

**REDACTED**

## Data Validation Checklist Semivolatile Organic Analyses

Project: 35<sup>TH</sup> Avenue Superfund Site  
 Laboratory: TestAmerica - Savannah, GA<sup>1</sup>  
 Method: SW-846 8270C Low-Level (PAH)  
 Matrix: Soil  
 Reviewer: Karen Marie Trujillo  
 Concurrence<sup>2</sup>: Martha Meyers-Lee

Project No: 15268508.20000  
 Job ID.: 680-89220-3  
 Associated Samples: Refer to **Attachment A** (Sample Summary)  
 Samples Collected: 04/09/2013  
 Date: 05/01/2013  
 Date: 05/06/2013

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample storage and preservation requirements met? If temperature >6°C, then J/UJ-flag results.		✓		The samples were received by TestAmerica Savannah, GA on 04/11/2013 at 2.2°C; however, samples were repackaged and shipped to TestAmerica Tampa, FL on 04/11/2013. FEDEX lost track of the coolers, and did not deliver until 04/15/2013. The coolers were out of temperature upon receipt in Tampa; therefore, all samples results are estimated (J, UJ). Refer to <b>Attachment B</b> (Case Narrative).	J, UJ
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?	✓			The "Login Sample Receipt Checklist" states there was water in the cooler, indicating melted ice and the cooler temperature was not acceptable. Sample shipment delayed by FedEx.  Case Narrative also states that FEDEX lost track of the cooler shipped from the TestAmerica Savannah laboratory to the Tampa laboratory.	
4. Do any soil samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Were holding times met (≤7 and 14 days from collection to extraction for aqueous and solid samples, respectively; ≤40 days from extraction to analysis)? If not, then J/UJ-flag sample results. If grossly (2x) exceeded, then flag J/R.	✓				
6. Were results for all project-specified target analytes reported?	✓				

<sup>1</sup> All analytical work subcontracted to TestAmerica of Tampa, FL

<sup>2</sup> Independent technical reviewer

## Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?	✓				
8. Were samples with analyte concentrations exceeding the calibration range of the instrument re-analyzed at a higher dilution? If not, then J-flag sample result.	✓				
9. Was a method blank extracted with each batch (i.e., one per 20 samples, per batch, per matrix and per level)?	✓				
10. Were target analytes detected in the method blank?		✓			
11. Were target analytes detected in equipment/rinsate blanks?		✓		PAHs were not detected during the analysis of rinsate blank 04113-RB-Bowls + Spoons (680-89275-1).	
12. Are equipment/rinsate blanks associated with every sample? If no, note in DV report.	✓			According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. A rinsate blank, 04113-RB-Bowls + Spoons (680-89275-1) was collected during the week of 4/08/13. The rinsate blank was analyzed for PAHs under Test America Job ID 680-89275-1.	
13. Were analytes detected in samples below the blank contamination action level? If yes, U-flag positive sample results <5x associated blank concentration (10x for common blank contaminants – phthalates)			✓	Blank contamination does not exist.	
14. Is a field duplicate associated with this Job?		✓			
15. Was precision deemed acceptable as defined by the project plans?			✓		
16. Were DFTPP ion abundance criteria (i.e., Table 3 of SW-846 8270C) met? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓			Alternate tuning criteria were used by the laboratory (i.e., EPA Method 525.2). All ion abundance criteria were met per EPA Method 525.2.	
17. Were samples analyzed within 12 hours of the DFTPP tune? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓				
18. Were initial and continuing calibration standards analyzed at the proper frequency for each instrument? <ul style="list-style-type: none"> <li>Ensure that a minimum of five standards are used for the initial calibration. If no, use professional judgment to determine the effect on the data and note in the reviewer narrative.</li> </ul>	✓			<ul style="list-style-type: none"> <li>Instrument ID: BSMC5973</li> <li>Initial Calibration: 04/11/2013</li> <li>ICV: 04/11/13 @ 14:25</li> <li>CCV: 04/19/13 @ 11:24</li> </ul>	

## Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
<ul style="list-style-type: none"> <li>An initial calibration is to be associated with each sample analysis.</li> <li>A continuing calibration standard is to be analyzed for every 12 hours of sample analysis per instrument.</li> </ul>					
19. Were calibration results within laboratory/project specifications? <ul style="list-style-type: none"> <li>ICAL (Criteria: <math>\leq 15</math> mean %RSD with individual CCC %RSD <math>\leq 30</math> (<math>\leq 50\%</math> for poor performers), OR <math>r \geq 0.995</math>, OR <math>r^2 \geq 0.99</math>, and RRF <math>\geq 0.050</math> (<math>\geq 0.010</math> for poor performers)):               <ul style="list-style-type: none"> <li>If %RSD <math>&gt; 15</math> (<math>&gt; 50\%</math> for poor performers), or <math>r &lt; 0.995</math>, or <math>r^2 &lt; 0.995</math>, then J-flag positive results and UJ-flag non-detects</li> <li>If mean RRF <math>&lt; 0.050</math> (<math>&lt; 0.010</math> for poor performers), then J-flag positive results and R-flag non-detects</li> </ul> </li> <li>ICV and CCV (Criteria: <math>\leq 20\%D</math> (<math>\leq 50\%</math> for poor performers) and RF <math>\geq 0.050</math> (<math>\geq 0.010</math> for poor performers)):               <ul style="list-style-type: none"> <li>If %D <math>&gt; 20</math> (<math>&gt; 50\%</math> for poor performers), then J-flag positive results and UJ-flag non-detects</li> <li>If RF <math>&lt; 0.050</math> (<math>&lt; 0.010</math> for poor performers), then UJ-flag non-detected semivolatile target compounds</li> </ul> </li> </ul>	✓				
20. Was a LCS prepared for each batch and matrix?	✓				
21. Were LCS recoveries within lab control limits? If no, J-flag positive results when %R > Upper Control Limit (UCL) and J/R-flag results when %R < Lower Control Limit (LCL).	✓				
22. Were LCS/LCSD RPD within lab specifications? If no, J-flag positive results and UJ-flag non-detects			✓	LCS Only	
23. Was a MS/MSD pair extracted at the proper frequency (one per 20 samples per batch)?	✓				
24. Is the MS/MSD parent sample a project-specific sample?	✓			Prep Batch 136551: 680-89220-41 (HP0142B-CS-SP), MS/MSD	
25. Were MS/MSD recoveries within laboratory/project specifications? <i>Only QC results for project samples are evaluated that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> <li>If the native sample concentration <math>&gt; 4x</math> spiking level, then an evaluation of interference is not possible.</li> <li>If either MS or MSD recovery meets control limits, qualification of data is not warranted.</li> </ul>	✓			HP0142B-CS-SP (680-89220-21): <ul style="list-style-type: none"> <li>Benzo[a]anthracene @ 23 and 27%R (40-130), J Flag</li> <li>Benzo[a]pyrene @ 9 and 10%R (49-130), J Flag</li> <li>Benzo[b]fluoranthene @ -14 and 2%R (37-130), J Flag</li> <li>Benzo[g,h,i]perlyene @ 17 and 14 %R (32-130), J</li> </ul>	J, UJ

## Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
<ul style="list-style-type: none"> <li>MS and MSD %R&lt;10: J and R Flag positive and ND results, respectively</li> <li>MS and MSD %R &gt;10 and &lt;LCL: J Flag positive and UJ-flag non-detect results</li> <li>MS and MSD R% &gt;UCL (or 140): J Flag positive results</li> </ul>				Flag. <ul style="list-style-type: none"> <li>Benzo[k]fluoranthene @ 42 and 27%R (32-130). Qualification of data not required<sup>3</sup>.</li> <li>Chrysene @ 11 and 16%R (41-130), J Flag</li> <li>Fluoranthene @ -11 and -20%R (40-130), J Flag.</li> <li>Indeno[1,2,3-cd]pyrene @ 16 and 16%R (30-130), J Flag.</li> <li>Phenanthrene @ 15 and 8%R (42-130), J Flag</li> <li>Pyrene @ 6 and 12%R (44-130), J Flag</li> </ul>	
26. Were laboratory criteria met for precision during the MS/MSD analysis? <i>Only QC results for project samples are evaluated that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> <li>If the native sample concentration &gt; 4x spiking level, then an evaluation of interference is not possible.</li> <li>If %RPD &gt; UCL, J-flag positive result and UJ-flag non-detect result</li> </ul>	✓				
27. Were surrogate recoveries within lab/project specifications? <ul style="list-style-type: none"> <li>If %R for 1 Acid or BN surrogates &lt;10, then J-flag positive and R-flag non-detect associated sample results</li> <li>If 2 or more Acid or BN %R &gt;UCL, then J-flag positive results</li> <li>If 2 or more Acid or BN %R ≥10%, but &lt;LCL, then J-flag positive results and UJ-flag non-detect results</li> <li>If 2 or more Acid or BN , with 1 %R &gt;UCL and 1 %R ≥10%, but &lt;LCL, then J-flag positive results and UJ-flag non-detect results</li> </ul>	✓				
28. Were internal standard (IS) results within lab/project specifications? <ul style="list-style-type: none"> <li>If IS area counts are less than 50% of the midpoint calibration standard, then J-flag positive and UJ-flag non-detect associated sample results</li> <li>If IS area counts are greater than 100% of the midpoint calibration standard, then J-flag positive results</li> <li>If extremely low area counts are reported or performance exhibits a major abrupt drop-off, then a severe loss of sensitivity is indicated, J-flag positive and R-flag non-</li> </ul>	✓				

<sup>3</sup> The recovery of either the MS or MSD met control limits.

## Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
detect results <ul style="list-style-type: none"> <li>If retention time of sample's internal standard is not within 30 seconds of the associated calibration standard, R-flag associated data.</li> <li>The chromatographic profile for that sample must be examined to determine if any false positives or negatives exists. For shifts of large magnitude, the reviewer may consider partial or total rejection of the data for that sample fraction. Positive results need not be qualified as R, if mass spectral criteria are met.</li> </ul>					
29. Were lab comments included in report?	✓			Refer to <b>Attachment B</b> (Case Narrative)	
<p><b>Comments:</b> The data validation was conducted in accordance with the <i>Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1</i> (OTIE, October 2012). The data review process was modeled after the <i>USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Organic Methods Data Review</i> (EPA, October 1999) and <i>USEPA CLP NFG for Low Concentration Organic Methods Data Review</i> (EPA, June 2001). Sample results have been qualified based on the results of the data review process (<b>Attachment C</b>). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment.</p>					

**DV Flag Definitions:**

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R The sample results are unusable. The analyte may or may not be present in the sample.
- U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.
- UJ The analyte was not detected above the limit, and the limit is approximate and may be inaccurate or imprecise.

**ATTACHMENT A**  
**SAMPLE SUMMARY**

# Sample Summary

Client: Oneida Total Integrated Enterprises LLC  
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
SDG: 68089220-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-89220-41	HP0142B-CS-SP	Solid	04/09/13 09:46	04/11/13 10:45
680-89220-42	HP0283A-CS-SP	Solid	04/09/13 08:45	04/11/13 10:45
680-89220-43	HP0283B-CS-SP	Solid	04/09/13 08:55	04/11/13 10:45
680-89220-44	HP0283C-CS-SP	Solid	04/09/13 09:05	04/11/13 10:45

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**ATTACHMENT B**  
**CASE NARRATIVE**



## Case Narrative

Client: Oneida Total Integrated Enterprises LLC  
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
SDG: 68089220-3

**Job ID: 680-89220-3**

**Laboratory: TestAmerica Savannah**

**Narrative**

### CASE NARRATIVE

**Client: Oneida Total Integrated Enterprises LLC**

**Project: 35th Avenue Superfund Site**

**Report Number: 680-89220-3**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### **RECEIPT**

The samples were received on 04/11/2013 in Savannah; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt in Savannah was 2.2 C. Savannah shipped the samples for 8270 PAH analysis to Tampa on 04/11/2013. FEDEX lost track of the cooler, and did not deliver until 04/15/2013. The coolers were out of temp at receipt in Tampa.

#### **SEMIVOLATILE ORGANIC COMPOUNDS BY GCMS - LOW LEVEL**

Samples HP0142B-CS-SP (680-89220-41), HP0283A-CS-SP (680-89220-42), HP0283B-CS-SP (680-89220-43) and HP0283C-CS-SP (680-89220-44) were analyzed for Semivolatile Organic Compounds by GCMS - Low Level in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/17/2013 and analyzed on 04/19/2013.

Several analytes recovered outside the recovery criteria for the MS/MSD of sample HP0142B-CS-SP (680-89220-41) in batch 660-136655.

No other difficulties were encountered during the SVOAs analyses.

All other quality control parameters were within the acceptance limits.

**ATTACHMENT C**  
**QUALIFIED SAMPLE RESULTS**

# Client Sample Results

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

**Client Sample ID: HP0142B-CS-SP**

**Lab Sample ID: 680-89220-41**

Date Collected: 04/09/13 09:46

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 60.2

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	86	J	170	33	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Acenaphthylene	97	J	66	8.3	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Anthracene	220	J	14	7.0	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Benzo[a]anthracene	620	J	13	6.5	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Benzo[a]pyrene	700	J	17	8.6	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Benzo[b]fluoranthene	1300	J	20	10	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Benzo[g,h,i]perylene	540	J	33	7.3	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Benzo[k]fluoranthene	430	J	13	6.0	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Chrysene	770	J	15	7.5	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Dibenz(a,h)anthracene	200	J	33	6.8	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Fluoranthene	1200	J	33	6.6	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Fluorene	120	J	33	6.8	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Indeno[1,2,3-cd]pyrene	510	J	33	12	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
1-Methylnaphthalene	150	J	66	7.3	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
2-Methylnaphthalene	210	J	66	12	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Naphthalene	240	J	66	7.3	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Phenanthrene	830	J	13	6.5	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1
Pyrene	870	J	33	6.2	ug/Kg	*	04/17/13 16:34	04/19/13 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	72		30 - 130	04/17/13 16:34	04/19/13 16:21	1

**Client Sample ID: HP0283A-CS-SP**

**Lab Sample ID: 680-89220-42**

Date Collected: 04/09/13 08:45

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 67.3

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	150	U	150	29	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Acenaphthylene	8.7	J	58	7.3	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Anthracene	26	J	12	6.1	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Benzo[a]anthracene	80	J	12	5.7	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Benzo[a]pyrene	79	J	15	7.5	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Benzo[b]fluoranthene	130	J	18	8.8	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Benzo[g,h,i]perylene	81	J	29	6.4	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Benzo[k]fluoranthene	69	J	12	5.2	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Chrysene	220	J	13	6.5	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Dibenz(a,h)anthracene	77	J	29	5.9	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Fluoranthene	140	J	29	5.8	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Fluorene	16	J	29	5.9	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Indeno[1,2,3-cd]pyrene	110	J	29	10	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
1-Methylnaphthalene	96	J	58	6.4	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
2-Methylnaphthalene	160	J	58	10	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Naphthalene	160	J	58	6.4	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Phenanthrene	210	J	12	5.7	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1
Pyrene	100	J	29	5.4	ug/Kg	*	04/17/13 16:34	04/19/13 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	60		30 - 130	04/17/13 16:34	04/19/13 17:16	1

Sample results have been qualified by URS in accordance with the Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1 (OTTE, October 2012)

TestAmerica Savannah

# Client Sample Results

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

**Client Sample ID: HP0283B-CS-SP**

**Lab Sample ID: 680-89220-43**

Date Collected: 04/09/13 08:55

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 61.6

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	160	U J	160	31	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Acenaphthylene	63	U J	63	7.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Anthracene	13	U J	13	6.6	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Benzo[a]anthracene	13	U J	13	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Benzo[a]pyrene	27	J	16	8.2	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Benzo[b]fluoranthene	48	J	19	9.6	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Benzo[g,h,i]perylene	19	J	31	6.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Benzo[k]fluoranthene	22	J	13	5.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Chrysene	24	J	14	7.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Dibenz(a,h)anthracene	31	U J	31	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Fluoranthene	42	J	31	6.3	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Fluorene	15	J	31	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Indeno[1,2,3-cd]pyrene	31	U J	31	11	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
1-Methylnaphthalene	47	J	63	6.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
2-Methylnaphthalene	66	J	63	11	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Naphthalene	110	J	63	6.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Phenanthrene	64	J	13	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Pyrene	37	J	31	5.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	55		30 - 130				04/17/13 16:34	04/19/13 17:34	1

**Client Sample ID: HP0283C-CS-SP**

**Lab Sample ID: 680-89220-44**

Date Collected: 04/09/13 09:05

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 66.5

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	150	U J	150	30	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Acenaphthylene	9.3	J	59	7.4	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Anthracene	8.0	J	12	6.2	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Benzo[a]anthracene	20	J	12	5.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Benzo[a]pyrene	15	J	15	7.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Benzo[b]fluoranthene	40	J	18	9.0	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Benzo[g,h,i]perylene	37	J	30	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Benzo[k]fluoranthene	25	J	12	5.3	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Chrysene	42	J	13	6.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Dibenz(a,h)anthracene	30	U J	30	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Fluoranthene	31	J	30	5.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Fluorene	30	U J	30	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Indeno[1,2,3-cd]pyrene	30	U J	30	10	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
1-Methylnaphthalene	35	J	59	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
2-Methylnaphthalene	88	J	59	10	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Naphthalene	100	J	59	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Phenanthrene	61	J	12	5.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Pyrene	33	J	30	5.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	62		30 - 130				04/17/13 16:34	04/19/13 17:52	1

Sample results have been qualified by URS in accordance with the Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1 (OTTE, October 2012)

TestAmerica Savannah

## ANALYTICAL REPORT

Job Number: 680-89220-3

SDG Number: 68089220-3

Job Description: 35th Avenue Superfund Site

For:

Oneida Total Integrated Enterprises LLC

1220 Kennestone Circle

Suite 106

Marietta, GA 30060

Attention: Ms. Limari F Krebs



Approved for release.  
Bernard Kirkland  
Project Manager I  
4/23/2013 3:30 PM

---

Designee for

Lisa Harvey

Project Manager II

[lisa.harvey@testamericainc.com](mailto:lisa.harvey@testamericainc.com)

04/23/2013

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; AZ: AZ0741; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN: C-GA-02; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

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## CASE NARRATIVE

**Client: Oneida Total Integrated Enterprises LLC**

**Project: 35th Avenue Superfund Site**

**Report Number: 680-89220-3**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 04/11/2013 in Savannah; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt in Savannah was 2.2 C. Savannah shipped the samples for 8270 PAH analysis to Tampa on 04/11/2013. FEDEX lost track of the cooler, and did not deliver until 04/15/2013. The coolers were out of temp at receipt in Tampa.

### **SEMIVOLATILE ORGANIC COMPOUNDS BY GCMS - LOW LEVEL**

Samples HP0142B-CS-SP (680-89220-41), HP0283A-CS-SP (680-89220-42), HP0283B-CS-SP (680-89220-43) and HP0283C-CS-SP (680-89220-44) were analyzed for Semivolatile Organic Compounds by GCMS - Low Level in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/17/2013 and analyzed on 04/19/2013.

Several analytes recovered outside the recovery criteria for the MS/MSD of sample HP0142B-CS-SP (680-89220-41) in batch 660-136655.

No other difficulties were encountered during the SVOAs analyses.

All other quality control parameters were within the acceptance limits.



## SAMPLE SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3  
Sdg Number: 68089220-3

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
680-89220-41	HP0142B-CS-SP	Solid	04/09/2013 0946	04/11/2013 1045
680-89220-41MS	HP0142B-CS-SP	Solid	04/09/2013 0946	04/11/2013 1045
680-89220-41MSD	HP0142B-CS-SP	Solid	04/09/2013 0946	04/11/2013 1045
680-89220-42	HP0283A-CS-SP	Solid	04/09/2013 0845	04/11/2013 1045
680-89220-43	HP0283B-CS-SP	Solid	04/09/2013 0855	04/11/2013 1045
680-89220-44	HP0283C-CS-SP	Solid	04/09/2013 0905	04/11/2013 1045

## METHOD SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3  
Sdg Number: 68089220-3

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix: Solid</b>			
Semivolatile Organic Compounds by GCMS - Low Levels	TAL TAM	SW846 8270C LL	
Microwave Extraction	TAL TAM		SW846 3546
Percent Moisture	TAL TAM	EPA Moisture	

### Lab References:

TAL TAM = TestAmerica Tampa

### Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3

Sdg Number: 68089220-3

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID</b>
SW846 8270C LL	Cantin, Stephen C	SCC
EPA Moisture	Galio, Andrew	AG

## DATA REPORTING QUALIFIERS

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3

Sdg Number: 68089220-3

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS Semi VOA	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Quality Control Results

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3

Sdg Number: 68089220-3

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 660-136551</b>					
LCS 660-136551/2-A	Lab Control Sample	T	Solid	3546	
MB 660-136551/1-A	Method Blank	T	Solid	3546	
680-89220-41	HP0142B-CS-SP	T	Solid	3546	
680-89220-41MS	Matrix Spike	T	Solid	3546	
680-89220-41MSD	Matrix Spike Duplicate	T	Solid	3546	
680-89220-42	HP0283A-CS-SP	T	Solid	3546	
680-89220-43	HP0283B-CS-SP	T	Solid	3546	
680-89220-44	HP0283C-CS-SP	T	Solid	3546	
<b>Analysis Batch:660-136655</b>					
LCS 660-136551/2-A	Lab Control Sample	T	Solid	8270C LL	660-136551
MB 660-136551/1-A	Method Blank	T	Solid	8270C LL	660-136551
680-89220-41	HP0142B-CS-SP	T	Solid	8270C LL	660-136551
680-89220-41MS	Matrix Spike	T	Solid	8270C LL	660-136551
680-89220-41MSD	Matrix Spike Duplicate	T	Solid	8270C LL	660-136551
680-89220-42	HP0283A-CS-SP	T	Solid	8270C LL	660-136551
680-89220-43	HP0283B-CS-SP	T	Solid	8270C LL	660-136551
680-89220-44	HP0283C-CS-SP	T	Solid	8270C LL	660-136551

**Report Basis**

T = Total

### General Chemistry

<b>Analysis Batch:660-136459</b>					
680-89220-A-9 MS	Matrix Spike	T	Solid	Moisture	
680-89220-A-9 MSD	Matrix Spike Duplicate	T	Solid	Moisture	
680-89220-41	HP0142B-CS-SP	T	Solid	Moisture	
680-89220-41MS	Matrix Spike	T	Solid	Moisture	
680-89220-41MSD	Matrix Spike Duplicate	T	Solid	Moisture	
680-89220-42	HP0283A-CS-SP	T	Solid	Moisture	
680-89220-43	HP0283B-CS-SP	T	Solid	Moisture	
680-89220-44	HP0283C-CS-SP	T	Solid	Moisture	

**Report Basis**

T = Total

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3SDG No.: 68089220-3Instrument ID: BSMC5973 Analysis Batch Number: 136370Lab Sample ID: ICIS 660-136370/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 04/11/13 11:56 Lab File ID: 1CD11003.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.93	Split Peak	cantins	04/11/13 12:40

Lab Sample ID: IC 660-136370/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 04/11/13 12:35 Lab File ID: 1CD11004.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[g,h,i]perylene	10.29	Baseline Event	cantins	04/11/13 14:33

Lab Sample ID: IC 660-136370/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 04/11/13 12:53 Lab File ID: 1CD11005.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.92	Split Peak	cantins	04/11/13 14:34
Dibenz(a,h)anthracene	9.94	Baseline Event	cantins	04/11/13 14:33

Lab Sample ID: IC 660-136370/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 04/11/13 13:11 Lab File ID: 1CD11006.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.92	Split Peak	cantins	04/11/13 14:35

Lab Sample ID: IC 660-136370/7 Client Sample ID: \_\_\_\_\_Date Analyzed: 04/11/13 13:30 Lab File ID: 1CD11007.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.93	Split Peak	cantins	04/11/13 14:36

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3

SDG No.: 68089220-3

Instrument ID: BSMC5973 Analysis Batch Number: 136370

Lab Sample ID: IC 660-136370/8 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/11/13 13:48 Lab File ID: 1CD11008.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.93	Split Peak	cantins	04/11/13 14:36

Lab Sample ID: IC 660-136370/9 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/11/13 14:06 Lab File ID: 1CD11009.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.93	Split Peak	cantins	04/11/13 14:37

Lab Sample ID: ICV 660-136370/10 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/11/13 14:25 Lab File ID: 1CD11010.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.92	Split Peak	cantins	04/11/13 14:46

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3SDG No.: 68089220-3Instrument ID: BSMC5973 Analysis Batch Number: 136655Lab Sample ID: CCVIS 660-136655/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 04/19/13 11:24 Lab File ID: 1CD19003.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.88	Split Peak	cantins	04/19/13 11:44

Lab Sample ID: LCS 660-136551/2-A Client Sample ID: \_\_\_\_\_Date Analyzed: 04/19/13 14:42 Lab File ID: 1CD19013.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.88	Split Peak	cantins	04/22/13 12:01

Lab Sample ID: 680-89220-41 Client Sample ID: HP0142B-CS-SPDate Analyzed: 04/19/13 16:21 Lab File ID: 1CD19018.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	8.44	Split Peak	cantins	04/22/13 12:05
Benzo[k]fluoranthene	8.46	Baseline Event	cantins	04/22/13 12:05
Indeno[1,2,3-cd]pyrene	9.88	Split Peak	cantins	04/22/13 12:05
Dibenz(a,h)anthracene	9.89	Baseline Event	cantins	04/22/13 12:05
Benzo[g,h,i]perylene	10.21	Baseline Event	cantins	04/22/13 12:05

Lab Sample ID: 680-89220-41 MS Client Sample ID: HP0142B-CS-SP MSDate Analyzed: 04/19/13 16:39 Lab File ID: 1CD19019.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.87	Split Peak	cantins	04/22/13 12:48



## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3SDG No.: 68089220-3Instrument ID: BSMC5973 Analysis Batch Number: 136655Lab Sample ID: 680-89220-41 MSD Client Sample ID: HP0142B-CS-SP MSDDate Analyzed: 04/19/13 16:57 Lab File ID: 1CD19020.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	9.88	Split Peak	cantins	04/22/13 12:48

Lab Sample ID: 680-89220-42 Client Sample ID: HP0283A-CS-SPDate Analyzed: 04/19/13 17:16 Lab File ID: 1CD19021.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	8.44	Split Peak	cantins	04/22/13 12:49
Benzo[k]fluoranthene	8.45	Baseline Event	cantins	04/22/13 12:49
Indeno[1,2,3-cd]pyrene	9.88	Split Peak	cantins	04/22/13 12:50
Dibenz(a,h)anthracene	9.89	Baseline Event	cantins	04/22/13 12:50

Lab Sample ID: 680-89220-43 Client Sample ID: HP0283B-CS-SPDate Analyzed: 04/19/13 17:34 Lab File ID: 1CD19022.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chrysene	7.63	Baseline Event	cantins	04/22/13 12:52
Benzo[b]fluoranthene	8.45	Split Peak	cantins	04/22/13 12:53
Benzo[k]fluoranthene	8.46	Baseline Event	cantins	04/22/13 12:53

Lab Sample ID: 680-89220-44 Client Sample ID: HP0283C-CS-SPDate Analyzed: 04/19/13 17:52 Lab File ID: 1CD19023.D GC Column: DB-5MS ID: 250 (um)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	8.46	Baseline Event	cantins	04/22/13 12:57
Benzo[g,h,i]perylene	10.21	Baseline Event	cantins	04/22/13 12:57

# Method 8270C Low Level

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Semivolatile Organic Compounds  
(GC/MS) Low Level by Method 8270C

FORM II  
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Tampa

Job No.: 680-89220-3

SDG No.: 68089220-3

Matrix: Solid

Level: Low

GC Column (1): DB-5MS ID: 250 (um)

Client Sample ID	Lab Sample ID	OTPH #
HP0142B-CS-SP	680-89220-41	72
HP0283A-CS-SP	680-89220-42	60
HP0283B-CS-SP	680-89220-43	55
HP0283C-CS-SP	680-89220-44	62
	MB 660-136551/1-A	57
	LCS 660-136551/2-A	74
HP0142B-CS-SP MS	680-89220-41 MS	68
HP0142B-CS-SP MSD	680-89220-41 MSD	60

OTPH = o-Terphenyl

QC LIMITS  
30-130

# Column to be used to flag recovery values

FORM II 8270C LL

FORM III  
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Matrix: Solid Level: Low Lab File ID: 1CD19013.D  
 Lab ID: LCS 660-136551/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	663	524	79	39-130	
Acenaphthylene	663	490	74	38-130	
Anthracene	663	540	81	37-130	
Benzo[a]anthracene	663	569	86	40-130	
Benzo[a]pyrene	663	435	66	49-130	
Benzo[b]fluoranthene	663	519	78	37-130	
Benzo[g,h,i]perylene	663	483	73	32-130	
Benzo[k]fluoranthene	663	563	85	32-130	
Chrysene	663	567	86	41-130	
Dibenz(a,h)anthracene	663	544	82	27-130	
Fluoranthene	663	525	79	40-130	
Fluorene	663	494	74	40-130	
Indeno[1,2,3-cd]pyrene	663	536	81	30-130	
1-Methylnaphthalene	663	461	70	31-130	
2-Methylnaphthalene	663	473	71	33-130	
Naphthalene	663	495	75	36-130	
Phenanthrene	663	505	76	42-130	
Pyrene	663	495	75	44-130	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Matrix: Solid Level: Low Lab File ID: 1CD19019.D  
 Lab ID: 680-89220-41 MS Client ID: HP0142B-CS-SP MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	1110	86 J	755	60	39-130	
Acenaphthylene	1110	97	765	60	38-130	
Anthracene	1110	220	845	56	37-130	
Benzo[a]anthracene	1110	620	880	23	40-130	F
Benzo[a]pyrene	1110	700	795	9	49-130	F
Benzo[b]fluoranthene	1110	1300	1160	-14	37-130	F
Benzo[g,h,i]perylene	1110	540	729	17	32-130	F
Benzo[k]fluoranthene	1110	430	893	42	32-130	
Chrysene	1110	770	894	11	41-130	F
Dibenz(a,h)anthracene	1110	200	610	37	27-130	
Fluoranthene	1110	1200	1080	-11	40-130	F
Fluorene	1110	120	847	65	40-130	
Indeno[1,2,3-cd]pyrene	1110	510	690	16	30-130	F
1-Methylnaphthalene	1110	150	810	60	31-130	
2-Methylnaphthalene	1110	210	942	66	33-130	
Naphthalene	1110	240	899	59	36-130	
Phenanthrene	1110	830	999	15	42-130	F
Pyrene	1110	870	941	6	44-130	F

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Matrix: Solid Level: Low Lab File ID: 1CD19020.D  
 Lab ID: 680-89220-41 MSD Client ID: HP0142B-CS-SP MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Acenaphthene	1110	720	57	5	40	39-130	
Acenaphthylene	1110	829	66	8	40	38-130	
Anthracene	1110	752	48	12	40	37-130	
Benzo[a]anthracene	1110	924	27	5	40	40-130	F
Benzo[a]pyrene	1110	812	10	2	40	49-130	F
Benzo[b]fluoranthene	1110	1340	2	14	40	37-130	F
Benzo[g,h,i]perylene	1110	693	14	5	40	32-130	F
Benzo[k]fluoranthene	1110	728	27	20	40	32-130	F
Chrysene	1110	951	16	6	40	41-130	F
Dibenz(a,h)anthracene	1110	686	44	12	40	27-130	
Fluoranthene	1110	976	-20	10	40	40-130	F
Fluorene	1110	777	59	9	40	40-130	
Indeno[1,2,3-cd]pyrene	1110	688	16	0	40	30-130	F
1-Methylnaphthalene	1110	978	75	19	40	31-130	
2-Methylnaphthalene	1110	853	58	10	40	33-130	
Naphthalene	1110	867	56	4	40	36-130	
Phenanthrene	1110	919	8	8	40	42-130	F
Pyrene	1110	1010	12	7	40	44-130	F

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
SDG No.: 68089220-3  
Lab File ID: 1CD19012.D Lab Sample ID: MB 660-136551/1-A  
Matrix: Solid Date Extracted: 04/17/2013 16:34  
Instrument ID: BSMC5973 Date Analyzed: 04/19/2013 14:23  
Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 660-136551/2-A	1CD19013.D	04/19/2013 14:42
HP0142B-CS-SP	680-89220-41	1CD19018.D	04/19/2013 16:21
HP0142B-CS-SP MS	680-89220-41 MS	1CD19019.D	04/19/2013 16:39
HP0142B-CS-SP MSD	680-89220-41 MSD	1CD19020.D	04/19/2013 16:57
HP0283A-CS-SP	680-89220-42	1CD19021.D	04/19/2013 17:16
HP0283B-CS-SP	680-89220-43	1CD19022.D	04/19/2013 17:34
HP0283C-CS-SP	680-89220-44	1CD19023.D	04/19/2013 17:52

FORM V  
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Lab File ID: 1CD11002.D DFTPP Injection Date: 04/11/2013  
 Instrument ID: BSMC5973 DFTPP Injection Time: 11:38  
 Analysis Batch No.: 136370

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0 % of mass 198	38.7
68	Less than 2.0 % of mass 69	0.6 (1.3)1
69	Mass 69 relative abundance	48.8
70	Less than 2.0 % of mass 69	0.2 (0.5)1
127	10.0 - 80.0 % of mass 198	45.9
197	Less than 2.0 % of mass 198	0.8
198	Base Peak, 100% relative abundance	100.0
199	5.0 - 9.0 % of mass 198	5.8
275	10.0 - 60.0 % of mass 198	20.8
365	Greater than 1.0 % of mass 198	5.1
441	Present but less than mass 443	10.4
442	Greater than 50.0 % of mass 198	76.7
443	15.0 - 24.0 % of mass 442	16.1 (20.9)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 660-136370/3	1CD11003.D	04/11/2013	11:56
	IC 660-136370/4	1CD11004.D	04/11/2013	12:35
	IC 660-136370/5	1CD11005.D	04/11/2013	12:53
	IC 660-136370/6	1CD11006.D	04/11/2013	13:11
	IC 660-136370/7	1CD11007.D	04/11/2013	13:30
	IC 660-136370/8	1CD11008.D	04/11/2013	13:48
	IC 660-136370/9	1CD11009.D	04/11/2013	14:06
	ICV 660-136370/10	1CD11010.D	04/11/2013	14:25



FORM V  
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Lab File ID: 1CD19002.D DFTPP Injection Date: 04/19/2013  
 Instrument ID: BSMC5973 DFTPP Injection Time: 11:08  
 Analysis Batch No.: 136655

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0 % of mass 198	44.8
68	Less than 2.0 % of mass 69	0.9 (1.9)1
69	Mass 69 relative abundance	46.0
70	Less than 2.0 % of mass 69	0.5 (1.0)1
127	10.0 - 80.0 % of mass 198	47.6
197	Less than 2.0 % of mass 198	1.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 - 9.0 % of mass 198	5.5
275	10.0 - 60.0 % of mass 198	22.6
365	Greater than 1.0 % of mass 198	6.6
441	Present but less than mass 443	12.1
442	Greater than 50.0 % of mass 198	73.9
443	15.0 - 24.0 % of mass 442	13.9 (18.8)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 660-136655/3	1CD19003.D	04/19/2013	11:24
	MB 660-136551/1-A	1CD19012.D	04/19/2013	14:23
	LCS 660-136551/2-A	1CD19013.D	04/19/2013	14:42
HP0142B-CS-SP	680-89220-41	1CD19018.D	04/19/2013	16:21
HP0142B-CS-SP MS	680-89220-41 MS	1CD19019.D	04/19/2013	16:39
HP0142B-CS-SP MSD	680-89220-41 MSD	1CD19020.D	04/19/2013	16:57
HP0283A-CS-SP	680-89220-42	1CD19021.D	04/19/2013	17:16
HP0283B-CS-SP	680-89220-43	1CD19022.D	04/19/2013	17:34
HP0283C-CS-SP	680-89220-44	1CD19023.D	04/19/2013	17:52

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Sample No.: ICIS 660-136370/3 Date Analyzed: 04/11/2013 11:56  
 Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um)  
 Lab File ID (Standard): 1CD11003.D Heated Purge: (Y/N) N  
 Calibration ID: 2882

	NPT		ANT		PHN		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	245713	3.68	179699	4.76	320372	5.70	
UPPER LIMIT	491426	4.18	359398	5.26	640744	6.20	
LOWER LIMIT	122857	3.18	89850	4.26	160186	5.20	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 660-136370/10		273342	3.67	204687	4.76	380421	5.70

NPT = Naphthalene-d8  
 ANT = Acenaphthene-d10  
 PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Sample No.: ICIS 660-136370/3 Date Analyzed: 04/11/2013 11:56  
 Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um)  
 Lab File ID (Standard): 1CD11003.D Heated Purge: (Y/N) N  
 Calibration ID: 2882

	CRY		PRY		AREA #	RT #
	AREA #	RT #	AREA #	RT #		
INITIAL CALIBRATION MID-POINT	410945	7.65	438804	8.80		
UPPER LIMIT	821890	8.15	877608	9.30		
LOWER LIMIT	205473	7.15	219402	8.30		
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 660-136370/10	501991	7.64	491170	8.80		

CRY = Chrysene-d12  
 PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Sample No.: CCVIS 660-136655/3 Date Analyzed: 04/19/2013 11:24  
 Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um)  
 Lab File ID (Standard): 1CD19003.D Heated Purge: (Y/N) N  
 Calibration ID: 2882

	NPT		ANT		PHN		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	187771	3.66	127904	4.74	242114	5.69	
UPPER LIMIT	375542	4.16	255808	5.24	484228	6.19	
LOWER LIMIT	93886	3.16	63952	4.24	121057	5.19	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 660-136551/1-A		211094	3.66	141041	4.75	261212	5.69
LCS 660-136551/2-A		191532	3.66	127190	4.74	236731	5.69
680-89220-41	HP0142B-CS-SP	229696	3.66	154585	4.74	293178	5.69
680-89220-41 MS	HP0142B-CS-SP MS	214315	3.66	156773	4.74	278425	5.69
680-89220-41 MSD	HP0142B-CS-SP MSD	234812	3.66	166333	4.75	324473	5.69
680-89220-42	HP0283A-CS-SP	229978	3.66	154786	4.74	295041	5.69
680-89220-43	HP0283B-CS-SP	236189	3.66	163111	4.75	295525	5.69
680-89220-44	HP0283C-CS-SP	234324	3.66	162118	4.75	318142	5.69

NPT = Naphthalene-d8  
 ANT = Acenaphthene-d10  
 PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Sample No.: CCVIS 660-136655/3 Date Analyzed: 04/19/2013 11:24  
 Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um)  
 Lab File ID (Standard): 1CD19003.D Heated Purge: (Y/N) N  
 Calibration ID: 2882

	CRY		PRY			
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	311596	7.62	321703	8.77		
UPPER LIMIT	623192	8.12	643406	9.27		
LOWER LIMIT	155798	7.12	160852	8.27		
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 660-136551/1-A		295504	7.62	333814	8.79	
LCS 660-136551/2-A		297661	7.62	312222	8.77	
680-89220-41	HP0142B-CS-SP	379021	7.62	337625	8.77	
680-89220-41 MS	HP0142B-CS-SP MS	345195	7.62	316003	8.77	
680-89220-41 MSD	HP0142B-CS-SP MSD	375136	7.62	361282	8.77	
680-89220-42	HP0283A-CS-SP	319495	7.62	314982	8.77	
680-89220-43	HP0283B-CS-SP	403570	7.62	320100	8.77	
680-89220-44	HP0283C-CS-SP	332290	7.62	322177	8.77	

CRY = Chrysene-d12  
 PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: HP0142B-CS-SP Lab Sample ID: 680-89220-41  
 Matrix: Solid Lab File ID: 1CD19018.D  
 Analysis Method: 8270C LL Date Collected: 04/09/2013 09:46  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 15.00(g) Date Analyzed: 04/19/2013 16:21  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: 39.8 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	86	J	170	33
208-96-8	Acenaphthylene	97		66	8.3
120-12-7	Anthracene	220		14	7.0
56-55-3	Benzo[a]anthracene	620	F	13	6.5
50-32-8	Benzo[a]pyrene	700	F	17	8.6
205-99-2	Benzo[b]fluoranthene	1300	F	20	10
191-24-2	Benzo[g,h,i]perylene	540	F	33	7.3
207-08-9	Benzo[k]fluoranthene	430	F	13	6.0
218-01-9	Chrysene	770	F	15	7.5
53-70-3	Dibenz(a,h)anthracene	200		33	6.8
206-44-0	Fluoranthene	1200	F	33	6.6
86-73-7	Fluorene	120		33	6.8
193-39-5	Indeno[1,2,3-cd]pyrene	510	F	33	12
90-12-0	1-Methylnaphthalene	150		66	7.3
91-57-6	2-Methylnaphthalene	210		66	12
91-20-3	Naphthalene	240		66	7.3
85-01-8	Phenanthrene	830	F	13	6.5
129-00-0	Pyrene	870	F	33	6.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	72		30-130

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19018.D  
 Lab Smp Id: 680-89220-A-41-A Client Smp ID: HP0142B-CS-SP  
 Inj Date : 19-APR-2013 16:21  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : 680-89220-a-41-a  
 Misc Info : 680-89220-A-41-A  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 18  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	15.000	Weight Extracted
M	39.842	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	229696	40.0000	
* 6 Acenaphthene-d10	164		4.739	4.739	(1.000)	154585	40.0000	
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	293178	40.0000	
\$ 14 o-Terphenyl	230		5.933	5.933	(1.043)	31715	7.22223	800.3646
* 18 Chrysene-d12	240		7.615	7.615	(1.000)	379021	40.0000	
* 23 Perylene-d12	264		8.768	8.768	(1.000)	337625	40.0000	
2 Naphthalene	128		3.668	3.669	(1.003)	13603	2.19084	242.7878
3 2-Methylnaphthalene	142		4.092	4.092	(1.119)	6747	1.89749	210.2793
4 1-Methylnaphthalene	142		4.157	4.157	(1.137)	5275	1.33002	147.3926
5 Acenaphthylene	152		4.657	4.657	(0.983)	5759	0.87919	97.4316
7 Acenaphthene	154		4.763	4.763	(1.005)	3049	0.77238	85.5954(Q)
9 Fluorene	166		5.080	5.080	(1.072)	5443	1.08351	120.0739
11 Phenanthrene	178		5.698	5.698	(1.002)	64377	7.49334	830.4096
12 Anthracene	178		5.733	5.733	(1.008)	16777	1.97115	218.4421

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
13 Carbazole	167	5.845	5.845 (1.028)		13145	1.65826	183.7680
15 Fluoranthene	202	6.533	6.533 (1.149)		103149	10.8455	1201.8957
16 Pyrene	202	6.698	6.698 (0.880)		84685	7.85375	870.3497
17 Benzo(a)anthracene	228	7.609	7.610 (0.999)		59976	5.59584	620.1286
19 Chrysene	228	7.633	7.639 (1.002)		73766	6.95725	771.0005
20 Benzo(b)fluoranthene	252	8.439	8.439 (0.962)		101166	11.8634	1314.7021(M)
21 Benzo(k)fluoranthene	252	8.456	8.457 (0.964)		37518	3.88813	430.8807(M)
22 Benzo(a)pyrene	252	8.715	8.715 (0.994)		55479	6.29385	697.4824
24 Indeno(1,2,3-cd)pyrene	276	9.880	9.880 (1.127)		35063	4.64323	514.5614(M)
25 Dibenzo(a,h)anthracene	278	9.892	9.892 (1.128)		11937	1.82773	202.5487(M)
26 Benzo(g,h,i)perylene	276	10.209	10.209 (1.164)		40186	4.86387	539.0124(M)

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.



Data File: 1CD19018.D

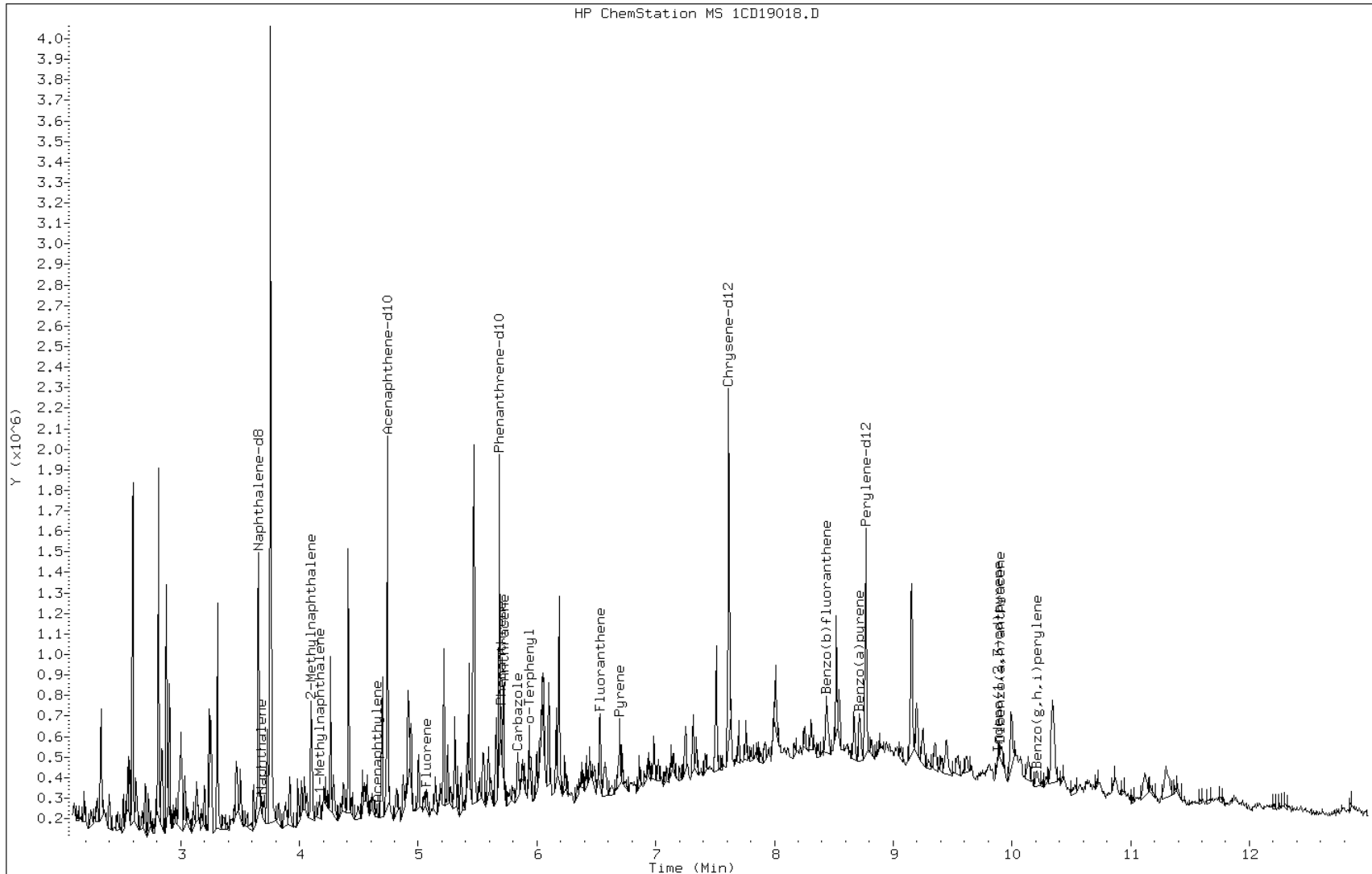
Date: 19-APR-2013 16:21

Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

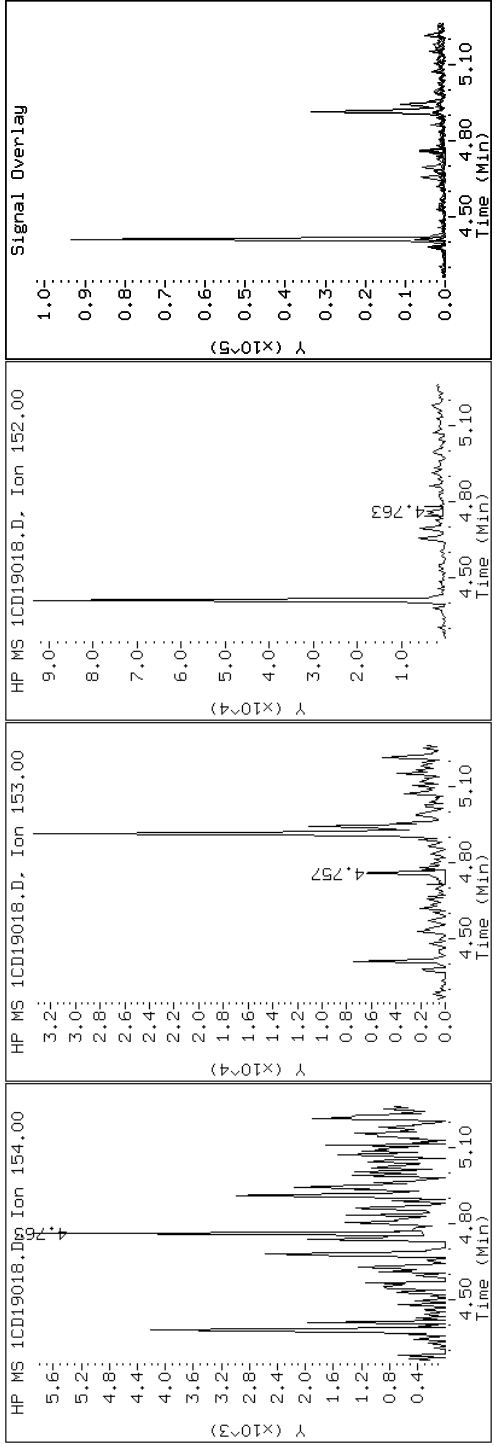
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

7 Acenaphthene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

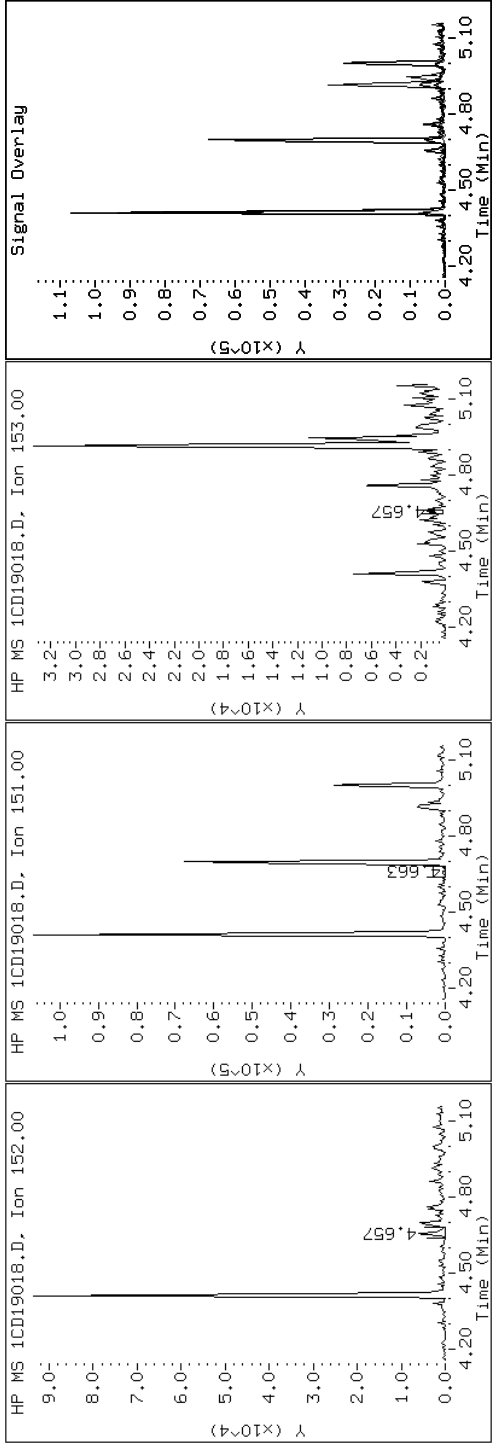
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

5 Acenaphthylene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

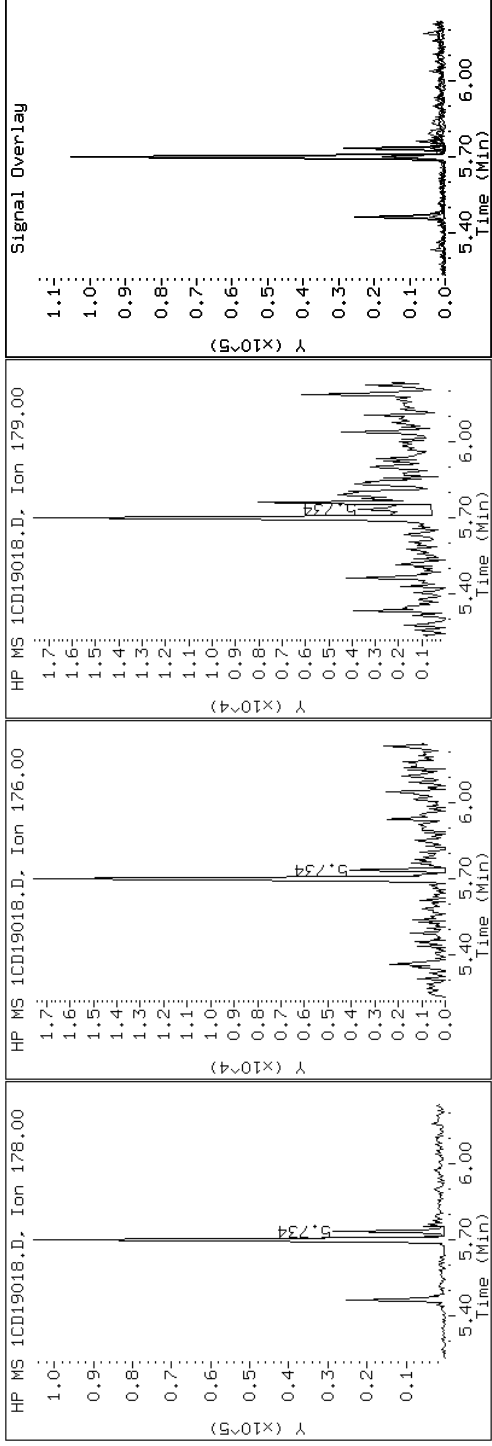
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

12 Anthracene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

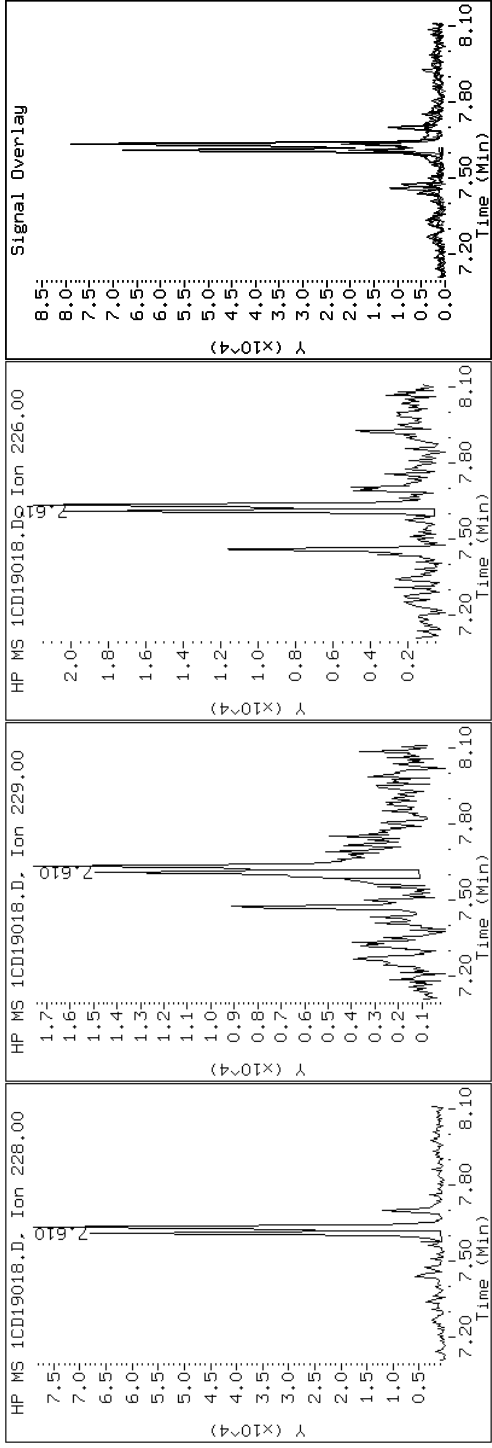
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

17 Benzo(a)anthracene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

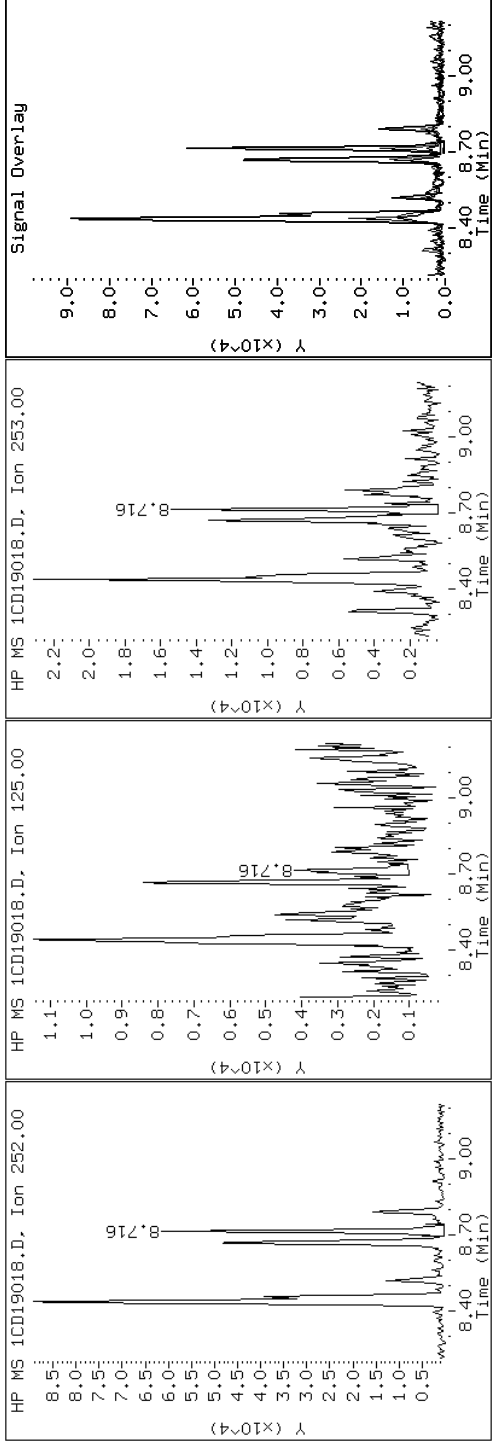
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

22 Benzo(a)pyrene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

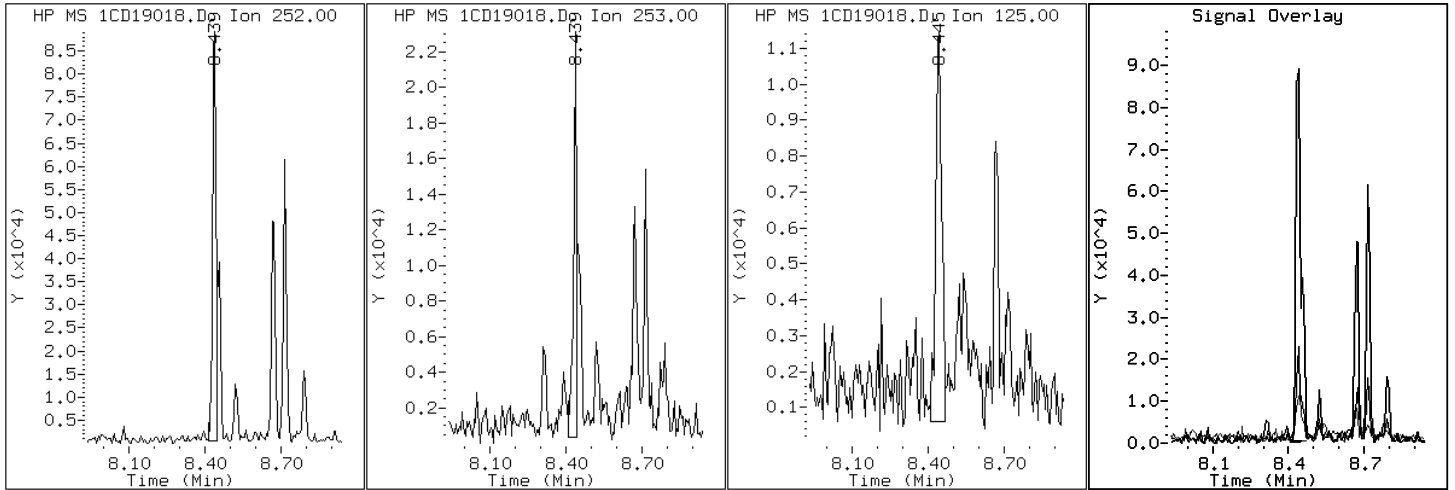
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

20 Benzo(b)fluoranthene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

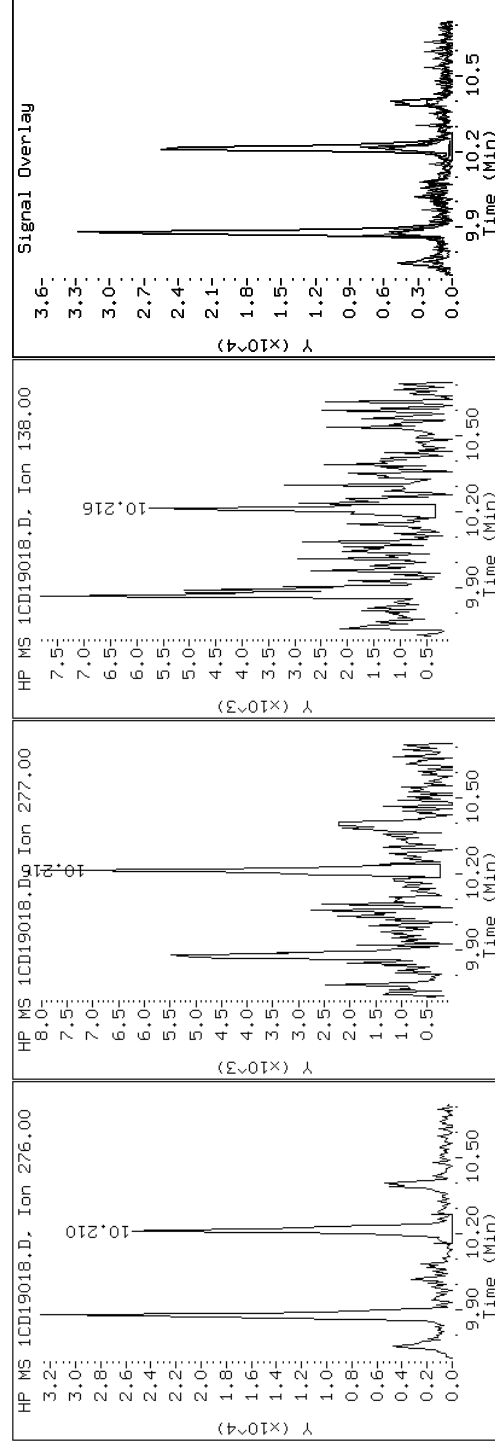
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

26 Benzo(g,h,i)perylene





Data File: 1CD19018.D

Date: 19-APR-2013 16:21

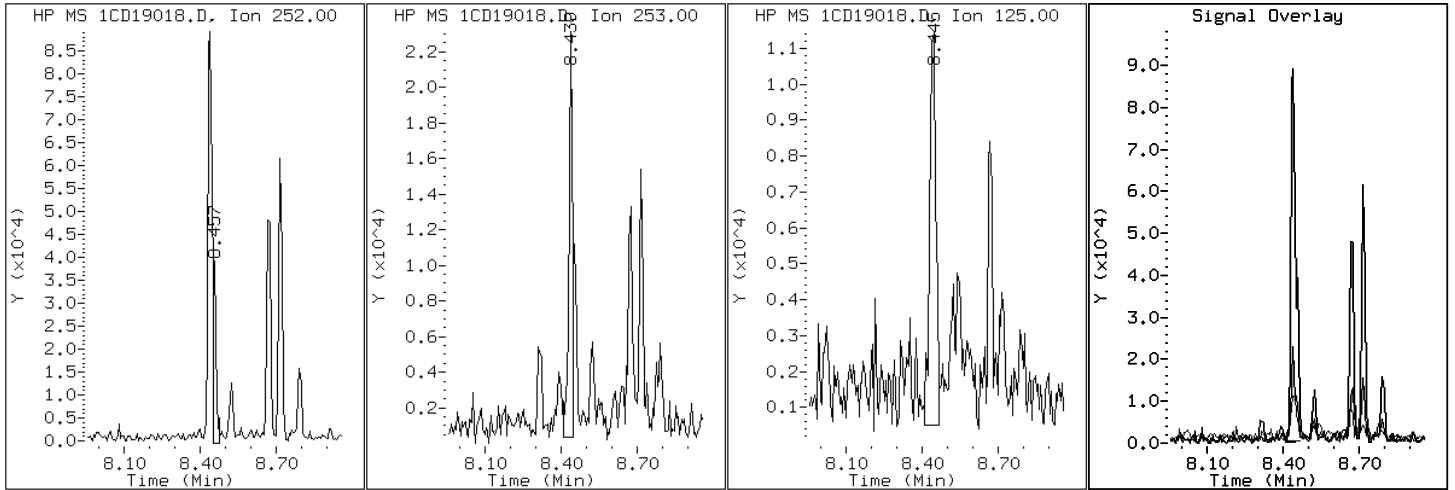
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

21 Benzo(k)fluoranthene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

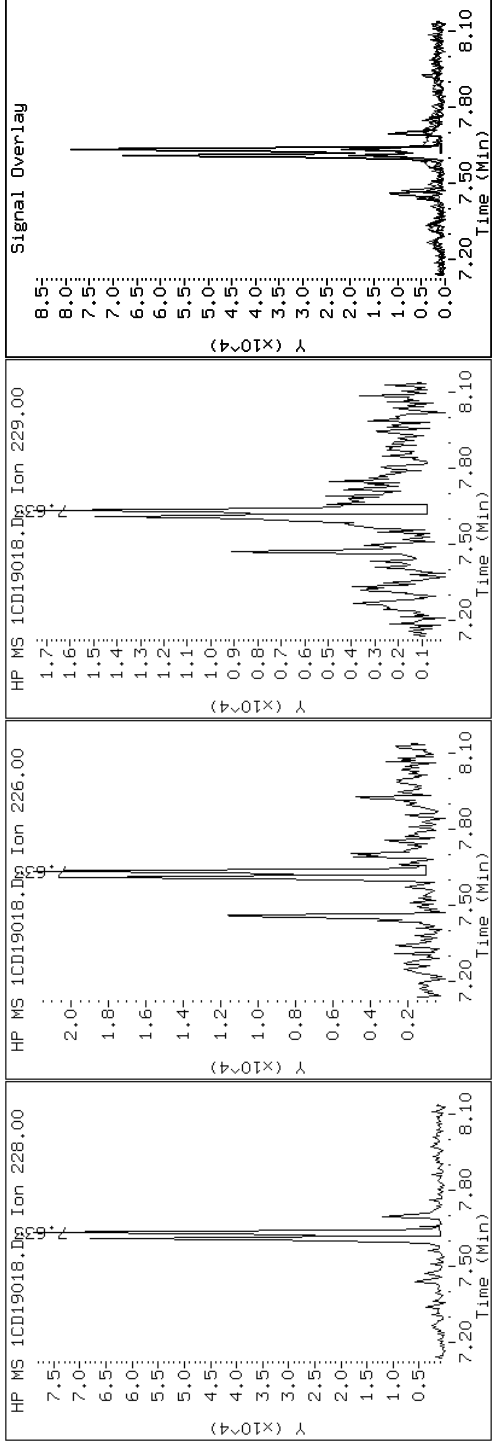
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

19 Chrysene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

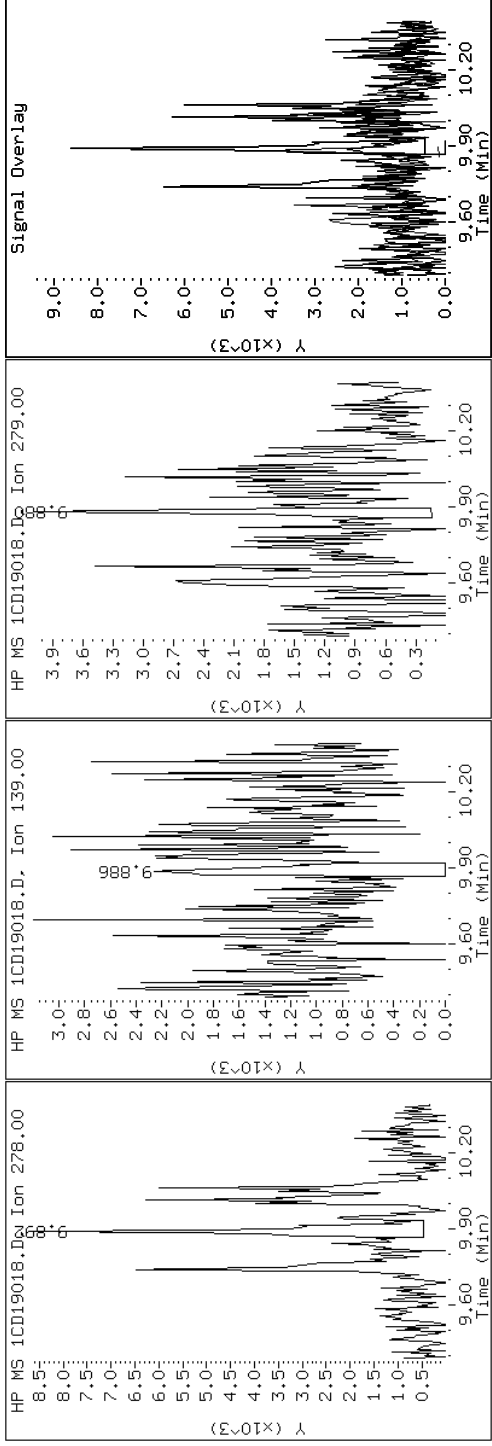
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

25 Dibenzo(a,h)anthracene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

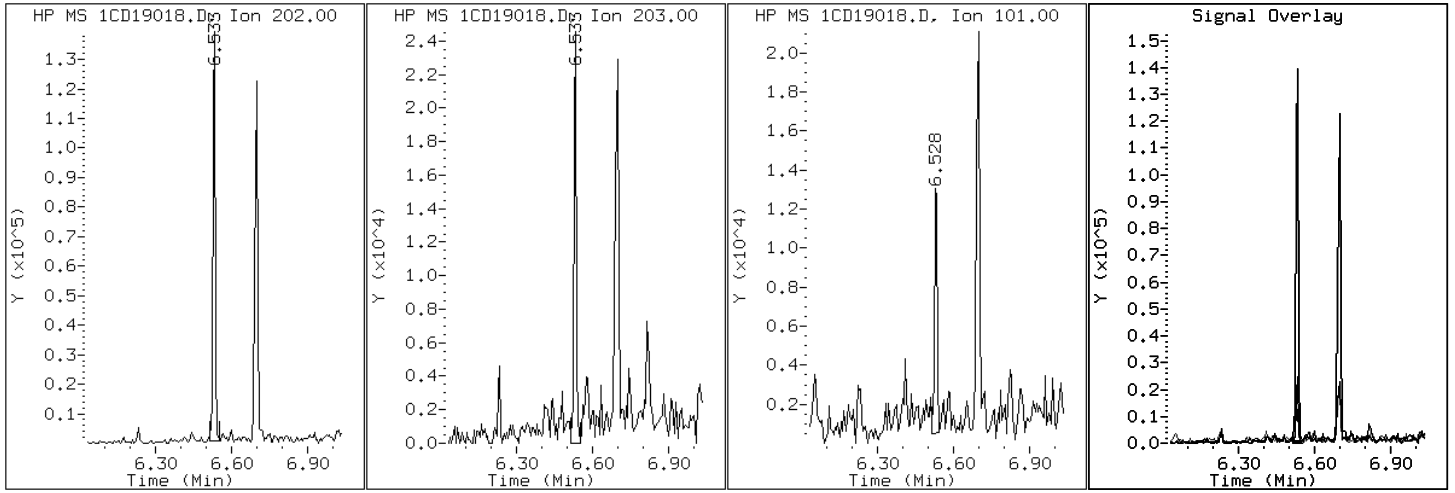
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

15 Fluoranthene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

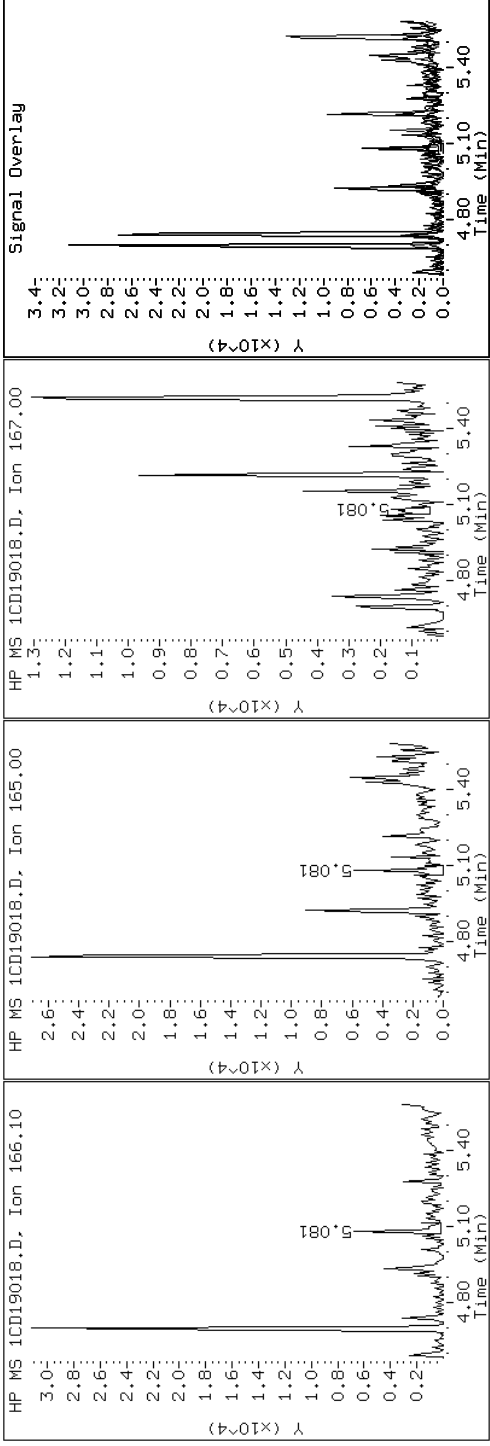
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

9 Fluorene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

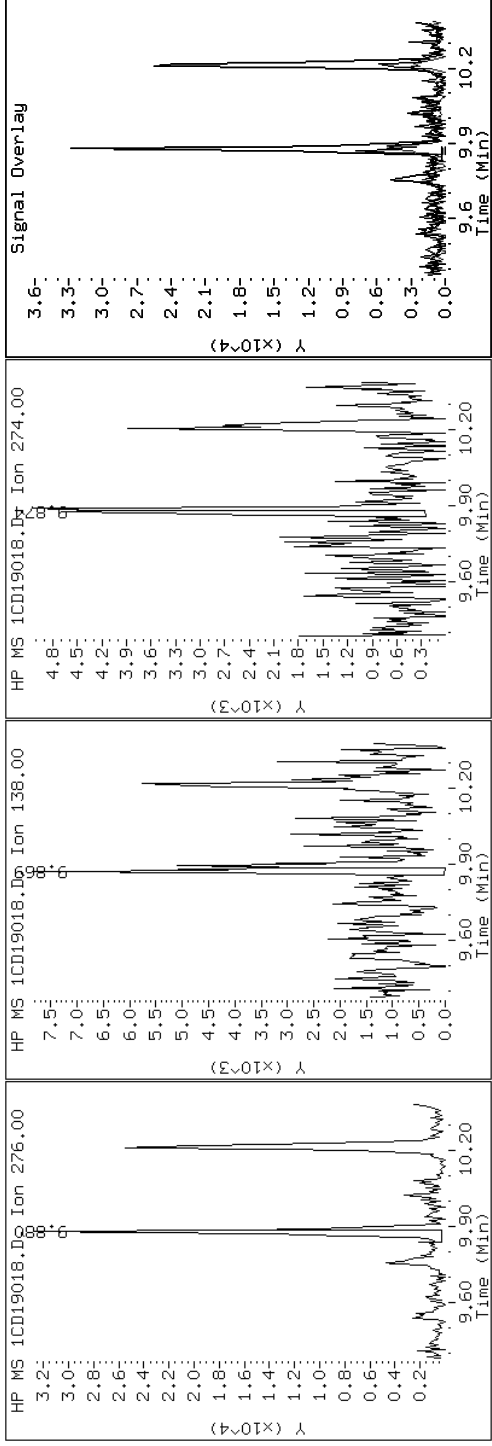
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

24 Indeno(1,2,3-cd)pyrene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

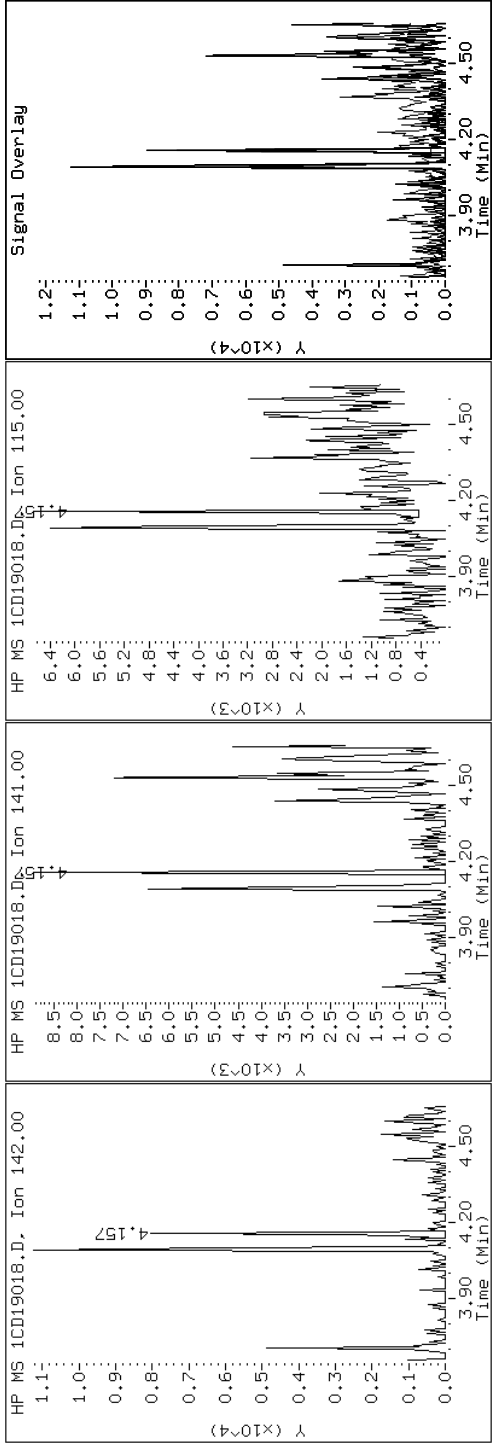
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

4 1-Methylnaphthalene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

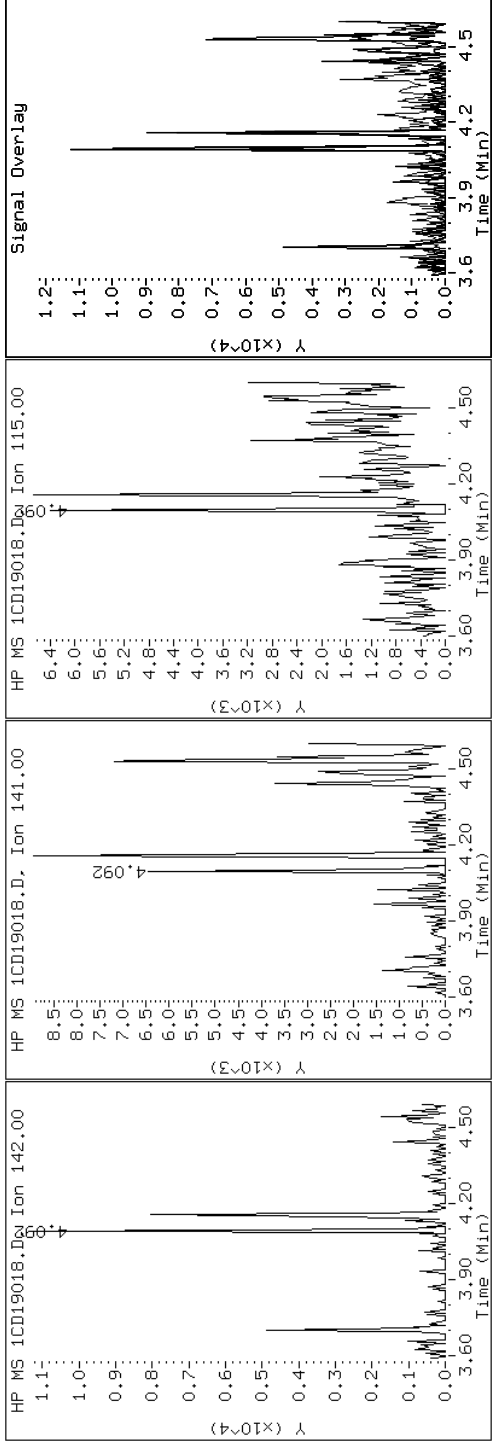
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

3 2-Methylnaphthalene





Data File: 1CD19018.D

Date: 19-APR-2013 16:21

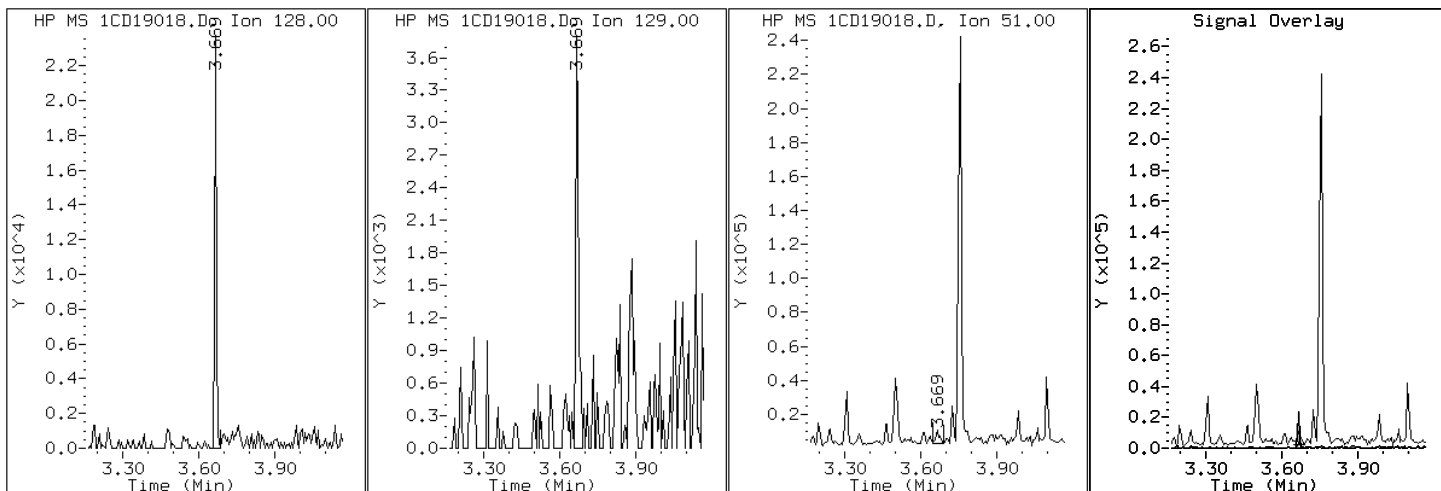
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

2 Naphthalene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

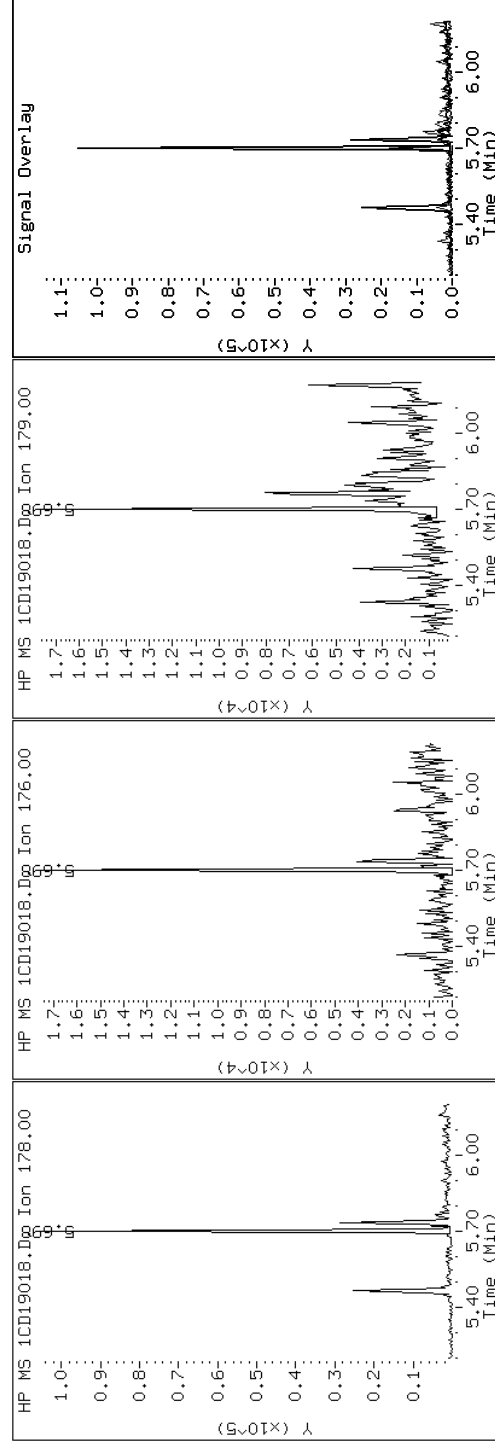
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

### 11 Phenanthrene



Data File: 1CD19018.D

Date: 19-APR-2013 16:21

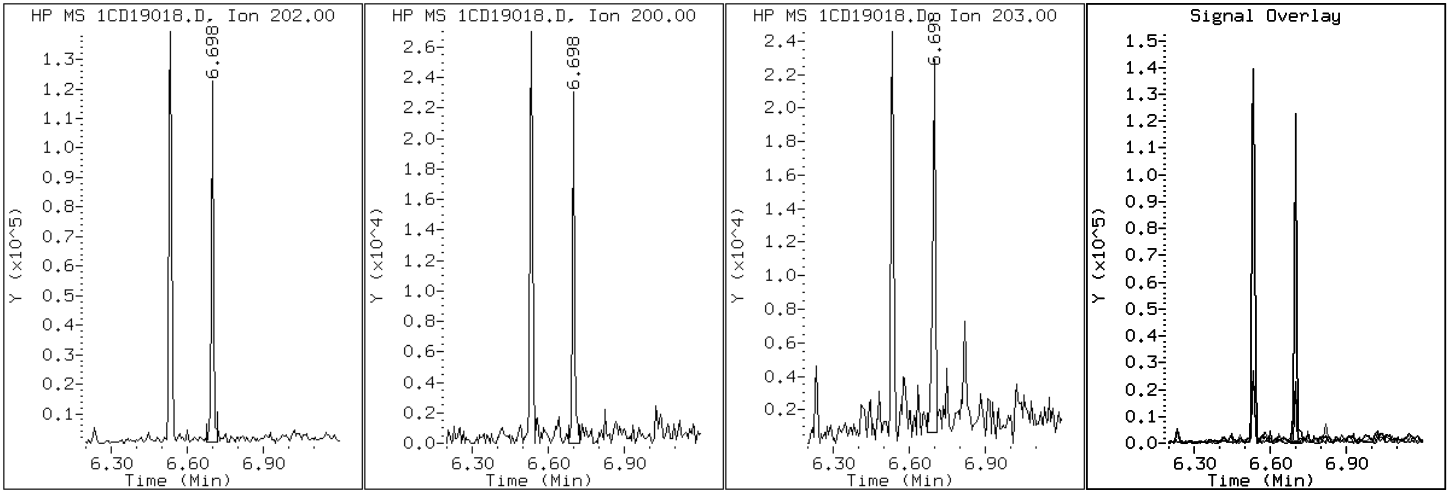
Client ID: HP0142B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-a

Operator: SCC

16 Pyrene

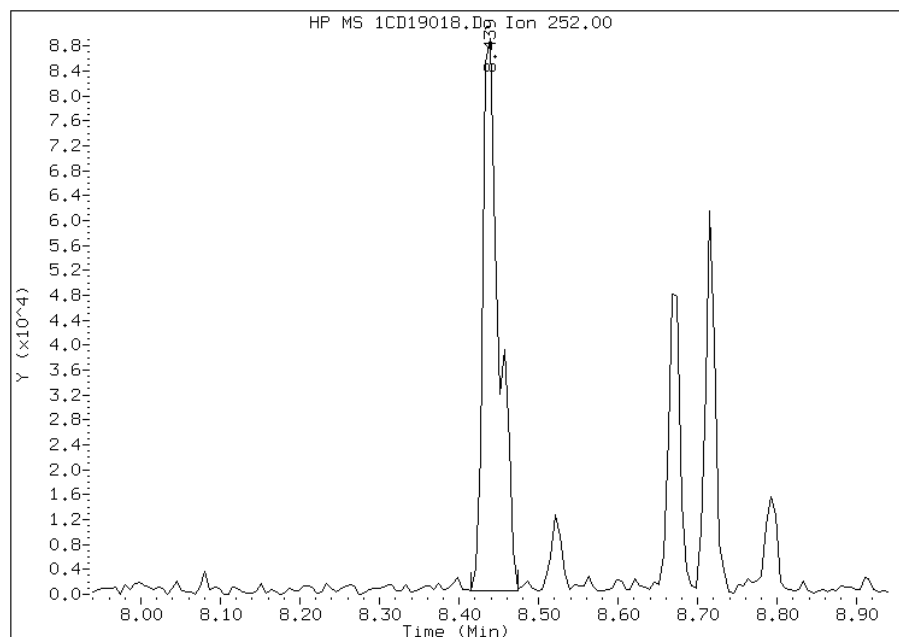


# Manual Integration Report

Data File: 1CD19018.D  
Inj. Date and Time: 19-APR-2013 16:21  
Instrument ID: BSMC5973.i  
Client ID: HP0142B-CS-SP  
Compound: 20 Benzo(b)fluoranthene  
CAS #: 205-99-2  
Report Date: 04/22/2013

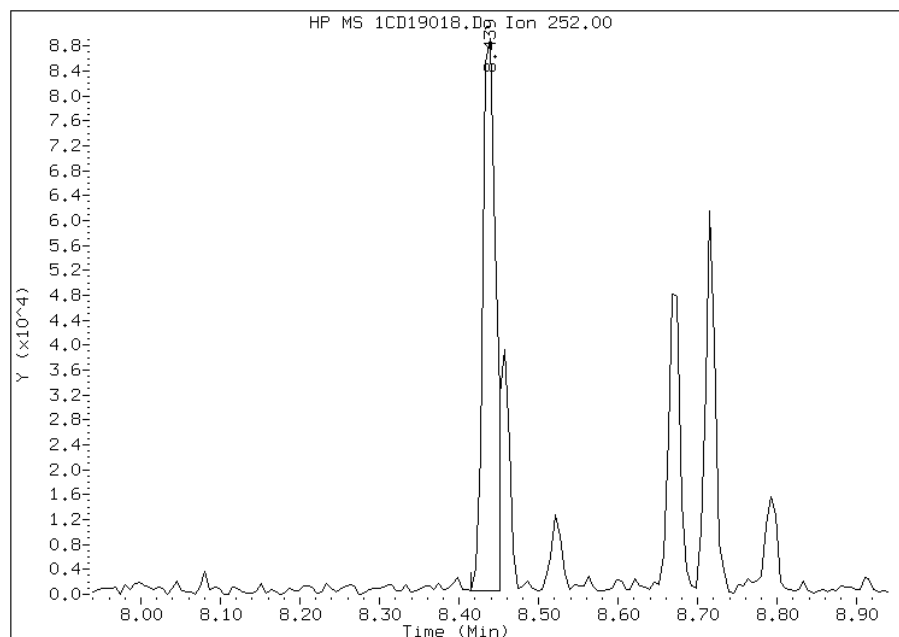
## Processing Integration Results

RT: 8.44  
Response: 125671  
Amount: 15  
Conc: 1633



## Manual Integration Results

RT: 8.44  
Response: 101166  
Amount: 12  
Conc: 1315



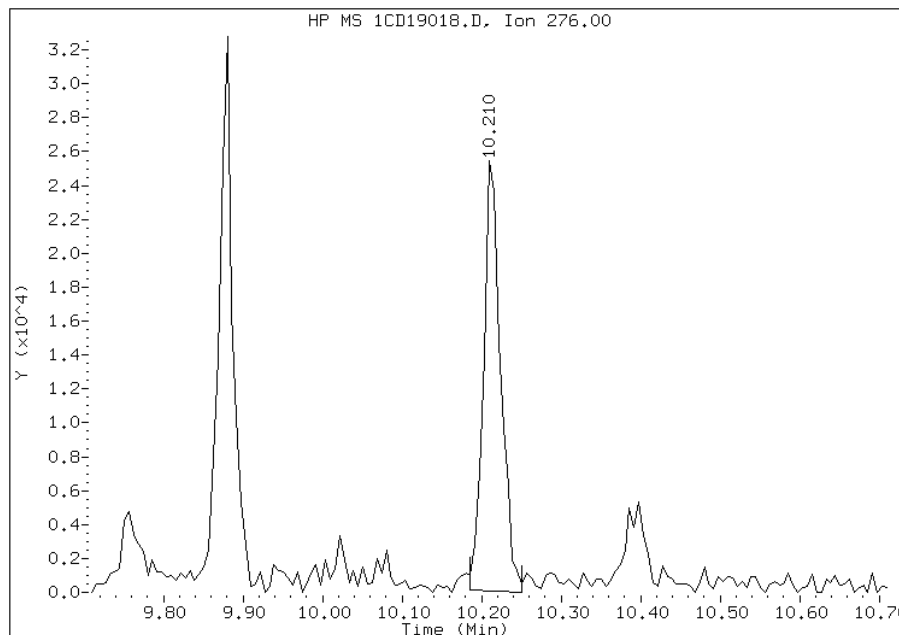
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:05  
Manual Integration Reason: Split Peak

# Manual Integration Report

Data File: 1CD19018.D  
Inj. Date and Time: 19-APR-2013 16:21  
Instrument ID: BSMC5973.i  
Client ID: HP0142B-CS-SP  
Compound: 26 Benzo(g,h,i)perylene  
CAS #: 191-24-2  
Report Date: 04/22/2013

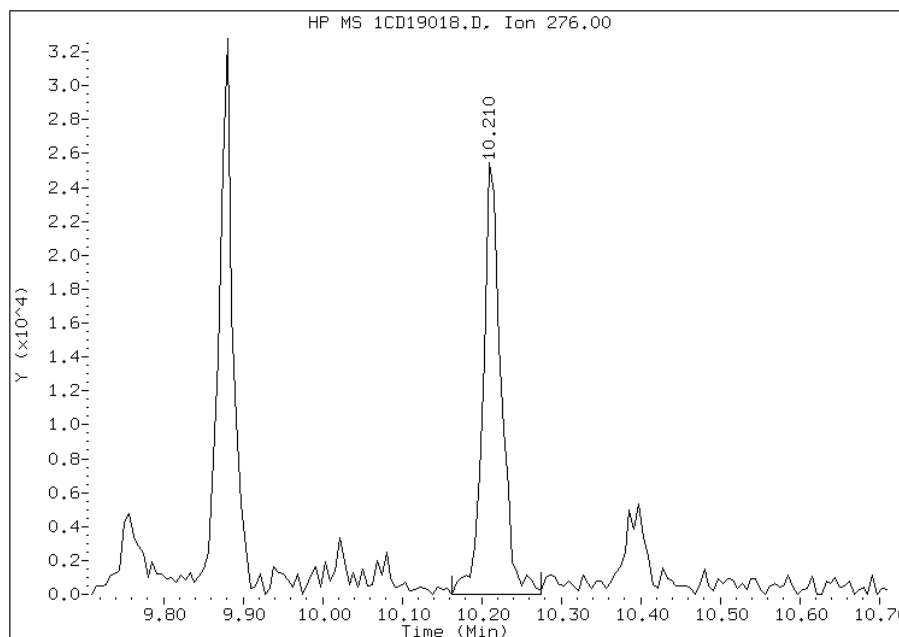
## Processing Integration Results

RT: 10.21  
Response: 37964  
Amount: 5  
Conc: 509



## Manual Integration Results

RT: 10.21  
Response: 40186  
Amount: 5  
Conc: 539



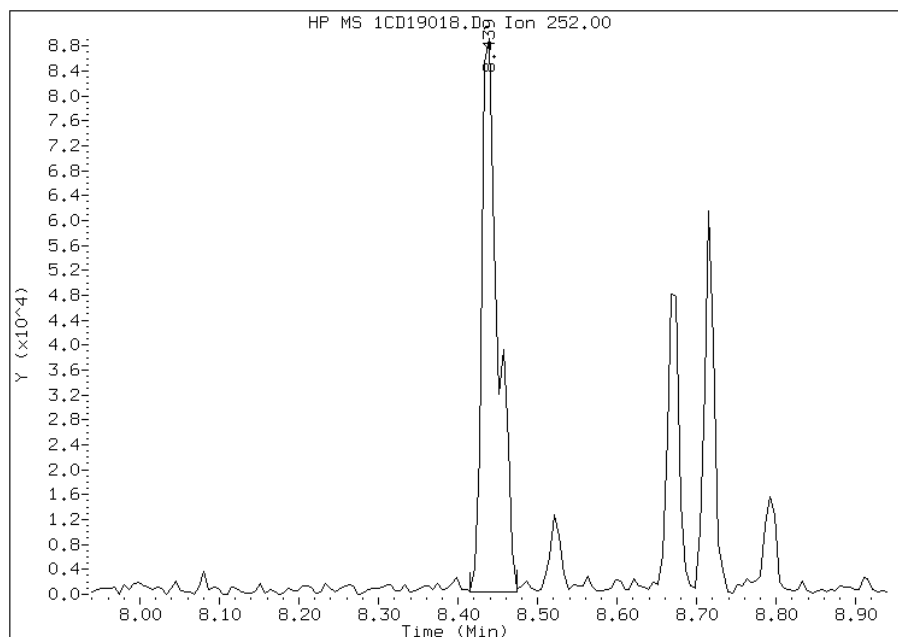
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:05  
Manual Integration Reason: Baseline Event

# Manual Integration Report

Data File: 1CD19018.D  
Inj. Date and Time: 19-APR-2013 16:21  
Instrument ID: BSMC5973.i  
Client ID: HP0142B-CS-SP  
Compound: 21 Benzo(k)fluoranthene  
CAS #: 207-08-9  
Report Date: 04/22/2013

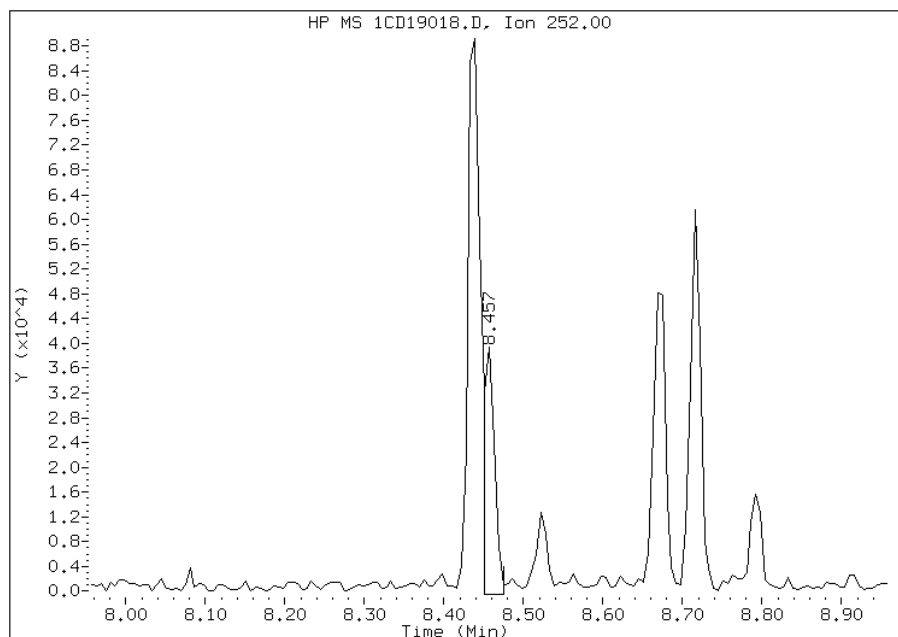
## Processing Integration Results

RT: 8.44  
Response: 126570  
Amount: 13  
Conc: 1454



## Manual Integration Results

RT: 8.46  
Response: 37518  
Amount: 4  
Conc: 431



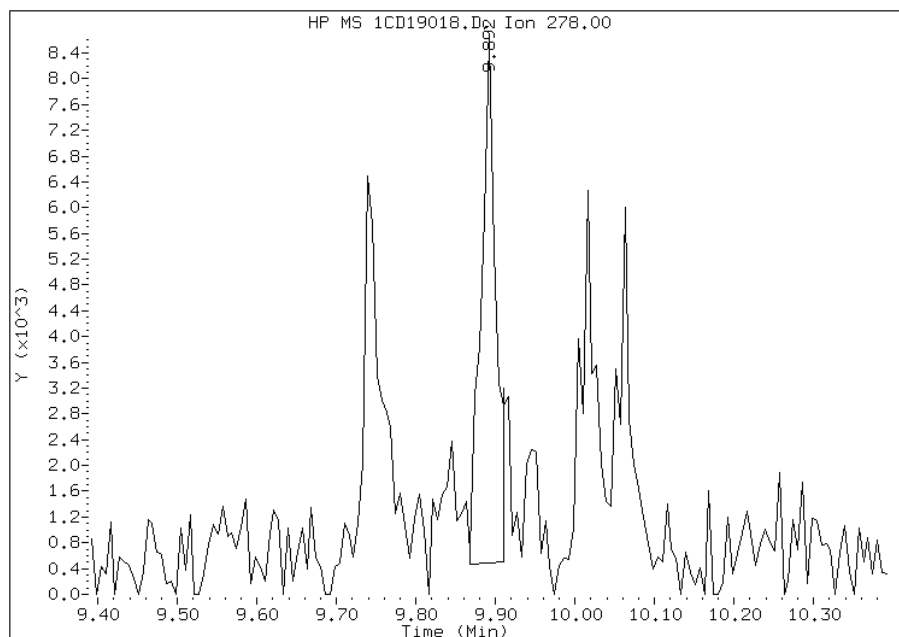
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:05  
Manual Integration Reason: Baseline Event

# Manual Integration Report

Data File: 1CD19018.D  
Inj. Date and Time: 19-APR-2013 16:21  
Instrument ID: BSMC5973.i  
Client ID: HP0142B-CS-SP  
Compound: 25 Dibenzo(a,h)anthracene  
CAS #: 53-70-3  
Report Date: 04/22/2013

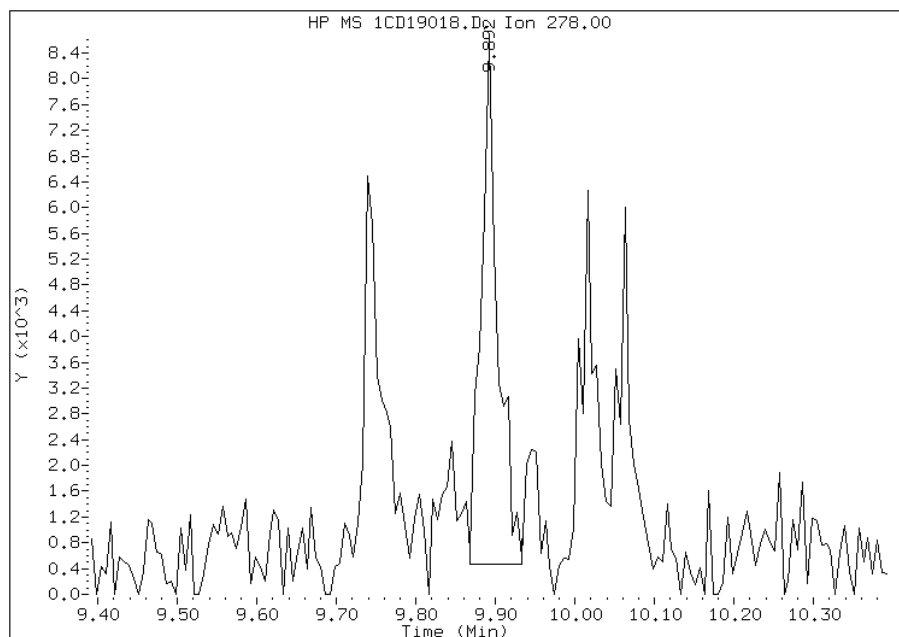
## Processing Integration Results

RT: 9.89  
Response: 10474  
Amount: 2  
Conc: 184



## Manual Integration Results

RT: 9.89  
Response: 11937  
Amount: 2  
Conc: 203



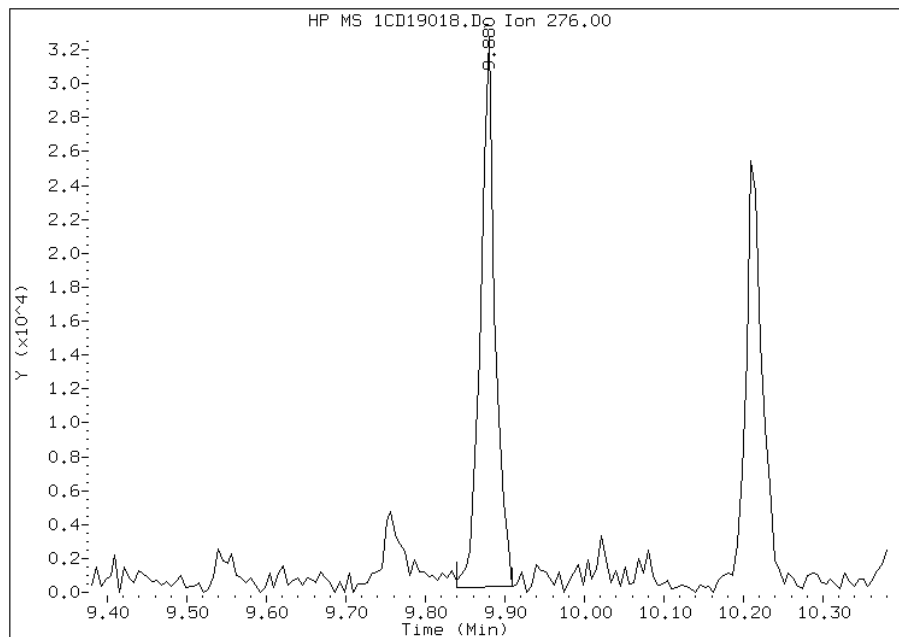
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:05  
Manual Integration Reason: Baseline Event

# Manual Integration Report

Data File: 1CD19018.D  
Inj. Date and Time: 19-APR-2013 16:21  
Instrument ID: BSMC5973.i  
Client ID: HP0142B-CS-SP  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/22/2013

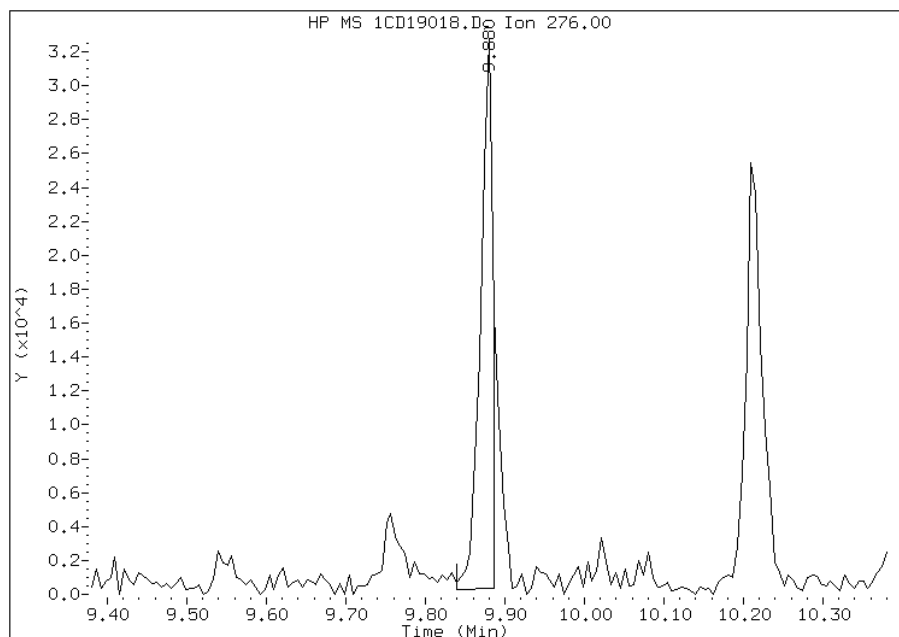
## Processing Integration Results

RT: 9.88  
Response: 41220  
Amount: 5  
Conc: 592



## Manual Integration Results

RT: 9.88  
Response: 35063  
Amount: 5  
Conc: 515



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:05  
Manual Integration Reason: Split Peak



FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: HP0283A-CS-SP Lab Sample ID: 680-89220-42  
 Matrix: Solid Lab File ID: 1CD19021.D  
 Analysis Method: 8270C LL Date Collected: 04/09/2013 08:45  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 15.37 (g) Date Analyzed: 04/19/2013 17:16  
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1  
 Injection Volume: 1 (uL) Level: (low/med) Low  
 % Moisture: 32.7 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	150	U	150	29
208-96-8	Acenaphthylene	8.7	J	58	7.3
120-12-7	Anthracene	26		12	6.1
56-55-3	Benzo[a]anthracene	80		12	5.7
50-32-8	Benzo[a]pyrene	79		15	7.5
205-99-2	Benzo[b]fluoranthene	130		18	8.8
191-24-2	Benzo[g,h,i]perylene	81		29	6.4
207-08-9	Benzo[k]fluoranthene	69		12	5.2
218-01-9	Chrysene	220		13	6.5
53-70-3	Dibenz(a,h)anthracene	77		29	5.9
206-44-0	Fluoranthene	140		29	5.8
86-73-7	Fluorene	16	J	29	5.9
193-39-5	Indeno[1,2,3-cd]pyrene	110		29	10
90-12-0	1-Methylnaphthalene	96		58	6.4
91-57-6	2-Methylnaphthalene	160		58	10
91-20-3	Naphthalene	160		58	6.4
85-01-8	Phenanthrene	210		12	5.7
129-00-0	Pyrene	100		29	5.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	60		30-130

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19021.D  
 Lab Smp Id: 680-89220-A-42-A Client Smp ID: HP0283A-CS-SP  
 Inj Date : 19-APR-2013 17:16  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : 680-89220-a-42-a  
 Misc Info : 680-89220-A-42-A  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 21  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	15.370	Weight Extracted
M	32.700	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN	FINAL
								(ug/ml)	(ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	229978	40.0000		
* 6 Acenaphthene-d10	164		4.739	4.739	(1.000)	154786	40.0000		
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	295041	40.0000		
\$ 14 o-Terphenyl	230		5.933	5.933	(1.043)	26057	6.02292	582.2579	
* 18 Chrysene-d12	240		7.615	7.615	(1.000)	319495	40.0000		
* 23 Perylene-d12	264		8.768	8.768	(1.000)	314982	40.0000		
2 Naphthalene	128		3.669	3.669	(1.003)	10545	1.69625	163.9826	
3 2-Methylnaphthalene	142		4.092	4.092	(1.119)	5929	1.69875	164.2249	
4 1-Methylnaphthalene	142		4.157	4.157	(1.137)	3957	0.99648	96.3337	
5 Acenaphthylene	152		4.651	4.657	(0.981)	589	0.08980	8.6815(Q)	
9 Fluorene	166		5.080	5.080	(1.072)	834	0.16580	16.0289(Q)	
11 Phenanthrene	178		5.698	5.698	(1.002)	18911	2.18903	211.6216	
12 Anthracene	178		5.733	5.733	(1.008)	2310	0.26969	26.0720	
13 Carbazole	167		5.845	5.845	(1.028)	2705	0.33909	32.7806(Q)	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
15 Fluoranthene	202	6.533	6.533	(1.149)	14268	1.49072	144.1138
16 Pyrene	202	6.698	6.698	(0.880)	9484	1.04342	100.8718
17 Benzo(a)anthracene	228	7.610	7.610	(0.999)	7440	0.82349	79.6101
19 Chrysene	228	7.639	7.639	(1.003)	20131	2.25240	217.7482
20 Benzo(b)fluoranthene	252	8.439	8.439	(0.962)	10862	1.36532	131.9906(M)
21 Benzo(k)fluoranthene	252	8.445	8.457	(0.963)	6398	0.71071	68.7072(QM)
22 Benzo(a)pyrene	252	8.715	8.715	(0.994)	6730	0.81837	79.1152
24 Indeno(1,2,3-cd)pyrene	276	9.880	9.880	(1.127)	3786	1.10281	106.6132(M)
25 Dibenzo(a,h)anthracene	278	9.892	9.892	(1.128)	2793	0.79330	76.6916(QM)
26 Benzo(g,h,i)perylene	276	10.215	10.209	(1.165)	6422	0.83316	80.5443

QC Flag Legend

Q - Qualifier signal failed the ratio test.  
 M - Compound response manually integrated.

Data File: 1CD19021.D

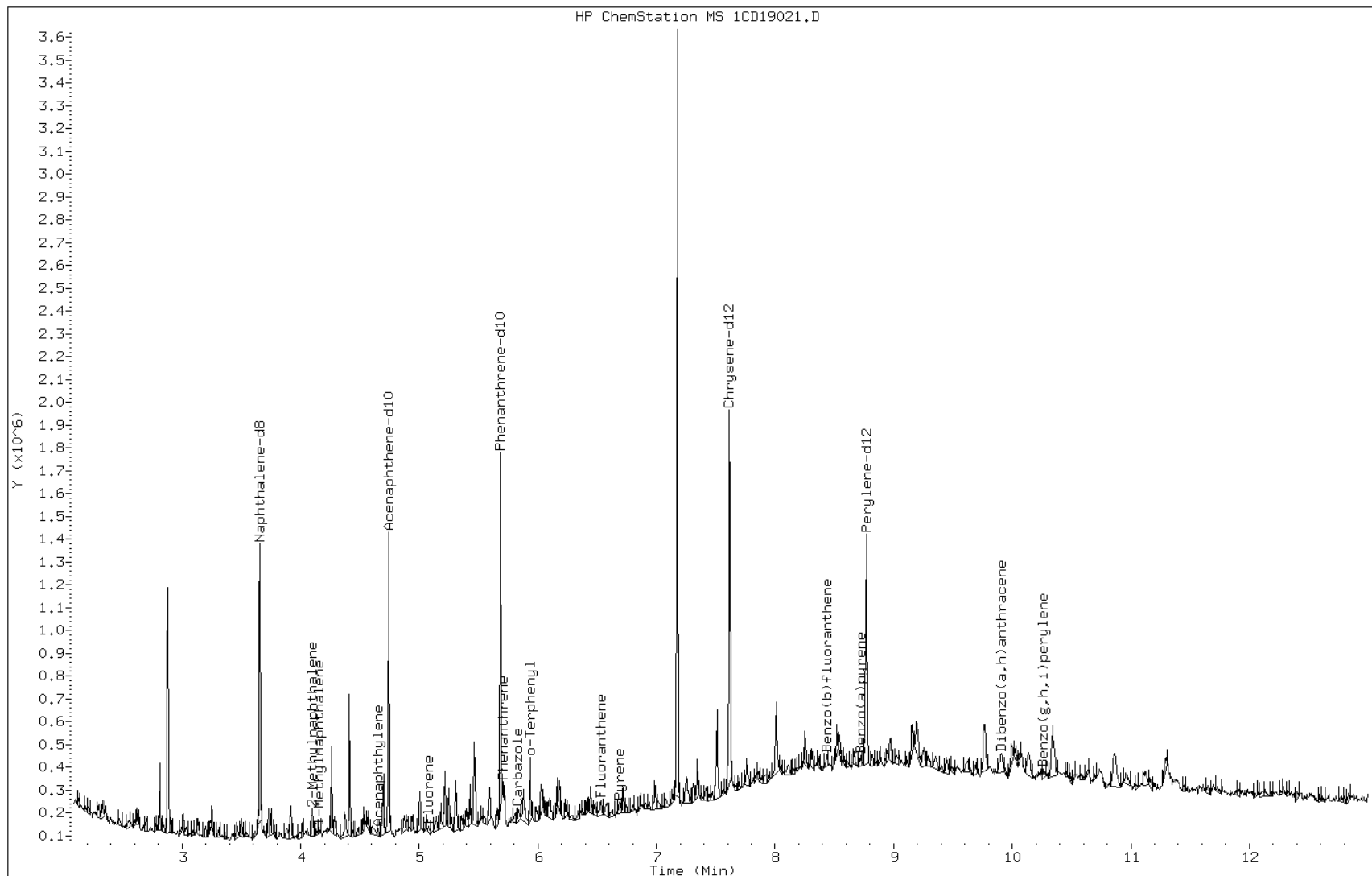
Date: 19-APR-2013 17:16

Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

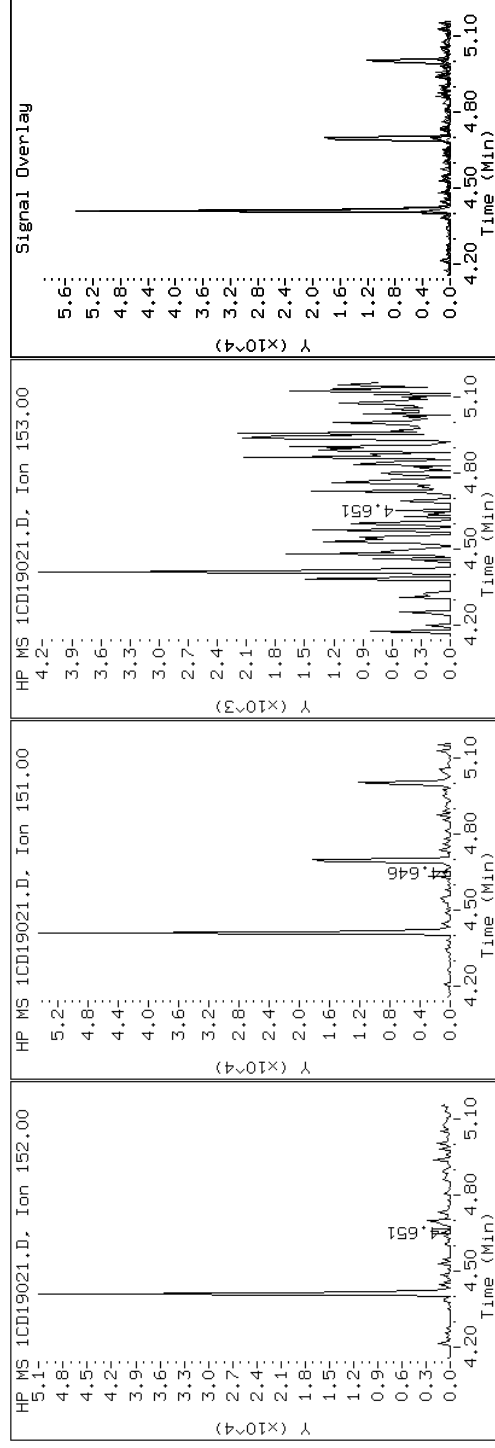
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

### 5 Acenaphthylene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

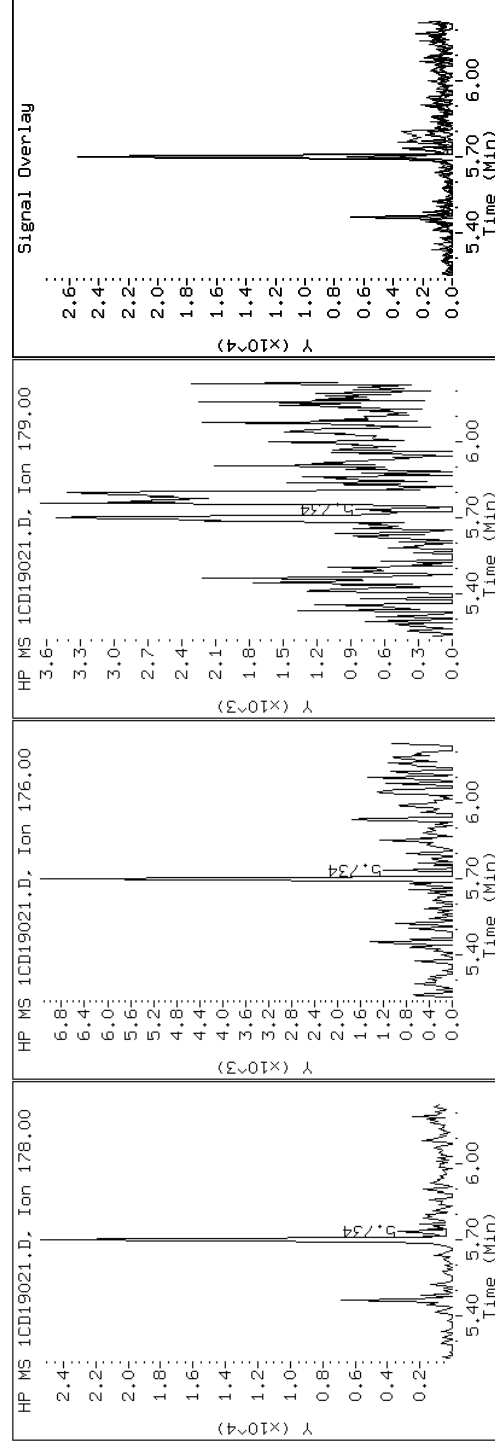
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

### 12 Anthracene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

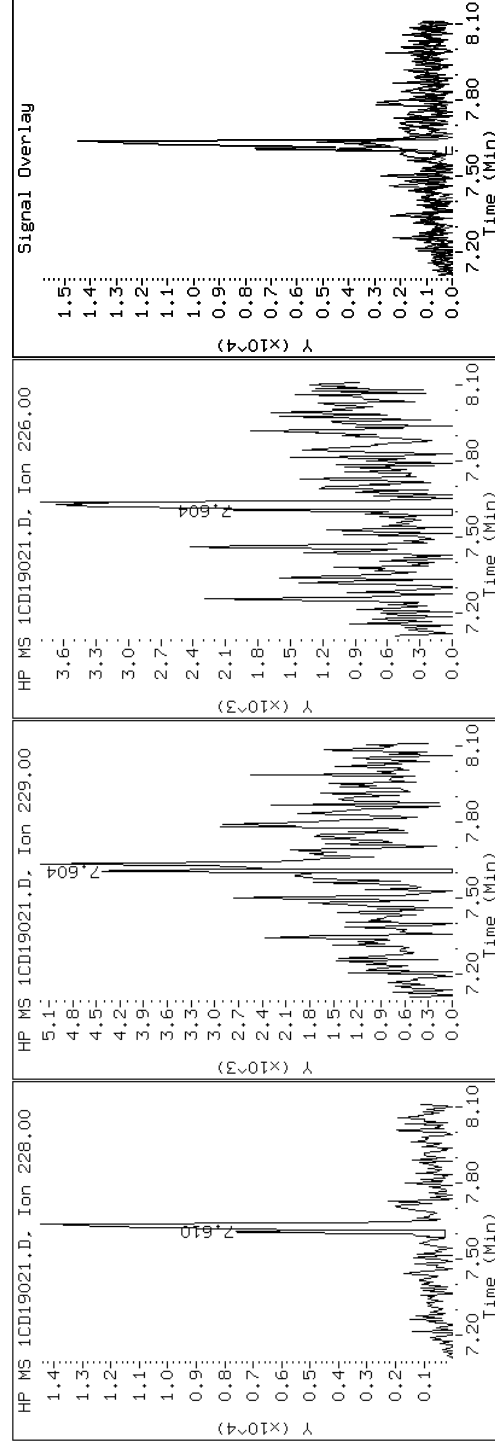
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

17 Benzo(a)anthracene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

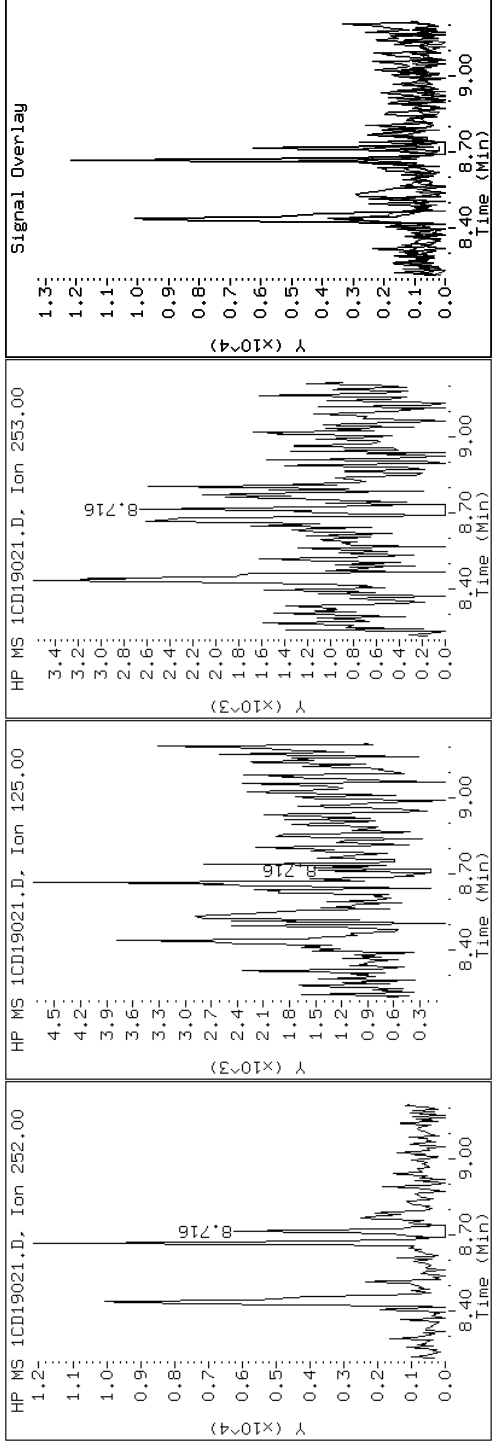
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

22 Benzo(a)pyrene





Data File: 1CD19021.D

Date: 19-APR-2013 17:16

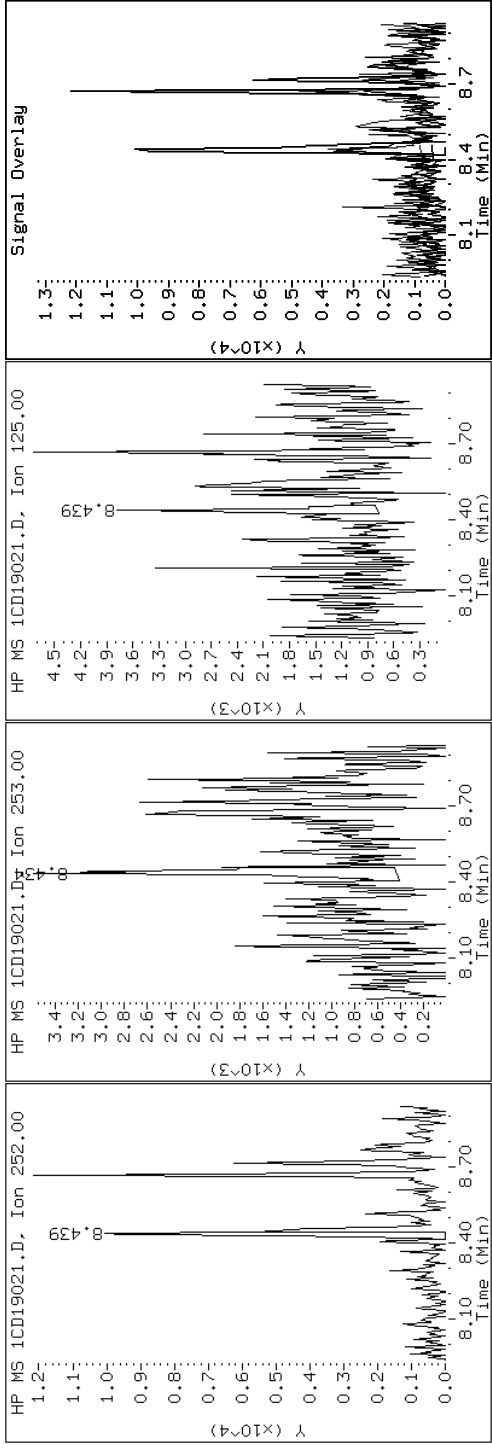
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

20 Benzo(b)fluoranthene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

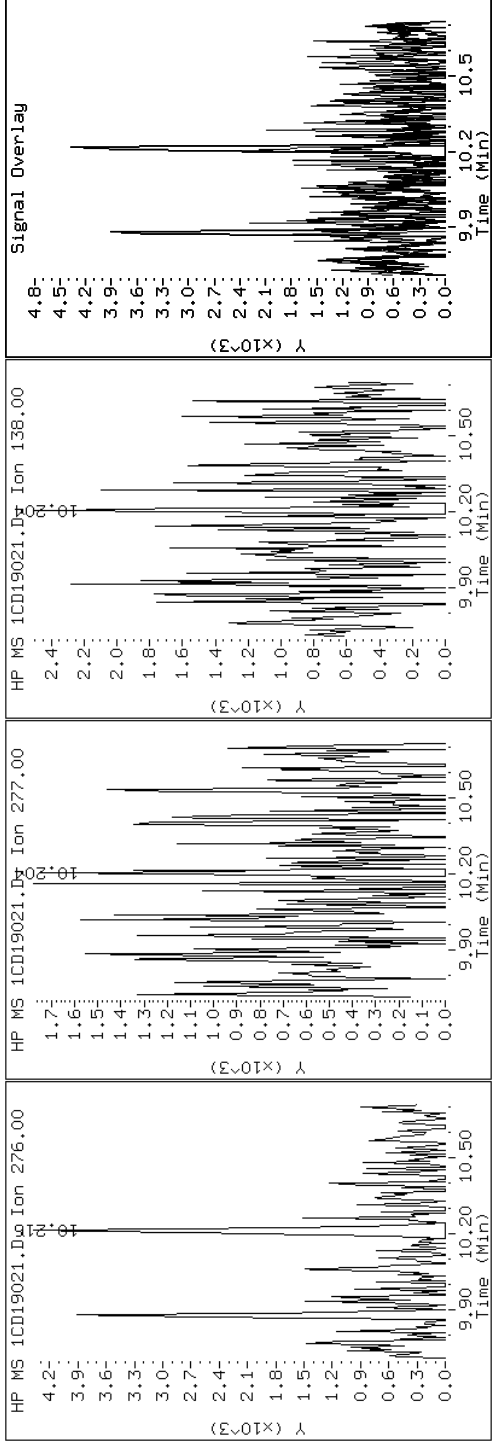
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

26 Benzo(g,h,i)perylene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

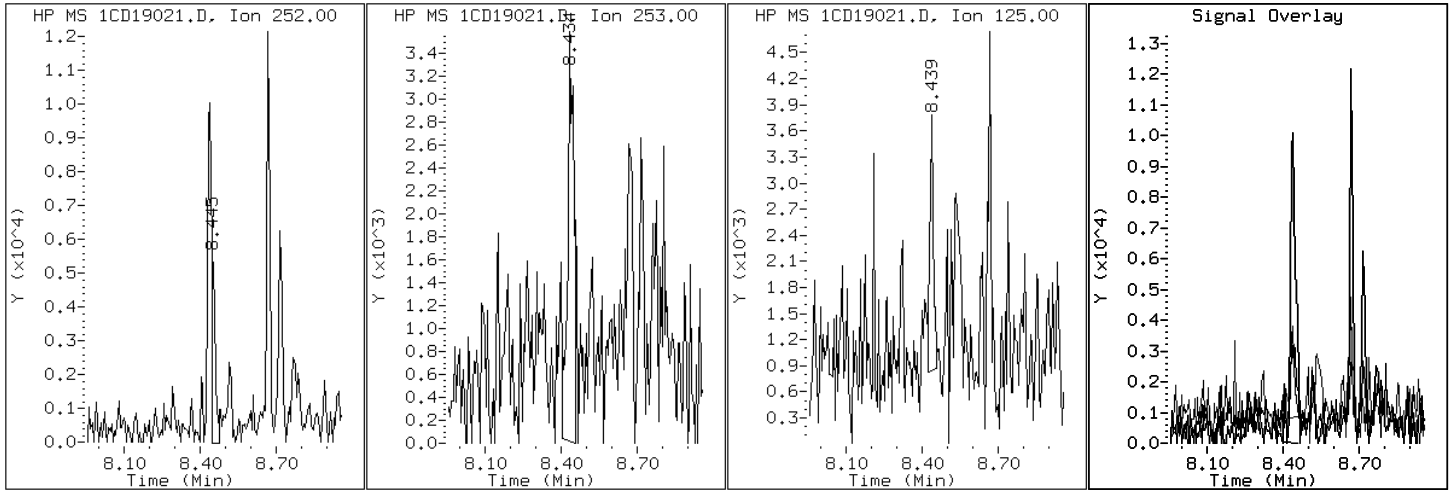
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

21 Benzo(k)fluoranthene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

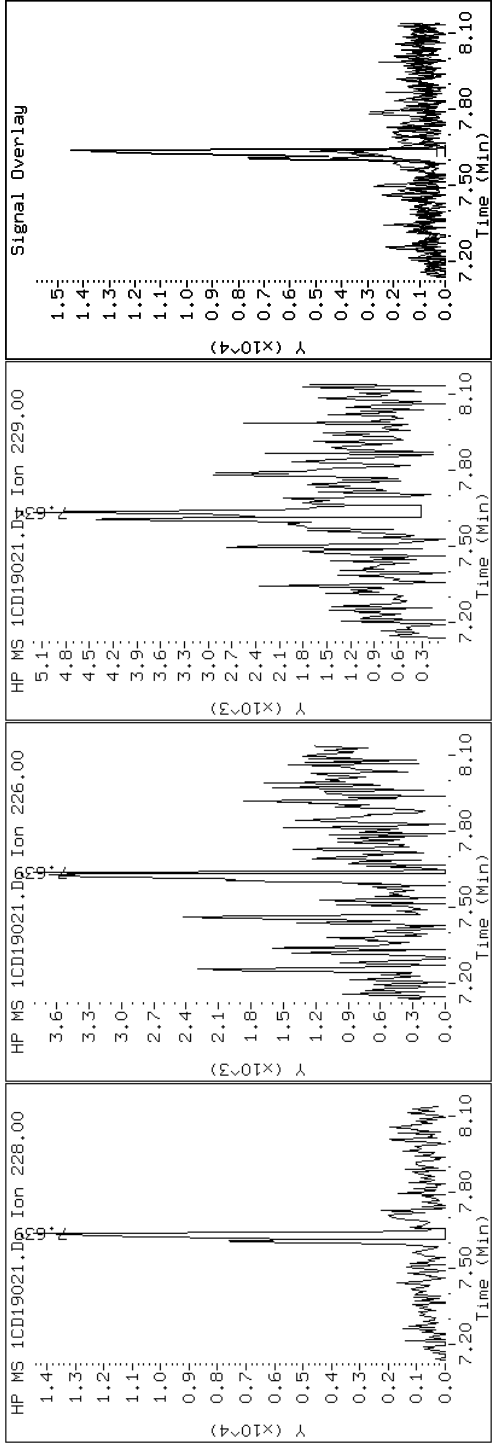
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

19 Chrysene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

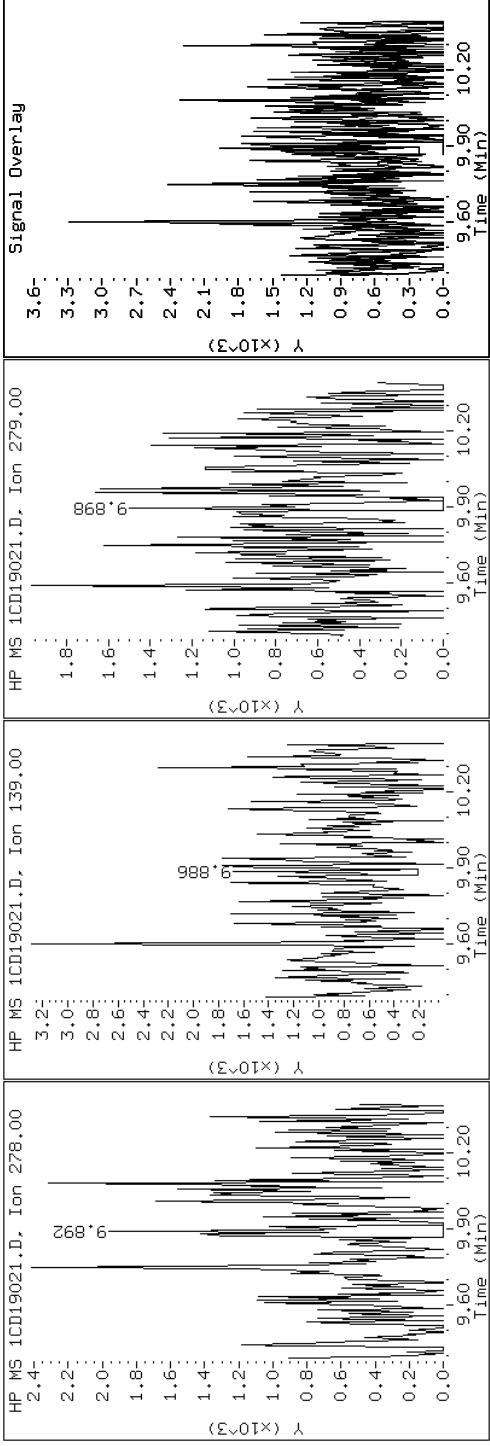
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

25 Dibenzo(a,h)anthracene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

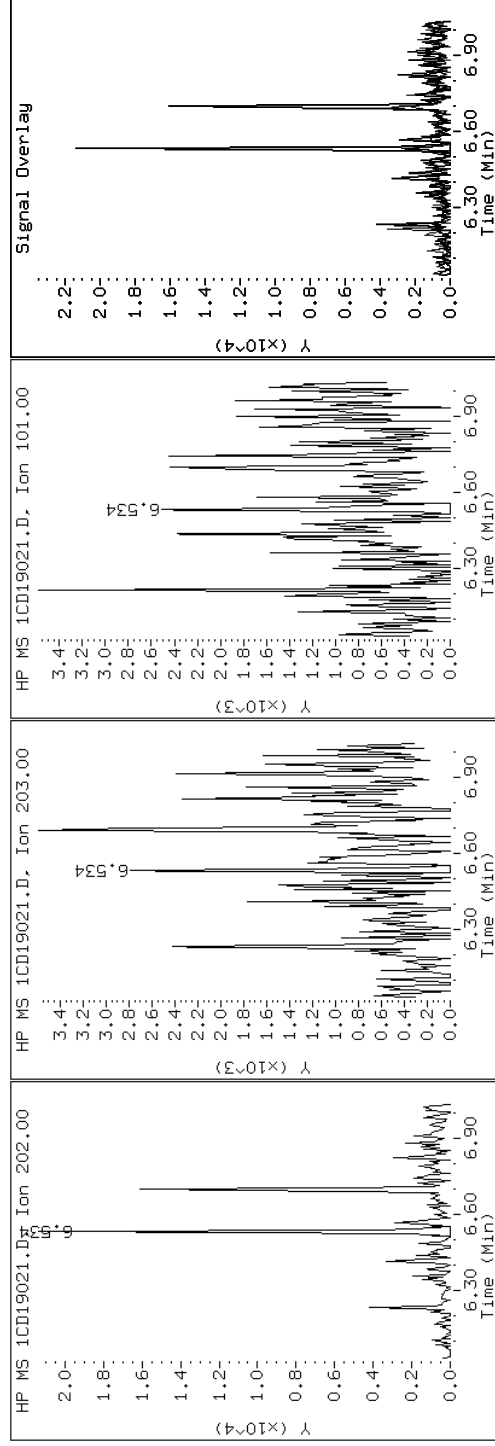
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

### 15 Fluoranthene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

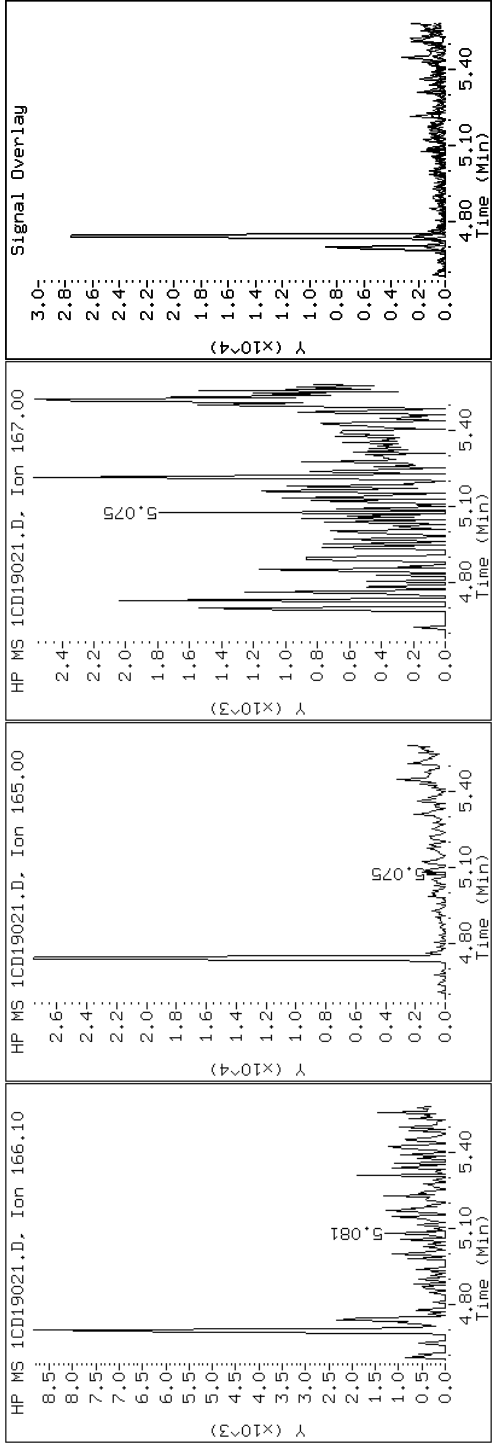
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

9 Fluorene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

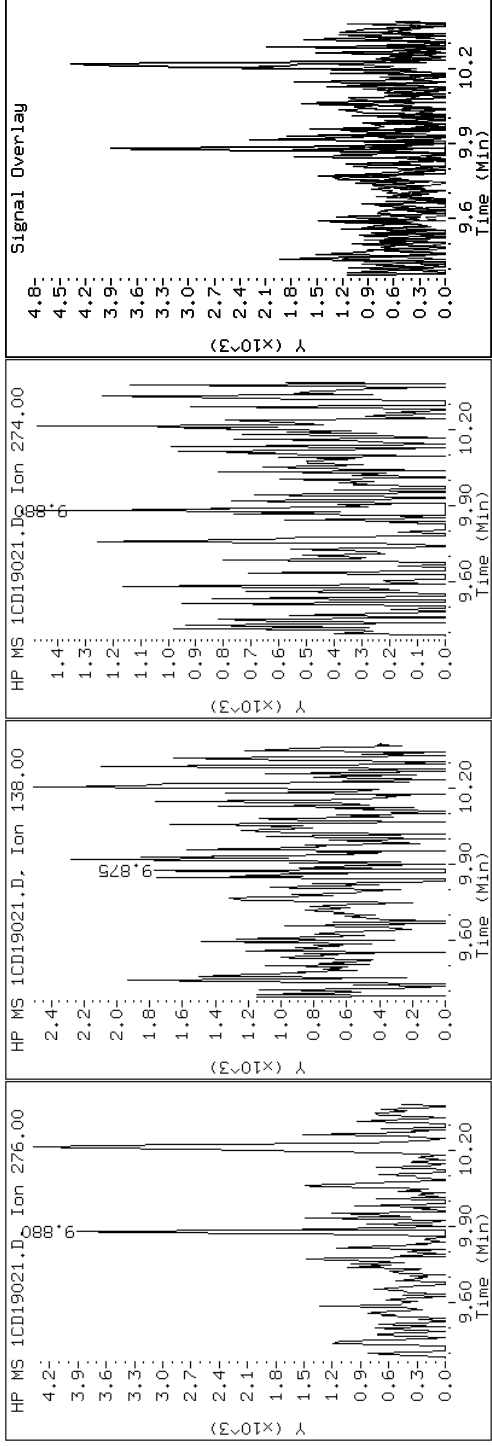
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

24 Indeno(1,2,3-cd)pyrene





Data File: 1CD19021.D

Date: 19-APR-2013 17:16

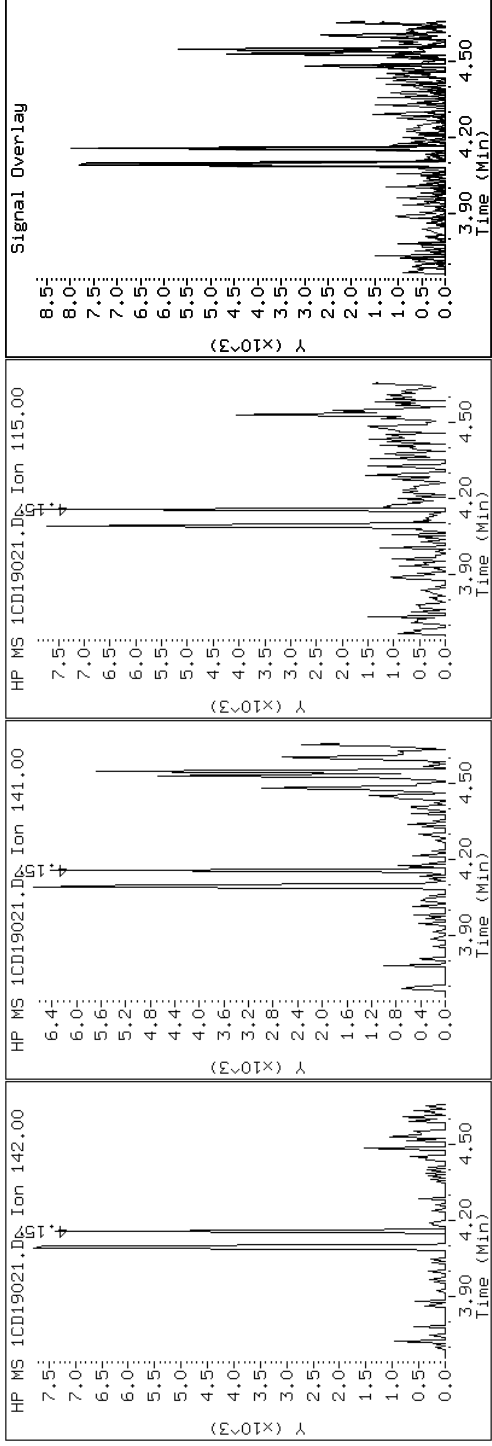
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

4 1-Methylnaphthalene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

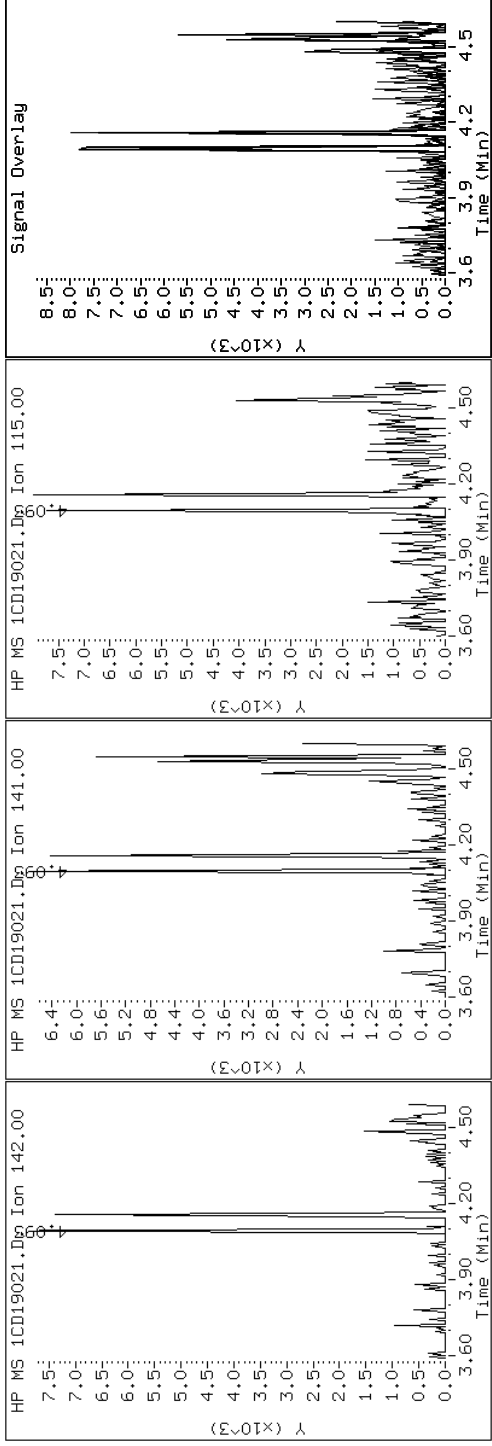
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

### 3 2-Methylnaphthalene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

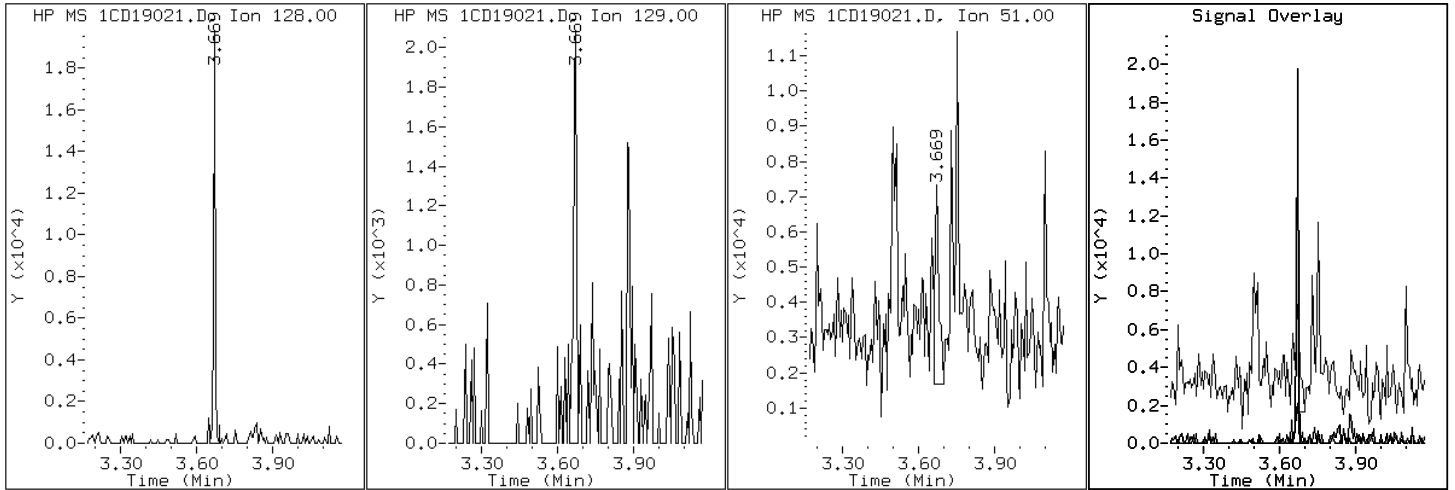
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

2 Naphthalene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

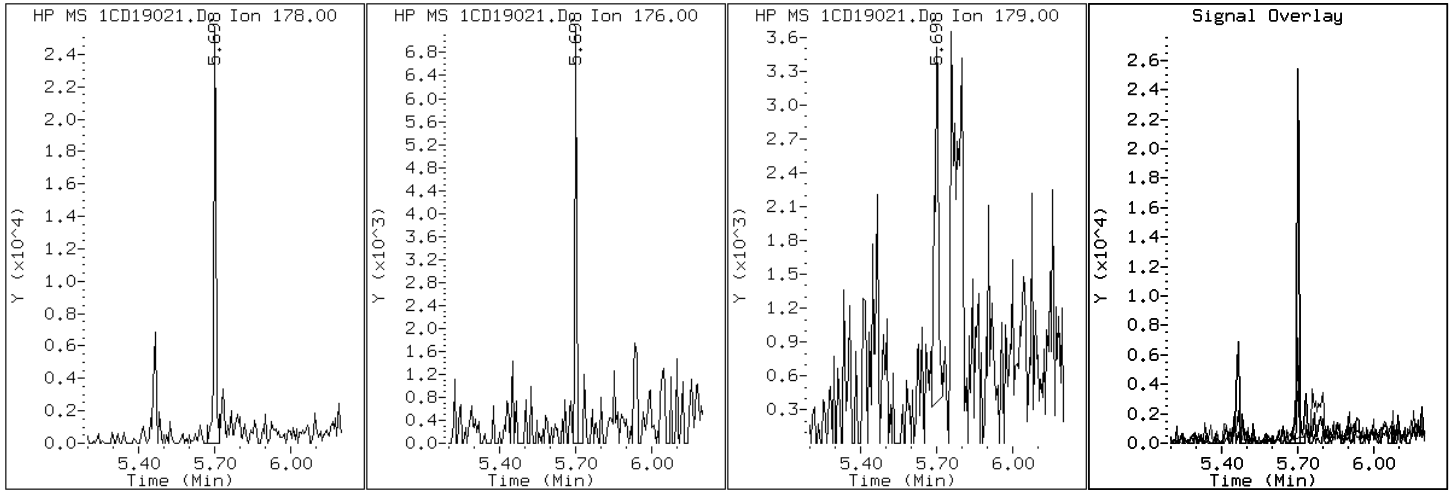
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

11 Phenanthrene



Data File: 1CD19021.D

Date: 19-APR-2013 17:16

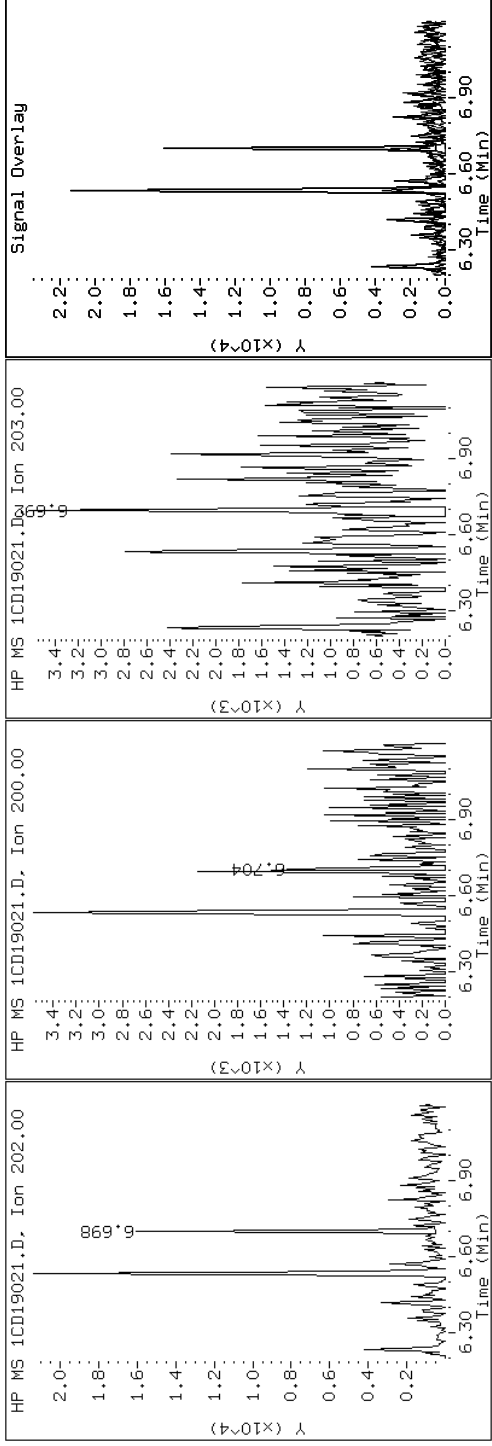
Client ID: HP0283A-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-42-a

Operator: SCC

16 Pyrene

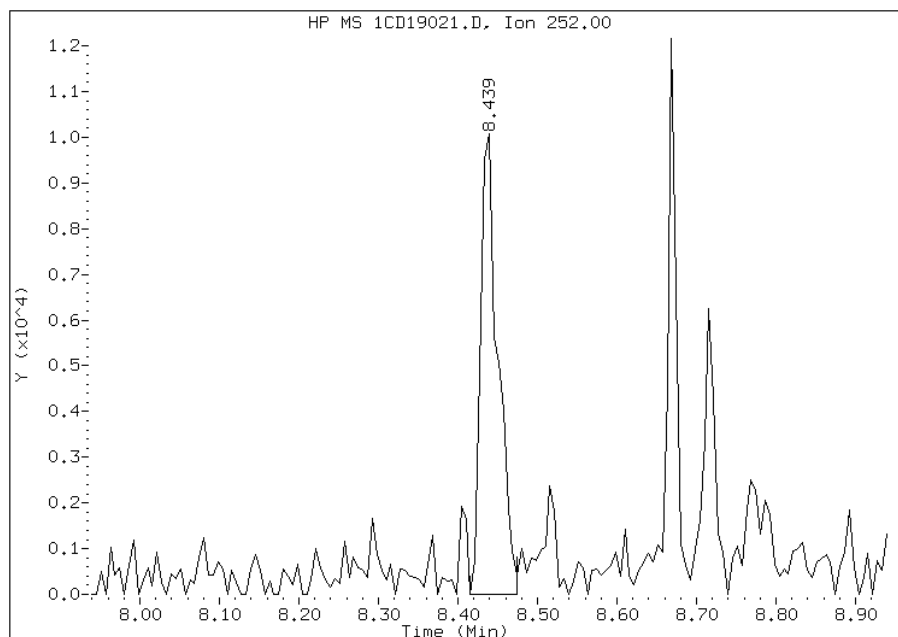


# Manual Integration Report

Data File: 1CD19021.D  
Inj. Date and Time: 19-APR-2013 17:16  
Instrument ID: BSMC5973.i  
Client ID: HP0283A-CS-SP  
Compound: 20 Benzo(b)fluoranthene  
CAS #: 205-99-2  
Report Date: 04/22/2013

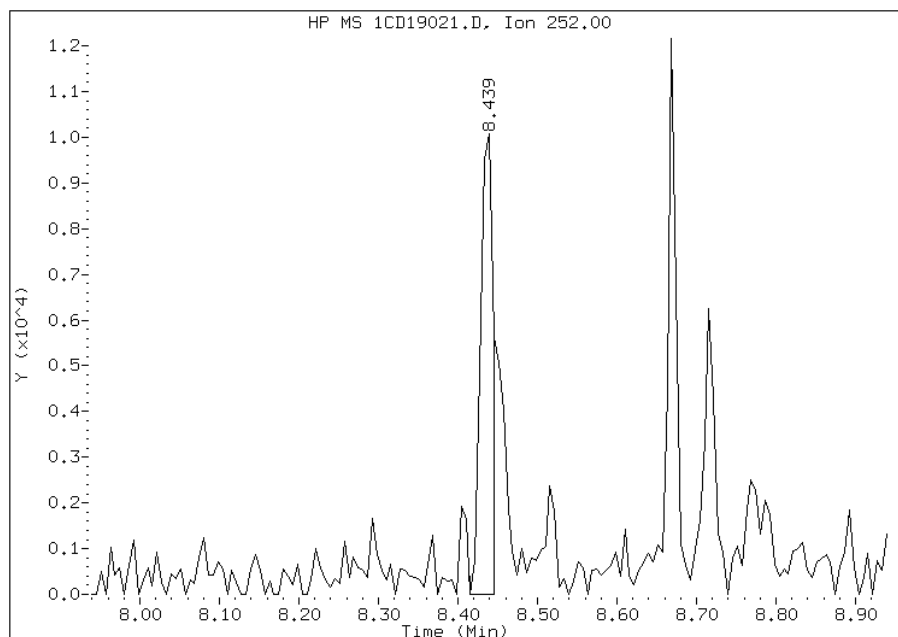
## Processing Integration Results

RT: 8.44  
Response: 15229  
Amount: 2  
Conc: 185



## Manual Integration Results

RT: 8.44  
Response: 10862  
Amount: 1  
Conc: 132



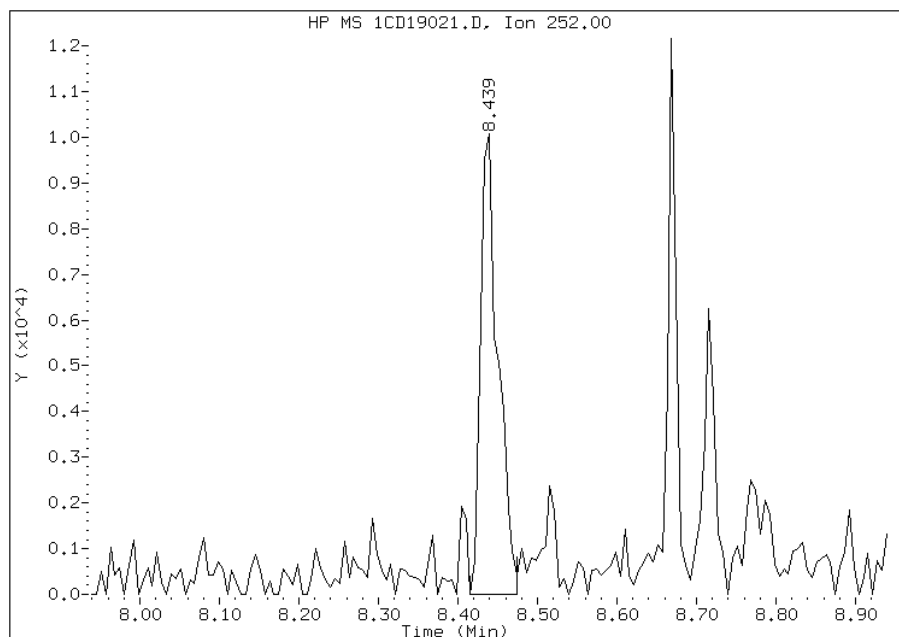
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:49  
Manual Integration Reason: Split Peak

# Manual Integration Report

Data File: 1CD19021.D  
Inj. Date and Time: 19-APR-2013 17:16  
Instrument ID: BSMC5973.i  
Client ID: HP0283A-CS-SP  
Compound: 21 Benzo(k)fluoranthene  
CAS #: 207-08-9  
Report Date: 04/22/2013

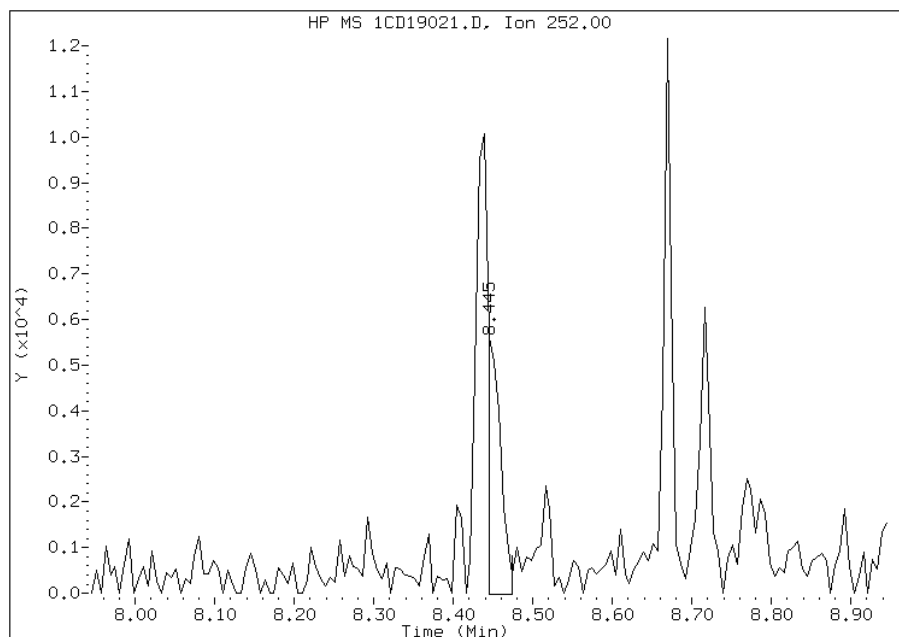
## Processing Integration Results

RT: 8.44  
Response: 15229  
Amount: 2  
Conc: 164



## Manual Integration Results

RT: 8.45  
Response: 6398  
Amount: 1  
Conc: 69



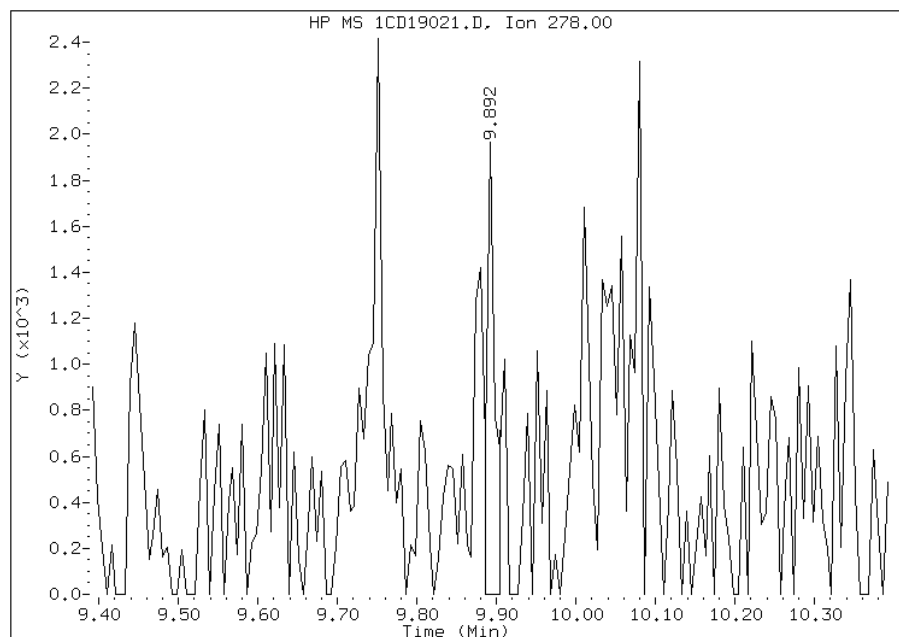
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:49  
Manual Integration Reason: Baseline Event

# Manual Integration Report

Data File: 1CD19021.D  
Inj. Date and Time: 19-APR-2013 17:16  
Instrument ID: BSMC5973.i  
Client ID: HP0283A-CS-SP  
Compound: 25 Dibenzo(a,h)anthracene  
CAS #: 53-70-3  
Report Date: 04/22/2013

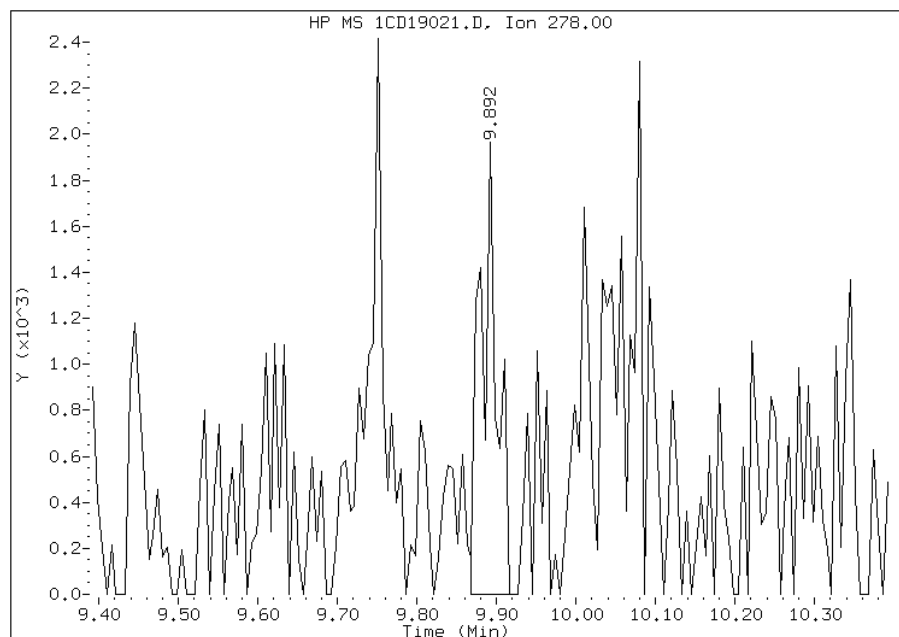
## Processing Integration Results

RT: 9.89  
Response: 1425  
Amount: 1  
Conc: 60



## Manual Integration Results

RT: 9.89  
Response: 2793  
Amount: 1  
Conc: 77



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:50  
Manual Integration Reason: Baseline Event

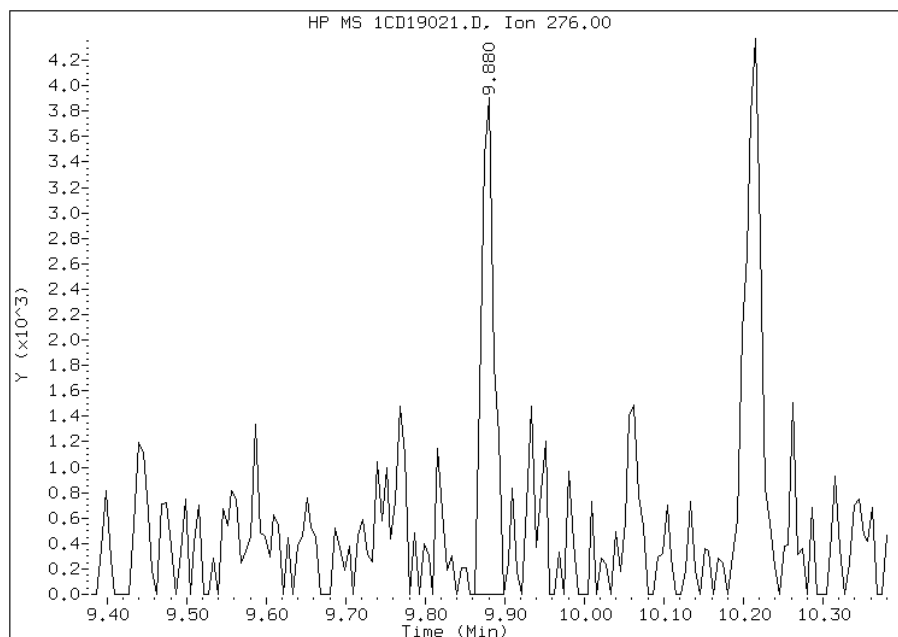


# Manual Integration Report

Data File: 1CD19021.D  
Inj. Date and Time: 19-APR-2013 17:16  
Instrument ID: BSMC5973.i  
Client ID: HP0283A-CS-SP  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/22/2013

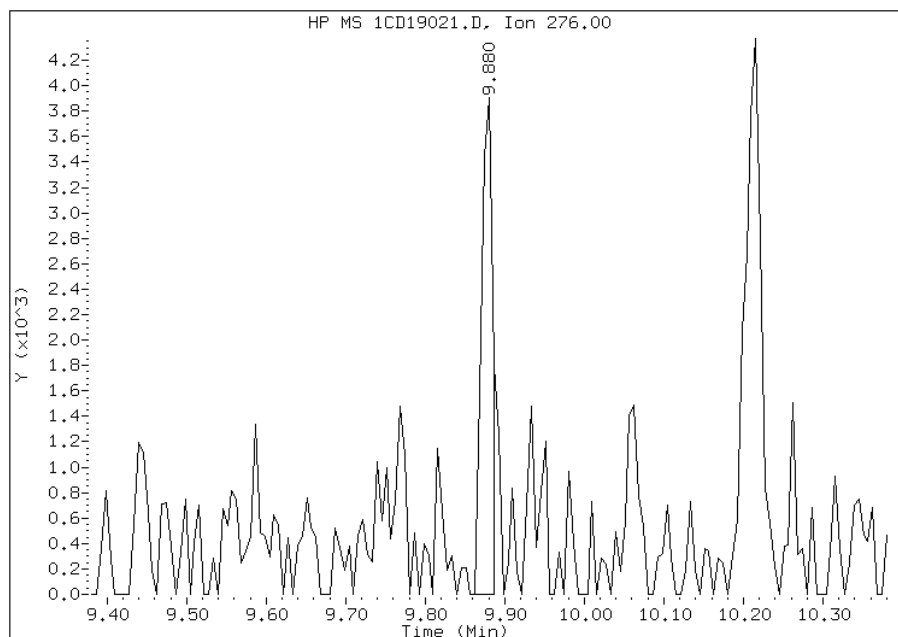
## Processing Integration Results

RT: 9.88  
Response: 4228  
Amount: 1  
Conc: 112



## Manual Integration Results

RT: 9.88  
Response: 3786  
Amount: 1  
Conc: 107



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:50  
Manual Integration Reason: Split Peak

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: HP0283B-CS-SP Lab Sample ID: 680-89220-43  
 Matrix: Solid Lab File ID: 1CD19022.D  
 Analysis Method: 8270C LL Date Collected: 04/09/2013 08:55  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 15.48(g) Date Analyzed: 04/19/2013 17:34  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: 38.4 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160	U	160	31
208-96-8	Acenaphthylene	63	U	63	7.9
120-12-7	Anthracene	13	U	13	6.6
56-55-3	Benzo[a]anthracene	13	U	13	6.1
50-32-8	Benzo[a]pyrene	27		16	8.2
205-99-2	Benzo[b]fluoranthene	48		19	9.6
191-24-2	Benzo[g,h,i]perylene	19	J	31	6.9
207-08-9	Benzo[k]fluoranthene	22		13	5.7
218-01-9	Chrysene	24		14	7.1
53-70-3	Dibenz(a,h)anthracene	31	U	31	6.5
206-44-0	Fluoranthene	42		31	6.3
86-73-7	Fluorene	15	J	31	6.5
193-39-5	Indeno[1,2,3-cd]pyrene	31	U	31	11
90-12-0	1-Methylnaphthalene	47	J	63	6.9
91-57-6	2-Methylnaphthalene	66		63	11
91-20-3	Naphthalene	110		63	6.9
85-01-8	Phenanthrene	64		13	6.1
129-00-0	Pyrene	37		31	5.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	55		30-130

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19022.D  
 Lab Smp Id: 680-89220-A-43-A Client Smp ID: HP0283B-CS-SP  
 Inj Date : 19-APR-2013 17:34  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : 680-89220-a-43-a  
 Misc Info : 680-89220-A-43-A  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 22  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	15.480	Weight Extracted
M	38.427	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	236189	40.0000		
* 6 Acenaphthene-d10	164		4.745	4.739	(1.000)	163111	40.0000		
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	295525	40.0000		
\$ 14 o-Terphenyl	230		5.933	5.933	(1.043)	23512	5.49413	576.4180	
* 18 Chrysene-d12	240		7.615	7.615	(1.000)	403570	40.0000		
* 23 Perylene-d12	264		8.768	8.768	(1.000)	320100	40.0000		
2 Naphthalene	128		3.668	3.669	(1.003)	6572	1.02936	107.9954(Q)	
3 2-Methylnaphthalene	142		4.092	4.092	(1.119)	1503	0.62471	65.5415(Q)	
4 1-Methylnaphthalene	142		4.157	4.157	(1.137)	1818	0.44578	46.7694	
9 Fluorene	166		5.080	5.080	(1.071)	754	0.14225	14.9240	
11 Phenanthrene	178		5.698	5.698	(1.002)	5198	0.60631	63.6114	
13 Carbazole	167		5.845	5.845	(1.028)	1113	0.13929	14.6138(Q)	
15 Fluoranthene	202		6.527	6.533	(1.148)	3876	0.40430	42.4174	
16 Pyrene	202		6.698	6.698	(0.880)	4006	0.34892	36.6070	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 Chrysene	228	7.627	7.639	(1.002)	2592	0.22959	24.0879(QM)
20 Benzo(b)fluoranthene	252	8.445	8.439	(0.963)	3671	0.45406	47.6373(M)
21 Benzo(k)fluoranthene	252	8.456	8.457	(0.964)	1921	0.20998	22.0300(QM)
22 Benzo(a)pyrene	252	8.721	8.715	(0.995)	2160	0.25846	27.1162(Q)
26 Benzo(g,h,i)perylene	276	10.209	10.209	(1.164)	1407	0.17962	18.8446

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.

Data File: 1CD19022.D

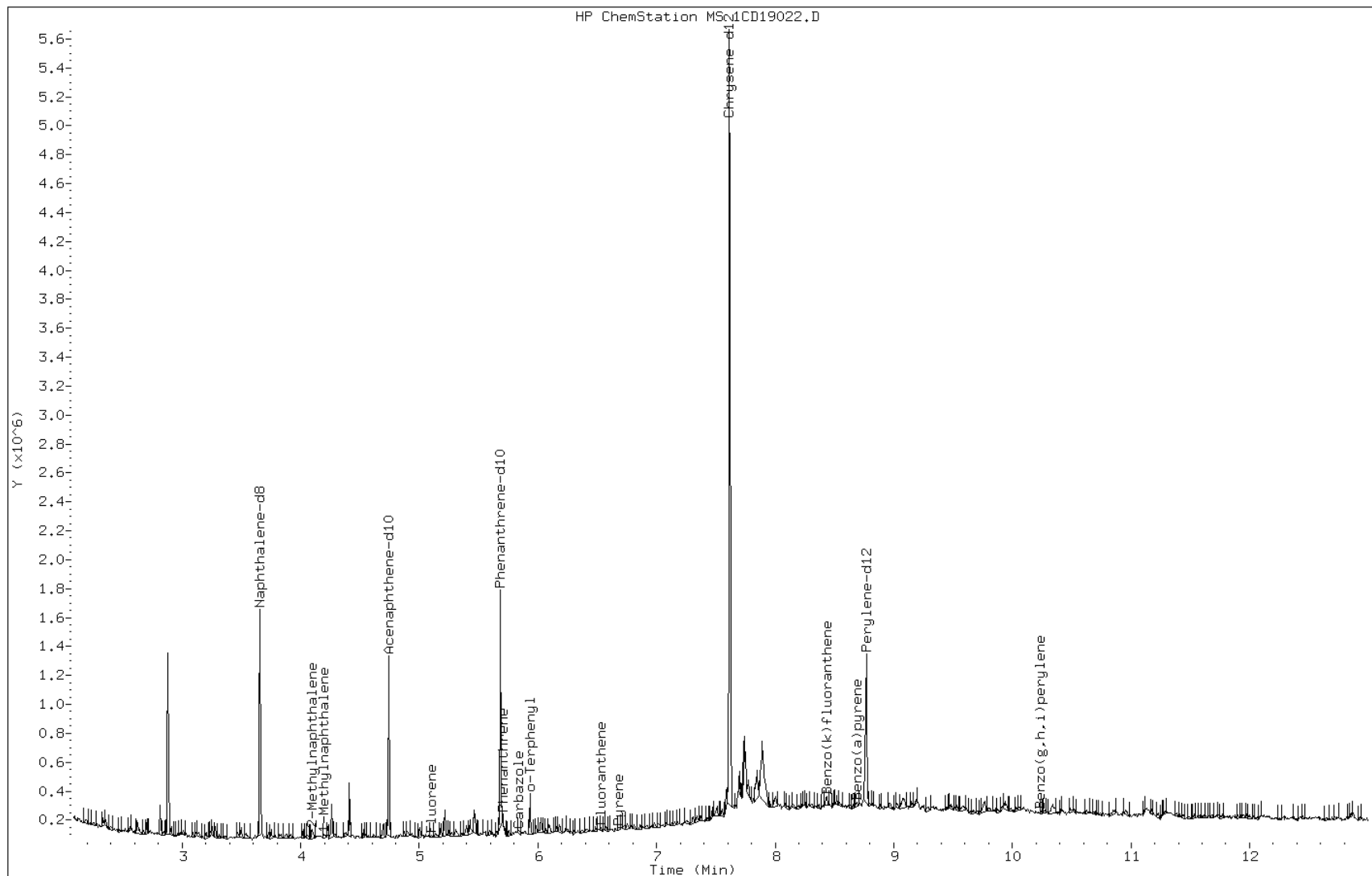
Date: 19-APR-2013 17:34

Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

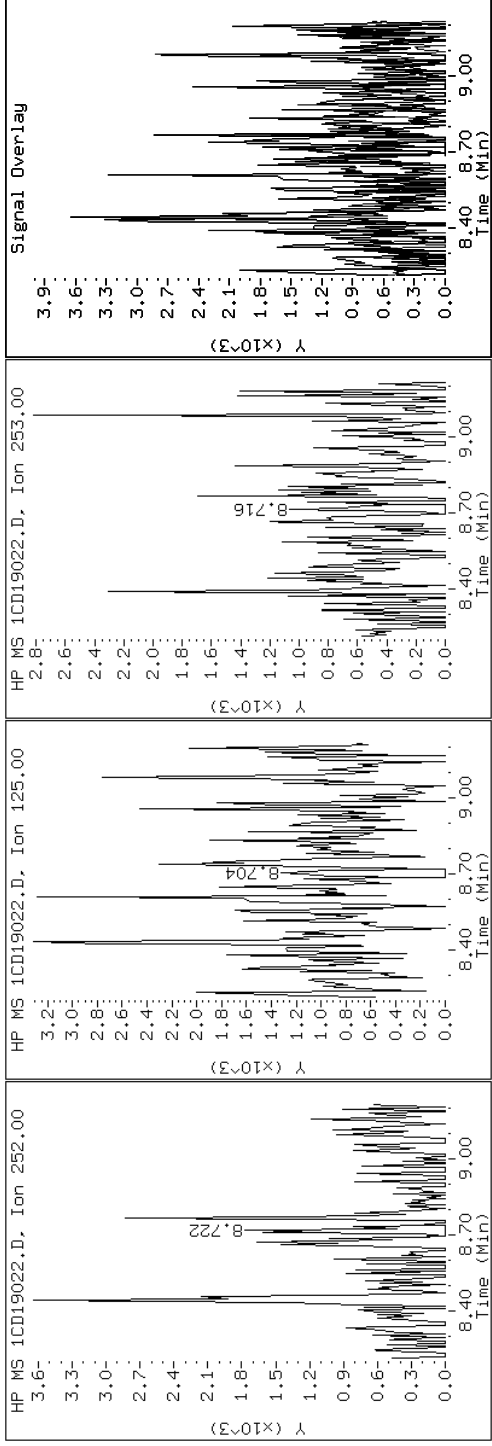
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

22 Benzo(a)pyrene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

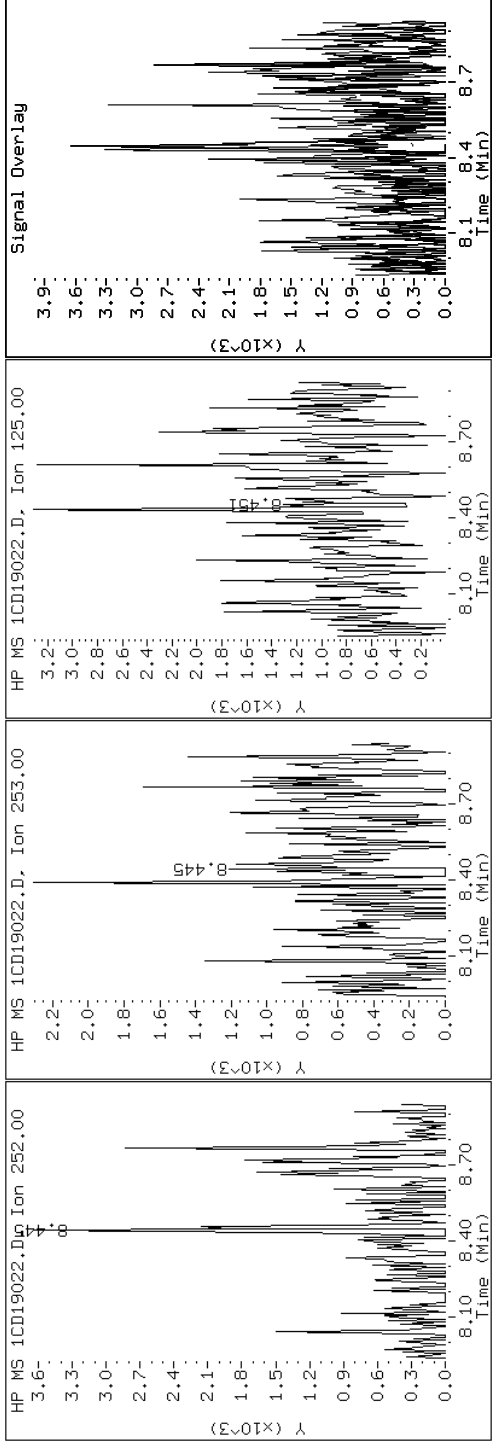
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

20 Benzo(b)fluoranthene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

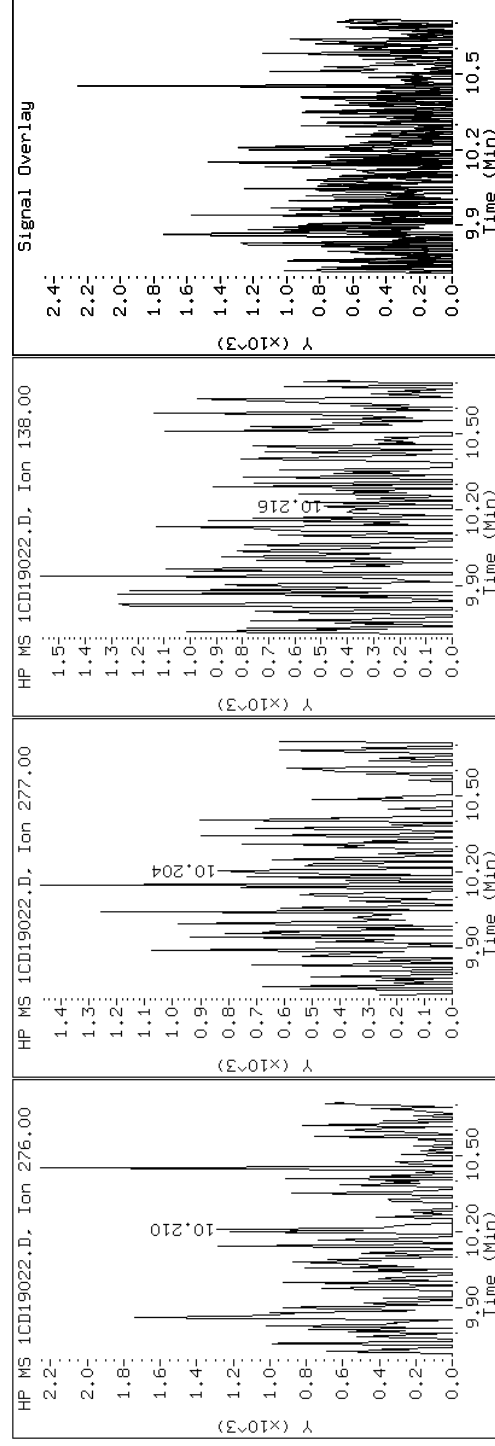
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

26 Benzo(g,h,i)perylene





Data File: 1CD19022.D

Date: 19-APR-2013 17:34

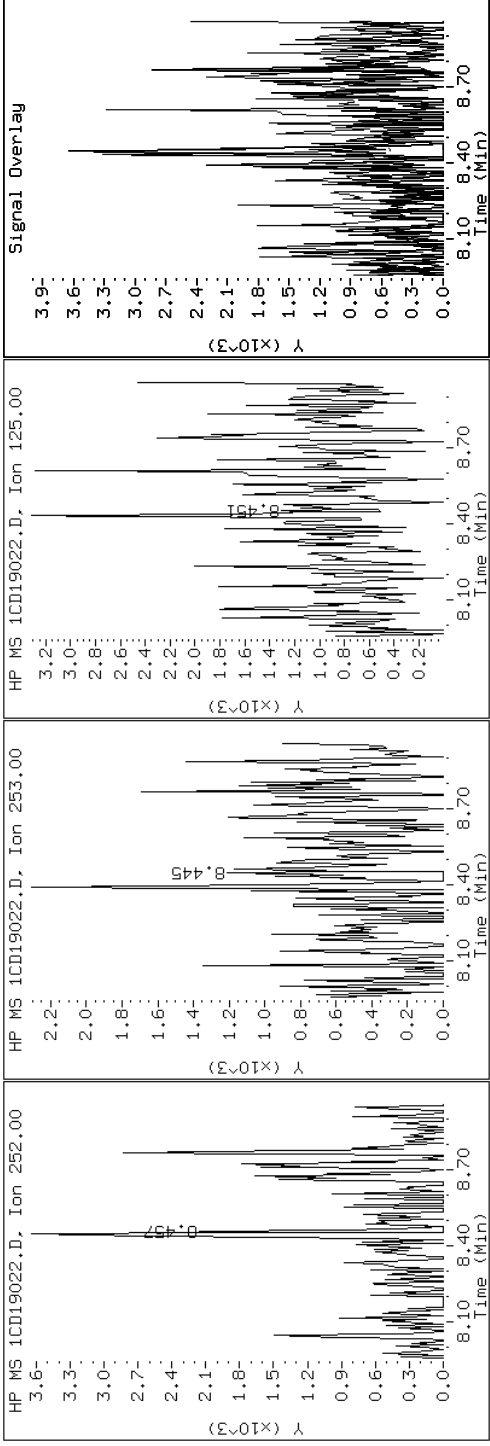
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

21 Benzo(k)fluoranthene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

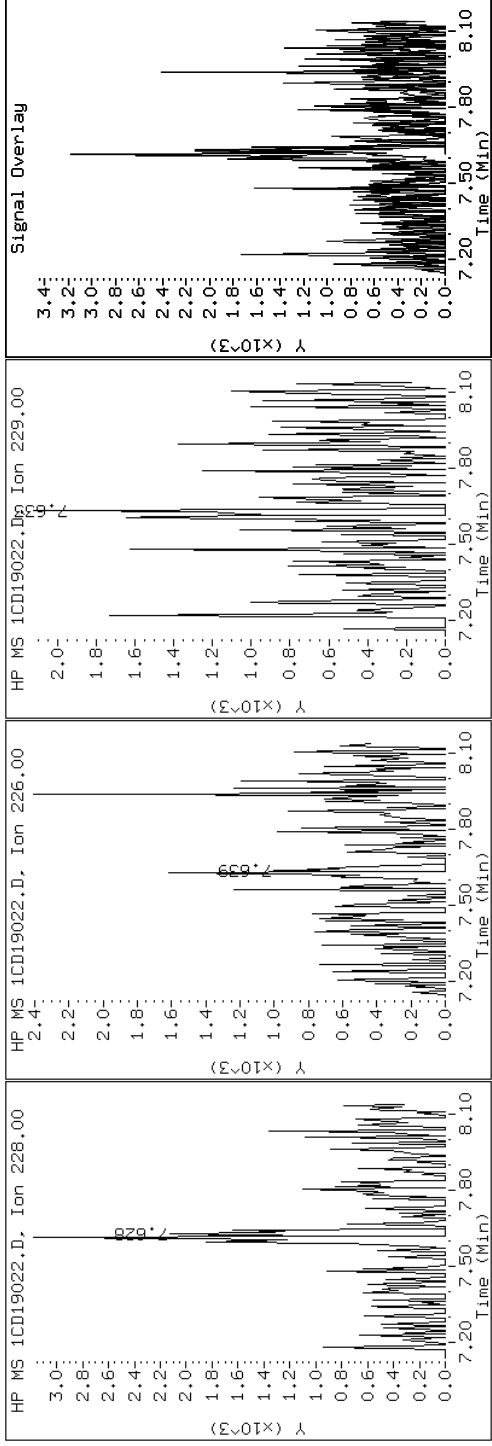
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

19 Chrysene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

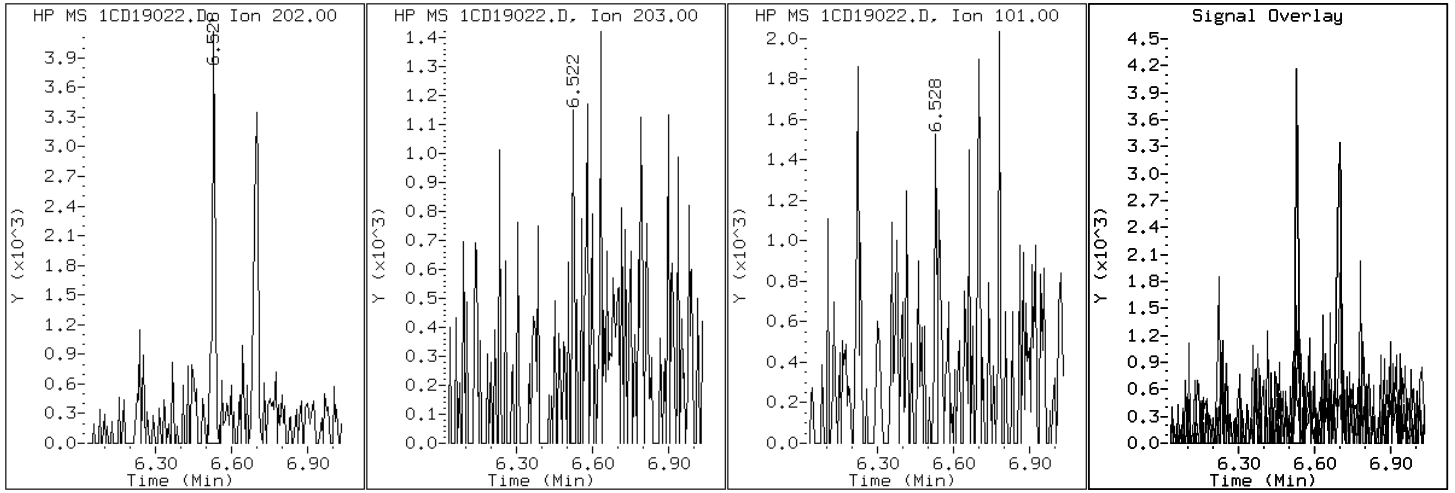
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

15 Fluoranthene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

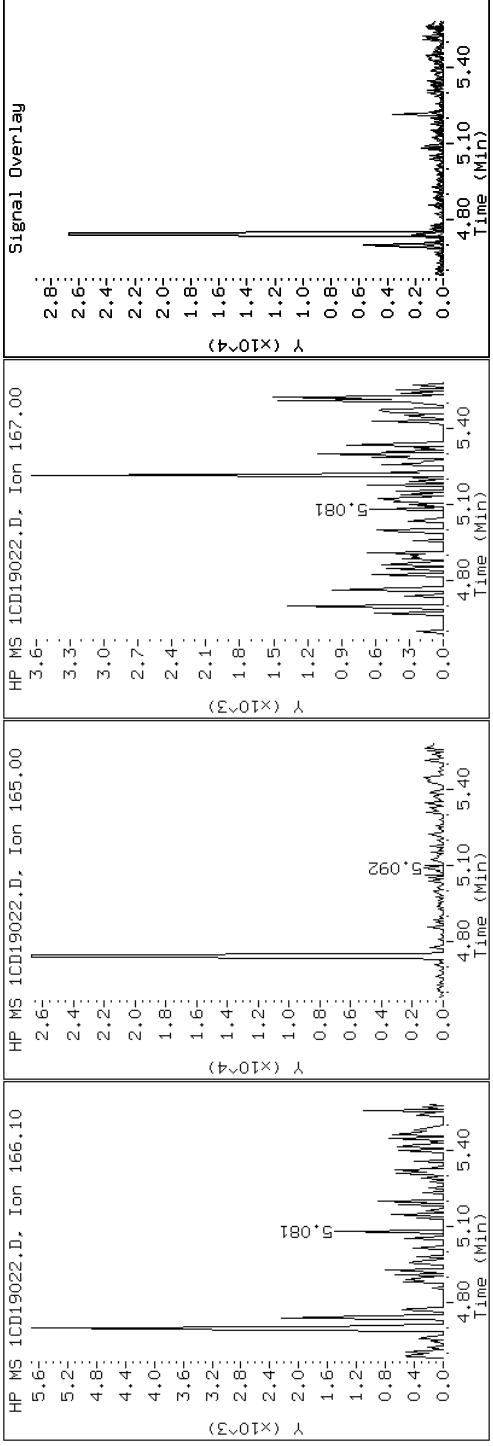
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

9 Fluorene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

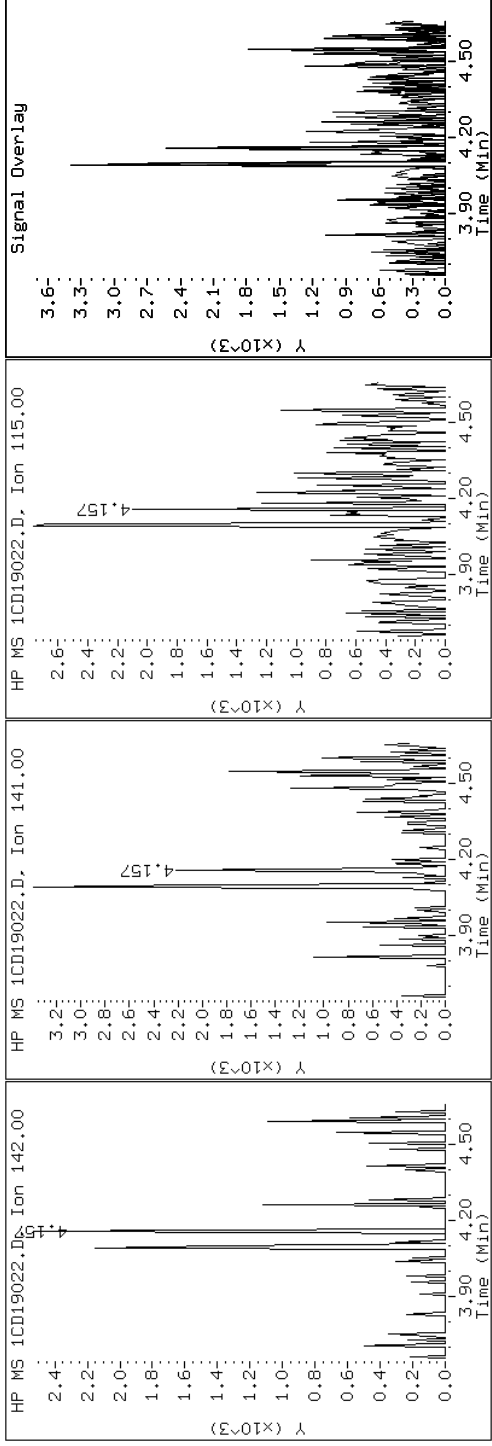
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

4 1-Methylnaphthalene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

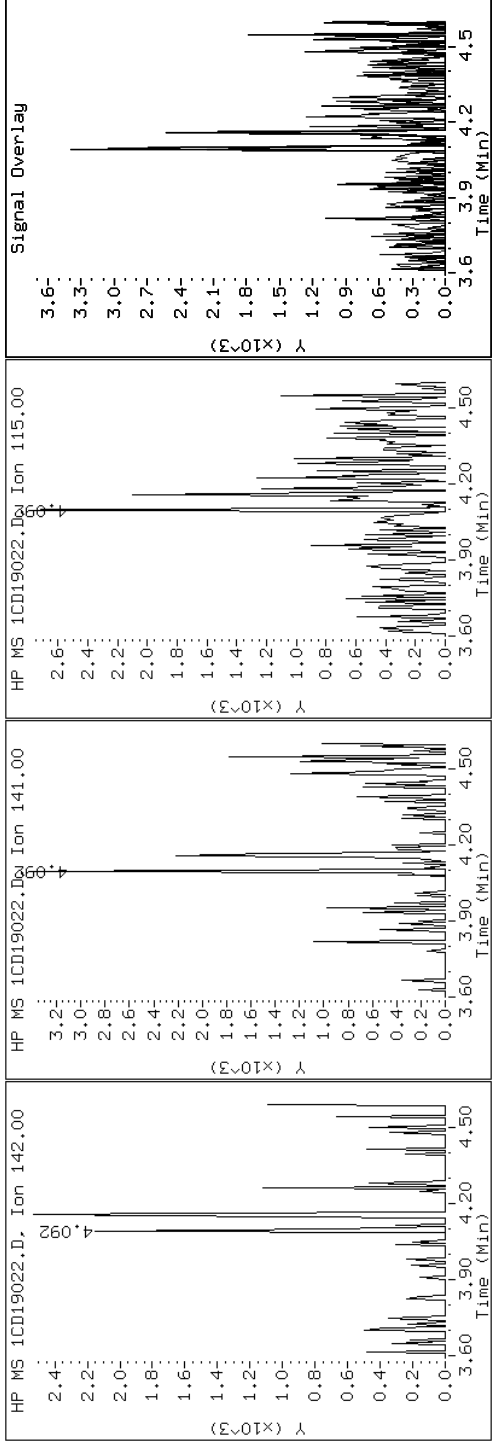
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

3 2-Methylnaphthalene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

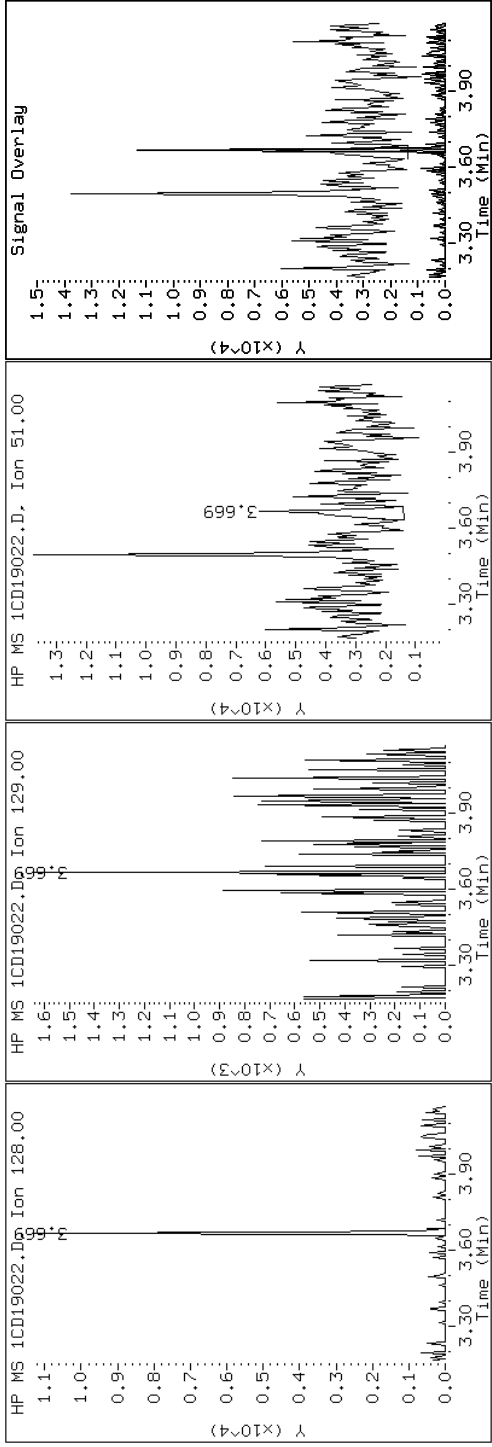
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

2 Naphthalene



Data File: 1CD19022.D

Date: 19-APR-2013 17:34

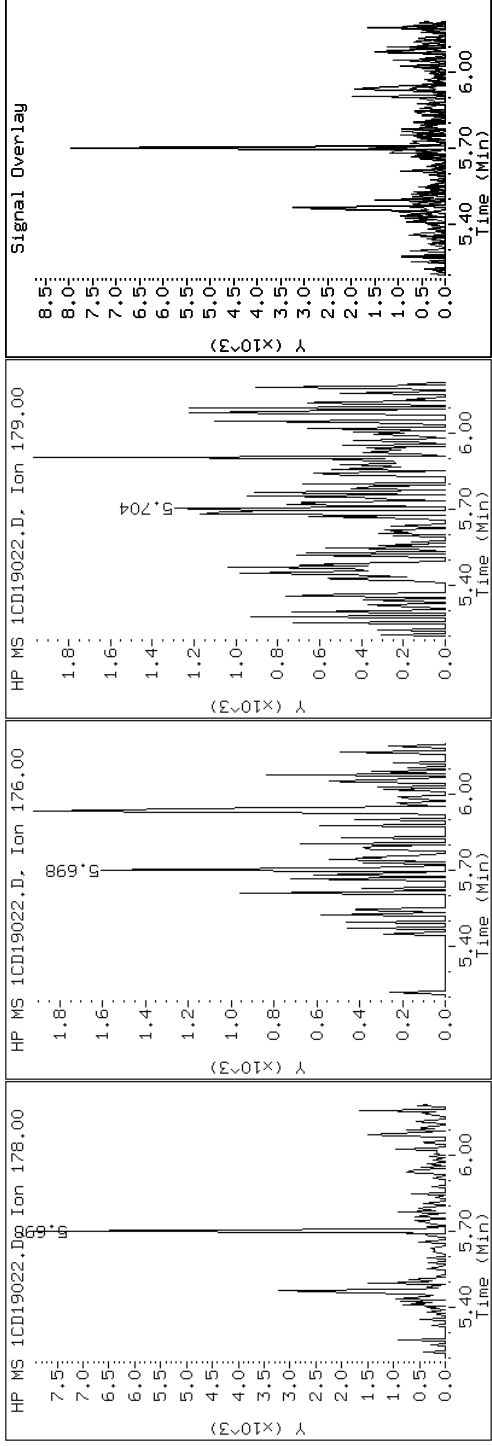
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

11 Phenanthrene





Data File: 1CD19022.D

Date: 19-APR-2013 17:34

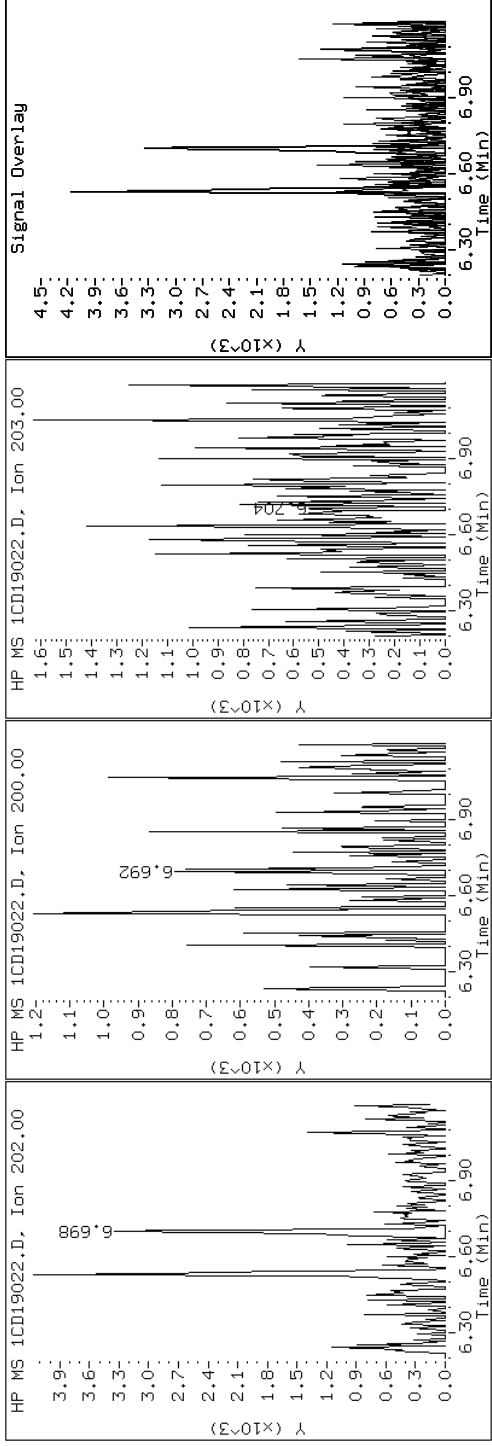
Client ID: HP0283B-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-43-a

Operator: SCC

16 Pyrene

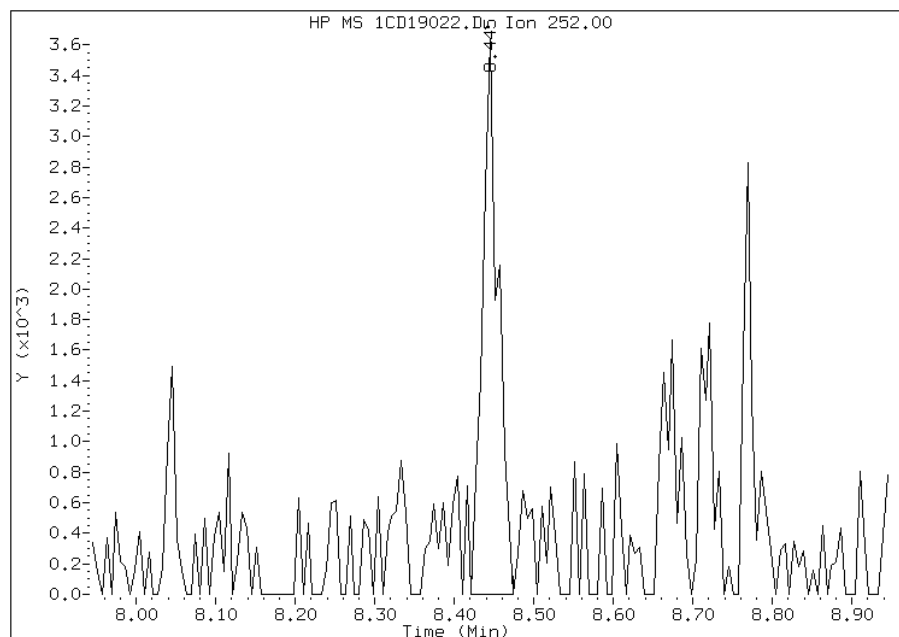


# Manual Integration Report

Data File: 1CD19022.D  
Inj. Date and Time: 19-APR-2013 17:34  
Instrument ID: BSMC5973.i  
Client ID: HP0283B-CS-SP  
Compound: 20 Benzo(b)fluoranthene  
CAS #: 205-99-2  
Report Date: 04/22/2013

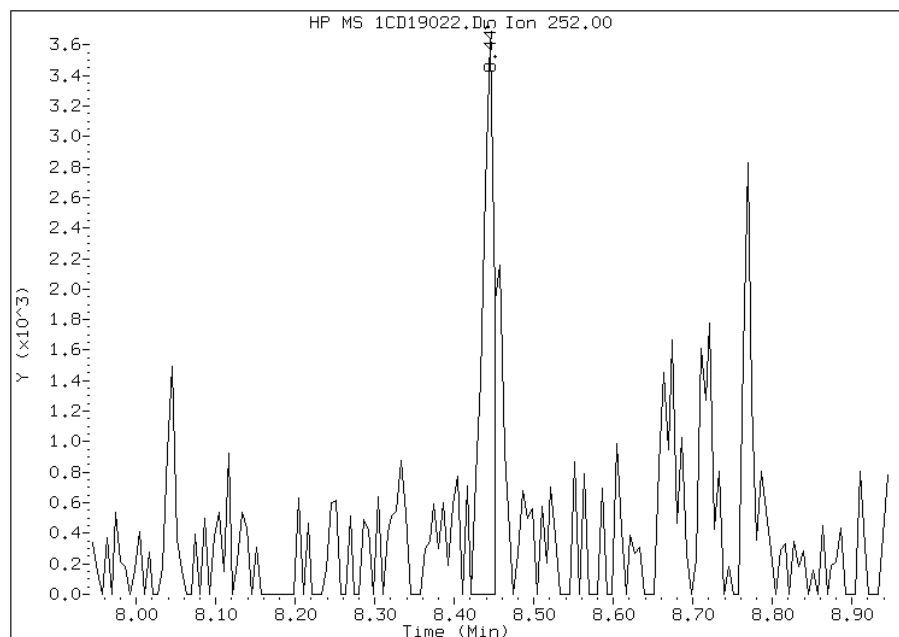
## Processing Integration Results

RT: 8.45  
Response: 4909  
Amount: 1  
Conc: 64



## Manual Integration Results

RT: 8.45  
Response: 3671  
Amount: 0  
Conc: 48



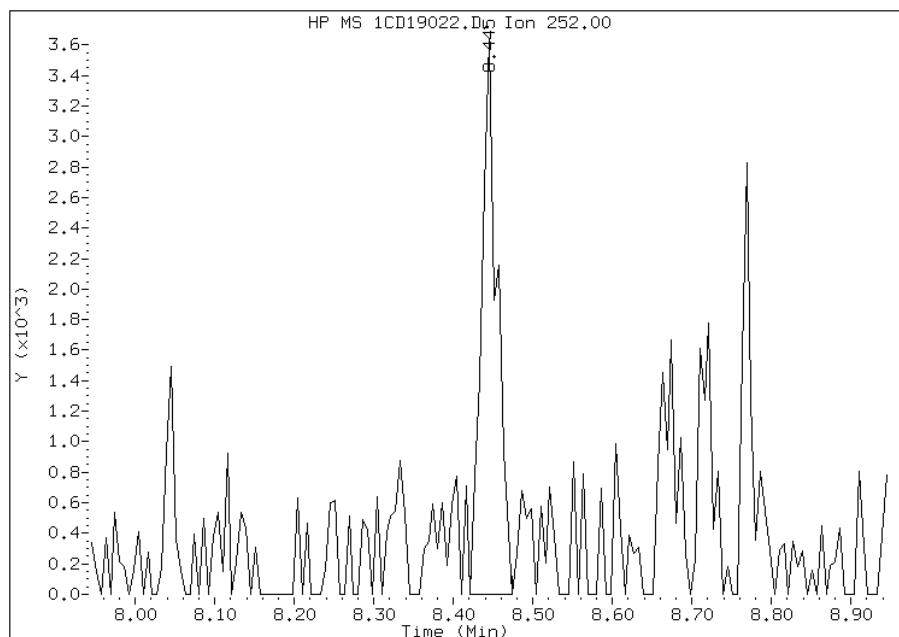
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:53  
Manual Integration Reason: Split Peak

# Manual Integration Report

Data File: 1CD19022.D  
Inj. Date and Time: 19-APR-2013 17:34  
Instrument ID: BSMC5973.i  
Client ID: HP0283B-CS-SP  
Compound: 21 Benzo(k)fluoranthene  
CAS #: 207-08-9  
Report Date: 04/22/2013

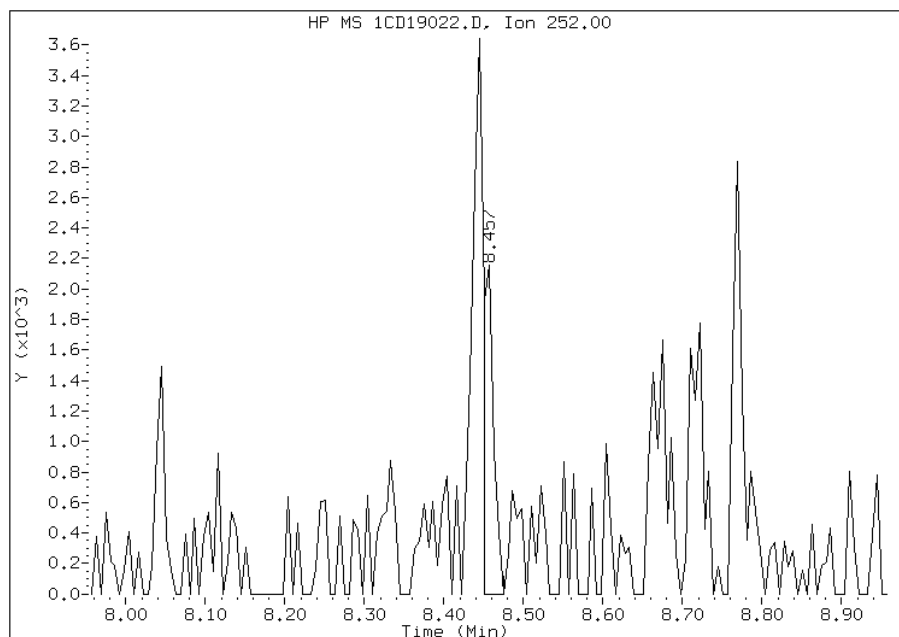
## Processing Integration Results

RT: 8.45  
Response: 4909  
Amount: 1  
Conc: 56



## Manual Integration Results

RT: 8.46  
Response: 1921  
Amount: 0  
Conc: 22



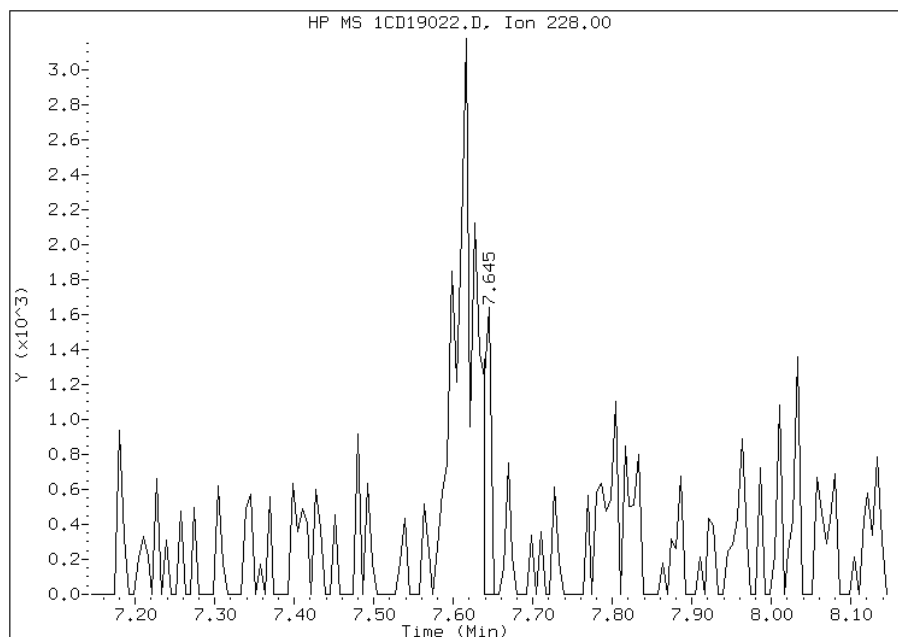
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:53  
Manual Integration Reason: Baseline Event

# Manual Integration Report

Data File: 1CD19022.D  
Inj. Date and Time: 19-APR-2013 17:34  
Instrument ID: BSMC5973.i  
Client ID: HP0283B-CS-SP  
Compound: 19 Chrysene  
CAS #: 218-01-9  
Report Date: 04/22/2013

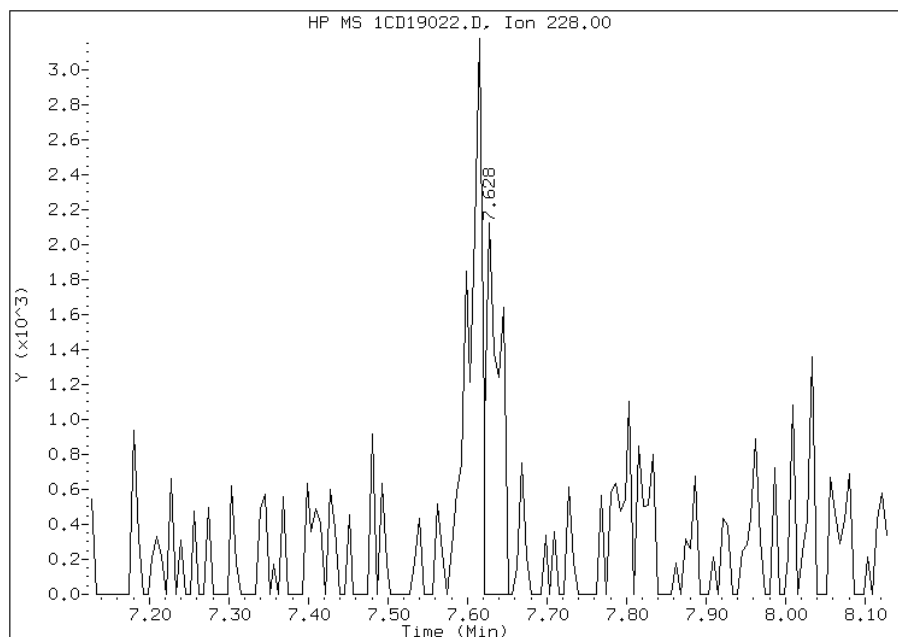
## Processing Integration Results

RT: 7.65  
Response: 1016  
Amount: 0  
Conc: 9



## Manual Integration Results

RT: 7.63  
Response: 2592  
Amount: 0  
Conc: 24



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:52  
Manual Integration Reason: Baseline Event

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: HP0283C-CS-SP Lab Sample ID: 680-89220-44  
 Matrix: Solid Lab File ID: 1CD19023.D  
 Analysis Method: 8270C LL Date Collected: 04/09/2013 09:05  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 15.27(g) Date Analyzed: 04/19/2013 17:52  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: 33.5 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	150	U	150	30
208-96-8	Acenaphthylene	9.3	J	59	7.4
120-12-7	Anthracene	8.0	J	12	6.2
56-55-3	Benzo[a]anthracene	20		12	5.8
50-32-8	Benzo[a]pyrene	15		15	7.7
205-99-2	Benzo[b]fluoranthene	40		18	9.0
191-24-2	Benzo[g,h,i]perylene	37		30	6.5
207-08-9	Benzo[k]fluoranthene	25		12	5.3
218-01-9	Chrysene	42		13	6.7
53-70-3	Dibenz(a,h)anthracene	30	U	30	6.1
206-44-0	Fluoranthene	31		30	5.9
86-73-7	Fluorene	30	U	30	6.1
193-39-5	Indeno[1,2,3-cd]pyrene	30	U	30	10
90-12-0	1-Methylnaphthalene	35	J	59	6.5
91-57-6	2-Methylnaphthalene	88		59	10
91-20-3	Naphthalene	100		59	6.5
85-01-8	Phenanthrene	61		12	5.8
129-00-0	Pyrene	33		30	5.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	62		30-130

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19023.D  
 Lab Smp Id: 680-89220-A-44-A Client Smp ID: HP0283C-CS-SP  
 Inj Date : 19-APR-2013 17:52  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : 680-89220-a-44-a  
 Misc Info : 680-89220-A-44-A  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 23  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	15.270	Weight Extracted
M	33.543	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/ml)	(ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	234324	40.0000	
* 6 Acenaphthene-d10	164		4.745	4.739	(1.000)	162118	40.0000	
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	318142	40.0000	
\$ 14 o-Terphenyl	230		5.933	5.933	(1.043)	29034	6.20073	611.0309
* 18 Chrysene-d12	240		7.615	7.615	(1.000)	332290	40.0000	
* 23 Perylene-d12	264		8.768	8.768	(1.000)	322177	40.0000	
2 Naphthalene	128		3.669	3.669	(1.003)	6617	1.04466	102.9421
3 2-Methylnaphthalene	142		4.092	4.092	(1.119)	2640	0.89591	88.2844
4 1-Methylnaphthalene	142		4.157	4.157	(1.137)	1436	0.35492	34.9741
5 Acenaphthylene	152		4.657	4.657	(0.981)	646	0.09404	9.2666
11 Phenanthrene	178		5.698	5.698	(1.002)	5760	0.62387	61.4768
12 Anthracene	178		5.733	5.733	(1.008)	751	0.08131	8.0126(Q)
13 Carbazole	167		5.839	5.845	(1.027)	825	0.09591	9.4509(Q)
15 Fluoranthene	202		6.533	6.533	(1.149)	3258	0.31568	31.1075(Q)

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	----	-----	-----	-----	-----	-----
16 Pyrene	202	6.698	6.698	(0.880)	3133	0.33142	32.6585
17 Benzo(a)anthracene	228	7.609	7.610	(0.999)	1870	0.19901	19.6107(Q)
19 Chrysene	228	7.627	7.639	(1.002)	3921	0.42182	41.5666(Q)
20 Benzo(b)fluoranthene	252	8.433	8.439	(0.962)	3343	0.41082	40.4829(Q)
21 Benzo(k)fluoranthene	252	8.456	8.457	(0.964)	2324	0.25239	24.8712(QM)
22 Benzo(a)pyrene	252	8.709	8.715	(0.993)	1294	0.15384	15.1594(Q)
26 Benzo(g,h,i)perylene	276	10.209	10.209	(1.164)	2947	0.37379	36.8338(M)

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.

Data File: 1CD19023.D

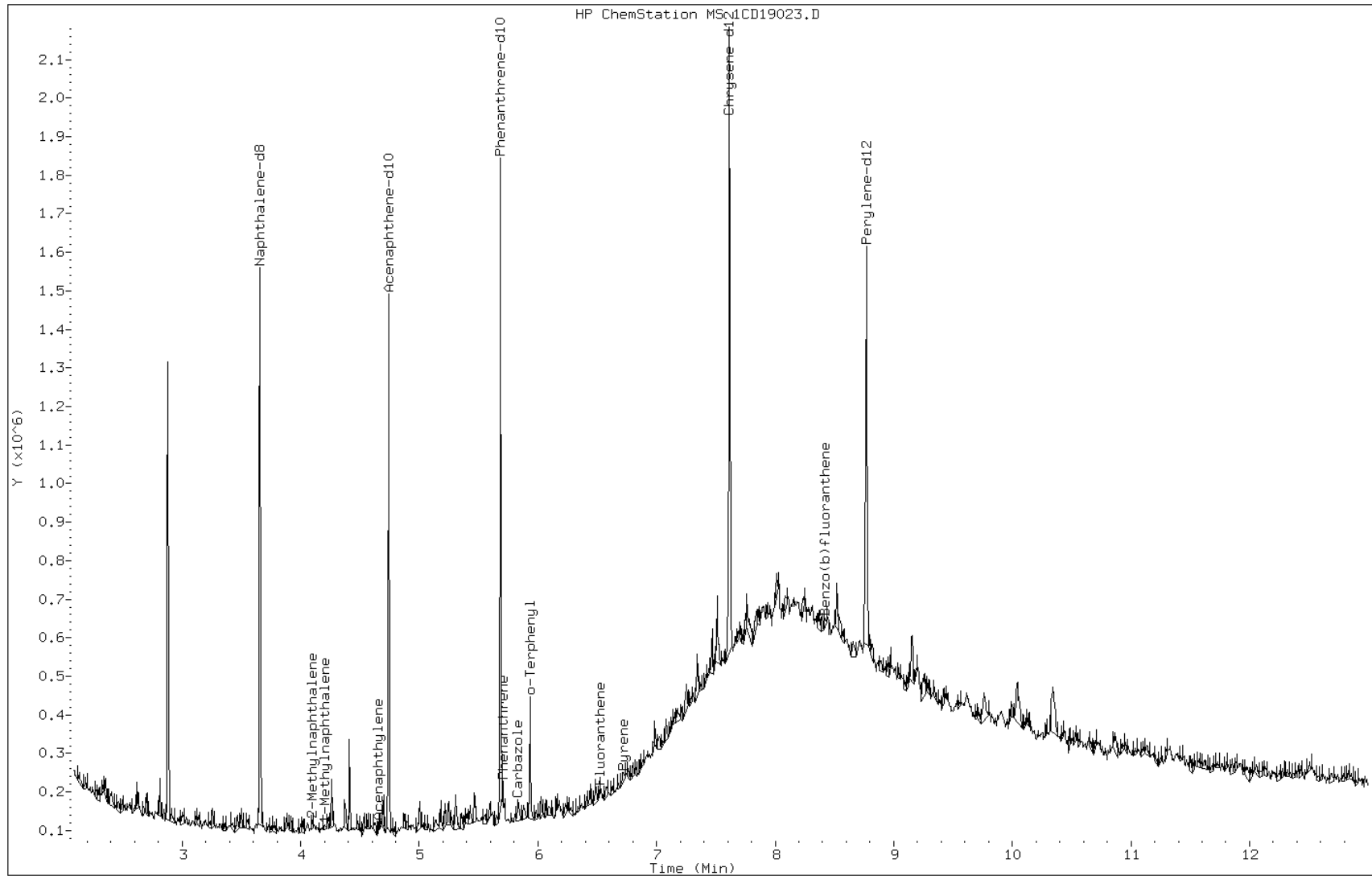
Date: 19-APR-2013 17:52

Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC





Data File: 1CD19023.D

Date: 19-APR-2013 17:52

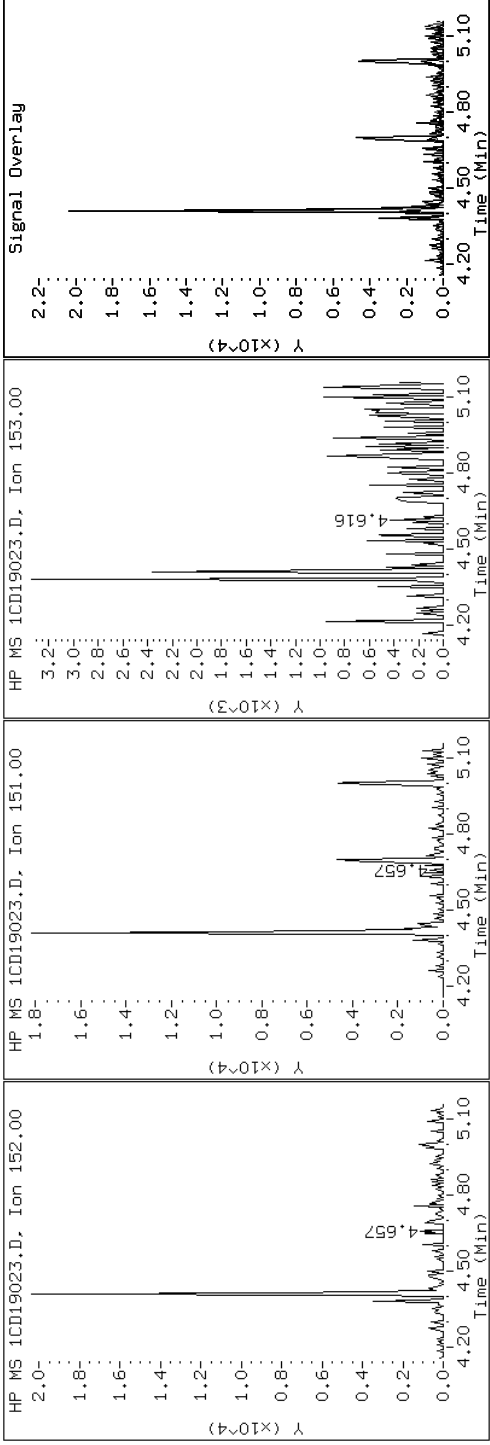
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

5 Acenaphthylene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

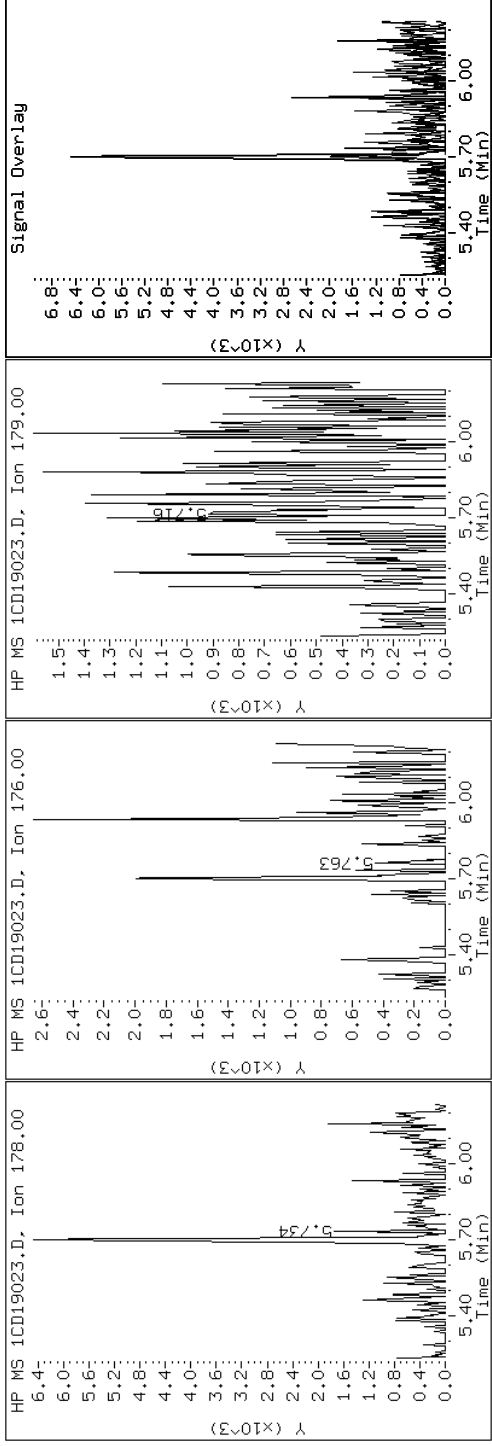
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

12 Anthracene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

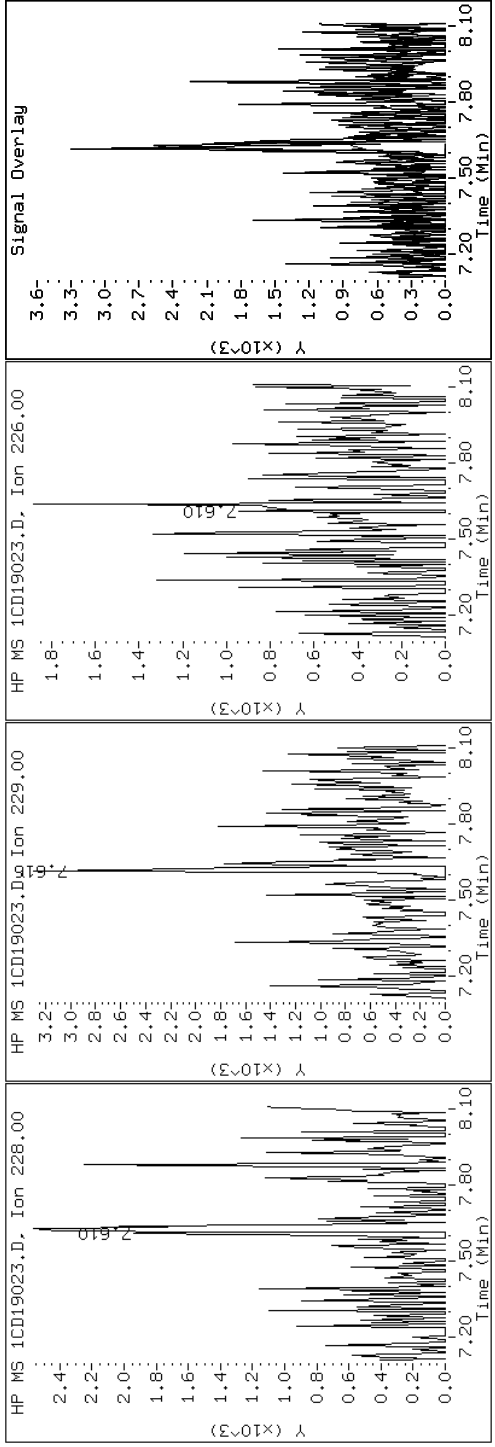
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

17 Benzo(a)anthracene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

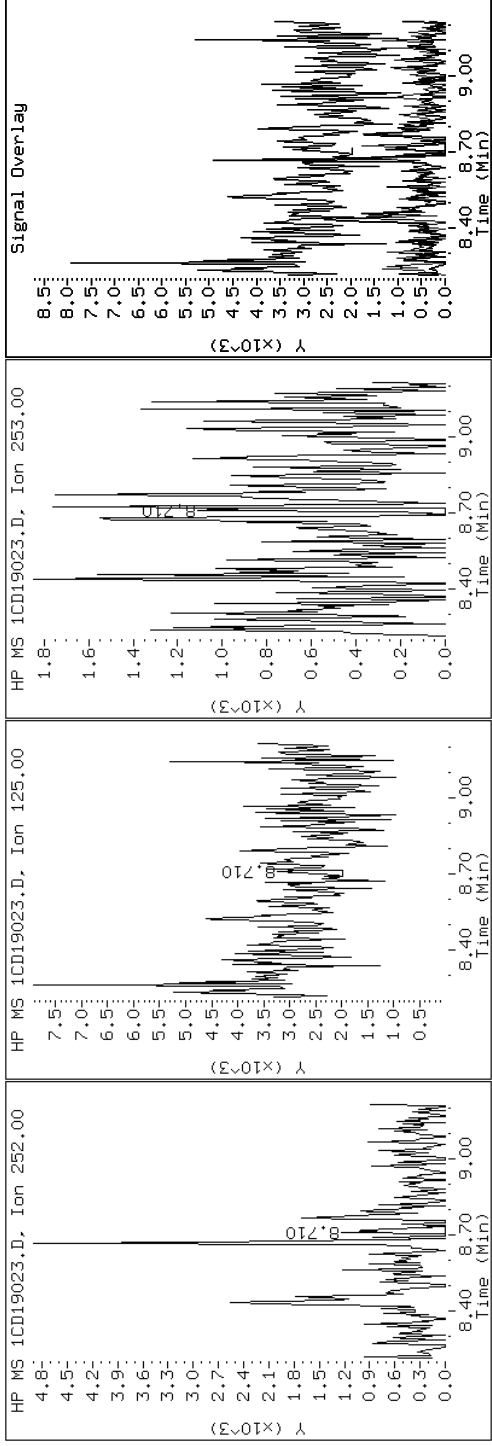
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

22 Benzo(a)pyrene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

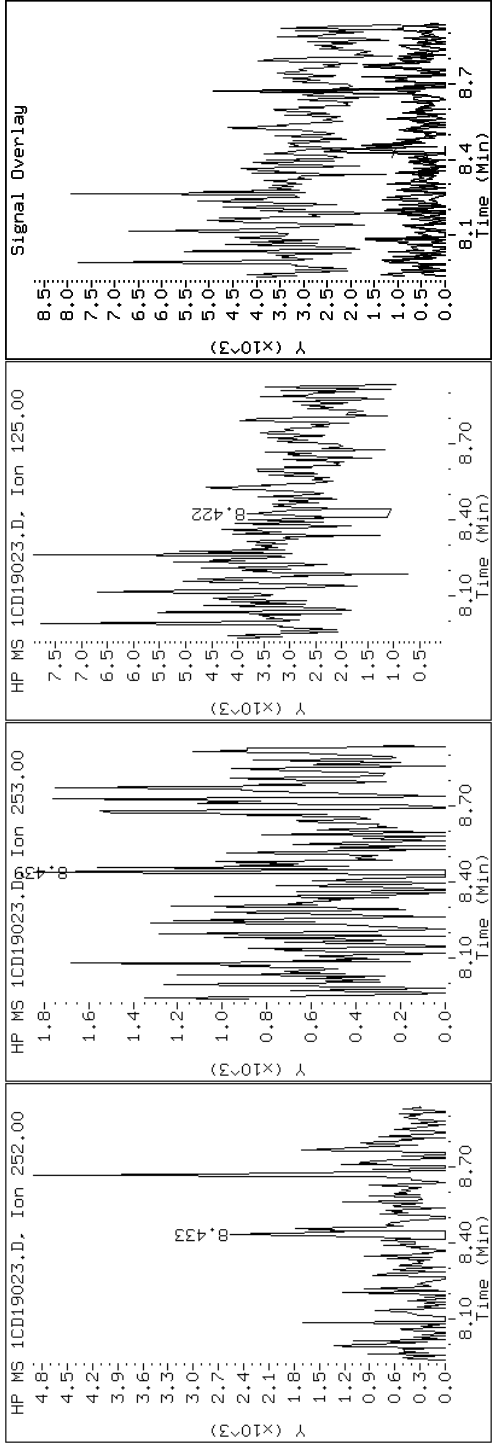
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

20 Benzo(b)fluoranthene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

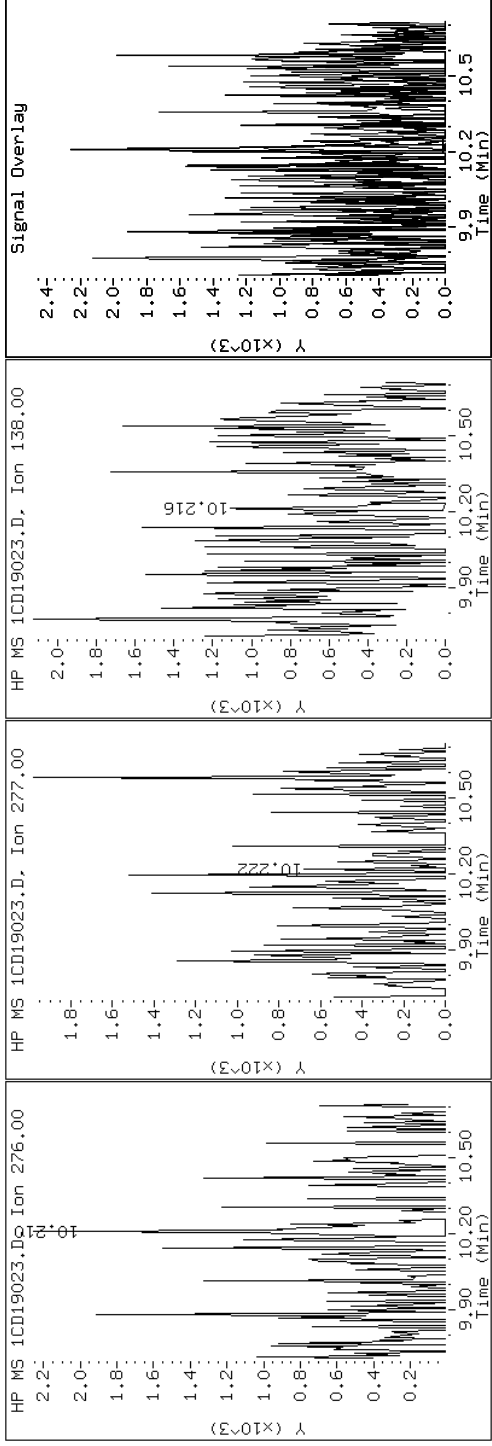
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

26 Benzo(g,h,i)perylene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

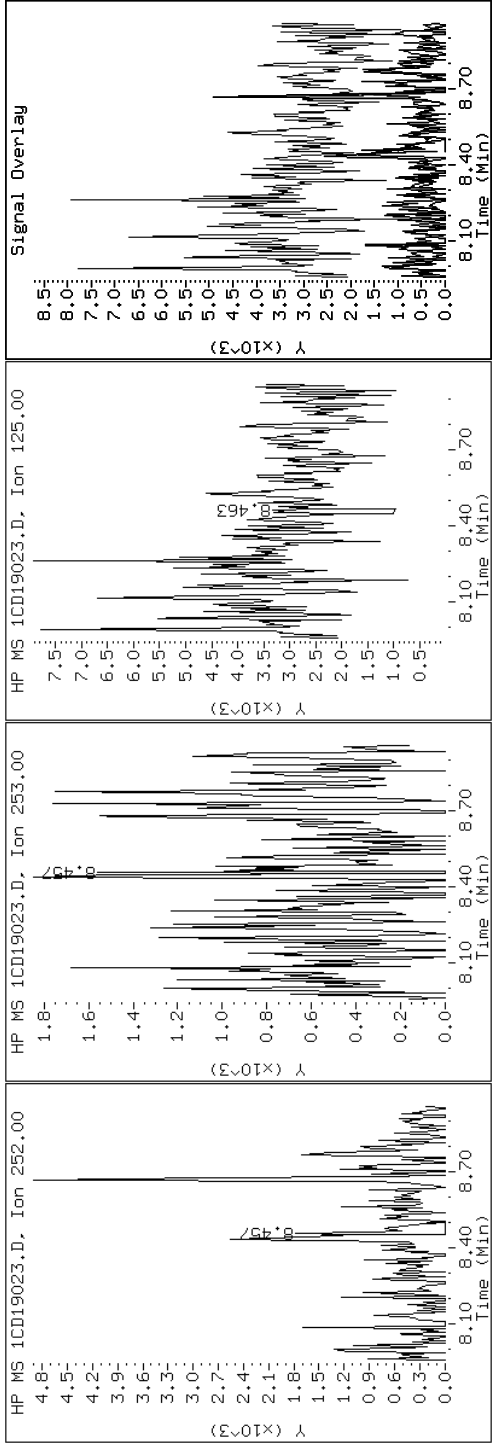
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

21 Benzo(k)fluoranthene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

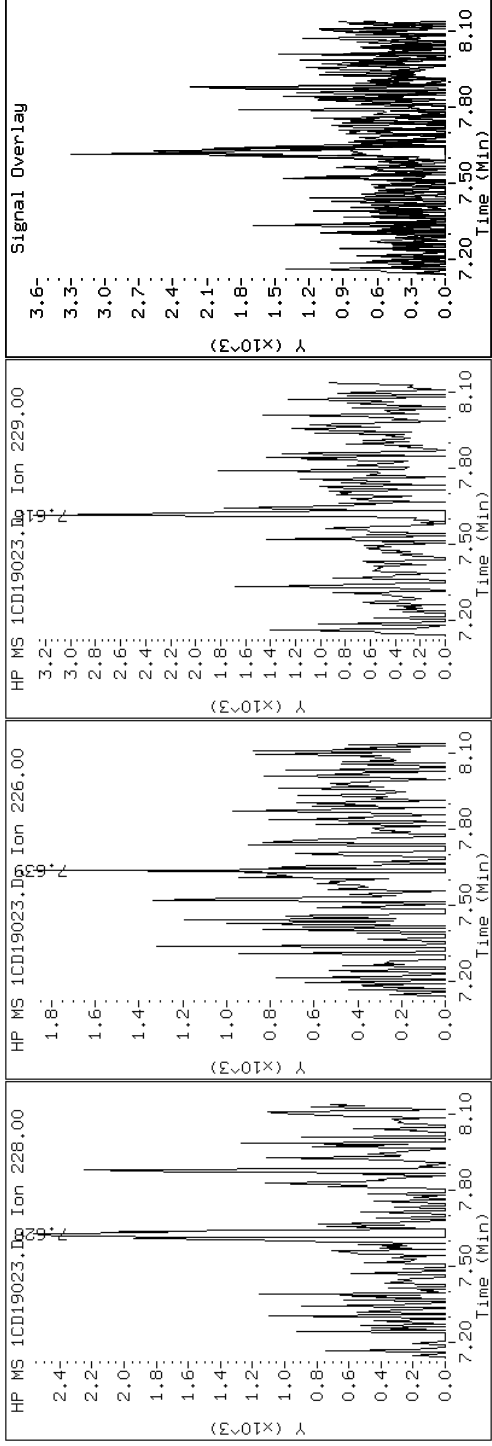
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

19 Chrysene





Data File: 1CD19023.D

Date: 19-APR-2013 17:52

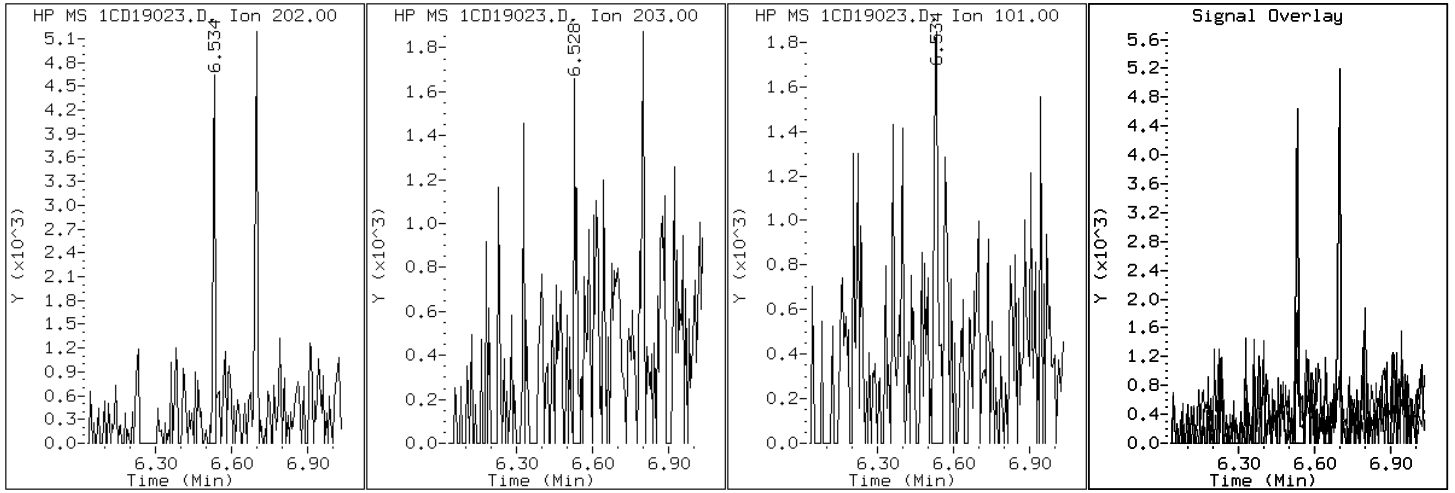
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

15 Fluoranthene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

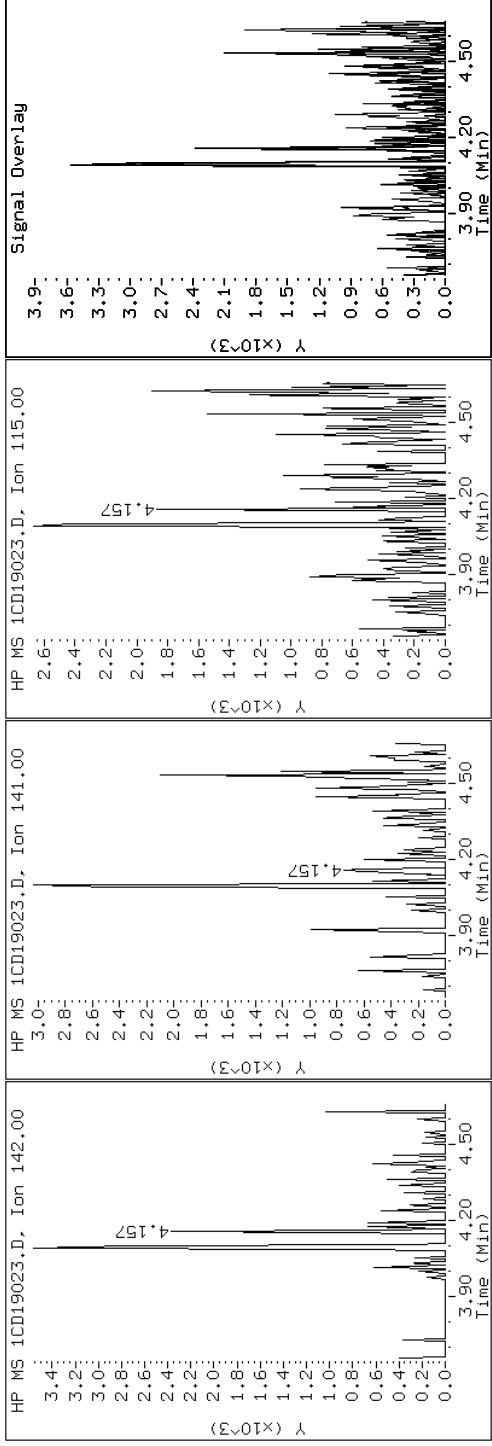
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

4 1-Methylnaphthalene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

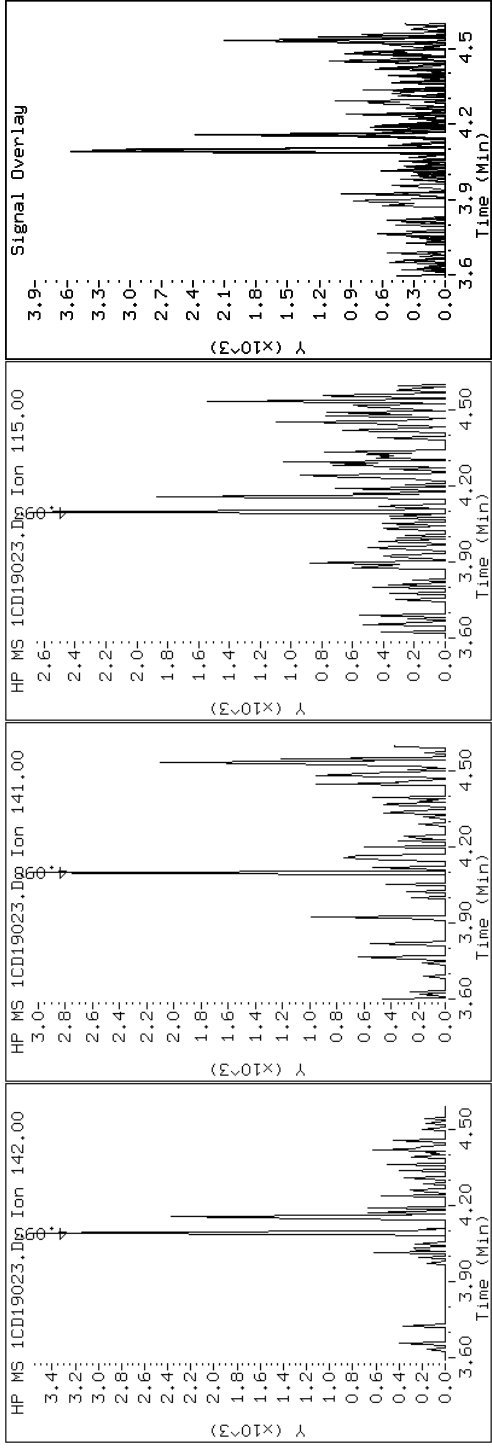
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

### 3 2-Methylnaphthalene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

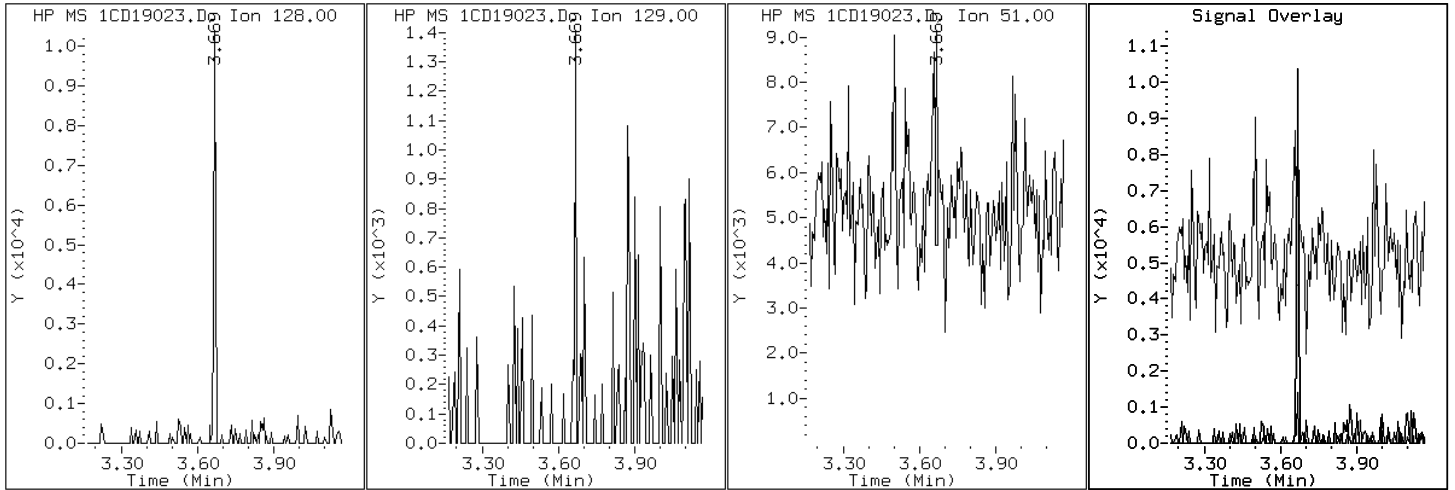
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

2 Naphthalene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

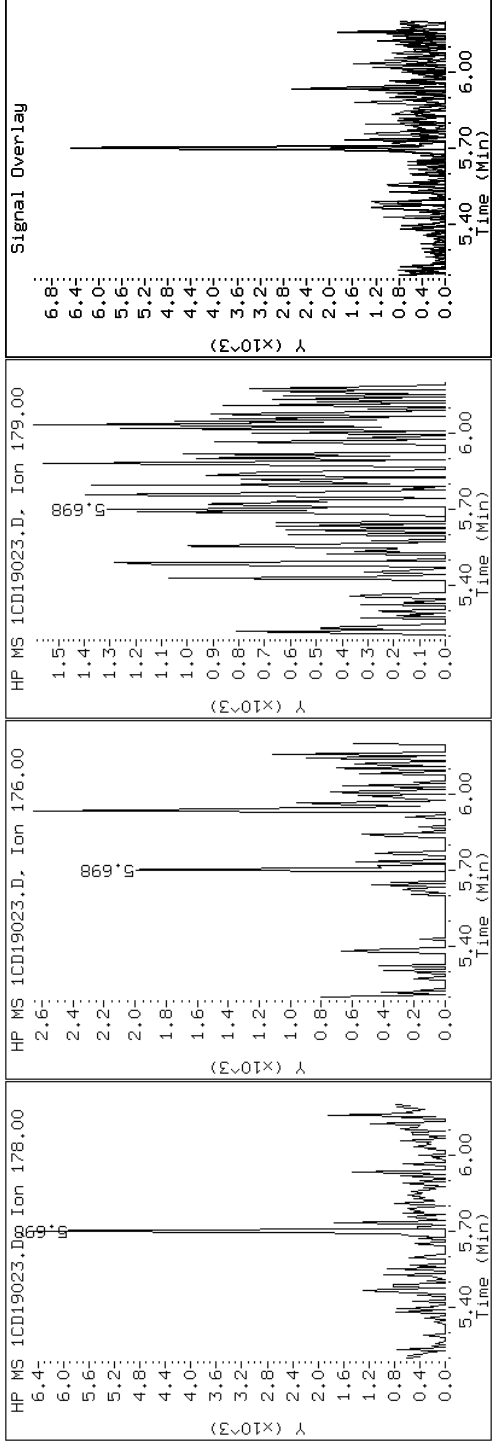
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

11 Phenanthrene



Data File: 1CD19023.D

Date: 19-APR-2013 17:52

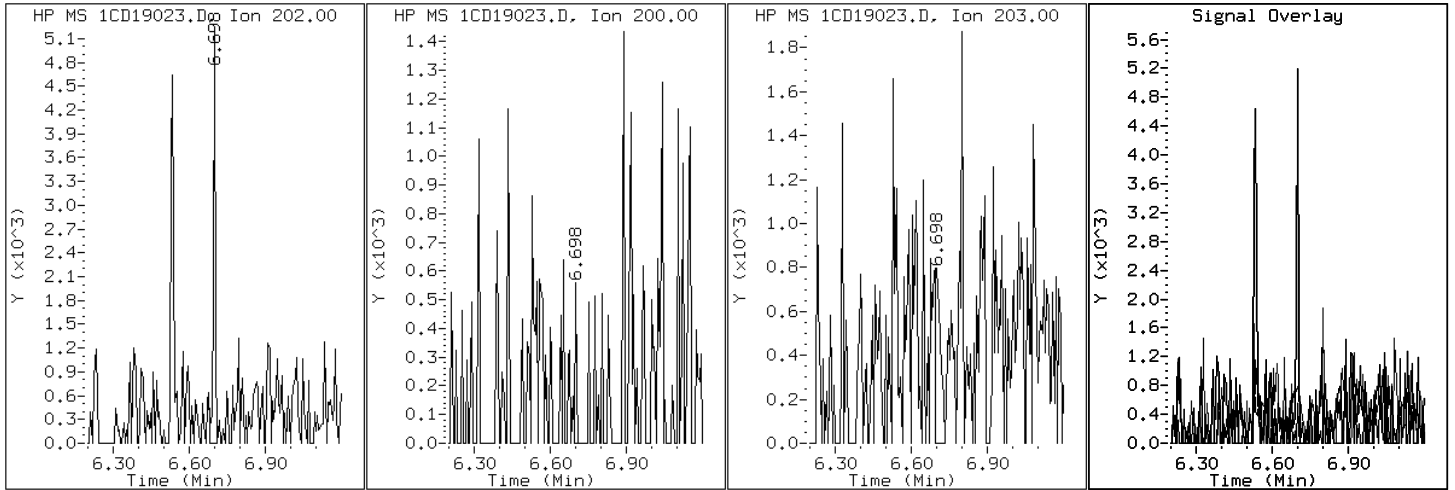
Client ID: HP0283C-CS-SP

Instrument: BSMC5973.i

Sample Info: 680-89220-a-44-a

Operator: SCC

16 Pyrene

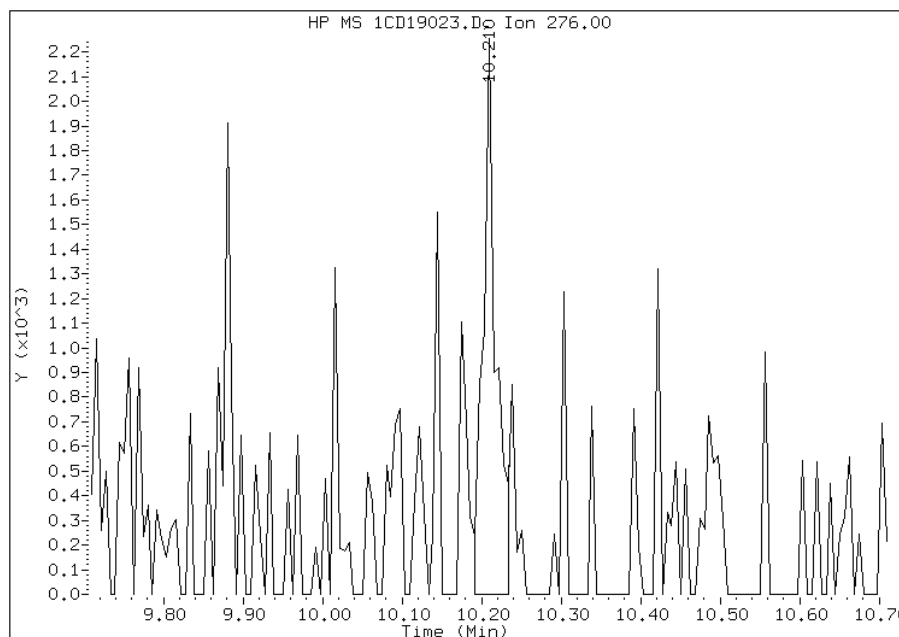


# Manual Integration Report

Data File: 1CD19023.D  
Inj. Date and Time: 19-APR-2013 17:52  
Instrument ID: BSMC5973.i  
Client ID: HP0283C-CS-SP  
Compound: 26 Benzo(g,h,i)perylene  
CAS #: 191-24-2  
Report Date: 04/22/2013

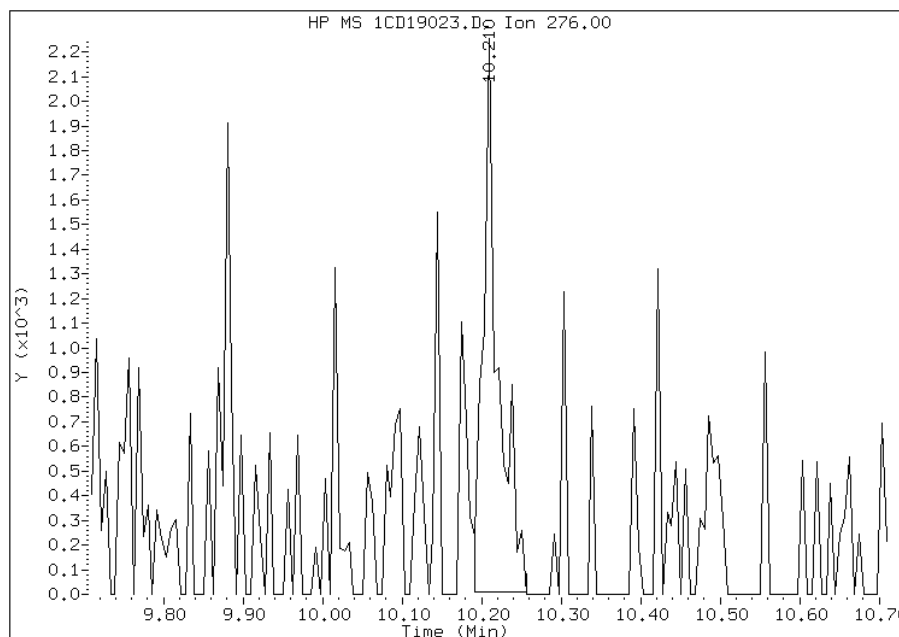
## Processing Integration Results

RT: 10.21  
Response: 2545  
Amount: 0  
Conc: 32



## Manual Integration Results

RT: 10.21  
Response: 2947  
Amount: 0  
Conc: 37



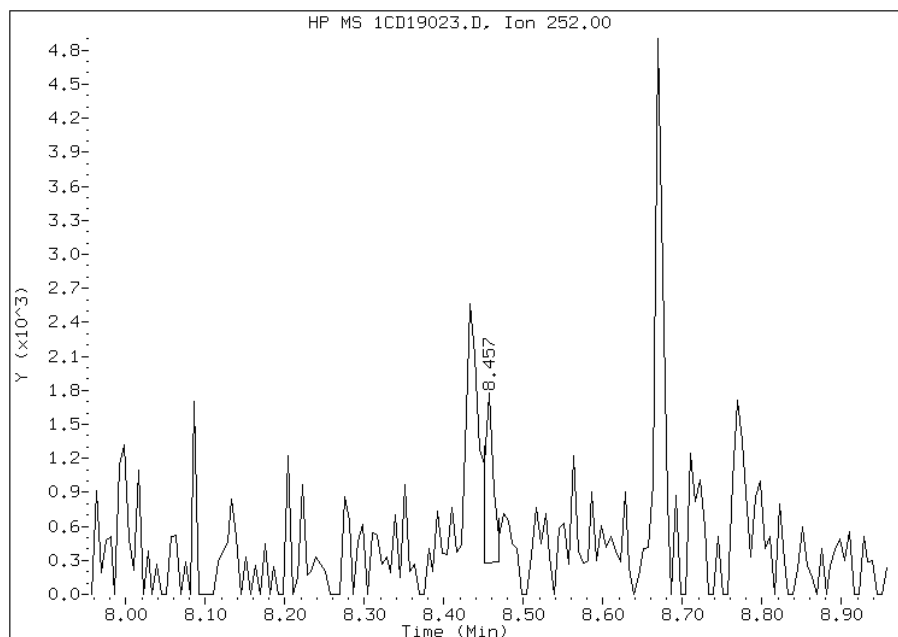
Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:57  
Manual Integration Reason: Baseline Event

# Manual Integration Report

Data File: 1CD19023.D  
Inj. Date and Time: 19-APR-2013 17:52  
Instrument ID: BSMC5973.i  
Client ID: HP0283C-CS-SP  
Compound: 21 Benzo(k)fluoranthene  
CAS #: 207-08-9  
Report Date: 04/22/2013

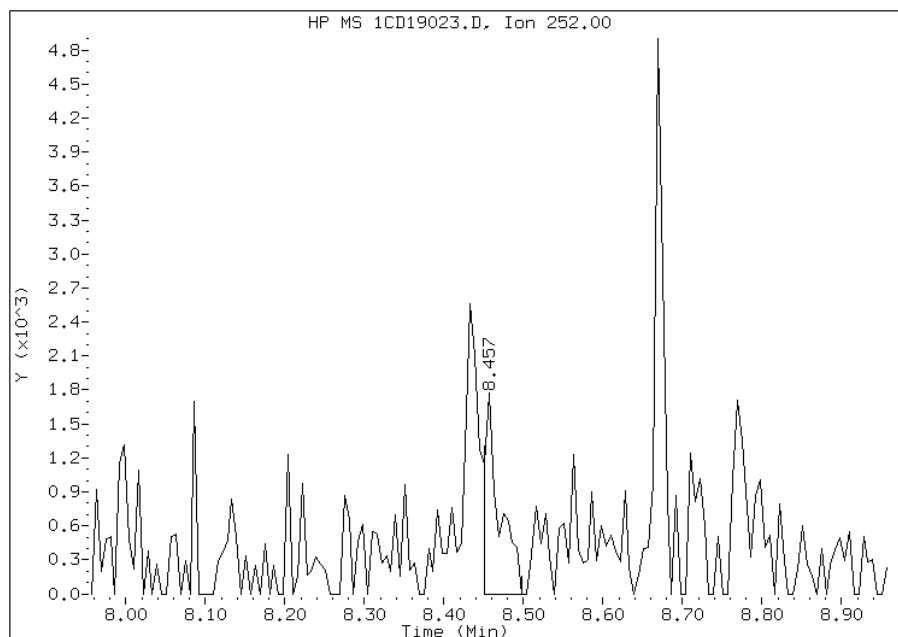
## Processing Integration Results

RT: 8.46  
Response: 1130  
Amount: 0  
Conc: 12



## Manual Integration Results

RT: 8.46  
Response: 2324  
Amount: 0  
Conc: 25



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:57  
Manual Integration Reason: Baseline Event



FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Tampa Job No.: 680-89220-3 Analy Batch No.: 136370

SDG No.: 68089220-3

Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2013 11:56 Calibration End Date: 04/11/2013 14:06 Calibration ID: 2882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 660-136370/4	1CD11004.D
Level 2	IC 660-136370/5	1CD11005.D
Level 3	IC 660-136370/6	1CD11006.D
Level 4	IC 660-136370/7	1CD11007.D
Level 5	ICIS 660-136370/3	1CD11003.D
Level 6	IC 660-136370/8	1CD11008.D
Level 7	IC 660-136370/9	1CD11009.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Naphthalene	1.0403 1.0845	1.1154 1.0398	1.1255	1.0833	1.0799	Ave		1.0813			0.0000	3.1		15.0			
2-Methylnaphthalene	0.4518 0.7139	0.7915 0.7215	0.6274	0.6964	0.7086	Lin	0.0068	0.7231			0.0000				0.9998		0.9900
1-Methylnaphthalene	0.8501 0.6677	0.6263 0.6578	0.7166	0.6190	0.6973	Ave		0.6907			0.0000	11.4		15.0			
Acenaphthylene	1.6419 1.8703	1.3506 1.6568	1.8874	1.7159	1.7417	Ave		1.6949			0.0000	10.6		15.0			
Acenaphthene	0.9825 1.0658	0.8838 1.0336	1.0463	1.1258	1.0124	Ave		1.0214			0.0000	7.4		15.0			
Fluorene	1.4896 1.3834	0.9662 1.2871	1.3197	1.3886	1.2644	Ave		1.2999			0.0000	12.7		15.0			
Phenanthrene	2.1565 1.1836	1.0586 1.1536	1.1958	1.1594	1.1404	Qua	0.0002	0.8500	0.0102		0.0000				0.9997		0.9900
Anthracene	1.0455 1.1188	1.2005 1.2175	1.1643	1.1719	1.2102	Ave		1.1612			0.0000	5.3		15.0			
Carbazole	1.3254 1.0648	0.9055 1.0829	1.1357	1.0658	0.9905	Ave		1.0815			0.0000	12.1		15.0			
Fluoranthene	1.1179 1.2730	1.3921 1.3602	1.2694	1.3341	1.3364	Ave		1.2976			0.0000	7.0		15.0			
Pyrene	1.2897 1.1555	0.9972 1.1333	1.1447	1.1276	1.1177	Ave		1.1380			0.0000	7.5		15.0			
Benzo[a]anthracene	1.8552 1.1480	1.4389 1.1253	1.1508	1.0977	1.1349	LinF		1.1311			0.0000				0.9998		0.9900
Chrysene	1.1739 1.1646	0.9735 1.1563	1.1877	1.0757	1.1010	Ave		1.1190			0.0000	6.8		15.0			
Benzo[b]fluoranthene	0.7438 1.0730	0.9477 1.0842	1.1078	1.0038	1.1118	Ave		1.0103			0.0000	13.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Tampa Job No.: 680-89220-3 Analy Batch No.: 136370

SDG No.: 68089220-3

Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2013 11:56 Calibration End Date: 04/11/2013 14:06 Calibration ID: 2882

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Benzo[k]fluoranthene	1.0957 1.1960	1.0347 1.3382	1.1426	1.1475	1.0478	Ave		1.1432			0.0000	9.0		15.0			
Benzo[a]pyrene	1.0857 1.0737	0.9221 1.1530	1.0427	1.0583	0.9747	Ave		1.0443			0.0000	7.2		15.0			
Indeno[1,2,3-cd]pyrene	1.4093 0.9346	0.8576 1.0494	0.9853	0.8955	1.0192	Lin	0.0160	1.0375			0.0000				0.9958		0.9900
Dibenz(a,h)anthracene	1.3482 0.9834	0.8948 1.0265	0.9138	0.9357	0.9949	Lin	0.0112	1.0243			0.0000				0.9993		0.9900
Benzo[g,h,i]perylene	0.7587 0.9881	1.0764 1.0165	0.9898	1.0387	0.9838	Ave		0.9789			0.0000	10.5		15.0			
o-Terphenyl	0.2006 0.5933	0.7698 0.6744	0.6516	0.6045	0.6070	Lin	0.0172	0.6624			0.0000				0.9945		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Tampa Job No.: 680-89220-3 Analy Batch No.: 136370

SDG No.: 68089220-3

Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2013 11:56 Calibration End Date: 04/11/2013 14:06 Calibration ID: 2882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 660-136370/4	1CD11004.D
Level 2	IC 660-136370/5	1CD11005.D
Level 3	IC 660-136370/6	1CD11006.D
Level 4	IC 660-136370/7	1CD11007.D
Level 5	ICIS 660-136370/3	1CD11003.D
Level 6	IC 660-136370/8	1CD11008.D
Level 7	IC 660-136370/9	1CD11009.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Naphthalene	NPT	Ave	1285 178326	6408 318955	33340	66803	132678	0.200 30.0	1.00 50.0	5.00	10.0	20.0
2-Methylnaphthalene	NPT	Lin	558 117387	4547 221322	18585	42945	87061	0.200 30.0	1.00 50.0	5.00	10.0	20.0
1-Methylnaphthalene	NPT	Ave	1050 109784	3598 201768	21228	38170	85663	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Acenaphthylene	ANT	Ave	1337 212811	5176 370532	39114	69442	156488	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Acenaphthene	ANT	Ave	800 121274	3387 231163	21682	45560	90964	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Fluorene	ANT	Ave	1213 157410	3703 287857	27348	56195	113606	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Phenanthrene	PHN	Qua	3451 259782	7274 472306	47149	85752	182675	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Anthracene	PHN	Ave	1673 245548	8249 498469	45907	86681	193854	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Carbazole	PHN	Ave	2121 233698	6222 443362	44777	78836	158666	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Fluoranthene	PHN	Ave	1789 279401	9565 556889	50052	98679	214080	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Pyrene	CRY	Ave	2372 307735	8697 619923	55349	104590	229647	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Benzo[a]anthracene	CRY	LinF	3412 305726	12549 615507	55643	101817	233188	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Chrysene	CRY	Ave	2159 310162	8490 632502	57430	99776	226221	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Benzo[b]fluoranthene	PRY	Ave	1499 299492	9159 576085	56470	93677	243941	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Benzo[k]fluoranthene	PRY	Ave	2208 333825	10000 711099	58242	107089	229890	0.200 30.0	1.00 50.0	5.00	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Tampa Job No.: 680-89220-3 Analy Batch No.: 136370

SDG No.: 68089220-3

Instrument ID: BSMC5973 GC Column: DB-5MS ID: 250 (um) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2013 11:56 Calibration End Date: 04/11/2013 14:06 Calibration ID: 2882

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Benzo[a]pyrene	PRY	Ave	2188 299708	8912 612644	53152	98767	213852	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Indeno[1,2,3-cd]pyrene	PRY	Lin	2840 260884	8288 557635	50225	83577	223617	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Dibenz(a,h)anthracene	PRY	Lin	2717 274497	8648 545458	46577	87325	218275	0.200 30.0	1.00 50.0	5.00	10.0	20.0
Benzo[g,h,i]perylene	PRY	Ave	1529 275805	10403 540151	50451	96936	215845	0.200 30.0	1.00 50.0	5.00	10.0	20.0
o-Terphenyl	PHN	Lin	321 130217	5289 276100	25692	44711	97236	0.200 30.0	1.00 50.0	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD  
Lin = Linear ISTD  
LinF = Linear ISTD forced zero  
Qua = Quadratic ISTD

TestAmerica Laboratories

Semivolatile 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11003.D  
 Lab Smp Id: CCVIS-1531401  
 Inj Date : 11-APR-2013 11:56  
 Operator : SCC  
 Smp Info : CCVIS-1531401  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:38 BSMC5973.i Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 3 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)
* 1 Naphthalene-d8	136	3.675	3.675	(1.000)	245713	40.0000	
* 6 Acenaphthene-d10	164	4.763	4.763	(1.000)	179699	40.0000	
* 10 Phenanthrene-d10	188	5.704	5.704	(1.000)	320372	40.0000	
\$ 14 o-Terphenyl	230	5.957	5.957	(1.044)	97236	20.0000	19.0180
* 18 Chrysene-d12	240	7.645	7.645	(1.000)	410945	40.0000	
* 23 Perylene-d12	264	8.804	8.804	(1.000)	438804	40.0000	
2 Naphthalene	128	3.686	3.686	(1.003)	132678	20.0000	19.9755
3 2-Methylnaphthalene	142	4.116	4.116	(1.120)	87061	20.0000	21.0586
4 1-Methylnaphthalene	142	4.175	4.175	(1.136)	85663	20.0000	20.1908
5 Acenaphthylene	152	4.674	4.674	(0.981)	156488	20.0000	20.5512
7 Acenaphthene	154	4.780	4.780	(1.004)	90964	20.0000	19.3885
9 Fluorene	166	5.104	5.104	(1.072)	113606	20.0000	19.4543
11 Phenanthrene	178	5.721	5.721	(1.003)	182675	20.0000	17.6453
12 Anthracene	178	5.757	5.757	(1.009)	193854	20.0000	20.8428
13 Carbazole	167	5.863	5.863	(1.028)	158666	20.0000	18.3169
15 Fluoranthene	202	6.557	6.557	(1.150)	214080	20.0000	20.5986
16 Pyrene	202	6.721	6.721	(0.879)	229647	20.0000	19.6431
17 Benzo(a)anthracene	228	7.633	7.633	(0.998)	233188	20.0000	20.0156
19 Chrysene	228	7.663	7.663	(1.002)	226221	20.0000	19.6785
20 Benzo(b)fluoranthene	252	8.468	8.468	(0.962)	243941	20.0000	22.0102
21 Benzo(k)fluoranthene	252	8.486	8.486	(0.964)	229890	20.0000	18.3309
22 Benzo(a)pyrene	252	8.751	8.751	(0.994)	213852	20.0000	18.6665
24 Indeno(1,2,3-cd)pyrene	276	9.927	9.927	(1.128)	223617	20.0000	19.9538(M)
25 Dibenzo(a,h)anthracene	278	9.945	9.945	(1.130)	218275	20.0000	19.6244
26 Benzo(g,h,i)perylene	276	10.262	10.262	(1.166)	215845	20.0000	20.1007

QC Flag Legend

M - Compound response manually integrated.

Data File: 1CD11003.D

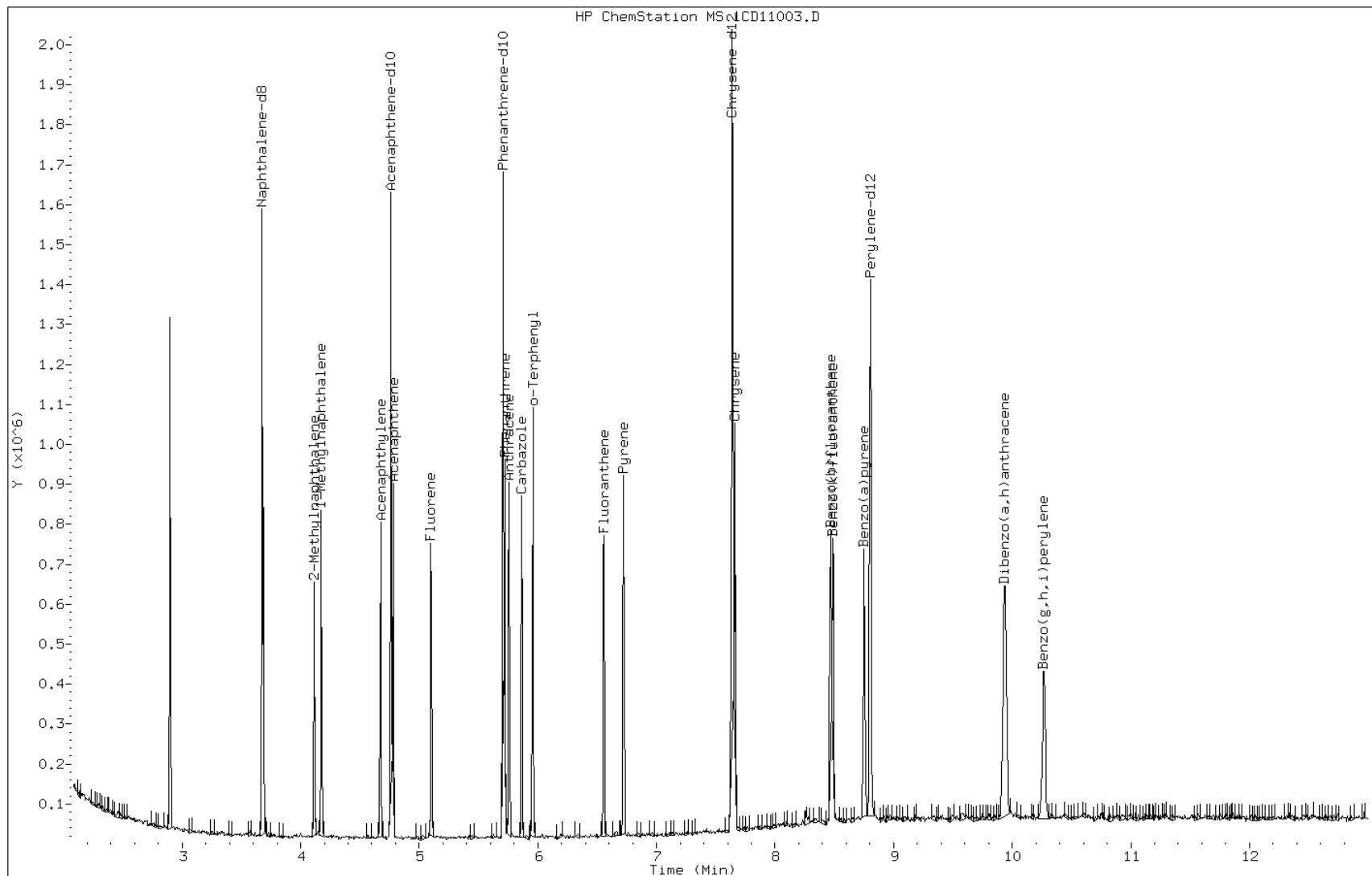
Date: 11-APR-2013 11:56

Client ID:

Instrument: BSMC5973.i

Sample Info: ICIS-1531401

Operator: SCC

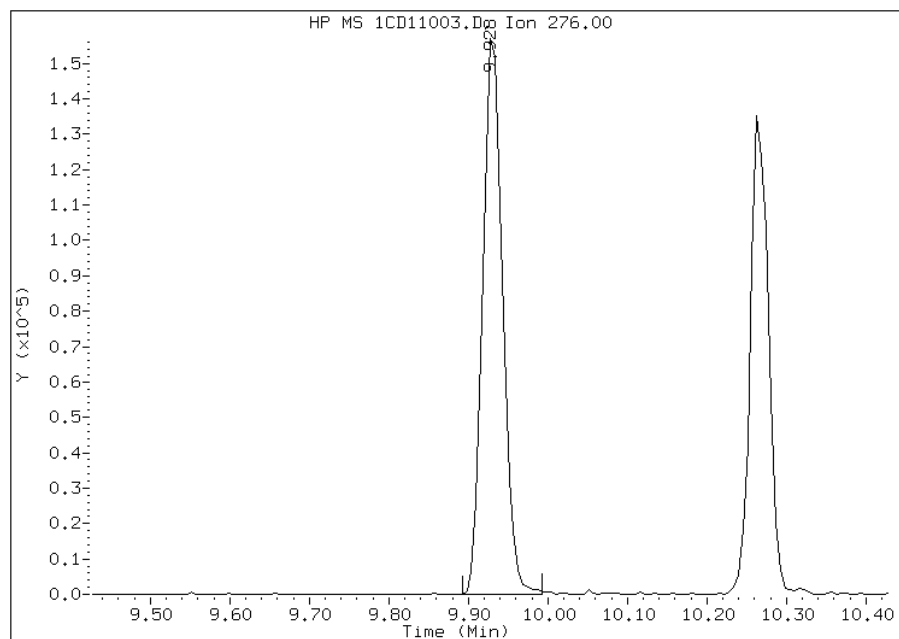


# Manual Integration Report

Data File: 1CD11003.D  
Inj. Date and Time: 11-APR-2013 11:56  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/11/2013

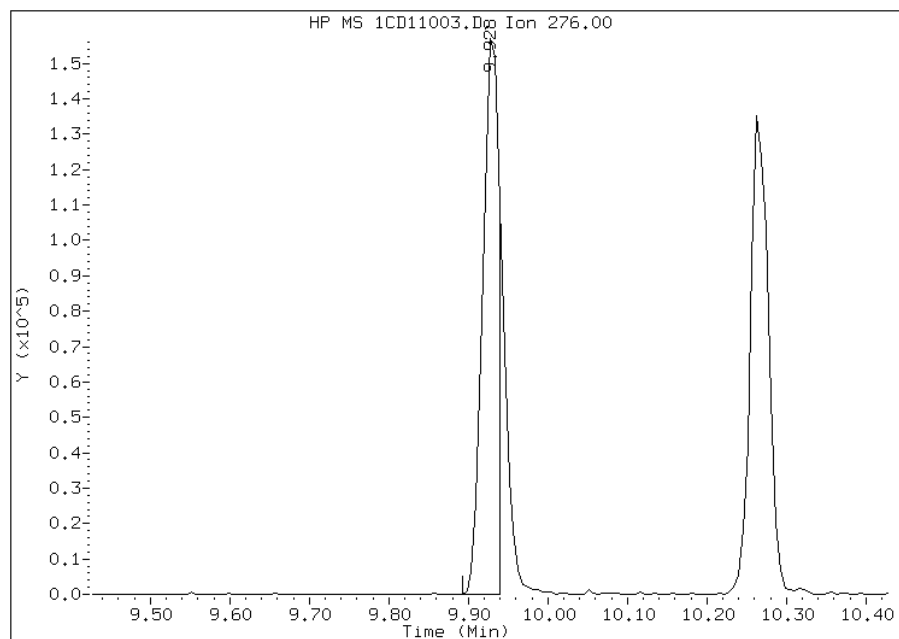
## Processing Integration Results

RT: 9.93  
Response: 271031  
Amount: 23  
Conc: 23



## Manual Integration Results

RT: 9.93  
Response: 223617  
Amount: 20  
Conc: 20



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 12:40  
Manual Integration Reason: Split Peak

TestAmerica Laboratories

Semivolatile 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11004.D  
 Lab Smp Id: IC-1531396  
 Inj Date : 11-APR-2013 12:35  
 Operator : SCC  
 Smp Info : IC-1531396  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:38 BSMC5973.i Quant Type: ISTD  
 Cal Date : 11-APR-2013 11:56 Cal File: 1CD11003.D  
 Als bottle: 4 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT	SIG	AMOUNTS					ON-COL
			MASS	RT	EXP RT	REL RT	RESPONSE	
* 1 Naphthalene-d8	136		3.674	3.674	(1.000)	247033	40.0000	
* 6 Acenaphthene-d10	164		4.763	4.763	(1.000)	162858	40.0000	
* 10 Phenanthrene-d10	188		5.721	5.721	(1.000)	320053	40.0000	(H)
\$ 14 o-Terphenyl	230		5.980	5.980	(1.045)	321	0.20000	0.7502(Q)
* 18 Chrysene-d12	240		7.656	7.656	(1.000)	367836	40.0000	
* 23 Perylene-d12	264		8.827	8.827	(1.000)	403046	40.0000	
2 Naphthalene	128		3.686	3.686	(1.003)	1285	0.20000	0.1924(Q)
3 2-Methylnaphthalene	142		4.116	4.116	(1.120)	558	0.20000	0.1342(Q)
4 1-Methylnaphthalene	142		4.180	4.180	(1.138)	1050	0.20000	0.2461(Q)
5 Acenaphthylene	152		4.680	4.680	(0.983)	1337	0.20000	0.1937
7 Acenaphthene	154		4.786	4.786	(1.005)	800	0.20000	0.0720
9 Fluorene	166		5.110	5.110	(1.073)	1213	0.20000	0.2291
11 Phenanthrene	178		5.733	5.733	(1.002)	3451	0.20000	0.3336
12 Anthracene	178		5.768	5.768	(1.008)	1673	0.20000	0.1800(H)
13 Carbazole	167		5.880	5.880	(1.028)	2121	0.20000	0.2450
15 Fluoranthene	202		6.562	6.562	(1.147)	1789	0.20000	0.1723
16 Pyrene	202		6.733	6.733	(0.879)	2372	0.20000	0.2266
17 Benzo(a)anthracene	228		7.651	7.651	(0.999)	3412	0.20000	0.2031
19 Chrysene	228		7.674	7.674	(1.002)	2159	0.20000	0.2098
20 Benzo(b)fluoranthene	252		8.498	8.498	(0.963)	1499	0.20000	0.1472
21 Benzo(k)fluoranthene	252		8.509	8.509	(0.964)	2208	0.20000	0.1916
22 Benzo(a)pyrene	252		8.774	8.774	(0.994)	2188	0.20000	0.2079
24 Indeno(1,2,3-cd)pyrene	276		9.956	9.956	(1.128)	2840	0.20000	0.2759
25 Dibenzo(a,h)anthracene	278		9.980	9.980	(1.131)	2717	0.20000	0.2659
26 Benzo(g,h,i)perylene	276		10.286	10.286	(1.165)	1529	0.20000	0.1550(M)

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.



Data File: 1CD11004.D

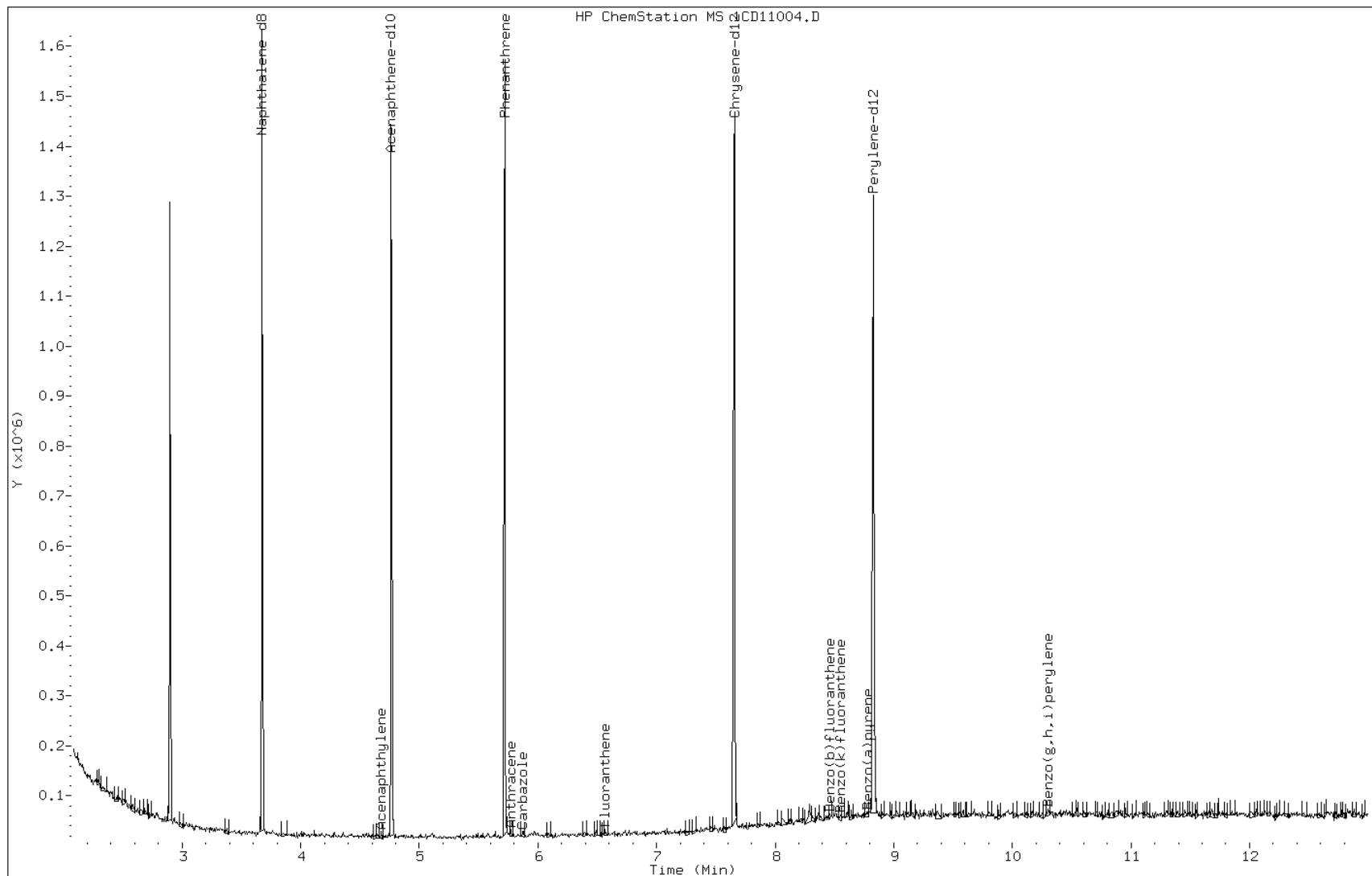
Date: 11-APR-2013 12:35

Client ID:

Instrument: BSMC5973.i

Sample Info: IC-1531396

Operator: SCC

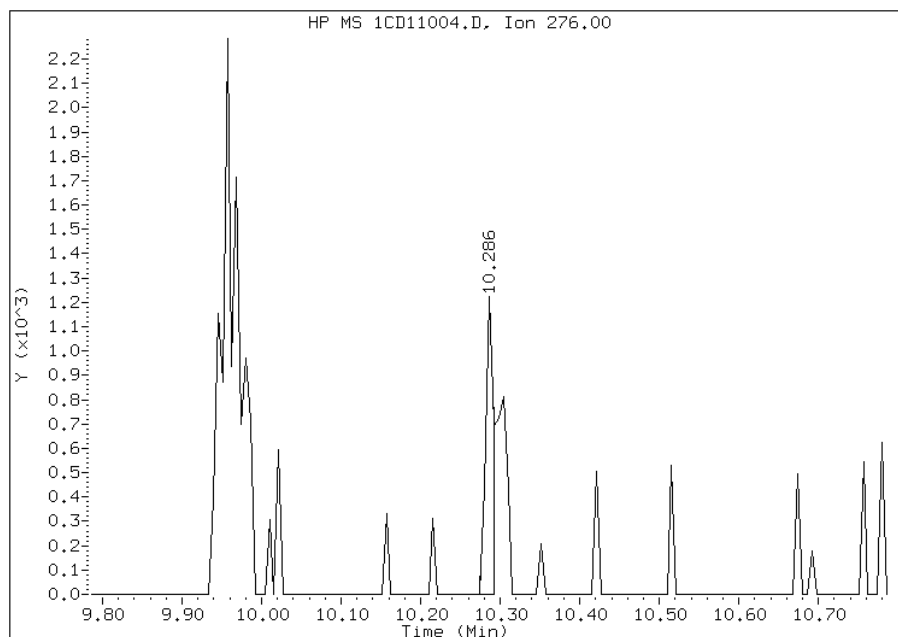


# Manual Integration Report

Data File: 1CD11004.D  
Inj. Date and Time: 11-APR-2013 12:35  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 26 Benzo(g,h,i)perylene  
CAS #: 191-24-2  
Report Date: 04/11/2013

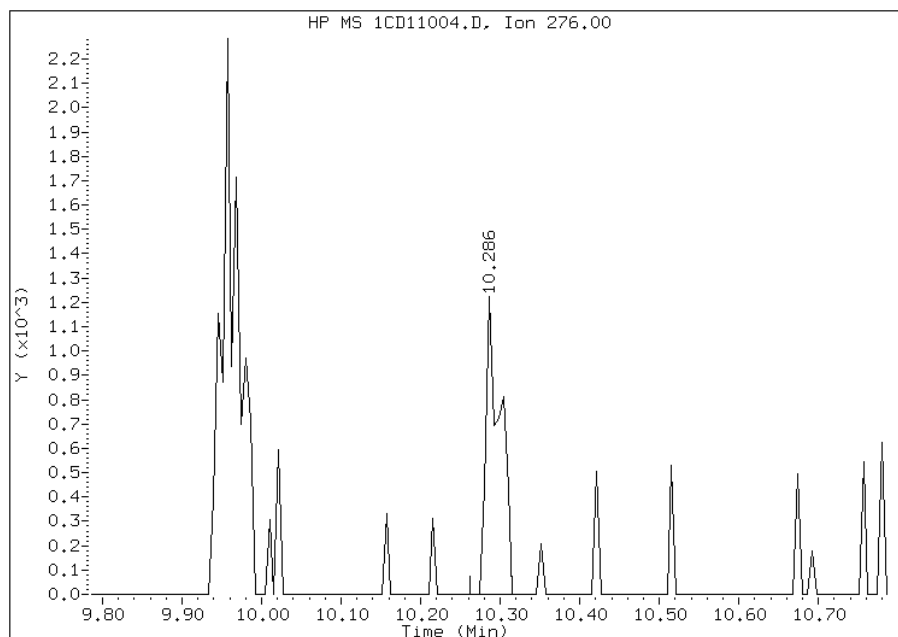
## Processing Integration Results

RT: 10.29  
Response: 832  
Amount: 0  
Conc: 0



## Manual Integration Results

RT: 10.29  
Response: 1529  
Amount: 0  
Conc: 0



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:33  
Manual Integration Reason: Baseline Event

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11005.D  
 Lab Smp Id: IC-1531398  
 Inj Date : 11-APR-2013 12:53  
 Operator : SCC  
 Smp Info : IC-1531398  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:38 BSMC5973.i Quant Type: ISTD  
 Cal Date : 11-APR-2013 12:35 Cal File: 1CD11004.D  
 Als bottle: 5 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)
* 1 Naphthalene-d8	136	3.674	3.674	(1.000)	229800	40.0000	
* 6 Acenaphthene-d10	164	4.762	4.762	(1.000)	153294	40.0000	
* 10 Phenanthrene-d10	188	5.704	5.704	(1.000)	274841	40.0000	
\$ 14 o-Terphenyl	230	5.957	5.957	(1.044)	5289	1.00000	1.8517(Q)
* 18 Chrysene-d12	240	7.639	7.639	(1.000)	348851	40.0000	
* 23 Perylene-d12	264	8.803	8.803	(1.000)	386589	40.0000	(H)
2 Naphthalene	128	3.686	3.686	(1.003)	6408	1.00000	1.0315(Q)
3 2-Methylnaphthalene	142	4.110	4.110	(1.118)	4547	1.00000	1.1760(Q)
4 1-Methylnaphthalene	142	4.174	4.174	(1.136)	3598	1.00000	0.9067
5 Acenaphthylene	152	4.674	4.674	(0.981)	5176	1.00000	0.7968
7 Acenaphthene	154	4.780	4.780	(1.004)	3387	1.00000	0.7341
9 Fluorene	166	5.104	5.104	(1.072)	3703	1.00000	0.7433(Q)
11 Phenanthrene	178	5.721	5.721	(1.003)	7274	1.00000	0.8190(H)
12 Anthracene	178	5.757	5.757	(1.009)	8249	1.00000	1.0338
13 Carbazole	167	5.862	5.862	(1.028)	6222	1.00000	0.8372
15 Fluoranthene	202	6.556	6.556	(1.150)	9565	1.00000	1.0728
16 Pyrene	202	6.721	6.721	(0.880)	8697	1.00000	0.8763
17 Benzo(a)anthracene	228	7.633	7.633	(0.999)	12549	1.00000	1.1507
19 Chrysene	228	7.656	7.656	(1.002)	8490	1.00000	0.8699
20 Benzo(b)fluoranthene	252	8.468	8.468	(0.962)	9159	1.00000	0.9380(H)
21 Benzo(k)fluoranthene	252	8.486	8.486	(0.964)	10000	1.00000	0.9050(H)
22 Benzo(a)pyrene	252	8.750	8.750	(0.994)	8912	1.00000	0.8829(H)
24 Indeno(1,2,3-cd)pyrene	276	9.921	9.921	(1.127)	8288	1.00000	0.8394(MH)
25 Dibenzo(a,h)anthracene	278	9.939	9.939	(1.129)	8648	1.00000	0.8825(MH)
26 Benzo(g,h,i)perylene	276	10.262	10.262	(1.166)	10403	1.00000	1.0996

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

Data File: 1CD11005.D

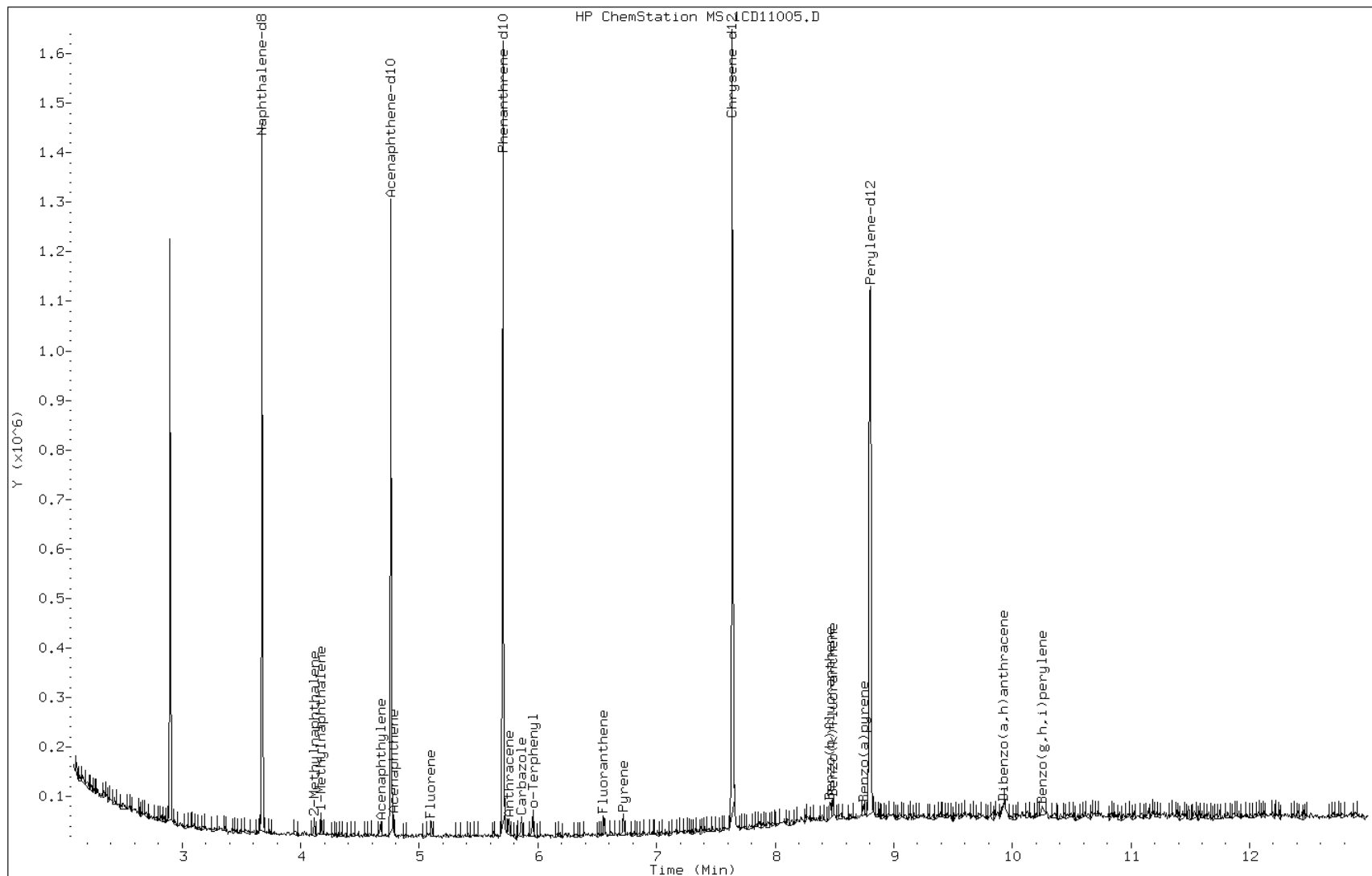
Date: 11-APR-2013 12:53

Client ID:

Instrument: BSMC5973.i

Sample Info: IC-1531398

Operator: SCC

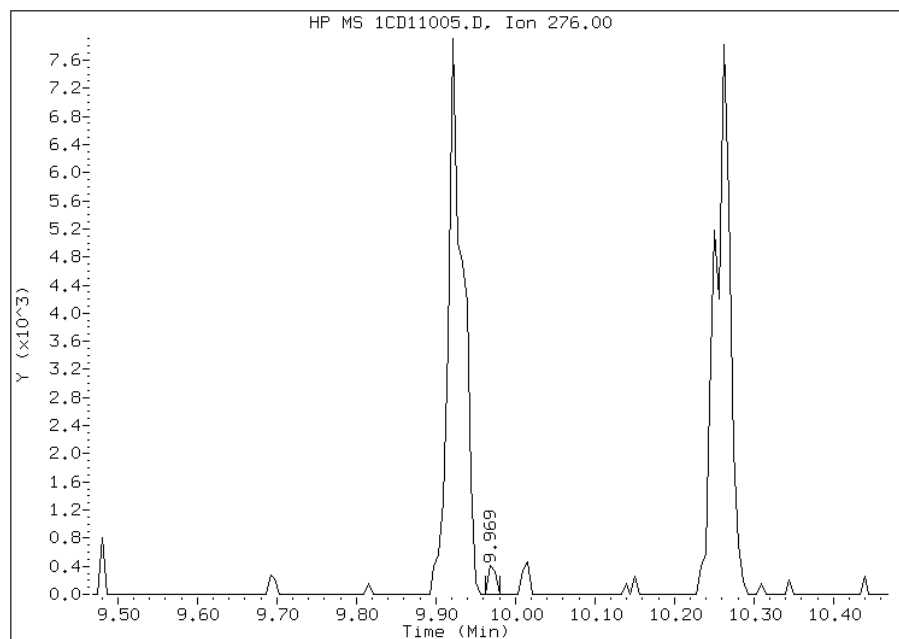


# Manual Integration Report

Data File: 1CD11005.D  
Inj. Date and Time: 11-APR-2013 12:53  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/11/2013

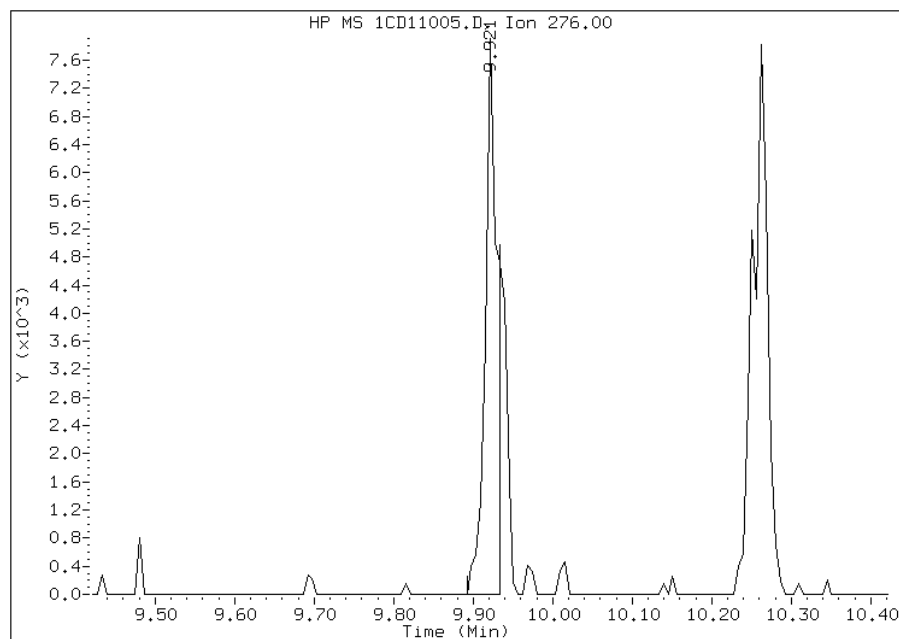
## Processing Integration Results

RT: 9.97  
Response: 260  
Amount: 0  
Conc: 0



## Manual Integration Results

RT: 9.92  
Response: 8288  
Amount: 1  
Conc: 1



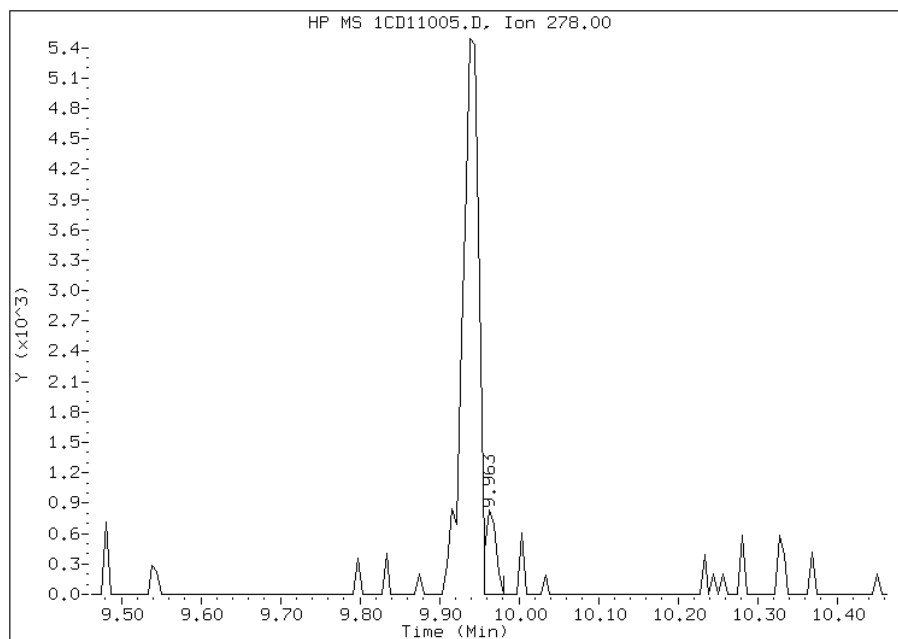
Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:34  
Manual Integration Reason: Split Peak

# Manual Integration Report

Data File: 1CD11005.D  
Inj. Date and Time: 11-APR-2013 12:53  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 25 Dibenzo(a,h)anthracene  
CAS #: 53-70-3  
Report Date: 04/11/2013

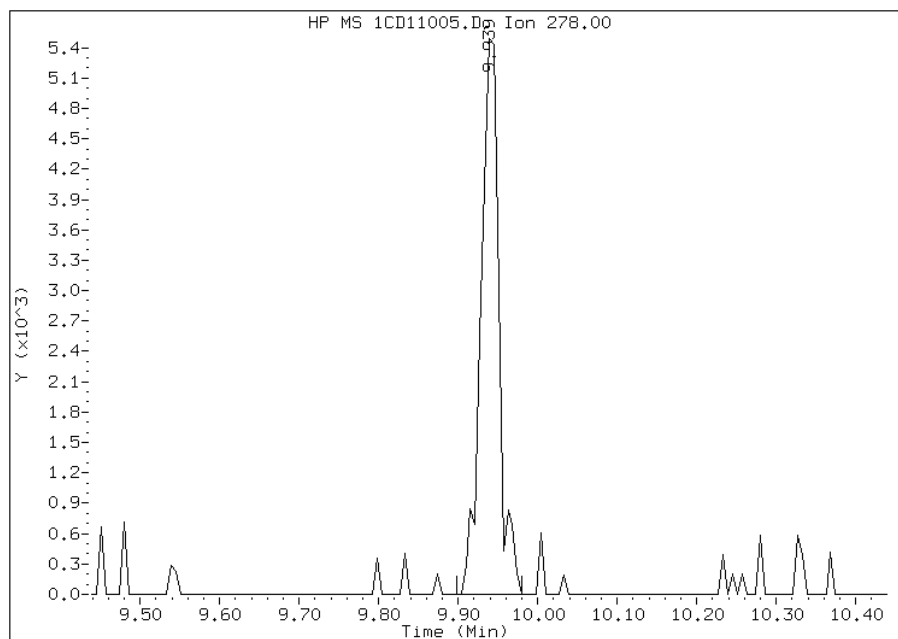
## Processing Integration Results

RT: 9.96  
Response: 764  
Amount: 0  
Conc: 0



## Manual Integration Results

RT: 9.94  
Response: 8648  
Amount: 1  
Conc: 1



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:33  
Manual Integration Reason: Baseline Event

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11006.D  
 Lab Smp Id: IC-1531399  
 Inj Date : 11-APR-2013 13:11  
 Operator : SCC  
 Smp Info : IC-1531399  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:38 BSMC5973.i Quant Type: ISTD  
 Cal Date : 11-APR-2013 12:53 Cal File: 1CD11005.D  
 Als bottle: 6 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)
* 1 Naphthalene-d8	136	3.675	3.675	(1.000)	236973	40.0000	
* 6 Acenaphthene-d10	164	4.763	4.763	(1.000)	165788	40.0000	
* 10 Phenanthrene-d10	188	5.704	5.704	(1.000)	315427	40.0000	
\$ 14 o-Terphenyl	230	5.957	5.957	(1.044)	25692	5.00000	5.6083
* 18 Chrysene-d12	240	7.639	7.639	(1.000)	386829	40.0000	
* 23 Perylene-d12	264	8.798	8.798	(1.000)	407786	40.0000	(H)
2 Naphthalene	128	3.686	3.686	(1.003)	33340	5.00000	5.2046
3 2-Methylnaphthalene	142	4.116	4.116	(1.120)	18585	5.00000	4.6612
4 1-Methylnaphthalene	142	4.175	4.175	(1.136)	21228	5.00000	5.1880
5 Acenaphthylene	152	4.674	4.674	(0.981)	39114	5.00000	5.5677
7 Acenaphthene	154	4.780	4.780	(1.004)	21682	5.00000	4.9222
9 Fluorene	166	5.098	5.098	(1.070)	27348	5.00000	5.0761(Q)
11 Phenanthrene	178	5.721	5.721	(1.003)	47149	5.00000	4.6257(H)
12 Anthracene	178	5.757	5.757	(1.009)	45907	5.00000	5.0132
13 Carbazole	167	5.863	5.863	(1.028)	44777	5.00000	5.2502
15 Fluoranthene	202	6.551	6.551	(1.148)	50052	5.00000	4.8914
16 Pyrene	202	6.721	6.721	(0.880)	55349	5.00000	5.0294
17 Benzo(a)anthracene	228	7.633	7.633	(0.999)	55643	5.00000	4.9797
19 Chrysene	228	7.657	7.657	(1.002)	57430	5.00000	5.3071
20 Benzo(b)fluoranthene	252	8.462	8.462	(0.962)	56470	5.00000	5.4827(H)
21 Benzo(k)fluoranthene	252	8.486	8.486	(0.965)	58242	5.00000	4.9973(H)
22 Benzo(a)pyrene	252	8.745	8.745	(0.994)	53152	5.00000	4.9924(H)
24 Indeno(1,2,3-cd)pyrene	276	9.921	9.921	(1.128)	50225	5.00000	4.8225(MH)
25 Dibenzo(a,h)anthracene	278	9.927	9.927	(1.128)	46577	5.00000	4.5061(H)
26 Benzo(g,h,i)perylene	276	10.251	10.251	(1.165)	50451	5.00000	5.0556(H)

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

Data File: 1CD11006.D

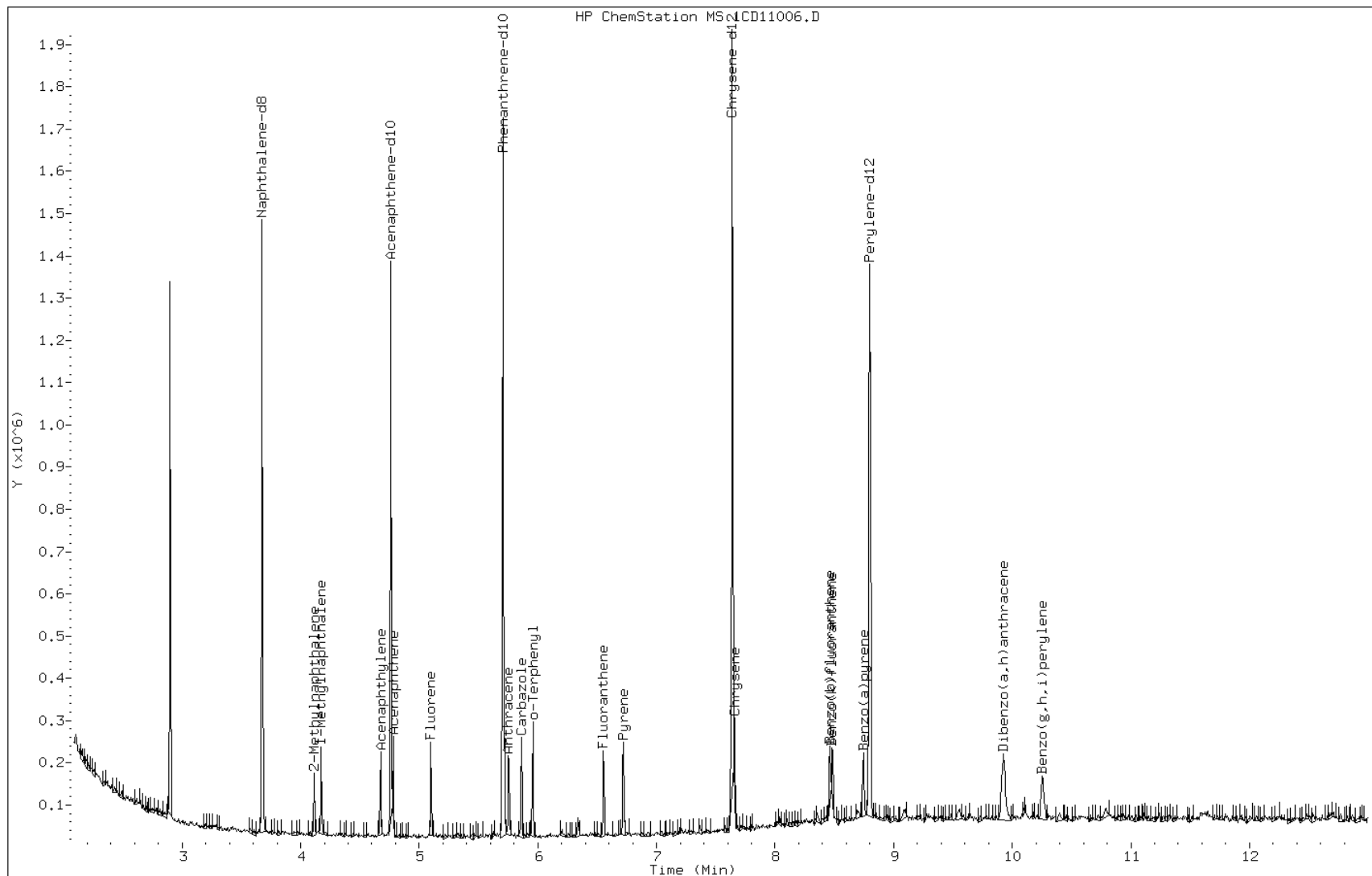
Date: 11-APR-2013 13:11

Client ID:

Instrument: BSMC5973.i

Sample Info: IC-1531399

Operator: SCC



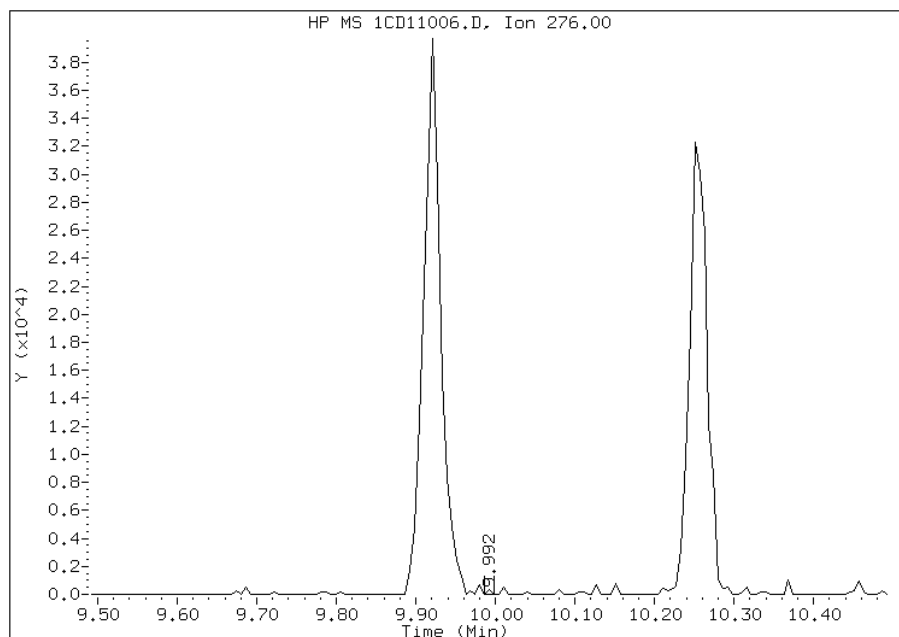


# Manual Integration Report

Data File: 1CD11006.D  
Inj. Date and Time: 11-APR-2013 13:11  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/11/2013

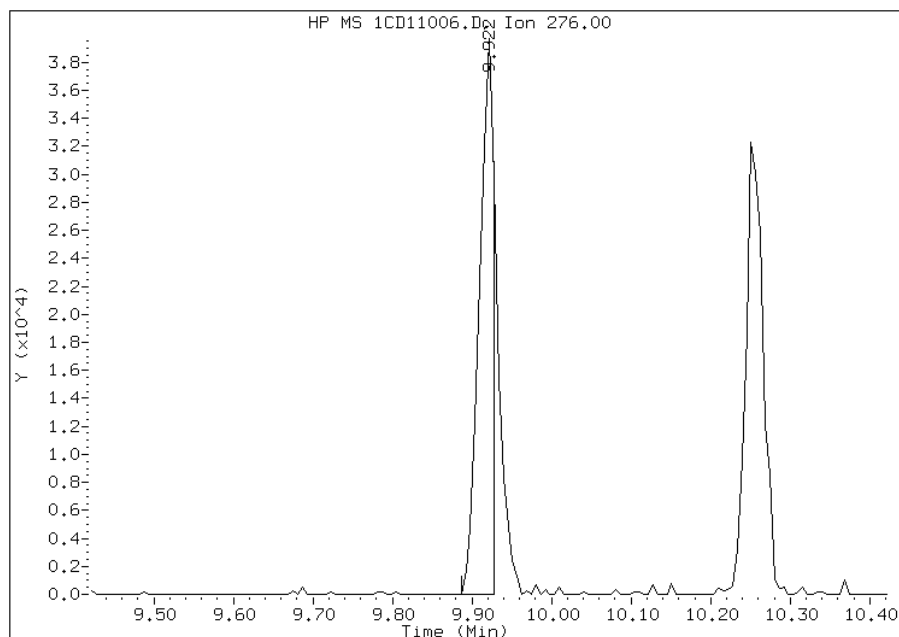
## Processing Integration Results

RT: 9.99  
Response: 108  
Amount: 0  
Conc: 0



## Manual Integration Results

RT: 9.92  
Response: 50225  
Amount: 5  
Conc: 5



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:35  
Manual Integration Reason: Split Peak

TestAmerica Laboratories

Semivolatile 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11007.D  
 Lab Smp Id: IC-1531400  
 Inj Date : 11-APR-2013 13:30  
 Operator : SCC  
 Smp Info : IC-1531400  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:38 BSMC5973.i Quant Type: ISTD  
 Cal Date : 11-APR-2013 13:11 Cal File: 1CD11006.D  
 Als bottle: 7 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 1 Naphthalene-d8	136	3.674	3.674	(1.000)	246668	40.0000	
* 6 Acenaphthene-d10	164	4.763	4.763	(1.000)	161880	40.0000	
* 10 Phenanthrene-d10	188	5.704	5.704	(1.000)	295862	40.0000	
\$ 14 o-Terphenyl	230	5.957	5.957	(1.044)	44711	10.0000	9.8155
* 18 Chrysene-d12	240	7.639	7.639	(1.000)	371008	40.0000	
* 23 Perylene-d12	264	8.798	8.798	(1.000)	373300	40.0000	(H)
2 Naphthalene	128	3.686	3.686	(1.003)	66803	10.0000	10.0187
3 2-Methylnaphthalene	142	4.116	4.116	(1.120)	42945	10.0000	10.3474
4 1-Methylnaphthalene	142	4.174	4.174	(1.136)	38170	10.0000	8.9618
5 Acenaphthylene	152	4.674	4.674	(0.981)	69442	10.0000	10.1235
7 Acenaphthene	154	4.780	4.780	(1.004)	45560	10.0000	10.7277
9 Fluorene	166	5.098	5.098	(1.070)	56195	10.0000	10.6823
11 Phenanthrene	178	5.721	5.721	(1.003)	85752	10.0000	8.9693(H)
12 Anthracene	178	5.757	5.757	(1.009)	86681	10.0000	10.0918
13 Carbazole	167	5.863	5.863	(1.028)	78836	10.0000	9.8550
15 Fluoranthene	202	6.551	6.551	(1.148)	98679	10.0000	10.2813
16 Pyrene	202	6.721	6.721	(0.880)	104590	10.0000	9.9092
17 Benzo(a)anthracene	228	7.633	7.633	(0.999)	101817	10.0000	9.6151
19 Chrysene	228	7.657	7.657	(1.002)	99776	10.0000	9.6136
20 Benzo(b)fluoranthene	252	8.462	8.462	(0.962)	93677	10.0000	9.9354(H)
21 Benzo(k)fluoranthene	252	8.486	8.486	(0.965)	107089	10.0000	10.0374(H)
22 Benzo(a)pyrene	252	8.745	8.745	(0.994)	98767	10.0000	10.1338(H)
24 Indeno(1,2,3-cd)pyrene	276	9.927	9.927	(1.128)	83577	10.0000	8.7663(MH)
25 Dibenzo(a,h)anthracene	278	9.939	9.939	(1.130)	87325	10.0000	9.2288(H)
26 Benzo(g,h,i)perylene	276	10.256	10.256	(1.166)	96936	10.0000	10.6113(H)

QC Flag Legend

M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.

Data File: 1CD11007.D

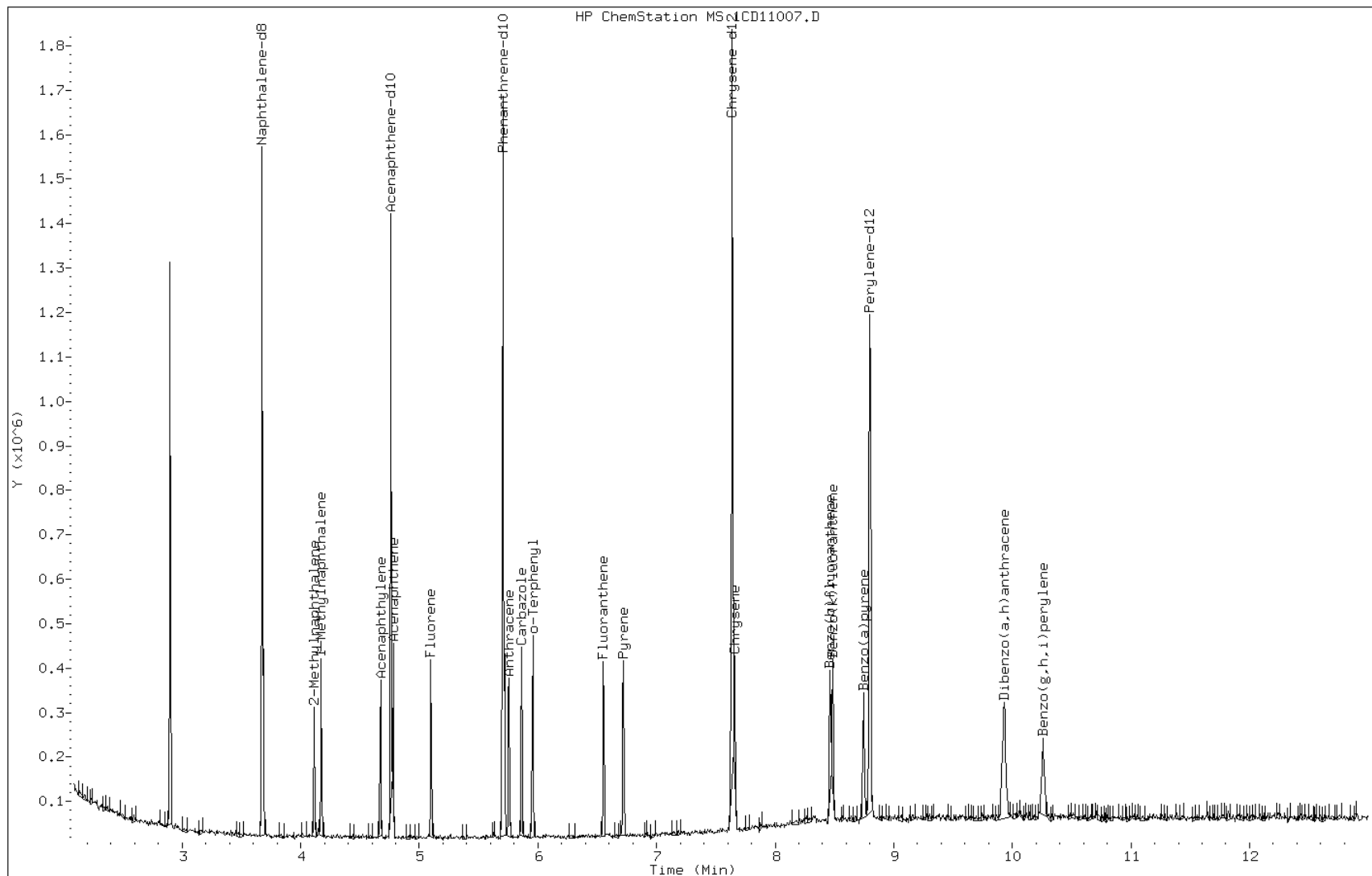
Date: 11-APR-2013 13:30

Client ID:

Instrument: BSMC5973.i

Sample Info: IC-1531400

Operator: SCC

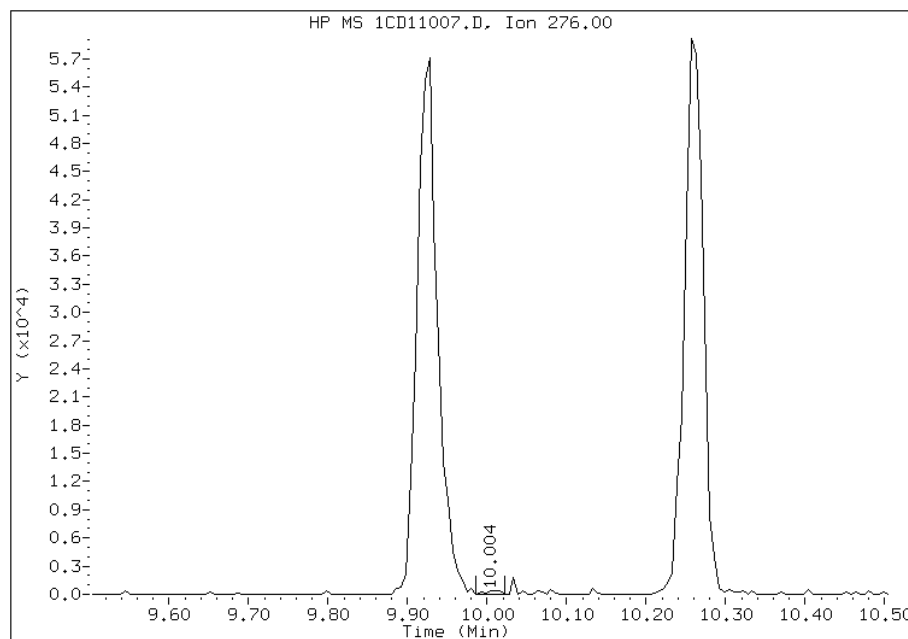


# Manual Integration Report

Data File: 1CD11007.D  
Inj. Date and Time: 11-APR-2013 13:30  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/11/2013

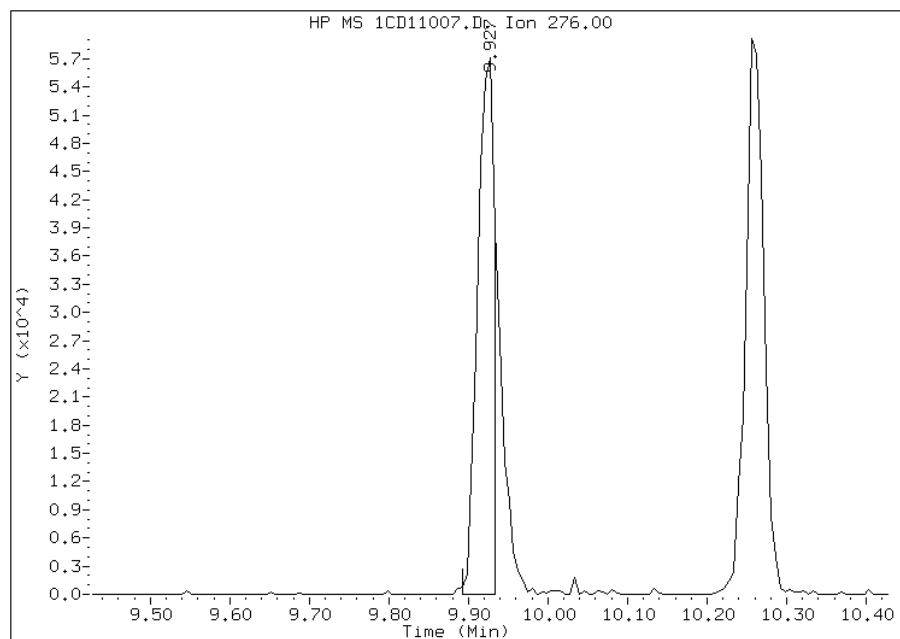
## Processing Integration Results

RT: 10.00  
Response: 600  
Amount: 0  
Conc: 0



## Manual Integration Results

RT: 9.93  
Response: 83577  
Amount: 9  
Conc: 9



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:36  
Manual Integration Reason: Split Peak

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11008.D  
 Lab Smp Id: IC-1531402  
 Inj Date : 11-APR-2013 13:48  
 Operator : SCC  
 Smp Info : IC-1531402  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:38 BSMC5973.i Quant Type: ISTD  
 Cal Date : 11-APR-2013 13:30 Cal File: 1CD11007.D  
 Als bottle: 8 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 1 Naphthalene-d8	136	3.674	3.674	(1.000)	219235	40.0000	
* 6 Acenaphthene-d10	164	4.762	4.762	(1.000)	151711	40.0000	
* 10 Phenanthrene-d10	188	5.704	5.704	(1.000)	292639	40.0000	
\$ 14 o-Terphenyl	230	5.956	5.956	(1.044)	130217	30.0000	27.5608
* 18 Chrysene-d12	240	7.639	7.639	(1.000)	355096	40.0000	
* 23 Perylene-d12	264	8.797	8.797	(1.000)	372168	40.0000	(H)
2 Naphthalene	128	3.686	3.686	(1.003)	178326	30.0000	30.0907
3 2-Methylnaphthalene	142	4.115	4.115	(1.120)	117387	30.0000	31.8232
4 1-Methylnaphthalene	142	4.174	4.174	(1.136)	109784	30.0000	29.0014
5 Acenaphthylene	152	4.674	4.674	(0.981)	212811	30.0000	33.1039
7 Acenaphthene	154	4.780	4.780	(1.004)	121274	30.0000	30.6855
9 Fluorene	166	5.098	5.098	(1.070)	157410	30.0000	31.9283
11 Phenanthrene	178	5.721	5.721	(1.003)	259782	30.0000	27.4715(H)
12 Anthracene	178	5.756	5.756	(1.009)	245548	30.0000	28.9028
13 Carbazole	167	5.862	5.862	(1.028)	233698	30.0000	29.5356
15 Fluoranthene	202	6.556	6.556	(1.150)	279401	30.0000	29.4314
16 Pyrene	202	6.721	6.721	(0.880)	307735	30.0000	30.4624
17 Benzo(a)anthracene	228	7.633	7.633	(0.999)	305726	30.0000	30.4344
19 Chrysene	228	7.662	7.662	(1.003)	310162	30.0000	31.2239
20 Benzo(b)fluoranthene	252	8.462	8.462	(0.962)	299492	30.0000	31.8608(H)
21 Benzo(k)fluoranthene	252	8.486	8.486	(0.965)	333825	30.0000	31.3844(H)
22 Benzo(a)pyrene	252	8.745	8.745	(0.994)	299708	30.0000	30.8447(H)
24 Indeno(1,2,3-cd)pyrene	276	9.927	9.927	(1.128)	260884	30.0000	27.4473(MH)
25 Dibenzo(a,h)anthracene	278	9.939	9.939	(1.130)	274497	30.0000	29.0980(H)
26 Benzo(g,h,i)perylene	276	10.262	10.262	(1.166)	275805	30.0000	30.2834(H)

QC Flag Legend

M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.

Data File: 1CD11008.D

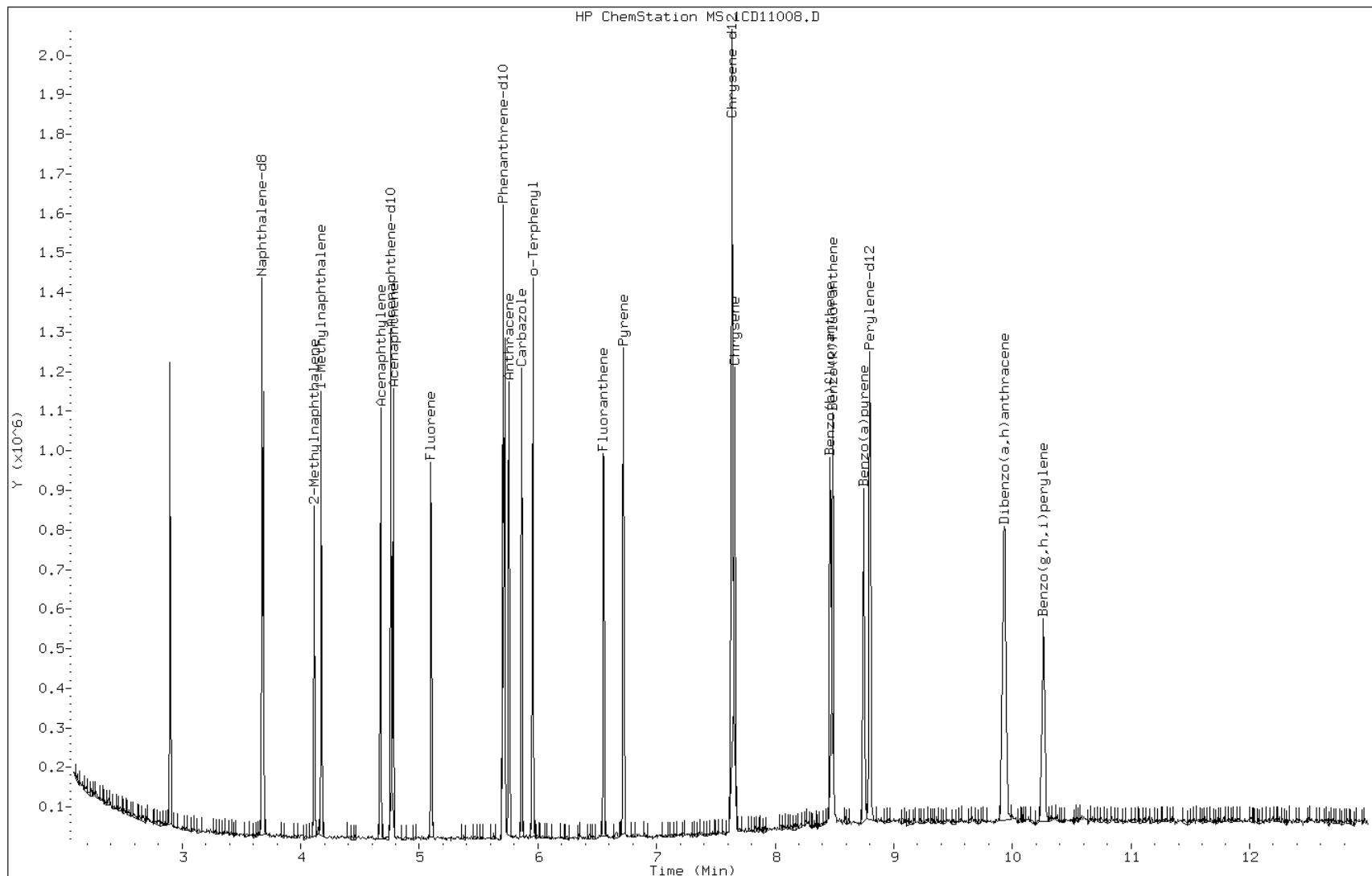
Date: 11-APR-2013 13:48

Client ID:

Instrument: BSMC5973.i

Sample Info: IC-1531402

Operator: SCC

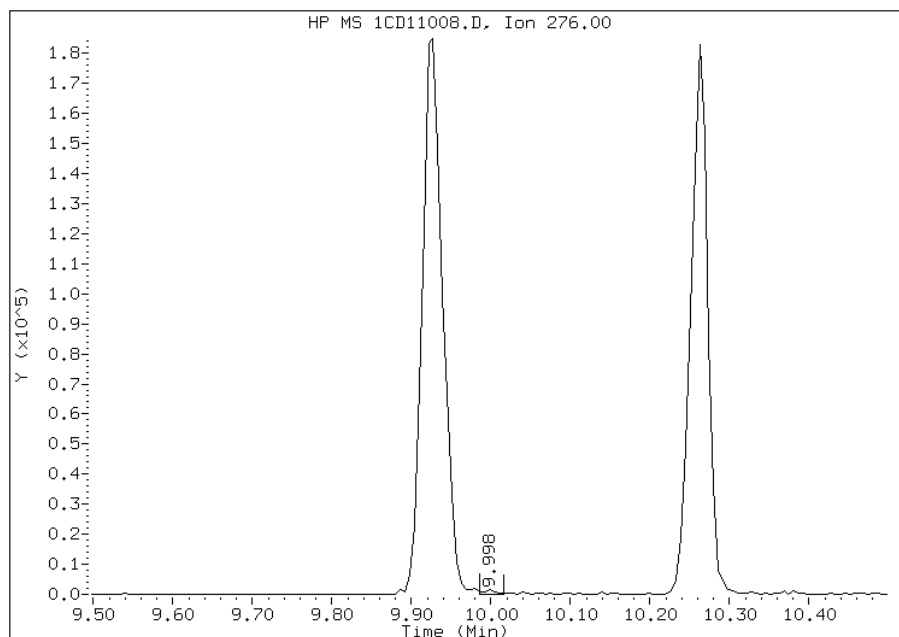


# Manual Integration Report

Data File: 1CD11008.D  
Inj. Date and Time: 11-APR-2013 13:48  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/11/2013

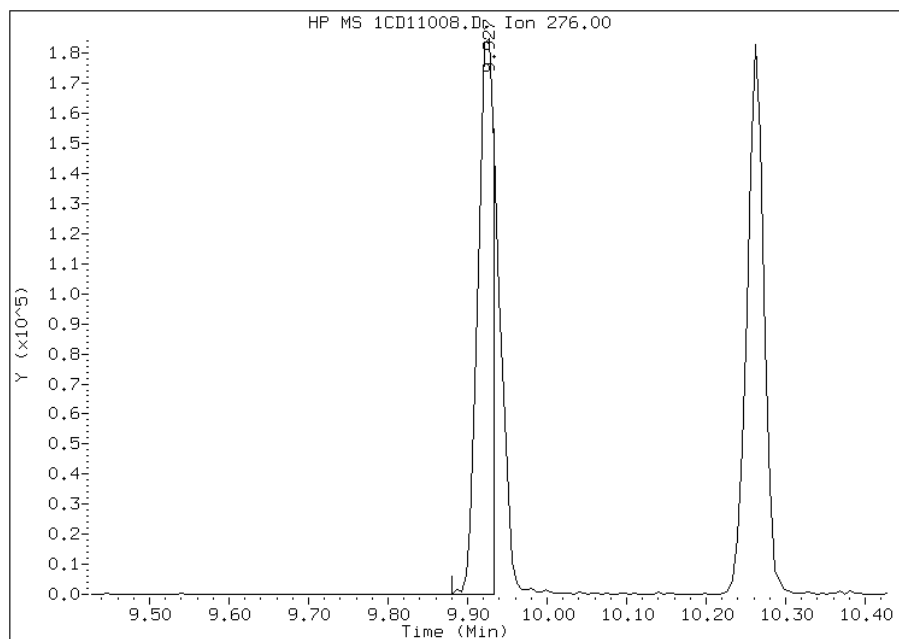
## Processing Integration Results

RT: 10.00  
Response: 1705  
Amount: 0  
Conc: 0



## Manual Integration Results

RT: 9.93  
Response: 260884  
Amount: 27  
Conc: 27



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:36  
Manual Integration Reason: Split Peak

TestAmerica Laboratories

Semivolatile 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11009.D  
 Lab Smp Id: IC-1531403  
 Inj Date : 11-APR-2013 14:06  
 Operator : SCC  
 Smp Info : IC-1531403  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:38 BSMC5973.i Quant Type: ISTD  
 Cal Date : 11-APR-2013 13:48 Cal File: 1CD11008.D  
 Als bottle: 9 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 1 Naphthalene-d8	=====	136	3.674	3.674	(1.000)	245399	40.0000	
* 6 Acenaphthene-d10	=====	164	4.763	4.763	(1.000)	178913	40.0000	
* 10 Phenanthrene-d10	=====	188	5.704	5.704	(1.000)	327530	40.0000	
\$ 14 o-Terphenyl	=====	230	5.957	5.957	(1.044)	276100	50.0000	51.5953(A)
* 18 Chrysene-d12	=====	240	7.639	7.639	(1.000)	437594	40.0000	
* 23 Perylene-d12	=====	264	8.798	8.798	(1.000)	425092	40.0000	(H)
2 Naphthalene	=====	128	3.686	3.686	(1.003)	318955	50.0000	48.0823
3 2-Methylnaphthalene	=====	142	4.116	4.116	(1.120)	221322	50.0000	53.6026(A)
4 1-Methylnaphthalene	=====	142	4.174	4.174	(1.136)	201768	50.0000	47.6178
5 Acenaphthylene	=====	152	4.674	4.674	(0.981)	370532	50.0000	48.8750
7 Acenaphthene	=====	154	4.780	4.780	(1.004)	231163	50.0000	49.6697
9 Fluorene	=====	166	5.104	5.104	(1.072)	287857	50.0000	49.5103
11 Phenanthrene	=====	178	5.721	5.721	(1.003)	472306	50.0000	44.6250(H)
12 Anthracene	=====	178	5.757	5.757	(1.009)	498469	50.0000	52.4232(A)
13 Carbazole	=====	167	5.863	5.863	(1.028)	443362	50.0000	50.0646(A)
15 Fluoranthene	=====	202	6.557	6.557	(1.150)	556889	50.0000	52.4123(A)
16 Pyrene	=====	202	6.721	6.721	(0.880)	619923	50.0000	49.7966
17 Benzo(a)anthracene	=====	228	7.633	7.633	(0.999)	615507	50.0000	49.8010
19 Chrysene	=====	228	7.662	7.662	(1.003)	632502	50.0000	51.6696(A)
20 Benzo(b)fluoranthene	=====	252	8.468	8.468	(0.963)	576085	50.0000	53.6554(AH)
21 Benzo(k)fluoranthene	=====	252	8.486	8.486	(0.965)	711099	50.0000	58.5305(AH)
22 Benzo(a)pyrene	=====	252	8.751	8.751	(0.995)	612644	50.0000	55.2010(AH)
24 Indeno(1,2,3-cd)pyrene	=====	276	9.933	9.933	(1.129)	557635	50.0000	51.3640(AMH)
25 Dibenzo(a,h)anthracene	=====	278	9.945	9.945	(1.130)	545458	50.0000	50.6224(AH)
26 Benzo(g,h,i)perylene	=====	276	10.268	10.268	(1.167)	540151	50.0000	51.9247(AH)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.



Data File: 1CD11009.D

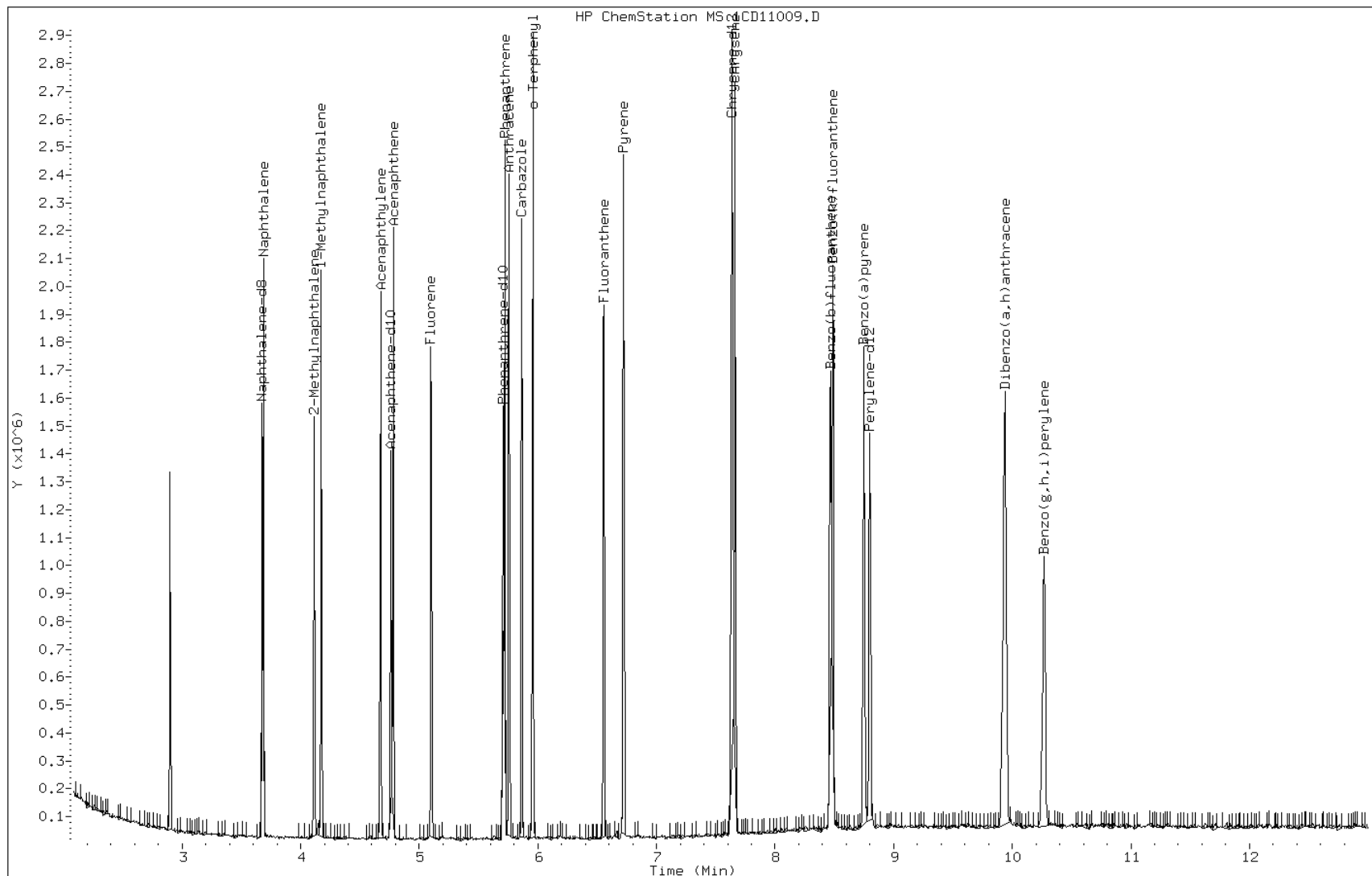
Date: 11-APR-2013 14:06

Client ID:

Instrument: BSMC5973.i

Sample Info: IC-1531403

Operator: SCC

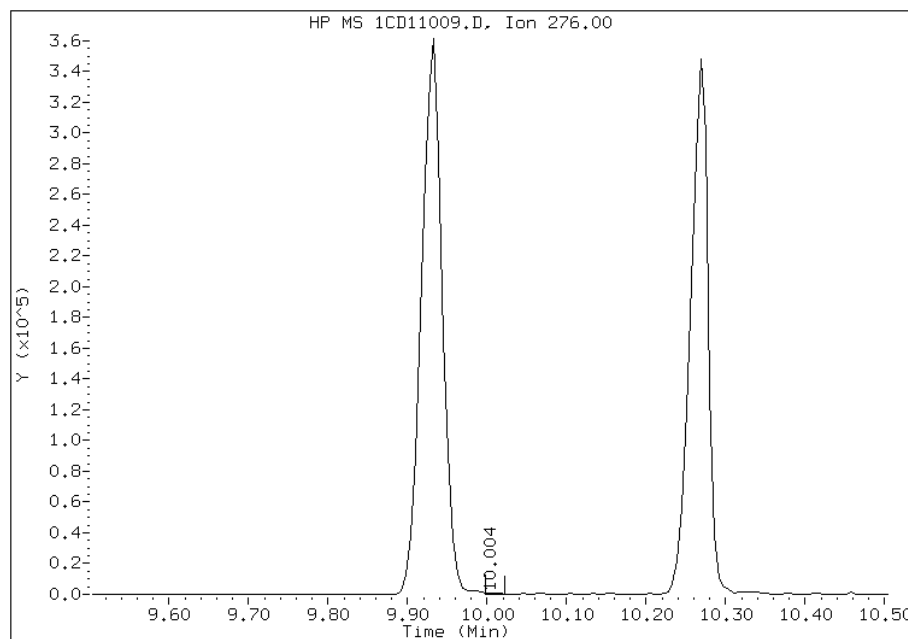


# Manual Integration Report

Data File: 1CD11009.D  
Inj. Date and Time: 11-APR-2013 14:06  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/11/2013

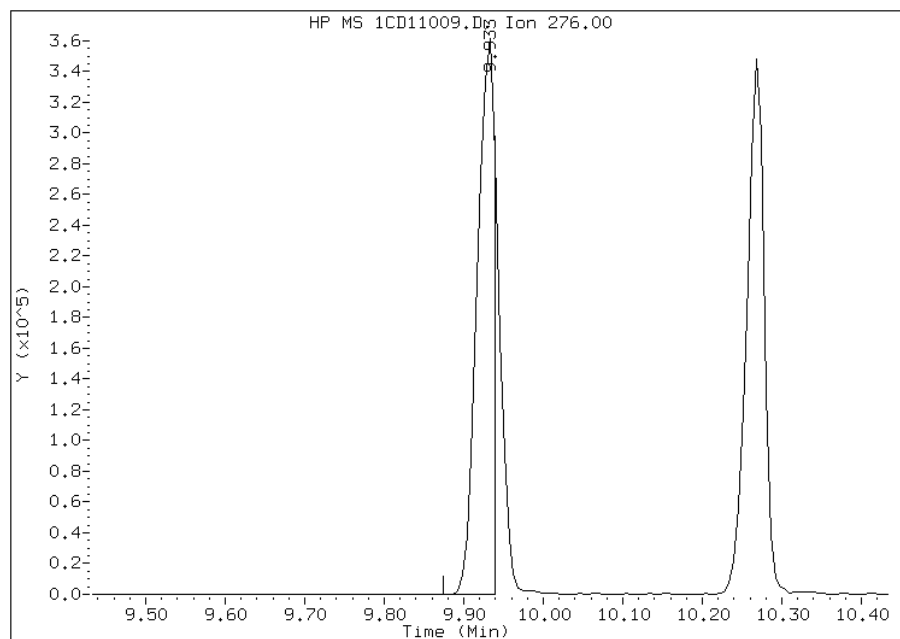
## Processing Integration Results

RT: 10.00  
Response: 955  
Amount: 0  
Conc: 0



## Manual Integration Results

RT: 9.93  
Response: 557635  
Amount: 51  
Conc: 51



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:37  
Manual Integration Reason: Split Peak

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Lab Sample ID: ICV 660-136370/10 Calibration Date: 04/11/2013 14:25  
 Instrument ID: BSMC5973 Calib Start Date: 04/11/2013 11:56  
 GC Column: DB-5MS ID: 250.00 (um) Calib End Date: 04/11/2013 14:06  
 Lab File ID: 1CD11010.D Conc. Units: ug/Kg

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.081	0.9667	0.0000	17900	20000	-10.6	35.0
2-Methylnaphthalene	Lin	0.6730	0.7057	0.0000	19800	20000	-1.1	35.0
1-Methylnaphthalene	Ave	0.6907	0.6750	0.0000	19500	20000	-2.3	35.0
Acenaphthylene	Ave	1.695	1.600	0.0000	18900	20000	-5.6	35.0
Acenaphthene	Ave	1.021	0.9034	0.0000	17700	20000	-11.6	35.0
Fluorene	Ave	1.300	1.293	0.0000	19900	20000	-0.6	35.0
Phenanthrene	Qua	1.293	1.058	0.0000	18100	20000	-9.4	35.0
Anthracene	Ave	1.161	1.108	0.0000	19100	20000	-4.6	35.0
Carbazole	Ave	1.082	1.002	0.0000	18500	20000	-7.3	35.0
Fluoranthene	Ave	1.298	1.281	0.0000	19700	20000	-1.3	35.0
Pyrene	Ave	1.138	0.9796	0.0000	17200	20000	-13.9	35.0
Benzo[a]anthracene	LinF	1.279	1.089	0.0000	19300	20000	-3.7	35.0
Chrysene	Ave	1.119	0.9569	0.0000	17100	20000	-14.5	35.0
Benzo[b]fluoranthene	Ave	1.010	0.9917	0.0000	19600	20000	-1.8	35.0
Benzo[k]fluoranthene	Ave	1.143	1.000	0.0000	17500	20000	-12.5	35.0
Benzo[a]pyrene	Ave	1.044	0.8988	0.0000	17200	20000	-13.9	35.0
Indeno[1,2,3-cd]pyrene	Lin	1.022	0.8637	0.0000	17300	20000	-13.6	35.0
Dibenz(a,h)anthracene	Lin	1.014	0.9353	0.0000	18700	20000	-6.5	35.0
Benzo[g,h,i]perylene	Ave	0.9789	0.9212	0.0000	18800	20000	-5.9	35.0
o-Terphenyl	Lin	0.5859	0.5690	0.0000	17900	20000	-10.6	35.0

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11010.D  
 Lab Smp Id: ICV-1448440  
 Inj Date : 11-APR-2013 14:25  
 Operator : SCC  
 Smp Info : ICV-1448440  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\a-bFASTPAHi-m.m  
 Meth Date : 11-Apr-2013 14:45 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 10 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula: Amt \* DF \* 1/Vi \* Vt/Vo \* A \* B \* C \* D \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Vo	1000.000	Sample Volume
A	1000.000	uL to mL conversion
B	1000.000	mL to L conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1= if no con
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/l)
* 1 Naphthalene-d8	136		3.674	3.675	(1.000)	273342	40.0000		
* 6 Acenaphthene-d10	164		4.763	4.763	(1.000)	204687	40.0000		
* 10 Phenanthrene-d10	188		5.704	5.704	(1.000)	380421	40.0000		
\$ 14 o-Terphenyl	230		5.957	5.957	(1.044)	108232	17.8704	17.8703	
* 18 Chrysene-d12	240		7.639	7.639	(1.000)	501991	40.0000		
* 23 Perylene-d12	264		8.798	8.798	(1.000)	491170	40.0000		
2 Naphthalene	128		3.686	3.687	(1.003)	132124	17.8815	17.8815	
3 2-Methylnaphthalene	142		4.116	4.115	(1.120)	96442	19.7889	19.7889	
4 1-Methylnaphthalene	142		4.174	4.175	(1.136)	92254	19.5465	19.5464	
5 Acenaphthylene	152		4.674	4.675	(0.981)	163781	18.8832	18.8832	
7 Acenaphthene	154		4.780	4.781	(1.004)	92455	17.6882	17.6882	
9 Fluorene	166		5.098	5.104	(1.070)	132282	19.8871	19.8871	
11 Phenanthrene	178		5.721	5.722	(1.003)	201336	18.1160	18.1159	
12 Anthracene	178		5.757	5.757	(1.009)	210753	19.0830	19.0829	
13 Carbazole	167		5.863	5.863	(1.028)	190681	18.5382	18.5381	
15 Fluoranthene	202		6.551	6.557	(1.148)	243606	19.7397	19.7396	
16 Pyrene	202		6.721	6.722	(0.880)	245865	17.2161	17.2160	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL ( ug/l)
=====	=====		=====	=====	=====	=====	=====	=====
17 Benzo(a)anthracene	228		7.633	7.634	(0.999)	273405	19.2602	19.2602
19 Chrysene	228		7.662	7.663	(1.003)	240185	17.1039	17.1038
20 Benzo(b)fluoranthene	252		8.462	8.468	(0.962)	243541	19.6314	19.6313
21 Benzo(k)fluoranthene	252		8.486	8.486	(0.965)	245569	17.4935	17.4935
22 Benzo(a)pyrene	252		8.745	8.751	(0.994)	220738	17.2134	17.2134
24 Indeno(1,2,3-cd)pyrene	276		9.921	9.933	(1.128)	212104	17.2880	17.2879(M)
25 Dibenzo(a,h)anthracene	278		9.939	9.945	(1.130)	229693	18.7094	18.7094
26 Benzo(g,h,i)perylene	276		10.256	10.269	(1.166)	226235	18.8222	18.8221

QC Flag Legend

M - Compound response manually integrated.

Data File: 1CD11010.D

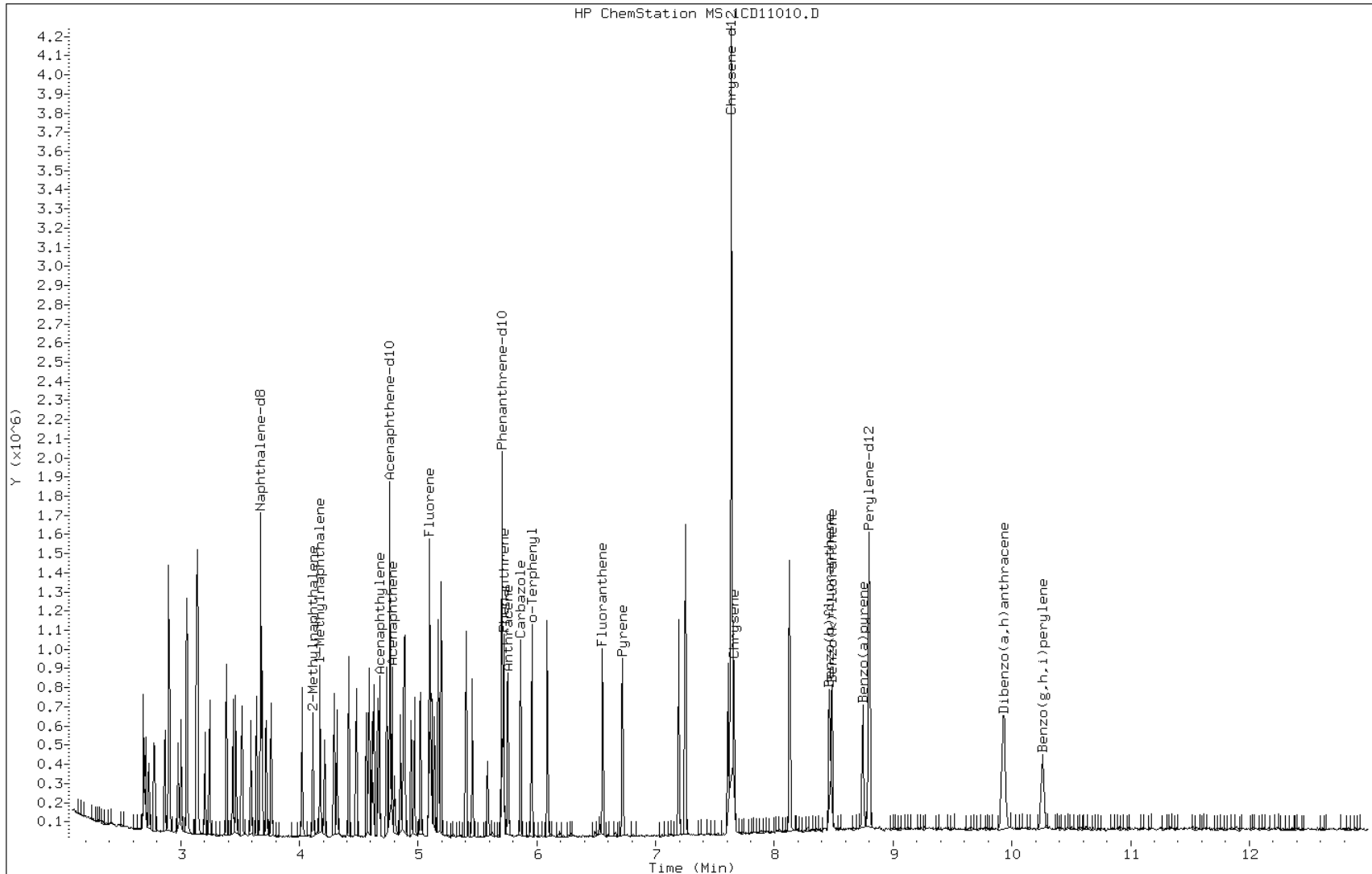
Date: 11-APR-2013 14:25

Client ID:

Instrument: BSMC5973.i

Sample Info: ICV-1448440

Operator: SCC

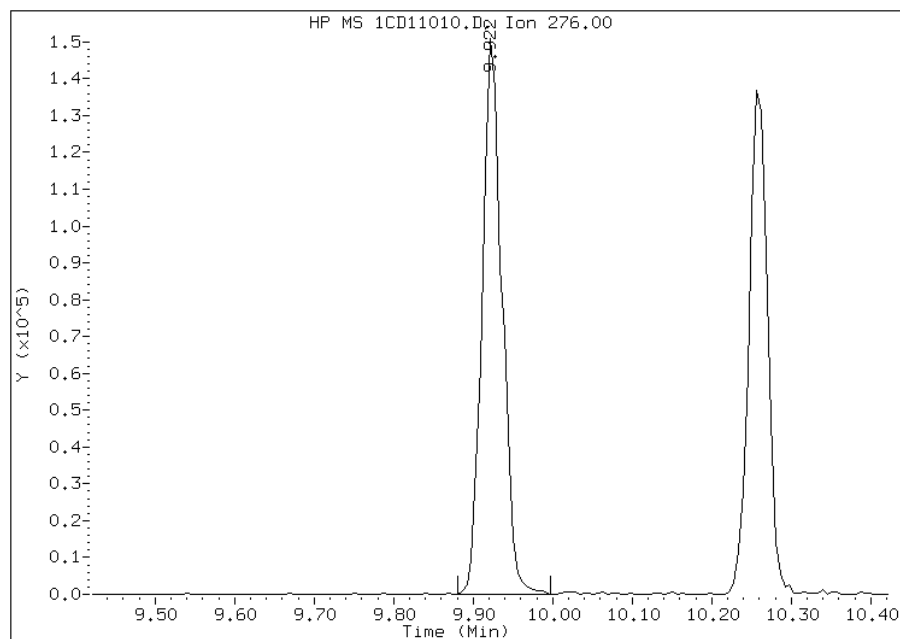


# Manual Integration Report

Data File: 1CD11010.D  
Inj. Date and Time: 11-APR-2013 14:25  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/11/2013

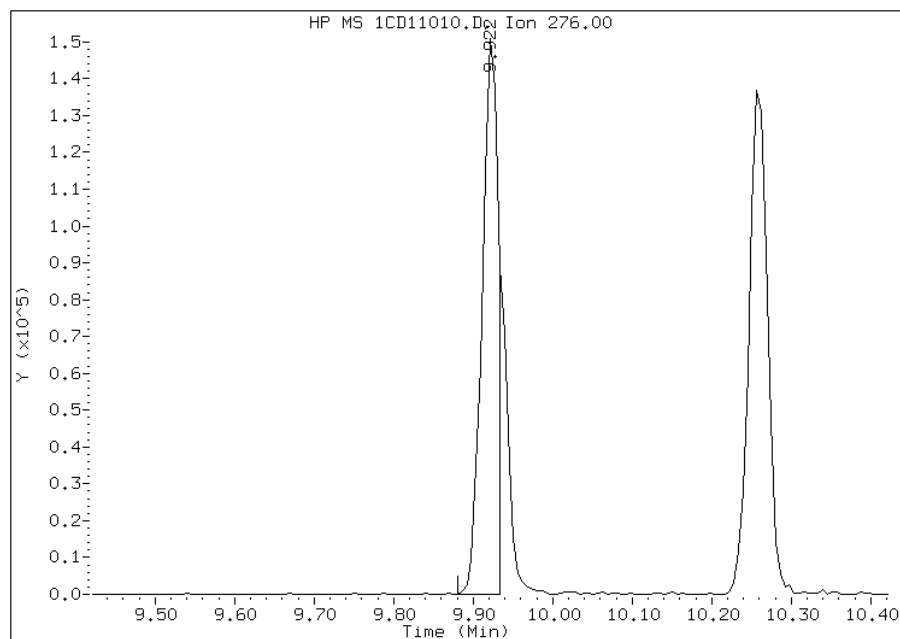
## Processing Integration Results

RT: 9.92  
Response: 260276  
Amount: 21  
Conc: 21



## Manual Integration Results

RT: 9.92  
Response: 212104  
Amount: 17  
Conc: 17



Manually Integrated By: cantins  
Modification Date: 11-Apr-2013 14:46  
Manual Integration Reason: Split Peak

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Lab Sample ID: CCVIS 660-136655/3 Calibration Date: 04/19/2013 11:24  
 Instrument ID: BSMC5973 Calib Start Date: 04/11/2013 11:56  
 GC Column: DB-5MS ID: 250.00 (um) Calib End Date: 04/11/2013 14:06  
 Lab File ID: 1CD19003.D Conc. Units: ug/Kg

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.081	1.069	0.0000	19800	20000	-1.1	20.0
2-Methylnaphthalene	Lin	0.6730	0.6717	0.0000	18800	20000	-5.8	20.0
1-Methylnaphthalene	Ave	0.6907	0.6224	0.0000	18000	20000	-9.9	20.0
Acenaphthylene	Ave	1.695	1.755	0.0000	20700	20000	3.5	20.0
Acenaphthene	Ave	1.021	1.005	0.0000	19700	20000	-1.6	20.0
Fluorene	Ave	1.300	1.334	0.0000	20500	20000	2.6	20.0
Phenanthrene	Qua	1.293	1.138	0.0000	19500	20000	-2.6	20.0
Anthracene	Ave	1.161	1.248	0.0000	21500	20000	7.5	20.0
Carbazole	Ave	1.082	1.004	0.0000	18600	20000	-7.1	20.0
Fluoranthene	Ave	1.298	1.258	0.0000	19400	20000	-3.0	20.0
Pyrene	Ave	1.138	1.062	0.0000	18700	20000	-6.7	20.0
Benzo[a]anthracene	LinF	1.279	1.069	0.0000	18900	20000	-5.5	20.0
Chrysene	Ave	1.119	1.051	0.0000	18800	20000	-6.1	20.0
Benzo[b]fluoranthene	Ave	1.010	0.9738	0.0000	19300	20000	-3.6	20.0
Benzo[k]fluoranthene	Ave	1.143	1.137	0.0000	19900	20000	-0.6	20.0
Benzo[a]pyrene	Ave	1.044	1.046	0.0000	20000	20000	0.1	20.0
Indeno[1,2,3-cd]pyrene	Lin	1.022	0.8495	0.0000	17000	20000	-14.9	20.0
Dibenz(a,h)anthracene	Lin	1.014	0.9157	0.0000	18300	20000	-8.4	20.0
Benzo[g,h,i]perylene	Ave	0.9789	0.9483	0.0000	19400	20000	-3.1	20.0
o-Terphenyl	Lin	0.5859	0.5853	0.0000	18400	20000	-8.2	20.0



TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19003.D  
 Lab Smp Id: CCVIS-1531401  
 Inj Date : 19-APR-2013 11:24  
 Operator : SCC  
 Smp Info : CCVIS-1531401  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 1 Naphthalene-d8	136	3.657	3.657	(1.000)	187771	40.0000	
* 6 Acenaphthene-d10	164	4.739	4.739	(1.000)	127904	40.0000	(H)
* 10 Phenanthrene-d10	188	5.686	5.686	(1.000)	242114	40.0000	(H)
\$ 14 o-Terphenyl	230	5.933	5.933	(1.043)	70849	20.0000	18.3607(H)
* 18 Chrysene-d12	240	7.615	7.615	(1.000)	311596	40.0000	
* 23 Perylene-d12	264	8.768	8.768	(1.000)	321703	40.0000	(H)
2 Naphthalene	128	3.669	3.669	(1.003)	100389	20.0000	19.7781
3 2-Methylnaphthalene	142	4.092	4.092	(1.119)	63061	20.0000	18.8494
4 1-Methylnaphthalene	142	4.157	4.157	(1.137)	58434	20.0000	18.0229
5 Acenaphthylene	152	4.657	4.657	(0.983)	112223	20.0000	20.7062
7 Acenaphthene	154	4.763	4.763	(1.005)	64288	20.0000	19.6829
9 Fluorene	166	5.080	5.080	(1.072)	85320	20.0000	20.5271(H)
11 Phenanthrene	178	5.698	5.698	(1.002)	137719	20.0000	19.4791(H)
12 Anthracene	178	5.733	5.733	(1.008)	151071	20.0000	21.4930(H)
13 Carbazole	167	5.845	5.845	(1.028)	121573	20.0000	18.5712(H)
15 Fluoranthene	202	6.533	6.533	(1.149)	152330	20.0000	19.3946(H)
16 Pyrene	202	6.698	6.698	(0.880)	165409	20.0000	18.6595
17 Benzo(a)anthracene	228	7.610	7.610	(0.999)	166545	20.0000	18.9012
19 Chrysene	228	7.639	7.639	(1.003)	163694	20.0000	18.7795
20 Benzo(b)fluoranthene	252	8.439	8.439	(0.962)	156644	20.0000	19.2783(H)
21 Benzo(k)fluoranthene	252	8.457	8.457	(0.964)	182853	20.0000	19.8875(H)
22 Benzo(a)pyrene	252	8.715	8.715	(0.994)	168183	20.0000	20.0239(H)
24 Indeno(1,2,3-cd)pyrene	276	9.880	9.880	(1.127)	136650	20.0000	17.0156(MH)
25 Dibenzo(a,h)anthracene	278	9.892	9.892	(1.128)	147283	20.0000	18.3258(H)
26 Benzo(g,h,i)perylene	276	10.209	10.209	(1.164)	152540	20.0000	19.3762(H)

QC Flag Legend

M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.

Data File: 1CD19003.D

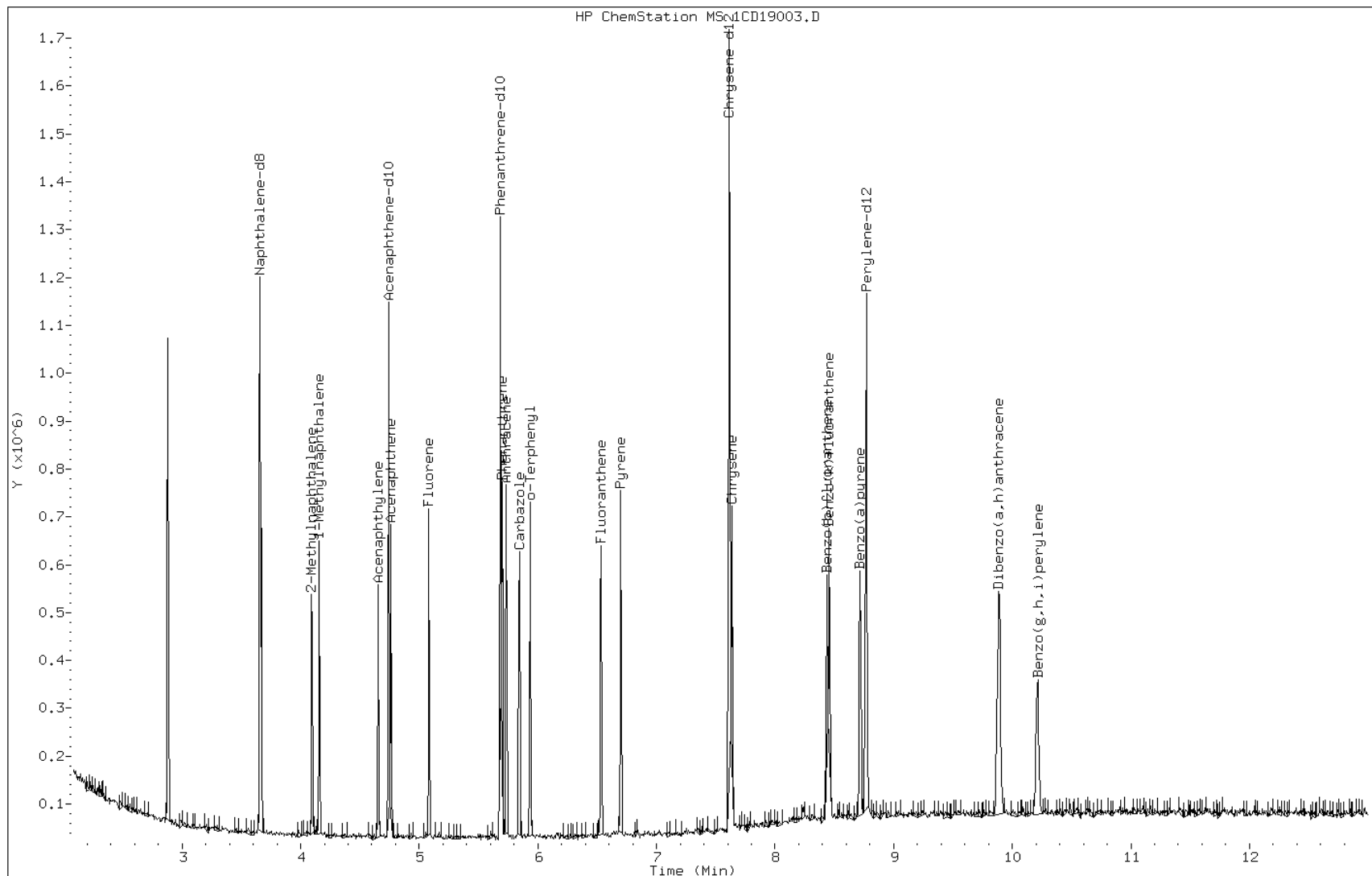
Date: 19-APR-2013 11:24

Client ID:

Instrument: BSMC5973.i

Sample Info: CCVIS-1531401

Operator: SCC

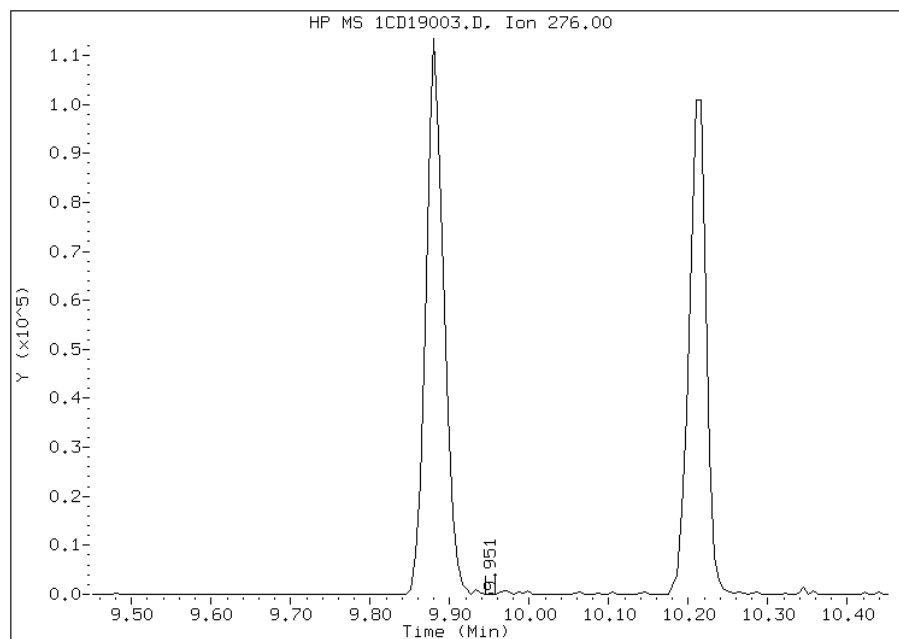


# Manual Integration Report

Data File: 1CD19003.D  
Inj. Date and Time: 19-APR-2013 11:24  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/19/2013

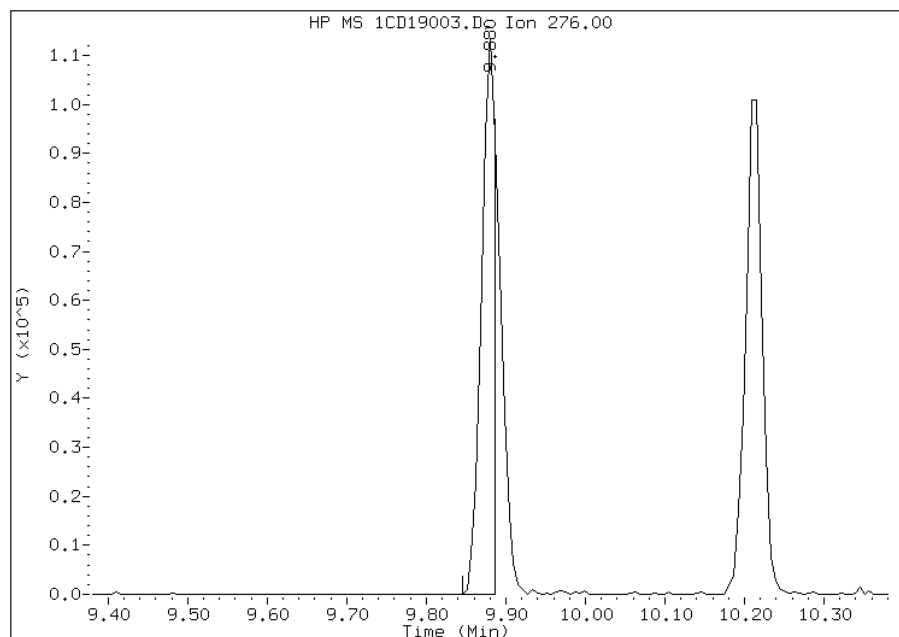
## Processing Integration Results

RT: 9.95  
Response: 122  
Amount: 1  
Conc: 1



## Manual Integration Results

RT: 9.88  
Response: 136650  
Amount: 17  
Conc: 17



Manually Integrated By: cantins  
Modification Date: 19-Apr-2013 11:44  
Manual Integration Reason: Split Peak

TestAmerica Laboratories

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11002.D  
 Lab Smp Id: DFTPP Client Smp ID: DFTPP  
 Inj Date : 11-APR-2013 11:38  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : DFTPP-1525850  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\c-dftpp198.m  
 Meth Date : 04-Feb-2013 16:33 cantins Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 2 QC Sample: DFTPP  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Target Version: 4.14 Sample Matrix: None  
 Processing Host: TAM1000

CONCENTRATIONS

RT	EXP RT	DLT RT	MASS	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL	FINAL		
=====	=====	=====	=====	=====	=====	=====	=====
1	dftpp						
					CAS #: 5074-71-5		
7.269	7.469	-0.200	198	54472		50.00- 0.00	100.00
7.269	7.469	-0.200	51	21074		10.00- 80.00	38.69
7.269	7.469	-0.200	68	353		0.00- 2.00	1.33
7.269	7.469	-0.200	69	26600		0.00- 0.00	48.83
7.269	7.469	-0.200	70	132		0.00- 2.00	0.50
7.269	7.469	-0.200	127	25024		10.00- 80.00	45.94
7.269	7.469	-0.200	197	448		0.00- 2.00	0.82
7.269	7.469	-0.200	442	41796		50.00- 0.00	76.73
7.269	7.469	-0.200	199	3165		5.00- 9.00	5.81
7.269	7.469	-0.200	275	11356		10.00- 60.00	20.85
7.269	7.469	-0.200	365	2771		1.00- 0.00	5.09
7.269	7.469	-0.200	441	5680		0.01- 99.99	64.97
7.269	7.469	-0.200	443	8743		15.00- 24.00	20.92

Data File: 1CD11002.D

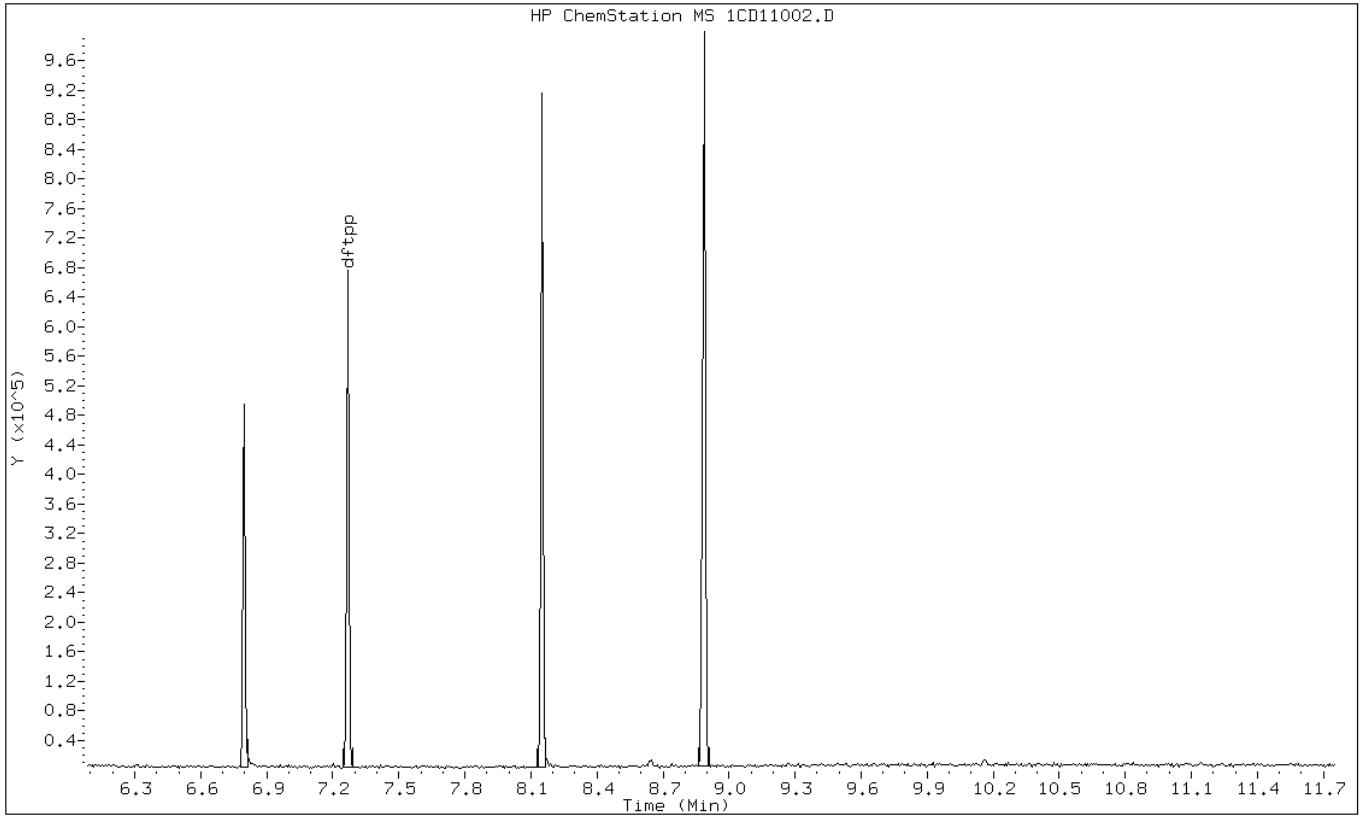
Date: 11-APR-2013 11:38

Client ID: DFTPP

Instrument: BSMC5973.i

Sample Info: DFTPP-1525850

Operator: SCC



Data File: 1CD11002.D

Date: 11-APR-2013 11:38

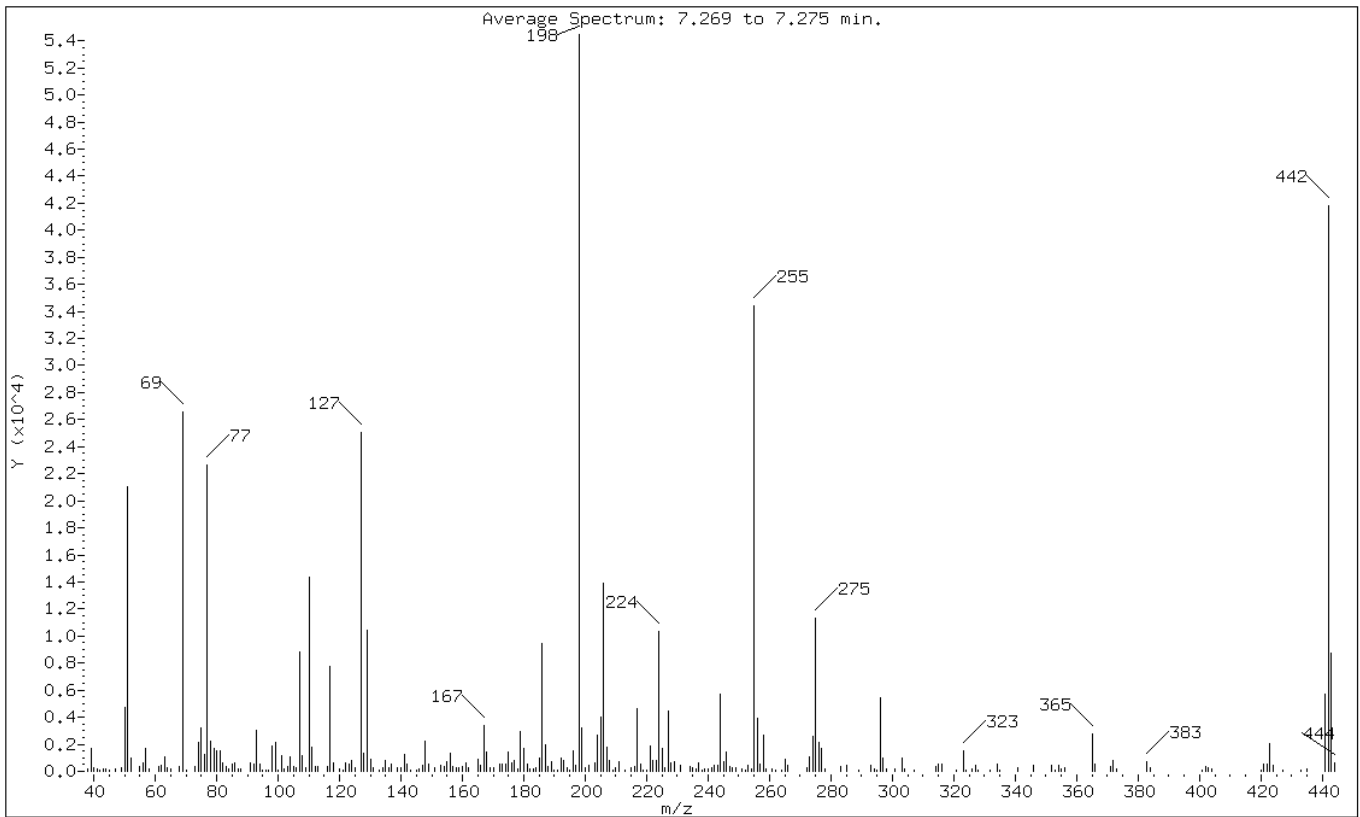
Client ID: DFTPP

Instrument: BSMC5973.i

Sample Info: DFTPP-1525850

Operator: SCC

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	38.69
68	Less than 2.00% of mass 69	0.65 ( 1.33)
69	Mass 69 relative abundance	48.83
70	Less than 2.00% of mass 69	0.24 ( 0.50)
127	10.00 - 80.00% of mass 198	45.94
197	Less than 2.00% of mass 198	0.82
442	Greater than 50.00% of mass 198	76.73
199	5.00 - 9.00% of mass 198	5.81
275	10.00 - 60.00% of mass 198	20.85
365	Greater than 1.00% of mass 198	5.09
441	Present, but less than mass 443	10.43
443	15.00 - 24.00% of mass 442	16.05 ( 20.92)

Data File: 1CD11002.D

Date: 11-APR-2013 11:38

Client ID: DFTPP

Instrument: BSMC5973.i

Sample Info: DFTPP-1525850

Operator: SCC

Data File: \\tam-chemsvr\chem\SM\BSMC5973.i\1C041113.b\1CD11002.D

Spectrum: Average Spectrum: 7.269 to 7.275 min.

Location of Maximum: 198.00

Number of points: 258

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	141	117.00	7792	192.00	941	266.00	463
39.00	1700	118.00	633	193.00	768	272.00	261
40.00	309	120.00	172	194.00	248	273.00	1086
41.00	212	121.00	81	195.00	118	274.00	2545
42.00	101	122.00	618	196.00	1486	275.00	11356
43.00	189	123.00	527	197.00	448	276.00	2162
44.00	218	124.00	760	198.00	54472	277.00	1668
45.00	75	125.00	297	199.00	3165	278.00	173
47.00	138	127.00	25024	200.00	261	283.00	397
49.00	296	128.00	1379	201.00	429	285.00	405
50.00	4728	129.00	10387	203.00	647	289.00	86
51.00	21072	130.00	905	204.00	2694	293.00	463
52.00	978	131.00	241	205.00	4012	294.00	163
55.00	372	133.00	76	206.00	13898	295.00	117
56.00	660	134.00	248	207.00	1801	296.00	5458
57.00	1715	135.00	839	208.00	802	297.00	985
58.00	143	136.00	263	209.00	108	298.00	186
61.00	354	137.00	547	210.00	311	301.00	140
62.00	440	139.00	248	211.00	692	303.00	973
63.00	1027	140.00	294	213.00	120	304.00	144
64.00	238	141.00	1264	215.00	302	307.00	75
65.00	219	142.00	522	216.00	382	314.00	371
68.00	353	143.00	119	217.00	4620	315.00	576
69.00	26600	145.00	86	218.00	501	316.00	571
70.00	132	146.00	154	219.00	78	321.00	122
73.00	387	147.00	484	220.00	83	323.00	1548
74.00	2154	148.00	2234	221.00	1909	324.00	106
75.00	3222	149.00	536	222.00	834	326.00	171
76.00	1231	151.00	277	223.00	833	327.00	475
77.00	22680	153.00	451	224.00	10305	328.00	129
78.00	2251	154.00	375	225.00	1699	332.00	90
79.00	1660	155.00	715	226.00	238	334.00	515
80.00	1523	156.00	1323	227.00	4427	335.00	88
81.00	1506	157.00	341	228.00	659	341.00	287
82.00	620	158.00	298	229.00	722	346.00	477
83.00	331	159.00	250	231.00	478	352.00	473
84.00	218	160.00	328	234.00	330	353.00	129
85.00	517	161.00	632	235.00	268	354.00	476
86.00	662	162.00	296	236.00	196	355.00	177
87.00	149	165.00	863	237.00	643	356.00	231

88.00	168	166.00	456	238.00	130	365.00	2771
91.00	638	167.00	3403	239.00	186	366.00	577
92.00	550	168.00	1471	240.00	203	371.00	326
93.00	3050	169.00	283	241.00	259	372.00	767
94.00	543	170.00	226	242.00	421	373.00	136
+-----+-----+-----+-----+-----+-----+-----+-----+							
95.00	78	172.00	552	243.00	420	383.00	710
96.00	80	173.00	512	244.00	5690	384.00	290
97.00	97	174.00	492	245.00	728	401.00	123
98.00	1840	175.00	1453	246.00	1454	402.00	322
99.00	2133	176.00	612	247.00	328	403.00	283
+-----+-----+-----+-----+-----+-----+-----+-----+							
100.00	97	177.00	818	248.00	255	404.00	187
101.00	1184	178.00	192	249.00	296	420.00	101
102.00	161	179.00	2908	251.00	152	421.00	556
103.00	325	180.00	1670	252.00	78	422.00	509
104.00	1088	181.00	547	253.00	422	423.00	2034
+-----+-----+-----+-----+-----+-----+-----+-----+							
105.00	339	182.00	219	254.00	220	424.00	428
106.00	305	183.00	208	255.00	34392	427.00	77
107.00	8863	184.00	269	256.00	3905	433.00	77
108.00	1145	185.00	954	257.00	538	435.00	142
109.00	309	186.00	9451	258.00	2671	441.00	5680
+-----+-----+-----+-----+-----+-----+-----+-----+							
110.00	14323	187.00	1971	259.00	192	442.00	41792
111.00	1814	188.00	326	261.00	196	443.00	8743
112.00	372	189.00	673	262.00	109	444.00	645
113.00	319	190.00	129	264.00	98		
116.00	324	191.00	101	265.00	936		
+-----+-----+-----+-----+-----+-----+-----+-----+							



TestAmerica Laboratories

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19002.D  
 Lab Smp Id: DFTPP Client Smp ID: DFTPP  
 Inj Date : 19-APR-2013 11:08  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : DFTPP-1525850  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\c-dftpp198.m  
 Meth Date : 04-Feb-2013 16:33 cantins Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 2 QC Sample: DFTPP  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Target Version: 4.14 Sample Matrix: None  
 Processing Host: TAM1000

CONCENTRATIONS

RT	EXP RT	DLT RT	MASS	RESPONSE	ON-COL ( ug/L)	FINAL ( ug/L)	TARGET RANGE	RATIO
====	=====	=====	====	=====	=====	=====	=====	=====
1 dftpp			CAS #: 5074-71-5					
7.251	7.469	-0.218	198	49952			50.00- 0.00	100.00
7.251	7.469	-0.218	51	22360			10.00- 80.00	44.76
7.251	7.469	-0.218	68	446			0.00- 2.00	1.94
7.251	7.469	-0.218	69	22992			0.00- 0.00	46.03
7.251	7.469	-0.218	70	236			0.00- 2.00	1.03
7.251	7.469	-0.218	127	23776			10.00- 80.00	47.60
7.251	7.469	-0.218	197	612			0.00- 2.00	1.23
7.251	7.469	-0.218	442	36928			50.00- 0.00	73.93
7.251	7.469	-0.218	199	2769			5.00- 9.00	5.54
7.251	7.469	-0.218	275	11275			10.00- 60.00	22.57
7.251	7.469	-0.218	365	3284			1.00- 0.00	6.57
7.251	7.469	-0.218	441	6054			0.01- 99.99	87.03
7.251	7.469	-0.218	443	6956			15.00- 24.00	18.84

Data File: 1CD19002.D

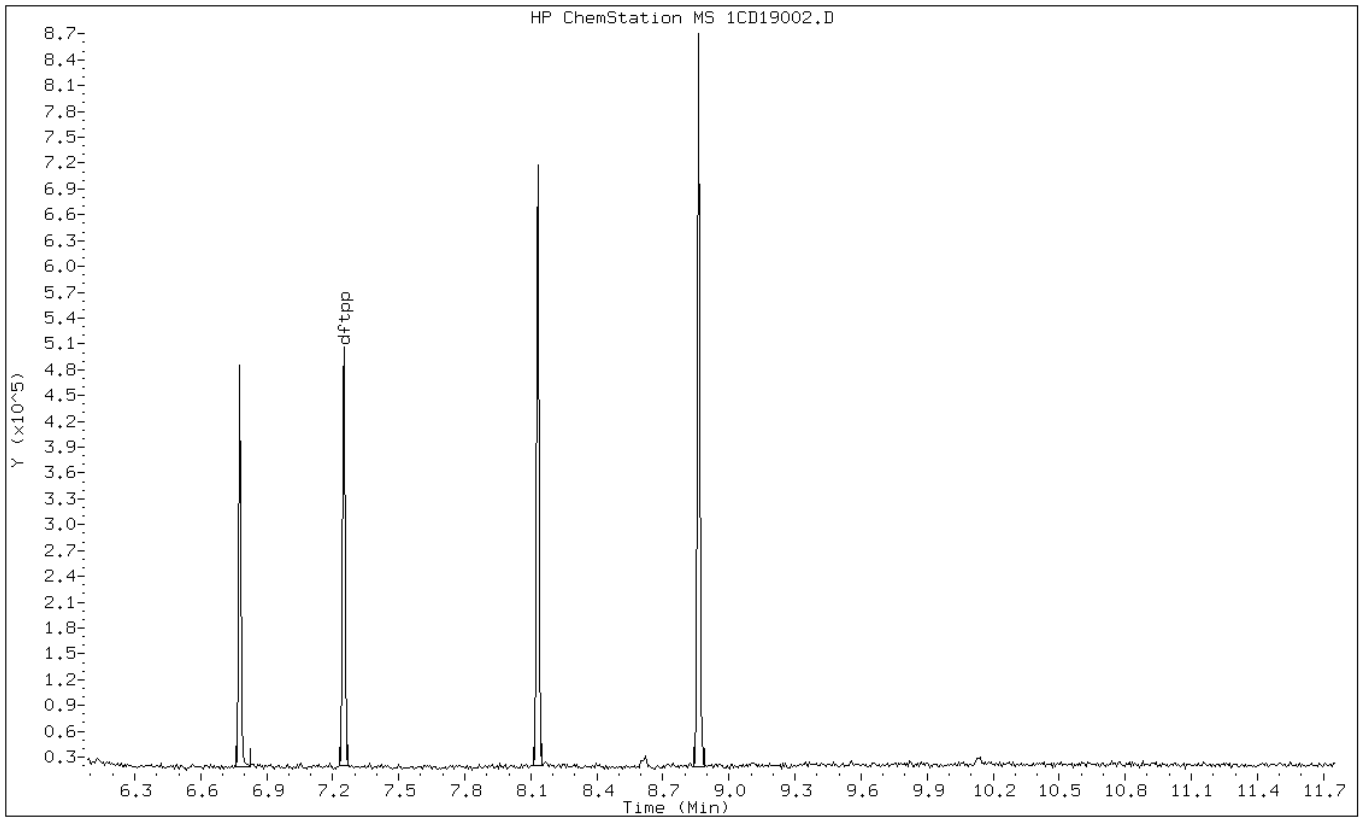
Date: 19-APR-2013 11:08

Client ID: DFTPP

Instrument: BSMC5973.i

Sample Info: DFTPP-1525850

Operator: SCC



Data File: 1CD19002.D

Date: 19-APR-2013 11:08

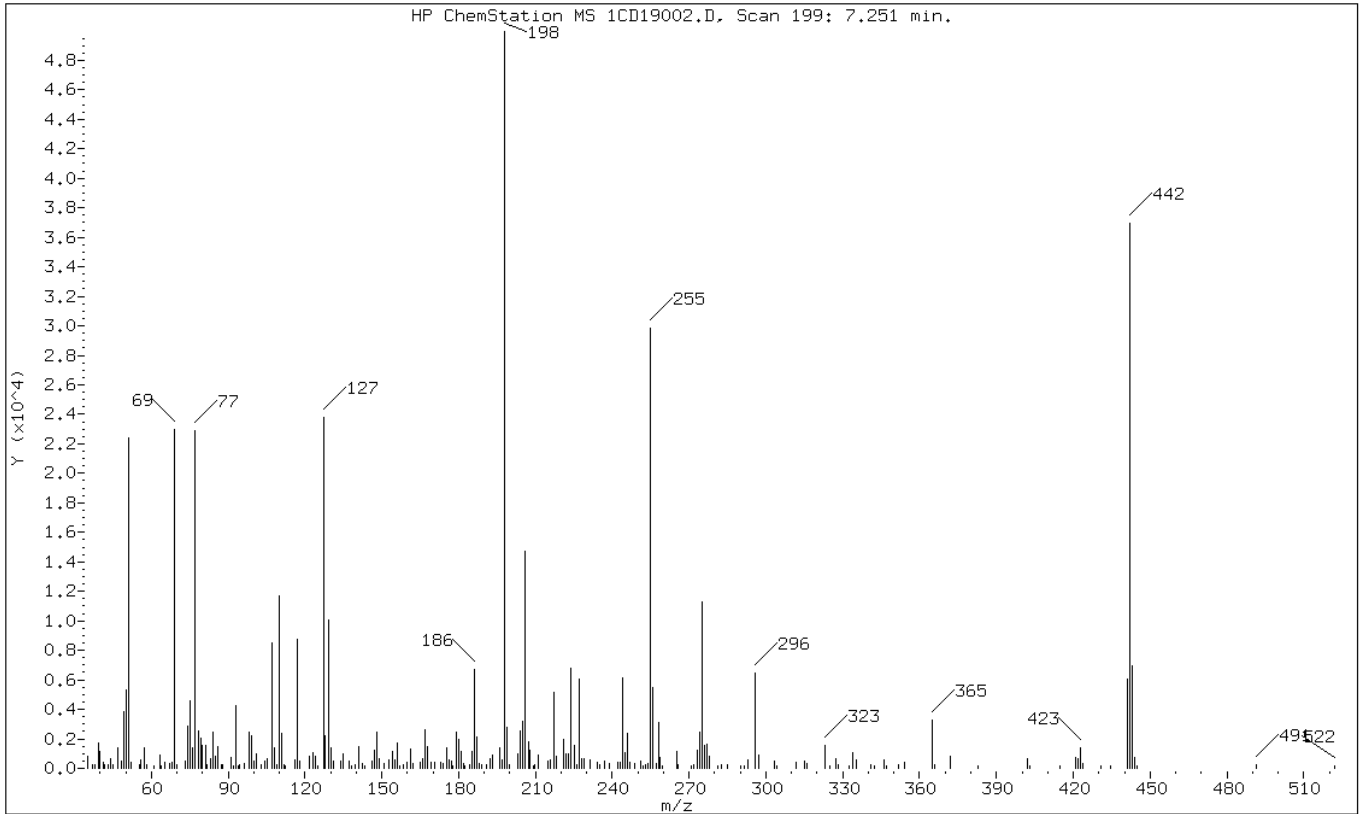
Client ID: DFTPP

Instrument: BSMC5973.i

Sample Info: DFTPP-1525850

Operator: SCC

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	44.76
68	Less than 2.00% of mass 69	0.89 ( 1.94)
69	Mass 69 relative abundance	46.03
70	Less than 2.00% of mass 69	0.47 ( 1.03)
127	10.00 - 80.00% of mass 198	47.60
197	Less than 2.00% of mass 198	1.23
442	Greater than 50.00% of mass 198	73.93
199	5.00 - 9.00% of mass 198	5.54
275	10.00 - 60.00% of mass 198	22.57
365	Greater than 1.00% of mass 198	6.57
441	Present, but less than mass 442	12.12
443	15.00 - 24.00% of mass 442	13.93 ( 18.84)

Data File: 1CD19002.D

Date: 19-APR-2013 11:08

Client ID: DFTPP

Instrument: BSMC5973.i

Sample Info: DFTPP-1525850

Operator: SCC

Data File: \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19002.D

Spectrum: HP ChemStation MS 1CD19002.D, Scan 199: 7.251 min.

Location of Maximum: 198.00

Number of points: 229

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	815	108.00	1401	185.00	1137	265.80	284
37.10	283	108.90	237	186.00	6671	270.80	168
38.00	236	110.00	11697	186.90	2118	271.80	231
39.10	1711	110.90	2348	188.00	328	273.00	1200
39.90	1148	112.00	222	188.90	282	273.90	2458
41.00	388	112.40	153	191.00	284	275.00	11275
41.90	231	115.90	602	192.10	658	275.90	1561
43.30	267	117.00	8736	193.10	907	277.00	1617
44.00	630	117.90	511	195.90	1391	278.00	823
45.00	267	121.90	840	197.10	612	281.00	152
46.90	1397	122.90	1062	198.00	49952	282.80	226
48.10	490	124.00	793	199.00	2769	284.80	219
49.00	3810	124.90	184	200.00	263	289.90	183
50.10	5349	127.10	23776	202.90	942	291.70	193
51.10	22360	127.90	2181	204.10	2558	293.10	601
52.00	417	129.00	10091	205.10	3156	296.00	6449
55.10	211	130.00	1364	206.10	14748	297.00	922
56.00	553	131.20	480	207.10	1806	303.10	470
57.00	1396	134.00	484	208.00	1264	304.10	154
58.10	216	134.90	942	209.20	204	312.00	439
61.20	182	137.00	513	209.90	255	314.90	511
63.10	882	138.10	190	211.20	876	316.00	349
64.00	170	139.70	282	214.90	450	322.90	1537
65.00	447	141.10	1468	216.00	545	324.80	164
66.90	303	142.30	350	217.00	5151	327.10	614
68.00	446	143.20	169	218.00	844	328.20	276
69.00	22992	146.00	455	220.90	1970	332.40	158
69.90	236	147.10	1265	221.70	1006	333.90	1050
73.30	455	148.00	2448	223.00	953	335.10	568
74.10	2873	148.90	646	224.00	6773	341.00	226
75.00	4567	151.00	299	225.10	1563	342.20	184
75.90	1369	152.80	545	226.20	231	346.10	553
77.10	22888	154.10	1146	227.10	6011	347.10	200
78.20	2549	155.20	544	227.90	628	351.70	258
79.10	2048	156.10	1745	228.90	661	353.90	384
80.00	1578	156.80	203	231.10	556	364.90	3284
81.00	1588	158.20	239	234.00	422	365.70	282
81.90	243	159.90	394	235.10	284	371.90	812
82.90	676	161.00	1323	236.80	511	383.00	200
84.00	2434	162.00	318	238.90	341	402.00	621

85.00	834	164.90	449	242.10	391	402.90	174
86.00	1437	165.90	665	243.10	395	415.00	204
87.10	278	167.00	2579	244.00	6138	421.10	740
87.90	222	168.00	1444	245.00	1028	422.00	683
90.90	766	169.00	384	246.00	2356	423.00	1388
91.90	169	170.70	391	246.90	427	423.80	303
93.00	4234	172.90	425	248.90	305	430.70	172
93.80	152	174.10	352	251.00	531	434.80	161
94.20	217	175.10	1358	252.20	166	441.00	6054
96.10	292	176.20	608	252.80	235	442.00	36928
98.00	2412	177.00	521	253.70	359	443.00	6956
99.00	2178	177.80	153	255.00	29848	444.00	740
100.00	487	179.00	2423	256.00	5486	444.90	181
101.00	943	180.00	1934	257.00	348	491.40	221
103.00	273	181.00	1159	258.00	3075	522.10	169
104.10	484	181.70	309	258.80	701		
105.10	647	182.60	185	259.70	179		
107.00	8495	184.10	229	265.00	1132		

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 660-136551/1-A  
 Matrix: Solid Lab File ID: 1CD19012.D  
 Analysis Method: 8270C LL Date Collected: \_\_\_\_\_  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 15.12(g) Date Analyzed: 04/19/2013 14:23  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	99	U	99	20
208-96-8	Acenaphthylene	40	U	40	5.0
120-12-7	Anthracene	8.3	U	8.3	4.2
56-55-3	Benzo[a]anthracene	7.9	U	7.9	3.9
50-32-8	Benzo[a]pyrene	10	U	10	5.2
205-99-2	Benzo[b]fluoranthene	12	U	12	6.1
191-24-2	Benzo[g,h,i]perylene	20	U	20	4.4
207-08-9	Benzo[k]fluoranthene	7.9	U	7.9	3.6
218-01-9	Chrysene	8.9	U	8.9	4.5
53-70-3	Dibenz(a,h)anthracene	20	U	20	4.1
206-44-0	Fluoranthene	20	U	20	4.0
86-73-7	Fluorene	20	U	20	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	20	U	20	7.0
90-12-0	1-Methylnaphthalene	40	U	40	4.4
91-57-6	2-Methylnaphthalene	40	U	40	7.0
91-20-3	Naphthalene	40	U	40	4.4
85-01-8	Phenanthrene	7.9	U	7.9	3.9
129-00-0	Pyrene	20	U	20	3.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	57		30-130

TestAmerica Laboratories

Semivolatile 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19012.D  
 Lab Smp Id: MB 660-136551/1-A  
 Inj Date : 19-APR-2013 14:23  
 Operator : SCC  
 Smp Info : MB 660-136551/1-A  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 12 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	15.120	Weight Extracted
M	0.00000	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/ml)	(ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	211094	40.0000	
* 6 Acenaphthene-d10	164		4.745	4.739	(1.000)	141041	40.0000	
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	261212	40.0000	
\$ 14 o-Terphenyl	230		5.939	5.933	(1.044)	21794	5.72808	378.8411
* 18 Chrysene-d12	240		7.621	7.615	(1.000)	295504	40.0000	
* 23 Perylene-d12	264		8.786	8.768	(1.000)	333814	40.0000	

Data File: 1CD19012.D

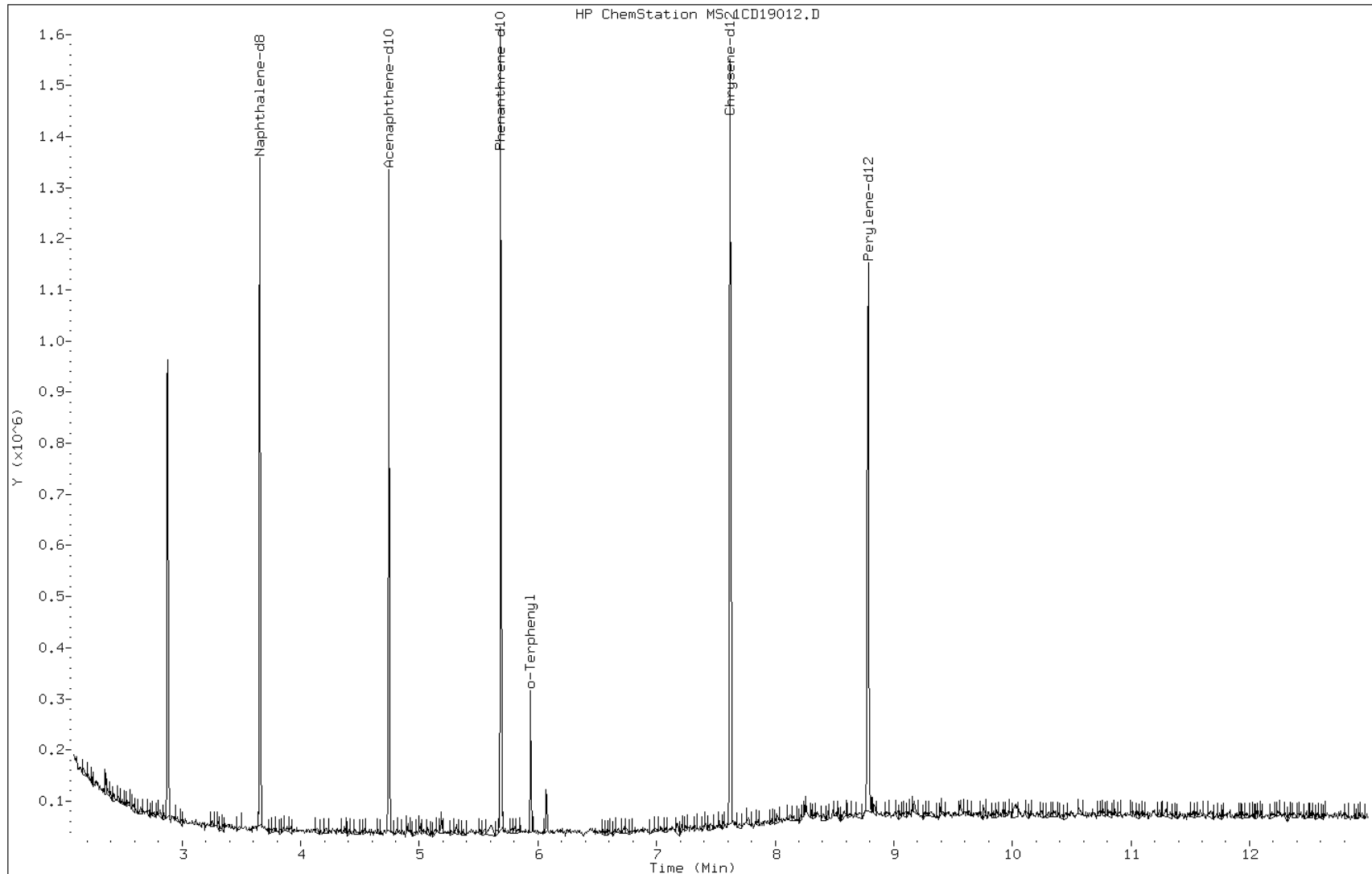
Date: 19-APR-2013 14:23

Client ID:

Instrument: BSMC5973.i

Sample Info: MB 660-136551/1-A

Operator: SCC





FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 660-136551/2-A  
 Matrix: Solid Lab File ID: 1CD19013.D  
 Analysis Method: 8270C LL Date Collected: \_\_\_\_\_  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 15.08(g) Date Analyzed: 04/19/2013 14:42  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	524		99	20
208-96-8	Acenaphthylene	490		40	5.0
120-12-7	Anthracene	540		8.4	4.2
56-55-3	Benzo[a]anthracene	569		8.0	3.9
50-32-8	Benzo[a]pyrene	435		10	5.2
205-99-2	Benzo[b]fluoranthene	519		12	6.1
191-24-2	Benzo[g,h,i]perylene	483		20	4.4
207-08-9	Benzo[k]fluoranthene	563		8.0	3.6
218-01-9	Chrysene	567		9.0	4.5
53-70-3	Dibenz(a,h)anthracene	544		20	4.1
206-44-0	Fluoranthene	525		20	4.0
86-73-7	Fluorene	494		20	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	536		20	7.1
90-12-0	1-Methylnaphthalene	461		40	4.4
91-57-6	2-Methylnaphthalene	473		40	7.1
91-20-3	Naphthalene	495		40	4.4
85-01-8	Phenanthrene	505		8.0	3.9
129-00-0	Pyrene	495		20	3.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	74		30-130

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19013.D  
 Lab Smp Id: LCS 660-136551/2-A  
 Inj Date : 19-APR-2013 14:42  
 Operator : SCC  
 Smp Info : LCS 660-136551/2-A  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\A-BFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 13 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	15.080	Weight Extracted
M	0.00000	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/ml)	(ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	191532	40.0000	
* 6 Acenaphthene-d10	164		4.739	4.739	(1.000)	127190	40.0000	
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	236731	40.0000	
\$ 14 o-Terphenyl	230		5.933	5.933	(1.043)	26335	7.40748	491.2124
* 18 Chrysene-d12	240		7.615	7.615	(1.000)	297661	40.0000	
* 23 Perylene-d12	264		8.768	8.768	(1.000)	312222	40.0000	
2 Naphthalene	128		3.669	3.669	(1.003)	38667	7.46841	495.2525
3 2-Methylnaphthalene	142		4.092	4.092	(1.119)	23736	7.12763	472.6545
4 1-Methylnaphthalene	142		4.157	4.157	(1.137)	23006	6.95648	461.3052
5 Acenaphthylene	152		4.651	4.657	(0.981)	39807	7.38601	489.7884
7 Acenaphthene	154		4.763	4.763	(1.005)	25670	7.90345	524.1012
9 Fluorene	166		5.080	5.080	(1.072)	30782	7.44740	493.8596
11 Phenanthrene	178		5.698	5.698	(1.002)	52858	7.61979	505.2912
12 Anthracene	178		5.733	5.733	(1.008)	56005	8.14908	540.3896

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	----	-----	-----	-----	-----	-----
13 Carbazole	167	5.845	5.845	(1.028)	53776	8.40151	557.1291
15 Fluoranthene	202	6.533	6.533	(1.149)	60806	7.91786	525.0567
16 Pyrene	202	6.698	6.698	(0.880)	63182	7.46114	494.7705
17 Benzo(a)anthracene	228	7.610	7.610	(0.999)	72269	8.58580	569.3502
19 Chrysene	228	7.633	7.639	(1.002)	71229	8.55421	567.2551
20 Benzo(b)fluoranthene	252	8.439	8.439	(0.962)	61761	7.83180	519.3498
21 Benzo(k)fluoranthene	252	8.457	8.457	(0.964)	75793	8.49377	563.2476
22 Benzo(a)pyrene	252	8.715	8.715	(0.994)	53416	6.55285	434.5391
24 Indeno(1,2,3-cd)pyrene	276	9.880	9.880	(1.127)	60307	8.08612	536.2145(M)
25 Dibenzo(a,h)anthracene	278	9.898	9.892	(1.129)	62001	8.20193	543.8945
26 Benzo(g,h,i)perylene	276	10.215	10.209	(1.165)	55607	7.27793	482.6211

QC Flag Legend

M - Compound response manually integrated.

Data File: 1CD19013.D

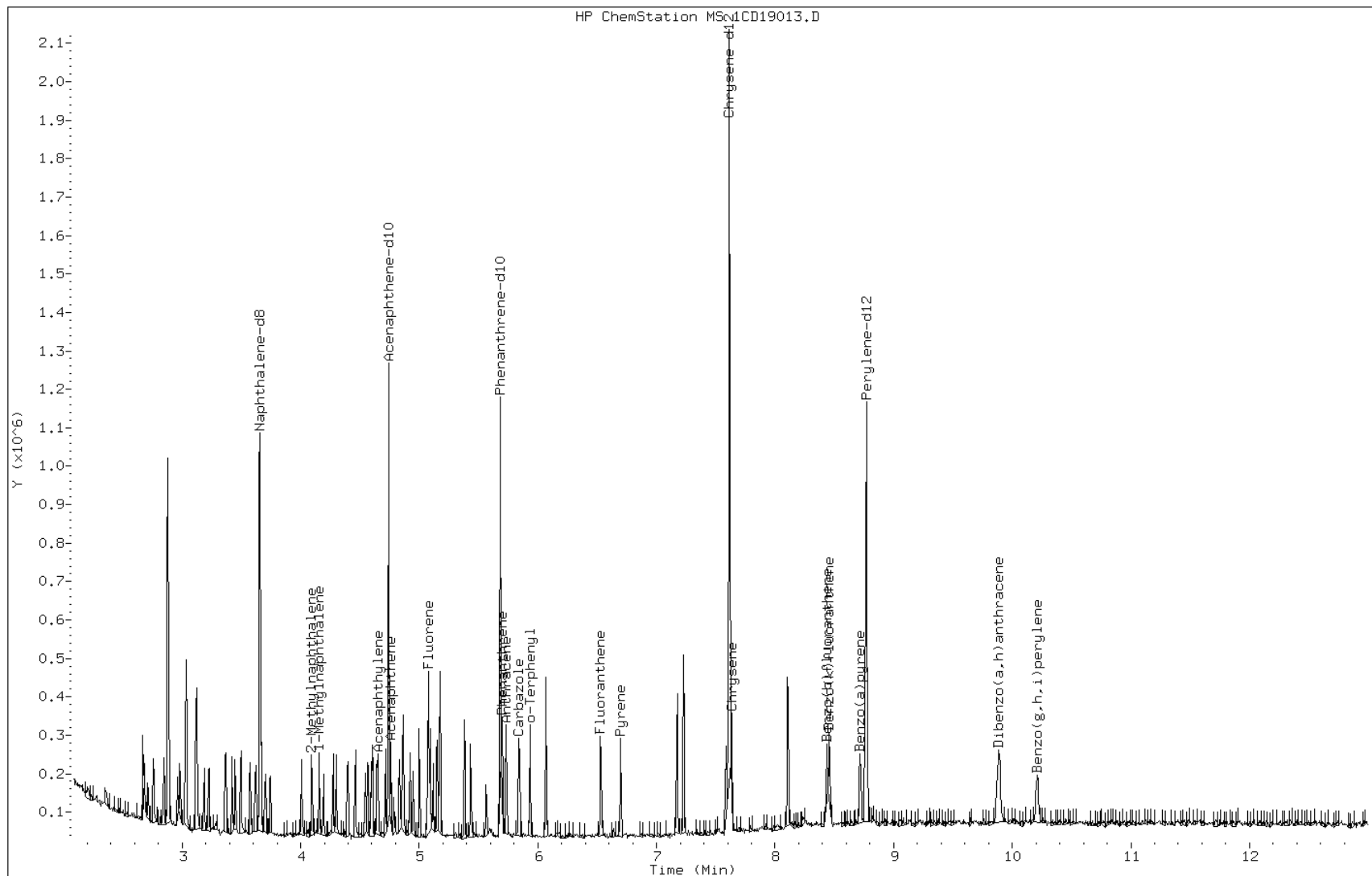
Date: 19-APR-2013 14:42

Client ID:

Instrument: BSMC5973.i

Sample Info: LCS 660-136551/2-A

Operator: SCC

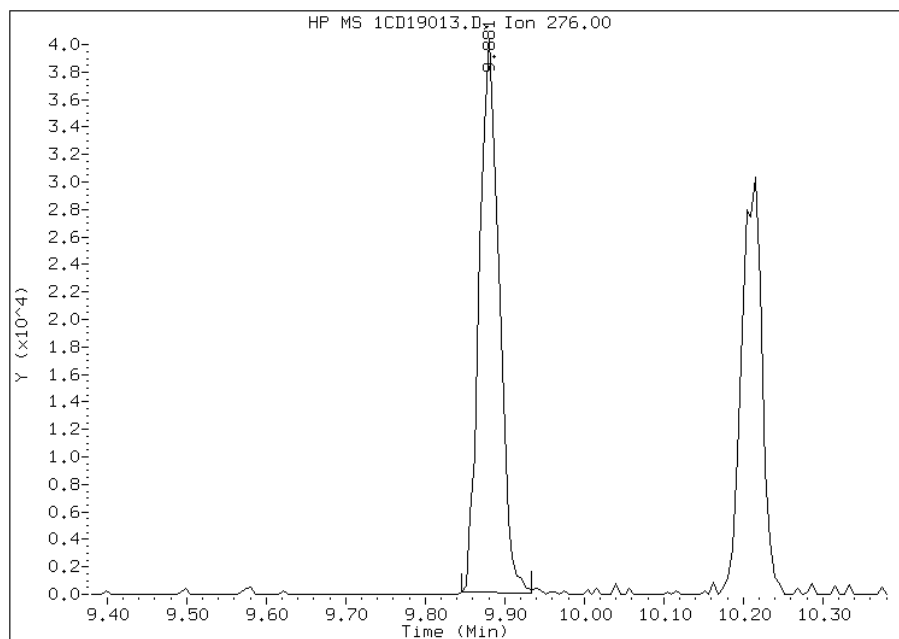


# Manual Integration Report

Data File: 1CD19013.D  
Inj. Date and Time: 19-APR-2013 14:42  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/22/2013

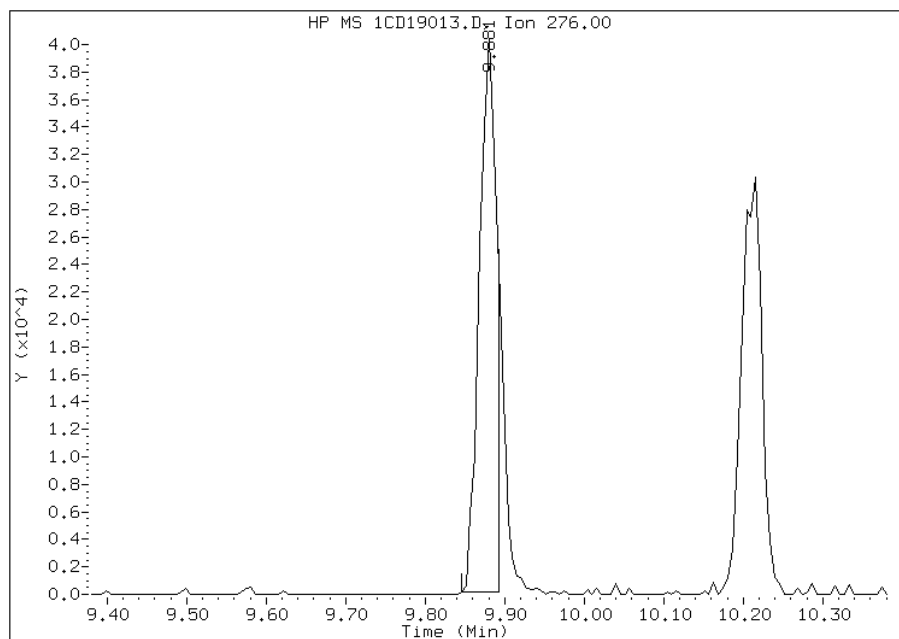
## Processing Integration Results

RT: 9.88  
Response: 69015  
Amount: 9  
Conc: 608



## Manual Integration Results

RT: 9.88  
Response: 60307  
Amount: 8  
Conc: 536



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:01  
Manual Integration Reason: Split Peak

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: HP0142B-CS-SP MS Lab Sample ID: 680-89220-41 MS  
 Matrix: Solid Lab File ID: 1CD19019.D  
 Analysis Method: 8270C LL Date Collected: 04/09/2013 09:46  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 14.95(g) Date Analyzed: 04/19/2013 16:39  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: 39.8 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	755		170	33
208-96-8	Acenaphthylene	765		67	8.3
120-12-7	Anthracene	845		14	7.0
56-55-3	Benzo[a]anthracene	880		13	6.5
50-32-8	Benzo[a]pyrene	795		17	8.7
205-99-2	Benzo[b]fluoranthene	1160		20	10
191-24-2	Benzo[g,h,i]perylene	729		33	7.3
207-08-9	Benzo[k]fluoranthene	893		13	6.0
218-01-9	Chrysene	894		15	7.5
53-70-3	Dibenz(a,h)anthracene	610		33	6.8
206-44-0	Fluoranthene	1080		33	6.7
86-73-7	Fluorene	847		33	6.8
193-39-5	Indeno[1,2,3-cd]pyrene	690		33	12
90-12-0	1-Methylnaphthalene	810		67	7.3
91-57-6	2-Methylnaphthalene	942		67	12
91-20-3	Naphthalene	899		67	7.3
85-01-8	Phenanthrene	999		13	6.5
129-00-0	Pyrene	941		33	6.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	68		30-130

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19019.D  
 Lab Smp Id: 680-89220-a-41-b ms  
 Inj Date : 19-APR-2013 16:39  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : 680-89220-a-41-b ms  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 19 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	14.950	Weight Extracted
M	0.00000	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/ml)	(ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	214315	40.0000	
* 6 Acenaphthene-d10	164		4.739	4.739	(1.000)	156773	40.0000	
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	278425	40.0000	
\$ 14 o-Terphenyl	230		5.933	5.933	(1.043)	28002	6.76305	452.3779
* 18 Chrysene-d12	240		7.615	7.615	(1.000)	345195	40.0000	
* 23 Perylene-d12	264		8.768	8.768	(1.000)	316003	40.0000	
2 Naphthalene	128		3.669	3.669	(1.003)	46855	8.08783	540.9922
3 2-Methylnaphthalene	142		4.098	4.092	(1.121)	31770	8.47246	566.7200
4 1-Methylnaphthalene	142		4.157	4.157	(1.137)	26965	7.28682	487.4124
5 Acenaphthylene	152		4.657	4.657	(0.983)	45684	6.87696	459.9971
7 Acenaphthene	154		4.763	4.763	(1.005)	27168	6.78625	453.9299
9 Fluorene	166		5.080	5.080	(1.072)	38800	7.61590	509.4250
11 Phenanthrene	178		5.698	5.698	(1.002)	73307	8.98797	601.2020
12 Anthracene	178		5.733	5.733	(1.008)	61427	7.59955	508.3309

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
13 Carbazole	167	5.845	5.845	(1.028)	54308	7.21406	482.5454
15 Fluoranthene	202	6.533	6.533	(1.149)	87760	9.71638	649.9253
16 Pyrene	202	6.698	6.698	(0.880)	83105	8.46246	566.0505
17 Benzo(a)anthracene	228	7.609	7.610	(0.999)	77226	7.91133	529.1862
19 Chrysene	228	7.639	7.639	(1.003)	77651	8.04132	537.8810
20 Benzo(b)fluoranthene	252	8.433	8.439	(0.962)	83338	10.4415	698.4272
21 Benzo(k)fluoranthene	252	8.456	8.457	(0.964)	72500	8.02753	536.9585
22 Benzo(a)pyrene	252	8.715	8.715	(0.994)	58998	7.15103	478.3296
24 Indeno(1,2,3-cd)pyrene	276	9.874	9.880	(1.126)	45656	6.20956	415.3550(M)
25 Dibenzo(a,h)anthracene	278	9.892	9.892	(1.128)	40783	5.48701	367.0240
26 Benzo(g,h,i)perylene	276	10.215	10.209	(1.165)	50709	6.55746	438.6260

QC Flag Legend

M - Compound response manually integrated.



Data File: 1CD19019.D

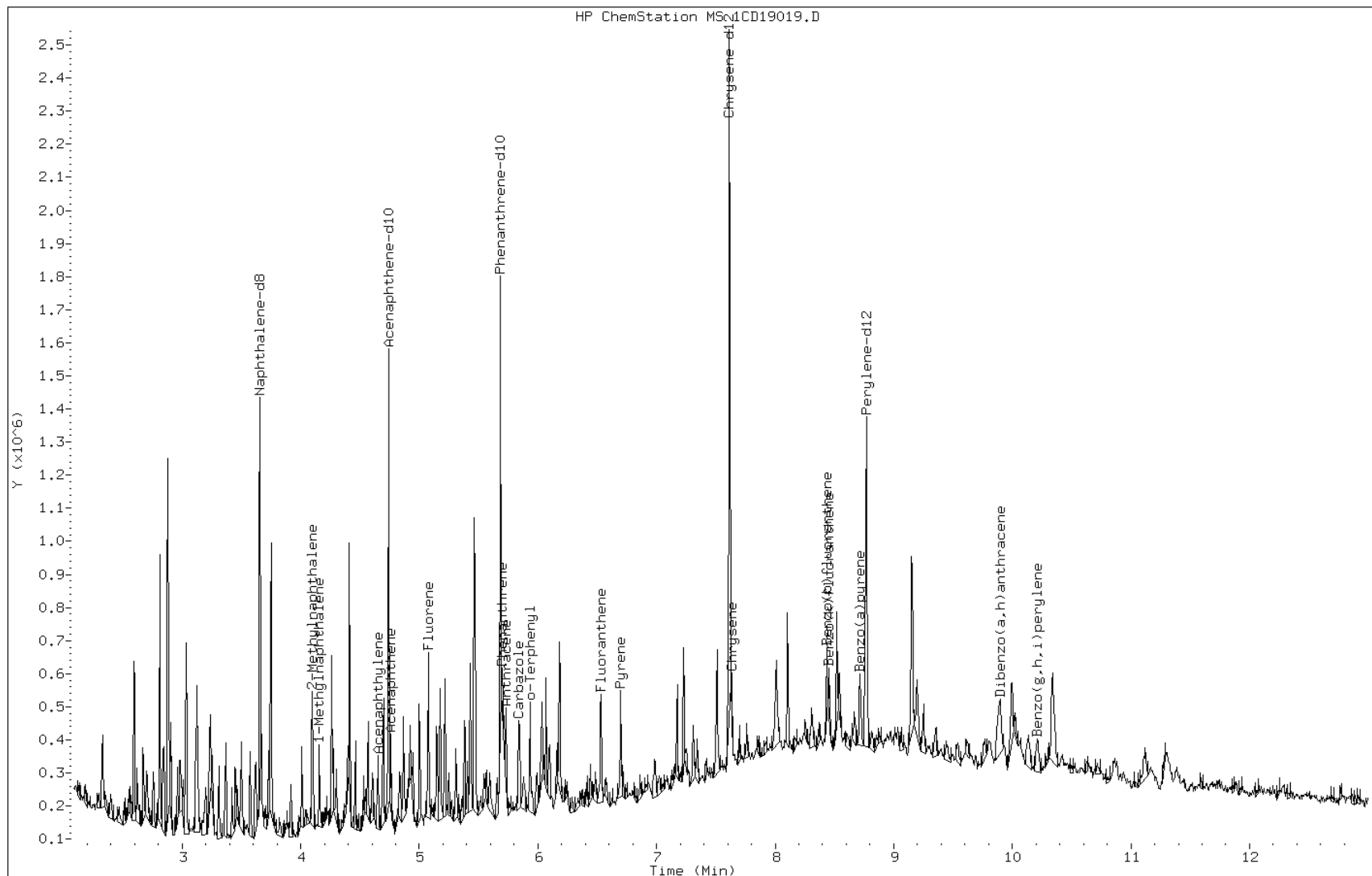
Date: 19-APR-2013 16:39

Client ID:

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-b ms

Operator: SCC

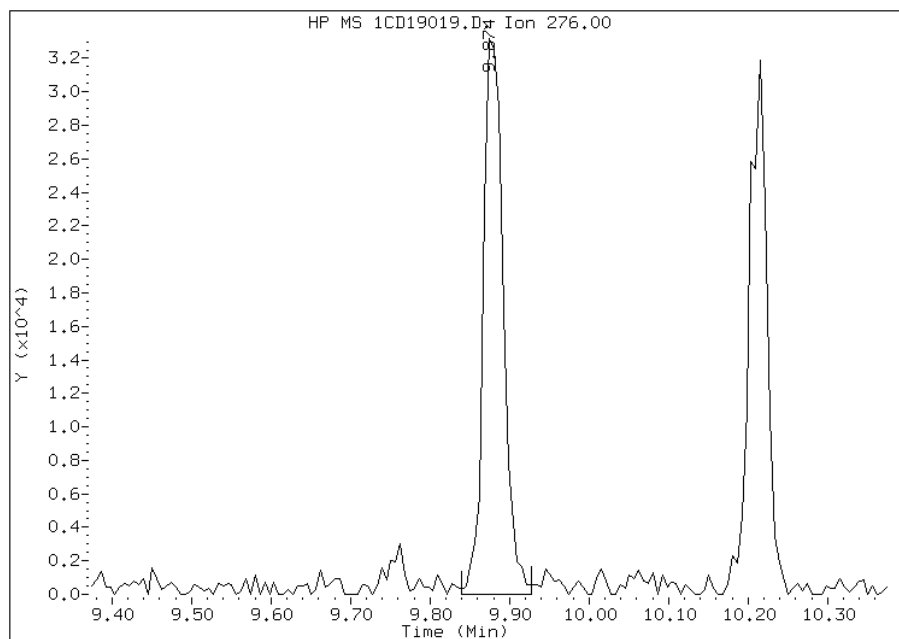


# Manual Integration Report

Data File: 1CD19019.D  
Inj. Date and Time: 19-APR-2013 16:39  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/22/2013

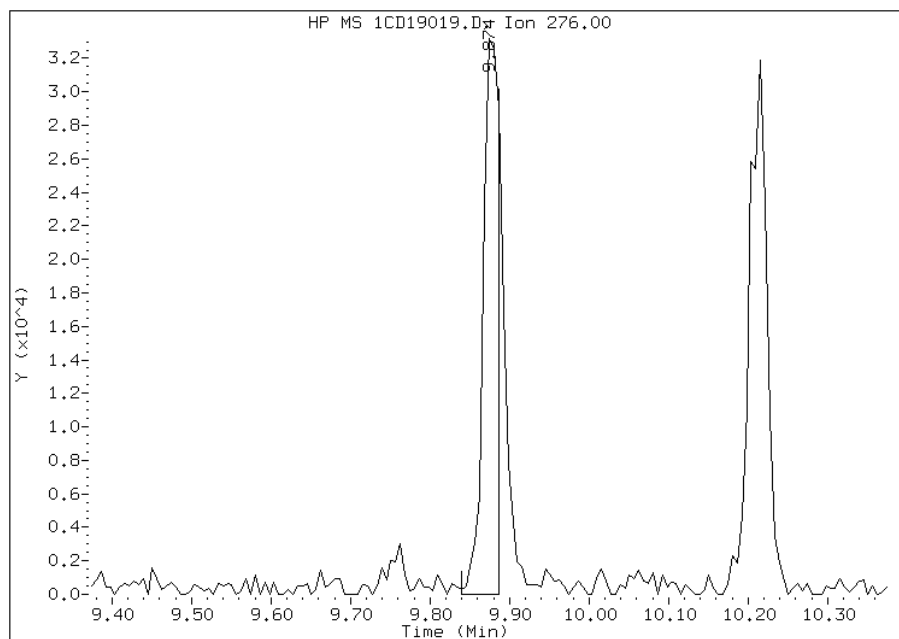
## Processing Integration Results

RT: 9.87  
Response: 57857  
Amount: 8  
Conc: 515



## Manual Integration Results

RT: 9.87  
Response: 45656  
Amount: 6  
Conc: 415



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:48  
Manual Integration Reason: Split Peak

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3  
 SDG No.: 68089220-3  
 Client Sample ID: HP0142B-CS-SP MSD Lab Sample ID: 680-89220-41 MSD  
 Matrix: Solid Lab File ID: 1CD19020.D  
 Analysis Method: 8270C LL Date Collected: 04/09/2013 09:46  
 Extract. Method: 3546 Date Extracted: 04/17/2013 16:34  
 Sample wt/vol: 14.96(g) Date Analyzed: 04/19/2013 16:57  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: 39.8 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 136655 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	720		170	33
208-96-8	Acenaphthylene	829		67	8.3
120-12-7	Anthracene	752		14	7.0
56-55-3	Benzo[a]anthracene	924		13	6.5
50-32-8	Benzo[a]pyrene	812		17	8.7
205-99-2	Benzo[b]fluoranthene	1340		20	10
191-24-2	Benzo[g,h,i]perylene	693		33	7.3
207-08-9	Benzo[k]fluoranthene	728		13	6.0
218-01-9	Chrysene	951		15	7.5
53-70-3	Dibenz(a,h)anthracene	686		33	6.8
206-44-0	Fluoranthene	976		33	6.7
86-73-7	Fluorene	777		33	6.8
193-39-5	Indeno[1,2,3-cd]pyrene	688		33	12
90-12-0	1-Methylnaphthalene	978		67	7.3
91-57-6	2-Methylnaphthalene	853		67	12
91-20-3	Naphthalene	867		67	7.3
85-01-8	Phenanthrene	919		13	6.5
129-00-0	Pyrene	1010		33	6.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	60		30-130

TestAmerica Laboratories

Semivolatiles 8270C low level PAH

Data file : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\1CD19020.D  
 Lab Smp Id: 680-89220-a-41-c ms  
 Inj Date : 19-APR-2013 16:57  
 Operator : SCC Inst ID: BSMC5973.i  
 Smp Info : 680-89220-a-41-c msd  
 Misc Info :  
 Comment :  
 Method : \\tam-chemsvr\chem\SM\BSMC5973.i\1C041913.b\a-bFASTPAHi-m.m  
 Meth Date : 19-Apr-2013 11:43 cantins Quant Type: ISTD  
 Cal Date : 11-APR-2013 14:06 Cal File: 1CD11009.D  
 Als bottle: 20 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: pah.sub  
 Target Version: 4.14  
 Processing Host: TAM1000

Concentration Formula:

$$\text{Amt} * \text{DF} * 1/\text{Vi} * \text{Vt}/\text{Ws} * 100/(100 - \text{M}) * \text{A} * \text{B} * \text{C} * \text{D} * \text{GPC} * \text{CpndVariable}$$

Name	Value	Description
DF	1.000	Dilution Factor
Vi	1.000	Injection Volume
Vt	1.000	Final Volume
Ws	14.960	Weight Extracted
M	0.00000	% Moisture
A	1000.000	uL to mL conversion
B	1000.000	g to kg conversion
C	0.00100	ng to ug conversion
D	1.000	ug to mg conversion(value = 1 if no conv)
GPC	1.000	GPC FACTOR
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/ml)	(ug/Kg)
* 1 Naphthalene-d8	136		3.657	3.657	(1.000)	234812	40.0000	
* 6 Acenaphthene-d10	164		4.745	4.739	(1.000)	166333	40.0000	
* 10 Phenanthrene-d10	188		5.686	5.686	(1.000)	324473	40.0000	
\$ 14 o-Terphenyl	230		5.933	5.933	(1.043)	28312	5.95883	398.3176
* 18 Chrysene-d12	240		7.621	7.615	(1.000)	375136	40.0000	
* 23 Perylene-d12	264		8.768	8.768	(1.000)	361282	40.0000	
2 Naphthalene	128		3.669	3.669	(1.003)	49524	7.80233	521.5461
3 2-Methylnaphthalene	142		4.092	4.092	(1.119)	31427	7.67590	513.0949
4 1-Methylnaphthalene	142		4.157	4.157	(1.137)	35678	8.79975	588.2183
5 Acenaphthylene	152		4.657	4.657	(0.981)	52567	7.45827	498.5475
7 Acenaphthene	154		4.763	4.763	(1.004)	27516	6.47814	433.0309
9 Fluorene	166		5.080	5.080	(1.071)	37805	6.99410	467.5200
11 Phenanthrene	178		5.698	5.698	(1.002)	78628	8.27082	552.8621
12 Anthracene	178		5.733	5.733	(1.008)	63750	6.76766	452.3834

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	----	-----	-----	-----	-----	-----
13 Carbazole	167	5.845	5.845	(1.028)	55839	6.36477	425.4527
15 Fluoranthene	202	6.533	6.533	(1.149)	92434	8.78152	586.9997
16 Pyrene	202	6.698	6.698	(0.879)	96912	9.08077	607.0031
17 Benzo(a)anthracene	228	7.610	7.610	(0.998)	88183	8.31279	555.6678
19 Chrysene	228	7.639	7.639	(1.002)	89819	8.55903	572.1273
20 Benzo(b)fluoranthene	252	8.439	8.439	(0.962)	110216	12.0784	807.3786
21 Benzo(k)fluoranthene	252	8.457	8.457	(0.964)	67619	6.54874	437.7498
22 Benzo(a)pyrene	252	8.715	8.715	(0.994)	68906	7.30522	488.3166
24 Indeno(1,2,3-cd)pyrene	276	9.880	9.880	(1.127)	52017	6.19025	413.7870(M)
25 Dibenzo(a,h)anthracene	278	9.892	9.892	(1.128)	52999	6.17581	412.8216
26 Benzo(g,h,i)perylene	276	10.215	10.209	(1.165)	55114	6.23386	416.7021

QC Flag Legend

M - Compound response manually integrated.

Data File: 1CD19020.D

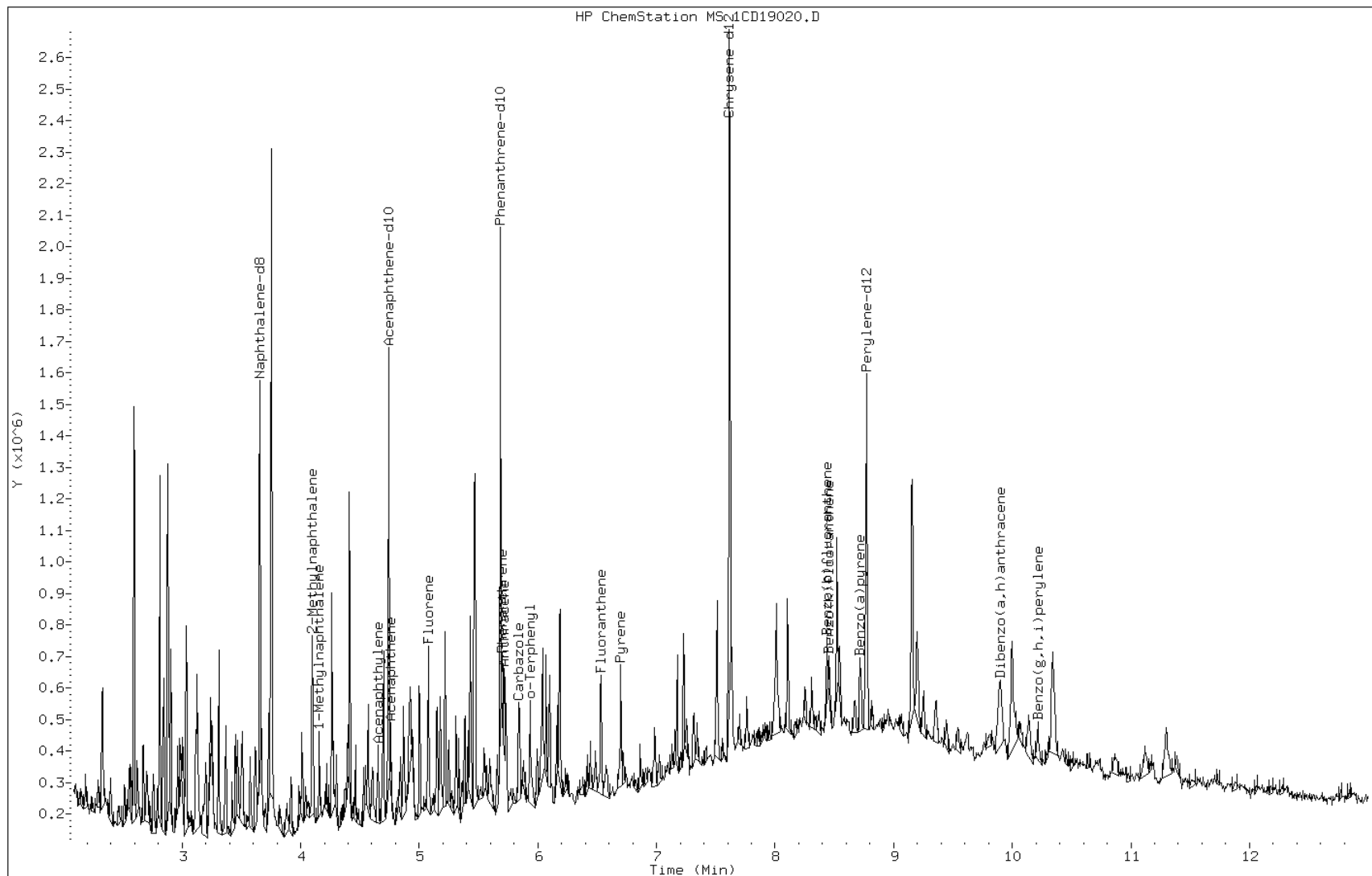
Date: 19-APR-2013 16:57

Client ID:

Instrument: BSMC5973.i

Sample Info: 680-89220-a-41-c msd

Operator: SCC

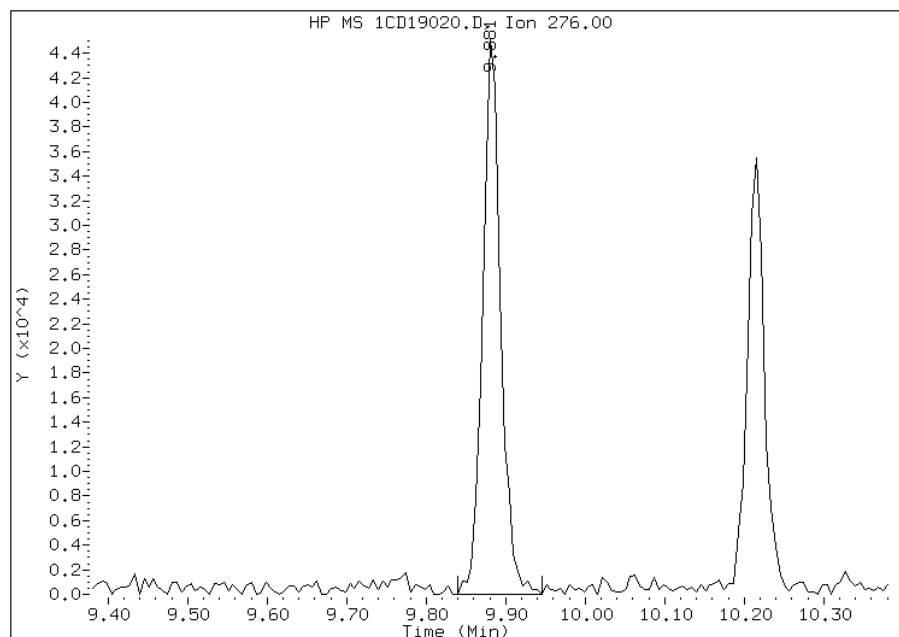


# Manual Integration Report

Data File: 1CD19020.D  
Inj. Date and Time: 19-APR-2013 16:57  
Instrument ID: BSMC5973.i  
Client ID:  
Compound: 24 Indeno(1,2,3-cd)pyrene  
CAS #: 193-39-5  
Report Date: 04/22/2013

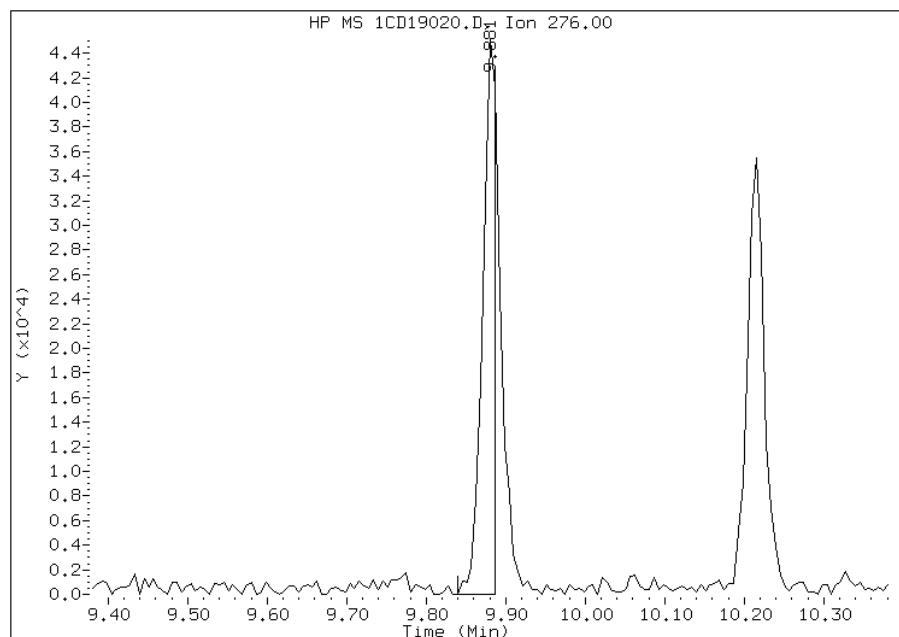
## Processing Integration Results

RT: 9.88  
Response: 70540  
Amount: 8  
Conc: 546



## Manual Integration Results

RT: 9.88  
Response: 52017  
Amount: 6  
Conc: 414



Manually Integrated By: cantins  
Modification Date: 22-Apr-2013 12:48  
Manual Integration Reason: Split Peak

## GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica TampaJob No.: 680-89220-3SDG No.: 68089220-3Instrument ID: BSMC5973Start Date: 04/11/2013 11:01Analysis Batch Number: 136370End Date: 04/11/2013 21:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/11/2013 11:01	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 11:20	1		DB-5MS 250 (um)
DFTPP 660-136370/2		04/11/2013 11:38	1	1CD11002.D	DB-5MS 250 (um)
ICIS 660-136370/3		04/11/2013 11:56	1	1CD11003.D	DB-5MS 250 (um)
IC 660-136370/4		04/11/2013 12:35	1	1CD11004.D	DB-5MS 250 (um)
IC 660-136370/5		04/11/2013 12:53	1	1CD11005.D	DB-5MS 250 (um)
IC 660-136370/6		04/11/2013 13:11	1	1CD11006.D	DB-5MS 250 (um)
IC 660-136370/7		04/11/2013 13:30	1	1CD11007.D	DB-5MS 250 (um)
IC 660-136370/8		04/11/2013 13:48	1	1CD11008.D	DB-5MS 250 (um)
IC 660-136370/9		04/11/2013 14:06	1	1CD11009.D	DB-5MS 250 (um)
ICV 660-136370/10		04/11/2013 14:25	1	1CD11010.D	DB-5MS 250 (um)
ZZZZZ		04/11/2013 14:51	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 15:10	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 15:28	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 15:46	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 16:05	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 16:23	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 16:41	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 17:00	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 17:18	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 17:36	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 17:54	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 18:13	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 18:31	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 18:49	4		DB-5MS 250 (um)
ZZZZZ		04/11/2013 19:08	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 19:26	4		DB-5MS 250 (um)
ZZZZZ		04/11/2013 19:44	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 20:03	4		DB-5MS 250 (um)
ZZZZZ		04/11/2013 20:21	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 20:39	4		DB-5MS 250 (um)
ZZZZZ		04/11/2013 20:58	4		DB-5MS 250 (um)
ZZZZZ		04/11/2013 21:16	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 21:34	1		DB-5MS 250 (um)
ZZZZZ		04/11/2013 21:53	1		DB-5MS 250 (um)



## GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica TampaJob No.: 680-89220-3SDG No.: 68089220-3Instrument ID: BSMC5973Start Date: 04/19/2013 10:31Analysis Batch Number: 136655End Date: 04/19/2013 21:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/19/2013 10:31	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 10:49	1		DB-5MS 250 (um)
DFTPP 660-136655/2		04/19/2013 11:08	1	1CD19002.D	DB-5MS 250 (um)
CCVIS 660-136655/3		04/19/2013 11:24	1	1CD19003.D	DB-5MS 250 (um)
ZZZZZ		04/19/2013 11:45	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 12:04	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 12:22	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 12:40	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 12:58	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 13:17	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 13:35	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 13:53	1		DB-5MS 250 (um)
MB 660-136551/1-A		04/19/2013 14:23	1	1CD19012.D	DB-5MS 250 (um)
LCS 660-136551/2-A		04/19/2013 14:42	1	1CD19013.D	DB-5MS 250 (um)
ZZZZZ		04/19/2013 15:08	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 15:26	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 15:44	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 16:02	1		DB-5MS 250 (um)
680-89220-41	HP0142B-CS-SP	04/19/2013 16:21	1	1CD19018.D	DB-5MS 250 (um)
680-89220-41 MS	HP0142B-CS-SP MS	04/19/2013 16:39	1	1CD19019.D	DB-5MS 250 (um)
680-89220-41 MSD	HP0142B-CS-SP MSD	04/19/2013 16:57	1	1CD19020.D	DB-5MS 250 (um)
680-89220-42	HP0283A-CS-SP	04/19/2013 17:16	1	1CD19021.D	DB-5MS 250 (um)
680-89220-43	HP0283B-CS-SP	04/19/2013 17:34	1	1CD19022.D	DB-5MS 250 (um)
680-89220-44	HP0283C-CS-SP	04/19/2013 17:52	1	1CD19023.D	DB-5MS 250 (um)
ZZZZZ		04/19/2013 18:10	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 18:29	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 18:47	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 19:05	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 19:23	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 19:42	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 20:00	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 20:18	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 20:37	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 20:55	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 21:13	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 21:32	1		DB-5MS 250 (um)
ZZZZZ		04/19/2013 21:50	20		DB-5MS 250 (um)

## GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3SDG No.: 68089220-3Batch Number: 136551 Batch Start Date: 04/17/13 16:34 Batch Analyst: Cerome, SaurelBatch Method: 3546 Batch End Date: 04/18/13 15:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX-625LVI SPK 00021	EXLLSURINT 00179		
MB 660-136551/1		3546, 8270C LL		15.12 g	1 mL		1 mL		
LCS 660-136551/2		3546, 8270C LL		15.08 g	1 mL	1 mL	1 mL		
680-89220-A-41	HP0142B-CS-SP	3546, 8270C LL	T	15.00 g	1 mL		1 mL		
680-89220-A-41 MS	HP0142B-CS-SP	3546, 8270C LL	T	14.95 g	1 mL	1 mL	1 mL		
680-89220-A-41 MSD	HP0142B-CS-SP	3546, 8270C LL	T	14.96 g	1 mL	1 mL	1 mL		
680-89220-A-42	HP0283A-CS-SP	3546, 8270C LL	T	15.37 g	1 mL		1 mL		
680-89220-A-43	HP0283B-CS-SP	3546, 8270C LL	T	15.48 g	1 mL		1 mL		
680-89220-A-44	HP0283C-CS-SP	3546, 8270C LL	T	15.27 g	1 mL		1 mL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270C LL

Page 1 of 2

## GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3SDG No.: 68089220-3Batch Number: 136551 Batch Start Date: 04/17/13 16:34 Batch Analyst: Cerome, SaurelBatch Method: 3546 Batch End Date: 04/18/13 15:10

Batch Notes	
Acetone Lot #	EX-ACETON BOT 51
Balance ID	B001
Batch Comment	NONE
Person's name who did the concentration	RYAN
Exchange Solvent Lot #	EX-MC CYCL55
Exchange Solvent Name	DCM
Final Concentrator Volume	1 mL
MeCL2 Lot #	EX-MC CYCL55
MeCl2/Acetone Lot #	DCM/ACETON 68/69
Microwave Start Time	10:00 4/18/13
Microwave Stop Time	10:35 4/18/13
Na2SO4 Lot Number	EX-NA2S04A 66
Ottawa Sand Lot #	GE_OTTOWA SAND 15
Person's name who did the prep	SAUREL
SOP Number	TP-EX014
Person who witnessed spiking	AG
Surrogate Lot Number	EXLLSURINT_179
Water Bath ID	TURBOVAP2 #3/4
Water Bath Temperature	40

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# **GENERAL CHEMISTRY**

COVER PAGE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Tampa Job Number: 680-89220-3

SDG No.: 68089220-3

Project: 35th Avenue Superfund Site

Client Sample ID	Lab Sample ID
<u>HP0142B-CS-SP</u>	<u>680-89220-41</u>
<u>HP0283A-CS-SP</u>	<u>680-89220-42</u>
<u>HP0283B-CS-SP</u>	<u>680-89220-43</u>
<u>HP0283C-CS-SP</u>	<u>680-89220-44</u>

Comments:

9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Tampa Job Number: 680-89220-3  
SDG Number: 68089220-3  
Matrix: Solid Instrument ID: NOEQUIP  
Method: Moisture RL Date: 01/01/2004 18:10

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Tampa Job Number: 680-89220-3  
SDG Number: 68089220-3  
Matrix: Solid Instrument ID: NOEQUIP  
Method: Moisture XRL Date: 04/12/2010 08:14

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.1	

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3

SDG No.: 68089220-3

Instrument ID: NOEQUIP Method: Moisture

Start Date: 04/16/2013 06:43 End Date: 04/16/2013 06:43

Lab Sample ID	D / F	Type	Time	Analytes																				
				M o i s t																				
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
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ZZZZZZ			06:43																					
680-89220-44	1	T	06:43	X																				
ZZZZZZ			06:43																					
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ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
680-89220-42	1	T	06:43	X																				
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
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ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
680-89220-43	1	T	06:43	X																				
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					
ZZZZZZ			06:43																					



13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Tampa Job No.: 680-89220-3

SDG No.: 68089220-3

Instrument ID: NOEQUIP Method: Moisture

Start Date: 04/16/2013 06:43 End Date: 04/16/2013 06:43

Lab Sample ID	D / F	T y p e	Time	Analytes															
				M o i s t															
680-89220-A-9 MS	1	T	06:43	X															
680-89220-A-9 MSD	1	T	06:43	X															
ZZZZZZ			06:43																
ZZZZZZ			06:43																
ZZZZZZ			06:43																
680-89220-41	1	T	06:43	X															
680-89220-41 MS	1	T	06:43	X															
680-89220-41 MSD	1	T	06:43	X															

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Tampa Job No.: 680-89220-3

SDG No.: 68089220-3

Batch Number: 136459 Batch Start Date: 04/16/13 06:43 Batch Analyst: Galio, Andrew

Batch Method: Moisture Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
680-89220-A-44	HP0283C-CS-SP	Moisture	T	18	0 g	4.77 g	3.17 g		
680-89220-A-42	HP0283A-CS-SP	Moisture	T	28	0 g	5.26 g	3.54 g		
680-89220-A-43	HP0283B-CS-SP	Moisture	T	38	0 g	4.45 g	2.74 g		
680-89220-A-9 MS		Moisture	T	42	0 g	4.23 g	2.82 g		
680-89220-A-9 MSD		Moisture	T	42	0 g	4.23 g	2.82 g		
680-89220-A-41	HP0142B-CS-SP	Moisture	T	44	0 g	5.07 g	3.05 g		
680-89220-A-41 MS	HP0142B-CS-SP	Moisture	T	44	0 g	5.07 g	3.05 g		
680-89220-A-41 MSD	HP0142B-CS-SP	Moisture	T	44	0 g	5.07 g	3.05 g		

Batch Notes	
Balance ID	2 No Unit
Date samples were placed in the oven	4.16.13
Date samples were removed from oven	4.17.13

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Moisture

# Shipping and Receiving Documents

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

○ TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

○ Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE <i>35<sup>th</sup> Ave Removal</i>	PROJECT NO. <i>2005148-1356</i>	PROJECT LOCATION (STATE) <i>AL</i>	MATRIX TYPE	REQUIRED ANALYSIS	PAGE <i>4</i> OF <i>4</i>
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**(b) (6)**

CLIENT ADDRESS	COMPOSITE (C) OR GRAB (G) INDICATE	AGUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY <input type="radio"/>	DATE DUE _____
COMPANY CONTRACTING THIS WORK (if applicable)						EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="radio"/>	DATE DUE _____
					<b>PRESERVATIVE</b>		NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AGUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS			
DATE	TIME							1	2	3	4	5	6	7	8	9	10				
<i>4-9-13</i>	<i>1452</i>	<i>CV1338B-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>														
	<i>1021</i>	<i>HP0140A-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>														
	<i>1022</i>	<i>HP0140B-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>														
	<i>0937</i>	<i>HP0142A-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>														
	<i>0946</i>	<i>HP0142B-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>														
	<i>0845</i>	<i>HP0283A-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>	<i>X</i>													
	<i>0855</i>	<i>HP0283B-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>														
	<i>0905</i>	<i>HP0283C-CS-SP</i>	<i>C</i>	<i>X</i>			<i>X</i>														
<i>4-8-13</i>	<i>1520</i>	<i>CV0637D-CS-SP (sieve) ✓</i>																			
<i>4-9-13</i>	<i>0845</i>	<i>HP0283A-CS-SP (sieve) ✓</i>																			
	<i>1420</i>	<i>CV1100A-CS (sieve)</i>																			
	<i>1440</i>	<i>CV1099A-CS (sieve)</i>																			

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>4-10-13</i>	TIME <i>1530</i>	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>04/11/13</i>	TIME <i>1045</i>	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. <i>680</i> <i>89220</i>	LABORATORY REMARKS <i>2-2<sup>s</sup></i>
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## Login Sample Receipt Checklist

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3

SDG Number: 68089220-3

**Login Number: 89220**  
**List Number: 1**  
**Creator: Barnett, Eddie T**

**List Source: TestAmerica Savannah**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3

SDG Number: 68089220-3

**Login Number: 89220**  
**List Number: 1**  
**Creator: Snead, Joshua**

**List Source: TestAmerica Tampa**  
**List Creation: 04/15/13 04:19 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Samples delayed by FedEx and Arrived out of Temperature
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-89220-3

TestAmerica Sample Delivery Group: 68089220-3

Client Project/Site: 35th Avenue Superfund Site

For:

Oneida Total Integrated Enterprises LLC

1220 Kennestone Circle

Suite 106

Marietta, Georgia 30060

Attn: Ms. Limari F Krebs



Authorized for release by:

4/23/2013 3:20:31 PM

Bernard Kirkland

Project Manager I

[bernard.kirkland@testamericainc.com](mailto:bernard.kirkland@testamericainc.com)

Designee for

Lisa Harvey

Project Manager II

[lisa.harvey@testamericainc.com](mailto:lisa.harvey@testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



### LINKS

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results through

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[www.testamericainc.com](http://www.testamericainc.com)

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## Case Narrative

Client: Oneida Total Integrated Enterprises LLC  
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
SDG: 68089220-3

**Job ID: 680-89220-3**

**Laboratory: TestAmerica Savannah**

**Narrative**

### CASE NARRATIVE

**Client: Oneida Total Integrated Enterprises LLC**

**Project: 35th Avenue Superfund Site**

**Report Number: 680-89220-3**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### **RECEIPT**

The samples were received on 04/11/2013 in Savannah; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt in Savannah was 2.2 C. Savannah shipped the samples for 8270 PAH analysis to Tampa on 04/11/2013. FEDEX lost track of the cooler, and did not deliver until 04/15/2013. The coolers were out of temp at receipt in Tampa.

#### **SEMIVOLATILE ORGANIC COMPOUNDS BY GCMS - LOW LEVEL**

Samples HP0142B-CS-SP (680-89220-41), HP0283A-CS-SP (680-89220-42), HP0283B-CS-SP (680-89220-43) and HP0283C-CS-SP (680-89220-44) were analyzed for Semivolatile Organic Compounds by GCMS - Low Level in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/17/2013 and analyzed on 04/19/2013.

Several analytes recovered outside the recovery criteria for the MS/MSD of sample HP0142B-CS-SP (680-89220-41) in batch 660-136655.

No other difficulties were encountered during the SVOAs analyses.

All other quality control parameters were within the acceptance limits.



# Sample Summary

Client: Oneida Total Integrated Enterprises LLC  
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
SDG: 68089220-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-89220-41	HP0142B-CS-SP	Solid	04/09/13 09:46	04/11/13 10:45
680-89220-42	HP0283A-CS-SP	Solid	04/09/13 08:45	04/11/13 10:45
680-89220-43	HP0283B-CS-SP	Solid	04/09/13 08:55	04/11/13 10:45
680-89220-44	HP0283C-CS-SP	Solid	04/09/13 09:05	04/11/13 10:45

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# Method Summary

Client: Oneida Total Integrated Enterprises LLC  
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
SDG: 68089220-3

Method	Method Description	Protocol	Laboratory
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL TAM
Moisture	Percent Moisture	EPA	TAL TAM

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

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# Definitions/Glossary

Client: Oneida Total Integrated Enterprises LLC  
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
SDG: 68089220-3

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

**Client Sample ID: HP0142B-CS-SP**

**Lab Sample ID: 680-89220-41**

Date Collected: 04/09/13 09:46

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 60.2

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	86	J	170	33	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Acenaphthylene	97		66	8.3	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Anthracene	220		14	7.0	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Benzo[a]anthracene	620	F	13	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Benzo[a]pyrene	700	F	17	8.6	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Benzo[b]fluoranthene	1300	F	20	10	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Benzo[g,h,i]perylene	540	F	33	7.3	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Benzo[k]fluoranthene	430	F	13	6.0	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Chrysene	770	F	15	7.5	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Dibenz(a,h)anthracene	200		33	6.8	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Fluoranthene	1200	F	33	6.6	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Fluorene	120		33	6.8	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Indeno[1,2,3-cd]pyrene	510	F	33	12	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
1-Methylnaphthalene	150		66	7.3	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
2-Methylnaphthalene	210		66	12	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Naphthalene	240		66	7.3	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Phenanthrene	830	F	13	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1
Pyrene	870	F	33	6.2	ug/Kg	☼	04/17/13 16:34	04/19/13 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	72		30 - 130	04/17/13 16:34	04/19/13 16:21	1

**Client Sample ID: HP0283A-CS-SP**

**Lab Sample ID: 680-89220-42**

Date Collected: 04/09/13 08:45

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 67.3

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	150	U	150	29	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Acenaphthylene	8.7	J	58	7.3	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Anthracene	26		12	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Benzo[a]anthracene	80		12	5.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Benzo[a]pyrene	79		15	7.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Benzo[b]fluoranthene	130		18	8.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Benzo[g,h,i]perylene	81		29	6.4	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Benzo[k]fluoranthene	69		12	5.2	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Chrysene	220		13	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Dibenz(a,h)anthracene	77		29	5.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Fluoranthene	140		29	5.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Fluorene	16	J	29	5.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Indeno[1,2,3-cd]pyrene	110		29	10	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
1-Methylnaphthalene	96		58	6.4	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
2-Methylnaphthalene	160		58	10	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Naphthalene	160		58	6.4	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Phenanthrene	210		12	5.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1
Pyrene	100		29	5.4	ug/Kg	☼	04/17/13 16:34	04/19/13 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	60		30 - 130	04/17/13 16:34	04/19/13 17:16	1

TestAmerica Savannah

# Client Sample Results

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

**Client Sample ID: HP0283B-CS-SP**

**Lab Sample ID: 680-89220-43**

Date Collected: 04/09/13 08:55

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 61.6

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	160	U	160	31	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Acenaphthylene	63	U	63	7.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Anthracene	13	U	13	6.6	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Benzo[a]anthracene	13	U	13	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Benzo[a]pyrene</b>	<b>27</b>		16	8.2	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Benzo[b]fluoranthene</b>	<b>48</b>		19	9.6	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Benzo[g,h,i]perylene</b>	<b>19 J</b>		31	6.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Benzo[k]fluoranthene</b>	<b>22</b>		13	5.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Chrysene</b>	<b>24</b>		14	7.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Dibenz(a,h)anthracene	31	U	31	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Fluoranthene</b>	<b>42</b>		31	6.3	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Fluorene</b>	<b>15 J</b>		31	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
Indeno[1,2,3-cd]pyrene	31	U	31	11	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>1-Methylnaphthalene</b>	<b>47 J</b>		63	6.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>2-Methylnaphthalene</b>	<b>66</b>		63	11	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Naphthalene</b>	<b>110</b>		63	6.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Phenanthrene</b>	<b>64</b>		13	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Pyrene</b>	<b>37</b>		31	5.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	55		30 - 130				04/17/13 16:34	04/19/13 17:34	1

**Client Sample ID: HP0283C-CS-SP**

**Lab Sample ID: 680-89220-44**

Date Collected: 04/09/13 09:05

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 66.5

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	150	U	150	30	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Acenaphthylene</b>	<b>9.3 J</b>		59	7.4	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Anthracene</b>	<b>8.0 J</b>		12	6.2	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Benzo[a]anthracene</b>	<b>20</b>		12	5.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Benzo[a]pyrene</b>	<b>15</b>		15	7.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Benzo[b]fluoranthene</b>	<b>40</b>		18	9.0	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Benzo[g,h,i]perylene</b>	<b>37</b>		30	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Benzo[k]fluoranthene</b>	<b>25</b>		12	5.3	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Chrysene</b>	<b>42</b>		13	6.7	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Dibenz(a,h)anthracene	30	U	30	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Fluoranthene</b>	<b>31</b>		30	5.9	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Fluorene	30	U	30	6.1	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
Indeno[1,2,3-cd]pyrene	30	U	30	10	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>1-Methylnaphthalene</b>	<b>35 J</b>		59	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>2-Methylnaphthalene</b>	<b>88</b>		59	10	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Naphthalene</b>	<b>100</b>		59	6.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Phenanthrene</b>	<b>61</b>		12	5.8	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Pyrene</b>	<b>33</b>		30	5.5	ug/Kg	☼	04/17/13 16:34	04/19/13 17:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	62		30 - 130				04/17/13 16:34	04/19/13 17:52	1

TestAmerica Savannah

# QC Sample Results

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Lab Sample ID: MB 660-136551/1-A**

**Matrix: Solid**

**Analysis Batch: 136655**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 136551**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	99	U	99	20	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Acenaphthylene	40	U	40	5.0	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Anthracene	8.3	U	8.3	4.2	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Benzo[a]anthracene	7.9	U	7.9	3.9	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Benzo[a]pyrene	10	U	10	5.2	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Benzo[b]fluoranthene	12	U	12	6.1	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Benzo[g,h,i]perylene	20	U	20	4.4	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Benzo[k]fluoranthene	7.9	U	7.9	3.6	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Chrysene	8.9	U	8.9	4.5	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Dibenz(a,h)anthracene	20	U	20	4.1	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Fluoranthene	20	U	20	4.0	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Fluorene	20	U	20	4.1	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Indeno[1,2,3-cd]pyrene	20	U	20	7.0	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
1-Methylnaphthalene	40	U	40	4.4	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
2-Methylnaphthalene	40	U	40	7.0	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Naphthalene	40	U	40	4.4	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Phenanthrene	7.9	U	7.9	3.9	ug/Kg		04/17/13 16:34	04/19/13 14:23	1
Pyrene	20	U	20	3.7	ug/Kg		04/17/13 16:34	04/19/13 14:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	57		30 - 130	04/17/13 16:34	04/19/13 14:23	1

**Lab Sample ID: LCS 660-136551/2-A**

**Matrix: Solid**

**Analysis Batch: 136655**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 136551**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	663	524		ug/Kg		79	39 - 130
Acenaphthylene	663	490		ug/Kg		74	38 - 130
Anthracene	663	540		ug/Kg		81	37 - 130
Benzo[a]anthracene	663	569		ug/Kg		86	40 - 130
Benzo[a]pyrene	663	435		ug/Kg		66	49 - 130
Benzo[b]fluoranthene	663	519		ug/Kg		78	37 - 130
Benzo[g,h,i]perylene	663	483		ug/Kg		73	32 - 130
Benzo[k]fluoranthene	663	563		ug/Kg		85	32 - 130
Chrysene	663	567		ug/Kg		86	41 - 130
Dibenz(a,h)anthracene	663	544		ug/Kg		82	27 - 130
Fluoranthene	663	525		ug/Kg		79	40 - 130
Fluorene	663	494		ug/Kg		74	40 - 130
Indeno[1,2,3-cd]pyrene	663	536		ug/Kg		81	30 - 130
1-Methylnaphthalene	663	461		ug/Kg		70	31 - 130
2-Methylnaphthalene	663	473		ug/Kg		71	33 - 130
Naphthalene	663	495		ug/Kg		75	36 - 130
Phenanthrene	663	505		ug/Kg		76	42 - 130
Pyrene	663	495		ug/Kg		75	44 - 130

TestAmerica Savannah

# QC Sample Results

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 660-136551/2-A**  
**Matrix: Solid**  
**Analysis Batch: 136655**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 136551**

Surrogate	LCS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	74		30 - 130

**Lab Sample ID: 680-89220-41 MS**  
**Matrix: Solid**  
**Analysis Batch: 136655**

**Client Sample ID: HP0142B-CS-SP**  
**Prep Type: Total/NA**  
**Prep Batch: 136551**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Acenaphthene	86	J	1110	755		ug/Kg	☼	60		39 - 130
Acenaphthylene	97		1110	765		ug/Kg	☼	60		38 - 130
Anthracene	220		1110	845		ug/Kg	☼	56		37 - 130
Benzo[a]anthracene	620	F	1110	880	F	ug/Kg	☼	23		40 - 130
Benzo[a]pyrene	700	F	1110	795	F	ug/Kg	☼	9		49 - 130
Benzo[b]fluoranthene	1300	F	1110	1160	F	ug/Kg	☼	-14		37 - 130
Benzo[g,h,i]perylene	540	F	1110	729	F	ug/Kg	☼	17		32 - 130
Benzo[k]fluoranthene	430	F	1110	893		ug/Kg	☼	42		32 - 130
Chrysene	770	F	1110	894	F	ug/Kg	☼	11		41 - 130
Dibenz(a,h)anthracene	200		1110	610		ug/Kg	☼	37		27 - 130
Fluoranthene	1200	F	1110	1080	F	ug/Kg	☼	-11		40 - 130
Fluorene	120		1110	847		ug/Kg	☼	65		40 - 130
Indeno[1,2,3-cd]pyrene	510	F	1110	690	F	ug/Kg	☼	16		30 - 130
1-Methylnaphthalene	150		1110	810		ug/Kg	☼	60		31 - 130
2-Methylnaphthalene	210		1110	942		ug/Kg	☼	66		33 - 130
Naphthalene	240		1110	899		ug/Kg	☼	59		36 - 130
Phenanthrene	830	F	1110	999	F	ug/Kg	☼	15		42 - 130
Pyrene	870	F	1110	941	F	ug/Kg	☼	6		44 - 130

Surrogate	MS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	68		30 - 130

**Lab Sample ID: 680-89220-41 MSD**  
**Matrix: Solid**  
**Analysis Batch: 136655**

**Client Sample ID: HP0142B-CS-SP**  
**Prep Type: Total/NA**  
**Prep Batch: 136551**

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	Limits	RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
Acenaphthene	86	J	1110	720		ug/Kg	☼	57		39 - 130	5	40
Acenaphthylene	97		1110	829		ug/Kg	☼	66		38 - 130	8	40
Anthracene	220		1110	752		ug/Kg	☼	48		37 - 130	12	40
Benzo[a]anthracene	620	F	1110	924	F	ug/Kg	☼	27		40 - 130	5	40
Benzo[a]pyrene	700	F	1110	812	F	ug/Kg	☼	10		49 - 130	2	40
Benzo[b]fluoranthene	1300	F	1110	1340	F	ug/Kg	☼	2		37 - 130	14	40
Benzo[g,h,i]perylene	540	F	1110	693	F	ug/Kg	☼	14		32 - 130	5	40
Benzo[k]fluoranthene	430	F	1110	728	F	ug/Kg	☼	27		32 - 130	20	40
Chrysene	770	F	1110	951	F	ug/Kg	☼	16		41 - 130	6	40
Dibenz(a,h)anthracene	200		1110	686		ug/Kg	☼	44		27 - 130	12	40
Fluoranthene	1200	F	1110	976	F	ug/Kg	☼	-20		40 - 130	10	40
Fluorene	120		1110	777		ug/Kg	☼	59		40 - 130	9	40
Indeno[1,2,3-cd]pyrene	510	F	1110	688	F	ug/Kg	☼	16		30 - 130	0	40
1-Methylnaphthalene	150		1110	978		ug/Kg	☼	75		31 - 130	19	40

TestAmerica Savannah

# QC Sample Results

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 680-89220-41 MSD

Matrix: Solid

Analysis Batch: 136655

Client Sample ID: HP0142B-CS-SP

Prep Type: Total/NA

Prep Batch: 136551

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
2-Methylnaphthalene	210		1110	853		ug/Kg	*	58	33 - 130	10	40
Naphthalene	240		1110	867		ug/Kg	*	56	36 - 130	4	40
Phenanthrene	830	F	1110	919	F	ug/Kg	*	8	42 - 130	8	40
Pyrene	870	F	1110	1010	F	ug/Kg	*	12	44 - 130	7	40
		<i>MSD</i>	<i>MSD</i>								
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
<i>o-Terphenyl</i>	60		30 - 130								



# QC Association Summary

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

## GC/MS Semi VOA

### Prep Batch: 136551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-89220-41	HP0142B-CS-SP	Total/NA	Solid	3546	
680-89220-41 MS	HP0142B-CS-SP	Total/NA	Solid	3546	
680-89220-41 MSD	HP0142B-CS-SP	Total/NA	Solid	3546	
680-89220-42	HP0283A-CS-SP	Total/NA	Solid	3546	
680-89220-43	HP0283B-CS-SP	Total/NA	Solid	3546	
680-89220-44	HP0283C-CS-SP	Total/NA	Solid	3546	
LCS 660-136551/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 660-136551/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 136655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-89220-41	HP0142B-CS-SP	Total/NA	Solid	8270C LL	136551
680-89220-41 MS	HP0142B-CS-SP	Total/NA	Solid	8270C LL	136551
680-89220-41 MSD	HP0142B-CS-SP	Total/NA	Solid	8270C LL	136551
680-89220-42	HP0283A-CS-SP	Total/NA	Solid	8270C LL	136551
680-89220-43	HP0283B-CS-SP	Total/NA	Solid	8270C LL	136551
680-89220-44	HP0283C-CS-SP	Total/NA	Solid	8270C LL	136551
LCS 660-136551/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	136551
MB 660-136551/1-A	Method Blank	Total/NA	Solid	8270C LL	136551

## General Chemistry

### Analysis Batch: 136459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-89220-41	HP0142B-CS-SP	Total/NA	Solid	Moisture	
680-89220-41 MS	HP0142B-CS-SP	Total/NA	Solid	Moisture	
680-89220-41 MSD	HP0142B-CS-SP	Total/NA	Solid	Moisture	
680-89220-42	HP0283A-CS-SP	Total/NA	Solid	Moisture	
680-89220-43	HP0283B-CS-SP	Total/NA	Solid	Moisture	
680-89220-44	HP0283C-CS-SP	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

## Client Sample ID: HP0142B-CS-SP

Lab Sample ID: 680-89220-41

Date Collected: 04/09/13 09:46

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 60.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			136551	04/17/13 16:34	SC	TAL TAM
Total/NA	Analysis	8270C LL		1	136655	04/19/13 16:21	SCC	TAL TAM
Total/NA	Analysis	Moisture		1	136459	04/16/13 06:43	AG	TAL TAM

## Client Sample ID: HP0283A-CS-SP

Lab Sample ID: 680-89220-42

Date Collected: 04/09/13 08:45

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 67.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			136551	04/17/13 16:34	SC	TAL TAM
Total/NA	Analysis	8270C LL		1	136655	04/19/13 17:16	SCC	TAL TAM
Total/NA	Analysis	Moisture		1	136459	04/16/13 06:43	AG	TAL TAM

## Client Sample ID: HP0283B-CS-SP

Lab Sample ID: 680-89220-43

Date Collected: 04/09/13 08:55

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 61.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			136551	04/17/13 16:34	SC	TAL TAM
Total/NA	Analysis	8270C LL		1	136655	04/19/13 17:34	SCC	TAL TAM
Total/NA	Analysis	Moisture		1	136459	04/16/13 06:43	AG	TAL TAM

## Client Sample ID: HP0283C-CS-SP

Lab Sample ID: 680-89220-44

Date Collected: 04/09/13 09:05

Matrix: Solid

Date Received: 04/11/13 10:45

Percent Solids: 66.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			136551	04/17/13 16:34	SC	TAL TAM
Total/NA	Analysis	8270C LL		1	136655	04/19/13 17:52	SCC	TAL TAM
Total/NA	Analysis	Moisture		1	136459	04/16/13 06:43	AG	TAL TAM

**Laboratory References:**

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE <i>35<sup>th</sup> Ave Removal</i>	PROJECT NO. <i>200548-1356</i>	PROJECT LOCATION (STATE) <i>AL</i>	MATRIX TYPE	REQUIRED ANALYSIS	PAGE <i>4</i> OF <i>4</i>
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**(b) (6)**

CLIENT ADDRESS

COMPANY CONTRACTING THIS WORK (if applicable)

STANDARD REPORT DELIVERY   
DATE DUE \_\_\_\_\_  
EXPEDITED REPORT DELIVERY (SURCHARGE)   
DATE DUE \_\_\_\_\_

**PRESERVATIVE**

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS										REMARKS							
DATE	TIME							1	2	3	4	5	6	7	8	9	10		11	12					
4-9-13	1452	CV1338B-CS-SP	C	X			X																		
	1021	HP0140A-CS-SP	C	X			X																		
	1022	HP0140B-CS-SP	C	X			X																		
	0937	HP0142A-CS-SP	C	X			X																		
	0946	HP0142B-CS-SP	C	X			X																		
	0845	HP0283A-CS-SP	C	X			X	X																	
	0855	HP0283B-CS-SP	C	X			X																		
	0905	HP0283C-CS-SP	C	X			X																		
4-8-13	1520	CV0637D-CS-SP (sieve)																							
4-9-13	0845	HP0283A-CS-SP (sieve)																							
	1420	CV1100A-CS (sieve)																							
	1440	CV1099A-CS (sieve)																							

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 4-10-13	TIME 1530	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>		DATE 04/11/13	TIME 1045	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680 89220	LABORATORY REMARKS 2-2
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## Login Sample Receipt Checklist

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3

SDG Number: 68089220-3

**Login Number: 89220**

**List Number: 1**

**Creator: Barnett, Eddie T**

**List Source: TestAmerica Savannah**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-89220-3

SDG Number: 68089220-3

**Login Number: 89220**

**List Number: 1**

**Creator: Snead, Joshua**

**List Source: TestAmerica Tampa**

**List Creation: 04/15/13 04:19 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Samples delayed by FedEx and Arrived out of Temperature
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Certification Summary

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
 SDG: 68089220-3

### Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	05-31-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12 *
Kentucky (UST)	State Program	4	18	03-31-13 *
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	06-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

### Laboratory: TestAmerica Tampa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40610	06-30-13
Florida	NELAP	4	E84282	06-30-13
Georgia	State Program	4	905	06-30-13

\* Expired certification is currently pending renewal and is considered valid.

TestAmerica Savannah

# Certification Summary

Client: Oneida Total Integrated Enterprises LLC  
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-89220-3  
SDG: 68089220-3

## Laboratory: TestAmerica Tampa (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
USDA	Federal		P330-11-00177	04-20-14

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