



**AR226-1776-f**

---

## **Analytical Report**

### **Air Sampling Fluorochemical Report**

**DuPont Washington Works – Air Sampling Program Round 9**

**Exygen Research Report No. L0001508**

---

### **Testing Laboratory**

Exygen Research  
3058 Research Drive  
State College, PA 16801

---

### **Requester**

Michael D Aucoin  
URS Corporation  
Barley Mill Plaza  
Building 27 Room 1260  
Lancaster Pike and Rt 141  
Wilmington, DE 19805

RECEIVED  
OPT HOIS  
2004 MAY 29 AM 9:00

ALL DATA CONTAINED IN THIS REPORT WAS GENERATED BY EXYGEN RESEARCH

## Summary

Seven solid media samples were received by Centre Analytical Laboratories, Inc. (dba Exygen Research) (Exygen) from DuPont Corporation. The media represent samples of air collected on OVS tubes. Please see Table 1 for a completed listing of samples received and field air volumes collected.

The samples were analyzed for Perfluorooctanoic Acid (C8 Acid) using liquid chromatography / mass spectrometry (LCMS).

The OVS tubes were separated into three fractions for specific fluorochemical analysis. Fraction A consisted of the filter, backing material and plastic ring. Fraction B contained the first bed of XAD resin and the PUF backing. Fraction C contained the second bed of XAD resin and PUF backing. Fractions A and B were extracted with 1 mL of methanol. Fraction C was not analyzed but saved for possible future analysis. Perfluorodecanoic Acid (C10 Acid) was added as a surrogate spike to each fraction prior to extraction.

Instrument operating conditions can be found at the beginning of each analytical run. Raw instrument data is given in Appendix A. Chain-of-custody information can be found in Appendix B.

ALL DATA CONTAINED IN THIS REPORT WAS GENERATED BY EXYGEN RESEARCH

## Results Summary

| Request #             | Air Volume<br>Sampled (L) | C8 Acid<br>(mg/m3) |
|-----------------------|---------------------------|--------------------|
| WWK-A-AMS1-E9 A       | 1439                      | < 0.00007          |
| WWK-A-AMS1-E9 B       | 1439                      | < 0.00007          |
| WWK-A-AMS1-E9 C       | 1439                      | NA                 |
| WWK-A-AMS1-E9 (Total) |                           | < 0.00014          |
| WWK-A-AMS2-E9 A       | 1442                      | 0.00011            |
| WWK-A-AMS2-E9 B       | 1442                      | < 0.00007          |
| WWK-A-AMS2-E9 C       | 1442                      | NA                 |
| WWK-A-AMS2-E9 (Total) |                           | 0.00011            |
| WWK-A-AMS3-E9 A       | 1392                      | 0.00011            |
| WWK-A-AMS3-E9 B       | 1392                      | < 0.00007          |
| WWK-A-AMS3-E9 C       | 1392                      | NA                 |
| WWK-A-AMS3-E9 (Total) |                           | 0.00011            |
| WWK-A-AMS4-E9 A       | 1417                      | < 0.00007          |
| WWK-A-AMS4-E9 B       | 1417                      | < 0.00007          |
| WWK-A-AMS4-E9 C       | 1417                      | NA                 |
| WWK-A-AMS4-E9 (Total) |                           | < 0.00014          |
| WWK-A-AMS5-E9 A       | 1453                      | < 0.00007          |
| WWK-A-AMS5-E9 B       | 1453                      | < 0.00007          |
| WWK-A-AMS5-E9 C       | 1453                      | NA                 |
| WWK-A-AMS5-E9 (Total) |                           | < 0.00014          |
| WWK-A-AMS6-E9 A       | 1429                      | < 0.00007          |
| WWK-A-AMS6-E9 B       | 1429                      | < 0.00007          |
| WWK-A-AMS6-E9 C       | 1429                      | NA                 |
| WWK-A-AMS6-E9 (Total) |                           | < 0.00014          |

NA – Not Analyzed. B fraction was below the quantitation limit, therefore the backup fraction does not require analysis.

1. “<” is defined as not detected at or above the reported level.
2. Sample results have not been corrected for blank results or control spike recoveries.
3. Please note the following descriptions of the OVS sample tube fractions:

| Fraction | Fraction Description                 |
|----------|--------------------------------------|
| A        | Frit Extract                         |
| B        | 1st set beads extract                |
| C        | 2nd set beads extract (not analyzed) |

ALL DATA CONTAINED IN THIS REPORT WAS GENERATED BY EXYGEN RESEARCH

## QC Data

### LCS

Please note: One control sample was spiked with each perfluorooctanoic acid to give a final concentration of 500 ppb. Air was pulled through the tube at a rate of 1-liter per minute for one hour (60 liters of air). The fractions were separated and analyzed. The acceptable range for control recovery is 75-125%.

| Request # | C8 Acid<br>(amount spiked - ppb) | C8 Acid<br>(amount recovered - ppb) | C8 Acid<br>(percent recovery) |
|-----------|----------------------------------|-------------------------------------|-------------------------------|
| Control 1 | 500                              | 495                                 | 99                            |

### Blanks

| Request #          | Vol. Of Air (L) | C8 Acid<br>(ug/fraction) |
|--------------------|-----------------|--------------------------|
| WWK-A-AMSFBLK-E9 A | 0               | < 0.10                   |
| WWK-A-AMSFBLK-E9 B | 0               | < 0.10                   |

ALL DATA CONTAINED IN THIS REPORT WAS GENERATED BY EXYGEN RESEARCH

## Surrogates

A surrogate spike (C10 Acid) was added to all OVS tubes to give a final concentration of 500 ppb in the extract. Surrogate spike recoveries are given in the following table. There are no set criteria for surrogate spike recoveries. Advisory ranges are 75-125%.

| Sample #           | Amount Spiked<br>(ppb) | Amount Recovered<br>(ppb) | Percent Recovery<br>(%) |
|--------------------|------------------------|---------------------------|-------------------------|
| WWK-A-AMSFBLK-E9 A | 500                    | 488                       | 98                      |
| WWK-A-AMSFBLK-E9 B | 500                    | 300                       | 60*                     |
| WWK-A-AMS1-E9 A    | 500                    | 504                       | 101                     |
| WWK-A-AMS1-E9 B    | 500                    | 362                       | 72*                     |
| WWK-A-AMS2-E9 A    | 500                    | 481                       | 96                      |
| WWK-A-AMS2-E9 B    | 500                    | 322                       | 64*                     |
| WWK-A-AMS3-E9 A    | 500                    | 512                       | 102                     |
| WWK-A-AMS3-E9 B    | 500                    | 332                       | 66*                     |
| WWK-A-AMS4-E9 A    | 500                    | 538                       | 108                     |
| WWK-A-AMS4-E9 B    | 500                    | 352                       | 70*                     |
| WWK-A-AMS5-E9 A    | 500                    | 500                       | 100                     |
| WWK-A-AMS5-E9 B    | 500                    | 335                       | 67*                     |
| WWK-A-AMS6-E9 A    | 500                    | 511                       | 102                     |
| WWK-A-AMS6-E9 B    | 500                    | 347                       | 69*                     |
| Control Spike A    | 500                    | 490                       | 98                      |
| Control Spike B    | 500                    | 297                       | 59*                     |

\* Surrogate recovery outside of advisory range.

ALL DATA CONTAINED IN THIS REPORT WAS GENERATED BY EXYGEN RESEARCH

## Calculations

| Request #          | Vol. Of Air<br>(L) | C8 Acid<br>(raw-ppb) | C8 Acid<br>(ug/fraction) | C8 Acid<br>(mg/m3) |
|--------------------|--------------------|----------------------|--------------------------|--------------------|
| WWK-A-AMSFBLK-E9 A | 0                  | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMSFBLK-E9 B | 0                  | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMS1-E9 A    | 1439               | < 10                 | < 0.10                   | 0.00011            |
| WWK-A-AMS1-E9 B    | 1439               | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMS2-E9 A    | 1442               | 158                  | 0.16                     | < 0.00007          |
| WWK-A-AMS2-E9 B    | 1442               | < 10                 | < 0.10                   | 0.00011            |
| WWK-A-AMS3-E9 A    | 1392               | 150                  | 0.15                     | < 0.00007          |
| WWK-A-AMS3-E9 B    | 1392               | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMS4-E9 A    | 1417               | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMS4-E9 B    | 1417               | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMS5-E9 A    | 1453               | 69                   | < 0.10                   | < 0.00007          |
| WWK-A-AMS5-E9 B    | 1453               | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMS6-E9 A    | 1429               | < 10                 | < 0.10                   | < 0.00007          |
| WWK-A-AMS6-E9 B    | 1429               | < 10                 | < 0.10                   | < 0.00007          |
| Control Spike A    | 0                  | 495                  | 0.50                     | < 0.00007          |
| Control Spike B    | 0                  | < 10                 | < 0.10                   | < 0.00007          |

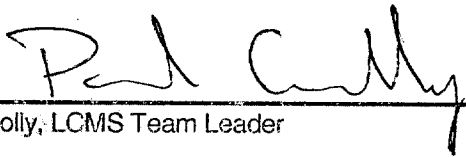
ALL DATA CONTAINED IN THIS REPORT WAS GENERATED BY EXYGEN RESEARCH

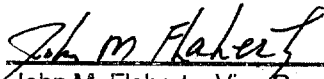
### Example Calculation

For sample WWK-A-AMS2-E9 A C8 Acid.

$$\begin{aligned} &= [158 \text{ ng/ml of C8 Acid} \times (1 \text{ ml}) \times (1 \text{ ug} / 1000 \text{ ng}) \times (1 \text{ mg} / 1000 \text{ ug})] / [(1442 \text{ L}) \times (1 \text{ m}^3 / 1000 \text{ L})] \\ &= 0.00011 \text{ mg} / \text{m}^3 \end{aligned}$$

### Signatures

  
Paul Connolly, LCMS Team Leader      2/25/04  
Date

  
John M. Flaherty, Vice President      2/25/04  
Date

Other Lab Members Contributing to Data

James Miller

ALL DATA CONTAINED IN THIS REPORT WAS GENERATED BY EXYGEN RESEARCH

Table 1. Login Information / Field Data

| Sample ID          | Oxygen<br>Lab ID | Date Received | Description           | Air Volume<br>Sampled (L) |
|--------------------|------------------|---------------|-----------------------|---------------------------|
| WWK-A-AMSFBLK-E9 A | L0001508-1       | 12/20/03      | Frit extract          | 0                         |
| WWK-A-AMSFBLK-E9 B | L0001508-2       | 12/20/03      | 1st set beads extract | 0                         |
| WWK-A-AMSFBLK-E9 C | L0001508-3       | 12/20/03      | 2nd set beads extract | 0                         |
| WWK-A-AMS1-E9 A    | L0001508-4       | 12/20/03      | Frit extract          | 1439                      |
| WWK-A-AMS1-E9 B    | L0001508-5       | 12/20/03      | 1st set beads extract | 1439                      |
| WWK-A-AMS1-E9 C    | L0001508-6       | 12/20/03      | 2nd set beads extract | 1439                      |
| WWK-A-AMS2-E9 A    | L0001508-7       | 12/20/03      | Frit extract          | 1442                      |
| WWK-A-AMS2-E9B     | L0001508-8       | 12/20/03      | 1st set beads extract | 1442                      |
| WWK-A-AMS2-E9 C    | L0001508-9       | 12/20/03      | 2nd set beads extract | 1442                      |
| WWK-A-AMS3-E9 A    | L0001508-10      | 12/20/03      | Frit extract          | 1392                      |
| WWK-A-AMS3-E9 B    | L0001508-11      | 12/20/03      | 1st set beads extract | 1392                      |
| WWK-A-AMS3-E9 C    | L0001508-12      | 12/20/03      | 2nd set beads extract | 1392                      |
| WWK-A-AMS4-E9 A    | L0001508-13      | 12/20/03      | Frit extract          | 1417                      |
| WWK-A-AMS4-E9 B    | L0001508-14      | 12/20/03      | 1st set beads extract | 1417                      |
| WWK-A-AMS4-E9 C    | L0001508-15      | 12/20/03      | 2nd set beads extract | 1417                      |
| WWK-A-AMS5-E9 A    | L0001508-16      | 12/20/03      | Frit extract          | 1453                      |
| WWK-A-AMS5-E9 B    | L0001508-17      | 12/20/03      | 1st set beads extract | 1453                      |
| WWK-A-AMS5-E9 C    | L0001508-18      | 12/20/03      | 2nd set beads extract | 1453                      |
| WWK-A-AMS6-E9 A    | L0001508-19      | 12/20/03      | Frit extract          | 1429                      |
| WWK-A-AMS6-E9 B    | L0001508-20      | 12/20/03      | 1st set beads extract | 1429                      |
| WWK-A-AMS6-E9 C    | L0001508-21      | 12/20/03      | 2nd set beads extract | 1429                      |
| Control Spike A    | L0001508-22      | 12/20/03      | Frit extract          | 0                         |
| Control Spike B    | L0001508-23      | 12/20/03      | 1st set beads extract | 0                         |
| Control Spike C    | L0001508-24      | 12/20/03      | 2nd set beads extract | 0                         |

Table 2. Chain of Custody

| Sample ID          | Date Collected | Date Received at Exygen | Date Extracted by Exygen | Date Analyzed by Exygen |
|--------------------|----------------|-------------------------|--------------------------|-------------------------|
| WWK-A-AMSFBLK-E9 A | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMSFBLK-E9 B | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMSFBLK-E9 C | 12/19/03       | 12/20/03                | NA                       | NA                      |
| WWK-A-AMS1-E9 A    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS1-E9 B    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS1-E9 C    | 12/19/03       | 12/20/03                | NA                       | NA                      |
| WWK-A-AMS2-E9 A    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS2-E9B     | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS2-E9 C    | 12/19/03       | 12/20/03                | NA                       | NA                      |
| WWK-A-AMS3-E9 A    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS3-E9 B    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS3-E9 C    | 12/19/03       | 12/20/03                | NA                       | NA                      |
| WWK-A-AMS4-E9 A    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS4-E9 B    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS4-E9 C    | 12/19/03       | 12/20/03                | NA                       | NA                      |
| WWK-A-AMS5-E9 A    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS5-E9 B    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS5-E9 C    | 12/19/03       | 12/20/03                | NA                       | NA                      |
| WWK-A-AMS6-E9 A    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS6-E9 B    | 12/19/03       | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| WWK-A-AMS6-E9 C    | 12/19/03       | 12/20/03                | NA                       | NA                      |
| Control Spike A    | NA             | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| Control Spike B    | NA             | 12/20/03                | 1/5/04                   | 1/5 - 1/6/04            |
| Control Spike C    | NA             | 12/20/03                | NA                       | NA                      |

00009

000395

# ANALYTICAL DATA REVIEW SHEET

LC/MS

James R. Miller  
Analyst

James R. Miller 1/6/04  
Signature/Date

John M Flaherty  
Reviewed by

John M Flaherty 1/6/04  
Signature/Date

## Sequence Table:

## Method and Injection Info Part:

| Line | Location | SampleName    | Method | Inj | SampleType | InjVolume | DataFile |
|------|----------|---------------|--------|-----|------------|-----------|----------|
| 1    | Vial 1   | STD 50 ppb    | FC8-10 | 1   | Sample     |           |          |
| 2    | Vial 1   | STD 50 ppb    | FC8-10 | 1   | Calib      |           |          |
| 3    | Vial 2   | STD 100 ppb   | FC8-10 | 1   | Calib      |           |          |
| 4    | Vial 3   | STD 250 ppb   | FC8-10 | 1   | Calib      |           |          |
| 5    | Vial 4   | STD 500 ppb   | FC8-10 | 1   | Calib      |           |          |
| 6    | Vial 5   | STD 750 ppb   | FC8-10 | 1   | Calib      |           |          |
| 7    | Vial 6   | STD 1000 ppb  | FC8-10 | 1   | Calib      |           |          |
| 8    | Vial 7   | STD 1500 ppb  | FC8-10 | 1   | Calib      |           |          |
| 9    | Vial 92  | solvent blank | FC8-10 | 1   | Sample     |           |          |
| 10   | Vial 11  | L0001508-22   | FC8-10 | 1   | Sample     |           |          |
| 11   | Vial 12  | L0001508-23   | FC8-10 | 1   | Sample     |           |          |
| 12   | Vial 13  | L0001508-1    | FC8-10 | 1   | Sample     |           |          |
| 13   | Vial 14  | L0001508-2    | FC8-10 | 1   | Sample     |           |          |
| 14   | Vial 15  | L0001508-4    | FC8-10 | 1   | Sample     |           |          |
| 15   | Vial 16  | L0001508-5    | FC8-10 | 1   | Sample     |           |          |
| 16   | Vial 17  | L0001508-7    | FC8-10 | 1   | Sample     |           |          |
| 17   | Vial 18  | L0001508-8    | FC8-10 | 1   | Sample     |           |          |
| 18   | Vial 19  | L0001508-10   | FC8-10 | 1   | Sample     |           |          |
| 19   | Vial 20  | L0001508-11   | FC8-10 | 1   | Sample     |           |          |
| 20   | Vial 4   | STD 500 ppb   | FC8-10 | 1   | Sample     |           |          |
| 21   | Vial 92  | solvent blank | FC8-10 | 1   | Sample     |           |          |
| 22   | Vial 21  | L0001508-13   | FC8-10 | 1   | Sample     |           |          |
| 23   | Vial 22  | L0001508-14   | FC8-10 | 1   | Sample     |           |          |
| 24   | Vial 23  | L0001508-16   | FC8-10 | 1   | Sample     |           |          |
| 25   | Vial 24  | L0001508-17   | FC8-10 | 1   | Sample     |           |          |
| 26   | Vial 25  | L0001508-19   | FC8-10 | 1   | Sample     |           |          |
| 27   | Vial 26  | L0001508-20   | FC8-10 | 1   | Sample     |           |          |
| 28   | Vial 4   | STD 500 ppb   | FC8-10 | 1   | Sample     |           |          |
| 29   | Vial 92  | solvent blank | FC8-10 | 1   | Sample     |           |          |
| 30   | Vial 1   | STD 50 ppb    | FC8-10 | 1   | Calib      |           |          |
| 31   | Vial 2   | STD 100 ppb   | FC8-10 | 1   | Calib      |           |          |
| 32   | Vial 3   | STD 250 ppb   | FC8-10 | 1   | Calib      |           |          |
| 33   | Vial 4   | STD 500 ppb   | FC8-10 | 1   | Calib      |           |          |
| 34   | Vial 5   | STD 750 ppb   | FC8-10 | 1   | Calib      |           |          |
| 35   | Vial 6   | STD 1000 ppb  | FC8-10 | 1   | Calib      |           |          |
| 36   | Vial 7   | STD 1500 ppb  | FC8-10 | 1   | Calib      |           |          |

## Calibration Part:

| Line | Location | SampleName   | Method | CalL | Update  | RF | Update  | RT | Interval |
|------|----------|--------------|--------|------|---------|----|---------|----|----------|
| 2    | Vial 1   | STD 50 ppb   | FC8-10 | 1    | Replace |    | Average |    | -3       |
| 3    | Vial 2   | STD 100 ppb  | FC8-10 | 2    | Replace |    | Average |    | -3       |
| 4    | Vial 3   | STD 250 ppb  | FC8-10 | 3    | Replace |    | Average |    | -3       |
| 5    | Vial 4   | STD 500 ppb  | FC8-10 | 4    | Replace |    | Average |    | -3       |
| 6    | Vial 5   | STD 750 ppb  | FC8-10 | 5    | Replace |    | Average |    | -3       |
| 7    | Vial 6   | STD 1000 ppb | FC8-10 | 6    | Replace |    | Average |    | -3       |
| 8    | Vial 7   | STD 1500 ppb | FC8-10 | 7    | Replace |    | Average |    | -3       |
| 30   | Vial 1   | STD 50 ppb   | FC8-10 | 1    | Average |    | Average |    | -3       |
| 31   | Vial 2   | STD 100 ppb  | FC8-10 | 2    | Average |    | Average |    | -3       |
| 32   | Vial 3   | STD 250 ppb  | FC8-10 | 3    | Average |    | Average |    | -3       |
| 33   | Vial 4   | STD 500 ppb  | FC8-10 | 4    | Average |    | Average |    | -3       |
| 34   | Vial 5   | STD 750 ppb  | FC8-10 | 5    | Average |    | Average |    | -3       |
| 35   | Vial 6   | STD 1000 ppb | FC8-10 | 6    | Average |    | Average |    | -3       |
| 36   | Vial 7   | STD 1500 ppb | FC8-10 | 7    | Average |    | Average |    | -3       |



## LC/MS SYSTEM AND OPERATING CONDITIONS

Client: Dupont

EXYGEN STUDY: L0001508

Instrument: Hewlett-Packard 1100 LC/MSD (LC/MS 5)  
API-ES Interface - Negative SIM mode  
Nitrogen: 10 L/min at 300°C  
Fragmentor: Variable; Vcap: 3500V

Computer: Hewlett-Packard Kayak workstation

Software: Microsoft Windows NT 4.0  
Agilent ChemStation Version A.08.03

HPLC Equipment: HP G1322A Solvent Degasser  
HP G1311A Quaternary Pump  
HP G1313A Autosampler  
HP G1316A Column Thermostat  
HP G1946A MSD

HPLC Column: Thermo Hypersil-Keystone Betasil C18, 30 x 2.0 mm x 3µm  
Column Temp.: 35° C  
Mobile Phase (A): 2mM Ammonium acetate in OmniSolv Water  
Mobile Phase (B): HPLC grade Methanol

| Time | % A  | % B  |
|------|------|------|
| 0.0  | 70   | 30   |
| 6.0  | 10   | 90   |
| 10.0 | 10   | 90   |
| 10.0 | STOP | STOP |

Post Time = 4 min.

Total run time = 14 min.

Flow Rate: 0.3 mL/min  
Injected Volume: 5 µL

Ions monitored:

| Analyte        | Ion (m/z) |
|----------------|-----------|
| C8 Acid (PFOA) | 369       |
| C10 Surrogate  | 469       |

Extraction Date: January 5, 2004

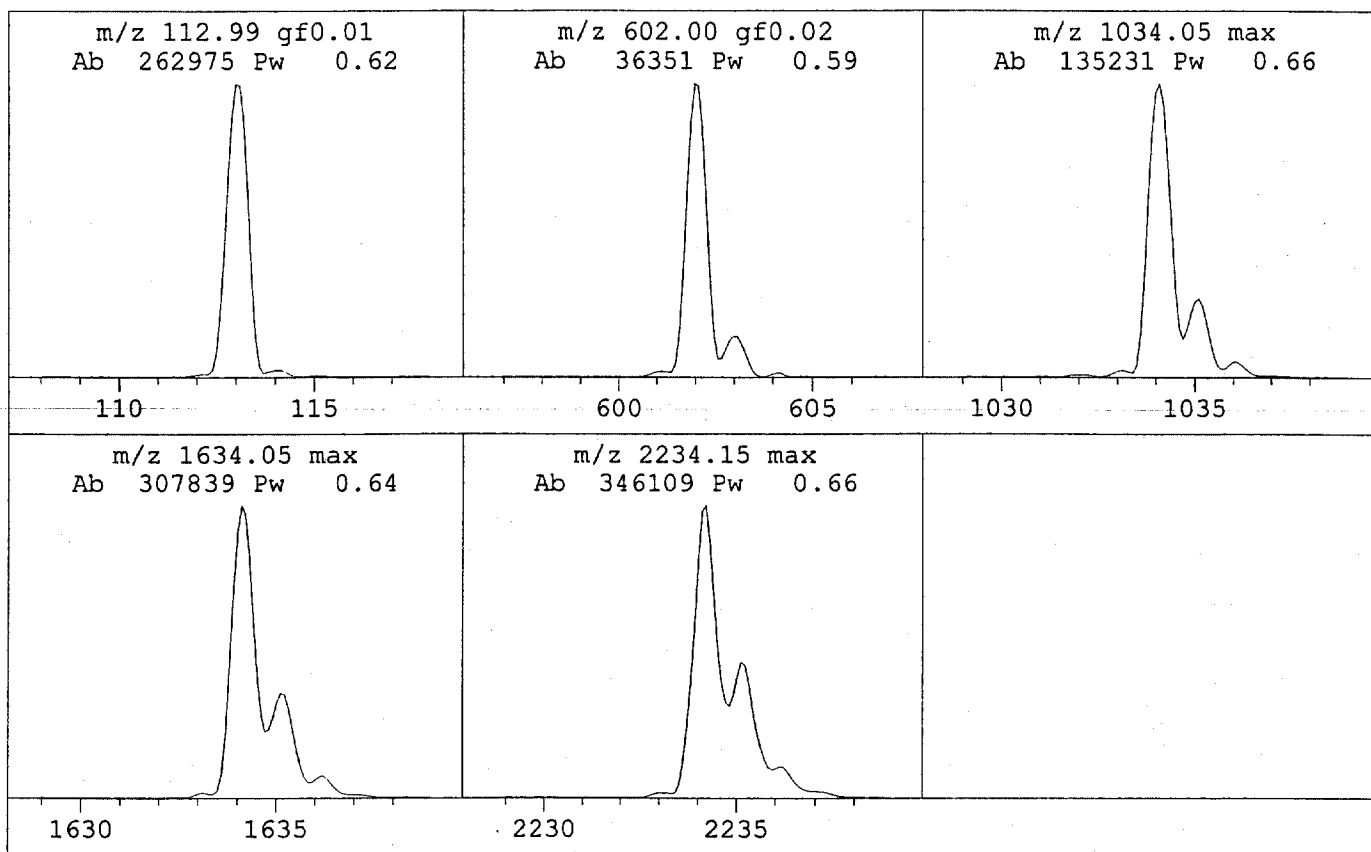
Analyst:

James R. Miller *JRM 1/5/04*  
Exygen Research  
3058 Research Drive, State College, PA 16801  
Phone: (814) 272-1039, FAX: (814) 231-1580

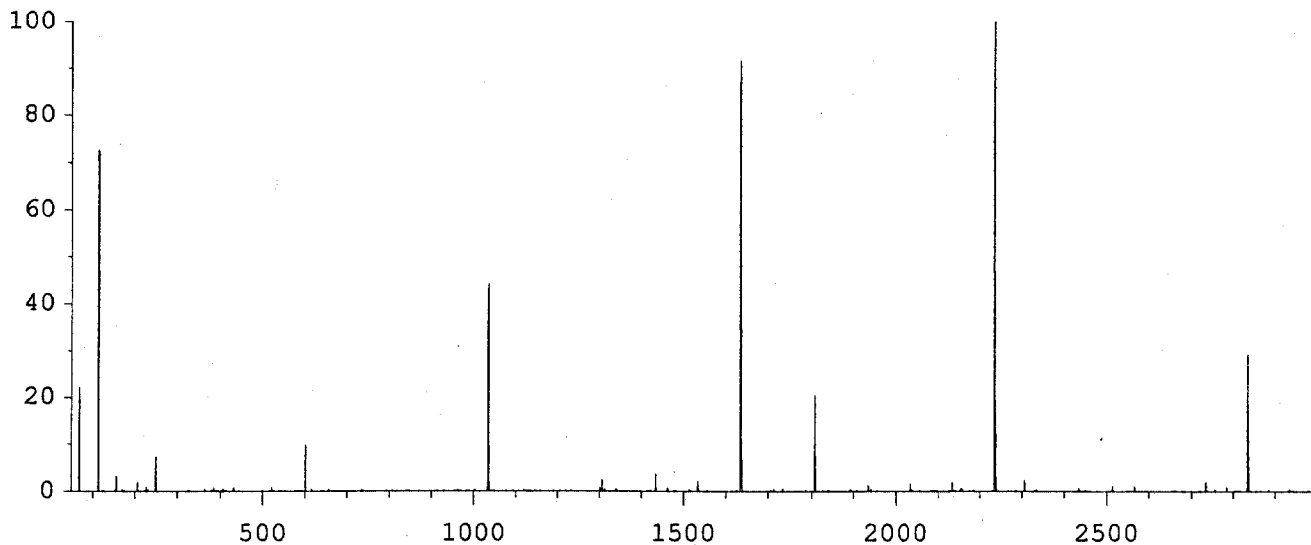
Instrument : LCMS5

Tue Dec 16 12:15:46 2003

C:\HPCHEM\1\1946TUNE\ATUNES.TUN



Scan: 50.00 - 3000.00 Samples: 8 Thresh: 0 Step: 0.10  
29501 peaks Base: 2234.15 Abundance: 335232 F Raw,Gauss 0.3



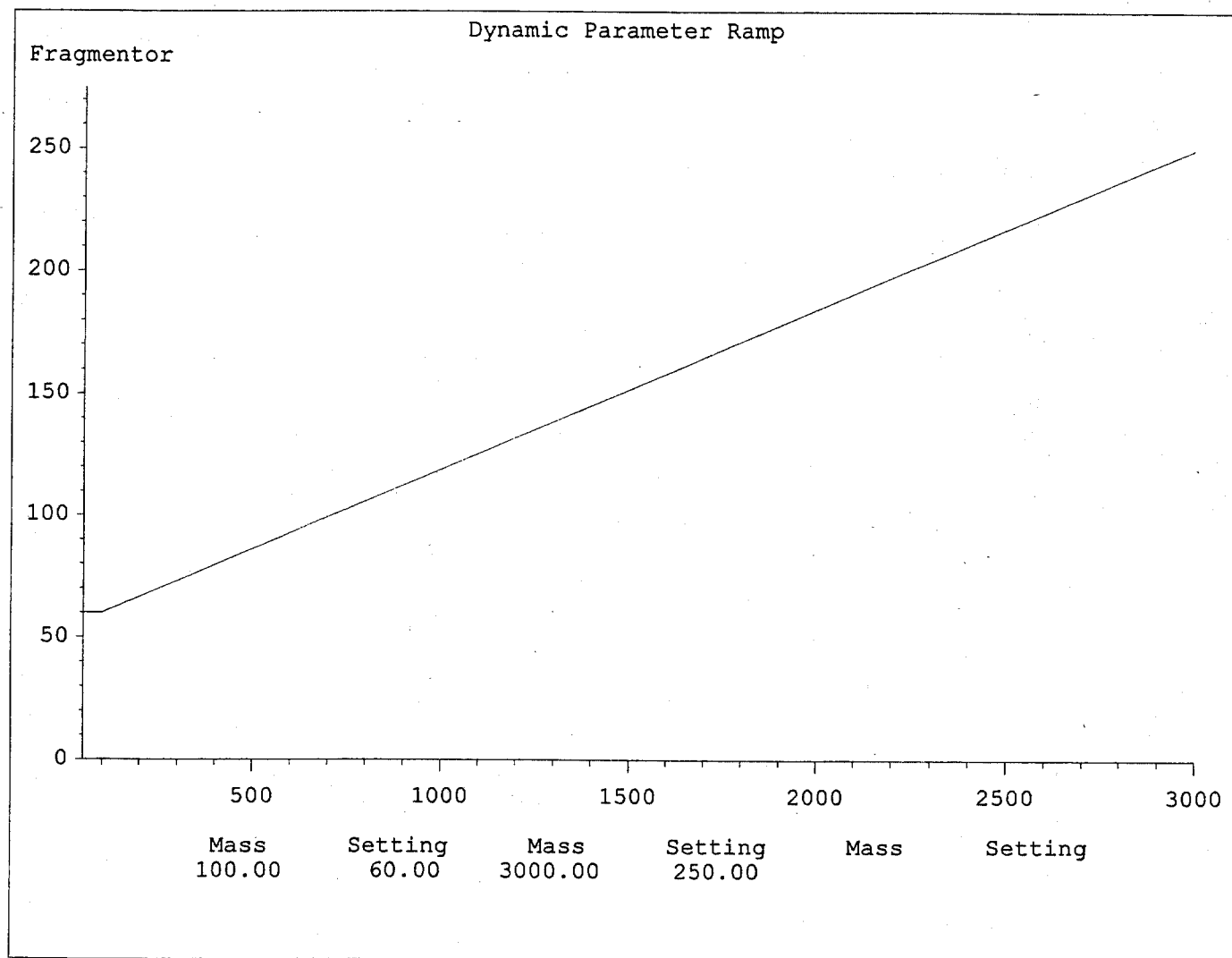
| m/z     | gf | Abund  | Rel Abund | Iso m/z | Iso Abund | Iso Ratio |
|---------|----|--------|-----------|---------|-----------|-----------|
| 112.96  |    | 243712 | 100.00    | 113.99  | 4075      | 1.67      |
| 601.99  |    | 32600  | 13.38     | 602.95  | 2771      | 8.50      |
| 1034.05 |    | 147776 | 60.64     | 1035.05 | 32352     | 21.89     |
| 1634.05 |    | 307520 | 126.18    | 1635.05 | 117312    | 38.15     |
| 2234.15 |    | 335232 | 137.55    | 2235.15 | 156608    | 46.72     |

0015 *TD* 12/16/03

000401

Mode: API-ES    Polarity: NEG

|           |      |           |       |
|-----------|------|-----------|-------|
| Fragment  | VAR  | WidthGain | 1031  |
| Skim2     | 6.0  | WidthOffs | VAR   |
| Lens1     | -3.8 | MassGain  | 93.65 |
| Lens2     | 14   | MassOffs  | 0.516 |
| Iris      | -8   |           |       |
|           |      | Energy    | 5.0   |
|           |      | OpolPeak  | 300   |
|           |      | OpolKnee  | 315   |
| Gain      | 2.0  | QuadDC    | 0.00  |
| EMV       | 1788 | Samples   | 8     |
| VCap      | 4000 | Averages  | 1     |
|           |      | StepSize  | 0.10  |
| Status:   |      |           |       |
| CapCur    | 39   | DryingGas | 7.0   |
| ChamCur   | 0.51 | Gas Temp  | 300   |
| Quad Temp | 99   | Neb Pres  | 15    |



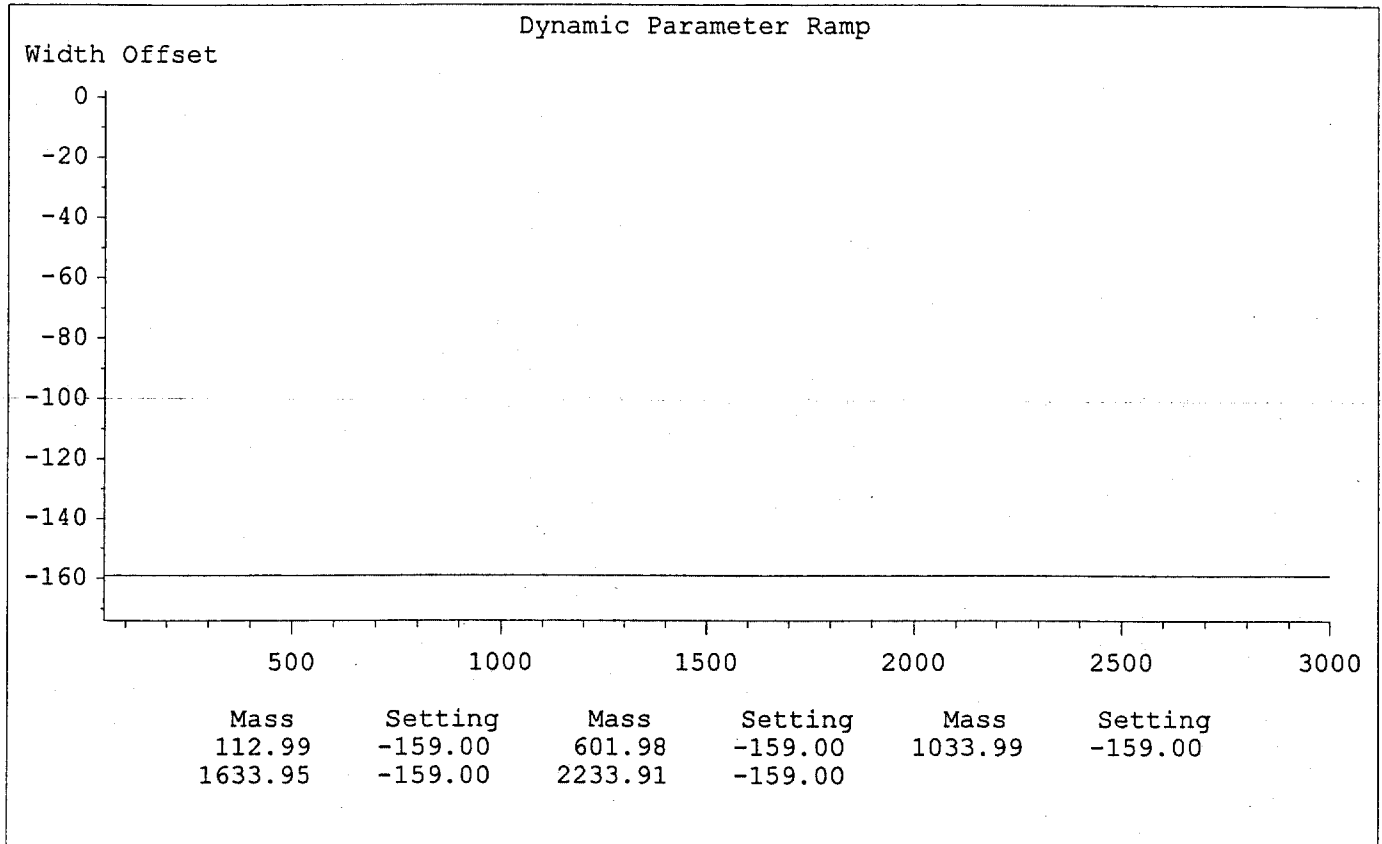
0016

TJ 12/16/03

000402

Instrument : LCMS5  
Tue Dec 16 12:15:46 2003

C:\HPCHEM\1\1946TUNE\ATUNES.TUN



TH  
12/16/03

0017

000403

=====

Calibration Table

=====

Calib. Data Modified : 1/6/04 8:52:34 AM

Calculate : External Standard  
Based on : Peak Area

Rel. Reference Window : 5.000 %  
Abs. Reference Window : 0.000 min  
Rel. Non-ref. Window : 5.000 %  
Abs. Non-ref. Window : 0.000 min  
Uncalibrated Peaks : not reported  
Partial Calibration : Yes, identified peaks are recalibrated  
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear  
Origin : Ignored  
Weight : Equal

Recalibration Settings:  
Average Response : Average all calibrations  
Average Retention Time: Floating Average New 75%

## Calibration Report Options :

Printout of recalibrations within a sequence:

Calibration Table after Recalibration

Normal Report after Recalibration

If the sequence is done with bracketing:

Results of first cycle (ending previous bracket)

Signal 1: MSD1 369, EIC=368.7:369.7

Signal 2: MSD1 469, EIC=468.7:469.7

| RetTime<br>[min] | Lvl<br>Sig | Amount<br>[ppb] | Area      | Amt/Area   | Ref | Grp Name      |
|------------------|------------|-----------------|-----------|------------|-----|---------------|
| 7.230            | 1          | 50.00000        | 1.65691e4 | 3.01767e-3 | 1   | C8 Acid       |
|                  | 2          | 100.00000       | 3.17623e4 | 3.14839e-3 |     |               |
|                  | 3          | 250.00000       | 8.32569e4 | 3.00275e-3 |     |               |
|                  | 4          | 500.00000       | 1.64130e5 | 3.04636e-3 |     |               |
|                  | 6          | 1000.00000      | 3.11575e5 | 3.20950e-3 |     |               |
|                  | 7          | 1500.00000      | 4.52231e5 | 3.31689e-3 |     |               |
| 8.054            | 2          | 50.00000        | 2.02803e4 | 2.46545e-3 | 1   | C10 Surrogate |
|                  | 2          | 100.00000       | 3.87371e4 | 2.58150e-3 |     |               |
|                  | 3          | 250.00000       | 1.02757e5 | 2.43294e-3 |     |               |
|                  | 4          | 500.00000       | 2.02772e5 | 2.46583e-3 |     |               |
|                  | 6          | 1000.00000      | 3.83879e5 | 2.60499e-3 |     |               |
|                  | 7          | 1500.00000      | 5.56723e5 | 2.69434e-3 |     |               |

## More compound-specific settings:

Compound: C8 Acid

Time Window : From 7.057 min To 8.058 min

Compound: C10 Surrogate

Time Window : From 7.858 min To 8.663 min

=====

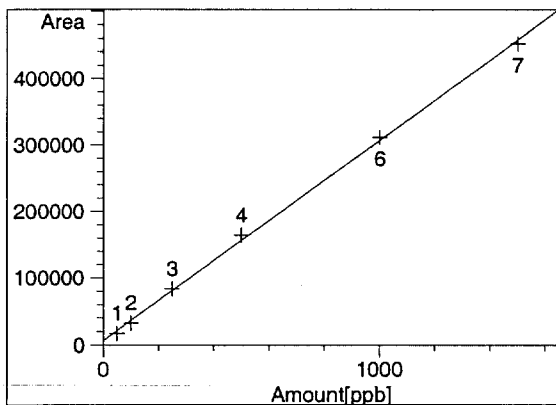
Peak Sum Table

=====

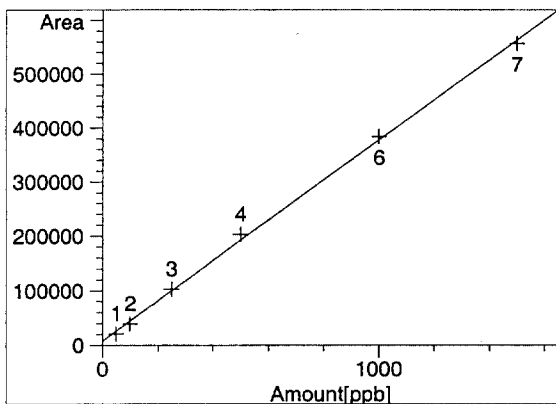
\*\*\*No Entries in table\*\*\*

0018

=====  
Calibration Curves  
=====



C8 Acid at exp. RT: 7.230  
MSD1 369, EIC=368.7:369.7  
Correlation: 0.99950  
Residual Std. Dev.: 6119.66339  
Formula:  $y = mx + b$   
m: 301.15753  
b: 5931.46096  
x: Amount[ppb]  
y: Area



C10 Surrogate at exp. RT: 8.054  
MSD1 469, EIC=468.7:469.7  
Correlation: 0.99945  
Residual Std. Dev.: 7922.05150  
Formula:  $y = mx + b$   
m: 370.88490  
b: 7356.34233  
x: Amount[ppb]  
y: Area

0019

Sample Name:STD 50 ppb  
Sample Info:Warm Up

1

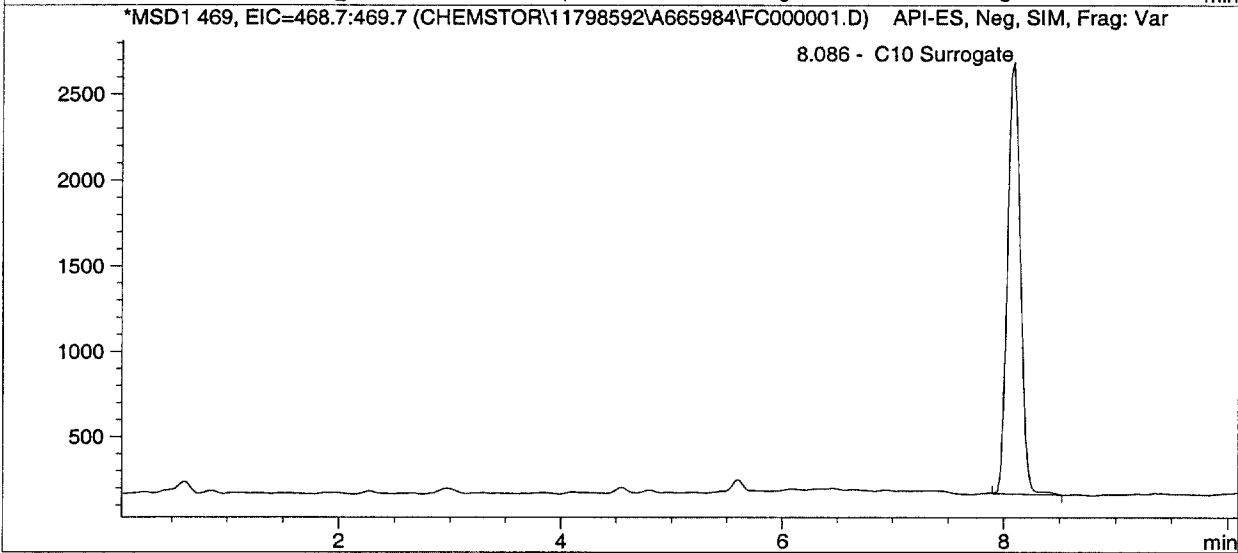
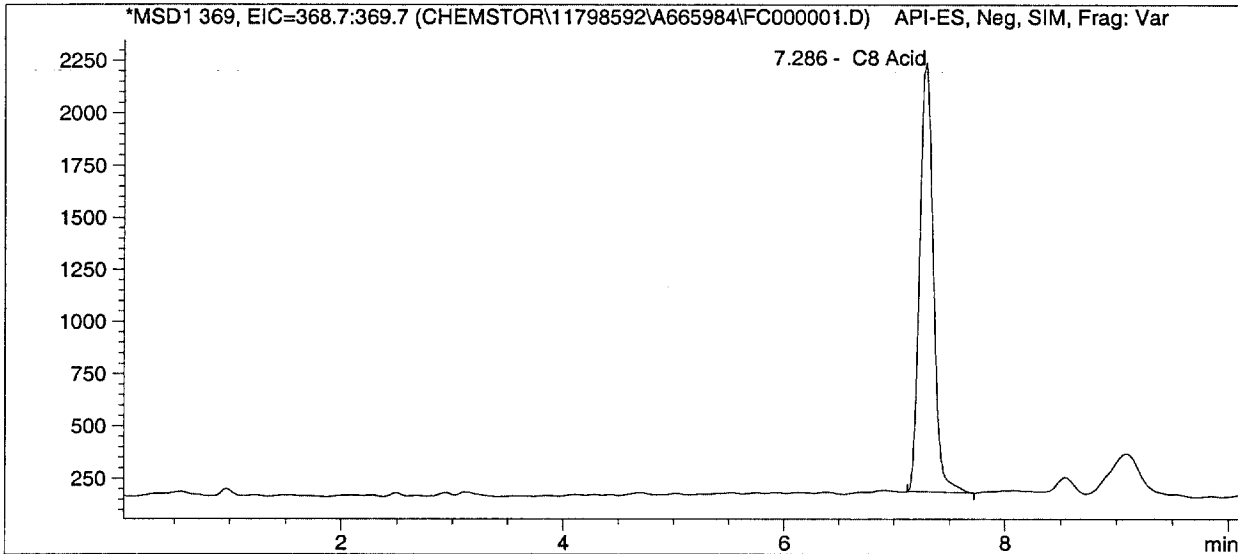
Data file :C:\HPCHEM\1\DATA\Chemstor\11798592\A665984\FC000001.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 5:13:24 PM | Seq Line  | : | 1    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 1    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area  | Signal                    |
|--------------|----------------|-------|-------|---------------------------|
| C8 Acid      | 38.29          | 7.286 | 17464 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 35.04          | 8.086 | 20351 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0020

Initials AM  
Date 1/6/04  
Run# FC000001 To FC000036

Sample Name:STD 50 ppb

Sample Info:

1

Data file :C:\HPCHEM\1\DATA\Chemstor\11798693\A668416\FC000002.D

=====

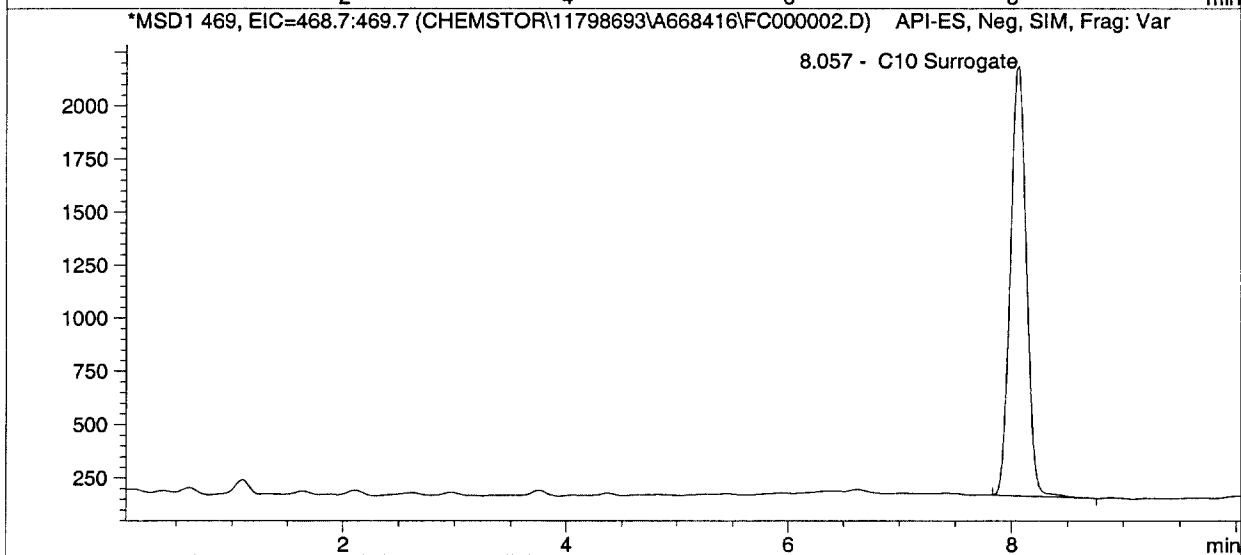
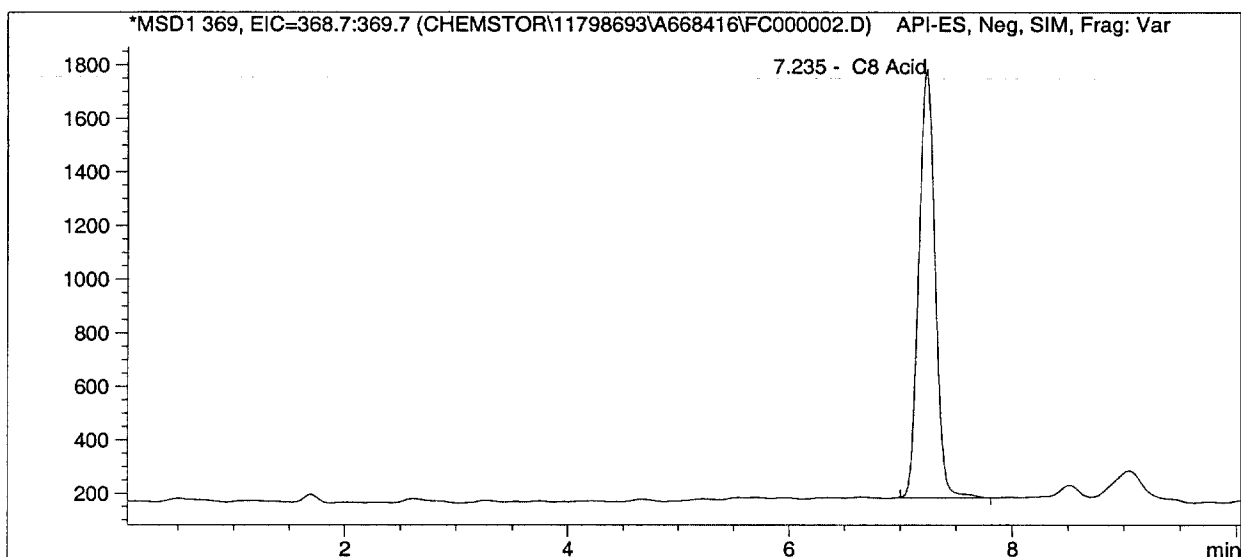
|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 5:28:22 PM | Seq Line  | : | 2    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 1    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M

Analysis Method : C:\HPCHEM\1\METHODS\010504A.M

Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area  | Signal                    |
|--------------|----------------|-------|-------|---------------------------|
| C8 Acid      | 34.60          | 7.235 | 16351 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 35.54          | 8.057 | 20536 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0021

Sample Name:STD 100 ppb

Sample Info:

1

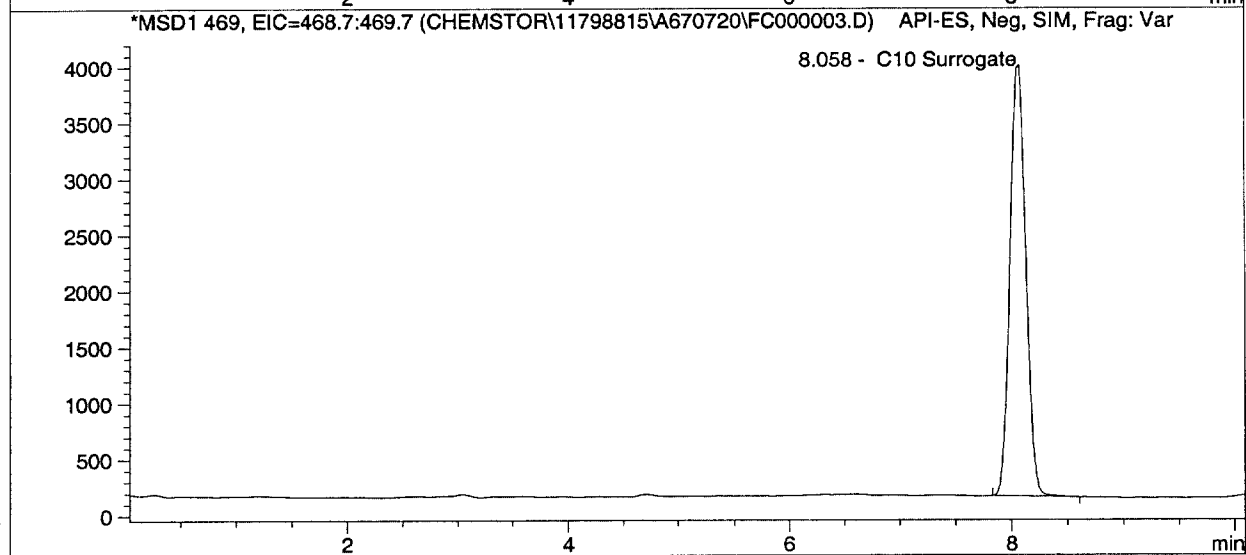
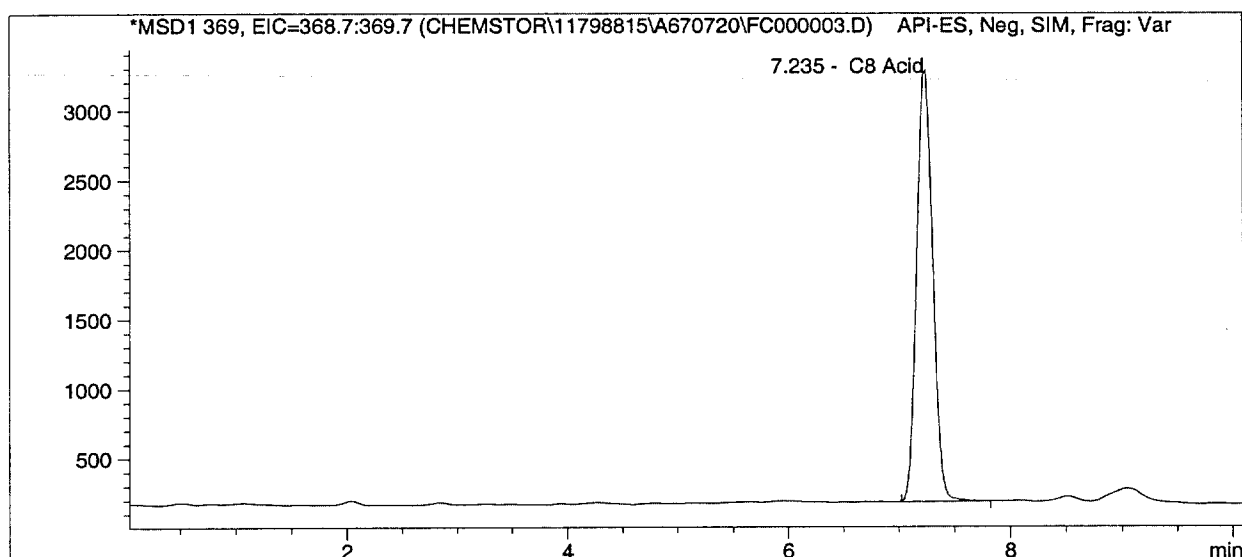
Data file :C:\HPCHEM\1\DATA\Chemstor\11798815\A670720\FC000003.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 5:43:23 PM | Seq Line  | : | 3    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 2    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area  | Signal                    |
|--------------|----------------|-------|-------|---------------------------|
| C8 Acid      | 84.67          | 7.235 | 31432 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 84.04          | 8.058 | 38526 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0022

Sample Name:STD 250 ppb

Sample Info:

1

Data file :C:\HPCHEM\1\DATA\Chemstor\11798897\A672960\FC000004.D

=====

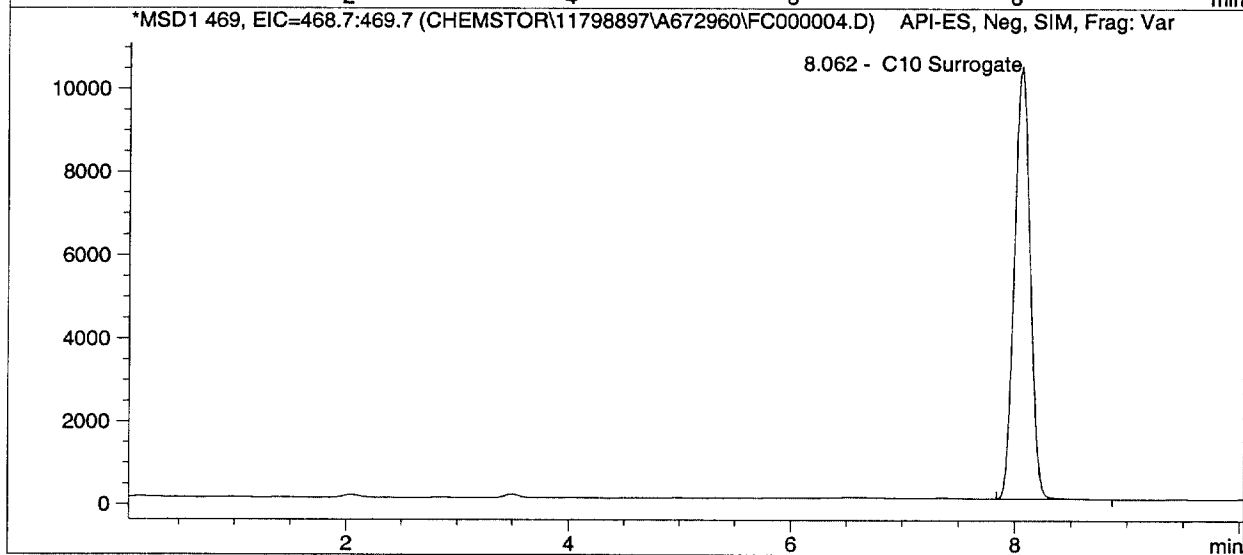
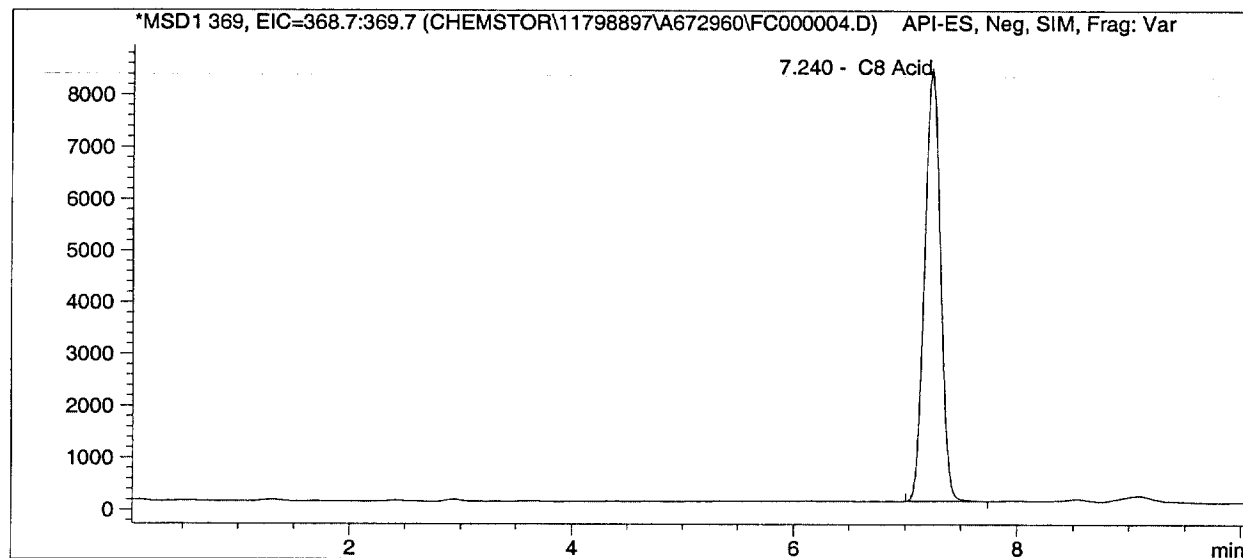
|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 5:58:25 PM | Seq Line  | : | 4    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 3    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M

Analysis Method : C:\HPCHEM\1\METHODS\010504A.M

Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 255.90         | 7.240 | 82997  | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 257.39         | 8.062 | 102820 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0023

Sample Name:STD 500 ppb

Sample Info:

1

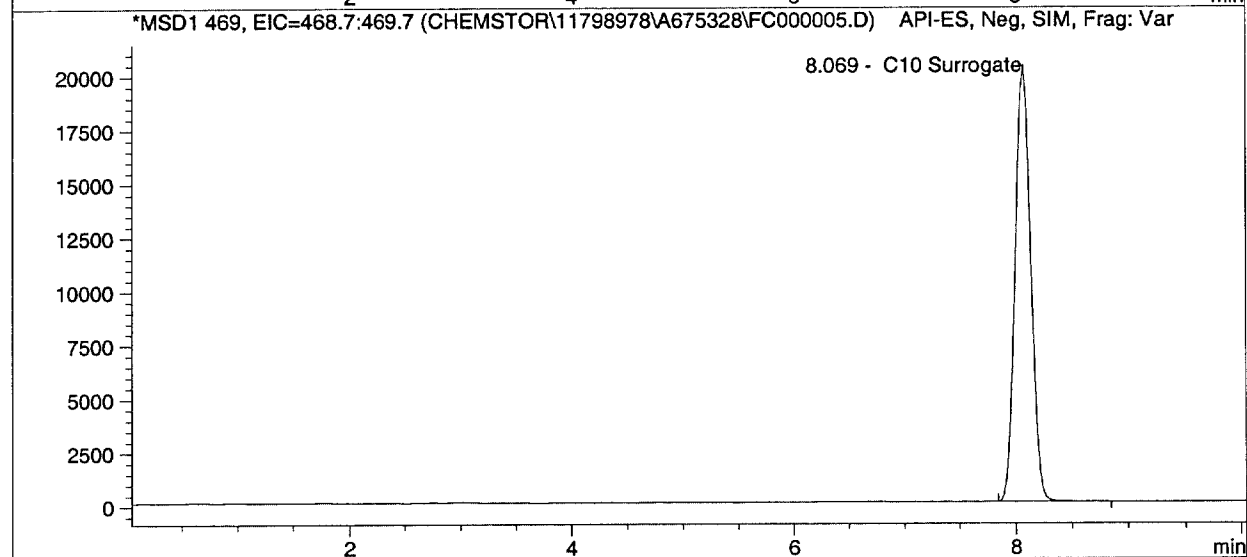
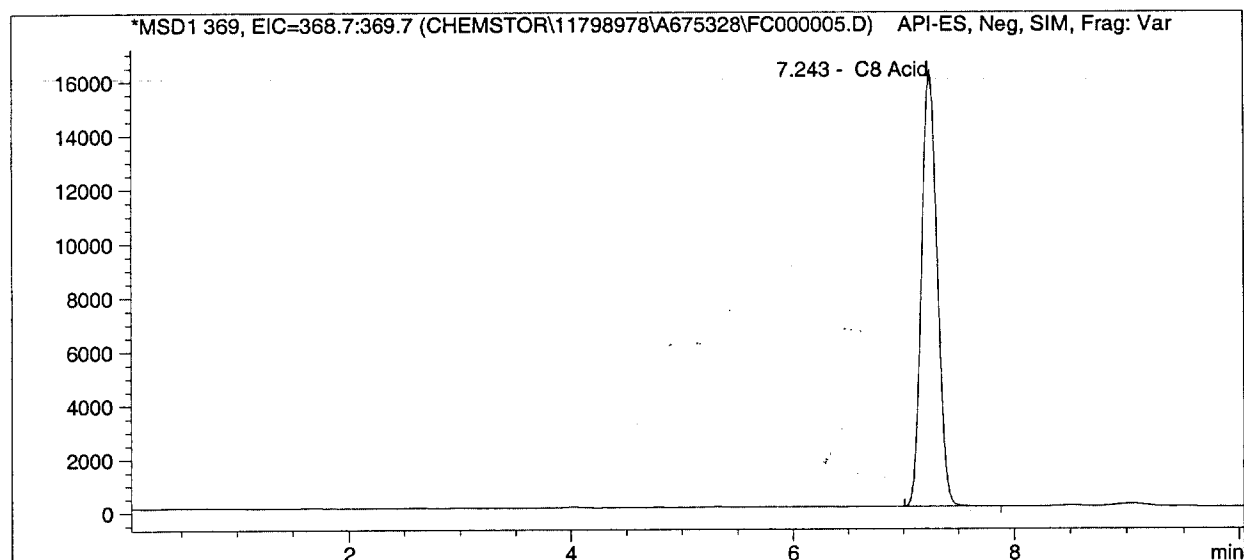
Data file :C:\HPCHEM\1\DATA\Chemstor\11798978\A675328\FC000005.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 6:13:22 PM | Seq Line  | : | 5    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 4    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 517.39         | 7.243 | 161749 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 517.99         | 8.069 | 199472 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0024

Sample Name:STD 750 ppb

Sample Info:

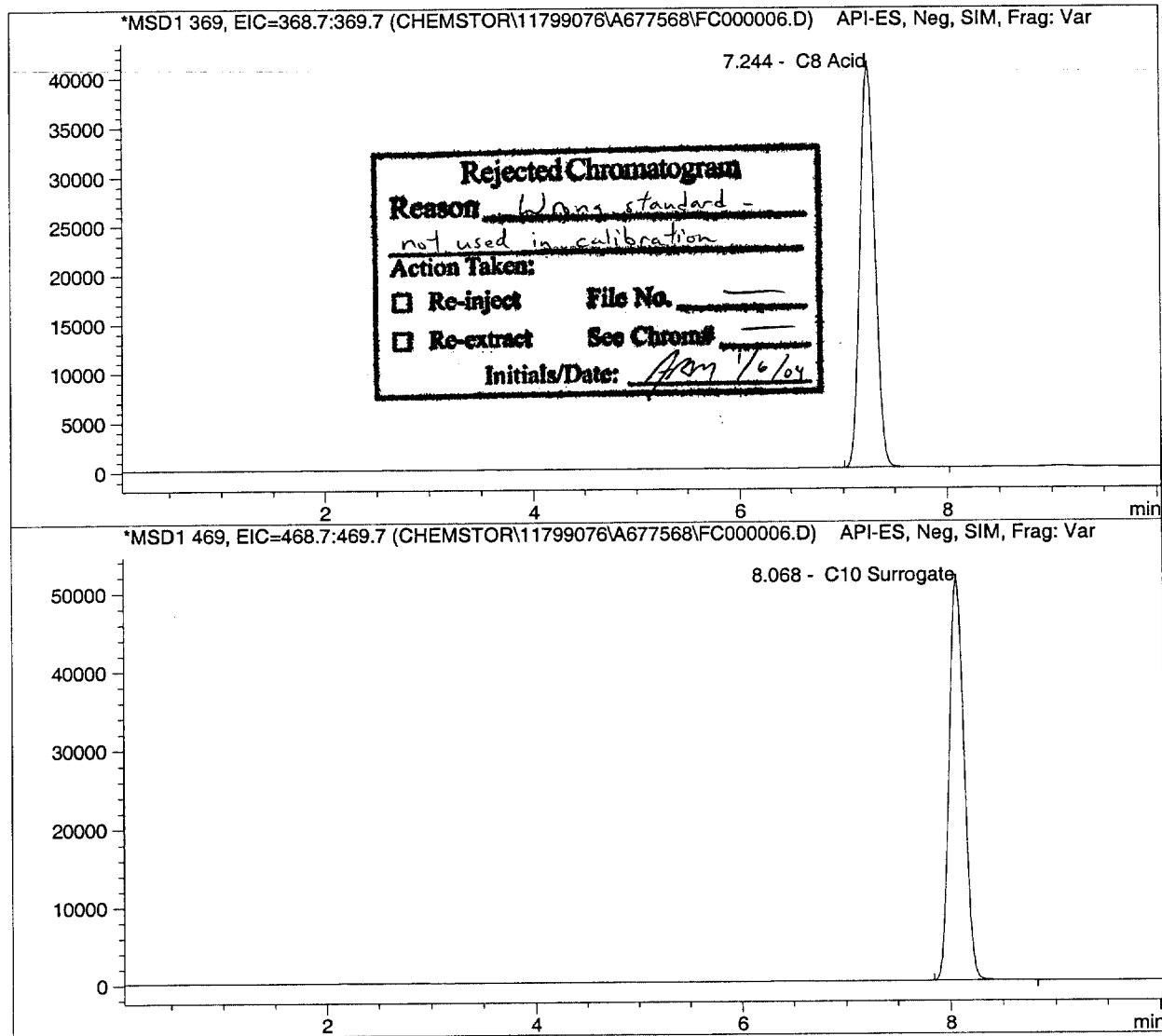
1

Data file :C:\HPCHEM\1\DATA\Chemstor\11799076\A677568\FC000006.D

Injection Date : 1/5/04 6:28:23 PM Seq Line : 6  
Acq Operator : jmillers Vial No. : 5  
Instrument : PC00414 Inj. No. : 1  
Dilution : 1 Inj. Vol. : 5 µl

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|--------------|----------------|-------|--------|---------------------------|
| C8 Acid      | 1355.87        | 7.244 | 414262 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 1361.83        | 8.068 | 512437 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0025

Sample Name:STD 1000 ppb

Sample Info:

1

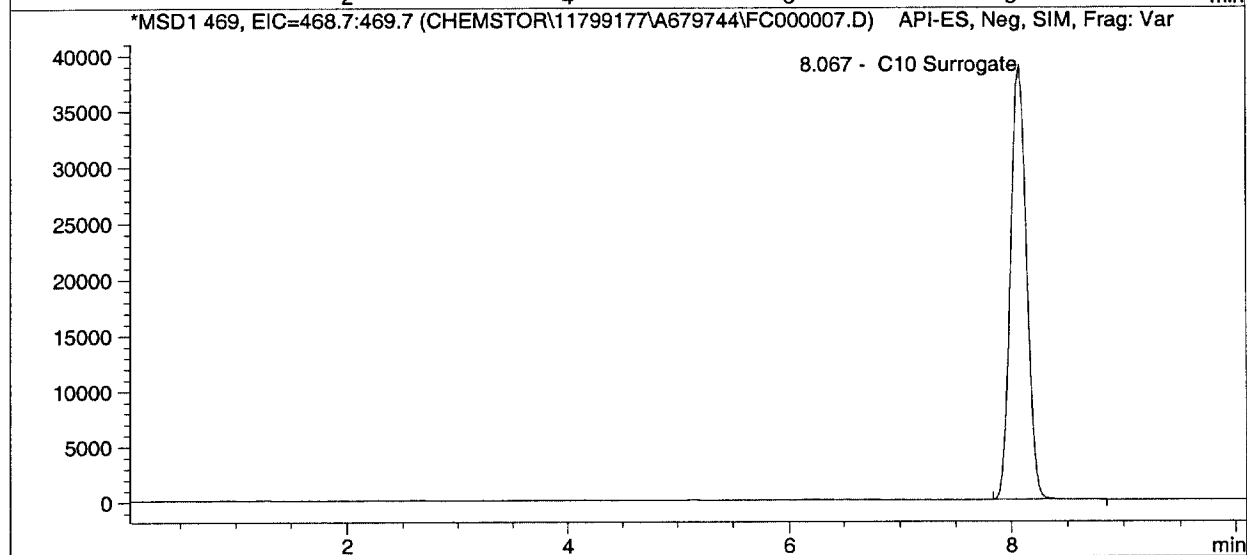
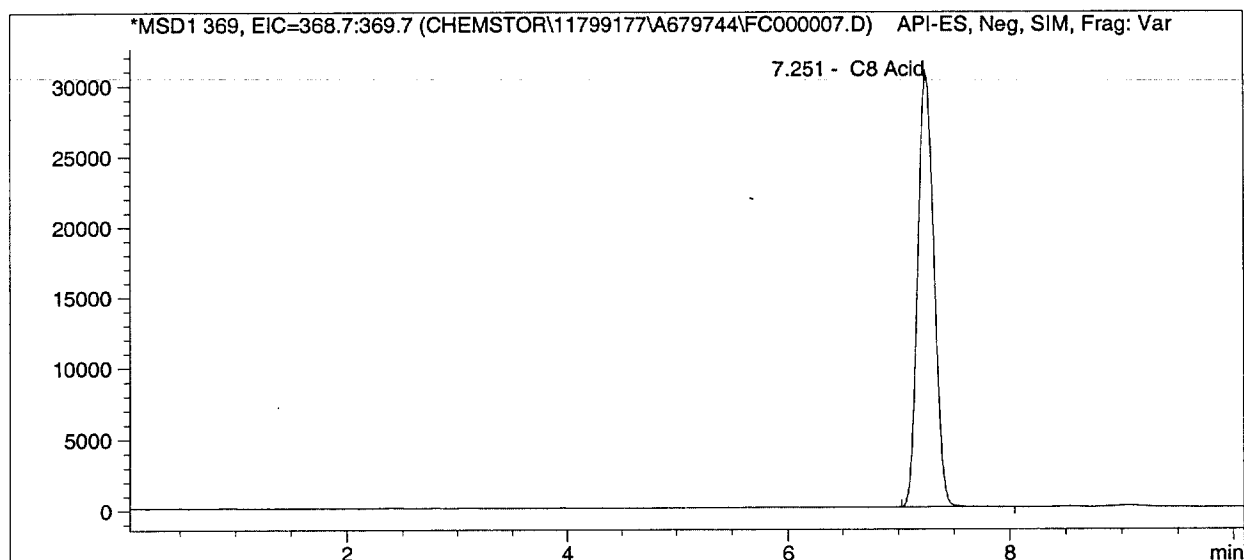
Data file :C:\HPCHEM\1\DATA\Chemstor\11799177\A679744\FC000007.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 6:43:23 PM | Seq Line  | : | 7    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 6    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 1009.03        | 7.251 | 309808 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 1016.30        | 8.067 | 384288 | MSD1 469, EIC=468.7:469.7 |

=====

\*\*\* End of Report \*\*\*

0026

Sample Name:STD 1500 ppb

Sample Info:

1

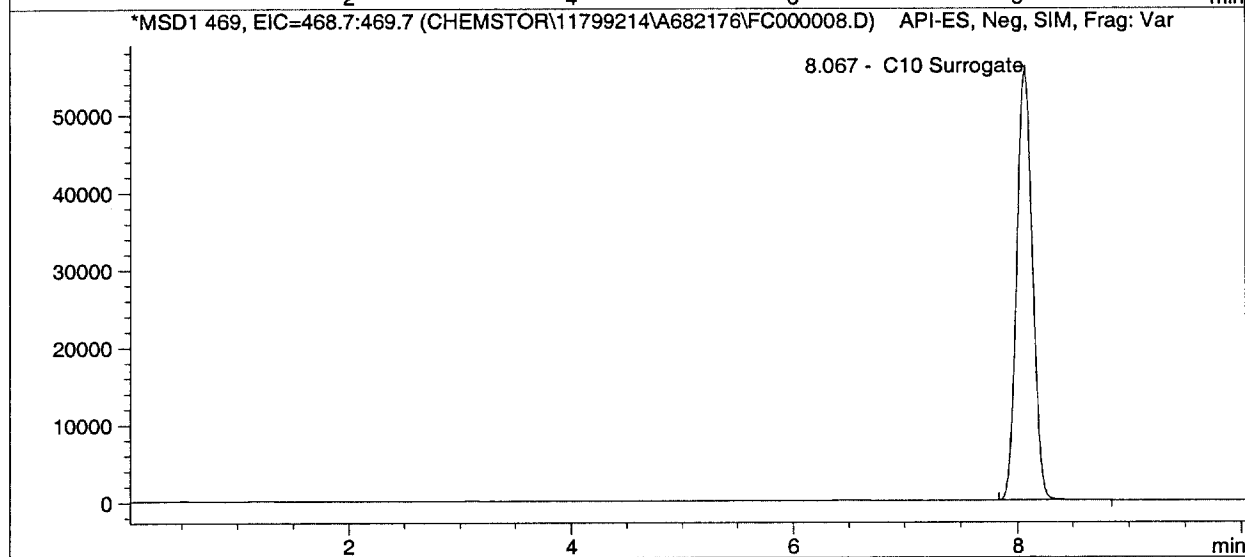
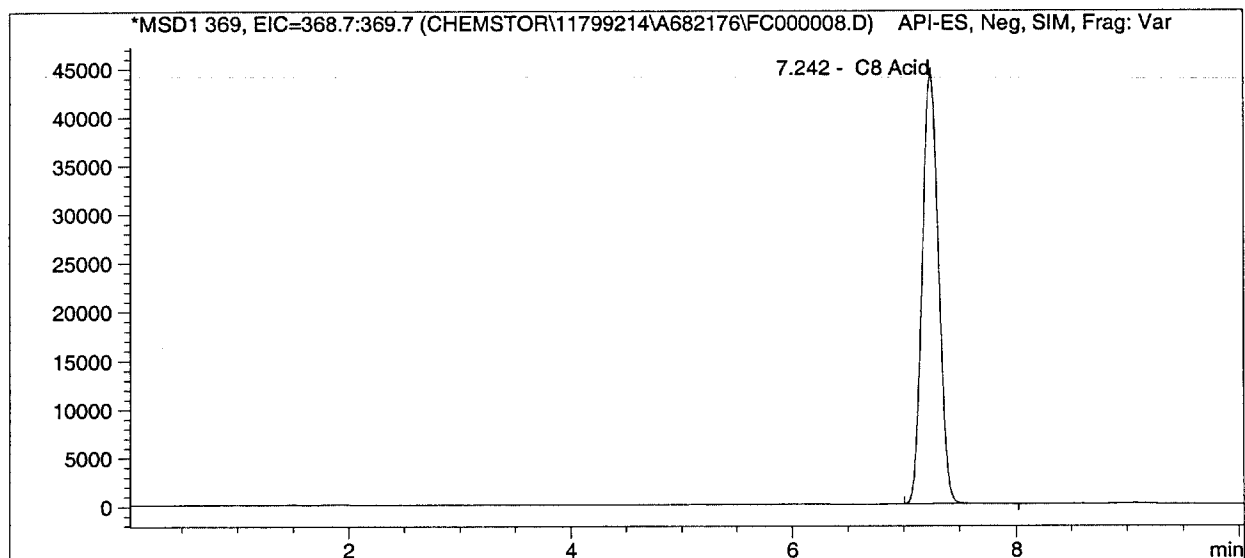
Data file :C:\HPCHEM\1\DATA\Chemstor\11799214\A682176\FC000008.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 6:58:21 PM | Seq Line  | : | 8    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 7    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 1474.85        | 7.242 | 450094 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 1478.11        | 8.067 | 555566 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0027

Sample Name:solvent blank  
Sample Info:

1

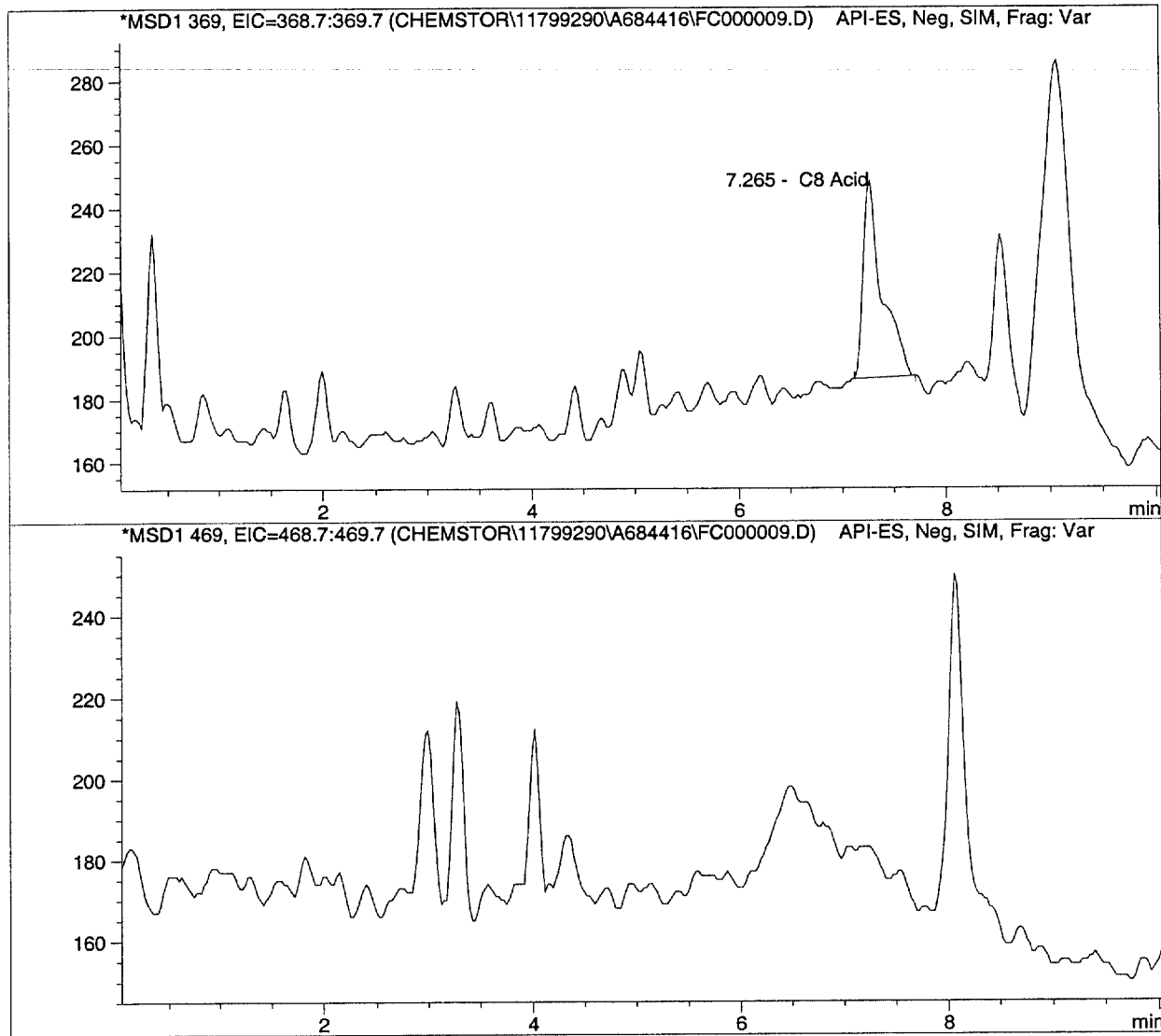
Data file :C:\HPCHEM\1\DATA\Chemstor\11799290\A684416\FC000009.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 7:13:21 PM | Seq Line  | : | 9    |
| Acq Operator   | : jmillier |            | Vial No.  | : | 92   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area | Signal                    |
|-------------|----------------|-------|------|---------------------------|
| C8 Acid     | 0.00           | 7.265 | 786  | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 0.00           | 0.000 | 0    | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0028

Sample Name:L0001508-22

Sample Info:

1

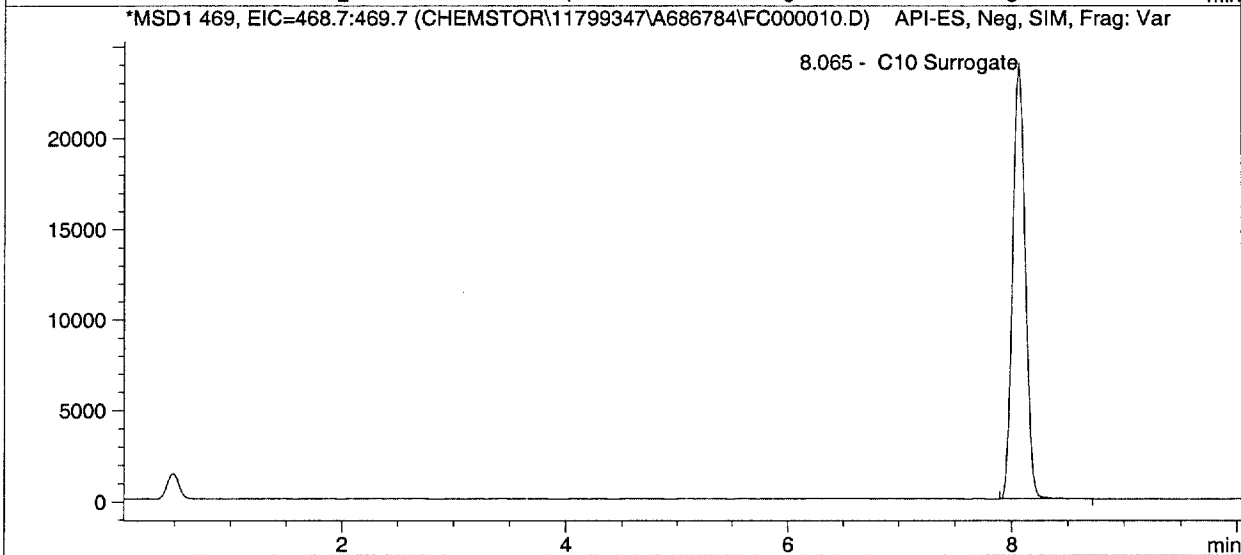
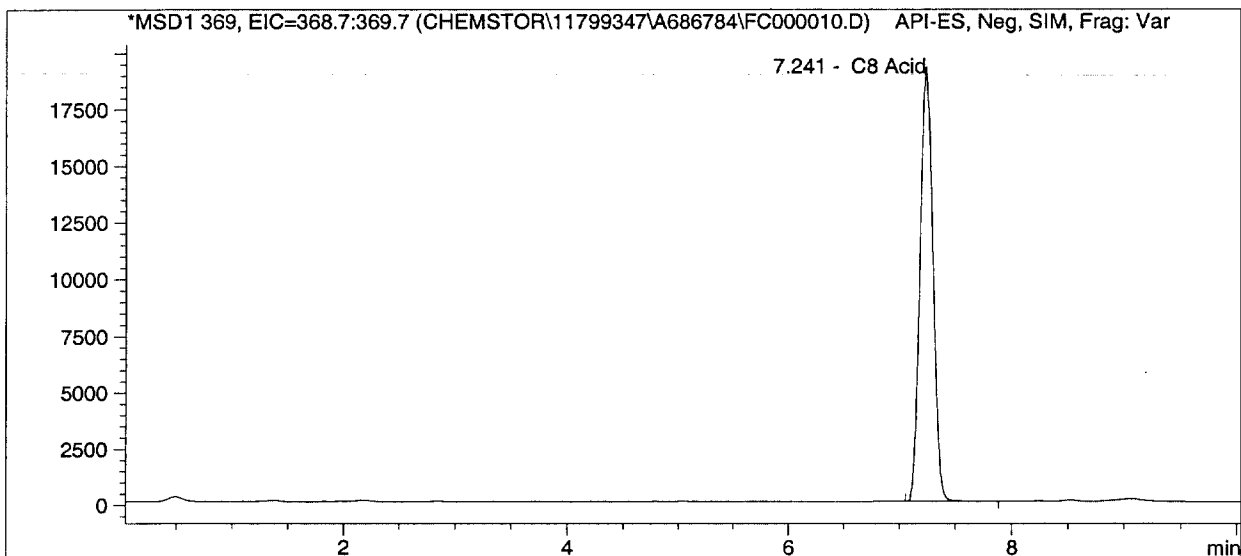
Data file :C:\HPCHEM\1\DATA\Chemstor\11799347\A686784\FC000010.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 7:28:22 PM | Seq Line  | : | 10   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 11   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 494.74         | 7.241 | 154927 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 490.03         | 8.065 | 189102 | MSD1 469, EIC=468.7:469.7 |

=====

\*\*\* End of Report \*\*\*

0029

Sample Name:L0001508-23

Sample Info:

1

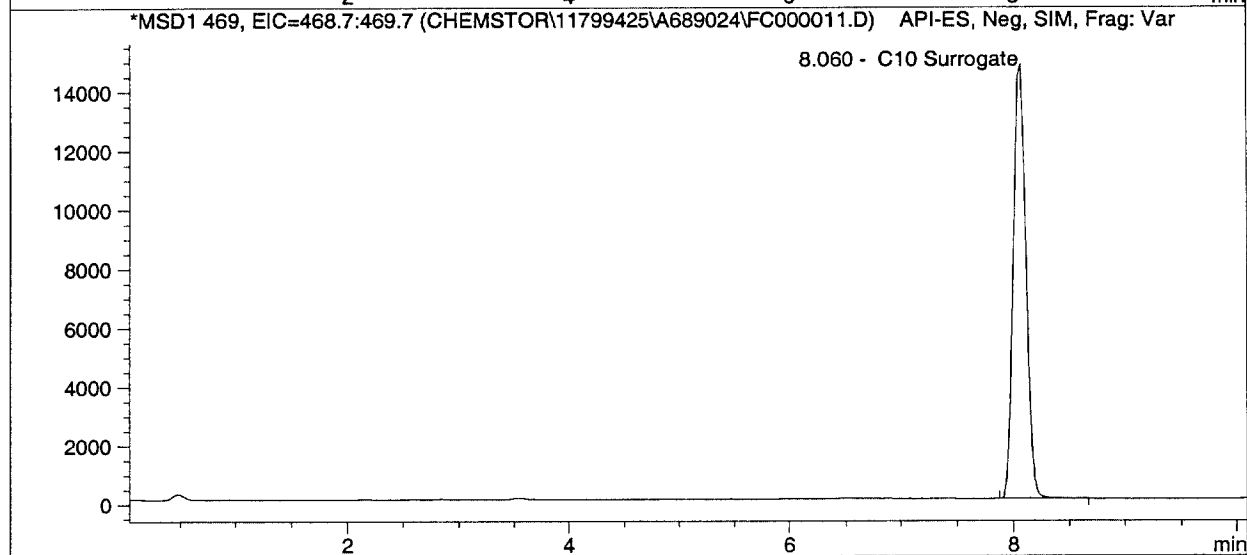
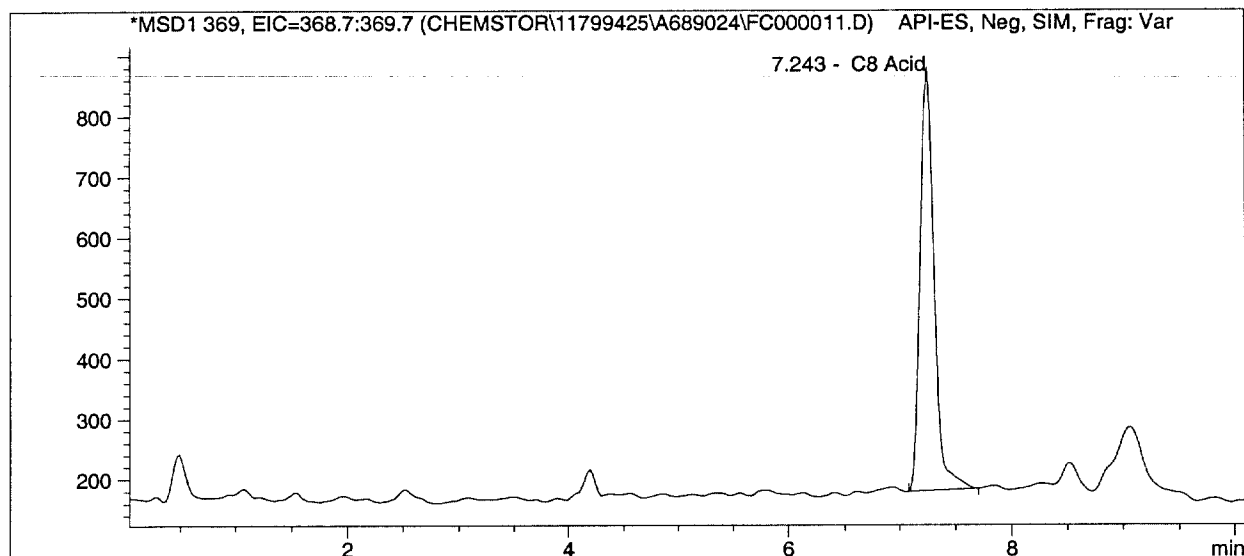
Data file :C:\HPCHEM\1\DATA\Chemstor\11799425\A689024\FC000011.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 7:43:25 PM | Seq Line  | : | 11   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 12   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|--------------|----------------|-------|--------|---------------------------|
| C8 Acid      | 0.35           | 7.243 | 6037   | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 297.04         | 8.060 | 117524 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0030

Sample Name:L0001508-1

Sample Info:

1

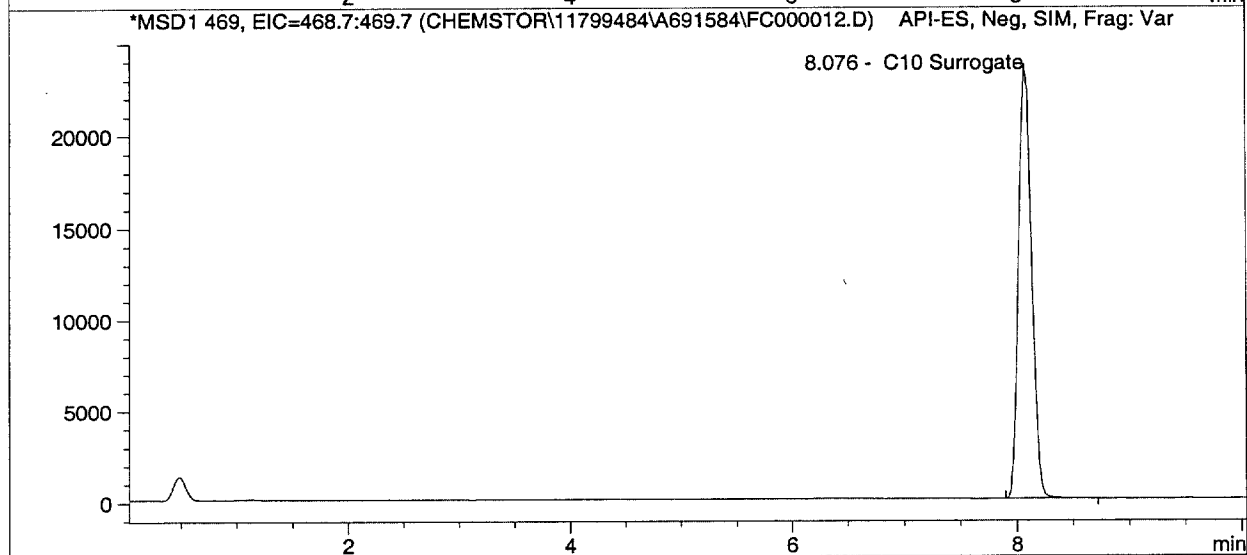
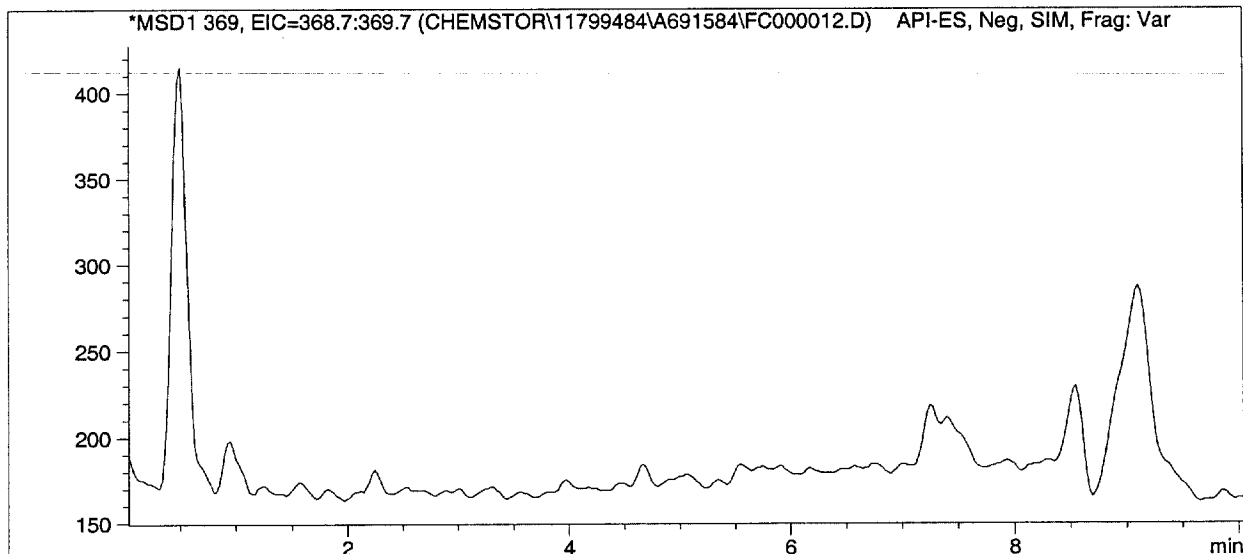
Data file :C:\HPCHEM\1\DATA\Chemstor\11799484\A691584\FC000012.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 7:58:25 PM | Seq Line  | : | 12   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 13   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 0.00           | 0.000 | 0      | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 487.93         | 8.076 | 188321 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0031

Sample Name:L0001508-2

Sample Info:

1

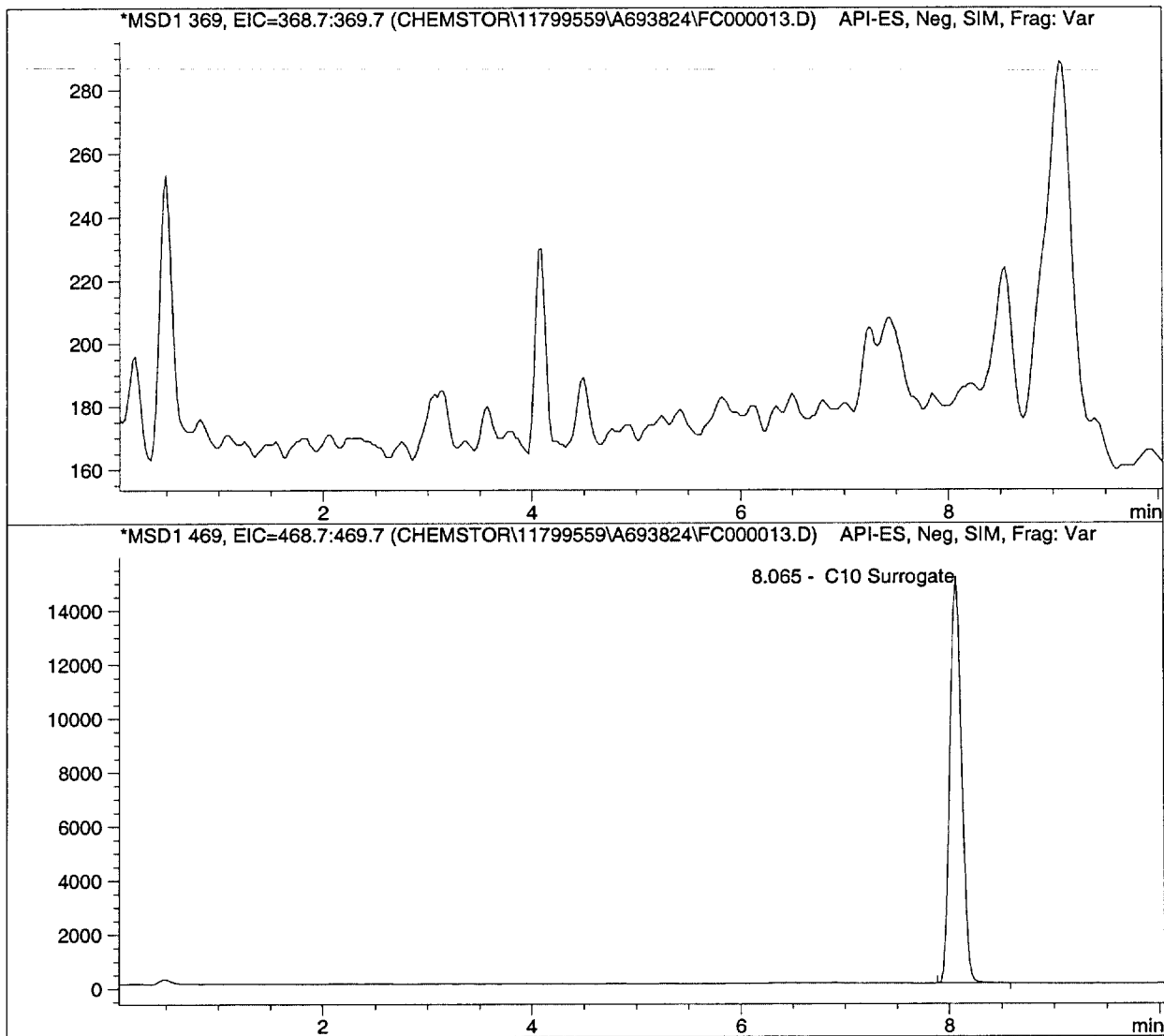
Data file :C:\HPCHEM\1\DATA\Chemstor\11799559\A693824\FC000013.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 8:13:25 PM | Seq Line  | : | 13   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 14   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 0.00           | 0.000 | 0      | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 300.22         | 8.065 | 118705 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0032

Sample Name:L0001508-4

Sample Info:

1

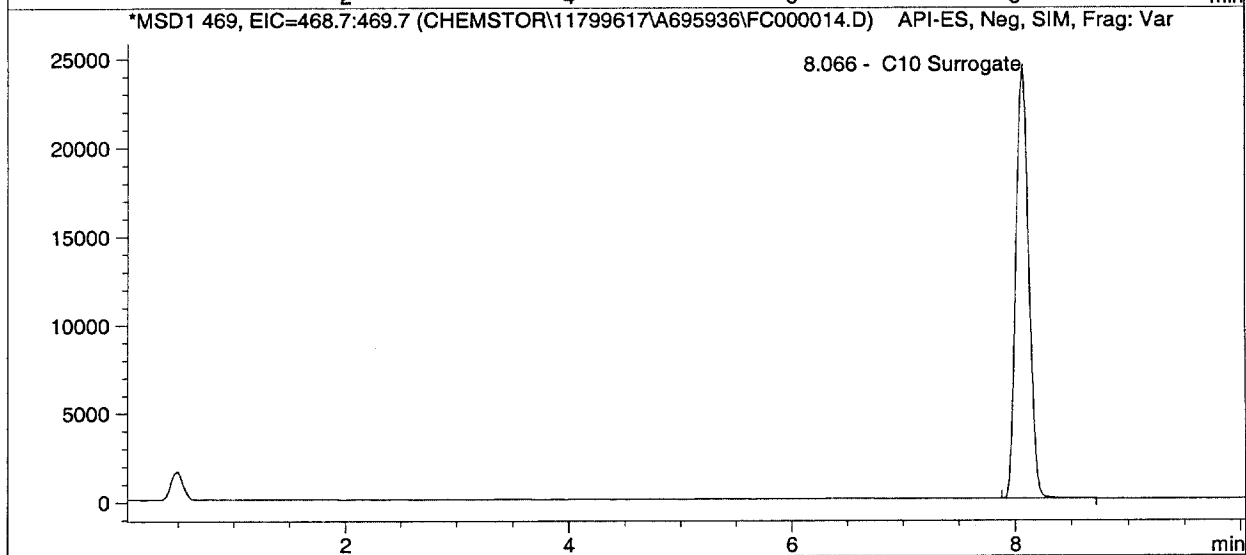
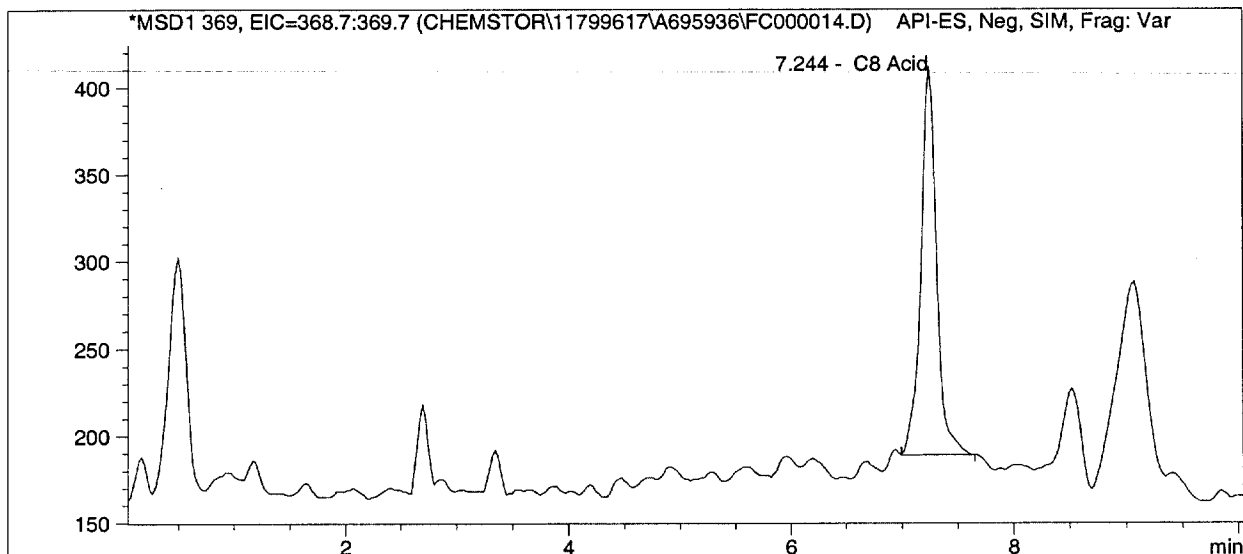
Data file :C:\HPCHEM\1\DATA\Chemstor\11799617\A695936\FC000014.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 8:28:39 PM | Seq Line  | : | 14   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 15   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 0.00           | 7.244 | 2155   | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 503.63         | 8.066 | 194146 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0033

Sample Name:L0001508-5

Sample Info:

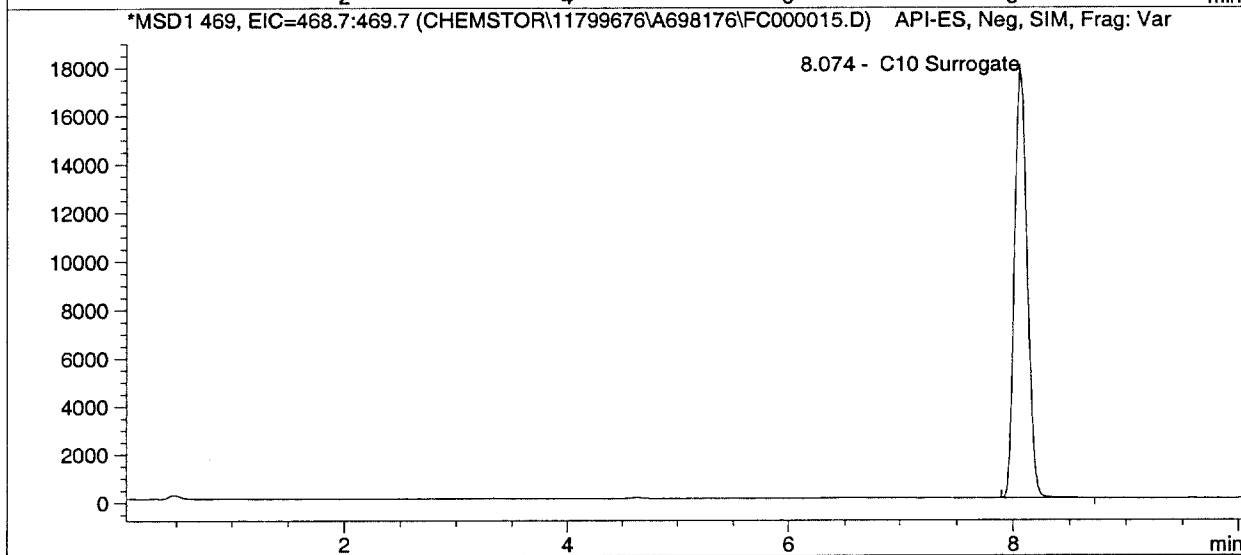
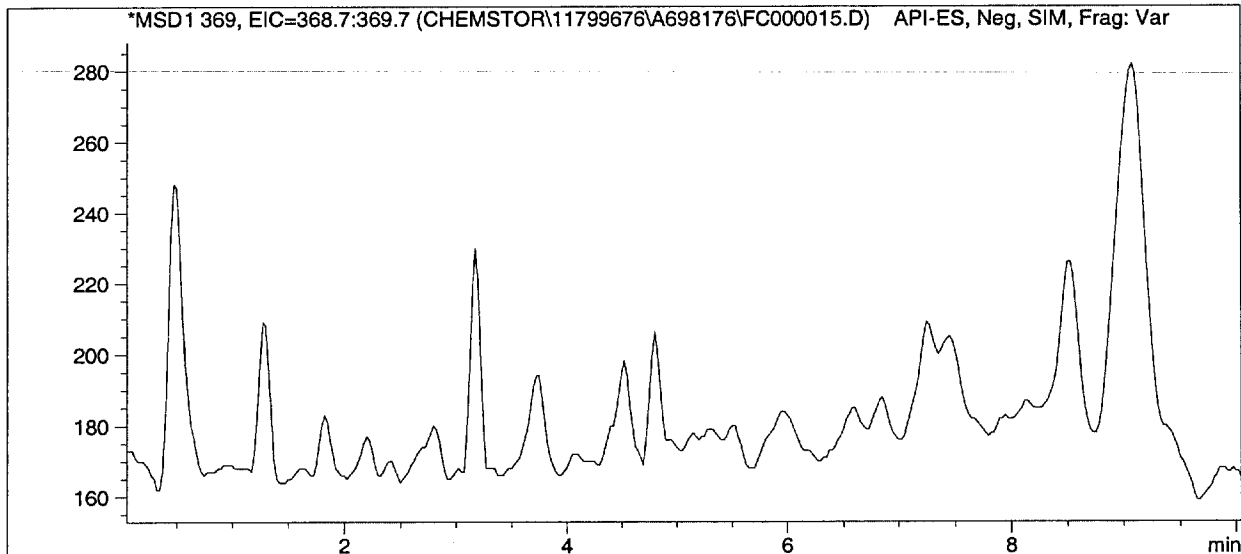
1

Data file :C:\HPCHEM\1\DATA\Chemstor\11799676\A698176\FC000015.D

=====  
Injection Date : 1/5/04 8:43:40 PM Seq Line : 15  
Acq Operator : jmillier Vial No. : 16  
Instrument : PC00414 Inj. No. : 1  
Dilution : 1 Inj. Vol. : 5 µl

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 0.00           | 0.000 | 0      | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 361.92         | 8.074 | 141586 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0034

Sample Name:L0001508-7

Sample Info:

1

Data file :C:\HPCHEM\1\DATA\Chemstor\11799748\A700352\FC000016.D

=====

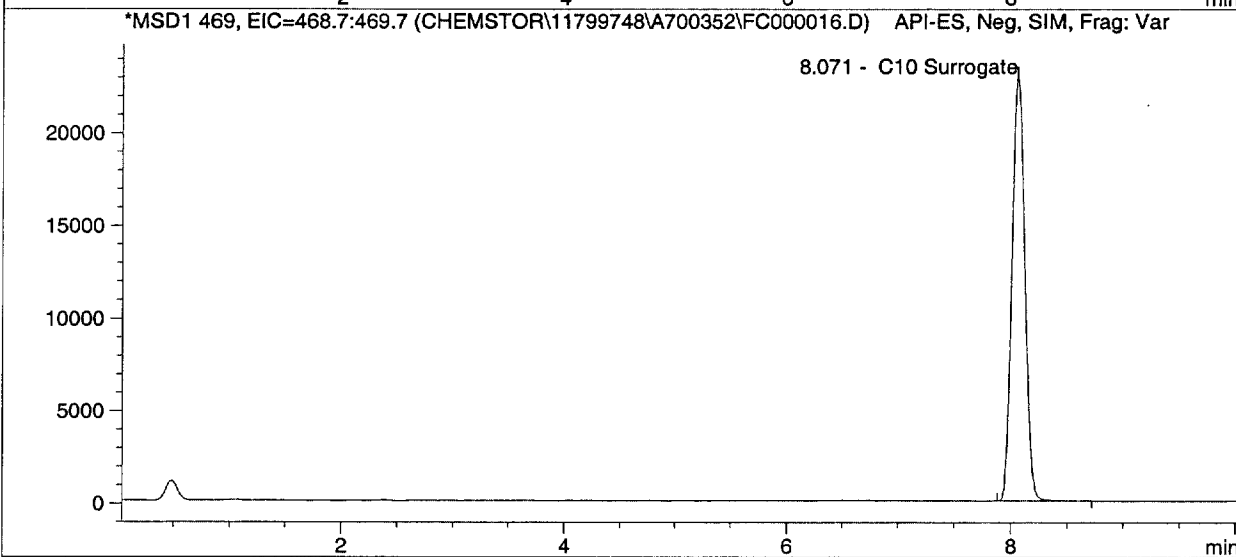
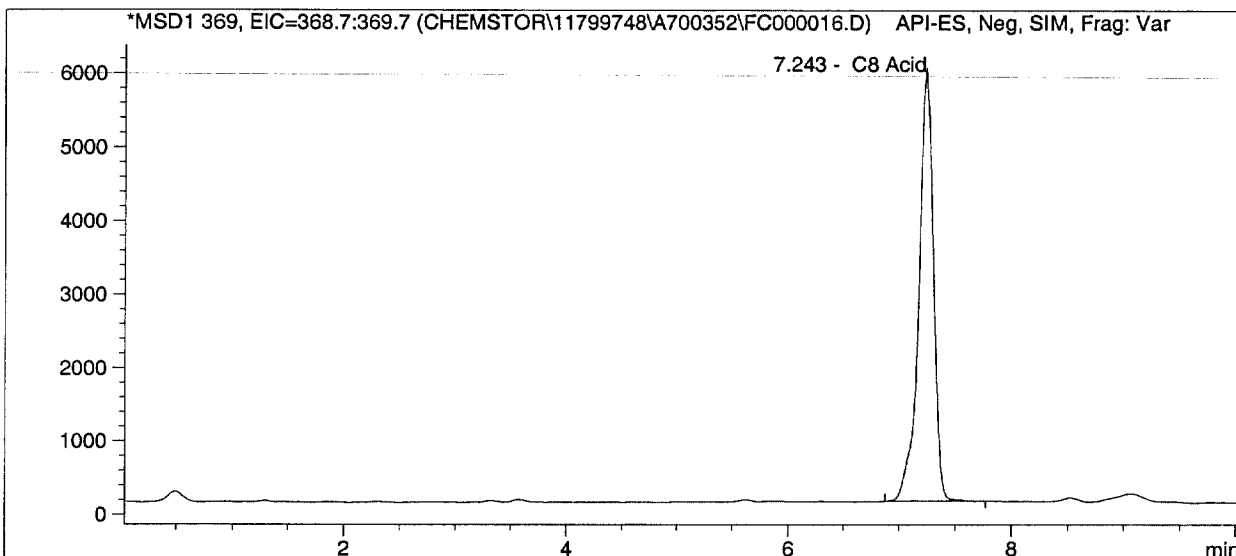
|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 8:58:42 PM | Seq Line  | : | 16   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 17   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M

Analysis Method : C:\HPCHEM\1\METHODS\010504A.M

Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 157.75         | 7.243 | 53440  | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 480.82         | 8.071 | 185686 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0035

Sample Name:L0001508-8

Sample Info:

1

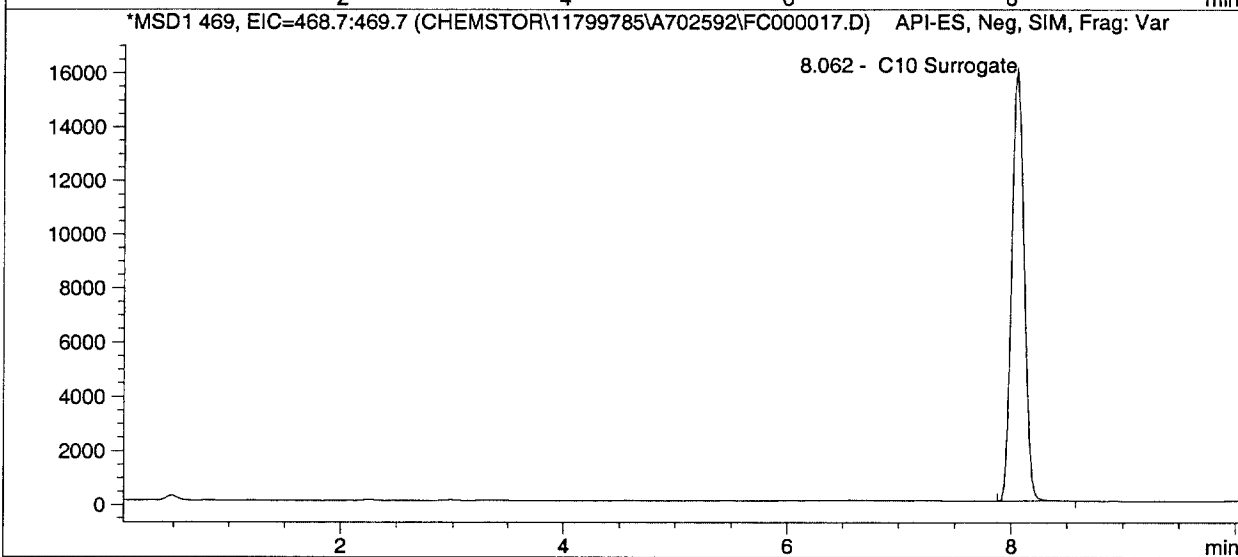
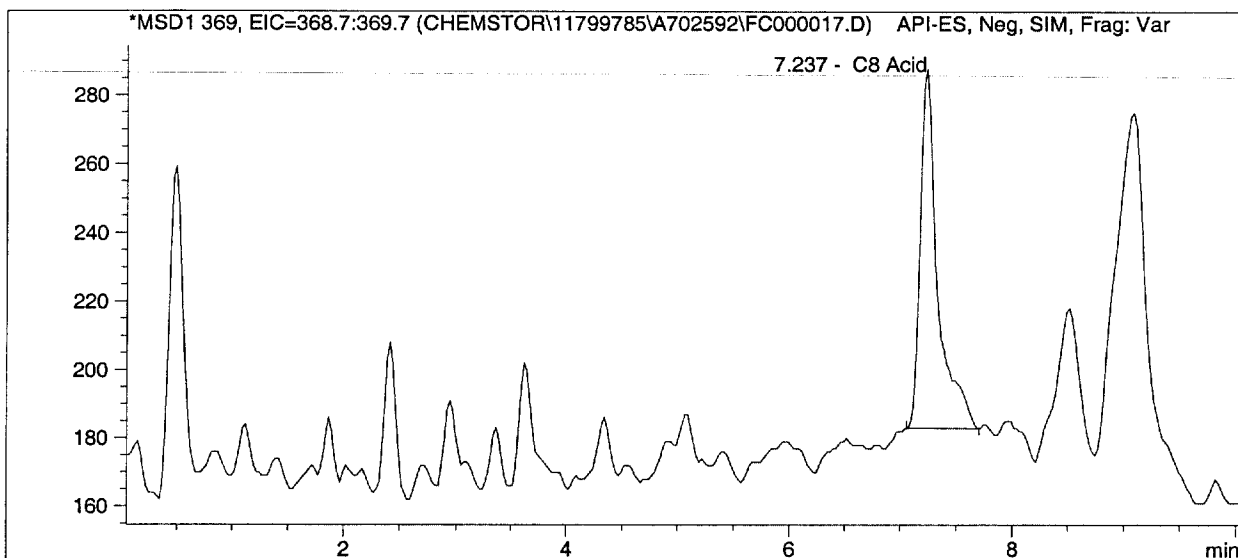
Data file :C:\HPCHEM\1\DATA\Chemstor\11799785\A702592\FC000017.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 9:13:45 PM | Seq Line  | : | 17   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 18   |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 0.00           | 7.237 | 1154   | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 321.82         | 8.062 | 126716 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0036

Sample Name:L0001508-10

Sample Info:

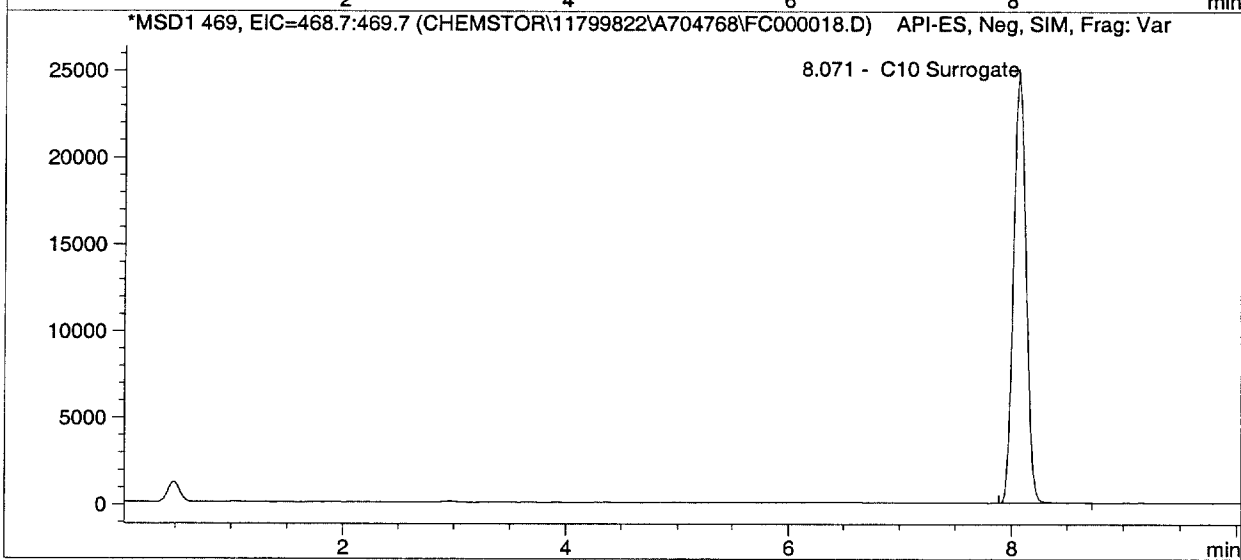
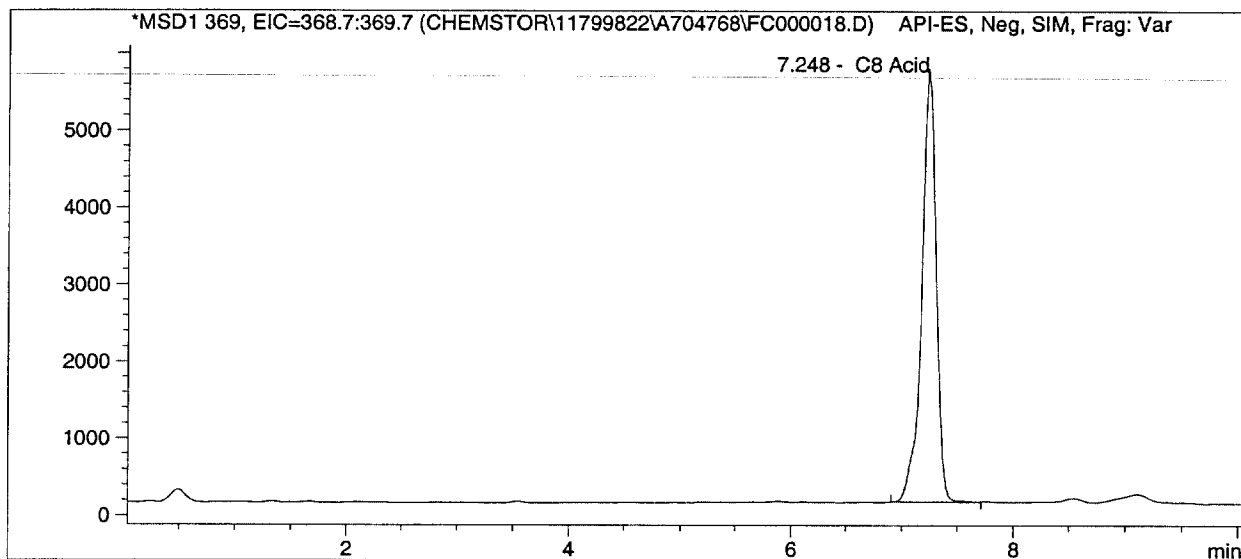
1

Data file :C:\HPCHEM\1\DATA\Chemstor\11799822\A704768\FC000018.D

=====  
Injection Date : 1/5/04 9:28:46 PM Seq Line : 18  
Acq Operator : jmillers Vial No. : 19  
Instrument : PC00414 Inj. No. : 1  
Dilution : 1 Inj. Vol. : 5 µl

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 150.14         | 7.248 | 51147  | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 512.40         | 8.071 | 197399 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0037

Sample Name:L0001508-11

Sample Info:

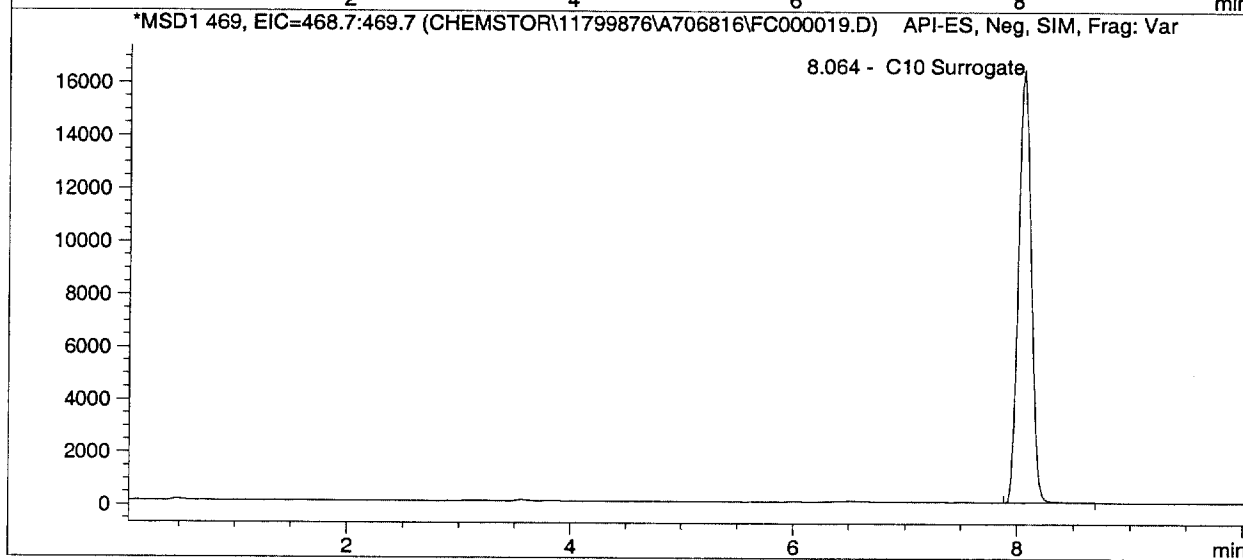
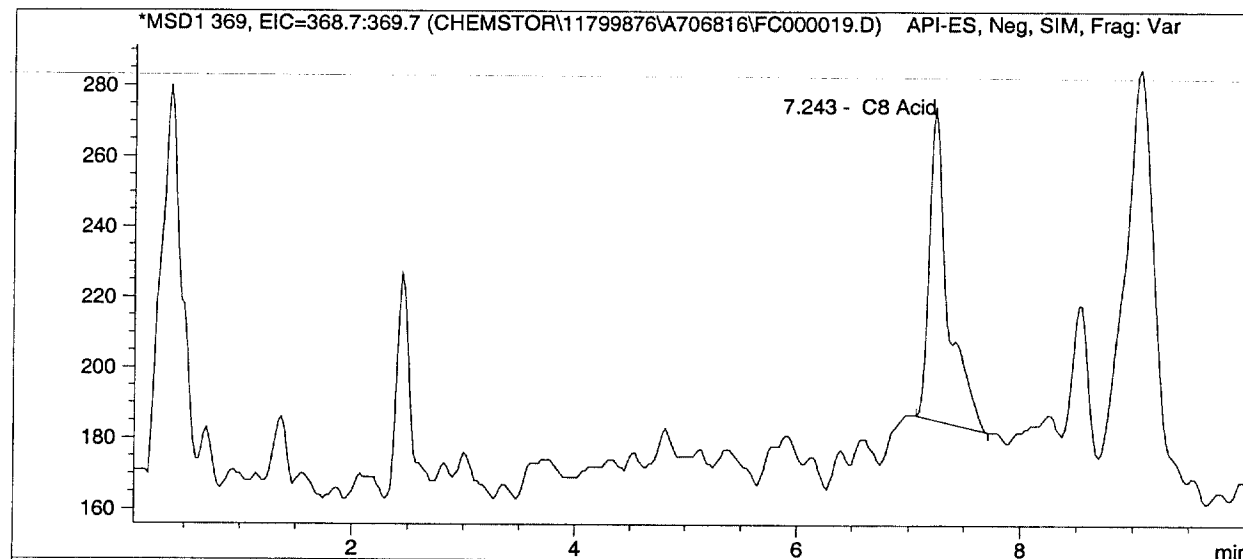
1

Data file :C:\HPCHEM\1\DATA\Chemstor\11799876\A706816\FC000019.D

=====  
Injection Date : 1/5/04 9:43:47 PM Seq Line : 19  
Acq Operator : jmillers Vial No. : 20  
Instrument : PC00414 Inj. No. : 1  
Dilution : 1 Inj. Vol. : 5 µl

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 0.00           | 7.243 | 1032   | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 332.05         | 8.064 | 130509 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0038

Sample Name:STD 500 ppb

Sample Info:

1

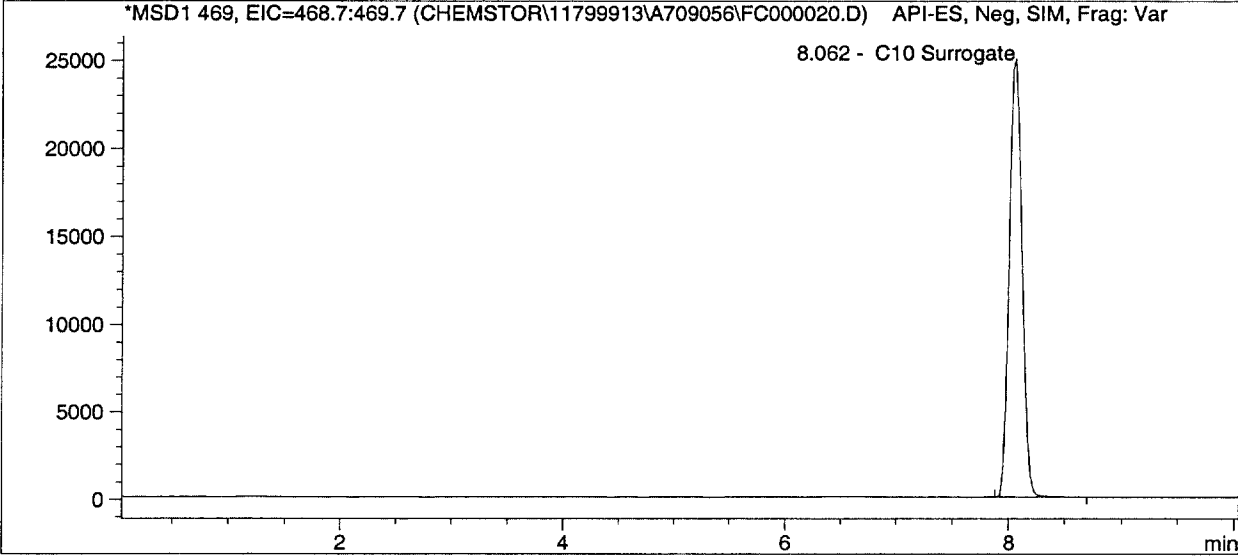
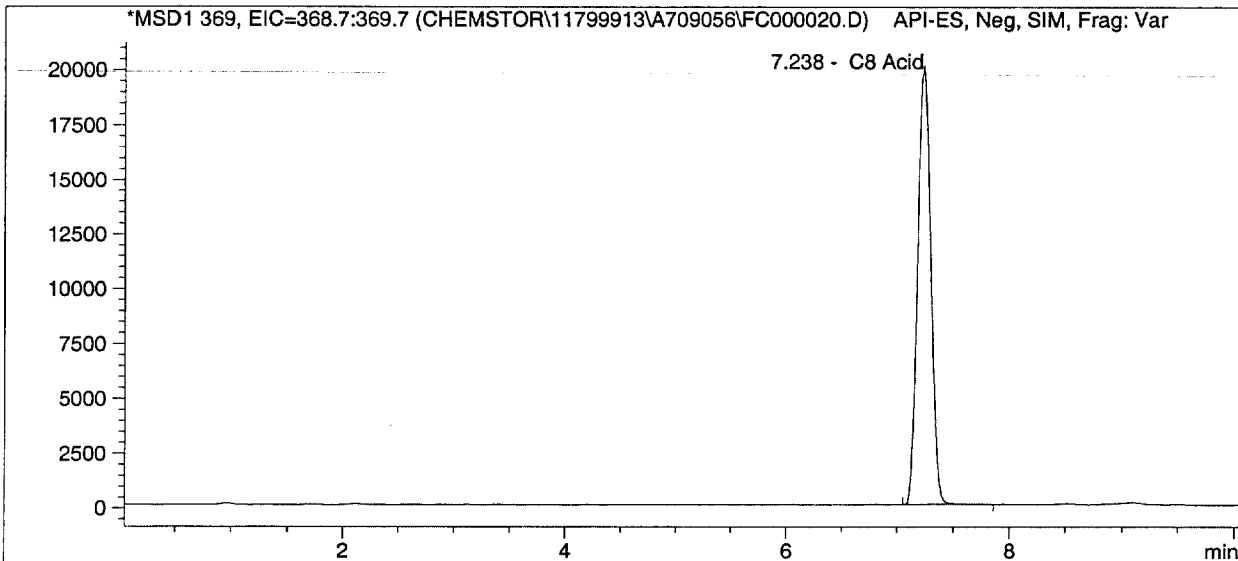
Data file :C:\HPCHEM\1\DATA\Chemstor\11799913\A709056\FC000020.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/5/04   | 9:58:46 PM | Seq Line  | : | 20   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 4    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 522.33         | 7.238 | 163235 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 519.40         | 8.062 | 199995 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0039

Sample Name:solvent blank

Sample Info:

1

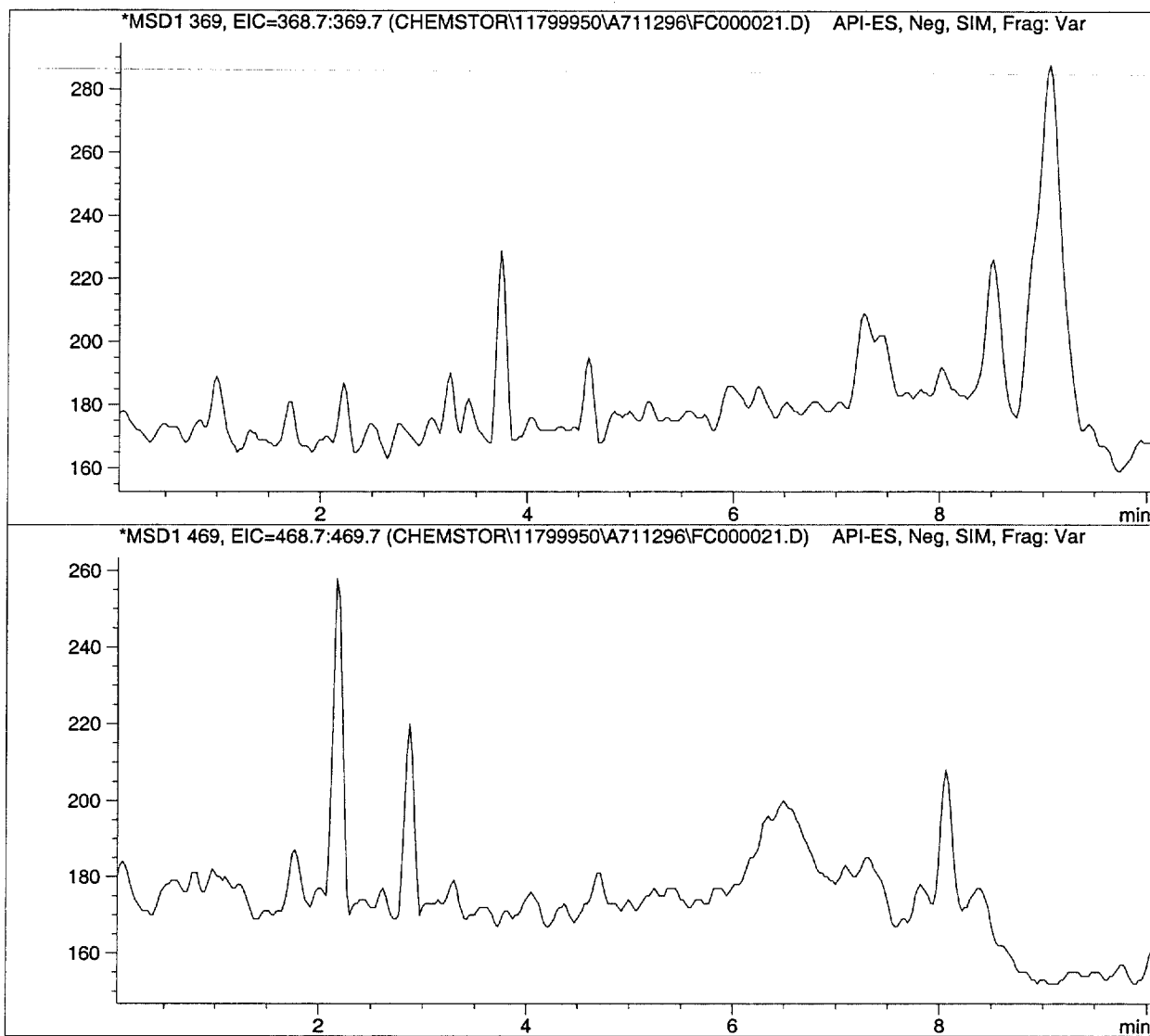
Data file :C:\HPCHEM\1\DATA\Chemstor\11799950\A711296\FC000021.D

=====

|                |            |             |           |   |      |
|----------------|------------|-------------|-----------|---|------|
| Injection Date | : 1/5/04   | 10:13:44 PM | Seq Line  | : | 21   |
| Acq Operator   | : jmillier |             | Vial No.  | : | 92   |
| Instrument     | : PC00414  |             | Inj. No.  | : | 1    |
| Dilution       | : 1        |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area | Signal                    |
|-------------|----------------|-------|------|---------------------------|
| 8 Acid      | 0.00           | 0.000 | 0    | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 0.00           | 0.000 | 0    | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

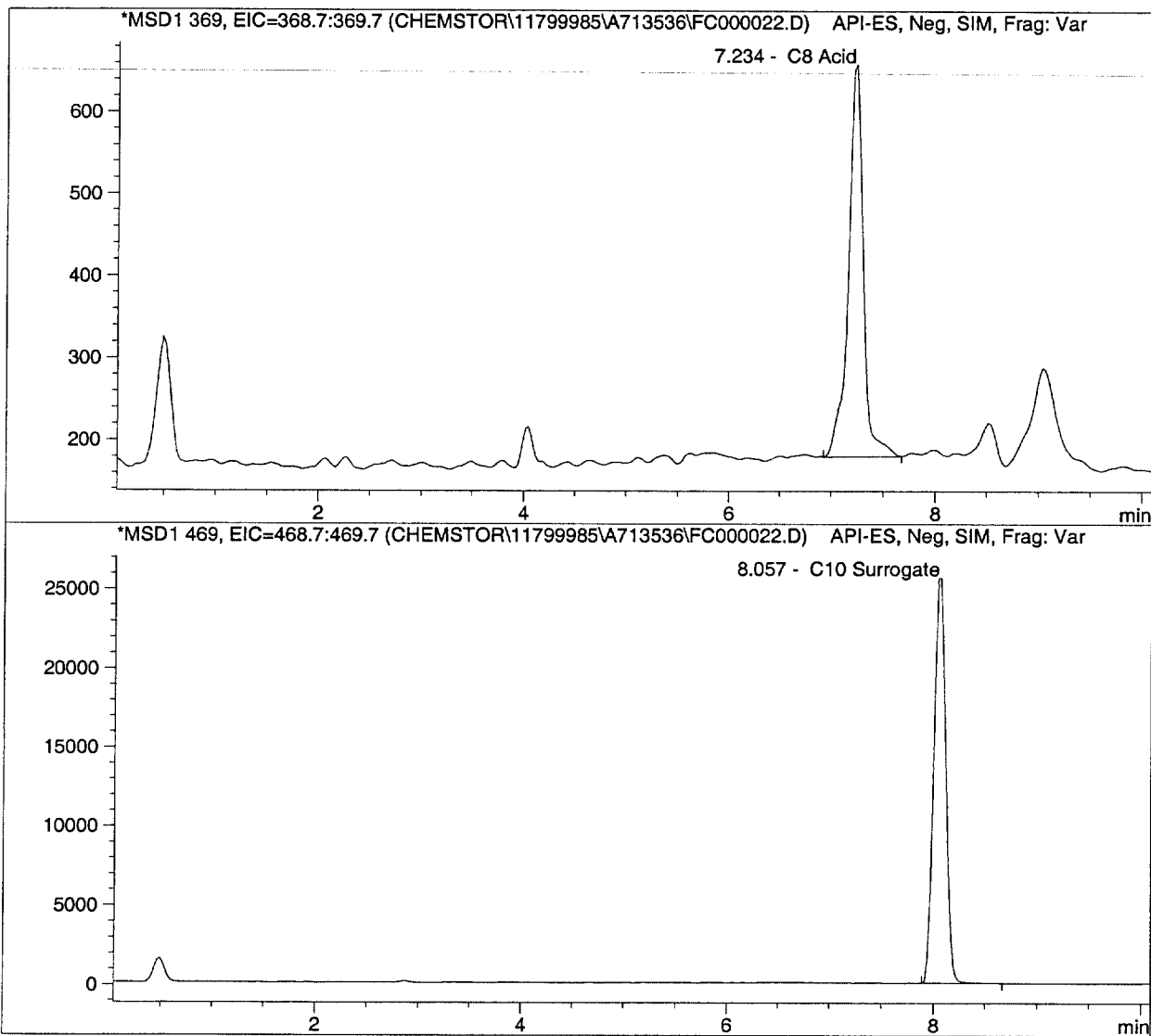
0040

Data file :C:\HPCHEM\1\DATA\Chemstor\11799985\A713536\FC000022.D

```
=====
Injection Date   : 1/5/04      10:28:46 PM      Seq Line   :      22
Acq Operator    : jmillers          Vial No.    :      21
Instrument       : PC00414          Inj. No.    :       1
Dilution        : 1                Inj. Vol.   :      5 µl
=====
```

```
Acq. Method     : FC8-10.M
Analysis Method  : C:\HPCHEM\1\METHODS\010504A.M
Last Changed    : 1/6/04      08:52:48 am
```

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 0.00           | 7.234 | 4731   | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 538.27         | 8.057 | 206991 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0041

Sample Name:L0001508-14

Sample Info:

1

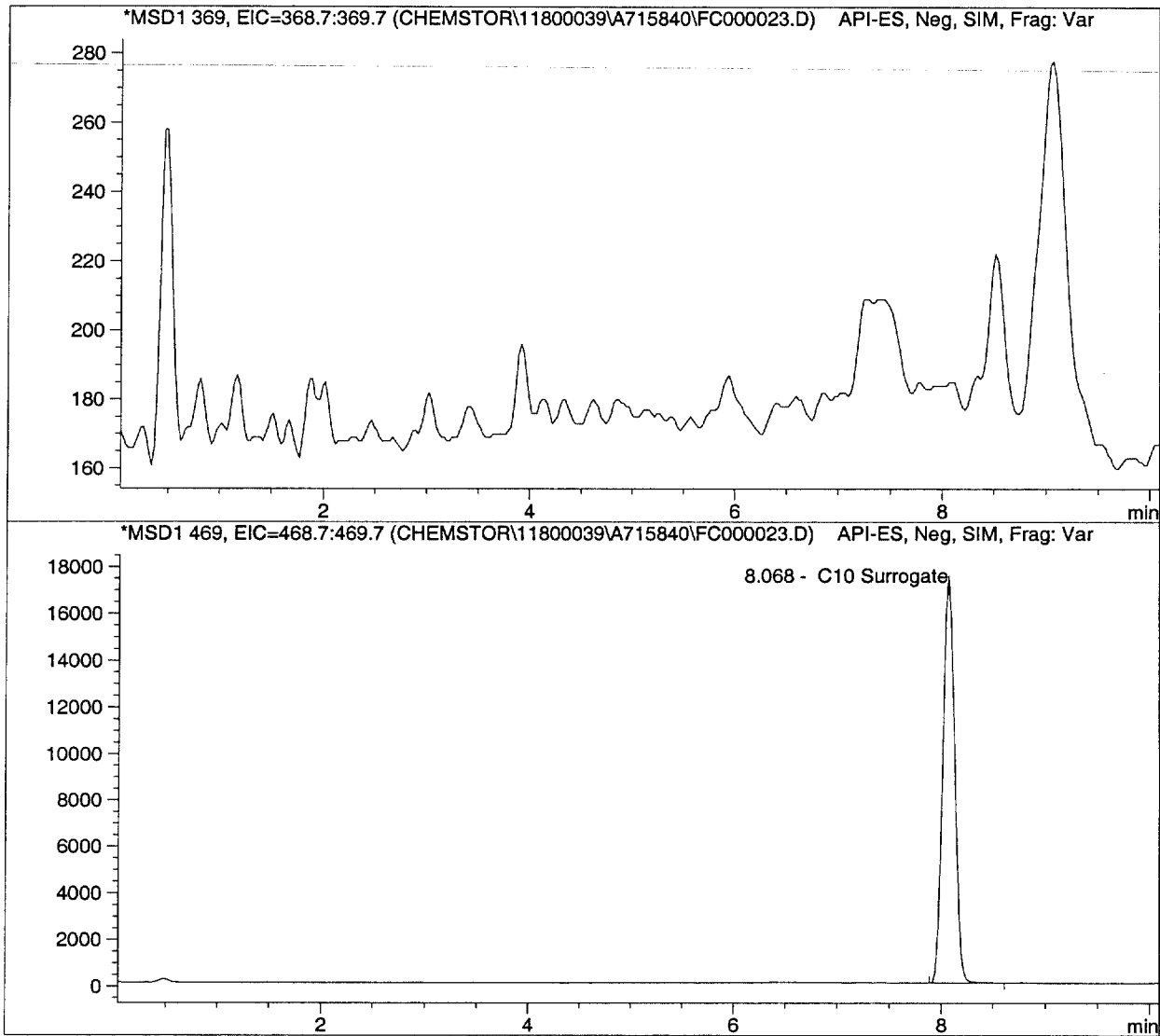
Data file :C:\HPCHEM\1\DATA\Chemstor\11800039\A715840\FC000023.D

=====

|                |           |             |           |   |      |
|----------------|-----------|-------------|-----------|---|------|
| Injection Date | : 1/5/04  | 10:43:43 PM | Seq Line  | : | 23   |
| Acq Operator   | : jmillar |             | Vial No.  | : | 22   |
| Instrument     | : PC00414 |             | Inj. No.  | : | 1    |
| Dilution       | : 1       |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| 8 Acid      | 0.00           | 0.000 | 0      | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 351.91         | 8.068 | 137876 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0042

Sample Name:L0001508-16

Sample Info:

1

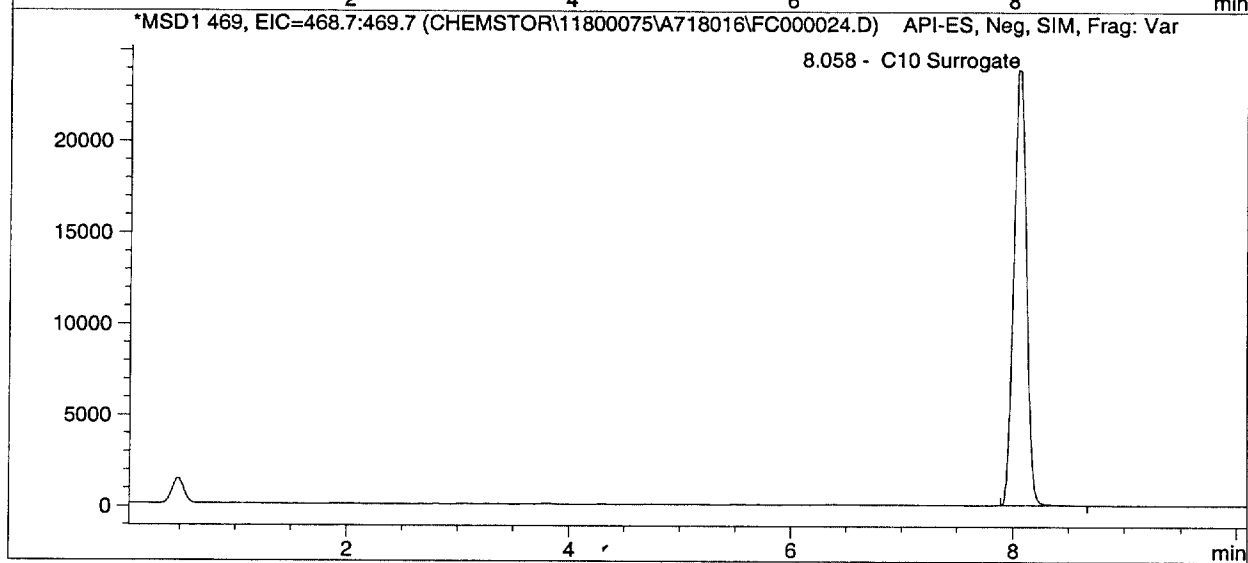
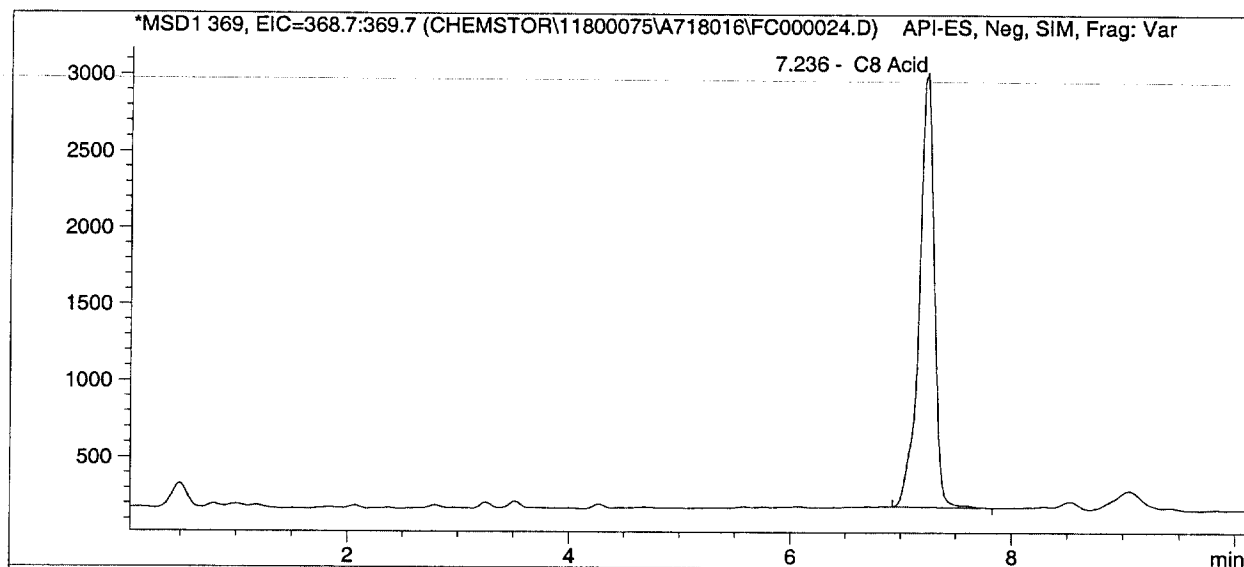
Data file :C:\HPCHEM\1\DATA\Chemstor\11800075\A718016\FC000024.D

=====

|                |            |             |           |   |      |
|----------------|------------|-------------|-----------|---|------|
| Injection Date | : 1/5/04   | 10:58:44 PM | Seq Line  | : | 24   |
| Acq Operator   | : jmillier |             | Vial No.  | : | 23   |
| Instrument     | : PC00414  |             | Inj. No.  | : | 1    |
| Dilution       | : 1        |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 68.95          | 7.236 | 26697  | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 499.80         | 8.058 | 192725 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0043

Sample Name:L0001508-17

Sample Info:

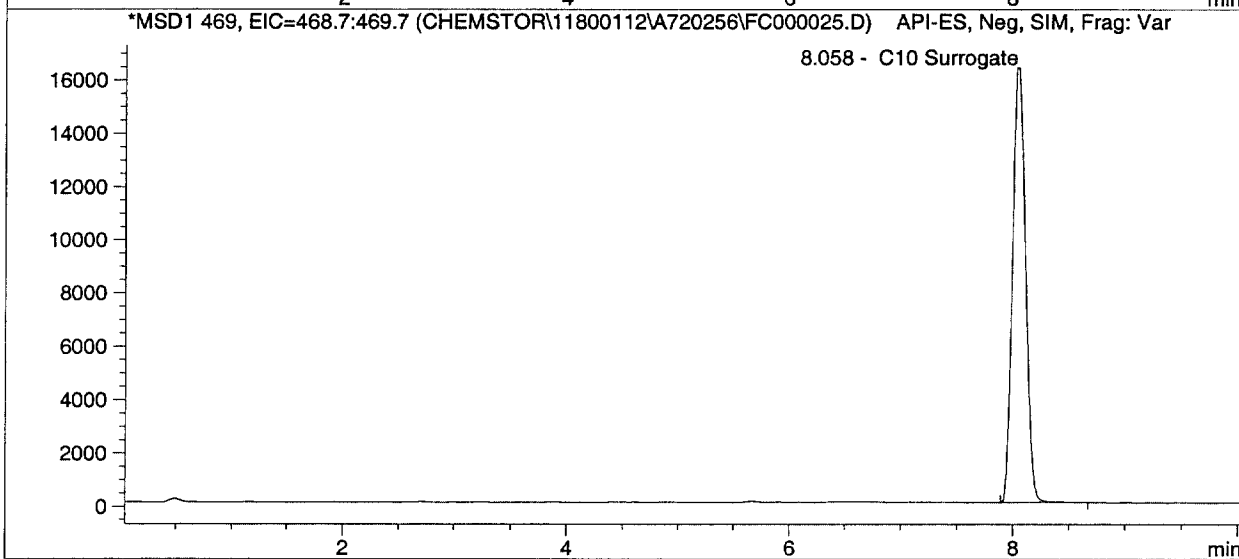
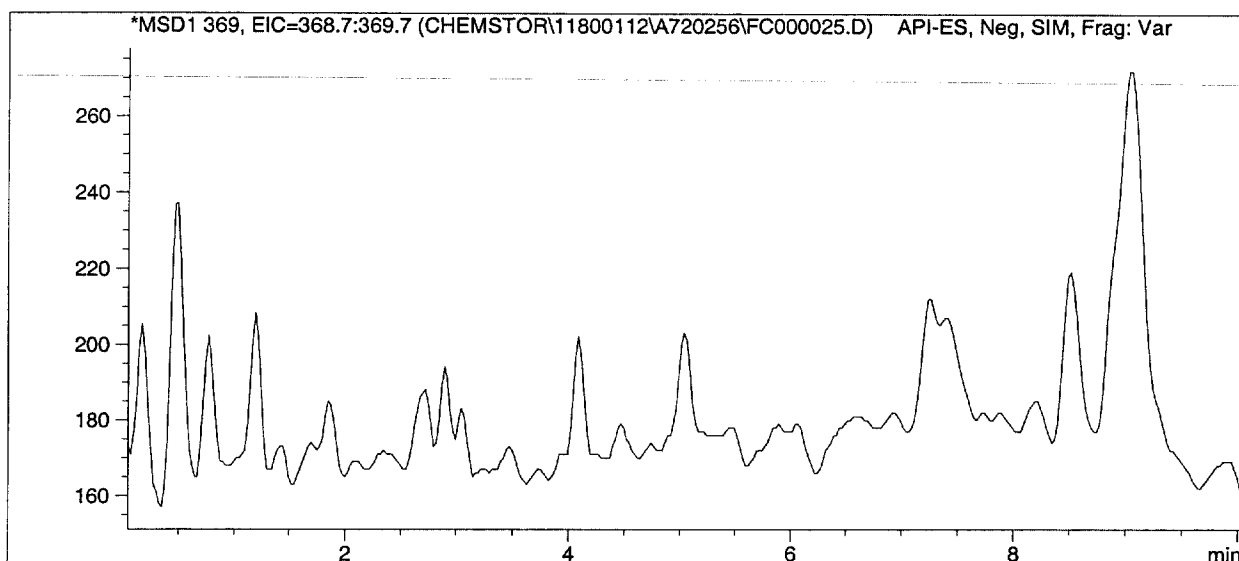
1

Data file :C:\HPCHEM\1\DATA\Chemstor\11800112\A720256\FC000025.D

=====  
Injection Date : 1/5/04 11:13:44 PM Seq Line : 25  
Acq Operator : jmillar Vial No. : 24  
Instrument : PC00414 Inj. No. : 1  
Dilution : 1 Inj. Vol. : 5 µl

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|--------------|----------------|-------|--------|---------------------------|
| C8 Acid      | 0.00           | 0.000 | 0      | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 335.28         | 8.058 | 131706 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0044

Sample Name:L0001508-19

Sample Info:

1

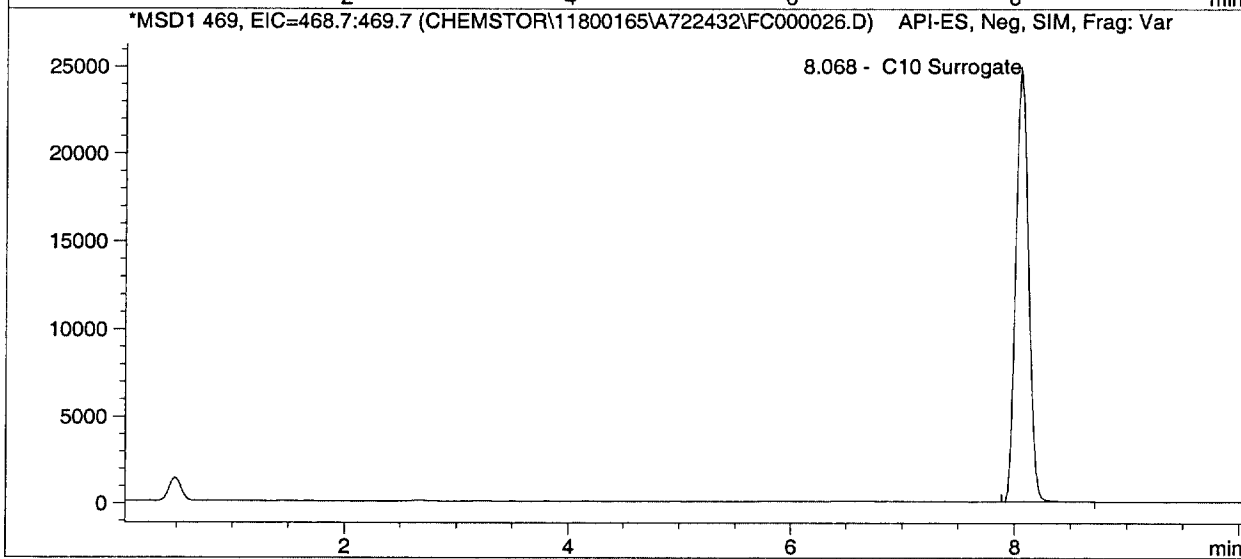
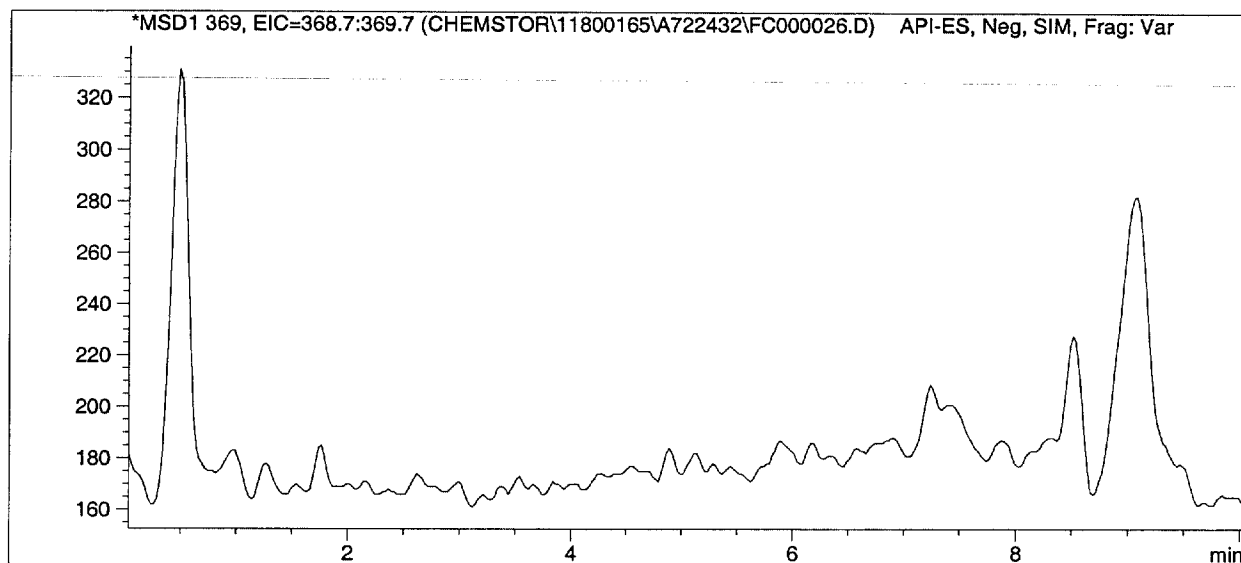
Data file :C:\HPCHEM\1\DATA\Chemstor\11800165\A722432\FC000026.D

=====

|                |            |             |           |   |      |
|----------------|------------|-------------|-----------|---|------|
| Injection Date | : 1/5/04   | 11:28:44 PM | Seq Line  | : | 26   |
| Acq Operator   | : jmillier |             | Vial No.  | : | 25   |
| Instrument     | : PC00414  |             | Inj. No.  | : | 1    |
| Dilution       | : 1        |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|--------------|----------------|-------|--------|---------------------------|
| FC8 Acid     | 0.00           | 0.000 | 0      | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 511.43         | 8.068 | 197040 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0045

Sample Name:L0001508-20

Sample Info:

1

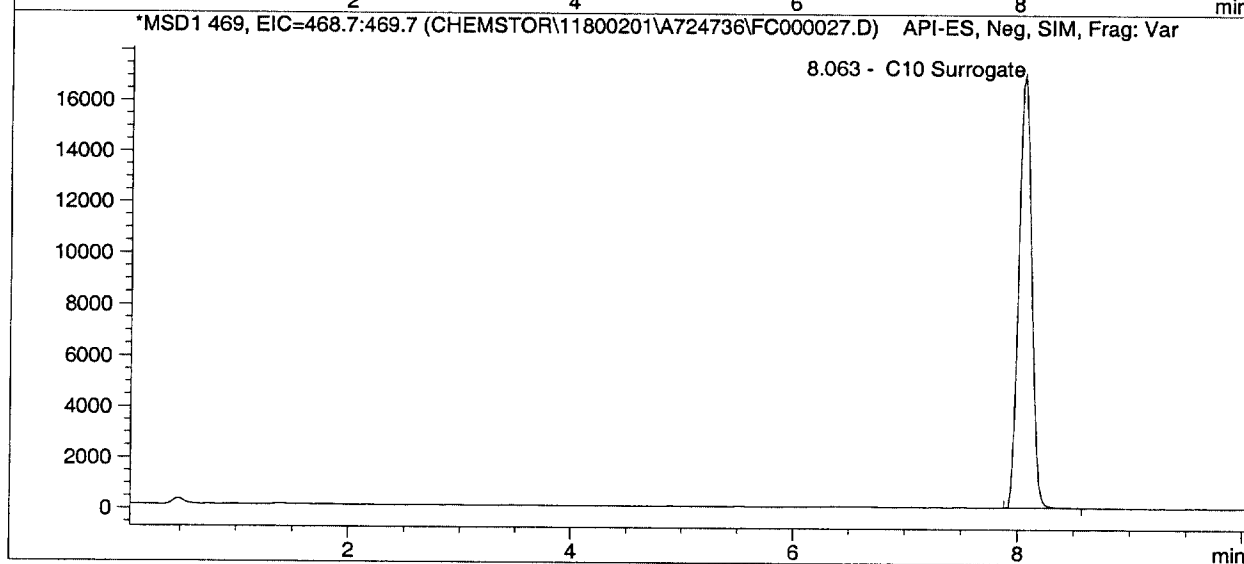
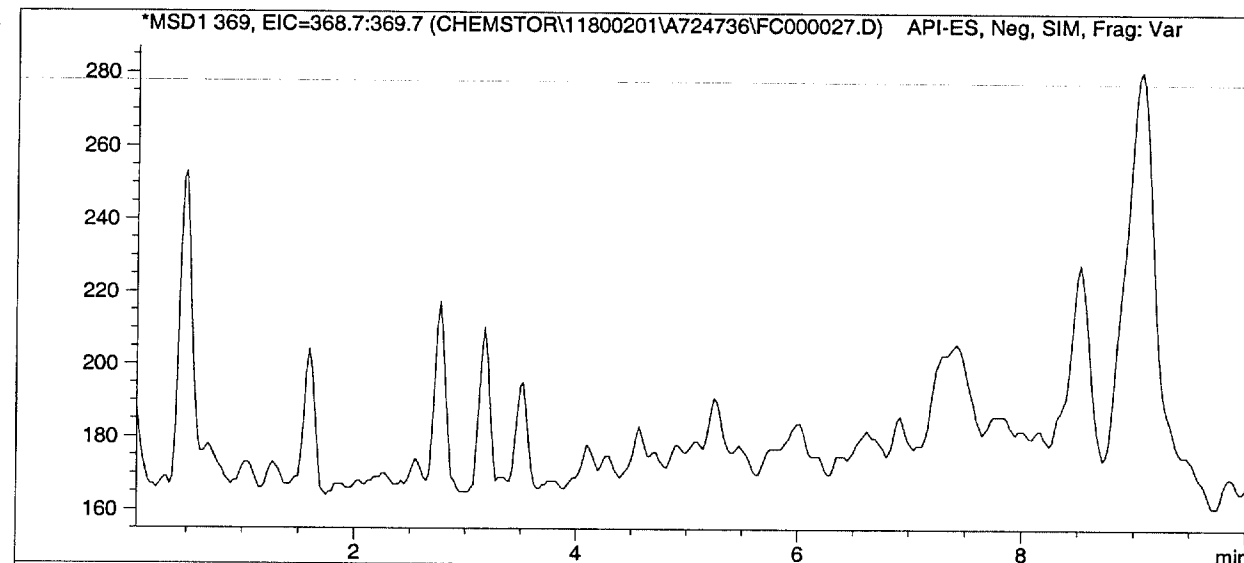
Data file :C:\HPCHEM\1\DATA\Chemstor\11800201\A724736\FC000027.D

=====

|                |            |             |           |   |      |
|----------------|------------|-------------|-----------|---|------|
| Injection Date | : 1/5/04   | 11:43:44 PM | Seq Line  | : | 27   |
| Acq Operator   | : jmillier |             | Vial No.  | : | 26   |
| Instrument     | : PC00414  |             | Inj. No.  | : | 1    |
| Dilution       | : 1        |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 0.00           | 0.000 | 0      | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 346.67         | 8.063 | 135931 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

JU46

Sample Name:STD 500 ppb

Sample Info:

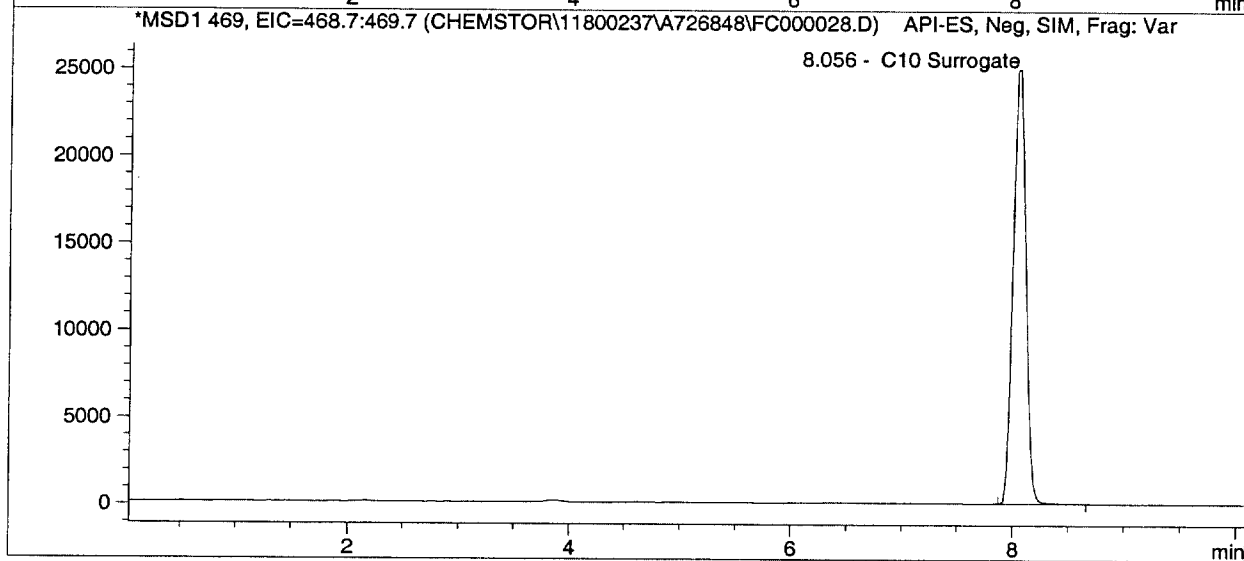
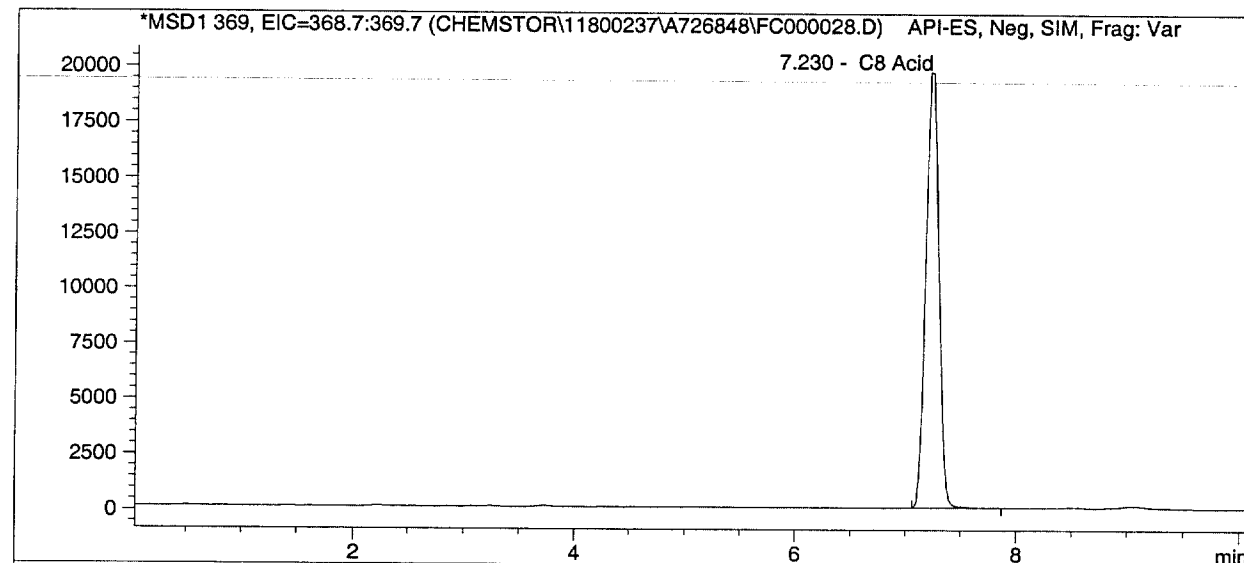
1

Data file :C:\HPCHEM\1\DATA\Chemstor\11800237\A726848\FC000028.D

=====  
Injection Date : 1/5/04 11:58:47 PM Seq Line : 28  
Acq Operator : jmillier Vial No. : 4  
Instrument : PC00414 Inj. No. : 1  
Dilution : 1 Inj. Vol. : 5 µl

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 520.69         | 7.230 | 162742 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 524.76         | 8.056 | 201984 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0047

Sample Name:solvent blank  
Sample Info:

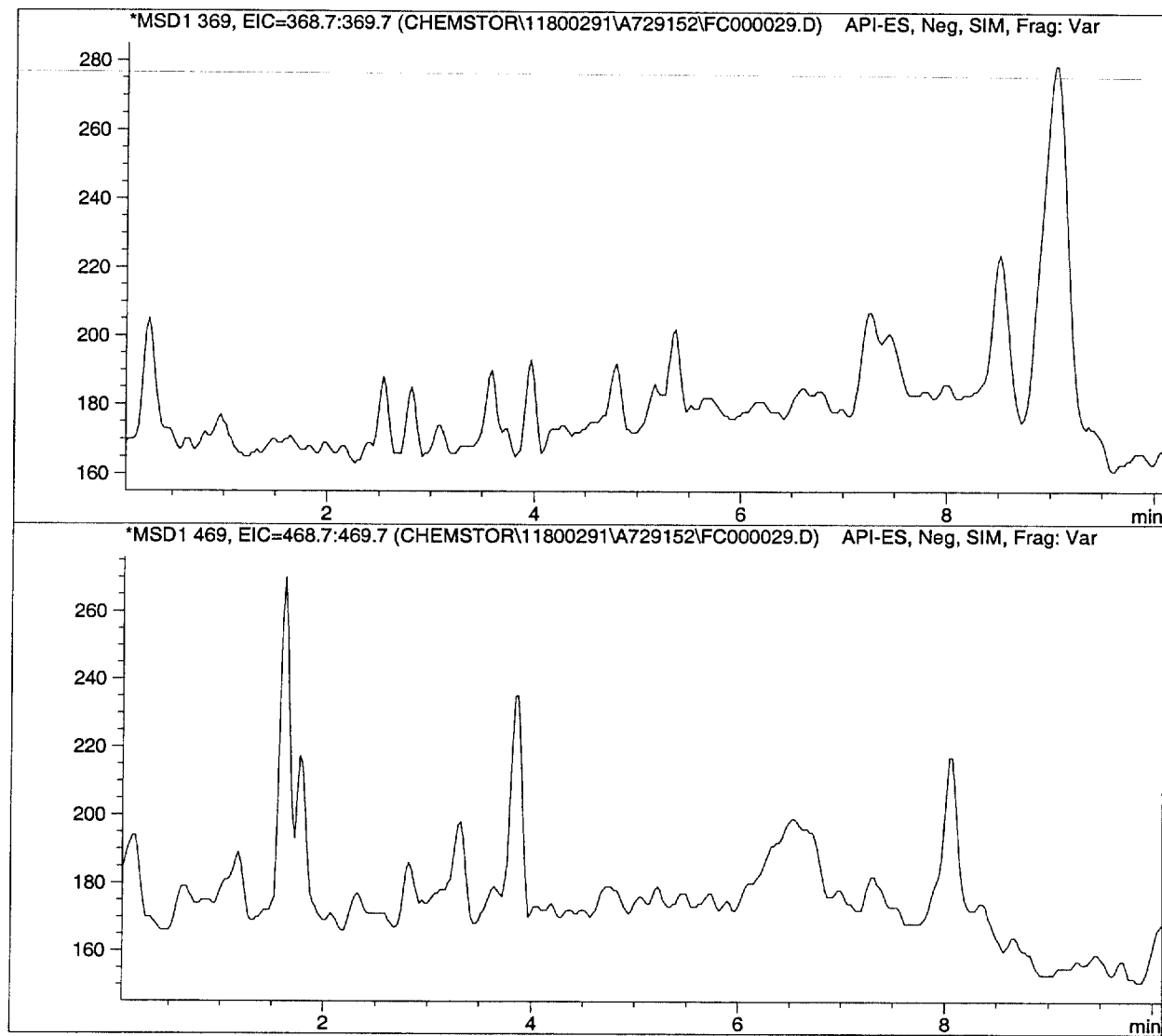
1

Data file :C:\HPCHEM\1\DATA\Chemstor\11800291\A729152\FC000029.D

=====  
Injection Date : 1/6/04 12:13:45 AM Seq Line : 29  
Acq Operator : jmillier Vial No. : 92  
Instrument : PC00414 Inj. No. : 1  
Dilution : 1 Inj. Vol. : 5 µl

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area | Signal                    |
|-------------|----------------|-------|------|---------------------------|
| 28 Acid     | 0.00           | 0.000 | 0    | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 0.00           | 0.000 | 0    | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0048

Sample Name:STD 50 ppb

Sample Info:

1

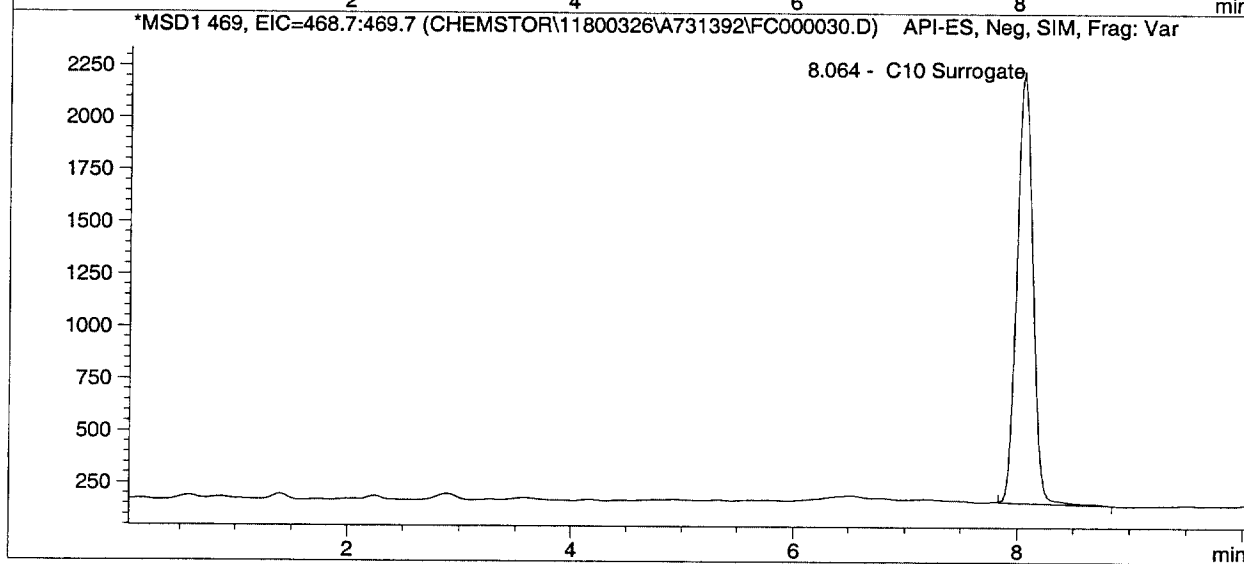
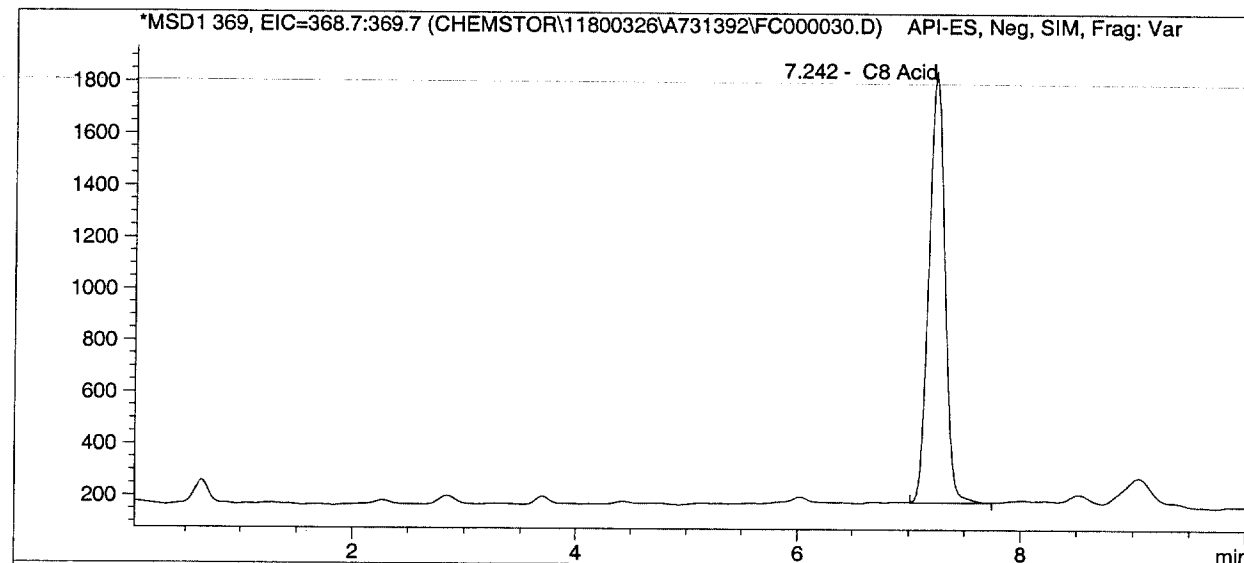
Data file :C:\HPCHEM\1\DATA\Chemstor\11800326\A731392\FC000030.D

=====

|                |            |             |           |   |      |
|----------------|------------|-------------|-----------|---|------|
| Injection Date | : 1/6/04   | 12:28:44 AM | Seq Line  | : | 30   |
| Acq Operator   | : jmillier |             | Vial No.  | : | 1    |
| Instrument     | : PC00414  |             | Inj. No.  | : | 1    |
| Dilution       | : 1        |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area  | Signal                    |
|--------------|----------------|-------|-------|---------------------------|
| C8 Acid      | 36.01          | 7.242 | 16775 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 35.92          | 8.064 | 20680 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0049

Sample Name:STD 100 ppb  
Sample Info:

1

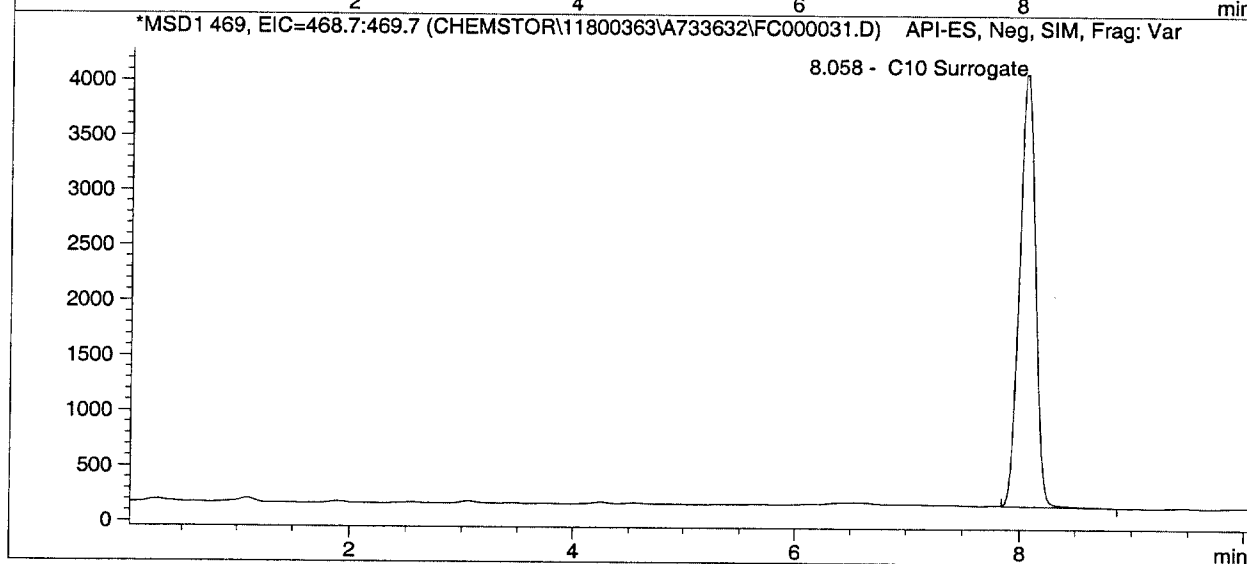
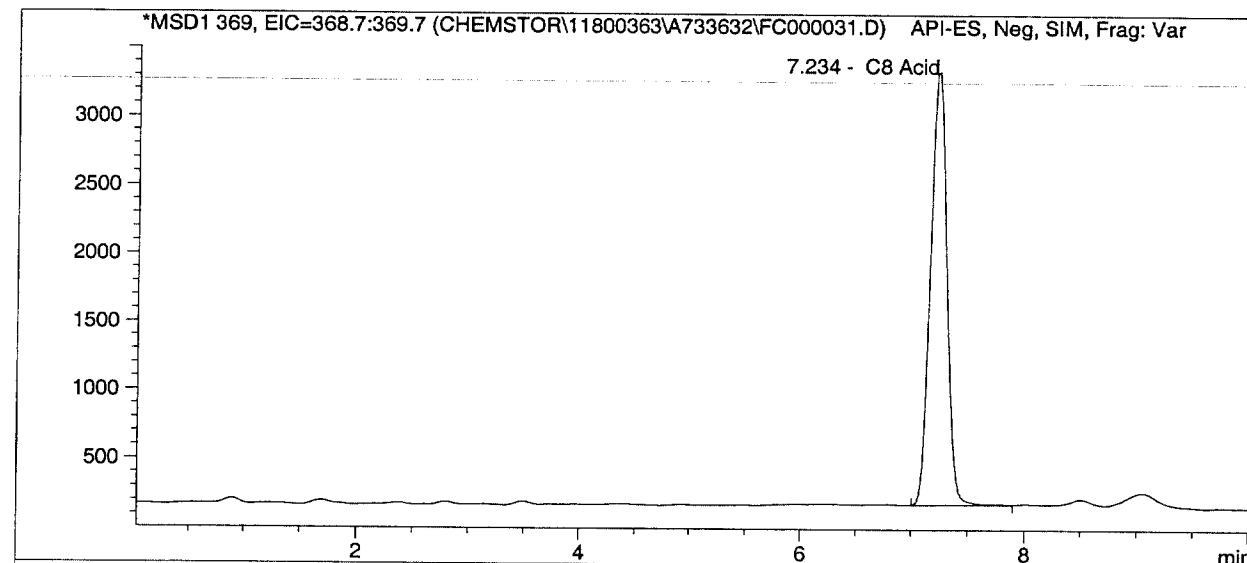
Data file :C:\HPCHEM\1\DATA\Chemstor\11800363\A733632\FC000031.D

=====

|                |            |             |           |   |      |
|----------------|------------|-------------|-----------|---|------|
| Injection Date | : 1/6/04   | 12:43:46 AM | Seq Line  | : | 31   |
| Acq Operator   | : jmillier |             | Vial No.  | : | 2    |
| Instrument     | : PC00414  |             | Inj. No.  | : | 1    |
| Dilution       | : 1        |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area  | Signal                    |
|--------------|----------------|-------|-------|---------------------------|
| C8 Acid      | 86.92          | 7.234 | 32107 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 85.74          | 8.058 | 39157 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0050

Sample Name:STD 250 ppb

Sample Info:

1

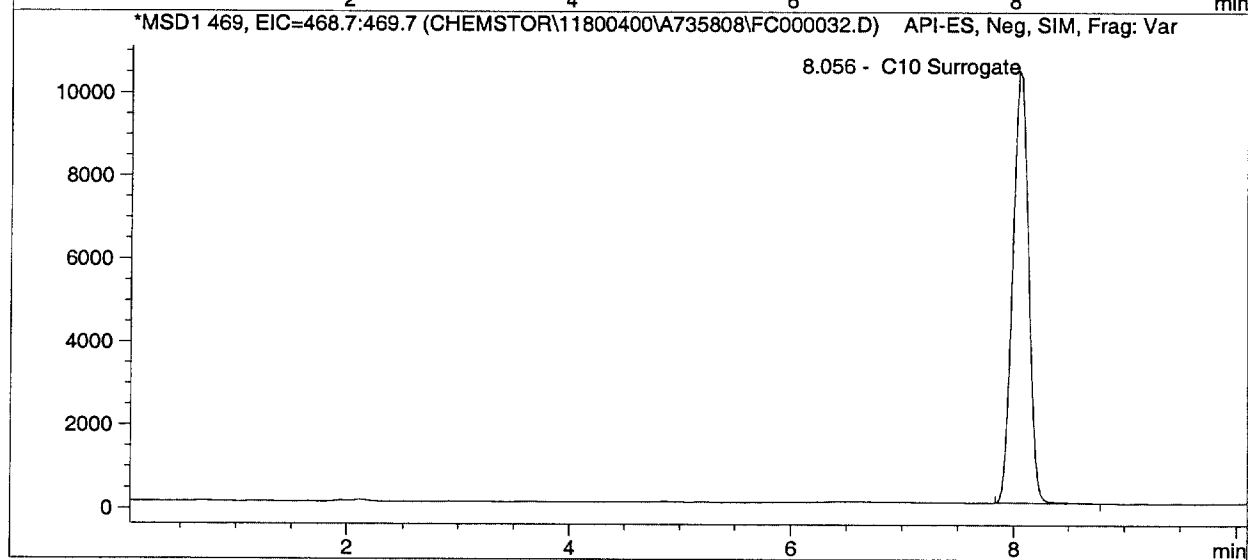
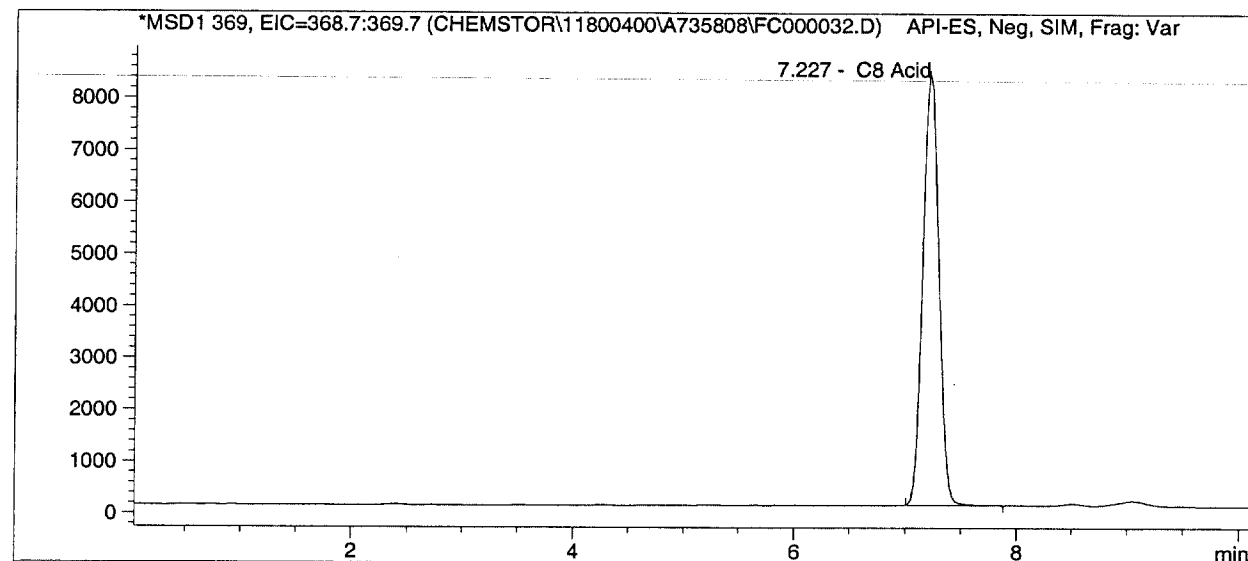
Data file :C:\HPCHEM\1\DATA\Chemstor\11800400\A735808\FC000032.D

=====

|                |            |             |           |   |      |
|----------------|------------|-------------|-----------|---|------|
| Injection Date | : 1/6/04   | 12:58:43 AM | Seq Line  | : | 32   |
| Acq Operator   | : jmillier |             | Vial No.  | : | 3    |
| Instrument     | : PC00414  |             | Inj. No.  | : | 1    |
| Dilution       | : 1        |             | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|--------------|----------------|-------|--------|---------------------------|
| C8 Acid      | 257.77         | 7.227 | 83560  | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 258.61         | 8.056 | 103270 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0051

Sample Name:STD 500 ppb

Sample Info:

1

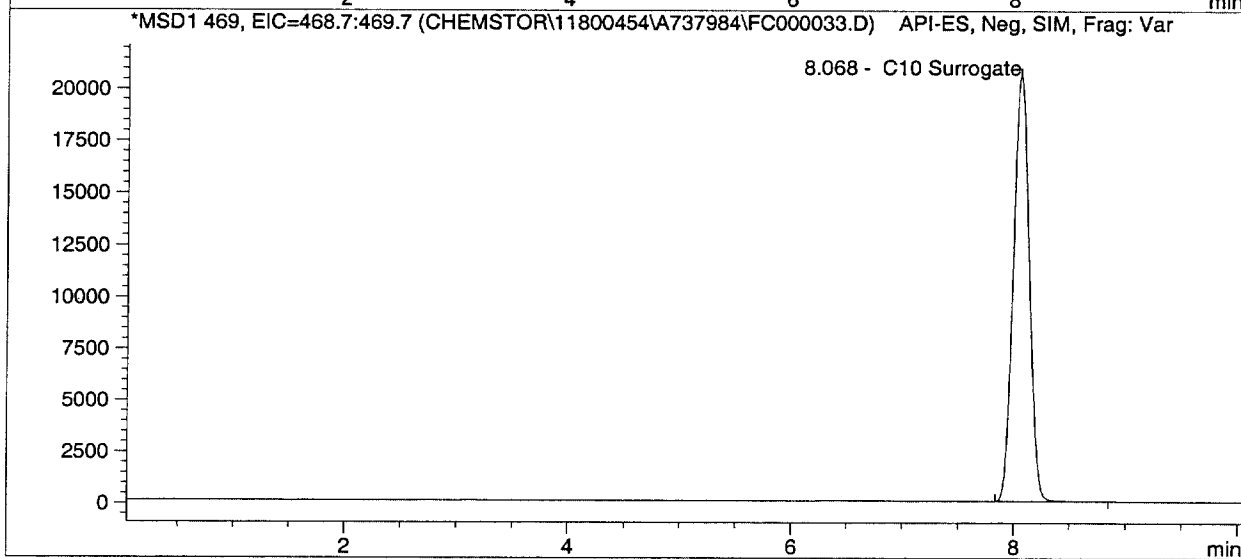
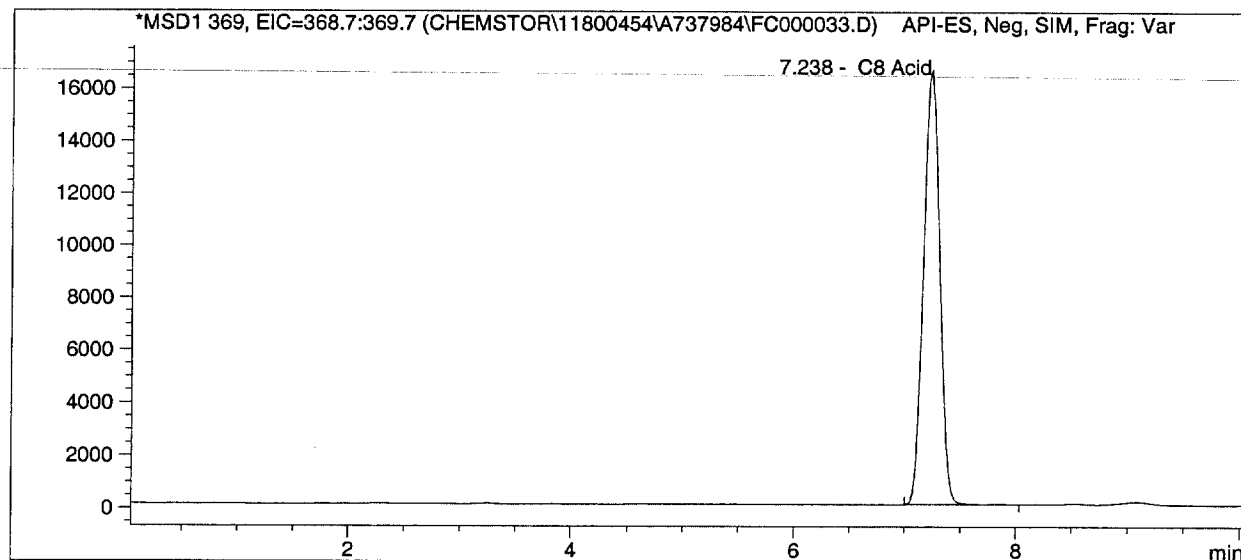
Data file :C:\HPCHEM\1\DATA\Chemstor\11800454\A737984\FC000033.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/6/04   | 1:13:42 AM | Seq Line  | : | 33   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 4    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|--------------|----------------|-------|--------|---------------------------|
| C8 Acid      | 533.94         | 7.238 | 166731 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 536.36         | 8.068 | 206284 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0052

Sample Name:STD 750 ppb

Sample Info:

1

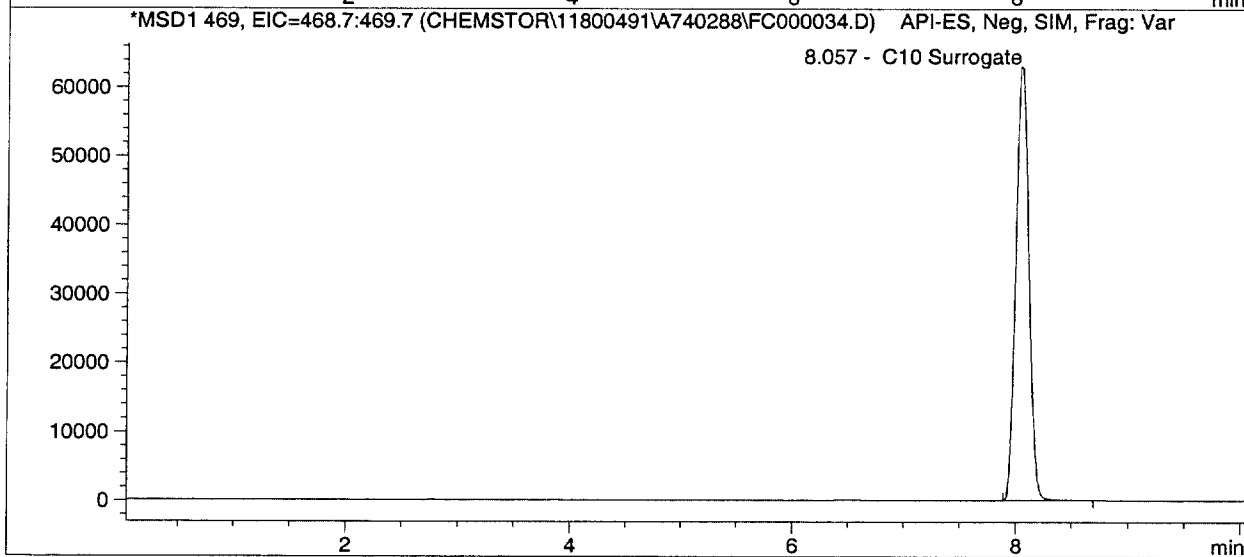
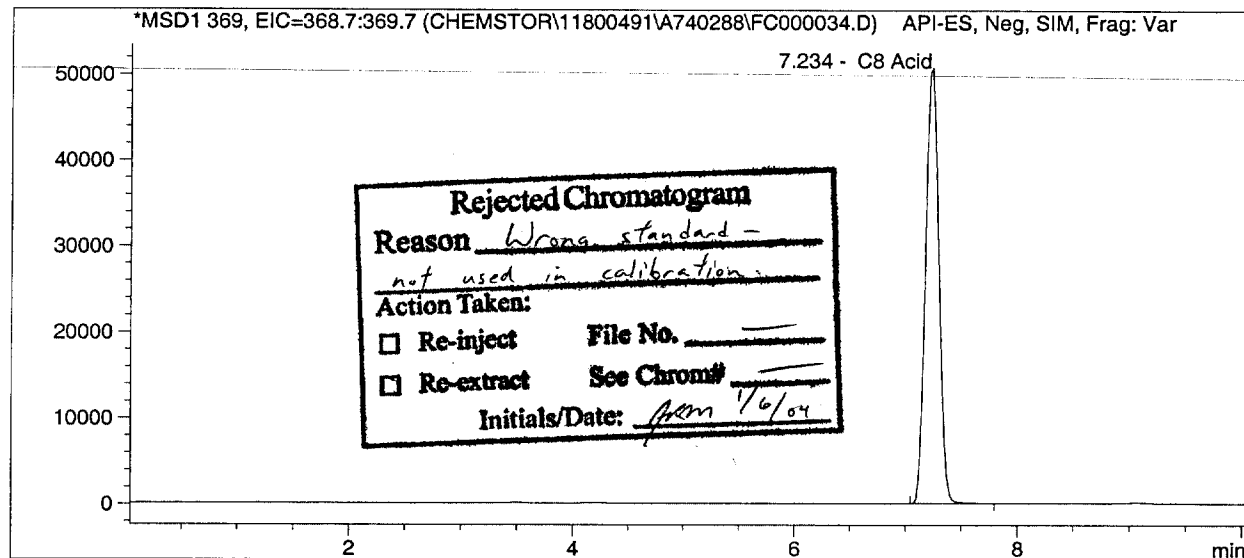
Data file :C:\HPCHEM\1\DATA\Chemstor\11800491\A740288\FC000034.D

=====

|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/6/04   | 1:28:42 AM | Seq Line  | : | 34   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 5    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound     | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|--------------|----------------|-------|--------|---------------------------|
| C8 Acid      | 1385.81        | 7.234 | 423279 | MSD1 369, EIC=368.7:369.7 |
| C10 Surrogat | 1371.45        | 8.057 | 516007 | MSD1 469, EIC=468.7:469.7 |

=====  
\*\*\* End of Report \*\*\*

0053

Sample Name:STD 1000 ppb

Sample Info:

1

Data file :C:\HPCHEM\1\DATA\Chemstor\11800528\A742528\FC000035.D

=====

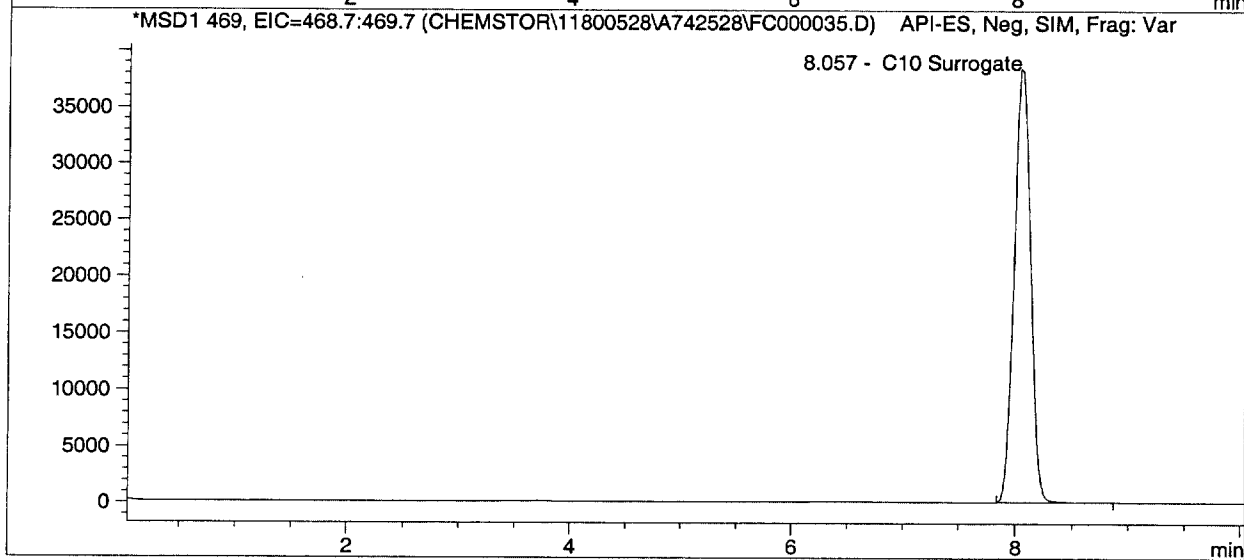
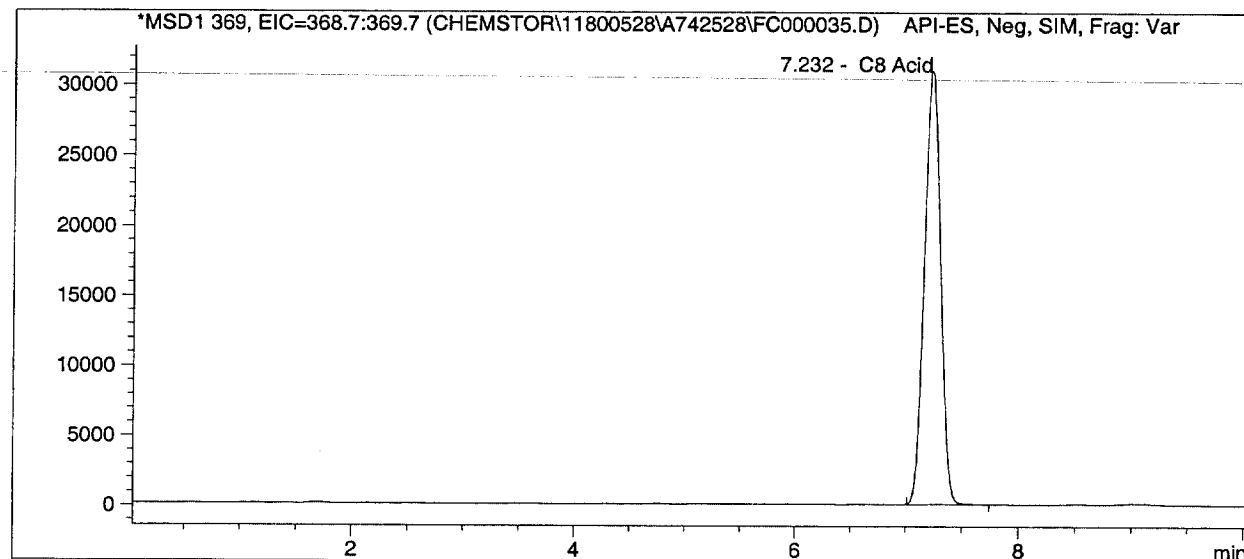
|                |            |            |           |   |      |
|----------------|------------|------------|-----------|---|------|
| Injection Date | : 1/6/04   | 1:43:44 AM | Seq Line  | : | 35   |
| Acq Operator   | : jmillier |            | Vial No.  | : | 6    |
| Instrument     | : PC00414  |            | Inj. No.  | : | 1    |
| Dilution       | : 1        |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M

Analysis Method : C:\HPCHEM\1\METHODS\010504A.M

Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 1021.81        | 7.232 | 313658 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 1016.03        | 8.057 | 384185 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0054

Sample Name:STD 1500 ppb

Sample Info:

1

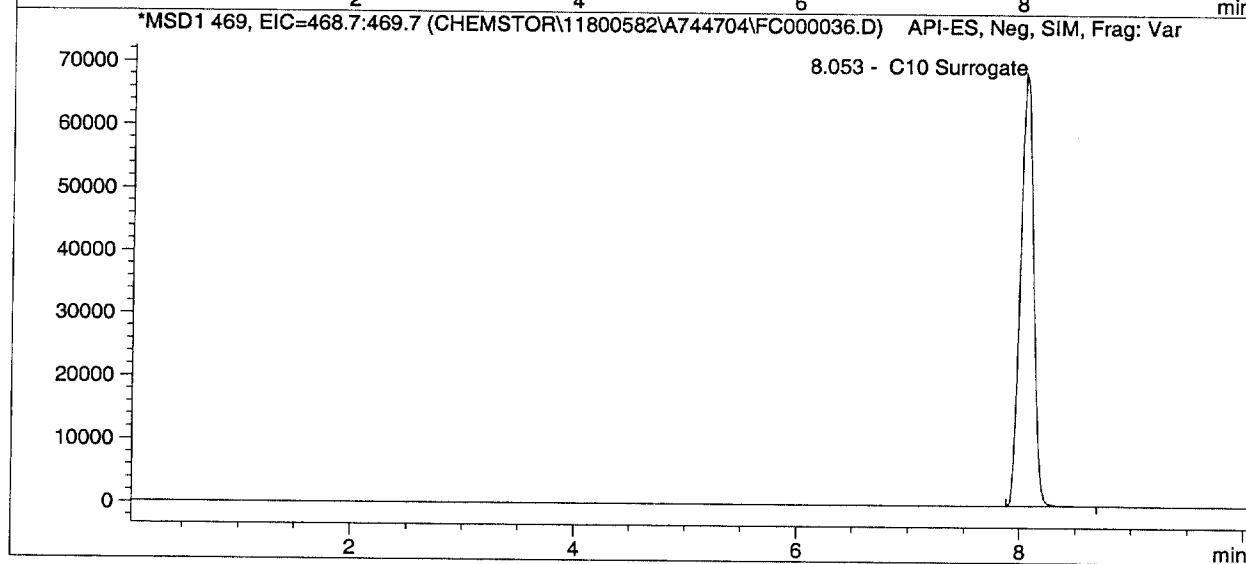
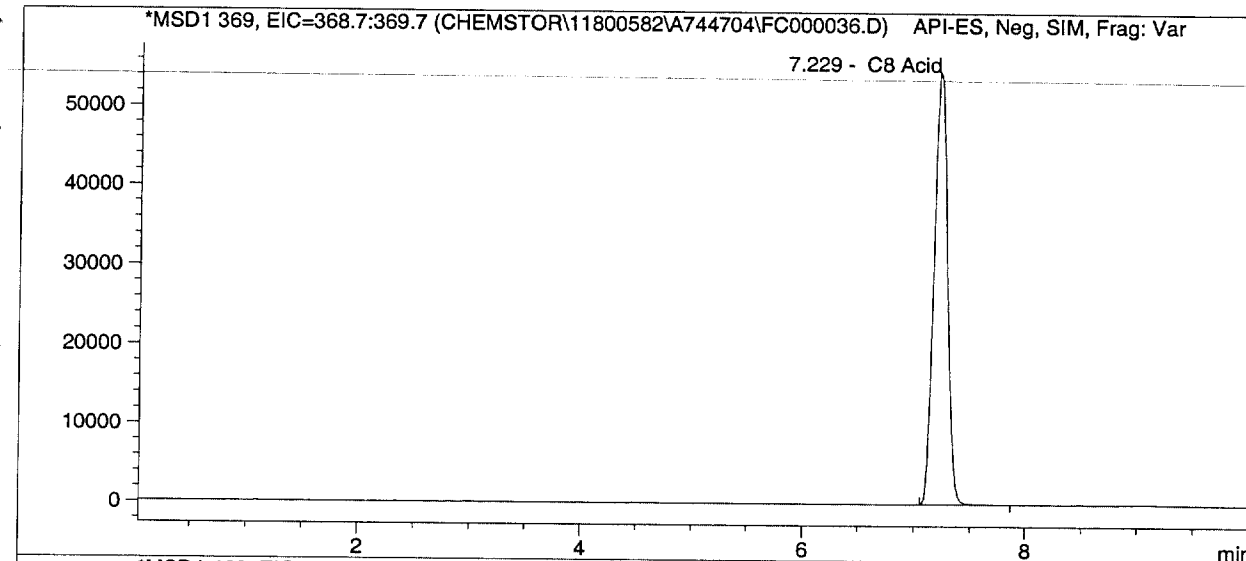
Data file :C:\HPCHEM\1\DATA\Chemstor\11800582\A744704\FC000036.D

=====

|                |           |            |           |   |      |
|----------------|-----------|------------|-----------|---|------|
| Injection Date | : 1/6/04  | 1:58:44 AM | Seq Line  | : | 36   |
| Acq Operator   | : jmillar |            | Vial No.  | : | 7    |
| Instrument     | : PC00414 |            | Inj. No.  | : | 1    |
| Dilution       | : 1       |            | Inj. Vol. | : | 5 µl |

Acq. Method : FC8-10.M  
Analysis Method : C:\HPCHEM\1\METHODS\010504A.M  
Last Changed : 1/6/04 08:52:48 am

LC/MS analysis of perfluorooctanoic acid.



| Compound    | Amount (ng/mL) | R.T.  | Area   | Signal                    |
|-------------|----------------|-------|--------|---------------------------|
| C8 Acid     | 1489.92        | 7.229 | 454633 | MSD1 369, EIC=368.7:369.7 |
| 10 Surrogat | 1485.15        | 8.053 | 558177 | MSD1 469, EIC=468.7:469.7 |

\*\*\* End of Report \*\*\*

0055



3058 Research Drive  
State College, PA 16801

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

## Login

Login Group: L0001508

Login #: 1618  
Project: P0000419  
Project Storage:  
Company Name: DuPont de Nemours & Co, Inc.  
Submitted By: Michael D. Aucoin  
Login Type: Immediate Receipt of Samples  
Started: T  
Date Start: 12/22/2003  
Due Date: 01/05/2004  
Received Date: 12/20/2003  
Received By: ROBB, SHAWN  
Spread Sample:  
Label:  
Project Title/Type: Analysis of PFOA in OVS Tubes / ROUTINE  
Exygen SD/PI: MILLER, JAMES  
Login Notes:  
Conform Notes:

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

## Packages / Containers

| Package   | Carton | Mail Date / Condition                                     | Shipper / ID              | Temp. Control/Temp. | Direction / Handled By  |
|-----------|--------|-----------------------------------------------------------|---------------------------|---------------------|-------------------------|
| PK0002109 |        | 12/20/2003 11:30:09AM<br>Package & Contents Uncompromised | FEDEX<br>8363912984670200 | None                | RECEIVED<br>ROBB, SHAWN |

| Container # | Gross Weight | pH | Container Type | Preservative | Mfg. Lot | Mfg. ID |
|-------------|--------------|----|----------------|--------------|----------|---------|
| C0024018    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024019    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024020    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024021    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024022    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024023    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024024    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024025    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024026    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024027    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024028    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024029    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024030    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024031    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024032    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024033    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024034    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024035    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024036    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024037    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024038    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024039    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024040    | 2.0 g        |    | Other          | NONE         |          |         |
| C0024041    | 2.0 g        |    | Other          | NONE         |          |         |

## ICOC

### Miscellaneous

#### Item Key

None

#### Description

0056

1/6/2004  
Login.rpt

Report Version: Dec 22 2003 10:44AM  
Page 1 of 4

Instance:

R0078484

000442



Samples

| <u>Sample ID</u> | <u>Matrix</u> | <u>Fraction</u> | <u>Sample</u>      | <u>Date Sampled</u> | <u>Date Received</u> | <u>Date Due</u> |
|------------------|---------------|-----------------|--------------------|---------------------|----------------------|-----------------|
| L0001508-0001    | GAS           | OVS Tubes       | WWK-A-AMSFBLK-E9 A | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0002    | GAS           | OVS Tubes       | WWK-A-AMSFBLK-E9 B | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0003    | GAS           | OVS Tubes       | WWK-A-AMSFBLK-E9 C | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0004    | GAS           | OVS Tubes       | WWK-A-AMS1-E9 A    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0005    | GAS           | OVS Tubes       | WWK-A-AMS1-E9 B    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0006    | GAS           | OVS Tubes       | WWK-A-AMS1-E9 C    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0007    | GAS           | OVS Tubes       | WWK-A-AMS2-E9 A    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0008    | GAS           | OVS Tubes       | WWK-A-AMS2-E9 B    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0009    | GAS           | OVS Tubes       | WWK-A-AMS2-E9 C    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0010    | GAS           | OVS Tubes       | WWK-A-AMS3-E9 A    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0011    | GAS           | OVS Tubes       | WWK-A-AMS3-E9 B    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0012    | GAS           | OVS Tubes       | WWK-A-AMS3-E9 C    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0013    | GAS           | OVS Tubes       | WWK-A-AMS4-E9 A    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0014    | GAS           | OVS Tubes       | WWK-A-AMS4-E9 B    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0015    | GAS           | OVS Tubes       | WWK-A-AMS4-E9 C    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0016    | GAS           | OVS Tubes       | WWK-A-AMS5-E9 A    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0017    | GAS           | OVS Tubes       | WWK-A-AMS5-E9 B    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0018    | GAS           | OVS Tubes       | WWK-A-AMS5-E9 C    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0019    | GAS           | OVS Tubes       | WWK-A-AMS6-E9 A    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0020    | GAS           | OVS Tubes       | WWK-A-AMS6-E9 B    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0021    | GAS           | OVS Tubes       | WWK-A-AMS6-E9 C    | 12/19/2003          | 12/20/2003           | 01/05/2004      |
| L0001508-0022    | GAS           | OVS Tubes       | CONTROL A          |                     | 12/20/2003           | 01/05/2004      |
| L0001508-0023    | GAS           | OVS Tubes       | CONTROL B          |                     | 12/20/2003           | 01/05/2004      |
| L0001508-0024    | GAS           | OVS Tubes       | CONTROL C          |                     | 12/20/2003           | 01/05/2004      |

0057

000413



# Login

## Bottles

**L0001508-0001**

Container  
C0024018 / Other / NONE

Method

**L0001508-0002**

Container  
C0024019 / Other / NONE

Method

**L0001508-0003**

Container  
C0024020 / Other / NONE

Method

**L0001508-0004**

Container  
C0024021 / Other / NONE

Method

**L0001508-0005**

Container  
C0024022 / Other / NONE

Method

**L0001508-0006**

Container  
C0024023 / Other / NONE

Method

**L0001508-0007**

Container  
C0024024 / Other / NONE

Method

**L0001508-0008**

Container  
C0024025 / Other / NONE

Method

**L0001508-0009**

Container  
C0024026 / Other / NONE

Method

**L0001508-0010**

Container  
C0024027 / Other / NONE

Method

**L0001508-0011**

Container  
C0024028 / Other / NONE

Method

**L0001508-0012**

Container  
C0024029 / Other / NONE

Method

0058



# Login

**L0001508-0013**

Container  
C0024030 / Other / NONE

Method

**L0001508-0014**

Container  
C0024031 / Other / NONE

Method

**L0001508-0015**

Container  
C0024032 / Other / NONE

Method

**L0001508-0016**

Container  
C0024033 / Other / NONE

Method

**L0001508-0017**

Container  
C0024034 / Other / NONE

Method

**L0001508-0018**

Container  
C0024035 / Other / NONE

Method

**L0001508-0019**

Container  
C0024036 / Other / NONE

Method

**L0001508-0020**

Container  
C0024037 / Other / NONE

Method

**L0001508-0021**

Container  
C0024038 / Other / NONE

Method

**L0001508-0022**

Container  
C0024039 / Other / NONE

Method

**L0001508-0023**

Container  
C0024040 / Other / NONE

Method

**L0001508-0024**

Container  
C0024041 / Other / NONE

Method

0059



# CHAIN OF CUSTODY/ANALYSIS REQUEST FORM

## PROJECT INFORMATION

**Client (name & address):**

## ADDm

Du Pont Washington Works

**Project Manager (Name & E-mail Address):**

Methyl Aucubin

**Project Name:**

Project Name: Air Sampling Program  
P.O. #: \_\_\_\_\_

**P.O. #:**

**Quotation #:**

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

# SAMPLE ANALYSIS

[illegible]

# CHAIN OF CUSTODY

| Relinquished by | Date     | Time |
|-----------------|----------|------|
| J. Kendall      | 12/19/03 | 0930 |
|                 |          |      |
|                 |          |      |
|                 |          |      |

| Cooler ID # | Cooler Temp. (°C) |
|-------------|-------------------|
| WCS01       | 24                |

| Received by        | Date     | Time |
|--------------------|----------|------|
| <i>[Signature]</i> | 12/26/19 | 1130 |
|                    |          |      |
|                    |          |      |
|                    |          |      |

## PROJECT REQUIREMENTS

### Results Deadline:

### Laboratory Report Options:

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

## OTHER INFORMATION

Event 9

**DuPont Washington Works  
Air Sampling Program**

**Sampler(s):** LK, REK

**FedEx Airbill #:**

**Event Number** Event 5

| Pump # | Station # | Oxygen ID     | Calibration (pre) | Date   | Start Time | Date   | Stop Time | Calibration (post) | Total Minutes | Total Volume |
|--------|-----------|---------------|-------------------|--------|------------|--------|-----------|--------------------|---------------|--------------|
| 669842 | AMS-1     | WWK-A-AMS1-E9 | 1.004             | 18-Dec | 0619       | 19-Dec | 0641      | 0.9642             | 1460          |              |
| 669908 | AMS-2     | WWK-A-AMS2-E9 | 1.008             | 18-Dec | 0624       | 19-Dec | 0644      | 0.9671             | 1460          |              |
| 669901 | AMS-3     | WWK-A-AMS3-E9 | 1.005             | 18-Dec | 0625       | 19-Dec | 0644      | 0.9030             | 1459          |              |
| 669890 | AMS-4     | WWK-A-AMS4-E9 | 1.005             | 18-Dec | 0632       | 19-Dec | 0651      | 0.9377             | 1458          |              |
| 669796 | AMS-5     | WWK-A-AMS5-E9 | 1.006             | 18-Dec | 0608       | 19-Dec | 0629      | 0.9837             | 1461          |              |
| 669865 | AMS-6     | WWK-A-AMS6-E9 | 1.007             | 18-Dec | 0648       | 19-Dec | 0700      | 0.9618             | 1451          |              |

| Hours | Minutes | Hours | Minutes | Hours | Minutes | Hours | Minutes | Hours | Minutes |
|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| 0     | 0       | 5     | 300     | 10    | 600     | 15    | 900     | 20    | 1200    |
| 1     | 60      | 6     | 360     | 11    | 660     | 16    | 960     | 21    | 1260    |
| 2     | 120     | 7     | 420     | 12    | 720     | 17    | 1020    | 22    | 1320    |
| 3     | 180     | 8     | 480     | 13    | 780     | 18    | 1080    | 23    | 1380    |
| 4     | 240     | 9     | 540     | 14    | 840     | 19    | 1140    | 24    | 1440    |

**Field Blank:** yes WWK-K-AMSFBLK-E9  
yes or no

**Weather:** 11/29 = Temperature about 27 degrees, and snowing.  
11/30 = Temperature about 28 degrees, and light snow.

**SAFER operational:** yes  
yes or no

**Comments:** Total minutes column is the reading from the monitor counter.

12/19/2003

0061

000447

## Sample "Condition Upon Receipt" Form

Protocol # NA

Oxygen Study # \* P0000419 Sen 12/22/03

Date & Time Received 12/21/1130

Condition of Samples ambient

Temporary Storage Location DCC23C3

Initials & Date MA 12/21/1130

Waybill # 8943 9129 8467

Comments: \*waiting for study number MA 12/21/1130

# FedEx® USA Airbill

Tracking Number

836391298467

## 1 From

Date 12/19/03

Sender's Name Luenda Benkel

Phone 314 863-3838

Company

DuPont C&E

Address

St Rt. 892 South DuPont Rd.

City

Washington

State

WV ZIP 26181

## 2 Your Internal Billing Reference

18983937.00003

## 3 To

Recipient's Name

Sample Receiving

Phone 814 331-8032

Company

Exogen Laboratories

Address

3114 Research Drive

In "HOLD" at FedEx location, print FedEx address.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

City

St. Charles

State

PA ZIP 16801



## 4a Express Package Service

☒ FedEx Priority Overnight

☐ FedEx Standard Overnight

☐ FedEx First Overnight

Delivery commitment may be later in some areas. Express next business morning delivery to select locations.

☐ FedEx 2Day

☐ FedEx Express Saver

## 4b Express Freight Service

☐ FedEx 1Day Freight\*

☐ FedEx 2Day Freight

☐ FedEx 3Day Freight

\* Call for Confirmation.

## 5 Packaging

☐ FedEx Envelope\*

☐ FedEx Pak\*

☒ Other

## 6 Special Handling

☒ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

Recipient's Copy

## 7 Release Signature

Sign to authorize delivery without obtaining a signature.

☒ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

☐ Signature Required

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims, questions? Visit our Web site at [fedex.com](http://www.fedex.com) or call 1.800.Go.FedEx® 800.463.3338.

Rev. Date 10/01 \*When #157612 \*©1994-2001 FedEx® PRINTED IN U.S.A. WCS1 02

446



**Routing:** FED EX ( SEE ABOVE ACCT)  
**P.O. B.:** COLLECT  
**Date Shipped:**  
**B / L :**

[illegible]

**Dimensions:**  
**Ship From:** Stores

000450

**Special Instructions:** This N-C-S will cover 6 shipments beginning 10/30/03.

>>> Will deliver package to Stores with completed FEDEX Bill. CRG Account Number 2230-5551-6.  
Weekend samples will be delivered directly to FEDEX. <<<<

**Comments:**

U065

000451