	3296780	249.8	100%	6431172	247.8	99%	7587865	243.3	97%
CALIB_10	DUDE0048.D	02003-52-09	Extracted LM Fish Curve, 02003-52-09, 500ppb, MLA/CMC/MEE, 2	5724285	0.0	0%	10427555	0.0	0%	5372557	0.0	0%	10931270	500.5	100%	11859285	502.3	100%
CALIB_11	DUDE0049.D	02003-52-10	Extracted LM Fish Curve, 02003-52-10, 750ppb, MLA/CMC/MEE, 2	8377812	0.0	0%	13413127	0.0	0%	6707917	0.0	0%	14992990	0.0	0%	14879436	0.0	0%
CALIB_12	DUDE0050.D	02003-52-11	Extracted LM Fish Curve, 02003-52-11, 1000ppb, MLA/CMC/MEE,	10572544	0.0	0%	16208147	0.0	0%	8094275	0.0	0%	19303282	0.0	0%	17939680	0.0	0%
SAMPLE	DUDE0051.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	135270	4.3		192927	4.7		96235	BLOQ		70840	BLOQ		262768	BLOQ	
SAMPLE	DUDE0052.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	40832	BLOQ		61845	BLOQ		39500	BLOQ		38081	BLOQ		184936	BLOQ	
SAMPLE	DUDE0053.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	21086	BLOQ		28251	BLOQ		23914	BLOQ		24175	BLOQ		142290	BLOQ	
SAMPLE	DUDE0054.D	MeOH Blank	MeOH Blank	10067	BLOQ		5192	BLOQ		8530	BLOQ		11350	BLOQ		104064	BLOQ	
SAMPLE	DUDE0055.D	SL-2; LM-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	21135	BLOQ		15514	BLOQ		35273	BLOQ		105159	BLOQ		1193997	BLOQ	
SAMPLE	DUDE0056.D	SL-2; LM-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	20629	BLOQ		14180	BLOQ		41609	BLOQ		101489	BLOQ		1187256	BLOQ	
SAMPLE	DUDE0057.D	SL-2. LM-1-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	19393	BLOQ		17841	BLOQ		56954	BLOQ		101159	BLOQ		1190911	BLOQ	
SAMPLE	DUDE0058.D	SL-2. LM-2-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	15144	BLOQ		10047	BLOQ		25432	BLOQ		65904	BLOQ		1348329	2.6	
SAMPLE	DUDE0059.D	SL-2 LM-2-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16562	BLOQ		8084	BLOQ		26800	BLOQ		82964	BLOQ		1282752	BLOQ	
SAMPLE	DUDE0060.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12113	BLOQ		6540	BLOQ		11928	BLOQ		5513	BLOQ		113317	BLOQ	
SAMPLE	DUDE0061.D	SL-2. LM-2-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	15081	BLOQ		7449	BLOQ		29311	BLOQ		62753	BLOQ		1291957	BLOQ	
SAMPLE	DUDE0062.D	SL-2. LM-2-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1126039	46.5	93%	1673683	43.1	86%	799701	42.5	85%	1431678	47.0	94%	2749840	50.0	100%

D020628

Large Mouth, Extracted Curve

Sample Locations 2 and 3

SampType	File	Sample Name	Sample Info	PFBS (299)			PFHS (399)			PFOA (413)			FOSA (499)			PFOS (499)		
				Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%
SAMPLE	DUDE0063.D	SL-2, LM-3-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	27942	BLOQ		33893	BLOQ		68066	BLOQ		98908	BLOQ		1563787	9.7	
SAMPLE	DUDE0064.D	SL-2, LM-3-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	22037	BLOQ		17063	BLOQ		38939	BLOQ		98985	BLOQ		1627015	11.8	
SAMPLE	DUDE0065.D	SL-2, LM-3-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	27896	BLOQ		21428	BLOQ		38700	BLOQ		63603	BLOQ		1527601	8.5	
SAMPLE	DUDE0066.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2135701	99.0	99%	3350258	99.8	100%	1733393	103.0	103%	2999036	104.8	105%	4333783	107.4	107%
SAMPLE	DUDE0067.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	15250	BLOQ		12038	BLOQ		14047	BLOQ		5994	BLOQ		118887	BLOQ	
SAMPLE	DUDE0068.D	SL-2, LM-4-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	19698	BLOQ		13396	BLOQ		27336	BLOQ		114107	BLOQ		2839052	53.1	
SAMPLE	DUDE0069.D	SL-2, LM-4-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16300	BLOQ		9478	BLOQ		22637	BLOQ		116125	BLOQ		2867832	54.1	
SAMPLE	DUDE0070.D	SL-2, LM-4-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13695	BLOQ		10665	BLOQ		23745	BLOQ		120542	BLOQ		2949014	56.9	
SAMPLE	**DUDE0071.D**	**SL-2, LM-4-MS**	**Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02**	**1216916**	**50.7**	**101%**	**1698038**	**48.8**	**94%**	**829194**	**44.2**	**88%**	**1643452**	**54.6**	**109%**	**4243848**	**104.0**	**208%**
SAMPLE	DUDE0072.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	11092	BLOQ		5806	BLOQ		10583	BLOQ		4334	BLOQ		116395	BLOQ	
SAMPLE	DUDE0073.D	SL-3, LM-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13207	BLOQ		10967	BLOQ		56656	BLOQ		79113	BLOQ		708361	BLOQ	
SAMPLE	DUDE0074.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12072	BLOQ		6304	BLOQ		12761	BLOQ		1944	BLOQ		113602	BLOQ	
SAMPLE	DUDE0075.D	SL-3, LM-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16695	BLOQ		12867	BLOQ		61587	BLOQ		74640	BLOQ		721142	BLOQ	
SAMPLE	DUDE0076.D	SL-3, LM-1-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	17998	BLOQ		16875	BLOQ		60835	BLOQ		78316	BLOQ		716542	BLOQ	
SAMPLE	DUDE0077.D	SL-3, LM-2-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	18608	BLOQ		14138	BLOQ		65490	BLOQ		24297	BLOQ		555350	BLOQ	
SAMPLE	DUDE0078.D	SL-3, LM-2-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	20045	BLOQ		12251	BLOQ		65730	BLOQ		28422	BLOQ		579044	BLOQ	
SAMPLE	DUDE0079.D	SL-3, LM-2-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13365	BLOQ		12807	BLOQ		65814	BLOQ		28165	BLOQ		577951	BLOQ	
SAMPLE	DUDE0080.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2215827	103.9	104%	3371428	100.6	101%	1719035	102.0	102%	2926002	102.0	102%	4280342	105.4	105%
SAMPLE	DUDE0081.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12223	BLOQ		7884	BLOQ		12470	BLOQ		6974	BLOQ		109802	BLOQ	
SAMPLE	**DUDE0082.D**	**SL-3, LM-2-MS**	**Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02**	**1081313**	**44.4**	**89%**	**1709286**	**47.1**	**94%**	**890972**	**48.0**	**96%**	**1168809**	**37.7**	**75%**	**2097226**	**27.5**	**55%**
SAMPLE	DUDE0083.D	SL-3, LM-3-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	17135	BLOQ		5762	BLOQ		17754	BLOQ		25464	BLOQ		518145	BLOQ	
SAMPLE	DUDE0084.D	SL-3, LM-3-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	15125	BLOQ		9758	BLOQ		26977	BLOQ		22172	BLOQ		587130	BLOQ	
SAMPLE	DUDE0085.D	SL-3, LM-3-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	17392	BLOQ		2170	BLOQ		10258	BLOQ		21371	BLOQ		496293	BLOQ	
SAMPLE	DUDE0086.D	SL-3, LM-4-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12907	BLOQ		3194	BLOQ		28754	BLOQ		61524	BLOQ		988184	BLOQ	
SAMPLE	DUDE0087.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12351	BLOQ		4062	BLOQ		10452	BLOQ		3118	BLOQ		104811	BLOQ	
SAMPLE	DUDE0088.D	SL-3, LM-4-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14774	BLOQ		5736	BLOQ		29406	BLOQ		63913	BLOQ		1013003	BLOQ	
SAMPLE	DUDE0089.D	SL-3, LM-4-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12936	BLOQ		7393	BLOQ		24746	BLOQ		64726	BLOQ		1029081	BLOQ	
SAMPLE	**DUDE0090.D**	**SL-3, LM-4-MS**	**Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02**	**1176816**	**48.8**	**98%**	**1764116**	**48.7**	**97%**	**884400**	**47.6**	**95%**	**1690195**	**52.7**	**105%**	**2613282**	**45.2**	**90%**
SAMPLE	DUDE0091.D	SL-3, LM-5-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12702	BLOQ		4025	BLOQ		14154	BLOQ		39242	BLOQ		651396	BLOQ	
SAMPLE	DUDE0092.D	SL-3, LM-5-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10423	BLOQ		3376	BLOQ		13751	BLOQ		39320	BLOQ		653519	BLOQ	
SAMPLE	DUDE0093.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2191355	102.4	102%	3341780	99.5	100%	1714082	101.6	102%	2957801	103.2	103%	4250640	104.2	104%
SAMPLE	DUDE0094.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	13212	BLOQ		11521	BLOQ		15422	BLOQ		8404	BLOQ		112614	BLOQ	
SAMPLE	DUDE0095.D	SL-3, LM-5-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14456	BLOQ		7306	BLOQ		16753	BLOQ		38880	BLOQ		639895	BLOQ	
SAMPLE	DUDE0096.D	SL-3, LM-6-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11345	BLOQ		5175	BLOQ		13113	BLOQ		27071	BLOQ		909192	BLOQ	
SAMPLE	DUDE0097.D	SL-3, LM-6-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13347	BLOQ		5301	BLOQ		15911	BLOQ		29221	BLOQ		894336	BLOQ	
SAMPLE	DUDE0098.D	SL-3, LM-6-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14376	BLOQ		4898	BLOQ		12044	BLOQ		27590	BLOQ		905987	BLOQ	
SAMPLE	**DUDE0099.D**	**SL-3, LM-6-MS**	**Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02**	**1038112**	**42.4**	**85%**	**1810901**	**44.2**	**88%**	**806762**	**42.9**	**86%**	**1389913**	**45.6**	**91%**	**2332101**	**35.5**	**71%**
SAMPLE	DUDE0100.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	11392	BLOQ		5498	BLOQ		11116	BLOQ		4786	BLOQ		106729	BLOQ	
SAMPLE	DUDE0101.D	SL-3, LM-7-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	23562	BLOQ		10037	BLOQ		68187	BLOQ		25030	BLOQ		911665	BLOQ	
SAMPLE	DUDE0102.D	SL-3, LM-7-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	24706	BLOQ		9487	BLOQ		62864	BLOQ		23637	BLOQ		906705	BLOQ	
SAMPLE	DUDE0103.D	SL-3, LM-7-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	22408	BLOQ		9540	BLOQ		53144	BLOQ		24212	BLOQ		883236	BLOQ	
SAMPLE	DUDE0104.D	SL-3, SM-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10955	BLOQ		11252	BLOQ		55673	BLOQ		41082	BLOQ		429027	BLOQ	
SAMPLE	DUDE0105.D	SL-3, SM-1-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11225	BLOQ		12780	BLOQ		52802	BLOQ		40143	BLOQ		469574	BLOQ	
SAMPLE	DUDE0106.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	8682	BLOQ		1589	BLOQ		11273	BLOQ		1557	BLOQ		108938	BLOQ	
SAMPLE	DUDE0107.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2204743	103.2	103%	3321756	98.8	99%	1717460	101.8	102%	2923130	101.9	102%	4240463	103.9	104%
SAMPLE	DUDE0108.D	SL-3, SM-1-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16091	BLOQ		13195	BLOQ		54265	BLOQ		44388	BLOQ		458983	BLOQ	
SAMPLE	**DUDE0109.D**	**SL-3, SM-1-MS**	**Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02**	**1086516**	**44.6**	**89%**	**1758242**	**48.6**	**97%**	**874431**	**47.0**	**94%**	**1058376**	**33.8**	**68%**	**2011814**	**24.6**	**49%**
SAMPLE	DUDE0110.D	02003-52-07	Extracted LM Fish Curve, 02003-52-07, 100ppb, MLA/CMC/MEE, 21Jun	2200277	102.9	103%	3366566	100.4	100%	1729537	102.7	103%	2896243	100.9	101%	4224486	103.3	103%
SAMPLE	DUDE0111.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	13921	BLOQ		8260	BLOQ		12946	BLOQ		8119	BLOQ		104595	BLOQ	
SAMPLE	DUDE0112.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10899	BLOQ		3180	BLOQ		9920	BLOQ		0	BLOQ		97958	BLOQ	
SAMPLE	DUDE0113.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	9151	BLOQ		1943	BLOQ		9396	BLOQ		0	BLOQ		97703	BLOQ	

D020629

CatFish, Extracted Curve

Sample Locations 1 and 2

SampType	File	Sample Name	Sample Info	PFBS (298) Area	PFBS (298) Amount ng/ml	PFBS (298) %	PFHS (398) Area	PFHS (398) Amount ng/ml	PFHS (398) %	PFOA (413) Area	PFOA (413) Amount ng/ml	PFOA (413) %	FOSA (498) Area	FOSA (498) Amount ng/ml	FOSA (498) %	PFOS (499) Area	PFOS (499) Amount ng/ml	PFOS (499) %
SAMPLE	DUDE0001.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	24142	BLOQ		8305	BLOQ		36286	BLOQ		6318	BLOQ		424994	9.3	
SAMPLE	DUDE0002.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	9192	BLOQ		5686	BLOQ		20797	BLOQ		5412	BLOQ		270734	3.7	
SAMPLE	DUDE0003.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	8791	BLOQ		3249	BLOQ		20382	BLOQ		4537	BLOQ		266533	3.6	
SAMPLE	DUDE0004.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	9985	BLOQ		2857	BLOQ		20772	BLOQ		4446	BLOQ		260271	3.4	
SAMPLE	DUDE0005.D	Blank Inject	Blank Inject	8547	BLOQ		2984	BLOQ		17089	BLOQ		6139	BLOQ		256080	3.3	
SAMPLE	DUDE0006.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	282736	13.1		338965	9.6		174702	8.9		216118	8.3		595774	13.5	
SAMPLE	DUDE0007.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	9055803	0.0		9952840	0.0		4548764	0.0		9239869	455.1		9775886	431.7	
SAMPLE	DUDE0008.D	02003-50-11	02003-50-11; 1000.0ppb Fish Curves; CMC; 20 Jun 02	13788628	0.0		15085171	0.0		7290979	0.0		16978522	0.0		15277327	0.0	
SAMPLE	DUDE0009.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	86004	BLOQ		128850	3.8		74985	BLOQ		85252	2.9		322113	5.3	
SAMPLE	DUDE0010.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	25646	BLOQ		33755	BLOQ		27223	BLOQ		22940	BLOQ		153469	BLOQ	
SAMPLE	DUDE0011.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	18731	BLOQ		14928	BLOQ		19212	BLOQ		14999	BLOQ		143631	BLOQ	
SAMPLE	DUDE0012.D	Blank Inject	Blank Inject	8078	BLOQ		4600	BLOQ		8878	BLOQ		7904	BLOQ		92843	BLOQ	
SAMPLE	DUDE0013.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2058000	127.9		2443951	76.8		1157202	69.7		2512631	107.0		2416552	71.3	
SAMPLE	DUDE0014.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2119519	132.3		2475882	77.9		1140821	68.6		2511110	106.9		2425805	71.6	
SAMPLE	DUDE0015.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2120989	132.4		2493748	78.6		1152133	69.4		2539527	108.2		2434078	71.9	
SAMPLE	DUDE0016.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2125937	132.8		2505597	79.0		1157662	69.7		2555753	108.9		2446869	72.3	
SAMPLE	DUDE0017.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2112566	131.8		2511938	79.2		1175906	71.0		2551783	108.7		2461490	72.8	
SAMPLE	DUDE0018.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	18460	BLOQ		18710	BLOQ		17336	BLOQ		19294	BLOQ		105223	BLOQ	
SAMPLE	DUDE0019.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10391	BLOQ		5445	BLOQ		10918	BLOQ		6340	BLOQ		94692	BLOQ	
SAMPLE	DUDE0020.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10036	BLOQ		3724	BLOQ		9648	BLOQ		4519	BLOQ		91966	BLOQ	
SAMPLE	DUDE0021.D	Blank Inject	Blank Inject	8258	BLOQ		2010	BLOQ		6841	BLOQ		3541	BLOQ		82019	BLOQ	
SAMPLE	DUDE0022.D	02003-50-01	02003-50-01; 1.0ppb Fish Curves; CMC; 20 Jun 02	36837	BLOQ		34573	BLOQ		23037	BLOQ		28038	BLOQ		125448	BLOQ	
SAMPLE	DUDE0023.D	02003-50-02	02003-50-02; 2.5ppb Fish Curves; CMC; 20 Jun 02	78948	BLOQ		83660	2.3		44112	BLOQ		67192	2.2		167755	BLOQ	
SAMPLE	DUDE0024.D	02003-50-03	02003-50-03; 5.0ppb Fish Curves; CMC; 20 Jun 02	145807	5.1		187715	4.7		81186	BLOQ		134497	5.0		241842	2.9	
SAMPLE	DUDE0025.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	268345	12.2		322756	9.2		151960	7.6		270828	10.6		380834	7.0	
SAMPLE	DUDE0026.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	626228	33.5		757279	22.1		350828	19.1		674422	27.4		785378	19.3	
SAMPLE	DUDE0027.D	02003-50-06	02003-50-06; 50.0ppb Fish Curves; CMC; 20 Jun 02	1167740	67.3		1407418	42.2		680289	37.7		1331914	55.3		1390553	38.0	
SAMPLE	DUDE0028.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2140564	133.9		2554614	80.7		1213068	73.5		2593858	110.8		2483001	73.5	
SAMPLE	DUDE0029.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	4552620	368.2		5323953	203.0		2582758	185.6		5929156	269.9		5213357	173.9	
SAMPLE	DUDE0030.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	7669731	0.0		8831013	0.0		4195437	0.0		10506766	536.9		8776205	354.3	
SAMPLE	DUDE0031.D	02003-50-10	02003-50-10; 750.0ppb Fish Curves; CMC; 20 Jun 02	10578855	0.0		12350272	0.0		5765701	0.0		14391493	863.1		11759041	0.0	
SAMPLE	DUDE0032.D	02003-50-11	02003-50-11; 1000.0ppb Fish Curves; CMC; 20 Jun 02	12913092	0.0		14504861	0.0		7111385	0.0		18114018	0.0		14395823	0.0	
SAMPLE	DUDE0033.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	78281	BLOQ		108171	3.0		53293	BLOQ		73008	2.4		174724	BLOQ	
SAMPLE	DUDE0034.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	27121	BLOQ		45734	1.2		29914	BLOQ		40456	BLOQ		132008	BLOQ	
SAMPLE	DUDE0035.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	13608	BLOQ		17991	BLOQ		18044	BLOQ		28880	BLOQ		115290	BLOQ	
SAMPLE	DUDE0036.D	Blank Inject	Blank Inject	10838	BLOQ	Ave:	10066	BLOQ	Ave:	10964	BLOQ	Ave:	19118	BLOQ	Ave:	97187	BLOQ	Ave:
SAMPLE	DUDE0037.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1595819	95.5	96.4	3118096	101.5	102.1	1645866	104.4	104.9	2694882	115.1	112.6	3632619	113.4	113.2
SAMPLE	DUDE0038.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1617372	97.0	+5%	3099444	100.8	+5%	1627441	103.0	+5%	2607892	111.2	+5%	3613658	112.7	+5%
SAMPLE	DUDE0039.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1605832	96.2	101.2	3122043	101.7	107.2	1638595	103.9	110.2	2627222	112.1	118.2	3614868	112.8	118.8
SAMPLE	DUDE0040.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1617808	97.0	-5%	3144477	102.5	-5%	1691500	107.9	-5%	2646153	112.9	-5%	3645946	113.9	-5%
SAMPLE	DUDE0041.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1609505	96.4	91.6	3180652	103.6	97.0	1659744	105.5	99.7	2616526	111.6	107.0	3618107	112.9	107.5
SAMPLE	DUDE0042.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	15799	BLOQ		21688	BLOQ		20372	BLOQ		23437	BLOQ		111755	BLOQ	
SAMPLE	DUDE0043.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10283	BLOQ		7051	BLOQ		11999	BLOQ		10904	BLOQ		100215	BLOQ	
SAMPLE	DUDE0044.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	8444	BLOQ		4422	BLOQ		10624	BLOQ		7849	BLOQ		96516	BLOQ	
SAMPLE	DUDE0045.D	Blank Inject	Blank Inject	8674	BLOQ		3259	BLOQ		7589	BLOQ		6658	BLOQ		86482	BLOQ	
SAMPLE	DUDE0046.D	Blank Inject	Blank Inject	7733	BLOQ		2785	BLOQ		7708	BLOQ		5425	BLOQ		88011	BLOQ	
CALIB_1	DUDE0047.D	02003-54-12	02003-45-12; 0ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	11394	BLOQ		2914	BLOQ		17996	BLOQ		9972	BLOQ		140498	BLOQ	
CALIB_2	DUDE0048.D	02003-54-01	02003-45-01; 1ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	34977	BLOQ		44796	1.2	121%	50002	1.8	184%	45044	1.3	126%	168950	0.7	71%
CALIB_3	DUDE0049.D	02003-54-02	02003-45-02; 2.5ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	89328	0.7	29%	100477	2.8	112%	77775	3.4	136%	77369	2.6	104%	224728	2.4	95%
CALIB_4	DUDE0050.D	02003-54-03	02003-45-03; 5ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	131095	4.3	85%	185046	5.2	105%	108042	5.1	102%	132001	4.8	97%	304547	4.7	95%
CALIB_5	DUDE0051.D	02003-54-04	02003-45-04; 10ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	222820	9.8	98%	364782	10.4	104%	200659	10.4	104%	251428	9.8	98%	460684	9.4	94%
CALIB_6	DUDE0052.D	02003-54-05	02003-45-05; 25ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	547762	28.8	115%	850960	24.9	100%	429215	23.7	95%	578736	23.3	93%	957750	24.5	98%
CALIB_7	DUDE0053.D	02003-54-06	02003-45-06; 50ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	940536	52.8	106%	1561787	47.1	94%	795094	46.2	92%	1133998	46.9	94%	1680422	46.6	93%
CALIB_8	DUDE0054.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1867206	100.4	100%	3135087	102.2	102%	1632354	103.4	103%	2306152	106.7	107%	3525696	109.6	110%
CALIB_9	DUDE0055.D	02003-54-08	02003-45-08; 250ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	3502830	247.1	99%	6032058	249.6	100%	3116998	249.3	100%	5516797	249.1	100%	6796490	243.7	97%
CALIB_10	DUDE0056.D	02003-54-09	02003-45-09; 500ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	5225735	502.1	100%	9413871	0.0	0%	4733527	0.0	0%	9917894	497.8	100%	10417922	503.2	101%
CALIB_11	DUDE0057.D	02003-54-10	02003-45-10; 750ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	6855025	0.0	0%	12140459	0.0	0%	6112468	0.0	0%	13273854	751.3	100%	13482160	0.0	0%
CALIB_12	DUDE0058.D	02003-54-11	02003-45-11; 1000ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	7586521	0.0	0%	14637923	0.0	0%	7346086	0.0	0%	16442115	1206.4	121%	16133387	0.0	0%
SAMPLE	DUDE0059.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	51407	BLOQ		134403	3.8		75414	BLOQ		80862	2.7		201434	BLOQ	
SAMPLE	DUDE0060.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	15298	BLOQ		28956	BLOQ		25037	BLOQ		32535	BLOQ		119877	BLOQ	
SAMPLE	DUDE0061.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	72490	BLOQ		108191	3.0		58718	BLOQ		23384	BLOQ		163741	BLOQ	
SAMPLE	DUDE0062.D	SL-1; C-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14755	BLOQ		11224	BLOQ		27193	BLOQ		156665	5.9		520275	11.2	
SAMPLE	DUDE0063.D	SL-1; C-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13095	BLOQ		8398	BLOQ		23277	BLOQ		144107	5.3		495460	10.5	
SAMPLE	DUDE0064.D	SL-1 C-1-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12710	BLOQ		7182	BLOQ		23937	BLOQ		140525	5.2		480864	10.0	
SAMPLE	DUDE0065.D	SL-1. C-2-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13624	BLOQ		10531	BLOQ		28775	BLOQ		122304	4.4		472057	9.8	
SAMPLE	DUDE0066.D	SL-1. C-2-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12663	BLOQ		7385	BLOQ		18620	BLOQ		115632	4.2		452704	9.2	
SAMPLE	DUDE0067.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	9773	BLOQ		3907	BLOQ		10969	BLOQ		9123	BLOQ		89471	BLOQ	
SAMPLE	DUDE0068.D	SL-1. C-2-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11717	BLOQ		5912	BLOQ		15422	BLOQ		109373	3.8		433669	8.6	
SAMPLE	DUDE0069.D	SL-1. C-2-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1122504	64.4	129%	1458200	43.8	88%	719266	41.4	83%	1262969	52.4	105%	1819507	51.7	103%
SAMPLE	DUDE0070.D	SL-1. C-3-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14329	BLOQ		8922	BLOQ		15016	BLOQ		185191	7.0		682430	16.1	
SAMPLE	DUDE0071.D	SL-1. C-3-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	15305	BLOQ		12488	BLOQ		20288	BLOQ		185959	7.1		742237	17.9	
SAMPLE	DUDE0072.D	SL-1. C-3-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	18819	BLOQ		8820	BLOQ		34137	BLOQ		193283	7.4		784827	19.2	
SAMPLE	DUDE0073.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1615553	96.8	97%	2974188	96.1	96%	1567307	100.1	100%	2391988	101.6	102%	3247990	99.7	100%

D020629

CatFish, Extracted Curve

Sample Locations 1 and 2

SampType	File	Sample Name	Sample Info	PFBS (299) Area	PFBS (299) Amount ng/ml	PFBS (299) %	PFHS (399) Area	PFHS (399) Amount ng/ml	PFHS (399) %	PFOA (413) Area	PFOA (413) Amount ng/ml	PFOA (413) %	FOSA (498) Area	FOSA (498) Amount ng/ml	FOSA (498) %	PFOS (499) Area	PFOS (499) Amount ng/ml	PFOS (499) %
SAMPLE	DUDE0074.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12696	BLOQ		11978	BLOQ		13608	BLOQ		9531	BLOQ		90244	BLOQ	
SAMPLE	DUDE0075.D	SL-1. C-4-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14802	BLOQ		10669	BLOQ		15985	BLOQ		109800	3.9		716073	17.1	
SAMPLE	DUDE0076.D	SL-1. C-4-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13243	BLOQ		5712	BLOQ		11767	BLOQ		103527	3.7		684549	16.2	
SAMPLE	DUDE0077.D	SL-1. C-4-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12630	BLOQ		5282	BLOQ		11890	BLOQ		107119	3.8		697485	16.6	
SAMPLE	DUDE0078.D	SL-1. C-4-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1204323	69.6	139%	1567182	47.3	95%	766898	44.3	89%	1450368	60.4	121%	2051838	59.2	118%
SAMPLE	DUDE0079.D	SL-1. C-5-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13588	BLOQ		7016	BLOQ		10961	BLOQ		234851	9.1		415989	8.1	
SAMPLE	DUDE0080.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	9087	BLOQ		2918	BLOQ		10082	BLOQ		4717	BLOQ		91240	BLOQ	
SAMPLE	DUDE0081.D	SL-1. C-5-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10580	BLOQ		3490	BLOQ		18184	BLOQ		234205	9.1		414092	8.0	
SAMPLE	DUDE0082.D	SL-1. C-5-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	8811	BLOQ		3192	BLOQ		18143	BLOQ		226400	8.8		405141	7.8	
SAMPLE	DUDE0083.D	SL-1. C-6-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9508	BLOQ		3581	BLOQ		8741	BLOQ		183550	7.0		342574	5.9	
SAMPLE	DUDE0084.D	SL-1. C-6-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9984	BLOQ		4345	BLOQ		9455	BLOQ		181804	6.9		345738	6.0	
SAMPLE	DUDE0085.D	SL-1. C-6-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	8991	BLOQ		3694	BLOQ		9916	BLOQ		183525	7.0		342302	5.9	
SAMPLE	DUDE0086.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1613393	96.7	97%	2980987	96.3	96%	1562333	99.7	100%	2390126	101.5	102%	3264027	100.3	100%
SAMPLE	DUDE0087.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12472	BLOQ		13596	BLOQ		15937	BLOQ		10449	BLOQ		91769	BLOQ	
SAMPLE	DUDE0088.D	SL-1. C-6-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1144466	65.8	132%	1499077	45.1	90%	747018	43.1	86%	1455813	62.4	125%	1782587	50.5	101%
SAMPLE	DUDE0089.D	SL-1. WB-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	23577	BLOQ		8170	BLOQ		10932	BLOQ		7649	BLOQ		96922	BLOQ	
SAMPLE	DUDE0090.D	SL-1. WB-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	28782	BLOQ		3226	BLOQ		9378	BLOQ		3451	BLOQ		94896	BLOQ	
SAMPLE	DUDE0091.D	SL-1. SB-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13468	BLOQ		1924	BLOQ		7772	BLOQ		3300	BLOQ		89070	BLOQ	
SAMPLE	DUDE0092.D	SL-1. SB-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13384	BLOQ		1712	BLOQ		8271	BLOQ		2590	BLOQ		89169	BLOQ	
SAMPLE	DUDE0093.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	8490	BLOQ		1918	BLOQ		9679	BLOQ		2419	BLOQ		86949	BLOQ	
SAMPLE	DUDE0094.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	8951	BLOQ		1884	BLOQ		8844	BLOQ		1938	BLOQ		84107	BLOQ	
SAMPLE	DUDE0095.D	SL-2. C-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10942	BLOQ		3552	BLOQ		10567	BLOQ		16866	BLOQ		126298	BLOQ	
SAMPLE	DUDE0096.D	SL-2. C-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10889	BLOQ		3975	BLOQ		10978	BLOQ		16241	BLOQ		119342	BLOQ	
SAMPLE	DUDE0097.D	SL-2. C-1-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11345	BLOQ		3692	BLOQ		12700	BLOQ		14954	BLOQ		126853	BLOQ	
SAMPLE	DUDE0098.D	SL-2. C-2-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10170	BLOQ		1743	BLOQ		19802	BLOQ		20743	BLOQ		199706	BLOQ	
SAMPLE	DUDE0099.D	SL-2. C-2-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9201	BLOQ		2599	BLOQ		10184	BLOQ		21407	BLOQ		199115	BLOQ	
SAMPLE	DUDE0100.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1621549	97.3	97%	3016594	97.7	98%	1592542	100.5	100%	2403336	102.1	102%	3369460	104.0	104%
SAMPLE	DUDE0101.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	13387	BLOQ		13529	BLOQ		15155	BLOQ		10413	BLOQ		96736	BLOQ	
SAMPLE	DUDE0102.D	SL-2. C-2-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9696	BLOQ		4143	BLOQ		10681	BLOQ		21347	BLOQ		199714	BLOQ	
SAMPLE	DUDE0103.D	SL-2. C-2-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1173579	68.0	136%	1548053	46.7	93%	777533	45.0	90%	1121592	46.3	93%	1705874	48.0	96%
SAMPLE	DUDE0104.D	SL-2. C-3-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12517	BLOQ		6532	BLOQ		9569	BLOQ		28013	BLOQ		176042	BLOQ	
SAMPLE	DUDE0105.D	SL-2. C-3-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9238	BLOQ		3298	BLOQ		8771	BLOQ		20521	BLOQ		178402	BLOQ	
SAMPLE	DUDE0106.D	SL-2. C-3-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	8510	BLOQ		3003	BLOQ		8579	BLOQ		19213	BLOQ		171244	BLOQ	
SAMPLE	DUDE0107.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	7422	BLOQ		2238	BLOQ		10233	BLOQ		0	BLOQ		86708	BLOQ	
SAMPLE	DUDE0108.D	SL-2. C-4-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9520	BLOQ		1915	BLOQ		8185	BLOQ		19329	BLOQ		148939	BLOQ	
SAMPLE	DUDE0109.D	SL-2. C-4-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11999	BLOQ		2128	BLOQ		8317	BLOQ		21412	BLOQ		146402	BLOQ	
SAMPLE	DUDE0110.D	SL-2. C-4-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11181	BLOQ		1891	BLOQ		7951	BLOQ		21617	BLOQ		144447	BLOQ	
SAMPLE	DUDE0111.D	SL-2. C-4-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1176859	67.8	136%	1558453	47.0	94%	773837	44.8	89%	1385615	57.6	115%	1689268	47.5	95%
SAMPLE	DUDE0112.D	SL-2. C-5-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16126	BLOQ		5203	BLOQ		10989	BLOQ		15863	BLOQ		138549	BLOQ	
SAMPLE	DUDE0113.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1680939	101.3	101%	3189656	104.3	104%	1715604	109.7	110%	2550387	108.7	109%	3504740	108.8	109%
SAMPLE	DUDE0114.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12510	BLOQ		8379	BLOQ		12597	BLOQ		3983	BLOQ		88850	BLOQ	
SAMPLE	DUDE0115.D	SL-2. C-5-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11907	BLOQ		3709	BLOQ		10947	BLOQ		14030	BLOQ		141025	BLOQ	
SAMPLE	DUDE0116.D	SL-2. C-5-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10663	BLOQ		2698	BLOQ		9303	BLOQ		10702	BLOQ		135018	BLOQ	
SAMPLE	DUDE0117.D	SL-2. C-6-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9473	BLOQ		2433	BLOQ		8100	BLOQ		22417	BLOQ		221283	BLOQ	
SAMPLE	DUDE0118.D	SL-2. C-6-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	9000	BLOQ		2054	BLOQ		7712	BLOQ		20955	BLOQ		218941	BLOQ	
SAMPLE	DUDE0119.D	SL-2. C-6-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13787	BLOQ		2948	BLOQ		17803	BLOQ		20429	BLOQ		222684	BLOQ	
SAMPLE	DUDE0120.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	7997	BLOQ		1213	BLOQ		8989	BLOQ		0	BLOQ		83771	BLOQ	
SAMPLE	DUDE0121.D	SL-2. C-6-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1130049	64.8	130%	1589629	48.0	96%	801932	46.3	93%	1424783	59.3	119%	1788603	50.7	101%
SAMPLE	DUDE0122.D	SL-2. C-7-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13336	BLOQ		6391	BLOQ		9590	BLOQ		18812	BLOQ		163523	BLOQ	
SAMPLE	DUDE0123.D	SL-2. C-7-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	11272	BLOQ		3226	BLOQ		9327	BLOQ		17187	BLOQ		160334	BLOQ	
SAMPLE	DUDE0124.D	SL-2. C-7-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	10422	BLOQ		2060	BLOQ		12464	BLOQ		12555	BLOQ		156918	BLOQ	
SAMPLE	DUDE0125.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1617726	97.0	97%	3069184	99.7	100%	1607349	101.6	102%	2445095	104.0	104%	3401848	105.2	105%
SAMPLE	DUDE0126.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10782	BLOQ		8913	BLOQ		13283	BLOQ		4018	BLOQ		87845	BLOQ	
SAMPLE	DUDE0127.D	SL-2. WB-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 03	21873	BLOQ		3614	BLOQ		12881	BLOQ		3433	BLOQ		86874	BLOQ	
SAMPLE	DUDE0128.D	SL-2. WB-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 03	24161	BLOQ		2259	BLOQ		9856	BLOQ		2298	BLOQ		87566	BLOQ	
SAMPLE	DUDE0129.D	SL-2. SB-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 03	13046	BLOQ		1587	BLOQ		7887	BLOQ		0	BLOQ		85763	BLOQ	
SAMPLE	DUDE0130.D	SL-2. SB-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 03	11591	BLOQ		1468	BLOQ		8436	BLOQ		0	BLOQ		83796	BLOQ	
SAMPLE	DUDE0131.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1596033	95.5	96%	3044960	98.7	99%	1594748	100.6	101%	2465718	104.9	105%	3410917	105.5	105%
SAMPLE	DUDE0132.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10588	BLOQ		8290	BLOQ		12916	BLOQ		4444	BLOQ		87026	BLOQ	
SAMPLE	DUDE0133.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	8546	BLOQ		4116	BLOQ		10199	BLOQ		2620	BLOQ		84167	BLOQ	
SAMPLE	DUDE0134.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	7037	BLOQ		2144	BLOQ		9330	BLOQ		2399	BLOQ		82260	BLOQ	

D020702

CatFish, Extracted Curve

Sample Location 3

SampType	File	Sample Name	Sample Info	PFBS (299)			PFHS (399)			PFOA (413)			FOSA (498)			PFOS (499)		
				Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%
SAMPLE	DUDE0001.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	14618	BLOQ		6931	BLOQ		78550	BLOQ		12999	BLOQ		618117	10.0	
SAMPLE	DUDE0002.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10735	BLOQ		10690	BLOQ		25555	BLOQ		6009	BLOQ		283807	3 0	
SAMPLE	DUDE0003.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	14193	BLOQ		5018	BLOQ		27644	BLOQ		3920	BLOQ		246160	2 2	
SAMPLE	DUDE0004.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	16007	BLOQ		3902	BLOQ		29888	BLOQ		3553	BLOQ		246050	2 2	
SAMPLE	DUDE0005.D	Blank Inject	Blank Inject	13869	BLOQ		3409	BLOQ		28359	BLOQ		4173	BLOQ		235460	2.0	
SAMPLE	DUDE0006.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	352461	11.0		424639	8.4		229657	8.4		294383	7.9		650404	10 6	
SAMPLE	DUDE0007.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	12028692	0.0		13921232	0.0		6184437	0.0		13077578	423 7		14162933	425 8	
SAMPLE	DUDE0008.D	02003-50-11	02003-50-11; 1000.0ppb Fish Curves; CMC; 20 Jun 02	19884207	0.0		23338038	0.0		10122671	0.0		23158241	966.2		22536469	0 0	
SAMPLE	DUDE0009.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	104378	BLOQ		135051	2.7		75923	BLOQ		75856	BLOQ		242344	2.2	
SAMPLE	DUDE0010.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	30525	BLOQ		32958	BLOQ		33220	BLOQ		29819	BLOQ		147391	BLOQ	
SAMPLE	DUDE0011.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12151	BLOQ		13467	BLOQ		20702	BLOQ		25972	BLOQ		111455	BLOQ	
SAMPLE	DUDE0012.D	Blank Inject	Blank Inject	13087	BLOQ		5873	BLOQ		11518	BLOQ		11135	BLOQ		85013	BLOQ	
SAMPLE	DUDE0013.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2982794	131.9		3597025	77.2		1564039	65.9		3395917	98.8		3476566	72.7	
SAMPLE	DUDE0014.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	2984899	132.0		3727970	80.3		1578147	66.6		3484452	99.4		3523303	73.8	
SAMPLE	DUDE0015.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	3022372	134.0		3732486	80.4		1611253	68.1		3583658	102.4		3611355	75.8	
SAMPLE	DUDE0016.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	3029203	134.4		3757251	81.0		1620586	68.6		3582213	102.3		3629201	76.2	
SAMPLE	DUDE0017.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	3000964	132.9		3744852	80.7		1626386	68.8		3541420	101.1		3575555	75 0	
SAMPLE	DUDE0018.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	25191	BLOQ		19679	BLOQ		20947	BLOQ		19025	BLOQ		100027	BLOQ	
SAMPLE	DUDE0019.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	13424	BLOQ		5728	BLOQ		13947	BLOQ		8062	BLOQ		87954	BLOQ	
SAMPLE	DUDE0020.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	12697	BLOQ		4218	BLOQ		11335	BLOQ		5482	BLOQ		81044	BLOQ	
SAMPLE	DUDE0021.D	Blank Inject	Blank Inject	11051	BLOQ		2640	BLOQ		9083	BLOQ		6747	BLOQ		74526	BLOQ	
SAMPLE	DUDE0022.D	02003-50-01	02003-50-01; 1.0ppb Fish Curves; CMC; 20 Jun 02	51753	BLOQ		45248	BLOQ		30420	BLOQ		41630	BLOQ		128834	BLOQ	
SAMPLE	DUDE0023.D	02003-50-02	02003-50-02; 2.5ppb Fish Curves; CMC; 20 Jun 02	101929	BLOQ		113430	BLOQ		59482	BLOQ		91774	BLOQ		188849	BLOQ	
SAMPLE	DUDE0024.D	02003-50-03	02003-50-03; 5.0ppb Fish Curves; CMC; 20 Jun 02	198425	4.7		234373	4.7		114702	BLOQ		192222	5.1		299242	3 3	
SAMPLE	DUDE0025.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	374156	11.9		462617	9.2		218258	8.0		376024	10.2		510640	7.7	
SAMPLE	DUDE0026.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	898919	34.1		1119402	22.4		504019	19.5		854228	26.4		1101479	20 1	
SAMPLE	DUDE0027.D	02003-50-06	02003-50-06; 50.0ppb Fish Curves; CMC; 20 Jun 02	1696018	69.4		2103812	43.1		946571	38.2		1874150	52.5		2021822	40.0	
SAMPLE	DUDE0028.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	3119780	139.1		3945644	85.6		1742223	74.3		3723392	106.5		3730089	78.6	
SAMPLE	DUDE0029.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	6672518	396.4		8208273	219.6		3669331	186.3		8611158	261.5		7854040	184.6	
SAMPLE	DUDE0030.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	11467824	0.0		13817305	0.0		8304757	0.0		15695043	532.4		13357949	383.1	
SAMPLE	DUDE0031.D	02003-50-10	02003-50-10; 750.0ppb Fish Curves; CMC; 20 Jun 02	15115446	0.0		17928222	0.0		8238224	0.0		21349785	831.3		17569810	0 0	
SAMPLE	DUDE0032.D	02003-50-11	02003-50-11; 1000.0ppb Fish Curves; CMC; 20 Jun 02	18592778	0.0		22078907	0.0		10128851	0.0		26729831	0.0		21582964	0.0	
SAMPLE	DUDE0033.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	109559	BLOQ		144504	2.9		77561	BLOQ		117929	3.0		214532	1.6	
SAMPLE	DUDE0034.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	40382	BLOQ		41244	BLOQ		28830	BLOQ		38742	BLOQ		123924	BLOQ	
SAMPLE	DUDE0035.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	18403	BLOQ		15724	BLOQ		17987	BLOQ		23912	BLOQ		105892	BLOQ	
SAMPLE	DUDE0036.D	Blank Inject	Blank Inject	14353	BLOQ	Ave:	8812	BLOQ	Ave:	11713	BLOQ	Ave:	19473	BLOQ	Ave:	88972	BLOQ	Ave:
SAMPLE	DUDE0037.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2392145	102.3	101.7	4543563	100.8	100.9	2295220	102.1	101.7	3809379	109.1	106.3	4975075	108 4	106 9
SAMPLE	DUDE0038.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2357579	100.8	+5%	4528452	100.4	+5%	2282168	100.4	+5%	3700718	105 9	+5%	4892782	106 4	+5%
SAMPLE	DUDE0039.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2393526	102.3	106.7	4573097	101.5	105.9	2300947	102.4	106.8	3716582	106.3	111.6	4947382	107.8	112.3
SAMPLE	DUDE0040.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2375129	101.4	-5%	4547444	100.9	-5%	2294956	102.1	-5%	3673970	105.1	-5%	4879434	106 1	-5%
SAMPLE	DUDE0041.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2379529	101.7	96.6	4550012	100.9	95.8	2289326	101.8	96.7	3679467	105.2	101.0	4875554	106.0	101.6
SAMPLE	DUDE0042.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	21429	BLOQ		19503	BLOQ		20493	BLOQ		13235	BLOQ		103515	BLOQ	
SAMPLE	DUDE0043.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	16008	BLOQ		10437	BLOQ		16132	BLOQ		9402	BLOQ		94323	BLOQ	
SAMPLE	DUDE0044.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	13002	BLOQ		5825	BLOQ		13964	BLOQ		7636	BLOQ		92379	BLOQ	
SAMPLE	DUDE0045.D	Blank Inject	Blank Inject	11656	BLOQ		3218	BLOQ		8966	BLOQ		5083	BLOQ		84444	BLOQ	
SAMPLE	DUDE0046.D	Blank Inject	Blank Inject	10658	BLOQ		2705	BLOQ		9148	BLOQ		3995	BLOQ		83252	BLOQ	
CALIB_1	DUDE0047.D	02003-54-12	02003-45-12; 0ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	16365	BLOQ		5827	BLOQ		23022	BLOQ		24542	BLOQ		155221	BLOQ	
CALIB_2	DUDE0048.D	02003-54-01	02003-45-01; 1ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	49255	BLOQ		59575	1.3	126%	67018	2.0	200%	59826	1.4	143%	190814	1.1	109%
CALIB_3	DUDE0049.D	02003-54-02	02003-45-02; 2.5ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	96226	0.6	22%	137811	2.8	111%	103717	3.4	138%	111739	2 9	114%	206315	2 6	106%
CALIB_4	DUDE0050.D	02003-54-03	02003-45-03; 5ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	181974	4.0	81%	270935	5.4	108%	148464	5.2	104%	169060	5.0	100%	375109	4.9	98%
CALIB_5	DUDE0051.D	02003-54-04	02003-45-04; 10ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	314772	9.5	95%	528131	10.5	105%	274709	10.2	102%	369350	10 0	100%	614099	9 9	99%
CALIB_6	DUDE0052.D	02003-54-05	02003-45-05; 25ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	772203	28.6	115%	1222380	24.5	98%	600618	23.5	94%	854013	23.5	94%	1308033	24.5	98%
CALIB_7	DUDE0053.D	02003-54-06	02003-45-06; 50ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	1340974	53.4	107%	2295896	47.3	95%	1131301	46.2	92%	1692044	47.3	95%	2337938	46.9	94%
CALIB_8	DUDE0054.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2367140	101.1	101%	4598425	102.2	102%	2322245	103.5	104%	3633132	103.9	104%	4873479	105 9	106%
CALIB_9	DUDE0055.D	02003-54-08	02003-45-08; 250ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	4925497	246.3	99%	8840263	249.6	100%	4398695	249.3	100%	6298604	250.9	100%	9886238	246 6	99%
CALIB_10	DUDE0056.D	02003-54-09	02003-45-09; 500ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	7357600	502.7	101%	13801855	0.0	0%	8712903	0.0	0%	14884588	497.4	99%	15260705	501.5	100%
CALIB_11	DUDE0057.D	02003-54-10	02003-45-10; 750ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	9799545	0.0	0%	18003442	0.0	0%	8718410	0.0	0%	20058372	751.3	100%	19955145	0.0	0%
CALIB_12	DUDE0058.D	02003-54-11	02003-45-11; 1000ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	10621877	0.0	0%	21412412	0.0	0%	10336208	0.0	0%	24960680	1161.7	116%	23703604	0.0	0%
SAMPLE	DUDE0059.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	49063	BLOQ		72299	BLOQ		43982	BLOQ		41279	BLOQ		135168	BLOQ	
SAMPLE	DUDE0060.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	28218	BLOQ		52011	BLOQ		40426	BLOQ		42545	BLOQ		144118	BLOQ	
SAMPLE	DUDE0061.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	19021	BLOQ		24562	BLOQ		24891	BLOQ		19917	BLOQ		111794	BLOQ	
SAMPLE	DUDE0062.D	SL-3; C-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	29054	BLOQ		8787	BLOQ		21878	BLOQ		30127	BLOQ		229436	1.9	
SAMPLE	DUDE0063.D	SL-3; C-1-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	23412	BLOQ		5917	BLOQ		21453	BLOQ		23475	BLOQ		228959	1.9	
SAMPLE	DUDE0064.D	SL-3; C-1-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	23166	BLOQ		6153	BLOQ		19147	BLOQ		22360	BLOQ		206155	1.4	
SAMPLE	DUDE0065.D	SL-3; C-2-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14343	BLOQ		5125	BLOQ		23341	BLOQ		19045	BLOQ		193863	1.2	
SAMPLE	DUDE0066.D	SL-3; C-2-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	14872	BLOQ		5059	BLOQ		22949	BLOQ		23838	BLOQ		193614	1.1	
SAMPLE	DUDE0067.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	15597	BLOQ		11588	BLOQ		15534	BLOQ		12646	BLOQ		93089	BLOQ	
SAMPLE	DUDE0068.D	SL-3; C-2-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13913	BLOQ		3897	BLOQ		22399	BLOQ		18475	BLOQ		197394	1.2	

D020702

CatFish, Extracted Curve

Sample Location 3

SampType	File	Sample Name	Sample Info	PFBS (299)			PFHS (399)			PFOA (413)			FOSA (498)			PFOS (499)		
				Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%
SAMPLE	DUDE0069.D	SL-3. C-2-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1591507	64.8	129%	2282593	47.0	94%	1064739	43.3	87%	1785385	49.9	100%	2301120	46.1	92%
SAMPLE	DUDE0070.D	SL-3. C-3-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	24320	BLOQ		8020	BLOQ		21977	BLOQ		26327	BLOQ		164262	BLOQ	
SAMPLE	DUDE0071.D	SL-3. C-3-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	18549	BLOQ		5276	BLOQ		14385	BLOQ		22632	BLOQ		165052	BLOQ	
SAMPLE	DUDE0072.D	SL-3. C-3-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	24807	BLOQ		3605	BLOQ		13586	BLOQ		20528	BLOQ		159839	BLOQ	
SAMPLE	DUDE0073.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2333952	99.4	99%	4563714	101.3	101%	2255277	100.0	100%	3838935	104.0	104%	4758709	103.1	103%
SAMPLE	DUDE0074.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	16062	BLOQ		12313	BLOQ		15890	BLOQ		10892	BLOQ		93159	BLOQ	
SAMPLE	DUDE0075.D	SL-3. C-4-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	17195	BLOQ		5789	BLOQ		11833	BLOQ		26647	BLOQ		316812	3.7	
SAMPLE	DUDE0076.D	SL-3. C-4-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	21375	BLOQ		3965	BLOQ		9130	BLOQ		20987	BLOQ		307947	3.5	
SAMPLE	DUDE0077.D	SL-3. C-4-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	18443	BLOQ		3417	BLOQ		9515	BLOQ		26620	BLOQ		333790	4.0	
SAMPLE	DUDE0078.D	SL-3. C-4-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1519218	61.4	123%	2210139	45.4	91%	1008147	40.8	82%	2019128	58.6	113%	2405599	48.4	97%
SAMPLE	DUDE0079.D	SL-3. C-5-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	19806	BLOQ		7747	BLOQ		12540	BLOQ		16677	BLOQ		133232	BLOQ	
SAMPLE	DUDE0080.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	11190	BLOQ		3871	BLOQ		10686	BLOQ		5463	BLOQ		81061	BLOQ	
SAMPLE	DUDE0081.D	SL-3. C-5-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16991	BLOQ		3303	BLOQ		19138	BLOQ		12319	BLOQ		136306	BLOQ	
SAMPLE	DUDE0082.D	SL-3. C-5-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	15727	BLOQ		3630	BLOQ		11772	BLOQ		11964	BLOQ		137529	BLOQ	
SAMPLE	DUDE0083.D	SL-3. C-6-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	0	BLOQ		0	BLOQ		0	BLOQ		0	BLOQ		0	BLOQ	
SAMPLE	DUDE0084.D	SL-3. C-6-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	13227	BLOQ		2199	BLOQ		21296	BLOQ		22050	BLOQ		251768	2.3	
SAMPLE	DUDE0085.D	SL-3. C-6-3	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	12338	BLOQ		2077	BLOQ		12192	BLOQ		19078	BLOQ		250488	2.3	
SAMPLE	DUDE0086.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2300068	97.8	98%	4413612	97.4	97%	2239179	99.2	99%	3532761	100.9	101%	4644253	100.4	100%
SAMPLE	DUDE0087.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	18148	BLOQ		11187	BLOQ		15788	BLOQ		9243	BLOQ		83526	BLOQ	
SAMPLE	DUDE0088.D	SL-3. C-6-MS	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	1587599	64.5	129%	2023288	41.4	83%	1111957	45.4	91%	1852622	51.9	104%	2223094	44.4	89%
SAMPLE	DUDE0089.D	SL-3. WB-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	25327	BLOQ		7877	BLOQ		14443	BLOQ		5535	BLOQ		92445	BLOQ	
SAMPLE	DUDE0090.D	SL-3. WB-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	20971	BLOQ		3347	BLOQ		15176	BLOQ		4520	BLOQ		81055	BLOQ	
SAMPLE	DUDE0091.D	SL-3. SB-1	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	16148	BLOQ		3074	BLOQ		14720	BLOQ		5445	BLOQ		75775	BLOQ	
SAMPLE	DUDE0092.D	SL-3. SB-2	Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02	17484	BLOQ		1442	BLOQ		17889	BLOQ		6879	BLOQ		76590	BLOQ	
SAMPLE	DUDE0093.D	02003-54-07	02003-45-07; 100ppb CatFish curve; MLA/CMC/MEE; 21 Jun 02	2317983	98.7	99%	4430280	97.8	98%	2287807	100.7	101%	3605388	103.0	103%	4694082	101.6	102%

D020812A

River Water Samples

E02-0443
Tenn. River Valley Water Samples

Sample Locations 1, 2, and 3. Low end of curve.

SampType	File	Sample Name	Sample Info	Inj. Vol. (uL)	PFBS (299) Area	PFBS (299) Amount ng/mL	PFBS (299) %	PFHS (399) Area	PFHS (399) Amount ng/mL	PFHS (399) %	PFOA (413) Area	PFOA (413) Amount ng/mL	PFOA (413) %	FOSA (498) Area	FOSA (498) Amount ng/mL	FOSA (498) %	PFOS (499) Area	PFOS (499) Amount ng/mL	PFOS (499) %
SAMPLE	DUDE0001.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	40991	BLOQ		15686	BLOQ		293028	19.3		88368	2.9		950440	31.9	
SAMPLE	DUDE0002.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	3709	BLOQ		0	BLOQ		15700	BLOQ		7554	BLOQ		34456	BLOQ	
SAMPLE	DUDE0003.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	10	4795132	0.0		4932533	0.0		2222081	0.0		8079195	244.3		4888910	0.0	
SAMPLE	DUDE0004.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	10	8129442	0.0		8434014	0.0		3961548	0.0		11100927	0.0		8575578	0.0	
SAMPLE	DUDE0005.D	02003-50-10	02003-50-10; 750.0ppb Fish Curves; CMC; 20 Jun 02	10	11194846	0.0		11641429	0.0		5482222	0.0		15609912	0.0		11897063	0.0	
SAMPLE	DUDE0006.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	72835	2.1		80006	2.5		45566	2.4		59639	2.0		95548	BLOQ	
SAMPLE	DUDE0007.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	30181	BLOQ		22991	0.7		23225	BLOQ		23381	0.8		51276	BLOQ	
SAMPLE	DUDE0008.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	20138	BLOQ		11164	BLOQ		18017	BLOQ		16580	BLOQ		38123	BLOQ	
SAMPLE	DUDE0009.D	Blank inject	Blank inject	10	12094	BLOQ		2749	BLOQ		9745	BLOQ		11181	BLOQ		29189	BLOQ	
SAMPLE	DUDE0010.D	Blank inject	Blank inject	10	12035	BLOQ	Ave:	2146	BLOQ	Ave:	8821	BLOQ	Ave:	9635	BLOQ	Ave:	28814	BLOQ	Ave:
SAMPLE	DUDE0011.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	10	2326587	101.7	103.2	2517190	105.4	106.7	1158473	98.1	100.5	2864799	102.0	101.9	2521536	112.3	113.0
SAMPLE	DUDE0012.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	10	2346180	102.8	+5%	2533018	106.5	+5%	1175606	100.3	+5%	2863988	102.0	+5%	2531747	113.1	+5%
SAMPLE	DUDE0013.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	10	2316113	101.1	108.4	2512307	105.1	112.0	1179883	100.8	105.6	2874831	102.4	107.0	2548188	114.4	118.6
SAMPLE	DUDE0014.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	10	2392409	105.6	-5%	2578744	109.6	-5%	1187272	101.8	-5%	2817264	100.2	-5%	2504348	110.9	-5%
SAMPLE	DUDE0015.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	10	2380996	104.9	98.1	2538146	106.8	101.4	1187119	101.8	95.5	2883854	102.8	96.8	2546185	114.2	107.3
SAMPLE	DUDE0016.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	15495	BLOQ		7469	BLOQ		12509	BLOQ		10447	BLOQ		34400	BLOQ	
SAMPLE	DUDE0017.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13883	BLOQ		3571	BLOQ		10727	BLOQ		7811	BLOQ		31640	BLOQ	
SAMPLE	DUDE0018.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13734	BLOQ		2295	BLOQ		10508	BLOQ		6504	BLOQ		30933	BLOQ	
SAMPLE	DUDE0019.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12581	BLOQ		1483	BLOQ		9187	BLOQ		4355	BLOQ		29010	BLOQ	
SAMPLE	DUDE0020.D	Blank inject	Blank inject	10	11213	BLOQ		1223	BLOQ		6534	BLOQ		3221	BLOQ		26149	BLOQ	
SAMPLE	DUDE0021.D	Blank inject	Blank inject	10	11139	BLOQ		0	BLOQ		7056	BLOQ		3444	BLOQ		26205	BLOQ	
CALIB_1	DUDE0022.D	02003-50-01;1uL	02003-50-01; 1uL (100ppt); 1.0ppb Fish Curves; CMC; 20 Jun 02	1	16287	0.09	69%	4887	0.15	145%	10808	0.14	141%	5842	0.19	186%	32546	0.12	124%
CALIB_2	DUDE0023.D	02003-50-01;2uL	02003-50-01; 2uL (200ppt); 1.0ppb Fish Curves; CMC; 20 Jun 02	2	19335	0.20	98%	7682	0.23	115%	11563	0.20	101%	8628	0.28	139%	34279	0.18	89%
CALIB_3	DUDE0024.D	02003-50-01;5uL	02003-50-01; 5uL (500ppt); 1.0ppb Fish Curves; CMC; 20 Jun 02	5	28774	0.53	105%	17073	0.52	104%	16208	0.50	101%	17101	0.56	111%	44403	0.50	100%
CALIB_4	DUDE0025.D	02003-50-01	02003-50-01; 1.0ppb Fish Curves; CMC; 20 Jun 02	10	44778	1.09	109%	33124	1.01	101%	24216	1.02	102%	29673	0.97	97%	60834	1.02	102%
CALIB_5	DUDE0026.D	02003-50-02	02003-50-02; 2.5ppb Fish Curves; CMC; 20 Jun 02	10	82135	2.41	96%	78398	2.40	96%	45920	2.43	97%	73079	2.40	96%	105750	2.48	96%
CALIB_6	DUDE0027.D	02003-50-03	02003-50-03; 5.0ppb Fish Curves; CMC; 20 Jun 02	10	153709	4.96	99%	159905	4.94	99%	84652	4.98	100%	150031	4.95	99%	184464	5.00	100%
CALIB_7	DUDE0028.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	10	293680	10.0	100%	320769	10.0	100%	159993	10.0	100%	298779	9.84	98%	336343	10.0	100%
CALIB_8	DUDE0029.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	10	691298	25.0	100%	786756	25.0	100%	372284	25.0	100%	749438	25.1	101%	765247	25.0	100%
CALIB_9	DUDE0030.D	02003-50-06	02003-50-06; 50.0ppb Fish Curves; CMC; 20 Jun 02	10	1297324	50.0	100%	1427363	50.0	100%	687569	50.0	100%	1461610	50.0	100%	1398166	50.0	100%
SAMPLE	DUDE0031.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14526	BLOQ		5448	BLOQ		12766	BLOQ		5723	BLOQ		32297	BLOQ	
SAMPLE	DUDE0032.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13362	BLOQ		2301	BLOQ		11351	BLOQ		3628	BLOQ		30337	BLOQ	
SAMPLE	DUDE0033.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	11891	BLOQ		0	BLOQ		10656	BLOQ		3577	BLOQ		26814	BLOQ	
SAMPLE	DUDE0034.D	Water Blank-1	E02-0443 Water Blank Water Samples; non-GLP; 6/20/02; OK	10	19474	BLOQ		3537	BLOQ		9173	BLOQ		3902	BLOQ		32089	BLOQ	
SAMPLE	DUDE0035.D	Water Blank-2	E02-0443 Water Blank Water Samples; non-GLP; 7/17/02; OK	10	31338	BLOQ		1117	BLOQ		9700	BLOQ		3405	BLOQ		31254	BLOQ	
SAMPLE	DUDE0036.D	38025	E02-0443-38025; Water Samples; non-GLP; 6/20/02; OK	10	77613	2.3		131130	4.0		161125	10.1		15918	BLOQ		294975	8.6	
SAMPLE	DUDE0037.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	16520	BLOQ		7594	BLOQ		12473	BLOQ		2655	BLOQ		35817	BLOQ	
SAMPLE	DUDE0038.D	38026	E02-0443-38026; Water Samples; non-GLP; 7/17/02; OK	10	76373	2.2		134716	4.2		171533	19.8		16662	BLOQ		334613	10.0	
SAMPLE	DUDE0039.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	26629	BLOQ		10424	BLOQ		13984	BLOQ		2215	BLOQ		35587	BLOQ	
SAMPLE	DUDE0040.D	38027	E02-0443-38027; Water Samples; non-GLP; 7/17/02; OK	10	61166	1.7		202744	6.3		206265	13.2		57230	1.9		403737	12.3	
SAMPLE	DUDE0041.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14829	BLOQ		3071	BLOQ		11264	BLOQ		0	BLOQ		32700	BLOQ	
SAMPLE	DUDE0042.D	38029	E02-0443-38029; Water Samples; non-GLP; 6/20/02; OK	10	59420	1.6		131319	4.0		171870	10.8		17294	0.6		331315	9.8	
SAMPLE	DUDE0043.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	17103	BLOQ		6380	BLOQ		11819	BLOQ		2129	BLOQ		32643	BLOQ	
SAMPLE	DUDE0044.D	38032	E02-0443-38032; Water Samples; non-GLP; 6/20/02; OK	10	21417	BLOQ		85594	2.6		48142	2.4		66387	2.2		111790	2.7	
SAMPLE	DUDE0045.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	11981	BLOQ		2476	BLOQ		11020	BLOQ		2759	BLOQ		31103	BLOQ	
SAMPLE	DUDE0046.D	38033	E02-0443-38033; Water Samples; non-GLP; 6/20/02; OK	10	16816	BLOQ		5944	BLOQ		9820	BLOQ		3598	BLOQ		32511	BLOQ	
SAMPLE	DUDE0047.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12266	BLOQ		1827	BLOQ		10532	BLOQ		2558	BLOQ		29748	BLOQ	
SAMPLE	DUDE0048.D	38034	E02-0443-38034; Water Samples; non-GLP; 6/20/02; OK	10	20207	BLOQ		4678	BLOQ		12092	BLOQ		4807	BLOQ		39153	BLOQ	
SAMPLE	DUDE0049.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	11960	BLOQ		1083	BLOQ		10121	BLOQ		2048	BLOQ		28594	BLOQ	
SAMPLE	DUDE0050.D	38035	E02-0443-38035; Water Samples; non-GLP; 6/20/02; OK	10	20954	BLOQ		84878	2.6		49413	2.7		53099	1.7		102435	BLOQ	
SAMPLE	DUDE0051.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12415	BLOQ		0	BLOQ		10336	BLOQ		2658	BLOQ		29657	BLOQ	
SAMPLE	DUDE0052.D	38037	E02-0443-38037; Water Samples; non-GLP; 6/20/02; OK	10	22352	BLOQ		7184	BLOQ		11379	BLOQ		5073	BLOQ		38180	BLOQ	
SAMPLE	DUDE0053.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	10	718526	26.1	104%	797380	26.1	104%	392926	26.5	106%	772695	25.9	104%	795740	26.1	104%
SAMPLE	DUDE0054.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13214	BLOQ		3059	BLOQ		11562	BLOQ		3719	BLOQ		31388	BLOQ	
SAMPLE	DUDE0055.D	38038	E02-0443-38038; Water Samples; non-GLP; 6/20/02; OK	10	24604	BLOQ		5490	BLOQ		12087	BLOQ		3274	BLOQ		38088	BLOQ	
SAMPLE	DUDE0056.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12375	BLOQ		1483	BLOQ		10830	BLOQ		2764	BLOQ		30464	BLOQ	
SAMPLE	DUDE0057.D	38039	E02-0443-38039; Water Samples; non-GLP; 6/20/02; OK	10	26143	BLOQ		81597	2.5		46433	2.6		71887	2.4		99019	BLOQ	
SAMPLE	DUDE0058.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12277	BLOQ		0	BLOQ		10738	BLOQ		3153	BLOQ		29732	BLOQ	
SAMPLE	DUDE0059.D	38041	E02-0443-38041; Water Samples; non-GLP; 6/20/02; OK	10	25881	BLOQ		83128	2.6		47821	2.6		70649	2.3		114326	2.7	
SAMPLE	DUDE0060.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12391	BLOQ		0	BLOQ		10096	BLOQ		2680	BLOQ		29451	BLOQ	
SAMPLE	DUDE0061.D	38043	E02-0443-38043; Water Samples; non-GLP; 6/20/02; OK	10	21507	BLOQ		8876	BLOQ		8910	BLOQ		4395	BLOQ		30794	BLOQ	
SAMPLE	DUDE0062.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	11663	BLOQ		0	BLOQ		9656	BLOQ		2404	BLOQ		28614	BLOQ	
SAMPLE	DUDE0063.D	38047	E02-0443-38047; Water Samples; non-GLP; 6/20/02; OK	10	23124	BLOQ		3998	BLOQ		9531	BLOQ		3387	BLOQ		31233	BLOQ	
SAMPLE	DUDE0064.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13984	BLOQ		0	BLOQ		10770	BLOQ		2178	BLOQ		29474	BLOQ	
SAMPLE	DUDE0065.D	Water Blank-1	E02-0443 Water Blank Water Samples; non-GLP; 6/20/02; OK	20	29174	BLOQ		5192	BLOQ		9179	BLOQ		3390	BLOQ		34010	BLOQ	
SAMPLE	DUDE0066.D	Water Blank-2	E02-0443 Water Blank Water Samples; non-GLP; 7/17/02; OK	20	54510	1.4		4219	BLOQ		11748	BLOQ		3371	BLOQ		33607	BLOQ	
SAMPLE	DUDE0067.D	38025	E02-0443-38025; Water Samples; non-GLP; 6/20/02; OK	20	98538	3.0		247750	7.7		321649	21.3		29388	1.0		583658	18.5	
SAMPLE	DUDE0068.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	18088	BLOQ		3257	BLOQ		11340	BLOQ		2474	BLOQ		30917	BLOQ	
SAMPLE	DUDE0069.D	38026	E02-0443-38026; Water Samples; non-GLP; 7/17/02; OK	20	118567	3.7		255866	8.0		340061	22.7		31162	1.0		648655	20.8	
SAMPLE	DUDE0070.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12416	BLOQ		0	BLOQ		11011	BLOQ		2184	BLOQ		30542	BLOQ	

D020812A

River Water Samples

E02-0443
Tenn. River Valley Water Samples

Sample Locations 1, 2, and 3. Low end of curve.

SampType	File	Sample Name	Sample Info	Inj. Vol. (uL)	PFBS (299)			PFHS (399)			PFOA (413)			FOSA (498)			PFOS (499)		
					Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%
SAMPLE	DUDE0071.D	38027	E02-0443-38027; Water Samples; non-GLP; 7/17/02; OK	20	102829	3.1		405593	12.6		412129	28.0		121332	4.0		808339	26.6	
SAMPLE	DUDE0072.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13006	BLOQ		2733	BLOQ		11372	BLOQ		2586	BLOQ		31385	BLOQ	
SAMPLE	DUDE0073.D	38029	E02-0443-38029; Water Samples; non-GLP; 6/20/02; OK	20	89092	2.7		252177	7.9		328881	21.8		34000	1.1		831588	20.2	
SAMPLE	DUDE0074.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	10	724200	26.3	105%	812476	26.6	106%	413005	28.0	112%	780482	26.2	105%	813299	26.8	107%
SAMPLE	DUDE0075.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13620	BLOQ		3194	BLOQ		11820	BLOQ		3678	BLOQ		30284	BLOQ	
SAMPLE	DUDE0076.D	38032	E02-0443-38032; Water Samples; non-GLP; 6/20/02; OK	20	19361	BLOQ		157296	4.9		84190	4.8		138473	4.6		190157	5.2	
SAMPLE	DUDE0077.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	11442	BLOQ		0	BLOQ		10579	BLOQ		2582	BLOQ		28764	BLOQ	
SAMPLE	DUDE0078.D	38033	E02-0443-38033; Water Samples; non-GLP; 6/20/02; OK	20	25800	BLOQ		5685	BLOQ		11537	BLOQ		5487	BLOQ		35066	BLOQ	
SAMPLE	DUDE0079.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12025	BLOQ		866	BLOQ		10246	BLOQ		2219	BLOQ		28273	BLOQ	
SAMPLE	DUDE0080.D	38034	E02-0443-38034; Water Samples; non-GLP; 6/20/02; OK	20	28016	BLOQ		8673	BLOQ		17031	BLOQ		6747	BLOQ		51049	BLOQ	
SAMPLE	DUDE0081.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	15199	BLOQ		0	BLOQ		10432	BLOQ		2137	BLOQ		29174	BLOQ	
SAMPLE	DUDE0082.D	38035	E02-0443-38035; Water Samples; non-GLP; 6/20/02; OK	20	28791	BLOQ		168441	5.2		93950	5.6		108416	3.8		182208	4.9	
SAMPLE	DUDE0083.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12285	BLOQ		1155	BLOQ		10273	BLOQ		1871	BLOQ		28491	BLOQ	
SAMPLE	DUDE0084.D	38037	E02-0443-38037; Water Samples; non-GLP; 6/20/02; OK	20	32548	BLOQ		12978	BLOQ		14081	BLOQ		6547	BLOQ		43651	BLOQ	
SAMPLE	DUDE0085.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12779	BLOQ		0	BLOQ		9859	BLOQ		1784	BLOQ		28142	BLOQ	
SAMPLE	DUDE0086.D	38038	E02-0443-38038; Water Samples; non-GLP; 6/20/02; OK	20	34896	BLOQ		8214	BLOQ		15139	BLOQ		3452	BLOQ		44196	BLOQ	
SAMPLE	DUDE0087.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12019	BLOQ		0	BLOQ		9885	BLOQ		2043	BLOQ		28231	BLOQ	
SAMPLE	DUDE0088.D	38039	E02-0443-38039; Water Samples; non-GLP; 6/20/02; OK	20	36973	BLOQ		160575	5.0		86104	5.1		146553	4.8		170840	4.6	
SAMPLE	DUDE0089.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12360	BLOQ		0	BLOQ		10459	BLOQ		2297	BLOQ		28058	BLOQ	
SAMPLE	DUDE0090.D	38041	E02-0443-38041; Water Samples; non-GLP; 6/20/02; OK	20	41348	BLOQ		163987	5.1		90881	5.4		147415	4.9		196423	5.5	
SAMPLE	DUDE0091.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12372	BLOQ		0	BLOQ		10293	BLOQ		2060	BLOQ		28951	BLOQ	
SAMPLE	DUDE0092.D	38043	E02-0443-38043; Water Samples; non-GLP; 6/20/02; OK	20	32848	BLOQ		16543	BLOQ		9481	BLOQ		6471	BLOQ		30951	BLOQ	
SAMPLE	DUDE0093.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13840	BLOQ		0	BLOQ		10262	BLOQ		1571	BLOQ		28000	BLOQ	
SAMPLE	DUDE0094.D	38047	E02-0443-38047; Water Samples; non-GLP; 6/20/02; OK	20	35842	BLOQ		6381	BLOQ		10580	BLOQ		5664	BLOQ		33414	BLOQ	
SAMPLE	DUDE0095.D	02003-50-05	02003 50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	10	721194	26.2	105%	806684	26.4	106%	413658	28.1	112%	802001	26.9	108%	826526	27.2	109%
SAMPLE	DUDE0096.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	15210	BLOQ		2279	BLOQ		10747	BLOQ		3082	BLOQ		29397	BLOQ	

Samples were injected at two different injection volumes: 10 and 20 uL. Only the 20 uL injections were used for reporting.

E02-0443

D020812B

River Water Samples

Sample Locations 1, 2, and 3. High end of curve.

Tenn. River Valley Water Samples

SampType	File	Sample Name	Sample Info	Inj. Vol. uL	PFBS (299) Area	PFBS (299) Amount ng/mL	PFBS (299) % or Inj. Adjusted Conc.	PFHS (399) Area	PFHS (399) Amount ng/mL	PFHS (399) % or Inj. Adjusted Conc.	PFOA (413) Area	PFOA (413) Amount ng/mL	PFOA (413) % or Inj. Adjusted Conc.	FOSA (498) Area	FOSA (498) Amount ng/mL	FOSA (498) % or Inj. Adjusted Conc.	PFOS (499) Area	PFOS (499) Amount ng/mL	PFOS (499) % or Inj. Adjusted Conc.
SAMPLE	DUDE0097.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13537	BLOQ		1400	BLOQ		10321	BLOQ		2138	BLOQ		28361	BLOQ	
CALIB_1	DUDE0098.D	02003-50-03	02003-50-03; 5.0ppb Fish Curves; CMC; 20 Jun 02	10	163033	2928.1	58562%	168094	2808.1	56163%	92431	2679.3	53586%	156451	0.1	1%	189527	3063.3	61266%
CALIB_2	DUDE0099.D	02003-50-04	02003-50-04; 10.0ppb Fish Curves; CMC; 20 Jun 02	10	307014	3.3	33%	331241	1.0	10%	175543	0.9	9%	318034	5.8	58%	351522	2.6	26%
CALIB_3	DUDE0100.D	02003-50-05	02003-50-05; 25.0ppb Fish Curves; CMC; 20 Jun 02	10	715666	22.6	90%	802686	22.2	89%	415910	22.7	91%	803328	23.2	93%	819361	22.5	90%
CALIB_4	DUDE0101.D	02003-50-06	02003-50-06; 50.0ppb Fish Curves; CMC; 20 Jun 02	10	1354071	53.3	107%	1513177	54.8	110%	761975	54.9	110%	1578162	51.2	102%	1526879	53.2	106%
CALIB_5	DUDE0102.D	02003-50-07	02003-50-07; 100.0ppb Fish Curves; CMC; 20 Jun 02	10	2554692	113.0	113%	2804446	116.1	116%	1384454	114.8	115%	3026063	104.6	105%	2818068	111.0	111%
CALIB_6	DUDE0103.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	10	5338247	262.8	105%	5744653	268.2	107%	2852513	269.4	108%	7085219	263.3	105%	6091052	269.2	108%
CALIB_7	DUDE0104.D	02003-50-09	02003-50-09; 500.0ppb Fish Curves; CMC; 20 Jun 02	10	9019153	495.9	99%	9447549	495.3	99%	4663876	498.5	100%	12559274	503.5	101%	10170196	499.8	100%
CALIB_8	DUDE0105.D	02003-50-10	02003-50-10; 750.0ppb Fish Curves; CMC; 20 Jun 02	10	11858162	724.4	97%	12215679	712.4	95%	5918308	704.0	94%	16857715	723.3	96%	13181829	710.8	95%
CALIB_9	DUDE0106.D	02003-50-11	02003-50-11; 1000.0ppb Fish Curves; CMC; 20 Jun 02	10	14420598	1022.8	102%	14840750	1035.8	104%	7229178	1046.6	105%	21528937	1016.2	102%	16441005	1031.1	103%
SAMPLE	DUDE0107.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	80333	BLOQ		97224	BLOQ		58594	BLOQ		86458	BLOQ		115010	BLOQ	
SAMPLE	DUDE0108.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	34662	BLOQ		32748	BLOQ		27498	BLOQ		34481	BLOQ		58683	BLOQ	
SAMPLE	DUDE0109.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	20295	BLOQ		10205	BLOQ		14898	BLOQ		15823	BLOQ		36993	BLOQ	
SAMPLE	DUDE0110.D	Blank inject	Blank inject	0	13177	BLOQ		4953	BLOQ		10272	BLOQ		11561	BLOQ		31172	BLOQ	
SAMPLE	DUDE0111.D	38028	02-0443-38028; Water Samples; non-GLP; 7/17/02; OH	1	115456	BLOQ		4783632	218.4	2164	2345774	213.8	2136	4391792	156.6	1565	4582697	194.6	1940
SAMPLE	DUDE0112.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14141	BLOQ		27124	BLOQ		22974	BLOQ		26547	BLOQ		49778	BLOQ	
SAMPLE	DUDE0113.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14175	BLOQ		22960	BLOQ		21021	BLOQ		22344	BLOQ		46479	BLOQ	
SAMPLE	DUDE0114.D	38030	02-0443-38030; Water Samples; non-GLP; 7/17/02; OH	1	105342	BLOQ		4922944	223.7	2237	2488196	229.0	2290	4238098	150.6	1506	5142399	221.4	2214
SAMPLE	DUDE0115.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	29285	BLOQ		98297	BLOQ		51875	BLOQ		54062	BLOQ		92565	BLOQ	
SAMPLE	DUDE0116.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	20694	BLOQ		57551	BLOQ		37471	BLOQ		36299	BLOQ		86188	BLOQ	
SAMPLE	DUDE0117.D	38036	02-0443-38036; Water Samples; non-GLP; 6/20/02; OH	1	114260	BLOQ		4895890	222.3	2223	2378333	217.1	2171	4590279	164.1	1641	4601514	194.9	1949
SAMPLE	DUDE0118.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	15389	BLOQ		38404	BLOQ		28890	BLOQ		25454	BLOQ		57346	BLOQ	
SAMPLE	DUDE0119.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12831	BLOQ		8156	BLOQ		13975	BLOQ		17513	BLOQ		37253	BLOQ	
SAMPLE	DUDE0120.D	38040	02-0443-38040; Water Samples; non-GLP; 6/20/02; OH	1	105283	BLOQ		4875120	221.2	2212	2407809	220.3	2203	4284167	152.3	1523	4477171	188.8	1888
SAMPLE	DUDE0121.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13215	BLOQ		21623	BLOQ		20885	BLOQ		22758	BLOQ		42144	BLOQ	
SAMPLE	DUDE0122.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12917	BLOQ		8958	BLOQ		14483	BLOQ		19643	BLOQ		37825	BLOQ	
SAMPLE	DUDE0123.D	38042	02-0443-38042; Water Samples; non-GLP; 6/20/02; OH	1	100984	BLOQ		5110386	233.7	2337	2548671	235.6	2356	4540362	162.2	1622	5397150	234.0	2340
SAMPLE	DUDE0124.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12849	BLOQ		26890	BLOQ		24584	BLOQ		39273	BLOQ		56092	BLOQ	
SAMPLE	DUDE0125.D	Blank inject	Blank inject	0	11211	BLOQ		4864	BLOQ		9995	BLOQ		9449	BLOQ		30993	BLOQ	
SAMPLE	DUDE0126.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13577	BLOQ		3213	BLOQ		11659	BLOQ		7461	BLOQ		32766	BLOQ	
SAMPLE	DUDE0127.D	38028	02-0443-38028; Water Samples; non-GLP; 7/17/02; OH	2	195308	BLOQ		7874701	392.6	1963	3848302	388.4	1942	8025349	302.1	1511	7827644	361.8	1809
SAMPLE	DUDE0128.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	21400	BLOQ		87662	BLOQ		45218	BLOQ		41497	BLOQ		83077	BLOQ	
SAMPLE	DUDE0129.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	16873	BLOQ		50351	BLOQ		35475	BLOQ		27012	BLOQ		70072	BLOQ	
SAMPLE	DUDE0130.D	38030	02-0443-38030; Water Samples; non-GLP; 7/17/02; OH	2	197441	BLOQ		8387299	424.9	2124	4152125	427.9	2139	7980357	300.2	1501	8914428	423.7	2118
SAMPLE	DUDE0131.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	28200	BLOQ		191270	BLOQ		86923	BLOQ		65497	BLOQ		141070	BLOQ	
SAMPLE	DUDE0132.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	16531	BLOQ		51072	BLOQ		35510	BLOQ		25297	BLOQ		88159	BLOQ	
SAMPLE	DUDE0133.D	38036	02-0443-38036; Water Samples; non-GLP; 6/20/02; OH	2	202053	BLOQ		8071912	404.9	2024	3927038	398.8	1992	8558553	324.6	1623	7890357	365.3	1826
SAMPLE	DUDE0134.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14398	BLOQ		78516	BLOQ		48910	BLOQ		48866	BLOQ		76899	BLOQ	
SAMPLE	DUDE0135.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13950	BLOQ		49037	BLOQ		36627	BLOQ		34164	BLOQ		67256	BLOQ	
SAMPLE	DUDE0136.D	38040	02-0443-38040; Water Samples; non-GLP; 6/20/02; OH	2	200230	BLOQ		8246279	415.9	2079	3997548	407.6	2038	7855892	299.2	1496	7760025	358.0	1790
SAMPLE	DUDE0137.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13316	BLOQ		43695	BLOQ		31452	BLOQ		43038	BLOQ		61357	BLOQ	
SAMPLE	DUDE0138.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12370	BLOQ		20233	BLOQ		21275	BLOQ		19617	BLOQ		45478	BLOQ	
SAMPLE	DUDE0139.D	38042	02-0443-38042; Water Samples; non-GLP; 6/20/02; OH	2	183613	BLOQ		8202638	413.1	2066	4068987	416.9	2085	8174236	308.3	1542	8968220	426.8	2134
SAMPLE	DUDE0140.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12893	BLOQ		58278	BLOQ		38452	BLOQ		44290	BLOQ		78638	BLOQ	
SAMPLE	DUDE0141.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	12340	BLOQ		18159	BLOQ		18447	BLOQ		15686	BLOQ		40527	BLOQ	
SAMPLE	DUDE0142.D	Blank inject	Blank inject	0	9841	BLOQ		4648	BLOQ		9572	BLOQ		10951	BLOQ		27555	BLOQ	
SAMPLE	DUDE0143.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	10	5125597	250.7	100%	5674946	264.3	106%	2823547	266.1	106%	7114505	264.5	106%	5929684	260.9	104%
SAMPLE	DUDE0144.D	38028	02-0443-38028; Water Samples; non-GLP; 7/17/02; OH	4	398873	BLOQ		13080342	793.9	1985	6281508	777.5	1944	14773879	612.4	1531	13071939	702.1	1755
SAMPLE	DUDE0145.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14720	BLOQ		92229	BLOQ		54716	BLOQ		84341	BLOQ		97537	BLOQ	
SAMPLE	DUDE0146.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	17547	BLOQ		89939	BLOQ		40213	BLOQ		28688	BLOQ		47918	BLOQ	
SAMPLE	DUDE0147.D	38030	02-0443-38030; Water Samples; non-GLP; 7/17/02; OH	4	346973	BLOQ		13162508	806.6	2017	6472607	820.3	2051	14362753	591.6	1479	14429266	816.2	2040
SAMPLE	DUDE0148.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	23103	BLOQ		231167	BLOQ		102359	BLOQ		88744	BLOQ		152460	BLOQ	
SAMPLE	DUDE0149.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	18391	BLOQ		104830	BLOQ		49451	BLOQ		36366	BLOQ		75016	BLOQ	
SAMPLE	DUDE0150.D	38036	02-0443-38036; Water Samples; non-GLP; 6/20/02; OH	4	371887	BLOQ		12886791	776.3	1941	6185128	757.1	1893	15224141	635.6	1589	12877797	687.1	1718
SAMPLE	DUDE0151.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	16975	BLOQ		135305	BLOQ		63657	BLOQ		77351	BLOQ		118470	BLOQ	
SAMPLE	DUDE0152.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14479	BLOQ		78337	BLOQ		45384	BLOQ		38037	BLOQ		82185	BLOQ	
SAMPLE	DUDE0153.D	38040	02-0443-38040; Water Samples; non-GLP; 6/20/02; OH	4	376029	BLOQ		13050055	792.9	1982	6288914	779.1	1948	14255819	586.2	1465	12592326	665.4	1664
SAMPLE	DUDE0154.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13362	BLOQ		92306	BLOQ		54011	BLOQ		74727	BLOQ		98633	BLOQ	
SAMPLE	DUDE0155.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13231	BLOQ		32754	BLOQ		26930	BLOQ		32030	BLOQ		48606	BLOQ	
SAMPLE	DUDE0156.D	38042	02-0443-38042; Water Samples; non-GLP; 6/20/02; OH	4	329602	BLOQ		12667328	784.7	1887	6275877	776.3	1941	14673438	607.3	1518	14232418	798.6	1996
SAMPLE	DUDE0157.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13531	BLOQ		107598	BLOQ		60903	BLOQ		74162	BLOQ		94990	BLOQ	
SAMPLE	DUDE0158.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	13378	BLOQ		61590	BLOQ		38184	BLOQ		31978	BLOQ		64793	BLOQ	
SAMPLE	DUDE0159.D	02003-50-08	02003-50-08; 250.0ppb Fish Curves; CMC; 20 Jun 02	10	5030899	245.4	98%	5525456	256.2	102%	2721242	254.6	102%	6959571	258.1	103%	5788749	253.7	101%
SAMPLE	DUDE0160.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	22621	BLOQ		59533	BLOQ		37223	BLOQ		40207	BLOQ		76146	BLOQ	
SAMPLE	DUDE0161.D	MeOH Blank	MeOH Blank: TN-A-06115; 05 Jun 02(rps); MLA/MEE	10	14879	BLOQ		11675	BLOQ		14724	BLOQ		13121	BLOQ		30632	BLOQ	

The samples were injected at three different levels: 1, 2, and 4 uL. Only the 2 uL injections were used for reporting.

I021112

River Sediments

Sample Locations 1, 2, and 3.

SampType	File	Inj. Vol (uL)	Sample Name	Sample Info	PFBS (299) Area	PFBS (299) Amount ng/mL	PFBS (299) %	PFHS (399) Area	PFHS (399) Amount ng/mL	PFHS (399) %	PFOA (413) Area	PFOA (413) Amount ng/mL	PFOA (413) %	FOSA (498) Area	FOSA (498) Amount ng/mL	FOSA (498) %	PFOS (499) Area	PFOS (499) Amount ng/mL	PFOS (499) %
SAMPLE	ITCHY001.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	50959	BLOQ		169862	3.7		1291736	80.6		15342	BLOQ		3153698	77.3	
SAMPLE	ITCHY002.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	21380	BLOQ		1830	BLOQ		34022	BLOQ		0	BLOQ		70108	BLOQ	
SAMPLE	ITCHY003.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19017	BLOQ		1350	BLOQ		27981	BLOQ		0	BLOQ		43674	BLOQ	
SAMPLE	ITCHY004.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19618	BLOQ		1432	BLOQ		23447	BLOQ		0	BLOQ		38465	BLOQ	
SAMPLE	ITCHY005.D	10	Blank inject	Blank inject	15214	BLOQ		1460	BLOQ		13805	BLOQ		0	BLOQ		32288	BLOQ	
SAMPLE	ITCHY006.D	10	Blank inject	Blank inject	15582	BLOQ	Ave:	1317	BLOQ	Ave:	14484	BLOQ	Ave:	0	BLOQ	Ave:	32248	BLOQ	Ave:
SAMPLE	ITCHY007.D	10	02003-50-07	02003-50-07; 100.0ppb Fish Curve; 20Jun02; CMC	3116944	99.5	104.1	4263993	101.0	102.7	1567803	101.1	102.0	4014481	99.9	100.4	3978456	99.4	100.2
SAMPLE	ITCHY008.D	10	02003-50-07	02003-50-07; 100.0ppb Fish Curve; 20Jun02; CMC	3226292	103.5	+5%	4325829	102.6	+5%	1585427	102.5	+5%	3990495	99.2	+5%	3995743	99.9	+5%
SAMPLE	ITCHY009.D	10	02003-50-07	02003-50-07; 100.0ppb Fish Curve; 20Jun02; CMC	3290155	105.9	109.3	4377377	104.0	107.9	1583410	102.3	107.1	4059606	101.1	105.4	4030823	100.9	105.2
SAMPLE	ITCHY010.D	10	02003-50-07	02003-50-07; 100.0ppb Fish Curve; 20Jun02; CMC	3284394	105.7	-5%	4351088	103.3	-5%	1582946	102.3	-5%	4064888	101.2	-5%	4037322	101.0	-5%
SAMPLE	ITCHY011.D	10	02003-50-07	02003-50-07; 100.0ppb Fish Curve; 20Jun02; CMC	3285487	105.7	98.9	4330857	102.7	97.6	1578615	101.9	96.9	4041973	100.6	95.4	3980654	99.5	95.1
SAMPLE	ITCHY012.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	28625	BLOQ		20656	BLOQ		33094	BLOQ		43396	1.1		60157	BLOQ	
SAMPLE	ITCHY013.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19985	BLOQ		3600	BLOQ		21962	BLOQ		0	BLOQ		36204	BLOQ	
SAMPLE	ITCHY014.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	20057	BLOQ		1293	BLOQ		21600	BLOQ		0	BLOQ		35701	BLOQ	
SAMPLE	ITCHY015.D	10	Blank inject	Blank inject	15091	BLOQ		1571	BLOQ		13917	BLOQ		0	BLOQ		32683	BLOQ	
SAMPLE	ITCHY016.D	10	Blank inject	Blank inject	14788	BLOQ		1312	BLOQ		13047	BLOQ		0	BLOQ		31853	BLOQ	
CALIB_1	ITCHY017.D	1	02003-50-01	02003-50-01; 1.0ppb Fish Curve; 20Jun02; CMC	22011	0.1	95%	6287	0.2	214%	16507	0.2	157%	3903	0.2	218%	41060	0.2	206%
CALIB_2	ITCHY018.D	2	02003-50-01	02003-50-01; 1.0ppb Fish Curve; 20Jun02; CMC	25188	0.2	93%	10753	0.3	155%	17924	0.2	115%	7868	0.3	155%	43918	0.3	137%
CALIB_3	ITCHY019.D	5	02003-50-01	02003-50-01; 1.0ppb Fish Curve; 20Jun02; CMC	36250	0.5	101%	24860	0.6	123%	23492	0.5	109%	19922	0.6	118%	57596	0.6	119%
CALIB_4	ITCHY020.D	10	02003-50-01	02003-50-01; 1.0ppb Fish Curve; 20Jun02; CMC	54827	1.0	104%	47829	1.1	111%	32917	1.1	108%	41430	1.1	109%	78083	1.1	107%
CALIB_5	ITCHY021.D	10	02003-50-02	02003-50-02; 2.5ppb Fish Curve; 20Jun02; CMC	105679	2.5	100%	110003	2.4	98%	58279	2.5	100%	99825	2.4	98%	138044	2.5	99%
CALIB_6	ITCHY022.D	10	02003-50-03	02003-50-03; 5.0ppb Fish Curve; 20Jun02; CMC	195112	5.1	102%	222098	4.9	97%	101209	4.9	99%	205418	4.9	96%	241208	4.9	98%
CALIB_7	ITCHY023.D	10	02003-50-04	02003-50-04; 10.0ppb Fish Curve; 20Jun02; CMC	366155	10.1	101%	448963	9.6	98%	188013	9.9	99%	414854	9.8	98%	449202	9.8	98%
CALIB_8	ITCHY024.D	10	02003-50-05	02003-50-05; 25.0ppb Fish Curve; 20Jun02; CMC	852340	24.6	98%	1115227	24.6	98%	438156	24.7	99%	1043141	24.7	99%	1072829	24.7	99%
CALIB_9	ITCHY025.D	10	02003-50-06	02003-50-06; 50.0ppb Fish Curve; 20Jun02; CMC	1677041	50.3	101%	2235317	50.4	101%	847970	50.3	101%	2094504	50.3	101%	2106206	50.3	101%
CALIB_10	ITCHY026.D	10	02003-50-07	02003-50-07; 100.0ppb Fish Curve; 20Jun02; CMC	3128959	99.9	100%	4223532	99.9	100%	1552778	99.9	100%	4016583	99.9	100%	3996955	99.9	100%
SAMPLE	ITCHY027.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	30131	BLOQ		21385	BLOQ		30743	BLOQ		12135	BLOQ		51755	BLOQ	
SAMPLE	ITCHY028.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	24505	BLOQ		5759	BLOQ		24724	BLOQ		3012	BLOQ		40561	BLOQ	
SAMPLE	ITCHY029.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19172	BLOQ		3655	BLOQ		21388	BLOQ		0	BLOQ		37317	BLOQ	
SAMPLE	ITCHY030.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	18797	BLOQ		1448	BLOQ		22778	BLOQ		0	BLOQ		37240	BLOQ	
SAMPLE	ITCHY031.D	10	Blank inject	Blank inject	14468	BLOQ		1309	BLOQ		14388	BLOQ		0	BLOQ		33624	BLOQ	
SAMPLE	ITCHY032.D	10	Blank inject	Blank inject	14928	BLOQ		1147	BLOQ		13834	BLOQ		0	BLOQ		33353	BLOQ	
SAMPLE	ITCHY033.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19375	BLOQ		1961	BLOQ		22413	BLOQ		0	BLOQ		36645	BLOQ	
SAMPLE	ITCHY034.D	10	0443-WB-1	E02-0443-WB-1; Water Blank; MeOH Extract; 21 Oct 02; MLA	37874	BLOQ		2541	BLOQ		13412	BLOQ		1927	BLOQ		78922	BLOQ	
SAMPLE	ITCHY035.D	10	0443-WB-2	E02-0443-WB-2; Water Blank; MeOH Extract; 21 Oct 02; MLA	32544	BLOQ		3628	BLOQ		14592	BLOQ		2453	BLOQ		42341	BLOQ	
SAMPLE	ITCHY036.D	10	0443-LCS-1	E02-0443-LCS-1; Lab Control Spike; MeOH Extract; 21 Oct 02; M	263855	7.1	14%	71410	1.6	3%	22317	BLOQ		1647305	39.3	79%	49479	BLOQ	
SAMPLE	ITCHY037.D	10	0443-LCS-2	E02-0443-LCS-2; Lab Control Spike; MeOH Extract; 21 Oct 02; M	482168	13.5	27%	240625	5.3	11%	52489	BLOQ		1645867	39.3	79%	87159	BLOQ	
SAMPLE	ITCHY038.D	20	0443-38044-1	E02-0443-38044-1; SL-1; MeOH Extract; 21 Oct 02; MLA	383859	10.6		122635	2.7		295590	16.2		1250415	29.7		2785277	67.7	
SAMPLE	ITCHY039.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	20291	BLOQ		2099	BLOQ		21643	BLOQ		11137	BLOQ		45742	BLOQ	
SAMPLE	ITCHY040.D	20	0443-38044-2	E02-0443-38044-2; SL-1; MeOH Extract; 21 Oct 02; MLA	383606	10.6		118901	2.6		260003	14.1		1361450	32.4		2885124	70.3	
SAMPLE	ITCHY041.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19921	BLOQ		2000	BLOQ		22126	BLOQ		842	BLOQ		54997	BLOQ	
SAMPLE	ITCHY042.D	20	0443-38044-3	E02-0443-38044-3; SL-1; MeOH Extract; 21 Oct 02; MLA	482034	13.5		111724	2.5		253343	13.7		1033771	24.5		2109105	50.4	
SAMPLE	ITCHY043.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	21235	BLOQ		1660	BLOQ		21251	BLOQ		1205	BLOQ		46050	BLOQ	
SAMPLE	ITCHY044.D	10	0443-38044-MS(3)	E02-0443-38044-MS(3); SL-1; MeOH Extract; 21 Oct 02; MLA	1373477	40.6	81%	1385185	30.7	61%	660960	38.4	77%	1344881	32.0	64%	2171918	51.9	104%
SAMPLE	ITCHY045.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	23305	BLOQ		2087	BLOQ		23125	BLOQ		1547	BLOQ		40110	BLOQ	
SAMPLE	ITCHY046.D	20	0453-38045-1	E02-0443-38045-1; SL-3; MeOH Extract; 21 Oct 02; MLA	325254	8.9		13341	BLOQ		48048	BLOQ		48310	1.2		418454	9.1	
SAMPLE	ITCHY047.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	21014	BLOQ		2114	BLOQ		22078	BLOQ		1569	BLOQ		40543	BLOQ	
SAMPLE	ITCHY048.D	20	0453-38045-2	E02-0443-38045-2; SL-3; MeOH Extract; 21 Oct 02; MLA	305101	8.3		11469	BLOQ		50231	2.6		46172	1.2		323943	6.8	
SAMPLE	ITCHY049.D	10	02003-50-06	02003-50-06; 50.0ppb Fish Curve; 20Jun02; CMC	1847939	49.4	99%	2185430	49.2	98%	820358	48.5	97%	1974681	47.4	95%	2012855	47.9	96%
SAMPLE	ITCHY050.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	23146	BLOQ		1745	BLOQ		21007	BLOQ		488	BLOQ		38086	BLOQ	
SAMPLE	ITCHY051.D	20	0453-38045-3	E02-0443-38045-3; SL-3; MeOH Extract; 21 Oct 02; MLA	364688	10.0		12125	BLOQ		54999	BLOQ		65768	1.7		420485	9.1	
SAMPLE	ITCHY052.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19743	BLOQ		1694	BLOQ		20875	BLOQ		0	BLOQ		35793	BLOQ	
SAMPLE	ITCHY053.D	10	0453-38045-MS(3)	E02-0443-38045-MS(3); SL-3; MeOH Extract; 21 Oct 02; MLA	1640798	45.9	92%	1695568	37.8	76%	691396	40.3	81%	1092819	28.9	62%	1285366	29.9	60%
SAMPLE	ITCHY054.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	20665	BLOQ		8056	BLOQ		20620	BLOQ		0	BLOQ		34458	BLOQ	
SAMPLE	ITCHY055.D	20	0463-38046-1	E02-0443-38046-1; SL-2; MeOH Extract; 21 Oct 02; MLA	327380	8.9		17353	BLOQ		53375	BLOQ		120467	2.9		417236	9.0	
SAMPLE	ITCHY056.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	18866	BLOQ		1682	BLOQ		22309	BLOQ		0	BLOQ		35976	BLOQ	
SAMPLE	ITCHY057.D	20	0463-38046-2	E02-0443-38046-2; SL-2; MeOH Extract; 21 Oct 02; MLA	232749	6.2		18434	BLOQ		35197	BLOQ		103503	2.5		393650	8.5	
SAMPLE	ITCHY058.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	18641	BLOQ		1723	BLOQ		22164	BLOQ		0	BLOQ		35978	BLOQ	
SAMPLE	ITCHY059.D	20	0463-38046-3	E02-0443-38046-3; SL-2; MeOH Extract; 21 Oct 02; MLA	420079	11.7		25494	BLOQ		40917	BLOQ		133252	3.2		478587	10.5	
SAMPLE	ITCHY060.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	18094	BLOQ		1864	BLOQ		21433	BLOQ		0	BLOQ		35395	BLOQ	
SAMPLE	ITCHY061.D	10	0463-38046-MS(3)	E02-0443-38046-MS(3); SL-2; MeOH Extract; 21 Oct 02; MLA	1325951	39.2	78%	1646893	36.7	73%	703683	41.1	82%	1207759	28.6	57%	1324578	30.9	62%
SAMPLE	ITCHY062.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	21141	BLOQ		6932	BLOQ		24278	BLOQ		590	BLOQ		37316	BLOQ	
SAMPLE	ITCHY063.D	10	0443-WB-3	E02-0443-WB-3; Water Blank; MeOH Extract; 21 Oct 02; MLA	33516	BLOQ		1745	BLOQ		14415	BLOQ		4119	BLOQ		44719	BLOQ	
SAMPLE	ITCHY064.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	17365	BLOQ		1485	BLOQ		24426	BLOQ		0	BLOQ		36786	BLOQ	
SAMPLE	ITCHY065.D	10	0443-LCS-3	E02-0443-LCS-3; Lab Control Spike; MeOH Extract; 21 Oct 02; M	37815	BLOQ		2085437	46.4	93%	971952	58.5	117%	1668270	39.8	80%	2080684	49.6	99%
SAMPLE	ITCHY066.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	17736	BLOQ		4071	BLOQ		29767	BLOQ		12838	BLOQ		44151	BLOQ	
SAMPLE	ITCHY067.D	20	0443-38044-4	E02-0443-38044-4; SL-1; MeOH Extract; 21 Oct 02; MLA	452851	12.6		126160	2.8		283636	15.5		1275839	30.3		3179373	78.0	

I021112

River Sediments

Sample Locations 1, 2, and 3.

SampType	File	Inj. Vol (uL)	Sample Name	Sample Info	PFBS (299)			PFHS (399)			PFOA (413)			FOSA (498)			PFOS (499)		
					Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%	Area	Amount ng/mL	%
SAMPLE	ITCHY068.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	18871	BLOQ		2077	BLOQ		24249	BLOQ		15985	BLOQ		57186	BLOQ	
SAMPLE	ITCHY069.D	20	0443-38045-4	E02-0443-38045-4; SL-3; MeOH Extract; 21 Oct 02; MLA	330170	9.0		31122	BLOQ		46537	BLOQ		36022	1.0		427185	9.3	
SAMPLE	ITCHY070.D	10	02003-50-06	02003-50-06; 50.0ppb Fish Curve; 20Jun02; CMC	1617080	48.4	97%	2125881	47.9	96%	875275	52.1	104%	1911480	45.8	92%	1984260	47.2	94%
SAMPLE	ITCHY071.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	21377	BLOQ		9759	BLOQ		27571	BLOQ		12534	BLOQ		41842	BLOQ	
SAMPLE	ITCHY072.D	10	0443-38045-MS(4)	E02-0443-38045-MS(4); SL-3; MeOH Extract; 21 Oct 02; MLA	456855	12.7	25%	1845453	41.3	83%	796892	47.0	94%	886709	21.0	42%	1844381	43.7	87%
SAMPLE	ITCHY073.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	18285	BLOQ		2720	BLOQ		25291	BLOQ		451	BLOQ		38789	BLOQ	
SAMPLE	ITCHY074.D	10	0443-WB-4	E02-0443-WB-4; Water Blank; MeOH Extract; 21 Oct 02; MLA	1603860	47.9	96%	2143465	48.3	97%	615469	35.5	71%	1234862	29.3	59%	1586556	37.3	75%
SAMPLE	ITCHY075.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	20845	BLOQ		9652	BLOQ		25074	BLOQ		539	BLOQ		39305	BLOQ	
SAMPLE	ITCHY076.D	10	0443-LCS-4	E02-0443-LCS-4; Lab Control Spike; MeOH Extract; 21 Oct 02; M	22710	BLOQ		25972	BLOQ		24197	BLOQ		356894	8.4		408249	8.8	
SAMPLE	ITCHY077.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	17405	BLOQ		1925	BLOQ		22877	BLOQ		824	BLOQ		35140	BLOQ	
SAMPLE	ITCHY078.D	20	0443-38044-5	E02-0443-38044-5; SL-1; MeOH Extract; 21 Oct 02; MLA	497463	13.9		105333	2.3		247936	13.4		1307814	31.1		2940383	71.7	
SAMPLE	ITCHY079.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	20039	BLOQ		2395	BLOQ		22062	BLOQ		796	BLOQ		41633	BLOQ	
SAMPLE	ITCHY080.D	20	0443-38045-5	E02-0443-38045-5; SL-3; MeOH Extract; 21 Oct 02; MLA	369663	10.2		29644	BLOQ		51340	BLOQ		56609	1.4		473215	10.4	
SAMPLE	ITCHY081.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	18740	BLOQ		1798	BLOQ		22796	BLOQ		0	BLOQ		36038	BLOQ	
SAMPLE	ITCHY082.D	20	0443-38046-5	E02-0443-38046-5; SL-2; MeOH Extract; 21 Oct 02; MLA	436048	12.1		16886	BLOQ		51651	BLOQ		135750	3.3		497175	10.9	
SAMPLE	ITCHY083.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19499	BLOQ		1830	BLOQ		21824	BLOQ		0	BLOQ		34979	BLOQ	
SAMPLE	ITCHY084.D	10	0443-38046-MS(5)	E02-0443-38046-MS(5); SL-2; MeOH Extract; 21 Oct 02; MLA	1606166	48.0	96%	1578870	35.1	70%	672354	39.1	78%	1100535	26.1	52%	1949205	46.3	93%
SAMPLE	ITCHY085.D	10	02003-50-06	02003-50-06; 50.0ppb Fish Curve; 20Jun02; CMC	1590860	47.5	95%	2095232	47.1	94%	862750	51.3	103%	1927507	46.2	92%	1980906	47.1	94%
SAMPLE	ITCHY086.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	24560	BLOQ		2386	BLOQ		22523	BLOQ		392	BLOQ		36534	BLOQ	
SAMPLE	ITCHY087.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	19986	BLOQ		3882	BLOQ		21381	BLOQ		0	BLOQ		33899	BLOQ	
SAMPLE	ITCHY088.D	10	MeOH Blank	MeOH Blank: TN-A-06264; 12 Sept 02(rps); MLA/MEE	22823	BLOQ		2217	BLOQ		23535	BLOQ		0	BLOQ		34087	BLOQ	

Injections ITCHY063 to ITCHY088 are not reported, they are for method development only.

I021112

River Sediments

Sample Locations 1, 2, and 3.

Inj. Vol (uL)	Sample Name	Sample Info	Area	On-Column Amount (ng/mL)	On-Column Average (ng/mL)	Corrected for Inj. Vol (ng/mL)	Corrected for Sample Prep. (pg/mL)	Average, Stnd D and %CV (pg/mL)
			PFBS (299)					
20	0443-38044-1	E02-0443-38044-1; SL-1;	M 383859	10.6	11.6	5.3	529	577
20	0443-38044-2	E02-0443-38044-2; SL-1;	M 383608	10.8		5.3	529	83
20	0443-38044-3	E02-0443-38044-3; SL-1;	M 482034	13.5		6.7	673	14%
20	0453-38045-1	E02-0443-38045-1; SL-3;	M 325254	8.9	9.1	4.4	443	452
20	0453-38045-2	E02-0443-38045-2; SL-3;	M 305101	8.3		4.1	413	44
20	0453-38045-3	E02-0443-38045-3; SL-3;	M 364688	10.0		5.0	500	10%
20	0463-38046-1	E02-0443-38046-1; SL-2;	M 327380	8.9	8.9	4.5	438	437
20	0463-38046-2	E02-0443-38046-2; SL-2;	M 232749	6.2		3.1	302	134
20	0463-38046-3	E02-0443-38046-3; SL-2;	M 420079	11.7		5.8	571	31%
			PFHS (399)					
20	0443-38044-1	E02-0443-38044-1; SL-1;	M 122635	2.7	2.6	1.4	136	130
20	0443-38044-2	E02-0443-38044-2; SL-1;	M 118901	2.6		1.3	132	6
20	0443-38044-3	E02-0443-38044-3; SL-1;	M 111724	2.5		1.2	124	5%
20	0453-38045-1	E02-0443-38045-1; SL-3;	M 13341	BLOQ	BLOQ	BLOQ	BLOQ	BLOQ
20	0453-38045-2	E02-0443-38045-2; SL-3;	M 11469	BLOQ		BLOQ	BLOQ	BLOQ
20	0453-38045-3	E02-0443-38045-3; SL-3;	M 12125	BLOQ		BLOQ	BLOQ	BLOQ
20	0463-38046-1	E02-0443-38046-1; SL-2;	M 17353	BLOQ	BLOQ	BLOQ	BLOQ	BLOQ
20	0463-38046-2	E02-0443-38046-2; SL-2;	M 18434	BLOQ		BLOQ	BLOQ	BLOQ
20	0463-38046-3	E02-0443-38046-3; SL-2;	M 25494	BLOQ		BLOQ	BLOQ	BLOQ
			PFOA (413)					
20	0443-38044-1	E02-0443-38044-1; SL-1;	M 295590	16.2	14.7	8.1	808	732
20	0443-38044-2	E02-0443-38044-2; SL-1;	M 280003	14.1		7.1	704	66
20	0443-38044-3	E02-0443-38044-3; SL-1;	M 253343	13.7		6.9	685	9%
20	0453-38045-1	E02-0443-38045-1; SL-3;	M 48048	BLOQ	2.6	BLOQ	BLOQ	131
20	0453-38045-2	E02-0443-38045-2; SL-3;	M 60231	2.6		1.3	131	BLOQ
20	0453-38045-3	E02-0443-38045-3; SL-3;	M 54999	BLOQ		BLOQ	BLOQ	BLOQ
20	0463-38046-1	E02-0443-38046-1; SL-2;	M 53375	BLOQ	BLOQ	BLOQ	BLOQ	BLOQ
20	0463-38046-2	E02-0443-38046-2; SL-2;	M 35197	BLOQ		BLOQ	BLOQ	BLOQ
20	0463-38046-3	E02-0443-38046-3; SL-2;	M 40917	BLOQ		BLOQ	BLOQ	BLOQ
			FOSA (498)					
20	0443-38044-1	E02-0443-38044-1; SL-1;	M 1250415	29.7	28.8	14.8	1481	1439
20	0443-38044-2	E02-0443-38044-2; SL-1;	M 1361450	32.4		16.2	1615	200
20	0443-38044-3	E02-0443-38044-3; SL-1;	M 1033771	24.5		12.2	1221	14%
20	0453-38045-1	E02-0443-38045-1; SL-3;	M 48310	1.2	1.4	0.6	62	68
20	0453-38045-2	E02-0443-38045-2; SL-3;	M 48172	1.2		0.6	60	12
20	0453-38045-3	E02-0443-38045-3; SL-3;	M 65788	1.7		0.8	82	18%
20	0463-38046-1	E02-0443-38046-1; SL-2;	M 120467	2.9	2.9	1.5	143	141
20	0463-38046-2	E02-0443-38046-2; SL-2;	M 103503	2.5		1.3	124	17
20	0463-38046-3	E02-0443-38046-3; SL-2;	M 133252	3.2		1.6	157	12%
			PFOS (499)					
20	0443-38044-1	E02-0443-38044-1; SL-1;	M 2785277	67.7	62.8	33.8	3377	3132
20	0443-38044-2	E02-0443-38044-2; SL-1;	M 2885124	70.3		35.1	3506	540
20	0443-38044-3	E02-0443-38044-3; SL-1;	M 2109105	50.4		25.2	2514	17%
20	0453-38045-1	E02-0443-38045-1; SL-3;	M 418454	9.1	8.3	4.5	452	416
20	0453-38045-2	E02-0443-38045-2; SL-3;	M 323943	6.8		3.4	341	65
20	0453-38045-3	E02-0443-38045-3; SL-3;	M 420485	9.1		4.6	455	16%
20	0463-38046-1	E02-0443-38046-1; SL-2;	M 417236	9.0	9.3	4.5	443	457
20	0463-38046-2	E02-0443-38046-2; SL-2;	M 393650	8.5		4.2	415	51
20	0463-38046-3	E02-0443-38046-3; SL-2;	M 478587	10.5		5.3	514	11%

Sample Wt. (g)	
38044	20.0
38044-MS	20.01
38045	20.1
38045-MS	20.30
38046	20.4
38046-MS	19.98

Regular samples are averges of the three weights.

On-Column Average
= Average of triplicates

Corrected for Inj. Vol.
= On-Col Amount * 0.5

Corrected for Sample Prep
= On-Col Amount * 0.5 * 2 * 1000 / Sample Weight (Ave)

"2" is the Final Vol of the Extract (mL)

E02-0443

Combined Large Mouth Bass Data Table

		PFBS (299)	PFHS (399)	PFOA (413)		FOSA (498)	PFOS (499)		
LIMS #	Sample Name	Amount ng/mL	Amount ng/mL	Amount ng/mL	Corrected for Smpl Prep (ng/mL)	Amount ng/mL	Amount ng/mL	Corrected for Smpl Prep (ng/mL)	Ave, Stnd Dev, and %CV
42798	SL-1; LM-1-1	BLOQ	BLOQ	BLOQ		BLOQ	18.5	185.5	152
	SL-1; LM-1-2	BLOQ	BLOQ	BLOQ		BLOQ	13.0	130.0	29.61
	SL-1. LM-1-3	BLOQ	BLOQ	BLOQ		BLOQ	14.0	139.7	19.5%
42799	SL-1. LM-2-1	BLOQ	BLOQ	BLOQ		BLOQ	63.6	635.5	607
	SL-1. LM-2-2	BLOQ	BLOQ	BLOQ		BLOQ	61.4	614.0	32.49
	SL-1. LM-2-3	BLOQ	BLOQ	BLOQ		BLOQ	57.2	571.7	5.4%
42800	SL-1. LM-3-1	BLOQ	BLOQ	BLOQ		BLOQ	73.2	732.1	788
	SL-1. LM-3-2	BLOQ	BLOQ	BLOQ		BLOQ	80.8	807.7	49.18
	SL-1. LM-3-3	BLOQ	BLOQ	BLOQ		BLOQ	82.4	824.4	6.2%
42801	SL-1. LM-4-1	BLOQ	BLOQ	BLOQ		BLOQ	68.8	688.4	700
	SL-1. LM-4-2	BLOQ	BLOQ	6.4	64.3	BLOQ	75.7	757.0	52.70
	SL-1. LM-4-3	BLOQ	BLOQ	BLOQ		BLOQ	65.3	653.3	7.5%
42802	SL-1. LM-5-1	BLOQ	BLOQ	BLOQ		BLOQ	46.6	465.5	423
	SL-1. LM-5-2	BLOQ	BLOQ	BLOQ		BLOQ	41.5	415.0	39.03
	SL-1. LM-5-3	BLOQ	BLOQ	BLOQ		BLOQ	38.9	388.7	9.2%
42803	SL-1. LM-6-1	BLOQ	BLOQ	BLOQ		BLOQ	69.3	693.2	651
	SL-1. LM-6-2	BLOQ	BLOQ	BLOQ		BLOQ	59.9	599.1	47.78
	SL-1. LM-6-3	BLOQ	BLOQ	BLOQ		BLOQ	66.0	660.2	7.3%
42804	SL-2; LM-1-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-2; LM-1-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-2. LM-1-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42805	SL-2. LM-2-1	BLOQ	BLOQ	BLOQ		BLOQ	2.6	25.6	
	SL-2. LM-2-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-2. LM-2-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42806	SL-2. LM-3-1	BLOQ	BLOQ	BLOQ		BLOQ	9.7	96.7	100
	SL-2. LM-3-2	BLOQ	BLOQ	BLOQ		BLOQ	11.8	117.6	16.68
	SL-2. LM-3-3	BLOQ	BLOQ	BLOQ		BLOQ	8.5	84.7	16.7%
42807	SL-2. LM-4-1	BLOQ	BLOQ	BLOQ		BLOQ	53.1	530.8	547
	SL-2. LM-4-2	BLOQ	BLOQ	BLOQ		BLOQ	54.1	540.9	20.02
	SL-2. LM-4-3	BLOQ	BLOQ	BLOQ		BLOQ	56.9	569.4	3.7%
42808	SL-3; LM-1-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3; LM-1-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-1-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42809	SL-3. LM-2-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-2-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-2-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42810	SL-3. LM-3-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-3-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-3-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42811	SL-3. LM-4-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-4-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-4-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42812	SL-3. LM-5-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-5-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-5-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42813	SL-3. LM-6-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-6-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-6-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42814	SL-3. LM-7-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-7-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. LM-7-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
42815	SL-3. SM-1-1	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. SM-1-2	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		
	SL-3. SM-1-3	BLOQ	BLOQ	BLOQ		BLOQ	BLOQ		

Corrected for sample prep.
= Amount (ng/mL) * 10

SL-1, LM	PFOA	PFOS
Average (ppb) :	64.3	553.4
Stnd. D.:	NA	220

SL-2, LM	PFOS
Average (ppb) :	280.8
Stnd. D.:	251

E02-0443

Combined CatFish Data Table

		PFBS (299)	PFHS (399)	PFOA (413)	FOSA (498)			PFOS (499)		
LIMS #	Sample Name	Amount ng/mL	Amount ng/mL	Amount ng/mL	Amount ng/mL	Corrected for Smpl Prep (ng/mL)	Ave, Stnd Dev, and %CV	Amount ng/mL	Corrected for Smpl Prep (ng/mL)	Ave, Stnd Dev, and %CV
42777	SL-1; C-1-1	BLOQ	BLOQ	BLOQ	5.9	58.7	54.7	11.2	112.1	106
	SL-1; C-1-2	BLOQ	BLOQ	BLOQ	5.3	53.5	3.49	10.5	104.7	6.00
	SL-1. C-1-3	BLOQ	BLOQ	BLOQ	5.2	52.0	6.4%	10.0	100.3	5.7%
42778	SL-1. C-2-1	BLOQ	BLOQ	BLOQ	4.4	44.5	41.8	9.8	97.6	91.8
	SL-1. C-2-2	BLOQ	BLOQ	BLOQ	4.2	41.7	2.67	9.2	91.8	5.77
	SL-1. C-2-3	BLOQ	BLOQ	BLOQ	3.9	39.1	6.4%	8.6	86.1	6.3%
42779	SL-1. C-3-1	BLOQ	BLOQ	BLOQ	7.0	70.5	71.7	16.1	161.2	178
	SL-1. C-3-2	BLOQ	BLOQ	BLOQ	7.1	70.8	1.85	17.9	179.4	15.67
	SL-1. C-3-3	BLOQ	BLOQ	BLOQ	7.4	73.8	2.6%	19.2	192.4	8.8%
42780	SL-1. C-4-1	BLOQ	BLOQ	BLOQ	3.9	39.3	38.1	17.1	171.5	166
	SL-1. C-4-2	BLOQ	BLOQ	BLOQ	3.7	36.7	1.30	16.2	161.9	4.82
	SL-1. C-4-3	BLOQ	BLOQ	BLOQ	3.8	38.2	3.4%	16.6	165.8	2.9%
42781	SL-1. C-5-1	BLOQ	BLOQ	BLOQ	9.1	91.0	89.8	8.1	80.8	79.5
	SL-1. C-5-2	BLOQ	BLOQ	BLOQ	9.1	90.7	1.95	8.0	80.2	1.74
	SL-1. C-5-3	BLOQ	BLOQ	BLOQ	8.8	87.5	2.2%	7.8	77.5	2.2%
42782	SL-1. C-6-1	BLOQ	BLOQ	BLOQ	7.0	69.8	69.5	5.9	58.8	59.1
	SL-1. C-6-2	BLOQ	BLOQ	BLOQ	6.9	69.1	0.41	6.0	59.7	0.57
	SL-1. C-6-3	BLOQ	BLOQ	BLOQ	7.0	69.8	0.6%	5.9	58.7	1.0%
42783	SL-2; C-1-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2; C-1-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-1-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42784	SL-2. C-2-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-2-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-2-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42785	SL-2. C-3-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-3-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-3-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42786	SL-2. C-4-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-4-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-4-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42789	SL-2. C-5-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-5-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-5-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42790	SL-2. C-6-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-6-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-6-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42791	SL-2. C-7-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-7-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-2. C-7-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42792	SL-3; C-1-1	BLOQ	BLOQ	BLOQ	BLOQ			1.9	18.8	17.21
	SL-3; C-1-2	BLOQ	BLOQ	BLOQ	BLOQ			1.9	18.7	2.75
	SL-3. C-1-3	BLOQ	BLOQ	BLOQ	BLOQ			1.4	14.0	16.0%
42793	SL-3. C-2-1	BLOQ	BLOQ	BLOQ	BLOQ			1.2	11.5	11.73
	SL-3. C-2-2	BLOQ	BLOQ	BLOQ	BLOQ			1.1	11.5	0.44
	SL-3. C-2-3	BLOQ	BLOQ	BLOQ	BLOQ			1.2	12.2	3.7%
42794	SL-3. C-3-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-3. C-3-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-3. C-3-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42795	SL-3. C-4-1	BLOQ	BLOQ	BLOQ	BLOQ			3.7	36.9	37.45
	SL-3. C-4-2	BLOQ	BLOQ	BLOQ	BLOQ			3.5	35.1	2.72
	SL-3. C-4-3	BLOQ	BLOQ	BLOQ	BLOQ			4.0	40.4	7.3%
42796	SL-3. C-5-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-3. C-5-2	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
	SL-3. C-5-3	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		
42797	SL-3. C-6-1	BLOQ	BLOQ	BLOQ	BLOQ			BLOQ		23.32
	SL-3. C-6-2	BLOQ	BLOQ	BLOQ	BLOQ			2.3	23.5	0.19
	SL-3. C-6-3	BLOQ	BLOQ	BLOQ	BLOQ			2.3	23.2	0.8%

Corrected for sample prep.
= Amount (ng/mL) * 10

SL-1, C	FOSA	PFOS
Average (ppb) :	60.9	113.4
Stnd. D.:	18.6	45.6

SL-3, C	PFOS
Average (ppb) :	22.3
Stnd. D.:	10.6

E02-0443

Fish Tissue Matrix Spike % Recoveries

Sample Name	Sample Info	PFBS (299)			PFHS (399)			PFOA (413)			FOSA (488)			PFOS (499)		
		On-Column Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	On-Column Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	On-Column Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	On-Column Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	On-Column Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery
L-1. LM-2 Average	Sample Location 1, Large Mouth 2 Average		BLOQ			BLOQ			BLOQ			BLOQ			60.7	
SL-1. LM-2-MS	Sample Location 1, Large Mouth 2	39.9		80%	46.5		93%	46.2		92%	41.3		83%	105.1		89%
L-1. LM-4 Average	Sample Location 1, Large Mouth 4 Average		BLOQ			BLOQ			6.4			BLOQ			70.0	
SL-1. LM-4-MS	Sample Location 1, Large Mouth 4	47.1		94%	46.7		93%	48.0		83%	46.7		93%	104.9		70%
L-1. LM-6 Average	Sample Location 1, Large Mouth 6 Average		BLOQ			BLOQ			BLOQ			BLOQ			65.1	
SL-1. LM-6-MS	Sample Location 1, Large Mouth 6	50.0		100%	47.4		95%	46.7		93%	50.4		101%	104.3		78%
L-2. LM-2 Average	Sample Location 2, Large Mouth 2 Average		BLOQ			BLOQ			BLOQ			BLOQ			2.6	
SL-2. LM-2-MS	Sample Location 2, Large Mouth 2	46.5		93%	43.1		86%	42.5		85%	47.0		94%	50.0		95%
L-2. LM-4 Average	Sample Location 2, Large Mouth 4 Average		BLOQ			BLOQ			BLOQ			BLOQ			54.7	
SL-2. LM-4-MS	Sample Location 2, Large Mouth 4	50.7		101%	46.8		94%	44.2		88%	54.6		109%	104.0		99%
L-3. LM-2 Average	Sample Location 3, Large Mouth 2 Average		BLOQ			BLOQ			BLOQ			BLOQ			BLOQ	
SL-3. LM-2-MS	Sample Location 3, Large Mouth 2	44.4		89%	47.1		94%	48.0		96%	37.7		75%	27.5		55%
L-3. LM-4 Average	Sample Location 3, Large Mouth 4 Average		BLOQ			BLOQ			BLOQ			BLOQ			BLOQ	
SL-3. LM-4-MS	Sample Location 3, Large Mouth 4	48.8		98%	48.7		97%	47.6		95%	52.7		105%	45.2		90%
L-3. LM-6 Average	Sample Location 3, Large Mouth 6 Average		BLOQ			BLOQ			BLOQ			BLOQ			BLOQ	
SL-3. LM-6-MS	Sample Location 3, Large Mouth 6	42.4		85%	44.2		88%	42.9		86%	45.6		91%	35.5		71%
L-3. SM-1 Average	Sample Location 3, Small Mouth 1 Average		BLOQ			BLOQ			BLOQ			BLOQ			BLOQ	
SL-3. SM-1-MS	Sample Location 3, Small Mouth 1	44.6		89%	48.6		97%	47.0		94%	33.6		68%	24.6		49%
SL-1. C-2 Average	Sample Location 1, Catfish 2 Average		BLOQ			BLOQ			BLOQ			4.2			9.2	
SL-1. C-2-MS	Sample Location 1, Catfish 2	64.4		129%	43.8		88%	41.4		83%	52.4		96%	51.7		85%
SL-1. C-4 Average	Sample Location 1, Catfish 4 Average		BLOQ			BLOQ			BLOQ			38.1			16.6	
SL-1. C-4-MS	Sample Location 1, Catfish 4	69.6		139%	47.3		95%	44.3		89%	60.4		45%	59.2		85%
SL-1. C-6 Average	Sample Location 1, Catfish 6 Average		BLOQ			BLOQ			BLOQ			7.0			5.9	
SL-1. C-6-MS	Sample Location 1, Catfish 6	65.8		132%	45.1		90%	43.1		86%	62.4		111%	50.5		89%
SL-2. C-2 Average	Sample Location 2, Catfish 2 Average		BLOQ			BLOQ			BLOQ			BLOQ			BLOQ	
SL-2. C-2-MS	Sample Location 2, Catfish 2	68.0		136%	46.7		93%	45.0		90%	46.3		93%	48.0		96%
SL-2. C-4 Average	Sample Location 2, Catfish 4 Average		BLOQ			BLOQ			BLOQ			BLOQ			BLOQ	
SL-2. C-4-MS	Sample Location 2, Catfish 4	67.8		136%	47.0		94%	44.8		90%	57.6		115%	47.5		95%
SL-2. C-6 Average	Sample Location 2, Catfish 6 Average		BLOQ			BLOQ			BLOQ			BLOQ			BLOQ	
SL-2. C-6-MS	Sample Location 2, Catfish 6	64.8		130%	48.0		96%	46.5		93%	59.3		119%	50.7		101%
SL-3. C-2 Average	Sample Location 3, Catfish 2 Average		BLOQ			BLOQ			BLOQ			BLOQ			1.2	
SL-3. C-2-MS	Sample Location 3, Catfish 2	64.6		129%	47.0		94%	43.3		87%	49.9		100%	46.1		90%
SL-3. C-4 Average	Sample Location 3, Catfish 4 Average		BLOQ			BLOQ			BLOQ			BLOQ			3.7	
SL-3. C-4-MS	Sample Location 3, Catfish 4	61.4		123%	45.4		91%	40.8		82%	56.6		113%	48.4		89%
SL-3. C-6 Average	Sample Location 3, Catfish 6 Average		BLOQ			BLOQ			BLOQ			BLOQ			2.3	
SL-3. C-6-MS	Sample Location 3, Catfish 6	64.5		129%	41.4		83%	45.4		91%	51.9		104%	44.4		84%

Calculated final concentrations of MSs targeted to 50 ng/mL.

Triplicate averages are from the Combined Large Mouth or Catfish Data Tables and are divided by 10 to give the On-Column (ng/mL) Triplicate Average

Corrected MS Recoveries = If the Triplicate Average is BLOQ, then

$$= \frac{\text{On-Column Amount (ng/mL)}}{\text{50 ng/mL Final Conc. Spike}}$$

else:

$$= \frac{\text{On-Column Amount (ng/mL) - Triplicate Average (ng/mL)}}{\text{50 ng/mL Final Conc. Spike}}$$

I021112

Condensed River Sediments Data Table

Sample Name	Inj. Vol	Description	On-Column (ng/mL)*	On-Col. Corrected for Inject. Vol. (ng/mL)	Conc. Corrected for Inj. Vol. And Dilution (ng/mL)	Conc. Corrected for Inj. Vol., Dilution, and Sample Wt. (pg/mL)	Spike or MS % Recovery	MS - Endogenous = Corrected MS % Recovery
PFBS (299)								
0443-WB	10	Water Blank	BLOQ					
0443-38044	20	Site #1	11.6	5.8	11.6	577		
0443-38044-MS(3)	10	Site #1 MS	40.6	40.6	81.3	4062	81%	70%
0453-38045	20	Site #3	9.1	4.5	9.1	452		
0453-38045-MS(3)	10	Site #3 MS	45.9	45.9	91.9	4591	92%	83%
0463-38046	20	Site #2	8.9	4.5	8.9	437		
0463-38046-MS(3)	10	Site #2 MS	39.2	39.2	78.3	3913	78%	69%
PFHS (399)								
0443-WB	10	Water Blank	BLOQ	BLOQ	BLOQ	BLOQ		
0443-38044	20	Site #1	2.6	1.3	2.6	130		
0443-38044-MS(3)	10	Site #1 MS	30.7	30.7	61.4	3068	61%	59%
0453-38045	20	Site #3	BLOQ	BLOQ	BLOQ	BLOQ		
0453-38045-MS(3)	10	Site #3 MS	37.8	37.8	75.6	3779	76%	
0463-38046	20	Site #2	BLOQ	BLOQ	BLOQ	BLOQ		
0463-38046-MS(3)	10	Site #2 MS	36.7	36.7	73.4	3667	73%	
PFOA (413)								
0443-WB	10	Water Blank	BLOQ	BLOQ	BLOQ	BLOQ		
0443-38044	20	Site #1	14.7	7.3	14.7	732		
0443-38044-MS(3)	10	Site #1 MS	38.4	38.4	76.7	3834	77%	62%
0453-38045	20	Site #3	2.6	1.3	2.6	131		
0453-38045-MS(3)	10	Site #3 MS	40.3	40.3	80.6	4026	81%	78%
0463-38046	20	Site #2	BLOQ	BLOQ	BLOQ	BLOQ		
0463-38046-MS(3)	10	Site #2 MS	41.1	41.1	82.1	4103	82%	
FOSA (498)								
0443-WB	10	Water Blank	BLOQ	BLOQ	BLOQ	BLOQ		
0443-38044	20	Site #1	28.8	14.4	28.8	1439		
0443-38044-MS(3)	10	Site #1 MS	32.0	32.0	63.9	3194	64%	35%
0453-38045	20	Site #3	1.4	0.7	1.4	68		
0453-38045-MS(3)	10	Site #3 MS	25.9	25.9	51.8	2587	52%	50%
0463-38046	20	Site #2	2.9	1.4	2.9	141		
0463-38046-MS(3)	10	Site #2 MS	28.6	28.6	57.3	2863	57%	54%
PFOS (499)								
0443-WB	10	Water Blank	1.1	1.1	2.2	2182		
0443-38044	20	Site #1	62.8	31.4	62.8	3132		
0443-38044-MS(3)	10	Site #1 MS	51.9	51.9	103.9	5193	104%	41%
0453-38045	20	Site #3	8.3	4.2	8.3	416		
0453-38045-MS(3)	10	Site #3 MS	29.9	29.9	59.8	2990	60%	51%
0463-38046	20	Site #2	9.3	4.7	9.3	457		
0463-38046-MS(3)	10	Site #2 MS	30.9	30.9	61.8	3086	62%	52%

* Are averages except for the MS unless noted.
BLOQ = Below Limit of Quantitation
0453-38045, PFOA is a single point.

Sample Wt. (g)	
38044	20.0
38044-MS	20.01
38045	20.1
38045-MS	20.30
38046	20.4
38046-MS	19.98

Regular samples are averges of the three weights.

Final Extract Volume (mL)
2.0

On-Col. Corrected for Inject. Vol. (ng/mL)

= On-Column * 0.5 The Inject Vol factor is only for the regular samples.
0.5 is the Inj. Vol factor.

Conc. Corrected for Inj. Vol. And Dilution (ng/mL)

= On-Column * 0.5 * Final Extract Vol.

Conc. Corrected for Inj. Vol., Dilution, and Sample Wt. (pg/mL)

= On-Column * 0.5 * Final Extract Vol. * 1000
Sample Wt.

Spike or MS % Recovery

= On-Column MS
50

MS - Endogenus = Corrected MS % Recovery

= On-Column MS - On-Col. Corrected for Inject. Vol. Smpl.
50

Full list of sample wt. (g)		Average (g)
38044-1	20.04	
38044-2	20.06	
38044-3	20.00	20.0
38044-MS	20.01	
38045-1	20.08	
38045-2	20.04	
38045-3	20.07	20.1
38045-MS	20.30	
38046-1	20.13	
38046-2	20.98	
38046-3	20.21	20.4
38046-MS	19.98	

E02-0443

River Sediments Matrix Spike % Recoveries

Sample Name	Sample Info	PFBS (299)			PFHS (399)			PFOA (413)			FOSA (498)			PFOS (499)		
		Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery	Amount (ng/mL)	Triplicate Average (ng/mL)	Corrected MS % Recovery
0443-38044	Sample Location 1, River Sediments Average		5.8			1.3			7.3			14.4			31.4	
0443-38044-MS(3)	Sample Location 1, River Sediments	40.6		70%	30.7		59%	38.4		62%	32.0		35%	51.9		41%
0453-38045	Sample Location 3, River Sediments Average		4.5			BLOQ			1.3			0.7			4.2	
0453-38045-MS(3)	Sample Location 3, River Sediments	45.9		83%	37.8		76%	40.3		78%	25.9		50%	29.9		51%
0463-38046	Sample Location 2, River Sediments Average		4.5			BLOQ			BLOQ			1.4			4.7	
0463-38046-MS(3)	Sample Location 2, River Sediments	39.2		69%	36.7		73%	41.1		82%	28.6		54%	30.9		52%

Calculated final concentrations of MSs targeted to 50 ng/mL.
Triplicate averages are from the Condensed River Sediments Data Tables.

Corrected MS Recoveries = If the Triplicate Average is BLOQ, then

$$\frac{\text{Amount (ng/mL)}}{\text{50 ng/mL Final Conc. Spike}}$$

else:

$$\frac{\text{Amount (ng/mL) - Triplicate Average (ng/mL)}}{\text{50 ng/mL Final Conc. Spike}}$$

Amount (ng/mL) has been corrected for the injection volume.
These calculations are found on the Condensed River Sediments Data Table.

E02-0443

Combined River Water Data Table

Sequence	File	LIMS #	Description	Inj. Vol. (uL)	PFBS (299)		PFHS (399)		PFOA (413)		FOSA (498)		PFOS (499)	
					Amount On-Column ng/mL	Adjusted for Inj. Vol. ng/mL	Amount On-Column ng/mL	Adjusted for Inj. Vol. ng/mL	Amount On-Column ng/mL	Adjusted for Inj. Vol. ng/mL	Amount On-Column ng/mL	Adjusted for Inj. Vol. ng/mL	Amount On-Column ng/mL	Adjusted for Inj. Vol. ng/mL
D020812	DUDE0067.D	38025	SW01	20	3.0	1.50	7.7	3.86	21.3	10.66	1.0	0.48	18.5	9.25
D020812	DUDE0069.D	38026	SW01-Dup	20	3.7	1.85	8.0	3.98	22.7	11.33	1.0	0.51	20.8	10.40
D020812	DUDE0071.D	38027	SW01-Low	20	3.1	1.57	12.8	6.40	28.0	13.98	4.0	2.00	26.6	13.29
D020812	DUDE0073.D	38029	FCS01-Low	20	2.7	1.33	7.9	3.93	21.8	10.92	1.1	0.56	20.2	10.09
D020812	DUDE0076.D	38032	FB02	20	BLOQ		4.9	2.43	4.9	2.47	4.6	2.28	5.2	2.59
D020812	DUDE0078.D	38033	SW03	20	BLOQ		BLOQ		BLOQ		BLOQ		BLOQ	
D020812	DUDE0080.D	38034	SW03-Dup	20	BLOQ		0.3	0.13	BLOQ		BLOQ		BLOQ	
D020812	DUDE0082.D	38035	SW03-Low	20	BLOQ		5.2	2.60	5.6	2.80	3.6	1.79	4.9	2.47
D020812	DUDE0084.D	38037	SW02	20	BLOQ		0.4	0.20	BLOQ		BLOQ		BLOQ	
D020812	DUDE0086.D	38038	SW02-Dup	20	BLOQ		0.2	0.12	BLOQ		BLOQ		BLOQ	
D020812	DUDE0088.D	38039	SW02-Low	20	BLOQ		5.0	2.48	5.1	2.54	4.8	2.42	4.6	2.28
D020812	DUDE0090.D	38041	FSC02-Low	20	BLOQ		5.1	2.53	5.4	2.69	4.9	2.43	5.5	2.73
D020812	DUDE0092.D	38043	Trip Blank #1	20	BLOQ		BLOQ		BLOQ		BLOQ		BLOQ	
D020812	DUDE0094.D	38047	Trip Blank #2	20	BLOQ		BLOQ		BLOQ		BLOQ		BLOQ	
D020812	DUDE0127.D	38028	SW01-Med	2	BLOQ		392.6	1963	388.4	1942	302.1	1511	361.8	1809
D020812	DUDE0130.D	38030	FSC01-Med	2	BLOQ		424.9	2124	427.9	2139	300.2	1501	423.7	2118
D020812	DUDE0133.D	38036	SW03-Med	2	BLOQ		404.9	2024	398.5	1992	324.5	1623	365.3	1826
D020812	DUDE0136.D	38040	SW02-Med	2	BLOQ		415.9	2079	407.6	2038	299.2	1496	358.0	1790
D020812	DUDE0139.D	38042	FSC02-Med	2	BLOQ		413.1	2066	416.9	2085	308.3	1542	426.8	2134

E02-0443

Condensed River Water Data Table

LIMS #	Sample Name	Inj. Vol. (uL)	Amount On-Column (ng/mL)	Adjusted for Inj. Vol. (ng/mL)	Adjusted for Sample Prep. (pg/mL)	Average (pg/mL)
PFBS (299)						
38025	SW01	20	3.0	1.50	75	84
38026	SW01-Dup	20	3.7	1.85	93	
38033	SW03	20	<LOQ			<LOQ
38034	SW03-Dup	20	<LOQ			
38037	SW02	20	<LOQ			<LOQ
38038	SW02-Dup	20	<LOQ			
38028	SW01-Med	2	<LOQ			
38030	FSC01-Med	2	<LOQ			
38036	SW03-Med	2	<LOQ			
38040	SW02-Med	2	<LOQ			
38042	FSC02-Med	2	<LOQ			
PFHS (399)						
38025	SW01	20	7.7	3.86	193	196
38026	SW01-Dup	20	8.0	3.98	199	
38033	SW03	20	<LOQ			6.5
38034	SW03-Dup	20	0.3	0.13	6.5	
38037	SW02	20	0.4	0.20	9.8	8.0
38038	SW02-Dup	20	0.2	0.12	6.2	
38028	SW01-Med	2	392.6	1963		
38030	FSC01-Med	2	424.9	2124		
38036	SW03-Med	2	404.9	2024		
38040	SW02-Med	2	415.9	2079		
38042	FSC02-Med	2	413.1	2066		
PFOA (413)						
38025	SW01	20	21.3	10.66	533	550
38026	SW01-Dup	20	22.7	11.33	566	
38033	SW03	20	<LOQ			<LOQ
38034	SW03-Dup	20	<LOQ			
38037	SW02	20	<LOQ			<LOQ
38038	SW02-Dup	20	<LOQ			
38028	SW01-Med	2	388.4	1942		
38030	FSC01-Med	2	427.9	2139		
38036	SW03-Med	2	398.5	1992		
38040	SW02-Med	2	407.6	2038		
38042	FSC02-Med	2	416.9	2085		
FOSA (498)						
38025	SW01	20	1.0	0.48	24	25
38026	SW01-Dup	20	1.0	0.51	26	
38033	SW03	20	<LOQ			<LOQ
38034	SW03-Dup	20	<LOQ			
38037	SW02	20	<LOQ			<LOQ
38038	SW02-Dup	20	<LOQ			
38028	SW01-Med	2	302.1	1511		
38030	FSC01-Med	2	300.2	1501		
38036	SW03-Med	2	324.5	1623		
38040	SW02-Med	2	299.2	1496		
38042	FSC02-Med	2	308.3	1542		
PFOS (499)						
38025	SW01	20	18.5	9.25	462	491
38026	SW01-Dup	20	20.8	10.40	520	
38033	SW03	20	<LOQ			<LOQ
38034	SW03-Dup	20	<LOQ			
38037	SW02	20	<LOQ			<LOQ
38038	SW02-Dup	20	<LOQ			
38028	SW01-Med	2	361.8	1809		
38030	FSC01-Med	2	423.7	2118		
38036	SW03-Med	2	365.3	1826		
38040	SW02-Med	2	358.0	1790		
38042	FSC02-Med	2	426.8	2134		

Adjusted for Inj. Vol (ng/mL)

For 20 uL injections
= Amount / 2

For 2 uL injections
= Amount * 5

Adjusted for Sample Prep (pg/mL)

= (Adjusted for Inj. Vol. / 20) * 1000

20 is the factor of original concentration
1000 is the conversion from ng to pg.

E02-0443

Tenn. River Valley Samples

Summary Table

Location Averages

	PFBS (ng/mL)	PFHS (ng/mL)	PFOA (ng/mL)	FOSA (ng/mL)	PFOS (ng/mL)
Catfish, Sample Location 1	<LOQ	<LOQ	<LOQ	60.9	113
Catfish, Sample Location 2	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
Catfish, Sample Location 3	<LOQ	<LOQ	<LOQ	<LOQ	22.3
Large Mouth, Sample Location 1	<LOQ	<LOQ	64.3	<LOQ	553
Large Mouth, Sample Location 2	<LOQ	<LOQ	<LOQ	<LOQ	281
Large Mouth, Sample Location 3	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
Small Mouth, Sample Location 1	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
	PFBS (pg/mL)	PFHS (pg/mL)	PFOA (pg/mL)	FOSA (pg/mL)	PFOS (pg/mL)
River Water, Sample Location 1	84	196	550	25	491
River Water, Sample Location 2	<LOQ	8	<LOQ	<LOQ	<LOQ
River Water, Sample Location 3	<LOQ	7	<LOQ	<LOQ	<LOQ
	PFBS (ng/mL)	PFHS (ng/mL)	PFOA (ng/mL)	FOSA (ng/mL)	PFOS (ng/mL)
River Sediments, Sample Location 1	576.9	130.5	732.4	1439.0	3132.3
River Sediments, Sample Location 2	436.9	<LOQ	<LOQ	141.4	457.3
River Sediments, Sample Location 3	452.0	<LOQ	130.5	68.0	416.2

The Fish Tissue results are calculated by taking the average of the averages.
Please refer to Combined Large Mouth and Catfish Data Tables for averages of samples.

D020626Extracted

CCV Calculation

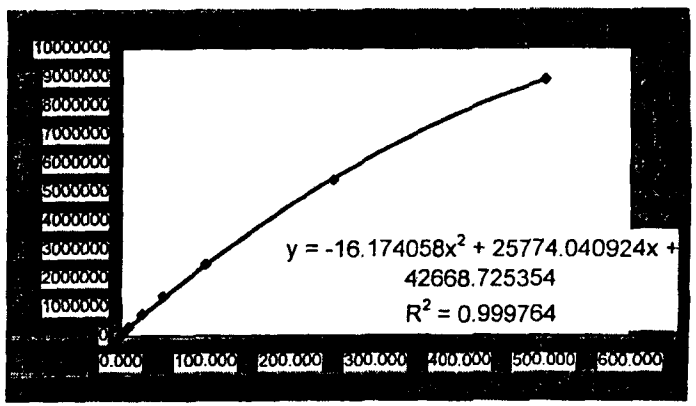
PFBS

Solvent Curve: 02003-50

Sequence: D020626Extracted

File	Curve Conc								
DUDE0013	1	1	41605	1	1.000	41605	-0.04		0.0
DUDE0014	2.5	1	89393	1	2.500	89393	1.81		0.0
DUDE0015	5	1	162283	1	5.000	162283	4.65	-6.9	0.0
DUDE0016	10	1	313833	1	10.000	313833	10.59	5.9	0.0
DUDE0017	25	1	739433	1	25.000	739433	27.51	10.0	0.0
DUDE0018	50	1	1369316	1	50.000	1369316	53.25	6.5	0.0
DUDE0019	100	1	2487273	1	100.000	2487273	101.29	1.3	0.0
DUDE0020	250	1	5416418	1	250.000	5416418	246.68	-1.3	0.0
DUDE0021	500	1	8898793	1	500.000	8898793	501.32	0.3	0.0
DUDE0022		1		1	0.000	0	-1.65		0.0
DUDE0023		1		1	0.000	0	-1.65		0.0
				1					RSD
				0					0.00

from chart	
a	-1.62E+01
b	25774.0409
c	42668.7254



File	response	conc from curve	CCV level	%CCV
DUDE0065	2483358	101.11	100	101%
DUDE0078	2451622	99.70	100	100%
DUDE0081	2445634	99.44	100	99%
		-1.65		0
		-1.65		0
		-1.65		0
		-1.65		0
		-1.65		0
		-1.65		0
		-1.65		0

Exact Copy of Original

MA — Initial

12 Dec 02 — Date

Pg 1 of 5, MA 17 Dec 02

D020626Extracted

CCV Calculation

PFHS

Solvent Curve: 02003-50

Sequence: D020626Extracted

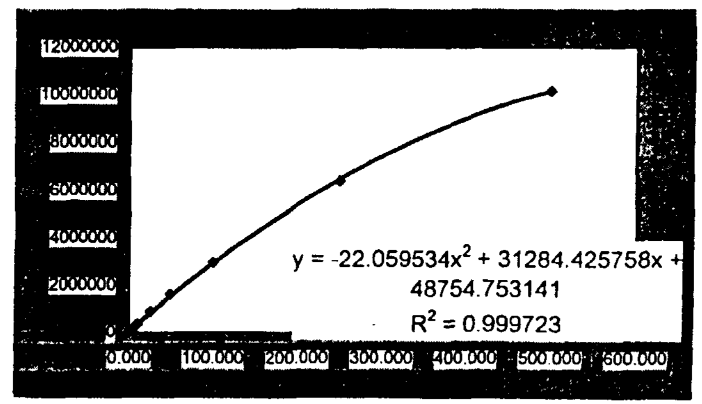
File	Curve Conc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DUDE0013	1	1	41647	1	1.000	41647	-0.23	[illegible]	0.0
DUDE0014	2.5	1	98392	1	2.500	98392	1.59	[illegible]	0.0
DUDE0015	5	1	191729	1	5.000	191729	4.58	-8.3	0.0
DUDE0016	10	1	377027	1	10.000	377027	10.57	5.7	0.0
DUDE0017	25	1	909371	1	25.000	909371	28.06	12.3	0.0
DUDE0018	50	1	1648232	1	50.000	1648232	53.12	6.2	0.0
DUDE0019	100	1	2989062	1	100.000	2989062	101.21	1.2	0.0
DUDE0020	250	1	6420285	1	250.000	6420285	246.52	-1.4	0.0
DUDE0021	500	1	10191360	1	500.000	10191360	501.66	0.3	0.0
DUDE0022		1		1	0.000	0	-1.56		0.0
DUDE0023		1		1	0.000	0	-1.56		0.0

1

0

RSD
0.00

[illegible]	
a	-2.21E+01
b	31284.4258
c	48754.7531



File	response	conc. from curve	CCV level	% Diff
DUDE0065	3043366	103.24	100	103%
DUDE0078	3045749	103.33	100	103%
DUDE0081	3008932	101.95	100	102%
		-1.56		0
		-1.56		0
		-1.56		0
		-1.56		0
		-1.56		0
		-1.56		0
		-1.56		0

D020626Extracted

CCV Calculation

PFOA

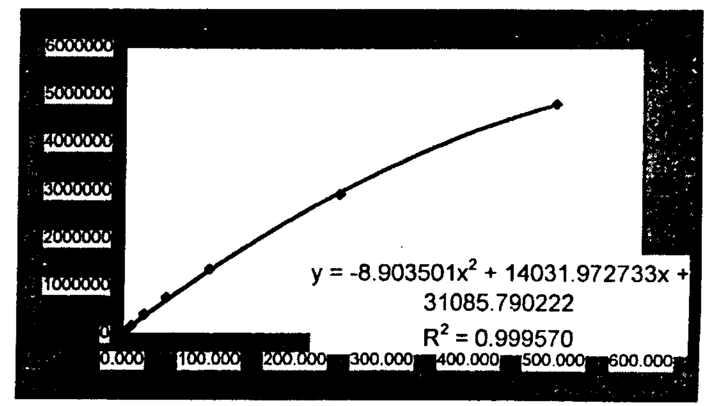
Solvent Curve: 02003-50

Sequence: D020626Extracted

File	Curve Conc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DUDE0013	1	1	25542	1	1.000	25542	-0.39	[illegible]	0.0
DUDE0014	2.5	1	51665	1	2.500	51665	1.47	[illegible]	0.0
DUDE0015	5	1	94999	1	5.000	94999	4.57	-8.6	0.0
DUDE0016	10	1	182546	1	10.000	182546	10.87	8.7	0.0
DUDE0017	25	1	422134	1	25.000	422134	28.38	13.5	0.0
DUDE0018	50	1	765880	1	50.000	765880	54.23	8.5	0.0
DUDE0019	100	1	1368745	1	100.000	1368745	101.92	1.9	0.0
DUDE0020	250	1	2938643	1	250.000	2938643	245.43	-1.8	0.0
DUDE0021	500	1	4830576	1	500.000	4830576	501.83	0.4	0.0
DUDE0022		1		1	0.000	0	-2.21		0.0
DUDE0023		1		1	0.000	0	-2.21		0.0
				1					RSD
				0					0.00

[illegible]	
a	-8.90E+00
b	14031.9727
c	31085.7902

File	response	conc. from curve	CCV level	[illegible]
DUDE0065	1459295	109.37	100	109%
DUDE0078	1486918	111.66	100	112%
DUDE0081	1477410	110.87	100	111%
		-2.21		0
		-2.21		0
		-2.21		0
		-2.21		0
		-2.21		0
		-2.21		0
		-2.21		0



D020626Extracted

CCV Calculation

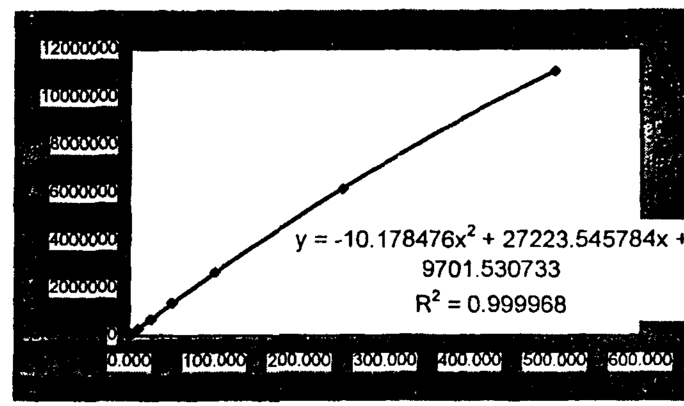
FOSA

Solvent Curve: 02003-50

Sequence: D020626Extracted

File	Curve Conc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DUDE0013	1	1	29611	1	1.000	29611	0.73	[illegible]	0.0
DUDE0014	2.5	1	71308	1	2.500	71308	2.26	-9.4	0.0
DUDE0015	5	1	136118	1	5.000	136118	4.65	-7.0	0.0
DUDE0016	10	1	275178	1	10.000	275178	9.79	-2.1	0.0
DUDE0017	25	1	693598	1	25.000	693598	25.36	1.4	0.0
DUDE0018	50	1	1376588	1	50.000	1376588	51.19	2.4	0.0
DUDE0019	100	1	2665321	1	100.000	2665321	101.39	1.4	0.0
DUDE0020	250	1	6144958	1	250.000	6144958	248.44	-0.6	0.0
DUDE0021	500	1	11083740	1	500.000	11083740	500.40	0.1	0.0
DUDE0022		1		1	0.000	0	-0.36		0.0
DUDE0023		1		1	0.000	0	-0.36		0.0
				1					RSD
				0					0.00

Values from chart	
a	-1.02E+01
b	27223.5458
c	9701.53073



File	response	conc from curve	CCV level	%
DUDE0065	2677359	101.87	100	102%
DUDE0078	2644901	100.58	100	101%
DUDE0081	2687949	102.29	100	102%
		-0.36		0
		-0.36		0
		-0.36		0
		-0.36		0
		-0.36		0
		-0.36		0
		-0.36		0

D020626Extracted

CCV Calculation

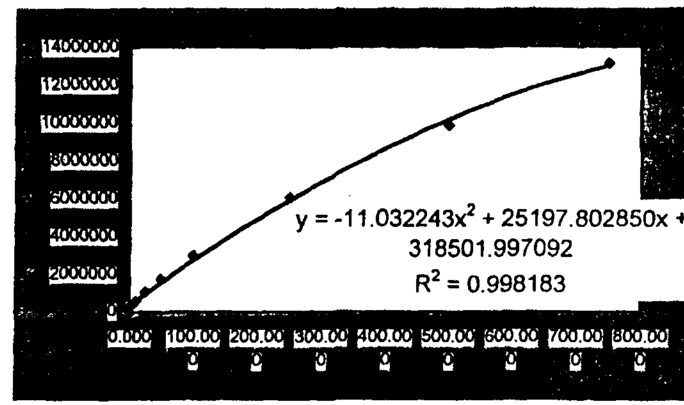
PFOS

Solvent Curve: 02003-50

Sequence: D020626Extracted

File	Curve Conc.	RSD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DUDE0013	1	1	264722	1	1.000	264722	-2.13	[illegible]	0.0
DUDE0014	2.5	1	326649	1	2.500	326649	0.32	[illegible]	0.0
DUDE0015	5	1	407979	1	5.000	407979	3.56	[illegible]	0.0
DUDE0016	10	1	578578	1	10.000	578578	10.37	3.7	0.0
DUDE0017	25	1	1046115	1	25.000	1046115	29.25	17.0	0.0
DUDE0018	50	1	1748100	1	50.000	1748100	58.22	16.4	0.0
DUDE0019	100	1	2980202	1	100.000	2980202	111.03	11.0	0.0
DUDE0020	250	1	6053335	1	250.000	6053335	256.37	2.5	0.0
DUDE0021	500	1	9834704	1	500.000	9834704	477.48	-4.5	0.0
DUDE0022	750	1	13136147	1	750.000	13136147	764.72	2.0	0.0
DUDE0023		1		1	0.000	0	-12.57		0.0
				1					RSD
				0					0.00

from chart	
a	-1.10E+01
b	25197.8029
c	318501.997



File	Response	conc. from curve	CCV	[illegible]
DUDE0065	3038328	113.59	100	114%
DUDE0078	3004248	112.09	100	112%
DUDE0081	2998564	111.84	100	112%
		-12.57		0
		-12.57		0
		-12.57		0
		-12.57		0
		-12.57		0
		-12.57		0
		-12.57		0

ATTACHMENT C: SAMPLE CHROMATOGRAMS

Data File: DUDE0056.D
Report Date: 27-Aug-2002 13:27

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0056.D
Lab Smp Id: SL-1. LM-1-3
Inj Date : 26-JUN-2002 23:16
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\D020626extra
Meth Date : 27-Aug-2002 13:22 dudejr.i Quant Type: ESTD
Cal Date : 26-JUN-2002 22:00 Cal File: DUDE0049.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

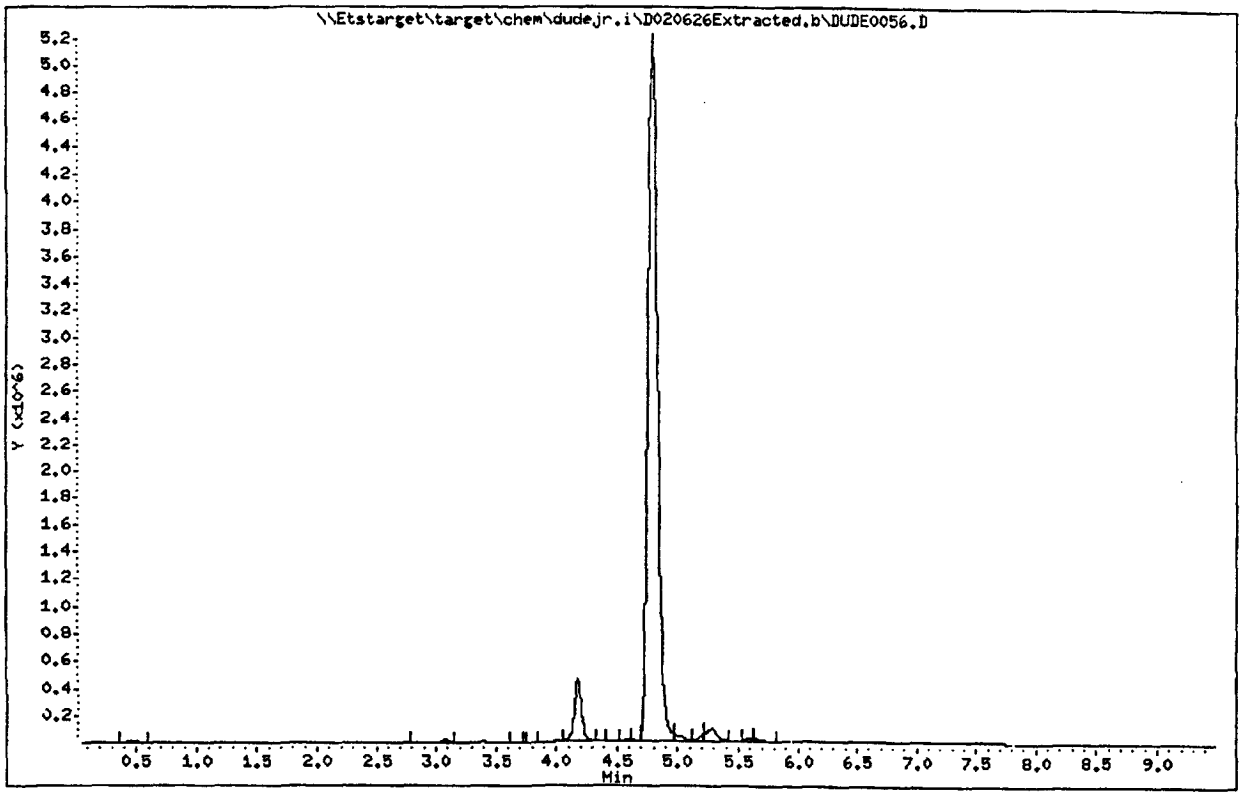
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	11884	553.334	553
	299	3.176	3.381	-0.205	2064	553.695	554
	299	3.723	3.381	0.342	1527	553.714	554
20 PFHS (399)	399	3.805	3.792	0.013	9981	809.355	809
	399	3.401	3.792	-0.391	4708	809.488	809
	399	3.976	3.792	0.184	4267	809.499	809
21 PFOA (413)	413	4.003	3.990	0.013	15342	837.253	837
	413	3.873	3.990	-0.117	5385	837.750	838
22 FOSA (498)	498	4.755	4.762	-0.007	85375	0.11598	0.116
	498	4.441	4.762	-0.321	984	1917.31	1920
23 PFOS (499)	499	4.174	4.174	0.000	1903432	13.9702	14.0
	499	4.605	4.174	0.431	19079	1680.28	1680

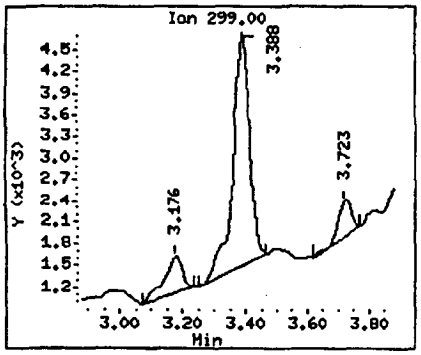
Exact Copy of Original

Initial Date

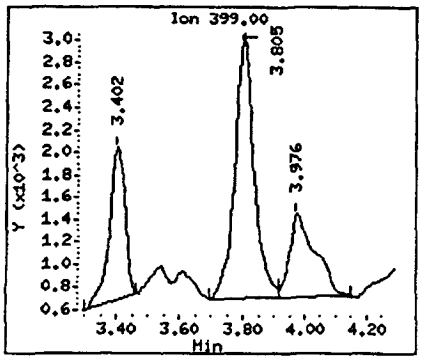
Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0056.D



18 PFBS (299)



20 PFHS (399)

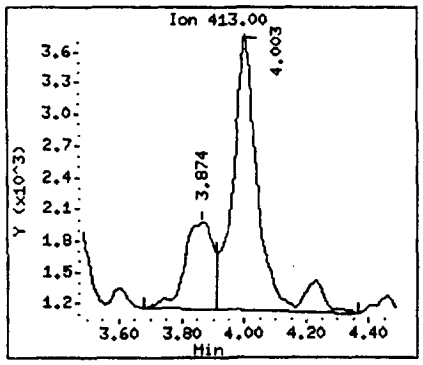


Exact Copy of Original

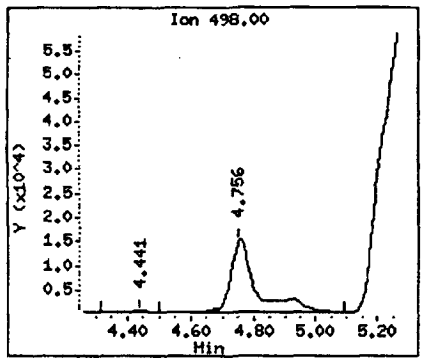
Initial 12/10/02 Date

Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0056.D

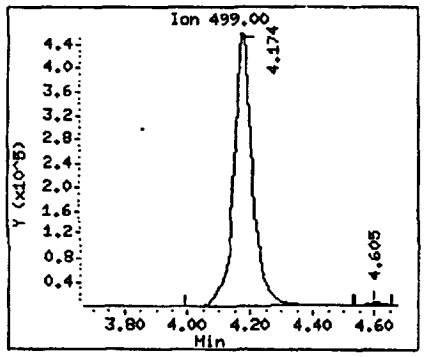
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

Initial Date

Data File: DUDE0058.D Page 1
Report Date: 27-Aug-2002 13:27

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

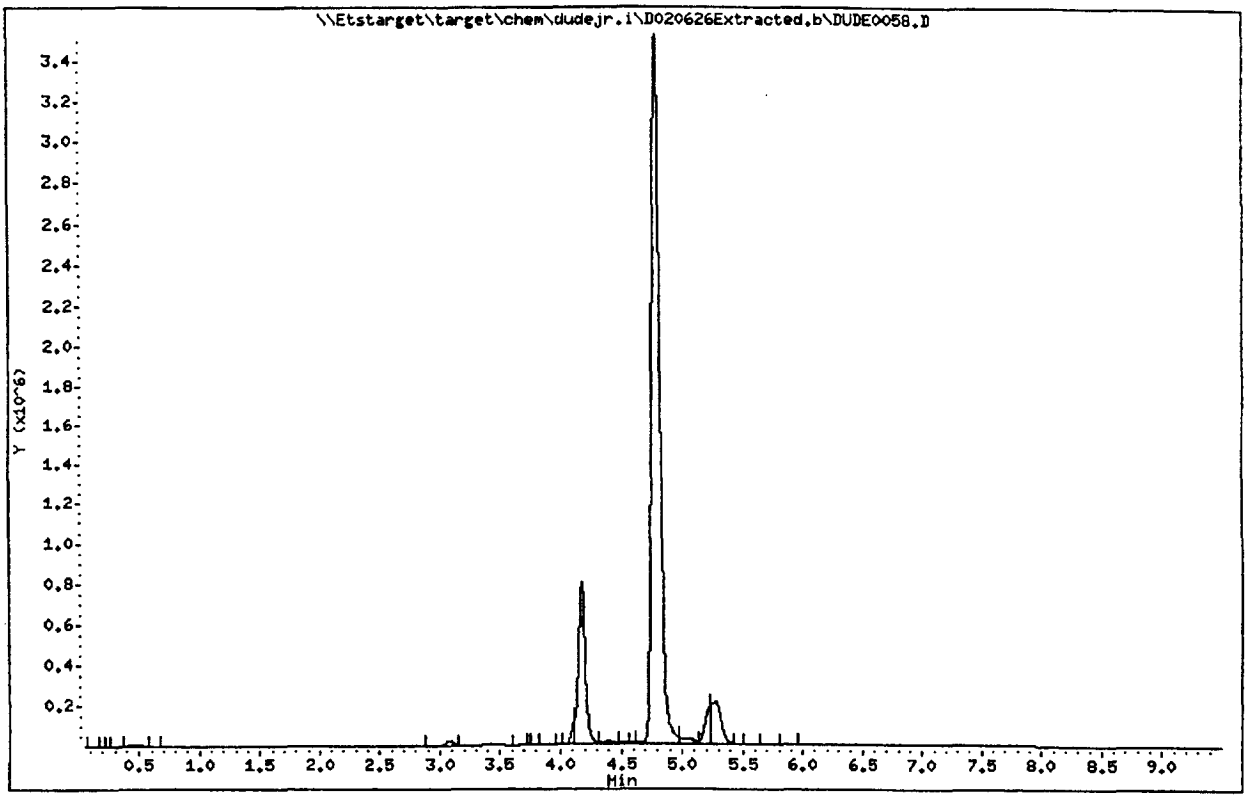
Data file : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0058.D
Lab Smp Id: SL-1. LM-2-2
Inj Date : 26-JUN-2002 23:38
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\D020626extra
Meth Date : 27-Aug-2002 13:22 dudejr.i Quant Type: ESTD
Cal Date : 26-JUN-2002 22:00 Cal File: DUDE0049.D
Als bottle: 45
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

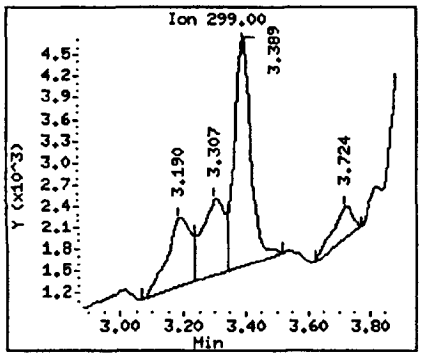
Compound#	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	11577	553.345	553
	299	3.190	3.381	-0.191	4980	553.588	554
	299	3.306	3.381	-0.075	5158	553.581	554
	299	3.723	3.381	0.342	2027	553.696	554
20 PFHS (399)	399	3.805	3.792	0.013	13422	809.269	809
	399	3.545	3.792	-0.247	2338	809.548	810
21 PFOA (413)	413	3.867	3.990	-0.123	47254	0.65557	0.656
	413	4.229	3.990	0.239	2483	837.894	838
22 FOSA (498)	498	4.762	4.762	0.000	142853	1.96576	1.96
23 PFOS (499)	499	4.174	4.174	0.000	3385486	61.4006	61.4
	499	4.605	4.174	0.431	16466	1680.36	1680

Exact Copy of Original
CMC 13/10/02
Initial Date

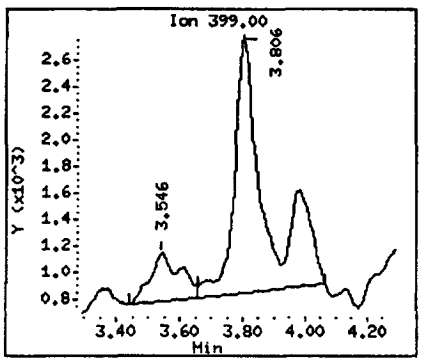
Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0058.D Page 2



18 PFBS (299)



20 PFHS (399)

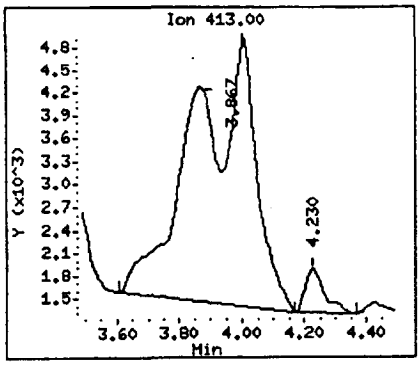


Exact Copy of Original

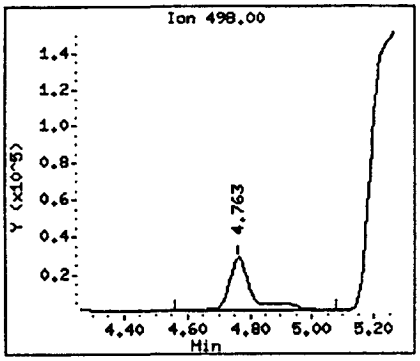
CM 12/10/12
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0058.D

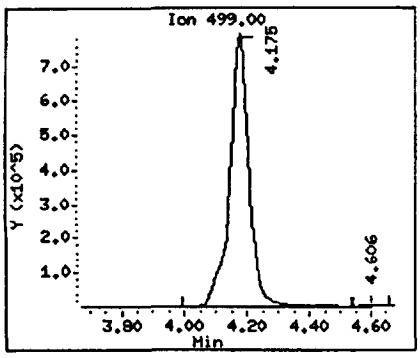
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02

Initial Date

Data File: DUDE0063.D
Report Date: 27-Aug-2002 13:27

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0063.D
Lab Smp Id: SL-1. LM-3-2
Inj Date : 27-JUN-2002 00:33
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\D020626extra
Meth Date : 27-Aug-2002 13:22 dudejr.i Quant Type: ESTD
Cal Date : 26-JUN-2002 22:00 Cal File: DUDE0049.D
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	11469	553.349	553
	299	3.176	3.381	-0.205	2575	553.676	554
	299	3.723	3.381	0.342	1432	553.718	554
	299	3.812	3.381	0.431	378	553.756	554
20 PFHS (399)	399	3.798	3.792	0.006	9750	809.361	809
	399	3.545	3.792	-0.247	3036	809.530	810
	399	3.976	3.792	0.184	4357	809.497	809
21 PFOA (413)	413	3.997	3.990	0.007	15533	837.243	837
	413	3.853	3.990	-0.137	5478	837.745	838
22 FOSA (498)	498	4.762	4.762	0.000	236312	4.98115	4.98
	498	4.414	4.762	-0.348	970	1917.31	1920
23 PFOS (499)	499	4.174	4.174	0.000	3964776	80.7677	80.8
	499	4.605	4.174	0.431	26340	1680.07	1680

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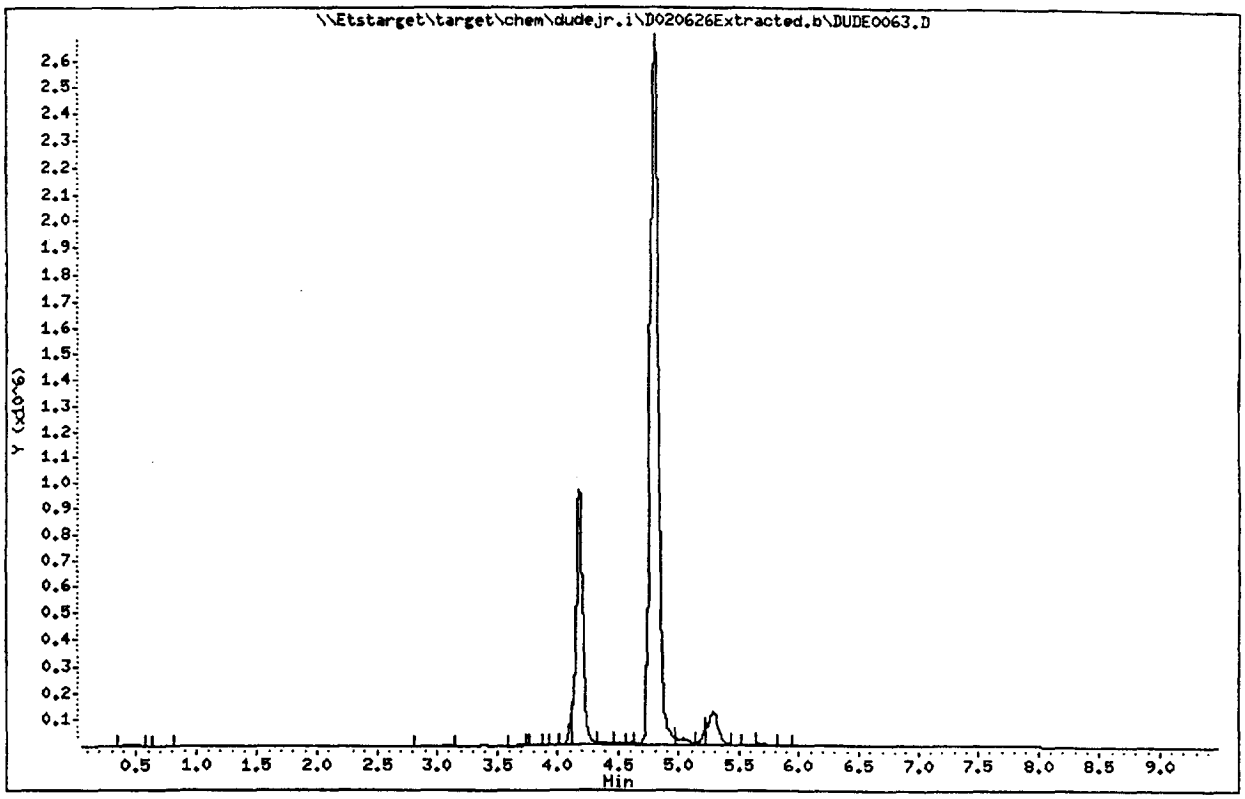
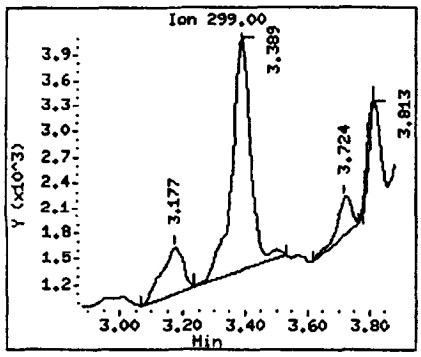
CMK 12/10/02
Initial Date

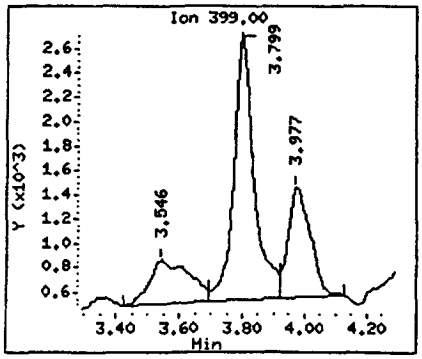
Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0063.D



18 PFBS (299)



20 PFHS (399)



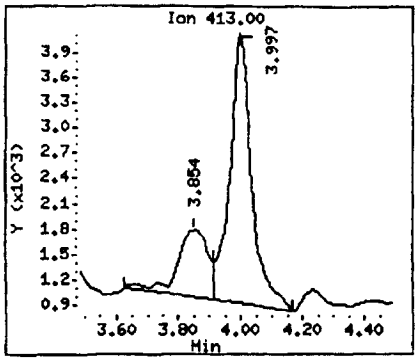
Exact Copy of Original

CWK 12/10/02

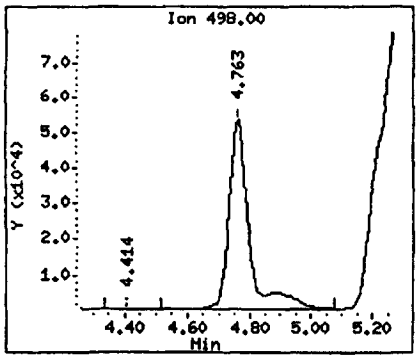
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0063.D

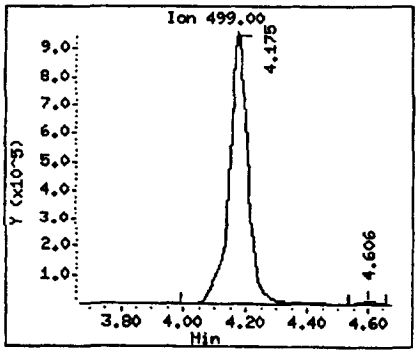
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02

Initial Date

Data File: DUDE0068.D
Report Date: 27-Aug-2002 13:27

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0068.D
Lab Smp Id: SL-1. LM-4-2
Inj Date : 27-JUN-2002 01:28
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\D020626extra
Meth Date : 27-Aug-2002 13:22 dudejr.i Quant Type: ESTD
Cal Date : 26-JUN-2002 22:00 Cal File: DUDE0049.D
Als bottle: 52
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	51072	0.83331	0.833
	299	3.183	3.381	-0.198	2350	553.684	554
	299	3.723	3.381	0.342	1509	553.715	554
20 PFHS (399)	399	3.798	3.792	0.006	49154	0.63726	0.637
	399	3.354	3.792	-0.438	415	809.596	810
	399	3.559	3.792	-0.233	3064	809.529	810
21 PFOA (413)	413	3.997	3.990	0.007	161661	6.42649	6.43
22 FOSA (498)	498	4.762	4.762	0.000	97875	0.51796	0.518
23 PFOS (499)	499	4.174	4.174	0.000	3814537	75.6964	75.7
	499	3.867	4.174	-0.307	1528	1680.79	1680
	499	4.605	4.174	0.431	16518	1680.35	1680

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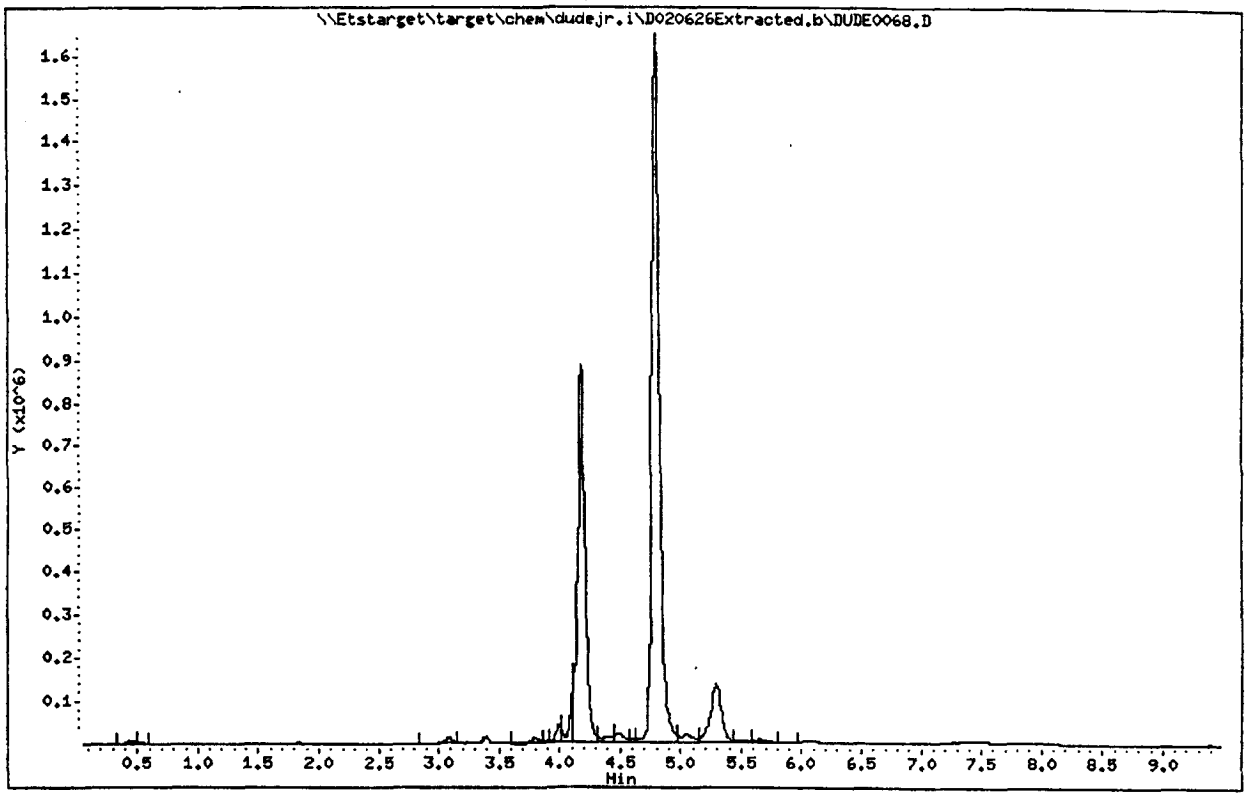
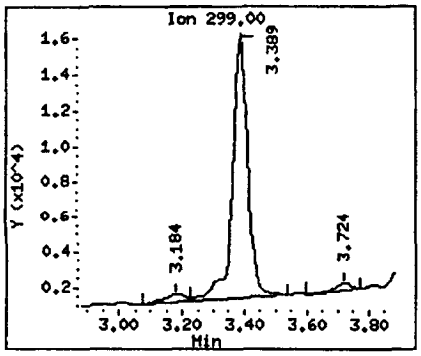
CMC Initial 12/16/02 Date

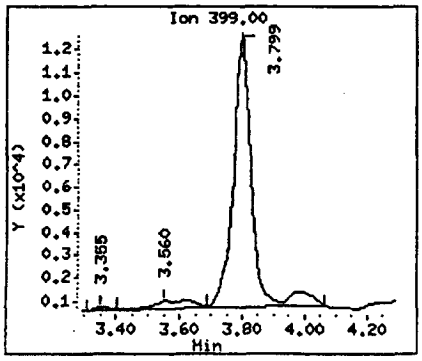
Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0068.D



18 PFBS (299)



20 PFHS (399)

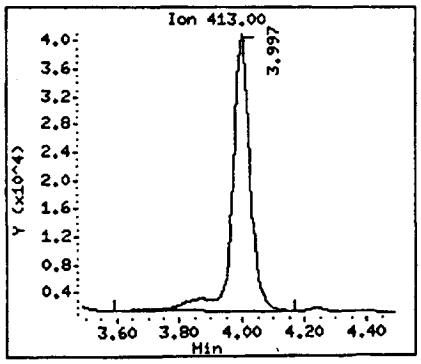


Exact Copy of Original

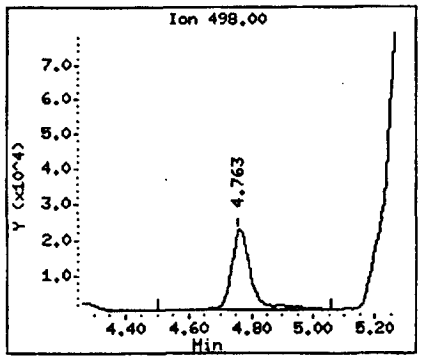
CMC Initial 12/10/02 Date

Data File: \\Etstarget\target\chem\dudejr.i\D020626Extracted.b\DUDE0068.D

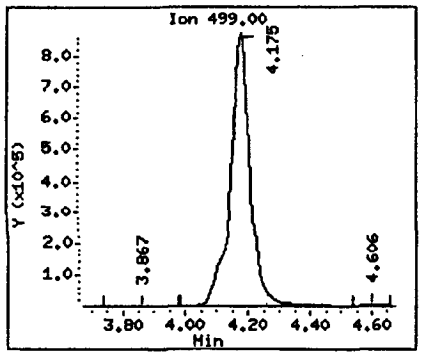
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0058.D Page 1
Report Date: 09-Dec-2002 13:07

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples
Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0058.D
Lab Smp Id: SL-2. LM-2-1
Inj Date : 29-JUN-2002 02:15
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

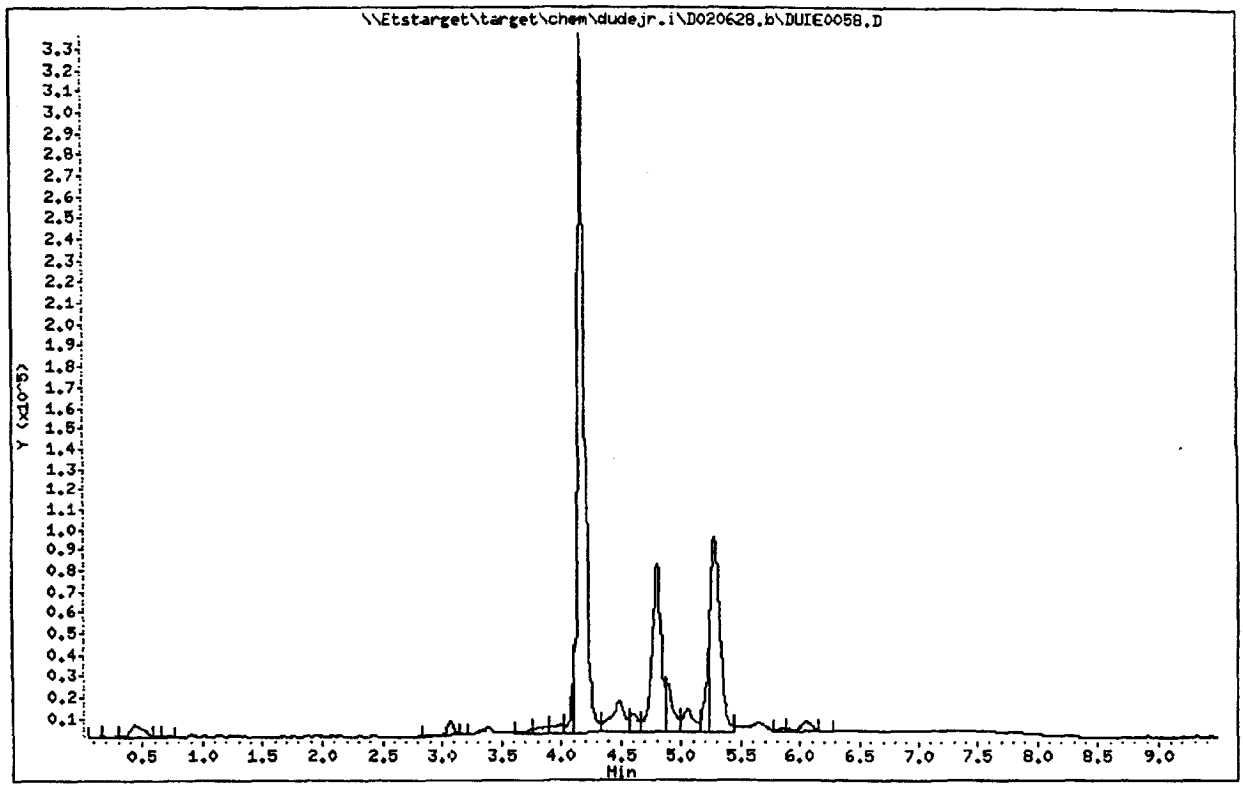
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.388	0.000	15144	569.524	570
	299	3.183	3.388	-0.205	2946	569.996	570
	299	3.757	3.388	0.369	2208	570.025	570
20 PFHS (399)	399	3.805	3.798	0.007	10047	786.229	786
	399	3.545	3.798	-0.253	540	786.477	786
21 PFOA (413)	413	4.004	3.997	0.007	25432	815.277	815(M)
22 FOSA (498)	498	4.776	4.769	0.007	65904	1885.85	1880
23 PFOS (499)	499	4.181	4.174	0.007	1348329	2.56372	2.56
	499	4.605	4.174	0.431	20726	1659.69	1660

QC Flag Legend

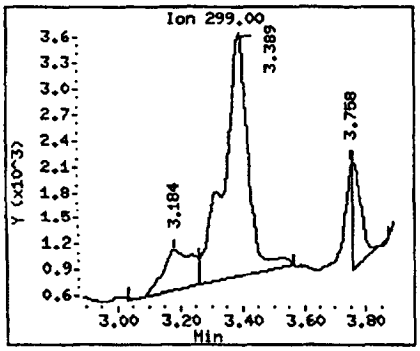
M - Compound response manually integrated.

Exact Copy of Original
Initial Date

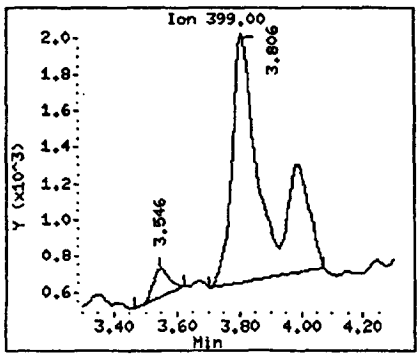
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0058.D Page 2



18 PFBS (299)



20 PFHS (399)

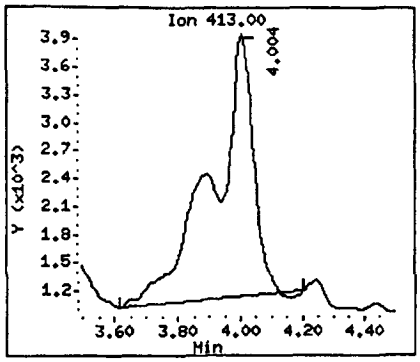


Exact Copy of Original

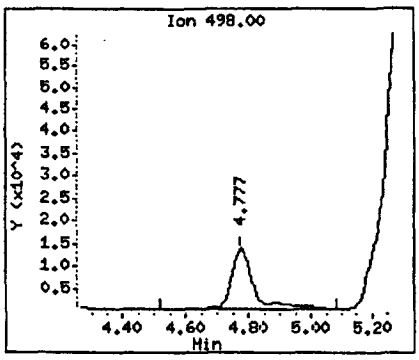
Initial 12/10/02 Date

Data File: \\Etstarget\target\chem\dudejr.i\D>20628.b\DUDE0058.D

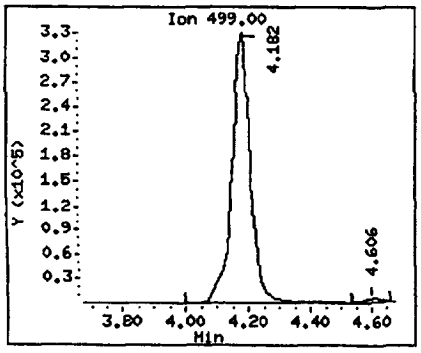
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



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CMC 12/10/07
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0064.D Page 1
Report Date: 09-Dec-2002 13:07

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0064.D
Lab Smp Id: SL-2. LM-3-2
Inj Date : 29-JUN-2002 03:21
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

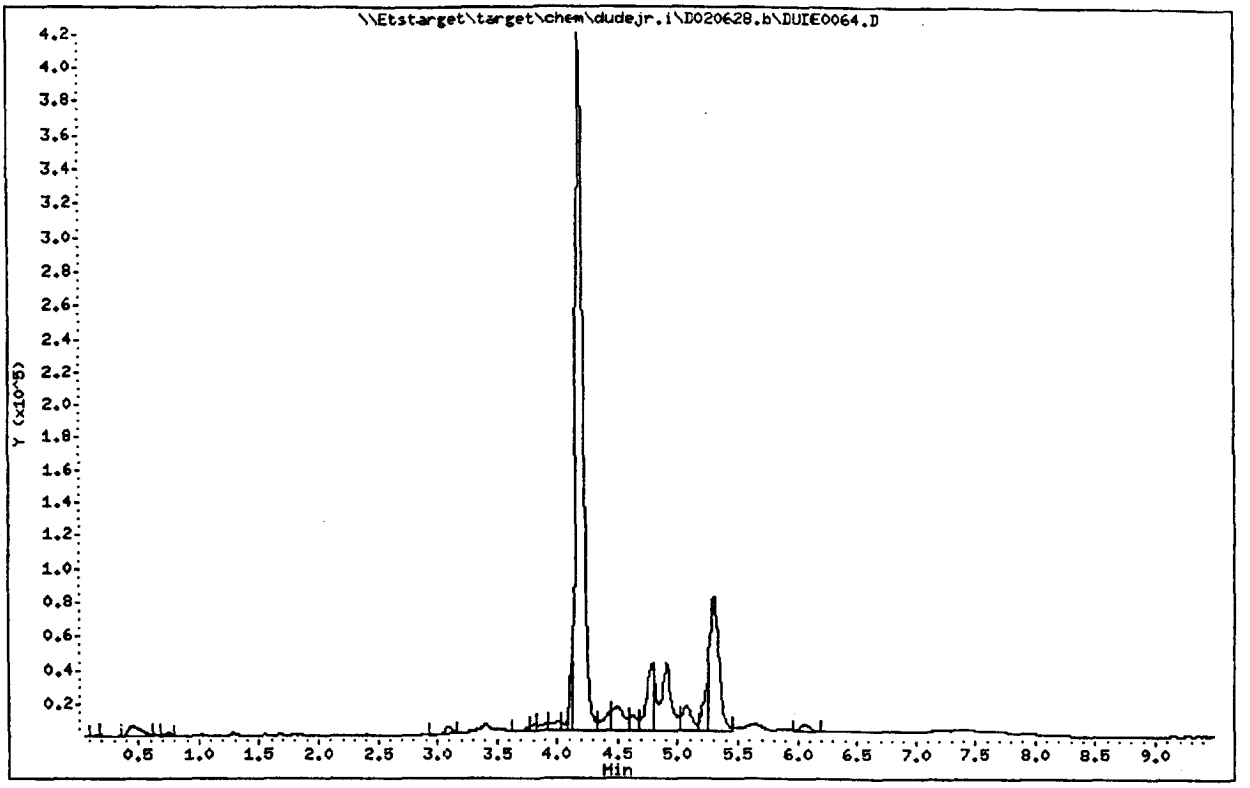
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.401	3.388	0.013	22037	569.257	569
	299	3.210	3.388	-0.178	3476	569.976	570
	299	3.771	3.388	0.383	3793	569.964	570
20 PFHS (399)	399	3.818	3.798	0.020	17063	0.08850	0.0885 (M)
21 PFOA (413)	413	4.017	3.997	0.020	38939	814.559	814 (M)
22 FOSA (498)	498	4.789	4.769	0.020	98985	0.72476	0.725
23 PFOS (499)	499	4.194	4.174	0.020	1627015	11.7650	11.8
	499	4.625	4.174	0.451	1774	1660.28	1660

QC Flag Legend

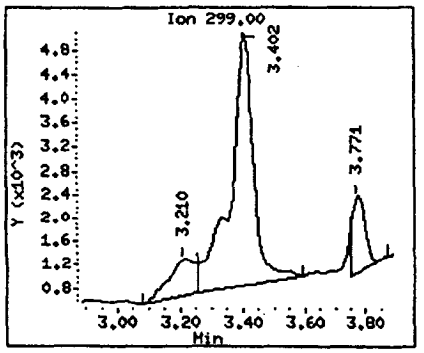
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial Date

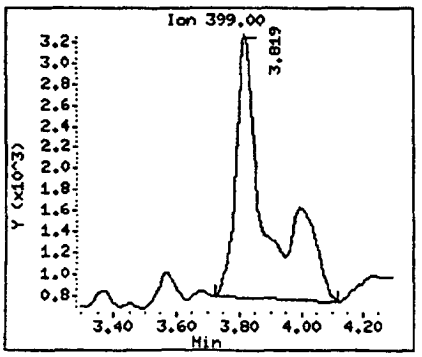
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0064.D



18 PFBS (299)



20 PFHS (399)



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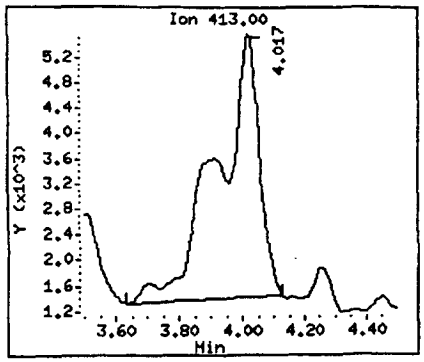
CMM 12/10/02

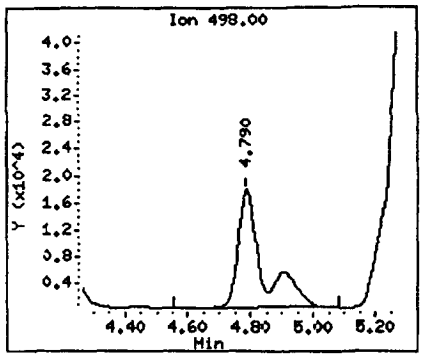
initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0064.D

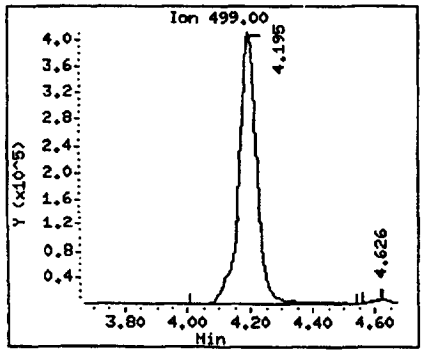
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0070.D Page 1
Report Date: 09-Dec-2002 13:07

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0070.D
Lab Smp Id: SL-2. LM-4-3
Inj Date : 29-JUN-2002 04:26
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.388	0.000	13695	569.580	570
	299	3.183	3.388	-0.205	1232	570.062	570
	299	3.757	3.388	0.369	1592	570.049	570
20 PFHS (399)	399	3.805	3.798	0.007	10665	786.213	786 (M)
21 PFOA (413)	413	4.003	3.997	0.006	23745	815.366	815 (M)
22 FOSA (498)	498	4.776	4.769	0.007	120542	1.45583	1.46
23 PFOS (499)	499	4.174	4.174	0.000	2949014	56.9432	56.9
	499	3.805	4.174	-0.369	2773	1660.25	1660
	499	4.605	4.174	0.431	32944	1659.31	1660

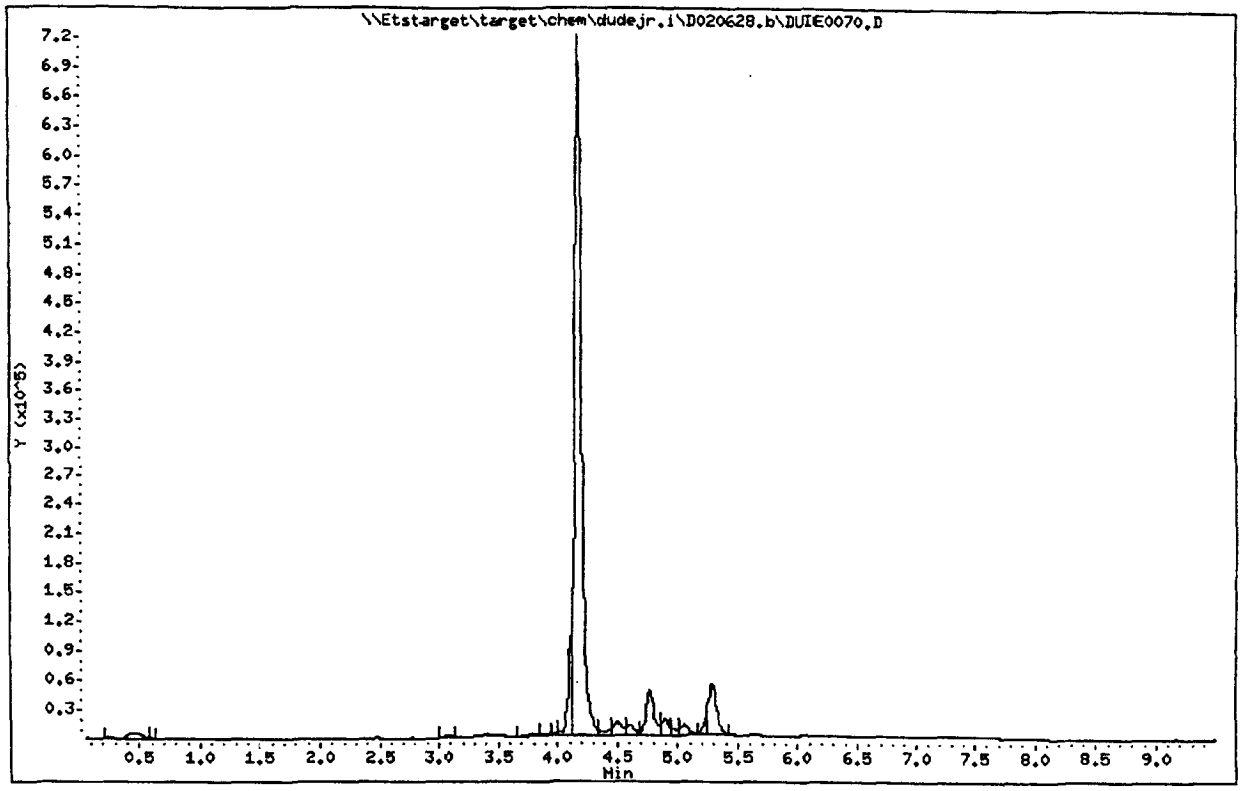
QC Flag Legend

M - Compound response manually integrated.

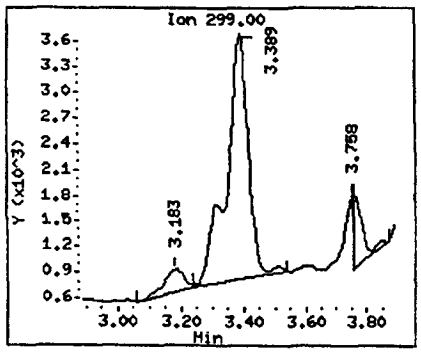
Exact Copy of Original

CMC 12/10/02
Initial Date

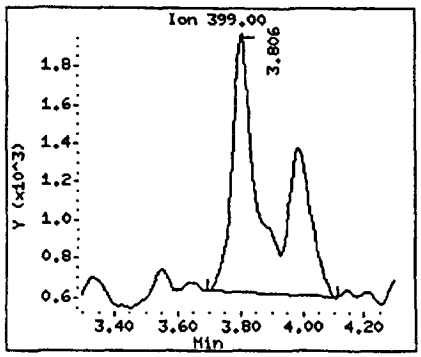
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0070.D



18 PFBS (299)



20 PFHS (399)



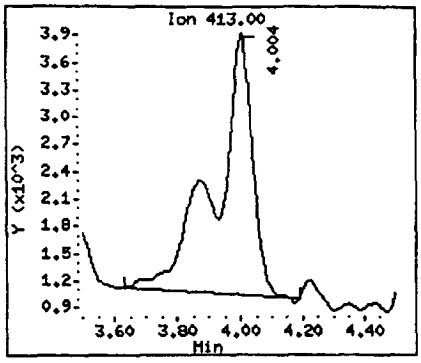
Exact Copy of Original

EMC 12/10/02

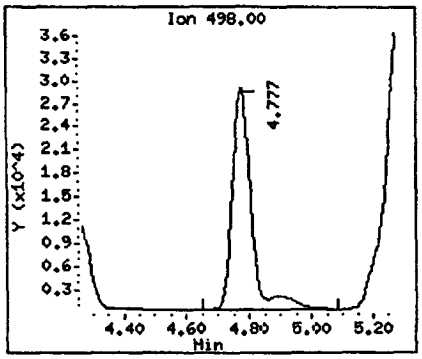
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0070.D

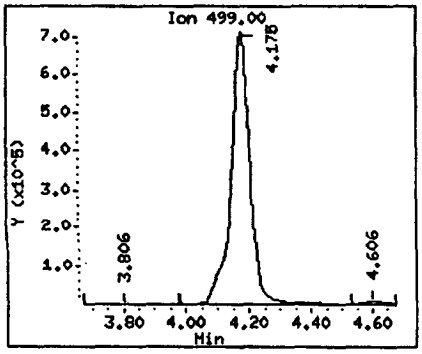
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMK 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0076.D Page 1
Report Date: 09-Dec-2002 13:08

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0076.D
Lab Smp Id: SL-3. LM-1-3
Inj Date : 29-JUN-2002 05:32
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.388	0.000	17998	569.414	569
	299	3.189	3.388	-0.199	3724	569.966	570
	299	3.764	3.388	0.376	1836	570.039	570
20 PFHS (399)	399	3.805	3.798	0.007	16875	0.08359	0.0836
	399	3.559	3.798	-0.239	3229	786.407	786
21 PFOA (413)	413	3.996	3.997	-0.001	60835	0.95299	0.953 (M)
22 FOSA (498)	498	4.899	4.769	0.130	78316	0.02433	0.0243 (M)
23 PFOS (499)	499	4.174	4.174	0.000	716542	1637.71	1640
	499	4.611	4.174	0.437	12921	1659.94	1660

QC Flag Legend

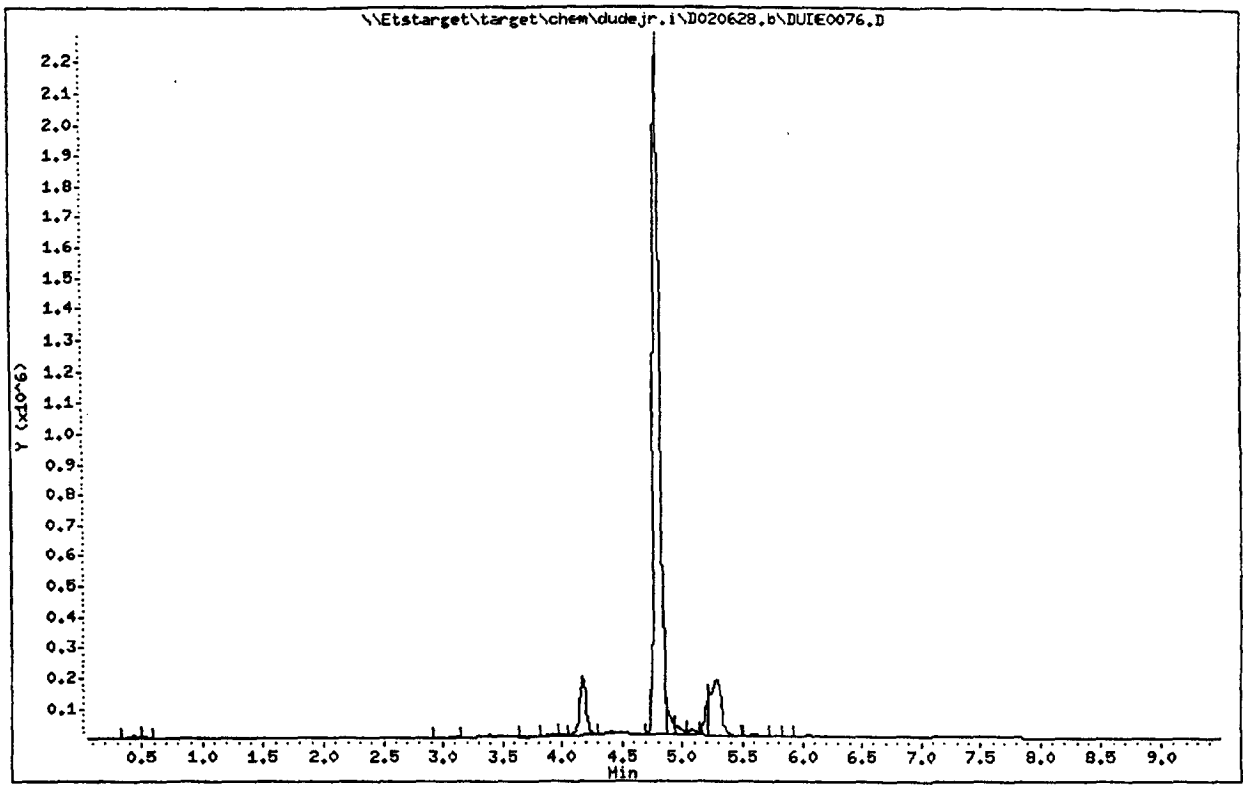
M - Compound response manually integrated.

Exact Copy of Original

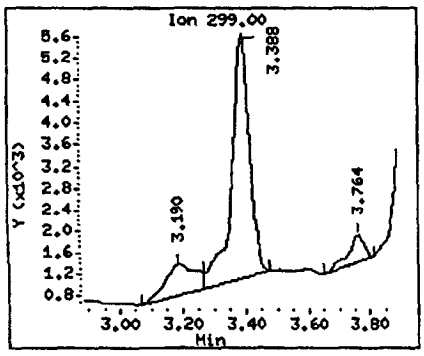
CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0076.D

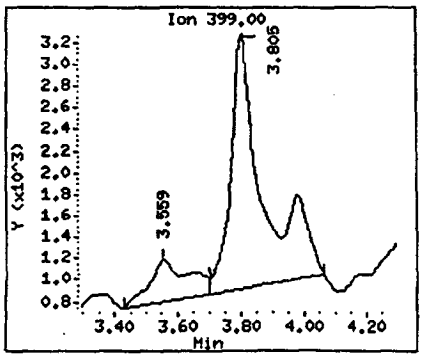
Page 2



18 PFBS (299)



20 PFHS (399)



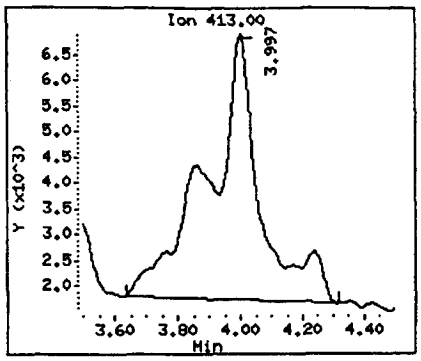
Exact Copy of Original

CMC 12/10/02

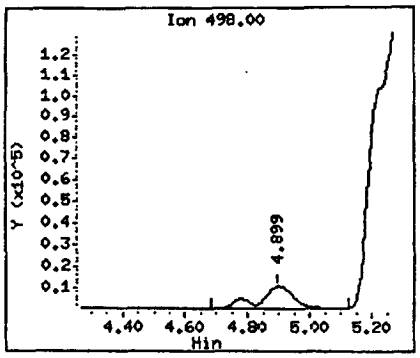
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0076.D

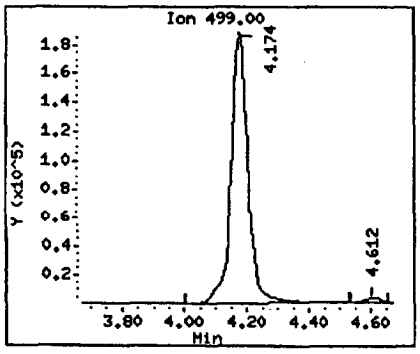
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/18/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0089.D Page 1
Report Date: 09-Dec-2002 13:08

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0089.D
Lab Smp Id: SL-3. LM-4-3
Inj Date : 29-JUN-2002 07:55
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 52
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.395	3.388	0.007	12936	569.610	570
	299	3.190	3.388	-0.198	3732	569.966	570
	299	3.757	3.388	0.369	1991	570.033	570
20 PFHS (399)	399	3.805	3.798	0.007	7393	786.298	786
	399	3.552	3.798	-0.246	2451	786.427	786
21 PFOA (413)	413	4.003	3.997	0.006	24746	815.313	815(M)
22 FOSA (498)	498	4.769	4.769	0.000	64726	1885.89	1880
23 PFOS (499)	499	4.174	4.174	0.000	1029081	1627.64	1630
	499	4.605	4.174	0.431	18761	1659.75	1660

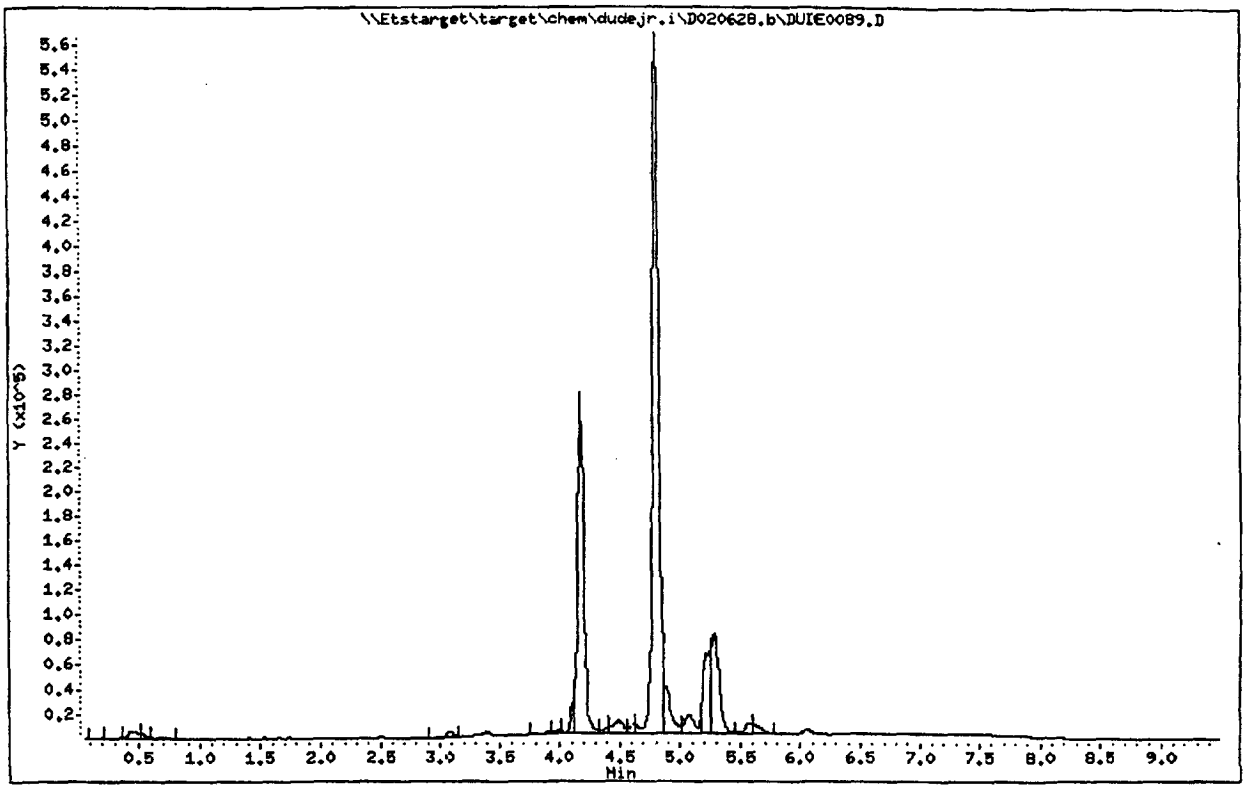
QC Flag Legend

M - Compound response manually integrated.

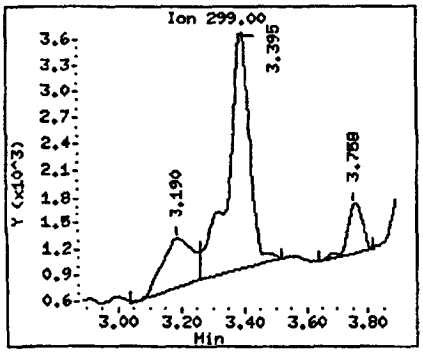
Exact Copy of Original

Initial 12/10/02 Date

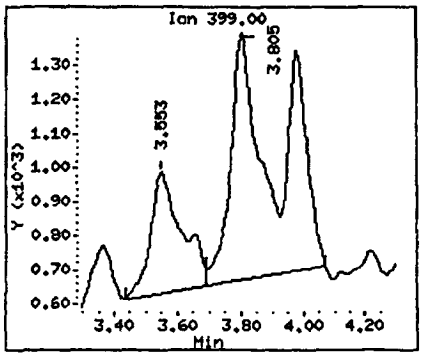
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUIE0089.D Page 2



18 PFBS (299)



20 PFHS (399)

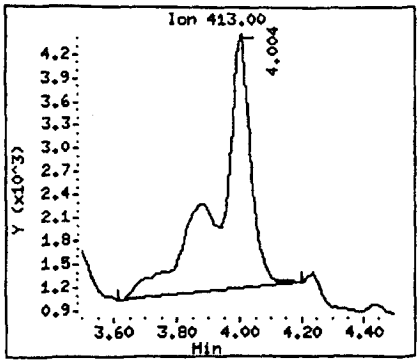


Exact Copy of Original

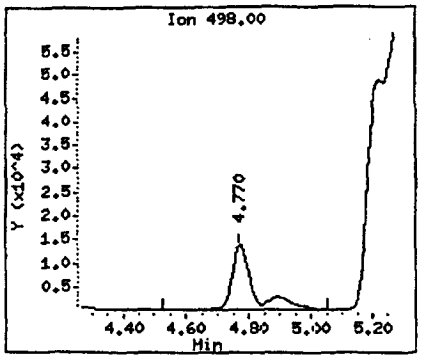
Initial 12/18/02 Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0089.D

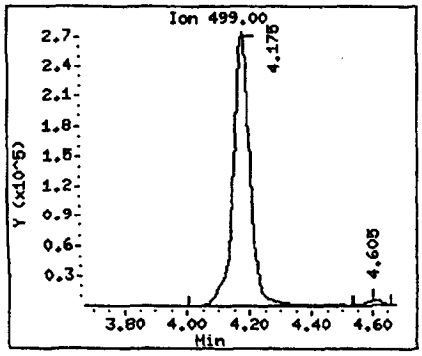
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0102.D Page 1
Report Date: 09-Dec-2002 13:08

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0102.D
Lab Smp Id: SL-3. LM-7-2
Inj Date : 29-JUN-2002 10:18
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.388	0.000	24706	569.154	569
	299	3.176	3.388	-0.212	1376	570.057	570
	299	3.757	3.388	0.369	1023	570.071	570
20 PFHS (399)	399	3.799	3.798	0.001	9487	786.244	786 (M)
21 PFOA (413)	413	3.997	3.997	0.000	62864	1.06124	1.06
22 FOSA (498)	498	4.769	4.769	0.000	23637	1887.28	1890
	498	4.441	4.769	-0.328	779	1888.05	1890
23 PFOS (499)	499	4.175	4.174	0.001	906705	1631.60	1630
	499	4.598	4.174	0.424	29289	1659.43	1660

QC Flag Legend

M - Compound response manually integrated.

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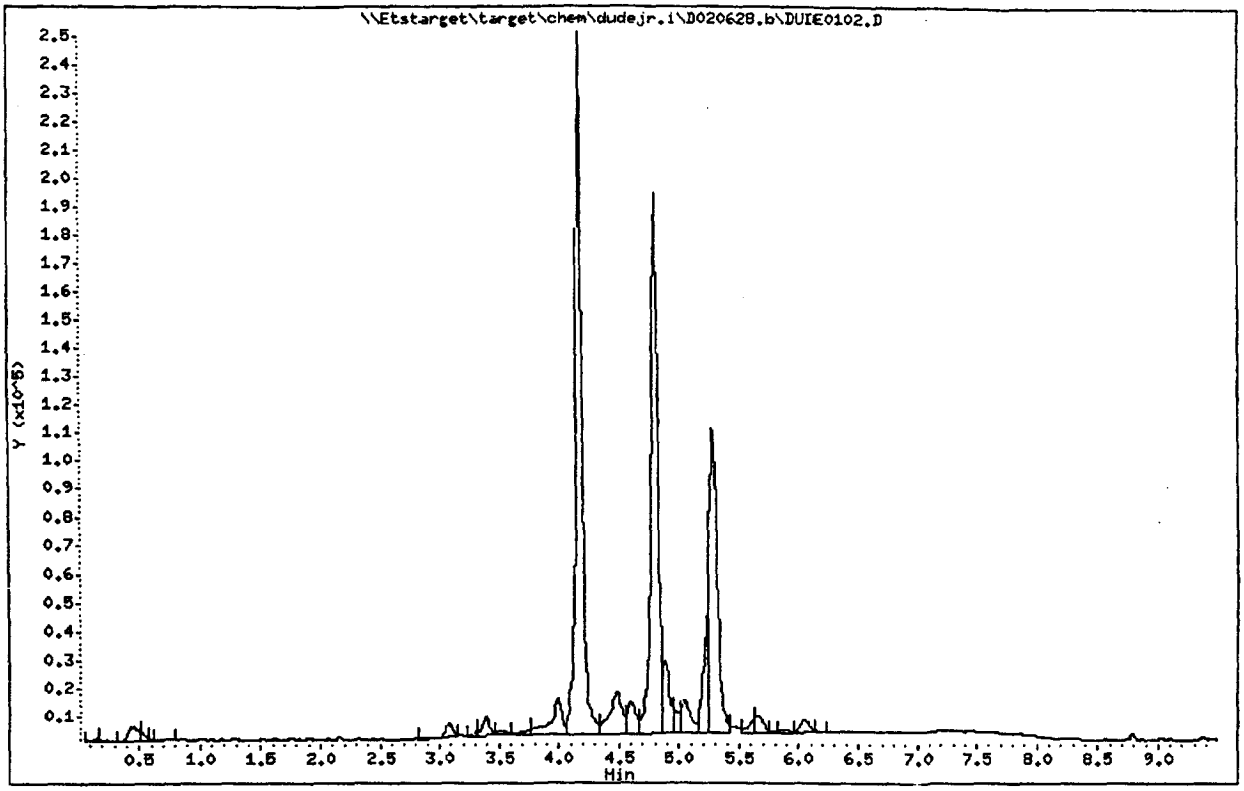
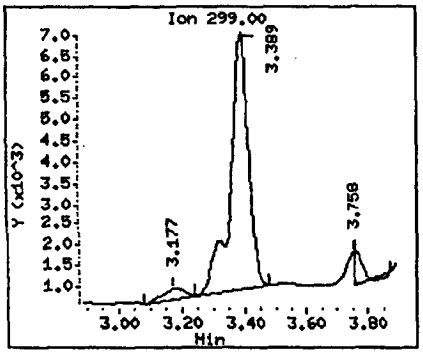
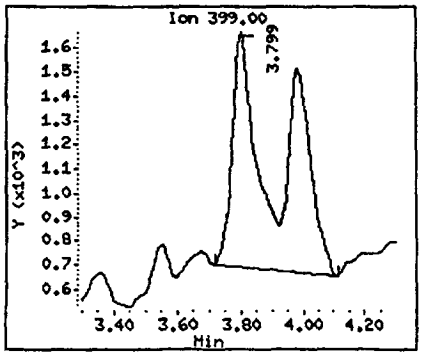
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0102.D



18 PFBS (299)



20 PFHS (399)

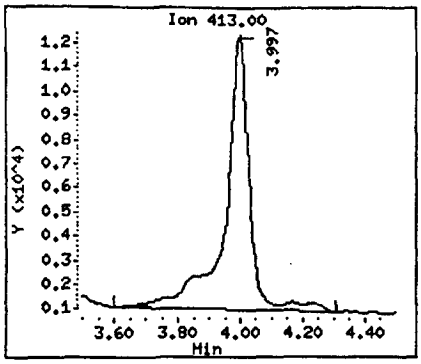


Exact Copy of Original

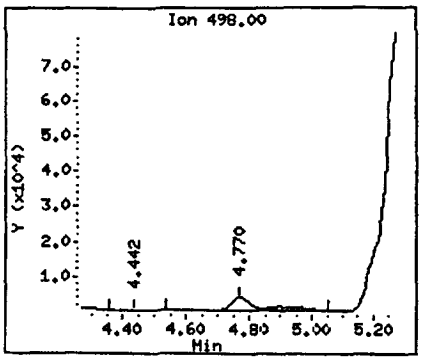
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0102.D

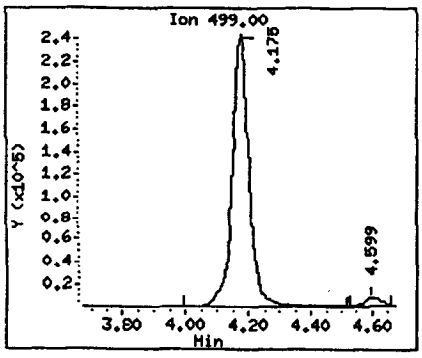
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



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CMC 12/10/02

Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0104.D Page 1
Report Date: 09-Dec-2002 13:08

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0104.D
Lab Smp Id: SL-3. SM-1-1
Inj Date : 29-JUN-2002 10:40
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 65
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.388	0.000	10955	569.686	570
	299	3.190	3.388	-0.198	2138	570.027	570
	299	3.757	3.388	0.369	1256	570.062	570
20 PFHS (399)	399	3.812	3.798	0.014	11252	786.197	786
	399	3.566	3.798	-0.232	5688	786.343	786
	399	4.174	3.798	0.376	975	786.466	786
21 PFOA (413)	413	3.996	3.997	-0.001	55673	0.67774	0.678(M)
22 FOSA (498)	498	4.769	4.769	0.000	41082	1886.69	1890(M)
23 PFOS (499)	499	4.174	4.174	0.000	429027	1646.86	1650
	499	4.605	4.174	0.431	15813	1659.85	1660

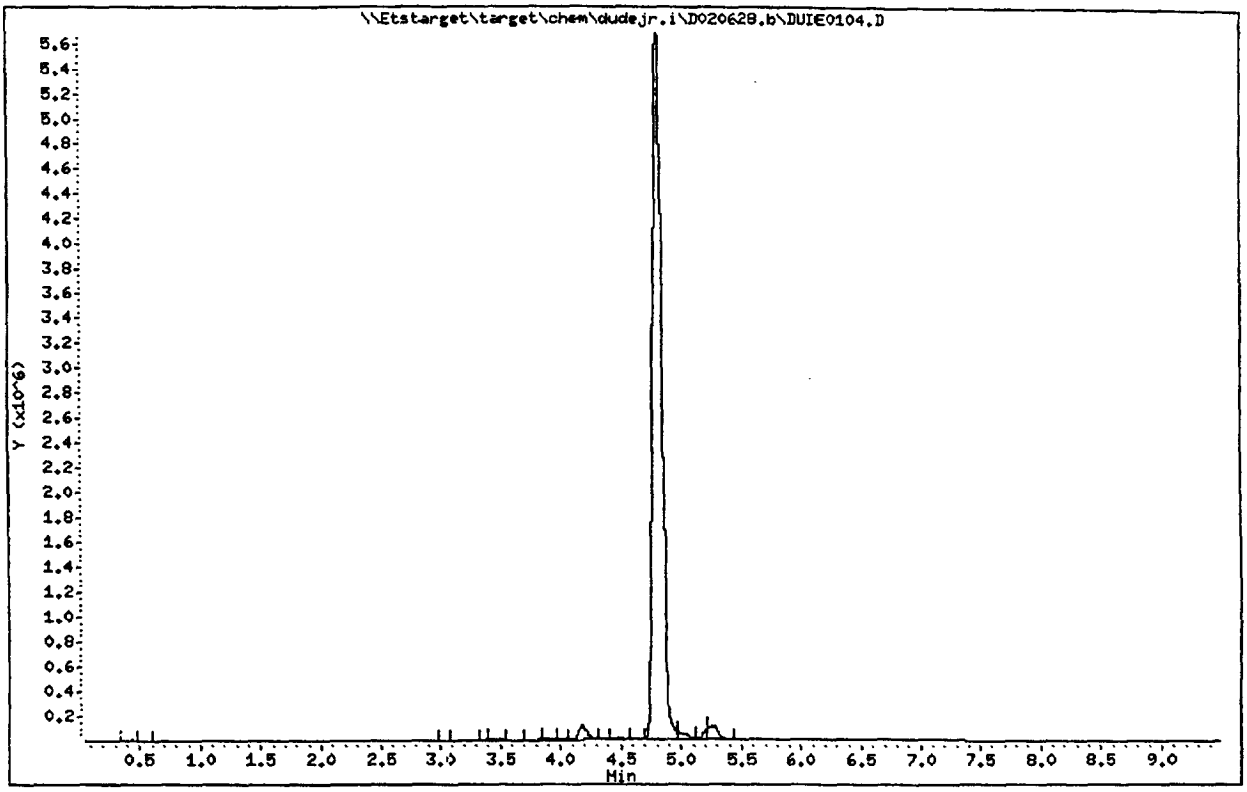
QC Flag Legend

M - Compound response manually integrated.

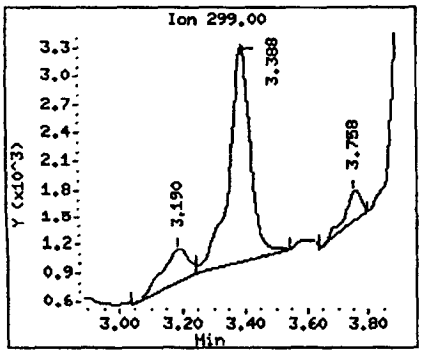
Exact Copy of Original

CMC 12/10/02
Initial Date

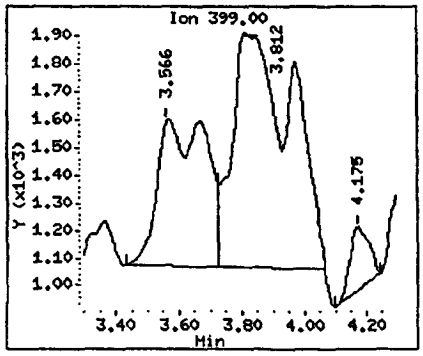
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0104.D



18 PFBS (299)



20 PFHS (399)

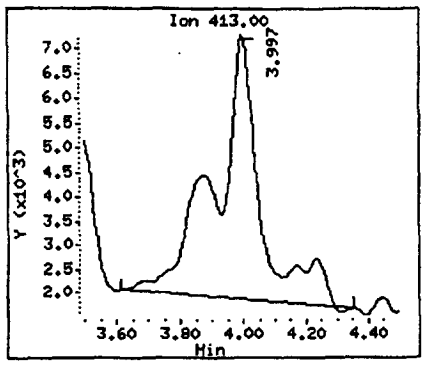


Exact Copy of Original

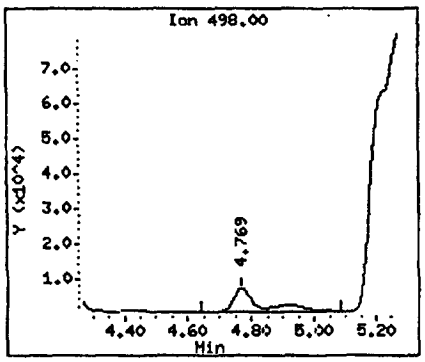
Initial 12/10/02 Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0104.D

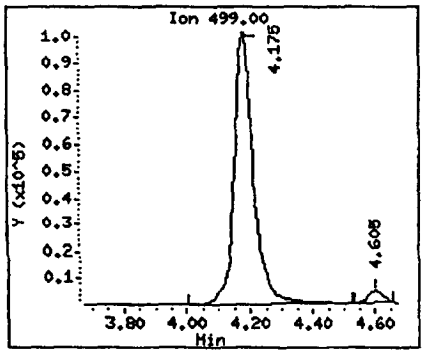
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

Initial 12/10/02 Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0105.D Page 1
Report Date: 09-Dec-2002 13:08

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0105.D
Lab Smp Id: SL-3. SM-1-2
Inj Date : 29-JUN-2002 10:51
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 66
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.388	0.000	11225	569.676	570
	299	3.182	3.388	-0.206	1896	570.037	570
	299	3.764	3.388	0.376	1126	570.067	570
20 PFHS (399)	399	3.825	3.798	0.027	12780	786.158	786
	399	3.552	3.798	-0.246	6122	786.331	786
	399	4.194	3.798	0.396	930	786.467	786
21 PFOA (413)	413	3.996	3.997	-0.001	52802	0.52474	0.525(M)
22 FOSA (498)	498	4.769	4.769	0.000	40143	1886.72	1890(M)
23 PFOS (499)	499	4.174	4.174	0.000	469574	1645.58	1640
	499	4.605	4.174	0.431	14246	1659.89	1660

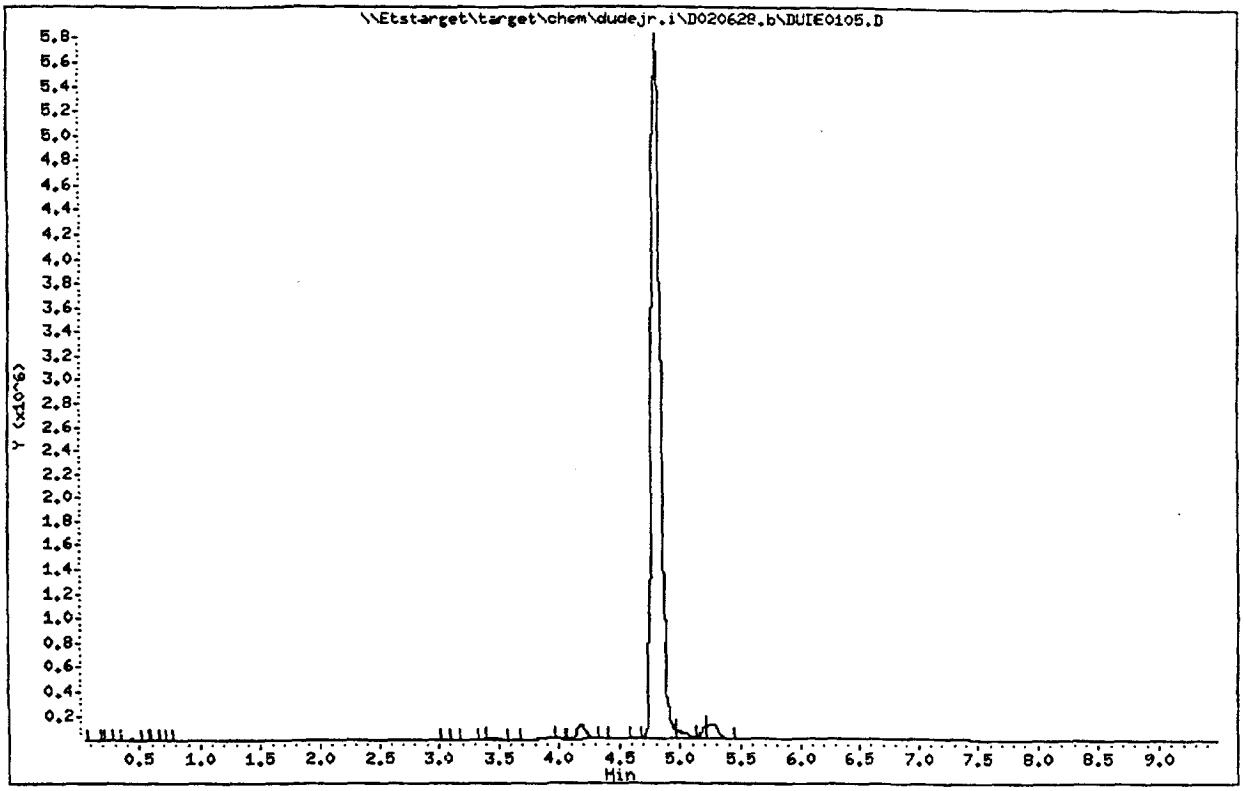
QC Flag Legend

M - Compound response manually integrated.

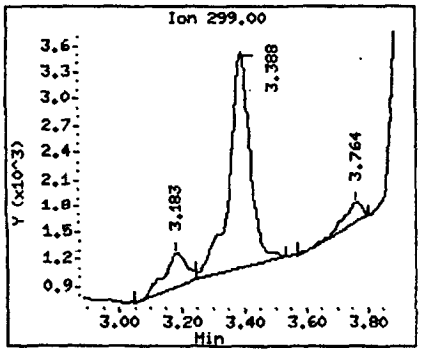
Exact Copy of Original

CMC 12/10/02
Initial Date

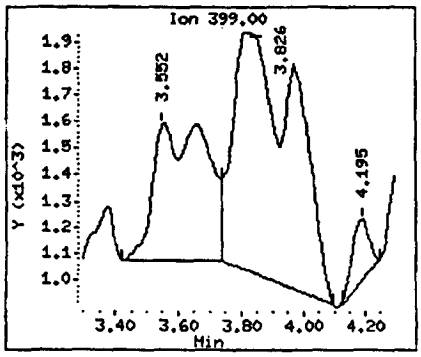
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0105.D



18 PFBS (299)



20 PFHS (399)



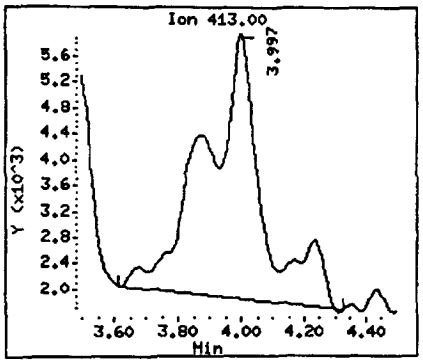
Exact Copy of Original

CMC 12/10/02

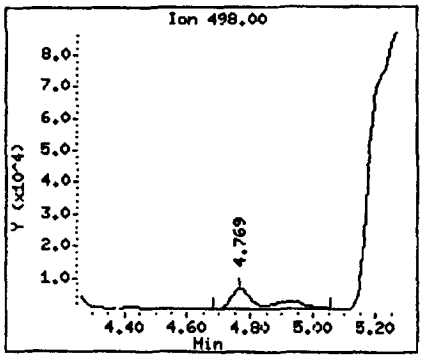
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0105.D

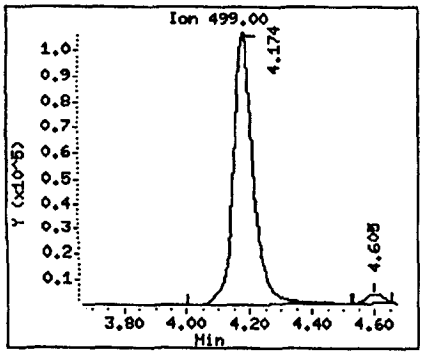
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0108.D Page 1
Report Date: 09-Dec-2002 13:08

3M Environmental Laboratory

E02-0443 Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0108.D
Lab Smp Id: SL-3. SM-1-3
Inj Date : 29-JUN-2002 11:25
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020628.b\D020628.m
Meth Date : 09-Dec-2002 13:01 dudejr.i Quant Type: ESTD
Cal Date : 29-JUN-2002 00:48 Cal File: DUDE0050.D
Als bottle: 67
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.388	0.000	16091	569.488	569
	299	3.183	3.388	-0.205	2727	570.005	570
	299	3.764	3.388	0.376	1588	570.049	570
20 PFHS (399)	399	3.798	3.798	0.000	13195	786.147	786(M)
21 PFOA (413)	413	3.996	3.997	-0.001	54265	0.60270	0.603(M)
22 FOSA (498)	498	4.762	4.769	-0.007	44388	1886.57	1890(M)
23 PFOS (499)	499	4.174	4.174	0.000	458983	1645.91	1640
	499	4.598	4.174	0.424	15684	1659.85	1660

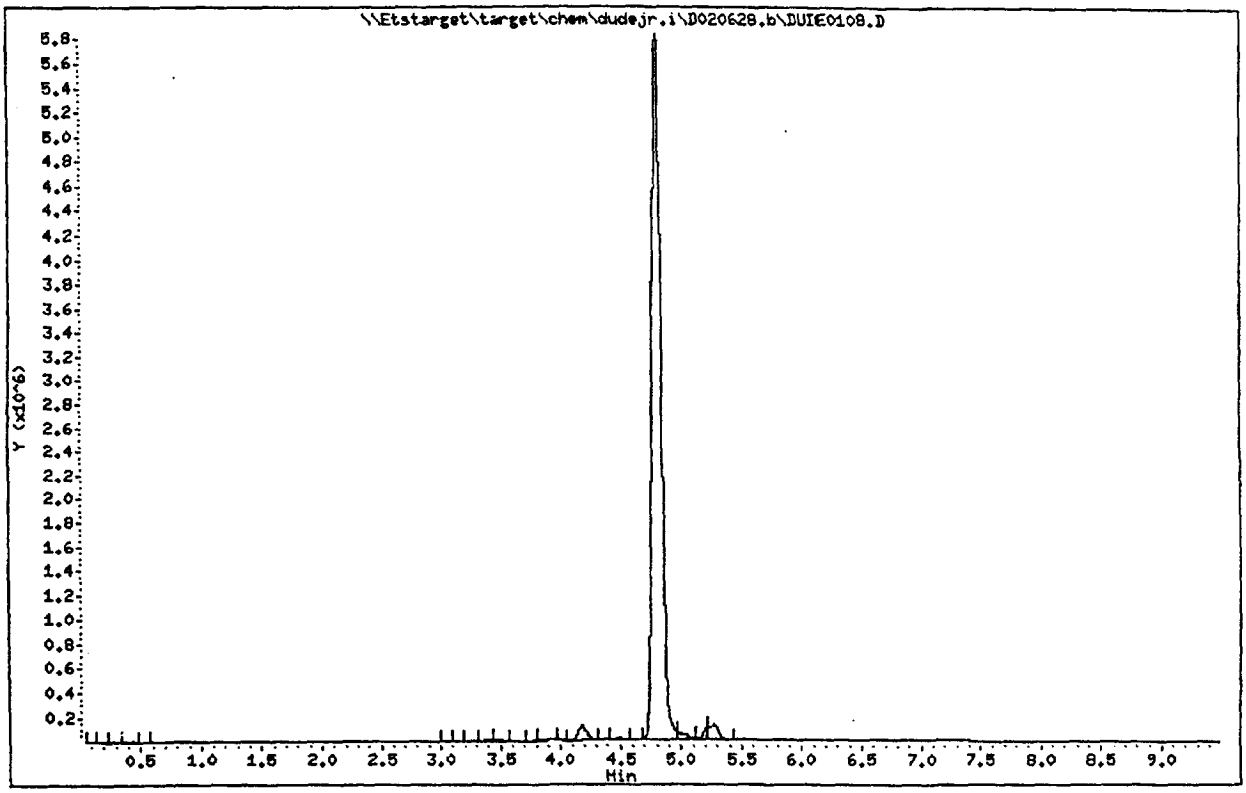
QC Flag Legend

M - Compound response manually integrated.

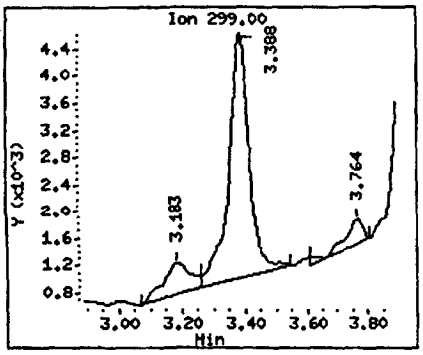
Exact Copy of Original

CMC 12/10/02
Initial Date

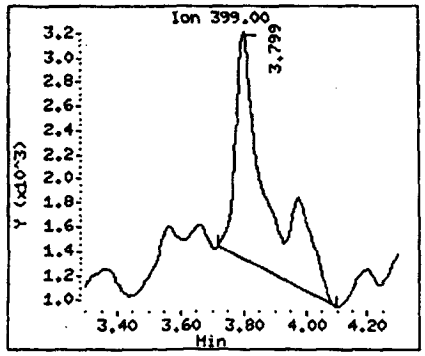
Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0108.D Page 2



18 PFBS (299)



20 PFHS (399)



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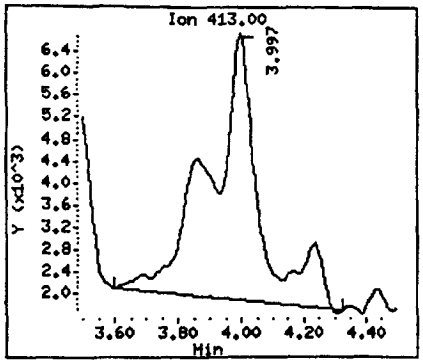
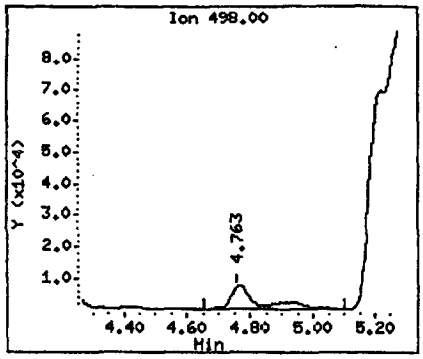
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020628.b\DUDE0108.D

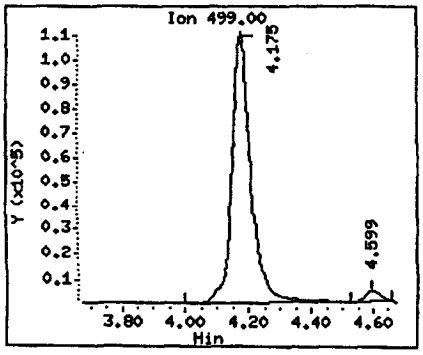
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0089.D Page 1
Report Date: 27-Aug-2002 10:06

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0089.D
Lab Smp Id: SL-1. WB-1
Inj Date : 01-JUL-2002 04:25
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 47
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.313	3.381	-0.068	23577	1223.22	1220
	299	2.944	3.381	-0.437	478	1224.54	1220
	299	3.163	3.381	-0.218	2981	1224.39	1220
20 PFHS (399)	399	3.798	3.792	0.006	8170	0.16435	0.164
21 PFOA (413)	413	4.004	3.990	0.014	10932	819.144	819
22 FOSA (498)	498	4.776	4.756	0.020	7649	2744.00	2740
23 PFOS (499)	499	4.188	4.168	0.020	96922	1274.91	1270
	499	4.605	4.168	0.437	22825	1277.09	1280

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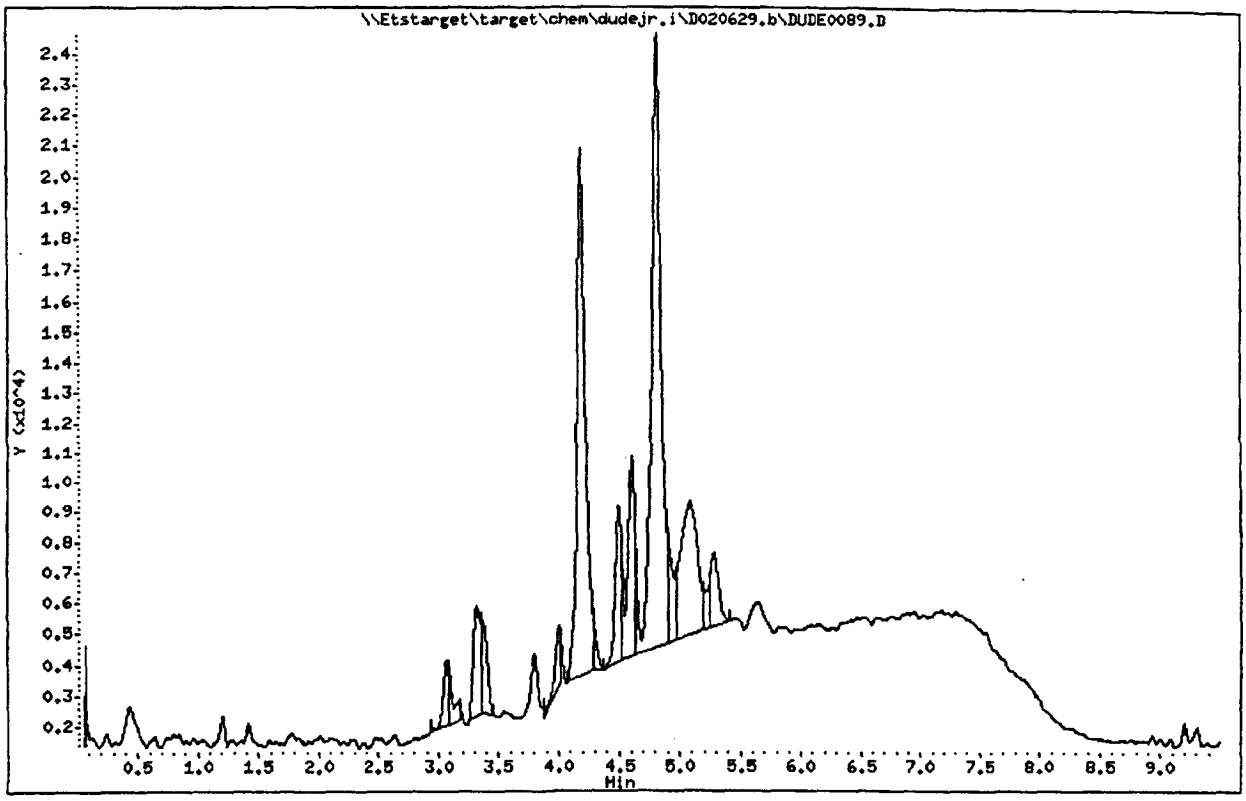
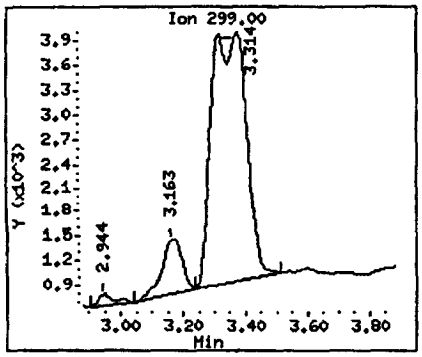
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0089.D

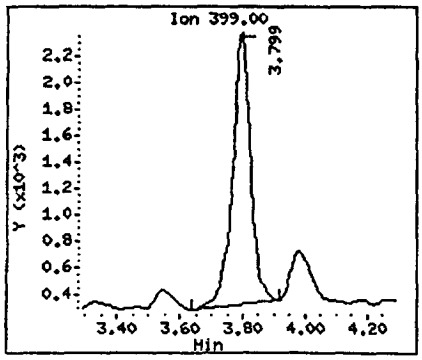
Page 2



18 PFBS (299)



20 PFHS (399)



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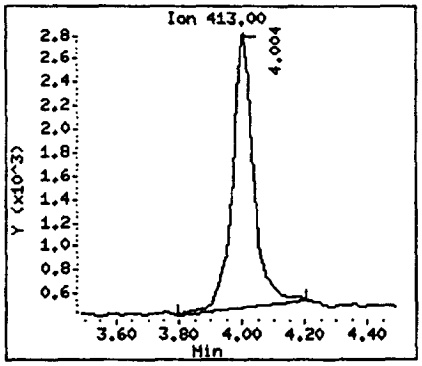
CMC 12/10/02

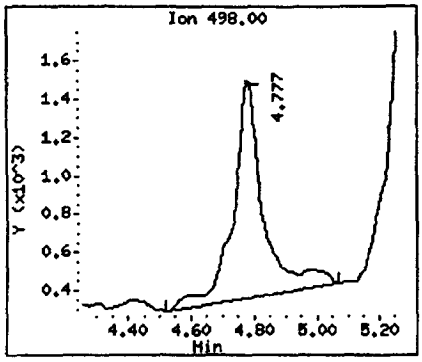
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0089.D

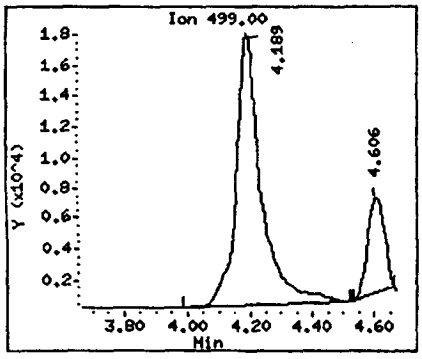
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0127.D Page 1
Report Date: 27-Aug-2002 10:07

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

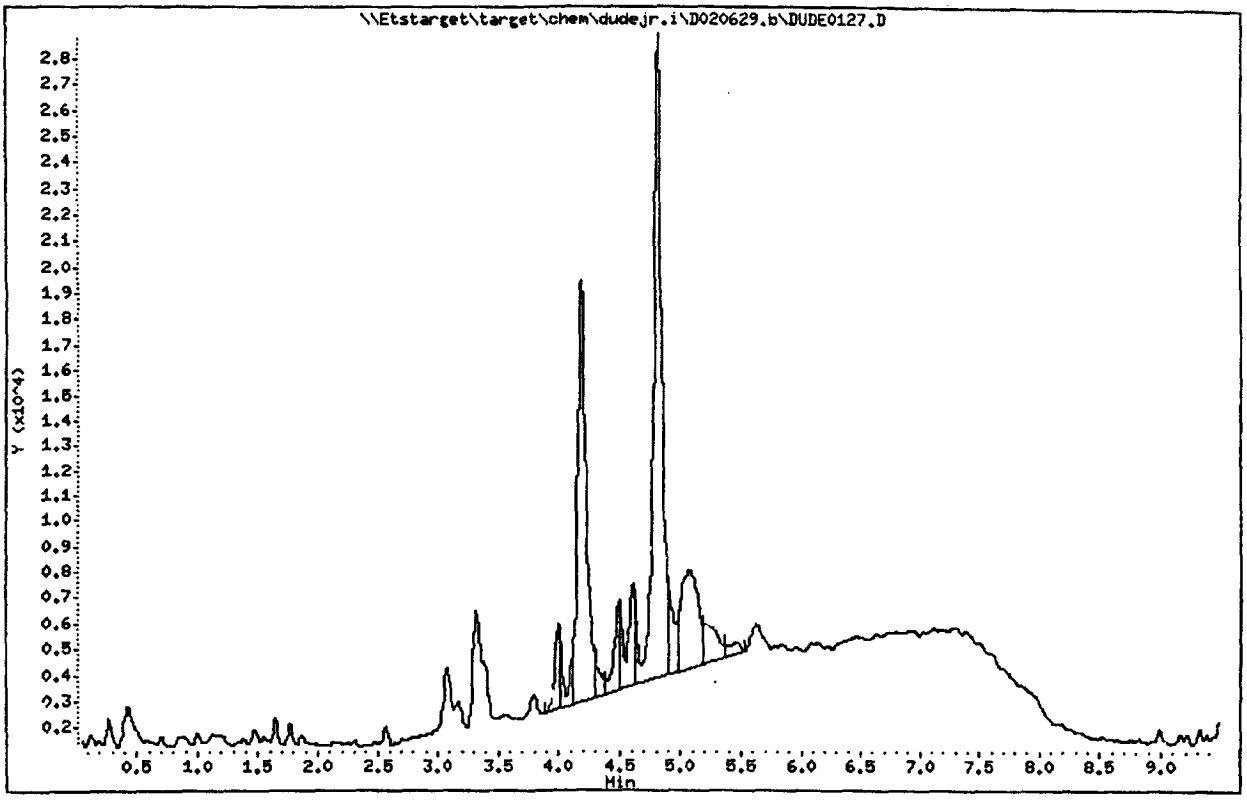
Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0127.D
Lab Smp Id: SL-2. WB-1
Inj Date : 01-JUL-2002 11:23
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 03
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 76
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

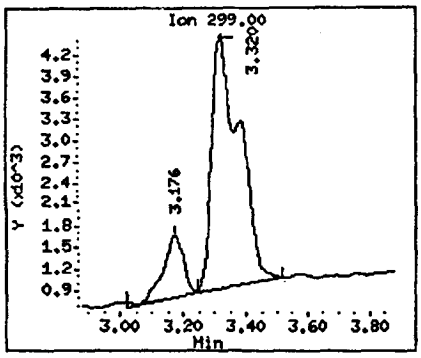
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.319	3.381	-0.062	21873	1223.32	1220
	299	3.176	3.381	-0.205	3784	1224.35	1220
20 PFHS (399)	399	3.791	3.792	-0.001	3614	0.03478	0.0348
	399	3.982	3.792	0.190	1921	797.168	797
21 PFOA (413)	413	3.996	3.990	0.006	12881	819.035	819
22 FOSA (498)	498	4.776	4.756	0.020	3433	2744.18	2740
23 PFOS (499)	499	4.188	4.168	0.020	86874	1275.20	1280
	499	4.598	4.168	0.430	12403	1277.40	1280

Exact Copy of Original
CMC 12/10/02
Initial Date

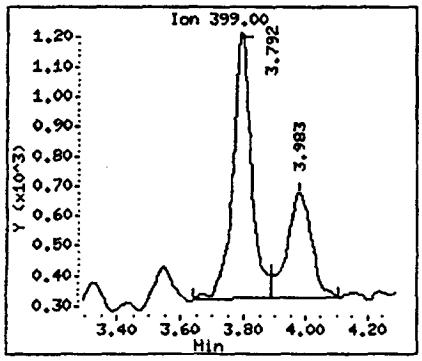
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0127.D



18 PFBS (299)



20 PFHS (399)

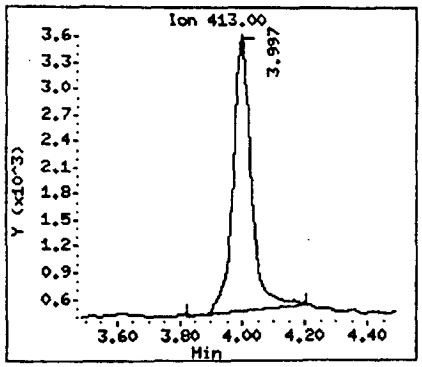


CMC 12/10/02

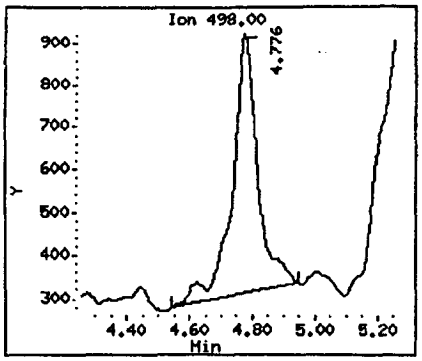
(Title) (Date)

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0127.D

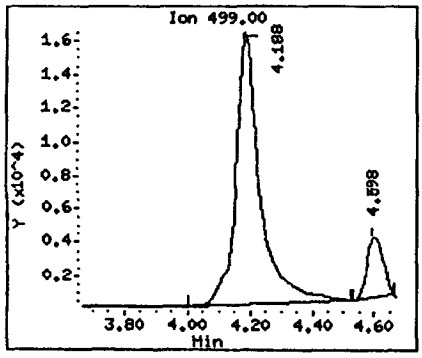
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CWC 12/10/02

Initial Date

Data File: DUDE0089.D Page 1
Report Date: 27-Aug-2002 11:06

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0089.D
Lab Smp Id: SL-3. WB-1
Inj Date : 03-JUL-2002 07:02
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\D020702.m
Meth Date : 27-Aug-2002 11:01 dudejr.i Quant Type: ESTD
Cal Date : 03-JUL-2002 01:21 Cal File: DUDE0058.D
Als bottle: 72
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

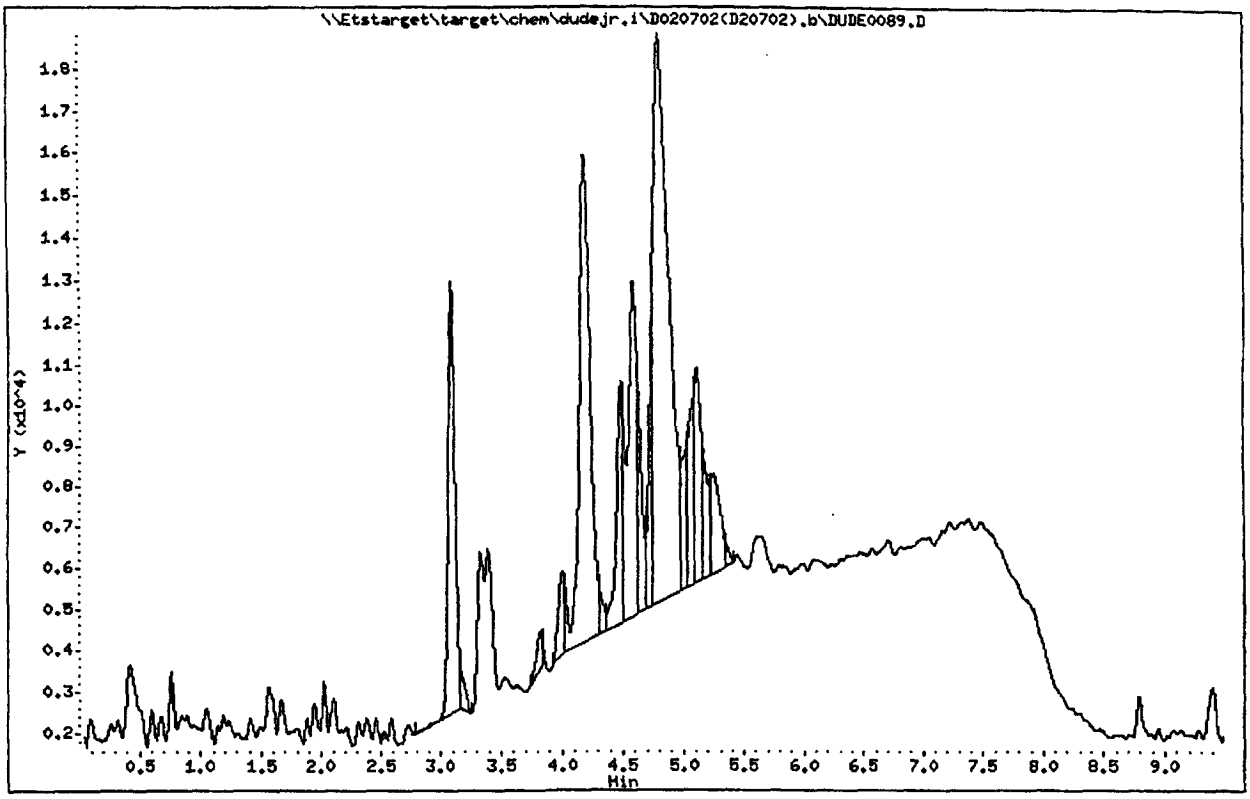
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.326	3.387	-0.061	25327	1219.58	1220
	299	3.183	3.387	-0.204	3226	1220.47	1220
	299	3.777	3.387	0.390	498	1220.58	1220
20 PFHS (399)	399	3.825	3.791	0.034	7877	0.25845	0.258
	399	3.545	3.791	-0.246	937	0.12420	0.124
21 PFOA (413)	413	4.010	3.989	0.021	14443	795.103	795(M)
22 FOSA (498)	498	4.803	4.748	0.055	5535	2854.35	2850(M)
23 PFOS (499)	499	4.194	4.167	0.027	82445	1323.02	1320
	499	4.591	4.167	0.424	22937	1324.24	1320

QC Flag Legend

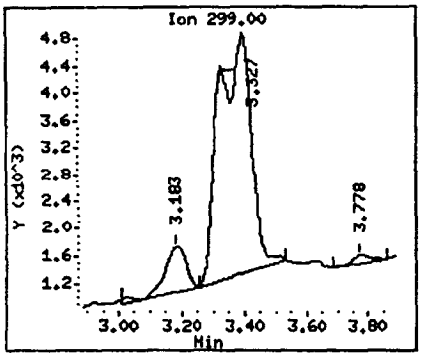
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial Date

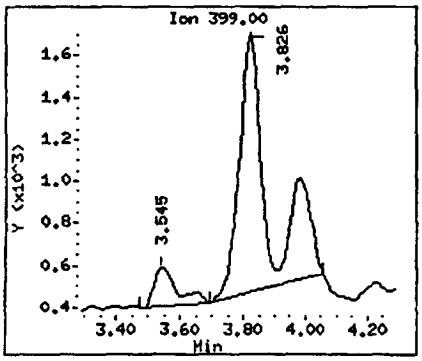
Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0089.D Page 2



18 PFBS (299)



20 PFHS (399)



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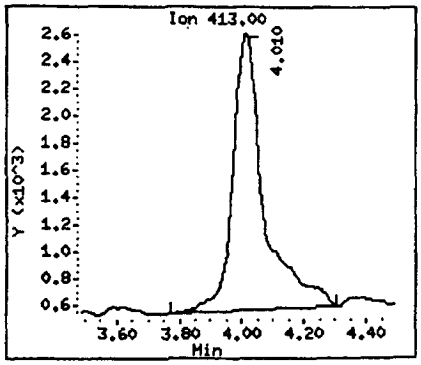
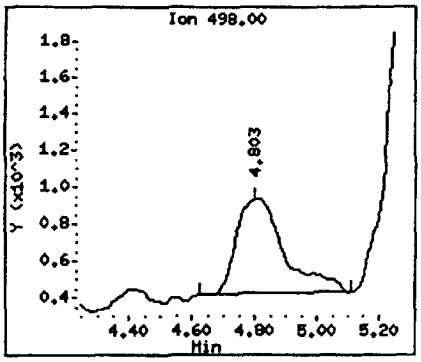
CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0089.D

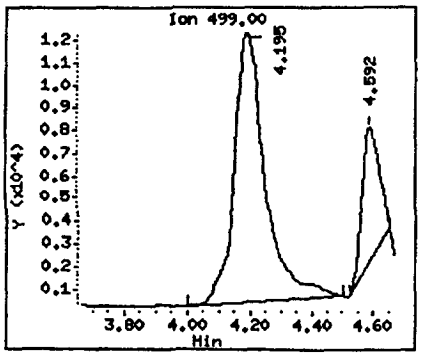
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CKNC 12/10/02

Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0064.D Page 1
Report Date: 27-Aug-2002 10:05

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0064.D
Lab Smp Id: SL-1. C-1-3
Inj Date : 30-JUN-2002 23:51
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

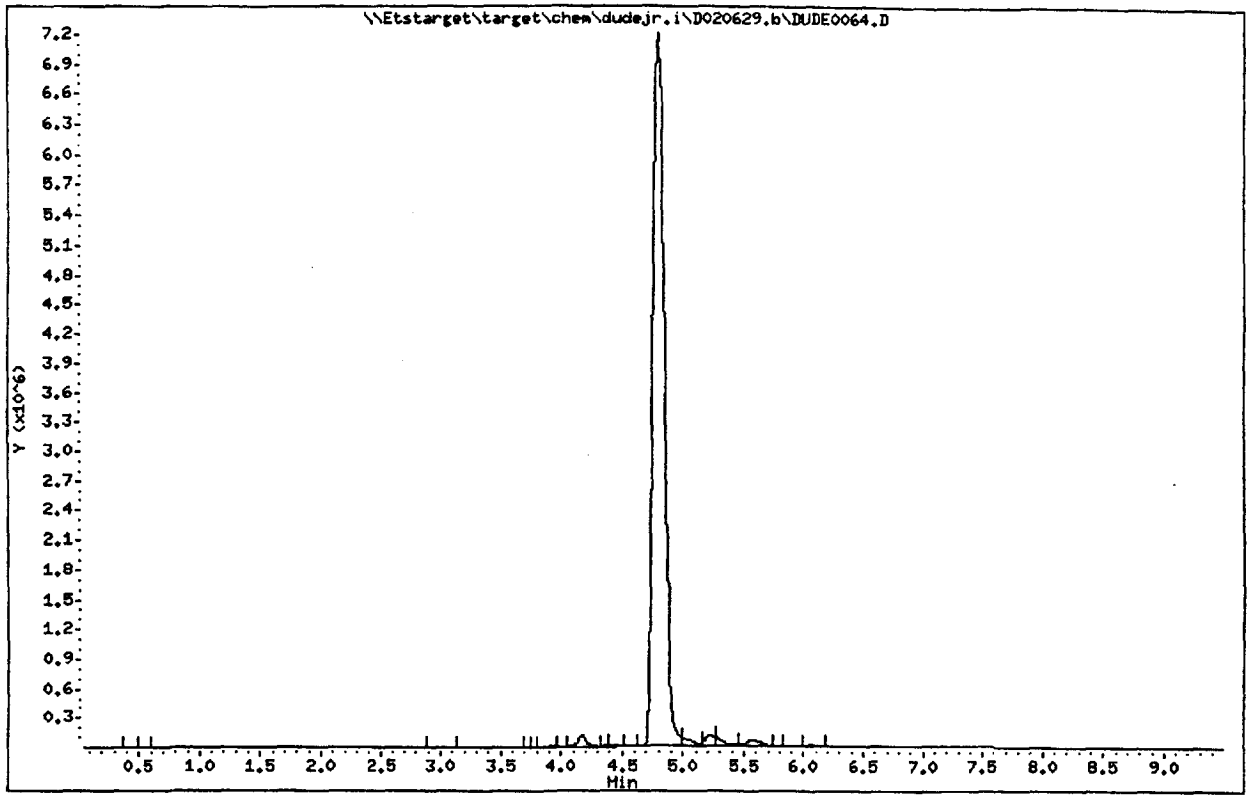
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	12710	1223.84	1220
	299	3.176	3.381	-0.205	3939	1224.34	1220
	299	3.751	3.381	0.370	2555	1224.42	1220
20 PFHS (399)	399	3.798	3.792	0.006	7182	0.13625	0.136(M)
21 PFOA (413)	413	3.997	3.990	0.007	23937	0.38259	0.382(M)
22 POSA (498)	498	4.756	4.756	0.000	140625	5.20388	5.20(M)
23 PFOS (499)	499	4.175	4.168	0.007	480864	10.0262	10.0
	499	4.434	4.168	0.266	5778	1277.60	1280
	499	4.605	4.168	0.437	16925	1277.27	1280

QC Flag Legend

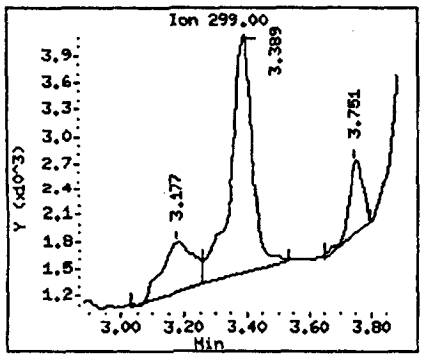
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
(Initial) (Date)

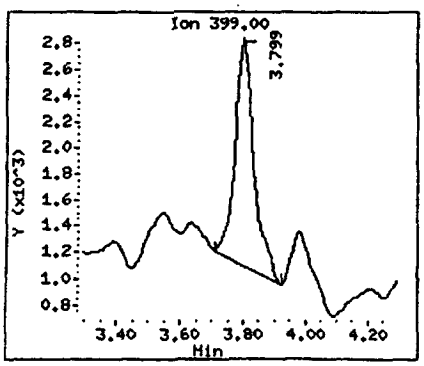
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0064.D Page 2



18 PFBS (299)



20 PFHS (399)

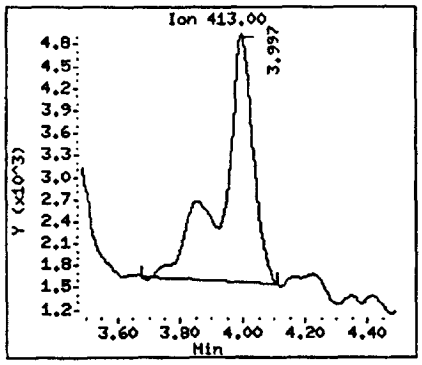


Exact Copy of Original

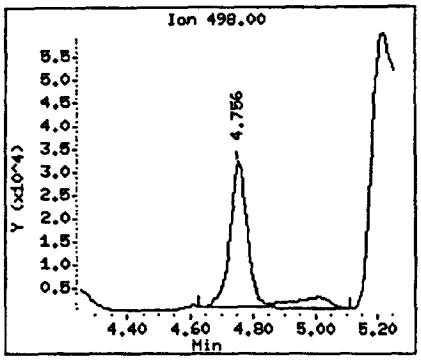
CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0064.D

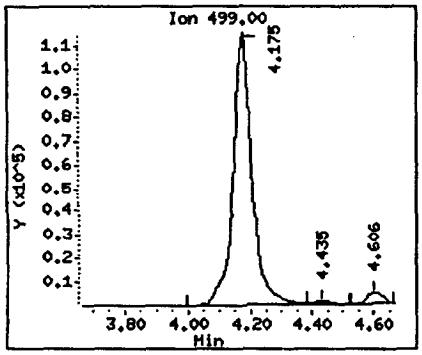
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy
CHK 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0065.D Page 1
Report Date: 27-Aug-2002 10:05

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0065.D
Lab Smp Id: SL-1. C-2-1
Inj Date : 01-JUL-2002 00:02
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

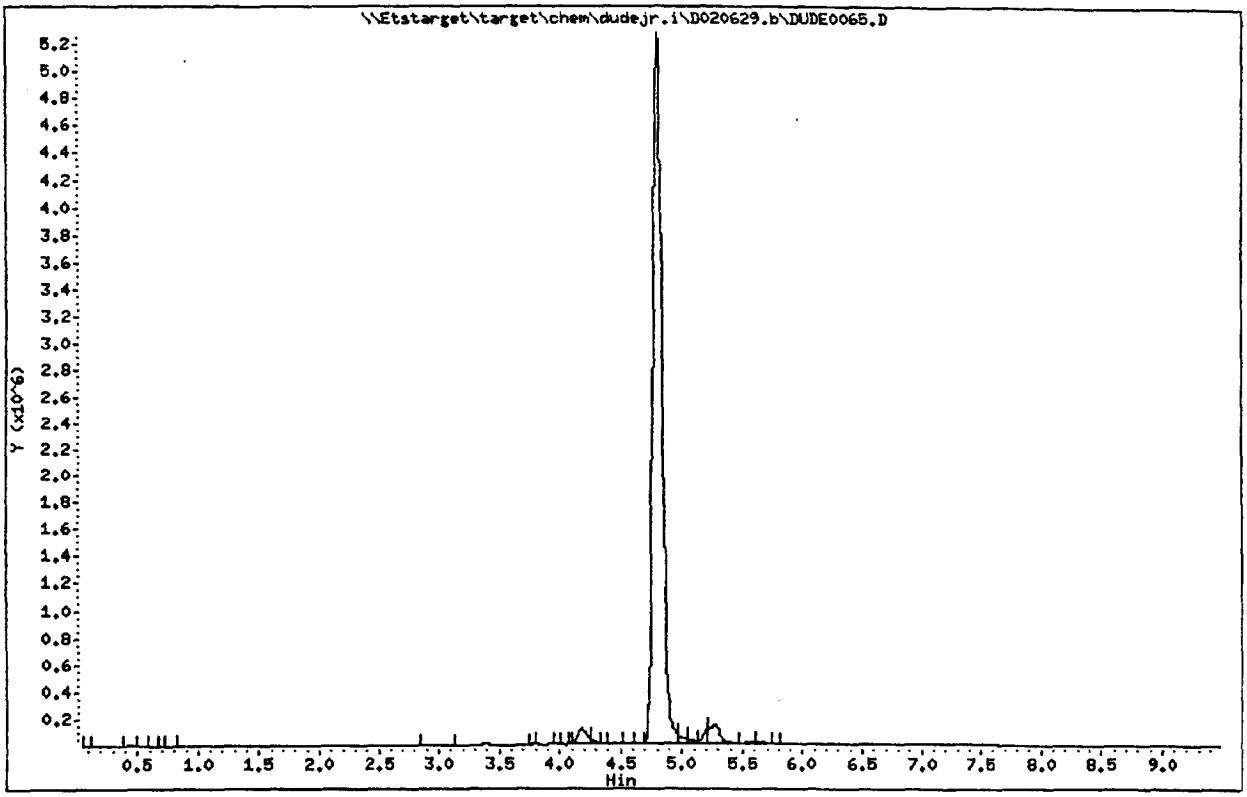
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	13624	1223.79	1220
	299	3.169	3.381	-0.212	2806	1224.40	1220
	299	3.751	3.381	0.370	1621	1224.47	1220
20 PFHS (399)	399	3.798	3.792	0.006	10531	0.23151	0.232
	399	3.402	3.792	-0.390	1006	797.194	797
	399	3.539	3.792	-0.253	2533	0.00404	0.00404
21 PFOA (413)	413	3.997	3.990	0.007	26775	0.54153	0.542(M)
22 FOSA (498)	498	4.763	4.756	0.007	122304	4.44736	4.45
23 PFOS (499)	499	4.175	4.168	0.007	472057	9.76111	9.76
	499	3.792	4.168	-0.376	2335	1277.70	1280
	499	4.605	4.168	0.437	21371	1277.14	1280

QC Flag Legend

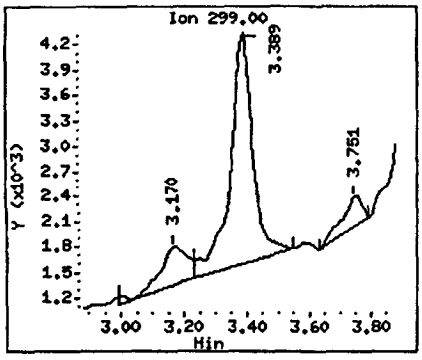
M - Compound response manually integrated.

Excel Copy
CMC 12/10/02
Initial Date

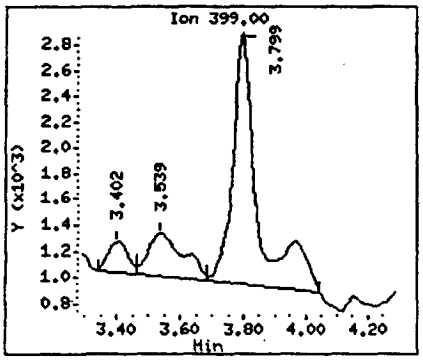
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0065.D Page 2



18 PFBS (299)



20 PFHS (399)

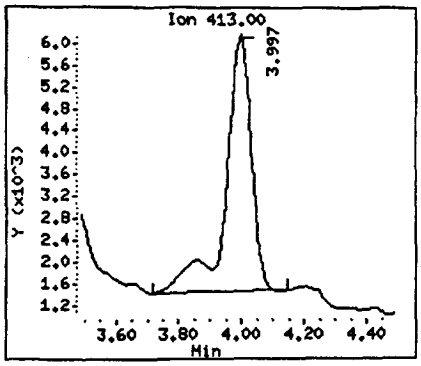


Exact Copy of Original

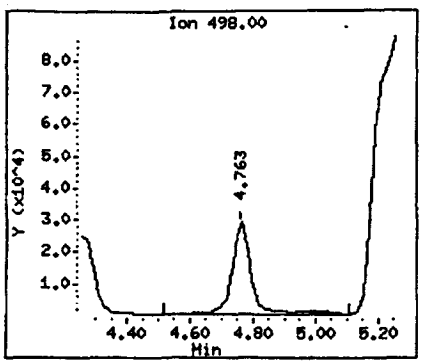
CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0065.D

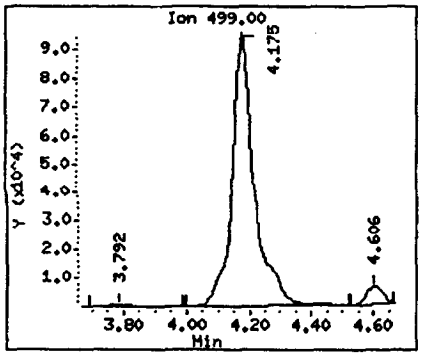
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

lmc 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0071.D Page 1
Report Date: 27-Aug-2002 10:05

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0071.D
Lab Smp Id: SL-1. C-3-2
Inj Date : 01-JUL-2002 01:08
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

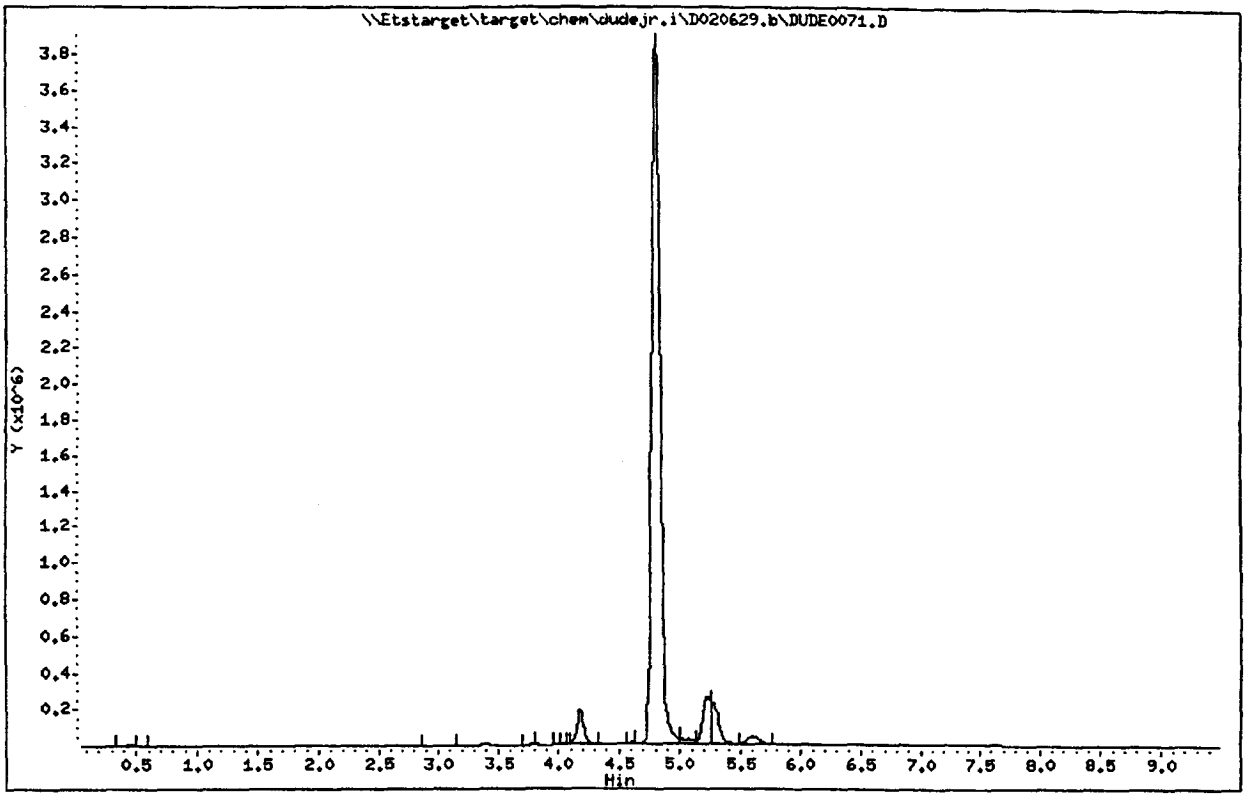
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	15305	1223.69	1220
	299	3.176	3.381	-0.205	2054	1224.45	1220
	299	3.750	3.381	0.369	1430	1224.48	1220
20 PFHS (399)	399	3.798	3.792	0.006	12488	0.28719	0.287(M)
21 PFOA (413)	413	3.997	3.990	0.007	20288	0.17834	0.178(M)
22 FOSA (498)	498	4.762	4.756	0.006	185959	7.07763	7.08
	498	5.009	4.756	0.253	9781	2743.92	2740
23 PFOS (499)	499	4.174	4.168	0.006	742237	17.9441	17.9
	499	4.605	4.168	0.437	20176	1277.17	1280

QC Flag Legend

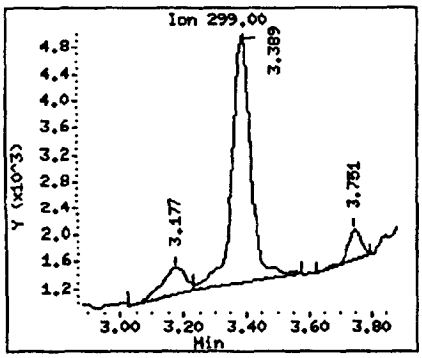
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial Date

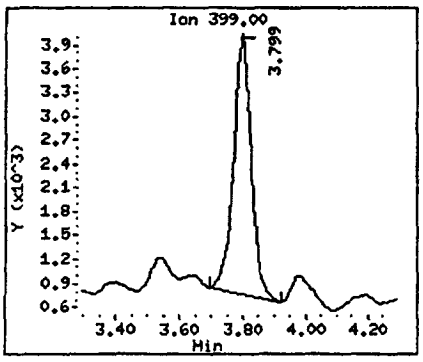
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0071.D



18 PFBS (299)



20 PFHS (399)



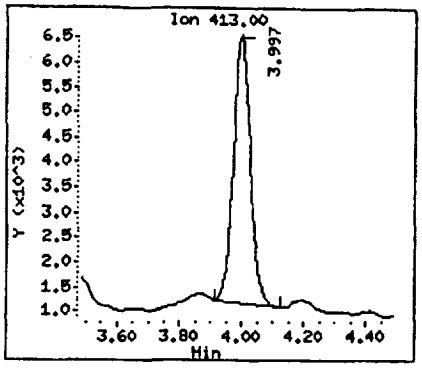
Exact Copy of Original

CWL 12/10/01

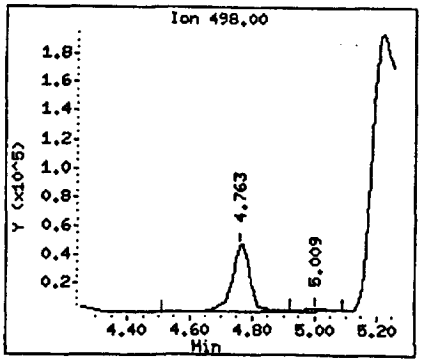
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0071.D

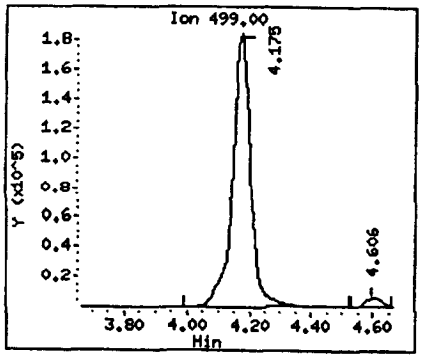
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02

Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0076.D Page 1
Report Date: 27-Aug-2002 10:06

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0076.D
Lab Smp Id: SL-1. C-4-2
Inj Date : 01-JUL-2002 02:03
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

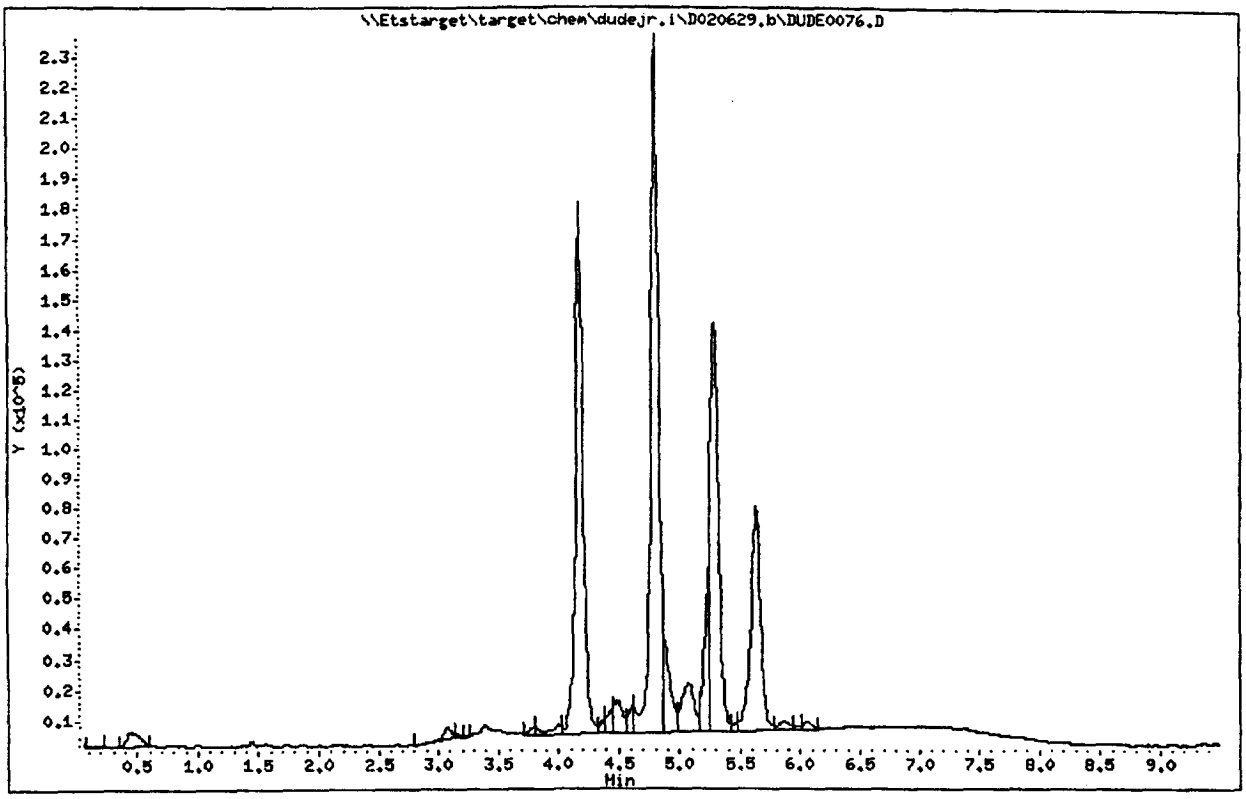
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.381	3.381	0.000	13243	1223.81	1220
	299	3.224	3.381	-0.157	2813	1224.40	1220
	299	3.750	3.381	0.369	629	1224.53	1220
20 PFHS (399)	399	3.792	3.792	0.000	5712	0.09444	0.0944 (M)
21 PFOA (413)	413	3.997	3.990	0.007	11767	819.097	819 (M)
22 FOSA (498)	498	4.769	4.756	0.013	103527	3.67245	3.67
23 PFOS (499)	499	4.174	4.168	0.006	684549	16.1878	16.2
	499	3.785	4.168	-0.383	516	1277.75	1280
	499	4.434	4.168	0.266	11460	1277.43	1280
	499	4.605	4.168	0.437	20829	1277.15	1280

QC Flag Legend

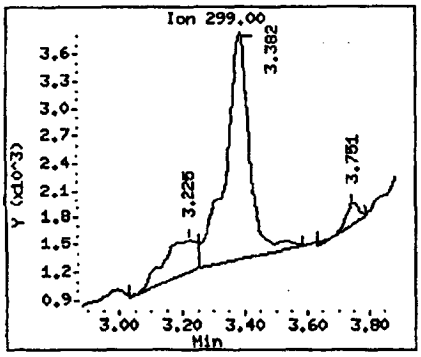
M - Compound response manually integrated.

Exact Copy
CMC 12/10/02
Initial Date

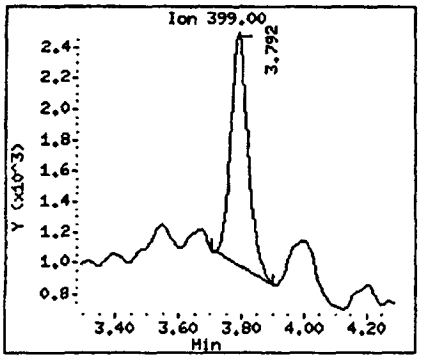
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0076.D



18 PFBS (299)



20 PFHS (399)



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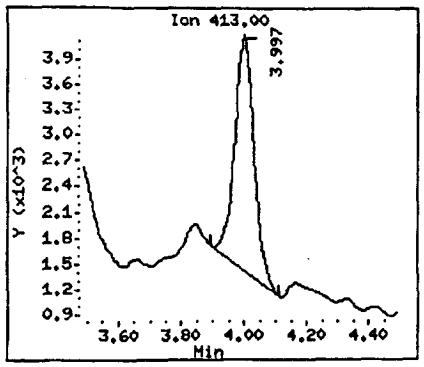
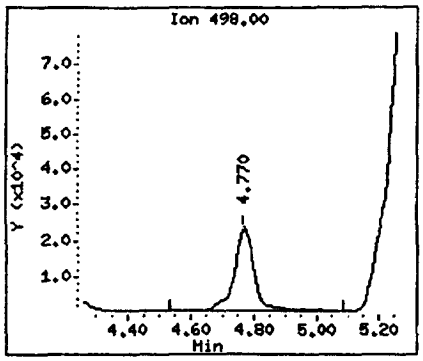
LMC 12/10/02
(Initial)

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0076.D

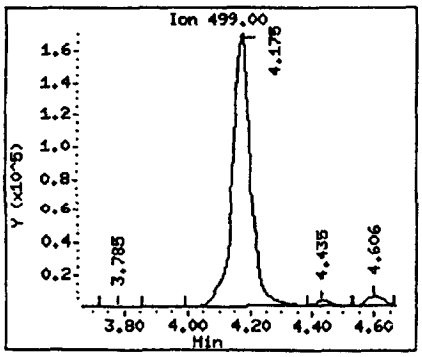
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02

Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0097.D Page 1
Report Date: 27-Aug-2002 10:06

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0097.D
Lab Smp Id: SL-2. C-1-3
Inj Date : 01-JUL-2002 05:53
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

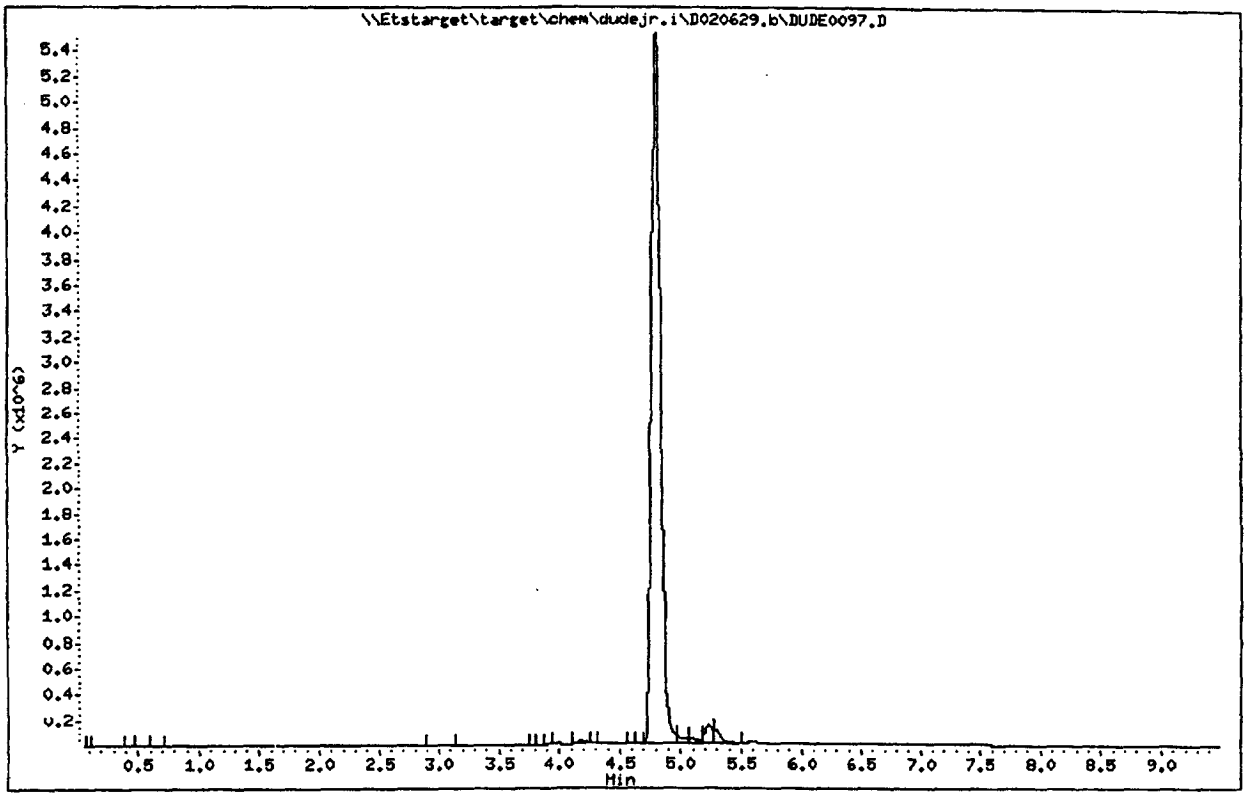
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.387	3.381	0.006	11345	1223.92	1220
	299	3.169	3.381	-0.212	2189	1224.44	1220
	299	3.750	3.381	0.369	1134	1224.50	1220
20 PFHS (399)	399	3.798	3.792	0.006	3692	0.03700	0.0370
	399	3.394	3.792	-0.398	1197	797.188	797
	399	3.558	3.792	-0.234	6611	0.17689	0.177
	399	3.982	3.792	0.190	1879	797.169	797
21 PFOA (413)	413	3.996	3.990	0.006	12700	819.045	819(M)
22 FOSA (498)	498	4.762	4.756	0.006	14954	0.02301	0.0230(M)
23 PFOS (499)	499	4.180	4.168	0.012	126853	1274.02	1270
	499	4.611	4.168	0.443	11361	1277.43	1280

QC Flag Legend

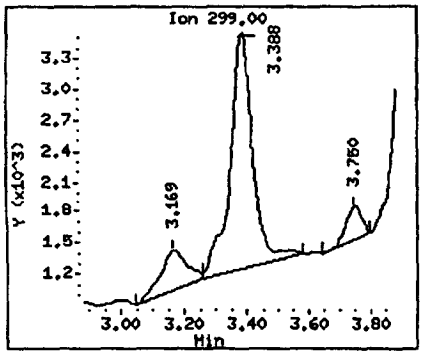
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial Date

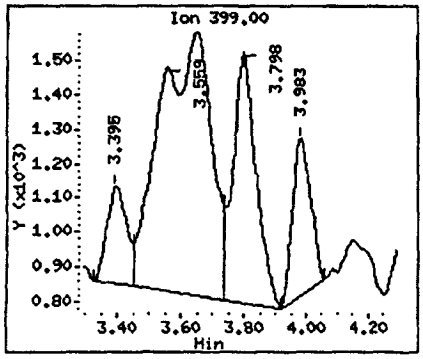
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0097.D



18 PFBS (299)



20 PFHS (399)

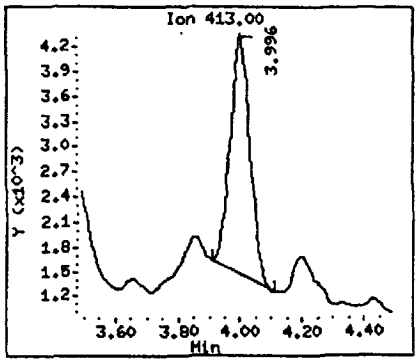


Exact Corr...

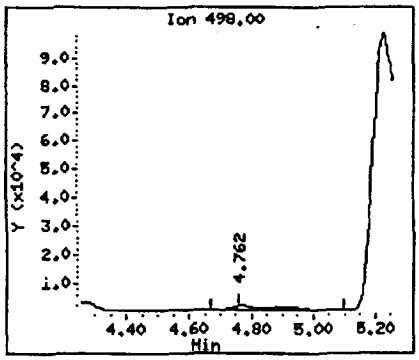
GMC 12/10/02

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0097.D

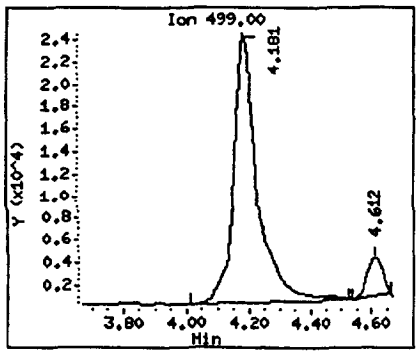
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0105.D Page 1
Report Date: 27-Aug-2002 10:06

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0105.D
Lab Smp Id: SL-2. C-3-2
Inj Date : 01-JUL-2002 07:21
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

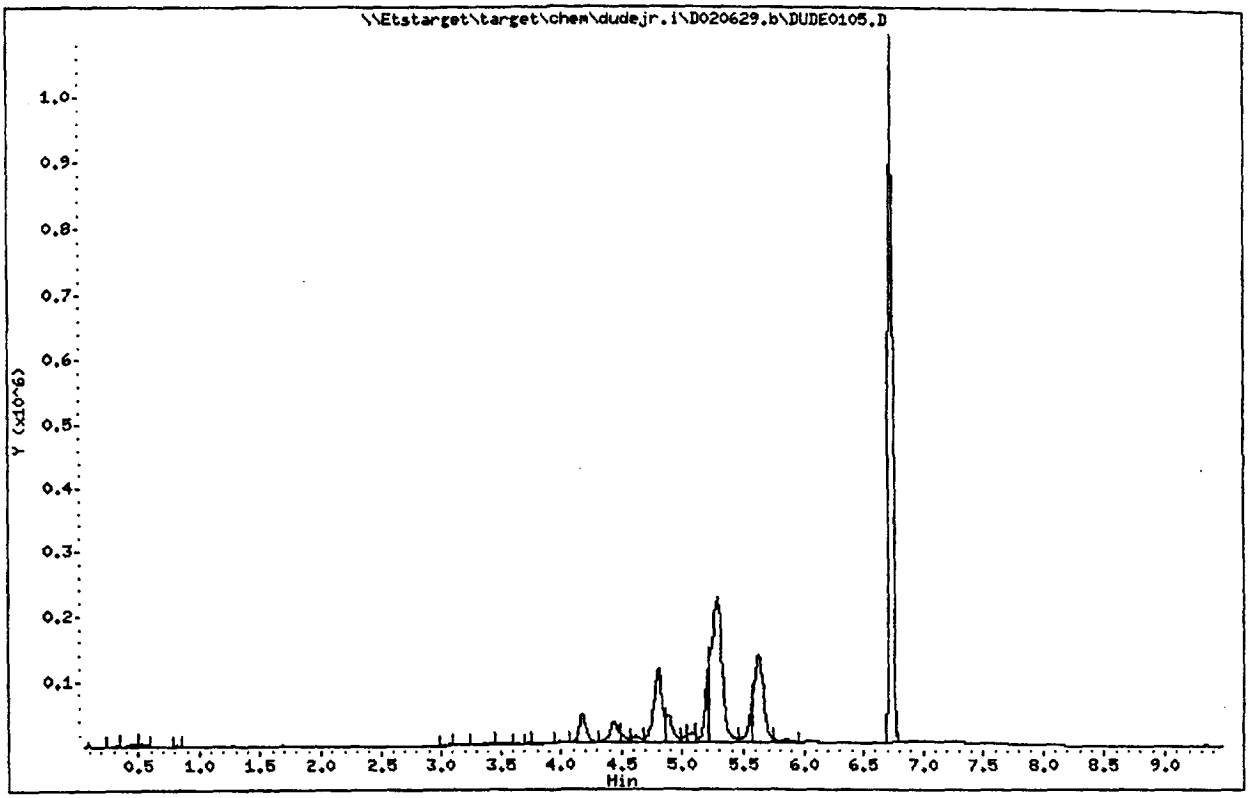
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	9238	1224.04	1220
	299	3.162	3.381	-0.219	1696	1224.47	1220
	299	3.750	3.381	0.369	2638	1224.41	1220
20 PFHS (399)	399	3.798	3.792	0.006	3298	0.02579	0.0258
	399	3.545	3.792	-0.247	4903	0.07143	0.0714
	399	3.976	3.792	0.184	3370	0.02784	0.0278
21 PFOA (413)	413	3.996	3.990	0.006	8771	819.264	819(M)
22 FOSA (498)	498	4.769	4.756	0.013	20521	0.25210	0.252
	498	4.427	4.756	-0.329	1466	2744.26	2740
23 PFOS (499)	499	4.174	4.168	0.006	178402	0.98662	0.987
	499	4.434	4.168	0.266	85700	1275.24	1280
	499	4.605	4.168	0.437	19533	1277.19	1280

QC Flag Legend

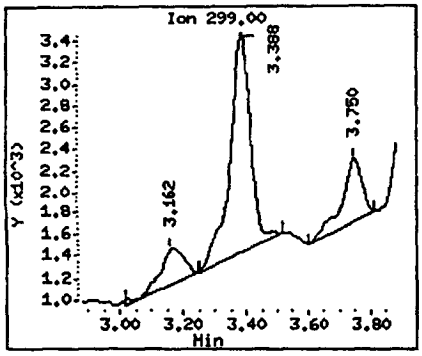
M - Compound response manually integrated.

Exact Copy of Original
CMK 12/10/02
Initial Date

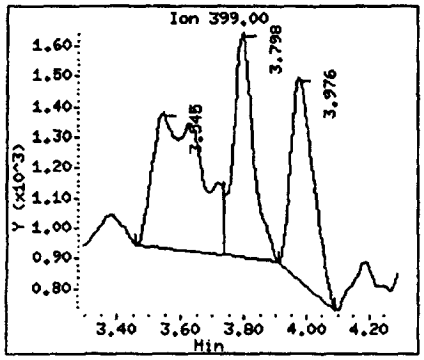
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0105.D



18 PFBS (299)



20 PFHS (399)



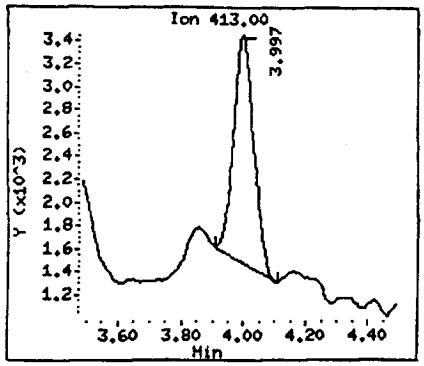
Exact Copy

CMC 12/10/02

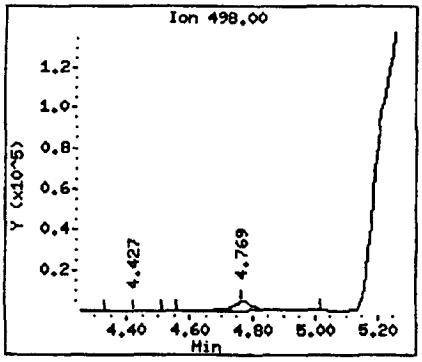
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0105.D

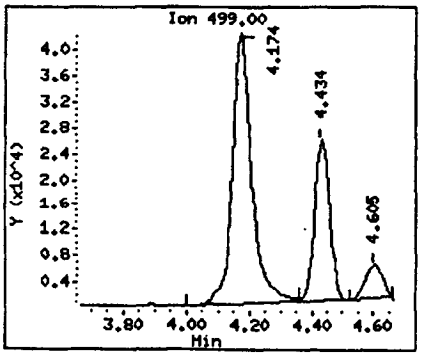
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy
CVNC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0117.D Page 1
Report Date: 27-Aug-2002 10:07

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0117.D
Lab Smp Id: SL-2. C-6-1
Inj Date : 01-JUL-2002 09:33
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020629.b\D020629.m
Meth Date : 27-Aug-2002 09:59 dudejr.i Quant Type: ESTD
Cal Date : 30-JUN-2002 22:46 Cal File: DUDE0058.D
Als bottle: 69
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

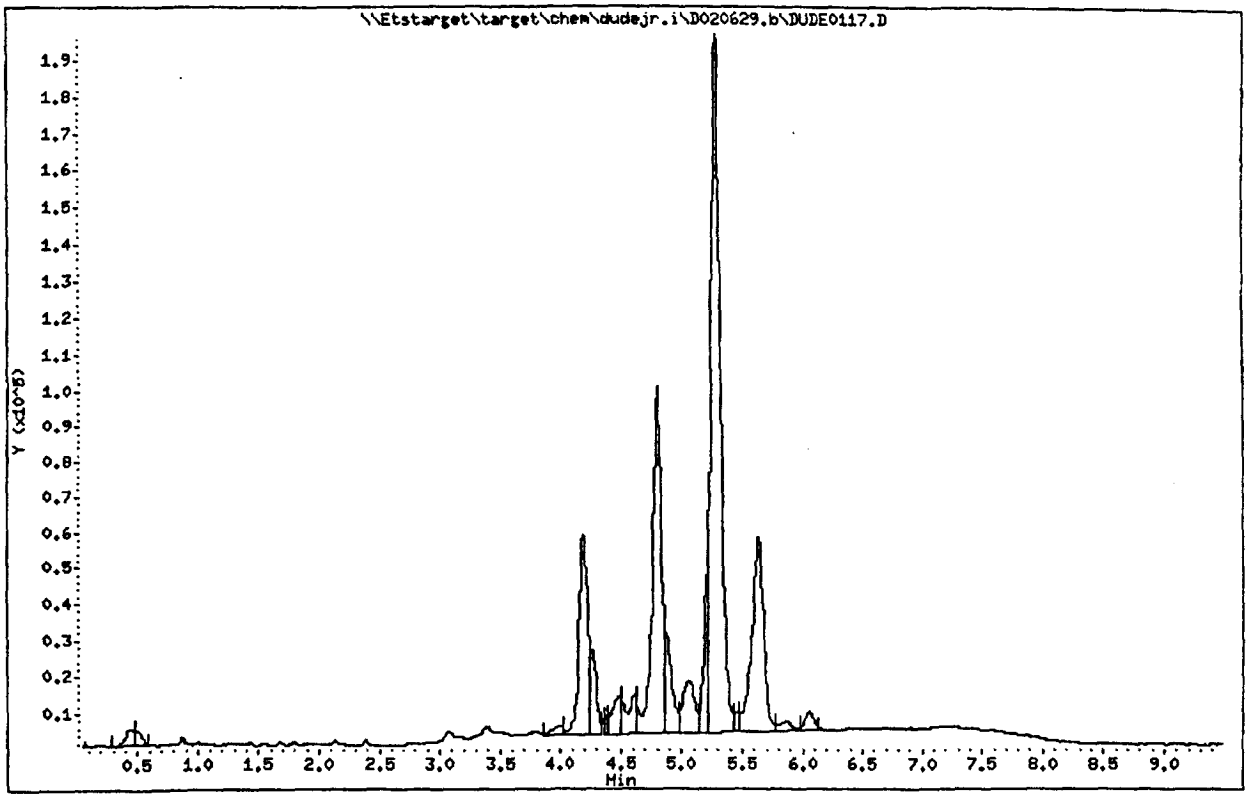
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.388	3.381	0.007	9473	1224.02	1220
	299	3.176	3.381	-0.205	1418	1224.48	1220
	299	3.750	3.381	0.369	545	1224.53	1220
20 PFHS (399)	399	3.798	3.792	0.006	2433	0.00120	0.00120(M)
21 PFOA (413)	413	3.996	3.990	0.006	8100	819.302	819(M)
22 FOSA (498)	498	4.769	4.756	0.013	22417	0.33013	0.330
23 PFOS (499)	499	4.181	4.168	0.013	221283	2.26035	2.26
	499	4.605	4.168	0.437	22665	1277.10	1280

QC Flag Legend

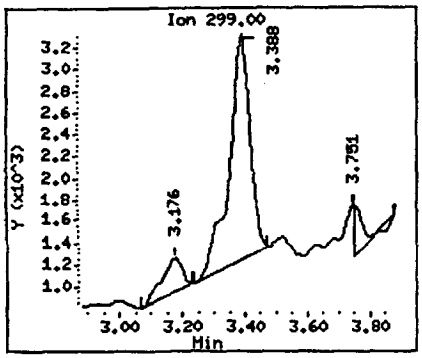
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial Date

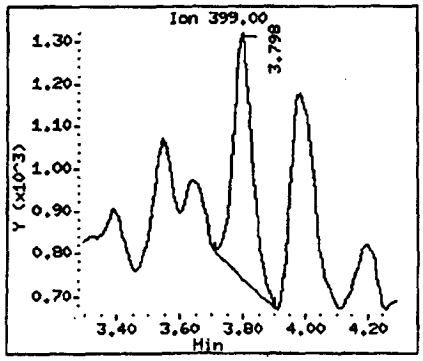
Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0117.D



18 PFBS (299)



20 PFHS (399)



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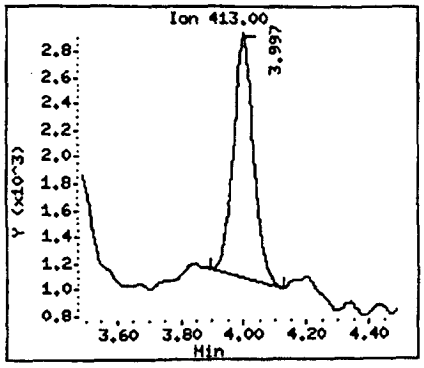
CLMC 12/10/02

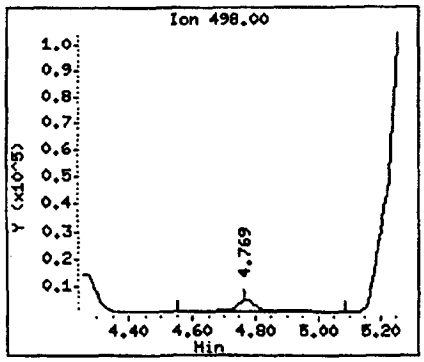
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020629.b\DUDE0117.D

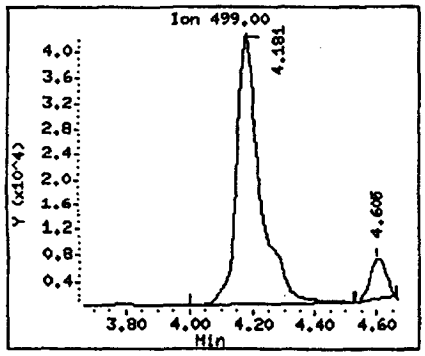
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



Exact Copy of Original

CMM 12/10/02

Initial Date

Data File: DUDE0066.D
Report Date: 27-Aug-2002 11:05

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0066.D
Lab Smp Id: SL-3. C-2-2
Inj Date : 03-JUL-2002 02:49
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\D020702.m
Meth Date : 27-Aug-2002 11:01 dudejr.i Quant Type: ESTD
Cal Date : 03-JUL-2002 01:21 Cal File: DUDE0058.D
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

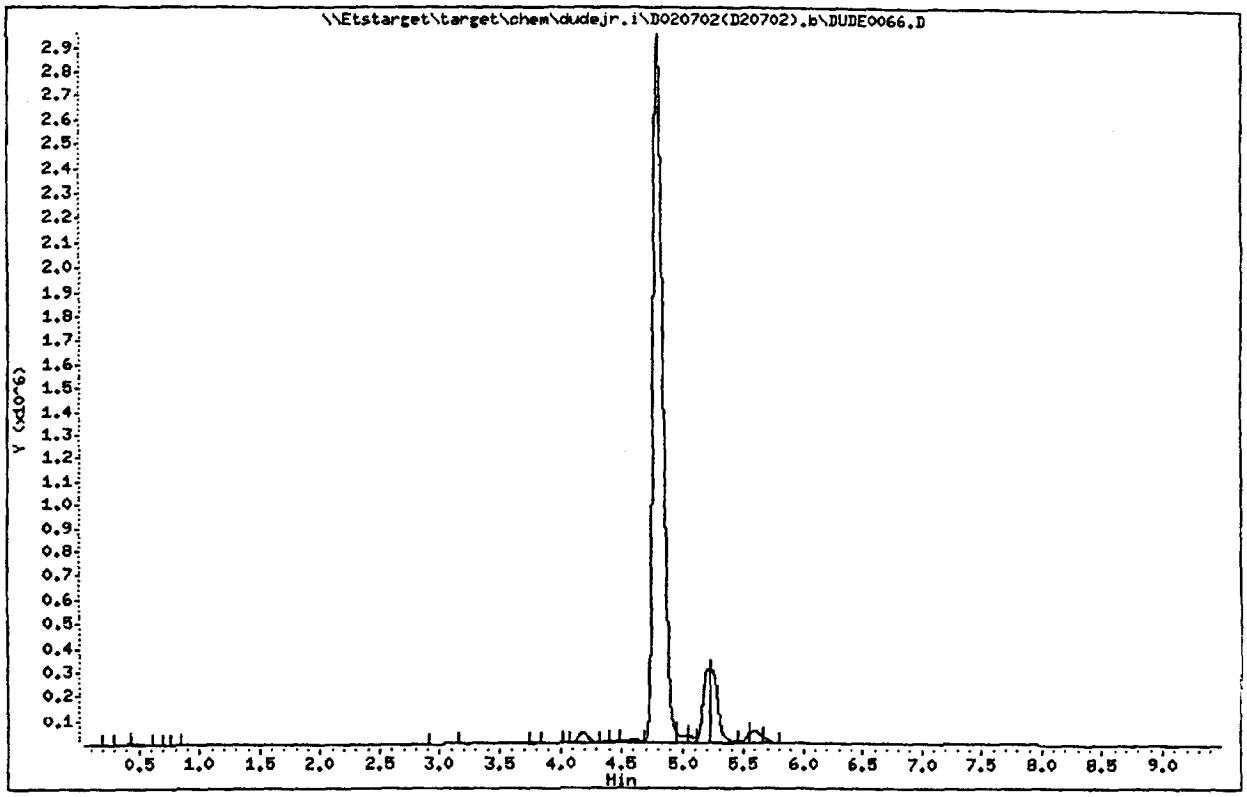
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.395	3.387	0.008	14872	1220.00	1220
	299	3.183	3.387	-0.204	3040	1220.48	1220
	299	3.757	3.387	0.370	2236	1220.51	1220
20 PFHS (399)	399	3.819	3.791	0.028	5059	0.20394	0.204(M)
21 PFOA (413)	413	4.003	3.989	0.014	22949	0.27074	0.271(M)
22 FOSA (498)	498	4.803	4.748	0.055	23838	0.43108	0.431
23 PFOS (499)	499	4.181	4.167	0.014	193614	1.14537	1.14
	499	4.591	4.167	0.424	23954	1324.22	1320

QC Flag Legend

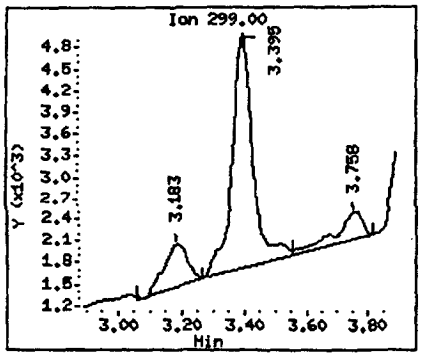
M - Compound response manually integrated.

Exact Copy of Original
Initial 12/10/02 Date

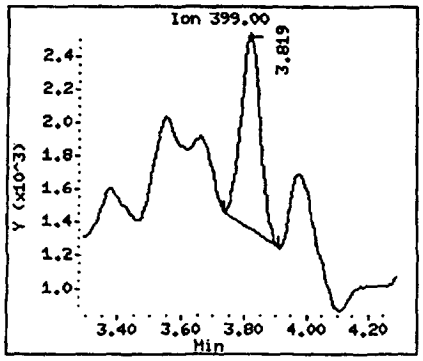
Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0066.D



18 PFBS (299)



20 PFHS (399)



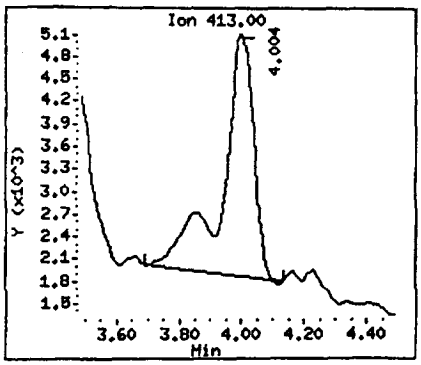
Exact Copy of Original

CMC 12/10/02

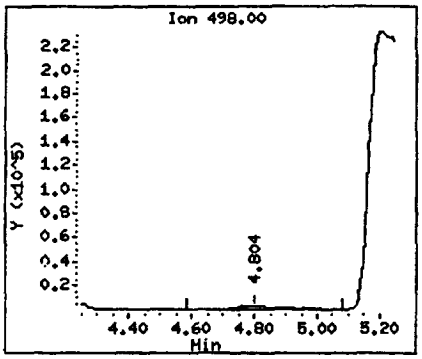
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0066.D

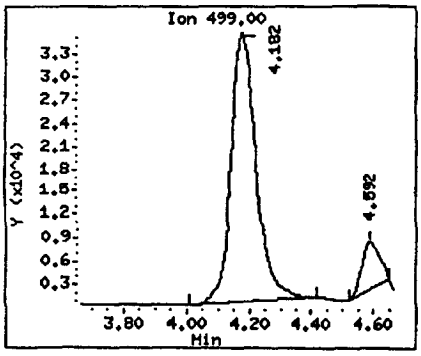
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



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CMC 12/10/02
Initial Date

Data File: DUDE0076.D
Report Date: 27-Aug-2002 11:06

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0076.D
Lab Smp Id: SL-3. C-4-2
Inj Date : 03-JUL-2002 04:39
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\D020702.m
Meth Date : 27-Aug-2002 11:01 dudejr.i Quant Type: ESTD
Cal Date : 03-JUL-2002 01:21 Cal File: DUDE0058.D
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

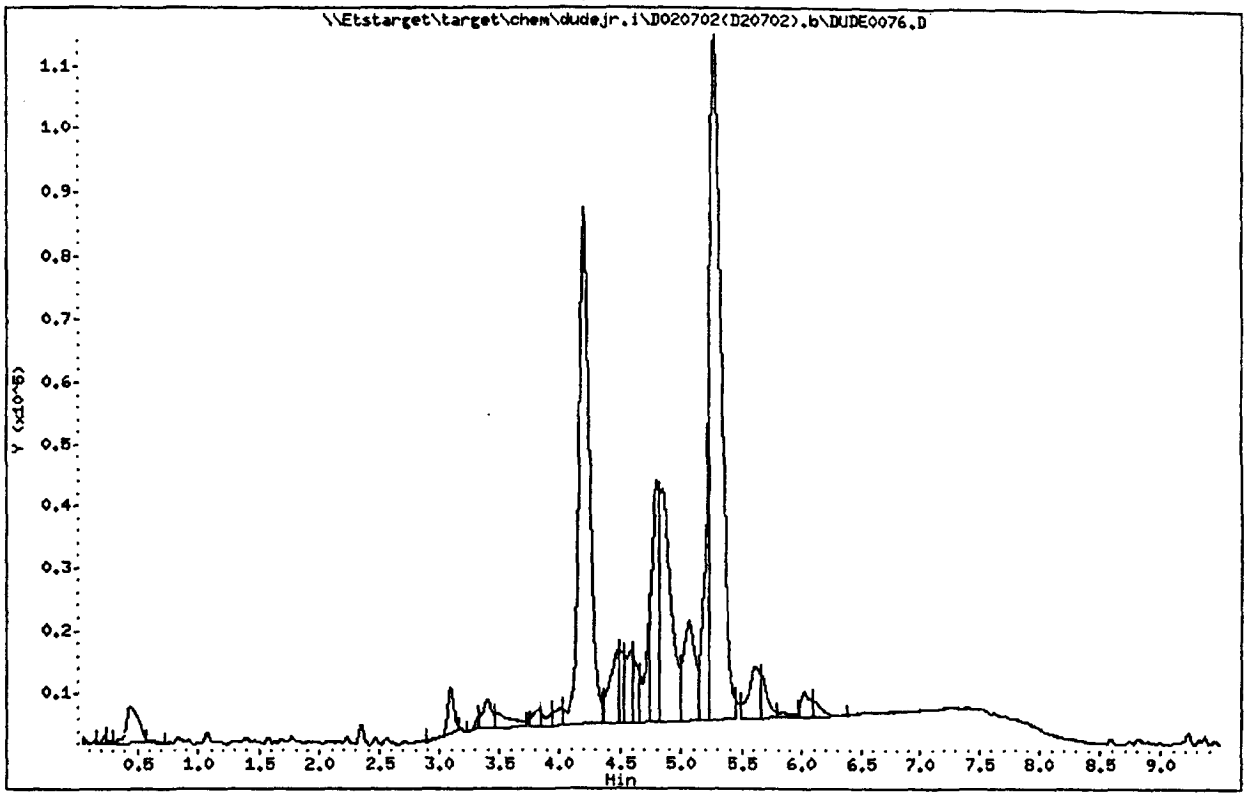
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	3.394	3.387	0.007	21375	1219.74	1220
	299	3.182	3.387	-0.205	2087	1220.52	1220
	299	3.770	3.387	0.383	1284	1220.55	1220
20 PFHS (399)	399	3.825	3.791	0.034	3965	0.18277	0.183
	399	3.572	3.791	-0.219	3286	0.16964	0.170
	399	4.010	3.791	0.219	3291	0.16973	0.170
21 PFOA (413)	413	4.010	3.989	0.021	9130	795.310	795(M)
22 FOSA (498)	498	4.769	4.748	0.021	20987	0.35235	0.352
23 PFOS (499)	499	4.187	4.167	0.020	307947	3.50667	3.51
	499	3.811	4.167	-0.356	1247	1324.68	1320
	499	4.591	4.167	0.424	20381	1324.29	1320

QC Flag Legend

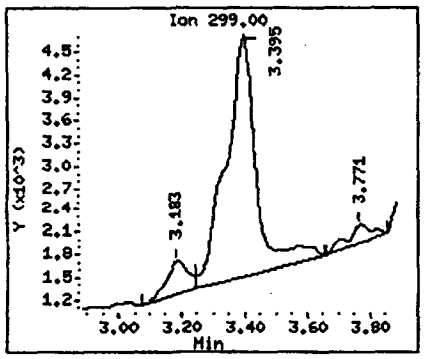
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial Date

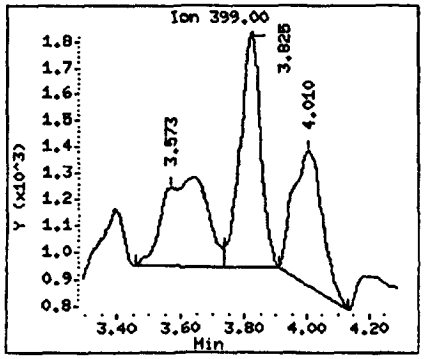
Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0076.D



18 PFBS (299)



20 PFHS (399)



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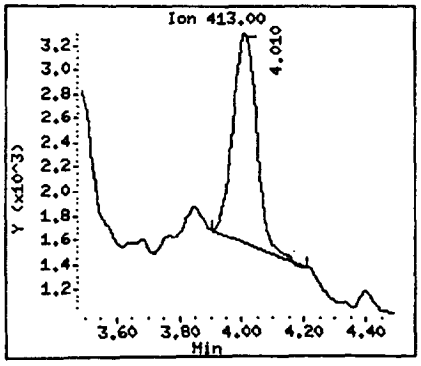
CHK 12/10/02

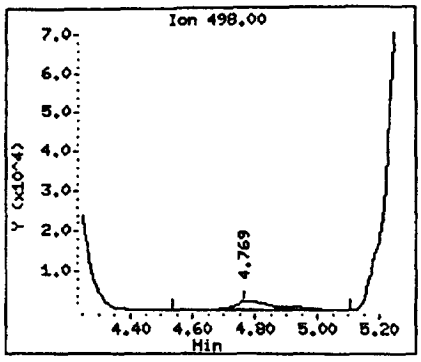
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0076.D

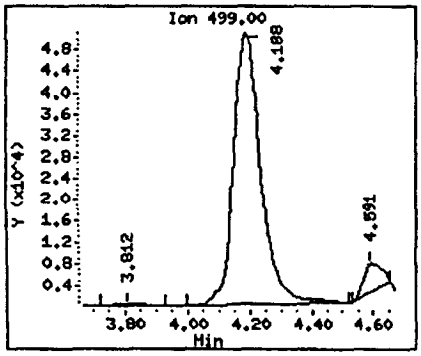
21 PFOA (413)



22 FOSA (498)



23 PFOS (499)



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CMC 12/10/02

Date

Data File: DUDE0083.D
Report Date: 27-Aug-2002 11:06

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0083.D
Lab Smp Id: SL-3. C-6-1
Inj Date : 03-JUL-2002 05:56
Operator : mla Inst ID: dudejr.i
Smp Info : Tenn. River Valley Fish. Prep-17 Jun 02. CMC/MLA. 20 Jun 02
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\D020702.m
Meth Date : 27-Aug-2002 11:01 dudejr.i Quant Type: ESTD
Cal Date : 03-JUL-2002 01:21 Cal File: DUDE0058.D
Als bottle: 68
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
18 PFBS (299)	299	Compound Not Detected.					
20 PFHS (399)	399	Compound Not Detected.					
21 PFOA (413)	413	Compound Not Detected.					
22 FOSA (498)	498	Compound Not Detected.					
23 PFOS (499)	499	Compound Not Detected.					

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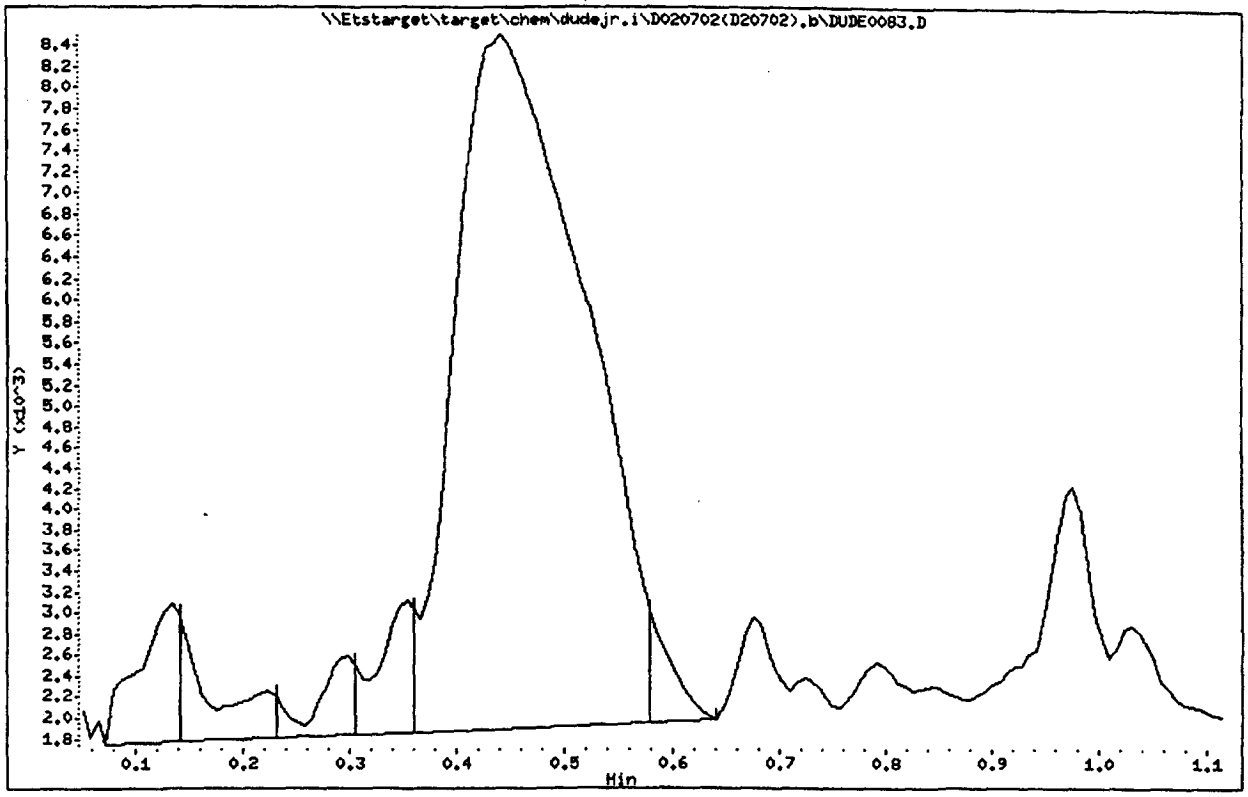
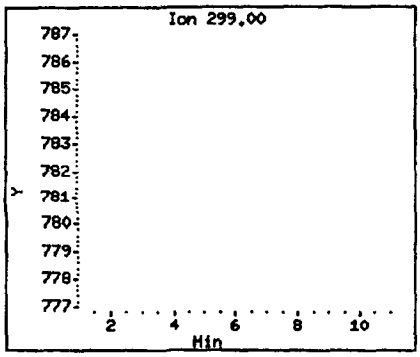
CMC 12/10/02
Initial Date

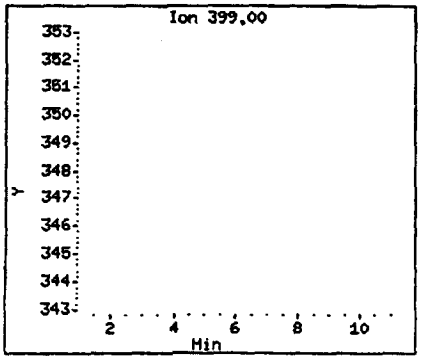
Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0083.D



18 PFBS (299) (Undetected)



20 PFHS (399) (Undetected)



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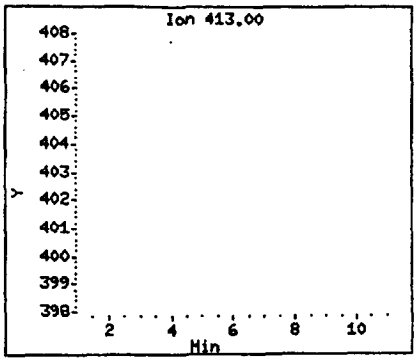
CMC 12/10/02

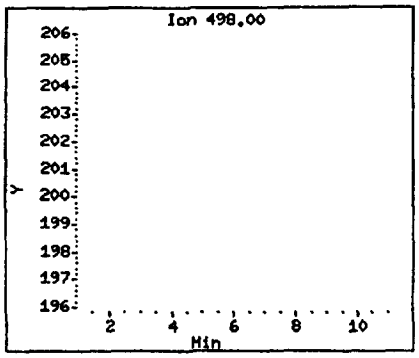
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020702(D20702).b\DUDE0083.D

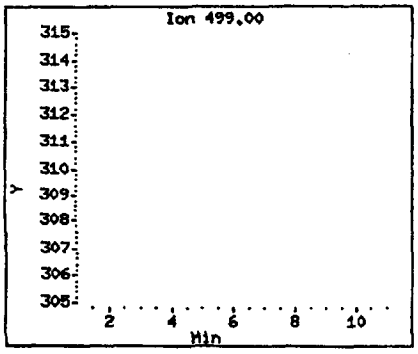
21 PFOA (413) (Undetected)



22 FOSA (498) (Undetected)



23 PFOS (499) (Undetected)



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CMK 12/10/02

Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0065.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

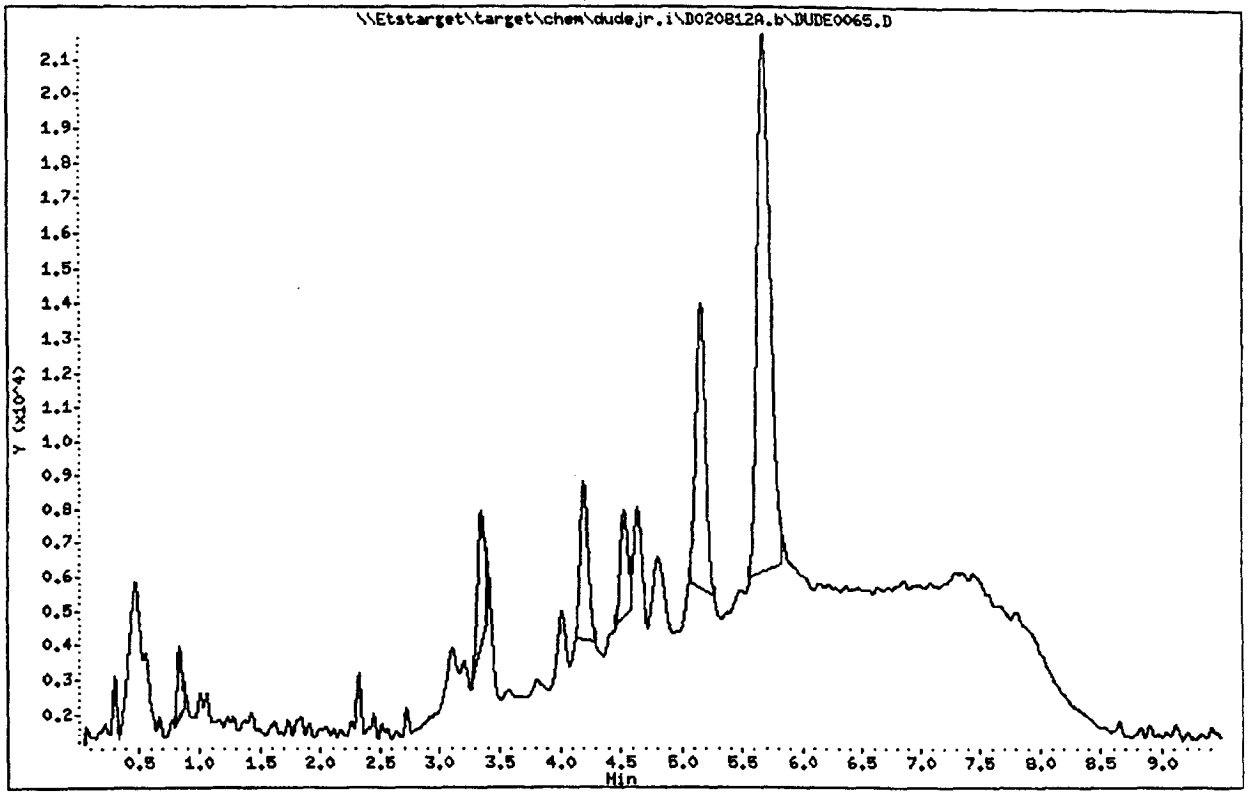
E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0065.D
Lab Smp Id: Water Blank-1
Inj Date : 12-AUG-2002 23:11
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443 Water Blank Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

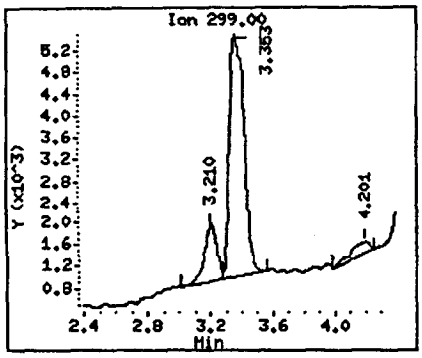
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.353	3.394	-0.041	29174	0.54141	0.541
	299	3.209	3.394	-0.185	5546	503.660	504
	299	4.201	3.394	0.807	1904	503.788	504
2 PFHS (399)	399	3.804	3.791	0.013	5192	0.15468	0.155
	399	3.565	3.791	-0.226	1012	0.02703	0.0270
3 PFOA (413)	413	4.016	3.982	0.034	9179	0.04921	0.0492
4 FOSA (498)	498	4.809	4.768	0.041	3390	0.10549	0.105
5 PFOS (499)	499	4.201	4.160	0.041	34010	0.16998	0.170

Exact Copy of Original
CLMC 12/10/02
Initial Date

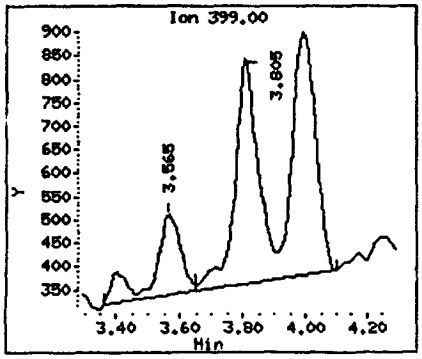
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0065.D



1 PFBS (299)



2 PFHS (399)



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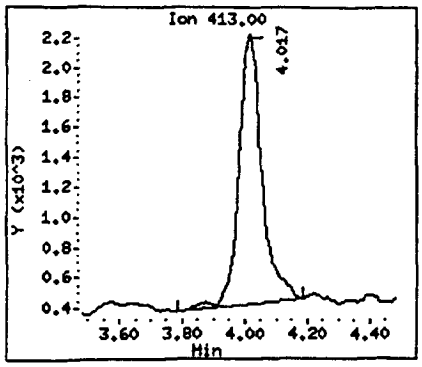
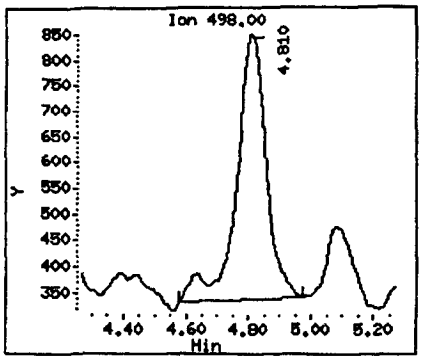
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0065.D

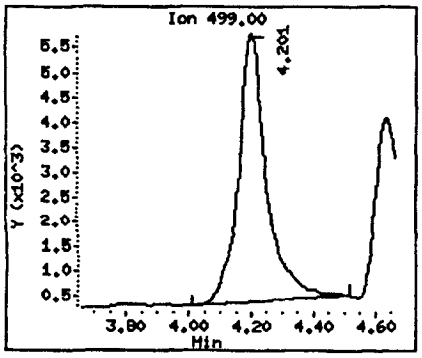
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0066.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0066.D
Lab Smp Id: Water Blank-2
Inj Date : 12-AUG-2002 23:22
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443 Water Blank Water Samples; non-GLP; 7/17/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.354	3.394	-0.040	54510	1.43376	1.43
	299	3.210	3.394	-0.184	10619	503.482	503
	299	3.743	3.394	0.349	1176	503.813	504
	299	4.195	3.394	0.801	3650	503.727	504
2 PFHS (399)	399	3.805	3.791	0.014	4219	0.12496	0.125
3 PFOA (413)	413	4.010	3.982	0.028	11746	0.21476	0.215
	413	4.359	3.982	0.377	1069	401.976	402
4 FOSA (498)	498	4.810	4.768	0.042	3371	0.10487	0.105
5 PFOS (499)	499	4.201	4.160	0.041	33607	0.15720	0.157

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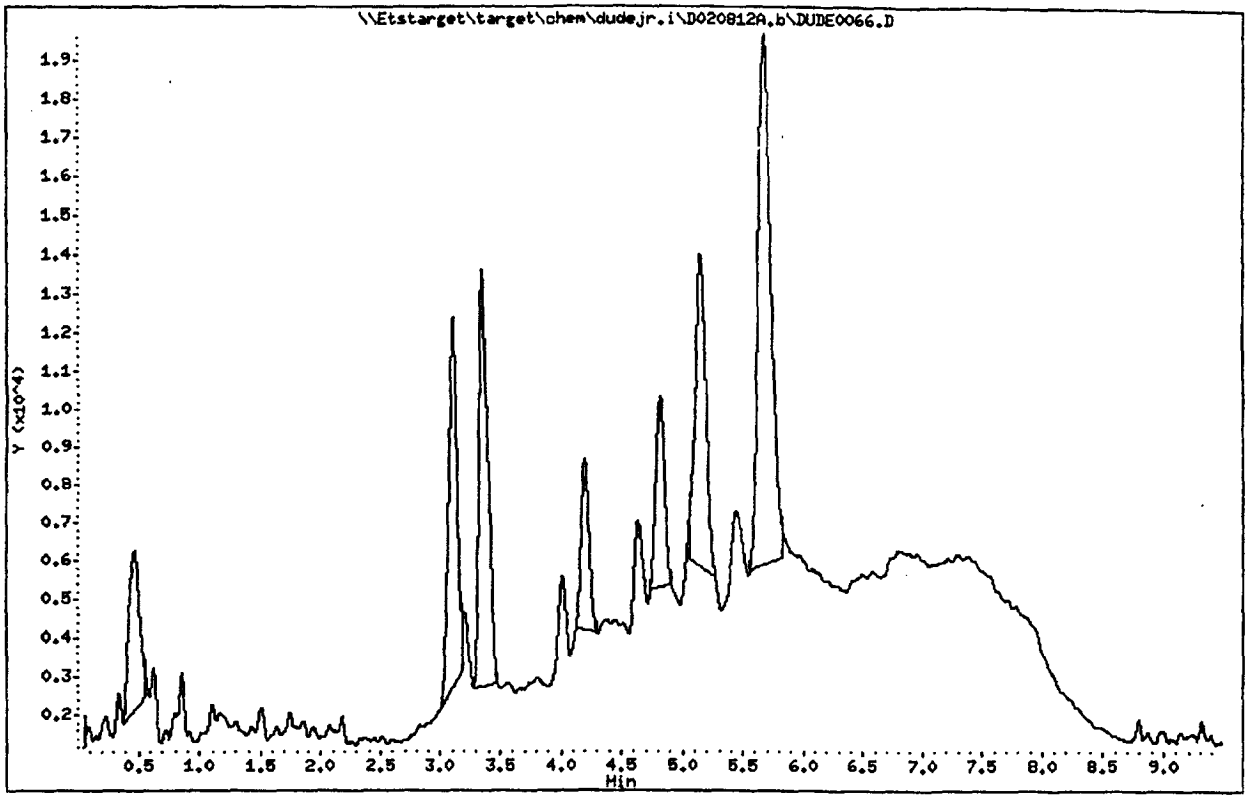
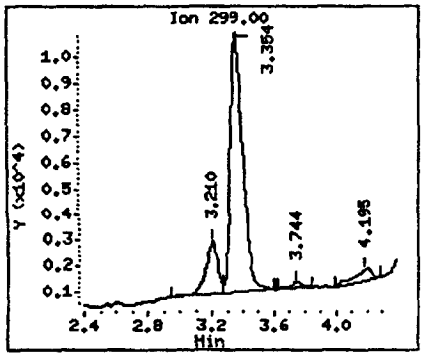
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0066.D

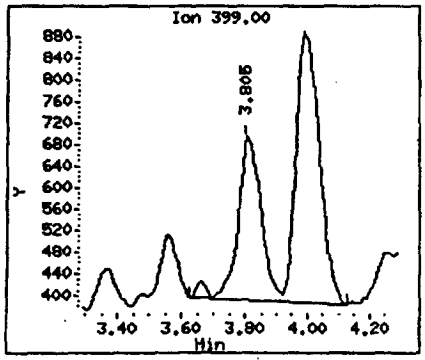
Page 2



1 PFBS (299)



2 PFHS (399)



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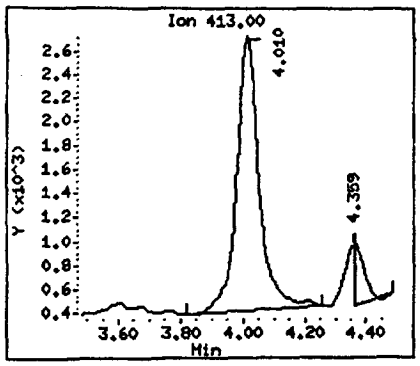
CMC 12/10/02

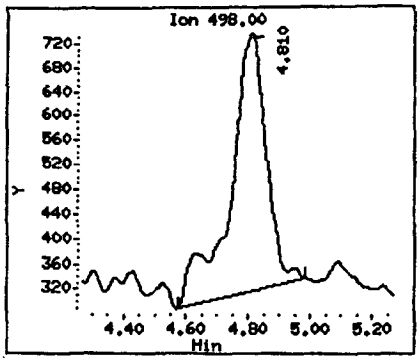
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0066.D

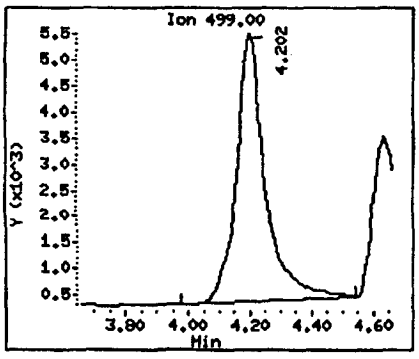
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0076.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0076.D
Lab Smp Id: 38032
Inj Date : 13-AUG-2002 01:12
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38032; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 PFBS (299)	299	3.401	3.394	0.007	19361	0.19664	0.197
	299	2.540	3.394	-0.854	147211	4.72622	4.73
	299	3.203	3.394	-0.191	1966	503.786	504
	299	3.818	3.394	0.424	2962	503.751	504
	299	4.044	3.394	0.650	758	503.828	504
	299	4.215	3.394	0.821	777	503.827	504
2 PFHS (399)	399	3.805	3.791	0.014	157296	4.85808	4.86
3 PFOA (413)	413	4.003	3.982	0.021	84190	4.94452	4.94
4 FOSA (498)	498	4.789	4.768	0.021	138473	4.56920	4.57
5 PFOS (499)	499	4.181	4.160	0.021	190157	5.18981	5.19

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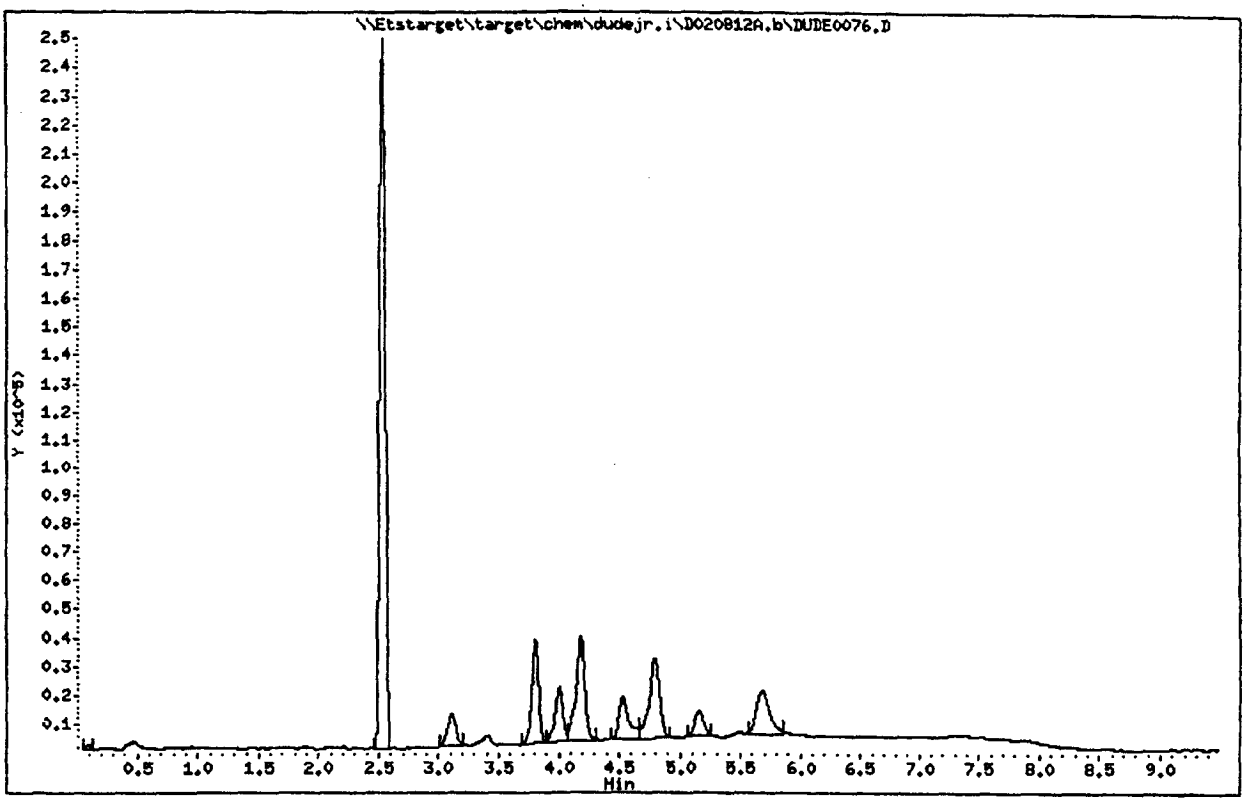
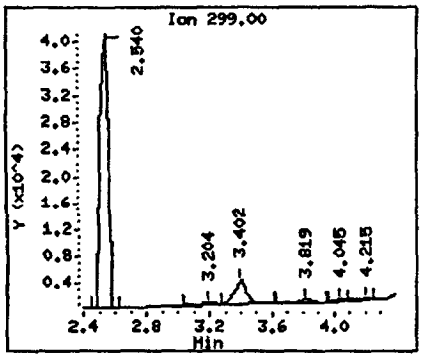
CMC 12/10/02
Initial Date

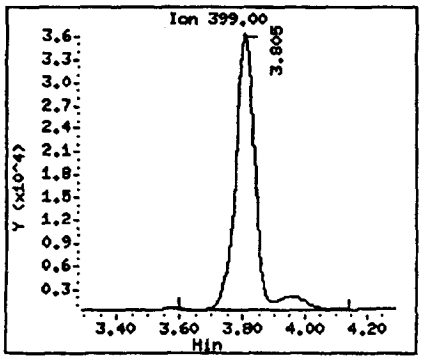
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0076.D



1 PFBS (299)



2 PFHS (399)



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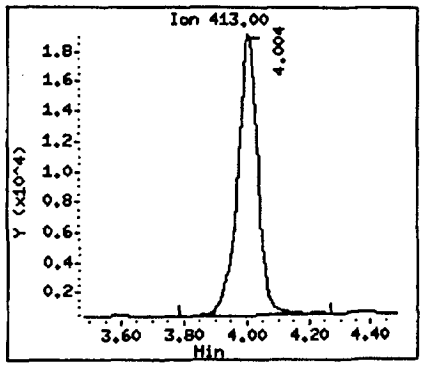
CMC 12/10/02

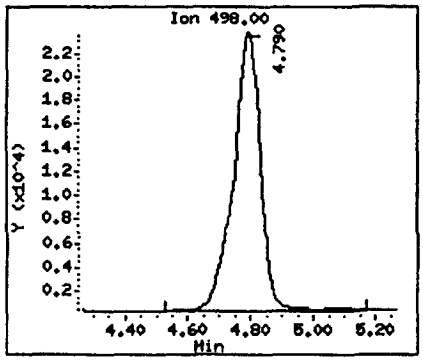
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0076.D

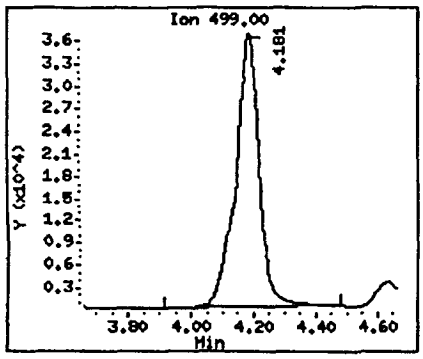
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0073.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0073.D
Lab Smp Id: 38029
Inj Date : 13-AUG-2002 00:39
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38029; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.408	3.396	0.014	89092	2.65691	2.66(M)
2 PFHS (399)	399	3.811	3.791	0.020	252177	7.85210	7.85
3 PFOA (413)	413	4.009	3.982	0.027	328881	21.8421	21.8
4 FOSA (498)	498	4.796	4.768	0.028	34000	1.11439	1.11(M)
5 PFOS (499)	499	4.187	4.160	0.027	631588	20.1841	20.2
	499	4.467	4.160	0.307	131570	3.29049	3.29

QC Flag Legend

M - Compound response manually integrated.

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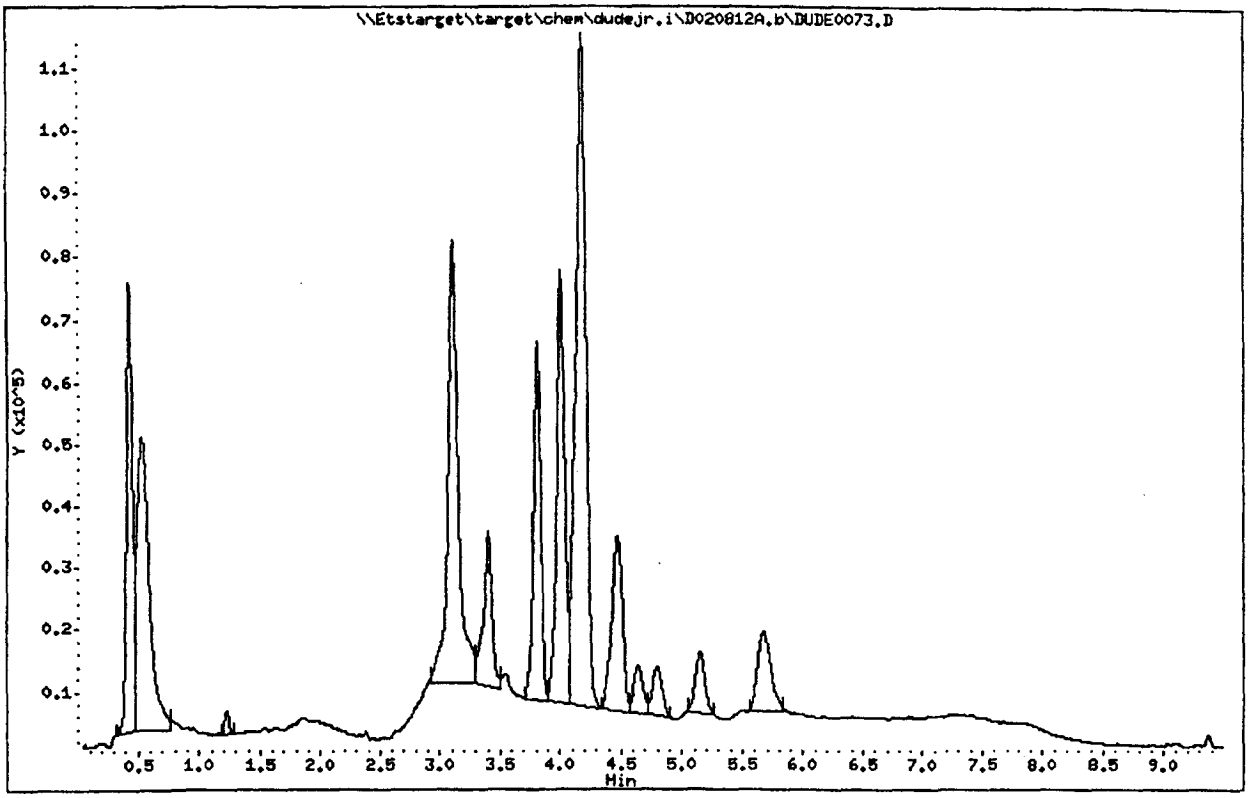
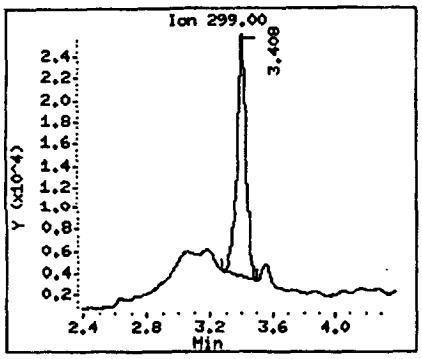
CMC 12/10/02
Initial Date

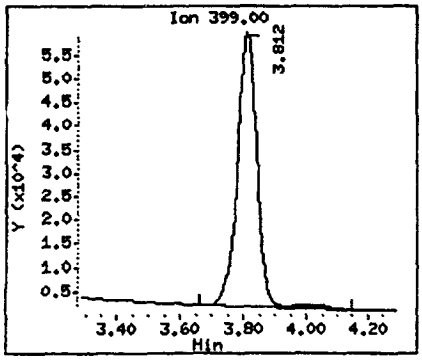
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0073.D



1 PFBS (299)



2 PFHS (399)



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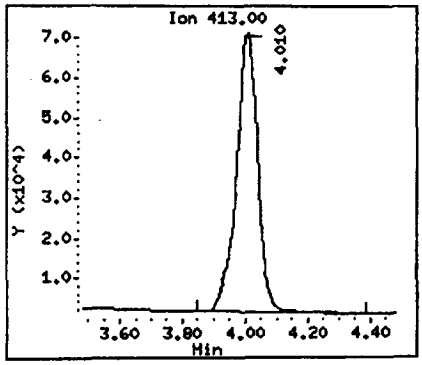
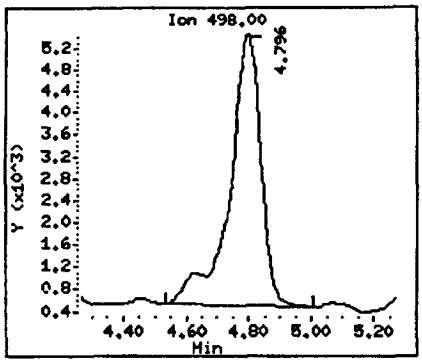
Initial

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0073.D

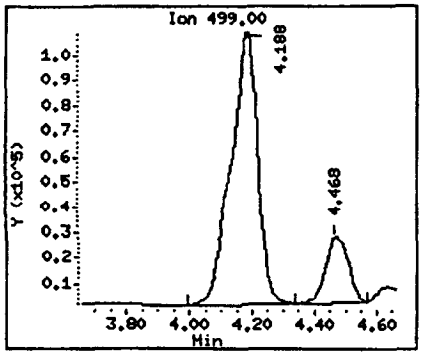
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0130.D Page 1
Report Date: 29-Aug-2002 07:12

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0130.D
Lab Smp Id: 38030
Inj Date : 13-AUG-2002 11:08
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38030; Water Samples; non-GLP; 7/17/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812B.b\D020812B.m
Meth Date : 29-Aug-2002 07:08 dudejr.i Quant Type: ESTD
Cal Date : 13-AUG-2002 06:44 Cal File: DUDE0106.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.387	3.394	-0.007	197441	2926.50	2930
	299	2.498	3.394	-0.896	1231	2935.66	2940
	299	3.203	3.394	-0.191	2246	2935.62	2940
	299	3.777	3.394	0.383	11268	2935.20	2940
2 PFHS (399)	399	3.777	3.791	-0.014	8387299	424.865	425
3 PFOA (413)	413	3.968	3.982	-0.014	4152125	427.860	428
4 FOSA (498)	498	4.741	4.768	-0.027	7980357	300.226	300
5 PFOS (499)	499	4.139	4.160	-0.021	8914428	423.673	424

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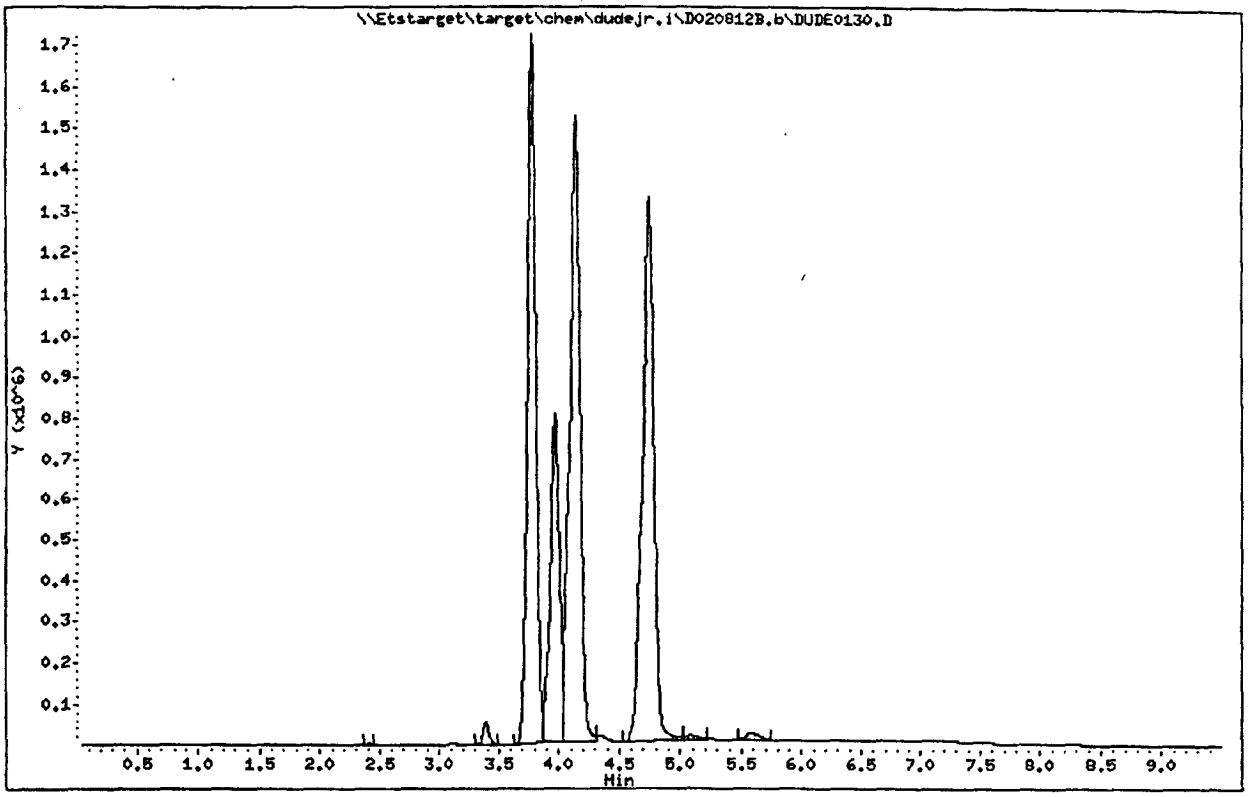
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0130.D



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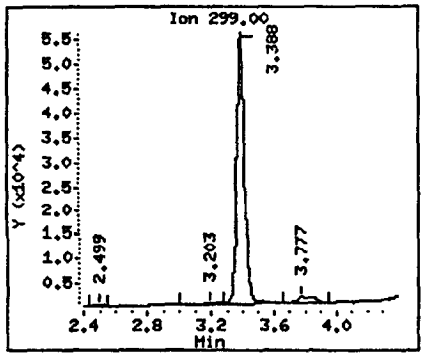

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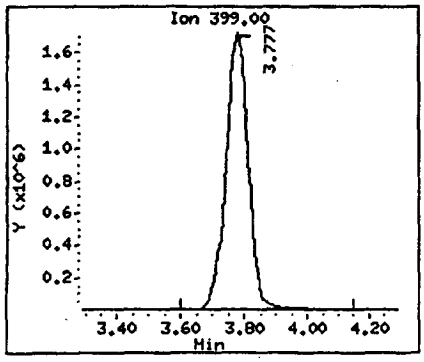

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Initial Date

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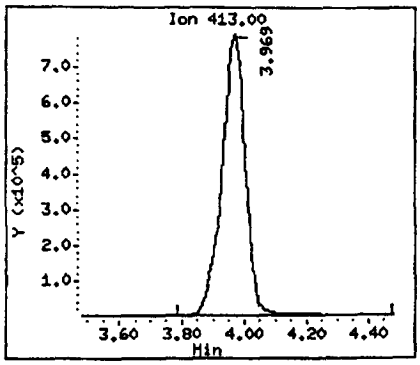
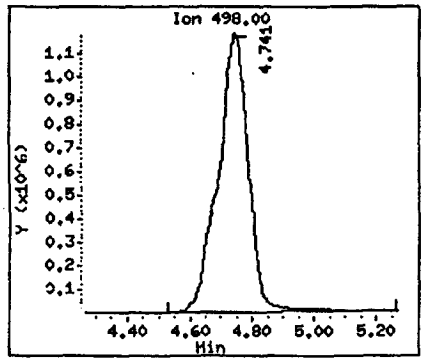
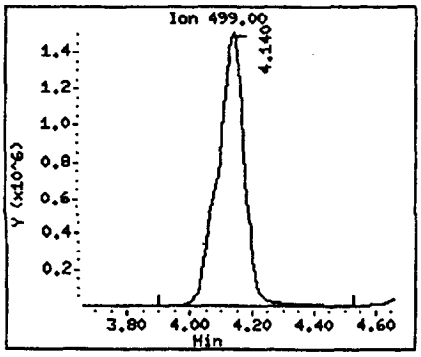
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0092.D Page 1
Report Date: 27-Aug-2002 14:12

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0092.D
Lab Smp Id: 38043
Inj Date : 13-AUG-2002 04:09
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38043; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.354	3.394	-0.040	32848	0.67061	0.671
	299	2.451	3.394	-0.943	739	503.829	504
	299	3.210	3.394	-0.184	6286	503.634	504
	299	3.818	3.394	0.424	1244	503.811	504
	299	4.037	3.394	0.643	1953	503.786	504
2 PFHS (399)	399	3.962	3.791	0.171	16543	0.50173	0.502
3 PFOA (413)	413	4.010	3.982	0.028	9481	0.06868	0.0687
4 FOSA (498)	498	4.796	4.768	0.028	6471	0.20698	0.207
5 PFOS (499)	499	4.195	4.160	0.035	30951	0.07297	0.0730

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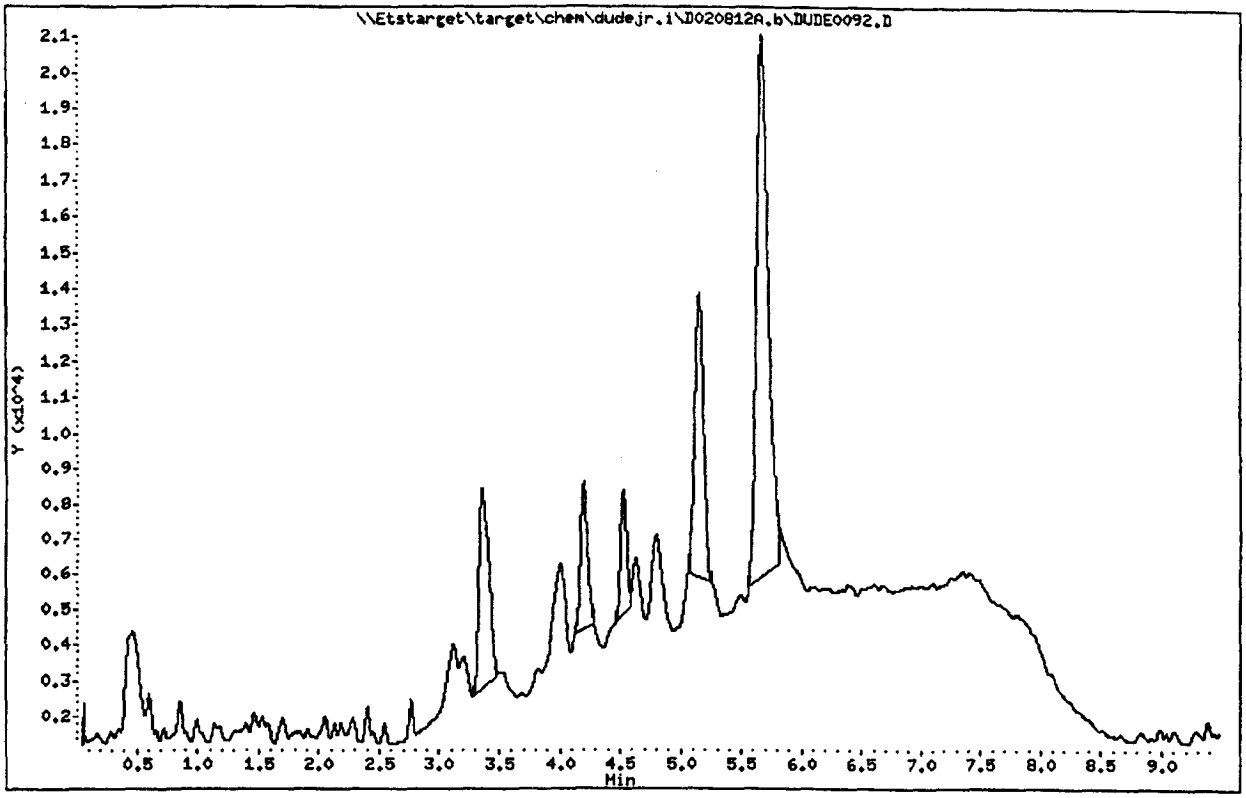
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0092.D



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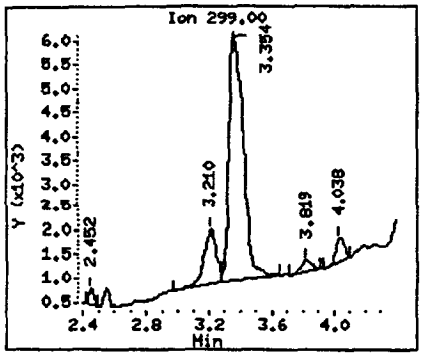

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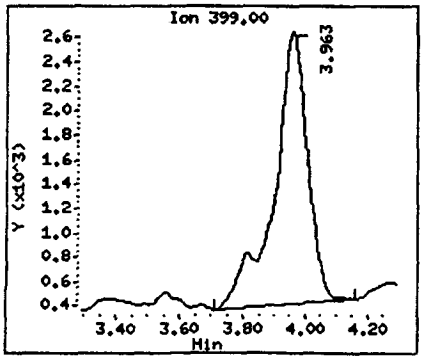


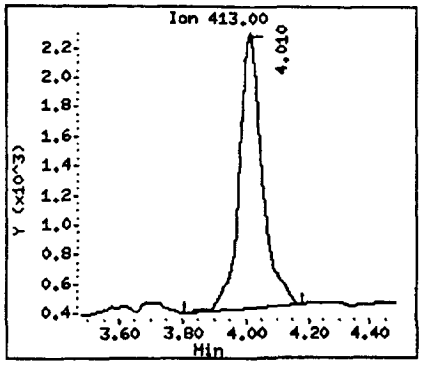
Original

CMC 12/10/02

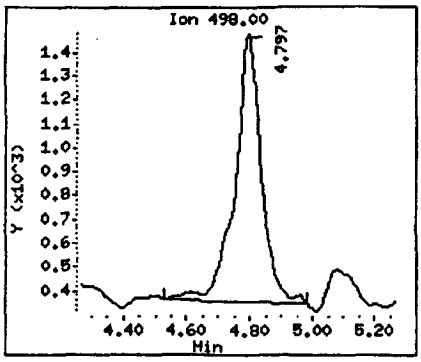
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0092.D

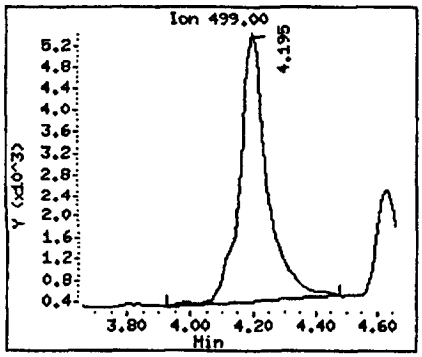
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Initial

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0067.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0067.D
Lab Smp Id: 38025
Inj Date : 12-AUG-2002 23:33
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38025; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

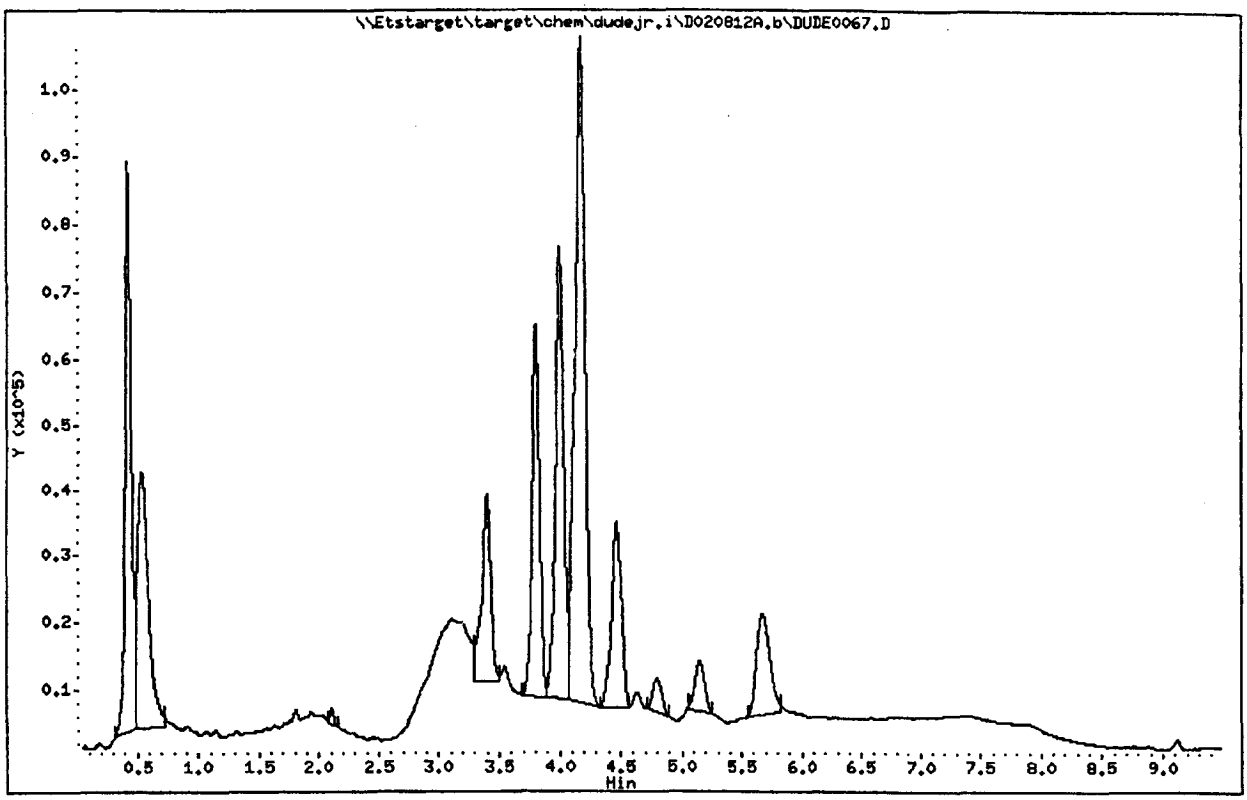
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.401	3.394	0.007	98538	2.99206	2.99(M)
2 PFHS (399)	399	3.812	3.791	0.021	247750	7.71134	7.71
3 PFOA (413)	413	4.003	3.982	0.021	321649	21.3198	21.3
4 FOSA (498)	498	4.796	4.768	0.028	29388	0.96228	0.962(M)
5 PFOS (499)	499	4.181	4.160	0.021	583658	18.4924	18.5
	499	4.468	4.160	0.308	135043	3.40254	3.40

QC Flag Legend

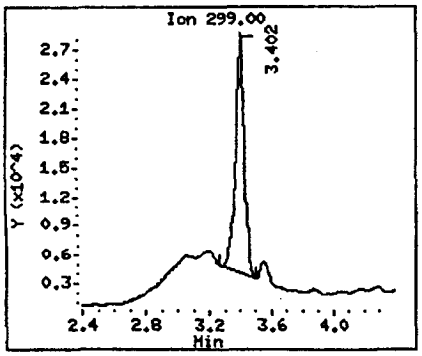
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial

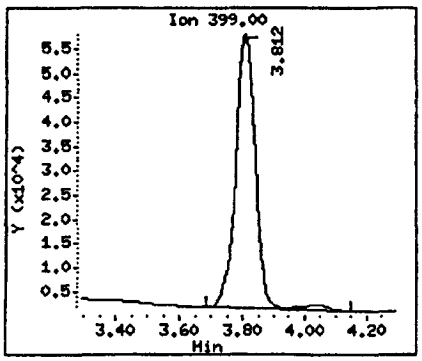
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0067.D



1 PFBS (299)



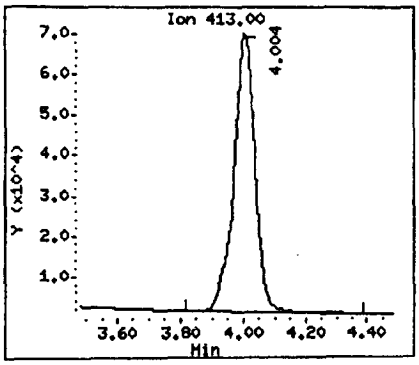
2 PFHS (399)



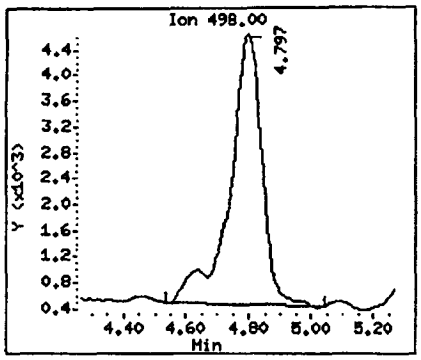
Exact Copy
CWC 12/10/02

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0067.D

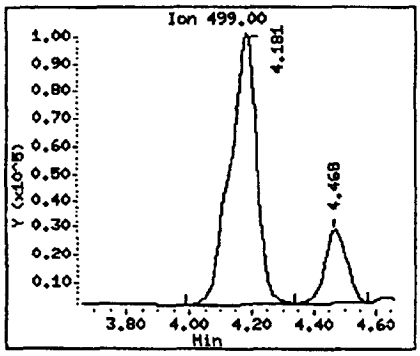
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



Exact Copy of Original

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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0069.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0069.D
Lab Smp Id: 38026
Inj Date : 12-AUG-2002 23:55
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38026; Water Samples; non-GLP; 7/17/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

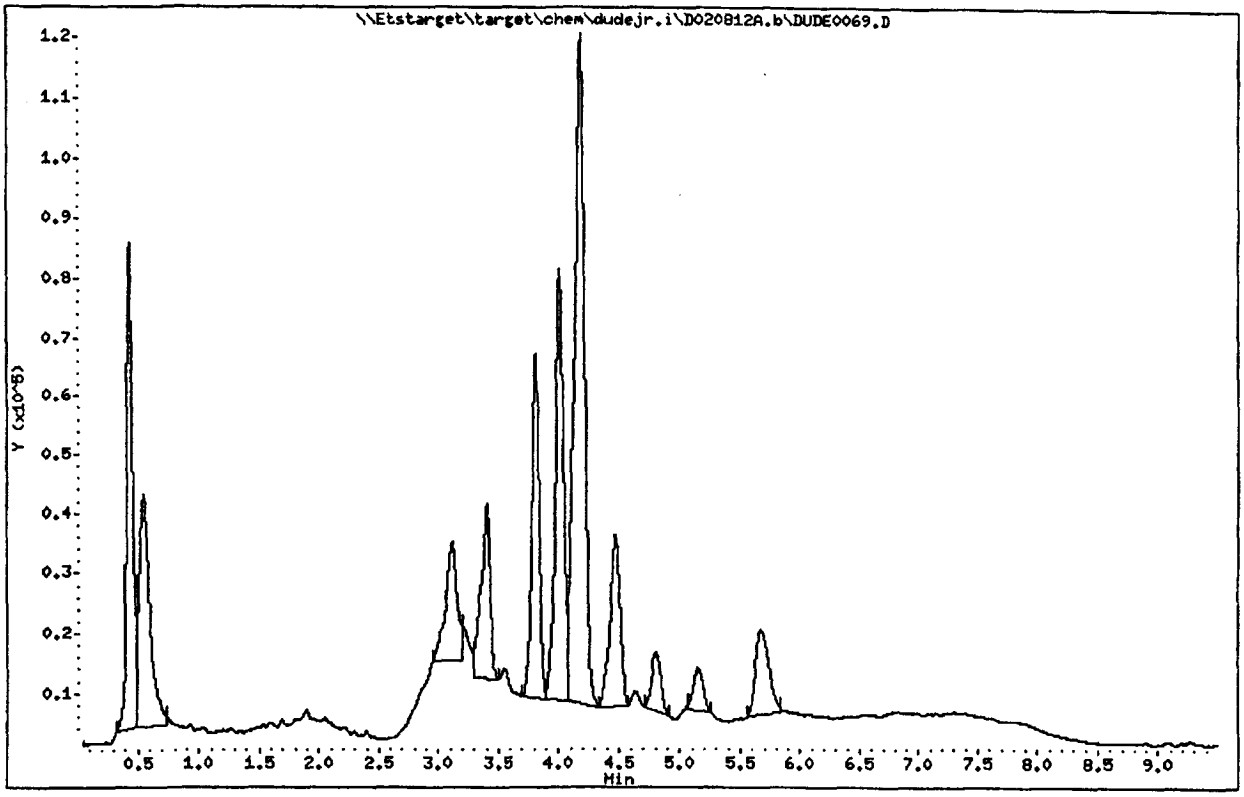
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.401	3.394	0.007	118567	3.70420	3.70(M)
2 PFHS (399)	399	3.811	3.791	0.020	255866	7.96948	7.97
3 PFOA (413)	413	4.003	3.982	0.021	340061	22.6524	22.6
4 FOSA (498)	498	4.789	4.768	0.021	31162	1.02079	1.02(M)
5 PFOS (499)	499	4.180	4.160	0.020	648655	20.7906	20.8
	499	4.467	4.160	0.307	140168	3.56801	3.57

QC Flag Legend

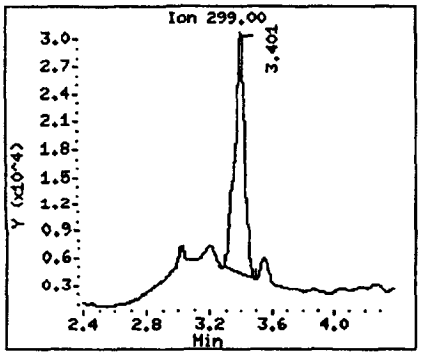
M - Compound response manually integrated.

Reviewed
CMC 12/10/02

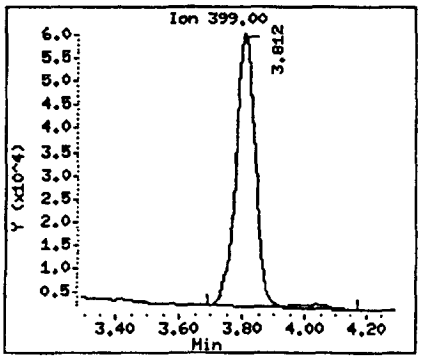
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0069.D



1 PFBS (299)



2 PFHS (399)



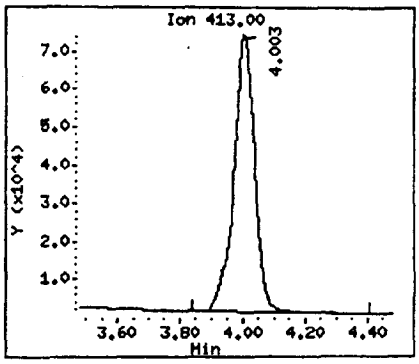
Exact Copy of Original

CWP 12/16/10

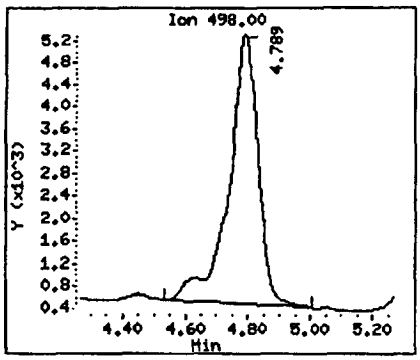
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0069.D

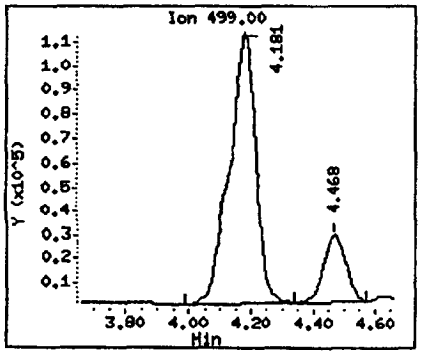
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0071.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0071.D
Lab Smp Id: 38027
Inj Date : 13-AUG-2002 00:17
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38027; Water Samples; non-GLP; 7/17/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.401	3.394	0.007	102829	3.14446	3.14(M)
2 PFHS (399)	399	3.811	3.791	0.020	405593	12.7977	12.8
3 PFOA (413)	413	4.002	3.982	0.020	412129	27.9672	28.0
4 POSA (498)	498	4.796	4.768	0.028	121332	4.00115	4.00
5 PFOS (499)	499	4.180	4.160	0.020	808339	26.5743	26.6
	499	3.866	4.160	-0.294	4108	379.787	380
	499	4.467	4.160	0.307	85093	1.79743	1.80

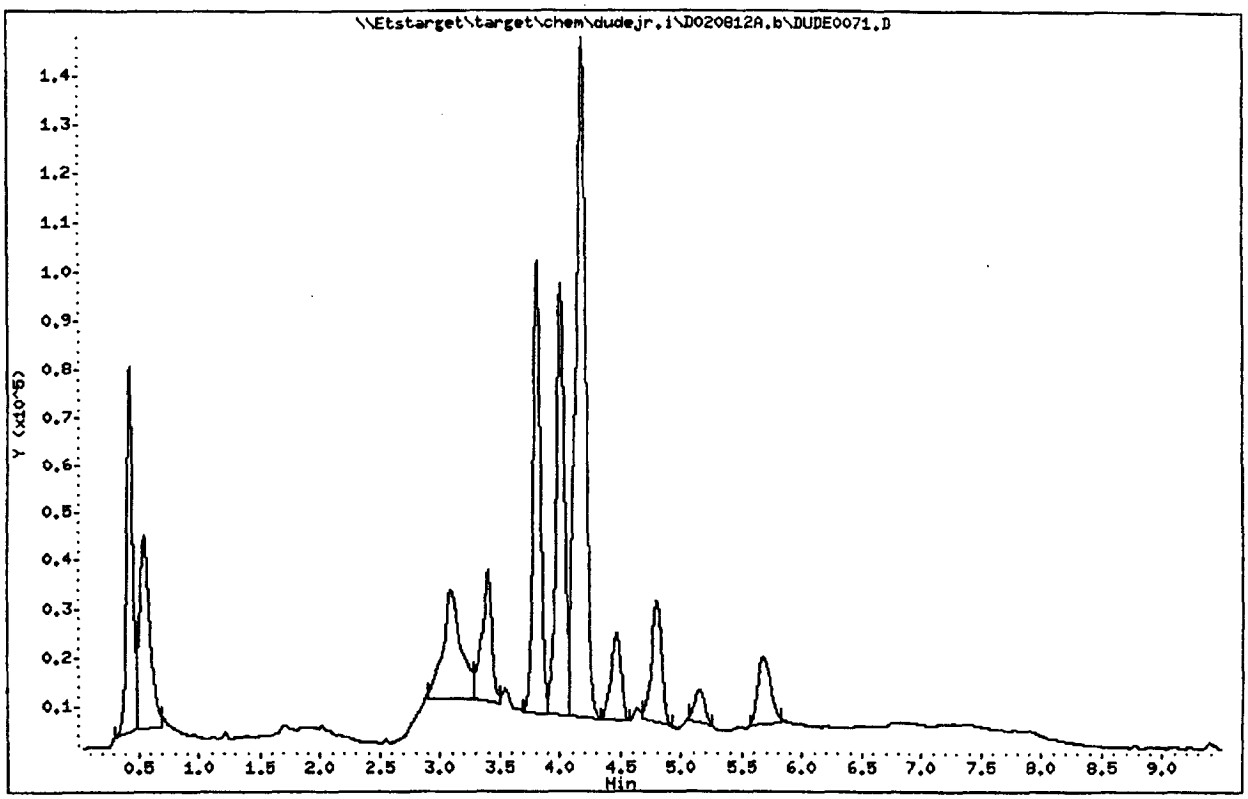
QC Flag Legend

M - Compound response manually integrated.

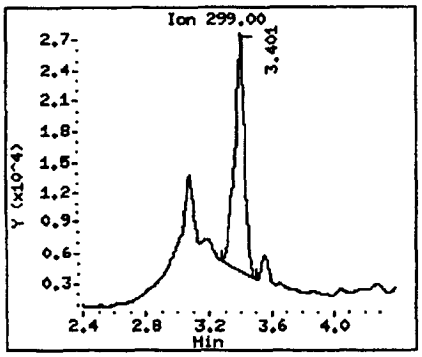
CWC 12/10/02

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0071.D

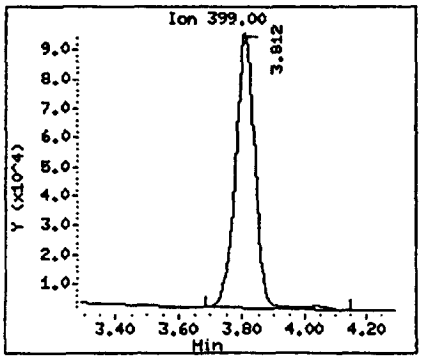
Page 2



1 PFBS (299)



2 PFHS (399)



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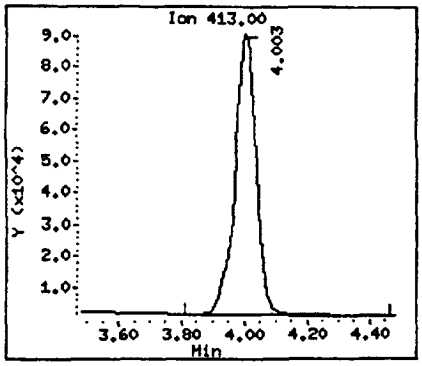
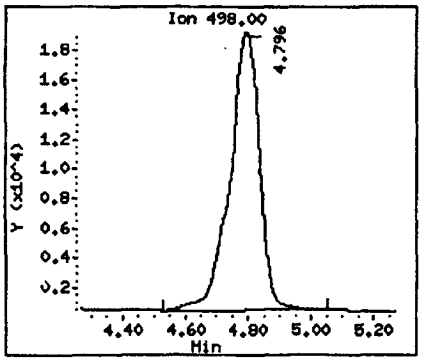
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0071.D

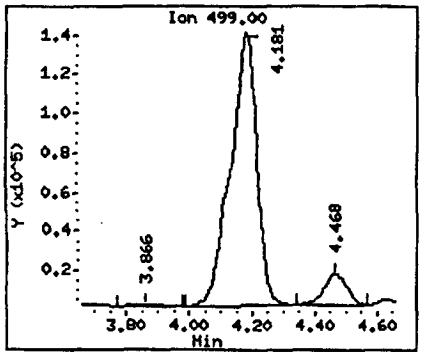
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



CMC 12/10/02

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0078.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

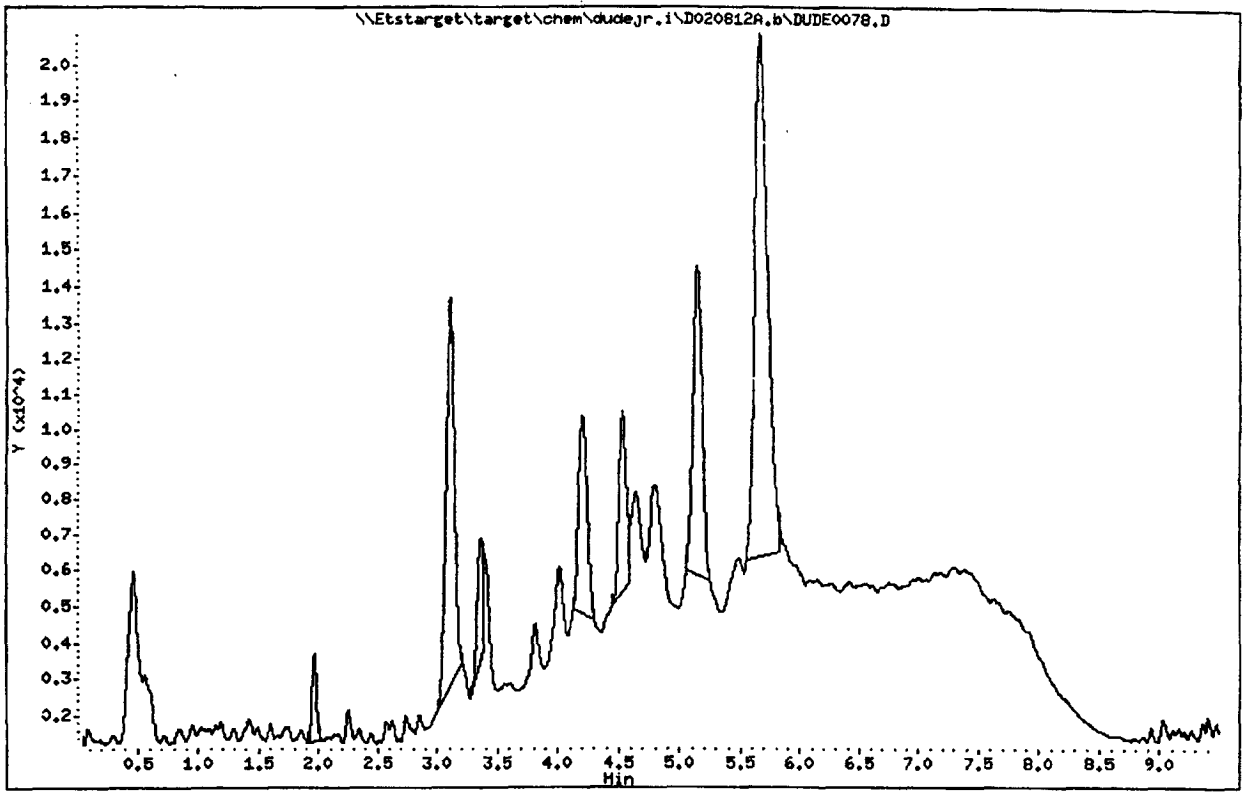
E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0078.D
Lab Smp Id: 38033
Inj Date : 13-AUG-2002 01:34
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38033; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

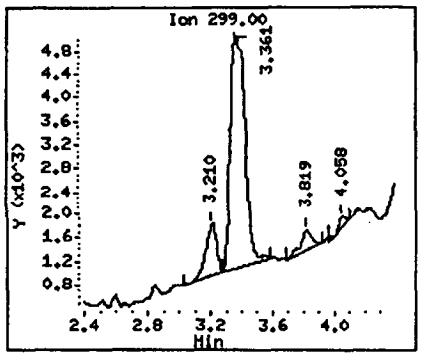
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 PFBS (299)	299	3.360	3.394	-0.034	26600	0.45093	0.451
	299	3.210	3.394	-0.184	4235	503.706	504
	299	3.818	3.394	0.424	1671	503.796	504
	299	4.058	3.394	0.664	634	503.832	504
2 PFHS (399)	399	3.812	3.791	0.021	5685	0.16974	0.170
	399	3.969	3.791	0.178	5436	0.16213	0.162
3 PFOA (413)	413	4.010	3.982	0.028	11537	0.20128	0.201
4 FOSA (498)	498	4.796	4.768	0.028	5487	0.17456	0.174
5 PFOS (499)	499	4.194	4.160	0.034	35066	0.20349	0.203

CWC 12/16/02
Initial Date

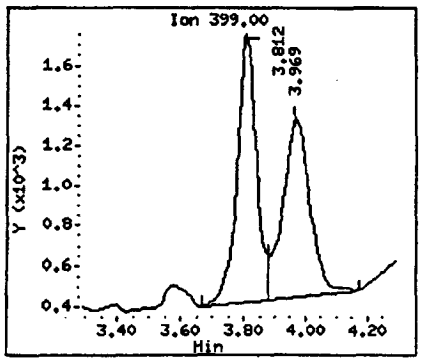
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0078.D



1 PFBS (299)



2 PFHS (399)



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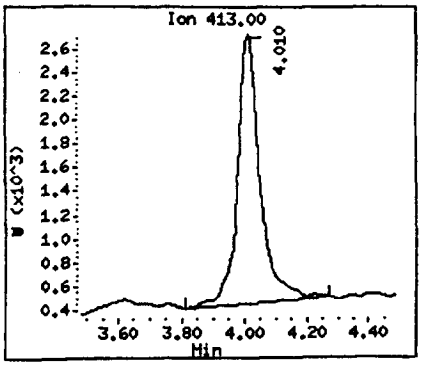
CLW 12/18/02

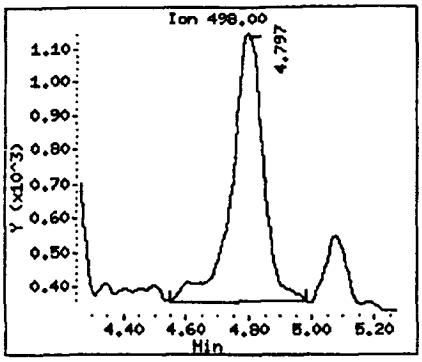
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0078.D

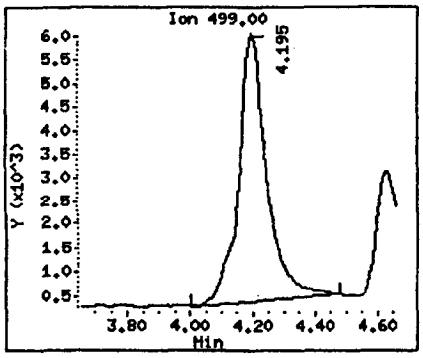
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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CMC 12/10/02

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0080.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0080.D
Lab Smp Id: 38034
Inj Date : 13-AUG-2002 01:57
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38034; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

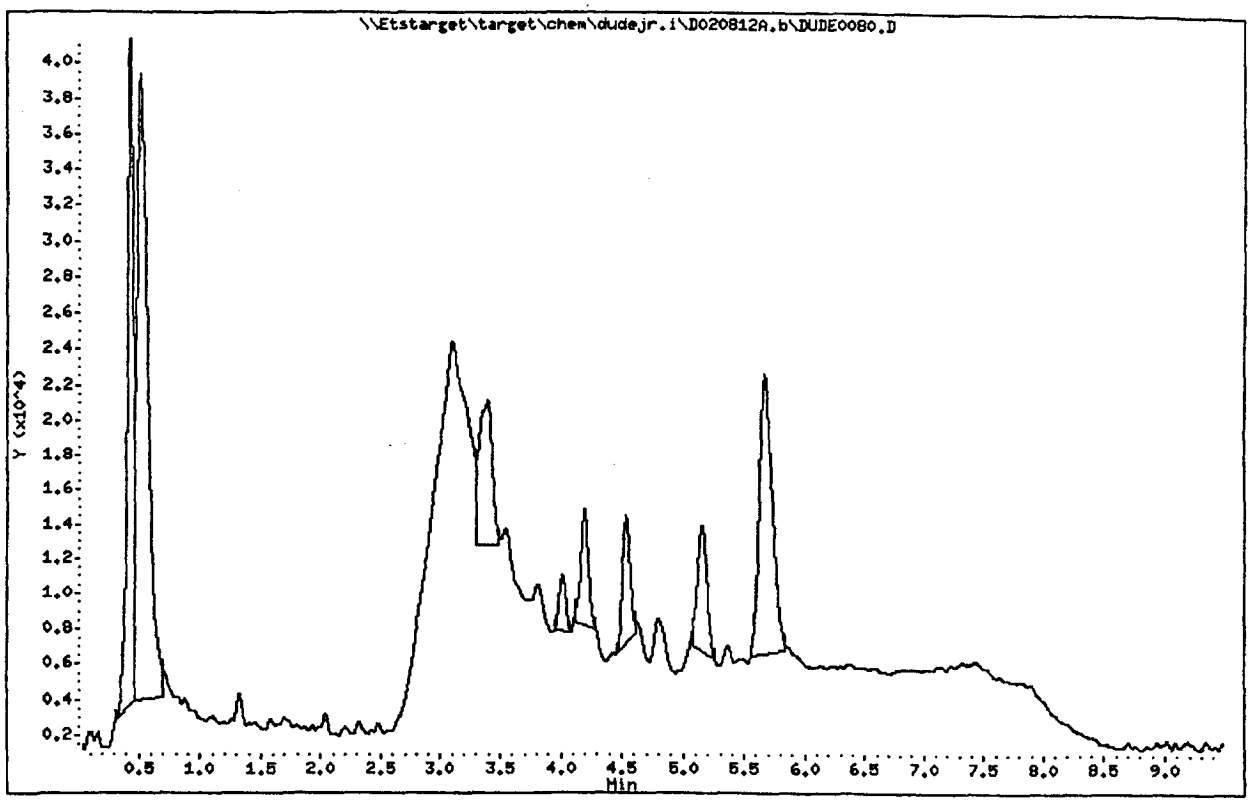
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.401	3.394	0.007	28016	0.50070	0.501(M)
2 PFHS (399)	399	3.812	3.791	0.021	8673	0.26104	0.261
3 PFOA (413)	413	4.010	3.982	0.028	17031	0.55603	0.556
4 FOSA (498)	498	4.796	4.768	0.028	6747	0.21607	0.216
	498	5.090	4.768	0.322	276	0.00294	0.00294
5 PFOS (499)	499	4.194	4.160	0.034	51049	0.71127	0.711

QC Flag Legend

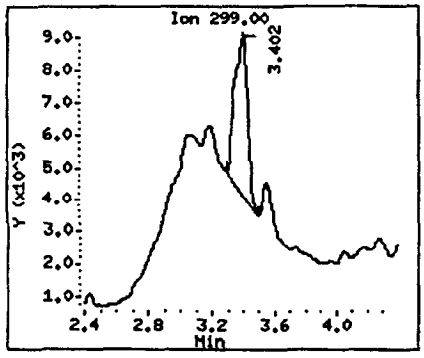
M - Compound response manually integrated.

Check Copy of Origin
CMC 12/10/02

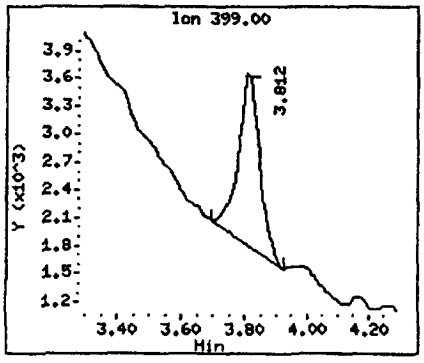
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0080.D



1 PFBS (299)



2 PFHS (399)



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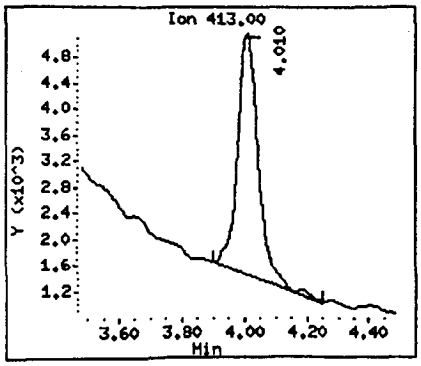
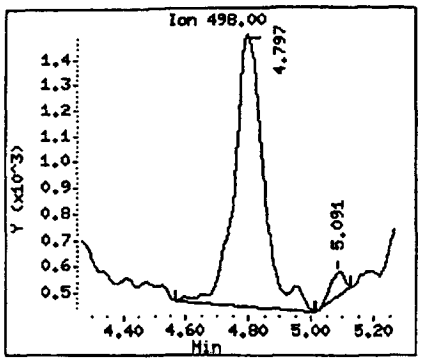
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0080.D

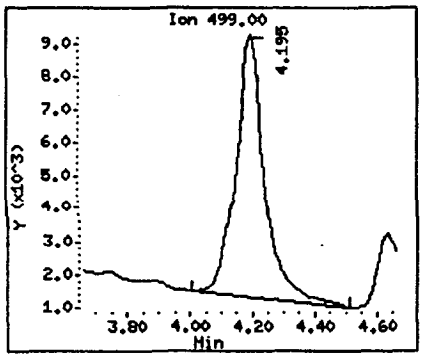
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



Initial Copy of Original
CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0084.D Page 1
Report Date: 27-Aug-2002 14:11

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0084.D
Lab Smp Id: 38037
Inj Date : 13-AUG-2002 02:41
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38037; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

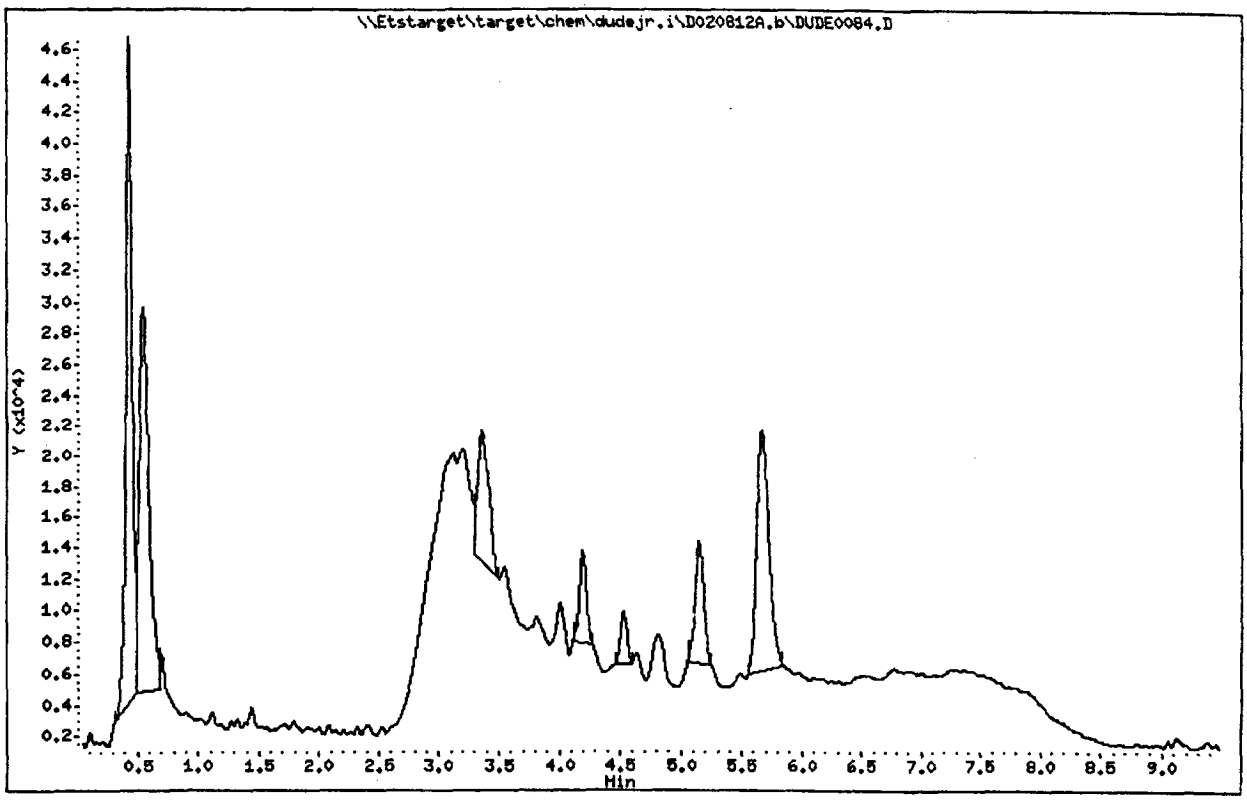
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.353	3.394	-0.041	32546	0.65999	0.660(M)
2 PFHS (399)	399	3.805	3.791	0.014	12978	0.39267	0.393
3 PFOA (413)	413	4.010	3.982	0.028	14081	0.36547	0.365
4 FOSA (498)	498	4.796	4.768	0.028	6547	0.20948	0.209
5 PFOS (499)	499	4.188	4.160	0.028	43651	0.47606	0.476

QC Flag Legend

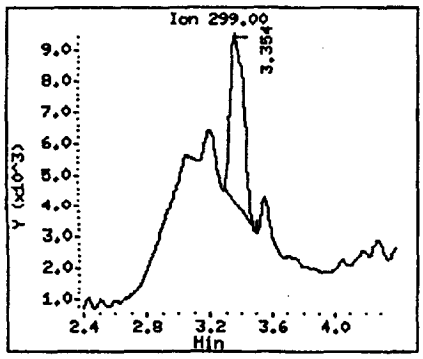
M - Compound response manually integrated.

Primary Data or Original
CMC 12/10/02
Date

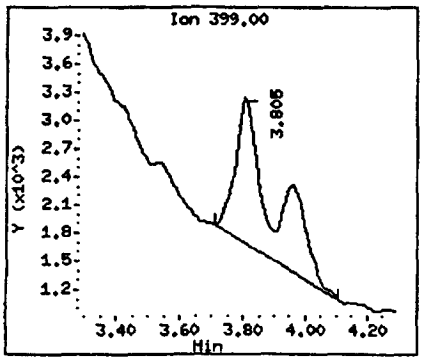
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0084.D Page 2



1 PFBS (299)



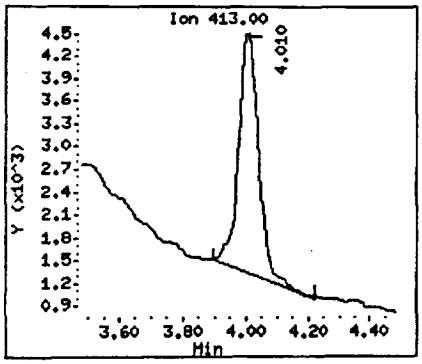
2 PFHS (399)



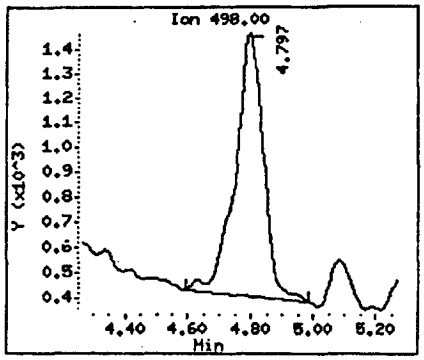
Exact Copy of Original
CMC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0084.D

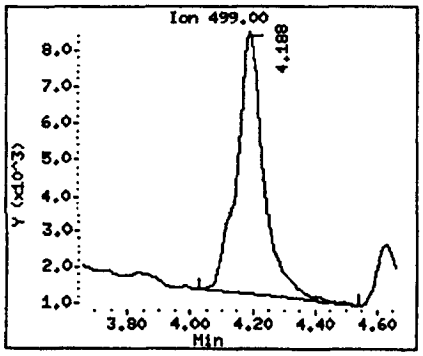
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



CMC 12/10/02

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0086.D Page 1
Report Date: 27-Aug-2002 14:12

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0086.D
Lab Smp Id: 38038
Inj Date : 13-AUG-2002 03:03
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38038; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812A.b\D020812A.m
Meth Date : 27-Aug-2002 14:06 dudejr.i Quant Type: ESTD
Cal Date : 12-AUG-2002 16:13 Cal File: DUDE0027.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

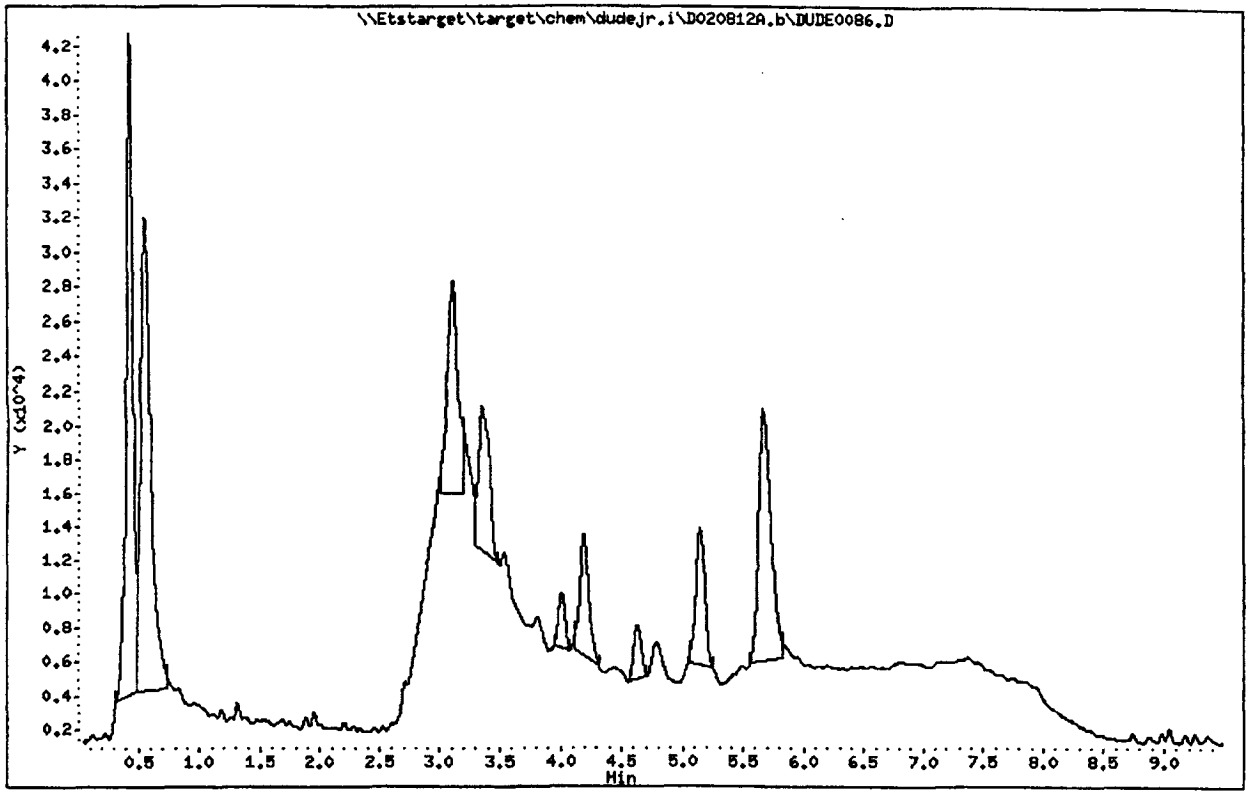
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.353	3.394	-0.041	34896	0.74266	0.743(M)
2 PFHS (399)	399	3.812	3.791	0.021	8214	0.24701	0.247
3 PFOA (413)	413	4.003	3.982	0.021	15139	0.43379	0.434
4 FOSA (498)	498	4.796	4.768	0.028	3452	0.10754	0.108
5 PFOS (499)	499	4.188	4.160	0.028	44196	0.49338	0.493

QC Flag Legend

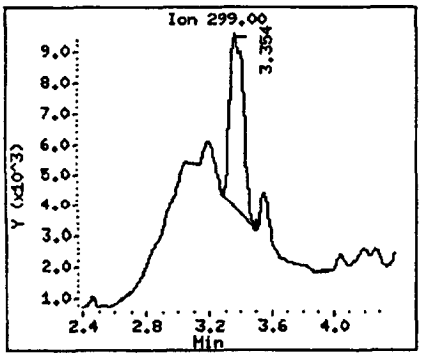
M - Compound response manually integrated.

Exact Copy of Original
CMC 12/10/02
Initial Date

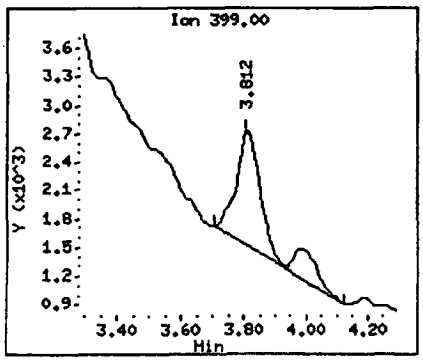
Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0086.D



1 PFBS (299)



2 PFHS (399)



Exact Copy of Original

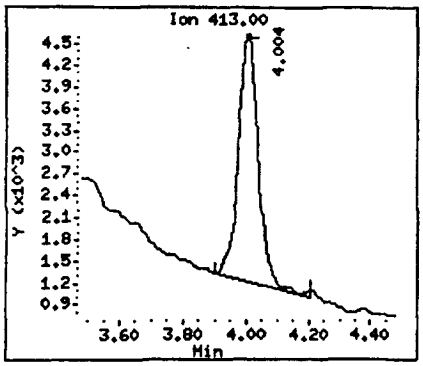
Initial

12/10/02

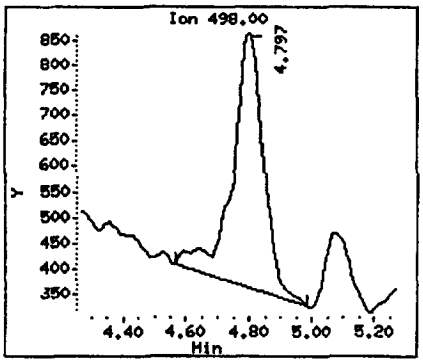
Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812A.b\DUDE0086.D

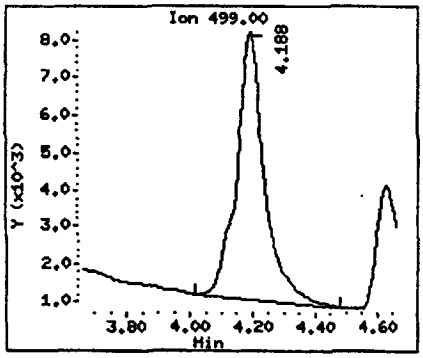
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0127.D Page 1
Report Date: 29-Aug-2002 07:12

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0127.D
Lab Smp Id: 38028
Inj Date : 13-AUG-2002 10:35
Operator : cmc Inst ID: dudejr.i
Smp Info : E02-0443-38028; Water Samples; non-GLP; 7/17/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812B.b\D020812B.m
Meth Date : 29-Aug-2002 07:08 dudejr.i Quant Type: ESTD
Cal Date : 13-AUG-2002 06:44 Cal File: DUDE0106.D
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.388	3.394	-0.006	195308	2926.60	2930
	299	2.697	3.394	-0.697	963	2935.68	2940
	299	3.073	3.394	-0.321	9274	2935.29	2940
	299	3.777	3.394	0.383	8460	2935.33	2940
	299	4.085	3.394	0.691	602	2935.69	2940
	299	4.249	3.394	0.855	439	2935.70	2940
2 PFHS (399)	399	3.777	3.791	-0.014	7874701	392.569	392
3 PFOA (413)	413	3.962	3.982	-0.020	3848302	388.428	388
4 FOSA (498)	498	4.741	4.768	-0.027	8025349	302.105	302
5 PFOS (499)	499	4.140	4.160	-0.020	7827644	361.783	362

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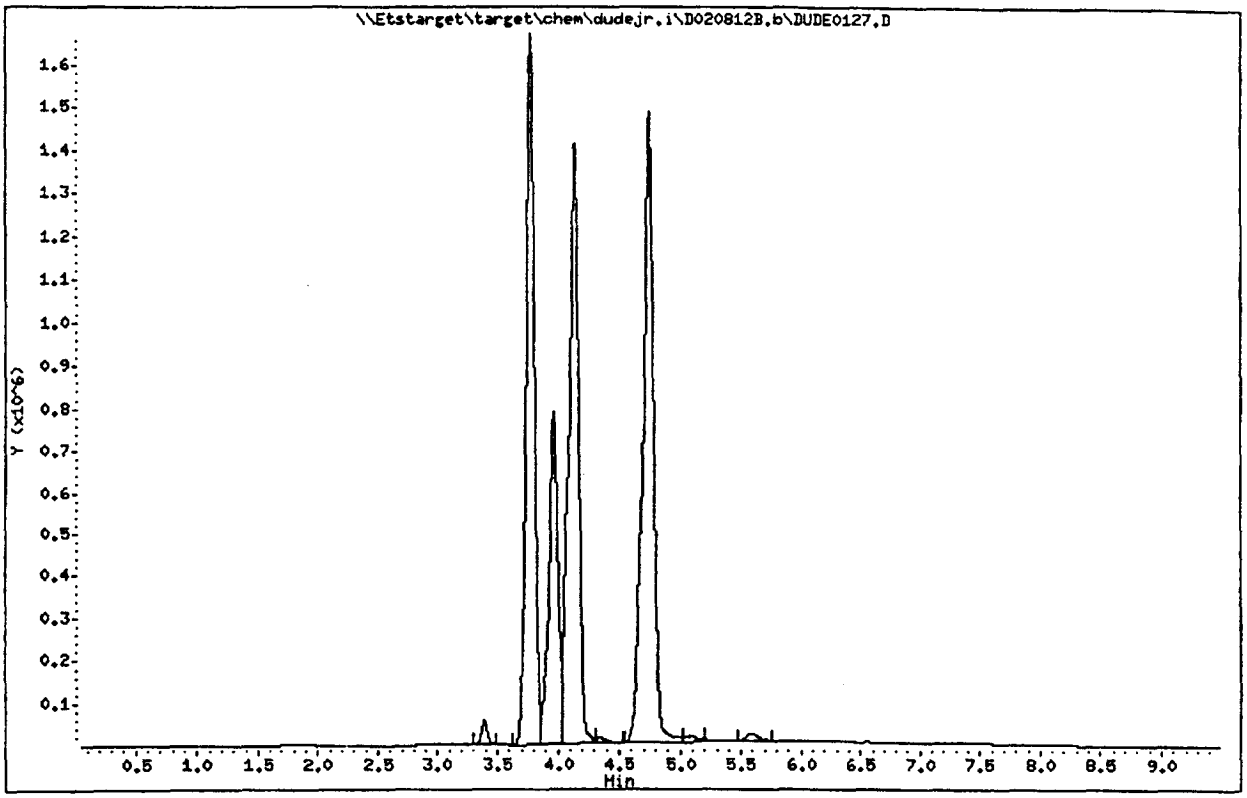
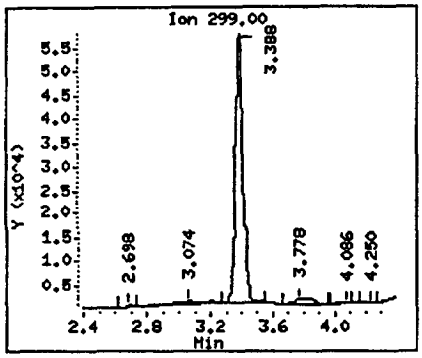
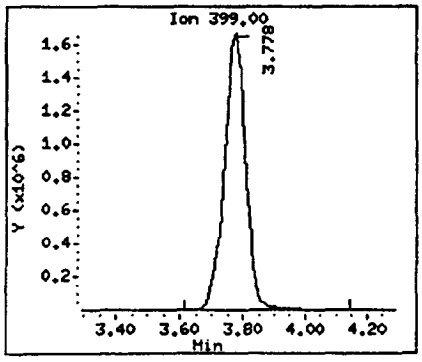
Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0127.D



1 PFBS (299)



2 PFHS (399)



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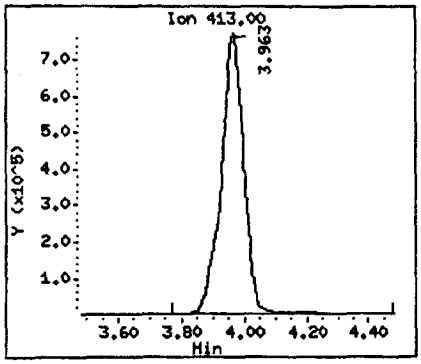
CMC 12/2012

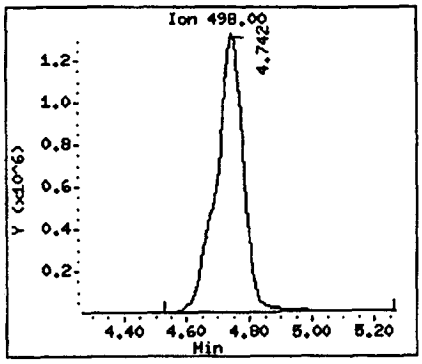
Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0127.D

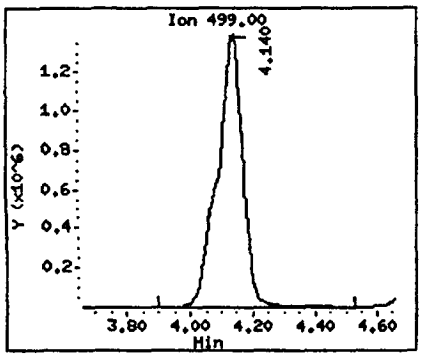
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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CMC 12/10/02

Initial Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0133.D Page 1
Report Date: 29-Aug-2002 07:12

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0133.D
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Inj Date : 13-AUG-2002 11:41
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38036; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812B.b\D020812B.m
Meth Date : 29-Aug-2002 07:08 dudejr.i Quant Type: ESTD
Cal Date : 13-AUG-2002 06:44 Cal File: DUDE0106.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.388	3.394	-0.006	202053	2926.29	2930
	299	3.073	3.394	-0.321	18005	2934.88	2930
	299	3.777	3.394	0.383	9508	2935.28	2940
	299	4.085	3.394	0.691	820	2935.68	2940
	299	4.242	3.394	0.848	817	2935.68	2940
2 PFHS (399)	399	3.771	3.791	-0.020	8071912	404.870	405
3 PFOA (413)	413	3.962	3.982	-0.020	3927038	398.487	398
4 FOSA (498)	498	4.735	4.768	-0.033	8558553	324.535	324
5 PFOS (499)	499	4.133	4.160	-0.027	7890357	365.265	365
	499	3.832	4.160	-0.328	906	3071.25	3070

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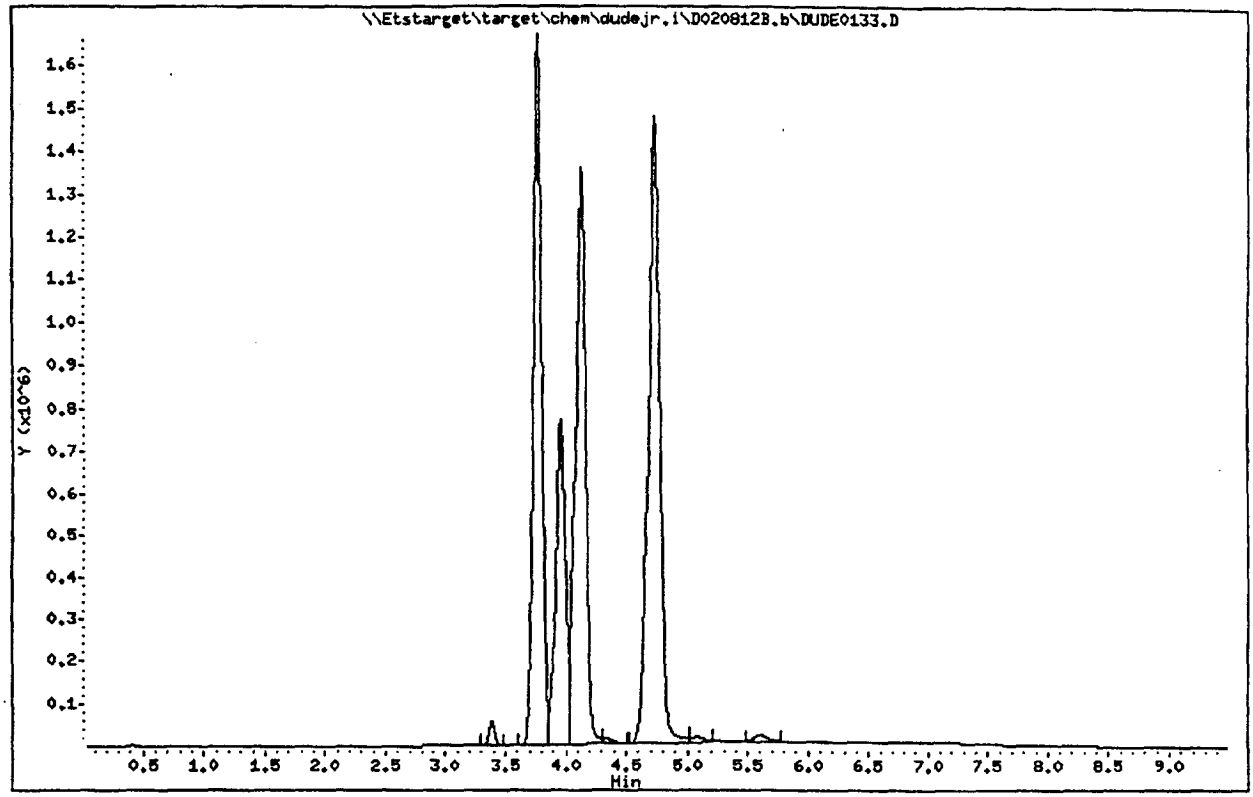
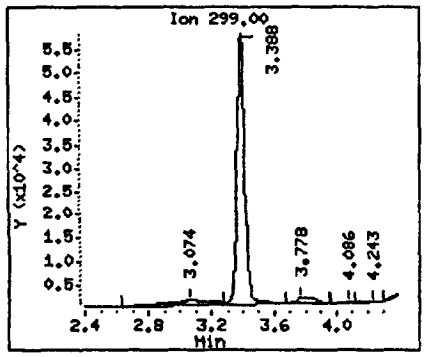
CMC 12/10/02
Initial Date

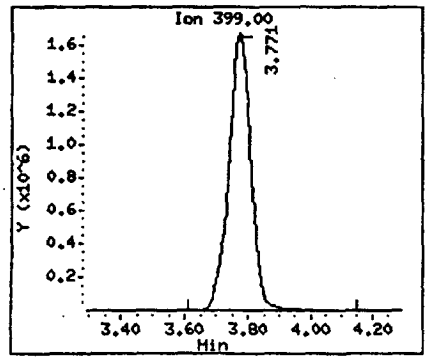
Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0133.D



1 PFBS (299)



2 PFHS (399)



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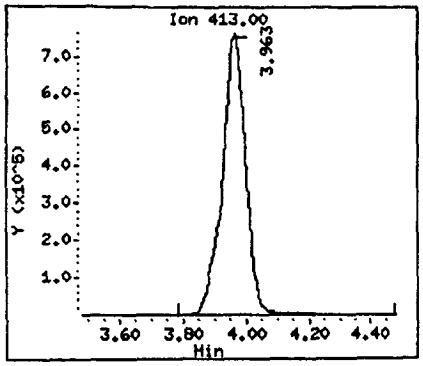
CMC 12/10/02

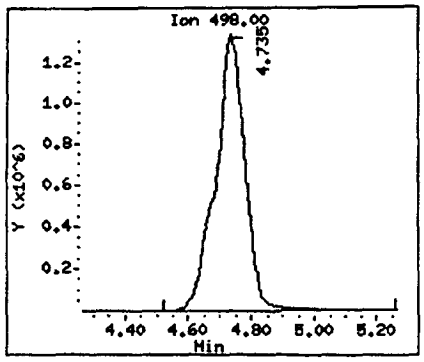
(Initial) (Date)

Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0133.D

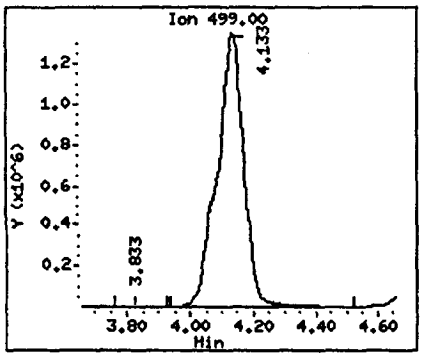
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



Project Chief

GMC 12/10/02

[Initial] [Date]

Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0136.D Page 1
Report Date: 29-Aug-2002 07:12

3M Environmental Laboratory

E02-0443, Tenn. River Valley Samples

Data file : \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0136.D
Lab Smp Id: 38040
Inj Date : 13-AUG-2002 12:14
Operator : mla Inst ID: dudejr.i
Smp Info : E02-0443-38040; Water Samples; non-GLP; 6/20/02; OK
Misc Info :
Comment :
Method : \\Etstarget\target\chem\dudejr.i\D020812B.b\D020812B.m
Meth Date : 29-Aug-2002 07:08 dudejr.i Quant Type: ESTD
Cal Date : 13-AUG-2002 06:44 Cal File: DUDE0106.D
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.387	3.394	-0.007	200230	2926.37	2930
	299	2.936	3.394	-0.458	5425	2935.47	2940
	299	3.073	3.394	-0.321	13185	2935.11	2940
	299	3.832	3.394	0.438	10649	2935.23	2940
	299	4.023	3.394	0.629	485	2935.70	2940
2 PFHS (399)	399	3.777	3.791	-0.014	8246279	415.875	416
3 PFOA (413)	413	3.961	3.982	-0.021	3997548	407.589	408
4 FOSA (498)	498	4.741	4.768	-0.027	7955892	299.205	299
5 PFOS (499)	499	4.132	4.160	-0.028	7760025	358.040	358

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CMC 12/10/02
Initial Date

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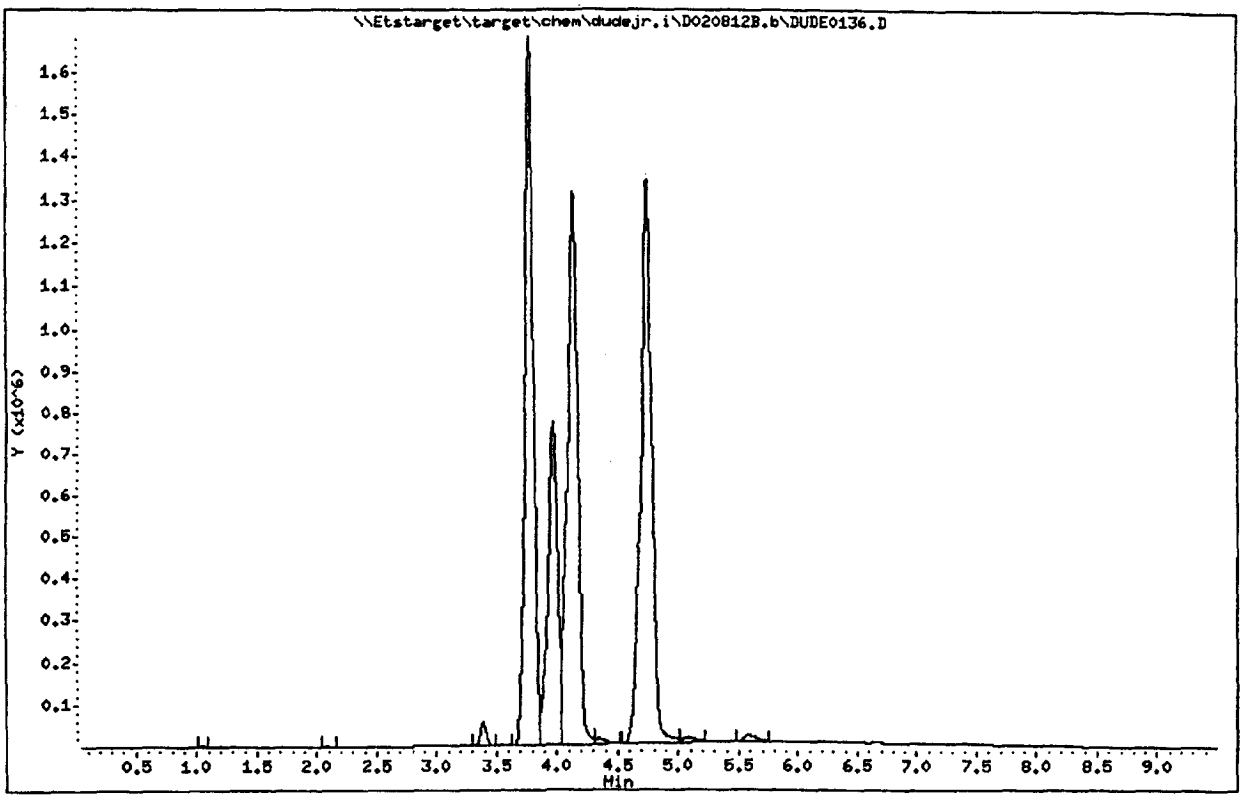
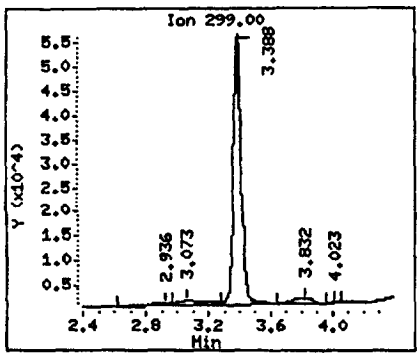
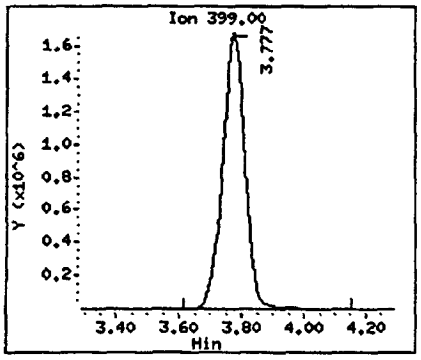


1 PFBS (299)



2 PFHS (399)



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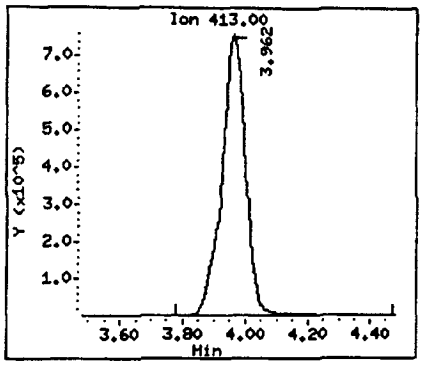
CMC 12/10/12

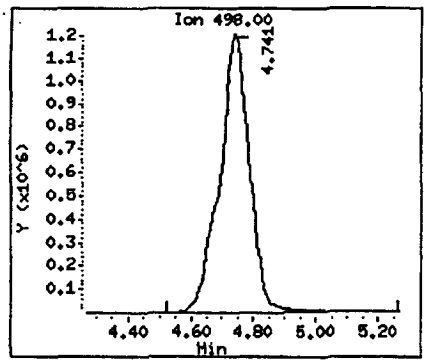
[Initial] Date

Data File: \\Etstarget\target\chem\dudejr.i\D020812B.b\DUDE0136.D

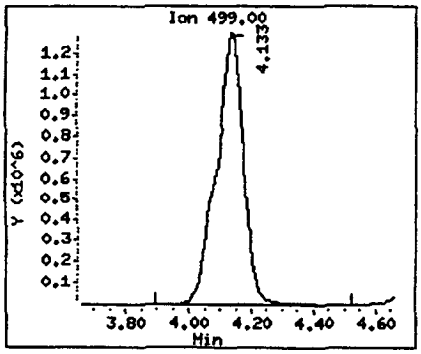
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



Exact Copy of Report

CMC 12/10/02

Initial

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY034.D Page 1
Report Date: 19-Nov-2002 14:49

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY034.D
Lab Smp Id: 0443-WB-1
Inj Date : 12-NOV-2002 13:40
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-WB-1; Water Blank; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.421	3.422	-0.001	37874	0.55035	0.550
	299	3.252	3.422	-0.170	7026	933.500	933
	299	4.129	3.422	0.707	7366	933.490	933
2 PFHS (399)	399	3.840	3.830	0.010	2541	0.13306	0.133
3 PFOA (413)	413	4.039	4.020	0.019	13412	744.874	745
	413	4.348	4.020	0.328	10274	745.050	745
4 FOSA (498)	498	4.867	4.867	0.000	1927	0.17216	0.172
5 PFOS (499)	499	4.209	4.199	0.010	78922	1.09119	1.09

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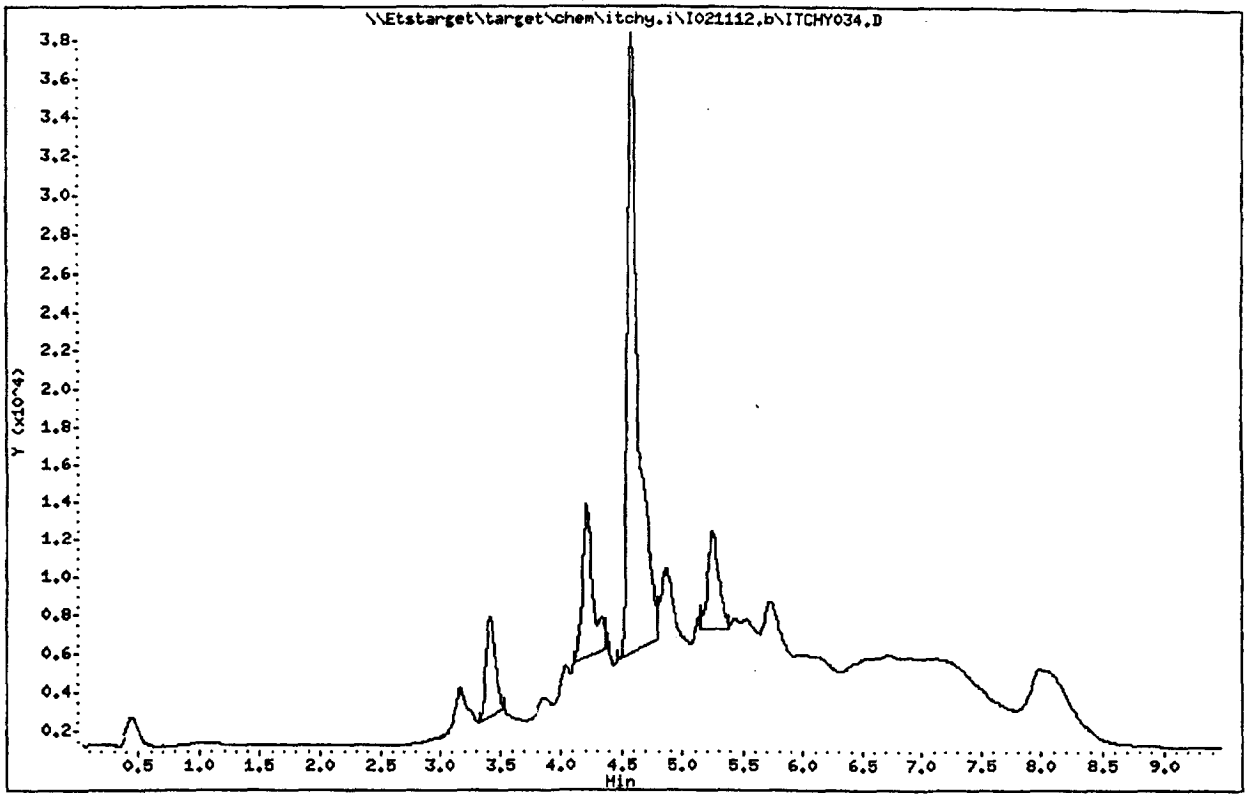
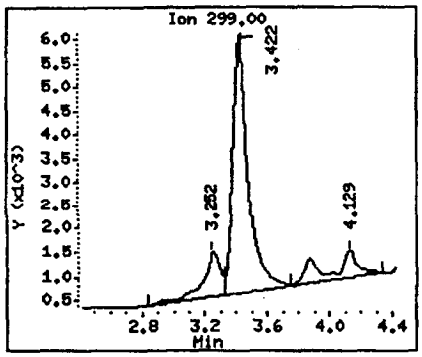
CMC 12/10/02
(initial) Date

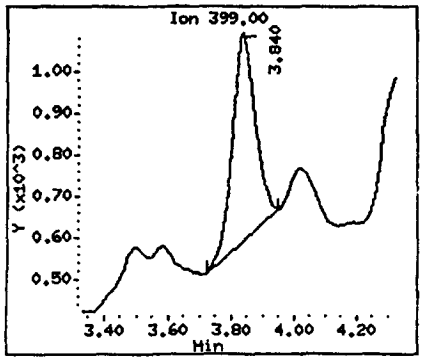
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY034.D



1 PFBS (299)



2 PFHS (399)

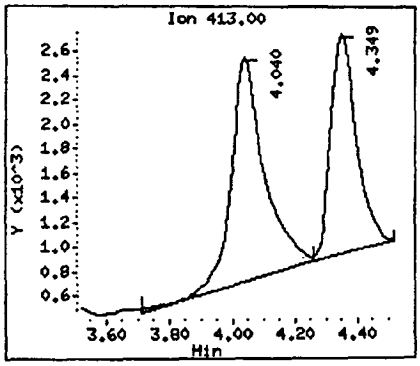


Exact Copy of Original

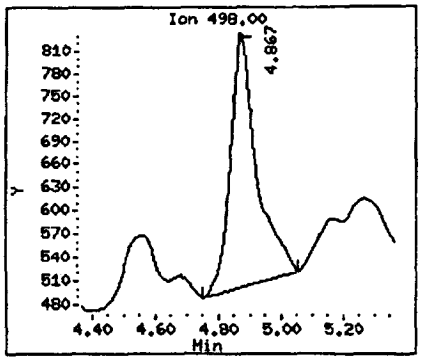
CMC [Initial] 12/10/02 Date

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY034.D

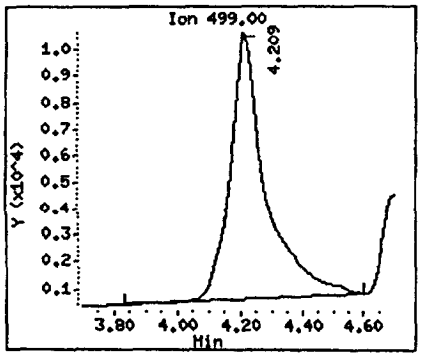
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



CWK 12/10/02

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY035.D Page 1
Report Date: 19-Nov-2002 14:49

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY035.D
Lab Smp Id: 0443-WB-2
Inj Date : 12-NOV-2002 13:51
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-WB-2; Water Blank; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 PFBS (299)	299	3.411	3.422	-0.011	.32544	0.39726	0.397
	299	3.252	3.422	-0.170	5958	933.530	934
	299	4.119	3.422	0.697	3285	933.607	934
2 PFHS (399)	399	3.830	3.830	0.000	3628	0.15642	0.156
	399	3.491	3.830	-0.339	1344	0.10734	0.107
3 PFOA (413)	413	4.029	4.020	0.009	14592	0.04324	0.0432
	413	4.348	4.020	0.328	12065	744.949	745
4 FOSA (498)	498	4.867	4.867	0.000	2453	0.18434	0.184
5 PFOS (499)	499	4.219	4.199	0.020	42341	0.23630	0.236

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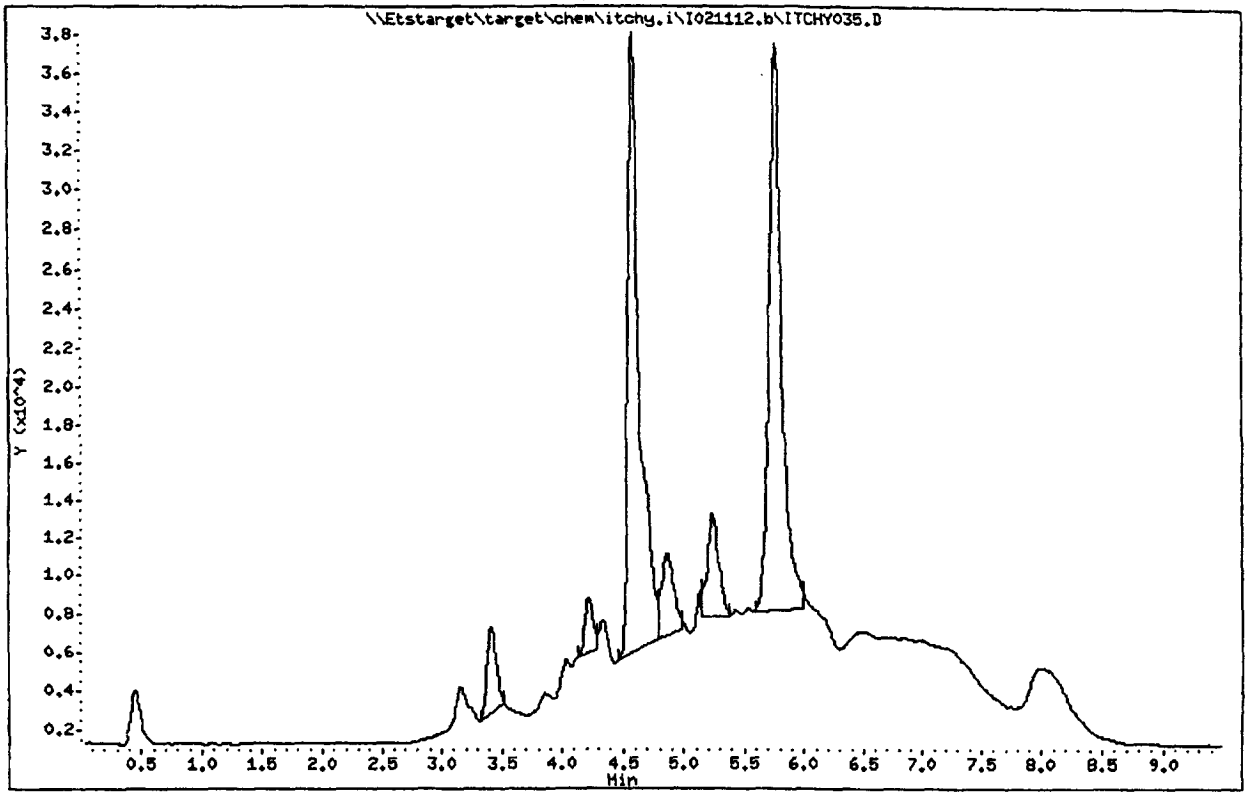
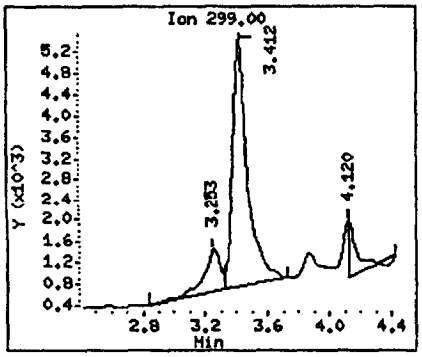
CWC 12/10/02
Initial Date

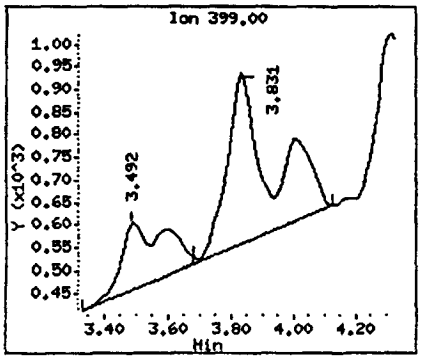
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY035.D



1 PFBS (299)



2 PFHS (399)



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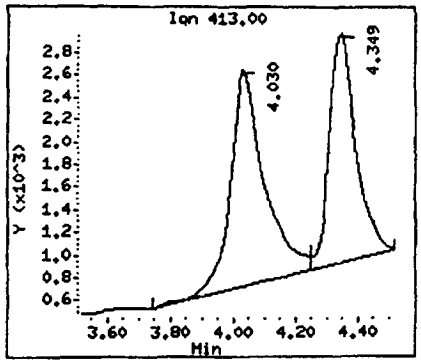
CMC 12/10/02

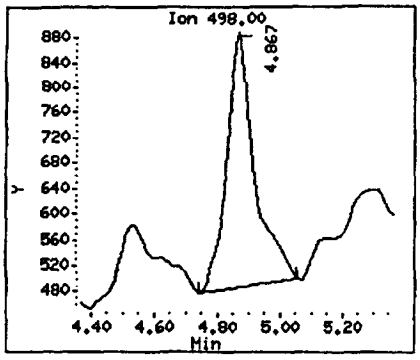
(Initial) (Date)

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY035.D

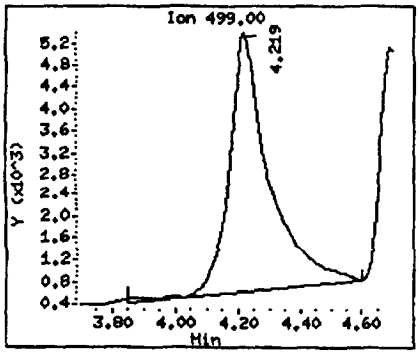
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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CMC 12/10/02

Initial Date

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY038.D Page 1
Report Date: 19-Nov-2002 14:49

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY038.D
Lab Smp Id: 0443-38044-1
Inj Date : 12-NOV-2002 14:23
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38044-1; SL-1; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

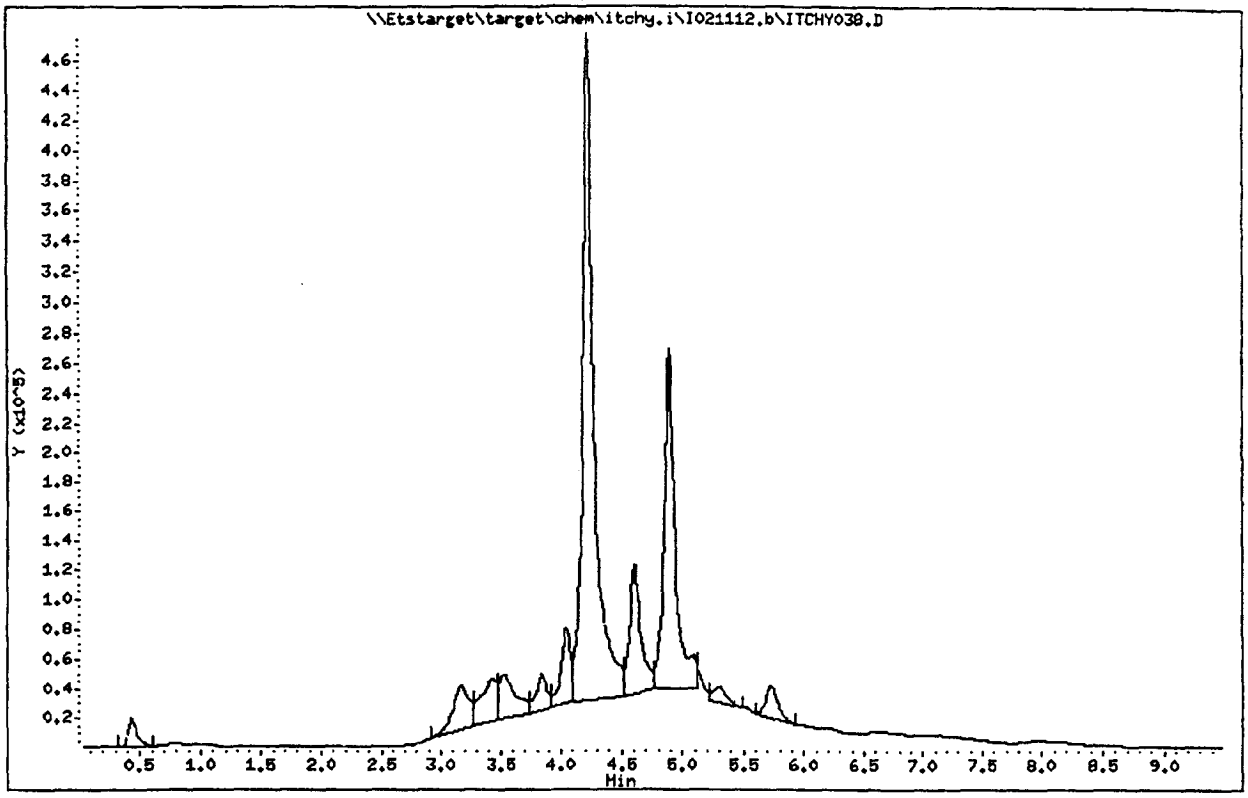
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.511	3.422	0.089	383859	10.5978	10.6
	299	3.970	3.422	0.548	2593	933.627	934
	299	4.309	3.422	0.887	4148	933.582	934
2 PFHS (399)	399	3.840	3.830	0.010	122635	2.71999	2.72
	399	3.432	3.830	-0.398	18909	0.48492	0.485
3 PFOA (413)	413	4.040	4.020	0.020	295590	16.1949	16.2
	413	3.701	4.020	-0.319	8211	745.166	745
4 FOSA (498)	498	4.887	4.867	0.020	1250415	29.6711	29.7(M)
5 PFOS (499)	499	4.219	4.199	0.020	2785277	67.6562	67.6(M)

QC Flag Legend

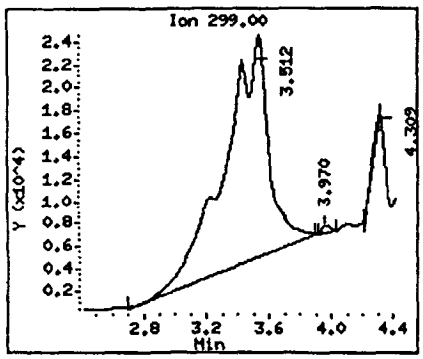
M - Compound response manually integrated.

Exact Copy of Original
CJM 12/10/02
Initial Date

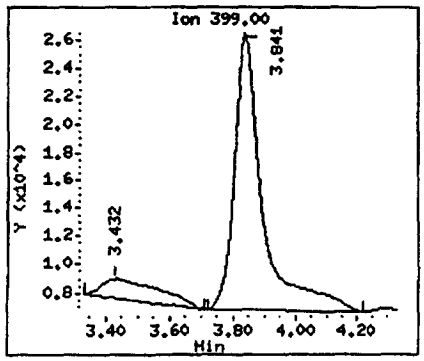
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY038.D Page 2



1 PFBS (299)



2 PFHS (399)



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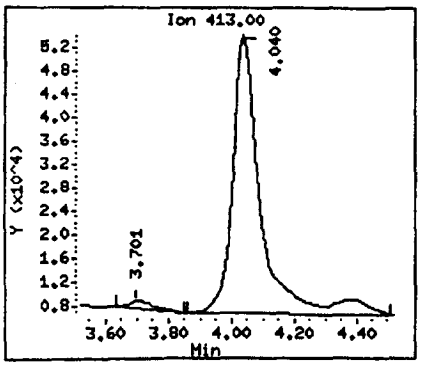
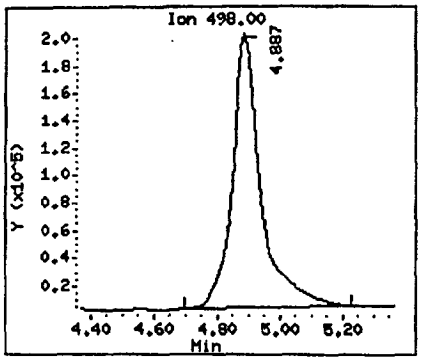
CHC 12/10/02
Initial Date

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY038.D

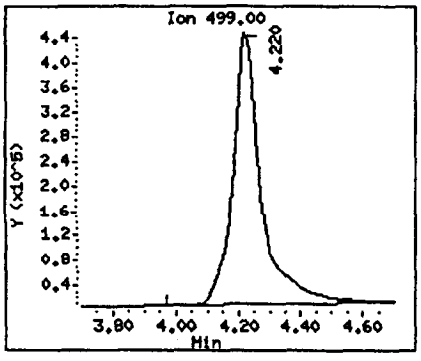
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Initial Date

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY040.D Page 1
Report Date: 19-Nov-2002 14:49

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY040.D
Lab Smp Id: 0443-38044-2
Inj Date : 12-NOV-2002 14:45
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38044-2; SL-1; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

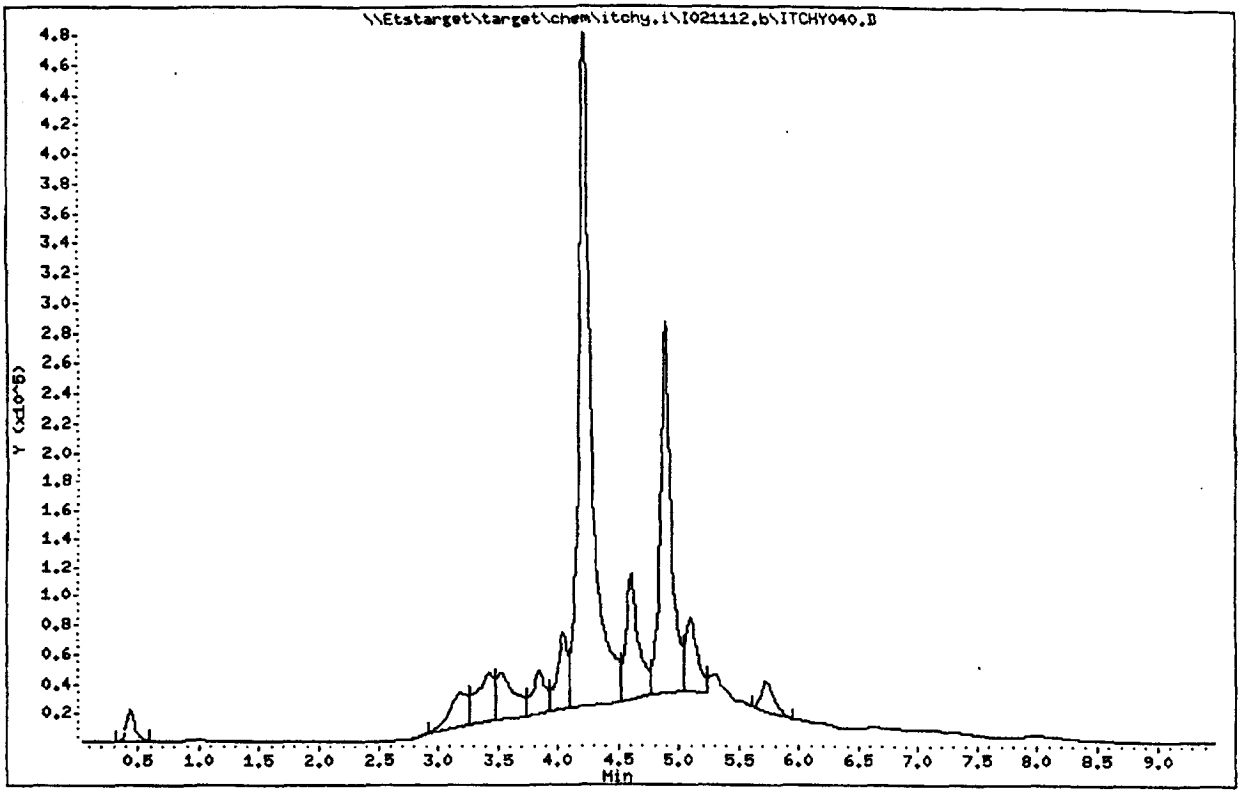
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.432	3.422	0.010	383608	10.5904	10.6
	299	3.970	3.422	0.548	1970	933.645	934
	299	4.309	3.422	0.887	62861	1.26871	1.27
2 PFHS (399)	399	3.840	3.830	0.010	118901	2.63937	2.64
	399	3.432	3.830	-0.398	13878	0.37675	0.377
3 PFOA (413)	413	4.040	4.020	0.020	260003	14.1091	14.1
	413	3.711	4.020	-0.309	9504	745.093	745
4 FOSA (498)	498	4.887	4.867	0.020	1361450	32.3550	32.4
5 PFOS (499)	499	4.219	4.199	0.020	2885124	70.2517	70.2(M)

QC Flag Legend

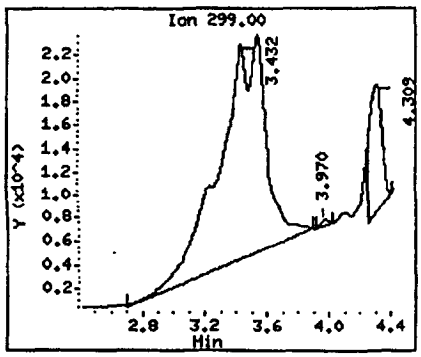
M - Compound response manually integrated.

CHC 12/10/02

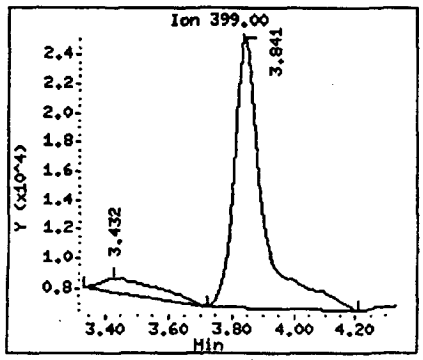
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY040.D



1 PFBS (299)



2 PFHS (399)



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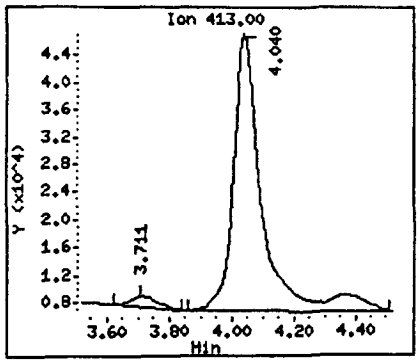
CMC 12/10/02

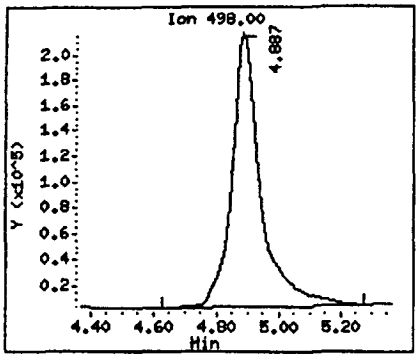
Initial Date

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY040.D

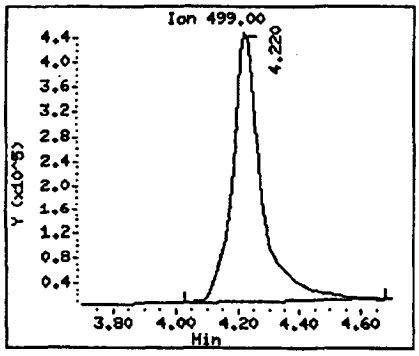
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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CMC 12/10/02

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY042.D Page 1
Report Date: 19-Nov-2002 14:49

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY042.D
Lab Smp Id: 0443-38044-3
Inj Date : 12-NOV-2002 15:07
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38044-3; SL-1; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

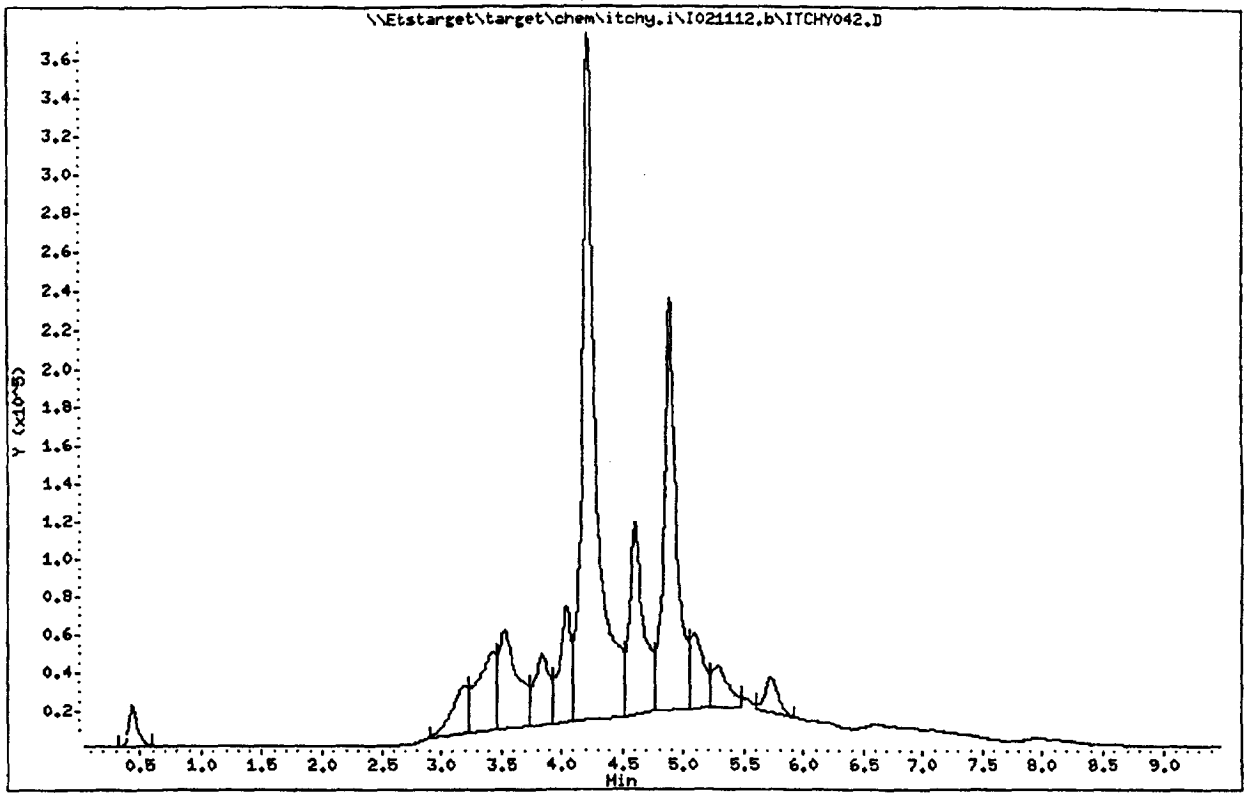
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 PFBS (299)	299	3.531	3.422	0.109	482034	13.4894	13.5
	299	4.299	3.422	0.877	50026	0.89957	0.900
2 PFHS (399)	399	3.840	3.830	0.010	111724	2.48445	2.48
	399	3.432	3.830	-0.398	19590	0.49957	0.500
3 PFOA (413)	413	4.040	4.020	0.020	253343	13.7201	13.7
	413	3.701	4.020	-0.319	8515	745.149	745
4 FOSA (498)	498	4.887	4.867	0.020	1033771	24.4638	24.5(M)
5 PFOS (499)	499	4.219	4.199	0.020	2109105	50.3621	50.4

QC Flag Legend

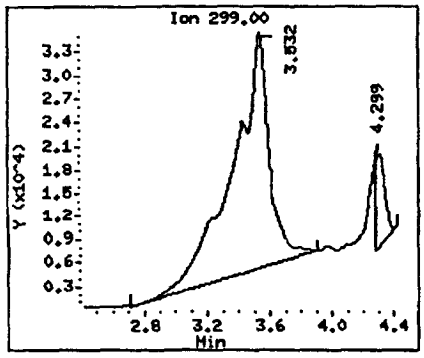
M - Compound response manually integrated.

Extract Dupe results
CMC 12/10/02

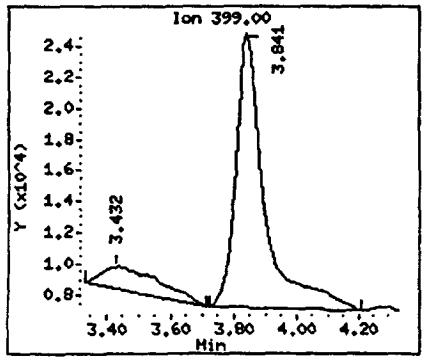
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY042.D Page 2



1 PFBS (299)



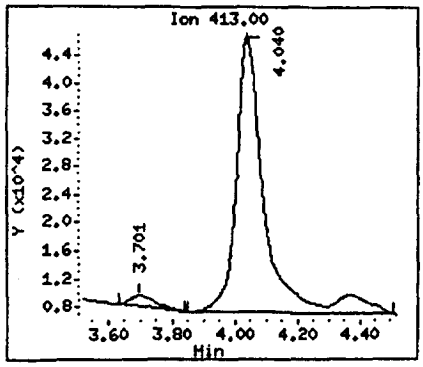
2 PFHS (399)



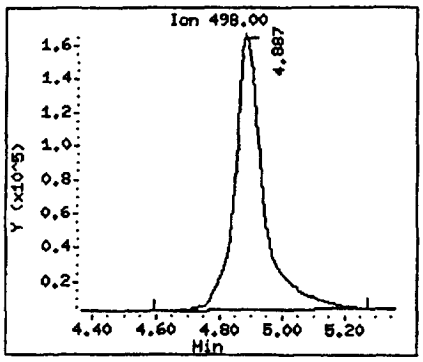
Original
Conc 12/10/02

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY042.D

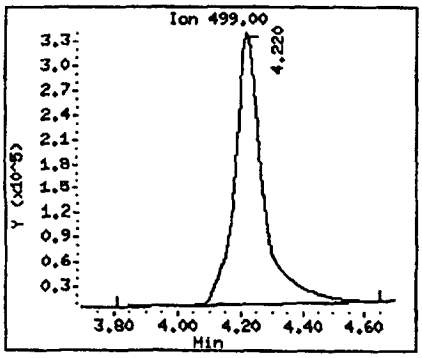
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



Cinc 12/10/02

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY046.D Page 1
Report Date: 19-Nov-2002 14:49

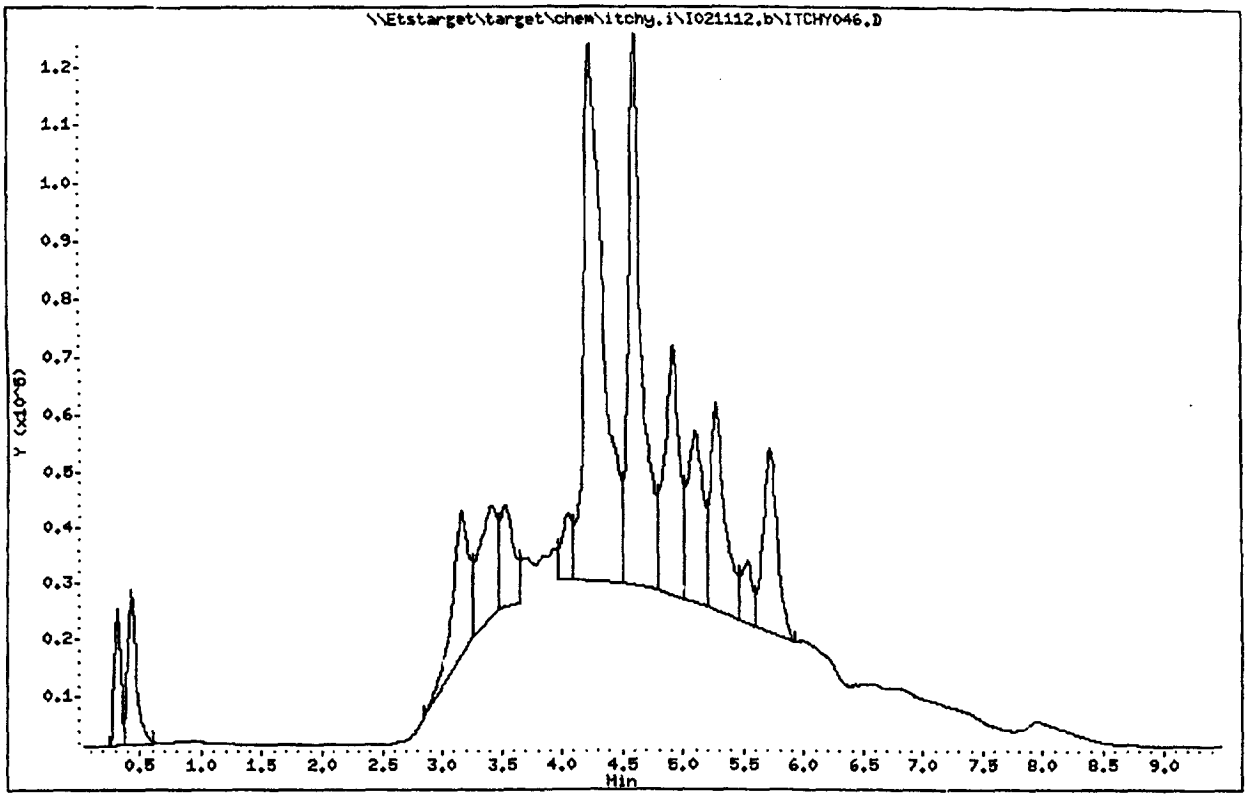
3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY046.D
Lab Smp Id: 0453-38045-1
Inj Date : 12-NOV-2002 15:50
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38045-1; SL-3; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

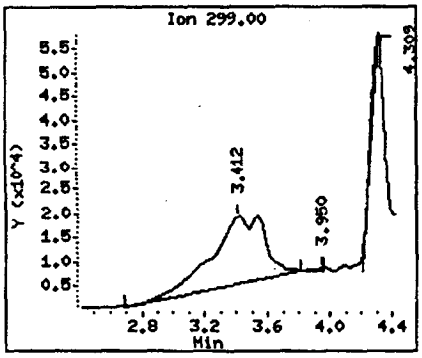
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.412	3.422	-0.010	325254	8.88037	8.88
	299	3.950	3.422	0.528	2272	933.636	934
	299	4.309	3.422	0.887	17131	933.210	933
2 PFHS (399)	399	3.840	3.830	0.010	13341	0.36520	0.365
	399	3.442	3.830	-0.388	8750	0.26651	0.266
3 PFOA (413)	413	4.040	4.020	0.020	48048	1.92935	1.93
	413	3.711	4.020	-0.309	9113	745.115	745
	413	4.379	4.020	0.359	7941	745.181	745
4 FOSA (498)	498	4.887	4.867	0.020	48310	1.24672	1.25
	498	4.598	4.867	-0.269	5183	0.24754	0.248
5 PFOS (499)	499	4.219	4.199	0.020	418454	9.07817	9.08
	499	4.568	4.199	0.369	11802	1354.25	1350

Original
CMC 12/10/02
Date

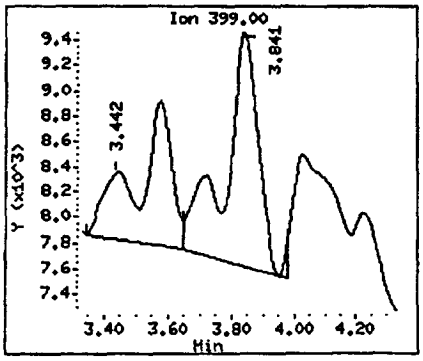
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY046.D Page 2



1 PFBS (299)



2 PFHS (399)



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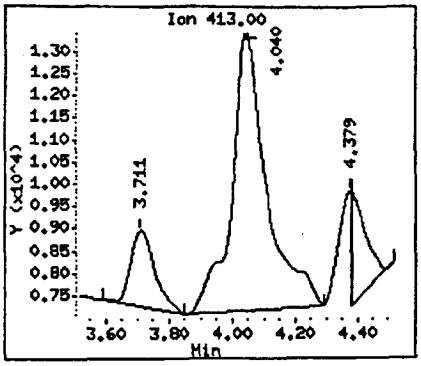
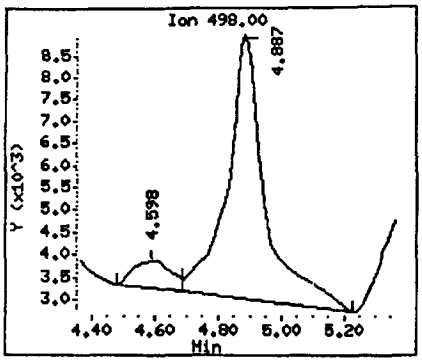
CMC 12/10/02

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY046.D

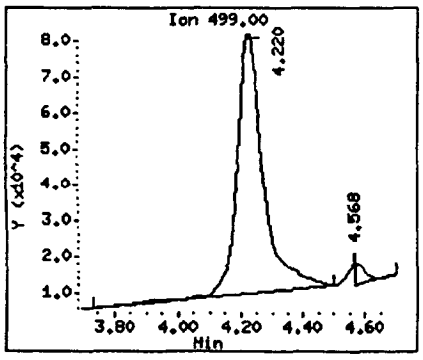
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY048.D Page 1
Report Date: 19-Nov-2002 14:49

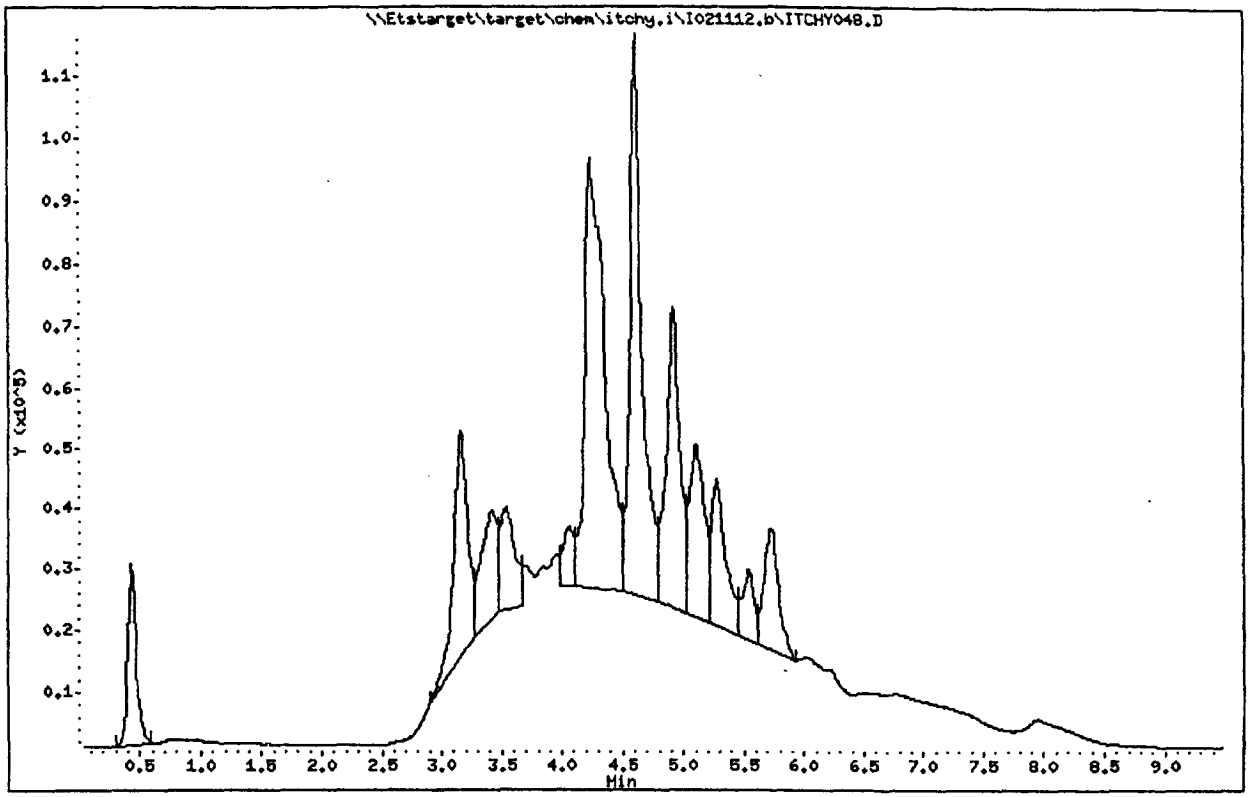
3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY048.D
Lab Smp Id: 0453-38045-2
Inj Date : 12-NOV-2002 16:12
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38045-2; SL-3; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

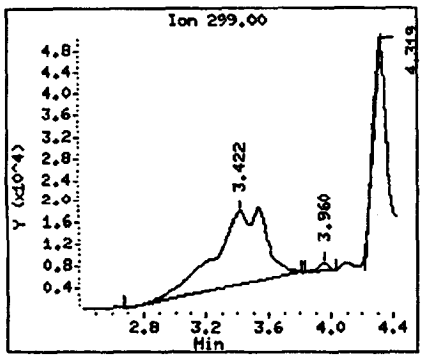
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.421	3.422	-0.001	305101	8.29128	8.29
	299	3.960	3.422	0.538	7189	933.495	933
	299	4.318	3.422	0.896	12829	933.333	933
2 PFHS (399)	399	3.840	3.830	0.010	11469	0.32496	0.325
	399	3.441	3.830	-0.389	18109	0.46772	0.468
	399	4.029	3.830	0.199	10665	0.30767	0.308
3 PFOA (413)	413	4.049	4.020	0.029	60231	2.61856	2.62
	413	3.710	4.020	-0.310	8754	745.135	745
4 FOSA (498)	498	4.886	4.867	0.019	46172	1.19716	1.20
	498	4.617	4.867	-0.250	4067	0.22171	0.222
5 PFOS (499)	499	4.229	4.199	0.030	323943	6.84538	6.84
	499	4.568	4.199	0.369	6825	1354.37	1350

CMC 12/10/02

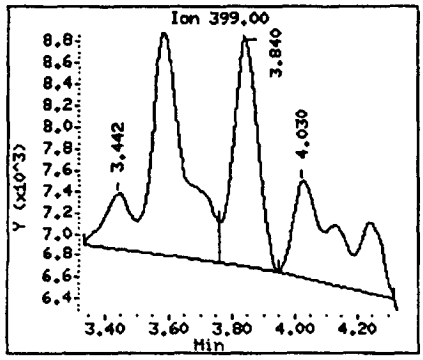
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY048.D Page 2



1 PFBS (299)



2 PFHS (399)



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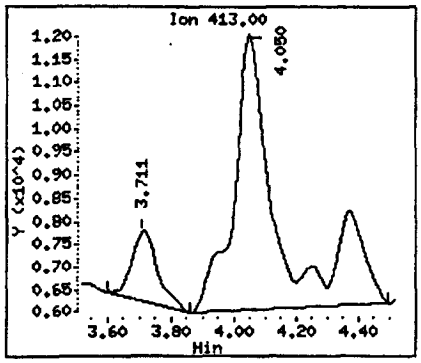
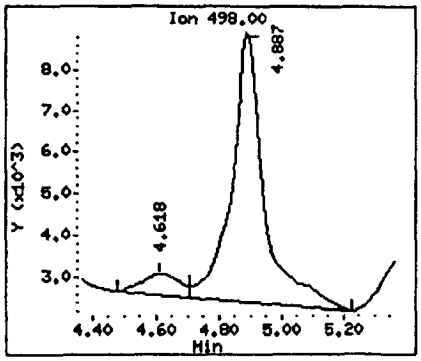
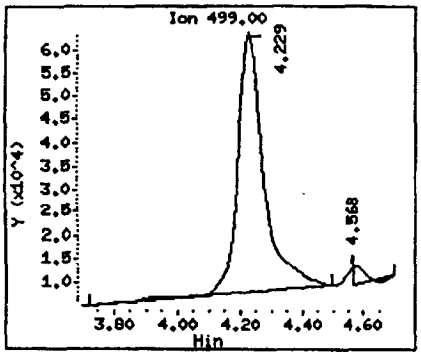
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



CMC 12/10/02

Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY051.D Page 1
Report Date: 19-Nov-2002 14:49

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY051.D
Lab Smp Id: 0453-38045-3
Inj Date : 12-NOV-2002 16:44
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38045-3; SL-3; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.402	3.422	-0.020	364688	10.0353	10.0
	299	3.950	3.422	0.528	2069	933.642	934
	299	4.309	3.422	0.887	18856	0.00434	0.00434
2 PFHS (399)	399	3.720	3.830	-0.110	12125	0.33906	0.339
	399	3.431	3.830	-0.399	2424	0.13055	0.130
	399	4.039	3.830	0.209	11470	0.32498	0.325
3 PFOA (413)	413	4.049	4.020	0.029	54999	2.32242	2.32
	413	3.711	4.020	-0.309	12405	744.930	745
	413	4.388	4.020	0.368	12668	744.915	745
4 FOSA (498)	498	4.897	4.867	0.030	65768	1.65158	1.65
	498	4.588	4.867	-0.279	4044	0.22117	0.221
5 PFOS (499)	499	4.229	4.199	0.030	420485	9.12623	9.13
	499	3.930	4.199	-0.269	4504	1354.43	1350

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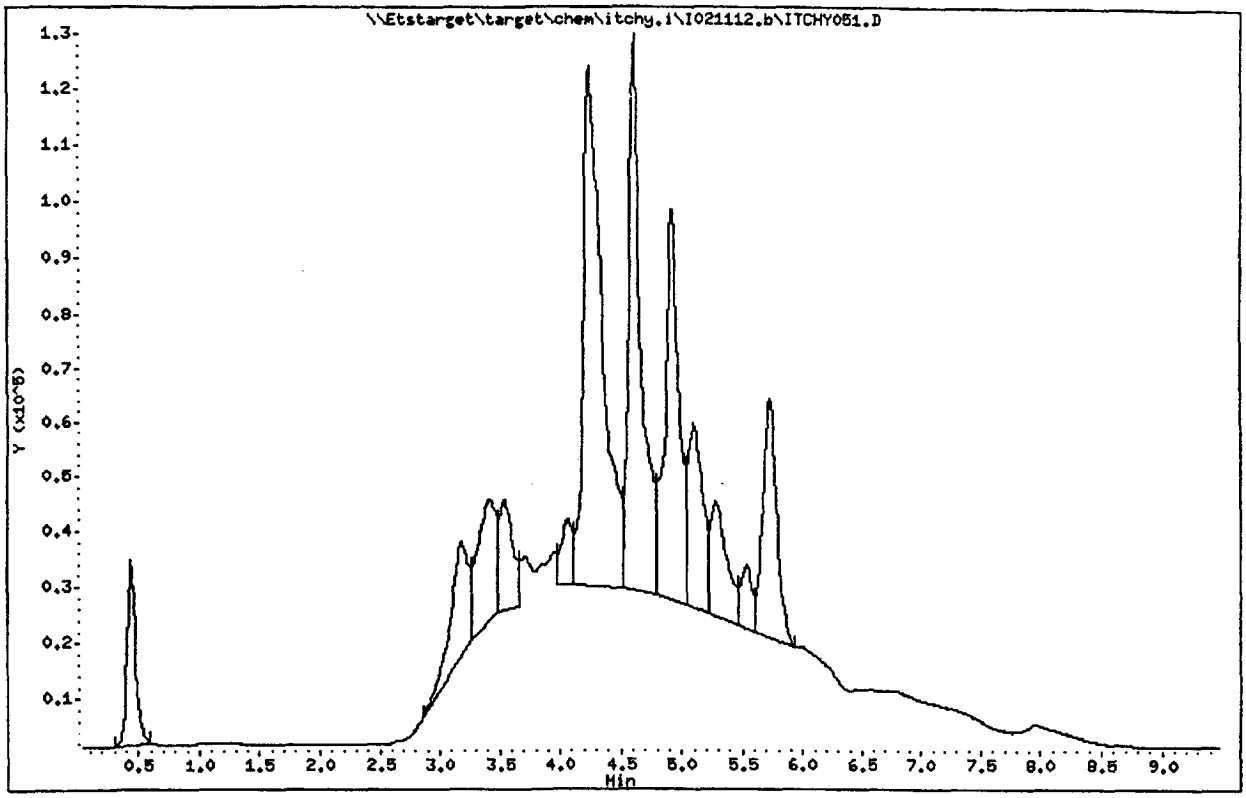
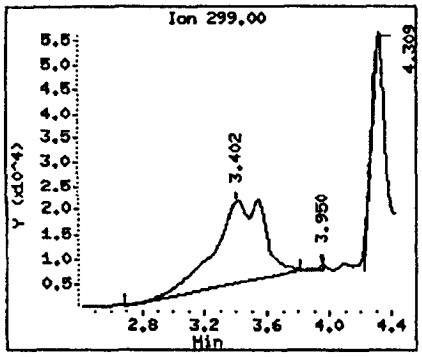
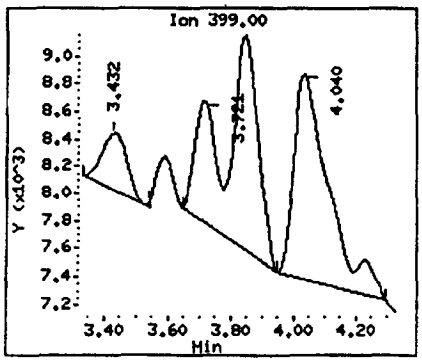
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY051.D



1 PFBS (299)



2 PFHS (399)



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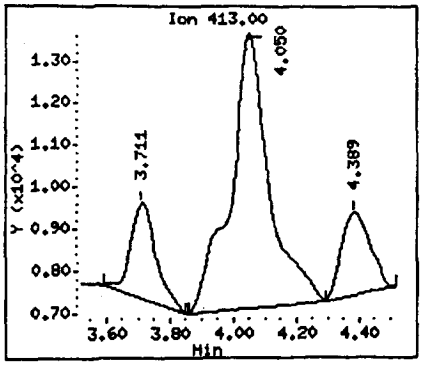
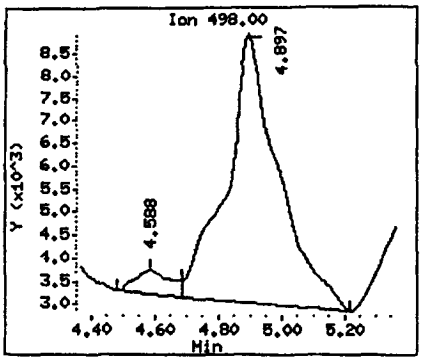
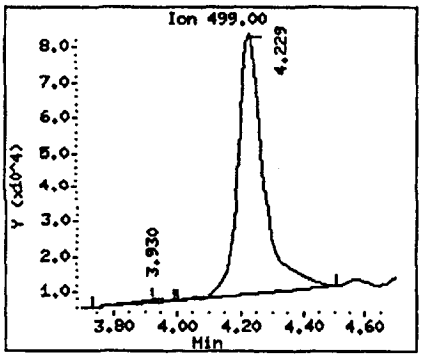
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY053.D Page 1
Report Date: 19-Nov-2002 14:49

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY053.D
Lab Smp Id: 0453-38045-MS(3)
Inj Date : 12-NOV-2002 17:06
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38045-MS(3); SL-3; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.422	3.422	0.000	1540798	45.9348	45.9
	299	3.940	3.422	0.518	6713	933.509	934
	299	4.289	3.422	0.867	118796	2.88083	2.88
2 PFHS (399)	399	3.820	3.830	-0.010	1695558	37.8097	37.8
3 PFOA (413)	413	4.020	4.020	0.000	691396	40.2752	40.3
	413	3.691	4.020	-0.329	6716	745.250	745
4 FOSA (498)	498	4.867	4.867	0.000	1092819	25.8793	25.9
5 PFOS (499)	499	4.199	4.199	0.000	1285365	29.9181	29.9
	499	3.920	4.199	-0.279	2917	1354.46	1350

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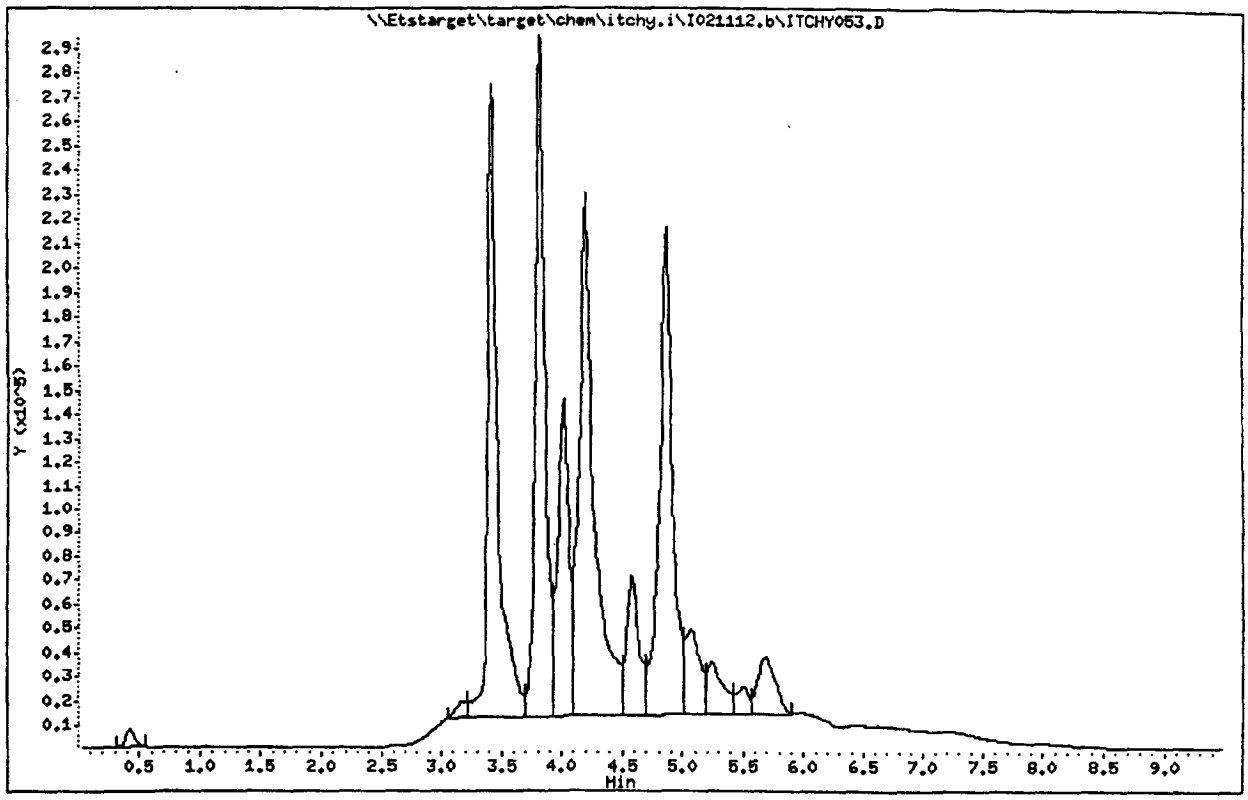
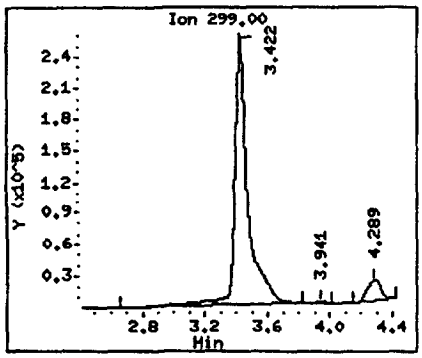
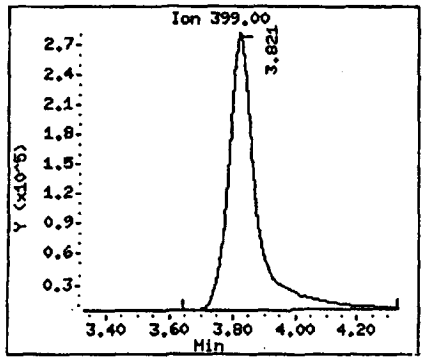
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY053.D



1 PFBS (299)



2 PFHS (399)



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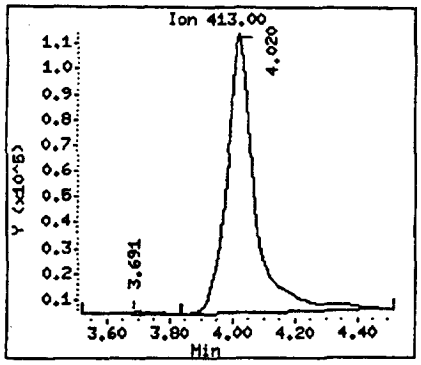
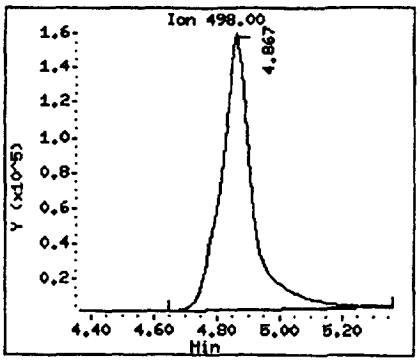
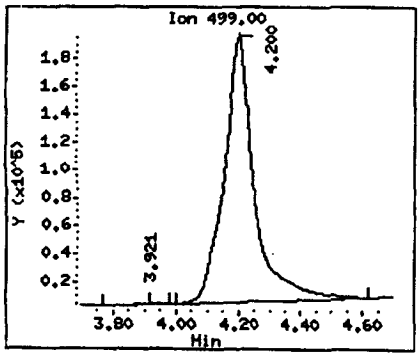
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY055.D Page 1
Report Date: 19-Nov-2002 14:50

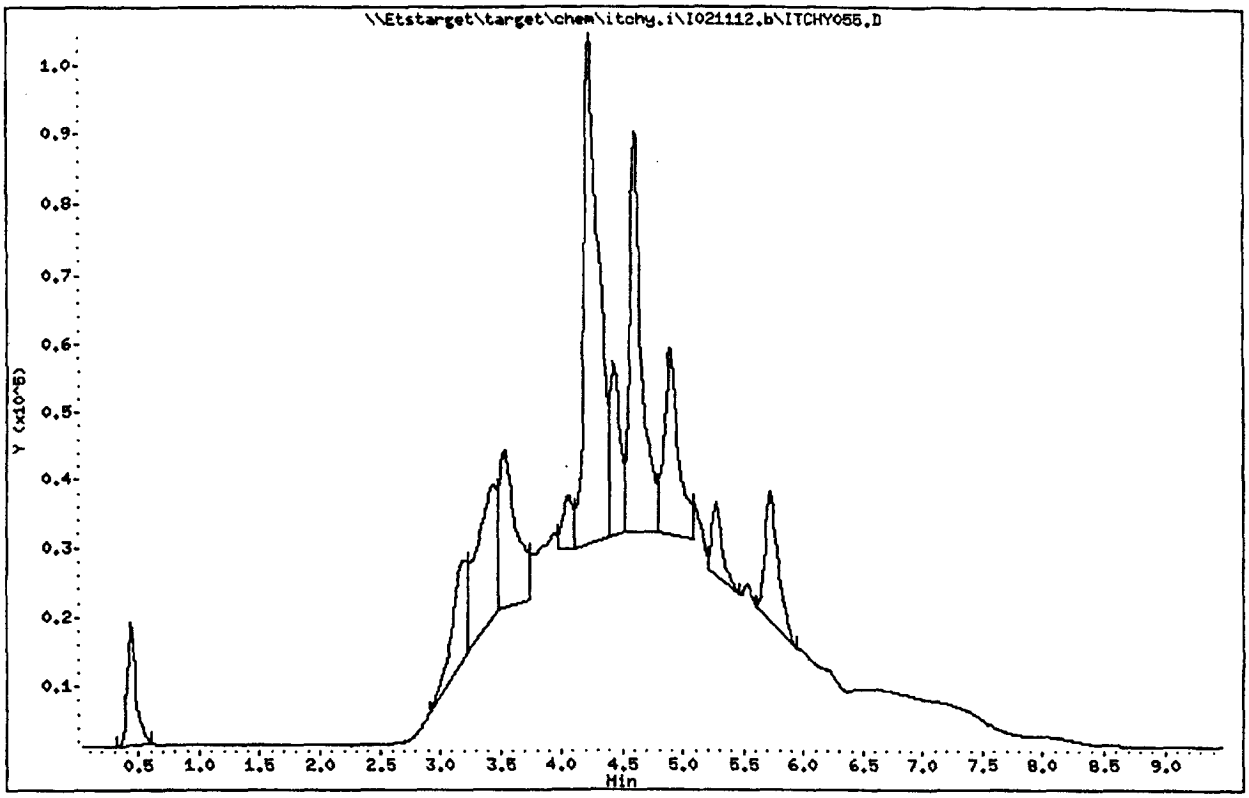
3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY055.D
Lab Smp Id: 0463-38046-1
Inj Date : 12-NOV-2002 17:28
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38046-1; SL-2; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

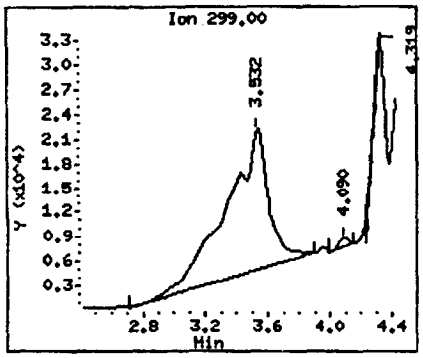
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 PFBS (299)	299	3.531	3.422	0.109	327380	8.94256	8.94
	299	4.089	3.422	0.667	5006	933.558	934
	299	4.319	3.422	0.897	8043	933.471	933
2 PFHS (399)	399	3.840	3.830	0.010	17353	0.45146	0.451
	399	3.422	3.830	-0.408	14192	0.38350	0.383
3 PFOA (413)	413	4.040	4.020	0.020	53375	2.23055	2.23
	413	3.711	4.020	-0.309	7259	745.219	745
4 FOSA (498)	498	4.887	4.867	0.020	120467	2.92155	2.92
5 PFOS (499)	499	4.219	4.199	0.020	417236	9.04935	9.05
	499	3.930	4.199	-0.269	11862	1354.25	1350

Under Supervision
CMC 12/10/02
Date

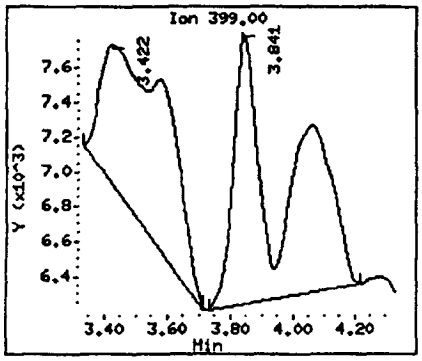
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY055.D Page 2



1 PFBS (299)



2 PFHS (399)



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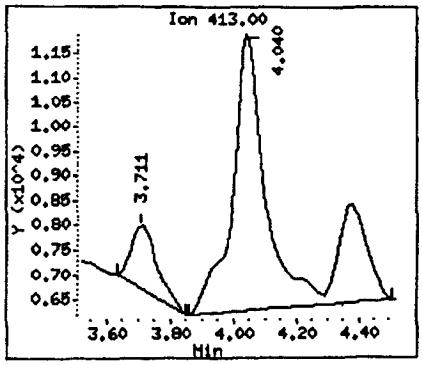
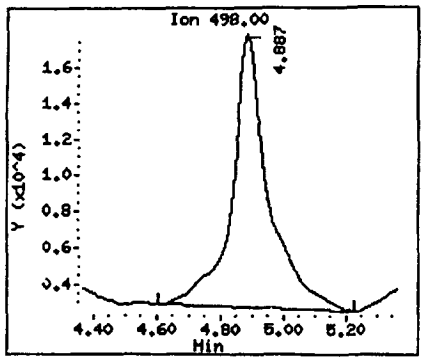
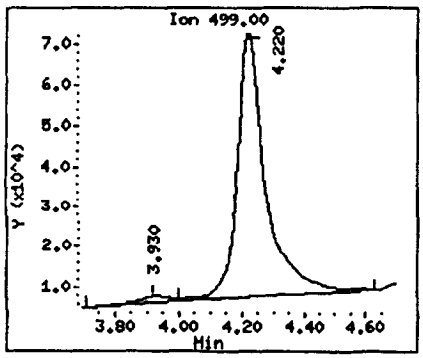
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY057.D Page 1
Report Date: 19-Nov-2002 14:50

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY057.D
Lab Smp Id: 0463-38046-2
Inj Date : 12-NOV-2002 17:50
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38046-2; SL-2; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
1 PFBS (299)	299	3.511	3.422	0.089	232749	6.18256	6.18
	299	3.960	3.422	0.538	2658	933.625	934
	299	4.089	3.422	0.667	5270	933.550	934
	299	4.319	3.422	0.897	7437	933.488	933
2 PFHS (399)	399	3.840	3.830	0.010	18434	0.47471	0.475
	399	3.432	3.830	-0.398	10544	0.30507	0.305
3 PFOA (413)	413	4.040	4.020	0.020	35197	1.20373	1.20
	413	3.711	4.020	-0.309	7629	745.199	745
	413	4.369	4.020	0.349	12091	744.948	745
4 FOSA (498)	498	4.887	4.867	0.020	103503	2.52745	2.53(M)
5 PFOS (499)	499	4.229	4.199	0.030	393650	8.49146	8.49
	499	3.930	4.199	-0.269	12978	1354.23	1350

QC Flag Legend

M - Compound response manually integrated.

Date Copy of Original
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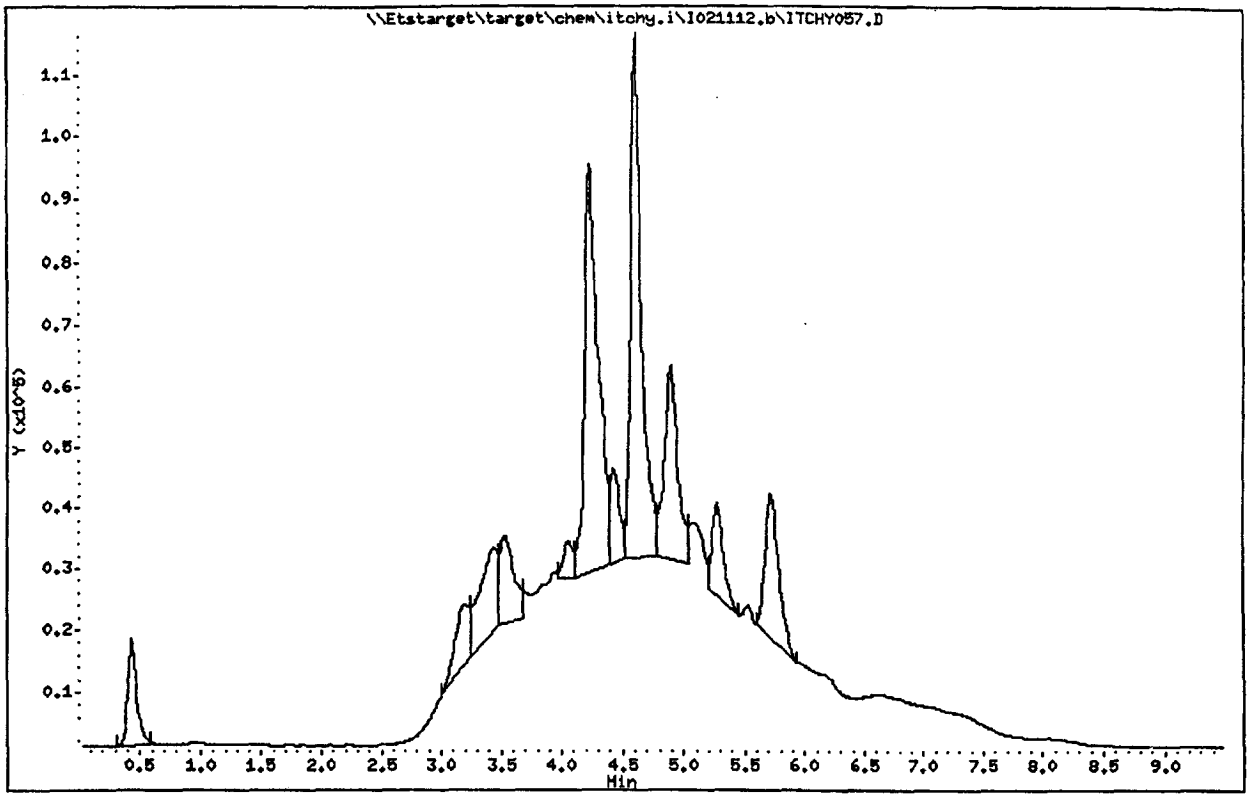
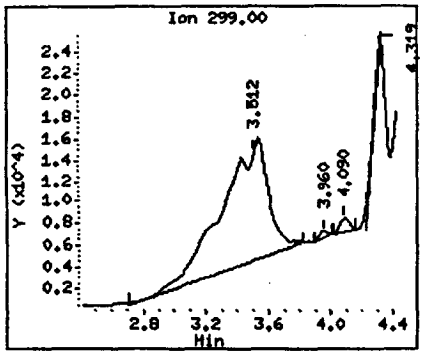
Initial Date

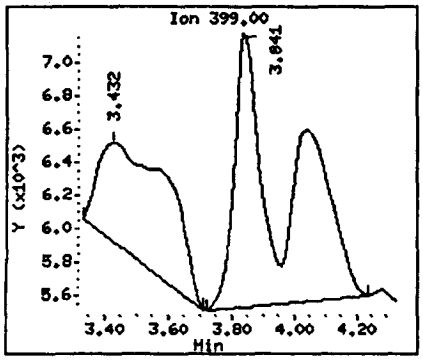
Data File: \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY057.D Page 2



1 PFBS (299)



2 PFHS (399)



CMC 12/10/02

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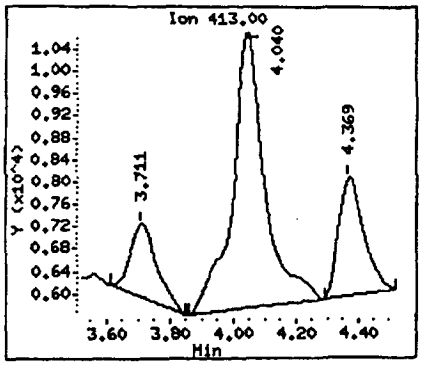
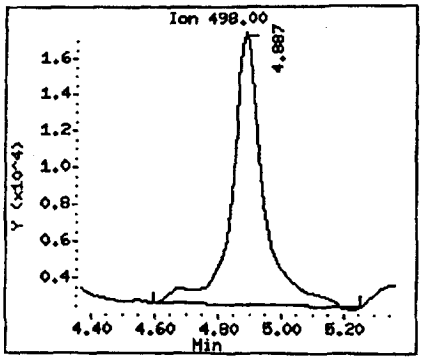
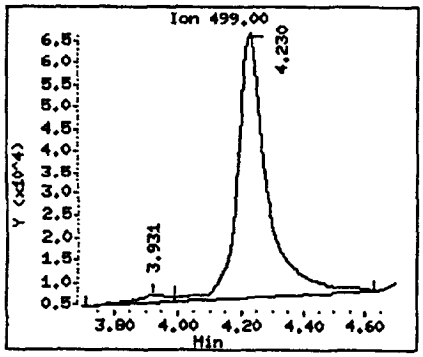
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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Report Date: 19-Nov-2002 14:50

3M Environmental Laboratory

Data file : \\Etstarget\target\chem\itchy.i\I021112.b\ITCHY059.D
Lab Smp Id: 0463-38046-3
Inj Date : 12-NOV-2002 18:12
Operator : mla Inst ID: itchy.i
Smp Info : E02-0443-38046-3; SL-2; MeOH Extract; 21 Oct 02; MLA
Misc Info :
Comment :
Method : \\Etstarget\target\chem\itchy.i\I021112.b\I021112.m
Meth Date : 13-Nov-2002 09:16 itchy.i Quant Type: ESTD
Cal Date : 12-NOV-2002 12:14 Cal File: ITCHY026.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.12

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
1 PFBS (299)	299	3.541	3.422	0.119	420079	11.6624	11.7
	299	4.090	3.422	0.668	6904	933.503	934
	299	4.319	3.422	0.897	11582	933.369	933
2 PFHS (399)	399	3.850	3.830	0.020	25494	0.62654	0.626
	399	3.432	3.830	-0.398	17014	0.44417	0.444
3 PFOA (413)	413	4.040	4.020	0.020	40917	1.52653	1.53
	413	3.711	4.020	-0.309	8580	745.145	745
	413	4.369	4.020	0.349	11804	744.964	745
4 FOSA (498)	498	4.887	4.867	0.020	133252	3.21870	3.22
5 PFOS (499)	499	4.229	4.199	0.030	478587	10.5027	10.5
	499	3.930	4.199	-0.269	14760	1354.19	1350

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CMC 12/10/02
Initial Date

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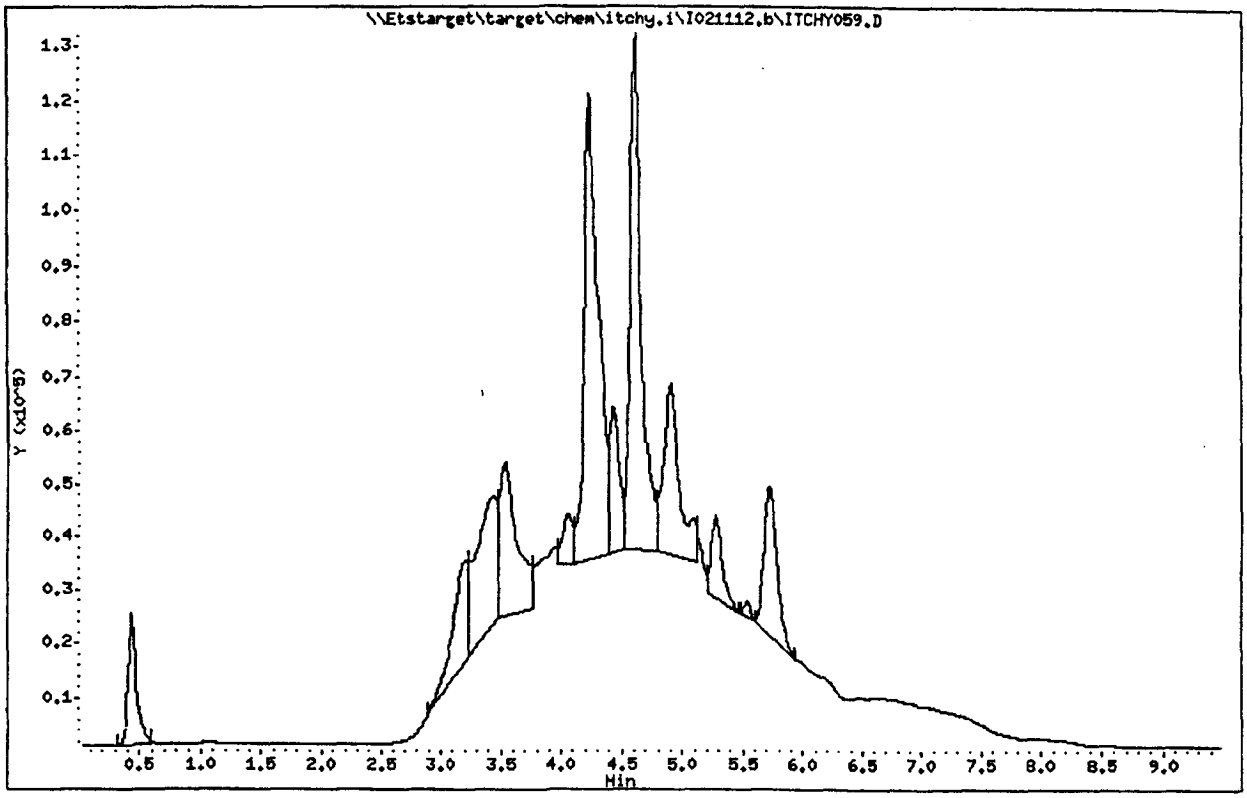
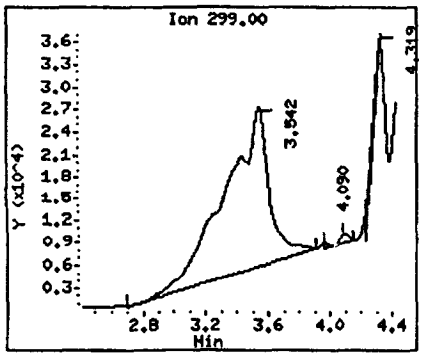
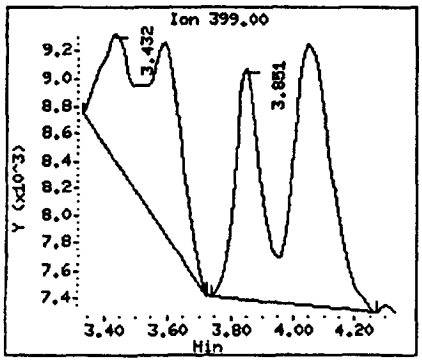


1 PFBS (299)



2 PFHS (399)



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CM 12/10/02

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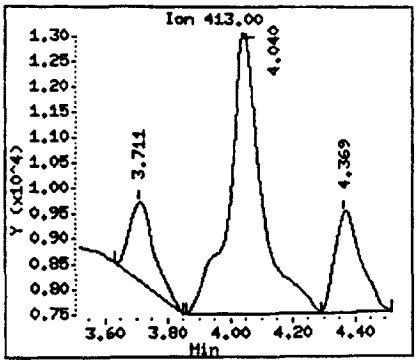
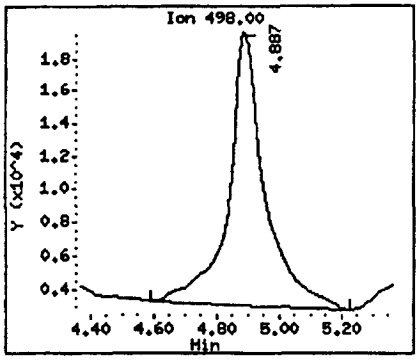
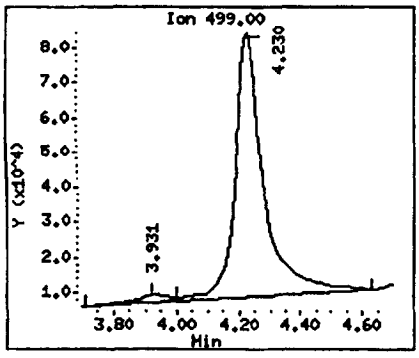
3 PFOA (413)



4 FOSA (498)



5 PFOS (499)



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ATTACHMENT D: SAMPLE PREP SHEETS, TEST SUBSTANCE, AND TEST SYSTEM INFORMATION

Tennessee River Valley Samples

Lab Request: E02-0443 (LE) MW 11Dec02

Sample Location 1, Large Mouth

Sample ID	Weight of Sample, g	Amount of water added, mL	Homogenize Sample	Centrifuge and then shake	Transfer 1.0mL of Homogenate to 15 mL Centrifuge Tube (2)	Spike Homogenate with Test Mix, if appropriate (1)	Add 8.0mL of Acetonitrile to Centrifuge tTube	Cap and Shake at 300rpm for 20min.	Centrifuge at 3000rcf for 10min.	Decant Supernatant into a new 50mL Centrifuge Tube	Add 40mL of Water to Centrifuge Tube	Pass Sample through Pre-conditioned C18 Cartridge (3)	Elute Sample with Methanol	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SL-1, LM-1-1	2.0457	8mL cmc 6/17/02	cmc 6/17/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02		cmc 6/18/02	cmc 6/19/02	cmc 6/19/02	
SL-1, LM-1-2	—													
SL-1, LM-1-3	—													
SL-1, LM-2-1	1.9969													
SL-1, LM-2-2	—													
SL-1, LM-2-3	—													
SL-1, LM-2-MS	—													
SL-1, LM-3-1	2.0062													
SL-1, LM-3-2	—													
SL-1, LM-3-3	—													
SL-1, LM-4-1	2.0547													
SL-1, LM-4-2	—													
SL-1, LM-4-3	—													
SL-1, LM-4-MS	—													
SL-1, LM-5-1	2.0559													
SL-1, LM-5-2	—													
SL-1, LM-5-3	—													
SL-1, LM-6-1	2.0550													
SL-1, LM-6-2	—													
SL-1, LM-6-3	—													
SL-1, LM-6-MS	—													

Col 2 T/D/I 0955 17 Jun 02 MW

Balance ID 914 Tube type/size 50mL polypropylene centrifuge tube

Col 3 T/D/I 12:40pm 6/17/02 cmc

Water ID Milli-Q TOC Plus

Col 4 T/D/I 1:35pm 6/17/02 cmc Speed/setting 6

Col 5 T/D/I 7:20am 6/18/02 cmc

Centrifuge ID: Taz

RCF/PRM Readout: 3000 Minutes 2 Temp °C 17

Col 6 T/D/I 9:30am 6/18/02 cmc

Col 7 Spiking Standard ID # 02022-77

Approximate Conc. 1 ppm Amount added 100 µL

T/D/I 11:05am 6/18/02 cmc

Col 8: TNA-4465
9:30am 6/18/02 cmc
3M Environmental Laboratory

Col 9 Shaker ID 0286

Equil Start T/D/I 11:00am 6/18/02 cmc

Equil Stop T/D/I 11:50am 6/18/02 cmc

Col 10 T/D/I 12:12pm 6/18/02 cmc

Centrifuge ID: Taz

(2) RCF/PRM Readout: 3000 Minutes 10 Temp °C 20

Col 11 T/D/I 12:12pm 6/18/02 cmc

Col 12 T/D/I 1:55pm 6/18/02 cmc

Water ID Milli-Q TOC Plus

Col 13 T/D/I 10:49am 6/19/02 cmc

Col 14 T/D/I 10:55am 6/19/02 cmc

MeOH ID: TN-A 4520 Vol Used - 2mL - (LE) MW 11Dec02

Exact Copy of Original pg 1 of 6 17Dec02 Date MW Initial

(1) Only "MS" samples were spiked for Step 7 - MW 11Dec02

(2) Triplicate samples (w/MS) are not created until Step 6 (using the homogenate) - MW 11Dec02

(3) Waters C18 ET, Sep-Pak, 1g, 6cc - MW 11Dec02

Tennessee River Valley Samples

Lab Request: E02-0443 (LE) MA 11Dec02

Sample Location 1, Catfish

Sample ID	Weight of Sample, g	Amount of water added, mL	Homogenize Sample	Centrifuge and then Shake	(4) Transfer 1.0mL of Homogenate to 15 mL Centrifuge Tube	(3) Spike Homogenate with Test Mix, if appropriate	Add 5.0mL of Acetonitrile to Centrifuge tTube	Cap and Shake at 200rpm for 20min.	Centrifuge at 3000rcf for 10min.	Decant Supernatant into a new 50mL Centrifuge Tube	Add 40mL of Water to Centrifuge Tube	(5) Pass Sample through Pre-conditioned C18 Cartridge	Elute Sample with Methanol	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SL-1, C-1-1	2.0514	8mL	cmc 6/17/02	cmc 6/17/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/19/02	cmc 6/19/02	
SL-1, C-1-2	—													
SL-1, C-1-3	—													
SL-1, C-2-1	2.0359													
SL-1, C-2-2	—													
SL-1, C-2-3	—													
SL-1, C-2-MS	—													
SL-1, C-3-1	2.0035													
SL-1, C-3-2	—													
SL-1, C-3-3	—													
SL-1, C-4-1	2.0122													
SL-1, C-4-2	—													
SL-1, C-4-3	—													
SL-1, C-4-MS	—													
SL-1, C-5-1	2.0830													
SL-1, C-5-2	—													
SL-1, C-5-3	—													
SL-1, C-6-1	2.0840													
SL-1, C-6-2	—													
SL-1, C-6-3	—													
SL-1, C-6-MS	—													
SL-1, WB-1	—													
SL-1, WB-2	—	8mL												
SL-1, SB-1	—		—	—	—	—		—	—	—	—	—	—	
SL-1, SB-2	—		—	—	—	—		—	—	—	—	—	—	

(4) Triplicate MS samples were not created from the homogenate in step 6 - MA-11Dec02
(5) Used Waters C-18's, Sep-Pak, 1g, 6cc column - MA-11Dec02

Col 2 T/D/I 1000 6/17/02 done by CMC (RE) MA 19Dec02 (1) (RE) MA, WW Dec02

Balance ID 1000 914 Tube type/size Poly Prop / 50mL

Col 3 T/D/I 12:40pm 6/17/02 CMC

Water ID Milli-Q TOC Plus

Col 4 T/D/I 1:35pm 6/17/02 CMC Speed/setting 6

Col 5 T/D/I 7:20am 6/18/02 CMC

Centrifuge ID: Taz

RCF/PRM Readout: 3000 Minutes 2 Temp °C 17

Col 6 T/D/I 9:30am 6/18/02 CMC

Col 7 Spiking Standard ID # 02622-77

Approximate Conc. 1ppm Amount added 100µL

T/D/I 11:00am 6/18/02 CMC

Col 8: TNA-4465
9:30am 6/18/02 CMC

Col 9 Shaker ID 0286

Equil Start T/D/I 11:00am 6/18/02 CMC

Equil Stop T/D/I 10:50am 6/18/02 CMC

Col 10 T/D/I 12:35pm 6/18/02 CMC

Centrifuge ID: Taz

(RCF)/PRM Readout: 3000 Minutes 10 Temp °C 23

Col 11 T/D/I 12:35pm 6/18/02 CMC

Col 12 T/D/I 12:10pm 6/18/02 CMC

Water ID Milli-Q TOC Plus

Col 13 T/D/I 1:10pm 6/19/02 CMC

Col 14 T/D/I 1:10pm 6/19/02 CMC

MeOH ID: TN-A 4520 Vol Used 2mL (RE) MA 19Dec02

(1) Late entry - MA did the prep work for 6/12 - MA-04 Dec02

(3) The "-" that are in SL-1, SB-1A-1 columns 4 -> 14 were placed thereon 04 Dec 02 by MA - MA-04 Dec02
(3) Only "-MS" samples were spiked for step 7 - MA-11Dec02

3M Environmental Laboratory

Tennessee River Valley Samples

Lab Request: E02-0443 (E MW, 11Dec02) Sample Location 2- Large Mouth & Location 3-Small Mouth

Sample ID	Weight of Sample, g	Amount of water added, mL	Homogenize Sample	Centrifuge and then shake	Transfer 1.0mL of Homogenate to 18 mL Centrifuge Tube (5)	Spike Homogenate with Test Mix, if appropriate (4)	Add 5.0mL of Acetonitrile to Centrifuge tTube	Cap and Shake at 300rpm for 20min.	Centrifuge at 3000rcf for 10min.	Decant Supernatant into a new 50mL Centrifuge Tube	Add 40mL of Water to Centrifuge Tube	Pass Sample through Pre-conditioned C18 Cartridge (6)	Elute Sample with Methanol	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SL-2, LM-1-1	2.0873g	5mL cmc 6/17/02	CMC 6/17/02	cmc 6/17/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/19/02	cmc 6/19/02	
SL-2, LM-1-2	—													
SL-2, LM-1-3	—													
SL-2, LM-2-1	2.9899g													
SL-2, LM-2-2	—													
SL-2, LM-2-3	—													
SL-2, LM-2-MS	—													
SL-2, LM-3-1	2.0027g													
SL-2, LM-3-2	—													
SL-2, LM-3-3	—													
SL-2, LM-4-1	2.0078g													
SL-2, LM-4-2	—													
SL-2, LM-4-3	—													
SL-2, LM-4-MS	—													
SL-3, SM-1-1	2.0364g													
SL-3, SM-1-2	—													
SL-3, SM-1-3	—													
SL-3, SM-1-MS	—	5mL										1mL 40mL	1mL	

(5) Triplicate MS samples were not created for the homogenate until Step 7.
(6) Used water (-18° Step-Pak, 1g, 6cc column - MW, 11Dec02)

Col 2 T/D/I 10:12am 6/17/02 CMC

Balance ID 900 Tube type/size Poly Prop/50mL

Col 3 T/D/I 12:40pm 6/17/02 cmc

Water ID Milli-Q TOC PLUS

Col 4 T/D/I 2:00pm 6/17/02 CMC Speed/setting 6

Col 5 T/D/I 7:23am 6/18/02 cmc

Centrifuge ID: Taz

RCF/PRM Readout: 3000 Minutes 2 Temp °C 17

Col 6 T/D/I 9:30am 6/18/02 cmc

Col 7 Spiking Standard ID # 02022-77

Approximate Conc. 1ppm Amount added 100µL

T/D/I 11:10am 6/18/02 cmc

(1) (2) CMC 6/17/02

Col 8: TNA-4465
9:30am 6/18/02 cmc

Col 9 Shaker ID 05-2

Equil Start T/D/I 11:10am 6/18/02 cmc

Equil Stop T/D/I 1:50pm 6/18/02 cmc

Col 10 T/D/I 12:55pm 6/18/02 CMC

Centrifuge ID: Taz

RCF/PRM Readout: 3000 Minutes 10 Temp °C 22

Col 11 T/D/I 12:55pm 6/18/02 CMC

Col 12 T/D/I 1300 6/18/02 MW

Water ID Milli-Q TOC PLUS

Col 13 (3) T/D/I 1330 6/19/02 CMC/MW

Col 14 (3) T/D/I 1330 6/19/02 CMC/MW

MeOH ID: TN-A A520 Vol used ~2mL (2) MW 11Dec02

(2) Late Entry, prep done by MW
MW - 04Dec02

(3) Late entry, prep done by both CMC/MW.
- MW- 04Dec02

Page 3 of 6 (4) Only "MS" samples were spiked in Step 7 - MW - 11Dec02

Tennessee River Valley Samples

Sample Location 2, Catfish

Lab Request: E02-0443 (CE MH, 11Dec02)

Sample ID	Weight of Sample, g	Amount of water added, mL	Homogenize Sample	Centrifuge and then shake	Transfer 1.0mL of Homogenate to 15 mL Centrifuge Tube (4)	Spike Homogenate with Test Mix, if appropriate (3)	Add 5.0mL of Acetonitrile to Centrifuge tTube	Cap and Shake at 300rpm for 20min.	Centrifuge at 3000rcf for 10min.	Decant Supernatant into a new 50mL Centrifuge Tube	Add 40mL of Water to Centrifuge Tube	Pass Sample through Pre-conditioned C18 Cartridge (5)	Elute Sample with Methanol	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SL-2, C-1-1	2.0937g	CMC 6/17/02	CMC 6/17/02	CMC 6/18/02	CMC 6/18/02	CMC 6/18/02	CMC 6/18/02	CMC 6/18/02	CMC 6/18/02	CMC 6/18/02	CMC 6/19/02	CMC 6/19/02	CMC 6/19/02	
SL-2, C-1-2	—													
SL-2, C-1-3	—													
SL-2, C-2-1	2.0547g													
SL-2, C-2-2	—													
SL-2, C-2-3	—													
SL-2, C-2-MS	—													
SL-2, C-3-1	1.9711g													
SL-2, C-3-2	—										(2)			
SL-2, C-3-3	—													
SL-2, C-4-1	2.0877													
SL-2, C-4-2	—													
SL-2, C-4-3	—													
SL-2, C-4-MS	—													
SL-2, C-5-1	2.0066													
SL-2, C-5-2	—													
SL-2, C-5-3	—													
SL-2, C-6-1	2.0363g													
SL-2, C-6-2	—													
SL-2, C-6-3	—													
SL-2, C-6-MS	—													
SL-2, C-7-1	2.0552													
SL-2, C-7-2	—													
SL-2, C-7-3	—													
SL-2, WB-1	—	MH									(1)			
SL-2, WB-2	—										MH	MH	MH	
SL-2, SB-1	(2)													
SL-2, SB-2	(2)													

(3)(4)(5) Only "-MS" samples were spiked in Step 7 - MH, 11 Dec 02. Triplicate MS samples were not created from the homogenate until Step 6 - MH 11 Dec 02. Used waters (-1st Sep. Pots, back) column - MH 11 Dec 02

Col 2 T/D/I 6/17/02 CMC

Balance ID 700 Tube type/size PolyProp/50mL

Col 3 T/D/I 12:40pm 6/17/02 CMC

Water ID Milli-Q TOC Plus

Col 4 T/D/I 2:00pm 6/17/02 CMC Speed/setting 6

Col 5 T/D/I 7:25am 6/18/02 CMC

Centrifuge ID: Taz

RCF/RPM Readout: 3000 Minutes 2 Temp °C 18

Col 6 T/D/I 9:30am 6/18/02 CMC

Col 7 Spiking Standard ID # 02022-77

Approximate Conc. 1ppm Amount added 100µL

T/D/I 11:10am 6/18/02 CMC

Col 8: TNA-4465 9:30am 6/18/02 CMC

Col 9 Shaker ID 05-2

Equil Start T/D/I 11:10am 6/18/02 CMC

Equil Stop T/D/I 11:50am 6/18/02 CMC

Col 10 T/D/I 1:15pm 3/18/02 CMC (6 CMC 6-18-02)

Centrifuge ID: Taz

(RCF)/RPM Readout: 3000 Minutes 10 Temp °C 22

Col 11 T/D/I 1:15pm 6/18/02 CMC

Col 12 T/D/I 1310 6/18/02

Water ID Milli-Q TOC Plus

Col 13 T/D/I 2:30pm 19Jun02 MH

Col 14 T/D/I 2:35pm 19Jun02 MH

MeOH ID: TN-A 4520 Vol 0.5 - 2mL (CE MH 11Dec02)

(1) Late entry. Also, added water to these tubes (SB's) but they were not used. - MH 14Jun02 (CE)

(2) Late entry (—) - MH. 04Dec02

Tennessee River Valley Samples

Lab Request: E02-0443 (6)MM, 11Dec02

Sample Location 3, Large Mouth

Sample ID	Weight of Sample, g	Amount of water added, mL	Homogenize Sample	Centrifuge and then shake	Transfer 1.0mL of Homogenate to 15 mL Centrifuge Tube (2)	Spike Homogenate with Test Mix, if appropriate (1)	Add 8.0mL of Acetonitrile to Centrifuge tTube	Cap and Shake at 300rpm for 20min.	Centrifuge at 3000rcf for 10min.	Decant Supernatant into a new 50mL Centrifuge Tube	Add 40mL of Water to Centrifuge Tube	Pass Sample through Pre Conditioned C18 Cartridge (3)	Elute Sample with Methanol	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SL-3, LM-1-1	2.0133g	8mL 6/17/02 CMC	6/18/02 cmc	6/18/02 cmc	6/18/02 cmc	6/18/02 cmc	6/18/02 cmc	6/18/02 cmc	6/18/02 cmc	6/18/02 cmc	18 Jun 02	18 Jun 02	19 Jun 02	
SL-3, LM-1-2	—													
SL-3, LM-1-3	—													
SL-3, LM-2-1	2.0871g													
SL-3, LM-2-2	—													
SL-3, LM-2-3	—													
SL-3, LM-2-MS	—													
SL-3, LM-3-1	2.0965g													
SL-3, LM-3-1	—													
SL-3, LM-3-1	—													
SL-3, LM-4	2.0843g													
SL-3, LM-4	—													
SL-3, LM-4	—													
SL-3, LM-4-MS	—													
SL-3, LM-5-1	2.0789g													
SL-3, LM-5-2	—													
SL-3, LM-5-3	—													
SL-3, LM-6-1	1.9968g													
SL-3, LM-6-2	—													
SL-3, LM-6-3	—													
SL-3, LM-6-MS	—													
SL-3, LM-7-1	2.0685g													
SL-3, LM-7-2	—													
SL-3, LM-7-3	—													

(3) Used Waters C-18 Sep-Pak, 1g, 6cc cartridges - MM-11 Dec 02

Col 2 T/D/I 9:48am 6/17/02 CMC

Balance ID 900 Tube type/size Poly Prep / 50mL

Col 3 T/D/I 12:40pm 6/17/02 cmc

Water ID Milli-Q TOC Plus

Col 4 T/D/I 7:00am 6/18/02 cmc Speed/setting 6

Col 5 T/D/I 7:28am 6/18/02 cmc

Centrifuge ID: Taz

RCF/PRM Readout: 3000 Minutes 2 Temp °C 19

Col 6 T/D/I 9:30am 6/18/02 cmc

Col 7 Spiking Standard ID # 02022-77

Approximate Conc. 1 ppm Amount added 100µL

T/D/I 11:20am 6/18/02 cmc

Col 8: TNA-4965

9:30am 6/18/02 cmc

Col 9 Shaker ID 0286

Equil Start T/D/I 11:20am 6/18/02 CMC

Equil Stop T/D/I 1:50pm 6/18/02 cmc

Col 10 T/D/I 1:45pm 6/18/02 cmc

Centrifuge ID: Taz

RCF/PRM Readout: 3000 Minutes 10 Temp °C 23

Col 11 T/D/I 1:45pm 6/18/02 cmc

Col 12 T/D/I 1315 6/18/02

Water ID Milli-Q TOC Plus

Col 13 T/D/I 1530 19 Jun 02 MM

Col 14 T/D/I 1545 19 Jun 02 MM

MeOH ID: TN-A 4520/Vial Used - 2mL (6)MM 11Dec02

① Only "-MS" samples were spiked in Step 7 - MM-11Dec02

② Triplicate-MS samples were not created from homogenate until Step 6 - MM-11Dec02

Tennessee River Valley Samples

Lab Request: E02-0443 (E) MM 11Dec02

Sample Location 3, Catfish

(RE) MM 11Dec02

Sample ID	Weight of Sample, g	Amount of water added, mL	Homogenize Sample	Centrifuge and then shake	(4) Transfer 1.0mL of Homogenate to 15 mL Centrifuge Tube	(3) Spike Homogenate with Test Mix, if appropriate	Add 5.0mL of Acetonitrile to Centrifuge tTube	Cap and Shake at 300rpm for 20min.	Centrifuge at 3000rcf for 10min.	Decant Supernatant into a new 50mL Centrifuge Tube	Add 40mL of Water to Centrifuge Tube	(4) (5) Pass Sample through Pre-conditioned C18 Cartridge	Elute Sample with Methanol	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SL-3, C-1-1	1.9931g	8mL	cmc 6/17/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	cmc 6/18/02	MM 18Jun02	MM 20Jun02	MM 20Jun02	
SL-3, C-1-2	—													
SL-3, C-1-3	—													
SL-3, C-2-1	1.9654g													
SL-3, C-2-2	—													
SL-3, C-2-3	—													
SL-3, C-2-MS	—													
SL-3, C-3-1	1.9931g													
SL-3, C-3-1	—													
SL-3, C-3-1	—													
SL-3, C-4	2.0959g													
SL-3, C-4	—													
SL-3, C-4	—													
SL-3, C-4-MS	—													
SL-3, C-5-1	2.0014g													
SL-3, C-5-2	—													
SL-3, C-5-3	—													
SL-3, C-6-1	1.9901g													
SL-3, C-6-2	—													
SL-3, C-6-3	—													
SL-3, C-6-MS	—													
SL-3, WB-1	—													
SL-3, WB-2	—	8mL												
SL-3, SB-1	⑤													
SL-3, SB-2	⑤													

(4) Triplicate cMS samples were not created from the homogenate until Step 6 - MM-11Dec02

(5) Used waters C-18 Sep-Pak, 1g, 6cc columns - MM-11Dec02

Col 2 T/D/I 9:57am 6/17/02 cmc

Balance ID 900 Tube type/size Poly Prep / 50mL

Col 3 T/D/I 12:30pm 6/17/02 cmc

Water ID Milli-Q TOC Plus

Col 4 T/D/I 7:00am 6/18/02 cmc Speed/setting 6

Col 5 T/D/I 7:34am 6/18/02 cmc

Centrifuge ID: Taz

RCF/PRM Readout: 3000 Minutes 2 Temp °C 20

Col 6 T/D/I 9:30am 6/18/02 cmc

Col 7 Spiking Standard ID # 02022-77

Approximate Conc. 1ppm Amount added 100µL

T/D/I 11:20am 6/18/02 cmc

Col 8: TNA-4765

9:30am 6/18/02 cmc

Col 9 Shaker ID 0286a

Equil Start T/D/I 11:20am 6/18/02 cmc

Equil Stop T/D/I 10:50am 6/18/02 cmc

Col 10 T/D/I 2:00pm 6/18/02 cmc

Centrifuge ID: Taz

(RCF)/PRM Readout: 3000 Minutes 10 Temp °C 22

Col 11 T/D/I 2pm 6/18/02 cmc

Col 12 T/D/I 1300 18Jun02

Water ID Milli-Q Plus (TOC Mod.)

Col 13 T/D/I 0900 20Jun02 MM ①

Col 14 T/D/I 0900 20Jun02 MM ①

MeOH ID: TN-A 4520 / Vol Used 2mL (E) MM 11Dec02

① Late entry "MM" - MM 04Mar02

② Late entry "—" - MM - 04Mar02

③ Only "-MS" samples were spiked in Step 7. MM-11Dec02

Soil Extraction Worksheet

Date Started: 15-Oct-02
Study Number: E02-0443
Method Used:

Study Title: Tenn. River Valley Sediments.

Type of Column Used: Waters C-18 tri-funct, Sep-Pak, 1g, 6cc
Lot #:

Sample ID	Sample Description	Sample Weight, g	Spike Added, uL	Volume of 1% Acetic Acid Added, mL	Cap and Mix Vessel	Centrifuge? Y/N	Precondition Extraction Column	Pass Sample through cartridge. Collect Aqueous portion? Y/N	Volume of Methanol added to Original Soil Sample, mL	Cap and Mix Vessel	Centrifuge? Y/N	Pass sample through cartridge, collect eluate	Repeat Solvent Extraction (Columns 10-13)? Y/N	Additional Dilution, if Needed	Addition of Internal standard, if needed, uL	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
E02-0443-38044-1	T. R. V. Sediment	20.0437	--	10.5	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38044-2	T. R. V. Sediment	20.0645	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38044-3	T. R. V. Sediment	19.9927	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38044-3MS	T. R. V. Sediment MS	20.0077	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38045-1	T. R. V. Sediment	20.0831	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38045-2	T. R. V. Sediment	20.0350	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38045-3	T. R. V. Sediment	20.0695	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38045-3MS	T. R. V. Sediment MS	20.2498	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38046-1	T. R. V. Sediment	20.1327	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38046-2	T. R. V. Sediment	20.0979	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38046-3	T. R. V. Sediment	20.2071	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38046-3MS	T. R. V. Sediment MS	19.9811	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-WB-1	Water Blank, no sed.	—	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-WB-2	Water Blank, no sed.	—	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-LCS-1	Lab Control Spike	—	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-LCS-2	Lab Control Spike	—	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			
E02-0443-38044-4	T. R. V. Sediment	20.2149	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			StrataX, 8B-S100-FCH, 1000mg/6mL
E02-0443-38045-4	T. R. V. Sediment	20.0210	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			StrataX, 8B-S100-FCH, 1000mg/6mL (7)
E02-0443-38046-4MS	T. R. V. Sediment MS	19.9873	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			StrataX, 8B-S100-FCH, 1000mg/6mL
E02-0443-WB-3	Water Blank, no sed.	—	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			StrataX, 8B-S100-FCH, 1000mg/6mL
E02-0443-LCS-3	Lab Control Spike	—	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			StrataX, 8B-S100-FCH, 1000mg/6mL x2 spilled
E02-0443-38044-5	T. R. V. Sediment	20.0107	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			Strata C18-E, 8B-S004-JCH-S, 1000mg/6mL
E02-0443-38045-5	T. R. V. Sediment	20.0796	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			Strata C18-E, 8B-S004-JCH-S, 1000mg/6mL
E02-0443-38046-5	T. R. V. Sediment	19.9737	—	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			Strata C18-E, 8B-S004-JCH-S, 1000mg/6mL (7)
E02-0443-38046-5MS	T. R. V. Sediment MS	20.1449	✓	35	✓	✓	✓	✓	✓	✓	✓	✓	✓			Strata C18-E, 8B-S004-JCH-S, 1000mg/6mL
E02-0443-WB-4	Water Blank, no sed.	—	—	40	✓	✓	✓	✓	✓	✓	✓	✓	✓			Strata C18-E, 8B-S004-JCH-S, 1000mg/6mL
E02-0443-LCS-4	Lab Control Spike	—	✓	40	✓	✓	✓	✓	✓	✓	✓	✓	✓			Strata C18-E, 8B-S004-JCH-S, 1000mg/6mL

Col 3: Balance ID 714
T/D/I 1050-1200/17OcT02/MLA

Col 4: Standard ID 02050-034
Standard Concentration: 1ppm in water
Amount Standard Added: 1000uL
T/D/I 1040/21OcT02/MLA

Col 5: Standard ID: 02040-070
Volume Added: 35mL unless noted differently
T/D/I 1000/21OcT02/MLA

Col 6: T/D/I 1055/21OcT02/MLA
[illegible]

Col 7: Centrifuge ID: TA2
Speed: [illegible] rpm
Duration: 20min
T/D/I 1200/21OcT02/MLA

Col 8: T/D/I 1230/21OcT02/MLA

Col 9: T/D/I 1245/21OcT02/MLA (3)

Col 10: MeOH ID: TN-A-0634
Volume added: 20mL
T/D/I 0815/22OcT02/MLA

Col 11: T/D/I 0830/22OcT02/MLA

Col 12: Centrifuge ID: TA2
Speed: 6000 rpm
Duration: 20min
T/D/I 0900/22OcT02/MLA

Col 13: T/D/I 1000/22OcT02/MLA

Col 14: T/D/I (6) 1200/22OcT02/MLA

Col 15: Diluter ID:
Volume of sample added:
Volume of Diluent Added:
Diluent ID
Final Dilution Factor:
T/D/I

Col 16: Internal Standard ID
Internal standard Conc.
Amount Added:
Volume of sample:
IS Concentration
T/D/I

Exact Copy of Original

Sample Extract Storage

Samples stored in refrigerator/freezer ID R-4 at 2.9 degrees C until analysis. T/D/I 1535/22OcT02/MLA

MLA 17Dec02
Initial Date

Notes: (1) [illegible] 38045 - MLA 15OcT02
(2) [illegible] 20 26379 - MLA 18OcT02
[illegible]
(3) SPE columns placed into [illegible] for overnight storage - MLA 21OcT02
(4) Sample Soil Centrifuge Tubes [illegible] to room temp. - MLA 21OcT02

StrataX, 8B-S100-FCH: Polymeric Sorbent, Phenomenex
Lot#: S300-18, Production Lot: P300080902
StrataX, 8B-S001-JCH-S: C18-E Sorbent, Phenomenex
Lot#: S201-13, Production Lot: P201081202

Page 1 of 2

Soil Extraction Worksheet

Date Started: 15-Oct-02
Study Number: E02-0443
Method Used:

Study Title: Tenn. River Valley Sediments.

Notes: Removed Bottles 2 of 4 for each location from the refrigerator. Placed them on a shaker at ambient temperature at 200 rpm. Caps were taped before placed on shaker. - MA - 150ct 02

Added ≈ 61.3 g of 38044 to each cent. tube, Added ≈ 66.3 g of 38045 add'to each cent. tube. Added ≈ 64.0 g of 38046 to each cent. tube. 3 tubes for each location.
Centrifuged @ 6000 RCF's for 20 min using TAZ. - 16 Oct 02 / 0930 → 1100 / MA
Made 2 more tubes for each location. weighed: 38044 - 62g, 38045 - ≈ 69.5g, & 38046 - 70.0g.
Centrifuged @ 6000 RCF's for 20 min using TAZ - (controlled Temp = 23°C (for all centrifuges)
Decanted the liquid into seperate, labeled 50mL cent. tubes. - MA - 16 Oct 02
the weighed samples (from 15 Oct / 16 Oct) were placed into the tray - B-4 for storage on 17 Oct 02 @ ≈ @ 730. (LE) MA. 18 Oct 02
Samples removed from B-4 on 18 Oct 02 @ ≈ 0815, allowed to warm to RT - MA - 18 Oct 02
The weighed-out samples along w/ the initial samples were put into B-4 for the weekend @ 1252. The weighed-out samples are from "Step 3" on the prep page. - MA - 18 Oct 02
(5) Used 4mL of MeOH to wash the reservior and SPE column - TN-A-06311 - MA - 22 Oct 02
(6) ~~20mL of MeOH - TN-A-06311~~ MA - 22 Oct 02 - The MeOH from the samples was SPE'ed (#'s 10-13) and collected. Then it was added to 200mL Milli-Q TOC Plus water. It then sat ≈ 1 hr. New SPE columns were then used to concentrate the solution (Except for the Strata C-18 Samples.) The columns were then eluted w/ 2mL of MeOH (TN-A-06311). - MA - 22 Oct 02
(7) These column types should be switched - MA - 22 Oct 02
(9) Step 11 is identical to Step 6, except for a shorter shake time. Only the shake time is different - 30 mins instead of 60 min. This is due to the possible loss of MeOH through the cap threads.

Exact Copy of Original
MA 17 Dec 02
Initial Date

Tennessee River Valley Samples

Lab Request: E02-0443 (E) MM 11Dec02

Extracted Curve Information

Sample ID	Weight of Sample, g	Amount of water added, mL	Homogenize Sample	Centrifuge and then shake	Transfer 1.0mL of Homogenate to 15 mL Centrifuge Tube	Spike Homogenate with Test Mix, if appropriate	Add 5.0mL of Acetonitrile to Centrifuge tTube	Cap and Shake at 300rpm for 20min.	Centrifuge at 3000rcf for 10min.	Decant Supernatant into a new 50mL Centrifuge Tube	Add 40mL of Water to Centrifuge Tube	Pass Sample through Pre-Conditioned C18 Cartridge	Elute Sample with Methanol	Comments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SL-2, CA-01	9.9947	40mL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Dried washed C-18 tri-functional Strata-Polar, 1g, 6cc Cartridges for the extraction - MM 11Dec02
SL-2 LM-01	10.0044	40mL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Col 2 T/D/I 0910 21 Jun 02 MM

Balance ID 900 Tube type/size 250mL

Col 3 T/D/I 0915 21 Jun 02 MM

Water ID Milli-Q TOC Plus

Col 4 T/D/I 0955 21 Jun 02 Speed/setting 67 RF

Col 5 T/D/I 1000 21 Jun 02

Centrifuge ID: 021188-55

RCF/PRM Readout: RPM 5500 Minutes 3.00 Temp °C Ambient (23)

Col 6 T/D/I 1100 21 Jun 02 MM

Col 7 Spiking Standard ID # 02022-079, 02022-013

Approximate Conc. See multi-level prep log Amount added

02009-052, 053, 054-055

T/D/I 1300 21 Jun 02 MM

Col 8 T/D/I 1330 21 Jun 02 MM

AIN ID. TN-A 4465

3M Environmental Laboratory

Col 9 Shaker ID Apollo 1 - (E) MM 11Dec02

Equil Start T/D/I 1350 21 Jun 02 MM

Equil Stop T/D/I 1410 21 Jun 02 MM

Exact Copy of Original MM Initial 17Dec02 Date

Col 10 T/D/I 1530 21 Jun 02 MM

Centrifuge ID: TAZ

RCF/PRM Readout: 3000 Minutes 10 Temp °C 23

Col 11 T/D/I 1545 21 Jun 02 MM

Col 12 T/D/I exact Time unknown 0000 01 21 Jun 02 MM

Water ID Milli-Q TOC Plus

Col 13 T/D/I 1530 25 Jun 02 MM

Col 14 T/D/I 1530 25 Jun 02 MM

MeOH ID: TN-A 06206 (Vial Used) 2mL (E) MM 11Dec02

Page 1 of 1

Non GLP SPE Columns Extraction Worksheet

(1) no ETS method used. MA-11Dec02

Prep Date: 6/20/2002
Analysts initials: OK

Method Revision: ~~ETS-8-154.0~~
Study Number: E02-0443

Sample Number or description	Volume of sample filtered	Type of column used	Amount and spike mix used	Elution solvent and volume	Comments
water blank	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38025	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38026	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38027	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38028	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38029	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38030	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38032	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38033	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38034	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38035	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38036	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38037	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38038	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38039	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38040	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38041	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38042	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38043	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
E02-0443-38047	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A- 6116 2ml	
		MA 11 Dec 02			

Extraction Steps (initial when/if done):

OK condition column with MeOH; OK wash with milliq; OK filter sample;
OK vacuum dry the column; OK elute column with solvent; OK transfer extract into an autovial

Additional comments:
Samples were not dechlorinated, & final volume is 2.0 mL, MeOH.

(1) extraction was based off of an ETS method, but it was only used as a guideline. MA-11Dec02

Exact Copy of Original
MA Initial
17 Dec 02 Date

Non GLP SPE Columns Extraction Worksheet

Prep Date: 7/17/2002
Analysts initials: OK

Method Revision: ~~ETS-8-154.0~~ (4) no ETS method used MA - 11Dec02
Study Number: E02-0443

Sample Number or description	Volume of sample filtered	Type of column used	Amount and spike mix used	Elution solvent and volume	Comments
water blank	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A-~~6116~~ 2ml	
E02-0443-38026	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A-~~6116~~ 2ml	
E02-0443-38027	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A-~~6116~~ 2ml	
E02-0443-38028	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A-~~6116~~ 2ml	
E02-0443-38030	40 ml	1g, 6ml, C18 lot 2057B2	NA	MeOH TN-A-~~6116~~ 2ml	

MA 11Dec02

Extraction Steps (initial when/if done):

OK condition column with MeOH; OK wash with milliq; OK filter sample;
OK vacuum dry the column; OK elute column with solvent; OK transfer extract into an autovial

Additional comments:

(1) ~~Re~~ TN-A-6208 OK 7.17.02

Re-extraction of samples.

(4) Extraction was based off of an ETS method, but it was only used as a guideline MA-11Dec02

Exact Copy of Data
MA 17Dec02
Initial Date

MULTI-LEVEL PREPARATION LOG

Book No. 02 003
Page No. 52

Description: Extracted LM Fish Curve
Date Prepared: 21 Jun 02
Prepared By: MA

Storage Location: 3rd (RE) Dec 02 ①
Expiration Date: 01+5 (RE) Dec 02 ①

Solvent: MeOH
3M Trace #: ②

Standard ID #				02 003-52-1	02 003-52-2	02 003-52-3	02 003-52-4	02 003-52-5	02 003-52-6	02 003-52-7	02 003-52-8
Description (ppb)				1	2.5	5	10	25	50	100	250
Component Standards				**Amount of Component Standard Added**							
Description	ID #	Conc	Expiration Date	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Std 8
1ppm Spike Mix	02022-079 (RE)	1 ppm	11/23/02	2 uL	5 uL	10uL	20uL	50uL	100uL	—	—
100ppm Spike Mix	02022-033	100ppm	11/23/01	—	—	—	—	—	—	2uL	5uL
—	—	—	—	—	—	—	—	—	—	—	—
Final Volume (mL)				2	2	2	2	2	2	2	2
Final Concentration (ppb)				1	2.5	5	10	25	50	100	250

Standard ID #				02 003-52-9	02 003-52-10	02 003-52-11	02 003-52-12	02 003-52-13	02 003-52-14	02 003-52-15	02 003-52-16
Description (ppb)				500	750	1000	0	—	—	—	—
Component Standards				**Amount of Component Standard Added**							
Description	ID #	Conc	Expiration Date	Std 9	Std 10	Std 11	Std 12	Std 13	Std 14	Std 15	Std 16
100ppm Spike Mix	02022-033	100 ppm	11/23/02	10uL	15uL	20uL	0uL	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Final Volume (mL)				2	2	2	2	2 (RE) MA 21 Jun 02	—	—	—
Final Concentration (ppb)				500	750	1000	0		—	—	—

① (RE) Exp: 11/23/02 - MA - 21 Jun 02

② Late entry TNA-6115 CMC 8/8/02

Exact Copy of Original
MA (Initial) 04 Dec 02 (Date)

Reviewed by: Cindy Carlson 9 July 02
Signature, Date

MULTI-LEVEL PREPARATION LOG

Book No. 02 003
Page No. 54

Description: Extracted Cat Fish Curve
Date Prepared: 21 Jun 02
Prepared By: MA

Storage Location: 3rd Fl.
Expiration Date: 01 Dec 02

Solvent: MeOH
3M Trace #: ②

Standard ID #				02 003-54-1	02 003-54-2	02 003-54-3	02 003-54-4	02 003-54-5	02 003-54-6	02 003-54-7	02 003-54-8
Description (ppb)				1	2.5	5	10	25	50	100	250
Component Standards				Amount of Component Standard Added							
Description	ID #	Conc	Expiration Date	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Std 8
1 ppm Spike Mix in MeOH	02022-079	1 ppm	11/23/02	2uL	5uL	10uL	20uL	50uL	100uL	—	—
100 ppm Spike Mix in MeOH	02022-033	100 ppm	11/23/02	—	—	—	—	—	—	2uL	5uL
—	—	—	—	—	—	—	—	—	—	—	—
Final Volume (mL)				2	2	2	2	2	2	2	2
Final Concentration (ng/mL)				1	2.5	5	10	25	50	100	250

Standard ID #				02 003-54-9	02 003-54-10	02 003-54-11	02 003-54-12	02 003-54-13	02 003-54-14	02 003-54-15	02 003-54-16
Description				500	750	1000	0	—	—	—	—
Component Standards				Amount of Component Standard Added							
Description	ID #	Conc	Expiration Date	Std 9	Std 10	Std 11	Std 12	Std 13	Std 14	Std 15	Std 16
100 ppm Spike Mix in MeOH	02022-033	100 ppm	11/23/02	10uL	15uL	20uL	0uL	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Final Volume (mL)				2	2	2	2	—	—	—	—
Final Concentration (ng/mL)				500	750	1000	0	—	—	—	—

② Lot# Cat# TNA-6115 Exp 8/8/02

Exact copy of Original
MA 04 Jun 02
Initial Date

Reviewed by: Cindy Cardinal 8 Aug 02
Signature Date

MULTI-LEVEL PREPARATION LOG

Book No. 02 003
Page No. 50

Description: Fish Curve
Date Prepared: 20 June 02
Prepared By: CMC

Storage Location: 2nd
Expiration Date: 11/23/02

Solvent: MeOH
3M Trace #: TNA-4520

Standard ID #	02 003-50-1	02 003-50-2	02 003-50-3	02 003-50-4	02 003-50-5	02 003-50-6	02 003-50-7	02 003-50-8
Description	1.0 ppb	2.5 ppb	5.0 ppb	10 ppb	25 ppb	50 ppb	100 ppb	250 ppb

Component Standards				Amount of Component Standard Added							
Description	ID #	Conc	Expiration Date	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Std 8
1ppm Mix	02022-79	1ppm	11/23/02	10µL	25µL	50µL	100µL	250µL	500µL	~~10µL~~	—
100ppm Mix	02002-33	100ppm	11/23/02	—	—	—	—	—	—	10µL	25µL
~~CMC 20 June 02~~											
Final Volume				10mL							→
Final Concentration, ppb				1.0	2.5	5.0	10	25	50	100	250

Standard ID #	02 003-50-9	02 003-50-10	02 003-50-11	02 003-50-12	02 003-50-13	02 003-50-14	02 003-50-15	02 003-50-16
Description	500 ppb	750 ppb	1000 ppb					

Component Standards				Amount of Component Standard Added							
Description	ID #	Conc	Expiration Date	Std 9	Std 10	Std 11	Std 12	Std 13	Std 14	Std 15	Std 16
1ppm Mix	02022-79	1ppm	11/23/02	—	—	—					
100ppm Mix	02002-33	100ppm	11/23/02	50µL	75µL	100µL					
~~CMC 20 June 02~~											
Final Volume				10mL	→	→					
Final Concentration, ppb				500	750	1000					

CMC OK 20 June 02

①② CMC 20 June 02

Exact Copy of Original
MA 04 Dec 02
Initial Date

Reviewed by: [signature] 03 Jul 02
Signature, Date

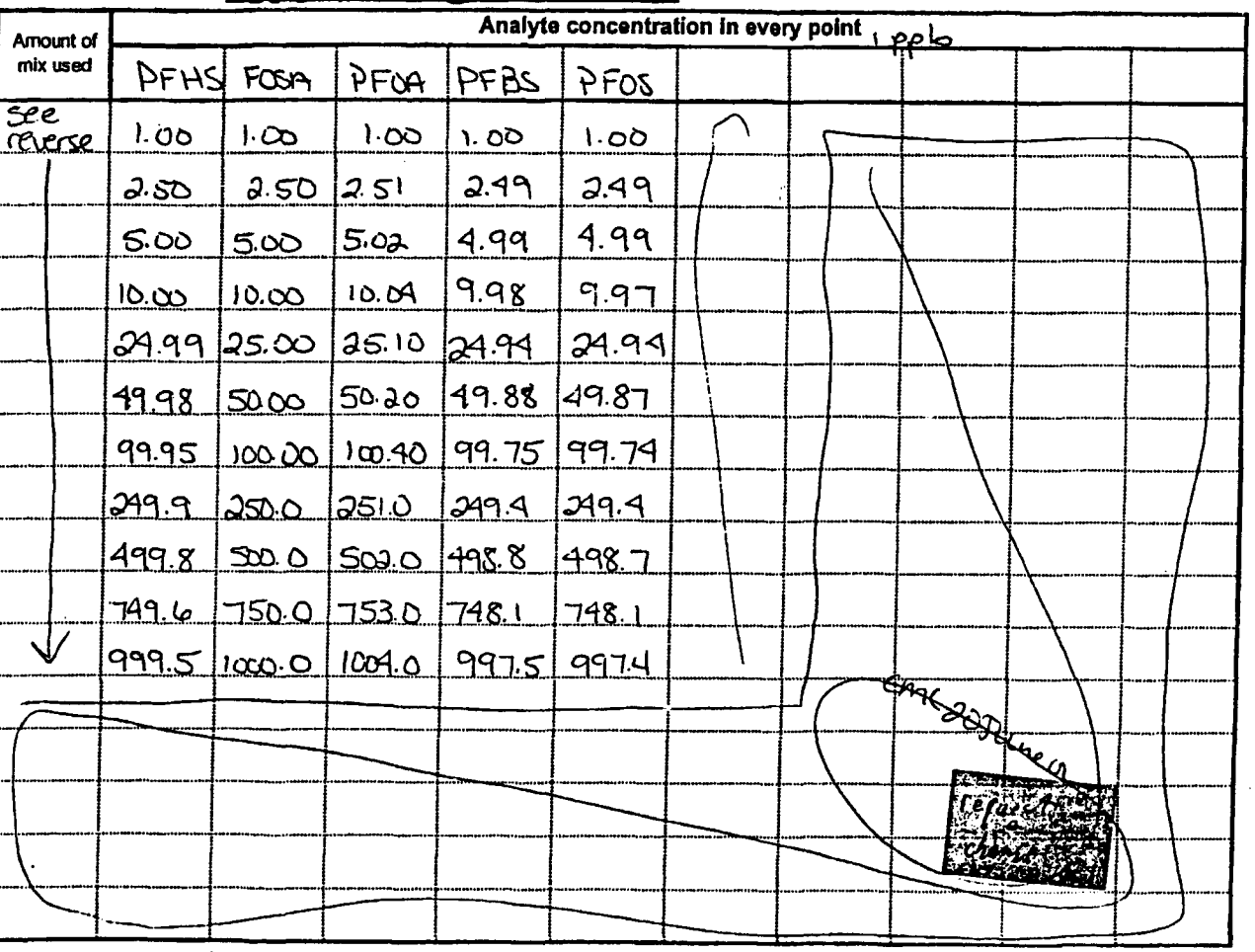
Exact concentration of every point of every analyte

Prep date: 20 June
Analyst: CMC
Target analytes: PFHS, FOSA, PFOA, PFBS, PFOS
Solvent & TN-A #: MeOH, TNA-4520
Final Volume of each point: 10mL

Book No: 02 003
Page No: 50

Standard mix used for preparing the curve: See reverse

Curve point number	Amount of mix used	Analyte concentration in every point, ppb				
		PFHS	FOSA	PFOA	PFBS	PFOS
02 003-50-1	see reverse	1.00	1.00	1.00	1.00	1.00
02 003-50-2		2.50	2.50	2.51	2.49	2.49
02 003-50-3		5.00	5.00	5.02	4.99	4.99
02 003-50-4		10.00	10.00	10.04	9.98	9.97
02 003-50-5		24.99	25.00	25.10	24.94	24.94
02 003-50-6		49.98	50.00	50.20	49.88	49.87
02 003-50-7		99.95	100.00	100.40	99.75	99.74
02 003-50-8		249.9	250.0	251.0	249.4	249.4
02 003-50-9		499.8	500.0	502.0	498.8	498.7
02 003-50-10		749.6	750.0	753.0	748.1	748.1
02 003-50-11		999.5	1000.0	1004.0	997.5	997.4
02 003-50-12						
02 003-50-13						
02 003-50-14						
02 003-50-15						
02 003-50-16						



Exact Copy of Original

MA — 04 Dec 02
Initial — Date

Reviewed by: _____
Signature, Date

3M Environmental Laboratory

Report E02-0443

Tenn. River Valley Samples

SINGLE COMPONENT PREPARATION LOG

Date: 21 Oct 02

Book No. 02 050
Page No. 34

Analyst: ML I

Description: 1ppm Spike Mix in Water: PFHS, FOA, PFBS, PFOA - PFOS

Stock Number: 02002-033

Weight or Volume Used: 100uL

Balance ID: NA

Concentration or Purity: 100ppm

Other Correction Factors: —

Corrected Weight: —

Solvent and TN-A Number: ASTM Type I water (Milli-Q TOC Plus)

Final Volume: 10mL

Final Concentration: 1ppm

Storage Location: 2nd Flr

Expiration Date: 23 Nov 02

Exact Copy of Original
MA 21Oct02
Initial Date

Reviewed by: [signature] 11/1/02
Signature, Date

MULTI-COMPONENT PREPARATION LOG

Book No. 02 002

Page No. 33

Description: Fish Spike

Date Prepared: 6/18/02

Prepared By: CMC

Storage Location: 2nd

Expiration Date: 11/23/02

Solvent: MeOH

3M Trace #: TN-A- 6116

Standard ID #	02 002-33

Component Standard						Corrected Weight	Final Concentration
Description	ID #	Conc. or Purity	Expiration Date	Weight or Volume	Balance ID		
PFHS	02001-17	3175 ppm	1/10/03	~~157~~ µL	NA	NA	~~787~~ ~~99.45~~ 99.95 ppm
FOSA	02001-19	4708 ppm	1/10/03	531 µL			100.0 ppm
PFOA	02001-085	21820 ppm	2/28/03	115 µL			100.4 ppm
PFBS	02022-66	19792 ppm	11/23/02	126 µL			~~99.74~~ ppm 99.75
PFOS	02001-84	23304 ppm	2/28/03	107 µL	↓	↓	99.74 ppm

Final Volume	25 mL	Approximate Concentration of the mix	100 ppm

Exact Copy of Original

MLA 6/18/02

Initial Date

Reviewed by: [signature] 18 Jun 02

Signature, Date

SINGLE COMPONENT PREPARATION LOG

Date: 12/18/02

Book No. 02 022
Page No. 77

Analyst: CML

Description: 1ppm Spike Mix

(RE) "0" MA - 13 Dec 02

Stock Number: 02072-33

Weight or Volume Used: 250µL

Need to change in the database and get a new copy 13 Dec 02

ce ID: —

Concentration or Purity: 100ppm

n —

Corrected Weight: —

Solvent and TN-A Number: Milli-Q TOC Plus

Final Volume: 25mL

Final Concentration: 1ppm

Storage Location: 2nd

Expiration Date: 11/23/02

Exact Copy of Original
MA 04 Dec 02
Initial Date

Reviewed by: [signature] (18 Jan 03)
Signature, Date

SINGLE COMPONENT PREPARATION LOG

Date: 11 Sep 02 Book No. 02 040
Page No. 80

Analyst: MA

Description: 1% Acetic Acid in Milli-Q

(RE) MA - 11 Sep 02

Stock Number: ~~02022-033~~
TN-A-5197

Weight or Volume Used: 20mL Balance ID: NA

Concentration or Purity: 99.99+% Other Correction Factors: NA

Corrected Weight: NA Solvent and TN-A Number: Milli-Q TOC Plus

Final Volume: 2L Final Concentration: 1%

Storage Location: 2nd Flr Prep Expiration Date: 02 Nov 02

Exact Copy of Original
MA Initial
04 Dec 02 Date
(CO) MA - 04 Dec 02

Reviewed by: [signature] 9/30/02
Signature, Date

SINGLE COMPONENT PREPARATION LOG

Date: 1·10·02

Book No. 02 001
Page No. 17

Analyst: CKJ

Description: TFHS

Stock Number: SE-036

Weight or Volume Used: 0.0805g

Balance ID: 914

Concentration or Purity: 98.6%

Other Correction Factors: NA

Corrected Weight: NA

Solvent and TN-A Number: MeOH /TN-A-5552-3

Final Volume: 25ml

Final Concentration: 3175 ppm

Storage Location: 2nd floor

Expiration Date: 1·10·03

Exact Copy of Original
MA Initial
1/10/02 Date

Reviewed by: Cindy Gardner 1/10/02
Signature Date

SINGLE COMPONENT PREPARATION LOG

Date: 1.10.02 Book No. 02 001
Page No. 19

Analyst: OK

Description: PFOSA

Stock Number: 3D029

Weight or Volume Used: 0.1177g Balance ID: 914

Concentration or Purity: neat Other Correction Factors: NA

Corrected Weight: NA Solvent and TN-A Number: MeOH/TN-A-5552-3

Final Volume: 25ml Final Concentration: 4708 ppm

Storage Location: 2nd floor Expiration Date: 1.10.03

Exact Copy of Original
MA 01/10/02
Initial Date

Reviewed by: Cindy Carlson 1/10/02
Signature, Date

SINGLE COMPONENT PREPARATION LOG

Date: 28 Feb 02 Book No. 02 001
Page No. 84

Analyst: MA

Description: FC95 PFOS

Stock Number: 99030-036

Weight or Volume Used: 0.5826g Balance ID: 914

Concentration or Purity: — Other Correction Factors: —

Corrected Weight: — Solvent and TN-A Number: ~~Acetone, TN-A-5047-2~~ MeOH, TN-A-6007 (RE) MA 28Feb02

Final Volume: 25mL Final Concentration: 23304ppm

Storage Location: 2nd Flr Expiration Date: 28Feb03

Exact Copy of Original
MA 04Mar02
Initial Date

Reviewed by: Cindy Carlson 3/11/02
Signature Date

SINGLE COMPONENT PREPARATION LOG

Date: 28 Feb 02 Book No. 02 001
Page No. 85

Analyst: MA

Description: FC-143 / PFOA

Stock Number: 99030-030

Weight or Volume Used: 0.5742g Balance ID: 914

Concentration or Purity: 95% Other Correction Factors: —

Corrected Weight: 0.5455g Solvent and TN-A Number: MeOH / TN-A-6007

Final Volume: 25mL Final Concentration: 21,820 ppm

Storage Location: 2nd Flr Expiration Date: 28 Feb 03

Exact Copy of Original
MA 2002 Dec 4th
Initial Date

Reviewed by: Cindy Carlson 3/2/02
Signature, Date

SINGLE COMPONENT PREPARATION LOG

Date: 23 May 02

Book No. 02 022
Page No. 66

Analyst: MA

Description: PFBS / L-7038, Lot 2 ($C_4F_9SO_3K$)

Stock Number: TCR-00017-071 / TCR-359 (Cold/new)

Weight or Volume Used: 0.5085g

Balance ID: 914

Concentration or Purity: 97.3%

Other Correction Factors: ____

Corrected Weight: 0.4948g

Solvent and TN-A Number: MeOH, TN-A-0611S

Final Volume: 25ml

Final Concentration: 19,792 ug/mL

Storage Location: 2nd Flr

Expiration Date: 23 Nov 02

Exact Copy of Original
MA 04 Dec 02
Initial Date

Reviewed by: Cindy Cardow 23 May 02
Signature Date

SINGLE COMPONENT PREPARATION LOG

Date: 20 June 02

Book No. 02 022
Page No. 79

Analyst: CMC

Description: EC mix, 1ppm

(RE) "02002" - MA. 05 JUL 02

Stock Number: ~~02022~~ -33

Weight or Volume Used: 100 µL

Balance ID: NA

Concentration or Purity: 100 ppm

Other Correction Factors: —

Corrected Weight: —

Solvent and TN-A Number: MeOH, TNA - 4520

Final Volume: 10 mL

Final Concentration: 1ppm

Storage Location: 2nd

Expiration Date: 11/23/02

Exact Copy of Original
MA (05 Dec 02)
Initial Date

Reviewed by: [signature] 20 Jun 02
Signature, Date

TCR Receipt & General Information

TCR #	TCR-83	TCR Substance #	SE036
Substance trade name or reference #:	[redacted]		
Substance/chemical name:	Perfluorohexanesulfonate Primary std	Received from:	George Moore
Lot/batch #:		Date Received:	09/03/1999
Location of synthesis, fabrication, or derivation records:		Amount received (wt. or vol):	154 g, 277.38 g gross wt.
Molecular Formula:	C6F13SO3-K+	Number/size of containers:	1/150 mL glass container
Condition:	white powder	Shipper:	Courier
Expiration date:	10/18/2006	MSDS (y/n)	● Y ( ) N
Purity:	98.6% LAC 01/17/01	Records received:	MSDS, NMR Characterization Request #59085 Interim final report from Centre and Certificate of Analysis. LAC 04/26/01
3M #	NB 120067-69		

Entered by (Initials)	Date Entered	Checked By	Date
LAC	09/03/1999		

Std Location/Storage	Initials	Date	Checked by (Initial/Date)
F19, Frozen			

Amount of Retain	Initials	Date	Checked by (Initial/Date)
0.3610 g		10/19/1999	

Comments	Initials Date	Checked By Date
Standard has been moved to Freezer 19 in room 347 KJD 06/06/00 Sent to Centre Analytical for Certificate of Analysis Analysis on 07/06/00 LAC 07/31/00 Standard was stored at room temperature prior to 06/06/00. LAC 12/19/00 Shipping Codes: 41-2600-9459-8. LAC 06/14/01 Original label - 8/4/99 RWW-11/2/01 Shipping comments: NOT REGULATED, 3M shipping ID: 41-2700-4547-3. LAC 01/10/02		

Attachments

se036msds.pdf se036nmrreq59085.pd

E00-1878-COA-SE036-PFHS-R

Archived/Substance Not Available

Exact Copy of Original
MLA 04Dec02
Initial Date

TCR Receipt & General Information

TCR #	TCR-29	TCR Substance #	SD029
Substance trade name or reference #:	PFOSA		
Substance/chemical name:	Perfluorooctane sulfonyl amide or Perfluorooctanesulfonamide AC KJD 7/24/00	Received from:	R. Buckanin
Lot/batch #:	L-15709	Date Received:	04/20/1999
Location of synthesis, fabrication, or derivation records:	Building 236	Amount received (wt. or vol):	124.98g gross wt.
Molecular Formula:	C8F17SO2NH2	Number/size of containers:	1/100 mLglass container
Condition:	light yellow waxy solid MCH 07/22/99	Shipper:	Road Runner
Expiration date:	10/31/2006	MSDS (y/n)	● Y ( ) N
Purity:	TBD, KJD 05/05/00	Records received:	MSDS, summary page of FID analysis #57915
3M #	NA		

Entered by (Initials)	Date Entered	Checked By	Date
LAC			

Std Location/Storage	Initials	Date	Checked by (Initial/Date)
F19, Frozen			

Amount of Retain	Initials	Date	Checked by (Initial/Date)
0.2233g		10/18/1999	

Comments	Initials Date	Checked By Date
Gross weight difference due to removal of parafilm LAC 04/28/99 Standard has been moved to Freezer 19 in room 347 KJD 06/06/00 Standard was stored at room temperature prior to 06/06/00. LAC 12/19/00 The expiration date was assigned based on hydrolysis study EL-1132 and photolysis study W2783 which showed this compound to be stable. LAC 10/31/01 Original label dated 3/18/97 - RWW 10/26/01 Shipping Comments: NOT REGULATED, shipping code - LB-I000-1570-9, L-15709. LAC 01/08/02		

Attachments

sd029msds.pd sd029fid57915.p

○ Archived/Substance Not Available

Exact Copy of Original
MK Initial 04Dec01 Date

TCR Receipt & General Information

TCR #	TCR-123	TCR Substance #	TCR-99030-030
Substance trade name or reference #:	PFOA (POAA)		
Substance/chemical name:	FC-143 Ammonium Perfluorooctanoate (Primary Std)	Received from:	N/A
Lot/batch #:	332	Date Received:	02/02/2000
Location of synthesis, fabrication, or derivation records:	3M	Amount received (wt. or vol):	278.20 g gross wt.
Molecular Formula:	C7F15COO-NH4+	Number/size of containers:	1/ ~200 mL glass bottle
Condition:	White powder KJD-2/2/00	Shipper:	Unknown
Expiration date:	10/31/2006	MSDS (y/n)	● Y ( ) N
Purity:	95.0% LAC 01/17/01	Records received:	MSDS Interim final report from Centre and Certificate of Analysis. LAC 04/26/01
3M #	N/A		

Entered by (Initials)	Date Entered	Checked By	Date
KJD			

Std Location/Storage	Initials	Date	Checked by (Initial/Date)
F19, Frozen			

Amount of Retain	Initials	Date	Checked by (Initial/Date)
0.2737 g		02/17/2000	

Comments	Initials Date	Checked By Date
Was originally TN-A-2143, KJD 2/21/00 Standard has been moved to Freezer 19 in room 347 KJD 6/6/00 * standard was weighed on 9/28/00. Standard was stored frozen at -20C+/-10C until shipment on 10/03/00.LAC 10/03/00 Shipping Codes: 98-0211-0891-9/FC-S000-0192-0(<30 g on dry ice) LAC 06/14/01 Standard stored at room temperature prior to 6/6/00 LAC-12/26/00 Label - recorded-10/98 RWW-11/6/01 Shipping comments: REGULATED-TOXIC Dangerous goods in excepted quantity of Class 6, UN2811. 3M Shipping ID: 98-0211-7394-7, (4 lb. carton) fully regulated. LAC 01/09/02		

Attachments

tcr99030-30msds.pdf

E00-1763-COA-99030-30-PFOA-R

○ Archived/Substance Not Available

Exact Copy of Original
MA 04Dec02
Initial Date

TCR Receipt & General Information

TCR #	TCR-129	TCR Substance #	TCR-99030-036
Substance trade name or reference #:	PFOS		
Substance/chemical name:	FC-95 Potassium perfluorooctanesulfonate AC KJD 7/24/00	Received from:	N/A
Lot/batch #:	215	Date Received:	02/02/2000
Location of synthesis, fabrication, or derivation records:	N/A	Amount received (wt. or vol):	40.1441 g gross wt.
Molecular Formula:	C8F17SO3-K+	Number/size of containers:	1/ 60ml nalgene bottle
Condition:	white powder	Shipper:	N/A
Expiration date:	12/01/2010	MSDS (y/n)	● Y ○ N
Purity:	TBD, KJD 5/5/00	Records received:	MSDS
3M #	N/A		

Entered by (Initials)	Date Entered	Checked By	Date
KJD			

Std Location/Storage	Initials	Date	Checked by (Initial/Date)
F19, Frozen			

Amount of Retain	Initials	Date	Checked by (Initial/Date)
0.1867 g		02/17/2000	

Comments	Initials Date	Checked By Date
Was originally TN-A-2144, KJD 2/21/00 Standard has been moved to Freezer 19 in room 347 KJD 6/6/00 Shipping Codes: FC-S000-0185-6(<30 g on dry ice) LAC 06/14/01 Standard was stored at room temperature prior to 6/6/00 LAC 12/26/00 Received 5/96 RWW 11/6/01 Shipping Comments: Dangerous goods in excepted quantity of Class 6, UN2811. REGULATED-TOXIC 98-0211-0888-5 (>30 g (1 oz sample)) Not on dry Ice. LAC 01/08/02		

Attachments

tcr99030-36msds.pdf

○ Archived/Substance Not Available

Exact Copy of Original
MA 04Dec02
Initial Date

TCR Receipt & General Information

TCR #	TCR-[redacted]	TCR Substance #	TCR-00017-071
Substance trade name or reference #:	PFBS		
Substance/chemical name:	Potassium perfluorobutane sulfonate	Received from:	Wildlife
Lot/batch #:	2	Date Received:	06/30/2000
Location of synthesis, fabrication, or derivation records:	Wildlife	Amount received (wt. or vol):	~100 g, 121.5285 g gross wt.
Molecular Formula:	C4F9SO3-K+	Number/size of containers:	1/ ~100 mL plastic container
Condition:	good/ fluffy white crystals	Shipper:	unknown
Expiration date:	01/17/2007	MSDS (y/n)	● Y ( ) N
Purity:	97.3% LAC 04/26/01	Records received:	MSDS Interim final report from Centre and Certificate of Analysis. LAC 04/26/01
3M #	L-7038 LAC 01/03/01		

Entered by (Initials)	Date Entered	Checked By	Date
KJD			

Std Location/Storage	Initials	Date	Checked by (Initial/Date)
Freezer F-19, frozen			

Amount of Retain	Initials	Date	Checked by (Initial/Date)
0.2826 g		06/30/2000	

Comments	Initials Date	Checked By Date
Wildlife International Number 5292 KJD 6/30/00 Standard is being stored in Freezer F-19 at -20C KJD 7/17/00 Formula added on 07/24/00 by KJD Sent to Centre Analytical for Certificate of Analysis Analysis on 07/05/00 LAC 07/31/00 By F-11926 process LAC 01/03/01 Shipping comments: NOT REGULATED, (based on shipping code of LB-I000-0703-8). LAC 01/10/02		

Attachments

tcr00017-71msds.pdf tcr00017-71lotinfo.

E00-1877-COA-00017-71-PFBS-R

○ Archived/Substance Not Available

Exact Copy of Original
MA Initial
Date

ENTRIX

E02-0443

SAMPLES IN R-2 (AC) RDS 4/17/02

☐ Atlanta ☐ Boston ☒ Dallas ☐ Dearborn ☐ East Greenwich ☐ Edmond ☐ Gig Harbor
☐ Goleta ☐ Houston ☐ Okemos ☐ Olympia ☐ Sacramento ☐ Tacoma ☒ Ventura
☐ Wilminton ☐ _____ ☐ Walnut Creek

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 1 of 2

Site: Tennessee R., Decatur, AL Entrix Contact: Barry Gillespie 713-662-1908

Client: 3M Project No. 178401

Sampler(s) Signature: M, RH, RR BG Airbill No _____

ANALYTICAL REQUEST

Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	LC-MS	Comments
SW01	4/15/02	1145		X	1	Water	X	38025
SW01-Dup	"	"		X	1			38026
SW01-Low	"	"		X	1			38027
SW01-Med	"	"		X	1			38028
FSC01-Low	"	"		X	1			38029
FSC01-Med	"	"		X	1	↓		38030
~~Special MS~~	~~"~~	~~"~~		~~X~~	~~1~~	~~Soil~~		
FB01	"	1430			1	Air		38031
FB02	"	"			1	Water		38032
SW03	4/16/02	0800		X	1	Water	↓	38033
Total Number of Containers					9			

Exact Copy of Original
MA 16Dec02
Initial Date

Relinquished By	Date	Time	Received By	Date	Time
[signature]	4/16/02	1500	[signature] 317	4/17/02	11:02

FORM # ENT-131

ENTRIX

E02-0443 SAMPLES IN R-2 4/17/02

☐ Atlanta ☐ Boston ☐ Dallas ☒ Dearborn ☐ East Greenwich ☐ Edmond ☐ Gig Harbor
☐ Goleta ☐ Houston ☐ Okemos ☐ Olympia ☐ Sacramento ☐ Tacoma ☐ Ventura
☐ Wilminton ☐ _____ ☒ Walnut Creek

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 2 of 2

Site: Tennessee R., Decatur, AL Entrix Contact: Barry Gillespie 713-662-1908

Client: 3M Project No. 178401

Sampler(s) Signature: MAM, RR, BG, RH Airbill No _____

ANALYTICAL REQUEST

Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	LC-MS	Comments
SW03-Dup	4/16	0800		X	1	Water	X	38034
SW03-Low	4/16/02	11		X	1			38035
SW03-Med		11		X	1			38036
SW02		1020		X	1			38037
SW02-Dup				X	1			38038
SW02-Low				X	1			38039
SW02-Med				X	1			38040
FSC02-Low				X	1			38041
FSC02-Med				X	1			38042
Trip blank #1					1			38043
				Total Number of Containers	10			

Relinquished By	Date	Time	Received By	Date	Time
MAM	4/16/02	1300	Richard C Boer 3M	4/17/02	11:22a

FORM # ENT-131

ENTRIX

E02-0443 SAMPLES IN R-2

☐ Atlanta ☐ Boston ☐ Dallas ☐ Dearborn ☒ East Greenwich ☐ Edmond ☐ Gig Harbor
☐ Goleta ☐ Houston ☐ Okemos ☐ Olympia ☐ Sacramento ☐ Tacoma ☐ Ventura
☐ Wilminton ☐ _____ ☐ Walnut Creek

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 1 of 1

Site: Tennessee R, Decatur, AL Entrix Contact: Barry Gillespie 713-602-1906

Client: 3M Project No. 178401

Sampler(s) Signature: Matt Neal, BG, RH, RR Airbill No _____

ANALYTICAL REQUEST

Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	LC-MS	Comments
SD01	4/15/02	14:45		X	4	Sed	X	38044
SD03	4/16/02	0800		X	4		X	38045
SD02	" "	1020		X	4		X	38046
Trip Blank #2					1	Water	X	38047

Total Number of Containers 13

Exact Copy of Original
MA 16Dec02
Initial Date

Relinquished By	Date	Time	Received By	Date	Time
Matt Neal	4/16/02	15:00	Richard C Sonar/3M	4/17/02	11:00

FORM # ENT-131

E02-0349

E N T R I X

☐ Atlanta ☐ Boston ☐ Dallas ☐ Dearborn ☐ East Greenwich ☐ Edmond ☐ Gig Harbor
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☐ Wilminton ☐ _____ ☐ Walnut Creek

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 1 of 2

Site: Tennessee R., Decatur, AL Entrix Contact: Barry Gillespie 713-662-1908

Client: 3M Project No. 178401

Sampler(s) Signature: Matt Ball, RR, RTH Airbill No

ANALYTICAL REQUEST

Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	Silica + Homogenize								Comments
SL01-LM01	4/15/02			X	1	Tissue	X							38402	410 mm, 1 lb. 15 oz
SL01-LM02	"				1		X							38404	360 mm, 1 lb. 6 oz
SL01-LM03	4/16/02				1									38406	314 mm, 1 lb 0 oz
SL01-LM04					1									38408	332 mm, 1 lb 3 oz
SL01-LM05					1									38410	445 mm, 2 lb 10 oz
SL01-LM06					1									38412	312 mm, 1 lb 1 oz
SL01-CAT01					1									38414	610 mm, 4 lb. 15 oz
SL01-CAT02					1									38416	625 mm, 7 lb. 0 oz.
SL01-CAT03					1									38418	621 mm, 6 lb. 3 oz
SL01-CAT04					1									38420	741 mm, 13 lb. 7 oz
					Total Number of Containers		10								

Exact Copy of Original

MK 16Dec02
Initial Date

Relinquished By	Date	Time	Received By	Date	Time
Matt Ball	4/17/02	13:00	Ryan Holem	4/20/02	1600
			Richard C Sonar-130	4/20/02	12:00

FORM # ENT-131

E02-0347

ENTRIX

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CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 2 of 2

Site: Tennessee R., Decatur, Al. Entrix Contact: Barry Gillespie 713-662-1908

Client: 3M Project No. 178401

Sampler(s) Signature: [illegible] RH, RR Airbill No _____

ANALYTICAL REQUEST

Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	Filtered + Homogenized										Comments
SL01-CAT05	4/16/02			X	1	tissue	X								38422		5 fish comp, 31b. 1½oz.
SL01-CAT06	"			X	1	"	X								38426		5 fish comp, 31b. 8oz

Total Number of Containers 2

Relinquished By	Date	Time	Received By	Date	Time
[illegible]	4/17/02	1300	Ryan Holem	4/20/02	1600
			Richard Conner/3M	4/30/02	12:00

FORM # ENT-131

E02-034-T

ENTRIX

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☐ Wilminton ☐ _____ ☐ Walnut Creek

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 1 of 1

Site: Tennessee R, Decatur, AL Entrix Contact: Barry Gillespie 713-662-1908

Client: 3M Project No. 178401

Sampler(s) Signature: MattKa, RH, RR Airbill No _____

ANALYTICAL REQUEST

Filtered Homogenized

	Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media											Comments
✓	SL03-CAT01	4/17/02			X	1	tissue									38426		322 mm, 1 lb. Box
✓	SL03-CAT02	"				1	"									38428		370 mm, 7 lb. Box
✓	SL03-LM01					1										38430		305mm, 1 lb. Box
✓	SL03-LM02					1										38432		365mm, 1 lb. Box
✓	SL03-LM03	↓				1	↓									38434		380 mm, 1 lb. Box

Total Number of Containers 5

Exact Copy of Original
MA 16Dec02
Initial Date

Relinquished By	Date	Time	Received By	Date	Time
Matt Ka	4/17/02	1300	Ryan Holum	4/24/02	1600
			Richard Conner/3M	4/30/02	12:55

FORM # ENT-131

3M Environmental Laboratory

Report E02-0443

Tenn. River Valley Samples

E02-0349

ENTRIX

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CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 1 of 1

Site: Tennessee R, Decatur, AL Entrix Contact: Barry Gillespie 713-662-1705

Client: 3M Project No. 178401

Sampler(s) Signature: [signature], RH, RH Airbill No _____

ANALYTICAL REQUEST

	Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	Filtered + Preserved										Comments
J	SL03-CAT03	4/18/02			X	1	tissue	X							38436			
J	SL03-CAT04	"			X	1	"	X							38438			
J	SL03-CAT05	"			X	1	"	X							38440			
J	SL03-CAT06	"			X	1	"	X							38442			

Total Number of Containers 4

Exact Copy of Original

MA 16Dec02
Initial Date

Relinquished By	Date	Time	Received By	Date	Time
[signature]	4/19/02	1130	[signature]	4/20/02	1600
			[signature] C Sonet / 3M	4/30/02	12:00

FORM # ENT-131

E02-0344

ENTRIX

☐ Atlanta ☐ Goleta ☐ Wilminton ☐ Boston ☐ Houston ☐ ______ ☐ Dallas ☐ Okemos ☐ Walnut Creek ☐ Dearborn ☐ Olympia ☐ East Greenwich ☐ Sacramento ☐ Edmond ☐ Tacoma ☐ Gig Harbor ☐ Ventura

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 1 of 2

Site: Tennessee R, Decatur, AL Entrix Contact: Barry Gillespie 713-662-1708

Client: 3M Project No. 178401

Sampler(s) Signature: Matt [signature], RR, RH Airbill No

ANALYTICAL REQUEST

Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	Fillet, Homogenize		Comments
SL03-LM04	4-17-02			X	1	tissue	X	38444	412mm, 2lb. 2oz.
SL03-LM06	"			↓	1	↓	↓	38476	360mm, 1lb. 6oz.
SL03-LM05	"			↓	1	↓	↓	38478	297mm, 0lb. 10oz.
SL03-SM01	"			↓	1	↓	↓	38480	325mm, 1lb. 4oz.
SL03-LM07	"			↓	1	↓	↓	38482	420mm, 1lb. 10oz.
SL02-CAT01	4-18-02			↓	1	↓	↓	38484	570mm, 4lb. 12oz.
SL02-CAT02	"			↓	1	↓	↓	38486	510mm, 3lb 1oz.
SL02-CAT03	"			↓	1	↓	↓	38488	595mm, 4lb 8oz.
SL02-CAT04	"			↓	1	↓	↓	38490	575mm, 4lb. 0oz.
SL02-CAT05	"			↓	1	↓	↓	38492	640mm, 7lb. 2oz.

Total Number of Containers 10

Exact Copy of Original MH Initial 16Dec03 Date

Relinquished By	Date	Time	Received By	Date	Time
Matt [signature]	4/18/02	1500	Ryan Holey	4/20/02	1600
			Richard Conner/3M	4/20/02	11:00

FORM # ENT-131

E02-0347

ENTRIX

☐ Atlanta ☐ Boston ☐ Dallas ☐ Dearborn ☐ East Greenwich ☐ Edmond ☐ Gig Harbor
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☐ Wilminton ☐ _____ ☐ Walnut Creek

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Page 2 of 2

Site: Tennessee R., Decatur, AL Entrix Contact: Barry Gillespie 713-662-1906

Client: 3M Project No. 178401

Sampler(s) Signature: Matt Kerl, RR, RH Airbill No _____

ANALYTICAL REQUEST

Sample ID	Date	Time	Comp	Grab	No. of Cont.	Sample Media	Fillet, Homogenize										Comments
SL02-CAT06	4-18-02			X	1	tissue	X							38494			535mm, 3lb. 6oz.
SL02-CAT07	"				1									38496			530mm, 3lb. 6oz.
SL02-LM01	"				1									38498			300mm, 1lb. 0oz.
SL02-LM02	"				1									38500			455 mm, 2lb. 7oz.
SL02-LM03	"				1									38502			330 mm, 1lb. 2oz.
SL02-LM04	"				1									38504			330 mm, 1lb. 3oz.

Total Number of Containers 6

Relinquished By	Date	Time	Received By	Date	Time
[signature]	4/18/02	1500	[signature]	4/20/02	1600
			[signature]	4/21/02	1200

FORM # ENT-131

ATTACHMENT E: NOTES TO FILE

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number: E02-0443
LIMS Number: NA
Affected Data: D020626Extracted, D020628, D020629, and D020702 (Fish Tissue)

1.
The following samples were mislabeled in their respective sequences. They were all labeled as "-1-1" when they should have been labeled as "-1-2". The list is as follows:
D020626Extracted: DUDE0055,
D020628: DUDE0056 and DUDE0075,
D020629: DUDE0063 and DUDE0096,
and
D020702: DUDE0062.

2.
All of the fish tissue sample preparation was done at the same time; therefore, Water Blanks (WB) and Solvent Blanks (SB) were done with each Sample Location, not with each different type of fish from each location. This was done since the WBs and SBs are for examining the sample preparation process and are independent of the species of fish being analyzed. The WBs and SBs were analyzed with the Catfish samples. For this reason, there are not any WB or SB data contained within the Large Mouth or Small Mouth analytical sequences.

3.
The fish tissue samples were analyzed in triplicate. Each fish tissue parent sample was first weighed out into a container (Column 2), had water added (Column 3), and then homogenized (Column 4) before it was separated into triplicates. The weight are recorded in the "-1" rows of the Fish Tissue prep sheets. It is not until Column 6 that the triplicates are generated from the homogenate (MSs are also generated at this time). The samples that were labeled with "-MS" were spiked with the spike solution in Column 7.

4.
The fish tissue that was used in the extracted fish curves was from the fish tissue sample with the lowest amount of endogenous analyte concentration. This was determined during a preliminary range-finding experiment .

5.
The extracted fish tissue standard curves had a 0 ppb curve point. This point was part of the calibration curve and was "Enabled" in the quantitation software, but it was not calculated as part of the curve.

6.
The 10 ng/mL standard curve point in the Extracted Large Mouth Standard Curve had 21% and 22% deviations, exceeding the criteria by 1% and 2%. These points were not excluded from the curves and their inclusion had no negative effect on the data quality due to the point being surrounded by at least two passing calibration points on both sides.

Recorded By:	Date:
	17 Dec 02

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number: E02-0443
LIMS Number: NA
Affected Data: I021112/River Sediments

1.
Lab Control Samples (LCS) were performed for the River Sediments. However, the information was not used because the data suggested it was impossible to recover spiked analytes from acidified water when river sediment was not present.

2.
The injection files from the sequence I021112 that are after file Itchy062 are not part of the reportable analyses. These samples were method development only.

Recorded By:	Date: 17 Dec 02

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number: E02-0443
LIMS Number: NA
Affected Data: D020812A and D020812B.

1.
All data that is in D020812A and D020812B are from one original sequence: D020812. The D020812 parent sequence is made up of 161 injections/files. Files DUDE0001 to DUDE0096 are found in the sub-sequence D020812A. Files DUDE0097 to DUDE 0161 are in sub-sequence D020812B. The parent sequence was broken up into two separate sub-sequences after LC/MS analysis to simplify data analysis.
Low concentration samples that fall in the bottom end of the standard calibration curve (0.1 ng/mL to 50 ng/mL) are in sub-sequence D020812A.
Very high concentration samples that required small injection volumes that fall in the top end of the curve (5 ng/mL to 1000 ng/mL) are in sub-sequence D020812B.
There are not any files that are contained in both sub-sequences.

2
There are two different extraction dates for the samples: 20 Jun 02 and 17 Jul 02. This is due to a re-extraction of 5 samples whose results were questionable.

3.
The following are the LIMS numbers and the sample names of the samples and their associated duplicates and matrix spikes:

38025	SW01	SW=Sample Water(Sample Location)
38026	SW01-Dup	FSC=Field Sample Control
38027	SW01-Low	FB= Field Blank
38028	SW01-Med	Low=Low Field Spike
38029	FSC01-Low	Med=Medium Field Spike
38030	FSC01-Med	
38032	FB02	
38033	SW03	
38034	SW03-Dup	
38035	SW03-Low	
38036	SW03-Med	
38037	SW02	
38038	SW02-Dup	
38039	SW02-Low	
38340	SW02-Med	
38041	FCS02-Low	
38042	FCS02-Med	
38043	Trip Blank #1	
and		
38047	Trip Blank #2	

Recorded By:	Date: 17 Dec 02

Page 3 of 6.

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number: E02-0443
LIMS Number: NA
Affected Data: D020626Extracted

1.
In the D020626Extracted sequence there were not any Extracted CCV curve points run. All subsequent Fish Tissue sequences had extracted CCVs included. The unextracted CCVs were quantitated against the unextracted fish curve, 02003-050, using an Excel spreadsheet. All of the unextracted CCVs passed and the results are found in Appendix B: Data Summary Tables.

Recorded By:	Date: 17 Dec 02

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number: E02-0443
LIMS Number: NA
Affected Data: All Data

Note: This is to explain how the quantitation was performed on the data.

1.
The entire calibration curve was entered into the quantitation software and the curve was then analyzed. In many cases, high level curve points were "Disabled" in the software and were removed from the curve calculation. In all instances in which this was done, the disabled curve points show a recovery of 0%.
Low end curve points that had % Recoveries that exceeded the criteria or were <2X the solvent blanks levels were not used. These points were still included in the calibration curve calculations, however, they were not used in the determination of the LOQ.

2.
In the raw data that comes from the Target software, concentrations that would normally be quantitated as a very low or a negative value are assigned an extreme positive value. These values are easily noticed due to their abnormally large values along with very small area counts. These values, along with values that are below the limit of quantitation, are changed to "BLOQ" to eliminate any possible confusion.

Recorded By:	Date: 17 Dec 02

3M ENVIRONMENTAL LABORATORY

Note to File

Project or Study Number: E02-0443
LIMS Number: NA
Affected Data: Fish Tissue

1.
In the sample preparation process of the fish tissue, after the homogenization process (Step 4), the homogenate is centrifuged for a short time and then shaken (Step 5). The centrifugation was done to eliminate the foam that developed during the homogenization process. The homogenate was then shaken/vortexed to make the solution homogenous again.

Recorded By:	Date:
	17 Dec 02